EAGLE COUNTY ENGINEERING DEPARTMENT

INVITATION FOR BIDS

Sealed bids for the Construction of the Burns Bridge Replacement on County Road 301 over the Colorado River Project for Eagle County will be received by the Eagle County Engineering Department, Eagle County Building, 500 Broadway, Second Floor, Eagle, CO 81631, UNTIL Tuesday, December 31, 2013 at 5:00 P.M at which time they will be publicly opened and read aloud. This work is funded by Eagle County and Federal Funds. There is a UDBE Goal set at 6.5% for this project (CDOT Project No. BRO C 440-006, Project Code 17445).

There will be a PRE-BID CONFERENCE held on Thursday, December 19, 2013 at 3:00 P.M. at the Garden Level Conference Room Eagle County Building, 500 Broadway, Eagle, CO 81631. When attending the pre-bid conference, please bring your business card. Questions need to be submitted no later than 11:00 a.m., Friday, December 27, 2013, preferably in email or fax format; all technical questions need to be submitted in email or fax format.

A BID SECURITY in the form of a certified check, cashier’s check or bid bond made payable to Eagle County in the amount of 5% of your bid total must accompany your bid. The successful Contractor will be required to furnish 100% “Performance” and “Labor & Materials Payment” Bonds.

Any questions regarding this bid should be directed to Ben Gerdes, P.E. email: ben.gerdes@eaglecounty.us or 970-328-3564.

BOARD OF COUNTY COMMISSIONERS
EAGLE COUNTY
/s/ BEN GERDES
SENIOR STAFF ENGINEER

PUBLICATION DATES:
Newspaper 1: December 5, 2013
Newspaper 2: December 5, 2013
December 12, 2013 December 12, 2013

EAGLE COUNTY WILL NOT BE HELD RESPONSIBLE FOR MISINFORMATION RECEIVED FROM PRIVATE PLAN HOLDERS. PLEASE USE OUR WEBSITE ONLY.

CONTACT THE ENGINEERING DEPARTMENT AT 970-328-3564 REQUEST A SPECIFICATION PACKAGE OR LOG ONTO OUR WEBSITE AT WWW.EAGLECOUNTY.US TO DOWNLOAD DOCUMENTS.
The bidder’s attention is especially called to the items listed below, which must be submitted in full as part of the bid. Failure to submit any of the documents listed below as a part of your bid, or failure to acknowledge any addendum in writing with your bid, or submitting a bid on any condition, limitation or provision not officially invited in this IFB (Invitation For Bids) may be cause for rejection of the bid. Bidder shall check each box indicating compliance.

**RESPONSE CHECKLIST**

For Construction of Burns Bridge Replacement on County Road 301 over the Colorado River Project

**THIS CHECKLIST MUST BE SUBMITTED AS PART OF YOUR PACKAGE**

<table>
<thead>
<tr>
<th>RESPONSE CHECKLIST</th>
</tr>
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<tbody>
<tr>
<td>ADDENDUM(S) ACKNOWLEDGED (IF APPLICABLE)</td>
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<tr>
<td>EAGLE COUNTY BID BOND FORM</td>
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<tr>
<td>BID BOND (5%)</td>
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<tr>
<td>MINIMUM INSURANCE REQUIREMENTS FORM</td>
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<tr>
<td>BID FORM</td>
</tr>
<tr>
<td>ONE (1) ORIGINAL HARDCOPY SET AND ONE (1) COMPLETE COPY OF ALL BID DOCUMENTS</td>
</tr>
</tbody>
</table>

**THE FOLLOWING CDOT FORMS MUST ALSO BE SUBMITTED AS PART OF YOUR BID (1 original & 2 copies):**

| CDOT Form 605, Contractors Performance Capability Statement |
| CDOT Form 606, ANTI-COLLUSION AFFIDAVIT |
| CDOT Form 621, Assignment of Anti-Trust Claims |
| CDOT Form 714, BIDDERS LIST DATA and UNDERUTILIZED DBE (UDBE) BID CONDITIONS ASSURANCE |
| CDOT Form 715, CERTIFICATE OF PROPOSED UNDERUTILIZED DBE (UDBE) PARTICIPATION |
| CDOT Form 718, UNDERUTILIZED DBE (UDBE) GOOD FAITH EFFORT DOCUMENTATION |

The CDOT Form 347, Certification of EEO Compliance, is no longer required to be submitted with the bid package. This form certified that the contractor/proposed subcontractors were in compliance with the Joint Reporting Committee if the contractors and subcontractors meet the eligibility requirements (29CFR 1602.07); we will, however, no longer require certification. For additional information regarding these federal requirements, please refer to: [http://www.eeoc.gov/stats/jobpat/e1instruct.html](http://www.eeoc.gov/stats/jobpat/e1instruct.html).
RESPONSE CHECKLIST - continued
For Construction of Burns Bridge Replacement on County Road 301
over the Colorado River  Project

The table below shall be filled out and signed as part of the completion of the Response Checklist.

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<thead>
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<th>Company Name:</th>
<th>Phone Number:</th>
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<th>Authorized Representative Name (Print)</th>
<th>Title:</th>
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<table>
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<tr>
<th>Authorized Representative Signature:</th>
<th>Date:</th>
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</table>
Eagle County is seeking written bids from qualified, experienced contractors to provide all labor, materials and equipment necessary for the construction of a bridge replacement (for bridge EAG-301-23.5) project on County Road 301 over the Colorado River near milepost 23.5 just east of Burns, Colorado for the Eagle County Engineering Department, as per specifications, drawings and the Colorado Department of Transportation (CDOT) regulations. This work is funded by Eagle County and Federal/State Funds.

If a UDBE goal greater than zero has been set for the contract, the award is contingent upon approval of the Contractor's UDBE participation (or good faith effort) by the CDOT Business Programs Office. There is a UDBE Goal set at 8.0% for this project (CDOT Project No. BRO C 440-006, Project Code 17445).

INQUIRIES: Any questions regarding technical or administrative requirements of this IFB must be addressed through the Eagle County Engineering Department:

<table>
<thead>
<tr>
<th>Eagle County Engineering Department</th>
<th>Ben Gerdes, P.E.</th>
<th>(970) 328-3564</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Staff Engineer</td>
<td><a href="mailto:ben.gerdes@eaglecounty.us">ben.gerdes@eaglecounty.us</a></td>
<td></td>
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BACKGROUND AND GENERAL INFORMATION

This construction project is the **Burns Bridge Replacement on County Road 301 over the Colorado River Project**, (CDOT Project No. BRO C 440-006, Project Code 17445). This project involves all work necessary to construct the replacement of the existing Burns Bridge on County Road 301 near Mile Marker 23.5 in accordance with the attached specifications and design drawings. A portion of this project will be constructed on temporary easements on BLM and private property.

The schedule required by Eagle County for the project is to reach a Substantial Completion milestone the construction effort, as defined in Special Provision 105, Subsection 105.21, within **TWO HUNDRED FOURTY (240) calendar days** and to Final Acceptance for the project within **TWO HUNDRED SEVENTY (270) calendar days**.

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APPENDIX A
I. TECHNICAL REQUIREMENTS

Construction specifications will follow the “2011 Colorado Department of Transportation’s Standard Specifications for Road and Bridge Construction – green book. Project Special Revisions and Standard Provisions applicable to this Project are included with the Bid Package.

The bid specification documents also incorporate the document entitled “COLORADO STANDARD PLANS, COLORADO DEPARTMENT OF TRANSPORTATION, M & S STANDARDS” (2012), as if physically attached and bound herein.

Each Bidder/Contractor shall be responsible for procuring sufficient copies of the Colorado Department of Transportation “STANDARD SPECIFICATIONS”, and the “COLORADO STANDARD PLANS -M & S STANDARDS” for use in bidding and construction of the project. Copies are available for examination at the office of the Owner (Eagle County Engineering Department, 500 Broadway, Eagle, CO 81631).

All methods or procedures, control of work, materials and basis of measurements not herein covered will comply with the Standard Specifications for Road and Bridge Construction, Department of Transportation State of Colorado, (2011).

In case of discrepancy, the order of precedence is per Special Provision 105.09 – Coordination of Plans, Specifications, Supplemental Specifications, and Special Provisions.

For this project all references in all CDOT publications to “CDOT” or “The Department” shall be interpreted as referring to Eagle County.
II. BID PROCESS REQUIREMENTS

A. INQUIRIES: Bidders finding fault in the specifications contained in this IFB should notify the Procurement Specialist named below, no later than five (5) days prior to the bid opening. The individual listed below is the only representative of the County with authority to provide any information, clarification, or interpretation regarding the plans, specifications, and any other contract documents or requirements. All contact regarding this IFB shall be to Ben Gerdes, Senior Staff Engineer, Engineering Department, (719) 328-3564, e-mail: ben.gerdes@eaglecounty.us or FAX: (970) 328-8789, preferably by email or fax. All questions are due no later than 11:00 a.m., Friday, December 27; all technical questions need to be submitted in email or fax format.

B. There will be a PRE-BID CONFERENCE held on Thursday December 19, 2013 at 3:00 P.M. at the Eagle County Building, Garden Level Conference Room, 500 Broadway, Eagle, CO 81631. The conference attendee should be an agent of the bidder, familiar and involved in the bidder’s work and the bidding process.

C. BID SUBMISSION: Bids must be received in the Eagle County Building, Engineering Department, Second Floor, Eagle, CO 81631 no later than Tuesday, December 31, 2013 at 5:00 PM at which time they will be publicly opened and read aloud. Bids must be mailed or delivered in a sealed package to the above stated address and identified as “Construction of Burns Bridge Replacement on County Road 301 over the Colorado River Project” in the bottom left-hand corner of the envelope.

D. BID BOND: Each bid must be accompanied by a bid Guarantee in the amount not less than five (5%) percent of the total bid price in the form of a bid surety bond issued by a company rated not lower than A- in Best’s Insurance Guide, latest edition, or have a Best’s Financial Rating of at least class X, cashier’s check, or certified check drawn on an acceptable bank and payable without qualification to Eagle County.

E. BID FORM: Bidders must completely fill out the Forms included in this bid, but may attach additional pages if more space is needed. These documents are available in MS Word format and/or MS Excel to facilitate filling out the forms, bidders may send an email requesting the documents in a non-pdf format. Bids shall be complete and signed by an authorized representative of the bidder. Failure to submit all information requested may result in the Eagle County Engineering Department requiring prompt submission of missing information. Bids which are substantially incomplete or lack key information may be rejected by the Contracts & Procurement Division.

F. INSURANCE REQUIREMENTS: For bid purposes, bidders must submit copies of certificates of insurance for general liability and workers’ compensation, as referenced on the Response Checklist. The successful contractor will be required to provide original certificates for Comprehensive General Liability, Automobile Liability, any specialized
liability required by the nature of the work, prior to commencing work, at its own expense, naming both Eagle County, Colorado and the Colorado Department of Transportation each as an additional insured, along with an original Workers Compensation certificate, with a 30-day cancellation notice, and maintain such coverage for the duration of the bid award/contract. The successful bidder shall provide this proof of insurance within three (3) days of Notice of Award.

G. BID AWARD: Issuance of this IFB and receipt of bids does not commit the County to award a purchase order or contract. The County reserves the right to postpone opening, to accept or reject any or all bids received in response to this IFB, to award a contract to one (1) or more bidders, or to cancel all or part of this IFB. Any contract awarded between the County and the successful bidder may consist of the Construction Contract, General Conditions to the Contract, this IFB and any addendums, the submitted bid, the resulting Purchase Order, and original certificates of insurance. If bidder does not agree with any terms or conditions of the standard solicitation and award documents, the bidder must present its exceptions to the standard terms and conditions with its bid. If no concerns are expressed by bidder, the County shall consider that all terms and conditions of the standard contract documents shall control. Eagle County reserves the right to reject bids based upon exceptions to the standard contract terms and conditions.

H. TERM OF CONTRACT: The term of the contract will be from date of award through project completion.

I. IFB REQUIREMENTS: Bids must be received in duplicate form (one original and one complete copy of all bid documents), signed by an authorized representative of the bidder. By submitting a bid, you represent that you have (1) thoroughly examined and become familiar with the scope of services outlined in this IFB, (2) attended the Pre-Bid Conference, and (3) are capable of performing quality work in the necessary timeframe to achieve the County’s objectives.

THE FOLLOWING INFORMATION MUST BE PROVIDED ON OR WITH THE BID FORM INCLUDED IN THIS IFB:

a. RESPONSE CHECKLIST (completed and signed by authorized representative).

b. Compliance with all items on the Response Checklist

c. Addendum(s) Acknowledged/signed (if applicable)

d. Bid Form (completed and signed by authorized representative), with all Unit & Extended Prices.

e. Force Account Items

f. Total Project Price
J. OTHER DOCUMENTS INCLUDED FOR THE CONTRACTOR:

a. Plan Set  
b. ACOE 404 Permit No. SPK-2013-00166  
c. CDOT Form 128 – Burns Bridge Project

These documents are attached as part of Appendix A

EAGLE COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY BIDS BASED ON BIDDER’S ABILITY TO MEET OR EXCEED MINIMUM SPECIFICATIONS, FUNCTIONALITY, PRICE, DISCOUNTS, QUALITY, DELIVERY, QUANTITY OR AVAILABILITY OF MATERIALS, LEAD TIME, INSTALLATION, QUALIFICATIONS, EXPERIENCE, REFERENCES, MANPOWER, EQUIPMENT, INSURANCE, BONDS, SCHEDULING, OR CAPABILITY OF BIDDERS TO PROVIDE OR PERFORM THE REQUIREMENTS, AND ACCEPT THE BID(S) THAT IS DEEMED TO BE IN THE BEST INTEREST OF EAGLE COUNTY.

Any questions regarding the contents of this IFB should be directed to Ben Gerdes, Senior Staff Engineer, Engineering Department, (970) 328-3564, or e-mail: ben.gerdes@eaglecounty.us
III BID FORM

The undersigned declares that it has carefully examined the bid information and the complete Solicitation, (The term solicitation means the complete invitation for bid) in submitting a bid for “__________________________________”. The Offeror’s signature will be considered the offeror’s acknowledgment of understanding and ability to comply with all items in this solicitation.

The Offeror’s signature will be considered the offeror’s acknowledgment of understanding and ability to comply with all items in this solicitation. If an offeror makes any changes or corrections to the bid documents (such as white out, or writing over a figure, etc.) such changes or corrections must be initialed and dated by the person signing the offer prior to its submittal.

TOTAL BID will be evaluated and awarded as follows: The Eagle County intends to award a contract to the lowest responsible and responsive bidder. Each bidder will provide pricing for each area listed in the following documentation.

OFFER

<table>
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<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
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<td>626-01000</td>
<td>Public Information Services</td>
<td>L S</td>
<td>1</td>
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</table>
Supplemental Bid Notes: (if applicable)
The bidder understands that the bid quantities are estimated and that final payment will be based on actual field measured quantities.

A. DBE Goal is __________%
By signing in this space, the contractor hereby certifies that this company is not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from bidding/proposing on any federal, state, county or municipal Invitations for Bids or Requests for Proposals.

_________________________  __________________
Signature                        Date

Title

THE CONTRACTOR hereby Certifies that at the time of this certification, the Contractor does not knowingly employ or contract with an illegal alien and that the contractor has participated or attempted to participate in the basic pilot program in order to verify that the Contractor does not employ any illegal aliens. "Basic pilot program" means the basic pilot employment verification program created in Public Law 208, 104th Congress, as amended, and expanded in Public Law 156, 108th Congress, as amended, that is administered by the United States department of homeland security.

If awarded the contract, the undersigned hereby agrees to sign said Contract, and furnish the necessary bonds within ten (10) days of receipt of the “Notice of Award”, of said contract, and to begin work within ten (10) days from the date of receipt of the “Notice to Proceed”, reach a Substantial Completion milestone the construction effort, as defined in Special Provision 105, Subsection 105.21, within TWO HUNDRED FOURTY (240) calendar days and to Final Acceptance for the project within TWO HUNDRED SEVENTY (270) calendar days.

The undersigned acknowledges and understands the terms, conditions, Specifications and all Requirements contained and/or referenced and is legally authorized by the bidder to make the above bid statements or representations.

_________________________  __________________  ________________
(Name of Company)               (Signature)          (Date)

_________________________
(Address)

_________________________  __________________
(City, State and Zip)               (Telephone Number)

_________________________  __________________  ________________
(Name typed/Printed)               (Title)          (Facsimile Number)

FEDERAL TAX ID #

This Company Is: Corporation___   Individual____   Partnership____   LLC____

Offeror hereby acknowledges receipt of the following amendments, if applicable (Offeror agrees that it is bound by all Amendments identified herein)

AMENDMENT #1____________  DATED:________________
AMENDMENT #2____________  DATED:________________
AMENDMENT #3____________  DATED:________________
IV. BIDDING EXHIBITS

Eagle County Bid Bond
Eagle County Performance Bond
Eagle County Labor & Material Payment Bond
Minimum Insurance Requirements
EAGLE COUNTY BID BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

(Name) As Principal, hereinafter called Principal, and
(Address)

(SURETY Name) A corporation organized and existing under the laws of the State of:
(SURETY Address)

and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are held firmly bound to the EAGLE COUNTY, COLORADO, as Obligee, hereinafter called the Obligee, in the sum of: (Insert Proposal Amount in Words) ($ DOLLARS), lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS, the Principal has submitted to the Obligee, a contract bid dated the ________ day of __________________ For the following contract:

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if Principal's bid is accepted by Obligee and Principal is awarded the contract in whole or in part, and the Principal shall enter into the contract with the Obligee in accordance with the terms of such bid, and give such Payment, Performance, and Maintenance bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall promptly pay to the Obligee the amount of this bond as set forth herein above, then this obligation shall be null and void, otherwise this obligation to remain in full force and effect.

Signed and sealed on the dates set forth below:

(Witness) FOR: (Principals Name)
BY: ITS:
this ______ day of ____________
FOR:
(Witness) FOR: (Surety's Name)
BY: ITS:
this ______ day of ____________
Bond # This Bond □(is) □ (is not) a SBA Guaranteed Bond.
EAGLE COUNTY PERFORMANCE BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

(Name) As Principal, hereinafter called Principal, and
(Address)

(SURETY Name) a corporation organized and existing under the laws of the State of:
(SURETY Address) and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are held firmly bound to the EAGLE COUNTY, COLORADO, as Obligee, hereinafter called the Obligee, in the sum of: (Insert Proposal Amount in Words) ($ DOLLARS), lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS, the Principal and the Obligee have entered into, a contract dated the _______ day of __________________________ For the following project:

Contract # which contract is by reference made a part hereof, and referred to as the Contract.

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT if the Principal shall promptly and faithfully perform all terms, conditions and other obligations of the Contract, and any modifications or extensions thereof granted by the Obligee, then this obligation shall be null and void: otherwise this obligation shall remain in full force and effect.

4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration modification of the terms, conditions or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Obligee or the Principal to the other shall in any way release or affect the liability or obligation of this Bond, and the Surety hereby waives notice of any such extension of time, change, addition, modification, alteration or forbearance.

Signed and sealed on the dates set forth below:

(Witness) FOR: (Principals Name)
(Seal) BY: ITS:
this ______ day of __________________________

(Witness) FOR: (Surety's Name)
(Seal) BY: ITS:
this ______ day of __________________________

Bond # This Bond □ (is) □ (is not) a SBA Guaranteed Bond.
EAGLE COUNTY LABOR & MATERIAL PAYMENT BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

(Name) As Principal, hereinafter called Principal, and

(Address) a corporation organized and existing under the laws of the State of:

(SURETY Name) and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are held firmly bound to the EAGLE COUNTY, COLORADO, as Obligee, hereinafter called the Obligee, in the sum of: (Insert Proposal Amount in Words) $ ____________ DOLLARS,

lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS, the Principal and the Obligee have entered into, a contract dated the __________ day of ________________ For the following project:

Contract # __________________ which contract is by reference made a part hereof, and referred to as the Contract.

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the Principal shall promptly make payments of all amounts lawfully due to all persons supplying or furnishing the Principal or the Principals subcontractors with labor, materials, rental machinery, tools or equipment used or performed in the prosecution of the work provided for in the Contract; and if the Principal shall indemnify and save harmless the Obligee to the extent of any payments in connection with the carrying out of the Contract which the Obligee may be required to pay under the law, all in accord with Colorado State Law, Section 38-26-105 C.R.S., then this obligation shall be null and void; otherwise this obligation shall remain in full force and effect.

AND FURTHER, should the Principal or the Principals subcontractors fail to duly pay for any labor, materials, team hire, sustenance, provisions, provender, or other supplies used or consumed by the Principal or the Principals subcontractors in the performance of the work contracted to be done or fails to pay any person who supplies rental machinery, tools or equipment, all amounts due as the result of the use of such machinery, tools, or equipment, in the prosecution of the work under the Contract, the Surety shall pay the same in an amount not exceeding the sum specified in this Bond together with interest at the rate of eight percent per annum, in accord with Colorado State Law, Section 38-26-106 C.R.S.

the Surety’s liability or obligation on this Bond, and the surety hereby waives notice of any such extension of time, In accord with Colorado State Law, Section 38-26-105 C.R.S., actions against the Principal and Surety under this Bond shall be brought within six months after the final completion of the Contract as defined by the ordinances, rules and regulations of the Eagle County, Colorado and not afterwards.

4. The Surety for value received agrees that no extension of time, change in, addition to, or other alteration or modification of the terms, conditions or obligations of the Contract or work to be performed thereunder, or any forbearance on the part of either the Obligee or the Principal to the other shall in any way release or affect change, addition, modification, alteration or forbearance.
Signed and sealed on the dates set forth below:

(Witness)

(Seal)

(Witness)

(Seal)

Bond #

FOR: ____________________________

BY: ____________________________

ITS: ____________________________

this _______ day of ______________

FOR: ____________________________

BY: ____________________________

ITS: ____________________________

this _______ day of ______________

This Bond ☐(is) ☐(is not) a SBA Guaranteed Bond.
MINIMUM INSURANCE REQUIREMENTS

The minimum insurance requirements specified in the General Provisions, shall be carried by all contractors as specified in the County’s solicitation package, Special Provisions and Standard Specifications.

- Except for workers compensation and employer’s liability insurance, Eagle County and the Colorado Department of Transportation (CDOT) must be named as an additional insured. Certificates of Insurance must be submitted before commencing the work and provide 30 days notice prior to any cancellation.

- All coverage furnished by contractor is primary, and that any insurance held by the Eagle County is excess and non-contributory.

- The certificates of insurance shall provide that there will be no cancellation, reduction or modification of coverage without thirty (30) days’ prior written notice to the Eagle County any cancellation. If CONTRACTOR does not comply with this section, the County may, in addition to any other remedies it may have, terminate this Agreement, subject to any provision of this Agreement.

The undersigned certifies and agrees to carry and maintain the insurance requirements indicated above throughout the contract Period of Performance.

____________________________________________________________________
(Name of Company)

____________________________________________________________________
(Signature) (Date)
V. EAGLE COUNTY SAMPLE CONSTRUCTION AGREEMENT
CONSTRUCTION AGREEMENT FOR
BURNS BRIDGE REPLACEMENT PROJECT
LOCATED ON COLORADO RIVER ROAD (301), MILE MARKER 23.5

THIS CONSTRUCTION AGREEMENT is dated as of the ______ day of __________________________, 2013, by and between Eagle County, Colorado, a body corporate and politic, acting by and through its Board of County Commissioners (hereinafter called “County” or “Owner”) whose address for purposes hereof is P.O. Box 850, 500 Broadway, Eagle, CO 81631, and __________________________ licensed to work in the State of Colorado (hereinafter called "Contractor") whose address for purposes hereof is ___________________.

Owner and Contractor, in consideration of the mutual covenants herein set forth, agree as follows:

ARTICLE 1 – THE PROJECT AND THE WORK

1.1 The construction project which is the subject matter hereof is generally described as the Burns Bridge Replacement Project located on Colorado River Road (301), Mile Marker 23.5 (hereinafter the “Project”). Contractor shall supply and perform all work to complete the Project as specified in the Contract Documents and in accordance with the approved design plans. (“Work”).

1.2 This Project is supported by the State of Colorado acting by and through the Department of Transportation (“CDOT” or “State”) and the Federal Highway Administration (“FHWA”).

1.3 Owner shall be entitled to perform inspection and testing activities, approve sources of materials, perform required plant and shop inspections all as more fully set forth herein.

1.4 A more complete description of the Project and a description of the applicable Project site (the “Site”) is provided by the Contract Documents.

1.5 Capitalized terms that are not defined in this Agreement shall have the meanings ascribed to them in the General Conditions and (or) the other Contract Documents as applicable.

1.6 The intent of the Contract Documents is to include all items reasonably necessary for the proper execution and completion of the Work. The Contract Documents are complementary and what is required by any one shall be binding as if required by all. Based on Contractor’s careful review of the Contract Documents, Contractor acknowledges that the Contract Documents require the construction of a completed Project in accordance with the terms hereof.

1.7 Contractor shall perform all the Work required by the Contract Documents or reasonably inferable therefrom, for the complete construction of the Project in accordance with the Contract Documents. Contractor shall provide and furnish all materials, supplies, equipment, tools, implements, all other facilities, and all other labor, supervision, security, transportation, utilities, storage, appliances and all other services as and when required for or in connection with the complete construction of the Project.

1.8 If the Work is taking place on property owned by other federal, state or local governmental entities, or a public utility or other third party, Contractor shall comply with any additional terms and conditions required by applicable law and (or) applicable permits.
ARTICLE 2 - OWNER'S REPRESENTATIVE

2.1 The Project is under the authority of the Eagle County Engineering Department, the Manager of which, or her designee, shall be Owner's liaison with Contractor with respect to the performance of the Work.

2.2 Contractor’s representative is ________________.

2.3 Neither Owner’s nor Contractor’s representative shall be changed with less than ten (10) days prior written notice to the other party.

ARTICLE 3 - CONTRACT TIME

3.1 The Work will be completed and ready for final payment in accordance with the Contract Documents on or before ________________ (“Contract Time”).

3.2 Contractor shall employ all such additional labor, services and supervision, including such extra shifts and over time, as may be necessary to maintain and to achieve final payment in accordance with the Contract Documents on or before ________________ all without an increase in the Contract Price.

3.3 Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delays, expense, and difficulties involved in proving at a legal or arbitration hearing, the actual loss suffered by Owner if the Work is not substantially complete on time. Accordingly, instead of requiring such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner ________________ for each day that expires after the time specified in paragraph 3.1 for completion until the Work is complete.

ARTICLE 4 - CONTRACT PRICE

4.1 Owner shall pay Contractor, for Contractor’s performance of the Work under the Contract Documents, an amount not to exceed $________________ (“Contract Price”).

4.2 Notwithstanding anything in the Contract Documents to the contrary, the Contract Price (which is based in part upon unit prices) includes, without limitation, the entire amount of overhead and profit payable to Contractor in connection with the Work under the Contract Documents. Contractor shall not have the right to, nor shall it seek to recover, any additional compensation for overhead or profit. Unit quantities actually incorporated in the Project may be adjusted subject to the not to exceed Contract Price and in accordance with the Contract Documents. In no event shall the Unit prices set forth in Contractor’s Bid Form be adjusted.

4.3 Contractor acknowledges that Owner is a tax exempt entity and that Owner has appropriated funds for this Project in a sum equal to or in excess of the Contract Price.

4.4 Owner shall pay Contractor for performance of the Work in accordance with the Contract Documents.

4.5 Pursuant to the provisions of §24-91-103.6, C.R.S., and notwithstanding anything to the contrary contained elsewhere in the Contract Documents, no change order or other form of order or directive by
Owner, and no amendment to this Agreement, requiring additional compensable Work to be performed which Work causes the aggregate amount payable under the Agreement to exceed the amount appropriated for the original Agreement, shall be of any force or effect unless accompanied by a written assurance by Owner that lawful appropriations to cover the costs of the additional Work have been made or unless such Work is covered under a remedy-granting provision in the Agreement.

4.6 Eagle County is a governmental entity and all obligations beyond the current fiscal year are subject to funds being budgeted and appropriated. Specifically, notwithstanding anything to the contrary contained in this Agreement, Owner shall have no obligations under this Agreement, nor shall any payment be made to Contractor in respect of any period after December 31 of each calendar year during the term of this Agreement, without an appropriation therefore by the Owner in accordance with a budget adopted by the Board of County Commissioners in compliance with the provisions of Article 25 of Title 30 of the Colorado Revised Statutes, the Local Government Budget Law (C.R.S. §29-1-101 et.seq.), and the TABOR Amendment (Constitution, Article X, Sec. 20).

ARTICLE 5 - PAYMENT PROCEDURES

Contractor shall submit Applications for Payment in accordance with the General Conditions. Applications for Payment will be processed as provided in the General Conditions.

5.1 PROGRESS PAYMENTS: Owner shall make monthly progress payments on account of the Contract Price and as provided in the Contract Documents. All progress payments will be on the basis of the progress of the Work. Owner shall have the right to request and inspect supporting documentation for progress payments, including but not limited to receipts and invoices evidencing payments of charges associated with the Work.

5.2 The period covered by each Application for Payment shall be one calendar month beginning on the first of each month and ending on the last day of the month.

5.3 Each Application for Payment shall be based upon the unit prices and percentage of completion as set forth in the Contract Price and otherwise in accordance with the Contract Documents. Each Application for Payment shall show actual quantities incorporated into the Project for each portion of the Work as of the end of the period covered by such Application for Payment.

5.4 Prior to Completion, Owner shall authorize partial payments at the end of each calendar month or as soon thereafter as practicable if Contractor is satisfactorily performing the Agreement. Progress payments will be in an amount equal to:

95% of the calculated value of the Work completed. The withheld percentage of the Contract Price shall be retained until the Agreement is completed satisfactorily and finally accepted by the Owner.

5.5 Progress payments and retained funds shall occur in compliance with the General Conditions attached hereto and C.R.S. §24-91-103.

5.6 In taking action on Contractor’s Applications for Payment, Owner shall be entitled to rely on the accuracy and completeness of the information furnished by Contractor and shall not be deemed to represent that (i) Owner has made a detailed examination, audit or arithmetic verification of the
documentation submitted by Contractor; (ii) Owner has made exhaustive or continuous on-site inspections of the Work; or (iii) Owner has made examination to ascertain how or for what purposes Contractor has used amounts previously paid on the Contract Price.

5.7 FINAL PAYMENT: Upon final completion and acceptance in accordance with the General Conditions, Owner shall pay the remainder of the Contract Price. The final payment shall not be made until after final settlement of this contract has been duly advertised at least ten days prior to such final payment by publication of notice thereof at least twice in a public newspaper of general circulation published in Eagle County, and the Board of County Commissioners has held a public hearing thereon and complied with C.R.S. §38-26-107. Final payment shall be made in accordance with the requirements of the aforesaid statute. Owner shall make a final settlement in accordance with C.R.S. 38-26-107 within sixty days after the contract is completed satisfactorily and finally accepted by Owner.

5.8 Owner may withhold payments due to Contractor, to such an extent as may be necessary to protect Owner from loss, because of defective work or material not remedied or the failure of Contractor to carry out the Work in accordance with this Agreement.

5.9 Notwithstanding the fact some of the Work may occur on property owned by third parties that are not governmental entities, the Contractor acknowledges and agrees that payment shall be made in accordance with C.R.S. 24-91-103 and C.R.S. 38-26-107 and hereby waives its right to lien the property. Contractor shall include the language of this paragraph 5.9 in any subcontracts for the Project.

ARTICLE 6 - CONTRACTOR'S REPRESENTATIONS

In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

6.1 Contractor has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions, and federal, state, and local laws, ordinances, rules and regulations that in any manner may affect cost, progress, or performance of the Work.

6.2 Contractor has made, or caused to be made, examinations, investigations, and tests and studies of such reports and related data as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time, and in accordance with other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports, or similar data are, or will be required by Contractor for such purposes.

6.3 Contractor has correlated the results of all such observations, examinations, investigations, tests, reports, and data with the terms and conditions of the Contract Documents.

6.4 Contractor has given Owner written notice of all conflicts, errors, or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by Owner is acceptable to Contractor.

6.5 In performing the Work under this Agreement, the Contractor acts as an independent contractor and is solely responsible for necessary and adequate worker’s compensation insurance, personal injury and property damage insurance, as well as errors and omissions insurance. The Contractor, as an
independent contractor, is obligated to pay federal and state income tax on moneys earned. The personnel employed by the Contractor are not and shall not become employees, agents or servants of the Owner or the State because of the performance of any Work by this Agreement.

6.6 Contractor represents and warrants that it holds a license, permit or other special license, as required by law, to perform the Work required under the Contract Documents and shall keep and maintain such licenses, permits and special licenses in good standing and in full force and effect at all times while Contractor is performing the Work under the Contract Documents.

6.7 Contractor shall maintain insurance as set forth in the General Conditions. Before permitting any of his subcontractors to perform any Work under this Agreement, Contractor shall require each of his subcontractors to procure and maintain such insurance as set forth in the General Conditions.

6.8 Contractor shall comply with and is responsible for compliance by its subcontractors, lower tier subcontractors and/or service providers with FHWA 1273 and Contractor shall physically include that FHWA 1273 verbatim in all subcontracts, regardless of tier and in any purchase order, rental agreement or service agreement as required by 23 C.F.R. 633.102(e). FHWA 1273 is part of the Contract Documents.

6.9 Standard Special Provisions relating to equal employment opportunity, affirmative action wage decisions are part of the Contract Documents and shall be included in all subcontracts.

6.10 Contractor shall supply Owner and the State with all lower tiered subcontract agreements and purchase orders.

6.11 Contractor shall be responsible for reserving the right for itself and for Owner, the State and their employees and agents, the right to inspect its subcontracts to determine compliance with Contract Documents.

6.12 Contractor shall allow Owner, the State and their respective employees or agents to conduct random checks with onsite subcontractor employees to determine if they are paid according to Contract Documents and to verify that no discriminatory employment practices are present.

6.13 Contractor shall submit all documentation requested by Owner, the State or their respective employees or agents, such as meeting minutes and rosters and complaint procedures. Contractor must assure that all employees, including subcontractor employees, have been informed of required wages, non-segregated facilities, training opportunities and potential hiring opportunities for women and minorities.

6.14 To ensure dissemination of policies relating to Equal Employment Opportunity, the Contractor must have a meeting prior to the Work and then not less than once every six months. The Contractor shall notify Owner and State of the date, time and location of the meeting.

6.15 Contractor shall be responsible for certifying that all subcontractors or material suppliers do not have segregated facilities in accordance with applicable law.

6.16 Contractor is responsible for compliance with the Contract Documents for all subcontractors and shall complete all forms required by the Owner, State and FHWA.
6.17 Contractor shall comply with all civil rights and labor requirements required by CDOT including project bulletin board and pre-construction packet requirements. Contractor shall process CDOT Form 205- Sublet Permit Application Review and sign completed CDOT Form 205 for each subcontractor and submit to Owner or CDOT as required. The Contractor is responsible for providing a main bulletin board at the Project site that is accessible to all employees. The bulletin board must contain the Equal Employment Opportunity policy and other documents required by the Contract Documents. Posters must be in English and Spanish, if applicable and checked frequently to assure documents are legible. Should any documents become missing or faded, the Contractor is responsible for replacement.

6.18 The parties agree that the Davis-Bacon Act applies to the Work being performed by Contractor and sub-contractors. Contractor and any subcontractor shall comply with the Davis-Bacon Act and reporting requirements thereunder and as supplemented by the applicable Code of Federal Regulations, and shall be responsible for obtaining and supplying any required forms or other information. Contractor shall insert a clause containing the terms of this section 6.18 in all contracts or subcontracts in excess of $2,000.00.

6.19 Contractor and its subcontractors and consultants shall at all times during the term of this Agreement strictly adhere to, and comply with, all applicable federal and state laws, and their implementing regulations as they currently exist or may hereafter be amended. A listing of certain federal and state laws that may be applicable are described in Exhibit “C” which is attached hereto and incorporated herein by reference.

6.20 Contractor shall comply with the Americans with Disabilities Act (“ADA”) and applicable federal regulations and standards as contained in the document “ADA Accessibility Requirements in CDOT Transportation Projects.”

6.21 Contractor shall comply with Title VI of the Civil Rights Act of 1964, as amended, which provides that no person shall on the ground of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Contractor shall insert a clause containing the terms of this section in a contracts or subcontracts.

6.22 Contractor shall meet the Quality Control requirements of the FHWA/CDOT Stewardship Agreement.

6.23 All Work shall be performed in accordance with the requirements of the current federal and state environmental regulations including the National Environmental Policy Act of 1969 (NEPA) as applicable and SB-40 requirements.

6.24 Contractor shall comply with Underutilized Disadvantaged Business Enterprise Goals applicable to this Project.

6.25 Contractor shall comply with On-The-Job Training Goals applicable to this Project.

6.26 Contractor shall comply with any reporting requirements related to Federal Wage Decision, all required Disadvantaged Business Enterprise/On-the-Job Training special provisions and FHWA Form 1273.
6.27 Contractor shall cooperate and participate as may be required in Equal Employment Opportunity and Labor Compliance Verification Employee Interviews and completion of CDOT Form 280 and cooperate and complete as necessary CDOT Form 205-Sublet Permit Application for each subcontractor.

6.28 Contractor shall cooperate and participate as may be required in monitoring DBE Participation to ensure compliance with Commercial Useful Function Requirements and shall cooperate with or conduct interviews as may be required when Project utilizes on the job trainees and will complete or participate as may be required with CDOT Form 200-OJT Training Questionnaire.

6.29 Contractor shall comply with all payroll certification requirements.

6.30 Contractor shall be responsible for submitting FHWA Form 1391.

6.31 Contractor agrees to comply with Executive Order 11246 of September 24, 1965, entitled “Equal Employment Opportunity,” as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR Part 60). Contractor shall not discriminate against any employee or applicant for employment to be employed in the performance of this Agreement on the basis of race, color, religion, national origin, sex, sexual orientation, ancestry, physical handicap, age, political affiliation or family responsibility. Contractor shall insert a clause containing the terms of this section 6.31 in all contracts or sub-contracts that exceed $10,000.00.

6.32 Due to the involvement of federal funding for this Project, the Contractor shall comply with the Copeland Anti-Kickback Act (18 U.S.C. 874) as supplemented in the Department of Labor Regulations (29 CFR Part 3). Contractor shall insert a clause containing the terms of this section 6.32 in all contracts or sub-contracts.

6.33 Contractor agrees to comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5). Contractor shall insert a clause containing the terms of this section in all contracts or sub-contracts in excess of $2,000.00.

6.34 Contractor agrees to comply with all applicable standards, orders or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Air Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15). Contractor shall insert a clause containing the terms of this section in all contracts or sub-contracts in excess of $100,000.00.

6.35 Contractor agrees to comply with all mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub.L. 94-163, 89 Stat. 871).

6.36 Contractor agrees to comply with all requirements concerning Disadvantaged Business Enterprise applicable to the Project. Contractor will take all necessary affirmative steps to assure that minority firms, women’s business enterprises and labor surplus area firms are used for subcontracts when possible.

6.37 The State will perform a final project inspection of the Work as a quality control/assurance activity but the same shall not relieve Contractor of its obligations under the Contract Documents.
ARTICLE 7 - CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement are made a part hereof, and consist of the following:

7.1 This Agreement and documents referred to in the Agreement as being part of the Contract Documents.

7.2 Contractor's Bid Form attached hereto and incorporated herein as Exhibit “A”.

7.3 Bid Documents attached hereto as Exhibit “B” and the CDOT forms required to be submitted by Contractor with its Bid.


7.6 Plan Set consisting of [insert specific reference to plans]

7.7 Listing of federal and state laws Exhibit “C”.

7.8 Verify whether there are any other documents to be identified. If so identify with specificity. For example, Construction Documents, Specifications (supplemental and standard), Plans-(detailed and standard), Force Account Items, Permits, Special provisions (standard and for project)

7.9 Addendum(s) ______________

7.10 Performance, labor and material and Payment Bonds.

7.11 Notice of Award and, if any, Notice to Proceed.

7.12 General Conditions attached hereto as Exhibit “D” and incorporated herein.

7.13 Any modification, including Change Orders, duly delivered after execution of Agreement.

The parties acknowledge and agree that this Agreement and the General Conditions attached hereto, shall supersede and control over any inconsistent or contrary provision in any other attachment or agreement. The order of precedence for other documents is as set forth in Subsection 105.09 of the Special Provisions. There
are no Contract Documents other than those listed above in this Article 7. The Contract Documents may only be altered, amended, or repealed by an executed, written amendment to this Agreement.

**ARTICLE 8 – BONDS**

8.1 Upon execution of this Agreement, Contractor shall deliver to the Owner the bonds required by the Contract Documents, and, notwithstanding anything to the contrary contained in the Contract Documents, Owner shall have no liability or obligation hereunder unless and until the bonds have been so delivered.

**ARTICLE 9– SUBCONTRACTS AND OTHER AGREEMENTS**

9.1 Those portions of the Work that Contractor does not customarily perform with Contractor’s own personnel shall be performed under subcontracts and (or) by other appropriate agreements with Contractor (individually a “Subcontract” and collectively “Subcontracts”).

9.2 All Subcontracts shall conform to provisions of this Agreement, and shall comply with all applicable federal and state laws and shall provide that such Subcontracts shall be governed by the laws of the State of Colorado. By an appropriate written agreement, Contractor shall require the subcontractor to the extent of the Work to be performed by the subcontractor, to be bound to Contractor by the terms of the Contract Documents and to assume toward Contractor all the obligation and responsibility which Contractor, by these Documents, assumes towards Owner. Said agreement shall preserve and protect the rights of Owner under the Contract Documents with respect to the Work to be performed by the subcontractor so that the subcontracting thereof will not prejudice such rights. Contractor shall require each subcontractor to enter into similar agreements with its subcontractors. Contractor shall make available to each proposed subcontractor, prior to the execution of the subcontract, the Contract Documents to which the subcontractor will be bound by this paragraph 9.2. Each subcontractor shall similarly make copies of such Contract Documents available to its subcontractors. Owner shall have the right to review and approve each form of Subcontract.

9.3 Contractor shall be responsible to Owner for the acts and omissions of its agents, employees, suppliers, subcontractors performing Work under a contract with Contractor and such subcontractors’ lower-tier subcontractors, agents and employees.

9.4 Nothing contained in the Contract Documents shall be deemed to create any contractual relationship between any subcontractor of any tier and Owner.

**ARTICLE 10 – MISCELLANEOUS**

10.1 No assignment by a party hereto of any rights under, or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents. Notwithstanding the foregoing, Contractor agrees that the State, in its sole discretion, may
direct Owner to assign to the State all of its right, title and interest under any terminated contracts or agreements and Contractor hereby consents to such assignment.

10.2 Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.3 In the event of litigation between the parties hereto regarding the interpretation of this Agreement, or the obligations, duties or rights of the parties hereunder, or if suit otherwise is brought to recover damages for breach of this Agreement, or an action be brought for injunction or specific performance, then and in such events, the prevailing party shall recover all reasonable costs incurred with regard to such litigation, including reasonable attorney’s fees.

10.4 Notwithstanding any other provision to the contrary, nothing herein shall constitute a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions of the Colorado Governmental Immunity Act.

10.5 This Agreement shall be governed by the laws of the State of Colorado. Jurisdiction and venue of any suit, right, or cause of action arising under, or in connection with this Agreement shall be exclusive in the District Court for Eagle County, Colorado.

10.6 This Agreement supersedes all previous communications, negotiations and/or contracts between the respective parties hereto, either verbal or written, and the same not expressly contained herein are hereby withdrawn and annulled. This is an integrated agreement and there are no representations about any of the subject matter hereof except as expressly set forth in the Contract Documents.

10.7 Any notice and all written communications required under this Agreement shall be (i) personally delivered, (ii) mailed in the United States mails, first class postage prepaid, or (iii) transmitted by facsimile machine together with a hard copy conveyed by delivery or mail, to the appropriate party at the following addresses:

**County:**

Ben Gerdes, Senior Staff Engineer  
Eagle County, Colorado  
500 Broadway  
P. O. Box 850  
Eagle, CO  81631  
Telephone: (970) 328-8564  
Fax: (970) 328-8789

**With a copy to:**

Eagle County Attorney  
P.O. Box 850  
500 Broadway  
Eagle, CO  81631  
Telephone: (970) 328-8685  
Fax: (970) 328-8699

**Contractor:**

**INSERT CONTRACTOR INFORMATION**
Notices delivered in person shall be effective as of the date of delivery, mailed notices will be deemed given three business days after the date of deposit in a regular depository of the United States Postal Service, and Fax notices will be deemed given upon transmission, if during business hours, or the next business day. Either party can change its address for notice by notice to the other in accordance with this paragraph.

10.8 PROHIBITIONS ON PUBLIC CONTRACT FOR SERVICES:

If Contractor has any employees or subcontractors, Contractor shall comply with C.R.S. § 8-17.5-101, *et seq.*, regarding Illegal Aliens – Public Contracts for Services, and this Contract. By execution of this Contract, Contractor certifies that it does not knowingly employ or contract with an illegal alien who will perform under this Contract and that Contractor will participate in the E-verify Program or other Department of Labor and Employment program (“Department Program”) in order to confirm the eligibility of all employees who are newly hired for employment to perform work under this Contract.

A. Contractor shall not:

(i) Knowingly employ or contract with an illegal alien to perform work under this contract for services; or

(ii) Enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under the public contract for services.

B. Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Contract through participation in the E-verify Program or Department Program, as administered by the United States Department of Homeland Security. Information on applying for the E-verify program can be found at: http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm.

C. Contractor shall not use either the E-verify program or other Department Program procedures to undertake pre-employment screening of job applicants while the public contract for services is being performed.

D. If Contractor obtains actual knowledge that a subcontractor performing work under the public contract for services knowingly employs or contracts with an illegal alien, the Contractor shall be required to:

(i) Notify the subcontractor and the County within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

(ii) Terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to subparagraph (i) of the paragraph (D) the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
E. The Contractor shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the department is undertaking pursuant to its authority established in C.R.S. § 8-17.5-102(5).

F. If Contractor violates these prohibitions, the County may terminate the contract for a breach of the contract. If the contract is so terminated specifically for a breach of this provision of this Contract, the Contractor shall be liable for actual and consequential damages to the County as required by law.

G. The County will notify the office of the Colorado Secretary of State if Contractor violates this provision of this Contract and the County terminates the Contract for such breach.

10.9 Contractor shall make, keep maintain and allow inspection and monitoring by the County and State of a complete file of all records, documents, communications, notes and other written materials, electronic media files, and communications, pertaining in any manner to the Work or delivery of services or goods hereunder. Contractor shall maintain such records until the last to occur of the following: (i) a period of three years after the date of this Agreement is completed or terminated, or (ii) three years after final payment is made hereunder, whichever is later, or (iii) for such further period as may be necessary to resolve any pending matters, or (iv) if an audit is occurring, or if Contractor has received notice that an audit is pending, then until such audit has been complete and its findings have been resolved.

The County, State and the Federal Government, or any of their duly authorized representatives, have the right to examine and audit excerpts and transcriptions relevant financial records for a period not to exceed three (3) years after final payment and expiration of the terms of this Agreement. Contractor must maintain an established accounting system that complies with generally accepted accounting principles. Records related to disputes arising out of this Agreement shall be maintained and made available until such disputes have been resolved. As used in this provision, “records” includes books, papers, records, documents, accounting procedures and practices, and other data, regardless of the type and regardless of whether such items are in written form, in the form of computer data, or in any other form. Further, the State may conduct an audit pursuant to C.R.S. 24-103-601.

Contractor shall maintain all records and other evidence sufficient to reflect costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this Agreement. County, the Federal Government, including the Comptroller General of the United States or any of their duly authorized representatives, shall have the right to examine and audit those records at any time, or from time to time. The right of examination shall include inspection at all reasonable times at the offices of Contractor or sub-contractors responsible for the Project.

Contractor will be required to submit cost or pricing data and supporting information in connection with any invoice relating to this Agreement if requested by County. This section shall not be construed to require Contractor or its sub-contractors to create or maintain any record that they do not maintain in the ordinary course of business pursuant to a provision of law, provided that those entities maintain records which conform to generally accepted accounting practices. Contractor shall insert a clause containing the terms of this section in all contracts or sub-contracts that exceed $100,000.

10.10 Any indemnity, warranty or guaranty given by Contractor to Owner under the Contract Documents shall survive the expiration or termination of the Contract Documents and shall be binding upon
Contractor until any action thereunder is barred by the applicable statute of limitations or as otherwise expressly provided on the Contract Documents.

10.11 If Contractor brings to the performance of this Agreement a pre-existing patent or copyright, the Contractor shall retain all rights and entitlements to that pre-existing patent or copyright. Otherwise, it is expressly agreed that the work performed under this Contract is a work for hire.

A. If any discovery or invention arises or is developed in the course of, or as a result of, work or services performed under this Agreement, or in any way connected herewith, the Contractor shall refer the discovery or invention to the Owner’s Project Manager for a determination whether patent protection will be sought in the name of the County. Any and all patent rights accruing under or in connection with the performance of this Agreement are hereby reserved to Eagle County. In the event that any books, manuals, films, or other copyrightable material are produced, the Contractor shall notify the Owner. Any and all copyrights accruing under or in connection with the performance under this Agreement are hereby reserved to Eagle County. All materials to which the Owner is to have patent rights or copyrights shall be marked and dated by the Contractor in such a manner as to preserve and protect the legal rights of the Owner.

B. Prior to the initiation of services under this Agreement, the Contractor shall disclose, in writing, all intellectual properties relevant to the performance of this Agreement which the Contractor knows, or should know, could give rise to a patent or copyright. The Contractor shall retain all rights and entitlements to any pre-existing intellectual property which is so disclosed. Failure to disclose will indicate that no such property exists. The Owner shall then, under paragraph A above, have the right to all patents and copyrights which arise as a result of performance under this Agreement.

C. The terms and conditions specified in paragraphs A and B above shall also apply to any subcontract made under this Agreement. The Contractor shall be responsible for informing the subcontractor of the provisions of this section and obtaining disclosures.

10.12 All rights and title to works for hire under this Agreement, whether patentable or copyrightable or not, shall belong to the Owner and shall be subject to the terms and conditions of this Agreement. The Contractor warrants that all materials produced hereunder will be of original development by the Contractor and will be specifically developed for the fulfillment of this Agreement and will not knowingly infringe upon or violate any patent, copyright, trade secret or other property right of any third party, and the Contractor shall indemnify and hold the Owner harmless from and against any loss, cost, liability or expense arising out of any breach or claimed breach of this warranty.

10.13 The signatories to this Agreement aver to their knowledge, no employee of the County has any personal or beneficial interest whatsoever in the Work or property described in this Agreement. The Contractor has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of the Work and Contractor should not employ any person having such known interests.

10.14 In the event a change order or amendment to the Contract Documents is agreed to by the parties, the same shall be in writing and executed by both parties. Signature by Owner shall occur in compliance with Owner’s contract approval policy.
IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first set forth above.

EAGLE COUNTY, COLORADO
By and through its Board of County Commissioners

ATTEST

By: ________________________________
   Clerk of the Board of County Commissioners

By: ________________________________
   __________________________, Chairman

"Contractor":

INSERT CONTRACTOR NAME

By: ________________________________

STATE OF COLORADO  )
   ) ss:
COUNTY OF EAGLE  )

The foregoing instrument was acknowledged before me by ________________ of
______________ this___, day of ____________________, 2013.

My commission expires: ________________________________

__________________________________
Notary Public
VI. EAGLE COUNTY GENERAL PROVISIONS
EXHIBIT “D”
GENERAL CONDITIONS
TO CONSTRUCTION AGREEMENT
FOR
BURNS BRIDGE REPLACEMENT PROJECT LOCATED ON COLORADO RIVER ROAD (301) MILE MARKER 23.5

ARTICLE 1 – DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

ADDENDA: Written or graphic instruments issued prior to the opening of bids which clarify, correct, or change the bidding documents or the Contract Documents.

AGREEMENT: The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

APPLICATION FOR PAYMENT: The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payment, and which is to include such supporting documentation as is required by the Contract Documents.

BID: The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

BONDS: Bid, performance, labor, materials and payment bonds, and other instruments of security.

CHANGE ORDER: A written order to CONTRACTOR signed by OWNER authorizing an addition, deletion, or revision in the Work, or an adjustment in the Contract Price or the Contract Time issued after the effective date of the Agreement.

CONTRACT DOCUMENTS: Those documents set forth in Article 7 of the Agreement.

CONTRACT PRICE: The monies payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement.

CONTRACT TIME: The number of days computed as provided in these General Conditions, or the date stated in the Agreement for the completion of the Work.

CONTRACTOR: The person, firm, or corporation with whom OWNER has entered into the Agreement.

DAY: A calendar day of twenty-four hours measured from midnight to the next midnight.

DEFECTIVE: An adjective which, when modifying the word “Work,” refers to Work that is unsatisfactory, faulty or deficient, or does not meet the requirements of any inspection, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER’S recommendation of final payment or prior to the expiration of any applicable statute of limitations.

DRAWINGS: Graphic and pictoral portions of the Contract Documents which show the character and scope of the Work to be performed including design, location and dimension of the Work including plans, elevations, sections, details, schedules and diagrams, and which have been prepared or approved by ENGINEER, and are referred to in the Contract Documents.
EFFECTIVE DATE OF THE AGREEMENT: The date indicated in the Agreement on which it becomes effective, but, if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

ENGINEER: The person, firm or corporation to be identified by OWNER. The ENGINEER may be a department employee of OWNER who may perform all or some of the duties of ENGINEER, but in such case shall exercise his duties in conformance with the standards applicable to independent professional engineers.

FIELD ORDER: A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 10.2, but which does not involve a change in the Contract Price or the Contract Time.

MODIFICATION: (a) A written amendment of the Contract Documents signed by both parties, or (b) a change order. The Contract Documents may only be amended by a modification. A modification may only be issued after the effective date of the Agreement. The Contract Documents only create a contractual relationship between Owner and Contractor.

NOTICE OF AWARD: The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

NOTICE TO PROCEED: A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run, and on which CONTRACTOR shall start to perform his obligation under the Contract Documents.

OWNER: The public body or authority, corporation, association, partnership, or individual with whom CONTRACTOR has entered into the Agreement, and for whom the Work is to be provided.

PROJECT: The Burns Bridge Replacement Project. The total construction of which the Work to be provided under the Contract Documents may be the whole or a part, as indicated elsewhere in the Contract Documents.

RESIDENT PROJECT REPRESENTATIVE: The authorized representative of ENGINEER as approved by OWNER who is assigned to the site or any part thereof.

SHOP DRAWINGS: All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by CONTRACTOR, a subcontractor, manufacturer, fabricator, supplier, or distributor to illustrate some portion of the work, and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a manufacturer, fabricator, supplier, or distributor and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

SPECIFICATIONS: Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

SUBSTANTIAL COMPLETION: The Work (or a specified part thereof) has progressed to the point where, in the opinion of OWNER and ENGINEER as evidenced by his definitive certificate of substantial completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if there be no such certificate
issued, when final payment is due in accordance with paragraph 14.13. The terms “substantially complete” and “substantially completed” as applied to any Work refer to substantial completion thereof.

**WORK:** The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing and incorporating materials and equipment into all construction, all as required by the Contract Documents or as may be reasonably inferable therefrom and includes all labor, materials, equipment and services provided or to be provided by CONTRACTOR or to fulfill CONTRACTOR’S obligations.

**ARTICLE 2 – PRELIMINARY MATTERS**

**DELIVERY OF BONDS:**

2.1 When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

**COPIES OF DOCUMENTS:**

2.2 OWNER shall furnish to CONTRACTOR up to ten (10) copies (unless otherwise specified herein) of the Contract Documents as are reasonable necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction without markup thereon.

**COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED:**

2.3 The Contract Time will commence upon issuance of a Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the effective date of the Agreement.

**STARTING THE PROJECT:**

2.4 CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

**BEFORE STARTING CONSTRUCTION:**

2.5 Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER and OWNER any conflict, error, or discrepancy which CONTRACTOR may discover; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, or discrepancy in the Drawings or Specifications, unless CONTRACTOR had actual knowledge thereof, or should reasonably have known thereof.

2.6 Within ten days after the effective date of the Agreement (unless otherwise specified in the Contract Documents) CONTRACTOR shall submit to ENGINEER and OWNER for review and acceptance an estimated progress schedule indicating the starting and completion dates of the various stages of the Work, a preliminary schedule of shop drawings submissions, and a preliminary schedule of values of the Work.

2.7 Before any Work at the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, certificates of insurance (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with Article 5 hereof.
PRE-CONSTRUCTION CONFERENCE:

2.8 Within twenty days after the effective date of the Agreement, but before CONTRACTOR starts the Work at the site, a conference will be held for review and acceptance of the schedules referred to in paragraph 2.6, to establish procedures for handling shop drawings and other submittals, and for processing applications for payment, and to establish a working understanding among the parties as to the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT AND REUSE

INTENT:

3.1 The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. They may be altered only by a Modification.

3.2 The Contract Documents are complementary; what is called for by one is as binding as if called for by all. If during the performance of the Work, CONTRACTOR finds a conflict, error, or discrepancy in the Contract Documents, he shall report it to ENGINEER and OWNER in writing at once and before proceeding with the Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflicts, error, or discrepancy in the Specifications or Drawings unless CONTRACTOR had actual knowledge thereof, or should reasonably have known thereof.

3.3 The Contract documents include those documents set forth in Article 7 of the Agreement.

3.4 It is the intent of the Specifications and Drawings to describe a complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment, such words shall be interpreted in accordance with such meaning. References to codes of any technical society, organization, or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, or code in effect at the time of opening of bids (or on the effective date of the agreement if there were no bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual, or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their agents or employees from those set forth in the Contract Documents. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided for in paragraph 9.3.

3.5 The Contract Documents will be governed by the law of the place of the Project.

REUSE OF DOCUMENTS:

3.6 Neither CONTRACTOR nor any Subcontractor, manufacturer, fabricator, supplier, or distributor shall have or acquire any title to or ownership rights in any of the drawings, specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project, or any other project, without written consent of OWNER and ENGINEER, and specific written verification or adaptation by ENGINEER.
ARTICLE 4 – AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

AVAILABILITY OF LANDS:

4.1 OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures, or permanent changes in existing facilities, will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER’S furnishing these lands or easements entitles him to an extension of the Contract Time, CONTRACTOR may make a claim therefore as provided in Article 12. CONTRACTOR shall provide for all additional lands and access hereto that may be required for temporary construction facilities or storage of materials and equipment.

PHYSICAL CONDITIONS – INVESTIGATIONS AND REPORTS:

4.2 Reference is made to the supplementary conditions for identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress, or performance of the Work which have been relied upon by ENGINEER in the preparation of the Drawings and Specifications. Such reports are not part of the Contract Documents.

UNFORESEEN PHYSICAL CONDITIONS:

4.3 Intentionally Omitted.

4.4 Differing Site Conditions. During progress of the Work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract Documents or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Work provided for in the Contract Documents, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected Work is performed.

Upon written notification, the ENGINEER will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any Work under the Contract Documents, an adjustment, excluding anticipated profits, will be made (with advance written approval of OWNER) and the Contract modified in writing accordingly. The ENGINEER will notify the CONTRACTOR of the determination whether or not an adjustment of the Contract is awarded.

No Contract adjustment which results in a benefit to the CONTRACTOR will be allowed unless the CONTRACTOR has provided the required written notice.

No Contract adjustment will be allowed under this clause for any effects caused on unchanged Work.

4.5 Suspension of Work ordered by ENGINEER. If the performance of all or any portion of the Work is suspended or delayed by the ENGINEER in writing for any unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the CONTRACTOR believes that additional compensation and/or Contract Time is due as a result of such suspension or delay, the CONTRACTOR shall submit to the ENGINEER in writing a request for adjustment within seven (7) calendar days of receipt of the notice to resume Work. The request shall set forth the reasons and support for such adjustment.

Upon receipt, the ENGINEER will evaluate the CONTRACTOR’S request. If the ENGINEER agrees that the cost and/or time for the performance under the Contract Documents has increased as a result of such
suspension and the suspension was caused by conditions beyond the control of and not the fault of the CONTRACTOR, its suppliers, or subcontractors at any approved time, and not caused by weather, the ENGINEER, with prior written approval of OWNER, will make an adjustment (excluding profit) and modify the Agreement in writing accordingly. The CONTRACTOR will be notified of ENGINEER’s determination whether or not an adjustment of the Agreement is warranted.

No Contract adjustment will be allowed unless the CONTRACTOR has submitted the request for adjustment within the time prescribed.

No Contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this Contract.

4.6 Significant changes in the character of the Work.

The ENGINEER, with prior approval of OWNER, reserves the right to make, in writing, at any time during the Work, such changes in quantities and such alterations in the Work as are necessary to satisfactorily complete the Project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the CONTRACTOR agrees to perform the Work as altered.

If the alterations or changes in quantities significantly change the character of the Work under the Contract Documents, whether such alterations or changes are in themselves significant changes to the character of the Work or by affecting other Work, cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the Agreement. The basis for the adjustment shall be agreed upon in writing prior to the performance of the Work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the CONTRACTOR in such amount as the ENGINEER with prior approval of OWNER may determine to be fair and equitable.

If the alterations or changes in quantities do not significantly change the character of the Work to be performed under the Contract Documents, the altered Work will be paid for as provided elsewhere in the Agreement.

The term “significant change” shall be construed to apply only to the following circumstances:

(A) When the character of the Work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

(B) When a major item of Work, is increased in excess of 125 percent or decreased below 75 percent of the original Contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original Contract time, quantity, or in case of a decrease below 75 percent, to the actual amount of Work performed.

REFERENCE POINTS:

4.7 OWNER shall provide engineering surveys for construction to establish reference points which in his judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified herein), shall protect and preserve the established reference points, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER and OWNER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for replacement or relocation of such reference points by professional qualified personnel.
ARTICLE 5 – BONDS AND INSURANCE

PERFORMANCE AND OTHER BONDS:

5.1 CONTRACTOR shall furnish performance, labor and material, and payment bonds, each in an amount at least equal to 100% of the Contract Price as security for the faithful performance and payment of all CONTRACTOR’S obligations under the Contract Documents. These bonds shall remain in effect until two years after the date of final payment, except as otherwise provided by law. CONTRACTOR shall also furnish other bonds as are required by the Contract Documents. All bonds shall be in the forms prescribed by the Contract Documents, and be executed by such sureties as (a) are licensed to conduct business in the state where the project is located, and (b) are named in the current list of “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the authority to act.

5.2 If the surety on any bond furnished by CONTRACTOR is declared bankrupt, or becomes insolvent, or its right to do business is terminated in any state where any part of the project is located, or it ceases to meet the requirements of clauses (a) and (b) of paragraph 5.1, CONTRACTOR shall within five days thereafter substitute another bond and surety, both of which shall be acceptable to OWNER.

INSURANCE:

5.3 CONTRACTOR’S Liability Insurance: The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR’S operations under the Agreement, whether such operations be by himself, or by any Subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

All such insurance shall remain in effect until final payment, and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work. In addition, CONTRACTOR shall maintain such completed operations insurance for at least two years after final payment, and furnish OWNER with evidence of continuation of such insurance at final payment and one year thereafter.

5.3.1 Claims under Workmen’s Compensation, disability benefits, and other similar employee benefit acts;

5.3.2 Claims for damage because of bodily injury, occupational sickness or disease, or death of his employees, and claims insured by usual personal injury liability coverage;

5.3.3 Claims for damage because of bodily injury, sickness or disease, or death of any person other than his employees, and claims insured by usual personal injury liability coverage;

5.3.4 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

Workmen’s Compensation insurance shall provide coverage as required by the laws of the State of Colorado.

Insurance covering claims for damages to persons or property required by the preceding paragraph (except subparagraph 5.3.1) shall be in the following minimum amounts:

Bodily Injury Liability:
   Each Person: $1,000,000
Each Accident or Occurrence: $2,000,000

Property Damage Liability:
   Each Accident or Occurrence: $1,000,000
   Aggregate: $2,000,000

Products and completed operations aggregate: $1,000,000

Employers Liability, including Occupational Disease:
   $500,000

Any one fire: $50,000

If any aggregate limit is reduced below $1,000,000 because of claims made or paid, CONTRACTOR shall immediately obtain additional insurance to restore the full aggregate limit and furnish to OWNER a certificate or other document satisfactory to OWNER showing compliance with this provision.

Said insurance shall be furnished in types specified as follows:

5.3.5 CONTRACTOR’S Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, issued to and covering the liability for damage imposed by law upon the CONTRACTOR and each Subcontractor with respect to all Work performed by them under the Agreement and covering premises operations, fire damage, independent contractors, products and completed operations, blanket Grantual liability, personal injury, and advertising liability.

5.3.6 CONTRACTOR’S Protective Liability Insurance issued to and covering the liability for damages imposed by law upon the CONTRACTOR and each Subcontractor with respect to all Work under the Agreement performed by the CONTRACTOR by Subcontractors.

5.3.7 Completed Operations Liability Insurance issued to and covering the liability for damage imposed by law upon the CONTRACTOR and each Subcontractor arising between the date of final cessation of the Work, and the date of final acceptance thereof out of that part of the Work performed by each.

5.3.8 Comprehensive Automobile Insurance covering any auto (including owned, hired and non-owned autos) shall be carried with a minimum limit of $1,000,000.00 each accident combined single limit. All liability and property damage insurance required hereunder shall be Comprehensive General and Automobile Bodily Injury and Property Damage form of policy.

5.3.9 Employer’s Liability Insurance covering all of CONTRACTOR’s and any Subcontractor’s employees acting within the course and scope of their employment.

5.3.10 The CONTRACTOR shall in addition, and in the amounts required under the above, obtain Protective Liability Insurance issued to and covering the liability for damages imposed by law upon the OWNER with respect to all operations under the Agreement by the CONTRACTOR or his Subcontractors, including omissions and supervisory acts by the OWNER.

5.4 Intentionally Omitted.

5.5 Subcontractor’s Insurance: Before permitting any of his Subcontractors to perform any Work under this Agreement, CONTRACTOR shall either (a) require each of his Subcontractors to procure and maintain
during the life of his Subcontracts insurance consistent with the requirements of paragraph 5.3 above, or (b) insure the activities of his Subcontractors in his own policy.

5.6 Builder’s Risk Insurance: Insofar as the Work to be performed under this Agreement consists entirely of new construction removed and separated from any existing facility used by OWNER, CONTRACTOR shall procure and maintain, for the duration of the Work of this Project, Builder’s Risk Insurance, including the perils of fire, extended coverage (loss due to vehicles, explosion, wind, flood, riot, etc.), vandalism and malicious mischief, and special extended coverage (loss due to falling objects, collapse, water damage from faulty or leaking systems, etc.) in the full amount of the Contract Price plus the cost of authorized extras. Said amount of insurance coverage shall be considered to cover the insurable value of the Work under this Agreement which is considered not to exceed one hundred percent (100%) of the amount of this Agreement and authorized extras. Such policy shall not insure any tools or equipment, or temporary structures erected at the site and belonging to any person or persons, or their Subcontractors who are obliged by contract with the OWNER to do Work on the Projects.

Such insurance shall be placed jointly in the names of the OWNER, State of Colorado- Department of Transportation, CONTRACTOR, and any and all Subcontractors, and any and all others obliged by contract with the OWNER to do Work on this Project and at the OWNER’S option, any other person or persons whom the OWNER deems to have an insurable interest in said property, or any part thereof, payable as their several interests may appear.

CONTRACTOR shall furnish OWNER with certification of said insurance prior to commencement of any Work. Any proceeds obtained from insurance provided for by this paragraph shall be paid to and held by the OWNER as trustee. The OWNER shall have the right to withhold payment of such proceeds until such time as the Work destroyed or damaged and covered by such insurance shall be reconstructed and shall pay such proceeds on an installment basis similar to that provided for by progress payments covering the original Work.

5.7 Certificates of Insurance: Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the Work. These Certificates shall contain provisions naming the OWNER and the State of Colorado Department of Transportation as an additional insured under CONTRACTOR’S insurance, as more fully required by the General Conditions herein, and that coverage afforded under the policies will not be cancelled until at least forty-five (45) days prior written notice has been given the OWNER and the State of Colorado via certified mail. No later than fifteen (15) days prior to the expiration date of any such coverage, CONTRACTOR and any Subcontractor shall deliver to OWNER certificates of insurance evidencing renewals thereof. In addition, upon request by the State of Colorado at any other time during the term of the Agreement, CONTRACTOR and any Subcontractor shall, within ten (10) days of such request, supply to the State of Colorado and OWNER evidence satisfactory to the State of compliance with Section 5.3. CONTRACTOR and his Subcontractors shall not permit any of his Subcontractors to start Work until all required insurance has been obtained and certificates with the proper endorsements have been filed with the OWNER. Failure of the CONTRACTOR to comply with the foregoing insurance requirement shall in no way waive the OWNER’S rights hereunder.

5.8 Owner’s Liability Insurance: The OWNER, at his option, may but shall not be required to purchase and maintain such liability insurance as will protect him against claims which may arise from operations under this Agreement. Purchasing and maintaining such insurance, however, will not relieve the CONTRACTOR from purchasing and maintaining the insurance hereinbefore specified.

5.9 Loss of Use of Insurance: The OWNER, at his option, may but shall not be required to, purchase and maintain such insurance as will insure him against loss of use of his property due to fire or other hazards, however caused.
5.10 Coverage required of CONTRACTOR and any of its subcontractors shall be primary over any insurance or self-insurance program carried by OWNER or the State of Colorado.

5.11 All insurance policies in any way related to this Agreement and secured and maintained by CONTRACTOR as required in this Article 5 shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against County or the State of Colorado, its agencies, institutions, organizations, officers, agents, employees and volunteers.

5.12 OWNER and the State of Colorado-Department of Transportation shall be named as additional insured on the Commercial General Liability, Automobile Liability Insurance and Completed Operations Liability Insurance policies.

5.13 Contractor shall insert a clause containing the terms of section 5.3 and all its subparts in all contracts or sub-contracts, and all Subcontractors shall purchase and maintain the insurance on the terms and conditions as set forth herein.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

SUPERVISION AND SUPERINTENDENCE:

6.1 CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. CONTRACTOR shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence, or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2 CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR’S representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

6.2.1 CONTRACTOR shall maintain and deliver to OWNER a daily job report of Work performed, notable events and incidents, weather conditions, Subcontractor’s performance, any deficiencies (and the corrective actions taken), delays, and other information that OWNER may reasonably request.

6.2.2 CONTRACTOR will participate in meetings with OWNER at a specific date, time and place established by OWNER, and to deliver all attending parties current reports on the following items: progress payment requests; requests for information-current log; change requests- current log; submittals-current log; change orders- current list; claims- pending claims, notices of claims and any plans to file claims, if applicable, project progress report, job problems and quality control review.

LABOR, MATERIALS AND EQUIPMENT:

6.3 CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work, and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons, or the Work, or property at the site or adjacent thereto, and except as otherwise indicated in the supplementary conditions, if any, all Work at the site shall be performed during regular working hours and
CONTRACTOR will not permit overtime Work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER’S written consent given after prior written notice to ENGINEER.

6.4 Colorado labor shall be employed to perform the Work to the extent of not less than eighty percent of each type or class of labor in the several classifications of skilled and common labor employed on the Project. “Colorado labor” means any person who is a resident of the State of Colorado, at the time of employment, without discrimination as to race, color, creed, sex, age, or religion except when sex or age is a bona fide occupational qualification.

6.5 CONTRACTOR shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, and sanitary facilities, and all other facilities and incidentals necessary for the execution, testing, initial operation, and completion of Work.

6.6 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by OWNER or ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required test) as to the kind and quality of materials and equipment.

6.7 All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier, or distributor, except as otherwise provided in the Contract Documents.

6.8 CONTRACTOR shall replace supervision personnel as-needed based upon OWNER’s assessment that the Project is not adequately staffed or the Work is not progressing adequately.

6.9 CONTRACTOR shall at all times maintain a full-time management and supervisory staff of competent persons at the Project site to coordinate and provide general direction of the Work and progress of subcontractors on the Project.

6.10 CONTRACTOR agrees that only competent and skilled workmen who satisfactorily perform their duties shall be employed on the Project and CONTRACTOR shall ensure that there are an adequate and competent supply of skilled workmen and materials as necessary to carry out the Work on a continuous basis.

EQUIVALENT MATERIALS AND EQUIPMENT:

6.11 Whenever materials or equipment are specified or described in the drawings or specifications by using the name of a proprietary item, or the name of a particular manufacturer, fabricator, supplier, or distributor, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers, or distributors may be accepted by ENGINEER and OWNER if sufficient information is submitted by CONTRACTOR to ENGINEER and OWNER to determine that the material or equipment proposed is equivalent to that named. The procedure for review by ENGINEER and OWNER will be as set forth in paragraphs 6.11.1 and 6.11.2 below.

6.11.1 Requests for review of substitute items of material and equipment will not be accepted by ENGINEER or OWNER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to ENGINEER and OWNER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equal substance to that specified and be suited to the same use and capable of performing the same function as that specified. The application will state whether or not acceptance of the substitute for use in the Work will require a change in the drawings or specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the Work is
subject of payment of any license fee or royalty. All variations of the proposed substitute from that
specified shall be identified in the application and available maintenance, repair and replacement
service will be indicated. The application will also contain an itemized estimate of all costs or
savings that will result directly or indirectly from acceptance of such substitute, including costs of
redesign and claims of other contractors affected by the resulting change, all of which shall be
considered by ENGINEER and OWNER in evaluating the proposed substitute. ENGINEER may
require CONTRACTOR to furnish, at CONTRACTOR'S expense, additional data about the
proposed substitute. ENGINEER and OWNER will be the sole judge of acceptability, and no
substitute will be ordered or installed without ENGINEER’S and OWNER’s prior written
acceptance. OWNER may notify CONTRACTOR and ENGINEER in writing that
CONTRACTOR is authorized to work with ENGINEER on substitutions as set forth here and shall
only be required to seek OWNERS approval under 6.11 when the requested substitute is significant
and material to the Project. OWNER may require CONTRACTOR to furnish, at
CONTRACTOR’S expense, a special performance guarantee or other surety with respect to any
substitute.

6.11.2 ENGINEER will record time required by ENGINEER and ENGINEER'S consultants in evaluating
substitutions proposed by CONTRACTOR and in making changes in the drawings or
specifications occasioned thereby, whether or not ENGINEER or OWNER accepts a proposed
substitute. CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and
ENGINEER'S consultants for evaluating any proposed substitute.

CONCERNING SUBCONTRACTORS:

6.12 CONTRACTOR shall not employ any Subcontractor or other person or organization (including those who
are to furnish the principal items of materials or equipment), whether initially or as a substitute, against
whom OWNER or ENGINEER may have reasonable objection. A Subcontractor or other person or
organization identified in writing to OWNER and ENGINEER by CONTRACTOR prior to the Notice of
Award, and not objected to in writing by OWNER or ENGINEER prior to the Notice of Award, will be
deemed acceptable to OWNER and ENGINEER. Acceptance of any Subcontractor, other person or
organization by OWNER or ENGINEER shall not constitute a waiver of any right of OWNER or
ENGINEER to reject defective work. If OWNER or ENGINEER, after due investigation, has reasonable
objection to any Subcontractor, or other person or organization proposed by CONTRACTOR after the
Notice of Award, CONTRACTOR shall submit an acceptable substitute, and the Contract Price shall be
increased or decreased by the difference in cost occasioned by such substitution, and an appropriate change
order shall be issued. CONTRACTOR shall not be required to employ any Subcontractor, other person or
organization against whom CONTRACTOR has reasonable objection.

6.13 CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors, and of persons
and organizations directly or indirectly employed by them, and of persons and organizations for whose acts
any of them may be liable to the same extent that CONTRACTOR is responsible for the acts and omissions
of persons directly employed by CONTRACTOR. Nothing in the Contract Documents shall create a
contractual relationship between OWNER or ENGINEER and any Subcontractor or other person or
organization having a direct contract with CONTRACTOR, nor shall it create any obligation on the part of
OWNER or ENGINEER to pay or to see to the payment of any monies due any Subcontractor, or other
person or organization, except as may otherwise be required by law. OWNER or ENGINEER may furnish
to any Subcontractor or other person or organization, to the extent practicable, evidence of amounts paid to
CONTRACTOR on account of specific Work done.

6.14 The divisions and sections of the specifications and the identifications of any drawings shall not control
CONTRACTOR in dividing the Work among Subcontractors, or delineating the Work to be performed by
any specific trade.
6.15 All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the OWNER and ENGINEER. CONTRACTOR shall pay each Subcontractor a just share of any insurance monies received by CONTRACTOR on account of losses under policies issued pursuant to paragraph 5.6.

PATENT FEES AND ROYALTIES:

6.16 CONTRACTOR shall pay all license fees and royalties, and assume all costs incident to the use in the performance of the Work, or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work, and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER and anyone directly or indirectly employed by either of them from and against all claims, damages, losses, and expenses (including attorney’s fees) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work, or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

PERMITS:

6.17 Unless otherwise provided in the Contract Documents, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of bids. CONTRACTOR shall pay all charges of utility service companies for connections to the Work, and OWNER shall pay all charges of such companies for capital costs related thereto.

LAWS AND REGULATIONS:

6.18 CONTRACTOR shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the Work. If CONTRACTOR observes that the specifications or drawings are at variance therewith, CONTRACTOR shall give ENGINEER and OWNER prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If CONTRACTOR performs any Work knowing, or having reason to know, that it is contrary to such laws, ordinances, rules, and regulations, and without such notice to ENGINEER and OWNER, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR’S primary responsibility to make certain that the specifications and drawings are in accordance with such laws, ordinances, rules, and regulations.

TAXES:

6.19 CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by him in accordance with the law of the place of the Project.

USE OF PREMISES:

6.20 CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workmen to areas permitted by law, ordinances, permits, or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.
6.21 During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish, and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish, and debris from and about the premises as well as all tools, appliances, construction equipment, and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents.

6.22 CONTRACTOR shall not load, nor permit any part of any structure to be loaded, in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.23 CONTRACTOR shall be responsible for removing all water and mud interfering with the Work.

6.24 CONTRACTOR shall perform the Work so as not to interfere with or disrupt the business operations of any adjacent businesses and recreation areas.

6.25 CONTRACTOR shall protect and prevent damage or disturbance to any trees or other vegetation as shown in the Contract Documents.

6.26 CONTRACTOR will locate all underground pipelines, conduits, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any easements containing such facilities, including those that convey electricity, gasses, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems which shall collectively be known as the “Underground Facilities” prior to performing the Work. Unless it is otherwise expressly provided in the Contract Documents;

6.26.1 OWNER shall not be responsible for providing any information to CONTRACTOR regarding the Underground Facilities; and

6.26.2 The cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. Locating all Underground Facilities
b. Coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction; and the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

RECORD DOCUMENTS:

6.27 CONTRACTOR shall keep one record copy of all specifications, drawings, addenda, modifications, shop drawings, and samples at the site in good order and annotated to show all changes made during the construction process. These shall be available to ENGINEER and OWNER for examination and shall be delivered to ENGINEER for OWNER upon completion of the Work.

SAFETY AND PROTECTION:

6.28 CONTRACTOR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

6.28.1 all employees and Subcontractors on the Work and other persons who may be affected thereby,
6.28.2 all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and

6.28.3 other property at the site, or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction. CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property, or to protect them from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury, or loss to any property referred to in paragraph 6.28.2 or 6.28.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the sole fault of Drawings or Specifications, or solely to the acts or omissions of OWNER or ENGINEER). CONTRACTOR'S duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR, in accordance with paragraph 14.13, that the Work is acceptable.

6.29 CONTRACTOR shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR'S superintendent, unless otherwise designated in writing by CONTRACTOR to OWNER.

EMERGENCIES:

6.30 In emergencies affecting the safety or protection of persons, or the Work, or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER to OWNER, is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER and OWNER prompt written notice of any significant changes in the Work, or deviations from the Contract Documents caused thereby.

SHOP DRAWINGS AND SAMPLES:

6.31 See Section 105.02 of “Standard Specifications For Road and Bridge Construction”, Colorado Department of Transportation, State of Colorado (2011)

CONTINUING THE WORK:

6.32 CONTRACTOR shall carry on the Work and maintain the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as CONTRACTOR and OWNER may otherwise agree in writing.

INDEMNIFICATION:

6.33 To the fullest extent permitted by law, CONTRACTOR shall indemnify and hold harmless OWNER and ENGINEER, and their officials, agents and employees, from and against all claims, damages, liabilities, losses, and expenses including, but not limited to, attorney’s fees and costs arising out of, or resulting from, the performance or non-performance of the Work, and including, but not limited to, claims, damages, liabilities, losses, or expenses attributable to bodily injury, sickness, disease, or death, or injury to or destruction of tangible property including the loss of use resulting therefrom or is caused, in whole or in part, by any negligent act or omission of CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Nothing in the contract shall be interpreted that the
OWNER waives its sovereign immunity granted under Colorado Governmental Immunity Act or other applicable law.

6.34 In any and all claims against OWNER or ENGINEER, or any of their agents or employees, by any employee of CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.33 shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any Subcontractor under worker’s or workmen’s compensation acts, disability benefit acts, or other employee benefit acts.

6.35 The obligations of CONTRACTOR under paragraph 6.33 shall not extend to the liability of ENGINEER, his agents, or employees arising out of the ENGINEER’S preparation of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications.

ARTICLE 7 – WORK BY OTHERS

7.1 OWNER may perform additional Work related to the Project by himself, or have additional work performed by utility service companies, or let other direct contracts therefore which shall contain general conditions similar to these. CONTRACTOR shall afford the utility service companies and the other contractors who are parties to such direct contracts (or OWNER, if OWNER is performing the additional work with OWNER’S employees) reasonable opportunity for the introduction and storage of materials and equipment, and the execution of work, and shall properly connect and coordinate his work with theirs.

7.2 If any part of CONTRACTOR'S Work depends, for proper execution or results, upon the work of any such other contractor or utility service company (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER and OWNER in writing any patent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. CONTRACTOR'S failure to so report shall constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S Work, except for latent or non-apparent defects and deficiencies in the other work.

7.3 CONTRACTOR shall do all cutting, fitting, and patching of his Work that may be required to make its several parts come together properly and integrate with such other Work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work, and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected.

7.4 If the performance of additional work by other contractors or utility service companies or OWNER was not noted in the Contract Documents, written notice thereof shall be given to CONTRACTOR prior to starting any such additional work. If CONTRACTOR believes that the performance of such additional work by OWNER or others involves additional expense to CONTRACTOR, or requires an extension of the Contract Time, CONTRACTOR may make a claim therefore as provided in Articles 11 and 12.

ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.1 OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2 In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer whose status under the Contract Documents shall be that of the former ENGINEER.

8.3 OWNER and all of its employees and agents shall have the right to full access and use of the Project site. Such use shall not constitute acceptance of the Work or any part thereof, or waive any of OWNER’S rights or remedies under the Contract Documents.
ARTICLE 9 – ENGINEER’S STATUS DURING CONSTRUCTION

OWNER’S REPRESENTATIVE:

9.1 ENGINEER will be OWNER’S representative during the construction period as set forth in the Contract Documents. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER'S representative during construction are set forth in the Contract Documents, and shall not be extended without written consent of OWNER and ENGINEER. Notwithstanding anything to the contrary herein, in all instances in the Contract Documents where ENGINEER has the authority to make decisions concerning quality of and acceptance of the Work performed by CONTRACTOR the ENGINEER shall first discuss such decision and proposed acceptance with OWNER and obtain its approval prior to communicating with the CONTRACTOR. Further, in all instances in the Contract Documents where ENGINEER has the authority to make a decision that impacts the Project budget or Contract Price or payment to the CONTRACTOR, then Engineer shall first discuss the payment or costs with OWNER and obtain its approval prior to approving any payment, additive or deductive Work. This paragraph is not intended as and shall not be a waiver of ENGINEER’S responsibility for oversight of the Work.

VISITS TO SITE:

9.2 ENGINEER will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER'S efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations, as an experienced and qualified design professional, ENGINEER will keep OWNER informed of the progress of the Work, and will endeavor to guard OWNER against defects and deficiencies in the Work.

CLARIFICATIONS AND INTERPRETATIONS:

9.3 ENGINEER will issue, with reasonable promptness, such written clarifications or interpretations of the Contract Documents (in the form of drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with, or reasonably inferable from, the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefore, as provided in Article 11 or Article 12.

REJECTING DEFECTIVE WORK:

9.4 ENGINEER after conferring and receiving approval of OWNER will have authority to disapprove or reject Work which is defective, and will also have authority to require special inspection or testing of the Work as fabricated, installed, or completed.

SHOP DRAWINGS, CHANGE ORDERS, AND PAYMENTS:

9.5 In connection with ENGINEER'S responsibility for shop drawings and samples, see paragraphs 6.31.

9.6 In connection with ENGINEER’S responsibilities as to change orders see Articles 10, 11, and 12.

9.7 In connection with ENGINEER’S responsibilities in respect to applications for payment, etc., see Article 14.

PROJECT REPRESENTATION:
9.8 ENGINEER may utilize Resident Project Representative to assist ENGINEER in observing the performance of the Work. The duties, responsibilities, and limitations of authority of any such Resident Project Representative and assistants will be as provided in the Contract Documents. If OWNER designates another agent to represent him at the site who is not ENGINEER'S agent, the duties, responsibilities, and limitations of authority of such other person will be as provided the Contract Documents.

DECISIONS ON DISAGREEMENTS:

9.9 ENGINEER will be the initial interpreter of the requirements of the Contract Documents and after first conferring with OWNER will judge of the acceptability of the Work thereunder. Claims, disputes, and other matters relating to the acceptability of the Work, or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work, shall be referred initially to ENGINEER in writing with a request for a formal decision which ENGINEER will render in writing within a reasonable time after conferring with OWNER.

LIMITATIONS ON ENGINEER'S RESPONSIBILITIES:

9.10 Neither ENGINEER'S nor OWNER authority to act under this Article 9, or elsewhere in the Contract Documents, nor any decision made by ENGINEER or OWNER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER or OWNER to CONTRACTOR, any Subcontractor, any manufacturer, fabricator, supplier, or distributor, or any of their agents or employees, or any other person performing any of the Work.

9.11 Whenever, in the Contract Documents, the terms “as ordered”, “as directed”, “as required”, “as allowed”, or terms of like effect or import are used, or the adjectives “reasonable”, “suitable”, “acceptable”, “proper”, or “satisfactory”, or adjectives of like effect or import are used to describe requirement, direction, review, or judgment of ENGINEER as to the Work, it is intended that such requirement direction, review, or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective never indicates that ENGINEER shall have authority to supervise or direct performance of the Work, or authority to undertake responsibility contrary to the provisions of paragraphs 9.12 or 9.13.

9.12 ENGINEER and OWNER will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER and OWNER will not be responsible for CONTRACTOR'S failure to perform the Work in accordance with the Contract Documents.

9.13 ENGINEER and OWNER will not be responsible for the acts or omissions of CONTRACTOR, or of any Subcontractor, or of the agents or employees of any CONTRACTOR or Subcontractor, or of any other persons at the site or otherwise performing any of the Work.

ARTICLE 10 – CHANGES IN THE WORK

10.1 Without invalidating the Agreement, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work; these will be authorized by change orders. Upon receipt of an executed change order, CONTRACTOR shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any change order causes an increase or decrease in the Contract Price, or an extension or shortening of the Contract Time, an equitable adjustment may be made as provided in Article 11 or Article 12 on the basis of a claim made by either party.
10.2 ENGINEER, with approval of OWNER, may authorize minor changes in the Work, not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. These may be accomplished by a field order, and shall be binding on OWNER, and also on CONTRACTOR who shall perform the change promptly. If CONTRACTOR believes that a field order justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefore as provided in Article 11 or Article 12.

10.3Additional Work performed without authorization of a change order will not entitle CONTRACTOR to an increase in the Contract Price, or an extension of the Contract Time, except in the case of an emergency as provided in paragraph 6.30, and except as provided in paragraph 13.9.

10.4 OWNER may execute appropriate change orders prepared by ENGINEER covering changes in the Work which are required by OWNER, or required because of unforeseen physical conditions or emergencies, or because of uncovering Work found not to be defective, or as provided in paragraphs 11.10 or 11.11.

10.5 If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any bond to be given to the surety, it will be CONTRACTOR'S responsibility to so notify the surety, and the amount of each applicable bond shall be adjusted accordingly. CONTRACTOR shall furnish proof of such adjustment to OWNER.

ARTICLE 11 – CHANGE OF CONTRACT PRICE

11.1 The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities, and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

11.2 The Contract Price may only be changed by a change order. Any claim for an increase in the Contract Price shall be based on verbal notice delivered to OWNER and ENGINEER within two days to be followed by written notice delivered to OWNER and ENGINEER within five days of the occurrence of the event giving rise to the claim. Any change in the Contract Price resulting from any such claim and approved by ENGINEER and OWNER shall be incorporated in a change order.

11.3 No change orders or other form of order or directive which requires additional compensable Work to be performed may be issued or be effective unless accompanied by a written assurance to the CONTRACTOR that lawful appropriations to cover the costs of the additional Work have been made.

11.4 The value of any Work covered by a change order, or of any claim for an increase or decrease in the Contract Price, shall be determined in one of the following ways:

11.4.1 Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.10).

11.4.2 By mutual acceptance of a lump sum.

11.4.3 On the basis of the cost of the Work (determined as provided in paragraphs 11.5 and 11.6).

11.5 The term “Cost of the Work” means the sum of any and all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.6:
11.5.1 Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages, plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, worker’s or workmen’s compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, or on Sunday or legal holidays, shall be included in the above only to the extent authorized in writing by OWNER.

11.5.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and manufacturers’ field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case, the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

11.5.3 Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR, and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work, the Subcontractor’s Cost of the Work shall be determined in the same manner as CONTRACTOR'S Cost of the Work. All Subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.5.4 Supplemental costs including the following:

11.5.4.1 The proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR'S employees incurred in discharge of duties connected with the Work.

11.5.4.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machines, appliances, office and temporary facilities at the site, and hand tools not owned by the workmen, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.5.4.3 Rentals of all construction equipment and machinery, and the parts thereof, whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof, all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.5.4.4 *Intentionally omitted.*

11.5.4.5 *Intentionally omitted.*

11.5.4.6 *Intentionally omitted.*

11.5.4.7 The cost of utilities, fuel, and sanitary facilities at the site.
11.5.4.8 Minor expenses such as long distance calls, telephone service at the site and similar petty cash items in connection with the Work.

11.5.4.9 Cost of premiums for additional bonds and insurance required because of changes in the Work.

11.6 The term “Cost of the Work” shall not include any of the following:

11.6.1 Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorship), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by CONTRACTOR whether at the site or in his principal or a branch office for general administration of the Work, and not specifically included in the agreed upon schedule of job classifications referred to in subparagraph 11.5.1.

11.6.2 Expenses of CONTRACTOR'S principal and branch office, other than CONTRACTOR'S office at the site.

11.6.3 Any part of CONTRACTOR'S capital expenses including interest on CONTRACTOR'S capital employed for the Work, and charges against CONTRACTOR for delinquent payments.

11.6.4 Cost of premiums for all bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for additional bonds and insurance required because of changes in the Work).

11.6.5 Costs due to the negligent performance or non-performance of CONTRACTOR, any subcontractor, or anyone directly or indirectly employed by any of them, or for whose acts any of them may be liable, including, but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

11.6.6 Other overhead or general expense costs of any kind, and the costs of any item not specifically and expressly included in paragraph 11.5.

11.7 Intentionally Omitted.

11.8 The amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in cost will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined adjustment to overhead and profit shall be figured on the basis of the net increase or decrease in allowable costs, if any.

ADJUSTMENT OF UNIT QUANTITIES:

11.9 Whenever the cost of any Work is to be determined based upon unit price, CONTRACTOR will submit, in form acceptable to ENGINEER and OWNER, an itemized cost breakdown together with supporting data.

11.10 Where the quantity of Work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such Work indicated in the Contract Documents, an appropriate change order (additive or deductive) may be issued on recommendation of ENGINEER with written approval of OWNER. In no event will the unit price bid by CONTRACTOR be modified, but the quantity of any item may be increased or decreased as set forth herein. Notwithstanding the foregoing, in no event will the change modify the not to exceed Contract Price or otherwise be modified without a change order approved by OWNER.
CASH ALLOWANCES:

11.11 It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents, and shall cause the Work so covered to be done by such Subcontractors, manufacturers, fabricators, suppliers, or distributors, and for such sums within the limit of the allowances as may be acceptable to ENGINEER and OWNER. Upon final payment, the Contract Price shall be adjusted as required, and an appropriate change order issued. CONTRACTOR agrees that the original Contract Price includes such sums as CONTRACTOR deems proper for costs and profit on account of cash allowances. No demand for additional cost or profit in connection therewith will be valid.

ARTICLE 12 – CHANGE OF THE CONTRACT TIME

12.1 The Contract Time may only be changed by a change order. Any claim for an extension in the Contract Time shall be based on verbal notice delivered to OWNER and ENGINEER within two days to be followed by written notice delivered to OWNER and ENGINEER within five days of the occurrence of the event giving rise to the claim. Any change in the Contract Time resulting from any such claim as may be approved by OWNER shall be incorporated in a change order.

12.2 All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of Articles 11 and 12 are CONTRACTOR'S sole remedies for delay by any cause whatsoever, including acts of OWNER.

ARTICLE 13 – WARRANTY AND GUARANTEE; TESTS AND INSPECTION; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

WARRANTY AND GUARANTEE:

13.1 CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work and materials will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 13.

ACCESS TO WORK:

13.2 OWNER, ENGINEER, ENGINEER'S representatives, other representatives of OWNER, testing agencies, and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing. CONTRACTOR shall provide proper and safe conditions for such access.

TESTS AND INSPECTIONS:

13.3 CONTRACTOR shall give ENGINEER and OWNER timely notice of readiness of work for all required inspections, tests or approvals.

13.4 If any law, ordinance, rule, regulation, code, or order of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested, or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith, and furnish ENGINEER and OWNER the required certificates of inspection, testing, or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER'S or ENGINEER'S acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment
proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR'S purchase thereof for incorporation of the Work. The cost of all other inspections, tests, and approvals required by the Contract Documents shall be paid by OWNER (unless otherwise specified).

13.5 Any inspections, tests, or approvals, other than those required by law, ordinance, rule, regulation, code, or order of any public body having jurisdiction, shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by ENGINEER if so specified).

13.6 If any Work that is to be inspected, tested, or approved is covered without written concurrence of ENGINEER and OWNER, it must, if requested by ENGINEER or OWNER, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense, unless CONTRACTOR has given ENGINEER and OWNER timely notice of CONTRACTOR'S intention to cover such Work and ENGINEER and OWNER has not acted with reasonable promptness in response to such notice.

13.7 Neither observations by ENGINEER or OWNER nor inspections, tests, or approvals by others shall relieve CONTRACTOR from his obligations to perform the Work in accordance with the Contract Documents.

UNCOVERING WORK:

13.8 If any Work is covered contrary to the written request of ENGINEER or OWNER, it must, if requested by ENGINEER or OWNER, be uncovered for ENGINEER or OWNER’s observation and replaced at CONTRACTOR’S expense.

13.9 If ENGINEER or OWNER considers it necessary or advisable that covered Work be observed by ENGINEER or OWNER, or inspected or tested by others, CONTRACTOR, at ENGINEER or OWNER’s request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER or OWNER may require, that portion of the Work in question, furnish all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all the expenses of such uncovering, exposure, observation, inspection, and testing of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive change order shall be issued. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price, or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction.

OWNER MAY STOP THE WORK:

13.10 If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

CORRECTION OR REMOVAL OF DEFECTIVE WORK:

13.11 If required by ENGINEER or OWNER, CONTRACTOR shall promptly, without cost to OWNER and as specified by ENGINEER or OWNER, either correct any defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER or OWNER, remove it from the site and replace it with non-defective Work in a manner acceptable to the ENGINEER and OWNER.

MATERIALS:

13.12 Materials to be used or incorporated in the Project shall be new and of good quality. All warranties for materials furnished by any manufacturer or supplier are for the benefit of OWNER.
ACCEPTANCE OF DEFECTIVE WORK:

13.13 If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER’S recommendation of final payment,) prefers to accept it, OWNER may do so. In such case, if acceptance occurs prior to ENGINEER’S recommendation of final payment, a change order shall be issued incorporating the necessary revisions in the Contract Price; or, if the acceptance occurs after such recommendation, an appropriate amount shall be paid by CONTRACTOR to OWNER.

OWNER MAY CORRECT DEFECTIVE WORK:

13.14 If CONTRACTOR fails, within a reasonable time after written notice of ENGINEER or OWNER, to proceed to correct defective Work, or to remove and replace rejected Work as required by ENGINEER or OWNER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising his rights under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR’S services related thereto, take possession of CONTRACTOR’S tools, appliances, construction equipment, and machinery at the site, and incorporate in the Work all materials and equipment stored at the site, or for which OWNER has paid CONTRACTOR, but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER’S representatives, agents, and employees such access to the site as may be necessary to enable OWNER to exercise his rights under this paragraph. All direct and indirect costs of OWNER in exercising such rights shall be charged against CONTRACTOR in an amount verified by ENGINEER, and a change order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required, and all costs of repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR’S defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER’S rights hereunder.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

SCHEDULES:

14.1 At least ten days prior to submitting the first application for a progress payment, CONTRACTOR shall (except as otherwise specified in the general requirements) submit to ENGINEER and OWNER a progress schedule, a final schedule of shop drawing submissions, and, where applicable, a schedule of values of the Work. These schedules shall be satisfactory in form and substance to ENGINEER and OWNER. The schedule of values shall include quantities and unit prices aggregating the Contract Price, and shall subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by ENGINEER and OWNER, it shall be incorporated into a form of application for payment acceptable to ENGINEER and OWNER.

APPLICATION FOR PROGRESS PAYMENT:

14.2 At least ten days before each progress payment falls due (but not more often than once a month), CONTRACTOR shall submit to ENGINEER and OWNER for review an application for payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the application, and accompanied by such supporting documentation as is required by the Contract Documents, and also as ENGINEER or OWNER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work, but delivered and suitably stored at the site or at another location
agreed to in writing, the application for payment shall also be accompanied by such data, satisfactory to OWNER, as will establish OWNER'S title to the material and equipment, and protect OWNER'S interest therein, including applicable insurance. Each subsequent application for payment shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied to discharge in full all of CONTRACTOR'S obligations reflected in prior applications for payment. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

**CONTRACTOR'S WARRANTY OF TITLE:**

14.3 CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by any application for payment, whether incorporated in the Project or not, will pass to OWNER at the time of payment free and clear of all liens, claims, security interests, and encumbrances (hereafter in these General Conditions referred to as “Liens”).

**REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT:**

14.4 ENGINEER will after conferring with OWNER, within ten days after receipt of each application for payment, either indicate in writing a recommendation of payment and present the application to OWNER, or return the application to CONTRACTOR indicating in writing ENGINEER'S reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the application. OWNER shall, within twenty days of presentation to him of the application for payment with ENGINEER'S recommendation, pay CONTRACTOR the amount recommended.

14.5 ENGINEER'S recommendation of any payment requested in an application for payment will constitute a representation by ENGINEER to OWNER that, based on ENGINEER'S on-site observations of the Work in progress as an experienced and qualified design professional, and on ENGINEER'S review of the application for payment, and the accompanying data and schedules, the Work has progressed to the point indicated; that, to the best of ENGINEER'S knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning Project upon substantial completion, and to the results of any subsequent tests called for in the Contract Documents and any qualifications stated in the recommendation); and, that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment, ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of Work, or that the means, methods, techniques, sequences, and procedures of construction have been reviewed, or that any examination has been made to ascertain how or for what purpose CONTRACTOR has used the monies paid or to be paid to CONTRACTOR on account of the Contract Price, or that title to any Work, materials, or equipment has passed to OWNER free and clear of any Liens.

14.6 ENGINEER'S recommendation of final payment will constitute an additional representation by ENGINEER to OWNER that the conditions precedent to CONTRACTOR'S being entitled to final payment as set forth in paragraph 14.13 have been fulfilled.

14.7 ENGINEER may refuse to recommend the whole, or any part of any payment if, in his opinion, it would be incorrect to make such representations to OWNER. He may also refuse to recommend any such payment, or, because of subsequently discovered evidence, or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in ENGINEER'S opinion to protect OWNER from loss because:

14.7.1 the Work is defective, or completed Work has been damaged requiring correction or replacement,

14.7.2 written claims have been made against OWNER, or Liens have been filed in connection with the Work,
14.7.3 the Contract Price has been reduced because of modifications,

14.7.4 OWNER has been required to correct defective Work, or complete the Work in accordance with paragraph 13.14,

14.7.5 of CONTRACTOR'S unsatisfactory prosecution of the Work in accordance with the Contract Documents, or

14.7.6 CONTRACTOR'S failure to make payment to Subcontractors, or for labor, materials, or equipment.

SUBSTANTIAL COMPLETION:

14.8 When CONTRACTOR considers the entire Work ready for its intended use, CONTRACTOR shall, in writing to OWNER and ENGINEER, certify that the entire Work is substantially complete, and request that ENGINEER issue a certificate of substantial completion. Within a reasonable time thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER after conferring with OWNER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving his reasons therefor. If ENGINEER after conferring with OWNER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of substantial completion which shall fix the date of substantial completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which he may make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will, within fourteen days after submission of the tentative certificate to OWNER, notify CONTRACTOR in writing stating his reasons therefor. If, after consideration of OWNER'S objections, ENGINEER considers the Work substantially complete, ENGINEER will, within said fourteen days, execute and deliver to OWNER and CONTRACTOR a definitive certificate of substantial completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as he believes justified after consideration of any objections from OWNER. At the time of delivery of tentative certificate of substantial completion, ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, and insurance. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER prior to his issuing the definitive certificate of substantial completion, ENGINEER'S aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

14.9 OWNER shall have the right to exclude CONTRACTOR from the Work after the date of substantial completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

PARTIAL UTILIZATION:

14.10 Use by OWNER of completed portions of the Work may be accomplished prior to substantial completion of all the Work subject to the following:

14.10.1 OWNER, at any time, may request CONTRACTOR in writing to permit OWNER to use any part of the Work which OWNER believes to be substantially complete and which may be so used without significant interference with construction of the other parts of the Work. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER and ENGINEER that said part of the Work is substantially complete, and request ENGINEER to issue a certificate of substantial
completion for that part of the Work. Within a reasonable time thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER after conferring with OWNER considers that part of the Work to be substantially complete, ENGINEER will execute, and deliver to OWNER and CONTRACTOR, a certificate to that effect, fixing the date of substantial completion as to that part of the Work, attaching thereto a tentative list of items to be completed or corrected before final payment. Prior to issuing a certificate of substantial completion as to part of the Work, ENGINEER after conferring with OWNER will deliver to OWNER and CONTRACTOR a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, and insurance for that part of the Work which shall become binding upon OWNER and CONTRACTOR at the time of issuing the definitive certificate of substantial completion as to that part of the Work, unless OWNER and CONTRACTOR shall have otherwise agreed in writing. OWNER shall have the right to exclude CONTRACTOR from any part of the Work which ENGINEER has so certified to be substantially complete, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.10.2 In lieu of the issuance of a certificate of substantial completion as to part of the work, OWNER may take over operation of a facility constituting part of the Work, whether or not it is substantially complete, if such facility is functionally and separately usable; provided that prior to any such takeover, OWNER and CONTRACTOR have agreed as to the division of responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, correction period, heat, utilities, and insurance with respect to such facility.

14.10.3 No occupancy of part of the Work, or taking over of operations of a facility will be accomplished before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or permitted to lapse on account of any such partial use or occupancy.

FINAL INSPECTION:

14.11 Upon written notice from CONTRACTOR that the Work is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR, and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

FINAL APPLICATION FOR PAYMENT:

14.12 After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and OWNER, and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, marked-up record documents, and other documents, all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 14.14), CONTRACTOR may make application for final payment following the procedure for progress payments. The final application for payment shall be accompanied by all documentation called for in the Contract Documents, and such other data and schedules as ENGINEER may reasonably require. Payment shall be processed in accordance with C.R.S. 24-91-103 and C.R.S. 38-26-107. Notwithstanding the foregoing, CONTRACTOR will provide complete and legally effective lien releases or waivers satisfactory to OWNER. In lieu thereof, and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material, and equipment for which lien could be filed, and that all payrolls, material, and equipment bills,
and other indebtedness connected with the Work, for which OWNER or his property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any subcontractor, manufacturer, fabricator, supplier, or distributor fails to furnish a release or receipt in full, CONTRACTOR may furnish a bond or other collateral satisfactory to OWNER to indemnify OWNER.

FINAL PAYMENT AND ACCEPTANCE:

14.13 If, after conferring with OWNER and on the basis of ENGINEER'S observation of the Work during construction and final inspection, and ENGINEER'S review of the final application for payment and accompanying documentation, all as required by Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR has fulfilled all of his obligations under the Contract Documents, ENGINEER will, within ten days after receipt of the final application for payment, indicate in writing his recommendation of payment, and present the application to OWNER for payment. Thereupon, ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, ENGINEER will return the application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections, and resubmit the application. If the application and accompanying documentation are appropriate as to form and substance, OWNER shall, after receipt thereof, pay CONTRACTOR in accordance with payment procedures set forth in the Agreement, the amount recommended by ENGINEER.

CONTRACTOR'S CONTINUING OBLIGATION:

14.14 CONTRACTOR'S obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of substantial completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER, nor any failure to do so, nor the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13, nor any correction of defective Work by OWNER shall constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR'S obligation to perform the Work in accordance with the Contract Documents.

WAIVER OF CLAIMS:

14.15 The making and acceptance of final payment shall constitute:

14.15.1 a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled liens, from defective Work or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; further, it shall not constitute a waiver by OWNER of any rights in respect of CONTRACTOR'S continuing obligations under the Contract Documents; and

14.15.2 a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

OWNER MAY SUSPEND WORK:

15.1 OWNER may, at any time and without cause, suspend the Work, or any portion thereof, for a period of not more than ninety days, by notice in writing to CONTRACTOR and ENGINEER which shall fix the date on which Work shall be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR may, at the OWNER'S sole discretion, be allowed an increase in the Contract Price, or an
extension of the Contract Time, or both, directly attributable to any suspension, if he makes a claim therefor as provided in Articles 11 and 12.

15.2 Upon the occurrence of any one or more of the following events:

15.2.1 if CONTRACTOR is adjudged bankrupt or insolvent,

15.2.2 if CONTRACTOR makes a general assignment for the benefit of creditors,

15.2.3 if a trustee or receiver is appointed for CONTRACTOR or for any of CONTRACTOR'S property,

15.2.4 if CONTRACTOR files a petition to take advantage of any debtor’s act, or to reorganize under the bankruptcy or similar laws,

15.2.5 if CONTRACTOR repeatedly fails to supply sufficient skilled workmen, or suitable materials or equipment,

15.2.6 if CONTRACTOR repeatedly fails to make prompt payments to Subcontractors, or for labor, materials, or equipment,

15.2.7 if CONTRACTOR disregards laws, ordinances, rules, regulations, or orders of any public body having jurisdiction,

15.2.8 if CONTRACTOR disregards the authority of ENGINEER, or

15.2.9 if CONTRACTOR otherwise violates, in any substantial way, any provisions of the Contract Documents,

OWNER may, after giving CONTRACTOR and his surety seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site, and take possession of the Work and of all CONTRACTOR'S tools, appliances, construction equipment, and machinery at the site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site, or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Work, including compensation for additional professional services, such excess shall be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER shall be verified by ENGINEER and incorporated in a change order, but in finishing the Work, OWNER shall not be required to obtain the lowest figure for the Work performed. Contractor shall insert a clause containing the terms of section 15.1 and 15.2 in all contracts or sub-contracts that exceed $10,000.

15.3 Where CONTRACTOR'S services have been so terminated by OWNER, the termination shall not affect any rights of OWNER against CONTRACTOR then existing, or which may thereafter accrue. Any retention or payment of monies due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4 Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy, terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed and expenses sustained through the date of termination. Contractor
shall insert a clause containing the terms of this section 15.4 in all contracts or sub-contracts that exceed $10,000.

CONTRACTOR MAY STOP WORK OR TERMINATE:

15.5 If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER, or under an order of court or other public authority, or ENGINEER fails to act on any application for payment within thirty days after it is submitted, or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, terminate the Agreement and recover from OWNER payment for all Work executed through the date of termination.

ARTICLE 16 – MISCELLANEOUS

GIVING NOTICE:

16.1 Whenever any provision of the Contract Documents requires the giving of written notice, it shall be deemed to have been validly given if delivered in person to the individual, or to a member of the firm, or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

COMPUTATION OF TIME:

16.2 When any period of time is referred to in the Contract Documents by days, it shall be calendar days and be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday, or on a day made a legal holiday by the law of the applicable jurisdiction, such day shall be omitted from the computation.

GENERAL:

16.3 Should OWNER or CONTRACTOR suffer injury or damage to his person or property because of any error, omission or act of the other party or of any of the other party’s employees or agents, or others for whose acts the other party is legally liable, claim shall be made in writing to the other party within a reasonable time of the first observances of such injury or damage.

16.4 The duties and obligations imposed by these general conditions and the rights and remedies available hereunder to the parties hereto, and, in particular, but without limitation, the warranties, guarantees, and obligations imposed upon CONTRACTOR by paragraphs 6.33, 13.1, 13.11, 13.14, 14.3, and 15.2, and all of the rights and remedies available to OWNER and ENGINEER thereunder, shall be in addition to, and shall not be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by law or contract, by special warranty or guarantee, or by other provisions of this paragraph shall be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligations, right and remedy to which they apply. All representations, warranties, and guarantees made in the Contract Documents shall survive final payment and termination or completion of this Agreement.
VII. PROJECT SPECIAL PROVISIONS AND CDOT STANDARD SPECIAL PROVISIONS
The CDOT 2011 Standard Specifications for Road and Bridge Construction controls constructions for this project. The following special provisions supplement or modify the Standard Specifications and take precedence over the Standard Specifications and plans.

When reference is made to “CDOT”, “the department”, Transportation Director, Chief Engineer or “the Engineer” it shall mean Eagle County Engineering Department (County) or their authorized representative. Reference to manuals or publications shall still pertain to the Colorado Department of Transportation.

**PROJECT SPECIAL PROVISIONS**

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EAGLE COUNTY ENGINEERING DEPARTMENT PROJECT SPECIAL PROVISIONS
BURNS BRIDGE REPLACEMENT ON COUNTY ROAD 301 OVER THE COLORADO RIVER

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# EAGLE COUNTY ENGINEERING DEPARTMENT PROJECT SPECIAL PROVISIONS

## BURNS BRIDGE REPLACEMENT
ON COUNTY ROAD 301 OVER THE COLORADO RIVER

## STANDARD SPECIAL PROVISIONS

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NOTICE TO BIDDERS

The proposal guaranty shall be a certified check, cashier's check, or bid bond in the amount of 5 percent of the Contractor's total bid.

Pursuant to subsections 102.04 and 102.05, it is recommended that bidders on this project review the work site and plan details with an authorized County representative.

County Engineer: Eva Wilson, P.E.  P.O. Box 850  500 Broadway  Phone: 970-328-3560  Fax: 970-328-8789

County Project Manager: Ben Gerdes, P.E.  P.O. Box 850  500 Broadway  Office Phone: (970) 328-3564  Cell Phone: (970) 366-9502

Project Engineer - As designated by the County Project Manager

The above referenced individuals are the only representatives of the County with authority to provide any information, clarification, or interpretation regarding the plans, specifications, and any other contract documents or requirements.

A pre bid conference will be held on December 19, 2013 beginning at 3:00 PM at the Garden Level Conference Room Eagle County Building, 500 Broadway, Eagle, CO 81631.

Questions received from bidders along with County responses will be released as addendums.

If the bidder has a question or requests clarification that involves the bidder's innovative or proprietary means and methods, phasing, scheduling, or other aspects of construction of the project, the County Project Manager will address the question or clarification. The County Project Manager will keep the bidder's innovation confidential and will not share this information with other bidders, subject to the Colorado Open Records Act.

The County Project Manager will determine whether questions are innovative or proprietary in nature. If the County Project Manager determines that a question does not warrant confidentiality, the bidder may withdraw the question. If the bidder withdraws the question, the County Project Manager will not answer the question and the question will not be documented. If the bidder does not withdraw the question, the question will be answered, and both the question and answer will be released in an addendum. If the County Project Manager agrees that a question warrants confidentiality, the County Project Manager will answer the question, and keep both question and answer confidential. Eagle County will keep a record of both question and answer in their confidential file, subject to the Colorado Open Records Act.

All questions shall be directed to the County Project Manager contacts listed above no later than 11:00 A.M. on December 27, 2013. Final questions and answers will be posted no later than December 30, 2013.

Questions and answers shall be used for reference only and shall not be considered part of the Contract.
COMMENCEMENT AND COMPLETION OF WORK

The Contractor shall commence work under the Contract on or before the 5th day following Contract execution or the 20th day following the date of award, whichever comes later, unless such time for beginning the work is changed by the Chief Engineer in the "Notice to Proceed." The Contractor shall complete all work in accordance with the "Notice to Proceed."
ON THE JOB TRAINING CONTRACT GOAL

The County and CDOT have determined that On the Job Training shall be provided to trainees with the goal of developing full journey workers in the types of trade or classification involved. The contract goal for On the Job Trainees working in an approved training plan in this Contract has been established as follows:

Minimum number of total On the Job Training required 640 hours
The Department has determined that Underutilized Disadvantaged Business Enterprises (UDBEs) will participate by contracting for a part of the work of this Contract. The contract goal for participation in this Contract by certified DBEs who have been determined to be underutilized has been established as follows:

**UDBE** 8.0 Percent

The percentage will be calculated from proposals received for this project according to the following formula:

\[
\text{Percentage} = \frac{100 \times \text{**Dollar amount of work to be contracted to underutilized DBEs (UDBEs)}}{\text{Total dollar amount of the original Contract}}
\]

* All DBEs will be considered to be UDBEs.
** Based on DBE contract unit prices rather than prime contract unit prices.

NOTE: Specific Good Faith Efforts required to meet the Contract Goal specified above are defined in the Standard Special Provisions. In addition, the Transportation Commission has determined an overall 12.69 percent annual goal for the participation of all DBEs.
REVISION OF SECTION 102
PROJECT PLANS AND OTHER DATA

Section 102 of the Standard Specifications is hereby revised for this project as follows:

Subsection 102.05 shall include the following:

The following information will be available for review in the Eagle County Engineering Department, 500 Broadway, Eagle, CO 81631 until the date set for opening of bids:

- Complete set of plans
- Complete set of Cross Sections

The Bid Plans Room will provide an area where contractors can review any available cross sections and reports. This material may be taken out of the Bid Plans Room area by either: (1) purchase of the material at the current reproduction price or, (2) deposit of cash or check (payable to: Eagle County) equal to the purchase price. The deposit will be refunded if the material is returned by 4:30 p.m. on the second full working day after obtaining the material. If not returned within that time, the deposit will be forfeited.

After the proposals have been opened, the low responsible bidder may obtain from Eagle County, at no cost: 10 sets of plans and special provisions. If the low bidder has not picked up the plans and other available data by 4:30 p.m. on the second Friday after bid opening, they will be sent to the County Project Manager in charge of the project. Additional sets of plans and other available data may be purchased on a cash sale basis from Eagle County at current reproduction prices. Subcontractors and suppliers may obtain plans and other data from the successful bidder or they may purchase copies on a cash sale basis from Eagle County at current reproduction prices.

The following information is available at the County Project Manager's office for review:

2. Environmental Document Supporting Documents:
   - Wetland Delineation Report and Wetland Survey Confirmation, Eagle County Bridge 301-23.5 Replacement, November 2012, PKM Design Group, Inc.
   - COE 404 Permit, Permit File Number SPK-2013-00166, April 9, 2013
   - Asbestos and Lead Paint Sample Results, Yeh & Associates Letter, February 9, 2012
   - Modified Environmental Site Assessment, Yeh & Associates Letter, February 7, 2012
   - SB 40 Certification
   - Section 106 Clearance (Historic), CDOT Memorandum, July 23, 2012
   - Archeological Resource Clearance, CDOT Memorandum, July 20, 2012
REVISION OF SECTION 105
CONTROL OF WORK

Section 105 of the Standard Special Provisions is hereby revised for this project as follows:

Subsection 105.03 Conformity to the Contract shall include the following:

Delete subsection 105.03 paragraph 2.

For all Hot Mix Asphalt on this project, no price reductions per subsection 105.03 will be allowed in this project.

Subsection 105.04 Conformity to the Contract of Superpave Performance Graded Binder shall be deleted and replaced by the following:

Contractor shall provide asphalt binders that meet the requirements of subsection 702.01. Asphalt binders will not be price reduced. The Material which does not meet the requirements of subsection 702.01 shall not be used by the Contractor on this project.

The Contractor shall provide a Certificate of Compliance for the Superpave Performance Graded Binder to be used on the project. Acceptance or rejection of the asphalt binder by the Engineer will be based upon the Certificate of Compliance submittal by the Contractor. The Contractor shall submit the Certificate of Compliance to the Engineer per section 106.12. This submittal will require a formal review by the Engineer per subsection 105.02 (e).

Subsection 105.05 shall be deleted, with the exception of Table 105-2, and replaced with the following:

**105.05 Conformity to the Contract of Hot Mix Asphalt.** Conformity to the Contract of all Hot Mix Asphalt, Item 403, except Hot Mix Asphalt (Patching) and temporary pavement will be determined by tests and evaluations of elements that include asphalt content, gradation, in-place density, and joint density in accordance with the following:

All work performed and all materials furnished shall conform to the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown in the Contract.

When the Engineer finds the materials or work furnished, work performed, or the finished product are not in conformity with the Contract and has resulted in an inferior or unsatisfactory product, the work or material shall be removed and replaced or otherwise corrected at the expense of the Contractor.

Materials will be sampled randomly and tested by the Department in accordance with subsection 106.05 and with the applicable procedures contained in the Department’s Field Materials Manual. The approximate maximum quantity represented by each sample will be as set forth in subsection 106.05. Additional samples may be selected and tested as set forth in Section subsection 106.05 at the Engineers discretion.
A process will consist of either a single test value or a series of values resulting from related tests of an element of the Contractor’s work and materials. An element is a material or workmanship property that can be tested and evaluated for quality level by the Department approved sampling, testing, and analytical procedures. All materials produced will be assigned to a process. A change in process is defined as a change that affects the element involved. For any element, with the exception of the joint density element, a process normally will include all produced materials associated with that element prior to a change in the job mix formula (Form 43). For joint density, a new process will be established for each new layer of pavement or for changes in joint construction. Density measurements taken within each compaction test section will be a separate process. The Engineer may separate a process in order to accommodate small quantities or unusual variations.

Evaluation of materials for pay will be done using only the Department’s acceptance test results. Test results determined to have sampling or testing errors will not be used for determining payment or the evaluation of work.

Except for density measurements taken within a compaction test section, any test result for an element greater than the distance V (see Table 105-2) outside the tolerance limits will be designated as not meeting the contract requirements.

In the case of in-place density or joint density, the Contractor will be allowed to core the exact location (or immediately adjacent location for joint density) of a test result more than V outside the tolerance limit. The core must be taken and furnished to the Engineer within eight hours after notification by the Engineer of the test result. The result of this core will be used in lieu of the previous test result. Cores not taken within eight hours after notification by the Engineer will not be used in lieu of the test result. All costs associated with coring shall be at the Contractor’s expense.

(a) Representing Small Quantities. When it is necessary to represent a process by only one or two test results, the lowest of the tests will be utilized by the Engineer. The Engineer may have additional acceptance tests taken per section 106.05

The test results will be made available to the Contractor upon request. Numbers from the calculations will be carried to significant figures and rounded according to AASHTO Standard Recommended Practice R-11, Rounding Method.

(b) Determining Quality Level. Not Used.

(c) Gradation Element. Each specified sieve shall be 100 percent within the range for the percent passing specified for this project, unless accepted by the Engineer.

(d) Joint Density Element. Joint Density will be tested according to subsection 401.17.


(f) Evaluation of Work. When the gradation, asphalt content, in-place density and joint density test results do not meet the specified requirements for the finished quantity of work, the Engineer may:
3

REVISION OF SECTION 105
CONTROL OF WORK

1. Require complete removal and replacement with specification material at the Contractor’s expense; or

2. Where the finished product is found to be capable of performing the intended purpose and the value of the finished product is not affected, permit the Contractor to leave the material in place.

If the material is permitted to remain in place, full payment for the work will be made per the contract. Material which the Engineer determines is defective may be isolated and rejected without regard to sampling sequence or location within a process.

If removal and replacement is required because the joint density does not meet the specified requirements, the Contractor shall remove and replace the full lane width adjacent to and including at least 6 inches beyond the visible joint line for the entire length of joint representing the process. If the lane removed is adjacent to another joint, that joint shall also be removed to a point 6 inches beyond the visible joint line. When a single joint density core is more than 5 outside the tolerance limits, the removal and replacement limits shall be identified by coring the failing joint at 25 foot intervals until two successive cores are found to be 1V or less below the minimum tolerance limit. If removal and replacement is required, the Contractor shall submit documentation identifying the process to be used to correct the area in question in writing. The process will be approved by the Engineer before commencing the corrective work.

Subsection 105.09 Coordination of Plans, Specifications, Supplemental Specifications, and Special Provisions, Paragraph 2, shall deleted and replaced with the following:

In case of discrepancy the order of precedence is as follows:

(a) Special Provisions
   (1) Project Special Provisions
   (2) Standard Special Provisions

(b) Plans
   (1) Detailed plans
   (2) Standard plans
   Calculated dimensions will govern over scaled dimensions

(c) General Provisions
   (1) Eagle County General Provisions to Construction Agreement
   (2) CDOT Standard Specifications for Road and Bridge Construction – Division 100 General Provisions

(d) Supplemental Specifications

(e) Standard Specifications
REVISION OF SECTION 105
CONTROL OF WORK

Subsection 105.21 Acceptance will be revised as follows:

Add the following sentence to the end of (b) Final Acceptance:

The Contractor shall be responsible for Liquidated Damages per Calendar Day in Standard Special Provision 108 – Liquidated Damages should Final Acceptance not be attained by the Contract Date for project completion.

Add the following to Subsection 105.21:

(c) Substantial Completion. For this project, Substantial Completion of construction will be defined by the date that the Contractor begins to allow County Road 301 traffic to use the new bridge in a two lane traffic configuration. Before the bridge can be opened, the bridge deck, approach slabs, and bridge rail must be completely constructed and the concrete must have reached a strength of at least 80% of its final specified strength.

The Contractor may conduct asphalt paving operations and other construction tasks, per the project traffic control restrictions, after the Owner and Engineer have accepted the Substantial Completion Date. However, the closure of the bridge will no longer be allowed after this date.

Upon notice from the Contractor of presumptive completion of the Substantial Completion project milestone, the Owner and Engineer will make an inspection. If the work provided for by the Contractor has been satisfactorily completed, that inspection shall constitute the Substantial Completion inspection. The Engineer will notify the Contractor in writing of acceptance of Substantial Completion indicating the date on which the project was inspected and accepted.

The Contractor shall be responsible for Liquidated Damages per Calendar Day in Standard Special Provision 108 – Liquidated Damages should Substantial Completion not be attained by the Contract Date for project completion.

After Substantial Completion is attained by the Contractor, the Liquidated Damages per Calendar Day will be end for this specific project completion milestone.
Section 106 of the Standard Special Provisions is hereby revised for this project as follows:

Subsection 106.05 shall include the following:

For this project, Contractor process control testing of hot mix asphalt is mandatory.

For this project, delete subsection 106.05, (a), 1., Quality Level Chart from the QCP.

2. Elements Not Conforming to Process Control. The test results for each discrete group of up to 5 test results shall be standard for evaluating material not conforming to process control. When any group does not meet the specified requirements, the process will be considered as not conforming to the QCP. In this case, the Contractor shall take immediate action to bring the process back into control. Except where the cause of the problem is readily apparent and corrected without delay, production shall be suspended until the source of the problem is determined and corrected. A written explanation of actions taken to correct control problems shall accompany the test data and be submitted to the Engineer on the day the actions are taken.

For this project, modify subsection 106.05, (c), Check Testing Program (CTP). By delete the first and fifth sentences and replace with as follows:

“Prior to, or in conjunction with, placing the first 100 tons of asphalt pavement, under the direction of the Engineer, a CTP will be conducted between acceptance testing and process control testing programs.”

“For joint density, the initial check test will be a comparison of the 2 cores tested by the County and the 2 cores tested by the Contractor.”

For this project, delete subsection 106.05, (d), 2., Quality Level.

For this project, modify subsection 106.05, (e) by replacing the first paragraph, list of verification tests and second paragraph, as follows:

After the mix design has been approved and production commences, the County will perform a minimum of three tests for each of the following elements to verify that the field produced HMA conforms to the approved mix design:

(1) Asphalt Content

The test frequency shall be 2 per day unless otherwise directed by the Engineer. The Quality Level and Total Quality Level requirements in subsection 106.05, (e) will not apply to this project.
2

REVISION OF SECTION 106
CONFORMITY TO THE CONTRACT OF HOT MIX ASPHALT

For this project, delete subsection 106.05, (g), Reference Conditions.

For this project, modify Table 106-1, as follows:

<table>
<thead>
<tr>
<th>Element</th>
<th>Process Control</th>
<th>Acceptance</th>
<th>Check (CTP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Content</td>
<td>1/100 tons</td>
<td>1/100 tons</td>
<td>n/a</td>
</tr>
<tr>
<td>Gradation</td>
<td>2/Day</td>
<td>1/200 tons</td>
<td>n/a</td>
</tr>
<tr>
<td>Theoretical Maximum Specific Gravity</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>In-place Density</td>
<td>1/100 tons</td>
<td>1/100 tons</td>
<td>n/a</td>
</tr>
<tr>
<td>Joint Density</td>
<td>2 cores each end of bridge</td>
<td>2 cores each end of bridge</td>
<td>n/a</td>
</tr>
<tr>
<td>Aggregate Percent Moisture³</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Percent Lime³,⁴</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

For all HMA placement on the bridge deck roller pass studies will be performed for all testing requirements for this HMA. The contractor shall conduct two process control roller passes at a minimum. For acceptance, a minimum of 4 roller passes will be required.

The Notes for Table 106-1 shall apply to this project.
EAGLE COUNTY ENGINEERING DEPARTMENT
BURNS BRIDGE REPLACEMENT
ON COUNTY ROAD 301 OVER THE COLORADO RIVER
PROJECT NO. BRO C 440-0006

REVISION OF SECTION 107
PERMITS, LICENSES, AND TAXES

Section 107 of the Standard Specification is hereby revised as follows:

Subsection 107.02 shall include the following:

The Contractor shall obtain an Eagle County “Permit to Construct within the Public Way” for this project. The permit application instructions and application is available on the Eagle County Website at eaglecounty.us. The fee will waived for this Eagle County Engineering Department project.
Section 107 of the Standard Specifications is hereby revised as follows:

Add subsection 107.061 immediately following subsection 107.06 as follows:

**107.061 Performance of Safety Critical Work.** The following work elements are considered safety critical work for this project:

1. Overhead girder erection
2. Overhead structure construction
3. Removal of bridge
4. Temporary works: falsework, shoring that exceeds 5 feet in height, cofferdams, and temporary bridges
5. Work requiring the use of cranes or other heavy lifting equipment to set a girder, to make overhead repairs, or includes special provisions for Removal of Bridge or Removal of Portion of Bridge. Also when construction materials are being lifted that may fall onto active traffic lanes.
6. Excavation and embankment adjacent to the roadway, especially if it requires shoring
7. Work operations such as pile driving and jack hammering which may create vibration and cause debris to fall into traffic.

The Contractor shall submit, for record purposes only, an initial detailed construction plan that addresses safe construction of each of the safety critical elements. When the specifications already require an erection plan, a bridge removal plan, or a removal of portion of bridge plan, it shall be included as a part of this plan. The detailed construction plan shall be submitted two weeks prior to the safety critical element conference described below. The construction plan shall be stamped “Approved for Construction” and signed by the Contractor. The construction plan will not be approved by the Engineer.

The Construction Plan shall include the following:

1. Safety Critical Element for which the plan is being prepared and submitted.
2. Contractor or subcontractor responsible for the plan preparation and the work.
3. Schedule, procedures, equipment, and sequence of operations, that comply with the working hour limitations
4. Temporary works required: falsework, bracing, shoring, etc.
5. Additional actions that will be taken to ensure that the work will be performed safely.
6. Names and qualifications of workers who will be in responsible charge of the work:
   A. Years of experience performing similar work
   B. Training taken in performing similar work
   C. Certifications earned in performing similar work
7. Names and qualifications of workers operating cranes or other lifting equipment
   A. Years of experience performing similar work
   B. Training taken in performing similar work
   C. Certifications earned in performing similar work
REVISION OF SECTION 107
PERFORMANCE OF SAFETY CRITICAL WORK

(8) The construction plan shall address how the Contractor will handle contingencies such as:

A. Management of Colorado River boater and user traffic on the river during the contractors work in and over the river
B. Unplanned events (storms, traffic accidents, etc.)
C. Structural elements that don’t fit or line up
D. Work that cannot be completed in time for the roadway to be reopened to traffic
E. Replacement of workers who don’t perform the work safely
F. Equipment failure
G. Other potential difficulties inherent in the type of work being performed

(9) Name and qualifications of Contractor’s person designated to determine and notify the Engineer in writing when it is safe to open a route to traffic after it has been closed for safety critical work.

(10) Erection plan or bridge removal plan when submitted as required elsewhere by the specifications. Plan requirements that overlap with above requirements may be submitted only once.

A safety critical element conference shall be held two weeks prior to beginning construction on each safety critical element. The Engineer, the Contractor, the safety critical element subcontractors, and the Contractor’s Engineer shall attend the conference. Required pre-erection conferences or bridge removal conferences may be included as a part of this conference.

After the safety critical element conference, and prior to beginning work on the safety critical element, the Contractor shall submit a final construction plan to the Engineer for record purposes only. The Contractor’s Engineer shall sign and seal temporary works, such as falsework, shoring etc., related to construction plans for the safety critical elements, (3) Removal of Bridge, (4) Removal of Portion of Bridge and (5) Temporary Works. The final construction plan shall be stamped “Approved for Construction” and signed by the Contractor.

The Contractor shall perform safety critical work only when the Engineer is on the project site. The Contractor’s Engineer shall be on site to inspect and provide written approval of safety critical work for which he provided signed and sealed construction details. Unless otherwise directed or approved, the Contractor’s Engineer need not be on site during the actual performance of safety critical work, but shall be present to conduct inspection for written approval of the safety critical work.

When ordered by the Engineer, the Contractor shall immediately stop safety critical work that is being performed in an unsafe manner or will result in an unsafe situation for either the traveling public on the road or on the river. Prior to stopping work, the Contractor shall make the situation safe for work stoppage. The Contractor shall submit an acceptable plan to correct the unsafe process before the Engineer will authorize resumption of the work.

When ordered by the Engineer, the Contractor shall remove workers from the project that are performing the safety critical work in a manner that creates an unsafe situation for the public in accordance with subsection 108.05.

Should an unplanned event occur or the safety critical operation deviate from the submitted plan, the Contractor shall immediately cease operations on the safety critical element, except for performing any work necessary to ensure worksite safety, and provide proper protection of the work and the traveling public. If the Contractor intends to modify the submitted plan, he shall submit a revised plan to the Engineer prior to resuming operations.
3

REVISION OF SECTION 107
PERFORMANCE OF SAFETY CRITICAL WORK

All costs associated with the preparation and implementation of each safety critical element construction plan will not be measured and paid for separately, but shall be included in the work.

Nothing in the section shall be construed to relieve the Contractor from ultimate liability for unsafe or negligent acts or to be a waiver of the Colorado Governmental Immunity Act on behalf of the Department.
REVISION OF SECTION 107
PROTECTION AND RESTORATION OF PROPERTY

Section 107 of the Standard Specification is hereby revised as follows:

Subsection 107.12 shall include the following:

In accordance with Section 107.12, The Contractor shall save existing riparian, wetlands and other existing vegetation during construction of the project in the Temporary Wetland Impact Areas were possible. The Contractor shall fence the boundary of the Temporary Wetland Impact Area and specific areas of vegetation to be protected in the field as directed by the Engineer. The fence will be considered incidental to the Mobilization bid item.

The Contractor shall perform all the work in such a manner that the least environmental damage will result to the Temporary Wetland Impact Areas. Any questionable areas or items shall be brought to the attention of the Engineer for approval prior to vegetation removal or any damaging activity. Damaged or destroyed fenced trees, shrubs, or wetlands, which could have been saved, shall be replaced at the expense of the Contractor.

If the vegetation fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is repaired to the Engineer’s satisfaction at the Contractor’s expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.
1

REVISION OF SECTION 108
LIMITATION OF OPERATIONS

Section 108 of the Standard Special Provisions is hereby revised for this project as follows:

Subsection 108.03 shall include the following:

The Contractor's progress schedule may be a Bar Chart Schedule.

Salient features to be shown on the Contractor's Progress Schedule are:

(1) Mobilization and Advance Signing
(2) Clearing and Grubbing
(3) Construct Bridge Piers Dikes
(4) Construct Bridge Piers
(5) Remove Temporary Pier Dikes
(6) Construct Bridge Abutments
(7) Place Bridge Girders
(8) Construct Bridge Superstructures
(9) Construct Retaining Walls
(10) Construct Roadways
(11) Construct Roadway Tie-ins
(12) Construct Driveways
(13) Place Hot Mix Asphalt
(14) Guardrail and End Anchors
(15) Remove Existing Bridge
(16) Seeding and Mulching
(17) Final Signing
(18) Clean-up and Demobilization

Subsection 108.05 shall include the following:

Eagle County has obtained clearances for the Contractor to temporarily work in wetlands and a portion of the Colorado River. These clearances will enable the Contractor to create temporary levies and/or platforms in the Colorado River to access the locations of the new bridge piers, riprap and access all the existing piers, except for one, for their removal. These areas are available for the Contractor to use, if the Contractor’s means and methods for the project construction requires. The Contractor shall meet all the contract requirements for the use of these areas that are defined in the plans and special provisions. In addition, the Contractor is responsible for reviewing and conforming to all laws and regulations, in addition to any special requirements for this project defined in the environmental document or permits for the project. For additional information, see the following:

1. Special Provision 102 – Project Plans and Other Data
2. Special Provision 626 – Public Information Services
3. Special Provision 630 – Traffic Control Plan
4. Special Provision – Contractor’s Access Road
5. Special Provision – Special Considerations when Working in or near Wetland Areas and Waters of the United States.
6. Plan Set – Construction Phasing Plans (3 sheets)
7. Plan Set – Wetland Notes and Details (2 sheets)
The Contractor shall develop and submit the plan for constructing the piers and riprap for the new bridge, as well as the removal plan for the existing bridge at the preconstruction conference for the project. The plan will not require approval from the Engineer, but shall be required to conform to the requirements of the contract. The plan submittal shall provide all the Contractor’s planned activities, durations and demonstrate that the approach complies with all the project requirements. The Engineer will review the plan and identify any issues that are not addressed adequately per the contract requirements. The Contractor will be notified in writing if the Engineer identifies deficiencies in the plan within 5 days of the preconstruction conference. The Contractor may be required to revise and resubmit the plan if the plan has deficiencies that do not demonstrate that the approach complies with the project requirements. The Contractor shall not begin construction until the plan does not have any deficiencies that have been identified by the Engineer.

The Contractor shall attempt to minimize the use of the area that Eagle County obtained clearance for to a reasonable degree because the use of this area is a temporary impact to the natural environment.

Schedule Requirements:

1. The Contractor shall not conduct any work within the temporary waters of the U.S. impact area in the Colorado River between June 1st and July 31st of any year. Previously constructed temporary obstacles, constructed with this project, to the river shall be removed during this time period. This requirement is to avoid potential impact to the roundtail chub during the spawning period. See the CDOT Categorical Exclusion Determination for this project for additional information.
2. To avoid impacts to in-stream fisheries, any construction work in the water will be conducted between January 1st and March 31st or August 1st and October 31st. Previously constructed temporary obstacles, constructed with this project, to the river may be left in place during this time period. This requirement is to avoid potential impact to the trout during their spawning periods.
3. The Contractor shall not conduct work that requires the delays to travel on, or closure of, the Colorado River to any users of the river during Saturdays and Sundays between May 15th and October 15th.
4. See Section 240 and its revisions for the requirements for migratory birds.
5. See the Special Provision for Traffic Control for the requirements for maintenance of traffic and river use requirements.

Subsection 108.08 shall include the following:

There will be no contract winter shutdown for this project. Weather days will be allowed.
Section 202 of the Standard Specifications is hereby revised for this project as follows:

Subsection 202.01 shall include the following:

This work consists of removal of the existing bridge EAG-301-23.5. Bridge removal shall consist of the complete removal of all superstructure and substructure elements unless otherwise shown on the plans. See Revisions to Section 108, Limitations of Operations for information concerning time limitations for the work.

Subsection 202.02 shall include the following:

The removal of the existing bridge shall be performed in a safe manner.

When removal operations are located over a railroad or in proximity to any live waterway, additional coordination with the Bureau of Land Management or other agency, (United States Army Corps of Engineers (USACE), US Fish and Wildlife Service, US Forest Service, etc.) shall be required.

The Contractor shall submit a Bridge Removal Plan to the Engineer, for record purposes only, at least 20 working days prior to the proposed start of removal operations. This Plan shall detail procedures, sequences, and all features required to perform the removal in a safe and controlled manner. The Bridge Removal Plan shall be stamped “Approved for Construction” and signed by the Contractor. The Bridge Removal Plan will not be approved by the Engineer.

The Bridge Removal Plan shall provide complete details of the bridge removal process, including:

1. The removal sequence, including staging of removal operations. Sequence of operation shall include a detailed schedule that complies with the working hour limitations.

2. Equipment descriptions including size, number, type, capacity, and location of equipment during removal operations.

3. Shoring that exceeds 5 feet in height, all falsework and bracing.

4. Details, locations and types of protective coverings to be used. The protective covering shall prevent any materials, equipment or debris from falling onto the property below. When removal operations are located over or in proximity to any live waterway, railroad, or pedestrian/bicycle path, additional width of protective covering sufficient to protect these facilities shall be required. Detailed methods for protection of the existing roadway facilities, including measures to assure that people, property, utilities, and improvements will not be endangered.

5. Detailed methods for protection of live waterways including minimization of turbidity and sedimentation, and protection of existing wetlands.

6. Detailed methods for mitigation of fugitive dust resulting from the demolition.
REVISION OF SECTION 202
REMOVAL OF BRIDGE

(7) Details for dismantling, removing, loading, and hauling steel elements.

(8) Methods of Handling Traffic, including boaters on the Colorado River, bicycles and pedestrians, in a safe and controlled manner.

A Pre-Removal Conference shall be held at least seven days prior to the beginning of removal of the bridge. The Engineer, the Contractor, the removal subcontractor, the Contractor’s Engineer, and the Traffic Control Supervisor (TCS) shall attend the Pre-Removal Conference. The Bridge Removal Plan shall be finalized at this Conference.

The Contractor’s Engineer shall sign and seal (1) and (3) listed above in the final Bridge Removal Plan. Calculations shall be adequate to demonstrate the stability of the structure remaining after the end of each stage of removal, before traffic is allowed to resume in its normal configuration.

The final Bridge Removal Plan shall be stamped “Approved for Construction” and signed by the Contractor. The Contractor shall submit a final Bridge Removal Plan to the Engineer prior to bridge removal for record purposes only. The Contractor shall not begin the removal process without the Engineer’s written authorization.

Submittal of the final Bridge Removal Plan to the Engineer, and field inspection performed by the Engineer, will in no way relieve the Contractor and the Contractor’s Engineer of full responsibility for the removal plan and procedures.

Work within Railroad right-of-way shall be in accordance with Section 107. For bridge removal over railroads, including overhead wires, tunnels and underground facilities, approval of the bridge removal plans will be contingent upon the drawings being satisfactory to the railroad company involved.

Unless otherwise directed, the Contractor’s Engineer need not be on site when bridge removal operations are in progress, but shall be present to conduct daily inspection for written approval of the work. The Contractor’s Engineer shall inspect and provide written approval of each phase of the removal prior to allowing vehicles, boaters on the Colorado River or pedestrians on, below, or adjacent to the structure. The Contractor’s Engineer shall certify in writing that the falsework, bracing, and shoring conform to the details of the final Bridge Removal Plan. A copy of the certification shall be submitted to the Engineer.

The Contractor’s Engineer shall inspect the bridge removal site and report in writing on a daily basis the progress of the operation and the status of the remaining structure. A copy of this daily report shall be available at the site of the work at all times, and a copy of the previous day’s inspection report shall submitted to the Engineer daily.

The Contractor shall have all necessary workers, materials, and equipment at the site prior to closing any lanes to traffic to accommodate bridge removal operations. While the lanes are closed to public traffic, work shall be pursued promptly and without interruption until the roadway is reopened to traffic.

The Contractor shall take all steps to avoid contaminating state waters, in accordance with subsection 107.25.

Should an unplanned event occur or the bridge removal operation deviate from the submitted bridge removal plan, the bridge removal operations shall immediately cease after performing any work necessary to ensure worksite safety. The Contractor shall submit to the Engineer, the procedure or operation proposed by the Contractor’s
ENGINEER to correct or remedy the occurrence of this unplanned event or to revise the final Bridge Removal Plan. The Contractor shall submit his Engineer’s report in writing, within 24 hours of the event, summarizing the details of the event and the procedure for correction.

Before removal of the protective covering, the Contractor shall clean the protective covering of all debris and fine material.

Bridge removal may be suspended by the Engineer for the following reasons:

1. Final Bridge Removal Plan has not been submitted, or written authorization has not been provided by the Engineer to begin the removal.

2. The Contractor is not proceeding in accordance with the final Bridge Removal Plan, procedures, or sequence.

3. The Contractor’s Engineer is not on site to conduct inspection for the written approval of the work.

4. Debris and sediment entering the river due to the Contractor’s demolition work.

5. Safety precautions are deemed to be inadequate.

6. Existing neighboring facilities are damaged as a result of bridge removal.

Suspension of bridge removal operations shall in no way relieve the Contractor of his responsibility under the terms of the Contract. Bridge removal operations shall not resume until modifications have been made to correct the conditions that resulted in the suspension, as approved in writing by the Engineer.

The Contractor shall notify all emergency response agencies of the proposed removal work and any detours 24 hours in advance of work. This shall include the Colorado State Patrol, local Police Department, local Fire Department, all local ambulance services, and the Sheriff’s Department, as appropriate.

All required traffic control devices, night time flagging stations, barricades and VMS signs shall be in place, with detours in operation, prior to the beginning of removal operations each day. Night work shall conform to the requirements of the MUTCD, Parts 1, 5, and 6.

Prior to reopening the roadway to public traffic, all debris, protective pads, materials, and devices shall be removed and the roadways swept clean. The roadway sweepings shall not be put into the river.

Explosives shall not be used for removal work without the written approval of the Engineer.

Removal shall include the superstructure, the substructure, which includes the piers, the abutments and wingwalls, the bridge rail, and any approach slabs and sleeper slabs.
Removal of the substructure shall be taken down to at least 1 foot below the natural existing or future ground surface at the lowest point of interface with the abutment, unless otherwise approved by the Engineer. Holes resulting from substructure removal shall be backfilled with Structure Backfill (Class 2) to the adjacent existing grades.

All other materials removed from the existing structure shall become the property of the Contractor and shall be properly disposed of offsite at the Contractor’s expense, unless otherwise stated in the plans.

Existing structures, facilities, and surrounding roadways shall not be damaged by the removal operations. Damage that does occur shall be repaired immediately at the Contractor’s expense.

Subsection 202.08 shall include the following:

Removal of hazardous material shall be in accordance with Section 250.

The Contractor shall note that the paint on the existing bridge has been sampled and was NOT found to contain lead. If lead paint is found during the Contractor’s testing efforts, the Contractor shall comply with Section 250 Environmental, Health and Safety Management for the removal of the lead based paint and components of the bridge with lead based paint on them, for the existing bridge.

Subsection 202.12 shall include the following:

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal of Bridge</td>
<td>Each</td>
</tr>
</tbody>
</table>

Payment for Removal of Bridge will be full compensation for all labor and materials required to complete the work, including, preparation and implementation of the Bridge Removal Plan, inspection, equipment, debris handling and disposal, salvaging, handling and storage of salvable materials, handling and disposal of all hazardous materials and disposal of non-salvable materials.

Lighting required for nighttime operations will not be measured and paid for separately, but shall be included in the work.
REVISION OF SECTION 202
REMOVAL OF STRUCTURES
COATED WITH HEAVY-METAL BASED PAINT

Section 202 of the Standard Specifications is hereby revised for this project as follows:

Subsection 202.01 shall include the following:

This work consists of the removal of a structure or components of a structure coated with paint which may contain lead, other heavy metals, or a combination thereof. Management of paint debris waste shall be accomplished in accordance with Section 250.

The tests conducted by the County did not conclude if the paint debris waste was “Solid Waste Material” or “Hazardous Waste Material” due to the limited number of tests. See the attachments to the CDOT Categorical Exclusion Determination for this project for additional information. The Contractor shall be responsible for conducting additional testing of TCPL levels to determine the disposal approach.

Subsection 202.12 shall include the following:

Payment for removal of structures, or portions thereof, coated with heavy-metal based paint will be full compensation for all work necessary to complete the item. Additional testing for TCPL levels shall be considered incidental to the Removal of Bridge item. Paint debris waste management and disposal, either as a Solid Waste Material or Hazardous Waste Material, will be measured and paid for in accordance with Section 250.
REVISION OF SECTION 203
EMBANKMENT MATERIAL

Section 203 of the Standard Specifications is hereby revised for this project as follows:

In subsection 203.03(a), first paragraph, after the second sentence add the following:

Embankment material shall have a resilient modulus value value of at least 50 when tested by the Hveem Stabilometer.
REVISION OF SECTION 208
EROSION CONTROL

Section 208 of the Standard Specifications is hereby revised for this project as follows:

Subsection 208.11, paragraph 7 shall be deleted and replaced with the following:

Erosion Control Supervisor will be measured by the following method. The method will be shown on the bid schedule.

Lump Sum will be the method of measurement for the Erosion Control Supervisor on this project. The ECS is required to be on the project performing the duties outlined in subsection 208.03(c) specific to this project. The Contractor shall record the tasks that were performed by the Erosion Control Supervisor. The records of work tasks shall be submitted to the Engineer, monthly, after completion of the work.

Subsection 208.12 shall include the following:

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erosion Control Supervisor</td>
<td>LS</td>
</tr>
</tbody>
</table>

Partial payments for Erosion Control Supervisor will be made once each month as the work progresses. These partial payments will be as follows:

1. The amount of payment per month will be made based on the portion of the lump sum item. The portion will be the amount bid for the lump sum item divided by the number of months in the duration of the project. If the number of months of the project is not exactly a whole number, the number of months used as the basis of the proportion will be rounded down to the nearest whole number.
2. Upon completion of all erosion control work on the project, payment on any remaining amount of the bid for erosion control supervisor, will be paid.
3. The total sum of all payments shall not exceed the original contract amount for this item, regardless of the fact that the Contractor may have, for any reason, shut down the work on the project or moved equipment away from the project or back again.

For the purposes of this Section the term “original contract amount” as used above shall mean the amount bid for the construction items in the contract.

Payment for Erosion Control Supervisor will be full compensation for all labor and materials required to complete the work for the duration of the project.
1

REVISION OF SECTION 212
SOIL PREPARATION

Section 212 of the Standard Specifications is hereby revised for this project as follows:

Subsection 202.12 shall include the following:

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Preparation</td>
<td>Acre</td>
</tr>
</tbody>
</table>

Payment for Soil Preparation will be full compensation for all labor and materials required to complete the work defined in the plans, including, inspection, equipment, handling and disposal of all non-suitable materials.
1
SECTION 240
PROTECTION OF MIGRATORY BIRDS
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall retain a qualified wildlife biologist for this project. The wildlife biologist shall have a minimum of three years experience conducting migratory bird surveys and implementing the requirements of the MBTA. The Contractor shall submit documentation of the biologist's education and experience to the Engineer for acceptance. A biologist with less experience may be used by the Contractor subject to the approval of the Engineer based on review of the biologist's qualifications.

The wildlife biologist shall record the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records shall be submitted to the Engineer.

(a) Vegetation Removal. When possible, vegetation shall be cleared prior to the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The Contractor's wildlife biologist shall also survey for active migratory bird nests within 50 feet outside work limits. Contractor personnel shall enter areas outside CDOT right of way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

1. Tree and Shrub Removal or Trimming. Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist within the seven days immediately prior to the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of tree and shrub removal or trimming.

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor’s expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.
2. **Grasses and Other Vegetation Management.** Due to the potential for encountering ground nesting birds’ habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately prior to ground disturbing activities.

The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the CDOT biologist. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor’s expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

(b) **Work on structures.** The Contractor shall prosecute work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

1. The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor’s responsibility upon Notice to Proceed.

2. During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.

3. If the birds have started to build any nests, they shall be removed before the nest is completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

4. Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are ¾ inch by ¾ inch or less.

If an active nest become established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the wildlife biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.
SECTION 240
PROTECTION OF MIGRATORY BIRDS
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST

(c) Taking of a Migratory Bird. The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

METHOD OF MEASUREMENT

240.03 Wildlife Biologist will be measured by the actual authorized number of hours a wildlife biologist is on site performing the required tasks.

Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just prior to and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests.

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife Biologist</td>
<td>Hour</td>
</tr>
<tr>
<td>Removal of Nests</td>
<td>Hour</td>
</tr>
<tr>
<td>Netting</td>
<td>Square Yard</td>
</tr>
</tbody>
</table>

Payment for Wildlife Biologist will be full compensation for all work and materials required to complete the item, including wildlife biologist, wildlife survey, and documentation (record of nest location and protection method).

Payment for Removal of Nests will be full compensation for all work and material required to complete the work.

Payment for netting will be full compensation for all work and material required to complete the item. Overlaps of netting will not be measured and paid for separately, but shall be included in the work. Maintenance and replacement, removal, and disposal of netting will not be measured and paid for separately, but shall be included in the work.

Clearing and grubbing will be measured and paid for in accordance with Section 201. Mowing will not be measured and paid for separately, but shall be included in the work.

Removal and trimming of trees will be measured and paid for in accordance with Section 202.

Fence (Plastic) will be measured and paid for in accordance with Section 607.
REVISION OF SECTION 250
ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT

Section 250 of the Standard Special Provisions is hereby revised for this project as follows:

Add subsection 250.09 as follows:

**250.09 Invasive Aquatic Species Equipment Cleaning Requirements.** Equipment and gear that were previously used in another stream, river, lake pond or wetland, and that to be used in or near the waters on the project, shall be treated to prevent the spread of invasive species. These species include but are not limited to:

1) New Zealand Mud Snails
2) Zebra Mussels
3) Quagga Mussels
4) Whirling Disease
5) All other aquatic invasive species

Equipment that shall be treated includes all parts of machinery and vehicles of all types and sizes that come into contact with the live water. Gear that must be treated includes boots, waders, tools, and all other materials and attire used previously in live water. The Contractor shall use one of the following treatments:

1) Remove all mud and debris from equipment and gear. Then spray or soak the equipment and gear with a 1:15 solution of Quat 4 or Super HDQ Neutral institutional cleaner and water. Equipment and gear shall be kept moistened with the solution for at least 10 minutes.

2) Remove all mud and debris from equipment and gear. Then spray or soak equipment and gear with water heated to a temperature greater than 140 degrees F for at least 10 minutes.

Prior to moving such equipment onto the project, the Contractor shall submit to the Engineer a written list of the equipment and a signed certification that it was treated using one of the two methods specified above.
REVISION OF SECTION 304
AGGREGATE BASE COURSE

Section 304 of the Standard Specifications is hereby revised for this project as follows:

Subsection 304.02 shall include the following:

Materials for the sub-base shall be Aggregate Base Course (Class 2) as shown in subsection 703.03.

Materials for the base course shall be Aggregate Base Course (Class 6) as shown in subsection 703.03

The aggregate base course (Class 2) and (Class 6) must meet the gradation requirements and have a resistance value of at least 50 and 78 respectively when tested by the Hveem Stabilometer method.
Section 403 of the Standard Specifications is hereby revised for this project as follows:

Subsection 403.02 shall include the following:

The design mix for hot mix asphalt shall conform to the following:

(See Next Page)
REVISION OF SECTION 403  
HOT MIX ASPHALT

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Value For Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Voids, percent at: N (design)</td>
<td>CPL 5115</td>
<td>3.5 – 4.5</td>
</tr>
<tr>
<td>Lab Compaction (Revolutions): N (design)</td>
<td>CPL 5115</td>
<td>75</td>
</tr>
<tr>
<td>Stability, minimum</td>
<td>CPL 5106</td>
<td>30</td>
</tr>
<tr>
<td>Aggregate Retained on the 4.75 mm (No. 4) Sieve for S, SX and SG, and on the 2.36 mm (No. 8) Sieve for ST and SF with at least 2 Mechanically Induced fractured faces, % minimum*</td>
<td>CP 45</td>
<td>60</td>
</tr>
<tr>
<td>Accelerated Moisture Susceptibility Tensile Strength Ratio (Lottman), minimum</td>
<td>CPL 5109 Method B</td>
<td>80</td>
</tr>
<tr>
<td>Minimum Dry Split Tensile Strength, kPa (psi)</td>
<td>CPL 5109 Method B</td>
<td>205 (30)</td>
</tr>
<tr>
<td>Grade of Asphalt Cement, Top Layer</td>
<td></td>
<td>PG 64-28</td>
</tr>
<tr>
<td>Grade of Asphalt Cement, Layers below Top</td>
<td></td>
<td>PG 64-28</td>
</tr>
<tr>
<td>Voids in the Mineral Aggregate (VMA) % minimum</td>
<td>CP 48</td>
<td>See Table 403-2</td>
</tr>
<tr>
<td>Voids Filled with Asphalt (VFA), %</td>
<td>AI MS-2</td>
<td>65-80</td>
</tr>
<tr>
<td>Dust to Asphalt Ratio Fine Gradation</td>
<td>CP 50</td>
<td>0.6 – 1.2</td>
</tr>
<tr>
<td>Dust to Asphalt Ratio Coarse Gradation</td>
<td></td>
<td>0.8 – 1.6</td>
</tr>
</tbody>
</table>

**Note:**  
AI MS-2 = Asphalt Institute Manual Series 2  
Mixes with gradations having less than 40% passing the 4.75 mm (No. 4) sieve shall be approached with caution because of constructability problems.  
Gradations for mixes with a nominal maximum aggregate size of one-inch or larger are considered a coarse gradation if they pass below the maximum density line at the #4 screen. Gradations for mixes with a nominal maximum aggregate size of 3/4” to 3/8” are considered a coarse gradation if they pass below the maximum density line at the #8 screen. Gradations for mixes with a nominal maximum aggregate size of #4 or smaller are considered a coarse gradation if they pass below the maximum density line at the #16 screen.  
*Fractured face requirements for SF may be waived by RME depending on project conditions.
3
REVISION OF SECTION 403
HOT MIX ASPHALT

All mix designs shall be run with a gyratory compaction angle of 1.25 degrees and properties must satisfy Table 403-1. Form 43 will establish construction targets for Asphalt Cement and all mix properties at Air Voids up to 1.0 percent below the mix design optimum.

<table>
<thead>
<tr>
<th>Nominal Maximum Size*, mm (inches)</th>
<th>Minimum Voids in the Mineral Aggregate (VMA) ***Design Air Voids **</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5%</td>
</tr>
<tr>
<td>37.5 (1½)</td>
<td>11.6</td>
</tr>
<tr>
<td>25.0 (1)</td>
<td>12.6</td>
</tr>
<tr>
<td>19.0 (¾)</td>
<td>13.6</td>
</tr>
<tr>
<td>12.5 (½)</td>
<td>14.6</td>
</tr>
<tr>
<td>9.5 (⅜)</td>
<td>15.6</td>
</tr>
<tr>
<td>4.75 (No. 4)</td>
<td>16.6</td>
</tr>
</tbody>
</table>

* The Nominal Maximum Size is defined as one sieve larger than the first sieve to retain more than 10%.
** Interpolate specified VMA values for design air voids between those listed.
*** Extrapolate specified VMA values for production air voids beyond those listed.

The Contractor shall prepare a quality control plan outlining the steps taken to minimize segregation of HMA. This plan shall be submitted to the Engineer and approved prior to beginning the paving operations. When the Engineer determines that segregation is unacceptable, the paving shall stop and the cause of segregation shall be corrected before paving operations will be allowed to resume.

The hot mix asphalt shall not contain any reclaimed asphalt pavement.

Hot mix asphalt for patching shall conform to the gradation requirements for Hot Mix Asphalt (Grading S).

A minimum of 1 percent hydrated lime by weight of the combined aggregate shall be added to the aggregate for all hot mix asphalt.

Acceptance samples shall be taken approved by the Engineer.
4
REVISION OF SECTION 403
HOT MIX ASPHALT

Delete subsection 403.05 and replace with the following:

403.05 The accepted quantities of hot mix asphalt will be paid for in accordance with subsection 401.22, at the contract unit price per ton for the bituminous mixture.

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Mix Asphalt (Grading S)(75)(PG 64-28)</td>
<td>Ton</td>
</tr>
<tr>
<td>Hot Mix Asphalt (Patching)(Asphalt)</td>
<td>Ton</td>
</tr>
</tbody>
</table>

Aggregate, asphalt recycling agent, additives, hydrated lime, and all other work necessary to complete each hot mix asphalt item will not be paid for separately, but shall be included in the unit price bid. When the pay item includes the PG binder grade, the asphalt cement will not be measured and paid for separately, but shall be included in the work. When the pay item does not include the PG binder grade, asphalt cement will be measured and paid for in accordance with Section 411. Asphalt cement used in Hot Mix Asphalt (Patching) will not be measured and paid for separately, but shall be included in the work.

Excavation, preparation, and tack coat of areas to be patched will not be measured and paid for separately, but shall be included in the work.
Section 403 of the Standard Specifications is hereby revised for this project as follows:

Subsection 403.05 shall include the following:

The Contractor shall collect the scale ticket on each load when it is delivered to the project site, and ensure that the information required in subsection 109.01 is shown on each ticket:

The scale tickets shall be available on site for CDOT personnel to inspect.

Each day the Contractor shall provide to the Engineer envelopes which contain the previous day’s signed tickets and the following:

1. On each envelope: Project number, date of paving, type of material, daily total and cumulative total.

2. One of the following:
   a. Two adding machine tape tabulations of the weight tickets with corresponding totals run and signed by different persons,
   b. One signed adding machine tape tabulation of the weight tickets that has been checked and signed by a second person,
   c. Signed check tape of computer scale tickets that have a cumulative total. These scale tickets must be consecutive and without voids or adjustments.

3. A listing of any overweight loads on the envelope, including ticket numbers and amount over legal limit.

4. A comparison of the actual yield for each day’s placement to the theoretical yield. Theoretical yield shall be based on the actual area paved, the planned thickness, and the actual density of the mixture being placed. Any variance greater than ±2.5% shall be indicated on the envelope and a written explanation included.

The Contractor shall provide a vehicle identification sheet that contains the following information for each vehicle:

1) Vehicle number
2) Length
3) Tare weight
4) Number of axles
5) Distance between extreme axles
6) All other information required to determine legal weight.
7) Legal weight limit.

If the Contractor fails to provide the Engineer with the required information on a daily basis, paving will not be allowed to resume unless approved by the Engineer.
Revision of Section 504
Rockery Retaining Wall

Section 504 of the Standard Specifications is hereby revised for this project as follows:

DESCRIPTION

This work consists of constructing rockery structures at the locations and to the dimensions shown on the plans. Rockeries are formed of interlocking, dry-stacked rocks without reinforcing steel, mortar, or concrete. Rockeries may be constructed as either single structures or in tiers.

The Contractor shall furnish all labor, materials and equipment required for completing the Work. The Contractor shall select the method of excavation, rock placement method and equipment to meet the requirements specified herein.

The Rockeries shall include excavation to the lines and grades shown on the Plans; providing and placing geotextile, rocks and boulders, foundation fill and backfill to construct the walls as shown on the Plans.

MATERIALS

Materials shall conform to the following: Structural Backfill. Recycled asphalt and flow-fill material are not allowed to be substituted for Structural Backfill in conjunction with the Rockery.

Boulders. Boulders used for the Rockery shall have a nominal dimension of 24 inches and composed of hard to very hard rock. The longest dimension of any individual rock should not exceed three times its shortest dimension.

Loading and hauling of rocks shall be included in the cost of the rockeries. The Engineer shall approve rocks for rockery construction prior to placement.

The additional materials listed below shall conform to the sections of the Standard Specifications and Project Special Provisions indicated.

Material:
- Filter Material (Special)  Revision of Section 703
- Structure Backfill (Class 1)  Section 703.08
- Structure Backfill (Class 2)  Section 703.08
- Plastic Pipe  Section 712.11
- Geotextiles  Section 712.08

CONSTRUCTION

Qualifications. Prior to the start of rockery construction, submit the following:

(a) References citing satisfactory completion of at least three (3) rockeries of similar height and face area.
(b) A summary of the experience of the primary equipment operator responsible for placement of base, facing, and cap rocks.
General. The Contractor shall survey the rockery and verify the limits of the rockery installation.

The following definitions apply to rockery construction:

(a) Base Rock: The base rock is the lowermost rock in the rockery, and bears directly on the soil/rock subgrade.

(b) Facing Rock: The facing rocks comprise the bulk of the rockery and are stacked above the base rock.

(c) Cap Rock: The cap rock is the uppermost rock in the rockery section and “caps” the rockery.

Rockery Construction.

(a) Rockery Foundation Excavation. The Contractor shall perform the work in accordance with Section 203. The foundation trench shall be excavated at least 18 inches below the bottom of the rockery, and shall run the full length of the proposed rockery. Deeper embedment may be required where a toe slope is present or where a leveling pad is specified. The Contractor shall excavate the foundation to a minimum width equal to the specified base rock width (‘B’) plus 12 inches to include the granular rock backfill behind the rockery. The Contractor shall conform to the following:

   (1) Excavate the foundation in sections such that the rockery can be constructed in one shift or one day’s work, unless shoring is provided for the purpose to support the excavation.

   (2) If the Engineer determines the back cut is stable as excavated, the requirement (1) does not apply.

   (3) Exercise care during excavation of the back cut. The stability of temporary cut slopes shall be the responsibility of the Contractor.

(b) Rock Placement. The first course of rock (base rock) shall be placed on structure backfill (Class 1) as shown in the plans. The structure backfill (Class 1) shall be compacted according to Subsection 206.03. As the rockery is constructed, the rocks shall be placed so that there are no continuous joints in either the vertical or lateral direction.

The Contractor shall stockpile a sufficient number of rocks to provide a good selection for placement. To obtain a better fit, rocks which do not match the spaces offered by the previous course shall be placed in a different location.

The Contractor shall avoid placing rocks which have shapes that create voids with a linear dimension greater than 12 inches.

Except in isolated cases, each rock shall be placed so that it bears on at least two rocks below it. At least one bearing point shall be a distance no greater than 6 inches from the average face of the rockery.
3
Revision of Section 504
Rockery Retaining Wall

The allowable tolerance for base rock widths is 6 inches; however, two or more base rocks with widths less than specified on the plans shall not be placed consecutively.

The top surface of each rock shall slope towards the back of the rockery at an inclination of at least five (5) percent.

The Contractor shall construct the exposed face of the rockery with a face batter no steeper than 6V:1H and no flatter than 4V:1H.

The minimum rockery thickness is based on the minimum base rock width, as specified on the plans, and the allowable face batter.

Facing rocks shall be securely placed so that the rocks are unable to be moved with a pry bar after the rockery is complete.

The top course of rocks shall be bedded in Type S mortar. The mortar joint shall be constructed so that mortar is not visible on the face of the rockery.

(c) Voids. Where voids with a minimum dimension of 6 inches or greater exist in the face of the rockery, the Contractor shall chink the voids with smaller rock.

(1) If there is no rock contact within the rockery thickness, the void shall be chinked with a smaller piece of rock.

(2) Chinking rocks shall no be placed to provide primary structural support for the overlying rock.

(3) Chinking rocks shall not be loose or able to be moved or removed by hand after the rockery is complete. The Contractor shall reset loose chinking rocks until securely placed or grouted in place. Grout shall not be readily visible from the face of rockery.

(d) Rockery Drainage. The Contractor shall install the granular rock backdrain between the rockery and the back cut face being supported. The granular rock backdrain layer shall be at least 12 inches thick, measured horizontally from the back of the base rock to the face of the back cut. The granular rock backdrain shall be placed concurrent with the rockery so that at no time is either more than 24 inches higher than the other.

(1) Class 2 drainage geotextile shall be placed to separate the crushed rock from the back cut. The non-woven geotextile shall overlap at least 12 inches at all seams.

(2) The Contractor shall place a 6-inch diameter perforated drain pipe as shown in the plans. The pipe shall be surrounded on all sides by at least 6 inches of permeable backfill.

(3) The perforated drain pipe shall be connected to a non-perforated collector pipe at a spacing not to exceed 100 feet center-to-center. The collector pipe shall be connected to a controlled drain outlet, such as a storm drain, or outlet to a slope using a riprap apron.
Revision of Section 504
Rockery Retaining Wall

(4) Collector pipes shall not be connected to systems designed for storm water retention in accordance with Best Management Practices design unless approved by the Engineer.

(5) The Contractor shall cap the granular rock backdrain with at least 12 inches of native, relatively impermeable soil. A non-woven filter geotextile shall be placed between the soil cover and the granular rock backdrain.

MEASUREMENT

Rockeries will not be measured for payment in the field, but will be paid for by the calculated quantities shown on the plans for the major components of the system: structure excavation, structure backfill, retaining wall (boulder), filter material (special), and geotextile. The Contractor's construction of a system that requires increased or decreased quantities of any of the components to complete the rockery to the dimensions shown will not result in a change in pay quantities. Exceptions will be made when field changes are ordered or when it is determined that there are discrepancies on the plans in an amount of at least plus or minus five percent of the plan quantity.

(1) The retaining wall (boulder) quantity will be measured by the square foot of rockery front face area from the top of the foundation fill as shown on the plans to the top of the cap rock.
(2) The structure excavation quantity will be measured for the total volume of earth to be removed before the installation of the rockery system as shown on the plans.
(3) The structure backfill (Class 1) quantity will be measured for the total volume in the foundation fill area as shown on the plans.
(4) The structure backfill (Class 2) quantity will be measured for the total volume in the native soil placed behind the cap rock area as shown on the plans.
(5) The filter material (special) quantity will be measured for the total volume behind the boulders (the granular rock backdrain zone) as shown on the plans.
(6) Geotextile (Drainage) (Class 2) will be measured for the total volume calculated as the design height (DH) plus the foundation fill area plus 1 feet plus the cap and backfill zone, disregarding the slope of the geotextile as shown on the plans.
(7) 4-inch drainage pipes (perforated and non-perforated) quantity will be measured for the total length of the rockery and daylighted portions at 100 foot intervals as shown on the plans.

The square foot and cubic yard quantities computed for payment are the wall plan quantities based on the height measured at 20 foot maximum intervals along the wall layout line.

Chinking rocks will not be measured for payment and are considered incidental to the rockeries.
5
Revision of Section 504
Rockery Retaining Wall

BASIS OF PAYMENT

The accepted quantities of work will be paid for at the contract price per unit of measurement for the pay items listed below.

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retaining Wall (Boulder)</td>
<td>SF</td>
</tr>
</tbody>
</table>

Structure excavation will be paid for under the Section 206 Pay Item Structure Excavation. Structure backfill will be paid for under the Section 206 Pay Item Structure Backfill (Class 1) and Structure Backfill (Class 2). Granular rock backdrain will be paid for under the Section 206 Pay Item Filter Material (Special). Geotextile will be paid for under the Section 420 Pay Item Geotextile (Drainage) (Class 2). 4-inch drainage pipes (perforated and non-perforated) will be paid for under the Section 605 Pay Item 4 inch Perforated Underdrain and 4 inch Non-Perforated Underdrain.

Payment will be full compensation for all work and materials required to construct the rockery. Miscellaneous items such as drainage pipes, chinking, grout, mortar, shimming material will not be measured and paid for separately but shall be included in the work.
REVISION OF SECTION 613
UTILITY HANGERS

Sections 613 of the Standard Specifications are hereby revised for this project as follows:

Subsection 613.01 shall include the following:

This work shall consist of coordinating with the utility owner (CenturyLink) and the County for specific requirements not shown or described here. A professional engineer (licensed in the State of Colorado) shall design and seal the hanger system. Placement of the conduits on the hangers shall not require removal or modification of the steel diaphragms between the girders. The diaphragms shall not be incorporated as part of the system. The contractor shall provide the hangers, rods, threaded inserts, expansion couplings and other miscellaneous bolts and attachments necessary for the proper function of the system.

The threaded inserts shall be cast into the precast concrete deck panels or cast-in-place deck (not drilled in the field). Placement of the threaded inserts shall be coordinated for proper function of the hanger system.

Subsection 613.02 shall include the following:

Framing channels shall be constructed from 12 gauge material (minimum) with a minimum working moment capacity of 1500 in-lbs. Utility hanger system shall be designed to accommodate three 4-inch diameter galvanized steel conduits with 16.5 plf wiring load per conduit. Threaded inserts shall have a 500 lbs minimum working capacity.

Framing Channels: $F_y = 33 \text{ ksi (min.)}$
Threaded Rods: $F_y = 36 \text{ ksi (min.)}$

Subsection 613.11 shall include the following:

Utility hangers, including all requirements stated above, shall not be paid for separately but shall be included in the work. Details shown in the drawings are for illustration purposes only and shall be revised as necessary by the contractor’s engineer.
Subsection 626.01 shall include the following:

The bridge construction effort will require Contractor coordination with a number of entities due to the need to coordinate emergency services access and recreational use of the Colorado River. For all work activities that impact access or river use, the contractor shall contact and/or provide notice to those on the Public Information Services Contact Sheet.

Closure of river use during construction will only be allowed during the time periods when the bridge girders are being placed, deck formwork is being placed, deck formwork is being removed, and during removal of the existing bridge and bridge piers. See the Traffic Control Plan – General Special Provision and Special Provision 108 for additional information and limitations. The Contractor is required to provide a 14 day minimum notice to Eagle County and the Bureau of Land Management of any required river use closures.

The Bureau of Land Management representative will post work activities and affects on recreational use of the river at the river access points upstream of the bridge.

Public Information Services Contact Sheet

<table>
<thead>
<tr>
<th>Bureau of Land Management:</th>
<th>Sheriff’s Department (Eagle County):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greg Wolfgang</td>
<td>Eagle, CO 81631</td>
</tr>
<tr>
<td>Phone: 970-876-9068</td>
<td>Phone: 970-328-8500</td>
</tr>
<tr>
<td>Fax: 970-328-1448</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>Kimberly Miller</td>
<td></td>
</tr>
<tr>
<td>Phone: 970-876-9075</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gypsum Fire District:</th>
<th>Rock Creek Volunteer Fire Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Dave Vroman</td>
<td>Chief Brita Horn</td>
</tr>
<tr>
<td>Gypsum, CO 81637</td>
<td>McCoy, CO 80463</td>
</tr>
<tr>
<td>Phone: 970-524-7101</td>
<td>Phone: 970-653-4497</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eagle County Road and Bridge Department:</th>
<th>Colorado Parks &amp; Wildlife:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gordon Adams, Road and Bridge Director</td>
<td>Perry Will</td>
</tr>
<tr>
<td>Phone: 970-328-3540</td>
<td>Area Wildlife Manager</td>
</tr>
<tr>
<td>or</td>
<td>Phone: 970-974-2927</td>
</tr>
<tr>
<td>Randy Schlegel, Road and Bridge Supervisor</td>
<td>Phone: 970-947-2920</td>
</tr>
<tr>
<td>Phone: 970-653-4463</td>
<td>or</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US Post Office – Burns, Colorado:</th>
<th>Kendall Bakich</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone: 970-653-4237</td>
<td>Area Aquatic Biologist</td>
</tr>
<tr>
<td></td>
<td>Phone: 970-947-2924</td>
</tr>
</tbody>
</table>
REVISION OF SECTION 626
PUBLIC INFORMATION SERVICES

Subsection 626.02 shall include the following:

The Engineer will monitor the PIM and all public information services. When the Contractor provides acceptable public information services in accordance with these specifications, partial payments for the pay item Public Information Services will be made as the work progresses. These partial payments will be made as follows:

Then 5 percent of the original Contract amount is earned, 25 percent of the amount bid for this item will be paid.

When 10 percent of the original Contract amount is earned, 40 percent of the amount bid for this item, less all previous payments, will be paid.

When 25 percent of the original Contract amount is earned, 50 percent of the amount bid for this item, less all previous payments, will be paid.

When 50 percent of the original Contract amount is earned, 60 percent of the amount bid for this item will be paid.

When 60 percent of the original Contract amount is earned, 70 percent of the amount bid for this item will be paid.

When 70 percent of the original Contract amount is earned, 80 percent of the amount bid for this item, less all previous payments, will be paid.

When 80 percent of the original Contract amount is earned, 90 percent of the amount bid for this item will be paid.

When 100 percent of the original Contract amount is earned, 100 percent of the amount bid for this item, less all previous payments, will be paid.

Failure to provide acceptable public information services will result in withholding of progress payment for this item. Continued failure to provide the services required will result in non-payment of the corresponding percentage of the original bid item and may result in suspension of the work in those areas affected until acceptable public information services are provided by the Contractor.

For the purpose of public information services, the term “original Contract amount” as used above, shall mean the amount bid for the construction items on this Contract, not including the amounts bid for Public Information Services and Mobilization, and “aggregate Contract amount earned” shall mean the net amount on the current monthly pay estimate, not including the amounts earned for Public Information Services and Mobilization.
3

REVISION OF SECTION 626
PUBLIC INFORMATION SERVICES

Payment for Public Information Services will be full compensation for all fliers, public information office, telephone lines, and all other labor and materials required to complete the item, except signs. Signs will be measured and paid for in accordance with Section 630.

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Information Services</td>
<td>Lump Sum</td>
</tr>
</tbody>
</table>
REVISION OF SECTION 630
TRAFFIC CONTROL PLAN - GENERAL

The key elements of the Contractor's method of handling traffic (MHT) are outlined in subsection 630.10(a).

The components of the TCP for this project are included in the following:

1. Subsection 104.04 and Section 630 of the specifications.
5. Construction Phasing.

Unless otherwise approved by the Engineer, the Contractor’s equipment shall follow normal and legal traffic movements. The Contractor’s ingress and egress of the work area shall be accomplished with as little disruption to traffic as possible. Traffic control devices shall be removed by picking up the devices in a reverse sequence to that used for installation. This may require moving backwards through the work zone. When located behind barrier or at other locations shown on approved traffic control plans, equipment may operate in a direction opposite to adjacent traffic.

At the sole discretion of Eagle County, the Eagle County Sherriff and other law enforcement personnel may enter the work zone for enforcement purposes and may participate in the Contractor’s traffic control activities. The responsibility under the Contract for all traffic control resides with the Contractor and any such participation by law enforcement personnel in Contractor traffic control activities will be referenced in either the Special Provisions or General Notes of the plans depending on whether the Contractor is to hire local law enforcement for uniformed traffic control. Nothing in this Contract is intended to create an entitlement, on the part of the Contractor, to the services or participation of the law enforcement organization.

Special Traffic Control Plan requirements for this project are as follows:

During the construction of this project, traffic shall use the present traveled roadway unless identified on the plans or approved by the Engineer.

The Contractor shall not have cumulative delays to the traveling public through all construction zones that would exceed 15 minutes in each direction. If delays exceed the times indicated as determined by the Engineer, the Contractor will be asked to remove their equipment and resume traffic control until traffic is resumed to a reasonable level.

The Contractor shall maintain a minimum of one lane open to traffic at all times, unless otherwise approved by the Engineer.

During the asphalt surfacing work, only one lane may be closed to traffic at any time unless approved by the Engineer. Traffic shall not be delayed for more than 15 minutes or as directed by the Engineer.

The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time, unless approved by the Engineer.

The Contractor shall not perform any work requiring lane closure on the roadway.
between the hours of 9:00 PM and 6:00 AM unless approved by the Engineer.

Unless otherwise included in the plans, or as directed by the Engineer, the Contractor shall maintain access to and from each driveway and approach road.

During the work a minimum of one lane of traffic will be maintained during the day with flaggers. All flagging stations used at night shall be adequately illuminated in accordance with the MUTCD. Adequate illuminations of flagging stations shall include the use of light plans whenever other sources of adequate lighting are not available. Adequate illumination shall be as approved or determined by the Engineer. The Contractor shall provide necessary lighting during night construction.

The Contractor may elect to work multiple shifts in order to meet the time constrains required for this project.

Eagle County will allow temporary closure of County Road 301 (Colorado River Road) during construction when requested by the contractor and approved by Eagle County. These closures shall be no longer than 8 hours for each closure and will be allowed only on weekdays.

(1) The contractor shall submit the request to the Engineer at least 21 days prior to the planned closure
(2) The request shall contain the reasons and justification for the request
(3) The request shall include all required detour signing and notification plans that the Contractor will place or perform
(4) Public Notice of the closure as well as advanced detour signing shall be placed by the Contractor at least 7 days prior to the closure

Eagle County shall have the sole authorization and discretion to grant or not grant the Contractor’s request for the temporary closure of County Road 301. It is the Contractor’s responsibility to provide compelling reasons and justification for the request. The Engineer and Eagle County will have up to 5 business days to provide a response to the Contractor’s request for a temporary closure of County Road 301.

Storage of Contractor’s equipment and materials, as approved by the Engineer, shall be limited to the following:

(1) At least 30 feet beyond the edge of the roadway.
(2) At least 50 feet from the high water mark for the Colorado River.
(3) Behind protected barrier if less than 30 feet from the edge of roadway.

At least one week prior to starting construction, the Contractor shall notify the Engineer of the date the Contractor intends to start construction.

The Contractor shall not have cumulative delays to the boaters and users of the Colorado River traveling downstream through all construction zones that would exceed 90 minutes. If delays exceed the times indicated as determined by the Engineer, the Contractor will be asked to temporarily stop work and, if necessary, remove their equipment and allow boaters and users of the Colorado River to pass through the construction zone until the river traffic is resumed to a reasonable level. (Per discussions with the BLM, this section of river is lightly used during the summer. They estimated that no more than 10 groups of boaters use this section of the river per day. The highest river use is typically on Saturdays and Sundays between Memorial Day weekend and Labor Day weekend.)

All costs incidental to the foregoing requirements shall be included in the original contract prices for the project.
REVISION OF SECTION 700
FORCE ACCOUNT ITEMS

DESCRIPTION

This special provision contains the Department's estimate for force account items included in the Contract. The estimated amounts marked with an asterisk will be added to the total bid to determine the amount of the performance and payment bonds. Force Account work shall be performed as directed by the Engineer.

BASIS OF PAYMENT

Payment will be made in accordance with subsection 109.04. Payment will constitute full compensation for all work necessary to complete the item.

Force account work valued at $5,000 or less, that must be performed by a licensed journeyman in order to comply with federal, state, or local codes, may be paid for after receipt of an itemized statement endorsed by the Contractor.

<table>
<thead>
<tr>
<th>Force Account Item</th>
<th>Quantity</th>
<th>Estimated Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/A Minor Contract Revisions</td>
<td>F.A.</td>
<td>$ 25,000*</td>
</tr>
<tr>
<td>F/A Partnering</td>
<td>F.A.</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>F/A Erosion Control</td>
<td>F.A.</td>
<td>$ 10,000</td>
</tr>
<tr>
<td>F/A Hazardous Waste Disposal</td>
<td>F.A.</td>
<td>$ 5,000</td>
</tr>
</tbody>
</table>

On this project there will be no payment to the Contractor for F/A Quality Incentive Payment, F/A Smoothness Incentive Payment, F/A Fuel Cost Adjustment, Asphalt Pavement Incentive, or F/A Asphalt Cement Cost Adjustment. The labor, materials, equipment and all other associated items shall be considered incidental to each of the pay items associated with that work.
REVISION OF SECTION 703
GRANULAR ROCK BACKDRAIN

Section 703 of the Standard Specifications are hereby revised for this project to include the following:

Subsection 703.03 shall include the following:

The gradation requirements for the granular rock backdrain are as follows:

<table>
<thead>
<tr>
<th>Sieve</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>100%</td>
</tr>
<tr>
<td>4&quot;</td>
<td>0% to 25%</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>0% to 15%</td>
</tr>
<tr>
<td>No. 4</td>
<td>0% to 5.0%</td>
</tr>
<tr>
<td>No. 200</td>
<td>0% to 2.0%</td>
</tr>
</tbody>
</table>

The granular rock backdrain material shall consist of crushed and screened angular rock and shall be non-plastic when tested in accordance with AASHTO T90.

MEASUREMENT

The filter material (special) quantity was calculated for the total volume behind the boulders (the granular rock backdrain zone) as shown on the plans.

BASIS OF PAYMENT

The accepted quantities of work will be paid for at the contract price per unit of measurement for the pay items listed below.

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Material (Special)</td>
<td>Cubic Yard</td>
</tr>
</tbody>
</table>
CONTRACTOR’S ACCESS ROAD

DESCRIPTION

This work shall include the construction, removal, and restoration of a temporary Contractor’s Access Road to the edge of the Colorado River. The purpose of the additional temporary Contractor’s Access Road is to provide access to build the proposed bridge, other features under the bridge and remove the existing bridge. The temporary access road is for the Contractor’s convenience and is optional.

CONSTRUCTION REQUIREMENTS

It is the Contractor’s responsibility to develop a construction sequencing plan for the construction of the bridge piers, bridge abutments, girder placement, bridge deck pour and removal of the existing bridge. A DRAFT version of the plan shall be submitted at the Preconstruction Meeting for the project at the latest. The plan will be reviewed by the project stakeholders and is subject to the approval of the Engineer. The Contractor shall construct a temporary access appropriate for his equipment and materials required to build the proposed bridge and remove the existing bridge. All work associated with the construction must remain inside the Eagle County right of way unless other arrangements are made and approved by the Engineer.

Any additional wetland impact or SB 40, although temporary, will be the Contractor’s responsibility to obtain approval for and mitigate. The Engineer shall be notified of any proposed additional wetland or SB 40 impact prior to the Contractor’s discussions with the Corps of Engineers and/or Colorado Parks & Wildlife.

Upon completion of the project, any access will be obliterated and the site returned as close as possible to plan or pre-construction conditions. Restoration will include removal of any surfacing materials, re-grading the area to pre-construction conditions and re-vegetation (seeding).

The contractor will be required to provide the necessary erosion control measures during construction, use and restoration of the access road.

METHOD OF MEASUREMENT

The temporary access is optional and therefore will not be measured.

BASIS OF PAYMENT

No payment will be made for development of the plan and the access road; however the cost of erosion control measures and seeding will be measured and paid for under the appropriate pay item as approved by the engineer.
1

SPECIAL CONSIDERATIONS WHEN WORKING IN OR NEAR WETLAND AREAS AND WATERS OF THE UNITED STATES

The Contractor shall exercise special care when working in or near the wetlands areas and the Colorado River.

Per Special Provision 108, Eagle County has included Temporary Wetland Impact areas and Temporary Waters of the US Impact in the 404 Permit for this project. The Contractor shall be required to stay within the temporary impact boundaries defined in the 404 permit. It should be noted that the Contractor shall meet all requirements from the Army Corps of Engineers (COE), the Colorado Parks and Wildlife (CPW), and Colorado Department of Public Health and Environment (CDPHE), while working on the project. The Contractor is also encouraged to minimize the temporary impacts during construction to the degree possible.

Temporary Impacts to Wetlands, Waters of the US, Wildlife and Water Quality

Temporary Impact Management

Mitigation plans have been prepared to meet the requirements of COE and CPW permits and certifications that will replace impacted plant material with native trees, shrubs, grasses, and forbs to provide bank stabilization, erosion control, and habitat replacement. The Contractor shall comply with the mitigation plans for this project.

General requirements on most projects for temporary impacts to Waters of the U.S. will be mitigated for by planting native riparian grasses, shrubs, and willow cuttings to increase biological diversity, visual quality, and bank stability. Temporary impacts to wetlands will be mitigated for by restoring areas back to conditions conducive to the reestablishment of wetland plants, soils and hydrology. The Contractor shall comply with the requirements of the permits and the contract documents for the project and the project’s mitigation commitments.

Temporary disruption to wildlife habitat and individual wildlife populations will occur during bridge reconstruction in the surrounding wetland/riparian area. Mitigation will be implemented as a part of Colorado’s SB 40 Wildlife Certification. CDOT and CPW have requirements to prevent permanent impacts and enhance existing habitat and will include the following:

- To avoid impacts to in-stream fisheries, any construction work in water will be conducted per the Special Provision for Section 108. This will minimize the impacts on streams by scheduling operations during low-flow periods and avoiding fish migration and spawning periods.
- Riparian plants such as willows will be replaced in the project’s Temporary Impacts to Waters of the US Impact Area to provide cover, habitat, and streambank erosion protection
- All reseeding along the roadway and wetland mitigation and restoration shall be done with native vegetation and sedimentation will be controlled with BMPs
- Existing bridge piers will not be removed below grade, preserving the integrity of the stream channel bottom and banks and boulders will be added for fish habitat
- Prior to construction, the contractor shall place protective fencing at the edge of existing vegetation to protect wetland, shrubs and trees from project activities
- Construction area shall be confined to the minimum areas necessary to achieve project goals
2
SPECIAL CONSIDERATIONS WHEN WORKING IN OR NEAR WETLAND AREAS AND WATERS OF THE UNITED STATES

Indirect impacts to the Colorado River could potentially occur from sediment release during construction activities and storm events. Per the Contractor’s CDPHE permit, Best Management Practices (BMPs) will be implemented during construction and bridge construction approach altered in order to minimize the amount of sediment released into the river.

Temporary Construction in the Colorado River

Eagle County has developed clearances to enable the Contractor to create temporary wetland and waters of the U.S. impact in the Colorado River if the Contractor chooses to use these areas to access portions of the construction site. The intent of this clearance is to facilitate the construction of the piers, placement of riprap and removal of the existing bridge piers. These areas are available for construction activities but do have some limitations. The Contractor shall develop their own plan, that meets the project contract and permit requirements, for the means and methods of the construction effort and the impacts of these efforts.

In addition to the requirements of the 404 Permit, SB40 requirements and Stormwater Quality and Erosion Control requirements for the project, the following will apply to the Contractor and their operations:

1. Installation of Riprap, Temporary Levies or Platforms shall be performed without the main body of the construction equipment working in the waterbody. Only the bucket or other extensions of the equipment shall be allowed to remove or place fill in the stream. The main body of the equipment can enter the waterbody beyond the stream banks with prior approval from the Engineer.

2. The materials used to construct the temporary levies or platforms shall meet the same requirements as the riprap specified for this project where possible. If the Contractor chooses to use a levy, the construction will likely require a denser material. In this case, the Contractor shall manage the water quality in the stream with appropriate water quality and erosion control methods to minimize sediment in the water. With the riprap material this requirement will be similar, but since the riprap material is cleaner is generally preferred by the resource agencies. If the Contractor desires a top surface on the temporary platforms that has a gradation of less than d50 = 6”, a geotextile fabric shall be placed on top of the riprap type material to prevent sediment from this smaller material from entering the river.

3. Per the Construction Phasing Plans, there is a maximum temporary levy or platform elevation. The top of the levy or platform shall not be constructed higher than this elevation. This elevation is the approximate maximum height of the obstruction in the river that will continue to allow the passage of a 100 year storm event flow under the new bridge per the analysis conducted for the project.

4. The Temporary levy or platforms shall only be constructed or removed between either the period of time between January 1st to March 31st or between August 1st to October 31st due to the potential impact on in-stream fisheries and for this project, including the roundtail chub. During other times of the year, the temporary levy or platform can be in the river, but shall not be disturbed. In addition, construction of any temporary construction access or working areas, in the river, will also only be allowed during the same periods of time that the temporary levy or platforms can be constructed.

5. No equipment of materials shall be stored or stockpiled within the dewatered area or on the temporary levy or platforms during non-working hours.

6. No construction equipment shall be parked on the temporary levy or platforms during non-working hours.

7. No equipment maintenance activities or fueling shall be performed in the dewatered area or on the levy or temporary platforms at any time.
3

SPECIAL CONSIDERATIONS WHEN WORKING IN OR NEAR WETLAND AREAS AND WATERS OF THE UNITED STATES

8. The Contractor shall not utilize equipment with fuel, oil or hydraulic fluid leaks within the limits of the temporary waters of the U.S. impact area unless suitable hazardous materials spill measures are in place. Equipment being used in or adjacent to this area, but not in the water, shall be placed over a drip pan when the equipment is stationary for over one hour.

9. Maintenance and Inspection of Temporary Levy or Platform: The Contractor shall:
   a. Conduct weekly inspections to ensure the levy, platform, streambeds and streambanks are not damaged outside of the Temporary Wetland and Waters of the U.S. boundaries. In addition, the inspections shall also ensure that sediment is not entering the stream or blocking fish passage or migration. After each storm event, inspections shall also be performed and damages shall be repaired immediately. An assessment of the levy or platform foundation shall be performed during each inspection and lost aggregate shall be replaced.
   b. Routinely remove trapped sediment or debris and dispose of properly outside the highway right-of-way.
   c. Perform routine spot-checks to ensure personnel and subcontractors are properly using the levy or platform.

10. Removal of Temporary Levy or Platform: The Contractor shall meet these requirements for the removal of temporary levy or platforms placed in the temporary waters of the US impact area so that this area is restored to its pre-project condition. The Engineer will have the sole responsibility of declaring the removal complete. This will be done in consultation with the ACOE and CPW. See the contact information on the ACOE 404 Permit and Special Provision 626 - Public Information Services in the contacts section.
   a. Removal of the levy and/or temporary platform shall require the removal of all construction materials, restoration of the original stream channel cross section and protection of the stream banks from erosion.
   b. All temporary levy or platforms shall be removed within 14 days after they are no longer needed.
   c. All areas disturbed during the removal efforts shall be stabilized within 14 days of the disturbance with the standard practices in Section 5.5, Erosion Control of the CDOT Erosion Control and Stormwater Quality Guide, 2002.

11. The Contractor is encouraged, but not required, to NOT construct a levy or temporary platform over the entire area cleared. To minimize the duration of the temporary impact within the river, the Contractor is encouraged to phase the construction and use of the temporary impact areas.

Placement of Cranes and Heavy Equipment

The Contractor may need to move heavy equipment and set up cranes within the Temporary Wetland Impact area that is defined in the 404 Permit and plans. The Plans and Specifications provide direction on protection of the temporary wetlands. The cutting of vegetation, placement of geotextile fabric, placement of 12” of certified weed free straw and a minimum of 2 feet of embankment material form a wetland protection mat. This mat, discussed in the plans, is intended to protect the wetlands but will not necessarily support vehicles or equipment. The Contractor shall develop methods to stabilize his crane during lifting operations if working on top of this mat.
SPECIAL CONSIDERATIONS WHEN WORKING IN OR NEAR WETLAND AREAS AND WATERS OF THE UNITED STATES

In addition to protecting the temporary wetlands, the Contractor will need to develop methods to safely and effectively work in the Temporary Waters of the U.S. Impact Areas. This area is below the ordinary high water mark as defined in the project plans and may be in the water during construction. The contractor shall not place the main body of construction equipment in the water during construction. However, the Contractor may temporarily place equipment in the dry areas, or in areas prepared by the contractor for this equipment to keep it out of the water.

The Contractor shall take additional measures to protect any temporary wetland impact area and temporary waters of the U.S. impact areas or be prepared to mitigate any areas that experience unrecoverable damage at the Contractors expense.

Restoration of Temporary Wetland and Waters of the U.S. Impacts

Temporary impacts to Waters of the U.S. due to the bridge construction will be mitigated in stream and will include stream restoration as directed by Colorado Parks and Wildlife, the U.S. Fish and Wildlife Service, and CDOT Environmental staff. Additional willow plantings will be installed on the banks and edges of wetland areas to create riparian habitat that is lost due to the project and to enhance existing wetlands adjacent to the mitigation wetlands.

Final site regarding and restoration of temporary wetland impact areas due to construction activities shall be accomplished by Backhoe Hours (150-250 hp range and equipped with a hydraulic “thumb” attachment) and Dozing Hours (150 hp range) with both capable of operating in saturated soils. No equipment shall operate in the temporary wetland impact areas after the geotextile has been removed and seeding has been completed. This effort will be paid as Force Account (F/A) – Erosion Control work.

Additional Requirements and Information

The Contractor shall provide working drawings, as outlined in Section 105.02 of the Standard Specification, which describe his special methods to move equipment and operate cranes within the temporary wetland impact areas.

All work required under this section will not be measured or paid for separately but will be considered incidental to the work with which it is associated.
1

UTILITIES

The following utilities are within the limits of this project are:

Yampa Valley Energy………………………………………………………… (970) 879-1160
Century Link (Barb Davis)…………………………………………………. (970) 328-8288
Union Pacific Railroad (Kelly Abaray)………………………………………. (303) 405-5039

The work described in these plans and specifications requires coordination between the Contractor and the utility companies in accordance with subsection 105.11 in conducting their respective operations as necessary to complete the utility work with minimum delay to the project.

The work listed below shall be performed by the Contractor in accordance with the plans and specifications, and as directed by the Engineer. The Contractor shall keep each utility company advised of any work being done to its facility, so that the utility company can coordinate its inspections for final acceptance of the work with the Engineer.

1) No work on Yampa Valley Energy or Century Link facilities by contractor

2) Union Pacific Railroad:

   Contractor shall be responsible for obtaining a Right of Entry Agreement from the Union Pacific Railroad, as specified in the Railroad Requirements that immediately follow these Utility Special Provisions. All costs and fees for entering into “Contractor’s Right of Entry Agreement” with the Railroad shall be borne by the Contractor. The Contractor shall comply with all provisions of the Railroad Requirements and those set forth in the Right of Entry Agreement by the Union Pacific Railroad.

   Based on coordination with the UPRR, Railroad flagging and/or inspection will not be required for this project.

   Prior notice shall be given as per the Railroad Requirements and Right of Entry agreement.

The work listed below will be performed by the utility owners or their agents:

1) No work anticipated by Yampa Valley Energy

2) Century Link:

   The existing overhead line is on the edge of the construction area and shall be protected in place.

3) Union Pacific Railroad:

   The Union Pacific Railroad will perform work as specified in the Railroad Requirements that follow these Utility Special Provisions and/or as specified in the Right of Entry agreement.
2

UTILITIES

GENERAL:

The Contractor shall comply with Article 1.5 of Title 9, CRS ("Excavation Requirements") when excavation or grading is planned in the area of underground utility facilities. The Contractor shall notify all affected utilities at least two (2) business days, not including the day of notification, prior to commencing such operations. The Contractor shall contact the Utility Notification Center of Colorado (UNCC) at (8-1-1) or 1-800-922-1987 to have locations of UNCC registered lines marked by member companies. All other underground facilities shall be located by contacting the respective company. Utility service laterals shall also be located prior to beginning excavating or grading.

The location of utility facilities as shown on the plan and profile sheets, and herein described, were obtained from the best available information.

All costs incidental to the foregoing requirements will not be paid for separately but shall be included in the work.
1
RAILROAD REQUIREMENTS

GENERAL

This project includes construction work on the rights-of-way and/or properties of The Union Pacific Railroad (hereinafter called "Railroad") and adjacent to the tracks, wire lines, and other facilities of Railroad. That portion of this project involving a hazard to the Railroad, due to the Contractor's operations, is estimated to be less than one percent of the total project. Eagle County (hereinafter called "Department") does not guarantee the accuracy of this estimated percentage and assumes no responsibility or liability for losses incurred by the Contractor or any insurance underwriter in relying upon the accuracy of the estimate in any manner whatsoever. The Contractor and subcontractors shall cooperate with the officers and the authorized representatives of the Railroad and its tenants to the end. The Contractor's work shall be begun, conducted, and completed in such manner as to cause no interference whatsoever with the safety or the continuous and uninterrupted use and operation of the tracks, wire lines, and other facilities belonging to the Railroad or its tenants.

Eagle County’s County Road 301 was in existence prior to construction of the existing UPRR rail line. The agreement between UPRR and Eagle County provides Eagle County with a number of rights to work along the roadway. For this project, no work is required by the contractor within 25 feet of the railroad tracks, with the possible exception of crossing under the railroad overpass just west of the bridge. Based on coordination with the UPRR, Railroad Flagging is currently not anticipated for this project. As a result, the Contractor should make all efforts to avoid working, parking, or storing materials within 25 feet of the railroad tracks. Crossing under the existing railroad overpass has been interpreted by the Eagle County Attorney to be within the current agreement between the UPRR and Eagle County and therefore is not anticipated to be work within 25 feet of the railroad tracks. Any deviation in the position of UPRR will be communicated in writing to the Engineer and Eagle County within 2 days of learning of this deviation. The Contractor will be allowed a Contract Time Extension while this issue is being resolved between Eagle County and the UPRR. No Delay Claim will be allowed for the time during the resolution and Contract Time Extension provided to the Contractor.

If the Contractor chooses to work, park or store materials within 25 feet of the tracks and the UPRR requires Flagging because of that action, all Railroad Flagging Costs shall be the sole responsibility of the Contractor.

For the benefit of the Contractor and the Insurer(s), the current railroad traffic at the project area is estimated at: High.

The plans for this project, affecting the Railroad, are subject to approval by the Railroad and changes in plans may be required after award of Contract. Such changes are subject to the approval of the Department, CDOT, FHWA, and the Railroad. Since the project work is completely within an easement owned by Eagle County, approvals by the Railroad are not anticipated for this project.
RAILROAD REQUIREMENTS

Before commencing any work on Railroad's properties, the Contractor shall notify:

Ms. Kelly Abaray
Manager Industry & Public Projects
Union Pacific Railroad
1400 West 52nd Avenue
Denver, Colorado 80221
Phone: 303-964-4099
FAX: 303-964-4097

For flagging and inspection services required by Railroad, contact:

Mr. Robert Gutierrez
Road Master
Union Pacific Railroad
2790 D Road
Grand Junction, Colorado 81501
Office Phone: 970-248-4244
Cell Phone: 970-261-0766
Voice Mail: 402-778-8010
FAX: 970-248-4203

All notices and correspondence with the Railroad shall contain the project number and location. Conforming copies of such notices and correspondence shall be submitted to the Department's Engineer.

Said notices to be given in writing at least ten days in advance of the date on which the Contractor expects to begin such work. Notice shall also be given within ten days following completion and acceptance of such work.

The Contractor shall comply with all rules and regulations prescribed by the Railroad, as to the proper manner of protecting the tracks (and the traffic moving thereon), telephone, telegraph and signal wires, and other property of the Railroad or its tenants at and in the vicinity of the project during the time such work is being performed, and all costs for complying with such rules and regulations shall be borne by the Contractor. The Contractor shall enter into agreement with the Railroad in the form of attached “Contractor’s Right of Entry Agreement” or latest version thereof provided by the Railroad. All costs and fees for entering into “Contractor’s Right of Entry Agreement” with the Railroad shall be borne by the Contractor.

The Contractor shall hold the Railroad harmless and indemnify it from and against any and all loss, damage, claims, demands, causes of action, cost and expenses of whatsoever nature arising out of damage to or destruction of property whatsoever, where such injury, death, damage, or destruction results from any cause due to work done in connection with the construction of the project on or in close proximity to railroad property and shall also release the Railroad from and shall waive any claim for injury or damage to the work under construction or to the property which may result from the construction, maintenance, and operation of railroad tracks, wire lines, pipe lines, and other railroad facilities on said right-of-ways of the Railroad, SAVE AND EXCEPTING any death, damage, or destruction resulting solely from the negligent acts or omissions of the Railroad, its officers, agents, or employees.
4 RAILROAD REQUIREMENTS

RAILROAD INSURANCE

Policy or policies of Insurance, set forth in the Standard Special Provisions titled RAILROAD INSURANCE and as shown in Exhibit “C” of “Contractor’s Right of Entry Agreement” shall be furnished to the Department's Project Development Branch Manager for transmittal to the Railroad. If there is a difference in coverage amounts, the higher amounts shall be provided. All such insurance shall be maintained so long as work shall continue in the vicinity of Railroad property.

If any part of the Contract work on Railroad's properties is sublet, similar insurance shall be provided by or in behalf of each subcontractor.

CONTRACT REQUIREMENTS

1. The Contractor shall comply with the requirements of the “Contractor’s Right of Entry Agreement” attached behind this special provision.

2. The Contractor and Railroad shall agree, in advance, upon methods and procedures covering all construction on Railroad's properties. Such proposals shall be in writing, with a copy to the Engineer.

WORK TO BE DONE BY RAILROAD

Furnish personnel for protection and inspection services if required by the Contractor’s activities.

RAILROAD FLAGGING

The Contractor shall notify the Railroad in writing prior to beginning and prior to stopping any work that will require protective services in accordance with the “Contractor’s Right of Entry Agreement”.

It is estimated that NO flag person will be required for this project.

During the construction period, all flagging and protective services shall be performed strictly in accordance with directives and instructions issued by the Railroad. Contractor shall confer with the Railroad for the times, locations, and manner of such protective measures.

Flagging services will be performed by Section men. The estimated pay rate for each flag person is $1,000 per day for an 8-hour day with time and one-half for overtime, Saturdays, Sundays, and holidays. Related costs included in the hourly rate covers vacation allowances, paid holidays, retirement and unemployment, public liability and property damage insurance, health and welfare, and supervision. This rate is subject to any increases which may result from Railroad Employees-Railroad Management negotiations or which may be authorized by Federal authorities.
4

RAILROAD REQUIREMENTS

For information, the estimated cost of flagging services for this project is $0 (0 working days x $700/day), but is not limited to that figure. To the extent of the actual cost, the Department will reimburse the Contractor for all approved flagging hereunder. The cost of flagging required subsequent to the Contract time expiration date or any approved extension of time shall be borne by the Contractor.

If the Railroad requires flagging for the project, the Railroad will bill the Contractor monthly at the current rates of pay for flagging services furnished and the Contractor shall pay the Railroad within 30 days after receipt of bills. If this flagging is due to agreement between the Railroad and Eagle County per the resolution discussed in paragraph 2 of this specification, The Department will reimburse the Contractor. This reimbursement will be for the actual Railroad invoice under the planned force account item “Railroad Flagging” that would be added to the contract if this issue arises.
REPLACE THIS PAGE WITH THE UPRR RIGHT OF ENTRY AGREEMENT AND RIGHT OF ENTRY APPLICATION DOCUMENTS
APPLICATION – RIGHT OF ENTRY
(Please allow 30-45 days for processing)

1. Name of Licensee____________________________________________________
   (Exact Name of the Owner of the Utility)

   State of Incorporation _______; if not incorporated, please list entity’s legal status
   ________________________________________________________________

2. Address, email, phone and Fax number of Licensee
   ________________________________________________________________

   Email__________________________Phone________________Fax______________

3. Name, address and phone number of individual to whom agreement is to be mailed
   if different than Item 2.
   ________________________________________________________________

4. Contact information for individual to contact in the event of questions.
   ________________________________________________________________

   Email__________________________Phone________________Fax______________

5. Project site location:
   ________________________________________________________________
   (City, County and State)

6. Railroad site location information:
   ________________________________________________________________
   (Railroad Mile Post, Subdivision, or any other pertinent location detail.)

7. Time period for your project use of Railroad Company’s property:
   Start Date:_______________________ Stop Date:____________________________

8. Will there be any activity or equipment within 25 feet of a Railroad track in
   connection with this property?
   ( ) No   ( ) Yes   (If Yes, a Flagman will be required on site at your cost.)

9. Will there be any excavation involved?
   ( ) No   ( ) Yes   (If Yes, include shoring plans within Railroad standards.)
10. Purpose of your request:
   *(This must be detailed & complete; attach engineering plans, shoring plans and any pertinent supporting details, including maps or prints.)*

   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

   • Additional Fees and charges may be applicable to your request. These changes cannot be determined until your project is approved.

UNION PACIFIC RAILROAD
1400 DOUGLAS STREET MS 1690
OMAHA NE  68179
CONTRACTOR'S ENDORSEMENT
Folder No. 0000-000

A. As a condition to entering upon Licensor's right-of-way to perform work pursuant to this Agreement, Licensee's contractor: (fill in): __________________________________________________________
___________________________________________________

(hereinafter "Contractor") agrees to comply with all the terms and provisions of this Agreement relating to the work to be performed and the insurance requirements set forth in Exhibit C.

B. Before the Contractor commences any work, the Contractor will pay the Licensor a nonrefundable payment of $500 upon execution and return of this Contractor’s Endorsement, and will provide the Licensor with a certificate issued by its insurance carrier providing the insurance coverage required pursuant to Exhibit C in a policy which contains the following type endorsement:

UNION PACIFIC RAILROAD COMPANY is named as an additional insured with respect to all liabilities arising out of Insured’s performance of work on behalf of the Licensee.

All insurance correspondence shall be directed to: Kylan Crawford - Folder No. 0000-00, Union Pacific Railroad Company, 1400 Douglas Street STOP 1690, Omaha, Nebraska 68179-1690.

(Please print Contractor’s Name above)

X_________________________
Title:_________________________
RIGHT OF ENTRY AGREEMENT

THIS AGREEMENT is made and entered into as of [date], [year] by and between UNION PACIFIC RAILROAD COMPANY, a Delaware corporation (hereinafter the "Railroad"), and [name of applicant] to be addressed at [address] (hereinafter the "Licensee").

IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

Article 1. DEFINITION OF LICENSEE.

For purposes of this Agreement, all references in this Agreement to the Licensee shall include the Licensee's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority.

Article 2. RIGHT GRANTED; PURPOSE.

The Railroad hereby grants to the Licensee the right, during the term hereinafter stated and upon and subject to each and all of the terms, provisions and conditions herein contained, to enter upon and have ingress to and egress from the portion of Railroad's property in the vicinity of MILE POST, SUBDIVISION, at or near CITY, STATE for the purpose of [description]. The right herein granted to Licensee is limited to those portions of the Railroad's property specifically described herein in the location shown on the print marked Exhibit A, attached hereto and hereby made a part hereof, or designated by the Railroad Representative named in Article IV.

For the purposes of Exhibit A, Licensee acknowledges that if it or its contractor provides to Railroad digital imagery, Licensee authorizes Railroad to use the Digital Imagery in preparing the print attached as an exhibit hereto. Licensee represents and warrants that through a license or otherwise, it has the right to use the Digital Imagery and to permit Railroad to use the Digital Imagery in said manner.

Article 3. TERMS AND CONDITIONS CONTAINED IN EXHIBITS B AND C.

The terms and conditions contained in Exhibits B and C, hereto attached, are hereby made a part of this Agreement.
Article 4.  **ALL EXPENSES TO BE BORNE BY LICENSEE; RAILROAD REPRESENTATIVE.**

The Licensee shall bear any and all costs and expenses associated with any work performed by the Licensee, or any costs or expenses incurred by the Railroad relating to this Agreement. All work performed by Licensee on Railroad's property shall be performed in a manner satisfactory to the representative local Manager of Track Maintenance of the Railroad or his authorized representative (hereinafter the Railroad Representative):

**REPRESENTATIVE WILL BE PROVIDED ON AGREEMENT**

Article 5.  **TERM; TERMINATION.**

A. The grant of right herein made to Licensee shall commence on the date of this Agreement, and continue until _______________ unless sooner terminated as herein provided, or at such time as Licensee has completed its work on Railroad's property, whichever is earlier. Licensee agrees to notify the Railroad Representative in writing when it has completed its work on Railroad property.

B. This Agreement may be terminated by either party on ten (10) days written notice to the other party.

Article 6.  **CERTIFICATE OF INSURANCE.**

A. Before commencing any work, the Licensee will provide the Railroad with a Certificate issued by its insurance carrier providing the insurance coverage required pursuant to Exhibit C of this Agreement in a policy which contains the following type of endorsement:

"Union Pacific Railroad Company is named as additional insured with respect to all liabilities arising out of Insured's, as Licensee, performance of any work on the property of the Railroad."

B. Licensee warrants that this Agreement has been thoroughly reviewed by its insurance agent(s)/broker(s) and that said agent(s)/broker(s) has been instructed to procure insurance coverage and an endorsement as required herein.

C. All insurance correspondence shall be directed to: Union Pacific Railroad Company, Director (Attn.: Kylan Crawford - Folder No.0000-00), 1400 Douglas Street STOP 1690, Omaha, Nebraska 68179-1690.
Article 7. PROTECTION OF FIBER OPTIC CABLE SYSTEMS.

Fiber optic cable systems may be buried on Licensor's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. Prior to beginning any work, the Licensee shall telephone the Railroad at 1-800-336-9193 (a 24-hour number) to determine if fiber optic cable is buried anywhere on the property set forth herein. If it is, the Licensee shall also comply with and be subject to the provisions contained in Section 6 of Exhibit B.

Article 8. ENFORCEABILITY; CHOICE OF LAW; CHOICE OF FORUM.

This Agreement shall be governed, construed, and enforced in accordance with the laws of the state of Nebraska. Litigation arising out of or connected with this Agreement may be instituted and maintained in the courts of the state of Nebraska and California only, and the parties consent to jurisdiction over their person and over the subject matter of any such litigation, in those courts, and consent to service of process issued by such courts.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first herein written.

UNION PACIFIC RAILROAD COMPANY
Federal Taxpayer I.D. #94-6001323

By: ________________________________ By: ________________________________
Kylan Crawford
Assistant Manager - Contracts

(Pursuant to ordinance, resolution, or other evidence of proper authority to execute this instrument, a copy of which shall be attached to the Railroad’s original counterpart of this document.)
EXHIBIT B

Section 1 - NOTICE OF COMMENCEMENT OF WORK – FLAGGING.

The Licensee agrees to notify the Railroad Representative at least Ten (10) days in advance of Licensee commencing its work and at least 24 hours in advance of proposed performance of any work by the Licensee in which any person or equipment will be within 25 feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within 25 feet of any track. Upon receipt of such notice, the Railroad Representative will determine and inform the Licensee whether a flagman need be present and whether the Licensee need implement any special protective or safety measures. If any flagmen or other special protective or safety measures are performed by the Railroad, such services will be provided at Licensee’s expense with the understanding that if the Railroad provides any flagging or other services, the Licensee shall not be relieved of any of its responsibilities or liabilities set forth herein.

Section 2 - LIMITATION AND SUBORDINATION OF RIGHTS GRANTED.

a. The foregoing grant of right is subject and subordinate to the prior and continuing right and obligation of the Railroad to use and maintain its entire property including the right and power of the Railroad to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by the Railroad without liability to the Licensee or to any other party for compensation or damages.

b. The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of the Railroad’s property, and others) and the right of the Railroad to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

Section 3 - NO INTERFERENCE WITH RAILROAD’S OPERATION.

No work performed by Licensee shall cause any interference with the constant, continuous and uninterrupted use of the tracks, property and facilities of the Railroad, its lessees, licensees or others, unless specifically permitted under this Agreement, or specifically authorized in advance by the Railroad Representative. Nothing shall be done or suffered to be done by the Licensee at any time that would in any manner impair the safety thereof. When not in use, Licensee’s machinery and materials shall be kept at least 50 feet from the centerline of Railroad’s nearest track, and there shall be no crossings of Railroad’s tracks except at existing open public crossings.

Section 4 - PERMITS.

Prior to beginning any work, the Licensee, at its sole expense, shall obtain all necessary permits to perform any work contemplated by this Agreement.

Section 5 - MECHANIC’S LIENS.

The Licensee shall pay in full all persons who perform labor or provide materials for the work to be performed by Licensee. The Licensee shall not create, permit or suffer any mechanic’s or materialmen’s liens of any kind or nature to be enforced against any property of the Railroad for any such
work performed. The Licensee shall indemnify and hold harmless the Railroad from and against any and all liens, claims, demands, costs or expenses of whatsoever nature in any way connected with or growing out of such work done, labor performed, or materials furnished.

Section 6 - FIBER OPTIC CABLE SYSTEMS.

In addition to other indemnity provisions in this Agreement, the Licensee shall indemnify and hold the Railroad harmless from and against all costs, liability and expense whatsoever (including, without limitation, attorneys’ fees, court costs and expenses) arising out of any act or omission of the Licensee, its contractor, agents and/or employees, that causes or contributes to (1) any damage to or destruction of any telecommunications system on Railroad’s property, and (2) any injury to or death of any person employed by or on behalf of any telecommunications company, and/or its contractor, agents and/or employees, on Railroad’s property. Licensee shall not have or seek recourse against Railroad for any claim or cause of action for alleged loss of profits or revenue or loss of service or other consequential damage to a telecommunications company using Railroad’s property or a customer or user of services of the fiber optic cable on Railroad’s property.

Section 7 - COMPLIANCE WITH LAWS.

In the prosecution of the work covered by this Agreement, the Licensee shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work. The Licensee shall use only such methods as are consistent with safety, both as concerns the Licensee, the Licensee’s agents and employees, the officers, agents, employees and property of the Railroad and the public in general. The Licensee (without limiting the generality of the foregoing) shall comply with all applicable state and federal occupational safety and health acts and regulations. All Federal Railroad Administration regulations shall be followed when work is performed on the Railroad’s property. If any failure by the Licensee to comply with any such laws, regulations, and enactments, shall result in any fine, penalty, cost or charge being assessed, imposed or charged against the Railroad, the Licensee shall reimburse and indemnify the Railroad for any such fine, penalty, cost or charge, including without limitation attorneys’ fees, court costs and expenses. The Licensee further agrees in the event of any such action, upon notice thereof being provided by the Railroad, to defend such action free of cost, charge, or expense to the Railroad.

Section 8 - SAFETY INSTRUCTIONS.

Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of the work pursuant to this Agreement. As reinforcement and in furtherance of overall safety measures to be observed by the Licensee (and not by way of limitation), the following special safety rules shall be followed:

a. The Licensee shall keep the job site free from safety and health hazards and ensure that its employees are competent and adequately trained in all safety and health aspects of the job. The Licensee shall have proper first aid supplies available on the job site so that prompt first aid services can be provided to any person that may be injured on the job site. The Licensee shall promptly notify the Railroad of any U.S. Occupational Safety and Health Administration reportable injuries occurring to any person that may arise during the work performed on the job site. The Licensee shall have a non-delegable duty to control its employees, while they are on the job site or any other property of the Railroad to be certain they do not use, be under the influence of, or have in their possession any alcoholic beverage or illegally obtained drug, narcotic or other substance that may inhibit the safe performance of work by an employee.
b. The employees of the Licensee shall be suitably dressed to perform their duties safely and in a manner that will not interfere with their vision, hearing or free use of their hands or feet. Only waist length shirts with sleeves and trousers that cover the entire leg are to be worn. If flare-legged trousers are worn, the trouser bottoms must be tied to prevent catching. The employees should wear sturdy and protective footwear. Employees shall not wear boots (other than work boots), sandals, canvas-type shoes or other shoes that have thin soles or heels that are higher than normal. In addition, the Licensee shall require its employees to wear personal protective equipment as specified by Railroad rules, regulations or Railroad officials overlooking the work at the job site. In particular, the protective equipment to be warn shall be:

1. Protective head gear that meets American National Standard-Z89.1-latest revision. It is suggested that all hardhats be affixed with Licensee’s or subcontractor’s company logo or name.

2. Eye protection that meets American National Standard for occupational and educational eye and face protection, Z87.1-latest revision. Additional eye protection must be provided to meet specific job situations such as welding, grinding, burning, etc.; and

3. Hearing protection which affords enough attenuation to give protection from noise levels that will be occurring on the job site.

c. All heavy equipment provided or leased by the Licensee shall be equipped with audible back-up warning devices. If in the opinion of the Railroad Representative any of Licensee’s or any of its subcontractors’ equipment is unsafe for use on the Railroad’s right-of-way, the Licensee, at the request of the Railroad Representative, shall remove such equipment from the Railroad’s right-of-way.

Section 9 - INDEMNITY.

a. As used in this Section, “Railroad” includes other railroad companies using the Railroad’s property at or near the location of the Licensee’s installation and their officers, agents, and employees; “Loss” includes loss, damage, claims, demands, actions, causes of action, penalties, costs, and expenses of whatsoever nature, including court costs and attorneys’ fees, which may result from: (i) injury to or death of persons whomever (including the Railroad’s officers, agents, and employees, the Licensee’s officers, agents, and employees, as well as any other person); and (ii) damage to or loss or destruction of property whatsoever (including Licensee’s property, damage to the roadbed, tracks, equipment, or other property of the Railroad, or property in its care or custody).

b. As a major inducement and in consideration of the license and permission herein granted, the Licensee agrees to indemnify and hold harmless the Railroad from any Loss which is due to or arises from any cause and is associated in whole or in part with the work performed under this Agreement, a breach of the Agreement or the failure to observe the health and safety provisions herein, or any activity or omission arising out of performance or nonperformance of this Agreement; regardless of whether caused solely or contributed to in part by the negligence or fault of the Railroad.

c. Any liability of either party hereunder to one of its employees under any Workers’ Compensation Act or the Federal Employers’ Liability Act shall not be questioned or in any way challenged by the other party, nor shall any jury or court findings, resulting from any employee’s suit against either party pursuant to any such Act(s), be relied upon or used by either party in any attempt to assert common law liability against the other.
Section 10 -  **RESTORATION OF PROPERTY.**

In the event the Railroad authorizes the Licensee to take down any fence of the Railroad or in any manner move or disturb any of the other property of the Railroad in connection with the work to be performed by Licensee, then in that event the Licensee shall, as soon as possible and at Licensee’s sole expense, restore such fence and other property to the same condition as the same were in before such fence was taken down or such other property was moved or disturbed, and the Licensee shall indemnify and hold harmless the Railroad, its officers, agents and employees, against and from any and all liability, loss, damages, claims, demands, costs and expenses of whatsoever nature, arising from the taking down of any fence or the moving or disturbance of any other property of the Railroad.

Section 11 -  **WAIVER OF BREACH.**

The waiver by the Railroad of the breach of any condition, covenant or agreement herein contained to be kept, observed and performed by the Licensee shall in no way impair the right of the Railroad to avail itself of any remedy for any subsequent breach thereof.

Section 12 -  **ASSIGNMENT – SUBCONTRACTING.**

The Licensee shall not assign, sublet or subcontract this Agreement, or any interest therein, without the written consent of the Railroad and any attempt to so assign, sublet or subcontract without the written consent of the Railroad shall be void. If the Railroad gives the Licensee permission to subcontract all or any portion of the work herein described, the Licensee is and shall remain responsible for all work of subcontractors and all work of subcontractors shall be governed by the terms of this Agreement.
EXHIBIT C

Union Pacific Railroad
Contract Insurance Requirements

Right of Entry Agreement

Licensee shall, at its sole cost and expense, procure and maintain during the life of this Agreement (except as otherwise provided in this Agreement) the following insurance coverage:

A. **Commercial General Liability** insurance. Commercial general liability (CGL) with a limit of not less than $5,000,000 each occurrence and an aggregate limit of not less than $10,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

The policy must also contain the following endorsement, which must be stated on the certificate of insurance: Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing “Union Pacific Railroad Company Property” as the Designated Job Site.

B. **Business Automobile Coverage** insurance. Business auto coverage written on ISO form CA 00 01 (or a substitute form providing equivalent liability coverage) with a combined single limit of not less than $2,000,000 for each accident.

The policy must contain the following endorsements, which must be stated on the certificate of insurance: Coverage For Certain Operations In Connection With Railroads ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing “Union Pacific Property” as the Designated Job Site.

- Motor Carrier Act Endorsement - Hazardous materials clean up (MCS-90) if required by law.

C. **Workers Compensation and Employers Liability** insurance. Coverage must include but not be limited to: Licensee's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement. Employers’ Liability (Part B) with limits of at least $500,000 each accident, $500,000 disease policy limit $500,000 each employee.

If Licensee is self-insured, evidence of state approval and excess workers compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

D. **Railroad Protective Liability** insurance. Licensee must maintain Railroad Protective Liability insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Railroad as named insured, with a limit of not less than $2,000,000 per occurrence and an aggregate of $6,000,000. A binder stating the policy is in place must be submitted to Railroad before the work may be commenced and until the original policy is forwarded to Railroad.

E. **Umbrella or Excess** insurance. If Licensee utilizes umbrella or excess policies, these policies must “follow form” and afford no less coverage than the primary policy.
F. **Pollution Liability** insurance. Pollution Liability coverage must be included when the scope of the work as defined in the Agreement includes installation, temporary storage, or disposal of any “hazardous” material that is injurious in or upon land, the atmosphere, or any watercourses; or may cause bodily injury at any time.

Pollution liability coverage must be written on ISO form Pollution Liability Coverage Form Designated Sites CG 00 39 12 04 (or a substitute form providing equivalent liability coverage), with limits of at least $5,000,000 per occurrence and an aggregate limit of $10,000,000.

If the scope of work as defined in this Agreement includes the disposal of any hazardous or non-hazardous materials from the job site, Licensee must furnish to Railroad evidence of pollution legal liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting the materials, with coverage in minimum amounts of $1,000,000 per loss, and an annual aggregate of $2,000,000.

**Other Requirements**

G. All policy(ies) required above (except worker’s compensation and employers liability) must include Railroad as “Additional Insured” using ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage). The coverage provided to Railroad as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26, and CA 20 48 provide coverage for Railroad’s negligence whether sole or partial, active or passive, and shall not be limited by Licensee's liability under the indemnity provisions of this Agreement.

H. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless (a) insurance coverage may not lawfully be obtained for any punitive damages that may arise under this agreement, or (b) all punitive damages are prohibited by all states in which this agreement will be performed.

I. Licensee waives all rights against Railroad and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the workers compensation and employers liability or commercial umbrella or excess liability insurance obtained by Licensee required by this agreement.

J. Prior to commencing the work, Licensee shall furnish Railroad with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this Agreement.

K. All insurance policies must be written by a reputable insurance company acceptable to Railroad or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the work is to be performed.

L. The fact that insurance is obtained by Licensee or by Railroad on behalf of Licensee will not be deemed to release or diminish the liability of Licensee, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad from Licensee or any third party will not be limited by the amount of the required insurance coverage.
SUBMITTING REQUESTS FOR
RAILROAD PROTECTIVE LIABILITY INSURANCE
($2,000,000 per occurrence/$6,000,000 aggregate)

Application forms for inclusion in Union Pacific Railroad's Blanket Railroad Protective Liability Insurance Policy may be obtained by accessing the following website (includes premiums as well):

www.uprr.com/reus/rrinsure/index.shtml

If you have questions regarding railroad protective liability insurance (i.e. premium quotes, application) please contact the Marsh USA Service Team, Bill Smith or Cindy Long at:

Phone: (800) 729-7001
Fax: (816) 556-4362
Email: william.j.smith@marsh.com
Email: cindy.long@marsh.com

*PLEASE NOTE - The RPLI application and premium check should be sent directly to Marsh, USA at the address shown below - do NOT send your check and application via overnight air, as the P.O. Box will NOT accept overnight deliveries.

If you are in a situation where you require a RUSH, please contact Bill Smith or Cindy Long and they will do their best to accommodate your needs. All checks written to Marsh, USA should reference Union Pacific Railroad in the “Memo” section of the check.

Send Checks and Applications to the following “NEW” address:

Marsh USA
NW 8622
PO Box 1450
Minneapolis, MN 55485-8622
EAGLE COUNTY ENGINEERING DEPARTMENT
BURNS BRIDGE REPLACEMENT
ON COUNTY ROAD 301 OVER THE COLORADO RIVER
PROJECT NO. BRO C 440-0006

EAGLE COUNTY ENGINEERING DEPARTMENT PROJECT
SPECIAL PROVISIONS
BURNS BRIDGE REPLACEMENT
ON COUNTY ROAD 301 OVER THE COLORADO RIVER

STANDARD SPECIAL PROVISIONS
Section 105 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 105.07 and replace with the following:

**105.07 Conformity to Roadway Smoothness Criteria of HMA.** Roadway smoothness testing and corrective work shall be performed as described below. The pavement smoothness category shall be HRI Category II unless shown on the plans.

(a) **Smoothness Quality Control Testing.**

1. The Contractor shall perform Smoothness Quality Control (SQC) testing. The test results shall be submitted to the Engineer within 48 hours of completion. SQC test results shall show the Half Car Roughness Index (HRI) for each 0.10 mile section and shall show the results for localized roughness.

   All traffic control costs associated with SQC testing will be paid for in accordance with Section 630.

   SQC testing shall be performed on the first 2,000 tons for the final layer.

   SQC testing shall be performed using the Contractor's inertial profiler, pursuant to the methods described in subsection 105.07(b) and in accordance with the manufacturer's recommendations. The Contractor's Profiler shall be certified according to CP 78. A list of certified profilers is located at http://www.dot.state.co.us/DesignSupport/.

   Production shall be suspended if SQC testing indicates that corrective work is required in accordance with subsection 105.07 (c). If the SQC data becomes available after production has started for the day, suspension will begin at the end of that production day. Production will remain suspended until the problem is identified and corrected. Each time production is suspended, corrective actions shall be proposed in writing by the Contractor. Production will not be allowed to resume until the proposed corrective actions have been accepted by the Project Engineer in writing.

   When production resumes, the Contractor shall profile the first 2,000 tons of HMA. The conditions above for suspension of work will apply.

2. The finished transverse and longitudinal surface elevation of the pavement shall be measured using a 10 foot straightedge. Areas to be measured will be directed by the Engineer. The Contractor shall furnish an approved 10 foot straightedge, depth gauge and operator to aid the Engineer in testing the pavement surface. Areas showing high spots of more than 3/16 inch in 10 feet shall be marked and diamond ground until the high spot does not exceed 3/16 inch in 10 feet.

(b) **Initial Smoothness Acceptance Testing.** The Contractor shall perform Smoothness Acceptance Testing (SA) which will be used for acceptance and calculation of incentive and disincentive adjustments.

   All traffic control costs associated with SA testing will be paid for in accordance with Section 630.

1. Longitudinal Pavement Surface Smoothness Acceptance. Pavement surfaces shall be tested and accepted for longitudinal smoothness as described herein.

   A. Testing Procedure (General). The longitudinal surface smoothness of the final pavement surface shall be tested by the Contractor in accordance with CP 74 and using the Contractor's high-speed profiler (HSP). The Contractor's Profiler shall be certified according to CP 78. A list of certified profilers is located at http://www.dot.state.co.us/DesignSupport/.

   The HSP instrumentation shall be verified in accordance with CP 74 prior to measurements. The Contractor shall lay out a distance calibration site. The distance calibration site shall be located no more than ten miles from the Project limits. The distance calibration site shall be 1056 feet long and shall be on a relatively flat, straight section of pavement as approved by the Engineer. The site
shall have a speed limit equal to the Project's highest speed limit that allows for the HSP to operate uninterrupted. The limits of the site shall be clearly marked and the distance shall be measured to an accuracy of +/- 3 inches. The Contractor shall provide in writing the site location to the Engineer. The cost of the distance calibration site will not be measured and paid for separately, but shall be included in the work.

The entire length of each through lane, climbing lane and passing lane including bridge approaches, bridge decks and intersections from the beginning to the end of the project shall be profiled in their planned final configuration. Shoulders less than 12 foot in width and medians will not be profiled and will not be subject to incentive/disincentive adjustments. Shoulders with a width of 12 feet or greater, ramps, tapers, turn slots, acceleration lanes and deceleration lanes will be profiled, but will not be subject to incentive/disincentive adjustments. Shoulders with a width of 12 feet or more, ramps, tapers, turn slots, acceleration lanes and deceleration lanes will be evaluated for localized roughness corrective work. The profile of the entire length of a lane shall be taken at one time. However, the Engineer may break a project into sections to accommodate Project phasing.

A sufficient distance shall be deleted from the profile to allow the profiler to obtain the testing speed plus a 300 foot distance to stop and start when required. Incentive/disincentive adjustments will not be made for this area. The final surface of these areas shall be tested in accordance with subsection 105.07(a) 2.

Shoulders less than 12 foot in width and medians constructed as part of this project shall be measured in accordance with subsection 105.07(a) 2.

The profile shall include transverse joints when pavement is placed by the project on both sides of the joint. When pavement is placed on only one side of the joint, the profile shall start 25 feet outside the project paving limits. The profile of the section of pavement 25 feet outside the paving limits to 25 feet inside paving limits will not be subjected to incentive or disincentive adjustments, but will be evaluated for localized roughness.

The profile of the area 25 feet each side of every railroad crossing, cattle guard, bus pad, manhole, gutter pan and intersection (where there is a planned breakpoint in the profile grade line in the direction of traffic) shall be deleted from the profile before the HRI is determined. Incentive/disincentive adjustments will not be made for these areas. Areas deleted from the profile shall be tested in accordance with subsection 105.07(a) 2.

When both new pavement and a new bridge or new bridge pavement are being constructed in a project, the profile of the area 25 feet each side of the bridge deck shall be deleted from the profile before the HRI is determined. Incentive/disincentive adjustments will not be made for this area. Areas deleted from the profile shall be tested in accordance with subsection 105.07(a) 2. The bridge deck will be evaluated for localized roughness. Corrective work required in these areas will not be measured and paid for separately, but shall be included in the work. For all other projects, the profile of the area 25 feet each side of the bridge deck shall be deleted from the profile before the HRI is determined. Incentive/disincentive adjustments will not be made for this area. If the Engineer determines that corrective work is required in this area, payment will be made in accordance with subsection 109.04.

The Contractor shall notify the Engineer in writing at least five working days in advance of his intention to perform SA testing. The Contractor shall profile the Project within 14 days after the completion of paving operations. The Engineer will witness the SA profiling and take immediate possession of the SA data.

The Contractor shall not perform any corrective work that will affect the pavement smoothness for ten working days after completion of the SA testing or as approved by the Engineer. This time is to allow for the Department to analyze the data and perform smoothness verification testing.
B. Smoothness Testing Procedures. The Contractor shall mark the profiling limits and excluded areas. The Engineer will verify that the Contractor's marks are located properly. The Contractor shall use traffic cones with reflective tape or reflective tape on the pavement at the beginning and end of each lane for triggering the start and stop locations on the profiler and at any other location, where portions of the profile are being deleted. These locations shall be marked with temporary paint so that the Department's profiler uses the same locations for smoothness verification testing.

The Contractor shall clear the lanes to be tested of all debris before profiling.

The Contractor shall submit a Method for Handling Traffic (MHT) to the Engineer for approval at least five days in advance of SA testing. The MHT shall detail the methods for traffic control that will allow for continuous non-stop profiling of each lane to be profiled at a minimum speed of 15 mph. The Contractor shall provide the traffic control in accordance with the approved MHT.

Each lane shall be profiled at least once. Profiling shall be at a constant speed (+/- 5 mph of the distance calibration speed) with a minimum speed of 15 mph and a maximum speed of 70 mph. Shoulders with a width of 12 feet or more, ramps, tapers, turn slots, acceleration lanes and deceleration lanes shall be profiled. The profile shall be taken in the planned direction of travel. The left and right wheel paths shall be profiled simultaneously. The collected profiles shall be turned over immediately to the Engineer and will be analyzed using CP 74.

(1) The Department will determine a HRI for each 0.1 mile section or fraction thereof of completed pavement. The HRI consists of the left and right wheel path's profile passed through the International Roughness Index (IRI) filter.

The Contractor's SA test results will be available within ten working days of the completion of SA testing. The Engineer will give the Contractor a report that will include the lane profiled, the HRI in 0.10 mile increments and a summary of areas requiring corrective work. The Engineer may determine that it is necessary for the Contractor to re-profile a lane.

Areas requiring corrective work will be determined according to subsection 105.07(c) 1.

Sections less than 0.01 miles in length shall not be subject to corrective work as specified by Table 105-6. Sections less than 0.01 miles in length shall be included in the Localized Roughness determination.

C. Acceptance and incentive/disincentive adjustments for pavement smoothness will be made on a square yard basis in accordance with the following:

Incentive and Disincentive adjustments will be based on the HRI for each 0.1 mile section or fraction thereof. Incentive/Disincentive adjustments for Pavement Smoothness will be made in accordance with Table 105-6. Sections less than 0.01 miles in length will not be subject to disincentives.
### Table 105-6

<table>
<thead>
<tr>
<th>Pavement Smoothness Category</th>
<th>Incentive Payment ($/sqyd)</th>
<th>No Incentive or Disincentive</th>
<th>Disincentive Payment ($/sqyd)</th>
<th>Corrective Work Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>When HRI ≤ 40.0</td>
<td>When HRI ≥ 63.0 and ≤ 72.0</td>
<td>When HRI &gt; 72.0 and &lt; 90.0</td>
<td>When HRI &gt; 90.0</td>
</tr>
<tr>
<td></td>
<td>$1.28</td>
<td>$0.00</td>
<td>5.12 – 0.07111 x HRI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When HRI &gt; 40.0 and &lt; 63.0</td>
<td></td>
<td>When HRI ≥ 90.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.51 – 0.05565 x HRI</td>
<td></td>
<td>$1.28</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>When HRI ≤ 35.0</td>
<td>When HRI ≥ 58.0 and ≤ 67.0</td>
<td>When HRI &gt; 67.0 and &lt; 85.0</td>
<td>When HRI &gt; 85.0</td>
</tr>
<tr>
<td></td>
<td>$1.28</td>
<td>$0.00</td>
<td>4.76 – 0.07111 x HRI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When HRI &gt; 35.0 and &lt; 58.0</td>
<td></td>
<td>When HRI ≥ 85.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.23 – 0.05565 x HRI</td>
<td></td>
<td>$1.28</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>When HRI ≤ 45.0</td>
<td>When HRI ≥ 70.0 and ≤ 80.0</td>
<td>When HRI &gt; 80.0 and &lt; 100.0</td>
<td>When HRI &gt; 100.0</td>
</tr>
<tr>
<td></td>
<td>$1.28</td>
<td>$0.00</td>
<td>5.12 – 0.064 x HRI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When HRI &gt; 45.0 and &lt; 70.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.584 – 0.0512 x HRI</td>
<td></td>
<td>$1.28</td>
<td></td>
</tr>
</tbody>
</table>

(c) **Corrective Work.**

The Department will analyze the SA testing for acceptance and indicate areas requiring corrective work in accordance with subsection 105.07(b). Corrective work shall be proposed in writing by the Contractor. Corrective work shall not be performed until approved in writing by the Engineer. The Contractor shall not perform any corrective work on the final layer until after the Engineer returns the results of the Initial Smoothness Acceptance testing and after the Department's Smoothness Verification testing, if performed. The Contractor shall perform corrective work in the areas indicated by the SA testing.

Corrective work on lower layers shall be at the Contractor's discretion.

The Contractor shall profile the roadway to verify the required corrective work has been completed.

If the Contractor elects to perform corrective work prior to the completion of initial SA testing, the entire 0.10 mile section, or fraction thereof, will not be eligible for incentive payment, but will be eligible for disincentive. The Engineer will not modify the limits of the 0.10 mile sections to group corrective work areas in an effort to reduce the number of sections impacted by this decision.

The Contractor may elect to perform additional corrective work to reduce or eliminate the disincentive payment for each 0.1 mile section or fraction thereof after the initial SA testing and the Department's verification testing.
REVISION OF SECTION 105
HOT MIX ASPHALT PAVEMENT SMOOTHNESS

The criteria for determining if a 0.1 mile section or fraction thereof requires corrective work is specified in Table 105-6. In addition to determining if a 0.1 mile section or fraction thereof requires corrective work, the profiles shall be analyzed for areas of Localized Roughness.

Localized Roughness. The profiles shall be analyzed to determine where areas of localized roughness occur. The profile shall be summarized using the continuous HRI reporting system using an averaging length of 25 feet. The FHWA's ProVal (Version 3.2 or later) software will be used to generate the continuous HRI report. ProVal can be downloaded at http://www.roadprofile.com.

Areas of localized roughness are determined to be where the continuous HRI report exceeds the values in Table 105-9. Areas of localized roughness greater than 15.0 feet in length shall be considered deficient, and require corrective work. Areas of localized roughness less than 25 feet in distance that contain a valve box shall be tested in accordance with subsection 105.07 (a) 2. for corrective work.

Table 105-9
CONTINUOUS HRI USING 25 FOOT AVERAGING FOR LOCALIZED ROUGHNESS CORRECTIVE WORK ON HMA PAVEMENTS

<table>
<thead>
<tr>
<th>HRI SMOOTHNESS CATEGORY</th>
<th>HRI In/mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>135.0</td>
</tr>
<tr>
<td>II</td>
<td>125.0</td>
</tr>
<tr>
<td>III</td>
<td>150.0</td>
</tr>
</tbody>
</table>

1. Corrective Methods. Corrective work shall consist of diamond grinding, an approved overlay, or removal and replacement.

Corrective work shall conform to any of the following conditions:

(1) Removal and Replacement. The pavement requiring corrective work shall be removed, full width of the lane and the full thickness of the layer in accordance with subsection 202.09.

The removal area shall begin and end with a transverse butt joint, which shall be constructed with a transverse saw cut perpendicular to centerline. Replacement material shall be placed in sufficient quantity so the finished surface conforms to grade and smoothness requirements. Sections removed and replaced shall be at least 0.20 miles in length.

(2) Overlay. The overlay shall cover the full width of the pavement including shoulders. The area overlaid shall begin and end with a transverse butt joint, which shall be constructed with a transverse saw cut and asphalt removal. All material shall be approved hot bituminous mixtures that meet all contract requirements. The overlay shall be placed so that the finished surface conforms to grade and smoothness requirements. The overlay area shall be compacted to the specified density. The overlay thickness shall be equivalent to that of the final layer in accordance with the Contract. Sections overlaid shall be at least 0.20 miles in length.

(3) Diamond Grinding. Grinding shall not reduce planned pavement thickness by more than 0.3 inches. The entire ground area of the final pavement surface shall be covered with a Tack Coat conforming to Section 407 (CSS-1h at 0.1 gallons per square yard of diluted emulsion; the emulsion shall be diluted with water at the rate of 50 percent water and 50 percent emulsion) when grinding is complete. Cores shall be taken to verify that minimum pavement thicknesses have been maintained. A minimum of one core shall be taken every 100 cumulative feet or fraction thereof per lane of diamond grinding, as directed by the Engineer. Coring shall be at the Contractor's expense.
REVISION OF SECTION 105
HOT MIX ASPHALT PAVEMENT SMOOTHNESS

(d) Final Smoothness Acceptance Testing. After the Contractor has completed the required corrective work and any additional corrective work, the Contractor shall retest the pavement in accordance with subsection 105.07(b). If the Contractor requests to do additional corrective work to reduce disincentive after Final SA Testing, the Contractor shall perform an additional Final SA Testing for the project. A charge of $500 will be assessed to the Contractor for each additional Final SA Testing. Time count will be charged pursuant to contract requirements during the time period required for all Final SA Testing. Delays associated with additional Final SA Testing will be considered non-excusable and non-compensable.

The Contractor shall notify the Engineer pursuant to 105.07(b) to schedule the final SA testing.

Final acceptance and incentive/disincentive adjustments for pavement smoothness will be made on a square yard basis in accordance with the following:

Incentive payments will be based on the HRI for each 0.1 mile section or fraction thereof from the Contractor's initial SA testing. Those sections which earned incentives or full payment based on the initial SA testing will not be re-evaluated for incentive after final SA testing.

The disincentive payment will be based on the HRI for each 0.1 mile section or fraction thereof from the Contractor's Initial SA testing or the Contractor's Final SA testing, whichever is less. Those sections which had disincentive levels indicated by the initial SA, will be re-evaluated for disincentive. The Contractor may eliminate all disincentives on those 0.1 mile sections; however, no incentives may be earned in these areas, regardless of the final smoothness.

(e) Department Smoothness Verification Testing (SV). The Department may elect to perform smoothness verification (SV) testing using the Department's inertial profiler, with the methods described in subsection 105.07(b). The Engineer will notify the Contractor of the Department's intention to perform SV testing. All traffic control costs associated with Department SV testing will be paid for by the Department in accordance with Section 630.

The Contractor's SA test results will be compared to the Department's SV test results. The Contractor's SA test results will be considered acceptable and will be used for incentive/disincentive payment if the following criteria are met:
(1) The difference in HRI for a 1/10 mile section is less than 6.1 inches/mile for a minimum of 90 percent of the 1/10mile sections for each lane.
(2) The difference in average HRI for each lane is less than 6.1 inches/mile.
(3) The difference in the length of each lane is less than 0.2 percent

When the Contractor's SA test results are not considered acceptable, the Department's SV test results will be used for incentive/disincentive payment and the Contractor's profiler certification will be evaluated pursuant to CP 78. The Department will have 30 days to complete this evaluation.

The Contractor will be assessed a charge of $1,000 for SV testing when the Contractor's SA test results are not considered acceptable.

(f) HMA Recycling Treatment's, Thin Lifts' and Urban Rehabilitation treatment's smoothness criteria. When HMA recycling, urban rehabilitation treatments or when only one layer less than 1.5 inches of HMA Pavement is placed without an intermediate treatment are constructed as the final riding surface, the following shall be used for acceptance:

An HRI for each 0.1 mile section shall be determined on the original pavement surface prior to beginning the work.

An HRI for each 0.1 mile section shall be determined on the pavement surface after the work is complete.
When a 0.1 mile section has a final HRI greater than 80.0 in/mile and the final HRI is greater than the HRI prior to performing the work, that 0.1 mile section shall be corrected by a method approved in writing by the Engineer. Corrective work shall be such that the resulting final HRI is equal to or less than the initial HRI or 80.0 in/mile, whichever is greater. All costs associated with corrective work shall be at the Contractor's expense, including but not limited to traffic control, additional hot mix asphalt, grinding and milling.

Incentive/disincentive adjustments for smoothness will not be made for these treatments.

The pavement smoothness for HMA Recycling Treatments and Thin Lifts that will be overlaid with a final riding surface will not be evaluated by the Department for acceptance.
REVISION OF SECTION 105
VIOLATION OF WORKING TIME LIMITATION

Section 105 of the Standard Specifications is hereby revised for this project as follows:

Subsection 105.03 shall include the following:

If there is a violation of the working time limitations for traffic control as set forth in the special provisions, a written notice to stop work will be imposed on the Contractor at the start of the next working day. Work shall not resume until the Contractor assures the Engineer, in writing, that there will not be a recurrence of the working time violation. If more violations take place, the Engineer will notify the Contractor in writing that there will be a price reduction charge for each incident in accordance with this specification. This incident price reduction charge will be deducted from any money due the Contractor. This price reduction will not be considered a penalty but will be a price reduction for failure to perform traffic control in compliance with the Contract.

An incident is any violation up to 30 minutes in duration. Each 30 minutes or increment thereof will be considered as an incident. A price reduction will be assessed for each successive or cumulative 30 minute period in violation of the working time limitations, as determined by the Engineer. The price reduction for each incident will increase at a progressive rate starting with $150 for the second incident and increasing to $1200 for the fifth and subsequent incidents in accordance with the following schedule. A 15 minute grace period will be allowed at the beginning of the second incident on the project before the price reduction is applied. This 15 minute grace period applies only to the second incident.

The number of incident charges will be accumulative throughout the duration of the Contract.

<table>
<thead>
<tr>
<th>Incident</th>
<th>Incident Rate</th>
<th>Total Price Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Notice to Stop Work</td>
<td>----</td>
</tr>
<tr>
<td>2nd</td>
<td>$150</td>
<td>$150</td>
</tr>
<tr>
<td>3rd</td>
<td>300</td>
<td>450</td>
</tr>
<tr>
<td>4th</td>
<td>600</td>
<td>1,050</td>
</tr>
<tr>
<td>5th</td>
<td>1,200</td>
<td>2,250</td>
</tr>
<tr>
<td>6th</td>
<td>1,200</td>
<td>3,450</td>
</tr>
<tr>
<td>Etc.</td>
<td>1,200</td>
<td>4,650</td>
</tr>
<tr>
<td></td>
<td>Etc.</td>
<td>Etc.</td>
</tr>
</tbody>
</table>
REVISION OF SECTION 106
CERTIFICATES OF COMPLIANCE AND
CERTIFIED TEST REPORTS

Section 106 of the Standard Specifications is hereby revised for this project as follows:

In subsection 106.12, delete the second paragraph and replace it with the following:

The original Certificate of Compliance shall include the Contractor's original signature as directed above. The original signature (including corporate title) on the Certificate of Compliance, under penalty of perjury, shall be of a person having legal authority to act for the manufacturer. It shall state that the product or assembly to be incorporated into the project has been sampled and passed all specified tests in conformity to the plans and specifications for this project. One legible copy of the fully signed Certificate of Compliance shall be furnished to the Engineer prior to installation of material. The original shall be provided to the Engineer before payment for the represented item will be made.

In subsection 106.13, delete the second paragraph and replace it with the following:

The Certified Test Report shall be a legible copy or an original document and shall include the Contractor's original signature as directed above. The signature (including corporate title) on the Certified Test Report, under penalty of perjury, shall be of a person having legal authority to act for the manufacturer or the independent testing laboratory. It shall state that the test results show that the product or assembly to be incorporated into the project has been sampled and passed all specified tests in conformity to the plans and specifications for this project. One legible copy or original document of the fully signed Certified Test Report shall be furnished to the Engineer prior to installation of material. Failure to comply may result in delays to the project or rejection of the materials.
REVISION OF SECTION 107
RESPONSIBILITY FOR DAMAGE CLAIMS,
INSURANCE TYPES AND COVERAGE LIMITS

Section 107 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 107.15(c) and replace it with the following:

(c) Each insurance policy shall include provisions preventing cancellation or non-renewal without at least 30 days prior notice to Contractor. The Contractor shall forward to the Engineer any such notice received within seven days of the Contractor's receipt of such notice.
Section 108 of the Standard Specifications is hereby revised for this project as follows:

Subsection 108.03 shall include the following:

The Bar Chart or Initial Schedule shall be submitted at least 10 working days prior to the start of the work. The Engineer’s review of the Schedule will not exceed two working days. Work shall not begin until the Schedule is accepted in writing, unless otherwise approved by the Engineer.

In subsection 108.03 (c), delete the third paragraph.
REVISION OF SECTION 108
LIQUIDATED DAMAGES

Section 108 of the Standard Specifications is hereby revised for this project as follows:

In subsection 108.09 delete the schedule of liquidated damages and replace with the following:

<table>
<thead>
<tr>
<th>Original Contract Amount ($)</th>
<th>Liquidated Damages per Calendar Day ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>From More Than</td>
<td>To And Including</td>
</tr>
<tr>
<td>0</td>
<td>250,000</td>
</tr>
<tr>
<td>250,000</td>
<td>500,000</td>
</tr>
<tr>
<td>500,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>1,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>2,000,000</td>
<td>4,000,000</td>
</tr>
<tr>
<td>4,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>10,000,000</td>
<td></td>
</tr>
</tbody>
</table>
REVISION OF SECTION 109
COMPENSATION FOR COMPENSABLE DELAYS

In subsection 109.10, delete the first two paragraphs and replace with the following:

109.10 Compensation for Compensable Delays. If the Engineer determines that a delay is compensable in accordance with either subsection 105.22, 105.23, 105.24, or 108.08, monetary compensation will be determined in accordance with this subsection.

(a) These categories represent the only costs that are recoverable by the Contractor. All other costs or categories of costs are not recoverable:

(1) Actual wages and benefits, including FICA, paid for additional labor not otherwise included in (5) below;
(2) Costs for additional bond, insurance and tax;
(3) Increased costs for materials;
(4) Equipment costs calculated in accordance with subsection 109.04(c) for Contractor owned equipment and based on invoice costs for rented equipment;
(5) Costs of extended job site overhead;
(6) Costs of salaried employees not otherwise included in (1) or (5) above incurred as a direct result of the delay;
(7) Claims from subcontractors and suppliers at any level (the same level of detail as specified herein is required for all such claims);
(8) An additional 16 percent will be added to the total of items (1) through (7) as compensation for items for which no specific allowance is provided, including profit and home office overhead.
Section 109 of the Standard Specifications is hereby revised for this project as follows:

In subsection 109.01, delete the 17th paragraph and replace it with the following:

Vehicles used to haul material being paid for by weight shall bear a plainly legible identification mark. Each of these vehicles shall be weighed empty daily at times directed by the Engineer. The Contractor shall furnish to the Engineer, in writing, a vehicle identification sheet that lists the following for each delivery vehicle to be used on the project:

(1) identification mark
(2) vehicle length
(3) tare weight
(4) number of axles
(5) the distance between extreme axles
(6) information related to legal weight, including the Permit No. and permitted weight of each vehicle for which the State has issued an overweight permit.

This information shall be furnished prior to time of delivery of the material and at any subsequent time the Contractor changes vehicles, combination vehicles, axle length relationships, or overweight permitting of vehicles.
REVISION OF SECTION 109
MEASUREMENT OF WATER

Section 109 of the Standard Specifications is hereby revised for this project as follows:

In subsection 109.01, delete the twenty-sixth paragraph and replace with the following:

Water may be measured either by volume or weight. Water meters shall be accurate within a range of ± 3 percent. When water is metered, the Contractor shall use an approved metering device and shall furnish the Engineer a certificate showing the meter has been accurately calibrated within the time allowed in the following schedule:

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 inch</td>
<td>4 years</td>
</tr>
<tr>
<td>4 inch to 6 inch</td>
<td>2 years</td>
</tr>
<tr>
<td>8 inch to 10 inch</td>
<td>1 year</td>
</tr>
</tbody>
</table>
REVISION OF SECTION 203
IMPORTED MATERIAL FOR EMBANKMENT

Section 203 of the Standard Specifications is hereby revised for this project as follows:

Subsection 203.03 (a) shall include the following:

Imported Material used for backfilling pipes (storm sewer, cross culverts, side drains, etc) shall be tested for compatibility with the selected pipe material.

When Nonreinforced Concrete Pipe or Reinforced Concrete Pipe is used, the imported material shall be tested for sulfate and pH

When Corrugated Steel Pipe, Bituminous Coated Corrugated Steel Pipe or Preccated Corrugated Steel Pipe is used, the imported material shall be tested for sulfates, chlorides, pH and resistivity.

When Aramid Fiber Bonded Corrugated Steel Pipe or Corrugated Aluminum Pipe is used, the imported material shall be tested for pH and resistivity.

When Plastic pipe is selected, the imported material does not need to be tested for sulfates, chlorides, pH and resistivity.

Sulfates, chlorides, pH and resistivity shall be determined by the following procedures:

1. Water soluble sulfates using CP-L 2103 Method B.
2. Chlorides using CPL 2104
3. Resistivity using ASTM G57

The average of three consecutive tests shall show the imported material's sulfate, chloride, pH and resistivity is not greater than the limits corresponding to the Pipe Class in Table 203-1 or 203-2 for the pipe class specified on the plans. No single test shall have a result more than 20 percent greater than that corresponding to the limit in Table 203-1 or Table 203-2 for sulfates, chlorides and resistivity. No single test shall have a result more than 5 percent outside the limit in Table 203-1 for pH. The remaining sample material from a single failing test shall be split into three equal portions. CDOT shall receive one portion, the Contractor shall receive one portion and the remaining portion shall be retained by the Project. CDOT and the Contractor's Lab shall retest the failed sample; if the results from those tests are within 10 percent of each other, the results will be averaged. The averaged result will be used for Contract compliance. If the results from the Labs are not within 10 percent of each other, the remaining sample portion will be sent to an independent laboratory for testing using the testing requirements specified above. The independent laboratory will be mutually agreed upon by the Department and the Contractor. The Independent Lab's test result will be used for Contract compliance.

If the imported material's sulfates, chlorides, and resistivity are less than the limits and the pH is within the limits in Table 203-1 or 203-2, CDOT will bear all costs associated with the independent lab test. If the imported material's sulfates, chlorides, and resistivity is greater than the limits and the pH is outside the limits in Table 203-1 or 203-2, all costs associated with independent lab testing shall be at the Contractor's expense.

Embarkment represented by failing tests shall be removed from the project and replaced at the Contractor's expense.
Table 203-1
SULFATE, CHLORIDE AND pH OF IMPORTED MATERIAL

<table>
<thead>
<tr>
<th>Pipe Class</th>
<th>Sulfate (SO₄)</th>
<th>Chloride (Cl)</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% max</td>
<td>% max</td>
<td></td>
</tr>
<tr>
<td>0, 7</td>
<td>0.05</td>
<td>0.05</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>1, 7</td>
<td>0.10</td>
<td>0.10</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>2, 8</td>
<td>0.20</td>
<td>0.20</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>3, 9</td>
<td>0.50</td>
<td>0.50</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>4, 9</td>
<td>1.00</td>
<td>1.00</td>
<td>5.0-9.0</td>
</tr>
<tr>
<td>5, 10</td>
<td>2.00</td>
<td>2.00</td>
<td>5.0-9.0</td>
</tr>
<tr>
<td>5, 10</td>
<td>&gt;2.00</td>
<td>&gt;2.00</td>
<td>&lt;5 or &gt;9</td>
</tr>
</tbody>
</table>

Table 203-2
RESISTIVITY AND pH OF IMPORTED MATERIAL

<table>
<thead>
<tr>
<th>SOIL SIDE</th>
<th>Resistivity, R (Ohm – cm)</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≥1,500</td>
<td>5.0-9.0</td>
</tr>
<tr>
<td></td>
<td>≥250</td>
<td>3.0-12.0</td>
</tr>
</tbody>
</table>
Sections 203, 304 and 613 of Standard Specifications are hereby revised for this project as follows:

In subsection 203.03 (a), delete the fifth paragraph and replace with the following:

1. **Soil Embankment.** Soil embankment consists of materials with 50 percent or more of the material passing the 4.75 mm (No. 4) sieve.

   A soil embankment may also have more than 50 percent of the material retained on the 4.75 mm (No. 4) sieve, but no more than 30 percent of the material retained on the 19 mm (3/4 inch) sieve.

   Soil embankment shall be constructed with moisture density control in accordance with the requirements of subsection 203.07.

2. **Rock Embankment.** Rock embankment consist of materials with 50 percent or more of the material retained on the 4.75 mm (No. 4) sieve and with more than 30 percent of the material retained on the 19 mm (3/4 inch) sieve. All material shall be smaller than 6 inches. Rock embankments shall be constructed without moisture density control in accordance with the requirements of subsection 203.08.

Delete Subsection 203.07 and replace with the following:

**203.07 Construction of Embankment and Treatment of Cut Areas with Moisture and Density Control.** Soil embankments shall be constructed with moisture and density control and the soil upon which the embankments are to be constructed shall be scarified to a depth of 6 inches and compacted with moisture and density control. The moisture content of the soil at the time of compaction shall be as specified or directed.

The material shall be removed from the full width of roadbed in all cut sections to the designated depth. The soil below the designated depth shall be thoroughly scarified to a depth of 6 inches and the moisture content increased or reduced, as necessary, to obtain the moisture content specified. This scarified layer shall then be compacted to the relative compaction specified.

All embankment material shall be compacted to not less than 95 percent relative compaction. Maximum dry density of all soil types encountered or used will be determined in accordance with AASHTO T 99 as modified by CP 23.

Soils shall be compacted at ± 2 percent of Optimum Moisture Content (OMC) as determined by AASTHO T 99. Soils having greater than 35 percent passing the 75 μm (No. 200) sieve shall be compacted to 0 to 3 percent above OMC. Soils which are unstable at the above moisture content shall be compacted at lower moisture content to the specified density.

Additional work involved in drying embankment material to the required moisture content shall be included in the contract price paid for excavating or furnishing the material with no additional compensation.

Density requirements will not apply to materials which cannot be tested in accordance with the above procedures for determining maximum dry density. Compaction for materials which cannot be tested shall be in accordance with subsection 203.08.

Claystone or soil-like non-durable shale shall be pulverized and compacted to the specified moisture and percent of relative compaction and shall be compacted with a heavy tamping foot roller, weighing at least 30 tons. Each tamping foot roller shall protrude from the drum a minimum of 4 inches. Each embankment layer shall receive a minimum of three or more coverages with the tamping foot roller to obtain density. One coverage consists of one pass over the entire surface designated. One pass consists of the passing of an acceptable tamping foot roller over a given spot. The roller shall be operated at a uniform speed not exceeding 3 miles per hour. No additional compensation will be made for additional roller coverages to achieve specified density requirements.
In subsection 206.03, delete the fourth and fifth paragraphs and replace with the following:

Backfill shall consist of approved materials uniformly distributed in layers brought up equally on all sides of the structure. Each layer of backfill shall not exceed 6 inches before compacting to the required density and before successive layers are placed. Structure backfill (Class 1) shall be compacted to a density of not less than 95 percent of maximum dry density determined in accordance with AASHTO T 180 as modified by CP 23. Backfill shall be compacted at ± 2 percent of Optimum Moisture Content (OMC).

Structure backfill (Class 2) shall be compacted to a density of not less than 95 percent of maximum dry density. The maximum dry density and OMC for A-1, A-2-4, A-2-5 and A-3 materials will be determined in accordance with AASHTO T 180 as modified by CP 23. The maximum dry density and OMC for all other materials will be determined in accordance with AASHTO T 99 as modified by CP 23. Materials shall be compacted at ± 2 percent of Optimum Moisture Content (OMC). Materials having greater than 35 percent passing the 75 μm (No. 200) sieve shall be compacted at 0 to 3 percent above OMC.

In subsection 304.06, delete the first paragraph and replace with the following:

304.06 Shaping and Compaction. Compaction of each layer shall continue until a density of not less than 95 percent of the maximum density determined in accordance with AASHTO T 180 as modified by CP 23 has been achieved. The moisture content shall be at +/- 2 percent of optimum moisture content. The surface of each layer shall be maintained during the compaction operations so that a uniform texture is produced and the aggregates are firmly keyed. Moisture conditioning shall be performed uniformly during compaction.

In subsection 613.07, delete the 15th paragraph and replace with the following:

Trenching shall be backfilled and compacted as follows: Backfill shall be deposited in uniform layers. The thickness of each layer shall be 6 inches or less thick prior to compaction. The space under the conduit shall be completely filled. The remainder of the trench and excavation shall be backfilled to the finished grade. The backfill material shall be compacted to the density of not less than 95 percent of maximum dry density. The maximum dry density and optimum moisture content (OMC) for A-1, A-2-4, A-2-5 and A-3 materials will be determined in accordance with AASHTO T 180 as modified by CP 23. The maximum dry density and OMC for all other materials will be determined in accordance with AASHTO T 99 as modified by CP 23. Materials shall be compacted at ± 2 percent of Optimum Moisture Content (OMC). Materials having greater than 35 percent passing the 75 μm (No. 200) sieve shall be compacted at 0 to 3 percent above OMC. Each layer shall be mechanically compacted by tamping with power tools approved by the Engineer. Compaction methods or equipment that damage the conduit shall not be used.
Section 206 of the Standard Specifications is hereby revised for this project as follows:

Subsection 206.02 (a) shall include the following:

Imported Material used as structure backfill for pipes (storm sewer, cross culverts, side drains, etc) shall be tested for compatibility with the selected pipe material.

When Nonreinforced Concrete Pipe or Reinforced Concrete Pipe is used, the imported material shall be tested for sulfate and pH.

When Corrugated Steel Pipe, Bituminous Coated Corrugated Steel Pipe or Precoated Corrugated Steel Pipe is used, the imported material shall be tested for sulfates, chlorides, pH and resistivity.

When Aramid Fiber Bonded Corrugated Steel Pipe or Corrugated Aluminum Pipe is used, the imported material shall be tested for pH and resistivity.

When Plastic pipe is selected, the imported material does not need to be tested for sulfates, chlorides, pH and resistivity.

Sulfates, chlorides, pH and resistivity shall be determined by the following procedures:

(1) Water soluble sulfates using CP-L 2103 Method B.
(2) Chlorides using CPL 2104
(3) Resistivity using ASTM G57
(4) pH using ASTM G51.

The average of three consecutive tests shall show the imported material's sulfate, chloride, pH and resistivity is not greater than the limits corresponding to the Pipe Class in Table 206-1 or 206-2 for the pipe class specified on the plans. No single test shall have a result more than 20 percent greater than that corresponding to the limit in Table 206-1 or Table 206-2 for sulfates, chlorides and resistivity. No single test shall have a result more than 5 percent outside the limit in Table 206-1 for pH. The remaining sample material from a single failing test shall be split into three equal portions. CDOT shall receive one portion, the Contractor shall receive one portion and the remaining portion shall be retained by the Project. CDOT and the Contractor's Lab shall retest the failed sample; if the results from those tests are within 10 percent of each other, the results will be averaged. The averaged result will be used for Contract compliance. If the results from the Labs are not within 10 percent of each other, the remaining sample portion will be sent to an independent laboratory for testing using the testing requirements specified above. The independent laboratory will be mutually agreed upon by the Department and the Contractor. The Independent Lab's test result will be used for Contract compliance.

If the imported material's sulfates, chlorides, and resistivity are less than the limits and the pH is within the limits in Table 203-1 or 203-2, CDOT will bear all costs associated with the independent lab test. If the imported material's sulfates, chlorides, and resistivity is greater than the limits and the pH is outside the limits in Table 206-1 or 206-2, all costs associated with independent lab testing shall be at the Contractor's expense.

Embankment represented by failing tests shall be removed from the project and replaced at the Contractor's expense.
### Table 206-1
**Sulfate, Chloride and PH of Imported Material**

<table>
<thead>
<tr>
<th>Pipe Class</th>
<th>Sulfate (SO₄)</th>
<th>Chloride (Cl)</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>% max</td>
<td>% max</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0, 7</td>
<td>0.05</td>
<td>0.05</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>1, 7</td>
<td>0.10</td>
<td>0.10</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>2, 8</td>
<td>0.20</td>
<td>0.20</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>3, 9</td>
<td>0.50</td>
<td>0.50</td>
<td>6.0-8.5</td>
</tr>
<tr>
<td>4, 9</td>
<td>1.00</td>
<td>1.00</td>
<td>5.0-9.0</td>
</tr>
<tr>
<td>5, 10</td>
<td>2.00</td>
<td>2.00</td>
<td>5.0-9.0</td>
</tr>
<tr>
<td>6, 10</td>
<td>&gt;2.00</td>
<td>&gt;2.00</td>
<td>&lt;5 or &gt;9</td>
</tr>
</tbody>
</table>

### Table 206-2
**Resistivity and PH of Imported Material**

<table>
<thead>
<tr>
<th>Soil Side</th>
<th>Resistivity, R (Ohm - cm)</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≥1,500</td>
<td>5.0-9.0</td>
</tr>
<tr>
<td></td>
<td>≥250</td>
<td>3.0-12.0</td>
</tr>
</tbody>
</table>
Sections 206 and 601 of the Standard Specifications are hereby revised for this project as follows:

In subsection 206.03, delete the ninth paragraph and replace with the following:

Backfill material shall not be deposited against newly constructed masonry or concrete structures, until the concrete has developed a compressive strength of 0.8 f’c, except in cases where the structures support lateral earth pressure. Concrete compressive strength for structures supporting lateral earth pressure shall conform to subsection 601.12 (o).

Subsection 601.12 shall include the following:

(o) **Backfilling Structures that Support Lateral Earth Pressure.** Concrete compressive strengths shall reach f’c before backfilling operations can begin with heavy equipment, such as skid-steamers or self-powered riding compactors. Concrete compressive strengths shall reach 0.8 f’c before backfilling operations can begin with hand operated equipment.
REVISION OF SECTION 212
SEED

Section 212 of the Standard Specifications is hereby revised for this project as follows:

In subsection 212.02 (a), delete the first paragraph and replace with the following:

(a) Seed. All seed shall be furnished in bags or containers clearly labeled to show the name and address of the supplier, the seed name, the lot number, net weight, origin, the percent of weed seed content, the guaranteed percentage of purity and germination, pounds of pure live seed (PLS) of each seed species, and the total pounds of PLS in the container. All seeds shall be free from noxious weed seeds in accordance with current state and local lists and as indicated in Section 213. The Contractor shall furnish to the Engineer a signed statement certifying that the seed is from a lot that has been tested by a recognized laboratory for seed testing within thirteen months prior to the date of seeding. The Engineer may obtain seed samples from the seed equipment, furnished bags or containers to test seed for species identification, purity and germination. Seed tested and found to be less than 10 percent of the labeled certified PLS and different than the specified species will not be accepted. Seed which has become wet, moldy, or damaged in transit or in storage will not be accepted.
REVISION OF SECTION 213
MULCHING

Section 213 of the Standard Specifications is hereby revised for this project as follows:

In subsection 213.01, delete the last paragraph and replace with the following:

This work includes furnishing and applying spray-on mulch blanket or bonded fiber matrix on top of rock cuts and slopes after seeding or as temporary stabilization as shown on the plans or as directed by the Engineer.

In subsection 213.02, delete the eighth paragraph and replace with the following:

The hydromulch material for hydraulic mulching shall consist of virgin wood fibers manufactured expressly from clean whole wood chips. The chips shall be processed in such a manner as to contain no growth or germination inhibiting factors. Fiber shall not be produced from recycled materials such as sawdust, paper, cardboard, or residue from pulp and paper plants. The wood cellulose fibers of the mulch must maintain uniform suspension in water under agitation. Upon application, the mulch material shall form a blotter like mat covering the ground. This mat shall have the characteristics of moisture absorption and percolation and shall cover and hold seed in contact with the soil. The Contractor shall obtain certifications from suppliers that laboratory and field testing of their product has been accomplished, and that it meets all of the foregoing requirements pertaining to wood cellulose fiber mulch.

In subsection 213.02, delete the eleventh paragraph and replace with the following:

Material for mulch tackifier shall consist of a free-flowing, noncorrosive powder produced either from the natural plant gum of Plantago Insularis (Desert Indianwheat) or pre-gelatinized 100 percent natural corn starch polymer. The powders shall possess the following properties:

**Plantago Insularis (Desert Indianwheat):**

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirement</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) pH 1% solution</td>
<td>6.5 - 8.0</td>
<td></td>
</tr>
<tr>
<td>(2) Mucilage content</td>
<td>75% min.</td>
<td>ASTM D7047</td>
</tr>
</tbody>
</table>

Pre-gelatinized 100 percent natural corn starch polymer:

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Organic Nitrorgen as protein</td>
<td>5.5-7%</td>
</tr>
<tr>
<td>(2) Ash content</td>
<td>0-2%</td>
</tr>
<tr>
<td>(3) Fiber</td>
<td>4-5%</td>
</tr>
<tr>
<td>(4) pH 1% solution</td>
<td>6.5 - 8.0</td>
</tr>
<tr>
<td>(5) Size</td>
<td>100% thru 850 microns (20 mesh)</td>
</tr>
<tr>
<td>(6) Settleable solids</td>
<td>&lt;2%</td>
</tr>
</tbody>
</table>

All fibers shall be colored green or yellow with a biodegradable dye.

Delete the last paragraph in subsection 213.02 and replace with the following:

(a) **Spray-on Mulch Blanket.** Spray on mulch blanket shall be one of the following, unless otherwise shown on the plans:

(1) Spray-on Mulch Blanket (Type 1) shall be a hydraulically applied matrix containing organic fibers, water soluble cross-linked tackifier, reinforcing natural and/or synthetic interlocking fibers. Mulch Blanket (Type 1) shall conform to the following:
REVISION OF SECTION 213
MULCHING

<table>
<thead>
<tr>
<th>Properties</th>
<th>Requirement</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Fibers</td>
<td>71% Min.</td>
<td>ASTM D 2974</td>
</tr>
<tr>
<td>Cross linked Tackifiers</td>
<td>10% +/- 2% Min.</td>
<td></td>
</tr>
<tr>
<td>Reinforcing Interlocking Fibers</td>
<td>10% +/- 1% Min.</td>
<td></td>
</tr>
<tr>
<td>Biodegradability</td>
<td>100%</td>
<td>ASTM D 5338</td>
</tr>
<tr>
<td>Ground Cover @ Application Rate</td>
<td>90% Min.</td>
<td>ASTM D 6567</td>
</tr>
<tr>
<td>Functional Longevity</td>
<td>12 Months Min.</td>
<td></td>
</tr>
<tr>
<td>Cure Time</td>
<td>&lt; 8 hours</td>
<td></td>
</tr>
</tbody>
</table>

**Application**

| Application Rate                | 3,000 lb./acre       |                  |

The organic fiber shall not contain lead paint, printing ink, varnish, petroleum products, seed germination inhibitors, or chlorine bleach. The organic fibers and reinforcing interlocking fibers cannot be produced from sawdust, cardboard, paper, or paper by-products.

(2) Spray-on Mulch Blanket (Type 2) shall be a hydraulically applied matrix pre-packaged in 50 pound bags containing both a soil and fiber stabilizing compound and thermally processed wood fiber.

The sterilized weed-free wood fiber mulch shall be manufactured through a thermo-mechanical defibrating process containing a specific range of fiber lengths averaging 0.25 inches or longer.

Mulch Blanket (Type 2) shall meet the following requirements:

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirement</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Retention On 28-Mesh Screen</td>
<td>≥ 40%</td>
<td>Tyler Ro-Tap Method</td>
</tr>
<tr>
<td>Moisture Content</td>
<td>12% ± 2%</td>
<td>Total Air Dry Weight Basis</td>
</tr>
<tr>
<td>Organic Matter</td>
<td>99.2% ± 0.2%</td>
<td>Oven Dry Weight Basis</td>
</tr>
<tr>
<td>Ash Content</td>
<td>0.8% ± 0.2%</td>
<td>Oven Dry Weight Basis</td>
</tr>
<tr>
<td>pH At 3% Consistency In Water</td>
<td>4.5-7.0 ± 0.5%</td>
<td></td>
</tr>
<tr>
<td>Sterilized Weed-Free</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Non-Toxic To Plant Or Animal Life</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

The soil and fiber stabilizing compound shall be composed of linear anionic copolymers of acrylamide pre-packed within the bag having a minimum content of 1.0 percent. The compound shall conform to the following:

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>≥ 12x106</td>
</tr>
<tr>
<td>Charge Density</td>
<td>&gt; 25%</td>
</tr>
<tr>
<td>Non-Toxic To Plant Or Animal Life</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(b) **Bonded Fiber Matrices (BFM)**. BFM shall consist of hydraulically-applied matrix with a minimum of 70 percent non-toxic thermally processed or refined long strand organic fibers and water soluble tackifier to provide erosion control and designed to be functional for a minimum of 9 months. BFM's form an erosion-resistant
blanket that promotes vegetation and prevents soil erosion. The BFM shall be 100 percent biodegradable. The binder in the BFM should also be biodegradable. Biodegradable BFMs should not be applied immediately before, during, or immediately after rainfall if the soil is saturated. BFM shall conform to the following requirements:

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirement</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Cover (%)</td>
<td>95</td>
<td>ASTM 6567</td>
</tr>
<tr>
<td>Bio-degradability (%)</td>
<td>100</td>
<td>ASTM 5338</td>
</tr>
<tr>
<td>Functional Longevity (months)</td>
<td>9 month minimum</td>
<td></td>
</tr>
<tr>
<td>Cure Time (hours)</td>
<td>24-48</td>
<td></td>
</tr>
<tr>
<td>Cross-linked tackifier</td>
<td>10% minimum</td>
<td></td>
</tr>
</tbody>
</table>

Application Rate (lbs./acre) 3000

The fibers shall not contain lead paint, printing ink, varnish, petroleum products, seed germination inhibitors, or chlorine bleach. Fiber shall not be produced from sawdust, cardboard, paper, or paper by-products.

In subsection 213.03 (b) 2, delete the second paragraph and replace with the following:

Application Rate: Apply this as an overspray at the following rate or as approved by the Engineer.

<table>
<thead>
<tr>
<th>Powder</th>
<th>Fiber</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 lbs./Acre</td>
<td>300 lbs./Acre</td>
<td>2000 gal./Acre</td>
</tr>
</tbody>
</table>

In subsection 213.03, delete (f) and replace with the following:

(f) Spray-on Mulch Blanket. Spray-on Mulch Blanket shall strictly comply with the Manufacturer’s mixing recommendations and installation instructions. No chemical additives with the exception of fertilizer, soil pH modifiers, extended-term dyes and bio stimulant materials will be permitted. Apply Spray-on mulch blanket in a uniform application using a minimum 22 degree arc type nozzle. Apply hydro slurry in two direction (from top of slope down and from toe of the slope up, as well as, be applied at a minimum of two layers).

Hydromulching vessel shall be filled with water to at least 1/3 capacity (high enough to cover agitators) prior to adding any material. Continue to fill vessel with water and slowly add the fibers while agitators are in motion. Run agitators at ¾ speed. Continue to mix tank a minimum of 10 minutes prior to application.

Co-polymer shall not be used use in channels, swales, or other areas where concentrated flows are anticipated and should not be used on saturated soils that have groundwater seeps.

Subsection 213.03 shall include the following:

(g) Bonded Fiber Matrices (BFM). Bonded fiber matrices shall strictly comply with the Manufacturer’s mixing recommendations and installation instructions. No chemical additives with the exception of fertilizer, soil pH modifiers, extended-term dyes and bio stimulant materials shall be permitted. BFM shall be applied in a uniform application using a minimum 22 degree arc type nozzle. Apply BFM in two direction (from top of slope down and from toe of the slope up, as well as, be applied at a minimum of two layers.

Biodegradable BFMs should not be applied immediately before, during, or immediately after rainfall if the soil is saturated.
Product shall not be used in channels, swales, or other areas where concentrated flows are anticipated and should not be used on saturated soils that have groundwater seeps.

Foot traffic, mechanical traffic or grazing shall not be permitted on treated areas until vegetated. Treated areas damaged due to circumstances beyond Contractor’s control shall be repaired or re-applied as ordered. Payment for corrective work, when ordered, shall be at contract rates.

In subsection 213.04, delete the first paragraph and replace with the following:

The quantity of hay and straw mulch, wood chip mulch, wood fiber and, spray-on mulch tackifier, bonded fiber matrix and tackifier will not be measured but shall be the quantity designated in the Contract, except that measurements will be made for revisions requested by the Engineer, or for discrepancies of plus or minus five percent of the total quantity designated in the Contract. Measurement for acres will be by slope distances.

In subsection 213.04, delete the fourth paragraph and replace with the following:

Spray-on Mulch Blanket and Bonded Fiber Matrix will be measured by the acre or by the actual pounds of product applied, as shown on the plans. The area will be calculated on the basis of actual or computed slope measurements. The Contractor shall verify prior to application, weight of spray on mulch blanket and bonded fiber matrix bags for certification of materials and application rate.

Subsection 213.05 shall include the following:

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonded Fiber Matrix</td>
<td>Acre</td>
</tr>
<tr>
<td>Bonded Fiber Matrix</td>
<td>Pound</td>
</tr>
<tr>
<td>Spray on Mulch Blanket</td>
<td>Pound</td>
</tr>
</tbody>
</table>

Payment for spray-on mulch blanket and bonded fiber matrix will be full compensation for all work and materials necessary to complete this item.
Section 250 of the Standard Specifications is hereby revised for this project as follows:

In subsection 250.03, delete the second and third paragraphs and replace with the following:

This project may be in the vicinity of property associated with petroleum products, heavy metal based paint, landfill, buried foundations, abandoned utility lines, industrial area or other sites which can yield hazardous substances or produce dangerous gases. These hazardous substances or gases can migrate within or into the construction area and could create hazardous conditions. The Contractor shall use appropriate methods to reduce and control known landfill, industrial gases, and visible emissions from asbestos encounters and hazardous substances which exist or migrate into the construction area. The Contractor shall follow CDOT’s Asbestos-Contaminated Soil Management Standard Operating Procedure, dated August 22, 2011 for proper handling of asbestos-contaminated soil, and follow all applicable Solid and Hazardous Waste Regulations for proper handling of soils encountered that contain any other substance mentioned above.

Encountering suspected contaminated material, including groundwater, old foundations, building materials, demolition debris, or utility lines that may contain asbestos or be contaminated by asbestos, is possible at some point during the construction of this project. When suspected contaminated material, including groundwater, is encountered or brought to the surface, the procedures under subsection 250.03(d) shall be followed.

In subsection 250.07 delete, (d) and replace with the following:

(d) CDOT’s Asbestos-Contaminated Soil Management Standard Operating Procedure, dated August 22, 2011. Asbestos contaminated soil shall be managed in accordance with 6 CCR 1007-2, Section 5, Asbestos Waste Management Regulations. Regulations apply only upon discovery of asbestos materials during excavation and soil disturbing activities on construction projects, or when asbestos encounters are expected during construction. The contractor shall comply with procedures detailed in the CDPHE’s Asbestos-Contaminated Soil Guidance Document and CDOT’s approved Asbestos-Contaminated Soil Management Standard Operating Procedure, dated August 22, 2011, including the following minimum requirements:

(1) Immediate actions and implementation of interim controls to prevent visible emissions, exposure, and asbestos contamination in surrounding areas.

(2) Soil Characterization.

(3) Training required for all personnel involved in excavation and other soil disturbing activities, once asbestos is encountered during construction or on projects where asbestos encounters are expected. Training must be given by a Certified Asbestos Inspector or Certified Asbestos Abatement Designer with a minimum of six months experience inspecting asbestos contaminated soil.

(4) Assessment for the presence and extent, within the proposed area of disturbance, of asbestos discoveries, whether expected or unexpected, by a Certified Asbestos Inspector.

(5) Investigation and sampling required for risk assessment and management. Investigation, if required, shall be conducted by a Certified Asbestos Inspector.

(6) Risk assessment and determinations for further management or abatement.

(i) Risk assessment and determinations must be made by a Certified Asbestos Inspector, and coordinated with the Engineer.

(ii) Soil remediation is not necessarily required, depending on the circumstances.

(7) Submit 24-hour Notification of Unplanned Asbestos Discovery.

(8) Submit 10-day Notification of Planned Asbestos Management.
Section 401 of the Standard Specifications is hereby revised for this project as follows:

In subsection 401.17, delete the first paragraph and replace with the following:

**401.17 Compaction.** The hot mix asphalt shall be compacted by rolling. Both steel wheel and pneumatic tire rollers will be required. The number, weight, and type of rollers furnished shall be sufficient to obtain the required density while the mixture is in a workable condition. Compaction shall begin immediately after the mixture is placed and be continuous until the required density is obtained. When the mixture contains unmodified asphalt cement (PG 58-28 or PG 64-22) or modified (PG 58-34), and the surface temperature falls below 185 °F, further compaction effort shall not be applied unless approved, provided the Contractor can demonstrate that there is no damage to the finished mat. If the mixture contains modified asphalt cement (PG 76-28, PG 70-28 or PG 64-28) and the surface temperature falls below 230 °F, further compaction effort shall not be applied unless approved, provided the Contractor can demonstrate that there is no damage to the finished mat.

Warm Mix Asphalt compaction requirements shall conform to CP 59.

In subsection 401.17, delete the third paragraph and replace with the following:

SMA shall be compacted to a density of 93 to 97 percent of the daily theoretical maximum specific gravity, determined according to CP 51. All other HMA shall be compacted to a density of 92 to 96 percent of the daily theoretical maximum specific gravity, determined according to CP 51. If more than one theoretical maximum specific gravity test is taken in a day, the average of the theoretical maximum specific gravity results will be used to determine the percent compaction. Field density determinations will be made in accordance with CP 44 or 81.

In subsection 401.17, second to last paragraph, delete the first sentence and replace with the following:

After production paving work has begun, a new Roller Pattern shall be demonstrated when a change in the compaction process is implemented.
Section 401 of the Standard Specifications is hereby revised for this project as follows:

Subsection 401.02(b) shall include the following:

After the Form 43 is executed, and all ingredients are available on the project, the Contractor shall notify the Engineer a minimum of one working day in advance of beginning production of the hot mix asphalt. Any changes in the Form 43 will require the same notification unless otherwise approved by the Engineer.
REVISION OF SECTION 401  
TEMPERATURE SEGREGATION  

February 3, 2011  

Section 401 of the Standard Specifications is hereby revised for this project as follows:  

In subsection 401.16 delete the twelfth (last) paragraph and replace it with the following:  

The Engineer may evaluate the HMA for low density due to temperature segregation any time industry best practices, as detailed on Form 1346, are not being followed or the Engineer suspects temperature segregation is occurring. The Engineer will first meet with the Contractor to discuss the paving practices that are triggering the temperature investigation. Areas across the mat, excluding the outside 1 foot of both edges of the mat, that are more than 25 °F cooler than other material across the width may be marked for density testing. Material for temperature comparison will be evaluated in 3-foot intervals behind the paver across the width of the mat. The material shall be marked and tested in accordance with CP 58. If four or more areas within a lot of 500 tons have densities of less than 93 percent of the material’s maximum specific gravity for SMA mixes or less than 92 percent of the material’s maximum specific gravity for all other HMA mixes, a 5 percent price disincentive will be applied to the 500 ton lot. The 500 ton count begins when the Engineer starts looking for cold areas, not when the first cold area is detected. This price disincentive will be in addition to those described in Sections 105 and 106. Only one area per delivered truck will be counted toward the number of low density areas. Temperature segregation checks will be performed only in areas where continuous paving is possible.
Sections 401 and 412 of the Standard Specifications are hereby revised for this project as follows:

Subsection 401.10 shall include the following:

The paver shall include an approved longitudinal paver wedge system to create a sloped safety edge as shown on the plans. The wedge system shall be attached to the screed and shall compact the HMA to a density at least as dense as the compaction imparted to the rest of the HMA layer by the paving screed. The system shall provide a sloped Safety Edge equal to 32 degrees plus or minus 5 degrees measured from the pavement surface cross slope extended. The use of a single plate strike off is not permitted. The system shall be adjustable to accommodate varying paving thicknesses. The Engineer may allow the Contractor to use handwork for short sections or to saw cut the sloped Safety Edge after paving operations are completed in areas such as transitions at driveways, intersections, interchanges.

The Contractor shall submit the proposed system for approval at the Preconstruction Conference. The Engineer may require proof that the system has been used on previous projects with acceptable results or may require a test section constructed prior to the beginning of work to demonstrate that it creates an acceptable wedge shape and compaction. Paving shall not begin until the system is approved in writing by the Engineer. The Safety Edge may be constructed on each lift of HMA or on the full specified plan depth on the final lift. The finished shape of the Safety Edge shall extend for the full depth of the asphalt pavement or for the top 5 inches whichever is less.

Subsection 401.22 shall include the following:

All costs associated with the construction of the Safety Edge will not be paid for separately, but shall be included in the work.

Subsection 412.07 shall include the following:

The Contractor shall use an approved longitudinal paver wedge system to create a sloped Safety Edge. The Contractor shall modify the paver screed to create a Safety Edge that meets the final cross-section shown on the plans. The system shall provide a sloped Safety Edge equal to 32 degrees plus or minus 5 degrees measured from the pavement surface cross slope extended. There may be areas where it is not possible to place the Safety Edge in conjunction with mainline paving but where the Safety Edge is required, such as transitions at driveways, intersections, interchanges, etc. In these areas the Engineer may allow the Contractor to use handwork for short sections or to saw cut the sloped Safety Edge after paving operations are completed.

The Contractor shall submit the proposed system for approval at the Preconstruction Conference. The Engineer may require proof that the system has been used on previous projects with acceptable results or may require a test section constructed prior to the beginning of work to demonstrate that it creates an acceptable wedge shape. Paving shall not begin until the system is approved in writing by the Engineer. The finished shape of the Safety Edge shall extend for the full depth of the concrete pavement or for the top 5 inches whichever is less.
Subsection 412.23 shall include the following:

Concrete Safety Edge will be measured by the actual number of linear feet that are installed and accepted.

Subsection 412.24 shall include the following:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Safety Edge</td>
<td>Linear Foot</td>
</tr>
</tbody>
</table>

Payment for concrete safety edge will be full compensation for all work and materials required to complete the item.
Sections 412, 601 and 711 of the Standard Specifications are hereby revised for this project as follows:

In subsection 412.14, first paragraph, delete the second sentence and replace with the following:

The impervious membrane curing compound shall meet the requirements of ASTM C 309, Type 2 and shall be volatile organic content (VOC) compliant.

In subsection 601.13 (b), first paragraph, delete the second sentence and replace with the following:

A volatile organic content (VOC) compliant curing compound conforming to ASTM C 309, Type 2 shall be used on surfaces where curing compound is allowed, except that Type 1 curing compound shall be used on exposed aggregate or colored concrete, or when directed by the Engineer.

In subsection 601.16 (a) 1., delete the first sentence and replace with the following:

1. Membrane Forming Curing Compound Method: A volatile organic content (VOC) compliant curing compound conforming to ASTM C 309, Type 2 shall be uniformly applied to the surface of the deck, curbs and sidewalks at the rate of 1 gallon per 100 square feet.

Delete subsection 711.01 and replace with the following:

711.01 Curing Materials. Curing materials shall conform to the following requirements:

<table>
<thead>
<tr>
<th>Material</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burlap Cloth made from Jute or Kenaf</td>
<td>AASHTO M 182</td>
</tr>
<tr>
<td>Liquid Membrane-Forming Compounds for Curing</td>
<td>ASTM C 309</td>
</tr>
<tr>
<td>Concrete</td>
<td></td>
</tr>
<tr>
<td>Sheet Materials for Curing Concrete</td>
<td>AASHTO M 171*</td>
</tr>
</tbody>
</table>

*Only the performance requirements of AASHTO M171 shall apply.

Straw used for curing shall consist of threshed straw of oats, barley, wheat, or rye. Clean field or marsh hay may be substituted for straw when approved by the Engineer. Old dry straw or hay which breaks readily in the spreading process will not be accepted.
REVISION OF SECTION 601
CONCRETE BATCHING

February 3, 2011

Section 601 of the Standard Specifications is hereby revised for this project as follows:

In subsection 601.06, delete (13) and (17) and replace with the following:

(13) Gallons of water added by truck operator, the time the water was added and the quantity of concrete in the truck each time water is added.

(17) Water to cementitious material ratio.
REVISION OF SECTIONS 601
CONCRETE FINISHING

Section 601 of the Standard Specifications are hereby revised for this project as follows:

In subsection 601.12 (a) delete the fifth paragraph and replace it with the following:

Water shall not be added to the surface of the concrete to assist in finishing operations.

Hand finishing should be minimized wherever possible. The hand finishing methods shall be addressed in the Quality Control Plan for concrete finishing. Hand finished concrete shall be struck off and screeded with a portable screed that is at least 2 feet longer than the maximum width of the surface to be struck off. It shall be sufficiently rigid to retain its shape. Concrete shall be thoroughly consolidated by hand vibrators. Hand finishing shall not be allowed after concrete has been in-place for more than 30 minutes or when initial set has begun. Finishing tools made of aluminum shall not be used.

The Contractor shall provide a Quality Control Plan (QCP) to ensure that proper hand finishing is accomplished in accordance with current industry standards. It shall identify the Contractor's method for ensuring that the provisions of the QCP are met. The QCP shall be submitted to the Engineer at the Preconstruction Conference. Concrete placement shall not begin until the Engineer has approved the QCP. The QCP shall identify and address issues affecting the quality finished concrete including but not limited to:

1. Timing of hand finishing operations
2. Methodology to place and transport concrete
3. Equipment and tools to be utilized
4. Qualifications and training of finishers and supervisors

When the Engineer determines that any element of the approved QCP is not being implemented or that hand finished concrete is unacceptable, work shall be suspended. The Contractor shall supply a written plan to address improperly placed material and how to remedy future hand finishing failures and bring the work into compliance with the QCP. The Engineer will review the plan for acceptability prior to authorizing the resumption of operations.

In subsection 601.14(a) delete the fourth paragraph.
Section 601 of the Standard Specifications is hereby revised for this project as follows:

In subsection 601.09, delete (h) and replace with the following:

(h) Removal of Forms. The forms for any portion of the structure shall not be removed until the concrete is strong enough to withstand damage when the forms are removed.

Unless specified in the plans, forms shall remain in place for members that resist dead load bending until concrete has reached a compressive strength of at least 80 percent of the required 28 day strength, 0.80 fc. Forms for columns shall remain in place until concrete has reached a compressive strength of at least 1,000 psi. Forms for sides of beams, walls or other members that do not resist dead load bending shall remain in place until concrete has reached a compressive strength of at least 500 psi.

Forms and supports for cast-in-place concrete box culverts (CBCs) shall not be removed until the concrete compressive strength exceeds 0.6 fc for CBCs with spans up to and including 12 feet, and 0.67 fc for CBCs with spans exceeding 12 feet but not larger than 20 feet. Forms for CBCs with spans larger than 20 feet shall not be removed until after all concrete has been placed in all spans and has attained a compressive strength of at least 0.80 fc.

Concrete compressive strength shall be determined using information concrete cylinders or by maturity meters. At the pre-pour conference, the Contractor shall submit the method of determining the structure’s strength and the location where information cylinders will be taken or maturity meters placed.

If information cylinders are used they shall be cast by the Contractor and cured in the same manner as the structure. A set of information cylinders shall be taken for each concrete placement on the structure. A set of information cylinders shall be taken for any load of concrete that is being placed at the mid-span of beams and at support locations and other locations as directed by the Engineer. Casting of the information cylinders will be witnessed by the Engineer. The information cylinders shall remain in the molds and cured in the same manner as the structure until they are tested in the laboratory by the Engineer. Compressive strength shall be determined using the compressive strength of at least two information cylinders. The contractor shall be responsible for protecting the information cylinders from damage.

Prior to placement of concrete whose strength will be determined with maturity meters, the Contractor shall provide the Engineer a report of maturity relationships in accordance with CP 69. The Contractor shall provide maturity meters and all necessary wires and connectors. The Contractor shall be responsible for the placement and maintenance of the maturity meter and wire. At a minimum a maturity meter will be placed at the mid-span of beams and at support locations. Placement shall be as directed by the Engineer.

For structures with multiple sets of information cylinders or maturity meters, the lowest compressive strength shall determine when the forms can be removed.

Acceptance cylinders shall not be used for determining compressive strength to remove forms.

When field operations are controlled by information cylinder tests or maturity meter, the removal of forms, supports and housing, and the discontinuance of heating and curing may begin when the concrete is found to have the required compressive strength.

Forms for median barrier, railing or curbs, may be removed at the convenience of the Contractor after the concrete has hardened.

All forms shall be removed except permanent steel bridge deck forms and forms used to support hollow abutments or hollow piers when no permanent access is available into the cells. When permanent access is provided into box girders, all interior forms and loose material shall be removed, and the inside of box girders shall be cleaned.
In subsection 601.11, delete (e) and replace with the following:

(e) Falsework Removal. Unless specified in the plans or specifications, falsework shall remain in place until concrete has attained a minimum compressive strength of 0.80fc.

Falsework supporting any span of a simple span bridge shall not be released until after all concrete, excluding concrete above the bridge deck, has attained a compressive strength of at least 0.80fc.

Falsework supporting any span of a continuous or rigid frame bridge shall not be released until after all concrete, excluding concrete above the bridge deck, has been placed in all spans and has attained the compressive strength of at least 0.80fc.

Falsework for arch bridges shall be removed uniformly and gradually, beginning at the crown, to permit the arch to take its load slowly and evenly.

Falsework supporting overhangs and deck slabs between girders shall not be released until the deck concrete has attained a compressive strength of at least 0.80fc.

Falsework for pier caps which will support steel or precast concrete girders shall not be released until the concrete has attained a compressive strength of at least 0.80fc. Girders shall not be erected onto such pier caps until the concrete in the cap has attained the compressive strength of at least 0.80fc.

Falsework for cast-in-place prestressed portions of structures shall not be released until after the pre-stressing steel has been tensioned.

Concrete compressive strength shall be determined using information concrete cylinders or by maturity meters. At the pre-pour conference, the Contractor shall submit the method of determining the structure's strength and the location that information cylinders will be taken or maturity meters placed.

If information cylinders are used they shall be cast by the Contractor and cured in the same manner as the structure. A set of information cylinders shall be taken for each concrete placement on the structure. A set of information cylinders shall be taken for any load of concrete that is being placed at the mid-span of beams and at support locations and other locations as directed by the Engineer. Casting of the information cylinders will be witnessed by the Engineer. The information cylinders shall remain in the molds and cured in the same manner as the structure until they are tested in the laboratory by the Engineer. Compressive strength shall be determined using the compressive strength of at least two information cylinders. The Contractor shall be responsible for protecting the information cylinders from damage.

Prior to placement of concrete whose strength will be determined with maturity meters, the Contractor shall provide the Engineer a report of maturity relationships in accordance with CP 69. The Contractor shall provide maturity meters and all necessary wires and connectors. The Contractor shall be responsible for the placement and maintenance of the maturity meters and wires. At a minimum maturity meter will be placed at the mid-span of beams and at support locations. Placement shall be as directed by the Engineer.

For structures with multiple sets of information cylinders or maturity meters, the lowest compressive strength shall determine when the falsework can be removed.

Acceptance cylinders shall not be used for determining compressive strength to remove falsework.
1
REVISION OF SECTION 601
CONCRETE SLUMP ACCEPTANCE

Section 601 of the Standard Specifications is hereby revised for this project as follows:

Delete the fifth paragraph of Subsection 601.05 and replace with the following:

Except for Class BZ concrete, the slump of the delivered concrete shall be the slump of the approved concrete mix design plus or minus 2.0 inch. The laboratory trial mix must produce an average compressive strength at least 115 percent of the required field compressive strength specified in Table 601-1. When entrained air is specified in the Contract for Class BZ concrete, an air entraining admixture may be added to an approved Class BZ mix design. A new trial mix will not be required.

Delete Subsection 601.17 (b), 601.17 (d) and Table 601-3 and replace with the following:

(b) Slump. Slump acceptance, but not rejection, may be visually determined by the Engineer. Any batch that exceeds the slump of the approved concrete mix design by 2.0 inches will be retested. If the slump is exceeded a second time, that load is rejected. If the slump is greater than 2 inches lower than the approved concrete mix design, the load can be adjusted with a water reducer, or by adding water (if the w/cm allows) and retested.

Portions of loads incorporated into structures prior to determining test results which indicate rejection as the correct course of action shall be subject to reduced payment or removal as determined by the Engineer.

(d) Pay Factors. The pay factor for concrete which is allowed to remain in place at a reduced price shall be according to Table 601-3 and shall be applied to the unit price bid for Item 601, Structural Concrete.

If deviations occur in air content and strength within the same batch, the pay factor for the batch shall be the product of the individual pay factors.

Table 601-3
PAY FACTORS

<table>
<thead>
<tr>
<th>Percent Total Air</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviations From Specified Air (Percent)</td>
<td>Pay Factor (Percent)</td>
</tr>
<tr>
<td>0.0-0.2</td>
<td>98</td>
</tr>
<tr>
<td>0.3-0.4</td>
<td>96</td>
</tr>
<tr>
<td>0.5-0.6</td>
<td>92</td>
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<tr>
<td>0.7-0.8</td>
<td>84</td>
</tr>
<tr>
<td>0.9-1.0</td>
<td>75</td>
</tr>
<tr>
<td>Over 1.0</td>
<td>Reject</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

July 29, 2011
REVISION OF SECTION 612
DELINEATORS

Section 612 of the Standard Specifications is hereby revised for this project as follows:

In subsection 612.02(a) 1, delete the last sentence, and replace with the following:

Posts shall conform to the requirements shown on the plans, and reflectors shall conform to the requirements in subsections 713.07 and 713.10.

In subsection 612.02(a) 2.B, delete the first paragraph, and replace with the following:

B. Base Anchoring. The posts shall be designed to facilitate a permanent installation that resists overturning, twisting, and displacement from wind and impact forces. It shall have an anchoring depth of 18 to 24 inches. Actual depth shall be as recommended by the manufacturer. If soil conditions prohibit anchoring depth to less than 18 inches, installation shall be in accordance with manufacturer's recommendations.
Section 618 of the Standard Specifications is hereby deleted for this project and replaced with the following:

DESCRIPTION

618.01 This work consists of fabricating, furnishing and installing prestressed concrete members in accordance with the requirements of the Contract.

This work includes the furnishing and installation of all appurtenant items necessary for the particular prestressing systems to be used, including but not limited to ducts, anchorage assemblies and grout used for pressure grouting ducts.

For cast-in-place prestressed concrete, the term "member" as used herein shall be considered to mean the concrete which is to be prestressed.

The term "tendon" as referenced herein shall be considered to mean the prestressing steel within a duct.

Both temporary and permanent post-tensioning shall comply with the requirements of this Section.

The term temporary post-tensioning is referring to the post-tensioning required to control stresses during handling and erection of precast elements.

MATERIALS

618.02 Materials shall conform to the following:

Anchorage devices shall meet the requirements of subsection 714.02. Prestressing steel shall meet the requirements of subsection 714.01.

Elastomeric bearing pads shall meet the requirements of subsection 512.

All reinforcing and embedment item supports, bolsters, chairs, and spacers shall be CDOT approved. These items shall be plastic, rubber, or epoxy coated at all areas that will contact external concrete surfaces, unless otherwise shown on the plans.

(a) Prepackaged Grout for Post-tensioned Ducts.

1. Water. The water used in the grout shall conform to subsection 712.01.

2. Shall meet the requirements of subsection 618.09(b). Grout.

(b) Steel and Metal for Prestress Members. All steel and metal products incorporated into the work shall meet the requirements of Section 106. The Contractor shall keep Certified Mill Test Reports (CMTR's) on file for all steel and metal products used, and shall furnish copies of CMTR's when requested.

Galvanizing and metallizing of steel products shall be done in accordance with the product applicable ASTM method. The product shall be galvanized after welding and fabrication is complete. Minor repair of galvanizing shall be brush coated with an approved zinc-rich compound that is acceptable to the QA Representative.

Materials and fabrication procedures shall conform to ASTM or ANSI / AWS requirements. The materials and work shall conform to the following requirements and specifications, unless otherwise indicated in the Contract.

1. Reinforcing Bars. All reinforcing bar material shall be Grade 60 minimum and shall conform to ASTM A 615, or ASTM A 706; epoxy coated bars shall also meet ASTM D 3963. Reinforcing bars that require welding shall conform to ASTM A 706. Welding of A 706 bars shall be done in accordance with ANSI /AWS D.1.4.

2. Welded Wire Reinforcement. Steel welded wire reinforcement for concrete reinforcement shall conform to ASTM A497.

3. Plate Steel. All plate steel shall conform to ASTM A 709 Grade 36 specifications. Fabrication and welding of plate steel products shall be done according to ANSI /AWS D.1.1.
4. Steel and metal products shall be free of loose rust and foreign substances before incorporation into the cast product.

The presence of rust on strand shall not necessarily be cause for rejection. Light rust and rust that does not result in visible pitting of the prestressing steel with the unaided eye shall be acceptable. Prior to evaluation rust shall be removed from representative lengths of prestressing strand by heavy duty scouring pads or wire brush. After rust removal, visual comparisons shall be made to picture sets in the article “Evaluation of Degree of Rusting on Prestressed Concrete Strand” published in the 1992 May-June edition of the PCI Journal. Surface conditions comparable to picture sets 1 through 3 shall be acceptable, while conditions comparable to picture sets 4 and greater shall be cause for rejection of the prestressing strand.

(c) **Concrete for Pretensioned and Combination Tensioned Products.** Materials for Concrete class PS shall meet the requirements specified in the following subsections:

<table>
<thead>
<tr>
<th>Material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic Cement</td>
<td>701.01</td>
</tr>
<tr>
<td>Fly Ash</td>
<td>701.02</td>
</tr>
<tr>
<td>Fine Aggregate</td>
<td>703.01</td>
</tr>
<tr>
<td>Coarse Aggregate</td>
<td>703.02</td>
</tr>
<tr>
<td>Curing Materials</td>
<td>711.01</td>
</tr>
<tr>
<td>Air Entraining Admixtures</td>
<td>711.02</td>
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<tr>
<td>Chemical Admixtures</td>
<td>711.03</td>
</tr>
<tr>
<td>Water</td>
<td>712.01</td>
</tr>
</tbody>
</table>

(d) **Concrete and Steel for Other Members.** Concrete for other members shall conform to the requirements of Section 601 and the plans. Reinforcing steel for other members shall conform to the requirements of Section 602.

**CONSTRUCTION REQUIREMENTS**

**618.03 Prestressed Members.** Members may be pretensioned, post-tensioned, or a combination of pretensioned and post-tensioned. Members shall be fabricated and finished as shown in the Contract.

Minimum cover for prestressing steel shall be 1½ inches, unless otherwise shown in the Contract. Minimum clearance for reinforcing steel shall be 1 inch unless otherwise shown in the Contract.

If the plans show only pretensioning details, use of a post-tensioning system will be allowed only if complete details of all necessary modifications are approved by the Engineer of Record.

Cast-in-place members shall be post-tensioned unless otherwise shown on the plans. All falsework for cast-in-place members shall remain in place until all post-tensioning and grouting has been completed and accepted by the Engineer.

**618.04 Shop Drawings.**

(a) **General.** The Contractor shall furnish shop drawings in conformity with subsection 105.02 for all prestressed components. When the Contractor's Engineer completes or revises design details or engineering drawings, then those engineering drawings and details that are submitted to the Engineer shall contain the endorsement seal of a Professional Engineer registered in the State of Colorado. CDOT review of the shop drawings does not relieve the Contractor of the responsibility for the adequacy of the prestressed members. Minor changes to design details or engineering drawings that do not represent a significant change to the original design will not require a Professional Engineer seal. The Contractor shall submit supporting calculations for these changes along with the shop drawings.
(b) **Pretensioned Members.** The shop drawings shall include the following:

1. Superstructure Framing Plan.
2. All unit dimensions.
3. Location and arrangement of prestressing strands.
4. Initial and final jacking forces.
5. Location, description, and detail of structural reinforcing items, excluding minor items used for field erection.
6. Location of all hold-down devices.
7. Location and description of all plates.
9. Blockout and keyway dimensions, if any.
10. Location and detail of debonded strands.
11. Strand de-tensioning sequence.

(c) **Post-tensioned Members.** The shop drawings for post-tensioned members shall show the following:

1. Strand and bar properties, including material type, modulus of elasticity, ultimate strength, diameter, and cross-sectional area assumed in the design.
2. Duct properties, including material type, and minimum inside and maximum outside diameters, and friction coefficients of the duct-strand system if different from shown on the plans.
3. The position and profile of the ducts and tendons along the length of the member. Each duct position shall be defined at tenth points along the length of the member. The minimum clearance from the edge of concrete to the edge of a duct shall be shown.
4. Location of closure pours and associated duct splices and details of duct splice, including the details and specifications of the shrink sleeve material.
5. The maximum offset between the center of the duct and the center of force in the duct for each unique strand and bar and duct combination. The resultant force of all permanent tendons in the member shall match the profile indicated on the plans.
6. The initial and final force at each anchorage. The initial force is defined as the largest force at each anchorage before anchor set and after friction losses. The final force is defined as the residual force remaining after anchor set and long term losses.
7. Complete dimensions and properties necessary to fabricate and install each unique anchorage device, including the type of materials, yield strengths, distribution plates, wedges, trumpets, anchorage blocks, and other appurtenant items. Adjacent reinforcement shall be detailed showing how it will coordinate with the anchorage device and its reinforcement.
8. The dimensions and properties necessary to fabricate and install the bursting, splitting, and other reinforcement required by the prestressing system, as shown on the plans or as proposed by the Contractor. Included shall be cross-sectional areas, yield strength, the location of the reinforcement, and the diameter and pitch of the spirals. If no additional bursting steel is required, it shall be so stated on the shop drawings.
9. The minimum length of strand or bar projection at the live ends and accessible dead ends.
10. The preload force for each unique tendon. The preload force is defined as 20 percent of the jacking force.
11. The required total jacking force for each unique tendon.
12. The total final elongation, after dead and live end anchor sets, and the measurable elongation for each tendon. The measurable elongation is defined as the total elongation at the live end after preload while the stressing equipment is tensioning the tendon to the total jacking force. The tendon length used for calculations shall include the full length of strand that is being stressed.
13. The sequence of stressing, including temporary and permanent post-tensioning.
14. Blockout or buildout concrete dimensions and reinforcement details.
(15) If the Contractor elects to submit an alternative system, as defined in subsection 618.07(c), the Contractor shall also provide the following, as appropriate.

If the anchorage device will differ from what is shown on the plans, the Contractor shall submit calculations or manufacturer test certification consistent with the Contract. The calculations shall show the complete design of the anchorage device, including splitting steel, bursting reinforcement, the distribution plate, and the bearing stresses transmitted to the concrete by the anchorage device. The manufacturer’s test certification shall certify the adequacy of the anchorage device. The shop drawings shall reflect the anchorage device design.

If the flare of the tendons is different from what is shown on the plans, the Contractor shall submit design and details of appropriate reinforcement and concrete dimensions to accommodate the flare.

Along with the shop drawing details, six copies of computations for friction losses, calculated measurable elongations, the maximum offset between the center of force and center of duct for each unique tendon, and the stressing sequence shall be submitted for review. The friction losses shall be determined in accordance with the plans and as provided for in the current "AASHTO LRFD Bridge Design Specifications."

(d.) For Combination Tensioned Members refer to 618.04 (b) and (c).

618.05 Notification of Fabrication for Pretensioned and Combination Tensioned Members.

(a) Start of Work. Prior to beginning the work, the Contractor shall provide notice to the Engineer and the Quality Assurance (QA) Representative, as defined in subsection 618.06(a), so that QA services may be provided. The notice shall be at least seven days before fabrication begins.

The anticipated production schedule, including the start of work, phase work and shipment dates shall be submitted in writing to the QA Representative before any work begins. Fabrication shall not be started until the shop drawings have been returned with the Engineer's review stamp, indicating Reviewed, no exception taken; or Reviewed, revise as noted; or Resubmit, revise as noted in accordance with subsection 105.02, and delivered to the Contractor's site of fabrication.

(b) Production Schedule Changes. Accelerated changes to the proposed production schedule, including start of work, phase work, and shipment dates, shall require advance written notification be provided to the Engineer and the QA Representative. The written notice of change shall be received at least 48 hours before fabrication begins, unless otherwise approved in writing by the Engineer or the QA Representative.

(c) Notice of Shipment. The QA Representative shall be notified in writing, at least 72 hours before shipment of prestressed members to the job site.

(d) Notification. Failure to notify the Engineer or the designated QA Representative as described in this section may be cause for rejection.

618.06 Inspection of Pretensioned, Post-tensioned and Combination Tensioned Members.

(a) Quality Control and Quality Assurance. Quality Control (QC) of prestressed concrete fabrication is the responsibility of the Contractor. The Contractor shall designate a QC Manager who shall be responsible for product quality requirements as defined in the specifications and the Contractor's approved QC plan (QCP). The QC Manager shall possess and maintain certification at Level II minimum, from the Prestressed Concrete Institute (PCI), or be a licensed Professional Engineer in the State of Colorado, and shall have one year minimum of construction related experience. The QC Manager shall not be supervised by the Contractor's production section. If grouting for post-tensioning ducts of combination tensioned members is done by the precast girder fabricator, the QC Manager shall possess and maintain an American Segmental Bridge Institute (ASBI) Certified Grouting Technician Certificate. If prestressing, duct and anchorage installation, inspection of duct and anchorage, stressing of tendons, air testing of ducts, or grouting of ducts of multi-strand bonded tendons of the post-tensioning system for combination tensioned members is done by the precast girder fabricator the QC Manager shall possess a PTI Level I – Bonded Tendon Training Certificate.
Quality Assurance (QA) and product acceptance are the prerogatives of the Engineer. The QA Representative acts for and in behalf of the Engineer on all matters within the scope of the contract documents, as delegated by the Engineer. QA administration will be performed to the extent necessary to assure contract compliance. The QA Representative shall possess the American Segmental Bridge Institute Grouting Certification Training.

Repeated out of tolerance work, including dimensional non-conformance, shall be considered as recurring deficiencies. Recurring deficiencies shall be considered as evidence that required QC is not being provided. When the QA Representative determines that fabrication operations are producing recurring defects that do not conform to the Contract and the QCP requirements, the Contractor will be notified that the present work is unacceptable. Work shall not continue until the QC Manager has submitted a written proposal addressing corrective procedures that the Contractor will take to prevent recurrence of the non-conforming work. Fabrication shall not resume until the proposal has been reviewed and accepted in writing by the QA Representative.

(b) Quality Control Plan (QCP). The Contractor shall submit a written QCP to the QA Representative prior to the beginning of fabrication. The QCP shall be reviewed and approved in writing by the Contractor’s QC Manager. The QCP shall list all methods utilized by the Contractor to ensure that the work conforms to contract requirements. The QC section is responsible for establishing the QCP, as well as conformance to the QCP. Fabrication shall not begin until the QCP has been reviewed and accepted in writing by the QA Representative.

If work methods for a specific project or product are not listed in the original QCP, the Contractor shall submit written addenda addressing the proposed methods that are necessary to meet contract requirements. Fabrication shall not begin until the addenda have been reviewed and accepted in writing by the QA Representative.

The QCP shall address the following:

1. Names and qualifications of the QC Manager and personnel conducting inspection and testing. This list shall be updated when changes in personnel occur.

2. List of material suppliers, post-tensioning system supplier, post-tensioning grout supplier and certified testing agencies used; the list shall be updated when vendors change.

3. Materials sampling and testing schedule, showing testing methods and frequencies.

4. QC inspection methods and procedures for all stages of fabrication operations.

5. Methods for curing products and test specimens.

6. Method and sequence for tensioning strands, including methods used for verifying equal distribution of jacking forces.

7. Method and sequence of de-tensioning strands and procedure.

8. Post-tensioning system. The responsible representative meeting the requirements of subsection 618.06(b)(8) shall possess an “American Segmental Bridge Institute (ASBI) Certified Grouting Technician” certificate and a PTI Level 1 – Bonded Tendon Training certificate. Duct and anchorage inspection schedule, duct splices at closure pour inspection schedule, and onsite duct air pressure testing schedule, including name(s) of the responsible representatives who will conduct inspections and testing.

9. Written report format for materials sampling, testing, and inspection for all phases of the work.

10. Copies of all concrete mix designs to be used, including mix design computations and test data.

11. Provisions for fabrication operations during cold, windy, or hot weather conditions.

12. Procedures for patching small production holes and holes left by strand hold-down devices.

13. Procedures for identifying, evaluating and reporting defects, including dimensional non-conformance, discovered during QC/QA inspections and testing.

14. Procedures for notifying the QA Representative of structural defects, and submittal of written proposal for repairs.
(15) Provisions for contingency operation when concrete delivery is interrupted due to malfunction of equipment during fabrication.

(c) Frequency. QC inspection and testing at all intervals of duct and anchorage placement, duct splices at closure pours, onsite duct air pressure tests and forming, tensioning, steel and concrete placement, curing, and storage operations shall be performed in accordance with the accepted QCP. The QCP shall contain provisions for increased frequencies of inspection and testing when operations or products do not conform to the Contract.

(d) Written Records and Reports. The QC Manager shall review and submit the following completed records and reports to the QA Representative before the product receives acceptance by the QC section:

1. Prestressing Steel - Tensioning reports for each setup, showing the jacking force calculations; initial and final jacking force used; calculated and final net measured elongation; applicable stressing corrections for seating, slippage, shortening, rotation movement, and temperature; Certified Mill Test Reports for prestressing steel used; jack identification number, date and time of stressing.

2. Concrete - A daily report of each mix design used, showing the fresh concrete slump, temperature, unit weight, and air content (if specified). The daily report shall also include the following data:

   (1) time and date of casting
   (2) bed and setup location
   (3) ambient conditions
   (4) total cubic yards placed
   (5) girder mark and unique sub-mark identifications
   (6) actual product curing temperature charts or graphs
   (7) actual curing enclosure humidity charts or graphs
   (8) average release strength in psi
   (9) date and time of release strength
   (10) copies of individual batch tickets when requested by the QA Representative

3. Pre-pour Inspection Records shall include the items to be checked as listed in the QCP.

4. Post-pour Inspection Records shall include the items to be checked as listed in the QCP. These records shall include all discovered variances from product dimensional tolerances.

5. Report of minor repairs made to each individual product.

6. The following written records shall be submitted to the QA Representative before product shipment:

   (1) Elastomeric Bearing Pads - Product manufacturer's certification and supplier's letter of compliance.
   (2) Length measurement of beams within three days prior to shipping.
   (3) Product camber measurement within seven days prior to shipping.

7. Steel and Metal. For reinforcing bars, welded wire reinforcement, plate steel, and miscellaneous steel and metal products incorporated into the work, QC Manager shall review and maintain all certified mill test reports (CMTRs). QC Manager shall certify in writing that all steel and metal products comply with the Contract. When requested, QC Manager shall furnish copies of CMTRs to the QA Representative.

8. Post-tensioning Ducts. The responsible representative meeting the requirements of subsection 618.06 (b)(8) shall submit to the QA Representative a letter certifying that the ducts, duct splices, and anchorages are installed according to the Contract and that they have been inspected by the responsible representative of the post-tensioning system supplier and adequately held an air pressure after stressing and before grouting.

After stressing and before grouting, install all grout caps, inlets and outlets and test the duct with compressed air to determine if duct connections require repair. In the presence of the Engineer,
pressurize the duct to 30 psi and lock-off the outside air source. Record pressure loss for one minute. A pressure loss of 15 psi is acceptable for ducts having a length equal to or less than 150 feet and a pressure loss of 9 psi is acceptable for ducts longer than 150 feet. If the pressure loss exceeds the allowable, repair leaking locations using methods approved by the Engineer and retest.

618.07 Fabrication.

(a) Pretensioning - General. Prestressing shall be done with calibrated jacking equipment that conforms to the requirements of subsection 618.10. Strands shall be tensioned in accordance with the approved sequence as indicated in the QCP. All indicating dials shall be at least 6 inches in diameter; calibrated digital display equipment is also acceptable.

The stressing sheet shall show the measurements, factors and computations for tension and elongation, including all stressing corrections; if these factors are not shown on the stressing sheet, they must be submitted with the shop drawing and calculation index. The applicable stressing corrections shall be applied at the time of final stressing. Before using any stressing correction for friction, the need for corrections shall be proven by load cell or dynamometer checks at both ends of the setup. Temporary over stressing shall not exceed 80 percent of the minimum ultimate tensile strength of the prestressing steel. Tensioned strands shall not be seated during temporary over stressing.

Tensioned strands shall maintain vertical and horizontal position, within allowable tolerances, as specified in subsection 618.14(b), throughout the entire length of the member; intermediate strand supports shall be used if the tolerances cannot be maintained. Tensioned strands shall not be entangled or intertwined with other strands, except for draped strands in the bundled area between hold down devices.

A QC employee shall witness and verify final tensioning operations and record the jacking forces and the net measured elongations. Jacking force shall be recorded to the nearest 100 pound increment used. Net elongation shall be measured to the nearest ¼ inch. Tensioning operations shall also meet the following requirements:

1. Initial tensioning shall not exceed 20 percent of the jacking force.
2. Tension load readings shall be taken from pressure gages, dynamometers or load cells. If pressure gages or dynamometers are used, the applied load shall register between 20 and 80 percent of the total reading capacity of the system. If load cells are used, the applied load shall register between 10 and 90 percent of the total load cell capacity. If a master gage system is used, a current certified calibrated graph or table correlating actual loads with the master gage readings, shall be given to the QA Representative.
3. The jacking force applied shall be within plus or minus 5 percent of the design jacking force. The net measured elongation shall be within plus or minus 5 percent of the calculated elongation; if net measured elongation is not within tolerance, the strand shall be stressed from both ends. The algebraic comparison of the variation between the jacking force and the net measured elongation shall agree within plus or minus 7 percent. If these three tolerances are not achieved, tensioning operations shall cease; all stressing deficiencies shall be corrected before regular tensioning operations resume.
4. If any wire or wires in a 7-wire strand breaks, whether or not that strand shall be removed and replaced shall be determined based on whether forces are within tolerances as specified in subsection 618.07(a)(3) and by referring to PCI MNL 116 5.2.6.
5. Strand or spliced strand that exhibits unraveling after stressing, shall be removed and replaced with a sound strand. Strand splices shall not fall within the member to be cast.
6. Strands that have received final tension shall be protected from temperature fluctuations greater than 40 °F until the time of concrete placement. The Contractor may apply stress corrections at the rate of 1 percent per 11 °F, for temperature variation between final tensioning and concrete placement. This requirement does not apply to self-stressing bed setups. The total stressing force applied shall not exceed 80 percent of the minimum ultimate tensile strength of the prestressing steel.
7. Tensioned prestressing steel shall be free from dirt, mud, ice, snow build up, oil, grease, paint, loose rust, and all other bond inhibiting substances prior to concrete placement. Visibly pitted strand shall not be used.
8. Draped Strand - Final stressing shall be accomplished by any of the methods described below:

A. Jacking in Draped Position. Final stressing shall begin at one end of the bed. Strands that do not meet the tension vs. elongation tolerances shall be jacked from the other end so that all tolerances are achieved. If all draped strands conform to tolerances after jacking at one end, the jacking force shall be verified on at least two strands at the opposite end.

B. Partial Stressing and Subsequent Strain. Initial and partial stress may be induced from either end of the bed. Final stress shall be attained by lifting or depressing the strands to the design location. Final stress and strain shall be applied in such a manner that uniform distribution of jacking force is attained throughout the bed setup and, all tension vs. elongation tolerances have been achieved. The distribution of force shall be verified on at least two strands at the opposite end.

C. Stage Tensioning. Initial tensioning shall be done from one end. Partial tensioning may then be performed from either end. When final stressing is completed, the sum of the partial elongations shall be used to verify that all tension vs. elongation tolerances have been achieved. This method may also be used for tensioning of straight strands.

9. Hold-down devices shall be placed within a 20 inch horizontal tolerance from the locations shown on the contract drawings if placement is moved toward the center of girder and within a 40 inch horizontal tolerance from the locations shown on the contract drawings if placement is moved toward the girder ends; if minimum or maximum placement locations are shown on the contract drawings, the placement tolerances shall not encroach beyond those locations.

The hold-down device shall not encumber or displace adjacent straight strands out of tolerance; and shall not produce nicking of any drape or bundled strands. The device shall secure the draped or bundled stands in the positions shown on the shop drawings, within all tolerances required by subsection 618.14(b).

(b) Combination Tensioned Members. Pretensioning of combination members shall be performed in accordance with subsection 618.07(a). All post-tensioning operations shall conform to subsection 618.07(c)

(c) Post-tensioning Method.

1. Bonded Post-tensioning and Grouting Systems Review. Upon review of the shop drawings, the Engineer will schedule a meeting with the Contractor to review the post-tensioning and grouting procedures to be used on the project. The following individuals shall be in attendance at this meeting:

(1) The Engineer and QA Representative.
(2) The Contractor's Superintendent.
(3) The post-tensioning system supplier. This individual shall have the following qualifications:
   (i) A Professional Engineer registered in the State of Colorado.
   (ii) Knowledgeable in the analysis of post-tensioned structures, the design required for shop drawing development, field calculations for revising tendon elongations from the assumed parameters to the actual strand area and modulus used on the project as determined by tests conducted on the strand by CDOT, and stressing of tendons.
   (iii) A holder of a current Certified Grout Technician Certificate from the American Segmental Bridge Institute (ASBI).
   (iv) Able to be present during all tendon stressing and grouting to keep written records of these operations for submittal to the Engineer for review.
(4) A grout manufacturer's field representative who is a full-time employee of the grout manufacturer, will provide technical product assistance to the grouting crew, and shall be present during start-up of grouting operations and shall be able to be present at the request of the Engineer should problems with the grout occur.
(5) The Contractor's designee who will be in direct charge of the post-tensioning and grouting crews. This individual shall have the following qualifications:
   (i) Be skilled in the use of the post-tensioning and grouting equipment.
(ii) Have at least three years experience on previous projects supervising the post-tensioning and grouting of structures of similar type and magnitude.

(iii) Present on the project during the installation of the post-tensioning system, stressing operations, and grouting operations.

(5) Contractor’s QC Manager.

(7) Other individuals as deemed necessary by the Contractor or Engineer.

Ten days prior to the Post-Tensioning and Grouting System Review meeting, the Contractor shall submit a written plan for grouting the ducts. Grouting shall not begin until the Engineer has provided written approval of the grouting plan. The grouting plan shall provide at least the following information:

(1) The name, training, and experience records of the person supervising the grouting operations.

(2) Other individuals as deemed necessary by the Contractor or Engineer.

(3) Name of the grout material and the required certifications and test results.

(4) Manufacturer and type of grout mixer and pump to be used, including provisions for back-up equipment and spare parts.

(5) Grouting procedure and the role of each person on the crew.

(6) Theoretical grout volume calculations.

(7) Method for closing all duct orifices as grouting progresses.

(8) Air testing of ducts.

(9) Grout mixing and pumping procedures.

(10) Location of grout inlets and direction of pumping.

(11) Procedures for handling blockages, procedures and equipment required for flushing ducts of grout if necessary, and how and when it will be decided whether or not to flush ducts.

(12) Methods to inspect behind anchorages, grout inlets and outlets, and vents for voids.

(13) List of production testing along with acceptable values according to Table 618-1.

(14) Acceptable specific gravities for mud balance test provided by the grout manufacturer.

(15) Procedures for post grouting repair of all grout voids detected.

(16) Procedure for installing corrosion inhibitor inside tendons if necessary.

2. Alternative Post-tensioning Systems. The Contractor may choose to supply the design and details of the prestressing system shown on the plans or submit an alternative for approval. The following alternatives may be presented to the Engineer for his review and approval:

(1) Alternative anchorage systems. Alternative anchorage systems, including all associated anchor zone reinforcing steel associated with the alternative anchorage system, and all details of the alternative anchorage system shall be shown on approved shop drawings and stamped by a Professional Engineer registered in the State of Colorado and who is an employee of the post-tensioning system supplier or anchorage supplier.

(2) Alternative number or sizes of ducts. The duct pattern must conform to an acceptable pattern as indicated on the plans.

(3) Alternative jacking ends.

(4) Alternative number of strands, provided the minimum area of steel and the center of force matches that indicated on the plans.

(5) Alternative duct type, friction coefficients, or anchor set.

The stressing sequence, details, or procedures shall not differ from what is called for on the plans, such that it would cause a change in the jacking force times initial stress ratios at the critical points identified on the plans, beyond an acceptable tolerance of 0 to +5 percent.

If the Contractor elects to submit alternative details, the alternative details shall conform to the following:
(1) The final center of force shall match that as indicated on the plans.

(2) If the plans call for a tendon to be composed of a certain number of strands, the Contractor's alternative shall have that same tendon composed of the same number of strands.

(3) If the plans call for a tendon to be composed of bars, the Contractor's alternative shall have that same tendon composed of bars.

(4) If the plans call for ducts and tendons internal to the member, the Contractor's alternative shall also have internal ducts. Similarly, if the plans call for ducts and tendons external to the member, then the Contractor's alternative shall also have external ducts.

(5) The alternative shall include details or calculations supporting the adequacy of the Contractor's alternative as specified in the shop drawing and calculation requirements of this specification.

(6) Bridge cross-sectional geometries, dimensions, and clearances shall match those indicated on the plans, with the exception of girder flares near anchorages.

3. Duct Fabrication and Placement. Duct enclosures for prestressing steel shall be either rigid corrugated plastic or galvanized, corrugated, rigid ferrous metal.

Metal ducts shall be fabricated with either welded or interlocked seams. Galvanizing of the welded seams for metal ducts will not be required.

The ducts shall be mortared tight and accurately placed within ½ inch of the positions shown on the approved shop drawings. Ducts shall be securely fastened to maintain their correct alignment during placing of concrete. Joints between sections of duct shall be positive rigid connections which do not result in angle changes at the joints. Waterproof tape shall be used at the connections. Ducts shall be bent without crimping or flattening. Transition couplings connecting ducts to anchoring devices need not be galvanized. Ducts shall be free of kinks. All changes of direction shall have a radius of 20 feet, unless otherwise shown on the plans. Shrink sleeves at duct splices at closure pours shall be used.

The duct area shall be at least twice the net area of the prestressing steel for tendons composed of multiple wires, bars, or strands.

The duct diameter shall be at least ¼ inch larger than the nominal diameter of the wire, bar, or strand for tendons made up of a single wire, bar, or strand.

All ducts shall have grout openings at each end. Grout vents shall be provided at all high points and low points of draped tendons. In addition, at draped tendon high points, secondary high point grout vents shall be located three feet beyond all high points in the direction that the grout will be pumped.

Grout openings and vents shall be securely fastened to the ducts and forms or reinforcing steel to prevent displacement while placing concrete. The vents shall be mortar tight, taped as necessary and shall provide means for injection of grout. Ends of grout vents shall be removed to 1 inch inside the face of concrete surface after the grouting has been completed and the holes filled with an approved epoxy or non-shrink grout and finished smooth.

Prior to installation of the prestressing steel, the Contractor shall show that the ducts are free from debris and water. For ducts which are internal to the member, the Contractor shall show that the ducts are free from any blockage or damage from the concrete placing operations. The Contractor shall do this immediately after the concrete encasing the duct has achieved initial set. The precast fabricator shall be responsible for the condition of the ducts during fabrication if the member is precast.

The precast fabricator shall demonstrate to the QA Representative that the ducts are free and clear of any obstructions or damage and are able to accept the intended post-tensioning tendons by passing a torpedo through the ducts. A torpedo of the same cross-sectional shape as the duct that is 1/8 inch smaller all around than the clear, nominal inside dimension of the duct. No deductions shall be made to the torpedo section dimensions allowed in the manufacture or fixing of the ducts. For curved ducts the length shall be determined so that when both ends of the torpedo touch the outermost wall of the duct, the torpedo is 1/8 inch clear of the innermost wall. Acceptance shall be based on the torpedo passing through the duct easily. Nonconformance is when the torpedo does not pass through the ducts easily.
and shall be addressed per 618.13.

Once installed, the ducts (including the ends of the ducts at the anchorages, grout ports, and duct vents) shall be sealed immediately to prevent the entry of water or other debris until the tendons are grouted.

The use of water soluble oil in the ducts and flushing the ducts with water will not be allowed.


Installing Tendons. Excess water in ducts shall be removed by blowing oil-free compressed air through the ducts.

Post-tensioning strands to make up tendon shall be pushed or pulled through the ducts using methods which will not snag on any lips or joints in the ducts.

The ends of strands which are pushed through the duct shall be rounded off or fitted with a smooth protective cap. Strand that is pushed shall not be intentionally rotated by any mechanical device during the installation of the post-tensioning into the duct.

The ends of strands which are pulled through the duct shall be assembled to form the tendon and pulled using a special steel wire sock ("Chinese finger") or other device attached to the end. The ends of the strands may be electric arc welded together for this purpose as long as at least 1 foot to 5 ft of the strands from the welded end, depending on size of tendon, is removed after installation. The ends of strands of the pre-assembled tendon shall be rounded to facilitate smooth passage through the duct.

Cut strands using an abrasive saw or equal. Flame cutting or plasma cutting of strands is allowed only with permission from the Engineer.

The responsible representative shall be present at all times during stressing of bonded post-tensioned members.

Tensioning shall be done with approved jacking equipment. Hydraulic jacks shall be equipped with accurate pressure gauges at least 6 inches in diameter. The combination of jack and gauge shall have been calibrated within the last 12 months, in accordance with subsection 618.10(a). A certified calibration chart, graph, or table showing this calibration of the jack and gauge combination shall be furnished to the Engineer. The range of calibrations shall encompass the range of required forces indicated on the shop plans. The jacking equipment shall be capable of simultaneously stressing all wires, strands, or bars for each individual tendon.

Tendons shall be stressed in accordance with the sequence as indicated on the approved shop drawings. If the Contractor chooses to deviate from the sequence, the Contractor shall resubmit the shop drawings for approval. The sequence shall not cause stresses in excess of the maximum allowable stresses shown on the plans.

Tendons shall be preloaded to 20 percent of their total jacking force, before measuring elongations.

Measured elongations shall be within ± 7 percent of the calculated values, unless otherwise approved by the Engineer.

A broken or damaged strand is cause for rejection of the tendon. If a strand is rejected, the remaining strands in the tendon will be evaluated by the Engineer for reuse.

Where dead end anchorages and tendons are accessible, the anchorage system and length of projecting prestressing steel shall permit jacking with the same jacking equipment that was used on the live end.

Tendon projections at the live end and accessible dead ends shall not be cut off until all post-tensioning is completed and accepted.

The representative of the post-tensioning system supplier shall keep a record of the following items for each tendon installed and provide a copy to the Engineer the day stressing is completed:

1. Project name and number.
2. Contractor and subcontractor.
3. Tendon location, strand diameter, and number of strands.
Date strand was first installed in the ducts.

Heat number of the strands.

Assumed and actual strand cross-sectional area and modulus of elasticity.

Date stressed.

Date of calibration of the jack and pressure gauge combination with their identification numbers.

Required initial and final jacking force and the gauge pressure.

Anticipated and actual elongations and anchor set.

All deviations from the plans, specifications, and approved shop drawings shall be brought to the attention of the Engineer for immediate resolution.

**618.08 Post-Tensioning Anchorages and Distribution.** Prestressing steel shall be secured at the ends by means of approved permanent type anchoring devices.

Anchorages and couplers shall develop at least 95 percent of the minimum specified ultimate strength of the prestressing steel. The coupling of tendons shall not reduce the elongation at rupture below the requirements of the tendon itself. Couplers and coupler components shall be enclosed in housings long enough to permit necessary movements. Couplers for tendons shall be used only at locations specifically indicated or approved by the Engineer.

Couplers shall not be used at points of sharp tendon curvature.

Permanent anchorage grout caps are required and shall be installed before grouting begins.

Anchorage devices shall have a minimum clear concrete or grout coverage of 2 inches in every direction. Alternative corrosion protection methods for anchorages shall be shown on the shop drawings submitted by the Contractor.

The prestressing force shall be effectively distributed to the concrete by means of an approved anchoring device. Such devices shall conform to the following requirements:

1. The average concrete bearing stresses on the concrete-created anchorage distribution plates shall not exceed the values allowed by the following equations:

   During jacking:
   
   \[ f_{cp} = 0.8 f'_{ci} \sqrt{\frac{A'_{b}}{A_b}} - 0.2 \leq 1.25 f'_{ci} \]

   After jacking:
   
   \[ f_{cp} = 0.6 f'_{ci} \sqrt{\frac{A'_{b}}{A_b}} - 0.2 \leq 1.25 f'_{c} \]

   Where:
   
   \( f_{cp} \) = permissible compressive concrete stress
   
   \( f'_{ci} \) = compressive strength of concrete at time of jacking
   
   \( f'_c \) = compressive strength of concrete
   
   \( A'_{b} \) = maximum area of the portion of the concrete anchorage surface that is geometrically similar to and concentric with the area of the anchorage
   
   \( A_b \) = bearing of the anchorage

   If bursting steel is not used, the peak bearing pressure on the concrete at the time of jacking from the distribution plate shall not exceed 0.90 \( f'_{ci} \). If the distribution plate or anchorage device is within 4 inches of any concrete edge or corner or another distribution plate or anchorage device, the pressure on the concrete shall not exceed 0.70 \( f'_c \). Construction joints shall not pass under distribution plates or anchors.

2. Bending moments in the plates or assemblies induced by the pull of the prestressing steel shall not exceed
the plastic strength of the material or cause visible distortion of the distribution plate when 100 percent of the ultimate prestress load is applied as determined by the Engineer.

(3) Distribution plates may be omitted if the anchorage device distributes the stresses in the concrete consistent with these specifications, and provided that this anchorage device is used in conjunction with embedded bursting and splitting reinforcement.

618.09 Bonding and Grouting.

(a) General. Post-tensioned prestressing steel shall be bonded by completely filling the void space within a duct with grout. Prestressing steel to be bonded shall be free of dirt, loose rust, or other deleterious substances. The ducts shall be kept free of water, dirt, or other deleterious foreign materials that will inhibit bond until the tendons are grouted. Time from installing the prestressing steel in the ducts in an unstressed condition to grouting after stressing shall not exceed thirty days. If a corrosion inhibitor, as specified below, is used on the strands in the ducts, the time limit shall not exceed sixty days. Grouting shall proceed as soon as possible after stressing of the prestressing steel in the ducts. If a corrosion inhibitor is used on the strands in the ducts, it shall be applied after post-tensioning is completed and accepted and grouting accessories are installed so that tendons are sealed. The post-tensioning system installer shall submit an installation log. A copy of the log that documents the day the strands were installed within the duct and the corrosion inhibitor applied to the strands in the duct, with the duct given an identification easily referenced to the plans, shall be provided to the Engineer. All pertinent product numbers, the brand and the corrosion inhibitor type shall be documented in the log. Verification shall be made weekly that the tendons remain sealed and grout vents, drains and caps have not been damaged.

(b) Grout. Grout shall be prepackaged in bags.

The following information shall be printed on the grout bags: product name, name of the producer, date of packaging, lot number, and mixing instructions.

Grout shall not contain any lumps or other evidence of hydration.

The grout shall not contain aluminum powder or compounds, which will produce hydrogen gas, carbon dioxide, or oxygen. In addition, the grout shall not contain fluorides, sulphites, nitrates, or acid-soluble chloride ions which exceed 0.08 percent by weight of the cementitious materials. The Contractor shall provide the Engineer with written certification from the grout manufacturer that the grout does not contain or produce these elements or compounds with the grouting plan.

The grout shall conform to the following Standard and Modified ASTM Tests in Table 618-1 when mixed in accordance with the manufacturer’s instructions:
### Table 618-1

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Chloride Ions</td>
<td>Max. 0.08% by weight of Cementitious material</td>
<td>ASTM C 1152</td>
</tr>
<tr>
<td>Fine Aggregate (If utilized)</td>
<td>Max. Size: 300 μm (No. 50 Sieve)</td>
<td>ASTM C 33</td>
</tr>
<tr>
<td>Volume Change at 24 hours and 28 days</td>
<td>0.0% to + 0.3%</td>
<td>ASTM C 1090</td>
</tr>
<tr>
<td>Expansion</td>
<td>0.0%(minimum)</td>
<td>ASTM C 940</td>
</tr>
<tr>
<td>Compressive Strength at 28 days</td>
<td>2%(maximum) for up to 3 hours</td>
<td>ASTM C 940</td>
</tr>
<tr>
<td>(Average of 3 cubes)</td>
<td>7,000 psi minimum</td>
<td>ASTM C 942</td>
</tr>
<tr>
<td>Initial set of the grout</td>
<td>3 hours minimum</td>
<td>ASTM C 953</td>
</tr>
<tr>
<td>Bleeding at 3 hours</td>
<td>12 hours maximum</td>
<td>ASTM C 940</td>
</tr>
<tr>
<td>Permeability at 28 days</td>
<td>Maximum 0.0%</td>
<td>ASTM C 940</td>
</tr>
<tr>
<td></td>
<td>Maximum 2500 coulombs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At 30 Volts for 6 hours</td>
<td></td>
</tr>
</tbody>
</table>

**FLUIDITY TEST**

<table>
<thead>
<tr>
<th>Efflux Time from Flow Cone</th>
<th>ASTM Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Immediately after mixing</td>
<td>11 Seconds Minimum 30 Seconds Maximum OR 5 Seconds Minimum 30 Seconds Maximum</td>
</tr>
<tr>
<td>(b) 30 minutes after mixing with remixing for 30 seconds</td>
<td>30 Seconds Maximum OR 30 Seconds Maximum</td>
</tr>
</tbody>
</table>

Table 618-1 and footnotes continued on next page.
Footnotes for Table 618-1

1 ASTM C 1090 shall be modified to include verification at both 24 hours and 28 days.
2 Adjustments to flow rates shall be achieved by strict compliance with the manufacturer’s recommendations.
3 Grout fluidity shall meet either the Standard ASTM C 939 flow cone test or the Modified Test described herein. Modify the ASTM C 939 Test by filling the cone to the top instead of to the standard level. The efflux time is the time to fill a one liter container placed directly under the flow cone.
4 ASTM C 940 shall be modified to conform with the wick induced bleed test as follows:
   (i) Use a wick made of a 20 inch length of ASTM A 416 seven wire 0.5 inch diameter strand. Wrap the strand with two inch wide duct or electrical tape at each end prior to cutting to avoid splaying to the wires when it is cut. Degrease (with acetone or hexane solvent) and wire brush to remove any surface rust on the strand before temperature conditioning.
   (ii) Condition the dry ingredients, mixing water, prestressing strand and test apparatus overnight to 65 to 75 °F.
   (iii) Mix the conditioned dry ingredients with the conditioned mixing water and place 800 ml of the resulting grout into the 1,000 ml cylinder. Measure and record the level of the top of the grout.
   (iv) Completely insert the strand into the graduated cylinder. Center and fasten the strand so it remains essentially parallel to the vertical axis of the cylinder. Measure and record the level of the top of the grout.
   (v) Store the mixed grout at the temperature range listed in (ii).
   (vi) Measure the level of the bleed water every 15 minutes for the first hour and hourly for two successive readings thereafter.
   (vii) Calculate the bleed water, if any, at the end of the three hour test period and the resulting expansion. In accordance with the procedures outlined in ASTM C 940, with the quantity of bleed water expressed as a percent of the initial grout volume. Note if the bleed water remains above or below the top of the original grout height. Note if any bleed water is absorbed into the specimen during the test.

Grout used on the project shall have been sampled and tested within the last twelve months in accordance with the above referenced test procedures. The Contractor shall provide certified test reports for the grout used on the project from an independent AASHTO Accredited Laboratory and a sample of the grout for evaluation by the Department with the plan for grouting the ducts. The grout sample submitted to the Project shall be at least 2,000 grams in a sealed container. Grout which does not meet the above requirements shall not be used.

(c) Mixing of Grout. All grout shall be mixed with a high speed shear (colloidal) mixer.

(d) Grouting. All grouting operations shall be performed under the immediate control of the Contractor’s designee. An individual of the post-tensioning system supplier, who possesses an ASBI Certified Grouting Technician Certificate and the grout supplier’s field representative shall be available to provide technical expertise to the Contractor’s designee as required during grouting.

The Contractor shall either perform or contract a commercial testing entity experienced with the following tests, in the presence of the Inspector/Engineer and report the results to the Engineer:
(1) One pressure bleed test per day in accordance with the “Schupack Pressure Bleed Test” using a Gelman Filter in accordance with the requirements in Appendix C of the “Specification for Grouting of Post-Tensioned Structures" by the Post-Tensioning Institute. The Gelman filtration funnel shall be secured vertically plumb in a stand. The maximum percent bleed shall be zero when the funnel is pressurized to 50 psi for evaluating installed ducts having a vertical rise greater than 6 feet; the maximum percent bleed shall be 2 percent when the funnel is pressurized to 30 psi for evaluating installed ducts having a vertical rise greater than 2 feet but less than 6 feet; and the maximum percent bleed shall be 4 percent when the funnel is pressurized to 20 psi for evaluating installed ducts having a vertical rise that is less than 2 feet.

(2) Two mud balance tests, one at grout mixer and one at duct outlet, per day or when there is a visual or apparent change in the characteristics of the grout in accordance with the API Recommended Practice 13B-1 “Standard Procedure for Field Testing Water-Based Drilling Fluids”. Acceptable specific gravity values for the grout shall be provided by the grout manufacturer and included with the grouting plan.

(3) Minimum of one strength test per day in accordance with ASTM C942 and the minimum 28 day compressive strength shall be 7000 psi.

(4) Minimum of two fluidity tests (flow cone) – one at the mixer and one at the duct outlet in accordance with ASTM C939, "Standard Tests Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)". The efflux time shall be as shown in Table 618-1.

Grout shall be injected from the lowest end of a tendon to the highest end in an uphill direction. A continuous, one-way flow of grout shall be maintained for each duct.

All grout vent openings shall be open when grouting starts. Grout shall be allowed to flow to the first vent from the inlet pipe until residual slugs of water or entrapped air have been eliminated and the grout has the same consistency as that of the grout being injected. The vent shall then be capped or otherwise closed.

Remaining vents shall be capped or closed in sequence in the same manner except that at draped tendon high points, the secondary vents placed a short distance downstream from the high point vent shall be closed before the highpoint vent.

The Contractor shall inspect the interiors of box girders during grouting operations for grout leakage. Leaks shall be sealed before grouting is continued.

Grout shall be pumped through the duct and continuously wasted at the outlet pipe until all visible slugs of water or air are ejected. To insure that the tendon remains filled with grout, the outlet shall be closed and the pumping pressure allowed to build to a minimum of 75 psi and held for one minute before the inlet vent is closed.

For all vertical tendons that are 20 feet and taller, a standpipe shall be provided at the upper end of the tendon to collect bleed water and allow it to be removed from the grout. This device shall be designed with commercial steel plumbing fittings so that the grout level will not drop below the elevation at the highest point in the upper anchorage device due to bleeding. If the level of the grout drops below the highest point in the upper anchorage device, additional grout shall immediately be added to the standpipe. After the grout has hardened, the standpipe shall be removed.

For vertical internal tendons, if the grouting pressure exceeds the maximum recommended pumping pressure, the grout shall be injected at increasingly higher outlets (which become inlets) that have been or are ready to be closed as long as one-way flow of grout is maintained. Grout shall be allowed to flow from each outlet until all slugs of air and water have been purged prior to using that outlet for injection.

Plugs, caps, and valves thus required shall not be removed or opened until the grout has set.

The Contractor shall monitor all anchorages, grout ports and vents periodically until the grout sets. The Engineer shall be notified if bleed water is dripping from these locations. Bleed water may be an indication of voids and will require investigation by the Contractor after the grout sets.

After the grout has set, the grout port and vent plugs shall be removed. The Contractor shall inspect the tendon anchorages, grout ports and vents for voids or other evidence of incomplete grouting. If evidence is found of voids in these areas, the Contractor shall submit a plan for regrouting the voids to the Engineer for
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approval. All costs for remedial grouting will not be measured and-paid for separately but shall be included in
the work.

(e) Temperature Considerations.

The temperature of the concrete adjacent to the ducts shall be 40 °F or higher from the time of grouting until
site cured 2-inch grout cubes, tested in accordance with AASHTO T 106, reach a minimum compressive
strength of 800 psi.

Grout shall be between 40 and 90 °F during mixing and pumping. If necessary, the mixing water shall be
heated or cooled.

618.10 Equipment. Equipment used for fabrication of pretensioned and combination tensioned members shall
conform to the following requirements:

(a) Jacking Equipment and Load Cells. All equipment shall be calibrated as a system that represents actual use.
Jacks, gage and pump systems, and load cells shall be calibrated at intervals not longer than 12 months, or
whenever the tensioning system yields erratic results. Master gage systems shall be calibrated at intervals not
longer than six months, or whenever the tensioning system yields erratic results. If load, sensor or indicator
components are replaced or repaired, the system shall be recalibrated before resuming jacking operations.
System error shall not exceed plus or minus 1 percent of the applied loads.

Calibration shall be performed by an agency or service that uses equipment certified by the National Institute
for Standards and Technology (NIST). Accuracy of the calibration equipment shall be traceable to the NIST
records. The calibration procedures used shall conform to ASTM Standard Practices E 4 and E 74. Each time
that calibration verification is performed, a copy of the certified test report shall be furnished to the QA
representative or the Engineer.

(b) Concrete Batching Equipment. The weighing system shall be calibrated at intervals no longer than 12
months. If disassembly, replacement, damage or repair of scales or balance indicators should occur, the
weighing system shall be recalibrated before resumption of mix operations. Scale calibrations shall be
performed in conformance with the State of Colorado - Department of Agriculture requirements. Current
calibration labels shall be visibly displayed on the equipment.

The batching system shall record the weights of all concrete mix ingredients for each batch. Ingredient
weights shall meet the requirements of ASTM C 94, Section 8, Measuring Materials.

The batching system shall be equipped with a flow meter which measures the weight or volume of the added
mixing water within plus or minus 1 percent of the total water added to each batch.

(c) Concrete Load Testing Machine. The test machine shall meet the requirements of ASTM C 39.

(d) Concrete Cylinder Molds. Shall meet the requirements of ASTM C470.

(e) Forms. Forms shall be sufficiently mortar tight to minimize fresh mortar paste leakage, and sufficiently rigid
to prevent product distortion due to concrete pressure or consolidation operations. Form joints shall be kept
clean, smooth and adjusted to minimize form finish irregularities.

Forms shall be constructed and erected to produce units that conform to the product dimensional tolerances
required by subsection 618.14(b); the forms shall also meet smoothness tolerances required by this
subsection.

Forms shall be treated with a form release agent that does not adhere to or significantly discolor the final
concrete product.

Forms that have known deviations from the typical sections shown on the plans shall be approved by the
Engineer before use. The deviations shall be submitted on working or shop drawings.

(f) Miscellaneous Test Equipment. All miscellaneous test equipment used during fabrication shall be kept in a
condition such that accurate test results are obtained. Proper equipment maintenance and calibration shall be
the responsibility of the Contractor's QC section.

618.11 Concrete for Pretensioned and Combination Tensioned Products. The Contractor shall furnish and
place concrete according to this subsection.
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(a) **Classification.** Concrete shall be designated as class PS. The Contractor shall be responsible for the actual mix proportions and adjustments necessary to produce the specified strength. The specified strengths and air content shall be as stated on the plans. Fly ash may be substituted for hydraulic cement up to a maximum of 25 percent by weight. If fly ash is used in the mix, the weight of the total cementitious material content shall be the sum of the weights of the hydraulic cement and fly ash.

When voluntary use of fly ash by the Contractor results in delays, changes in mix quantities or materials sources, or unsatisfactory work, the costs of such delays, changes or corrective actions shall be borne by the Contractor.

(b) **Concrete Mix Components.** Materials sources shall be listed in the Contractor's QCP. The QC Manager must notify the QA representative in writing before changing the sources as listed in the QCP. For new sources, the Contractor must submit certified data for review and acceptance by the Engineer, at least 30 days before the sources can be used for production. Materials shall conform to the requirements of subsection 618.02(c).

(c) **Proportioning.** The minimum total cementitious material content shall be 610 pounds per cubic yard of concrete. Fine aggregates shall not exceed 55 percent of the total aggregate volume. Aggregates from different sources and of different gradings shall not be stockpiled together.

(d) **Batching and Mixing.** Concrete shall be batched and mixed according to ASTM C 94.

(e) **Placing Concrete.** Forms shall be free of dirt, mortar, debris, and foreign substances before depositing the fresh concrete. Rust areas shall be cleaned to prevent rust staining of the finished products.

The concrete shall be consolidated with suitable mechanical vibrating equipment. Vibration time shall be of sufficient duration to accomplish adequate consolidation throughout the entire product, but shall not be prolonged to the point that segregation of the fresh concrete occurs.

The Contractor shall use the procedures listed in the QCP to protect the freshly deposited concrete from rapid drying and surface moisture loss due to extreme ambient or climatic conditions.

Temperature limitations are as follows:

1. The temperature of the plastic concrete during placement operations shall not be lower than 50 °F.
2. Mixed concrete that has a temperature in excess of 90 °F shall not be placed.
3. Unless a suitable retarder is used the concrete shall be deposited in place within 90 minutes after batching; any load or portion of a load shall not be placed after the 90 minute limit.
4. Inner form temperature shall be within 40 °F of the fresh concrete temperature at time of concrete placement.
5. Minimum inner form temperature shall be 40 °F at the time of concrete placement.
6. Maximum inner form temperature shall be 130 °F at the time of concrete placement.

(f) **Finishing Fresh Concrete.** Open surfaces of fresh concrete shall be worked as little as possible to obtain the finish shown on the plans. Water shall not be added to the surfaces to ease finishing. Excessive water or laitance brought to the surface through vibration shall be removed before the surface is final finished. All hand finishing, required for precast members that have surfaces that become part of the final bridge deck surface, shall be performed in conformance with subsection 601.12(a).

Monomolecular film coatings or fogging systems, as approved by the QA Representative, may be used to retard evaporation during extreme ambient conditions. Application methods shall deposit a fine mist spray over the concrete surface. Streaming, puddling, or droplet application of coatings shall not be permitted. The concrete surfaces shall not be reworked after application of mist.

(g) **Concrete Testing.** The Contractor's QC section shall make representative cylinder test specimens for QC/QA testing. The Contractor shall forward test cylinders to the QA representative, for 28-day strength tests, and for shipping strength tests as required by subsection 618.15. Concrete tests shall be performed in accordance with the following requirements:

1. Test cylinder specimens shall be made in accordance with ASTM C 31. Vibration consolidation shall not
be allowed unless the slump is less than 1 inch. Specimens shall be cured as listed in the accepted QCP.

2. Cylinders shall be tested in accordance with ASTM C 39. The average strength of at least two test cylinders shall be greater than the minimum required strength. No individual strength test shall be more than 7 percent below the minimum required strength.

3. Cylinder test specimens shall be made to verify stress transfer strength and to verify 28-day design strength. If the products will be shipped prior to 28-day testing, additional test specimens shall be available to verify product strength prior to shipment.

4. Representative cylinders shall be molded for each 50 cubic yards or portion thereof, for each different concrete mix design used per day per product line.

5. Air Content, when specified, shall be determined in accordance with either ASTM C 173 or ASTM C 231. Air entrained mixes shall be tested a minimum of once per day to assure specified air entrainment.

6. Slump of fresh concrete shall be determined in accordance with ASTM C 143. The slump shall be tested whenever test cylinder sets are made.

7. Unit Weight of fresh concrete shall be determined in accordance with ASTM C 138. Unit weight shall be tested a minimum of once per day for each different concrete mix design used.

8. Temperature of fresh concrete shall be taken as needed, to assure compliance with the temperature requirements.

618.12 Curing.

(a) Pretensioned and Combination Tensioned Members. Members shall be uniformly cured from the time of concrete placement until at least two representative product test specimens achieve an average strength that meets or exceeds 0.7 \( f'_{cc} \), or the specified release strength, \( f'_{cr} \), whichever is higher.

Where:

\[
\begin{align*}
  f'_{c} &= 28 \text{ Day Compressive Strength of Concrete} \\
  f'_{cc} &= \text{Required Concrete Strength at Release of Prestress Force}
\end{align*}
\]

Additional curing requirements shall be maintained until the above strength requirements are achieved, and are as follows:

1. Exposed concrete surfaces shall be kept moist from the time of concrete placement until the freshly finished concrete is covered with an enclosure that retains heat and moisture. After enclosure, moist curing shall be maintained at a minimum 70 percent relative humidity.

   The Contractor shall monitor the temperature and humidity conditions from the initial curing period through the end of the accelerated curing stage.

2. Temperature of the concrete shall be maintained above 50 °F.

3. The internal and surface temperature of the concrete shall not exceed 160 °F.

4. Concrete shall attain initial set prior to application of the accelerated curing cycle. If initial set was not determined in accordance with ASTM C 403, accelerated curing shall not be induced for 4 hours, or 6 hours if retarding admixtures are used.

   While waiting for the initial set period, low cycle heat may be applied to maintain the curing chamber temperature; however, the temperature rise shall not exceed 10 °F per hour during the waiting period.

5. The rise in temperature in the curing chamber during accelerated curing cycle shall not exceed 40 °F per hour.

(b) Cast-in-Place Members. The curing of cast-in-place members shall conform to the requirements of subsection 601.13. The concrete shall not be exposed to temperatures below freezing for six days after casting, or until it has reached the strength required for applying the prestressing force. The minimum strength of the concrete shall be at least, 3500 psi for post-tensioned members, or as given on the plans whichever is greater, before prestressing.
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(c) **Other Precast Members.** Precast members that do not contain pretensioned steel shall meet curing requirements as follows:

1. Exposed surfaces of freshly finished concrete shall be covered with moisture retaining material, or shall be treated with a concrete curing compound approved by the QA representative.

2. Temperature of the concrete shall be maintained above 50 °F from the time of concrete placement until the curing is complete.

3. Uniform curing shall continue until at least two representative product test specimens achieve an average strength that meets or exceeds 0.7 f'c or the specified release strength f'c, whichever is higher.

4. The internal and surface temperature of the concrete shall not exceed 150 °F.

618.13 **Repairs of Pretensioned and Combination Tensioned Members.** Repairable product defects discovered during QC or QA inspection, shall be corrected at the Contractor's expense prior to shipping. Damage incurred during handling, storage, shipment and erection shall be repaired or replaced at the Contractor's expense.

Defects shall be categorized as minor, structural, or rejectable. The QC section shall examine and record all defects. The QC section shall submit a written proposal for minor repairs to the QA Representative for review and acceptance prior to correcting the minor defects. The proposal shall also address the measures the Contractor will take to prevent recurring defects in future members. The QA Representative will approve, or reject, the finished repair work in writing.

Small production holes that are less than ½ inch in depth and less than 1 square inch in surface area, shall not be considered defects. Larger production holes shall be repaired according to the procedures listed in the QCP.

Structural and rejectable defects shall be examined by the Contractor's Engineer. A written proposal for repair of structural or rejectable defects shall be submitted to the QA Representative for review and acceptance prior to correcting any defects. The proposal shall include a detailed description and sketch of the defects, detailed repair procedures, description of repair materials, and the methods the Contractor will use to evaluate the finished repair work. The proposal shall also include the measures the Contractor will take to prevent recurring defects in future members.

Completed repairs shall be cured as needed to ensure soundness of the reworked area.

The defect categories and repair requirements are defined as follows:

(a) **Minor Defects.** Minor defects are those which do not affect the ability of the product to withstand service or construction loads. Minor defects include superficial discontinuities such as cracks; small spalls, voids and honeycombed areas; and defects that do not extend beyond the centerline of any reinforcing steel or into any elements of the tensioning system. Minor defects of other types may also be designated by the QA Representative.

Repair methods shall not affect the structural integrity of the product. The finished repair work shall meet the approval of the QA Representative and the Engineer.

(b) **Structural Defects.** Structural defects, as determined by the QA Representative or the Engineer, include defects which may impair the ability of the product to adequately withstand construction or service loads. Defects that extend beyond the centerline of any reinforcing steel or into any element of the tensioning system are classified as structural defects. Such defects also include cracks, spalls, honeycombed areas, voided areas, significant concrete breakage areas, cold joints, and segregated concrete areas. Structural defects of other types may also be designated by the QA Representative or the Engineer.

Repair methods shall adequately restore structural integrity of the product. When repairs have been completed, the Contractor's Engineer shall examine and analyze the product for construction and service load ability, and certify in writing that the repair work is structurally adequate. Evaluation and test data shall be submitted along with the written certification. The finished repair work, including aesthetic acceptability, shall meet the approval of the Engineer.

(c) **Rejectable Defects.** Rejectable defects or damages, as determined by the QA Representative or the Engineer, are those which impair the ability of the product to adequately withstand construction or service
loads, and which cannot be successfully repaired to structural and architectural acceptability. Structurally
defective or rejected products shall not be incorporated into the work but shall be replaced with acceptable
products supplied at the Contractor’s expense.

Damaged and defective products will also be rejected by the QA Representative for the following reasons:
1. Failure by the Contractor’s Engineer to approve and submit proposed repair procedures in writing before
repair work begins.
2. Failure by the Contractor to execute the repair work according to QA approved procedures.
3. Failure by the Contractor to provide written certification of acceptable structural repair, along with
submittal of evaluation and test data, if applicable.
4. Failure by the Contractor to correct recurring defects.
5. Determination by the QA Representative that the work, or materials used in the work, does not meet all
contract requirements.

618.14 Other Fabrication Requirements for Pretensioned and Combination Tensioned Members.

(a) Finishing Hardened Concrete Products. Finished and repaired areas shall reasonably match the coloration
and profile characteristics of the adjacent concrete. Loose concrentious laitance shall be removed from the
product before storage.

Each finished product shall clearly display legible identification markings that show the cast date, piece mark
and unique sub-mark. The marking shall also identify the setup location where the product was cast.

Finishing operations shall also conform to the following requirements:
1. Excessive laitance and unsound rubble shall be removed from surfaces to be bonded.
2. Fins and irregular projections shall be removed from the formed surfaces.
3. Bulges or offsets on the formed surfaces greater than ¼ inch shall be smoothed by stoning, sawing, or
grinding.
4. Dented and inset surfaces greater than 4 square inches in area and deeper than ½ inch shall require a
written repair proposal before repair or finish work begins.
5. Patches in areas of exposed steel or prestressing strand shall be bonded with an approved bonding
agent and patched with an approved non-shrink grout.
6. If liquid membrane curing compounds are used on the concrete surfaces which are to be bonded, they
shall be removed by sandblasting, prior to shipping the product.

(b) Product Dimensional Tolerances. Tolerances for prestressed concrete products shall meet the unit
 tabulations listed in the PCI Manual MNL-116, unless otherwise stated in the Contract. The PCI tolerance
figures and tabulations shall be specification requirements. Out-of-dimensional-tolerance variations shall be
considered defects and shall be examined and evaluated by the Contractor’s Engineer. The evaluation shall
be submitted to the QA Representative in writing and shall contain written opinion of structural adequacy as
determined by the Contractor’s Engineer. The submittal shall meet the approval of the Engineer. Failure to
submit the written evaluation and opinion will be cause for rejection.

The following work or products shall meet the specific PCI tolerance requirements described as follows,
unless otherwise specified in the plans:
(1) Bulb-Tee Sections shall conform to Division VI, I-Beams.
(2) G-Series Sections shall conform to Division VI, I-Beams.
(3) Box Girders and U-Girders shall conform to Division VI, Box Beams.
(4) Deck Panels shall conform to the dimensional tolerances as listed in the PCI Special Report JR-343-88,
Chapter 4, or the updated published edition thereof.

(c) Handling, Storage, Shipment and Erection. The Contractor shall handle the product in such a manner as to
prevent cracking or damage. Cracked or damaged products shall be inspected by the QC section and repaired in accordance with subsection 618.13, or replaced at the Contractor's expense.

Braces, trusses, chains, cables, or other metal devices used for handling, storing, shipping, or erecting shall be adequately padded at points in contact with the concrete, to prevent chipping of the finished product.

Beam sections shall be handled, stored, shipped and erected with supports and devices that maintain the product in an upright position. Deck panels shall be lifted as directed in the Contract unless alternative lifting methods are allowed by the Engineer. Lifting of more than one panel at a time shall not cause panel cracking. Methods for multiple lifting of panels shall be shown on the working or shop drawings. Panel products shall be stacked in such a manner that damage does not occur.

Pre-cast concrete members shall be erected to prevent damage to all elements of the structure and in a safe manner. Pre-cast concrete members to which the erection specification applies are those members that bear on the substructure of a bridge. The primary members such as beams and girders shall be temporarily anchored and braced as they are erected to preclude detrimental movement in any direction, and to prevent overturning and buckling. Struts, bracing, tie cables, and other devices used for temporary restraint shall be considered falsework and shall be designed to resist all loads imposed during each stage of construction until the deck concrete has attained the Field Compressive Strength shown in Table 601-1.

At least one week prior to the Pre-Erection Conference, the Contractor shall approve, sign and submit an Erection Plan to the Engineer for record purposes only. The Erection Plan shall be stamped “Approved for Construction” and signed by the Contractor. The Erection Plan will not be approved by the Engineer. If falsework is required, falsework drawings shall conform to and be submitted in accordance with subsection 601.11.

The Erection Plan and procedure shall provide complete details of the erection process with dimension tolerances including:

1. Falsework, struts, bracing, tie cables and other devices, material properties and specifications for temporary works, bolt torque requirements prior to releasing girders from the cranes (if required), connection details and attachments to other structure components or objects;

2. Procedure and sequence of operations, including a detailed schedule with completion times for work items that complies with the working hour limitations;

3. Minimum load chart lift capacity, outrigger size and reactions for each crane;

4. Assumed loads and girder weights, lift points, lifting devices, spreaders, and angle of lifting cables.

5. Girder stresses at critical points along the girder length during progressive stages of erection shall be investigated to assure that the structural integrity and stability of the girders is maintained. Stresses at lift points induced as a result of lifting shall be investigated and adequate bracing provided as indicated by the analysis.

6. Locations of cranes, trucks delivering girders, and the location of cranes and outriggers relative to other structures, including retaining walls, wingwalls and utilities.

7. Drawings, notes, catalog data showing the manufacturer's recommendations or performance tests, and calculations clearly showing the above listed details, assumptions, and dimensions.

8. Contingency plans detailing what measures the Contractor will take in case of inclement weather (forecast or actual), equipment failure, delivery interruption, and slower than planned production.

A Pre-Erection Conference will be held at least one week prior to the beginning of erection. The Engineer, Contractor, erection subcontractor, and the Contractor's Engineer shall attend the meeting. The erection subcontractor shall demonstrate his knowledge and familiarity of where the piece marks are located on the components to be erected, their orientation in the erected structure, and the shop drawing piece mark convention used by the girder fabricator at the Pre-Erection Conference. The girder fabricator shall either attend the meeting or participate in the conference, by way of speaker telephone. Participation is required during that portion in which the piece marks are discussed. The girder fabricator shall state whether the
erecting subcontractor has demonstrated a correct understanding of the piece marks, and if not, correct any misunderstanding.

Additional Pre-Erection conferences may be required for subsequent phases of construction, or for phases that differ from the original construction plan, as directed by the Engineer. Additional conferences may also be requested by the Contractor, and approved by the Engineer.

The Contractor shall submit a final Erection Plan to the Engineer prior to girder erection for record purposes only. The Contractor's Engineer shall sign and seal (1), (5), and (7) listed above in the final Erection Plan. The final Erection Plan shall be stamped “Approved for Construction” and signed by the Contractor. The final Erection Plan will not be approved by the Engineer.

When a bridge spans traffic of any kind, except for construction traffic and the Contractor’s employees, the Contractor’s Engineer shall inspect and provide written approval of the erected girders prior to opening the area beneath the girders to traffic. For this specification, traffic is defined as the vehicles, railroad, pedestrians and watercraft moving along a route. The Contractor shall perform daily inspections of the erected girders and other permanent and temporary bridge elements until the deck concrete has attained the Field Compressive Strength. The Contractor’s Engineer shall provide an inspection form to the Engineer and the Contractor that lists the items the Contractor will document during the daily inspection of the erected girders. The inspection form shall include inspection items specific to each bridge being constructed. The Contractor shall provide the Engineer and the Contractor's Engineer with written documentation of these inspections within 24 hours of each inspection.

All temporary struts, bracing, tie cables, other devices and extra material required shall be removed upon completion of the structure.

Falsework shall conform to subsection 601.11.

618.15 Product Shipping Strength for Pretensioned and Combination Tensioned Members. Products shall not be shipped before concrete strength meets or exceeds 0.95 $f'_c$, unless otherwise indicated on the plans. The average of at least two representative test specimens shall meet or exceed 0.95 $f'_c$. No individual specimen strength shall be more than 7 percent below 0.95 $f'_c$. The shipping strength test specimens shall be cured in the same environment as the actual product until the time of testing. The QC section shall test the specimens for actual shipping strength. The QA Representative may independently verify any shipping strength tests.

The Contractor may elect to take concrete cores from the actual product in lieu of curing cylinder test specimens with the product. If the Contractor chooses this test option, the QC Manager shall submit written request to the QA Representative. Core extraction shall not begin until the request has been accepted in writing by the QA Representative. The written request shall include the proposed location and time schedule for core extraction and testing.

The cores shall be delivered in a wrapped and moist condition to the certified test laboratory as listed in the QCP. The QA Representative may witness any or all stages of the core testing operations. The test laboratory shall provide a copy of the formal test report to the QA Representative.

The Contractor shall bear all expenses associated with the optional core testing requirements. Sampling and testing of the concrete core specimens shall conform to ASTM C 42 with the following addenda:

1. Samples may be removed at any age at the Contractor’s sole risk of damage.
2. Test cores shall not contain embedded reinforcement.
3. A minimum of three core samples shall be taken from the product casting in question. Three specimens shall be tested for compressive strength. The average compressive strength of the three tests shall meet or exceed product $f'_c$. If the compressive test result of any specimen differs from the average strength by more than 15 percent, those results shall be disregarded, and the compressive strength shall be determined from at least two remaining valid test results.
4. If end capping of test specimens is necessary, the capping shall be done with sulfur mortar in accordance with ASTM C 617. Specimens shall be kept moist until end capping preparation begins.
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Ends shall be trimmed or prepped as required, wiped with absorbent cloth and air-dried or fan-dried to prepare for end capping. The drying period shall not exceed 20 minutes before capping is completed.

Specimens shall be air-dried for 10 to 20 minutes after capping, then wrapped with a double layer of wet, thick cloth or burap. Compressive testing shall not be started for at least one hour after wet-wrapping. The wrapped specimens shall be kept moist until compressive testing begins.

The Contractor shall submit a written repair proposal to the QA Representative for patching the core holes. Repair work shall not begin until the proposal is accepted in writing by the Engineer.

METHOD OF MEASUREMENT

618.16 Prestressed units will be measured by one of the following methods as indicated in the Contract.

(1) Prestressed girders will be measured by the linear foot from end to end or by the square foot, based on the plan length multiplied by the plan width, whichever is specified on the plans.

(2) Prestressed concrete box girders and prestressed concrete slabs will be measured by the square foot based on the plan length multiplied by the plan width.

(3) When measured by component materials, concrete and reinforcing steel will be measured and paid for in accordance with Sections 601 and 602 respectively.

The quantities of prestressing steel will not be measured but shall be the quantities shown on the plans, completed and accepted. MKFT equals the jacking force, in thousands of KIPS, times the length in feet.

Precast panel deck forms that are required by the plans will be measured by the square foot. The quantity will not be remeasured, but will be the quantity shown on the plans, except when a plan change is ordered or when it is determined that there are discrepancies in an amount of plus or minus two percent of the plan quantity.

BASIS OF PAYMENT

618.17 The accepted quantities of prestressed units and prestressing steel will be paid for at the contract unit price per unit of measurement for each of the pay items listed below that is included in the bid schedule. Precast panel deck forms required by the plans will be paid for at the contract unit price for the area shown on the plans.

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prestressing Steel Bar</td>
<td>Pound or MKFT</td>
</tr>
<tr>
<td>Prestressing Steel Strand</td>
<td>Pound or MKFT</td>
</tr>
<tr>
<td>Prestressed Concrete ___ (___)</td>
<td>Linear Foot or Square Foot</td>
</tr>
<tr>
<td>Prestressed Concrete Box (___)</td>
<td>Square Foot</td>
</tr>
<tr>
<td>Prestressed Concrete Slab (Depth _____)</td>
<td>Square Foot</td>
</tr>
</tbody>
</table>

Payment will be full compensation for all work necessary to complete the designated pay item.

Prestressing steel bar and prestressing steel strand shall include but not be limited to all anchorage devices, prestressing steel, ducts, grout, and miscellaneous hardware. Elastomeric leveling pads, and galvanized steel diaphragms and connectors will not be paid for separately, but shall be included in the work. Concrete and reinforcing steel not shown on the plans but required by the Contractor's alternative will not be paid for separately but shall be included in the work. All required testing will not be paid separately but shall be included in the work.

Concrete quantities will not be reduced for the volume occupied by the ducts, prestressing steel, anchorages, blockouts for tensioning, etc., and will not include web flares, projections, warts, etc., required to accommodate the prestressing system used.

All costs associated with the preparation and implementation of the Erection Plan will not be paid for separately, but shall be included in the work.

Concrete, reinforcing steel, and prestressing steel for permanent steel bridge deck forms will not be measured and paid for separately, but shall be included in the work.
Section 630 of the Standard Specifications is hereby revised for this project as follows:
In subsection 630.16 delete the fifth paragraph.
Section 630 of the Standard Specifications is hereby revised for this project as follows:

In subsection 630.02, delete Table 630-1, and replace it with the following:

Table 630-1
RETROREFLECTIVE SHEETING TYPES

<table>
<thead>
<tr>
<th>Sheetings</th>
<th>Type IV+ Work Zone</th>
<th>Type Fluorescent Work Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Orange Construction Signs</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Barricades (Temporary)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Vertical Panels</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Flaggers Stop/Slow Paddle</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Drums(^2)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Non-orange Fixed Support signs with prefix &quot;W&quot;</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Special Warning Signs</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>STOP sign (R1-1)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>YIELD sign (R1-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WRONG WAY sign (R5-1a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DO NOT ENTER sign (R5-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXIT sign (E5-1a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DETOUR sign (M4-9) or (M4-10)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>All other fixed support signs(^3)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>All other signs used only during working hours</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

1 Fluorescent Sheeting shall be of a brand that is on the CDOT Approved Products List.
2 Drum Sheeting shall be manufactured for flexible devices.
3 Fixed support signs are defined as all signs that must remain in use outside of working hours. They shall be mounted in accordance with Standard Plan S-630-1.

\(^\dagger\) New signs and devices shall be manufactured with Type IV sheeting. Existing signs and devices manufactured with Type III sheeting may be used on projects advertised prior to January 1, 2014. Signs and devices used on projects advertised on or after January 1, 2014 shall be manufactured with Type IV sheeting.
REVISION OF SECTION 630
RETROREFLECTIVE SIGN SHEETING

Section 630 of the Standard Specifications is hereby revised for this project as follows:

In subsection 630.06, first paragraph, delete the fifth sentence and replace with the following:

Retroreflective sheeting on new devices shall be Type IV. Existing devices manufactured with Type III sheeting may be used on projects advertised prior to January 1, 2014. Devices used on projects advertised on or after January 1, 2014 shall be manufactured with Type IV sheeting.
Section 703 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 703.04 and replace with the following:

**703.04 Aggregates for Hot Mix Asphalt.** Aggregates for hot mix asphalt (HMA) shall be of uniform quality, composed of clean, hard, durable particles of crushed stone, crushed gravel, natural gravel, or crushed slag. Excess of fine material shall be wasted before crushing. A percentage of the aggregate retained on the 4.75 mm (No. 4) sieve for Grading S, SX and SG—and on the 2.36 mm (No. 8) sieve for Gradings SF and ST—shall have at least two mechanically induced fractured faces when tested in accordance with Colorado Procedure 45. This percentage will be specified in Table 403-1, as revised for the project in Section 403. The angularity of the fine aggregate shall be a minimum of 45.0 percent when determined according to AASHTO T 334. Grading SF mixes, when determined by RME, may not require fine aggregate angularity of 45.0 percent. Aggregate samples representing each aggregate stockpile shall be non-plastic if the percent of aggregate passing the 2.36 mm (No. 8) sieve is greater than or equal to 10 percent by weight of the individual aggregate sample. Plasticity will be determined in accordance with AASHTO T 90. The material shall not contain clay balls, vegetable matter, or other deleterious substances.

The aggregate for Gradings ST, S, SX and SG shall have a percentage of wear of 45 or less when tested in accordance with AASHTO T 96.

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Grading SF**</th>
<th>Grading ST</th>
<th>Grading SX</th>
<th>Grading S</th>
<th>Grading SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.5 mm (1½&quot;)</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>25.0 mm (1&quot;)</td>
<td></td>
<td></td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>19.0 mm (¾&quot;)</td>
<td></td>
<td>100</td>
<td>100</td>
<td>90 – 100</td>
<td>90 – 100</td>
</tr>
<tr>
<td>12.5 mm (½&quot;)</td>
<td></td>
<td></td>
<td>90 – 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5 mm (⅛&quot;)</td>
<td>100</td>
<td></td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>4.75 mm (No. 14)</td>
<td>90 – 100</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>2.36 mm (No. 8)</td>
<td>*</td>
<td>28 – 58</td>
<td>28 – 58</td>
<td>23 – 49</td>
<td>19 – 45</td>
</tr>
<tr>
<td>1.18 mm (No. 16)</td>
<td>30 – 54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>600 μm (No. 30)</td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>300 μm (No. 50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 μm (No. 100)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75 μm (No. 200)</td>
<td>2 – 12</td>
<td>2 – 10</td>
<td>2 – 10</td>
<td>2 – 8</td>
<td>1 – 7</td>
</tr>
</tbody>
</table>

*These additional Form 43 Specification Screens will be established using values from the As Used Gradation shown on the Design Mix.

**SF applications are limited and the CDOT Pavement Design Manual should be referenced, prior to use.

Aggregates for stone matrix asphalt (SMA) shall be of uniform quality, composed of clean, hard, durable particles of crushed stone, crushed gravel, or crushed slag. A minimum of 90 percent of the particles retained on the 4.75 mm (No. 4) sieve shall have at least two mechanically induced fractured faces when tested in accordance with Colorado Procedure 45. The particles passing the 4.75 mm (No. 4) sieve shall be the product of crushing rock larger than 12.5 mm (½ inch) and shall be non-plastic when tested in accordance with AASHTO T 90.
Additionally, each source of aggregate for SMA shall meet the following requirements:

1. No more than 30 percent when tested in accordance with AASHTO T 96 Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

2. No more than 12 percent when tested in accordance with AASHTO T 104 Soundness of Aggregate by Use of Sodium Sulfate.

The aggregate for Hot Mix Asphalt (HMA) shall meet the requirements of Table 703-4A when tested in accordance with CP-L 4211 Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus. The Contractor shall be assessed a price reduction of $1000 for each production sample of the combined aggregate with a value greater than 20 according to CP-L 4211.

*Table 703-4A*

**Aggregate Degradation by Abrasion in the Micro-Deval CP-L 4211**

<table>
<thead>
<tr>
<th>Combined Aggregate (Mix Design)</th>
<th>Not to exceed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Aggregate (1/10,000 tons, or fraction thereof during production)</td>
<td>20</td>
</tr>
</tbody>
</table>
REVISION OF SECTION 703
CONCRETE AGGREGATES

Section 703 of the Standard Specifications is hereby revised for this project as follows:

Delete the second paragraph of subsection 703.00 and Table 703-1.

Delete subsections 703.01 and 703.02 and replace with the following:

703.01 Fine Aggregate for Concrete. Fine aggregate for concrete shall conform to the requirements of AASHTO M 6, Class A. The minimum sand equivalent, as tested in accordance with Colorado Procedure 37 shall be 80 unless otherwise specified. The fineness modulus, as determined by AASHTO T 27, shall not be less than 2.50 or greater than 3.50 unless otherwise approved.

703.02 Coarse Aggregate for Concrete. Coarse aggregate for concrete shall conform to the requirements of AASHTO M 80, Class A aggregates, except that the percentage of wear shall not exceed 45 when tested in accordance with AASHTO T 96.
Section 712 of the Standard Specifications is hereby revised for this project as follows:

In subsection 712.08, delete the third and fourth paragraphs and replace with the following:

Physical requirements for all geotextiles shall conform to the requirements of AASHTO M-288. Materials shall be selected from the New York Department of Transportation's Approved Products List of Geosynthetic materials that meet the National Transportation Product Evaluation Program (NTPEP) and AASHTO M-288 testing requirements. The current list of products that meet these requirements is located at:

www.dot.ny.gov

The Geotextile Approved Products List may be accessed by clicking on the following tabs once on the NYDOT site to:

(1) A To Z Site Index
(2) Approved List
(3) Approved Products
(4) Materials and Equipment
(5) Geosynthetics for Highway Construction
(6) Geotextiles

In subsection 712.08, delete Table 712-2 and replace with the following
### Table 712-2

**TYPICAL VALUES OF PERMEABILITY COEFFICIENTS**

<table>
<thead>
<tr>
<th>Turbulent Flow</th>
<th>Particle Size Range</th>
<th>Effective</th>
<th>Permeability Coefficient k cm/s</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Millimeters (inches)</td>
<td>D 20 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D max</td>
<td>D min</td>
<td>D 20 mm</td>
</tr>
<tr>
<td>Derrick STONE</td>
<td>30C (120)</td>
<td>900 (36)</td>
<td>1200 (48)</td>
</tr>
<tr>
<td>One-man STONE</td>
<td>30C (12)</td>
<td>100 (4)</td>
<td>150 (6)</td>
</tr>
<tr>
<td>Clean, fine to coarse GRAVEL</td>
<td>8C (3)</td>
<td>10 (¼)</td>
<td>13 (¼)</td>
</tr>
<tr>
<td>Fine, uniform GRAVEL</td>
<td>8 (¼)</td>
<td>1.5 (¼)</td>
<td>3 (¼)</td>
</tr>
<tr>
<td>Very coarse, clean, uniform SAND</td>
<td>3 (¼)</td>
<td>0.8 (¼)</td>
<td>1.5 (¼)</td>
</tr>
<tr>
<td><strong>Laminar Flow</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniform, coarse SAND</td>
<td>2 (¼)</td>
<td>0.5 (¼)</td>
<td>0.6</td>
</tr>
<tr>
<td>Uniform, medium SAND</td>
<td>0.5</td>
<td>0.25</td>
<td>0.3</td>
</tr>
<tr>
<td>Clean, well-graded SAND &amp; GRAVEL</td>
<td>0.1</td>
<td>0.05</td>
<td>0.1</td>
</tr>
<tr>
<td>Uniform, fine SAND</td>
<td>0.25</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Well-graded, silty SAND &amp; GRAVEL</td>
<td>5</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Silty SAND</td>
<td>2</td>
<td>0.005</td>
<td>0.01</td>
</tr>
<tr>
<td>Uniform SILT</td>
<td>0.05</td>
<td>0.005</td>
<td>0.006</td>
</tr>
<tr>
<td>Sandy CLAY</td>
<td>1.0</td>
<td>0.001</td>
<td>0.002</td>
</tr>
<tr>
<td>Silty CLAY</td>
<td>0.05</td>
<td>0.001</td>
<td>0.0015</td>
</tr>
<tr>
<td>CLAY (30% to 50% clay sizes)</td>
<td>0.05</td>
<td>0.0005</td>
<td>0.0008</td>
</tr>
<tr>
<td>Colloidal CLAY (-2 um 50%)</td>
<td>0.01</td>
<td>10</td>
<td>40</td>
</tr>
</tbody>
</table>

---


Note: Since the permeability coefficient of the soil will be unknown in most non-critical, non-severe applications for erosion control and drainage, the soil-permeability coefficients listed in Table 712-2 may be used as a guide for comparing the permeability coefficient of the fabric with that of the in-place soil.
Section 712 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 712.01 and replace it with the following:

**712.01 Water.** Water used in mixing or curing concrete shall be reasonably clean and free of oil, salt, acid, alkali, sugar, vegetation, or other substance injurious to the finished product. Concrete mixing water shall meet the requirements of ASTM C1602. The Contractor shall perform and submit tests to the Engineer at the frequencies listed in ASTM C1602. Potable water may be used without testing. Where the source of water is relatively shallow, the intake shall be so enclosed as to exclude silt, mud, grass, and other foreign materials.
A. AFFIRMATIVE ACTION REQUIREMENTS

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)


2. The goals and timetables 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:

<table>
<thead>
<tr>
<th>Economic Area</th>
<th>Standard Metropolitan Statistical Area (SMSA)</th>
<th>Counties Involved</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>157 (Denver)</td>
<td>2080 Denver-Boulder</td>
<td>Adams, Arapahoe, Boulder, Denver, Douglas, Gilpin, Jefferson</td>
<td>13.8%</td>
</tr>
<tr>
<td></td>
<td>2670 Fort Collins</td>
<td>Larimer</td>
<td>6.9%</td>
</tr>
<tr>
<td></td>
<td>3060 Greeley</td>
<td>Weld</td>
<td>13.1%</td>
</tr>
<tr>
<td></td>
<td>Non SMSA Counties</td>
<td>Cheyenne, Clear Creek, Elbert, Grand, Kit Carson, Logan, Morgan, Park, Phillips, Sedgwick, Summit, Washington &amp; Yuma</td>
<td>12.8%</td>
</tr>
<tr>
<td>158 (Colo. Spgs. - Pueblo)</td>
<td>1720 Colorado Springs</td>
<td>El Paso, Teller</td>
<td>10.9%</td>
</tr>
<tr>
<td></td>
<td>6560 Pueblo</td>
<td>Pueblo</td>
<td>27.5%</td>
</tr>
<tr>
<td></td>
<td>Non SMSA Counties</td>
<td>Alamosa, Baca, Bent, Chaffee, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Lake, Las Animas, Lincoln, Mineral, Otero, Prowers, Rio Grande, Saguache</td>
<td>19.0%</td>
</tr>
<tr>
<td>159 (Grand Junction)</td>
<td>Non SMSA</td>
<td>Archuleta, Delta, Dolores, Eagle, Garfield, Gunnison, Hinsdale, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel</td>
<td>10.2%</td>
</tr>
<tr>
<td>156 (Cheyenne - Casper WY)</td>
<td>Non SMSA</td>
<td>Jackson County, Colorado</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

GOALS AND TIMETABLES FOR FEMALE UTILIZATION

Until Further Notice........................................................................6.9% -- Statewide
AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts meet the goals established for the geographical area where the contract resulting form this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and 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, the Executive Order and the regulations in 41 CFR Par 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of 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 name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this specification, and in the contract resulting from this solicitation, the "covered area" is the county or counties shown on the Invitation for Bids and on the plans. In cases where the work is in two or more counties covered by differing percentage goals, the highest percentage will govern.
B. STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these Specifications:
   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
   d. "Minority" includes:
      (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
      (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractor toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance Programs Office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor’s obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor’s compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

   a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor’s employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor’s obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

   b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and maintain a record of the organization’s responses.

   c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source of community organization and of what action was taken with respect to each individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

   d. Provide immediate written notification to the Director when the union with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when he Contractor has other information that the union referral process has impeded the Contractor’s efforts to meet its obligations.

   e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor’s employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

   f. Disseminate the Contractor’s EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc., by specific review of the policy with all management personnel and with all minority and female employees at least once a year, and by posting the Contractor’s EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
g. Review, at least annually, the Contractor's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and Contractor's activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligation.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goal and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even thought the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form, however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
C. SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES.

1. General.
   a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract. Provisions (Form FHWA 1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal-Aid highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract provisions.

   b. The Contractor will work with the State highway agencies and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.

   c. The Contractor and all his/her subcontractors holding subcontracts not including material suppliers, of $10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity; (The equal employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The Contractor will include these requirements in every subcontract of $10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. Equal Employment Opportunity Policy. The Contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program;

   It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, or national origin. Such action shall include; employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training.

3. Equal Employment Opportunity Officer. The Contractor will designate and make known to the State highway agency contracting officers and equal employment opportunity officer (herein after referred to as the EEO Officer) who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. Dissemination of Policy.
   a. All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum;

      (1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the Contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.
8

AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

(2) All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official, covering all major aspects of the Contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the Contractor.

(3) All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the Contractor's procedures for locating and hiring minority group employees.

b. In order to make the Contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:

(1) Notices and posters setting forth the Contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2) The Contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. Recruitment.

a. When advertising for employees, the Contractor will include in all advertisements for employees the notation; "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

b. The Contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the Contractor will, through his EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the Contractor for employment consideration.

In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minority groups or women, or obligates the Contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The Contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

6. Personnel Actions. Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, or national origin. The following procedures shall be followed:

a. The Contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
b. The Contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The Contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The Contractor will promptly investigate all complaints of alleged discrimination made to the Contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform every complainant of all of his avenues of appeal.

7. Training and Promotion.

a. The Contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the Contractor's work force requirements and as permissible under Federal and State regulations, the Contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

c. The Contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The Contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

8. Unions. If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women with the unions, and to effect referrals by such unions of minority and female employees. Actions by the Contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The Contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The Contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.

c. The Contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to the State highway department and shall set forth what efforts have been made to obtain such information.
d. In the event the union is unable to provide the Contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the Contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex or national origin; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such Contractor shall immediately notify the State highway agency.


a. The Contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from State highway agency personnel.

b. The Contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

10. Records and Reports.

a. The Contractor will keep such records as are necessary to determine compliance with the Contractor's equal employment opportunity obligations. The records kept by the Contractor will be designed to indicate:

(1) The number of minority and nonminority group members and women employed in each work classification on the project.

(2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractors who rely in whole or in part on unions as a source of their work force).

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and

(4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State highway agency and the Federal Highway Administration.

c. The Contractors will submit an annual report to the State highway agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391.
DISADVANTAGED BUSINESS ENTERPRISE
DEFINITIONS AND REQUIREMENTS

(a) Definitions and Procedures

For this project, the following terms are defined:

1. Disadvantaged Business Enterprise (DBE). A small business concern that is certified as being:

   A. At least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

   B. Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

   C. Socially and economically disadvantaged individual means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

      (1) Any individual whom the Colorado Department of Transportation Office of Certification or the City and County of Denver Division of Small Business Opportunity (DSBO) finds to be a socially and economically disadvantaged individual.

      (2) Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:

          a. "Black Americans," which includes persons having origins in any of the Black racial groups of Africa;

          b. "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;

          c. "Native Americans," which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

          d. "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;

          e. "Subcontinent Asian Americans," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;

          f. "Women", which means females of any ethnicity;

          g. "Other," which means any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration (SBA), at such time as the SBA designation becomes effective and/or individuals who have been determined to be socially and economically disadvantaged based on the criteria for social and economic disadvantage.

2. Underutilized DBE (UDBE). A firm which meets the definition of DBE above and is eligible to meet the contract goal as defined in the project special provision titled "Contract Goal."
3. DBE Joint Venture. Joint venture means an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

A DBE joint venture must be certified as a joint venture by the Business Programs Office at CDOT.

A. For those projects set-aside for bidding by UDBEs only; all of the partners in a joint venture must be UDBEs and certification of the joint venture will not be required.

B. For all projects other than the set-aside projects discussed in A. above; one of the partners in a joint venture must be a DBE. The DBE percentage of the joint venture will be determined at the time of certification.

4. Contract Goal. The goal for UDBE participation that the Department determines should appropriately be met by the successful bidder. Contract goal will be the percentage stated in the invitation for bids and in the project special provisions. Successful bidders that are awarded a Contract based on good faith efforts shall continue to make good faith efforts through the period of time that work on the project is in process, to provide for additional UDBE participation toward meeting the goal.

5. Good Faith Efforts. It is the obligation of the bidder to make good faith efforts to meet the contract goal prior to the bid opening. The bidder can demonstrate that it has done so either by meeting the contract goal or by documenting good faith efforts made. CDOT will evaluate only the good faith efforts made by the bidder prior to the bid opening. Any UDBE Participation submitted on Form 715 that exceeds the participation submitted on Form 714 will be accepted as additional UDBE participation, but will not be counted as Good Faith Efforts and will not exempt a bidder from fulfilling the Good Faith Efforts requirements. The apparently successful bidder shall report all efforts made including but not limited to the efforts required on Form 718. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain UDBE participation sufficient to meet the DBE contract goal.

The bidder may submit information on its UDBE successes in the preparation of this bid and its successes on CDOT projects during the three preceding calendar years. These successes shall be documented in Section IV of the Form 718. Other factors the bidder considers relevant to its past performance in meeting CDOT UDBE contract goals shall also be documented in Section IV of the Form 718.

In determining whether a bidder has made good faith efforts, CDOT will consider the performance of the apparently successful bidder in meeting UDBE contract goals over the preceding three calendar years. This will include performance at the time of Contract bid and at the time of Contract close. CDOT will use this information to help assess the bidder’s ongoing level of commitment in performing good faith efforts to meet project goals. CDOT will also take into account the performance of other bidders in meeting the contract goal. For example, when the apparently successful bidder fails to meet the contract goal, but others meet it, CDOT will reasonably raise the question of whether, with additional reasonable efforts, the apparently successful bidder could have met the goal. The greater the difference between the contract goal and the apparently successful bidder’s DBE commitments on the Form 714, the greater the level of Good Faith Efforts expected by CDOT. If the apparently successful bidder fails to meet the goal, but meets or exceeds the average UDBE participation obtained by other bidders, CDCT will view this, in conjunction with other factors, as evidence that the apparently successful bidder may have made adequate good faith efforts.
CDOT will accept verifiable comments from persons that have specific information pertaining directly to the efforts made by the bidder to reach the contract goal on this project. CDOT will consider these comments as part of its good faith effort analysis prior to issuing its decision regarding whether good faith efforts were employed by the apparently successful bidder. To be considered during CDOT’s good faith effort analysis for the project, such comments must be submitted by letter, fax, or email. Comments must be sufficiently detailed, and must be received by CDOT within seven calendar days after the bid opening. Written comments should be submitted to CDOT based on the contact information listed at http://www.cdot.state.co.us/EEO/ContactUs.htm.

The Business Programs Office, with the DBE Liaison’s Approval, will notify the apparently successful bidder by fax regarding any deficiencies in the documentation and effort demonstrated by the bidder. This fax will include the Business Programs Office’s recommendation to the DBE Liaison Officer regarding whether the good faith effort demonstrated was sufficient for the bidder to be regarded as responsible. If the bidder may be regarded as responsible but with minor deficiencies in its good faith effort, the bidder will be expected to correct any deficiencies noted prior to bidding on other CDOT projects.

Within five working days of being informed by the Business Programs Office that it is not a responsible bidder because it has not documented sufficient good faith efforts, a bidder may request administrative reconsideration from the Good Faith Efforts (GFE) Committee, which will not have played any role in the original determination that the bidder did not document sufficient good faith efforts. The bidder should make this request to:

Good Faith Efforts Committee
Fax: 303-757-9019
Phone: 303-757-9234

As part of this reconsideration, the bidder will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts prior to the bid opening to do so. The bidder will also have the opportunity to meet in person with CDOT’s GFE Committee to discuss the issue of whether it met the goal or made adequate good faith efforts prior to the bid opening to do so. The Business Programs Office, with the DBE Liaison’s Approval, will send the bidder a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts prior to the bid opening to do so.

The GFE Review Committee will make a recommendation to the DBE Liaison Officer. The DBE Liaison Officer will review the good faith efforts documentation and the recommendation of the GFE Review Committee, determine whether the required efforts are sufficient for award and notify the Chief Engineer of this finding. The Chief Engineer will make the final decision regarding award. There will be no administrative appeal of the Chief Engineer’s decision. The Chief Engineer may pursue award of the Contract to the next lowest responsible bidder based upon this decision.

If award of the Contract is made based on the Contractor’s good faith efforts, the goal will not be waived. The Contractor will be expected to continue to make good faith efforts as described below throughout the duration of the Contract.

To demonstrate Good Faith Efforts to meet the contract goal throughout the performance of the Contract, the Contractor shall document to the CDOT Region Civil Rights Professional the steps taken on Form 205. For each subcontract item not identified for DBE participation on Form 718, steps the Contractor must take include but are not limited to the following:

A. Seek out and consider UDBEs as potential subcontractors.
   (1) Contact all UDBEs for each category of work that is being subcontracted.
   (2) Affirmatively solicit their interest, capability, and price quotations.
   (3) Provide equal time for all prospective subcontractors to prepare their proposals.
   (4) Provide at least as much time to UDBEs in assisting them to prepare their bids for subcontract work as to non UDBE subcontractors.
   (5) Award subcontracts to UDBEs where their quotations are reasonably competitive with other quotations received.
B. Maintain documentation of UDBEs contacted and their responses.
   (1) Maintain a list of UDBEs contacted as prospective subcontractors.
   (2) Maintain thorough documentation of criteria used to select each subcontractor.
   (3) Where a UDBE expressed an interest in a subcontract and made a quotation, and where the
       work was not awarded to a UDBE, furnish a detailed letter explaining the reasons.

(b) Certification as a DBE by the Department

1. Any contractor may apply to the Colorado Department of Transportation Office of Certification or the City
   and County of Denver Division of Small Business Opportunity (DSBO) for status as a DBE. Application
   shall be made on the USDOT’s Uniform Certification Application Form as provided by these agencies for
   certification of DBEs. Application need not be made in connection with a particular bid. Only work
   contracted to UDBE contractors or subcontracted to UDBEs and independently performed by UDBEs
   shall be considered toward contract goals as established elsewhere in these specifications.

2. It shall be the Contractor’s responsibility to submit applications so that the certifying agency has sufficient
   time to render decisions. The certifying agency will review applications in a timely manner but is not
   committed to render decisions about a firm’s DBE status within any given period of time.

3. The Department will publish an online directory of DBE contractors, vendors and suppliers for the
   purpose of providing a reference source to assist any bidder in identifying DBEs and UDBEs. Bidders will
   be solely responsible for verifying the Certification of DBEs they intend to use prior to submitting a
   proposal. The directory is updated daily by the certifying agencies and is accessible online at
   http://www.dot.state.co.us/app_uccp/.

4. Bidders shall exercise their own judgments in selecting any subcontractor to perform any portion of the
   work.

5. Permission for a DBE/non-DBE joint venture to bid on a specific project may be obtained from the
   Business Programs Office based on information provided by the proposed joint venture on Form 893,
   “Information For Determining DBE Participation When A Joint Venture Includes A DBE”. Joint
   applications should be submitted well in advance of bid openings.

(c) Bidding Requirements

1. All bidders shall submit with their proposals a fully executed Form 714 including a list of the names of
   their UDBE subcontractors to meet the contract goal. The apparently successful bidder shall submit a
   fully executed Form 715 for each UDBE used to meet the contract goal (sample attached) no later than
   4:00 p.m. on the third work day after the date of bid opening to the Business Programs Office in the
   Center for Equal Opportunity. Form 715 may be submitted by FAX, at Fax number (303)757-9019, with
   an original copy to follow. If the contract goal is not met, the apparently successful bidder shall submit a
   completed Form 718 and corresponding evidence of good faith efforts no later than 4:00 on the day
   following the bid opening to the Business Programs Office in the Center for Equal Opportunity. CDOT
   Form No. 718 may be submitted by FAX, at Fax number (303)757-9019, with an original copy to follow. A
   copy of Form 718 is incorporated into this specification.

2. The award of Contract, if awarded, will be made to the lowest responsible bidder that will meet or exceed
   the contract goal or, if the goal will not be met, is able to demonstrate that good faith efforts were made to
   meet the goal. Good faith efforts are explained in (a) of this special provision.

3. The use of the UDBE firms named on Form 714 or on a Form 715, for the items of work described, is a
   condition of award. The replacement of a named UDBE firm will be allowed only as provided for in (e) of
   this special provision. Failure to comply will constitute grounds for default and termination of the
   Contract.
4. Contractor's DBE Obligation. The prime Contractor bidding on construction projects advertised by the Department agrees to ensure that Disadvantaged Business Enterprises (DBEs), as defined in this special provision, have equal opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The prime Contractor shall not discriminate on the basis of race, color, national origin, or sex in the bidding process or the performance of contracts.

To ensure that UDBEs are offered equal opportunity to participate in the performance of contracts, it is the responsibility of the prime Contractor to offer and to provide assistance to UDBEs related to the UDBE performance of the subcontract. However, the UDBE must independently perform a commercially useful function on the project.

(d) Counting DBE Participation Toward Contract Goals and CDOT's annual DBE goal

1. Once a firm has been certified as a DBE the total dollar amount of the contract awarded to the firm shall be counted toward CDOT’s annual DBE goal and the contract goal as explained below, and as modified for the project in the project special provisions titled “Contract Goal.”

2. The actual dollar total of a proposed subcontract, supply or service contract with any DBE firm shall be reported to the Department using Form 713. A Form 713 for subcontracts is to be submitted with the Form 205 and receipt will be a condition of approval. The eligibility of a proposed DBE subcontractor will be finally established based on the firm's status at the time of Form 205 approval.

A Form 713 for a supply or service contract is to be submitted once a contract has been fully executed so the Department will be able to report the DBE participation in a timely manner. The eligibility of a DBE supplier or service firm will be finally established as of the date the Form 713 is received by the Department. A Form 205 is not required for a supply or service contract.

If a firm becomes certified as a DBE during performance under a fully executed contract with CDOT but prior to the DBE performing any work, then 100 percent of the work performed by the firm under that contract may be claimed as eligible work.

3. The Contractor may count toward its contract goal the percentage of the total dollar amount of a contract with a Department certified joint venture that equals the percentage of the ownership and control of the UDBE partner in a joint venture.

4. A The Contractor may count toward its contract goal only that percentage of expenditures to UDBEs which independently perform a commercially useful function in the work of a contract. A DBE is considered to be performing a commercially useful function by actually performing, managing, and supervising the work involved. To determine whether a DBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, work performed solely by the DBE, industry practices, and other relevant factors.

B. A DBE may enter into subcontracts consistent with normal industry practices. If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the DBE shall be presumed not to be performing a commercially useful function. The DBE may present evidence to rebut this presumption to the Department.

5. The Contractor may count toward its contract goal the percentage of expenditures for transportation services obtained from UDBE trucking firms, provided the UDBE controls the trucking operations for which it seeks credit. A UDBE trucking firm must have at least one truck and driver of its own, but it can lease trucks owned by others, both DBEs and non-DBEs, including owner-operators. For work done with its own trucks and drivers, and for work done with DBE lessees, the UDBE trucking firm receives credit for all transportation services provided. For work done with non-DBE lessees, the UDBE trucking firm gets credit only for the fees or commissions it receives for arranging the transportation services, because the services themselves are being performed by non-DBEs.
6. The Contractor may count toward its contract goal the percentage of expenditures for materials and supplies obtained from UDBe suppliers (regular dealers) and manufacturers, provided that the UDBe assume the actual and contractual responsibility for and actually provide the materials and supplies.

A. The Contractor may count 100 percent of its expenditures to a UDBe manufacturer. A DBE manufacturer is a certified firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.

B. The Contractor may count 60 percent of its expenditures to UDBe suppliers (regular dealers) that are not manufacturers, provided that the DBE supplier performs a commercially useful function in the supply process. A DBE supplier (regular dealer) is a certified firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a supplier (regular dealer) the firm must engage in, as its principal business and in its own name, the purchase and sale of the products in question. A supplier in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns or operates distribution equipment. Brokers and packagers shall not be regarded as manufacturers or suppliers within the meaning of this section.

C. The Contractor may count toward its contract goal the following expenditures to UDBe firms that are not manufacturers or suppliers (regular dealers):

1. The fees or commissions charged for providing a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for performance of the Contract, provided that the fee or commission is determined by the Department to be reasonable and not excessive as compared with fees customarily allowed for similar services.

2. The fees charged for delivery of materials and supplies required to a job site (but not the cost of the materials and supplies themselves) when the hauler, trucker, or delivery service is not also the manufacturer of or a supplier of the materials and supplies, provided that the fee is determined by the Department to be reasonable and not excessive as compared with fees customarily allowed for similar services.

3. The fees or commissions charged for providing any bonds or insurance specifically required for the performance of the Contract, provided that the fee or commission is determined by the Department to be reasonable and not excessive as compared with fees customarily allowed for similar services.

7. To determine the goals achieved under this Contract the participation as described in (d) of this special provision shall be divided by the original prime Contract amount and multiplied by 100 to determine the percentage of performance. The Contractor shall maintain records of payment that show amounts paid to all DBEs. Upon completion of the project, the Contractor shall submit a Form 17 listing all DBEs that participated in this Contract, the subcontract tier number of each, and the dollar amount paid to each. This dollar amount shall include payments made by nonDBE subcontractors to DBE subcontractors. The Contractor shall certify the amount paid, which may be audited by the Department. When there is no participation by DBEs, the Contractor shall submit a Form 17 that indicates no participation and gives reasons why there was no participation. CDOT will not count the participation of a DBE subcontractor toward the prime contractor's UDBe achievements or CDOT's overall DBE goal until the amount being counted toward the goal has been paid to the DBE.

(e) Replacement of UDBe Subcontractors used to meet the contract goal

Based upon a showing of good cause the Contractor may request that a UDBe named on Form 714 or on a Form 715 be replaced with another UDBe pursuant to the terms and conditions of this special provision. In the event that the Contractor is able to both document the need and to offer a replacement UDBe who can perform the work at a reasonable cost, the CDOT Region Civil Rights Professional will approve the replacement at no additional cost to the Department. Replacements will be allowed only with prior written approval of the Region Civil Rights Professional.
1. If a replacement is to be requested prior to the time that the named UDBE has begun to effectively prosecute the work under a fully executed subcontract, the Contractor shall furnish to the Region Civil Rights Professional the following:
   A. Written permission of the named UDBE. Written permission may be waived only if such permission cannot be obtained for reasons beyond the control of the Contractor.
   B. A full written disclosure of the circumstances making it impossible for the Contractor to comply with the condition of award.
   C. Documentation of the Contractor's assistance to the UDBE named on Form 714 or on Form 715.
   D. Copies of any pertinent correspondence and documented verbal communications between the Contractor and the named UDBE.
   E. Documentation of the Good Faith Efforts in finding a replacement UDBE subcontractor and the results of the efforts. It is within the control of the Contractor to locate, prior to award, DBEs that offer reasonable prices and that could reasonably be expected to perform the work. For this reason, increased cost shall not, by itself, be considered sufficient reason for not providing an in-kind replacement.

2. In the event a UDBE subcontractor begins to prosecute the work and is unable to satisfactorily complete performance of the work, the Contractor shall furnish to the Region Civil Rights Professional the following:
   A. Documentation that the subject UDBE subcontractor did not perform in a satisfactory manner.
   B. Documentation of the Contractor's assistance to the UDBE subcontractor prior to finding the UDBE subcontractor in default.
   C. A copy of the certified letter finding the UDBE to be in default or a letter from the UDBE stating that it cannot complete the work and it is turning the work back to the Contractor.
   D. Copy of the contract between the Contractor and the UDBE subcontractor, plus any modifications thereto.
   E. Documentation of the Good Faith Efforts in finding a replacement UDBE subcontractor and the results of the efforts.

In the event the Contractor is able to locate a replacement UDBE who can perform work at a reasonable cost to the Contractor, and also demonstrates to the satisfaction of the Department that prior to bid it had reason to believe that the named UDBE firm was responsible and not expected to default, the Department may modify or renegotiate the Contract to compensate the Contractor for any reasonable extra costs, because of a higher price in the proposal of the replacement UDBE subcontractor than that of the original UDBE subcontractor who failed to perform.

Provided, however, that the Department will not be obligated to participate in any increased cost to the Contractor if the UDBE that fails to perform has a recent history of performance failure or default that was either known, or should have been known, to the Contractor prior to award.

3. If the Contractor is unable to locate a UDBE replacement that is both interested in and capable of performing the work at a reasonable cost, the Department may waive the requirement that the work be performed by a UDBE and the Contractor shall provide for the satisfactory completion of the work at no additional cost to the Department.
(f) **Sanctions.**

It is the obligation of the Contractor to provide DBE firms with equal opportunity to participate in the performance of the work.

It is the responsibility of DBE firms to perform their work in a responsible manner fully consistent with the intent of the DBE program, and in substantial compliance with the terms and conditions of these DBE definitions and requirements.

DBE firms which fail to perform a commercially useful function as described in subsection (d) of these DBE definitions and requirements or operate in a manner which is not consistent with the intent of the DBE program may be subject to revocation of certification.

A finding by the Department that the Contractor has failed to comply with the terms and conditions of these DBE definitions and requirements shall constitute sufficient grounds for default and termination of the Contract in accordance with subsection 108.09 of the specifications.

Attachments:
- Form 714
- Form 715
- Form 718
Prime Contractor Instructions: This form has two sections, both must be completed and submitted with your bid. Complete Section I to list all subcontract quotes received (non-DBE and DBE). Complete Section II to report only Underutilized DBE (UDBE) participation percentages which qualify under the contract goal specification for this project. Please review CDOT Form #715 Instructions before completing Section II. Attach additional sheets as necessary.

**POLICY**

It is the policy of the Colorado Department of Transportation that underutilized disadvantaged business enterprises have equal opportunity to participate on projects financed with federal, state or local entity funds. Consistent with 49 Code of Federal Regulations (CFR) Part 26.11, the Bidders List data provided by the Contractors will provide CDOT as accurate data as possible about the universe of DBE and non-DBE firms actively seeking work on its highway construction contracts, for use in setting overall DBE goals.

### SECTION I: CDOT BIDDERS LIST INFORMATION (Non-DBEs and DBEs)

1) Are all subcontract bids (quotes) received by your firm for this project listed below? □ Yes □ No

2) If No, make certain any additional subcontract bidding information is submitted to the CDOT Business Programs Office before 4:00 pm on the day after bids are opened to ensure CDOT has the best data possible for setting future DBE goals (use the same table format as below):
   - CDOT Business Programs Office
   - 4201 E. Arkansas Ave., Room 200
   - Denver, Colorado 80222
   - FAX: 303-757-9019
   - EMAIL: eo@dot.state.co.us

3) The most recent CDOT Bidders List will be posted online at: www.dot.state.co.us/EEO/DBEProgramPage.htm

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<thead>
<tr>
<th>Name of firm submitting Bid/Quote</th>
<th>Certified DBE firm?</th>
<th>Work item(s) description</th>
<th>Firm being used?</th>
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SECTION II: UNDERUTILIZED DBE (UDBE) PARTICIPATION COMMITMENT

1) Total eligible Underutilized DBE (UDBE) percentage amount from Box A below:  

2) Will your company's Underutilized DBE (UDBE) participation commitment meet the contract goal?  
   • Yes  • No

3) List the UDBE firms, committed work items, and eligible UDBE percentage of your bid committed to each.

<table>
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<tr>
<th>UDBE Firm name</th>
<th>Certification #</th>
<th>Committed work item(s)</th>
<th>% Commitment toward DBE Goal</th>
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BOX A: TOTAL ELIGIBLE UDBE PERCENTAGE AMOUNT (Round to nearest hundredth)

* Detailed instructions on how to calculate DBE commitment amounts are available on CDOT Form #715 and in the “Counting DBE Participation Toward Contract Goals and CDOT’s annual DBE goal” section of the “DBE – Definitions and Requirements” in the Standard Special Provisions.

I understand that, if my company is determined to be the low bidder for the contract on this project, I must submit a completed CDOT Form #715 CERTIFICATION OF UNDERUTILIZED DBE PARTICIPATION for each firm listed in Section II of this form to the Transportation Department by 4:00 pm on the third work day after the day bids are opened. The actual amounts submitted on each CDOT Form #715 must equal or exceed the DBE percentage commitments documented on this form. In addition, if my company does not meet the DBE/UDBE goal for this project, I must submit a completed CDOT Form #718 DBE GOOD FAITH EFFORT DOCUMENTATION before 4:00 pm on the day after bids are opened. CDOT Form #715s submitted for firms not included on this form, OR for amounts exceeding those listed on this form, will be accepted but NOT counted as Good Faith Efforts. Only the efforts the contractor made prior to the bid opening will count as Good Faith Efforts.

I understand my obligation to abide by the Policy stated above Section I. I shall not discriminate on the basis of race, color, age, sex, national origin, or handicap in the bidding process or the performance of contracts.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE IN THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Company Name: ____________________________  Date: / / 

Company Officer Signature: ____________________________  Title: ____________________________
COLORADO DEPARTMENT OF TRANSPORTATION  
CERTIFICATE OF PROPOSED UNDERUTILIZED DBE (UDBE) PARTICIPATION  

Project No.:  
Project Code (SA#):  
Location:  
Form #: of  

Prime Contractor – Send completed/signed form to the Business Programs Office (instructions on second page). The “Eligible UDBe Amounts” submitted on this form must equal or exceed the commitment(s) documented on the CDOT Form 714 you submitted with your bid. For the complete list of certified DBE/UDBE firms and their DBE work codes go to http://www.dot.state.co.us/app_upc/  

NOTE: See 49 CFR part 26.65, and the “DBE - Definitions and Requirements” in the Standard Special Provisions, for further information concerning counting DBE participation of truckers, subcontractors, suppliers and service providers toward the project’s UDBe goal.  

PART 1a – TRUCKING CONTRACT  
If the UDBe is being used as a trucker for one or more “trucking” DBE work codes (25500, 25505 etc.) then:  

- **ACTUAL UDBe AMOUNT** = Actual contract amount for the transportation services provided by the UDBe firm and any UDBe lessees.  
- **ELIGIBLE UDBe TRUCKING AMOUNT** = [(ACTUAL UDBe AMOUNT) – (Any non-UDBe lessee amounts in this contract)*]  

* For work done on this UDBe contract with non-UDBe lessees, credit toward the project UDBe goal is given only for the broker fees or commissions the UDBe trucker receives for arranging the transportation services, because the services themselves are being performed by non-UDBe.  

<table>
<thead>
<tr>
<th>NAME OF UDBe FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBe TRUCKING AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

DBE WORK CODE NUMBER(S) THIS UDBe IS BEING USED FOR:  
Complete list of work codes is at http://www.dot.state.co.us/app_upc/  

PART 1b – SUBCONTRACT  

- **ELIGIBLE UDBe SUBCONTRACT AMOUNT** = [(Actual UDBe contract amount) – (Any non-UDBe lower tier amounts in this contract)*]  

* Work that a UDBe subcontractors to a lower tier non-UDBe firm does not count toward the project UDBe goal.  

<table>
<thead>
<tr>
<th>NAME OF UDBe FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBe SUBCONTRACT AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

DBE WORK CODE NUMBER(S) THIS UDBe IS BEING USED FOR:  
Complete list of work codes is at http://www.dot.state.co.us/app_upc/  

PART 1c – SUPPLY CONTRACT  
If the supplier is a UDBe with a “Type” field of “Manufacturer” for the item(s):  

- **ELIGIBLE UDBe SUPPLY AMOUNT** = [(Actual UDBe contract amount) X 100%]  

If the supplier is a UDBe with a “Type” field of “Regular Dealer” for the item(s):  

- **ELIGIBLE UDBe SUPPLY AMOUNT** = [(Actual UDBe contract amount) X 60%]  

NOTE: If the supplier is a UDBe with a “Type” field of “Broker” for the item(s) use PART 1d – BROKER / SERVICE CONTRACT.  

<table>
<thead>
<tr>
<th>NAME OF UDBe FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBe SUPPLY AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

DBE WORK CODE NUMBER(S) THIS UDBe IS BEING USED FOR:  
Complete list of work codes is at http://www.dot.state.co.us/app_upc/  

PART 1d – BROKER / SERVICE CONTRACT  
If purchasing materials or supplies through a UDBe with a “Type” field of “Broker”, count only the amount of brokerage commission and/or delivery service fees included in the contract. Other examples of services to include in this section are bonding, brokering, consulting, security guards, and insurance etc.  

- **ELIGIBLE UDBe SERVICE FEE AMOUNT** = Actual compensation retained by the UDBe broker/agent for services rendered*  

* The amounts that count toward UDBe goals are limited to the compensation retained by the UDBe broker/agent for services rendered, provided the fee/commission is determined by CDOT to be reasonable and not excessive as compared with fees customarily charged for similar services.  

<table>
<thead>
<tr>
<th>NAME OF UDBe FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBe SERVICE FEE AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

DBE WORK CODE NUMBER(S) THIS UDBe IS BEING USED FOR:  
Complete list of work codes is at http://www.dot.state.co.us/app_upc/
### PART 2 – UDDBE PARTICIPATION SUMMARY

<table>
<thead>
<tr>
<th>Question</th>
<th>Formula</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) What is the total dollar value of this proposed trucking, subcontract, supply, OR broker/service contract that is eligible for counting toward contract goals?</td>
<td>A = [ TOTAL FROM “ELIGIBLE” COLUMNS IN PART 1 ]</td>
<td>A&gt; $</td>
</tr>
<tr>
<td>NOTE: Provide in actual subcontractor dollars and not prime contract prices.</td>
<td></td>
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</tr>
<tr>
<td>B) What is the total dollar value of proposed subcontracts that are eligible for counting towards contract goals from prior sheets/forms?</td>
<td>B&gt; $</td>
<td></td>
</tr>
<tr>
<td>C) What is the accumulative value of proposed subcontracts that are eligible for counting towards contract goals?</td>
<td>C = [A + B]</td>
<td>C&gt; $</td>
</tr>
<tr>
<td>D) What is the original contract bid total?</td>
<td>D&gt; $</td>
<td></td>
</tr>
<tr>
<td>E) What is the accumulative percent of contract bid total subcontracted to all underutilized DBEs?</td>
<td>E = [(C + D) x 100]</td>
<td>E&gt; %</td>
</tr>
</tbody>
</table>

### PART 3 – UDDBE CONFIRMATION

I confirm that my company is participating in this contract as documented in the Prime Contractor’s commitment(s) in PART 1 of this form. Only the value of the work that my company is actually performing is being counted on this form.

<table>
<thead>
<tr>
<th>UDDBE Firm Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>UDDBE Representative Signature and Title:</td>
<td>/ /</td>
</tr>
</tbody>
</table>

### PART 4 – PRIME CONTRACTOR CERTIFICATION

I certify that:
- my company has met the contracted UDDBE goals or has submitted a completed CDOT Form #718.
- my company has accepted a proposal from the UDDBE named above.
- my company has notified the proposed UDDBE of the contracted UDDBE commitment.
- my company has ensured that the proposed UDDBE has signed PART 3 of this form.
- my company’s use of the proposed UDDBE for the items of work listed above is a condition of the contract award.
- my company will invite the proposed UDDBE to attend the preconstruction conference.
- my company will not use a substitute UDDBE for the proposed UDDBE’s failure to perform under a fully executed subcontract, unless my company complies with the definitions and requirements section of the DBE Special Provisions.
- I understand that failure to comply with the information shown on this form will be considered grounds for contract termination.

I declare under penalty of perjury in the second degree, and any other applicable state or federal laws, that the statements made on this document are true and complete to the best of my knowledge.

<table>
<thead>
<tr>
<th>Prime Contractor Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officer Signature and Title:</td>
<td>/ /</td>
</tr>
</tbody>
</table>

### FORM INSTRUCTIONS

Prime Contractor:
1. An officer of the contractor(s) must complete this form.
2. Include only DBE firms which meet the underutilized criteria in the contract goal specification for this project (i.e., UDDBE firms).
3. Complete only relevant section(s) for PART 1.
4. Ensure that the proposed UDDBE has signed PART 3 of this form.
5. Complete ALL sections of PART 2 and PART 4.
6. Submit a separate CDOT Form #715 for EACH proposed UDDBE.

7. Retain a photocopy for your records.
8. Send original to:
   - Colorado Department of Transportation
   - Business Programs Office
   - 4201 E. Arkansas Ave.
   - Denver, Colorado 80222
   - FAX: (303) 757-9019

Original – Business Programs Office
Previous editions may not be used
CDOT Form 715 – Page 2 of 2
1/09
COLORADO DEPARTMENT OF TRANSPORTATION
UNDERUTILIZED DBE (UDBE) GOOD FAITH
EFFORT DOCUMENTATION

The Contractor who is the apparent low bidder on a CDOT construction project, and has failed to meet the Underutilized DBE (UDBE) contract goal, shall use this form to document all good faith efforts that were made prior to bid opening by said Contractor to meet the goal. FAILURE TO FULLY / CLEARLY COMPLETE THIS FORM MAY RESULT IN REJECTION OF THE BID.

Each portion of this form is to be addressed in the space provided, or on supplemental sheets that follow the same tabular structure and format outlined below. Attach supporting documentation as required by CDOT. This completed form and required attachments are to be submitted to the Business Programs Office in the Center for Equal Opportunity prior to 4:30 p.m. on the day after the day bids are opened. This form may be submitted by FAX (303-757-9619) with an original copy to follow. An extension may be granted by the DBE Liaison. Only the efforts the Contractor made prior to bid opening will count as Good Faith Efforts consistent with the instructions on CDOT Form #714.

I. Complete the following table to document sufficient subcontract work to be performed by UDBEs to achieve the contract goal. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own firms. The total percentage of subcontract items identified for UDBE participation must equal or exceed the percentage UDBE goal set by CDOT.

<table>
<thead>
<tr>
<th>DBE Work Code From DBE Directory</th>
<th>DBE Work Code Description</th>
<th>Closest Matching CDOT Bid Item #</th>
<th>Actual % Amount Of Final Contract</th>
</tr>
</thead>
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UDBE CONTRACT GOAL %: ___________________________ TOTAL CONTRACT %: ___________________________

II. Complete the following table to summarize all contractor efforts made to UDBE firms. For each subcontract item identified, contact by mail, fax, phone and/or email 100% of the Colorado certified UDBEs whose DBE work codes match the type of work being solicited and who are marked as "CDOT OFFER ELIGIBLE" on the DBE Directory. The Contractor shall ensure that initial solicitations allow UDBEs at least 10 calendar days to participate effectively in the bidding process. In order to determine with certainty which UDBEs are interested, the Contractor is also required to take appropriate steps to follow-up initial solicitations (e.g., regional follow-up phone calls etc.) If soliciting by telephone, attach a summary telephone log of calls, including topic of discussion, date, time, name of person contacted, and the response received. If soliciting by mail, fax, and/or email, attach one example copy of the letter, fax, and/or email sent to UDBEs along with a summary log that documents all dates and responses received. Letters, faxes and/or emails must specifically identify the project, the items to be subcontracted, and the bid date. Letters, faxes and/or emails must also provide an address and phone number where specific quantities or details will be available to bidders.

<table>
<thead>
<tr>
<th>DBE Work Code From DBE Directory</th>
<th>DBE Work Code Description</th>
<th># of UDBEs Contacted</th>
<th># of UDBEs &quot;Eligible&quot;</th>
<th>% of UDBEs Contacted</th>
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DBE DIRECTORY WORK CODES

The DBE Directory can be found online at:
http://www.dot.state.co.us/app.ucpl/
- DBE work codes are 5 digit numbers where the 1st digit corresponds to the overall section the code belongs to
- The 1st 3 digits of a DBE work code identify its category
- DBE work codes ending in "00" represent certification for the entire work code category
- DBE work codes ending in "00" represent certification in a specific sub-category only

DBE DIRECTORY UPDATES

Go to http://www.dot.state.co.us/app.ucpl and use the "Directory Updates" button on the DBE Directory to submit any of the following documented updates on UDBE firms:
- Contact information changes (e.g., phone and address etc.)
- "CDOT GFE Eligibility" status changes (e.g., UDBE firms says they don't want to be contacted via GFE solicitations etc.)

Note: In order to verify all updates submitted, CDOT may request additional information from contractors and/or UDBE firms before posting requested changes to the Directory.
III. Complete the following table to show all subcontract bids received (non-UDBE and UDDE), bid dollar amounts for each bid item, and the name of the successful bidder. Where bundled subcontract bids were received, break out quotes per bid item number. If the UDDE bids were rejected, give reasons for each case. If the work is to be counted as a potential UDDE subcontract item, the Contractor cannot elect to perform that work itself when a UDDE bid is competitive or only UDDE bids are received. Cost alone may not be adequate justification for failure to use a UDDE bid. When a non-UDDE bid is significantly lower than a UDDE bid, the Contractor may choose to perform the item itself. CDOT will determine whether a subcontractor’s bid is “competitive” based on factors such as the percentage and dollar difference between quote(s), and/or the percentage the quote(s) represents of the overall contract.

<table>
<thead>
<tr>
<th>CDOT Bid Item #</th>
<th>Closest DBE Work Code</th>
<th>Bid Item Description</th>
<th>Subcontractor Name (Place an * next to firm being used)</th>
<th>Actual Bid Item Quote Price</th>
<th>UDDE Firm?</th>
<th>% Difference On Items That UDDE Firms Bid</th>
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IV. The efforts required herein are not exhaustive or exclusive. Other factors or types of efforts may be relevant in appropriate cases. In determining whether Good Faith Efforts have been made, the quantity and quality of the efforts made as well as kinds of efforts made may be considered. List any additional efforts to increase UDDE contract participation, such as assisting UDDEs in obtaining bonding/insurance lines of credit, effectively using the services of community organizations/publications, and/or requesting subcontractors to assist with providing UDDE participation. Report the results of such efforts. Note: Advertising in a publication with low UDDE subscription rates will not be considered as quality efforts by CDOT.

THE CONTRACTOR UNDERSTANDS THAT DEMONSTRATION OF GOOD FAITH EFFORTS IN ACHIEVING THE UDDE GOALS ESTABLISHED BY CDOT IS REQUIRED THROUGHOUT THE PERFORMANCE OF THE CONTRACT.

Company Name: ____________________ Phone: ____________________
Title: ____________________ Printed Name: ____________________
Signature: ____________________
ON THE JOB TRAINING

This training special provision is an implementation of 23 U.S.C. 140 (a). The Contractor shall meet the requirements of the FHWA 1273 for all apprentices and trainees.

As part of the Contractor's Equal Employment Opportunity Affirmative Action Program, training shall be provided on projects as follows:

1. The Contractor shall provide on the job training aimed at developing full journey workers in the skilled craft identified in the approved training plan. The Contractor shall provide at a minimum, required training hours listed in the Project Special Provisions for each project.

2. The primary objective of this specification is to train and upgrade women and minority candidates to full journey worker status. The Contractor shall make every reasonable effort to enroll and train minority and women workers. This training commitment shall not be used to discriminate against any applicant for training whether or not the applicant is a woman or minority.

3. The Contractor may employ temporary workers from CDOT supportive services providers to meet OJT requirements. Information pertaining to supportive services providers may be obtained by calling the CDOT OJT Coordinator at the number shown on the link http://www.coloradodot.info/business/equal-opportunity/training.html

4. An employee shall not be employed or utilized as a trainee in a skilled craft in which the employee has achieved journey status.

5. The minimum length and type of training for each skilled craft shall be as established in the training program selected by the Contractor and approved by the Department and the Colorado Division of the Federal Highway Administration (FHWA), or the U. S Department of Labor (DOL), Office of Apprenticeship or recognized state apprenticeship agency. To obtain assistance or program approval contact:

   CDOT Center for Equal Opportunity
   4201 East Arkansas Avenue
   Denver, CO 80222
   ep@dot.state.co.us
   1-800-925-3427

6. The Contractor shall pay the training program wage rates and the correct fringe benefits to each approved trainee employed on the project and enrolled in an approved program. The minimum trainee wage shall be no less than the wage for the Guardrail Laborer classification as indicated in the wage decision for the project.

7. The CDOT Regional Civil Rights Manager must approve all proposed apprentices and trainees for the participation to be counted toward the project goal and reimbursement. Approval must occur before training begins. Approval for the apprentice or trainee to begin work on a CDOT project will be based on:

   A. Evidence of the registration of the trainee or apprentice into the approved training program.
   B. The completed Form 838 for each trainee or apprentice as submitted to the Engineer.

8. Before training begins, the Contractor shall provide each trainee with a copy of the approved training program, pay scale, pension and retirement benefits, health and disability benefits, promotional opportunities, and company policies and complaint procedures.

9. Before training begins, the Contractor shall submit a copy of the approved training program and CDOT Form 1337 to the Engineer. Progress payments may be withheld until this is submitted and approved and may be withheld if the approved program is not followed.
ON THE JOB TRAINING

10. On a monthly basis, the Contractor shall provide to the Engineer a completed On the Job Training Progress Report (Form 832) for each approved trainee or apprentice on the project. The Form 832 will be reviewed and approved by the Engineer before reimbursement will be made. The Contractor will be reimbursed for no more than the OJT Force Account budget. At the discretion of the Engineer and if funds are available, the Engineer may increase the force account budget and the number of reimbursable training hours through a Change Order. The request to increase the force account must be approved by the Engineer prior to the training.

11. Upon completion of training, transfer to another project, termination of the trainee or notification of final acceptance of the project, the Contractor shall submit to the Engineer a “final” completed Form 832 for each approved apprentice or trainee.

12. All forms are available from the CDOT Center for Equal Opportunity, through the CDOT Regional Civil Rights Manager, or on CDOT’s website at http://www.coloradodot.info/business/bidding/Bidding%20Forms/Bid%20Winner%20Forms

13. Forms 838 and 832 shall be completed in full by the Contractor. Reimbursement for training is based on the number of hours of on the job training documented on the Form 832 and approved by the Engineer. The Contractor shall explain discrepancies between the hours documented on Form 832 and the corresponding certified payrolls.

14. The OJT goal (# of training hours required) for the project will be included in the Project Special Provisions and will be determined by the Regional Civil Rights Manager after considering:

A. Availability of minorities, women, and disadvantaged for training;
B. The potential for effective training;
C. Duration of the Contract;
D. Dollar value of the Contract;
E. Total normal work force that the average bidder could be expected to use;
F. Geographic location;
G. Type of work; and
H. The need for additional journey workers in the area
I. The general guidelines for minimum total training hours are as follows:

<table>
<thead>
<tr>
<th>Contract dollar value</th>
<th>Minimum total training hours to be provided on the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1 million</td>
<td>0</td>
</tr>
<tr>
<td>&gt;1 - 2 million</td>
<td>320</td>
</tr>
<tr>
<td>&gt;2 - 4 million</td>
<td>640</td>
</tr>
<tr>
<td>&gt;4 - 6 million</td>
<td>1280</td>
</tr>
<tr>
<td>&gt;6 - 8 million</td>
<td>1600</td>
</tr>
<tr>
<td>&gt;8 - 12 million</td>
<td>1920</td>
</tr>
<tr>
<td>&gt;12 - 16 million</td>
<td>2240</td>
</tr>
<tr>
<td>&gt;16 - 20 million</td>
<td>2560</td>
</tr>
<tr>
<td>For each increment of $5 million, over $20 million</td>
<td>1280</td>
</tr>
</tbody>
</table>
15. The number of training hours for the trainees to be employed on the project shall be as shown in the Contract. The trainees or apprentices employed under the Contract shall be registered with the Department using Form 838, and must be approved by the Regional Civil Rights Manager before training begins for the participation to be counted toward the OJT project goal. The goal will be met by an approved trainee or apprentice working on that project; or, if a Contractor’s apprentice is enrolled in a DOL approved apprenticeship program and registered with CDOT using Form 838 and working for the Contractor on a non-CDOT project. The hours worked on the non-CDOT project may be counted toward the project goal with approved documentation on Form 832. Training hours will be counted toward one project goal.

16. Subcontractor trainees who are enrolled in an approved Program may be used by the Contractor to satisfy the requirements of this specification.

17. The Contractor will be reimbursed $2.00 per hour worked for each apprentice or trainee working on a CDOT project and whose participation toward the OJT project goal has been approved.

18. The Contractor shall have fulfilled its responsibilities under this specification if the CDOT Regional Civil Rights Manager has determined that it has provided acceptable number of training hours.

19. Failure to provide the required training will result in the following disincentives: A sum representing the number of training hours specified in the Contract, minus the number of training hours worked as certified on Form 832, multiplied by the journey worker hourly wages plus fringe benefits \((A \times (C + D))\) = Disincentives Assessed. Wage rate will be determined by averaging the wages for the crafts listed on Form 1337. The Engineer will provide the Contractor with a written notice at Final Acceptance of the project informing the Contractor of the noncompliance with this specification which will include a calculation of the disincentives to be assessed.
PARTNERING PROGRAM

The Colorado Department of Transportation actively encourages partnering and invites the Contractor and his subcontractors and suppliers to participate in a voluntary partnering agreement for this project.

The following information summarizes the partnering process. More information is available through the Resident Engineer listed in the project special provisions.

This partnership will be structured to draw on the strengths of each organization to identify and achieve mutual goals. The objectives are effective and efficient Contract performance with reciprocal cooperation, and completion within budget, on schedule, and in accordance with the Contract.

This partnership will be bilateral in make-up and all costs associated with this partnership will be agreed to by both parties and will be shared equally. The Contractor shall assume full responsibility for all costs associated with partnering during the implementation of the partnering process. CDOT will reimburse the Contractor for the agreed amount.

The CDOT Program Engineer or the Resident Engineer will contact the Contractor within ten days after the award of this project to ask if the Contractor wants to implement this partnership initiative. If the Contractor agrees, the Contractor's on-site project manager shall meet with CDOT's Resident Engineer to plan a partnering development and team building workshop. At this planning session, arrangements shall be made to determine the facilitator and the workshop, attendees, agenda, duration, and location.

The workshop shall be held prior to the commencement of any major work item and preferably before the preconstruction conference. The following persons shall attend the workshop: CDOT's Resident Engineer, Project Engineer, and key project personnel; the Contractor's on-site project manager and key project supervision personnel; and the subcontractors' key project supervision personnel. The following personnel shall also be invited to attend as needed: project design engineer, key local government personnel, suppliers, design consultants, CDOT maintenance foreman, CDOT environmental manager, key railroad personnel, and key utility personnel. The Contractor and CDOT shall also have Regional or District managers and Corporate or State level managers on the partnering team.

Follow-up workshops may be held periodically throughout the duration of the Contract as agreed by the Contractor and the Engineer at the initial workshop. A closeout workshop shall be held to evaluate the effectiveness of the partnership.

The establishment of a partnership charter, which identifies the workshop participants' mutual goals on the project, will not change the legal relationship of the parties to the Contract or relieve either party from any terms of the Contract.
RAILROAD INSURANCE

February 3, 2011

The Contractor shall carry insurance of the following kinds and amounts:

A. CONTRACTOR'S PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE.

The Contractor shall furnish evidence to the Department that with respect to the operations the Contractor performs, the Contractor carries Contractor's Public Liability Insurance providing for a limit of not less than One Million Dollars ($1,000,000.00) for all damages arising out of bodily injuries to or death of one person and subject to that limit for each person, a total limit of Two Million Dollars ($2,000,000.00) for all damages arising out of bodily injuries to or death of two or more persons in any one occurrence; and Contractor's Property Damage Liability Insurance providing for a limit of not less than One Million Dollars ($1,000,000.00) for all damages arising out of property in any one occurrence and subject to that limit per occurrence, a total (or aggregate) limit of Two Million Dollars ($2,000,000.00) for all damages arising out of injury to or destruction of property during the policy period.

If any part of the work affecting railroad property or facilities is sublet, similar insurance shall be provided by or in behalf of the subcontractor(s) involved.

B. CONTRACTOR'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE.

The Contractor shall furnish evidence to the Department that with respect to the operations performed for the Contractor by subcontractors, the Contractor carries in its own behalf Contractor's Protective Public Liability Insurance providing for a limit of not less than One Million Dollars ($1,000,000.00) for all damages arising out of bodily injuries to or death of one person and subject to that limit for each person a total limit of Two Million Dollars ($2,000,000.00) for all damages arising out of bodily injuries to or death of two or more persons in any one occurrence; and Contractor's Protective Property Damage Liability Insurance providing for a limit of not less than One Million Dollars ($1,000,000.00) for all damages arising out of injury to or destruction of property in any one occurrence, and subject to that limit per occurrence, a total (or aggregate) limit of Two Million Dollars ($2,000,000.00) for all damages arising out of injury to or destruction of property during the policy period.

C. RAILROAD'S PROTECTIVE LIABILITY AND PROPERTY DAMAGE INSURANCE.

In addition to the above, the Contractor shall furnish evidence to the Department that with respect to the operations the Contractor or any of its subcontractors perform, the Contractor has provided for and in behalf of the Railroad Company, and each Railroad Company when more than one is involved, Railroad Protective Public Liability and Property Damage Insurance providing for a combined single limit of Two Million Dollars ($2,000,000.00) per occurrence with an aggregate limit of six Million Dollars ($6,000,000.00) applying separately for each annual period for:

1. All damages arising out of bodily injuries to or death of one or more persons.

2. All damages arising out of injury to or destruction of property.

D. GENERAL.

Said policy or policies of insurance shall be deemed to comply with the requirements of this Special Provision if each of said policies contains a properly completed and executed "Railroad Protective Liability Form", reference copies of which are available from the Agreement's Engineer of the Colorado Department of Transportation, 4201 East Arkansas Avenue, Denver, Colorado 80222.

Certificates of insurance required under A. and B. above, and policy or policies of Insurance required under C. above shall be furnished to the Department's Agreement's Engineer for transmittal to the Railroad Company's Insurance Department.

The insurance hereinbefore specified shall be carried until all work required to be performed under the terms of the Contract is satisfactorily completed as evidenced by the formal acceptance of the Department. The Railroad Company shall be furnished with the original of each policy carried in its behalf.
Attached is Form FHWA 1273 titled Required Contract Provisions Federal-Aid Construction Contracts. As described in Section I. General, the provisions of Form FHWA 1273 apply to all work performed under the Contract and are to be included in all subcontracts with the following modification:

For TAP (Transportation Alternatives Program) funded Recreational Trails projects, Section I (4) regarding convict labor and all of Section IV of the FHWA 1273 do not apply.
REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act
VI. Subletting or Assigning the Contract
VII. Safety; Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water
    Pollution Control Act
X. Compliance with Governmentwide Suspension and
    Debarment Requirements
XI. Certification Regarding Use of Contract Funds for
    Lobbying

ATTACHMENTS
A. Employment and Materials Preference for Appalachian
    Development Highway System or Appalachian Local Access
    Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each
   construction contract funded under Title 23 (excluding
   emergency contracts solely intended for debris removal). The
   contractor (or subcontractor) must insert this form in each
   subcontract and further require its inclusion in all lower tier
   subcontracts (excluding purchase orders, rental agreements
   and other agreements for supplies or services).

   The applicable requirements of Form FHWA-1273 are
   incorporated by reference for work done under any purchase
   orders, rental agreement or agreement for other services. The
   prime contractor shall be responsible for compliance by any
   subcontractor, lower-tier subcontractor or service provider.

   Form FHWA-1273 must be included in all Federal-aid desig-
   n-build contracts, in all subcontracts and in lower tier
   subcontracts (excluding subcontracts for design services,
   purchase orders, rental agreements and other agreements for
   supplies or services). The design-builder shall be responsible
   for compliance by any subcontractor, lower-tier subcontractor
   or service provider.

   Contracting agencies may reference Form FHWA-1273 in bid
   proposal or request for proposal documents, however, the
   Form FHWA-1273 must be physically incorporated (not
   referenced) in all contracts, subcontracts and lower-tier
   subcontracts (excluding purchase orders, rental agreements
   and other agreements for supplies or services related to a
   construction contract).

2. Subject to the applicability criteria noted in the following
   sections, these contract provisions shall apply to all work
   performed on the contract by the contractor’s own organization
   and with the assistance of workers under the contractor’s
   immediate superintendence and to all work performed on the
   contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these
   Required Contract Provisions may be sufficient grounds for
   withholding of progress payments, withholding of final
   payment, termination of the contract, suspension / debarment
   or any other action determined to be appropriate by the
   contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract,
   the contractor shall not use convict labor for any purpose
   within the limits of a construction project on a Federal-aid
   highway unless it is labor performed by convicts who are on
   parole, supervised release, or probation. The term Federal-aid
   highway does not include roadways functionally classified as
   local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are
applicable to all Federal-aid construction contracts and to all
related construction in subcontracts of $10,000 or more. The
provisions of 23 CFR Part 230 are not applicable to material
supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply
with the following policies: Executive Order 11246, 41 CFR 60,
29 CFR 1625-1627, Title 23 USC Section 140, the
Rehabilitation Act of 1973, as amended (29 USC 794), Title VI
of the Civil Rights Act of 1964, as amended, and related
regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR
Parts 200, 230, and 633.

The contractor and all subcontractors must comply with the
requirements of the Equal Opportunity Clause in 41 CFR 60-
1.4(b) and, for all construction contracts exceeding $10,000,
the Standard Federal Equal Employment Opportunity
Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to
determine compliance with Executive Order 11246 and the
policies of the Secretary of Labor including 41 CFR 60, and 29
CFR 1625-1627. The contracting agency and the FHWA have
the authority and the responsibility to ensure compliance with
Title 23 USC Section 140, the Rehabilitation Act of 1973, as
amended (29 USC 794), and Title VI of the Civil Rights Act of
1964, as amended, and related regulations including 49 CFR
Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix
A, with appropriate revisions to conform to the U.S.
Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment
   opportunity (EEO) requirements not to discriminate and to take
   affirmative action to assure equal opportunity as set forth
   under laws, executive orders, rules, regulations (28 CFR 35,
   and orders of the Secretary of Labor as modified by the
provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:
   a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
   b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
   c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
   d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:
   a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
   b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
   c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
   d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. Failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employees must provide reasonable accommodation in all employment activities unless to do so would cause undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
   a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
   b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):
   a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
   b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor’s obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor’s control, where the facilities are segregated. The term “facilities” includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt.

Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer’s payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (W-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination and
(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter, for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenevever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(I), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm
or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to an individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not indigently registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor’s or subcontractor’s registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice’s level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable
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predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.18, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll as a trainee who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 4, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).


V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As
used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory,) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federal-aid contract subject to the 1977 Federal Highway Administration Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or the work of non-agents. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or procured by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work and assigns the work) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is
evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented:

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA
approved or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

   a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

   b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency’s determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

   c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

   d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

   e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

   f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

   g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

   h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epis.gov), which is compiled by the General Services Administration.

   i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

   j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

   a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

      (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

      (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

      (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

      (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers to any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epis.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participating in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of
Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.
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ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS
This provision is applicable to all Federal-aid projects funded
under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor
undertaking to do work which is, or reasonably may be, done
as on-site work, shall give preference to qualified persons who
regularly reside in the labor area as designated by the DOL
wherein the contract work is situated, or the subregion, or the
Appalachian counties of the State wherein the contract work is
situated, except:

   a. To the extent that qualified persons regularly residing in
      the area are not available.

   b. For the reasonable needs of the contractor to employ
      supervisory or specially experienced personnel necessary to
      assure an efficient execution of the contract work.

   c. For the obligation of the contractor to offer employment to
      present or former employees as the result of a lawful collective
      bargaining contract, provided that the number of nonresident
      persons employed under this subparagraph (1c) shall not
      exceed 20 percent of the total number of employees employed
      by the contractor on the contract work, except as provided in
      subparagraph (4) below.

2. The contractor shall place a job order with the State
Employment Service indicating (a) the classifications of the
laborers, mechanics and other employees required to perform
the contract work, (b) the number of employees required in
each classification, (c) the date on which the participant
estimates such employees will be required, and (d) any other
pertinent information required by the State Employment
Service to complete the job order form. The job order may be
placed with the State Employment Service in writing or by
telephone. If during the course of the contract work, the
information submitted by the contractor in the original job order
is substantially modified, the participant shall promptly notify
the State Employment Service.

3. The contractor shall give full consideration to all qualified
job applicants referred to him by the State Employment
Service. The contractor is not required to grant employment to
any job applicants who, in his opinion, are not qualified to
perform the classification of work required.

4. If, within one week following the placing of a job order by
the contractor with the State Employment Service, the State
Employment Service is unable to refer any qualified job
applicants to the contractor, or less than the number
requested, the State Employment Service will forward a
certificate to the contractor indicating the unavailability of
applicants. Such certificate shall be made a part of the
contractor's permanent project records. Upon receipt of this
certificate, the contractor may employ persons who do not
normally reside in the labor area to fill positions covered by
the certificate, notwithstanding the provisions of subparagraph (1c)
above.

5. The provisions of 23 CFR 633.207(e) allow the
contracting agency to provide a contractual preference for the
use of mineral resource materials native to the Appalachian
region.

6. The contractor shall include the provisions of Sections 1
through 4 of this Attachment A in every subcontract for work
which is, or reasonably may be, done as on-site work.
(a) Fire Protection Plan. Prior to start of work, the Contractor shall submit a Fire Control Plan in writing to the Engineer for approval. The plan shall include the following:

(1) The name and contact information of a Fire Control Coordinator who shall be assigned to the project.

(2) A list of numbers to call in case of a fire, including 911 (or the equivalent in the area).

(3) A complete list, including storage locations, of all tools and equipment the Contractor will use in the event of a fire within project limits.

(4) Methods that will be employed if a fire is encountered or started during construction activities within the project limits.

(5) Specific fire prevention precautions, and the required firefighting equipment, for every activity which has the potential for starting a fire. At a minimum the plan shall address prevention planning related to use of heavy equipment, vehicles, hand tools, storage and parking areas.

(6) Specific precautions for fueling operations.

(7) Provisions for field safety meetings. The Contractor shall conduct field safety meetings (also known as toolbox or tailgate meetings) at least once per week. The Contractor shall encourage participation by all persons working at the project site. Participants shall discuss specific fire prevention precautions for construction activities.

(b) Equipment and Procedures.

(1) Fire Boxes. Fire boxes shall contain tools and equipment that shall be used exclusively for controlling or suppressing fires which occur due to construction activities on project sites. Each fire box shall contain, as a minimum, the following:

(1) five round-pointed shovels,
(2) two double-bitted axes,
(3) three pulaskis or mattocks, and
(4) two backpack pumps

(2) Welding. If welding at field locations is required, the welding shall be done at a location where all flammable material has been cleared away for a distance of 16 feet around the area.

(3) Spark Arrestors. All diesel and gasoline powered engines, both mobile and stationary, shall be equipped with serviceable spark arrestors.

(4) Power Saws. Each gasoline power saw shall be provided with a spark screen and a muffler in good condition. Spill-proof metal safety cans shall be used for refueling.

(5) Storage and Parking Areas. Batch plant areas, equipment service areas, parking areas, gas and oil drum storage areas, and explosive storage areas shall be cleared of all flammable materials for a distance of 50 feet. Small stationary engine sites shall be cleared of all flammable material for distance of 17 feet. Other mitigation methods may be used as approved by the Engineer.
(c) Fire Control Coordinator Responsibilities. The Fire Control Coordinator shall:

(1) Implement the Fire Control Plan.

(2) Monitor, manage, and adjust the Fire Control Plan as needed as construction work progresses.

(3) Document in a letter to the Engineer changes to the Fire Control Plan.

(4) Immediately contact firefighting authorities when a fire is started due to construction activities within project limits.

(5) Coordinate fire control and suppression activities until authorities arrive, including the evacuation of staff.

(6) When the Fire Control Coordinator cannot be on the project site, he shall designate a person who is on site to serve as the Fire Control Coordinator. The Fire Control Coordinator, or his designee, shall be on site at all times that work is being performed.

(d) Costs. All costs associated with the preparation and implementation of the Plan and compliance with all fire protection provisions and requirements will not be measured and paid for separately, but shall be included in the work.
VIII. COLORADO DEPARTMENT OF TRANSPORTATION FORMS
1. List names of partnerships or joint ventures  □ none

2. List decreases in the contractors fiscal or workmanship qualifications compared to the last prequalification statement submitted to CDOT. (Attach additional sheets if necessary.)
   a. Key personnel changes  □ none

   b. Key equipment changes  □ none

   c. Fiscal capability changes (legal actions, etc.)  □ none

   d. Other changes that may effect the contractors ability to perform work.  □ none

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Contractor's firm or company name  By  Date

Title

2nd Contractor's firm or company name (if joint venture)  By  Date

Title
COLORADO DEPARTMENT OF TRANSPORTATION
ANTI-COLLUSION AFFIDAVIT

I hereby attest that I am the person responsible within my firm for the final decision as to the price(s) and amount of this bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on behalf of my firm.

I further attest that:
1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement for the purpose or with the effect of restricting competition with any other firm or person who is a bidder or potential prime bidder.
2A. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential prime bidder on this project, and will not be so disclosed prior to bid opening.
2B. Neither the prices nor the amount of the bid of any other firm or person who is a bidder or potential prime bidder on this project have been disclosed to me or my firm.
3A. No attempt has been made to solicit, cause or induce any firm or person who is a bidder or potential prime bidder to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.
3B. No agreement has been promised or solicited for any other firm or person who is a bidder or potential prime bidder on this project to submit an intentionally high, noncompetitive or other form of complementary bid on this project.
4. The bid of my firm is made in good faith and not pursuant to any consultation, communication, agreement or discussion with, or inducement or solicitation by or from any firm or person to submit any intentionally high, noncompetitive or other form of complementary bid.
5. My firm has not offered or entered into a subcontract or agreement regarding the purchase or sale of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit any intentionally high, noncompetitive or other form of complementary bid or agreeing or promising to do so on this project.
6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting any intentionally high, noncompetitive or other form of complementary bid, or agreeing or promising to do so, on this project.
7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, or other conduct inconsistent with any of the statements and representations made in this affidavit.
8. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as a fraudulent concealment from the Colorado Department of Transportation, of the true facts relating to submission of bids for this contract.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Contractor's firm or company name

By

Date

Title

2nd contractor's firm or company name. (If joint venture.)

By

Date

Title

Sworn to before me this day of, 20

Notary Public

My commission expires

NOTE: This document must be signed in ink.
COLORADO DEPARTMENT OF TRANSPORTATION  
ASSIGNMENT OF ANTITRUST CLAIMS

Contractor and Colorado Department of Transportation (CDOT) recognize that in actual economic practice antitrust violations ultimately impact on CDOT. Therefore, for good cause and as consideration for executing this contract and for receiving payments hereunder:

1. Contractor hereby irrevocably assigns to CDOT any and all claims it may now have or which may hereafter accrue to it under federal or state antitrust laws in connection with the particular project, goods or services purchased or acquired by CDOT pursuant to this contract.

2. Contractor hereby expressly agrees:
   a. That, upon becoming aware that a third party has commenced a civil action asserting on Contractor's behalf an antitrust claim which has been assigned to CDOT hereunder, Contractor shall immediately advise in writing:
      (1) Such third party that the antitrust claim has been assigned to CDOT, and
      (2) CDOT that such civil action is pending and of the date on which, in accordance with subparagraph a. (1) above, Contractor notified such third party that the antitrust claim had been assigned to CDOT;
   b. To take no action which will in any way diminish the value of the claims or rights assigned or dedicated to CDOT hereunder; and
   c. Promptly to pay over to CDOT its proper share of any payment under an antitrust claim brought on Contractor's behalf by any third party and which claim has been assigned to CDOT hereunder.

3. Further, Contractor agrees that in the event it hires one or more subcontractors to perform any of its duties under the contract, Contractor shall require that each such subcontractor:
   a. Irrevocably assign to CDOT (as a third party beneficiary) any and all claims that such subcontractor may have or which may thereafter accrue to the subcontractor under federal or state antitrust laws in connection with any goods or services provided by the subcontractor in carrying out the subcontractor's obligations to Contractor;
   b. Upon becoming aware that a third party has commenced a civil action on the subcontractor's behalf asserting an antitrust claim which has been assigned to CDOT hereunder, shall immediately advise in writing:
      (1) Such third party that the antitrust claim has been assigned to CDOT, and
      (2) Contractor and CDOT that such civil action is pending and of the date on which, in accordance with subparagraph b. (1) above, the subcontractor notified such third party that the antitrust claim had been assigned to CDOT;
   c. Take no action which will in any way diminish the value of the claims or rights assigned or dedicated to CDOT hereunder; and
   d. Promptly pay over to CDOT its proper share of any payment under an antitrust claim brought on the subcontractor's behalf by any third party and which claim has been assigned or dedicated to CDOT pursuant hereto.

I, acting in my capacity as officer of a bidder (bidders if a joint venture) do agree to the above assignment of antitrust claims.

<table>
<thead>
<tr>
<th>Contractor's firm or company name</th>
<th>By</th>
<th>Date</th>
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<tr>
<td>2nd contractor's firm or company name (if joint venture)</td>
<td>By</td>
<td>Date</td>
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<td>Title</td>
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</table>
COLORADO DEPARTMENT OF TRANSPORTATION
BIDDERS LIST DATA and UNDERUTILIZED
DBE (UDBE) BID CONDITIONS ASSURANCE

Prime Contractor Instructions: This form has two sections, both must be completed and submitted with your bid. Complete Section I to list all subcontract quotes received (non-DBE and DBE). Complete Section II to report only Underutilized DBE (UDBE) participation percentages which qualify under the contract goal specification for this project. Please review CDOT Form #715 instructions before completing Section II. Attach additional sheets as necessary.

POLICY
It is the policy of the Colorado Department of Transportation that underutilized disadvantaged business enterprises have equal opportunity to participate on projects financed with federal, state or local entity funds. Consistent with 49 Code of Federal Regulations (CFR) Part 26.11, the Bidders List data provided by the Contractors will provide CDOT as accurate data as possible about the universe of DBE and non-DBE firms actively seeking work on its highway construction contracts, for use in setting overall DBE goals.

SECTION I: CDOT BIDDERS LIST INFORMATION (Non-DBEs and DBEs)

1) Are all subcontract bids (quotes) received by your firm for this project listed below? □ Yes □ No

2) If No, make certain any additional subcontract bidding information is submitted to the CDOT Business Programs Office before 4:00 pm on the day after bids are opened to ensure CDOT has the best data possible for setting future DBE goals (use the same table format as below):
   CDOT Business Programs Office
   4201 E. Arkansas Ave., Room 200
   Denver, Colorado 80222
   FAX: 303-757-9019
   EMAIL: eo@dot.state.co.us

3) The most recent CDOT Bidders List will be posted online at: www.dot.state.co.us/EEO/DBEProgramPage.htm

<table>
<thead>
<tr>
<th>Name of firm submitting Bid/Quote</th>
<th>Certified DBE firm?</th>
<th>Work item(s) description</th>
<th>Firm being used?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Name of firm submitting Bid/Quote</td>
<td>Certified DBE firm?</td>
<td>Work item(s) description</td>
<td>Firm being used?</td>
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**SECTION II: UNDERUTILIZED DBE (UDBE) PARTICIPATION COMMITMENT**

1) Total eligible Underutilized DBE (UDBE) percentage amount from **Box A** below: . %
2) Will your company’s Underutilized DBE (UDBE) participation commitment meet the contract goal? □ Yes □ No
3) List the UDBE firms, committed work items, and eligible UDBE percentage of your bid committed to each.

<table>
<thead>
<tr>
<th>UDBE Firm name</th>
<th>Certification #</th>
<th>Committed work item(s)</th>
<th>% Commitment toward DBE Goal</th>
</tr>
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<tbody>
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<td>1.</td>
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</table>

**BOX A: TOTAL ELIGIBLE UDBE PERCENTAGE AMOUNT (Round to nearest hundredth)**

<table>
<thead>
<tr>
<th>% Commitment toward DBE Goal</th>
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<tr>
<td>1.99</td>
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</table>

* Detailed instructions on how to calculate DBE commitment amounts are available on CDOT Form #715 and in the “Counting DBE Participation Toward Contract Goals and CDOT’s annual DBE goal" section of the “DBE – Definitions and Requirements” in the Standard Special Provisions.

I understand that, if my company is determined to be the low bidder for the contract on this project, I must submit a completed CDOT Form #715 CERTIFICATION OF UNDERUTILIZED DBE PARTICIPATION for each firm listed in **Section II** of this form to the Transportation Department by 4:00 pm on the **third** work day after the day bids are opened. The actual amounts submitted on each CDOT Form #715 must equal or exceed the DBE percentage commitments documented on this form. In addition, if my company does not meet the DBE/UDBE goal for this project, I must submit a completed CDOT Form #718 DBE GOOD FAITH EFFORT DOCUMENTATION before 4:00 pm on the **day after** bids are opened. CDOT Form #715s submitted for firms not included on this form, OR for amounts exceeding those listed on this form, will be accepted but NOT counted as Good Faith Efforts. Only the efforts the contractor made **prior** to the bid opening will count as Good Faith Efforts.

I understand my obligation to abide by the **Policy** stated above **Section I**. I shall not discriminate on the basis of race, color, age, sex, national origin, or handicap in the bidding process or the performance of contracts.

**I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE IN THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.**

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Date:</th>
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</table>

<table>
<thead>
<tr>
<th>Company Officer Signature:</th>
<th>Title:</th>
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</table>
COLORADO DEPARTMENT OF TRANSPORTATION  
CERTIFICATE OF PROPOSED UNDERUTILIZED DBE (UDBE) PARTICIPATION

Prime Contractor – Send completed/signed form to the Business Programs Office (instructions on second page). The “Eligible UDBE Amounts” submitted on this form must equal or exceed the commitment(s) documented on the CDOT Form 714 you submitted with your bid. For the complete list of certified DBE/UDBE firms and their DBE work codes go to http://www.dot.state.co.us/app_ucep/

NOTE: See 49 CFR part 26.55, and the "DBE - Definitions and Requirements" in the Standard Special Provisions, for further information concerning counting DBE participation of truckers, subcontractors, suppliers and service providers toward the project’s UDBE goal.

PART 1a – TRUCKING CONTRACT

If the UDBE is being used as a trucker for one or more "trucking" DBE work codes (25500, 25505 etc.) then:

- **ACTUAL UDBE AMOUNT** = Actual contract amount for the transportation services provided by the UDBE firm and any UDBE lessees.
- **ELIGIBLE UDBE TRUCKING AMOUNT** = [(Actual UDBE contract amount) – (Any non-UDBE lessee amounts in this contract)]

* For work done on this UDBE contract with non-UDBE lessees, credit toward the project UDBE goal is given only for the broker fees or commissions the UDBE trucker receives for arranging the transportation services, because the services themselves are being performed by non-UDBEs.

<table>
<thead>
<tr>
<th>NAME OF UDBE FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBE TRUCKING AMOUNT</th>
</tr>
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</table>

**DBE WORK CODE NUMBER(S) THIS UDBE IS BEING USED FOR:**

Complete list of work codes is at http://www.dot.state.co.us/app_ucep/

PART 1b – SUBCONTRACT

- **ELIGIBLE UDBE SUBCONTRACT AMOUNT** = [(Actual UDBE contract amount) – (Any non-UDBE lessee amounts in this contract)]

* Work that a UDBE subcontracts to a lower tier non-UDBE firm does not count toward the project UDBE goal.

<table>
<thead>
<tr>
<th>NAME OF UDBE FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBE SUBCONTRACT AMOUNT</th>
</tr>
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</table>

**DBE WORK CODE NUMBER(S) THIS UDBE IS BEING USED FOR:**

Complete list of work codes is at http://www.dot.state.co.us/app_ucep/

PART 1c – SUPPLY CONTRACT

If the supplier is a UDBE with a “Type” field of “Manufacturer” for the item(s):

- **ELIGIBLE UDBE SUPPLY AMOUNT** = [(Actual UDBE contract amount) X 100%]

If the supplier is a UDBE with a “Type” field of “Regular Dealer” for the item(s):

- **ELIGIBLE UDBE SUPPLY AMOUNT** = [(Actual UDBE contract amount) X 60%]

**NOTE:** If the supplier is a UDBE with a “Type” field of “Broker” for the item(s) use PART 1d – BROKER / SERVICE CONTRACT.

<table>
<thead>
<tr>
<th>NAME OF UDBE FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBE SUPPLY AMOUNT</th>
</tr>
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</table>

**DBE WORK CODE NUMBER(S) THIS UDBE IS BEING USED FOR:**

Complete list of work codes is at http://www.dot.state.co.us/app_ucep/

PART 1d – BROKER / SERVICE CONTRACT

If purchasing materials or supplies through a UDBE with a “Type” field of “Broker”, count only the amount of brokerage commission and/or delivery service fees included in the contract. Other examples of services to include in this section are bonding, brokering, consulting, security guards, and insurance etc.

- **ELIGIBLE UDBE SERVICE FEE AMOUNT** = Actual compensation retained by the UDBE broker/agent for services rendered

* The amounts that count toward UDBE goals are limited to the compensation retained by the UDBE broker/agent for services rendered, provided the fee/commission is determined by CDOT to be reasonable and not excessive as compared with fees customarily charged for similar services.

<table>
<thead>
<tr>
<th>NAME OF UDBE FIRM</th>
<th>CERTIFICATION #</th>
<th>EXPIRATION DATE</th>
<th>ELIGIBLE UDBE SERVICE FEE AMOUNT</th>
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</table>

**DBE WORK CODE NUMBER(S) THIS UDBE IS BEING USED FOR:**

Complete list of work codes is at http://www.dot.state.co.us/app_ucep/
### PART 2 – UDBE PARTICIPATION SUMMARY

<table>
<thead>
<tr>
<th>A) What is the total dollar value of this proposed trucking, subcontract, supply, OR broker/service contract that is eligible for counting toward contract goals? A = [ TOTAL FROM “ELIGIBLE” COLUMNS IN PART 1 ]</th>
</tr>
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<tbody>
<tr>
<td>NOTE: Provide in actual subcontractor dollars and not prime contract prices.</td>
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<tr>
<th>B) What is the total dollar value of proposed subcontracts that are eligible for counting towards contract goals from prior sheets/forms?</th>
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<tr>
<th>C) What is the accumulative value of proposed subcontracts that are eligible for counting towards contract goals? C = [ A + B ]</th>
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<tr>
<th>D) What is the original contract bid total?</th>
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<table>
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<tr>
<th>E) What is the accumulative percent of contract bid total subcontracted to all underutilized DBEs? E = [(C ÷ D) X 100]</th>
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</thead>
</table>

### PART 3 – UDBE CONFIRMATION

I confirm that my company is participating in this contract as documented in the Prime Contractor or's commitment(s) in PART 1 of this form. Only the value of the work that my company is actually performing is being counted on this form.

<table>
<thead>
<tr>
<th>UDBE Firm Name:</th>
<th>Date:</th>
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<table>
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<tr>
<th>UDBE Representative Signature and Title:</th>
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### PART 4 – PRIME CONTRACTOR CERTIFICATION

I certify that:

- my company has met the contracted UDBE goals or has submitted a completed CDOT Form #718.
- my company has accepted a proposal from the UDBE named above.
- my company has notified the proposed UDBE of the contracted UDBE commitment.
- my company has ensured that the proposed UDBE has signed PART 3 of this form.
- my company's use of the proposed UDBE for the items of work listed above is a condition of the contract award.
- my company will invite the proposed UDBE to attend the preconstruction conference.
- my company will not use a substitute UDBE for the proposed UDBE's failure to perform under a fully executed subcontract, unless my company complies with the definitions and requirements section of the DBE Special Provisions.
- I understand that failure to comply with the information shown on this form will be considered grounds for contract termination.

I declare under penalty of perjury in the second degree, and any other applicable state or federal laws, that the statements made on this document are true and complete to the best of my knowledge.

<table>
<thead>
<tr>
<th>Prime Contractor Name:</th>
<th>Date:</th>
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<tr>
<th>Officer Signature and Title:</th>
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### FORM INSTRUCTIONS

Prime Contractor:
1. An officer of the contractor(s) must complete this form.
2. Include only DBE firms which meet the underutilized criteria in the contract goal specification for this project (i.e., UDBE firms).
3. Complete only relevant section(s) for PART 1.
4. Ensure that the proposed UDBE has signed PART 3 of this form.
5. Complete ALL sections of PART 2 and PART 4.
6. Submit a separate CDOT Form #715 for EACH proposed UDBE.
7. Retain a photocopy for your records.
8. Send original to: Colorado Department of Transportation Business Programs Office 4201 E. Arkansas Ave. Denver, Colorado 80222 FAX: (303) 757-9019

Original – Business Programs Office
Previous editions may not be used
COLORADO DEPARTMENT OF TRANSPORTATION
UNDERUTILIZED DBE (UDBE) GOOD FAITH EFFORT DOCUMENTATION

The Contractor who is the apparent low bidder on a CDOT construction project, and has failed to meet the Underutilized DBE (UDBE) contract goal, shall use this form to document all good faith efforts that were made prior to bid opening by said Contractor to meet the goal. FAILURE TO FULLY CLEARLY COMPLETE THIS FORM MAY RESULT IN REJECTION OF THE BID.

Each portion of this form is to be addressed in the space provided, or on supplements sheets that follow the same tabular structure and format outlined below. Attach supporting documentation as required by CDOT. This completed form and required attachments are to be submitted to the Business Programs Office in the Center for Equal Opportunity prior to 4:00 p.m. on the day after the day bids are opened. This form may be submitted by FAX (303-757-9019) with an original copy to follow. An extension may be granted by the DBE Liaison. Only the efforts the Contractor made prior to bid opening, will count as Good Faith Efforts consistent with the instructions on CDOT Form #714.

II. Complete the following table to document sufficient bid items identified as subcontract work to be performed by UDBEs to achieve the contract goal. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own forces. The total percentage of subcontract items identified for DBE participation must equal or exceed the percentage DBE goal set by CDOT.

<table>
<thead>
<tr>
<th>DBE Work Code From DBE Directory</th>
<th>DBE Work Code Description</th>
<th>Closest Matching CDOT Bid Item #</th>
<th>Actual % Amount Of Final Contract</th>
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</table>

UDBE CONTRACT GOAL: ___________ TOTAL CONTRACT %: ___________

III. Complete the following table to summarize outreach efforts made to UDBE firms. For each subcontract item identified, contact by mail, fax, phone and/or email 100% of the Colorado certified UDBEs whose DBE work codes match the type of work being solicited and who are marked as "CDOT GFE Eligible" on the DBE Directory. The Contractor shall ensure that initial solicitations allow UDBEs at least 10 calendar days to participate effectively in the bidding process. In order to determine with certainty which UDBEs are interested, the Contractor is also required to take appropriate steps to follow-up initial solicitations (e.g., regional follow-up phone calls etc.). If soliciting by telephone, attach a summary telephone log of calls, including topic of discussion, date, time, name of person contacted, and the responses received. If soliciting by mail, fax, and/or email, attach one example copy of the letter, fax, and/or email sent to UDBEs along with a summary log that documents all dates and responses received. Letters, faxes and/or emails must specifically identify the project, the items to be subcontracted, and the bid date. Letters, faxes and/or emails must also provide an address and phone number where specific quantities or details will be available to bidders.

<table>
<thead>
<tr>
<th>DBE Work Code From DBE Directory</th>
<th>DBE Work Code Description</th>
<th># Of UDBEs Contacted</th>
<th>% Of UDBEs &quot;Eligible&quot;</th>
<th>% Of UDBEs Contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

DBE DIRECTORY WORK CODES

The DBE Directory can be found online at: http://www.dot.state.co.us/app/ wfp/
• DBE work codes are 5 digit numbers where the 1st digit corresponds to the overall section the code belongs to
• 1st 3 digits of a DBE work code identify its category
• DBE work codes ending in "00" represent certification for the entire work code category
• DBE work codes NOT ending in "00" represent certification in a specific sub-category only

DBE DIRECTORY UPDATES

Go to http://www.dot.state.co.us/app/wfp/ and use the "Directory Updates" button on the DBE Directory to submit any of the following documented updates on UDBE firms:
• Contact information changes (e.g., phone and address etc.)
• "CDOT GFE Eligibility" status changes (e.g., UDBE firm says they don't want to be contacted via GFE solicitations etc.)
Note: In order to verify all updates submitted, CDOT may request additional information from contractors and UDBE firms before posting requested changes to the Directory.

Original - Business Programs Office
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CDOT Form 718 - Page 1 of 2
III. Complete the following table to show all subcontract bids received (non-UDBE and UDBE), bid dollar amounts for each bid item, and the name of the successful bidder. Where bundled subcontract bids were received, break out quotes per bid item number. If the UDBE bids were rejected, give reasons for each case. If the work is to be counted as a potential UDBE subcontract item, the Contractor cannot elect to perform that work itself when a UDBE bid is competitive or only UDBE bids are received. Cost alone may not be adequate justification for failure to use a UDBE bid. When a non-UDBE bid is significantly lower than a UDBE bid, the Contractor may choose to perform the item itself. CDOT will determine whether a subcontractor's bid is "competitive" based on factors such as the percentage and dollar difference between quote(s), and/or the percentage the quote(s) represents of the overall contract.

<table>
<thead>
<tr>
<th>Cdot Bid Item #</th>
<th>Closest DBE Work Code</th>
<th>Bid Item Description</th>
<th>Subcontractor Name (Place an &quot;X&quot; next to firm being used)</th>
<th>Actual Bid Item Quote Price</th>
<th>UDBE Firm?</th>
<th>% Difference on Items That UDBE Firm(s) Bid</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

IV. The efforts required herein are not exhaustive or exclusive. Other factors or types of efforts may be relevant in appropriate cases. In determining whether Good Faith Efforts have been made, the quantity and quality of the efforts made as well as kinds of efforts made may be considered. List any additional efforts to increase UDBE contract participation, such as assisting UDBEs in obtaining bonding/insurance lines of credit, effectively using the services of community organizations/publications, and/or requesting subcontractors to assist with providing UDBE participation. Report the results of such efforts. Note: Advertising in a publication with low UDBE subscription rates will not be considered as quality efforts by CDOT.

THE CONTRACTOR UNDERSTANDS THAT DEMONSTRATION OF GOOD-FATH EFFORTS IN ACHIEVING THE UDBE GOALS ESTABLISHED BY CDOT IS REQUIRED THROUGHOUT THE PERFORMANCE OF THE CONTRACT.

Company Name: ____________________________
Phone: ____________________________
Fax: ____________________________
Title: ____________________________
Printed Name: ____________________________
Signature: ____________________________

Original - Business Programs Office

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APPENDIX A

1) NEPA ENVIRONMENTAL DOCUMENT – CDOT 128
2) ACOE 404 PERMIT
3) PLAN SET
A. Categorical Exclusion Project Determination

1. This project fits Categorical Exclusion or Programmatic CE number 23 CFR 771.117 PARAGRAPH (D) (3)

2. All required Clearance Actions indicated in Part B below have been completed. All Permits and Additional Requirements indicated in Part C below will be obtained before project ad.

3. No significant environmental impacts will result from this project. The Region Planning and Environmental manager (RPEM) will ensure implementation of required mitigation commitments.

4. CDOT Form #463 dated (Revised ) is attached.

B. Clearance Actions

<table>
<thead>
<tr>
<th>REQUIRED</th>
<th>DATE COMPLETED</th>
<th>REQUIRED</th>
<th>DATE COMPLETED</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Air Quality (hot spot analysis)</td>
<td></td>
<td>□ Paleontology</td>
<td>08/23/2012</td>
</tr>
<tr>
<td>□ Noise</td>
<td></td>
<td>□ Archaeology</td>
<td>07/23/2012</td>
</tr>
<tr>
<td>□ Hazardous Wastes</td>
<td></td>
<td>□ History</td>
<td>07/23/2012</td>
</tr>
<tr>
<td>□ ISA Checklist</td>
<td>08/22/2012</td>
<td>□ Historic Bridge</td>
<td>07/23/2012</td>
</tr>
<tr>
<td>□ MESA (or Phase 1)</td>
<td></td>
<td>□ 4(f)</td>
<td></td>
</tr>
<tr>
<td>□ Threatened or Endangered Species</td>
<td>03/28/2012</td>
<td>□ 6(f) Agreements</td>
<td></td>
</tr>
<tr>
<td>□ Wetland Delineation (survey)</td>
<td>10/31/2011</td>
<td>□ Other</td>
<td></td>
</tr>
</tbody>
</table>

All clearance requirements have been completed for the work indicated in the CDOT Form #463 referenced above.

RPEM Signature: [Signature]

I concur in the above category designation and the scope of environmental clearance/permits indicated.

FHWA Division Administrator Signature (when required) (Please return form to RPEM)

Date: 08/28/2012  Region #: 03

C. Permits and Additional Requirements

<table>
<thead>
<tr>
<th>REQUIRED</th>
<th>DATE COMPLETED</th>
<th>REQUIRED</th>
<th>DATE COMPLETED</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 404 Permit</td>
<td></td>
<td>□ Division of Wildlife SB 40</td>
<td></td>
</tr>
<tr>
<td>□ 401 Certification</td>
<td></td>
<td>□ Wetland Finding</td>
<td></td>
</tr>
<tr>
<td>□ 402 Certification</td>
<td></td>
<td>□ APCD Bridge/Structure Demo permit</td>
<td></td>
</tr>
<tr>
<td>□ Const Stormwater Permit (CDPS)</td>
<td></td>
<td>□ Hazardous Material (Phase II)</td>
<td></td>
</tr>
<tr>
<td>□ Const Dewatering Permit</td>
<td></td>
<td>□ 6(f) Completion</td>
<td></td>
</tr>
<tr>
<td>□ Floodplains Development Permit</td>
<td></td>
<td>□ Other</td>
<td></td>
</tr>
</tbody>
</table>

D. Comments

E. Environmental Project Certification

All clearance and permit requirements for this project have been completed and mitigation included in the set of plans and specifications dated . The appropriate documentation is on file in the Region office.

RPEM Signature: [Signature]

Note to Project Manager: Any changes to the plans and specifications after the date of the RPEM signature in part B that affect environmental impacts or mitigation must be approved by the RPEM.

Distribution: [Distribution]

Previous editions are obsolete and may not be used

CDOT Form #128a

08/28/2012

RPEM (original); copies to: Project Manager, Region Right of Way (if ROW required), Central Files
Project Description

Project Name: Burns Bridge - Eagle County
Milepost Begin: 22.90  Milepost End: 23.06  County: Eagle
Location: CR 301 (Colorado River Road)
Main Project Elements: Replacement of structurally deficient bridge with minor roadway reconstruction.

Project Features (Check if applies)

- Structure Acquisition
- Structure Modification
- Structure Demolition
- New ROW
- Easements
- Utility Relocation
- Excavation/Drilling
- Disturbance depth (if known): ft
- Dewatering
- Gw Anticipated:
  - Depth to gw (if known): ft
  - Gw flow direction (if known):

Records Review & Interview(s)

The following records/sources were used in this assessment ('No' is implied if unchecked):

- ASTM Standard Environmental Record Sources
- OPS
- CDPHE
- CDOT Internal Database
- Date: 3/8/2012
- ASTM Standard Search Radii or [ ] Modified Search Radii: up to 1 mile
- Previous Environmental Reports/CDOT Files: Draft MESA Report (2-7-12); consultant prepared asbestos and lead-based paint results letter (2-14-12)
- Other Files/Databases (Assessor, Fire dept., Building, Planning, etc.): Site photos
- Topographic Map(s) - [ ] Current: [ ] Historic: year(s): 1972
- Sanborn Map(s) - year(s):
- Local Street Directories - year(s):

Historic Land use(s) within the project area (if known): Agriculture (haying, ranching)

Interviews (Names/Title/Date/Comments): Ben Garde, Eagle County Senior Engineer, on 1/17/2012

Site Reconnaissance & Description

- Visual inspection conducted
- Inspection Date: 2/7/2012 by consultant

If 'No' document the reason:

Project area and land use(s) description:

- Rural, mountainous
- Industrial
- Light Industrial
- Commercial
- Residential
- Agricultural
- Undeveloped
- Other:

Adjacent land use(s) description:

- Industrial
- Light Industrial
- Commercial
- Residential
- Agricultural
- Undeveloped
- Other, rail road

Potential Environmental Concerns on the Immediate project area or directly adjacent to it
(Select from dropdown menu - Yes, No, Expected, or Unknown)

<table>
<thead>
<tr>
<th>Potential Environmental Concern</th>
<th>Project Area</th>
<th>Adjacent Area</th>
<th>Potential Environmental Concern</th>
<th>Project Area</th>
<th>Adjacent Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence of underground tanks</td>
<td>No</td>
<td>No</td>
<td>Protected/fenced/placarded</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>(pipes, vents, fill caps, etc.)</td>
<td></td>
<td></td>
<td>area(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboveground storage tank(s)</td>
<td>No</td>
<td>No</td>
<td>Liquid waste (pits, ponds, etc.)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Monitoring/water well(s)</td>
<td>No</td>
<td>No</td>
<td>Oil sheen (soil/water)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Electrical/transformer Equipment</td>
<td>No</td>
<td>No</td>
<td>Oil/gas well(s)</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Attach additional pages as needed
Potential Environmental Concerns on the immediate project area or directly adjacent to it
(Select from dropdown menu – Yes, No, Expected, or Unknown)

<table>
<thead>
<tr>
<th>Potential Environmental Concern</th>
<th>Project Area</th>
<th>Adjacent Area</th>
<th>Potential Environmental Concern</th>
<th>Project Area</th>
<th>Adjacent Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cistern(s), sump(s) drain(s)</td>
<td>No</td>
<td>No</td>
<td>Mine tailings/waste</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Barrel(s), drum(s), container(s)</td>
<td>No</td>
<td>No</td>
<td>Painted/preserved material(s)</td>
<td>Yes</td>
<td>Expected</td>
</tr>
<tr>
<td>Stockpile, surface trash, debris</td>
<td>No</td>
<td>Yes</td>
<td>Odor</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exposed/burned landfill</td>
<td>No</td>
<td>No</td>
<td>Chemical storage</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Batteries</td>
<td>No</td>
<td>No</td>
<td>Suspect asbestos containing material</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Surface staining</td>
<td>No</td>
<td>No</td>
<td>Suspected methamphetamine lab</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Stressed vegetation</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Findings/Conclusions:
Are known hazardous or other waste sites on or adjacent to the project area, which may affect the project? No

Explain: See Mesa Report; none ID’d and none previously reported or known by the County.

Recommendations:
☐Materials Management Plan ☐Force Account ☐Modified CDOT Specification(s) ☒Additional Assessment/Investigation

Explain: Contractor must comply with 250 Spec for lead-based paint and although asbestos was not found in the bridge deck it is recommended that the contractor also comply with the Sect 250 subsections for the deck removal.

*Additional work must be approved by CDOT.

Attachments:
☒Environmental Database Map
☒Modified CDOT Specification(s)
☐General Plan Note(s)
☒Maps & Figures
☐Agency File Data

Draft Mesa and testing results

Completed by (Name and Title): Paula Durkin, Env. Spec.
Signature: __________________________ Date: 8/22/2012 Revised (if necessary):

CDOT Environmental Project Manager Approval: __________________________ Date: 8-24-12

CDOT Form #881
03/12

Attach additional pages as needed
Project name: Burns Bridge  
Project number: BRO C440-005  
County(s): Eagle  
Sub-acct: 17745  
Region: 3  
Due date: 7/1/2012  
Date completed: 3/28/2012  
Location: Eagle CR 67, near Burns. Str# EAG-301-23.5  
Description: bridge repi  
Site visit: y  
Photo?: y  
Contact: Sherry Dunn  
Elevation: 6602'  
Habitat: Sagebrush and mountain mahogany  
shrubland, pinyon-juniper woodland, and scattered oak shrublands occur.  
SGPI?: n  
Ownership: Private, county, BLM

<table>
<thead>
<tr>
<th>ESA Species</th>
<th>Habitat?</th>
<th>NDIS</th>
<th>Other Impact?</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black-footed ferret</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no p dog towns will be impacted</td>
</tr>
<tr>
<td>CO River Fish</td>
<td>y</td>
<td>n</td>
<td>y</td>
<td>no depl to CO river</td>
</tr>
<tr>
<td>Lynx</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>below elevational tolerances</td>
</tr>
<tr>
<td>Greenback Cutthroat Trout</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Mexican Spotted Owl</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Greater Sage Grouse</td>
<td>y</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Uncompahgre Fritillary Butterfly</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>below elevational tolerances</td>
</tr>
<tr>
<td>Ute ladies'-tresses orchid</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Yellow-billed Cuckoo</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Wolverine</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>below elevational tolerances</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State species</th>
<th>Habitat</th>
<th>NDIS</th>
<th>Other Impact?</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Peregrine Falcon</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Colorado River Cutthroat Trout</td>
<td>y</td>
<td>n</td>
<td>n</td>
<td>below elevational tolerances</td>
</tr>
<tr>
<td>Columbian Sharp-tailed Grouse</td>
<td>y</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Greater Sandhill Crane</td>
<td>y</td>
<td>y</td>
<td>y</td>
<td>no habitat will be impacted (wet meadows)</td>
</tr>
<tr>
<td>Roundtail Chub</td>
<td>y</td>
<td>n</td>
<td>y (possible)</td>
<td>SEE SUMMARY</td>
</tr>
<tr>
<td>Townsend's Big-eared Bat</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Boreal Toad</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
<tr>
<td>Bald Eagle</td>
<td>y</td>
<td>n</td>
<td>n</td>
<td>no nests or roosts w/in 1 ml.</td>
</tr>
<tr>
<td>Leopard Frog</td>
<td>y</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BLM</th>
<th>Habitat</th>
<th>NDIS</th>
<th>Other Impact?</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrow's Goldeneye</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>below elevational limits for nesting</td>
</tr>
<tr>
<td>Harrington beartongue</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>below elevational limits</td>
</tr>
<tr>
<td>northern twayblade</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>below elevational limits</td>
</tr>
<tr>
<td>White-faced ibis</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>no habitat will be impacted (wet meadows)</td>
</tr>
</tbody>
</table>

Summary:

Wetland/Water Equipment and gear that were previously used in another stream, river, lake, pond or wetland, and that are to be used in or near the waters on the project, shall be treated to prevent the spread of aquatic invasive species. These species include, but are not limited to:

1. New Zealand Mud Snails
(2) Zebra Mussels
(3) Quagga Mussels
(4) Whirling Disease
(5) All other aquatic invasive species

Equipment that shall be treated includes all parts of machinery and vehicles of all types and sizes that came into contact with the live water.

Gear that must be treated includes boots, waders, tools, and all other materials and attire used previously in the live water.

The Contractor shall use one of the following two treatments:

(1) Remove all mud and debris from equipment and gear. Then spray or soak the equipment and gear with a 1:15 solution of Sparquat institutional cleaner and water. Equipment and gear shall be kept moistened with the solution for at least 10 minutes.

(2) Remove all mud and debris from equipment and gear. Then spray or soak equipment and gear with water heated to a temperature greater than 140 °F for at least 10 minutes.

Prior to moving such equipment onto the project, the Contractor shall submit to the Engineer a written list of the equipment and a signed certification that it was treated using one of the two methods specified above.

After project completion, this equipment shall be treated prior to its use in another stream, river, lake, pond or wetland.

<table>
<thead>
<tr>
<th>Dept</th>
<th>none</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB40</td>
<td>yes</td>
</tr>
</tbody>
</table>

MBTA Swallow nests were observed under this bridge and in surrounding vegetation. In order to avoid violating the Migratory Bird Treaty Act of 1918, if any trees or shrubs are to be removed or work on/under bridges is to be completed between April 1 and August 31, a survey must be completed for active nests. If an active nest(s) is found no work may be done within 50' of the nest(s) until the nest(s) becomes inactive.

Other The roundtail chub is known from this area. In order to avoid impacting this species, it is recommended that the work be done after July 31 or before June 1. This will ensure that the spawning period is avoided.

There are expected to be no T&E impacts as a result of this project as long as the work is done after July 31 or before June 1 to avoid the roundtail chub's spawn.

This clearance is valid for 1 year from the date of completion.
Regulatory Division (SPK-2013-00166)

Ben Gerdes
Project Engineer, Eagle County Facilities Department
500 Broadway
Eagle, Colorado 81631

Dear Mr. Gerdes:

We are responding to your February 26, 2013, request for a Department of the Army permit, submitted by your agent PKM Design Group, Incorporated, for the Burns Colorado Bridge Replacement Project. This project involves activities, including discharges of dredged or fill material into waters of the United States, including wetlands, to construct a new transportation bridge for County Road 301 over the Colorado River. The project site is located near the Town of McCoy, within Sections 23, 14 and 15, Township 2 South, Range 85 West, Sixth Principal Meridian, Latitude 39.8808°, Longitude -106.8814°, Eagle County, Colorado.

Based on the information you provided, the proposed bridging activity, resulting in the permanent loss of approximately 0.16 acre of palustrine emergent and scrub-shrub wetlands, the introduction of approximately 1,000 cubic yards of riprap to protect the river bank, and 135 cubic yards of concrete support structures for two bridge piers and temporary construction platforms in the river channel, is authorized by Nationwide General Permit (NWP) Number 14-Linear Transportation Projects. Your work must comply with the general terms and conditions listed on the enclosed NWP information sheets and regional conditions, and the following special conditions:

1. To mitigate for the loss of 0.16 acre of palustrine emergent and scrub-shrub wetlands you shall purchase 0.16 acre of wetland credits of palustrine emergent and scrub-shrub habitat at the Finger Rock Preserve Mitigation Bank. Evidence of this purchase shall be provided to the Corps prior to initiation of construction activities within waters of the U.S.

2. To assure project compliance, within 60 days following completion of the authorized work, you shall submit as-built drawings and a description of the work conducted on the project site to the Corps for review. The drawings shall include the following:

a. The Department of the Army Permit number,

b. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings. The drawing should show all "earth disturbance," wetland impacts, structures, and the boundaries of any on-site and/or off-site mitigation or avoidance areas. The drawings shall contain, at a minimum, 2 foot topographic contours of the entire site,
c. Ground photographs of the completed work. The camera positions and view-angles of
the ground photographs shall be identified on a map or project drawing, and

d. A description and list of all deviations between the work as authorized by this permit
and the work as constructed. Clearly indicate on the as-built drawings the location of any
deviations that have been listed.

You must also sign the enclosed Compliance Certification and return it to this office within 30
days after completion of the authorized work. This verification is valid until March 18, 2017, when
the existing NWPs are scheduled to be modified, reissued, or revoked. Furthermore, if you
commence or are under contract to commence this activity before the date that the relevant NWP is
modified, reissued or revoked, you will have twelve (12) months from the date of the modification,
reissuance or revocation of the NWP to complete the activity under the present terms and
conditions. Failure to comply with the General and Regional Conditions of this NWP, or the
project-specific Special Conditions of this authorization, may result in the suspension or revocation
of your authorization.

Please refer to identification number SPK-2013-00166 in any correspondence concerning
this project. If you have any questions, please contact Mr. Mark Gilfillan at the Colorado West
Regulatory Branch, 400 Rood Avenue, Room 224, Grand Junction, Colorado 81501-2563, email
Mark.A.Gilfillan@usace.army.mil, or telephone 970-243-1199 x15. We would appreciate your
feedback. At your earliest convenience, please tell us how we are doing by completing the
customer survey on our website under Customer Service Survey. For more information regarding
our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Susan Bachini Nall
Chief, Colorado West Regulatory Branch

Enclosures:
1. NWP 14 and Regional Conditions Information Sheets
2. Compliance Certificate

Copies furnished without enclosures:
Mr. Chuck Schrader, PKM Design Group, Incorporated, 7353 S. Alton Way, Suite 125,
Centennial, Colorado 80112
Mr. Bob Narracci, Eagle County Planning Department, Post Office Box 850, Eagle,
Colorado 81631
Mr. Peter Lombardi, Resident Engineer for Bridge Enterprise and Special Projects,
Colorado Department of Transportation, Region 3, Post Office Box 298, Eagle, Colorado 81631
Mr. Chris Williams, Colorado Department of Transportation, 222 South 6th Street, Grand
Junction, Colorado 81501
14. Linear Transportation Projects. Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit an application to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 31.) (Sections 10 and 404)

Note: If some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

B. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.


☐ (a) No activity may cause more than a minimal adverse effect on navigation.

☐ (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee’s expense on authorized facilities in navigable waters of the United States.

☐ (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters,
the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity’s primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permits are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. **Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. **Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. **Endangered Species.**

   (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

   (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to
demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

□ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

□ (d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

□ (e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

□ (f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipse and http://www.noaa.gov/fisheries.html respectively.

□ 19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.


□ (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

□ (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

□ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified
historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

☐ (d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

☐ (e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

☐ 21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

☐ 22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

☐ (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

☐ (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

☐ 23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

☐ (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

☐ (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

☐ (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

☐ (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

☐ (2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.
☐ (3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.2(k)(3)).

☐ (4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

☐ (5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

☐ (d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

☐ (e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

☐ (f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

☐ (g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

☐ 24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

☐ 25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

☐ 26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

☐ 27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.
28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documentating completion of the authorized activity and any required compensatory mitigation. The success of any required permittee responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;
(3) A description of the proposed project; the project’s purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: the standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination:

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity’s compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project’s adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity’s compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies’ concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where
there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

☐ (3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

☐ (4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

C. District Engineer's Decision

☐ 1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. For a linear project, this determination will include an evaluation of the individual crossings to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to intermittent or ephemeral streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51 or 52, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in minimal adverse effects. When making minimal effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site-specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

☐ 2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10- acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

☐ 3. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (a) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the project is authorized under the NWP subject to the applicant’s submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (c) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period, with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

D. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWP does not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWP does not grant any property rights or exclusive privileges.

4. NWP does not authorize any injury to the property or rights of others.

5. NWP does not authorize interference with any existing or proposed Federal project.

E. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved. Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term “discharge” means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).
Open water: For purposes of the NWP, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Ripple and pool complex: Ripple and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Ripple and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulics characteristics. The rapid movement of water over a course substrate in ripples results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with ripples. A slower stream velocity, a flowing stream, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecedelled” to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.
**Stormwater management facilities:** Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

**Stream bed:** The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

**Stream channelization:** The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States. Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

**Tidal wetland:** A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

**Vegetated shallows:** Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

**Waterbody:** For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a jurisdictional wetland is adjacent – meaning bordering, contiguous, or neighboring – to a waterbody determined to be a water of the United States under 33 CFR 328.3(a)(1)-(6), that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of “waterbodies” include streams, rivers, lakes, ponds, and wetlands.
2012 Regional Conditions in Colorado

U.S. Army Corps of Engineers
Albuquerque District

REGIONAL CONDITIONS TO NATIONWIDE PERMITS
IN THE STATE OF COLORADO

Regional Conditions Applicable to Specific Nationwide Permits within the State of Colorado

1. Nationwide Permit No. 12 Utility Line Activities. Notification to the District Engineer in accordance with General Condition (GC) No. 31, pre-construction notification (PCN) is required for utility line activities that either require open trenching in perennial waters or are for the purpose of water transmission. The purpose for requiring a PCN for water transmission projects is to determine whether the project will result in withdrawal of water from a stream/river, and if so, whether the effects of the withdrawal are minimal.

2. Nationwide Permit Nos. 12 and 14, Utility Line Activities and Linear Transportation Projects. PCN is required for utility lines and transportation activities crossing perennial waters and/or special aquatic resources, including wetlands, in the Colorado River Basin (all tributaries to the Colorado River within Colorado).

3. Nationwide Permit No. 13 Bank Stabilization. PCN is required for bank stabilization activities either exceeding 250 linear feet or that are necessary for erosion prevention in streams with an average width of less than 20 feet (measured between the ordinary high water marks (OHWM)). Bank stabilization activities in these small streams are limited to the placement of no more than ¼ cubic yard of fill material per linear foot below the plane of the OHWM unless the Corps determines on a case-by-case basis that the use of larger or greater quantities of material is appropriate.

4. Nationwide Permit No. 23 Approved Categorical Exclusions. PCN is required for all projects utilizing Categorical Exclusions.

5. Nationwide Permit No. 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities. This permit is revoked for activities that include a fishery enhancement component in perennial streams. These types of projects must be authorized by the Regional Permit No. 12 for Aquatic Habitat Improvement for Stream Channels in Colorado.

   a. Channel realignment is not authorized by this permit unless it is demonstrated that the realignment is consistent with the natural morphological evolution of the stream.

   b. Structures authorized by this permit must allow for the upstream and downstream passage of aquatic organisms, including fish native to the reach, unless waived in writing by the District Engineer.

   c. Structures authorized by this permit must not impede waterborne navigation, including recreational watercrafts, unless waived in writing by the District Engineer.

   d. The use of concrete/grouting is not allowed in perennial streams unless waived in writing by the District Engineer.

   e. The construction of water parks (e.g. kayak courses) and flood control projects are not authorized by this permit.

6. Nationwide Permits No's 29 and 39: Residential Developments and Commercial and Institutional Developments. A copy of the Existing FEMA/locally-approved floodplain map must be submitted with the PCN.

Regional Conditions Applicable to All Nationwide Permits within the State of Colorado

7. Important Spawning Areas. GC No. 3 (Spawning Areas) is amended by adding the following: Activities are not authorized by any nationwide permit except after case-by-case review and consultation with the Colorado Parks and Wildlife (CPW) if the activities would destroy important spawning areas or would be conducted in these waters during trout and Kokanee spawning seasons. Bio-engineering techniques, such as native riparian shrub plantings, are required for all bank protection activities that exceed 50 linear feet in important spawning areas. For activities located in these important spawning areas, PCN in required and consultation with CPW...
must be conducted in accordance with the timeframes established in GC 31. Important spawning areas are identified in the list of Gold Medal Waters in Colorado (Attachment 2).

8. Removal of Temporary Fills. GC No. 13 (Removal of Temporary Fills) is amended by adding the following: When temporary fills are placed in wetlands, a horizontal marker (i.e. fabric, certified weed-free straw, etc.) must be used to delineate the existing ground elevation of wetlands that will be temporarily filled during construction.

9. Fens. All Nationwide Permits, with the exception of 3, 5, 6, 20, 27, 32, 37, and 38 are revoked for activities located in fens and wetlands adjacent to fens. PCN is required for all other activities considered for authorization by Nationwide Permits. The permittee may not begin the activity until the Corps determines the adverse environmental effects are minimal.

A fen is defined as a groundwater-fed wetland with saturated fibric organic soil (greater than equal to 16") that is classified as a histosol in the Natural Resources Conservation Service’s (NRCS) Field Indicators of Hydric Soils in the United States, Version 7.0, 2010. A copy of the document can be obtained at ftp://ftpfc.sc.egov.usda.gov/NSSC/Hydric_Soils/FieldIndicators_v7.pdf.

Note: A fen may be part of a larger aquatic system (fen complex) where wetlands and other waters adjacent to the fen may provide a critical source of hydrology necessary for sustaining the fen.

10. Springs. PCN is required for all Nationwide Permits if the activities occur within 100 feet of the discharge point of a spring. The Corps will determine if the proposed project will have more than a minimal effect to the site specific spring and may require an Individual Permit or project modification to reduce/eliminate the spring impacts. For the purposes of this regional condition, springs do not include seeps or other discharges that do not have a defined channel.

11. Suitable Fill. PCN is required for the use of broken concrete as fill material within the State of Colorado. Permittees must demonstrate that soft engineering methods utilizing native or non-mannmade materials are not practicable (with respect to cost, existing technology, and logistics), before broken concrete is allowed as suitable fill. Use of broken concrete with exposed rebar is prohibited. Note: GC No. 6 prohibits the use of unsuitable material, which includes but is not limited to organic debris, building waste, asphalt, car bodies, and junk materials.

ADDITIONAL INFORMATION

The following additional information relates to minimization of impacts to jurisdictional waters of the United States and compliance with the General Conditions:

1. Permittees are reminded that appropriate erosion and sediment controls are required in accordance with GC No. 12 in order to properly stabilize the site and prevent erosion and siltation into wetlands and other waters downstream. Streambed material or other small aggregate material placed alone for bank stabilization will not meet GC No. 12.

2. Permittees are reminded that all compensatory mitigation is required prior to or concurrent with project construction to ensure compliance with the Final Compensatory Mitigation Rule. A complete copy of the Final Compensatory Mitigation Rule may be obtained at the following website: http://www.usace.army.mil/cecw/pages/final_cmr.aspx.

3. Permittees are encouraged to clean heavy equipment prior to and after construction if equipment was previously used in another stream, river, lake, pond or wetland within 10 days of initiating work in order to prevent the spread of New Zealand Mud Snails and other aquatic hitchhikers:
   a. Remove all mud and debris from equipment (tracks, turrets, buckets, drums, teeth, etc.) and keep the equipment dry for 10 days; or
   b. Remove all mud and debris from equipment (tracks, turrets, buckets, drums, teeth, etc.) and spray/soak equipment with either a 1:1 solution of Formula 409 Household Cleaner and water, or other approved chemical solutions. Treated equipment must be kept moist for at least 10 minutes; or
   c. Remove all mud and debris from equipment (tracks, turrets, buckets, drums, teeth, etc.) and spray/soak equipment with water greater than 120 degrees F for at least 10 minutes.
4. Designated Critical Resource Waters and Gold Medal Waters

In Colorado, within the State of Colorado, the waters listed in Attachment 1 are designated as critical resource waters. In accordance with GC 22 (designated Critical Resource Waters), the discharge of dredged or fill material into the following waters is not authorized by the following nationwide permits: NWPs 6, 12, 14, 16, 17, 20, 22, 23, 25, 27, 28, 30, 33, 34, 35, 36, 37, and 38.

Within the State of Colorado, the waters listed in Attachment 2, Gold Medal Waters, fall under the requirements set forth in Regional Condition 7 (above).
ATTACHMENT 1:

DESIGNATED CRITICAL RESOURCE WATERS

The Colorado Water Quality Control Division designates Critical Resource Waters within the State of Colorado. Please note that the following list is subject to change. For the most current list, or for more information on specific designations within these watersheds and their tributaries, please refer to the Colorado Water Quality Control Commission’s website: http://www.colorado.gov/cs/Satellite/CDPHE-Main/CBON/1251595703337.

**Animas and Florida River Basins.** All tributaries to the Animas River and Florida River, including all wetlands, which are within the Weminuche Wilderness Area.

Hermosa Creek, including all tributaries, from the source to immediately below the confluence with Long Hollow, except for the East Fork of Hermosa Creek.

All lakes and reservoirs tributary to the Animas River and Florida River which are within the Weminuche Wilderness Area. This segment includes Lillie Lake, Castilleja Lake, City Reservoir, Emerald Lake, Ruby Lake, Balsam Lake, Garfield Lake, Vestal Lake, Eldorado Lake, Highland Mary Lakes, Verde Lakes, Lost Lake, and Crater Lake.

**Bear Creek Basin.** The mainstem of Bear Creek and all tributaries, lakes, and reservoirs, including wetlands, within the Mt. Evans Wilderness Area.

**Big Thompson River Basin.** The mainstem of the Big Thompson River, including all tributaries, lakes, reservoirs, and wetlands, located within Rocky Mountain National Park (RMNP).

**Blue River Basin.** North Fork of the Swan River, including all tributaries and wetlands, from the source to the confluence with the Swan River.

All tributaries to the Blue River, including wetlands within the Eagle Nest and Ptarmigan Peak Wilderness Areas.

All lakes and reservoirs within the Eagle Nest and Ptarmigan Peak Wilderness Areas.

**Boulder Creek Basin.** All tributaries to Boulder Creek, including lakes, reservoirs, and wetlands, located within the Indian Peaks Wilderness Area.

**Cache la Poudre River Basin.** All tributaries to the Cache La Poudre River, including lakes, reservoirs, and wetlands, located within RMNP and Rawah, Neota, Comanche Peak, and Cache La Poudre Wilderness Areas.

**Clear Creek Basin.** All tributaries to Clear Creek, including lakes, reservoirs, and wetlands, located within Mt. Evans Wilderness Area.

**San Luis Valley (Closed Basin).** All tributaries in the Closed Basin, including wetlands, lakes, and reservoirs, located within the La Garita Wilderness Area.

The mainstem of Sand Creek, including all tributaries and wetlands, from the source to the mouth.

The mainstem of Medano Creek, including all tributaries and wetlands, from the source to the mouth.

**Colorado River Basin.** The mainstem of the Colorado River, including all tributaries and wetlands, located within or flowing into RMNP.

All tributaries to the Colorado River and Fraser River within RMNP and within the Never Summer, Indian Peaks, Byers, Vasquez, Eagles Nest, and Flat Top Wilderness Areas.

Mainstem of Northwater Creek and Trapper Creek, including all tributaries and wetlands, from their source to the confluence with the East Fork of Parachute Creek. East Middle Fork of Parachute Creek, including all tributaries and wetlands from the source to the confluence with Middle Fork of Parachute Creek.

Battlement Creek, including all tributaries and wetlands, from its source to a point immediately downstream boundary of BLM lands.

Mainstem of Rapid Creek, including all tributaries and wetlands, from the source to a point immediately below the confluence with Cottonwood Creek including Kruzen Springs.

**Dolores River Basin.** All tributaries to the Dolores River and West Dolores River, including all wetlands, tributaries, which are within the Lizard Head Wilderness area.

Mainstem of Rio Lado from the source to the confluence with the Dolores River. Mainstem of Spring Creek from the source to the confluence with
Stoner Creek, Mainstem of Little Taylor Creek from the source to the confluence with Taylor Creek.

All lakes, and reservoirs tributary to the Dolores River and West Dolores River, which are within the Lizard Head Wilderness area. This segment includes Navajo Lake.

**Eagle River Basin.** All tributaries to the Eagle River system, including lakes, reservoirs, and wetlands, located within the Eagle Nest and Holy Cross Wilderness Areas of the Gore Range.

Abrams Creek, including all tributaries and wetlands, from the source to the eastern boundary of the BLM lands.

**Fountain Creek Basin.** Severy Creek, including all tributaries, from the source to a point just upstream of where the Forest Service Road 330 crosses the stream.

Bear Creek, including all tributaries, from the source to a point upstream of GPS coordinated N3847682, W10454917 (this location is at elevation 8,200 feet above sea level at a 250 degree angle and 3,000 feet from the trailhead of the Mount Buckhorn Trail off High Drive).

**Upper Gunnison River Basin.** All tributaries to the Gunnison River, including and wetlands, within the La Garita, Powderhorn, West Elk, Collegiate Peaks, Maroon Bells, Fossil Ridge, or Uncompahgre Wilderness Areas.

All tributaries and wetlands from North Beaver Creek to Meyers Gulch, from the West Elk Wilderness boundary to their confluences with Blue Mesa Reservoir, Morrow Point Reservoir, or the Gunnison River, excluding Steuben Creek, North Willow Creek, and Soap Creek.

All lakes and reservoirs that are tributary to the Gunnison River and within the La Garita, Powderhorn, West Elk, Collegiate Peaks, Maroon Bells, Raggeds, Fossil Ridge, or Uncompahgre Wilderness Areas.

**Lower Gunnison River Basin.** All tributaries to the Smith Fork, including all wetlands, which are within the West Elk Wilderness Area.

All lakes and reservoirs tributary to the Smith Fork, and are within the West Elk Wilderness Area.

**North Fork of the Gunnison River Basin.** All tributaries to North Fork of the Gunnison River, including all wetlands, within the West Elk or Raggeds Wilderness Areas.

All lakes and reservoirs that are tributary to the North Fork of the Gunnison River and within the West Elk or Raggeds Wilderness areas.

**Laramie River Basin.** All tributaries to the Laramie River system, including lakes, reservoirs, and wetlands, located within the Rawah Wilderness Area.

**Los Pinos River Basin.** All tributaries to the Los Pinos River, including all wetlands, which are within the Weminuche Wilderness Area.

All lakes and reservoirs tributary to the Los Pinos River which are within the Weminuche Wilderness Area. This includes Granite Lake, Divide Lakes, Elk Lake, Flint Lakes, Moon Lake, Rock Lake, Betty Lake, Lost Lake, Hidden Lake, Vallecito Lake, Eldorado Lake, Trinity Lake, Leviathan Lake, Sunlight Lake, Hazel Lake, Columbine Lake, and Emerald Lake.

**Mancos River Basin.** All tributaries of the Mancos River located within Mesa Verde National Park.

**North Fork of the Gunnison River Basin.** All tributaries to North Fork of the Gunnison River, including lakes, reservoirs, and wetlands, located within the West Elk and Raggeds Wilderness Areas.

**North Platte River Basin.** All tributaries to the North Platte River and Encampment Rivers, including lakes and reservoirs.

All wetlands located within the Mount Zirkle, Never Summer, and Platte River Wilderness Areas.

**Piedra River Basin.** All tributaries to the Piedra River, including all wetlands, which are within the Weminuche Wilderness Area.

All lakes and reservoirs tributary to the Piedra River which are within the Weminuche Wilderness Area. This segment includes Window Lake, Monument Lake, Hossick Lake, and Williams Lakes.

**Rio Grande Basin.** All tributaries to the Rio Grande, including lakes, reservoirs, and wetlands, located within the Weminuche Wilderness Area.

**Roaring Fork River.** All tributaries of the Roaring Fork River system, including lakes and reservoirs, located within the Maroon Bells/Snowmass,
Holy Cross, Raggeds, Collegiate Peaks, and Hunter/Fryingpan Wilderness Areas.

**San Juan River Basin.** All tributaries to the San Juan River, Rio Blanco, and Navajo River including all wetlands which are within the Weminuche Wilderness area and South San Juan Wilderness Area.

All lakes and reservoirs which are tributary to the San Juan River, Rio Blanco, and Navajo River and located within the Weminuche Wilderness Area and South San Juan Wilderness Area. This segment includes Archuleta Lake, Spruce Lakes, Turkey Creek Lake, Fourmile Lake, Upper Fourmile Lake, Crater Lake, Quartz Lake, Fish Lake, and Opal Lake.

**San Miguel River Basin.** All tributaries, including wetlands, to the San Miguel River, and within the boundaries of the Lizard Head, or Mount Sneffels Wilderness Areas.

All lakes and reservoirs tributary to the San Miguel River and within the boundaries of the Lizard Head, or Mount Sneffels Wilderness Areas.

**South Platte River Basin.** All tributaries to the South Platte River, including lakes, reservoirs, and wetlands, located within the Lost Creek and Mt. Evans Wilderness Areas.

**St. Vrain Creek Basin.** All tributaries to St. Vrain Creek, including lakes, reservoirs, and wetlands, located within the Indian Peaks Wilderness Areas and RMNP.

**Uncompahgre River Basin.** All tributaries to the Uncompahgre River, including all wetlands, which are within the Mt. Sneffels or Uncompahgre Wilderness Areas.

All lakes and reservoirs tributary to the Uncompahgre River and within the Mt. Sneffels or Uncompahgre Wilderness Areas.

**White River Basin.** All tributaries to the White River, including lakes, reservoirs, and wetlands, located within the Flat Tops Wilderness Area, including Trapper’s Lake.

**Yampa River Basin.** All tributaries to the Yampa River, including lakes, reservoirs, and wetlands, located within Zirkle, Flat Tops, and Sarvis Creek Wilderness Areas.
ATTACHMENT 2

GOLD MEDAL WATERS

The following list of important spawning areas has been defined as Gold Medal Waters by the State of Colorado. As a reminder, according to RC 7 above, PCN is required for all proposed nationwide permit activities in these waters; consultation with CPW must be conducted in accordance with the timeframes established in GC 31.

NOTE: This list of Gold Medal Waters is subject to change. For the most current list, please refer to the Colorado Parks and Wildlife (CPW) Colorado Fishing Brochure available on the CPW website (http://wildlife.state.co.us/) or contact any CPW or Corps office in Colorado.

GOLD MEDAL LAKES:

**North Delaney Butte Lake** in Jackson County.

**Spinney Mountain Reservoir** in Park County.

**Steamboat Lake** in Routt County.

GOLD MEDAL STREAMS:

**Animas River** from Lightner Creek to Rivera Crossing Bridge.

**Blue River** from Dillon Reservoir Dam to Green Mountain Reservoir inlet; and

From Green Mountain Reservoir dam to Colorado River confluence.

**Colorado River** from Fraser River to Troublesome Creek confluence.

**Fryingpan River** from Ruedi Reservoir dam to Roaring Fork River confluence.

**Gore Creek** from Red Sandstone Creek to Eagle River confluence.

**Gunnison River** from 200 yards downstream of Crystal Reservoir dam to the North Fork of the Gunnison River.

**North Platte River** from the south boundary of Routt National Forest to the Wyoming border.

**Rio Grande** from State Highway 149 Bridge at South Fork downstream to the Rio Grande canal diversion structure.

**Roaring Fork River** from the Fryingpan River downstream to the Colorado River confluence.

**South Platte River**: The middle fork of the South Platte River from State Highway 9 Bridge to the south fork confluence;

From the confluence of the middle and south forks to Spinney Mountain Reservoir inlet;

From the Spinney Mountain Reservoir outlet downstream to Eleven Mile Reservoir inlet;

From Cheesman Reservoir dam to the south boundary of the Wigwam Club property; and

From the north boundary of the Wigwam Club property to Scraggy View picnic ground.
COMPLIANCE CERTIFICATION

Permit File Number: SPK-2013-00166

Nationwide Permit Number: 14-Linear Transportation Projects

Permittee: Ben Gerdes, Project Engineer
County Facilities Department
500 Broadway
Eagle, Colorado 81631

County: Eagle

Date of Verification: April 9, 2013

Within 30 days after completion of the activity authorized by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Sacramento District
Colorado West Regulatory Branch, 400 Rood Avenue
Room 224, Grand Junction, Colorado 81501-2563
FAX (970) 241-2358
DLL-CESP-K-RD-Compliance@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of the permit your authorization may be suspended, modified, or revoked. If you have any questions about this certification, please contact the Corps of Engineers.

**********

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

______________________________  __________________
Signature of Permittee              Date