STATE OF MONTANA
DEPARTMENT OF TRANSPORTATION
BID PACKAGE

Sealed bids for construction of this project will be received by the Montana Department of Transportation, Construction Contracting Bureau, Room 101, 2701 Prospect, Helena, Montana until 9:00 a.m. on September 8, 2022. All bids will then be publicly opened, reviewed for correctness, and then publicly read.

Federal Aid Project(s):

NHPB 90-2(157)79 Clark Fork – 5 M E Alberton

Bid proposals, Plans, Standard Specifications, Detail Drawings, and Standard Contract Forms are on file for examination and may be obtained from the Construction Contracting Bureau of the Montana Department of Transportation, 2701 Prospect Avenue, P.O. Box 201001, Helena, Montana 59620-1001.

Prime bidders use the Electronic Bid System or bid on-line through Bid Express to produce a bid containing Proposal Forms, Schedule of Items, and Disadvantaged Business Enterprises (DBE) Requirements (if applicable).

CONTRACT #09922
AWARDED ON: SEPTEMBER 20, 2022
TO: FRONTIER WEST, LLC

MONTANA DEPARTMENT OF TRANSPORTATION

Loran Frazier, Chairperson
Montana Transportation Commission

Malcolm “Mack” Long
Director of Transportation

Contract No.09922
HB:9581000AWD-105

CURRENT QUESTIONS & ANSWERS

105 - CLARK FORK - 5 M E ALBERTON - September 08, 2022

Notifications

-1-

Submitted: Friday 02-SEP-2022 08:00

When a bid is printed from AASHTOWare Project Bids, the names of the former Montana Transportation Commission Chair and Director of Transportation are shown. The current Montana Transportation Commission Chair is Loran Frazier. The current Director of Transportation is Malcolm “Mack” Long.

Addendums

No Addendums available for this project.

Clarifications

-1-

Submitted: Friday 12-AUG-2022 08:51AM

UPN 9787, NHPB 90-1(239)65, I-90 BR REHAB – ALBERTON Design Build project is currently slated to be constructed during the 2023/2024 construction seasons. Contractors will be working on the westbound bridge (01390) of Interstate 90, at RP 80.34. The scope for the 01390 bridge includes bearing replacements and structural steel painting. Contractors will also be working on the 01391 bridge located on Interstate 90 immediately east of the 01389 and 01390 structures. Prime Contractor and construction schedule has not been determined for this project. Anticipated award date is currently scheduled for February 2023.

If there is a scheduling conflict between Clark Fork- 5 M E of Alberton and I-90 Br Rehab – Alberton, priority will be given to the Clark Fork-5 M E of Alberton project.

-2-

Submitted: Tuesday 16-AUG-2022 04:06PM

The linked question was asked in the previous advertisement. The following is hereby part of this contract: **LINK (See end of Q&A).**

Questions

-1-

Submitted: Monday 15-AUG-2022 02:48 PM

Company: Contech

Contact: Dennis Dirks

Can you tell me the reason one crossover pipe is CMP and the other is RCP?

Answer

Submitted: Tuesday 16-AUG-2022 07:56AM

RCP was specified at Crossover 2 to meet minimum cover requirements.

-1-
Submitted: Wednesday 27-JUL-2022 12:55 PM
Company: TechStar Incorporated
Contact: Del Stephen Brown
Regarding the Modular Expansion Joints
We have looked through the project specification and can comply with every line but would like to take an exception to the full penetration weld of the center beam and support bar (splices in horizontal center beams and edge beams are of course acceptable): We want to use a single bar design with an elastic connection, which is fatigue tested to the guidelines of NCHRP Report 402 as required by AASHTO. We do not like supplying the multiple bar (rigid welded connection) system as we believe these welds to be problematic to the lifetime expectancy of the expansion joint.
Answer
Submitted: Tuesday 02-AUG-2022 11:40 AM
A single bar design with an elastic connection is acceptable in lieu of the welded connection specified in the Modular Joint Special Provision Section E.1.b.

MONTANA DEPARTMENT OF TRANSPORTATION
SCHEDULE OF ITEMS

CONTRACT ID: 09922

PROJECT: NHPB 90-2(157)79 (9581157000)
CLARK FORK 5 M E ALBERTON

PROP LINE NO.	ITEM NUMBER	ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY
	SECTION 0001 - PMS OVERLAY, GUARDRAIL, CURB, PAVEMENT MARKINGS			
0010	103 000 000	TRAINING PROGRAM	HOUR	500.00
0020	104 030 010	MISCELLANEOUS WORK	UNIT	20,000.00
0030	108 000 000	CRITICAL PATH SCHEDULE	LS	1.00
0040	109 200 005	MOBILIZATION	LS	1.00
0050	202 020 115	REMOVE DECK	SQYD	5,004.90
0060	208 010 000	BMP ADMINISTRATION-LS	LS	1.00
0070	208 010 200	TEMPORARY EROSION CONTROL-FIXED	UNIT	500.00
0080	401 020 063	COMMERCIAL MIX-1/2 IN-PG 70-28	TON	224.00
0090	402 020 315	EMULSIFIED ASPHALT-TACK COAT	GAL	92.00
0100	402 020 320	EMULSIFIED ASPHALT-FOG SEAL	GAL	128.00
0110	402 020 375	EMULSIFIED ASPHALT CHFRS-2P	TON	3.00
0120	409 000 020	COVER-TYPE 2	SQYD	1,688.00
0130	411 010 000	COLD MILLING	SQYD	1,804.00
0140	411 011 135	RUMBLE STRIPS	MILE	0.20
0150	551 020 036	CONCRETE-CLASS STRUCTURE LOW SLUMP	CUYD	1,183.50
0160	552 010 045	SUPERSTRUCTURE JACKING	LS	1.00
0170	552 010 060	REPAIR STRUCTURE	LS	1.00
0180	552 011 020	EXPANSION JOINT-MODULAR	LNFT	83.60
0190	552 011 300	SCUPPER	EACH	7.00
0200	556 000 100	PAINT EXISTING STRUCTURAL STEEL	SQYD	368.00
0210	556 010 010	STRUCTURAL STEEL - MISC	LS	1.00
0220	563 000 040	POLYMER OVERLAY	SQYD	4,693.50
0230	563 000 045	POLYMER OVERLAY PRIMER	SQYD	4,693.50
0240	563 000 100	PREPARE DECK	SQYD	4,693.50
0250	565 000 010	ELASTOMERIC BEARING DEVICES	EACH	10.00
0260	605 000 094	42 IN SS CONCRETE BARRIER RAIL-BR	LNFT	2,042.80
0270	606 010 117	HIGH-TENSION CABLE RAIL	LNFT	500.00
0280	606 010 118	HIGH-TENSION CABLE RAIL-TERMINAL SECTIO	EACH	4.00
0290	606 010 330	MGS GUARDRAIL	LNFT	496.80
0300	606 010 335	MASH W-BEAM TERMINAL SECTION	EACH	1.00
0310	606 010 342	MASH THRIE BEAM BR APPRCH SECTION	EACH	4.00
0320	606 010 385	REMOVE GUARDRAIL	LNFT	673.10
0330	609 010 112	CURB 4 IN-CONCRETE	LNFT	61.50
0340	610 100 559	REVEGETATION	LS	1.00
0350	618 030 005	TRAFFIC CONTROL DEVICES CB	UNIT	200,000.00
0360	618 030 180	TRAFFIC CONTROL-CROSSOVER	EACH	2.00
0370	618 030 190	TRAFFIC CONTROL-TWO WAY TRAF	MILE	1.30
0380	618 030 260	CROSSOVER-CONST, MAINTAIN, CLOSE	EACH	2.00
0390	618 100 000	SINGLE USE SIGNS	SQFT	472.00
0400	619 010 058	SIGNS-ALUM SHEET INCR IV	SQFT	10.00
0410	619 010 240	REMOVE SIGN-GUIDE	EACH	1.00
0420	620 013 000	STRIPING-WHITE PAINT	GAL	4.00
0430	620 013 960	STRIPING-WHITE EPOXY	GAL	3.00
0440	620 014 000	STRIPING-YELLOW PAINT	GAL	3.00
0450	620 014 960	STRIPING-YELLOW EPOXY	GAL	2.00

PROP LINE NO.	ITEM NUMBER	ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY
	SECTION 0002 - ALTERNATE A1 - REINFORCING STEEL-EPOXY COATED			
0460	555 010 200	REINFORCING STEEL-EPOXY COATED	LB	414,405.00
	SECTION 0003 - ALTERNATE A2 - CR CLASS 1			
0470	555 010 410	REINFORCING STEEL-CR-CLASS 1	LB	414,405.00

TABLE OF CONTENTS
FEDERAL AID PROJECT(S) NHPB 90-2(157)79

1. PROJECT DESCRIPTION [102] 6
2. CONTRACT TIME – FLEX TIME PROCEED DATE [108] (REVISED 1-21-16) 6
3. CONTRACT DOCUMENTS [102] (REVISED 6-9-22) 7
4. DISADVANTAGED BUSINESS ENTERPRISES (DBE) REQUIREMENTS [102] (REVISED 1-18-18) 7
5. DBE QUOTES [102] (REVISED 3-10-16) 7
6. DBE USAGE [102] (REVISED 2-13-20 M) 7
7. LABOR REQUIREMENTS [102] (REVISED 9-5-19) 8
8. CERTIFIED PAYROLL COMPLIANCE ELECTRONIC PAYROLL SUBMISSION [102] (REVISED 3-12-20) 8
9. BID WITHDRAWAL [102] (ADDED 6-9-22) 8
10. TRAINING PROGRAM [102] (REVISED 7-15-21 M) 8
11. ALTERNATE BID ITEMS [102] (REVISED 2-27-14 M) 8
12. BIDDER'S PROPOSED AGGREGATE SOURCE(S) [103] (REVISED 4-28-22) 8
13. PARTNERING- LEVEL II FACILITATION [105] (ADDED 2-25-21) 8
14. STEEL PRICE ADJUSTMENT [106] (REVISED 4-28-22) 9
15. SEQUENCE OF OPERATIONS [108] 10
16. SUBCONTRACTING CONSULTANTS [108] (REVISED 2-27-14 M) 10
17. NOTICE TO BIDDERS [108] (ADDED 11-21-08) 10
18. ENVIRONMENTAL REQUIREMENTS [208] (ADDED 9-9-21M) 11
19. STORM WATER PERMITTING REQUIREMENTS UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES) [208] (REV 3-16-17) 11
20. CONSERVATION AND COORDINATION MEASURES FOR BULL TROUT [208] 13
21. PROTECTION OF AQUATIC RESOURCES – BRIDGE DECK REPLACEMENT 13
22. EMULSIFIED ASPHALT CHFRS-2P [402] (ADDED 10-10-19) 14
23. COLD MILLING [411] (ADDED 10-11-12) 14
24. COLD MILLING SALVAGING 14
25. BASE PRICE FOR CONCRETE [551] (REVISED 12-17-20) 15
26. REMOVE CONCRETE BRIDGE DECK 15
27. CONSTRUCTION EQUIPMENT ON STRUCTURES (REVISED 7-16-20) 17
28. BRIDGE DEMOLITION NOTIFICATION 18
29. BRIDGE DECK REINFORCING STEEL COVER [564] (REVISED 10-28-21) 18
30. CORROSION RESISTANT REINFORCING STEEL (ALTERNATE 2) 19
31. MODIFIED BRIDGE DECK CONCRETE WATER CURE [551] (REVISED 3-2-2020) 19
32. CONCRETE - CLASS STRUCTURE LOW SLUMP (REVISED 9-9-21) 20

33. BRIDGE DRAINAGE STRUCTURE 21
34. EXISTING STRUCTURE REPAIRS 22
35. POLYMER OVERLAY (REVISED 10-08-20) 23
36. SUPERSTRUCTURE JACKING 28
37. PAINT EXISTING STRUCTURAL STEEL 29
38. LEAD BASED PAINT REMOVAL AND DISPOSAL 31
39. MODULAR EXPANSION JOINT 32
40. TRAFFIC CONTROL PLAN 36
41. CROSSOVER CONSTRUCT, MAINTAIN, AND CLOSE [618] 36
42. CROSSOVER TRAFFIC CONTROL [618] (ADDED 10-5-11) 37
43. WIDE LOAD AND SUPERLOAD ACCOMMODATION [618] (REVISED 9-09-21 M) 38
44. CROSSOVER CABLE GUARDRAIL 39
45. REMOVE GUARDRAIL 40
46. RESET SIGNS AND DELINEATORS 40
47. REVEGETATION 40

SECTION II
Nondiscrimination Notice

SECTION III
Standard Provisions & Requirements

SPECIAL PROVISIONS

FEDERAL AID PROJECT NO(S). NHPB 90-2(157)79

(REVISED 04-28-22)

The following special provisions are hereby made part of the contract and supplement and/or supersede any sections of the Standard and Supplemental Specifications of Road and Bridge Construction, adopted by the Montana Department of Transportation and the Montana Transportation Commission and all supplements thereto in conflict therewith.

The following documents are hereby incorporated by reference into this contract:

- "Standard and Supplemental Specifications for Road and Bridge construction 2020 V3.0 Edition" found at the following link: https://www.mdt.mt.gov/other/webdata/external/const/specifications/2020/SPEC-BOOK/2020-SPEC-BOOK-V3.0.pdf
- The most recent version of the Detailed Drawings can be found at the following link: https://www.mdt.mt.gov/business/contracting/detailed_drawings.shtml
- The most recent version of the Materials Manual can be found at the following link: https://www.mdt.mt.gov/other/webdata/external/materials/materials_manual/MDT-MATERIALS-MANUAL-042822-LETTING.pdf

The latest version of the Standard and Supplemental Specifications, Quarterly updates, and revision summaries can be found at the following website: https://www.mdt.mt.gov/business/contracting/standard_specs.shtml

The Question-and-Answer Forum opens at 5:00 p.m. on the bid letting advertisement date and closes at 10:00 a.m. on the Monday before the bid letting. If Monday is a state holiday, the forum will close on Friday before the bid letting at 3:00 p.m. Questions raised by potential bidders on this project and answers and other information posted by the Department on the "Question and Answer Forum" can be found at the website https://www.mdt.mt.gov/business/contracting/qacurrent.shtml up to 5 p.m. on the day before the bid letting.

The U.S. Department of Transportation (DOT) operates a toll-free number at 1-800-424-9071, 24 hours a day - 7 days a week. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use this number to report such activities. All information will be treated confidentially, and callers may remain anonymous.

The Department attempts to provide reasonable accommodations for any known disability that may interfere with a person participating in any service, program, or activity of the Department. Alternate accessible formats of this document will be provided upon request. If reasonable accommodation is needed to participate in Department bid lettings, call the Civil Rights Bureau at 444-6331 or TTY 406-444-7696 [TTY 1-800-335-7592 (toll free)].

1. PROJECT DESCRIPTION [102]

This project is to rehabilitate MDT Structure ID 01389 (National Bridge Inventory [NBI] No. I00090080+03411) which carries two lanes of eastbound traffic over the Clark Fork River at Reference Post (RP) 80.12 on Interstate 90 (I-90). The proposed scope of work includes a full bridge deck replacement with new barrier, transverse deck grooving, replacement of the expansion joints, and installation of new scuppers and downspouts. The existing approach span bearings (Span No. 1 and No. 8) at the expansion joints at Bent No. 2 and Pier No. 8 will be replaced. Additional rehabilitation work includes roadway approach work, guardrail replacement, substructure repair, and localized structure painting at the expansion joints.

2. CONTRACT TIME – FLEX TIME PROCEED DATE [108] (REVISED 1-21-16)

A. General. This provision modifies Subsection 108.02 of the Specifications.

B. Notice to Proceed. The notice to proceed will be issued with an effective date of November 16, 2022. The Contractor may change the notice to proceed date to an earlier date if written notification is received at least ten calendar days in advance of the date selected and the

selected date is approved by the Project Manager. Include an updated schedule with the notification.

C. Contract Time. Contract time assessment will begin on the notice to proceed date issued by the Department or as changed by the Contractor, whichever is earlier. Work is to be completed in 150 working days.

3. CONTRACT DOCUMENTS [102] (REVISED 6-9-22)

The following documents are now available within the Contractors Reference Material on the Department's Contracting and Bidding webpage https://www.mdt.mt.gov/business/contracting/ :

1) Table of Contractor's Submittals. (Revised 6-9-22)
2) Traffic Control Rate Schedule (Revised 6-9-22)
3) Erosion Control Rates

4. DISADVANTAGED BUSINESS ENTERPRISES (DBE) REQUIREMENTS [102] (REVISED 1-18-18)

The DBE goal for this contract is 0.00%. Use the AASHTOWare Project Bids™ Electronic Bid System (EBS) to print the DBE submittal and timing requirements. If the contract does not have a project-specific goal, the field will display in the AASHTOWare Project Bids™ bid file as a blank field.

List the DBE commitments in the EBS file. An on-line DBE Directory is available at: https://app.mdt.mt.gov/dbe/dbe/search.

If the DBE goal cannot be met, show a good faith effort per the Good Faith Effort Criteria and supporting forms, available at: http://www.mdt.mt.gov/publications/forms.shtml. Submit the Good Faith Effort documentation within 48 hours of the bid opening.

5. DBE QUOTES [102] (REVISED 3-10-16)

The Department has a quick and easy way for you to request quotes from Montana DBE-certified companies. The information goes to the DBE companies that same day. The on-line form is located at web site: https://app.mdt.mt.gov/dbeqt/.

Call the Department DBE Supportive Services, 1-800-883-5811, for further assistance. Using this online request form will be considered for good faith efforts, but it does not constitute meeting all requirements of good faith efforts.

6. DBE USAGE [102] (REVISED 2-13-20 M)

Contract specific goals are not placed on contracts; however, the Department has an overall 6.5% DBE goal it must achieve. To assist contractors in determining their DBE commitment level, the Department has reviewed the estimates for this contract, and has established an aspirational goal of 6.0% DBE usage. Although not a contract requirement, the Department believes that the aspirational goal can realistically be achieved through race neutral measures based on current availability of DBEs and standard competitive procurement processes. While the utilization is not mandatory to be awarded the project, continuing utilization of DBE firms on contracts supports the success of Montana's DBE Program.

Any project listing a 0% DBE aspirational goal does not mean that a DBE may not be used on that project. A 0% DBE aspirational goal may have been established due to any of the following reasons:

- Limited identified subcontracting opportunities;
- Minimal contract days; and/or,
- Small contract dollar amount.

Contractors are encouraged to identify any opportunities to subcontract to DBEs.

The Department's DBE directory may be found at the following website: https://app.mdt.mt.gov/dbe/dbe/search.

7. LABOR REQUIREMENTS [102] (REVISED 9-5-19)

Pay the minimum wage rates contained elsewhere in the bid package. Comply with the required contract provisions contained in the form FHWA 1273 included with this contract. To obtain more information, contact the Department's Construction Engineering Services Bureau at 2701 Prospect, Helena, MT (406)475-2258, (800)335-7592 (TTY) or (406)444-7297 (Fax). The local employment service office, designated by the Workforce Service Division, Department of Labor & Industry, for this project is Missoula.

Executive Orders 13658 and 13706 do not apply to this contract.

8. CERTIFIED PAYROLL COMPLIANCE ELECTRONIC PAYROLL SUBMISSION [102] (REVISED 3-12-20)

The Contractor and all subcontractors must use AASHTOWare Project Civil Rights & Labor™ (CRL) to submit Certified Payrolls (CPRs). Ensure that all subcontractors have submitted their Vendor Access Form which can be found on the following page: https://www.mdt.mt.gov/business/contracting/prevailing-wage.shtml to the Department and have received their login IDs prior to work.

Request the contract number and project ID(s) from the Project Manager. Provide the information to all subcontractors subject to the FHWA 1273 requirements. This information is also available using the Search Awarded Contracts located at: https://app.mdt.mt.gov/project-search/project/search.

Provide assistance and ensure all subcontractors submit CPRs electronically into CRL within the required timeframe.

9. BID WITHDRAWAL [102] (ADDED 6-9-22)

Rescind the first paragraph of Subsection 102.11 and replace with the following:

Submit withdrawal requests to ECCB before the time set for opening bid proposals. A bidder may withdraw any Proposal using EBS, in person, through an authorized agent, or by submitting the bid withdrawal form to ECCB via email (mdtcntplns@mt.gov) before any bid Proposal on that project is opened.

10. TRAINING PROGRAM [102] (REVISED 7-15-21 M)

Provide on-the-job training for 1 trainee. For more information and requirements of the job training program, see Subsection 109.12.

11. ALTERNATE BID ITEMS [102] (REVISED 2-27-14 M)

This contract contains alternate Reinforcing Steel Bid Items. Items included in the Reinforcing Steel Epoxy Coated carry the designation A1 in the Schedule of Items. Items included in the Reinforcing Steel – Corrosion Resistant carry the designation A2 in the Schedule of Items. In accordance with Subsection 102.07, unit prices must be supplied for all bid items in the contract. The Bid Total electronically printed on the last page of the Schedule of Items will reflect the total of the base bid items plus the total of the low alternate.

12. BIDDER'S PROPOSED AGGREGATE SOURCE(S) [103] (REVISED 4-28-22)

No later than 7 calendar days after the date of bid-opening (the date of bid opening to count as the first full day), submit to ECCB form MDT-CON-106-02-3 in accordance with Subsection 103.11.

13. PARTNERING- LEVEL II FACILITATION [105] (ADDED 2-25-21)

An internal partnering meeting will be facilitated between the Project Manager and the Contractor prior to the Notice to Proceed date.

Implement partnering in accordance with the Montana Partnering Field Guide found at the following link: https://www.mdt.mt.gov/publications/manuals.shtml#con

Make a good-faith effort to settle any unresolved discrepancies by utilizing the Partnering Escalation/Issue Resolution Ladder identified in the Partnering Field Guide prior to submitting a notice of claim.

14. STEEL PRICE ADJUSTMENT [106] (REVISED 4-28-22)

A. General. The Contractor may elect to participate in a Steel Price Adjustment to payments for selected bid items made primarily of steel. Payment adjustments will only be made for fluctuations in the cost of the steel material. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, for any products purchased from the mill prior to the letting date, or for steel that is not permanently incorporated into the work.

The price adjustment will be based on the base price per pound of steel and changes to the steel price index between the bid letting date and the steel purchase date. Payment adjustments may be positive or negative.

Steel Price Index: The Department will use the Bureau of Labor and Statistics Producer Price Index (BLS PPI) “Steel Mill Products” Series ID WPU1017 not seasonally adjusted. The index used will be the final version of the index, revised 4 months after the original publication, including any corrections to the index.

The base price per pound of steel for this contract is: $0.75.

B. Applicable Bid Items. Notify the Project Manager in writing by the Notice to Proceed date or at the pre-construction conference, whichever comes first, of any intent to participate in the steel price adjustment. Select the bid items for participation at the time of notification to the Project Manager. No changes will be allowed after submission.

Nuts, bolts, rebar chairs, connecting bands, and other miscellaneous hardware items will not be included in the price adjustment. High strength bridge bolt assemblies may be included in the price adjustment.

C. Steel Price Index. Furnish the following documentation for all steel bid items selected for steel price adjustment regardless of whether the index increased or decreased:

1) Paid invoice or other proof of purchase showing the date the steel was purchased and the weight of the steel.

2) An affidavit signed by the Contractor stating that the information provided is true and accurate.

3) Submit all documentation prior to incorporating the steel into the work. This provision in no way modifies or cancels the requirements of Subsection 106.09.

D. Steel Price Adjustment. The Project Manager will calculate the adjustments. Adjustments may be positive, negative, or non-existent depending on the difference between the Base Index (IB) and Current Index (IC). No price adjustment will be made unless the IC is 10% higher or lower than the IB.

For Increases:

Adjustment Factor (AF) = (IC/IB-1.10), rounded to the nearest 0.01
If AF is equal to or less than 0, no adjustment.
If AF is greater than 0, continue
Payment Adjustment = AF x weight x base price

For Decreases:

Adjustment Factor (AF) = (IC/IB-0.90), rounded to the nearest 0.01
If AF is equal to or greater than 0, no adjustment.
If AF is less than 0, continue
Payment Adjustment= AF x weight x base price

Where:
IB = BLS PPI for month contract was let
IC = BLS PPI for month material was purchased from the mill (invoice date)
Weight = weight of steel in pounds

15. SEQUENCE OF OPERATIONS [108]

A. Description. This work includes coordination and staging of construction operations to complete activities in accordance with the contract.

B. Materials. Vacant.

C. Construction Requirements.

1) In addition to the requirements of Subsection 104.05, Maintenance of Work and Subsection 108.04, Limitation of Operations, schedule operations in sequences outlined below to provide the least amount of inconvenience possible to the traveling public.

2) Implement crossover construction and preparation so that both directions of traffic are traveling on the westbound side of Interstate 90 as shown in the plans.

3) Perform structure rehabilitation of the bridge on the inactive side of the interstate.

4) Develop a sequence of operations for the project to outline the schedule of work.

D. Measurement and Payment. All work required by this provision is measured and paid for at the unit quantities and prices bid for the respective items of the contract. Where work is specified and not distinctly covered by a unit quantity and price, that work is considered incidental to and absorbed in the various bid items of the contract and no separate payment will be made.

16. SUBCONTRACTING CONSULTANTS [108] (REVISED 2-27-14 M)

The following consultants performed work on the project.

- HDR Engineering, Inc.
- D J & A
- Tetra Tech
- Infrasense
- Geolex

17. NOTICE TO BIDDERS [108] (ADDED 11-21-08)

This project is funded in whole or in part by funds received from the Federal Highway Administration (FHWA), and its construction is wholly contingent on the state's continued receipt of those federal funds. If the federal funds are reduced or not received, the Department may choose to terminate the contract for convenience under the provisions of Subsection 108.10. Any bidder on this project, by submitting its bid, understands and accepts the possibility of the contract being terminated in the event federal funds are reduced or not available and by submitting a bid, each bidder waives any claims for costs or damages other than as specifically allowed by Subsection 108.10.2. In particular, bidders understand and accept that no payment will be allowed for any claimed anticipated profit for work not performed.

18. ENVIRONMENTAL REQUIREMENTS [208] (ADDED 9-9-21M)

The following subsections apply to this Contract. The Contractor is required to review the following subsections as they have been identified as project specific to this contract:

1. Migratory Bird Treaty Act Compliance – Vegetation Removal	Subsection 208.03.4A(1)
2. Migratory Bird Treaty Act Compliance – Structures	Subsection 208.03.4A(2)
3. Work in Bear Habitat	Subsection 208.03.4E
4. AIS Watercraft and Equipment Inspection	Subsection 208.03.2D

19. STORM WATER PERMITTING REQUIREMENTS UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES) [208] (REV 3-16-17)

A. Description. The Montana Department of Environmental Quality (DEQ) regulates storm water discharges under the MPDES program. If the bid package contains blank erosion control plans, a construction storm water discharge permit authorization will be required. If not, a storm water discharge permit authorization may be required for this project depending on Contractor's operations. Sum the disturbance area (as defined by DEQ) identified in the contract with the area of disturbance caused by contractor operations to determine if the permit acreage threshold is exceeded. Contractor operations can include, but are not limited to, the following support activities: staging areas, access roads, material storage areas, temporary concrete or asphalt batch plants, borrow areas, areas used for fill placement, etc. If the summed disturbance area is one acre or more, use the DEQ authorization to discharge under the MPDES General Permit for Storm Water Discharges Associated with Construction Activity for this project. In order to facilitate permit transfer, separate NOI packages are required for areas within the right-of-way and areas outside of the right-of-way. A Notice of Intent (NOI) package includes a Notice of Intent, with a topographic map, a Storm Water Pollution Prevention Plan (SWPPP), the erosion control plans, sage grouse consultation letter, if applicable, and supporting documentation.

Blank Erosion Control Plans, and a topographic map, are provided with the plans if the plans include greater than 1 acre of disturbance. Complete the erosion control plans as required by the general permit. Complete the SWPPP using DEQ's most current SWPPP Form.

B. Materials. Follow the requirements described in the Department's *Erosion and Sediment Control Best Management Practices Manual (December 2016).* Rescind Section 208 detailed drawings. Submit to the Project Manager for review and acceptance BMPs proposed for use that are not included in the Manual.

C. Construction Requirements.

1) MPDES Permit Required.

a) Submit one NOI package and the associated fees to DEQ for ground disturbance areas shown in the plans or within the right-of-way. For ground disturbance areas shown in the plans and any other areas within the right-of-way where Contractor activities causing ground disturbance are planned, the Contractor is the sole permittee until construction is complete and the General Permit is transferred to the Department or another entity.

The Department is not responsible for delays caused by incomplete or inaccurate submittals by the Contractor.

Comply with the requirements of the General Permit for Storm Water Discharges Associated with Construction Activity and implement the SWPPP. Provide two copies of the NOI Package submitted to DEQ and confirmation for receipt of a complete NOI Package from DEQ to the Project Manager prior to conducting any ground disturbance activities.

Do not begin construction activities until the required copy of the NOI Package submitted to DEQ and confirmation for receipt of a complete NOI Package from DEQ is received by the Project Manager.

b) Submit a separate NOI package and the associated fees to DEQ for ground disturbance and support activity areas outside the right-of-way and not shown in the plans. Contractor furnished material sources, staging areas, plant sites, or any other Contractor caused ground disturbance outside the right-of-way and not shown in the plans, are the Contractor's responsibility and must be submitted under a separate NOI package from the ground disturbance within the right-of-way. For all support activities outside the right-of-way which are not part of a larger commercial operation serving multiple unrelated construction activities, and will not continue operation beyond the completion of the contracted road construction activity, a notice of intent package must be submitted to DEQ to obtain an authorization under the storm water construction permit. Sand and gravel borrow area operations, gravel pits, and/or concrete batch plants that will continue operation beyond the completion of the contracted road project, are part of a larger commercial operation, or serving multiple unrelated construction activities must obtain permit coverage under the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (MSGP) regardless of acreage size of the activity if the activity does not already have MSGP authorization. The Contractor is the sole permittee until stabilization is complete and the General Permit is terminated or transferred to another entity. The Department is not responsible for delays caused by incomplete or inaccurate submittals to DEQ by the Contractor.

Provide a copy of the NOI Package submitted to DEQ and confirmation for receipt of a complete NOI Package from DEQ to the Project Manager prior to conducting any ground disturbance activities.

Be responsible for all temporary erosion, sediment, and pollution prevention controls for Contractor furnished material sources, staging areas, plant sites, or any other Contractor caused ground disturbance outside the right-of-way and not shown in the plans.

c) Complete and document all inspections in accordance with the requirements of the General Permit for Storm Water Discharges Associated with Construction Activity. Use DEQ's most current self-inspection form available online at: http://deq.mt.gov/Water/WPB/mpdes/stormwaterconstruction. Provide a copy of all inspection reports to the Project Manager.

Report potential noncompliance in accordance with applicable regulations, guidance, and permit conditions. Submit to the Project Manager within seven days of sending or receiving all correspondence to or from regulatory agencies regarding potential noncompliance or violations.

The temporary erosion and sediment control measures and devices to prevent pollution and control sediment transport and soil erosion will be inspected as part of the final inspection to ensure they are maintained and functioning properly. Do not transfer or terminate the General Storm Water Permit coverage until the BMPs are inspected and accepted and all records required under the permit, including inspection and monitoring reports, are furnished to the Project Manager. The Department may require that certain Best Management Practices (BMPs) be replaced by another type of BMP as a condition of permit transfer.

Upon approval of site conditions, measures, devices and all pertinent records, submit a signed copy of the Permit Transfer Notification Form provided by the Department. When submitting the General Storm Water Permit transfer package/application to the Department, include a check for the permit transfer fee. Make the check for the amount of the fee payable to the DEQ. The Department is not liable for the completeness or accuracy of Contractor records completed prior to the permit transfer. Upon receipt of the signed form, the Department will obtain signature of the new permit owner and submit to DEQ. Ensure permit conditions and responsibilities are met until confirmation of the transfer is received from DEQ. Defend and hold MDT harmless from any violations, claims, enforcement actions, penalties or fines issued for Contractor activities or recordkeeping that occurred prior to the transfer of the General Permit for Storm Water Discharges Associated with Construction Activity authorization.

If the Department concurs that final stabilization has been met during the final walk-through, the Contractor may submit a Notice of Termination form to DEQ. Pay the annual fee invoice due at the time of termination. Submit the annual fee invoice to the Project Manager for reimbursement.

2) MPDES Permit not Required.

The BMP-Administration item is included in contracts that may not meet either criteria for a MPDES permit but include ground disturbing activities. Complete BMP inspections and install BMPs, if necessary, in accordance with Section 208, if no storm water permit is required. Utilize form MDT-ENV-014, Water Pollution Control Inspection Report. A certified SWPPP Administrator is not required to conduct the inspections if no permit is required.

D. Method of Measurement. DEQ MPDES fees and monitoring costs associated with obtaining and maintaining the General Permit for Storm Water Discharges Associated with Construction Activity for ground disturbance areas both within and outside the right-of-way are not measured separately for payment.

If no permit is necessary, include the cost of all erosion control, devices, and inspections in the BMP-Administration bid item.

E. Basis of Payment. No additional payment will be made for the DEQ MPDES fees and monitoring costs associated with the General Permit for Storm Water Discharges Associated with Construction Activity. Include these costs in the Temporary Erosion Control-Lump Sum bid item.

For project including the BMP-Administration item, include the cost of all erosion control, devices, and inspections in the BMP-Administration bid item. Partial payment for the BMP-Administration will be monthly based on the lump sum contract price in accordance with Table 208-1 in Subsection 208.05.1.

Payment for BMPs required by an event or extra work, and approved by the Project Manager, will be measured and paid for in accordance with the Erosion Control Rate Schedule contained in the contract at a unit price of $1.00 per unit.

20. CONSERVATION AND COORDINATION MEASURES FOR BULL TROUT [208]

Bull trout, a threatened species protected under the Endangered Species Act, are documented to use the Clark Fork River. The Clark Fork River is designated critical habitat for bull trout. Contact the Project Manager for coordination with the District Biologist if you have any questions regarding this authorization.

A. Stop work and immediately notify the MDT Project Manager if any material enters an aquatic resource listed above as bull trout occupied streams or bull trout critical habitat. Non-compliance will be documented and reported to the U. S. Fish and Wildlife Service (USFWS). The Project Manager will direct the resumption of work only after the non-compliance is resolved.

B. Conduct project-related activities outside of construction limits in a manner which will not adversely affect species and/or designated critical habitat listed under the Endangered Species Act.

21. PROTECTION OF AQUATIC RESOURCES – BRIDGE DECK REPLACEMENT

A. Description. Fill is prohibited from direct or indirect placement in an aquatic resource without the appropriate permitting or authorizations. Impacts to aquatic resources resulting from bridge deck replacement have not been permitted or authorized. Any impacts to these areas and associated consequences, without the proper permitting, are the responsibility of the Contractor.

B. Requirements.

1) Employ positive means while conducting all work to ensure no materials enter the river or riparian area of the Clark Fork River. Repair or replace to the Project Manager's

satisfaction protective measures damaged during construction or which do not provide adequate protection.

2) Prevent all materials from entering aquatic resources during operations and disposal.

Additional aquatic resources may be present within the project limits. Coordinate with the Project Manager to identify these areas in the field and employ appropriate methods to avoid placement of materials in these areas.

C. Measurement and Basis for Payment. The work covered in this provision is not measured separately for payment. Consider all costs associated with this provision incidental to performance of the work.

22. EMULSIFIED ASPHALT CHFRS-2P [402] (ADDED 10-10-19)

Furnish CHFRS-2P for areas specified in the contract. Furnish CHFRS-2P in accordance with the table below. Polymerize CHFRS-2P emulsions using at least 3% polymer by weight (mass) of the asphalt binder.

POLYMER MODIFIED CHFRS-2P EMULSIFIED ASPHALT

Property	Test Method	CHFRS-2P
Viscosity at 122 °F (50 °C), sec.	AASHTO T 59	100-400
Sieve, %	AASHTO T 59	0.1 max.
Settlement, 5 days, %	AASHTO T 59	5 max.
Demulsibility, %	AASHTO T 59	60 min.
Storage stability test, 1 day, %	AASHTO T 59	1 max.
Particle charge	AASHTO T 59	Positive
Tests on residue by evaporation: % residue[1] Oil Distillate penetration, 100 g, 5 sec. at 77 °F (25 °C), dmm ductility at 77 °F (25 °C), 5 cm per minute, cm elastic recovery, % Softening Point, °F Float Value @ 140 °F, Sec Viscosity @ 140 °F, Poise Solubility in Trichloroethylene, %	 AASHTO T 59 AASHTO T 59 AASHTO T 49 AASHTO T 51 AASHTO T 301 AASHTO T 53 AASHTO T 50 AASHTO T 202 AASHTO T 44	 65 min. 0.2 max. 90-160 75 min. 55 min. 130 min. 1800 min. 1300 min. 95 min.

23. COLD MILLING [411] (ADDED 10-11-12)

After cold milling, do not leave the remaining pavement exposed to traffic more than 24 hours before placing the plant mix surfacing.

24. COLD MILLING SALVAGING

A. Prior to placing the bituminous surfacing, remove the existing bituminous surfacing from the roadways as shown on the plans, these special provisions and in accordance with Section 411 of the Standard Specifications.

B. Materials. Vacant.

C. Construction Requirements.

Square yard quantities shown for cold millings are based on plan area before milling. Cold millings will become the property of the Contractor to be properly disposed of.

D. Measurement and Payment. Cold milling will be measured and paid for by the square yard at the specified depth. Areas requiring tapers or areas relatively close in depth shall

be paid as an average depth as shown on the plans. No additional measurement or payment will be considered for hauling, windrowing, transferring, or stockpiling the excess cold milled material. All related costs for disposal of cold millings are included and absorbed in the unit price per square yard of cold milling.

25. BASE PRICE FOR CONCRETE [551] (REVISED 12-17-20)

Price reductions measured by the cubic yard will be calculated using the greater of the contract bid price or $500 per cubic yard for the following items:

- Class Deck
- Class Overlay
- Class Structure
- Class Structure – Low Slump

Price Reductions for Class Drilled Shaft item will be calculated using the greater of the contract bid price or $300 per cubic yard.

26. REMOVE CONCRETE BRIDGE DECK

A. Description. This work includes removal and disposal of deck, railing, joints, scuppers, downspouts, and incidentals as shown on the plans. Complete the work in accordance with the approved deck removal plan described herein. The deck removal should also comply with the requirements of the Standard Specifications for the Removal of Structures and Obstructions.

B. Equipment.

1) Only use equipment that is included in the approved deck removal plan. Prior approval is required by the Project Manager before using other equipment.

2) Pneumatic hammers may be used to remove concrete over girders, cross frames, or other steel members if they will not cause damage to elements that are designated to remain.

C. Submittals.

1) Submit a deck removal plan that describes the proposed methods for deck removal and disposal. Do not begin removal operations prior to receiving approval.

2) Coordinate removal plan submittal with the requirements of the Special Provision for “Construction Equipment on Structures”.

3) The submittal should include the following items.

a) A written sequence of the specific steps for removal of the deck, railing, joints, scuppers, and downspouts. Provide specific detail on removal of the deck that no damage occurs to elements designated to remain in place.

b) Methods for determining depth to existing concrete girders, steel members, cover plates, splice plates, and fasteners (bolt heads and rivet heads).

c) Details of equipment and measures that will be used to ensure that no damage will occur to the concrete girders, steel members, fasteners, and existing concrete back walls or other elements designated to remain in place. Shear connectors may be damaged but will require repair/replacement using an approved repair procedure.

d) A quality assurance plan including procedures for immediately checking for steel member damage after any saw cut is made over steel members. Describe equipment and procedures such as electrical continuity testing or other methods that will be used to check for damage.

e) Details of equipment used to lift and remove deck slabs, such as cranes, excavators and hauling equipment. Include locations, operating radii and lifting calculations.

f) Calculations that demonstrate satisfactory stability and strength of the bridge under all anticipated loads and removal methods. Account for loss of composite action as the bridge deck is being removed.

g) Repair/replacement procedures for damaged shear connectors.

h) Procedures for notifying the Project Manager if steel member damage occurs or if concrete girder damage that exposes prestressing strand occurs. Note the information that will be provided such as location, length, and depth of damage.

4) Submit the deck removal plan including all calculations and working drawings signed by a Professional Engineering registered in Montana for review. Do not begin removal without an approved submittal.

D. Construction Requirements

1) Remove the deck in accordance with the submitted removal plan to ensure the safety and stability of the bridge superstructure during the deck removal work.

2) Conduct a pre-removal meeting on site with the Project Manager and all workers involved in the removal of the deck. Discuss protocol included in the approved deck removal plan. Do not substitute personnel involved with the saw cutting or demolition of the deck without prior approval from the Project Manager.

3) Do not damage any items including existing girders, cross frames, shear connectors and existing concrete back walls or other elements designated to remain in place.

4) Saw Cutting Operations.

a) Monitor the cutting operation to prevent cutting into steel members including fasteners, and concrete girder prestressing strands.

b) Limit the depth of saw cuts to provide at least 1-inch clearance to the top of the steel member including fasteners, and 2 inches of clearance to prestressing strands.

c) Existing shear connectors are in discrete segments along the length of the bridge. The Contractor should locate the shear connectors prior to saw cutting to prevent and/or minimize damage to existing shear connectors.

5) Steel Member and Concrete Girder Damaged During Deck Removal Operations.

a) The Project Manager may prohibit saw cutting over girders if steel damage occurs, at no additional cost to the department.

b) Immediately notify the Project Manager if damage occurs to any steel members or prestressing strands and suspend deck removal operations until authorized to restart work by the Project Manager.

(1) Notify Project Manager for any sawcut damage to the steel girders.

(2) Minor dents or nicks less than a ¼ in. depth or spalls less than 1 ½ in. depth are required to be reported to Project Manager, but do not require immediate notification or suspension of work.

c) Do not conduct construction operations that would cover or limit access to damage or cause additional damage until the department has had an opportunity to assess the structural significance of the damage.

d) Provide the Department with means to access damaged areas of the structure.

e) Schedule and coordinate with the Project Manager to provide at least one business day for the Department to access and conduct an inspection to determine if the beams have been damaged.

f) Have a professional engineer licensed in the State of Montana analyze the effects of damage to the girders and determine methods, if necessary, to stabilize the structure due to the damage.

g) Unless otherwise approved by the Project Manager, repair the girder or other damaged element to restore the full original capacity. Welded repairs will generally not be accepted. Provide a repair that is resilient to fatigue and designed in accordance with AASHTO. Avoid details that require increased inspection frequency or effort, or enhanced inspection methods throughout the life of the structure. Submit written recommendations and structural details to the Project Manager for repair or replacement of the damaged members signed and sealed by a Professional Engineer licensed in the State of Montana. The Project Manager will have the MDT Bridge Bureau District Design Manager, or their designee review the submittal.

h) The Department may deduct costs associated with reviewing repair details and costs associated with increased inspection from payments due the Contractor.

i) Do not begin restoration work prior to approval. Repair or replace damaged members according to the approved repair procedures.

E. Method of Measurement. Bridge deck removal is measured by the square yard.

F. Basis of Payment. Payment for bridge deck removal is at the unit price bid for Remove Deck and includes costs for all resources necessary to complete the work described in this provision.

27. CONSTRUCTION EQUIPMENT ON STRUCTURES (REVISED 7-16-20)

A. Description: Requirements associated with the operation of equipment on structures.

B. Definition. The following definition applies to this special provision:

- Equipment. Any vehicle or machine weighing more than 5000 pounds.

C. Construction Requirements. Do not use bridges as work platforms, work bridges, or to support or move equipment without the Project Manager's written approval. The Project Manager may require a full Engineering Submittal at their sole discretion.

1) For bridges having no posted load restrictions and no removal of deck concrete (not milled), provide a full Engineering submittal for approval for all equipment utilizing outriggers on the structure and for any equipment not already approved under one of the following conditions:

a) Legal Loads. A vehicle that is a legal load as defined by Montana Code Annotated (MCA).

b) Pre-Approved Equipment. The equipment is currently listed on MDT’s Approved Construction Equipment List (ACEL) and will be operated according to any conditions stated in the ACEL.

2) For bridges with a posted load restriction or if bridge deck concrete is partially milled or removed, submit a full Engineering submittal for approval for any of the following cases:

a) Equipment weight exceeds 25 tons.

b) Vehicle weight and configuration does not satisfy the posted load restriction.

c) More than one piece of equipment will be simultaneously located on a span.

d) Concrete removal results in debonding of the top mat of deck reinforcing steel.

e) Repairs to bridge beams or truss members are specified in the contract and repairs are not complete.

f) Equipment outriggers will be used.

3) Full Engineering Submittal requirements. Submit an engineering analysis and report performed by a Professional Engineer registered in Montana.

a) Engineering analysis. Clearly describe loading conditions and assumptions and provide calculations. Investigate an envelope within which the equipment may function without damaging the structure or endangering workers or the public. MDT proposes the following topics, at a minimum. Provide additional information when necessary.

(1) Load Cases.

(a) Minimum suggested live load vehicles are Type 3 and Type 3S2 trucks in live load combinations from AASHTO "Manual for Condition Evaluation of Bridges."

(b) Consider all loads on the bridge including axle loads, outriggers, equipment dynamic forces, and wind forces on the load, the boom, and the equipment. Consider deflection and secondary force effects. Include traffic live load if the structure will carry traffic during equipment operations.

(c) Investigate different loading combinations for all configurations. Include the distribution of dead load and changing center-of-gravity of the equipment with and without load at different boom extensions, rotations, and elevations.

(2) Structural Effects. Identify critical members. Determine any conditions under which the equipment cannot safely operate.

b) Written Report. Provide a report containing a narrative summarizing the results of the analysis. Describe special measures necessary to protect the structure through all phases of the equipment's positioning and use. Include drawings as necessary and indicate any minimum equipment clearances to relevant portions of the structure and to traffic flow. Estimate the work's duration.

c) MDT will consider equipment submitted under this contract for addition to the ACEL.

D. Method of Measurement. Work associated with this provision is not measured for payment.

E. Basis of Payment. Include all costs associated with the requirements of this provision in the cost of other items.

28. BRIDGE DEMOLITION NOTIFICATION

A. Description. Prior to demolition of structures in Montana, including highway bridges, a notification form is required to be submitted to the Montana DEQ Asbestos Control Program. The Montana Demolition Notification form MTACP02 is available through the program internet site at http://deq.mt.gov/asbestos/acpcontractorinfo.mcpx. Direct questions regarding this special construction Project Manager (PM).

An inspection of the bridge has been conducted, including a review of as-built drawings and inspection photos for the bridge structures, and sampling of suspect materials. No asbestos containing materials have been identified. A copy of the asbestos inspection is available from the PM.

B. Construction. Submit the completed form to DEQ and the project PM at least 10 days prior to commencement of any bridge demolition activities. Provide a copy of the notification acknowledgement to the PM upon receipt from the DEQ. Maintain a copy of the Asbestos Inspection Report on site during demolition.

C. Measurement and Payment. Measurement and payment for the notification is included in other items.

29. BRIDGE DECK REINFORCING STEEL COVER [564] (REVISED 10-28-21)

A. Description. The Department may measure the depth of the concrete cover over the top reinforcing steel of the bridge deck(s) and the deck thickness, using Ground Penetrating Radar (GPR) equipment.

B. Construction Requirements. Schedule 3 business days for the Department to access the deck. Ensure the deck is completely bare during the 3 business-day period, or until the test is complete, to allow full access to the entire surface. The timeframe for access to the bridge deck is after the water cure has been completed and prior to opening the bridge deck to traffic. The Department will perform the test only on a dry deck. The test may be completed either prior to or after transverse deck grooving or rail construction. If inclement weather prevents the test from being performed within the 3 business days provided, the test will be cancelled or rescheduled. Provide the Project Manager a minimum of 14 calendar days' notice for the 3 business-day access period. The Project Manager will coordinate the test with the Department's CES Bridge Reviewer.

C. Method of Measurement and Basis of Payment. Consider all costs associated with this provision and its requirements incidental to performance of the work. Include the costs in the cost of other items.

30. CORROSION RESISTANT REINFORCING STEEL (ALTERNATE 2)

A. Description. Furnish all materials, labor and equipment necessary to furnish, protect and place the reinforcement steel identified as Corrosion Resistant to the dimensions shown on the plans or otherwise established by the Project Manager.

B. Materials. The second sentence in Subsection 555.02 beginning with "Use reinforcement listed on the QPL and in accordance with Section 711." is rescinded.

Furnish materials meeting the following requirements:

1) Corrosion Resistant Reinforcing Steel – provide reinforcing steel conforming to the requirements of ASTM A1035/A1035M – Standard Specification for Deformed and Plain, Low-Carbon, Chromium, Steel Bars for Concrete Reinforcement – Type A1035 CS Grade 100.

2) Corrosion Resistant Reinforcing Mechanical Couplers – provide in-line mechanical couplers meeting the material requirements of B.1 as well as the Mechanical Rebar Connector requirements of Section 711.18.

3) Tie Wires and Supports-provide tie wires that are plastic coated. Support reinforcement with plastic coated steel bar supports. Do not use precast concrete bar supports, galvanized bar supports, plastic/composite bar supports, or epoxy coated bar supports.

C. Submittals. Provide all documentation required in Subsection 555.03.5. Submit two 3 FT sections of reinforcing steel from each shipment for testing. Reinforcing steel will be tested using MT 414.

D. Construction Requirements. Fabricate, protect and construct corrosion resistant reinforcing steel in compliance with Subsection 555.03 requirements.

E. Method of Measurement. Corrosion Resistant Reinforcing Steel is measured for payment per the requirements of Subsection 555.04.

F. Basis of Payment. Payment at the contract unit price is full compensation for all necessary resources to complete the item of work in accordance with the contract. Recalculation of reinforcing steel weight and pay schedules meet the requirements of Subsection 555.05.

Pay Item	Measurement Unit
Reinforcing Steel-CR-Class 1	Pound (lb)

31. MODIFIED BRIDGE DECK CONCRETE WATER CURE [551] (REVISED 3-2-2020)

A. Description. Protect full depth bridge deck concrete from shrinkage and thermal cracking.

B. Materials.

1) Burlap. Furnish burlap in accordance with Subsection 717.01.2.

2) Water. Furnish water in accordance with Subsection 713.01.

3) Temperature data logging. Submit for approval a temperature monitoring system having at least 4 channels, capable of measuring internal concrete and ambient temperatures, recording time and temperature at 30-minute intervals or less for a minimum of 14 days, with an accuracy of 1 degree or less.

C. Construction Requirements.

1) For each concrete placement, install 4 probes at 3 locations on the deck (12 probes total per placement) in concrete a minimum of 5 feet away from any edge or joint. For placements that are less than 10 cubic yards, place only 4 probes at one location. Place and secure probes at 4 depths within the deck as follows:

- at least 2 feet above deck surface. This probe may be moved to the edge of deck to facilitate attachment;
- to the top of the top mat of rebar;
- midway between the 2 mats of rebar, and;
- to the bottom of the bottom mat of rebar.

2) Start recording temperatures at least 1 hour prior to concrete placement. Ensure probes read within 3.6 °F (2 °C). Replace probes that do not. Protect probes during concrete placement. Relocate any displaced probes within wet concrete. Monitor and record ambient air temperature while recording probe temperatures. Monitor concrete temperature probes until concrete is within 5 °F (2.8 °C) of ambient, and vertical temperatures through the deck thickness are uniform (within 10 °F [5.5 °C]) and concrete is at least 96 hours old (72 hours old if concrete does not contain silica fume).
Exception: for cold weather concrete, monitor temperatures until cold weather protection is removed.

3) Increase ambient humidity by fogging above finished concrete and concrete forms/rebar using one or more 3000 psi (21MPa) or greater pressure washer powered fogging wands. Do not:

- use low pressure spray nozzles;
- use fogging systems attached to the screed;
- use fogging, or other methods, to add finishing water to unfinished concrete;
- allow water to drip, flow, or puddle on the concrete surface during fog misting, when placing the burlap, or at any time before the concrete has achieved final set.

4) Maintain the forward edge of concrete placement nearly parallel to and not more than 6 feet (1.8 m) ahead of the strike-off.

5) Use catwalk(s) to facilitate uniform application of the fog mist across the entire deck and to facilitate placement of the wet burlap on the fresh concrete surface. Apply a fog mist as necessary to maintain a moist surface on the finished concrete before and after covering with burlap until the water cure process is operational.

6) Start the water cure as soon as possible without damaging the concrete finish by applying pre-moistened burlap to maintain a water-saturated environment on the concrete surface. Meet the following requirements for the water cure.

a) Ensure the temperature of all water used in the water cure is within 20 °F (17 °C) of the in place concrete temperature.

b) Presoak the burlap by immersing it in water for at least 24 hours prior to placement.

c) Apply the wet burlap to the concrete surface no later than 15 minutes after striking off and finishing the surface of deck-slab concrete.

d) Place soaker hoses when the concrete has hardened sufficiently to prevent marring of the surfaces.

e) Keep the entire deck surface saturated for 3 hours (1 hour for cold weather concrete, unless otherwise approved by the Project Manager) after concrete has reached maximum temperature as recorded by the probes. Immediately turn off soaker hoses and apply clear plastic sheeting over the wet burlap to keep concrete moist.

f) Apply cold weather insulation blankets to minimize the rate of cooling of concrete immediately following the installation of plastic sheeting.

g) Remove all curing and allow deck to dry when concrete is within 5 °F (2.8 °C) of ambient, and vertical temperatures through deck thickness are uniform (within 10 °F [5.5 °C]) and the concrete is at least 96 hours old (72 hours old if concrete does not contain silica fume).

D. Method of Measurement and Basis of Payment. Fogging and water cure will not be measured separately for payment. Include all costs associated with this provision in the concrete receiving the cure.

32. CONCRETE - CLASS STRUCTURE LOW SLUMP (REVISED 9-9-21)

A. Description. Furnish Concrete – Class Structure Low Slump for all full depth bridge deck concrete, bridge barrier rail, and metal bridge rail curbing.

B. Construction Requirements. Furnish material meeting the requirements of Concrete – Class Structure, with the following modifications:

1) The maximum target value for slump is 3-inches with a tolerance of plus 1½-inches to minus 2-inches.

2) When used in bridge barrier rail or metal bridge rail curbing, the target slump may be adjusted to a maximum of 6-inches.

3) Overall Lot Pay Factor. The overall lot pay factor will be calculated for all bid items using Concrete – Class Structure Low Slump, except metal bridge rail.

4) Applicable Pay Factors. See Table 551-9 for applicable pay factors. Pay factors for strength, air content, and gradation are applicable. The pay factor for permeability is not applicable.

C. Measurement. Concrete – Class Structure Low Slump is measured by the cubic yard.

D. Basis of Payment. Include all costs associated with this provision in the bid price for Concrete – Class Structure Low Slump (CUYD).

33. BRIDGE DRAINAGE STRUCTURE

A. Description. Supply and install deck scupper drains, connections/fittings, drain pipe, supports and all incidentals as shown on the plans and described in this provision.

B. Materials.

1) Structural Steel. Furnish structural steel in accordance with the Standard Specifications. Provide galvanization in accordance with the Standard Specifications.

Use galvanized steel for all steel.

2) Fasteners.

Furnish galvanized threaded rods, bolts, washers, and nuts in accordance with the Standard Specifications and as required by the design.

3) Scupper Grating. Furnish removable galvanized steel grating meeting:

a) Provide welded steel grating

b) Provide minimum bearing bar thickness of 1/4 inch

c) Load banding

(1) Provide load banding at ends of bearing bars

(2) Provide load banding that is 1/4 inch to 1/2 inch lower than tops of bearing bars to promote drainage.

d) Provide welded lugs to connect to the scupper assembly

e) The minimum required open area of 396 in^2 as shown on the Contract Plans

f) The geometry shown on the Contract Plans.

4) Scupper Drains.

Furnish scupper body composed of Fiber Reinforced Polymer meeting the requirements elsewhere in this special provision. Furnish a scupper body meeting the geometric requirements shown on the Contract Plans.

5) Fiber Reinforced Polymer (FRP). Furnish all drainage components identified as FRP including scupper drain bodies, with:

a) For Scupper Drains. Manufacture from polyester fiberglass that has a minimum wall thickness of 1/8 inch, is frost proof, salt proof per ASTM B117, is resistant to both acid and alkali solutions, and meets the following the minimum properties.

Compressive Strength	24,400 psi
Flexural Strength	9,943 psi
Water Absorption	0.33%

b) Joint Adhesive. Use adhesive bonded joints. Butt and wrap, or stab-in joints are not permitted. Use an adhesive able to safely bond to both the FRP scupper drain and the PVC

drain pipe. Use an adhesive composed of a vinyl ester resin with silica filler, polyester pigment and methyl ethyl ketone peroxide catalyst. Provide certification that the adhesive is suitable for intended application and that resin does not contain additives that leach out, catalysts that remain active or ingredients that lead to early deterioration.

6) Polyvinyl Chloride (PVC) Pipe. Furnish fittings to the scupper drain and drain pipe as shown on the Contract Plans with Schedule 80 PVC pipe rated for continuous UV exposure and meeting the material requirements of Standard Specification Section 708.05.

C. Submittals. Submit to the Project Manager for approval the following items.

1) Shop Plans. Include shop plans detailing the deck drainage inlets, fittings, connections, and support system. Match FRP color to the color of the PVC drain pipe. Include color chip samples for the finished color of the FRP as well as the PVC pipe and fittings. Provide material designations, manufacturer's recommendations and installation instructions.

2) Material Certifications. Submit material designations and certified test reports or certificates of conformance furnished by the manufacturer's testing laboratory or independent testing agency attesting that the materials meet the project requirements.

D. Design Requirements

Design Loads.

- Design grate, frame and scupper body to resist all dead loads as well as an HS25 Wheel Load + Impact.

E. Construction Requirements

1) Scupper Drains. Set the deck drains true and plumb and to the lines and grades shown on the plans prior to placing deck concrete.

2) Pipe Installation. Handle and install the pipe, drains, and fittings in accordance with the manufacturer's instructions.

F. Method of Measurement. Measurement for the bridge drainage system will be per each deck scupper drain and includes the deck scupper drain and all associated drain pipe, fittings/connections, support elements, and other incidentals.

G. Basis of Payment. Include all costs associated with designing, furnishing and constructing the bridge drainage structure in the unit price for Scupper.

34. EXISTING STRUCTURE REPAIRS

A. Description. Furnish all materials, labor and equipment necessary to perform the repair types listed below on the existing structure at locations noted on the plans and as approved by the Project Manager.

Repair and Replace Deteriorated Substructure Concrete

1) Shallow Repair. Areas of removal and replacement of existing deteriorated substructure concrete, no deeper than the top of the existing reinforcing steel.

2) Deep Repair. Areas of removal and replacement of existing deteriorated concrete to a depth necessary to reach sound concrete, but not to exceed 3 inches below the most exterior existing reinforcing.

B. Materials.

Repair and Replace Deteriorated Substructure Concrete.

1) Concrete. Use Concrete – Class Structure or Concrete – Class SCC for Shallow and Deep repair areas unless otherwise approved. Obtain PM approval before using rapid-setting concrete or polymeric concrete.

2) Epoxy Resin Bonding Agent. Use AASHTO M235 Type V bonding agent.

C. Submittals. Submit for review a minimum of 20 working days before performing the repair the following:

Repair and Replace Deteriorated Substructure Concrete. Material data sheets, description of concrete preparation measures, and proposed equipment to be used to place and consolidate the repair concrete.

D. Construction Requirements

1) Equipment. Provide equipment in good working order in accordance with the following requirements:

Repair and Replace Deteriorated Substructure Concrete.

a) Power-driven hand tools for removal of concrete with the following requirements:

(1) Jackhammers of a nominal 30 pound class or smaller.

(2) Operate jackhammers and other mechanical chipping tools at an angle of 45° or less from the surface.

(3) To remove concrete from beneath a reinforcing bar in a Deep Repair, use a chipping hammers in a nominal 15 pound class or smaller.

b) Use hand tools such as hammers and chisels for removing final particles of unsound concrete and to achieve final required depth.

c) Notify the Project Manager if existing concrete is removed to a depth of 3-inches below reinforcement and sound concrete is still not reached. Do not remove additional concrete until directed by the Project Manager.

2) Construction Details

Repair and Replace Deteriorated Substructure Concrete.

a) Concrete Removal. Do not remove an area of concrete greater than 20 SF or to a depth greater than 3 inches unless otherwise approved by the Project Manager. Saw cut 1/2 inch deep around the repair area edges. Within the saw cut perimeter using mechanical equipment, remove all concrete to the saw cut depth and remove beyond the saw cut depth, all delaminated, cracked, disintegrated, loose or otherwise unsound concrete. Finish the removal with lightweight hand tools. If the bond between the existing concrete and reinforcing steel breaks, remove concrete around the circumference of the bar at least 1-inch but not exceeding 3 inches into the concrete mass. Remove the remaining loose concrete and clean the area to the satisfaction of the Project Manager. Prevent cutting, stretching, or other damage to exposed reinforcing steel. Replace any reinforcement bar that is corroded, cut or damaged to the point that it has lost 50% or more of its effective cross-sectional area. Replace such bars with new ones of the same size. The Project Manager will determine splice locations where bars need cutting and splicing. Prior to placing new concrete, remove all rust, dirt, laitance, oil or other foreign materials from reinforcement surfaces with light sandblasting, wire brushes or other approved means.

b) Placing and Finishing Concrete. Prepare the surface as necessary in order to ensure a competent bond between the existing and repair concrete. Apply epoxy resin bonding agent to repair area within 30 minutes of placing repair concrete. Use solid forms for new concrete in deep repair areas. Do not attach forms to existing reinforcing bars unless approved by Project Manager. For rapid setting and polymeric concretes, place and cure in accordance with the manufacturer's recommendations.

E. Method of Measurement.

Repair and Replace Deteriorated Substructure Concrete. The shallow and deep repair areas are not measured for payment. Replacement of reinforcing bars will be measured and paid for in accordance with Subsection 109.04.

F. Basis of Payment.

G. Include all costs associated with the work items: Repair and Replace Deteriorated Substructure Concrete in the lump sum amount for Repair Structure.

35. <u>POLYMER OVERLAY (REVISED 10-08-20)</u>

A. Description. This work is preparing concrete bridge deck surfaces and applying primer and a two-layer polymer overlay system. This work also applies to concrete approach slabs if indicated on the plans.

B. Materials. Furnish materials specifically designed for use on concrete bridge decks.

1) Polymer Overlay Primer. Furnish a primer compatible with the polymer overlay that is 100% solids, 100% reactive with the following properties:

Property	Requirements	Test Method
Viscosity [A]	<225 cps	ASTM D2556, Brookfield RVT, Spindle No. 3, 20 rpm
Tensile Elongation [B]	> 30%	ASTM D638
Tensile Strength [B]	>2000 psi @ 7 days	ASTM D638

[A] -Uncured, mixed primer
[B] -Cured, mixed primer

2) Polymer Resin for Polymer Overlay. Use a polymer resin base and hardener composed of a two-component, 100% solids, 100% reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time [A]	10 - 45 minutes @ 73°F to 75°F	ASTM C881
Viscosity [A]	7 - 70 poises	ASTM D2556, Brookfield RVT, Spindle No. 3, 20 rpm
Absorption [B]	1% maximum at 24 hr	ASTM D570
Tensile Elongation [B]	30% - 70% @ 7 days	ASTM D638
Tensile Strength [B]	>2000 psi @ 7 days	ASTM D638
Chloride Permeability [B]	<100 coulombs @ 28 days	AASHTO T277

[A] -Uncured, mixed polymer binder
[B] -Cured, mixed polymer binder

3) Aggregates. Furnish natural or synthetic aggregates which have a proven record of performance in applications of this type. Furnish aggregates that are non-polishing, clean, free of surface moisture, fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and meet the following properties and gradation requirements:

Property	Requirement	Test Method
Moisture Content [A]	≤ 0.20%	AASHTO T255
Hardness	≥6.5	Mohs Scale
Fine Aggregate Angularity	45% Minimum	AASHTO T304 Method A
Absorption	≤ 1%	AASHTO T84
Aggregate Gradation [B]	100% passing No. 4 15-25% passing No. 8 0-5% passing No. 16 0-1% passing No. 30	MT 202

[A] Sampled and tested at the time of placement.
[B] Or recommended gradation per manufacturer of polymer resin and approved by the Project Manager.

Required Properties of the Overlay System.

Property	Requirement [A]	Test Method
Minimum Compressive Strength (psi)	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C 579 Method B, Modified [B]
Thermal Compatibility	No Delaminations	ASTM C 884
Minimum Pull-off Strength	250 psi @ 24 hrs	ACI 503R, Appendix A

[A] Based on samples cured or aged and tested at 75°F

[B] Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.

C. Construction Requirements.

1) Manufacturer's Representative. Provide a manufacturer's representative on site for the duration of the work, to provide expert assistance on compatibility of materials, storage, mixing, surface preparation, application, clean-up, and disposal of materials.

2) Material Delivery and Storage. Store resin materials in their original containers and in a dry area. Store and handle materials in accordance with the manufacturer's recommendations. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

3) Submittals. Submit the following to the Project Manager a minimum of 14 calendar days prior to beginning the polymer overlay:

a) Product data sheets, specifications, and a certified test report from the manufacturer. The Project Manager may request samples of the primer, polymer, and aggregate prior to application, for the purpose of acceptance testing by the Department.

Product data sheets and specifications from the manufacturer consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

b) Product history/reference projects and a certified test report from an independent testing laboratory showing compliance with the requirements of the specification. The product history/reference projects consist of a minimum of 5 bridges / locations where the proposed overlay system has been applied in Montana or other locations with a similar climate. Include contact names for the facility owner, current phone number or e-mail address, and a brief description of the project.

4) Pre-installation Conference. Conduct a pre-installation conference with the manufacturer's representative prior to construction to establish procedures for maintaining optimum working conditions and coordination of work. Provide a copy of the recommended procedures to the Project Manager and apply the overlay system in accordance with the manufacturer's instructions. Ensure the manufacturer's representative familiar with the overlay system installation procedures is present during surface preparation and overlay placement to provide quality assurance that the work is being performed properly.

5) Sequence of Operations. The following is the sequence of operations when a Polymer Overlay is required:

a) Deck Repair.

b) Surface Preparation

c) Polymer Overlay Primer

d) Polymer Overlay

6) Material Compatibility. Ensure products used for the Deck Repair, Polymer Overlay Primer, and Polymer Overlay are all compatible with each other.

7) Deck Repair. Perform Class A and B deck repair work as specified elsewhere in the contract. Furnish cementitious-based material for deck repair which is compatible with the polymer overlay primer and polymer overlay system. Follow all manufacturer recommendations, including substrate cure times.

8) Surface Preparation. Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface profile meeting CSP 5 according to the International Concrete Repair Institute Technical Guideline No. 03732. If the Project Manager requires additional verification of the surface preparation, test the tensile bond strength according to ACI 503R, Appendix A of the ACI Manual of Concrete Practice.

The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of ¼ inch (6 mm) or more is greater than 50% of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the Project Manager or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast-clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours prior to the application of the overlay system.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2 inches (50 mm) above the overlay according to SSPC-SP 13 by sand blasting, using wire wheels, or other approved method.

Immediately prior to polymer overlay primer placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces with compressed air. When using compressed air, the air stream must be free of oil. Completely remove any grease, oil, or other foreign matter that rests on or has absorbed into the concrete. If any prepared surfaces (including the polymer overlay primer or the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (breeze blast) the exposed surfaces.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

The Project Manager may consider alternate surface preparation methods per the overlay system manufacturer’s recommendations. Do not place the polymer overlay primer or polymer overlay prior to Project Manager approval of the final surface profile and deck cleanliness.

9) Polymer Overlay Primer. Place polymer overlay primer in accordance with Subsection 552.03.19 of the Standard Specifications, except that the sand requirement is rescinded.

10) Overlay Application. Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer’s instructions. Do not apply the overlay system if any of the following conditions exist:

a) Ambient air temperature is below 50°F (10°C).

b) Deck temperature is below 50°F (10°C).

c) Moisture content in the deck exceeds 4.5% when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance with ASTM D4263.

d) Rain is forecast during the minimum curing periods listed under C.5.

e) Material component temperatures are below 50°F (10°C) or above 99°F (37°C).

f) Class B repair material concrete age is less than 28 days, unless approved by the Project Manager.

g) The deck temperature exceeds 100°F (38°C).

h) The polymer gel time is less than 10 minutes at the predicted high air temperature for the day.

After the deck has been shotblasted and during the polymer overlay primer and overlay curing periods, only necessary surface preparation and overlay application equipment will be allowed on the deck. Begin the polymer overlay primer placement as soon as possible after surface preparation operations, followed by the polymer overlay placement as soon as possible after placement of the polymer overlay primer placement. A wet on wet application of the polymer overlay primer and polymer overlay is allowed.

Use a polymer overlay consisting of a two-course application of polymer and aggregate, consisting of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. Use an application machine that features positive displacement volumetric metering and can store and mix the polymer resins at the proper mix ratio. Disperse the aggregate using a standard chip spreader or equivalent machine that can provide a uniform, consistent coverage of aggregate.

Apply the polymer overlay in accordance with the manufacturer's instructions, but not less than the following rate of application:

Application Rates

Course	Minimum Polymer Application Rate (GAL/100 SF)	Aggregate [A] (LBS/SY)
1	2.5	10+
2	5.0	14+

[A] Apply aggregate in sufficient quantity to completely cover the polymer.

If the Project Manager determines that the course application does not receive enough aggregate before the polymer gels, remove and replace the course.

11) Minimum Curing Period. After completion of the course, cure the overlay in accordance with the manufacturer's recommendations.

12) Opening to Traffic. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the Project Manager and manufacturer.

Clean expansion joints and joint seals of all debris and polymer.

Do not allow traffic on the treated area until directed by the Project Manager.

The Project Manager may require additional sweeping or cleaning to remove loosened aggregates from the deck following opening to traffic.

13) Repair of Polymer Overlay. Repair all areas of unbonded, uncured, or damaged polymer overlay at no cost to the State. Submit repair procedures from the manufacturer for approval. If no recommendations from the manufacturer, complete repairs in accordance with the following:

a) Saw cut the limits of the area to the top of the concrete.

b) Remove the overlay by scarifying, grinding, or other approved methods.

c) Shot blast or sand blast and air blast the concrete prior to placement of polymer overlay.

d) Place the polymer overlay in accordance with the application procedures required in this special provision.

D. Method of Measurement. Deck surface preparation is measured by square yard of deck surface area treated. Bridge Polymer Overlay Primer is measured by the square yard of deck surface area. Polymer Overlay is measured by square yard of deck surface area treated.

E. Basis of Payment. Payment for the completed and accepted quantities is made under the following:

Pay Item	Pay Unit
Prepare Deck	SQYD
Polymer Overlay Primer	SQYD
Polymer Overlay	SQYD

Payment at the contract unit price is full compensation for all resources necessary to complete the item of work in accordance with the contract.

36. SUPERSTRUCTURE JACKING

A. Description. Furnish all materials, labor and equipment necessary to raise and lower the existing superstructure in order to facilitate Approach Span bearing replacement on all girders at Bent No. 2 and Pier No. 8 and resetting the Main Span bearing on girder G10 at Bent No. 2. Provide design for any temporary structures used to support the jacks and bridge.

B. Materials and Equipment. Provide jack system, PTFE sheets and other temporary structures or methods to safely lift and support the superstructure for the duration of the work.

1) Jack System. Use hydraulic jacks, hydraulic pumps, and hydraulic control system capable of allowing tandem operation. Provide hydraulic jacks with lock nut or provide temporary shoring, to hold the superstructure in the raised position in the event of a loss of hydraulic fluid pressure.

2) Polytetrafluoroethylene (PTFE) Sheets. Provide lubricated sheets of PTFE that extend for the full plan dimensions of the larger of the top bearing plate or the jacking plate on the cross frame and are capable of resisting the bearing pressure due to the jacking and with a lubrication meeting SAE – AS8660.

C. Design Requirements. The following is a description of the anticipated service dead load per girder. It is based upon the assumption that the existing concrete deck has been removed, and there is no equipment, materials, or vehicular live load on the span being jacked. The estimated service dead load per girder is shown in the table below assuming deck is removed.

Location	Superstructure Member Type	Service Dead Load
Bent No. 2 & Pier No. 8	Approach Span Girder	10 kips
Bent No. 2 & Pier No. 8	Main Span Girder	13 kips

D. Submittals.

1) Jacking Plan. Submit for review a minimum of 30 calendar days before performing superstructure jacking a jacking plan which includes the sequence of jacking operations, the anticipated total time for the jacking operation and bearing replacement, list of proposed equipment used to perform the work as well as any shoring details and timber or steel blocking.

2) Jack System. Provide manufacturer specification sheets for Safe Working Loads and Ultimate Loads for the jacking system. Include the system's maximum rated pressure, as well as the proposed location of pressure gauges that will be used to monitor the system.

3) Provide Calculations stamped by a licensed Montana Professional Engineer showing the ultimate and safe working capacities for any custom shoring, bracing or blocking used.

E. Construction Requirements

1) The superstructure jacking and bearing replacement are a continuous activity. Keep the time the superstructure is supported on jacks to the minimum necessary to replace the bearings. Have bearing units ready for installation prior to commencing superstructure jacking.

2) Raise and lower the superstructure uniformly at each bent to prevent differential displacement and damage to the existing girders or diaphragms/bracing. Provide the necessary hydraulic pressure gauges, displacement gauges or other appropriate devices to monitor the jacking operation. Repair any damage to the bridge caused by jacking at no cost to the State. The Contractor is responsible for the stability of the structure during the work.

3) Do not jack at multiple bents simultaneously. Complete the jacking operation at one bent before commencing jacking at the other bent.

4) Jack Location. Center jack under jacking diaphragm stiffeners as detailed in the contract plans and as-built drawings. Use shims and bearing plates as required to provide uniform contact between the bent/pier cap, the jack, and the girder bottom flange

5) Thermal Expansion. Allow for longitudinal thermal movement of the span, while the superstructure is supported on jacks by placing two sheets of lubricated PTFE between the diaphragm jacking plate and the top bearing plate. Alternative methods may be submitted for approval by the Project Manager.

6) Raise the superstructure as required to replace the bearings, but not more than 1”. Estimated service member dead loads are provided elsewhere in this special provision. Provide gauged or other approved means to indicate jacking forces. Monitor jacking forces during the work and immediately notify the Project Manager if jacking forces exceed 125% of the member dead load service values listed above.

F. Method of Measurement. All temporary structures, temporary bracing, hydraulic jacks, associated design, and other incidentals needed to raise and lower the superstructure are not measured for payment. New bearing assemblies including new sole plates and elastomeric pads as well as any field welding of the existing superstructure to the new bearing is considered incidental to the unit Bid Item Elastomeric Bearing Device.

G. Basis of Payment. Include all costs associated with raising and lower the superstructure, including the installation of temporary shoring, shims or other hardware in the lump sum bid for Superstructure Jacking. Payment for the bearing assemblies including new sole plates, elastomeric pads, as well as any field welding of the existing superstructure to the new bearing is included in the unit price bid for Elastomeric Bearing Device.

37. PAINT EXISTING STRUCTURAL STEEL

A. Description. Furnish all materials and resources to clean, remove and repair pack rust, and paint the existing steel girders, cross frames, stiffeners, bearings, and other steel elements in both Approach Spans and Main Span within 5 ft. of the expansion joints at Bent No. 2 and Pier No. 8. and as directed by the Project Manager. Use a three-coat overcoat system that is applied over the existing paint in accordance with the Standard Specifications and as specified herein. Use an epoxy penetrating sealer pre-prime instead of an epoxy zinc rich primer.

B. Materials

1) Paint. Provide a surface coating, compatible with both the existing paint and the new Epoxy Penetrating Sealer, per the standard specifications that is intended to be used over existing paint and capable of being applied in various weather conditions including cold and/or damp conditions.

2) Epoxy Penetrating Sealer. Use a penetrating sealer compatible on all surfaces.

a) Rustbond Penetrating Sealer, as manufactured by the Carboline Company, St. Louis MO

b) Amerlock Sealer as manufactured by PPG, Montvale NJ

c) MACROPOXY 920 Pre-Prime as manufactured by The Sherwin Williams Company, Cleveland OH

3) Pack Rust Repair.

a) Epoxy Penetrating Sealer. Provide a penetrating sealer as described in Section 2) for pack rust repair areas.

b) Polyurethane Sealant. Use a sealant meeting the requirements of ASTM C920, Type S, Grade NS, Class 50

c) Preformed, closed-cell foam material meeting the requirements of the table below

Property	Test Method	Specification	
		Minimum	Maximum
Extrusion	ASTM D545 @ 50% Compression 3 Sides Restrained	-	1/4 inch
Compression Deflection	ASTM D3575, Suffix D 50% Deflection @ 80° F	10 psi	60 psi
Density	ASTM D3575, Suffix W, Method A	2 pcf	3 pcf
Water Absorption	ASTM D545	-	3%
Compression Set	ASTM D1056, 50% Deflection for 22 hrs. @ 70 ± 5° F	-	15% @ 168 hrs.

C. Submittals. Per the Standard Specifications and as specified below.

1) Containment System. Contain and dispose of existing paint. Submit the proposed containment system details along with written description of how loose and removed paint will be contained and disposed.

2) Existing Paint Testing. Submit a proposed sampling and testing plan that will be used to show that the proposed overcoat paint is compatible with the existing paint. Include the number and size of samples provided as well as the tests that will be performed to ensure compatibility. Upon approval of the sampling and testing plan, sample the existing paint, test, and provide the test results with certification that the proposed paint system is compatible with the existing paint.

3) Pack Rust Repair. Submit for approval, the proposed methods to remove pack rust, dry the repair area, and proposed sealants with manufacturer's instructions.

4) Provide a paint sample for approval to the Project Manager that matches the existing color of the in place structural steel.

D. Construction Requirements.

1) Apply an epoxy penetrating sealer on all surfaces where an overcoat system is applied.

2) Provide an existing paint overcoat system compatible with the existing paint.

3) Provide a finish coat that matches the existing steel color.

4) Surface Preparation. Prepare the existing steel surface in accordance with the Standard Specifications for existing structural steel with an overcoat system and the paint system manufacturer's recommendations. The existing steel does not have to be cleaned to SSPC-SP6 requirements.

5) Pack Rust Repair. Repair areas subject to pack rust as identified by the Project Manager. Use the following repair procedures unless otherwise approved by the Project Manager.

a) Notify the Project Manager of locations not identified on the Plans where built-up steel sections are deformed over 1/4" due to pack rust. Repair these areas as directed by the Project Manager.

b) Do not remove existing fasteners and/or disassemble built-up members to remove pack rust.

c) Remove the existing paint in the areas of pack rust removal per the requirements in the Standard Specifications.

d) Remove the pack rust in the deformed area by power tool cleaning to a depth equal to the separation distance between the plies but not less than one-half inch.

e) Pressure washing between steel plies where pack rust is present is prohibited

f) With the pack rust removed, dry the repair area by applying artificial heat until the surface temperature reaches 250° F.

g) Immediately after the surface has been dried, saturate the repair area by applying an epoxy penetrating sealer (sealer). Apply the sealer in accordance with the manufacturer instructions.

h) Encapsulate (caulk) the exposed surface and edges of the repair area with a closed cell foam material and polyurethane sealant. Before encapsulating ensure the area is free of dirt, dust, rust, loose paint and any other material that would interfere with the adhesion of the closed cell foam material. Fill areas of pack rust repair flush with the vertical edges of steel flanges and without voids or air pockets. Apply closed cell foam and polyurethane sealant in accordance with the manufacturer's instructions.

E. Measurement and Payment. Include all costs associated with designing, installing and removing the containment system, surface preparation, pack rust repair, collection and disposal of existing paint, and painting of the existing steel will be measured in the field and paid per square yard in the unit price bid for Paint Existing Structural Steel.

38. LEAD BASED PAINT REMOVAL AND DISPOSAL

Description. Lead and other heavy metal based paint removed from highway bridge structures is considered hazardous waste. Remove lead-based paint from steel bridge components, as necessary, to complete the painting of existing steel girders to the limits shown in the plans.

EPA considers paint to be regulated as lead containing when the surfaces contain more than 1.0 milligram per square centimeter (mg/cm2). Testing for lead has been conducted on the project bridge paint using X-ray Fluorescence (XRF) analysis, which discovered lead at concentrations of 4.0 to 6.2 mg/cm2 in the silver painted bridge railing and posts, 4.8 mg/cm2 in the silver column ice plates breakers, 4.2 to 8.9 mg/cm2 in the steel girders and diaphragms and 8 mg/cm2 on the plates associated with fixed and expansion bearings supporting the steel girders, indicating these painted surfaces should be treated as lead hazardous waste. Lead-based paint can cause serious health effects on workers and the environmental if precautionary measures are not conducted. Additional information on the results of the testing can be provided upon request.

Lead-based paint can cause serious health effects on workers and the environment if precautionary measures are not conducted. Any work that disturbs the paint may (1) expose workers to health hazards and (2) produce debris containing heavy metals in amounts that exceed hazardous waste thresholds established in state and federal regulations.

A. Construction Requirements.

1) Remove lead-based paint on the steel girders in those locations shown on the plans that require painting of existing steel or as directed. Do not allow paint to escape into the environment. Immediately halt work if removed lead-based paint waste is observed to be entering the environment and re-evaluate work procedures to ensure complete capture of lead-based paint waste.

2) Containerize and dispose of any lead-based paint waste in accordance with applicable regulations, which may include RCRA regulations (40 CFR Parts 266-299). Comply with all storage and transportation requirements.

3) Submit a Paint Removal and Disposal Workplan describing at a minimum; removal and containerization of lead-based paint waste and; worker protection for lead-based paint removal. Utilize an individual (industrial hygienist or certified safety professional) who has

the experience and the qualifications with OSHA and EPA regulations to prepare the workplan. This individual will supervise the work covered in the workplan. Include the individual's qualifications and experience including resumes, training courses, certificates, references, etc. Meet the OSHA lead standards of Title 29, CFR 1926.62 as they apply to the method used for paint removal, containerization and handling for worker protection health and safety. Describe medical surveillance, exposure monitoring, respiratory protection (if applicable), personal hygiene, employee training, employee access to records, hazard communication and a compliance program to reduce lead exposure to within the permissible exposure limits (PELs).

Submit three copies of the workplan to the Project Manager at least 15 working days prior to conducting any work where disturbance of lead-based paint will occur on the bridge. The Department will review the workplan within 10 working days and either approve the plan or request modifications. The Department will review re-submitted workplans within another 10 working days of receipt. No additional contract time will be allowed for review of re-submitted workplans. Proceed only after obtaining the Project Manager's approval of the plan. Address the following items in the workplan:

a) Describe procedures for the removal and containment of lead-based paint on areas where work will be conducted on the bridge structure.

b) Include activities (procedures and materials) that will be conducted to protect the environment (i.e. soil, water, etc).

4) Test waste streams as directed by the disposal facility accepting the lead-based paint waste. Provide all analytical results to the Project Manager.

B. Contractor Responsibilities. Be familiar with and perform all work in accordance with all applicable standards provided in the Code of Federal Regulations, Title 29 Part 26, including the OSHA Hazard Communication Standard (29 CFR 1926.59), the OSHA Lead Standard (29 CFR 1926.62), and the OSHA Respiratory Standard (29 CFR 1926.134); the Resource Conservation and Recovery Act (40 CFR Parts 266-299) and Administrative Rules of Montana Title 17 Chapter 53. To obtain copies of the Federal regulations, contact the U.S. Governments Printing Office at (202) 783-3238. Questions concerning state regulations or to obtain copies of state regulations, contact the Montana Department of Environmental Quality, Hazardous Waste Program at 406-444-5300.

C. Measurement and Payment. Include the costs associated with the requirements of this special provision in the cost of other items.

39. MODULAR EXPANSION JOINT

A. Description. Furnish all materials and labor to design, fabricate, assemble, install, and test the modular joint system as shown on the plans and defined in this provision. Provide a modular expansion joint device that seals the deck surface, gutters, and barriers as indicated on the plans, and prevents water from seeping through the joint area. Provide a continuous full length shop fabricated modular joint system that consists of a preformed elastomeric expansion joint seal mechanically held in place by steel edge members and separation beams and remains stable under all conditions of expansion and contraction. Use manufacturer's whose modular expansion joints have met the fatigue resistance characterization requirements stipulated elsewhere in this provision prior to award. Testing required to establish the fatigue resistance of a specific proprietary system cannot be performed after award of the contract.

B. Materials. Furnish all materials as specified by the approved joint supplier and equipment required to complete the work.

1) Structural Steel. Furnish structural steel meeting the requirements of ASTM A709 Grade 50, galvanized.

2) Stainless Steel. Provide stainless steel conforming to ASTM A 240 Type 304

3) Aluminum. Aluminum components are not permitted.

4) Polytetrafluorethylene (PTFE). Provide 100% virgin Teflon, woven PTFE fabric, or dimpled PTFE conforming to the requirements of Section 18.8 of the AASHTO LRFD Bridge Construction Specifications

5) Expansion Joint Seals. Limit the maximum size of any expansion joint strip seal to 3 inches. Do not use box-type seals or seals utilizing double webs. Provide continuous seals without splices.

Property	Test Method	Range of Values
Hardness, Durometer A	ASTM D2240	55-70
Tensile Strength	ASTM D412	2000 psi Minimum
Elongation at Break	ASTM D412	250% Minimum
Compression Set at 72 hr. at 212°F	ASTM D395	40% Maximum

6) Bolts, Nuts, and Washers. Use bolts and hardware conforming to the requirements of ASTM F3125 Grade A325 Type 1 and galvanized in accordance with ASTM F2329 and the Standard Specifications.

7) Welded Concrete Anchors. Provided headed anchors meeting the requirements of ASTM A108 and as detailed in the shop plans.

8) Blockout Concrete. Use Concrete – Class Structure Low Slump for the expansion joint blockout.

C. Design Requirements. Design the modular joint system in accordance with the current AASHTO LRFD Bridge Design Specifications, the movements shown on the plans, and other requirements included in this provision.

1) Design and provide a watertight system

2) Design the elastomeric or urethane springs and bearings to be removable and replaceable.

3) Design the joint to allow for replacement of the strip seals from the roadway surface with 1.25 inch minimum gap width.

4) Do not allow the joint seals to protrude above the top of the joint and design the system to remain stable without appreciable change in the deck surface plane under the range of motion. Split extrusions may be used at the barrier upturns.

5) Account for the effect of all rotations and movements permitted by the bearings in the design of the joint system.

6) Review the plans and provide revisions to the reinforcing steel and concrete cover near the joint to minimize cracking.

7) Design the system to minimize potential for fatigue damage.

D. Submittals.

1) Manufacturer’s Qualifications. Use a modular joint manufacturer experienced with the design and fabrication of modular joints and that is certified through the AISC Quality Certification Program under the category for Simple Steel Bridge Structures. Submit for approval the manufacturer’s qualifications prior to ordering materials and beginning the work. Include written certification that the manufacturer has at least three years of experience in designing and manufacturing modular expansion joints. Include the location of each bridge, installation date, governmental agency/owner and the name, address and phone number of the owner’s representative. Include the manufacturer’s AISC certifications.

2) Fatigue Testing. Provide a modular joint system that has been tested and designed in accordance with the guidelines provided in the National Cooperative Highway Research Program (NCHRP), Report 402 “Fatigue Design of Modular Bridge Expansion Joints” as well as the Chapter 14 of the AASHTO LRFD Bridge Design Specifications. Submit full

specimen life cycle fatigue test report done by a nationally recognized independent testing laboratory to the Project Manager for approval at least 60 days prior to installation.

3) Shop Drawings and Design Calculations. Provide calculations and shop plans in accordance with other contract requirements. The shop plans and calculations must bear the stamp and signature of a Professional Engineer licensed to practice in Montana. Include the following information as a minimum:

a) Plans, elevations and sections of the joint system.

b) Complete details of all components and sections showing all materials incorporated in the expansion joint system including all bolted and welded splices and connections.

c) Details and material designations pertinent to the corrosion protection system.

d) Installation plan including sequence, lifting mechanisms and locations, details of temporary anchorages during setting, temperature adjustment devices, opening dimensions relative to temperature, details for installation at curbs and seal installation details.

Include the qualifications or the manufacture's Installation Technician that will be available during installation of the joint system. The Installation Technician provides written certification that the joint system was installed in accordance with the manufacturer's instructions.

e) Plan for achieving water tightness including details related to performing the water tightness test as required elsewhere in this provision.

f) Requirements related to the temporary support of the modular joint system for shipping, handling and job site storage.

g) Design calculations for all structural elements including springs and bearings. Include fatigue design for all structural elements, connections and splices.

h) Welding procedures in compliance with the current AASHTO/AWS D1.5 Bridge Welding Code

i) A written maintenance plan and part replacement plan to facilitate replacement of parts subject to wear. Include a list of parts, instructions for maintenance inspection, acceptable wear tolerances and methods for determining wear, procedures for replacing worn parts, and procedures for replacing seals.

j) Any required modifications to the plans needed to accommodate the modular expansion joint.

4) Certificates of Compliance. Submit with the shop plans the following certifications.

a) Manufacturer's AISC Quality Certification

b) Documentation that welding inspection personnel are qualified and certified as welding inspectors under AWS QC1, Standard for Qualification and Certification of Welding Inspectors.

c) Documentation that personnel performing nondestructive testing (NDT) are qualified and certified as NDT Level II under the American Society for Nondestructive Testing (ASNT) Recommended Practice SNT-TC-1a.

5) Prior to fabrication submit for approval the following test reports and certificates of compliance:

a) Manufacturer's certificate of compliance for all PTFE sheeting, PTFE fabric, elastomers and epoxy binder.

b) Certified mill test reports for all steel and stainless steel in the expansion joint assemblies.

c) Certified test reports confirming that the springs and bearings meet the design load requirements.

6) Warranty. Provide a five year written guarantee for the operation and durability of the modular expansion joint. Broken welds, cracks in the steel members, fatigue, loss of precompression in the springs or bearings, debonded PTFE, breakdown of the corrosion

protection, and leakage constitutes unsatisfactory operation and durability of the system. Cover under the guarantee replacement or repair of any joint parts within the first five years, commencing from the actual completion date of the Contract in accordance with the Standard Specifications. Replace or repair any joint parts within the period of the guarantee at the Contractor's expense.

E. Construction Requirements.

1) Fabrication.

a) Certified Manufacturer. Fabrication of the joint system by the manufacturer holding the required certifications is required.

b) Shop Welded Connections. Provide full penetration weldments for splices in horizontal center beams and edge beams. Provide full penetration weldments in all center beam to support bar connections.

c) Support Box Construction. Minimum plate thickness for support box construction is 3/8" thick. Provide continuous welds to connect plates forming the support box. Caulking is not permitted. Affix the upper and lower support bar bearings in a stationary position within the box and provide a bonded Teflon finish at the stainless steel sliding surface of the support bar.

d) PTFE Sliding Surface. Construct the PTFE surface smooth and free of bubbles in accordance with the instructions from the manufacturer.

e) Stainless Steel Sliding Surface. Polish the stainless steel sliding surface as specified in ASTM A480 to a No. 8 mirror finish. Seal weld all around the stainless steel sheet to the steel backing plate by the tungsten-arc welding process in accordance with the current AWS specifications. Clamp down the stainless steel sheet to have full contact with the steel backing plate during welding. Do not allow welds to protrude beyond the sliding surface of the stainless steel.

f) Corrosion Protection. Protect all steel surfaces, except surfaces under the stainless steel or those to be bonded to PTFE or those in direct contact with the seal, against corrosion by hot-dip galvanizing in accordance with the requirements of AASHTO M111

2) Shipping and Handling.

a) Deliver and store the joint system on site in accordance with the manufacturer's instructions and as approved on the shop plans.

b) Do not install lifting mechanisms or other temporary appurtenances on the center beams or edge beams.

c) Damage to the joint system due to improper shipping and handling is just cause for rejection of the joint system. Repair damage to the corrosion system per the manufacturer's instructions and as approved by the Project Manager.

3) Installation.

a) Install the joint assembly in accordance with the manufacturer's instructions. Have available, the services of a qualified installation technician from the manufacturer to assist with the installation. Provide the written instructions from the manufacturer and installation technician to the Project Manager two weeks prior to installing the joint system. Provide written certification signed by the manufacturer's installation technician that the joint assembly was installed per the manufacturer's instructions.

b) Install the joint to provide a gap corresponding to the ambient temperature at the time of installation.

c) Install the joint assembly to match the finished roadway profile and grades shown on the plans. Recess the joint rails 1/4" below the finished grade. Survey the joint to confirm the installation is at the correct elevations prior to placing concrete in the blockout.

d) Replace elements with unintended bends or kinks at the Contractor's expense. Straightening of bends or kinks is not permitted.

e) Take precautions to prevent damage to the joint during construction operations. Do not allow construction loads on the joint after installation. Provide a positive means of

bridging over the joint to allow passage of construction traffic as approved by the Project Manager.

f) Clean and remove all formwork, temporary appurtenances, and debris as a result of the installation and that may impede movement of the joint.

g) Water test. Test the expansion joint system for water tightness after installation. Flood the joint for a minimum of one hour to a minimum depth of 3 inches. If leakage is observed, repair the joint system at the Contactor's expense. Use repair procedures provided by the manufacturer and as approved by the Project Manager. Any seeping water through the joint is cause for rejection of the expansion device.

h) Final Inspection. The Department will inspect the expansion joint upon arrival at the job site and prior to installation. The Department will inspect the joint system for proper alignment, complete bond between the neoprene seals and the steel, and proper stud placement and effectiveness. Provide clean and dry access to the areas needed for inspection. Replace all work that does not meet the requirements of the plans and manufacturer's instructions to the satisfaction of the Project Manager. Replace any studs that are not installed within 1 inch of the location depicted on the shop plans, do not have complete end welds, or do not emit a ringing sound when struck with a light hammer blow. Repair or replace expansion joints that fail inspection to the satisfaction of the Project Manager. Submit any proposed corrective action to the Project Manager for approval prior to beginning corrective work.

F. Method of Measurement. Modular expansion joints are measured per linear foot for each joint size and location, furnished and installed, measured parallel to the plane of the finished joint surface along the centerline of joint between the limits shown on the plans.

G. Basis of Payment. Payment for Expansion Joint – Modular includes all costs associated with designing, furnishing, testing, and installing the joint system and concrete within the deck blockout in accordance with the plans and this provision.

40. TRAFFIC CONTROL PLAN

A. Description. Provide traffic control in accordance with Section 618, Detailed Drawings, the Plans, the "Traffic Control Rate Schedule", and the MUTCD. Work zones that will return to normal use before darkness falls may use a combination of arrow boards and portable channelizing devices. Use type 2 object markers to mark obstructions or hazards adjacent to the roadway.

B. Construction.

1) Use standard signing for all lane closures and open median crossovers.

2) Do not close roadways or reduce traffic to single lanes during the winter shutdown period from November 15 through April 15. Restore traffic to normal flow throughout this period.

3) Median Crossovers.

a) Maintain two-way interstate traffic through the use of median crossovers as shown in the plans or otherwise approved by the Project Manager.

b) Use temporary barricades to close all median crossovers left in place during the winter shutdown period.

c) Provide traffic lanes 14 feet in width (minimum) for single lane traffic on the interstate.

C. Measurement and Payment.

Traffic Control Devices are measured and paid for according to Section 618 and the "Traffic Control Rate Schedule" and as found elsewhere in these special provisions.

41. CROSSOVER CONSTRUCT, MAINTAIN, AND CLOSE [618]

A. Description. This work is the construction, maintenance, and closure of crossovers as specified in the contract.

B. Materials. Vacant.

C. Construction Requirements. Construct crossovers and include necessary culverts at the locations shown on the plans. Provide traffic control meeting the requirements of Section 618.

Remove topsoil from the construction area in accordance with Subsection 203.03.6. Store the topsoil in a manner that does not pose a hazard or impede drainage.

Perform grading operations in accordance with Section 203.

Place the crushed aggregate course and plant mix surfacing to the limits and thicknesses specified in the contract. Perform work associated with crushed aggregate course placement in accordance with Section 301. Perform plant mix surfacing operations as specified elsewhere in the contract.

Sign, stripe, and place traffic control devices necessary for crossover operation as specified in the contract.

Maintain crossovers in a manner that provides the traveling public with a safe and smooth riding surface. Failure to maintain crossover in a manner that provide the traveling public a safe and smooth riding surface is cause for the Project Manager to stop work until corrective actions take place. All costs associated with delay in the stopped work is solely the Contractor's responsibility.

Remove all temporary striping and traffic control devices upon completion of construction activities.

D. Method of Measurement. Crossover, Construct, Maintain, and Close will be measured per each. Traffic Control Devices required for crossover construction, maintenance, and closure are incidental to the item and not measured for payment.

E. Basis of Payment. Payment for the completed and accepted quantities is made under the following:

PAY ITEM	PAY UNIT
Crossover – Construct, Maintain, Close	Each

Payment at the contract unit price is full compensation for all resources necessary to complete the item of work under the contract. Include traffic control to construct, maintain, and close the crossover in the Crossover – Construct, Maintain, and Close bid item.

42. CROSSOVER TRAFFIC CONTROL [618] (ADDED 10-5-11)

A. Description. This work is the furnishing, installing and maintaining of traffic signs, barricades, lights, signals, pavement markings, and other specified traffic control devices on contracts utilizing crossovers.

B. Materials. Furnish materials meeting Subsection 618.02

C. Construction Requirements. Provide traffic control in accordance with Section 618. Furnish a traffic control plan in accordance with Subsection 618.03.2.

1) Traffic Control – Crossover. Construct and sign crossovers as specified in the contract, including plan details and Detailed Drawing 618-30. Remove existing striping and re-stripe and sign for first phase of the cross-over. Upon completion of that phase of work, remove striping and re-stripe and sign for the opposite phase.

2) Traffic Control – Two-Way Traffic. Sign, stripe, and divide traffic between crossovers meeting contract requirements. Use glued-down hinged flexible guideposts for two-way traffic operation. Use flexible, self-erecting delineators capable of withstanding numerous impacts from any direction without splitting, breaking, or detaching from the base or the surface to which the base is attached. Replace and reset any flexible delineator incapable of withstanding traffic impacts.

3) Traffic Control. Install traffic control meeting the contract requirements for work not performed while traffic is on crossovers and for additional traffic control or signing not shown on the plans.

D. Method of Measurement.

1) Traffic Control – Crossover. Each phase of the crossover is measured as one Traffic Control – Crossover and includes the furnishing, installing, maintaining and removal of traffic control devices, pavement markings, striping, and the replacement of all damaged devices.

2) Traffic Control – Two-Way Traffic. Two-way traffic control is measured by the mile (kilometer) along the double yellow striping and includes the furnishing, installing, maintaining and removal of traffic control devices, pavement markings, striping, and all replacement of damaged devices.

3) Traffic Control. Traffic control required for work performed while traffic is not on crossovers or for additional work not shown in the contract will be measured by the unit used and accepted according to the value shown in the "Traffic Control Rate Schedule."

E. Basis of Payment. Payment for the completed and accepted quantities is made under the following:

PAY ITEM	PAY UNIT
Traffic Control – Crossover	Each
Traffic Control – Two-Way Traffic	Mile (kilometer)
Traffic Control	Unit

Payment at the contract unit price is full compensation for all resources necessary to complete the item of work under the contract.

43. WIDE LOAD AND SUPERLOAD ACCOMMODATION [618] (REVISED 9-09-21 M)

Coordinate with the Project Manager to accommodate wide loads and superloads during construction.

A. Wide Loads. Provide passage of loads greater than 12-feet, and up to 18-feet, wide through the project area at least 5 consecutive days/ week and two hours/day. Provide wide load passage during off peak hours. Coordinate with the Project Manager to facilitate passage of wide loads on other projects on the same route or in proximity.

Place wide load information signs at the following locations or as directed by the Project Manager. Furnish and install signs shown on the following detail, meeting Detailed Drawing 618-01. The ROUTE will specify the route number, DIR will specify the direction of the construction, and MP will specify the milepost(s) of the work.



Sign information, if known:

12' Width Restriction
I-90 EB MP 78.9 -80.5
Additional Information

Sign Location	Location Description
RP 34.00, I-90 EB	1000-FT past the Exit 33 I-90 EB on-ramp at St. Regis
RP 77.05, I-90 EB	100-FT in advance of the Exit 77 I-90 EB off-ramp, Petty Cr. Road.
RP 83.00, I-90 WB	1000-FT in advance of the Exit 82 I-90 WB off-ramp, Nine Mile Road
RP 96.00, I-90 WB	1000-FT past the Exit 96-I-90 WB on-ramp at the Wye.
RP 1.00, HWY 135	1.0 Mile north of St. Regis on HWY 135.

B. Superloads. Loads greater than 18'0" wide, 150'0" long, or 17'0" high must contact the Prime Contractor Monday – Friday, 8:00 AM to 5:00 PM, before traveling to make special arrangements to be escorted through the project site on a case-by-case basis. Notify the Project Manager and provide justification before denying carriers access to the project.

C. Measurement and Payment.

1) Wide Loads. Traffic control necessary for wide load staging areas including wide load staging signs, staging information signs, arrow boards, lane closures, and wide load passage / marshaling will be included in the traffic control bid item Traffic Control Device CB - UNIT.

2) Superloads. Traffic control necessary for marshaling superloads is paid for by the Department. Pilot cars, flaggers, damaged devices, and Category #2-Adjustments will be paid for in accordance with the contracts Traffic Control Rate Schedule.

A flat fee of $275 will be paid to cover administration cost for each permitted superload load that necessitates an escort. The $275 fee will be paid for superloads that require an escort outside of the contract required wide load marshaling times. To receive payment for superload administration provide written documentation to the Project Manager 24 hours prior to the superload's arrival on project. This fee is paid under Miscellaneous Work.

3) Wide load information signs will be paid for as Single Use Signs (SQ FT). Cover the signs during the winter suspension if necessary. No separate payment will be made to cover wide load detour signs during winter suspension.

Bid Item	Quantity	Unit
618 100 000	471.3	SF

44. CROSSOVER CABLE GUARDRAIL

A. Description. Install new high-tension cable-barrier (socketed posts) on the crossovers shown as being closed in the plans. Ensure high tension cable rail meets MASH TEST LEVEL 3 criteria. Use removable socketed posts. Install tension cable rail in accordance with the manufacturer's specifications. Construct cable rail in the middle of the crossover and parallel to the roadway, offset to one side of the crossover centerline to avoid conflict when a

crossover culvert is installed. Construct the cable rail upon completion of project construction activities and when the crossover is no longer needed.

B. Measurement and Payment. Cable rail is measured by the foot, excluding the length of the terminal sections. Include the cost to construct the complete cable guardrail assemblies including the terminal section in the unit price bid for High Tension Cable Rail.

45. REMOVE GUARDRAIL

A. Description. Remove and salvage guardrail in accordance with Section 606 of the Standard Specifications. Stockpile the salvaged material at the Missoula maintenance yard located at 2100 West Broadway, Missoula, MT. Contact Steve Felix at 406-523-5800. Stockpile approved salvage material in a manner and location as directed by the Project Manager. Dispose of non-salvageable material in accordance with all applicable laws, rules, regulations and the Montana Solid Waste Management Act.

B. Basis of Payment. Remove Guardrail will be measured by the lineal foot. Payment will include all equipment, labor, handling and disposal by the contractor and any incidentals necessary to complete the work.

46. RESET SIGNS AND DELINEATORS

A. Description. Reset signs and delineators within the project limits as required to accommodate the work.

B. Construction. Reset signs and delineators that are in conflict with bridge work within the project limits as required to accommodate the work. Repair the damage to these items resulting from construction operations to the satisfaction of the Project Manager.

C. Basis of Payment. Resetting signs, delineators and the repair of construction related damage to these items, is not paid for separately, but is included in the unit price bid for other items of the contract.

47. REVEGETATION

A. Description. This work consists of providing the necessary equipment and materials to accomplish revegetation of ground disturbed by construction activities and/or directed by the project manager.

B. Materials. Furnish the following seed mix. Use substitute species only if the recommended species is not available and substitution is approved by MDT's reclamation specialist.

Reclamation Seed Mixture			Broadcast Seeding Rate		
Scientific Name	Common Name	Variety	Pounds PLS/ acre	PLS / sq. ft.	% of Mix
Elymus trachycaulus	Slender wheatgrass	Pryor, First Strike, Copperhead or Revenue	4.0	13	12
Elymus lanceolatus spp. riparium	Streambank wheatgrass	Sodar	5.0	17	17
Pascopyrum Smithii	Western wheatgrass	Rosana or Recovery	10.0	21	20

Achnatherum hymenoides	Indian ricegrass	Rimrock	5.0	27	26
Poa secunda (P. ampla)	Big bluegrass	Sherman	1.0	20	19
Achillea millefolium	Western yarrow	Eagle or Great Northern	0.1	7	6
		GRAND TOTAL	25.1	105	100

C. Construction Requirements.

1) Salvage sufficient quantities of topsoil to place 4 inches over all disturbed areas immediately following topsoil placement, condition seedbed and broadcast seed with the seed mix and equivalent rates.

2) Following broadcast seeding, scarify the areas to incorporate the seed into the upper ¼ to ½ inch of soil.

D. Basis of Payment. Topsoil salvage, replacement, soil conditioning and reseeding are paid for as REVEGETATION at the Contract unit price for Lump Sum.

END OF SECTION I

MDT NONDISCRIMINATION AND
DISABILITY ACCOMMODATION NOTICE

Montana Department of Transportation ("MDT") is committed to conducting all of its business in an environment free from discrimination, harassment, and retaliation. In accordance with State and Federal law MDT prohibits any and all discrimination and protections are all inclusive (hereafter "protected classes") by its employees or anyone with whom MDT does business:

Federal protected classes	State protected classes
Race, color, national origin, sex, sexual orientation, gender identity, age, disability, income-level & Limited English Proficiency	Race, color, national origin, parental/marital status, pregnancy, childbirth, or medical conditions related to pregnancy or childbirth, religion/creed, social origin or condition, genetic information, sex, sexual orientation, gender identification or expression, ancestry, age, disability mental or physical, political or religious affiliations or ideas, military service or veteran status, vaccination status or possession of immunity passport

For the duration of this contract/agreement, the PARTY agrees as follows:

(1) Compliance with Regulations: The PARTY (hereinafter includes consultant) will comply with all Acts and Regulations of the United States and the State of Montana relative to Non-Discrimination in Federally and State-assisted programs of the U.S. Department of Transportation and the State of Montana, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

(2) Non-discrimination:

a. The PARTY, with regard to the work performed by it during the contract, will not discriminate, directly or indirectly, on the grounds of any of the protected classes in the selection and retention of subcontractors, including procurements of materials and leases of equipment, employment, and all other activities being performed under this contract/agreement.
b. The PARTY will provide notice to its employees and the members of the public that it serves that will include the following:
    i. A statement that the PARTY does not discriminate on the grounds of any protected classes.
    ii. A statement that the PARTY will provide employees and members of the public that it serves with reasonable accommodations for any known disability, upon request, pursuant to the Americans with Disabilities Act as Amended (ADA).
    iii. Contact information for the PARTY's representative tasked with handling non-discrimination complaints and providing reasonable accommodations under the ADA.
    iv. Information on how to request information in alternative accessible formats.

c. In accordance with Mont. Code Ann. § 49-3-207, the PARTY will include a provision, in all of its hiring/subcontracting notices, that all hiring/subcontracting will be on the basis of merit and qualifications and that the PARTY does not discriminate on the grounds of any protected class.

(3) Participation by Disadvantaged Business Enterprises (DBEs):

a. If the PARTY receives federal financial assistance as part of this contract/agreement, the PARTY will make all reasonable efforts to utilize DBE firms certified by MDT for its subcontracting services. The list of all currently certified DBE firms is located on the MDT website at mdt.mt.gov/business/contracting/civil/dbe.shtml

b. By signing this agreement, the PARTY assures MDT that:

The contractor, sub recipient 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 recipient deems appropriate.

c. The PARTY must include the above assurance in each contract/agreement the PARTY enters.

(4) Solicitation for Subcontracts, Including Procurement of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation, made by the PARTY for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the PARTY of the PARTY's obligation under this contract/agreement and all Acts and Regulations of the United States and the State of Montana related to Non-Discrimination.

(5) Information and Reports: The PARTY will provide all information and reports required by the Acts, Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by MDT or relevant US DOT Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the PARTY will so certify to MDT or relevant US DOT Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

(6) Sanctions for Noncompliance: In the event of a PARTY's noncompliance with the Non- discrimination provisions of this contract/agreement, MDT will impose such sanctions as it or the relevant US DOT Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the PARTY under the contract/agreement until the PARTY complies; and/or

b. Cancelling, terminating, or suspending the contract/agreement, in whole or in part.

(7) Pertinent Non-Discrimination Authorities: During the performance of this contract/agreement, the PARTY, for itself, its assignees, and successor in interest, agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Federal

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airways Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (broadened the scope, coverage, and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients, and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Non-Discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which prevents discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English Proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681 *et seq.*).

- Executive Order 13672 prohibits discrimination in the civilian federal workforce on the basis of gender identity and in hiring by federal contractors on the basis of both sexual orientation and gender identity.

State

- Mont. Code Ann. § 49-3-205 Governmental services;

- Mont. Code Ann. § 49-3-206 Distribution of governmental funds;

- Mont. Code Ann. § 49-3-207 Nondiscrimination provision in all public contracts.

(8) Incorporation of Provisions: The PARTY will include the provisions of paragraph one through seven in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and/or directives issued pursuant thereto. The PARTY will take action with respect to any subcontract or procurement as MDT or the relevant US DOT Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the PARTY becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the PARTY may request MDT to enter into any litigation to protect the interests of MDT. In addition, the PARTY may request the United States to enter into the litigation to protect the interests of the United States.

STANDARD PROVISIONS INDEX

FEDERAL AID PROJECTS CONTAINS

Federal Wage Rates (Rev. 6-3-2022)..... 6 Pages

Requirements & Acknowledgement for Working on Railroad R/W ..... 1 Page

Required Contract Provisions Federal-Aid Const. Contracts (FORM FHWA-1273) [Rev.7-5-2022]..... 13 Pages

Supplemental Revisions for Required Contract Provisions Federal-Aid Const. Contracts (FORM FHWA-1273) [Added 2-4-2016] ..... 1 Page

EEO Affirmative Action Req. on Federal-Aid Construction ..... 1 Page

"General Decision Number: MT20220080 06/03/2022

State: Montana

Construction Type: Highway

Counties: Montana Statewide.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least $15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least $11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at https://www.dol.gov/agencies/whd/government-contracts.

Modification Number	Publication Date
0	06/03/2022

SUMT2022-001 04/01/2022

	Rates	Fringes
CARPENTER		
Carpenter/Piledriverman	$ 35.00	13.82
Millwright	$ 39.68	14.27
CEMENT MASON/CONCRETE FINISHER	$ 32.44	16.03
DIVER		
Diver Tender	$ 43.98	17.84
Diving	$ 89.96	17.84
Stand-By	$ 44.98	17.84

The tender shall receive 2 hours at the straight time pay rate per shift for dressing and/or undressing when work is done under hyperbaric conditions.

Depth Pay (Surface Diving):

0-20 ft.: Free zone

>20-100 ft.: $2.00 per ft.

>100-150 ft.: $3.00 per ft.

>150-220 ft.: $4 00 per ft.

>220 ft.: $5.00 per ft.

Diving in Enclosures (Diver Only):

0-25 ft.: Free zone

>25-300 ft.: $1.00 per ft.

ELECTRICIAN (LINE CONSTRUCTION)		
Equipment Operator	$ 37.26	18.06
Groundman	$ 29.09	17.13
Lineman	$ 48.65	19.30
ELECTRICIAN		
All Areas	$ 37.94	19.42
IRONWORKER	$ 29.54	24.49

LABORER

Group 1.....	$ 26.90	12.00
Group 2.....	$ 29.97	12.00
Group 3.....	$ 30.19	12.00
Group 4.....	$ 31.18	12.00

Group 1: Flag Person

Group 2: All General Labor work; Burning Bar; Bucket Man; Carpenter Tender; Caisson Worker; Cement Mason Tender; Cement Handler (dry); Chuck Tender; Choker Setter; Concrete Worker; Curb Machine-Lay Down; Crusher and Batch Plant Worker; Fence Erector; Form Setter; Form Stripper; Heater Tender; Landscaper; Pipe Wrapper; Pot Tender; Powderman Tender; Rail and Truck Loaders and Unloaders; Riprapper; Sealants for Concrete and other materials; Sign Erection, Guard Rail and Jersey Rail; Stake Jumper; Spike Driver; Signalman; Tail Hoseman; Tool Checker and Houseman; Traffic Control Worker

Group 3: Concrete Vibrator; Dumpman (Grademan); Equipment Handler; Geotextile and Liners; High-Pressure Nozzleman; Jackhammer (Pavement Breaker); Laser Equipment; Non-riding Rollers; Pipelayer; Posthole Digger (power); Power Driven Wheelbarrow; Rigger; Sandblaster; Sod-Cutter-power; Tampers

Group 4: Asphalt Raker; Cutting Torch; Grade Setter; High-Scaler; Power Saws (Faller & Concrete); Powderman ($1.00 per hour above Group 4 rate); Rock & Core Drill; Track or Truck Mounted Wagon Drill; Welder including Air Arc

PAINTER (Pavement Marking/Milling and related work. Includes operating marking and all other equipment and all work involved in application of pavement markings including epoxies, paints, tape,buttons, thermo-plastics, and any other products applied for traffic marking purposes and for directing and regulating traffic and cutting rumble strips).....$ 34.95 12.47

POWER EQUIPMENT OPERATOR:

Group 1.....	$ 31.52	12.40
Group 2.....	$ 33.55	12.40
Group 3.....	$ 34.66	12.40
Group 4.....	$ 35.60	12.40
Group 5.....	$ 36.94	12.40
Group 6.....	$ 38.13	12.40
Group 7.....	$ 40.73	12.40

Group 1: Air Compressor; Auto Fine Graders; Belt Finishing Machine; Boring Machine (small); Cement Silo; Crane, A-Frame Truck Crane; Crusher Conveyor; DW-10, 15, and 20 Tractor Roller; Farm Tractor; Forklift; Form Grader; Front End Loader Under 1 CU Yard; Heavy Duty Drills; Herman Nelson Heater; Mulching Machine; Oiler, All Except Cranes & Shovels; Pumpman

Group 2: Air Doctor; Backhoe/Excavator/Shovel to and including 3 CU Yard; Bit Grinder; Bituminous Paving Travel Plant; Boring Machine Large; Broom, Self-Propelled; Concrete Travel Batcher; Concrete Float & Spreader; Concrete Bucket Dispatcher; Concrete Finish Machine; Concrete Conveyor; Distributor; Dozer; Rubber-Tired, Push & Side Boom; Elevating Grader/Gradall; Field Equipment Serviceman; Front End Loader 1 CU Yard to including 5 CU Yard; Grade Setter; Heavy Duty Drills, All Types; Hoist/Tugger, All; Hydralift & Similar; Industrial Locomotive; Motor Patrol, Except Finish; Mountain

Skidder; Oiler - Cranes & Shovels; Pavement Breaker, EMSCO; Power Saw, Self-Propelled; Pugmill; Pumpcrete/Grout Machine; Punch Truck; Roller, Other Than Asphalt; Roller, Sheepsfoot, Self-Propelled; Roller, 25 Tons and Over; Ross Carrier; Rotomill Under 6 Ft; Trenching Machine; Washing/Screening Plant

Group 3: Asphalt Paving Machine; Asphalt Screed; Backhoe/Excavator/Shovel Over 3 CU Yard; Cableway Highline; Concrete Batch Plant; Concrete Curing Machine; Concrete Pump; Cranes; Creter; Cranes, Electric Overhead; Cranes 24 Tons and Under; Curb Machine/Slip Form Paver; Finish Dozer; Front End Loader over 5 CU Yard; Mechanic/Welder; Pioneer Dozer; Roller Asphalt (Breakdown & Finish); Rotomill, over 6 FT; Scraper, Single, Twin or Pulling Belly Dump; Yo-Yo Cat

Group 4: Asphalt/Hot Plant Operator, Cranes, 25 Tons to 44 Tons; Crusher Operator; Finish Motor Patrol; Finish Scraper

Group 5: Cranes, 45 Tons to Including 74 Tons

Group 6: Cranes, 75 Tons to Including 149 Tons; Crane, Whirley (All)

Group 7: Cranes, 150 Tons to Including 250 Tons (Add $ 1.00 For Every 100 Tons Over 250 Tons; Crane, Tower (All)

TRUCK DRIVER

Group 1.....	$ 27.39	12.20
Group 2.....	$ 34.70	12.20

Group 1: Pilot Car

Group 2: Combination Truck and Concrete Mixer and Transit Mixer; Dry Batch Trucks; Distributor Driver; Dumpman; Dump Trucks and Similar Equipment; Dumpster; Flat Trucks; Lumber Carriers; Lowboys; Pickup; Powder Truck Driver; Power Boom; Serviceman; Service Truck/Fuel Truck/ Tireperson; Truck Mechanic; Trucks with Power Equipment; Warehouseman, Partsman, Cardex and Warehouse Expeditor; Water Trucks

---

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

==========

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at: https://www.dol.gov/agencies/whd/government-contracts.

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four-letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1,2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union

average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can

be:

* an existing published wage determination

* a survey underlying a wage determination

* a Wage and Hour Division letter setting forth a position on a wage determination matter

* a conformance (additional classification and rate) ruling On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in

2.) and 3.) should be followed.

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

Write to:

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

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

Write to:

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

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

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

Write to:

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

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

==========

END OF GENERAL DECISION"

Effective 09-08-22

"CONTRACTOR REQUIREMENTS AND ACKNOWLEDGMENT FOR WORKING ON RAILROAD RIGHT-OF-WAY"

This document must be dated and signed by the Contractor and submitted to the State before occupying or working on Railroad right-of-way.

1) No change, which has a direct effect on the Railroad, will be made to construction plans without submitting revised plans and receiving approval from the Railroad. Work covered by the plans, that requires flagging, will be covered by the Railroad/Highway Agreement. For work that is a result of the contractor's discretion, flagging protection will be required when equipment crosses or is working within 25 feet (7.62 meters) of center of any live track. When deemed necessary by local Railroad officers, a flagman may be required at all times while working on Railroad right-of-way in high density rail traffic area.

2) Crossing of any Railroad tracks must be done at approved locations and must be full depth timber, rubber, etc. Any equipment with steel wheels, lugs or tracks must not cross steel rails without the use of rubber tires or other approved protection. This shall apply specifically to, but not be limited to, access for Contractor furnished gravel, borrow or waste sites. The Contractor will be required to obtain a permit from the Railroad, and comply with any provisions thereof, before using any private Railroad crossings. All track crossing locations must be covered by a Private Roadway and Crossing Agreement. This does not apply to any public crossing.

3) Costs of flagging or planking protection of the tracks, which are a direct result of the planned construction, will be paid for by the State. Costs of flagging, planking for protection of the tracks, installation of new crossings or other work caused by the Contractor's discretion, will be paid by the Contractor.

4) When work to be performed by the Contractor is not covered in the Railroad/Highway agreement, the Contractor must furnish a plan to the Railroad for approval showing details as to how any work that may affect the Railroad will be accomplished.

5) Storing of construction materials or any other material, including dirt, sand, etc., within the Railroad right-of-way, will not be allowed unless covered by an easement, construction permit, or Contractor's permit/lease.

6) Construction within 25 feet (7.62 meters) of the center of any track not covered by the Railroad/Highway agreement will require plan approval and authorization by the Railroad Superintendent Maintenance and Engineering. This includes, but is not limited to, any excavation, slope work and driving of sheet piling.

7) No vehicles, equipment or machines shall be parked or stored unattended within 25 feet (7.62 meters) of any track, on railroad right-of-way, without specific written approval of the Railroad.

8) When any work is to be performed on Railroad property by the Contractor that is not shown in the construction plans, the Contractor must submit a detailed plan of the work to the Railroad for their approval.

CONTRACTOR'S ACKNOWLEDGMENT:

_____
Company

By: _____
Name

_____
Title

_____
Date

WORK SITE LOCATION:

_____
Town

_____
State

_____
Project #

Rev. 01/01/04

FHWA-1273 -- Revised July 5, 2022

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
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. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

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, United States Code, as required in 23 CFR 633.102(b) (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). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-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) in accordance with 23 CFR 633.102. 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 solicitation-for-bids or request-for-proposals 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). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction 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 Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 230, Subpart A, 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 (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) 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 Part 35 and 29 CFR Part 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. 23 CFR 230.409 (g)(4) & (5).

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, sexual orientation, gender identity, color, national origin, age or disability. 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."

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 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 or other knowledgeable company official.

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, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure 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. 23 CFR 230.409. 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, sexual orientation, gender identity, 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, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The 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 thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an 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, sexual orientation, gender identity, 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, 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. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient 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 recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

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 more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, 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, sexual orientation, gender identity, 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 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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 (29 CFR 5.5)

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 (WH–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, 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 Administrator for determination. The 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 (29 CFR 5.5)

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 of wages 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 (29 CFR 5.5)

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. Whenever 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. 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 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), 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 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 18 U.S.C. 1001 and 31 U.S.C. 231.

c. 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 (29 CFR 5.5)

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 and 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 individually 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 journeymen 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 predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, 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 at a trainee rate 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. 23 CFR 230.111(e)(2). 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 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

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 as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, 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 (29 CFR 5.5)

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).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), 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. 29 CFR 5.5.

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 currently provided in 29 CFR 5.5(b)(2)* 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. 29 CFR 5.5.

* $27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting 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 federally-assisted contract subject to the Contract 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. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 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. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

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” in paragraph 1 of Section VI 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 any other assignees. 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: (based on longstanding interpretation)

(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. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), 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 produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), 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 (b) such other of its own organizational resources (supervision, management, and engineering services) 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 the 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. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

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 Part 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. 23 CFR 635.108.

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 Part 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). 29 CFR 1926.10.

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 Part 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 11, 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 (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

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 approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

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. 2 CFR 180.320.

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. 2 CFR 180.325.

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. 2 CFR 180.345 and 180.350.

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, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “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 recipient or subrecipient 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. 2 CFR 180.330.

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. 2 CFR 180.220 and 180.300.

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. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. 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 System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

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 CFR 180.325.

* * * * *

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 CFR 180.335;.

(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, 2 CFR 180.800;

(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, 2 CFR 180.700 and 180.800; 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. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. **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). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant 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. 2 CFR 180.365.

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, Subpart I, 180.900 – 180.1020, 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 recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “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 recipient or subrecipient 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).

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. 2 CFR 1200.220 and 1200.332.

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. 2 CFR 180.220 and 1200.220.

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 System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

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 participation 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. 2 CFR 180.325.

* * * * *

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:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should 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 Part 20, App. A.

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.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
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.

Supplemental Revisions for FHWA Form-1273 (Dated May 1, 2012)
Required Contract Provisions
Federal-Aid Construction Contracts

The following are supplementary or amendatory to the May 1, 2012, FHWA Form-1273 insofar as they apply to this contract:

Add the following provisions in accordance with the FHWA memo dated December 11, 2015:

Utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

Furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in above paragraph to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

SPECIAL PROVISIONS
Rev. 3-15-02
EEO AFFIRMATIVE ACTION REQUIREMENTS ON
FEDERAL & FEDERAL-AID CONSTRUCTION CONTRACTS

Federal-aid contractors are hereby notified they are subject to the OFCCP goals and timetables for minority and female participation expressed below. Compliance with the goals and OFCCP affirmative action efforts for contracts and subcontracts consisting of $10,000 or more will be determined by OFCCP officials.

APPENDIX A

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the Equal Opportunity Clause and "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
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:

GOALS FOR FEMALE PARTICIPATION EACH TRADE	6.9%
TIMETABLES	GOALS FOR MINORITY PARTICIPATION IN EACH TRADE
153 Great Falls, MT	
SMSA (Standard Metropolitan Statistical Area) Counties	
3040 Great Falls, MT	3.2%
Cascade County	
Non-SMSA Counties	4.1%
Blaine, Broadwater, Chouteau, Fergus, Glacier, Hill, Jefferson, Judith Basin, Lewis & Clark, Liberty, Meagher, Petroleum, Phillips, Pondera, Teton, Toole, Valley, Wheatland	
154 Missoula, MT	
Non-SMSA Counties	2.7%
Beaverhead, Deer Lodge, Flathead, Granite, Lincoln, Madison, Mineral, Lake Missoula, Powell, Ravalli, Sanders, Silver Bow	
155 Billings, MT	
SMSA Counties	
0880 Billings, MT	3.3%
Yellowstone County	
Non-SMSA Counties	3.3%
Big Horn, Carbon, Carter, Custer, Dawson, Fallon, Gallatin, Garfield, Golden Valley, McCone, Musselshell, Park, Powder River, Prairie, Rosebud, Stillwater, Sweet Grass, Treasure, Wibaux, Yellowstone Nat'l Park	
Non-SMSA Counties	
Daniels, Sheridan, Richland, Roosevelt	4.4%

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 nonfederally 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 to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, 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 Part 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 of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.