

DTFH68-05-B-00001

Department of Transportation
Federal Highway Administration
Central Federal Lands Highway Division

CO PFH 16-1(1)
Marvine-Phippsburg
White River and Routt National Forests
Rio Blanco County, Colorado

**INVITATION FOR BID
HUBZone Small Business Set-Aside**

This invitation for bid cites Federal Highway Administration
Specifications FP-03, 2003, US Customary Units

Cut & Paste on Bid Submittal Envelope

Contractor _____

Street Address _____

City/State/Zip _____

OF-17 (cflhd7/03) FAR (48) CFR 53.214(g)
OFFER LABEL FAR (48) CFR 53.215-1(h)

NOTICE TO OFFEROR

1. THIS LABEL MAY ONLY BE USED ON ENVELOPES LARGER THAN 156 mm (6 ½ INCHES) IN HEIGHT AND 292 mm (11 ½ INCHES) IN LENGTH.
2. Print or type your name and address in the UPPER left corner of the envelope containing your offer.
3. Complete the bottom portion of this form and paste it on the lower left corner of the envelope, unless the envelope is 156 mm by 292 mm (6 ½ inches by 11 ½ inches) or smaller.

OFFER

SOLICITATION NO.
DATE FOR RECEIPT OF OFFERS
TIME FOR RECEIPT OF OFFERS
OFFICE DESIGNATED TO RECEIVE OFFERS

State: COLORADO

County: RIO BLANCO

Location: WHITE RIVER AND ROUTT
NATIONAL FORESTS

Length: Schedule A = 41.5 miles
Schedule B = 41.5 miles
Schedule C = 41.5 miles

Type of Improvement: Gravel Road Rehabilitation

This solicitation is a total HUBZone Small Business Set-aside. Offers are solicited only from HUBZone Small Business Concerns. Offers received from concerns that are not HUBZone Small Business will be rejected.

NOTICE

Effective January 2005, all offerors for Federal projects must provide their representations and certifications electronically via the BPN website: www.bpn.gov. Refer to the Federal Acquisition Provision 52.204-8 *Annual Representations and Certifications (Jan. 2005)* in Section D, Page 1.

- Contractors must complete information in the Central Contractor Registration (CCR) site before entering the On-Line Representations and Certifications Application (ORCA).
- Contractors must wait 24 hours after submitting their CCR record to complete the ORCA questionnaire.
- Contractors must create a Marketing Partner Identification Number (MPIN) in CCR. Contractors will need their MPIN and Data Universal Numbering System (DUNS) to register in ORCA.
- If you are having trouble accessing the ORCA site, please contact the help desk for assistance at <http://orca.bpn.gov/feedback.aspx>
- If you are unable to provide your representations and certifications in ORCA, please notify this office at CFLContracts@fhwa.dot.gov no later than 7 days before the bid opening date.

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NOTICE TO BIDDERS AND OFFERORS

**THIS SOLICITATION IS A TOTAL HUBZONE SMALL BUSINESS SET-ASIDE.
OFFERS ARE SOLICITED ONLY FROM HUBZONE SMALL BUSINESS CONCERNS.
OFFERS RECEIVED FROM CONCERNS OTHER THAN HUBZONE SMALL
BUSINESSES WILL BE REJECTED.**

Before mailing your offer, please check the following:

- U** Your offer sets forth full, accurate, and complete information as required by this solicitation, including representations and certifications/bidders qualifications and acknowledgement of any amendments that may have been issued.

- U** You have completed the bid schedule and checked your bid figures, including calculations on your work sheets.

- U** You have provided the required minimum Bid guarantee in proper form and amount including Power of Attorney Affidavit. See FAR Provision 52.228-1.

- U** You have completed and signed all required documents.

PROPOSAL BOOKLET AND BID SUBMITTAL

It is the responsibility of the bidder to verify that this solicitation booklet is complete as provided in the bid submittal package. Also, the bidder is responsible for submitting all required forms and documents with the bid.

Applicable FAR provisions and clauses in this IFB are incorporated by reference or full text. FAR provisions and clauses incorporated by reference can be accessed on the Internet at www.arnet.gov/far/. Bidders are strongly encouraged to review the provisions and clauses referenced in this document before submitting a bid.

Bidders **must** fill out and submit with their offers completed Page 1 of 3, "Notice to Bidders and Offerors," which indicates interest in partnering, and Pages A-1 through D-5 of the Invitation for Bid. The remaining pages may be retained by the bidder for their information.

PARTNERING (See Section I, Subsection 103.05 of the Special Contract Requirements)

Please indicate your interest in participating in Partnering by checking the appropriate blank below.

The offeror is interested in participating in partnering.

The offeror is not interested in participating in partnering.

NOTICE TO BIDDERS AND OFFERORS (cont.)

BONDING

FAR Provision 52.228-1, Bid Guarantee, requires a bid guarantee of not less than 20 percent of the amount of the bid (see page A-3). A bid bond from a corporate surety must be from a surety acceptable to the Government as appearing on the Department of the Treasury's list of approved sureties. The bid bond must have an original signature and an embossed seal for the surety. If a Power of Attorney is required with the bid bond, the Power of Attorney should have an original signature of the surety or an embossed seal for the surety company in the certification section. If the Power of Attorney form contains any language stating that the Power of Attorney can be revoked at any time, the document must contain an original signature or an embossed seal in the certification section.

Small business concerns, including minority 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.

FOR MINORITY, WOMEN AND DISADVANTAGED BUSINESS ENTERPRISES ONLY:

The Department of Transportation (DOT) Office of Small and Disadvantaged Business Utilization (OSDBU) has programs to assist minority, women-owned and disadvantaged business enterprises to acquire short-term working capital and bonding assistance for transportation-related contracts. This is applicable to any eligible prime or subcontract at any tier. The DOT Bonding Assistance Program enables firms to apply for bid, performance and payment bonds up to \$1.0 million per contract. The DOT provides an 80% guaranty on the bond amount to a surety against losses. Loans are also available under the DOT Short Term Lending Program (STLP) at prime interest rates to provide accounts receivable financing. The maximum line of credit is \$750,000 with interest at the prime rate, as published daily in the Wall Street Journal, plus 1.75 percent. For further information and applicable forms concerning the Bonding Assistance Program and/or the STLP, please call (800) 532-1169. Internet address: <http://osdbuweb.dot.gov>

INDIVIDUAL SURETIES

See FAR contract clause 52.228-11, Pledges of Assets.

NOTICE TO BIDDERS AND OFFERORS (cont.)

PROGRESS PAYMENTS

According to the DFARS 204.7302, NASA, DOT and Treasury FAR Supplements, prospective bidders must be registered in Central Contractor Registration (CCR) system prior to the award of a contract, basic agreement, basic ordering agreement, or blanket purchase agreement (Refer to FAR Clause 52.204-7, Central Contractor Registration). The DOT has partnered with the Department of Defense (DOD) to use the CCR system to obtain contractor financial electronic funds transfer (EFT) information.

FAR Clause 52.232-33, Payment by Electronic Funds Transfer -- Central Contractor Registration requires that the EFT information in the CCR must be accurate in order for contractors' invoices to be considered proper invoices for the purpose of prompt payment. Contractors must input and maintain their current EFT information.

To register in CCR, access the following DOD web site: www.ccr.gov .

According to FAR Clause 52.232-5, Payments Under Fixed-Price Construction Contracts, reimbursement will be made for premiums paid by the Contractor to obtain performance and payment bonds as required under this contract. As specified in the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP), Section 151, Mobilization, payment for performance and payment bond premiums will be included in the mobilization item and shall not be in addition to the contract price.

According to FAR Clause 52.232-27, Prompt Payment for Construction Contracts, The due date for progress payments shall be the 14th day after receipt of a proper payment request by the Government's designated billing office. Bidders are advised to review Subsection 109.08, Progress Payments and Subsection 109.05, Scope of Payment of the FP concerning direct and indirect payments.

FACSIMILE OR TELEGRAPHIC BIDS ARE NOT AUTHORIZED FOR THIS SOLICITATION.

Bids may be modified or withdrawn by facsimile or telegraphic notice, if such notice is received by the time specified for receipt of bids. The Government will not be responsible for ANY failure attributable to the transmission or receipt of telegraphic or facsimile data.

FAX Number to submit modifications to bids for this project is (720) 963-3360.

SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)		1. SOLICITATION NO. DTFH68-05-B-00001	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED February 8, 2005	PAGE OF PAGES 1 OF 3
IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.					
4. CONTRACT NO.		5. REQUISITION/PURCHASE REQUEST NO.		6. PROJECT NO. CO PFH 16-1(1) Marvine-Phippsburg	
7. ISSUED BY: Federal Highway Administration Central Federal Lands Highway Division 12300 West Dakota Avenue, Suite 167 Lakewood, CO 80228		CODE: 69050001		8. ADDRESS OFFER TO: Mr. Larry E. Smith, Division Engineer Federal Highway Administration Central Federal Lands Highway Division Attn: Lori Kliethermes 12300 West Dakota Avenue, Suite 167 Lakewood, Colorado 80228	
9. FOR INFORMATION CALL:		A. NAME: See Continuation of SF 1442		B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) See Continuation of SF 1442.	

SOLICITATION**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):

FOR CONSTRUCTION OF COLORADO PFH 16-1(1), MARVINE-PHIPPSBURG, IN STRICT ACCORDANCE WITH:

1. **FEDERAL ACQUISITION AND TRANSPORTATION ACQUISITION REGULATIONS (FAR & TAR)**
2. **DEPARTMENT OF LABOR, DAVIS BACON MINIMUM WAGE RATES (See Section G)**
3. **SPECIAL CONTRACT REQUIREMENTS (See Section I)**
4. **PLANS**
5. **BID SCHEDULE (See Section B)**
6. **STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-03 (2003)**

See Subsection 104.04 of the FP for governing order of precedence.

* ALL WORK MUST BE COMPLETED BY NOVEMBER 2, 2005

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.

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	12B. CALENDAR DAYS 10
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

- A. Sealed offers in original and 0 copies to perform the work required are due at the place specified in Item 8. by 2:00 pm (hour) local time 03/09/05 (date). 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.

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

19. ACKNOWLEDGMENT 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 + (4 copies unless otherwise specified)	ITEM See Block 26	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 15 U.S.C. 637() <input type="checkbox"/> 41 U.S.C. 253(c)()
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26. ADMINISTERED BY SEE CONTINUATION OF SF 1442	CODE: _____	27. PAYMENT WILL BE MADE BY FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION 555 ZANG STREET, ROOM 259 LAKEWOOD, CO 80228
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CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return ___ copies to issuing office.) 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 (Contractor is not required to sign this document.) 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 (Type or print)	31A. NAME OF CONTRACTING OFFICER (Type or print)
30B. SIGNATURE	30C. DATE
31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE

ADDITIONAL SOLICITATION INFORMATION

Block 9: DATA AVAILABLE FOR REVIEW

The following hard copy materials can be obtained by calling (720) 963-3355 or (720) 963-3353:

Geotech Report(s)

FP-03, Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, 2003

The following materials are available electronically:

Manual of Uniform Traffic Control Devices for Streets and Highways, (Current Edition published by U.S. Government Printing Office found at <http://mutcd.fhwa.dot.gov> .

AASHTO Manuals found at <http://fhwapap04.fhwa.dot.gov/index.jsp> under the Standard Specifications and Supplements link.

FP-03, Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, 2003, found at <http://www.cflhd.gov/design/index.cfm#> under the Construction Specs tab.

Contractor Guidelines for Quality Control Plans and example QC Plans found at <http://www.cflhd.gov/design/index.cfm#> under the Construction Specs tab.

For amendments, bid results and tabulations or other procurement information please visit our website at www.cflhd.gov/procurement

Block 13: A bid guarantee of not less than 20 percent of the amount of the bid is required with any bid in excess of \$25,000. If the bidder fails to provide the required bid guarantee in the proper form and amount, such failure may result in rejection of the bid. See FAR Provision 52.228-1, Bid Guarantee. If the bid guarantee is a bid bond, it must be submitted on Standard Form 24. Also refer to Subsections 102.03 and 102.04 of the FP for additional information.

Block 26: The Contractor shall submit invoices to:

FHWA, CFLHD, Project Engineer's Office (Address to be designated at preconstruction conference), for submission to the designated billing office shown in Block 7.

Final billing shall be submitted directly to the address shown in Block 7.

Other: The estimated price range of the project work is between \$1,000,000 and \$5,000,000.

For questions regarding access to the Federal Business Opportunities (FBO) website or how to obtain plans and other solicitation documents, please contact either Lori Kliethermes at (720) 963-3355 or Brenda McGehee at (720) 963-3353.

All technical and contracting questions regarding this solicitation must be submitted in writing to one of the following:

E-mail address: CFLContracts@fhwa.dot.gov
FAX Number: 720-963-3360
Mailing Address: Federal Highway Administration
Central Federal Lands Highway Division
Attention: Acquisition and Contracting
12300 W. Dakota Avenue, Suite 360
Lakewood, Colorado 80228

Responses will be provided to the individual questioner and also be posted on our website at http://www.cflhd.gov/procurement/currentSolicitations_Construction.cfm under the project link. Potential Offerors are advised to check this site on a regular basis to assure the most current and up-to-date information.

All amendments resulting from this solicitation will be uploaded to the FBO website at http://www1.eps.gov/spg/DOT/FHWA/68/postdatePrevDays_1.html and posted on our website at http://www.cflhd.gov/procurement/currentSolicitations_Construction.cfm under Current Solicitations.

Bid Schedule Instructions

BIDDERS, PLEASE NOTE: Before preparing the bid, carefully read the Solicitation Provisions.

This Bid is comprised of three schedules for Gravel Road Rehabilitation on 41.5 miles of roadway.

- Insert a numeric unit price for each pay item for which a quantity appears in the bid schedule. When the words “Lump Sum” appear as a unit price, insert an amount for each lump sum pay item.
- Multiply the unit price by the quantity for each pay item and show the amount bid.
- Total all amounts bid for each pay item and show the Total on line provided on Pages B-3, B-6 and B-9.

Evaluation Factors for Award

To be eligible for award of contract, the bidder shall submit prices in each bid schedule for each bid item necessary to complete all contract work. Liquidated damages will be assessed according to Subsection 108.04, as amended, by the Special Contract Requirements (SCR), in the event contract work is not completed by the final contract completion; date listed below.

The successful bidder will be determined as the low bidder with the lowest project bid Total. Accordingly, award will be made only to the lowest responsive, responsible bidder, who is qualified by the Small Business Administration as HUBZone certified, if funds are available, on one schedule considered to be most advantageous to the Government.

The possibility of having different low bidders on different schedules is recognized and prospective bidders are hereby notified that there will be no protest by any bidder whose bid would have been lowest under a different schedule than the one selected for award.

NOTE: BIDS RECEIVED FROM CONCERNS OTHER THAN HUBZONE SMALL BUSINESSES WILL BE CONSIDERED NON-RESPONSIVE AND WILL BE REJECTED.

All work must be completed by November 2, 2005

BID SCHEDULE A

CO PFH 16-1(1)

MARVINE-PHIPPSBURG

Bid Schedule

Project: CO PFH 16-1(1)
MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	MOBILIZATION ALL	Lump Sum	\$ _____
15214-0000	SURVEY AND STAKING, MISCELLANEOUS ALL	Lump Sum	\$ _____
15217-1000	SURVEY AND STAKING, MISCELLANEOUS 75 HOUR	\$ _____	\$ _____
15401-0000	CONTRACTOR TESTING ALL	Lump Sum	\$ _____
15501-0000	CONSTRUCTION SCHEDULE ALL	Lump Sum	\$ _____
15705-0100	SOIL EROSION CONTROL, SILT FENCE 1,650 LNFT	\$ _____	\$ _____
15705-1400	SOIL EROSION CONTROL, SEDIMENT LOG 220 LNFT	\$ _____	\$ _____
15801-0000	WATERING FOR DUST CONTROL 4,200 MGAL	\$ _____	\$ _____
20402-0000	SUBEXCAVATION 2,700 CUYD	\$ _____	\$ _____
30110-0000	AGGREGATE SURFACE COURSE 97,000 TON	\$ _____	\$ _____
30303-3000	ROADWAY RECONDITIONING 730,000 SQYD	\$ _____	\$ _____

Bid Schedule A

Project: CO PFH 16-1(1)
MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
30606-0000	MAGNESIUM CHLORIDE 270 TON	\$ _____	\$ _____
62201-0250	DUMP TRUCK, 10 CUBIC YARD MINIMUM CAPACITY 40 HOUR	\$ _____	\$ _____
62201-0450	BACKHOE LOADER, 4 CUBIC FOOT MINIMUM RATED CAPACITY BUCKET, 18-INCH WIDTH 40 HOUR	\$ _____	\$ _____
62201-2850	MOTOR GRADER, 12 FOOT MINIMUM BLADE 80 HOUR	\$ _____	\$ _____
62301-0000	GENERAL LABOR 80 HOUR	\$ _____	\$ _____
63301-0000	SIGN SYSTEM 4 EACH	\$ _____	\$ _____
63308-2000	OBJECT MARKER, TYPE 2 428 EACH	\$ _____	\$ _____
63502-0700	TEMPORARY TRAFFIC CONTROL, CONE 60 EACH	\$ _____	\$ _____
63502-1500	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE A 15 EACH	\$ _____	\$ _____
63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN 400 SQFT	\$ _____	\$ _____
63506-0500	TEMPORARY TRAFFIC CONTROL, FLAGGER 2,500 HOUR	\$ _____	\$ _____

Bid Schedule A

Project: CO PFH 16-1(1)

MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63506-0600	TEMPORARY TRAFFIC CONTROL, PILOT CAR 970 HOUR	\$ _____	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

BID SCHEDULE B

CO PFH 16-1(1)

MARVINE-PHIPPSBURG

Bid Schedule

Project: CO PFH 16-1(1)
MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	MOBILIZATION ALL	Lump Sum	\$ _____
15214-0000	SURVEY AND STAKING, MISCELLANEOUS ALL	Lump Sum	\$ _____
15217-1000	SURVEY AND STAKING, MISCELLANEOUS 75 HOUR	\$ _____	\$ _____
15401-0000	CONTRACTOR TESTING ALL	Lump Sum	\$ _____
15501-0000	CONSTRUCTION SCHEDULE ALL	Lump Sum	\$ _____
15705-0100	SOIL EROSION CONTROL, SILT FENCE 1,650 LNFT	\$ _____	\$ _____
15705-1400	SOIL EROSION CONTROL, SEDIMENT LOG 220 LNFT	\$ _____	\$ _____
15801-0000	WATERING FOR DUST CONTROL 4,600 MGAL	\$ _____	\$ _____
20402-0000	SUBEXCAVATION 2,700 CUYD	\$ _____	\$ _____
30110-0000	AGGREGATE SURFACE COURSE 107,000 TON	\$ _____	\$ _____
30303-3000	ROADWAY RECONDITIONING 804,000 SQYD	\$ _____	\$ _____

Bid Schedule B

Project: CO PFH 16-1(1)
MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
30606-0000	MAGNESIUM CHLORIDE 270 TON	\$ _____	\$ _____
62201-0250	DUMP TRUCK, 10 CUBIC YARD MINIMUM CAPACITY 40 HOUR	\$ _____	\$ _____
62201-0450	BACKHOE LOADER, 4 CUBIC FOOT MINIMUM RATED CAPACITY BUCKET, 18-INCH WIDTH 40 HOUR	\$ _____	\$ _____
62201-2850	MOTOR GRADER, 12 FOOT MINIMUM BLADE 80 HOUR	\$ _____	\$ _____
62301-0000	GENERAL LABOR 80 HOUR	\$ _____	\$ _____
63301-0000	SIGN SYSTEM 4 EACH	\$ _____	\$ _____
63308-2000	OBJECT MARKER, TYPE 2 476 EACH	\$ _____	\$ _____
63502-0700	TEMPORARY TRAFFIC CONTROL, CONE 60 EACH	\$ _____	\$ _____
63502-1500	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE A 15 EACH	\$ _____	\$ _____
63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN 400 SQFT	\$ _____	\$ _____
63506-0500	TEMPORARY TRAFFIC CONTROL, FLAGGER 2,800 HOUR	\$ _____	\$ _____

Bid Schedule B

Project: CO PFH 16-1(1)

MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63506-0600	TEMPORARY TRAFFIC CONTROL, PILOT CAR 1,070 HOUR	\$ _____	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

BID SCHEDULE C

CO PFH 16-1(1)

MARVINE-PHIPPSBURG

Bid Schedule

Project: CO PFH 16-1(1)
MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
15101-0000	MOBILIZATION ALL	Lump Sum	\$ _____
15214-0000	SURVEY AND STAKING, MISCELLANEOUS ALL	Lump Sum	\$ _____
15217-1000	SURVEY AND STAKING, MISCELLANEOUS 75 HOUR	\$ _____	\$ _____
15401-0000	CONTRACTOR TESTING ALL	Lump Sum	\$ _____
15501-0000	CONSTRUCTION SCHEDULE ALL	Lump Sum	\$ _____
15705-0100	SOIL EROSION CONTROL, SILT FENCE 1,650 LNFT	\$ _____	\$ _____
15705-1400	SOIL EROSION CONTROL, SEDIMENT LOG 220 LNFT	\$ _____	\$ _____
15801-0000	WATERING FOR DUST CONTROL 5,000 MGAL	\$ _____	\$ _____
20402-0000	SUBEXCAVATION 2,700 CUYD	\$ _____	\$ _____
30110-0000	AGGREGATE SURFACE COURSE 115,000 TON	\$ _____	\$ _____
30303-3000	ROADWAY RECONDITIONING 869,000 SQYD	\$ _____	\$ _____

Bid Schedule C

Project: CO PFH 16-1(1)
MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
30606-0000	MAGNESIUM CHLORIDE 315 TON	\$ _____	\$ _____
62201-0250	DUMP TRUCK, 10 CUBIC YARD MINIMUM CAPACITY 40 HOUR	\$ _____	\$ _____
62201-0450	BACKHOE LOADER, 4 CUBIC FOOT MINIMUM RATED CAPACITY BUCKET, 18-INCH WIDTH 40 HOUR	\$ _____	\$ _____
62201-2850	MOTOR GRADER, 12 FOOT MINIMUM BLADE 80 HOUR	\$ _____	\$ _____
62301-0000	GENERAL LABOR 80 HOUR	\$ _____	\$ _____
63301-0000	SIGN SYSTEM 4 EACH	\$ _____	\$ _____
63308-2000	OBJECT MARKER, TYPE 2 516 EACH	\$ _____	\$ _____
63502-0700	TEMPORARY TRAFFIC CONTROL, CONE 60 EACH	\$ _____	\$ _____
63502-1500	TEMPORARY TRAFFIC CONTROL, WARNING LIGHT TYPE A 15 EACH	\$ _____	\$ _____
63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN 400 SQFT	\$ _____	\$ _____
63506-0500	TEMPORARY TRAFFIC CONTROL, FLAGGER 3,000 HOUR	\$ _____	\$ _____

Bid Schedule C

Project: CO PFH 16-1(1)

MARVINE-PHIPPSBURG FLAT TOPS SCENIC BYWAY

Pay Item No.	Estimated Quantity	Unit Bid Price	Amount Bid
63506-0600	TEMPORARY TRAFFIC CONTROL, PILOT CAR 1,150 HOUR	\$ _____	\$ _____

TOTAL \$ _____

Submitted by: _____
Name of Bidder

Continuation of Bid Schedule

BUY AMERICAN ACT

It is understood and agreed that the materials and components listed in Subpart 25.1 of the Federal Acquisition Regulations are a part of this contract and are deemed to be Domestic Construction Material for the purposes of this contract.

Note to Contractor:

The following information and any applicable supporting data is required for evaluation of requests under FAR 52.225-9 paragraph (c) and FAR 52.225-10 paragraph (b).

Item 1.

Construction Material Description	Unit of Measure	Quantity	Cost Delivered to Job Site
Foreign Construction Material			
Comparable Domestic Material			

Item 2.

Construction Material Description	Unit of Measure	Quantity	Cost Delivered to Job Site
Foreign Construction Material			
Comparable Domestic Material			

Please include name, address, telephone number and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

HAZARDOUS MATERIALS

As required by FAR Clause 52.223-3, Hazardous Materials Identification and Safety Data, the apparent low bidder must submit prior to award a Material Safety Data Sheet (MSDS) for all hazardous materials that the bidder identifies in paragraph (b) of the FAR clause and defined under the latest version of Federal Standard No. 313.

Hazardous Material	Identification Number

USE OF RECOVERED MATERIALS ON FEDERAL LANDS HIGHWAY PROJECTS

Use of fly ash and ground granulated blast furnace slag and construction materials containing fly ash and ground granulated blast furnace slag on Federal Lands Highway projects:

- It is the policy of the United States Government that fly ash and ground granulated blast furnace slag and materials containing fly ash and ground granulated blast furnace slag shall have maximum practicable opportunity for incorporation into its construction projects.
- The Contractor agrees to investigate the use of fly ash and ground granulated blast furnace slag and materials containing fly ash and ground granulated blast furnace slag to the fullest extent consistent with the efficient performance of this contract. Both the contractor and the subcontractors are urged to seek out suppliers of fly ash and ground granulated blast furnace slag, cement and concrete containing fly ash and ground granulated blast furnace slag and to solicit bids for these materials.
- Names of firms that supply fly ash and ground granulated blast furnace slag and materials containing fly ash and ground granulated blast furnace slag are available from the American Coal Ash Association and the National Slag Association.

C-1

BID BOND (See instructions on reverse)			DATE BOND EXECUTED (Must not be later than bid opening date)			OMB NO. 9000-0045			
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, D.C. 20405.									
PRINCIPAL (Legal name and business address)						TYPE OF ORGANIZATION ("X" one)			
						<input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> JOINT VENTURE		<input type="checkbox"/> PARTNERSHIP <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. CO PFH 16-1(1) MARVINE-PHIPPSBURG			
	20 PERCENT	MILLION(S)	THOUSAND(S)	HUNDRED(S)					CENTS
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 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. (Seal)	2. (Seal)	3. (Seal)	Corporate Seal					
NAMES(S) & TITLE(S) (Typed)	1.	2.	3.						
INDIVIDUAL SURETY(IES)									
SIGNATURE(S)	1. (Seal)	2. (Seal)							
NAMES(S) (Typed)	1.	2.							
CORPORATE SURETY(IES)									
SURETY A	NAME & ADDRESS				STATE OF INC.	LIABILITY LIMIT \$		Corporate Seal	
	SIGNATURE(S)	1.			2.				
	NAMES(S) & TITLE(S) (Typed)	1.			2.				

CORPORATE SURETY(IES) (Continued)					
SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT \$	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAMES(S) & TITLE(S) (Typed)	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., 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 designated "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 capacity.
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."

FEDERAL ACQUISITION REGULATION

SOLICITATION PROVISIONS

REPRESENTATIONS AND CERTIFICATIONS

Effective January 2005, offerors/bidders must submit Representations and Certifications online at www.bpn.gov. All offerors/bidders should submit/update this information at least annually. Refer to the Federal Acquisition Provision 52.204-8 *Annual Representations and Certifications* below. If you have previously accomplished your on-line registration and the NAICS code for this solicitation is different than the code listed in your online profile, please note the amended changes on the lines provided in the Provision below.

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2005)

(a) (1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (b) 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 (b) instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (b) applies.

(ii) Paragraph (b) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(b) 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 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.



FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

BIDDER'S QUALIFICATIONS

INSTRUCTIONS: Answer all questions on this form inserting "none" or "not applicable" where appropriate. If more space is required attach additional sheets. Return the signed, dated and completed form with the bid to the address shown in the invitation for bids on or before the time set for bid opening. The prospective bidder shall provide any additional information requested by the Government during evaluation of the bids.

If the prospective bidder is a joint venture or general partnership, a separate Bidder's Qualifications form shall be provided individually for each joint venture participant or partner.

1. Name and address of business

_____			_____		
Name			DUNS Number (See FAR Provision 52.204-6)*		
_____			_____		
Street			Home Office Congressional District (Insert District #) *		
_____		_____	_____		
City		State	Zip Code		
_____			* Necessary for Government reporting purposes		
County					

Telephone Number (Include Area Code)					

Fax Number (Include Area Code)					

2. a. Type of organization (check appropriate box):

<input type="checkbox"/> Individual	<input type="checkbox"/> Non-profit organization	<input type="checkbox"/> Corporation
<input type="checkbox"/> Partnership	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> Incorporated in: _____

If a Foreign entity:

<input type="checkbox"/> Individual	<input type="checkbox"/> Non-profit organization	<input type="checkbox"/> Corporation
<input type="checkbox"/> Partnership	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> Registered in: _____

b. Size and type of Business Concern (check appropriate boxes):

<input type="checkbox"/> Large Business Concern	<input type="checkbox"/> Small Disadvantaged Business Concern	<input type="checkbox"/> Emerging Small Business
<input type="checkbox"/> Small Business Concern	<input type="checkbox"/> Women-Owned Small Business	<input type="checkbox"/> SBA 8(a) Certified
<input type="checkbox"/> HUB Zone Business Concern	<input type="checkbox"/> Veteran Owned Business Concern	<input type="checkbox"/> Service-Disabled Veteran-Owned Business Concern

3. If a joint venture or general partnership:

- a. Provide the name under which the project will be bid, the home office address, and name of the principal who will represent the company with regard to this project if different from "1." above.

Principal _____

Business Name _____

Street _____

City _____ State _____ Zip Code _____

- b. Provide the name and home office addresses of each of the joint venture partners; indicate which partner is the sponsoring partner. Attach a separate sheet for additional partners.

Sponsoring Partner _____			Other Partner _____		
Street _____			Street _____		
City _____	State _____	Zip Code _____	City _____	State _____	Zip Code _____

4. Date organization established: _____

5. Name of succeeded business, if any: _____

6. How many years have you been in business as:

- a. General contractor ___ years.
- b. Subcontractor ___ years.

7. a. Furnish the following information concerning the owner, partners, officers and directors:

Name	Title	Percent of Business Owned	Years of Business Experience	
			Contracting	Other

- b. Attach resumes of these key personnel as well as the on-site project manager(s) and superintendent(s), and specifically identify the following:
- Present position, responsibility, and length of employment.
 - Amount and type of construction experience.
 - Amount and type of highway construction experience, including position, responsibility, and a brief project description of each period of employment.
 - Formal education and training, professional or technical registrations or licenses.

9. a. List at least five of the largest jobs you have completed in the last five years which are similar in project work scope to this project. (Attach additional sheets if necessary)

Project Name and Contract Numbers	Owner's Name, Address, Contact Name and Telephone #	Scope of Work Performed	Original and Final Contract Amounts	Original and Final Completion Dates	Names of On-site Project Manager and Superintendent	Name of Surety

b. Are there any unresolved claims or lawsuits associated with these projects? If so, state the amount in dispute, parties involved, nature and circumstances of the dispute, and status of the matter on a separate sheet.

FEDERAL ACQUISITION REGULATIONSOLICITATION PROVISIONSInstructions to Bidders**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: <http://www.arnet.gov/far/>.

- 52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (OCT 2003)
- 52.211-6 BRAND NAME OR EQUAL (AUG 1999)
- 52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989)
- 52.214-4 FALSE STATEMENTS IN BIDS (APR 1984)
- 52.214-5 SUBMISSION OF BIDS (MAR 1997)
- 52.214-6 EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984)
- 52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS
(NOV 1999)
- 52.214-18 PREPARATION OF BIDS - CONSTRUCTION (APR 1984)
- 52.214-19 CONTRACT AWARD - SEALED BIDDING - CONSTRUCTION (AUG 1996)
- 52.214-34 SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991)
- 52.214-35 SUBMISSION OF OFFERS IN U.S. CURRENCY (APR 1991)
- 52.222-38 COMPLIANCE WITH VETERAN'S EMPLOYMENT REPORTING
REQUIREMENTS (DEC 2001)
- 52.223-4 RECOVERED MATERIAL CERTIFICATION (OCT 1997)
- 52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

52.211-4 AVAILABILITY FOR EXAMINATION OF SPECIFICATIONS NOT LISTED IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND COMMERCIAL ITEM DESCRIPTIONS (JUN 1988)

Specifications cited in this solicitation which are not available for distribution may be examined at the following location:

Federal Highway Administration
Central Federal Lands Highway Division
12300 West Dakota Avenue, Suite 360
Lakewood, Colorado 80228
Contact: Lori Kliethermes @ (720) 963-3355 or Brenda McGehee @ (720) 963-3353

52.216-1 TYPE OF CONTRACT (APR 1984)

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

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (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
10.2%	6.9%

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 Rio Blanco County, Colorado

**52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT --
CONSTRUCTION MATERIALS (MAY 2002)**

(a) Definitions. "Construction material," "domestic construction material," and "foreign construction material," as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act --Construction Materials" (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) Requests for determinations of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers. (1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be 20 percent of the bid price or \$3,000,000, whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

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:

Edward S. Hammontree, P.E.
Contract Development Engineer
Central Federal Lands Highway Division
12300 West Dakota Avenue, Suite 360
Lakewood, Colorado 80228

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

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any Transportation Acquisition Regulations (48 CFR Chapter 12) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

FEDERAL ACQUISITION REGULATION
CONTRACT CLAUSES
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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: <http://www.arnet.gov/far/>.

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- 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JAN 2005)
- 52.211-13 TIME EXTENSIONS (SEPT 2000)
- 52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)
- 52.214-26 AUDIT AND RECORDS--SEALED BIDDING (OCT 1997)
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- 52.214-28 SUBCONTRACTOR COST OR PRICING DATA - MODIFICATIONS - SEALED BIDDING (OCT 1997)
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- 52.222-3 CONVICT LABOR (JUN 2003)
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- 52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)
- 52.222-9 APPRENTICES AND TRAINEES (FEB 1988)
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- 52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS
OF THE VIETNAM ERA AND OTHER ELIGIBLE VETERANS (DEC 2001)
- 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA
(JAN 1997) -- ALTERNATE 1 (JUL 1995) (**See Buy American Page, Section "B"**)
Material _____, I.D. No. _____
- 52.223-5 POLLUTION PREVENTION AND RIGHT TO KNOW INFORMATION
(AUG 2003)
- 52.223-6 DRUG-FREE WORKPLACE (MAY 2001)
- 52.223-14 TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)
- 52.224-2 PRIVACY ACT (APR 1984)
- 52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (DEC 2003)
- 52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

- 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)
- 52.227-4 PATENT INDEMNITY - CONSTRUCTION CONTRACTS (APR 1984)
- 52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)
- 52.228-5 INSURANCE-WORK ON A GOVERNMENT INSTALLATION (JAN 1997)
- 52.228-11 PLEDGES OF ASSETS (FEB 1992)
- 52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS (OCT 1995)
- 52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (JUL 2000)
- 52.229-3 FEDERAL, STATE, AND LOCAL TAXES (APR 2003)
- 52.232-5 PAYMENTS UNDER FIXED - PRICE CONSTRUCTION CONTRACTS (SEPT 2002)
- 52.232-17 INTEREST (JUN 1996)
- 52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)
- 52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (OCT 2003)
- 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION (OCT 2003)
- 52.233-1 DISPUTES. (JUL 2002) -- ALTERNATE I (DEC 1991)
- 52.233-3 PROTEST AFTER AWARD (AUG 1996)
- 52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)
- 52.236-2 DIFFERING SITE CONDITIONS (APR 1984)
- 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)
- 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)
- 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)
- 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)
- 52.236-8 OTHER CONTRACTS (APR 1984)
- 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)
- 52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)
- 52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)
- 52.236-12 CLEANING UP (APR 1984)
- 52.236-13 ACCIDENT PREVENTION (NOV 1991) -- ALTERNATE I (NOV 1991)
- 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

- 52.236-17 LAYOUT OF WORK (APR 1984)
- 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)
- 52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)
- 52.242-13 BANKRUPTCY (JUL 1995)
- 52.242-14 SUSPENSION OF WORK (APR 1984)
- 52.243-4 CHANGES (AUG 1987)
- 52.243-6 CHANGE ORDER ACCOUNTING (APRIL 1984)
- 52.245-1 PROPERTY RECORDS (APR 1984)
- 52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (MAY 2004)
- 52.245-4 GOVERNMENT-FURNISHED PROPERTY (SHORT FORM) (JUN 2003)
- 52.245-19 GOVERNMENT PROPERTY FURNISHED "AS IS" (APR 1984)
- 52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)
- 52.248-3 VALUE ENGINEERING - CONSTRUCTION (FEB 2000) -- ALTERNATE I
(APR 1984)
- 52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)
(MAY 2004) -- ALTERNATE I (SEP 1996)
- 52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)
- 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)
- 1252.211-71 INDEX FOR SPECIFICATIONS (OCT 1996)
- 1252.219-70 SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
SUBCONTRACTING REPORTING (JUN 1997)
- 1252.242-73 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (OCT 1994)

52.204-1 APPROVAL OF CONTRACT (DEC 1989)

This contract is subject to the written approval of the Central Federal Lands Division Engineer and shall not be binding until so approved.

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

The Contractor shall be required to (a) commence work under this contract within 10 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 (See Standard Form 1442). The time stated for completion shall include final cleanup of the premises.

The completion date is based on the assumption that the successful offeror will receive the notice to proceed by the 70th day following the bid opening. The completion date will be extended by the number of calendar days after the above date that the Contractor receives the notice to proceed, except to the extent that the delay in issuance of the notice to proceed results from the failure of the Contractor to execute the contract and give the required performance and payment bonds within the time specified in the offer.

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 Page 41 of the FP-03, Table 108-1 under Subsection 108.04) 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.

**52.222-39 NOTIFICATION OF EMPLOYEE RIGHTS CONCERNING
PAYMENT OF UNION DUES OR FEES (DEC 2004)**

(a) *Definition.* As used in this clause—

“United States” means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) Except as provided in paragraph (e) of this clause, during the term of this contract, the Contractor shall post a notice, in the form of a poster, informing employees of their rights concerning union membership and payment of union dues and fees, in conspicuous places in and about all its plants and offices, including all places where notices to employees are customarily posted. The notice shall include the following information (except that the information pertaining to National Labor Relations Board shall not be included in notices posted in the plants or offices of carriers subject to the Railway Labor Act, as amended (45 U.S.C. 151-188)).

Notice to Employees

Under Federal law, employees cannot be required to join a union or maintain membership in a union in order to retain their jobs. Under certain conditions, the law permits a union and an employer to enter into a union-security agreement requiring employees to pay uniform periodic dues and initiation fees. However, employees who are not union members can object to the use of their payments for certain purposes and can only be required to pay their share of union costs relating to collective bargaining, contract administration, and grievance adjustment.

If you do not want to pay that portion of dues or fees used to support activities not related to collective bargaining, contract administration, or grievance adjustment, you are entitled to an appropriate reduction in your payment. If you believe that you have been required to pay dues or fees used in part to support activities not related to collective bargaining, contract administration, or grievance adjustment, you may be entitled to a refund and to an appropriate reduction in future payments.

For further information concerning your rights, you may wish to contact the National Labor Relations Board (NLRB) either at one of its Regional offices or at the following address or toll free number:

National Labor Relations Board
Division of Information
1099 14th Street, N.W.
Washington, DC 20570
1-866-667-6572
1-866-316-6572 (TTY)

To locate the nearest NLRB office, see NLRB's website at <http://www.nlr.gov>.

(c) The Contractor shall comply with all provisions of Executive Order 13201 of February 17, 2001, and related implementing regulations at 29 CFR part 470, and orders of the Secretary of Labor.

(d) In the event that the Contractor does not comply with any of the requirements set forth in paragraphs (b), (c), or (g), the Secretary may direct that this contract be cancelled, terminated, or suspended in whole or in part, and declare the Contractor ineligible for further Government contracts in accordance with procedures at 29 CFR part 470, Subpart B—Compliance Evaluations, Complaint Investigations and Enforcement Procedures. Such other sanctions or remedies may be imposed as are provided by 29 CFR part 470, which implements Executive Order 13201, or as are otherwise provided by law.

(e) The requirement to post the employee notice in paragraph (b) does not apply to—

(1) Contractors and subcontractors that employ fewer than 15 persons;

(2) Contractor establishments or construction work sites where no union has been formally recognized by the Contractor or certified as the exclusive bargaining representative of the Contractor's employees;

(3) Contractor establishments or construction work sites located in a jurisdiction named in the definition of the United States in which the law of that jurisdiction forbids enforcement of union-security agreements;

(4) Contractor facilities where upon the written request of the Contractor, the Department of Labor Deputy Assistant Secretary for Labor-Management Programs has waived the posting requirements with respect to any of the Contractor's facilities if the Deputy Assistant Secretary finds that the Contractor has demonstrated that—

(i) The facility is in all respects separate and distinct from activities of the Contractor related to the performance of a contract; and

(ii) Such a waiver will not interfere with or impede the effectuation of the Executive order;
or

(5) Work outside the United States that does not involve the recruitment or employment of workers within the United States.

(f) The Department of Labor publishes the official employee notice in two variations; one for contractors covered by the Railway Labor Act and a second for all other contractors. The Contractor shall—

(1) Obtain the required employee notice poster from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW, Room N-5605, Washington, DC 20210, or from any field office of the Department's Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Download a copy of the poster from the Office of Labor-Management Standards website at <http://www.olms.dol.gov>; or

(3) Reproduce and use exact duplicate copies of the Department of Labor's official poster.

(g) The Contractor shall include the substance of this clause in every subcontract or purchase order that exceeds the simplified acquisition threshold, entered into in connection with this contract, unless exempted by the Department of Labor Deputy Assistant Secretary for Labor-Management Programs on account of special circumstances in the national interest under authority of 29 CFR 470.3(c). For indefinite quantity subcontracts, the Contractor shall include the substance of this clause if the value of orders in any calendar year of the subcontract is expected to exceed the simplified acquisition threshold. Pursuant to 29 CFR part 470, Subpart B—Compliance Evaluations, Complaint Investigations and Enforcement Procedures, the Secretary of Labor may direct the Contractor to take such action in the enforcement of these regulations, including the imposition of sanctions for noncompliance with respect to any such subcontract or purchase order. If the Contractor becomes involved in litigation with a subcontractor or vendor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

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 construction materials.

"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 preassembled 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 unmanufactured 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 nonavailability 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

(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. For determination of unreasonable cost under the Balance of Payments Program, the Contracting Officer will use a factor of 50 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 (c) 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: See page B-9.

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 by ____*_____.

(b) Weather conditions: Contact National Weather Service.

(c) Transportation facilities NA_____.

(d) _____*_____.

* See continuation of Standard Form 1442

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (DEC 2004)

(a) Definitions. As used in this clause -

"Commercial item" has the meaning contained in Federal Acquisition Regulation 2.101, Definitions.

"Subcontract" includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c) (1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (MAY 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Service Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (DEC 2004) (E.O.) 13201). Flow down as required in accordance with paragraph (d) of FAR clause 52.222-39).

(vi) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (JUNE 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any Transportation Acquisition Regulations (48 CFR Chapter) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

GENERAL DECISION: **CO20030015** 09/17/2004 CO15
 General Decision Number: **CO20030015** 09/17/2004

Date: September 17, 2004

Superseded General Decision Number: CO020015

State: Colorado

Construction Types: Highway

Counties: Alamosa, Archuleta, Baca, Bent, Chaffee, Cheyenne, Clear Creek, Conejos, Costilla, Crowley, Custer, Delta, Dolores, Eagle, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Kiowa, Kit Carson, La Plata, Lake, Las Animas, Lincoln, Logan, Mineral, Moffat, Montezuma, Montrose, Morgan, Otero, Ouray, Park, Phillips, Pitkin, Prowers, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, Sedgwick, Summit, Teller, Washington and Yuma Counties in Colorado.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	06/13/2003
1	08/15/2003
2	09/19/2003
3	01/16/2004
4	03/05/2004
5	05/14/2004
6	06/18/2004
7	07/23/2004
8	08/13/2004
9	08/20/2004
10	09/17/2004

ELEC0012-006 03/01/2004

ALAMOSA, ARCHULETA, BACA, BENT, CHAFFEE, CONEJOS, COSTILLA, CROWLEY, CUSTER, FREEMONT, HUERFANO, KIOWA, LAS ANIMAS, MINERAL, OTERO, PROWERS, RIO GRANDE AND SAGUACHE COUNTIES

	Rates	Fringes
Electrician		
Electrical work where the total cost is \$200,000 or less.....	\$ 18.98	8.44
Electrical work where the total cost is over \$200,000.	\$ 24.74	8.44
Traffic Signal Installer		
Zone 1.....	\$ 22.91	13%+1.75
Zone 2.....	\$ 25.91	13%+1.75

TRAFFIC SIGNAL INSTALLER ZONE DEFINITIONS

Zone 1 shall be a 35 mile radius, measured from the following addresses in each of the following cities: Colorado Springs - Nevada & Bijou Denver - Ellsworth Avenue & Broadway Ft. Collins - Prospect & College Grand Junction - 12th & North Avenue Pueblo - I-25 & Highway 50
 All work outside of these areas shall be paid Zone 2 rates.

 * ELEC0068-013 06/01/2004

CLEAR CREEK, EAGLE, GILPIN, GRAND, JACKSON, LAKE, LOGAN, MORGAN, PHILLIPS, SEDGWICK, SUMMIT, WASHINGTON AND YUMA COUNTIES

	Rates	Fringes
Electrician.....	\$ 28.91	9.39
Traffic Signal Installer		
Zone 1.....	\$ 22.91	13%+1.75
Zone 2.....	\$ 25.91	13%+1.75

TRAFFIC SIGNAL INSTALLER ZONE DEFINITIONS

Zone 1 shall be a 35 mile radius, measured from the following addresses in each of the following cities: Colorado Springs - Nevada & Bijou Denver - Ellsworth Avenue & Broadway Ft. Collins - Prospect & College Grand Junction - 12th & North Avenue Pueblo - I-25 & Highway 50
 All work outside of these areas shall be paid Zone 2 rates.

 ELEC0113-006 06/01/2004

CHEYENNE, ELBERT, KIT CARSON, LINCOLN, PARK AND TELLER COUNTIES

	Rates	Fringes
Electrician.....	\$ 24.54	3%+11.20
Traffic Signal Installer		
Zone 1.....	\$ 22.91	13%+1.75
Zone 2.....	\$ 25.91	13%+1.75

TRAFFIC SIGNAL INSTALLER ZONE DEFINITIONS

Zone 1 shall be a 35 mile radius, measured from the following addresses in each of the following cities: Colorado Springs - Nevada & Bijou Denver - Ellsworth Avenue & Broadway Ft. Collins - Prospect & College Grand Junction - 12th & North Avenue Pueblo - I-25 & Highway 50
 All work outside of these areas shall be paid Zone 2 rates.

ELEC0969-006 03/01/2004

DOLORES, GARFIELD, GUNNISON, HINSDALE, LA PLATA, MOFFAT, MONTEZUMA,
OURAY, PITKIN, RIO BLANCO, ROUTT, SAN JUAN AND SAN MIGUEL COUNTIES

	Rates	Fringes
Electrician.....	\$ 25.75	7.32
Traffic Signal Installer		
Zone 1.....	\$ 22.91	13%+1.75
Zone 2.....	\$ 25.91	13%+1.75

TRAFFIC SIGNAL INSTALLER ZONE DEFINITIONS

Zone 1 shall be a 35 mile radius, measured from the following addresses in each of the following cities: Colorado Springs - Nevada & Bijou Denver - Ellsworth Avenue & Broadway Ft. Collins - Prospect & College Grand Junction - 12th & North Avenue Pueblo - I-25 & Highway 50
All work outside of these areas shall be paid Zone 2 rates.

ELEC0969-011 03/01/2004

DELTA AND MONTROSE COUNTIES

	Rates	Fringes
Electrician.....	\$ 18.40	7.20
Traffic Signal Installer		
Zone 1.....	\$ 22.91	13%+1.75
Zone 2.....	\$ 25.91	13%+1.75

TRAFFIC SIGNAL INSTALLER ZONE DEFINITIONS

Zone 1 shall be a 35 mile radius, measured from the following addresses in each of the following cities: Colorado Springs - Nevada & Bijou Denver - Ellsworth Avenue & Broadway Ft. Collins - Prospect & College Grand Junction - 12th & North Avenue Pueblo - I-25 & Highway 50
All work outside of these areas shall be paid Zone 2 rates.

ENGI0009-006 05/01/2004

	Rates	Fringes
Power equipment operators:		
Bituminous or Asphalt Spreader/Laydown Machine....	\$ 20.27	6.72
Bulldozer.....	\$ 20.27	6.72
Crane: 50 tons and under...	\$ 20.42	6.72
Crane: 51 to 90 tons.....	\$ 20.57	6.72
Crane: 91 to 140 tons.....	\$ 20.72	6.72
Crane: 141 tons and over....	\$ 21.48	6.72

Grade Checker.....	\$ 20.42	6.72
Loader: Barber Green etc. & Up to and including 6 cubic yards.....	\$ 20.27	6.72
Loader: Over 6 cubic yards..	\$ 20.42	6.72
Oiler.....	\$ 19.57	6.72
Roller: Self-propelled all types over 5 tons.....	\$ 20.27	6.72
Roller: Self-propelled rubber tires under 5 tons...	\$ 19.92	6.72
Trackhoe.....	\$ 20.42	6.72
Water Wagon.....	\$ 20.42	6.72

 SUCO2001-016 12/20/2001

	Rates	Fringes
Carpenters:		
Form Building & Setting (Excluding curbs and gutters).....	\$ 15.92	5.38
All Other Work.....	\$ 16.30	3.71
Concrete Finisher/Cement Mason.	\$ 15.55	2.85
Groundman (Traffic Signalization).....	\$ 11.57	3.50
Ironworkers:		
Bridgerail (Excluding Guardrail).....	\$ 16.76	6.01
Reinforcing.....	\$ 16.94	6.77
Laborers:		
Asphalt/Raker.....	\$ 12.40	2.92
Common.....	\$ 12.44	3.53
Concrete Laborer/MasonTender	\$ 12.44	3.10
Formwork (Curbs and gutters only).....	\$ 12.92	4.54
Guardrail (Excludes bridgerail).....	\$ 12.78	3.31
Landscape Laborer (Including Irrigation Work)	\$ 12.21	3.16
Striping-Paint Laborer (Pre-form layout and removal of pavement markings).....	\$ 12.90	3.07
Traffic Director/Flagger....	\$ 9.42	3.21
Traffic/Sign Laborer (Sets cones and barricades, installs permanent signs)..	\$ 12.39	3.20
Painter, Spray.....	\$ 17.54	3.52
Power equipment operators:		
Asphalt Plant.....	\$ 17.23	1.20
Asphalt Screed.....	\$ 16.21	3.76
Backhoe.....	\$ 16.42	4.42
Compactor.....	\$ 16.52	3.13
Grader/Blade.....	\$ 16.39	4.20
Mechanic and or Welder (Includes heavy duty and combination mechanic and welder).....	\$ 16.74	4.20
Post Driver/Punch Machine...	\$ 16.07	4.41
Rotomill Operator.....	\$ 16.28	4.41
Scraper.....	\$ 17.62	3.16
Truck drivers:		
Dump.....	\$ 14.15	3.83
Low Boy.....	\$ 15.07	4.56

MultipurposeTruck-Specialty & Hoisting.....	\$ 14.60	3.49
Pickup (Including Pilot Car)	\$ 14.04	3.49
Truck Mechanic.....	\$ 15.97	4.61
Water Truck.....	\$ 14.88	2.07

 TEAM0435-003 05/01/2000

	Rates	Fringes
Truck drivers:		
Distributor.....	\$ 15.80	5.27

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

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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 (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the 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, DC 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, DC 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, DC 20210

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

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END OF GENERAL DECISION

SPECIAL CONTRACT REQUIREMENTS

MARVINE-PHIPPSBURG

The following Special Contract Requirements amend and supplement the *Standard Specifications for Construction of Roads and Bridges, on Federal Highway Projects (FP-03)*, Department of Transportation, Federal Highway Administration.

Section 105. - CONTROL OF MATERIAL**105.01 Source of Supply and Quality Requirements.** Add the following:

Submit samples of materials for quality verification testing for materials required to conform to Sections 703, 704, and 705.

105.02 Material Sources**(b) Contractor-located sources.** Add the following to the end of the first paragraph:

For Contractor-located, non-commercial sources, secure environmental clearances according to Subsection 107.10. The Ripple Creek Pass Pit environmental clearance has been obtained by the Government although the Contractor will have to apply for the Storm Water Pollution Prevention Plan (SWPPP) for the pit.

Material for use in the production of aggregates under Sections 301 may be obtained from the optional Ripple Creek Pass Pit, White River National Forest. The in-situ material will not meet all requirements of Table 703-3. Supplemental material may be required to meet PI requirements and /or other methods are to be used to meet required all requirements of Table 703-3. Refer to Geotechnical Report for information on materials and testing performed.

Work deemed necessary to provide access, material movement and to stockpile material from the Ripple Creek Pass Pit is subsidiary to work under Section 301.

The contractor will submit a Material Source Development Plan. Use the project Geotechnical report to develop the Material Source Development plan. The plan will be approved by the CO prior to performing work within the Government-provided source. The Material Source Development Plan will include the method to best optimize all the material to produce the aggregate types required in the contract. The contractor will perform all work necessary to produce acceptable material including site development, preparation, erosion and reclamation.

See Appendix A for additional specification on the use of Ripple Creek Pass Pit that the contractor will have to meet in order to use this pit. All outlined work addressed in Appendix A will be considered subsidiary to crushing operation at the Ripple Creek Pass Pit.

105.04 Storing and Handling Material. Add the following after the third sentence of the second paragraph:

For Contractor-located, non-commercial staging, storing, and material handling areas, secure environmental clearances according to Subsection 107.10.

Add the following to the end of the subsection:

Use of staging areas noted along the route within Summary Tabulation Sheets are to be used as directed by CO. The areas noted are within National Forests, scheduling and use will be coordinated with the appropriate agencies by CO.

Section 106. - ACCEPTANCE OF WORK

106.01 Conformity with Contract Requirements. Add the following:

When removal, replacement, or corrective measures are required, obtain approval for the proposed method of performing the work.

Where sample/testing procedures make reference to AASHTO, ASTM, or other standards (designated as FLH T), the procedure as modified in the Materials Manual shall govern. Where the specifications make reference to AASHTO Test T11, "Procedure B - Washing Using a Wetting Agent" shall be the procedure followed.

Reference to the Materials Manual means the Federal Lands Highway "Field Materials Manual, U.S. Department of Transportation, Federal Highway Administration," Publication No. FHWA-FL-91-002, dated March 1991, revised March 1994, and all amendments and supplements thereto. Copies are available from the Materials Engineer, Federal Highway Administration, Central Federal Lands Highway Division, Materials Branch, P.O. Box 25246, Denver, Colorado 80225-0246, Telephone: (720) 963-3537.

106.03 Certification. Add the following after the second paragraph:

See Table 106-3 for schedule for full or partial acceptance by material certification. Submit certification and sample of material for testing as required.

106.05 Statistical Evaluation of Work and Determination of Pay Factor (Value of Work).

(b) Acceptance. Delete the last sentence of the second paragraph and substitute the following:

If a lot is concluded or terminated with fewer than three samples, the samples will be combined with those of an adjacent lot. In the event there is no adjacent lot, the material will be accepted according to Subsection 106.04.

Table 106-3 Schedule For Full or Partial Acceptance by Materials Certification. Add Table 106-3 following Table 106-2.**Table 106-3
Schedule For Full or Partial Acceptance by Materials Certification**

Section	Description	Material	Material Property Or Specification	Frequency	
				Certification	Sample
306	Dust Palliative	Magnesium Chloride, Emulsified Asphalt, Lignin Sulfonate, Calcium Chloride	As specified	1 per shipment	First shipment
308	Minor Crushed Aggregate	Crushed Aggregate	Source, Quality and Gradation	1 per source	1 per source
404 and 417	Minor Hot Asphalt Concrete, Minor Cold Asphalt Mix	Aggregate Asphalt Mix	Source quality, Gradation, Stability, and Grade	1 per mix	1 per source
634 and 635	Permanent Pavement Markings, Temporary Traffic Control	634.02 as applicable, 635 as applicable	As specified	1 per source	-----
701	Hydraulic Cement	Portland Cement, Blended Hydraulic Cement and Masonry Cement	AASHTO M 85, M 240, and ASTM C 91	1 per shipment	1 per 100 tons
702.01	Asphalt Material	Asphalt Cement	AASHTO M 20, M 226, MP 1 or as applicable	1 per shipment	1 per shipment
702.02	Asphalt Material	Cut-back Asphalt	AASHTO M 81 or M 82 as applicable	1 per shipment	1 per shipment
702.03	Asphalt Material	Emulsified Asphalt	AASHTO M 140 or M 208 as applicable	1 per shipment	1 per shipment
702.05	Asphalt Material	Asphalt Materials used for Dampproofing and Waterproofing Concrete Surfaces	As specified for each type of asphalt material	1 per shipment	-----
702.06	Recycling Agent	As specified	As applicable	1 per shipment	1 per shipment
702.08	Antistrip	As specified	As applicable	1 per shipment	-----
706	Concrete and Plastic Pipe	As specified	As applicable	1 per shipment	-----
707	Metal Pipe	Metal Pipe as specified	As applicable	1 per shipment	-----
708	Paint	As specified	As applicable	1 per batch\lot	1 sample for quantities > (25 gallons)

Section	Description	Material	Material Property Or Specification	Frequency	
				Certification	Sample
709	Reinforcing Steel and Wire Rope	As specified	As applicable	1 per shipment	For 709.01 & 709.03 submit 3, 1-yard bars of each size and grade of bar furnished. 709.02 submit 1, 6-foot length for each size furnished
710	Fence and Guardrail	As specified	As applicable	1 per shipment	-----
711	Concrete Curing Material and Admixtures	As specified	As applicable	1 per material source per material type	-----
712	Joint Material (all)	As specified	As applicable	1 per shipment	-----
713	Roadside Improvement Materials (all)	As specified	As applicable	1 per shipment	-----
714	Geotextile and Geocomposite Drain	As specified	As applicable	1 per shipment	1 per project per type
715	Piling	As specified	As applicable	1 per shipment	-----
716	Material for Timber Structures	Timber and Hardware	As applicable	1 per shipment	-----
717	Structural Metal	As specified	As applicable	1 per shipment	717.01(e) minimum 6 per shipment for each size used. 717.10 1 per project
718	Traffic Signing and Marking (all)	As specified	As applicable	1 per shipment	-----
720	Structural Wall and Stabilized Materials (all)	As specified	As applicable	1 per shipment per material type	-----
721	Electrical and Illumination Material (all)	As specified	As applicable	1 per shipment per material type	-----
722	Anchor Material	As specified	As applicable	1 per shipment per material type	-----
725	Miscellaneous materials	As specified	As applicable	1 per shipment per material type	-----

Section 107. - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**107.02 Protection and Restoration of Property and Landscape.** Add the following:

Contractor is to contact Utility Notification Center of Colorado (UNCC) for location of utilities within the construction limits at least three business days prior to beginning any excavation. Record and maintain the ticket number provided by UNCC for each request. Submit ticket number to CO within 24 hours of UNCC contact.

UNCC Call Before You Dig!
1-800-922-1987

Known utilities along the route include Qwest underground telephone cable.

107.10 Environmental Protection. Delete the text and substitute the following:

(a) Spills of Petroleum Products or Hazardous Materials. Properly clean up, mitigate, and remedy, if necessary, all spills of petroleum products, hazardous materials, or other chemical or biological products released from construction, fleet, or other support vehicles, or stationary sources. Respond in accordance with federal, state, and local regulations.

Immediately report to the CO any spill of petroleum products or a hazardous material. Report the spill to the appropriate federal, state, and local authorities, if the spill is a reportable quantity.

(b) Water pollution. Do not operate mechanized equipment or discharge or otherwise place any material within the wetted perimeter of any waters of the U.S. within the scope of the Clean Water Act (33 USC § 1251 et seq.). This includes wetlands unless authorized by a permit issued by the U.S. Army Corps of Engineers according to 33 USC § 1344, and, if required, by any State agency having jurisdiction over the discharge of material into the waters of the U.S. In the event of an unauthorized discharge:

- (1) Immediately prevent further contamination;
- (2) Immediately notify appropriate authorities; and
- (3) Mitigate damages as required.

Comply with the terms and conditions of any permits that are issued for the performance of work within the wetted perimeter of the waters of the U.S.

Separate work areas, including material sources, by the use of a dike or other suitable barrier that prevents sediment, petroleum products, chemicals, or other liquid or solid material from entering the waters of the U.S. Use care in constructing and removing the barriers to avoid any discharge of material into, or the siltation of, the water. Remove and properly dispose of the sediment or other material collected by the barrier.

(c) Vehicles and equipment. All vehicles and equipment entering the project area must be clean of noxious weeds and free from oil leaks and are subject to inspection. Wash all construction equipment to thoroughly remove all dirt, plant, and other foreign material prior to entering the project. Particular attention must be shown to the under carriage and any surface where soil containing exotic seeds may exist. These efforts are critical to prevent the introduction and establishment of non-native plant species into the project area. Make arrangements for the CO to inspect each piece of equipment before entering the project. The CO will maintain records of inspections. Equipment found operating on the project that has not been inspected, or has oil leaks will be shut down and subject to citation.

In general, when gasoline, diesel fuel, antifreeze, hydraulic fluid or any other chemical contained within the vehicle is released to the pavement or ground, proper corrective, clean-up, and safety actions must be immediately implemented. All vehicles with load rating of 2 tons or greater should carry, at minimum, enough absorbent materials to effectively immobilize the total volume of fluids contained within the vehicle.

Repair oil leaks immediately on discovery. Do not use equipment that is leaking. Have oil pans and absorbent material in place prior to beginning repair work. Have the “on scene” capability of catching and absorbing leaks or spillages of petroleum products including antifreeze from breakdowns or repair actions with approved absorbent materials. Keep a supply of acceptable absorbent materials at the job site in the event of spills. Sand or soils are not approved absorbent materials.

Use oil pans and absorbent materials to prevent leaks, spills and draining petroleum fluids from falling onto bare ground and paved surfaces during servicing of equipment. Dig up soils contaminated with such fluids, place in appropriate safety containers, and dispose of according to state and/or federal regulations.

(d) Environmental Clearances.

(1) Contractor-Selected, Non-Commercial Areas. Contractor-selected, non-commercial areas, include, but are not limited to material sources, disposal sites, waste areas, haul roads, and staging areas. (A commercial source is a current operating concern, which has in the recent past provided same-type materials or services). These requirements do not apply for areas identified by the FHWA as having previously received clearance.

Prior to construction activities in contractor-selected, non-commercial areas, provide the following to the CO and the FHWA Environmental section (12300 West Dakota Avenue, Lakewood, CO 80228/Fax 720-963-3610):

(a) A report with documentation, according to the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation, to determine if prehistoric or historic buildings, structures, sites, objects, or districts listed or eligible for listing in the National Register of Historic Places (NRHP) are present and if they will be affected by the proposed activity. Include information identifying the location, total land area, and

type of activity proposed. The FHWA will review this documentation. If NRHP listed or eligible sites are present and/or will be affected, the FHWA will coordinate with the State Historic Preservation Officer (SHPO) and other parties, which will require the following time frames:

- (1) Coordination on eligibility and affects may require 45 days or longer.
- (2) Coordination on mitigation of adverse effects may require 60 days or longer.

(b) Written documentation that such activities will not affect any “Waters of the U.S.” as defined by the U.S. Army Corps of Engineers. Provide documentation by an individual capable of performing wetland delineations according to the 1987 Corps of Engineers’ manual. Documentation of effects to wetlands or other Waters of the U.S. will be submitted to the CO and to the FHWA Environment section for coordination with the Corps of Engineers. This coordination may require 45 days or longer. Substantial additional delays could result from wetland impacts.

(c) Written documentation that such activities will not affect any species protected under the Endangered Species Act (ESA). Provide documentation prepared by a biological specialist. The written documentation will include a “no affect,” a “may affect-is not likely to adversely affect,” or a “may affect-is likely to adversely affect,” determination according to Section 7 of the Endangered Species Act. Submit the documentation to the CO and the FHWA Environmental section. If the determination is “may affect-is not likely to adversely affect” or “may affect-is likely to adversely affect,” the FHWA will coordinate with the U.S. Fish and Wildlife Service (FWS), which will require the following time frames:

- (1) “May affect-is not likely to adversely affect” may require 45 days or longer.
- (2) “May affect-is likely to adversely affect” may require 150 days or longer.

Contract time will not be increased due to the submittal and approval process for the above three items.

107.11 Protection of Forests, Parks, and Public Lands. Add the following:

The following Forest Service fire prevention plan involving emergency curtailment of operations is in effect on this project. The CO will order the suspension of burning and other operations when directed to do so by the Forest Service. No adjustment in the contract completion date will be made for partial or total suspensions of burning operations.

(a) Fire prevention plan. The following Forest Service fire prevention plan involving emergency curtailment of operations is in effect on this project. The CO will order the suspension of burning and other operations when directed to do so by the Forest Service. No adjustment in the contract completion date will be made for partial or total suspensions of burning operations related to fire restrictions.

Take the following precautions during the period January 1 through December 31:

(1) Smoking and Lunch Fires. Smoking is prohibited except inside a building, developed recreation site, vehicle, or while seated in an area at least three feet in diameter that is barren or cleared of all flammable materials. 36 CFR 261.52(d).

The building of camp, lunch, warming, and other fires within the project area and vicinity is prohibited, except at established camps or at other safe places where all flammable material has been cleared away sufficiently to prevent the start and spread of wildfires. Forest Service may, upon written request of the Contractor, designate specific places where campfires may be built for purposes of heating lunches and/or warming. Never leave these fires unattended.

(2) Spark Arrester and Mufflers. Operating or using any internal combustion engine, on any timber, brush, or grass covered land, including trails and roads traversing such land, without a spark arrester, maintained in effective working order, meeting either (I) Department of Agriculture, Forest Service standard 5100, "SPARK ARRESTERS FOR INTERNAL COMBUSTION ENGINES," (current edition); or (II) the Society of Automotive Engineers (SAE) recommended practices J335, "MULTIPOSITION SMALL ENGINE EXHAUST SYSTEM FIRE IGNITION SUPPRESSION," (current revision) and J350, 36 CFR 261.52(j), is prohibited.

Passenger carrying vehicles, pickups, medium and large highway trucks (80,000 GVW) will be equipped with a factory designed muffler system which is specified for the make and model of the respective vehicle/truck or with a muffler system that is equivalent or that exceeds factory specifications.

Properly install and continually maintain exhaust systems in serviceable condition.

(3) Fire Extinguishers and Tools on Equipment. At all times, provide each internal combustion engine including tractors, trucks, graders, yarders, loaders, welders, generators, stationary engines, or comparable powered equipment with at least the following:

(a) One fire extinguisher, at least 5# ABC with an Underwriters Laboratory (UL) rating of 3A-40BC, or greater.

(b) One shovel, sharp, size O or larger, round-pointed with an overall length of at least 48 inches.

(c) One axe, sharp, double bit 3-1/2#, or one sharp Pulaski.

Mount extinguishers, shovels, axes, and Pulaski's so as to be readily available from the ground. Maintain all tools in a serviceable condition. The CO, with cooperation from the Forest Service, will inspect all pieces of equipment brought onto the project for compliance. Any piece of equipment found not in compliance will not be allowed to perform work on the project until it is brought into compliance. Keep all required tools and equipment in serviceable condition and immediately available for fire fighting at all times.

(4) Power Saws. Provide each gasoline engine power saw with one chemical-pressurized fire extinguisher of not less than 8-ounce capacity by weight, and one size O or larger round-pointed shovel with an overall length of at least 48 inches. Maintain the extinguisher and shovel in good working order. The extinguisher shall be with the power saw operator immediately available for use at all times. Do not affix the extinguisher to the saw. The shovel shall be readily available to the operator of the saw at all times. Having the shovel with the gas can used to refuel the saw may be considered “readily available” if not more than 200 feet from the saw. During periods of critical fire danger, the Forest Service may prescribe other precautionary measures.

Do any fueling or refueling of a power saw in an area, which has first been cleared of material, which will carry fire. Move the power saw at least 10 feet from the place of fueling or refueling before starting.

(5) Blasting and Welding. Blasting is prohibited except by written agreement. Such written agreement shall set forth necessary fire prevention requirements.

Unless otherwise directed in writing by the Forest Service, clear all flammable material for 10 feet around any piece of equipment being welded. In addition, provide a fire extinguisher of a size and type designed to extinguish a fire in the flammable materials surrounding the spot being welded.

(a) Storage of explosives. At all times store explosives in a locked box marked: “Explosives”. Store powder and blasting caps in separate boxes.

(b) Use of Cutting Torches. Clear locations where cutting torches are used of flammable materials for a distance of 10 feet surrounding the location of use. Provide a fire extinguisher (at least 5#ABC with a UL rating of 3A-40BC, or greater) in all locations where cutting torches are used.

(c) Fire Precautionary Periods. Blasting may be permitted during Fire Precautionary periods as follows:

(1) When the predicted condition class reaches 3 (High), a watchman shall patrol the blasting area for at least one (1) hour following blasting. The watchman shall have available for immediate use a standard fire shovel and a five (5) gallon water filled backpack pump.

(2) Restrict blasting to clear areas and terminate by 11 a.m. local time when the predicted condition class reaches 4 (Very High). The watchman requirements shall be as in item (1) above.

(3) Terminate all blasting operations when the predicted fire danger reaches 5 (EXTREME).

(6) Storage of flammables. Store gasoline, oil, grease, and other highly flammable substances in a separate building, or at a site where all debris is cleared within a radius of 25 feet. Storage buildings or sites shall be a minimum distance of 50 feet from other structures. Adequately post storage buildings to warn of the presence of flammable materials and to prohibit smoking in or around the buildings. Update the appropriate Fire Department with precise, current locations of flammable substances within the project area whenever locations change.

(7) Gas and oil. Carry gas and oil for power saws or other hand power tools in metal safety cans.

(8) Fueling and refueling of power equipment. Fuel and refuel power tools in an area that has been cleared of flammable material. Move power equipment at least 10 feet from the fueling/refueling location before starting.

(9) Oil-contaminated waste materials. Transport all used oil filters, cartridges, oily rags and other waste to an established waste disposal installation specifically intended for the type of waste being disposed of. Do not use glass jugs or bottles for gas, oil or water.

(10) Storage, staging and parking areas. Equipment service areas, parking areas, gas and oil storage areas, and explosives storage areas will be cleared of all flammable material. Small, stationary engine sites will be cleared of all flammable material for a distance of 15 feet on all sides. Storage areas for flammable materials and explosives will be clearly labeled and “No Smoking” signs will be posted.

(b) Additional Fire Prevention Procedures. Additional fire prevention procedures may be added as fire danger rating increases. Additional procedures will be developed and implemented as needed by the USFS, in conjunction Rio Blanco County and the local fire departments, and may include the following (in order of increasing severity):

(1) Increase in on-site fire suppression capabilities, including additional fire extinguishers, water supplies (portable ponds, water trucks, pumps, hoses, etc.) bladder bags, backpacks, shovels and other equipment.

(2) Temporary restriction in location or extent of especially hazardous activities such as blasting, cutting or welding (anticipated when Red Flag Warnings are issued or under other conditions as deemed necessary by the Rio Blanco County Sheriffs Department or USFS).

(3) Reduction in the number of, or restriction of the locations of, work crews.

The addition of extra fire prevention requirements is intended to prevent or delay suspension of construction activities. However, under prohibitively dangerous conditions where acceptable procedures cannot be implemented, some or all construction activities may be temporarily suspended, at the direction of the USFS.

(c) Fire Incident Reporting Requirements. Comply with the following:

- (1) ALL FIRES STARTS ARE TO BE REPORTED IMMEDIATELY TO:**
- a. 911 EMERGENCY DISPATCH
 - b. CENTRAL ZONE FIRE CONTROL at (970) 625-2872, Rifle, Colorado for White River National Forest
 - c. FIRE CONTROL DISPATCH at (800) 972-4526 for White River National Forest
 - d. CRAIG INTERAGENCY DISPATCH CENTER at (970) 826-5037, Craig, Colorado for Medicine Bow-Routt National Forest

Fire Reports are to be made immediately regardless of the Contractor's perceived ability to extinguish them through the use of onsite facilities.

Immediately report the following information:

Name of caller
 Location of fire
 Size of fire
 Current suppression activities
 Direction of fire spread
 Rate of fire spread/wind direction
 Threatened properties and personnel

- (2)** Use on-site equipment and follow radio instructions provided by responding fire department.
- (3)** Immediately begin to clear access road(s) identified by the responding department of obstructions, with the goal of providing access through construction areas by emergency equipment by the time it arrives.
- (4)** Keep responding firefighters apprised of conditions via radio.
- (5)** Evacuate location if instructed to do so, using the evacuation route specified.
- (6)** Report all fires extinguished by the use of on-site facilities on National Forest System land to the USFS promptly.
- (7)** Cooperate with local fire protection district personnel in fire cause determination. Protect the origin of all fires to the extent practical.

(d) Fire Control. Both independently and in cooperation with the USFS, take all reasonable and practicable actions to prevent and suppress fires resulting from Contractor's Operations and to suppress any forest fire in the project area. Contractor's independent initial fire suppression action on such fires will be immediate and will include the use of all necessary personnel and equipment at Contractor's disposal on site.

(e) **Fire Suppression Costs.** Contractor's obligation for cost of fire suppression vary according to three classifications of fires as follows:

(1) **Operations Fire.** An "Operations Fire" is a fire caused by Contractor's Operations other than a "Negligent Fire".

(2) **Negligent Fire.** A "Negligent Fire" is a fire caused by negligence or fault of Contractor's Operations during the course of their employment, or during rest or lunch periods; or if Contractor's failure to comply with fire prevention requirements results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by the Contractor.

(3) **Other Fires in Project Area.** USFS will pay Contractor, at fire fighting rates common in the area or at prior agreed rates, for equipment or personnel furnished by Contractor at the request of UFSF, on any fire in Project Area other than an Operations Fire or Negligent Fire.

(f) **Noxious Weed Prevention.** The following Forest Service weed prevention plan involving cleaning of construction equipment prior to entering the national forests is in effect on this project. The CO and Forest Service will inspect for conformance to weed-free requirements before admitting equipment and materials to the construction project. No adjustment in the contract completion date will be made. The cost to conform to weed-free requirements will be included in the cost of the work for each pay item.

During the life of the project take the following measures:

(1) **Site Protection From Weeds.** Ensure all equipment and materials moved onto National Forest System land is free of soil, seeds, vegetative matter, or other debris that could contain or hold noxious weed seed.

(2) **Weed-free Equipment.** Ensure equipment is adequately washed to remove weeds and toxic materials prior to arrival on project site. Clean equipment and repeat each time equipment returns to the project site by power washing. Remove all noxious weeds, weed seed and materials harboring noxious weed or weed seed, including the removal of debris on vehicle undercarriages, wheel wells and equipment parts by power washing. Equipment will be inspected by the CO prior to entering the work site. Minimum 24-hour notice will be given to CO for inspections.

(3) **Weed-free Materials:** Certify straw, hay, road fill, riprap, gravel and all materials provided for construction as weed-free. Conform to the Colorado Weed-free certifications standards for certified weed free mulch, (straw or hay) and seed.

Section 108. - PROSECUTION AND PROGRESS**108.01 Commencement, Prosecution, and Completion of the Work: Add the following:**

Limit operations as follows:

- (a) No weekend work.
- (b) Total construction zone length is to be no more than two (2) miles.
- (c) Concurrent construction zones as approved by the CO are to be separated by a distance of three (3) miles.

Perform no work except to maintain traffic control, erosion control devices, maintain the roadway driving surface, and to control dust during the listed Federal holidays and surrounding days:

- Memorial Day Weekend: Noon Friday to 6:00 am Tuesday.
- Independence Day: Noon July 3 to 6:00 am July 5.
If July 4th falls on a weekend, Friday, or Monday, do not work the weekend.
- Labor Day Weekend: Noon Friday to 6:00 am Tuesday.
- Thanksgiving: Noon Wednesday to 6:00 am Monday.
- Christmas/New Years Holiday: Noon December 23 to 6:00 am January 2.
If December 23 or January 1 falls on a Monday, do not work the adjacent weekend and do not work on December 23. If January 1 falls on a Friday, do not work the weekend.

Schedule at least 2 non-work days out of every 14 calendar days. The selected non-work days do not need to be consecutive, but they must be scheduled. Provide at least 2 weeks notice before changing the scheduled days off.

Exemptions to scheduled days off may be granted by written approval from the CO for specific project operations and/or for periods of limited duration.

A Notice to Proceed must be issued before commencement of any work.

Section 109. - MEASUREMENT AND PAYMENT**109.08 Progress Payments.**

(b) Closing date and invoice submittal date. Delete the last sentence and substitute the following:

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.

(e) Processing progress payment requests.

(1) Proper invoices. Delete the title and text and substitute the following:

(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 had 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 or 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) Defective invoices. Delete the title and text and substitute the following:

(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(d), and the quantities and unit prices shown on the Contractor's invoice agree with the corresponding quantities and unit prices shown on the CO'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(d), 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(d), 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 of the Government's receipt of the invoice. The Contractor will be notified of the reasons for any changes to the invoice.

(f) Partial payments. Add the following after the first paragraph:

Partial payments for stockpiled manufactured material (aggregates) will be based on Contractor process control test results. If test results show the material to be out-of-specification, or in "reject" where statistical evaluation procedures are used, no payment for stockpiled materials will be made.

Section 152. - CONSTRUCTION SURVEY AND STAKING

Construction Requirements

152.03 Survey and Staking Requirements.

(e) Centerline reestablishment. Delete the paragraph and substitute the following:

Prior to disturbing the existing road surface, measure the existing surface width at existing roadway centerline control points (PC & PT), at changes in the roadway template, at 528 foot stationing intervals on tangent, and at 50 foot intervals on curves. Use white spray paint to mark each location. At each location, each side of the roadway and outside the construction limits, place an offset stake of adequate dimensions to place all required information. Label each stake with the following information corresponding to each respective lane:

- (1) Mile Station
- (2) Offset from striped centerline or other location as directed by the CO
- (3) Offset from the proposed edge of roadway

Provide stations to the nearest foot.

Centerline reestablishment will be paid under item 15214-0000 Survey and Staking Miscellaneous and paid Lump Sum.

(l) Miscellaneous survey and staking. Add the following item to the survey list:

(11) Material Source survey for the development of Ripple Creek optional material source development plan.

Section 153. - CONTRACTOR QUALITY CONTROL

Construction Requirements

153.02 Contractor Quality Control Plan.

(a) Process control testing. Add the following:

See Table 153-1 for schedule of minimum sampling and testing for process control. Where no minimums are specified, submit proposed tests to be performed and the proposed sampling and testing frequencies.

For aggregates and/or aggregate/asphalt mixtures accepted under Subsection 106.03, sample and test for conformity with the Certification a minimum of one time per pay item.

(b) Inspection/control procedures.

(3) Production phase. Add the following:

(d) Inspect the work, materials or assemblies accepted under Subsection 106.03 to ensure that **all** the work and materials comply with contract requirements. Furnish the results of the work inspection, along with the product certification or commercial certification as applicable, to the CO prior to incorporating the materials into the work.

(c) Description of records. Add the following:

Identify the format for reporting test results, materials certifications and the procedures to be used to maintain inspection records.

(d) Personnel qualifications. Add the following:

(1) Designate a Quality Control Supervisor (QCS) whose primary responsibility is managing the inspection system. The QCS will not be the Contractor's Superintendent. Designate a QCS who is experienced to perform and supervise all work inspection, sampling and testing. The QCS will monitor all phases of the work and identify deficiencies and take appropriate corrective action.

(3) Personnel assigned to sampling or testing will have 1 year or more of recent job experience in the type of sampling and testing required by the contract, and the following:

(a) NICET Level II certification in highway materials, or State (SHA) or industry certification-related sampling and testing equivalent to their intended responsibilities.

(b) WAQTC or other nationally accepted certification program for intended sampling and testing responsibilities.

or

(c) Current or previous employment by an AASHTO accredited laboratory performing sampling and testing equivalent to their intended responsibilities.

(d) Demonstrated proficiency or successful testing of one or more proficiency samples may be substituted for basic qualifications pending verification of test results.

153.03 Testing. Delete the title and text and substitute the following:

153.03 Sampling and Testing. Perform the work required by Table 153-1 and by the accepted Quality Control Plan.

(a) Acceptance sampling. Acceptance sampling schedules and times or locations will be provided by the CO. Use a procedure for random sampling. In addition, sample any material that appears defective or inconsistent with similar material being produced, unless such material is voluntarily removed and replaced or otherwise corrected.

(b) Testing. Furnish laboratory equipment which conforms to the applicable test requirements and is properly calibrated. Provide certification(s) stating the equipment conforms to testing requirements. The CO may require the Contractor to perform testing to demonstrate acceptable equipment and an acceptable level of technician competence.

Keep laboratory facilities clean and maintain equipment in proper working condition. Provide the CO unrestricted access to the laboratory for inspection and review.

(c) Certifications. For materials accepted by certification in accordance with 106.03, review all certifications to insure compliance with the requirements of the contract prior to incorporating materials into the work. Provide a signed copy of the reviewed certification(s) to the CO.

153.04 Records. Add the following to the first paragraph:

When tests are on material being incorporated into the work, report test results within the reporting times indicated in the sampling and testing requirements at the end of each section or as specified in the contract.

Add the following to the second paragraph:

Detailed inspection results including deficiencies observed and corrective actions taken.

153.05 Acceptance. Add the following:

If chronic deficiencies are noted in the Contractor's inspection or testing systems, the CO may order supplemental inspection and/or testing to be performed. The Government will charge to the Contractor all costs associated with such supplemental inspection or testing.

Table 153-1
Schedule of Minimum Sampling and Testing For Process Control
(to be performed by the contractor)

Section(s): 204, 208, 209.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Embankment Construction Composition of Roadbed in Cuts	Classification and Moisture/Density	AASTHO M 145 AASHTO T 99 or AASHTO T 180 (minimum of 5 proctor points).	1 per material/type.	Source of material.
	In-place density and moisture content	AASHTO T 310	2 per lift, but not less than 2 every 1000 cubic yards.	Compacted embankment, subgrade as applicable.
	R-value	AASHTO T 190 (Tested by FHWA Central Lab).	1 per 2500 feet, or change in material type.	Sample depth: 0-12 inches.
Bedding/Backfill for Structures and Culvert Pipe	Classification and Moisture/Density	AASTHO M 145 AASHTO T 99 or AASHTO T 180 (minimum of 5 proctor points).	1 per material/type.	Source of material.
	In-place density and moisture content	AASHTO T 310	1 per 50 feet/lift. Minimum 2 per lift.	Compacted bedding or backfill as applicable.

Table 153-1
Schedule of Minimum Sampling and Testing For Process Control
 (to be performed by the contractor)

Section(s): 301, 303, 304, 305, 306, 308.

Material	Property or Characteristic	Test Method or Specification	Frequency	Sampling Point
Subbase, Base Course Aggregate Stabilization and Aggregate Topsoil Courses	Gradation (301)	AASHTO T 11 AASHTO T 27	2 per day	Crusher belt
	Moisture/Density	AASHTO T 99 or AASHTO T 180 (minimum of 5 proctor points)	1 per source of material	Source of material
	In-place density and moisture content	AASHTO T 310 or ASTM 2950	2 per lift at 1000 foot intervals, alternating lanes	Compacted aggregate
	Plasticity index (aggregate surfacing only)	AASHTO T 90	2 per day	Crusher belt
	Gradation (304 materials processed in place)	AASHTO T 11 AASHTO T 27	1 per 1000 feet	Processed material
Magnesium Chloride and Calcium Chloride	Specific Gravity	Hydrometer	1 per shipment	Transport vehicle

Note: Density and Moisture calculations AASHTO T 310...Density corrections based on moisture for recycled materials containing asphalts, or aggregates containing MgCl or CaCl will be made based on samples taken from each test site and oven-dried in the laboratory.

Section 154. - CONTRACTOR SAMPLING AND TESTING**Construction Requirements****154.03 Testing** Add the following:

Where Process Control Sampling and Testing frequencies in Table 153-1 are identical to the Sampling and Testing Tables for all applicable work the Process Control Samples may be used for acceptance.

Add the following subsections:

154.03A Laboratory (Contractor-Furnished). Furnish a laboratory equipped with all necessary test equipment and accessories to satisfy the testing required by the contract.

Sampling and testing services of commercial laboratory equipped with all necessary test equipment and accessories to satisfy the testing required by the contract may be used.

Use equipment that is calibrated and conforms to the applicable testing equipment associated with the testing requirements methods of the contract. Tag all necessary equipment indicating the date of last inspection, inspector, and calibration number.

The CO may check equipment to verify condition and calibration. Repair or replace equipment not meeting applicable requirements.

Maintain and submit documentation supporting the calibration of all necessary equipment prior to actual testing. Include the following:

- (a) Description of the equipment calibrated or verified, including model number, serial number, or other acceptable identification.
- (b) Identification of the individual performing the calibration or verification.
- (c) Identification of the calibration or verification procedure used.
- (d) The calibration number for each calibration.
- (e) Date of calibration

154.03B Field Laboratory (Government-Furnished). If a field laboratory trailer is available for rent, the Government will offer to the contractor a Government furnished mobile field laboratory with testing equipment. Field laboratory availability and a list of the testing equipment included in each field laboratory may be obtained by contacting the COE, Mr. Kevin Black, at 720-963-3409, 12300 West Dakota Avenue, Lakewood, CO 80228. The Contractor will determine if the laboratory and testing equipment is adequate to perform all testing required by the contract.

If the Contractor elects to exercise the option to use the Government-furnished trailer and equipment, notify the CO in writing within thirty (30) days after award of the contract.

The field laboratory trailer and testing equipment are offered to the contractor at a cost of \$600.00 per month. The Government is responsible for transportation of the laboratory to and from the project site. The contractor is responsible for the replacement cost of all missing or damaged equipment (other than through reasonable wear and tear).

In addition, the following apply:

- (a)** The equipment has been checked and calibrated to applicable specifications and test methods. It is the Contractor's responsibility to ensure the equipment is maintained in proper operating condition.
- (b)** Except as otherwise indicated herein, the laboratory includes test equipment to conduct Contractor Quality Control, and Contractor Sampling and Testing for embankments, crushed aggregate base, asphalt paving materials, and plastic concrete as summarized in Tables 153-1 and the Sampling and Testing tables at the end of each Section.
- (c)** No nuclear devices are furnished.
- (d)** No equipment for curing or breaking concrete cylinders is furnished.
- (e)** No equipment for asphalt content determination per AASHTO T164 or maximum specific gravity per AASHTO T209 is furnished for non-superpave designated projects.
- (f)** The Contractor is responsible for furnishing water to the Government field laboratory which is reasonably clear and free of oil, acid, rust, alkali, sugar, and vegetable substances. Furnish 220-volt, 60-cycle, single-phase current adequate to operate all of the Government field laboratory facilities at all times as required by the CO. A minimum of 15 kilowatts of power at the entrance box is required for effective use of electrical equipment. Equip the power supply with a regulator that limits the voltage of the power furnished to the laboratory to not less than 220 volts and not more than 240 volts.
- (g)** The Contractor or its representative is responsible for the trailer and equipment upon receipt.
- (h)** Missing or damaged equipment (beyond reasonable wear and tear) must be replaced by the Contractor.
- (i)** All equipment provided by the Government and replaced by the Contractor is to remain or become the property of the Government.
- (j)** The rental rate is in effect for the duration of the contract, excluding periods of seasonal or other work shut downs.
- (k)** Use of the laboratory is limited to testing materials specified to this contract.

Section 155. - SCHEDULES FOR CONSTRUCTION CONTRACTS**Construction Requirements****155.05 Written Narrative.** Add the following:

(j) List anticipated monthly and cumulative contract earnings (including, for schedule updates, any contract modifications) for each month from the beginning of construction operations through the completion of the work. Calculate and list each month's anticipated earnings through the close of business on the date provided by the CO as the cut-off date for monthly project pay estimates.

Section 156. - PUBLIC TRAFFIC**Construction Requirements****156.03 Accommodating Traffic During Work.** Delete the last two sentences in the first paragraph and substitute the following:

Submit situation-specific traffic control implementation drawings and alternate traffic control proposals according to Subsection 104.03 for acceptance at least 14 days before intended use.

156.04 Maintaining Roadways During Work.**(a)** Add the following:

Do not construct diversions outside of the clearing limits or use alternate route detours without the approval of the CO.

156.06 Limitations on Construction Operations.**(c)** Delete the first sentence and substitute the following:

For alternate one-way traffic control, provide a minimum lane width of 11 feet. For two-way traffic, provide a minimum roadway width of 22 feet.

(j) Add the following:

Limit the length of area affected as approved by the CO. See subsection 108.01 for limitations on work.

Section 157. - SOIL EROSION CONTROL**Construction Requirements**

157.03 General. Delete the second paragraph and substitute the following:

Standard erosion control devices are provided in the contract. Detail site-specific measures for controlling erosion and submit to the CO for acceptance prior to implementation. Provide working drawings and associated data that do not exceed 24 by 36 inches in size. Allow 7 days for acceptance of the drawings or a return for corrections. Include the following in the detailed design:

- (a) Address contractual requirements for storm water runoff permits, environmental commitments, and other permit requirements here or in Subsection 107.01 or 107.10.
- (b) Location of each proposed erosion control measure.
- (c) Type of each erosion control measure.
- (d) Quantities and estimated unit costs of proposed temporary erosion control devices to be implemented during construction.
- (e) A schedule detailing coordination of erosion control measures with the various construction operations or stages. Include the furnishing, installation, maintaining, and removing of temporary devices and the installation of permanent erosion control features.
- (f) A schedule outlining the proposed schedule of clearing and grubbing, excavation, embankment, and culvert operations such that the area of disturbed or erodible material is minimized. Schedule the work such that temporary and permanent erosion measures can be incorporated at the earliest practical time.
- (g) Construction methods used in various items of work to minimize erosion.

Add the following:

At least 5 days prior to the preconstruction conference, designate in writing an Erosion Control Supervisor who is responsible for implementing the requirements of this Section. Do not designate the project superintendent as the Erosion Control Supervisor.

When temporary erosion control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as part of the work in a timely manner, provide temporary measures at no cost to the Government.

157.14 Acceptance. Add the following:

Soil erosion control will be evaluated under subsection 106.02 based on the demonstrated ability of the erosion control measures to result in minimal soil erosion, sedimentation and/or siltation, and turbidity increases within or adjacent to the project limits.

Section 158 - WATERING FOR DUST CONTROL**Construction Requirements****158.03 General.** Add the following:

The contractor is responsible for locating an adequate water source and all costs, fees, taxes and transportation costs incurred in the purchase, transportation and application of water.

The following is a partial listing of possible water sources along the route:

Chapman Reservoir - Pinnacle Peak Ranch
R. A. Nelson
P.O. Drawer 5400
Avon, Colorado 81620

Sheriff Reservoir - Town of Oak Creek
Chuck Wisecup
P.O. Box 128
Oak Creek, Colorado 80467

Vaughn Reservoir - CDOW
Meeker Service Center
Bailey Franklin
Box 1181
Meeker, Colorado 81641

Section 203. - REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Construction Requirements

203.05 Disposing of Material.

(a) **Remove from Project.** Add the following to the end of the paragraph:

Secure environmental clearances according to Subsection 107.10.

(b) **Burn.** Delete the text.

(c) **Bury.** Delete the text.

Section 204. - EXCAVATION AND EMBANKMENT

Construction Requirements

204.14 Disposal of Unsuitable or Excess Material. Add the following:

Secure environmental clearances according to Subsection 107.10.

Section 301. - UNTREATED AGGREGATE COURSES

Construction Requirements

301.03 General. Delete the third paragraph and substitute the following:

For surface course aggregate set target values within the gradation range shown in Table 703-3.

Section 303. - ROAD RECONDITIONING

Material

303.02 Add the following:

Crushed aggregate

703.06

Construction Requirements

303.03 Ditch Reconditioning. Delete the text.

303.06 Aggregate Surface Reconditioning. Delete the text and substitute the following:

Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to a depth of 6 inches and remove surface irregularities. Reshape, finish and compact the entire aggregate surface according to Section 308.

303.07 Roadway Reconditioning. Delete the text and substitute the following:

Perform all applicable work described in Subsections 303.04 through 303.06.

Section 633. – PERMANENT TRAFFIC CONTROL

633.01 Add the following to the end of the first paragraph:

Posts that are installed to support the National Forest Land Entering (NFL-E-2) and Leaving (NFL-L-2) are designated a 6-inch by 6-inch redwood post. Stain to match sign.

633.05 Panels Delete the first and second paragraph and substitute the following:

The sign panels to install on this project will consist of two-routed wood National Forest Land – Entering (NFL-E-2) signs and two-routed wood National Forest Land –Leaving (NFL-L-2) signs. The sign will be constructed out of lumber. The lumber used to manufacture of the routed wood sign panels will be redwood lumber grade Coast Redwood (*Sequoia Sempervirens*), clear, all heart, vertical grain, kiln dried.

See Appendix B for additional specification on sign panels. All outlined materials address in Appendix B will be considered subsidiary to Sign System installation in the summary of quantities.

Section 635. - TEMPORARY TRAFFIC CONTROL

635.07 Construction Signs. Add the following to the end of the first paragraph:

Provide the same type of sheeting on all post-mounted construction signs that pertain to the project.

Section 703. - AGGREGATE**703.05 Subbase, Base, and Surface Course Aggregate.****(c) Surface course aggregate.**

Table 703-3. Delete Table 703-3 and substitute the following:

**Table 703-3
Target Value Ranges for
Surface Course Gradation and Plasticity Index**

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)
1½ inch	100 ⁽¹⁾
1 inch	97-100 ⁽¹⁾
¾ inch	50-70 (6)
No. 4	*(7)
No. 40	*(5)
No. 200	9-16 (4)
Plasticity Index (PI)	8 (4)

⁽¹⁾ Statistical procedures do not apply.

(*) Submit target values for applicable sieves

() Allowable deviations (+/-) from the target values

Section 718. - TRAFFIC SIGNING AND MARKING MATERIAL**718.08 Signposts.****(b) Galvanized Steel posts.****(2) Square tubular steel posts.**

(c) Delete the text and substitute the following:

Galvanizing after punching

ASTM A 635, (inside and outside of post)
coating designation Z275

APPENDICES

CO PFH 16-1(1)
MARVINE-PHIPPSBURG
WHITE RIVER AND ROUTT NATIONAL FORESTS
RIO BLANCO COUNTY, COLORADO

APPENDIX A: Ripple Creek Pass Gravel Pit

APPENDIX B: Forest Entrance Signs/Routed Wood Signs

Appendix A
CO PFH 16-1(1)

Ripple Creek Pass Gravel Pit

DECISION MEMO

RIPPLE CREEK PASS GRAVEL PIT

JULY 19, 2000

U.S.D.A. Forest Service
R2 - Rocky Mountain Region
White River National Forest

Blanco Ranger District
Rio Blanco, Colorado
NW 1/4 Section 32, T2N, R88W, 6th PM

Responsible Official:

F. William Hahnenberg
District Ranger
Blanco Ranger District
317 E. Market Street
Meeker, CO 81641

For Further Information Contact:

Linn Pettijohn
Assistant District Ranger
Blanco Ranger District
317 E. Market Street
Meeker, CO 81641

ABSTRACT: The Forest Service proposes to implement rock crushing by means of a partnership agreement with Rio Blanco County. This includes excavation, crushing, and storage on the Blanco Ranger District of the White River National Forest.

The United States Department of Agriculture (USDA) Forest Service is a diverse organization committed to equal opportunity in employment and program delivery. USDA prohibits discrimination on the basis of race, color, national origin, sex, religion, age, disability, political affiliation and familial status. Persons believing they have been discriminated against should contact the Secretary, US Department of Agriculture, Washington DC 20250, or call (202) 720-7327 (voice), or (202) 720-1127 (TTY).

**DECISION MEMO
U.S. DEPARTMENT OF AGRICULTURAL
FOREST SERVICE
WHITE RIVER NATIONAL FOREST
BLANCO RANGER DISTRICT
RIO BLANCO COUNTY, COLORADO
NW 1/4 SEC 32, T2N R88W, 6TH PM**

RIPPLE CREEK PASS GRAVEL PIT

DECISION

Upon reviewing the environmental analysis, I am authorizing reopening the Ripple Creek gravel crushing site at the location shown on the attached map. The pit is planned to provide up to 90,000 cubic yards of material. It will impact approximately 4 acres at full build up, including the pit, staging area, top soil storage and the stockpile of gravel. One third acre of trees will be removed to make room for crushing and stockpiling operations. Existing access to the pit will be used.

The objective of this project is to provide an economical source of gravel to resurface the Flat Tops Trail Scenic Byway. This surfacing will protect the public's investment in the road, correct existing and prevent future resource damage and increase user safety.

REASONS FOR CATEGORICALLY EXCLUDING THE PROPOSED ACTION

The proposed action falls under Category Number 31.2, in section 3 of Forest Service Handbook 1909.15 - Environmental Policy and Procedures Handbook. Based on an environmental analysis and past experience, the effects of implementing this action will be of limited context and intensity and will result in little or no environmental effects to either the physical or biological components of the environment. The action does not involve any extraordinary circumstances described in FSH 1909.15, section 30.3, item 2. Therefore, this action can be categorically excluded from documentation in an environmental assessment or an environmental impact statement.

SCOPING AND PUBLIC INVOLVEMENT

Scoping involved contacting Forest Service resource program managers during October and November 1999. A scoping statement was sent to interested and/or affected publics on February 11, 2000 requesting comments on the proposed project. No public comments were received. Internal comments received are available for review in the Project file.

REQUIRED MITIGATION

Rio Blanco County will prepare a "Pit Plan" prior to any work being performed. This Plan will be approved by the Blanco District Ranger. The "Pit Plan" will respond to the following items:

1. How top soil will be stored on site and used to restore the area.
2. How surface water run off from the pit will be handled.
3. How the existing access road will be used and secured.
4. How public safety will be assured during crushing and hauling operations.

FINDING REQUIRED BY OTHER LAWS

The White River National Forest Land and Resource Management Plan (9/84) has been reviewed and a determination made that this decision is consistent with its guidelines. The actions in this project comply fully with the goals of the Forest Plan, the Management Area Direction, including that contained specifically under management prescription 2B (see Forest Plan, Section III, pp. 45-60 and pp. 102-110), and the Forest-wide standards and guidelines (see Forest Plan, Section III, pp. 2-6).

The project also complies with the Endangered Species Act, National Historic Preservation Act, and the National Graves Protection Act.

APPEAL PROVISIONS AND IMPLEMENTATION

Pursuant to 36 CFR 215.8(a) (4), this decision is not subject to a higher level of review. Implementation of this decision may begin immediately. Detailed records of this environmental analysis are available for public review at the Blanco Ranger District, 317 E. Market, Meeker CO, 81641.

CONTACT PERSON

For additional information concerning this decision, please contact F. William Hahnenberg at the Blanco Ranger District Office , 317 E. Market, Meeker Co., 81641 or phone (970) 878-4039.



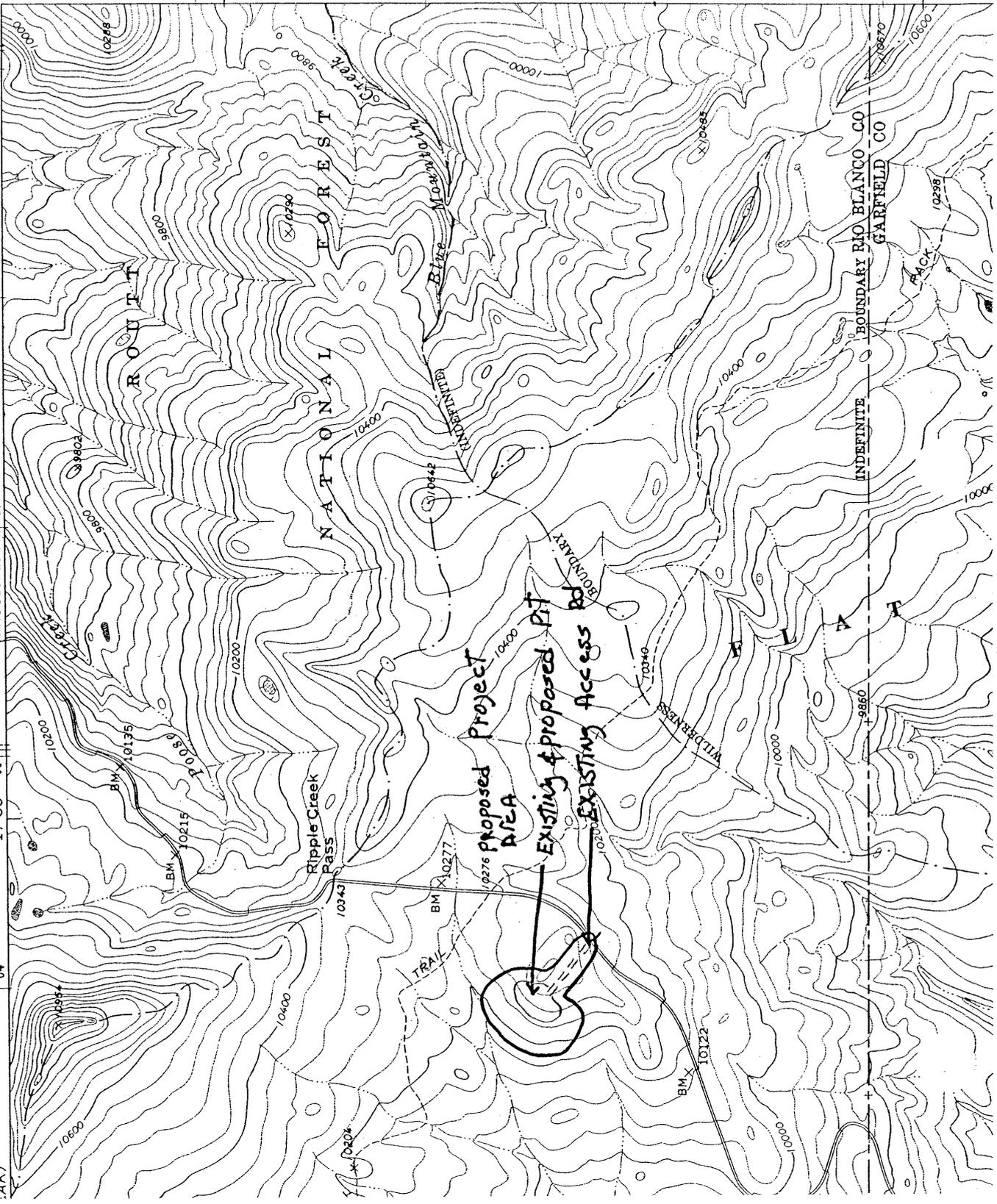
F. William Hahnenberg
District Ranger

Date: 7/19/00

RIPPLE CREEK QUADRANGLE
COLORADO
7.5 MINUTE SERIES (TOPOGRAPHIC)

4564 11 NW PAS
DUNKLEY PAS

E. AK) 17°30' 30.5" 1510 000 FEET (NORTH) 107°15' 40" 07'30"



4443
290 000 FEET
(NORTH)

map to
reference for the
ripple cb. drawl
4442 p.t. P.P.P.
Jm

4441

T2N
T1N



United States
Department of
Agriculture

Forest
Service

White River
National
Forest

Blanco Ranger District
317 East Market Street
Meeker, CO 81641
(970) 878-4039
FAX (970) 878-5173

File Code: 7700

Date: 11/24/2004

Mr. Ryan Tyler
Project Manager
FHWA/CFLHD
12300 West Dakota Ave
Lakewood, CO 80228

Dear Mr. Tyler:

Subject: CO PFH 16-1(1) Marvine_Phippsburg, Ripple Creek Pass Pit Stipulations.

It is our understanding that the Ripple Creek Pass Pit will be set up as an OPTIONAL material source to be used by bidders should they choose to do so. A categorical Exclusion for this material source was approved by our office in July 2000. In addition to that document, please find this correspondence to represent additional specifications for the Ripple Creek Pass Pit to be used in the subject project should bidders choose to use this material source.

Actual Pit Location:

- The final reclaimed material source area should be sloped to drain.
- Vertical rock faces are preferred with no restrictions

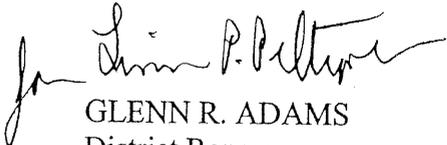
Access Road to Pit Location

- Typical Section: The roadway will be limited to a 14 ft maximum width. Cut/Fill slopes will be 2H:1V
- Clearing Limits: All conifers, aspen and brush within 5 feet of the shoulders of the road or the bottom of the ditch will be removed. If Cut/Fill slopes are required to construct the roadway, all conifers, aspen and brush will be cleared on the slopes and 3 feet from the top of cut and bottom of fill. All merchantable timber will be cut and stockpiled and will be considered property of the White River National Forest.
- Two pulloffs will be allowed along the access road to facilitate haul truck passing operations. These pulloffs will be no longer than 50 feet in length. The same slope ratios and clearing limits will apply to these pulloffs as they do on the access road.
- Topsoil removed from the area will be stockpiled. Topsoil will be placed back on slopes of the access road. Excess topsoil will be placed on the perimeter of the pit area. Seeding of the topsoil will be required. The recommended seed mix is attached.

If you have any questions, please contact me at (970) 878-4039.



Sincerely,


GLENN R. ADAMS
District Ranger

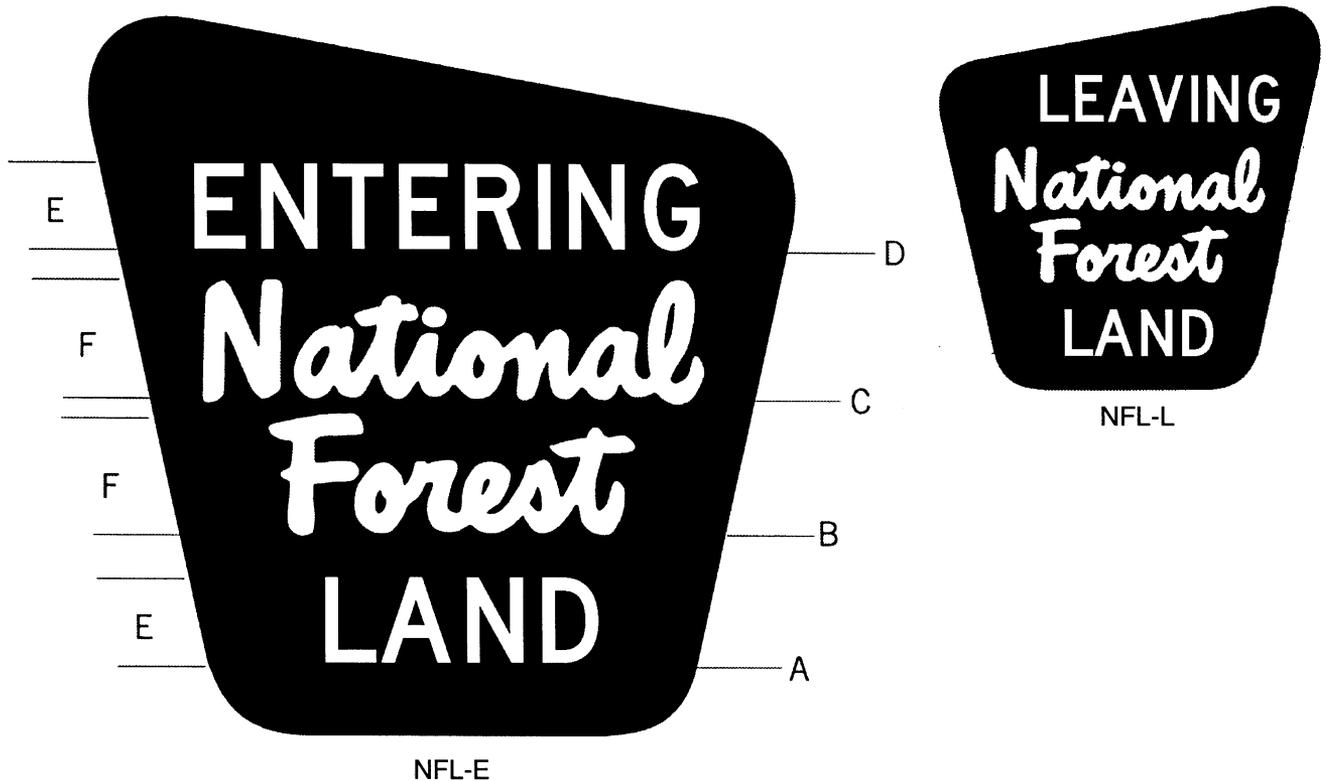
REQUIRED ROAD AND RE-VEGETATION SEED MIX

Slender Wheat	50%
Mountain Brome (Garnett)	20%
Sheep Fescue	10%
Western Wheat	10%
Great Basin Wildrye	5%
Prairie Junegrass	5%
Total	100% PLS (Pure Live Seed)

Appendix B
CO PFH 16-1(1)

Forest Entrance Signs
Routed Wood Signs

National Forest Land—Entering (NFL-E) / Leaving (NFL-L)



Note: Use same dimensions for NFL-L (Leaving) sign with point on right of sign.

Note: Cutting dimensions for NFL signs are the same as MFE or MFL signs.

SIGN NUMBER	SIZE (INCHES)	LAYOUT DIMENSIONS MEASURED FROM BOTTOM OF PANEL (INCHES)				LOGO HEIGHT (INCHES)	
		A	B	C	D	E	F
NFL-E-1 NFL-L-1	18 x 18	2 ¹ / ₂	5 ³ / ₄	9 ³ / ₈	13 ¹ / ₄	2E	2 ¹ / ₂
NFL-E-2 NFL-L-2	27 x 27	3 ³ / ₄	8 ⁷ / ₈	14 ¹ / ₄	19 ⁷ / ₈	3E	3 ¹ / ₂

Color—Reflective = white on brown. Routed = yellow cream on brown.

Installation: Back to back, high point of signs closest to road as you enter forest land from PVT/other land.

~~17.2.6 Basis of Payment The quantities shall be paid for at the contract price per unit of measurement for each pay item listed. The payment shall be full compensation to the contractor for all materials and sign fabrication, including all labor, equipment, tools, and incidentals needed; payment includes shipping costs when so specified in the contract.~~

17.3 Routed Wood Signs

17.3.1 Description This item shall consist of furnishing all materials, labor, tools, equipment, and supplies for the manufacture of routed wood signs in accordance with this specification, drawings, and as specified on procurement documents, and for the packaging and shipment to the specified destination. Workmanship shall be high quality with no visible defects in the finished product.

17.3.2 Materials All materials used in the manufacture of routed wood signs shall comply with the requirements of this section. It is the responsibility of the sign manufacturer (contractor) to obtain and, if requested, furnish to the Contracting Officer, certification that all materials comply with the requirements as specified.

17.3.2a Substrate (1) *Medium Density Overlay (MDO) Plywood.* MDO plywood shall be all Douglas fir grade B plugged core or better, exterior type, and B-B (or better) face and shall otherwise conform to U.S. Product Standard, PS-1, current edition. Three-quarter-inch material shall be 7-ply and 1-inch material shall be 9-ply. The resin-treated MDO facing shall be on both sides of the finished product and shall present a smooth, uniform surface intended for high quality paint finishes. Each panel edge brand shall include the following: MDO B-B G1 EXT APA PS-1.

(2) *Lumber.* Lumber shall be redwood, cedar, or oak as specified on procurement documents. Other species of lumber may be used for one-board signs when specified in procurement documents.

Redwood. Redwood lumber shall be grade marked Coast Redwood (*Sequoia Sempervirens*), clear, all heart, vertical grain, kiln dried, nominal thickness of 2 inches, and in accordance with Standard Specification for Grades of California Redwood Lumber, Redwood Inspection Service, current edition, including any supplements thereto, except that the moisture content shall not exceed 14 percent at the time of sign manufacture.

Cedar. Cedar shall be grade marked Western Red Cedar (*Thuja plicata*), clear heart or A-grade, vertical grain, kiln dried, nominal thickness of 2 inches, and in accordance with Grading Rules for West Coast Lumber, West Coast Lumber Inspection Bureau, current

edition, including any supplements thereto, except that the moisture content shall not exceed 15 percent at the time of sign manufacture.

Oak. Oak shall be white oak, no. 1 grade, with a nominal thickness of four quarters (1 inch).

- (3) *Cleats.* Cleats shall be of the same material and specifications as the material in the sign panel.

17.3.2b Adhesive

The adhesive (glue) shall be phenolic resorcinol, moisture resistant in accordance with Federal Specification MMM-A-181C.

17.3.2c Hardware

All hardware (screws, bolts, washers, and so forth) shall be zinc plated.

17.3.2d Primer, Paint, and Stain

- (1) *Primer.* Primer shall be top quality oil-based conforming to Federal Specification TT-P-25.

- (2) *Paint.* Paint shall be top quality exterior acrylic (high acrylic) latex enamel conforming to Federal Specification TT-P-19.

Unless shown otherwise in drawings, colors shall be Federal Standard 595, as follows:

Color	595 No.
Brown	20059
Yellow-Cream	23695
Orange	12473
White	27875
Light Blue	15187
Black	17038
Green	14260
Tan	20260
Seminole Brown	20109
Grey White	27722

The five-digit numbering system used for the colors is based on the assignment of numerals, which indicate the following:

- The first digit indicates the category of a finish; 1—full gloss; 2—semigloss; 3—lusterless (flat).
- The second digit indicates the selected color classification group.
- The last three digits indicate the approximate order of increasing (diffuse) reflectance.

This list is not all inclusive; other colors may be specified in drawings.

- (3) *Stain.* Stain shall be semitransparent and shall comply with Federal Specification TT-S-708a. The final product shall match the following colors:

Grey Stain. Grey stain shall match Federal Standard 595, No. 36357.

Brown Stain. Brown stain shall match Federal Standard 595, No. 20059.

17.3.3 Manufacturing Requirements

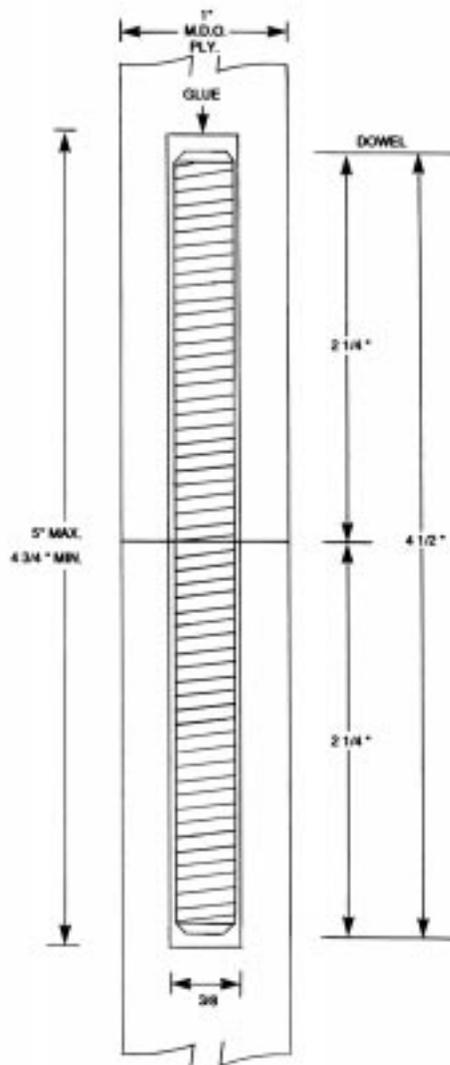
17.3.3a Medium Density Overlay (MDO) Plywood

Sign board panels less than 4 by 8 feet shall be cut from a single sheet (minimum 3/4-inch thick) substrate material (without joints) and shall be flat, free of warp, or any defects that interrupt smooth continuity of the panel surface. Joining will be permitted only on those sign board panels exceeding 4 by 8 feet. One-inch-thick material shall be used for all signs requiring joints. Only doweled butt joints shall be used. Dowels shall be 3/8-inch threaded bolt stock, 4-1/2 inches in length, placed 2 inches from each side and every 12 to 15 inches along the joint. See Figure 17-1 for details. A doweling jig shall be used as a guide to drill dowel holes. All wood chips and sawdust shall be removed from the dowel holes and joint surfaces prior to joining. Dowels shall be dipped in glue prior to insertion. All core-gap holes shall be filled with an exterior wood dough. All panel edges shall be sanded to eliminate edge sharpness but not to exceed one ply in depth. Preparing, gluing, clamping, and finishing of the plywood panels shall be as described in other sections of this specification. Care shall be taken not to sand through the MDO overlay at the joint. Exposed surface wood is not acceptable on sign faces.

17.3.3b Lumber

Sign panels made of lumber shall be fabricated from boards not more than 8 inches nor less than 4 inches wide, except that Forest Service shields and trail signs up to 10 inches in height may be made from one board. Joined boards shall provide a smooth match on all surfaces. Joining of boards for sign panels shall be accomplished with plain joints, side grain to side grain. The surfaces to be joined shall be machined just prior to bonding. Only horizontal joints shall be permitted.

- (1) *Preparation of Surface Joints.* Surfaces to be glued shall be smooth, true, and free from machine-joining marks and chipped or loosened grain.
- (2) *Temperatures.* Air temperatures shall be not less than 70 degrees nor more than 90 degrees Fahrenheit, or as otherwise recommended by the adhesive manufacturer, during the glue application and curing process.



Note: Dowel must not bottom out on either end. Glue will fill void areas. Dowel ends must be radiused before installing.

Figure 17-1.—Butt Joint with Dowels, M.D.O. Plywood.

- (3) *Glue Application.* The entire surface of each joint face shall be covered with the specified glue. The glue manufacturer's recommendations concerning the amount applied, drying time, and other application procedures shall be followed.
- (4) *Clamping and Curing.* A minimum of four clamps shall be used on sign panels less than 48 inches long. An additional two clamps shall be used for each 12 inches of additional length. Clamps shall be alternated on the front and back of the sign panel and tightened in

dual sequence starting in the middle of the sign panel. All clamps shall be tightened to apply sufficient pressure to ensure tight joints without warping the panel. The clamps shall remain in place for a minimum of 12 hours or as recommended by the adhesive manufacturer, whichever is longer.

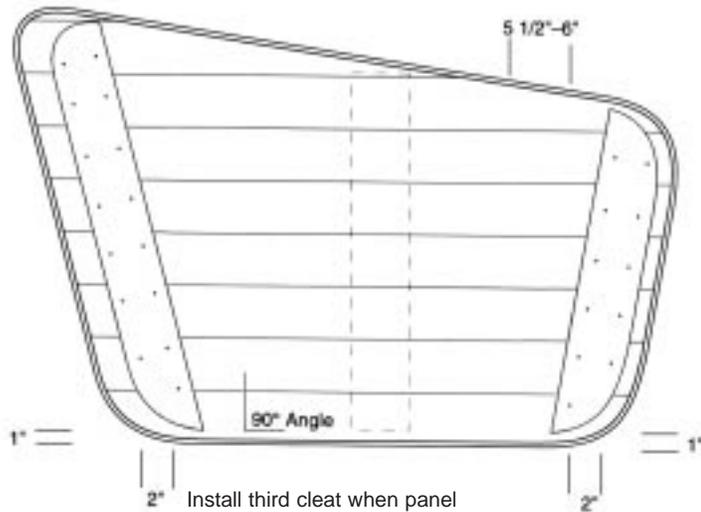
- (5) *Surface and Edge Finishing.* All surfaces shall be sanded to provide a smooth surface. Sawdust, wood chips, and so forth, shall be removed from all surfaces. All exposed edges of the sign panel and cleats, when applicable, shall be routed with a corner rounding bit (1/8- to 3/16-inch radius) to eliminate edge sharpness.
- (6) *Cleating.* Sign panels of more than one board shall have cleats attached on the back side (see Figures 17-2a and 17-2b). Cleats for lumber signs shall be of the same lumber type as the sign panel. Nominal 1- by 4-inch cleats shall be used for signs less than 16 inches high or 36 inches wide. Nominal 2- by 4-inch cleats shall be used for signs up to 30 inches high or 60 inches wide. Nominal 2- by 6-inch size material shall be used for all larger signs. Cleats shall extend vertically to within 1 inch of the top and bottom of the sign panel and shall be located approximately 2 inches horizontally from the sides of the panel. Sign panels less than 4 feet long shall have one cleat on each side. Sign panels longer than 4 feet shall have additional cleats, equally spaced, so that the maximum distance between cleats does not exceed 3 feet. Cleats shall be predrilled with 1/4-inch holes and attached with no. 12 or no. 14 zinc-plated hex-head screws. Fasteners shall be located at the center of each sign panel board and offset to prevent splitting. A single row of fasteners shall be used for 4-inch-wide cleats. A double row of fasteners shall be used for 6-inch-wide cleats. Do not place fasteners in glue joints.

17.3.3c Legend, Layout, and Tolerances

Dimensions of the sign board panel shall be as shown in the drawings with a tolerance of $\pm 1/4$ inch. All legends, borders, and symbols shall be as shown in the drawings. All letters, layout, and spacing requirements, except logotype, shall conform to the "Standard Alphabet for Highway Signs," Federal Highway Administration, current edition, and as shown in the drawings. Use Series C lettering unless otherwise specified.

The following tolerances shall apply:

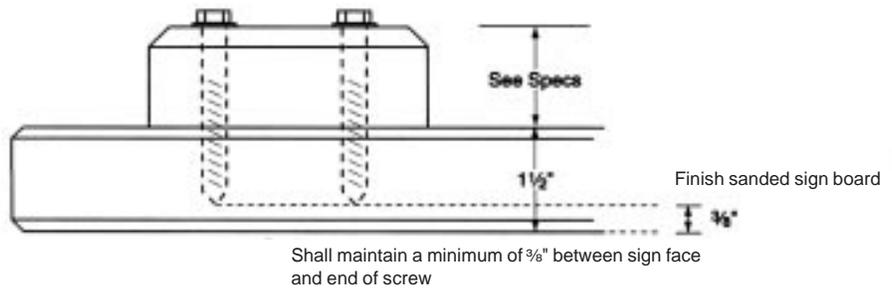
- (1) Legend, numerals, and symbols shall be horizontally aligned to a tolerance of $\pm 1/8$ inch.
- (2) Legend, numerals, and symbols shall be vertically aligned to a tolerance of $\pm 1/16$ inch.
- (3) Spacing between lines shall not exceed a tolerance of $\pm 1/8$ inch.



Note: Cleats are also glued with specified glue. Cleats are installed before routing.

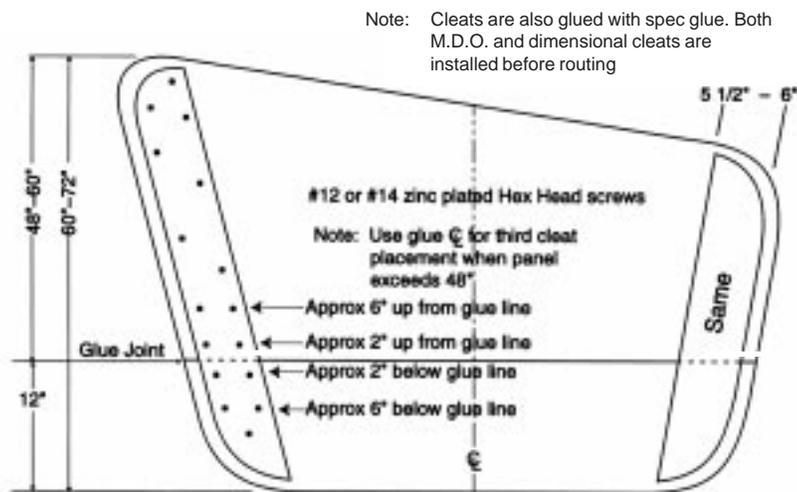
Install third cleat when panel exceeds 48".
Cleats shall be placed at a 90 degree angle with the bottom of the sign or as MDD detail.

#12 or #14 zinc plated hex-head screws



Shall maintain a minimum of 3/8" between sign face and end of screw

Figure 17-2a.—Cleating Detail; Family of Shape Signs, Dimensional Lumber.



Note: Cleats are also glued with spec glue. Both M.D.O. and dimensional cleats are installed before routing

#12 or #14 zinc plated Hex Head screws

Note: Use glue € for third cleat placement when panel exceeds 48"

- ← Approx 6" up from glue line
- ← Approx 2" up from glue line
- ← Approx 2" below glue line
- ← Approx 6" below glue line

Note: A third cleat should be added on signs larger than 60".

Glue joint on bottom of sign as a standard.

Cleat placement same as 16-12 #6 diam. Cleat width 5 1/2-6"

Figure 17-2b.—Cleating detail, M.D.O. Plywood

17.3.3d Routing

All letters, symbols, borders, separation lines, logotype, and so forth, on all signs, shields, and plaques shall be machine routed.

All 3-inch or larger letters, arrows, trees, borders, and so forth shall be routed with an oval-shaped or vertical-sided flat-bottom bit. All letters less than 3 inches shall be routed with a V-bit with side bevels no flatter than 45 degrees and no steeper than 22-1/2 degrees.

Routing depth shall be as shown below:

	<u>Desired</u>	<u>Maximum</u>	<u>Minimum</u>
Lumber	1/8 inch	1/4 inch	1/8 inch
MDO plywood	1/16 inch	3/16 inch	1/16 inch

Arrows, separation lines, and borders shall be the same depth as tallest letters. After routing, sand all surfaces with a fine grit (100+) sandpaper. Wipe all surfaces and lettering clean.

17.3.3e Finishing Operations

The entire sign (face, back, edges, and routed areas) shall be finished as specified in procurement documents and as shown in drawings.

- (1) *Medium Density Overlay (MDO) Plywood Substrate Signs.* All MDO plywood signs shall be painted. Scuff-sand the MDO plywood with a fine grit sandpaper to slightly roughen the surface. Apply one coat of primer and two coats of paint of the specified color precisely as prescribed in writing by the manufacturers of the primer and paint.
- (2) *Lumber Substrate Signs.* Lumber signs shall be stained or painted, as specified. Painting shall be as described for MDO plywood substrate signs above. Signs specified to be stained shall receive two coats of stain applied precisely as prescribed in writing by the manufacturer of the stain.
- (3) *Artificial Weathering (Lumber).* When specified, trail signs shall be artificially weathered by wire-brushing with the grain or by sandblasting to a depth of approximately 1/32 inch, followed by two coats of the specified stain applied precisely as specified in writing by the manufacturer of the stain.
- (4) *Unfinished Signs.* When specified, lumber signs shall be left unfinished.
- (5) *Scorching.* When specified, all routing shall be scorched black. Substrate surface shall be lightly sanded to remove any scorching outside routed areas.

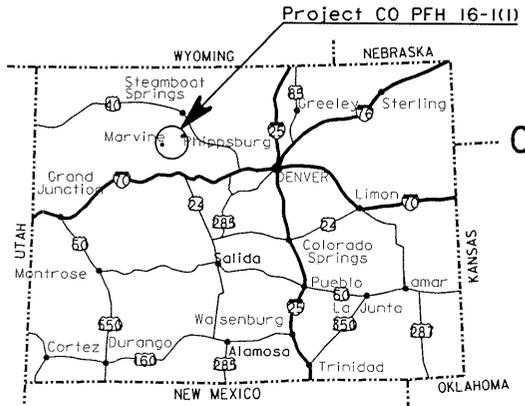
17.3.3f Maker's Mark	A decal showing the contractor's identification or trademark and the date of manufacture shall be installed on the back, upper left-hand corner of each sign manufactured from MDO plywood. For lumber signs, this information shall be stamped on the back, upper left-hand corner or edge of the sign panel.
17.3.4 Packaging and Shipping	
17.3.4a Packaging	Signs shall be packaged so that the sign faces, backs, and edges are protected against damage during shipping. The contractor shall place a copy of the sign requisition(s) in a heavily constructed envelope and attach it securely to the package.
17.3.4b Shipping	Signs shall be shipped to the designated location and in conformance with procedures designated in the contract.
17.3.5 Method of Measurement	Signs, completed and accepted, shall be measured either by the square foot of surface area (nearest one-half square foot), or on an individual unit basis as shown in procurement documents.
17.3.6 Basis of Payment	The quantities shall be paid for at the contract price per unit of measurement for each pay item listed. The payment shall be full compensation to the contractor for all materials and sign fabrication, including all labor, equipment, tools, and incidentals needed; payment includes shipping costs when so specified in the contract.

Appendix C
CO PFH 16-1(1)

Plan Sheets

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	CO16-1(I) MARVINE-PHIPPSBURG	A1	A3



PLANS FOR PROPOSED COLORADO FOREST HIGHWAY PROJECT PFH 16-1(I) MARVINE-PHIPPSBURG

WHITE RIVER AND RUTT NATIONAL FOREST
RIO BLANCO COUNTY
LENGTH 41.5 miles

INDEX TO SHEETS	
SHEET	DESCRIPTION
A1	TITLE SHEET
A2	TYPICAL SECTIONS AND APPROACH ROAD PLAN
A3	TYPICAL PULLOUT PLANS AND SECTIONS
B1	SUMMARY OF QUANTITIES - SCHEDULE A
B2-B8	TABULATION OF QUANTITIES - SCHEDULE A
B9	SUMMARY OF QUANTITIES - SCHEDULE B
B10-B16	TABULATION OF QUANTITIES - SCHEDULE B
B17	SUMMARY OF QUANTITIES - SCHEDULE C
B18-B24	TABULATION OF QUANTITIES - SCHEDULE C
B25	MISCELLANEOUS SUMMARIES
E1	157-2 SEDIMENT CONTROL LOGS
T1	633-1 OBJECT MARKER PLANS AND DETAILS
T2	C635-1 TRAFFIC CONTROL PLAN
T3	C635-2 TRAFFIC CONTROL PLAN

KEY MAP OF COLORADO

TYPE OF CONSTRUCTION:
Gravel Road Rehabilitation

DESIGN DESIGNATIONS:
 ADT (2004) ----- 250
 SADT (2024) ----- 400
 D ----- 65%
 T ----- 10%
 V ----- 30 mph
 e(max) ----- 8%

SPECIFICATIONS:
 "STANDARD SPECIFICATIONS FOR
 CONSTRUCTION OF ROADS
 AND BRIDGES ON FEDERAL
 HIGHWAY PROJECTS, FP-03,
 U. S. CUSTOMARY UNITS

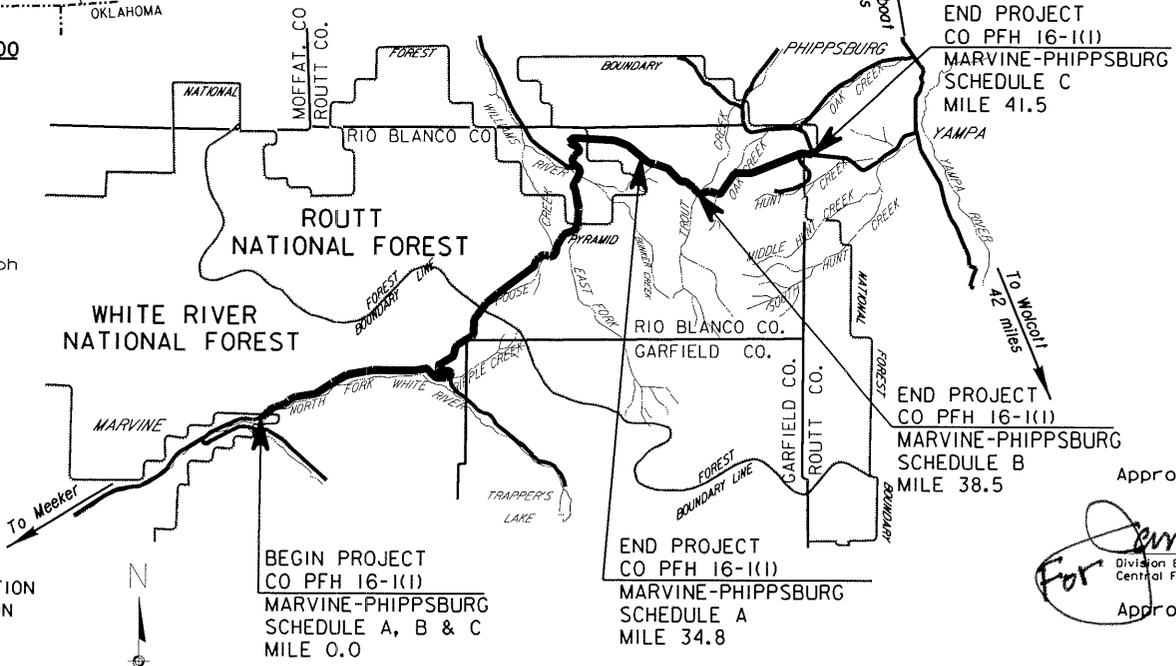


PLANS PREPARED BY

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

CENTRAL FEDERAL LANDS HIGHWAY DIVISION
DENVER, COLORADO

August 1, 2004

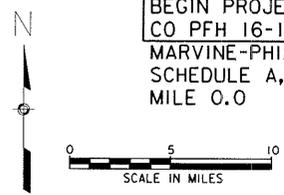


Approved

For James W. Kuley DATE 9/2 2004
 Division Engineer,
 Central Federal Lands Highway Division

Approved

by Letter of Acceptance DATE August 26, 2004
 Glenda L. Wilson
 Director of Engineering
 Region 2
 USDA Forest Service



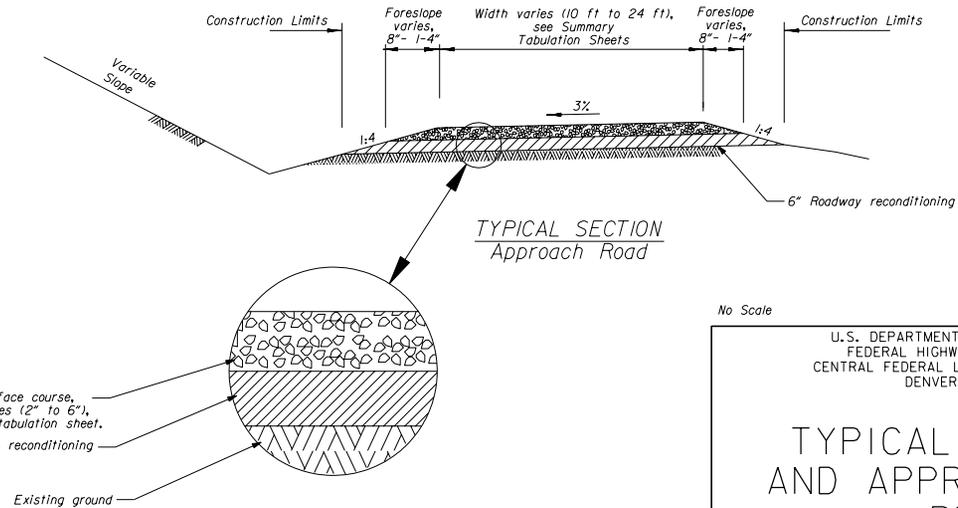
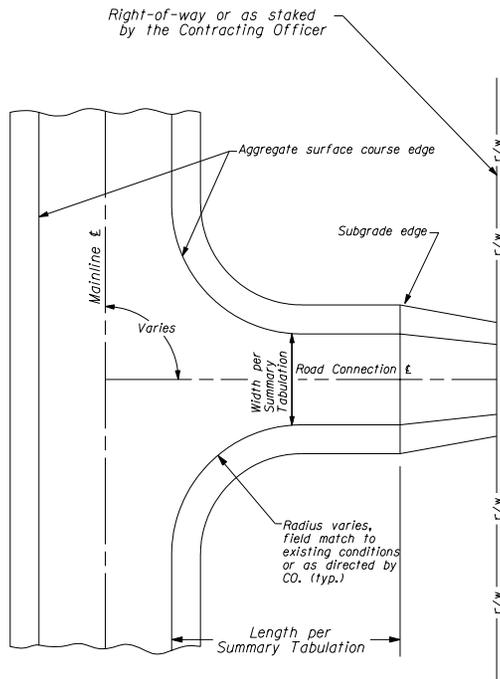
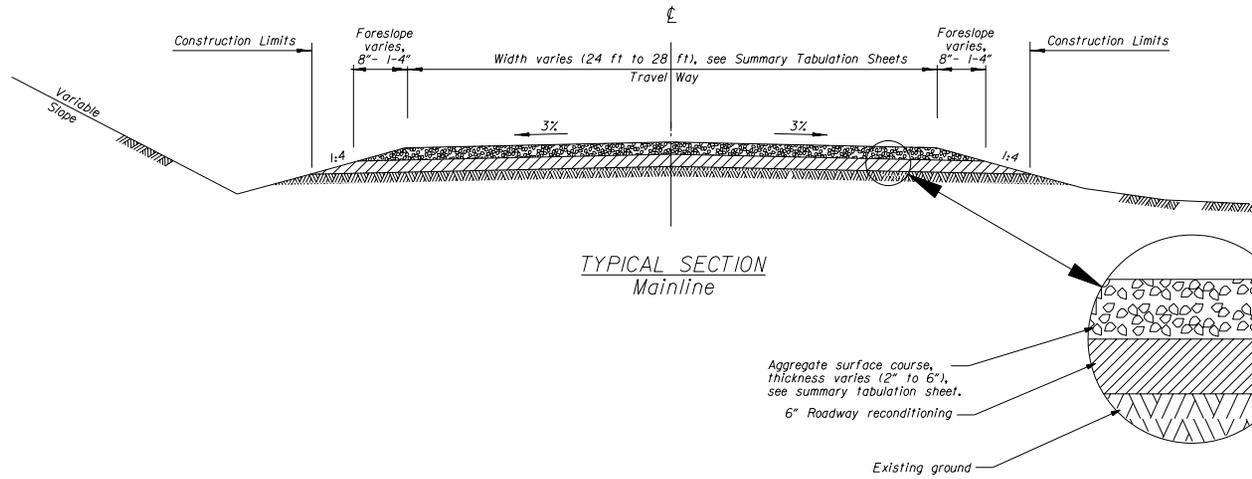
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PROJECT MANAGER	LEAD DESIGNER
R. Tyler	A. Grasmick

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	A2	A3

NOTE:

1. Mainline crown and superelevation are to match existing roadway. Verify superelevation with CO as reconditioning is being completed.
2. Refer to Summary Tabulation Sheets for width and thickness of aggregate surface course.
3. Foreslope ratio for aggregate surface course and roadway reconditioning is fixed at 1:4.
4. Cut and fill slope ratios and degree of slope finish for approach road connections is to be compatible with mainline roadway construction. Flatten cut and fill slopes ratios at approach road connections to the maximum extent practical.
5. The road connection angle is to match the existing conditions.
6. Apply normal mainline crown to road connections with widths greater than 16 feet.
7. Vary radii to fit existing field conditions. Do not reduce existing radii or widths.



No Scale

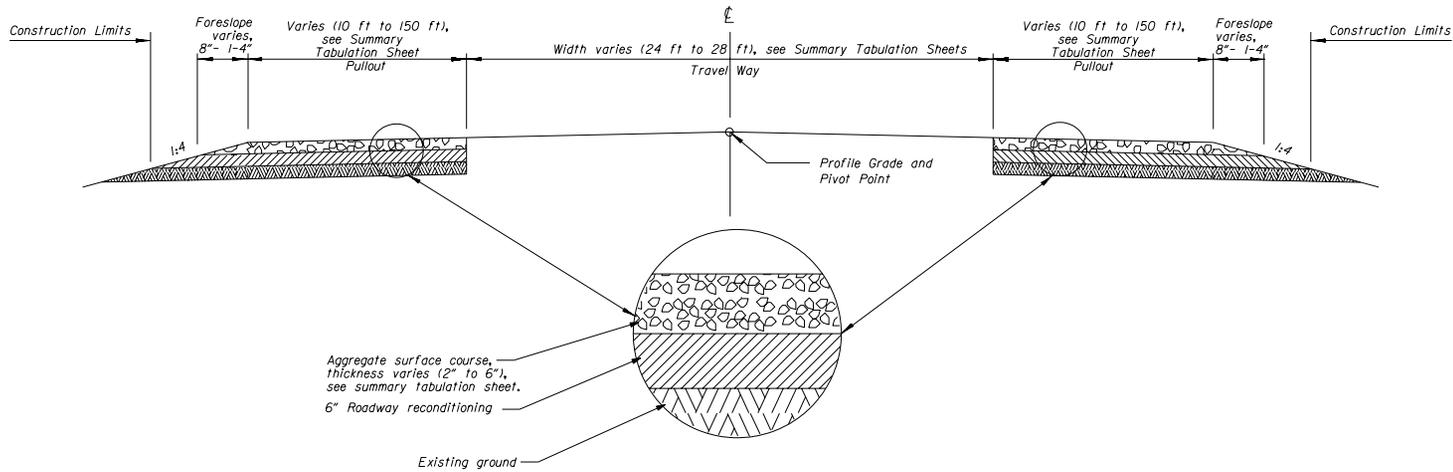
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION
DENVER, COLORADO

TYPICAL SECTIONS
AND APPROACH ROAD
PLAN

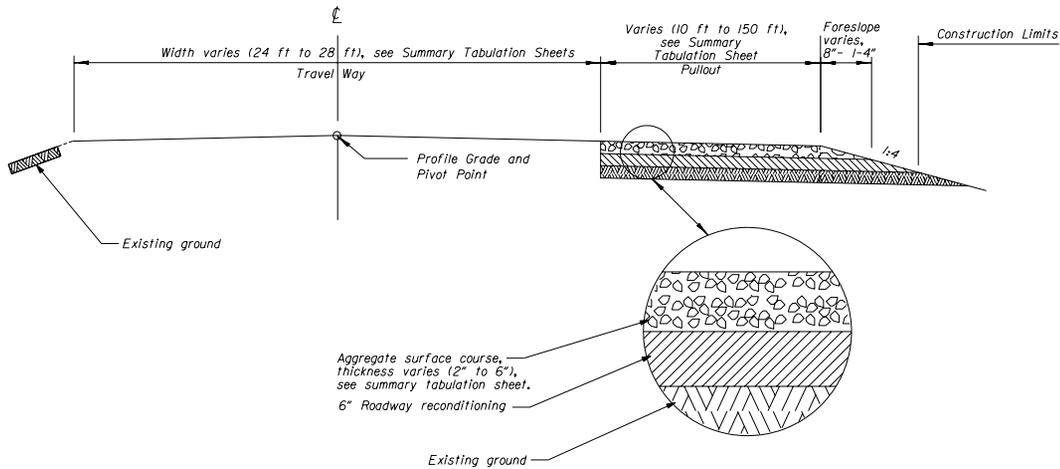
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	A3	A3

NOTE:

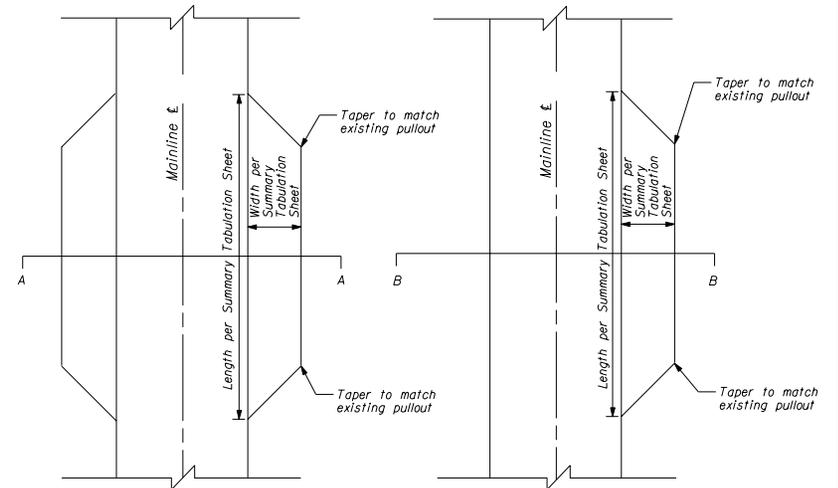
1. Refer to Summary Tabulation Sheets for location, length and width of pullouts.
2. Slope ratios and degree of slope finish for pullouts shall be compatible with mainline roadway construction.
3. Extend normal mainline crown to pullouts.
4. Refer to Summary Tabulation Sheets for structural section thicknesses along route. Foreslope for aggregate surface course and roadway reconditioning is fixed at 1:4.



TYPICAL SECTION
A-A



TYPICAL SECTION
B-B



TYPICAL PLAN
Pullout

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION
DENVER, COLORADO

**TYPICAL PULLOUT
PLANS AND SECTIONS**

SUMMARY TABULATION SHEET - SCHEDULE A

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B2	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
0.0	0.1	528	0.17	24	13031	1722	154.0	2.6	Begin Project- Schedule A /end of pavement
	0.1	12	0.17	12	152	23	1.8	0.0	Lt - Lost Creek Guard Station
	0.1	10	0.17	12	127	19	1.5	0.0	Rt-Approach Road
0.1	0.2	528	0.17	24	13031	1722	154.0	2.6	
	0.2	12	0.17	14	176	26	2.1	0.0	Rt-Approach Road
	0.2	60	0.50	24	0.00		50.0	0.0	Subexcavation
0.2	0.3	528	0.17	24	13031	1722	154.0	2.6	
	0.3	10	0.17	22	227	30	2.7	0.0	Lt - Long Lost Trailhead/ Staging Area
0.3	0.6	1584	0.17	24	39093	5167	461.9	0.0	
	0.6	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
0.6	0.9	1584	0.17	24	39093	5167	461.9	7.9	
	0.9	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
0.9	1.3	2112	0.17	24	52124	6890	615.8	10.6	
	1.3	8	0.17	12	101	15	1.2	0.0	Lt-Approach Road
1.3	1.4	528	0.17	24	13031	1722	154.0	2.6	
	1.4	50	0.50	24	0.00		41.7	0.0	Sub-excavation
1.4	1.7	1584	0.17	24	39093	5167	461.9	7.9	
	1.7	14	0.17	20	290	39	3.4	0.0	Lt-North Fork Campground Entrance
1.7	2.0	1584	0.17	24	39093	5167	461.9	7.9	
2.0	2.4	2112	0.17	24	52124	6890	615.8	10.6	
	2.4	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
	2.4	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
2.4	2.7	1584	0.17	24	39093	5167	461.9	7.9	
	2.7	8	0.17	16	133	19	1.6	0.0	Rt-Approach Road
2.7	3.2	2640	0.17	24	65155	8612	769.8	13.2	
	3.2	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
3.2	3.4	1056	0.17	24	26062	3445	307.9	5.3	
	3.4	8	0.17	10	85	14	1.0	0.0	Lt- Dead Horse Loop Road
3.4	4.0	3168	0.17	24	78186	10335	923.8	15.9	
	4.0	5	0.17	10	53	9	0.6	0.0	Lt- Missouri Creek
Subtotal						69136	6269.3	98.0	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4
	Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE A

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B3	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
4.0	4.1	528	0.17	24	13031	1722	154.0	2.6	
	4.1	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
4.1	4.6	2640	0.17	24	65155	8612	769.8	13.2	
	4.6	5	0.17	10	53	9	0.6	0.0	Lt-Approach Road
4.6	5.2	3168	0.17	25	81354	10687	961.2	16.5	
	5.2	25	0.17	10	259	35	3.1	0.0	Lt-Existing pullout area Dead horse Loop Rd.
	5.2	250	0.17	20	5085	630	60.1	0.0	Pullout area for trucks with trailers
5.2	5.3	528	0.17	25	13559	1781	160.2	2.7	
	5.3	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
5.3	6.0	3696	0.17	25	94913	12468	1121.4	19.2	
6.0	6.5	2640	0.17	25	67795	8906	801.0	13.7	
6.5	6.7	1056	0.17	24	26062	3445	307.9	5.3	
	6.7				0	0	0.0	0.0	Cattle Guard
6.7	6.8	528	0.17	24	13031	1722	154.0	2.6	
		300	0.17	150	45102	5089	532.9	0.0	Rt-Snail Creek Crossing Pullout/ Staging Area
6.8	7.0	1056	0.17	24	26062	3445	307.9	5.3	
7.0	7.4	2112	0.17	24	52124	6890	615.8	10.6	
	7.4	10	0.17	12	127	19	1.5	0.0	Rt-Approach Road
7.4	7.8	2112	0.17	24	52124	6890	615.8	10.6	
7.8	8.2	2112	0.17	24	52124	6890	615.8	10.6	
	8.2	100	0.17	12	1234	185	14.6	0.0	Rt-Pullout
8.0	8.4	2112	0.17	24	52124	6890	615.8	10.6	
	8.4	20	0.17	24	494	65	5.8	0.0	Rt-Trappers Lake Approach Road
8.4	8.5	528	0.17	24	13031	1722	154.0	2.6	
	8.5	20	0.17	14	294	43	3.5	0.0	Rt-Ripple Creek Lodge Approach Road
8.5	8.7	1056	0.17	24	26062	3445	307.9	5.3	
	8.7	5	0.17	10	53	9	0.6	0.0	Rt-Staging Area/End Magnesium chloride
8.7	9.7	5280	0.17	24	130310	17225	1539.6	0.0	
	9.7	100	0.17	24	2434	296	28.8	0.0	Rt-Pullout
	9.7	27	0.17	10	279	38	3.3	0.0	Lt-Pullout
Subtotal						109175	9858.2	131.5	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
 Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4
	Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE A

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B4	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
9.7	9.9	1056	0.17	24	1.36	26062	3445	307.9	0.0	
	9.9	50	0.50	24	0.00			41.7	0.0	Sub-excavation
9.9	10.0	528	0.17	24	1.36	13031	1722	154.0	0.0	
10.0	10.2	1056	0.17	24	1.36	26062	3445	307.9	0.0	
	10.2	5	0.17	10	1.36	53	9	0.6	0.0	Lt-Approach Road
10.2	10.3	528	0.17	24	1.36	13031	1722	154.0	0.0	
	10.3	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
10.3	10.4	528	0.17	24	1.36	13031	1722	154.0	0.0	
	10.4	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
10.4	10.7	1584	0.17	24	1.36	39093	5167	461.9	0.0	
	10.7	10	0.17	12	1.36	127	19	1.5	0.0	Rt-Approach Road
10.7	11.0	1584	0.17	24	1.36	39093	5167	461.9	0.0	
	11.0	150	0.50	24	4.00			125.1	0.0	Subexcavation
11.0	11.6	3168	0.17	24	1.36	78186	10335	923.8	0.0	
	11.6	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
11.6	12.0	2112	0.17	24	1.36	52124	6890	615.8	0.0	
12.0	12.5	2640	0.17	24	1.36	65155	8612	769.8	0.0	
	12.5	8	0.17	10	1.36	85	14	1.0	0.0	Rt-Ripple Creek Pit Approach Road
12.5	13.0	2640	0.17	24	1.36	65155	8612	769.8	0.0	
13.0	13.4	2112	0.17	24	1.36	52124	6890	615.8	0.0	
13.4	13.5	528	0.17	24	1.36	13031	1722	154.0	0.0	Cattle Guard
13.5	13.8	1584	0.17	24	1.36	39093	5167	461.9	0.0	
13.8	14.0	1056	0.33	24	2.64	26738	3595	613.2	0.0	
14.0	14.1	528	0.33	24	2.64	13369	1798	306.6	0.0	
	14.1	50	0.50	24	0.00			41.7	0.0	Sub-excavation
14.1	14.3	792	0.33	24	2.64	20053	2696	459.9	0.0	
	14.3	320	0.33	80	1.32	25811	2962	592.0	0.0	Pullout Area/Routt / White River Forest Boundary
14.3	14.5	1320	0.33	24	2.64	33422	4494	766.5	0.0	
14.5	15.0	2640	0.33	24	2.64	66845	8988	1533.1	0.0	
15.0	15.1	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
Subtotal						97145	11125.4	0.0		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4	
Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE A

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B5	B25

MILE TO MILE		LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
							PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES		Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
15.1	15.5	2112	0.33	25.5	2.64	56644	7542	1299.1	0.0	
15.5	16.0	2640	0.33	25.5	2.64	70805	9428	1623.9	0.0	
16.0	16.5	2640	0.33	25.5	2.64	70805	9428	1623.9	0.0	
16.5	16.6	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	16.6	50	0.50	25.5	0.00			44.3	0.0	Sub-excavation
16.6	16.8	1056	0.33	25.5	2.64	28322	3771	649.6	0.0	
	16.8	140	0.33	11	1.32	1632	223	37.4	0.0	Rt-Pullout
16.8	16.9	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	16.9	50	0.50	25.5	0.00			44.3	0.0	Sub-excavation
16.9	17.0	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	17.0	100	0.33	40	1.32	4066	481	93.3	0.0	Rt-Pullout/Staging Area
17.0	17.3	1584	0.33	27	2.64	44859	5921	1028.8	0.0	
17.3	17.5	1056	0.33	27	2.64	29906	3947	685.9	0.0	
17.5	17.6	528	0.33	27	2.64	14953	1974	342.9	0.0	
	17.6	50	0.50	27	0.00			46.9	0.0	Sub-excavation
17.6	18.0	2112	0.33	27	2.64	59812	7894	1371.8	0.0	
18.0	18.2	1056	0.33	27	2.64	29906	3947	685.9	0.0	
	18.2	50	0.50	27	0.00			46.9	0.0	Sub-excavation
18.2	18.3	528	0.33	27	2.64	14953	1974	342.9	0.0	
	18.3	50	0.50	27	0.00			46.9	0.0	Sub-excavation
18.3	18.4	528	0.33	27	2.64	14953	1974	342.9	0.0	
	18.4	100	0.33	14	2.64	1532	229	35.1	0.0	Lt-Approach Road
18.4	18.6	1056	0.33	26	2.64	28850	3830	661.7	0.0	
18.6	19.0	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
19.0	19.5	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
19.5	20.0	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
20.0	20.4	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
	20.4	1500	0.33	14	2.64	22980	3440	527.0	0.0	Rt-Transfer Trailhead/Staging Area
20.4	21.0	3168	0.33	26	2.64	86550	11489	1985.0	0.0	
21.0	21.5	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
Subtotal							127190	22150.3	0.0	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4	
Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE A

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B6	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES		Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
21.5	22.0	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
22.0	22.1	528	0.33	26	2.64	14425	1915	330.8	0.0	
	22.1	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach Road
22.1	22.5	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
22.5	22.8	1584	0.33	26	2.64	43275	5745	992.5	0.0	
	22.8	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach Road
22.8	22.9	528	0.33	26	2.64	14425	1915	330.8	0.0	
	22.9	95	0.33	10	2.64	1075	176	24.7	0.0	Rt-Ranger Station
22.9	23.4	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
	23.4	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach road private property
23.4	24.0	3168	0.33	26	2.64	86550	11489	1985.0	0.0	
24.0	24.4	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
	24.4	8	0.33	10	2.64	91	15	2.1	0.0	Rt-Approach Road
24.4	25.0	3168	0.33	25	2.64	83382	11137	1912.4	0.0	
24.7	25.0	1584	0.33	25	2.64	41691	5569	956.2	0.0	
	25.0	200	0.50	25	4.00			173.8	0.0	Subexcavation
25.0	25.5	2640	0.33	25	2.64	69485	9281	1593.6	0.0	
25.5	25.8	1584	0.33	25	2.64	41691	5569	956.2	0.0	
	25.8	50	0.25	22	2.00	1150	156	20.0	0.2	Rt-County Road 56/ Begin Magnesium Chloride
	25.8	120	0.25	20	1.00	2460	307	42.7	0.5	Lt-Pullout
25.8	25.9	528	0.25	25	2.00	13728	1819	238.5	2.8	
	25.9	50	0.25	20	2.00	1050	144	18.2	0.2	Lt-County Road 19
25.9	26.2	1584	0.25	25	2.00	41184	5456	715.6	8.4	
	26.2					0	0	0.0	0.0	Cattle Guard/ End Magnesium Chloride
26.2	26.5	1584	0.25	25	2.00	41184	5456	715.6	0.0	
26.5	27.0	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
27.0	27.5	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
27.5	28.0	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
	28.0	120	0.25	18	1.00	2220	280	38.6	0.0	Rt-Pullout
	28.0	60	0.25	12	1.00	750	100	13.0	0.0	Lt.-Pullout
Subtotal						128337	20602.4	12.2		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
 Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4 Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE B

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B10	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
0.0	0.1	528	0.17	24	13031	1722	154.0	2.6	Begin Project- Schedule B /end of pavement
	0.1	12	0.17	12	152	23	1.8	0.0	Lt - Lost Creek Guard Station
	0.1	10	0.17	12	127	19	1.5	0.0	Rt-Approach Road
0.1	0.2	528	0.17	24	13031	1722	154.0	2.6	
	0.2	12	0.17	14	176	26	2.1	0.0	Rt-Approach Road
	0.2	60	0.50	24	0.00		50.0	0.0	Subexcavation
0.2	0.3	528	0.17	24	13031	1722	154.0	2.6	
	0.3	10	0.17	22	227	30	2.7	0.0	Lt - Long Lost Trailhead/ Staging Area
0.3	0.6	1584	0.17	24	39093	5167	461.9	0.0	
	0.6	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
0.6	0.9	1584	0.17	24	39093	5167	461.9	7.9	
	0.9	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
0.9	1.3	2112	0.17	24	52124	6890	615.8	10.6	
	1.3	8	0.17	12	101	15	1.2	0.0	Lt-Approach Road
1.3	1.4	528	0.17	24	13031	1722	154.0	2.6	
	1.4	50	0.50	24	0.00		41.7	0.0	Sub-excavation
1.4	1.7	1584	0.17	24	39093	5167	461.9	7.9	
	1.7	14	0.17	20	290	39	3.4	0.0	Lt-North Fork Campground Entrance
1.7	2.0	1584	0.17	24	39093	5167	461.9	7.9	
2.0	2.4	2112	0.17	24	52124	6890	615.8	10.6	
	2.4	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
	2.4	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
2.4	2.7	1584	0.17	24	39093	5167	461.9	7.9	
	2.7	8	0.17	16	133	19	1.6	0.0	Rt-Approach Road
2.7	3.2	2640	0.17	24	65155	8612	769.8	13.2	
	3.2	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
3.2	3.4	1056	0.17	24	26062	3445	307.9	5.3	
	3.4	8	0.17	10	85	14	1.0	0.0	Lt- Dead Horse Loop Road
3.4	4.0	3168	0.17	24	78186	10335	923.8	15.9	
	4.0	5	0.17	10	53	9	0.6	0.0	Lt- Missouri Creek
Subtotal						69136	6269.3	98.0	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4
	Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE B

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B11	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
4.0	4.1	528	0.17	24	13031	1722	154.0	2.6		
	4.1	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road	
4.1	4.6	2640	0.17	24	65155	8612	769.8	13.2		
	4.6	5	0.17	10	53	9	0.6	0.0	Lt-Approach Road	
4.6	5.2	3168	0.17	25	81354	10687	961.2	16.5		
	5.2	25	0.17	10	0.68	259	35	3.1	Lt-Existing pullout area Dead horse Loop Rd.	
	5.2	250	0.17	20	0.68	5085	630	60.1	Pullout area for trucks with trailers	
5.2	5.3	528	0.17	25	13559	1781	160.2	2.7		
	5.3	5	0.17	10	1.36	53	9	0.6	Rt-Approach Road	
5.3	6.0	3696	0.17	25	1.36	94913	12468	1121.4		
6.0	6.5	2640	0.17	25	1.36	67795	8906	801.0		
6.5	6.7	1056	0.17	24	1.36	26062	3445	307.9		
	6.7				0	0	0.0	0.0	Cattle Guard	
6.7	6.8	528	0.17	24	1.36	13031	1722	154.0		
		300	0.17	150	0.68	45102	5089	532.9	0.0	Rt-Snail Creek Crossing Pullout/ Staging Area
6.8	7.0	1056	0.17	24	1.36	26062	3445	307.9		
7.0	7.4	2112	0.17	24	1.36	52124	6890	615.8		
	7.4	10	0.17	12	1.36	127	19	1.5	0.0	Rt-Approach Road
7.4	7.8	2112	0.17	24	1.36	52124	6890	615.8		
7.8	8.2	2112	0.17	24	1.36	52124	6890	615.8		
	8.2	100	0.17	12	0.68	1234	185	14.6	0.0	Rt-Pullout
8.0	8.4	2112	0.17	24	1.36	52124	6890	615.8		
	8.4	20	0.17	24	1.36	494	65	5.8	0.0	Rt-Trappers Lake Approach Road
8.4	8.5	528	0.17	24	1.36	13031	1722	154.0		
	8.5	20	0.17	14	1.36	294	43	3.5	0.0	Rt-Ripple Creek Lodge Approach Road
8.5	8.7	1056	0.17	24	1.36	26062	3445	307.9		
	8.7	5	0.17	10	1.36	53	9	0.6	0.0	Rt-Staging Area/End Magnesium chloride
8.7	9.7	5280	0.17	24	1.36	130310	17225	1539.6		
	9.7	100	0.17	24	0.68	2434	296	28.8	0.0	Rt-Pullout
	9.7	27	0.17	10	0.67	279	38	3.3	0.0	Lt-Pullout
Subtotal						109175	9858.2	131.5		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
 Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4
	Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE B

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B12	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
9.7	9.9	1056	0.17	24	1.36	26062	3445	307.9	0.0	
	9.9	50	0.50	24	0.00			41.7	0.0	Sub-excavation
9.9	10.0	528	0.17	24	1.36	13031	1722	154.0	0.0	
10.0	10.2	1056	0.17	24	1.36	26062	3445	307.9	0.0	
	10.2	5	0.17	10	1.36	53	9	0.6	0.0	Lt-Approach Road
10.2	10.3	528	0.17	24	1.36	13031	1722	154.0	0.0	
	10.3	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
10.3	10.4	528	0.17	24	1.36	13031	1722	154.0	0.0	
	10.4	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
10.4	10.7	1584	0.17	24	1.36	39093	5167	461.9	0.0	
	10.7	10	0.17	12	1.36	127	19	1.5	0.0	Rt-Approach Road
10.7	11.0	1584	0.17	24	1.36	39093	5167	461.9	0.0	
	11.0	150	0.50	24	4.00			125.1	0.0	Subexcavation
11.0	11.6	3168	0.17	24	1.36	78186	10335	923.8	0.0	
	11.6	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
11.6	12.0	2112	0.17	24	1.36	52124	6890	615.8	0.0	
12.0	12.5	2640	0.17	24	1.36	65155	8612	769.8	0.0	
	12.5	8	0.17	10	1.36	85	14	1.0	0.0	Rt-Ripple Creek Pit Approach Road
12.5	13.0	2640	0.17	24	1.36	65155	8612	769.8	0.0	
13.0	13.4	2112	0.17	24	1.36	52124	6890	615.8	0.0	
13.4	13.5	528	0.17	24	1.36	13031	1722	154.0	0.0	Cattle Guard
13.5	13.8	1584	0.17	24	1.36	39093	5167	461.9	0.0	
13.8	14.0	1056	0.33	24	2.64	26738	3595	613.2	0.0	
14.0	14.1	528	0.33	24	2.64	13369	1798	306.6	0.0	
	14.1	50	0.50	24	0.00			41.7	0.0	Sub-excavation
14.1	14.3	792	0.33	24	2.64	20053	2696	459.9	0.0	
	14.3	320	0.33	80	1.32	25811	2962	592.0	0.0	Pullout Area/Routt / White River Forest Boundary
14.3	14.5	1320	0.33	24	2.64	33422	4494	766.5	0.0	
14.5	15.0	2640	0.33	24	2.64	66845	8988	1533.1	0.0	
15.0	15.1	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
Subtotal						97145	11125.4	0.0		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
 Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4
	Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE B

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B13	B25

MILE TO MILE		LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
							PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES		Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
15.1	15.5	2112	0.33	25.5	2.64	56644	7542	1299.1	0.0	
15.5	16.0	2640	0.33	25.5	2.64	70805	9428	1623.9	0.0	
16.0	16.5	2640	0.33	25.5	2.64	70805	9428	1623.9	0.0	
16.5	16.6	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	16.6	50	0.50	25.5	0.00			44.3	0.0	Sub-excavation
16.6	16.8	1056	0.33	25.5	2.64	28322	3771	649.6	0.0	
	16.8	140	0.33	11	1.32	1632	223	37.4	0.0	Rt-Pullout
16.8	16.9	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	16.9	50	0.50	25.5	0.00			44.3	0.0	Sub-excavation
16.9	17.0	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	17.0	100	0.33	40	1.32	4066	481	93.3	0.0	Rt-Pullout/Staging Area
17.0	17.3	1584	0.33	27	2.64	44859	5921	1028.8	0.0	
17.3	17.5	1056	0.33	27	2.64	29906	3947	685.9	0.0	
17.5	17.6	528	0.33	27	2.64	14953	1974	342.9	0.0	
	17.6	50	0.50	27	0.00			46.9	0.0	Sub-excavation
17.6	18.0	2112	0.33	27	2.64	59812	7894	1371.8	0.0	
18.0	18.2	1056	0.33	27	2.64	29906	3947	685.9	0.0	
	18.2	50	0.50	27	0.00			46.9	0.0	Sub-excavation
18.2	18.3	528	0.33	27	2.64	14953	1974	342.9	0.0	
	18.3	50	0.50	27	0.00			46.9	0.0	Sub-excavation
18.3	18.4	528	0.33	27	2.64	14953	1974	342.9	0.0	
	18.4	100	0.33	14	2.64	1532	229	35.1	0.0	Lt-Approach Road
18.4	18.6	1056	0.33	26	2.64	28850	3830	661.7	0.0	
18.6	19.0	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
19.0	19.5	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
19.5	20.0	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
20.0	20.4	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
	20.4	1500	0.33	14	2.64	22980	3440	527.0	0.0	Rt-Transfer Trailhead/Staging Area
20.4	21.0	3168	0.33	26	2.64	86550	11489	1985.0	0.0	
21.0	21.5	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
Subtotal							127190	22150.3	0.0	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4	
Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE B

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B14	B25

MILE TO MILE		LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
							PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES		Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
21.5	22.0	2640	0.33	26	2.64	72125	9574	1654.2	0.0		
22.0	22.1	528	0.33	26	2.64	14425	1915	330.8	0.0		
	22.1	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach Road	
22.1	22.5	2112	0.33	26	2.64	57700	7660	1323.3	0.0		
22.5	22.8	1584	0.33	26	2.64	43275	5745	992.5	0.0		
	22.8	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach Road	
22.8	22.9	528	0.33	26	2.64	14425	1915	330.8	0.0		
	22.9	95	0.33	10	2.64	1075	176	24.7	0.0	Rt-Ranger Station	
22.9	23.4	2640	0.33	26	2.64	72125	9574	1654.2	0.0		
	23.4	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach road private property	
23.4	24.0	3168	0.33	26	2.64	86550	11489	1985.0	0.0		
24.0	24.4	2112	0.33	26	2.64	57700	7660	1323.3	0.0		
	24.4	8	0.33	10	2.64	91	15	2.1	0.0	Rt-Approach Road	
24.4	25.0	3168	0.33	25	2.64	83382	11137	1912.4	0.0		
24.7	25.0	1584	0.33	25	2.64	41691	5569	956.2	0.0		
	25.0	200	0.50	25	4.00			173.8	0.0	Subexcavation	
25.0	25.5	2640	0.33	25	2.64	69485	9281	1593.6	0.0		
25.5	25.8	1584	0.33	25	2.64	41691	5569	956.2	0.0		
	25.8	50	0.25	22	2.00	1150	156	20.0	0.2	Rt-County Road 56/ Begin Magnesium Chloride	
	25.8	120	0.25	20	1.00	2460	307	42.7	0.5	Lt-Pullout	
25.8	25.9	528	0.25	25	2.00	13728	1819	238.5	2.8		
	25.9	50	0.25	20	2.00	1050	144	18.2	0.2	Lt-County Road 19	
25.9	26.2	1584	0.25	25	2.00	41184	5456	715.6	8.4		
	26.2					0	0	0.0	0.0	Cattle Guard/ End Magnesium Chloride	
26.2	26.5	1584	0.25	25	2.00	41184	5456	715.6	0.0		
26.5	27.0	2640	0.25	25	2.00	68640	9093	1192.6	0.0		
27.0	27.5	2640	0.25	25	2.00	68640	9093	1192.6	0.0		
27.5	28.0	2640	0.25	25	2.00	68640	9093	1192.6	0.0		
	28.0	120	0.25	18	1.00	2220	280	38.6	0.0	Rt-Pullout	
	28.0	60	0.25	12	1.00	750	100	13.0	0.0	Lt.-Pullout	
Subtotal							128337	20602.4	12.2		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4 Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE B

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B15	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES		Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
28.0	28.5	2640	0.25	26	2.00	71280	9387	1238.5	0.0	
28.5	29.0	2640	0.25	26	2.00	71280	9387	1238.5	0.0	
29.0	29.5	2640	0.25	26	2.00	71280	9387	1238.5	0.0	
29.5	29.6	528	0.25	26	2.00	14256	1877	247.7	0.0	
	29.6					0	0	0.0		Cattle Guard
29.6	30.0	2112	0.25	25	2.00	54912	7275	954.1	0.0	
30.0	30.2	1056	0.25	25	2.00	27456	3637	477.0	0.0	
	30.2					0	0	0.0		Rt-Staging area
30.2	30.6	2112	0.25	25	2.00	54912	7275	954.1	0.0	
	30.6					0	0	0.0		Staging area/Material stockpile
30.6	31.1	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
	31.1					0	0	0.0		Lt-Remove headwall w/ equipment hours
31.1	31.5	2112	0.25	25	2.00	54912	7275	954.1	0.0	
31.5	31.7	1056	0.25	28	2.00	30624	3989	532.1	0.0	
	31.7	300	0.25	10	1.00	3150	433	54.7	0.0	Rt-Pullout
31.7	31.8	528	0.25	28	2.00	15312	1995	266.0	0.0	
	31.8	20	0.25	10	1.00	210	29	3.6	0.0	Lt-Fish Creek Trail Pullout
31.8	32.0	1056	0.25	28	2.00	30624	3989	532.1	0.0	
32.0	32.5	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
32.5	33.0	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
33.0	33.5	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
	33.5	50	0.50	28				48.7	0.0	Sub-excavation
33.5	33.9	2112	0.25	28	2.00	61248	7979	1064.2	0.0	
	33.9	350	0.25	38	1.00	13475	1594	234.1	0.0	Rt-Pullout/Staging area
33.9	34.0	528	0.25	28	2.00	15312	1995	266.0	0.0	
34.0	34.8	4224	0.25	28	2.00	122496	15957	2128.4	0.0	
	34.8	10	0.25	12	2.00	130	20	2.3	0.0	Rt-Approach road
	34.8	14	0.25	14	2.00	210	31	3.6	0.0	Lt-Approach road
34.8	35.0	1056	0.25	28	2.00	30624	3989	532.1	0.0	
34.5	35.0	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
Subtotal						146486	19484.0	0.0		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS
Aggregate Surface Course Unit Weight = 139 lb/ft^3
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
Foreslope width for Aggregate Surface Course is fixed at 1:4 Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE C

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B18	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
0.0	0.1	528	0.17	24	13031	1722	154.0	2.6	Begin Project- Schedule C /end of pavement
	0.1	12	0.17	12	152	23	1.8	0.0	Lt - Lost Creek Guard Station
	0.1	10	0.17	12	127	19	1.5	0.0	Rt-Approach Road
0.1	0.2	528	0.17	24	13031	1722	154.0	2.6	
	0.2	12	0.17	14	176	26	2.1	0.0	Rt-Approach Road
	0.2	60	0.50	24	0.00		50.0	0.0	Subexcavation
0.2	0.3	528	0.17	24	13031	1722	154.0	2.6	
	0.3	10	0.17	22	227	30	2.7	0.0	Lt - Long Lost Trailhead/ Staging Area
0.3	0.6	1584	0.17	24	39093	5167	461.9	0.0	
	0.6	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
0.6	0.9	1584	0.17	24	39093	5167	461.9	7.9	
	0.9	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
0.9	1.3	2112	0.17	24	52124	6890	615.8	10.6	
	1.3	8	0.17	12	101	15	1.2	0.0	Lt-Approach Road
1.3	1.4	528	0.17	24	13031	1722	154.0	2.6	
	1.4	50	0.50	24	0.00		41.7	0.0	Sub-excavation
1.4	1.7	1584	0.17	24	39093	5167	461.9	7.9	
	1.7	14	0.17	20	290	39	3.4	0.0	Lt-North Fork Campground Entrance
1.7	2.0	1584	0.17	24	39093	5167	461.9	7.9	
2.0	2.4	2112	0.17	24	52124	6890	615.8	10.6	
	2.4	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
	2.4	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
2.4	2.7	1584	0.17	24	39093	5167	461.9	7.9	
	2.7	8	0.17	16	133	19	1.6	0.0	Rt-Approach Road
2.7	3.2	2640	0.17	24	65155	8612	769.8	13.2	
	3.2	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
3.2	3.4	1056	0.17	24	26062	3445	307.9	5.3	
	3.4	8	0.17	10	85	14	1.0	0.0	Lt- Dead Horse Loop Road
3.4	4.0	3168	0.17	24	78186	10335	923.8	15.9	
	4.0	5	0.17	10	53	9	0.6	0.0	Lt- Missouri Creek
Subtotal						69136	6269.3	98.0	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4
	Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE C

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B19	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES		Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
4.0	4.1	528	0.17	24	13031	1722	154.0	2.6	
	4.1	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
4.1	4.6	2640	0.17	24	65155	8612	769.8	13.2	
	4.6	5	0.17	10	53	9	0.6	0.0	Lt-Approach Road
4.6	5.2	3168	0.17	25	81354	10687	961.2	16.5	
	5.2	25	0.17	10	259	35	3.1	0.0	Lt-Existing pullout area Dead horse Loop Rd.
	5.2	250	0.17	20	5085	630	60.1	0.0	Pullout area for trucks with trailers
5.2	5.3	528	0.17	25	13559	1781	160.2	2.7	
	5.3	5	0.17	10	53	9	0.6	0.0	Rt-Approach Road
5.3	6.0	3696	0.17	25	94913	12468	1121.4	19.2	
6.0	6.5	2640	0.17	25	67795	8906	801.0	13.7	
6.5	6.7	1056	0.17	24	26062	3445	307.9	5.3	
	6.7				0	0	0.0	0.0	Cattle Guard
6.7	6.8	528	0.17	24	13031	1722	154.0	2.6	
		300	0.17	150	45102	5089	532.9	0.0	Rt-Snail Creek Crossing Pullout/ Staging Area
6.8	7.0	1056	0.17	24	26062	3445	307.9	5.3	
7.0	7.4	2112	0.17	24	52124	6890	615.8	10.6	
	7.4	10	0.17	12	127	19	1.5	0.0	Rt-Approach Road
7.4	7.8	2112	0.17	24	52124	6890	615.8	10.6	
7.8	8.2	2112	0.17	24	52124	6890	615.8	10.6	
	8.2	100	0.17	12	1234	185	14.6	0.0	Rt-Pullout
8.0	8.4	2112	0.17	24	52124	6890	615.8	10.6	
	8.4	20	0.17	24	494	65	5.8	0.0	Rt-Trappers Lake Approach Road
8.4	8.5	528	0.17	24	13031	1722	154.0	2.6	
	8.5	20	0.17	14	294	43	3.5	0.0	Rt-Ripple Creek Lodge Approach Road
8.5	8.7	1056	0.17	24	26062	3445	307.9	5.3	
	8.7	5	0.17	10	53	9	0.6	0.0	Rt-Staging Area/End Magnesium chloride
8.7	9.7	5280	0.17	24	130310	17225	1539.6	0.0	
	9.7	100	0.17	24	2434	296	28.8	0.0	Rt-Pullout
	9.7	27	0.17	10	279	38	3.3	0.0	Lt-Pullout
Subtotal						109175	9858.2	131.5	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4	
Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE C

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B20	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
9.7	9.9	1056	0.17	24	1.36	26062	3445	307.9	0.0	
	9.9	50	0.50	24	0.00			41.7	0.0	Sub-excavation
9.9	10.0	528	0.17	24	1.36	13031	1722	154.0	0.0	
10.0	10.2	1056	0.17	24	1.36	26062	3445	307.9	0.0	
	10.2	5	0.17	10	1.36	53	9	0.6	0.0	Lt-Approach Road
10.2	10.3	528	0.17	24	1.36	13031	1722	154.0	0.0	
	10.3	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
10.3	10.4	528	0.17	24	1.36	13031	1722	154.0	0.0	
	10.4	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
10.4	10.7	1584	0.17	24	1.36	39093	5167	461.9	0.0	
	10.7	10	0.17	12	1.36	127	19	1.5	0.0	Rt-Approach Road
10.7	11.0	1584	0.17	24	1.36	39093	5167	461.9	0.0	
	11.0	150	0.50	24	4.00			125.1	0.0	Subexcavation
11.0	11.6	3168	0.17	24	1.36	78186	10335	923.8	0.0	
	11.6	10	0.17	14	1.36	147	22	1.7	0.0	Rt-Approach Road
11.6	12.0	2112	0.17	24	1.36	52124	6890	615.8	0.0	
12.0	12.5	2640	0.17	24	1.36	65155	8612	769.8	0.0	
	12.5	8	0.17	10	1.36	85	14	1.0	0.0	Rt-Ripple Creek Pit Approach Road
12.5	13.0	2640	0.17	24	1.36	65155	8612	769.8	0.0	
13.0	13.4	2112	0.17	24	1.36	52124	6890	615.8	0.0	Cattle Guard
13.4	13.5	528	0.17	24	1.36	13031	1722	154.0	0.0	
13.5	13.8	1584	0.17	24	1.36	39093	5167	461.9	0.0	
13.8	14.0	1056	0.33	24	2.64	26738	3595	613.2	0.0	
14.0	14.1	528	0.33	24	2.64	13369	1798	306.6	0.0	
	14.1	50	0.50	24	0.00			41.7	0.0	Sub-excavation
14.1	14.3	792	0.33	24	2.64	20053	2696	459.9	0.0	
	14.3	320	0.33	80	1.32	25811	2962	592.0	0.0	Pullout Area/Routt / White River Forest Boundary
14.3	14.5	1320	0.33	24	2.64	33422	4494	766.5	0.0	
14.5	15.0	2640	0.33	24	2.64	66845	8988	1533.1	0.0	
15.0	15.1	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
Subtotal						97145	11125.4	0.0		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
 Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4
	Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE C

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B21	B25

MILE TO MILE		LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT
							PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000	
MILES		Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton	
15.1	15.5	2112	0.33	25.5	2.64	56644	7542	1299.1	0.0	
15.5	16.0	2640	0.33	25.5	2.64	70805	9428	1623.9	0.0	
16.0	16.5	2640	0.33	25.5	2.64	70805	9428	1623.9	0.0	
16.5	16.6	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	16.6	50	0.50	25.5	0.00			44.3	0.0	Sub-excavation
16.6	16.8	1056	0.33	25.5	2.64	28322	3771	649.6	0.0	
	16.8	140	0.33	11	1.32	1632	223	37.4	0.0	Rt-Pullout
16.8	16.9	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	16.9	50	0.50	25.5	0.00			44.3	0.0	Sub-excavation
16.9	17.0	528	0.33	25.5	2.64	14161	1886	324.8	0.0	
	17.0	100	0.33	40	1.32	4066	481	93.3	0.0	Rt-Pullout/Staging Area
17.0	17.3	1584	0.33	27	2.64	44859	5921	1028.8	0.0	
17.3	17.5	1056	0.33	27	2.64	29906	3947	685.9	0.0	
17.5	17.6	528	0.33	27	2.64	14953	1974	342.9	0.0	
	17.6	50	0.50	27	0.00			46.9	0.0	Sub-excavation
17.6	18.0	2112	0.33	27	2.64	59812	7894	1371.8	0.0	
18.0	18.2	1056	0.33	27	2.64	29906	3947	685.9	0.0	
	18.2	50	0.50	27	0.00			46.9	0.0	Sub-excavation
18.2	18.3	528	0.33	27	2.64	14953	1974	342.9	0.0	
	18.3	50	0.50	27	0.00			46.9	0.0	Sub-excavation
18.3	18.4	528	0.33	27	2.64	14953	1974	342.9	0.0	
	18.4	100	0.33	14	2.64	1532	229	35.1	0.0	Lt-Approach Road
18.4	18.6	1056	0.33	26	2.64	28850	3830	661.7	0.0	
18.6	19.0	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
19.0	19.5	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
19.5	20.0	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
20.0	20.4	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
	20.4	1500	0.33	14	2.64	22980	3440	527.0	0.0	Rt-Transfer Trailhead/Staging Area
20.4	21.0	3168	0.33	26	2.64	86550	11489	1985.0	0.0	
21.0	21.5	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
Subtotal							127190	22150.3	0.0	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4	
Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE C

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B22	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
21.5	22.0	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
22.0	22.1	528	0.33	26	2.64	14425	1915	330.8	0.0	
	22.1	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach Road
22.1	22.5	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
22.5	22.8	1584	0.33	26	2.64	43275	5745	992.5	0.0	
	22.8	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach Road
22.8	22.9	528	0.33	26	2.64	14425	1915	330.8	0.0	
	22.9	95	0.33	10	2.64	1075	176	24.7	0.0	Rt-Ranger Station
22.9	23.4	2640	0.33	26	2.64	72125	9574	1654.2	0.0	
	23.4	10	0.33	12	2.64	133	21	3.1	0.0	Lt-Approach road private property
23.4	24.0	3168	0.33	26	2.64	86550	11489	1985.0	0.0	
24.0	24.4	2112	0.33	26	2.64	57700	7660	1323.3	0.0	
	24.4	8	0.33	10	2.64	91	15	2.1	0.0	Rt-Approach Road
24.4	25.0	3168	0.33	25	2.64	83382	11137	1912.4	0.0	
24.7	25.0	1584	0.33	25	2.64	41691	5569	956.2	0.0	
	25.0	200	0.50	25	4.00			173.8	0.0	Subexcavation
25.0	25.5	2640	0.33	25	2.64	69485	9281	1593.6	0.0	
25.5	25.8	1584	0.33	25	2.64	41691	5569	956.2	0.0	
	25.8	50	0.25	22	2.00	1150	156	20.0	0.2	Rt-County Road 56/ Begin Magnesium Chloride
	25.8	120	0.25	20	1.00	2460	307	42.7	0.5	Lt-Pullout
25.8	25.9	528	0.25	25	2.00	13728	1819	238.5	2.8	
	25.9	50	0.25	20	2.00	1050	144	18.2	0.2	Lt-County Road 19
25.9	26.2	1584	0.25	25	2.00	41184	5456	715.6	8.4	
	26.2				0	0	0	0.0	0.0	Cattle Guard/ End Magnesium Chloride
26.2	26.5	1584	0.25	25	2.00	41184	5456	715.6	0.0	
26.5	27.0	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
27.0	27.5	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
27.5	28.0	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
	28.0	120	0.25	18	1.00	2220	280	38.6	0.0	Rt-Pullout
	28.0	60	0.25	12	1.00	750	100	13.0	0.0	Lt.-Pullout
Subtotal						128337	20602.4	12.2		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
Aggregate Surface Course Unit Weight = 139 lb/ft^3	
Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.	
Foreslope width for Aggregate Surface Course is fixed at 1:4 Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width	

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE C

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B23	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES		Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
28.0	28.5	2640	0.25	26	2.00	71280	9387	1238.5	0.0	
28.5	29.0	2640	0.25	26	2.00	71280	9387	1238.5	0.0	
29.0	29.5	2640	0.25	26	2.00	71280	9387	1238.5	0.0	
29.5	29.6	528	0.25	26	2.00	14256	1877	247.7	0.0	
	29.6					0	0	0.0		Cattle Guard
29.6	30.0	2112	0.25	25	2.00	54912	7275	954.1	0.0	
30.0	30.2	1056	0.25	25	2.00	27456	3637	477.0	0.0	
	30.2					0	0	0.0		Rt-Staging area
30.2	30.6	2112	0.25	25	2.00	54912	7275	954.1	0.0	
	30.6					0	0	0.0		Staging area/Material stockpile
30.6	31.1	2640	0.25	25	2.00	68640	9093	1192.6	0.0	
	31.1					0	0	0.0		Lt-Remove headwall w/ equipment hours
31.1	31.5	2112	0.25	25	2.00	54912	7275	954.1	0.0	
31.5	31.7	1056	0.25	28	2.00	30624	3989	532.1	0.0	
	31.7	300	0.25	10	1.00	3150	433	54.7	0.0	Rt-Pullout
31.7	31.8	528	0.25	28	2.00	15312	1995	266.0	0.0	
	31.8	20	0.25	10	1.00	210	29	3.6	0.0	Lt-Fish Creek Trail Pullout
31.8	32.0	1056	0.25	28	2.00	30624	3989	532.1	0.0	
32.0	32.5	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
32.5	33.0	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
33.0	33.5	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
	33.5	50	0.50	28				48.7	0.0	Sub-excavation
33.5	33.9	2112	0.25	28	2.00	61248	7979	1064.2	0.0	
	33.9	350	0.25	38	1.00	13475	1594	234.1	0.0	Rt-Pullout/Staging area
33.9	34.0	528	0.25	28	2.00	15312	1995	266.0	0.0	
34.0	34.8	4224	0.25	28	2.00	122496	15957	2128.4	0.0	
	34.8	10	0.25	12	2.00	130	20	2.3	0.0	Rt-Approach road
	34.8	14	0.25	14	2.00	210	31	3.6	0.0	Lt-Approach road
34.8	35.0	1056	0.25	28	2.00	30624	3989	532.1	0.0	
34.5	35.0	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
Subtotal						146486	19484.0	0.0		

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application Requires 2 applications
	Foreslope width for Aggregate Surface Course is fixed at 1:4 Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

SUMMARY TABULATION SHEET - SCHEDULE C

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B24	B25

MILE TO MILE	LENGTH	AGGREGATE SURFACE DEPTH	WIDTH	FORESLOPE LENGTH	*TOTAL AREA OF AGGREGATE SURFACE	ROADWAY RECONDITIONING	AGGREGATE SURFACE COURSE	MAGNESIUM CHLORIDE	COMMENT	
						PAY ITEM NO. 30303-3000	PAY ITEM NO. 30110-0000	PAY ITEM NO. 30606-0000		
MILES	Ft	Ft	Ft	Ft	Ft^2	SQ YD.	Ton	Ton		
35.0	35.5	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
35.5	35.6	528	0.25	28	2.00	15312	1995	266.0	0.0	
	35.6	250	0.25	38	1.00	9625	1139	167.2	0.0	Lt-Pullout
36.5	36.7	1056	0.25	28	2.00	30624	3989	532.1	0.0	
	36.7	100	0.25	14	1.00	1450	189	25.2	0.0	Rt-Pullout
36.7	37.0	1584	0.25	28	2.00	45936	5984	798.1	0.0	
37.0	37.5	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
37.5	38.0	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
38.0	38.1	528	0.25	28	2.00	15312	1995	266.0	0.0	
	38.1					0	0	0.0	0.0	Cattle Guard
38.1	38.5	2112	0.25	28	2.00	61248	7979	1064.2	0.0	
	38.5					0	0	0.0	0.0	Rt-Staging area
38.5	39.0	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
39.0	39.5	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
39.5	40.0	2640	0.25	28	2.00	76560	9973	1330.2	0.0	
40.0	40.1	528	0.25	28	2.00	15312	1995	266.0	0.0	
	40.1	100	0.25	14	2.00	1500	222	26.1	0.0	Rt-Chapman Reservoir
40.1	40.5	2112	0.25	28	2.00	61248	7979	1064.2	12.5	
40.5	41.0	2640	0.25	28	2.00	76560	9973	1330.2	15.6	
	41.0	150	0.25	12	2.00	1950	300	33.9	0.0	Rt-Little Flat Tops Intersection
41.0	41.2	1056	0.25	24	2.00	26400	3520	458.7	5.4	
	41.2					0	0	0.0	0.0	Cattle Guard
41.2	41.5	1584	0.25	24	2.00	39600	5280	688.0	8.1	End Project- Schedule C /Rio Blanco County Line
Subtotal Sheet B24							112378	14967.5	41.7	
Subtotal Sheet B23							146486	19484.0	0.0	
Subtotal Sheet B22							128337	20602.4	12.2	
Subtotal Sheet B21							127190	22150.3	0.0	
Subtotal Sheet B20							97145	11125.4	0.0	
Subtotal Sheet B19							109175	9858.2	131.5	
Subtotal Sheet B18							69136	6269.3	98.0	
TOTALS - SCHEDULE C							789847	104457.1	283.5	

*The Aggregate Surface Area = (Length)(Width + Foreslope/2)
 Foreslope is divided by 2 which represents the area for volume calculation

PARAMETERS	
	Aggregate Surface Course Unit Weight = 139 lb/ft^3
	Magnesium Chloride Application Rate = 0.2 gal/yd^2 per application, 8.88 pounds Magnesium Chloride/gallon. Requires 2 applications.
	Foreslope width for Aggregate Surface Course is fixed at 1:4 Roadway reconditioning width based on 6" depth with 1:4 fixed foreslope width

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

SUMMARY TABULATION

MISCELLANEOUS SUMMARIES

REG.	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(1) MARVINE-PHIPPSBURG	B25	B25

SUBEXCAVATION TABULATION

MILE	LENGTH	WIDTH	DEPTH	SUBEXCAVATION		
				SCHEDULE A	SCHEDULE B	SCHEDULE C
				PAY ITEM NO. 20407-0000		
Mile	Ft	Ft	Ft	yd ^3	yd ^3	yd ^3
0.2	60.0	24.0	3.0	160.0	160.0	160.0
1.4	50.0	24.0	3.0	133.3	133.3	133.3
9.9	50.0	24.0	3.0	133.3	133.3	133.3
11.0	150.0	24.0	3.0	400.0	400.0	400.0
14.1	50.0	24.0	3.0	133.3	133.3	133.3
16.6	50.0	25.5	3.0	141.7	141.7	141.7
16.9	50.0	25.5	3.0	141.7	141.7	141.7
17.6	50.0	27.0	3.0	150.0	150.0	150.0
18.2	50.0	27.0	3.0	150.0	150.0	150.0
18.3	50.0	27.0	3.0	150.0	150.0	150.0
25.0	200.0	25.0	3.0	555.6	555.6	555.6
33.5	50.0	28.0	3.0	155.6	155.6	155.6
TOTAL				2404.4	2404.4	2404.4

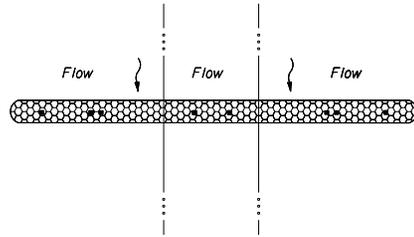
TRAFFIC CONTROL QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	SCHEDULE A	SCHEDULE B	SCHEDULE C
63308-2000	Object Marker, Type 2	Each	410	456	494
63502-0700	Temporary Traffic Control, Cone	Each	60	60	60
63502-1500	Temporary Traffic Control, Warning Light Type A	Each	15	15	15
63504-1000	Temporary Traffic Control, Construction Sign	Ft^2	362	362	362
63506-0500	Temporary Traffic Control, Flagger	Hour	2500	2800	3000
63506-0600	Temporary Traffic Control, Pilot Car	Hour	970	1070	1150

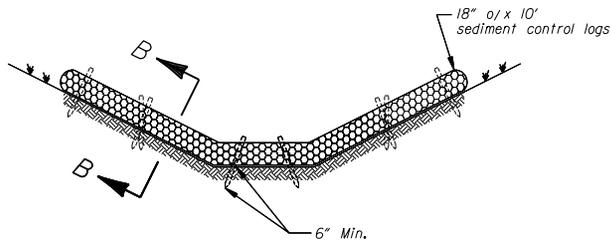
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

MISCELLANEOUS
SUMMARIES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	CO 16-1(1) MARVINE-PHIPPSBURG	E1	E1

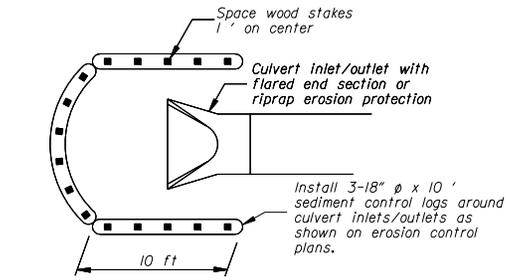


PLAN

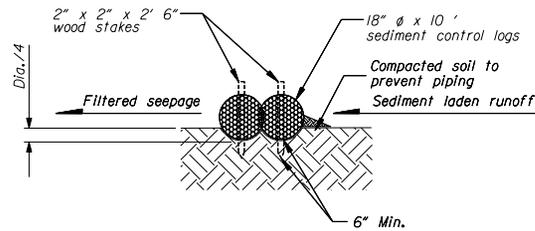


ELEVATION

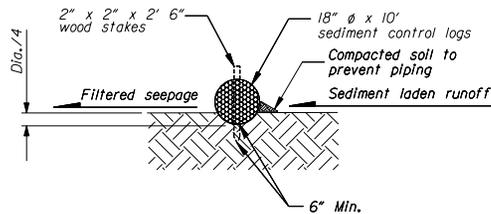
INSTALLATION OF SEDIMENT CONTROL LOG BARRIER IN DITCH



CULVERT INLET/OUTLET SEDIMENT BARRIER



ALTERNATE SECTION B-B ④



SECTION B-B

NOTE:

1. Dimensions not labeled are in inches.
2. Stake sediment control logs in place with 2"x2"x2'6" wood stakes space no less than 2' apart unless otherwise noted. Drive stakes into ground a minimum of 6".
3. Install sediment control logs directly on ground making sure bottom of log is in full contact with ground. Tamp soil backfill against upstream side of log to assure storm water is forced flow through log rather than under it.
- ④ Sediment control logs can be spaced every 100" in ditches with slopes > 5% when two logs are placed directly next to each other as shown Alternate Section B-B.

SEDIMENT CONTROL LOG SPACING IN DITCHES

Ditch grade	Spacing (feet)
0 - 5%	100
> 5%	50 ④

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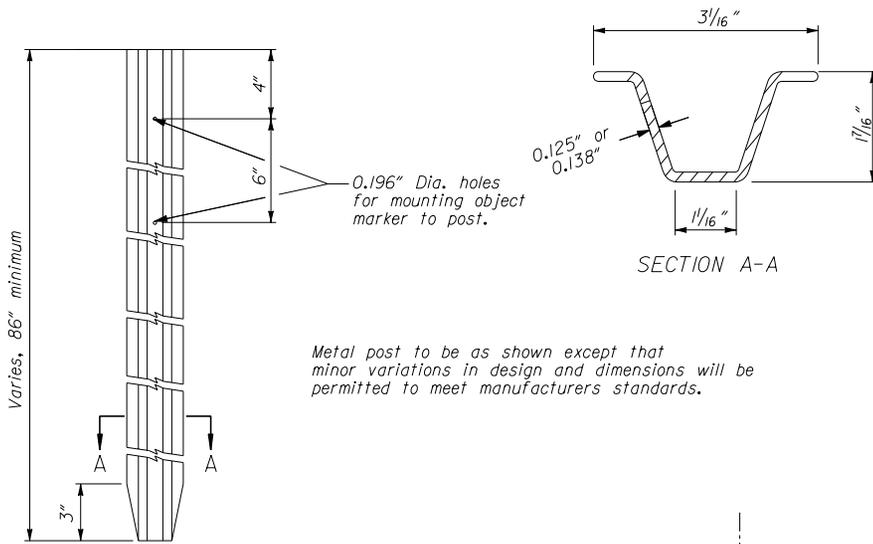
SEDIMENT CONTROL LOGS

REVISED:

SPECIAL

157-2

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	PFH 16-1(K) MARVINE-PHIPPSBURG	T1	T3

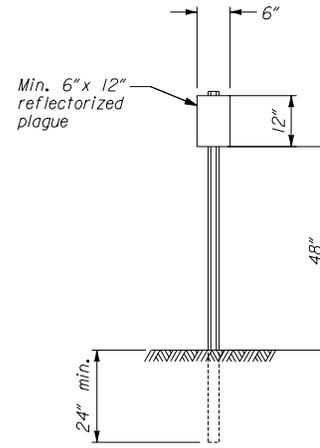


0.196" Dia. holes for mounting object marker to post.

SECTION A-A

Metal post to be as shown except that minor variations in design and dimensions will be permitted to meet manufacturers standards.

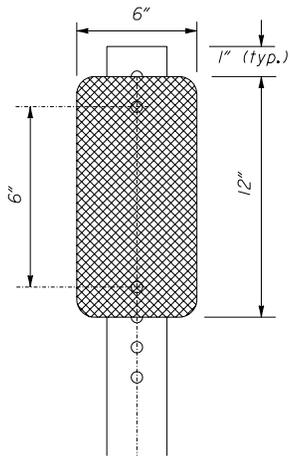
TYPICAL METAL POST DETAIL



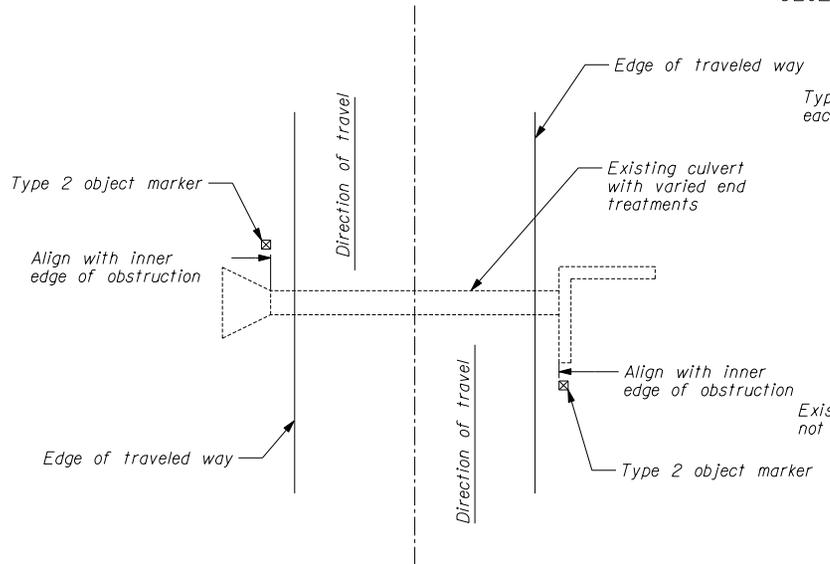
OBJECT MARKER

NOTE

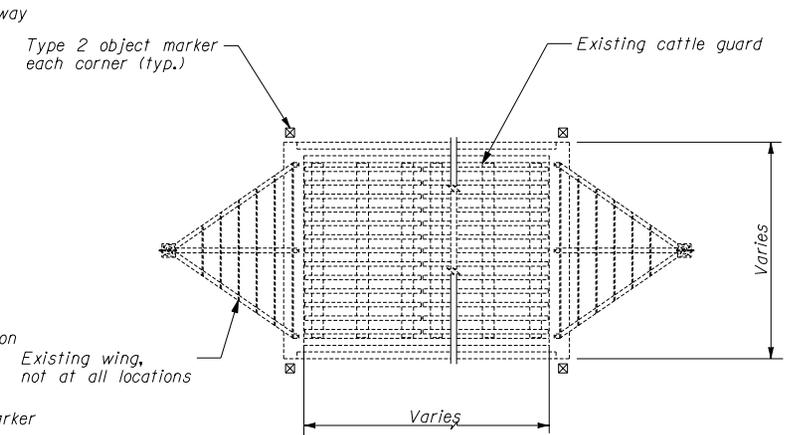
1. Set marker posts plumb.
2. Retroreflective sheeting is to conform to subsection 718.12, type 2.
3. Conform to the latest edition of Manual on Uniform Traffic Control Devices, U.S. Department of Transportation, Federal Highway Administration.
4. Aluminium sheeting for object markers is to conform to ASTM B 221, aluminium alloy 6063-T6 with a minimum thickness of 0.080 inch.



TYPE II OBJECT MARKER (OM2-2V)
(YELLOW)



TYPICAL MARKER PLAN AT EXISTING CULVERT/DRAINAGE STRUCTURE



TYPICAL MARKER PLAN AT EXISTING CATTLE GUARD

NO SCALE

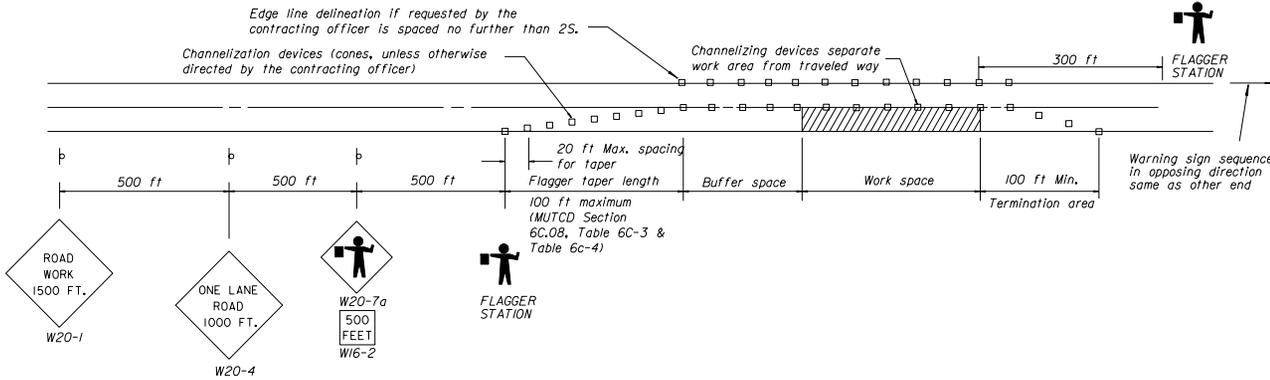
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION DENVER, COLORADO	
SPECIAL OBJECT MARKER PLANS AND DETAILS	
REVISED:	SPECIAL 633-1

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	CO 16-1(I) MARVINE-PHIPPSBURG	T2	T3

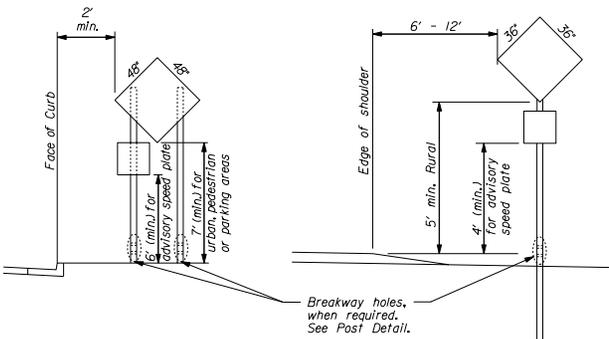
LENGTH AND SPACING TABLE				
APPROACH SPEED * MILES PER HOUR	LENGTH OF BUFFER SPACE IN FEET	CHANNELIZING DEVICE SPACING		
		TAPER AREA	BUFFER SPACE	WORK SPACE
25	155	20	50	50
30	200	20	60	60
35	250	20	70	70

NOTE:

- Erect all advance warning signs before construction work is started.
- Where advance warning signs, placed as shown, interfere with permanent signs, locate the warning signs as determined by the CO for best results. Vary messages as required.
- Use Type A flashing lights only on isolated vertical panels, barricades, or drums or only on the first two such devices used in a series.
- Additional or different message signs may be required to fit the actual construction conditions.
- Install advisory speed plates under the W-20 series warning signs as needed to indicate a maximum recommended speed through the construction area.
- Ensure all wooden sign posts larger than 4" x 4" have breakaway holes as shown.
- Ensure all posts exposed to impact by traffic meet the requirements of NCHRP-350 for crash worthiness.
- Maintain two-way traffic during all non-work hours except as approved by the CO.
- Do not store traffic control devices along the roadway when not in use. Cover post-mounted signs when not applicable.
- If W20-1 is on a roadway other than that on which the actual construction work occurs, include a supplementary plaque indicating the name of the road the work is on.
- If signing on a roadway under a jurisdiction other than the client agency, verify that an encroachment permit has been obtained.
- Not all details shown on the traffic control plan sheets may be applicable to this project. The CO may add or delete information and details on these plan sheets as necessary to accommodate the contractors actual operations.
- When flagger warning sign series extend into project advance warning area, the second and third signs in the flagger series may be placed over the second and third signs in project advance warning series.
- State standards may be used as an alternative if approved by the CO.
- Signs are shown for one direction of travel only. Place devices similar to those depicted for the opposite direction of travel.
- Final location and spacing of signs and devices may be changed to fit field conditions as approved by the CO.
- For pilot car operation, mount the 'PILOT CAR, FOLLOW ME' (G20-4) sign at a conspicuous location on the rear of vehicle. Prominently display the name of the contractor on the pilot car.
- Provide flood lights to illuminate flagger stations when operating at night.
- Refer to Special Contract Requirements, Section 156, for project specific minimum width.

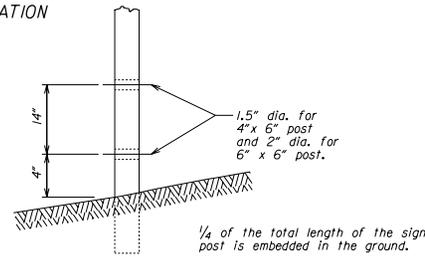


TYPICAL DEVICES FOR ALTERNATE ONE-WAY OPERATION

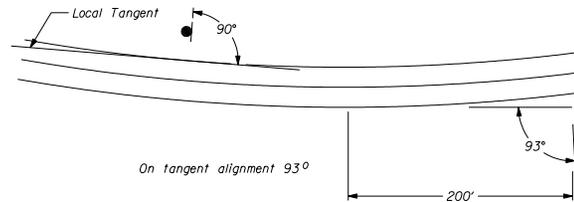


Signs 9 sq. ft. and under may be mounted on a single 4" x 4" wooden post.
Signs wider than 36" or signs with an area over 9 sq. ft., use double wooden posts.
Steel may be used in lieu of wooden posts (see note *7)

SIGN PLACEMENT



POST DETAILS



SIGN INSTALLATION ANGLE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION DENVER, COLORADO	
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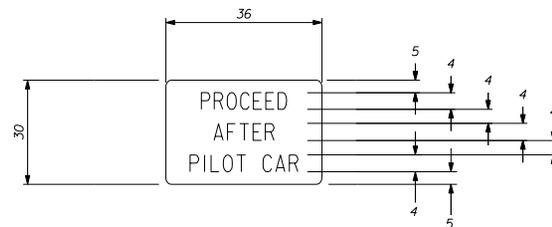
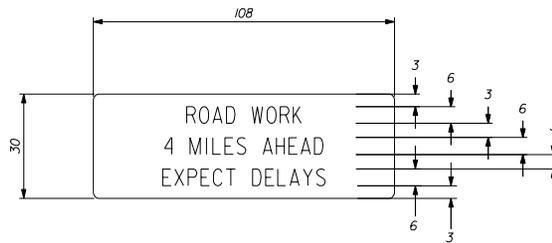
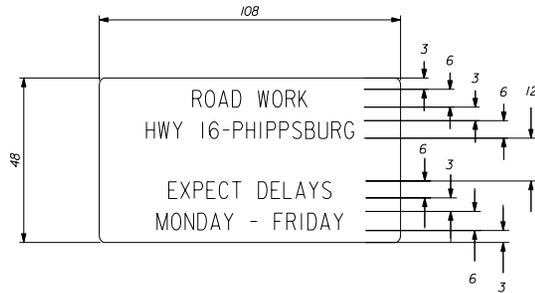
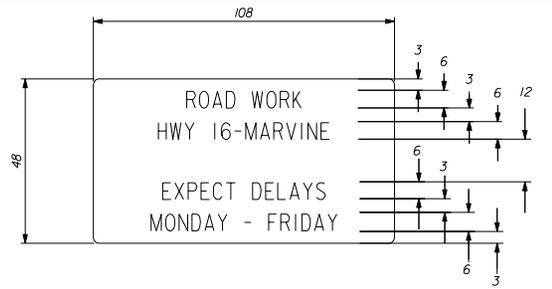
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
16	CO	CO 16-1(1) MARVINE-PHIPPSBURG	T3	T3

NOTE:

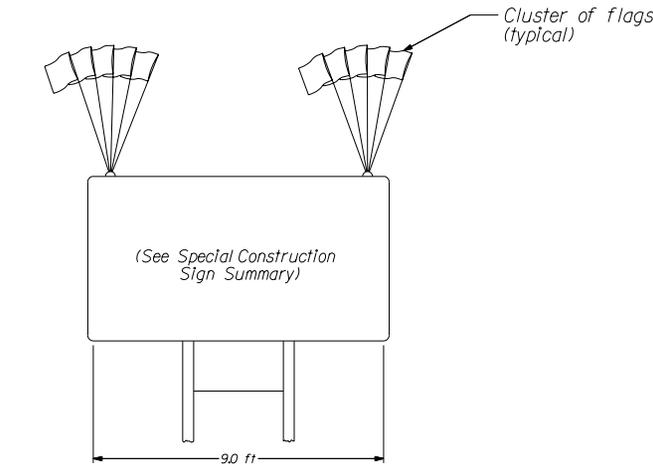
1. Dimensions not labeled are in inches.

TRAFFIC CONTROL SIGN SUMMARY					
MUTCD No.	Sign Message	Size (inch)	Area (ft ²)	Quantity	Total Area (ft ²)
G20-1	ROAD CONSTRUCTION NEXT 42 MILES	60 x 36	15.0	2	30.0
G20-2	END ROAD WORK	48 x 24	8.0	2	16.0
G20-4	PILOT CAR FOLLOW ME	36 x 18	4.5	2	9.0
W20-1	ROAD WORK AHEAD	48 x 48	16.0	2	32.0
W20-1	ROAD WORK 1500 FEET	48 x 48	16.0	2	32.0
W20-4	ONE LANE ROAD 1000 FEET	48 x 48	16.0	2	32.0
W20-7a	FLAGMAN AHEAD symbol	48 x 48	16.0	2	32.0
W20-7b	BE PREPARED TO STOP	48 x 48	16.0	2	32.0
TOTAL					215.0

CONSTRUCTION SIGN SUMMARY			
ITEM 63504-1000	SCHEDULE A (ft ²)	SCHEDULE B (ft ²)	SCHEDULE C (ft ²)
TRAFFIC CONTROL SIGNS	215	215	215
SPECIAL CONSTRUCTION SIGNS	147	147	147
TOTAL	362	362	362



SPECIAL SIGNS



SPECIAL CONSTRUCTION SIGN SUMMARY					
Location No.	Location	Size (Inch)	Area (ft ²)	Quantity	Total Area (ft ²)
• 1	Hwy 16 Eastbound-Phippsburg	108 x 48	36	1	36
• 2	Hwy 16 Westbound-Marvine	108 x 48	36	1	36
• 3	Road Work 4 Miles Ahead	108 x 30	22.5	2	45
• 4	Proceed after pilot car	36 x 30	7.5	4	30
TOTAL					147

* FINAL LOCATION AS DIRECTED BY CO.

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 CENTRAL FEDERAL LANDS HIGHWAY DIVISION
 DENVER, COLORADO

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TRAFFIC CONTROL PLAN

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