

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
BRIDGE IMPROVEMENT GRANT AGREEMENT
FOR PRESERVATION – LOCAL ADMINISTRATION**

This Agreement is made and entered into by and between the State of South Dakota, acting by and through its Department of Transportation, referred to in this Agreement as the "STATE," and Pennington County, South Dakota, referred to in this Agreement as the "COUNTY."

1. BACKGROUND:

- A. The STATE has funding available for preservation, rehabilitation, or replacement of eligible local public agency bridges. The funding is only available for bridges located on local public roads.
- B. The COUNTY has applied for and the STATE has awarded to the COUNTY a Bridge Improvement Grant ("BIG") for bridge preservation for structure number 52-314-432, project number BRO 8052(00)24-3 PCN 09RH, referred to in this Agreement as the "PROJECT."

THE STATE AND THE COUNTY MUTUALLY AGREE AS FOLLOWS:

2. TERM

- A. The STATE issued a letter on February 29, 2024 notifying the COUNTY of the award of the BIG. This Agreement is effective on the date of the letter of award and is attached to and incorporated in this Agreement as **Exhibit A**.
- B. The preservation work contemplated by this Agreement will be completed no later than four years from the date of the letter of award. No reimbursements will be processed by the STATE for work performed after the date of February 29, 2028.

3. PROJECT APPROVAL

- A. The COUNTY applied for and was awarded a BIG for preservation for the PROJECT. The BIG award amount is two hundred twenty-two thousand, four hundred dollars (\$222,400), plus eighty percent (80%) of the actual costs of reasonable and necessary construction engineering for the PROJECT.
- B. The COUNTY will obtain the STATE'S concurrence in the award of the contract.
- C. The COUNTY will obtain all necessary right-of-way for the PROJECT according to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended in 1987. The COUNTY will use STATE forms in obtaining right-of-way.
- D. The COUNTY will arrange for all needed utility adjustments as part of the PROJECT and certify prior to advertisement or letting that all right-of-way and utility adjustments or agreements are in place.
- E. The COUNTY will obtain all necessary PROJECT environmental clearances and permits as required for this Agreement. If any part of the PROJECT affects the Federal Emergency Management Agency's (FEMA) flood plain insurance maps, the COUNTY will be responsible for all map revisions and obtaining FEMA approval or a Conditional Letter of Map Revision (CLOMR).

4. PROJECT PLANNING AND CONSTRUCTION

- A. The COUNTY will retain a professional engineering firm to perform the preliminary engineering for the PROJECT. The COUNTY will select and hire the firm from the STATE'S current consultant

retainer list for the bridge design category of work. The scope of work of the preliminary engineering services to be performed by the firm is identified in the attached **Exhibit B**.

- B. The COUNTY will require the design firm to submit plans, design calculations, and check design calculations to the STATE.
- C. The COUNTY will also require the design firm to load rate each structure, including culverts that are bridge length, in accordance with the edition of the AASHTO "Manual for Bridge Evaluation" with latest Interim Revisions using the LRFR method currently in place at the time of execution of the design engineering contract. The design firm will perform an HL-93 design load rating for each structure. The design firm will analyze the AASHTO HS20 vehicle for Inventory and Operating Ratings. The design firm will also perform a legal load rating for South Dakota legal trucks, the notional rating load, and the four specialized hauling vehicles. The design firm will submit a copy of the rating analyses to the STATE. The STATE will review load ratings and provide comments to the design firm. The design firm will address all STATE comments to the satisfaction of the STATE. The design firm will provide a separate summary table of all load ratings to be included in the STATE'S bridge inspection file.
- D. If applicable, the COUNTY will also require the bridge design engineering firm to submit scour analyses and develop a Quality Control/Quality Assurance (QC/QA) plan. The QC/QA plan must follow the format developed by the STATE.
- E. The parties recognize that unanticipated and time-sensitive work may be needed for completion of the PROJECT and that delays in completing such work could jeopardize the PROJECT schedule. The COUNTY authorizes the STATE to write work orders and hire consultants for the PROJECT for unanticipated and time-sensitive work that must be completed promptly in order to avoid PROJECT delays and increased PROJECT costs. The COUNTY'S signature will not be required for these work orders or consultant agreements, and the COUNTY agrees to pay for the cost of this additional work in accordance with the provisions of this Agreement. The STATE will notify the COUNTY of the purpose and need of any such work orders or consultant agreements prior to the STATE issuing a Notice to Proceed for the additional work. The STATE will provide the COUNTY with a fully executed copy of any work order or consultant agreement executed by the STATE pursuant to this section of the Agreement.
- F. The COUNTY will obtain and submit to the STATE a copy of the bid documents, plans, and specifications sealed and signed by a professional engineer licensed in the State of South Dakota. The COUNTY will address, in writing, all comments made by the STATE to the STATE'S satisfaction. The COUNTY must obtain the STATE'S approval of the final bid documents, plans, and specifications before proceeding with any award of the contract.
- G. If applicable, the COUNTY will have the design engineer review shop plans of prefabricated products.
- H. The COUNTY will retain a construction engineering firm to perform the construction engineering services for the PROJECT. The COUNTY will select and hire the firm from the STATE'S current consultant retainer list for construction administration, inspection, and testing. The scope of the construction engineering services to be performed is identified in the attached **Exhibit C**.
- I. The STATE will review and approve a quality assurance and testing plan for construction testing and inspection.
- J. As part of the PROJECT, one or more signs will be erected to indicate the PROJECT was built with a BIG. The COUNTY will be responsible for maintaining these signs for the life of the bridge.
- K. The COUNTY will notify the STATE upon completion of the preservation work under this Agreement.

L. The STATE will conduct a final inspection of the PROJECT.

5. FINANCING THE PROJECT:

A. **COUNTY COSTS.** The COUNTY will be one hundred percent (100%) responsible for any ineligible PROJECT costs.

B. **COST SHARING.** The parties will share costs for the actual eligible PROJECT costs as follows:

i. The STATE will reimburse the COUNTY for eighty percent (80%) of eligible PROJECT costs not to exceed the maximum BIG amount of two hundred twenty-two thousand, four hundred dollars (\$222,400).

ii. Once the total BIG amount has been paid, the COUNTY will be responsible for one hundred percent (100%) of all remaining PROJECT costs.

iii. The COUNTY will also be one hundred percent (100%) responsible for any PROJECT costs incurred prior to the date of the letter of award.

C. **FUNDING DISBURSEMENTS FOR PRELIMINARY ENGINEERING, CONSTRUCTION AND CONSTRUCTION ENGINEERING.** Upon receipt of the copy of the signed preliminary engineering contract between the COUNTY and its preliminary engineering consultant, the copies of the signed construction contract between the COUNTY and the contractor, and the signed construction engineering contract between the COUNTY and its construction engineering consultant, the STATE will issue payments to the COUNTY for seventy-five percent (75%) of the STATE'S SHARE of the cost of preliminary engineering, and for seventy-five percent (75%) of the STATE'S SHARE of the cost of construction and construction engineering for the PROJECT. If requested, the COUNTY may receive an extra fifteen percent (15%) of the STATE'S SHARE before final payment. For purposes of calculating these payments, the cost of preliminary engineering will be based on the maximum limiting amount of the executed preliminary engineering contract, and the cost of construction will be based on the contract amount set out in the executed construction contract, and the cost of construction engineering will be based on the maximum limiting amount of the executed construction engineering contract or the STATE'S estimate of the likely cost of construction engineering for the PROJECT, whichever is less. Upon completion of construction of the PROJECT, the COUNTY will provide the STATE with all documentation of preliminary engineering, construction and construction engineering costs, including contracts, amendments, construction change orders, pay estimates, progress reports, a summary of the QC/QA test results, and any other PROJECT documentation requested by the STATE. Upon receipt of all such documentation, the STATE will issue payment to the COUNTY for any remaining amount of the STATE'S SHARE of the actual eligible preliminary engineering, construction and construction engineering costs. If the STATE'S SHARE of eligible PROJECT preliminary engineering, construction and construction engineering is less than the funding advance made by the STATE, then the COUNTY will reimburse the STATE for the difference between the funding advance and the STATE'S SHARE of PROJECT preliminary engineering, construction and construction engineering.

6. SUBCONTRACTING

The COUNTY will include provisions in the COUNTY'S contracts and subcontracts requiring the COUNTY'S contractors and subcontractors to comply with the applicable provisions of this Agreement, to indemnify the STATE, and to provide insurance coverage for the benefit of the STATE, all in a manner consistent with this Agreement. The COUNTY will cause the COUNTY'S contractors, subcontractors, agents, and employees to comply with applicable federal, state, and local laws, regulations, ordinances, guidelines, permits, and requirements and will adopt such review and inspection procedures as are necessary to assure such compliance.

7. AMENDMENT

This Agreement may not be amended, except in writing, which writing will be expressly identified as a part of this Agreement and be signed by an authorized representative of each of the parties.

8. INDEMNIFICATION

The COUNTY will indemnify the STATE, its officers, agents, and employees against any and all actions, suits, damages, liability, or other proceedings that may arise as the result of the COUNTY'S performance under this Agreement. This section does not require the COUNTY to be responsible for or defend against claims or damages arising from errors or omissions of the STATE, its officers, agents, or employees.

9. AUDIT

- A. All PROJECT charges will be subject to audit by the STATE. The COUNTY and the COUNTY'S contractors and subcontractors will keep accounting records clearly identified with this Agreement and will support all PROJECT charges by documents which evidence, in detail, the nature and propriety of those charges.
- B. The COUNTY certifies the COUNTY is in compliance with the federal Single Audit Act and the requirements of SDCL § 4-11-2.1, if applicable. The COUNTY further certifies audits are displayed on the COUNTY'S website.

10. EXAMINATION OF RECORDS

Upon reasonable notice, the COUNTY and the COUNTY'S contractors and subcontractors will allow the STATE, through any authorized representative, to have access to and the right to examine and copy all records, books, papers, or documents related to services rendered under this Agreement. The COUNTY will keep these records clearly identified and readily accessible for a period of three (3) years after the date of final payment under this Agreement.

11. CIVIL RIGHTS ACT

The COUNTY will abide by the requirements of Title VI of the Civil Rights Act of 2016, incorporated in and attached to this Agreement as **Exhibit D**.

12. AMERICAN WITH DISABILITIES ACT

The COUNTY will perform under this Agreement in compliance with the Americans with Disabilities Act of 1990 and any amendments.

13. FUNDING AVAILABILITY

This Agreement depends upon the continued availability of appropriated funds and expenditure authority from the Legislature for this purpose. If for any reason the Legislature fails to appropriate funds or grant expenditure authority, or funds become unavailable by operation of law or federal funds reductions, the STATE may terminate this Agreement. Termination for any of these reasons is not a default by the STATE nor does it give rise to a claim against the STATE.

14. TERMINATION

The STATE may terminate this Agreement upon thirty (30) days' notice to the COUNTY. If the STATE terminates this Agreement due to the COUNTY'S breach, then any payments owed to the COUNTY at the time of termination may be adjusted to cover any additional costs to the STATE because of the

COUNTY'S breach. The adjustment of payments will be in addition to any other remedies the STATE may pursue as a result of COUNTY'S breach, and the STATE does not waive these other remedies by making a payment adjustment. If termination is not due to a breach by the COUNTY, then the COUNTY will be paid for eligible PROJECT costs incurred up to the date of termination, subject to the maximum limiting amount of the BIG.

15. COMPLIANCE

- A. The COUNTY must comply with all federal, state, and local laws, together with all ordinances and regulations applicable to the work and will be solely responsible for obtaining current information on such requirements. The COUNTY must procure all licenses, permits, or other rights necessary for the fulfillment of its obligations under this Agreement.
- B. The COUNTY certifies the COUNTY has filed an Internal Revenue Services (IRS) Form 990 in compliance with federal law, if applicable. The COUNTY will display the filed IRS Form 990 on the COUNTY'S website immediately upon filing.
- C. The COUNTY certifies the COUNTY has a conflict of interest policy and enforces said policy.
- D. The COUNTY certifies the COUNTY employs an effective internal control system.

16. CONTROLLING LAW

This Agreement will be governed by and construed in accordance with the laws of the State of South Dakota. Any lawsuit pertaining to or affecting this Agreement will be venued in Circuit Court, Sixth Judicial Circuit, Hughes County, South Dakota.

17. SEVERABILITY

If any court of competent jurisdiction holds any provision of this Agreement unenforceable or invalid, such holding will not invalidate or render unenforceable any other provision of this Agreement.

18. SUPERCESSION

All other prior discussions, communications, and representations concerning the subject matter of this Agreement are superseded by the terms of this Agreement, and, except as specifically provided in this Agreement, this Agreement constitutes the entire agreement with respect to its subject matter.

19. CERTIFICATION OF NO PROHIBITED STATE LEGISLATOR INTEREST

The COUNTY (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 Agreement. By signing this Agreement, the COUNTY hereby certifies that this Agreement is not made in violation of the South Dakota Constitution Article 3, Section 12.

20. SIGNATURE AUTHORITY

The COUNTY has designated its County Commission Chairperson as the COUNTY'S authorized representative and has empowered the County Commission Chairperson with the authority to sign this Agreement on behalf of the COUNTY. A copy of the COUNTY'S Commission minutes or resolution authorizing the execution of this Agreement by the County Commission Chairperson as the COUNTY'S authorized representative is attached to this Agreement as **Exhibit E**.

This Agreement is binding upon the signatories not as individuals but solely in their capacities as officials of their respective organizations and acknowledges proper action of the STATE and the COUNTY to enter into the same.

County of Pennington, South Dakota

By: *Lloyd LaCroix*

Printed Name: Lloyd LaCroix

Its: Chairperson

Date: April 2, 2024

Attest:

By: *Mary Israel, Deputy Auditor*

Printed Name: Mary Israel

COUNTY Auditor/Clerk

(COUNTY SEAL)



State of South Dakota
Department of Transportation

By: *Joanne M. Hight*

Printed Name: Joanne M. Hight

Its: Program Manager,
Administration Program

Date: 4/10/2024



EXHIBIT A
Division of Secretariat
Office of the Secretary
700 E. Broadway Avenue
Pierre, South Dakota 57501
605.773.5105
dot.sd.gov | sd511.org

February 29, 2024
BIG Award Date

County Commissioners
Pennington County

NOTICE OF AWARD

2024 Preservation Bridge Improvement Grant
Structure Number 52-314-432
Project Number BRO 8052(00)24-3, PCN 09RH
Grant Amount = \$222,400 (80%)

To whom it may concern;

I am pleased to inform you that the South Dakota Transportation Commission approved a Local Bridge Improvement Grant (BIG) in the amount shown above for the noted structure during their February 29, 2024, commission meeting. A funding agreement and specific information and documents for this grant will be sent to you at a later date.

If you have questions, please feel free to contact Doug Kinniburgh at 605.773.4284.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Joel Jundt'. The signature is fluid and cursive.

Joel Jundt
Secretary

Attachment

cc: County Highway Superintendent
File

Bridge Improvement Grant

Work Order Requirements for Structure Preservation or Rehabilitation

Note: Not all preservation or rehabilitation work will require hydraulic analysis or foundation investigation. For this reason, several of the related items below have been marked “**if needed.**” If the Subject project does not require hydraulic analysis and/or foundation investigation, simply do not include these items in the breakdown of estimated costs.

SCOPE OF SERVICES TEMPLATE – Structure Preservation or Rehabilitation

Category-Specific Technical Requirements & Provisions, from the Current SDDOT Consultant Retainer, Shall Be Applied

1. **Field survey for completion of the Drainage Data Sheet and Contour Map.** The information required for placement on these sheets is listed below. An example is attached containing the required information.
 - Stationing from south to north or west to east.
 - Beginning and ending stations of the current structure.
 - Proposed and in-place gradelines.
 - Stream profile. (Including a table of stations and elevations for each shot taken.)
 - Sea level datum is required. Stations, elevations, and offsets from and descriptions of permanent objects will be required for project benchmarks. (The High Accuracy Reference Network (HARN) map and the County Bench Mark map for the State of South Dakota can be found at the following web site – <https://dot.sd.gov/doing-business/engineering/design-services/surveyors>)
 - Include an electronic file containing the plan/profile of the in-place gradeline at the structure.
 - Landowners with their addresses, phone numbers, and location of property.
 - Utilities with their addresses, phone numbers, and locations along the project.

2. **Field survey as necessary for preparation of construction plans.** Required information is listed below.
 - Establishment of transit points, land ties and benchmarks as well as cross sections and topography. (Stations, elevations, and offsets from permanent objects will be required for project benchmarks.)
 - Project limits as established by consultation with the County Highway Superintendent / City Engineer.
 - Additional legal survey as required for preparation of right-of-way plats.
 - The geometrics of horizontal and vertical alignment in accordance with the Local Roads Plan design standards.
 - Survey notes are to be retained on file with the Consultant for subsequent use in the preparation of construction plans and are to be available to the County/City upon request.

3. **(If needed.) Preliminary Hydraulic Data Sheet, Plan/Profile Sketches (Preliminary Hydraulic Layouts) and gradelines, Electronic Copy of the Hydraulic Model, Draft Hydraulic Design Report in accordance with the newest version of the South Dakota Drainage Manual, and cost estimates for existing and all proposed structure alternatives. (More than one feasible alternative is required. This includes options on different alignments if applicable. The options need to be acceptable to the owner’s future needs and maintenance capabilities. If there is only one type of structure that can reasonably be constructed at a site, simply provide an explanation instead of alternatives.)** The newest version of the South Dakota Drainage Manual is available at the following location: <https://dot.sd.gov/doing-business/engineering/design-services/forms-manuals>. Guidance and examples can be found in Chapter 6 of the manual. **The current preliminary hydraulic data sheet to be used can be found in the folder under “000 LGA General Info and Docs” located on the Consultant’s LGA SFTP site.** Directions for filling out the form can be found at the same location. All items will be submitted to the Local Government Assistance Office for distribution to SDDOT personnel for review for compliance with minimum required State and Federal standards. Necessary revisions shall be provided in writing by the SDDOT and shall be forwarded to the Consultant by the Local Government Assistance (LGA) Office. Necessary revisions shall be completed by the consultant and the Revised Draft Hydraulic Design Report submitted within 2 weeks of receipt of revisions from LGA. The Consultant is wholly responsible for the accuracy of the design calculations and the independent check design calculations.

4. **(If needed.) Conduct TS&L inspection, assistance in the selection of the type of preservation or rehabilitation, and preparation of TS&L summary letter.** The county or city (owner) shall be in attendance and advance notice given the Local Government Assistance Office so if time allows, a staff member can attend.
5. **(If needed.) Report of Foundation Investigation.** Conduct field investigation and provide design recommendations according to AASHTO LRFD Bridge Design Specifications Section 10. Report shall include boring information, lab results, and design recommendations. See **Examples #1 and #2, following the attachments**, for reports that are typically developed by SDDOT Geotechnical Engineering Activity.
6. **(If needed.) For Structure Chosen at TS&L: Final Hydraulic Design Report, Final Hydraulic Data Sheet (use the current data sheet found in the folder "000 LGA General Info and Docs" located on the LGA SFTP site,) Hydraulic model with existing and proposed conditions, and if the structure selected is a bridge, Scour Memo summarizing hydraulic scour calculation, Scour Calculation, and Berm Slope Protection Recommendations (if applicable.)**
7. **Survey and plans for the above referenced project as described in the application or TS&L letter (if applicable) and Final Hydraulics Data Sheet, design calculations, independent design check, and load ratings.** Review plans (100% complete) are to be submitted in PDF format. Specifications shall follow the most current edition of the Standard Specification for Roads and Bridges. South Dakota Department of Transportation Bid Items, Standard plates and plan notes, from the SDDOT website, must be used in development of the plans.

If applicable to the type of rehabilitation, the consultant shall provide design calculations, independent check, and load ratings for the structure as set forth in the Master Retainer Contract. The Consultant is wholly responsible for the accuracy and safe keeping of the design calculations and the independent design check.
8. **Incorporation into the plans of any changes that may be requested in the SDDOT plan review comments or provide written explanation for items not changes.**
9. **Review of shop fabrication drawings as may be required and submittal of the approved shop drawings to the Consultant.** This item is to be completed within two (2) weeks of receipt of shop or fabrication drawings from the contractor and shall be noted accordingly in the plans.
10. **Provide Quality Assurance / Quality Control Testing Plan based on SDDOT Materials Manual.** This document must be reviewed by the SDDOT prior to the notice to proceed being issued to the contractor. See **Appendix D** for requirements.

Please refer to the checklist in **Attachment #1** for the TS&L Packet of items that shall be submitted to the Local Government Assistance Office.

Attachment #1 Bridge Improvement Grant Checklist for Structure Preservation or Rehabilitation Work Order

These items must be submitted to DOT/Local Government Assistance.
If any of these items are missing, the full packet will be returned for completion and resubmission to this office.

Project Number _____ County _____ PCN _____
CROSS OFF ANY NON-APPLICABLE ITEMS

- Survey Sheets and Contour Map including the following information:
- Stationing from south to north or west to east
 - Beginning and ending stations of the existing structure
 - Beginning and ending stations of proposed structures
 - Proposed and existing gradelines
 - Stream profile and cross sections (Downstream to upstream direction including a table showing stations and elevations for each shot taken)
 - Elevation and location of buildings and other structures
 - Survey information using sea level datum and showing station, elevation, offset, and physical description of each project benchmark
 - Landowner names, addresses, phone numbers, and legal descriptions of their property
 - Utility names, addresses, phone numbers, and locations along the project
- Preliminary Hydraulic Data Sheet (use current data sheet found in the folder “000 LGA General Info and Docs” located on the LGA SFTP site) including the following information:
- Calculated flows
 - Inplace conditions (Ordinary High Water Elevation, HW₁₀₀, Vmax, OTfr)
 - Proposed conditions for each option (HW₂, HW₂₅, HW₁₀₀, Vmax Qot, OTfr, ELOvertop)
 - Ordinary High Water Elevation Shown on Cross-Sections (vegetation elevation on stream banks – approx. 2-year flow)
 - Observed High Water Elevation (identifiable high water mark)
- Electronic copy of Hydraulic Model of existing and proposed conditions
- Plan and profile sketches (preliminary hydraulic layout sheets) for the existing structure and proposed gradelines for each option (More than one feasible alternative is required. This includes options on different alignments if applicable. The options need to be acceptable to the owner’s future needs and maintenance capabilities. If there is only one type of structure that can reasonably be constructed at a site, simply provide an explanation instead of alternatives.)
- Cost Estimates (including design and construction engineering and construction costs for each option.)

Revised Draft Hydraulic Report

TS&L Summary Letter

Report of Foundation Investigation (see Examples 1 and 2 in this appendix)

For Structure Chosen at TS&L

Final Hydraulic Design Report

Final Hydraulic Data Sheet (use current data sheet found in the folder "000 LGA General Info and Docs" located on the LGA SFTP site)

Hydraulic model with existing and proposed conditions

Scour memo, scour calculations, and berm slope protection recommendations (Bridges Only)

Plan/profile, general drawing sketches, and riprap layout as selected during the TS&L

Review Plans (100% complete & ready for review) in PDF Format

Design calculations, independent design check, and load ratings

To be submitted after plan review is complete

All Plan Review Comments must be Addressed and Documented

Final Plans – Electronic PDF file of the engineered, stamped set of plans

Construction Management Plan

EXAMPLE 1

REPORT OF FOUNDATION INVESTIGATION

PROJECT: BRO 8048(03) Mellette County PCN 02DY

LOCATION: Structure No. 48-102-010, 18.9 miles North & 0.8 miles West of Cedar Butte over the White River.

METHOD OF INVESTIGATION:

All soundings are made according to the Standard South Dakota Subsurface Investigation Techniques and AASHTO Specifications. Auger holes are drilled with a 4-1/2 inch continuous flight auger. Penetration and Push Test holes are drilled with a 6-5/8 inch continuous hollow stem auger. Push core samples are obtained by hydraulically ramming a 2 foot long lined split spoon sampler into the soil to obtain 2 inch nominal diameter soil samples. Penetration tests are conducted by dropping a 140 pound hammer 30 inches to obtain 2 inch nominal diameter samples and to measure the resistance to penetration of the soil. Corings with the SDDOT drive rig are performed by using a California retractable plug sampler, which is driven with a 490 pound hammer. The drill stem is P.K. rod, which is 2-7/8 inch O.D., and 2 inch nominal diameter cores are obtained. All laboratory tests are performed in accordance with standard AASHTO or SDDOT laboratory procedures.

RECOMMENDATIONS:

Abutments:

I. Steel HP10 X 42 Piling

A. A LRFD maximum factored pile bearing resistance of 77 tons can be used for design.

B. The anticipated tip elevations are:

<u>Station</u>	<u>Elevation</u>
22+06	1910
25+27	1892

C. The nominal pile bearing resistance shall be 192 tons verified by the SDDOT's Modified ENR formula.

Bents:

I. Drilled Shafts

A. A LRFD maximum factored resistance value of 2,800 psf can be used for design below elevation 1912 ft. or maximum scour whichever is lower.

B. Permanent casings will be required to elevation 1915 ft.

C. The point of fixity within the bedrock can be assumed to be the elevation 1912 ft.

DISCUSSION:

The proposed structure location is underlain by brown sand-silt (alluvium) overlying brown silt-sand with gravel (alluvium). The alluvial sediments rest upon gray silt-clay (Pierre Shale). The D50 of the brown sand-silt, brown silt-sand with gravel, and gray silt-clay (Pierre Shale) can be assumed to be 0.06 mm, 1.0 mm, and 0.004 mm. The D95 of the brown sand-silt, brown silt-sand with gravel, and gray silt-clay (Pierre Shale) can be assumed to be 1.0 mm, 6.0 mm, and 0.06 mm.

Steel HP10X42 piling along with the anticipated tip elevations, are listed in the recommendations for use in the abutments. Drilled Shafts are listed in the recommendations for use at the bents.

The piling were evaluated for drivability and group effects at the LRFD Strength Limit State. Settlement of the substructure units and horizontal movement of the abutment piling were evaluated at the LRFD Service Limit State.

Drivability –

A drivability analysis was performed for the steel HP10X42 piling using the wave equation analysis program (GRLWEAP). A group of pile hammers that were evaluated and found to produce acceptable driving stresses is listed later in this report for inclusion in the plans.

Pile Group Effects:

Axial Loading – Abutments

For a single row of piling, AASHTO requires the center-to-center pile spacing to be at least 30" or 2.5 times the width of the pile, whichever is greater. Therefore, for the steel HP10x42 piling at the abutment the center-to-center spacing shall be at least 30".

Settlement –

The steel pile tips will be founded in the Pierre Shale. Unconfined compression test results of the Pierre Shale exceed the proposed bridge loadings. Past experience for piling driven into hard shale soil bedrocks has shown little, if any, settlement has occurred. Therefore, 1/4 inch or less of total settlement can be used to design the substructure units.

Horizontal Movement –

AASHTO states that if the center-to-center spacing of the piling in the substructure unit is greater than 5 times the width of the pile then group effects can be ignored. Therefore, if the designed spacing is greater than 5 times the pile width a group efficiency factor of 1.0 can be used with no reduction in pile loading required. If this minimum pile spacing is not met a reduction factor will need to be calculated according to the AASHTO code.

Horizontal movement at the substructure units can be calculated using the following soil parameters:

Sand-silt (alluvium); phi angle = 24 degrees, cohesion = 50 psf, wet unit weight = 118 pcf
Silt-sand with gravel (alluvium); phi angle = 32 degrees, cohesion = 0 psf, wet unit weight = 130 pcf
Silt-clay (Pierre Shale); phi angle = 18 degrees, cohesion = 1,000 psf, wet unit weight = 130 pcf

For the drilled shafts, a LRFD maximum factored resistance value (skin friction) of 2,800 psf is recommended below elevation 1912 for the bents or maximum scour whichever is lower. The point of fixity within the bedrock can be assumed to be 1912 for the bents.

Each drilled shaft shall have a minimum of 3 access tubes for a shaft diameter of 3.0' and less. The number of access tubes needed shall be increased by 1 for each foot increase in shaft diameter above the 3.0'. The access tubes shall be furnished and installed according to the South Dakota Department of Transportation's 2004 Standard Specifications for Roads and Bridges. These access tubes shall be equally spaced in the shaft reinforcement prior to placing the reinforcement cage.

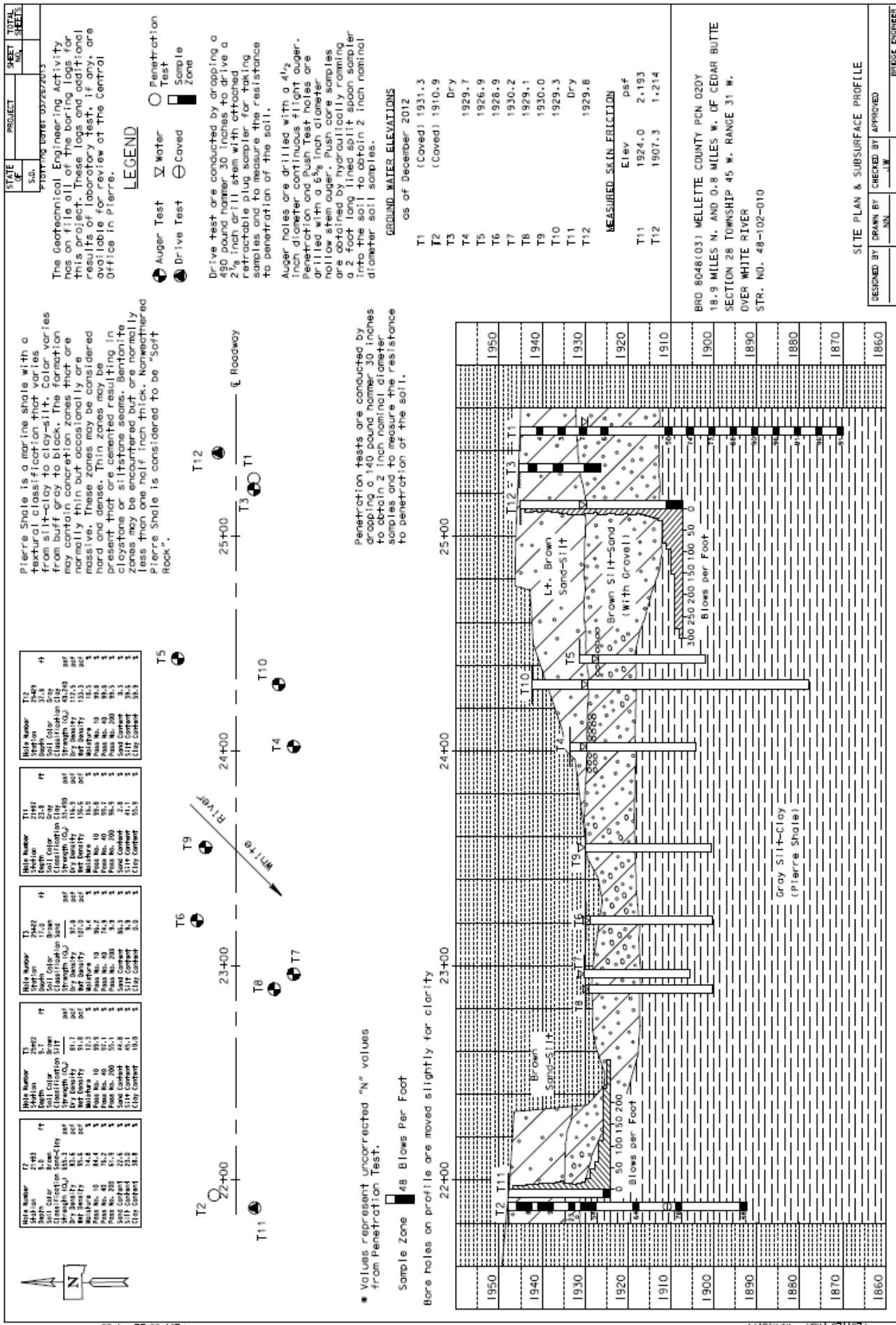
A representative of the [CONSULTING FIRM \(NAME AND NUMBER\)](#) shall be present during drilling operations to confirm the elevations provided in this report and to observe the placement of the drilled shafts. In addition to the notes below, contact the [CONSULTANT REPRESENTATIVE](#) for the most current drilled shaft construction notes to be included in the plans.

The following notes shall be placed in the plans:

A drivability analysis was performed using the wave equation analysis program (GRLWEAP). The pile hammers listed below were evaluated and found to produce acceptable driving stresses. Pile hammers not listed will require evaluation and approval prior to use from the [CONSULTANT REPRESENTATIVE NAME AND PHONE NUMBER](#).

Hammers need to be sized according to site specific soil parameters and structure design requirements. The following list of hammers is owned and readily available by contractors that do work in SD. Select and specify in the report which hammers are acceptable for use on individual projects.

ICE 180	Delmag D12-42	FEC 1500	Delmag D16-32	Delmag D19-32
Delmag D19-42	MVE M-19	ICE 42S	MKT DE 42/35	APE D19-42
Delmag D25-32	Delmag D30-32	SPI D30	Delmag D46-32	



RECOMMENDATIONS**EXAMPLE 2**

Re: BRO 8027(29), Gregory County, PCN 00QR
Str. No. 27-030-081, located 2.0 West & 0.1 South of the Jct of SD44/SD47
RCBC Undercut Recommendation

Soils maps of the area indicate the soils at the location of the proposed structure have the following characteristics.

Station 16+86 (Str. No. 27-030-081)

CLASSIFICATION: A-7
Clay & Silty Clay
AVERAGE LIQUID LIMIT: 66
SHRINK-SWELL POTENTIAL: High to Very High
FROST ACTION POTENTIAL: Low
CORROSIVITY: High for steel, Low to Moderate for concrete

RECOMMENDATIONS:

Provide 24 inches of undercut and backfill.

DISCUSSION:

The project consists of replacing an existing single span 22' steel stringer bridge with a 2 barrel 13' x 6' cast-in-place RCBC. The proposed box culvert will be in the same location as the existing bridge location. The existing surfacing on the road is gravel and will be resurfaced with gravel upon completion. Minimal grading at the proposed box culvert location is anticipated, therefore, the material shall be compacted using the Ordinary Compaction Method.

A subsurface investigation was conducted for the proposed RCBC. The subsurface investigation consisted of placing a boring near both the proposed inlet and outlet ends of the structure and logging the material to 3 feet below the flow line. Samples were collected from below the flow line for soils classification. A dynamic cone penetrometer was used at both the inlet and outlet ends to identify the change in relative density of the subsurface material below flow line.

Subsurface soils at the proposed site consist of brown silt-clay to 3' below the existing flow line.

The 2' undercut depth is recommended to remove the low strength soils with high shrink-swell potential from below the box culvert.

The following paragraphs shall be placed in the plans:

Compaction of earth embankment and box culvert backfill material shall be governed by the Ordinary Compaction Method.

Any questions about the recommendations or the subsurface conditions can be directed to the [CONSULTANT CONTACT NAME AND PHONE NUMBER](#).

Bridge Improvement Grant

Initial NBI Inspection Requirement

The County / City will require the construction engineering firm or their subconsultant, either of which must be on the SDDOT's current consultant retainer for local bridge inspection, to perform an initial NBI inspection of the structure, ensuring a qualified Team Leader is on site for the inspection. Within 90 days of the structure being opened to traffic, the County / City will submit the completed report, BrM coding sheets, plans, applicable load ratings, and approved shop plans for girders, reinforced concrete box culverts, and other applicable items, to the SDDOT's LGA Bridge Inspection Engineer.

Use and Limitation: The Consultant shall use this document as a guide in preparing a construction management plan to be included in the bid documents for their specific project. Consultants are cautioned that the provision of this suggested sample construction management plan is not an implied or explicit guarantee of grant obligation compliance. The Consultant is solely responsible for the preparation and submittal of compliant construction management plan in accordance with the grant conditions. ONLY INCLUDE PROJECT SPECIFIC INFORMATION.

Construction Management Plan

[Date]

[Location]

[Project Number]

[PCN Number]

Prepared For

[]

Prepared By

[]

PROJECT INFORMATION

This Construction Management Plan (CMP) details the measures and procedures required to assure compliance with the quality assurance and acceptance provisions of the Bridge Improvement Grant construction contract for Project No. [] with [County or City name], South Dakota. The work to be accomplished in this project consists of:

PROJECT SPONSOR: *[Name & contact information for sponsor]*

CONTRACT
ADMINISTRATION: *[Name of firm Responsible for Const.
Observation & QA testing]*

[Name of QA firm] – Field tests

[Name & contact info for QA lab] – Lab tests

RESPONSIBILITIES

Project Manager/Engineer

The Project Manager / Engineer, on behalf of the sponsor is the person with overall responsibility for contract administration of this project. The Project Manager / Engineer has the authority to take the necessary actions to monitor compliance with the contract documents.

Construction Observer

The responsibilities of the Construction Observer shall include monitoring all aspects of the job, sampling materials for acceptance, conducting tests on embankment and excavation areas, reviewing and analyzing all test results, assuring that work is within specification limits, advising the Contractor's Superintendent and Project Engineer of nonconformance and possible corrective actions, and measuring quantities for payment.

Quality Acceptance Laboratory

[As appropriate, clarify which firm is responsible for what QA duties], testing lab duties shall include sampling materials for acceptance and conducting tests on: [embankment, excavation, subbase, base, rip rap, class A45 concrete, pile, PCC]. (If responsibilities for testing of materials are split between different organizations, list which firm is responsible for which QA tests.)

[QA Lab name] personnel assigned to construction testing have received certified training from the [Name of appropriate certifications] (e.g. Troxler Nuclear Equipment Seminar and the American Concrete Institute (ACI)).

All QA testing shall be performed by an (ASTM C1077 and D3666) accredited laboratory and a copy of the current accreditation shall be supplied to the Engineer and Owner, for approval, prior to submitting test results.

QUALITY ASSURANCE INSPECTION PROCEDURES

1. Quality Assurance Tests: A list of tests and certifications required by the contract specifications can be found in the attached Appendix A. The list includes the referenced specification section and testing requirements. All parties will be informed of their responsibilities. This information will be reviewed at the preconstruction conference and monitored throughout the project.
2. Submittals: The Engineer shall maintain a file containing certifications and submittals required by contract as provided by the contractor, as well as approvals from the Engineer.
3. [Names of firm(s) responsible for QA test reports] will provide acceptance test reports to the [Owner / Engineer] as soon as the results are available, electronically. Typed copies shall be made available within [one] working day [delivered via electronic mail].
4. Material Test Reports: Material test results shall be verbally made available to the [Owner / Engineer] within [one hour] after the test report is completed and typed copies shall be made available within one working day [delivered via electronic mail].
 - Calibration check on equipment used to determine the noncompliance item, if applicable.
 - Confirmation of noncompliance through retesting and/or follow-up observations.
 - If a solution to the nonconformance issue is not reached in a reasonable time frame, additional qualified contractor personnel will be contacted to assist in identifying and correcting the problem.
 - If a severe nonconformance problem is detected and a reasonable solution cannot be implemented in a reasonable time frame, the Construction Superintendent will consult with the Project Engineer and the work will be suspended.
 - The work will not begin again until the Construction Superintendent and Project Engineer concur that a solution to the problem has been found and successfully implemented.
5. Test Reports Which Require Corrective Actions: Should test results or observations indicate noncompliance with the project contract, plans, or specifications, the following communication and follow-up action will be implemented, as applicable:
 - Verbal notification to the sponsor, Construction Superintendent, work area foreman and/or plant operator.

- On restarting the work, the nonconforming testing element or observation will be monitored at an appropriate higher frequency for a reasonable amount of time, e.g. double the testing frequency listed.
 - After the area in noncompliance has been repaired, acceptance retesting will resume. The test reports will include the failed test number for tracking.
6. Daily Reports: The project manager or his representative will maintain a daily diary summarizing pertinent construction items. Items recorded shall include (as a minimum):
- a) Date
 - b) Weather Conditions
 - c) Brief Summary of Work Performed
 - d) Number of workers on site
 - e) Type and Amount of Major Equipment being utilized
 - f) Running total of working/calendar days used on project
 - g) Significant Directives/Communication with contractor (e.g. regarding construction procedures or material quality)
 - h) Summary of QA tests performed that day
 - i) Arrival / Departure Time of On Site Inspection Staff
7. Bi-Weekly Reports: A summary of bi-weekly construction status shall be prepared and submitted to [owner] every [list day, e.g. Friday]. Report shall include summary of work completed in that 2 week period, summary of QA test results, discussion of any controversial issues that came up, and work anticipated during next reporting period. A sample report is included in Appendix B.
8. The resident observer and acceptance testing lab personnel shall maintain all acceptance test reports and provide copies to the owner/engineer as soon as results are available.
9. [Name of firm responsible for final construction report] will prepare a final project construction material testing and acceptance report that includes a summary of: all acceptance tests results, quantity of materials, and all bi-weekly reports. (Actual test reports will be available upon request). This will be submitted to the SDDOT with the final pay application.

Include listing of all QC/QA tests and certifications required by the contract specifications.

Recommend including the following information in your listing:

- Material
- Specification
- Specification reference section
- Test Required
- Minimum Testing Frequency
- Test Requirements
- Notes

Material	Specification	Spec	Test	Min. Test	Requirements	Notes
		Section	Required	Frequency		

BRIDGE IMPROVEMENT GRANT REQUEST FOR RELEASE OF FUNDS

COUNTY OR CITY	
PROJECT NUMBER	BR_ ####(00)##-#
PCN NUMBER	####
FUNDING AGREEMENT NUMBER	#####

For Initial Payments:

- Attach copy of signed contract between County/City and Consultant for Preliminary Engineering
- Attach copy of signed contract between County/City and Contractor
- Attach copy of signed contract between County/City and Consultant for Construction Engineering

For Final Payments:

- Attach Final invoice showing total paid to date for Preliminary Engineering
- Attach Final Pay Request with final quantity of bid items and any Construction Change Orders
- Attach Final invoice showing total paid to date for Construction Engineering

REMIT TO:



**DEPARTMENT OF
TRANSPORTATION**

Local Government Assistance Office
DOT.LOCGOVASSISTOFFICE@state.sd.us

Attention: _____ COUNTY/CITY Pay Request for PCN _____

700 East Broadway Avenue
Pierre, SD 57501-2586

O: 605.773.2995 | F: 605.773.4870

For State Use Only:

Payment #	Invoice #	BIG Amount	Contract Amount	Max Limiting Amount	75% of MLA	Payment Amount	MLA Remaining

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
STANDARD TITLE VI / NONDISCRIMINATION ASSURANCES
APPENDIX A & E
MARCH 1, 2016**

During the performance of this Agreement, the COUNTY, 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 Agreement, the COUNTY, 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).

PENNINGTON COUNTY BOARD OF COMMISSIONERS
Meeting of April 2, 2024

MOVED by Lasseter and seconded by Drewes to approve Correctional Officer 1 Anthony Combs to DBM LC1, Step 6, \$27.16/hr on the wage scale, effective March 17, 2024 and issue back pay in amount of \$1,357.87. Vote: Unanimous.

MOVED by Rossknecht and seconded by Lasseter to approve Deputy Sheriff 1 Branden Spence to DBM L1, Step 3, \$28.11/hr on the wage scale, effective March 17, 2024 and issue back pay in the amount of \$484.90. Vote: Unanimous.

ITEMS FROM EQUALIZATION

A. 2024 PENNINGTON COUNTY ASSESSMENT PRESENTATION: Informational only.

ITEMS FROM HIGHWAY DEPARTMENT

A. 2024 BRIDGE IMPROVEMENT GRANT AGREEMENTS: MOVED by Hadcock and seconded by Rossknecht to approve the Bridge Improvement Grant Agreements for project numbers BRO 8052(00)24-2 PCN 09RG, structure 52-319-268; BRO 8052(00)24-3 PCN 09RH, structure 52-314-432; and BRF 6220(00)24-1 PCN 09R8, structure 52-457-406. Vote: Unanimous.

B. CONSTRUCTION CHANGE ORDER NO. 7 – SOUTH ROCHFORD ROAD RECONSTRUCTION: MOVED by Rossknecht and seconded by Drewes to approve the Highway Superintendent’s signature on Construction Change Order No. 7 for the South Rochford Road Reconstruction Project in the amount of \$134,127. Vote: Unanimous.

ITEMS FROM HUMAN RESOURCES

A. PENNINGTON COUNTY THREAT MANAGEMENT GROUP: MOVED by Drewes and seconded by Rossknecht to approve a Threat Management Group, consisting of one member from the Sheriff’s Office, Emergency Management, Fire, Dispatch, Human Resources, State’s Attorney’s Office, Buildings and Grounds, IT Department and one County Commissioner to establish operational by-laws, and authorize the Threat Management Group to develop and implement emergency action plans, threat determinations, and training once by-laws for the Threat Management Group have been approved by the Board of Commissioners. Vote: Unanimous.

ITEMS FROM INFORMATION TECHNOLOGY

A. NEW POSITION – SOFTWARE ENGINEER: MOVED by Drewes and seconded by Lasseter to approve a new position of Software Engineer at DBM C41, base pay \$30.32/hr and to authorize Human Resources to update the position listing. Vote: The motion carried 4-1 with Hadcock voting no.

ITEMS FROM BUILDING COMMITTEE

A. ACTION – NEW BUILDING NAMING: MOVED by Drewes and seconded by Rossknecht to approve the naming of the following buildings: 900 Concourse – Pennington County Administration Building; 130 Kansas City Street (Old Administration Building) – Pennington