

SH-44, BENT LANE TO STAR ROAD
SCOPE OF SERVICES FOR
CONSTRUCTION ENGINEERING, INSPECTION, SAMPLING AND TESTING (CEIS&T) SERVICES

PROJECT NO.:

KEY NO.:

DATE: JANUARY 2023

DESCRIPTION

This scope of work is to provide Construction Engineering, Inspection, Sampling and Testing (CEIS&T) Services to include contract administration, inspection, materials sampling and testing, and project office documentation under the general direction of the Star City Engineer, for construction of the SH-44, Bent Lane to Star Road project during the 2023 construction season.

The CONSULTANT will provide the City Engineer with experienced administration, inspection and sampling/testing personnel, including Subconsultants, capable of and devoted to the successful accomplishment of work to be performed under this construction contract. The CONSULTANT shall assure the requirements of the construction contract are met through knowledge of the contract and active and timely inspection and testing of all the work. The CONSULTANT shall provide daily diaries and perform all materials testing. The CONSULTANT shall perform all record keeping (including all electronic files), and assure items incorporated into the work have the documentation required. The CONSULTANT shall maintain project files at a location acceptable to the City of Star, and shall maintain testing certifications and materials test reports in ProjectWise electronic format. This includes project initiation, daily diaries, pay estimates, adjustments, and change orders.

The primary point of contact with the City of Star shall be the City Engineer or designated Project Manager (PM). The CONSULTANT will maintain active and open communication with the Contractor and the PM and make efficient and economical use of Consultant staff.

Anticipate this contract will begin February 2023 construction season and finish in July 2023. The majority of the work on SH-44, Bent Lane to Star Road will be substantially complete by June 15, 2023.

The following tasks represent the individual services that are to be provided by CONSULTANT under this agreement:

PRIMARY TASKS:

1. **Construction Administration** – CONSULTANT will provide qualified personnel to conduct project administration tasks in accordance with the contract documents to ensure the project is accepted by City of Star. The following sub-tasks represent a partial list of those activities necessary to administer the contract.

Project Management – CONSULTANT will provide project management duties from project activation through close-out. CONSULTANT will involve the City of Star project manager during project management activities and will ensure he is involved with all potential disputes and decisions and interpretations that potentially affect quality, cost, and time.

- 1.1. Pre-construction Conference (Horrocks) – City of Star will attend the Pre-construction Conference. CONSULTANT's Project Manager, Lead Inspector, and Testing Coordinator will attend.
- 1.2. Filing & Records Verification (Horrocks) – This is a paperless project, so most files will be electronic and stored in Horrocks's ProjectWise database. CONSULTANT will perform an on-going periodic check of the files during the project to ensure that all records are being accurately kept and the filing system is up to date.

Performance Assumptions:

- i Maintain project filing system on Horrocks's ProjectWise database.
- ii Address periodic review comments.

- iii Maintain all correspondence documents electronically. Do not submit hard copy correspondence. File responses to contractor's submittals and their responses.
 - iv Post testing results and/or certification for each contract item on ProjectWise within 24 hours of receiving results. CONSULTANT will maintain materials acceptance documents in ProjectWise.
 - v The CONSULTANT will implement changes to the project documents and filing in ProjectWise.
 - vi Provide daily monitoring of the Contractor's Quality Control activities at the project site and on ProjectWise and project workbook. If percent within limits (PWL) falls below 0.75, the City Engineer will be notified immediately.
 - vii File and review common contract administration correspondence.
- 1.3. Shop Drawings & Submittal Review (Horrocks) – CONSULTANT will assist City of Star with reviewing contractor submittals for compliance with the contract requirements. Coordinate approval with the appropriate City of Star personnel and draft response correspondence as needed. Up to 5 shop drawings and submittals are scoped for these projects.
 - 1.4. Material and Source Submittals Review (Horrocks) – CONSULTANT will assist City of Star with reviewing contractor material submittals for compliance with the contract requirements. Coordinate approval with the appropriate City staff and draft response correspondence as needed. Horrocks will generate response. Up to 5 material submittals are scoped for these projects.
 - 1.5. RFI Submittal Review (Horrocks) –CONSULTANT will assist City of Star with reviewing contractor Request for Information (RFI) submittals for compliance with the contract requirements. Coordinate approval with the appropriate City staff personnel and draft response correspondence as needed. Up to 5 RFIs are scoped for these projects.
 - 1.6. RFC Submittal Review (Horrocks) –CONSULTANT will assist City of Star with reviewing contractor Request for Change (RFC) submittals and analyzing submittal for costs, time and compliance with the contract requirements. Coordinate response draft with the appropriate City staff and Engineer of Record personnel as needed. Up to 2 RFCs are scoped for these projects.
 - 1.7. CPM schedule Reviews (Horrocks) – CONSULTANT will assist City of Star with reviewing and providing responses to the Contractor's update. Consultant will meet with the Contractor to discuss review comments of the updated schedule as requested by the City. Up to 3 CPM updates are scoped for these projects. Several reviews and revisions of the baseline schedule are anticipated.
 - 1.8. Materials Certifications (Horrocks) – Certifications, as required by bid item, will be requested for all materials incorporated into the project. No materials will be accepted for payment until the certifications are received and reviewed for acceptance. The hours associated with this task are included in task 1.4.
 - 1.9. Progress Estimate Preparation (Horrocks) – Develop and maintain all progress estimates for review and processing. Generating estimates are anticipated to occur once per month.
 - 1.10. Pre-paving Meeting (Horrocks) – CONSULTANT field personnel will attend HMA pre-paving meeting with the Contractor.
 - 1.11. Inspection Team Meeting (Horrocks) – Bi-Weekly/Periodic progress meeting as needed will be held on site or at an otherwise approved location. 11 weekly meetings are scoped for these projects.

Performance Assumptions:

- i Attend weekly/periodic progress meetings as required.
- 1.12. Bi-Weekly Progress Meetings (Horrocks) – Weekly/Periodic progress meetings will be held on site or at an otherwise Engineer approved location. CONSULTANT's Project Manager and Lead Inspector will attend the weekly meeting, as needed. 11weekly meetings are scoped for these projects.

Performance Assumptions:

- i Attend weekly/periodic progress meetings as required.

- 1.13. Monthly Invoicing (Horrocks and T-O Engineers) – Monthly invoices of CONSULTANT labor will be submitted to the City Engineer for review and processing each month. Each invoice package will contain approved timesheets for all labor expended and appropriate backup for all direct costs. Project scope includes 6 invoices from each firm.
- 1.14. Change Orders (Horrocks) –CONSULTANT will assist City Engineer with preparing and analyzing Change Orders for review and processing by the City of Star Engineer. This scope includes up to 2 Change Orders.

Performance Assumptions:

- i CONSULTANT will consult with the City Engineer and in coordination with other assigned personnel, as required, and prepare documents necessary to complete the change order process.
 - ii CONSULTANT will assist the City Engineer in preparing for any litigation or other action that may arise. The claim package will be prepared in accordance with the 2020 ISPWC Division 100 on all claims of the City of Star and the Contractor relating to the acceptability of the Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Contractor's work. Preparation of claim package or interpretation of the Contract requirements will be considered extra work and negotiated at a later date.
- 1.15. Calculate Incentive/Disincentive (Horrocks) – Generate pay factor and calculate bonus/deduct according to 2020 QASP. The hours associated with this task are included in task 1.4.
 - 1.16. Asphalt and Fuel Price Adjustment Calculations (Horrocks) - Fuel Price adjustment will be calculated monthly. Record of each month's calculation must be included in the project files and posted to ProjectWise. The hours associated with this task are included in task 1.4.
2. **Project Inspection (Horrocks)** – Inspection will be performed by CONSULTANT with qualified and certified inspection staff. The CONSULTANT will provide a Lead Inspector throughout the duration of the project. The CONSULTANT and City of Star will have ongoing dialogue on how best to utilize the available personnel for the success of the project. It is anticipated that the need will change in response to the contractor's schedule. A spreadsheet with qualifications and certifications will be prepared and maintained to ensure full compliance with the ITD, WAQTC, and IQP requirements.
- 2.1. Inspection – Inspectors will monitor and document the contractors work. Daily diaries (Diaries) will be prepared to record the Contractor's hours on the site, weather conditions, data relative to questions of change orders, filed orders, or changed conditions, site visitors, daily activities, decisions, observations in general, and specific observations in more detail as the case of observing test procedures. Certificates of inspections, tests, and approvals required by the Contract Documents will be received and reviewed. Diaries will include work completed and coordination effort with utility companies, irrigation districts, and City of Star.
 - 2.2. Record Drawings – CONSULTANT to maintain an "as constructed" plan set to document field changes throughout the project. As constructed plan set will be submitted to City of Star during project closeout.
 - 2.3. Identify and Recommend Corrections – Any omissions, substitutions, defects and deficiencies in the work of the Contractor will be identified and documented with recommendations reported to the Engineer.
 - 2.4. Environmental & Erosion Control Monitoring – Contractor to perform all storm water inspections for storm water pollution prevention plan or erosion and sediment control plan.
 - 2.5. Traffic Control Inspection – CONSULTANT will monitor the traffic control for safety and compliance with the traffic control plans, ensure traffic control plan revisions are obtained as needed and clearly documented on diaries. Maintain a record of the Contractor's compliance with work restrictions in ProjectWise.
3. **Survey** – Monument Establishment and Recording
- Tasks:
- 3.1. As requested, CONSULTANT will verify and check contractor provided establishment of survey monuments.
 - 3.2. Miscellaneous Survey – If requested, task will be negotiated at a later date.

4. **Materials Sampling & Testing** – CONSULTANT will provide materials sampling & testing services as required by ITD specifications, the MTR's and the City Engineer on all the required ITD forms. City of Star and the CONSULTANT Testing Coordinator will have ongoing dialogue on how best to utilize the available personnel for the success of the project. It is anticipated that this will change in response to the contractor's schedule. The CONSULTANT will use their laboratory for all testing needs.
 - 4.1. **Quality Acceptance Sampling & Testing (Horrocks)** – Sampling & Testing will be performed according to ITD Quality Assurance requirements and the City Engineer including acceptance sampling. Sampling of component materials and completed work items will be performed to verify that the materials and workmanship incorporated in the project are in substantial conformity with the plans, specifications, and contract special provisions. CONSULTANT will meet the minimum sampling frequencies per the MTR's as presented by the City Engineer and as required due to project phasing, or other factors which could affect minimum testing frequencies. CONSULTANT will provide daily monitoring of the Contractor's Quality Control activities at the project site.
 - 4.2. **Prepare and Transmit Test Results (Horrocks)** – The Contractor's Quality Control Plan will be monitored pursuant to QC/QA Special Provisions. All sampling data generated by CONSULTANT will be documented and filed in ProjectWise and quality level analysis for penalty / bonus calculations using ITD developed spreadsheet generated for 2020 QASP 10/21/2019.
 - 4.3. **Schedule for Sampling (Horrocks)** – The City will be informed of the project IA sampling and testing schedule and all documentation reports of sampling and testing will be completed and submitted the same week the work is done or as otherwise directed.
 - 4.4. **Acceptability of "or-equal" Products (Horrocks)** – CONSULTANT will evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by the Contractor. CONSULTANT to verify materials meet the QPL requirements and include documentation in ProjectWise. Recommendations will be made to the City Engineer for change orders before allowing any substitutes.
5. **Record Drawings & Project Close-Out (Horrocks)** – CONSULTANT will track changes and deviations from the plans and review the As-Built drawings provided by the Contractor. At the completion of the project, marked drawings will be submitted to the City Engineer. At project close-out, all records will be finalized and quantity calculations verified. A final package of records will be submitted to the City Engineer for review and acceptance.

Performance Assumptions:

- 5.1. Verify that all necessary documents have been received for submission of contractor's affidavit of payment.
- 5.2. Maintain and distribute an up-to-date list of documents needed from the contractor.
- 5.3. Coordinate with City staff for the resolution of items are improperly certified or deficient.
- 5.4. Prepare closeout documents such as the Materials Summary Report, the ITD-854, the ITD-860, the ITD-852, and the Materials Certification Letter.
- 5.5. Receive bonds, certificates, or other evidence of insurance not previously submitted and required by the Contract Documents. Ensure receipt of certificates of inspection, and required test results in order to receive final payment.
- 5.6. Promptly conduct an inspection after notice from the Contractor that the entire work is ready for its intended use, in the company of the City Engineer and the Contractor, to determine if the work is Substantially Complete. Generate and manage a punch list of items based in this inspection. Coordinate completion of this list with the Contractor.
- 5.7. Participate in a final inspection, to include representatives from the City of Star to determine if the completed work by the contractor is acceptable so that CONSULTANT and the City of Star may recommend in writing, final payment to the Contractor.
- 5.8. Respond to questions during the material and financial audit performed by ITD District 3 and the City of Star. Make corrections to the files as necessary for final project closeout through Final Materials Certification Letter and Final Estimate.

6. **Materials Testing Location** – The hours associated with this task are included in task 4.1.
7. **Key Understandings** - It is anticipated that each CONSULTANT personnel assigned to the project will be furnished with proper Personal Protection Equipment, a vehicle, digital camera and cellular phone by CONSULTANT and all work will be under the supervision of the City Engineer or assigned representative.
 - 7.1. The CONSULTANT will provide access to an office and office equipment for use by the CONSULTANT to properly conduct contract/construction administration tasks.
 - 7.2. It is understood that City of Star may limit the CONSULTANT's coverage of certain items to preserve the budget should the project not progress as anticipated.
 - 7.3. The time required for administrative tasks such as RFI and RFC review, change order development, and project closeout can vary in complexity depending on the contractor's operations.
8. **Project Schedule** - CONSULTANT proposes to implement its services within the following schedule: The scope of work for this project will run in accordance with the contractor's construction schedule. It is anticipated that CONSULTANT will be engaged in CE&I field services for approximately 18 weeks starting, February 2023 through July 2023 with project closeout completing by September 15, 2023.