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DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

NOTICE TO CONTRACTORS,
PROPOSAL, SPECIAL PROVISIONS,
CONTRACT AND CONTRACT BOND

FOR

GRADING, STRUCTURE'S (2-12X5 PRECAST RCBC, (2)12X10 CIP
RCBC, 196.5' STEEL GIRDER, 2-11X5 CIP RCBC, 9X5 PRECAST
RCBC), PCC SURFACING, CURB & GUTTER, STORM SEWER,
SIGNALS, LIGHTING

FEDERAL

PROJECT NO.

NH 0100(106)409, P 8042(00), P
8042(00)
(PCN 01V7, 08DG, 08DH)

VERTERANS PARKWAY

IN LINCOLN COUNTY

NOTICE TO ALL BIDDERS

TO REPORT BID RIGGING ACTIVITIES, CALL: 1-800-424-9071

THE U.S. DEPARTMENT OF TRANSPORTATION (DOT) OPERATES THE ABOVE TOLL-FREE "HOTLINE" MONDAY THROUGH FRIDAY, 8:00 A.M. TO 5:00 P.M., EASTERN TIME. ANYONE WITH KNOWLEDGE OF POSSIBLE BID RIGGING, BIDDER COLLUSION, OR OTHER FRAUDULENT ACTIVITIES SHOULD USE THE "HOTLINE" TO REPORT SUCH ACTIVITIES.

THE "HOTLINE" IS PART OF THE DOT'S CONTINUING EFFORT TO IDENTIFY AND INVESTIGATE HIGHWAY CONSTRUCTION CONTRACT FRAUD AND ABUSE AND IS OPERATED UNDER THE DIRECTION OF THE DOT INSPECTOR GENERAL.

ALL INFORMATION WILL BE TREATED CONFIDENTIALLY, AND CALLER ANONYMITY WILL BE RESPECTED.

* * * *

PLANS, PROPOSALS AND ADDENDA

AFTER AWARD OF CONTRACT, THE LOW BIDDER WILL RECEIVE TEN (10) COMPLIMENTARY SETS OF PLANS, PROPOSALS, PROJECT Q & A FORUM, AND ADDENDA FOR FIELD AND OFFICE USE. AN ELECTRONIC COPY WILL ALSO BE PROVIDED. ANY ADDITIONAL COPIES REQUIRED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

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Project Number: NH 0100(106)409, P 8042(00), P 8042(00)

Revised 8/16/18

PCN 01V7, 08DG, 08DH

NOTICE TO CONTRACTORS

Bid proposals for this project will be prepared, transmitted, and received electronically by the South Dakota Department of Transportation (SDDOT) via the South Dakota Electronic Bid System until 10 A.M. Central time, on February 12, 2025, at which time the SDDOT will open bids. All bids will be checked for qualifications with results posted on the SDDOT website. The South Dakota Transportation Commission will consider all bids at a scheduled Commission meeting.

The work for which proposals are hereby requested is to be completed within the following requirement(s):

SUBSTANTIAL COMPLETION: **NOVEMBER 6, 2026**

FIELD WORK COMPLETION: **JULY 16, 2027**

CONSTRUCTION SCHEDULE / PROJECT MANAGEMENT:

The project category is Category III

The project type is Grading

The geographic zone is Zone 6

THE DBE GOAL FOR THIS PROJECT IS: **3%**

WORK TYPE FOR THIS PROJECT IS: **WORK TYPE 1 OR WORK TYPE 3**

Bidding package for the work may be obtained at:

<http://apps.sd.gov/hc65bidletting/ebslettings1.aspx#no-back-button>

An electronic version of the most recent version of the South Dakota Standard Specifications for Roads and Bridges may be obtained at <https://dot.sd.gov/doing-business/contractors/standard-specifications/2015-standard-specifications>

The electronic bid proposal must be submitted by a valid bidder as designated by their company's <https://apps.sd.gov/HC65C2C/EBS/BidAdminAuthorizationForm.pdf>. A bidding administrator will have privileges in the SDEBS to prepare bids, submit bids, and authorize additional company employees to prepare and submit bids. Additionally, a bidding administrator will be responsible for maintaining the list of authorized bidders for the company and will have the ability to add employees, remove employees, and set-up bidder identifications and passwords within the SDEBS. Bidding Administrator authorization will remain in full force and effect until written notice of termination of this authorization is sent by an Officer of the company and received by the Department.

A bidder identification and password, coupled with a company identification previously assigned by the Department, will serve as authentication that an individual is a valid bidder for the company.

Contact information to schedule a preconstruction meeting prior to commencing with the work on this project.

Harry Johnston
5316 W 60th St N
Sioux Falls, SD 57107
Phone: 605/367-5680

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION, STATE OF SOUTH DAKOTA:

Ladies / Gentlemen:

The following proposal is made on behalf of the undersigned and no others. It is in all respects fair and is made without collusion on the part of any other person, firm or corporation not appearing in the signature to this proposal.

The undersigned certifies that she / he has carefully examined the plans listed herein, the Specifications hereinbefore referred to, the Special Provisions and the form of contract, both of which are attached hereto. The undersigned further certifies that she / he has personally inspected the actual location of the work, together with the local sources of supply and that she / he understands the conditions under which the work is to be performed, or, that if she / he has not so inspected the actual location of the work, that she / he waives all right to plea any misunderstanding regarding the location of the work or the conditions peculiar to the same.

On the basis of the plans, Specifications, Special Provisions and form of contract proposed for use, the undersigned proposes to furnish all necessary machinery, tools, apparatus and other means of construction, to do all the work and furnish all the materials in the manner specified, to finish the entire project **within the contract time specified** and to accept as full compensation therefore the amount of the summation of the products of the actual quantities, as finally determined, multiplied by the unit prices bid.

The undersigned understands that the quantities as shown in the Bid Schedule are subject to increase or decrease, and hereby proposes to perform all quantities of work, as increased or decreased, in accordance with the provisions of the specifications, and subject to any applicable special provisions, and at the unit prices bid.

The undersigned understands that the "Total or Gross Amount Bid" as immediately hereinbefore set forth is not the final amount which will be paid if this proposal is accepted and the work done, but that such amount is computed for the purpose of comparison of the bids submitted and the determination of the amount of the performance bond.

The undersigned further proposes to perform all extra work that may be required on the basis provided in the specifications, and to give such work personal attention in order to see that it is economically performed.

The undersigned further proposes to both execute the contract agreement and to furnish a satisfactory performance bond, in accordance with the terms of the specifications, within twenty (20) calendar days after the date of Notice of Award from the South Dakota Department of Transportation that this proposal has been accepted.

CERTIFICATION REGARDING LOBBYING

I certify, to the best of my knowledge and belief, that: 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 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 a Federal contract, grant, loan, or cooperative agreement. If any funds other than Federal appropriated funds have been paid or will be paid to any of the above mentioned parties, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. 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 section 1352, title 31, U.S. Code. 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.

REV 10/11/24

INDEX OF SPECIAL PROVISIONS

PROJECT NUMBER(S): NH 0100(106)409, P 8042(00), P 8042(00)
PCN: 01V7, 08DG, 08DH

TYPE OF WORK: GRADING, STRUCTURE'S (2-12X5 PRECAST RCBC, (2)12X10 CIP RCBC, 196.5' STEEL GIRDER, 2-11X5 CIP RCBC, 9X5 PRECAST RCBC), PCC SURFACING, CURB & GUTTER, STORM SEWER, SIGNALS, LIGHTING

COUNTY: LINCOLN

The following clauses have been prepared subsequent to the Standard Specifications for Roads and Bridges and refer only to the above described improvement, for which the following Proposal is made.

The Contractor's attention is directed to the need for securing from the Department of Environment & Natural Resources, Foss Building, Pierre, South Dakota, permission to remove water from public sources (lakes, rivers, streams, etc.). The Contractor should make his request as early as possible after receiving his contract, and insofar as possible at least 30 days prior to the date that the water is to be used.

Sara Garbe is the official in charge of the Sioux Falls Career Center for Lincoln County.

THE FOLLOWING ITEMS ARE INCLUDED IN THIS PROPOSAL FORM:

Special Provision for Contract Time, dated 1/14/25.

Special Provision for Prosecution and Progress, dated 1/21/21.

Special Provision for Cooperation by Contractor and Department, dated 8/17/17.

Special Provision for Traffic Control Supervisor, dated

Special Provision Regarding Combination Bids, dated 12/31/24.

Special Provision for On-The-Job Training Program, dated 3/10/16.

Special Provision Regarding Right of Entry/Work Limits, dated 1/13/25.

Special Provision Regarding Section 404 of the Clean Water Act, dated 1/8/25.

Individual Permit # NWO-2021-00187-PIE (Phase III)

Special Provision Regarding Railroad Insurance Requirements and Working on Railroad Property for Grading and Interim Surfacing with BNSF Railway Company, dated 12/20/24.

Special Provision for Contractor Furnished Mix Design for PCC Pavement, dated 8/30/18.

Special Provision for Concrete Penetrating Sealer, dated 7/30/24.

Special Provision for PI PCC Pavement Smoothness with 0.2” Blanking Band, dated 11/30/18.

Special Provision for Stud Shear Connector Field Installation (Incidental), dated 4/21/23.

Special Provision for Stud Shear Connector Field Installation (Per Each), dated 4/21/23.

Special Provision for Aggregate Column Reinforcement, dated 11/6/24.

Special Provision for Battery Backup System for Traffic Signal, dated 12/31/24.

Special Provision for Video Detection System, dated 12/31/24.

Special provision for Optical Activated Emergency Vehicle Pre-Emption System, dated 12/31/24.

Special Provision for Mechanically Stabilized Earth Wire Face Walls, dated 12/16/24.

Special Provision for Stainless Reinforcing Steel, dated 12/31/24.

Special Provision for Contractor Staking with Machine Control Grading Option, dated 12/31/24.

List of Utilities.

Special Provision for Steel Beam Guardrail AASHTO M 180 Designation, date 10/8/24.

Special Provision for Acknowledgment and Certification Regarding Article 3, Section 12 of the South Dakota Constitution, dated 8/24/23.

Special Provision for Buy America, dated 5/1/24.

Special Provision for Liability Insurance, dated 4/21/22.

Special Provision for Responsibility for Damage Claims, dated 4/21/22.

Special Provision for Restriction of Boycott of Israel, dated 1/31/20.

Special Provision for Contractor Administered Preconstruction Meeting, dated 12/18/19.

Fuel Adjustment Affidavit, DOT form 208 dated 7/15.

Standard Title VI Assurance, dated 3/1/16.

Special Provision For Disadvantaged Business Enterprise, dated 2/9/24.

Special Provision For EEO Affirmative Action Requirements on Federal and Federal-Aid Construction Contracts, dated 2/5/24.

Special Provision For Required Contract Provisions Federal-Aid Construction Contracts, Form FHWA 1273 (Rev. October 23, 2023), dated 10/18/23.

Required Contract Provisions Federal-Aid Construction Contracts, Form FHWA 1273 (Rev. 10/23/23).

Special Provision Regarding Minimum Wage on Federal-Aid Projects, dated 10/24/19.

Wage and Hour Division US Department of Labor Washington DC. - US Dept. of Labor Decision
Number SD20230032, dated 3/10/23.

Special Provision for Supplemental Specifications to 2015 Standard Specifications for
Roads and Bridges, dated 9/7/22.

Special Provision for Price Schedule for Miscellaneous Items, dated 12/6/23.

Special Provision Regarding Storm Water Discharge, dated 5/8/18.

General Permit for Storm Water Discharges Associated with Construction
Activities, dated 4/1/18

[https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/StormWater
Construction.aspx](https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/StormWaterConstruction.aspx)

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
CONTRACT TIME**

PROJECT NH 0100(106)409, P 8042(00); PCN 01V7, 08DG, 08DH

LINCOLN COUNTY

JANUARY 14, 2025

2025 Work Requirements and Restrictions

The Contractor will complete the Veterans Parkway roadway embankment in place with storm sewer and ditch sections shaped for drainage by the November 14, 2025 interim completion requirement.

If the Contractor does not complete the work by the interim completion requirement, the Department will make a disincentive assessment in the amount of \$1000 per working day. A contract item for incentive/disincentive pay is included in the bid schedule for the Department's use in assessing disincentive. The Department will use a negative quantity of days for assessing disincentives. The Department will count working days in accordance with Section 8.6 C.

The Contractor will not begin Veteran's Parkway curb and gutter or concrete surfacing on the project in 2025 except at the Southeastern Avenue or Sycamore Avenue intersections and in sections with centerline fill heights less than 5 feet.

Southeastern Avenue

The Contractor will not close Southeastern Avenue concurrently with Sycamore Avenue.

The Contractor will complete the work on Southeastern Avenue in 2025. The intersection at Bison Trail may be closed to traffic between May 27, 2025 to August 8, 2025. All lanes, including the Veterans Parkway intersection will be completely paved and open to traffic by November 14, 2025

If the Contractor does not complete the work by the interim completion requirement, the Department will make a disincentive assessment in the amount of \$1500 per calendar day. A contract item for incentive/disincentive pay is included in the bid schedule for the Department's use in assessing disincentive. The Department will use a negative quantity of days for assessing disincentives. The Department will count calendar days in accordance with Section 8.6 B.

Sycamore Avenue

The Contractor will not close Sycamore Avenue concurrently with Southeastern Avenue.

The Contractor may complete the work on Sycamore Avenue in either 2025 or 2026. All lanes, including Veterans Parkway intersection, will be completely paved and open to traffic by November 14, 2025 if started in 2025 or by November 13, 2026 if started in 2026.

If the Contractor does not complete the work by the interim completion requirement, the Department will make a disincentive assessment in the amount of \$500 per calendar day. A contract item for incentive/disincentive pay is included in the bid schedule for the Department's use in assessing disincentive. The Department will use a negative quantity of days for assessing disincentives. The Department will count calendar days in accordance with Section 8.6 B.

Substantial Completion

The Contractor will substantially complete the project by the November 6, 2026 substantial completion date.

The Department will consider the work substantially complete when all lanes on Veteran's Parkway, Southeastern Avenue, and Sycamore Avenue are opened to unimpeded traffic and all work is completed except the following:

Shared use path, permanent pavement markings, sidewalks, joint sealing, landscaping, topsoil, seeding, mulching, and permanent erosion control measures.

The Engineer, in the Engineer's sole discretion, will determine when the project is substantially complete.

Following the substantial completion of the project, the Department will allow single lane closures for the completion of the remaining items of work (including, but not limited to, shared use path, permanent pavement markings, sidewalks, joint sealing, landscaping, topsoil, seeding, mulching, and permanent erosion control measures). The Department will allow single lane closures only when the Contractor is actively performing work.

Field Work Completion

The Contractor will complete the project by the July 16, 2027 field work completion date.

Failure to Complete on Time

The Contractor will substantially complete the project prior to the substantial completion requirement. If the Contractor does not complete the work by the substantial completion requirement, the Department will assess liquidated damages in accordance with Section

8.8. The Department will assess liquidated damages for each working day the work (project) is late until the Contractor substantially completes the work.

In the event the Contractor does not substantially complete the work on time, the Department will count working days in accordance with Section 8.6 C.

The Contractor will complete all work on the project prior to the field work completion requirement. If the Contractor does not complete all work by the field work completion requirement, the Department will assess liquidated damages in accordance with Section 8.8. The Department will assess liquidated damages for each working day the work (project) is late until the Contractor completes all field work.

In the event the Contractor does not complete all field work on time, the Department will count working days in accordance with Section 8.6 C.

Expected Adverse Weather Days

The Department has provided Attachment 1 for information purposes only as a guide to bidders. Table 1 depicts the typical number of adverse weather days expected for any given month, based on historical records. The Department will consider this project a grading project in Zone 6.

The Department will consider expected adverse weather days cumulative in nature over the time period when the Contractor is actively pursuing completion of the work. The Department will not consider adverse weather days during an extended period of time when the Contractor is not pursuing completion of the work. When considering a time extension for working day count completion, interim completion, substantial completion, or field work completion of the project, the Engineer will compare the total number of expected adverse weather days against the total number of actual adverse weather days for the time period during which the work was being completed.

* * * * *

ATTACHMENT 1

Figure A - Expected Adverse Weather Days for South Dakota

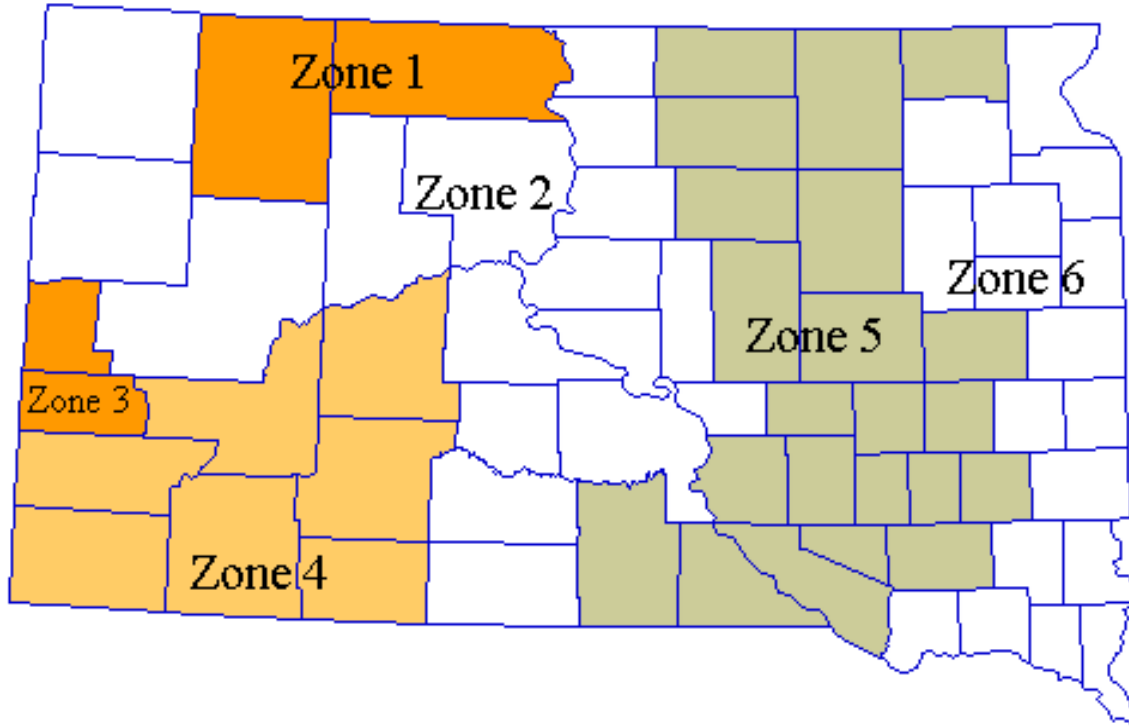


Table 1 - Expected Adverse Weather Days for South Dakota

	Grading Projects						Surfacing and Structural Projects					
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Jan	18	18	16	16	22	24	18	18	15	16	21	23
Feb	19	18	12	14	19	21	19	18	12	14	19	21
Mar	12	10	9	8	11	13	12	10	9	8	10	12
Apr	6	5	8	5	6	6	5	4	6	4	4	4
May	6	6	8	6	6	6	5	5	6	4	4	5
Jun	7	6	7	6	7	8	5	5	5	4	5	6
Jul	5	5	6	5	6	7	4	4	5	3	4	5
Aug	4	4	5	4	5	6	3	3	4	3	4	4
Sep	3	3	4	3	4	5	2	2	3	2	3	4
Oct	4	3	5	3	4	4	3	3	4	2	3	3
Nov	11	9	8	7	10	12	11	9	8	7	10	11
Dec	21	19	15	14	20	22	21	19	15	14	20	22

NOTE: Includes Holidays and Weekends.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
PROSECUTION AND PROGRESS**

JANUARY 21, 2021

Delete Section 8.3 of the specifications and replace with the following:

8.3 PROSECUTION AND PROGRESS - The Contractor will include the proposed starting date with the signed contract.

The Contractor will provide sufficient materials, equipment, and labor to complete the project within the contract time set forth within the contract.

Should the Contractor discontinue the work for any reason, the Contractor will provide at least a 24-hour notice to the Engineer prior to resuming operations.

A construction schedule is required. The project category, project type, and project geographic zone are defined in the Notice to Contractors.

For the purpose of this specification, work activities will include all Contractor, subcontractor, and utility company work related to the successful completion of the project.

This work consists of scheduling and monitoring all construction work activities. The construction schedule is an integral part of the project. The construction schedule is used as a resource for the Contractor to monitor and manage work progress. The construction schedule is also used as a resource for the Department to monitor work progress and as a resource used in time extension determinations in accordance with Section 8.7 and this specification. The Contractor will ensure operations are conducted such that the construction schedule is adhered to by all contracting parties involved regardless of the amount of work subcontracted.

A. Project Categories:

- 1. Category I:** Represents the lowest level of the project ranking system with simple, low risk, short duration projects with minimal impacts on traffic.
 - a.** Types of projects typically include, but are not limited to, asphalt surface treatments, crack seals, rumble strip installation, bridge deck overlays, and other minor repair projects.

- b. Construction schedule requirements for Category I projects are written narrative. The Department will also accept a Bar Chart Method (BCM), Critical Path Method (CPM), or Linear Schedule Method (LSM).
- 2. **Category II:** Represents the medium level of the project ranking system with slightly complex projects that typically involve a limited number of linear, repetitive operations with typical project constraints and some traffic impact.
 - a. Types of projects typically include, but are not limited to, asphalt concrete resurfacing, grading, shoulder widening, bridge replacement, concrete pavement repair, major bridge repair projects, and interstate reconstruction.
 - b. Construction schedule requirements for Category II projects are BCM, CPM, or LSM.
- 3. **Category III:** Represents the highest level of project ranking system with complex, high risk projects with major impacts on traffic and adjacent businesses. These projects may last for more than one construction season.
 - a. Types of projects typically include, but are not limited to, urban reconstruction, and interstate interchanges.
 - b. Construction schedule requirements for Category III projects are CPM or LSM.

B. General:

The following will apply to all scheduling methods:

The Contractor will submit a startup schedule or construction schedule to the Engineer prior to the scheduling of the preconstruction meeting.

For Category II and III projects, the Contractor may submit a startup schedule. The startup schedule must contain a detailed breakdown of all work activities for the first 15 working days from the start of work for Category II project or 30 working days from the start of work for a Category III projects. At a minimum, the startup schedule must meet the requirements of the BCM.

If the Contractor elects to submit a startup schedule, the Contractor will schedule a construction scheduling meeting between the Department and the Contractor at the time of submitting the startup schedule. The Contractor and Engineer will review the startup schedule and the proposed construction

schedule and collaborate to include all remaining work activities for the remainder of the project, or the season if the project is a multi-year project. For multi-year projects, the same submittal requirements and timelines will apply each year.

Work activities in the construction schedule will be in chronologic order.

The Contractor will include expected adverse weather days from the Expected Adverse Weather Days chart in Section 8.3 K. of this special provision in the construction schedule. The Contractor will also include an estimate of the duration of utility company work activities identified in the plans that impact the Contractor's critical path in the construction schedule.

The Engineer will accept or may suggest revisions to the construction schedule within 5 business days of the date of receiving the construction schedule. If the Engineer does not accept or does not provide suggested revisions to the construction schedule within 5 business days of receiving the construction schedule, or a longer timeframe if mutually agreed upon by the Contractor and the Engineer, the construction schedule as submitted will be the initial accepted construction schedule.

If revisions are needed prior to acceptance of the construction schedule, the Contractor will make the required revisions and submit the revised construction schedule to the Engineer within a mutually agreed upon amount of time. The Engineer will accept or may suggest further revisions to the revised construction schedule within 2 business days of the date of receiving the revised construction schedule.

Acceptance of the construction schedule by the Engineer does not modify the contract or constitute endorsement or validation by the Engineer of the Contractor's logic, activity durations, or assumptions in creating the schedule. Acceptance of the schedule also does not relieve the Contractor of the obligation to complete all work within the contract time completion requirements.

The Contractor will preface each construction schedule with the following information:

1. Project Number;
2. PCN;
3. Contractor;
4. Original contract time allowed including phase, interim, substantial, and field work completion requirement(s) specified;

5. Type of construction schedule (startup, construction, or update); and,
6. Date of the schedule (the date the schedule was updated to) as applicable by scheduling type.

C. Written Narrative: The written narrative consists of:

1. Estimated starting and completion dates of each work activity;
2. Description of work to be done within each work activity including the type and quantity of equipment and labor;
3. Description of the location on the project where each work activity occurs;
4. Description of planned production rates by major work activities (example: cubic yards of excavation per day/week);
5. Description of planned workdays per week, holidays, number of shifts per day, and number of hours per shift;
6. An estimate of any periods which a work activity is idle or partially idle including the beginning and end dates of the reduced production or idle timeframe;
7. Description of expected and critical delivery dates for equipment and materials that may affect timely completion of the project;
8. Description of critical completion dates for maintaining the construction schedule; and,
9. Identification of the vendor, supplier, subcontractor, or utility company to perform the work activity including stating all assumptions made by the Contractor in the scheduling of the subcontractor's, supplier's, or utility company's work.

D. Bar Chart Method (BCM): The BCM construction schedule consists of:

1. **Diagram:** The Contractor must show the following in the BCM diagram:
 - a. Planned start and completion dates for each work activity;
 - b. Define and relate principle and major work activities into manageable item with durations no longer than 15 working days;

- c. Work activities related to the procurement of critical (major) materials and articles of special manufacture in the order the work is to be performed;
- d. Contractor work activities related to the preparation and submission of working drawings, shop plans, and other data specified for review or approval by the Engineer and resubmittal, if required;
- e. Activities related to specified activities by the Department and third parties (including, but not limited to, review of working drawings and material quality, mix design, mix design verification, and compatibility test results from the Department's Central Materials Laboratory);
- f. Show all critical (major) work activities that are controlling factors in the completion of the work;
- g. Show the time needed to perform each work activity and the work activity's relationship in time to other work activities; and,
- h. Show the expected time to complete all work.

In addition, the Contractor will provide enough space for each work activity to permit 2 additional plots parallel to the original time span plot. The Contractor will use one spot for revision of the planned time span and one spot for showing the actual time span achieved.

- 2. **Written Narrative:** If all of the information required in Section 8.3 C. is shown in the BCM construction schedule, the Contractor will not be required to provide a written narrative. For those items not included in the diagram, the written narrative consists of the missing information required in Section 8.3 C.

E. Critical Path Method (CPM): The CPM construction schedule consists of:

- 1. **Diagram:** The Contractor must show the following in the CPM diagram:
 - a. Baseline start and baseline completion dates for each work activity;
 - b. Duration of each work activity (stated in working days with work activities of more than 15 working days in duration broken into two or more work activities distinguished by location or some other feature);
 - c. Completion requirement(s) specified in the contract as the only constraints in the schedule logic;

- d. Work activities related to the procurement of critical (major) materials and articles of special manufacture;
 - e. Contractor work activities related to the preparation and submission of working drawings, shop plans, and other data specified for review or approval by the Engineer and resubmittal, if required; and,
 - f. Activities related to specified activities by the Department and third parties (including, but not limited to, review of working drawings and material quality, mix design, mix design verification, and compatibility test results from the Department's Central Materials Laboratory).
2. **Written Narrative:** If all of the information required in Section 8.3 C. is shown in the CPM construction schedule, the Contractor will not be required to provide a written narrative. For those items not included in the diagram, the written narrative consists of the missing information required in Section 8.3 C.

F. Linear Schedule Method (LSM): The LSM construction schedule consists of:

1. **Diagram:** The Contractor must show the following in the LSM diagram:
- a. Planned start and completion dates for each work activity;
 - b. All work activities longer than 3 days in duration, or an alternate longer or shorter duration per work activity as mutually agreed upon by the Contractor and the Engineer;
 - c. Completion requirement(s) specified in the contract as the only constraints in the schedule logic;
 - d. Work activities related to the procurement of critical (major) materials and articles of special manufacture;
 - e. Contractor work activities related to the preparation and submission of working drawings, shop plans, and other data specified for review or approval by the Engineer and resubmittal, if required; and,
 - f. Department activities related to specified activities by the Department (including, but not limited to, review of shop drawings by the Department and material quality, mix design, mix design verification, and compatibility test results from the Department's Central Materials Laboratory) and third parties.
2. **Written Narrative:** If all of the information required in Section 8.3 C. is shown in the LSM construction schedule, the Contractor will not be required

to provide a written narrative. For those items not included in the diagram, the written narrative consists of the missing information required in Section 8.3 C.

G. Construction Schedule Updates: The construction schedule and all construction schedule updates are intended to be a project management tool for the Contractor, Contractor's staff, subcontractors, suppliers, Department, and any utility companies involved. The Contractor will regularly review and continually maintain the construction schedule to verify actual start dates, actual finish dates of work activities, remaining duration of uncompleted work activities, and any proposed logic or time estimate revisions based on work production. The Contractor will keep the Engineer informed of the current construction schedule and all logic changes. The construction schedule and all construction schedule updates will be discussed during the weekly meetings or at a frequency agreed upon by the Contractor and Engineer.

The Contractor will submit an updated construction schedule for acceptance by the Engineer at least every month or when any of the following conditions occur:

1. A delay of 5 working days or 7 calendar days, as governed by the contract time requirements of the contract, occurs in the completion of a critical (major) work activity or which causes a change in a critical work activity for BCM schedules, causes a change in the critical path for CPM schedules, or causes work activity lines to cross in LSM schedules;
2. The actual prosecution of the work is different from that represented on the current construction schedule;
3. There is an addition, deletion, or revision of work activities caused by a contract change order; or,
4. There is a change in the construction schedule logic.

The Contractor will include all requirements listed in Section 8.3 B.1-6 on the updated construction schedule and will provide a comparison of the initial/baseline schedule to the current schedule of project completion.

When the construction schedule is updated, the Contractor will move the actual lost days (adverse weather days and adverse weather recovery days) from where the expected adverse weather days were originally shown, in accordance with Section 8.3 B, to the date the lost day or days occurred in accordance with Section 8.3 H.

For utility company work activities previously identified in the baseline construction schedule in accordance with Section 8.3 B, the following shall apply:

When the construction schedule is updated, the Contractor will move utility company work activity durations from where the work activities were originally shown, in accordance with Section 8.3 B, to the dates the utility company work activities actually occurred. The Contractor will also include any known delays due to utility company work activities in the construction schedule updates by showing the date of the lost day or days to identify the delays and show the impact to the critical path in accordance with Section 8.3 H. The Contractor will also include documentation of any attempts made by the Contractor to mitigate the delays caused by utility company work activities.

For unexpected or unplanned work activities which become an impact to the critical path not previously identified in the initial/baseline construction schedule including, but not limited to; 1) known utility company work activities, 2) utility conflicts not identified in the plans, 3) differing site conditions, and 4) significant changes in the character of work the following shall apply:

For each occurrence of a delay, the Contractor will add a new work activity in the line below and linked to the controlling work activity for the duration of the delay. The Contractor will include supporting information to document the delay and efforts to mitigate the delay.

The Engineer will accept or may suggest revisions to the updated construction schedule within 5 business days of the date of receiving the updated construction schedule. If the Engineer does not accept or does not provide suggested revisions to the updated construction schedule within 5 business days of receiving the updated construction schedule, or a longer timeframe if mutually agreed upon by the Contractor and the Engineer, the schedule as submitted will be the accepted updated construction schedule.

If revisions are needed prior to acceptance of the updated construction schedule, the Contractor will make the required revisions and submit the revised updated construction schedule to the Engineer within a mutually agreed upon amount of time. The Engineer will accept or may suggest further revisions to the revised updated construction schedule within 2 business days of the date of receiving the revised updated construction schedule.

Acceptance of the updated construction schedule by the Engineer does not modify the contract or constitute endorsement or validation by the Engineer of the Contractor's logic, activity durations, or assumptions in creating the schedule. Acceptance of the updated construction schedule also does not

relieve the Contractor of the obligation to complete all work within the contract time completion requirements.

H. Contract Time: The Department will count contract time in accordance with Section 8.6 and any applicable special provision for contract time.

For the purpose of contract time related to weather delays and determining the actual adverse weather days, the Department will consider the following:

Continuing construction progress on the controlling item is defined as the Contractor's progress to complete remaining work identified as the controlling item or critical path in the current construction schedule. Remaining work is the work remaining to be completed prior to the adverse weather event. For this determination, rework caused by the adverse weather event will not be considered part of the remaining work.

Lost days are defined as the actual days lost during adverse weather and adverse weather recovery days, if applicable. An adverse weather recovery day will only be considered when continuing construction progress on the controlling item is delayed due to the effects of adverse weather.

An adverse weather recovery day must meet the following criteria:

1. Days following adverse weather days needed for project conditions to improve to a condition in which the Contractor is able to or would be expected to restart work.
2. Days following adverse weather days needed for rework of previously completed work conforming to the specifications. The Department will only consider rework necessary through no fault of the Contractor.
3. Days following adverse weather days in which the project conditions result in a delay to the Contractor in continuing construction progress on the controlling item as scheduled prior to the adverse weather.

The Contractor will submit a request by the end of the following week and the Engineer will determine if a day meeting the above criteria will be considered an adverse weather recovery day. The determination will be based on the amount of time the Contractor would be expected to do or does work on continuing construction progress on the controlling item.

In accordance with Section 8.6, no adverse weather recovery day will be considered for any day on which conditions are such that the Contractor would be expected to do or does 6 hours or more of work continuing construction progress on the controlling item. A 1/2 adverse weather recovery day will be considered for any day on which conditions are such

that the Contractor would be expected to do or does at least 2 hours but less than 6 hours of work continuing construction progress on the controlling item. A full adverse weather recovery day will be considered for any day on which conditions are such that the Contractor would be expected to do or does less than 2 hours of work continuing construction progress on the controlling item.

The Engineer will determine which days are actual lost working days during each bi-weekly statement and the Contractor will account for those lost working days by moving the agreed upon lost adverse weather days forward in the construction schedule to the date the working days were lost.

I. Extension of Contract Time:

When considering a time extension request for contract time completion requirements, the Engineer will base the time extension determination on the impact to the initial/baseline construction schedule and all construction schedule updates resulting from the basis (as defined in Section 8.7) for the time extension.

Time extension requests for Category II and III projects must include a construction schedule demonstrating the project schedule impacts to the critical item, the critical path, and completion of the entire project due to items beyond the Contractor's control.

When considering a time extension for contract time completion requirements due to adverse weather, the Engineer will compare the total number of expected adverse weather days against the total number of actual lost days (adverse weather days and adverse weather recovery days) in the current accepted construction schedule.

J. Construction Schedule Payment and Assessments:

1. Construction Schedule Payment: Payment will be full compensation for the work prescribed in this section. The Engineer will make progress payments for the construction schedule in accordance with the following:

- a. 25% of the lump sum contract unit price, not to exceed 1% of the original contract amount will be paid after the construction schedule is accepted.
- b. Payment of the remaining portion of the lump sum contract unit price will be prorated based on the total work completed.

2. Assessments:

- a. **Construction Schedule:** If the Contractor begins work prior to submitting the construction schedule as required in 8.3 B., the Engineer will make an assessment of \$100 for Category I projects, \$250 for Category II projects, and \$500 for Category III projects for each working day until the construction schedule is submitted.

If the Contractor chooses to use the startup schedule option, the assessment will not apply until 30 working days from start of work

- b. **Construction Schedule Updates:** If the Contractor does not submit the updated construction schedule by the agreed upon date each month or as required in 8.3 G., the Engineer will make an assessment of \$100 for Category I projects, \$250 for Category II projects, and \$500 for Category III projects for each working day until the updated construction schedule is submitted.

K. Expected Adverse Weather Days:

The Department has provided Attachment 1. This table depicts the typical number of adverse weather days expected for any given month, based on historical records. The Contractor will consider expected adverse weather days cumulative in nature over the time period when the Contractor is planning to actively pursue completion of the work. The Contractor will not include adverse weather days during extended periods of time when the Contractor is not planning to pursue completion of the work. The Contractor will use the expected adverse weather days shown in the table when establishing and updating the construction schedule.

* * * * *

ATTACHMENT 1

Figure A. Expected Adverse Weather Days for South Dakota

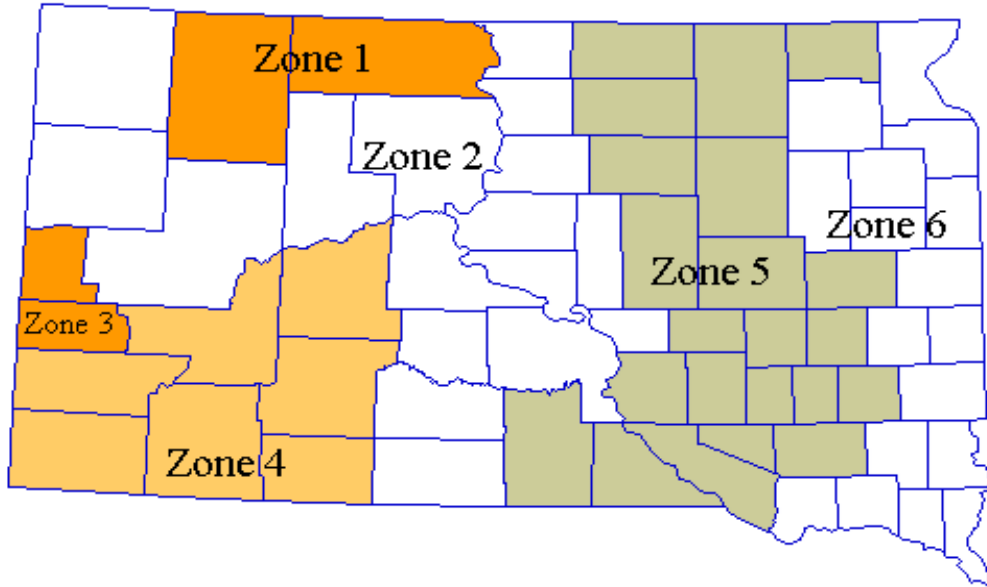


Table 1. Expected Adverse Weather Days for South Dakota

	Grading Projects						Surfacing and Structural Projects					
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Jan	18	18	16	16	22	24	18	18	15	16	21	23
Feb	19	18	12	14	19	21	19	18	12	14	19	21
Mar	12	10	9	8	11	13	12	10	9	8	10	12
Apr	6	5	8	5	6	6	5	4	6	4	4	4
May	6	6	8	6	6	6	5	5	6	4	4	5
Jun	7	6	7	6	7	8	5	5	5	4	5	6
Jul	5	5	6	5	6	7	4	4	5	3	4	5
Aug	4	4	5	4	5	6	3	3	4	3	4	4
Sep	3	3	4	3	4	5	2	2	3	2	3	4
Oct	4	3	5	3	4	4	3	3	4	2	3	3
Nov	11	9	8	7	10	12	11	9	8	7	10	11
Dec	21	19	15	14	20	22	21	19	15	14	20	22

NOTE: Includes Holidays and Weekends.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
COOPERATION BY CONTRACTOR AND DEPARTMENT**

AUGUST 17, 2017

Delete Section 5.5 of the specifications and replace with the following:

5.5 COOPERATION BY CONTRACTOR AND DEPARTMENT - The Department will supply the Contractor with the number of sets of plans and related contract documents noted in the proposal, 1 of which the Contractor will have available on the project.

A. General: The Contractor will give the work the constant attention necessary to facilitate the progress, supervise, and direct all the work of the Contractor and all subcontractors to completely and efficiently perform work in accordance with the contract documents.

All subcontractors will communicate directly with the Contractor regarding questions about site readiness for construction, current activities of the Contractor and other subcontractors, and any other scheduling types of questions. The Contractor and all subcontractors will cooperate with the Engineer, inspectors, and other contractors.

B. Management and Supervision: The Contractor will provide the management and supervision required by this specification, and in accordance with this specification, regardless of the amount of work subcontracted.

Prior to the preconstruction meeting, the Contractor will provide the Project Engineer written designation of the Project Manager and the Project Superintendent. If the Contractor desires to make changes in designated individuals for Project Manager and Project Superintendent following the preconstruction meeting, the change must be submitted in writing or by email to the Project Engineer in advance of the change. For each crew (Contractor and subcontractor) working on the project, the crew will have a crew working superintendent/foreman.

The project category is specified in the Notice to Contractors.

The following titles, definitions, and responsibilities for Contractor and subcontractor management and supervision will be used by the Department.

1. Titles and Definitions:

- a. **Project Manager:** A Contractor employee that is the designated decision making authority for the Contractor and all subcontractors. For category I and II projects, the Project Manager and the Project Superintendent may be the same individual.
- b. **Project Superintendent:** A Contractor employee that is in responsible charge of the contract work and directs the daily project operations. For category I and II projects, the Contractor may designate a willing and capable subcontractor employee as the Project Superintendent.
- c. **Contractor or Subcontractor Working Superintendent/Foreman:** An employee of the Contractor or subcontractor that directs a group of employees working for the Contractor or subcontractor to complete a specific type of work the Contractor or subcontractor has contracted to complete.

2. Responsibilities:

- a. **Project Manager:** The Project Manager will:
 - 1) Be accessible to the Project Engineer as required in Section 5.5 C.
 - 2) Be capable of reading and understanding the plans and specifications and is experienced in and capable of accomplishing the type of work being performed.
 - 3) Schedule and lead the preconstruction meeting.
 - 4) Proactively manage the submittal and approval process.
 - 5) Manage the project scheduling and schedule updating process including leading the schedule update meetings which may be led in person or remotely including, but not limited to, discussion and identification of upcoming controlling item or items of work. This responsibility may be assigned to a willing and capable subcontractor employee for category I and II projects. Assignment of the duties to a subcontractor does not relieve the Contractor of the overall management responsibilities on the project.
 - 6) Coordinate and manage all subcontractors including, but not limited to, subcontractor approval, general performance, schedule integration, and accessibility. Contractors and subcontractors are expected to be on site and completing work according to the project

schedule throughout the life of the project such that the periods of non-construction activity are kept to a minimum.

- 7) Be the designated person with final decision making authority for the Contractor and subcontractors.
- 8) Be the designated Contractor employee to negotiate with the Project Engineer for any contract component with monetary or contract time implications including, but not limited to; change orders, time extensions, and price adjustments. The duties of contract components with monetary or contract time implications must remain with an employee of the Contractor for all category projects.
- 9) If the Engineer determines, in his or her sole discretion, the designee is not fulfilling their assigned role for one or more of the responsibilities, the Engineer will provide written or email notice identifying the insufficient duties and the Contractor will immediately reassign those duties to a designated, willing, and capable individual, as needed, to fulfill the identified duties.

b. Project Superintendent: The Project Superintendent will:

- 1) Be accessible to the Project Engineer as required in Section 5.5 C.
- 2) Be capable of reading and understanding the plans and specifications and is experienced in and capable of accomplishing the type of work being performed.
- 3) Direct the daily project operations in accordance with the construction schedule.
- 4) As appropriate for the project category and at a frequency that is mutually agreed upon with the Engineer, lead construction progress meetings including look-ahead scheduling and planned activities of subcontractors.
- 5) For category III projects, prepare construction progress meeting agendas and designate a Contractor or subcontractor employee to take general notes of the meeting including, but not limited to, future action items, party responsible for future actions items, condensed summary of major issues discussed. The designated individual will distribute the notes to all key project supervision including the Department and affected utilities within a reasonable timeframe mutually agreed upon by the Project Superintendent and Project Engineer. If no timeframe is agreed upon, the designated

individual will distribute the notes no later than the end of the next business day. This practice is also recommended when construction progress meetings are held for category I & II projects.

- 6) When construction progress meetings are not held, update the Project Engineer on changes to subcontractor activities.
- 7) Oversee and direct the daily work activities of all subcontractors on the project. Contractors and subcontractors are expected to be on site and completing work according to the project schedule throughout the life of the project such that the periods of non-construction activity are kept to a minimum.
- 8) Be the designated representative for the Contractor and subcontractors with decision making authority for the Contractor and subcontractors to seek clarification and interpretation of contract document requirements from the Project Engineer.
- 9) Work through the Project Manager to negotiate with the Project Engineer for any contract component with monetary or contract time implications including, but not limited to; change orders, time extensions, and price adjustments.
- 10) If the Engineer determines, in his or her sole discretion, the designee is not fulfilling their assigned role for one or more of the responsibilities, the Engineer will provide written or email notice identifying the insufficient duties and the Contractor will immediately reassign those duties to a designated, willing, and capable individual, as needed, to fulfill the identified duties.

c. Contractor or Subcontractor Working Superintendent/Foreman: A designated employee of the Contractor or subcontractor who will:

- 1) Direct a group of employees working for their respective company to complete a specific type of work their respective company has contracted to complete.
- 2) Be onsite during the progress of the type of work assigned.
- 3) Be capable of reading and understanding the plans and specifications and is experienced in and capable of accomplishing the type of work being performed.
- 4) Work with the Project Manager or the Project Superintendent or both to update the progress schedule for assigned work.

- 5) As appropriate for the project category type, participate in portions of construction progress meetings involving their respective company's specific work being performed.
- 6) Update the Project Superintendent on changes to activities when progress meetings are not held as planned.
- 7) Be the designated representative for the assigned construction staff to seek clarification and interpretation of contract document requirements from the Project Engineer.
- 8) Work through the Project Superintendent or the Project Manager or both for any contract component with monetary or contract time implications including, but not limited to; change orders, time extensions, and price adjustments.

C. Contractor Accessibility Guidelines by Project Category: The following are guidelines for the Project Manager and Project Superintendent to be accessible to the Project Engineer. The Contractor and Project Engineer will agree upon the specific requirements to be used during the preconstruction meeting. The Contractor and Project Engineer may agree to either a shorter or longer accessibility requirement. If no alternate set of requirements are agreed upon, the guidelines listed in this specification will be the requirements. During construction of the project, the Contractor and Project Engineer may mutually agree to revise the agreement, if necessary, in writing or by email for specific needs during the project.

1. Category I and II:

a. Project Manager:

- 1) Will be available by phone or other mutually available technology with a response time within 2 business days.

b. Project Superintendent:

- 1) May be off site with prior notice to the Project Engineer.
- 2) When off site, the Project Superintendent will be available by phone with a response time within 1 business day, or on site as scheduled.

2. Category III:

a. Project Manager:

- 1) Will be available by phone or other mutually available technology with a response time within 1 business day.

b. Project Superintendent:

- 1) May be off site with prior notice to the Project Engineer.
- 2) When off site, the Project Superintendent will be available by phone with a response time of the same business day, or on site as scheduled.

D. Department Accessibility Guidelines: The following are guidelines for the Project Engineer and Engineering Supervisor to be accessible to the Contractor and are to be agreed upon during the preconstruction meeting. If weekend work is anticipated, the Contractor will provide notice to the Project Engineer by Thursday of the same week. The Contractor and Project Engineer will agree upon the specific requirements to be used during the preconstruction meeting. The Contractor and Project Engineer may agree to either a shorter or longer accessibility requirement. If no alternate set of requirements are agreed upon, the guidelines listed in this specifications will be the requirements. During construction of the project, the Contractor and Project Engineer may mutually agree to revise the agreement, if necessary, in writing or by email for specific needs during the project. The Department will submit changes in designated Department individuals, either temporarily or permanently, for Field Technician, Project Engineer, or Engineering Supervisor in writing or by email to the Contractor's designated Project Manager and Project Superintendent in advance of the change.

1. Category I, II, and III:

a. Field Technician:

- 1) Will to be on site during the construction of their assigned work activities and will be available to the Project Superintendent and associated Working Superintendent/Foreman while these work activities are performed.
- 2) May be off site during work activities that do not require testing or inspecting.
- 3) Will participate in progress meetings when invited by the Project Engineer.

b. Project Engineer:

- 1) Will be available by phone with a response time of the same business day or on site within 1 business day for Category I & II projects and within 1/2 business day for Category III projects.
- 2) When off site for more than 1 business day, the Project Engineer will notify the Project Superintendent and any Working Superintendent/Foremen and will remain available by phone with a response time of the same business day or on site within 1 business day.

c. Engineering Supervisor:

- 1) Will be available to Project Manager and Project Superintendent through the Project Engineer by phone or other mutually available technology with a response time of 1 business day or on site within 2 business days.

E. Project Management Payment: Project management will be paid for at the contract lump sum price. Payment will be full compensation for all costs associated with providing project management and performing all related duties.

Payment for project management will be made as follows:

1. 20% of contract item lump sum price upon designation of Project Manager and Project Superintendent.
2. 50% of contract item lump sum price when construction project is 25% completed.
3. 75% of contract item lump sum price when construction project is 50% completed.
4. 90% of contract item lump sum price when construction project is 75% completed.
5. 100% of contract item price when construction project is 100% completed and the Area Office has issued the Acceptance of Field Work in accordance with Section 5.16.

* * * * *

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
TRAFFIC CONTROL SUPERVISOR**

**PROJECT NH 0100(106)409, P 8042(00), & P 8042(00)
PCN 01V7, 08DG, & 08DH
LINCOLN COUNTY**

JANUARY 15, 2025

I. DESCRIPTION

This work consists of the Contractor providing a certified Traffic Control Supervisor (TCS) to oversee all traffic control operations including, but not limited to; vehicular traffic control, detour route traffic control, and pedestrian access route traffic control for the safety of workers and the traveling public.

II. MATERIALS

No material requirements.

III. CONSTRUCTION REQUIREMENTS

A. Certification: The TCS must be certified through the South Dakota AGC-DOT Traffic Control Supervisor Training and Certification program or the American Traffic Safety Services Association (ATSSA) Traffic Control Supervisor certification program and must have training and experience in the field of construction traffic control.

The Contractor will submit the name of the individual designated as the TCS to the Engineer prior to or during the preconstruction meeting for verification of qualifications by the Department's Operations Traffic Engineer.

B. Duties: Delete Section 634.3 E.5. of the specifications. The TCS will perform the following duties and responsibilities to the satisfaction of the Engineer:

1. The TCS will provide the name, phone number, and location of the TCS to the Department, SD Highway Patrol, county sheriff's office, and the local city police department.
2. The TCS is responsible for coordinating all temporary traffic control operations, including temporary traffic control operations needed for subcontractors and suppliers.
3. The TCS is responsible for implementing the project temporary traffic control plan. The TCS is also responsible for reviewing and, if needed, making recommendations to change the project temporary traffic control plan. Any change to the project temporary traffic control plan must be approved by the Engineer.
4. The TCS must be available as the 24 hour a day and 7 days a week contact responsible to ensure maintenance of temporary traffic control is performed, as needed.
5. The Contractor shall monitor and maintain all traffic control items. The Contractor is responsible for adjustments of traffic control items when traffic conditions change. A representative of the TCS or another employee of the Contractor may perform the routine maintenance of temporary traffic control devices. The TCS is responsible for any maintenance performed by other employees of the Contractor in accordance with Section III.B.2 duties for coordinating all temporary traffic control operations.
6. The TCS is responsible for and shall perform all required day time and night time inspections of all temporary traffic control devices on the project to verify the overall traffic control system is adequate and all devices are legible both during daylight hours and at night. This includes detour route signing. The inspections shall begin when the first traffic control sign or device is put into operation and end when the last traffic control sign or device is removed from operation. The TCS will provide the Engineer a written summary of each required day time and night time inspection. All inspections must ensure the temporary traffic control devices are clean, maintained, and functioning as intended.
 - a. For night time inspections at the minimum frequency of once per week.
 - b. For day time inspections at the minimum frequency of once per week.
7. In addition to the required day time and night time inspections, the TCS is required to be on-site at the work zone for the following, at a minimum:
 - a. When requested by the Engineer and, in the sole discretion of the Engineer, there is a need requiring the attention of the TCS to address

an issue with the current temporary traffic control devices or plan. Routine maintenance of the current temporary traffic control devices alone will not be considered as a need requiring the TCS to be on-site.

- b. For major traffic shifts or phase changes.
- c. After a storm or major event that has the potential to knock over or upend the temporary traffic control devices.

- 8. In conjunction with Section III.B.7.a and Section III.B.7.c of this special provision, the TCS is required to be on-site within a maximum of 4 hours of notification from the Engineer, or an alternate timeframe if mutually agreed upon by the Contractor and the Project Engineer. If there is an immediate safety concern or an immediate need to make an adjustment to any of the temporary traffic control devices, the Contractor will take measures to address the concern or need, to the satisfaction of the Engineer, prior to the TCS arriving on-site.

C. General: Temporary traffic control on the project will be furnished, maintained, and installed in accordance with Section 634 and the project plan notes and details.

IV. METHOD OF MEASUREMENT

Traffic Control Supervisor: Measurement for Traffic Control Supervisor will not be made.

V. BASIS OF PAYMENT

Traffic Control Supervisor: Traffic Control Supervisor will be paid for at the contract lump sum price. Payment will be full compensation for all costs associated with providing the Traffic Control Supervisor and performing all related duties.

Payment for Traffic Control Supervisor will be made as follows:

- A. 20% of contract item lump sum price upon designation of certificated Traffic Control Supervisor.
- B. 50% of contract item lump sum price when construction project is 25% completed.
- C. 75% of contract item lump sum price when construction project is 50% completed.

- D.** 90% of contract item lump sum price when construction project is 75% completed.
- E.** 100% of contract item price when construction project is 100% completed and the Area Office has issued the Acceptance of Field Work in accordance with Section 5.16.

* * * * *

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING
COMBINATION BIDS**

**NH 0100(106)409, P 8042(00), P 8042(00), PCN 01V7, 08DG, 08DH
GRADING, STRUCTURE'S (2-12X5 PRECAST RCBC, (2)12X10 CIP
RCBC, 196.5' STEEL GIRDER, 2-11X5 CIP RCBC, 9X5 PRECAST RCBC),
PCC SURFACING, CURB & GUTTER, STORM SEWER, SIGNALS,
LIGHTING
LINCOLN COUNTY**

DECEMBER 31, 2024

Bidders submitting a bid on this project **MUST ALSO** submit a bid on project:

CIP 11120(), PCN X06Q
VETERANS PARKWAY
WATERMAIN AND SANITARY SEWER
LINCOLN COUNTY

Award of both projects will be to the same bidder based on the total of the two projects.

Work on PCN (X06Q) CANNOT be used to meet the DBE Goal established for this project.

After award, the contracts will be administered as entirely separate contracts.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING
SECTION 404 OF
THE CLEAN WATER ACT**

**Project # NH 0100(106)409; PCN 01V7
Lincoln County**

**JANUARY 8, 2025
INDIVIDUAL 404 PERMIT**

The above referenced project is authorized by a Department of the Army Individual 404 Permit.

The following general conditions must be adhered to in order for any authorization by a nationwide permit to be valid:

Please refer to the attached **Individual 404 Permit with Terms and Conditions**.

The above authorization permits placement of fill in the drainage crossings or wetlands identified in the Section A plan notes.

**PLEASE REFER TO THE TABLE OF WETLANDS IN THE SECTION A ENVIRONMENTAL
COMMITMENTS.**

DEPARTMENT OF THE ARMY PERMIT

Permittee: South Dakota Department of Transportation — Jacob Cadwell

Permit No.: NWO-2021-00187-PIE (Phase III)

Issuing Office **Corps of Engineers, Omaha District, Pierre SD Regulatory Office**

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

The Permittee is authorized to construct Phase III (PCN 01V7) of the South Veterans Parkway and associated arterial connections at Southeastern Avenue (PCN 08DG) and Sycamore Avenue (PCN 08DH). South Veterans Parkway is an 8.5-mile limited access regional arterial roadway running from 1-29 (Exit 73) to just North of 57th Street. Phase III of the project will construct a new roadway between Cliff Avenue and Sycamore Avenue in Sioux Falls, South Dakota. The constructed roadway segment will be a six-lane divided highway contained within a 1.97-mile long by 200-foot-wide right-of-way corridor. The project will convert 12.56 acres of waters of the United States to dry ground. The project will also temporarily impact 2.39 acres of waters of the United States. The work will be completed in accordance with the plans and drawings, attached hereto, which are incorporated in and made part of this permit.

Project Location:

The project is in Section 13; Township 100 North; Range 50 West, and Section 16; Township 100N; Range 49 West, Lincoln County, South Dakota. A map of the project location is included with the attached drawings.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on 27 December 2029. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

See page 4 for a list of special conditions.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the River and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Jacob Cadwell 01/02/2025
(JACOB CADWELL - SDDOT) (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

ROBERT J. NEWBAUER 01/02/2025
Colonel, Corps of Engineers (DATE)
District Commander
By: [Signature]
NATHAN.M. MOREY, REGULATORY SECTION
CHIEF, SOUTH DAKOTA

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) (DATE)

Special Conditions

- a. After a detailed and careful review of all the conditions contained in this permit, the permittee acknowledges that, although said conditions were required by the Corps of Engineers, nonetheless the permittee agreed to those conditions voluntarily to facilitate issuance of the permit; the permittee will comply fully with all the terms of all the permit conditions.
- b. The project must be built as shown on the construction plans and cross sections received by this office on 9 September 2024, and as described in the Application and all supporting documents submitted to this office. Preconstruction notification is required if there are proposed changes that affect waters of the US, including wetlands.
- c. Compensatory mitigation in the amount of 69.08 released wetland credits (Functional Capacity Units any HGM Class) shall be purchased to offset the unavoidable loss of 12.56 acres of waters of the United States. Wetland credits shall be purchased from the Lower Big Sioux River Geographic Service Area (HUC 10170203). A receipt of the credit purchase shall be provided to the South Dakota Corps of Engineers Regulatory Office prior to initiating authorized work.
- d. All construction debris will be disposed of on land in such a manner that it cannot enter a waterway or wetland.
- e. All earthwork operations will be carried out in such a manner that sediment runoff and soil erosion to the water are controlled.
- f. During construction, no petroleum products, chemicals, or other deleterious materials shall be allowed to enter or be disposed of in such a manner that they could enter the stream.
- g. The clearing of vegetation will be limited to that which is necessary for construction of the project.
- h. Except as approved herein, all dredged or excavated materials and material stockpiles will be placed for either temporary or permanent disposal on an upland site, above the ordinary high-water line, in a confined area, not classified as a wetland, and measures taken to ensure that the material cannot enter the watercourse through any other means.
- i. All fill material shall be free of substances in quantities, concentrations, or combinations which are toxic to aquatic life.
- j. If/when the District Commander has been notified that the construction activity is adversely affecting fish or wildlife resources or the harvest thereof and the District Commander subsequently directs remedial measures, the permittee will comply with such directions as may be received to suspend or modify the activity to the extent necessary to mitigate or eliminate the adverse effect as required.
- k. The permittee is responsible for ensuring that the contractor(s) and/or workers executing the activities authorized by this permit have full knowledge of the terms and conditions of the authorization and that a copy of the permit instrument is at the project site throughout the period work is underway.
- l. Disturbed areas shall be monitored following the project construction and noxious weeds (i.e., Canada thistle, purple loosestrife, leafy spurge, and other invasive exotic species) controlled in accordance with South Dakota State law.
- m. Waters of the United States impacted by temporary fills (wetlands – 2.39 acres) shall be restored to pre-disturbance contours, vegetation type and soil type.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION FOR
ON-THE-JOB TRAINING PROGRAM**

MARCH 10, 2016

This Training Special Provision supersedes Part II, Nondiscrimination, Section 6, Training and Promotion, paragraph “b” on Page 2 of the Required Contract Provisions Federal-Aid Construction Contracts (FHWA 1273 – Rev. 5/1/2012).

PURPOSE

The purpose of the On-the-Job (OJT) Program is to provide training in the highway construction industry for minority, female, and economically disadvantaged individuals, hereafter known as the target group. Pursuant to 23 Code of Federal Regulations Part 230, Subpart A, Appendix B – Training Special Provisions, this program provides for on-the-job training aimed at developing full journeyworkers in the type of trade or job classification involved.

INTRODUCTION

A signature from a bidder on the proposal sheet indicates that the bidder agrees to take part in the OJT Program and to follow the OJT Program Special Provision. Contractors that fail to follow the special provision will be subject to sanctions up to and including revocation of bidding privileges.

In order for the OJT Program to be successful, contractors must follow basic and uniform procedures in training such as, keeping monthly records of trainee progress towards journeyworker status and reporting trainee’s successful completion/termination from the OJT Program.

SELECTION OF TRAINING PROGRAM

- A. The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the South Dakota Department of Transportation (Department or SDDOT) and the Federal Highway Administration (FHWA).
- B. The Department and FHWA have currently approved one OJT program for use in South Dakota and that is the OJT program designed and implemented by the

department. Any trainee who has begun training in the previously approved OJT program will be allowed to transfer to the current approved OJT program.

- C. There may be other training programs which some Contractors might wish to utilize. If the Contractor intends to use such a program to meet the OJT requirements on a federal-aid contract with training requirements, approval or acceptance of such program shall be obtained from the Department and FHWA **prior** to beginning training on any classification covered by that program.

It is the intention of these provisions that training is to be provided in the construction crafts rather than administrative support type positions or lower level management positions. Training for any job classification not listed in the current OJT program manual may be permitted provided that significant and meaningful training is provided and prior approval is obtained by the Department Civil Rights Office and the FHWA Division office.

RECRUITMENT AND SELECTION PROCEDURES

A. Prerequisite for Trainees

1. To be qualified for enrollment in the OJT Program, a trainee applicant should be a member of one of the targeted groups (unless an alternate selection is authorized by the Department), must possess basic physical ability for the work to be performed, should have demonstrated qualities of dependability, willingness to learn, ability to understand and follow instructions and an aptitude to maintain a safe work environment.
2. No person shall be employed as a trainee in any classification in which that person has successfully completed a training course leading to journeyworker status or in which the individual has been employed as a journeyworker. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

B. Licenses

Truck driver trainees must possess appropriate driver permits or licenses for the operation of Class A, B, and C trucks. When an instructional permit is used in lieu of a license, the trainee must be accompanied by an operator who:

1. Holds a license corresponding to the vehicle being operated;
2. Has had at least one year of driving experience; and
3. Is occupying the seat next to the driver trainee.

C. Recruitment

1. Notices and posters setting forth the Contractor's Equal Employment Opportunity Policy and the availability of training programs will be placed in areas readily accessible to employees, applicants for employment and potential employees.
2. Training and upgrading of minorities, women, and socially and economically disadvantaged persons toward journeyworker status is the primary objective of this Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees, women and disadvantaged persons by conducting systematic and direct recruitment through public and private sources likely to yield minority and female applicants to the extent that such persons are available within a reasonable area of recruitment.
3. Full consideration will be given to upgrading current minority and female employees.

D. Selection

1. The selection and employment of an eligible person by a participating Contractor, in accord with the above Parts A, B, and C, shall qualify the person of the OJT Program.
2. Employment of trainees will be in accordance with the work force requirements of the Contractor. Each Contractor will hire and train the trainees for use in his own organization.
3. Contractors must follow the registration procedures as set out for the South Dakota Department of Transportation. An original registration form must be sent to the Department Civil Rights Office for review and approval. In the event that the Department OJT Registration Form(s) are not received by the Civil Rights Office within two weeks of the date the contractor begins significant work on the project, progress payments may be suspended. This suspension will be lifted upon receipt and approval of the form(s).
4. To be acceptable as an economically disadvantaged trainee, the applicant must meet current disadvantaged guidelines (relative to employment and income) as set out by the United States Department of Labor. These guidelines are available from South Dakota Department of Labor offices and contractors must maintain the necessary documentation on file for review by the department.
5. The Department expects that Contractors will employ minority, female, and disadvantaged persons for all trainee positions assigned through this OJT Special Provision unless such persons are not available within a

reasonable area of recruitment. The Civil Rights office may withhold approval of any trainee who is not a member of one of the targeted groups unless the Contractor can demonstrate a good faith effort to recruit and select a minority, female, or economically disadvantaged person and was unsuccessful in recruiting from the target group.

DEPARTMENT RESPONSIBILITIES

The Department (Civil Rights office):

- A. Will monitor Contractor payrolls and OJT reports for payment of correct wage rates and for evidence of providing a continuing instructional process. The Civil Rights office will maintain records of Contractor participation in the program; names, and training classifications of trainees and other information necessary to assess program participation and results.
- B. Will assist contractors with trainee recruitment, will encourage minority/female recruitment sources to refer suitable applicants, and will monitor Contractor instructional efforts and record keeping.
- C. Reserves the right to do EEO (Equal Employment Opportunity) or OJT reviews on the contractor, at any time without prior notice, to ensure that trainees are getting the proper instruction from their trainer/supervisor.

CONTRACTOR RESPONSIBILITIES

The Contractor:

- A. Will furnish the trainee a copy of the training program to be followed in providing the training and will provide each trainee graduate with a certificate showing the type of training satisfactorily completed.
- B. Will identify all trainees on the registration forms, training reports and project payroll by proper classification title, (see SDDOT Training program booklet) e.g. *heavy duty mechanic, form builder*, etc. **Do not use** coding letters/numbers from the wage scale. On payrolls, contractors must include the designation "trainee" following the job classification title.
- C. Will provide a monthly training report to the Department Civil Rights office within thirty (30) days of the last full pay period of the month on the form supplied by the Department and will use this same form to promptly notify the Department (within thirty days) whenever a trainee leaves the OJT program (voluntarily or involuntarily) or when a trainee completes the program.

- D. Will pay not less than the minimum wage rates as set forth in the specific requirements of the applicable training program and as noted on the copy of the registration form returned to the contractor.
- E. Assign the trainee to a skilled craftsman, foreman, supervisor or mentor who will be responsible for the day-to-day training and mentoring of the trainee and who will share the appropriate skills associated with the classification for which the trainee is enrolled. The contractor attests to providing verification, if requested, that the trainee is being trained and is gaining knowledge to achieve full journeyman status by a supervisor/trainer.
- F. Shall only count, for credit; hours spent training within the classification for which the trainee is enrolled. If such classification is not necessary for a period of time or a particular project, the contractor should attempt to continue to employ the trainee by assigning him/her other duties. A percentage of hours worked on other pieces of equipment are required to be counted in the total hours worked. Approximately 25% of other duties can be counted towards graduation.
- G. Shall count all hours worked in a training program regardless of whether the work was in South Dakota or outside the state. For trainees in required training slots, the contractor will only be reimbursed for eligible hours for work performed in South Dakota.
- H. Will provide a program orientation to the training foreman, superintendent, and OJT trainee. This orientation shall include at a minimum, a review of individual responsibilities during the training program and copies of the training syllabus for the job classification.
- I. Will instruct the trainee in safe and healthful work practices and shall ensure that the trainee is trained in facilities and other environments that are in compliance with all applicable safety and health laws and regulations of the United States and the State of South Dakota.
- J. Provide the trainee a copy of the training program to be used. The contractor must also designate the employee as a "trainee" on weekly certified payrolls. The contractor is responsible for ensuring that proper training is taking place on the job by meeting with the supervisor/foreman of the project that the trainee is working.
- K. In the event that a contractor may be unable to fill the required trainee slot during the current construction season, the Civil Rights Compliance Officer must be notified and contacted by December 1 of the current construction season. Proper documentation must be provided as to why the trainee position was not filled, such as project carry-over until next year.
- L. Certify the trainee hours and be able to show that the trainee is receiving the proper training for their classification. Failure to do so may result in project sanction.

M. Is expected to begin training trainees on a project as soon as feasible after the start of work utilizing the job classification involved. After training has started the contractor should strive to provide monitoring efforts to retain and successfully train employees.

ADDITIONAL APPLICABLE PROVISIONS

- A. The minimum number of hours of training to be provided on this project is as specified in the bid documents. The Contractor shall select whatever training classification specified in the current training program that best meet his employment needs and training hours and minimum wage shall be in accord with that classification.
- B. For the purposes of bidding required trainee slots each trainee is assigned a bid quantity of 500 hours. For example if there is 1000 hours in the bidding documents, that is requiring 2 trainees. The contractor has the option to register multiple trainees to fulfill the training requirement. For example if there is a 1000 hour bid quantity, which equals 2 required trainees, the contractor could have three or more trainees registered in the program as long as there enough work for additional trainees to successfully complete the curriculum and not exceed the allowable ratio of trainees to journeyworkers (generally considered to fall between 1:10 or 1:4)
- C. Please note that 500 hours for each training slot is for bidding purposes only. If a contractor does not achieve the bid quantity on a project, there is no penalty as long as a good faith effort was made to fulfill the training requirement. Also the contractor is not limited to just the bid quantity for reimbursement. If the total hours achieved on a project is higher than the bid quantity, the contractor will be reimbursed for all hours worked. For example if the bid quantity is 1000 hours and the total hours of the trainees are 1450 hours, the contractor will receive reimbursement for 1450 hours.
- D. Registration and reporting requirements shall be as set forth in the program documents; printed instructions and this provision.
- E. Contractors using the current training program may meet the training obligations by either 1) enrolling a new trainee in one of the classifications, or 2) using a trainee currently enrolled in one of the current training program classifications, provided that person has sufficient training hours remaining to meet the minimum project requirements as specified in bid documents. In either case, prospective trainees must meet the program requirements as set forth in "Recruitment and Selection Procedures" above.
- F. The department is responsible for long term maintenance of records regarding trainee registration in various training classifications and for total trainee hours as provided by one or more contractors.

WAGE RATES

- A. Minimum wage rates shall be in accord with program requirements for each classification and trainee placement within the training hours requirement. In no case shall the minimum wage be less than the common laborer classification of the applicable wage rate information contained in the bid documents. Where applicable, trainees shall be paid full fringe benefit amounts.
- B. At the completion of the OJT program, the trainee shall receive the wages of a skilled journeyworker for that specific classification.
- C. For the purpose of the OJT program, a quarter of the program is twenty-five percent (25%) of the training hours credited to the trainee for a particular classification and does not represent three months of the year. Other wage benchmarks are calculated in a similar manner.

BASIS OF PAYMENT

- A. All program reimbursements will be made directly to the Contractor at the project conclusion. The Contractor will be paid, as reimbursement for the extra cost involved in providing the training, the amount per training hour bid for the item "Training" for each hour of training provided and reported.
- B. All hours of onsite and approved offsite training provided in accordance with the approved program and this provision and as shown in trainee reports and on project payrolls will be credited as trainee hours for purpose of contract payment.
- C. No payment will be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyworker, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Special Provision.
- D. Liquidated damages will be assessed the contractor for failure to make a good faith effort to enroll the number of trainees necessary to meet the training requirements of this Special Provision. For each trainee slot left unfilled, damages will be assessed at the rate of 100% of the bid amount for the training item times the minimum number of hours specified in the item quantity. For each trainee for whom contractor training is determined to be inadequate and which evidences a lack of good faith to fulfill the training requirements, damages will be assessed at the rate of 100% of the bid amount for the training item times the minimum number of hours specified in the item quantity.
- E. Failure to furnish required documents and reports in the manner and time specified may result in forfeiture of all or a portion of the amounts due the Contractor for reimbursement for training.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION(S)
REGARDING
RIGHT OF ENTRY/WORK LIMITS**

**NH 0100(106)409, P 8042(00), P 8042(00), PCN 01V7, 08DG, 08DH
LINCOLN COUNTY**

JANUARY 13, 2025

All right of way or right of entry for this project has been secured or will be secured prior to the day of the letting with exception of the foregoing conditions. The contractor's work limits are confined to the area outside of the station limits listed in the table below until the property interests have been secured. The Region Engineer will notify the contractor of the date and time when work between the station limits may proceed. The anticipated possession date(s) are listed in the table below and are subject to change as determined by DOT.

STATION
351+32.57 to
352+37.14

OWNER
BNSF RR

**ANTICIPATED
POSSESSION DATE**
02/28/25

* * * *

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION FOR
RAILROAD INSURANCE REQUIREMENTS AND
WORKING ON RAILROAD PROPERTY FOR GRADING AND INTERIM
SURFACING WITH BNSF RAILWAY COMPANY**

PROJECT NH-0100(106)409 PCN 01V7 LINCOLN COUNTY

December 20, 2024

The Contractor will perform the work in a manner that will not endanger or interfere with the safe and timely operations of Burlington Northern Santa Fe Railway Company (BNSF) and its facilities. The Contractor will perform the work in accordance with the requirements of this special provision and the attached Exhibit C and C1.

Time Sensitive Information: The contractor requirement set forth in Exhibit C include time sensitive matters that could influence a contractor's anticipated construction schedule. Refer to Exhibit C for complete information.

The Contractor will fully comply with the Railroad's "Contractor Requirements," set forth in Exhibit C of this special provision, including Contractor Safety Orientation, development and implementation of Safety Action Plan, and eRAILSAFE Program.

Construction work or activities located over, under, and/or within twenty-five (25) feet measured horizontally from centerline of nearest track as set forth in Exhibit C will require flagging services. The Contractor is required to notify the Railway's Roadmaster of the need for flagging who will determine, based on the contractors anticipated construction schedule, if a Railway Flagger(s) will be provided, or if flagging via Railway's approved contract flagger (Railpros) will be necessary. For flagging to be completed by the Railway, the Contractor is required to notify the Roadmaster at least thirty (30) calendar days in advance of when flagging services will be needed. If the Roadmaster directs the Contractor to use Railpros for flagging services, the Contractor will be required to contract with Railpros which may require additional time. Invoicing for flagging will be submitted directly to Harry Johnston, Sioux Falls Area Engineer, South Dakota Department of Transportation, 5316 W 60th St N, Sioux Falls, SD 57107 or harry.johnston@state.sd.us.

The Contractor will fully comply with all insurance requirements set forth in Exhibit C-1. Contractor will submit a copy of insurance coverage and a copy of BNSF's approved Railroad Protective Liability Insurance policy agreement to the State's Area Engineer.

* * * * *



Railway's property or right-of-way. **THE LIABILITY ASSUMED BY CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DESTRUCTION, DAMAGE, DEATH, OR INJURY WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF RAILWAY, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIMS ARE PROXIMATELY CAUSED BY THE INTENSIONAL MISCONDUCT OR GROSS NEGLIGENCE OF RAILWAY.**

IT IS MUTUALLY NEGOTIATED BETWEEN THE PARTIES THAT THE INDEMNIFICATION OBLIGATION SHALL INCLUDE ALL CLAIMS BROUGHT BY CONTRACTOR'S EMPLOYEES AGAINST BNSF, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, AND CONTRACTOR EXPRESSLY WAIVES ANY IMMUNITY OTHERWISE PROVIDED UNDER APPLICABLE STATE WORKERS COMPENSATION OR SIMILAR LAWS AND ASSUMES POTENTIAL LIABILITY FOR ALL ACTIONS BROUGHT BY ITS EMPLOYEES.

- B. THE INDEMNIFICATION OBLIGATION ASSUMED BY CONTRACTOR INCLUDES ANY CLAIMS, SUITS OR JUDGMENTS BROUGHT AGAINST RAILWAY UNDER THE FEDERAL EMPLOYEE'S LIABILITY ACT, INCLUDING CLAIMS FOR STRICT LIABILITY UNDER THE SAFETY APPLIANCE ACT OR THE LOCOMOTIVE INSPECTION ACT, WHENEVER SO CLAIMED.**
- C. Contractor further agrees, at its expense, in the name and on behalf of Railway, that it will adjust and settle all claims made against Railway, and will, at Railway's discretion, appear and defend any suits or actions of law or in equity brought against Railway on any claim or cause of action arising or growing out of or in any manner connected with any liability assumed by Contractor under this Agreement for which Railway is liable or is alleged to be liable. Railway will give notice to Contractor, in writing, of the receipt or dependency of such claims and thereupon Contractor must proceed to adjust and handle to a conclusion such claims, and in the event of a suit being brought against Railway, Railway may forward summons and complaint or other process in connection therewith to Contractor, and Contractor, at Railway's discretion, must defend, adjust, or settle such suits and protect, indemnify, and save harmless Railway from and against all damages, judgments, decrees, attorney's fees, costs, and expenses growing out of or resulting from or incident to any such claims or suits.
- D. In addition to any other provision of this Agreement, in the event that all or any portion of this Article shall be deemed to be inapplicable for any reason, including without limitation as a result of a decision of an applicable court, legislative



enactment or regulatory order, the parties agree that this Article shall be interpreted as requiring Contractor to indemnify Railway to the fullest extent permitted by applicable law.

- E. It is mutually understood and agreed that the assumption of liabilities and indemnification provided for in this Agreement survive any termination of this Agreement.

2) TERM

- A. This Agreement is effective from the date of the Agreement until (i) the completion of the project set forth herein, and (ii) full and complete payment to Railway of any and all sums or other amounts owing and due hereunder.

3) INSURANCE

Contractor shall, at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

- A. Commercial General Liability insurance. This insurance shall contain broad form contractual liability with a combined single limit of a minimum of \$5,000,000 each occurrence and an aggregate limit of at least \$10,000,000 but in no event less than the amount otherwise carried by the Contractor. Coverage must be purchased on a post 2004 ISO occurrence form or equivalent and include coverage for, but not limit to the following:

- ◆ Bodily Injury and Property Damage
- ◆ Personal Injury and Advertising Injury
- ◆ Fire legal liability
- ◆ Products and completed operations

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

- ◆ The definition of insured contract shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- ◆ Waiver of subrogation in favor of and acceptable to Railway.
- ◆ Additional insured endorsement in favor of and acceptable to Railway.
- ◆ Separation of insureds.
- ◆ The policy shall be primary and non-contributing with respect to any insurance carried by Railway.



It is agreed that the workers' compensation and employers' liability related exclusions in the Commercial General Liability insurance policy(s) required herein are intended to apply to employees of the policy holder and shall not apply to **Railway** employees.

No other endorsements limiting coverage as respects obligations under this Agreement may be included on the policy with regard to the work being performed under this agreement.

B. Business Automobile Insurance. This insurance shall contain a combined single limit of at least \$1,000,000 per occurrence, and include coverage for, but not limited to the following:

- ◆ Bodily injury and property damage
- ◆ Any and all vehicles owned, used or hired

The policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- ◆ Waiver of subrogation in favor of and acceptable to Railway.
- ◆ Additional insured endorsement in favor of and acceptable to Railway.
- ◆ Separation of insureds.
- ◆ The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

C. Workers Compensation and Employers Liability insurance including coverage for, but not limited to:

- ◆ Contractor's statutory liability under the worker's compensation laws of the state(s) in which the work is to be performed. If optional under State law, the insurance must cover all employees anyway.
- ◆ Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 by disease policy limit, \$500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:



- ◆ Waiver of subrogation in favor of and acceptable to Railway.

D. Railroad Protective Liability insurance naming only the **Railway** as the Insured with coverage of at least \$5,000,000 per occurrence and \$10,000,000 in the aggregate. The policy Must be issued on a standard ISO form CG 00 35 12 04 and include the following:

- ◆ Endorsed to include the Pollution Exclusion Amendment
- ◆ Endorsed to include the Limited Seepage and Pollution Endorsement.
- ◆ Endorsed to remove any exclusion for punitive damages.
- ◆ No other endorsements restricting coverage may be added.
- ◆ The original policy must be provided to the **Railway** prior to performing any work or services under this Agreement
- ◆ Definition of “Physical Damage to Property” shall be endorsed to read: “means direct and accidental loss of or damage to all property owned by any named insured and all property in any named insured’ care, custody, and control arising out of the acts or omissions of the contractor named on the Declarations.

In lieu of providing a Railroad Protective Liability Policy, Licensee may participate (if available) in Railway’s Blanket Railroad Protective Liability Insurance Policy.

Other Requirements:

Where allowable by law, all policies (applying to coverage listed above) shall contain no exclusion for punitive damages.

Contractor agrees to waive its right of recovery against **Railway** for all claims and suits against **Railway**. In addition, its insurers, through the terms of the policy or policy endorsement, waive their right of subrogation against **Railway** for all claims and suits. Contractor further waives its right of recovery, and its insurers also waive their right of subrogation against **Railway** for loss of its owned or leased property or property under Contractor’s care, custody or control.

Allocated Loss Expense shall be in addition to all policy limits for coverages referenced above.

Contractor is not allowed to self-insure without the prior written consent of **Railway**. If granted by **Railway**, any self-insured retention or other financial responsibility for claims shall be covered directly by Contractor in lieu of insurance. Any and all



Railway liabilities that would otherwise, in accordance with the provisions of this Agreement, be covered by Contractor's insurance will be covered as if Contractor elected not to include a deductible, self-insured retention or other financial responsibility for claims.

Prior to commencing services, Contractor shall furnish to **Railway** an acceptable certificate(s) of insurance from an authorized representative evidencing the required coverage(s), endorsements, and amendments. The certificate should be directed to the following address:

BNSF Railway Company
c/o CertFocus
P.O. Box 140528
Kansas City, MO 64114
Toll Free: 877-576-2378
Fax number: 817-840-7487
Email: BNSF@certfocus.com
www.certfocus.com

Contractor shall notify **Railway** in writing at least 30 days prior to any cancellation, non-renewal, substitution or material alteration.

Any insurance policy shall be written by a reputable insurance company acceptable to **Railway** or with a current Best's Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provided.

If coverage is purchased on a "claims made" basis, Contractor hereby agrees to maintain coverage in force for a minimum of three years after expiration, cancellation or termination of this Agreement. Annually Contractor agrees to provide evidence of such coverage as required hereunder.

Contractor represents that this Agreement has been thoroughly reviewed by Contractor's insurance agent(s)/broker(s), who have been instructed by Contractor to procure the insurance coverage required by this Agreement.

Not more frequently than once every five years, **Railway** may reasonably modify the required insurance coverage to reflect then-current risk management practices in the railroad industry and underwriting practices in the insurance industry.



If any portion of the operation is to be subcontracted by Contractor, Contractor shall require that the subcontractor shall provide and maintain insurance coverage(s) as set forth herein, naming **Railway** as an additional insured, and shall require that the subcontractor shall release, defend and indemnify **Railway** to the same extent and under the same terms and conditions as Contractor is required to release, defend and indemnify **Railway** herein.

Failure to provide evidence as required by this section shall entitle, but not require, **Railway** to terminate this Agreement immediately. Acceptance of a certificate that does not comply with this section shall not operate as a waiver of Contractor's obligations hereunder.

The fact that insurance (including, without limitation, self-insurance) is obtained by Contractor shall not be deemed to release or diminish the liability of Contractor including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by **Railway** shall not be limited by the amount of the required insurance coverage.

In the event of a claim or lawsuit involving **Railway** arising out of this agreement, Contractor will make available any required policy covering such claim or lawsuit.

These insurance provisions are intended to be a separate and distinct obligation on the part of the Contractor. Therefore, these provisions shall be enforceable and Contractor shall be bound thereby regardless of whether or not indemnity provisions are determined to be enforceable in the jurisdiction in which the work covered hereunder is performed.

For purposes of this section, **Railway** shall mean "Burlington Northern Santa Fe LLC", "BNSF Railway Company" and the subsidiaries, successors, assigns and affiliates of each.

4) SALES AND OTHER TAXES

- A.** In the event applicable sales taxes of a state or political subdivision of a state of the United States are levied or assessed in connection with and directly related to any amounts invoiced by Contractor to Railway ("Sales Taxes"), Railway shall be responsible for paying only the Sales Taxes that Contractor separately states on the invoice or other billing documents provided to Railway; *provided, however*, that (i) nothing herein shall preclude Railway from claiming whatever Sales Tax



exemptions are applicable to amounts Contractor bills Railway, (ii) Contractor shall be responsible for all sales, use, excise, consumption, services and other taxes which may accrue on all services, materials, equipment, supplies or fixtures that Contractor and its subcontractors use or consume in the performance of this Agreement, (iii) Contractor shall be responsible for Sales Taxes (together with any penalties, fines or interest thereon) that Contractor fails to separately state on the invoice or other billing documents provided to Railway or fails to collect at the time of payment by Railway of invoiced amounts (except where Railway claims a Sales Tax exemption), and (iv) Contractor shall be responsible for Sales Taxes (together with any penalties, fines or interest thereon) if Contractor fails to issue separate invoices for each state in which Contractor delivers goods, provides services or, if applicable, transfers intangible rights to Railway.

- B.** Upon request, Contractor shall provide Railway satisfactory evidence that all taxes (together with any penalties, fines or interest thereon) that Contractor is responsible to pay under this Agreement have been paid. If a written claim is made against Contractor for Sales Taxes with respect to which Railway may be liable for under this Agreement, Contractor shall promptly notify Railway of such claim and provide Railway copies of all correspondence received from the taxing authority. Railway shall have the right to contest, protest, or claim a refund, in Railway's own name, any Sales Taxes paid by Railway to Contractor or for which Railway might otherwise be responsible for under this Agreement; provided, however, that if Railway is not permitted by law to contest any such Sales Tax in its own name, Contractor shall, if requested by Railway at Railway's sole cost and expense, contest in Contractor's own name the validity, applicability or amount of such Sales Tax and allow Railway to control and conduct such contest.
- C.** Railway retains the right to withhold from payments made under this Agreement amounts required to be withheld under tax laws of any jurisdiction. If Contractor is claiming a withholding exemption or a reduction in the withholding rate of any jurisdiction on any payments under this Agreement, before any payments are made (and in each succeeding period or year as required by law), Contractor agrees to furnish to Railway a properly completed exemption form prescribed by such jurisdiction. Contractor shall be responsible for any taxes, interest or penalties assessed against Railway with respect to withholding taxes that Railway does not withhold from payments to Contractor.

5) EXHIBIT "C" CONTRACTOR REQUIREMENTS



- A. The Contractor must observe and comply with all provisions, obligations, requirements and limitations contained in the Agreement, and the Contractor Requirements set forth on Exhibit "C" attached to the Agreement and this Agreement, including, but not be limited to, payment of all costs incurred for any damages to Railway roadbed, tracks, and/or appurtenances thereto, resulting from use, occupancy, or presence of its employees, representatives, or agents or subcontractors on or about the construction site. Contractor shall execute a Temporary Construction Crossing Agreement or Private Crossing Agreement (<http://www.bnsf.com/communities/fags/permits-real-estate/>), for any temporary crossing requested to aid in the construction of this Project, if approved by BNSF.

6) TRAIN DELAY

- A. Contractor is responsible for and hereby indemnifies and holds harmless Railway (including its affiliated railway companies, and its tenants) for, from and against all damages arising from any unscheduled delay to a freight or passenger train which affects Railway's ability to fully utilize its equipment and to meet customer service and contract obligations. Contractor will be billed, as further provided below, for the economic losses arising from loss of use of equipment, contractual loss of incentive pay and bonuses and contractual penalties resulting from train delays, whether caused by Contractor, or subcontractors, or by the Railway performing work under this Agreement. Railway agrees that it will not perform any act to unnecessarily cause train delay.
- B. For loss of use of equipment, Contractor will be billed the current freight train hour rate per train as determined from Railway's records. Any disruption to train traffic may cause delays to multiple trains at the same time for the same period.
- C. Additionally, the parties acknowledge that passenger, U.S. mail trains and certain other grain, intermodal, coal and freight trains operate under incentive/penalty contracts between Railway and its customer(s). Under these arrangements, if Railway does not meet its contract service commitments, Railway may suffer loss of performance or incentive pay and/or be subject to penalty payments. Contractor is responsible for any train performance and incentive penalties or other contractual economic losses actually incurred by Railway which are attributable to a train delay caused by Contractor or its subcontractors.
- D. The contractual relationship between Railway and its customers is proprietary and confidential. In the event of a train delay covered by this Agreement, Railway will share information relevant to any train delay to the extent consistent with Railway confidentiality obligations. The rate then in effect at the time of



performance by the Contractor hereunder will be used to calculate the actual costs of train delay pursuant to this agreement.

- E. Contractor and its subcontractors must give Railway's representative Dan Peltier (8) weeks advance notice of the times and dates for proposed work windows. Railway and Contractor will establish mutually agreeable work windows for the project. Railway has the right at any time to revise or change the work windows due to train operations or service obligations. Railway will not be responsible for any additional costs or expenses resulting from a change in work windows. Additional costs or expenses resulting from a change in work windows shall be accounted for in Contractor's expenses for the project.
- F. Contractor and subcontractors must plan, schedule, coordinate and conduct all Contractor's work so as to not cause any delays to any trains.

SIGNATURE PAGE FOLLOWS



IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed by its duly authorized officer the day and year first above written.

Contractor Legal Name

Signature: _____

Printed Name: _____

Title: _____

Date: _____

BNSF RAILWAY COMPANY

Signature: _____

Printed Name: _____

Title: Manager Public Projects

Date: _____

Accepted and effective _____.

Contact Person: _____

Address: _____

City: _____

State: _____

Zip: _____

Fax: _____

Phone: _____

E-mail: _____

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
CONTRACTOR FURNISHED MIX DESIGN
FOR PCC PAVEMENT**

AUGUST 30, 2018

This work consists of the Contractor establishing a mix design and providing a concrete paving mix for the Portland Cement Concrete (PCC) pavement of sufficient quality to serve the purpose for which the PCC pavement is intended.

Make the following changes to the specifications:

Section 380.3 A. - Delete this section and replace with the following:

A. Concrete Quality, Proportioning, and Field Performance:

- 1. Contractor Responsibility:** The Contractor shall be responsible for the selection of materials meeting the specifications and shall be responsible for the design and composition of all concrete mixes used in the PCC pavement. The Contractor shall be responsible to produce and deliver a concrete paving mix that is uniform, consistent, workable, finishable, and that meets all requirements of the contract. The Contractor shall install a PCC pavement that is homogeneous, consolidated, durable, and free of defects.

The Contractor is responsible for the actual field performance of the concrete mix and any adverse impacts resulting from the materials used on the project and the Contractor's batching, mixing, hauling, placing, consolidating, finishing, and curing of the concrete mix. Department review of the Contractor's proposed mix design under Section 380.3 A.3. does not relieve the Contractor of any obligations set out in this specification or in the contract as a whole.

- 2. Mix Design Parameters:**

On small areas using stationary side formed paving methods, the Engineer may permit the substitution of Class A45 concrete for the concrete paving mix. Class A45 shall meet the requirements of Section 460, except the concrete shall have a minimum 28 day compressive strength of 4000 psi, slump range of between 1 inch and 3 inches, and

shall contain fly ash. Fly ash shall constitute 20% to 25% of the cementitious material at a 1:1 ratio by weight.

For all other areas and any areas where the Contractor utilizes slip form paving equipment, the following requirements shall apply:

a. Mix Design Proportioning: The Contractor shall select mix proportions conforming to the following.

1) Combined Aggregate: Mix designs shall be based on aggregate specific gravities at saturated surface dry (SSD) condition. The mix design process shall produce a mix design that will plot within the optimum limits listed in Chart A. The mix design shall also meet the following requirements when plotted on the 0.45 power chart. The best fit line plotted on the 0.45 power chart shall use a top size of 1 inch aggregate for jointed concrete pavement and 1.5 inch aggregate for Continuously Reinforced Concrete Pavements (CRCP). The combined gradation when plotted on the 0.45 power chart should fit within the limits as defined in Chart B for jointed concrete pavement or Chart C for CRCP. CRCP mix designs shall retain a minimum of 11.5% of the total aggregate above the 1 inch sieve.

2) Cementitious Material Content: The mix design shall establish a cementitious material content (total of cement, fly ash, and other cementitious additions). The minimum cementitious material content shall be 575 pounds per cubic yard. The maximum cementitious material content shall be 800 pounds per cubic yard.

3) Fly ash: Fly ash shall be included in the concrete mixture. Fly ash shall constitute 20% to 25% of the cementitious material at a 1:1 ratio by weight.

4) Water/Cementitious Material Ratio: The mix design shall establish a maximum water/cementitious material ratio, which shall not exceed 0.42 pounds/pounds.

5) Coarse Aggregate Percentage: The mix design shall establish the percentage of coarse aggregates to be used. The minimum coarse aggregate content shall be 55% by weight of total aggregates.

6) Air Content: The volumetrics of the mix design shall be based on 6.5% entrained air content.

b. Contractor Laboratory Trial Batch Testing: The Contractor will obtain laboratory tests on trial batches of the proposed mix design.

- 1) **Procedures:** The trial batch testing must be performed by a competent testing facility. The Department may perform an on-site inspection of the testing facility's mix design procedures and equipment. If the Department, in its sole discretion, deems a testing facility to be incapable of performing accurate, reliable, or valid testing, the Department may require the Contractor to obtain trial batch testing from a different testing facility. Trial batch testing shall be conducted in accordance with the American Concrete Institute Publication 211.1, ASTM C192.

A minimum of four trial batches shall be required; two batches shall have identical proportions of aggregates and two batches shall have identical water/cementitious ratios or cementitious contents. Of the four trial batches, no two trial batches shall contain the same proportions. A different proportion of aggregate must be at least a 1% (of total aggregate) sand change or a 2% (of total coarse aggregate) rock change. A different water/cementitious ratio shall be at least a 0.02 change. A different cementitious content change shall be an addition or subtraction of at least 20 pounds of cementitious materials.

- 2) **Testing Results:** Through the trial batch laboratory testing, the Contractor must demonstrate that the proposed mix design reliably achieves the following laboratory test results:

- a) **Slump:** The slump at 20 minutes after completion of mixing for each trial mix shall be between 1.25 inches and 2.75 inches for slip-formed pavements and between 2.25 inches and 3.75 inches for formed pavements. The initial slump immediately after completion of mixing shall be tested and reported as well. The concrete for the 20 minute slump shall be exposed to ambient air temps between 68°F to 86°F.
- b) **Air content:** The air content for all concrete trial mixes shall have an entrained air content of 6.5% to 8.0%.
- c) **Compressive Strength:** The mix design shall be based upon obtaining an average minimum compressive strength of 5200 psi at 28 days.

A minimum of 3 cylinders at each age and for each trial shall be tested for compressive strength at 7, 14, and 28 days. All 9 cylinders must be made from the same batch of concrete. The cylinders must be consolidated by the rodding method.

- d) Temperature:** The fresh concrete temperature shall be between 68°F and 86°F immediately after completion of mixing.

Consideration for expected field temperatures may be made when evaluating laboratory trials. Changes that cause a deviation from the requirements of this provision for expected field temperatures must be submitted and evaluated by the Concrete Engineer prior to performing trial batches.

- 3) Waiver of Laboratory Trial Batch Requirements:** The Contractor may ask the Department to waive the Contractor's trial batch testing requirements if: (1) the mix design was successfully used on a previous Department project; and (2) the mix design is unchanged or the Contractor has made only minor modifications in the mix design, such as changes in admixtures and cementitious materials with the same ASTM designated type of material or small variations to aggregate proportions. The decision to waive the Contractor's trial batch testing requirements is solely within the discretion of the Department.

The Department's waiver of the laboratory trial batch testing requirements does not in any way relieve the Contractor of any obligations set out in this specification or in the contract as a whole. If required by the Engineer, the Contractor shall perform a plant gradation check or a plant mixed trial batch or both prior to use of the proposed mix design in field production. The Contractor shall submit these results to the Department's Concrete Engineer for Department review.

If the Contractor intends to use another party's successfully used mix design, the Contractor must provide written proof to the Department that the use of the mix design has been authorized by the other party.

- c. Proposed Mix Design Submissions:** A minimum of 40 calendar days prior to the anticipated use in field production, the Contractor shall submit the proposed mix design and supporting documentation to the Department's Concrete Engineer.

If laboratory trial batch testing requirements have not been waived, the Contractor shall submit the results of the trial batch testing with a completed Contractor Concrete Mix Design form (DOT-24). The trial batch testing results shall include all batched weights, admixtures and dosages, aggregate moisture contents, fresh concrete results (initial and 20 minute slump, initial air content, initial unit weight, and initial temperature), actual water/cementitious material ratio, compressive

strengths, aggregate gradations (including production tests), aggregate quality results, and required material certifications. The Contractor shall also supply any additional data, supporting documentation, and samples requested by the Department.

If laboratory trial batch testing has been waived, the Contractor shall submit aggregate gradations (including production tests), and required material certifications with a DOT-24. The Contractor shall also supply any additional data, supporting documentation, and samples requested by the Department.

- 3. Department Review:** The Department will review the Contractor's proposed mix design to determine if it conforms to the Department's materials and proportioning specifications. The Department may also review the Contractor's laboratory trial batch testing to determine compliance with required laboratory trial batch testing procedures and test results. The Department may, in its sole discretion, perform laboratory trial batch testing to replicate, to the Department's satisfaction, the Contractor's laboratory trial batch testing results.

When the Department performs laboratory trial batch testing, the Department will not begin laboratory trial batch testing until the Contractor's trial batch samples have obtained an average compressive strength of at least 4000 psi at 7 days or at least 5200 psi at 28 days. The Department will attempt to replicate one of the submitted mix design trials. Satisfactory replication occurs when the Department's laboratory trial batch samples obtain an average compressive strength of at least 4000 psi at 7 days, at least 5200 psi at 28 days, or the average compressive strength is no more than 10% less than the Contractor's submitted 28 day strength. In the sole discretion of the Department's Concrete Engineer's, the Department may complete the replication process based on adequate strength results prior to 28 days.

If the Department is unable to replicate the Contractor's laboratory trial batch testing to the Department's satisfaction, the Department will perform a second laboratory trial batch testing at the Contractor's request. If the Department is unable to replicate, to the Department's satisfaction, the Contractor's laboratory batch testing results for the proposed mix design after two attempts, the costs involved with any further laboratory trial batch testing will be at the Contractor's expense.

The Contractor will not begin production and placement of the concrete mix until the Department's Concrete Engineer has confirmed, in writing, a successful review consisting of: (1) the Contractor's proposed mix design conforms to the Department's materials and proportioning specifications; and (2) if applicable, the Contractor's laboratory trial batch testing results

comply with required laboratory trial batch testing procedures and test results; and (3) if applicable, the Department has replicated the Contractor's laboratory trial batch testing results to the Department's satisfaction.

- 4. Field Performance and Testing:** In addition to the responsibilities set out in 380.3 A.1, the Contractor shall provide a concrete paving mix conforming to the most recent mix design proposed to and successfully reviewed by the Department. The concrete paving mix provided by the Contractor must also satisfy the following field tests:
 - a. Slump:** For the slip-form method, the slump of the concrete shall not be more than 2 inches at the time of placement. For the stationary side form method, the slump of the concrete shall be between 1 inch and 3 inches at the time of placement.
 - b. Entrained Air Content:** All concrete shall contain 6.5% entrained air with an allowable tolerance of +1% to -1.5%. Air shall be entrained by an air-entraining admixture.
 - c. Water/Cementitious Ratio:** The concrete shall not exceed the maximum Water/Cementitious ratio "W/C Ratio" as listed on the mix design. The W/C Ratio will be calculated as per 380.3 B.2 to compare the as-batched concrete against the mix design maximum.
 - d. Admixture Dosages:** The Contractor may adjust the admixture dosages listed on the final mix design submitted for use by the Contractor on the DOT-24 within the manufacturer's guidelines.
 - e. Compressive Strength:** Concrete shall exhibit a minimum compressive strength of 4000 psi at 28 days. The 28 day compressive strength shall be determined in accordance with Section 460.3 B.
- 5. Mix Design Modification:** If, after successful Department review, the Contractor wishes to modify its mix design, the Contractor shall complete and submit a new DOT-24 to the Department's Concrete Engineer. A modification includes, but is not limited to, changes in aggregate source, changes in gradation targets, new admixtures, changes in brand name of admixtures, changes in brand name of cementitious materials, and changes to aggregate percentage splits.

If the Contractor proposes to make modifications to the mix design that the Department's Concrete Engineer deems to be significant, the Contractor will obtain laboratory trial batch testing of the modified mix design in accordance with section 380.3 A.2.b. The Contractor shall submit the laboratory trial batch testing results to the Department's Concrete

Engineer for Department review. Significant modifications include, but are not limited to aggregate source, combined coarse aggregate gradation target, and combined total aggregate gradation target.

If the Contractor proposes to make modifications to the mix design that the Department's Concrete Engineer deems to be minor, the Department will not require the Contractor to perform laboratory trial batch testing but may require the Contractor to perform a plant gradation check or a plant mixed trial batch or both. The Contractor shall submit the results of any plant gradation check and plant mixed trial batch to the Department's Concrete Engineer for Department review. Changes to the aggregate percentage splits will require the Contractor to submit supporting documentation including, but not limited to the basis for the change and gradation test results. Minor modifications include, but are not limited to new admixtures, changes in brand name of admixtures, changes in brand name of cementitious materials, and changes to aggregate percentage splits.

The Department may, upon request from the Contractor, waive or modify the Contractor's laboratory trial batch testing, plant gradation check, or plant mixed trial batch requirement of the modified mix design.

The Contractor will not begin production and placement of the modified concrete mix until the Department's Concrete Engineer has confirmed, in writing, a successful review consisting of: (1) the Contractor's proposed mix design conforms to the Department's materials and proportioning specifications; and (2) if applicable, the Contractor's laboratory trial batch testing results comply with required laboratory trial batch testing procedures and test results; and (3) if applicable, the Department has replicated the Contractor's laboratory trial batch testing results to the Department's satisfaction.

Section 820.1 A. - Delete this section and replace with the following:

- A. Coarse Aggregate for Concrete Pavement:** The coarse aggregate shall consist of ledge rock. Coarse aggregate for Continuously Reinforced Concrete Pavement shall conform to Size #20. Coarse aggregate for all other PCC Pavements shall conform to Size #15.

Mix Design Charts:

Chart A

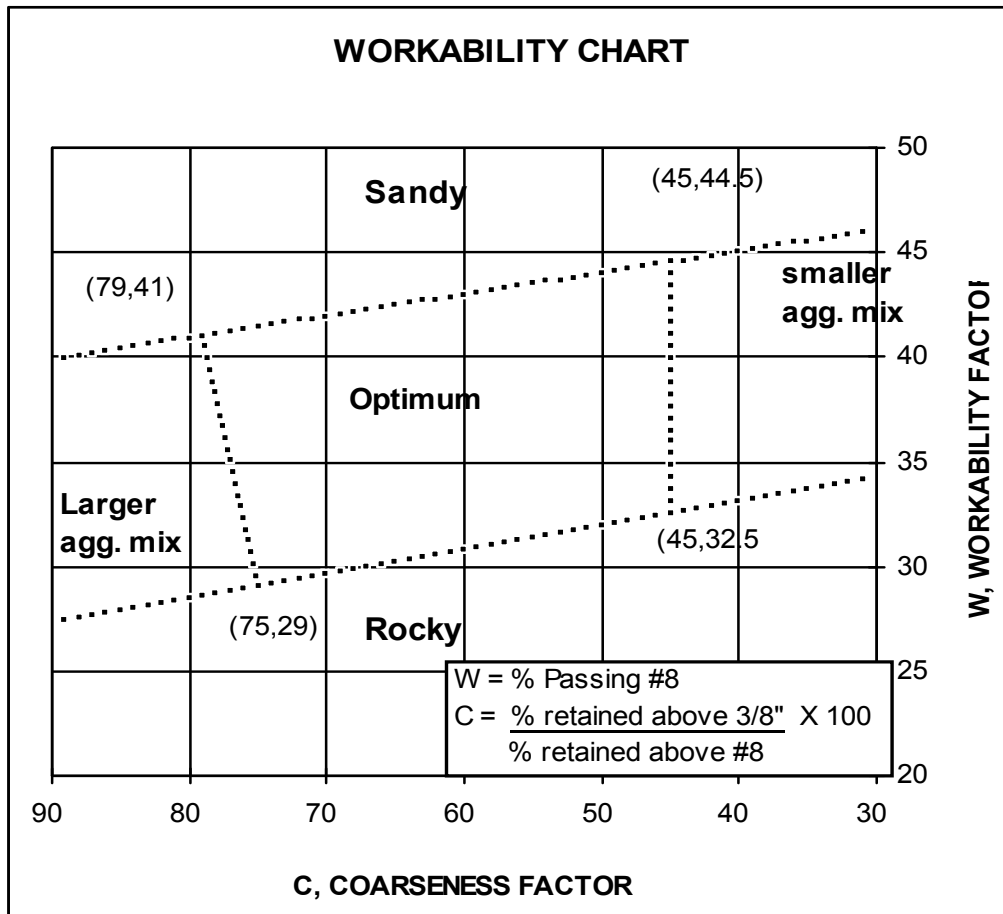


Chart B

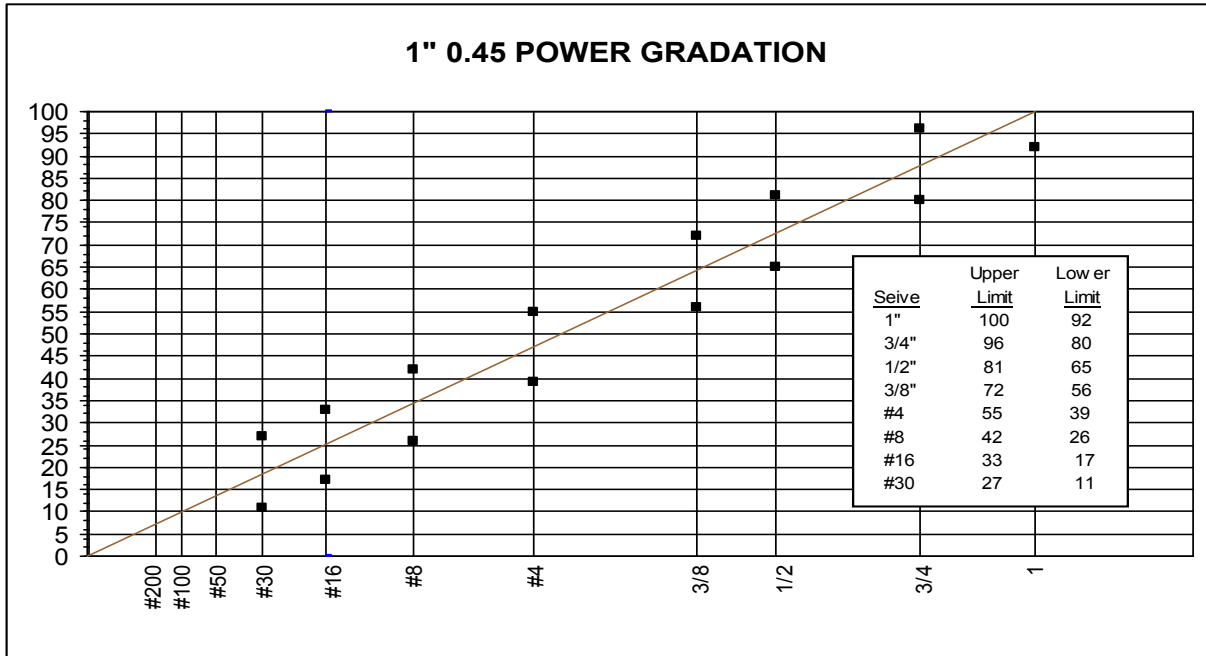
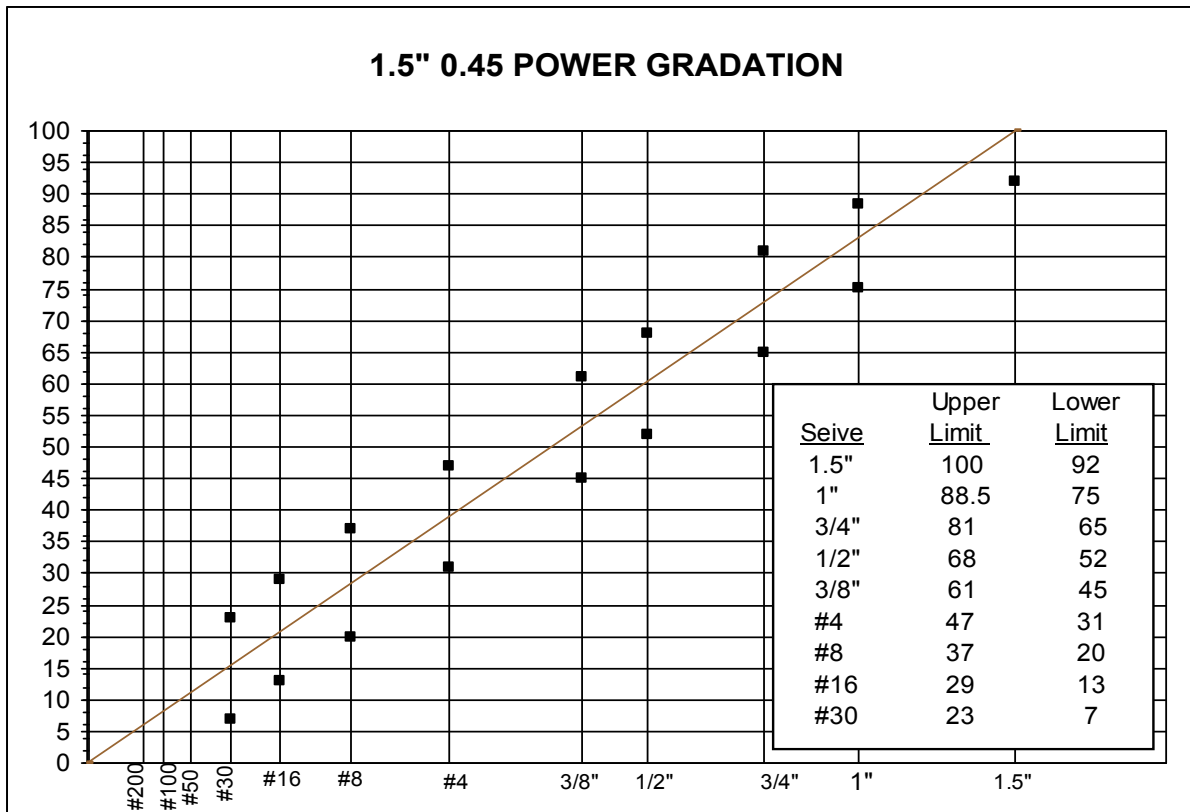


Chart C



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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
CONCRETE PENETRATING SEALER**

JULY 30, 2024

I. DESCRIPTION

This work consists of furnishing and applying a concrete penetrating sealer to a properly prepared bridge deck surface in compliance with these specifications and the manufacturer's recommendations.

II. MATERIALS

The acceptable sealers are listed on the approved products list for Concrete Penetrating Sealer on the SDDOT Website.

The Contractor will furnish the Engineer the manufacturer's technical data sheets, materials safety data sheet (MSDS), and sufficient evidence that the material to be used has not exceeded the manufacturer's specified shelf life. This documentation will be furnished to the Engineer a minimum of 5 days prior to application of the sealer.

III. CONSTRUCTION REQUIREMENTS

A. Surface Protection and Preparation: The concrete deck surface will be protected from contamination from dirt and debris by covering the deck with a material approved by the Engineer until such time that the surface preparation for the penetrating sealer is begun. Any materials or equipment placed on the deck during this protection period will be placed such that there is no danger of spillage, leakage, or other contamination to the concrete surface.

Concrete surfaces will be cleaned by power washing such that all traces of laitance, dirt, dust, salt, oil, asphalt, paint, and other foreign materials and deleterious substances are removed prior to application of the penetrating sealer. If oil, grease, or other contaminants are inadvertently spilled on the concrete surface, detergent cleaning along with an abrasive blast cleaning will be required on the affected areas.

Other methods and equipment for surface preparation may be used if prior approval is obtained from the Engineer.

If necessary, solvents and hand tools will be used in conjunction with the blasting media to remove bonded materials detrimental to the treatment of the concrete surface.

The cleaning process will not cause undue damage to the concrete surface, remove, or substantially alter the existing surface finish, or expose the coarse aggregate of the concrete. The method of cleaning will be performed in such a manner as to provide a reasonably uniform appearing surface color and texture.

The sealer may be harmful to materials such as rubber, asphalt, and joint compounds; therefore, the Contractor will be required to mask off all joints, strip seals, etc. prior to applying the sealer.

The Engineer will approve the prepared surface prior to application of the penetrating sealer.

B. Sealer Application: The Contractor will have a sufficient quantity of sealer on the project prior to the start of application such that the manufacturer's maximum rate of coverage (minimum ft²/gal) can be attained. Sealer application will conform to the manufacturer's recommendations and the following:

1. Weather Limitations: The penetrating sealer will only be applied when the ambient air and concrete surface temperatures are between 40° F and 100° F unless otherwise recommended by the manufacturer. The treatment solution will not be sprayed when blowing winds or other conditions prevent proper application.

The sealer will not be applied during inclement weather or rain, or if inclement weather or rain is anticipated within 24 hours.

2. Application Equipment: Spray equipment for the application of the treatment solution will be a low-pressure airless type sprayer with a maximum application pressure of 15 psi.

3. Application: Concrete will be cured for 28 days prior to the application of the sealer. The sealer may be applied prior to the 28 day cure period, but no sooner than 14 days, provided that there is no evidence of moisture in the concrete when tested in accordance with ASTM D4263 and the concrete has attained 80% of the specified design strength.

All surfaces will be substantially dry prior to application of the sealer. The concrete surfaces will be allowed to dry a minimum of 3 days after power washing or precipitation. The Engineer will determine when the surface is sufficiently dry.

All loose dust and debris will be blown off of the concrete surface with compressed air immediately prior to application of the sealer.

The sealer will be used as supplied by the manufacturer and will not be diluted or altered in any way.

The solution will be sprayed on to the concrete surfaces at the manufacturer's recommended maximum rate of coverage (minimum ft²/gal) or to refusal, whichever is achieved first. Refusal is defined such that additional spray applications remain on the concrete surface and do not soak in, as determined by the Engineer.

If the plans specify a grooved bridge deck surface, the grooving will be accomplished prior to the application of the sealer.

4. **Traffic Limitations:** Traffic will not be permitted on treated surfaces nor will pavement markings be applied until the solution has completely penetrated and the treated surface is dry. The Engineer will determine when the surface is sufficiently dry.

IV. METHOD OF MEASUREMENT

Concrete penetrating sealer will be measured to the nearest 0.1 square yard.

V. BASIS OF PAYMENT

Concrete penetrating sealer will be paid for at the contract unit price per square yard. Payment will be full compensation for equipment, labor, materials, and all other incidental items required to prepare the concrete surfaces, and to furnish and apply the penetrating concrete sealer.

* * * * *

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
PI PCC PAVEMENT SMOOTHNESS
WITH 0.2" BLANKING BAND**

NOVEMBER 30, 2018

At locations designated in the plans, the Contractor will determine the PCC pavement smoothness by profile testing the finished surfaces of the PCC pavement in accordance with the following requirements.

A. Exclusions: Excluded from profile testing are:

1. Shoulders;
2. Lanes less than 10 feet in width;
3. The first or last 50 feet of a pavement where the Contractor is not responsible for the adjoining in place pavement; and,
4. Pavements on horizontal curves with centerline radius of curvature of less than 600 feet and pavements within the super-elevated transitions of such curves.

At locations designated in the plans to be profiled but excluded from profile testing, the Engineer will determine the pavement smoothness according to the 10-foot straightedge test requirements in Section 380.3 O.1 of the specifications.

B. Equipment and Calibration: Equipment and calibration will conform to Section 380.3 B.8 of the specifications except for the following exception:

The Contractor will supply and use a California type profilograph. The computer will smooth the profile using only a third-order Butterworth filter with a cutoff wavelength of 2.0 feet. The computer will generate a profile index using a 0.2 inch blanking band and will use a 0.3 inch bump threshold to identify "must grind" locations.

C. Operation: The Contractor will operate the profilograph at a speed no greater than a normal walk. Make two passes in each driving lane, one in each approximate wheel path. Label each trace to show the project, stationing, lane, wheel path, date paved, date ground (if applicable), date tested, date or re-profiling testing (if applicable), and the name of the operator.

The Contractor will not run the profile test prior to the next working day following concrete placement. Segments less than 1000 linear feet may be grouped with the subsequent day's production. The Contractor will furnish results to the Engineer within 2 business days after concrete placement and furnish re-profiling test results within 2 business days after corrective grinding is completed.

The Contractor will repair or replace curing membrane damaged or protective cover removed during profile testing operations as directed by the Engineer at no cost to the Department.

- D. Evaluation:** The Contractor will furnish the Department with the profilogram and the profilogram will become the property of the Department. The Department will evaluate the profilogram. Evaluation will consist of determining the profile index (PI) to the nearest 0.05 inch per mile by measuring and summing scallops appearing outside a 0.2 inch blanking band. The PI will be determined from the average of the two wheel paths in each driving lane. Individual bumps will be evaluated using a 0.3 inch bump template. PIs will be rounded to the nearest 0.1 inch.

The Department will spot check or retest areas the Department desires with the Department owned and operated profilograph. If a discrepancy between the two traces occurs, the Department and Contractor will determine the cause of the discrepancy and the area will be retested if necessary, as determined by the Engineer.

- E. Requirements:** Pavements will not exceed a PI of 10.0 inches per mile.

1. Pavements with a PI from 10.1 to 20.0 inches per mile in any 0.1 mile section will be subject to one of the following at the discretion of the Contractor.
 - a. Satisfactorily correct the deficient area by corrective grinding to a PI of 10.0 or less. The Contractor will accomplish corrective grinding with specially prepared circular diamond blades mounted on a horizontal shaft. The Contractor will day light corrective grinding to the outside edge of the pavement. The Contractor will repair and replace joint sealant damaged by corrective grinding as directed by the Engineer and at no additional cost to the Department. The Contractor will not leave ground areas smooth or polished. The Contractor will ensure ground areas have a uniform texture equal in roughness to the surrounding unground concrete. When limestone is used as the course aggregate in the pavement and the current ADT shown on the plans is greater than 1500, the Contractor will reestablish the tining with a mechanical tining machine in all areas where the corrective grinding exceeds 50 feet measured longitudinally along the centerline of the road. The Contractor will remove and replace all joint sealant within the area where tining is replaced.

The Contractor shall establish a positive means for the removal of grinding residue. Solid residue shall be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor shall conduct this work to

control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or a nuisance to property owners. Residue from wet grinding shall not be permitted to flow across traffic lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, shall be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state.

The Contractor will replace all permanent pavement markings damaged, destroyed, or removed during corrective grinding at no additional cost to the Department. Following the completion of corrective grinding, the Contractor will re-profile test the deficient area.

- b.** Accept the deficient area with a price reduction as per the table located in section F of this special provision.

If the Contractor elects to correct the deficient area by corrective grinding, the Department will use the resulting PI after corrective grinding for payment calculations in accordance with the incentive and disincentive payment table in this special provision except the sections corrective ground to a PI less than 10.0 inches per mile (159 mm/km) will not earn more than 100.0% payment.

- 2.** Pavements with a PI exceeding 20.0 inches per mile in any 0.1 mile section will be subject to one of the following at the discretion of the Engineer.
 - a.** Satisfactorily correct the deficient area by corrective grinding as specified in section E.1.a of this special provision.
 - b.** Remove and replace deficient areas.

If the Engineer requires the Contractor to correct the deficient area by corrective grinding, the Contractor will correct the deficient area by corrective grinding to a PI of 20.0 or less. Once the PI is 20.0 or less, any subsequent corrective grinding will be done at the discretion of the Contractor in accordance with section E.1 of this special provision. The Department will use the resulting PI after corrective grinding for payment calculations in accordance with the incentive and disincentive payment table in this special provision except the sections corrective ground to a PI less than 10.0 inches per mile will not earn more than 100.0% payment.

- 3.** Individual bumps in excess of 0.3 inches in 25 feet will be subject to one of the following at the discretion of the Engineer.
 - a.** Satisfactorily correct the deficient area by corrective grinding as specified in section E.1.a of this special provision.
 - b.** Individual bumps less than 0.25 inches in 10 feet may be accepted without correction.

c. Remove and replace deficient areas.

Pavements with a PI exceeding 10.1 inches per mile in any 0.1 mile section with individual bumps in excess of 0.3 inches in 25 feet may be corrected to an improved PI by corrective grinding in accordance with section E.1 and E.2 of this special provision.

Coring for pavement thickness measurement will be performed after all corrective action has been completed

F. Incentive and Disincentive Payments: The Department will make incentive and disincentive payments based on the following chart:

Profile Index (in/mile)	Price Adjustment (% of contract unit price)**1
0 to 2.9	103.5
3 to 3.9	102.4
4 to 4.9	101.2
5 to 10.0	100.0
10.1 to 12.9	98.8
13 to 15.9	97.7
16 to 20	96.5

*1 Incentive payments cannot be improved due to grinding regardless of the average PI.

The adjustment in the contract unit price will apply to the total area of the 0.1 mile long section. The Department will calculate the area using the total lane width (12 feet or less) and the total length of the section (0.1 mile or less if the section is the segment at the end of the project).

When the use of a profilograph is specified, the final surface may also be checked with a 10 foot straightedge, according to Section 380.3 O.1 in locations determined by the Engineer.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
STUD SHEAR CONNECTOR FIELD INSTALLATION
(INCIDENTAL)**

APRIL 21, 2023

I. DESCRIPTION

- A.** This work consists of field installation of stud shear connectors (steel studs) to the top flange of steel girders by automatically timed stud-welding equipment. In addition, this special provision stipulates specific requirements for the following:
1. Workmanship, preproduction testing, operator qualification, and application qualification testing, all to be performed by the Contractor.
 2. Quality control and quality assurance inspection of stud welding during production.
- B.** The ANSI/AASHTO/AWS D1.5 Bridge Welding Code will hereafter be referred to as the Code.

II. MATERIALS

- A.** Welded stud shear connectors will conform to the requirements of Section 970.2 B of the specifications, and be of the type, size, and spacing shown on the shop plans.
- B.** Studs will be of suitable design for arc welding to steel members with the use of automatically timed stud-welding equipment. The use of automatically timed stud welding equipment is required.
- C.** An arc shield (ferrule) of heat-resistant ceramic or other suitable material will be furnished with each stud.
- D.** A suitable deoxidizing and arc stabilizing flux for welding will be furnished with each stud.

- E. Only studs with qualified stud bases will be used. A stud base, to be qualified, will have passed the test prescribed in Annex D of the Code. The arc shield used in production will be the same as used in qualification tests or as recommended by the manufacturer. Qualification of stud bases in conformance with Annex D of the Code will be at the manufacturer's expense.

III. CONSTRUCTION REQUIREMENTS

A. Workmanship

1. At the time of welding, the studs will be free from rust, rust pits, scale, oil, moisture, and other deleterious matter that would adversely affect the welding operation.
2. The stud base will not be painted, galvanized, nor cadmium plated prior to welding.
3. The areas to which the studs are to be welded will be free of scale, rust, moisture, and other injurious material to the extent necessary to obtain satisfactory welds. These areas may be cleaned by wire brushing, scaling, prick-punching, or grinding.
4. The arc shields or ferrules will be kept dry. Any arc shields which show signs of surface moisture from dew or rain will be oven dried at 250°F for two hours before use.
5. Longitudinal and lateral spacing of stud shear connectors (type B) with respect to each other and to edges of beam or girder flanges may vary a maximum of 1 inch from the location shown in the drawings. The clear distance between studs will not be less than 1 inch unless approved by the Engineer. The minimum distance from the edge of a stud base to the edge of a flange will be the diameter of the stud plus 0.125 inch but preferably not less than 1-1/2 inch.
6. After welding, arc shields will be broken free from all studs.
7. The studs, after welding, will be free of any discontinuities or substances that would interfere with their intended function. However, non-fusion on the legs of the flash and small shrink fissures is acceptable.

Note: The fillet weld profiles shown in Figure 5.4 of the Code do not apply to the flash of automatically timed stud welds. The expelled metal around the base of the stud is designated as flash in the Code. It is not a fillet weld such as those formed by conventional arc welding.

B. Technique

- 1.** Studs will be welded with automatically timed stud welding equipment connected to a suitable source of direct current electrode negative (DCEN) power. Welding voltage, current, time, and gun settings for lift and plunge should be set at optimum settings, based on past practice, recommendations of stud and equipment manufacturer, or both. The AWS Welding Handbook should also be used for technique guidance.
- 2.** If two or more stud welding guns are to be operated from the same power source, they will be interlocked so that only one gun can operate at a time, and so that the power source has fully recovered from making one weld before another weld is started.
- 3.** While in operation, the welding gun will be held in position without movement until the weld metal has solidified.
- 4.** Welding will not be done when the base metal temperature is below 0°F or when the surface is wet or exposed to falling rain or snow.
 - a.** When the temperature of the base metal is below 32°F, one additional stud in each 100 studs welded will be tested by methods specified in Section 9.7.1.3 and 9.7.1.4 of the Code, except that the angle of testing will be approximately 15 degrees. This is in addition to the first two studs tested for each start of a new production period or change in set-up.
 - b.** Set-up includes stud gun, power source, stud diameter, gun lift and plunge, total welding lead length, or changes greater than $\pm 5\%$ in current (amperage) and time.
- 5.** At the option of the contractor, automatic end welds may be repaired by fillet welding using the shielded metal arc process, provided the following requirements are met:
 - a.** The minimum fillet size to be used will be the larger of those required in Table 4.1 or Table 9.2 of the Code.
 - b.** Welding will be done with low-hydrogen electrodes 5/32 or 3/16 inch in diameter except that a smaller diameter electrode may be used on studs 3/8 inch or less in diameter or for out-of-position welds.
 - c.** The stud base will be prepared so that the base of the stud fits against the base metal.
 - d.** All rust and mill scale at the location of the stud will be removed from the base metal by grinding. The end of the stud will also be clean.

- e. The base metal to which studs are welded will be preheated in accordance with the requirements of Table 6.3 of the Code.
- f. Fillet welded stud bases will be visually inspected per Section 8.5 of the Code.

C. Stud Application Qualification Requirements

Studs which are shop or field applied in the flat (down-hand) position to a planar and horizontal surface are deemed prequalified by virtue of the manufacturer's stud-base qualification tests (Annex D of the Code), and no further application testing is required. The limit of flat position is defined as 0-15° slope on the surface to which the stud is applied.

D. Production Control

1. Preproduction Testing

- a. Before production welding with a particular set-up (see Section 9.5.4.2 of the Code) and with a given size and type of stud, and at the beginning of each day's or shift's production, testing will be performed on the first two studs that are welded. The stud technique may be developed on a piece of material similar to the production member in thickness and properties. If actual production thickness is not available, the thickness may vary plus or minus 25%. All test studs will be welded in the same general position as required on the production member (flat, vertical, or overhead).
- b. Instead of being welded to separate material, the test studs may be welded on the production member, except when separate plates are required by Section 9.7.1.5 of the Code.
- c. The test studs will be visually examined. They will exhibit full 360 degree flash.
- d. In addition to visual examination, the test will consist of bending the studs after they are allowed to cool, to an angle of approximately 30 degrees from their original axes by either striking the studs on the head with a hammer or placing a pipe or other suitable hollow device over the stud and manually or mechanically bending the stud. At temperatures below 50°F, bending will preferably be done by continuous slow application of load.
- e. If on visual examination the test studs do not exhibit 360 degree flash, or if on testing, failure occurs in the weld zone of either stud, the

procedure will be corrected and two more studs will be welded to separate material or on the production member and tested in accordance with the provisions of Section 9.7.1.3 and 9.7.1.4 of the Code. If either of the second two studs fails, additional welding will be continued on separate plates until two consecutive studs are tested and found to be satisfactory before any more production studs are welded to the member.

2. Production Welding

- a. Once production welding has begun, any changes made to the welding set-up (see Section 9.5.4.2 of the Code) as determined in Section 9.7.1 of the Code will require that the testing in Section 9.7.1.3 and 9.7.1.4 of the Code be performed prior to resuming production welding.
- b. In production, studs on which a full 360 degree flash is not obtained may, at the option of the contractor, be repaired by adding the minimum fillet weld as required by Section 9.5.5 of the Code in place of the missing flash. The repair weld will extend at least 3/8 inch beyond each end of the discontinuity being repaired.

3. Operator Qualification

- a. The preproduction test required by Section 9.7.1 of the Code, if successful, will also serve to qualify the stud welding operator. In addition, the stud welding operator will be a certified welder in accordance with Section 410.3 D. of the specifications.
 - b. Before any production studs are welded by an operator not involved in the preproduction set-up of Section 9.7.1 of the Code, the first two studs welded by the operator will be tested in accordance with the provisions of Section 9.7.1.3 and 9.7.1.4 of the Code. When two consecutively welded studs have been tested and found satisfactory, the operator may then weld production studs.
4. If an unacceptable stud has been removed from a component subjected to tensile stresses, the area from which the stud was removed will be made smooth and flush.
- a. Where in such areas the base metal has been pulled out in the course of stud removal, shielded metal arc welding (SMAW) with low-hydrogen electrodes in accordance with the requirements of the Code will be used to fill the pockets, and the weld surface will be ground flush.
 - b. In compression areas of members, if stud failures are confined to shanks or fusion zones of studs, a new stud may be welded adjacent to each

unacceptable area in lieu of repair and replacement on the existing weld area (see Section 9.4.3 of the Code). If base metal is pulled out during stud removal, the repair provisions will be the same as for tension areas.

- c. Where a replacement stud is to be provided, the base metal repair will be made prior to welding the replacement stud.
- d. Replacement studs (other than threaded type which should be torque tested) will be tested by bending to an angle of approximately 15 degrees from their original axis.
- e. The areas of components will be made smooth and flush where a stud has been removed.

E. Inspection Requirements

1. If visual inspection reveals any stud that does not show a full 360° flash or any stud that has been repaired by welding, such stud will be bent to an angle of approximately 15° from its original axis.
2. The method of bending will be in accordance with Section 9.7.1.4 of the Code. The direction of bending for studs with less than a 360-degree flash will be opposite to the missing portion of the flash.
3. The inspector, where conditions warrant, may select a reasonable number of additional studs to be subjected to the tests specified in Section 9.8.1 of the Code.
4. The bent stud shear connectors (Type B) and other studs to be embedded in concrete (Type A) that show no sign of failure will be acceptable for use and left in the bent position. All bending and straightening, when required, will be done without heating before completion of the production stud welding operation.
5. If, in the judgment of the Engineer, studs welded during the progress of the work are not in accordance with the specifications, as indicated by inspection and testing, corrective action will be required by the contractor at the contractor's expense. The contractor will make the set-up changes necessary to ensure that studs subsequently welded will meet specification requirements.
6. At the option and the expense of the owner, the contractor may be required, at any time, to submit studs of the types used under the contract for a qualification check in accordance with the procedures of Annex D of the Code.

IV. METHOD OF MEASUREMENT

Stud shear connectors will not be measured.

V. BASIS OF PAYMENT

No separate payment for stud shear connectors will be made. All costs involved in furnishing, installing, and quality control testing of stud shear connectors, including any incidental items such as repair welding and non-destructive testing will be included in the unit price bid for structural steel.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
STUD SHEAR CONNECTOR FIELD INSTALLATION
(PER EACH)**

APRIL 21, 2023

I. DESCRIPTION

- A.** This work consists of field installation of stud shear connectors (steel studs) to the top flange of steel girders by automatically timed stud-welding equipment. In addition, this special provision stipulates specific requirements for the following:
- 1.** Workmanship, preproduction testing, operator qualification, and application qualification testing, all to be performed by the Contractor.
 - 2.** Quality control and quality assurance inspection of stud welding during production.
- B.** The ANSI/AASHTO/AWS D1.5 Bridge Welding Code will hereafter be referred to as the Code.
- C.** At the option of the Contractor, studs may be fillet welded by shielded metal arc welding (SMAW) provided installation meets the requirements of 9.5.5 of the Code and stud welding operator is certified welder in accordance with Section 410.3 D. of the specifications.

II. MATERIALS

- A.** Welded stud shear connectors will conform to the requirements of Section 970.2 B of the specifications, and be of the type, size, and spacing shown on the shop plans.
- B.** Studs will be of suitable design for arc welding to steel members.
- C.** An arc shield (ferrule) of heat-resistant ceramic or other suitable material will be furnished with each stud.

- D. A suitable deoxidizing and arc stabilizing flux for welding will be furnished with each stud.
- E. Only studs with qualified stud bases will be used. A stud base, to be qualified, will have passed the test prescribed in Annex D of the Code. The arc shield used in production will be the same as used in qualification tests or as recommended by the manufacturer. Qualification of stud bases in conformance with Annex D of the Code will be at the manufacturer's expense.

III. CONSTRUCTION REQUIREMENTS

A. Workmanship

1. At the time of welding, the studs will be free from rust, rust pits, scale, oil, moisture, and other deleterious matter that would adversely affect the welding operation.
2. The stud base will not be painted, galvanized, nor cadmium plated prior to welding.
3. The areas to which the studs are to be welded will be free of scale, rust, moisture, and other injurious material to the extent necessary to obtain satisfactory welds. These areas may be cleaned by wire brushing, scaling, prick-punching, or grinding.
4. The arc shields or ferrules will be kept dry. Any arc shields which show signs of surface moisture from dew or rain will be oven dried at 250°F for two hours before use.
5. Longitudinal and lateral spacing of stud shear connectors (type B) with respect to each other and to edges of beam or girder flanges may vary a maximum of 1 inch from the location shown in the drawings. The clear distance between studs will not be less than 1 inch unless approved by the Engineer. The minimum distance from the edge of a stud base to the edge of a flange will be the diameter of the stud plus 0.125 inch but preferably not less than 1-1/2 inch.
6. After welding, arc shields will be broken free from all studs.
7. The studs, after welding, will be free of any discontinuities or substances that would interfere with their intended function. However, non-fusion on the legs of the flash and small shrink fissures is acceptable.

Note: The fillet weld profiles shown in Figure 5.4 of the Code do not apply to the flash of automatically timed stud welds. The expelled metal around

the base of the stud is designated as flash in the Code. It is not a fillet weld such as those formed by conventional arc welding.

B. Technique

- 1.** Studs will be welded with automatically timed stud welding equipment connected to a suitable source of direct current electrode negative (DCEN) power. Welding voltage, current, time, and gun settings for lift and plunge should be set at optimum settings, based on past practice, recommendations of stud and equipment manufacturer, or both. The AWS Welding Handbook should also be used for technique guidance.
- 2.** If two or more stud welding guns are to be operated from the same power source, they will be interlocked so that only one gun can operate at a time, and so that the power source has fully recovered from making one weld before another weld is started.
- 3.** While in operation, the welding gun will be held in position without movement until the weld metal has solidified.
- 4.** Welding will not be done when the base metal temperature is below 0°F or when the surface is wet or exposed to falling rain or snow.
 - a.** When the temperature of the base metal is below 32°F, one additional stud in each 100 studs welded will be tested by methods specified in Section 9.7.1.3 and 9.7.1.4 of the Code, except that the angle of testing will be approximately 15 degrees. This is in addition to the first two studs tested for each start of a new production period or change in set-up.
 - b.** Set-up includes stud gun, power source, stud diameter, gun lift and plunge, total welding lead length, or changes greater than $\pm 5\%$ in current (amperage) and time.
- 5.** At the option of the contractor, automatic end welds may be repaired by fillet welding using the shielded metal arc process, provided the following requirements are met:
 - a.** The minimum fillet size to be used will be the larger of those required in Table 4.1 or Table 9.2 of the Code.
 - b.** Welding will be done with low-hydrogen electrodes 5/32 or 3/16 inch in diameter except that a smaller diameter electrode may be used on studs 3/8 inch or less in diameter or for out-of-position welds.
 - c.** The stud base will be prepared so that the base of the stud fits against the base metal.

- d. All rust and mill scale at the location of the stud will be removed from the base metal by grinding. The end of the stud will also be clean.
- e. The base metal to which studs are welded will be preheated in accordance with the requirements of Table 6.3 of the Code.
- f. Fillet welded stud bases will be visually inspected per Section 8.5 of the Code.

C. Stud Application Qualification Requirements

Studs which are shop or field applied in the flat (down-hand) position to a planar and horizontal surface are deemed prequalified by virtue of the manufacturer's stud-base qualification tests (Annex D of the Code), and no further application testing is required. The limit of flat position is defined as 0-15° slope on the surface to which the stud is applied.

D. Production Control

1. Preproduction Testing

- a. Before production welding with a particular set-up (see Section 9.5.4.2 of the Code) and with a given size and type of stud, and at the beginning of each day's or shift's production, testing will be performed on the first two studs that are welded. The stud technique may be developed on a piece of material similar to the production member in thickness and properties. If actual production thickness is not available, the thickness may vary plus or minus 25%. All test studs will be welded in the same general position as required on the production member (flat, vertical, or overhead).
- b. Instead of being welded to separate material, the test studs may be welded on the production member, except when separate plates are required by Section 9.7.1.5 of the Code.
- c. The test studs will be visually examined. They will exhibit full 360 degree flash.
- d. In addition to visual examination, the test will consist of bending the studs after they are allowed to cool, to an angle of approximately 30 degrees from their original axes by either striking the studs on the head with a hammer or placing a pipe or other suitable hollow device over the stud and manually or mechanically bending the stud. At temperatures below 50°F, bending will preferably be done by continuous slow application of load.

- e. If on visual examination the test studs do not exhibit 360 degree flash, or if on testing, failure occurs in the weld zone of either stud, the procedure will be corrected and two more studs will be welded to separate material or on the production member and tested in accordance with the provisions of Section 9.7.1.3 and 9.7.1.4 of the Code. If either of the second two studs fails, additional welding will be continued on separate plates until two consecutive studs are tested and found to be satisfactory before any more production studs are welded to the member.

2. Production Welding

- a. Once production welding has begun, any changes made to the welding set-up (see Section 9.5.4.2 of the Code) as determined in Section 9.7.1 of the Code will require that the testing in Section 9.7.1.3 and 9.7.1.4 of the Code be performed prior to resuming production welding.
- b. In production, studs on which a full 360 degree flash is not obtained may, at the option of the contractor, be repaired by adding the minimum fillet weld as required by Section 9.5.5 of the Code in place of the missing flash. The repair weld will extend at least 3/8 inch beyond each end of the discontinuity being repaired.

3. Operator Qualification

- a. The preproduction test required by Section 9.7.1 of the Code, if successful, will also serve to qualify the stud welding operator. In addition, the stud welding operator will be a certified welder in accordance with Section 410.3 D. of the specifications.
- b. Before any production studs are welded by an operator not involved in the preproduction set-up of Section 9.7.1 of the Code, the first two studs welded by the operator will be tested in accordance with the provisions of Section 9.7.1.3 and 9.7.1.4 of the Code. When two consecutively welded studs have been tested and found satisfactory, the operator may then weld production studs.

4. If an unacceptable stud has been removed from a component subjected to tensile stresses, the area from which the stud was removed will be made smooth and flush.

- a. Where in such areas the base metal has been pulled out in the course of stud removal, shielded metal arc welding (SMAW) with low-hydrogen electrodes in accordance with the requirements of the Code will be used to fill the pockets, and the weld surface will be ground flush.

- b. In compression areas of members, if stud failures are confined to shanks or fusion zones of studs, a new stud may be welded adjacent to each unacceptable area in lieu of repair and replacement on the existing weld area (see Section 9.4.3 of the Code). If base metal is pulled out during stud removal, the repair provisions will be the same as for tension areas.
- c. Where a replacement stud is to be provided, the base metal repair will be made prior to welding the replacement stud.
- d. Replacement studs (other than threaded type which should be torque tested) will be tested by bending to an angle of approximately 15 degrees from their original axis.
- e. The areas of components will be made smooth and flush where a stud has been removed.

E. Inspection Requirements

1. If visual inspection reveals any stud that does not show a full 360° flash or any stud that has been repaired by welding, such stud will be bent to an angle of approximately 15° from its original axis.
2. The method of bending will be in accordance with Section 9.7.1.4 of the Code. The direction of bending for studs with less than a 360-degree flash will be opposite to the missing portion of the flash.
3. The inspector, where conditions warrant, may select a reasonable number of additional studs to be subjected to the tests specified in Section 9.8.1 of the Code.
4. The bent stud shear connectors (Type B) and other studs to be embedded in concrete (Type A) that show no sign of failure will be acceptable for use and left in the bent position. All bending and straightening, when required, will be done without heating before completion of the production stud welding operation.
5. If, in the judgment of the Engineer, studs welded during the progress of the work are not in accordance with the specifications, as indicated by inspection and testing, corrective action will be required by the contractor at the contractor's expense. The contractor will make the set-up changes necessary to ensure that studs subsequently welded will meet specification requirements.
6. At the option and the expense of the owner, the contractor may be required, at any time, to submit studs of the types used under the contract for a

qualification check in accordance with the procedures of Annex D of the Code.

IV. METHOD OF MEASUREMENT

The stud shear connectors will be measured by the number of stud shear connectors furnished and installed.

V. BASIS OF PAYMENT

Stud shear connectors will be paid for at the contract unit price per each. All costs involved in furnishing, installing, and quality control testing of stud shear connectors, including any incidental items such as repair welding and non-destructive testing will be included in the unit price bid for stud shear connector.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
AGGREGATE COLUMN REINFORCEMENT**

**PROJECT NH 0100(106)409, PCN 01V7
LINCOLN COUNTY**

NOVEMBER 6, 2024

I. DESCRIPTION

This work will consist of design, testing, furnishing the material for, and installation of aggregate columns in accordance with this special provision and the contract plans. The term “Aggregate Column” as used in this special provision refers to columns of compacted aggregate used to reinforce the ground to increase bearing capacity and reduce settlement of embankments and structures. The columns may be constructed with a down-hole vibrator or down-hole tamper.

The purpose of the aggregate columns is to improve soils within reasonably close conformity to the limits shown on the plans.

The final location and extent of the aggregate columns will be determined by the Contractor but will conform to the minimums listed in Section III of this special provision.

II. MATERIALS

A. Backfill Materials: Aggregate column backfill material will be clean crushed stone meeting requirements of select granular backfill in Section 850 and meeting the requirements of Section 820.2.A for deleterious substances.

B. Water: Potable water or other suitable source will be used to increase the aggregate moisture content when required.

III. CONSTRUCTION REQUIREMENTS

A. Design Requirements:

- 1. Foundation Improvement Area:** Aggregate column foundation improvement limits for the west approach begin at station 347+50 75Lt to 85Rt, and end at approximately station 350+90 75Lt to 85Rt along centerline. Aggregate column foundation improvement limits for the east approach begin at approximately 352+60 75Lt to 85Rt, and end at 356+00 75Lt to 85Rt. The foundation improvement limits are shown on the Site Plan and Subsurface Profile sheet.
- 2. Working Platform Elevation:** Prior to beginning installation of aggregate columns, the working platform will be established by excavating to a depth of 2 foot below the current ground elevation of the proposed foundation improvement area and placing 1 foot of granular material, as shown in the Grading Plans and Typical Section. Granular material will conform to the requirements of Aggregate Base Course in Section 882 of the Specifications.
- 3. Column Depth:** The aggregate columns will extend to a minimum depth of 16 feet, or as specified by the Designer.
- 4. Replacement Ratio:** The minimum replacement ratio will be 15%, or greater as needed to meet design bearing capacity and settlement criteria.
- 5. Bearing Capacity:** The aggregate column system will provide a minimum Factored Bearing Resistance of 5,000 psf.
- 6. Settlement:** The maximum allowable post embankment construction settlement will be 2 inches, and a maximum allowable differential settlement will be 1 inch in 100 feet.

B. Construction:

1. Aggregate Column Contractor's Experience Requirements and Submittals:

The aggregate column design and installation will be performed by a specialist aggregate column Contractor experienced in the design and installation of aggregate columns. The Contractor will have successfully completed at least three projects of similar size within the last five years using the same proposed installation technique.

The aggregate column Contractor will have previous experience installing aggregate columns in soil and groundwater conditions similar to the project

conditions. The Contractor will submit construction details, structural details, and verification test results for at least three previous successful aggregate column projects of similar scope to this project.

The aggregate column Contractor will assign a senior design engineer to this project with method-specific experience from previous projects and a field engineer with some previous experience on similar projects. The field engineer will serve as a full-time quality control representative, reporting to senior design staff, to supervise the work and verify all installation procedures.

The on-site foreman will have a minimum of three years' experience in supervising construction of aggregate columns of similar size, using the same methods in similar soil and groundwater conditions.

At least 45 calendar days prior to the installation of the aggregate columns, the Contractor will submit five copies of the completed project reference list and a personnel list to the Engineer. The project list will include a brief project description with the owner's name and phone number and results of the tests performed as part of the verification program. The personnel list will identify the supervising engineer and on-site foreman to be assigned to the project. The personnel list will contain a summary of each individual's experience and be complete enough for the Engineer to determine whether each individual satisfies the required qualifications. The Engineer will accept or reject the Contractor's qualification within 15 calendar days after receipt of a complete submission. Additional time required due to incomplete or unacceptable submittals will not be cause for time extensions or impact or delay claims. All costs associated with incomplete or unacceptable submittals will be borne by the Contractor.

Work will not begin until the Engineer's written acceptance of the Contractor's experience qualification is given. The Engineer may suspend the work if the Contractor uses personnel not included in the Engineer's review. If the work is suspended, the Contractor will be fully liable for all resulting costs and no adjustments in contract time will result from the suspension.

- 2. Submittals:** The Contractor will prepare and submit an Aggregate Column Installation Plan to the Department for the Department's review. The Department will review the installation plan for general conformance with the contract plans and specifications only. Any deviation from the plans or specifications not clearly noted by the Contractor will not be reviewed. The Aggregate Column Installation Plan must include the following:
 - a.** Construction drawings for review showing identification numbers, spacing, locations, and depths of the aggregate columns, as well as

details for the working platform. Construction drawings will be signed and sealed by a Professional Engineer registered in the State of South Dakota.

- b.** Detailed step-by-step description of the proposed equipment and construction procedures to be used, including a plan to dispose of any water or spoils. Descriptions of the proposed equipment and construction procedures should reference applicable minimums listed in section III.B.9 of this special provision.
- c.** A proposed Verification Program.
- d.** The gradation of the proposed aggregate column backfill material the Contractor proposes to use. Upon completion of the review, the Contractor will maintain this gradation throughout the aggregate column installation.
- e.** A proposed plan for quality control throughout the installation procedure. This will address issues such as control and measurement of column or pier diameter, lift thickness, full time quality control personnel, and any other pertinent information.
- f.** Design calculations including results of bearing capacity, anticipated settlements, and other calculations relating to the performance of the aggregate columns.
- g.** A proposed program to monitor settlement during and after construction of the embankment.

The Contractor will provide required submittals 21 calendar days prior to initiating aggregate column construction. The Contractor will send an email with the submittals attached as a PDF to the Project Engineer. Upon request, the Project Engineer will provide the Contractor with the appropriate email addresses. Within 14 calendar days of receiving the submittals, the Department will respond to the Contractor and submitter in one of the following ways: 1) No Exceptions Noted; 2) Returned for Revision; or 3) Not Required for Review. If the Department's response states "Returned for Revision", the Contractor will make the revisions and resubmit the submittals for review as specified above. Upon completion of the Department's review process and a Department response of "No Exceptions Noted" or "Not Required for Review", the Contractor will send the Project Engineer an email with the final installation plan as a PDF for distribution. The Contractor will not begin construction of the work contained in the submittals until the Department has confirmed, in writing, a completed review with a response of "No Exceptions Noted" or "Not Required for Review".

- 3. Verification Program:** A verification program designed, accomplished, and reported by the Contractor is required to measure the quality of the installed aggregate columns. The proposed verification program is subject to review by the Engineer and completed prior to placement of production columns. As a minimum, the verification program must include the following:
 - a. Minimum of one verification tests in each of the 2 proposed areas, to be completed prior to installation of production columns in that area.
 - b. Verification tests will, at a minimum, consist of a modulus test measuring deflection at the top of the pier with a load per column of at least 150 percent of the design load.
 - c. Proposed means and methods for verification ensuring design and performance criteria have been satisfied. This will include modulus tests as described above and may also include additional load tests on individual elements, groups of elements, soil borings, and other methods as required by the aggregate column designer or required by the Engineer. Acceptable performance will consist of demonstrating that the installed columns at a minimum meet their design stiffness. Construction equipment may be used as deadload for verification testing.
 - d. A quality control program to verify that the aggregate columns are installed in accordance with the designer's specifications and the requirements outlined in this special provision.
- 4. Daily Reports:** During construction, the Contractor will submit daily progress reports to the Engineer detailing the following:
 - a. Column identified by location number.
 - b. Date constructed.
 - c. Elevation of top and depth of each column.
 - d. Average lift thickness.
 - e. Volume estimate and location of any ground heave or subsidence.
 - f. Vibrator power consumption during penetration and compaction of each increment of column constructed (if applicable).
 - g. Description of soil and groundwater conditions.
 - h. Details of any obstructions, delays, and unusual ground conditions.
 - i. Quantity of aggregate placed in each column.
 - j. Amount of water used per column (if applicable).
 - k. Results of quality control testing.
- 5. Construction Site Survey:** Before bidding the work, the Contractor will review the available subsurface information and visit the site to assess the

site geometry, equipment access conditions, and locations of existing structures and above ground facilities.

- 6. Aggregate Column Preconstruction Meeting:** An aggregate column preconstruction meeting will be scheduled by the Engineer and held prior to the start of aggregate column construction. The Engineer, prime Contractor, aggregate column specialty Contractor, and representatives from the SDDOT's Geotechnical Engineering Activity will attend the meeting. Attendance is mandatory. The aggregate column preconstruction meeting will be conducted to clarify the construction requirements for the work, to coordinate delineation of responsibilities amongst the prime Contractor and aggregate column Contractor, anticipated subsurface conditions, aggregate column survey control, and aggregate column installation and testing.
- 7. Site Drainage Control:** The Contractor will control all materials displaced as a result of aggregate column installation, including water and cuttings, and properly dispose of these in accordance with the Specifications and all applicable local codes and regulations.
- 8. Aggregate Column Allowable Construction Tolerances:** If any aggregate column or groups of columns falls outside these tolerances, the Engineer may require additional column(s) installed at the Contractor's expense.
 - a. Horizontal Control:** The center of the completed column will be within 4 inches of the plan location.
 - b. Vertical Control:** The completed column will not deviate from the vertical by more than 2 inches in 10 feet.
 - c. Diameter:** The completed column effective diameter will not be more than 10% below the plan diameter and the average effective diameter of any group of 50 consecutively installed columns will not be less than the plans diameter.
- 9. Procedures and Equipment:** The actual construction procedures and equipment will be determined by the Contractor. The following are minimum requirements:
 - a. Down-Hole Vibrator Method:**
 - 1)** The vibrator will be capable of providing at least 70 HP of rated energy and a centrifugal force of 15 tons. Capable of providing a daily report of vibrator power consumption for each increment of individual column construction
 - 2)** The probe and follower tubes will be of sufficient length to reach the elevations shown on the Contractor's design plans and shop

drawings. The probe used in conjunction with the tip jet will be capable of penetrating to the required tip elevation. Pre-boring of cemented lenses, layers, or strata if encountered is permitted at no additional cost to the Department.

- 3) The probe and follower tubes will have visible markings at regular increments to enable measurement of penetration and re-penetration depths.
- 4) When the pre-drilled hole remains open during construction, pre-drilling to the design depth will be performed with an auger of diameter equal to the plans diameter.
- 5) If required by installation method or if caving soil conditions are encountered, provide methods for supplying to the tip of the probe a sufficient quantity of air or water to widen the probe hole to allow adequate space for aggregate backfill placement around the probe. Maintain the flow of air or water from the bottom of the jet at all times during backfilling to prevent caving or collapse of the hole and to form a clean aggregate column.
- 6) The probe will penetrate to the minimum depths required in the Contractor's design plans or listed in section III.A.3 of this special provision, whichever is deeper.
- 7) Lift thickness will not exceed 4 feet. After penetration to the treatment depth, slowly retrieve the vibrator in 1-foot to 3-foot increments to allow backfill placement.
- 8) Compact the backfill in each lift by re-penetrating it at least twice with the horizontally vibrating probe to densify and force the aggregate radially into the surrounding soil. Re-penetrate the aggregate in each increment a sufficient number of times to develop an ammeter reading on the motor significantly higher than the freestanding (unloaded) ampere draw on the motor.
- 9) Aggregate columns will be installed so that each completed column is continuous throughout its length.
- 10) Removal of subsurface obstructions, if directed by the Engineer, will be incidental to the aggregate columns. Additional columns or replacement columns required due to obstructions will also be incidental to the aggregate columns. Obstructions include but are not limited to boulders, timbers, concrete, and utility lines which prevent placing a column to the required depth or cause a column to drift from the required location.
- 11) Any ground heave that is observed will be reworked and compacted by the Contractor prior to the embankment construction. The depth of soil to be reworked and degree of the compaction required will be determined by the Engineer. Rework and compaction of heaved ground will be incidental to the aggregate column installation.
- 12) If during jetting operations caving, collapse of the hole, or any other ground disturbances occur, the Engineer may require alternative

installation procedures, including but not limited to predrilling and use of temporary casing, at no additional cost to the Department.

b. Down-Hole Tamper Method:

- 1) The tamper will have a diameter that is at least 85% of the pre-drilled hole diameter, have beveled sides, and be long enough to reach the full depth of the pre-drilled hole. The tamper will have a minimum Construction Industry Manufacturer's Association (CIMA) rating of 1,200 ft-lb and will apply direct downward impact energy to each lift of aggregate.
- 2) The drilled cavity excavation will be in reasonably close conformity to the limits and construction stages shown on the plans. Temporary casing may be required to limit sloughing of subsurface soils, the casing should be inserted to at least 2 feet beyond the sloughing strata. Casing of sufficient length will be onsite prior to beginning drilling operations. Upon extraction, the bottom of the casing should be maintained at not more than 1 foot to 2 feet above the level of backfill.
- 3) Removal of subsurface obstructions, if directed by the Engineer, will be incidental to the aggregate columns. Additional columns or replacement columns required due to obstructions will also be incidental to the aggregate columns. Obstructions include but are not limited to boulders, timbers, concrete, and utility lines which prevent placing a column to the required depth or cause a column to drift from the required location.
- 4) Backfill placement will closely follow the excavation of each cavity. The backfill will be placed in 12-inch-thick loose lift thickness. Each lift should be rammed with a high-energy impact tamper to the satisfaction of the Engineer and as recommended in the Contractor's design plans.

IV. METHOD OF MEASUREMENT

Measurement will be by quantity of cubic yards of aggregate column material installed. The plan quantity is calculated to the nearest 1/10th of a cubic yard using the dimensions of the treatment areas, a projected column diameter of 30 inches, initial column spacing of 8 feet center to center, and initial projected depths of 16 feet. The initial quantity of 5005.2 cubic yards of material is only an estimate based on these values. The aggregate column Designer will determine actual quantities, spacing, depth, and all other design aspects of the aggregate column foundation improvements within the requirements of this Special Provision. Aggregate column verification testing and temporary casing will not be measured.

V. BASIS OF PAYMENT

The Contractor will be paid the quantity of cubic yards of aggregate column installed. This payment will be full compensation for design, field staking for the location of the elements, mobilization, drilling, furnishing, transporting, placing and compacting aggregate column backfill, associated work, and full-time quality control. Verification testing and temporary casing will not be paid for directly and will be considered incidental to the aggregate column foundation improvements.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
BATTERY BACKUP SYSTEM FOR TRAFFIC SIGNAL**

**PROJECT NH 0100(106)409, P 8042(00), & P 8042(00)
PCN 01V7, 08DG, & 08DH
LINCOLN COUNTY**

DECEMBER 31, 2024

I. DESCRIPTION

This specification describes the minimum requirements for a Battery Backup System (BBU) for Traffic Signal. The BBU System consists of three modules within an enclosed cabinet:

- Inverter/Charger
- Bypass Switch
- Battery Bank

II. OPERATING REQUIREMENTS

- A.** The BBU System shall be certified per UL 1778. All elements of the System shall comply with the applicable code sections of the NEC, NEMA, and OSHA.
- B.** The BBU System shall operate using the Line Interactive (Buck and Boost) method.
- C.** The BBU System shall be capable of operating a signalized intersection (700-watt load) for four hours of full runtime when utility power is disabled and under ambient temperatures of 25°C.
- D.** The BBU system shall switch the intersection to flash mode of operation when approximately 40% of battery charge is remaining via relay contact connection points on the front panel of the inverter/charger unit. The BBU System shall operate the intersection in the flash mode of operation (350-watt load) for an additional two hours.
- E.** The transfer time allowed, from disruption of normal utility line voltage to stabilized inverter line voltage from batteries, shall be less than 65 milliseconds.

The same allowable transfer time shall also apply when switching from inverter line voltage to utility line voltage.

- F. The BBU system shall bypass utility line power whenever the utility line voltage is outside of the manufacturer's default or a user programmed voltage range $\pm 2V$ AC.
- G. When the utility line power has been restored to a normal operating voltage for more than 30 seconds, the BBU system shall transfer from battery back to utility line mode. The BBU shall be equipped to prevent a malfunction feedback to the cabinet or from feeding back to the utility service.
- H. The BBU system shall operate with an automatic "fail safe" mode. Should a breaker trip on the inverter/charger and/or the power transfer relay, the unit will automatically default to utility line power and bypass the BBU system.
- I. The BBU system unit shall be capable of logging up to 100 events. Events shall date and time stamp faults with AC line voltage and BBU battery voltages. The following conditions shall be recorded as an event:
 - 1. Occurrences of the utility line voltage being above or below the upper and lower control limits or manufacturer preset defaults.
 - 2. Whenever the BBU system automatically switches to battery power.
 - 3. Self-monitoring, BBU system component failures shall be recorded as an event.

III. SYSTEM COMPONENT REQUIREMENTS

A. Inverter/Charger

- 1. The inverter/charger shall be rated for 1450V AC and a power factor of 0.7 allowing 1,000 watts of continuous power from the unit.
- 2. The inverter/charger shall have the capability to deliver 120% of the maximum output rating for a period of 60 seconds. The inverter/charger shall shutdown to prevent internal damage to the unit when a 120% 60 second overload has occurred.
- 3. When utility line voltage is out of normal operating range (100V AC to 135V AC), the inverter/charger shall provide voltage regulation and/or power conditioning to the inverter line voltage using the Line Interactive (Buck and Boost) method. When utility line voltage is present, the inverter/charger shall act as a charging device for the batteries.

- 4.** A minimum of 6 sets of NO and NC single-pole double-throw dry contact relay closures shall be made available on the front face of the inverter/charger and labeled so as to identify each contact. The relay closures shall consist of:
 - a.** A set of NO and NC contact closures that shall be energized whenever the unit switches to battery power. The contact shall be labeled as “On Battery.”
 - b.** A second set of NO and NC contact closures that shall be energized whenever the battery approaches approximately 40% of remaining capacity. This limit will determine when the unit will switch from normal operation to flash. The contact shall be labeled as “Low Battery.”
- 5.** The operating temperature range for the inverter/charger shall be -34°C to $+74^{\circ}\text{C}$.
- 6.** When battery power is used, the BBU system output voltage shall be between 110V AC and 125V AC, pure sine wave output, $\leq 3\%$ THD, $60\text{Hz} \pm 3\text{Hz}$.
- 7.** The battery charging system shall be compensated over a range of 2.5 to 4.0 mV/ $^{\circ}\text{C}$ per cell.
- 8.** A temperature sensor shall be used to monitor the temperature and regulate the charge rate of the batteries.
- 9.** Should the temperature sensor fail, the inverter/charger shall not allow the BBU system to overcharge the batteries. The BBU system shall provide an alarm should the temperature sensor fail.
- 10.** Recharge time for the batteries to 80% or more of full battery charge capacity shall not exceed 20 hours.
- 11.** Batteries shall not be charged when battery temperature exceeds $50^{\circ}\text{C} \pm 3^{\circ}\text{C}$.
- 12.** The BBU system shall monitor battery strings within a system and set a fault indicator if battery voltage falls below normal operating voltages.
- 13.** The BBU system shall include a front panel display. All applicable programmable functions of the operational methods described in this specification shall be viewable through the front panel display.
- 14.** All logging events shall be viewable from the front panel display.

15. The BBU System software shall be programmable from the front panel of the inverter/charger by means of a keyboard or momentary buttons allowing the user to step through menu driven software.
16. A 10/100 Ethernet port shall be provided on the front panel of the inverter/charger.
17. An RS232 port shall be provided on the front panel of the inverter/charger.
18. BBU System software shall be provided for the operational needs of the BBU system. The user/ operator shall be able to access all software via the Ethernet port and the RS232 port on the front panel of the inverter/charger. The user shall be able to read logged events and/or change programmable parameters from the keyboard, laptop, or local area network via the Ethernet port.
19. The inverter/charger shall have an LED or LCD status display showing the following:
 - a. Input/output Voltages
 - b. Input/output Frequency
 - c. BBU System Load
 - d. BBU System Battery Voltage
 - e. Battery Discharge Percentage
 - f. Battery Disconnected
 - g. Battery Failure
 - h. Low Input Voltage Boost
 - i. High Input Voltage Buck
 - j. Service Required
 - k. BBU System Failure
 - l. Output Overload
 - m. Output Shorted
 - n. Hour meter for operating in battery backup mode.

B. Bypass Switches

1. An automatic bypass switch shall be provided as a separate unit external to the inverter/charger unit. The automatic bypass switch shall be two position and rated at a minimum of 240V AC/20 amps. A BBU supply breaker rated at 240V AC/20 amps shall be provided for the 120V AC input to the inverter/charger.
2. When the automatic bypass switch is in the “on” position and the supply breaker is on, the BBU system is connected to utility line voltage and its output is connected to the cabinet service panel. If the utility line voltage is deactivated, the BBU system will automatically switch over to battery power.

3. When the automatic bypass switch is in the “off” position and the supply breaker is on, utility line power is provided to the cabinet service panel and the inverter/charger allowing equipment to be tested without interrupting power to the traffic signal load.
4. When the automatic bypass switch is off and the supply breaker is off, the utility line voltage will feed power directly to the traffic signal cabinet service panel and power to the inverter/charger will be deactivated allowing the user to service BBU equipment.
5. A manual bypass switch shall be provided separately from the automatic bypass switch. The manual bypass switch shall be two position and allow the user to switch utility line power directly to the cabinet service panel. When the manual bypass switch is in this mode, the user may replace the automatic bypass switch and/ or the inverter/charger without interrupting power to the intersection.

C. Battery Bank

1. Individual batteries shall be 12V type, and shall be easily replaced and commercially available for purchase as common off the shelf equal.
2. Batteries shall be AGM or gel cell types.
3. Batteries shall operate over a temperature range of -34°C to +74°C.
4. Battery interconnect wiring shall connect to the inverter/charger via modular harness with red and black cabling that terminates into a typical power pole style connector. The harness shall be equipped with mating power flag style connectors for batteries and a single insulated plug-in style connection to the inverter/charging unit. The harness shall allow batteries to be quickly and easily connected in any order and shall be keyed to ensure proper polarity and circuit configuration.
5. Insulated covers shall be provided at the connection points (post) to prevent accidental shorting.
6. Batteries weighing 50 pounds or more shall be provided with a handle or hand strap.

D. BBU Cabinet

1. The cabinet shall be an aluminum NEMA 3R type.

2. The cabinet shall have a thermostatically controlled exhaust fan and air filter.

IV. WARRANTY

- A. The manufacturer shall provide a 2-year full replacement warranty on all components of the BBU System.
- B. Batteries shall be warranted for full replacement for 5 years. Batteries shall be defined as bad if they are not able to deliver 80% of battery rating.

V. METHOD OF MEASUREMENT

Battery Backup System for Traffic Signal will be measured by actual count furnished and installed.

VI. METHOD OF PAYMENT

- A. The Contractor will be paid at the contract unit price per each for Battery Backup System for Traffic Signal.
- B. This payment shall be full compensation for all equipment, labor, and incidentals necessary to install the Battery Backup System for Traffic Signal.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
VIDEO DETECTION SYSTEM**

**PROJECT NH 0100(106)409, P 8042(00), & P 8042(00)
PCN 01V7, 08DG, & 08DH
LINCOLN COUNTY**

DECEMBER 31, 2024

Video Detection System

This work consists of all labor, materials, equipment and services necessary to perform all operations required in the installation of a video detection system.

The video vehicle detection system shall be easily configurable and expandable to meet traffic management applications such as intersection control, traffic monitoring and incident management, traffic data collection, traffic safety applications, and traffic control during road or intersection construction.

1. System Hardware

The video detection system shall be comprised of two major hardware components: a video sensor and a communications interface panel. An optional wired input/output card shall be available for certain cabinet types.

1.1. Video Sensor

The video detection system shall include a video sensor that integrates a high-definition (HD) camera with an embedded processor for analyzing the video and performing detection.

1.1.1. Camera and Processor

1.1.1.1. The camera shall be color CMOS imaging array.

1.1.1.2. The camera shall have HD resolution of at least 720p (1280x720 pixels).

1.1.1.3. The camera shall include a minimum 10X optical zoom.

1.1.1.3.1. It shall be possible to zoom the lens as required to satisfy across-the-intersection detection objectives, including stop line and advance detection.

1.1.1.3.2. It shall be possible to zoom the lens remotely from the TMC for temporary traffic surveillance operations or to inspect the cleanliness of the faceplate.

1.1.1.4. The camera shall have direct, real-time iris and shutter speed control by the integrated processor.

1.1.1.5. The processor shall support video compression for streaming output.

1.1.2. Video Sensor Enclosure Assembly

1.1.2.1. The camera and processor shall be housed in a sealed enclosure.

1.1.2.1.1. The faceplate of the enclosure shall be glass and shall have hydrophilic coating on the exterior surface to reduce debris accumulation and maintenance.

1.1.2.1.2. The faceplate shall have a thermostatically-controlled heater applied directly on the interior surface to keep the faceplate clear of condensation, snow, ice and frost.

1.1.2.2. An adjustable aluminum visor shall shield the faceplate from the sun and extraneous light sources.

1.1.2.3. An integral aiming sight shall assist in aiming the camera for the detection objectives.

1.1.2.4. A removable rear cap and cable strain relief shall seal the power connection.

1.1.2.5. The sensor shall be self-supporting on manufacturer's mounting brackets for easier fastening during installation.

1.1.2.6. It shall be possible to rotate the field-of-view 360° without changing the angle of the visor.

1.1.3. Power and Communications

1.1.3.1. The video sensor shall operate normally over an input voltage range of 89 to 265 VAC at 50 or 60 Hz.

1.1.3.2. Power consumption shall be no more than 16 watts typical.

1.1.3.3. No supplemental surge suppression shall be required outside the cabinet.

1.1.3.4. All communications to the video sensor shall be broadband-over.

1.2. Communications Interface Panel

The video detection system shall include an interface panel in the traffic cabinet that manages communications between the video sensors, the traffic management center, a maintenance technician, and the traffic cabinet itself.

1.2.1. Video Sensor Connection

1.2.1.1. The broadband-over-power communications shall provide a throughput of 70 to 90 Mbps.

1.2.1.2. The broadband-over-power connection shall support at least 1,000 feet of cabling to the video sensor.

1.2.1.3. Each video sensor connection shall include a power switch.

1.2.1.4. There shall be an LED for each video sensor to indicate the state of the power to the sensor and an LED for each video sensor to indicate the status of communications.

1.2.1.5. Each video sensor connection shall contain a resettable fuse.

1.2.1.6. Each video sensor connection shall provide high-energy transient protection.

1.2.2. Traffic Management Center (TMC) Communications

1.2.2.1. An Ethernet port shall be provided to connect to a remote Traffic Management Center (TMC).

1.2.2.1.1. The TMC connection shall support 10/100/1000 Mbps Ethernet communication.

1.2.2.1.2. The communications interface panel shall proxy all network requests that arrive on the TMC connection to avoid unwanted network traffic from reaching the broadband-over-power network between the communications interface panel and the video sensors.

1.2.2.1.3. All communications to the video detection system through the TMC connection shall be to a single IP address.

1.2.3. Local User Communications

1.2.3.1. A wired Ethernet port shall be provided to connect the technician at the cabinet to the video detection system for setup and maintenance purposes.

1.2.3.1.1. The maintenance port shall support 10/100/1000 Mbps Ethernet communication.

1.2.3.1.2. All communications to the video detection system through the maintenance port shall be to a single IP address.

1.2.3.1.3. The maintenance port shall support DHCP to automatically assign an IP address to the user's computer, if desired.

1.2.3.2. An 802.11g Wi-Fi access point shall allow wireless connection to the video detection system at the cabinet for setup and maintenance purposes.

1.2.3.2.1. All communications to the video detection system through the Wi-Fi access point shall be to a single IP Address.

1.2.3.2.2. The Wi-Fi access point shall support DHCP to automatically assign an IP Address to the user's computer.

1.2.3.2.3. The Wi-Fi access point shall include a dipole, omnidirectional antenna.

1.2.3.2.4. A momentary pushbutton shall allow the user to turn the Wi-Fi access point on or off.

1.2.3.2.5. The Wi-Fi access point shall turn itself off automatically after a period of inactivity from connected devices.

1.2.3.2.6. An LED shall indicate when the Wi-Fi access point is enabled.

1.2.3.2.7. The Wi-Fi access point shall operate simultaneously with the wired maintenance port and with the TMC connection.

1.2.4. Traffic Controller Connection

The communications interface panel shall provide one connection to communicate to the traffic controller through the cabinet.

1.2.4.1. The traffic controller connector shall be a 15-pin female metal shell D sub-miniature type connector to support a standard NEMA TS2 or TEES SDLC cable.

1.2.4.2. The traffic controller connection shall be able to connect to a wired input/output card, which supports wired I/O in cabinets without a SDLC-capable controller.

1.2.4.2.1. The wired I/O data communications link shall support at least 24 outputs and 16 inputs.

1.2.4.3. It shall be possible to connect and use both SDLC communications and communication to the wired input/output card simultaneously.

1.2.5. USB Ports

1.2.5.1. The communications interface panel shall include two USB 2.0 ports.

1.2.5.2. It shall be possible to reinstall all system and application software from a USB memory stick without necessitating removal of the communications interface panel from the cabinet.

1.2.6. Power

1.2.6.1. The communications interface panel shall accept input voltage in the range of 89-265 VAC, 50/60 Hz power from the transient-protected side of the cabinet.

1.2.6.2. The communications interface panel shall be protected by two slow blow fuses. Spares shall be attached to the panel.

2. System Software

The video detection system shall include management software for configuration, monitoring and data collection purposes.

2.1. Management Software

2.1.1. Management software shall be a Windows-based application.

2.1.1.1. The software shall be compatible with Windows 7 and Windows 10 operating systems.

2.1.1.2. The software shall communicate with the video detection system via Ethernet.

2.1.2. The management software shall automatically determine all video sensors and communications interface panels available on the local network and populate a list of all devices.

2.1.3. The management software shall provide the user a means to name individual video sensors and communications interface panels.

2.1.4. The management software shall provide a means for the user to zoom the camera optics while viewing a live video stream.

2.1.5. The management software shall provide a means for the user to calibrate distances in the field of view.

2.1.6. The management software shall provide the user a means to create 4-sided detection zones in the field of view using either a still snapshot or live video.

2.1.6.1. The management software will overlay an outline of each detection zone over the background image.

2.1.6.2. It shall be possible for the user to place detection zones anywhere in the field of view for stop line detection and/or advance detection.

2.1.6.3. It shall be possible for the user to set the desired color of both the on and off states of the detection zone overlay.

2.1.6.4. It shall be possible for the user to alter the size and shape of any previously created zone.

2.1.6.5. It shall be possible for the user to overlap zones, either partially or fully.

2.1.6.6. It shall be possible for the user to name each zone uniquely.

2.1.6.7. It shall be possible for the user to assign each zone to detect vehicles, to detect bicycles, or to detect both, and to specify different outputs for each type.

2.1.6.8. It shall be possible for the user to assign the same output to multiple zones such that the output will be on if any of the zones are detecting a vehicle or bicycle.

2.1.6.9. It shall be possible for the user to assign a single zone to more than one output such that if a vehicle or bicycle is detected, all the assigned outputs shall be turned on.

2.1.6.10. The management software shall be capable of creating at least 99 detection zones per video sensor.

- 2.1.6.11. It shall be possible for the management software to retrieve all configuration parameters from video sensors or communications interface panels.
- 2.1.6.12. It shall be possible for the user to save all the settings for a video sensor or a communications interface panel to a laptop file.
- 2.1.6.13. The management software shall provide a means to read or import all the settings from a previously saved configuration file for a video sensor or a communications interface panel.
- 2.1.6.14. The management software shall be able to download a new version of the application software into a communications interface panel and its attached video sensors.
- 2.1.6.15. The management software shall provide a screen to monitor operation of a video sensor.
- 2.1.6.16. The monitoring screen shall include a live video stream from the video sensor with at least HD 1280x720 pixel resolution.
- 2.1.6.17. The monitoring screen shall show indications of detection in real time by changing the color of the detection zone.
- 2.1.6.18. It shall be possible for the user to configure different indications for vehicle detections vs. bicycle detections when both are configured for the same zone.
- 2.1.6.19. The monitoring screen shall include the following optional, configurable objects. It shall be possible for the user to size and position them anywhere on the screen and to change the color and size of text.
- 2.1.6.20. An indication of when an output is on or off, along with a user-configurable name for that indicator.
- 2.1.6.21. The current time in the video sensor.
- 2.1.6.22. A user-configurable title or name.
- 2.1.6.23. The version number of the video sensor software.
- 2.1.6.24. It shall be possible for the user to turn the overlay graphics on or off with a single setting.
- 2.1.6.25. The management software shall provide a screen to monitor operation of the intersection with a quad-view video stream from the communications interface panel.
- 2.1.6.26. The quad-view video stream shall have a resolution of at least HD 1280x720 pixels, where each of the sensor videos comprising the quad-view shall be at least 640x360 pixels.
- 2.1.6.27. It shall be possible for the user to configure the order that the sensor videos appear in the quad-view.
- 2.1.6.28. The real-time quad-view video stream shall be capable of displaying the overlay graphics for all four sensors simultaneously.

2.1.6.29. While monitoring the video of a single video sensor or of the quad-view, it shall be possible for the user to request a “snapshot” or single-frame image to save to a named file on a laptop.

2.1.6.30. While monitoring the video of a single video sensor or of the quad-view, it shall be possible for the user to record a period of the video to save to a named file on a laptop.

3. System Functionality

The video detection system shall provide the following features and functionality.

3.1. Detection Performance

3.1.1. The video detection system shall detect the presence of vehicles in defined zones and turn on the assigned output when the vehicle is present in the zone.

3.1.2. Stop Line Detection

3.1.3. For detection zones placed at the stop line, the probability of not detecting the presence of a vehicle shall be 1% or less under all operating conditions when the video sensor is installed and configured properly.

3.1.4. For detection zones placed at the stop line, the probability of falsely detecting a vehicle that is not present shall be 3% or less under all operating conditions when the video sensor is installed and configured properly.

3.1.5. Advance Detection

3.1.6. It shall be possible to place advance detector zones such that the farthest point of the zone is up to 600 feet from the video sensor. Advance detector zone placement shall include 2-3 car lengths of field-of-view beyond the farthest point of the zone.

3.1.7. To ensure statistical significance for the above detection performance specifications, the data shall be collected over 24-hour time intervals (so as to avoid a single lighting condition) and will contain a minimum of one hundred (100) vehicles per lane. The calculations of detection performance will not include turning movements where vehicles do not pass through the detectors, vehicle lane-change anomalies, or where they stop short or stop beyond the combined detection zones.

3.2. Failsafe Mode

3.2.1. The video detection system shall provide a failsafe mode for each video sensor. If the failsafe mode is enabled, all programmed presence detection outputs for the video sensor shall be turned on, thus placing constant calls to the controller. When failsafe mode is disabled, all outputs revert to normal on/off operations.

3.2.2. The video sensor shall continuously monitor the overall contrast in the video. If the overall contrast falls below a preset level (such as caused by dirty faceplate, severe glare, extreme fog, or temporary ice/snow on the faceplate),

the sensor shall enable the failsafe mode. When sufficient contrast is restored in the video, the sensor will disable the failsafe mode.

3.2.3. The communications interface panel shall continuously monitor the connectivity status of the attached video sensors. If any video sensor goes offline due to either electrical failure or internal software failure, the communications interface panel shall enable the failsafe mode for that video sensor. If the video sensor comes back online, failsafe mode shall be disabled.

3.3. Data Collection

3.3.1. The video detection system shall automatically collect and store traffic flow data in non-volatile memory for later retrieval and analysis. No additional hardware or software shall be necessary. The data shall include:

3.3.1.1. Vehicle counts.

3.3.1.2. Vehicle average speeds.

3.3.2. The management software shall be able to retrieve collected data for a specified period of time or for all currently stored data and save into a standard CSV file.

3.4. Operations Log

3.4.1. The communications interface panel and each video sensor shall maintain a time-stamped operations log of routine and special events in non-volatile memory for later retrieval and analysis.

3.5. Time Synchronization

3.5.1. The video detection system and management software shall provide three methods to synchronize the time of day clocks in the communication interface panel and the video sensors, as follows:

3.5.1.1. Manual time synchronization operation by the user, which sets the time to the current time on the laptop where the management software is running.

3.5.1.2. A configuration setting to allow the communications interface panel to automatically obtain time from the NEMA TS2 protocol on the SDLC channel and broadcast it to the video sensors.

3.5.1.3. A configuration setting to allow the communications interface panel to automatically obtain time from up to five Network Time Protocol (NTP) sources and broadcast it to the video sensors.

3.6. Video Streaming

3.6.1. In addition to the ability to view video streams in the management software, it shall be possible to view video from individual sensors or to view the quad-view from the communications interface panel using a third-party video player application on a tablet, smartphone or laptop computer.

4. Installation and Setup

The video detection system hardware shall be designed for flexible, fast and easy installation and setup.

- 4.1. It shall be possible to mount the video sensor on an intersection pole, mast arm, or luminaire arm.
- 4.2. No special tools or extra equipment, other than a laptop for configuration, will be required.
- 4.3. Once all hardware is installed, connected and functional, it shall be possible to configure the video detection system for a typical 4-approach, 8-phase intersection in 15 minutes or less.

5. Responsibilities

5.1.1. Ongoing software support by the manufacturer will include software updates of the video sensor, communications interface panel, and management software. These updates will be provided free of charge during the warranty period. The manufacturer will maintain a program for technical support and software updates following expiration of the warranty period. This program will be available to the contracting agency in the form of a separate agreement for continuing support.

5.1.2. A quick-start guide, installation guide, application notes, and other materials shall be available from the manufacturer to assist in product installation and setup for various applications. In addition, training online or in person shall be available.

5.1.3. Training shall be available to personnel of the contracting agency in application design, operation, setup, and maintenance of the video detection system.

5.1.4. Manufacturer shall provide a tech support website and an 800 number for technical support.

6. Method of Measurement

Video Detection System will be measured per each for each intersection where video detectors are furnished and installed.

7. Basis of Payment

Video Detection System will be paid at the contract unit price per each. Payment will be full compensation for furnishing and installing the video detection system including all materials, labor, equipment, tools, and incidentals required to complete this work.

8. Warranty

The video detection system shall be warranted by its supplier for a minimum of three years. Ongoing software support by the supplier shall include updates of the MVP sensor and application software. These updates shall be provided free of charge during the warranty period. The supplier shall maintain a program for technical support and software updates following the expiration of the warranty period. This program shall be made available to the contracting agency in the form of a separate agreement for continuing support.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
OPTICAL ACTIVATED
EMERGENCY VEHICLE PRE-EMPTION SYSTEM**

**PROJECT NH 0100(106)409, P 8042(00), & P 8042(00)
PCN 01V7, 08DG, & 08DH
LINCOLN COUNTY**

DECEMBER 31, 2024

I. SYSTEM DESCRIPTION

The required priority control system will employ data-encoded optical communication to verify the presence of authorized priority vehicles. The data-encoded optical communication will request the traffic signal controller to advance to and/or hold a desired traffic signal display selected from phases normally available.

The priority control system will consist of a matched system of optical detectors, detector cable, signal discriminators and confirmation lights.

A code secured signal will be detected and recognized by the optical detectors at or near the intersection over a line-of-sight path of up to 2,500 feet under clear atmospheric conditions. The signal discriminator will process the electrical signal from the detector to ensure that the communication (1) is a valid base frequency, and (2) is within user-settable range. If these conditions are met, the signal discriminator will generate a priority control request (i.e. the appropriate green lights) for the approaching priority vehicles.

The system will require no action from the vehicle operator other than to turn on a code secured emitter. The system will operate on a first-come, first-served basis. Higher priority (Command) requests will override lower priority (Advantage) requests. The system will interface with most traffic signal controllers and will not compromise normal operation or existing safety provisions.

II. MATCHED SYSTEM COMPONENTS

The required priority control data-encoded optical communications system will consist of an optical detector, detector cable, signal discriminator, and confirmation light. In addition, a card rack shall be available, if required. To ensure system integrity,

operation and compatibility, all components will be from the same manufacturer. The system will be compatible with NEMA (National Electrical Manufacturers Association) TS1 and TS2 controllers.

- A. Optical Detector:** The detector will change the optical signal to an electrical signal. It will be located at or near the intersection. It will send the electrical signal, via the detector cable, to the discriminator.
- B. Detector Cable:** The detector cable will carry the electrical signal from the detector to the discriminator.
- C. Signal Discriminator:** The discriminator will validate the signal from the detector. It will be located within the controller cabinet at the intersection. It will request the controller to provide priority to the requesting vehicle.
- D. Card Rack:** The card rack will provide simplified installation of a signal discriminator into controller cabinets that do not already have a suitable card rack.

III. SYSTEM COMPONENT SPECIFICATIONS

A. Optical Detector

1. The required optical detector will be a lightweight, weatherproof device capable of sensing and transforming pulsed infrared energy into electrical signals for use by the discrimination equipment.
2. The optical detector will be designed for mounting at or near an intersection on mast arms, pedestals, pipes or span wires.
3. Each optical detector will be supplied with mounting hardware to accommodate installation on span wires or mast arms.
4. The optical detector design shall include adjustable tubes to enable their reorientation for span wire mounting without disassembly of the unit.
5. The optical detector will accept optical signals from one or two directions and will provide single or dual electrical output signal(s).
6. The optical detector will be available in three configurations:
 - a. Uni-directional with one output channel
 - b. Bi-directional with one output channel
 - c. Bi-directional with two output channels

7. The optical detector will allow aiming of the two optical sensing inputs for skewed approaches or slight curves.
8. The optical detector will have a built-in terminal block to simplify wiring connections.
9. The optical detector will receive power from the discriminator and will have internal voltage regulation to operate from 18 to 37 volts DC.
10. The optical detector will respond to a clear lens code secured emitter with 0.84 ($\pm 10\%$) Joules of energy output per flash at a distance of 2,500 feet under clear atmospheric conditions. If the emitter is configured with a visible light filter, the detector will respond at a distance of 1,800 feet under clear atmospheric conditions. The noted distances shall be comparable day and night.
11. The optical detector will deliver the necessary electrical signal to the discriminator via a detector cable up to 1,000 feet in length.

B. Detector Cable: The detector cable shall be Opticom Model 138 or an approved equal.

C. Signal Discriminator

1. The signal discriminator, designed to be installed in the traffic controller cabinet, is intended for use directly with NEMA controllers, with the system card rack and suitable system interface equipment.
2. The discriminator will be a plug-in, two or four-channel (as specified in the plans), dual-priority device intended to be installed directly into a card rack located within the controller cabinet.
3. The discriminator will be powered from 115 volt (95 volts AC to 135 volts AC), 60 Hz mains and will contain an internal, regulated power supply that supports up to four optical detectors.
4. The discriminator's default range values shall be re-settable by the operator using switches located on its front.
5. The discriminator will be capable of two levels of discrimination code secured optical signals, as follows:
 - a. Verification of the presence of the base optical signal of either 14.03509Hz \pm 0.01773Hz for Command priority, or 9.63855Hz \pm 0.00836Hz for Advantage priority.

- b.** Determination of when the vehicle is within the prescribed range.
- 6.** The discriminator's card edge connector will include primary optical detector inputs and power outputs.
- 7.** The discriminator will include one opto-isolated NPN output per channel that provides the following electrical signal to the appropriate pin on the card edge connector:
 - a.** 6.25Hz \pm 0.1Hz 50% on/duty square wave in response to an Advantage priority call.
 - b.** A steady ON in response to a Command priority call.
- 8.** The discriminator will accommodate two methods for setting intensity thresholds (emitter range) for high and low priority signals:
 - a.** Using an encoded emitter with range-setting capability.
 - b.** Using any encoded emitter while manipulating the front panel switches.
- 9.** The discriminator will have a solid state POWER ON LED indicator that flashes to indicate unit diagnostic mode and illuminates steadily to indicate proper operation.
- 10.** The discriminator will have internal diagnostics to test for proper operation. If a fault is detected, the discriminator will use the front panel LED indicators to display fault information.
- 11.** The discriminator will have a Command (High) and Advantage (Low) solid state LED indicator for each channel to display active calls.
- 12.** The discriminator will have a test switch for each channel to test proper operation of Command or Advantage priority.
- 13.** The discriminator will properly identify a Command priority call with the presence of 10 Advantage priority code secured emitter signals being received simultaneously on the same channel.
- 14.** The discriminator will have write-on pads to allow identification of the phase and channel.
- 15.** The discriminator shall have the capability of functionally testing connected detector circuits and indicating via front panel LEDs non-functional detector circuits.

16. The signal discriminator shall have a solid state circuit board. Module units will not be allowed.

D. Card Rack

1. The required card rack will provide simplified installation of a discriminator into controller cabinets that do not already have a suitable card rack.
2. The card rack will be factory wired to one connector, located behind the card slot, and a terminal block, located next to the discriminator slot, on the front of the card rack.
3. The card rack connector on the front will provide for all connections to the traffic controller.
4. The card rack will provide labeled terminal blocks for connecting the primary optical detectors to a discriminator.

E. Interface Cards

1. Interface Card for Electromechanical Controllers

- a. The required interface card for electromechanical controllers will provide electrical and logic interface between the discriminator and an electromechanical-type controller.
- b. The inputs to the interface card for electromechanical controllers will be connected to the outputs of the discriminator.
- c. The outputs of the interface card for electromechanical controllers will be connected to the Hand Control Switch or Police Panel where the dial motor and its self-generated solenoid advance pulses are disconnected from the cam/solenoid assembly and replaced by pulses generated by the action of the Hand Control Switch in the electromechanical-type controller.
- d. The interface card for electromechanical controllers will decode the outputs of the discriminator(s) and advance the controller to the phase that is set for that channel by sensing the traffic controller signal indications.
- e. The interface card for electromechanical controllers will have one input to disable the interface card.
- f. The interface card for electromechanical controllers will include the following switches:

- 1) Channel 1 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 1 green
- 2) Channel 2 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 2 green
- 3) Channel 3 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 3 green
- 4) Channel 4 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 4 green
- 5) NON Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when no indications are green
- 6) Power Switch

2. Confirmation Light Card

- a. The required confirmation light card will provide electrical and logic interface between discriminators and confirmation light switching devices at the intersection.
- b. The confirmation light card will have four inputs to allow connection to the outputs of one or two discriminators.
- c. The confirmation light card will connect to unused load switch inputs in the controller cabinet.
- d. The confirmation light card will provide 10 confirmation light patterns programmable by the user using a rotary switch.
- e. The confirmation light card will monitor green traffic signal indications for dynamic control of confirmation lights; e.g., to modify the response when proper phasing is reached.
- f. The patterns shall be as described below:

Pattern Number	Non-Called Direction		Called Direction	
	Desired Green	Non-Desired Green	Desired Green	Non-Desired Green
0	Off	Off	Steady On	Off
1	Off	Off	Flashing	Off
2	Flashing	Flashing	Steady On	Steady On
3	Steady On	Steady On	Flashing	Flashing
4	Flashing	Flashing	Steady On	Off
5	Steady On	Steady On	Flashing	Off
6	Flashing	Flashing	Steady On	Flashing
7	Steady On	Steady On	Flashing	Steady On
8	Off	Off	Steady On	Flashing
9	Off	Off	Flashing	Steady On
1/0	Off	Off	Flashing	Off
1/1	Off	Off	Steady On	Off
1/2	Steady On	Steady On	Flashing	Flashing
1/3	Flashing	Flashing	Steady On	Steady On
1/4	Steady On	Steady On	Flashing	Off
1/5	Flashing	Flashing	Steady On	Off
1/6	Steady On	Steady On	Flashing	Steady On
1/7	Flashing	Flashing	Steady On	Flashing
1/8	Off	Off	Flashing	Steady On
1/9	Off	Off	Steady On	Off

IV. RELIABILITY

- A. All equipment supplied as part of the optical priority control system intended for use in the controller cabinet will meet the following electrical and environmental specifications spelled out in the NEMA Standards Publication TS2 1992, Part 2:
1. Line voltage variations per NEMA TS2 1992, Paragraph 2.1.2.
 2. Power source frequency per NEMA TS2 1992, Paragraph 2.1.3.
 3. Power source noise transients per NEMA TS2 1992, Paragraph 2.1.6.1.
 4. Temperature range per NEMA TS2 1992, Paragraph 2.1.5.1.
 5. Humidity per NEMA TS2 1992, Paragraph 2.1.5.2.
 6. Shock test per NEMA TS2 1992, Paragraph 3.13.9.

7. Vibration per NEMA TS2 1992, Paragraph 3.13.8.

- B. Each piece of equipment supplied as part of the priority control system intended for use in or on priority vehicles will operate properly across the entire spectrum of combinations of environmental conditions (temperature range, relative humidity, vehicle battery voltage) per the individual component specifications.

V. RESPONSIBILITIES

The manufacturer of the required optical priority control system and/or the manufacturer's representative will provide responsive service before, during and after installation of the priority control system. The manufacturer and/or the manufacturer's representative will provide certified, trained technicians having traffic systems industry experience and operational knowledge of priority control systems.

VI. GUARANTEED WARRANTY

- A. The manufacturer of the required optical priority control system will warrant that, provided the priority control system has been properly installed, operated and maintained, component parts of a matched component system (see Section II) that prove to be defective in workmanship and/or material during the first five years from the date of shipment from the manufacturer will be covered in a documented system-protection plan, plus an added five-year warranty for repair or replacement at a fixed deductible charge for a total of 10 years of product coverage.
- B. The protection plan will warrant that component parts of a matched component system that prove to be defective in workmanship and/or material during the first five years from the date of shipment from manufacturer will be repaired at no charge, and that extended coverage with a fixed repair deductible will be available for an additional five years.
- C. In total, the warranty coverage must assure 10-year operational reliability and interface compatibility with future components designed for the system.

VII. CERTIFICATION

The manufacturer of the required priority control system will certify that all component products are designed, manufactured and tested as a system of matched components and will meet or exceed the requirements of this specification.

VIII. METHOD OF MEASUREMENT

- A. Optical Detector will be measured per each for the number of optical detectors furnished and installed.

B. Emergency Vehicle Preemption Unit will be measured per each for the number of units furnished and installed.

IX. BASIS OF PAYMENT

A. Optical Detector will be paid at the contract unit price per each. Payment will be full compensation for furnishing and installing the optical detector.

B. Emergency Vehicle Preemption Unit will be paid at the contract unit price per each. Payment will be full compensation for furnishing and installing the Emergency Vehicle Preemption Unit, detector cable, and all incidentals required to complete the work.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
PERMANENT MECHANICALLY STABILIZED EARTH
WIRE FACE WALLS**

**PROJECT NH 0100(106)409, P 8042(00), & P 8042(00)
PCN 01V7, 08DG, & 08DH
LINCOLN COUNTY**

DECEMBER 16, 2024

I. DESCRIPTION

This work will consist of permanent mechanically stabilized earth (MSE) wire face retaining walls constructed in accordance with these specifications and in reasonably close conformity with the lines, grades, and dimensions shown on the plans or established by the Engineer.

II. MATERIALS

The Contractor will arrange to purchase all wire facing elements to include backing materials, soil reinforcing elements, attachment devices, and all other necessary components. Materials not conforming to this section of the specifications or from sources not listed in the contract documents will not be used without written approval from the Area Engineer.

A. Wire Facing, Soil Reinforcing and Attachment Devices: All facing, reinforcing, and attachment devices will be carefully inspected to ensure they are true to size and free from defects that may impair their strength and durability.

- 1. Wire Facing, Reinforcing Mesh, and Attachment Devices:** Wire facing, reinforcing mesh, and attachment devices will be shop fabricated of cold-drawn steel wire conforming to the requirements of AASHTO M 32 (ASTM A1064) and will be welded into the finished mesh fabric in accordance with AASHTO M 55 (ASTM A185).
- 2. Reinforcing Strips:** Reinforcing strips will be hot-rolled from bars to the required shape and dimensions. The strips' physical and mechanical

properties will conform to the requirements of ASTM A572, Grade 65 minimum.

3. **Corrosion-resistant coating:** Galvanization will be applied after the mesh is fabricated. Steel components will be hot-dip galvanized in accordance with ASTM A123. A minimum galvanization coating of 2.0 oz/ft² or 3.4 mils thickness is required. Steel components will be adequately supported while lifting and placing such that the galvanization remains intact. Steel components with damaged (peeled) galvanization will be repaired according to ASTM A780 and as specified in approved working drawings, at no additional cost to the Department.
4. **Backfill Retention Material:** Backfill retention materials will be wire mesh, expanded metal sheets, metal hardware cloth, or a combination thereof and galvanized in accordance with ASTM A123. The size of this material will be determined by the wall designer to prevent backfill from spilling out the front face of the wall. Retention geotextile with rock facing material will not be allowed.
5. **Handling, Storage, and Shipping:** Care will be taken when loading and unloading the reinforcement and facing materials as to not damage any steel or coatings. The material will be stored on the project as to minimize any potential damage and/or mud contamination. Reinforcing, facing elements, and attachment devices that do not meet the manufacturer's requirements and are not free of defects will be rejected (i.e. bent reinforcement, damaged coatings, etc.).

B. Granular Backfill for MSE Wire Face Wall: All backfill material used in the structure volume will be reasonably free from organic and deleterious material. The backfill material will be obtained from crushed natural sources conforming to the following gradation limits as determined by SD 202 using the surface course materials procedure:

<u>Sieve Size</u>	<u>Percent Passing</u>
1-1/2 inches	100
3/8 inch	0-15
No. 200 mesh sieve	0-10

The backfill will conform to the following additional requirements:

1. **Plasticity Index:** The plasticity index (P.I.) as determined by SD 207, will not exceed 2.
2. **Internal Angle of Friction:** The material will exhibit an angle of internal friction of not less than 34 degrees, as determined by the standard Direct Shear Test, AASHTO T 236, on the portion finer than the No. 10 sieve.

3. **Soundness:** The materials will be free of soft, poor durability particles. The material will have a sodium sulfate soundness loss of less than 15 percent after five cycles determined in accordance with AASHTO T 104 or SD 220.
4. **Electrochemical Requirements:** The backfill materials will meet the following criteria:

Requirements	Test Methods
Resistivity > 3,000 ohm centimeters	AASHTO T 288
ph 5-10	AASHTO T 289
Sulfates < 200 parts per million	AASHTO T 290
Chlorides < 100 parts per million	AASHTO T 291

If the resistivity is greater than or equal to 5,000 ohm-cm, the chloride and sulfates requirements may be waived.

5. **Strength and Chemical Requirements:** The following aggregates meet the above strength and chemical parameters: Minnekahta Limestone, Sioux Quartzite, and Ortonville Granite.
6. **Design Parameters:** Direct shear tests performed on the above aggregates indicate an internal friction angle = 47 degrees, and cohesion = 0. No reduction or safety factors have been applied to these values. A value greater than the standard 34 degrees for the internal friction angle can be used at the wall designer's discretion. A dry unit weight = 105 pcf will be used for the Granular Backfill for MSE Wire Face Wall.

C. Acceptance of Material: The Contractor will furnish the Engineer a Certificate of Compliance certifying all materials, including Granular Backfill for MSE Wire Face Wall if other than Minnekahta Limestone, Sioux Quartzite, or Ortonville Granite, comply with the applicable contract specifications. A copy of all test results performed by the Contractor necessary to ensure contract compliance will also be furnished to the Engineer.

Acceptance of the materials other than Granular Backfill for MSE Wire Face Wall will be based on the Certificate of Compliance, accompanying test reports, and visual inspection by the Engineer. Acceptance of the Granular Backfill for MSE Wire Face Wall will be in accordance with the Department's Materials Manual.

III. CONSTRUCTION REQUIREMENTS

A. Construction Plans, Shop Plans, and Design Calculations: The Contractor will consult with an approved MSE wall company and obtain design calculations

and construction plans. These plans will be signed/sealed by a South Dakota Registered professional engineer. At least 30 calendar days prior to fabrication or construction, the Contractor will submit construction plans, shop plans, and design calculations for the Department's review and approval. Construction plans will include plan view, elevation view, typical cross sections, material and construction specifications, and a detailed quantity list consisting of actual quantities for: Structure Excavation, Retaining Wall (Cu. Yd.), Foundation Preparation, Retaining Wall (Cu. Yd.), MSE Wire Face Wall (Sq. Ft.), and Granular Backfill for MSE Wire Face Wall (Cu. Yd.). The Contractor will send an email with the construction plans, shop plans, and design calculations attached as a PDF to the Project Engineer and Office of Bridge Design. Upon request, the Project Engineer will provide the Contractor the appropriate email addresses. The Contractor will not begin fabrication or any construction prior to the Department's review and final approval of the construction plans, shop plans, and design calculations. Within 30 calendar days of receiving the initial construction plans, shop plans, and design calculations; the Office of Bridge Design will send a response to the Contractor and submitter with the Department's final approval or one reviewed copy of the construction plans, shop plans, and design calculations with changes marked. The Contractor will make the necessary changes, if any, to the construction plans, shop plans, and design calculations. The Contractor will then send the Project Engineer and the Office of Bridge Design an email with the final construction plans, shop plans, and design calculations as a PDF for distribution.

- B. Structure Excavation, Retaining Wall:** This work will consist of the necessary excavation for erection of the retaining wall system. Structure excavation will be in reasonably close conformity to the limits shown on the typical section located within the plans.
- C. Foundation Preparation, Retaining Wall:** The foundation area for the retaining wall will be excavated to the limits depicted within the plans or as directed by the Engineer. Backfill material will be as specified in the plans.
- D. Wall Erection:** A field representative from the proprietary wall system will be at the job site at the start of wall construction and as needed to resolve wall construction problems. Before wall construction begins, a pre-construction conference will be held to cover proper wall construction techniques. Personnel at this meeting will include, but not be limited to, Department project personnel, Contractor personnel, the Department's Bridge Construction Engineer (or representative), and a field representative from the proprietary wall company. The field representative will also be present during the placement and backfilling of the first two complete rows along the length of the wall, or until the backfill, compaction, and wall batter operations have been optimized. The decision of when the operations have been optimized will be at the sole discretion of the Engineer. The services of the field representative will be incidental to the wall cost.

Soil reinforcing and applicable facing materials will be placed in successive horizontal lifts as backfill placement proceeds. The horizontal wall placement will be within plus/minus two inches from plan specified alignment. The vertical alignment will be within two inches in ten feet, not to exceed six inches for the total height of the wall, when measured from the plan specified vertical alignment. No negative batter measured from vertical will be allowed.

Construction of the wall will begin at the lowest course and proceed upwards. The entire lowest course must be placed and backfilled prior to the construction of any of the subsequent course. Backfill placement must be in successive horizontal lifts as reinforcement placement proceeds. Deviation from these requirements will require a submittal of the proposed erection plan, including how to retain backfill material laterally without undermining wall reinforcement, to the Bridge Construction Engineer for approval a minimum of 30 days prior to beginning construction on the wall.

The underdrain system, if applicable, will be placed prior to wall backfill placement. The underdrain system will provide positive drainage from the wall backfill. If the permanent outlet works for the underdrain system is not installed or unable to be installed, a temporary outlet works for the underdrain system will be constructed until the permanent outlet works can be constructed to prevent water from backing up in the wall backfill material.

Reinforcement elements will be placed normal to the face of the wall, unless otherwise shown on the plans. Prior to placement of the reinforcing elements, backfill will be compacted according to these specifications.

The finished grade backfill in front of the wall will be placed and compacted to a minimum of 97% of maximum dry density as determined by SD 104. For walls more than 20 feet in height, the finished grade in front of the wall will be placed and compacted before wall construction exceeds a height of 20 feet.

- E. Backfill Placement:** Backfill placement will closely follow erection of each course of facing component. Backfill will be placed to avoid any damage or disturbance of the wall materials or misalignment of the facing. Any wall materials which become damaged or disturbed during backfill placement will be either removed and replaced at the Contractor's expense or corrected as directed by the Engineer. Backfill placement methods near the facing will ensure that no voids exist, especially beneath the reinforcing elements.

The moisture content prior to and during compaction will be uniform throughout each layer. Water will be applied at a minimum rate of 0.25 gal/ft² of surface area per lift. The Contractor will increase this rate, when ordered by the Engineer, to ensure the lift is fully saturated.

The maximum lift thickness prior to compaction will not exceed eight inches. The Contractor will decrease this thickness, when ordered by the Engineer, to obtain the required density.

Compaction will be achieved by at least four passes by a heavy vibratory roller. If adequate compaction is not achieved using the selected roller, the size of the roller will be increased as directed by the Engineer.

The maximum lift thickness prior to compaction within three feet of the back face of the wall facing will not exceed four inches. At least two lifts will be completed within this area per each lift beyond three feet of the back face of the wall facing.

Compaction within three feet of the back face of the wall facing will be achieved by at least three passes of a lightweight mechanical tamper, roller, or vibratory system.

At the end of each day's operation, the Contractor will slope the last course of the backfill away from the wall facing to rapidly direct runoff away from the wall face. The Contractor will not allow surface runoff from adjacent areas to enter the wall construction site.

The embankment immediately behind the wall reinforcement will be brought up evenly with the Granular Backfill for MSE Wire Face Wall, or benched in accordance with Section 120.3.B.2 of the Standard Specifications for Roads and Bridges.

Backfill will not be constructed on frozen ground and frozen material will not be used in the construction of the MSE Wire Face Wall. The use of ground heaters, blankets, warmers, or other apparatuses may be used at the approval of the Engineer.

IV. METHOD OF MEASUREMENT

Plan shown quantities are for bidding purposes only. Construction plans quantities will be the measurement for payment. Field measurements will not be made, unless the Department determines that conditions warrant such measurement.

A. Structure Excavation, Retaining Wall will be measured to the nearest cubic yard.

B. Foundation Preparation, Retaining Wall will be measured to the nearest cubic yard.

C. Granular Backfill for MSE Wire Face Wall will be measured to the nearest cubic yard.

D. MSE Wire Face Wall will be measured to the nearest square foot. The area of retaining wall to be used for payment will be the area bounded by the top of wall, bottom of wall elevations and the beginning and end wall limits as shown on the construction plans.

V. BASIS OF PAYMENT

A. Structure Excavation, Retaining Wall, will be paid for at the contract unit price per cubic yard. Payment will be full compensation for equipment, labor, tools and incidentals required to complete the work.

B. Foundation Preparation, Retaining Wall will be paid for at the contract unit price per cubic yard. Payment will be full compensation for equipment, labor, tools, and incidentals required for excavating and disposal of the excavated material; equipment, labor, materials, and all other items incidental to scarifying, reshaping, and recompacting the area to be backfilled; and incidentals for furnishing, placing, watering, and compacting backfill material.

C. Granular Backfill for MSE Wire Face Wall will be paid for at the contract unit price per cubic yard. Payment will be full compensation for equipment, labor, materials and all other items incidental to placing, watering, and compacting the granular material to the limits shown on the construction plans.

D. MSE Wire Face Wall will be paid for at the contract unit price per square foot. Payment will be full compensation for all materials, equipment, labor, and all other incidentals required to furnish and install the wall including the underdrain system as detailed on the construction plans.

The acceptable wire face wall suppliers are listed on the approved products list on the South Dakota DOT website.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
STAINLESS REINFORCING STEEL**

**PROJECT NH 0100(106)409, P 8042(00), & P 8042(00)
PCN 01V7, 08DG, & 08DH
LINCOLN COUNTY**

DECEMBER 31, 2024

I. DESCRIPTION

This structure requires the use of stainless steel deformed reinforcing bars for some parts of the structure, as shown on the plans. Stainless steel reinforcing bars will conform to Section 480 with the following exceptions and additions.

II. MATERIALS

Provide Duplex 2205 (UNS S31803) or 2304 (UNS S32304), deformed stainless steel reinforcing bars conforming to the requirements of ASTM A 955 "Standard Specifications for Deformed and Plain Stainless Steel Bars for Concrete Reinforcement" meeting the grade specified in the plans. Stainless steel reinforcing bars will be free of mill scale. Certified Mill Test Reports and a Certificate of Compliance are required.

III. CONSTRUCTION REQUIREMENTS

A. Bar Supports: Bar supports will be plastic or stainless steel.

B. Tie Wires: Tie wires will be stainless steel, 18 gauge or heavier.

C. Handling: Stainless steel rebar will be shipped, handled, and placed such that carbon steel does not come in contact with the stainless steel rebar. Padding will be used to separate carbon steel bundling bands, or lifting devices, from the rebar. Wire rope will not be used in lifting or handling the reinforcing. Use wooden spacers to separate bundles of stainless steel rebar from other types of rebar.

D. Storage: Cover stainless steel rebar with tarps during outdoor storage. Use wooden supports to store stainless steel rebar off the ground or shop floor.

E. Placing: Stainless steel rebar will be placed such that carbon steel does not come in contact with the stainless steel rebar. Contact surfaces will be protected with a polymer or neoprene.

IV. METHOD OF MEASUREMENT

Stainless reinforcing steel will be measured according to Section 480.

V. BASIS OF PAYMENT

Stainless reinforcing steel will be paid at the contract unit price per pound according to Section 480.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
CONTRACTOR STAKING
WITH MACHINE CONTROL GRADING OPTION**

**PROJECT NH 0100(106)409, P 8042(00), & P 8042(00)
PCN 01V7, 08DG, & 08DH
LINCOLN COUNTY**

DECEMBER 31, 2024

Delete Section 5.8 of the specifications and insert the following:

**SECTION 5.8
CONSTRUCTION STAKES, LINES AND GRADES
CONTRACTOR GRADE STAKING**

A. DESCRIPTION

The Contractor will perform all construction staking. The Contractor may elect to use grading equipment with an automated machine control system for Machine Control Grading (MCG) provided the equipment and methods used provide the same results in the finished work as conventional construction staking. The Engineer may require the Contractor to revert to conventional staking methods for all or part of the work at any point during construction if, in the Engineer's own opinion, the MCG produces unacceptable results.

The Department will not allow the Contractor to use MCG as a substitute for conventional construction staking for slope staking and slope stake referencing, paving hub staking, structure staking, miscellaneous staking, or final cross section surveying.

The staking work includes, but is not limited to, establishing or re-establishing the project centerline; establishing control points and benchmarks as needed; setting additional benchmarks as needed; perform measurement and volume calculations of all Contractor secured borrow sources, State designated borrow sources, and topsoil stockpiles; perform measurement and volume calculations for earthwork quantities; and staking right-of-way, easements, and fence. The Contractor will perform measurement and volume computations by the average end area method

at the slope stake stations and plus stations, surface-to-surface method, or alternate measurement and computation method approved by the Engineer.

The Contractor will perform all construction layout and reference staking necessary for the accurate control and completion of all structures, grading, paving, drainage, median crossovers, signing, pavement marking, permanent benchmarks, detours, fence, and all other appurtenances required for the complete construction and acceptance of the work. The layout will include, but is not limited to, staking clearing line, slope staking and slope stake referencing, grade staking (blue tops), paving hub staking, structure staking, and performing the miscellaneous staking as described in the plans and in this specification.

The Department has established horizontal and vertical control as shown on the plans. Each horizontal and vertical control point will be preserved or reset out of the work limits and available during and after construction is complete. Prior to the Department's final acceptance of the project, the Contractor will replace or reset any control that is disturbed during the construction of the project. The Contractor will provide the Department a list of the in-place control points, including coordinates and elevations relevant to the project control, at the end of the project.

The Department will provide a MCG packet to all prospective bidders consisting of a XML file containing the original surface Digital Terrain Model (DTM) and 4 design files for each new alignment on the project. The electronic design files will include, a XML file containing mainline alignment data, a XML file containing mainline design surface DTM, a DGN file containing triangles for mainline surface, and a DWG file containing triangles for mainline surface. The MCG packet will be available on the Department's electronic bid letting website when the project is advertised for bid letting.

The Contractor will convert the electronic information provided by the Department into the format required by the Contractor's MCG system. The Department makes no guarantee the information provided is directly compatible with the Contractor's MCG system.

The information shown in the plans will govern over the provided electronic information. The Contractor assumes the risk of error if the information is used for any purpose for which the information was not intended. The Contractor assumes all risk of any assumptions made regarding the electronic information.

The Contractor bears all costs, including but not limited to the cost of actual reconstruction of work, that may be incurred due to errors in application of MCG techniques. Grade elevation errors, rework resulting from errors or failures of the MCG system, and associated quantity adjustments resulting from the Contractor's activities are at no cost to the Department. Delays due to late submittals or satellite reception of signals to operate the MCG system will not result in adjustment to any contract unit prices or be justification for granting contract extensions.

The electronic information is not to be considered a representation of actual conditions to be encountered during construction. Providing the Contractor this information does not relieve the Contractor from the responsibility of making an investigation of conditions to be encountered, including but not limited to, site visits and basing the bid on information obtained from these investigations and the Contractor's professional interpretations and judgment. The Contractor assumes the risk of error if the information is used for any purposes for which the information was not intended. Any assumptions the Contractor makes from this electronic information or manipulation of the electronic information is at the Contractor's own risk.

The Contractor will perform the staking work in accordance with the Department's Survey Manual, except as modified by this specification.

If the Contractor elects to use MCG, the Contractor will submit a comprehensive written MCG work plan to the Engineer for review prior to scheduling the preconstruction meeting. The Department will review the plan to determine if the plan conforms to the requirements of the contract.

The Contractor will include in the MCG work plan how MCG will be incorporated into other technologies used on the project. The Contractor's MCG work plan will include, but is not limited to, the following:

1. A designation of which portions of the subgrade will be completed using MCG and which portions, if any, will be completed using conventional subgrade staking methods.
2. A description of the manufacturer, model, and software version of all MCG equipment.
3. Information on the qualifications of the Contractor's staff including, but not limited to, formal training and field experience.
4. A designation of a single person as the primary contact for MCG technology issues.
5. A description of site calibration procedures.
6. A description of site calibration and checking frequency and procedures for documenting site calibration and checking.
7. A description of the Contractor's quality control procedures including procedures for checking, mechanical calibration, and maintenance of equipment.
8. A description of the frequency and types of checks the Contractor will perform to ensure the constructed subgrade conforms to the contract requirements.

B. MATERIALS

The Contractor will furnish all staking materials of adequate quality for the purpose intended including all stakes, stake chasers, paint, field note books, and all other materials and equipment necessary to perform the required work.

C. CONSTRUCTION REQUIREMENTS

- 1. General:** The Department will set control points. The Contractor is responsible for the preservation of ties and references to all control points necessary for the accurate re-establishment of all base lines and centerlines shown in the plans, whether established by the Contractor or found on or adjacent to the project. The Department will also establish benchmark elevations. It is the responsibility of the Contractor to verify the accuracy of the benchmark elevations prior to use on the project.

The Engineer may check the accuracy and control of the Contractor's survey, staking work, and MCG at any time. The checks performed by the Engineer will not relieve the Contractor of the responsibility for the accuracy of the survey layout or the construction work. If the random checks show the grade is out of tolerance, the Engineer may require the Contractor to set additional stakes, and paving hub stakes at the discretion of the Engineer, at no additional cost to the Department. If the Engineer orders additional stakes, the Contractor will perform the additional staking until the Contractor can show the staking operations achieve the specified grade tolerances.

Prior to any project staking, the Contractor will run a level circuit to check the plan benchmarks the full length of the project. At structure sites, the circuit will include two benchmarks, one on each end of the structure.

The Contractor will perform all staking and MCG work under the supervision of a qualified surveyor or engineer who is experienced and competent in road and bridge construction surveying, staking, and MCG procedures. The surveyor or engineer will be available to review work, resolve problems, and make decisions in a timely manner. A crew chief, competent to perform all required surveying duties, will supervise the staking in the absence of the surveyor or engineer from the project. The Contractor will submit the qualifications and work experience history of the surveyor or engineer who will supervise the construction survey and MCG work to the Engineer for review at least 14 calendar days prior to beginning the staking or MCG work.

- a. Conventional Construction Staking:** The Contractor will also submit the proposed starting date of the staking and the anticipated surveying work schedule.

The Contractor will furnish, set, and properly reference all stakes, references, lines, grades, and batter boards required. Minimum reference notations will be for type, location, and alignment (when there are multiple alignments in the same area). The Contractor will perform the survey and staking work in a manner consistent with standard engineering practices and approved by the Engineer.

The Contractor is solely responsible for the accuracy of the survey and staking work. The Contractor will notify the Engineer of any errors and discrepancies found in previous surveys, plans, specifications, or special provisions prior to proceeding with the survey work.

The Contractor will be responsible for the supervision of the construction staking personnel. The Contractor will correct any deficient survey or staking work that results in construction errors at no additional cost to the Department.

The Contractor will keep field notes in conventional handwritten notebooks or in a computerized form acceptable to the Engineer in a clear, orderly, and neat manner. The notebooks will become the property of the Department upon completion of the project. The notebooks will provide enough information such that quantity measurements are verifiable by the Department. Field notes are subject to inspection by the Engineer at any time.

The Contractor is required to submit any remaining required quantity calculations and notes to the Engineer no later than 60 calendar days after completion of the survey and staking work.

The Contractor will furnish stakes and wooden hubs or steel pins of sufficient length to provide a solid set in the ground. The Contractor will place half-length lath stakes or stake chasers or an alternate, acceptable to the Engineer, adjacent to or on the blue top hubs for guards. The Contractor will place guard stakes or an alternate, acceptable to the Engineer, adjacent to the paving hub with stationing and a grade to the top of slab written on the stake. Stakes set not meeting these requirements will be reset at the Contractor's expense. The Contractor will replace stakes and paving hubs damaged, destroyed, or made unusable at no additional expense to the Department.

- b. Machine Control Grading:** If the Contractor elects to use MCG, the Contractor will confirm the design surface DTM agrees with the contract plans, make adjustments to the design surface DTM as approved by the Engineer, and will maintain the design surface DTM for all areas of the project where MCG is used. The Contractor will also provide constructed

surface DTM information to the Department in LandXML or other Engineer approved format.

The Contractor will notify the Department of any errors or discrepancies in Department provided information. The Department will determine what revisions may be required. The Department will revise the contract plans, if necessary, to address errors or discrepancies the Contractor identifies. The Department will provide the best available information related to those contract plan revisions.

The Contractor will revise the design surface DTM as required to support construction operations and to reflect any contract plan revisions the Department makes. The Contractor will perform checks to confirm the revised design surface DTM agrees with the contract plan revisions. The Contractor will provide a copy of the resultant revised design surface DTM to the Engineer in LandXML. The Department will pay for costs incurred to incorporate contract plan revisions as extra work.

The Contractor will designate a set of control points, including a total of at least 6 horizontal and vertical points or 2 per mile, whichever is greater, for site calibration for the portion of the project employing MCG. The Contractor will incorporate the Department provided control framework used for the original survey and design.

The Contractor will calibrate the site by determining the parameters governing the transformation of satellite information into the project coordinate system. The Contractor will use the control points provided by the Department for the initial site calibration. The Contractor will provide the resulting site calibration file to the Engineer before beginning subgrade construction.

In addition to the site calibration, the Contractor will perform site calibration checks at individual control points not used in the initial site calibration. At a minimum, the Contractor will check the calibration at the start of each day as described in the contractor's MCG work plan. The Contractor will report out-of-tolerance checks to the Engineer. The measured position must match the established position at each individual control point within the horizontal tolerance of ± 0.1 foot and the vertical tolerance of ± 0.05 foot.

The Contractor will construct the subgrade as the Contractor's MCG work plan indicates and in accordance with the contract requirements. The Contractor will update the plan as necessary during construction of the subgrade. The Contractor will perform periodic sensor calibrations, checks for blade wear, and other routine adjustments as required to ensure the final subgrade conforms to the contract requirements.

The Department may use Department supplied GPS rover and data collector (GPS inspection equipment) to aid in the inspection of the work. The Department supplied GPS inspection equipment will require a connection to the Contractor's Machine Control Grading (MCG) system, through the Contractor's base station, used for MCG equipment.

The Contractor will configure the radio settings of the base station to allow the Department's rover to receive corrections directly from the Contractor's base station. The radio settings must be configured properly to ensure continuous communication across multiple brands of GPS equipment. The radio settings will be as follows:

- Frequency: 461.050 to 464.750 MHz
- Narrow Bandwidth: 12.5 kHz
- Protocol: PDL or PDL Tx
- Modulation: 4fSK
- Forward Error Correction (FEC): On
- Scrambler: Off
- Free Channel Scan (FCS): On

The connection of the Department's GPS inspection equipment will allow the Engineer the ability to positively and efficiently determine plan station, offset, and elevations in all MCG sections.

The Department will not make payment for the ability to connect or the connection to the Contractor's MCG system.

- 2. Slope Staking:** The Contractor will set slope stakes at the catch points. The slope stake reference hubs will be offset behind the slope stake. The Contractor will place slope stake reference hubs behind the slope stakes at a set distance, at the right-of-way line, or at the easement line, as approved by the Engineer.

The slope stakes will be set at 100-foot intervals on tangents and at 50-foot intervals in horizontal curves. The horizontal tolerance is ± 0.2 foot and the vertical tolerance is ± 0.1 foot. The Contractor will reference the subgrade shoulders with slope stake reference hubs set with a horizontal tolerance of ± 0.2 foot and a vertical tolerance of ± 0.05 foot.

The Contractor will retain the slope stakes and hub references until the final survey computations are completed and accepted by the Department.

Contractor will set slope stakes based on the information included in the MCG files provided by the Department.

3. Grade Staking: In accordance with the requirements of this provision, the Contractor may elect to use MCG equipment or may use conventional construction staking methods for all or part of the grade staking work, excluding paving hub staking.

a. Conventional Blue Tops: The Contractor will set grade finishing stakes (blue tops) for grade elevations and horizontal alignment on the roadway centerline and at each shoulder at the top of the subgrade. Where additional lanes or turnouts are to be constructed, The Contractor will set blue tops at centerline, the normal shoulder distance, and the extended shoulder distance or outside the additional lane edge.

The transverse distance between blue tops will not exceed 20 feet. The Contractor will be required to set intermediate blue tops when the transverse distance is greater than 20 feet. When intermediate blue tops are required, The Contractor will set the intermediate blue tops at locations approved by the Engineer.

The blue top grade stakes will be set at 100-foot intervals on tangents and 50-foot intervals on horizontal curves. The horizontal tolerance for blue tops is ± 0.2 foot and the vertical tolerance is ± 0.02 foot.

Contractor will set grade stakes based on the information included in the MCG files provided by the Department.

The Contractor will retain the shoulder blue tops and guards through placement of the granular material.

b. Machine Control Grading: The Contractor will set conventional construction staking grade finishing stakes (blue tops) for grade elevations and horizontal alignment on the roadway centerline and at each shoulder at the top of the subgrade (and gravel cushion for PCC paving projects) at a minimum of 500 foot intervals on mainline and slide repairs or at least one location for sections less than 500 foot long; at least two locations on side roads, side streets, and ramps; and at least one location within 100 feet of each bridge end. In addition, the Contractor will set blue tops for grade elevations and horizontal alignment on the roadway centerline and at each shoulder at the top of the subgrade (and gravel cushion for PCC paving projects) at critical transition points including, but not limited to, PC's, PT's, super elevations transition points, and other critical points required for the construction of drainage and roadway structures. The Contractor will also provide conventional construction staking grade finishing stakes (blue tops) at additional locations designated by the Engineer.

The Contractor will establish these grade staking (blue top) grades using the information included in the MCG files provided by the Department, plan

typical sections, and cross sections. The Contractor will use these stakes to check the accuracy of the MCG during construction. The Contractor will notify the Engineer at least 3 calendar days before making subgrade checks to allow the Engineer to observe the process.

The Contractor will ensure at least four of any five consecutive conventional construction staking grade finishing stakes (blue tops) locations are within the horizontal and vertical tolerances specified in Section 120.3. The Contractor will notify the Engineer if more than one of any five consecutive conventional construction staking grade finishing stakes (blue tops) locations is not within the horizontal or vertical tolerance.

The Department may conduct periodic independent subgrade checks. The Department will notify the Contractor if any individual check is not within the horizontal or vertical tolerance.

- c. **Paving Hub Staking:** When paving hub staking is required, the Contractor will set paving hubs at a maximum longitudinal distance of double the transverse joint spacing. The paving contractor may require a closer spacing. The horizontal and vertical tolerance for the paving hubs or grade nails is $\pm 0.02'$.

The Department will not provide paving hub notes. The Contractor is responsible for generating the paving hub grades from the blue top notes.

- 4. **Structure Staking:** The Contractor will stake and reference bridges and box culverts to ensure adequate horizontal and vertical control of the substructure and superstructure components. The Contractor will stake and reference the bridge chord or the bridge tangent and centerline of each pier, bent, and abutments for bridges. The Contractor will stake the box culvert centerline(s) in both longitudinal and transverse directions.

When the work requires bridge rehabilitation work, the structure staking will include all surveying and staking required for completion of the project. The staking work may include, but not be limited to, setting the rail for the deck overlay. The plans will indicate the grade line for the deck overlay; and if necessary, the Engineer may modify the grade line.

When staking retaining walls (except Type C), the Contractor will survey and record the original ground profile along the front face of the proposed wall at the elevation break points. The Contractor will supply the wall designer the original ground profile data prior to the wall designer performing the design. Set adequate stakes and references for horizontal and vertical control during construction.

For structures and retaining walls, the horizontal tolerance is ± 0.04 foot and vertical tolerance is ± 0.02 foot.

The Contractor is responsible for all notes required to stake structures including bridges, box culverts, and walls.

5. Miscellaneous Staking: Miscellaneous staking includes the following work:

- a. Approach road staking and all tie-in checks. The Contractor will submit profiles and elevations of all approach roads and other tie-ins throughout the project to the Engineer at least 3 business days prior to staking;
- b. Perform measurement and computation of topsoil quantities. The Contractor will perform volume computations by the average end area method, surface-to-surface method, or alternate computation method approved by the Engineer;
- c. Special ditch staking;
- d. Staking of signs, delineators, pavement markings, guardrail, curb & gutter, light poles, conduit, junction boxes, and related items (Staking is for all aspects, i.e. detours, temporary and permanent);
- e. Right-of-way staking including easement lines and fence post panels;
- f. Pipe and storm sewer staking including drop inlets, manholes, cattle passes, and related items. If additional pipe, storm sewer, drop inlets, manholes, or cattle passes are required which are not shown on the plans, the staking will be paid in accordance with the bid item Engineer Directed Surveying/Staking;
- g. Mark limits of removal items (trees, foundations, curb & gutter, sidewalk, etc.);
- h. Detours, roadway diversions, and crossovers. (This work includes all design and staking notes required to design and stake the detour, roadway diversion, or crossover in accordance with the plan requirements. The Contractor will submit the completed design including profile and alignment and staking notes to the Engineer at least 3 business days prior to staking.);
- i. Perform measurement and computation of quantities of Contractor and State furnished borrow pits. The Contractor will perform volume computations by the average end area method, surface-to-surface method, or alternate computation method approved by the Engineer;
- j. Resetting horizontal and vertical control, if disturbed;
- k. Approach slab and sleeper slab staking;
- l. Staking of sidewalks and curb ramps; and,
- m. Staking of steps and wheel chair ramps.

The Contractor will perform the pipe staking so the pipe will fit the field conditions. The plans show only approximate pipe locations and grades. The Contractor will not install pipe prior to gaining the Engineer's approval of minor location and grade adjustments necessary for proper staking of the pipe.

The Contractor will stake the slope catch points to determine the inlet and outlet locations, set reference stakes for the inlet and outlet locations, and stake ditches and special inlet and outlet grades to ensure proper drainage. The staking of manholes and drop inlets will be included in pipe and storm sewer staking. The Contractor will stake precast cattle passes similar to drainage pipes.

The horizontal tolerance for the pipe and storm sewer staking is ± 0.05 foot and the vertical tolerance is ± 0.03 foot.

The Contractor will keep pipe staking notes on a DOT Form 214.

- 6. Engineer Directed Surveying/Staking:** The use of the engineer directed surveying/staking contract item is intended for surveying/staking not included in the plan notes and this special provision. The Contractor may use a survey crew to perform additional survey/staking work caused or required by the Department. The Engineer will use a written order to authorize the hourly engineer directed surveying/staking item and describe the surveying/staking work required of the Contractor.
- 7. Final Cross Section Survey:** When the contract allows an option for the measurement of final earthwork quantities by survey or by plan quantities, the Contractor and Engineer must agree to the method of measurement for final earthwork quantities prior to using this item. If this item is not used for the final measurement, the Department will remove this item by a contract change order. If the Contractor and Engineer agree to use this item for measurement of final earthwork quantities, the resulting quantities will be used for payment of the excavation quantities.

Final Cross Section Survey includes final earthwork (or terrain data) measurement and calculation of as-built quantities. The Contractor will include the blue top subgrade elevations, both shoulders, and centerline in the final earthwork (or terrain data). The Contractor will perform earthwork computations by the average end area method at the same intervals, stations, and plus stations as the slope stakes, surface-to-surface method, or alternate computation method approved by the Engineer.

D. METHOD OF MEASUREMENT

Refer to the Table of Contractor Staking in the plans for more detail on how quantities were calculated.

- 1. Slope Staking:** The Department will not measure slope staking. The Department will pay the plan quantity as the final quantity unless the Engineer orders additional slope staking in writing.

The Department will consider all combinations of roadway widths as one set of slope stakes. On projects with ramps, the Department will consider ramps as roadway and include the ramps in the slope staking quantity. All additional slope staking for intersections will be incidental to the contract unit price for slope staking.

2. **Grade Staking:** The Department will not measure grade staking. The Department will pay the plan quantity as the final quantity unless the Engineer orders additional grade staking in writing. The Department will make no adjustment to the plan quantity of grade staking regardless if the Contractor elects to use MCG on all or part of the project.

The Department will consider a two-lane roadway as one set of grade stakes. The Department will proportionately increase the plan quantity for multi-lane roadways in excess to two-lanes as shown in the table of construction staking (lane factor). For example, a three-lane roadway is equivalent to 1.5 times the quantity for a two-lane roadway. On projects requiring grade staking on ramps, the Department will consider ramps as a two-lane roadway for measurement as shown in the table of construction staking. The Department will not consider Acceleration/deceleration lanes and turning lanes for intersecting roads, and median crossovers as an additional roadway. All cost for additional grade staking for acceleration/deceleration lanes, turning lanes, intersecting roads, grade adjustments, and median crossovers will be incidental to the contract unit price for grade staking. All additional grade staking for intersections and medians will be incidental to the roadway grade staking. Any additional staking the Contractor feels necessary to complete the grade staking work is the responsibility of the contractor and will be incidental to the contract unit price for grade staking.

When both blue top and paving hub stakes are required, the Department will base and calculate the plan quantity to include each type of grade staking as a separate set of stakes.

3. **Structure Staking:** The Department will measure structure staking by the each for bridges, box culverts, and retaining walls.
4. **Miscellaneous Staking:** The Department will not measure miscellaneous staking. The Department will pay the plan quantity as the final quantity.
5. **Engineer Directed Surveying/Staking:** The Department will measure engineer directed surveying/staking to the nearest 0.1 hour with the following restrictions:

The use of engineer directed surveying/staking will be for the work ordered by the Engineer. The measured quantity will be the actual time the survey crew is

working on the project, physically performing the field survey/staking work. The Department will not include travel time for the survey crew in the measurement.

The Engineer will issue a DOT 75 ticket for the hours authorized for engineer directed surveying/staking.

- 6. Final Cross Section Survey:** The Department will measure final cross section survey to the nearest 0.001 mile for the plan earthwork balances requiring a final survey to determine as-built unclassified excavation quantities. The Engineer will determine which balances (if any) require a final survey during construction. The plan quantity will be the length of the project mainline. This item will be decreased if the Contractor and Engineer agree to accept the plan excavation quantity prior to performing the work for any or all earthwork balances.

E. BASIS OF PAYMENT

Payment for all survey items will be considered full compensation for furnishing all necessary personnel, vehicles, surveying equipment, software, supplies, materials, recording fees, transportation, and incidentals to accurately and satisfactorily complete the work.

The Department reserves the right to omit any of these bid items without providing compensation to the contractor if the Department deems the bid prices are unreasonable.

- 1. Slope Staking:** The Department will pay slope staking at the contract unit price per mile.
- 2. Grade Staking:** The Department will pay grade staking at the contract unit price per mile.
- 3. Structure Staking:** The Department will pay structure staking at the contract unit price per each.
- 4. Miscellaneous Staking:** The Department will pay miscellaneous staking at the contract unit price per mile.

The Department will make partial payment as follows:

- a.** Upon submission of the name, experience, and qualifications of the surveyor or engineer who will supervise the staking, the proposed starting date, and the staking schedule, the Department will pay the Contractor 25 percent of the plan quantity for the miscellaneous staking.

- b. The Department will make intermediate payments based on the amount of the staking work completed.
- c. The Department will make full payment at the plan quantity for miscellaneous staking upon completion of all surveying and staking and when the Contractor has furnished all field notebooks and records to the Engineer.

The Department will not adjust the contract unit price or plan quantity for miscellaneous staking due to overruns or under runs in the other contract items.

- 5. **Engineer Directed Surveying/Staking:** The Department will pay engineer directed surveying/staking on an hourly basis as per the Price Schedule for Miscellaneous Items. The value listed in the Price Schedule for Miscellaneous Items includes salaries, travel time, equipment, staking supplies, payroll additive, and all incidental expenses related to providing the survey crew.
- 6. **Final Cross Section Survey:** The Department will pay final cross section survey at the contract unit price per mile.

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THE FOLLOWING UTILITY COMPANIES ARE INVOLVED ON

PROJECT NH 0100(106)409, Lincoln County PCN01V7, PCN 08DG & PCN 08DH

The contractor shall contact the following utilities in a sufficient amount of time prior to starting work. The companies will identify their facilities, and it is the responsibility of the contractor and the Company to coordinate their work to avoid damage to existing facilities and to allow for relocation of facilities as may be required for grading work:

The following utilities were determined to be involved and were formally notified on July 29, 2022, that if their facility is located within the existing public right-of-way, any adjustment of their facility would have to be accomplished at no cost to the State, **within 90 days from receipt of the notice, unless other arrangements are made with the Area Engineer.**

1. BluePeak,
5009 S. Western Avenue, Suite 200-201
Sioux Falls, SD 57106

CONTACT: JORDAN HUBER, TELE. # 605-498-4922

The Company has no existing crossings or fiber lines in this segment, PCN01V7 of the Veterans Parkway project.

2. City of Harrisburg
801 S Prairie Street
Harrisburg, SD 57032

CONTACT: Dustin Preheim, TELE. # 605- 351-9879

The City of Harrisburg has an existing forcemain on the west side of Sycamore Avenue that runs north to south, approximately ten feet deep. HDR has taken the forcemain into consideration for the plans and proposed utilities. There are no concerns or conflicts with the forcemain expected.

There is an existing manhole just north of the current right of way on the northwest corner of the future intersection of Veterans Parkway and Sycamore Avenue. The manhole casting will be adjusted by approximately six inches during construction according to plans.

The City of Harrisburg has no issue with the forcemain crossing Veterans Parkway.

After the City's review of the highway construction plans, no adjustments/relocations should be necessary. As the City's facilities which cross Veterans Parkway are in existing public Right-of-Way, any relocation/adjustment necessary to accommodate the highway construction will be accomplished at no cost to the State and performed in coordination with the highway construction.

3. City of Sioux Falls
231 N. Dakota Avenue
Sioux Falls, SD 57117

CONTACT; JEFF RAGSDALE, TELE. #605-367-8267 OR CELL #605-951-4256

Watermain and sanitary sewer upgrades throughout the project limits have been designed by HDR under contract with the City of Sioux Falls. The improvements will be included with the Veterans Parkway bid package.

All City streetlights signals, and wiring will be replaced as per the Section L (Signals and Lighting) plans. The upgraded City innerduct/communication system is also included in the Section L plans. These plans were reviewed by both SDDOT and the City.

4. East River Electric Power Cooperative
5800 W 69th St
Sioux Falls, SD 57108

CONTACT: Jordan Brown, TELE. # 605-291-9302

The Company has existing power poles that are currently in the roadway of the proposed Veterans Parkway that will need to be relocated prior to construction. The Company will move the north-south line outside their substation on the east side of Sycamore Avenue outside of the roadway in the Work Limits. The Company will finalize the design and cost estimate to complete the permitting process for relocating the existing power poles out of the Work Limits early next year, 2025, to avoid conflict with the proposed Veterans Parkway. The Company does not anticipate a conflict with the construction schedule.

It is noted in the plans that the contractor will need to contact East River two days in advance when working around their lines. Contact Jordan Brown at cell # 605.291.9302. The Company will need to access to the substation at all times during construction.

The Company plans to coordinate permitting with the SDDOT per the general requirements satisfying all parties involved.

The Company has been involved with the project design and conflict resolution throughout completion of design. Review of the highway construction plans should not revise the planned for adjustments/relocations as indicated. Agreements with the SDDOT are continuing to be finalized and general correspondence will indicate the cost for the relocation to be included in the Agreements. Plan comments have been added as requested by the Company.

5. KSOO Radio Tower
5100 S Tennis Ln
Sioux Falls, SD 57108

CONTACT: Don Jacobs, TELE. # 605-360-7762

At the radio tower site, Veterans Parkway is approximately centered on the north property line of the radio tower site. Southeastern Avenue on the west side of the radio tower site is an existing gravel road but will be upgraded to a four-lane urban street with sidewalk and turning lanes (in the vicinity of the radio tower site) in conjunction with the Veterans Parkway project.

There are 12-gauge bare wires that go out 217' from base of each radio tower at 3-degree increments. The wires are generally four inches under topsoil or under the silt if the ground is covered with water. The wires are necessary for AM signal distribution and minimal disruption is allowable. The anchors are six-foot cubes of concrete that generally set on the ground. As-built records of the radio tower installation are limited due to the age of the system.

The Veterans Parkway proposed profile took into consideration to eliminate fill over the anchor foundation or retaining wall around the anchor foundation. There will be ground radial work done by KK Broadcast Engineering /AM Ground Systems Co. that will cut radials directly impacted by Veterans Parkway prior to grading for Veterans Parkway and preserve those radial ends for reconnection upon completion of construction. They will replace cut radials to the new right of way, the new radial extent or their natural length as determined by location.

The Company has been involved with the project design and conflict resolution throughout completion of design. Review of the highway construction plans should not revise adjustments/relocations as indicated in the plans. Plan comments have been added as requested by the Company.

6. Lincoln County Rural Water System, Inc.
27066 Henry Place
Sioux Falls, SD 57108

CONTACT: ROBIN DYKSTRA, TELE. #605-767-2966

The Company has an existing water service for the parcel located north of the proposed grading limits on Sycamore Avenue and south of 69th Street on the east side of Sycamore Avenue. Through coordination, they have confirmed there are no affected facilities in this portion of the project as long as Sycamore Avenue is not constructed to the north as originally planned.

Plans currently reflect grading in the ditches due to the proposed surfacing and the theoretical 4:1 slopes. Culverts will be replaced as the same size as necessary at the existing invert elevation making grading the ditches lower than in the field decision. A plan note including payment necessary has been added to indicate the contractor shall be responsible for protecting the existing water main which crosses Sycamore Avenue at approximately Sta. 722+15 and 736+60 and the water service running parallel to Sycamore Avenue should grading of any kind impact the existing water lines that they would become less than six feet deep due to construction.

The Company has been involved with the project design and conflict resolution throughout completion of design. Review of the highway construction plans should not revise adjustments/relocations as indicated in the plans.

7. Lumen/Century Link
125 S. Dakota Avenue
Sioux Falls, SD 57104

CONTACT: Andrew Wixon, CELL # 605-681-2049

The Company has an existing 50 pair cable on the west side of Southeastern Avenue. The existing depth is approximately three feet deep. There is a pedestal on the north side of the gate on the east side of the road where they cross to the radio tower at approximately Sta. 604+25. This fiber needs to be kept active during construction. Lead times to coordinate with the Company on relocation of their cable would need to be one month and they would potentially move before construction if needed. The Company has the ability to lower their utility in chunks to avoid conflicts and schedule concerns and will coordinate with the contractor on site for relocation as needed.

The Company will verify their depths against the proposed plans and will coordinate as necessary to have the locations of these crossings staked and adjust their lines accordingly to eliminate any conflicts prior to construction. The Company does not anticipate impact on the construction schedule.

The Company has an existing 16-pair copper and an existing 144-pair fiber on the east side of Sycamore Avenue in separate trenches feeding the City of Harrisburg and the City of Tea. The existing copper line goes north to 57th Street. The Company has two access points with 100 feet of slack in the two pedestals already planned for where it crosses the future Veterans Parkway. The Company does not expect a conflict with these during construction. The Company has no plans to add additional facilities to this segment.

The Company has been involved with the project design and conflict resolution throughout completion of design. As the Company's facilities are in existing public Right-of-Way, any relocation/adjustment necessary

to accommodate the highway construction will be accomplished at no cost to the State and performed in coordination with the highway construction.

8. MidAmerican Energy
1914 S. Sycamore Avenue, Suite 110
Sioux Falls, SD 57110

CONTACT: RYAN HENDRIKS, TELE. #605-373-6061

The Company does not anticipate crossing Veterans Parkway in this portion of the project and there are no existing gas mains in the PCN01V7 corridor that will need to be relocated.

The Company did indicate adding a potential new gas main in this section once the project is complete and will go through the standard permitting process.

9. MidContinent Communications
PO Box 5010
Sioux Falls, SD 57117

CONTACT: Dylan Haas, TELE. #605 231-0340

The Company has recently installed a 96-count fiber located on the west side of Southeastern Avenue that extends from Bison Trail and crosses to the apartments on the northside of the entrance road. It ends at the vault at approximately Sta. 620+00-RT. There is an existing vault located at the southwest corner of Bison Trail and Southeastern Avenue and at approximately Sta 629+00. There is not a conflict anticipated with the existing fiber and the proposed storm sewer.

The Company does not have existing facilities on Sycamore Avenue.

The Company agreed during coordination meetings that adjustments can be made to their existing utility line in the field as needed and would need to be coordinated with the contractor.

Ongoing development is anticipated along with coordination after the plans are bid. Conflicts that may arise with utility insulation is not anticipated to delay the schedule.

The Company has been involved with the project design and conflict resolution throughout completion of design. Review of the highway construction plans should not revise adjustments/relocations as indicated in the plans.

10. Northern Natural Gas
47493 272ND Street
Harrisburg, SD 57032

CONTACT: Mr. Alvin Madrid, TELE. # (402) 530-3833 CELL (605) 359-4408

The Company has an existing 14-inch high pressure natural gas line located at the west end of PCN01V7 at approximately Sta. 330+25 that crosses Veterans Parkway in a private easement. SUEs were completed on both the north and south sides of Veterans Parkway on each end of the Company's existing line crossing Veterans Parkway as a part of the coordination of the previous segment, PCN01V6. SUEs were completed to verify existing facilities in comparison to the proposed detention ponds on the south side of Veterans Parkway at approximately Sta. 330+25 and the existing easement that crosses Veterans Parkway.

The Company requested information on and understands the proposed B1 inlet at approximately Sta. 330+50 is not in conflict with the existing gas main or easement.

A note has been added to the plans that Company representative must be on site any time that excavation of any kind is to occur within 25-feet of a Northern Natural Gas pipeline. Please notify Northern Natural Gas via the South Dakota 811 Digger's Hotline with 48-hours of notice any time that any such excavation is to occur.

The Company has been involved with the project design and conflict resolution throughout completion of design. Review of the highway construction plans should not revise adjustments/relocations as indicated in the plans. Plan comments have been added as requested by the Company.

The Company has been involved with the project design and conflict resolution throughout completion of design. Review of the highway construction plans should not revise adjustments/relocations as indicated in the plans. Plan comments have been added as requested by the Company.

11. Northwestern Energy
3100 West 69th Street
Sioux Falls, SD 57108

CONTACT: NOAH KILONZO, TELE. #605-668-4604 or CELL 605-415-1977

Verification was completed with Noah Kilonzo, Northwestern Energy, they are clear of any utilities in the vicinity of the proposed Veterans Parkway corridor in PCN01V7.

12. SDN Communications
2900 W. 10th Street
Sioux Falls, SD 57104

CONTACT: TYLER LARSON, TELE. #605-978-7119 or CELL 605-770-3797

The Company has an existing line running north and south on the east side of Cliff Avenue. Tyler Larson, SDN Communications, verified that this was included in the coordination as part of the PCN01V6 segment and does not pose a conflict as part of the PCN01V7 segment.

The Company verified there are no existing facilities on the proposed Veterans Parkway project in segment PCN01V7.

13. Southeastern Electric Cooperative
47077 276th St
Lennox, SD 57039

CONTACT: ADAM STARK, CELL #605-368-4000

Sycamore Avenue:

The Company has a **very** high profile existing underground power utilities line crossing that must be very carefully worked around at approximately Sta. 716+25, including fiber to communicate to the SCADA system on both sides of Sycamore Avenue in the ditches running north and south. The majority is on the west side in a private easement. The Company has a 10-foot easement outside the right-of-way. There are 4 pipes with approximately 6 inches of separation between the lines. These lines are approximately 4 feet deep in the ditches and approximately 6 feet deep across Sycamore Avenue. These lines feed the southeast corner of Sioux Falls.

There is an existing vault on the north side of the substation on Sycamore Avenue. SUEs have been performed on this existing utility line going straight west from the vault across Sycamore Avenue and no conflicts exist.

There is an existing 3-phase line with a 1.25-inch fiber conduit heading north that was bored in on the east side of Sycamore Avenue that was installed fall 2023. It is approximately 4ft deep and is installed up to

57th Street. The Company has determined from approximately Sta. 718+00 to 723+00 (approximately 500 lineal feet) the line moves west into the corridor too far to stay where it is and will be relocated prior to construction. The Company will finalize the design and cost estimate to complete the permitting process for relocating the existing lines out of the Work Limits early next year, 2025, to avoid conflict with the proposed Sycamore Avenue project. The Company does not anticipate a conflict with the construction schedule.

On the east side of Sycamore Avenue, there is an existing 3-phase 4/0 line that runs south at Sta. 702+50. There is the potential to relocate the existing line to the outside of the proposed detention pond. This will be coordinated with the contractor during construction. Southeastern Electric verified this will be simple to do. The Company will finalize the design and cost estimate to complete the permitting process for relocating the existing lines out of the Work Limits early next year, 2025, to avoid conflict with the proposed Sycamore Avenue project. The Company does not anticipate a conflict with the construction schedule.

The Company will wait until the corridor is complete to install a potential new line from the Sycamore Avenue substation, north to 69th Street, and over to Cliff Avenue in 2027. The Company will secure a permit through the City when appropriate.

Southeastern Avenue:

There is existing power located at approximately Sta. 620+00 on Southeastern Avenue on the east side of Southeastern Avenue that the Company power has existing lines located within their easement. This recently installed line running north and south from Bison Trail to Autumn Blaze Street currently provides power to the new apartments on the east side of the corridor. Southeastern Electric has existing 3-phase power underground located approximately 4 ft deep from Sta. 394+00 to 402+00 on the east side of the newly constructed drainage ditch just south of the apartments.

There will be power potentially installed on the southeast corner of Sta. 402+00 area to supply power for streetlights and signals for Veterans Parkway. This has been coordinated with the project and is included in the plans.

The Company has an existing line east of Southeastern Avenue and south of Bison Trail outside of the grading limits. A conflict with this line is not anticipated.

The Company plans to coordinate permitting with the SDDOT per the general requirements satisfying all parties involved.

The Company has been involved with the project design and conflict resolution throughout completion of design. Review of the highway construction plans should not revise the planned for adjustments/relocations as indicated. Agreements with the SDDOT are continuing to be finalized and general correspondence will indicate the cost for the relocation to be included in the Agreements.

14. Sprint
1524 S Sycamore Ave
Sioux Falls, SD 57110

CONTACT: Bryce Roth, CELL #605-303-2367

The Company has a fiber optic cable that runs north and south Approximately 27 to 30 feet east of the C/L of the Burlington Northern railroad track at approximately Sta. 352+50 of Veterans Parkway east of Cliff Avenue. The Company does not have a concern or expect an impact to their existing line located parallel to the railroad tracks. SUEs were completed and verified depth and location of the existing fiber should

not be impacted by construction. It should be noted that this location is in a swamp. The cable is a direct buried cable. If the conditions are wet at the time of construction, it may endanger the cable.

Bryce Roth at 605-303-2367, broth@cogent.co.com will need to be contacted if stripping topsoil or removing dirt more than 18 inches within five feet of the existing fiber. This note has been added to the plans.

15. Xcel Energy – Distribution
500 West Russell Street
Sioux Falls, SD 57104

CONTACT: AARON BICKETT, TELE. #605-339-8315 or CELL 605-261-1354

The Company has an overhead line that runs on the north side of 85th Street, which creates no conflict with this segment of South Veterans Parkway, PCN 01V7.

The Company does not expect any conflicts with segment PCN01V7.

The requirements relating to Cooperation Between Contractors, as set forth in Section 5.7 of the Standards Specifications for Roads and Bridges, 2015 edition, shall prevail throughout the limits of this project.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
STEEL BEAM GUARDRAIL
AASHTO M 180 DESIGNATION**

OCTOBER 8, 2024

Section 630.2 B. – Page 427 – Delete and replace with the following:

B. Beam Guardrail:

For all projects let prior to January 1, 2027 the following shall apply:

Beam guardrail will conform to AASHTO M 180-18, Type I, or AASHTO M 180-23, Type I, unless the plans specify another type.

For all projects let January 1, 2027 and after the following shall apply:

Beam guardrail will conform to the most recent, at the time of the letting, version of AASHTO M 180, Type I, unless the plans specify another type.

Section 630.2 C. – Page 427 – Delete and replace with the following:

C. Bolts, Nuts, and Washers:

For all projects let prior to January 1, 2027 the following shall apply:

Bolts, nuts, and washers will be as specified in AASHTO M 180-18 or AASHTO M180-23.

For all projects let January 1, 2027 and after the following shall apply:

Bolts, nuts, and washers will be as specified in the most recent, at the time of the letting, version of AASHTO M 180.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
ACKNOWLEDGEMENT AND CERTIFICATION REGARDING
ARTICLE 3, SECTION 12
OF THE SOUTH DAKOTA CONSTITUTION**

AUGUST 24, 2023

In accordance with the State of South Dakota Office of the Governor Executive Order 2023-13, the following will apply to all contracts:

The Contractor acknowledges and certifies that the following information is correct:

CERTIFICATION OF NO STATE LEGISLATOR INTEREST:

Contractor (i) understands neither a state legislator nor a business in which a state legislator has an ownership interest may be directly or indirectly interested in any contract with the State that was authorized by any law passed during the term for which that legislator was elected, or within one year thereafter, and (ii) has read South Dakota Constitution Article 3, Section 12 and has had the opportunity to seek independent legal advice on the applicability of that provision to this contract. By signing this contract, Contractor hereby certifies that this contract is not made in violation of the South Dakota Constitution Article 3, Section 12.

It is understood and agreed that, if this certification is false, such false certification will constitute grounds for the Department to terminate the contract.

The Contractor further agrees to provide immediate written notice to the Department if during the term of the contract it no longer complies with this certification and agrees such noncompliance may be grounds for contract termination.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
BUY AMERICA**

MAY 1, 2024

Section 6.9 – Page 46 – Delete and replace with the following:

6.9 BUY AMERICA – Iron & steel, manufactured (composite) products, and construction materials must be produced in the United States in accordance with these Buy America requirements. Buy America preference applies to articles, materials, and supplies required to be consumed in, permanently incorporated into, or affixed to the completed project. Buy America preference does not apply to tools, equipment, and supplies such as temporary works and other temporary items brought to the project and removed at or before the final completion of the project. Temporary items are items that are not part of contract specifications, items that are not required in the design or final working drawings, and items that are removed or could be removed but allowed to remain in place if requested by the Contractor and approved by the Engineer.

A. Certification: The following category-based requirements will apply for each article, material, or supply.

- 1. Iron & Steel:** A statement will be included on the certification stating whether the iron or steel is of domestic or foreign origin. The Department will consider iron & steel that does not require separate certification in accordance with the Department’s Materials Manual as miscellaneous iron & steel. The Contractor will provide the Department a completed and signed Miscellaneous Materials Buy America Certificate stating the miscellaneous iron & steel required to be consumed in, permanently incorporated into, or affixed to the completed project complies with the Buy America requirements specified herein.
- 2. Manufactured (Composite) Products:** Due to an existing nationwide waiver, manufactured (composite) products currently have no specific requirements.
- 3. Construction Materials:** Construction materials and construction materials currently on the Department’s Approved Products List will be treated as “Tier 1” items in accordance with the Required Samples, Tests, and Certificates (RSTC) section of the Department’s Materials Manual. The

Contractor will provide the Department a completed and signed Miscellaneous Materials Buy America Certificate stating the construction materials required to be consumed in, permanently incorporated into, or affixed to the completed project complies with the Buy America requirements specified herein.

B. Determination of Material Category: The Department, in the Department's sole discretion, will classify an article, material, or supply into one of the following categories, (1) Iron & Steel, (2) Manufactured (Composite) Product, (3) Construction Material, or (4) Excluded Material. Articles, materials, and supplies will be considered to fall into only one single category of Buy America requirements. Some contract items are composed of multiple components that may fall into different categories. Individual components and composite items will be classified based on their nature when they arrive on the work site.

1. Iron & Steel: The Department will classify items wholly or predominantly composed of iron or steel or a combination of both as iron & steel.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50% of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components.

2. Manufactured (Composite) Products: The Department will classify items not specifically classified as iron & steel, construction materials, or excluded materials which are fabricated, combined, or manufactured through a manufacturing process into a commercially available composite item as manufactured (composite) products. The Department will classify items consisting of 2 or more of the listed construction materials combined through a manufacturing process as a manufactured (composite) product. The Department will classify items consisting of 1 of the listed construction materials combined with a material not listed through a manufacturing process as a manufactured (composite) product.

3. Construction Materials: The Department will classify only the materials specifically listed as construction materials as construction materials.

Minor additions of articles, materials, supplies, or binding agents to a construction material will not change the categorization of the construction material.

4. Excluded Materials: The Department will classify cement and cementitious materials; aggregates such as stone, sand, or gravel; and aggregate binding agents or additives as excluded materials.

C. Iron & Steel: Structural steel and other iron and steel products will be produced in the United States. To be considered produced in the United States, all manufacturing processes, from the initial melting stage through the application of coatings, must occur in the United States. The application of a coating is interpreted to mean all processes that protect or enhance the value of material or product to which it is applied; examples are epoxy coatings, galvanizing, and painting.

Buy America does not apply to iron ore, scrap, pig iron, and processed, pelletized, and reduced iron ore.

If iron ingots or steel billets produced in the United States are sent out of the country for a subsequent manufacturing process and then are brought back into the United States, the full value of the iron or steel as it reenters the country (including the original billet cost and any coatings) will be considered foreign.

If foreign iron or steel components are combined with other components into a fabricated or assembled manufactured (composite) product, the foreign iron or steel content of the manufactured (composite) product is not only the value of the foreign iron or steel components, but also the pro-rata value of the fabrication and assembly labor and overhead used in the combining the foreign iron or steel and other components into the finished manufactured (composite) product, including coatings.

D. Manufactured (Composite) Products: Iron and Steel components of manufactured (composite) products will comply with the Buy America requirements for iron & steel. Due to an existing nationwide waiver, manufactured (composite) products without iron and steel components currently have no specific requirements.

E. Construction Materials: Construction materials will be produced in the United States. Each construction material is followed by a standard for the material to be considered produced in the United States.

A construction material is an article, material, or supply that is one of the following:

1. Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
2. Plastic and polymer-based products including polyvinylchloride, composite building materials, and polymers used in fiber optic cables. All manufacturing processes, from initial combination of constituent plastic or

polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.

3. Glass including optic glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
 4. Fiber optic cable including drop cable. All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.
 5. Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
 6. Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.
 7. Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.
 8. Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.
- F. Unavailability of Compliant Items:** If the Contractor discovers a Buy America compliant item or items does not exist or an item becomes unavailable, the Contractor will immediately notify the Department. The Contractor will furnish written documentation of the Contractor's complete efforts to obtain a compliant item. This documentation will include a complete contact log with dates and times of the Contractor's efforts to obtain a compliant item, the responses received, and any correspondence between the Contractor and potential suppliers of the item which demonstrate efforts to obtain a compliant item. If, based on review of the documentation provided, the Department determines all potential options to obtain a compliant item have been exhausted; the Department will determine the appropriate course of action.
- G. Non-Compliant Items:** If the Engineer, in the Engineer's sole discretion, determines an article, material, or supply provided to the project does not comply with these Buy America requirements but is available; the following will apply:

1. If the non-compliant item is not permanently incorporated into the completed work, the Contractor will not permanently incorporate the item and will replace the non-compliant item with an item that complies with the Buy America requirements specified herein at the Contractor's expense.
2. If the non-compliant item has been permanently incorporated into the completed project; the Engineer, in the Engineer's sole discretion, will determine if the non-compliant item must be removed and replaced including any completed work at the Contractor's expense or if the non-compliant item may remain in place in accordance with both of the following requirements:
 - a. Minor quantities of non-compliant iron & steel may be incorporated in the Department's sole discretion based on the Department's review of the Contractor's documented invoiced material costs, provided the invoiced material costs of all non-compliant iron & steel do not exceed 0.1% of the total contract amount or \$2,500, whichever is greater.
 - b. Minor quantities of non-compliant iron & steel and construction materials may be incorporated in the Department's sole discretion based on the Department's review of the Contractor's documented invoiced material costs, provided the total value of the non-compliant items does not exceed 5.0% of the total applicable costs for the project or \$1,000,000, whichever is less.

The total value of the non-compliant items will include non-compliant iron & steel and non-compliant construction materials. The total value of the non-compliant items will not include excluded materials, manufactured (composite) products, or other items within the scope of an existing Buy America waiver.

The total value of an item includes the cost of the material plus the cost of transportation to the project site, as evidenced by delivery receipt, but does not include the labor costs to assemble and install at the project site.

The total applicable project costs will be defined as the total value of materials used in the project that are subject to a domestic preference requirement, including the total value of any iron & steel, construction materials, manufactured (composite) products, and other items within the scope of an existing Buy America waiver. The total applicable project costs will not include excluded materials.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
LIABILITY INSURANCE**

APRIL 21, 2022

Section 7.15 – Page 50 – Delete and replace with the following:

7.15 LIABILITY INSURANCE - The Contractor will procure and maintain at the Contractor's expense, during duration of the contract, liability insurance with an insurance company authorized to do business in the state of South Dakota, for damages imposed by law. The insurance will cover all operations under the contract, whether performed by the Contractor or by subcontractors, and will name the State of South Dakota, the Department, and the Department's officers and employees as additional insureds, but liability coverage is limited to claims not barred by sovereign immunity. The State of South Dakota, the Department, and the Department's officers and employees do not hereby waive sovereign immunity for discretionary conduct as provided by law. Before commencing the work, the Contractor will furnish certificates of insurance, certifying that the policies will not be changed or cancelled until 30 calendar days' written notice has been given to the Department.

The certificates of insurance will provide evidence that the Contractor carries sufficient liability insurance to protect the public from injuries sustained by reason of pursuing the work, and that Workers' Compensation Insurance meets the requirements of the South Dakota Workers' Compensation Law.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
RESPONSIBILITY FOR DAMAGE CLAIMS**

APRIL 21, 2022

Section 7.14 – Page 50 – Delete and replace with the following:

7.14 RESPONSIBILITY FOR DAMAGE CLAIMS - The Contractor will indemnify the State of South Dakota, the Department, and the State's officers and employees, from all suits, actions, or claims of any character, including suits in which the State, Department, or the State's officers and employees are sued, brought because of any injuries or damages received or sustained by any person, persons, or property arising at least in part from the Contractor's operations; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workers' Compensation Act", or any other law, ordinance, order, or decree. The Contractor's obligation to indemnify will include the payment of reasonable attorney fees and other costs of defense. So much of the money due the Contractor under and by virtue of the contract as may be considered necessary by the Department for such purpose may be retained for the use of the State; or in case no money is due, the Contractor's surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid will have been settled and suitable evidence to that effect furnished to the Department. Money due the Contractor will not be withheld when the Contractor produces satisfactory written confirmation from the Contractor's insurer that adequate public liability insurance and property damage insurance providing coverage for such particular claims as may be made is in force, and the Contractor provides evidence the claim has been submitted to the Contractor's insurer. A copy of a certificate of insurance, without further confirmation of coverage for the particular claim being made, will not be sufficient to satisfy the requirement of written confirmation.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
RESTRICTION OF BOYCOTT OF ISRAEL**

JANUARY 31, 2020

In accordance with the State of South Dakota Office of the Governor Executive Order 2020-01 the following will apply to all contracts unless the amount being bid is less than \$100,000:

By submitting a bid proposal for this contract, the bidder certifies and agrees the following information is correct for the bidder and all subcontractors (all tiers) and suppliers with five (5) or more employees:

The bidder, in preparing the bid proposal or in considering proposals submitted from qualified potential suppliers and subcontractors, or in the solicitation, selection, or commercial treatment of any supplier or subcontractor; has not refused to transact business activities, has not terminated business activities, and has not taken other similar actions intended to limit its commercial relations, related to the subject matter of the bid proposal, with a person or entity on the basis of Israeli national origin, or residence or incorporation in Israel or its territories, with the specific intent to accomplish a boycott or divestment of Israel in a discriminatory manner. It is understood and agreed that, if this certification is false, such false certification will constitute grounds for the Department to reject the bid proposal submitted by the bidder on this contract and terminate any contract awarded based on the bid. The bidder agrees to provide immediate written notice to the Department if, during the term of the contract awarded to the bidder, the bidder no longer complies with this certification. The bidder further agrees such noncompliance may be grounds for contract termination.

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
CONTRACTOR ADMINISTERED PRECONSTRUCTION MEETING**

DECEMBER 18, 2019

I. DESCRIPTION

This work consists of the Contractor scheduling and conducting a preconstruction meeting prior to beginning work on this contract. Additionally, this work consists of the Contractor providing the Area Engineer a completed list of required submittals.

II. MATERIALS (Not Specified)

III. CONSTRUCTION REQUIREMENTS

The Area Engineer will provide the Contractor the Authorization Form for Preconstruction Meeting (Form DOT-270) and the Contractor's Required Submittals Form (Form DOT-272) after the date of the Notice of Award and no later than 10 business days after the date of the Notice to Proceed.

The Contractor's authorized representative as indicated on the Signature Authorization Form (Form DOT-209) will complete, in its entirety, the first page of the Authorization Form for Preconstruction Meeting and will initial each proceeding section. By initialing each section, the Contractor is confirming comprehension of each section.

The Contractor's Required Submittals Form is a document outlining information required prior to the completion of the project. This list will include two types of submittals; 1) information required before scheduling a preconstruction meeting and 2) information required before the Contractor begins related work. The Department reserves the right to request additional information not included in the original list of required submittals. The list of required submittals will include, but is not limited to, proposed sequence changes, shop drawings, permits, certifications, mix designs, labor compliance, equal employment opportunity, and disadvantaged business enterprise documents. The Area Engineer will update the Contractor's Required Submittals Form with any project specific requirements and cross out or delete those that do not apply prior to providing the document to the Contractor.

Prior to scheduling the preconstruction meeting, the Contractor will complete and provide the Area Engineer all items on the list of required submittals that are

required as described in 1) above. If the Contractor cannot complete and provide a submittal item required prior to scheduling the preconstruction meeting, the Contractor will contact the Area Engineer to establish a mutually agreed upon date when the required submittal will be completed and provided to the Area office.

The Contractor will not begin work on an item until the Contractor has provided the Area Engineer with all required information for the applicable work item and the appropriate office has approved the information, if necessary. The Contractor will make every reasonable effort to deliver the required submittals at the earliest possible time.

When the Contractor has provided the Area Engineer all required submittals, except those mutually agreed upon to be provided at a later date or dates, the Contractor will schedule a preconstruction meeting with the Area Engineer.

Within 2 business days following the Contractor scheduling the preconstruction meeting, the Area Engineer will prepare and send the Contractor a meeting confirmation and the Preconstruction Meeting Outline (Form DOT-271).

The Area Engineer will edit and amend the Preconstruction Meeting Outline, as necessary, to meet the specific needs of the project. The Area Engineer will complete the project information and the Department information prior to furnishing the form to the Contractor.

The Contractor will complete the Contractor's portion of the Preconstruction Meeting Outline and will add additional discussion items as needed. The Contractor will send the meeting notice and final Preconstruction Meeting Outline to the Area Engineer, all subcontractors, utility companies, railroad companies (if applicable), and all suppliers at least 5 business days prior to the preconstruction meeting.

The Area Engineer will send the notice of the meeting and the final Preconstruction Meeting Outline of discussion items to any other government entities and other principle stakeholders involved in the project at least 3 business days prior to the preconstruction meeting.

At the discretion of the Area Engineer, the preconstruction meeting may be held in person, videoconference, or over the phone. The Contractor's competent superintendent who will be working on this project, as required by Section 5.5, or the Contractors Project Manager, as required by the Special Provision for Cooperation by Contractor and Department (if applicable), is required to attend the preconstruction meeting.

The Contractor will lead the meeting discussion as described in the Preconstruction Meeting Outline. The Area Engineer will prepare the meeting minutes including any unresolved items and distribute the minutes to all attendees

and principle stakeholders within 5 business days following the preconstruction meeting.

IV. METHOD OF MEASUREMENT

The Department will not make a separate measurement for the preconstruction meeting.

V. BASIS OF PAYMENT

The Department will not make a separate payment for the preconstruction meeting. All costs associated with the preconstruction meeting will be incidental to other contract items.

* * * * *

FUEL ADJUSTMENT AFFIDAVIT

Project Number _____
PCN _____
County _____

For project let using the SDEBS) and in accordance with Section 9.12, the bidder is not required to notify the Department at the time of submitting bids whether the Contractor will or will not participate in the fuel cost adjustment program. Prior to execution of the contract, the successful bidder must submit this completed form to the Department for approval. The Fuel Adjustment Affidavit shall include the anticipated fuel cost of subcontractors.

Does your company elect to participate in a fuel adjustment for this contract for the fuels that do not have a fixed price? No adjustments in fuel prices will be made if "No" is checked.

Yes No

If yes, provide the total dollars for each of the applicable fuels. No adjustments in fuel price will be made for the fuel types that are left blank or completed with a \$0.00 value.

Diesel (x) \$ _____

Unleaded (y) \$ _____

Burner Fuel (z) \$ _____ Type of Burner Fuel Used: _____

Sum (x + y + z) = \$ _____

Note: The sum of the x, y, and z may not exceed 15% of the original contract amount.

The following must be completed regardless of whether the Contractor elects to participate in the fuel adjustment affidavit

Under the penalty of law for perjury or falsification, the undersigned, _____,
(Printed Name)
_____ of _____,
(Title) *(Contractor)*

hereby certifies that the documentation is submitted in good faith, that the information provided is accurate and complete to the best of their knowledge and belief, and that the monetary amount identified accurately reflects the cost for fuel, and that they are duly authorized to certify the above documentation on behalf of the company.

I hereby agree that the Department or its authorized representative shall have the right to examine and copy all Contractor records, documents, work sheets, bid sheets, and other data pertinent to the justification of the fuel costs shown above.

Dated _____ Signature _____

Notarization is required only when the Contractor elects to participate in the fuel adjustment affidavit

Subscribed and sworn before me this _____ day of _____, 20____.

Notary Public

My Commission Expires

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**STANDARD TITLE VI / NONDISCRIMINATION ASSURANCES
APPENDIX A & E**

MARCH 1, 2016

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 Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin 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, 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, or national origin.
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 Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, 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 Federal Highway Administration 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 Federal Highway Administration 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.

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:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and 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, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which 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 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).

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
DISADVANTAGED BUSINESS ENTERPRISE**

FEBRUARY 9, 2024

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 Department-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 Department deems appropriate.

I. Definitions

- A. Specified Goal:** A DBE participation goal for a contract as indicated by a specific numerical percentage of the total dollar amount of the contract in the bidding documents.
- B. Not Specified:** No specific DBE participation goal is specified for a contract.
- C. Disadvantaged Business Enterprise (DBE):** A for-profit small business that is certified by the Department and is listed in the DBE Directory available on the Department's web site.
- D. Good Faith Effort (GFE):** Efforts to achieve a DBE goal which; by their scope, intensity, and appropriateness to the objective; can reasonably be expected to meet the objective of the Department's DBE program pursuant to 49 CFR 26.1.
- E. Positive Contact:** Communication between the bidder and the DBE in which the bidder receives an oral or written response from the DBE stating the DBE's intention to quote or not quote a project.
- F. Commitment:** The dollar amount of work to be subcontracted to DBEs, according to the bidder's bid. The commitment may be compared to the dollar amount of all contract items in the bidder's bid and expressed as a percentage of the total bid amount.
- G. Reasonable Effort:** For projects when goals are not specified, bidders are encouraged to solicit all certified DBEs listed in the appropriate work classifications in the DBE directory that have indicated in the directory they are

willing to work in the project's geographic area and also those that are listed on the plan holders list.

II. Bidding Requirements

A bidder must not discriminate on the basis of race, color, national origin, or sex in the solicitation or award to subcontractors and material suppliers. Bidders who demonstrate a pattern of possible discrimination through consistent and repeated under-utilization of DBEs may be subject to investigation and sanctions allowed by regulation, administrative rule, or law.

The Bidder's failure to carry out the requirements of this special provision will be treated as a non-responsive bid.

On contracts that specify a specific DBE contract participation goal, all bidders must include their DBE commitment for the contract in the bidding files provided by the Department.

If the contract indicates "Not Specified," all bidders are encouraged to include their anticipated DBE utilization for the contract in the bidding files provided by the Department.

Each bidder must submit a list of all subcontractors and suppliers (DBEs and non-DBEs) the bidder received quotes from for that contract with the bid files.

A Contractor must make reasonable efforts to provide opportunities for DBEs to participate on Federal-aid contracts throughout the life of the contract.

On contracts let with a specified DBE contract participation goal, where the low bidder has not met or exceeded that goal, upon request from the Department all bidders who did not meet or exceed the goal must provide GFE documentation as indicated in Section III of this special provision.

When the DBE participation is "Not Specified" on a contract, each bidder is encouraged to use DBE Contractors; however no bidder will be required to furnish GFE documentation.

Bidders must submit GFE documentation, when requested by the Department, within 2 business days from the date bidders are contacted by the Department. Section III of this special provision provides information on the types of action bidders should make as part of their GFE to obtain DBE participation. Bidders may submit documentation with the bidding files provided all pertinent information is included. Bidders must submit any missing documentation within 2 business days from the date the Department contacts the bidder. If the bidder fails to comply with this requirement, the Department will consider the bid proposal irregular and may reject the bid proposal.

If the apparent low bidder does not provide documentation showing GFE as required by this special provision, the Department will consider that bid nonresponsive and may either award the contract to the next lowest responsible bidder with a responsive bid, or reject all bids. Subsequent to the DBE committee's decision that the apparent low bidder's efforts do not establish GFE, the apparent low bidder will be notified that the bid is not responsive. The apparent low bidder will have 2 business days from the date of notification to contact the Bid Letting Engineer to arrange a meeting with the Department Secretary, or the Secretary's designee, to present documentation and argument about why the bid should not be rejected. The Department Secretary or the Secretary's designee will issue a written decision on responsiveness of the bid within 2 business days after the meeting.

If the apparent low bid is rejected for failure to meet the GFE or other requirements, the next apparent low bidder's GFE will be reviewed, unless all bids are rejected. Unless all bids are rejected, award of the contract will be made to the lowest bidder with a responsive bid.

The lowest responsive bidder on a project with a specified goal will be required to complete form DOT-289B, as included in the contract documents, when the contract is sent for signature. This form requires a signature from each DBE identified in the low bidder's DBE commitment. A separate form will be supplied for each DBE and will be included in the contract documents.

Bidders are encouraged to assist interested DBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, materials, or other related services.

III. Good Faith Efforts

If a GFE package is requested on a contract with a specified goal, the bidders must submit documentation showing compliance with the following requirements:

- A.** The bidders will submit a contact log of all solicitation efforts including:
- Name of the DBE firm
 - Name and phone number of the individual with whom contact was made
 - Date, time, and manner of each and every contact (by phone, in person, fax, mail, e-mail, etc.)
 - The DBE's response to the solicitation
 - Result of the solicitation effort

An example of a solicitation log is available on the Department's Bid Letting website. When bidding utilizing the South Dakota Department of Transportation Electronic Bid System (SDEBS), SDEBS may be used to document the log of solicitation efforts for the project.

- B.** The bidders will also submit documentation that shows GFE in relation to the following requirements:
- 1.** The bidder must select contract work items to encourage DBE participation. This includes breaking out contract work items into economically feasible units to facilitate DBE participation, even when the bidder might otherwise prefer to perform these work items with its own forces.
 - 2.** The bidder must solicit all certified DBEs that are listed in the appropriate work classifications in the DBE directory and that have indicated in the directory they are willing to work in the project's geographic area. Without exception, all DBEs who are listed on the plan holders list by 10 AM central time 7 calendar days prior to the bid letting must be solicited in accordance with Section III.B.3 of this special provision. If the bidder has not solicited any DBE meeting these requirements, the bidder will provide a detailed written explanation showing why the DBE was not solicited.
 - 3.** To provide adequate time for the DBE to respond with a quote in the normal course of business, the bidder must make the initial solicitation at least 6 calendar days by mail or 5 calendar days by phone, fax, or e-mail prior to the letting date. Without exception, all DBEs who are listed on the plan holders list by 10 AM central time 7 calendar days prior to the bid letting must be solicited.
 - 4.** If the bidder does not receive a positive contact from a DBE, the bidder must follow up the initial solicitation with a second solicitation by phone, fax, or e-mail to determine whether the DBE is interested in quoting. The bidder must make this second solicitation at least 2 business days prior to the letting.
 - 5.** The bidder will provide interested DBEs with adequate and timely information about plans, specifications, and requirements of the contract to assist DBEs in responding to a solicitation.
 - 6.** If a bidder rejects a DBE quote because of previous problems with a particular DBE, the bidder must prepare a detailed written explanation of the problem. Additional cost involved in finding and using DBEs is not, in itself, sufficient reason for a bidder to reject a quote. A bidder must not reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities.
 - 7.** Any additional information requested by the Department.
- C.** The bidder must consider qualified DBEs whose quotes are reasonably competitive. If the bidder rejects any quote because it is considered not to be "reasonably competitive," the bidder must provide copies of all DBE and non-

DBE quotes, and a work item price spreadsheet comparing DBE quotes to non-DBE quotes. The spreadsheet must show which quote was included in the bid for the work items being compared. The ability or desire of a bidder to perform the work with its own forces does not relieve the bidder of the responsibility to make GFE. In the event a bidder elects to use its own forces over a DBE, the bidder must include, on the spreadsheet, documentation of the costs of using the bidder's own forces. This can be shown in a number of ways, which may include submitting portions of the bidder's work sheets used to prepare the bid.

- D. The bidder must explain why the specified goal could not be met.
- E. The bidder must identify any additional efforts the bidder made to secure DBE participation.

IV. Counting DBE Participation

On projects with a specified goal, the contract commitment, as submitted with the bid, will be documented on form DOT-289R/C as included in the contract documents.

If the project is shown as "Not Specified," the anticipated DBE utilization, as submitted with the bid, will be documented on form DOT-289 R/N – DBE Utilization Form, as included in the contract documents. The DBE utilization shown on this form is not a commitment to use the DBE. This information will be used by the Department to track anticipated DBE usage.

Only the portion of a contract performed by the DBE's own forces will count toward DBE participation. Included is the cost of supplies and materials obtained by the DBE for the contract, including supplies purchased or equipment leased by the DBE. Supplies and equipment the DBE subcontractor purchased or leased from the Contractor or its affiliate is not allowed to be included.

When a DBE performs as a participant in an approved joint venture, only the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces will count toward DBE participation.

A bidder may count toward its DBE participation only that percentage of expenditures to DBEs that perform a commercially useful function (CUF) in the performance of a contract. A DBE performs a CUF when the DBE is responsible for execution of the work of a contract and is carrying out the DBE's responsibilities by actually performing, managing and supervising the work involved. To perform a CUF, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating prices, determining quality and quantity, ordering and installing (where applicable) the materials, and paying for the material itself. To determine whether a DBE is performing a CUF, the Department will

evaluate the amount of work subcontracted, the industry practice, and whether the amount the DBE is to be paid is commensurate with the work it is actually performing, DBE credit claimed for performance of the work, and other relevant factors.

A DBE is not performing a CUF if the DBE performs less than 30% of the total cost of its contract with its own work force, or if its role is limited to that of an extra participant in a transaction, project, or contract through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is simply an extra participant, the Department will examine similar transactions, particularly those in which DBEs do not participate.

DBE participation will be counted for trucking services as follows:

The bidder/Contractor will receive credit toward DBE participation for the total value of the transportation services the DBE provides on the contract using trucks the DBE owns, insures, and operates and which are driven by drivers the DBE employs.

A DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. When a DBE leases trucks from another DBE, the bidder/Contractor can count the total value of the transportation services the lessee DBE provides on the contract toward DBE participation.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. When a DBE leases trucks from a non-DBE, the bidder/Contractor can count toward DBE participation only the fee or commission the DBE receives as a result of the lease arrangement. The bidder/Contractor does not receive credit toward DBE participation for the total value of the transportation services, since all services are not provided by a DBE.

The bidder may count toward DBE participation expenditures to DBE firms for materials, supplies, or services as follows:

If the materials or supplies are obtained from a DBE manufacturer, count 100% of the cost of the materials or supplies toward DBE participation. A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of general character described by the specifications.

If the materials or supplies are purchased from a DBE regular dealer, count 60% of the cost of the materials or supplies toward DBE participation. A regular dealer is a firm that owns, operates, or maintains a store, warehouse or other establishment in which the materials, supplies, articles, or equipment are

bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

If the materials or supplies are purchased from a DBE which is neither a manufacturer nor a regular dealer, count only the amount of fee or commission charged for assistance in the procurement of the materials or supplies or fee or transportation charges for the delivery of materials or supplies required at the job site toward DBE participation. In order to be counted, the Department must determine the fee to be reasonable and not excessive as compared to fees customarily allowed for similar services. The cost of the materials and supplies themselves will not count toward DBE goals.

The Department will not count toward DBE participation materials or services provided by a DBE who is not currently certified prior to and including the date of the Notice of Award. Additionally, the Department will not count toward DBE participation materials or services provided by a DBE who loses certification at any time after the date of the Notice of Award except in the case of a DBE whose ineligibility is caused solely by having exceeded the size standard.

No intended or actual subcontracting arrangement which is contrived to artificially inflate DBE participation is allowed. This includes, but is not limited to, DBE middlemen which serve no commercially useful function, or arrangements where a DBE is acting essentially as a broker of goods or services, but has been counted as a manufacturer, regular dealer, or subcontractor.

The Department will review and monitor projects for compliance with the bidder's intended DBE participation. Failure by the Contractor to fulfill the contract commitment constitutes a breach of contract. The Department may also investigate the form and substance of particular business arrangements between and among DBE and Contractors with regard to specific contracts. If, as a result of an investigation, the Department determines a particular business arrangement is not allowable, the dollar amount of the unallowable DBE participation will be subtracted from the Contractor's DBE participation on that project. The Contractor will be notified if the apparent DBE participation is not adequate to meet the DBE participation stated on the form DOT-289R/C. The Contractor will be directed to seek additional participation from other DBEs to meet the unallowable portion on that contract.

All Contractors and DBEs shall cooperate fully and promptly with the Department in compliance reviews, investigations, and other requests for information. If the Department determines a Contractor was a knowing and willing participant in an unallowable business arrangement, or in the event of repeated violations, falsification, or misrepresentation, the Department will impose sanctions. Sanctions may include, but are not limited to one or more of the following:

- Assessment of liquidated damages as stated in Section VII of this special provision
- Suspension of bidding privileges or debarment
- Withholding progress payments
- Securing additional DBE participation on future Federal-aid contracts sufficient to make up for the DBE participation found to be unallowable
- Referral of the matter for criminal prosecution

V. Joint Checks to DBEs

A joint check is a check issued by a prime Contractor to a DBE subcontractor and to a material supplier or another third party for items or services to be incorporated into a project. For a prime Contractor to receive DBE credit, the DBE must perform a commercially useful function and be responsible for negotiating price, determining quality and quantity, ordering materials and installing (where applicable) and paying for materials.

To ensure that the DBE is independent of the prime Contractor and in compliance with the regulation, use of joint checks will be reviewed and allowed only under following conditions:

- Issued for valid reasons only, not simply for the convenience of the prime Contractor
- Used for a specific contract or specific time frame and not long-term or open ended
- Payment is made to the DBE and not directly to the supplier
- Requested and received prior written approval from the DBE Compliance Officer.

The request must include the following:

- Name of the DBE
- The DOT contract number(s)
- The DOT PCN number(s)
- The work the DBE will be performing on each contract
- Name of the supplier(s) used by the DBE
- The specific reason(s) for issuing joint checks

The Department will review the request and verify the circumstances indicated in the request with the DBE. A copy of the request and approval will be provided to the prime Contractor and the DBE.

VI. Certification of DBE Performance and Payments

Within 30 calendar days of the date of the Acceptance of Field Work the Contractor is required to submit form DOT-289 (Certification of DBE Performance and

Payments), listing all DBEs that participated in the contract, and the total dollar amount paid (and anticipated to be paid) to each. DBE attainments are compared to commitments on form DOT-289R/C and any payments less than 90% of that commitment, without proper justification and documentation, will have liquidated damages assessed against the contract. The Contractor's final payment is not released until receipt of the form DOT-289.

Contractors are required to maintain a running tally of payments to DBEs. For reports of payments not being made in accordance with the prompt payment provision, alleged discrimination against a DBE or other similar complaint, the tally may be requested for review by the Department. The Department may perform audits of contract payments to DBEs to ensure that the amounts paid were as reported on the form DOT-289. All Contractors participating in Federal-aid contracts are expected cooperate fully and promptly with the Department in compliance reviews, investigations and other requests for information regarding payments to DBEs. Their failure to do so is grounds for appropriate sanctions or action against the Contractor.

The Department will monitor the running tally on a program basis and if reporting issues are identified, additional reporting requirements may be implemented.

The Contractor is required to report payments to DBEs twice a year from the date of the Notice to Proceed until the date of the Acceptance of Field Work. Reporting periods and deadlines for payment reporting submittals will be in accordance with the following:

Reporting Period:	Reporting Deadline:
October 1 to March 31	April 30
April 1 to September 30	October 31

For each reporting period, the Contractor is required to submit form DOT-289 listing all DBEs that participated in the contract, the payments to DBEs for that reporting period, and the total dollar amount paid to each DBE. For each reporting period after the Notice to Proceed, the Contractor will mark the form DOT-289 as "On-Going" when reporting payments to DBEs prior to the Date of the Acceptance of Field Work. Within 30 calendar days of the date of the Acceptance of Field Work and all DBE payments have been made, the Contractor is required to submit form DOT-289 and the Contractor will mark the form DOT-289 as "Final".

Each form DOT-289 must be provided to the Engineer by the reporting deadline stated above.

DBE payment are compared to commitment on form DOT-289R/C and any payment less than 90% of that commitment, without proper justification and documentation, will result in the Department assessing liquidated damages

against the contract. The Contractor's final payment will not be released until receipt of the form DOT-289 marked "Final".

VII. Liquidated Damages

A. If the Contractor does not meet its contract commitment documented on form DOT-289 R/C, the Department will assess liquidated damages according to the following schedule:

1. For the first \$1,000 DBE deficiency, 100% of the deficiency.
2. For the next \$9,000 DBE deficiency, 50% of the deficiency.
3. For the next \$10,000 DBE deficiency, 25% of the deficiency.
4. For any remaining DBE deficiency in excess of \$20,000, 10% of the deficiency.

This liquidated damage provision will not be applicable where actual payment to a DBE is within 90% of the commitment or where there are good and sufficient reasons, properly documented, for the deficiency such as quantity under-runs, project changes, or other unexpected occurrences.

B. If a Contractor finds it impossible, for reasons beyond its control, to meet the contract commitment on form DOT-289R/C, the Contractor may, at any time prior to completion of the project, provide a written request to the DBE Compliance Officer for a complete or partial waiver of liquidated damages. No request for a waiver will be accepted after Acceptance of Field Work has been issued.

VIII. Termination or Substitution of a DBE

The Contractor will not be allowed to terminate or substitute a DBE without the Department's prior verbal consent followed by written approval. This includes, but is not limited to, instances in where the Contractor desires to perform work originally committed to a DBE with its own forces, with an affiliated company, with a non-DBE, or with another DBE. Department approval is required when the contract contains a "specified goal" on form DOT-289R/C and the DBE to be terminated or substituted is listed as a commitment on the form DOT-289R/C.

The Department will provide written consent only if the Department agrees the Contractor has good cause to terminate the DBE listed on the form DOT-289R/C. Good cause includes the following:

- The DBE fails or refuses to execute a written contract

- The DBE fails or refuses to perform the work of the DBE subcontract in a manner consistent with normal industry standards or Department specifications unless the failure or refusal by the DBE is a result of unfair or discriminatory actions by the Contractor
- The DBE fails or refuses to meet the Contractor's reasonable nondiscriminatory bond requirements
- The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness
- The DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215, and 1,200 or applicable state law
- The Department has determined that the DBE is not a responsible Contractor
- The DBE voluntarily withdraws from the project and provided the Department with a written notice of withdrawal
- The DBE is found to be ineligible to receive DBE credit for the type of work required
- A DBE owner dies or becomes disabled with the result that the DBE is unable to complete its work on the contract
- Other documented good cause that the Department determines to substantiate the termination of the DBE.

Good cause does not exist if the Contractor seeks to terminate a DBE so the Contractor can self-perform the work for which the DBE was committed, or so the Contractor can substitute another DBE or non-DBE Contractor after the contract award.

Before submitting a request to terminate or substitute a DBE to the Department, the Contractor must first provide written notice to the DBE, with a copy of the notice to the DBE Compliance Officer, of the Contractor's intent to request to terminate or substitute, and the reason for the request.

The Contractor must give the DBE 5 calendar days to respond to the notice and advise the Department and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Department should not approve the Contractor's action. If required in a particular case as a matter of public necessity (e.g. safety), the Department may provide a response period shorter than 5 calendar days.

When a DBE is terminated or fails to complete its work on the contract for any reason, the Contractor must make good faith efforts to replace the committed DBE with another DBE. The Contractor must make efforts to find another DBE to perform the same amount of work under the contract as the DBE that was terminated. The letter to the Department requesting termination or substitution must include the name of the DBE and dollar amount of the replacement DBE. If the Contractor is unable to find another DBE, the Contractor must provide the

names of the DBEs it contacted and reason why they were unable to use those DBEs.

If the Contractor does not utilize or pay DBEs as required, liquidated damages will be assessed as specified in Section VII of this special provision. In addition, if the Contractor is found to have knowingly and willingly attempted to circumvent the DBE contract provisions, the Department will not make payment for the work that was originally committed to a DBE and the Department may impose sanctions referred to in Section IV of this special provision.

The Contractor does not need Department approval to terminate or substitute a DBE under the following circumstances:

- The DBE is being used on a contract with a “Specified Goal” however the DBE was not listed as a DBE commitment on form DOT-289R/C.
- The DBE was listed as an anticipated utilization on a “Not Specified” DBE goal contract on form DOT-289R/N.

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**SPECIAL PROVISION FOR EEO AFFIRMATIVE ACTION REQUIREMENTS ON
FEDERAL AND FEDERAL-AID CONSTRUCTION CONTRACTS**

FEBRUARY 5, 2024

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

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and 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:

Goals for minority participation for each trade

Aurora	0.8%	Fall River	7.9%	Marshall	1.3%
Beadle	0.8%	Faulk	1.3%	Meade	3.4%
Bennett	7.9%	Grant	1.3%	Mellette	7.9%
Bon Homme	1.2%	Gregory	0.8%	Miner	0.8%
Brookings	0.8%	Haakon	7.9%	Minnehaha	1.2%
Brown	1.3%	Hamlin	1.3%	Moody	0.8%
Brule	0.8%	Hand	0.8%	Oglala Lakota	7.9%
Buffalo	7.9%	Hanson	0.8%	Pennington	3.4%
Butte	7.9%	Harding	7.9%	Perkins	7.9%
Campbell	7.9%	Hughes	7.9%	Potter	7.9%
Charles Mix	0.8%	Hutchinson	0.8%	Roberts	1.3%
Clark	1.3%	Hyde	7.9%	Sanborn	0.8%
Clay	1.2%	Jackson	7.9%	Spink	1.3%
Codington	1.3%	Jerauld	0.8%	Stanley	7.9%
Corson	7.9%	Jones	7.9%	Sully	7.9%
Custer	7.9%	Kingsbury	0.8%	Todd	7.9%
Davison	0.8%	Lake	0.8%	Tripp	7.9%
Day	1.3%	Lawrence	7.9%	Turner	0.8%
Deuel	1.3%	Lincoln	0.8%	Union	1.2%
Dewey	7.9%	Lyman	7.9%	Walworth	7.9%
Douglas	0.8%	McCook	0.8%	Yankton	1.2%
Edmunds	1.3%	McPherson	1.3%	Ziebach	7.9%

Goals for female participation in each trade

Statewide 6.9%

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

second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in [41 CFR part 60-4](#) shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in [41 CFR 60-4.3\(a\)](#), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in [41 CFR part 60-4](#). Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is shown by county designation on the Title Sheet of the plans.

**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.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to [41 CFR 60-4.5](#)) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall

document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its 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 notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when 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 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 work 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 onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under [41 CFR part 60-3](#).

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all 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 (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual 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 noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even 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 underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with [41 CFR 60-4.8](#).

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION FOR
REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA 1273 (OCTOBER 23, 2023)**

OCTOBER 18, 2023

The following are amendments to the above contract provisions.

Section I.4.

Delete this section and replace with the following:

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 Federal-aid construction project unless it is labor performed by convicts who are on parole, supervised release, or probation.

Section IV.

Delete the first three sentences of the first paragraph and replace with the following:

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). The requirements apply to all projects located within the right-of-way of a roadway and to all portions of Transportation Alternatives Program (TAP) funded projects.

Section IV.3.b.(1)

Delete this section and replace with the following:

The Contractor and each related subcontractor must submit weekly, for each week in which any contract work is performed, an electronic certified weekly payroll report. The Contractor is responsible for the submission of certified payroll reports by all subcontractors. The payroll report must be submitted electronically to the Elation System website. The Contractor must submit a legally valid electronic signature. The Elation System website can be accessed by logging onto the State of South Dakota's single sign-on website at <https://mysd.sd.gov/> or can also be accessed at <https://elationsys.com/>. First time users will need to use the Promotion Code SDDOT-19. The payroll report must be submitted within fourteen (14) calendar days after the end of the workweek.

Section IV.3.b.(2)

Delete the third sentence.

Section IV.3.b.(3)

Delete the first paragraph and replace with the following:

Each certified weekly payroll report must include the most recent South Dakota Department of Transportation (SDDOT) Statement of Compliance Form, signed by the Contractor or related subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract. The Instructions for the SDDOT Statement of Compliance Form are found at <https://dot.sd.gov/doing-business/contractors/labor-compliance/certified-payrolls-let-after-6/5/19>. The SDDOT will not accept any payroll report which does not include the most recent SDDOT Statement of Compliance Form. The SDDOT Statement of Compliance Form must certify the following:

Section IV.3.b.(4)

Delete this paragraph and replace with the following:

The weekly submission of a properly executed SDDOT Statement of Compliance Form shall satisfy the requirement for submission of the "Statement of Compliance Form" required by paragraph 3.b.(3) of this section.

Section IV.4.a.(1)

Delete the first sentence and replace with the following:

Apprentices will be permitted to work at less than the predetermined rate for the work they perform, but not less than the Common Laborer wage rate contained in the bid documents, 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.

* * * * *

**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.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING
MINIMUM WAGE ON FEDERAL-AID PROJECTS**

OCTOBER 24, 2019

This proposal contains a copy of the most recent United States Department of Labor (USDOL) Davis-Bacon Act Wage Decision.

The Contractor and each related subcontractor will pay their respective employees not less than the USDOL minimum wage for each work classification an employee actually performs at the site of the work.

The Contractor and each related subcontractor must submit weekly, for each week in which any contract work is performed, an electronic certified weekly payroll report. The payroll report must be submitted electronically to the Elation System website. The Elation System website can be accessed by logging onto the State of South Dakota's single sign-on website at <https://mysd.sd.gov/> or can also be accessed at <https://elationsys.com/>. First time users will need to use the Promotion Code SDDOT-19. The payroll report must be submitted within fourteen (14) calendar days after the end of the workweek. The payroll reports submitted shall set out accurately and completely all the information required to be maintained under 29 C.F.R. 5.5(a)(3)(i). Weekly transmittals must include an individually identifying number for each employee, such as the last four digits of the employee's social security number, but these weekly transmittals must not include full social security numbers or home addresses. The Contractor is responsible for the submission of certified payroll reports by all subcontractors.

Each certified weekly payroll report must include the most recent South Dakota Department of Transportation (SDDOT) Statement of Compliance Form, signed by the Contractor or related subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract. The Instructions for the SDDOT Statement of Compliance Form are found at <https://dot.sd.gov/doing-business/contractors/labor-compliance/certified-payrolls-let-after-6/5/19>. The SDDOT will not accept any payroll report which does not include the most recent SDDOT Statement of Compliance Form.

* * * * *

**Wage and Hour Division
U.S. Department of Labor (DOL)
200 Constitution Avenue, N.W.
Washington, DC 20210**

Davis-Bacon Act Wage Decisions
State: South Dakota
Construction Types: Heavy and Highway
Counties: South Dakota Statewide

Agency: U.S. DOL
Wage Decision Number: **SD20230032 SD1**
Counties: SD Statewide
Wage Decision Date: **03/10/2023 (Mod-0)**

*SUSD2023-001 01-11-2023

LABORERS

GROUP GL1

Air Tool Operator; Common Laborer; Landscape Worker; Flagger; Pilot Car Driver;
Trucks under 26,000 GVW; Blue-top Checker; Materials Checker

GROUP GL2

Mechanic Tender (Helper); Pipe Layer (except culvert); Form Builder Tender;
Special Surface Finish Applicator; Striping

GROUP GL3

Asphalt Plant Tender; Pile Driver Leadsman; Form Setter; Oiler/Greaser

GROUP GL5

Carpenter; Form Builder

GROUP GL6

Concrete Finisher; Painter; Grade Checker

POWER EQUIPMENT OPERATORS

GROUP G01

Concrete Paving Cure Machine; Concrete Paving Joint Sealer; Conveyor; Tractor (farm type with
attachments); Self Propelled Broom; Concrete Routing Machine; Paver Feeder; Pugmill; Skid Steer

GROUP G02

Bull Dozer 80 HP or less; Front End Loader 1.25 CY or less; Self Propelled Roller (except Hot Mix);
Sheepsfoot/50Ton Pneumatic Roller; Pneumatic Tired Tractor or Crawler (includes Water Wagon and
Power Spray units); Wagon Drill; Air Trac; Truck Type Auger; Concrete Paving Saw

GROUP G03

Asphalt Distributor; Bull Dozer over 80 HP; Concrete Paving Finishing Machine; Backhoes/ Excavators
20 tons or less; Crusher (may include internal screening plant); Front End Loader over 1.25 CY;
Rough Motor Grader; Self Propelled Hot Mix Roller; Push Tractor; Euclid or Dumpster; Material Spreader;
Rumble Strip Machine

GROUP G04

Asphalt Paving Machine Screed; Asphalt Paving Machine; Cranes/Derricks/Draglines/Pile Drivers/Shovels
30 to 50 tons; Backhoes/Excavators 21 to 40 tons; Maintenance Mechanic; Scrapers; Concrete Pump Truck

GROUP G05

Asphalt Plant; Concrete Batch Plant; Backhoes/Excavators over 40 Tons; Cranes/ Derricks/Draglines/Pile
Drivers/Shovels over 50 tons; Heavy Duty Mechanic; Finish Motor Grader; Automatic Fine Grader;
Milling Machine; Bridge Welder

TRUCK DRIVERS

GROUP GT1

Tandem Truck without trailer or pup; Single Axle Truck over 26,000 GVW with Trailer

GROUP GT2

Semi-Tractor and Trailer; Tandem Truck with Pup

ELECTRICIANS

GROUP E01

Electrician

<u>Rates</u>	<u>Fringes</u>
22.38	0.00
23.16	0.00
24.41	0.00
31.94	0.00
26.45	0.00
24.57	0.00
24.68	0.00
26.07	0.00
27.18	0.00
30.01	0.00
24.52	0.00
25.88	4.28
29.78	5.04

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

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award, pursuant to 29 CFR 5.5(a)(1)(ii); contractors are responsible for requesting SDDOT to secure necessary additional work classifications and rates.

*Classifications listed under an "SU" identifier were derived from survey data and the published rate is the weighted average rate of all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates.

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

A COPY OF THIS DOCUMENT, COLORED TAN, MUST BE CONSPICUOUSLY POSTED AT THE PROJECT SITE

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

**Davis-Bacon Act Wage Decisions
State: South Dakota
Construction Types: Heavy and Highway
Counties: South Dakota Statewide**

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In the listing above, the "SU" identifier indicates the rates were derived from survey data. As these weighted average rates include all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of the survey on which these classifications and rates are based. The next number, 007 in this example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates.

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

For SDDOT Defined Work Classifications, please visit: <https://dot.sd.gov/doing-business/contractors/labor-compliance>

WAGE DETERMINATION APPEALS PROCESS

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

- an existing published wage determination
- a survey underlying a wage determination
- a Wage and Hour Division letter setting forth a position on a wage determination matter
- a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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

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

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

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

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

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

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

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

END OF GENERAL DECISION

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
SUPPLEMENTAL SPECIFICATIONS TO
2015 STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES**

SEPTEMBER 7, 2022

The Supplemental Specifications dated September 7, 2022 are in effect for and made a part of this contract.

The Supplemental Specifications may be obtained from the Department website or the local Area Office or by contacting the Operations Support Office.

Department Website:

<https://dot.sd.gov/doing-business/contractors/standard-specifications/2015-standard-specifications>

Operations Support:

605-773-3571

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
PRICE SCHEDULE FOR MISCELLANEOUS ITEMS**

DECEMBER 6, 2023

The following unit bid prices have been established by the South Dakota Department of Transportation Commission.

These prices will be pre-entered in the bidding package for each project or will establish a standard price to be used whenever no project contract unit price exists for that item.

Each unit price listed is considered full compensation for the cost of labor, material, and equipment to provide the item of work and/or material, complete in place, including (but not limited to) royalty, waste of unsuitable materials, equipment rental, overhead, profit, and incidentals.

Items specified in this document may be paid for on progressive estimates without the benefit of a prior approved Construction Change Order.

Specification Section Number	Specification Section Name	Item Name	Price per Item
5.8	Construction Stakes, Lines, and Grades	Engineer Directed Surveying/Staking	\$175.00/hour
7.7	Public Convenience and Safety	Water for Dust Control	\$35.00/M.Gal
7.7	Public Convenience and Safety	Dust Control Chlorides	\$0.70/lb
9.3	Payment for extra haul of Materials	Extra Haul	\$0.25/ton mile (Truck) or \$0.10/ cubic yard station (Scraper)
120.5 A.5.	Roadway and Drainage Exc. & Emb.	Unclassified Excavation, Digouts	\$15.00/cu.yd.
120.5 H.	Roadway and Drainage Exc. & Emb.	Extra Haul	\$0.25/ton mile (Truck) or \$0.10/cubic yard station (Scraper)
120.5 I.	Roadway and Drainage Exc. & Emb.	Water for Embankment	\$35.00/M.Gal
421.5	Undercutting Pipe & Plate Pipe	Undercutting Culverts	\$20.00/cu.yd.

510.5 D.	Timber, Prestressed, and Steel Piles	Timber Pile Splice	\$850.00/each
		Steel Pile Splices (*All Weights)	Splice made before either of the pieces has been driven.
		8 HP*	\$200.00/each
		10 HP*	\$250.00/each
		12 HP*	\$275.00/each
		14 HP*	\$300.00/each
		Steel Pile Splices (*All Weights)	Splice made after one of the pieces has been driven.
		8 HP*	\$400.00/each
		10 HP*	\$525.00/each
		12 HP*	\$650.00/each
		14 HP*	\$750.00/each
510.5 E.	Timber, Prestressed, and Steel Piles	Pile Shoes (Timber Pile)	\$190.00/each
510.5 H.	Timber, Prestressed, and Steel Piles	Pile Tip Reinforcement (Steel Pile)	
		10" HP Tip Reinforced	\$200.00/each
		12" HP Tip Reinforced	\$225.00/each
		14" HP Tip Reinforced	\$275.00/each
601.5	Haul Roads	Granular Material	\$28.00/ton
601.5	Haul Roads	Asphalt Concrete (including asphalt)	\$160.00/ton
601.5	Haul Roads	Cover Aggregate	\$55.00/ton
601.5	Haul Roads	Asphalt for Prime	\$1200.00/ton
601.5	Haul Roads	Asphalt (Tack, Flush & Surface Treatment)	\$800.00/ton
601.5	Haul Roads	Water	\$35.00/M.Gal
601.5	Haul Roads	Dust Control Chlorides	\$0.70/lb
634.5	Temporary Traffic Control	Flagging	\$36.03/hour
634.5	Temporary Traffic Control	Pilot Car	\$52.75/hour

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
REGARDING
STORM WATER DISCHARGES
TO WATERS OF THE STATE**

MAY 8, 2018

In compliance with the provisions of the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD), Article 74:52, the State of South Dakota has been issued Permit No. SDR10##### "GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES". This permit authorizes the discharge of storm water in accordance with the conditions and requirements set forth in the permit.

The Contractor, by signing the CONTRACTOR AUTHORIZATION FORM and submitting a bid or proposal, certifies the following:

"I certify under penalty of law that I understand and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the project identified above."

A copy of the full version of the General Permit for Storm Water Discharges Associated with Construction Activities, dated 04/01/2018, must be posted on the job site. The General Permit for Storm Water Discharges Associated with Construction Activities is available for downloading and printing from the SD DENR website:

<https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/StormWaterConstruction.aspx>

The Contractor may also obtain a printed copy of the permit from the SDDOT Project Development office or from the SDDOT Area Office assigned to this project.

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