SPECIFIC PROJECT REQUIREMENTS

1. **General Work Definition/Scope of Project:**

Item 1, Base Contract, Southgate Rec Area Rehabilitation: Design and build the rehabilitation and enhancements of the Southgate Recreation Area roadways, parking facilities, and other miscellaneous features associated with the recreation area. The Southgate Recreation Area consists of a collection of roads, parking areas, a fishing pier, a boat launch, sidewalks, a pit toilet, etc. located on the DeSoto National Wildlife Refuge (NWR.) The project includes asphalt roadway paving, placement of aggerate roadways, widening of roadways, concrete parking pad placement, concrete sidewalk placement, concrete picnic table pad placement, installation/extension of culvert, and other miscellaneous associated improvements as generally detailed on the attached 'Preliminary Layout Plan, dated February 2025.'

Item 1.1, Bid Additive, Transverse Crack Repair: Repair of asphalt/chip seal roadway traverse cracks as located/identified by the Station Manager.

a. LOCATION OF WORK:

DeSoto National Wildlife Refuge
1434 316th Lane
Missouri Valley, IA 51555
(712) 388-4822

b. The "Work" for **Item 1, Base Contract, Southgate Rec Area Rehabilitation** consists, at a minimum, of the design, permitting, and constructed installations for the rehabilitation and enhancements as generally detailed on the attached 'Preliminary Layout Plan, dated February 2025.' Noted below is the general "area designation" followed by the specific assets that this project will be required to rehabilitate/enhance/modifications to:

i. Southgate Rec Area Rd A, Route 107AZ,
ii. Southgate Rec Area Rd B, Route 107BZ,
iii. Southgate Boat Ramp A Pkg, Route 908AZ,
iv. Southgate Boat Ramp B Pkg, Route 908BZ,
v. Southgate Rec Area A Pkg, Route 909AZ, and
vi. Southgate Rec Area A Pkg, Route 909BZ.

Miscellaneous improvements (culverts installation, roadside drainage, clearing & grubbing, signage, striping, revegetation, erosion and sedimentation control) associated with proper design and construction are considered incidental to the assets noted above and are required to be rehabilitated and enhanced as the design requires to support said above noted assets. The minimums are provided on the attached 'Preliminary Layout Plan, dated February 2025.' No additional data will be provided by the Government, unless the Government agrees to provide said additional information. Item 1 will be paid on a Lump Sum amount and shall not be measured for payment.

The "Work" for **Item 1.1, Bid Additive, Transverse Crack Repair** consists, at a minimum, of the design, permitting, and constructed installations for the repair of transverse cracks located in existing asphalt and/or chip sealed roadways located throughout the Refuge. The Station Manager shall identify the location of said transverse cracks to be repair. At a minimum a two (2) foot wide section of the pavement shall be removed at each repair area. The Section of the repair areas shall consist of a flowfill base with asphalt surface course with the final design/section to be determined by the Engineer of Record (EOR.) All repair areas located in dam embankments or levee embankments shall only use impervious

materials within it's repair section. Item 1.1 will be paid on a Unit Price, Not to Exceed amount and shall be measured as the length of the transverse cracks to be repaired.

c. DEFINITIONS

i. "Construction" is defined as, but not limited to, constructing (giving form by combining the parts), altering, repairing, adding to, subtracting from, improving, restoring, moving, wrecking or demolishing any building, pipes, highway, road, excavation or other structure, project, or improvement attached to real estate.

ii. "Contracting Officer" (CO) is defined as a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings on behalf of the United States of America. The term includes certain authorized representatives of the Contracting Officer such as the Construction Specialist (CS), Contracting Officer's Representative (COR), and Construction Observer acting within the limits of their authority as delegated by the Contracting Officer.

iii. "Contracting Officer's Representative" (COR) is the Government Engineer who will represent the Government on the project. The COR will have the authority under the contract to represent the CO for all technical matters that may arise under the contract, remain cognizant of the Design-Builder's technical efforts and progress, respond to the Design-Builder's inquiries on purely technical aspects of the contract, and review progress payment requests from the Design-Builder.

iv. "Day" or "Days" shall mean calendar days unless otherwise specifically noted.

v. "Design-Builder" (D/B) is the contracting entity selected to design and construct the project.

vi. "Engineer of Record" (EOR) is a qualified, licensed design professional who furnishes design services required under the Contract Documents. This individual/s shall be an employee of the Design-Builder or be retained by the Design-Builder.

vii. "Service" or "FWS" or "Government" means United States Department of Interior, Fish and Wildlife Service, Region 3.

viii. "Government" may also be referred to as the Owner, Contracting Officer, Contracting Officer's Representative, the Service, or Fish and Wildlife Service (FWS).

ix. "Local Authority Having Jurisdiction": Duly adopted local code authority, agency, or serving utility governing or serving the location of the project.

x. "Management Plan": D/B's project approach for planning, design, and construction and includes, at a minimum, but is not limited to the following:
    1. Schedule (design and construction activities)
    2. Project Staffing Plan
    3. Safety Plan
    4. Subcontracting Plan
    5. Organization Chart with Roles and Responsibilities

6. QA/QC Plan

xi. “Schedule” is a chronological layout of the work to be performed prepared using commercially available scheduling software.

xii. “Subcontractor” is any person or entity retained by Design-Builder as an independent contractor to perform a portion of the Work and shall include material, labor and suppliers.

xiii. “Sub-Subcontractor” is any person or entity retained by a Subcontractor as an independent contractor to perform any portion of a Subcontractor's Work and shall include material, labor and suppliers.

xiv. “Work” is comprised of all Design-Builder's design, permitting, construction, disposal, and other services required by the Contract Documents, including procuring and furnishing all materials, equipment, services and labor reasonably inferable from the Contract Documents.

2. Design Requirements

a. Basis of Design: Design in accordance with standard professional engineering practice, applicable sections of the U.S. Fish and Wildlife Service’s Service Manual, all applicable Federal, State & Local codes/regulations (latest edition at the time of contract award) with the following establishing the minimum requirements:

i. OSHA Regulations (Federal and State)

ii. Clean Water Act

iii. Part 560 FW 1 of the FWS Service Manual (Policy & Responsibilities – Environmental Compliance) as well as all Federal, State, and local air and water pollution laws and standards.

iv. Part 565 FW 1 of the Service Manual (Implementing Sustainable Practices) as well as the ‘Sustainable and Environmentally Friendly Design’ guidance.

v. Comply with applicable portions of the Americans with Disabilities Act (ADA) accessibility standards and the Architectural Barriers Act (ABA) accessibility standards for federal facilities.

vi. NPDES Permits and other federal, state, and local environmental and sanitary/health rules, regulations, and requirements, as applicable.

vii. American Association of State Highway Transportation Officials (AASHTO) Policies and Guidelines for the Design of Highways, Streets, Pavements, and Roadside Safety.

viii. Highway and Street Design Vehicles, NCHRP Research Report 1061.

ix. American Association of State Highway Transportation Officials (AASHTO) Guidelines for Geometric Design of Low-Volume Roads.

x. Comply with AI MS-22, "Construction of Hot Mix Asphalt Pavements," unless more stringent requirements are indicated.

xi. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless more stringent requirements are indicated.

xii. Site preparation, earthwork and roadway/parking lot/sidewalk sections for the Southgate Rec Area Rehabilitation (Item 1) portion of the project shall be in accordance with the recommendations provided in the Geotechnical Investigation for DeSoto Southgate Survey & Geotech Report, dated June 5, 2024 prepared by Reitz & Jens, Inc. The recommendations presented in this report are minimums, and the EOR may elect to require more stringent requirements at no additional cost to the Government with the Government's approval.

Developed designs shall be a feasible and acceptable solution that can be constructed to meet the 'Specific Project Requirements.'

b. Site/Topographic Survey: A Site/Topographic Survey was performed as part of the planning process and has been attached. The D/B shall perform all additional site, topographic, and utility surveys as necessary to design, permit and construct the site rehabilitations and enhancements. Surveys shall be prepared by a Registered Land Surveyor, licensed to practice in the State of Iowa. The cost of any additional survey shall be included in the contract. For payment purposes, the Design/Build firm shall provide to the COR a stamped copy of any additional survey as well as the surveyor's field notes as proof of survey.

c. Geotechnical Investigation: A Geotechnical Report with borings and recommendations was performed as part of the planning process and has been attached. The D/B shall obtain any additional subsurface soil data as necessary to design, permit and construct the project. Subsurface soil investigation shall be made by an independent testing laboratory. The Government reserves the right to disapprove the Geotechnical consultant selected for any additional subsurface soil investigation as well as the locations of any additional proposed subsurface soil borings. Any additional geotechnical recommendations shall be included in a written report prepared and sealed by a Registered Geotechnical Engineer licensed to practice in the State of Iowa. The cost of any additional geotechnical investigations shall be included in the contract.

d. The Engineer of Record shall contact and meet with any utility companies to ascertain and coordinate any site utility disturbances and/or required relocations. Documentation of said correspondence shall be provided in the Design Narratives/Calculation Package. If the Engineer of Record determines that off-site utility design is required, the Design-Builder shall notify the Government as soon as possible.

e. Typical usage of the Southgate recreation Area roadways, parking facilities and boat launch are pickup trucks w/ boat trailers as well as standard passage cars. Facilities shall be designed to accommodate said vehicles at a minimum.

f. The boat ramp has previously been designed to function between elevation 993 through 987. Parking lots, roadways, turn arounds, pedestrian access ways, etc. shall be designed to accommodate vehicle and pedestrian access to said facilities at said elevation range.

g. Seepage exists through the embankment and/or foundation supporting DeSoto Road south of the existing culvert located under Rte. 107AZ during high water events. The existing culvert, which is proposed to be replaced as part of this project, conveys this flow, as well as other flows, under the roadway (Rte. 107AZ)

to be replaced. Care shall be taken when the design is being performed for this culvert and for Rte. 107AZ to mitigate/manage any effects of said seepage properly. EOR shall perform any necessary seepage and slope stability analyses required to verify that the proposed improvements shall not adversely affect the stability of the DeSoto Dam. Consult the Station Manager to gain any additional knowledge of this seepage area prior to placing a bid.

h. Drawing Standards:

i. Furnish full, complete, accurate and coordinated civil engineering and landscape architectural working drawings and schedules.

ii. All drawings shall be prepared using an autocad software product capable of providing electronic files in .dwg and .pdf formats. As part of the final submittal, provide compact disk(s) of all drawing files (.dwg & .pdf). Include all associated files such as .ctb, .stb and .pc3, .pmp files as well as all referenced files attached to and corresponding to each final .dwg file. Adobe .pdf files of each .dwg file shall be submitted on compact disks at the final submittal.

iii. Government shall provide the U.S. Fish and Wildlife Service Region 3 Infrastructure Management Divisions 2020 CADD Standards. All CADD documents generated in support of this project shall be in accordance with these standards.

iv. General: Ensure that drafting and lettering on all drawings is done clearly and to a scale that promotes accurate communication of the subject information.

v. Minimum scale of site plans: 1” = 30’.

vi. Title Blocks: Company and Design-Builder’s project team information shall be presented on these generic sheets.

vii. Arrange all categories of drawings, i.e.; C-1, C-2, A-3; LS-1, LS-2, LS-3, etc. so that individual collection systems and their respective plans, sections, details, etc. within that category are grouped together in such a way that they can easily be separated or removed from the drawings.

i. Specification Standards:

i. Specifications shall be written specifically for this project. Provide compact disks containing all specification sections with the final Contract Document submittal. Note: Copy the specifications onto compact disks as a single document (file) and copy each section as a separate document (file). Adobe .PDF files of each specification section shall be submitted on compact disks at the final submittal. If a proprietary software program is used, the final specification submittal shall be exported to Microsoft Word.

~~ii.~~ Government will provide Division 1 specifications. Specifications shall incorporate the FWS Division 1 sections into the specifications and modify Division 1 as necessary. All requirements noted provided Division 1 Specifications shall be required unless the D/B specially requests a waiver from said requirements by the CO/COR. Template Division 1 specifications are included as an Attachment. The Design-Builder shall format all divisions to agree with Division 1.

j. Design Calculations: Submit the following final design calculations.

   i. Turning movements.

   ii. Asphalt Pavement/Mix Design.

   iii. Concrete Pavement/Mix Design.

   iv. Others as applicable for the work being designed or as directed by the COR.

k. Submit updated copies of the Management Plan with each design submittal. This shall include outline copies of the Safety Plan, QA/QC Plan, Scheduling, Schedule of Items. These plans shall continue to be developed during the design process and finalized documents shall be submitted before construction of the project begins.

l. NEPA/Permit Responsibility: The Design-Builder shall obtain and pay for any permits, licenses, government charges, and inspection fees necessary for the prosecution of the Work. The Design-Builder shall perform studies, calculations, and obtain permits in support of the Station Manager's development of the National Environmental Protection Act (NEPA) document, if applicable, for items related to their work. The Design-Builder shall be responsible for all other federal, state, and local permits/clearances in support of the project. Design-Builder shall obtain and pay for design reviews and approvals of the state and/or local authorities with jurisdiction within the project locale, obtain, pay for and manage the closeout of all permits and inspections required by such authorities, and comply with all directives issued by such authorities regarding this project.

m. Value Engineering (VE) in a FWS D/B delivery contract:

   i. The goal of a VE review is to identify necessary changes to a project's design that would complete the project at a minimum life-cycle cost of ownership and still meet project performance, reliability, quality, and maintenance requirements. Because the design/build process incorporates the knowledge, input, and advice of a construction expert into the design process, these projects do not require a separate VE study. If a project is completed using the design/build process, the D/B contractor must ensure that the goal of the VE is met and carefully document the design modifications and cost savings achieved during the design/build process and submit them to the CO.

n. Design Deliverables: The D/B shall submit the Design for Government review/comment at the 60% Design level, 90% Design level, and the 100% Design level. Each Design submission shall include the following items at a minimum:

   i. Develop drawings and technical specifications that fully describe the work to be constructed and that are suitable for construction. Incorporate Government review comments. **Additional submittals required to meet the Government Requirements will not be separately paid for by the Government and will be at the Design-Builder's cost. Additional submittals are considered to be part of the contract scope.**

1. Coordinated Construction Documents shall be checked for accuracy and signed and sealed by the Engineer of Record responsible for the work.
2. Drawings and written specifications for construction signed and sealed by the Engineer of Record shall be coordinated with all contract documents prior to submission.
3. Two (2) hard copies of the Documents (drawings and specifications) and one (1) digital .pdf copy shall be submitted at each design submission. One (1) of the hard copies shall be delivered to the Station Manager and one (1) of the hard copies & one (1) of the digital .pdf copies shall be delivered to the COR.

ii. Design/Build Management Plan.

iii. Signed and Sealed Design Narrative with Calculations.

iv. Schedule of Items/Values for the specific component of the Design included in the Design Submittal.

v. Source Documents: One (1) digital copy of all sources files (including but not limited to system modeling files, CAD files, .doc files, .xls files, etc.) used to generate the design and Construction Documents shall be submitted to the COR.

3. Construction Requirements

a. The contractor shall provide the following items to the COR at the Preconstruction Meeting for review and approval.

i. A project schedule reflective of the critical path and other phases of the work.

ii. A schedule of the planned Engineer of Record site visits. Engineer of Record shall periodically, and at appropriate times, visit the site to inspect the construction. They shall prepare a site visit report for each visit and shall submit the reports to the COR within five (5) calendar days after the visit. The reports shall include comments about overall quality and accuracy of the construction. The reports shall also note all deficiencies observed.

iii. Preconstruction Safety Checklist

b. Possess and maintain, for the duration of this project, a state license as a general contractor in the State the project is located, if required by the state.

c. Provide supervision, labor, materials, equipment, tools, construction equipment and machinery, inspection, testing, start-up, water, heat, utilities, toilet facilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

d. Have at least one qualified supervisor capable of reading, writing, and conversing fluently in the English language on the job site during working hours.

e. Perform all construction activities efficiently and with the requisite expertise, skill, and competence to satisfy the requirements of the Contract Documents. At all

times exercise complete and exclusive control over the means, methods, sequences, and techniques of construction.

f. Utilize Subcontractors who are duly licensed and qualified to perform the Work consistent with the Contract Documents. Government may reasonably object to Design-Builder's selection of any Subcontractor.

g. Design-Builder is responsible for quality control of its own work and work performed by its subcontractors and their sub-subcontractors. Provide and pay for the services of an independent construction materials testing laboratory accredited by an acceptable laboratory accreditation authority. Laboratory shall sample and test materials and perform required special inspections. Laboratory shall be authorized to perform work in the state where project is located. Government may reasonably object to Design-Builder's selection of laboratory.

h. Assume responsibility for the proper performance of the Work of Subcontractors and all acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Government and any Subcontractor or Sub Subcontractor.

i. Coordinate the activities of all Subcontractors. If Government performs other work on the Project or at the Site with separate contractors under Government's control, Design-Builder agrees to reasonably cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

j. Minimize creation of construction, deconstruction, and demolition waste. Minimize factors that contribute to waste such as over-packaging, improper storage, ordering error, poor planning, breakage, mishandling, and contamination. Develop a Waste Management Plan to ensure that existing site and building materials are reused, salvaged, or recycled. Dispose of all materials not salvaged, reused, or recycled legally, off-site, in licensed disposal facilities.

k. Record Drawings and Specifications: Maintain one set of working drawings and specifications, for record purposes, on the project site while work is in progress. Clearly and accurately record the as-constructed work in red. Record swing-tie distances from permanent points for all underground items. Include modifications and RFIs.

l. During normal working hours throughout the duration of the contract, promptly furnish information and provide reasonable facilities and access for obtaining information respecting: the character of the materials, condition of the work-in-progress, number of workers employed, their pay rate, time worked, inspection reports and test results from sampling and testing laboratories, and similar information.

m. Government buildings and other facilities are not available for storage of Design-Builder's materials, equipment, and tools except for designated staging areas. Government owned equipment is not available for Design-Builder's use to accomplish any Work.

n. Housing for workers and campsites are not available on site.

o. Furnish all temporary facilities and utilities needed including heat, light, power, water, telephone, sanitary facilities, job offices, material handling equipment, temporary construction aids, and storage enclosures. The Design-Builder is

responsible for all temporary connections and disconnections. Government furnished electricity is not available for Design-Builder's use.

p. All materials required for the complete construction of this project shall be furnished by the Design-Builder and all materials shall be new, of first grade, and shall be products of reputable manufactures know to the trade.

q. All products to be supplied on this project shall be in accordance with the Buy America Act per FAR Subpart 25.2.

r. The Design-Builder shall provide a full warranty for one (1) year from the acceptance date, with longer warranty periods on specific systems or equipment if noted otherwise.

s. Communication During Construction

i. The intent of the Design/Build process is for the D/B firm to address all RFI's and Submittal Reviews for compliance with the construction documents. This allows the Design-Builder to maintain Quality Control. However, in this process, the COR must be in the information loop for Quality Assurance purposes.

1. RFI Process: Unless a more stringent protocol is accepted in the Design/Build Management Plan, the Design-Builder shall utilize the following protocol:

a. Utilize a RFI Form: All supplemental information and answers to questions shall be documented on Request for Information (RFI) forms. The Design-Builder may use any format they choose for the Request for Information form but all shall be identified with the words "Request for Information" at the top of the form along with the Government Contract Number, Project Location, Project Title and the Design-Build Contractor's Name.

b. Numbering: RFI's shall be sequentially numbered, logged and filed and shall be part of the Closeout Documents submitted to the Government.

c. Government Concurrence: As RFI's are generated and answered, submit copies to the COR for review within five (5) business days for concurrence via email .pdf format. A non-response from the COR within five (5) business days of receipt of the RFI will signify no objection with the RFI answer. If the RFI is sent on a Friday, then Saturday and Sunday do not count as business days. RFI's shall not modify the Contract in any way. Modifications to the Contract can only be performed by the Contracting Officer.

d. RFI Files Onsite: The Site Superintendent shall maintain a file of RFIs. This RFI file shall be subject to inspection by the Government without advance notice.

2. Submittals: Unless a more stringent protocol is accepted in the Design/Build Management Plan, the Design-Builder shall utilize the following protocol.

a. Utilize a Submittal Register: Develop a submittal register keyed to the Drawings and Specifications and update this Register as submittals and logged and processed.

b. Numbering: Submittals shall be sequentially numbered. A completed submittal register shall be submitted with the Project Closeout Documents.

c. Government Concurrence: Provide the COR with one (1) copy of the submittal approved by the Engineer of Record. Once COR has approved the submittal the Design-Builder shall provide the Government's Construction Observer one (1) copy of the approved submittal within two (2) business days of the approval date.

d. Site Responsibility: The Contractor's Site Superintendent shall maintain a file of approved submittals for reference purposes. This Submittal file shall be subject to inspection by the Government without advance notice.

ii. Any delays resulting from Government questions/stoppages due to a lack of, or inordinately lengthy or unnecessary delays in, the flow of information from the Design-Builder to the Government will not give rise to claims for monetary consideration under the contract, including but not limited to requests for equitable adjustments, constructive changes, and other claims for compensation.

4. Project Safety

a. The Design-Builder shall have the ultimate responsibility for safety on the project site at all times, from issuance of the Notice to Proceed until final completion and acceptance of the project by the Contracting Officer. Ensure that all onsite activities, equipment, and facilities constructed by the Design-Builder, subcontractor, or supplier conform fully to the standards of the Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1926 and 1910; and DOI and FWS policies. In addition, the Design-Builder shall adhere to all current Federal, State and local safety requirements. In the event where any safety standard referenced herein conflicts with another, the more stringent shall govern.

b. Initiate and maintain, throughout the performance of this contract, an effective safety and health program that provides adequate policies, procedures, and practices to protect employees from, and allow them to recognize, job-related safety and health hazards. The program shall include provisions for the identification, evaluation, prevention and control of general work site hazards, specific job hazards, and potential hazards that may arise from foreseeable construction methods and conditions, as well as providing a competent person to conduct frequent and regular inspections. Each employee (Design-Builder and subcontractors) must be instructed in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment.

c. Provide barricades and warning devices as necessary to safeguard the public, workers, and government personnel. Where project work affects public roads, provide signage in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) as published by the US Department of

Transportation, Federal Highway Administration as well as appropriate Traffic Control.

d. Rollover Protection and Seat Belts: In addition to the Safety and Health requirements of clause Federal Acquisition Regulation (FAR) 52.236-13 of Part 2, Section I of this Contract, rollover protection and seat belts required by 29CFR 1926 (OSHA) shall be extended to include equipment regardless of the year of manufacture.

5. Project Closeout

a. Training: Thoroughly familiarize the Station Manager (or designee) with the improvements and train them to be proficient in overall system operation and maintenance.

b. Tools and spare parts: Deliver to the project site all specialty tools, valve handles, fan belts, filters, spare parts, keys and similar devices such that the Government staff is able to operate and maintain the work.

c. Maintenance Materials: Deliver maintenance materials to Station Manager, coordinate location of storage. (Provide consumable items in such quantities as needed for the first year of operation.)

d. Final Inspection: Submit a request in writing to the CO requesting the Final Inspection. Accompanying this request shall be a written signed/sealed certification provided by the Engineer of Record noting the following; "This document certifies the above identified project is considered to be complete by myself and available for the Owner to place into service. I certify that no safety implications significant enough to prevent occupancy and/or use exist."

e. Notify the COR at least ten (10) calendar days prior to the anticipated date of completion of all work. The COR will proceed with Final Inspection as promptly as practicable. The time required for such Final Inspection and for making any corrections as a result thereof shall be included in the contract performance time. The Design-Builder shall be responsible to generate, maintain and closeout the Punchlist during the course of the project.

f. Operation and Maintenance Manuals: Submit two (2) copies of Operation and Maintenance manual (one (1) hard copy to the FWS field station and one (1) .pdf copy to the COR). The manuals shall be clear, well organized, clearly indexed, tabbed, highlighted, tailored to the specific make, model, and wiring configuration of the systems; and shall include schedules and instructions for routine operation, trouble shooting, and periodic maintenance. The manuals shall include complete parts lists keyed to suppliers (name, address, websites, and telephone numbers for each).

g. Operational Permits/Agreements: Provide copies of all approved operational permits and agreements. Include a list of all monitoring requirements and monitoring frequencies.

h. Submit a full size set of red-lined drawings and complete set of specifications that clearly indicates the as-constructed work. As-constructed drawings shall be in .dwg and .pdf format and noted as 'Final Construction/As-Builts' in the revision block. Submit one set of final working drawings, one set of reproducible drawings showing as-constructed conditions, and one electronic set complying with FWS CAD Standards. Final As-Built drawing sheets as well as Final As-Built Specifications shall be signed and sealed by the Engineer of Record.

i. Submit fully executed manufacturer's standard material, product, and equipment warranties.

j. Submit any requested regulatory-agency clearance documents indicating the work complies with their requirements such as finalized erosion and sedimentation control inspections.

6. **Additional Miscellaneous Requirements**

a. Modification Requirements

i. In the event of the need for a Change Order, the Design-Builder will receive a letter requesting a price quote for proposed changes to the Contract.

ii. For evaluation purposes, the Design-Builder’s quote shall be broken down to show the costs of labor and materials for each proposed category of Work included with the change, along with the total cost for Design-Builder's overhead, profit, and bond for the proposed changes.

iii. All Contract time extensions required as a result of a proposed change must be justified and supported in detail at the time of the proposal.

iv. Only the Contracting Officer can modify the Contract.

b. Prepare a Schedule of Values in the format of the American Institute of Architects (AIA) form number G702/703 Application and Certificate for Payment (or approved equivalent format). In addition to data required by the Contracting Officer, format the Schedule of Values to match the Schedule of Items created in the Design process and show enough additional detail to allow accurate calculation of monthly progress payments. Submit the detailed Schedule of Values no less than seven (7) calendar days prior to the start of on-site construction work.

c. Pay Request shall be accompanied with the updated AIA Form G702/703 signed by the EOR and the updated Schedule. Payment will not be made if schedule is not included with the Pay Request or Schedule is inaccurate.

d. Comply with all applicable federal, state, and local laws and regulations. This condition applies to, but is not limited to, laws and regulations governing noise levels, air and water quality standards, erosion control, surface runoff, and cultural resources.

e. Provide erosion control methods (such as watering dry soils) and appurtenances (such as silt fence) as necessary to prevent wind-borne dust and water-borne silt from leaving the immediate work area.

f. Immediately stop work if paleontological, archaeological or historical remains (including burials or skeletal material) are encountered, immediately stop the work and notify the Government’s Construction Observer, COR, or Contracting Officer. The Contracting Officer will notify the Regional Archaeologist so the provisions of 36 CFR 800.7 (Resource Discovered During Construction) and other relevant laws are followed. Work will cease in the immediate vicinity until permitted to resume by written order from the Contracting Officer. Work in other areas may proceed as approved by the Contracting Officer.

g. Protect adjacent vegetation, property, structures, and improvements from damage.

h. Heavy equipment operated on Government's roads and parking areas shall comply with highway-legal load limits unless explicitly approved otherwise. Prior to operations, the Contractor shall document condition of roads and parking. The Contractor is responsible for repairs of damage to roads and parking caused by their own actions.

i. Clearing limits and working limits shall be shown on the drawings. Do not remove any trees outside of said limits without prior Station Manager approval. All clearing limits, working limits and construction staging areas shall be reviewed and approved by the Station Manager. Construction equipment and operations shall be contained within the work limits and staging areas.

j. Any and all utility disturbances and/or shutdowns required to construct or design the proposed rehabilitation and enhancements shall be in accordance with the requirements of the Field Station. Consult Field Station on what the allowable shutdown is.

k. All areas not included in the D/B's Work that are disturbed by the D/B, or disturbed do the actions of the D/B, shall be restored to the pre-project condition by the D/B prior to the completion of the project.

l. Roads, parking lots, and walkways subject to interference by the Work shall be kept open in a manner that provides for safe public use. If an area/roadway is to be closed it must be preapproved by the Station Manager and owner of roadway in advance.

m. The D/B will design all areas of the project to achieve a constructible and permittable project. The Work will include survey and engineering disciplines as needed to assess the site conditions and develop a design that can be permitted and constructed.

n. It is the D/B's responsibility to review all areas of the project to determine the requirements of the Work as needed to provide appropriately designed and constructed rehabilitations and enhancements.

o. Any existing utilities that need to be moved to accommodate the proposed design in order to meet code/law/engineer of records requirements shall be paid for and constructed by the Design-Builder.

p. The D/B shall perform the following testing and/or inspections, at a minimum, to confirm the adequacy of the constructed items:

- All testing as required in the Division 1 templated specifications.
- Field Quality Control, Earthwork:
  - Testing Agency shall provide classification of materials according to ASTM D 2487 of each onsite and borrow soil material proposed for fill and backfill.
  - Testing Agency: D/B must engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
  - Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 329 to conduct soil materials and rock-definition testing, as documented according to ASTM D

3740 and ASTM E 548. Provide testing agency's qualifications to COR prior to start of construction.

- Allow testing agency to inspect and test subgrades, subbases, and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- Testing agency must test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies at a minimum:
    - Paved Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2000 sq. ft. or less of paved area or building slab, but in no case fewer than 3 tests. All open areas (transverse crack repair areas) shall have a minimum of one test per area at subgrade layer.
    - Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for each 150 feet or less of trench length, but no fewer than 2 tests.
- When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.
- Provide the COR with copies of all test reports within one week of the completion of the tests.
- Aggregate Base Inspection:
    - Notify Government when aggregate base has reached required grade.
    - Proof-roll aggregate base with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. D/B to notify the COR 5 business days prior to proof roll of aggregate base. Notification shall include the location of the proof roll and the date/time it will be conducted. D/B's Independent 3rd Party Testing Agency shall observe all Proof Rolls and provide report to EOR and COR. D/B's EOR shall recommend areas to be corrected, if any, and shall include the recommended corrections to the D/B. If the D/B believes a Modification is required to correct the work, the D/B would need to contact the CO prior to performing the additional work.
    - Completely proof-roll aggregate base in one direction. Limit vehicle speed to 3 mph (5 km/h). (5) Proof-roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons (13.6 tonnes).
    - Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by EOR and replace with appropriate material as directed by EOR.
- Subgrade Inspection:
    - Notify Government when excavations have reached required subgrade.
    - Proof-roll subgrade with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. D/B to notify the COR 5 business days prior to any proof roll of subgrade. Notification shall include the location of the proof roll and the date/time it will be

conducted. Do not proof-roll wet or saturated subgrade. D/B's Independent 3rd Party Testing Agency shall observe all Proof Rolls and provide a report to the EOR and COR. D/B's EOR shall recommend areas to be corrected, if any, and shall include the recommended corrections to the D/B. If the D/B believes a Modification is required to correct the work, the Contractor would need to contact the CO prior to performing the additional work.
    - Completely proof-roll subgrade in one direction. Limit vehicle speed to 3 mph (5 km/h).
    - Proof-roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons (13.6 tonnes).
    - Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by EOR, and replace with compacted backfill or fill as directed by EOR.
    - Reconstruct subgrade damaged by freezing temperatures, frost, rain, accumulated water, or construction activities without additional compensation.
- Field Quality Control, Asphalt:
    - Manufacturer Qualifications: Asphalt material shall be provided by a qualified manufacturer. Manufacturer shall be a paving-mix manufacturer registered with and approved by IDOT.
    - Testing Agency: D/B must engage a qualified independent testing and inspecting agency to perform field tests and inspections and to prepare test reports. Provide testing agency's qualifications to COR prior to start of construction.
    - Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated, as documented according to ASTM E 548.
    - Testing agency will conduct and interpret tests and state in each report whether tested Work complies with or deviates from specified requirements.
    - Additional testing and inspecting, at D/B's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
    - Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D 3549.
    - In-Place Density: Testing agency must take samples of uncompacted paving mixtures and compacted pavement according to ASTM D 979 or AASHTO T 168.
    - Reference maximum theoretical density will be determined by averaging results from four samples of hot-mix asphalt-paving mixture delivered daily to site, prepared according to ASTM D 2041, and compacted according to job-mix specifications.
    - In-place density of compacted pavement will be determined by testing core samples according to ASTM D 1188 or ASTM D 2726.
    - One core sample will be taken for every 8,000 sq. yd. or less of installed pavement, with no fewer than 3 cores taken for each day of paving.
    - Field density of in-place compacted pavement may also be determined by nuclear method according to ASTM D 2950 and correlated with ASTM D 1188 or ASTM D 2726.

    - Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.
    - Replace and compact hot-mix asphalt where core tests were taken.
    - Provide COR copies of all Testing Reports within one week of the completion of tests.
- Field Quality Control, Concrete:
    - Manufacturer Qualifications: Manufacturer of ready-mixed concrete products who complies with ASTM C 94/C 94M requirements for production facilities and equipment. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
    - Testing Agency: D/B must engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
    - Testing Agency Qualifications: An independent agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated, as documented according to ASTM E 548. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-01 or an equivalent certification program. Provide testing agency's qualifications to COR prior to start of construction.
    - Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
    - Testing Frequency: Obtain at least 1 composite sample for each 100 cu. yd. or fraction thereof of each concrete mix placed each day.
    - When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
    - Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change.
    - Air Content: ASTM C 231, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
    - Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
    - Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
    - Compressive-Strength Tests: ASTM C 39/C 39M; test 1 specimen at 7 days and 2 specimens at 28 days.
    - A compressive-strength test shall be the average compressive strength from 2 specimens obtained from same composite sample and tested at 28 days.
    - Strength of each concrete mix will be satisfactory if average of any 3 consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

- Test results shall be reported in writing to the COR, concrete manufacturer, EOR, and D/B within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by EOR but will not be used as sole basis for approval or rejection of concrete.
- Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met.
- Remove and replace concrete pavement where test results indicate that it does not comply with specified requirements.
- Additional testing and inspecting, at D/B's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

The required tests noted above are minimums and the Designer of Record should require more testing and/or inspections as he/she feels is appropriate.

q. Hot-Mix Asphalt Installation Tolerances/Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas: (1) Base Course: ¼ inch, and (2) Surface Course: 1/8 inch.

r. Proposed asphalt overlays shall include all leveling courses and/or milling required to provide cross slopes and longitudinal slopes as required to meet the objectives of this project as noted in this document and as generally detailed on the ‘Preliminary Layout Plan, dated February 2025.

s. All pesticides, herbicides, seed mixes, and mulch must be approved by the Station Manager prior to use.

t. The D/B shall maintain vegetated and revegetated turf for a period of two (2) years. At the end of the maintenance period, turf conditions shall comply with the definition of Satisfactory Seeded Turf. If turf does not comply, the D/B shall, at no expense to the Government, maintain the turf for an additional year or until satisfactory turf is attained at the determination of the COR or Station Manager.
    - Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, with coverage exceeding 80 percent over any 10 sq. ft. area.
    - Use specified seed to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

ATTACHMENTS

1. U.S. Fish and Wildlife Service Region 3 Infrastructure Management Divisions 2020 CADD Standards

2. Template Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacture's Certificates of Compliance for Approval form and instruction

3. Template Division 1 Specifications (including Submittal Register)

4. Cycle 5 Road Inventory Condition Report, DeSoto National Wildlife Refuge, dated November 2019

5. Preliminary Layout Plan, dated February 2025

6. Geotechnical Investigation for DeSoto Southgate Survey & Geotech, dated June 5, 2024

7. Topographic Survey, dated 04/23/2024

END OF SECTION