

**READ THIS FIRST**

This Project Spec Document may need additional modifications to suit your project. It is recommended that you proofread each section, paying attention to any “Notes” boxes such as this one--you should remove these “Notes” sections as you go. Also, do a search for all bracket characters “[ ] “ as they are used to show you areas containing options or project specific details (you can use Microsoft Word’s Find feature {Ctrl-F} to jump to an open bracket “ [ “ character quickly). Again, these bracket characters should be removed.

It is important that every paragraph be numbered to allow for easy referencing. If you use the document’s built-in styles and formatting your outline should be fine. Most paragraphs will use the style “Numbered Material” and can be promoted (Shift) or demoted (Shift-Tab).

You should not have to manually enter extra spaces, carriage returns or outline characters such as A, B, C, or 1.01, 1.02; the formatting will do this for you. The entire document is 11 pt. Arial. If you paste items in, you may need to ‘format paint’ to reapply the format.

Port Surveying (Manager of Survey and Mapping, and/or Survey Crew Manager) **MUST** be consulted in drafting this section

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Surveys provided by the Port
- B. Contractor Survey Requirements. All work must be performed by a surveyor registered in the State of Washington.
- C. Datum: Airport datum is the STIA GRID Horizontal and STIA Vertical Datum

**1.02 SURVEYS PROVIDED BY THE PORT**

- A. The Port will provide those and only those services listed below:
  - 1. Establish primary survey control points.
  - 2. Layout phasing and barricade lines (Outside of the STIA Terminal).
  - 3. Layout erosion control points.
  - 4. Layout demolition limits.
  - 5. Cross-section for quantities.
  - 6. Sub-grade limits will be staked with initial set of cut or slope stakes.
  - 7. Sub-grade hubs prior to rock placement.
  - 8. Hubs for base course rock.
  - 9. Finish rock hubs.
  - 10. Provide storm sewer manhole and catch basin centerline and offset.

11. Provide sanitary sewer manhole and clean-out centerline and offset.
  12. Provide I.W.S. manhole and catch basin centerline and offsets.
  13. Provide main and lateral sewer line offsets.
  14. Provide electrical and communication vault, manhole, handhole centerline and offset.
  15. Provide electrical and communication trenching centerline and offsets.
  16. Provide lighting for runway and taxiway centerline and offsets.
  17. Electrical signage locations.
  18. Provide water vaults, manhole, valve centerline and offset.
  19. Provide main and lateral water line centerline and offsets.
  20. Mark asphalt paving limits.
  21. Line and grade hubs for concrete placement.
  22. Mark saw cuts for concrete.
  23. Lay out paint stripes.
  24. Check hubs and stakes set by Contractor before paving operations.
  25. As-builts of utilities and paved areas. The Port Survey must locate and as-build all new underground utilities prior to placement of cover.
- B. All other survey work needed for construction is the sole responsibility of the Contractor.
- C. The Contractor and Port will agree on the staking requirement and frequency for each of the services from the list in 1.02A.

#### **1.03 REQUIRED CONTRACTOR SUPPORT**

- A. The Contractor shall provide sufficient space and safe facilities to enable the Engineer to set control points and perform other work required by this specification.
- B. Requests for setting primary control points shall be made at least 2 weeks prior to the need. Delays due to Contractor failure to give timely notice to the Port for surveying services are at the sole risk and expense of the Contractor.
- C. The contractor shall give Port Survey 48 hours' notice before utility locating is needed. The contractor is responsible for calling the "One-Call" 811 system before digging per Section 01 31 13 Project Coordination.
- D. If the Contractor encounters any underground utilities that are not shown on the existing conditions drawings, or known utilities that are not in the location that is

shown on the existing conditions drawings, the Contractor shall notify the Engineer immediately. The Engineer will work with Port Survey to determine whether and how this variation will be surveyed and recorded by Port Survey.

- E. The contractor shall give the Port Survey Crew Manager 48 hours' notice before a utility is buried. The contractor shall not bury any utilities until they have been surveyed. If utilities have been buried before survey is performed the contractor will unbury the utility at the contractor's expense.
- F. The contractor shall give the Port Survey Crew Manager 48 hours' notice before quantities need to be verified. The contractor shall not cover any quantity required surfaces until it has been surveyed. If surfaces have been covered before survey is performed the contractor will unbury the surface at the contractor's expense.
- G. If survey work is required outside of Standard Day Shift Work Hours as defined in Section 01 11 00 Summary of Work, an additional 48 hours' notice will be required for scheduling purposes.

#### **1.04 PRESERVATION OF STAKES AND MARKS**

- A. All primary control points and all other staking performed by Port Survey shall be set once by the Surveyor, Engineer or designee and shall be carefully preserved by the Contractor. The Contractor will be charged for the labor, material, and equipment costs to replace stakes and marks damaged or destroyed by the Contractor's operation. Such charges will be deducted by the Port from amounts otherwise due, or to become due, to the Contractor at Port time and material rates at the time replacement work is completed.
- B. Major survey control points shall not be removed by the Contractor without the approval of Port Survey. The Contractor shall be responsible to remove survey stakes and markings before Substantial Completion of the area.

#### **1.05 CONTRACTOR SURVEYS**

- A. The Contractor shall establish such additional lines, grades and controls as are needed for construction.
- B. All work performed shall be in conformance with the lines, grades and dimensions indicated on the drawings. If a discrepancy is noted between the drawings, the same shall immediately be brought to the Engineer's attention. Where tolerances are stated, the work performed shall be within those tolerances. The Engineer will determine if the work conforms to such lines, grades and dimensions and the determination shall be final.
- C. The Contractor assumes full responsibility for detailed dimensions and elevations measured from primary control points.
- D. The contractor shall provide surveys required to complete redline drawings per Section 01 78 29 As-Built Redline Documents.

Discuss with PM and Port Survey whether as-built survey is required for the project. If contractor will be performing this include item D (with edits as needed), otherwise delete.

- E. The contractor shall provide as-built topographic survey of [Project Site] as a requirement of Physical Completion.

PART 2 PRODUCTS - Not used

PART 3 EXECUTION - Not used

PART 4 MEASUREMENT AND PAYMENT

4.01 GENERAL

- A. No separate measurement or payment will be made for the work required by this section. The cost for this portion of the Work will be considered incidental to, and included in the payments made for the applicable bid items in the [Schedule of Unit Prices] [Lump Sum price] bid for the Project.

End of Section