


Furnish all tools, materials, labor, equipment and incidentals thereto for the following:

1. It is not the intent of the Contract Documents to show all existing conditions. The Contractor is required to attend the Pre-Bid Conference prior to submitting their Bid Proposal. This is the only opportunity to visit and examine the site with CRRA.
2. The Contractor shall investigate and satisfy themselves as to the conditions affecting the work, including but not restricted to those bearing upon transportation, handling, and storage of materials, availability of labor, water, electric power, uncertainties of weather, roads or similar physical conditions of the ground, and facilities needed preliminary to and during the prosecution of the Work. Any failure by the Contractor to acquaint himself with the available information shall not relieve him from the responsibility for estimating properly the difficulty and cost of successfully performing the Work.
3. Submit complete detailed project schedule;
4. Obtain City of Hartford Building and Fire Department Permits for construction of new tank and demolition of existing Tank #6;
5. Obtain Federal Aviation Permit for cranes to be used on the project, due to proximity of the Brainard Airport facility. All cranes and long reach equipment shall be properly inspected and shall be operated to prevent collapse and damage to on-site facilities and overhead high voltage transmission systems;
6. The Contractor is made aware that the facility is a secure operating power generating facility and the Contractor must adhere to all site security requirements at all times. The Contractor shall also be required to be ensure that all workers are given and understand the site Health and Safety Training Plan requirements;
7. Mobilize construction operations to the site, set-up temporary construction trailer, sanitary facilities and connect to onsite power source;
8. Install erosion and sediment controls prior to commencing with any construction activities;
9. Remove, cap and dispose of buried abandoned utilities in the vicinity of the new tank prior to commencing with foundation work. Perform site regarding ;
10. Construct the new tank foundation. There are two alternatives included that cover the foundation for the new tank. The Contractor is required to submit separate alternative pricing as part of their bid for both alternatives. The Owner will determine and select which alternative will be used by the Contractor for the tank foundation. One alternative involves the installation of Rammed Aggregate Piers and ringwall foundations as described in the report entitled "Geotechnical Engineering Report – CRRA South Meadows Generating Station – Jet Fuel Storage Tank Replacement" by TRC Engineers Inc., made part of these Contract Documents, and as shown on the Contract Drawings. The second alternative involves the installation of a reinforced concrete slab supported on driven piles as described in the geotechnical report addendum prepared by TRC Engineers, Inc., dated July 15, 2010, made part of these Contract Documents, and as shown on the Contract Drawings. The work included in each foundation alternative is defined in the Bid Schedule pay item for each;
11. The timing and extent of excavation work required to construct the foundations is dependent upon the foundation alternative selected by the Owner. The Contractor will be responsible for removing, handling, stockpiling on-site as directed, testing and covering all soil excavated for this project. It is assumed that all excavated soil will contain contaminants that exceed the most stringent State of Connecticut Department of Environmental Protection regulations for reuse. It is the Owner's intention that all excavated soil will remain on site, but if it is determined by the Owner that they require off-site disposal, then the Contractor shall be responsible for loading and hauling the material to the CRRA Hartford Landfill facility. The cost for loading and hauling the material to the CRRA Hartford Landfill will be covered by a separate unit price pay item in the Bid Schedule;
12. The Contactor shall be responsible for handling, managing, treating, testing and disposal of all water generated and removed from excavations. While it is anticipated that the natural groundwater levels are beneath the lowest level of proposed excavations, the Contractor shall assume that foundation construction activities and rainfall/runoff entering excavations will generate excess water that must be removed to properly construct the foundation for the tank. It is anticipated that said water coming in direct contact with soil on the site will have contaminants that cannot be directly discharged to the sanitary sewer. The Contractor shall include the cost for providing on-site a portable 20,000 gallon frac tank, hoses, piping, pumps and other appurtenances needed to handle, store, settle, treat, test and discharge the excess water to the on-site sanitary sewer system as designated by the Owner;
13. Following completion of the foundation construction and acceptance of the base for the tank, the Contractor shall commence and complete fabrication, welding and construction of the tank bottom main tank shell, outer containment tank shell and domed roof on the prepared foundation. The tank shall include all of the manholes and nozzle fittings as shown on the Contract Drawings. A grated stairway with safety railing shall be fabricated and constructed from tank base to above the top of the outer containment shell at the level of the grated platform. A grated platform with railing shall be fabricated, supported and constructed to provide access to the domed roof and the level sensing nozzle fittings;
14. Both the manual tank gauge and ultrasonic level sensing system, with controllers, alarm horn and alarm lights shall be installed, tested and fully functional before commencing with filling the tanks for hydrostatic testing;
15. Before hydrostatic testing is performed, the main tank bottom lining and main tank shell coating shall be applied. The Contractor shall apply the lining and coating only on properly cleaned and prepared surfaces;

16. Install all valves and flexible pipe on the new tank and outer containment in preparation for the hydrostatic tank and outer containment testing. If the Rammed Aggregate Pier foundation system is used, then the settlement phase will coincide with the hydrostatic testing of the tank and outer containment. The sequence of filling during the settlement/testing is contained in the Technical Specifications and the Geotechnical Report. Water for hydrostatic testing shall be obtained from on-site fire hydrants at the facility. The Contractor shall furnish all hoses, pipe, meters, valves, pumps and other appurtenances to fill the tank. The Contractor shall obtain a permit for the hydrostatic tank testing from the Connecticut Department of Environmental Protection. Once testing and settlement is completed, the Contractor shall test and discharge the test water to the on-site sanitary sewer via piping, hoses, pumps and other appurtenances furnished by the Contractor;
17. The Contractor may commence with the preparation and application of exterior outer containment tank shell and roof primer and coating application while testing and settlement is being performed.
18. Construct aboveground pipe support foundations and pipe supports for the new piping system. Install the interconnecting piping on the pipe supports with saddles and u-bolt anchors. Valves and other appurtenances may also be installed, but final connection shall not be made until all other work is completed, tested, accepted and approved;
19. Following completion of the hydrostatic testing and draining of the main tank and outer containment tank, the interior of both tanks shall be thoroughly cleaned and dried;
20. Kerosene fuel from the existing tank shall be transferred to the new tank using the new piping system, any necessary temporary connections installed by the Contractor and the existing pump house to make the transfer. The transfer of fuel shall not disrupt the operation of the jet turbines at any time. The fuel transfer shall be at the direction of the jet turbine operator and shall be conducted in manner to prevent the transfer of tank bottom material to the new tank;
21. Once the fuel transfer is completed, final piping tie in and connections shall be made;
22. Cathodic protection for the new tank and outer containment tank is shall be installed and tested, if the Rammed Aggregate Pier foundation system is used. The pile supported slab foundation system will not require the use of a cathodic protection system. The cathodic protection system will be covered by a separate lump sum pay item in the Bid Schedule;
23. Exterior floodlight and stair/platform area lighting systems shall be installed and functional;
24. The remaining reusable kerosene fuel in the existing tank shall be transferred by the Owner to tankers for hauling and reprocessing for reuse;
25. The remaining non-useable kerosene fuel in the existing tank shall be transferred by the Contractor to tankers for hauling to a disposal facility. The cost for this material shall be handled by a separate unit price pay item in the Bid Schedule;
26. The sludge and tank bottom material in the existing tank shall be transferred by the Contractor in containers, vessels or tankers for hauling to a disposal facility. The cost for this material shall be handled by a separate unit price pay item in the Bid Schedule;
27. Once all of the kerosene fuel, sludge and tank bottom material have been completely removed by the Contractor, then the Contractor shall commence with the cleaning and decommissioning of the existing Tank #6 and piping to be abandoned. All residual material and waste generated during the cleaning and decommissioning process shall be managed and disposed by the Contractor. All of the work associated with the cleaning, decommissioning, waste management, transportation and disposal shall be covered under a separate lump sum price pay item in the Bid Schedule;
28. Demolition of the existing Tank #6 and the associated piping, valves and other appurtenances shall be handled as separate lump sum price pay item in the Bid Schedule. The Owner may decide at their option to eliminate this work from the scope of work under the Contract;
29. Remove all debris, waste, materials and equipment from the site. Remove construction trailer(s), disconnect power and remove temporary sanitary facilities from the site. All areas disturbed by grading, construction, demolition and staging shall be restored, topsoiled and turf established. Sedimentation and erosion controls shall be removed only after the site is stabilized and grass is accepted. All sediment that has accumulated shall be transferred to an area on-site designated by the Owner. The drain pipe crossing the road near the new tank shall be cleaned and flushed. Any damage to pavement caused by the Contractor on the site shall be repaired as directed by the Owner at no additional cost. All roads used by the Contractor shall be swept broom clean; and
30. Perform all other work required to complete the Project.

NO.	REVISIONS	DATE	APPROVAL
CONNECTICUT RESOURCES RECOVERY AUTHORITY RESERVE ROAD HARTFORD, CONNECTICUT		 21 Griffin Road North Windsor, CT 06095 (860) 298-9692	
TANK NO.6 REPLACEMENT PROJECT PROJECT GENERAL NOTES		DESIGN: CNS 07/16/10	
		DRAWN: REA 07/16/10	
		CHECKED: CNS 07/16/10	
		SCALE:	
		PROJECT: 153306-000390-000006	
		DRAWING	G-1