

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY		CODE	7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(X)	9A. AMENDMENT OF SOLICITATION NO.
					9B. DATED (SEE ITEM 11)
					10A. MODIFICATION OF CONTRACT/ORDER NO.
					10B. DATED (SEE ITEM 11)
CODE		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted;
 or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		_____ (Signature of Contracting Officer)	

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION

Amendment No. 3
Blue Ridge Parkway
Project BLRI 2P14
DTFH71-07-B-00002

The purpose of this Amendment is to:

- 1) Revise the Plans and Solicitation Provisions (Bid Schedule Instructions and B pages) to change pay item quantities for Removal of Stone Curb (20302RD), Roadway Excavation (20401), Reset Curb 60906), Locate Utilities (63803).
- 2) Revise the Solicitation Provisions (SF 1442 Continuation, Block 2) to change the reference manual used for NPS signs.
- 3) Replace the Special Contract Requirements (Sections 401 and 418) to correct smoothness incentive pay factors and allow an alternate smoothness measurement at the discretion of the contractor.

Solicitation Provision changes

Delete Solicitation Provisions, page A-3 and substitute revised page A-3.

Delete Solicitation Provisions, Bid Schedule Instructions, pages 1 and 2, and pages B-1 through B-21 and substitute revised pages B-1 through B-20.

Plan Sheet changes

Delete Plan sheets 12 through 16 and 21, 26, 62, 64 - 67, and 69 - 74, and substitute revised plan sheets 12 through 16 and 21, 26, 62, 64 - 67, and 69 - 74.

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-13 for Option 1, and Page B-19 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-20). 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 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
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	\$ _____	\$ _____
20303PA	REMOVAL OF ASPHALT PAVEMENT 91,500 SQYD	\$ _____	\$ _____
20303QA	REMOVAL OF ASPHALT SIDEWALK 210 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
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	\$ _____	\$ _____
41801BBC	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - <3 ESAL, TYPE 3 PAVEMENT SMOOTHNESS		

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
	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	\$ _____	\$ _____
60706	CONCRETE PIPE JOINT REPAIR		
	5 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
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	\$ _____	\$ _____
62901D	EROSION CONTROL MAT TYPE 4 6 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
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	\$ _____	\$ _____
63521B	WARNING LIGHT, TYPE B 35 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
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	\$ _____	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

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
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	\$ _____	\$ _____

Project: PRA-BLRI 2P14, Option 1
 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	\$ _____	\$ _____
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 600 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	\$ _____	\$ _____
30305B	DITCH RECONDITIONING 4,680 LNFT	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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	\$ _____	\$ _____
41902A	ASPHALT PAVEMENT, SHALLOW DEPTH PATCH, TYPE 1 2,100 SQFT	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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	\$ _____	\$ _____
60801B	PAVED WATERWAY, TYPE 2 120 SQYD	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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 2,290 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	\$ _____	\$ _____
62008	CLEAN STONE MASONRY SURFACES 65 SQYD	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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	\$ _____	\$ _____
63506A	CONE, TYPE A 360 EACH	\$ _____	\$ _____

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

TOTAL \$ _____

Submitted by: _____
Name of Bidder

Project: PRA-BLRI 2P14, Option 2
 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	\$ _____	\$ _____

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

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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	\$ _____	\$ _____
41301F	ASPHALT PAVEMENT MILLING, 2-INCH DEPTH 8,800 SQYD	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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	\$ _____	\$ _____
60203P	36-INCH EQUIVALENT DIAMETER, ARCH OR ELLIPTICAL CULVERT PIPE		
	40		
	LNFT	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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	\$ _____	\$ _____
62006	REMOVE AND RESET STONE MASONRY HEADWALL 3 EACH	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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	\$ _____	\$ _____
63521B	WARNING LIGHT, TYPE B		
	1 EACH	\$ _____	\$ _____

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
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-19)

(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-13) \$ _____

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-19) \$ _____

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

Special Contract Requirement changes

Delete Sections 401 and 418 and substitute the following:

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.

At the option of the Contractor, where pavement is designated as smoothness types II or III, roughness type VI may be used instead. Notify the CO in writing 14 days before starting paving operations if roughness type VI is to be used.

(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) International Roughness Index (IRI). Furnish an inertial profiler conforming to AASHTO MP 11 and capable of meeting certification requirements of AASHTO PP 49. Provide a trained and qualified operator. All equipment will be validated against a government profiler at the time of use. A cross correlation value will be determined for at least one random segment of at least 528 feet in length. The minimum acceptable cross correlation value is 0.90. Equipment failing to obtain a cross correlation value of at least 0.90 shall not be used. Operate the inertial profiler in accordance with manufacturer's recommendations and AASHTO PP 50. Provide a lead-in distance, after reaching the testing speed, of at least 150 feet. Furnish personnel to provide flagging operations as may be required.

For all pavement roughness types measure the pavement profile (a single trace) in the middle portion of each lane. As an alternative, measure in both wheel paths and use an average IRI value. Use the same method of measurement throughout the entire evaluation process. Immediately after obtaining the profile measurements provide the CO with an electronic file containing the profile data. The file shall be in an ERD format per AASHTO PP 50. Analysis of the profile data will be made using the latest version of the Profile Viewer and Analysis (ProVAL) software.

Areas of localized roughness will be identified using a report of continuous IRI with a base length of 25 feet. This will yield the IRI of every possible 25-foot segment. Any area for which the continuous report exceeds an IRI of 140 inches/mile will be considered a defective area requiring correction in accordance with 401.16(d).

A report of continuous IRI is defined as the roughness profile from "Profiles from Roughness", TRR 1260, by M.W. Sayers. Its use for detection of localized roughness, as required here, is demonstrated in "Using a Ride Quality Index for Construction Smoothness

Specifications”, TRR 1861, by M. Swan and S. Karamihas.

An IRI value will be determined for each 0.1-lane mile of traveled way. Cattle guards, bridges not being overlaid, driveways, parking areas, and turning or passing lanes, side roads and ramps less than 350 feet in length will be excluded from the calculation of IRI and determination of localized roughness. Measure excluded areas according to 401.16(b).

For overlay, recycle with overlay and milling with overlay projects measure the roughness of the existing surface prior to construction. The existing surface is the original surface before overlaying, recycling, or milling. The existing IRI will be used to determine the percent improvement for each 0.1-lane mile segment. Measure the roughness of the final paved surface course. Defective areas are areas of localized roughness, 0.1-lane mile segments having IRI values greater than the defective limits in Table 401-7A, and surfaces with a pay factor less than 0.75 as determined under Subsection 401.19.

Table 401-7A
Pavement Roughness

Pavement Roughness Type	IRI – inches/mile	
	Upper Specification Limit	Defective Limit
V	60	100
VI	70	110
VII	80	120

The pay factor for roughness will be determined for each 0.1-mile segment length according to the following formula:

$$PF_{IRI} = -0.00625(IRI) + (0.00625(USL) + 1.0) \leq 1.05$$

Where:

- PR_{IRI} = Pay factor for roughness.
- IRI = International Roughness Index.
- USL = Upper Specification Limit.

The maximum pay factor for roughness for any 0.1-lane mile segment will be 1.05. When corrections are not allowed, the pay factor for defective areas will be 0.75. For overlay, recycle with overlay and milling with overlay projects determine the percent improvement. The percent improvement in IRI for each 0.1-lane mile segment length will be determined according to the following formula:

$$\text{Percent Improvement} = [(Original\ IRI - Final\ IRI) / Original\ IRI] \times 100$$

If the percent improvement for a 0.1-lane mile segment is less than zero then the maximum pay factor for roughness will be 1.0. When only one lift of asphalt concrete pavement is

placed, if the percent improvement for a 0.1-lane mile segment is 25 percent or greater then the minimum pay factor for roughness for that segment will be 1.0. When multiple lifts of asphalt concrete pavement are placed, if the percent improvement for a 0.1-lane mile segment is 35 percent or greater then the minimum pay factor for roughness for that segment will be 1.0.

(d) Defective area correction. Correct defective areas from (a), (b), and (c) 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.

401.17 Add the following:

(e) Pavement roughness. The evaluation will be made after all defective areas are corrected. Pavement roughness will be evaluated under Subsections 106.04 and 401.16.

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 II or III 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 hot asphalt concrete pavement type V, VI or VII pavement roughness, a separate adjustment will be made for pavement roughness according to the following formula:

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

Where:

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

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

PF_{AVE} = Average Pay Factor for roughness with respect to the upper specification limit determined according to Subsection 401.16(d) after completion of corrective work. The formula for PF_{AVE} is as follows:

$$PF_{AVE} = (PF_{IRI1} + PF_{IRI2} + PF_{IRI3} + \dots + PF_{IRIn})/n$$

Where:

PF_{IRI#} = Pay Factor for roughness for each 0.1-lane mile segment determined according to Subsection 401.16(d).

n = Number of 0.1-lane mile segments tested.

**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
Hot asphalt concrete pavement (final surface)	Measured and tested for conformance (106.04)	Roughness	---	AASHTO PP 49, PP 50, & PP 51	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 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⁾					
				1.0-inch	¾-inch	½-inch			
< 0.3	6 (≥91.5%)	50 (96%)	115 (≤98%)	1.0-inch	¾-inch	½-inch	70-80		
0.3 to < 3	7 (≥90.5%)	75 (96%)	115 (≤98%)	12.0	13.0	14.0	15.0	65-78	80 %
3 to < 30	8 (≥89%)	100 (96%)	160 (≤98%)				65-75		
> 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 antistripping 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.

Superpave asphalt concrete pavement smoothness with any bid schedule quantity.

Conform to Subsection 401.19.

Payment will be made under:

	Pay Item	Pay Unit
41801	Superpave asphalt concrete pavement,	Ton

41802

__” nominal maximum size aggregate,
__ ESALs, type _ pavement smoothness
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	
Superpave hot asphalt concrete pavement (final surface)	Roughness	---	AASHTO PP 49, PP 50 & PP 51	See Subsection 401.16	See Subsection 401.16

(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.

PLAN SHEET NUMBER ----->>			ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	PLAN	BID SCHEDULE	
15101	MOBILIZATION	LPSM	ALL	ALL	
15201	CONSTRUCTION SURVEY AND STAKING	LPSM	ALL	ALL	
15401	CONTRACTOR TESTING	LPSM	ALL	ALL	
15702	TEMPORARY TURF ESTABLISHMENT	ACRE	8	8	8
15703	SILT FENCE	LNFT	66125	66125	69,200
15713	PLASTIC LINING	SOYD	600	600	600
15716	INLET PROTECTION	EACH	47	47	55
15719C	TEMPORARY MULCH	TON	5	5	7
20103	CLEARING AND GRUBBING	SOYD	620	620	650
20303PA	REMOVAL OF ASPHALT PAVEMENT	SOYD	87393	87393	91,500
203030A	REMOVAL OF ASPHALT SIDEWALK	SOYD	196	196	210
203030UA	REMOVAL OF ASPHALT PAVED WATERWAY	SOYD	457	457	490
203030UD	REMOVAL OF STONE PAVED WATERWAY	SOYD	990	990	1,080
20304Y	REMOVAL OF STONE MASONRY	LPSM		ALL	ALL
30101Z	AGGREGATE BASE, GRADING C OR D	TON	8218	8218	9,040
30305B	DITCH RECONDITIONING	LNFT	2385	2385	2,610
30501	AGGREGATE-TOPSOIL COURSE	TON	3158	3158	3,350
40201	MINOR HOT ASPHALT CONCRETE	TON	17	17	20
41301B	ASPHALT PAVEMENT MILLING, 1-INCH DEPTH	SOYD	1804	1804	1,900
41301F	ASPHALT PAVEMENT MILLING, 2-INCH DEPTH	SOYD	5623	5623	5,900
41801BAD	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, #0.3 ESAL, TYPE 4 PAVEMENT SMOOTHNESS	TON	149	149	160
41801BBB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, TYPE 2 PAVEMENT SMOOTHNESS	TON	8739	8739	9,200
41801BBC	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, TYPE 3 PAVEMENT SMOOTHNESS	TON	2060	2060	2,200



PLAN SHEET NUMBER ----->>			ESTIMATED QUANTITIES		
ITEM	DESCRIPTION	UNIT	PLAN	BID SCHEDULE	
41801CB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL	TON	16917	16917	17,700
41802AB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, WEDGE AND LEVELING	TON	5700	5700	5,700
41902A	ASPHALT PAVEMENT, SHALLOW DEPTH PATCH, TYPE 1	SOFT	1954	1954	2,300
60501	UNDERDRAIN SYSTEM	LNFT	100	100	150
60506F	6-INCH COLLECTOR PIPE (18-INCH MULTI-FLOW DRAINAGE TUBING)	LNFT	424	424	450
60507F	6-INCH OUTLET PIPE (SCHEDULE 40 PVC)	LNFT	20	20	25
60509	SAND	CUYD	167	167	180
60703A	RECONDITIONING CULVERTS IN PLACE	LNFT	3348	3348	3,500
60704	RECONDITIONING DRAINAGE STRUCTURES	EACH	45	45	50
60705M	LINING 24-INCH PIPE CULVERT	LNFT	79	79	100
60706	CONCRETE PIPE JOINT REPAIR	EACH			5
60801B	PAVED WATERWAY, TYPE 2	SOYD	1248	1248	1,360
60801E	PAVED WATERWAY, TYPE 5	SOYD	280	280	300
60809B	RECONDITION PAVED WATERWAY, TYPE 2	SOYD	3343	3343	3,500
60906	RESET CURB	LNFT	628	628	700
61401	LEAN CONCRETE BACKFILL	CUYD	1	1	1
61501A	ASPHALT CONCRETE SIDEWALK	SOYD	229	229	250
62004	REPOINT STONE MASONRY	LNFT	500	500	530
62011	RESET STONE MASONRY (REPAIR)	CUYD	6	6	10
62016	RESET STONE MASONRY (MEDIAN)	SOYD	15	15	15

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	DELETED ITEM 20302RD, REMOVAL OF STONE CURB	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 EASTERN FEDERAL LANDS HIGHWAY DIVISION
 STERLING, VIRGINIA

BLUE RIDGE PARKWAY
 SCHEDULE A
 TABULATION OF
 QUANTITIES

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NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	13	166

PLAN SHEET NUMBER ----->>															ESTIMATED QUANTITIES	
ITEM	DESCRIPTION	UNIT													PLAN	BID SCHEDULE
62403	FURNISHING AND PLACING TOPSOIL	CUYD													228	240
62509	TURF ESTABLISHMENT	ACRE													10	10
62901D	EROSION CONTROL MAT TYPE 4	SOYD													6	6
63304CC	SIGNS, ALUMINUM PANELS, TYPE 3 SHEETING	SOFT													160	160*
63401LA	PAVEMENT MARKINGS, TYPE POLYUREA, SOLID	LNFT													92916	97,800
63401LB	PAVEMENT MARKINGS, TYPE POLYUREA, BROKEN	LNFT													1048	1,100
63501	TEMPORARY TRAFFIC CONTROL (FLOOD LIGHTS)	LPSM													ALL	ALL
63505C	BARRICADE, TYPE 3	EACH													2	2
63506A	CONE, TYPE A	EACH													290	380
63507	CONSTRUCTION SIGN	SOFT													1950.3	1,968
63508B	DRUM, TYPE B	EACH													290	380
63509	FLAGGER YPE B	HOURL													1776	1,900
63510	PILOT CAR	HOURL													300	300
63515	TEMPORARY PAVEMENT MARKINGS	MILE													27	28
63521A	WARNING LIGHT, TYPE A	EACH													290	380
63521B	WARNING LIGHT, TYPE B	EACH													34	35
63521C	WARNING LIGHT, TYPE C	EACH													290	380
63529	TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH													2	2
63530	RELOCATING TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH													6	6
63701	FIELD OFFICE	EACH													1	1

* TO BE USED AS DIRECTED BY CO



REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	DELETED ITEM 63803, LOCATE UTILITIES (TEST PITS).	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 EASTERN FEDERAL LANDS HIGHWAY DIVISION
 STERLING, VIRGINIA

BLUE RIDGE PARKWAY

SCHEDULE A
TABULATION OF
QUANTITIES

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PLAN SHEET NUMBER ----->>													ESTIMATED QUANTITIES	
ITEM	DESCRIPTION	UNIT											PLAN	BID SCHEDULE
15101	MOBILIZATION	LPSM											ALL	ALL
15201	CONSTRUCTION SURVEY AND STAKING	LPSM											ALL	ALL
15401	CONTRACTOR TESTING	LPSM											ALL	ALL
15702	TEMPORARY TURF ESTABLISHMENT	ACRE											5	5
15703	SILT FENCE	LNFT											10220	11,000
15713	PLASTIC LINING	SOYD											400	400
15716	INLET PROTECTION	EACH											8	10
15719C	TEMPORARY MULCH	TON											4	6
20301AE	REMOVAL OF FRAME AND GRATE	EACH											7	7
20301AT	REMOVAL OF RAISED PAVEMENT MARKER	EACH											39	45
20302H	REMOVAL OF PIPE CULVERTS	LNFT											130	200
20302RB	REMOVAL OF PORTLAND CEMENT CONCRETE CURB (INCLUDES ASPHALT CURB)	LNFT											70	80
20303AB	REMOVAL OF CONCRETE	SOYD											1	1
20303PA	REMOVAL OF ASPHALT PAVEMENT	SOYD											7383	7,700
20303OA	REMOVAL OF ASPHALT SIDEWALK	SOYD											928	1,000
20303UA	REMOVAL OF ASPHALT PAVED WATERWAY	SOYD											1912	2,010
20401	ROADWAY EXCAVATION	CUYD											540	600
20402	SUBEXCAVATION	CUYD											2194	2,400
20405	SELECT BORROW	CUYD											1722	2,300
20701CB	EARTHWORK GEOTEXTILE, TYPE III-B	SOYD											1436	1,590
25101C	PLACED RIPRAP, CLASS 3	CUYD											7	10
30101Z	AGGREGATE BASE, GRADING C OR D	TON											554	610
30305B	DITCH RECONDITIONING ING C OR D	LNFT											4281	4,680
30501	AGGREGATE-TOPSOIL COURSE	TON											2104	2,200
40201	MINOR HOT ASPHALT CONCRETE	TON											149	180
41301B	ASPHALT PAVEMENT MILLING, 1-INCH DEPTH	SOYD											2422	2,600



NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2PI4	14	166

PLAN SHEET NUMBER ----->>													ESTIMATED QUANTITIES	
ITEM	DESCRIPTION	UNIT											PLAN	BID SCHEDULE
41301F	ASPHALT PAVEMENT MILLING, 2-INCH DEPTH	SOYD											65501	68,800
41301H	ASPHALT PAVEMENT MILLING, 3-INCH DEPTH	SOYD											528	600
41801BAD	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, #0.3 ESAL, TYPE 4 PAVEMENT SMOOTHNESS	TON											726	800
41801BBC	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, TYPE 3 PAVEMENT SMOOTHNESS	TON											5912	6,200
41801CB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL	TON											10918	11,500
41802AB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, WEDGE AND LEVELING	TON											600	600
41901B	ASPHALT PAVEMENT, FULL DEPTH PATCH, TYPE 2 NCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, WEDGE AND LEVELING	SOFT											301	370
41902A	ASPHALT PAVEMENT, SHALLOW DEPTH PATCH, TYPE 1	SOFT											1884	2,100
60101	CONCRETE	CUYD											7	10
60201E	4-INCH PIPE CULVERT	LNFT											3	4
60201K	18-INCH PIPE CULVERT	LNFT											130	160
60201M	24-INCH PIPE CULVERT	LNFT											68	80
60409D	METAL FRAME AND GRATE, TYPE 4	EACH											2	2
60409FA	METAL FRAME AND GRATE, TYPE 6A	EACH											5	5
60506F	6-INCH COLLECTOR PIPE (RETAINING WALL)	LNFT											65	70
60703A	RECONDITIONING CULVERTS IN PLACE	LNFT											1330	1,400
60704	RECONDITIONING DRAINAGE STRUCTURES	EACH											61	65

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	DELETED ITEM 20302RD, REMOVAL OF STONE CURB. REVISED QUANTITY FOR ITEM 2040I, ROADWAY EXCAVATION.	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

BLUE RIDGE PARKWAY
OPTION I
TABULATION OF
QUANTITIES

NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	15	166

PLAN SHEET NUMBER ----->>			ESTIMATED QUANTITIES															
ITEM	DESCRIPTION	UNIT													PLAN	BID SCHEDULE		
			60705K	LINING 18-INCH PIPE CULVERT	LNFT													
60706	CONCRETE PIPE JOINT REPAIR	EACH																4
60801B	PAVED WATERWAY, TYPE 2	SOYD													102	102	120	
60801E	PAVED WATERWAY, TYPE 5	SOYD													1838	1838	2,000	
60809B	RECONDITION PAVED WATERWAY, TYPE 2	SOYD													647	647	700	
60903AX	STONE CURB, TYPE 1, 16-INCH DEPTH	LNFT													70	70	100	
60906	RESET CURB	LNFT													2155	2155	2,290	
61501A	ASPHALT CONCRETE SIDEWALK	SOYD													953	953	1,020	
61505A	ASPHALT WHEELCHAIR RAMP	SOYD													81	81	90	
61703	REMOVING AND RESETTING GUARDRAIL	LNFT													330	330	330	
62003	REMOVE AND RESET STONE MASONRY (RETAINING WALL)	CUYD													21	21	21	
62004	REPOINT STONE MASONRY	LNFT													2625	2625	2,770	
62006	REMOVE AND RESET STONE MASONRY HEADWALL	EACH													2	2	2	
62007AM	STONE MASONRY HEADWALL FOR 24-INCH PIPE CULVERT	EACH													1	1	1	
62008	CLEAN STONE MASONRY SURFACES	SOYD													59	59	65	
62011	RESET STONE MASONRY (REPAIR)	CUYD													25	25	30	
62403	FURNISHING AND PLACING TOPSOIL	CUYD													147	147	160	
62509	TURF ESTABLISHMENT	ACRE													7	7	7	
63401HA	PAVEMENT MARKINGS, TYPE H, SOLID	LNFT													2477	2477	2,600	
63401JA	PAVEMENT MARKINGS, TYPE J, SOLID	LNFT													240	240	300	
63401LA	PAVEMENT MARKINGS, TYPE POLYUREA, SOLID	LNFT													60583	60583	64,000	
63401LB	PAVEMENT MARKINGS, TYPE POLYUREA, BROKEN	LNFT													3610	3610	3,800	
63405D	RAISED PAVEMENT MARKERS, TYPE D	EACH													13	13	15	
63405E	RAISED PAVEMENT MARKERS, TYPE E	EACH													26	26	30	
63406JH	PAVEMENT MARKINGS, TYPE J, HANDICAP SYMBOL	EACH													8	8	8	
63501	TEMPORARY TRAFFIC CONTROL (FLOOD LIGHTS)	LPSM														ALL	ALL	
63505C	BARRICADE, TYPE 3	EACH													2	2	2	



PLAN SHEET NUMBER ----->>			ESTIMATED QUANTITIES															
ITEM	DESCRIPTION	UNIT													PLAN	BID SCHEDULE		
			63506A	CONE, TYPE A	EACH													
63508B	DRUM, TYPE B	EACH														272	272	360
63509	FLAGGER	HOUR														544	544	600
63510	PILOT CAR	HOUR														200	200	200
63515	TEMPORARY PAVEMENT MARKINGS	MILE														16	16	17
63521A	WARNING LIGHT, TYPE A	EACH														272	272	360
63521B	WARNING LIGHT, TYPE B	EACH														29	29	30
63521C	WARNING LIGHT, TYPE C	EACH														272	272	360
63529	TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH														1	1	1
63803	LOCATE UTILITIES (TEST PITS)	LPSM														ALL	ALL	ALL



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REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED QUANTITY FOR ITEM 60906, RESET CURB. ADDED ITEM 63803, LOCATE UTILITIES (TEST PITS).	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 EASTERN FEDERAL LANDS HIGHWAY DIVISION
 STERLING, VIRGINIA

BLUE RIDGE PARKWAY
OPTION 1
TABULATION OF
QUANTITIES

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PLAN SHEET NUMBER ----->>													ESTIMATED QUANTITIES	
ITEM	DESCRIPTION	UNIT											PLAN	BID SCHEDULE
15101	MOBILIZATION	LPSM											ALL	ALL
15201	CONSTRUCTION SURVEY AND STAKING	LPSM											ALL	ALL
15401	CONTRACTOR TESTING	LPSM											ALL	ALL
15702	TEMPORARY TURF ESTABLISHMENT	ACRE								1			1	1
15703	SILT FENCE	LNFT								1275			1275	1,500
15716	INLET PROTECTION	EACH								4			4	5
15719C	TEMPORARY MULCH	TON								1			1	2
20301AE	REMOVAL OF FRAME AND GRATE	EACH								2			2	2
20301E	REMOVAL OF HEADWALLS	EACH								1			1	1
20302H	REMOVAL OF PIPE CULVERTS	LNFT								318			318	400
20302RB	REMOVAL OF PORTLAND CEMENT CONCRETE CURB (INCLUDES ASPHALT CURB)	LNFT								2138			2138	2,220
20302W	REMOVAL OF GUARDRAIL	LNFT								510			510	510
20303PA	REMOVAL OF ASPHALT PAVEMENT	SOYD								7112			7112	7,500
203030A	REMOVAL OF ASPHALT SIDEWALK	SOYD								1135			1135	1,190
20303UD	REMOVAL OF STONE PAVED WATERWAY	SOYD								156			156	170
20401	ROADWAY EXCAVATION	CUYD								2			2	5
20701CB	EARTHWORK GEOTEXTILE, TYPE III-B	SOYD								7			7	10
25101C	PLACED RIPRAP, CLASS 3	CUYD								28			28	30
25101D	PLACED RIPRAP, CLASS 4	CUYD								140			140	150
30101Z	AGGREGATE BASE, GRADING C OR D	TON								108			108	120
30305B	DITCH RECONDITIONING	LNFT								100			100	110
30501	AGGREGATE-TOPSOIL COURSE	TON								409			409	450
41301F	ASPHALT PAVEMENT MILLING, 2-INCH DEPTH	SOYD								8368			8368	8,800
41801BAD	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, #0.3 ESAL, TYPE 4 PAVEMENT SMOOTHNESS	TON								492			492	540
41801BBC	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 1/2-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, TYPE 3 PAVEMENT SMOOTHNESS	TON								1048			1048	1,100



NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	16	166

PLAN SHEET NUMBER ----->>													ESTIMATED QUANTITIES	
ITEM	DESCRIPTION	UNIT											PLAN	BID SCHEDULE
41801CB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL	TON										2594	2594	2,700
41802AB	SUPERPAVE ASPHALT CONCRETE PAVEMENT, 3/8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 - #3 ESAL, WEDGE AND LEVELING	TON										3700	3700	3,700
41901B	ASPHALT PAVEMENT, FULL DEPTH PATCH, TYPE 2	SOFT										60	60	80
41902A	ASPHALT PAVEMENT, SHALLOW DEPTH PATCH, TYPE 1	SOFT										345	345	400
60104AK	CONCRETE, HEADWALL FOR 18-INCH PIPE CULVERT	EACH										2	2	2
60104AM	CONCRETE, HEADWALL FOR 24-INCH PIPE CULVERT	EACH										1	1	1
60201K	18-INCH PIPE CULVERT	LNFT										111	111	140
60201M	24-INCH PIPE CULVERT	LNFT										102	102	120
60203P	36-INCH EQUIVALENT DIAMETER, ARCH OR ELLIPTICAL CULVERT PIPE	LNFT										35	35	40
60409FA	METAL FRAME AND GRATE, TYPE 6A	EACH										2	2	2
60703A	RECONDITIONING CULVERTS IN PLACE	LNFT										126	126	150
60704	RECONDITIONING DRAINAGE STRUCTURES	EACH										3	3	5
60706	CONCRETE PIPE JOINT REPAIR	EACH												1
60801B	PAVED WATERWAY, TYPE 2	SOYD										206	206	220
60906	RESET CURB RWAY, TYPE 2	LNFT										2416	2416	2,500
60915A	WHEELSTOP, CONCRETE	LNFT										8	8	10
61501A	ASPHALT CONCRETE SIDEWALK	SOYD										1135	1135	1,230
61505A	ASPHALT WHEELCHAIR RAMP	SOYD										44	44	50
61701H	GUARDRAIL SYSTEM SBTB	LNFT										510	510	510
62003	REMOVE AND RESET STONE MASONRY (DRAINAGE STRUCTURE)	CUYD										1	1	1

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	DELETED ITEM 20302RD, REMOVAL OF STONE CURB	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

BLUE RIDGE PARKWAY
OPTION 2
TABULATION OF
QUANTITIES

NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	21	166

Roadway Station	Item 20303PA Removal of Asphalt Pavement Sq.Yd.	Item 3010IZ Aggregate Base, Grading C or D Ton	Item 4130IB Asphalt Pavement Milling, 1-Inch Depth Sq.Yd.	Item 4130IF Asphalt Pavement Milling, 2-Inch Depth Sq.Yd.	Item 4130IH Asphalt Pavement Milling, 3-Inch Depth Sq.Yd.	Item 4180IBAD Superpave Asphalt Concrete Pavement, 1/2" NMSA, 0.3×10^6 ESAL, Type IV Pavement Smoothness Ton	Item 4180IBBB Superpave Asphalt Concrete Pavement, 1/2" NMSA, $0.3 \times 3.0 \times 10^6$ ESAL, Type II Pavement Smoothness Ton	Item 4180IBBC Superpave Asphalt Concrete Pavement, 1/2" NMSA, $0.3 \times 3.0 \times 10^6$ ESAL, Type III Pavement Smoothness Ton	Item 4180ICB Superpave Asphalt Concrete Pavement, 3/4" NMSA, $0.3 \times 3.0 \times 10^6$ ESAL, Ton	Item 41802AB Superpave Asphalt Concrete Pavement, 3/8" NMSA, $0.3 \times 3.0 \times 10^6$ ESAL, Wedge and Level Ton
OPTION 2										
Craggy Gardens Picnic Area	5968					492			821	
Craggy Gardens Picnic Area Access Road										
0+12 - 19+85				4384				362	603	
19+85 - 20+50	144	14						16	24	
20+50 - 24+00				312				64	53	
24+00 - 28+50	1000	94		500				83	124	
28+50 - 60+22				3172				523	969	
SUB-TOTAL OPTION 2	7112	108	0	8368		492	0	1048	2594	
AS DIRECTED BY CO	388	12	0	432		48	0	52	106	3700
TOTAL OPTION 2	7500	120	0	8800	0	540	0	1100	2700	3700
PROJECT TOTAL	106700	9770	4500	83500	600	1500	9200	9500	31900	10000

Location	Item 2040I Roadway Excavation Cu Yd
OPTION 1	
BLUE RIDGE PARKWAY	
MP 361	
361/39+75 - 361/41+55	165
MP 362	
362/40+85 - 362/42+30	133
MP 363	
363/21+15 - 363/22+65	146
Craggy Dome Parking Area	96
SUB TOTAL OPTION 1	540
AS DIRECTED BY CO. OPTION 1	60
TOTAL OPTION 1	600
OPTION 2	
Craggy Garden's Access Road	2
SUB TOTAL OPTION 2	2
AS DIRECTED BY CO. OPTION 2	3
TOTAL OPTION 2	5
PROJECT TOTAL	605

1

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED QUANTITY FOR ROADWAY EXCAVATION.	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

BLUE RIDGE PARKWAY, CRAGGY
GARDEN'S PICNIC AREA ACCESS
ROAD AND PARKING OVERLOOKS

PAVING SUMMARIES

Location	Item 203030A Removal of Asphalt Sidewalk Yd ²	Item 61501A Asphalt Sidewalk Yd ²
OPTION 1		
Craggy Gardens Visitor Center	527	527
Craggy Dome Parking Area Upper	137	150
Craggy Dome Parking Area Lower	137	141
GLASSMINE FALLS OVERLOOK	65	65
GRAYBEARD MTN OVERLOOK	62	70
SUB-TOTAL OPTION 1	928	953
AS DIRECTED BY CO	72	67
TOTAL OPTION 1	1000	1020
SCHEDULE A		
LANES PINNACLE OVERLOOK	122	122
BULL CREEK VALLEY OVERLOOK	74	107
SUB-TOTAL SCHEDULE A	196	229
AS DIRECTED BY CO	14	21
TOTAL SCHEDULE A	210	250
OPTION 2		
Craggy Garden's Picnic Area	1135	1135
SUB-TOTAL OPTION 2	1135	1135
AS DIRECTED BY CO	55	95
TOTAL OPTION 2	1190	1230
PROJECT TOTAL	2400	2500

ITEM 60903AX Stone Curb, Type 1 16-inch depth	
Location	Ln Ft
OPTION 1	
Craggy Dome Parking Area	70
SUB-TOTAL OPTION 1	70
AS DIRECTED BY CO	30
TOTAL OPTION 1	100
TOTAL SCHEDULE A	
TOTAL OPTION 2	0
PROJECT TOTAL	100

ITEM 20302RB Removal of Portland Cement Concrete Curb	
Location	Ln Ft
OPTION 1	
Craggy Dome Parking Area	70*
SUB-TOTAL OPTION 1	70
AS DIRECTED BY CO	10
TOTAL OPTION 1	80
TOTAL SCHEDULE A	
TOTAL OPTION 2	0
OPTION 2	
Craggy Garden's Picnic Area	2138
SUB-TOTAL OPTION 2	2138
AS DIRECTED BY CO	82
TOTAL OPTION 2	2220
TOTAL	2300

*Removal of asphalt curb to be paid for as removal of portland cement concrete curb

Location	Item 60906 Reset Curb (Stone) Ln Ft
OPTION 1	
Balsam Gap Overlook	233
Glassmine Falls Parking Overlook	295
Graybeard Mountain Parking Overlook	298
Craggy Dome Parking Area	477
Craggy Gardens Visitor Center	852
SUB-TOTAL OPTION 1	2155
AS DIRECTED BY CO	135
TOTAL OPTION 1	2290
SCHEDULE A	
LANES PINNACLE OVERLOOK	350
BULL CREEK OVERLOOK	278
SUB-TOTAL SCHEDULE A	628
AS DIRECTED BY CO	72
TOTAL SCHEDULE A	700
OPTION 2	
Craggy Garden's Picnic Area	2226
Craggy Garden's Picnic Area Access Road	190
SUB-TOTAL OPTION 2	2416
AS DIRECTED BY CO	84
TOTAL OPTION 2	2500
PROJECT TOTAL	5490



Item 61505A Asphalt Concrete Wheelchair Ramp	
Location	Yd ²
OPTION 1	
Craggy Gardens Visitor Center	
East Bay	17
East Bay	19
West Bay	21
Craggy Dome Parking Area	
Upper Bay	12
Lower Bay	12
SUB-TOTAL OPTION 1	81
AS DIRECTED BY CO	9
TOTAL OPTION 1	90
TOTAL SCHEDULE A	
TOTAL OPTION 2	0
OPTION 2	
Craggy Garden's Picnic Area	
Upper Bay	28
Lower Bay	16
SUB-TOTAL OPTION 2	44
AS DIRECTED BY CO	6
TOTAL OPTION 2	50
PROJECT TOTAL	140

Item 60915A Wheelstop, Concrete	
Location	Ln.Ft.
OPTION 1	
TOTAL OPTION 1	0
TOTAL SCHEDULE A	0
OPTION 2	
Craggy Garden's Picnic Area	8
SUB-TOTAL OPTION 2	8
AS DIRECTED BY CO	2
TOTAL OPTION 2	10
PROJECT TOTAL	10

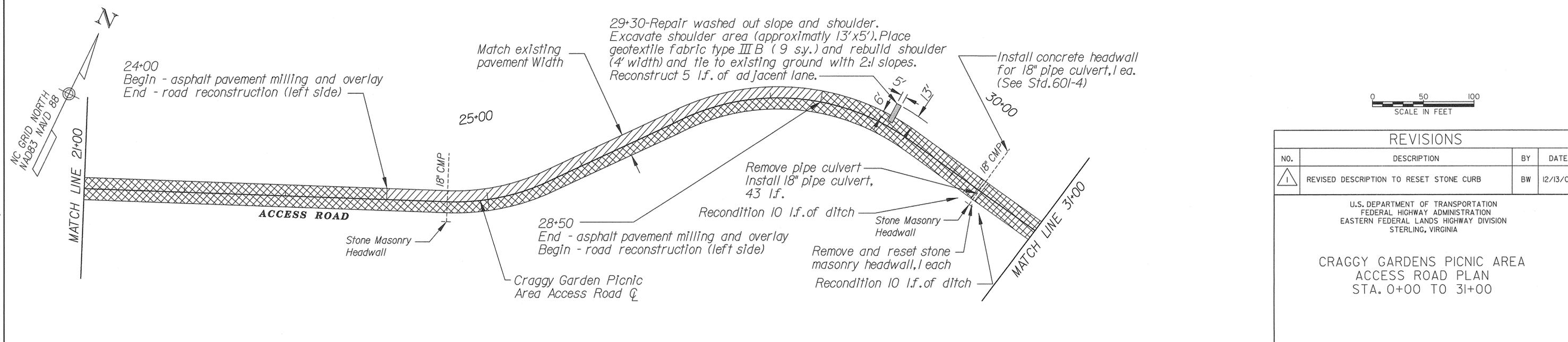
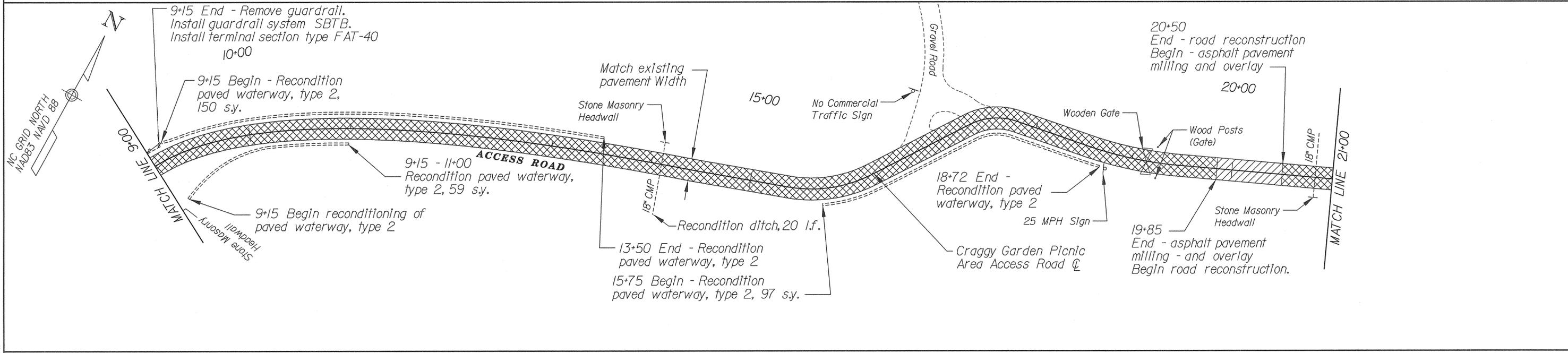
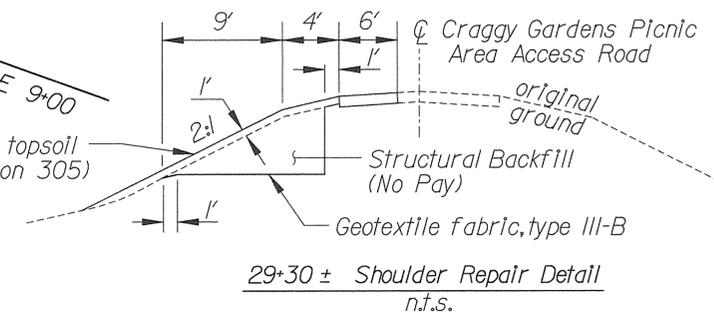
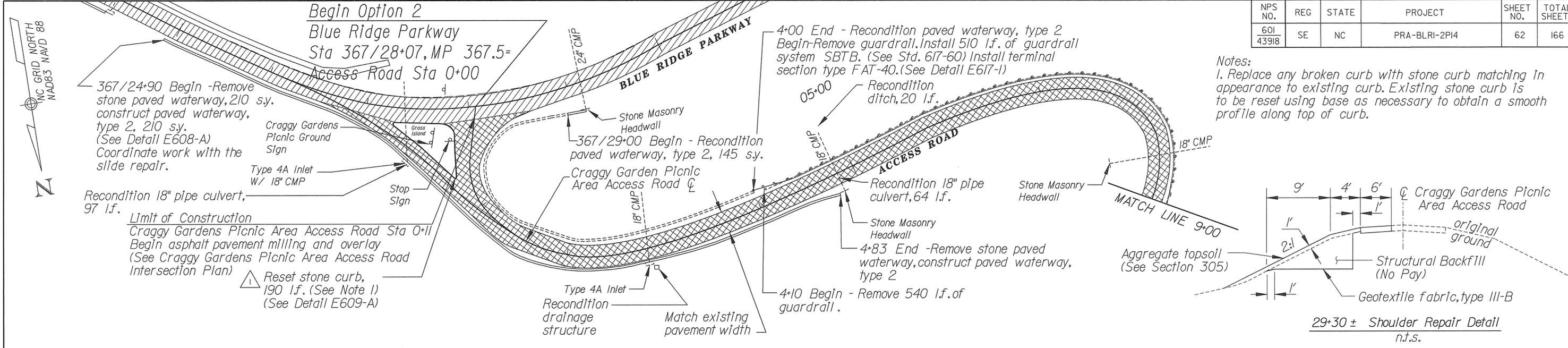
REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED QUANTITY FOR RESET CURB (STONE). DELETED QUANTITY BLOCK FOR REMOVAL OF CURB (STONE).	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

Craggy Garden's Picnic Area
Access Road and
Parking Overlooks
Sidewalk, Ramp, Wheelstop,
and Curb Summaries

NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	62	166

Notes:
1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.



REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

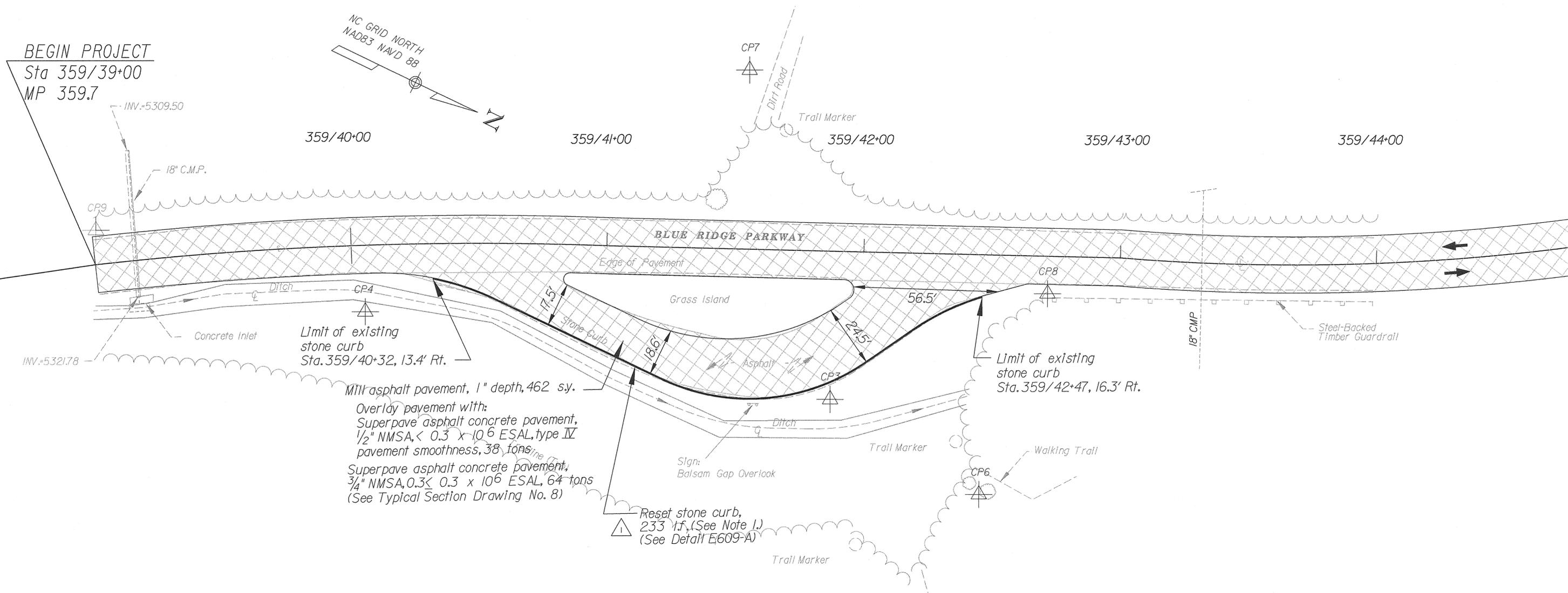
Craggy Gardens Picnic Area
ACCESS ROAD PLAN
STA. 0+00 TO 31+00

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NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	64	166

Additional Symbols

-  Pavement Reconstruction
-  Asphalt Pavement Milling and Overlay
-  New Asphalt Concrete Sidewalk



Mill asphalt pavement, 1" depth, 462 sy.
 Overlay pavement with:
 Superpave asphalt concrete pavement,
 1/2" NMSA, 0.3×10^6 ESAL, type IV
 pavement smoothness, 38 tons
 Superpave asphalt concrete pavement,
 3/4" NMSA, 0.3×10^6 ESAL, 64 tons
 (See Typical Section Drawing No. 8)

Control Points				
No.	Northing	Easting	Elevation	Description
CP3	743961.3060	1010954.2320	5317.59	IPS
CP4	743783.2440	1011002.5470	5325.49	IPS
CP6	744029.7350	1010962.4250	5312.87	IPS
CP7	743876.9590	1010852.2060	5317.40	IPS
CP8	744019.6320	1010880.1960	5315.76	N/R
CP9	743674.6130	1011019.5680	5326.66	N/R



REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

Notes:
 1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.

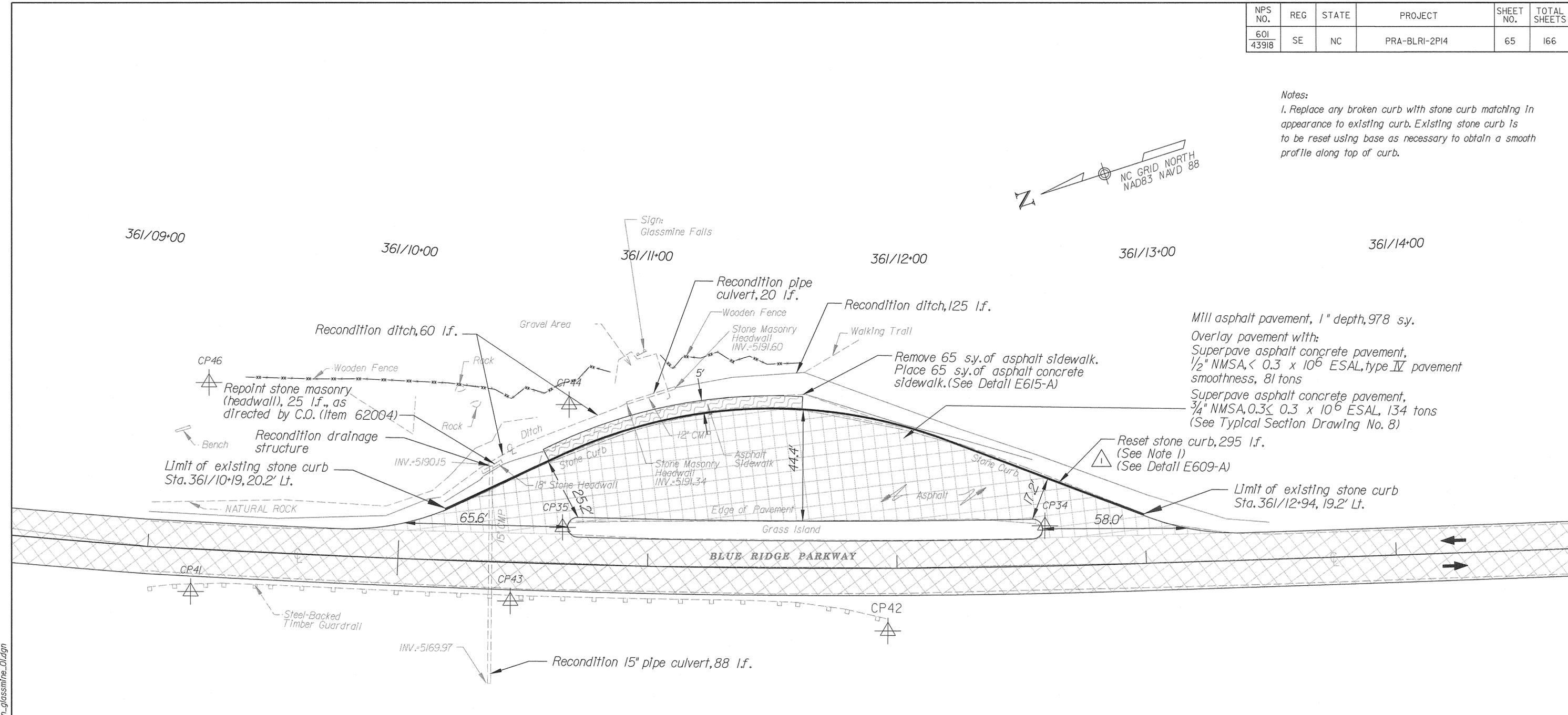
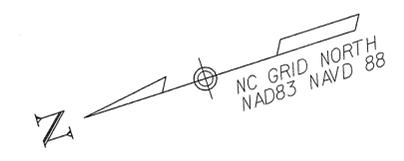
U.S. DEPARTMENT OF TRANSPORTATION
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 EASTERN FEDERAL LANDS HIGHWAY DIVISION
 STERLING, VIRGINIA

BALSAM GAP PARKING AREA PLAN

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NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	65	166

Notes:
 1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.



Control Points				
No.	Northing	Easting	Elevation	Description
CP34	738784.8310	1007637.8440	5199.40	SAGPS-34 MON.
CP35	738968.8980	1007696.7730	5193.83	SAGPS-35 MON.
CP41	739118.3110	1007717.9440	5186.84	SA-41 IPS
CP42	738857.7050	1007617.0000	5201.06	SA-42 IPS
CP43	738997.9410	1007674.9960	5192.82	SA-43 N/R
CP44	738951.2630	1007742.7680	5193.54	SA-44 IPS
CP46	739085.4310	1007795.5700	5209.68	SA-46 IPS



REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

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 STERLING, VIRGINIA

GLASSMINE FALLS PARKING OVERLOOK
 PLAN

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NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2PI4	67	166

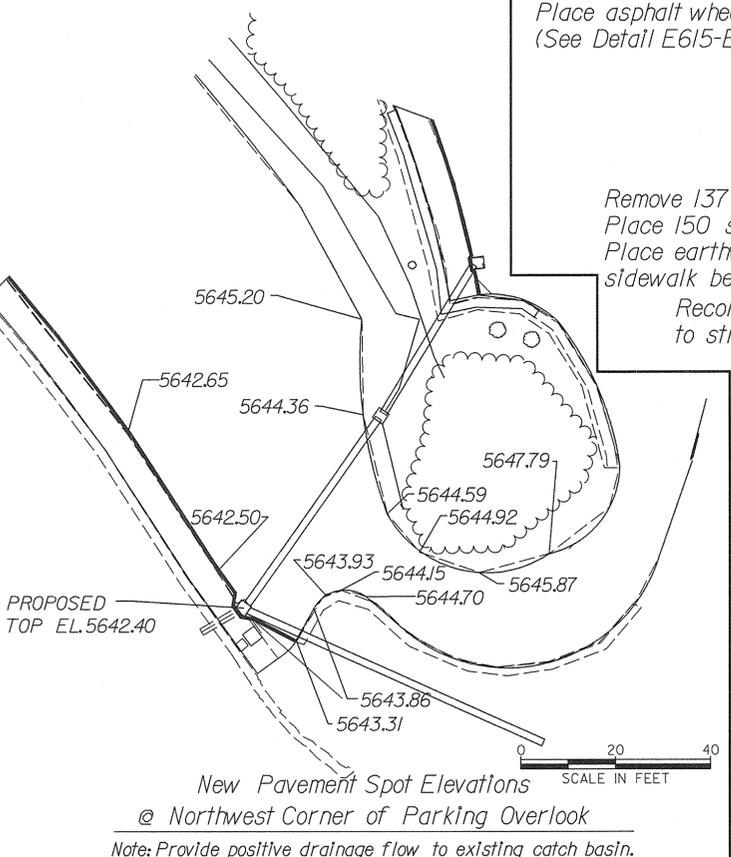
364/02+00 364/03+00 364/04+00 364/05+00 364/06+00 364/07+00 364/08+00

- Notes:**
1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.
 2. Recondition ditches leading to inlets.
 3. Field locate waterline prior to construction. Utilities shown in plans were located based on visual inspection and verbal information provided by NPS.
 4. Complete subexcavation and backfill as directed by C.O.

Pavement Reconstruction

Superpave asphalt concrete pavement, 1/2" NMSA, < 0.3 x 10⁶ ESAL, Type IV pavement smoothness, 283 Tons

Superpave asphalt concrete pavement, 3/4" NMSA, < 0.3 x 10⁶ ESAL, 472 Tons (See Typical Section Drawing No.7)



Control Points				
No.	Northing	Easting	Elevation	Description
CP24	728375.6770	998649.6940	5642.54	SA GPS 24 MON.
CP25	728365.4670	998907.4930	5644.06	SA GPS 25 MON.
CP59	728348.1910	998517.2640	5648.19	SA GPS 59 MON.
CP60	728274.2180	998598.7500	5655.97	SA GPS 60 MON.
CP61	728187.3700	998790.6750	5639.15	SA 61 IPS
CP62	728077.7260	998699.9380	5632.65	SA 62 IPS

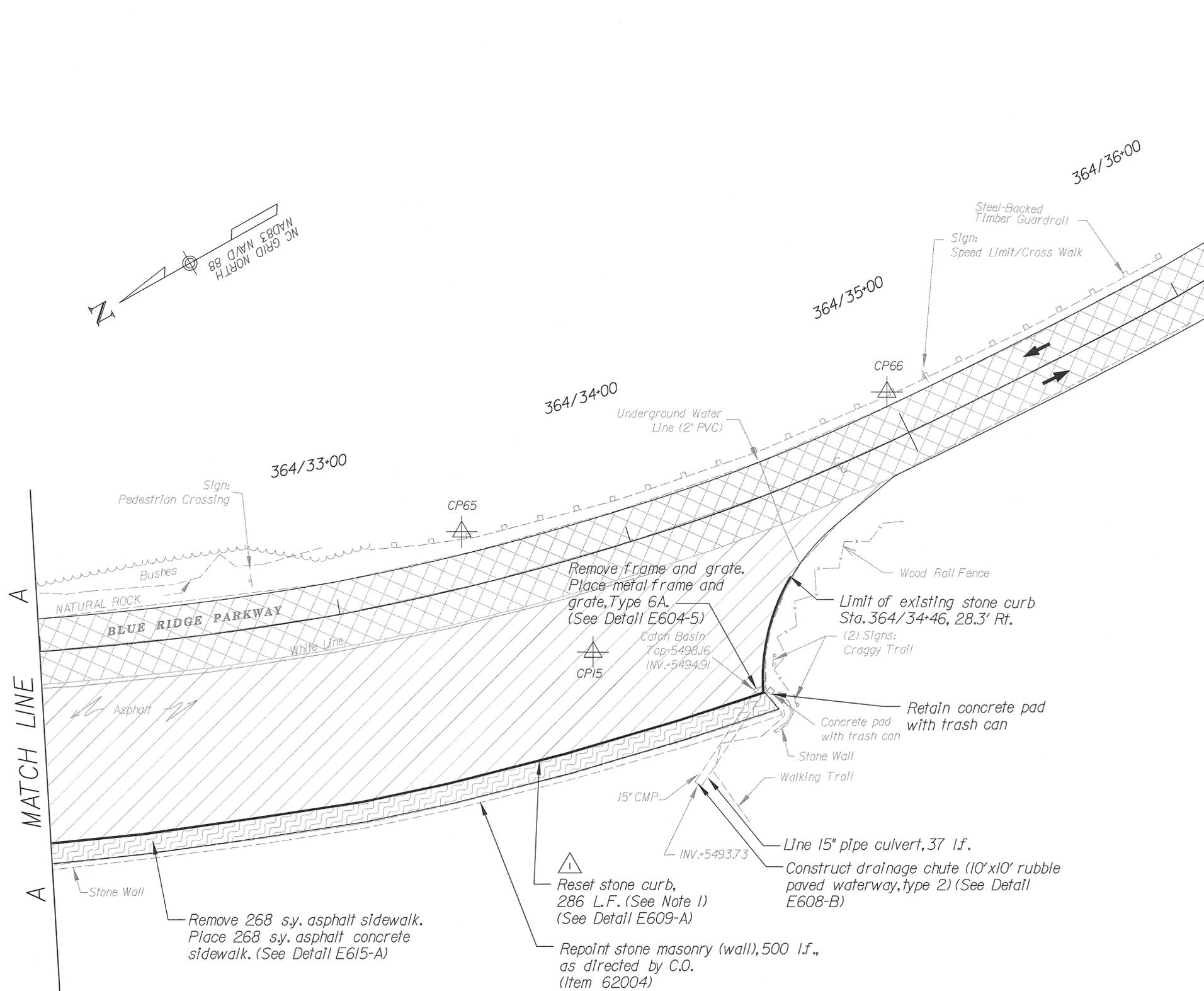
REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

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CRAGGY DOME PARKING OVERLOOK PLAN

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NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2PI4	69	166



Notes:
 1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.
 2. Utility locations shown in plans were located based on visual inspection and verbal information provided by NPS.



REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 EASTERN FEDERAL LANDS HIGHWAY DIVISION
 STERLING, VIRGINIA

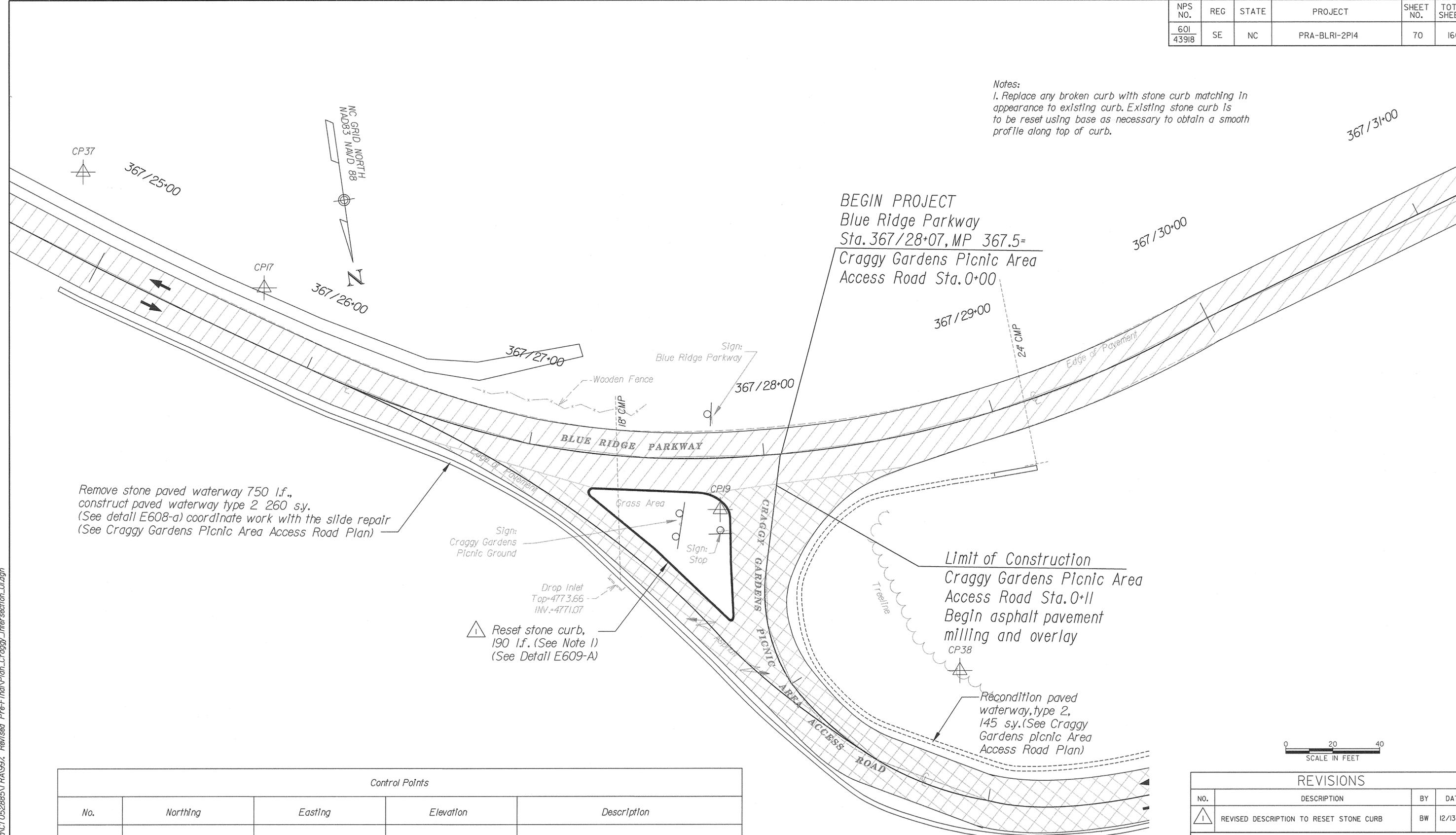
Craggy Gardens Visitor Center
 Parking Area Plan

Control Points				
No.	Northing	Easting	Elevation	Description
CP15	726600.4680	996687.5360	5498.92	SA GPS 15 MON.
CP65	726619.0820	996744.3570	5496.51	SA 65 IPS
CP66	726472.3240	996715.2950	5495.70	SA 66 IPS

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NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	70	166

Notes:
1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.



Remove stone paved waterway 750 l.f., construct paved waterway type 2 260 sy. (See detail E608-a) coordinate work with the slide repair (See Craggy Gardens Picnic Area Access Road Plan)

Reset stone curb, 190 l.f. (See Note 1) (See Detail E609-A)

Limit of Construction
Craggy Gardens Picnic Area
Access Road Sta. 0+11
Begin asphalt pavement
milling and overlay



Control Points				
No.	Northing	Easting	Elevation	Description
CP17	726206.3110	991290.3100	4781.22	SAGPS-17 MON.
CP19	726327.7970	991111.4250	4773.24	SAGPS-19A MON.
CP37	726146.2260	991359.5880	4784.27	SA-37 IPS
CP38	726410.4660	991019.9790	4782.56	SA-38 IPS

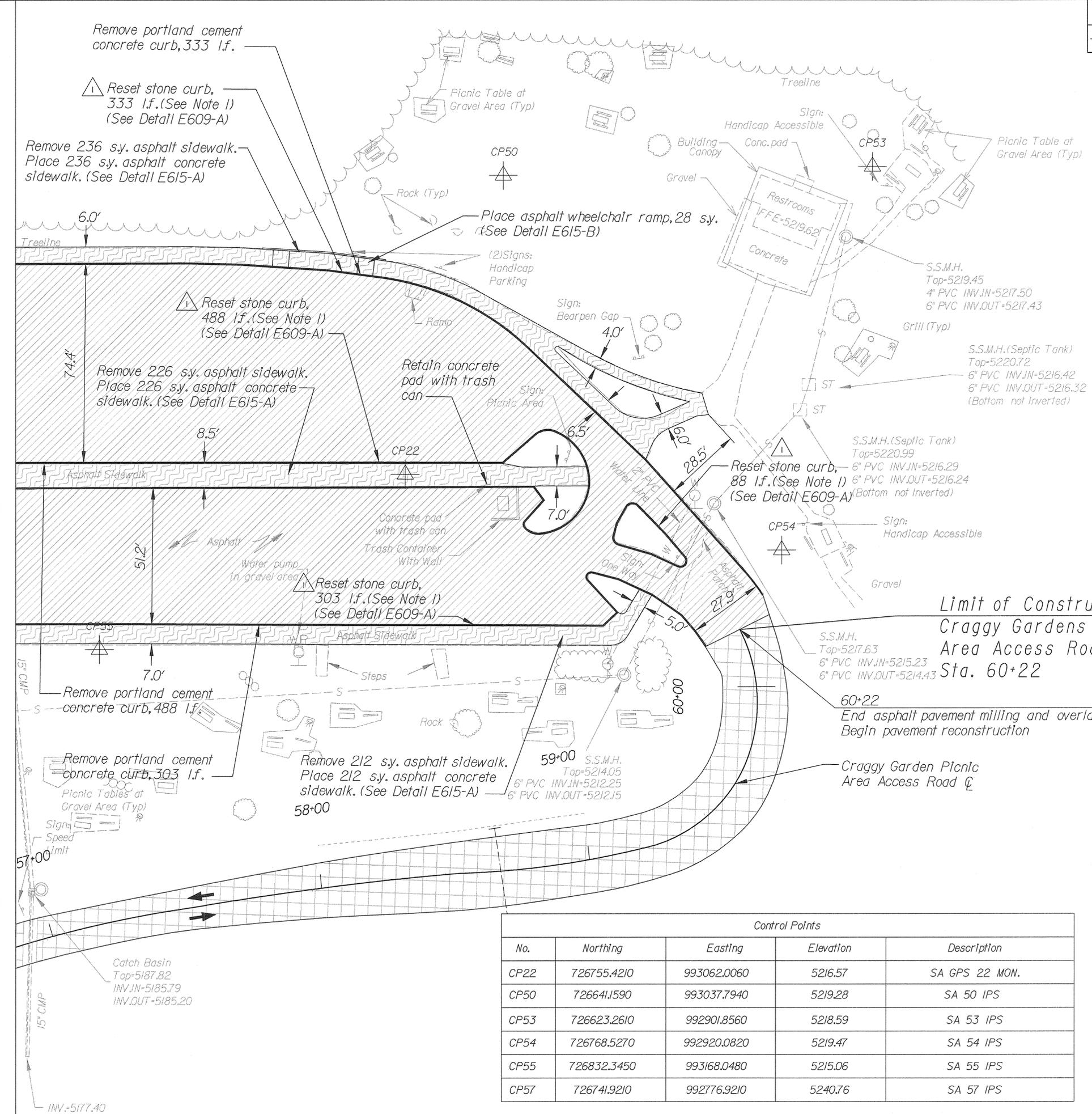
REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

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FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

Craggy Gardens Picnic Area
ACCESS RD. INTERSECTION PLAN

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B
MATCH LINE
B



- Notes:**
1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.
 2. Remove all existing portland cement concrete curb behind the existing stone curb throughout the parking area.
 3. Utility information shown in plans were located based on visual inspection and verbal information provided by NPS.

Limit of Construction
Craggy Gardens Picnic
Area Access Road
Sta. 60+22

60+22
End asphalt pavement milling and overlay
Begin pavement reconstruction

Craggy Garden Picnic
Area Access Road ☺

Control Points				
No.	Northing	Easting	Elevation	Description
CP22	726755.4210	993062.0060	5216.57	SA GPS 22 MON.
CP50	726641.1590	993037.7940	5219.28	SA 50 IPS
CP53	726623.2610	992901.8560	5218.59	SA 53 IPS
CP54	726768.5270	992920.0820	5219.47	SA 54 IPS
CP55	726832.3450	993168.0480	5215.06	SA 55 IPS
CP57	726741.9210	992776.9210	5240.76	SA 57 IPS

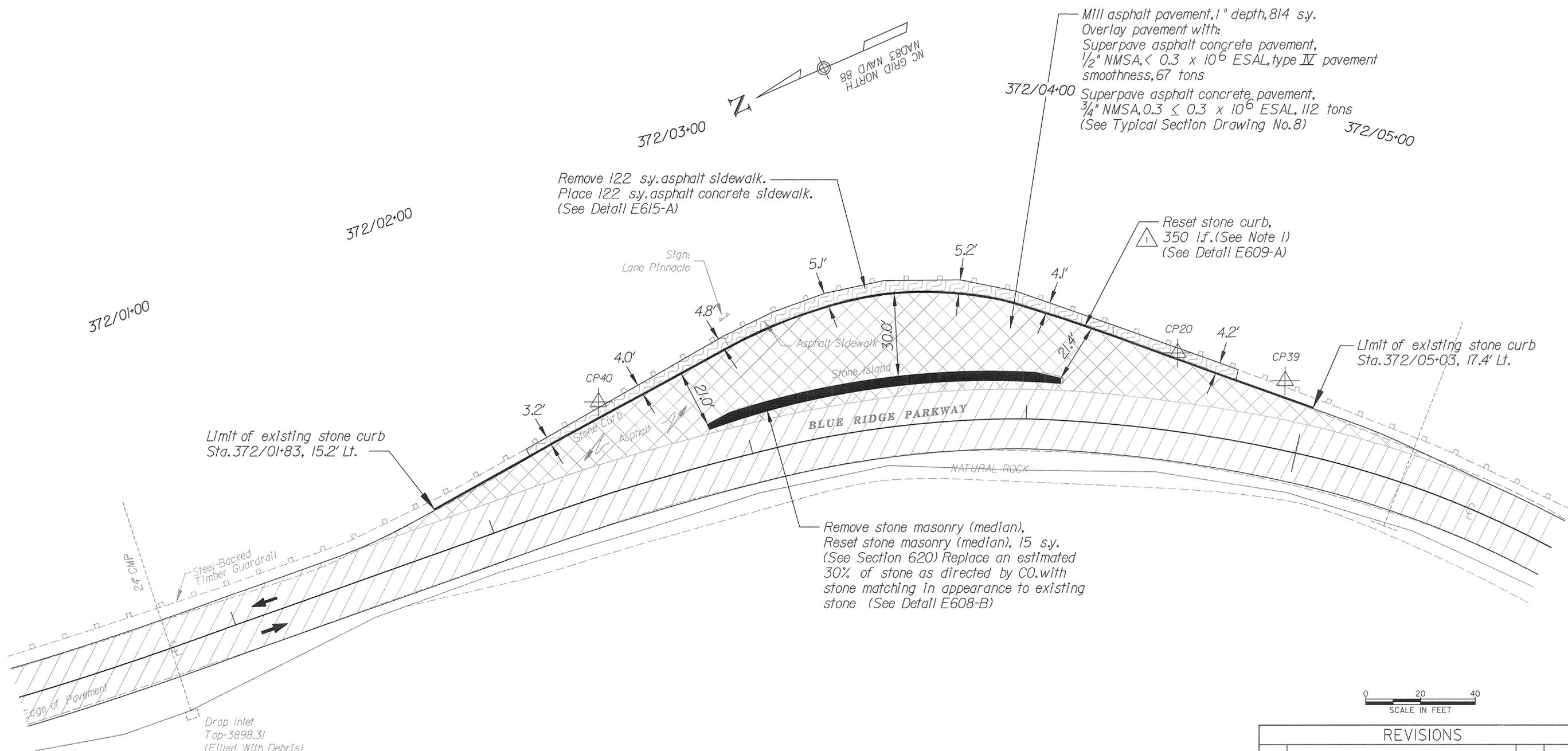
REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

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EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

**Craggy Gardens Picnic Area
PARKING PLAN**

NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	73	166

Notes:
 1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.



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Control Points				
No.	Northing	Easting	Elevation	Description
CP20	715659.3490	977740.3720	3887.54	SAGPS-20 MON.
CP39	715627.6360	977715.1090	3884.38	SA-39 IPS
CP40	715861.2670	977809.7510	3893.18	SA-40 IPS

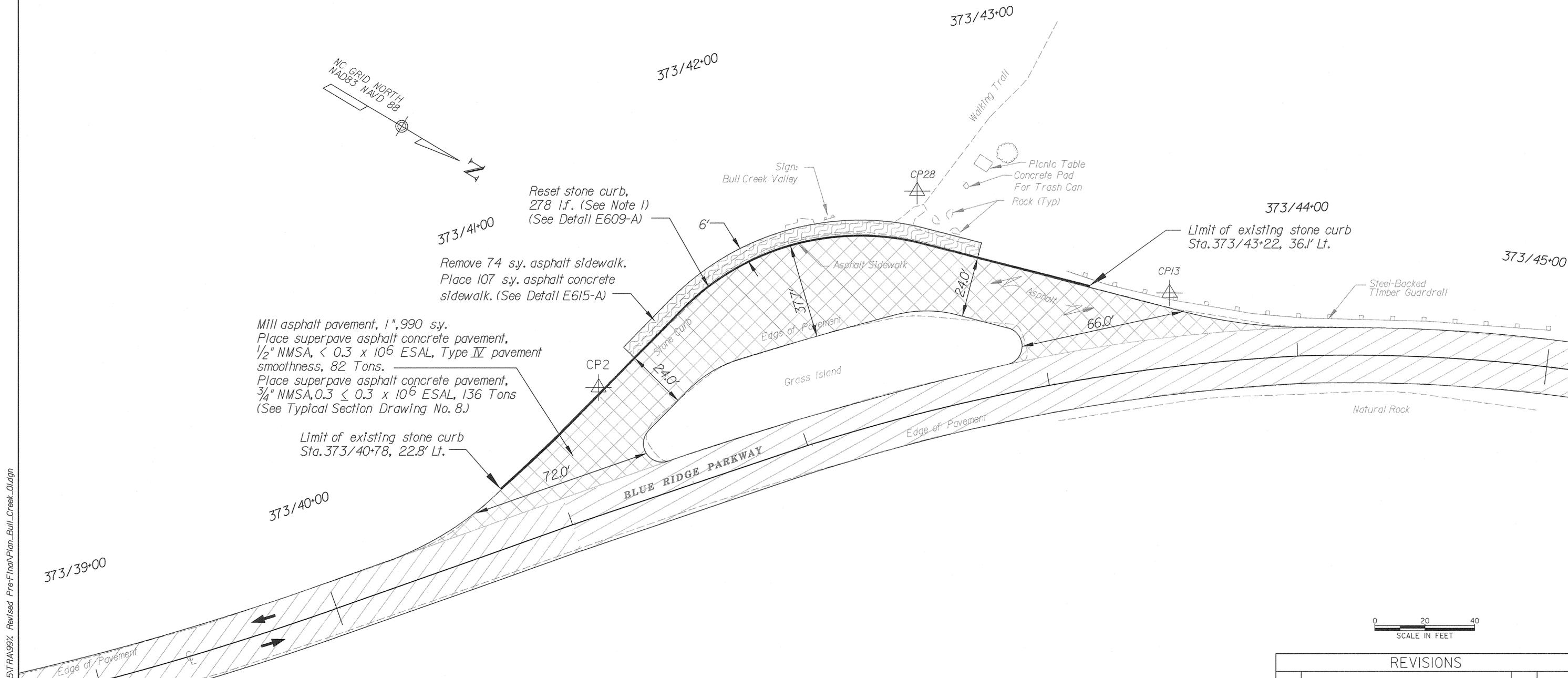
REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 EASTERN FEDERAL LANDS HIGHWAY DIVISION
 STERLING, VIRGINIA

LANES PINNACLE PARKING OVERLOOK
 PLAN

NPS NO.	REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
601 43918	SE	NC	PRA-BLRI-2P14	74	166

Notes:
 1. Replace any broken curb with stone curb matching in appearance to existing curb. Existing stone curb is to be reset using base as necessary to obtain a smooth profile along top of curb.



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Control Points				
No.	Northing	Easting	Elevation	Description
CP2	711613.0660	973571.5290	3485.82	IPS
CP13	711789.6990	973421.4170	3472.53	IPS
CP28	711681.9530	973438.4280	3475.24	N/R

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	REVISED DESCRIPTION TO RESET STONE CURB	BW	12/13/06

U.S. DEPARTMENT OF TRANSPORTATION
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 STERLING, VIRGINIA

**BULL CREEK VALLEY PARKING
 OVERLOOK PLAN**