

**ASC – REGION 7**  
**HEAVY CIVIL PROBLEM INSTRUCTIONS**  
***Unnamed Tributary to Carpenter Creek – Fish Passage***  
***Washington State Department of Transportation***

This year, the competition problem requires each team to prepare a proposal for the Unnamed Tributary to Carpenter Creek Fish Passage for the Washington State Department of Transportation in Skagit County, Washington. Your assignment includes responding to the following problem questions, preparing a proposal and a bid package per the project plans and specifications and these problem instructions. All contract documents can be found on the provided flash drives. Proposal packages will include the bid submittal in sealed envelope and proposal binder with provided tabs for organization.

**I. Takeoff and Estimate Items.**

- A. Prepare a quantity take-off and direct cost estimate for all bid items that are not already filled out on your bid proposal worksheet.
- B. Prepare your bid in accordance with the specifications and bid proposal forms provided.
- C. Direct cost estimates should include:
  - a. Methodology, audit trail, and must be legible.
  - b. Production calculations, crew analysis, alternatives.
  - c. Include all worksheets for review.
  - d. Analysis and selection of lowest responsible supplier / subcontractor quotes.
- D. Each bid item estimate, and all backup associated with that item, shall be placed in binder behind its respective tab that has been provided. Judges will not search for bid item backup.
- E. Logic, order, clarity, and technical accuracy will be considered when scoring.
- F. Written proposal of required information: all answers, working papers, assumptions, summaries, tables, charts, schedules, and phasing plans are to be included. Use your best judgment when preparing this document for order and presentation.
- G. Takeoff and estimate to be hard copy, and placed proposal binder behind the respective tab.

**II. Bid Submittal**

- A. Ensure all items on the bid submittal checklist are completed and included in bid submittal envelope that has been provided.
- B. Bid submittal packages that do not include all documents listed on the “Bid Submittal Checklist” or that are received after 09:29:59 PM on Thursday February 8<sup>th</sup>, 2024, will be deemed non-responsive.
- C. All bid submittal documents to be placed in the provided bid submittal envelope.

### III. Project Plan and Specification Questions

- A. All answers can be found in the contract documents provided in the document management server.
- B. Provide detailed answers including the respective paper trail and final document name that the answer was located.
- C. Plan and specification questions to be hard copy, and placed in proposal binder behind respective tab.

### IV. Project Schedule

- A. Prepare a detailed critical path method (CPM) schedule for all items of work.
- B. It is optional, but not required to include a schedule narrative to help explain potential logic, schemes, or reasoning.
- C. The schedule shall outline in sufficient detail the proposed operations, the interrelations of the various operations, and the order of performance so that the progress of the work can be evaluated accurately at any time during the performance of the contract and ensure that the work will be completed within the specified number of working days.
- D. Schedule and narrative to be hard copy and placed in proposal binder behind respective tab.

### V. Project Analysis

- A. Prepare and submit a detailed site logistics plan on any of the three maps provided.
- B. Your site logistics plan should include the following at minimum:
  - a. **Site Layout:** Final Construction Limits.
  - b. **Excavation Plan:** Top and toe of Slope, with slope grade.
    - i. Detailed spreadsheet accounting for hauling and exporting all CY.
  - c. **Crane Pick Plan:** Crane location, crane sizing, loads, and radii.
  - d. **Temporary Stream Diversion Plan:** Show approximate location of temporary stream diversion piping through jobsite (show location of pump if required).
  - e. **Dewatering Plan:** Show approximate location of well points
- C. Project site logistics plan to be folded neatly, placed in provided document pocket and inserted in proposal binder.

## VI. Bid Proposal Worksheet

- A. Complete the Bid Proposal Worksheet utilizing all required data and selection of the lowest responsible supplier / subcontractor quotes.
- B. Prepare bid proposal worksheet: Unit pricing extension, overhead (indirect costs), and profit (margin).
- C. Bid proposal worksheet to be **hard copy and in excel format**. Hard copy to be placed in proposal binder. Excel format to be placed onto flash drive and inserted into provided envelope. Envelope with flash drive to be placed in bid proposal binder.

## VII. Oral Presentation

- A. Presentation will be 25 minutes; this includes presentations and questions. Please allow at least 10 minutes for questions and answers. There will be a 200-point deduction for any team that does not allow 10 minutes for questions.
- B. Presentation materials must be turned in by 6:30 AM on Friday, February 9<sup>th</sup>.
- C. Presentation to be uploaded to provided flash drive and in **.ppt** format.

## VIII. Assumptions

### General Assumptions:

- 1. Subcontractor / Supplier quotes will be supplied in hard copy form throughout the time allowed for bid preparation.
- 2. Information provided will include project plans and specifications. You will need to use parts of each of these.
- 3. It is OKAY for your team to make assumptions on issues and information not available during the bid preparation period. Please note these assumptions on your worksheets for grading purposes.
- 4. Bid opening will be as life-like as possible. Please follow these problem instructions for bid document preparation instructions.
- 5. Another estimator completed an estimate for all items that have direct costs pre-populated on the "Bid Proposal Worksheet." Please do not change the direct costs for those items. Each team is responsible for spreading indirect costs and profit margins to all bid items as they see fit.

**Project Assumptions:**

1. Yard(s) can be acquired within the project limits.
2. A water source is 2 miles from the jobsite.
3. Project is a commutable distance for crews.
4. Anticipated notice to proceed date is March 7, 2024.
5. Each team will use a profit margin of 15%.
6. Total indirect costs are \$600,000.
7. Bid Item 01 Mobilization pricing is based on WSDOT Standard Specification 1-09.7 and includes costs for mobilizing all heavy equipment to site.
8. Disregard the DBE and SVBE Contract Goal requirements (i.e., Treat all subs/suppliers the same)

**IX. Specification / Contract Questions**

Provide answers to the following questions, ***answers may be found in either the project plans, contract provisions, technical specifications, geotechnical report, or contract documents.*** For an answer to be correct, teams must include the location where the answer was found (i.e. Standard Specifications, Special Provisions, Plans, etc.), section, page and paragraph with answer. Show your work if calculations are needed.

1. What thickness do the lifts of the streambed material need to be placed in?
  
  
  
  
  
  
  
  
  
  
2. What is the top of CSBC elevation that supports the Contractor Designed Buried Structure?
  
  
  
  
  
  
  
  
  
  
3. What type of seams are required for the Geomembrane?

4. What is the 28-day compressive strength and slump required for the Expansive Self Consolidating Concrete?
5. Is a material transfer device or material transfer vehicle required?
6. How much would the contractor owe in damages if SR 534 was closed for 174 hours during the scheduled full roadway closure?
7. How much money would the contractor owe the owner if traffic was stopped for 30 minutes in one direction when using flaggers?
8. What construction activities are to be performed under Bid Item 6 – Earthwork?

9. What material is required for building embankments and backfilling behind retaining walls, and what are the requirements for placing the material?

10. Multiple steps are required for the Planting Area Soil Preparation. What is step 3?

**Bonus:** How much does the work performed under an individual bid item need to exceed the plan quantity in order to be considered a significant change?