

**Table 8: MSWD - Horton WWTP**

**Phase I of the Project: Option I/Scenario III**

Scenario 3: One 2.3 mgd ADF Duty Unit (no Standby) Tertiary Cloth Media Effluent Filter & Gravity Conveyance to

Deepen Existing Percolation Ponds **Preliminary Construction Cost Estimate March 31, 2020**

No.	Description	Quantity	Unit	Unit Cost	Amount
<b>General</b>					
1	Mobilization/Demobilization, Bonds, Etc.	1	LS	4%	\$ 34,784
2	SWPPP, Best Management Practice, PM 10, and NPDES Requirements / Erosivity Waiver	1	LS	\$ 5,000	\$ 5,000
3	Clearing and Grubbing	1	LS	\$ 2,000	\$ 2,000
<b>SubTotal:</b>					<b>\$ 41,784</b>
<b>Site Demolition</b>					
4	Remove and Disposal of Various Items.	1	LS	\$ 5,000	\$ 5,000
<b>SubTotal:</b>					<b>\$ 5,000</b>
<b>Site Improvements</b>					
5	Tertiary Cloth Media Filters in 304 SST Tank. Total ADF of 2.3 mgd (equipped with bigger unit).	2	LS	\$ 378,700.00	\$ 378,700
6	Mechanical: This would include unloading & installation filter, , all the ancillary equipment not provided in the equipment scope of supply, process piping and connection of backwash, drain, overflow, influent, effluent; field welding, field assembly, ladder and platforms for filters, filling the tank, manufacturer support during installation, testing and operation of filters, weir gates, inspection and	1	LS	20%	\$ 75,740
7	Structural: Work includes: earthwork, shoring, concrete retaining wall around filter station, filter concrete pad, stairs, grating, hand rail, sump drain, etc. (at % of Equipment)	1	LS	20%	\$ 75,740
8	Structural: monorail system over the filters, ladder and platforms for filters.	1	LS	\$10,000	\$ 10,000
9	Electrical & Instrumentation: Installation of all electrical and instrumentation components including NTU meters, programming and connection to SCADA (at % of mechanical) and stubout or spare conduits for future use.	1	LS	20%	\$ 75,740
10	Yard piping - 24" secondary and tertiary effluent pipes	603	LF	\$ 192.00	\$ 115,776
11	MHs	3	LS	\$ 5,500.00	\$ 16,500
12	Yard piping (12" PVC backwash & drain piping)	550	LF	\$ 108.00	\$ 59,400
13	Experimental Excavation	1	LS	\$ 12,000.00	\$ 12,000
14	Construct 3" Asphalt Concrete Paving with 4" of CAB SOFT	2,000	SOFT	\$ 5.00	\$ 10,000
15	Bypass Pumping during replacement of existing 16" diameter pipe with 24" diameter pipe at the existing secondary effluent Distribution Box.	1	LS	\$ 18,000.00	\$ 18,000
16	Bypass Pumping and liner repair during the connection of 12-inch diameter backwash and drain pipeline at the Influent Pump Station.	1	LS	\$ 12,000.00	\$ 12,000
17	Earthwork: Excavate & export (increase depth of the existing percolation ponds #7 and #8). Assumed: 5,000 CY	5,000	CY	\$ 2.00	\$ 10,000
<b>SubTotal:</b>					<b>\$ 869,596</b>

**Construction Subtotal: \$ 916380**

**Construction Contingencies (25%): \*\*\*\*\*55</3<8"**

**Construction Total: \$ 1,145,475**

Preliminary Engineering & Environmental Documentation (8%): **\$ 91,638**

Plans, Specifications, and Estimates (10%): **\$ 114,547**

Administration, Construction Management, Testing & Inspection (15%): **\$ 171,821**

**Soft Cost Total: \$ 378,007**

**Rounded Project Total: \$ 1,524,000**