

Contract No.:



U S DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

EASTERN FEDERAL LANDS HIGHWAY DIVISION

**PROJECT PRA BLRI 2P14
BLUE RIDGE PARKWAY
PMIS #54310**

SOLICITATION

IFB NO.: DTFH71-07-B-00002

**This Contract Cites
Standard Specifications FP-96
English**

**CONTRACTOR:
ADDRESS:**

STATE: North Carolina

COUNTIES: Yancey
Buncombe

PARK / REFUGE / NF: Blue Ridge Parkway

ROADWAYS:	STATIONS	FEET
Blue Ridge Parkway	359/39+00 – 375/4+56	80,000
Craggy Gardens Picnic Access Rd.	0+00 – 60+22	6,022

PROJECT LENGTH TOTAL: 86,000(16.5 mi)

TYPE OF IMPROVEMENT: Resurfacing and rehabilitating the parkway, pull-offs, and parking areas and other miscellaneous work.

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FEDERAL ACQUISITION REGULATION & TRANSPORTATION ACQUISITION REGULATION SOLICITATION PROVISIONS & CONTRACT CLAUSES

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Permits Obtained for this Project	41 Pages
Plans	166 Pages
Hydraulics	553 Pages
Soils & Foundation Reports and Addendum	296 Pages
Traffic Study	16 Pages

***BOLD FACED ITEMS ARE TO BE INCLUDED WITH THE BID SUBMITTAL PACKAGE**

NOTICE TO OFFERORS

CONTRACT FORMAT:

Offerors should note that the format of this contract is in accordance with Federal Acquisition Regulations (FAR), promulgated by the General Services Administration (GSA), effective April 1, 1984, including all applicable revisions. Applicable FAR provisions and clauses are incorporated in this contract by reference or full text as indicated in the INDEX before the D-pages in this booklet. FAR provisions and clauses incorporated by reference can be accessed on the Internet on the GSA website at www.arnet.gov/far/. Offerors are encouraged to review the documents thoroughly before bidding.

PROPOSAL BOOKLET AND OFFER SUBMITTAL:

It is the responsibility of the Offeror to verify that this proposal is complete as listed in the Table of Contents. The Offeror is responsible for submitting all required forms and documents with the offer. Offerors should use the Checklist for Bid Submittal included in this booklet to check that their bids are complete.

CONSTRUCTION CONTRACTS:

As stated in FAR Clause 52.236-1, the **Contractor shall perform on the site, and with its own organization, work equivalent to at least 50%**. Additional guidance is given in FAR Subpart 35.005 where the majority of the project work is complex and specialized such as restoration work, bridge painting, and proprietary construction techniques (i.e. proprietary Cintec arch strengthening.) There are exceptions and they will be reviewed on a case-by-case basis.

HAZARDOUS MATERIALS IDENTIFICATION AND MATERIAL SAFETY DATA:

As required by FAR Clause 52.223-3, Hazardous Materials Identification and Safety Data, the apparent low Offeror must submit prior to award a Material Safety Data Sheet (MSDS's) for all hazardous materials that the Offeror identifies in paragraph (b) of this clause in the D-pages of this booklet. Failure to submit MSDS's may render the Offeror ineligible for award of contract. The apparent low Offeror should submit their MSDS's within two weeks after bid opening.

ATTENTION LARGE BUSINESSES - UTILIZATION OF SMALL BUSINESS CONCERNS:

Large business Offerors should note their responsibilities in the awarding of subcontracts in accordance with FAR Clause 52.219-8, Utilization of Small Business Concerns. The offeror, if a large business concern, should note its responsibility to establish and conduct a Subcontracting Plan in accordance with FAR Clause 52.219-9, Alternate I, Small Business Subcontracting Plan. If the apparent Low Offeror is a LARGE BUSINESS it will be required to submit a Subcontracting Plan within 2 weeks of receipt of request from the Contracting Officer. If the apparent low offeror fails to submit a subcontracting plan acceptable to the Contracting Officer within the allowable time, the offeror may be ineligible for award of the contract. PLEASE NOTE: A sample plan is included in this solicitation package for your use.

BONDING:

Small business concerns and disadvantaged business enterprises may obtain assistance in securing necessary bonding for this project by contacting the office of the Small Business Administration located in their State.

FINANCING AND BONDING ASSISTANCE: Minority, Women-owned, and Disadvantaged Business Enterprises (DBE's). The Department of Transportation (DOT) offers working capital financing and bonding assistance for transportation related contracts. DOT's Bonding Assistance Program (BAP) offers bid, performance and payment bonds on contracts up to \$1,000,000. DOT's Short-Term Lending Program (STLP) offers lines of credit to finance accounts receivable. Maximum line of credit is \$750,000 with interest at the prime rate. For further information, call (800) 532-1169. Internet address: <http://osdbuweb.dot.gov>.

NOTICE TO OFFERORS - (CONT'D.)

INTERNET BASED DATA BASES - REQUIRED INPUT:

According to the FAR Subpart 4.1102 contractors **MUST** be registered in Central Contractor Registration (CCR) **prior** to the award of any contract. Access the following web site to register: www.ccr.gov

According to the FAR Subpart 4.1201 contractors **MUST** complete their Online Annual Representations and Certifications Application (ORCA) **prior** to the closing date of the bid on line at <http://orca.bpn.gov/>.

According to the FAR Subpart 22.1302 (b) contractors and sub-contractors **MUST** complete the required Annual Vets-100 Form in order to be eligible for a contract award. It can be completed on-line at <http://vets100.cudenver.edu/>.

PAYMENT:

Offerors are advised to review the Federal Projects (FP) - Manual, subsection 109.05, concerning **direct** and **indirect** payment included under a pay item in the bid schedule.

PROGRESS PAYMENTS:

ALL payments will be made via Electronic Funds Transfer (EFT) as such; the payment information in the CCR must be accurate in order for contractors' invoices to be considered proper invoices for the purpose of prompt payment under DOT contracts. Contractors must input and maintain (update as necessary) their EFT information in the CCR database. Offerors are advised that under FAR Clause 52.232-5, Payments Under Fixed Price Construction Contracts, upon request, progress payments will include premiums paid by the Contractor to obtain performance and payment bonds as required under this contract. These payments shall not be made in addition to the contract price. As specified in FP Manual subsection 151 - "MOBILIZATION", payments for performance and payment bond premiums shall be included in mobilization.

WELFARE-TO-WORK INITIATIVE:

The President's Welfare Reform Bill was initiated to assist welfare recipients and hopefully aid welfare recipients to find gainful employment. In support of this bill, Contractors are encouraged to hire welfare recipients whenever possible and to use welfare recipients in performance of duties on Government contracts.

INCREASING SEAT BELT USE IN THE UNITED STATES:

The President's Executive Order 13043 dated April 16, 1997, was issued to increase the use of seat belts in the United States. In support of this Order, contractors and subcontractors are encouraged to adopt and enforce on-the-job seat belt policies for their employees when operating company-owned, rented, or personally owned vehicles.

OBTAINING BID DOCUMENTS:

Bid documents **will not be** mailed. All bid documents are available for direct download from the Federal Business Opportunities (FBO) website:

http://www.fbo.gov/spg/DOT/FHWA/71/postdatePrevDays_1.html

or the Eastern Federal Lands Highway Division website:

<http://www2.efl.fhwa.dot.gov/Documents.aspx>

Contractors are encouraged to register on the FBO website (for this specific project) in order to receive Email Notifications automatically when a document is added or updated for this specific project. All questions about this construction project must be emailed to the following address:

eflhd.contracts@fhwa.dot.gov.

NOTICE TO OFFERORS

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MONITORING THE WEB PAGES NOTED ABOVE FOR ALL CHANGES TO THE SOLICITATION AND ACTING ON SAID CHANGES.

PLEASE NOTE: For security reasons, individuals requiring access to all government buildings must present a valid photo ID and be escorted to their destination by a Government employee. All visitors attending bid openings are urged to arrive at least 1 hour prior to scheduled bid opening. All visitors must register with the receptionist in Room 100. A Government employee will collect all bids. Prior to bid opening, a Government employee will escort all bidders to the bid opening. Unescorted visitors will be denied entry and no exceptions will be made.

CHECKLIST FOR BID SUBMISSION

The following is a checklist of items included in the proposal/bid package that are required to be completed and returned (or filled in on-line) to the address in Block 8 of the Standard Form 1442, Solicitation, Offer, and Award (page A-1). This checklist is for informational purposes only and is not required to be filled out by the bidder. **Failure to submit a complete bid may be cause to reject your bid.**

1. Bid Envelope:

- a. Addressed as shown in Block 8 of Page A-1
- b. In lower left corner, indicate Solicitation No., Project Name & Number, time for Receipt of Offers and send to Room 105.

2. Standard Form 1442: Solicitation, Offer and Award (Pages A-1 and A-2)

- a. Block 14: Name and Address of Bidder.
- b. Block 15: Telephone Number of Bidder.
- c. Block 16: Remittance Address if different from Block 14.
- d. Block 19: **All** Amendments Acknowledged, with dates of Amendments.
- e. Block 20: Bid is signed and dated.

3. Bid Schedule - (Pages B-1 through B-21)

- a. Unit bid price and bid amount provided for each pay item in numbers.
- b. Corrections initialed.
- c. Price Evaluation eligibility is indicated on the Bid Summary page.

4. Standard Form 24, Bid Bond (Pages C-1 through C-2) (Required if bid guarantee is bid bond)

- a. Date executed
- b. Legal name and address of bidder.
- c. Type of organization.
- d. State of incorporation (if applicable).
- e. Name and business address of Treasury approved surety.
- f. Penal sum of bond (not less than 20% of bid total).
- g. Bid identification.
- h. Signature of Bidder
- i. Seal, if corporation
- j. Signature of Surety
- k. Seal, if corporation

BIDS RECEIVED WITHOUT A VALID BID BOND WILL BE REJECTED.

5. Power of Attorney.

- a. Dated on or before execution date of bond
- b. Power has original signature of surety, or is embossed with surety's seal in the certification section

BIDS RECEIVED WITHOUT A VALID POWER OF ATTORNEY WILL BE REJECTED.

CHECKLIST FOR BID SUBMITTAL (continuation)

6. Fill In's. The following full text Clauses and/or Provision numbers shall be checked or filled in and return with the bid package:

- a. 52.219-4 – HubZone ONLY - See Section F, Clause 52-219-4, paragraph "C", check block if wavier is applicable.

7. Bidder's Qualifications form (provided separately as part of the Bid Documents Package). Form completed, signed and submitted with bid

8. Sub-Contracting Plan - Large Businesses Only: Submittal with the bid is not mandatory, **but it is encouraged**, as it will speed up the award process should your firm be the apparent low bid.

THE FOLLOWING THREE ITEMS ARE NOT TO BE SUBMITTED WITH THE BID; BUT FAILURE TO COMPLETE THE REQUIREMENTS WILL BE CAUSE TO REJECT THE BID.

9. Central Contractor Registration (CCR): The Contractor is currently registered in the Internet-Based CCR database at <http://www.ccr.gov>.

10. Online Representations and Certifications Application (ORCA): The Contractor's Representations and Certifications have been input online via the Internet-Based ORCA electronic database at <http://orca.bpn.gov>.

11. Vets100 Reporting: The Contractor has completed the annual Internet-Based reporting requirement online at <http://vets100>.

NOTE: THE CONTRACTOR IS FULLY RESPONSIBLE TO VERIFY THAT ALL DATA IN THE THREE DATABASES IS CORRECT EACH TIME A BID PACKAGE IS SUBMITTED. FAILURE PROPERLY INPUT AND/OR UPDATE YOUR DATA MAY CAUSE THE BID TO BE REJECTED.

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. Solicitation No. DTFH71-07-B-00002	2. Type of Solicitation <input checked="" type="checkbox"/> Sealed Bid (<i>IFB</i>) <input type="checkbox"/> Negotiated (<i>RFP</i>)	3. Date Issued 11/13/06	Page of Pages 1 OF 4
	IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.			

4. Contract No.	5. Requisition/Purchase Request No.	6. Project No. PRA-BLRI 2P14
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7. Issued By: Federal Highway Administration Eastern Federal Lands Highway Division Loudoun Tech Center, Room 105 21400 Ridgetop Circle Sterling, Virginia 20166-6511	CODE: N/A:	8. Address Offer To: See Bock 7
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9. FOR INFORMATION See Blocks 9A & 9B	A. Name: Peggy L. Schaad	B. Telephone No. (Include area code) (NO COLLECT CALLS) Email All Questions/Inquiries To: eflhd.contracts@fhwa.dot.gov
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SOLICITATIONSee Continuation
of SF 1442**NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"**

10. The Government requires performance of the work described in these documents (title, identifying no., date):
This Invitation for Bids is for the Blue Ridge Parkway, located in Yancey and Buncombe Counties, North Carolina in strict accordance with the Solicitation/Contract instructions, notices, clauses, provisions, r items listed below, and for the quantities of work actually performed at the unit prices as bid in the Bid Schedule, including all applicable Federal, State, and local taxes.
- r FP - Standard Specification for Construction of Roads & Bridges on Federal Highway Projects.
 - r Bid Schedule, Section B - pages B-1 through B-21.
 - r Special Contract Requirements, Section J - pages J-1 through J-79.
 - r Plans (Drawings), Sheets 1 through 166.
 - r Hydraulics, Pages 1 through 553.
 - r Permits, Pages 1 through 41.

11. The Contractor shall begin performance within **10** calendar days and complete it within calendar days after receiving
 Award, Notice to Proceed. This performance period is mandatory, negotiable. (See Continuation Sheet)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SEE SUBSECTION 102.06 OF FP-96	12B. CALENDAR DAYS Within 14 calendar days after Notice of Award
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

- a. Offers in original and **0** copies to perform the work required are due at the place specified in Item 8 by **2:00 PM** local time **12/13/06**. If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.
- b. An offer guarantee **is**, is not required.
- c. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.
- d. Offers providing less than **60** calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14. Name and Address of Offeror (Include ZIP code)	15. Telephone No. (Include area code)
	16. Remittance Address (Include only if different than Item 14)
CODE	FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation if this offer is accepted by the Government in writing within ___ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.

AMOUNTS ➡ See Bid Schedule - Section "B" Pages

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGEMENT OF AMENDMENTS
(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.								
DATE								

20a. Name and title of person authorized to sign offer (Type or print)	20B. Signature	20C. Offer Date
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AWARD (To be completed by Government)

21. Items Accepted:

22. Amount	23. Accounting and appropriation data
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24. SUBMIT INVOICES TO ADDRESS SHOWN IN <i>(4 copies unless otherwise specified)</i> ➡	ITEM See Block 26	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 15 USC 637(a) () <input type="checkbox"/> 41 USC 253(c) ()
26. ADMINISTERED BY Federal Highway Administration Eastern Federal Lands Highway Division 21400 Ridgetop Circle Sterling, Virginia 20166-6511	27. PAYMENT WILL BE MADE BY: Federal Highway Administration Eastern Federal Lands Highway Division Finance Division, Room 357 21400 Ridgetop Circle Sterling, Virginia 20166-6511	

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT <i>(Contractor is required to sign this document and return ___ copies to issuing office.)</i> Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD <i>(Contractor is not required to sign this document.)</i> Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
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30a. Name and Title of Contractor or Person Authorized to Sign <i>(Type or print)</i>	31a. Name of Contracting Officer <i>(Type or print)</i>		
30b. Signature	30C. Date	31b. United States of America BY	31C. Date

CONTINUATION OF SF 1442

Block 2:

This project is **UN-RESTRICTED** - Bids will be accepted from **ALL** eligible business concerns.

This procurement is made pursuant to Public Law 100-656 Title VII, which established the Small Business Competitiveness Demonstration Program. This procurement falls under North American Industry Classification System (NAICS) code 237310 - Highway, Street, and Bridge Construction (see FAR Subpart 19.10)

The award of this project is subject to a 10% price evaluation preference for eligible HubZone Small Business Concerns (must be on the SBA listing) (see FAR Clause 52.219-4).

Facsimile and electronic bids will not be accepted.

PHYSICAL DATA AVAILABLE FOR REVIEW

1. Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition, published by the Federal Highway Administration. <http://mutcd.fhwa.dot.gov>.
2. National Park Service Sign Manual, revised - January 1988, United States Department of the Interior. <http://www.nps.gov/npsigns>.
3. Soils and Foundation Report and Addendum
4. Hydraulics
5. Traffic Study
6. Permits

Block 9:

In accordance with FAR Provision 52.236-27, Site Visit, a Government representative can be available to show the project to prospective bidders. **All requests** for site visits and/or questions concerning this construction project to must be emailed to

eflhd.contracts@fhwa.dot.gov. Interested parties must provide the Solicitation Number and the relevant project name with all requests and questions.

r Block 11:

The maximum time for Schedule A, Option 1 and Option 2 shall not exceed **631** Calendar days.

Note: Schedule A's maximum number of calendar days are 493. Option 1's maximum number of calendar days is 138. Option 2 can only be exercised with Option 1. Since the work can be performed concurrently, no bidding of calendar days is required for Option 2.

The completion time for the contract will be the time offered by the successful bidder, **not to exceed** the maximum time above.

CONTINUATION OF SF 1442

Notice to Proceed will be issued within 30 days following receipt of acceptable performance and payment bonds.

Block 12A:

Furnish performance and payment bonds in accordance with FAR Clause 52.228-15.

Block 13:

A bid guarantee in the amount of not less than 20 percent of the bid price or \$3 million, whichever is less, is required with this bid. If the bidder fails to provide the required bid guarantee, such failure may require rejection of the bid. Reference FAR Provision 52.228-1, Bid Guarantee.

Other:

The estimated price is expected to fall within the price range of greater than **\$10,000,000**.

Responsibility of bidders shall be evaluated in accordance with the information provided on the Bidder's Qualification Form, which can be downloaded from FHWA web site. FP-96 or FP-03 versions can be downloaded at the FHWA web site. FHWA web site is <http://www2.evl.fhwa.dot.gov/Documents.aspx> .

BID SCHEDULE INSTRUCTIONS

PROJECT: Blue Ridge Parkway Project PRA-BLRI 2P14

BIDDERS PLEASE NOTE: Before preparing the bid, carefully read the Instructions to Bidders. While preparing the bid, comply with the following:

COMPLETING THE BID SCHEDULE

Complete the Bid Schedules by handwriting in ink or typing. Specify a Unit Bid Price, in figures with cents to only two decimal places, for each pay item in the Unit Bid Price column for which a quantity is given. Do not enter or tender a Unit Bid Price for any pay item for which no estimated quantity appears in the Bid Schedule. Determine the products of the respective unit prices and quantities, and show them, in figures, in the Amount Bid column. Determine the Bid Total by adding the amounts of the several items, as show in the block provided on Page B-6 for Schedule A, Page B-14 for Option 1, and Page B-20 for Option 2. In case of multiplication errors, the Amount Bid for the item will be based on the Unit Bid Price.

To be eligible for award, bidders must submit prices for each pay item.

Please review Subsection 109.05 of the FP-96 regarding scope of payment for direct and indirect payment work.

SCHEDULE OF WORK

The Bid Schedule is comprised of:

Schedule A	Full depth pavement reconstruction, milling and overlay, and drainage improvements along the Blue Ridge Parkway and pull-offs from Milepost 366 to Milepost 375.1.
Option 1	Full depth pavement reconstruction, milling and overlay, and drainage improvements along the Blue Ridge Parkway and pull-offs from Milepost 359.7 to Milepost 366.
Option 2	Full depth pavement reconstruction, milling and overlay, and drainage improvements along the Craggy Gardens Picnic Area Access Road and Parking Lot.

The purpose of Options 1 and 2 are to give the Government maximum flexibility in completing the project upon receipt of all required funding. If complete funding is in place at the time of award of Schedule A, Option 1 and/or 2 may be exercised at that time. If

Option funding is received after award of Schedule A, the Government has the right to exercise Options at the unit prices bid, no later than 30 calendar days from the Notice to Proceed.

BIDDING OF CALENDAR DAYS

Provide the number of calendar days necessary to complete Schedule A and Options 1 and 2 work from Notice To Proceed to contract completion (**NOT to exceed the maximum number of calendar days shown in Block 11 of the SF-1442**) in the spaces provided on the Bid Summary (Page B-21). Failure to specify a number of calendar days for contract completion indicates the bidder accepts the maximum contract time provided in Block 11 of the SF 1442.

In developing a construction schedule to determine the number of calendar days included in their bid, bidders should include the work limitations shown in the Special Contract Requirements. Specific work limitations may be (but are not limited to): holidays, weekends; rush hours; night work; no work periods; work or traffic control phasing. Bidders are also advised to consider those work items that are weather sensitive and when those work items will be performed. Specific work items are (but not limited to): those that require a minimum ambient air temperature (asphalt paving and surface treatment, pavement striping, stone masonry); those that require maintaining a minimum surface temperature (concrete pavement, structural concrete, painting); and those that have specific planting seasons (turf establishment, sod, trees and plants). The total calendar days bid should include any work limitations and any delay days or contractor winter shutdowns required due to weather sensitive work items.

When evaluating the bids, the Government will consider the Contract Administrative Cost for the project to be \$3,300 per calendar day. The Contract Administrative Cost is only used to determine the Total Price of Project.

Add the **Bid Totals** and the **Contract Administrative Costs** for Schedule A and Options 1 and 2 as directed on the **Bid Summary** page. Show the **Total Price of Project** in the spaces provided on the **Bid Summary** page.

BASIS FOR AWARD

The project will be awarded as follows:

- Total Price of Schedule A + Contract Administrative Cost + Option 1 + Contract Administrative Cost + Option 2;

Award will be made to the responsive, responsible bidder whose **Bid Total plus Contract Administrative Cost** is the lowest for the above combination that the Government elects to award. **The number of calendar days specified by the successful bidder for the completion of the elected combination will become the performance period for the contract.**

NOTE: Contract Administration Cost is used for ranking purposes only.

Bid Schedule

Project: PRA-BLRI 2P14
 SCHEDULE A BLUE RIDGE PARKWAY MP 366 TO MP 375.1

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101	MOBILIZATION ALL	Lump Sum	\$ _____
15201	CONSTRUCTION SURVEY AND STAKING ALL	Lump Sum	\$ _____
15401	CONTRACTOR TESTING ALL	Lump Sum	\$ _____
15702	TEMPORARY TURF ESTABLISHMENT 8 ACRE	\$ _____	\$ _____
15703	SILT FENCE 69,200 LNFT	\$ _____	\$ _____
15713	PLASTIC LINING 600 SQYD	\$ _____	\$ _____
15716	INLET PROTECTION 55 EACH	\$ _____	\$ _____
15719C	TEMPORARY MULCH 7 TON	\$ _____	\$ _____
20103	CLEARING AND GRUBBING 650 SQYD	\$ _____	\$ _____
20302RD	REMOVAL OF STONE CURB 600 LNFT	\$ _____	\$ _____
20303PA	REMOVAL OF ASPHALT PAVEMENT 91,500 SQYD	\$ _____	\$ _____

Bid Schedule A

Project: PRA-BLRI 2P14
 SCHEDULE A BLUE RIDGE PARKWAY MP 366 TO MP 375.1

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20303QA	REMOVAL OF ASPHALT SIDEWALK 210 SQYD	\$ _____	\$ _____
20303UA	REMOVAL OF ASPHALT PAVED WATERWAY 490 SQYD	\$ _____	\$ _____
20303UD	REMOVAL OF STONE PAVED WATERWAY 1,080 SQYD	\$ _____	\$ _____
20304Y	REMOVAL OF STONE MASONRY ALL	Lump Sum	\$ _____
30101Z	AGGREGATE BASE, GRADING C OR D 9,040 TON	\$ _____	\$ _____
30305B	DITCH RECONDITIONING 2,610 LNFT	\$ _____	\$ _____
30501	AGGREGATE-TOPSOIL COURSE 3,350 TON	\$ _____	\$ _____
40101	HOT ASPHALT CONCRETE PAVEMENT 20 TON	\$ _____	\$ _____
41301B	ASPHALT PAVEMENT MILLING, 1-INCH DEPTH 1,900 SQYD	\$ _____	\$ _____
41301F	ASPHALT PAVEMENT MILLING, 2-INCH DEPTH 5,900 SQYD	\$ _____	\$ _____
41801BAD	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, <0.3 ESAL, TYPE 4 PAVEMENT SMOOTHNESS 160 TON	\$ _____	\$ _____
41801BBB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, TYPE 2 PAVEMENT SMOOTHNESS 9,200 TON	\$ _____	\$ _____

Bid Schedule A

Project: PRA-BLRI 2P14

SCHEDULE A BLUE RIDGE PARKWAY MP 366 TO MP 375.1

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
41801BBC	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, TYPE 3 PAVEMENT SMOOTHNESS 2,200 TON	\$ _____	\$ _____
41801CB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL 17,700 TON	\$ _____	\$ _____
41802AB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, WEDGE AND LEVELING 5,700 TON	\$ _____	\$ _____
41902A	ASPHALT PAVEMENT, SHALLOW DEPTH PATCH, TYPE 1 2,300 SQFT	\$ _____	\$ _____
60501	UNDERDRAIN SYSTEM 150 LNFT	\$ _____	\$ _____
60503	GEOCOMPOSITE UNDERDRAIN SYSTEM (18" Multi-flow drainage tubing) 450 LNFT	\$ _____	\$ _____
60507F	6-INCH OUTLET PIPE (SCHEDULE 40 PVC) 25 LNFT	\$ _____	\$ _____
60509	SAND 180 CUYD	\$ _____	\$ _____
60703A	RECONDITIONING CULVERTS IN PLACE 3,500 LNFT	\$ _____	\$ _____
60704	RECONDITIONING DRAINAGE STRUCTURES 50 EACH	\$ _____	\$ _____
60705M	LINING 24-INCH PIPE CULVERT 100 LNFT	\$ _____	\$ _____

Bid Schedule A

Project: PRA-BLRI 2P14

SCHEDULE A BLUE RIDGE PARKWAY MP 366 TO MP 375.1

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60706	CONCRETE PIPE JOINT REPAIR 5 EACH	\$ _____	\$ _____
60801B	PAVED WATERWAY, TYPE 2 1,360 SQYD	\$ _____	\$ _____
60801E	PAVED WATERWAY, TYPE 5 300 SQYD	\$ _____	\$ _____
60809B	RECONDITION PAVED WATERWAY, TYPE 2 3,500 SQYD	\$ _____	\$ _____
60906	RESET CURB 700 LNFT	\$ _____	\$ _____
61401	LEAN CONCRETE BACKFILL 1 CUYD	\$ _____	\$ _____
61501A	ASPHALT CONCRETE SIDEWALK 250 SQYD	\$ _____	\$ _____
62004	REPOINT STONE MASONRY 530 LNFT	\$ _____	\$ _____
62011	RESET STONE MASONRY (REPAIR) 10 CUYD	\$ _____	\$ _____
62016	RESET STONE MASONRY (MEDIAN) 15 SQYD	\$ _____	\$ _____
62403	FURNISHING AND PLACING TOPSOIL 240 CUYD	\$ _____	\$ _____
62509	TURF ESTABLISHMENT 10.0 ACRE	\$ _____	\$ _____

Bid Schedule A

Project: PRA-BLRI 2P14

SCHEDULE A BLUE RIDGE PARKWAY MP 366 TO MP 375.1

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62901D	EROSION CONTROL MAT TYPE 4 6 SQYD	\$ _____	\$ _____
63304CC	SIGNS, ALUMINUM PANELS, TYPE 3 SHEETING 160 SQFT	\$ _____	\$ _____
63401LA	PAVEMENT MARKINGS, TYPE POLYUREA, SOLID 97,800 LNFT	\$ _____	\$ _____
63401LB	PAVEMENT MARKINGS, TYPE POLYUREA, BROKEN 1,100 LNFT	\$ _____	\$ _____
63501	TEMPORARY TRAFFIC CONTROL (FLOOD LIGHTS) ALL	Lump Sum	\$ _____
63505C	BARRICADE, TYPE 3 2 EACH	\$ _____	\$ _____
63506A	CONE, TYPE A 380 EACH	\$ _____	\$ _____
63507	CONSTRUCTION SIGN 1,968 SQFT	\$ _____	\$ _____
63508B	DRUM, TYPE B 380 EACH	\$ _____	\$ _____
63509	FLAGGER 1,900 HOUR	\$11.10	\$21,090.00
63510	PILOT CAR 300 HOUR	\$45.00	\$13,500.00
63515	TEMPORARY PAVEMENT MARKINGS 28 MILE	\$ _____	\$ _____
63521A	WARNING LIGHT, TYPE A 380 EACH	\$ _____	\$ _____

Bid Schedule A

Project: PRA-BLRI 2P14

SCHEDULE A BLUE RIDGE PARKWAY MP 366 TO MP 375.1

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63521B	WARNING LIGHT, TYPE B 35 EACH	\$ _____	\$ _____
63521C	WARNING LIGHT, TYPE C 380 EACH	\$ _____	\$ _____
63529	TEMPORARY TRAFFIC SIGNAL SYSTEM 2 EACH	\$ _____	\$ _____
63530	RELOCATING TEMPORARY TRAFFIC SIGNAL SYSTEM 6 EACH	\$ _____	\$ _____
63701	FIELD OFFICE 1 EACH	\$ _____	\$ _____
63803	LOCATE UTILITIES (TEST PITS) ALL	Lump Sum	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

Bid Schedule

Project: PRA-BLRI 2P14
 OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101	MOBILIZATION ALL	Lump Sum	\$ _____
15201	CONSTRUCTION SURVEY AND STAKING ALL	Lump Sum	\$ _____
15401	CONTRACTOR TESTING ALL	Lump Sum	\$ _____
15702	TEMPORARY TURF ESTABLISHMENT 5 ACRE	\$ _____	\$ _____
15703	SILT FENCE 11,000 LNFT	\$ _____	\$ _____
15713	PLASTIC LINING 400 SQYD	\$ _____	\$ _____
15716	INLET PROTECTION 10 EACH	\$ _____	\$ _____
15719C	TEMPORARY MULCH 6 TON	\$ _____	\$ _____
20301AE	REMOVAL OF FRAME AND GRATE 7 EACH	\$ _____	\$ _____
20301AT	REMOVAL OF RAISED PAVEMENT MARKER 45 EACH	\$ _____	\$ _____
20302H	REMOVAL OF PIPE CULVERTS 200 LNFT	\$ _____	\$ _____

Bid Option 1

Project: PRA-BLRI 2P14
 OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20302RB	REMOVAL OF PORTLAND CEMENT CONCRETE CURB (INCLUDES ASPHALT CURB) 80 LNFT	\$ _____	\$ _____
20302RD	REMOVAL OF STONE CURB 2,100 LNFT	\$ _____	\$ _____
20303AB	REMOVAL OF CONCRETE 1 SQYD	\$ _____	\$ _____
20303PA	REMOVAL OF ASPHALT PAVEMENT 7,700 SQYD	\$ _____	\$ _____
20303QA	REMOVAL OF ASPHALT SIDEWALK 1,000 SQYD	\$ _____	\$ _____
20303UA	REMOVAL OF ASPHALT PAVED WATERWAY 2,010 SQYD	\$ _____	\$ _____
20401	ROADWAY EXCAVATION 2,100 CUYD	\$ _____	\$ _____
20402	SUBEXCAVATION 2,400 CUYD	\$ _____	\$ _____
20405	SELECT BORROW 2,300 CUYD	\$ _____	\$ _____
20701CB	EARTHWORK GEOTEXTILE, TYPE III-B 1,590 SQYD	\$ _____	\$ _____
25101C	PLACED RIPRAP, CLASS 3 10 CUYD	\$ _____	\$ _____
30101Z	AGGREGATE BASE, GRADING C OR D 610 TON	\$ _____	\$ _____

Bid Option 1

Project: PRA-BLRI 2P14

OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
30305B	DITCH RECONDITIONING 4,680 LNFT	\$ _____	\$ _____
30501	AGGREGATE-TOPSOIL COURSE 2,200 TON	\$ _____	\$ _____
40201	MINOR HOT ASPHALT CONCRETE 180 TON	\$ _____	\$ _____
41301B	ASPHALT PAVEMENT MILLING, 1-INCH DEPTH 2,600 SQYD	\$ _____	\$ _____
41301F	ASPHALT PAVEMENT MILLING, 2-INCH DEPTH 68,800 SQYD	\$ _____	\$ _____
41301H	ASPHALT PAVEMENT MILLING, 3-INCH DEPTH 600 SQYD	\$ _____	\$ _____
41801BAD	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, <0.3 ESAL, TYPE 4 PAVEMENT SMOOTHNESS 800 TON	\$ _____	\$ _____
41801BBC	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, TYPE 3 PAVEMENT SMOOTHNESS 6,200 TON	\$ _____	\$ _____
41801CB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL 11,500 TON	\$ _____	\$ _____
41802AB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, WEDGE AND LEVELING 600 TON	\$ _____	\$ _____
41901B	ASPHALT PAVEMENT, FULL DEPTH PATCH, TYPE 2 370 SQFT	\$ _____	\$ _____

Bid Option 1

Project: PRA-BLRI 2P14

OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
41902A	ASPHALT PAVEMENT, SHALLOW DEPTH PATCH, TYPE 1 2,100 SQFT	\$ _____	\$ _____
60101	CONCRETE 10 CUYD	\$ _____	\$ _____
60201E	4-INCH PIPE CULVERT 4 LNFT	\$ _____	\$ _____
60201K	18-INCH PIPE CULVERT 160 LNFT	\$ _____	\$ _____
60201M	24-INCH PIPE CULVERT 80 LNFT	\$ _____	\$ _____
60409D	METAL FRAME AND GRATE, TYPE 4 2 EACH	\$ _____	\$ _____
60409FA	METAL FRAME AND GRATE, TYPE 6A 5 EACH	\$ _____	\$ _____
60506F	6-INCH COLLECTOR PIPE (RETAINING WALL) 70 LNFT	\$ _____	\$ _____
60703A	RECONDITIONING CULVERTS IN PLACE 1,400 LNFT	\$ _____	\$ _____
60704	RECONDITIONING DRAINAGE STRUCTURES 65 EACH	\$ _____	\$ _____
60705K	LINING 18-INCH PIPE CULVERT 20 LNFT	\$ _____	\$ _____
60706	CONCRETE PIPE JOINT REPAIR 4 EACH	\$ _____	\$ _____

Bid Option 1

Project: PRA-BLRI 2P14

OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60801B	PAVED WATERWAY, TYPE 2 120 SQYD	\$ _____	\$ _____
60801E	PAVED WATERWAY, TYPE 5 2,000 SQYD	\$ _____	\$ _____
60809B	RECONDITION PAVED WATERWAY, TYPE 2 700 SQYD	\$ _____	\$ _____
60903AX	STONE CURB, TYPE 1, 16-INCH DEPTH 100 LNFT	\$ _____	\$ _____
60906	RESET CURB 2,250 LNFT	\$ _____	\$ _____
61501A	ASPHALT CONCRETE SIDEWALK 1,020 SQYD	\$ _____	\$ _____
61505A	ASPHALT WHEELCHAIR RAMP 90 SQYD	\$ _____	\$ _____
61703	REMOVING AND RESETTING GUARDRAIL 330 LNFT	\$ _____	\$ _____
62003	REMOVE AND RESET STONE MASONRY (RETAINING WALL) 21 CUYD	\$ _____	\$ _____
62004	REPOINT STONE MASONRY 2,770 LNFT	\$ _____	\$ _____
62006	REMOVE AND RESET STONE MASONRY HEADWALL 2 EACH	\$ _____	\$ _____
62007AM	STONE MASONRY HEADWALL FOR 24-INCH PIPE CULVERT 1 EACH	\$ _____	\$ _____

Bid Option 1

Project: PRA-BLRI 2P14

OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62008	CLEAN STONE MASONRY SURFACES 65 SQYD	\$ _____	\$ _____
62011	RESET STONE MASONRY (REPAIR) 30 CUYD	\$ _____	\$ _____
62403	FURNISHING AND PLACING TOPSOIL 160 CUYD	\$ _____	\$ _____
62509	TURF ESTABLISHMENT 7.0 ACRE	\$ _____	\$ _____
63401HA	PAVEMENT MARKINGS, TYPE H, SOLID 2,600 LNFT	\$ _____	\$ _____
63401JA	PAVEMENT MARKINGS, TYPE J, SOLID 300 LNFT	\$ _____	\$ _____
63401LA	PAVEMENT MARKINGS, TYPE POLYUREA, SOLID 64,000 LNFT	\$ _____	\$ _____
63401LB	PAVEMENT MARKINGS, TYPE POLYUREA, BROKEN 3,800 LNFT	\$ _____	\$ _____
63405D	RAISED PAVEMENT MARKERS, TYPE D 15 EACH	\$ _____	\$ _____
63405E	RAISED PAVEMENT MARKERS, TYPE E 30 EACH	\$ _____	\$ _____
63406JH	PAVEMENT MARKINGS, TYPE J, HANDICAP SYMBOL 8 EACH	\$ _____	\$ _____
63501	TEMPORARY TRAFFIC CONTROL (FLOOD LIGHTS) ALL	Lump Sum	\$ _____
63505C	BARRICADE, TYPE 3 2 EACH	\$ _____	\$ _____

Bid Option 1

Project: PRA-BLRI 2P14

OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63506A	CONE, TYPE A 360 EACH	\$ _____	\$ _____
63508B	DRUM, TYPE B 360 EACH	\$ _____	\$ _____
63509	FLAGGER 600 HOUR	\$11.10	\$6,660.00
63510	PILOT CAR 200 HOUR	\$45.00	\$9,000.00
63515	TEMPORARY PAVEMENT MARKINGS 17 MILE	\$ _____	\$ _____
63521A	WARNING LIGHT, TYPE A 360 EACH	\$ _____	\$ _____
63521B	WARNING LIGHT, TYPE B 30 EACH	\$ _____	\$ _____
63521C	WARNING LIGHT, TYPE C 360 EACH	\$ _____	\$ _____
63529	TEMPORARY TRAFFIC SIGNAL SYSTEM 1 EACH	\$ _____	\$ _____
63530	RELOCATING TEMPORARY TRAFFIC SIGNAL SYSTEM 1 EACH	\$ _____	\$ _____
63701	FIELD OFFICE 1 EACH	\$ _____	\$ _____

Bid Option 1

Project: PRA-BLRI 2P14

OPTION 1 BLUE RIDGE PARKWAY FROM MP 359.7 TO MP 366

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63803	LOCATE UTILITIES ALL	Lump Sum	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

Bid Schedule

Project: PRA-BLRI 2P14
 OPTION 2 CRAGGY GARDENS PICNIC AREA ACCESS RD. AND LOT

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101	MOBILIZATION ALL	Lump Sum	\$ _____
15201	CONSTRUCTION SURVEY AND STAKING ALL	Lump Sum	\$ _____
15401	CONTRACTOR TESTING ALL	Lump Sum	\$ _____
15702	TEMPORARY TURF ESTABLISHMENT 1 ACRE	\$ _____	\$ _____
15703	SILT FENCE 1,500 LNFT	\$ _____	\$ _____
15716	INLET PROTECTION 5 EACH	\$ _____	\$ _____
15719C	TEMPORARY MULCH 2 TON	\$ _____	\$ _____
20301AE	REMOVAL OF FRAME AND GRATE 2 EACH	\$ _____	\$ _____
20301E	REMOVAL OF HEADWALLS 1 EACH	\$ _____	\$ _____
20302H	REMOVAL OF PIPE CULVERTS 400 LNFT	\$ _____	\$ _____
20302RB	REMOVAL OF PORTLAND CEMENT CONCRETE CURB (INCLUDES ASPHALT CURB) 2,220 LNFT	\$ _____	\$ _____

Bid Option 2

Project: PRA-BLRI 2P14
 OPTION 2 CRAGGY GARDENS PICNIC AREA ACCESS RD. AND LOT

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
20302RD	REMOVAL OF STONE CURB 2,550 LNFT	\$ _____	\$ _____
20302W	REMOVAL OF GUARDRAIL 510 LNFT	\$ _____	\$ _____
20303PA	REMOVAL OF ASPHALT PAVEMENT 7,500 SQYD	\$ _____	\$ _____
20303QA	REMOVAL OF ASPHALT SIDEWALK 1,190 SQYD	\$ _____	\$ _____
20303UD	REMOVAL OF STONE PAVED WATERWAY 170 SQYD	\$ _____	\$ _____
20401	ROADWAY EXCAVATION 5 CUYD	\$ _____	\$ _____
20701CB	EARTHWORK GEOTEXTILE, TYPE III-B 10 SQYD	\$ _____	\$ _____
25101C	PLACED RIPRAP, CLASS 3 30 CUYD	\$ _____	\$ _____
25101D	PLACED RIPRAP, CLASS 4 150 CUYD	\$ _____	\$ _____
30101Z	AGGREGATE BASE, GRADING C OR D 120 TON	\$ _____	\$ _____
30305B	DITCH RECONDITIONING 110 LNFT	\$ _____	\$ _____
30501	AGGREGATE-TOPSOIL COURSE 450 TON	\$ _____	\$ _____

Bid Option 2

Project: PRA-BLRI 2P14

OPTION 2 CRAGGY GARDENS PICNIC AREA ACCESS RD. AND LOT

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
41301F	ASPHALT PAVEMENT MILLING, 2-INCH DEPTH 8,800 SQYD	\$ _____	\$ _____
41801BAD	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, <0.3 ESAL, TYPE 4 PAVEMENT SMOOTHNESS 540 TON	\$ _____	\$ _____
41801BBC	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, TYPE 3 PAVEMENT SMOOTHNESS 1,100 TON	\$ _____	\$ _____
41801CB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL 2,700 TON	\$ _____	\$ _____
41802AB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, WEDGE AND LEVELING 3,700 TON	\$ _____	\$ _____
41901B	ASPHALT PAVEMENT, FULL DEPTH PATCH, TYPE 2 80 SQFT	\$ _____	\$ _____
41902A	ASPHALT PAVEMENT, SHALLOW DEPTH PATCH, TYPE 1 400 SQFT	\$ _____	\$ _____
60104AK	CONCRETE, HEADWALL FOR 18-INCH PIPE CULVERT 2 EACH	\$ _____	\$ _____
60104AM	CONCRETE, HEADWALL FOR 24-INCH PIPE CULVERT 1 EACH	\$ _____	\$ _____
60201K	18-INCH PIPE CULVERT 140 LNFT	\$ _____	\$ _____
60201M	24-INCH PIPE CULVERT 120 LNFT	\$ _____	\$ _____

Bid Option 2

Project: PRA-BLRI 2P14

OPTION 2 CRAGGY GARDENS PICNIC AREA ACCESS RD. AND LOT

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
60203P	36-INCH EQUIVALENT DIAMETER, ARCH OR ELLIPTICAL CULVERT PIPE 40 LNFT	\$ _____	\$ _____
60409FA	METAL FRAME AND GRATE, TYPE 6A 2 EACH	\$ _____	\$ _____
60703A	RECONDITIONING CULVERTS IN PLACE 150 LNFT	\$ _____	\$ _____
60704	RECONDITIONING DRAINAGE STRUCTURES 5 EACH	\$ _____	\$ _____
60706	CONCRETE PIPE JOINT REPAIR 1 EACH	\$ _____	\$ _____
60801B	PAVED WATERWAY, TYPE 2 220 SQYD	\$ _____	\$ _____
60906	RESET CURB 2,500 LNFT	\$ _____	\$ _____
60915A	WHEELSTOP, CONCRETE 10 LNFT	\$ _____	\$ _____
61501A	ASPHALT CONCRETE SIDEWALK 1,230 SQYD	\$ _____	\$ _____
61505A	ASPHALT WHEELCHAIR RAMP 50 SQYD	\$ _____	\$ _____
61701H	GUARDRAIL SYSTEM SBTB 510 LNFT	\$ _____	\$ _____
62003	REMOVE AND RESET STONE MASONRY (DRAINAGE STRUCTURE) 1 CUYD	\$ _____	\$ _____

Bid Option 2

Project: PRA-BLRI 2P14

OPTION 2 CRAGGY GARDENS PICNIC AREA ACCESS RD. AND LOT

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
62006	REMOVE AND RESET STONE MASONRY HEADWALL 3 EACH	\$ _____	\$ _____
62007AM	STONE MASONRY HEADWALL FOR 24-INCH PIPE CULVERT 1 EACH	\$ _____	\$ _____
62007AP	STONE MASONRY HEADWALL FOR 36-INCH PIPE CULVERT (36-INCH EQUIVALENT) 2 EACH	\$ _____	\$ _____
62403	FURNISHING AND PLACING TOPSOIL 10 CUYD	\$ _____	\$ _____
62509	TURF ESTABLISHMENT 1.0 ACRE	\$ _____	\$ _____
63401LA	PAVEMENT MARKINGS, TYPE POLYUREA, SOLID 13,000 LNFT	\$ _____	\$ _____
63406JH	PAVEMENT MARKINGS, TYPE J, HANDICAP SYMBOL 5 EACH	\$ _____	\$ _____
63501	TEMPORARY TRAFFIC CONTROL (FLOOD LIGHTS) ALL	Lump Sum	\$ _____
63505C	BARRICADE, TYPE 3 4 EACH	\$ _____	\$ _____
63507	CONSTRUCTION SIGN 50 SQFT	\$ _____	\$ _____
63508B	DRUM, TYPE B 20 EACH	\$ _____	\$ _____
63521A	WARNING LIGHT, TYPE A 20 EACH	\$ _____	\$ _____

Bid Option 2

Project: PRA-BLRI 2P14

OPTION 2 CRAGGY GARDENS PICNIC AREA ACCESS RD. AND LOT

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63521B	WARNING LIGHT, TYPE B 1 EACH	\$ _____	\$ _____
63521C	WARNING LIGHT, TYPE C 20 EACH	\$ _____	\$ _____
63803	LOCATE UTILITIES ALL	Lump Sum	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

BID SUMMARY
 Project PRA-BLRI 2P14
 (Complete for Pages B-1 through B-20)

(1) Schedule A Bid Total (from Page B-6) \$ _____

Contract Administrative Cost

Number of calendar days necessary to complete all Schedule A work from Notice to Proceed (or date specified in the Notice to Proceed) to construction completion.

(2) ___ calendar days x \$3,300 per calendar day = \$ _____

(3) Option 1 Bid Total (from Page B-14) \$ _____

Contract Administrative Cost

Number of calendar days necessary to complete all Option 1 work in excess of days in Schedule A from Notice to Proceed (or date specified in the Notice to Proceed) to construction completion.

(4) ___ calendar days x \$3,300 per calendar day = \$ _____

(5) Option 2 Bid Total (from Page B-20) \$ _____

Contract Administrative Cost

There is no Contract Administrative cost, as Option 2 is considered to be constructed concurrently with Option 1.

Total Price of Project

- (1) Bid Total for Schedule A \$ _____
- + (2) Contract Administrative Cost for Schedule A \$ _____
- + (3) Bid Total for Option 1 \$ _____
- + (4) Contract Administrative Cost for Option 1 \$ _____
- + (5) Bid Total for Option 2 \$ _____

Total days for Schedule A, Option 1 and Option 2 **shall not exceed 631 Calendar days.**

= TOTAL PRICE OF PROJECT \$ _____

Does the Bidder claim the Price Evaluation Preference for HUBZone Small Business Concerns as defined in FAR Clause 52.219-4?

Yes

No

BID BOND <i>(See instruction on reverse)</i>	DATE BOND EXECUTED <i>(Must not be later than bid opening date)</i>	OMB NO.: 9000-0045
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Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (MVR), Federal Acquisition Policy Division, GSA, Washington, DC 20405.

PRINCIPAL <i>(Legal name and business address)</i>	TYPE OF ORGANIZATION <i>("X" one)</i> <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE <input type="checkbox"/> CORPORATION STATE OF INCORPORATION
--	--

SURETY(IES) *(Name and business address)*

PENAL SUM OF BOND					BID IDENTIFICATION	
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NO.
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS		
					FOR <i>(Construction, Supplies, or Services)</i>	

OBLIGATION:

We, the Principal and Surety(ies) are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit of liability is the full amount of the penal sum.

CONDITIONS:

The Principal has submitted the bid identified above.

THEREFORE:

The above obligation is void if the Principal - (a) upon acceptance by the Government of the bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), executes the further contractual documents and gives the bond(s) required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by the principal; or (b) in the event of failure to execute such further contractual documents and give such bonds, pays the Government for any cost of procuring the work which exceeds the amount of the bid.

Each Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government. Notice to the surety(ies) of extension(s) are waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

WITNESS:

The Principal and Surety(ies) executed this bid bond and affixed their seals on the above date.

PRINCIPAL				
SIGNATURE(S)	1.	2.	3.	<i>Corporate Seal</i>
	<i>(Seal)</i>	<i>(Seal)</i>	<i>(Seal)</i>	
NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.	3.	

INDIVIDUAL SURETY(IES)				
SIGNATURE(S)	1.	2.	3.	
	<i>(Seal)</i>	<i>(Seal)</i>	<i>(Seal)</i>	
NAME(S) <i>(Typed)</i>	1.	2.	3.	

CORPORATE SURETY(IES)					
SURETY A	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		

SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	<i>Corporate Seal</i>
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		

INSTRUCTIONS

1. This form is authorized for use when a bid guaranty is required. Any deviation from this form will require the written approval of the Administrator of General Services.
2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
3. The bond may express penal sum as a percentage of the bid price. In these cases, the bond may state a maximum dollar limitation (e.g., (e.g., 20% of the bid price but the amount not to exceed _____ dollars).
4. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. where more than one corporate surety is involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designed "SURETY(IES)" on the face of the form, insert only the letter identification of the sureties.

 (b) Where individual sureties are involved, a completed Affidavit of Individual surety (Standard Form 28), for each individual surety, shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.
5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seal"; and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.
6. Type the name and title of each person signing this bond in the space provided.
7. In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

CONTRACT CLAUSES INDEX

FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)

(Updated thru FAC 2005- 09 on 04/19/2006)

52.252-2 Clauses Incorporated By Reference (Feb 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: www.arnet.gov/far/

(End of Clause)

FAR & TAR CLAUSES INCORPORATED BY REFERENCE

CLAUSE	TITLE	DATE	REMARKS
52.202-01	DEFINITIONS	Jul-04	
52.203-03	GRATUITIES	Apr-84	
52.203-05	COVENANT AGAINST CONTINGENT FEES	Apr-84	
52.203-07	ANTI-KICKBACK PROCEDURES	Jul-95	
52.203-8	CANCEL. & RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	Jan-97	
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	Jan-97	
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	Sep-05	
52.204-04	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER	Aug-00	
52.204-07	CENTRAL CONTRACTOR REGISTRATION	Oct-03	Contractor Mandatory Internet Data Input
52.209-06	PROTECTING GOV. INTEREST WHEN SUBCONTRACTING W/ CONT. DEB. SUSP. OR PROP. FOR DEB.	Jan-05	
52.214-26	AUDIT AND RECORDS--SEALED BIDDING	Oct-97	
52.214-27	PRICE REDUCTION FOR DEFECT. COST OR PRICING DATA-MODIFICATIONS -SEALED BIDDING	Oct-97	
52.214-28	SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS--SEALED BIDDING	Oct-97	
52.219-08	UTILIZATION OF SMALL BUSINESS CONCERNS	May-04	
52.219-09 ALT 1	SMALL BUSINESS SUBCONTRACTING PLAN (ALT 1 - (Oct 01))	Jan-05	Large Business Mandatory Submittal Requirement
52.219-14	LIMITATIONS ON SUBCONTRACTING	Dec-96	
52.219-16	LIQUIDATED DAMAGES - SUBCONTRACTING PLAN	Jan-99	
52.222-03	CONVICT LABOR	Jun-03	
52.222-04	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT--OVERTIME COMPENSATION	Jul-05	
52.222-06	DAVIS-BACON ACT	Jul-05	Contractor Mandatory Wage Rates Posting
52.222-07	WITHHOLDING OF FUNDS	Feb-88	
52.222-08	PAYROLLS AND BASIC RECORDS	Feb-88	Contractor Weekly Payroll Submittals
52.222-09	APPRENTICES AND TRAINEES	Jul-05	
52.222-10	COMPLIANCE WITH COPELAND ACT REQUIREMENTS	Feb-88	
52.222-11	SUBCONTRACTS (LABOR STANDARDS)	Jul-05	
52.222-12	CONTRACT TERMINATION--DEBARMENT	Feb-88	
52.222-13	COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS	Feb-88	
52.222-14	DISPUTES CONCERNING LABOR STANDARDS	Feb-88	
52.222-15	CERTIFICATION OF ELIGIBILITY	Feb-88	
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	Feb-99	
52.222-26	EQUAL OPPORTUNITY	Apr-02	
52.222-27	AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION	Feb-99	
52.222-35	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, & OTHER ELIGIBLE VETERANS.	Dec-01	

CONTRACT CLAUSES INDEX
FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)
(Updated thru FAC 2005- 09 on 04/19/2006)

FAR & TAR CLAUSES INCORPORATED BY REFERENCE

CLAUSE	TITLE	DATE	REMARKS
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	Jun-98	
52.222-37	EMPLOYMENT. REPORTS ON SPECIAL DISABLED VETS, VETS OF THE VIETNAM ERA, ETAL.	Dec-01	Contractor Annual Mandatory Reporting Requirement
52.222-39	NOTIFICATION OF EMPLOYEE RIGHTS CONCERNING PAYMENT OF UNION DUES OR FEES	Dec-04	Contractor Mandatory Postings
52.223-06	DRUG-FREE WORKPLACE	May-01	
52.223-14	TOXIC CHEMICAL RELEASE REPORTING	Aug-03	Contractor Annual Contractor Reporting Requirement
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	Feb-06	
52.227-01	AUTHORIZATION AND CONSENT	Jul-95	
52.227-02	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	Aug-96	
52.227-04	PATENT INDEMNITY-CONSTRUCTION CONTRACTS	Apr-84	
52.228-02	ADDITIONAL BOND SECURITY	Oct-97	
52.228-5	INSURANCE - WORK ON A GOVERNMENT INSTALLATION	Jan-97	Contractor Submittal Requirement
52.228-11	PLEDGES OF ASSETS	Feb-92	
52.228-12	PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS	Oct-95	
52.228-14	IRREVOCABLE LETTER OF CREDIT	Dec-99	
52.228-15	PERFORMANCE AND PAYMENT BONDS - CONSTRUCTION	Sep-05	Contractor Submittal Requirement
52.229-03	FEDERAL, STATE, AND LOCAL TAXES	Apr-03	
52.232-05	PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS	Sep-02	Contractor Submittal Requirement
52.232-17	INTEREST	Jun-96	
52.232-23	ASSIGNMENT OF CLAIMS	Jan-86	
52.232-27	PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS	Sep-05	
52.232.33	PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION	Oct-03	
52.233-01 ALT I	DISPUTES (Alt-I, Dec-91)	Jul-02	
52.233-03	PROTEST AFTER AWARD	Aug-96	
52.233-04	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	Oct-04	
52.236-02	DIFFERING SITE CONDITIONS	Apr-84	
52.236-03	SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK	Apr-84	
52.236-05	MATERIAL AND WORKMANSHIP	Apr-84	
52.236-06	SUPERINTENDENCE BY THE CONTRACTOR	Apr-84	
52.236-07	PERMITS AND RESPONSIBILITIES	Nov-91	
52.236-08	OTHER CONTRACTS	Apr-84	
52.236-09	PROTECTION OF EXIST. VEGETATION., STRUCTURES., EQUIPMENT., UTILITIES, & IMPROVEMENTS	Apr-84	
52.236-10	OPERATIONS AND STORAGE AREAS	Apr-84	
52.236-11	USE AND POSSESSION PRIOR TO COMPLETION	Apr-84	
52.236-12	CLEANING UP	Apr-84	
52.236-13	ACCIDENT PREVENTION	Nov-91	

CONTRACT CLAUSES INDEX
FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)
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FAR & TAR CLAUSES INCORPORATED BY REFERENCE			
CLAUSE	TITLE	DATE	REMARKS
52.236-15	SCHEDULES FOR CONSTRUCTION CONTRACTS	Apr-84	Contractor Submittal Requirement
52.236-17	LAYOUT OF WORK	Apr-84	
52.236-21	SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION	Feb-97	
52.236-26	PRECONSTRUCTION CONFERENCE	Feb-95	
52.242-13	BANKRUPTCY	Jul-95	
52.242-14	SUSPENSION OF WORK	Apr-84	
52.243-04	CHANGES	Aug-87	
52.244-06	SUBCONTRACTS FOR COMMERCIAL ITEMS	Dec-06	
52.245-02	GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS)	May 04	
52.246-12	INSPECTION OF CONSTRUCTION	Aug-96	
52.248-03 ALT 1	VALUE ENGINEERING-CONSTRUCTION (Alt-I, Apr-84)	Feb-00	
52.249-02 ALT I	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE) (Alt-I, Sep-96)	May-04	
52.249-10	DEFAULT (FIXED PRICE CONSTRUCTION)	Apr-84	
52.253-01	COMPUTER GENERATED FORMS	Jan-91	

TAR CLAUSES INCORPORATED BY REFERENCE			
CLAUSE	TITLE	DATE	REMARKS
1252.211-71	INDEX FOR SPECIFICATIONS	Apr-05	
1252.242-73	CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE	Oct-94	

FAR & TAR PROVISIONS INCORPORATED BY REFERENCE			
PROVISION	TITLE	DATE	REMARKS
52.217-03	EVALUATION EXCLUSIVE OF OPTION	Apr-84	
52.217-04	EVALUATION OF OPTIONS EXERCISED AT TIME OF CONTRACT AWARD	Jun-88	
52.217-05	EVALUATION OF OPTIONS	Mar-89	

CONTRACT CLAUSES INDEX
FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)
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FAR & TAR CLAUSES INCORPORATED BY FULL TEXT					
CLAUSE	TITLE	DATE	SECTION	SECTION TYPE	REMARKS
52.211-10	COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK	Apr-84	H	CONSTR. CONTRACT REQS.	Government Fill In
52.211-12	LIQUIDATED DAMAGES-CONSTRUCTION	Sep-00	H	CONSTR. CONTRACT REQS.	Government Fill In
52.211-18	VARIATION IN ESTIMATED QUANTITY	Apr-84	H	CONSTR. CONTRACT REQS.	
52.219-4	NOTICE OF PRICE EVALUATION. PREFERENCE FOR HUBZONE SB CONCERNS	Jul-05	F	SOCIOECON PROG REQS	Contractor Fill-In
52.222-23	NOTICE OF REQ. FOR AFFIRMATIVE ACTION TO ENSURE E.E.O.	Feb-99	F	SOCIOECON PROG REQS	Contractor Reporting Requirements
52.223-03 ALT I	HAZARDOUS MAT. IDENT. & MATERIAL SAFETY DATA (Alt-I, Jul-95)	Jan-97	G	GEN'L CONTRACT REQS.	Contractor Submittal Requirements
52.223-09	EST. OF % OF REC. MAT. CONTENT FOR EPA DESIGN. PRODUCTS	Aug-00	G	GEN'L CONTRACT REQS	Contractor Reporting Requirement
52.225-09	BUY AMERICAN ACT-CONSTRUCTION MATERIALS	Jan 05	F	SOCIOECON PROG REQS	Government & Contractor Fill In's
52-236-01	PERFORMANCE OF WORK BY THE CONTRACTOR	Apr -84	H	CONSTR. CONTRACT REQS	Government Fill In
52.236-04	PHYSICAL DATA	Apr-84	H	CONSTR. CONTRACT REQS.	Government Fill In
TAR CLAUSES INCORPORATED BY FULL TEXT					
CLAUSE	TITLE	DATE	SECTION	SECTION TYPE	REMARKS
FAR PT 22.9	GOV. NONDISCRIMINATION BECAUSE OF AGE POLICY	Feb-64	F	SOCIOECON PROG REQS	Policy Statement - Not A Clause

(End of Clauses Index)

CONTRACT PROVISIONS INDEX
FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)
(Updated thru FAC 2005- 09 on 04/19/2006)

52.252-1 Solicitation Provisions Incorporated by Reference
(Feb 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this address: www.arnet.gov/far/

(End of Clause)

FAR & TAR PROVISIONS INCORPORATED BY REFERENCE

PROVISION	TITLE	DATE	REMARKS
52.211-06	BRAND NAME OR EQUAL	Aug-99	
52.214-03	AMENDMENTS TO INVITATIONS FOR BIDS	Dec-89	
52.214-04	FALSE STATEMENTS IN BIDS	Apr-84	
52.214-05	SUBMISSION OF BIDS	Mar-97	
52.214-06	EXPLANATION TO PROSPECTIVE BIDDERS	Apr-84	
52.214-07	LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS	Nov-99	
52.214-18	PREPARATION OF BIDS--CONSTRUCTION	Apr-84	
52.214-19	CONTRACT AWARD--SEALED BIDDING--CONSTRUCTION	Aug-96	
52.225-10	NOTICE OF BUY AMERICAN ACT REQUIREMENT - CONSTRUCTION MATERIAL.	May-02	

TAR PROVISIONS INCORPORATED BY REFERENCE

PROVISION	TITLE	DATE	REMARKS

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FEDERAL ACQUISITION REGULATION (FAR) & TRANSPORTATION ACQUISITION REGULATION (TAR)
(Updated thru FAC 2005- 09 on 04/19/2006)

FAR PROVISIONS INCORPORATED BY FULL TEXT					
PROVISION	TITLE	DATE	SECTION	SECTION TYPE	REMARKS
52.204-08	ANNUAL REPRESENTATIONS AND CERTIFICATIONS	Jan 06	D	REPS. & CERTIFICATIONS	Mandatory Contractor On-Line Input
52.211-04	AVAILABILITY FOR EXAM. OF SPECS NOT LISTED IN GSA INDEX OF FED SPECS/STANDARDS & COM. ITEM DESCRIPTION	Jun-88	E	INSTRUCTIONS TO BIDDERS	Government Fill In.
52.216-01	TYPE OF CONTRACT	Apr-84	E	INSTRUCTIONS TO BIDDERS	Government Fill In.
52.228-01	BID GUARANTEE	Sep-96	E	INSTRUCTIONS TO BIDDERS	Contractor Submittal Requirement
52.233-02	SERVICE OF PROTEST	Aug-96	E	INSTRUCTIONS TO BIDDERS	Government Fill In.
52.236-27	SITE VISIT (CONSTRUCTION)	Feb-95	E	CONSTR. CONTRACT REQS.	Government Fill In.
OTHER PROVISIONS INCORPORATED BY FULL TEXT					
PROVISION	TITLE	DATE	SECTION	SECTION TYPE	REMARKS
NONE					

(End of Provisions Index)

FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION PROVISIONS

REPRESENTATIONS AND CERTIFICATIONS

Annual Representations and Certifications. Prospective contractors shall complete electronic annual representations and certifications on-line at this web address: <http://orca.bpn.gov> (See FAR 4.1201) in conjunction with required registration in the Central Contractor Registration (CCR) database (see FAR 4.1102).

Vets100 Form must also be filled-in online at <http://vets100.cudenver.edu/> in accordance with FAR Clause 52.222-37.

Contractors are not eligible for award without completing these requirements.

4.1201); except for the changes identified below [*offeror to insert changes, identifying change by clause number, title, date*]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.
(End of Provision)

52.204-8

52.204-8 – Annual Representations and Certifications.

As prescribed in 4.1202, insert the following provision:
Annual Representations and Certifications (Jan 2006)

- (a)
 - (1) The North American Industry classification System (NAICS) code for this acquisition is 237310.
 - (2) The small business size standard is **\$31,000,000**.
 - (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b)
 - (1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (c) of this provision applies.
 - (2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (c) of this provision instead of completing the corresponding individual representations and certification in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:
 - (i) Paragraph (c) applies.
 - (ii) Paragraph (c) does not apply and the offeror has completed the individual representations and certifications in the solicitation.
- (c) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov> . After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR

(End of Section D)

FEDERAL ACQUISITION REGULATION & TRANSPORTATION ACQUISITION REGULATION PROVISIONS

INSTRUCTIONS TO BIDDERS

52.211-4

AVAILABILITY FOR EXAMINATION OF SPECIFICATIONS NOT LISTED IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND COMMERCIAL ITEM DESCRIPTIONS (JUN 1988)

The specifications cited in this solicitation are not available for distribution. However, they may be examined at the following location(s):

FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
21400 RIDGETOP CIRCLE
STERLING, VIRGINIA 20166-6511

Send an email to the following address to make an appointment: eflhd.contracts@fhwa.dot.gov

TIME(S) FOR VIEWING: 8 A.M. TO 4 P.M.

All documents are available for direct download from the following website:
www.efl.fhwa.dot.gov/procurement/procurement.htm

(End of Provision)

52.216-1

TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a **firm-fixed-price** contract resulting from this solicitation.

(End of Provision)

52.233-2

SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
21400 RIDGETOP CIRCLE
STERLING, VIRGINIA 20166-6511

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of Provision)

52.236-27

SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged by contacting: **SEE CONTINUATION OF SF 1442, BLOCK 9.**
(End of Provision)

(End of Section E)

FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

SOCIOECONOMIC PROGRAM REQUIREMENTS

52.219-4

Notice of Price Evaluation Preference for HUBZone Small Business Concerns.

(Oct 2004)

(a) *Definition.* HUBZone small business concern, as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) *Evaluation preference.*

(1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except—

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer. These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) *Waiver of evaluation preference.* A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

Offer elects to waive the evaluation preference.

(d) *Agreement.* A HUBZone small business concern agrees

that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a non-manufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants;

(f) A HUBZone small business concern non-manufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

(End of clause)

FAR SUBPART 22.9 NONDISCRIMINATION BECAUSE OF AGE (FEB 96)

22.901 Policy. Executive Order 11141, February 12, 1964 (29 CFR 2477), states that the Government policy is as follows:

(a) Contractors and subcontractors shall not, in connection with employment, advancement, or discharge of employees, or the terms, conditions, or privileges of their employment, discriminate against persons because of their age except upon the basis of a bona fide occupational qualification, retirement plan, or statutory requirement.

(b) Contractors and subcontractors, or persons acting on their behalf, shall not specify in solicitations or advertisements for employees to work on Government contracts, a maximum age limit for employment unless the specified maximum age limit is based upon a bona fide occupational qualification, retirement plan, or statutory requirement.

(c) Agencies will bring this policy to the attention of contractors. The use of contract clauses is not required.

(End of Policy Statement)

52.222-23

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction (Feb 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade	Goals for Female Participation for Each Trade
<p style="text-align: center;">8.3% <i>Buncombe</i></p> <p style="text-align: center;">&</p> <p style="text-align: center;">6.3% <i>Yancey</i></p>	<p style="text-align: center;">6.9%</p>

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the *Federal Register* in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on

(1) its implementation of the Equal Opportunity clause,

(2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and

(3) its efforts to meet the goals.

The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

(1) Name, address, and telephone number of the subcontractor;

(2) Employer's identification number of the subcontractor;

(3) Estimated dollar amount of the subcontract;

(4) Estimated starting and completion dates of the subcontract; and

(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is as follows:

Buncombe & Yancey County,
North Carolina

(End of Provision)

52.225-9

Buy American Act-Construction Materials.
(Jan 2005)

(a) *Definitions.* As used in this clause-

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site pre-assembled from articles, materials, or supplies. However,

emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

“Cost of components” means-

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

“Domestic construction material” means-

(1) An un-manufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which non-availability determinations have been made are treated as domestic.

“Foreign construction material” means a construction material other than a domestic construction material.

“United States” means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference.

(1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:

NONE

[Contracting Officer to list applicable excepted materials or indicate “none”]

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that-

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including-

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data*. To permit evaluation of requests under paragraph 2 of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison			
Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
<i>Item 1:</i>			
Foreign construction material			
Domestic construction material			
<i>Item 2:</i>			
Foreign construction material			
Domestic construction material			
[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.] [Include other applicable supporting information.] [* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]			

(End of Clause)

(End of Section F)

MINIMUM WAGE SCHEDULE

U.S. Department of Labor
Employment Standards Administration
Wage and Hour Division

GENERAL DECISION: NC20030011 NC11

Date: June 13, 2003

General Decision Number: **NC20030011**

Superseded General Decision No. NC020011

State: North Carolina

Construction Type: HIGHWAY

County(ies):

ALAMANCE	DURHAM	ORANGE
ALEXANDER	FORSYTH	RANDOLPH
BUNCOMBE	FRANKLIN	ROWAN
BURKE	GASTON	STOKES
CABARRUS	GUILFORD	UNION
CATAWBA	LINCOLN	WAKE
CUMBERLAND	MECKLENBURG	YADKIN
DAVIDSON	NEW HANOVER	
DAVIE	ONslow	

HIGHWAY CONSTRUCTION PROJECTS (does not include tunnels, building structures in rest area projects, railroad construction, and bascule, suspension and spandrel arch bridges, bridges designed for commercial navigation, and bridges involving marine construction, and other major bridges).

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):

ALAMANCE	DURHAM	ORANGE
ALEXANDER	FORSYTH	RANDOLPH
BUNCOMBE	FRANKLIN	ROWAN
BURKE	GASTON	STOKES
CABARRUS	GUILFORD	UNION
CATAWBA	LINCOLN	WAKE
CUMBERLAND	MECKLENBURG	YADKIN
DAVIDSON	NEW HANOVER	
DAVIE	ONslow	

SUNC3002A 02/12/1990

	Rates	Fringes
CARPENTER	7.63	
CONCRETE FINISHER	7.52	

ELECTRICIAN	10.26
IRONWORKERS (Reinforcing)	9.76
LABORER	
Comman	5.33
Asphalt Lay Down Man	5.60
Asphalt Raker	6.14
Form Setter (Road)	8.57
Mason (Brick, Block, Stone)	7.44
Pipe Layer	6.23
Power Tool Operator	8.28
POWER EQUIPMENT OPERATORS:	
Asphalt Distributor	6.78
Asphalt Paver	7.47
Bulldozer	7.33
Bulldozer (utility)	6.72
Concrete Curb Machine	7.09
Concrete Finishing Machine	7.85
Concrete Paver	6.90
Crane, Backhoe, Shovel, & Draglne (over 1 yd.)	8.16
Crane, Backhoe, Shovel, & Dragline (1 yd. & under)	6.95
Drill Operator	7.34
Grade Checker	5.45
Gradeall	8.38
Greaseman	6.49
Loader	7.09
Mechanic	8.47
Motor Grader (Fine Grade)	8.04
Motor Grader (Rough Grade)	7.68
Oiler	5.88
Roller (Finisher)	6.70
Roller (Rough)	5.65
Scraper	6.63
Screed Asphalt	7.09
Stone Spreader	6.02
Stripping Machine Operator	6.00
Subgrade Machine	7.13
Sweeper	5.80
Tractor (Utility)	5.47
TRUCK DRIVERS:	
Trucks - Single Rear Axle	5.42
Trucks - Multi Rear Axle	6.08
Trucks - Heavy Duty	9.47

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

 In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
 - * a survey underlying a wage determination
 - * a Wage and Hour Division letter setting forth a position on a wage determination matter
 - * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
 Wage and Hour Division
 U. S. Department of Labor
 200 Constitution Avenue, N. W.
 Washington, D. C. 20210

- 2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
 U.S. Department of Labor
 200 Constitution Avenue, N. W.
 Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

- 3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board

U. S. Department of Labor
 200 Constitution Avenue, N. W.
 Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.
 END OF GENERAL DECISION

GENERAL DECISION: NC20030010 NC10

Date: June 13, 2003

General Decision Number: **NC20030010**

Superseded General Decision No. NC020010

State: North Carolina

Construction Type: HIGHWAY

County(ies):

ALLEGHANY	GRANVILLE	PASQUOTANK
ANSON	GREENE	PENDER
ASHE	HALIFAX	PERQUIMANS
AVERY	HARNETT	PERSON
BEAUFORT	HAYWOOD	PITT
BERTIE	HENDERSON	POLK
BLADEN	HERTFORD	RICHMOND
BRUNSWICK	HOKE	ROBESON
CALDWELL	HYDE	ROCKINGHAM
CAMDEN	IREDELL	RUTHERFORD
CARTERET	JACKSON	SAMPSON
CASWELL	JOHNSTON	SCOTLAND
CHATHAM	JONES	STANLY
CHEROKEE	LEE	SURRY
CHOWAN	LENOIR	SWAIN
CLAY	MACON	TRANSYLVANIA
CLEVELAND	MADISON	TYRRELL
COLUMBUS	MARTIN	VANCE
CRAVEN	MCDOWELL	WARREN
CURRITUCK	MITCHELL	WASHINGTON
DARE	MONTGOMERY	WATAUGA
DUPLIN	MOORE	WAYNE
EDGECOMBE	NASH	WILKES
GATES	NORTHAMPTON	WILSON
GRAHAM	PAMLICO	YANCEY

HIGHWAY CONSTRUCTION PROJECTS (does not include Tunnels, Building Structures in rest area projects, Railroad Construction, and Bascule/Suspension/Spandrel Arch Bridges, Bridges designed for Commercial Navigation, and Bridges involving marine construction, and other major bridges).

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):

ALLEGHANY	GRANVILLE	PASQUOTANK
ANSON	GREENE	PENDER
ASHE	HALIFAX	PERQUIMANS
AVERY	HARNETT	PERSON
BEAUFORT	HAYWOOD	PITT
BERTIE	HENDERSON	POLK
BLADEN	HERTFORD	RICHMOND
BRUNSWICK	HOKE	ROBESON
CALDWELL	HYDE	ROCKINGHAM
CAMDEN	IREDELL	RUTHERFORD
CARTERET	JACKSON	SAMPSON
CASWELL	JOHNSTON	SCOTLAND
CHATHAM	JONES	STANLY
CHEROKEE	LEE	SURRY
CHOWAN	LENOIR	SWAIN
CLAY	MACON	TRANSYLVANIA
CLEVELAND	MADISON	TYRRELL
COLUMBUS	MARTIN	VANCE
CRAVEN	MCDOWELL	WARREN
CURRITUCK	MITCHELL	WASHINGTON
DARE	MONTGOMERY	WATAUGA
DUPLIN	MOORE	WAYNE
EDGECOMBE	NASH	WILKES
GATES	NORTHAMPTON	WILSON
GRAHAM	PAMLICO	YANCEY

SUNC3001A 02/12/1990

	Rates	Fringes
CARPENTER	7.71	
CONCRETE FINISHER	7.64	
IRONWORKER (Reinforcing)	9.27	
LABORER		
Comman	5.42	
Asphalt Raker	6.32	
Form Setter (Road)	6.90	
Mason (Brick, Block, Stone)	7.76	
Pipe Layer	5.90	
Power Tool Operator	6.53	
POWER EQUIPMENT OPERATORS:		
Asphalt Distributor	6.57	
Asphalt Paver	7.00	
Bulldozer	7.21	
Bulldozer (utility)	6.00	
Concrete Finishing Machine	9.48	
Concrete Grinder	8.13	
Crane, Backhoe, Shovel, & Dragline (Over 1 yd.)	8.53	
Crane, Backhoe, Shovel, & Dragline (1 yd. & under)	6.91	

Drill Operator	7.65
Grade Checker	5.15
Greaseman	6.43
Hydroseeder	7.00
Loader	6.85
Mechanic	8.27
Milling Machine	8.00
Motor Grader (Fine Grade)	8.01
Motor Grader (Rough Grade)	7.42
Oiler	5.80
Piledriver	11.00
Roller (Finish)	6.32
Roller (Rough)	5.43
Scraper	6.41
Screed Asphalt	6.33
Stone Spreader	5.88
Stripping Machine Operator	6.00
Subgrade Machine	9.00
Sweeper	5.64
Tractor (utility)	6.15

TRUCK DRIVERS:

Single Rear Axle Trucks	5.15
Multi Rear Axle Trucks	5.48
Heavy Duty trucks	5.50
Welder	9.07

 Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
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 - * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

GENERAL CONTRACT REQUIREMENTS

52.223-3

Hazardous Material Identification and Material Safety Data. (Jan 1997) Alt I (Jul 1995)

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None")	Identification No.
NONE	

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered non-responsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations

(including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to-

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with paragraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in paragraph (b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document, which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

(End of Clause)

52.223-9

**Estimate of Percentage of Recovered Material Content
for EPA-Designated Products.
(AUG 2000)**

(a) Definitions. As used in this clause— “Post consumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Post consumer material is a part of the broader category of “recovered material.” “Recovered material” means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material used in contract performance, including, if applicable, the percentage of post consumer material content; and

(2) Submit this estimate to:

**Contracting Officer
Eastern Federal Lands Highway Division
21400 Ridgeway Circle
Sterling, VA 20166.**

(End of Clause)

52.248-3 -- Value Engineering – Construction.

As prescribed in [48.202](#), insert the following clause:

Value Engineering -- Construction (Feb 2000)

(a) *General.* The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP’s) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP’s, in accordance with paragraph (f) below.

(b) *Definitions.* “Collateral costs,” as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

“Collateral savings,” as used in this clause, means those measurable net reductions resulting from a VECP in the agency’s overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

“Contractor’s development and implementation costs,” as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

“Government costs,” as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

“Instant contract savings,” as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor’s development and implementation costs, including subcontractors’ development and implementation costs (see paragraph (h) below).

“Value engineering change proposal (VECP)” means a proposal that --

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change-

- (i) In deliverable end item quantities only; or
- (ii) To the contract type only.

(c) *VECP preparation.* As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (c)(1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item’s function or characteristics are being altered, and the effect of the change on the end item’s performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP.

The cost reduction associated with the VECP shall take into account the Contractor’s allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) *Submission.* The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) *Government action.*

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it will not be liable for any delay in acting upon a VECP.

(2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

(3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) *Sharing --*

(1) *Rates.* The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by --

- (i) 45 percent for fixed-price contracts; or
- (ii) 75 percent for cost-reimbursement contracts.

(2) *Payment.* Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to --

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) *Collateral savings.* If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) *Subcontracts.* The Contractor shall include an appropriate value engineering clause in any subcontract of \$50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; *provided*, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) *Data.* The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

These data, furnished under the Value Engineering -- Construction clause of contract DTFH71-07-C-000XX, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations.

(End of Section G)

FEDERAL ACQUISITION REGULATION AND TRANSPORTATION ACQUISITION REGULATION CLAUSES

CONSTRUCTION CONTRACT REQUIREMENTS

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within (**SEE SF 1442, BLOCK 11 FOR NUMBER OF DAYS**) calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than (**THE TIME INDICATED IN THE CONTINUATION OF THE SF 1442, BLOCK 11**). The time stated for completion shall include final cleanup of the premises. **(End of Clause)**

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEPT 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of (**SEE SUBSECTION 108.04 OF THE FP-96 AND/OR SPECIAL CONTRACT REQUIREMENTS FOR AMOUNT**) for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause. **(End of Clause)**

52.211-18 -- Variation in Estimated Quantity.

As prescribed in [11.703\(c\)](#), insert the following clause in solicitations and contracts when a fixed-price construction contract is contemplated that authorizes a variation in the estimated quantity of unit-priced items:

Variation in Estimated Quantity (Apr 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an

extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified. **(End of Clause)**

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR. (Apr 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least **50** percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government. **(End of Clause)**

52.236-4 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations (**SEE CONTINUATION OF SF 1442, BLOCK 9**).

(b) Weather conditions: **CONTACT LOCAL OFFICE OF NATIONAL WEATHER SERVICE, U.S. DEPARTMENT OF COMMERCE.**

(c) Transportation facilities: **N/A**

(d) Other Information: **SEE CONTINUATION OF SF 1442, BLOCK 9.**

(End of Clause)

(End of Section H)

FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
SPECIAL CONTRACT REQUIREMENTS

Project PRA-BLRI 2P14
Blue Ridge Parkway

The following Special Contract Requirements amend and supplement the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-96, (English Units) U.S. Department of Transportation, Federal Highway Administration, Federal Lands Highway.

Section 101.--TERMS, FORMAT, AND DEFINITIONS

101.01. Delete the last paragraph.

101.02. Delete the third and fourth paragraphs and substitute the following:

Division 150 consists of project contract requirements that are applicable to all contracts. Work under Division 150 is paid for directly or indirectly according to Subsection 109.05 and the Section ordering the work. When there is no pay item in the bid schedule, no direct payment is made.

Divisions 200 through 600 consist of construction contract requirements for specific items of work. Work under these Divisions is paid for directly or indirectly according to Subsection 109.05 and the Section ordering the work.

Section 102.--BID, AWARD, AND EXECUTION OF CONTRACT

102.03 (a) Delete the first sentence and substitute the following:

Submit a bid guarantee of 20 percent of the amount of the bid or \$3 million, whichever is less.

102.04. Add the following:

Furnish documentary evidence as to the ownership and value of the assets pledged in support of the bond and details of the security interest in the assets by the individual sureties for the apparent low bidder within 14 calendar days after the opening of bids. Failure to submit evidence within the time required will be grounds for declaring the surety unacceptable.

In addition, the CO may, after reviewing the Affidavit of Individual Surety and documentary information on the security interest and the assets pledged, by certified mail to the surety's business or residence address (as shown on the bond), request the surety to provide further information and/or documents with respect to any of the documents provided. The CO may require such information to be furnished under oath. Failure of the surety to accept such mail, or failure of the surety to respond with the requested information or documents within 7 business days of receipt of the request, will be cause for rejection of the surety.

102.06. Delete the first paragraph including lines (a), (b), and (c), and substitute the following:

102.06 Performance and Payment Bonds. FAR Clause 52.228-15 - Performance and Payment Bonds — Construction is supplemented as follows.

Furnish a performance bond and a payment bond in the penal amounts of 100 percent of the original contract price.

102.06. Add the following after the last paragraph:

Submit the documentary evidence for individual sureties at the same time as the Affidavit of Individual Surety and security interest in assets pledged. A Contractor submitting an unacceptable individual surety in satisfaction of a performance or payment bond before the issuance of the Notice to Proceed will be permitted one opportunity to substitute an acceptable surety or sureties within 7 business days of receipt of notification that the surety is unacceptable.

The Government's right to direct the substitution of sureties to ensure the continuing acceptability of the bonds during the performance of the Contract according to FAR Clause 52.228-2, Additional Bond Security, is not restricted.

Section 103.— SCOPE OF WORK

103.03. Delete the second paragraph and substitute the following:

Before undertaking significant expenditures, provide the CO with a written description of the value engineering change proposal (VECP) concept. Within 14 days, the CO will inform the Contractor as to whether the concept appears to be viable or if the concept is unacceptable. If the CO indicates that the concept appears to be viable, prepare and submit the formal VECP proposal.

103.05. Delete the last sentence of the fourth paragraph and substitute the following:

The Government's share will not exceed \$5,000.

Section 104.--CONTROL OF WORK

104.03 Specifications and Drawings. Delete the entire subsection and substitute the following:

104.03 Specifications and Drawings. FAR Clause 52.236-21 – Specifications and Drawings for Construction is supplemented as follows:

- (a) **General.** Prepare drawings as necessary to adequately construct the work. Drawings include, but are not limited to, layouts that show the relative position (vertical and horizontal, as appropriate) of work to be performed, fabrication details for manufactured items and assemblies, installation and erection procedures, details of post-tensioning and other systems, detailed trench and excavation procedures that conform to OSHA requirements, traffic control implementation drawings, and methods for performing work near existing structures or other areas to be protected. Show all the drawing dimensions in English units.

Limit drawings to a maximum size of 24 by 36 inches. Include on each drawing and calculation sheet, the project number, name, and other identification as shown in the contract.

Furnish 5 sets of drawings and supporting calculations for acceptance before performing work covered by the drawings. If drawings are returned for revision, correct and resubmit for acceptance. Allow 40 days per submission for railroad structures and 30 days per submission for all other structures. If drawings must be resubmitted, the time for acceptance starts over. Obtain prior written approval for changes or deviations from accepted drawings.

(b) Specific requirements for concrete and miscellaneous structures. Drawings will be reviewed in the order they are received. The review time as specified in (a) above is applied separately to each drawing submitted. The CO may request additional specific drawings for unique situations in order to clarify layout, construction details, or methodology.

Furnish drawings for the following:

- (a) Site-specific layouts for all wall types and gabion installations.
- (b) Forms and falsework for reinforced concrete box culverts less than or equal to 6 feet in height.
- (c) Fabrication and installation drawings for precast items

(c) As-built working drawings. Furnish 2 sets of as-built working drawings. The Government will provide 2 sets of contract drawings to be used exclusively for recording the as-built details of the project.

Keep the as-built working drawings current on a weekly basis and have at least 1 set available on the jobsite at all times. Accurately and neatly record changes from the contract plans, which are made in the work, or additional information, which might be uncovered in the course of construction, as they occur by means of details and notes. Maintain a log of all changes made to the as-builts, and monthly, at the estimate cutoff date, make the as-builts and log available for review by the CO.

Note all additions or revisions to the location, character, and dimensions of the prescribed work shown on the contract drawings. Line out all details shown that are not applicable to the completed work. Use the red-line process (red pencil or red ink) to record on the working and final as-built drawings, as a minimum, but not limited to, the information described below:

(1) Typical section(s)

- (a) Revisions in dimensions; and
- (b) Revisions in materials.

(2) Plan and profile

- (a) Plan

- (1) Revisions to the alignment;
- (2) Changes in the construction limits;
- (3) Revisions in location, type, and grade of road approaches;
- (4) Location and type of utilities;
- (5) Location, size, and type of underdrains;
- (6) Skew of culverts;
- (7) Channel changes;
- (8) Location of monuments and permanent references;
- (9) Elevations for all aerial and underground crossings of utilities; and
- (10) Location, length, and type of fencing.

(b) Profile

- (1) Revisions to grades, elevations, and stationing of intersection PIs;
- (2) Equations;
- (3) Culvert diameter, length, type, and stationing;
- (4) Length of culvert extension. and length of existing culvert;
- (5) Location, length, stationing, and type of retaining walls; and
- (6) Location, length, stationing, and end treatment of guardrail.

(3) Bridge

- (a) Stationing of bridge ends;
- (b) Elevations including footing, bearing pads, deck, and top of walls;
- (c) Pile driving record with pile length, size, type, and tip elevation;
- (d) Post-tensioning records including stressing sequence, jacking force, and duct size & layout;
- (e) Construction and concrete placement sequences;

- (f)* Bearing details with orientation;
 - (g)* Expansion joints including actual clearance with atmospheric temperature;
 - (h)* Any changes in plan or dimensions including any major changes in reinforcing.
- (4)** Miscellaneous
- (a)* Revisions to parking areas or turnouts;
 - (b)* Final location, type and length of curbs, sidewalks, etc.;
 - (c)* Fencing type and limits; and
 - (d)* Landscaping and planting
- (5)** Special Contract Procedures
- (a)* Method of excavation, concrete placement, girder erection, structure repairs, etc

Prepare final as-built drawings after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The as-built working drawings and final as-built drawings will be jointly reviewed for accuracy and completeness by the CO and the Contractor prior to submission of each monthly pay estimate.

If the monthly review finds that the Contractor is not maintaining the as-builts, payment of the Contractor's invoice will be withheld until the as-builts are brought up to date.

Furnish the as-built working drawings to the CO before the final inspection. Correct all details found during the final inspection that are not shown on the as-built drawings and return to the CO within 5 working days for approval.

No direct payment will be made for maintaining and furnishing as-built working drawings.

104.05. Add the following:

When hauling on National Park Service roads, do not exceed the following load restrictions:

<u>Single Units</u>	<u>Gross Vehicle Weight - lb</u>
2 axles	40,000
3 axles	48,000
4 or more axles	52,000
<u>Combination Units</u>	
3 axles	57,000
4 axles	62,000
5 or more axles	66,000

Where the ground is saturated with water or during periods of freezing and thawing, the CO may impose further load restrictions or suspend hauling.

Operate loaded vehicles hauling material at speeds not exceeding 40 mph and spaced at 500 feet minimum intervals. Do not exceed 25 mph or operate more than one loaded hauling vehicle at one time on a bridge.

Section 105.--CONTROL OF MATERIAL

105.01. Add the following:

If any material is to be excavated from any material source outside the construction limits, other than commercially operated sites, before work begins provide a certification from the State Historic Preservation Officer stating (1) that a cultural resource survey (a survey for historical sites and archeological remains) has been performed at the proposed site, and (2) that no significant cultural resources exist in the area that will be disturbed by the Contractor.

Section 106.--ACCEPTANCE OF WORK

106.01. Delete the fourth sentence of the fifth paragraph and substitute the following:

If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance.

106.03 Certification. Add the following after the first paragraph:

Other than references in, or to the FAR or Federal Law, when this contract references certifications; certificates; or certified document, equipment or individuals; these references are not certifications within the meaning of Section 4301 of Public Law 104-106, the National Defense Authorization Act for Fiscal Year 1996. These references simply refer to documentation of peripheral contract requirements, which is required to be validated by an individual or organization having unique knowledge or qualifications to perform such validation.

106.03(a) Production certification. Delete items (2) through (5) and substitute the following:

(2) Lot number or other means of cross-referencing to the manufacturer's inspection and testing system

(3) Substantiating evidence that the material conforms to the contract quality requirements as required by FAR 46.105(a)(4), including all of the following:

(a) Test results on material from the same lot and documentation of the inspection and testing system

(b) Manufacturer's statement that the material complies with all contract requirements

(c) Manufacturer's signature or other means of demonstrating accountability for the certification

Section 107.--LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

107.01. Add the following:

Permits such as the following may be required for this project:

1. Water Quality Permit
2. Disposal Permit or Agreement

This list of permits may not be all inclusive of those required for construction. No time or damages, including impact damages, will be allowed for failure to obtain necessary permits or agreements. Provide copies of these permits and agreements upon request.

107.02. Add the following after the third paragraph:

For the full duration of construction, protect the existing trees that are tagged by the CO in the following manner:

- (a) Install and maintain a 4 feet high orange construction fence with steel posts around the perimeter of the root protection area. The root protection area is defined as an area equal to 10 feet outside the dripline.

- (b) All construction which takes place within the root protection area must be approved by the CO. Do not store or locate construction materials, vehicles, staging areas, topsoil, disposal areas, or trailers within the root protection area. Protect the area from potentially harmful materials from run-off or spillage, flooding, erosion, and sedimentation.
- (c) Remove all tree protection prior to final acceptance.
- (d) Make restitution for the introduction of any exotic vegetation introduced into the park through careless use of unclean turf establishment equipment. The amount of restitution will be based on the number of man hours required to remove the vegetation at \$20.00 per man hour.

107.02. Add the following after the sixth paragraph:

Notify the CO in writing at least 48 hours in advance of any scheduled utility shutdown.

107.05. Add the following after the second paragraph:

Submit all claims to the insurance company for investigation, regardless of deductible. Provide the results of any investigations and subsequent actions to the CO within 1 week of receipt from the insurance company.

107.10. Add the following:

Store all temporary inorganic or construction and demolition materials in a gathered or piled manner that will readily accommodate removal, and will not create fluid or additional waste removal problems. Store temporary waste material to make a full truckload/container, in a designated temporary storage site approved by the CO. Remove extensive construction and demolition waste material at the time of generation, or at such time that is prudent and practical, in order to prevent large build-up of waste material.

Limit disturbance to existing open areas, or previously disturbed areas, including road shoulders, as approved by the CO. Follow existing trails and openings for any disturbance corridors, where possible, including roadway shoulders. Locate the waterline between Craggy Garden's Visitor Center and the Craggy Dome parking area prior to work in order to avoid disturbance or conflict.

Place portable toilets, store fuel or other equipment liquids, and only allow long term equipment parking, outside the limits of the Asheville Watershed (watershed limits include plan stations 359/39+00 to 370/15+00). Use extra caution if equipment is refueled within the watershed. Provide a Hazmat Spill Kit for availability at all times within the limits of the Asheville Watershed. Maintain sanitation facilities regularly and properly secure them to prevent turnover.

Pay particular attention to erosion control design and construction and inclusion of work restrictions in the specification because much of this project is within the Asheville Watershed. This project is located in the Asheville Watershed, plan stations 359/39+00 to 370/15+00. Prevent construction generated sediment runoff or debris to leave the job site.

Section 108.--PROSECUTION AND PROGRESS

108.01. Delete the first sentence of the second paragraph and substitute the following:

A preconstruction conference will be held after the contract is awarded and before beginning work.

108.01. Add the following:

Construction operations are limited as follows:

Perform pavement milling, patching, and placement on the Blue Ridge Parkway, only during the period from April 1st to October 1st.

Construct headwalls and repoint stone masonry on any portion of the project, only during the period from April 1st to December 1st.

Stagger overlook construction work so that no two adjacent overlooks are closed at the same time.

Complete no project work on National legal holidays. Complete no Parkway work during fall foliage (the entire month of October). Complete work on pull-offs and parking areas during fall foliage with approval from the CO. Close the Craggy Garden's Picnic Area Access Road at Sta. 19+15, between November 1st and May 20th, if needed during the construction of improvements to this roadway. Open the Access Road and Picnic Parking Area to the public for weekend use (Friday 3:00 PM through Monday 6:00 AM) between May 21st and July 15th. Complete Access Road and Picnic Parking Area construction activities by July 15th.

Complete work at MP 361/40+00±, MP 362/41+00±, and MP 363/21+50±, between Monday 6:00 AM and Friday 12:00 (noon), through the installation of the SACP binder course. Construct only one of these areas at a time.

Remove only an amount of pavement that can be replaced in a work day unless the CO has approved a temporary traffic signal. Provide temporary traffic signals for situations where binder course has not been placed for removed pavement in reconstruction areas. Place the binder course within two days of exposing an area to pavement removal. Remove pavement on days when rain is not in the forecast.

Complete all parking area stone work prior to pavement work on any parking areas.

Complete construction activities on the Craggy Garden's Picnic Area Access and the Craggy Garden's Picnic Parking Area during daylight hours only (no night time construction activities due to the presence of an endangered species). Complete night time construction on the Blue Ridge Parkway, if needed, except for placing the final SACP wearing course.

Locate the Contractor project trailer outside the limits of the Blue Ridge Parkway right-of-way.

Establish staging areas and parking areas for personal vehicles in parking overlooks. Access the project area from Craven Gap, Bull Gap, and Route 70. Stockpile all unused stone from stone replacement at the NPS Oteen Maintenance Area at MP 382.2. Stage materials and vehicles at overlooks and parking areas approved by the CO.

Haul directly from the nearest point of public access to the work site. Minimize hauling on National Park Service roads. Minimize hauling over completed pavement. Enter the Blue Ridge Parkway at the point of access nearest the work site.

Repair damage to the roadway or other government property to the satisfaction of the CO at no cost to the government.

Locate Contractor and EFLHD project trailer outside of Blue Ridge Parkway ROW. Use overlooks and parking areas for staging of materials, as approved by the CO.

Place the asphalt concrete wearing surface course on the Blue Ridge Parkway, only after all base courses have been placed for the entire length of the project for all awarded schedules and options. Minimize hauling over completed pavement.

Begin paving operations at the furthest location from the asphalt plant and proceed towards the plant.

Limitations of operations for temporary traffic control are specified in Subsection 156.06.

108.04. Delete Table 108-1 and substitute the following:

**Table 108-1
Charge for Liquidated Damages for Each Day
Work is Not Substantially Completed**

Original Contract Price		Daily Charge
From More Than--	To and Including--	
\$0	\$1,000,000	\$500
\$1,000,000	\$2,000,000	\$1,100
\$2,000,000	\$5,000,000	\$2,200
\$5,000,000	\$10,000,000	\$2,700
\$10,000,000	and more	\$3,300

Section 109.--MEASUREMENT AND PAYMENT

109.01. Add the following after the third paragraph:

Submit measurement notes to the CO within 24 hours of performing the work. For on-going work, submit measurement notes weekly. When work is not complete, identify the measurement as being an interim measurement. Submit the final measurement when the installation is completed. Measurement notes form the basis of the Government's receiving report (see Subsection 109.08(d)). For lump sum items, submit documentation to support invoiced progress payment on a monthly basis.

Use an acceptable format for measurement records. As a minimum, include the following information in all records of measurement:

- (a) Project name and number
- (b) Contract item number
- (c) Date the work was performed
- (d) Location of the work
- (e) Measured quantity
- (f) Calculations made to arrive at the quantity
- (g) Supporting sketch and/or details as needed to clearly define the work performed and the quantity measured
- (h) Names of persons measuring the work
- (i) Identification as to whether the measurement is interim or final
- (j) Signed certification statement by the persons taking the measurements, performing the calculations, and submitting them for payment that the measurement and calculations are correct to the best of their knowledge and that the quantity being measured is subject to direct payment for the identified item under the contract

109.06(a)(3) Cost or pricing data. Delete the third paragraph and substitute the following:

Submit with the cost or pricing data a written proposal for pricing the work according to (1) above. See Table 15-2 following FAR Subpart 15.4 for guidance.

109.07. Delete the last sentence of the last paragraph.

109.08. Delete the text of this Subsection and substitute the following:

109.08 Progress Payments. FAR Clauses 52.232-5 - Payments under Fixed-Price Construction Contracts and 52.232-27 - Prompt Payment for Construction Contracts are supplemented as follows.

- (a) **General.** Only invoice payments will be made under this contract. Invoice payments include progress payments made monthly as work is accomplished and the final payment made upon final acceptance. Only one progress payment will be made each month. No

progress payment will be made in a month when the work accomplished results in a net payment of less than \$1,000. Full or partial progress payment will be withheld until a construction schedule or schedule update is submitted to and accepted by the CO.

(b) Closing date and invoice submittal date. The closing date for progress payments will be designated by the CO. Include work performed after the closing date in the following month's invoice. Submit invoices to the designated billing office by the 7th day after the closing date. Invoices received by the designated billing office after the 16th day following the closing date will not be accepted for payment processing that month. Include late, unprocessed invoice submittals in the following month's invoice.

(c) Invoice requirements. Submit the invoice to the government's designated billing office.

The designated billing office is:

Federal Highway Administration
Eastern Federal Lands Highway Division
Loudoun Tech Center
21400 Ridgetop Circle
Room 200
Sterling, Virginia 20166-6511

Include the following items in the invoice:

- (1) The information required in FAR Clause 52.232-27(a)(2)(i) through (a)(2)(x).
- (2) A tabulation of total quantities and unit prices of work accomplished or completed on each pay item as of the monthly closing date. Do not include any quantities unless field note documentation for those quantities was submitted by the closing date. Do not include any work involving material for which test reports required under Sections 153 or 154 or certifications required by Subsection 106.03 are past due as of the closing date.
- (3) The certification required by FAR Clause 52.232-5(c) and, if applicable, the notice required by FAR Clause 52.232-5(d). Provide an original signature on the certification. Facsimiles are not acceptable.
- (4) If applicable, a copy of the notices that are required by FAR Clause 52.232-27(e)(5) and (g).
- (5) The amount included for work performed by each subcontractor under the contract.
- (6) The total amount of each subcontract under the contract.
- (7) The amounts previously paid to each subcontractor under the contract.

(8) Adjustments to the proposed total payment which relate to the quantity and quality of individual items of work. Adjustments for the following may be made by the Government after validation of the invoice:

- (a) Retent resulting from a failure to maintain acceptable progress.
- (b) Retent resulting from violations of the labor provisions.
- (c) Retent pending completion of incomplete work, other "no pay" work, and verification of final quantities.
- (d) Obligations to the Government such as excess testing cost or the cost of corrective work pursuant to FAR Clause 52.246-12(g).
- (e) Liquidated damages for failure to complete work on time.

(d) Government's receiving report. The Government's receiving report will be developed using the measurement notes received and accepted by the CO. Within 4 days after the closing date, the CO will be available by appointment at the Government's designated billing office to advise the Contractor of quantities and unit prices appearing on the Government's receiving report.

(e) Processing progress payment requests. No payment will be made for work unless field note documentation for the work was provided by the closing date.

(1) Invoices received by the 7th day following the closing date.

(a) Proper invoices. If the invoice meets the requirements of Subsection 109.08(c), and the quantities and unit prices shown on the contractor's invoice agree with the corresponding quantities and unit prices shown on the Government's receiving report, the invoice will be paid.

(b) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08(c), or if any of the quantities or unit prices shown on the contractor's invoice exceed the corresponding quantities and unit prices shown on the Government's receiving report, the invoice will be deemed defective and the Contractor so notified according to FAR Clause 52.232-27(a)(2). Defective invoices will not be corrected by the Government and will be returned to the contractor within 7 days after the Government's designated billing office receives the invoice.

Revise and resubmit returned invoices by the 18th day following the closing date. The CO will evaluate the revised invoice. If the invoice still does not meet the requirements of Subsection 109.08(c), the contractor will be so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the

following month.

If the revised invoice meets the requirements of Subsection 109.08(c), but still has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing by the 23rd day following the closing date. The contractor will be notified by the 23rd day following the closing date of the reasons for any changes to the invoice.

(2) Invoices received between the 8th and 16th day following the closing date.

(a) Proper invoices. If the invoice meets the requirements of Subsection 109.08(c), and the quantities and unit prices shown on the Contractor's invoice agree with the corresponding quantities and unit prices shown on the Government's receiving report, the invoice will be deemed proper and forwarded for processing within 7 days of receipt.

(b) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08(c), the invoice will be deemed defective, the Contractor so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the invoice meets the requirements of Subsection 109.08(c), but has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Government's receiving report, the Government's data for that item of work will be used. The contractor's invoice, as revised by the Government's receiving report, will be forwarded for processing within 7 days after receiving the invoice. The contractor will be notified, within 7 days of the Government's receipt of the invoice, of the reasons for any changes to the invoice.

(f) Partial payments. Progress payments may include partial payment for material to be incorporated in the work, provided the material meets the requirements of the contract and is delivered on or in the vicinity of the project site or stored in acceptable storage places.

Partial payment for material does not constitute acceptance of such material for use in completing items of work. Partial payments will not be made for living or perishable material until incorporated into the project.

Partial payments for material will not exceed the lesser of:

- (a)* 80 percent of the contract bid price for the item, or
- (b)* 100 percent of amount supported by copies of invoices submitted.

The quantity paid will not exceed the corresponding quantity estimated in the contract.

109.09. Delete the first sentence and substitute the following:

FAR Clause 52.232-5—Payment under Fixed-Price Construction Contracts and FAR Clause 52.232-27—Prompt Payment for Construction Contracts are supplemented as follows.

Section 152.--CONSTRUCTION SURVEY AND STAKING

152.02. Add the following:

Furnish a practicable schedule of staking activities with the construction schedule submitted according to Section 155. Include the dates and sequence of each staking activity.

Survey and perform field verification of location and stationing of paved waterway repairs and installations, and drainage schedule items, and submit to CO for approval.

152.03. Delete the text of paragraphs (a), (c), (d), (e), (h), (j), (k), and (m).

152.03**(b)**. Delete this paragraph and substitute the following:

Roadway cross-sections. Take roadway cross-sections normal to centerline. When the centerline curve radius is less than or equal to 500 feet, take cross-sections at a maximum centerline spacing of 25 feet. When the centerline curve radius is greater than 500 feet, take cross-sections at a maximum centerline spacing of 50 feet. Take additional cross-sections at significant breaks in topography and at changes in the typical section. Measure and record points along each cross-section at breaks in topography, but no further apart than 15 feet. Measure and record points to at least the anticipated reconstruction of pavement limits and reference locations. Reduce all cross-section distances to horizontal distances from the centerline and provide cross slope grades between centerline and edge of pavement for each station. Obtain cross-section information necessary to establish the existing superelevation, cross-section and profile grade in order to re-establish the superelevation, cross-section and profile grade for the new pavement section. All cross sections shall reference the existing centerline, edge of pavement, shoulder breaks, etc. Provide information regarding any roadway deficiencies, i.e. dips and humps, identified in the existing roadway and make proposals for correcting such deficiencies.

Correct deficient cross-slopes in areas of mill and overlay operations with a wedge and level binder and surface course as directed by the CO.

152.03**(e)**. Delete the text of this paragraph and substitute the following:

Centerline reestablishment. Reestablish the centerline from instrument control points and stakes set offset from edge of pavement during the survey performed under subsection 152.03(b). The maximum spacing between centerline points is 25 feet when centerline curve radius is less than or equal to 500 feet. When the centerline curve radius is greater

than 500 feet, the maximum distance between centerline points is 50 feet. Reestablish centerline as many times as necessary to construct the work. Obtain the necessary information in order to re-establish the existing alignment and proposed vertical alignment with the new pavement section.

The remarking of project stations prior to construction will be performed by ARCADIS.

152.03(f). Delete the third paragraph and substitute the following:

The maximum longitudinal spacing between stakes is 25 feet when the centerline curve radius is less than or equal to 500 feet. When the centerline curve radius is greater than 500 feet, the maximum longitudinal spacing between stakes is 50 feet. The maximum transverse spacing between stakes is 25 feet. Reset grade finishing stakes as many times as necessary to construct the subgrade and each aggregate course. Use brushes or guard stakes at each stake.

Set finish grade stakes to the top of existing asphalt prior to beginning pavement removal. Submit centerline, both edges of pavement, and stake grades along with offsets prior to beginning pavement removal. Verify with CO if adjustments to grades will be required. Submit all data to CO for approval prior to beginning construction work.

152.03(i). Add the following:

- (6) Traffic control (both permanent and temporary) signs, signals, markings, delineators, etc.
- (7) Paved waterway, curb, and sidewalk.

Section 153.— CONTRACTOR QUALITY CONTROL

153.04. Add the following to the second paragraph:

Detail inspection results including deficiencies observed and corrective actions taken.

Section 154.--CONTRACTOR SAMPLING AND TESTING

154.02. **Sampling.** Delete the last three sentences of the second paragraph and substitute the following:

Deliver the Government's portion of the split sample in a container suitable for shipment. Label all samples with the following information:

- (a) Project number
- (b) Source of material

- (c) Item number
- (d) Sample number
- (e) Date sampled
- (f) Time sampled
- (g) Location sample taken
- (h) Name of person sampling
- (i) Name of person witnessing sampling
- (j) Type of test required on sample

154.03. Add the following:

Furnish test results to the CO immediately after completing the test. The requirements for furnishing test results do not include sample aging or curing time; therefore, reporting times will be extended accordingly.

Submit proposals for using alternate AASHTO or State approved test methods in writing for approval. Alternate methods may be allowed based on documented equivalence to the method specified.

154.04. Add the following:

Report test results on forms containing all sample information required by Subsection 154.02. Label clearly all interim measurements used to determine the results. Attach work sheets used to determine test values to the test result forms when submitted.

On a weekly basis, submit a copy of all current Contractor test results and pay factor calculations based on those tests for items accepted under Subsection 106.05. When large quantities are produced, calculate pay factors as soon as possible. Use this information to make any necessary adjustments to operations to achieve acceptable pay factors. The Government may use the Contractor's test results to determine final pay factors for acceptance according to Subsection 154.05.

Section 155.--SCHEDULES FOR CONSTRUCTION CONTRACTS

155.02. Add the following after the third paragraph:

Weather Delays.

(a) Definitions.

- (1) Reasonably Predictable Weather is defined as the number of workdays that can be expected to be lost in any month due to rainfall based on ten year historical weather data.
- (2) A Rain Day is defined as a potentially lost workday on which rainfall is equal to or greater than 0.10 inch.

- (3) A Drying Day is defined as a work day(s) immediately following a rainfall equal to or greater than 1.00 inch which is potentially lost because of wet ground conditions.
- (4) A Workday is a day not excluded from work by Section 108 of the SCR.

(b) Reasonably Predictable Weather. The Contractor shall determine Reasonably Predictable Weather for this contract by completing Table R1. Data for Table R1 shall be calculated as follows:

- (1) Using the last ten (10) years of historical weather data from the nearest NOAA weather data collection station, compute the average number of workdays lost (rain days plus drying days) for each month and the standard deviation from the average. Add the average number of workdays lost to the standard deviation.
- (2) The Total number of Lost Days (Average Workdays Lost plus one Standard Deviation, rounded to whole days) will be considered normal for each month.
- (3) Submit a completed Table R1 with the initial construction schedule.

(c) Unusually Severe Weather Under FAR Clause 52.249-10, Default (Fixed-Price Construction), the Contractor can request time for a delay due to Unusually Severe Weather. For this contract, Unusually Severe Weather due to rainfall is defined as when the number of Actual Workdays Lost is greater than the calculated Total Lost Days for the month in question.

The number of Actual Workdays Lost is calculated by first totaling the actual Rain Days plus the actual Drying Days occurring in the month in question. From this total, deduct any workdays meeting the following conditions:

- (1) The Rain Day or Drying Day occurred on a non-work weekday such as a holiday.
- (2) Rainfall occurred at a time when no weather dependent work was in progress or occurred during planned or unplanned shutdowns due to other circumstances such as equipment failure, strikes, material supplies, delays, etc.
- (3) The Contractor was still working or able to work on weather dependent activities to the extent that less than 50% of the workday was lost due to weather.

If the net number of Actual Workdays Lost is greater than the Total Lost Days, than Unusually Severe Weather will have occurred in the month in question.

(d) Time Adjustments for Rain Delays If the net number of Actual Workdays Lost to rain is less than the Total Lost Days for the month in question, no time adjustments will be made. If the net number of Actual Workdays Lost is more, then an excusable time extension may be granted. The Contractor must submit a Weather Time Impact Analysis supporting any alleged delays due to Unusually Severe Weather.

(e) Delays Due To Other Weather Conditions Delays due to other unusually severe weather conditions (snow, extreme cold or heat, high winds, etc.) must be supported with a Weather Time Impact Analysis using historical weather data.

155.02. Add the following to the fourth paragraph:

No progress payment will be made for any work until a construction schedule is submitted to the CO and accepted by the CO.

155.02. Delete the last paragraph and substitute the following:

The Construction Contract Time shown on the construction schedule for contract completion or for any interim completion dates shall be the calendar dates established in the contract.

155.04. Add to the first paragraph:

For a computer-generated CPM, use Primavera software or software that is file-compatible with Primavera.

155.06. Add the following:

No progress payment will be made for any work until an updated construction schedule has been submitted to and accepted by the CO.

155.09. Add the following:

See Subsection 109.08.

TABLE R1

Project Number _____

Location of NOAA Data Collection Station _____

Data Years (10 year history): 19__ through 20__

REASONABLY PREDICTABLE WEATHER

MONTH	AVERAGE WORKDAYS LOST	STANDARD DEVIATION	TOTAL LOST DAYS
JANUARY			
FEBRUARY			
MARCH			
APRIL			
MAY			
JUNE			
JULY			
AUGUST			
SEPTEMBER			
OCTOBER			
NOVEMBER			
DECEMBER			

Section 156.--PUBLIC TRAFFIC

156.03. Add the following to the first paragraph:

Notify the CO at least 3 weeks prior to beginning lane closure operations.

156.04(c). Delete and substitute the following:

(c) Snow removal to facilitate the work is the Contractor's responsibility. Snow removal to provide public access is the responsibility of the maintaining agency and will be performed at the maintaining agency's discretion. Allow the maintaining agency access to perform snow removal.

156.04. Add the following:

- (f) Ensure that all drains and inlets within the project limits are fully functional throughout the duration of the project.

156.05. Delete the second sentence and substitute the following:

Snow removal to provide public access is the responsibility of the maintaining agency.

156.06(e). Add the following:

Use an existing parking area within the project limits for a staging area, as designated by the CO at the Preconstruction Conference. Stage equipment and materials outside the limits of the Blue Ridge Parkway from MP 359.7 to MP 370.3 (no staging will be allowed from MP 359.7 to MP 370.3). Limit construction equipment and personal vehicle parking to designated areas along the Parkway, and any parking and pull-off areas designated by the CO. Park or operate construction equipment or personal vehicles outside the limits of the roadway travel lanes (outside the edge of pavement).

Clean and restore any overlooks, pull-offs, or parking areas, including mill and overlay of the parking surface, and repair of any stone curb and sidewalk, at the completion of the project, if damaged by the Contractor's staging operations, at no cost to the Government.

156.06(h). Add the following:

Provide the maximum allowable length of lane closure as controlled by flaggers and pilot cars, in accordance with the MUTCD, current edition.

156.06. Add the following paragraph after paragraph (j):

- (k) Maintain existing guardrails until removal is necessary for construction. Use a temporary barrier, or other appropriate shielding or warning device while the guardrails are absent. Install new guardrails as soon as possible to minimize risk to the public.
- (l) Maintain reduced traffic speeds of 25 mph in construction zones.
- (m) Provide a maximum of 4 separate traffic control operations (ie. one lane closures with flaggers and shoulder closures) at any one time. Provide a minimum distance between concurrent traffic control operations of 5000 feet.
- (n) Complete pavement milling (use fine milling heads) throughout the week, but the length of this construction operation is limited to what can be paved by 12:00 (noon) on Friday. Pavement reconstruction work limits are restricted by the weather and by the length of a pavement section that the contractor can reconstruct within two days. Remove pavement on days when rain is not in the forecast.

156.07. Add the following:

Night time operations on the Parkway mainline are permitted except for placing the final SACP wearing course. Night time is defined as sunset to sunrise.

156.08. Delete the second sentence of the first paragraph and add the following:

The traffic safety supervisor may be the superintendent.

Section 157.-- SOIL EROSION CONTROL

157.04 Controls and Limitations on Work. Delete paragraphs (c) and (d) and substitute the following:

(c) Unless a specific seeding season is identified in the contract, apply permanent turf establishment to the finished slopes and ditches within 14 days according to Sections 624 and 625.

(d) Apply temporary turf establishment or other approved measures on disturbed areas within 14 days after last disturbance, except where the area will be redisturbed within 21 days after last disturbance or when initial stabilization is precluded by snow cover or by seasonal arid conditions in arid or semi-arid areas (average annual rainfall of 20 in or less).

157.04. Add the following:

(i) Construct inlet protection at all inlets downstream of land disturbing activity, or as directed by the CO, prior to the work.

157.15. Add the following:

Measure inlet protection by the each.

Measure mulch by the ton.

157.16. Add the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
15716 Inlet Protection, type _____	Each
15719C Temporary Mulch	Ton

Section 203.—REMOVAL OF STRUCTURES AND OBSTRUCTIONS

203.01. Add the following:

This work also consists of plugging retained pipe culverts affixed to drainage structures and/or pipe culverts to be removed.

203.03. Add the following:

Pipe Plugging. Plug all designated pipes shown in the plans or as directed by the CO, with concrete conforming to Section 601. Provide a minimum 12-inch deep plug in order to prevent water infiltration into remaining pipe. Use a non-shrinking concrete or grout that will provide an impermeable barrier against water infiltration upon curing.

203.05. Add the following after the first sentence:

Dispose of construction and other debris according to Superintendent's Order #6 – Solid Waste Disposal, dated July 16, 2003.

203.05(b). Delete the text and substitute the following:

Burning is prohibited. Dispose of material according to Subsection 203.05(a).

203.07. Add the following:

Measure removal of asphalt by the square yard exclusive of depth and including sawcutting of pavement.

Do not measure pipe plugs.

Section 251.—RIPRAP

Delete the entire Section and substitute the following:

Section 251.—RIPRAP

Description

251.01 This work consists of furnishing and placing riprap for bank protection, slope protection, drainage structures, and erosion control.

Riprap classes are designated as shown in Table 705-1.

Materials

251.02 Conform to the following Subsections:

Geotextile type IV	714.01
Grout	725.22(e)
Riprap rock	705.02

Construction Requirements

251.03 General. Perform the work under Section 209. Dress the slope to produce a smooth surface. If earthwork geotextile is required, place according to Section 207.

251.04 Placed Riprap. Placed riprap is rock placed on a prepared surface to form a well-graded mass.

Place riprap to its full thickness in one operation to avoid displacing the underlying material. Do not place riprap material by methods that cause segregation or damage to the prepared surface. Place or rearrange individual rocks by mechanical or hand methods to obtain a dense uniform blanket with a reasonable smooth surface.

251.05 Keyed Riprap. Keyed riprap is rock placed on a prepared surface and set into place by impact pressure.

Place rock for keyed riprap according to Subsection 251.04. Set the riprap into place by exerting impact pressure with a hydraulic powered bucket of an approximately 5000 pounds flat-faced mass. Repeated impacts should be made until the rock is firmly seated and forms a reasonably uniform surface, without reducing the effective sizes of the rocks. Do not use impact pressure on riprap below the water surface.

251.06 Mortared Riprap. Key riprap on prepared surface and fill voids with mortar to provide a rubble appearance.

Place rock for mortared riprap according to Section 251.05. Thoroughly moisten the rocks and wash excess fines from the riprap or to the undersides of the riprap. Place mortar only when the ambient temperature is no less than 40° F. Maintain completed mortared riprap at a temperature above 40° F for 48 hours after construction. Place the mortar in a manner to prevent segregation. Begin placing mortar at the lowest elevation of the riprap. Fill all voids without unseating the rocks. Keep the mortared riprap moist for 3 days after the work is completed and protect it from freezing for a minimum of 7 days after placing mortar.

251.07 Acceptance. Rock for riprap will be evaluated under Subsections 106.02 and 106.03.

Rock placement for riprap will be evaluated under Subsections 106.02 and 106.04.

Measurement

251.08 Measure riprap by the ton or by the cubic yard in place.

Payment

251.09 The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the pay items listed below that are shown in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment will be made under:

Pay Item	Pay Unit
25101 Placed riprap class _____	Cubic yard
25102 Placed riprap class _____	Ton
25103 Keyed riprap class _____	Cubic yard
25104 Keyed riprap class _____	Ton
25105 Mortared riprap class _____	Cubic yard

**Table 251-1
Sampling and Testing**

Material or Product	Property or Characteristic	Test Methods or Specifications	Frequency	Sampling Point
Mortar	Making test specimens Compressive strength ⁽²⁾	AASHTO T 23 AASHTO T 22	1 sample per installation ⁽¹⁾	Job site

- (1) Sample consists of 2 test specimens.
- (2) The compressive strength will be the average of two test specimens

Section 301.--UNTREATED AGGREGATE COURSES

301.02. Add the following:

Notify the CO in writing, if an alternate State gradation is produced as provided in Subsection 703.05. The target values with respect to the State gradation will be the midpoint of the allowable State specification band. The allowable deviation (D) will be one-half the State specification band width, and the maximum allowable pay factor under subsection 301.08 will be 1.0.

301.03. Add the following after the second paragraph:

Submit the representative 300 pound sample to the EFLHD Central Laboratory in Sevierville, Tennessee.

301.05. Add to the end of the third paragraph:

Add additional aggregate as required and compact stone.

301.06. Add the following:

Add additional aggregate as required in reconstruction areas to eliminate dips and provide uniform cross-slope prior to placement of pavement.

301.08. Add the following:

The aggregate will be tested for acceptance on samples taken from its final location immediately prior to compaction.

301.08(a). Add the following:

When all the test results are completed and evaluated for a lot, the contractor may optimize the final pay factor for the lot by changing the originally established target values for the lot. The target values, as changed, must be within the designated range for the grading selected.

301.08. Delete Table 301-1 and substitute the following:

**Table 301-1
Sampling and Testing**

Material or Product	Property or Characteristic	Category	Test Methods or Specifications	Frequency	Sampling Point
Subbase and Base courses	Gradation ⁽¹⁾ Specified sieves	II	AASHTO T 11 and AASHTO T 27	1 sample per 1000 t	From the windrow or roadbed after processing
	Liquid limit	—	AASHTO T 89	1 sample per 3000 t	From the windrow or roadbed after processing
	Moisture-Density (maximum density)	—	AASHTO T 180 method D	1 for each aggregate grading produced	Production output or stockpile
	Inplace density and moisture content	—	AASHTO T 238 and AASHTO T 239 or other approved procedures	1 for each 500 t	Inplace completed compacted layer
Surface course aggregate	Gradation ⁽¹⁾ No. 4 No. 40 No. 200 Other specified sieves	I I I II	AASHTO T 11 and AASHTO T 27	1 sample per 1000 t	From the windrow or roadbed after processing
	Plasticity index	I	AASHTO T 90	1 sample per 1000 t	From the windrow or roadbed after processing
	Liquid limit	—	AASHTO T 89	1 sample per 1000 t	From the windrow or roadbed after processing
	Moisture-Density (maximum density)	—	AASHTO T 180 method D	1 for each aggregate grading produced	Production output or stockpile
	Inplace density and moisture content	—	AASHTO T 238 and AASHTO T 239 or other approved procedures	1 for each 500 t	Inplace completed compacted layer

(1) Use only sieves indicated for the specified gradation.

Section 303.--ROAD RECONDITIONING

303.01. Add the following:

This work also includes regrading pipe culvert outlets at locations shown in plans as *grade to drain*.

303.03. Delete the paragraph and substitute the following:

Remove all pavement materials, any slide material, vegetation, and other debris down to the roadbed within the reconstructed roadway areas. Minimize disturbance to the road bed in all roadway areas designated for reconstruction. Dispose of all materials in accordance with Section 203.05.

303.04. Delete the second paragraph and substitute the following:

Roll and compact the exposed roadbed in accordance with Section 301.05. Roll the exposed

roadbed a minimum of four passes with a 20 ton compression type roller. Excavate areas of the exposed roadbed that appear soft or yielding, or otherwise unacceptable to the CO, a depth of 6 inches and replace excavated material with aggregate material meeting the requirements of Section 703.05.

303.07(a). Add the following:

Verify that the finished and compacted roadbed profile and cross slopes will accommodate the binder and surface asphalt layers and also meet the required top of pavement profile and cross slopes through survey cross sections.

303.10. Delete the first paragraph and substitute the following:

Measure reconstructed areas within the exposed roadbed for payment by the square yard for a 6 inch depth. Measurement for payment will apply only to those areas approved by the CO.

Measure ditch reconditioning by the linear foot, measured along the edge of pavement at the roadway stationing.

Measure *grade to drain* locations as ditch reconditioning by the linear foot along the flow line of the regraded area.

303.11. Add the following:

<u>Pay Item</u>	<u>Pay Unit</u>
30305 Ditch Reconditioning	Linear foot

Section 305.—AGGREGATE-TOPSOIL COURSE

305.04 Mixing, Placing, and Compacting, Delete the third paragraph and substitute the following:

Uniformly compact the mixture so that it does not exhibit heaving, pumping, rutting, or shearing. Dry seed the surface at a rate of 75 pounds per acre before compaction. Blade off shoulders prior to placing aggregate topsoil.

305.05 Acceptance. Delete the second paragraph and substitute the following:

Construction of aggregate-topsoil course will be evaluated under Subsection 106.02.

305.05 Acceptance. Delete the Material or Product, Aggregate-topsoil mixture, from Table 305-1.

Section 401.--HOT ASPHALT CONCRETE PAVEMENT

401.03. Delete the first paragraph and substitute the following:

Composition of Mix (Job-Mix Formula). Reclaimed asphalt pavement (RAP) material may be used in combination with new aggregate, asphalt cement, and/or recycling agents in the construction of hot asphalt concrete pavement. Up to 15 percent RAP material may be used in the mix without adjustment to the asphalt. For percentages of RAP greater than 15 percent, the contractor must submit test data demonstrating that the mix will meet the requirements of this section and submit a quality control plan showing sufficient control of the RAP. In no case shall the maximum percent of RAP exceed 35 percent.

Aggregate and mineral filler.

- 1) Target value for percent passing each sieve size for the aggregate blend. Designate target values within the gradation band in the specified grading. Designate target values outside the restricted zone of Table 703-17, 703-15 or 703-16 for the appropriate nominal maximum size aggregate.
- 2) Source and percentage of each aggregate stockpile to be used.
- 3) Average gradation of each aggregate stockpile.
- 4) Representative samples for each aggregate stockpile:
 - (a) 250 pounds of each coarse aggregate
 - (b) 150 pounds of each intermediate and fine aggregate
 - (c) 20 pounds of mineral filler such as limestone or filler earth if proposed to improve gradation characteristics or mix performance.
 - (d) 20 pounds of bag house fines if proposed for the mix. See Subsection 401.04.

Aggregate samples when combined according to the Contractor's recommended stockpile percentages shall be within the gradation band defined by the target values plus or minus the allowable deviation for each sieve or the samples will not be considered representative.

- 5) Results of aggregate quality test.

401.13. Add the following after the fifth paragraph:

In curve widened areas, place the surface pavement joint midway between the pavement edges.

401.16. Delete the subsection and add the following:

401.16 Pavement Smoothness/Roughness. Measure the smoothness/roughness of the final paved surface course after final rolling, within 14 days of completing roadway paving, before

placing a surface treatment, and according to the designated type below. Construct all pavement surfaces to meet the requirements of (b) below.

(a) Profile ride index (PRI). For type II or III pavement smoothness, furnish a California type profilograph and personnel to operate the profilograph. The CO will direct and observe its operation. Operate the profilograph in the “mode” such that the continuous plot produced can be reduced according to FLH T 504. Measure in the middle portion of each lane and exclude areas according to FLH T 504. Measure excluded areas according to (b) below. Submit the trace to the CO.

A PRI will be calculated for each 0.1-mile lane of traveled way using a zero blanking band. The PRI will be determined according to FLH T 504. Bumps will be located using a 0.4-inch bump template.

(1) Type II pavement smoothness (PRI measurements for reconstructed and new roads). Measure the smoothness of the final paved surface course. The upper specification limit is 24 inches per mile for reconstructed and new roads. Defective areas are bumps in excess of 0.4 inches in 25 feet, 0.1-mile profile ride index greater than 28.5 inches per mile, or surfaces with a pay factor less than 0.75 as determined under Subsection 106.05.

(2) Type III pavement smoothness (PRI measurements for overlay, recycle with overlay, or milling with overlay projects). Before construction traffic, measure the smoothness of the existing surface. The existing surface is the original surface before overlaying, recycling, or milling. The existing profile ride index and standard deviation will be used to determine the upper specification limit.

For one-lift placement of the final surface:

$$USL1 = 0.71 * PRI0 + 0.39 * Sd0, \text{ but not less than 24 inches per mile}$$

For two-lift placement of the final surface:

$$USL2 = 0.50 * PRI0 + 0.30 * Sd0, \text{ but not less than 24 inches per mile}$$

where:

SL1 = Upper specification limit for one lift rounded to the nearest whole number (inches per mile)

USL2 = Upper specification limit for two lifts rounded to the nearest whole number (inches per mile)

PRI0 = Existing surface profile ride index (inches per mile)

Sd0 = Existing surface profile standard deviation

Measure the smoothness of the final paved surface course. Defective areas are bumps in excess of 0.4 inches in 25 feet, 0.1-mile profile ride index greater than 1.5 times the calculated upper specification limit, or surfaces with a pay factor less than 0.75 as determined under Subsection 106.05.

(b) Type IV pavement smoothness/roughness (straightedge measurement). Use a 10-foot metal straight edge to measure at right angles and parallel to the centerline. Defective areas are surface deviations in excess of 1/4 inch in 10 feet between any two contacts of the straightedge with the surface.

(c) Defective area correction. Correct defective areas from (a) and (b) above. Obtain approval for the proposed method of correction.

Re-measure corrected areas according to the specified type of pavement smoothness/roughness. The smoothness/roughness value obtained will replace the original.

401.19. Delete the subsection and add the following:

Payment

401.19 The accepted quantities will be paid at the contract price per unit of measurement for the Section 401 pay items listed in the bid schedule except the Superpave hot asphalt concrete pavement contract unit bid price will be adjusted according to Subsections 106.05 and 401.16. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement, type I or II pavement smoothness, a separate adjustment will be made for pavement smoothness according to the following formula:

$$A2 = 32,700(PF_{\text{smooth}} - 1.00)(L)$$

where:

A2 = Adjustment to contract payment in dollars for pavement smoothness.

L = Total project length in lane miles of traveled way including excluded areas. Measure project length to 3 decimal places.

PF_{smooth} = Pay factor for smoothness with respect to the upper specification limit determined according to Subsection 401.16 and 106.05 after completion of corrective work.

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement, type III or IV pavement roughness, a separate pay adjustment will be made. The dollar amount of the adjustment will be determined by summing the pay adjustment factors determined in Subsection 401.16 for each 0.1-mile and multiplying that sum by the contract unit bid price.

**Table 401-8
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Reporting Time
Hot asphalt concrete pavement (final surface)	Statistical (106.05)	Type I & II smoothness	I	FLH T 504	See Subsection 401.16	See Subsection 401.16	14 days after final paving
Hot asphalt concrete pavement (final surface)	Measured and tested for conformance (106.04)	Type III & IV roughness	—	AASHTO PP 50, PP 51, & PP 52	See Subsection 401.16	See Subsection 401.16	14 days after final paving

(1) Cut core sample from the compacted pavement according to AASHTO T 230, method B. Fill and compact the sample holes with asphalt concrete mixture. Cores shall be 6 inches in diameter. Perform specific gravity and thickness tests on cores and deliver to CO after testing is completed. Label cores and protect from damage due to handling or alteration due to temperature during storage or transfer.

Section 402.--MINOR ASPHALT CONCRETE

402.02. Add the following:

Use the North Carolina Department of Transportation (NCDOT) HACCP I-1 or I-2 mixes as approved by the CO. Use an asphalt content that is 1/2% higher than that submitted in the asphalt concrete mixture if that mixture design is for roadway paving.

402.10. Add the following:

Do not measure cleaning or crack sealing of paved waterways, type 5.

Section 412.--ASPHALT TACK COAT

412.01. Add the following:

Tack coat rapid-curing cut-back asphalt grade is designated as shown in AASHTO M 81.

412.02. Add the following material:

Cut-back asphalt

702.02

Section 413.--ASPHALT PAVEMENT MILLING

413.02. Add the following:

(i) Use fine milling heads only.

413.03. Delete the first sentence of the third paragraph and substitute the following:

Transition between different depths of cut at a uniform rate of 1 inch of depth per 20 feet of length.

Section 414.--ASPHALT PAVEMENT CRACK AND JOINT SEALING

414.01. Add the following:

In pavement sections requiring mill and overlay, clean and seal cracks that are greater than 0.10 inches in width, or as directed by the CO, prior to applying the asphalt overlay.

Section 418. -- SUPERPAVE ASPHALT CONCRETE PAVEMENT

Description

418.01 This work consists of constructing one or more courses of Superpave asphalt concrete pavement.

Superpave asphalt concrete pavement ESALs, nominal maximum aggregate size, voids in mineral aggregate (VMA), voids filled with asphalt (VFA), and smoothness type are designated in the specifications.

Material

418.02 Conform to the following Subsections:

Aggregate	703.17
Antistrip additive	702.08
Asphalt binder, AASHTO MP 1	702.01
Mineral filler	725.05

Furnish asphalt binder of performance grade PG 58-22

Construction Requirements

418.03 Composition of Mix (Job-Mix Formula). Compact specimens with the gyratory compactive effort specified in Table 418-1 for the corresponding traffic. Furnish aggregate, asphalt, and additives that meet applicable gradation and material requirements in Subsection 703.17 and the appropriate design parameters in Table 418-1. Furnish nominal maximum size aggregate that meet the applicable aggregate gradation in tables 703.11 and 703.12 for the mix class shown in the bid schedule. Recycled asphalt pavement (RAP) is not allowed in riding surface course. For all but the surface course, Recycled Asphalt Pavement may be used but not exceed 15% by weight.

**Table 418-1
Standard Specification for SUPERPAVE™
HMA Design Requirements
AASHTO MP2-00**

Design ESAL (Million)	Gyratory Compaction Level (% Theoretical Maximum Specific Gravity, Gmm)			Minimum Voids-in-the-Mineral Aggregate (% VMA) ⁽⁴⁾⁽⁷⁾			Voids Filled with Asphalt (% VFA) ⁽⁵⁾⁽⁶⁾	Dust-to-Binder Ratio ⁽¹⁾	Minimum Tensile Strength Ratio ⁽²⁾ , AASHTO T 283 ⁽²⁾
	N _{Initial}	N _{Design}	N _{Max}	Nominal Maximum Size Aggregate, in ⁽³⁾					
< 0.3	6 (≥91.5%)	50 (96%)	115 (≤98%)	1.0-inch	¾-inch	½-inch	70-80		
						3/8-inch			
0.3 to < 3	7 (≥90.5%)	75 (96%)	115 (≤98%)				65-78		
				12.0	13.0	14.0			
3 to < 30	8 (≥89%)	100 (96%)	160 (≤98%)				65-75	0.8-1.6	80 %
> 30	9 (≥89%)	125 (96%)	205 (≤98%)						

(1) Hydrated lime, baghouse fines, and other mineral matter added to the mixture is included.

(2) Specimens shall be 6-inch in diameter and 3.75 inches in height prepared in accordance with PP 28.

(3) The nominal maximum size is one size greater than the first sieve to retain more than 10 percent of the combined aggregate.

(4) When mineral filler or lime is used, include in the calculation for compliance with the VMA.

(5) 3/8 inch Nominal Maximum Sieve Size mixtures, the specified VFA range shall be 73-76% for design traffic levels >3 million ESALs.

(6) 1.0 inch Nominal Maximum Sieve Size mixtures, the specified lower limit of the VFA shall be 67% for design traffic levels < 0.3 million ESALs.

(7) For coarse graded Superpave mixtures, the VMA is restricted to 2 percent above the minimum value.

Submit the written job-mix formula for approval at least 28 days before production. The 28 day period will start upon receipt of all materials and information at the EFLHD Central Laboratory in Sevierville, Tennessee. For the job-mix formula, submit the following:

(a) Aggregate and mineral filler.

(1) Provide Target Values

- (a) Target value for percent passing each sieve size for the aggregate blend.
- (b) Designate target values within the gradation band specified for the nominal maximum size aggregate grading in Table 703-12.
- (c) Designate target values outside the restricted zone of Table 703-12 for the appropriate nominal maximum size aggregate.

(2) Source and percentage of each aggregate stockpile to be used.

(3) Average gradation of each aggregate stockpile.

(4) Representative samples for each aggregate stockpile:

- (a) A total of 550 pounds of aggregates with the weight of each of the stockpile samples based on that stockpile's proportion.
- (b) 20 pounds of mineral filler such as lime stone or filler earth if proposed to improve gradation characteristics or mix performance.
- (c) 20 pounds of bag house fines if proposed for the mix. See Subsection 418.04.

Aggregate samples when combined according to the Contractor's recommended stockpile percentages shall be within the gradation defined by the target values plus or minus the allowable deviation for each sieve or the samples will not be considered representative.

(5) Results of aggregate quality tests that are dated not more than one year before the date of intended use.

(b) Asphalt binder.

(1) Five 1 gallon samples of the asphalt binder to be used in the mix.

(2) Recent test results from the manufacturer of the asphalt binder including a temperature-viscosity curve.

(3) Material safety data sheets.

(4) Mixing temperature range and minimum compaction temperature for the performance grade asphalt to be used in the mix.

(c) Antistrip additives. When an antistrip additive is needed to meet the mix requirements, furnish the following:

- (1) Sample
 - (a) 1 pint of liquid heat-stable antistrip additive or
 - (b) 10 pounds of dry antistrip additive such as lime or hydraulic cement
- (2) Name of product and certification
- (3) Manufacturer
- (4) Material safety data sheet

(d) Asphalt mixes.

- (1) The location of all commercial mixing plants to be used. (A job-mix formula is required for each plant)
- (2) Mixture design values
 - (a) Target value for asphalt binder content.
 - (b) Theoretical maximum specific gravity (density) according to AASHTO T 209.
 - (c) Percent of theoretical maximum specific gravity at N_{initial} , N_{Design} , and N_{Max} .
 - (d) Percent VMA and VFA
 - (e) Dust-to-Binder Ratio
 - (f) Minimum Tensile Strength Ratio according to AASHTO T 283.

The CO will evaluate the suitability of the material and the proposed job-mix formula.

If a job-mix formula is rejected, submit a new job-mix formula as described above.

Changes to an approved job-mix formula require approval before production. Up to 14 days may be required to evaluate a change. Approved changes in target values will not be applied retroactively for payment.

The CO will deduct all job-mix formula evaluation costs incurred as a result of any of the following:

- (1) Contractor-requested changes to the approved job-mix formula
- (2) Contractor requests for additional job-mix formula evaluations
- (3) Additional testing necessary due to the failure of a submitted job-mix formula

Costs for additional job-mix evaluations will be charged to the Contractor by making an adjustment on the monthly Government's receiving report. The adjustment will be the total cost of performing all verification tests as determined from the EFLHD's published laboratory price list.

At the option of the contractor, a State Highway Department coarse graded Superpave Asphalt Concrete Mixture may be submitted which has the same nominal maximum aggregate size, traffic level (design ESAL), and asphalt binder grade. Submit a job-mix formula that is currently approved and has been tested by the State within a year of the date of intended use. Include documentation from a State highway official certifying that it is an approved State mix.

Coarse graded Superpave mixtures are mixture gradations plotted on the 0.45 Power Chart that fall below the restricted zone on the sieves smaller than No. 4.

418.04 Mixing Plant. Conform to Subsection 401.04.

418.05 Pavers. Conform to Subsection 401.05.

418.06 Surface Preparation. Conform to Subsection 401.06

418.07 Weather Limitations. Conform to Subsection 401.07

418.08 Asphalt Preparation. Uniformly heat the asphalt cement to provide a continuous supply of the heated asphalt cement from storage to the mixer. Do not heat asphalt cement above 365° F.

If the job-mix formula requires a liquid heat stable antistrip additive, meter it into the asphalt cement transfer lines at a bulk terminal or mixing plant. Inject the additive for at least 80 percent of the transfer of mixing to obtain uniformity.

418.09 Aggregate Preparation. Conform to Subsection 401.09.

418.10 Mixing. Conform to Subsection 401.10.

418.11 Hauling. Conform to Subsection 401.11.

418.12 Production Start-Up Procedures. Provide 7 days notice before beginning production of an asphalt concrete mix.

On the first day of production, produce sufficient mix to construct a 1,000-foot long control strip, one-lane wide, and at the designated lift thickness. Construct the control strip on the project at an approved location.

At least two weeks prior to the start of paving operations, arrange for a pre-paving conference. Coordinate attendance with CO and any application subcontractors. Discuss and submit the following:

1. Proposed schedule of paving operations.
2. List of all equipment (excavation-compaction equipment, laydown, haul, pugmill, etc., and

personnel used in the production and construction of the work.

3. Proposed Traffic Control Plan for moving operations.
4. Discuss Section 153, Contractor Quality Control, minimum frequency schedule for process control sampling and testing.
5. Discuss Subsections 418.12, Production Start-Up Procedures (control strip); 418.13, Placing and Finishing; 418.14, Compacting; and 418.16, Pavement Smoothness.
6. Discuss Subsections 106.05, Statistical Evaluation of Materials for Acceptance, and 418.17, Acceptance.

Construct the control strip using mix production, lay-down, and compaction procedures intended for the entire mix. Cease production after construction of the control strip until the asphalt concrete mix and the control strip are evaluated and accepted.

(a) Asphalt content and aggregate gradation. Take at least five control strip asphalt concrete mix samples and evaluate according to Subsection 418.17. The mix is acceptable if all test results are within specification limits for asphalt content, VMA, and VFA; and the calculated pay factor for asphalt content, gradation, and VMA is 0.90 or greater.

(b) Compaction. Take nuclear density readings behind each roller pass to determine the roller pattern necessary to achieve required density.

At a minimum of five locations within the control strip, take nuclear gauge readings and cut and test core samples according to Subsection 418.17. Density is acceptable if all tests are above the specification limit or the calculated pay factor is 0.90 or greater. Furnish the CO with the nuclear gauge readings and correlations of the readings to the core specific gravities.

Repeat the control strip process until an acceptable control strip is produced. See Subsection 106.01 for the disposition of material in unacceptable control strips. Accepted control strips may remain in place and will be accepted and measured as a part of the completed pavement. Tests used for the control strip will not be included in the evaluation for payment according to Subsection 106.05. When a control strip is accepted, full production may begin.

Use these start-up procedures when producing material from a different plant or when resuming production after a termination of production due to unsatisfactory quality according to Subsection 106.05.

418.13 Placing and Finishing. Conform to Subsection 401.13.

418.14 Compacting. Provide rollers in good mechanical condition of sufficient number and weight to satisfactorily compact the mixture while it is still in a workable condition. Operate rollers according to the recommendation of the manufacturer.

Thoroughly and uniformly compact the asphalt surface by rolling. Do not cause undue displacement, cracking, or shoving. Continue rolling until all roller marks are eliminated and the required density is obtained. Do not roll the mix after the surface cools below 175° F.

Monitor the compaction process with nuclear density gauges calibrated to the control strip compaction test results. Compact the Superpave fine graded mixtures to no less than 90 percent of the maximum specific gravity (density) determined according to AASHTO T 209. Compact Superpave coarse graded mixtures to no less than 92 percent of the maximum specific gravity (density) according to AASHTO T 209.

Along forms, curbs, headers, walls, and other places not accessible to the rollers, compact the mix with alternate equipment to obtain the required compaction.

418.15 Joints, Trimming Edges, and Cleanup. Conform to Subsection 401.15.

418.16 Pavement Smoothness. Conform to Subsection 401.16.

418.17 Acceptance. Mineral filler and antistrip additive will be evaluated under Subsections 106.02 and 106.03.

Asphalt will be evaluated under Subsections 106.04 and 702.09.

Construction of the Superpave hot asphalt concrete pavement course will be evaluated under Subsections 106.02 and 106.04.

For pay items with a bid schedule quantity > 4000 tons, asphalt content, VMA, gradation, core density, and pavement smoothness will be evaluated under Subsection 106.05. For pay items with a bid schedule quantity < 4000 tons, asphalt content, VMA, gradation, core density, and pavement smoothness will be evaluated under Subsection 106.04. VFA will be evaluated under Subsection 106.04. Other aggregate quality properties will be evaluated under Subsection 106.02 and 106.04. See Table 418-2 for minimum sampling and testing requirements.

(a) Asphalt content. The upper and lower specification limits are the approved job-mix formula target value ± 0.5 percent. See Table 418-2 for the acceptance quality characteristic category.

(b) Aggregate gradation. The upper and lower specification limits are the approved job-mix formula target values plus or minus the allowable deviations shown in Table 703-11. See Table 418-2 for the acceptance quality characteristic categories.

(c) VMA. The lower specification limits are shown in Table 418-1. See Table 418-2 for the acceptance quality characteristic categories.

(d) Density. The lower specification limit is 90 percent for fine graded Superpave mixtures and 92 percent for coarse graded Superpave mixtures of the maximum specific

gravity (density) determined according to AASHTO T 209 as part of the job-mix formula evaluation specified in Subsection 418.03. See Table 418-2 for the acceptance quality characteristic category.

(e) Pavement smoothness. See Subsection 418.16. The evaluation will be made after all defective areas are corrected. Type II, III, and IV pavement roughness will be evaluated under Subsection 106.04. See Table 401-8 for sampling and testing requirements and the acceptance quality characteristic category. A subplot is a 0.1-mile section of the traveled way and a lot is the surface course of the entire project. The upper specification limit is shown in Table 401-7. See Table 418-2 for the acceptance quality characteristic category.

Measurement

418.18 Measure Superpave asphalt concrete pavement, asphalt cement, and antistrip additive by the ton.

Payment

418.19

Superpave asphalt concrete pavement with a bid schedule quantity > 4000 tons.

The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the pay items listed below that are shown in the bid schedule except the Superpave asphalt concrete pavement contract unit bid price will be adjusted according to Subsection 106.05. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment for Superpave asphalt concrete pavement will be made at a price determined by multiplying the contract unit bid price by the material pay factor. The material pay factor is the lowest single pay factor determined for asphalt content, VMA, aggregate gradation, and core density.

Superpave asphalt concrete pavement with a bid schedule quantity < 4000 tons.

The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the pay item listed below that is shown in the bid schedule. Payment will be full compensation for the work prescribed in the Section. See Subsection 109.05.

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement type I, II, or III smoothness, a separate adjustment will be made for pavement smoothness according to the following formula:

$$A = 20,000(PF - 1.00)(L)$$

Where:

A = Adjustment to contract payment in dollars for pavement smoothness.

L = Total project length in lane miles of traveled way. Measure project length to 3 decimals.

PF = Pay factor for smoothness with respect to the upper specification limit determined according to Subsection 106.05 after completion of corrective work

When the bid schedule contains a pay item for Superpave hot asphalt concrete pavement, type IV or V pavement roughness, a separate pay adjustment will be made. The dollar amount of the adjustment will be determined by summing the pay adjustment factors determined in Subsection 401.16 for each 0.1-mile and multiplying that sum by the contract unit bid price.

Payment will be made under:

	Pay Item	Pay Unit
41801	Superpave asphalt concrete pavement, __" nominal maximum size aggregate, __ ESALs, type __ pavement smoothness	Ton
41802	Superpave asphalt concrete pavement, __" nominal maximum size aggregate, __ ESALs, type __ pavement smoothness Wedge and leveling course	Ton

**Table 418-2
Acceptance Sampling and Testing Frequency**

Material or Product	Property or Characteristic	Category	Test Methods or Specifications	Frequency	Sampling Point
Asphalt Binder	Performance Grade	N/A	AASHTO MP 1	1 per 2,500 T	Sampled at the mixing plant
Superpave hot asphalt concrete pavement	Asphalt content	I	AASHTO T 308	1 per 500 T	Behind laydown machine before rolling
	VMA	I	AASHTO PP28	1 per 500 T	Behind laydown machine before rolling
	Gradation ⁽³⁾ 3/8 inch No. 4 No. 200 Other specified sieves	I	AASHTO T 30	1 per 500 T	Behind laydown machine before rolling
		I			
		I			
		II			
	Core density ⁽¹⁾	I	AASHTO T 166 and AASHTO T 209 ⁽⁴⁾	1 per 500 T	In place after compaction
Smoothness ⁽²⁾	I	FLH T 504	See Subsection 418.16	See Subsection 418.16	
VFA		AASHTO PP28	1 per 500 T	Behind laydown machine before rolling	

(1) Cut core samples from the compacted pavement according to AASHTO T 230 method B. Fill and compact the sample holes with asphalt concrete mixture.

(2) Applies only to an item used as a final surface course constructed under the contract.

(3) Use only sieves indicated for the specified gradation.

(4) AASHTO T 209 on loose mix will be required only for the first five and then one per day thereafter.

Section 419.--ASPHALT CONCRETE PAVEMENT RESTORATION

419. Delete Section and substitute the following:

Description

419.01. This work consists of the restoration of asphalt concrete pavement by milling and patching.

Material

419.02. Material shall conform to the following Sections and Subsections:

Superpave Hot Asphalt Concrete Pavement	418
Aggregate base, Grading, C or D	301
Bituminous Materials	702
Underdrain	605
Geotextile, Type II	714.01(b)
Geogrid	714.01(j)

Construction Requirements

419.03. General. Place asphalt concrete pavement in accordance with Section 401 and place granular backfill material in accordance with Section 301. Remove all material not suitable for use on the project and dispose of legally off of Government property. Place the appropriate thickness of SACP binder prior to beginning work on the next asphalt pavement restoration area upon the completion of each asphalt pavement restoration area. Complete and open a restoration area to traffic prior to beginning work on the next section.

419.04. Personnel. Accomplish asphalt pavement restoration with personnel experienced in this type of work. The experience shall be relevant to anticipated conditions and special techniques required. Demonstrate to the satisfaction of the CO, the techniques and equipment to be used and submit documentation of projects on which this type of work has been performed.

419.05. Equipment. Use equipment and tools designed and built to perform the work and obtain approval from the CO for their use.

419.06. Asphalt pavement full depth patch, Type 2. This work consists of repairing distressed pavement areas by removing and replacing the pavement and 6 inches of the underlying material. Incorporate earthwork geotextile fabric and geogrid reinforcement into patch as indicated in the plans and described herein.

(a) Patch Areas. Extend the repair area one foot beyond the distressed area. Extend the patch limit to the pavement edge if patch cuts are within two feet of the pavement edge. Construct the minimum width of the patch to be ½ of a travel lane (5 feet) and construct the minimum length dimension of the patch to be 3 feet.

(b) Pavement Removal. Make a neat saw cut completely through the pavement thickness, with one pass, around the perimeter of the patch area to the limits shown on the plans or as outlined on the pavement surface. Make saw cuts a minimum depth of 4 inches and perpendicular to the roadway surface and at right angles to each other. Remove the pavement to expose subbase and/or subgrade.

(c) Undercut. Remove a minimum of 6 inches of material.

(d) Patching. Place geotextile fabric and geogrid material at the locations and depths indicated in the plans before placing aggregate base. Overlap geotextile fabric a minimum of 3 feet at seams and overlap geogrid material a minimum of 1 foot. Use metal pins or hooks as necessary to retain the position of geotextile and geogrid material. Tension the geotextile and geogrid materials by hand during placement and take care to prevent damage during backfilling. Replace geotextile or geogrid material damaged during placement at no cost to the Government.

Place and compact aggregate base in 3 inch to 6 inch lifts. Apply a tack coat to asphalt concrete surfaces within patch area in accordance with Section 412. Place asphalt concrete to bring the patched area to surrounding grade. Seal all surface joints of patch with AC-10 asphalt. Place a minimum asphalt concrete thickness of 2.5 inches in the patch.

419.07. Asphalt pavement shallow patch, Type 1. This work consists of repairing asphalt concrete pavement by removing and replacing the existing asphalt concrete pavement.

(a) Patch Areas. Extend the repair area 1 foot beyond the distressed area. Extend the patch limit to the pavement edge if patch cuts are within 2 feet of the pavement edge. Construct the minimum width of the patch to be $\frac{1}{2}$ of a travel lane (5 feet) and construct the minimum length dimension of the patch to be 3 feet.

(b) Pavement Removal. Make a neat saw cut completely through the pavement thickness, with one pass, around the perimeter of the patch area to the limits shown in the plans or as outlined on the pavement surface. Make saw cuts a minimum depth of 4 inches and perpendicular to the roadway surface and at right angles to each other. Remove the pavement to expose subbase or subgrade. If existing asphalt thickness is less than 2.5 inches, remove subbase to a minimum of 2.5 inches below the existing pavement surface.

(c) Patching. Apply tack coat to asphalt concrete surfaces within patch area in accordance with Section 412. Place a minimum of 2.5 inches of asphalt concrete to bring the patched area to the surrounding grade. Seal all surface joints of the patch with AC-10 asphalt.

419.08. Acceptance Procedures. When not otherwise specified, acceptance of material will be by certification in accordance with Subsection 106.07.

Measurement

419.09. Measure asphalt pavement full depth patch, Type 2 and asphalt pavement shallow patch, Type 1 by the square foot of the patch face area complete in place and accepted.

Do not measure removal and disposal of asphalt pavement, pavement milling, excavation, sawcutting, obliteration, geotextile type II, geogrid, aggregate base, grading, tack coat and/or asphalt patch, class C, for payment.

Measure additional excavation required to remove unsuitable material for the full depth patches as subexcavation in accordance with Section 204 and backfilled with aggregate base material. The aggregate base material will not be measured separately for payment but the cost shall be included in the subexcavation pay item.

Measure subexcavation under Section 204.

Measure underdrain under Section 605.

Payment

419.10. The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the pay items listed below that are shown in the bid schedule. Payment will be full compensation for the work prescribed in this Section.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
41901 Asphalt pavement full depth patch, type __	Square foot
41902 Asphalt pavement shallow patch, type __	Square foot

Section 601.--MINOR CONCRETE STRUCTURES

601.02. Add the following material:

Concrete coloring agents

601.03. Add the following after (h):

Construct all concrete to be dark gray in color as approved by the CO. Submit preliminary samples of the colored concrete to the CO for approval. Prepare 3-feet by 3-feet by 4-inch panel for each acceptable mix that is to be colored. Finish and cure the panels in the same manner as the concrete will be finished and cured on the project.

601.03. Delete the first sentence and substitute the following:

Conform to Table 601-1 or furnish a concrete mix used locally by either a Federal or State agency for the construction of minor concrete structures. Require the mix to meet the minimum 28-day compressive strength requirement of Table 601-1.

Section 602.--CULVERTS AND DRAINS

602.01. Add the following:

This work also consists of any drilling required to install poly vinyl chloride (PVC) pipe culverts and the use of grout to secure installed PVC pipe culverts.

602.03 General. Delete this subsection and substitute the following:

602.03 General. Furnish culvert pipe with a wall thickness not less than that shown on the plans or determined from the fill-height tables included in the plans. Use the same material and coating on all contiguous pipe sections and special sections, such as elbows and branch connections. For culvert extensions, furnish the same material as the existing culvert.

The plans show the size and approximate location and length of culverts. Determine final location, skew, length, elevations, and grade according to Subsection 152.03(g). Do not order culvert material until the CO has accepted the final structure size, length, and alignment.

Perform excavation and backfill work under Section 209.

Use reinforced concrete or smooth wall high density polyethylene (HDPE) pipe for all drainage pipe installations for this project.

602.03. Add the following:

Furnish culvert pipe from the following groups:

- Reinforced concrete pipe, Class 3 and Class 4.
- Plastic pipe, HDPE, smooth interior, Type S.

602.06 Laying Plastic Pipe. Add the following:

Provide soil-tight bell and spigot joints for plastic pipe culverts.

If plastic end sections are used, reinforce and stiffen them such that inward buckling during construction is less than 0.4 inch with 100 pounds per foot force.

602.09. Add the following:

Do not measure drilling required to install PVC pipe culverts.

Do not measure materials required to secure PVC pipe culverts.

Section 604.--MANHOLES, INLETS, AND CATCH BASINS

604.04. Add the following at the end of the first paragraph:

Construct all exposed concrete to be dark gray as approved by the CO.

604.09. Add the following:

Measure concrete inlet tops by the each.

Measure removing and resetting existing concrete inlet tops under Section 607.

604.10. Add the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
60414 Metal grate, type ____	Each

**Section 605.--UNDERDRAINS, SHEET DRAINS, AND
PAVEMENT EDGE DRAINS**

605.02. Add the following:

Furnish pipe for perforated or non-perforated underdrains from the following groups:

- (1) Metallic coated corrugated steel pipe for underdrains, Type III, 0.05 in (18 gage) minimum.
- (2) Aluminum alloy corrugated pipe for underdrains, Type III, 0.05 in (18 gage) minimum.
- (3) Concrete pipe, Type 1 or 2.
- (4) Plastic pipe.

Furnish steel pipe with a protective coating of polymeric material.

Furnish steel pipe with a protective coating of asphalt material.

605.04(b). Add the following:

Multi-Flow Drainage System:

Install Multi-Flow geocomposite prefabricated drainage tubing, 18-inch size, manufactured by Varicore Technologies or approved equal. Assemble the components according to the manufacturer's recommendations and model specifications.

Do not install drain system until the CO has accepted the final location and length.

Wrap the collection system with a non-woven geotextile fabric consisting of long-chain polymeric fibers composed of polypropylene, polyethylene or polyamide. Provide geotextile wrap with fibers oriented into a multi-directional stable network whereby they retain their positions relative to each other and allow the passage of water as specified. Provide geotextile fabric that is free of any chemical treatment or coating, which reduces permeability, and that is also inert to chemicals commonly found in soil.

The geotextile wrap shall conform to the following minimum average roll values:

Weight	ASTM D-3776	4.0
Tensile Strength	ASTM D-4632	100
Elongation %	ASTM D-4632	50
Puncture, lb	ASTM D-751	50
Mullen Burst, psi	ASTM D-3786	200
Trapezoidal Tear, lb	ASTM D-4533	42
Coefficient of Permeability	ASTM D-4491	0.1 cm/sec
Flow Rate, gpm/ft ²	ASTM D-4491	100
Permittivity, 1/sec	ASTM D-4491	1.8
Apparent Opening Size	ASTM D-4751	70 Max. US Std Sieve Opening
Seam Strength, lb/ft	ASTM D-4595	100
Fungus	ASTM G-21	No growth

Use fittings with the collection system that are of a "snap together" design. Do not join any components without the use of the manufacturer's connector designed specifically for the purpose. Install fittings in accordance with the manufacturer's recommendations.

Do not excavate more trench length at any time that will exceed the amount of drainage tubing that can be set and backfilled completely in one working day.

Perform excavation and backfill work under Section 209.

605.08 Add the following:

Measure Multi-Flow Drainage Tubing with Geotextile Wrap by the linear foot.

Do not measure geotextile wrap, couplers, wyes, tees, elbows, or other connectors used to install the Multi-Flow drainage system.

**Section 607.--CLEANING, RECONDITIONING,
AND REPAIRING EXISTING DRAINAGE STRUCTURES**

607.01. Add the following:

This work also consists of lining existing pipe culverts and plugging existing pipe culverts.

607.02. Add the following:

Include the cost of bypass pumping, pipe cleaning, inspection of pipes to be lined, installation of liner, final pipe inspection, and all other related work, in the total cost of the work for lining of pipe culverts.

607.01A. Material shall conform to the following Subsections:

Concrete	601
Portland cement	701.01
Water	725.01

Furnish a polyurethane pipe liner conforming to:

Furnish a cement mortar pipe lining conforming to AWWA C 602.

Furnish sand meeting the following gradation:

<u>Sieve Sizes</u>	<u>Percentage Passing</u>
14	100
20	95-100
30	85-95
40	15-35
100	1.5-5
200	1-3
37.5µm	0

The dry components of the cement mortar shall consist of the following proportions by weight: sand - 50%, and portland cement - 50%.

After addition of the water, provide a mortar that is well mixed and will provide a dense, homogeneous lining that will hold firmly against the pipe surface. Carefully control and keep the water-cement ratio to a minimum. Allow for any existing moisture on the walls of the pipe. Premix the mortar by machine for a sufficient length of time to obtain maximum plasticity, or 3 minutes minimum.

607.04. Add the following:

Provide for the control and disposal of any accumulation of water that interferes with construction.

Remove and dispose all silt, sand, debris, detritus, or other sedimentation or foreign material from within pipe to be lined, and from inlet and outlet areas.

Remove all dirt, rust, tubercles, scale, loose or deteriorated remnants of old lining materials, accumulated water, and all other foreign materials from the interior surface of the pipe before lining. After cleaning, the interior of the pipe shall present a surface free of all foreign material except nondeteriorated original coating.

Add the following after Subsection 607.06:

607.06A. Pipe Lining. Install pipe lining according to the manufacturer's recommendations. Hand-place cement mortar lining only at sharp bends and special locations where machine placing is impracticable.

Patch holes in the existing pipe with cement mortar before the application of the lining.

Pave existing culvert inverts with cement mortar if they are deteriorated to the extent that an acceptable lining would not be achieved before centrifugal application of linings. Fill cavities beneath badly deteriorated inverts with concrete, grout, or other method acceptable to the CO. Close the pipe at both ends to prevent the circulation of air. After the final pass with the machine, introduce water into the closed section to create a moist atmosphere and keep the lining damp. Maintain curing for a minimum of 3 calendar days.

607.07. Add the following:

Lining materials will be evaluated under Subsection 106.03. Lining construction will be evaluated under Subsection 106.04. After curing, drill holes to verify lining thickness at random locations selected by the CO. Patch the hole after thickness verification.

607.08. Add the following:

Measure reconditioning of pipe culverts by the linear foot.

No payment will be made for any waste associated with the lining process.

Do not measure cleaning of pipe culverts.

Do not measure pipe plugs.

Measure reconditioning of pipe culverts by the linear foot.

Do not measure removal and replacement of the existing inlet tops as part of this work.

607.09. Add the following pay items:

<u>Pay Item</u>		<u>Pay Unit</u>
60705	Lining __-inch pipe culvert	Linear foot
60703A	Reconditioning pipe culverts	Linear foot

Section 608.--PAVED WATERWAYS

608.01. Add the following:

This work also includes crack sealing and patching paved waterways and repointing paved waterway joints where shown in the plans or as directed by the CO.

608.03. Add the following:

Repoint paved waterway in accordance with Section 620.05.

Clean all debris in the paved waterway in order to expose the waterway for inspection to determine the need for repair or overlay.

Construct paved waterways, type 2 or type 5, including reshaping of subgrade and/or base. Extend width of waterway to the base of the rock cut where a type 2 waterway is constructed parallel to a rock cut. Reconstruct waterways following existing waterway alignment. Construct new waterways following existing drainage alignment. Use a minimum bend radius of 10 feet.

Patch and/or seal cracks in existing paved waterways, as designated by the CO, prior to overlay of paved waterways. Remove all loose, and/or damaged asphalt to existing subgrade and/or base by sawcut, as directed by the CO. Replace, regrade, and recompact the existing bed course as directed by the CO. Replace the removed pavement with new asphalt, matching the lines and grade of the surrounding pavement.

Regrade and recompact the subgrade or base prior to overlay of reconstructed paved shoulders. Provide additional aggregate material where required. Overlay the area only after it is inspected and approved by the CO.

Remove only a section of paved waterway equal in length to a section of paved waterway that can be reconstructed the same work day during work that involves the removal and reconstruction of a paved waterway. Use plastic sheeting to protect the exposed section of a waterway when the construction of a paved waterway cannot be completed before the end of the work day due to unforeseen circumstances. Use plastic sheeting on slopes between 2% and 6%. Contractor must not leave a removed waterway exposed for more than three calendar days.

608.05. Add the following:

Perform initial cleaning of paved waterways, identified in the plans or as designated by the CO, prior to any final repairs and overlays. Begin paved waterway cleaning at its discharge point and

proceed upstream to determine its limits. Clean the entire area of the existing paved waterway of all sediment and vegetation. Perform initial cleaning to the extent that an overlay or repair can be performed without further cleaning.

Recondition paved waterways, type 5, including a bituminous overlay in accordance with Section 402. Recondition mortared rubble paved waterways including the repair and repointing of any missing, loose, or deteriorated stone and joints. Recondition areas designated by the CO after initial cleaning is performed. Remove loose stones, clean of mortar, and salvage. Repair and regrade crushed aggregate bed course. Reset salvaged stones and approved new stones and apply mortar.

Provide new stone and mortar for mortared rubble paved waterways that have a color, appearance and texture type, that matches the mortar and stones that are in the project area, all subject to the approval of the CO.

608.11. Add to the end of the paragraph:

Measure plastic sheeting under Section 157.

Measure reconditioning of paved waterway, type 2, by the square yard. Measure square yard width horizontally to include the total width. Measure the length parallel to the flow line for the areas repaired. Measure the minimum area for payment to be 3 feet in length times the waterway width.

Measure reconditioning of paved waterway, type 5, under Section 402.

Do not measure cleaning, crack sealing or patching of paved waterway, type 5.

Do not measure cleaning of waterways for reconditioning or overlay.

Do not measure repointing of paved waterways, type 2.

608.12. Add the following pay item:

Measure drainage chutes as paved waterway, type 2, by the square yard.

<u>Pay Item</u>	<u>Pay Unit</u>
60809 Recondition paved waterway, type __	Square yard

Section 609.--CURB AND GUTTER

609.02. Add the following:

Precast concrete wheelstops	725.06
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Add the following after Subsection 609.04:

Remove and stockpile stone curb for use as replacement stone for areas requiring additional stone in remove and reset curb work. Replace the designated parking area curb stone with stone obtained from an Elberton, Georgia quarry.

Section 615.--SIDEWALKS, DRIVE PADS, AND PAVED MEDIANS

615.07. Add the following after the last paragraph:

Construct all concrete to be dark gray in color, as approved by the CO.

615.09. Add the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
61505A Asphalt wheelchair ramp	Square yard

Section 617.--GUARDRAIL

617.01 Delete Subsection (d) and substitute the following:

(d) Terminal section types are designated as follows:

FAT-40	Flared anchor terminal, 40 feet long
SBT-BAT	Back slope anchor terminal

617.03 Posts. Delete this subsection and substitute the following:

617.03 Posts. Set posts before placing the pavement where pavement is within 3 feet of the guardrail.

Increase the post length to 8 feet where it is not possible to maintain a 2 feet minimum distance between the back of the guardrail post and the top of a slope 2:1 or steeper.

Use a short post where an impenetrable object is encountered. Treat field cuts for wood posts with two coats of preservative treatment applied with a brush or a sprayer. Anchor short posts in concrete. Backfill and compact the remaining hole with acceptable material.

Do not use long or short posts in terminal sections.

Drive posts into pilot holes that are punched or drilled. The dimensions of the pilot hole shall not exceed the dimensions of the post by more than ½ inch. Set posts plumb, backfill, and compact.

Set pilot holes prior to driving posts directly into the shoulder.

Place final SACP surfaces only after all guardrail installations have been completed.

617.04(b) Timber rail. Add the following after the second paragraph:

Field drill holes in the steel backing on curved sections or where required to correspond to the field cut wood rails at joints. Do not use a torch to cut holes.

Section 620.--STONE MASONRY

620.01. Add the following:

Provide Class B masonry with a 2.0 - 4.0 RF finish for stone masonry headwalls, as approved by CO.

620.02. Delete the mortar reference and substitute the following:

Mortar

712.05(a)

620.03 Add the following after the second paragraph:

Include all additional stone in the cost of removal and resetting stone masonry.

620.04 Placing Stone. Delete the second sentence of the first paragraph and substitute the following:

Do not place stone masonry when the ambient temperature is below 40° F. Maintain completed masonry at a temperature above 40° F for 48 hours after construction.

620.04 Placing Stone. Add the following after the first paragraph:

When removing and resetting stone masonry, use hand tools to clean the exposed faces of the stones of all mortar before resetting.

Set each stone on a full mortar base that matches the color of existing joints. Provide the CO with a sample of the mortar for approval, prior to all mortar work.

602.05. Add the following:

Repoint joints with mortar that matches the color of existing joints. Provide the CO with a sample of the mortar for approval, prior to any repointing work.

620.11. Add the following:

Measure stone masonry headwalls, (new or removed and reset) by the each complete in place. Include all excavation, aggregate placement, and berm construction associated with stone masonry work, in the measurement of stone masonry headwall.

Do not measure replacement of existing stone masonry with new stone masonry as part of remove and reset stone masonry work.

Measure reset stone masonry by the cubic yard complete in place.

Measure reset stone masonry in medians by the square yard complete in place.

620.12. Add the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
62006 Remove and reset stone masonry headwall	Each
62007 Stone Masonry headwall for ___-inch pipe culvert	Each
62008 Clean stone masonry surfaces	Square foot
62011 Reset stone masonry (repair)	Cubic yard
62016 Reset stone masonry (median)	Square yard

Section 624.--TOPSOIL

624.04. Add the following after the second paragraph:

Where topsoil will be placed on slopes on which the character of the subsoil will not blend with the topsoil, work the topsoil into the subsoil to eliminate any slip-plane between the two materials and leave a sufficient cover of topsoil to ensure germination of the seed.

Excavate soil from borrow sites 18-inches below surface, below root structure of existing vegetation. Determine the requirements for fertilizer and other additives with a soils test, prior to disking in fertilizer and other additives. Obtain written approval from the CO for all sources of furnished topsoil.

Section 625.--TURF ESTABLISHMENT

625.01. Add the following:

Seeding and mulching methods are also designated as hydro-type.

625.01. Add the following:

The work does not include areas previously protected by soil erosion control measures according to Section 157, and upon which permanent suitable vegetation has started growth.

Use wood fiber mulch.

625.03 through 625.08. Supplement as follows:

625.03. Add the following:

Seed in early spring between April 1 and May 31; or when weather conditions are favorable for turf establishment.

Clean thoroughly all equipment used for seeding prior to use on this project. This equipment will be subject to inspection at the CO’s discretion. This is to preclude the introduction of exotic vegetation into the park. Make restitution for the removal of the exotic vegetation as described in Section 107.

Deliver seed, fertilizer, and lime in acceptable condition in original, unopened containers.

Do not use Exotic plants and/or seeds.

625.04. Delete the second paragraph and add the following:

Spread fertilizer and limestone evenly and incorporate into the top 2 – 4 inches of loose soil. Rate per 1,000 square feet as follows:

Limestone--Agricultural limestone containing a minimum of 85% calcium carbonate or equivalent, meeting the following graduations:
 100% passing a 10-mesh sieve,
 98% passing a 20-mesh sieve,
 55% passing a 60-mesh sieve, and
 40% passing a 100-mesh sieve.
 Rate per 1,000 square feet is 125 pounds.

Fertilizer--Analysis 7-2-3 at 500 pounds per acre.

Make two (2) applications at right angles to each other either by hand or mechanical spreader. Lightly roll immediately after sowing.

Optimal planting times for elevations above 2,500 feet are March 20 through April 20 and July 20 through August 15.

625.05. Delete the first sentence and add the following:

If easily accessible, water with mist spray soaking ground to a minimum depth of 2 inches. Water should be clean, fresh and free from harmful substances. Water seeded areas two to three times per week until germination, or until completion of the project.

625.06. Add the following:

Submit manufacture specifications for fertilizer.

Apply limestone and fertilizer at the following rates per acre:

<u>Item</u>	<u>Rate</u>
Agricultural Limestone (85% CaCO ₃)	500 lb
Fertilizer (7-2-3, organic, slow release)	500 lb

For existing and furnished soil, submit a soil analysis report from the State University Agricultural Extension Service or other approved soil testing laboratory. Include in the report,

the soil textural classification (percentage of sand, silt, clay and organic matter) and additive recommendations. Amend soil in accordance to recommendations provided in the soil analysis report.

625.07. Add the following:

Submit 1 pound sample, and grower’s figures on pure live seed ratio for each type of grass to be seeded.

(c) Hydro seeding. Perform the hydro-seeding using a two step method:

Step 1. Apply the seed mix in a two-step hydro-seeding operation (seed applied first, then cellulose material), if possible. This will allow more soil contact by seeds, thus better establishment of grass. Use hydro-type equipment capable of providing a uniform application using water as the carrying agent. Add 400 lbs. per acre of hydro-mulch consisting of either wood or grass cellulose fiber mulch as a tracer material to the water. Add seed to the water no more than 30 minutes before application. Direct high-pressure spray upward, allowing mixture to fall in a uniform spray without missing or overlapping areas. Seed applied by spray method need not be raked. Seed by hand those areas inaccessible to seeding equipment. Do not use seed that has become wet, moldy, or otherwise contaminated or damaged. All work shall comply with section 107.11.

Step 2. Using the same equipment, make a second pass, applying mulch only, at a rate of 1500 lbs. per acre.

Seed: Broadcast the following native herbaceous plants and grass seeds for this project.

Broadcast seed to areas that are inaccessible to hydroseeding at a rate of 1½ times the hydroseed rate. Seed any other areas to be broadcast seeded, at the same rate. Sow seed with a mechanical device that spreads evenly over a given area at the specified rate of coverage per square foot or acre.

Seed Mix Design: Seed design mixes for various elevations and season of seeding along the Blue Ridge Parkway

March 1 to September 31

For Elevations Above 2,500 Feet				
Name of Seed	Shoulders/Ditches		Slopes	
	Lbs/Acre	Lbs/1000 SqFt	Lbs/Acre	Lbs/1000 SqFt
Summer Annual Rye	65	1-1/2	65	1-1/2
Fescue, chewings	110	2-1/2	110	2-1/2
Fescue, K31	87	2	87	2
Red Top	22	1/2	22	1/2

October 1 to March 1

For Elevations Above 2,500 Feet				
Name of Seed	Shoulders/Ditches		Slopes	
	Lbs/Acre	Lbs/1000 SqFt	Lbs/Acre	Lbs/1000 SqFt
Fescue, chewings	65	1-1/2	38	7/8
Fescue, K31	27	5/8	76	1-3/4
Winter rye grain (Dec. 1-Feb. 15)	44	1	44	1

625.08. Add the following:

Use wood fiber mulch.

Apply mulch at the following rate (per acre):

<u>Mulch</u>	<u>Rate</u>	<u>Mixture</u>
Wood fiber mulch	1,500 lbs	50 lbs/100 gal.

Apply mulch using the hydraulic method. Apply the mulch in a manner so as to preclude the application of mulch on tree trunks, signs and sign posts, guardrail, guardwalls, headwalls, etc. Remove the mulch and clean the above items accordingly.

625.10. Add the following:

Acceptance will not be granted until the permanent seeding has properly germinated, a minimum turf coverage of 95% has been obtained on all areas seeded, and the turf has reached a minimum overall height of 3 inches as approved by the CO. Furnish vendor signed copies certification that each lot of seed has been tested by a recognized laboratory of seed testing within 12 months of delivery date.

For 12 months from date work is certified as complete, remove deficient turf and replace as originally specified.

625.11. Delete the fourth paragraph and substitute the following:

Measure turf establishment by the square yard on the ground surface.

625.12. Add the following:

Payment for turf establishment will be at the rate of 50% upon application and the remaining 50% at acceptance.

Section 634.--PERMANENT PAVEMENT MARKINGS

634.01 Add the following:

Type L Polyurea markings

634.02 Add the following:

Polyurea markings 718.24

634.03. Add the following after the sixth paragraph:

Place traffic markings before a winter suspension of paving operations.

634.03 General. Remove the last sentence of the first paragraph and add the following:

Apply pavement markings to match existing pavement markings, except as directed by the CO. Remove all conflicting pavement markings according to subsection 635.13. Place permanent markings only after all other related road work has been completed.

Add the following:

634.12 Polyurea markings (Type L). Install the polyurea pavement markings when the air and road surface temperature is 40 degrees F or higher. Apply at application rates specified for 20-mil thickness for polyurea and 16-20 pounds per gallon for glass beads.

634.13. Add the following:

(c) Measure dotted lines as broken lines.

634.14. Add the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
63401HA Pavement markings, paint, solid, type _____	Linear foot
63401LA Pavement markings, Polyurea, solid, type _____	Linear foot
63401LB Pavement markings, Polyurea, broken, type _____	Linear foot

Section 635.--TEMPORARY TRAFFIC CONTROL

635.03 General. Add the following after paragraph (h):

(i) Furnish temporary traffic control devices that meet the NCHRP Report 350, Recommended Procedures for Safety Performance and Evaluation of the Highway Features, crashworthiness standards.

635.05, 635.06, 635.07, 635.08, 635.14, and 635.19. Add the following:

For all traffic control devices, submit a certification that the devices have been successfully crash tested to meet the requirements of NCHRP 350 and/or have been accepted by the FHWA.

635.05. Add the following after the first sentence:

Use fluorescent orange color with type III retroreflective sheeting or higher for all signs and other devices requiring orange color.

635.05 Barricades. Delete the second sentence and substitute the following:

Use type III sheeting.

635.07 Construction Signs. Delete the first sentence and substitute the following:

Use type III, VII, VIII, or IX retroreflective sheeting.

635.07. Add the following:

Furnish black on white speed limit signs for temporary traffic control.

Furnish 16 inches by 16 inches flags for high level warning devices that are orange or fluorescent red orange in color.

635.08 Drums. Delete the third sentence and substitute the following:

Use type III retroreflective sheeting.

635.09. Delete the first sentence and substitute the following:

Furnish flaggers capable of speaking and understanding the English language and certified by ATSSA, the National Safety Council, the International Municipal Signal Association or a state agency.

635.13 Temporary Pavement Markings and Delineation. Delete the entire subsection and substitute the following:

635.13 Temporary Pavement Markings and Delineation. Before opening a pavement surface to traffic, remove all conflicting pavement markings by sandblasting or other methods that do not damage the surface or texture of the pavement. Make the removal pattern uneven so it does not perpetuate the outline of the removed pavement markings. Lightly coat sandblasted or removal areas on asphalt surfaces with emulsified asphalt.

Provide acceptable pavement markings or delineation and signing according to Section 156 and the MUTCD. Install and maintain temporary pavement markings that are neat, crack free, true, straight, and unbroken. For temporary pavement markings, use preformed retroreflective tape, traffic paint, or temporary raised pavement markers as follows:

(a) Preformed retroreflective tape. Apply according to the manufacturer's instructions. Remove all loose temporary preformed retroreflective tape before placing additional pavement layers.

(b) Traffic paint. Do not apply temporary traffic paint to the final surface. Apply traffic paint as the temporary pavement marking if no work will be performed on the project for at least 30 consecutive days. Apply temporary traffic paint at a 0.02-inch minimum wet film thickness (0.01 gallons per square foot). Immediately apply type 1 glass beads on the paint at a minimum rate of 6 lb per gallon of paint.

(c) Raised pavement markers. Do not use raised pavement markers during seasonal suspensions. When chip seals, slurry seals, or tack coats are used after marker placement, protect the markers with an approved protective cover, which is removed after the asphalt material is sprayed. Temporary raised pavement markers may be used as temporary pavement markings as follows:

(1) 10 foot broken line. Four pavement markers spaced 3 feet apart followed by a 30 foot gap.

(2) 3 foot broken line. Three pavement markers spaced 2 feet apart followed by a 36 foot gap.

(3) 2 foot broken line. Two pavement markers spaced 2 feet apart followed by a 18 foot gap.

(4) Solid line. Pavement markers on 5 foot centers.

Remove all temporary raised pavement markers before placing additional pavement layers.

Remove all temporary pavement markings from the surface course before placing permanent pavement markings.

635.20. Add the following:

Time the temporary signal system in accordance with the operating modes listed in Subsection 636.04.

Section 636.—SIGNAL, LIGHTING, AND ELECTRICAL SYSTEMS

636.04. Add the following:

Design and place the temporary signal system according to the MUTCD, Part IV (latest edition).

Furnish a signal controller capable of operating in the following 4 modes to allow one lane of traffic through each signalized traffic control zone:

Signal Facing

	Northbound Traffic	Southbound Traffic
1.	solid GREEN	solid RED
2.	Yellow/ Red	solid RED
3.	solid RED	solid GREEN
4.	solid RED	Yellow/ Red

Under computer applied models, the following 1-2-3-4 timing cycles provided acceptable results for allowing traffic through the signalized traffic control zone:

A 500-foot work space required a 35-30-35-30 second timing cycle.

A 1000-foot work space required a 45-45-45-45 second timing cycle.

A 1250-foot work space required a 45-55-45-55 second timing cycle.

A work space is defined as the variable roadway distance, measured along the centerline, in which the actual work operation is being performed. This distance does not include the distance required for traffic control devices leading up to the work operation. See Detail E635-A for a pictorial description.

Using the example timing cycles given as reference, provide a signalized traffic control zone test section to determine an acceptable work space length that allows traffic to pass through the signalized traffic control zone according to Subsection 156.06(j).

Provide system that automatically sets to flashing red under signal control failure.

Commercial electricity is not available at the project site. Furnish a power source to operate the signal system.

Section 637.--FACILITIES AND SERVICES

637.02. Add the following:

Locate the field office where high-speed internet access, as described in Subsection 637.03(a)(6), is available. For urban projects locate the field office within 5 miles of the project site and within 15 miles of the project site for rural projects. In remote locations where high-speed Internet service is not available, the field office distance range may be extended or waived by the CO. All field office locations are subject to approval by the CO.

637.03(a) Add the following:

Divide the field office into three areas by permanent walls with hinged doors. If window air conditioning is provided, provide a separate unit for each room.

Clean the field office weekly to the approval of the CO.

Supply the following equipment in the field office:

(1) One self-feeding plain paper photo copying machine with the following minimum

capabilities:

- (a) Automatic document feeder;
 - (b) Making at least 8 copies per minute;
 - (c) Reproducing copies at standard sizes up to and including 11 x 17 inches;
 - (d) Reducing 11 x 17 inches plan sheets to 8 ½ x 14 inches legal size and to 8 ½ x 11 inches letter size;
 - (e) Furnish all necessary supplies, except copy paper. Paper will be supplied by the Government.
- (2)** Two dual line telephones (touch tone, hold button, intercom and conference calling capabilities) with 2 separate lines, for the exclusive use of the CO.
- (3)** One digital answering device capable of answering, recording, storing, and playing back messages at least 30 minutes in length.
- (4)** One facsimile (FAX) machine capable of or having:
- (a) Printing on plain paper and sending 8 ½ x 11 inch (210 x 297 millimeters) and 8 ½ x 14 inch (210 x 358 millimeters) documents;
 - (b) An automatic document feed with a minimum capacity of 20 pages;
 - (c) Automatic dial/redial.

Furnish all necessary supplies, except copy paper. Paper will be supplied by the Government.

(5) Provide one durable, hand held digital/cellular wireless phone(s), manufactured by Motorola/Nextel, or approved equal, for the use of the CO. The cellular phone(s) shall be similar or compatible with the Contractor's key field personnel (Project Superintendent, and Traffic Control Supervisor) to enable the direct communication between the CO and the Contractor's field personnel. Each of the cellular phones shall have a minimum of the following:

- (a) Direct Connect feature, or equivalent to communicate onsite with contractor personnel;
- (b) Hands free device that can be used safely and effectively while driving, and is acceptable by the local law enforcement agencies;
- (c) Capability of a customized communication configuration, independent of the

other units, so that the CO may limit any features if necessary;

(d) Necessary telephone accessories including a cigarette lighter power adapter/charger;

(e) Carrying case that can be worn on the belt, and is appropriate for use on construction projects.

The cellular phone plan shall provide the necessary amount of monthly Direct Connect airtime, and monthly Digital/Cellular airtime for use on the project. Ensure that each unit has unlimited Direct Connect capabilities, and each unit is equipped with a minimum of 600 minutes per month of local and long distance airtime for official business only.

(6) Provide, install, and maintain high-speed Internet access having at least 768kbps download and 256kbps upload speed. The high-speed Internet service can be provided via DSL, FIOS, a dedicated T1 line, or cable. Alternate service options may be submitted to the CO for approval. The system must include a modem and a router with a firewall or a router and a firewall appliance. The system must have the capability to support simultaneous Internet access of at least 3 workstations connected by Category 6 RJ45 LAN office drop cables. If the router supports wireless access, this feature must be disabled. Wireless access does not meet U.S.DOT security requirements and is not acceptable. The firewall configuration must be submitted to the CO for approval and cannot be changed after it is approved, unless a change request is submitted and approved in advance. Only U.S. DOT equipment is to be connected to the system.

If any equipment supplied becomes defective, is stolen, or for any other reason does not function as intended, replace the equipment with an equal or better unit at no additional cost to the Government. Replace any defective equipment within eight hours after being notified by the CO.

The Contractor will retain ownership of all equipment supplied by the Contractor. The CO will notify the Contractor when the equipment is no longer needed and request its removal.

Section 638.--LOCATING UTILITIES

Description

638.01 This work consists of locating existing utilities by excavating test pits to uncover the utility in question where a physical conflict with proposed construction is suspected and the test pit is ordered by the CO.

Material

638.02 Materials for restoring the test pit area to its original condition shall be replacement of the materials excavated or their equivalent in newly furnished materials meeting the various applicable sections of this specification.

Construction Requirements

638.03 General. Notify North Carolina One-Call Center 48 hours prior to any excavation, at 1-800-632-4949 or 366-855-7799 to have the utilities marked in the field.

Exercise special care and extreme caution in order to protect and avoid damage to any utility company facilities. Existing utilities have been generally located and shown on the plans as they are believed to exist. Utility information shown in the plans in the vicinity of Craggy Garden's Picnic Area and Craggy Dome Parking Overlook were located based on visual inspection and verbal information provided by NPS. The Government assumes no responsibility for the accuracy of locations shown on the plans. The Contractor is responsible for locating all existing utilities and the safety of same. He shall repair at his own expense, any damage resulting from his operation.

Locate by test pit any utility that may be in conflict with the proposed work. If a conflict appears to exist, then notify the CO in writing immediately and provide information on the location and elevation of the utility so that the CO can adjust the proposed work.

Locating Utility. Use electromagnetic devices to establish alignment of utilities where applicable. It may be necessary to thread a metal rod through non-metallic utility pipes to locate them. Where neither method is feasible, it may be necessary to locate the utility by perpendicular trench or trial pits.

Excavation. Excavate carefully so as not to disturb utility at it's assumed depth. When excavating within roadway pavements where traffic is being maintained, excavate by air-vacuum methods or equivalent, keeping the area of disturbance to a minimum. Uncover the utility sufficiently to make accurate measurements.

Record. Describe the utility found (size, material, function), determine the elevation of the top of utility, and prepare a field sketch of the pit. Indicate the date and the station and offset of the utility, noting whether the baseline or the centerline of proposed facility is being referenced.

Restoration. Backfill with original material, thoroughly compacting the material with a mechanical tamper. Restore aggregate base courses and pavement using equivalent materials and thicknesses. For portland cement concrete pavements, use fast setting concrete. For asphalt concrete pavements, cold patch, resurfacing of pit will be permitted so long as, in the opinion of the CO, it is thoroughly compacted.

638.04 Acceptance. Locating utilities will be evaluated under Subsection 106.02.

Measurement

638.05 Measure locating utilities by the each.

Payment

638.06 The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the pay item listed below. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
63803 Locate Utilities (Test pits)	LPSM

Section 702.—ASPHALT MATERIAL

702.01. Delete the first sentence and substitute the following:

Asphalt binders, including those with antistripping additives and binder blends with hot recycled mixtures, shall conform to AASHTO M 226, Table 2, for viscosity graded binders and AASHTO MP 1 for performance graded binders.

702.04 Delete **Table 702-1**, and substitute the following:

Table 702-1
Application Temperatures - Range EF

Type and Grade of Asphalt	Temperature Ranges Minimum - Maximum	
	Spraying Temperatures	Mixing Temperatures ⁽¹⁾
Cut-back asphalt -		
MC-30	85 - ⁽²⁾	-
RC or MC-70	120 - ⁽²⁾	-
RC or MC-250	165 - ⁽²⁾	140 - 175 ⁽³⁾
RC or MC-800	200 - ⁽²⁾	165 - 210 ⁽³⁾
RC or MC-3000	230 - ⁽²⁾	175 - 240 ⁽³⁾
Emulsified asphalt -		
RS-1	70 - 140	-
RS-2	120 - 185	-
MS-1	70 - 160	70 - 160
MS-2, MS-2h	-	70 - 160
HFMS-1, 2, 2h, 2s	70 - 160	50 - 160
SS-1, 1h, CSS-1, 1h	70 - 160 ⁽⁴⁾	70 - 160
CRS-1	120 - 185	-
CRS-2	140 - 185	-
CMS-2, CMS-2h	105 - 160	120 - 140
Asphalt cement -		
All grades	350 max.	350 max.
PG grades	365 max.	365 max.

(1) Temperature of mix immediately after discharge.

(2) The maximum temperature at which fogging or foaming does not occur.

(3) Temperature may be above flash point. Take precautions to prevent fire or explosion.

(4) For fog seals and tack coats.

Section 703.--AGGREGATE

703.02. Add the following:

Gravel will not be permitted.

703.05(a). Delete items (3) and (4).

703.05(a)(5) Delete and substitute the following:

(5) Fractured faces, ASTM D 5821 50% min.

703.05(b). Add the following:

(3) Plasticity Index, AASHTO T90 3 Max

703.05(b). Add the following:

Material shall have a minimum California Bearing Ratio of 70% as determined by AASHTO T 193 at 95% of maximum dry density in accordance with AASHTO T 180 (Method D).

703.05(b). Delete Table 703-2 and substitute the following:

**Table 703-2
Target Value Range for Subbase and Base Gradation**

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)				
	Grading Designation				
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
2 ½ in.	100 ⁽¹⁾				
2 in.	97-100 ⁽¹⁾	100 ⁽¹⁾	100 ⁽¹⁾		
1 ½ in.		97-100 ⁽¹⁾			
1 ¼ in.					
1 in.	65-79 (6)		80-100 (6)	100 ⁽¹⁾	
¾ in.			64-94 (6)	86-100 (6)	100 ⁽¹⁾
½ in.	45-59 (7)				
3/8 in.			40-69 (6)	51-82 (6)	62-90 (6)
No. 4	28-42 (6)	40-60 (8)	31-54 (6)	36-64 (6)	36-74 (6)
No. 40	9-17 (4)			12-26 (4)	12-26 (4)
No. 200	4.0-8.0 (3)	4.0-12.0 (4)	4.0-7.0 (3)	4.0-7.0 (3)	4.0-7.0 (3)

⁽¹⁾ Statistical procedures do not apply.

() Allowable deviations (+/-) from the target values.

703.05(b)(1) Add the following:

At the option of the Contractor, the gradation only of the aggregate base may conform to the requirements of:

SECTION 1010.-AGGREGATE FOR NON-ASPHALT FLEXIBLE TYPE BASES, Table 1010-1, Type A Aggregate Base Course, as specified in the July 1995 Edition of the Standard Specifications for Roads and Structures of the North Carolina Department of Transportation, which are as follows:

<u>Sieve Designation</u>	<u>Percentage by Weight Passing</u>
1 ½ in.	100
1 in.	75-97
½ in.	55-80
No. 4	35-55
No. 10	25-45
No. 40	14-30
No. 200	4-12
<u>Material Passing the 2.00 mm sieve</u>	
No. 40	40-84
No. 200	11-35

703.17 Superpave Asphalt Concrete Pavement Aggregate. Delete (a) thru (h) and substitute the following:

- (a) Los Angeles abrasion, AASHTO T 96 35% max.
- (b) Sodium sulfate soundness loss of coarse and fine aggregate (5 cycles), AASHTO T 104 12% max.
- (c) Coarse aggregate angularity, ASTM D 5821 Table 703-10
- (d) Fine aggregate angularity, AASHTO TP33 method A Table 703-10
- (e) Flat and elongated particles, 3 to 1 ratio, ASTM D 4791 10% max.
- (f) Sand equivalent value, AASHTO T 176, referee method Table 703-10
- (g) Gradation. Size, grade, and combine the aggregate fractions in mix proportions that result in a composite blend between the control points for the appropriate nominal maximum size is one sieve size greater than the first sieve to retain more than 10 percent of the combined aggregate. It is not recommended to produce mixes for a nominal maximum size aggregate that fall in restricted zone shown in Table 703-12 as appropriate. Test according to AASHTO T 11 and AASHTO T 27.

Table 703-10, 703-11, 703-12, 703-13. Delete the tables and substitute the following:

**Table 703 -10
Superpave Aggregate Requirements**

Design ESALs (million)	Coarse Aggregate Angularity (Percent), minimum		Uncompacted Void Content of Fine Aggregate (Percent), minimum		Sand Equivalent minimum	Flat and Elongated (Percent), maximum 3:1 Ratio
	#4 in	> 4 in.	#4 in.	> 4in.		
< 0.3	55/-	-/-	--	--	40	--
0.3 to < 3	75/-	50/-	40	40	40	10
3 to < 10	85/80	60/-	45	40	45	
10 to <30	95/90	80/75	45	40	45	
> 30	100/100	100/100	45	45	50	

Note: "85/80" denotes that 85 % of the coarse aggregate has one fractured face and 80% has two or more fractured faces.

Table 703-14, 703-15, 703-16 & Figures 703-1, 703-2, 703-3. Delete the tables and figures and substitute the following:

**TABLE 703-11
SUPERPAVE AGGREGATE GRADATION**

	Nominal Maximum Aggregate Size - Percent Passing									
	Grading Designation									
	A		B		C		D			
	1 in.		¾ in.		½ in.		3/8 in.			
Sieve Size	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Target Values	Allowable Deviation
1 ½ in.	100	--	--	--	--	--	--	--		
1 in.	90	100	100	--	--	--	--	--	*	
¾ in.	--	90	90	100	100	--	--	--	*	
½ in.	--	--	--	90	90	100	100	--	*	
3/8 in.	--	--	--	--	--	90	90	100	*	
No. 4	--	--	--	--	--	--	--	90	*	(6)
No. 8	19	45	23	49	28	58	32	67	*	(6)
No. 30	--	--	--	--	--	--	--	--	*	(4)
No. 50	--	--	--	--	--	--	--	--	*	(3)
No. 200	1	7	2	8	2	10	2	10	*	(2)

* Contractor specified target values.

() Allowable deviations (\pm) from the target values.

**TABLE 703-12
SUPERPAVE AGGREGATE GRADATION
RESTRICTION ZONES**

Sieve Size Within Restricted Zone	Minimum and Maximum Boundaries of Sieve Size for Nominal Maximum Aggregate Size (Minimum and Maximum Percent Passing)							
	1 in.		¾ in.		½ in.		3/8 in.	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
No. 50	11.4	11.4	13.7	13.7	15.5	15.5	18.7	18.7
No. 30	13.6	17.6	16.7	20.7	19.1	23.1	23.5	27.5
No. 16	18.1	24.1	22.3	28.3	25.6	31.6	31.6	37.6
No. 8	26.8	30.8	34.6	34.6	39.1	39.1	47.2	47.2
No. 4	39.5	39.5	--	--	--	--	--	--

Section 704. SOIL

704.04. Delete lines (a), (b), and (c) and substitute the following:

Sieve Size	Percentage by Weight Passing (1)	Allowable Deviations
1 ½ in.	100	-
1 in.	95-100	-
¾ in.	-	-
½ in.	25-65	±7
3/8 in.	-	-
No. 4	0-10	±5
No. 8	0-5	±3
No. 16	-	-
No. 200	0-2	±1

(1) AASHTO T 27 and AASHTO T 11

704.10 Select Granular Backfill. Delete this subsection, but retain Table 704-4, and substitute the following:

704.10 Select Granular Backfill. Furnish sound, durable, granular material free from organic matter or other deleterious material. Conform to the following:

(a) **Quality requirements.**

(1) Gradation	Table 704-4
(2) Angle of internal friction on the portion passing the 2-mm sieve, AASHTO T 236	34° min.

Note: Compact samples for AASHTO T 236 to 95 percent of the maximum density determined according to AASHTO T 99 method C or D and corrected for oversized material according to AASHTO T 99, Note 7.

(3) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	15% max.
(4) Liquid limit, AASHTO T 89	30 max.

(b) Electrochemical requirements for MSE walls.

(1) Resistivity, AASHTO T 288	3000 Ω ·cm min.
(2) pH, AASHTO T 289	5.0 to 10.0
(3) Sulfate content, AASHTO T 290	200 ppm max.
(4) Chloride content, AASHTO T 291	100 ppm max.

Note: Tests for sulfate and chloride content are not required when resistivity is greater than 5000 ohm centimeters.

Section 705.--ROCK

705.02 Riprap Rock. Delete the text and substitute the following:

705.02 Riprap Rock. Furnish hard, durable, angular rock that is resistant to weathering and water action and free of organic or other unsuitable material. Do not use shale, rock with shale seams, or other fissile or fissured rock that may break into smaller pieces in the process of handling and placing. Conform to the following:

(a) Apparent specific gravity, AASHTO T 85	2.50 min.
(b) Absorption, AASHTO T 85	4.2% max.
(c) Coarse durability index, AASHTO T 210	50 min.
(d) Gradation for the class specified	Table 705-1

Provide riprap that matches the color of the surrounding rock outcrops or rock cuts, as approved by the CO.

705.03. Add the following:

Furnish Grandfather Mountain granite stone from a quarry located in the vicinity of Linville, North Carolina for the stone curb at the Craggy Dome Parking Area and other areas as required and as approved by the CO.

705.03(a). Delete the text and substitute the following:

Do not use rock with depressions or projections that might weaken it or prevent it from being

properly embedded.

In the wall face, no stone shall be less than 2 inches in vertical dimension, 6 inches in horizontal dimension, or 4 inches in depth dimension.

On the top of the wall, no stone shall be less than 4 inches in least dimension.

Submit stone samples representing every color to be used on the project to the CO for approval.

705.06(a). Delete the second paragraph and add the following:

Furnish 16-inch curbstone from Elberton, Georgia quarries in parking areas having existing curb replaced. Furnish 16-inch curbstone that is similar in type, color and texture to existing stone in the project area. Replace stone curb that is to be replaced as part of remove and reset stone curb, with granite stone obtained from Grandfather Mountain quarry. Remove all the stone in one parking area, as directed by CO, if Grandfather Mountain granite stone is not available. Remove and stockpile stone curb for use as replacement stone for areas requiring additional stone in remove and reset curb work. Replace the designated parking area curb stone with stone obtained from an Elberton, Georgia quarry.

Section 709.--REINFORCING STEEL AND WIRE ROPE

709.01(b) Reinforcing bars. Delete the text of this subsection and substitute the following:

Furnish deformed, grade 420 bars conforming to AASHTO M 31, M 42, or M 53.

709.01(c) Epoxy coated reinforcing bars. Delete the first paragraph of text of this subsection and substitute the following:

Furnish bars conforming to Subsection 709.01(b). Conform to AASHTO M 284.

709.01(d) Tie bars. Delete the text of this subsection and substitute the following:

Furnish deformed, grade 420 bars conforming to AASHTO M 31 or M 42, except do not use AASHTO M 42 steel for tie bars bent and reststraightened during construction.

709.01(e) Hook bolts. Delete the first sentence of text in this subsection and substitute the following:

Furnish plain, grade 420 bars conforming to AASHTO M 31 or M 42 with M14 rolled threads or M16 cut threads.

709.01 Add the following after 709.01(l):

(m) Spiral Reinforcement. Conform to AASHTO M32, or to the strength and elongation requirements of AASHTO M31, Grade 420.

Section 710.--FENCE AND GUARDRAIL

710.08. Delete the text in the first and second paragraphs and substitute the following:

710.08 Steel-Backed Timber Rail. Furnish timber conforming to AASHTO M 168. Fabricate the 6 by 10-inch timber rail and the posts from dry, well seasoned, and dressed rough sawn Douglas fir, southern pine, or other species having a stress grade of at least 1450 psi. Treat the timber rail and posts according to AASHTO M 133.

710.08. Add the following:

Rough sawn timber tolerance shall apply only to the timber cross section and post length.

710.09. Guardrail Posts. Conform to AASHTO-AGC-ARTBA “A Guide to Standardized Highway Barrier Hardware”, 1995 edition.

Do not use a wood guardrail post that has a through check, shake, or en slit in the same plane as, or a plane parallel to the bolt hole and extending from the top of the post to within 3 inches of the bolt hole.

For steel-backed timber rail posts, furnish 10 by 12-inch posts conforming to Subsection 710.08.

Furnish treated Southern Pine or Douglas Fir wood posts for guardrail conforming to AASHTO M 168.

Section 712 - JOINT MATERIAL

712.05. Delete the text and substitute the following:

712.05 Mortar for Masonry Beds and Joints.

(a) Material.

- | | |
|-------------------------------------|---|
| (1) Hydraulic cement. | Subsection 701 |
| (a) <i>Portland cement</i> | Table 701-1, type I, IA, II, IIA, III, or IIIA |
| (b) <i>Blended hydraulic cement</i> | Table 701-1, type IS, IS-A, IP, IP-A, I(PM)or (PM)-A |
| (c) <i>Masonry cement</i> | Table 701-1 |
| (2) Fine aggregate | Subsection 703.01 or AASHTO M 45 |
| (3) Lime | ASTM C 207, type S or SA. Type N or NA, if tests show it not to be detrimental to mortar soundness. |
| (4) Water | Subsection 725.01 |
| (5) Air entraining admixture | Subsection 711.02 |

(b) Composition. Conform to the proportions for one of the mixes in Table 712-3. Uniformly mix with water to a spreading consistency.

(c) Compressive strength, AASHTO T 106 2030 psi, 28-day min.

Table 712-3 Mortar Proportions by Volume

Mortar	Portland Cement	Blended Hydraulic Cement	Masonry Cement	Lime	Aggregate	Air (%)*
Cement - Lime	1	-	-	1/4 to 1/2	Not less than 2-1/4 and not more than 3 times total volume of cementous material	8 - 12
Masonry Cement	-	-	1	-		8 - 12
Blended Hydraulic Cement	-	1	-	1/4 to 1/2		8 - 12

* When air is required, determine air content per ASTM C 91 except use the same material and proportions used in construction.

Section 713.--ROADSIDE IMPROVEMENT MATERIAL

713.01. Add the following:

For furnished topsoil, submit a soil analysis report from the State University Agricultural Extension Service or other approved soil testing laboratory. Include in the report the soil textural classification (percentage of sand, silt, clay and organic matter) and additive recommendations.

Furnish topsoil that is subsurface soil, clean and free of exotic weeds. Seek a source of topsoil where it is possible to get below the root zone of any established vegetation.

Source is to be approved by the CO, after inspection by the National park Service (NPS). Provide the NPS with 14 days advance notification for inspecting the source. If the source is found unsuitable, locate another source and provide the NPS the same number of days to inspect the new source. Stockpiled material in Contractor's yard area is considered unsuitable. Do not excavate material prior to approval of the source.

Furnish topsoil for aggregate-topsoil course from Contractor sources, as approved by the CO.

713.02. Add the following:

Use limestone at the rate recommended by the approved soil analysis to adjust any acidic condition.

713.03. Add the following:

Furnish Biosol fertilizer containing the following minimum available nutrients:

Total nitrogen	7.0%
Nitrogen (water soluble)	0.5%
Available phosphoric acid	2.0%
Soluble Potash (K ₂ O)	3.0%
Carbon/Nitrogen Ratio	5:1

713.04. Delete the first sentence of the first paragraph and substitute the following:

Conform to the Federal Seed Act, the Federal Noxious Weed Act, and applicable State and local seed and noxious weed laws.

713.05 Mulch. (b) Hay. Delete this Subsection.

713.05 (c) Add the following:

Provide hydromulch that is 100 percent virgin wood fiber with preblended tackifier. Use a tackifier that is plant-based such as guar or alpha plantago or chemical-based such as polyacrylamide or polymers.

Do not use paper-based hydromulch.

Use American Excelsior Excel or approved equal.

713.16. Delete the text and substitute the following:

713.16 Silt Fence. Conform to AASHTO M 288.

Section 718.--TRAFFIC SIGNING AND MARKING MATERIAL

718.24A. Add the following:

718.24 Polyurea pavement markings. Conform to the Polyurea application of 3M Stamark Liquid Pavement Marking Series 1000.

Provide any remaining necessary information recommended by the manufacturer for the placement of Polyurea pavement markings.

Use only Polyurea pavement markings that have been pre-approved by CO prior to application. Use both incorporated glass beads and drop-on glass beads according to the manufacturer's recommendations in order to meet the retroreflectivity requirements as measured by a LTL 2000, LTL-X, or the CO approved 30m mobile retroreflectometer.

Furnish a Type 3 Material Certification and Type 4 Material Certification.

Do not use handliners or any other non-truck mounted pavement marking machine to install Polyurea pavement markings on long-line applications.

Apply Polyurea pavement marking lines that have a minimum dry thickness of 20 mils when placed on concrete and asphalt pavements.

Apply the pavement materials simultaneously using the Polyurea application equipment. Apply the Polyurea resin, mixed at the proper ratio according to the manufacturer's recommendations, to the pavement surfaces within the proper application temperatures as

determined by the material manufacturer. Inject reflective glass beads into the molten (liquid) Polyurea pavement markings.

Apply glass beads according to manufacturer's recommendations. Provide in-place marking with the minimum reflectance values shown below, as obtained with a LTL 2000, LTL-X, or the CO approved 30m mobile retroreflectometer, at the time of installation. Maintain the retroreflectance values shown below for a minimum of 30 days from the time of placement of marking material.

WHITE: 375 mcd/lux/m²

YELLOW: 250 mcd/lux/m²

Produce marking, which upon cooling, is uniformly reflectorized and has the ability to resist deformation caused by traffic throughout its entire length.

Provide Contractor certification to place the Polyurea pavement markings, as obtained from the manufacturer of the Polyurea material. Provide at least one member of each crew that completed this training. Furnish the CO with written confirmation of the training from the material manufacturer prior to the beginning of work. Provide a manufacturer's technical representative to be onsite during the entire installation of the product.

Provide a manufacturer's technical representative that is knowledgeable and familiar with the Contractor's application equipment prior to the installation of the Polyurea pavement markings.

Thermoplastic, epoxy, and Polyurea pavement markings are subject to a 180 day observation period.

Provide Polyurea pavement marking materials that maintain minimum retroreflectance values throughout the 180 day observation period as follows:

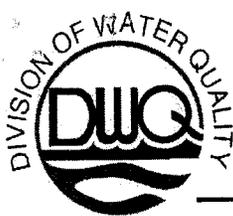
WHITE: 325 mcd/lux/m²

YELLOW: 200 mcd/lux/m²

These measurements will be taken by the CO within 30 days prior to the end of the Observation Period. The reflectance values shall be taken with an LTL 2000, LTL-X, or Department approved 30m mobile retroreflectometer.

Section 1205-3(I) Removal of Pavement Markings:

Do not apply Polyurea pavement marking over existing pavement marking materials having less adherence than Polyurea. Remove existing lines according to the manufacturer's recommendations.



November 21, 2005

Buncombe and Yancey Counties
 DWQ Project No. 20051435
 Blue Ridge Parkway
 Rehabilitation

APPROVAL of 401 Water Quality Certification

Brigitte Mandel
 Environmental Compliance Specialist
 US Department of Transportation, Federal Highways Administration
 21400 Ridgetop Circle
 Sterling, VA 20166-6511

RECEIVED
 2005 NOV 28 PM 2:49
 EASTERN FEDERAL LANDS
 HIGHWAY DIVISION
 STERLING, VA

Dear Ms. Mandel:

You have our approval, in accordance with the attached conditions and those listed below, to incur 70 linear feet of temporary impacts for the purpose of replacing and cleaning out culverts along the Blue Ridge Parkway in Buncombe and Yancey Counties. The stream impacts are approved as presented in the table below.

Table 1 - Stream Impacts in the French Broad River Basin

Site	Stream Name	Stream Type	Stream Classification/ Index No.	Impact Type	Impacts (Linear Feet)
1	UT to Bull Creek	Perennial	Class C/6-78-18	Temporary	10
2	Wolf Branch	Perennial	Class C/6-78-18-3-1	Temporary	10
3	Shope Creek	Perennial	Class C/6-78-18-3	Temporary	10
4	UT to Sugar Fork	Perennial	Class WS-I; HQW/6-78-11-11	Temporary	10
5	UT to Sugar Fork	Perennial	Class WS-I; HQW/6-78-11-11	Temporary	10
6	UT to Beetree Creek	Perennial	Class WS-I; HQW/6-78-15-(1)	Temporary	10
8	UT to Bull Creek	Perennial	Class C/6-78-18	Temporary	10
Total					70

The project shall be constructed in accordance with your application dated August 19, 2005 (received August 25, 2005 and additional information dated October 27, 2005 and November 15, 2005 (received November 2, 2005 and November 15, 2005, respectively). After reviewing your application, we have

decided that this fill is covered by General Water Quality Certification Number 3366. This certification corresponds to the Nationwide Permit 33 issued by the Corps of Engineers. In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the accompanying 404 permit, unless otherwise specified in the Water Quality Certification.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 150 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed below and in the attached certification.

1. All culvert replacements will be constructed in a dry work area, and stabilized before stream flows are diverted. Rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested.
2. The Federal Highways Administration shall strictly adhere to sediment and erosion control Best Management Practices as described for High Quality Waters entitled "Design Standards in Sensitive Watersheds" (15A NCAC 04B .0124) throughout design and construction of the project.
3. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.
4. For projects impacting waters classified by the NC Environmental Management Commission as Trout (Tr), High Quality Waters (HQW), or Water Supply I or II (WSI, WSII) stormwater shall be directed to vegetated buffer areas, grass-lined ditches or other means appropriate to the site for the purpose of pre-treating storm water runoff, and must not be routed directly into streams. Mowing of existing vegetated buffers is strongly discouraged, so that they may be utilized for storm water sheet flow.
5. All areas of disturbed ground shall be reseeded less than 15 calendar days after ground disturbing activities.
6. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.

7. The dimension, pattern and profile of the stream above and below the crossing should not be modified. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
8. Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
9. Heavy equipment must be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into the stream.
10. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
11. Under no circumstances shall rock, sand or other materials be dredged from the wetted stream channel under authorization of this permit, except in the immediate vicinity of the culverts.
12. All work shall be performed during low or normal flow conditions.
13. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
14. A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the on-site project manager.
15. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
16. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities.
17. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.

If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. This certification and its conditions are final and binding unless you ask for a hearing.

This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Brian Wrenn at 919-733-5715 or John Hennessy at 919-733-5694.

Sincerely,


for Alan W. Klimek, P.E.

Attachment

cc: Angie Pennock, US Army Corps of Engineers Asheville Field Office
Mike Parker, DWQ Asheville Regional Office
Marla Chambers, NC WRC
Marella Buncick, US FWS
Chris Militscher, US EPA
File Copy
Central Files

WQC #3366

**GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE
FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 33
(TEMPORARY CONSTRUCTION, ACCESS AND DEWATERING)
AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)**

This General Certification is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and wetland areas as described in 33 CFR 330 Appendix A (B) (33) of the Corps of Engineers regulations (i.e., Nationwide Permit No. 33) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. The category of activities shall include any fill activity for temporary construction, access and de-watering. This Certification replaces Water Quality Certification Number 2727 issued on May 1, 1992 and Certification Number 3114 issued on February 11, 1997. This WQC is rescinded when the Corps of Engineers reauthorize Nationwide Permit 33 or when deemed appropriate by the Director of the DWQ.

The State of North Carolina certifies that the specified category of activity will not violate appropriate portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Conditions of Certification:

1. These activities do not require written concurrence from the Division of Water Quality as long as they comply with all conditions of this General Certification. If any condition in this Certification cannot be met, application to and written concurrence from DWQ are required. Also, Condition No. 2 is applicable to all streams in basins with riparian area protection rules;
2. Impacts to any stream length in the Neuse, Tar-Pamlico and Randleman River Basins (or any other major river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman and Catawba River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;
3. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;

WQC #3366

4. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;
5. If an environmental document is required, this Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse;
6. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to DWQ that providing passage would be impractical. Design and placement of culverts including open bottom or bottomless arch culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in aggradation, degradation or significant changes in hydrology of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ. Additionally, when roadways, causeways or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in aggradation, degradation or significant changes in hydrology of streams or wetlands;
7. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the state until the concrete has hardened;
8. All temporary fill shall be removed to the original grade after construction is complete and the site shall be stabilized to prevent erosion;
9. Pipes shall be installed under the road or causeway in all streams to carry at least the 25 year storm event as outlined in the most recent edition of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" so as not to restrict stream flow during use of this Certification;
10. In accordance with North Carolina General Statute Section 143-215.3D(e), any request for written concurrence for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted and will be the higher of the two fees;
11. Additional site-specific conditions may be added to projects for which written concurrence is required or requested under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
12. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of these corresponding Nationwide and Regional General Permits, whichever is sooner;

WQC #3366

13. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed.

Non-compliance with or violation of the conditions herein set forth by a specific fill project shall result in revocation of this Certification for the project and may result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality or degrade the waters so that existing uses of the wetland, stream or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: 18 March 2002

DIVISION OF WATER QUALITY

By

Gregory J. Thorpe, Ph.D.

Acting Director

WQC # 3366

DWQ Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1621 Mail Service Center, Raleigh, NC, 27699-1621. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____

Registration No. _____

Date _____

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action ID: 200532784

County: Buncombe and Yancey

USGS Quad: Craggy Pinnacle

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Property Owner / Authorized Agent: Eastern Federal Lands Highway Division

Address: Federal Highway Administration

21400 Ridgetop Circle

Sterling, Virginia 20166

Telephone No.: (703) 404-6283

Size and location of property (water body, road name/number, town, etc.): The project is located along various sites on 16.5 miles of the Blue Ridge Parkway, in unnamed tributaries to Bull, Shope, and Wolf Creeks, near Black Mountain, Buncombe and Yancey Counties, North Carolina. PRA-BLRI 2P14.

Description of projects area and activity: This permit authorizes the temporary discharge of fill material associated with the maintenance of culverts .

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344)
 Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number:
Nationwide Permit Number: 33

Special Conditions

1. All work must be performed in strict compliance with the plans received by this office on July 29, 2005, which are a part of this permit. Any modification to the permit plans must be approved by the USACE prior to implementation
2. Failure to institute and carry out the details of these special conditions will result in a directive to cease all ongoing and permitted work within waters and/or wetlands associated with the permitted project, or such other remedies and/or fines as the District Engineer or his authorized representatives may seek.
3. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit, and any authorized modifications. A copy of this permit, and any authorized modifications, including all conditions, shall be available at the project site during construction and maintenance of this project.
4. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area.
5. All conditions of the attached North Carolina Wildlife Resources Commission letter of October 4, 2005 are hereby incorporated as special conditions of this permit.
6. The permittee will report any violation of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act in writing to the Wilmington District, U. S Army Corps of Engineers, within 24 hours of the permittee's discovery of the violation.

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached Nationwide and Special conditions, the attached North Carolina Wildlife Resources Commission conditions, and your submitted plans. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order and/or appropriate legal action.

This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2007. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you

commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. If prior to the expiration date identified below, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all new and/or modified terms and conditions. The District Engineer may, at any time, exercise his discretionary authority to modify, suspend, or revoke a case specific activity's authorization under and NWP.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Quality (telephone (919) 733-1786) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management .

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact Angie Pennock at 828-271-7980.

Corps Regulatory Official Angie Pennock

Date: **November 29, 2005**

Expiration Date of Verification: **March 18, 2007**

Determination of Jurisdiction:

- Based on preliminary information, there appear to be waters of the US including wetlands within the above described project area. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).
- There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are waters of the US and/or wetlands within the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The jurisdictional areas within the above described project area have been identified under a previous action. Please reference jurisdictional determination issued ___. Action ID

Basis of Jurisdictional Determination: **Bull, Shope, and Wolf Creeks are tributaries to the French Broad River System. The French Broad is navigable below the Wilson Bridge Crossing on US 276 around River Mile 196.5.**

Corps Regulatory Official: Angie Pennock

Date **November 29, 2005**

Enclosures

SURVEY PLATS, FIELD SKETCH, WETLAND DELINEATION FORMS, PROJECT PLANS, ETC.,
MUST BE ATTACHED TO THE FILE COPY OF THIS FORM, IF REQUIRED OR AVAILABLE.

Copy Furnished:
Brian Wrenn, DWQ
Mike Parker, DWQ

Permit Number: 200532784
Permit Type: NW33
Name of County: Buncombe and Yancey
Name of Permittee: Federal Highway Administration, Eastern Federal Lands Highway
Division
Date of Issuance: November 29, 2005
Project Manager: Angie Pennock

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Attention: CESA-W-RG-A
151 Patton Avenue, Room 208
Asheville, North Carolina 28801-5006

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Federal Highway Administration		File Number: 200532784	Date: November 29, 2005
Attached is:		See Section below	
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
<input type="checkbox"/>	PERMIT DENIAL	C	
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D	
<input checked="" type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Angie Pennock
151 Patton Ave
RM 208
Asheville, NC 28806
828-271-7980

If you only have questions regarding the appeal process you may also contact:

Mr. Michael Bell, Administrative Appeal Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

DIVISION ENGINEER:

Commander
U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-3490



☒ North Carolina Wildlife Resources Commission ☒

Richard B. Hamilton, Executive Director

October 4, 2005

Mrs. Angie Pennock
U.S. Army Corps of Engineers, Regulatory Branch
151 Patton Avenue, Room 208
Asheville, North Carolina 28801-5006

SUBJECT: Federal Highway Administration Nationwide 14 Permit Application
Blue Ridge Parkway (PRA-BLRI 2P14) – UT Bull Creek and Wolf Branch
Buncombe and Yancey Counties.
DWQ No. 20051435

Dear Mrs. Pennock:

The Federal Highway Administration requested a letter of concurrence from the North Carolina Wildlife Resources Commission (Commission) for a 404 Permit from the U.S. Army Corps of Engineers. I reviewed the application and am familiar with the project area. Our comments are provided in accordance with provisions of the Clean Water Act of 1977 (33 U.S.C. 466 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The Federal Highway Administration is requesting authorization for stream impacts to rehabilitate a 16.5 mile portion of the Blue Ridge Parkway in Buncombe and Yancey counties. The application specifies 40 feet of inlet reconditioning on an unnamed tributary to Bull Creek and Wolf Branch. Another 142 feet of impact is indicated for pipe reconditioning on Wolf Branch.

Shope Creek downstream of the project area supports wild rainbow trout. We believe that Bull Creek and Wolf Branch do as well. Although suitable spawning habitat for trout may be a considerable distance downstream of the impact areas, we believe that erosion and sedimentation could affect it because of high stream gradient. The project may adversely affect trout resources if construction occurs during the spawning season.

I was unable to visit the project area and to ascertain specifically what is proposed for the inlet and pipe reconditioning. The application describes work on streams that are depicted as blue lines on the USGS map. We recommend verifying that fill will not be placed in other streams that may occur along the project corridor and that are not shown on the USGS maps. Permit conditions are recommended below, in part, to prevent pipe and inlet stabilization from causing aquatic life passage impediments. For example, inlet reconditioning with any rip rap or rock should not result in an obstructed stream channel. Rather, the natural bed materials should be left unaltered (e.g. uncovered).

The Commission is concerned about aquatic resources in these drainages. Therefore, in addition to considering the comments above, we can concur with the issuance of a 404 Permit provided the following conditions are attached and used to help conserve resources:

1. In stream construction and soil disturbance in the 25-foot trout buffers should not occur from January 1 to April 15 to protect rainbow trout spawning in waters downstream.
2. Adequate sediment and erosion control measures must be used prior to construction and maintained to minimize sedimentation in downstream waters. Temporary or permanent herbaceous vegetation should be planted on all bare soil within fifteen (15) days of ground disturbing activities to provide long-term erosion control. Erosion control matting should be used in conjunction with appropriate seeding on disturbed soils in steep slope and riparian areas. Matting should be secured in place with staples, stakes, or, wherever possible, live stakes of native trees. Straw mulch and tall fescue must not be used in riparian areas.
3. For culverts that are less than 48 inches in diameter, the invert of the barrel should be placed in the main flow channel or thalweg with 20% of the diameter of the culvert below the level of the stream bed. Larger culverts should be similarly placed but with the barrel invert 1 foot below the stream bottom. These prescriptions promote the accumulation of sediment in the pipes and facilitate aquatic life passage during periods of low flow. These measures also may require increasing the size of the culverts to meet hydraulic requirements. Perched culverts should be corrected wherever possible during construction.
4. Rock, sand, or other materials must not be dredged from the stream channels except, if necessary, in the immediate vicinity of the culverts. In stream dredging has severe effects on aquatic life and disturbance of the natural form of the channel can cause downstream erosion problems.
5. Excavation for the stream crossings should be conducted in the dry. Sandbags, cofferdams, flexible pipe, or other diversion structures should be used to minimize excavation in flowing water. Any diversion ditches must be lined with rock, fabric, or similar material that will reduce soil erosion.
6. If concrete is used during culvert installation (e.g., headwalls), a dry work area must be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to possible water chemistry change and a fish kill.
7. Rock check dams at culvert outlets should be removed at project completion to avoid impeding the movement of aquatic life.
8. Storm water should be directed to buffer areas, where it is diffusely discharged, or to retention basins and not routed directly to streams. Drop inlets on streams must not be used.
9. Riprap placed for bank stabilization (inlets and outlets) must be clean and limited to the stream bank below the high water mark and vegetation should be used above. Rip rap or other rock must not be placed in stream channels in a manner that impedes aquatic life passage.
10. Removal of vegetation at the stream crossings and adjacent to streams should be minimized. Where it is removed, native trees and shrubs (e.g., rhododendron, dog hobble, willows, alders, sycamores, dogwoods, black walnut and red maple) should be replanted along the stream banks to reestablish the riparian zone and to provide long-term erosion control.
11. All mechanized equipment operated near surface waters should be inspected and maintained regularly to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids or other toxic materials.
12. Discharging hydro-seed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is strictly prohibited.
13. This permit does not authorize the discharge of waste rock and dirt into streams or riparian zones except where specifically permitted.

Thank you for the opportunity to review and comment on this project. Pending availability of field staff, the Commission may inspect the work site during or after construction. If there are any questions regarding these comments, please contact me at (828) 452-2546 extension 24.

Sincerely,



Dave McHenry
Mountain Region Coordinator
Habitat Conservation Program

cc: Ms. Bridgette Mandel, Federal Highway Administration
Mr. Brian Wrenn, Division of Water Quality, Asheville
Mrs. Marla Chambers, NC Wildlife Resources Commission

NATIONWIDE PERMIT 33
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
FINAL NOTICE OF ISSUANCE AND MODIFICATION OF NATIONWIDE PERMITS
FEDERAL REGISTER
AUTHORIZED MARCH 18, 2002

Temporary Construction, Access and Dewatering: Temporary structures, work and discharges, including cofferdams, necessary for construction activities or access fills or dewatering of construction sites; provided that the associated primary activity is authorized by the Corps of Engineers or the U.S. Coast Guard (USCG), or for other construction activities not subject to the Corps or USCG regulations. Appropriate measures must be taken to maintain near normal downstream flows and to minimize flooding. Fill must be of materials, and placed in a manner, that will not be eroded by expected high flows. The use of dredged material may be allowed if it is determined by the District Engineer that it will not cause more than minimal adverse effects on aquatic resources. Temporary fill must be entirely removed to upland areas, or dredged material returned to its original location, following completion of the construction activity, and the affected areas must be restored to the pre-project conditions. Cofferdams cannot be used to dewater wetlands or other aquatic areas so as to change their use. Structures left in place after cofferdams are removed require a section 10 permit if located in navigable waters of the United States. (See 33 CFR part 322). The permittee must notify the District Engineer in accordance with the "Notification" general condition. The notification must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources. The District Engineer will add special conditions, where necessary, to ensure environmental adverse effects is minimal. Such conditions may include: Limiting the temporary work to the minimum necessary; requiring seasonal restrictions; modifying the restoration plan; and requiring alternative construction methods (e.g., construction mats in wetlands where practicable.). (Sections 10 and 404)

NATIONWIDE PERMIT GENERAL CONDITIONS

The following General Conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.
2. Proper Maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.
3. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls

must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

4. Aquatic Life Movements. No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its Section 401 Water Quality Certification and Coastal Zone Management Act consistency determination.

7. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a 'study river' for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

8. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water Quality.

a. In certain states and tribal lands an individual 401 Water Quality Certification must be obtained or waived (See 33 CFR 330.4(c)).

b. For NWP's 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the state or tribal 401 certification (either generically or individually) does not require or approve water quality management measures, the permittee must provide water quality management measures that will ensure that the authorized work does not result in more than minimal degradation of water quality (or the Corps determines that compliance with state or local standards, where applicable, will ensure no more than minimal adverse effect on water quality). An important component of water quality management includes stormwater management that minimizes degradation of the

downstream aquatic system, including water quality (refer to General Condition 21 for stormwater management requirements). Another important component of water quality

management is the establishment and maintenance of vegetated buffers next to open waters, including streams (refer to General Condition 19 for vegetated buffer requirements for the NWPs).

This condition is only applicable to projects that have the potential to affect water quality. While appropriate measures must be taken, in most cases it is not necessary to conduct detailed studies to identify such measures or to require monitoring.

10. Coastal Zone Management. In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see 33 CFR 330.4(d)).

11. Endangered Species.

a. No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS the District Engineer may add species-specific regional endangered species conditions to the NWPs.

b. Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS and NMFS or their World Wide Web pages at <http://www.fws.gov/r9endspp/endspp.html> and <http://www.nfms.noaa.gov/protres/overview/es.html> respectively.

12. Historic Properties. No activity that may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the District Engineer has complied with the provisions of 33 CFR part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect

historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

13. Notification.

a. Timing; where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a preconstruction notification (PCN) as early as possible. The District Engineer must determine if the notification is complete within 30 days of the date of receipt and can request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the District Engineer will notify the prospective permittee that the notification is still incomplete and the PCN review process will not commence until all of the requested information has been received by the District Engineer. The prospective permittee shall not begin the activity:

1. Until notified in writing by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

2. If notified in writing by the District or Division Engineer that an Individual Permit is required; or

3. Unless 45 days have passed from the District Engineer's receipt of the complete notification and the prospective permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

b. Contents of Notification: The notification must be in writing and include the following information:

1. Name, address and telephone numbers of the prospective permittee;

2. Location of the proposed project;

3. Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), Regional General Permit(s), or Individual Permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP (Sketches usually clarify the project and when provided result in a quicker decision.);

4. For NWPs 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43, the PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f));

5. For NWP 7 (Cutfall Structures and Maintenance), the PCN must include information regarding the original design capacities and configurations of those areas of the facility where maintenance dredging or excavation is proposed;

6. For NWP 14 (Linear Transportation Projects), the PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the US and a statement describing how temporary losses of waters of the US will be minimized to the maximum extent practicable;

7. For NWP 21 (Surface Coal Mining Activities), the PCN must include an Office of Surface Mining (OSM) or state-approved mitigation plan, if applicable. To be authorized by this NWP, the District Engineer must determine that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are minimal both individually and cumulatively and must notify the project sponsor of this determination in writing;

8. For NWP 27 (Stream and Wetland Restoration Activities), the PCN must include documentation of the prior condition of the site that will be reverted by the permittee;

9. For NWP 29 (Single-Family Housing), the PCN must also include:

i. Any past use of this NWP by the Individual Permittee and/or the permittee's spouse;

ii. A statement that the single-family housing activity is for a personal residence of the permittee;

iii. A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring $\frac{1}{4}$ -acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than $\frac{1}{4}$ -acre in size, formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));

iv. A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

10. For NWP 31 (Maintenance of Existing Flood Control Facilities), the prospective permittee must either notify the District Engineer with a PCN prior to each maintenance activity or submit a five-year (or less) maintenance plan. In addition, the PCN must include all of the following:

i. Sufficient baseline information identifying the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided the approved flood control protection or drainage is not increased;

ii. A delineation of any affected special aquatic sites, including wetlands; and,

iii. Location of the dredged material disposal site;

11. For NWP 33 (Temporary Construction, Access, and Dewatering), the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources;

12. For NWPs 39, 43 and 44, the PCN must also include a written statement to the District Engineer explaining how avoidance and minimization for losses of waters of the US were achieved on the project site;

13. For NWP 39 and NWP 42, the PCN must include a compensatory mitigation proposal to offset losses of waters of the US or justification explaining why compensatory mitigation should not be required. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

14. For NWP 40 (Agricultural Activities), the PCN must include a compensatory mitigation proposal to offset losses of waters of the US. This NWP does not authorize the relocation of greater than 300 linear feet of existing serviceable drainage ditches constructed in non-tidal streams unless, for drainage ditches constructed in intermittent nontidal streams, the District Engineer waives this criterion in writing, and the District Engineer has determined that the project complies with all terms and conditions of this NWP, and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

15. For NWP 43 (Stormwater Management Facilities), the PCN must include, for the construction of new stormwater management facilities, a maintenance plan (in accordance with state and local requirements, if applicable) and a compensatory mitigation proposal to offset losses of waters of the US. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

16. For NWP 44 (Mining Activities), the PCN must include a description of all waters of the US adversely affected by the project, a description of measures taken to minimize adverse effects to waters of the US, a description of measures taken to comply with the criteria of the NWP, and a reclamation plan (for all aggregate mining activities in isolated waters and non-tidal wetlands adjacent to headwaters and any hard rock/mineral mining activities);

17. For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include the name(s) of those endangered or threatened species that may be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work; and

18. For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

c. Form of Notification: The standard Individual Permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)-(18) of General Condition 13. A letter containing the requisite information may also be used.

d. District Engineer's Decision: In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may submit a proposed mitigation plan with the PCN to expedite the process. The District Engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the District Engineer will notify the permittee and include any conditions the District Engineer deems necessary. The District Engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the District Engineer will expeditiously review the proposed compensatory mitigation plan. The District Engineer must review the plan within 45 days of receiving a complete PCN and determine whether the conceptual or specific proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then the District Engineer will notify the applicant either:

1. That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an Individual Permit;
2. that the project is authorized under the NWP subject to the applicant's submission

of a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level; or

3. that the project is authorized under the NWP with specific modifications or conditions. Where the District Engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level. When conceptual mitigation is included, or a mitigation plan is required under item (2) above, no work in waters of the US will occur until the District Engineer has approved a specific mitigation plan.

e. Agency Coordination: The District Engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

For activities requiring notification to the District Engineer that result in the loss of greater than $\frac{1}{2}$ -acre of waters of the US, the District Engineer will provide immediately (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy to the appropriate Federal or state offices (USFWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the District Engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 15 calendar days before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. As required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act, the District Engineer will provide a response to NMFS within 30 days of receipt of any Essential Fish Habitat conservation recommendations. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification.

f. Wetland Delineations: Wetland delineations must be prepared in accordance with the current method required by the Corps (For NWP 29 see paragraph (b)(9)(iii) for parcels less than $\frac{1}{4}$ -acre in size). The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 45-day period will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

14. Compliance Certification. Every permittee who has received NWP verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include:

- a. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions;
- b. A statement that any required mitigation was completed in accordance with the permit conditions; and
- c. The signature of the permittee certifying the completion of the work and mitigation.

15. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit (e.g. if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed $\frac{1}{3}$ -acre).

16. Water Supply Intakes. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.

17. Shellfish Beds. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.

18. Suitable Material. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the CWA).

19. Mitigation. The District Engineer will consider the factors discussed below when determining the acceptability of appropriate and practicable mitigation necessary to offset adverse effects on the aquatic environment that are more than minimal.

- a. The project must be designed and constructed to avoid and minimize adverse effects to waters of the US to the maximum extent practicable at the project site (i.e., on site).

- b. Mitigation in all its forms (avoiding, minimizing, rectifying, reducing or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

- c. Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland impacts requiring a PCN, unless the District Engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. Consistent with National policy, the District Engineer will establish a preference for restoration of wetlands as compensatory mitigation, with

preservation used only in exceptional circumstances.

d. Compensatory mitigation (i.e., replacement or substitution of aquatic resources for those impacted) will not be used to increase the acreage losses allowed by the acreage limits of some of the NWP's. For example, $\frac{1}{4}$ -acre of wetlands cannot be created to change a $\frac{3}{4}$ -acre loss of wetlands to a $\frac{1}{2}$ -acre loss associated with NWP 39 verification. However, $\frac{1}{2}$ -acre of created wetlands can be used to reduce the impacts of a $\frac{1}{2}$ -acre loss of wetlands to the minimum impact level in order to meet the minimal impact requirement associated with NWP's.

e. To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed.

f. Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., easements, deed restrictions) of vegetated buffers to open waters. In many cases, vegetated buffers will be the only compensatory mitigation required. Vegetated buffers should consist of native species. The width of the vegetated buffers required will address documented water quality or aquatic habitat loss concerns. Normally, the vegetated buffer will be 25 to 50 feet wide on each side of the stream, but the District Engineers may require slightly wider vegetated buffers to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the Corps will determine the appropriate compensatory mitigation (e.g., stream buffers or wetlands compensation) based on what is best for the aquatic environment or, a watershed basis. In cases where vegetated buffers are determined to be the most appropriate form of compensatory mitigation, the District Engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland impacts.

g. Compensatory mitigation proposals submitted with the " notification" may be either conceptual or detailed. If conceptual plans are approved under the verification, then the Corps will condition the verification to require detailed plans be submitted and approved by the Corps prior to construction of the authorized activity in waters of the US.

h. Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases that require compensatory mitigation, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

20. Spawning Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and provide for not increasing water flows from the project site, relocating water, or redirecting water flow beyond preconstruction conditions. Stream channelizing will be reduced to the minimal amount necessary, and the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows. In most cases, it will not be a requirement to conduct detailed studies and monitoring of water flow.

This condition is only applicable to projects that have the potential to affect waterflows. While appropriate measures must be taken, it is not necessary to conduct detailed studies to identify such measures or require monitoring to ensure their effectiveness. Normally, the Corps will defer to state and local authorities regarding management of water flow.

22. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to the acceleration of the passage of water, and/or the restricting its flow shall be minimized to the maximum extent practicable. This includes structures and work in navigable waters of the US, or discharges of dredged or fill material.

23. Waterfowl Breeding Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. Removal of Temporary Fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

25. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

a. Except as noted below, discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such

waters. Discharges of dredged or fill materials into waters of the US may be authorized by the above NWP's in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the USFWS or the NMFS has concurred in a determination of compliance with this condition.

b. For NWP's 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWP's only after it is determined that the impacts to the critical resource waters will be no more than minimal.

26. Fills Within 100-Year Floodplains. For purposes of this General Condition, 100-year floodplains will be identified through the existing Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

a. Discharges in Floodplain; Below Headwaters. Discharges of dredged or fill material into waters of the US within the mapped 100-year floodplain, below headwaters (i.e. five cfs), resulting in permanent above-grade fills, are not authorized by NWP's 39, 40, 42, 43, and 44.

b. Discharges in Floodway; Above Headwaters. Discharges of dredged or fill material into waters of the US within the FEMA or locally mapped floodway, resulting in permanent above-grade fills, are not authorized by NWP's 39, 40, 42, and 44.

c. The permittee must comply with any applicable FEMA-approved state or local floodplain management requirements.

27. Construction Period. For activities that have not been verified by the Corps and the project was commenced or under contract to commence by the expiration date of the NWP (or modification or revocation date), the work must be completed within 12-months after such date (including any modification that affects the project).

For activities that have been verified and the project was commenced or under contract to commence within the verification period, the work must be completed by the date determined by the Corps.

For projects that have been verified by the Corps, an extension of a Corps approved completion date maybe requested. This request must be submitted at least one month before the previously approved completion date.

FURTHER INFORMATION

1. District Engineers have authority to determine if an activity complies with the terms and

conditions of a NWP.

2. NWPs do not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

DEFINITIONS

Best Management Practices (BMPs): BMPs are policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or nonstructural. A BMP policy may affect the limits on a development.

Compensatory Mitigation: For purposes of Section 10/404, compensatory mitigation is the restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources for the purpose of compensating for unavoidable adverse impacts, which remain, after all appropriate and practicable avoidance and minimization has been achieved.

Creation: The establishment of a wetland or other aquatic resource where one did not formerly exist.

Enhancement: Activities conducted in existing wetlands or other aquatic resources that increase one or more aquatic functions.

Ephemeral Stream: An ephemeral stream has *flowing* water only during and for a short duration after precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Farm Tract: A unit of contiguous land under one ownership that is operated as a farm or part of a farm.

Flood Fringe: That portion of the 100-year floodplain outside of the floodway (often referred to as "floodway fringe").

Floodway: The area regulated by Federal, state, or local requirements to provide for the discharge of the base flood so the cumulative increase in water surface elevation is no more than

a designated amount (not to exceed one foot as set by the National Flood Insurance Program) within the 100-year floodplain.

Independent Utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent Stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the US: Waters of the US that include the filled area and other waters that are permanently adversely affected by flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent above-grade, at-grade, or below-grade fills that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the US is the threshold measurement of the impact to existing waters for determining whether a project may qualify for a NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and values. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the US temporarily filled, flooded, excavated, or drained, but restored to preconstruction contours and elevations after construction, are not included in the measurement of loss of waters of the US. Impacts to ephemeral waters are only not included in the acreage or linear foot measurements of loss of waters of the US or loss of stream bed, for the purpose of determining compliance with the threshold limits of the NWPs.

Non-tidal Wetland: An area that, during a year with normal patterns of precipitation has standing or flowing water for sufficient duration to establish an ordinary high water mark. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. The term "open water" includes rivers, streams, lakes, and ponds. For the purposes of the NWPs, this term does not include ephemeral waters.

Perennial Stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for the most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Permanent Above-grade Fill: A discharge of dredged or fill material into waters of the US, including wetlands, that results in a substantial increase in ground elevation and permanently converts part or all of the waterbody to dry land. Structural fills authorized by NWPs 3, 25, 36, etc. are not included.

Preservation: The protection of ecologically important wetlands or other aquatic resources in perpetuity through the implementation of appropriate legal and physical mechanisms. Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection and/or enhancement of the overall aquatic ecosystem.

Restoration: Re-establishment of wetland and/or other aquatic resource characteristics and function(s) at a site where they have ceased to exist, or exist in a substantially degraded state.

Riffle and Pool Complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Single and Complete Project: The term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers (see definition of independent utility). For linear projects, the "single and complete project" (i.e., a single and complete crossing) will apply to each crossing of a separate water of the US (i.e., a single waterbody) at that location. An exception is for linear projects crossing a single waterbody several times at separate and distant locations; each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies.

Stormwater Management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater Management Facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and BMPs, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream Channelization: The manipulation of a stream channel to increase the rate of water flow through the stream channel. Manipulation may include deepening, widening, straightening, armoring, or other activities that change the stream cross-section or other aspects of stream channel geometry to increase the rate of water flow through the stream channel. A channelized stream remains a water of the US, despite the modifications to increase the rate of water flow.

Tidal Wetland: A tidal wetland is a wetland (i.e., water of the US) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or

cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line (i.e., spring high tide line) and are inundated by tidal waters two times per lunar month, during spring high tides.

Vegetated Buffer: A vegetated upland or wetland area next to rivers, streams, lakes, or other open waters, which separates the open water from developed areas, including agricultural land. Vegetated buffers provide a variety of aquatic habitat functions and values (e.g., aquatic habitat for fish and other aquatic organisms, moderation of water temperature changes, and detritus for aquatic food webs) and help improve or maintain local water quality. A vegetated buffer can be established by maintaining an existing vegetated area or planting native trees, shrubs, and herbaceous plants on land next to openwaters. Mowed lawns are not considered vegetated buffers because they provide little or no aquatic habitat functions and values. The establishment and maintenance of vegetated buffers is a method of compensatory mitigation that can be used in conjunction with the restoration, creation, enhancement or preservation of aquatic habitats to ensure that activities authorized by NWP's result in minimal adverse effects to the aquatic environment. (See General Condition 19.)

Vegetated Shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: A waterbody is any area that in a normal year has water flowing or standing above ground to the extent that evidence of an ordinary high water mark is established. Wetlands contiguous to the waterbody are considered part of the waterbody.

FINAL REGIONAL CONDITIONS FOR NATIONWIDE PERMITS IN THE WILMINGTON DISTRICT

1. Waters Excluded from NWP or Subject to Additional Notification Requirements:

a. The Corps identified waters that will be excluded from use of this NWP. These waters are:

1. Discharges into Waters of the United States designated by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning area are prohibited during the period between February 15 and June 30, without prior written approval from NCDMF or NCWRC and the Corps.

2. Discharges into Waters of the United States designated as sturgeon spawning areas are prohibited during the period between February 1 and June 30, without prior written approval from the National Marine Fisheries Service (NMFS).

b. The Corps identified waters that will be subject to additional notification requirements for activities authorized by this NWP. These waters are:

1. Prior to the use of any NWP in any of the following North Carolina *designated waters*, applicants must comply with Nationwide Permit General Condition 13. In addition, the applicant must furnish a written statement of compliance with all of the conditions of the applicable Nationwide Permit. The North Carolina *designated waters* that require additional notification requirements are “Outstanding Resource Waters” (ORW) and “High Quality Waters” (HQW) (as defined by the North Carolina Division of Water Quality), or “Inland Primary Nursery Areas” (IPNA) (as defined by the North Carolina Wildlife Resources Commission), or contiguous wetlands (as defined by the North Carolina Division of Water Quality), or “Primary Nursery Areas” (PNA) (as defined by the North Carolina Division of Marine Fisheries).

2. Applicants for any NWP in a designated “Area of Environmental Concern” (AEC) in the twenty (20) coastal counties of Eastern North Carolina covered by the North Carolina Coastal Area Management Act (CAMA), must also obtain the required CAMA permit. Construction activities may not commence until a copy of the approved CAMA permit is furnished to the appropriate Wilmington District Regulatory Field Office (Wilmington Field Office – P.O. Box 1890, Wilmington, NC 28402 or Washington Field Office – P.O. Box 1000, Washington, NC 27889) for authorization to begin work.

3. Prior to the use of any NWP on a Barrier Island of North Carolina, applicants must comply with Nationwide Permit General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable Nationwide Permit.

4. Prior to the use of any NWP in a “Mountain or Piedmont Bog” of North Carolina, applicants shall comply with Nationwide Permit General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable NWP.

Note: The following wetland community types identified in the N.C. Natural Heritage Program document, “Classification of Natural communities of North Carolina (Michael P. Schafale and Alan S. Weakley, 1990), are subject to this regional condition.

Mountain Bogs

Swamp Forest-Bog Complex
Swamp Forest-Bog Complex (Spruce Subtype)
Southern Appalachian Bog (Northern Subtype)
Southern Appalachian Bog (Southern Subtype)
Southern Appalachian Fen

Piedmont Bogs

Upland Depression Swamp Forest

5. Prior to the use of any NWP in Mountain Trout Waters within twenty-five (25) designated counties of North Carolina, applicants shall comply with Nationwide General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable NWP. Notification will include a letter of comments and recommendations from the North Carolina Wildlife Resources Commission (NCWRC), the location of work, a delineation of wetlands, a discussion of alternatives to working in the Mountain Trout Waters, why other alternatives were not selected, and a plan to provide compensatory mitigation for all unavoidable adverse impacts to the Mountain Trout Waters. To facilitate coordination with the NCWRC, the proponent may provide a copy of the notification to the NCWRC concurrent with the notification to the District Engineer. The NCWRC will respond both to the proponent and directly to the Corps of Engineers.

The twenty-five (25) designated counties are:

Alleghany	Ashe	Avery	Yancey
Buncombe	Burke	Caldwell	Wilkes
Cherokee	Clay	Graham	Swain
Haywood	Henderson	Jackson	Surry
Macon	Madison	McDowell	Stokes
Mitchell	Polk	Rutherford	
Transylvania	Watauga		

6. Applicants shall notify the NCDENR Shellfish Sanitation Section prior to dredging in or removing sediment from an area closed to shell fishing where the effluent may be released to an area open for shell fishing or swimming in order to avoid contamination of the disposal area and allow a temporary shellfish closure to be made. Any disposal of sand to the beach should occur between November 1 and April 30 when recreational usage is low. Only clean sand should be used and no dredged sand from closed shell fishing areas. If beach disposal was to occur at times other than stated above or if sand from a closed shell fishing area is to be used, a swim advisory shall be posted and a press release shall be made. NCDENR Shellfish Sanitation Section must be notified before commencing this activity.

2. List of Final Corps Regional Modifications and Conditions for All Nationwide Permits

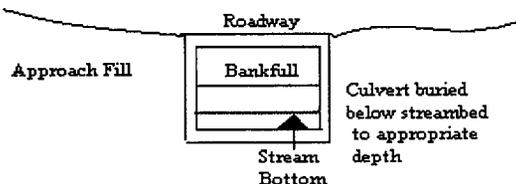
a. Individual or multiple NWPs may not be used for activities that result in the cumulative loss or degradation of greater than 300 total linear feet of perennial streambed or intermittent streambed that exhibits important aquatic function(s).

b. Prior to the use of any NWP (except 13, 27, and 39) for any activity that has more than a total of 150 total linear feet of perennial streambed impacts or intermittent streambed impacts (if the intermittent stream has important aquatic function), the applicant must comply with Nationwide Permit General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable NWP. Compensatory mitigation is typically required for any impact that requires such notification. [Note: The Corps uses the Intermittent Channel Evaluation Form, located with Permit Information on the Regulatory Program Web Site, to aid in the determination of the intermittent channel stream status. Also, NWPs 13, 27 and 39 have specific reporting requirements.]

c. For all Nationwide Permits which allow the use of concrete as a building material, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened.

d. For all Nationwide Permits that allow for the use of riprap material for bank stabilization, filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters.

e. For all NWPs that involve the construction of culverts, measures will be included in the construction that will promote the safe passage of fish and other aquatic organisms. All culverts in the 20 CAMA coastal counties must be buried to a depth of one foot below the



bed of the stream or wetland. For all culvert construction activities, the dimension, pattern, and profile of the stream, (above and below a pipe or culvert), should not be modified by widening the stream channel or by reducing the depth of the stream. Culvert inverts will be buried at least one foot below the bed of the stream for culverts greater than 48 inches in diameter. For culverts 48 inches in diameter or smaller, culverts must be buried below the bed of the stream to a depth

equal to or greater than 20 percent of the diameter of the culvert. Bottomless arch culverts will satisfy this condition. A waiver from the depth specifications in this Regional Condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this Regional Condition would result in more adverse impacts to the aquatic environment.

3. Additional Regional Conditions Applicable to this Specific Nationwide Permit.

The required restoration plan must include a timetable for restoration activities.

NORTH CAROLINA DIVISION OF WATER QUALITY
GENERAL CERTIFICATION CONDITIONS
GC3366

1. These activities do not require written concurrence from the Division of Water Quality as long as they comply with all conditions of this General Certification. If any condition in this Certification cannot be met, application to and written concurrence from DWQ are required. Also, Condition No. 2 is applicable to all streams in basins with riparian area protection rules;

2. Impacts to any stream length in the Neuse, Tar-Pamlico and Randleman River Basins (or any other major river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman and Catawba River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;

3. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;

4. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;

5. If an environmental document is required, this Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse;

6. Placement of culverts and other structures in waters, streams, and wetlands must be placed

below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to DWQ that providing passage would be impractical. Design and placement of culverts including open bottom or bottomless arch culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in aggradation, degradation or significant changes in hydrology of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ. Additionally, when roadways, causeways or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in aggradation, degradation or significant changes in hydrology of streams or wetlands;

7. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the state until the concrete has hardened;
8. All temporary fill shall be removed to the original grade after construction is complete and the site shall be stabilized to prevent erosion;
9. Pipes shall be installed under the road or causeway in all streams to carry at least the 25 year storm event as outlined in the most recent edition of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" so as not to restrict stream flow during use of this Certification;
10. In accordance with North Carolina General Statute Section 143-215.3D(e), any request for written concurrence for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted and will be the higher of the two fees;
11. Additional site-specific conditions may be added to projects for which written concurrence is required or requested under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
12. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of these corresponding Nationwide and Regional General Permits, whichever is sooner;
13. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed.

NORTH CAROLINA DIVISION OF COASTAL MANAGEMENT

STATE CONSISTENCY

Consistent.

Citations:

2002 Nationwide Permits - Federal Register Notice 15 Jan 2002

2002 Nationwide Permits Corrections - Federal Register Notice 13 Feb 2002

2002 Regional Conditions – Authorized 17 May 2002

050426-PL-2



United States Department of the Interior



National Park Service
Blue Ridge Parkway
199 Hemphill Knob Road
Asheville, North Carolina 28803

L7617

April 21, 2005

Memorandum

To: Project Leader, John Gentry

From: Chief, Resource Planning & Professional Services

Subject: NEPA and Section 106 Clearance: Project PRA-BLRI 2P14, Q13 (BLRI 503F; PMIS 54310, Category I, 3R) (PIN 10191)

The Resource Planning and Professional Services Division has reviewed the proposed project/action and completed its environmental assessment documentation, and we have determined that there:

- will not be any effect on threatened, endangered, or rare species and/or their critical habitat,
- will not be any effect on historical, cultural, or archeological resources, and
- will not be serious or long-term undesirable environmental or visual effects.

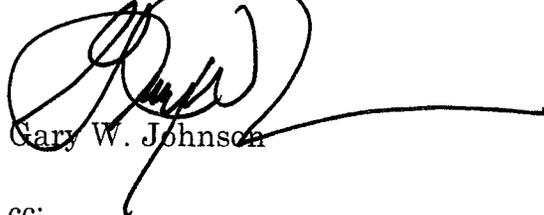
The subject proposed project/action(s), therefore, is/are now cleared for all NEPA and Section 106 compliance requirements as presented above. Project plans and specifications are approved and construction and/or project implementation can commence.

For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- Construction and other debris shall be disposed of according to Superintendent's Order #6 - Solid Waste Disposal, dated July 16, 2003.
- Disturbance shall be limited to the open area or previously disturbed areas.
- The disturbance corridor shall follow existing trails and openings, where possible.

- The location of the waterline between Craggy Gardens VC and the Craggy Dome parking area shall be located prior to work to avoid disturbance conflict.
- All materials and all vehicles (including personal vehicles) shall be staged only in paved parking areas as approved by the Resource Management Specialist and the Contracting Officer.
- Access to area shall be from Craven Gap and Bull Gap and Route 70.
- Exotic plants and/or seeds shall not be used. Reseeding shall follow "BLRI Guidelines for Seeding and Rehabilitation."
- If possible, the seed mix shall be applied in a two-step hydroseeding operation (seed applied first, then cellulose material). This will allow more soil contact by seeds, thus better establishment of grass.
- Because much of this project is within the Asheville Watershed, particular attention should be given to erosion and control design and construction and inclusion of work restrictions in the specifications. Specification must also be written for Contractor mitigation of equipment and material leaks and spills. The City of Asheville may require review.

If you have any questions, please let me know.



Gary W. Johnson

cc:

DSC Staff:

Leon Clifford, Gail Stahlecker, Al Hollister

FHWA Staff:

Thomas Shifflett, ~~Rainier Arvan~~

SERO NPS Staff:

Kent Cochran, Lee Edwards

BLRI Staff:

M&E: Michael Molling, Mike Ryan, John Wilburn

Res. Planning: Larry Hultquist

Res. Mgmt: Bambi Teague, Lillian McElrath

Contracting: Diane Foote

**FEDERAL HIGHWAY
ADMINISTRATION
EASTERN FEDERAL LANDS
HIGHWAY DIVISION**

**TRAFFIC STUDY AND
RECOMMENDATIONS
SUMMARY**

FINAL 100% SUBMITTAL

REHABILITATION OF PARK ROADS
FOR BLUE RIDGE PARKWAY
YANCEY AND BUNCOMBE
COUNTIES, NORTH CAROLINA

PRA-BLRI 2P14
CONTRACT NO. DTFH71-02-D-00004
TASK ORDER 0003

ARCADIS

Brian Whitaker, PE
Project Manager

Traffic Study and
Recommendations Summary

Rehabilitation of Park Roads
for Blue Ridge Parkway
Yancey and Buncombe Counties,
North Carolina

PRA-BLRI 2P14
Contract No. DTFH71-02-D-00004
Task Order 0003

Prepared for:
Federal Highway Administration
Eastern Federal Lands Highway Division

Prepared by:
ARCADIS G&M, Inc.
1210 Premier Drive
Suite 200
Chattanooga
Tennessee 37421
Tel 423 756 7193
Fax 423 756 7197

Our Ref.:
CT052885.0002.00014

Date:
September 2006

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Introduction	1
Traffic Volume Counts	2
Accident Data	2
Recommendations	2

Exhibits

- 1 Vicinity Location Map
- 2 Traffic Count Index
- 3 Traffic Count Location No. 1
- 4 Traffic Count Location No. 2
- 5 Traffic Count Location No. 3

Appendices

- A Traffic Volume Counts Summary Sheet
- B Accident Data Request

Introduction

Blue Ridge Parkway is a 469-mile scenic corridor that connects Shenandoah Valley in Virginia to the Great Smoky Mountains National Park in North Carolina. Adjacent to the parkway, which ranges in elevation from 649 feet to 6,047 feet, are recreational areas that include picnic facilities, hiking trails, visitor centers, overlooks, and campgrounds.

The Blue Ridge Parkway, conceived as a Depression-relief project in the 1930s, took more than 50 years to construct. The parkway is frequented by visitors who come to enjoy the vistas and the foliage and a number of citizen groups concerned with maintaining the pristine nature of the mountain ranges traversed by the Parkway.

The pavement along Blue Ridge Parkway and adjacent access roads and pull-offs is in various stages of deterioration and in need of rehabilitation. Area features such as asphalt paths, granite curbs, rubble, and masonry walls and steps are also in need of repair.

This project consists of the resurfacing and rehabilitation of the Parkway between Milepost 359.8, at the Balsam Gap Overlook, and Milepost 375.3. The project corridor is a two-lane asphalt paved roadway. There are three tunnels, six parking and pull-off areas, a Visitor's Center with parking area, and a picnic area with parking that includes 1.2 miles access roadway from the parkway. Project work includes pavement removal, milling, pavement patching, asphalt-paving, shoulder stabilization, stone curb removal and replacement, concrete curb removal, drainage work, guardrail replacement, tunnel drainage repair along shoulders, and miscellaneous work. Drainage work consists of inspecting and evaluating culverts, inlets, and ditches for the need for cleaning, reconditioning, and replacement.

This project is for the Eastern Federal Lands Highway Division (EFLHD) of the Federal Highway Administration (FHWA) of the U.S. Department of Transportation and the U.S. National Park Service (NPS). The Blue Ridge Parkway is used by thousands of tourists every year and special consideration will be made to ensure that the overlooks, Visitor's Center, and the Parkway itself remain accessible at all times, that traffic through the corridor is maintained, and that there is a minimization of disturbance to trees and green space.

The purpose of this report is to document the gathering of traffic data and to present the traffic data for the project.

Traffic Volume Counts

Traffic volume counts were conducted for project roadways using TRAX I automatic traffic data recorders manufactured by Jamar Technologies, Inc. Traffic volume counts were recorded 24 hours per day for a minimum of 7 days. The data consisted of hourly volumes from which average daily traffic (ADT) volumes for each roadway were calculated. Using the assumption that the volume of traffic on project roads will increase on an average of 2 percent each year, the 2003 volumes were projected to develop 2023-projected ADTs.

The 2003 and 2023 ADTs are shown along with site identification numbers in Table 1. A vicinity location map is provided as Exhibit 1. Additionally, maps of the park depicting the location of the counts are provided as Exhibits 2 through 5. Summary sheet for each count showing the hourly volumes are contained in Appendix A.

TABLE 1
Average Daily Traffic Volumes

Site ID No.	Roadway	2003 ADT	2023 ADT
1	Blue Ridge Parkway @ LM 359	910	1356
2	Blue Ridge Parkway @ LM 375	1433	2136
3	Parking Area	333	496

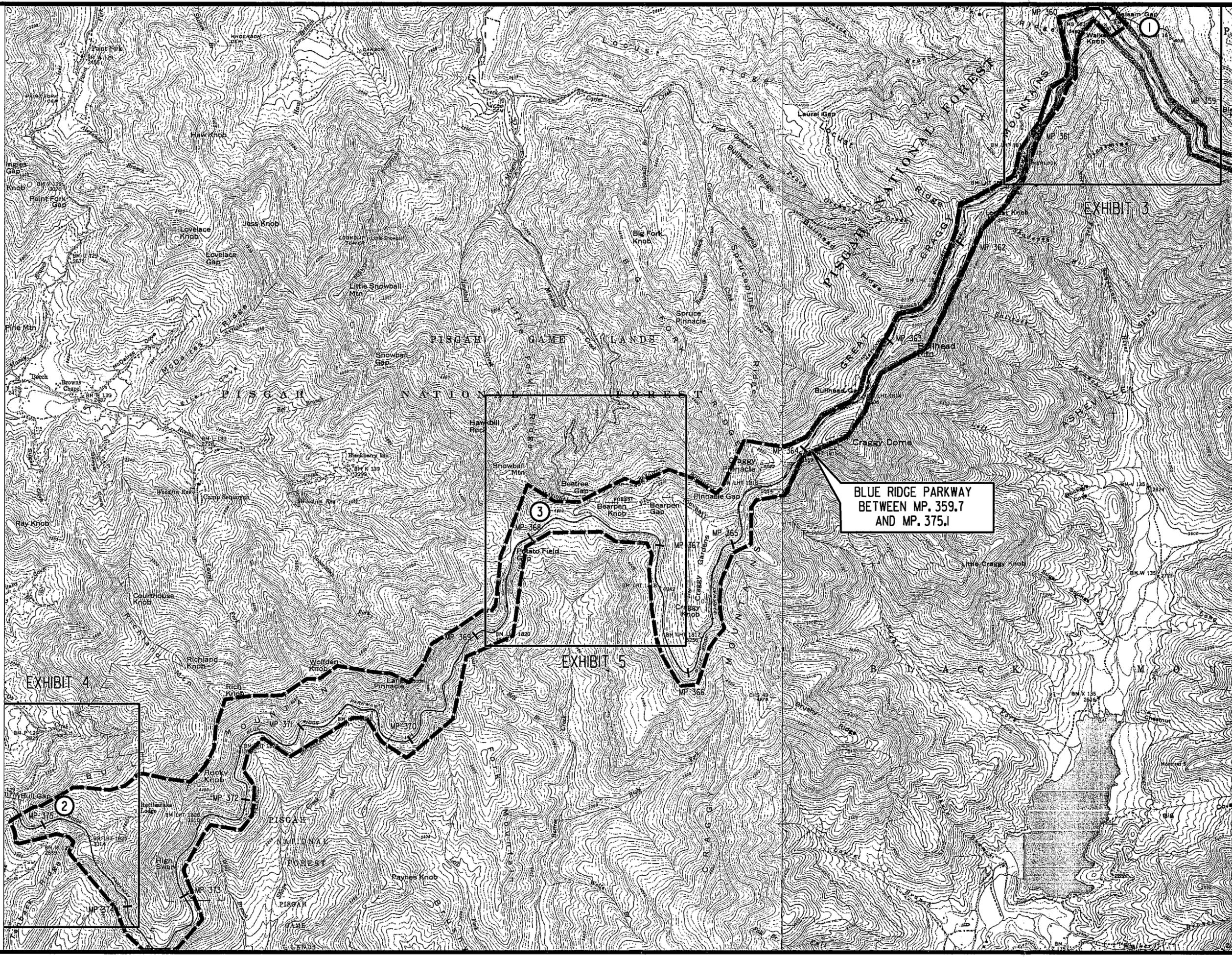
The 2003 and 2023 ADT volumes were used for pavement rehabilitation and reconstruction design. Given the extremely low traffic volumes, no additional traffic analyses were conducted.

Accident Data

Accident data for the project for the years 1998 through 2003 were requested from Mr. John Garrison of the National Park Service. At the time of this report, no accident information has been received. A copy of the letter of request to Mr. Garrison, dated October 1, 2003, is provided in Appendix B.

Recommendations

Design scope for this project was defined in the Design Scoping Report, Project PRA-BLRI2P14. No additional design recommendations have been made.



NOTE: THIS MAP IS ADAPTED FROM THE FOLLOWING
U.S.G.S. QUAD MAPS OF FORTH CAROLINA;
BARNARDSVILLE, BLACK MOUNTAIN, CRAGGY PINNACLE,
MOUNT MITCHELL, AND OTEEN

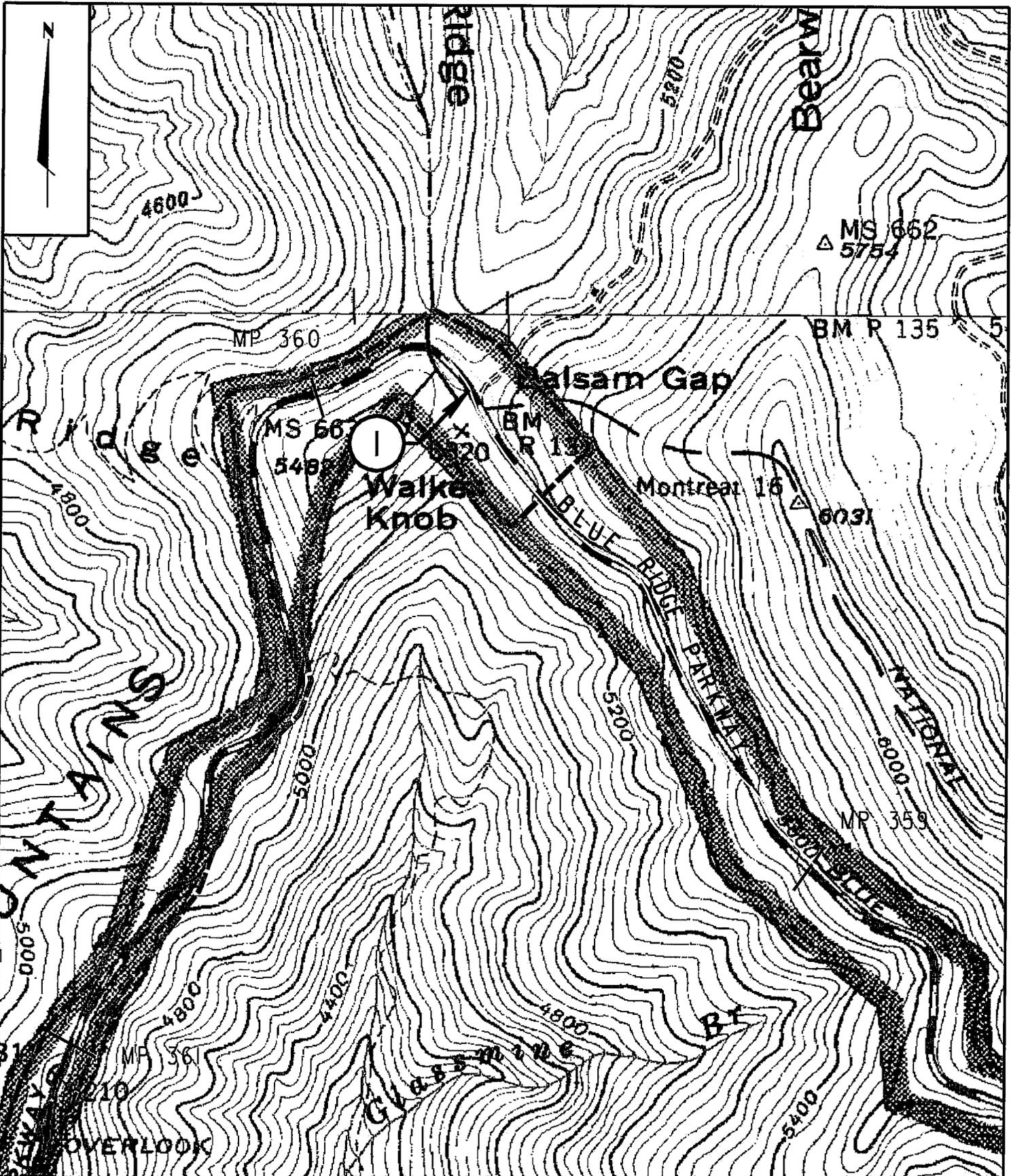


1210 PREMIER DRIVE, SUITE 200
CHATTANOOGA, TN 37421
Tel: 423/756-7893 Fax: 423/756-7897

TRAFFIC COUNT INDEX
BLUE RIDGE PARKWAY
FHWA EASTERN FEDERAL LANDS HIGHWAY DIVISION

PROJECT NUMBER
CT052827

2



0 0.1 0.2 0.3 0.4 0.5



SCALE IN MILES



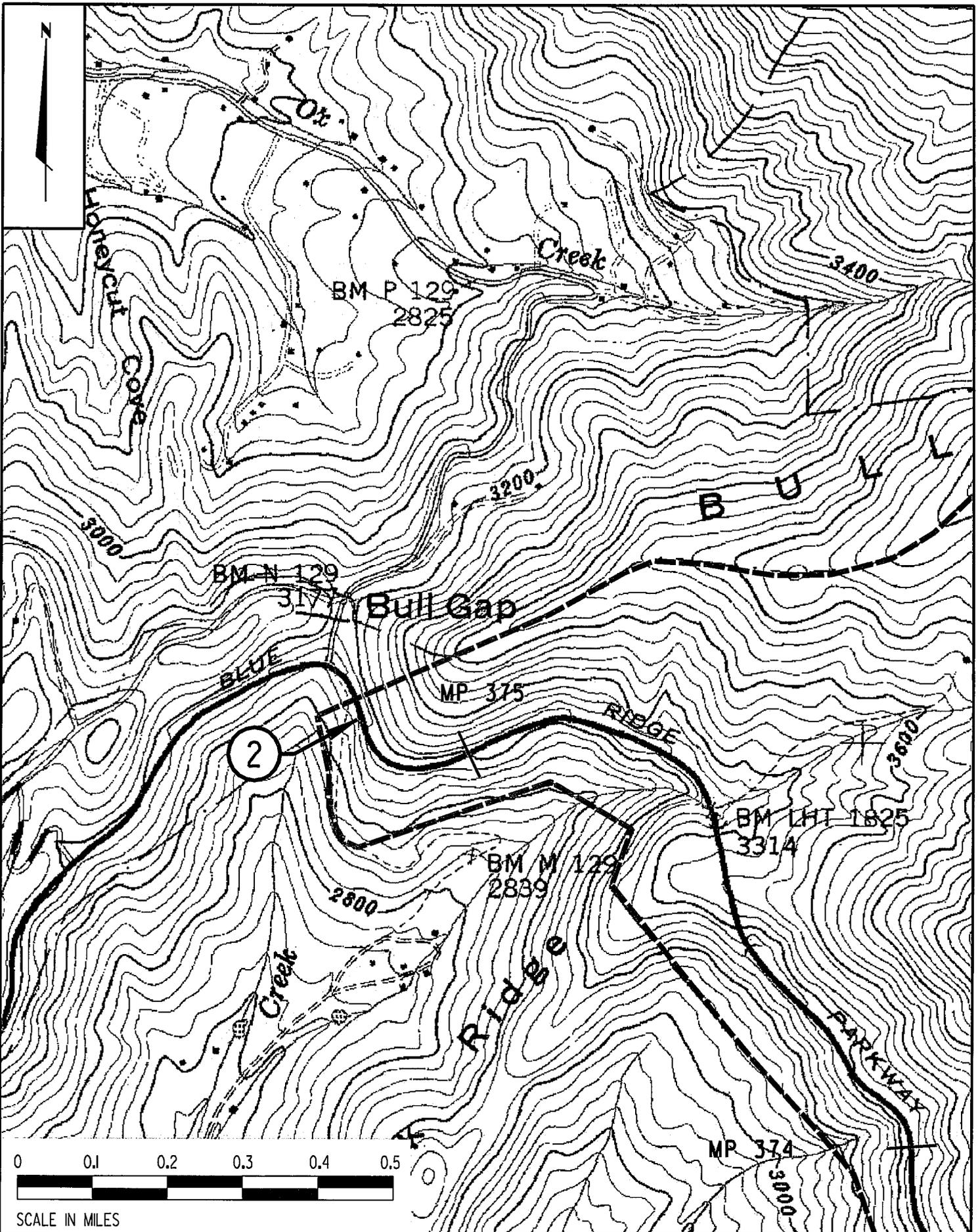
1210 PREMIER DRIVE, SUITE 200
 CHATTANOOGA, TN 37421
 Tel: 423/756-7193 Fax: 423/756-7197

TRAFFIC COUNT LOCATION NO. 1

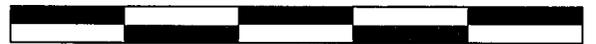
BLUE RIDGE PARKWAY
 FHWA EASTERN FEDERAL LANDS HIGHWAY DIVISION

PROJECT NUMBER
 CT052827

3



0 0.1 0.2 0.3 0.4 0.5



SCALE IN MILES



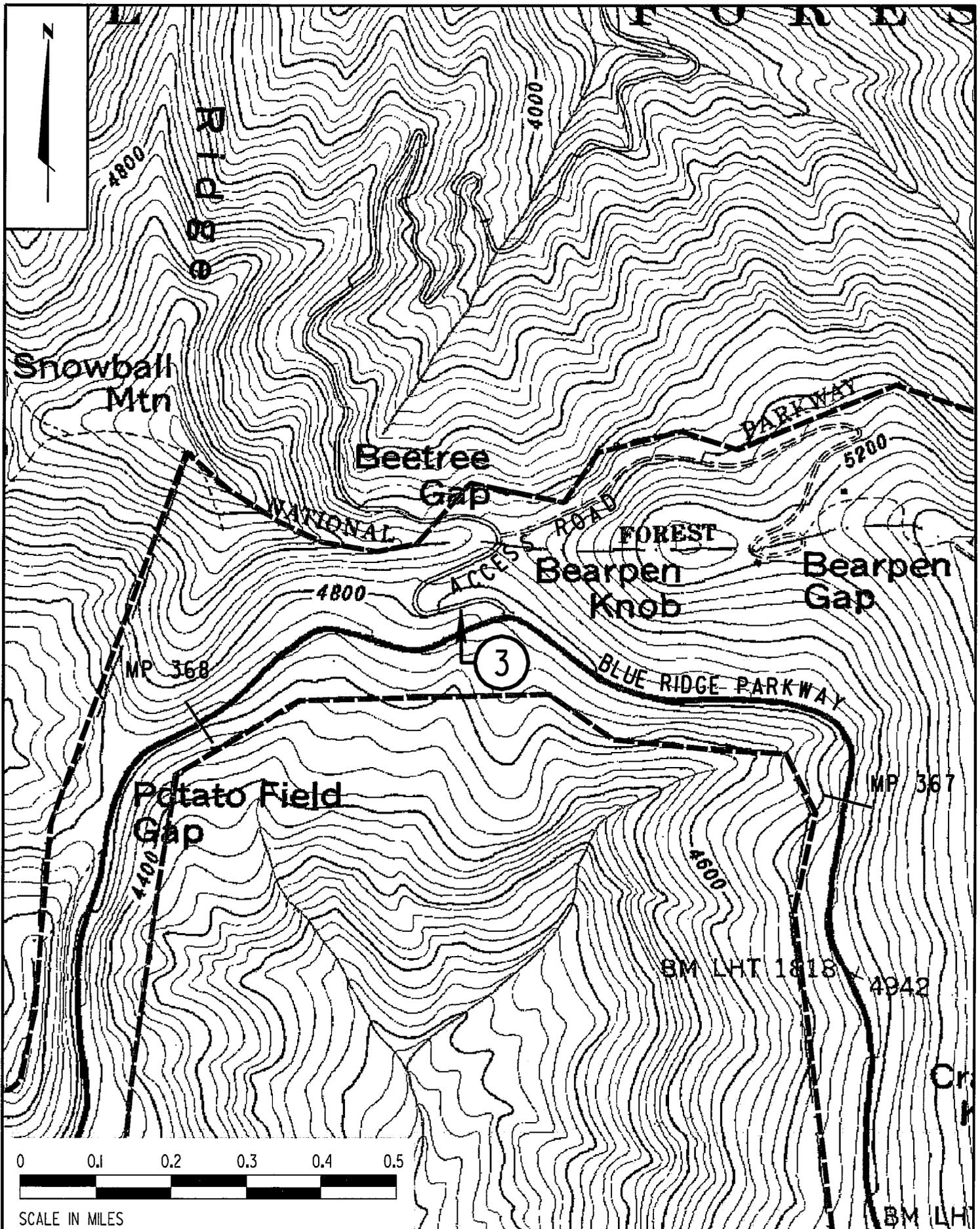
1210 PREMIER DRIVE, SUITE 200
 CHATTANOOGA, TN 37421
 Tel: 423/756-7193 Fax: 423/756-7197

TRAFFIC COUNT LOCATION NO. 2

BLUE RIDGE PARKWAY
 FHWA EASTERN FEDERAL LANDS HIGHWAY DIVISION

PROJECT NUMBER
 CT052827

4



1210 PREMIER DRIVE, SUITE 200
 CHATTANOOGA, TN 37421
 Tel: 423/756-7193 Fax: 423/756-7197

TRAFFIC COUNT LOCATION NO. 3

BLUE RIDGE PARKWAY
 FHWA EASTERN FEDERAL LANDS HIGHWAY DIVISION

PROJECT NUMBER
 CT052827

5

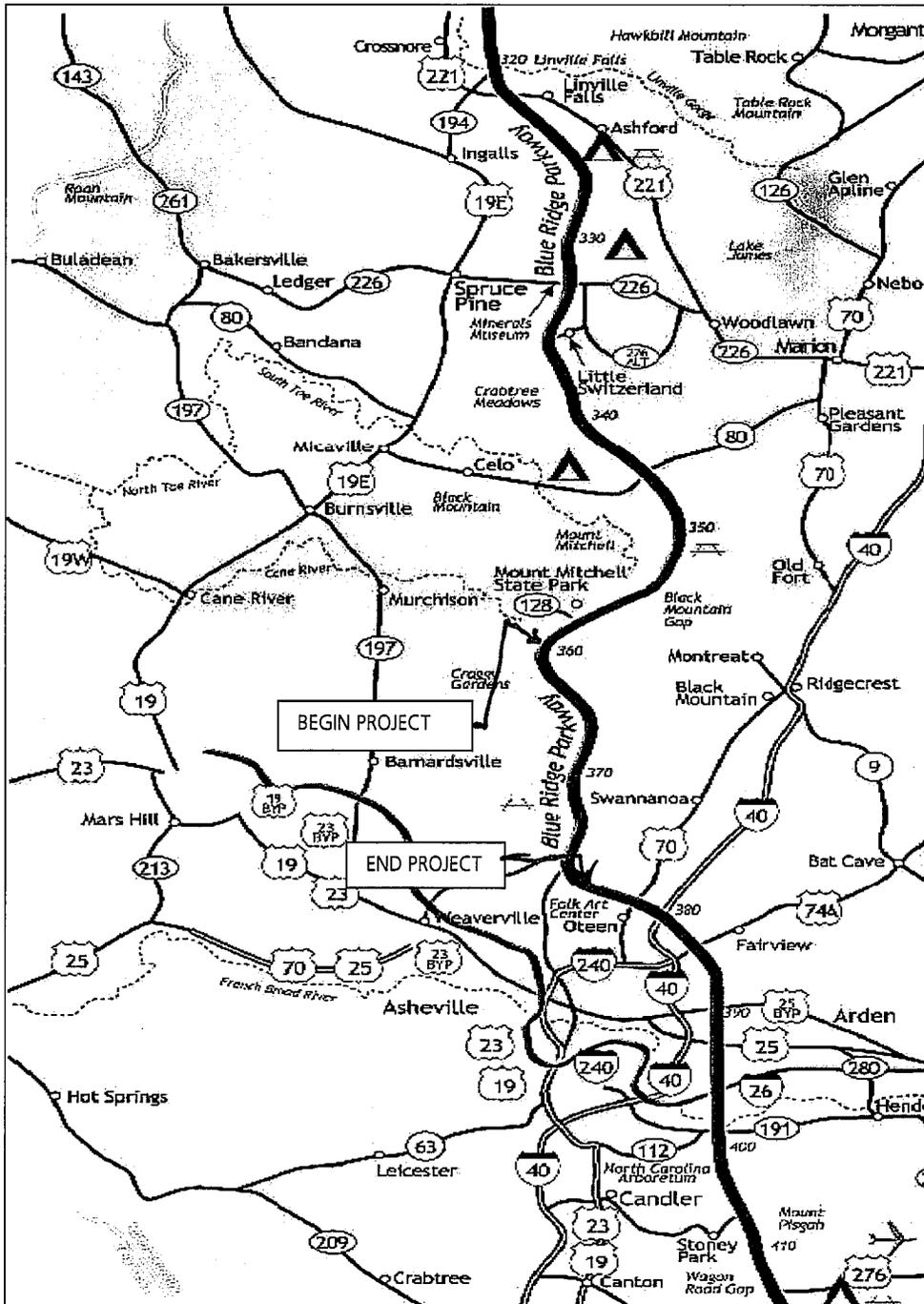
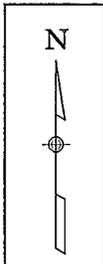


Exhibit 1. Location Vicinity Map 1 (not to scale)

Map Source: www.blueridgeparkway.org

ARCADIS

Appendix A

Traffic Volume Counts
Summary Sheet

Weather :
 Counted by:
 Board # :
 Other :
 Street name : Blue Ridge Parkway - LM 359

JAMAR Technologies, Inc.
 TAS for Windows
 Copyright 1998

Site Code : 000000000359
 Start Date: 09/22/2003
 File I.D. : C:\PROGRAM FI
 Page : 1

Begin Time	Mon. 09/22		Tues.		Wed.		Thur.		Fri.		Weekday		Avg.		Sat.		Sun.	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
12:00 am	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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08:00	3	5	3	5	2	5	4	5	1	5	4	4	3	5	1	1	10	1
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10:00	13	43	13	43	11	22	28	42	3	44	44	14	14	39	5	85	12	81
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12:00 pm	20	38	20	38	35	62	26	44	11	59	59	22	22	48	20	110	33	137
01:00	9	15	38	37	54	40	28	41	11	80	80	28	28	43	29	120	42	115
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04:00	11	9	40	31	56	32	51	35	28	67	67	37	37	35	26	85	53	130
05:00	7	5	44	20	44	22	19	16	25	59	59	28	28	24	5	67	36	73
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11:00	0	0	0	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0
Totals	119	188	319	315	406	355	313	335	175	641	641	268	367	169	986	356	1061	1417
		307		634		761		648		816		635		1155				

Avg. Day	44.4%	51.2%	119.0%	85.8%	151.4%	96.7%	116.7%	91.2%	65.3%	174.6%	63.0%	268.6%	132.8%	289.1%
AM Peaks	11:00	10:00	11:00	10:00	10:00	11:00	10:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00
Volume	23	43	23	43	11	42	28	50	13	80	17	48	19	28
PM Peaks	12:00	12:00	03:00	03:00	03:00	12:00	03:00	12:00	04:00	03:00	03:00	12:00	01:00	03:00
Volume	20	38	46	41	69	62	58	44	28	82	42	48	29	56

Weather :
 Counted by:
 Board # :
 Other :
 Street name : Blue Ridge Pkwy - Parking Area

JAMAR Technologies, Inc.
 TAS for Windows
 Copyright 1998

Site Code : 000000001001
 Start Date : 09/22/2003
 File I.D. : C:\PROGRAM FI
 Page : 1

Begin Time	Mon. 09/22		Tues.		Wed.		Thur.		Fri.		Weekday		Avg.		Sat.		Sun.	
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Totals	65	67	124	120	125	122	129	113	115	111	111	112	106	214	193	310	303	303
		132		244		247		242		226		218		407		613		613

Avg. Day	58.0%	63.2%	110.7%	113.2%	111.6%	115.0%	115.1%	106.6%	102.6%	104.7%	191.0%	182.0%	276.7%	285.8%
AM Peaks	09:00	09:00	09:00	09:00	11:00	11:00	11:00	11:00	11:00	08:00	11:00	09:00	11:00	11:00
Volume	15	17	15	17	12	20	19	15	13	13	13	12	27	35
PM Peaks	12:00	12:00	02:00	01:00	12:00	12:00	02:00	03:00	02:00	12:00	12:00	12:00	01:00	02:00
Volume	8	7	14	14	23	25	13	15	18	17	13	14	41	54

ARCADIS

Appendix B

Accident Data Request



Infrastructure, buildings, environment, communications

Mr. John Garrison
National Park Service
Headquarters
199 Hemphill Knob Road
Asheville, NC 28803-8686

Subject:
FHWA-EFLHD Project PRA-BLRI 2P14
Blue Ridge Parkway Resurfacing and Rehabilitating Project
Milepost 359 to Milepost 375

Dear John:

As we discussed during our telephone conversation on September 29, 2003, ARCADIS is requesting accident reports from Milepost 359 to Milepost 375, including any accident reports for the Craggy Gardens picnic grounds located at Milepost 367.5. The dates needed are from October 1, 1998, to October 1, 2003.

Thank you for your assistance in this matter. Please call me if you need any additional information.

Sincerely,

ARCADIS G&M, Inc.

Marc Hawkins,
Project Engineer

tw

ARCADIS G&M, Inc.
1210 Premier Drive.
Suite 200
Chattanooga
Tennessee 37421
Tel 423 756 7193
Fax 423 756 7197
www.arcadis-us.com

TRANSPORTATION

Date:
1 October 2003

Contact:
Marc Hawkins

Phone:
708

Email:
mhawkins@arcadis-us.com

Our ref:
CT052885.0001.00011