

Contract Number: C03233

Contract Name: BARRE CITY STP 2961(3) & BARRE CITY STP 6000(32)

VERMONT

AGENCY OF TRANSPORTATION

PROPOSAL

STANDARD SPECIFICATIONS FOR CONSTRUCTION
DATED 2024 SHALL APPLY TO THIS CONTRACT

SPECIAL PROVISIONS

SCHEDULE OF ITEMS

ELECTRONIC BID BOND to be submitted in the amount of 5% of the Contractor's bid.

BIDDING PROCEDURE

Bid Proposals will not be read unless accompanied by an electronic bid bond, and they may be rejected as irregular if they are not in compliance with Agency specifications.

NOTE: All bid proposals shall be properly filled out and submitted electronically utilizing iCX Web System services.

VTrans Mission and Vision

Through excellent customer service, provide for the safe and efficient movement of people and goods.
A safe, reliable, and multimodal transportation system that grows the economy, is affordable to use and operate, and serves vulnerable populations.

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SPECIAL PROVISIONS

1. NOTICE TO BIDDERS – CONTRACT COMPLETION DATE. This Contract shall be completed on or before September 25, 2026.
2. NOTICE TO BIDDERS – PROHIBITION OF RUSSIAN GOODS. The Contractor is hereby notified that, pursuant to Vermont Executive Order No. 02-22, dated March 3rd, 2022, the purchase of Russian-sourced goods and goods produced by Russian entities (defined as institutions or companies that are headquartered in Russia or have their principal place of business in Russia) is prohibited. The awarded Contractor must fill out and sign the Executive Order 02-22 Vendor Certification as part of Contract awarding process.
3. NOTICE TO BIDDERS – WORK REQUIREMENTS. The Contractor is hereby notified that they shall be allowed to use an alternating one-way traffic pattern in accordance with current MUTCD requirements to construct the highway-rail grade crossing on VT Route 14 (South Main Street). The Contractor shall be allowed to construct the VT Route 14 (South Main Street) over three weekends from 7 PM Friday to 7 AM Monday, but VT Route 14 (South Main Street) shall remain open to vehicular traffic during this time when the Operating Railroad is not performing rail operations on this section of the rail line. The weekend closures to rail traffic shall only occur between the fourth Friday in June and the third Monday in August. Except for the weekends (Friday to Monday) where July 4th occurs on one of those days or the Barre Heritage Festival occurs on one or more of those days.

The Contractor shall be allowed to close Hill Street over three weekends from 7 PM Friday to 7 AM Monday, however the Contractor shall not be able to perform night work during the closure. The three weekend closures associated with the Hill Street work shall not be the same weekends that the VT Route 14 (South Main Street) highway-rail grade crossing has an alternating one-way traffic pattern in place. The weekend closures shall only occur between the fourth Friday in June and the third Monday in August. Except for the weekends (Friday to Monday) where July 4th occurs on one of those days or the Barre Heritage Festival occurs on one or more of those days.

The Contractor shall use the weekend closures to perform work on the railroad within the roadway and for the removal and installation of the underground utilities and drainage under and adjacent to the railroad tracks. The Contractor shall only close Hill Street to through traffic just after the driveway accessing the back of the bed and breakfast (approximately Roadway Station 401+95) and just after the intersection of Hill Street and Perry Street. Traffic and truck deliveries shall be able to turn into the bed and breakfast driveway and be able to turn from Hill Street onto Perry Street and vice versa.

Night work shall only be allowed during the weekend closures which occur between the fourth Friday in June and the third Monday in August. Except for the weekends (Friday to Monday) where July 4th occurs on one of those days or the Barre Heritage Festival occurs on one or more of those days. Night work shall be coordinated with the City of Barre Department of Public Works.

There shall be a pre-weekend closure meeting held on site with the Contractor's Superintendent, Contractor's Project Manager, the Engineer, the Project Manager, the City of Barre Department of Public Works, City of Barre Fire Department, and the City of Barre Police Department to discuss durations of work, types of work, work sequencing, etc. The Contractor shall be responsible for setting this meeting up and making appropriate contacts. This meeting shall be held a minimum of 14 Calendar Days prior to each of the weekend closures.

4. NOTICE TO BIDDERS – ELECTRONIC DOCUMENT MANAGEMENT. The Contractor is hereby notified that the Contractor, their subcontractors, and suppliers shall create a Doc Express account and use the application for collection and management of electronic documents. Doc Express is a web-based document management application which accepts electronic documents and provides security as appropriate for each submittal. All Contract required documents, such as Working Drawings as defined in Subsection 105.06 of the 2024 Standard Specifications for Construction, Progress Schedules, Mix Designs, Weld Procedures, Requests for Information and Erosion Control Plans shall be submitted at the following link: <https://docexpress.com>. The entire submittal and review process shall occur within Doc Express.

All costs associated with the use of Doc Express will be considered incidental to Item 635.1100 Mobilization/Demobilization (STP 2961(3)) or Item 635.1100 Mobilization/Demobilization (STP 6000(32)). The State will manage the Doc Express application including Contract setup upon Contract execution.

To create an account and for more information regarding the use of Doc Express see the information at the following link:

<https://outside.vermont.gov/agency/vtrans/external/docs/construction/Contracting/DocExpressOverviewforContractors.docx>

5. NOTICE TO BIDDERS – CONTACT WITH THE AGENCY. From the time of advertising until the actual bid opening for this Contract, all prospective Contractors, subcontractors, and suppliers shall direct all inquiries related to this Contract solely to the Agency's Contract Administration Section at AOT.ConstructionContractingInquiry@vermont.gov.

The deadline for submitting inquiries related to this Contract is 4:30 p.m. Eastern Time on May 7, 2025. Inquiries received prior to this time will receive a response from the Agency. Inquiries received after this time may receive a response at the Agency's discretion.

6. NOTICE TO BIDDERS – OTHER SPECIFICATIONS AND CONTRACT REQUIREMENTS.
GPIF for Alstom ElectrologIXS XP4 Crossing Controller – 16v185 & 21g340
GPIF for North American Signal Micro Data Analyzer II Event Recorder – 16v185 & 21g340
CPIF for MEGALUG Mechanical Joint Restraint and MEGA-BOND Protective Coating –
21g340
Vermont Rail System CWR Manual
FHWA 1273 – Required Contract Provisions for Federal Aid Construction Contracts
USDOL Davis Bacon Wage Rates by County
Disadvantaged Business Enterprise (DBE) Policy Contract Requirements- CR-110
Attachment C - Standard State Provisions for Contracts and Grants
USDOT Standard Title VI Nondiscrimination Assurances Appendices A, E
Standard Federal Equal Employee Opportunity (EEO) Construction Contract Specifications CA26
Contractor Equal Employment Opportunity (EEO) Certification Form – CA109
Vermont Agency of Transportation Certificate of Compliance – CA271
Vermont Agency of Transportation Minimum Labor and Truck Rates – CA101
Commodity Index Prices – CA170
Schedule of Pay Items
7. NOTICE TO BIDDERS – DAVIS-BACON. U.S. Department of Labor Davis-Bacon wage rates are applicable to this Contract. Copies of the applicable rates are included in this proposal.

In the included wage rates, the requirements of Executive Order 13658 and 14026 do not apply to this Contract.
8. NOTICE TO BIDDERS – STANDARD DRAWINGS. The Vermont Agency of Transportation Standard Drawings listed on the Index of Sheets are not included in the plan set, but may be found at the following address:
https://outside.vermont.gov/agency/vtrans/external/CADD/WebFiles/Downloads/Standards/VA_OTconSTD_Owner.xml
9. NOTICE TO BIDDERS – INFORMATIONAL DOCUMENTS. The Contractor is hereby notified that the following informational documents for this Contract are available on iCXWeb and the VTrans Bid Opportunities website. These documents are being provided during the bid solicitation period for informational purposes only.
 - (a) Traffic Management Plan (TMP) Checklist – 16v185
 - (b) Traffic Management Plan (TMP) Checklist – 21g340
 - (c) Geotechnical data report – 16v185
 - (d) Geotechnical data report – 21g340

10. NOTICE TO BIDDERS – SURFACE WATER WITHDRAWAL. The Contractor is hereby notified that the Vermont state law, Act 135 of 2022, requires any person withdrawing surface water (as defined in 10 V.S.A. § 1002 (20)) to register with and report the water withdrawal and usage to the Vermont Department of Environmental Conservation beginning January 1, 2023. Guidance can be found here: <https://dec.vermont.gov/watershed/rivers/streamflow-protection/act-135-surface-water-withdrawal-registration-and-reporting>

11. NOTICE TO BIDDERS – ENVIRONMENTAL COMMITMENTS.

(a) Threatened, Endangered, and Rare Species. The Contractor shall ensure all personnel working on the project site are made aware of the potential presence and protected status of the tricolored and northern long-eared bat. No suitable bat habitat is present within the project limits and no Time-of-Year (TOY) restrictions are required.

The Contractor is hereby made aware of the potential for TOY restrictions related to proposed off-site activities. Cutting trees ≥ 3 inches in diameter outside of the contract project limits shall require review under Section 105.25 Opening Off-Site Activity Areas.

(b) Invasive Material. If invasive species are delineated on the Plans or found in the project area and confirmed by the Engineer, the invasive species, and any soil excavated from areas that contained the invasive species, will be termed invasive material.

The Contractor shall handle the invasive material in accordance with the *VTrans State Highway System Roadside Terrestrial Invasive Plants Best Management Practices (BMPs)*. The Contractor shall stockpile the invasive material separately from other soil stockpile areas. A ground barrier and perimeter containment system shall be in place around the area intended for stockpiling the invasive material. Equipment shall be cleaned of all soil and plant matter prior to arriving on site in accordance with Subsection 107.06. The equipment used for excavation and transport of invasive material shall be cleaned of all soil and plant matter before being used for work in other areas in accordance with the BMPs.

To the extent possible, invasive material shall be reused on site. Invasive material shall only be reused on site in areas where the presence of the invasive species were clearly evident. If there is an excess of invasive material, it shall be wasted in accordance with the BMPs.

- (c) Contaminated/Urban Soils Background Area. The project is located within an Urban Soils Background Area, as shown on the Vermont Agency of Natural Resources *Natural Resources Atlas*. These areas may have high background levels of certain constituents, therefore the Agency has determined that material generated from these areas should be disposed within an Urban Soil Background Area. These soils shall be reused on-site to the maximum extent possible within the urban soils background area portion of the project. Excess Urban Area soils shall be disposed off-site by the Contractor within a designated Urban Soils Background Area. The process for submittal and review of proposed disposal locations shall be in accordance with Subsection 105.25 through Subsection 105.27.

If the Contractor elects to use an alternate location outside of an Urban Soil Background Area, then soils must be disposed in accordance with the *Investigation and Remediation of Contaminated Properties Rule* (IRule) at no additional expense to the Agency. The alternate location must be reviewed and approved by the Agency and the Contractor must secure all necessary permits and approvals from the Vermont Agency of Natural Resources for the alternate disposal site.

- (d) Railroad Right-of-Way Soils. Disturbed soils within the project limits and Railroad Right-of-Way shall be kept within the railroad right-of-way. The disturbed soils shall be either reused on-site within the railroad right-of-way to the extent possible or disposed of within the railroad right-of-way at the location provided in the Contract Plans, or as approved through an offsite activity request submitted by the Contractor. If the Contractor elects to use a location outside of the railroad right-of-way, then soils must be disposed of and/ or stockpiled in accordance with the *Investigation and Remediation of Contaminated Properties Rule* (IRule) at no additional expense to the Agency. The locations must be reviewed and approved by the Agency and the Contractor must secure all necessary permits and approvals from the Vermont Agency of Natural Resources.

12. NOTICE TO BIDDERS – UTILITIES.

- (a) Barre City STP 2961(3). Existing aerial facilities owned by Green Mountain Power, the City of Barre Fire Department, Charter Communications, and Consolidated Communications will be adjusted, as necessary, by employees or agents of the above companies in accordance with the “Approximate Aerial Utility Relocation Route” shown in the Contract Plans. The Contractor is cautioned to protect these facilities from damage.

Existing aerial facilities owned by FirstLight Fiber and Lumen Technologies will not require adjustment. The Contractor is cautioned to protect these facilities from damage.

Existing underground facilities owned by the City of Barre and Consolidated Communications will not require adjustment. The Contractor is cautioned to protect these facilities from damage.

Existing water valves owned by the City of Barre may require adjustments to match the new finished pavement elevation. Necessary elevation adjustments to municipally owned water valves will be performed by the Contractor in accordance with Item 629.2800, Adjust Elevation of Valve Box.

Existing sewer manholes owned by the City of Barre may require adjustments to match the new finished pavement elevation. Necessary elevation adjustments to municipally owned sewer manholes will be performed by the Contractor in accordance with Item 604.4200, Changing Elevation of Sewer Manholes.

Existing telephone manholes owned by Consolidated Communications may require adjustments to match the new finished pavement elevation. Necessary adjustments to these facilities will be performed by representatives of Consolidated Communications. The Contractor shall notify Consolidated Communications at least 2 weeks in advance of needing this work performed.

Contacts for the above listed companies are as follows:

| | | |
|-------------------------------|-----------------|--------------------|
| Green Mountain Power Corp | Ryan Kreis | (802) 229-7933 |
| Charter Communications | Craig Benjamin | (802) 249-4935 |
| FirstLight Fiber | Bill Gray | (802) 922-9506 |
| Consolidated Communications | Bill Richardson | (802) 951-1516 |
| Lumen Technologies | Jemery Conant | (315) 269-4614 |
| City of Barre Fire Dept. | Keith Cushman | (802) 476-0254x501 |
| City of Barre (Water & Sewer) | Brian Baker | (802) 476-0250 |

There are areas of underground utilities that may require additional locating beyond normal dig safe measures. The Contractor is hereby notified that exploratory excavation to locate existing underground facilities may be necessary to protect these facilities from damage. Where approved by the Engineer, these utilities shall be located and/or exposed by methods such as air/vacuum excavation and/or hand digging to determine their exact location. This exploratory work shall be classified as Trench Excavation of Earth, Exploratory and payment shall be through Pay Item 204.2200, Trench Excavation of Earth, Exploratory (N.A.B.I.).

Employees or agents of the above listed companies are to be allowed free and full access within the project limits with the tools, materials, and equipment necessary to install, operate, maintain, place, replace, relocate, and remove their facilities.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with the companies or their facilities. Should the Contractor desire additional adjustments of the utility facilities for his/her convenience, proper arrangements shall be made in conformance with Subsection 105.09.

The Contractor shall notify Green Mountain Power if excavation will be within 10 feet of an existing pole. That pole owner may choose to be onsite for this activity. There will be no excavation allowed within 5 feet of existing poles and anchoring.

The Contractor is to coordinate with Green Mountain Power for the holding of the utility pole on the north side of the railroad crossing when work is being done on the existing retaining wall. The Contractor shall notify Green Mountain Power at least 2 weeks in advance of needing this work performed.

Vermont Statutes Annotated, Title 30, Chapter 86 (“Dig Safe”) requires notice to Dig Safe before starting excavation activities. The Contractor must telephone Dig Safe at 811 at least 72 hours (excluding Saturdays, Sundays and legal holidays) before, but not more than 30 days before, starting excavation activities at any location. In addition, before excavation and/or pavement grinding in or on the state highway right-of-way, the Contractor must contact the Agency’s Traffic Signal Superintendent, Dan Ertel, to obtain/verify the location of Agency’s underground utility facilities or to confirm the absence of such facilities. Dan can be reached at (802) 343-2188.

The Contractor is hereby notified that many towns are not members of Dig Safe. It is the Contractor’s responsibility to check with towns prior to excavation and protect and restore utilities damaged within the project and as set forth in Subsection 107.12.

All Contractors, subcontractors or material suppliers involved in any project-related activity shall comply with all applicable codes and regulations related to working around live electrical lines; including, but not limited to maintaining the required minimum clear distance from an electrical utility facility. The Contractor’s Competent Safety Officer shall be well versed in OSHA and VOSHA regulations, and shall be capable of implementing a plan to conform to these regulations during prosecution of work.

Utility relocation by others (as shown on the project plans) will be completed by July 1, 2025

- (b) Barre City STP 6000(32). Existing aerial facilities owned by Green Mountain Power, Charter Communications, Lumen Technologies, FirstLight Fiber, and Consolidated Communications will be adjusted, as necessary, by employees or agents of the above companies in accordance with the “Approximate Aerial Utility Relocation Route” shown in the Contract Plans. The Contractor is cautioned to protect these facilities from damage.

Existing underground facilities owned by the Consolidated Communications will not require adjustment. The Contractor is cautioned to protect these facilities from damage.

Existing underground water and sewer facilities owned by the City of Barre will be adjusted by the Contractor in accordance with the details and pay items included in the project plans, and all pertinent project specifications. The Contractor must coordinate inspection and testing, as needed, with the City of Barre.

Existing sewer manholes owned by the City of Barre may require adjustments to match the new finished pavement elevation. Necessary elevation adjustments to municipally owned sewer manholes will be performed by the Contractor in accordance with Item 604.4200, Changing Elevation of Sewer Manholes.

Existing water valves owned by the City of Barre may require adjustments to match the new finished pavement elevation. Necessary elevation adjustments to municipally owned water valves will be performed by the Contractor in accordance with Item 629.2800, Adjust Elevation of Valve Box.

Contacts for the above listed companies are as follows:

| | | |
|-------------------------------|-----------------|----------------|
| Green Mountain Power Corp | Jade Cutler | (802) 229-7933 |
| Charter Communications | Craig Benjamin | (802) 249-4935 |
| FirstLight Fiber | Heather Araujo | (978) 302-9334 |
| Consolidated Communications | Bill Richardson | (802) 951-1516 |
| Lumen Technologies | Jemery Conant | (315) 269-4614 |
| City of Barre (Water & Sewer) | Brian Baker | (802) 476-0250 |

There are areas of underground utilities that may require additional locating beyond normal dig safe measures. The Contractor is hereby notified that exploratory excavation to locate existing underground facilities may be necessary to protect these facilities from damage. Where approved by the Engineer, these utilities shall be located and/or exposed by methods such as air/vacuum excavation and/or hand digging to determine their exact location. This exploratory work shall be classified as Trench Excavation of Earth, Exploratory and payment shall be through Pay Item 204.2200, Trench Excavation of Earth, Exploratory (N.A.B.I.).

Employees or agents of the above listed companies are to be allowed free and full access within the project limits with the tools, materials, and equipment necessary to install, operate, maintain, place, replace, relocate, and remove their facilities.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with the companies or their facilities. Should the Contractor desire additional adjustments of the utility facilities for his/her convenience, proper arrangements shall be made in conformance with Subsection 105.09.

The Contractor shall notify the utility pole owner if excavation will be within 10 feet of an existing pole. That pole owner may choose to be onsite for this activity. There will be no excavation allowed within 5 feet of existing poles and anchoring.

The Contractor is advised that one or more of the parties to the Agreements for the construction of the various utility facilities included in this contract have the option of withdrawing the work from the contract. If any of the options are exercised, the contract utility work, in whole or in part, shall be deleted from the contract by the Engineer. The deletion of all or part of these utility items from the contract will not constitute any portion of an increase or decrease of 25% of the total original contract amount or of the original length shown in the contract as set forth in subsection 109.05, Compensation for Altered Plans or Quantities, and will not be subject to the provisions of 109.04, Changes in the Character of the Work.

Vermont Statutes Annotated, Title 30, Chapter 86 (“Dig Safe”) requires notice to Dig Safe before starting excavation activities. The Contractor must telephone Dig Safe at 811 at least 72 hours (excluding Saturdays, Sundays and legal holidays) before, but not more than 30 days before, starting excavation activities at any location. In addition, before excavation and/or pavement grinding in or on the state highway right-of-way, the Contractor must contact the Agency’s Traffic Signal Superintendent, Dan Ertel, to obtain/verify the location of Agency’s underground utility facilities or to confirm the absence of such facilities. Dan can be reached at (802) 343-2188.

The Contractor is hereby notified that many towns are not members of Dig Safe. It is the Contractor’s responsibility to check with towns prior to excavation and protect and restore utilities damaged within the project and as set forth in the Standard Specifications for Construction in Subsection 107.12.

All Contractors, subcontractors or material suppliers involved in any project-related activity shall comply with all applicable codes and regulations related to working around live electrical lines; including, but not limited to maintaining the required minimum clear distance from an electrical utility facility. The Contractor’s Competent Safety Officer shall be well versed in OSHA and VOSHA regulations, and shall be capable of implementing a plan to conform to these regulations during prosecution of work.

Utility relocation by others (as shown on the project plans) will be completed by July 1, 2025.

13. NOTICE TO BIDDERS – RAILROAD SPECIAL PROVISIONS.

- (a) Indemnification; Railroad Protective Liability Insurance. All Contractors hired by the State pursuant to this Agreement to indemnify and save harmless the Operating Railroad, the State, their successors and assigns, and their agents and employees, against all loss, cost, damage and expense, including (but not limited to) damage to Operating Railroad property, or the property of others, injury or death to Operating Railroad employees or to others due directly in any way to the work done by the Contractor while working within or adjacent to the railroad right-of-way during the construction of this Project, as covered by this Agreement. In this connection, the State will require its Contractors to secure policies of insurance in the name of the Operating Railroad and the State providing railroad protective liability coverages of \$2,000,000.00 per occurrence and \$6,000,000.00 in the aggregate, or such maximum amount as specified by *23 C.F.R. Part 646* (“Railroads”), Subpart A (“Railroad-Highway Insurance Protection”) and the latest edition of the Vermont Agency of Transportation’s *Standard Specifications for Construction*, Subsection 103.04(d) (“Railroad Protective Liability Insurance”). Named insured shall be the Operating Railroad and the State of Vermont.
- (b) Additional Insurance. All Contractors hired by the State pursuant to this Agreement shall secure Contractor’s Liability Protection Insurance providing bodily injury liability coverage that meets or exceeds the minimum amounts specified in the latest edition of the Vermont Agency of Transportation’s *Standard Specifications for Construction*, Subsection 103.04(b).
- (c) General Statement of Conditions Causing Railroad Hazards.
- (1) Scope. Provisions for safeguards to the property and operations of Railroad during construction by the State’s Contractor.
- (2) General. The Contractor shall meet all requirements in Section 632 and Subsection 104.04 of the latest Vermont Agency of Transportation’s *Standard Specifications for Construction*.

The Contractor shall reimburse the Railroad for all necessary flagging and inspection services required by these specifications. Final settlement with the Contractor shall be contingent on certification that the Railroad has been reimbursed.

The Contractor will install, maintain, and remove any temporary crossings, if required, at the expense of the Contractor.

- (3) Train Delays/Liquidated Damages. The Contractor shall pay liquidated damages to the Operating Railroad as defined Item 199.9999 Train Delay Liquidated Damages (N.A.B.I). The Operating Railroad shall notify the Engineer immediately if a train delay has occurred. The Operating Railroad shall contact the Engineer in writing within 24 hours of the delay occurring to begin the delay documentation process. If VTrans notes a delay and the Operating Railroad has not begun the documentation process, the Engineer will contact the Rail and Aviation Bureau Director to initiate the documentation process. The Engineer will work with the Operating Railroad to verify the duration and details of the delay. The Operating Railroad shall, within thirty (30) calendar days of the delay, provide the Engineer an invoice addressed to the Agency outlining the details of the delay. After the documentation is received and approved for payment, the Engineer will initiate the payment process by including Item 199.9999 Train Delay Liquidated Damages (N.A.B.I) in the next biweekly estimate. The amount owed to the Operating Railroad will be deducted from the amount due to the Contractor from the State and will be paid to the Operating Railroad within 30 calendar days after the delay documentation has been finalized.

TABLE 1 – RAILROAD DELAY PENALTIES

| Type of Delay | Description | Damages |
|---------------|--|------------|
| Initial | Each delay that does not exceed a maximum duration of five minutes per train | \$4,000.00 |
| Incremental | Each additional delay that extends beyond five minutes to 20 minutes per train | \$2,000.00 |
| Successive | Each additional 15-minute period of time delay per train | \$1,500.00 |

TABLE 2 – EXAMPLE LIQUIDATED DAMAGES CALCULATION

| Example of Liquidated Damages for a 65-minute Delay | | |
|---|-------------|-----------------------------|
| Minutes of Delay | Added Cost | Total Time Past Work Window |
| First 5 minutes | \$4,000.00 | 5 minutes |
| First 20 minutes | \$2,000.00 | 20 minutes |
| An additional 15 minutes | \$1,500.00 | 35 minutes (20+15) |
| An additional 15 minutes | \$1,500.00 | 50 minutes (35+15) |
| An additional 15 minutes | \$1,500.00 | 65 minutes (50+15) |
| | \$10,500.00 | Total for a 65-minute delay |

- (4) Hazards. For emergency use only, immediately call 1 (888) 265-2735.

The Contractor shall contact Shane Filskov, General Manager at (802) 775-4356 or sfilskov@vrs.us.com to coordinate any approved shutdown on the railroad.

An operating track shall be considered fouled and subject to hazard when any object or operation is brought closer than twenty-five (25) feet to the centerline of the tracks.

A signal line or communication line shall be considered fouled and subject to hazard when any object is brought closer than four (4) feet to any wire of the line. An electrical supply line shall be considered fouled and subject to hazard when any object is brought closer than ten (10) feet to any wire of the line.

Cranes, trucks, power shovels or any other equipment shall be considered as fouling a track, signal line, communication or electric supply line when working in such a position that failure of equipment with or without load could foul the track, signal line, communication, or electric supply line. None of these or similar operations shall be carried on during the approach or passing of a train.

In the construction of staging, false work or forms, the Contractor shall maintain a minimum vertical clearance of twenty-two (22) feet above the top of high rail and a minimum side clearance of twenty-five (25) feet from the center line of track during the approach or passing of a train.

- (d) Periods During Which the State’s Contractor Shall Have Exclusive and Uninterrupted Access to the Railroad Right-Of-Way. The Operating Railroad grants the State and/or the State’s Contractor the right of entrance to the railroad right-of-way so that the Project fieldwork may be completed between April 1, 2025 and December 31, 2026. The temporary rights shall include exclusive and uninterrupted occupancy of the railroad right-of-way to access the Project during the following time segments:

- (1) Three (3) Sixty (60) hour closures, Friday at 1900hrs until Monday at 0700hrs.

The Contractor is hereby advised that the Operating Railroad’s schedule is subject to revision. It is not the intention of the Operating Railroad to interrupt any defined occupancy period events during the contract period. However, in the event of extraordinary circumstances, the Operating Railroad may request passage of train(s) through the project limits, in which case, the Contractor will receive verbal notice from the Operating Railroad at least sixty (60) minutes prior to the train’s arrival. The Contractor shall allow train passage and shall not be reimbursed for any incurred expense. Furthermore, no Liquidated Damages will be assessed the Contractor for any delays occurring within this exclusive and uninterrupted access period.

- (e) Periods During Which the State’s Contractor Shall Have Non-Exclusive and Interruptible Access to the Railroad Right-Of-Way. The Operating Railroad grants the State and/or the State’s Contractor right of entrance to the railroad right-of-way so that the Project fieldwork may be completed between April 1, 2025 and December 31, 2026. The temporary rights shall include non-exclusive and interruptible occupancy of the railroad right-of way. The State’s Contractor must confirm temporary work windows with the Operating Railroad prior to scheduling the work. All work performed within the Railroad ROW will require a 2 week notice to the Operating railroad prior to starting construction. Temporary work windows shall be non-exclusive and interruptible occupancy of the railroad right-of-way to access the Project during the following time segments:

- (1) Monday – Sunday 0001 hrs. – 2359 hrs. daily.

The Contractor is hereby advised that the Operating Railroad’s schedule is subject to revision. It is not the intention of the railroad to interrupt any defined occupancy period events during the contract period but from time to time it may be necessary to allow passage of a train(s) through the project limits. The Contractor will receive verbal notice communicated by the Operating Railroad at least sixty (60) minutes prior to the train’s arrival. The Contractor shall allow train passage and shall not be reimbursed for any incurred expense.

While additional periods of exclusive and non-exclusive track occupancy may be available, the Operating Railroad does not make any representations to the State as to such availability. The specified non-exclusive and interruptible occupancy intervals will be subject to revision.

(f) Vermont Rail System Flagging Service Rates.

- (1) Contractor shall request flagger services at least ten days prior to mobilization date.
- (2) Flagger time begins and ends at assigned Vermont Rail System (VRS) Terminal.
- (3) Cancellation or modification of flagging services assignment must be submitted in writing and received by GMRC at least twenty-four hours prior to start of assigned time.
- (4) Weekday Rates (Monday through Friday):
 - a. Regular (up to eight (8) hours/day) \$85.00 per hour
 - b. Overtime (after eight (8) hours) \$110.00 per hour
 - c. Mileage: Per GSA published rate at time of advertisement for bids
- (5) Holiday (Holiday schedule per the State’s labor contract), Weekend/Night (Nights between 9pm-5am):
 - a. Per each hour employed \$136.00 per hour
 - b. Mileage: Per GSA published rate at time of advertisement for bids
- (6) Minimum charge for the flagging work is 4 hours straight time.

The Contractor will provide, as required by the Operating Railroad, information necessary for invoicing purposes.

14. NOTICE TO BIDDERS – FEDERAL RAILROAD ADMINISTRATION REGULATIONS. The Contractor is hereby notified that the Contractor and Subcontractor(s) are required to follow the requirements of the Code of Federal Regulations, specifically Title 49, Subtitle B, Chapter II related to the Federal Railroad Administration, Department of Transportation Regulations. Particular attention is called to the following Parts:

- (a) Part 213 – Track Safety Standards. The Contractor and Subcontractor(s) conducting track work activities shall be required to be familiar with 49 CFR 213. For further guidance on the requirements of Part 213 – Track Safety Standards, please go to the following web link: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-II/part-213?toc=1>.
 - (b) Part 214 – Railroad Workplace Safety. The Contractor and Subcontractor(s) shall be required to be in compliance with 49 CFR Part 214. Any relevant training certifications shall be provided to the Operating Railroad in advance of construction operations. Workers without training certification will be required to take part in a job specific safety briefing with the Operating Railroad prior to the start of construction operations. For guidance on requirements of Part 214 – Railroad Workplace Safety, please go to the following web link: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-II/part-214>.
 - (c) Part 219 – Control of Alcohol and Drug Use. The Contractor and Subcontractor(s) shall be required to be in compliance with 49 CFR Part 219. For guidance on requirements of Part 219 – Control of Alcohol and Drug Use, please go to the following web link: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-II/part-219>.
 - (d) Part 243 – Training, Qualification, and Oversight for Safety Related Railroad Employees. The Contractor and Subcontractor(s) shall be required to be in compliance with 49 CFR Part 243. Any relevant training certifications shall be provided to the Operating Railroad in advance of construction operations. For guidance on requirements of Part 243 – Training, Qualification, and Oversight for Safety-Related Railroad Employees, please go to the following web link: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-II/part-243>.
15. NOTICE TO BIDDERS – RAILROAD FIRE PREVENTION PLAN. The Contractor is hereby notified about the Operating Railroad’s requirement for a Fire Prevention Plan. Prior to performing any construction activities that include an open flame or that may produce sparks in the vicinity of bridge timbers or timber bridge elements, the Contractor shall provide a fire prevention plan to the Operating Railroad. This plan shall, at a minimum, include the following components:
- (a) General Statement of Fire Safety.
 - (b) Job Safety Briefings.
 - (c) Fire Risk Assessment.
 - (d) Fire Prevention. Fire Prevention shall, at a minimum, include measures to soak the area of work with water and monitor the area for flames for 2 hours after sparks are generated.
 - (e) Fire Suppression.

16. NOTICE TO BIDDERS – CONCURRENT CONSTRUCTION. The Contractor is made aware of the following VTrans construction project(s) which are expected to be in progress within the area of this project during its construction.

TABLE 1 – CONCURRENT CONSTRUCTION PROJECTS

| Project | Contractor | Anticipated Contract Completion Date |
|--------------------------------|------------|--------------------------------------|
| Barre City-Barre Town REWC2401 | TBD | TBD |

This list is not all-inclusive, and it is possible there may be other VTrans, municipal, or private construction projects within the area of this project during its construction.

The Contractor shall coordinate construction schedules and traffic control with the work required for these projects.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around these or other projects.

17. NOTICE TO BIDDERS – SPECIAL CONSTRUCTION REQUIREMENTS.

- (a) During construction it will be necessary for the Contractor to maintain one-lane traffic for extended periods of time. In no case shall the paved width for this one-lane traffic, including shoulders, be reduced to less than 10 feet. This paved width shall remain free of obstructions and obstacles at all times.
- (b) The Contractor shall position Portable Changeable Message Signs at locations determined by the Engineer properly warning motorists of the roadway conditions ahead. As directed by the Engineer, these locations may change during construction as needs arise based on daily work activities. The message to be displayed shall be submitted to the Engineer in advance for approval. The displayed message should accurately reflect what motorists can expect to encounter through the project area. The cost of providing the Portable Changeable Message Signs shall be paid for under the appropriate Contract Item 641.1500 or 641.1700, as applicable. The Contractor shall also install and maintain appropriate construction signing warning the traveling public of the expected roadway surface conditions.
- (c) Prior to final acceptance of the project, all drop inlets and bridge joints within the project limits shall be cleaned and all material within the drop inlets and bridge joints shall be removed. All paved areas adjacent to curbs shall be swept and cleaned of all extraneous material. Costs for this work will not be paid for directly but will be considered incidental to all Contract items.

- (d) There are special events throughout the year that may require close communication and coordination between the Contractor and the municipality to reduce conflicts. The municipality will advise the Engineer and Contractor of the specifics of each event and the Engineer will direct the Contractor as to what actions, if any, will be necessary on the Contractor’s part to minimize impacts to the event. Special events that may conflict with Contractor operations are not limited to those which may be listed in this Notice to Bidders. There will be no extra compensation paid to the Contractor for any inconvenience caused by working around any listed or unlisted special events.

For more information about area special events, contact the following:

Barre City: Ms. Cheryl Metivier
City Clerk
Barre City
6 N. Main Street, Ste. 6 P.O. Box 418
Barre, VT 05641
cdawes@barrecity.org
(802) 476-0242

TABLE 1 – SCHEDULE OF KNOWN EVENTS

| Event | Date |
|-------------------------|----------------------|
| Barre Heritage Festival | Last Weekend in July |

- 18. NOTICE TO BIDDERS – AFAD. The Contractor is hereby notified that Automated Flagger Assistance Devices (AFADs) are remotely operated devices that enable a certified flagger to be positioned out of the lane of traffic and are used to control motorists through work zones.

AFADs shall only be used in situations where there is no more than one lane of approaching traffic that needs to be controlled. Additionally, since AFADs are not traffic control signals, they shall not be used to replace traffic signals or other continuously operating traffic control devices.

These devices may be used as a safety enhancement to flaggers on an hour-for-hour basis. AFADs shall meet the following requirements:

- (a) All AFAD applications shall meet the requirements of the applicable sections of the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).

- (b) All AFAD applications shall be in accordance with NCHRP Report 350 or the MASH for the applicable test level and device weight. Documentation of the crashworthiness of the device shall be submitted to the Engineer for approval prior to use on the project.
- (c) AFAD applications shall always be controlled by a flagger who has been trained in the operation of the AFAD and who meets the requirements of Section 630. The flagger shall not flag traffic and operate an AFAD at the same time.
- (d) Should an AFAD malfunction or otherwise not function as intended they shall be replaced by another AFAD or flagger(s) or work shall cease and the roadway shall be opened to unrestricted traffic flow immediately.
- (e) Each AFAD will be considered equivalent to one flagger and will be measured and paid for on an hourly basis under Item 630.1500 Flaggers. One hour of AFAD use shall be paid for as one hour of flagging.
- (f) Flaggers will only be measured for payment when actually performing flagging duties. Flaggers controlling AFADs but not actually flagging will not be measured for payment but will be considered incidental to the Contract lump sum price for Item 641.1000 Traffic Control, or Item 641.1100 Traffic Control, All-Inclusive (STP 2961(3)), or Item 641.1100 Traffic Control, All-Inclusive (STP 6000(32)), as applicable.
- (g) The use of AFADs may be suspended at the discretion of the Engineer.

19. NOTICE TO BIDDERS – ELECTRONIC TICKETING VTRANS PORTAL. The Contractor is hereby notified that the Contractor, their subcontractors, and suppliers shall connect to the VTrans Portal and use the application for distribution and management of electronic tickets (e-tickets). VTrans Portal is a state cloud-based e-ticket database, including a web-based user interface and a jobsite mobile e-ticket application. VTrans Portal will interface with the Contractor’s supplier existing point of sales or e-ticketing platform and will allow VTrans to manage bituminous material e-tickets.

All costs associated with the use of VTrans Portal will be considered incidental to the appropriate Section 406 and Section 407 pay items. The Agency will manage the VTrans Portal application including Contract setup upon Contract execution.

To create an account, connect to the VTrans Portal, and for more information regarding the use of VTrans Portal see the information at the following link: <https://www.haulhub.com/vermont-agency-transport-22/>

20. NOTICE TO BIDDERS – SUBSECTION 105.11(b). Subsection 105.11(b) is hereby modified by being deleted in its entirety and replaced with the following:

(b) Permanent Marking Layout. The Contractor shall be responsible for the layout of the permanent traffic markings in accordance with the Plans. The Engineer will verify the layout of the permanent traffic markings, including passing zones and breaks for town highways.

21. NOTICE TO BIDDERS – SUBSECTION 107.21(b). Subsection 107.21(b) is hereby modified by deleting the phrase “M-22-11” from the second sentence and replacing it with the phrase “M-24-02”.

22. NOTICE TO BIDDERS – TABLE 108.12A. Table 108.12A is hereby modified by being deleted in its entirety and replaced with the following:

TABLE 108.12A – DAILY LIQUIDATED DAMAGES CHARGE PER WORKING DAY OF DELAY

| Original Contract Amount | | Daily Charge per Working Day of Delay |
|--------------------------|------------------|---------------------------------------|
| From More Than | To and Including | |
| \$0 | \$1,500,000 | \$3,200 |
| \$1,500,000 | \$3,000,000 | \$3,400 |
| \$3,000,000 | \$5,000,000 | \$3,600 |
| \$5,000,000 | \$10,000,000 | \$4,100 |
| \$10,000,000 | \$15,000,000 | \$4,700 |
| \$15,000,000 | \$20,000,000 | \$5,200 |
| \$20,000,000 | -- | \$5,800 |

23. NOTICE TO BIDDERS – SUBSECTION 646.04(d). Subsection 646.04(d) is hereby modified by deleting the first sentence of the first paragraph in its entirety and replacing it with the following:

The Contractor shall be responsible for the layout for the permanent traffic markings as specified in Subsection 105.11(b).

24. NOTICE TO BIDDERS – SUBSECTION 646.08(a)(2)a. Subsection 646.08(a)(2)a is hereby modified by deleting the first sentence of the first paragraph in its entirety and replacing it with the following:

Initial dry retroreflectivity minimums for surface-applied polyurea shall be 250 mcd/m²/lx for yellow markings and 350 mcd/m²/lx for white markings.

25. NOTICE TO BIDDERS – SUBSECTION 728.02. When material is supplied in accordance with Subsection 728.02(b) or Subsection 728.02(e), material in accordance with AASHTO M 180-18 may be substituted in place of material meeting AASHTO M 180-23.

26. NOTICE TO BIDDERS – AGENCY FURNISHED MATERIALS. The Contractor is hereby notified that the Agency will furnish the materials listed below for use on VT Route 14 (South Main Street).
- (a) These materials are available at the addresses listed below as described on sheet 10 of the project plans. The Contractor is responsible for inspecting all materials and will be responsible for packaging and transporting all materials to the project site. This cost will be included in the respective unit price bids for each item. The Contractor shall take responsibility over the materials from the time of pick-up until VTrans Final Acceptance. The Contractor shall coordinate material pick-up with the Engineer.
- (1) Barre Project Site: 45 South Main Street, Barre, VT
 - (2) Barre Yard: Gable Place, Barre, VT
 - (3) Wallingford Yard: Bill Fox Road, East Wallingford, VT
- (b) The complete list of materials and required quantities to construct this project is provided in the project plans. The items listed below include a portion of the required project quantity that will be furnished by the State. The cost of the pay items listed below does not include the cost of furnishing the material but does include the cost of all handling of materials from time of pick-up to time of installation of the materials in accordance with their appropriate pay items listed below. The Contractor may need to provide a portion of the quantities of these items needed to construct the project.
- (1) Item 662.0120 Remove and Replace Cross Ties
 - (2) Item 662.0400 Remove Jointed Rail and Install CWR
 - (3) Item 663.0200 Precast Concrete Panel Grade Crossing System (DOT 837-353C)
 - (4) Item 667.0020 Insulated Joints
27. NOTICE TO BIDDERS – DESIRED QUANTITY OF LUMP SUM ITEMS FOR MULTI-PROJECT CONTRACTS. The Contractor is hereby notified that all items paid by the lump sum have been assigned a separate item for each project in the Contract. For the items specified in Table 1, the Agency only intends for the Contractor to supply 1 Lump Sum for the entire Contract. The Contractor shall distribute its bid price appropriately over all associated lump sum items in the Contract. For all items not listed in Table 1, the Contractor shall supply the quantity of items indicated in the Schedule of Items.

TABLE 1 – DESIRED QUANTITY OF LUMP SUM ITEMS

| Item Number | Item Name | Desired Quantity |
|-------------|-------------------------------|------------------|
| 631.1000 | Field Office, Engineers | 1 |
| 631.1600 | Testing Equipment, Concrete | 1 |
| 631.1700 | Testing Equipment, Bituminous | 1 |

SECTION 667-0001 – FACTORY BONDED INSULATED JOINTS

667-0001.01 DESCRIPTION. This work shall consist of installing factory bonded insulated joints.

The work under this section shall be performed in accordance with these specifications, the Plans, and Section 667.

667-0001.02 MATERIALS.

- (a) Factory Bonded Insulated Joints. Factory bonded insulated joints shall be shop fabricated into plug rails a minimum of 39 feet in length and assembled such that there are 22 feet of rail on one side of the end post and 17 feet of rail on the other side of the end post. Rail shall meet the requirements of Subsection 715.06 and conform to the dimensional requirements of the rail section specified on the Plans. All rail ends shall be hardened.

Joint bars shall be fabricated from quenched carbon steel conforming to *AREMA Chapter 4*. Joint bars shall be full contact bars conforming to the dimensional requirements of the selected rail section and shall be smooth and straight. The inside face of joint bars shall be coated with pre-bonded insulating material, smooth, with no branding or stamping. Fabrication tolerances shall be in accordance with *AREMA Chapter 4, Section 3.8*.

The manufacturer shall supply end post insulating material in accordance with the requirements of *AREMA Chapter 4, Section 3.8.4.4*. Insulating material shall be of a high pressure, laminated design, impervious to oil, grease, and water, and have electrical resistance characteristics equal to or greater than fiber insulation. The end posts shall project 1/4 inch (\pm 1/16 inch) below the base of rail and shall be 3/16 inch thick.

Factory bonded insulated joints shall be joined together with adhesive and with six high-strength, 1 inch diameter bolts tightened to 1,080 foot-pounds in accordance with the requirements of *AREMA Chapter 4, Section 3.8.4.5*.

667-0001.03 SUBMITTALS. The Contractor shall submit to the Engineer, in accordance with Subsection 105.06, the following information for completing the work:

- (a) Manufacturer's certificate of compliance for all materials that are incorporated into the work.
- (b) Catalog cuts or other manufacturer's descriptive literature on insulated joints and fasteners.
- (c) Manufacturer's field installation (to include bolt torque) and test procedures.
- (d) Locations where rail cutting and welding is required for insulated joints.
- (e) Fabrication drawings, including fabrication details, for insulated joints.

Special Provisions Part II – Special Specifications

667-0001.04 CONSTRUCTION REQUIREMENTS. Factory bonded insulated joints shall be installed in accordance with the requirements of Subsection 667.06. Rails shall be installed to provide a minimum joint stagger of 5 feet.

667-0001.05 METHOD OF MEASUREMENT. The quantity of Factory Bonded Insulated Joints to be measured for payment will be the number of each used in the complete and accepted work.

667-0001.06 BASIS OF PAYMENT. The accepted quantity of Factory Bonded Insulated Joints will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, and placing the materials specified, and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

| <u>Pay Item</u> | <u>Pay Unit</u> |
|--|-----------------|
| 667.0020001 Factory Bonded Insulated Joints..... | Each |



State of Vermont*Agency of Transportation*

To: Nick Van Den Berg, P.E.**From: Saša Dejan, Project Manager****Date: December 6, 2024****Subject: Global Public Interest Finding (GPIF) for Alstom ElectrologIXS XP4 Crossing Controller**

Reason that a Patented or Proprietary Product or Process is Required:

Vermont Rail System (Operating Railroad) maintains the active warning systems on the at-grade rail-highway crossings on the rail lines they lease from the State of Vermont on federal, state, and local highways throughout Vermont. The method of train detection at these rail-highway crossings is either through a style "C" or predictor track circuit with a crossing controller to process the track circuit and operational information. To minimize the number of components needed to maintain these systems, the Operating Railroad has utilized one manufacturer for their grade crossing controller. There are currently only two manufacturers of this type of electronic equipment and their parts are not interchangeable. As the Operating Railroad has multiple crossing locations throughout the State which currently use this crossing controller and the Operating Railroad's staff size and finances limit their ability to stockpile parts for two different crossing controllers, using only this crossing controller for all at-grade crossings is a benefit to the Operating Railroad.

Product or Process Description:

The crossing logic controller processes track circuit and operational control information to properly activate and deactivate the at-grade active warning system devices.

Category B Determination:

As this crossing controller is the standard for the Operating Railroad as it is used on multiple at-grade crossing active warning systems and benefits the Operating Railroad by only requiring parts and expertise on one type of crossing controller, this product meets the requirements to be approved as a Category B Global PIF

Cost:

The estimated cost for this product or process is approximately \$20,000 per controller.

Effective Period:

This Global PIF may be used for contracts advertised within five years of the date specified above. After this time, the products or processes will be re-evaluated by the Agency.

Vermont Agency of Transportation Global Public Interest Finding Related to Materials Procurement for Multiple Projects

The categories listed below describe the specific conditions under which a patented or proprietary product or process may be authorized. This form contains attachments that document the necessary facts, conditions, and citations to authorize a Global Public Interest Finding for the use of the Alstom ElectrologIXS XP4 Crossing Controller on Agency contracts.

Despite responsible efforts to identify the most competitive material to perform this function, the Agency, through its Subject Matter Experts, has found that the patented or proprietary product or process (check the appropriate box):

- Category A – is the only product or process available that fulfills the required function; or
- Category B – is necessary for synchronization with other adjacent resources or existing facilities; or
- Category C – is being specified for research or experimental evaluation; or
- Category D – has been shown to be cost effective; or
- Category E – is for emergency or temporary use and its use is in the interests of public safety.

These findings have been made in accordance with Agency practices, including documentation of the underlying facts compelling the Public Interest Finding.

Recommended by: DocuSigned by: *Sasa Ryan*
7948305956CF34CA..., Project Manager or Subject Matter Expert DS
DD

Approved by: DocuSigned by: *Mike VanDenberg*
57D4DD3560C24C2... Materials and Certifications Manager

Approved by: DocuSigned by: *Trini Brassard*
153C27DB3B8A4AB..., Director of Policy, Planning, & Intermodal Development

Approved by: DocuSigned by: *Jeremy Reed*
BBE658022DA34B7..., Chief Engineer’s Office



State of Vermont*Agency of Transportation*

To: Nick Van Den Berg, P.E.

From: Saša Dejan, Project Manager

Date: December 16, 2024

Subject: Global Public Interest Finding (GPIF) for North American Signal Micro Data Analyzer II Event Recorder

Reason that a Patented or Proprietary Product or Process is Required:

Vermont Rail System (Operating Railroad) maintains the active warning systems on the at-grade rail-highway crossings on the rail lines they lease from the State of Vermont on federal, state, and local highways throughout Vermont. The method for remotely activating the warning system from a track mounted vehicle is via a Dual Tone Multi-Frequency (DTMF) operation. To minimize the number of components needed to maintain these systems, including purchasing two separate devices, the Operating Railroad has utilized one manufacturer for their event recorder which includes a built in DTMF. As the Operating Railroad has several crossing locations throughout the State which currently use this event recorder with DTMF and the Operating Railroad's staff size and finances limit their ability to stockpile parts for multiple event recorders and DTMF devices, using only this event recorder with DTMF for all at-grade crossings is a benefit to the Operating Railroad.

Product or Process Description:

The North American Signal Micro Data Analyzer II Event Recorder has a built in DTMF receiver for remote control operation of the active warning system.

Category B Determination:

As this event recorder provides a built in DTMF and is becoming the standard for the Operating Railroad as it is used on several at-grade crossing active warning systems and benefits the Operating Railroad by only requiring a single device instead of two, and only requires parts and expertise on one type of event recorder and DTMF, this product meets the requirements to be approved as a Category B Global PIF.

Cost:

The estimated cost for this product or process is approximately \$4,000 per event recorder with built in DTMF.

Effective Period:

This Global PIF may be used for contracts advertised within five years of the date specified above. After this time, the products or processes will be re-evaluated by the Agency.



Vermont Agency of Transportation Global Public Interest Finding Related to Materials Procurement for Multiple Projects


The categories listed below describe the specific conditions under which a patented or proprietary product or process may be authorized. This form contains attachments that document the necessary facts, conditions, and citations to authorize a Global Public Interest Finding for the use of the North American Signal Micro Data Analyzer II Event Recorder on Agency contracts.


Despite responsible efforts to identify the most competitive material to perform this function, the Agency, through its Subject Matter Experts, has found that the patented or proprietary product or process (check the appropriate box):

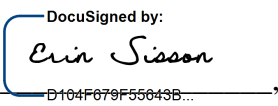
- Category A – is the only product or process available that fulfills the required function; or
- Category B – is necessary for synchronization with other adjacent resources or existing facilities; or
- Category C – is being specified for research or experimental evaluation; or
- Category D – has been shown to be cost effective; or
- Category E – is for emergency or temporary use and its use is in the interests of public safety.

These findings have been made in accordance with Agency practices, including documentation of the underlying facts compelling the Public Interest Finding.

Recommended by: , Project Manager or Subject Matter Expert 

Approved by: , Materials and Certifications Manager

Approved by: , Director of Policy, Planning, & Intermodal Development

Approved by: , Chief Engineer’s Office



State of Vermont*Agency of Transportation*

To: Nick Van Den Berg, P.E.

From: Saša Dejan, Project Manager

Date: February 06, 2025

Contract: Barre City STP 6000(32)

Subject: Contract Public Interest Finding (CPIF) for MEGALUG Mechanical Joint Restraint and MEGA-BOND Protective Coating

Project Location:

Located in the County of Washington, City of Barre, at the intersection of Hill Street and the Washington County Railroad (Montpelier and Barre Division) (MP 8.28) crossing (Crossing Inventory No. 837-354J), approximately 350 feet north of the intersection of Hill Street and South Main Street (VT Route 14).

Project Description:

Work to be performed under this project includes the minor realignment of the railroad tracks, reconstruction of an existing at-grade crossing, construction of new signals, and interconnect of the new signals with Ayers and VT Route 14 at-grade crossings along with associated roadway approach work at Hill Street.

Reason that a Patented or Proprietary Product or Process is Required:

As part of this project the City of Barre will be removing and replacing their existing 4" ductile iron (DI) waterline pipe with a new 8" diameter DI pipe in a steel sleeve under the railroad crossing. Placing the waterline in a sleeve under the railroad crossing will conform with the American Railway Engineering and Maintenance-of-Way Association (AREMA) requirements for utility crossings under railroads. It will also allow the city to upgrade their existing waterline system under the railroad crossing improving the longevity of the waterline and preventing interruption of rail service in the future for replacement of the waterline when it has reached its life expectancy.

As the City of Barre is responsible for the maintenance of multiple waterlines throughout the city, and waterline breaks not only are expensive to repair, but have significant impacts to the City's residence who can be without water for long periods of time depending on the location of the break and the weather. The City of Barre has developed Water System Standard Specifications to standardize their water system materials and components. This allows the city to specify components that will have a high life expectancy and allows them to reduce costs as all waterline components will be manufactured by specific companies and only those companies' parts will need to be in the City's inventory for future maintenance and repairs which reduces the City's costs.

As mechanical joints are required at each joint between the DI pipe and the fittings or valves, MEGALUG retainer glands are being used for those mechanical joints in accordance with the City of Barre's Water System Standard Specifications. As longevity is an important requirement for any municipalities utilities, especially buried utilities, and it is desirable to have all components of the system including the mechanical restraints to have the same or longer life span than the ductile iron pipe. The mechanical joints should not be installed as bare metal but have a protective coating. Therefore, the MEGALUG retainer glands are being coated with the MEGA-BOND protective coating in accordance with the City of Barre's Water System Standard Specifications.

Product or Process Description:

The MEGALUG mechanical joint restraint as manufactured by EBAA Iron, Inc. restrains ductile iron (DI) pipe at joints (between DI pipe and DI fittings) and at connections of DI pipe and gate valves. MEGA-BOND as manufactured by EBAA Iron, Inc. provides a protective coating on the MEGALUG mechanical joint restraint to improve longevity of the retainer gland beyond that of an uncoated retainer gland.

Category B Determination:

As the MEGALUG mechanical joint restraint and the MEGA-BOND protective coating are specified by the City of Barre's Water System Standard Specifications which have been developed to standardize the City's water system materials and components these products meet the requirements to be approved as a Category B Contract PIF.

Quantity and Cost:

This contract will use approximately 27 MEGALUG mechanical joint restraints with the MEGA-BOND protective coating on this project. The estimated cost for this product or process is approximately \$6,750.

Effective Period:

This Contract PIF will only be effective for the contract identified above.

Vermont Agency of Transportation Contract Public Interest Finding Related to Materials Procurement for a Project

The categories listed below describe the specific conditions under which a patented or proprietary product or process may be authorized. This form contains attachments that document the necessary facts, conditions, and citations to authorize a Contract Public Interest Finding for the use of Mega-Lug mechanical joint restraints with the MegaBond protective coating on the subject contract.

Despite responsible efforts to identify the most competitive material to perform this function, the Agency, through its Project and Program Managers, has found that the patented or proprietary product or process (check the appropriate box):

- Category A – is the only product or process available that fulfills the required function; or
- Category B – is necessary for synchronization with other adjacent resources or existing facilities; or
- Category C – is being specified for research or experimental evaluation; or
- Category D – has been shown to be cost effective; or
- Category E – is for emergency or temporary use and its use is in the interests of public safety.

These findings have been made in accordance with Agency practices, including documentation of the underlying facts compelling the Public Interest Finding.

Recommended by: DocuSigned by:
Sasa Dejan
794830595CF34CA....., Project Manager

Approved by: DocuSigned by:
Daniel Delabruen
C7A036DEF7A9645C....., Program Manager

Approved by: DocuSigned by:
Nick VanDenBerg
57D4DD3560C24C2....., Materials and Certifications Manager

Approved by: DocuSigned by:
Trini Brassard
153C27DB3B8A4AB....., Director of Policy, Planning, & Intermodal Development

Approved by: DocuSigned by:
Erin Sisson
D404E679F55643B....., Chief Engineer's Office



VERMONT RAIL SYSTEM®

Procedures for the Installation, Adjustment, Maintenance and Inspection of CWR

Note: FRA Track Safety Standards §213.119(k) requires that a copy of these procedures is available at every jobsite where personnel are assigned to install, inspect or maintain Continuous Welded Rail.

These Procedures have been adopted by all of Vermont Rail System

THESE RULES AND PROCEDURES SUPERSEDE ALL PREVIOUS INSTRUCTIONS COVERING PROCEDURES FOR THE INSTALLATION, ADJUSTMENT, MAINTENANCE AND INSPECTION OF CWR

Vermont Rail System Engineering

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DEFINITIONS

| | |
|---------------------|--|
| AMBIENT TEMPERATURE | Atmospheric or "air" temperature. |
| BUCKLED TRACK | A major irregularity in track alignment that is caused by excessive compression of the rails. The formation of a lateral misalignment sufficient in magnitude to constitute a deviation. Normally occurs when rail temperatures are relatively high and are caused by high longitudinal compressive forces. This condition is usually unsafe for train passage. Also known as heat kinks, sun kinks and tight track. |
| PLUG RAIL | A rail used to complete the repair of CWR defect (defective rail, Pull-apart, track buckle etc.) Plug rails may be temporary or permanent. Plug rails must be a minimum of 16 feet long in tangent track and 19'-6" long in curves. |
| CORRECTIVE ACTION | Repair or other actions required to bring CWR within compliance with Vermont Rail System CWR Standard |
| CWR | Continuous Welded Rail – Rail welded in lengths longer than 400'. Rail installed as CWR remains CWR, regardless of whether a joint or plug is installed into the rail at a later time. |
| PRLTR | Preferred Rail Laying Temperature Range - A range of rail temperatures within which it is permissible to lay CWR without having to make an adjustment. (VRS range 95°F-120°F) |
| NEUTRAL TEMPERATURE | A temperature where the rail is neither in tension or compression |
| PRLT | Preferred Rail Laying Temperature – The rail temperature which CWR is to be anchored to ensure the rail can withstand stresses at maximum high and low temperatures. (VRS 105°F) |
| PULL-APART | A failure in a joint of either broken bolts, broken splice bars or both which causes the rails to pull apart |
| RAIL TEMPERATURE | The temperature of the rail taken with an approved rail thermometer. |
| REMEDIAL ACTION | Repair or other actions required to bring track within compliance with CFR Title 49 Track Safety Standards Part 213 |
| WORKING ZONE | A temperature range 65°F below and 15°F above the PRLT for which it is permissible to undertake maintenance work in CWR. |

A. INSTALLATION OF CWR

1. Rail

- i. Continuous welded rail must be installed at a temperature to minimize track buckling in the summer due to high compressive forces in the rail and rail pull-aparts in the winter when the rail is in tension. The rail, at the time rail anchors are applied, must be in neither compression nor tension and is referred to as being in a stress-free state and at a temperature referred to as the Preferred Rail Laying Temperature (PRLT). To maintain a reasonably uniform neutral temperature while installing CWR please refer to *Appendix 8 – CWR Installation: “Quartering the Rail”*.
- ii. Continuous welded rail should be installed within a range of 10°f below the PRLT, to a maximum of 15°f above the PRLT. This range is referred to as the “Preferred Rail Laying Temperature Range” (PRLTR).
- iii. Should it become necessary to install and anchor rail at a temperature below the PRLTR, and rail heaters, hydraulic expanders or equivalent are not available, a “CWR Installation Report” must be completed and made available to the Track Supervisor indicating the location of the installed rail and the installation temperature. Rail temperature adjustment at these locations must be completed before the rail temperature reaches the lower limit of the PRLTR. Corrective actions must be recorded on the forms and the files retained for a minimum of 2 years. Note, the CWR Installation Report must be completed whenever CWR is installed.
- iv. Rail temperature will be measured with a rail thermometer placed on the shady side of the web of rail and away from all sources of artificial heat or cold. Rail Thermometers must be checked on a regular basis by comparing against one or more other rail thermometers. If the readings vary by more than five degrees, a third thermometer must be used to determine which of the two is accurate. Inaccurate rail thermometers must be replaced. Contact style thermometers are preferred; however, the use of infra-red thermometers is acceptable providing the temperature is taken in the same manner as conventional thermometers (web of rail, away from direct sunlight, or sources of artificial heat).
- v. At the completion of rail installation, with all rail fasteners in place, the date, rail installation temperature, ambient temperature, rail movement, and Foreman’s initials will be marked with paint on the web of the rail at the end of each string.
- vi. CWR should not end on an open deck bridge, or less than 300’ from the back wall. The Chief Engineer or designee shall be consulted before installing CWR on any bridge built on a curve in excess of 6°, or on any open deck bridge on a curve in excess of 3°.

- vii. If the only ballast disturbed is that removed by a cribber, the rail has been installed, spiked and anchored within the PRLTR, one train will be operated over the newly installed CWR at 10 mph. Then, after inspection, speed to be determined by qualified person.

2. Anchors, Fasteners and Ballast

i. Anchoring

- A. On new construction or rail relay, every 2nd tie will be box anchored.

Additional anchors will be applied as outlined in Table 1. When an anchor is applied to the rail, there must be an anchor applied to the opposite rail with bearing on the same side of the tie. At locations where CWR installation occurred prior to the effective date of this plan, and the existing anchor pattern is not in compliance with this anchoring policy, the track will be brought up to standard during the next rail laying operation, curve patch, bridge timbering operation, turnout, or road crossing replacement project. During timbering operations, missing anchors will be replaced to match the pattern currently in the track. At locations where the existing anchor pattern is less than every 2nd tie, periodic inspections shall be conducted to ensure rail is restrained to prevent track buckles or pull-aparts. When bolted joints in CWR experience a service failure, remedial actions must be taken as specified in Table 2

Table 1

| | | |
|---|---|--|
| At These Locations | Turnouts*, Highway Grade Crossings over 50 feet in length, Track Crossings at Grade {Diamonds}, Open Deck Bridges*, Moveable Bridges & CWR Adjoining Jointed Rail => | Box anchor every tie for 200 feet in both directions from where CWR adjoins these locations. |
| Any times a new joint is introduced into existing CWR | If NOT intended to be welded; or Only 4 bolts are installed => | Box anchor every tie for 200 feet in both directions |
| | If welded within 60 days**; or six bolts are installed => | Existing Anchor Pattern |
| Existing bolted joint locations | If no excessive longitudinal rail movement => | Existing anchor pattern |
| | If excessive longitudinal rail movement is evident {bent bolts} => | Box anchor every tie for 200 feet in both directions from joint |

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Turnouts* - 200 feet ahead of the switch points; 200 feet from the long ties behind the frog on both tracks. Plus, all ties in turnout where anchors can be applied and not interfere with switch operation. This Pattern is to be applied to both welded and bolted turnouts.

** When a new joint is introduced into existing CWR and is scheduled to be welded, it must be welded within 60 days of installation. If repairs are made below the lower limit of the working zone (65°F below PRLT) six bolts must be installed or 100% box anchored 200 feet either side of joint if conditions require.

Table 2

Bolted joint in CWR experiencing service failure {stripped joint/pull-apart} or failed bars with gap* present. * Gap present if it cannot be closed with a drift pin.

- Weld joint; **or**
- Repair joint as per section C-5 and weld within 60 days; **or**
- Replace bars (if required) and install six new bolts and adjust anchors in both directions for 200 ft.; **or**
- Box anchor every tie for 200 ft. in both directions; **or**
- Add required amount of rail (reference Appendix 6 for existing neutral)

ii. Spiking Patterns

- A. Two rail holding spikes will be driven in each double shoulder tie plate on tangent and curves less than 2 degrees. Two rail holding spikes and one hold down spike on the field side shall be driven in each tie plate on curves 2 degrees or greater but less than 6 degrees. For curves 6 degrees or more, two rail holding spikes and two hold down spikes shall be driven in each tie plate.

iii. Bolts

- A. All joints in CWR must contain at least 2 bolts per rail end. Temporary plug rails **in new CWR installations**, may be bolted with four bolts per joint in the two outer holes on each rail with a 6-hole joint bar, if welded within 60 days from the date of installation. If not welded within 60 days, all joints must meet requirements of Table 1 and Table 2 in this section. Grade 8 bolts are required for CWR

iv. Ballast

- A. A ballast section of sufficient quantity and quality to restrain the track laterally under the loads imposed by railroad equipment and thermal stress is required where CWR is to be installed. If the ballast section is inadequate to provide the lateral restraint, and there is evidence of excessive lateral movement of the track, a slow order as determined by an individual qualified in these procedures must be placed until ballast section is restored.

B. ADJUSTING NEUTRAL TEMPERATURE

1. Track Conditions Requiring Adjustment

- i. Where CWR has been installed at a temperature lower than the PRLTR, the Supervisor should have been provided a “CWR Installation Report” and the rail scheduled for neutral temperature adjustment. It is important to complete any rail adjustments before the onset of warmer weather. **10 MPH speed restriction will remain in effect until adjustments are made. All re-adjustments must be made within 365 days of original installation.**
- ii. Rail movement can also occur in areas where trains routinely apply brakes. These areas include signal locations, descending grades, permanent speed restrictions, approaching yards, or similar locations on the railroad. At some locations, such as road crossings and turnouts, rail is more resistant to longitudinal creep than in open track. Rail with high longitudinal forces is often found at these locations.
- iii. When surfacing in cooler weather, rail may contract and pull toward the inside of a curve. This is more pronounced where there is insufficient ballast on the low side of the curve. If this occurs, the curve will have a lower neutral temperature and therefore will develop high compressive forces when the rail temperature increases. Note: Refer to Item C.3.i.
- iv. Where CWR has experienced failures such as breaks and pull-aparts and the neutral temperature is determined to be below the PRLTR by using *Appendix 6 Existing Rail Neutral Temperature Tables*. **Be sure to use the appropriate table for the rail size and existing anchor pattern in the area.**
- v. If de-stressing due to a track buckle, imminent track buckle, or while actual rail temperatures are above the PRLTR be sure to follow steps outlines in section C.7 of this plan.
- vi. Many maintenance activities also affect the neutral temperature of the rail. Any work that significantly disturbs the ballast, such as surfacing, tie renewal, and undercutting, can allow the track to shift in response to traffic and temperature changes until the ballast section is again stabilized. A *CWR – Inspection, Maintenance and Disturbance Record* must be completed for any work which disturbs the track or adds rail in CWR. Any follow-up actions must be recorded on the form.

Note: Prior to any track work the following information needs to be written on the web or base of rail: Rail Temperature, Gap, Reference Mark measurement (+/-).

2. Procedures for Adjusting Neutral Temperature

- i. Prior to any track work the following information needs to be written on the web or base of rail: Rail Temperature, Gap, Reference Mark Measurement (+/-). Determine

when to de stress by considering size of work force and de stressing limits set by effected area determined by using Appendix 6 in conjunction with Appendix 7.

- a) Inspect the track for evidence of rail movement. Consider grades, curvature, track fixtures and traffic conditions to estimate the limits of rail with a low neutral temperature. NOTE: If the rail is tight as a result of a cold weather emergency rail repair, the limits of the rail adjustment should be determined using information from the *CWR Failure Report*.
 - b) If de-stressing because it has been determined the existing rail neutral temperature is below the PRLTR by using Appendix 6, determine the de-stressing limits by using Appendix 6 in conjunction with Appendix 7. Example;
 - First measure the gap present and take the current rail temperature. Then determine if the base of the rail section is 5 ½” or 6” and if every tie or every other tie is anchored in the area of the break occurrence.
 - If there is a **1-inch gap**, rail temperature is **40°F**, rail **base is 5 ½”** and **every other tie is anchored**. What is the neutral temperature? *Use directions below to find out.*
 - Using Table 1 in Appendix 6, find the appropriate box for a rail break temperature of 40°F with a gap of 1-inch. The existing rail neutral temperature would be 77°F which is to low and needs to be adjusted to within VRS’ PRLTR. For a 105°F neutral temperature in the same track conditions, the rail gap should be 3-inches. In order to return that section of track to our desired neutral temperature of 105°F you will need to cut an additional 2-inches of rail out to make the total gap 3-inches.
 - Next, the length of track effected by the rail break and low neutral temperature needs to be determined to find how much rail needs to be adjusted. To do this you will use Appendix 7 in conjunction with Appendix 6.
 - Because our rail break temperature is 40°F we also know the change in rail temperature from our PRLT is 65°F. Knowing we have a 3-inch gap that needs to be closed in order to achieve a 105°F neutral temperature in the area, use Appendix 7 and find the column for a 65°F change in rail temperature. In that column, find where you need the rail to obtain 3-inches of growth to close the gap. With a 65°F change in rail temperature and a 3-inch gap you will need to adjust 600 feet of rail to capture the entire effected area. 300 feet in each direction of cut or break in the rail. (Note: Prior to welding remember to remove an additional 1 inch of rail for each weld).
 - c) If de-stressing as a follow-up to recent rail installation outside of the PRLTR, obtain the *CWR Installation Report* to determine the limits of rail adjustment.
- ii. Rail should not be cut more often than necessary; however, de-stressing significant lengths will reduce the chances that a reasonably uniform neutral temperature will be

achieved. Rail cannot be easily adjusted on track that is overfilled with ballast and track that is uneven in surface or alignment. Attempting to de-stress rail under these conditions should be avoided. Consult with a supervisor if these conditions exist.

- iii. The length of rail to be adjusted should be no less than 400 feet (200' each direction), or more than 1600 feet (800' in each direction from adjusting point).

Obtain the Following Information:

- The present rail temperature
- If rail temperature is within the PRLTR using Appendix 6
- The length of CWR to be de-stressed by using Appendixes 6 and 7 outlined in example on page 7 of this plan. Must not exceed 800' each side of adjustment point or 1600' if adjusting in one direction.

Preparatory Work:

- Determine reference mark locations in accordance with appendix 2.
- Determine length of rail to be adjusted using Appendixes 6 and 7
- Adjust rail anchors 200 feet each side of where the rail is to be cut or separated to ensure rail does not jump when cut or joint bars removed.

De-Stressing Steps:

1. Cut the rail or dismantle joint bars at adjustment point.
2. Remove rail anchors
3. Tap or vibrate rail by striking the tie plate with sledgehammers to ensure rail is free to move. Use only brass or soft material hammers to strike the rail itself – never strike the rail with spike mauls or sledgehammers.
4. If existing gap is less than adjustment required, cut the rail end so the gap is equal to the required expansion adjustment (plus one inch for each field weld if applicable). If the gap exceeds the amount of adjustment required, install a closure rail not less than 16 feet in tangent or 19'6" in curves. Leaving a gap for the required adjustment (plus one inch for each field weld if applicable).
5. Using a hydraulic rail expander or rail heater, de-stress the rail by stretching it the required expansion adjustment to close the gap.
 - Ensure bolt holes are drilled prior to installing the rail expander.
 - If welding a closure rail, allow sufficient time for the weld(s) to cool (700°F) before stretching rail.
6. Check reference marks to ensure that the required movement has been achieved throughout the entire length of the rail to be de-stressed (use Appendix 2).
 - If the required movement has not been achieved at all the match marks, vibrate the rail as per instructions in step 4 until required movement is achieved.

7. Re-apply rail anchors beginning at the end furthest from, working toward the adjusting point.
8. Join rail ends with joint bars or field welds.
9. Remove rail expander.
10. Obliterate any previous rail laying temperature and “paint” new de-stressed to temperature and date on the rail. New temperature should be in PRLTR.
11. Complete *CWR Inspection, Maintenance and Disturbance Record* (Appendix 4) and forward to all it may concern.

C. MAINTENANCE

1. Track Maintenance General

- i. For the purposes of this CWR maintenance policy, the range of rail temperatures not more than 15°F above, or more than 65°F below the Preferred Rail Laying Temperature is known as the Working Zone.
- ii. Except in cases of emergency or major programs approved by the Chief Engineer, no surfacing, lining, tie renewal, rail change out, transposing, gaging or ballast shoulder cleaning will be carried out in CWR territory when the rail temperature outside the Working Zone.
- iii. Necessary gaging, transposing, shimming and rail change out may be carried out at lower temperatures. Extreme care must be taken when gaging curves at low temperatures as the rail may string line. Minor spot surfacing and crosstie replacement may also be carried out at lower temperatures, but care must be taken on curves to disturb the ballast as little as possible.
- iv. A *CWR Inspection, Maintenance and Disturbance Record* (Appendix 4) must be completed for any work which disturbs the track or adds rail in CWR. Any follow-up actions must be recorded on the form.
- v. Work on major programs may be undertaken outside the working zone, but only when satisfactory measures have been taken to ensure safety. The following track maintenance guidelines should be referred to and utilized for all track maintenance in CWR territory.

2. Tie Renewal

- i. Take the following precautions when renewing ties in locations with continuous welded rail.
 - a) Do not remove more ballast from the cribs and tie ends than is necessary to carry out renewals.
 - b) Disturb the surface and track alignment as little as possible.
 - c) Not more than three consecutive ties may be renewed at one time. When necessary to remove up to three consecutive ties, at least three out of four adjacent

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ties on either side of the ties to be renewed must be fully spiked and anchored to specifications.

- d) Where heavier tie renewals are required and the above requirements cannot be met, complete the renewals in 2 or more passes.
- e) These guidelines also apply to the installation of switch ties for new turnouts, turnout panels, track panels, road crossings, etc. Anchor switch ties in the same manner as track ties until the turnout is installed.
- f) **Until track is restored to standard (fully plated, spiked, anchored, newly installed ties tamped, ballast cribs and shoulders restored) track speed shall be limited to 10 mph. Once the track has been restored to standard and the track surface and line meet F.R.A. Class 2 requirements, the track speed may be increased to 25 mph for freight. Before increasing to class 3 or higher, the track must meet minimum class standards and be fully surfaced, lined, dressed and the track stabilized by meeting the tonnage requirements or by a combination of mechanical stabilization and tonnage as outlined in the chart below.**

SLOW ORDER REQUIREMENT – More than 25% tie renewal in 100 feet of track

| TRACK CONDITION | SPEED |
|--|--|
| 1) Until track is restored to standard. (fully plated, spiked, anchored, newly installed ties tamped, ballast cribs and shoulders restored). | 10 MPH |
| 2) Track restored to standard and track surface and line meet minimum class standards. | 25 MPH |
| 3) Track fully surfaced, lined and dressed and track stabilized with Mechanical Stabilizer and the passage of 5,000 tons of traffic has passed over the track to consolidate the ballast. | AUTHORIZED TRACK SPEED (ABOVE 25 MPH) |
| 4) Track fully surfaced, lined and dressed and 30,000 tons of traffic has passed over track to consolidate the ballast. | AUTHORIZED TRACK SPEED (ABOVE 25 MPH) |

Slow orders for spot work or less than 25% tie renewals must be approved by a Supervisor.

Note: When increasing speeds to a higher class, track must meet at least the minimum standards for that class.

3. Out-Of-Face Surfacing & Shoulder Cleaning

- i. When track is to be surfaced – and ambient temperature is currently or forecasted to be (within the next 24 hours) more than 65°F below the PRLT, a qualified employee shall set reference stakes on curves 3 degrees or higher before track surfacing begins. Stakes will be placed approximately 200’ apart. If the curve is shorter than 500’, place three stakes evenly spaced around the curve. The position of the curve will be periodically

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monitored after surfacing is completed. Measurements must be recorded on the CWR – Inspection, Maintenance and Disturbance Report for up to 15 days after the work was completed. If inward movement of the curve is in excess of 3”, the curve must be lined out, or rail adjustments made prior to the rail temperature reaching the lower limit of the PRLTR. Note: Stakes must be placed where they would not present a tripping hazard to railroad personnel.

- ii. Track surfacing disturbs the ballast around the tie and reduces the tracks lateral resistance. A temporary speed restriction not to exceed 25 mph must be placed on all surfaced CWR track with a track speed greater than 25 mph, regardless of temperature. The slow order should begin at least 0.2 miles either side of the disturbed track. This will prevent train braking in the immediate vicinity of the disturbed track.
- iii. When work is performed at night or during a cool period of the day at the time of year when it is known the rail temperature is expected to exceed the working zone, track that has been disturbed must be protected by slow order until a sufficient amount of traffic has been operated over the track to consolidate the ballast.
- iv. When surfacing, track must not be allowed to get out of line and joints at the end of CWR should be given special attention.
- v. Track in CWR territory must not be surfaced unless sufficient ballast is available.
- vi. If insufficient ballast exists on the surfaced track, the Roadmaster or Track Supervisor must be notified, and speed restriction shall remain in place until the ballast section has been restored.

SLOW ORDER REQUIREMENT – Surfacing

| TRACK CONDITION | SPEED |
|---|--|
| 1) Insufficient Ballast or not regulated to standard | 10 MPH |
| 2) Track restored to normal, surfaced and regulated to standard | 25 MPH |
| 3) Track fully surfaced, lined and dressed and track stabilized with Mechanical Stabilizer and the passage of 5,000 tons of traffic has passed over the track to consolidate the ballast. | AUTHORIZED TRACK SPEED (ABOVE 25 MPH) |
| 4) Track fully surfaced, lined and dressed and 30,000 tons of traffic has passed over track to consolidate the ballast. | AUTHORIZED TRACK SPEED (ABOVE 25 MPH) |

Slow orders for spot work must be approved by a Supervisor. **Note: When increasing speeds to a higher class, track must meet at least the minimum standards for that class.**

4. Replacing Defective Rail

- i. If a rail break occurs, or a rail defect requiring replacement is detected in CWR, it shall first receive a Unique Identifier (UI) composed of subdivision and mileage. For example, defect #CLP97.50 would be the unique identifier for a defect at mileage 97.50 on the CLP. This information will be recorded on a *CWR – Failure Report* A plug rail of not less than **16 feet in tangent track and 19’-6”** in curves must be cut in.

- a) If welds cannot be made at the time of repair, a plug rail must be installed following the procedures outlined in this plan tracking neutral temperature, leaving minimum gap. Installation of bolts and anchors must meet the requirements set out in Section A.2 – Table 1
- ii. **When Cutting in the replacement rail, care must be taken to maintain neutral temperature. Use the reference mark procedure outlined in Appendix 2 to accurately monitor neutral temperature. If the neutral is determined to be outside the PRLTR it must be properly documented on a *CWR Failure Report* or *CWR Inspection, Maintenance and Disturbance Record*. To ensure the section of track where the plug rail was added is within the PRLTR, please reference section B.2 “Procedures for Adjusting Neutral Temperature”.**
- iii. When thermite welds are used in making a permanent plug, a gap of 1” must be cut out to compensate for each weld.
- iv. When plug rails, either temporary or permanent are bolted into rail within a Track Circuit, arrangements must be made with the Signal department to have rail bonds applied at the joints.
- v. The *CWR Failure Report* must be completed for service failures in CWR. The *CWR Inspection, Maintenance and Disturbance Record* should be used for rail changed in maintenance or behind an ultrasonic test vehicle.

5. Pull-Aparts (Stripped Joint)

- i. A pull-apart (stripped joint) is a failure at a rail joint of either the bolts or splice bars or both, allowing the rail ends to separate. If a failure occurs, the joint must be fastened and anchored as per the requirements set out in Section A.2 – Table 2.
 - a) If the rail pull-apart at a joint is less than 3 inches, heat may be applied to both rails for a sufficient distance on each side to close the gap. Use a source of heat, or hydraulic rail-puller to obtain closure leaving no joint gap. Remove rail anchors before heating but re-apply them immediately after obtaining closure. **IMPORTANT:** Do not use kerosene-soaked rope on open deck bridges.
 - b) If a pull-apart occurs and the rail ends separate more than 3 inches and de-stressing cannot be completed at the time, a temporary repair should be made by installing a plug rail of at least **16 feet in tangent track and 19’-6” in curves**.
 - c) After measuring length of gap, use Appendix 6 to determine the existing neutral in the area. If it is outside of the PRLTR, readjust following the procedures outlined in this plan
- ii. *CWR Failure Report (Appendix 1)* must be completed, recording the joint gap, method of repair and rail added (if any) to ensure all information is available should further rail adjustment be required.

6. Maintaining Desired Neutral Temperature Range

- i. If the neutral is found or changed to be outside of the PRLTR for any reason when repairing a pull-apart, changing a rail defect, making emergency repairs, etc., record it on the *CWR Failure Report* so that adjustments can be made later.
- ii. Rail that has pulled apart, broken, or been cut for defect removal must be readjusted to within the PRLTR. In order to determine existing rail neutral temperature at the time of the repair, refer to Tables 1 through 4 in Appendix 6. Record the existing rail neutral temperature on the *CWR Failure Report* in the appropriate box.
- iii. If existing rail neutral temperature is reported on the *CWR Failure Report*, or calculated to be outside the PRLTR, a temporary speed restriction of 10 mph will be placed in the affected area to protect train traffic until rail can be de-stressed to within the PRLTR.

7. Track Buckles

- i. A track buckle is an emergency situation. When a track buckle, or imminent track buckle is discovered;
 - a) Stop all traffic at that location until temporary repairs are complete or;
 - b) After a qualified track inspector has inspected the location and determines the track is safe for train operation, they may supervise the movement of each train over the location at a maximum of 10 mph until repairs are complete.
- ii. For **temporary** repair of a track buckle, cut each rail maintaining a minimum four (4) foot stagger to assist in controlling the release of forces. Leave a sufficient gap in the rail, place the track in the best possible alignment where it will remain without further movement to allow safe passage of trains. **Trains are to be operated at a speed not to exceed 10 mph until permanent repairs are made.**
- iii. For **permanent** repair of a track buckle;
 - a) Dismantle joints using extreme caution as the rail could still be in compression.
 - Adjust rail by using process outlined in section B.2 “De-stressing steps”.
 - b) If conditions allow, it is acceptable to line a curve out with a tamper after reviewing conditions with the Chief Engineer. If conditions require, apply remedial actions below;
 - Apply new or additional anchors
 - Add ballast to shoulder and cribs.
 - Replace defective ties
 - c) Place appropriate slow order at the location until the disturbed ballast has consolidated after adjustment.
- iv. A follow up inspection should be made before removing speed restrictions to ensure effectiveness of repairs.
- v. For track buckles, pull-aparts and broken rails, the remedial action taken must be reported by the Foreman and the Roadmaster or Track Supervisor on the *CWR Failure Report*.

8. Other Track Maintenance

- i. Maintain good surface at all joints.
- ii. All bent bolts should be replaced. The removal of bolts must be done one at a time.
- iii. When joints have opened to the extent that the track bolts are bent, corrective action must be planned.
- iv. Rail anchors must be inspected frequently and kept in proper adjustment to prevent or limit rail movement. When it is necessary to adjust anchors by hand, if the anchor is less than 1” from its proper position, it may be driven along the rail. Otherwise, the anchor should be removed from the rail and reapplied in proper position.
- v. Close attention must be paid to the condition of insulated joints. Replace damaged insulation as soon as possible.

D. INSPECTION

1. Normally, there are several things that occur in track structure that warn of tight rail conditions and/or a potential buckling problem. If track inspection is done in a conscientious and careful manner, the early signs of a potential problem can be discovered, and steps taken to prevent a track buckle. The following are warning signs a track buckle could occur;
 - Wavy rail
 - New alignment problems, such as short flat spots in a curve or kinks in tangent track
 - Gaps or voids in ballast at end of ties
 - Rail base not properly seated in the plates
 - Rail (running through anchors) that requires de-stressing, additional anchors and/or the re-setting of anchors.
 - Churning of ballast caused by tie movement, resulting in gage conditions and line kinks
 - Longitudinal movement of a switch point in relation to a stock rail, resulting in improper switch adjustment
2. All Warning signs must be dealt with immediately. **When a tight rail condition is located, take immediate steps to protect train traffic.** If a slow order is placed, it should begin at least 0.2 miles on each side of the tight rail location to prevent train braking in the immediate vicinity.
3. When inspecting CWR track, special attention must be given to areas where rail is likely to have moved. These areas can occur at the bottom of sags, where train braking is likely to occur, or adjacent to locations where the track movement is restricted, such as turnouts and grade crossings. Close attention must be also given to bridge approaches and high degree curved track, especially where track work that disturbed the ballast was completed during colder weather.
4. The inspector should be aware of any track maintenance work that has been recently performed such as tie replacement, track surfacing, or rail replacement, and make close inspections of those areas to make sure that repairs were properly performed and the track is protected by slow order until the ballast is consolidated.
5. Continuous Welded Rail that shows signs of not being stress free within the Preferred Rail Laying Temperature Range (PRLTR) should be de-stressed as soon as possible.

6. When ambient temperature is at or below the seasonal average, and there is any evidence of unusual lateral or vertical movement of the rail, a slow order of 25 mph or less must be placed and the Supervisor informed promptly.
7. A special inspection of track constructed with CWR will be performed on the first warm day of the year when temperatures are expected to exceed 80°F. A special inspection of the same track will be performed every day the temperature is over 90°F. Per Vermont Rail System Special Instruction S-2, “when the air temperature is over 90°F all train movements are restricted to a maximum of 30 mph for passenger trains and 25 mph for freight trains on the Vermont Rail System.” Inspections made because of high temperature should be conducted between 12:00 noon and 20:00 each day that high temperatures are expected.
8. On main tracks, cold weather inspections must be performed as directed by the Chief Engineer when the temperature reaches 0°F. The inspector will watch for;
 - Broken rails
 - Pull-aparts
 - Curve movement
 - Wide gap between rail ends
 - Bent bolts
 - Cracked or broken joint bars (conventional and insulated)
 - Canted Rail

NOTE 1: Arrangements must also be made for additional track inspections when an extreme variation in temperature is expected.

E. JOINT BAR INSPECTION IN CWR (FRA 213.119(h))

1. All CWR joints within the following classes must be inspected on foot:
 - i. Class 2 on which passenger trains operate, and
 - ii. Class 3 and higher
2. Minimum joint bar inspection frequencies:
 - i. Visual “on foot” inspection of all joints in CWR shall be performed by an individual qualified under FRA 213.7 as per the following table and documented on a CWR Joint Inspections Form (Appendix 5).

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| Minimum Number of Inspections Per Calendar Year | | | | | |
|---|---|-----------------------|------------------|---|------------------------------|
| | Freight Trains operating over track with an annual tonnage of : | | | Passenger Trains operating over track with an annual tonnage of : | |
| | Less than 40 MGT | Between 40 and 60 MGT | More than 60 MGT | Less than 20 MGT | More than or equal to 20 MGT |
| Class 5 & above | 2x | 3x 1 | 4x 1 | 3x 1 | 3x 1 |
| Class 4 | 2x | 3x 1 | 4x 1 | 2x | 3x 1 |
| Class 3 | 1x | 2x | 2x | 2x | 2x |
| Class 2 | 0 | 0 | 0 | 1x | 1x |
| <p>4x = Four times per calendar year, with one inspection in each of the following periods: January to March, April to June, July to September, and October to December; and with consecutive inspections separated by at least 60 calendar days.</p> <p>3x = Three times per calendar year, with one inspection in each of the following periods: January to April, May to August, and September to December; and with consecutive inspections separated by at least 90 calendar days.</p> <p>2x = Twice per calendar year, with one inspection in each of the following periods: January to June and July to December; and with consecutive inspections separated by at least 120 calendar days.</p> <p>1x = Once per calendar year, with consecutive inspections separated by at least 180 calendar days.</p> <p>1 Where extreme weather conditions prevent a track owner from conducting an inspection of a particular territory within the required interval, the track owner may extend the interval by up to 30 calendar days from the last day that the extreme weather condition prevented the required inspection.</p> <p>2 Where a track owner operates both freight and passenger trains over a given segment of track, and there are two different possible inspection interval requirements, the more frequent inspection interval applies.</p> | | | | | |

Note: Alternate procedures may be used to accomplish the required joint bar inspections with prior approval in writing from the Federal Railroad Administration.

Exceptions: Passenger train detours and tourist, scenic, historic or excursion operations shall be handled in compliance with Title 49, Part 213, D, 119(g), 6.

3. Rail Joint Conditions

- i. The primary consideration for the rail joint inspection is to detect, report and take remedial action for cracked or broken joint bars.
 - a) Joint bars that show visible cracks shall be handled in accordance with FRA 213.121 (b) & (c).
- ii. Conditions that can lead to the development of joint bar cracks must also be noted during the inspection, and corrective action(s) undertaken. These conditions include, but are not limited to the following:
 - a) Loose, bent or missing bolts
 - b) Rail end batter
 - c) Mismatched joints (Note: Immediate remedial action shall be taken for rail ends that are mismatched in excess of the table in FRA 213.115)
 - d) Excessive longitudinal rail movement in or near the joint as evidence by; wide rail gap, defective bolts, disturbed ballast, surface deviations or displaced and missing rail anchors.
 - e) Potential failure of any component of the joint, such as rails, bolts, supporting crossties and fasteners.
 - f) The track on both sides adjacent to the joint for signs of rail movement, including the effectiveness of rail anchors.

4. CWR Rail Joint Identification

- i. Rail joints in CWR that require remedial or corrective action will be marked with a durable crayon or other marker, or with highly visible surveying tape. The marking shall be made on the gage side joint bar. In addition, such joints shall be identified on the inspection report as to location by specifying the subdivision, milepost, track number and rail (North, South etc.).
- ii. Track inspectors or other personnel dispatching maintenance crews to perform repairs on a CWR joint must provide the joint identification to ensure the maintenance crew can clearly identify the location where work is to be performed.

5. Recording and Reporting

- i. Each rail joint in CWR that has been inspected as per the required inspection intervals stated in E.2.i. and requires remedial or corrective action as outlined in (e) “Remedial/Corrective Action Table”, will be recorded on the *CWR Joint Inspection Form*. The CWR joint shall be identified on the report by Subdivision & Mileage. Joints that are inspected, but do not require corrective action are not required to be recorded on the inspection report.
- ii. The *CWR Joint Inspection Form* will contain at minimum, the following information:
 - a) The date of inspection
 - b) The Railroad, Subdivision and mileage limits of the inspection

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- c) Any condition that could lead to the development of a joint bar crack per section E.3.ii.
 - d) Corrective action for conditions not in compliance.
 - e) Corrective action for conditions that could lead to the development of a joint bar crack (See Remedial/Corrective Action Table).
 - f) Name of Inspector
- iii. The “CWR Joint Inspection Form” Shall be kept on file at a designated location for a period of one year.

6. Remedial/Corrective Action Table

| Condition Reported | Remedial Action (§FRA 213) | Corrective Action |
|--|---|---|
| Loose Bolts | | *Tighten or Replace |
| Missing Bolt(s) | Replace immediately if joint contains less than 2 bolts per rail end. | *Replace bolt(s) |
| Bent Bolts | | Replace and determine cause of bent bolt condition. Re-inspect per section E. |
| Rail End Batter <small>(More than 3/8" in depth and 6" in length as measured with a 24" straight-edge)</small> | | *Replace Rail or *Build up by Welding |
| Mismatched Joint | Replace rail or repair joint if exceeding limits of §213.115 | If mismatch is a result of loose joint, tighten joint bars *If mismatch is a result of difference in rail head thickness, replace or grind rail. |
| Wide Rail Gap <small>(in excess of 1-1/2 inch)</small> | | Determine cause of wide gap condition If gap is result of improper drilling, replace rail. *If gap is result of inadequate anchoring, pull together and install additional anchors |
| Wide Rail Gap Disturbed Ballast Missing or Displaced Anchors Excess Longitudinal Rail Movement in vicinity of Joint | | Determine cause of track conditions *Add or remove rail as required and arrange for work to be completed before onset of Colder temperatures. *If movement is result of inadequate anchoring, adjust existing rail anchors and/or install additional anchors. |

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| | | |
|---------------------------|--|--------------------------|
| Surface Deviation | Check if within compliance with §213.163 Bring within compliance by repair or speed restriction | Surface Joint |
| Defective Tie(s) in Joint | Check if within compliance with §213.109(f) Bring within compliance by replacing tie or; protect by speed restriction | Replace defective tie(s) |

*Note: For all other conditions found during inspection of Rail Joints in CWR that are not in compliance with FRA Track Safety Standards Part 213 – Subpart A to F, further remedial action as per the requirements of that part must be initiated and reported on a regular Track Inspection Report or in electronic track inspection records.

7. Turnouts within CWR

- i. All joints from and including the insulated joints at the signals governing movement entering and leaving the control point or interlocking or if there are no signals at the switch location, include as a minimum all joints from the point of switch to the heel of the frog will be inspected in conjunction with Monthly Turnout Inspection.
- ii. Joints within the limits described above need not be reported on the *CWR Joint Inspection Form*. However, defects and remedial action must be recorded on the appropriate Track Inspection report or electronic track inspection records per the requirements of FRA §213.241.

8. CWR Joints Imbedded in Crossings or Platforms

- i. CWR Joints imbedded in Asphalt, Concrete, Rubber or Rubber flange crossings or platforms shall be inspected as thoroughly as possible without removing any permanent material and providing it can be done in a manner that is safe for the inspector. Signs of lateral movement in the crossing or platform and longitudinal movement of the rail in the vicinity of the crossing or platform must be taken into consideration when inspecting embedded joints.
- ii. CWR joints imbedded or buried in removeable material such as ballast, road gravel or dirt shall be inspected by removing as much material as possible, provided it can be done in a manner safe to the inspector and vehicular traffic using the crossing. Joints buried in material outside of crossings must be exposed by removing the material to the extent possible adequately inspect the joint.

F. QUALIFICATIONS & TRAINING

1. Each employee responsible for the installation, maintenance, inspection, or adjustment of CWR track and each supervisor directing the action of those employees (including contractors* of this railroad) shall:

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- i. Have current qualifications under the provisions of CFR Part Title 49 Track Safety Standards §213.7 (a) & (b), prior to obtaining §213.7 (c) qualification.
 - ii. Have successfully completed a comprehensive training course for the application of these CWR procedures. The training program will address, but not limited to, the following:
 - a) CWR installation procedures
 - b) Rail anchoring requirements when installing CWR
 - c) Maintaining a Preferred Rail Laying Temperature Range
 - d) Preventive maintenance on existing CWR
 - e) Monitoring curve movement following track surfacing
 - f) Placing temporary speed restrictions account track work
 - g) Rail joint inspections
 - h) Insufficient ballast
 - i) Extreme weather inspections
 - j) Record keeping
 - iii. Demonstrates that he/she knows and understands the requirements of these CWR procedures.
 - iv. Demonstrate the ability to detect track conditions from these procedures and prescribe the appropriate corrective or remedial action for those track conditions.
 - v. Have written authorization from the railroad to prescribe corrective or remedial action for deviations from these CWR procedures.
2. Each employee responsible from the installation, maintenance, inspection, or adjustment of CWR track and each supervisor directing the action of those employees (including contractors* of this railroad) shall receive annual re-training on these CWR procedures. The scope of this annual re-training will be determined by the railroad and may consist of a review of these CWR procedures, practical (field) exercise, written examination, or any combination thereof. VRS will maintain lists of employees qualified to supervise restorations and inspect track in CWR territory. The qualified employee lists will be made available to the FRA upon request.

*Contractors referred to above are those that perform track maintenance in CWR territory on a continuous basis for the railroad. With supervision from a qualified railroad employee, contractors hired to install CWR, shall be guided through Part A – “Installation” and Part B – “Adjusting Neutral Temperature” in a pre-construction meeting. Subsequent review can be performed during job briefings if necessary, to ensure understanding.

G. RECORD KEEPING

1. Continuous Welded Rail shall be marked on the web of the rail with paint at the time the rail is installed or adjusted to indicate the date the work was completed, the installation or adjusted rail neutral temperature and the Foreman's initials.
2. *CWR Failure Reports* (Appendix 1) will be maintained in the Roadmaster or Track Supervisor's office. The reports will indicate the exact location of the failure, the date the report was filed, the amount of inward movement in curves, or the amount of additional rail installed. The reports must indicate when corrective action was taken and what track work was accomplished. The reports will be kept on file for one year from the initial CWR failure.
3. A *CWR Installation Report* will be maintained at the Roadmaster or Track Supervisor's office indicating the exact location of the rail, the date work was complete, and the rail temperature at the time of installation. These reports will be maintained in the Roadmaster or Track Supervisor's office. The reports will be kept on file for one year from the initial rail installation.
4. A *CWR Joint Inspection Form* will be maintained in the Roadmaster or Track Supervisor's office. The reports will be kept on file for one year from the date of inspection.
5. It is the Roadmaster or Track Supervisor's responsibility to see that all newly installed CWR or disturbed track identified in the reports has had the rail neutral temperature adjusted before the onset of warm weather and all reports are amended to indicate the date and nature of work completed.

Note: All forms required by this program may be completed and filed in an electronic records program.

Appendix 1 – CWR Failure Report



CWR - Failure Report

| Railroad | Subd. | UI | Failure Date | DD | MM | YY |
|---|-----------------|---|--|--|-------------------------|-------------|
| Time CWR failure was discovered or reported | | | Time of last train Operation | | | |
| Rail Temperature at time of repair | °F | PRLT | °F | Air Temp. | °F | Rail Weight |
| Part 1 - Location Information | | | | | | |
| Failure at top or bottom of grade (or none) | | | Was length, direction or handling of train a factor? (Y/N) | | | |
| Tangent | Curve | Deg. Of Curve | % Grade | Feet from nearest turnout, bridge, crossing | | |
| Part 2 - Pull Apart or Rail Break | | | | | | |
| General: Rail Break (type) | | Pull-Apart | Gap at break or pull-apart (inches) | | | |
| Anchor Pattern | Rail Base Width | Rail Neutral Temp. (from appropriate table) | | | | |
| If Pull-apart - State the apparent cause | | | | | | |
| Action Taken - Rail Closure Information | | | | | | |
| Bolted Closure | | | Welded Closure | | Rail Heated or Expanded | |
| Ref. Mark Before | 4 bolts | Ref. Mark Before | Rail Temperature When Repaired | | °F | |
| Ref. Mark After | 6 bolts | Ref. Mark After | Date Repairs Completed | | | |
| Difference | | Total Welds | DD | | | |
| Gaps left in Joints | | Total Rail Added | MM | | | |
| Total Rail Added or Removed | | or Removed | YY | | | |
| Part 3 - Track Buckle | | | | | | |
| General: | | Was work performed in the area in the past 2 weeks | | If "Yes" indicate date: | | |
| | | If "Yes" to the above - What was the work performed | | | | |
| Date rail was installed or distressed (If known) | | | Laying or Distressed to Temp. (If known) | | | |
| Ballast: | | Tie Cribs Full of Ballast (Yes/No) | | Width of Ballast Shoulder | | |
| | | Are there signs of the ties moving in the ballast | | Is ballast fouled? | | |
| Fasteners: | | Anchor Pattern | Spikes per Tie | Tie Plate Type | | |
| | | Are there several anchors loose or missing in vicinity? | | Are there signs of rail moving through anchors? | | |
| Ties/Surface: | | Number of Defective Ties at buckle location | | General Surface (good, fair, poor) | | |
| | | Is there irregular alignment in the area? | | Was buckle at a soft grade location or in rock cut | | |
| Action Taken - Track Alignment | | | | | | |
| Track placed in best possible alignment & Slow order | | | Rail Removed (If Yes, fill out "Closure information") | | | |
| Follow-up Action Required - For either Buckle or Pull Apart (This portion to be completed by Supervisor/Roadmaster) | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Follow-up Action to be Completed by: | | | | | | |
| DD | | | | | | |
| MM | | | | | | |
| YY | | | | | | |
| Foreman (Print) | | Signature | | Report forwarded to Supervisor | | |
| | | | | DD | | |
| | | | | MM | | |
| | | | | YY | | |

Appendix 2 – Placing Reference Marks

Placing rail reference marks is a method of correctly and accurately measuring the amount of rail added or removed in CWR territory.

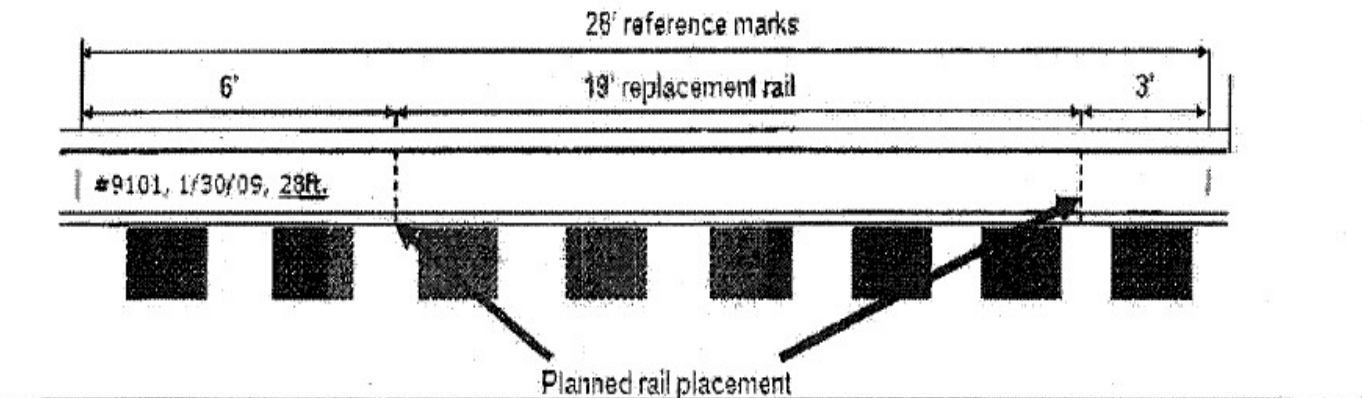
Reference marks must be utilized when rail separations occur in CWR for any reason

Use the following guidelines when placing reference marks.

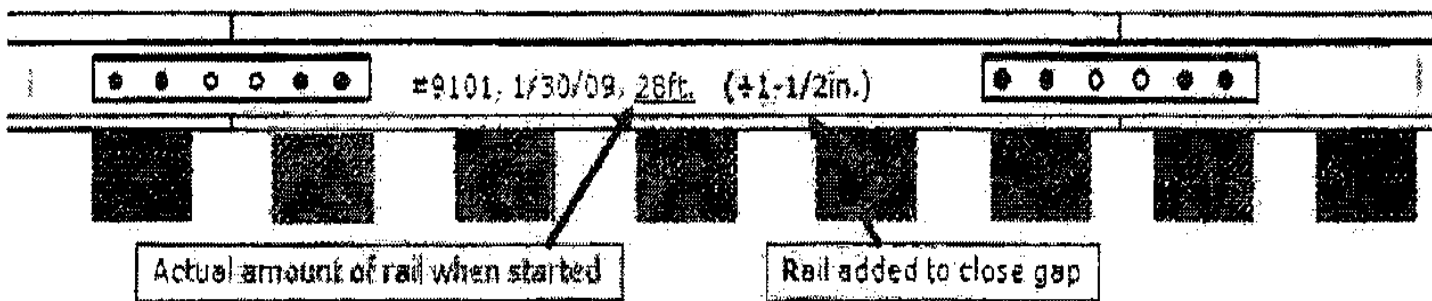
- Use a permanent white metal marker or paint stick (not soapstone or chalk) to record reference marks. The markings must also be legible and clearly understood.
- Reference marks should be at least 3' from where the cut is made so that joint bars will not cover marks.
- The distance between reference marks, the foreman's initials and the date must be written on the web of the rail in a railroad wide uniform manner.
- Find the existing rail neutral temperature by using the appropriate table in *Appendix 6 Existing Rail Neutral Temperature Table*.
- In this example, the adjustment could not be made, so the gap was filled by cutting in a plug and adding rail, lowering the Rail Neutral Temperature (RNT). The rail temperature, gap size and reference mark distance will have to be maintained so that a proper adjustment can be performed at a later date. The new RNT is equal to the current RT in this case.
- Document the location on the appropriate reports and arrange for later adjustment if needed.
- Any lowered RNT temporary repairs must be corrected when making permanent repairs.
- In the event the rail temperature is below the PRLTR and the saw pinches (rail is under compression) and the section of track cannot be traditionally adjusted at that time, joint bars shall be applied with the four (4) outermost holes or a plug cut in following steps in this plan. The current rail temperature is now the new neutral temperature in the area and a 10mph slow order must be applied to protect train traffic. Supervisor or Chief Engineer must be notified immediately, and the track scheduled for re adjustment following steps outlined in section B.2.

When adding a replacement rail that has not separated, decide where to cut the rail to ensure that the cuts align with the tie cribs. Measure at least 3 feet from each rail cut mark, before the rail is cut, and place reference marks on the web of the rail to record the total distance between the reference marks.

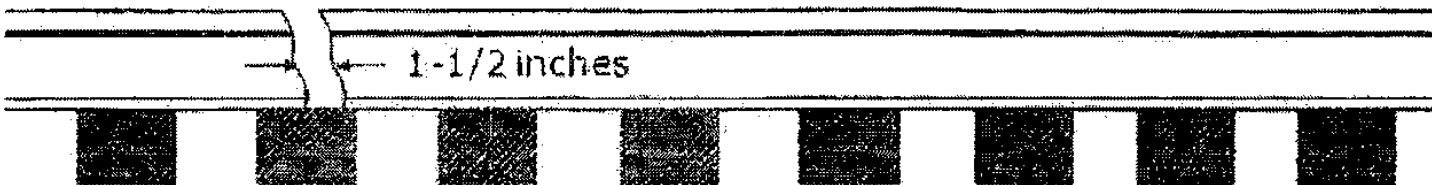
Appendix 2 – Placing Reference Marks (cont.)



In the example below, when the rail was cut, the rail gapped open 1 1/2". The replacement rail was installed as a temporary repair and after the joint bars were applied the distance between the reference marks is now 28' 1 1/2". Document the 1 1/2" added as a (+) measurement.



In cases of pull-a-parts and service failures where the rail has gapped open, the distance of reference marks on the web of the rail must not include the gap in the rail. The reference marks should always indicate the original distance, (amount of rail) between the marks before the break or pull-apart occurred. In this example the gap 1 1/2" wide and the break is crooked.

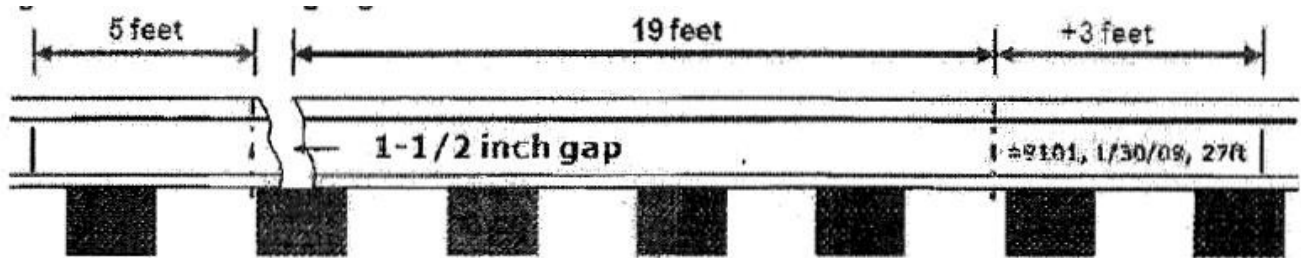


Decide where to make saw cuts (preferably away from the break). Measure back from those cuts at least 3' and make the reference marks. Measure the reference mark distance, and then subtract the amount of gap to get the original reference mark distance.

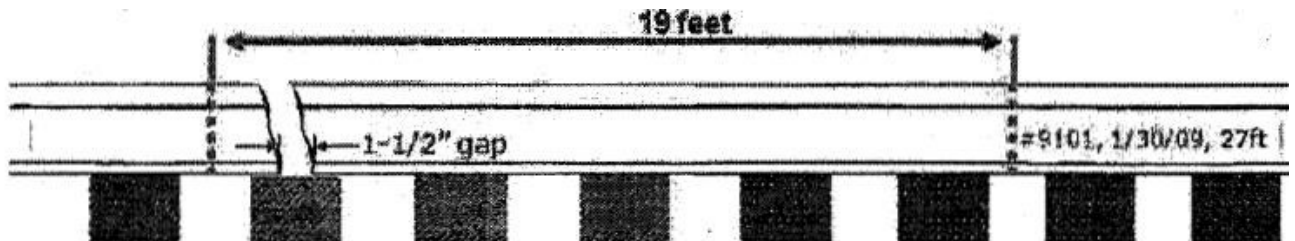
In the example below you can see that the reference mark was moved the additional gap distance amount on one end, so that the distance measurement would be an even number. This makes tracking changes a little easier;

Appendix 2 – Placing Reference Marks (cont.)

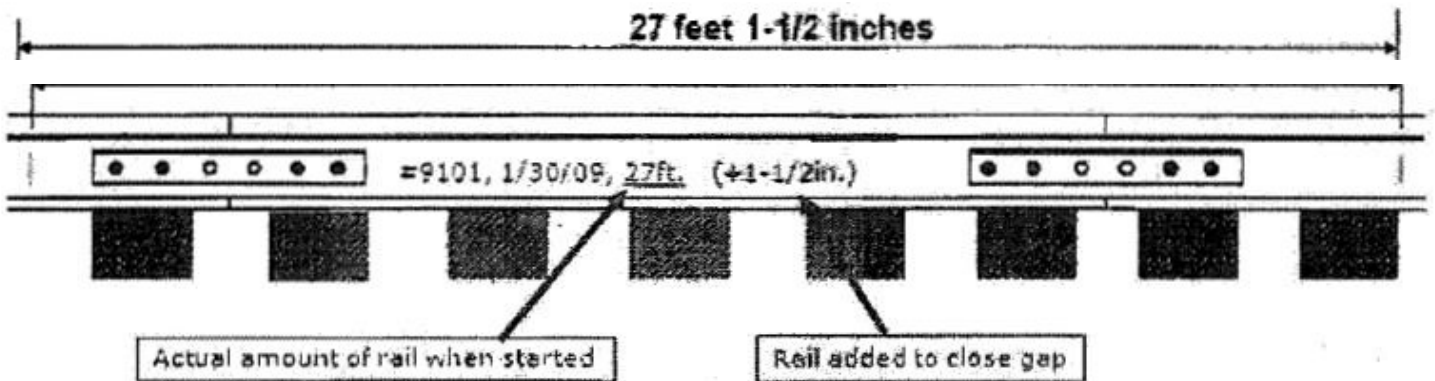
either way the objective is to record the original rail distance by “not including” the gap distance. Distance 27' 1 1/2", subtract gap 1 1/2". The amount to write on rail and record as the before distance, is 27', no inches.



Mark the rail to place the saw cuts for the replacement rail in the cribs.



Once the temporary repair (filled the gap) is completed, measure the distance between the reference marks and record the amount of change on the web of the rail.



When returning to correct the lowered rail neutral temperature or making the welds for a rail plug that was calculated to be within the Preferred Rail Laying Temperature Range (PRLTR), the information on the rail provides the information needed to close out the location correctly. The original reference mark length, gap distance, and rail temperature at the time of separation, are needed to make these adjustments.

If the information is not available, a traditional adjustment as outlined in Section B.2 would be required to properly adjust the location back to within the PRLTR.

Installation, Adjustment, Maintenance and Inspection of CWR

Appendix 6 – Existing Rail Neutral Temperature Tables

| Table 1 - 5 1/2" Base Rail Every Other Tie Anchored | | Rail Gap | | | | | | | | | | | | | | | | | |
|--|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Rail Break Temp | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | |
| 105 | 131 | 142 | 151 | 158 | 164 | 170 | 175 | 180 | 184 | 189 | 193 | 197 | 200 | 204 | 208 | 211 | 214 | 217 | |
| 100 | 126 | 137 | 146 | 153 | 159 | 165 | 170 | 175 | 179 | 184 | 188 | 192 | 195 | 199 | 203 | 206 | 209 | 212 | |
| 95 | 121 | 132 | 141 | 148 | 154 | 160 | 165 | 170 | 174 | 179 | 183 | 187 | 190 | 194 | 198 | 201 | 204 | 207 | |
| 90 | 116 | 127 | 136 | 143 | 149 | 155 | 160 | 165 | 169 | 174 | 178 | 182 | 185 | 189 | 193 | 196 | 199 | 202 | |
| 85 | 111 | 122 | 131 | 138 | 144 | 150 | 155 | 160 | 164 | 169 | 173 | 177 | 180 | 184 | 188 | 191 | 194 | 197 | |
| 80 | 106 | 117 | 126 | 133 | 139 | 145 | 150 | 155 | 159 | 164 | 168 | 172 | 175 | 179 | 183 | 186 | 189 | 192 | |
| 75 | 101 | 112 | 121 | 128 | 134 | 140 | 145 | 150 | 154 | 159 | 163 | 167 | 170 | 174 | 178 | 181 | 184 | 187 | |
| 70 | 96 | 107 | 116 | 123 | 129 | 135 | 140 | 145 | 149 | 154 | 158 | 162 | 165 | 169 | 173 | 176 | 179 | 182 | |
| 65 | 91 | 102 | 111 | 118 | 124 | 130 | 135 | 140 | 144 | 149 | 153 | 157 | 160 | 164 | 168 | 171 | 174 | 177 | |
| 60 | 86 | 97 | 106 | 113 | 119 | 125 | 130 | 135 | 139 | 144 | 148 | 152 | 155 | 159 | 163 | 166 | 169 | 172 | |
| 55 | 81 | 92 | 101 | 108 | 114 | 120 | 125 | 130 | 134 | 139 | 143 | 147 | 150 | 154 | 158 | 161 | 164 | 167 | |
| 50 | 76 | 87 | 96 | 103 | 109 | 115 | 120 | 125 | 129 | 134 | 138 | 142 | 145 | 149 | 153 | 156 | 159 | 162 | |
| 45 | 71 | 82 | 91 | 98 | 104 | 110 | 115 | 120 | 124 | 129 | 133 | 137 | 140 | 144 | 148 | 151 | 154 | 157 | |
| 40 | 66 | 77 | 86 | 93 | 99 | 105 | 110 | 115 | 119 | 124 | 128 | 132 | 135 | 139 | 143 | 146 | 149 | 152 | |
| 35 | 61 | 72 | 81 | 88 | 94 | 100 | 105 | 110 | 114 | 119 | 123 | 127 | 130 | 134 | 138 | 141 | 144 | 147 | |
| 30 | 56 | 67 | 76 | 83 | 89 | 95 | 100 | 105 | 109 | 114 | 118 | 122 | 125 | 129 | 133 | 136 | 139 | 142 | |
| 25 | 51 | 62 | 71 | 78 | 84 | 90 | 95 | 100 | 104 | 109 | 113 | 117 | 120 | 124 | 128 | 131 | 134 | 137 | |
| 20 | 46 | 57 | 66 | 73 | 79 | 85 | 90 | 95 | 99 | 104 | 108 | 112 | 115 | 119 | 123 | 126 | 129 | 132 | |
| 15 | 41 | 52 | 61 | 68 | 74 | 80 | 85 | 90 | 94 | 99 | 103 | 107 | 110 | 114 | 118 | 121 | 124 | 127 | |
| 10 | 36 | 47 | 56 | 63 | 69 | 75 | 80 | 85 | 89 | 94 | 98 | 102 | 105 | 109 | 113 | 116 | 119 | 122 | |
| 5 | 31 | 42 | 51 | 58 | 64 | 70 | 75 | 80 | 84 | 89 | 93 | 97 | 100 | 104 | 108 | 111 | 114 | 117 | |
| 0 | 26 | 37 | 46 | 53 | 59 | 65 | 70 | 75 | 79 | 84 | 88 | 92 | 95 | 99 | 103 | 106 | 109 | 112 | |
| -5 | 21 | 32 | 41 | 48 | 54 | 60 | 65 | 70 | 74 | 79 | 83 | 87 | 90 | 94 | 98 | 101 | 104 | 107 | |
| -10 | 16 | 27 | 36 | 43 | 49 | 55 | 60 | 65 | 69 | 74 | 78 | 82 | 85 | 89 | 93 | 96 | 99 | 102 | |
| -15 | 11 | 22 | 31 | 38 | 44 | 50 | 55 | 60 | 64 | 69 | 73 | 77 | 80 | 84 | 88 | 91 | 94 | 97 | |
| -20 | 6 | 17 | 26 | 33 | 39 | 45 | 50 | 55 | 59 | 64 | 68 | 72 | 75 | 79 | 83 | 86 | 89 | 92 | |
| -25 | 1 | 12 | 21 | 28 | 34 | 40 | 45 | 50 | 54 | 59 | 63 | 67 | 70 | 74 | 78 | 81 | 84 | 87 | |
| -30 | -4 | 7 | 16 | 23 | 29 | 35 | 40 | 45 | 49 | 54 | 58 | 62 | 65 | 69 | 73 | 76 | 79 | 82 | |
| -35 | -9 | 2 | 11 | 18 | 24 | 30 | 35 | 40 | 44 | 49 | 53 | 57 | 60 | 64 | 68 | 71 | 74 | 77 | |
| -40 | -14 | -3 | 6 | 13 | 19 | 25 | 30 | 35 | 39 | 44 | 48 | 52 | 55 | 59 | 63 | 66 | 69 | 72 | |
| -45 | -19 | -8 | 1 | 8 | 14 | 20 | 25 | 30 | 34 | 39 | 43 | 47 | 50 | 54 | 58 | 61 | 64 | 67 | |

Installation, Adjustment, Maintenance and Inspection of CWR

Appendix 6 – Existing Rail Neutral Temperature Tables (cont.)

| Rail Break Temp | | Rail Gap | | | | | | | | | | | | | | | | | |
|-----------------|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| | | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 |
| 105 | 137 | 151 | 161 | 170 | 178 | 184 | 191 | 197 | 202 | 208 | 213 | 217 | 222 | 226 | 231 | 235 | 239 | 243 | |
| 100 | 132 | 146 | 156 | 165 | 173 | 179 | 186 | 192 | 197 | 203 | 208 | 212 | 217 | 221 | 226 | 230 | 234 | 238 | |
| 95 | 127 | 141 | 151 | 160 | 168 | 174 | 181 | 187 | 192 | 198 | 203 | 207 | 212 | 216 | 221 | 225 | 229 | 233 | |
| 90 | 122 | 136 | 146 | 155 | 163 | 169 | 176 | 182 | 187 | 193 | 198 | 202 | 207 | 211 | 216 | 220 | 224 | 228 | |
| 85 | 117 | 131 | 141 | 150 | 158 | 164 | 171 | 177 | 182 | 188 | 193 | 197 | 202 | 206 | 211 | 215 | 219 | 223 | |
| 80 | 112 | 126 | 136 | 145 | 153 | 159 | 166 | 172 | 177 | 183 | 188 | 192 | 197 | 201 | 206 | 210 | 214 | 218 | |
| 75 | 107 | 121 | 131 | 140 | 148 | 154 | 161 | 167 | 172 | 178 | 183 | 187 | 192 | 196 | 201 | 205 | 209 | 213 | |
| 70 | 102 | 116 | 126 | 135 | 143 | 149 | 156 | 162 | 167 | 173 | 178 | 182 | 187 | 191 | 196 | 200 | 204 | 208 | |
| 65 | 97 | 111 | 121 | 130 | 138 | 144 | 151 | 157 | 162 | 168 | 173 | 177 | 182 | 186 | 191 | 195 | 199 | 203 | |
| 60 | 92 | 106 | 116 | 125 | 133 | 139 | 146 | 152 | 157 | 163 | 168 | 172 | 177 | 181 | 186 | 190 | 194 | 198 | |
| 55 | 87 | 101 | 111 | 120 | 128 | 134 | 141 | 147 | 152 | 158 | 163 | 167 | 172 | 176 | 181 | 185 | 189 | 193 | |
| 50 | 82 | 96 | 106 | 115 | 123 | 129 | 136 | 142 | 147 | 153 | 158 | 162 | 167 | 171 | 176 | 180 | 184 | 188 | |
| 45 | 77 | 91 | 101 | 110 | 118 | 124 | 131 | 137 | 142 | 148 | 153 | 157 | 162 | 166 | 171 | 175 | 179 | 183 | |
| 40 | 72 | 86 | 96 | 105 | 113 | 119 | 126 | 132 | 137 | 143 | 148 | 152 | 157 | 161 | 166 | 170 | 174 | 178 | |
| 35 | 67 | 81 | 91 | 100 | 108 | 114 | 121 | 127 | 132 | 138 | 143 | 147 | 152 | 156 | 161 | 165 | 169 | 173 | |
| 30 | 62 | 76 | 86 | 95 | 103 | 109 | 116 | 122 | 127 | 133 | 138 | 142 | 147 | 151 | 156 | 160 | 164 | 168 | |
| 25 | 57 | 71 | 81 | 90 | 98 | 104 | 111 | 117 | 122 | 128 | 133 | 137 | 142 | 146 | 151 | 155 | 159 | 163 | |
| 20 | 52 | 66 | 76 | 85 | 93 | 99 | 106 | 112 | 117 | 123 | 128 | 132 | 137 | 141 | 146 | 150 | 154 | 158 | |
| 15 | 47 | 61 | 71 | 80 | 88 | 94 | 101 | 107 | 112 | 118 | 123 | 127 | 132 | 136 | 141 | 145 | 149 | 153 | |
| 10 | 42 | 56 | 66 | 75 | 83 | 89 | 96 | 102 | 107 | 113 | 118 | 122 | 127 | 131 | 136 | 140 | 144 | 148 | |
| 5 | 37 | 51 | 61 | 70 | 78 | 84 | 91 | 97 | 102 | 108 | 113 | 117 | 122 | 126 | 131 | 135 | 139 | 143 | |
| 0 | 32 | 46 | 56 | 65 | 73 | 79 | 86 | 92 | 97 | 103 | 108 | 112 | 117 | 121 | 126 | 130 | 134 | 138 | |
| -5 | 27 | 41 | 51 | 60 | 68 | 74 | 81 | 87 | 92 | 98 | 103 | 107 | 112 | 116 | 121 | 125 | 129 | 133 | |
| -10 | 22 | 36 | 46 | 55 | 63 | 69 | 76 | 82 | 87 | 93 | 98 | 102 | 107 | 111 | 116 | 120 | 124 | 128 | |
| -15 | 17 | 31 | 41 | 50 | 58 | 64 | 71 | 77 | 82 | 88 | 93 | 97 | 102 | 106 | 111 | 115 | 119 | 123 | |
| -20 | 12 | 26 | 36 | 45 | 53 | 59 | 66 | 72 | 77 | 83 | 88 | 92 | 97 | 101 | 106 | 110 | 114 | 118 | |
| -25 | 7 | 21 | 31 | 40 | 48 | 54 | 61 | 67 | 72 | 78 | 83 | 87 | 92 | 96 | 101 | 105 | 109 | 113 | |
| -30 | 2 | 16 | 26 | 35 | 43 | 49 | 56 | 62 | 67 | 73 | 78 | 82 | 87 | 91 | 96 | 100 | 104 | 108 | |
| -35 | -3 | 11 | 21 | 30 | 38 | 44 | 51 | 57 | 62 | 68 | 73 | 77 | 82 | 86 | 91 | 95 | 99 | 103 | |
| -40 | -8 | 6 | 16 | 25 | 33 | 39 | 46 | 52 | 57 | 63 | 68 | 72 | 77 | 81 | 86 | 90 | 94 | 98 | |
| -45 | -13 | 1 | 11 | 20 | 28 | 34 | 41 | 47 | 52 | 58 | 63 | 67 | 72 | 76 | 81 | 85 | 89 | 93 | |

Installation, Adjustment, Maintenance and Inspection of CWR

Appendix 6 – Existing Rail Neutral Temperature Tables

| Table 3 - 6" Base Rail Every other Tie Anchored | | Rail Gap | | | | | | | | | | | | | | | | | |
|--|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Rail Break Temp | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | |
| 105 | 129 | 139 | 147 | 154 | 159 | 164 | 169 | 174 | 178 | 182 | 185 | 189 | 192 | 196 | 199 | 202 | 205 | 208 | |
| 100 | 124 | 134 | 142 | 149 | 154 | 159 | 164 | 169 | 173 | 177 | 180 | 184 | 187 | 191 | 194 | 197 | 200 | 203 | |
| 95 | 119 | 129 | 137 | 144 | 149 | 154 | 159 | 164 | 168 | 172 | 175 | 179 | 182 | 186 | 189 | 192 | 195 | 198 | |
| 90 | 114 | 124 | 132 | 139 | 144 | 149 | 154 | 159 | 163 | 167 | 170 | 174 | 177 | 181 | 184 | 187 | 190 | 193 | |
| 85 | 109 | 119 | 127 | 134 | 139 | 144 | 149 | 154 | 158 | 162 | 165 | 169 | 172 | 176 | 179 | 182 | 185 | 188 | |
| 80 | 104 | 114 | 122 | 129 | 134 | 139 | 144 | 149 | 153 | 157 | 160 | 164 | 167 | 171 | 174 | 177 | 180 | 183 | |
| 75 | 99 | 109 | 117 | 124 | 129 | 134 | 139 | 144 | 148 | 152 | 155 | 159 | 162 | 166 | 169 | 172 | 175 | 178 | |
| 70 | 94 | 104 | 112 | 119 | 124 | 129 | 134 | 139 | 143 | 147 | 150 | 154 | 157 | 161 | 164 | 167 | 170 | 173 | |
| 65 | 89 | 99 | 107 | 114 | 119 | 124 | 129 | 134 | 138 | 142 | 145 | 149 | 152 | 156 | 159 | 162 | 165 | 168 | |
| 60 | 84 | 94 | 102 | 109 | 114 | 119 | 124 | 129 | 133 | 137 | 140 | 144 | 147 | 151 | 154 | 157 | 160 | 163 | |
| 55 | 79 | 89 | 97 | 104 | 109 | 114 | 119 | 124 | 128 | 132 | 135 | 139 | 142 | 146 | 149 | 152 | 155 | 158 | |
| 50 | 74 | 84 | 92 | 99 | 104 | 109 | 114 | 119 | 123 | 127 | 130 | 134 | 137 | 141 | 144 | 147 | 150 | 153 | |
| 45 | 69 | 79 | 87 | 94 | 99 | 104 | 109 | 114 | 118 | 122 | 125 | 129 | 132 | 136 | 139 | 142 | 145 | 148 | |
| 40 | 64 | 74 | 82 | 89 | 94 | 99 | 104 | 109 | 113 | 117 | 120 | 124 | 127 | 131 | 134 | 137 | 140 | 143 | |
| 35 | 59 | 69 | 77 | 84 | 89 | 94 | 99 | 104 | 108 | 112 | 115 | 119 | 122 | 126 | 129 | 132 | 135 | 138 | |
| 30 | 54 | 64 | 72 | 79 | 84 | 89 | 94 | 99 | 103 | 107 | 110 | 114 | 117 | 121 | 124 | 127 | 130 | 133 | |
| 25 | 49 | 59 | 67 | 74 | 79 | 84 | 89 | 94 | 98 | 102 | 105 | 109 | 112 | 116 | 119 | 122 | 125 | 128 | |
| 20 | 44 | 54 | 62 | 69 | 74 | 79 | 84 | 89 | 93 | 97 | 100 | 104 | 107 | 111 | 114 | 117 | 120 | 123 | |
| 15 | 39 | 49 | 57 | 64 | 69 | 74 | 79 | 84 | 88 | 92 | 95 | 99 | 102 | 106 | 109 | 112 | 115 | 118 | |
| 10 | 34 | 44 | 52 | 59 | 64 | 69 | 74 | 79 | 83 | 87 | 90 | 94 | 97 | 101 | 104 | 107 | 110 | 113 | |
| 5 | 29 | 39 | 47 | 54 | 59 | 64 | 69 | 74 | 78 | 82 | 85 | 89 | 92 | 96 | 99 | 102 | 105 | 108 | |
| 0 | 24 | 34 | 42 | 49 | 54 | 59 | 64 | 69 | 73 | 77 | 80 | 84 | 87 | 91 | 94 | 97 | 100 | 103 | |
| -5 | 19 | 29 | 37 | 44 | 49 | 54 | 59 | 64 | 68 | 72 | 75 | 79 | 82 | 86 | 89 | 92 | 95 | 98 | |
| -10 | 14 | 24 | 32 | 39 | 44 | 49 | 54 | 59 | 63 | 67 | 70 | 74 | 77 | 81 | 84 | 87 | 90 | 93 | |
| -15 | 9 | 19 | 27 | 34 | 39 | 44 | 49 | 54 | 58 | 62 | 65 | 69 | 72 | 76 | 79 | 82 | 85 | 88 | |
| -20 | 4 | 14 | 22 | 29 | 34 | 39 | 44 | 49 | 53 | 57 | 60 | 64 | 67 | 71 | 74 | 77 | 80 | 83 | |
| -25 | -1 | 9 | 17 | 24 | 29 | 34 | 39 | 44 | 48 | 52 | 55 | 59 | 62 | 66 | 69 | 72 | 75 | 78 | |
| -30 | -6 | 4 | 12 | 19 | 24 | 29 | 34 | 39 | 43 | 47 | 50 | 54 | 57 | 61 | 64 | 67 | 70 | 73 | |
| -35 | -11 | -1 | 7 | 14 | 19 | 24 | 29 | 34 | 38 | 42 | 45 | 49 | 52 | 56 | 59 | 62 | 65 | 68 | |
| -40 | -16 | -6 | 2 | 9 | 14 | 19 | 24 | 29 | 33 | 37 | 40 | 44 | 47 | 51 | 54 | 57 | 60 | 63 | |
| -45 | -21 | -11 | -3 | 4 | 9 | 14 | 19 | 24 | 28 | 32 | 35 | 39 | 42 | 46 | 49 | 52 | 55 | 58 | |

Appendix 6 – Existing Rail Neutral Temperature Tables

| Table 4 - 6" Base Rail | | Rail Gap | | | | | | | | | | | | | | | | | |
|------------------------|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Every Tie Anchored | | Rail Gap | | | | | | | | | | | | | | | | | |
| Rail Break Temp | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | |
| 105 | 135 | 147 | 156 | 164 | 171 | 178 | 184 | 189 | 194 | 199 | 204 | 208 | 212 | 216 | 220 | 224 | 228 | 231 | |
| 100 | 130 | 142 | 151 | 159 | 166 | 173 | 179 | 184 | 189 | 194 | 199 | 203 | 207 | 211 | 215 | 219 | 223 | 226 | |
| 95 | 125 | 137 | 146 | 154 | 161 | 168 | 174 | 179 | 184 | 189 | 194 | 198 | 202 | 206 | 210 | 214 | 218 | 221 | |
| 90 | 120 | 132 | 141 | 149 | 156 | 163 | 169 | 174 | 179 | 184 | 189 | 193 | 197 | 201 | 205 | 209 | 213 | 216 | |
| 85 | 115 | 127 | 136 | 144 | 151 | 158 | 164 | 169 | 174 | 179 | 184 | 188 | 192 | 196 | 200 | 204 | 208 | 211 | |
| 80 | 110 | 122 | 131 | 139 | 146 | 153 | 159 | 164 | 169 | 174 | 179 | 183 | 187 | 191 | 195 | 199 | 203 | 206 | |
| 75 | 105 | 117 | 126 | 134 | 141 | 148 | 154 | 159 | 164 | 169 | 174 | 178 | 182 | 186 | 190 | 194 | 198 | 201 | |
| 70 | 100 | 112 | 121 | 129 | 136 | 143 | 149 | 154 | 159 | 164 | 169 | 173 | 177 | 181 | 185 | 189 | 193 | 196 | |
| 65 | 95 | 107 | 116 | 124 | 131 | 138 | 144 | 149 | 154 | 159 | 164 | 168 | 172 | 176 | 180 | 184 | 188 | 191 | |
| 60 | 90 | 102 | 111 | 119 | 126 | 133 | 139 | 144 | 149 | 154 | 159 | 163 | 167 | 171 | 175 | 179 | 183 | 186 | |
| 55 | 85 | 97 | 106 | 114 | 121 | 128 | 134 | 139 | 144 | 149 | 154 | 158 | 162 | 166 | 170 | 174 | 178 | 181 | |
| 50 | 80 | 92 | 101 | 109 | 116 | 123 | 129 | 134 | 139 | 144 | 149 | 153 | 157 | 161 | 165 | 169 | 173 | 176 | |
| 45 | 75 | 87 | 96 | 104 | 111 | 118 | 124 | 129 | 134 | 139 | 144 | 148 | 152 | 156 | 160 | 164 | 168 | 171 | |
| 40 | 70 | 82 | 91 | 99 | 106 | 113 | 119 | 124 | 129 | 134 | 139 | 143 | 147 | 151 | 155 | 159 | 163 | 166 | |
| 35 | 65 | 77 | 86 | 94 | 101 | 108 | 114 | 119 | 124 | 129 | 134 | 138 | 142 | 146 | 150 | 154 | 158 | 161 | |
| 30 | 60 | 72 | 81 | 89 | 96 | 103 | 109 | 114 | 119 | 124 | 129 | 133 | 137 | 141 | 145 | 149 | 153 | 156 | |
| 25 | 55 | 67 | 76 | 84 | 91 | 98 | 104 | 109 | 114 | 119 | 124 | 128 | 132 | 136 | 140 | 144 | 148 | 151 | |
| 20 | 50 | 62 | 71 | 79 | 86 | 93 | 99 | 104 | 109 | 114 | 119 | 123 | 127 | 131 | 135 | 139 | 143 | 146 | |
| 15 | 45 | 57 | 66 | 74 | 81 | 88 | 94 | 99 | 104 | 109 | 114 | 118 | 122 | 126 | 130 | 134 | 138 | 141 | |
| 10 | 40 | 52 | 61 | 69 | 76 | 83 | 89 | 94 | 99 | 104 | 109 | 113 | 117 | 121 | 125 | 129 | 133 | 136 | |
| 5 | 35 | 47 | 56 | 64 | 71 | 78 | 84 | 89 | 94 | 99 | 104 | 108 | 112 | 116 | 120 | 124 | 128 | 131 | |
| 0 | 30 | 42 | 51 | 59 | 66 | 73 | 79 | 84 | 89 | 94 | 99 | 103 | 107 | 111 | 115 | 119 | 123 | 126 | |
| -5 | 25 | 37 | 46 | 54 | 61 | 68 | 74 | 79 | 84 | 89 | 94 | 98 | 102 | 106 | 110 | 114 | 118 | 121 | |
| -10 | 20 | 32 | 41 | 49 | 56 | 63 | 69 | 74 | 79 | 84 | 89 | 93 | 97 | 101 | 105 | 109 | 113 | 116 | |
| -15 | 15 | 27 | 36 | 44 | 51 | 58 | 64 | 69 | 74 | 79 | 84 | 88 | 92 | 96 | 100 | 104 | 108 | 111 | |
| -20 | 10 | 22 | 31 | 39 | 46 | 53 | 59 | 64 | 69 | 74 | 79 | 83 | 87 | 91 | 95 | 99 | 103 | 106 | |
| -25 | 5 | 17 | 26 | 34 | 41 | 48 | 54 | 59 | 64 | 69 | 74 | 78 | 82 | 86 | 90 | 94 | 98 | 101 | |
| -30 | 0 | 12 | 21 | 29 | 36 | 43 | 49 | 54 | 59 | 64 | 69 | 73 | 77 | 81 | 85 | 89 | 93 | 96 | |
| -35 | -5 | 7 | 16 | 24 | 31 | 38 | 44 | 49 | 54 | 59 | 64 | 68 | 72 | 76 | 80 | 84 | 88 | 91 | |
| -40 | -10 | 2 | 11 | 19 | 26 | 33 | 39 | 44 | 49 | 54 | 59 | 63 | 67 | 71 | 75 | 79 | 83 | 86 | |
| -45 | -15 | -3 | 6 | 14 | 21 | 28 | 34 | 39 | 44 | 49 | 54 | 58 | 62 | 66 | 70 | 74 | 78 | 81 | |

Appendix 7 – Thermal Adjustment Table

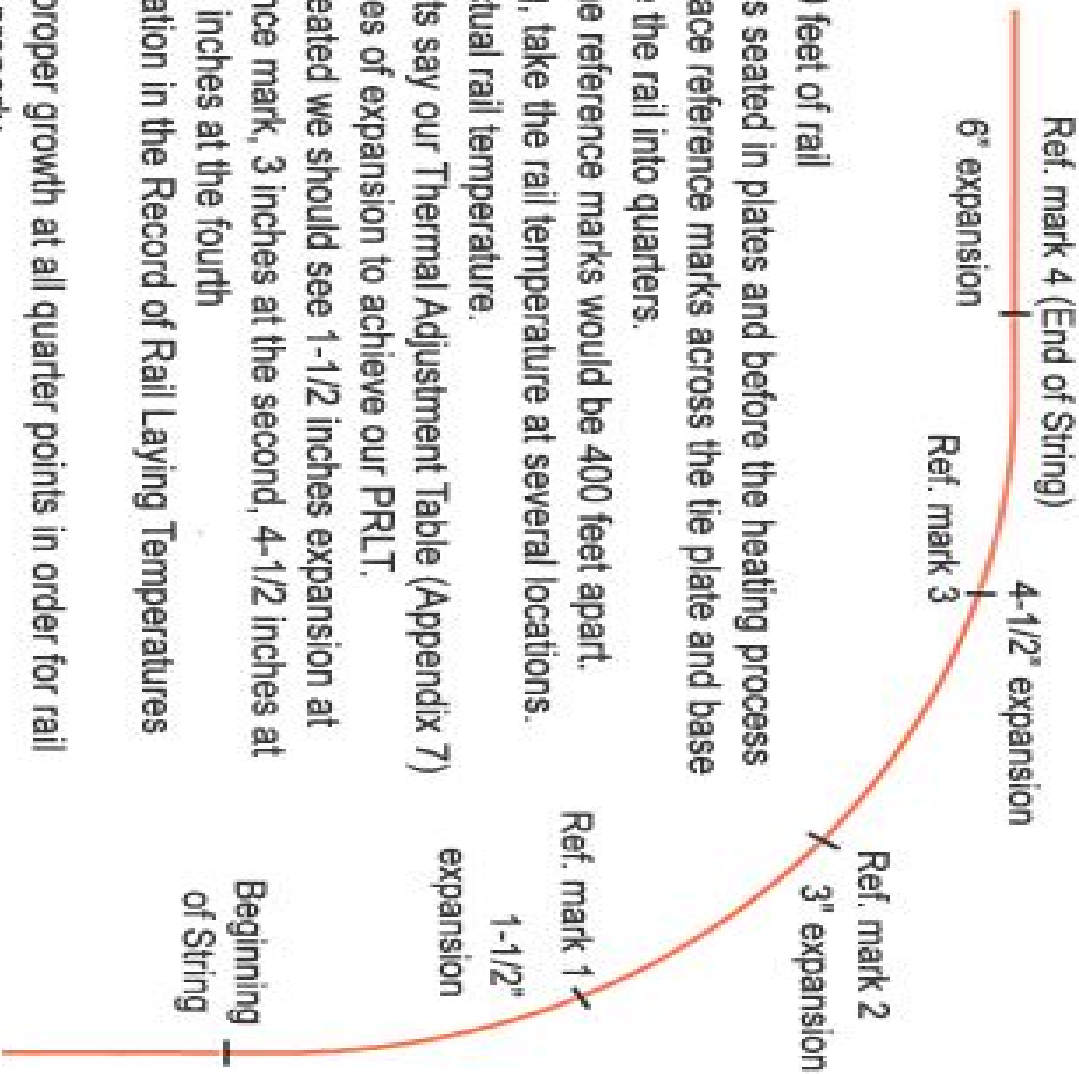
| | | Change in Rail Temperature °F from Neutral | | | | | | | | | | | | | | |
|-----------------------|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | |
| Length of Rail | 100 | 1/8 | 1/8 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 3/8 | 3/8 | 1/2 | 1/2 | 1/2 | 5/8 | 5/8 | |
| | 150 | 1/8 | 1/4 | 1/4 | 3/8 | 3/8 | 1/2 | 1/2 | 5/8 | 5/8 | 3/4 | 3/4 | 7/8 | 7/8 | 7/8 | |
| | 200 | 1/4 | 1/4 | 3/8 | 1/2 | 1/2 | 5/8 | 3/4 | 3/4 | 1 | 7/8 | 7/8 | 1 | 1 | 1 | |
| | 250 | 1/4 | 3/8 | 1/2 | 5/8 | 5/8 | 3/4 | 7/8 | 1 | 1 | 1 1/8 | 1 1/8 | 1 1/4 | 1 1/4 | 1 1/4 | |
| | 300 | 3/8 | 1/2 | 5/8 | 3/4 | 7/8 | 1 | 1 | 1 1/8 | 1 1/8 | 1 1/4 | 1 1/4 | 1 3/8 | 1 1/2 | 1 3/4 | |
| | 350 | 3/8 | 1/2 | 5/8 | 7/8 | 1 | 1 1/8 | 1 1/4 | 1 3/8 | 1 1/2 | 1 1/2 | 1 5/8 | 1 3/4 | 1 7/8 | 2 | |
| | 400 | 1/2 | 5/8 | 3/4 | 7/8 | 1 1/8 | 1 1/4 | 1 3/8 | 1 1/2 | 1 3/4 | 1 7/8 | 2 | 2 1/8 | 2 3/8 | 2 1/2 | |
| | 500 | 5/8 | 3/4 | 1 | 1 1/8 | 1 3/8 | 1 1/2 | 1 3/4 | 2 | 2 1/8 | 2 3/8 | 2 3/4 | 2 1/2 | 2 3/4 | 2 7/8 | |
| | 600 | 3/4 | 7/8 | 1 1/8 | 1 3/8 | 1 5/8 | 1 7/8 | 2 1/8 | 2 1/8 | 2 3/8 | 2 5/8 | 2 3/4 | 3 | 3 1/4 | 3 1/2 | |
| | 700 | 7/8 | 1 1/8 | 1 3/8 | 1 5/8 | 1 7/8 | 2 1/8 | 2 1/2 | 2 3/4 | 2 3/4 | 3 | 3 1/4 | 3 1/2 | 3 7/8 | 4 1/8 | |
| | 800 | 7/8 | 1 1/4 | 1 1/2 | 1 7/8 | 2 1/8 | 2 1/2 | 2 3/4 | 3 1/8 | 3 3/8 | 3 3/4 | 4 | 4 3/8 | 4 5/8 | 5 | |
| | 900 | 1 | 1 3/8 | 1 3/4 | 2 1/8 | 2 1/2 | 2 3/4 | 3 1/8 | 3 1/2 | 3 7/8 | 4 1/4 | 4 5/8 | 4 7/8 | 5 1/4 | 5 5/8 | |
| | 1000 | 1 1/8 | 1 1/2 | 2 | 2 3/8 | 2 3/4 | 3 1/8 | 3 1/2 | 3 7/8 | 4 1/4 | 4 5/8 | 5 1/8 | 5 1/2 | 5 7/8 | 6 1/4 | |
| | 1100 | 1 1/4 | 1 3/4 | 2 1/8 | 2 5/8 | 3 | 3 3/8 | 3 7/8 | 4 1/4 | 4 3/4 | 5 1/8 | 5 5/8 | 6 | 6 3/8 | 6 7/8 | |
| | 1200 | 1 3/8 | 1 7/8 | 2 3/8 | 2 3/4 | 3 1/4 | 3 3/4 | 4 1/4 | 4 5/8 | 5 1/8 | 5 5/8 | 6 1/8 | 6 1/2 | 7 | 7 1/2 | |
| | 1300 | 1 1/2 | 2 | 2 1/2 | 3 | 3 1/2 | 4 | 4 5/8 | 5 1/8 | 5 5/8 | 6 1/8 | 6 5/8 | 7 1/8 | 7 5/8 | 8 1/8 | |
| 1400 | 1 5/8 | 2 1/8 | 2 3/4 | 3 1/4 | 3 7/8 | 4 3/8 | 4 7/8 | 5 1/2 | 6 | 6 1/2 | 7 1/8 | 7 5/8 | 8 1/4 | 8 3/4 | | |
| 1500 | 1 3/4 | 2 3/8 | 2 7/8 | 3 1/2 | 4 1/8 | 4 5/8 | 5 1/4 | 5 7/8 | 6 3/8 | 7 | 7 5/8 | 8 1/4 | 8 3/4 | 9 3/8 | | |
| 1600 | 1 7/8 | 2 1/2 | 3 1/8 | 3 3/4 | 4 3/8 | 5 | 5 5/8 | 6 1/4 | 6 7/8 | 7 1/2 | 8 1/8 | 8 3/4 | 9 3/8 | 10 | | |

Thermal Adjustment Formula
 $G = \Delta T * L * K$
 $\Delta T =$ Change in Temperature from Neutral
 $L =$ Length of Rail
 $K = 0.000078$

Appendix 8 – CWR Installation: “Quartering the Rail”

Appendix 8 - CWR Installation: “Quartering the Rail”

- Installing 1600 feet of rail
- After new rail is seated in plates and before the heating process has started, place reference marks across the tie plate and base of rail to divide the rail into quarters.
- In this case, the reference marks would be 400 feet apart.
- Before heating, take the rail temperature at several locations. This is your actual rail temperature.
- In this case, lets say our Thermal Adjustment Table (Appendix 7) calls for 6 inches of expansion to achieve our PRLT.
- As the rail is heated we should see 1-1/2 inches expansion at the first reference mark, 3 inches at the second, 4-1/2 inches at the third and 6 inches at the fourth
- Record information in the Record of Rail Laying Temperatures Form
- Must achieve proper growth at all quarter points in order for rail to be stressed properly



**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. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), 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 basic hourly 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. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. 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 must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. 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 classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must 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. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must 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 be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate 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 used 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) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) 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 will be sent by the contracting officer by email to DBAconformance@dol.gov. 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.

(4) 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 will, by email to DBAconformance@dol.gov, 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.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must 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.

d. *Fringe benefits not expressed as an hourly rate.* 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 may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* 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, in accordance with the criteria set forth in § 5.28, 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.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and 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.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must 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.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working 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](#); and

(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(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. 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. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, 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, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay*. Apprentices will be permitted to work at less than the predetermined rate for the work they perform 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 (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must 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, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must 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 this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. 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 journeyworkers 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 must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 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. a. By entering into this contract, the contractor certifies that neither it 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 [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

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 watchpersons 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 and interest from the date of the underpayment. 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 watchpersons 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.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) 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

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, 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 that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

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 200.327.

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 200.327.

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.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) 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;

(2) 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

(3) 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)

b. 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.

Davis Bacon Wages Washington County, Vermont

"General Decision Number: VT20250056 01/03/2025

Superseded General Decision Number: VT20240056

State: Vermont

Construction Type: Highway

County: Washington County in Vermont.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

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)(1).

| | |
|---|--|
| 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 \$17.75 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 2025. |
| 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 \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025. |

| | | |
|---|-------------|-------|
| OPERATOR: Broom/Sweeper..... | \$ 19.25 | 5.97 |
| OPERATOR: Bulldozer..... | \$ 21.05 | 4.38 |
| OPERATOR: Crane..... | \$ 24.41 | 1.36 |
| OPERATOR: Drill..... | \$ 19.83 | 3.94 |
| OPERATOR: Grader/Blade..... | \$ 21.13 | 5.53 |
| OPERATOR: Loader..... | \$ 21.65 | 4.70 |
| OPERATOR: Mechanic..... | \$ 23.48 | 6.17 |
| OPERATOR: Milling Machine..... | \$ 22.50 | 10.24 |
| OPERATOR: Paver (Asphalt, Aggregate, and Concrete)..... | \$ 22.41 | 7.18 |
| OPERATOR: Pounder..... | \$ 22.65 | 0.00 |
| OPERATOR: Roller..... | \$ 19.44 | 6.00 |
| OPERATOR: Screed..... | \$ 22.80 | 10.55 |
| TRAFFIC CONTROL: Flagger..... | \$ 13.07 ** | 0.00 |
| TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper..... | \$ 17.20 ** | 6.71 |
| TRUCK DRIVER, Includes all axles including Dump Trucks..... | \$ 19.12 | 3.31 |
| TRUCK DRIVER: Distributor Truck..... | \$ 22.55 | 11.87 |

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

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.75) or 13658 (\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not

currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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) (iii)).

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

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

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

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

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

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 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.

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END OF GENERAL DECISION"

DISADVANTAGED BUSINESS ENTERPRISE (DBE) POLICY CONTRACT REQUIREMENTS

Disadvantaged Business Enterprise (DBE) Policy. It shall be the policy of the Vermont Agency of Transportation (VTrans) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBEs) to participate in the performance of all contracts and subcontracts financed with Federal funds as specified by the regulations of the United States Department of Transportation (USDOT) and as set forth below.

1. **Policy.** It is the policy of USDOT that DBEs as defined in 49 Code of Federal Regulation (CFR) Part 26 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 and 23 CFR, Chapter 1, Part 230, Subpart b apply to this contract.
2. **DBE Obligation.** The State and its Contractors agree to ensure that DBEs as defined in 49 CFR Part 26, have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. **Each subcontract the prime contractor signs with a subcontractor must include this assurance:** *The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-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 VTrans deems appropriate.*
3. **Sanctions for Noncompliance.** The Contractor is hereby advised that failure of the Contractor, or any Subcontractor performing work under this contract, to carry out the requirements set forth in paragraphs 1 and 2 above shall constitute a breach of contract and after the notification of the Vermont Agency of Transportation, Secretary of Transportation, may result in termination of this contract by the State or such remedy as the State deems necessary.
4. **Inclusion in Subcontracts.** The Contractor shall insert in each of its subcontracts this Disadvantaged Business Enterprise (DBE) Policy and a clause requiring its subcontractors to include this same Policy in any lower tier subcontracts which they may enter into, together with a clause requiring the inclusion of the Policy in any further subcontract that may in turn be made. This Policy shall not be incorporated by reference.

Disadvantaged Business Enterprise (DBE) Program Goals. The Vermont Agency of Transportation (VTrans) is required to set an overall DBE goal for participation in all transportation related Federal-aid projects. The goal is determined following guidelines set forth in 49 CFR 26.45, and based on the availability of ready, willing and able DBEs who submitted bids and quotes for transportation related projects, compared as a percentage of all available contractors who submitted bids and quotes for transportation related projects during the same time period. The DBE goal may be adjusted to take into account other factors impacting DBE utilization, in an effort to narrowly tailor the overall DBE goal. The detailed goal setting methodology and current overall DBE goal may be viewed on the VTrans website at:

<http://vtrans.vermont.gov/civil-rights/doing-business/dbe-center/program-goals>

The VTrans overall DBE goal is currently achieved by a combination of contract specific goals and a race/gender neutral policy. Contractors should be proactive and solicit bids and quotes from certified DBEs for use when submitting their own bids and employ certified DBEs when participating on transportation related projects.

Disadvantaged Business Enterprise (DBE) Definition. A DBE is defined as a business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purposes of this definition:

- (1) "Socially and economically disadvantaged person" means an individual who is a citizen or lawful permanent resident of the United States and who is a Woman, Black, Hispanic, Portuguese, Native American, Asian American, or a member of another group, or an individual found to be disadvantaged by the Small Business Administration pursuant to Section 3 of the Small Business Act.
- (2) "Owned and controlled" means a business which is:
 - a. A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
 - b. A partnership, joint venture or limited liability company in which at least 51% of the beneficial ownership interests legitimately is held by a disadvantaged person(s).
 - c. A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests legitimately are held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with percentage of ownership. Disadvantaged participation in a joint venture must also be based on the sharing of real earnings, as above. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of the program, a firm is considered a bona fide DBE.

Certified DBE Directory. The current Vermont Unified Disadvantaged Business Enterprise (DBE) Directory is available online at: <http://vtrans.vermont.gov/civil-rights/doing-business/dbe-center/directory>. This directory contains all currently certified DBEs available for work in Vermont and is updated continuously. Only firms listed in this directory are eligible for DBE credit on Vermont Federal-aid projects. If you have questions about DBE certification, or do not have access to the Internet, please call the [AOT DBE Program Manager](#) for assistance.

Counting DBE Participation Towards Project Goals. For payments made to DBE contractors to be counted toward DBE goals, the DBE contractors must perform a commercially useful function (CUF). The DBE must be responsible for execution of the work of the contract and must carry out its responsibilities by performing, managing, and supervising the work involved, consistent with standard industry practices.

This means that:

- The DBE must also be responsible for ordering its own materials and supplies, determining quantity and quality, negotiating price, installing (where applicable) and paying for the material itself;
- The DBE must perform work commensurate with the amount of its contract;
- The DBE's contribution cannot be that of an extra participant or a conduit through which funds are passed in order to obtain the appearance of DBE participation;
- The DBE must exercise responsibility for at least fifty percent of the total cost of its contract with its own workforce;
- None of the DBE's work can be subcontracted back to the prime contractor, nor can the DBE employ the prime's or other subcontractor's supervisors currently working on the project;
- The DBE's labor force must be separate and apart from that of the prime contractor or other subcontractors on the project. Transferring crews between primes, subcontractors, and DBE contractors is not acceptable;
- The DBE owner must hold necessary professional or craft license(s) or certification(s) for the type of work he/she performs on the project;
- The DBE may rent or lease, at competitive rates, equipment needed on the project from customary leasing sources or from other subcontractors on the project.

Allowable credit for payments made to DBEs for work performed. A contractor may take credit for payments made to a certified DBE that satisfies CUF requirements at the following rate:

- A DBE Prime Contractor: Count 100% of the value of the work performed by own forces, equipment and materials towards the DBE goals.
- An approved DBE subcontractor: Count 100% of the value of work performed by the DBE's own forces, equipment and materials, excluding the following:
 - The cost of materials/supplies purchased from a non-DBE Prime Contractor.
 - The value of work provided by non-DBE lower tier subcontractors, including non-DBE trucking to deliver asphalt to a DBE contractor.
- A DBE owner-operator of construction equipment: Count 100% of expenditures committed.
- A DBE manufacturer: Count 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.

- A regular DBE dealer/supplier: Count 60% of expenditures committed. A regular dealer/supplier is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment, in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A person may be a dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business, if the person both owns and operates distribution equipment for the products, by the means of a long-term agreement, and not by a contract by contract basis.
- A DBE broker: Count for DBE credit only the fees or commissions charged for assistance in the procurement, and fees and transportation charges for the delivery of materials or supplies required at the job site, but not the cost of materials procured. A broker is defined as any person(s) or firm who arranges or expedites transactions for materials or supplies and does not take physical possession of the materials or supplies at their place of business for resale.
- A DBE renter of construction equipment to a contractor: Count 20% of expenditures committed, with or without operator.
- A bona fide DBE service provider: Count 100% of reasonable fees or commissions. Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.
- A trucking, hauling or delivery operation: Count 100% of expenditures committed when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the materials and supplies. 100% of expenditures committed when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees, or commissions, the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.
- Any combination of the above.

Removal of Approved DBE From Transportation Related Project. Contractors may not terminate for convenience, any approved DBE subcontractor and perform the work with their own forces, without prior written consent from the [AOT DBE Program Manager or the AOT Civil Rights Director](#)

Federal-aid projects which specify a DBE contract goal. The provisions of the Vermont Agency of Transportation Supplemental Specification – Disadvantaged Business Enterprise (DBE) Utilization (CR 160) shall apply to all VTrans Federal-aid projects which specify a DBE contract goal.

Compliance With Prompt Payment Statute. In accordance with Vermont’s Prompt Payment Act and VTrans Standard Specifications for Construction, Section 107.01(f), the Contractor shall

fully comply with the provisions of 9 V.S.A. Chapter 102, also referred to as Act No. 74 of 1991 or the Prompt Payment Act, as amended.

Subcontractor Payments. In accordance with VTrans Standard Specifications for Construction, Section 107.01(f), on all federal-aid and state funded contracts, the Contractor, during the life of the Contract and on a monthly basis, shall submit electronically, a listing of payments to subcontractors on the form specified by the State and made available at: <http://apps.vtrans.vermont.gov/promptpay/>. Electronic reports shall be filed with the Agency Office of Civil Rights by an authorized representative and received in the Agency Office of Civil Rights on or before the tenth working day after month end. Contractors without access to the internet shall obtain and submit manual reports to the Agency Office of Civil Rights. Manual reports shall be signed by an authorized representative, sent to the Agency Office of Civil Rights, and postmarked on or before the tenth working day after month end. There shall be no direct compensation allowed the Contractor for this work, but the cost thereof shall be included in the general cost of the work. In accordance with 9 V.S.A. Section 4003, notwithstanding any contrary agreement, payments made to subcontractors after seven days from receipt of a corresponding progress payment by the State to the Contractor, or seven days after receipt of a subcontractor's invoice, whichever is later, violate this agreement. Violations shall be reported to the Agency Office of Civil Rights for review. Failure to resolve disputes in a timely manner may result in a complaint made to the Agency Pre-qualification Committee. In this Committee's judgment, appropriate penalties may be involved for failure to comply with this specification. Penalties may include suspension, reduction or revocation of the Contractor's pre-qualification rating. This clause shall be included in the prime Contractor's Contract made with all if its subcontractors.

ATTACHMENT C: STANDARD STATE PROVISIONS FOR CONTRACTS AND GRANTS**REVISED OCTOBER 1, 2024**

1. Definitions: For purposes of this Attachment, “Party” shall mean the Contractor, Grantee, or Subrecipient, with whom the State of Vermont is executing this Agreement and consistent with the form of the Agreement. “Agreement” shall mean the specific contract or grant to which this form is attached.

2. Entire Agreement: This Agreement, whether in the form of a contract, State-funded grant, or Federally-funded grant, represents the entire agreement between the parties on the subject matter. All prior agreements, representations, statements, negotiations, and understandings shall have no effect. Where an authorized individual is either required to click-through or otherwise accept, or made subject to, any electronic terms and conditions to use or access any product or service provided hereunder, such terms and conditions are not binding and shall have no force or effect. Further, any terms and conditions of Party’s invoice, acknowledgment, confirmation, or similar document, shall not apply, and any such terms and conditions on any such document are objected to without need of further notice or objection.

3. Governing Law, Jurisdiction and Venue; No Waiver of Jury Trial: This Agreement will be governed by the laws of the State of Vermont without resort to conflict of laws principles. Any action or proceeding brought by either the State or the Party in connection with this Agreement shall be brought and enforced in the Superior Court of the State of Vermont, Civil Division, Washington Unit. The Party irrevocably submits to the jurisdiction of this court for any action or proceeding regarding this Agreement. The Party agrees that it must first exhaust any applicable administrative remedies with respect to any cause of action that it may have against the State regarding its performance under this Agreement. Party agrees that the State shall not be required to submit to binding arbitration or waive its right to a jury trial.

4. Sovereign Immunity: The State reserves all immunities, defenses, rights, or actions arising out of the State’s sovereign status or under the Eleventh Amendment to the United States Constitution. No waiver of the State’s immunities, defenses, rights, or actions shall be implied or otherwise deemed to exist by reason of the State’s entry into this Agreement.

5. No Employee Benefits For Party: The Party understands that the State will not provide any individual retirement benefits, group life insurance, group health and dental insurance, vacation or sick leave, workers compensation or other benefits or services available to State employees, nor will the State withhold any state or Federal taxes except as required under applicable tax laws, which shall be determined in advance of execution of the Agreement. The Party understands that all tax returns required by the Internal Revenue Code and the State of Vermont, including but not limited to income, withholding, sales and use, and rooms and meals, must be filed by the Party, and information as to Agreement income will be provided by the State of Vermont to the Internal Revenue Service and the Vermont Department of Taxes.

6. Independence: The Party will act in an independent capacity and not as officers or employees of the State.

7. Defense and Indemnity:

- A.** The Party shall defend the State and its officers and employees against all third-party claims or suits arising in whole or in part from any act or omission of the Party or of any agent of the Party in connection with the performance of this Agreement. The State shall notify the Party in the event of any such claim or suit, and the Party shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit. The State retains the right to participate at its own expense in the defense of any claim. The State shall have the right to approve all proposed settlements of such claims or suits.
- B.** After a final judgment or settlement, the Party may request recoupment of specific defense costs and may file suit in Washington Superior Court requesting recoupment. The Party shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Party in connection with the performance of this Agreement.
- C.** The Party shall indemnify the State and its officers and employees if the State, its officers, or employees become legally obligated to pay any damages or losses arising from any act or omission of the Party or an agent of the Party in connection with the performance of this Agreement.
- D.** Notwithstanding any contrary language anywhere, in no event shall the terms of this Agreement or any document furnished by the Party in connection with its performance under this Agreement obligate the State to (1) defend or indemnify the Party or any third party, or (2) otherwise be liable for the expenses or reimbursement, including attorneys’ fees, collection

costs or other costs of the Party or any third party.

8. Insurance: During the term of this Agreement, Party, at its expense, shall maintain in full force and effect the insurance coverages set forth in the Vermont State Insurance Specification in effect at the time of incorporation of this Attachment C into this Agreement. The terms of the Vermont State Insurance Specification are hereby incorporated by reference into this Attachment C as if fully set forth herein. A copy of the Vermont State Insurance Specification is available at: <https://aoa.vermont.gov/Risk-Claims-COI>.

9. Reliance by the State on Representations: All payments by the State under this Agreement will be made in reliance upon the accuracy of all representations made by the Party in accordance with this Agreement, including but not limited to bills, invoices, progress reports, and other proofs of work.

10. False Claims Act: Any liability to the State under the Vermont False Claims Act (32 V.S.A. § 630 et seq.) shall not be limited notwithstanding any agreement of the State to otherwise limit Party's liability.

11. Whistleblower Protections: The Party shall not discriminate or retaliate against one of its employees or agents for disclosing information concerning a violation of law, fraud, waste, abuse of authority, or acts threatening health or safety, including but not limited to allegations concerning the False Claims Act. Further, the Party shall not require such employees or agents to forego monetary awards as a result of such disclosures, nor should they be required to report misconduct to the Party or its agents prior to reporting to any governmental entity and/or the public.

12. Use and Protection of State Information:

- A. As between the State and Party, "State Data" includes all data received, obtained, or generated by the Party in connection with performance under this Agreement. Party acknowledges that certain State Data to which the Party may have access may contain information that is deemed confidential by the State, or which is otherwise confidential by law, rule, or practice, or otherwise exempt from disclosure under the State of Vermont Access to Public Records Act, 1 V.S.A. § 315 et seq. ("Confidential State Data").
- B. With respect to State Data, Party shall:
 - i. take reasonable precautions for its protection;
 - ii. not rent, sell, publish, share, or otherwise appropriate it; and
 - iii. upon termination of this Agreement for any reason, Party shall dispose of or retain State Data if and to the extent required by this Agreement, law, or regulation, or otherwise requested in writing by the State.
- C. With respect to Confidential State Data, Party shall:
 - i. strictly maintain its confidentiality;
 - ii. not collect, access, use, or disclose it except as necessary to provide services to the State under this Agreement;
 - iii. provide at a minimum the same care to avoid disclosure or unauthorized use as it provides to protect its own similar confidential and proprietary information;
 - iv. implement and maintain administrative, technical, and physical safeguards and controls to protect against any anticipated threats or hazards or unauthorized access or use;
 - v. promptly notify the State of any request or demand by any court, governmental agency or other person asserting a demand or request for Confidential State Data so that the State may seek an appropriate protective order; and
 - vi. upon termination of this Agreement for any reason, and except as necessary to comply with subsection B.iii above in this section, return or destroy all Confidential State Data remaining in its possession or control.
- D. If Party is provided or accesses, creates, collects, processes, receives, stores, or transmits Confidential State Data in any electronic form or media, Party shall utilize:
 - i. industry-standard firewall protection;
 - ii. multi-factor authentication controls;
 - iii. encryption of electronic Confidential State Data while in transit and at rest;
 - iv. measures to ensure that the State Data shall not be altered without the prior written consent of the State;
 - v. measures to protect against destruction, loss, or damage of State Data due to potential environmental hazards, such as fire and water damage;

- vi. training to implement the information security measures; and
 - vii. monitoring of the security of any portions of the Party's systems that are used in the provision of the services against intrusion.
- E. No Confidential State Data received, obtained, or generated by the Party in connection with performance under this Agreement shall be processed, transmitted, stored, or transferred by any means outside the United States, except with the express written permission of the State.
- F. Party shall notify the State within twenty-four hours after becoming aware of any unauthorized destruction, loss, alteration, disclosure of, or access to, any State Data.
- G. State of Vermont Cybersecurity Standard Update: Party confirms that all products and services provided to or for the use of the State under this Agreement shall be in compliance with State of Vermont Cybersecurity Standard Update in effect at the time of incorporation of this Attachment C into this Agreement. The State of Vermont Cybersecurity Standard Update prohibits the use of certain branded products in State information systems or any vendor system, and a copy is available at: <https://digitalservices.vermont.gov/cybersecurity/cybersecurity-standards-and-directives>
- H. In addition to the requirements of this Section 12, Party shall comply with any additional requirements regarding the protection of data that may be included in this Agreement or required by law or regulation.

13. Records Available for Audit: The Party shall maintain all records pertaining to performance under this Agreement. "Records" means any written or recorded information, regardless of physical form or characteristics, which is produced or acquired by the Party in the performance of this Agreement. Records produced or acquired in a machine-readable electronic format shall be maintained in that format. The records described shall be made available at reasonable times during the period of this Agreement and for three years thereafter or for any period required by law for inspection by any authorized representatives of the State or Federal Government. If any litigation, claim, or audit is started before the expiration of the three-year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

14. Fair Employment Practices and Americans with Disabilities Act: Party agrees to comply with the requirement of 21 V.S.A. Chapter 5, Subchapter 6, relating to fair employment practices, to the full extent applicable, and shall include this provision in all subcontracts for work performed in Vermont. Party shall also ensure, to the full extent required by the Americans with Disabilities Act of 1990, as amended, that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the Party under this Agreement.

15. Offset: The State may offset any sums which the Party owes the State against any sums due the Party under this Agreement; provided, however, that any offset of amounts due the State of Vermont as taxes shall be in accordance with the procedures more specifically provided in 32 V.S.A. § 3113.

16. Taxes Due to the State: Party certifies under the pains and penalties of perjury that, as of the date this Agreement is signed, the Party is in good standing with respect to, or in full compliance with, a plan to pay any and all taxes due the State of Vermont.

17. Taxation of Purchases: All State purchases must be invoiced tax free. An exemption certificate will be furnished upon request with respect to otherwise taxable items.

18. Child Support: (Only applicable if the Party is a natural person, not a corporation or partnership.) Party states that, as of the date this Agreement is signed, Party is not under an obligation to pay child support or is in good standing with respect to or in full compliance with a plan to pay any and all child support payable under a support order. Party makes this statement with regard to support owed to any and all children residing in Vermont. In addition, if the Party is a resident of Vermont, Party makes this statement with regard to support owed to any and all children residing in any other state or territory of the United States.

19. Sub-Agreements: Party shall not assign, subcontract, or subgrant the performance of this Agreement or any portion thereof to any other Party without the prior written approval of the State. Party shall be responsible and liable to the State for all acts or omissions of subcontractors and any other person performing work under this Agreement pursuant to an agreement with Party or any subcontractor.

In the case this Agreement is a contract with a total cost in excess of \$250,000, the Party shall provide to the State a list of all proposed subcontractors and subcontractors' subcontractors, together with the identity of those subcontractors' workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), as amended by Section 17 of Act No. 142 (2010) and by

Section 6 of Act No. 50 (2011).

Party shall include the following provisions of this Attachment C in all subcontracts for work performed solely for the State of Vermont and subcontracts for work performed in the State of Vermont: Section 10 (“False Claims Act”); Section 11 (“Whistleblower Protections”); Section 12 (“Confidentiality and Protection of State Information”); Section 14 (“Fair Employment Practices and Americans with Disabilities Act”); Section 16 (“Taxes Due the State”); Section 18 (“Child Support”); Section 20 (“No Gifts or Gratuities”); Section 22 (“Certification Regarding Debarment”); Section 30 (“State Facilities”); and Section 32.A (“Certification Regarding Use of State Funds”).

20. No Gifts or Gratuities: Party shall not give title or possession of anything of substantial value (including property, currency, travel, and/or education programs) to any officer or employee of the State during the term of this Agreement.

21. Regulation of Hydrofluorocarbons: Party confirms that all products provided to or for the use of the State under this Agreement shall not contain hydrofluorocarbons, as prohibited under 10 V.S.A. § 586.

22. Certification Regarding Debarment: Party certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, neither Party nor Party’s principals (officers, directors, owners, or partners) are presently debarred, suspended, proposed for debarment, declared ineligible, or excluded from participation in Federal programs, or programs supported in whole or in part by Federal funds. Party further certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, Party is not presently debarred, suspended, nor named on the State’s debarment list at: <https://bgs.vermont.gov/purchasing-contracting/debarment>.

23. Conflict of Interest: Party shall fully disclose, in writing, any conflicts of interest or potential conflicts of interest.

24. Vermont Public Records Act: Party acknowledges and agrees that this Agreement, any and all information obtained by the State from the Party in connection with this Agreement, and any obligations of the State to maintain the confidentiality of information are subject to the State of Vermont Access to Public Records Act, 1 V.S.A. § 315 *et seq.*

25. Force Majeure: Neither the State nor the Party shall be liable to the other for any failure or delay of performance of any obligations under this Agreement to the extent such failure or delay shall have been wholly or principally caused by acts or events beyond its reasonable control rendering performance illegal or impossible (excluding strikes or lockouts) (“Force Majeure”). Where Force Majeure is asserted, the nonperforming party must prove that it made all reasonable efforts to remove, eliminate or minimize such cause of delay or damages, diligently pursued performance of its obligations under this Agreement, substantially fulfilled all non-excused obligations, and timely notified the other party of the likelihood or actual occurrence of an event described in this paragraph.

26. Marketing: Party shall not use the State’s logo or otherwise refer to the State in any publicity materials, information pamphlets, press releases, research reports, advertising, sales promotions, trade shows, or marketing materials or similar communications to third parties except with the prior written consent of the State.

27. Termination:

- A. Non-Appropriation:** If this Agreement extends into more than one fiscal year of the State (July 1 to June 30), and if appropriations are insufficient to support this Agreement, the State may cancel this Agreement at the end of the fiscal year, or otherwise upon the expiration of existing appropriation authority. In the case that this Agreement is funded in whole or in part by Federal funds, and in the event Federal funds become unavailable or reduced, the State may suspend or cancel this Agreement immediately, and the State shall have no obligation to pay Party from State revenues.
- B. Termination for Cause:** Either party may terminate this Agreement if a party materially breaches its obligations under this Agreement, and such breach is not cured within thirty (30) days after delivery of the non-breaching party’s notice or such longer time as the non-breaching party may specify in the notice.
- C. Termination Assistance:** Upon nearing the end of the final term or termination of this Agreement, without respect to cause, the Party shall take all reasonable and prudent measures to facilitate any transition required by the State. All State property, tangible and intangible, shall be returned to the State upon demand at no additional cost to the State in a format acceptable to the State.

28. Continuity of Performance: In the event of a dispute between the Party and the State, each party will continue to perform its obligations under this Agreement during the resolution of the dispute until this Agreement is terminated in accordance with its terms.

29. No Implied Waiver of Remedies: Either party's delay or failure to exercise any right, power, or remedy under this Agreement shall not impair any such right, power, or remedy, or be construed as a waiver of any such right, power, or remedy. All waivers must be in writing.

30. State Facilities: If the State makes space available to the Party in any State facility during the term of this Agreement for purposes of the Party's performance under this Agreement, the Party shall only use the space in accordance with all policies and procedures governing access to, and use of, State facilities, which shall be made available upon request. State facilities will be made available to Party on an "AS IS, WHERE IS" basis, with no warranties whatsoever.

31. Requirements Pertaining Only to Federal Grants and Subrecipient Agreements: If this Agreement is a grant that is funded in whole or in part by Federal funds:

- A. Requirement to Have a Single Audit:** The Subrecipient will complete the Subrecipient Annual Report annually within 45 days after its fiscal year end, informing the State of Vermont whether or not a Single Audit is required for the prior fiscal year. If a Single Audit is required, the Subrecipient will submit a copy of the audit report to the Federal Audit Clearinghouse within nine months. If a single audit is not required, only the Subrecipient Annual Report is required. A Single Audit is required if the subrecipient expends \$1,000,000 or more in Federal assistance during its fiscal year and must be conducted in accordance with 2 CFR Chapter I, Chapter II, Part 200, Subpart F. The Subrecipient Annual Report is required to be submitted within 45 days, whether or not a Single Audit is required.
- B. Internal Controls:** In accordance with 2 CFR Part II, §200.303, the Party must establish and maintain effective internal control over the Federal award to provide reasonable assurance that the Party is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the award. These internal controls should be in compliance with guidance in "Standards for Internal Control in the Federal Government" issued by the Comptroller General of the United States and the "Internal Control Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission.
- C. Mandatory Disclosures:** In accordance with 2 CFR Part II, §200.113, Party must disclose, in a timely manner, in writing to the State, all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Failure to make required disclosures may result in the imposition of sanctions which may include disallowance of costs incurred, withholding of payments, termination of the Agreement, suspension/debarment, etc.

32. Requirements Pertaining Only to State-Funded Grants:

- A. Certification Regarding Use of State Funds:** If Party is an employer and this Agreement is a State-funded grant in excess of \$1,000, Party certifies that none of these State funds will be used to interfere with or restrain the exercise of Party's employee's rights with respect to unionization.
- B. Good Standing Certification (Act 154 of 2016):** If this Agreement is a State-funded grant, Party hereby represents: (i) that it has signed and provided to the State the form prescribed by the Secretary of Administration for purposes of certifying that it is in good standing (as provided in Section 13(a)(2) of Act 154) with the Agency of Natural Resources and the Agency of Agriculture, Food and Markets, or otherwise explaining the circumstances surrounding the inability to so certify; and (ii) that it will comply with the requirements stated therein.

(End of Standard Provisions)

USDOT Standard Title VI Nondiscrimination Assurances Appendix A, E

Assurance Appendix A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, disability, income-level, or LEP in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in Appendix E, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor 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 contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, sex, age, disability, income-level, or LEP.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the 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 the Recipient or the FHWA 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 contractor will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement

as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Assurance Appendix E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- 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), as implemented by 49 C.F.R. § 21.1 *et seq.* and 49 C.F.R. § 303;
- 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 Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (102 Stat. 28.), (“...*which restore[d] the broad scope of coverage and to clarify the application of title IX of the Education Amendments of 1972, section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and title VI of the Civil Rights Act of 1964.*”);
- Titles II and III of the Americans with Disabilities Act, which prohibit 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 Justice regulations at 28 C.F.R. parts 35 and 36, and Department of Transportation regulations at 49 C.F.R. 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 ensures non-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.*), as implemented by 49 C.F.R. § 25.1 *et seq.*

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246)

1. As used in these specifications:

- a. "Covered Area" means the geographical area described in the solicitation from which this contract resulted.
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority.
- c. "Employer Identification Number" means the Federal Social Security Number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

A Minority Group Member is:

...American Indian or Alaskan Native

consisting of all persons having origins in any of the original people of North American and who maintain cultural identification through tribal affiliations or community recognition.

...Black

consisting of all persons having origins in any of the Black racial groups of Africa.

...Asian or Pacific Islander

consisting of all persons having origins in any of the original people of the Far East, Southeast Asia, the Indian Sub-Continent or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippines and Samoa.

...Hispanic

consisting of all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin.

...Cape Verde an

consisting of all persons having origins in the Cape Verde Islands.

...Portuguese

consisting of all persons of Portuguese, Brazilian or other Portuguese culture or origin.

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000.00 the provisions of these specifications and the notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in the Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or subcontract participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. the overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or subcontractor's failure to make good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in Paragraphs 7a through p of these specifications. The goals set for the Contractor in the solicitation from which this contract resulted are expressed as percentages in the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minority or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity . The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available and maintain a record of the organizations' responses.

- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notifications to the Regional Director when the union or unions, with which the Contractor has a collective bargaining agreement, have not referred to the Contractor a minority person or woman sent by the Contractor or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under Paragraph 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, Supervisors etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, and providing written notification to, and discussing the Contractor's EEO policy with, other Contractors and subcontractors with whom the Contractor anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notifications to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the EEO policy and Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (Paragraph 7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under Paragraph 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, reflected in the Contractor's minority and female workforce participation , makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's non-compliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under-utilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
11. The Contractor shall not enter into any subcontract with any person for firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, terminations and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in Paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application or requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**NOTICE OF REQUIREMENTS 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 the "Standard Federal Equal Employment 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:

| Economic Areas | Timetables | Goals for Minority participation for each trade (%) | Goals for Female Participation in each trade (%) |
|--|------------|---|--|
| Entire State of Vermont: | | | |
| <u>Vermont</u> 003 Burlington, VT Non-SMSA Counties NH Coos; NH Grafton; NH Sullivan; VT Addison; VT Caledonia; VT Chittenden; VT Essex; VT Franklin; VT Grand Isle; VT Lamoille; VT Orange; VT Orleans; VT Rutland; VT Washington; VT Windsor | Indefinite | 0.8 | 6.9 |
| <u>Connecticut (Mass)</u> 006 Hartford - New Haven Springfield, CT-MA Non-SMSA Counties CT Litchfield; CT Windham; MA Franklin; NH Cheshire; VT Windham | Indefinite | 5.9 | |
| <u>New York</u> 007 Albany - Schenectady - Troy, NY Non-SMSA Counties NY Clinton; NY Columbia; NY Essex; NY Fulton; NY Greene; NY Hamilton; NY Schoharie; NY Warren; NY Washington; VT Bennington | Indefinite | 2.6 | |

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulation in 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 ten working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notifications shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any)

CONTRACTOR'S EEO CERTIFICATION FORM

Certification with regard to the Performance of Previous Contracts of Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports.

The bidder _____, proposed subcontractor _____, hereby certifies that he/she has _____, has not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246 as amended, and that he/she has _____, has not _____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

| | | |
|---------|----|-------|
| Company | By | Title |
|---------|----|-------|

NOTE: The above certification is required by the Equal Employment Opportunity regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of \$10,000 or under are exempt.) Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration, or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
CERTIFICATE OF COMPLIANCE**

For a bid/proposal to be considered valid, this form must be completed in its entirety, executed by a duly authorized representative of the bidder, and submitted as part of the response to the proposal.

A. NON-COLLUSION: The undersigned certifies under the penalties of perjury under the laws of the State of Vermont and the United States that it has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid/proposal.

B. DEBARMENT: The undersigned certifies under the penalties of perjury under the laws of the State of Vermont and the United States that it:

1. Is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency; and
2. Has not within a three-year period preceding this bid/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; and
3. Is 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 2 above; and
4. Has 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.
5. **Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this bid/proposal, including whom it applies and dates of action. Exceptions will not necessarily result in denial of award but will be considered in determining bidder eligibility and/or responsibility. Providing false information may result in criminal prosecution or administration sanctions.**

C. BYRD ANTI-LOBBYING: The undersigned hereby certifies, by signing and submitting this bid/proposal, to the best of his or her knowledge and belief, that:

1. 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.

2. 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.
3. 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 as required 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.
4. The undersigned also agrees by submitting its bid/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.

E. WORKER CLASSIFICATION COMPLIANCE REQUIREMENT: In accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), the following provisions and requirements apply to the undersigned when the total project costs exceed \$250,000.00.

Bidder is required to self-report the following information relating to past violations, convictions, suspensions, and any other information related to past performance and likely compliance with proper coding and classification of employees. The Agency of Transportation is requiring information on any incidents that occurred in the previous 12 months. Attach additional pages as necessary. **If not applicable, please enter 'Not Applicable' or 'N/A' below.**

| Summary of Detailed Information | Date of Notification | Outcome |
|---------------------------------|----------------------|---------|
| | | |
| | | |
| | | |

Bidder hereby certifies that the company/individual is in compliance with the requirements as detailed in Section 32 of Act 54(2009), as amended by Section 17 of Act 142 (2010) and further amended by Section 6 of Act 50 (2011).

Subcontractor Reporting.

A. **Contracts for Services.** The undersigned hereby acknowledges and agrees that if it is a successful bidder, prior to execution of any contract resulting from this solicitation, the undersigned will provide to the State a list of all proposed subcontractors and subcontractors’ subcontractors, together with the identity of those subcontractors’ workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), the undersigned will provide any update of such list to the State as additional subcontractors are hired. The undersigned further acknowledges and agrees that the failure to submit subcontractor reporting in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54) will constitute non-compliance and may result in cancellation of contract and/or restriction from bidding on future state contracts.

B. **Construction Contracts.** The Contractor is required to provide a list of subcontractors on the job along with lists of subcontractor’s subcontractors and by whom those subcontractors are insured for workers’ compensation purposes. This is not a requirement for subcontractor’s providing supplies only and no labor to the overall contract or project.

Additionally, the Contractor shall collect and retain evidence of subcontractors’ workers’ compensation insurance, such as the ACORD insurance coverage summary sheet. Agency of Transportation will periodically verify the Contractor’s compliance.

This information must be updated as necessary and provided to the State as additional subcontractors are hired. If none, please enter ‘Not Applicable’ or ‘N/A’ below.

| Sub-Contractor | Insured By | Sub-Contractor’s Sub | Insured By |
|----------------|------------|----------------------|------------|
| | | | |
| | | | |
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| | | | |
| | | | |

The undersigned further acknowledges and agrees that the failure to submit subcontractor reporting in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), and as amended will constitute non-compliance and may result in cancellation of contract and/or restriction from bidding on future state contracts.

As a duly authorized representative of the bidder, I hereby certify that the information above is true and correct.

Date: _____

Duly Authorized Signature: _____

Name and Title of Person Signing: _____
(Duly Authorized Signer)

Company Name: _____

Company Address: _____

E-Mail Address: _____

Minimum Labor and Truck Rates
Under Title 19, Vermont Statutes
Annotated Section 18, as amended

April 3, 1997
Sheet 1 of 1

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MONTPELIER**

FOR OTHER THAN FEDERAL-AID. In accordance with the provisions of Title 19, VSA, Section 18, the following minimum rate for labor shall apply to this project:

The minimum wage for common labor will not be less than the State or Federal minimum wage, whichever is higher.

ON FEDERAL-AID PROJECTS ONLY.

The minimum rates for labor for Federal-Aid Projects shall be those set in the Wage Determination Decision of the U.S. Secretary of Labor for each project in accordance with the Federal-Aid Highway Act of 1956. When such wage rates are required they shall be included in the proposal. In the event these rates are lower than the Vermont rates, the Vermont rates shall prevail.

TRUCK RATES. In accordance with the provisions of Title 19, VSA, Section 18, the following minimum rates for trucks shall apply to this project:

| <u>Trucks, not Including Driver Water Level Body Capacity</u> | <u>Minimum Rates Per YD per Hr.</u> |
|---|---|
| Trucks, Equipment Loaded | \$1.65 |

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MONTPELIER**

COMMODITY INDEX PRICES.

- (a) Price Adjustment, Asphalt. When Item 690.0300 is included in the Contract, asphalt price adjustment will be performed according to the requirements of Section 690 for all asphalt and emulsified asphalt incorporated into the work, including that incorporated under Special Specification pay items.
- (b) Price Adjustment, Fuel. When Item 690.0400 is included in the Contract, fuel price adjustment will be performed according to the requirements of Section 690 for the pay items specified therein, and for any pay items identified in the Special Provisions as being eligible for fuel price adjustment.
- (c) Commodity Index Prices. The Index Prices for asphalt and fuel for this Contract are specified in Table 1.

TABLE 1 – COMMODITY INDEX PRICES FOR THIS CONTRACT

| | Asphalt (dollars/ton) | Fuel (dollars/gallon) |
|-------------|-----------------------|-----------------------|
| Index Price | \$621.00 | \$4.01 |

**VERMONT AGENCY OF TRANSPORTATION
PROPOSAL SCHEDULE OF PAY ITEMS**

LETTING DATE: 05/23/2025 11:00 AM

CONTRACT ID: C03233

PROJECT(S): BARRE CITY STP 2961(3) & BARRE
CITY STP 6000(32)

| ITEM NO. | DESCRIPTION | QUANTITY | UNITS |
|--------------------------------|---|-----------|-------|
| ITEMS COMMON TO ALL ALTERNATES | | | |
| 199.9999 | LIQUIDATED DAMAGES, TRAIN DELAY (N.A.B.I.) | 2.000 | DL |
| 201.1000 | CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS (STP 6000(32)) | 1.000 | LS |
| 203.1500 | COMMON EXCAVATION | 1,500.000 | CY |
| 203.1600 | SOLID ROCK EXCAVATION | 90.000 | CY |
| 203.3000 | EARTH BORROW | 20.000 | CY |
| 204.2000 | TRENCH EXCAVATION OF EARTH | 910.000 | CY |
| 204.2100 | TRENCH EXCAVATION OF ROCK | 15.000 | CY |
| 204.2200 | TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.) | 2.000 | CY |
| 204.3000 | GRANULAR BACKFILL FOR STRUCTURES | 620.000 | CY |
| 210.1000 | COARSE-MILLING, BITUMINOUS PAVEMENT | 3,095.000 | SY |
| 225.0400 | RETAINING WALL, PRECAST CONCRETE (STP 6000(32)) | 1.000 | LS |
| 301.2800 | SUBBASE OF CRUSHED GRAVEL, FINE GRADED | 150.000 | TON |
| 301.3500 | SUBBASE OF DENSE GRADED CRUSHED STONE | 340.000 | CY |
| 402.1300 | AGGREGATE SHOULDERS, RAP | 3.000 | TON |
| 404.1100 | TACK COAT, EMULSIFIED ASPHALT | 22.000 | CWT |
| 406.0230 | BITUMINOUS CONCRETE PAVEMENT, TYPE IIS, QA TIER III | 580.000 | TON |
| 406.0330 | BITUMINOUS CONCRETE PAVEMENT, TYPE IIIS, QA TIER III | 150.000 | TON |
| 406.0430 | BITUMINOUS CONCRETE PAVEMENT, TYPE IVS, QA TIER III | 220.000 | TON |
| 406.3400 | BITUMINOUS CONCRETE PAVEMENT, NON-PAVER PLACED, TYPE IVS | 75.000 | SY |
| 406.9100 | PAY ADJUSTMENT, BCP, MIXTURE PROPERTIES (N.A.B.I.) | 2.000 | DL |
| 406.9200 | PAY ADJUSTMENT, BCP, MAT DENSITY (N.A.B.I.) | 2.000 | DL |
| 418.1000 | ASPHALTIC APPROACH MATERIAL | 1,200.000 | SF |
| 514.1000 | WATER REPELLENT, SILANE | 15.000 | GAL |
| 601.2610 | 15 INCH CPEP(SL) | 50.000 | LF |
| 601.2615 | 18 INCH CPEP(SL) | 210.000 | LF |
| 604.2000 | PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE | 4.000 | EACH |
| 604.2100 | PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER | 4.000 | EACH |
| 604.2200 | SANITARY SEWER MANHOLE | 2.000 | EACH |
| 604.4000 | CHANGING ELEVATION OF DIS, CATCH BASINS, OR MANHOLES | 3.000 | EACH |
| 604.4101 | REHABILITATING DIS, CATCH BASINS, OR MANHOLES, CLASS I | 2.000 | EACH |
| 604.4102 | REHABILITATING DIS, CATCH BASINS, OR MANHOLES, CLASS II | 1.000 | EACH |
| 604.4103 | REHABILITATING DIS, CATCH BASINS, OR MANHOLES, CLASS III | 6.000 | EACH |
| 604.4200 | CHANGING ELEVATION OF SEWER MANHOLES | 2.000 | EACH |
| 605.1006 | UNDERDRAIN PIPE, 6 INCH | 700.000 | LF |
| 605.1008 | UNDERDRAIN PIPE, 8 INCH | 160.000 | LF |
| 605.2006 | UNDERDRAIN CARRIER PIPE, 6 INCH | 20.000 | LF |
| 605.2008 | UNDERDRAIN CARRIER PIPE, 8 INCH | 20.000 | LF |
| 605.9500 | UNDERDRAIN FLUSHING BASIN | 4.000 | EACH |
| 608.3001 | POWER BROOM RENTAL, TYPE I | 24.000 | HR |
| 608.3700 | TRUCK RENTAL | 24.000 | HR |
| 616.2100 | VERTICAL GRANITE CURB | 420.000 | LF |
| 616.2502 | PRECAST REINFORCED CONCRETE CURB, TYPE B | 30.000 | LF |
| 616.2702 | CAST-IN-PLACE CONCRETE CURB, TYPE B | 526.000 | LF |
| 616.4000 | REMOVING AND RESETTING CURB | 12.000 | LF |

VERMONT AGENCY OF TRANSPORTATION
PROPOSAL SCHEDULE OF PAY ITEMS

LETTING DATE: 05/23/2025 11:00 AM

CONTRACT ID: C03233

PROJECT(S): BARRE CITY STP 2961(3) & BARRE
CITY STP 6000(32)

| ITEM NO. | DESCRIPTION | QUANTITY | UNITS |
|----------|--|------------|-------|
| 616.4100 | REMOVAL OF EXISTING CURB | 526.000 | LF |
| 616.4700 | BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS | 3.000 | TON |
| 618.1005 | PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH | 110.000 | SY |
| 618.1008 | PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH | 450.000 | SY |
| 618.3000 | DETECTABLE WARNING SURFACE | 66.000 | SF |
| 620.1004 | CHAIN-LINK FENCE, 4 FOOT | 32.000 | LF |
| 621.0100 | REMOVAL OF GUARDRAIL | 38.000 | LF |
| 622.1000 | INSULATION BOARD | 0.060 | MFBM |
| 625.1010 | SLEEVES FOR UTILITIES, HDPE, 10 INCH | 340.000 | LF |
| 625.1012 | SLEEVES FOR UTILITIES, HDPE, 12 INCH | 50.000 | LF |
| 625.3012 | SLEEVES FOR UTILITIES, STEEL, 12 INCH | 40.000 | LF |
| 625.3016 | SLEEVES FOR UTILITIES, STEEL, 16 INCH | 50.000 | LF |
| 625.3018 | SLEEVES FOR UTILITIES, STEEL, 18 INCH | 50.000 | LF |
| 625.3022 | SLEEVES FOR UTILITIES, STEEL, 22 INCH | 50.000 | LF |
| 625.6004 | WIRED CONDUIT, 4 INCH | 100.000 | LF |
| 625.7000 | POWER DROP STANCHION | 1.000 | EACH |
| 625.7010 | JUNCTION BOX | 1.000 | EACH |
| 628.1524 | PVC SEWER PIPE, ALL-INCLUSIVE, 6 INCH | 50.000 | LF |
| 628.1532 | PVC SEWER PIPE, ALL-INCLUSIVE, 8 INCH | 70.000 | LF |
| 628.4300 | TRANSFER TO NEW SYSTEM, SANITARY SEWER, ALL-INCLUSIVE (STP 6000(32)) | 1.000 | LS |
| 629.1724 | DUCTILE IRON WATER PIPE, CEMENT-LINED, ALL-INCLUSIVE, 6 IN. | 40.000 | LF |
| 629.1732 | DUCTILE IRON WATER PIPE, CEMENT-LINED, ALL-INCLUSIVE, 8 IN. | 120.000 | LF |
| 629.2524 | GATE VALVE WITH VALVE BOX, ALL-INCLUSIVE, 6 INCH | 1.000 | EACH |
| 629.2532 | GATE VALVE WITH VALVE BOX, ALL-INCLUSIVE, 8 INCH | 4.000 | EACH |
| 629.2800 | ADJUST ELEVATION OF VALVE BOX | 3.000 | EACH |
| 629.4300 | TRANSFER TO NEW SYSTEM, WATER, ALL-INCLUSIVE (STP 6000(32)) | 1.000 | LS |
| 630.1000 | UNIFORMED TRAFFIC OFFICERS | 330.000 | HR |
| 630.1500 | FLAGGERS | 1,710.000 | HR |
| 631.1000 | FIELD OFFICE, ENGINEER'S (STP 2961(3)) | 1.000 | LS |
| 631.1000 | FIELD OFFICE, ENGINEER'S (STP 6000(32)) | 1.000 | LS |
| 631.1600 | TESTING EQUIPMENT, CONCRETE (STP 2961(3)) | 1.000 | LS |
| 631.1600 | TESTING EQUIPMENT, CONCRETE (STP 6000(32)) | 1.000 | LS |
| 631.1700 | TESTING EQUIPMENT, BITUMINOUS (STP 2961(3)) | 1.000 | LS |
| 631.1700 | TESTING EQUIPMENT, BITUMINOUS (STP 6000(32)) | 1.000 | LS |
| 631.2600 | FIELD OFFICE COMMUNICATIONS (N.A.B.I.) | 10,500.000 | DL |
| 632.1000 | RAILROAD FLAGGERS (N.A.B.I.) | 80,000.000 | DL |
| 633.1000 | CPM SCHEDULE | 24.000 | EACH |
| 635.1100 | MOBILIZATION/DEMOBILIZATION (STP 2961(3)) | 1.000 | LS |
| 635.1100 | MOBILIZATION/DEMOBILIZATION (STP 6000(32)) | 1.000 | LS |
| 641.1100 | TRAFFIC CONTROL, ALL-INCLUSIVE (STP 2961(3)) | 1.000 | LS |
| 641.1100 | TRAFFIC CONTROL, ALL-INCLUSIVE (STP 6000(32)) | 1.000 | LS |
| 641.1500 | PORTABLE CHANGEABLE MESSAGE SIGN | 4.000 | EACH |
| 646.2010 | 4 INCH WHITE LINE, WATERBORNE PAINT | 700.000 | LF |
| 646.2111 | 4 INCH YELLOW LINE, WATERBORNE PAINT | 700.000 | LF |
| 646.2210 | 8 INCH WHITE LINE, WATERBORNE PAINT | 75.000 | LF |

**VERMONT AGENCY OF TRANSPORTATION
PROPOSAL SCHEDULE OF PAY ITEMS**

LETTING DATE: 05/23/2025 11:00 AM

CONTRACT ID: C03233

PROJECT(S): BARRE CITY STP 2961(3) & BARRE
CITY STP 6000(32)

| ITEM NO. | DESCRIPTION | QUANTITY | UNITS |
|-------------|--|-----------|-------|
| 646.3210 | RAILROAD CROSSING SYMBOL, WATERBORNE PAINT | 2.000 | EACH |
| 646.4040 | DURABLE 4 INCH WHITE LINE, POLYUREA | 380.000 | LF |
| 646.4140 | DURABLE 4 INCH YELLOW LINE, POLYUREA | 1,070.000 | LF |
| 646.4240 | DURABLE 6 INCH WHITE LINE, POLYUREA | 240.000 | LF |
| 646.4860 | DURABLE 24 INCH STOP BAR, RECESSED POLYUREA | 30.000 | LF |
| 646.4940 | DURABLE LETTER OR SYMBOL, POLYUREA | 9.000 | EACH |
| 646.5140 | DURABLE RAILROAD CROSSING SYMBOL, POLYUREA | 2.000 | EACH |
| 646.6020 | TEMPORARY 4 INCH WHITE LINE, PAINT | 1,500.000 | LF |
| 646.6120 | TEMPORARY 4 INCH YELLOW LINE, PAINT | 1,400.000 | LF |
| 649.2100 | GEOTEXTILE UNDER RAILROAD BALLAST | 930.000 | SY |
| 651.1500 | TURF ESTABLISHMENT, GENERAL SEED | 220.000 | SY |
| 651.3500 | TOPSOIL | 30.000 | CY |
| 653.0100 | EPSC PLAN (STP 6000(32)) | 1.000 | LS |
| 653.0200 | MONITORING EPSC PLAN | 40.000 | HR |
| 653.0300 | MAINTENANCE OF EPSC PLAN (N.A.B.I.) | 5,000.000 | DL |
| 653.1000 | HAY MULCH | 0.100 | TON |
| 653.2001 | ROLLED EROSION CONTROL PRODUCT, TYPE I | 170.000 | SY |
| 653.3500 | STABILIZED CONSTRUCTION ENTRANCE | 50.000 | CY |
| 653.4002 | INLET PROTECTION DEVICE, TYPE II | 6.000 | EACH |
| 653.4701 | SILT FENCE, TYPE I | 200.000 | LF |
| 653.5500 | PROJECT DEMARCATION FENCE | 600.000 | LF |
| 662.0010 | RAILROAD BALLAST | 1,720.000 | TON |
| 662.0120 | REMOVE AND REPLACE CROSS TIES | 828.000 | EACH |
| 662.0200 | REMOVE AND REPLACE JOINTED RAIL | 132.000 | LF |
| 662.0250 | REMOVE AND RESET JOINTED RAILROAD TRACK | 550.000 | LF |
| 662.0300 | REMOVE RAILROAD TRACK | 230.000 | LF |
| 662.0360 | BALLASTED TRACK CONSTRUCTION WITH CWR | 230.000 | LF |
| 662.0400 | REMOVE JOINTED RAIL AND INSTALL CWR | 420.000 | LF |
| 662.0410 | RAISE, ALIGN, AND SURFACE TRACK | 1,020.000 | LF |
| 663.0100 | RECONSTRUCT RAILROAD-HIGHWAY GRADE CROSSING (DOT 837-354J) | 1.000 | LS |
| 663.0200 | PRECAST CONCRETE PANEL GRADE CROSSING SYSTEM (DOT 837-353C) | 1.000 | LS |
| 663.0200 | PRECAST CONCRETE PANEL GRADE CROSSING SYSTEM (DOT 837-354J) | 1.000 | LS |
| 663.0270 | RUBBER RAIL SEAL | 64.000 | LF |
| 664.1000 | RAILROAD-HIGHWAY CROSSING ACTIVE WARNING SYSTEM (DOT 837-353C) | 1.000 | LS |
| 664.1000 | RAILROAD-HIGHWAY CROSSING ACTIVE WARNING SYSTEM (DOT 837-354J) | 1.000 | LS |
| 667.0015 | COMPROMISE JOINT BAR SETS | 12.000 | EACH |
| 667.0020 | INSULATED JOINTS | 8.000 | EACH |
| 667.0020001 | FACTORY BONDED INSULATED JOINTS | 8.000 | EACH |
| 675.2000 | TRAFFIC SIGN, FLAT SHEET ALUMINUM | 154.000 | SF |
| 675.3410 | SQUARE TUBE SIGN POST AND ANCHOR | 235.000 | LF |
| 675.5000 | SIGN REMOVAL, FLAT SHEET ALUMINUM | 25.000 | EACH |
| 690.0300 | PRICE ADJUSTMENT, ASPHALT (N.A.B.I.) | 2.000 | DL |