TROPICAL STORM ZETA'S
CHATTOOGA RIVER RANGER DISTRICT (CRRD)
MULTIPLE TRAIL BRIDGES REPLACEMENT PROJECT (PHASE 2)

DESCRIPTION/SPECIFICATIONS / STATEMENT OF WORK

DESCRIPTION OF WORK

1. This work includes constructing (7)- new trail bridges, reconstruction of (1)- trail embankment fill slope failure repair, and new construction of (1) - Boardwalk platform with ramp that shall tie into the new Lake Russell M.P. 2.18 trail bridge.
    - (4) of the new trail bridges to be constructed consists of constructing using reinforced concrete abutments.
    - (3) of the new trail bridges to be constructed consists of constructing using gabion's abutments.

2. This work shall consist of the Contractor providing any and all mobilization, equipment, labor, materials, tools, supervision, safety and other incidentals necessary to perform all work for the specified construction activities in accordance with the Schedule of Items, Forest Service Supplemental Specification (FSSS), Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects per FP-14 Specifications, all supporting project specific drawings, contract, laws, rules, and regulations.

3. The contractor shall be responsible for all soil erosion and sediment control, construction surveying and staking, vegetation management, clearing and grubbing, disposal of clearing and grubbing materials off govt. lands, removal of existing specified trail bridges and legally disposal off govt. lands, embankment failure repairs, hauling activities, furnishing and underdrain system construction, placement and construction including steel reinforcement, gabions placement, gabions erection and construction, and furnishing, erection, and construction of all trail bridges in its entirety, importing of specified materials, trail embankment construction, geotextile placement, riprap keying and armoring, grouting specified riprap, furnishing and constructing specified trail guardrails, importing, placement, and compaction of foundation fill and aggregate surfacing, and turf establishment (seed & mulching).

4. The contractor's soil erosion and sediment control measures shall be incidental to the contractor's proposal along with the contractor's soil erosion and sediment control plan.

5. All trail bridges were surveyed in 2020 and may be over vegetated. Therefore, it shall be the contractor's responsibility to locate and find the minimum amount of control points needed for successful construction, surveying and staking of the new trail bridges and all associated work with it. Findings of the minimum amount of control points required for successful construction, surveying and staking and vegetation management that may be required to locate the existing control points shall be incidental to the contractor's proposal.

6. All specified work shall be confined within the limits of the existing trail traveled way, adjacent ditches, shoulders, cut/fill slopes, and trail embankment stabilizations. **Running off the trails will not be allowed on project site and will result into write-up and Notice of Non-Compliance.**

7. At all times during the performance of this contract and until the work is completed and accepted, the Contractor shall directly supervise the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor. The superintendent shall be designated in writing to the Contracting Officer prior to the commencement of work. This individual shall be able to read, speak, and understand English.

8. Pole Creek Trail Bridge M.P. 0.75 shall consist of contractor using a crane to lift their mechanized equipment over the existing highway bridge guardrail to access the trail. Contractor shall refer to Subsheet 27 of 59 of the attached solicited drawings. There is no pay item in the Schedule of Items to account for the contractor's crane and flagger services. All crane and flagger's services to access Pole Creek Trail bridge M.P. 0.75 shall be incidental to the contractor's proposal.

9. Lick Log Trail Bridge M.P. 6.79 shall consist of contractor using an old timber road to access the trail bridge located within the Wilderness. There are over 20 roadway berms that will be required for removal to access the trail bridge and resetting after the Lick Log M.P. 6.79 trail bridge is 100% completed. There is a respective pay item in the Schedule of Items under the Lick Log Trail bridge to account for berms removal and resetting. Any tree clearing shall require C.O. approval in advance due to being in the Wilderness.

PROJECT LOCATIONS

Project Site	Latitude	Longitude
Becky Branch Trail Bridge M.P. 18.84	34.883501	-83.352097
Bertram National Trail Fill Slope Embankment Failure	34.883472	-83.352058
Dicks Creek Trail Bridge M.P. 9.25	34.868767	-83.247064
Lick Log Creek Trail Bridge M.P. 6.79	34.841958	-83.270822
Pole Creek Trail Bridge M.P. 0.75	34.819064	-83.309432
Sourwood Creek Trail Bridge M.P. 1.8	34.50769	-83.47340
Lake Russell Trail Bridge M.P. 0.10	34.498868	-83.483375
Lake Russell Trail Bridge M.P. 2.18	34.485576	-83.500331

WORKING HOURS

Normal operational hours are approximately from 06:30 am to 5:30 PM Eastern Standard Time, Monday through Friday (Federal Holidays excluded). Weekend work may be permitted with written approval from the Contracting Officer (C.O.) at a minimum of 7 business prior.

- Federal Holidays
    1. New Year's Day – January 1st
    2. Martin Luther King Junior's Birthday – Third Monday in January

3. President's Day – Third Monday in February
4. Memorial Day – Last Monday in May
5. Juneteenth National Independence Day - Third Monday in June
6. Independence Day – July 4th
7. Labor Day – First Monday in September
8. Columbus Day – Second Monday in October
9. Veteran's Day – November 11th
10. Thanksgiving Day – Fourth Thursday in November
11. Christmas Day – December 25th

TRAIL'S GENERAL ACCESS INFORMATION

Bertram National Trail Fill Slope Embankment Failure & Becky Branch Trail Bridge M.P. 18.84
The existing trail is approx.. 500-feet in total length and averages 2-feet in width and is the narrowest trail of the solicitation. Refer to attached solicitation drawing Subsheet S-100.

The existing trail has an old small ductile pipe running parallel of the trail (field verification required (Refer to Drawing Subsheet S-102). The contractor shall contact "Georgia 811" prior to beginning work. If the contractor has to shut-off the old existing line and disconnect and remove the existing line to make the embankment failure repairs, then the contractor shall replace the existing line in that segment of work in-kind with "new materials" and reconnect. All work shall be incidental to the contractor's proposal. Refer to Drawing Subsheet S-102.

All of the additional trails
All additional solicitation trails has an average existing and consistent width of 4-feet to 4.5-feet and can be assessed by a UTV.

Dicks Creek Trail Bridge M.P. 9.25
The existing trail head is blocked by boulders. The contractor shall anticipate removing the boulders prior to accessing the trail with mechanized equipment and resetting the boulders after Govt.'s final acceptance of project site work.

Lick Log Creek Trail Bridge M.P. 6.79
The existing trail will have to be accessed by mechanized equipment utilizing an old trail. The contractor will be required to access this trail bridge by traveling 3,000+ feet on an old existing trail with berms. The berms will have to be removed and reset and seed and mulched after Govt.'s final acceptance of project site. Refer to Schedule of Items for the respective trail bridge site and solicitation drawing Subsheet S-107.

Pole Creek Trail Bridge M.P. 0.75
The existing trail head is blocked by boulders. The contractor shall anticipate removing the boulders prior to accessing the trail with mechanized equipment and resetting the boulders after Govt.'s final acceptance of project site work.

The contractor shall be aware that there's no access to drive mechanized equipment from HWY 76 onto the trail. Therefore, the contractor has approval to temporarily stop traffic in the far-right lane closest to trail head and unload their equipment and use another equipment to raise and lift

their equipment over the shallow G-DOT sidewalk barrier wall to access this trail. This shall only occur during the hours of 8 p.m. and 5:30 a.m. due to high use traffic of the highway. The contractor shall use their own certified flaggers during this activity. The same requirements are required after Govt.'s final acceptance of project site. All shall be incidental to the contractor's proposal. Refer to drawings Subsheet S-110.

Lake Russell Trail Bridge M.P. 0.10
Before accessing this particular trail bridge, the contractor shall be aware that the existing trail head is an asphalt culdesac with access to this trail in which this trail has 48-inches wide stairs with a switchback that are made of creosote and stone. This is a total length of 150-feet. Refer to drawings Subsheet S-116.
**** Refer to solicitation drawings for all site details. The solicitation drawings have more details and information for each site.

**** The solicited work and project location is within a remote Forest Service site in rural/mountain locations, steep, narrow, and brushy terrain.

TRAIL'S STAGING AREAS

Lake Russell Trail Bridge M.P. 0.10
The Government has identified the proposed staging area for this respective trail bridge. Refer to solicitation Drawings Subsheet S-116.

All Additional Trail Bridge's Replacement Sites
The contractor shall propose a staging area(s) for **all additional trail bridges for replacement sites** in their entirety and the one (1) embankment failure repair located on the Bertram National Trail. All contractor's proposed staging area requires the C.O. written approval.

The contractor's proposed staging area shall be of an area that require less disturbance and reflected on a map or on the contract drawings if within the project limits for the C.O.'s approval. "No trees removal" will be allowed for the contractor's proposed staging area(s), no exception. All approved staging areas shall be shaped to drain and shall be seed and mulched before govt.'s final acceptance of respective project location.

The Contractor shall be responsible for protecting their own materials stockpiled against adverse weather, damage, theft, and other risks of loss. The Government assumes no responsibility for material or equipment left in the storage area and/or project site

TRAIL'S SEEDING AND MULCHING REQUIREMENTS & REMOVAL OF TRACKS AND RUTS REQUIREMENTS

All trails and the access to the respective trails shall be seed and mulched after Govt,'s final acceptance of each respective project site work. However, the contractor shall not seed and mulch the trailbed itself (refer to Drawings Subsheet D-111 for illustration of a trailbed). All seeding and mulching is included in the solicitation Schedule of Items.

The contractor is required to remove all of their mechanized equipment tracks, tire tracks, and ruts from the trailbed before Govt. final acceptance of each respective project site. Refer to drawings Subsheet D-111 for "trailbed" detail drawing. All track and tire ruts removal requirements shall be incidental to the contractor's proposal.

TRAIL'S BRUSHING, MOWING, AND DOWNED TREE REMOVAL AND TRAIL CLEARING HEIGHT REQUIREMENTS

The trail(s) may not require brushing and mowing, however the trails may have overgrown from the date of the USFS begin the planning and designing of this project. If respective trail is overgrown with no visual of the existing trail surface grade or no visual 8-feet vertical clearance height then the contractor may brush and mow the trail. Trail brushing and mowing activities shall be incidental to the contractor's proposal.

If the contractor encounter a down tree while accessing the trail which is very likely, the contractor shall smooth cut the tree and remove the newly cut log from within the trailway and place perpendicular onto the fill slope. This requirement shall be incidental to the contractor's proposal.

Refer to drawings Subsheet D-110 for "Trail Brushing and Mowing Detail" and Downed Tree Removal and Tree Clearing Hight Detail".

PROJECT PHASING

Work at an active trail construction site shall be substantially completed before mobilizing to the next trail site. Once construction activities begin on a site, the contractor shall make reasonable effort to complete all work at that respective site. In no circumstance shall the contractor begin work at one existing site then move to a new trail site and begin work.

- If the contractor proposes to work on multiple trails at one time, then the contractor shall propose and provide a detailed written plan with a detailed construction schedule for the Contracting Officer's (C.O.) written approval. The request may still be rejected by the C.O.. Therefore, for this solicitation, the contractor can anticipate that only one trail will be closed at a time for construction and contract duration.

APPLICABLE SPECIFICATIONS (CONSTRUCTION PROJECTS)

The applicable specifications for Construction are the Forest Service Supplemental Specification (FSSS), and the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects per FP-14. An electronic pdf copy of the FP-14 can be located at this link as shown:

https://flh.fhwa.dot.gov/resources/specs/

SUBMITTALS

The following shall be submitted on this project for C.O.'s approval at least **30** days after Contract Award:

Title	Referenced by Specification No.	Time of Government Approval or Rejection After Submittal
Accident Prevention (Safety Plan)	FAR Clause 52.236-13	10 Days
Schedules for Construction Contracts (Project Work Schedule)	FAR Clause 52.236-15	10 Days
Spill Prevention, Control, and Countermeasure (SPCC) Plan	FP-14 107.10(b)	10 Days
Traffic Control Proposal	FP-14 156.04	10 Days
Contractor Quality Control Plan	FP-14 153.02	10 Days
Notification of Proposed Contractor-Provided Material Sources	FP-14 105.02(c)	10 Days
Soil Erosion and Sediment Control Plan	FP-14 Section 157	10 Days
Staging and Storage Stockpiling of Materials Plan	Statement of Work	10 Days
Helicopter Safety Plan (Helicopter Transporting Safety Plan is optional)	FAR Clause 52.236-13	10 Days

MATERIAL CERTIFICATIONS, AND TESTING REPORTS SUBMITTALS

The following material certifications and/or testing reports shall be submitted on this project for C.O.'s approval at least **45** days after Contract Award.

The Govt. has approx.. **7** business days to approve and/or reject contractor's material submission.

Title	Referenced by Specification No.
Silt Fence	FP-14 Section 157 and Drawings Subsheet D-109
Select Borrow Material – Shall be Imported from a Commercial Source, no exception. (shall only be used for trail embankment construction when needed. Gradation shall meet the requirements of FP-14 Section 704.07)	FP-14 Section 204 and FP-14 Section 704.07
Earthwork geosynthetics, type Class **I**, nonwoven, Type **A** (Geotextile)	FP-14 Table 714-1 and Schedule of Items (SOI)
Foundation Fill (gradation shall conform to the FP-14 Section 704.01)	FP-14 Section 208.08 and FP-14 Section 704.01
Keyed Riprap, Class **4**	FP-14 Section 251.05, FP-14 Table 705-1, and SOI

Grouted Riprap, Class **3**	FP-14 Section 251.06, FP-14 Table 705-1, and SOI
Gabion Baskets (Shall be welded wire only, US Standard Gage 9, and shall be polyvinyl chloride coated (pvc), no exception. The gabions will vary in sizes. Refer to SOI and Drawings)	FP-14 Section 253 and FP-14 Section 720.02, Drawings Subsheet D-105, D-108, and SOI
Aggregate Grading 4" to 8" Durable Clean Angular Rock w/ No fines (imported commercial material for the insert into gabion baskets)	FP-14 Section 703 and SOI
Aggregate Grading C (imported commercial material for the gabion baskets)	FP-14 Table 703-2 and SOI
Trail Guardrail (steel tubing railing, galvanized flange connectors, and reinforcement for the concrete column posts and and concrete for the column/posts	Drawings Subsheet S-101, S-102, D-112, and SOI
Trail Guardrail (treated railing, non-treated handrails, concrete encasement, and treated posts, and all fasteners)	Drawings Subsheet S-123 and SOI
Standard underdrain system (Type S Pipe w/ Class 2 Perforations per AASHTO M-252)	Drawings Subsheet S-101, D-104, FP-14 Section 605.04 and SOI
Structural Concrete Class A(A-E)	FP-14 Table 552-2 and SOI
Reinforcement Steel	FP-14 Section 554, Drawings Subsheet D-104, and SOI
Trail Bridge – Glulam Stringers	Drawings Subsheet G-105, D-101, D-102, and SOI
Trail Bridge – Sills (Reinforced concrete, Glulam Sills, or Treated)	Drawings Subsheet G-105, D-104, D-105, and D-106
Trail Bridges – Treated Deck Planks, Treated Running Planks, Treated Railing, Treated Posts, and Non-Treated Handrails	FP-14 Section 557, Drawings Subsheet D-101, and D-102 and SOI
Trail Bridge – Bearing Shoes & Connection Hardware	Drawings Subsheet D-107
Trail Bridge – Diaphragms & Connection Hardware	Drawings Subsheet D-107
Trail Bridge – Elastomeric Pads	Drawings Subsheet D-107
Seeding, Dry Method	FP-14 Section 625, Drawings Subsheet D-111, and SOI
Mulching, Dry Method (mulch shall be weed free)	FP-14 Section 625, Drawings Subsheet D-111, and SOI

MOISTURE SENSITIVE SOILS

(NOTE: For use on trail project where material to be excavated is expected to be moisture sensitive.)

Contractors are cautioned that the trailway structure design load is critical and shall be monitored during periods of excessive moisture. Materials on this project are sensitive to excessive moisture and will require careful selection and scheduling of equipment to permit efficient operation. Any damage resulting from operations, which renders the material unsuitable for use or results in potential siltation of streams, will be corrected by the Contractor at Contractor's expense.

CONTROL OF MATERIAL

Material Sources

a) Designated Sources – N/A

b) Contractor Furnished Sources – All materials and importing of materials shall be the sole responsibility of the contractor. All material incorporated into the work covered by this contract shall be new and free of any defects (**used material is not acceptable**) and of the most suitable grade for the purpose intended and shall conform to Far Clause Section 36.505 - Material and Workmanship. A submittal is required for approval of all commercial source materials. The Contractor shall be responsible for providing the specified product with no adjustment in contract price. Quality Testing shall be the responsibility of the Contractor. Test results shall be furnished to the Contracting Officer for evaluation and approval.

Storage Stockpiling of Materials

a) Materials shall be stored to assure the preservation of quality and fitness for the work. Stored materials shall be located to facilitate their prompt inspection. Designated sites on Forest Service administered land, may be used for storage purposes and for the placing of Contractor's plant equipment as approved by the C.O..

   Contractor's materials, equipment, and supplies are to be staged in approved staging areas along the trail or designated approved area. All storage sites provided by the Forest Service shall be restored at the Contractor's expense. The contractor shall be responsible for making arrangements for storage on other than Forest Service administered lands. The government will not be responsible for any theft or damage to the contractor's equipment and materials.

Earthwork Tolerances

a) Changes within specified tolerances (such as adjustment of horizontal or vertical alignment) shall be approved in advance by the C.O. and made as necessary to maintain earthwork quantities substantially as designed within balance points. Such adjustments shall not be considered as "Changes" under Clause 52.243-5.

SAFETY

During the execution of this contract, the Contractor shall conform to the rules and regulations as set forth by OSHA Safety and Health Standards, 29 CFR Part 1926 – Safety and Health Regulations for Construction or the US Army Corps of Engineers "Safety and Health Requirements Manual", Sept 15 2008 (free online) whichever is more stringent. Fire precautions to prevent wildfire shall be included or initiated when weather and site conditions pose a significant opportunity for ignition of wildfire.

The Contractor shall abide by all Federal and State laws pertaining to the health and safety of individuals and equipment on the worksite. This includes minors working or observing the operations of the work in the field.

Contractor shall provide a written job-specific Safety Plan for the inherently hazardous conditions that exist during operations such as scafolding Part 1926 Subpart L (Scaffolds), buoyant vests, harness, and fall protection standards which is available online at our www.osha.gov.
The Contractor's Safety Plan shall identify and describe any inherently hazardous conditions and specific actions to reduce these hazards. This plan shall be provided to the Contracting Officer (CO) at the post award conference and shall be approved by the government before any work may commence. Work shall not commence on this project if the Contractor fails to provide the CO with an approved Safety Plan. Contractor's approved Safty Plan shall be implemented by the contractor at all times during the duration of this contract.

SITE MANAGEMENT

The Contractor shall exercise caution and care while pursuing the work. Always maintain site free of hazards. Safety equipment, fencing and barriers shall be installed per safety plan. Erosion control and sedimentation mitigation measures shall be constructed in accordance with Federal, State and Local regulations as applicable. The Contractor is to pursue all work on project site in accordance with all Federal, State and Local laws governing the transportation and work being performed.

TRAFFIC MANAGEMENT / TRAIL CLOSURE

The Contractor shall erect warning signs in advance to any place on the project where operations may interfere with the use of the trail by traffic and at all intermediate points, where the new work crosses or coincides with an existing trail. The Contractor will post warning signs on each end of the section of trail being worked. Signs are to be of the size, quantity, and colors as required in the current edition of the "Manual on Uniform Traffic Control Devises", (MUTCD). These signs shall be moved as needed to properly delineate and identify the section of the trail being constructed or repaired. All slow-moving equipment is to have a reflectorized "slow-moving" vehicle emblem properly attached.

The Contractor shall provide, erect and maintain all necessary barricades, and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of the public and their workers.

All work requiring closure of a road and/or trail must be scheduled and approved by the Contracting Officer (CO) in writing prior to the commencement of that portion of work. If for any reason traffic hazards (segments of unfinished work which may present a hazard such as rolls of surface material,

berms on the shoulder, etc.) are left in or adjacent to the trail after normal working hours, the work is to be properly signed before and after the hazardous area with a Hazardous and/or Warning Sign(s). Signs shall provide adequate visibility and legibility conforming to Table 2A-3. Minimum Maintained Retroreflectivity of the MUTCD.
The MUTCD can be downloaded for free at https://mutcd.fhwa.dot.gov/

TEMPORARY FACILITIES

a) SANITARY FACILITIES
   - Toilet facilities will not be provided by the Government at project sites.

b) WATER:
   - At the discretion of the contractor, the contractor can withdraw water from the project site's creek to fill their portable water tank. The contractor shall only be allowed to "withdraw" water from the creek to fill their portable water tank only for the cast-in-place concrete work by conforming and adhering to the below contract requirements, no exception. Directly withdrawing from the creek for concrete work is not allowed and the contractor will be issued a Notice-Of-Noncompliance if not using the drafting to fill their water tank only. Contractor shall provide their own portable water tank and use the creek to fill their portable water tank by conforming and adhering to the requirements below.
     - Pump, Drafting Hose, & Screening Requirements:
       - Only withdraw water from creek to fill contractor's portable water tank using an approved pump and approved draft hose with screening. When failure of a pump would result in movement of sediment or turbidity beyond the work area, provide a back-up pump that is readily available.
       - The contractor's pumps must have fish screens and shall be operated in accordance with National Marine Fisheries Service (NMFS) aquatic species screen criteria. Equip the pump with approved screens, appropriate suction and discharge hoses, fittings and flow regulation equipment as needed. Ensure that the pump(s) used on the project site are clean, free of leaks and that the oil used as lubricant in the pump seal systems is food grade mineral oil. Install and operate pumps in a manner that will avoid impingement of small fish against the intake screens.
         1) Pump intakes. Use one of the following methods of screening on all draft hoses:
            i. Perforated Plate; screen openings shall not exceed 3/32 or 0.0938-inches
            ii. Profile Bar Screen; the narrowest dimension in the screen openings shall not exceed 0.0689-inches in the narrowest direction.
            iii. Woven Wire Screen; screen openings shall not exceed 3/32 or 0.0938-inches the narrow direction.

            Check intakes frequently and clean as needed with wire brushing, flushing, or any other acceptable method.

c) ELECTRICITY: Not available

d) TELEPHONE: Not available

RESOURCE PROTECTION

During the duration of construction, the Contractor shall preserve and protect all existing historical structures, and protect vegetation (such as trees, shrubs, and grass) adjacent to the work site not found within the clearing limits, which are not to be removed and which do not unreasonably interfere with the work required under this solicitation. Operations shall be scheduled and conducted to minimize erosion of soils and to prevent silting and muddying of streams, rivers, irrigation systems, and impoundments (lakes, reservoirs, etc.).

The Contractor shall give attention to the effect of contract operation upon the landscape, shall take care to maintain natural surroundings undamaged, and shall conduct the work at all times in compliance with the following requirements.

a) Prevention of the Landscape Defacement. The Contractor shall not remove, deface, injure, or destroy trees, shrubs, lawns, existing trial bridges not for replacement, or other natural features or any other improvements in the work area unless specifically authorized by the Contracting Officer. Unless otherwise provided herein, the Contractor shall confine contract operations to within the areas designated in contract documents.

b) Protection of Streams, Lakes, and Reservoirs. The Contractor shall take sufficient precautions to prevent pollution to rivers, streams, lakes, small ponds, and reservoirs with fuels, oils, bitumens, calcium chloride, silt, or other harmful materials. Mechanical equipment shall not be operated in live streams without written approval of the Contracting Officer.

CONSTRUCTION SCHEDULE / VALUES

The contractor shall submit a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, labor, equipment, and activity proposed for each day of operations) per FAR Clause 52.236-15. A final construction schedule shall be submitted within **10 days** after the Notice to Proceed. A schedule of values linking the payment items to the Construction Schedule shall be prepared. This document shall describe multiple activities being proposed from start to finish of the project and show construction work completion in percentage.

The construction schedule shall define the overall time required to perform the identified work. This time schedule shall determine the overall level of effort by discipline for the task. Each major task, including beginning time and ending time, shall be identified within the schedule.

Notify the Contracting Officer whenever there are significant departures from the approved Construction Schedule. Submit any requests to modify the Construction Schedule, in writing to the Contracting Officer with an explanation for the deviation.

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP)

This Quality Assurance Surveillance Plan (QASP) is established pursuant to the requirements of this Statement of Work (SOW). This plan sets forth the procedures and guidelines the USDA Forest Service will use to verify that the construction performed by the Contractor conforms to the requirements of the

contract, including this SOW, the contract drawings, the Forest Service Supplemental Specifications (FSSS), and the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-14).

Purpose

The purpose of this QASP is to describe the systematic methods the Government will use to monitor, evaluate, and document the Contractor's construction performance against the standards established in the contract. This plan identifies the roles and responsibilities of Government personnel, defines the performance objectives and the methods used to inspect completed work and work in progress, establishes the acceptable quality level for each item of work, and describes how inspection results are documented, analyzed, and acted upon. This QASP does not relieve the Contractor of its responsibility to manage and control the quality of its own work.

Definitions

Quality assurance and quality control are distinct and separate responsibilities and are defined as follows:

- **Quality Assurance (QA).** Quality assurance consists of the functions the Government performs, including inspection, to determine whether the Contractor has met the quality and quantity obligations of the contract. Quality assurance inspections are conducted by the Government to monitor and verify the effectiveness of the Contractor's quality control. This QASP describes the Government's quality assurance for this project.

- **Quality Control (QC).** Quality control is the recurrent and ongoing observation, inspection, and testing necessary to ensure that the construction conforms to the contract requirements. Quality control is the responsibility of the Contractor. The Contractor shall carry out its quality control through an approved contractor's *Quality Control Plan*, which the Contractor must provide before construction begins, in accordance with the contract, the Forest Service Supplemental Specifications (FSSS), and FP-14 Section 153.

Roles and Responsibilities

Contracting Officer (CO). The CO has overall responsibility for administering the contract. The CO is the only individual authorized to conduct official business with the Contractor in the administration of the contract. This authority includes, but is not limited to, changing the scope of work and altering the time or the price of the contract. Only the CO may direct or accept changes to the contract.

Contracting Officer's Representative (COR). The COR is designated in writing by the CO and is responsible for monitoring, inspecting, and documenting the Contractor's construction performance in accordance with this QASP. The COR has no authority to conduct official business that binds the Government and may not direct or authorize any change to the scope of work, the contract price, the contract time, or any other term or condition of the contract. Any such change may be made only by the CO.

The CO and the COR are each authorized to reject nonconforming work on behalf of the Government and to issue final acceptance of the project.

Contractor. The Contractor is responsible for performing all construction in conformance with the contract and for managing and controlling the quality of that work through its approved Contractor Quality Control Plan. The Contractor is responsible for correcting all nonconforming work at no additional cost to the Government.

Relationship of This Plan to the Contract

The performance standards applied under this QASP are derived from the contract, the drawings, the FSSS, and FP-14, and this plan does not establish any requirement beyond those documents. The COR may revise the surveillance procedures, methods, or frequency of surveillance at any time during the period of performance. Any change that would alter a contract requirement, a performance standard, or an acceptable quality level shall be incorporated into the contract only by a written modification issued by the CO. A copy of this QASP is provided to the Contractor so that the Contractor may align its Quality Control Plan with the Government's surveillance approach.

Relationship of This Plan to the Contractor's Quality Control Plan

Quality control is the responsibility of the Contractor. The Contractor shall establish and maintain an effective Quality Control Plan in accordance with FP-14 Section 153 and shall perform the inspections and tests necessary to ensure that the work conforms to the contract. Quality assurance is the responsibility of the Government. This QASP describes the actions the Government will take to verify that the Contractor's quality control is effective and that the completed work conforms to the contract. The Contractor's Quality Control Plan and this QASP are intended to be complementary.

Surveillance Methods

The Government will use the following methods to monitor and evaluate the Contractor's performance:

- 100% Inspection. Each completed item of work will be inspected against the requirements of the contract, the drawings, and the applicable specifications.
- Inspection of Work in Progress and Hold Points. Work that will be covered or made inaccessible by subsequent operations, such as reinforcing steel before concrete placement, geotextile and foundation preparation before backfill, and underdrain systems before covering, will be inspected before the Contractor is permitted to proceed.
- Review of Submittals, Material Certifications, and Test Reports. The Government will review the submittals, material certifications, and test reports required by this SOW to confirm that materials and methods conform to the contract before incorporation into the work.
- Final Inspection. Upon the Contractor's notification that the entire project is complete, the Government will perform a final inspection in accordance with this SOW and FAR Clause 52.246-12, Inspection of Construction.

Performance Standards and Acceptable Quality Levels

The performance objectives and the acceptable quality levels for each item of work are set forth in the Performance Requirements Summary below. The acceptable quality level is the maximum extent of nonconformance that the Government will accept before the affected work is rejected. Because this is a construction project, the allowable level for a major defect is zero, and major nonconformance requires correction. Standards not specifically listed remain governed by the contract, the drawings, the FSSS, and FP-14.

Documentation and Analysis of Results

The COR will document the result of each inspection. When the work conforms to the contract, the COR will record the satisfactory result. When a defect is identified, the COR will document the location, the nature of the defect, and the applicable requirement, and will promptly notify the Contractor. The COR will analyze inspection results over the period of performance to identify trends, to confirm that corrective actions are effective, and to inform the appropriate level of surveillance. Where performance is consistently satisfactory, the Government may reduce the frequency of surveillance, and where deficiencies recur, the Government may increase it.

Corrective Action and Remedies

When the COR identifies nonconforming work, the Contractor will be notified promptly, and the Government will track the corrective action to completion. The Contractor shall correct all nonconforming work at no additional cost to the Government and within the time established by the CO. In accordance with FAR Clause 52.246-12, Inspection of Construction, the Government may require the Contractor to remove and replace rejected work, may have the work corrected by other means and charge the cost to the Contractor, or may accept nonconforming work at an equitable reduction in the contract price when correction is impracticable and the CO determines that acceptance is in the Government's interest. The Contractor remains responsible for protecting and maintaining the work, and for repairing any damage to completed work, until final acceptance of the entire project, as provided in this SOW. Failure to perform to the standards of the contract may also result in the issuance of a Notice of Non-Compliance and the suspension of the affected work until compliance is achieved.

Final Inspection and Acceptance

Final inspection and acceptance will be conducted in accordance with this SOW and FAR Clause 52.246-12. If the final inspection discloses incomplete or nonconforming work, the CO or the COR will provide the Contractor a written list of the items requiring completion or correction. The Contractor shall complete or correct the listed items and notify the Government when the work is ready for reinspection. Final acceptance will be provided in writing by the CO or the COR and will relieve the Contractor of further responsibility for maintenance of the project, except as otherwise provided by the contract.

Revisions to This Plan

The COR may revise this QASP, including the methods and frequency of surveillance, at any time during the period of performance to reflect the progress of the work. Any revision that would change a

contract requirement, a performance standard, or an acceptable quality level shall become effective only through a written modification to the contract issued by the CO.

Performance Requirements Summary

The following table establishes the performance objectives, the conditions that constitute a major or minor defect, the acceptable quality level for each, and the corresponding Government action. All work shall conform to the contract, the drawings, the FSSS, and FP-14. Where a numerical allowable is shown, it represents the maximum number of defects permitted per item of work or per project site before the affected work is rejected.

Performance Objective	Major Defect	Minor Defect	Allowable (Major)	Allowable (Minor)	Action (Major)	Action (Minor)
Soil Erosion and Sediment Control	Best management practices not installed or maintained per the approved Soil Erosion and Sediment Control Plan and FP-14 Section 157, allowing sediment to leave the work area or enter a stream.	Practices in place but in need of maintenance, with no sediment leaving the work area.	0 per site	1 per site	Stop affected work and correct.	Correct by next work shift.
Clearing Limits and Resource Protection	Disturbance, equipment operation, or tree removal outside the trail traveled way and approved clearing limits, or any tree removal not authorized in advance by the CO.	N/A	0 per site	N/A	Notice of Non-Compliance and restoration of the area.	N/A

Performance Objective	Major Defect	Minor Defect	Allowable (Major)	Allowable (Minor)	Action (Major)	Action (Minor)
Structural Concrete (Cast-in-Place)	Concrete not conforming to FP-14 Table 552-2 or to the lines, grades, and dimensions on the drawings, or exhibiting honeycombing, voids, or cold joints.	Minor surface imperfection that does not affect strength, durability, or dimension.	0 per structure	N/A	Reject and rework.	Repair.
Reinforcing Steel	Bar size, spacing, or concrete cover not in accordance with the drawings and FP-14 Section 554 at inspection prior to concrete placement.	N/A	0 per structure	N/A	Correct before concrete placement.	N/A
Reinforced Concrete and Gabion Abutments	Abutment not constructed to the lines, grades, and dimensions on the drawings, or not founded or anchored as specified.	N/A	0 per abutment	N/A	Rework.	N/A

Performance Objective	Major Defect	Minor Defect	Allowable (Major)	Allowable (Minor)	Action (Major)	Action (Minor)
Gabion Baskets	Baskets not welded wire, US Standard Gage 9, and PVC coated; rock fill not the specified 4 to 8 inch durable, clean, angular rock; or baskets not assembled, laced, and filled per FP-14 Section 253 and the drawings.	Lacing or alignment deficiency that does not affect basket integrity or function.	0 per structure	N/A	Rework.	Correct.
Riprap, Keyed (Class 4) and Grouted (Class 3)	Gradation, keying, placement, or grouting not in accordance with FP-14 Section 251 and the drawings.	Isolated surface stone placement requiring adjustment, with no effect on stability.	0 per location	N/A	Rework.	Correct.
Geotextile (Class I, Nonwoven, Type A)	Incorrect class or type, or not placed, overlapped, or repaired in accordance with FP-14 Table 714-1 and the drawings.	Overlap slightly short of the specified dimension, correctable in place before covering.	0 per location	1 per location	Replace.	Correct before covering.
Underdrain System	Pipe type or perforation class, or installation, not in accordance with the drawings and FP-14 Section 605.04, or the system does not drain.	N/A	0 per system	N/A	Rework.	N/A

Performance Objective	Major Defect	Minor Defect	Allowable (Major)	Allowable (Minor)	Action (Major)	Action (Minor)
Foundation Fill and Aggregate Surfacing	Material not from an approved commercial source, or placement, lift thickness, or compaction not in accordance with the drawings and FP-14 Sections 208 and 704.	Minor surface irregularity correctable without removal of the course.	0 per site	N/A	Rework.	Correct.
Trail Bridge Superstructure (Glulam Stringers, Sills, Decking, Railing, and Hardware)	Members not installed to the drawings, structural damage to members, or bearing shoes, elastomeric pads, diaphragms, or connection hardware not installed per Subsheet D-107 and the drawings.	Minor cosmetic blemish that does not affect structural performance or service life.	0 per bridge	N/A	Repair or replace.	Repair.
Trail Guardrail	Guardrail not of the specified materials, or not installed to the lines and grades on the drawings.	Minor finish or alignment deficiency that does not affect function.	0 per run	N/A	Rework.	Correct.
Embankment Construction and Fill Slope Failure Repair	Embankment or repair not constructed to the drawings, use of unsuitable material, or required compaction not achieved.	Minor grading deviation correctable without reconstruction.	0 per site	N/A	Rework.	Correct.

Performance Objective	Major Defect	Minor Defect	Allowable (Major)	Allowable (Minor)	Action (Major)	Action (Minor)
Boardwalk Platform and Ramp	Platform or ramp not constructed to the drawings, or not properly tied into the trail bridge.	Minor cosmetic deficiency that does not affect structure or function.	0 per structure	N/A	Rework.	Repair.
Seeding and Mulching (Turf Establishment)	Disturbed areas and trail access not seeded and mulched per FP-14 Section 625 with weed free mulch, or seeding or mulching applied to the trailbed, which is prohibited.	Isolated gap in coverage requiring touch up.	0 per site	1 per site	Reapply or remove as applicable.	Touch up.
Trailbed Restoration (Tracks and Ruts)	Equipment tracks, tire tracks, or ruts remaining in the trailbed at inspection.	N/A	0 per site	N/A	Remove and restore before final acceptance.	N/A
Restoration of Access Features (Berms, Boulders, and Staging Areas)	Berms not reset, boulders not reset, or staging areas not shaped to drain, seeded, and mulched as required by the SOW following final acceptance.	Minor restoration deficiency correctable on site.	0 per site	N/A	Restore.	Correct.

Performance Objective	Major Defect	Minor Defect	Allowable (Major)	Allowable (Minor)	Action (Major)	Action (Minor)
Protection of Existing Features (Stairway, Utilities, and Streams)	Damage to the existing stairway, to existing utilities, or to a stream, or operation of mechanized equipment in a live stream without written CO approval.	N/A	0	N/A	Repair, restore, and CO action.	N/A
Work Area Management and Traffic Control	Work not performed in accordance with the approved Safety Plan, including required signs, flaggers, and traffic control during highway access, or devices not conforming to the MUTCD.	Placement of signs or devices not fully conforming to the MUTCD, with no safety hazard created.	0	0	Suspend work until compliant.	Correct by next work shift.
Project Cleanup and Legal Disposal	Waste, debris, or removed bridge materials not disposed of legally off National Forest lands, or the site not cleaned before final acceptance.	Isolated debris requiring removal.	0 per site	N/A	Remove and dispose properly.	Remove.

Performance Objective	Major Defect	Minor Defect	Allowable (Major)	Allowable (Minor)	Action (Major)	Action (Minor)
Equipment Cleaning (Noxious Weeds)	Equipment moved onto National Forest land without the required advance notice, inspection, and written certification of cleaning.	N/A	0 per mobilization	N/A	Remove equipment until compliant.	N/A

CLEAN-UP

During construction duration and before Final Acceptance of work, the project site shall present as near a natural appearance as possible and cleaned up by removing all waste, garbage, trash, debris, excessive excavation material, excessive material, and materials not utilized in its entirety. Cleanup shall include disposal of all waste, garbage, trash, debris, excessive excavation material, excessive material, and materials not utilized in its entirety by recycling and/or disposing legally off the project site and National Forest's Lands legally.

FINAL ACCEPTANCE

The Government may inspect, sample, or test work before final acceptance of the project. The contractor shall maintain the work during construction and until the project is accepted. The contractor will be responsible for repair damage caused by the Contractor before final acceptance of the entire project at no cost to the Government. See FAR Clause 52.236-11 Use and Possession Prior to Completion.

The contractor shall notify the CO when the entire project is complete to schedule an inspection. If work is determined to be complete, the inspection will constitute the final inspection. The Contractor will be notified in writing of final acceptance as of the date of the final inspection. Final acceptance relieves the Contractor of further responsibility for the maintenance of the project.

If the inspection discloses unsatisfactory work, the CO will provide to the Contractor a list of the work that is incomplete or requires correction. Immediately complete or correct the work. Submit notification when the work has been completed as provided above.

CONTROL OF NOXIOUS WEEDS – CLEANING OF EQUIPMENT (DEC 1997)

To prevent the introduction and control the spread of seeds of noxious weeds onto and around National Forest land, the Contractor shall ensure all equipment moved onto National Forest land is free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds or any type of contaiination.

The contractor shall notify the C.O. and C.O.R. a minimum of **seven (7)** business days in advance of equipment arrival. Government inspection is required before any unloading of equipment. The Contractor shall certify, in writing, compliance.