

VI - INCINERATOR ASH LAGOON RESTORATION SPECS

GENERAL

This bid includes furnishing of materials, labor, equipment, and supplies necessary for the following:

- 1) Removal of existing vegetation from the DISTRICT's Incinerator Ash Lagoon as shown and specified in the contract documents.
- 2) Constructing a temporary dewatering/debris dump site.
- 3) Transporting vegetation and debris to the debris dump site.
- 4) Chipping all trees removed from the lagoon, as specified herein.
- 5) Work shall be complete by April 1, 2022.

SUBMITTALS

Prior to construction, the CONTRACTOR shall submit a detailed written construction plan describing their means and methods and equipment being proposed to complete the lagoon vegetation excavation, hauling/transporting, and depositing of debris. The submittal shall at a minimum include:

- 1) A list of equipment (type and quantity) to be used to perform the work under this project.
- 2) Estimate of daily truck loads that will be transported to the on-site debris dump site.
- 3) Project schedule including estimate of number of days to perform the work under this project.
- 4) Written plan to perform each task for the required work at the lagoon and debris dump site; including dust control, truck loading/unloading, daily cleaning of spilled vegetation/ash material on MSD property during transport to the debris dump site, debris dump site stabilization, and any erosion control practices.
- 5) Qualifications of project manager and superintendent.

DESCRIPTION OF WORK

A.

CONTRACTOR shall guarantee that work performed under this section will not permanently damage roads, topography, structures designated to remain, or any property that is outside of the project limits. If damage resulting from the CONTRACTOR's operations appears during the period up to 24 months after completion of the project, he/she shall replace damaged items at no expense to the DISTRICT.

The lagoon, as outlined and called out on the Plan Sheet, is roughly 8.82 acres; however,

the project will be broken into three (3) phases. Phase I, which is being described herein for bid, will occur in FY 21-22 and consists of 2.94 acres of the Northeastern portion of the lagoon. Depending on the CONTRACTOR'S quality of work and efficiency, the DISTRICT may choose to extend the scope of Phase I using the Alternate unit price included on the Bid Form for additional lagoon restoration. Restoration remaining after Phase I (i.e., ≤ 5.88 acres) will be bid in future fiscal years. Unless otherwise stated or agreed upon by the DISTRICT, only the portions denoted as Phase I shall be disturbed.

The CONTRACTOR is responsible for excavating all vegetation from the lagoon as shown on the drawing. Vegetation includes but is not limited to cattails, willow trees (1" to 20" DBH), and other unknown grass species. Removal of vegetation includes all above ground portions of a plant/tree as well as the underground root system. Portions of the lagoon outside the 2.94 acre Phase 1 area, unless otherwise directed by the ENGINEER, shall remain untouched.

The lagoon has an existing clay liner along the bottom. The contractor shall perform all construction duties along the edges of the lagoon with caution to not excavate into the liner. In the event that the existing clay liner is damaged or disturbed in any manner, the CONTRACTOR shall repair to the ENGINEER's satisfaction at no additional cost to the DISTRICT.

Roads, embankments, berms, discharge structures, emergency overflow structure, dam, stainless steel header pipe, and other permanent features shall be protected throughout the entire project. The lagoon has 13 discharge structures/nozzles around the perimeter that discharge incinerated ash into the lagoon. Standard operating procedure is to discharge from one of the thirteen nozzles while the sludge incinerator is running, and to rotate discharge locations on a monthly basis. The CONTRACTOR shall coordinate the ash discharge location with the DISTRICT prior to the work so as to not interfere with restoration efforts. If at any time during the project any of these nozzles become partially or fully blocked, the CONTRACTOR shall immediately correct the hinderance to allow a full unrestricted discharge flow into the lagoon. The 13 discharge nozzle's approximate location can be found on the Plan Sheet. In the event the discharge nozzles or any other permanent feature(s) are damaged, the CONTRACTOR shall immediately contact the ENGINEER and repair the feature(s) to their original condition, satisfactory to the ENGINEER. Repairing damaged permanent features to their original condition shall be at no additional cost to the DISTRICT.

After removal, all excavated debris shall be transported and dumped at the DISTRICT's debris dump site located on-site above the lagoon. The debris dump site consists of a dewatering area for small or herbaceous vegetation, and a tree disposal area for larger, woody vegetation. The areas are shown and called out on the Plan Sheet. It is the CONTRACTOR's responsibility to furnish and install a three (3) sided Redi-Rock concrete block (*or equal manufacturer*) containment dewatering area for all smaller vegetation. The Redi-Rock blocks shall be stacked two (2) high to reach a height of four (4) feet and be located to leave a minimum travel way of 80 feet between the southern wall of the concrete blocks and edge of future warehouse footprint as shown on the Plan Sheet. The western

wall of the dewatering area shall have the Redi-Rock blocks placed on top of 2"x4" boards, or approved similar material, and have the outside wall partially backfilled with washed #57 crushed gravel as shown on the detail sheet. The existing drainage inlets located on the MSD debris dump site shall be completely outside of the dewatering area. All vegetation less than four (4) inches in stem/trunk diameter shall be disposed of inside the dewatering area. The dewatering area will serve as a place for the smaller vegetation to dewater and will consist of mostly cattails, grasses, and small willows/trees. A permeable filter fabric liner that will retain incinerated ash material shall be installed along the inside bottom and sides of the dewatering area. The footprint of the dewatering area shall be 60'x150'. The DISTRICT will take ownership of all Redi-Rock concrete blocks and will remove the blocks as well as all the dewatered material from the dewatering area after completion of the project.

Larger vegetation with stem/trunk diameter four (4) inches and greater shall be hauled to the designated tree disposal area located adjacent to the dewatering area. Trees and limbs greater than four (4) inches may be stored in this area for a length of time at the CONTRACTOR's discretion as long as debris stays within the designated area. All debris stored in this area shall be either chipped or, if greater than eight (8) inches in diameter or deemed too large to chip, cut into eight (8) foot length logs. All chips and logs shall be piled and stacked in an easily accessible area to the DISTRICT. The DISTRICT will remove all chips and logs from the tree disposal area after completion of the project.

During hauling and transportation to/from the debris dump site the CONTRACTOR shall utilize or install methods necessary to prevent sediment spillage and any runoff from entering an existing roadway. Any spillage of sediment or debris shall be cleaned up prior to completion of the project. The CONTRACTOR shall be responsible for all costs related to cleanup of any spilled materials that may occur from excavation, transportation, or depositing. Any damage to existing roadways on Metropolitan Sewerage District property caused by the contractor shall be repaired to the ENGINEER's satisfaction at no additional cost to the DISTRICT.

- B. Depending on the duration and satisfaction of Phase 1 project completion, the DISTRICT may choose to continue the lagoon restoration operations beyond the original Scope of Phase I. A unit price Alternate Bid item has been included on the Bid Form for additional 50'x50' areas (2,500sf). The Alternate Bid item shall not to be included in the base bid nor considered in the awarding of the bid.