

- 5.1 AUTHORITY OF THE ENGINEER** - Work shall be performed to the satisfaction of the Engineer. The Engineer will decide questions which may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of the work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and disputes between Contractors where it effects the progress of the work. The Engineer's decision shall be final.

The Engineer will have the authority to suspend the work wholly or in part, by written suspension order, for the Contractors failure to carry out provisions of the contract; for failure to carry out orders; for periods of unsuitable weather; for conditions considered unsuitable for the prosecution of the work or for other condition or reason determined by the Department to be in the public interest.

- 5.2 PLANS AND WORKING DRAWINGS** - Plans will show details of structures, lines, grades, typical cross sections of the roadway, location and design of structures and a summary of items appearing on the proposal. The Contractor shall have one (1) set of plans available at the work site.

Plans will be supplemented by working drawings as necessary to control the work. Working drawings shall be furnished by the Contractor, consisting of detailed plans as required to control the work. They shall include stress sheets, shop drawings, erection plans, falsework plans, bending diagrams for reinforcing steel, erosion control plans, or other supplementary plans or data required of the Contractor. Working drawings must be reviewed by the Engineer. The Engineer's review shall not relieve the Contractor of responsibility under the contract for completion of the work.

- 5.3 CONFORMITY WITH PLANS AND SPECIFICATIONS** - Work performed and materials furnished shall conform to the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on the plans, specifications or other contract documents.

In the event the Engineer finds the materials furnished, work performed, or the finished product not within reasonable conformity with the plans and specifications but that reasonably acceptable work has been produced, he shall then make a determination if the work shall be accepted and remain in place. In this event, the Engineer will document the basis of acceptance by contract modification which will provide for an adjustment in the contract price for such work or materials as necessary to support this determination.

In the event the Engineer finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications resulting in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or corrected by and at the expense of the Contractor.

Items of work that may have an impact on traffic or public safety that are accomplished contrary to specifications shall be corrected immediately and may be subject to price adjustment.

- 5.4 COORDINATION OF PLANS, SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS** - Specifications, supplemental specifications, plans, special provisions, and supplementary documents are essential parts of the contract. A requirement occurring in one is as binding as though occurring in all. They are intended to be complimentary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will

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govern over scaled dimensions; supplemental specifications will govern over standard specifications; plans will govern over supplemental and standard specifications; special provisions will govern over plans, supplemental specifications and standard specifications. The plans will prevail in the event of a conflict with a bid item appearing in the proposal.

The Contractor shall not take advantage of apparent errors or omissions in the Contract. If the Contractor discovers an error or omission, the Engineer shall be immediately notified of the error or omission and its perceived consequences. The Engineer will make corrections and interpretations as necessary to fulfill the intent of the Contract.

- 5.5 COOPERATION BY CONTRACTOR** - The Contractor will be supplied with a minimum of two sets of approved plans and contract assemblies including special provisions, one of which the Contractor shall have available on the project.

The Contractor shall give the work the constant attention necessary to facilitate the progress, and shall cooperate with the Engineer, inspectors, and other Contractors.

The Contractor shall have on the project at all times, as his agent, a competent superintendent capable of reading and understanding the plans and specifications, experienced in and capable of accomplishing the type of work being performed. Such superintendence shall be furnished irrespective of the amount of work sublet.

- 5.6 COOPERATION WITH UTILITIES** - The Department will notify utility companies, pipe line owners, or other parties affected, and have adjustments of the public or private utility fixtures, pipe lines, and other appurtenances within or adjacent to the limits of construction made as soon as practicable.

Utility appurtenances within the limits of the proposed construction which are to be relocated or adjusted are to be moved by the owners at their expense unless otherwise provided in the contract.

It is understood and agreed that the Contractor has considered in the bid the permanent and temporary utility appurtenances in their present or relocated positions as specified in the Contract. Additional compensation will not be allowed for delays, inconvenience or damage sustained due to interference from the utility appurtenances or the operation of moving them.

At points where the Contractor's operations are adjacent to properties of companies including, but not limited to, railway, telecommunications, electric, water, sewer and petroleum products, or are adjacent to other property, damage to which might result in considerable expense, loss or inconvenience, work shall not commence until the Contractor has made the arrangements necessary to protect these properties.

The Contractor shall cooperate with utility owners in removing and rearranging underground or overhead utility lines or facilities to minimize interruption of service and duplication of work by utilities owners.

If utility service is interrupted, continuous cooperation will be required until the service is restored. Work undertaken around fire hydrants shall not commence until provisions for continued service have been approved by the local fire authority.

Contractors are required to comply with South Dakota Codified Law (SDCL) 49-7A and Administrative Rule Article 20:25 addressing excavation activities. Any Contractor or subcontractor excavating or driving a post to a depth of more than 18 inches (450 mm) shall comply with the above noted legal requirements. The depth applies to the existing grade or ditch flowline within the right-of-way and the groundline anywhere outside the right-of-way.

To meet the legal requirements all contractors are required to notify South Dakota One Call prior to excavating. South Dakota One Call will notify utility owners of the proposed excavation activities. Contractors shall give at least 48 hour notice prior to commencement of excavation, excluding Saturdays, Sundays, and legal holidays of the state, but not more than ten business days prior to the planned excavation. South Dakota One Call phone number is **1-800-781-7474**.

The contact notice to South Dakota One Call shall contain the following information:

Excavator name (company)
 Phone number
 Caller name
 Company mailing address
 Alternate contact
 Alternate contact phone number
 Best time to contact
 Work to begin date and time
 Explosives (Y/N)
 Inside city limits (Y/N)
 Depth of excavation
 Type of work
 Work being done for
 County
 Excavating in ROW (Y/N)

The location of the excavation shall also be in the notice by any one or more of the following means:

1. A specific street address;
2. A reference to a plotted lot number of record; or
3. A specific quarter section by section, range, township, and county.
4. Latitude/Longitude coordinates.

If an excavation is made in a time of an emergency, all reasonable precautions shall be taken by the Contractor to protect the underground utilities. In emergencies, the Contractor shall notify the center as required above as soon as practical. The utility will within four hours provide all reasonably available practical information to the Contractor. An emergency is defined as an occurrence which demands immediate action to prevent significant environmental damage or loss of life, health,

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property, or essential public services including the reerecting of critically needed traffic control signs or devices.

If an underground utility is damaged, dislocated, or disturbed the Contractor shall notify the owner of the utility, or if unknown, South Dakota One Call. The Contractor is prohibited from concealing, attempting to conceal, or making repairs to the utility unless authorized by the utility owner.

If the Contractor is unable to locate the underground utility or discovers that the owner has incorrectly located the facility, the Contractor shall promptly notify the owner or South Dakota One Call.

5.7 COOPERATION BETWEEN CONTRACTORS - The Department reserves the right to contract and perform additional work on or near the work covered by the contract.

When separate contracts are let within the limits of a project, the Contractor shall conduct work without interfering or hindering the progress or completion of the work by other Contractors. Contractors working on the same project shall cooperate with each other as directed. The Contractor shall arrange work and shall place and dispose of the materials without interfering with the operations of the other Contractors within the limits of the same project. Work shall be coordinated with the work and sequence of other Contractors.

Each Contractor involved shall accept all liability, financial or otherwise, in connection with the contract, and shall protect and save the Department harmless from damages or claims that may arise because of inconvenience, delay, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

5.8 CONSTRUCTION STAKES, LINES AND GRADES - The Engineer will set the necessary centerline, slope and grade stakes. The Department will not be responsible for delays in setting stakes unless the Contractor, gives the Engineer 14 calendar days notice prior to beginning work on the Project and thereafter, unless the Contractor gives the Engineer 48 hours notice, not including Saturday, Sunday, or Holidays, that stakes are needed.

The Department will be responsible for the accuracy of stakes set and lines established by the Engineer.

The Contractor shall determine the meaning of all stakes, measurements, and marks before commencing work.

The Contractor shall be responsible for the preservation of stakes and marks. If construction stakes or marks are destroyed or disturbed by the Contractor, the cost of replacing them will be charged to the Contractor.

A. Structure Staking:

- 1. Bridges:** For bridges, the Department will provide stakes to establish elevation, location, and alignment for each abutment. The Engineer will stake and reference the

centerline of each abutment in the longitudinal direction and in each direction transversely.

2. **Box Culverts:** For box culverts, the Department will provide stakes to establish elevation, location, and alignment of both ends of the box culvert. The Engineer will stake and reference the centerline of each box culvert in the longitudinal direction and in each direction transversely.

It shall be the responsibility of the Contractor to provide all other stakes required to successfully complete construction of the structure, unless additional staking due to difficult site conditions is requested by the Contractor and agreed to by the Engineer. The Contractor will be responsible for verifying the accuracy of all location and alignment stakes that are in addition to those above.

On projects that include a bid item for Contractor Staking, the Contractor shall be responsible for providing all stakes for the structure. The Department will provide sufficient checks to minimize the potential for deviations from the plans.

5.9 AUTHORITY AND DUTIES OF AREA ENGINEER - As the representative of the Director of Operations, the Area Engineer has immediate and responsible charge of engineering details and administration of the construction project. The Area Engineer has the authority to reject defective work, and to suspend work being improperly performed.

5.10 DUTIES OF THE INSPECTOR - Department Inspectors will be authorized to inspect all work done and materials furnished. This Inspection may extend to any part of the work, preparation, fabrication or manufacture of the materials to be used. The Inspector is not authorized to alter or waive the provisions of the contract. The Inspector is not authorized to issue instructions contrary to the Contract, or to act as a foreman for the Contractor. The Inspector will have the authority to reject work or materials until any issues can be referred to and decided by the Engineer.

5.11 INSPECTION OF WORK - Materials and details of the work shall be subject to inspection by the Engineer. The Engineer shall be allowed access to the work and shall be furnished with information and assistance by the Contractor as required to make a complete and detailed inspection.

The Contractor, prior to acceptance of the work, shall remove or uncover portions of the finished work as directed by the Engineer. After examination, the Contractor shall restore the work to the standard required by the Contract. Should the work prove acceptable, the uncovering, removing and replacing of the work removed will be paid for as extra work. Should the work prove unacceptable, the uncovering, removing, and the replacing of the work removed, will be at the Contractor's expense.

The Contractor shall notify the Engineer 24 hours in advance of any change in construction activity that will require inspection staff changes.

Work done or materials used without supervision or inspection by an authorized Department representative may be ordered removed and replaced.

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When a unit of government, political subdivision, utility or railroad corporation is to accept or pay a portion of the cost of the work covered by the contract, its respective representatives shall have the right to inspect the work. This inspection shall not make the unit of government, political subdivision, utility or railroad corporation a party to the contract and shall not interfere with the rights of either party hereunder.

- 5.12 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK** - Work which does not conform to the requirements of the contract will be considered unacceptable, and will be accepted or rejected under the provisions of Section 5.3. Unacceptable work, resulting from any cause, shall be removed immediately and replaced in an acceptable manner at the Contractors expense.

Work shall be finished to the lines and grades established by the Engineer. Work done contrary to the Engineers instructions, work done without authorization beyond the lines shown on the plans, or extra work done without authority, will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

If the Contractor fails to comply with orders of the Engineer made under the provisions of this Section, the Engineer will have authority to order unacceptable work remedied or removed and replaced and unauthorized work removed. The Engineer will have the authority to deduct the cost of correcting unauthorized or unacceptable work from any monies due or to become due the Contractor.

- 5.13 WEIGHT LIMITATIONS** - The Contractor shall comply with weight limitations established by South Dakota Codified Laws 32-22-16 and 32-22-21 on roads and highways outside the limits of the project. Within the project limits the Contractor shall comply with the above referenced weight limitations and with special weight limitations imposed by the contract for the hauling of material and the movement of equipment over bridges and box culverts and the courses making up the pavement structure. When hauling materials or moving equipment on gravel cushion, the Contractor will be allowed the above referenced weight limitations plus an additional 10 percent of the above referenced weight limitations. Weight restrictions will not be imposed for the hauling of materials or movement of equipment on an earth subgrade, selected backfill, or gravel surfacing.

Should the Contractor desire to cross bridges, box culverts or the courses making up the pavement structure with equipment or loads that exceed the weight limitations, a written request shall be submitted to the Engineer with information relative to loaded vehicle weight, empty vehicle weight, equipment make and model, tire size, axle spacing, and axle loading of the equipment proposed for use. The information will be reviewed by the Engineer and the Office of Bridge Design and a determination made if approval will be granted.

Nothing set forth in the foregoing shall relieve the Contractor of liability for damage resulting from the operation and movement of construction equipment.

- 5.14 MAINTENANCE DURING CONSTRUCTION** - The Contractor shall maintain the work during construction and until the project is accepted. Maintenance shall constitute continuous and effective work, prosecuted daily with adequate equipment and forces to keep the roadway or structures in satisfactory condition.

In the case of a contract involving the placement of material on, or the utilization of a previously constructed subgrade, base course, pavement or structure, the Contractor shall maintain the previously constructed work during construction operations.

Cost of maintenance work during construction and before the project is accepted shall be included in the unit price bid on the various pay items and the Contractor will not be paid an additional amount for such work.

5.15 FAILURE TO MAINTAIN ROADWAY OR STRUCTURE - If the Contractor fails to comply with the provisions of Section 4.4 or 5.14, the Engineer will notify the Contractor of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of notice, the Engineer will proceed to maintain the project, and the entire cost of this maintenance will be deducted from monies due or to become due the Contractor.

5.16 FINAL ACCEPTANCE - When the contract work, including authorized modifications and final cleanup has been completed, the Region Engineer or his designee, will within five days, exclusive of holidays, make a final inspection of the work. When provided in the Contract, the Region Engineer or his designee may make inspections following completion of portions of the contract. If the work is found to conform with the requirements of the Contract, the Region Engineer or his designee will issue written notification to the Contractor of acceptance by the Department of Transportation. Such notice is not to be construed as an acceptance by the Region Engineer or his designee of previously noted defective or unauthorized work, or of unauthorized work subsequently determined during the final computations of field measurements. Should the work fail to conform with requirements of the Contract, a written statement of the features to be remedied will be given the Contractor. Final acceptance will not be made until the Contractor advises the Engineer that the corrections have been made and the requirements have been met.

5.17 CLAIMS FOR ADJUSTMENT AND DISPUTES - If the Contractor deems that additional compensation is warranted for work or materials not covered in the Contract and not ordered as extra work as defined herein, the Contractor shall give the Engineer written notice of the claim for additional compensation.

The written notice of claim shall be furnished to the Area Engineer prior to starting the contested work. Oral notification by the Contractor or its representative will be documented by the Area Engineer and shall be confirmed in writing by the Contractor within ten days.

If the basis of potential claim does not become apparent until the Contractor has proceeded with the work, the Contractor or its representative shall immediately make oral notification to the Area Engineer of the intent to make claim for additional compensation when the basis becomes evident, followed by written confirmation within ten days of the oral notification.

Under no circumstances will a claim be considered if submitted more than 30 days after the Contractor receives final payment.

The written notice of potential claim shall set forth the reasons the Contractor believes additional compensation is warranted, the nature of cost involved and the estimated total amount of the claim.

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The Contractor hereby agrees to waive any claim for additional compensation if oral and ten day written notification is not furnished and the Area Engineer is not provided the opportunity to keep account of or determine costs, to incorporate alternate methods of accomplishing the disputed work or to otherwise resolve the claim.

A Claims Documentation Form, furnished by the Department, shall be completed by the Contractor and submitted to the Engineer after completion of the work on which the claim is based. The Claims Documentation Form shall be completed within 120 calendar days after completion of the work unless an extension is granted, in writing, by the Engineer.

The Claims Documentation Form shall be fully completed and will contain the following:

- A.** A narrative justification citing all basis for the claim.
- B.** A statement of the amount of extra compensation claimed, including an itemized breakdown of actual costs for materials and supplies, labor, equipment, indirect costs, overhead, and profit.
- C.** A signed and notarized statement that the information furnished is true and fully documented.
- D.** Permission for the Department or its authorized representative to examine all Contractor records concerning this claim.

For purposes of claims under Section 5.17, the "Engineer" will consist of the Department Secretary, Director of Engineering & Planning, Director of Fiscal and Public Assistance, and the Chief Engineer.

If the claim is determined completely or partially valid, those portions determined valid, plus interest computed at the rate of 9% per annum for the time period between the date of final project acceptance and the date the claim was resolved, will be paid.

Nothing in this section shall be construed as establishing any claim contrary to the terms of Section 4.2.