



July 26, 2018

Wayne O'Brien
COO – Western Plant Group
Garney Construction
7911 Shaffer Parkway
Littleton, CO 80127

RE: PCWPF Advanced Treatment Project - Initial Guaranteed Maximum Price (IGMP)

Dear Mr. O'Brien,

Upon review and subsequent scope reconciliation meetings, Castle Rock Water acknowledges the Initial GMP for the above referenced project as \$26,912,068. The following attached documents have been provided in support of this budget:

- Exhibit A.** IGMP Cost Summary dated July 23, 2018; Detailed Estimate dated July 23, 2018; IGMP Reconciliation dated July 23, 2018
- Exhibit B-1.** Detailed General Conditions (WP#1) costs dated April 25, 2018
- Exhibit B-2.** Detailed General Conditions (WP#2) costs dated April 25, 2018
- Exhibit C.** Labor Rates dated April 25, 2018
- Exhibit D-1.** Staff Time Allocation (WP#1) dated April 25, 2018
- Exhibit D-2.** Staff Time Allocation (WP#2) dated April 25, 2018
- Exhibit E.** Allowance List, Alternates and Unit Prices dated April 25, 2018
- Exhibit F.** Responsibility Matrix dated April 25, 2018
- Exhibit G.** Project Schedule dated April 25, 2018

As noted in Exhibit A, no allowances have been included for steel materials impacted by the Section 232 Tariffs.

Pursuant to the Contract, the Owner, the Contractor and the Owner's Design Consultant shall work together throughout the evolution of the design to be certain that the Final Guaranteed Maximum Price (FGMP) remains within the Initial Guaranteed Maximum Price. Once the FGMP is finalized and approved by the Owner, the work associated Contract Documents, Contractor's pricing as agreed to, and all other necessary components shall be added to the current Agreement by Amendment.

Sincerely,

Walt Schwarz
Project Manager
Castle Rock Water



Acknowledgement of IGMP:

Castle Rock Water

Mark Marlowe, Director of Castle Rock Water

Garney Construction

Joel Heimbuck, Director - Western Plant Operations

Burns & McDonnell

Jason Schaefer, Department Manager, Water Treatment

Enclosures

cc: Jason Schaefer Burns & McDonnell
Steve Sciscione, Project One
Jeanne Stevens, Town of Castle Rock



EXHIBIT A

PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT

IGMP COST SUMMARY

WORK PACKAGES 1 & 2

Issued Date: 04/25/2018

Revised date 7/23/2018

FIRM NAME:

CSI CODE	DESCRIPTION	TOTAL COST WP1	TOTAL COST WP2	TOTAL
	DIRECT WORK TOTAL	\$ 7,159,000	\$ 14,338,000	\$ 21,497,000
01	General Requirements	<i>Included with General Conditions Costs</i>		
02	Site Construction	\$ -	\$ 385,000	\$ 385,000
03	Concrete	\$ 1,322,000	\$ 1,788,000	\$ 3,110,000
04	Masonry	\$ -	\$ 1,606,000	\$ 1,606,000
05	Metals	\$ -	\$ 248,000	\$ 248,000
06	Wood and Plastics	\$ -	\$ 38,000	\$ 38,000
07	Thermal and Moisture Protection	\$ -	\$ 356,000	\$ 356,000
08	Doors and Windows	\$ -	\$ 159,000	\$ 159,000
09	Finishes	\$ -	\$ 525,000	\$ 525,000
10	Specialties	\$ -	\$ 34,000	\$ 34,000
11	Equipment	\$ -	\$ 1,531,000	\$ 1,531,000
12	Furnishings	\$ -	\$ -	\$ -
13	Special Construction	\$ -	\$ -	\$ -
14	Conveying Equipment	\$ -	\$ -	\$ -
21	Fire Suppression	\$ -	\$ 31,000	\$ 31,000
22	Plumbing	\$ -	\$ 195,000	\$ 195,000
23	Heating, Ventilating, and Air Conditioning (HVAC)	\$ -	\$ 653,000	\$ 653,000
26	Electrical	\$ -	\$ 2,450,000	\$ 2,450,000
28	Electronic Safety and Security	\$ -	\$ 115,000	\$ 115,000
31	Earthwork	\$ 41,000	\$ 740,000	\$ 781,000
32	Exterior Improvements	\$ -	\$ 438,000	\$ 438,000
33	Utilities	\$ 23,000	\$ 1,368,000	\$ 1,391,000
40	Process Integration	\$ -	\$ -	\$ -
41	Materials Processing and Handling Equipment	\$ 260,000	\$ 7,000	\$ 267,000
43	Process Gas and Liquid Handling, Purification and Storage Equipment	\$ -	\$ 156,000	\$ 156,000
46	Water & Wastewater Equipment	\$ 5,513,000	\$ 1,515,000	\$ 7,028,000
N/A	Subcontractor Bonds	\$ -	\$ -	\$ -
	GENERAL CONDITIONS	\$ 548,041	\$ 1,041,970	\$ 1,590,011
	General Conditions (Not-to-exceed from Exhibit B)	---	\$ 548,041	\$ 1,041,970
	FEE TOTAL (Based on Direct Work and General Conditions Only)	\$ 539,493	\$ 1,076,598	\$ 1,616,091
	Fee (Overhead & Profit) [Insert percentage]	7.00%	\$ 539,493	\$ 1,076,598
	OTHER INDIRECTS TOTAL (NO FEE ON THESE COSTS)	\$ 725,898	\$ 1,483,068	\$ 2,208,967
	Construction Contingency at 7.5 % of Direct Work and General Conditions	7.50%	\$ 578,028	\$ 1,153,498
	Steel Tarriff Allowance (Risk by Owner)			\$ -
	Preconstruction value (Not-to-exceed)	---	\$ 41,513	\$ 117,327
	Commercial General Liability Insurance [Insert percentage]	0.50%	\$ 38,535	\$ 76,900
	General Contractor Payment & Performance Bonds [Insert percentage]	0.75%	\$ 57,803	\$ 115,350
	Builder's Risk Insurance [Insert percentage]	0.13%	\$ 10,019	\$ 19,994
	ALL Permits/Plan Review Fee/Use Tax - (ALLOWANCE)	---	\$ -	\$ -
	Taxes	---	\$ -	\$ -
	TOTAL CONSTRUCTION COSTS	\$ 8,972,432	\$ 17,939,636	\$ 26,912,068

NOTES:

- 1 No taxes included within the Direct Work and General Conditions.
- 2 Performance and Payment Bond are required by Contractor.
- 3 Provide a cost for Builder's Risk in the event the Owner requests it be carried by Contractor.
- 4 Provide the actual % Rate for Insurance/Builders Risk/Bond/Fee above directly in the description.
- 5 **INCLUDE A DETAILED BUDGET WITH THIS COST SUMMARY (YOUR FORMAT)**
- 6 General Requirements are included with General Conditions.

GARNEY IGMP RECONCILIATION - PCWPF ADVANCED TREATMENT PROJECT

Updated: 7/23/2018

ITEM NO.	DIVISION	DESCRIPTION / ASSUMPTION	ADJUSTMENT	\$\$\$\$	ACTION	COMMENTS	BMcD COMMENTS
GARNEY RFP/INITIAL IGMP BUDGET			\$25,207,740	\$1,066,000			
IGMP RECONCILIATION - LIST OF RFP CLARIFICATIONS							
1	2	Existing Conditions	CONFIRM	\$82,500	BMcD	Jason to confirm cut # with new survey info. Assuming export. (5,500 cy)	
2	2	Existing Conditions	\$0	\$0	---	OK assumption on overex around solids storage tank and 1 MG tank.	
3	2	Existing Conditions	CONFIRM	\$96,000	BMcD	Jason to look at borrow pit - remove/replace 8,000 cy	
4	2	Existing Conditions	\$0	\$0	---	Confirmed pavement sectioned	
5	2	Existing Conditions	POTENTIAL ADD	\$30,000	BMcD	Jason to confirm storm water pond sizing, include budget to clean up and regrade	
6	2	Existing Conditions	POTENTIAL ADD	\$20,000	Garney	Regrade/replace 50 LF of new road, 2' higher by RR to fix drainage	
7	2	Existing Conditions	\$15,000	\$15,000	Garney	Landscaping - Carrying \$35k total, Need to add temp watering	
8	2	Existing Conditions	\$0	\$0	---	Carrying \$28k for Erosion Control	
9	2	Existing Conditions	POTENTIAL ADD	\$84,000	Garney	Add in to turn drainage swale into piping w/ additional manholes. Assumes 30" RCP. 600 lf w/3 manholes	
10	2	Existing Conditions	POTENTIAL ADD	\$25,000	Garney	Garney to reevaluate soils testing, only carrying \$10k - new total is 35,000	
11	2	Existing Conditions	POTENTIAL ADD	\$40,000	Garney	Add 4 manholes around 30" valves (2) and 16" valves (2) w/ Asphalt repair	Seems a bit light @ \$7,500 each - each of these will include saw cutting out the existing asphalt, installing a doghouse/flat top manhole placing flash fill, asphalt repair.
12	3	Concrete	\$0	\$0	---	Diameter & Height minimal change to Bates Tank	
13	3	Concrete	POTENTIAL ADD	\$10,000	Garney	Aluminum stairs going up and FRP stairs going down instead of ladder.	
14	3	Concrete	CONFIRM	\$7,500	Garney	Confirm use of ozone resistance waterstop	Yes - TPER waterstop or other ozone resistant material is needed.
15	3	Concrete	CONFIRM	\$14,000	Garney	Use EPDM for Bearing Pad. Garney to talk to Kit on this.	
16	3	Concrete	CONFIRM	\$12,000	Garney	Use 30" manways inside of tank. Garney to talk to Kit on this. 1 ea	
17	3	Concrete	CONFIRM	\$0	BMcD	Tank mixing system (static). BMcD to provide Garney quote to validate.	
18	3	Concrete	POTENTIAL ADD	\$45,000	Garney	Include 12" tank drain line tank to storm water pond (steel under tank, HDPE after)	All underslab piping is Type 316 SST
19	3	Concrete	CONFIRM	\$35,000	Garney	Include sample line that ties back to lab	Yes please add the cost for sampling lines upstream of the tank to the lab
20	3	Concrete	POTENTIAL ADD	\$38,500	Garney	Tank to be stained on vertical surface and deck- 15,400 sf @ 2.50	
21	4	Masonry	\$0	\$0	---	Brick veneer would be 4" cmu	
22	4	Masonry	POTENTIAL ADD	\$22,000	Garney	Add block sealer - 17,374 @ 1.25	
23	5	Metals	POTENTIAL ADD	\$0	Garney	Carry Allowance on steel for tariffs (Risk w/ Owner)	
24	5	Metals	POTENTIAL ADD	\$10,000	Garney	Add screen walls for building HVAC units	
25	14	Conveying Systems	POTENTIAL ADD	\$50,000	Garney	Platform for centrifuges all the way around with stairs going up to them.	May want to reconsider the cost of this. At the last design meeting, the team raised the centrifuges so the space beneath can be walked under. The platform elevation is about 9' above the floor.
26	14	Conveying Systems	POTENTIAL ADD	\$25,000	Garney	Access and platform all along solids conveyor	
28	7	Thermal and Moisture Protection	\$0	\$0	---	Assumes scuppers, not roof drains.	
29	8	Doors and Windows	POTENTIAL ADD	\$0	Garney	Assume all overhead doors electrically operates	
30	9	Finishes	CONFIRM	\$0	TOCR	Wait to look into painting stainless steel ***not required	
32	10	Specialties	POTENTIAL ADD	\$15,000	Garney	Wall cabinet system w/ counter in dewatering room - 10 lf	
33	11	Equipment	CONFIRM	\$150,000	BMcD	Comparison w/ BMcD estimate/quotes looks OK, better scope/quote on GAC needed, currently \$1.8M; get quote on Polymer Blending (potentially high)	
34	12	Fire Suppression	POTENTIAL ADD	\$15,000	Garney	Add in backflow preventer	Need multiple backflow preventers - (fire protection, house water, solids area, and most notably an 8" on the GAC backwash supply line)
35	22	Plumbing	POTENTIAL ADD	\$0	Garney	Larger trench drains with truck loading dewatering area	
36	22	Plumbing	POTENTIAL ADD	\$0	Garney	Review gas piping #	
37	26	Electrical	POTENTIAL DEDUCT	\$0	Garney	Review electrical # (\$750k high), only got quote from Weifield, will review with Sun Valley	
38	28	Electronic Safety and Security	POTENTIAL DEDUCT	\$0	Garney	Wait to get name of security consultant for Garney to review.	
39	33	Utilities	POTENTIAL ADD	\$15,000	Garney	Add fire hydrant along north side	
40	33	Utilities	POTENTIAL ADD	\$0	Garney	Significant delta (\$1.9M), but carrying building piping carried in Div. 11 (\$1.5M) vs Div. 33	
41	33	Utilities	POTENTIAL ADD	\$80,000	Garney	Need to add 4- 18" butterfly valves (SS). Raw water valves need to be stainless as well.	

ITEM NO.	DIVISION	DESCRIPTION / ASSUMPTION	ADJUSTMENT	\$\$\$\$	ACTION	COMMENTS	BMcD COMMENTS
42	33	Utilities	CONFIRM	\$50,000	BMcD	BMcD to provide updated valve schedule to validate materials - not yet	See updated valve schedule
43	40	Process Integration	\$0	\$0	---	Included in Electrical	
44	1	General Conditions	POTENTIAL ADD	\$32,000	Garney	Add Owner/Engineer trailer w/janitorial services	
45	1	General Conditions	POTENTIAL ADD	\$15,000	Garney	Add temp enclosure for temp storage of equipment	
46	N/A	Other Indirect Costs	POTENTIAL DEDUCT	Changed	Garney	Garney to revisit Builder's Risk % - 0.5% is high, usually < 0.2%	
47	N/A	Other Indirect Costs	POTENTIAL ADD	Changed	Garney	Increase construction contingency from 5% to 10%.	
48	1	Other Indirect Costs	POTENTIAL ADD	\$10,000	Garney	Road sweeping	
49	15			\$22,500	Garney	3 Eye Washes W/ Tempered water	
IGMP RECONCILIATION - SUMMARY							
		Garney Original RFP IGMP	\$25,207,740				
		Proposed IGMP Direct Cost Modifications	\$1,066,000				
		Indirect Modifications (Bond, Insurance, Permit)	(\$66,767)				
		Preconstruction Modifications	\$0				
		General Conditions Modifications	\$0				
		Contractor Contingency Modifications	\$630,475				
		Contractor Fee Modifications	\$74,620				
		Total Proposed IGMP Modifications	\$1,704,328				
		Revised IGMP Budget	\$26,912,068				

Estimate for

0

TOTALS		40,174		897,285		10,757,403		5,294,206		2,874,436		1,297,429	21,120,760	21,497,619										
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor Labor Unit	Labor Total	Materials Matl Unit	Matl Total	Subcontract Sub Unit	Sub Total	Equipment Equip Unit	Equip Total	Other Oth Unit	Oth Total	Total Cost	Random & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
																	0 ALLOW							
	SPEC SECTIONS																0 DIV02							
	EXCAVATION OVERHEAD																0 DIV02			2	2			
	Equipment mobilizations	12.0	EA								0		0	1,000.00	12,000	12,000	12,000	DIV02		2	2			
	Prep Laydown	10,000.0	SF	14.3	0.001	0.04	357		0		0	0.07	673	0.02	202	1,233	1,383	DIV02		2	2			
	Install Laydown Rock	203.7	CY	13.6	0.067	1.67	340		0		0	3.14	640	0.94	192	1,172	1,314	DIV02		2	2			
	Purchase Laydown Rock	356.5	TN				0	25.00	8,912		0		0		0	8,912	8,912	DIV02		2	2			
	Yard Fencing	xx	LF		w/Fence		0										0	DIV02		2	2			
	Orange safety fencing	1,300.0	LF	30.6	0.024	0.59	765	1.30	1,690		0		0		0	2,455	2,776	DIV02		2	2			
	Water hook-up	1.0	LS	16.0	16.000	400.00	400	200.00	200		0		0		0	600	768	DIV02		2	2			
	Water truck	10.0	MO	433.0	43,300	1,082.50	10,825		0		0	2,459.00	24,590	737.70	7,377	42,792	47,339	DIV02		2	2			
	Construction water	xx	MO		w/Cs		0										0	DIV02		2	2			
	Dust control	10.0	MO	433.0	43,300	1,082.50	10,825		0		0	2,459.00	24,590	737.70	7,377	42,792	47,339	DIV02		2	2			
	Soil/compaction testing	1.0	LS				0		0		0		0	10,000.00	10,000	10,000	10,000	DIV02		2	2			
	Asphalt Testing	1.0	LS				0		0		0		0	2,500.00	2,500	2,500	2,500	DIV02		2	2			
	Engineered excavations >20'	xx	LS		NA											0	0	DIV02		2	2			
																	0	DIV02		2	2			
																	0	DIV02		2	2			
																	0	DIV02		2	2			
	EROSION CONTROL																0	DIV02		2	2			
	SWPPP Design/Permits	1.0	LS				0		0		0		0	1,500.00	1,500	1,500	1,500	DIV02		2	2			
	Erosion Control Maintenance	20.0	MO	173.2	8.660	216.50	4,330	100.00	2,000		0	223.60	4,472	67.08	1,342	12,144	13,962	DIV02		2	2			
	Silt Fence	1,710.0	LF				0		0	2.00	3,420		0		0	3,420	3,420	DIV02		2	2			
	Erosion Control Bales	8.0	EA				0		0	30.00	240		0		0	240	240	DIV02		2	2			
	Rock Checks in Swales	6.0	EA				0		0	200.00	1,200		0		0	1,200	1,200	DIV02		2	2			
	Inlet Protect	6.0	EA				0		0	175.00	1,050		0		0	1,050	1,050	DIV02		2	2			
	VTC Pad	1.0	EA				0		0	2,200.00	2,200		0		0	2,200	2,200	DIV02		2	2			
	VTC Pad Maintnec	4.0	EA	8.0	2.000	50.00	200	250.00	1,000		0	188.56	754	56.57	226	2,181	2,265	DIV02		2	2			
	Concrete washout area install/remove	1.0	EA				0		0	1,800.00	1,800		0		0	1,800	1,800	DIV02		2	2			
	Erosion Control Mob	1.0	EA						0	850.00	850		0		0	850	850	DIV02		2	2			
	Temp seeding/Stabilization	xx	AC		w/Seeding											0	0	DIV02		2	2			
> 3:1	Erosion Control Fabric for Slopes	xx	SF		w/Seeding											0	0	DIV02		2	2			
	Remove BMPs at End of Job	1.0	LS	32.0	32.000	800.00	800		0		0	357.76	358	557.33	557	1,715	2,051	DIV02		2	2			
																	0	DIV02		2	2			
																	0	DIV02		2	2			
																	0	DIV02		2	2			
	OVERLOT ACTIVITIES																0	DIV02		2	2			
	Clear/Grub/Haul (Minml)	0.7	AC						0	7,500.00	5,165		0		0	5,165	5,165	DIV02		2	2			
	Rmv Trees (Sml)	4.0	EA	8.0	2.000	50.00	200		0		0	47.14	189	54.14	217	605	689	DIV02		2	2			
	strip topsoil	1,466.7	CY	32.6	0.022	0.56	815		0		0	1.05	1,536	0.31	461	2,812	3,154	DIV02		31	2			
	replace topsoil	1,466.7	CY	36.7	0.025	0.63	917		0		0	1.18	1,728	0.35	519	3,164	3,549	DIV02		31	2			
	site cut	500.0	CY	22.2	0.044	1.11	556		0	2.11	1,056	2.65	1,324	0.79	397	3,333	3,566	DIV02		31	2			
Adms#3	site cut (Spoil Pile N end)	5,500.0	CY	244.4	0.044	1.11	6,111		0	w/Haul off	0	2.65	14,568	0.79	4,370	25,049	27,616	DIV02		31	2			
	site fill	1,500.0	CY	85.7	0.057	1.43	2,143		0	2.71	4,071	1.99	2,979	0.60	894	10,086	10,986	DIV02		31	2			
	finegrade site	93,015.0	SF	93.0	0.001	0.03	2,325		0		0	0.05	4,385	0.01	1,315	8,026	9,002	DIV02		31	2			
	maintain access roads	15.0	MO	129.0	8.600	215.00	3,225	75.00	1,125		0	405.40	6,081	321.62	4,824	15,255	16,610	DIV02		2	2			
	Prebble's Meadow Mouse, RCZ Barrier/Mo	1,400.0	LF	46.7	0.033	0.83	1,167	1.30	1,820		0		0	0.71	1,000	3,987	4,477	DIV02		2	2			
w/10%	Export to balance	12,336.4	CY						0	8.00	98,691		0		0	98,691	98,691	DIV02		31	2			
																	0	DIV02		2	2			
	TOTAL CUTS	25,267.0	CY			FOR REF ONLY											0	DIV02		2	2			
	TOTAL FILLS	14,052.1	CY			FOR REF ONLY											0	DIV02		2	2			
	BALANCE	11,214.9	CY			FOR REF ONLY											0	DIV02		2	2			
																	0	DIV02		2	2			
																	0	DIV02		2	2			
	STORM DRAINAGE																0	DIV02		33	2			
	Demo Exist 30" RCP	50.0	LF	10.0	0.200	5.00	250		0		0	5.96	298	1.79	89	637	742	DIV02		33	2			
	RCP, 30"	50.0	LF				0	70.00	3,500		0		0		0	3,500	3,500	DIV02		33	2			
	Ex/B/Install Pipe, 4down	50.0	LF	22.2	0.444	11.11	556		0		0	13.24	662	3.97	199	1,416	1,650	DIV02		33	2			
	Purchase Pipe Bedding	23.6	TN				0	20.00	473		0		0		0	473	473	DIV02		33	2			
	Handle XS	16.7	CY		0.7	0.040	1.00		17		0	1.89	31	0.57	9	58	65	DIV02		33	2			
																	0	DIV02		33	2			
	Precast Curb Inlet, 3x6'	4.0	VF				0	600.00	2,400		0		0		0	2,400	2,400	DIV02		33	2			
	Ex/B/Install Inlet	4.0	VF	12.0	3.000	75.00	300		0		0	89.39	358	26.82	107	765	891	DIV02		33	2			
	Tie-In Exist RCP	1.0	EA	10.0	10.000	250.00	250	200.00	200		0	297.98	298	89.39	89	837	942	DIV02		33	2			
	Grout Inlet Invert	1.0	EA	5.0	5.000	125.00	125	100.00	100		0		0		0	225	278	DIV02		33	2			
	Grout Pipe Pen, 30"	1.0	EA	4.0	4.000	100.00	100	75.00	75		0		0		0	175	217	DIV02		33	2			
	Purchase Pipe Bedding	1.6	TN				0	20.00	33		0		0		0	33	33	DIV02		33	2			
	Handle XS	10.0	CY		0.4	0.040	1.00		10		0	1.89	19	0.57	6	35	39	DIV02		33	2			
																	0	DIV02		33	2			
	Drain Al Grate for Exist MH - 4dia	1.0	EA				0	450.00	450		0		0		0	450	450	DIV02		33	2			
	Install Drain Grate	1.0	EA	6.0	6.000	150.00	150	200.00	200		0	67.08	67	20.12	20	437	500	DIV02		33	2			
																	0	DIV02		33	2			
	Demo Exist C&Gtr Sectn	20.0	SF		4.0	0.200	5.00	100		5.00	100	2.24	45	0.67	13	258	300	DIV02		33	2			
	New Cone Curb Section (Cut for Flow)	20.0	SF		14.0	0.700	17.50	350	20.00		400		0		0	750	897	DIV02		33	2			
																	0	DIV02		33	2			
	Prep Subgrade for Riprap Rounduns (3ea)	750.0	SF	18.8	0.025	0.63	469				0	0.87	652	0.26	195	1,316	1,513	DIV02		33	2			
	F & I Filter Fabric for Riprap	900.0	SF	9.0	0.010	0.25	225	0.15	135		0		0											

Estimate for

TOTALS

40,174

897,285

10,757,403

5,294,206

2,874,436

1,297,429

21,120,760

21,497,619

0

Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Random & Marked Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open	
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Orth Total										
	Purchase Riprap Bedding	24.3	TN				0	25.00	608		0		0			608	608	DIV02		33	2				
	Install Riprap Type M	41.7	CY	20.8	0.500	12.50	521		0		0	17.38	724	5.21	217	1,462	1,681	DIV02		33	2				
	Purchase Riprap Type M	68.8	TN				0	45.00	3,094		0		0			3,094	3,094	DIV02		33	2				
																		DIV02		33	2				
	Grading for Drainage Swales	500.0	LF	40.0	0.080	2.00	1,000		0		0	2.78	1,390	0.83	417	2,807	3,227	DIV02		33	2				
																		DIV02			2				
																		DIV02			2				
																		DIV02			2				
	DEMOLITION																			2	2				
C103	Rmv Exist Fence	800.0	LF	32.0	0.040	1.00	800		0		0	0.45	358	0.70	557	1,715	2,051	DIV02		2	2				
	Rmv Exist Sign	1.0	EA	2.0	2.000	50.00	50		0		0	22.36	22	6.71	7	79	100	DIV02		2	2				
	Rmv Exist Hydrant	1.0	EA	6.0	6.000	150.00	150		0		0	67.08	67	20.12	20	237	300	DIV02		2	2				
	Rmv Conc Curb & Gtr	27.3	CY	27.3	1.000	25.00	682		0		0	23.17	632	6.95	190	1,504	1,791	DIV02		2	2				
	Sawcut C&Gtr	12.5	LF				0		0	20.00	250		0		0	250	250	DIV02		2	2				
	Ld & Haul off Conc	27.3	CY	2.7	0.100	2.50	68		0	9.50	259	4.71	129	8.41	230	686	715	DIV02		2	2				
	Rmv RipRap At E Side of C&Gtr	23.7	CY	4.7	0.200	5.00	119		0		0	4.71	112	1.41	34	264	314	DIV02		2	2				
	Rmv Asphalt Pmnt (Assume 6")	254.6	CY	152.8	0.600	15.00	3,819		0		0	13.90	3,539	4.17	1,062	8,421	10,025	DIV02		2	2				
	Sawcut Asphalt	201.0	LF				0		0	6.00	1,206		0		0	1,206	1,206	DIV02		2	2				
	Ld & Haul off Asph	254.6	CY	25.5	0.100	2.50	637		0	9.50	2,419	4.71	1,200	8.41	2,143	6,398	6,666	DIV02		2	2				
	Rmv Conc Apron (Entrnc)	18.4	CY	18.4	1.000	25.00	460		0		0	23.17	427	6.95	128	1,015	1,209	DIV02		2	2				
	Ld & Haul off Conc	18.4	CY	1.8	0.100	2.50	46		0	9.50	175	4.71	87	8.41	155	463	482	DIV02		2	2				
	Protect Exist Utils, Boxes, MHs, etc	1.0	LS	24.0	24.000	600.00	600	250.00	250		0	565.68	566	169.70	170	1,585	1,837	DIV02		2	2				
	Rmv Landscaping at Entnrc	1.0	LS	18.0	18.000	450.00	450		0		0	417.00	417	125.10	125	992	1,181	DIV02		2	2				
	Ld & Haul off Landscp	30.0	CY	3.0	0.100	2.50	75		0	9.50	285	4.71	141	8.41	252	754	785	DIV02		2	2				
																		DIV02			2				
D101	Rmv Conc Curb & Gtr (New YP & Excav)	7.1	CY	7.1	1.000	25.00	178		0		0	23.17	165	6.95	50	393	468	DIV02		2	2				
	Sawcut C&Gtr	12.5	LF				0		0	20.00	250		0		0	250	250	DIV02		2	2				
	Ld & Haul off Conc	7.1	CY	0.7	0.100	2.50	18		0	9.50	68	4.71	34	8.41	60	179	187	DIV02		2	2				
D101	Rmv Asphalt Pmnt (Assume 6", New YP)	9.3	CY	6.9	0.750	18.75	174		0		0	17.38	161	5.21	48	383	456	DIV02		2	2				
	Sawcut Asphalt	100.0	LF				0		0	6.00	600		0		0	600	600	DIV02		2	2				
	Ld & Haul off Asph	9.3	CY	0.9	0.100	2.50	23		0	9.50	88	4.71	44	8.41	78	233	242	DIV02		2	2				
D101	Rmv Conc Pmnt (Assume 7", New YP & Ex	64.8	CY	64.8	1.000	25.00	1,619		0		0	23.17	1,501	6.95	450	3,570	4,251	DIV02		2	2				
	Sawcut Conc Pmnt, 7"	300.0	LF				0		0	20.00	6,000		0		0	6,000	6,000	DIV02		2	2				
	Ld & Haul off Conc	64.8	CY	6.5	0.100	2.50	162		0	9.50	615	4.71	305	8.41	545	1,628	1,696	DIV02		2	2				
																		DIV02			2				
D101	Rmv Conc Curb & Gtr (New YP, Adm#2 D	1.2	CY	3.0	2.418	60.45	75		0		0	56.01	70	16.80	21	165	197	DIV02		2	2				
Adm#2	Sawcut C&Gtr	10.0	LF				0		0	20.00	200		0		0	200	200	DIV02		2	2				
	Ld & Haul off Conc	1.2	CY	0.1	0.100	2.50	3		0	9.50	12	4.71	6	8.41	10	31	32	DIV02		2	2				
D101	Rmv Conc Pmnt (New YP, Adm#2 Dwgs)	5.2	CY	5.2	1.000	25.00	130		0		0	23.17	120	6.95	36	286	340	DIV02		2	2				
Adm#2	Sawcut Conc Pmnt, 7"	48.0	LF				0		0	20.00	960		0		0	960	960	DIV02		2	2				
	Ld & Haul off Conc	5.2	CY	0.5	0.100	2.50	13		0	9.50	49	4.71	24	8.41	44	130	136	DIV02		2	2				
																		DIV02			2				
D202,207	Exist Plant Demo																			2	2				
	Rmv GAC from Filters, 3.5' Thk, 4 cells	132.7	CY		FOR REF						w/Blw							DIV02			2				
Adm#3	Ld, Haul, Dispose GAC	165.9	TN				0		250.00		41.481		0		0	41,481	41,481	DIV02		2	2				
	Rmv Sand from Filters, 0.5' Thk, 4 cells	19.0	CY		FOR REF						w/Blw							DIV02			2				
Adm#3	Ld, Haul, Dispose Sand	33.2	TN				0		250.00		8,296		0		0	8,296	8,296	DIV02		2	2				
	Garney Assist w/Abv	1.0	LS	100.0	100.000	2,500.00	2,500		0		0	2,357.00	2,357	707.10	707	5,564	6,614	DIV02		2	2				
																		DIV02			2				
D206	Demo to Raise Troughs, Equip, Pipe at Filte	1.0	LS	168.0	168.000	4,200.00	4,200		0		0		0		0	4,200	5,964	DIV02		2	2				
	Patch-Back for Abv	506.0	SF	33.7	0.067	1.67	843	5.00	2,530		0		0		0	3,373	3,728	DIV02		2	2				
																		DIV02			2				
																		DIV02			2				
	DEWATERING ("MISC SUMPING/DRAIN SYSTEM")																			31	2				
	Assume No Groundwater Will Be Encountered																	DIV02			31	2			
	Geo Rpt from Sep 2011 States Water at 22' down per Bore #14 at Elev 6125'																	DIV02			31	2			
	Handle Precip Only																	DIV02			31	2			
	Misc Sumping	1.0	LS	200.0	200.000	5,000.00	5,000	3,500.00	3,500		0	2,236.00	2,236	1,320.80	1,321	12,057	14,157	DIV02		31	2				
																		DIV02			31	2			
																		DIV02			31	2			
	SHORING FOR STRUCTURES/PIPE		NA																DIV02			31	2		
																		DIV02			31	2			
																		DIV02			31	2			
																		DIV02			31	2			
	STRUCTURAL EXCAVATION																			31	2				
S200	RW Meter Vault																			31	2				
	Assume 4' Over Ex dwn & out. Then Rplc w/Select On-Site & 6" U-Slab Rk																			31	2				
	Machine Ex.	2,373.0	CY	118.7	0.050	1.25	2,966		0	2.38	5,636	2.98	7,071	0.89	2,121	17,794	19,040	DIV02		31	2				
	Dental Ex. Sump	5.0	CY	2.5	0.500	12.50	63		0		0	29.80	149	8.94	45	256	282	DIV02		31	2				
	Prep Subgrade Ahd of Fills	1,200.0	SF	20.0	0.017	0.42	500		0		0	0.58	695	0.17	209	1,404	1,614	DIV02		31	2				
	Place U-Slab Fills, 3.5', Select On-Site	200.0	CY	50.0	0.250	6.25	1,250		0		0	5.73	1,147	1.72	344	2,741	3,266	DIV02		31	2				
	Install Uslab Rock, 6" Thk	15.4	CY	4.4	0.286	7.14	110		0		0	9.93	153	2.98	46	310	356	DIV02		31	2				
	Purchase Uslab Rock, #57 type	28.6	TN				0	20.00	571		0		0		0	571	571	DIV02		31	2				
	Machine Bf., Select On-Site	1,800.0	CY	120.0	0.067	1.67	3,000		0	3.17	5,700	2.32	4,170	0.70	1,251	14,121	15,381	DIV02		31	2				
	Hand Bf.	180.0	CY	38.5	0.214	5.35	963		0		0		0		0	963	1,367	DIV02		31	2				
	Sort/Process for Re-Use																								

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21,497,619

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Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burdens & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
D101 Adm#2	Demo Conc C&Gtr for Trenching	287.5 SF			w/Demo												0	DIV02	32	2				
	Prep Subgrade for Curb & Gutter	402.5 SF	16.1	0.040		1.00	403		0			1.39	559	0.42	168	1,130	1,299	DIV02	32	2				
	Finegrade	402.5 SF			w/03		0									0	1,299	DIV02	32	2				
	Install Agg Road Base 8" Thk	11.5 CY	8.0	0.696		17.41	200		0			24.20	278	7.26	83	561	645	DIV02	32	2				
	Purchase Agg Road Base 8" Thk	21.2 TN					0		0	18.00	382		0		0	382	382	DIV02	32	2				
	Conc C&Gtr	287.5 SF			w/03											0	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
C103	Replace Conc C&Gtr, Due to New YP (Adm#2 Dwgs)	50.0 SF			w/Demo												0	DIV02	32	2				
	Demo Conc C&Gtr for Trenching	50.0 SF															0	DIV02	32	2				
	Prep Subgrade for Curb & Gutter	70.0 SF	2.8	0.040		1.00	70		0			1.39	97	0.42	29	196	226	DIV02	32	2				
	Finegrade	70.0 SF			w/03		0									0	0	DIV02	32	2				
	Install Agg Road Base 8" Thk	2.0 CY	3.0	1.502		37.55	75		0			52.19	104	15.66	31	211	242	DIV02	32	2				
	Purchase Agg Road Base 8" Thk	3.7 TN					0		0	18.00	67		0		0	67	67	DIV02	32	2				
	Conc C&Gtr	50.0 SF			w/03											0	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
	CHAINLINK FENCING																0	DIV02	32	2				
	Temp. Yard Fencing	1,000.0 LF					0		0	8.00	8,000		0		0	8,000	8,000	DIV02	32	2				
	F & I 7' C.I.L. PVC Coated, w/ Barbed	1,030.0 LF					0		0	35.00	36,050		0		0	36,050	36,050	DIV02	32	2				
	Tie-in to Exist Fnc	2.0 EA					0		0	125.00	250		0		0	250	250	DIV02	32	2				
	F & I 16' Chain Link Gate, Dbl	1.0 EA					0		0	1,300.00	1,300		0		0	1,300	1,300	DIV02	32	2				
	F & I Chain Link Gate, 30' Slide, Opertd	1.0 EA					0		0	22,000.00	22,000		0		0	22,000	22,000	DIV02	32	2				
	Addl Conc For Gate (Oper, Ped, etc)	1.0 EA	32.0	32.000		800.00	800	500.00	500		0	357.76	358	107.33	107	1,765	2,101	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
	Remove Chain Link Fence	800.0 LF			w/Demo											0	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
																	0	DIV02	32	2				
	LANDSCAPING																0	DIV02	32	2				
	Landscape Mob	1.0 LS					0		0	1,000.00	1,000		0		0	1,000	1,000	DIV02	32	2				
																	0	DIV02	32	2				
	Temp Seed/Stblz	1.5 AC					0		0	1,800.00	2,700		0		0	2,700	2,700	DIV02	32	2				
							0		0								0	DIV02	32	2				
	Soil Prep/Fertilize	2.1 AC					0		0	1,900.00	4,057		0		0	4,057	4,057	DIV02	32	2				
	Seeding w/ Mulch	2.1 AC					0		0	1,800.00	3,844		0		0	3,844	3,844	DIV02	32	2				
	Maintenance	3.0 MO					0		0	500.00	1,500		0		0	1,500	1,500	DIV02	32	2				
							0		0								0	DIV02	32	2				
																	0	DIV02	32	2				
	Plantings (Trees, Bushes, Grasses)	1.0 LS					0		0	15,000.00	15,000		0		0	15,000	15,000	DIV02	32	2				
	Landscape Rk w/ Fabric	3,000.0 SF					0		0	1.75	5,250		0		0	5,250	5,250	DIV02	32	2				
	Repair Irrig Sys Damaged	1.0 LS					0		0	2,500.00	2,500		0		0	2,500	2,500	DIV02	32	2				
																	0	DIV02						
	Jason to confirm cut # with new survey info.	1.0					0		0		0		0	82,500.00	82,500	82,500	82,500	DIV02	31	2				
	OK assumption on overex around solids storage tankand 1 MG tank.						0		0		0		0	0.00	0	0	0	DIV02	31	2				
	Jason to look at borrow pit - remove/replace	1.0					0		0		0		0	96,000.00	96,000	96,000	96,000	DIV02	31	2				
	Confirmed pavement sectioned						0		0		0		0	0.00	0	0	0	DIV02	32	2				
	Jason to confirm stormwater pond sizing, inc	1.0					0		0		0		0	30,000.00	30,000	30,000	30,000	DIV02	33	2				
	Regrade/replace 50 LF of new road, 2' highe	1.0					0		0		0		0	20,000.00	20,000	20,000	20,000	DIV02	32	2				
	Landscape - Carrying \$35k total, Need to ;	1.0					0		0		0		0	15,000.00	15,000	15,000	15,000	DIV02	32	2				
	Carrying \$28k for Erosion Control						0		0		0		0	0.00	0	0	0	DIV02	32	2				
	Add in to turn drainage swale into piping w/	1.0					0		0		0		0	84,000.00	84,000	84,000	84,000	DIV02	33	2				
	Garney to reevaluate soils testing, only carry	1.0					0		0		0		0	25,000.00	25,000	25,000	25,000	DIV02	2	2				
	Add 4 manholes around 30" valves (2) and 1	1.0					0		0		0		0	40,000.00	40,000	40,000	40,000	DIV02	33	2				
	Road sweeping	1.0					0		0		0		0	10,000.00	10,000	10,000	10,000	DIV02	2	2				
	Add Owner/Engineer trailer w/janitorial ser	1.0					0		0		0		0	32,000.00	32,000	32,000	32,000	DIV02	2	2				
	Add temp enclosure for temp storage of equi	1.0					0		0		0		0	15,000.00	15,000	15,000	15,000	DIV02	2	2				
																	0	DIV02						
																	0	DIV02						
30%	FUEL, OIL AND GREASE (EOE)	1.0 LS					0		0		0		0	w/items	0	0	0	DIV02						
																	0	DIV02						
																	0	DIV03						
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Estimate for

TOTALS		40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619	0									
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor Labor Unit Labor Total	Materials Matl Unit Matl Total	Subcontract Sub Unit Sub Total	Equipment Equip Unit Equip Total	Other Orth Unit Orth Total	Total Cost	Random & Marked Up Cont	Division	Bid Item	Structure	W1	W2	Sort	Open
SLAB / DECK	SUPPLY CONCRETE (Internally Cured concrete)	512.0	CY				0	168.00	86,016	0	0	86,016	86,016	DIV03	3	1			
	SHORT LOAD CHARGES	10.0	LDS				0	180.00	1,800	0	0	1,800	1,800	DIV03	3	1			
	FUEL CHARGES	100.0	LDS				0	10.00	1,000	0	0	1,000	1,000	DIV03	3	1			
	WINTER CONCRETE CHARGES	389.0	CY				0	3.50	1,362	0	0	1,362	1,362	DIV03	3	1			
	SATURDAY DELIVERY CHARGE	512.0	CY				0	10.00	5,120	0	0	5,120	5,120	DIV03	3	1			
	ESCALATION CHARGE	389.0	CY				0	8.00	3,112	0	0	3,112	3,112	DIV03	3	1			
	PUMP CONCRETE	389.0	CY				0	0	0	0	18.00	7,002	7,002	DIV03	3	1			
	Pump Concrete - SOG FOR TANK	319.0	CY				0	0	0	0	25.00	7,975	7,975	DIV03	3	1			
	Pump Concrete - ELEV. DECK FOR TANK	193.0	CY				0	0	0	0	32.00	6,176	6,176	DIV03	3	1			
												0	DIV03	3	1				
901	FURNISH/INSTALL REBAR 175#CY (TANK)	78.8	TN				0	1,100.00	86,721	W/VSL	0	86,721	86,721	DIV03	3	1			
	REBAR TEMPLATES	328.0	LF	41.0	0.125	2.71	888	1.50	492		0	1,380	1,753	DIV03	3	1			
												0	DIV03	3	1				
	PT Subcontractor (Labor and Material) - VSL	1.0	LS						500,000.00	500,000		500,000	500,000	DIV03	3	1			
	Garney assistance to VSL	1.0	EA	80.0	80.000	1,733.33	1,733		0		0	1,733	2,461	DIV03	3	1			
	REBAR ACCY'S - & SUPPORT STEEL	5.0	TN				0	1,100.00	5,500		0	5,500	5,500	DIV03	3	1			
	1/4" Plywood Bearing Pads	750.0	EA	15.0	0.020	0.43	325	0.25	188		0	513	649	DIV03	3	1			
												0	DIV03	3	1				
	CONCRETE FORMWORK											0	DIV03	3	1				
	TANK											0	DIV03	3	1				
	SOG @ TANK W/TK. EDGE 90° INSIDE \	454.0	SF	158.9	0.350	7.58	3,443	0	0		0	3,443	4,889	DIV03	3	1			
	30" DIAM PIPE SOG POURBACKS 2EA	32.0	SF	18.0	0.563	12.19	390		0		0	390	554	DIV03	3	1			
	WALLS (8 SECTIONS) 22' TALL	15590.0	SF	1,216.0	0.078	1.69	26,347	0	0		0	26,347	37,413	DIV03	3	1			
	INTERIOR CLOSURE CURBS 1'-10" x 8"	354.0	SF	100.0	0.282	6.12	2,167	0	0		0	2,167	3,077	DIV03	3	1			
	COLUMN FOOTINGS 15" 16EA 7' X 7'	560.0	SF	140.0	0.250	5.42	3,033	0	0		0	3,033	4,307	DIV03	3	1			
	18" DIAM COLUMNS X 21' 16EA	1584.0	SF	198.0	0.125	2.71	4,290	0	0		0	4,290	6,092	DIV03	3	1			
	ELEV. COLUMN CAPITALS 16EA 5' X 5'	320.0	SF	64.0	0.200	4.33	1,387	7.50	2,400		0	3,787	4,369	DIV03	3	1			
	COLUMN DROP HEAD BOTTOMS	400.0	SF	64.0	0.160	3.47	1,387		0		0	1,387	1,969	DIV03	3	1			
	ELEV. ROOF DECK 8"	268.0	SF	100.0	0.373	8.08	2,167		0		0	2,167	3,077	DIV03	3	1			
	INTERIOR DROP SOFFIT W/DECK	564.0	SF	64.9	0.115	2.49	1,405		0		0	1,405	1,996	DIV03	3	1			
	INTERIOR DROP SOFFIT BOTTOM	564.0	SF	64.0	0.113	2.46	1,387		0		0	1,387	1,969	DIV03	3	1			
	SHORE TANK DECK 22'	6362.0	SF	836.0	0.131	2.85	18,113	4.00	25,448		0	43,561	51,169	DIV03	3	1			
	EXT. SHORE OVERHANG W/DECK	1234.0	SF	148.0	0.120	2.60	3,207	4.00	4,936		0	8,143	9,489	DIV03	3	1			
	ACCESS HATCH WALLS 3.5'	215.0	SF	36.1	0.168	3.64	783		0		0	783	1,111	DIV03	3	1			
	CURB @ ACCESS HATCH	27.0	SF	8.1	0.300	6.50	176		0		0	176	249	DIV03	3	1			
	EQUIPMENT HATCH WALLS 2' 4EA	215.0	SF	36.1	0.168	3.64	783		0		0	783	1,111	DIV03	3	1			
	STEP AT BASE OF LADDER S26	4.0	SF	1.4	0.350	7.58	30		0		0	30	43	DIV03	3	1			
	PIPE SUPPORTS @ INT. TANK - 30" DIA	200.0	SF	60.0	0.300	6.50	1,300		0		0	1,300	1,846	DIV03	3	1			
	30" DIAM INLET/OUTLET PIPE ENC. 2E	441.0	SF	84.0	0.190	4.13	1,820		0		0	1,820	2,584	DIV03	3	1			
	30" DIAM VERT. ENC. @ ABOVE	90.0	SF	16.0	0.178	3.85	347		0		0	347	492	DIV03	3	1			
29,478.0	FORMWORK MATERIALS											0	DIV03	3	1				
	PLYWOOD AND MODUFORM	20,754.0	SF				0	0.85	17,641		0	17,641	17,641	DIV03	3	1			
	purchase deck plywood	8,724.0	SF				0	1.55	13,522		0	13,522	13,522	DIV03	3	1			
	DIMENSION LUMBER (3.0 REUSES)	22,108.5	BF				0	0.75	16,581		0	16,581	16,581	DIV03	3	1			
	FORM TIES	4,274.5	EA				0	2.00	8,549		0	8,549	8,549	DIV03	3	1			
	FORM OIL	131.0	GAL				0	5.00	655		0	655	655	DIV03	3	1			
	NAILS AND HARDWARE	1,031.7	LBS				0	2.00	2,063		0	2,063	2,063	DIV03	3	1			
	FREIGHT ON FORMWORK	1.0	LS				0	5,895.60	5,896		0	5,896	5,896	DIV03	3	1			
												0	DIV03	3	1				
	BUILD/DISMANTLE/RAD. WALL GANG:	2442.0	SF	293.0	0.120	2.60	6,349	5.25	12,821		0	19,170	21,836	DIV03	3	1			
	CONCRETE SPECIALITIES - TANK											0	DIV03	3	1				
	CONSTRUCTION JOINT PREP	1989.0	SF	95.5	0.048	1.04	2,069	1.50	2,984		0	5,052	5,921	DIV03	3	1			
	MISC BLOCKOUTS	60.0	SF	15.0	0.250	5.42	325	0.75	45		0	370	507	DIV03	3	1			
	PVC WATERSTOP		LF	0.0		#DIV/0!	0		0		0	0	0	DIV03	3	1			
	WATERSTOP FITTINGS		LS				0		0		0	0	0	DIV03	3	1			
	2 X 4 KEYWAY		LF	0.0		#DIV/0!	0		0		0	0	0	DIV03	3	1			
	WALL BULKHEAD W/ REBAR	190.0	SF	144.0	0.758	16.42	3,120	0.85	162		0	3,282	4,592	DIV03	3	1			
	WALL FORM W/DOWELS	21.0	SF	12.0	0.571	12.38	260	0.50	11		0	271	380	DIV03	3	1			
	3/4" CHAMFER	4913.0	LF				0	0.10	491		0	491	491	DIV03	3	1			
	CONCRETE CRACK REPAIR & DUCT T/	1.0	LS	80.0	80.000	1,733.33	1,733		0	2,500.00	2,500	0	4,233	4,961	DIV03	3	1		
520	SHAPE PIPE SUPPORT SADDLES	5.0	EA	5.0	1.000	21.67	108		0		0	108	154	DIV03	3	1			
												0	DIV03	3	1				
	PIPE PENETRATION DETAILS											0	DIV03	3	1				
	DENEFF GROUT SYSTEM	40.0	LF	4.0	0.100	2.17	87	17.35	694		0	781	817	DIV03	3	1			
	DENEFF GROUT TUBE/INJECTION POR	8.0	EA	2.0	0.250	5.42	43	W/ABOVE	0		0	43	62	DIV03	3	1			
	ADEKA KBA 1510 WATERSTOP	40.0	LF	4.4	0.110	2.38	95	4.00	160		0	255	295	DIV03	3	1			
	P-201 ADEKA SEALENT/ADHESIVE	40.0	LF	2.0	0.050	1.08	43	1.50	60		0	103	122	DIV03	3	1			
	STRAP / CLAMP ADEKA TO PIPE & RE	2.0	EA	1.0	0.500	10.83	22	50.00	100		0	122	131	DIV03	3	1			
	SOG DETAILS - TANK											0	DIV03	3	1				
	FOOTING / SOG TEMPLATE	1.0	LS	12.0	12.000	260.00	260	400.00	400		0	660	769	DIV03	3	1			
59	INSTALL/REMOVE #5 REBAR FOR WAT	572.0	LF	28.6	0.050	1.08	620	0.25	143		0	763	1,023	DIV03	3	1			
	VINYLEX RLB9-38 PVC WATERSTOP T/	286.0	LF	35.8	0.125	2.71	775	6.00	1,716		0	2,491	2,816	DIV03	3	1			
	DENEFF GROUT SYSTEM TO WS W/CL	286.0	LF	25.7	0.090	1.95	558	17.35	962		0	5,520	5,754	DIV03	3	1			
	DENEFF GROUT TUBE/INJECTION POR	30.0	EA	7.5	0.250	5.42	163	W/ABOVE	0		0	163	231	DIV03	3	1			
	30 DUR. 1 3/4" TK X 3" WIDE BRG. PAD:	572.0	LF	51.5	0.090	1.95	1,115	68.00	38,896		0	40,011	40,480	DIV03	3	1			
	ADHESIVE FOR ABOVE - PANGOFOL	310.0	SF	6.2	0.020	0.43	134	1.00	310		0	444	501	DIV03	3	1			

Estimate for

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TOTALS		40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619																
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Rebid & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open	
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Orth Total										
	PREP FOR CONTACT CEMENT	310.0	SF	4.7	0.015	0.33	101	0.25	78		0		0		0	178	221	DIV03	3	1					
	1 3/4" BEVELD WOOD SILL PLATES	572.0	LF	25.7	0.045	0.98	558	0.60	343		0		0		0	901	1,135	DIV03	3	1					
	POLYURETHANE FOAM @ SILL PLS & 1/4" X 3" X 3" PLASTIC PADS	572.0	LF	14.3	0.025	0.53	310	2.00	1,144		0		0		0	1,454	1,584	DIV03	3	1					
	SOG PT SWISS S-6 BLKTS	750.0	EA	15.0	0.020	0.43	325	0.25	188		0		0		0	513	649	DIV03	3	1					
	STYROFOAM WEDGES AS REQUIRED	350.0	EA	52.5	0.150	3.25	1,138	W/VSL	0		0		0		0	1,138	1,615	DIV03	3	1					
	DRILL HOLES IN BLKT FOR TENDONS	350.0	EA	14.0	0.040	0.87	303	W/VSL	0		0		0		0	303	431	DIV03	3	1					
	PREP PT BLKT W/LPL BONDING AGENT	350.0	EA	7.0	0.020	0.43	152	0.65	228		0		0		0	379	443	DIV03	3	1					
	GROUT BACK PT SOG BLKT	350.0	EA	87.5	0.250	5.42	1,896	10.00	3,500		0		0		0	5,396	6,192	DIV03	3	1					
	WALL DETAILS																								
	VERTICAL ADEKA KBA 1510 FP WATER	176.0	LF	22.5	0.128	2.77	488	4.00	704		0		0		0	1,192	1,397	DIV03	3	1					
	ADEKA P-201 SEALANT	176.0	LF	9.7	0.055	1.19	210	1.50	264		0		0		0	474	562	DIV03	3	1					
	3/4" X 1/2" BLKT @ KBA 1510 WATERSTOP	176.0	LF	9.2	0.052	1.13	198	0.30	53		0		0		0	251	334	DIV03	3	1					
	DENEFF GROUT SYSTEM	176.0	LF	17.6	0.100	2.17	381	17.35	3,054		0		0		0	3,435	3,595	DIV03	3	1					
	DENEFF GROUT TUBE/INJECTION PORT	15.0	EA	3.8	0.250	5.42	81	W/ABOVE	0		0		0		0	81	115	DIV03	3	1					
	AQUAFIN 2K/M WATERPROOFING MEMB	200.0	SF	20.0	0.100	2.17	433	8.00	1,600		0		0		0	2,033	2,215	DIV03	3	1					
	4 3/4" WIDE AQUAFIN 2 K/M WP MEMB	176.0	LF	17.6	0.100	2.17	381	2.00	352		0		0		0	733	893	DIV03	3	1					
	4" WIDE SEALING TAPE 2000	176.0	LF	15.0	0.085	1.84	324	3.05	537		0		0		0	861	997	DIV03	3	1					
	BOND BREAKER @ EDGE OF SEALING	352.0	LF	7.0	0.020	0.43	153	0.25	88		0		0		0	241	305	DIV03	3	1					
	TOW POST-TENSION BLKTS 10" X 10" 2	48.0	EA	120.0	2.500	54.17	2,600	10.00	480		0		0		0	3,080	4,172	DIV03	3	1					
	PREP PT BLKT W/LPL BONDING AGENT	48.0	EA	4.8	0.100	2.17	104	3.00	144		0		0		0	248	292	DIV03	3	1					
	GROUT TOW PT BLKTS 8" X 5" X 6"	48.0	EA	38.4	0.800	17.33	832	30.00	1,440		0		0		0	2,272	2,621	DIV03	3	1					
	SMOOTH TROWEL TOW	309.0	SF	7.7	0.025	0.54	167		0		0		0		0	167	238	DIV03	3	1					
	3/16" TK X 13" WIDE 40 DUR. NEOP. PAD	310.0	SF	18.6	0.060	1.30	403	36.00	11,160		0		0		0	11,563	11,732	DIV03	3	1					
	NEOPRENE GREASE BETWEEN BRG PADS	310.0	SF	6.2	0.020	0.43	134	18.50	5,735		0		0		0	5,869	5,926	DIV03	3	1					
	ADHESIVE FOR NEOP. PADS	575.0	SF	5.8	0.010	0.22	125	1.50	863		0		0		0	987	1,039	DIV03	3	1					
	1/4" X 1" WIDE X 12" 40 DUR. NEOP STOP	572.0	EA	37.2	0.065	1.41	806	14.50	8,294		0		0		0	9,100	9,438	DIV03	3	1					
	VULCANIZE STRIPS TO 3/16" NEOP PAD	572.0	EA	14.3	0.025	0.54	310	2.50	1,430		0		0		0	1,740	1,870	DIV03	3	1					
	TOW / ELEV. DECK																								
	1/2" X 3" PLYWOOD BOARD NAILER	286.0	LF	22.9	0.080	1.73	496	1.00	286		0		0		0	782	990	DIV03	3	1					
	TAPE @ PLYWOOD BOARD	286.0	LF	7.2	0.025	0.54	155	0.20	57		0		0		0	212	277	DIV03	3	1					
	11/4" X 1/4" BLKT GROOVE	286.0	LF	12.0	0.042	0.91	260	0.40	114		0		0		0	375	484	DIV03	3	1					
	ADEKA KM 3030M WATERSTOP W/SST	286.0	LF	37.2	0.130	2.82	806	20.00	5,720		0		0		0	6,526	6,864	DIV03	3	1					
	ADEKA P-201 SEALANT / ADHESIVE	286.0	LF	14.3	0.050	1.08	310	1.50	429		0		0		0	739	869	DIV03	3	1					
	1/2" TK. X 8" SONNOFLEX F	286.0	SF	20.0	0.070	1.52	434	1.00	286		0		0		0	720	902	DIV03	3	1					
	SONNOFLEX ADHESIVE	286.0	SF	5.7	0.020	0.43	124	0.75	215		0		0		0	338	390	DIV03	3	1					
	3/4" X 3/4" DRIP GROOVE @ DECK OVER	295.0	LF	14.8	0.050	1.08	320	0.30	89		0		0		0	408	542	DIV03	3	1					
	DECK POST-TENSION BLKTS SWISS S-4	90.0	EA	9.9	0.110	2.38	215	W/VSL	0		0		0		0	215	305	DIV03	3	1					
	STYROFOAM WEDGES AS REQUIRED	90.0	EA	5.4	0.060	1.30	117	W/VSL	0		0		0		0	117	166	DIV03	3	1					
	DRILL HOLES IN BLKT FOR TENDONS	90.0	EA	4.5	0.050	1.08	98		0		0		0		0	98	138	DIV03	3	1					
	PREP PT BLKT W/LPL BONDING AGENT	90.0	EA	3.6	0.040	0.87	78	0.50	45		0		0		0	123	156	DIV03	3	1					
	GROUT DECK PT BLKTS	90.0	EA	36.0	0.400	8.67	780	9.00	810		0		0		0	1,590	1,918	DIV03	3	1					
	INT. CURB / COLUMN FTG'S																								
	ROUGHIN/PREP FOR INT. CURBS / COL	1578.0	SF	31.6	0.020	0.43	684	0.25	395		0		0		0	1,078	1,365	DIV03	3	1					
	HATCH DETAILS																								
	ADEKA P-201 1/4" SEALANT	140.0	LF	9.1	0.065	1.41	197	2.00	280		0		0		0	477	560	DIV03	3	1					
	SLEEVES FOR LEVEL SENSORS 1-6" AN	2.0	EA	4.0	2.000	43.33	87	750.00	1,500		0		0		0	1,587	1,623	DIV03	3	1					
	FURNISH FRP ITEMS - TANK	1.0	LS				0	8,500.00	8,500		0		0		0	8,500	8,500	DIV03	3	1					
	FREIGHT ON FRP ITEMS	1.0	LS				0	500.00	500		0		0		0	500	500	DIV03	3	1					
	FURNISH BILCO HATCHES	1.0	LS				0	20,000.00	20,000		0		0		0	20,000	20,000	DIV03	3	1					
	FREIGHT ON HATCHES	1.0	LS				0	900.00	900		0		0		0	900	900	DIV03	3	1					
	ACCESS HATCH																								
	EMBED BILCO TYPE K DOOR 3'X3'	1.0	EA	4.0	4.000	86.67	87	W/BILCO	0		0		0		0	87	123	DIV03	3	1					
	BILCO TYPE D ALUM ROOF SCUTTLE 5	1.0	EA	12.0	12.000	260.00	260	W/BILCO	0		0		0		0	260	369	DIV03	3	1					
	3/8"x4" SS EXP ANCHORS FOR ABOVE	62.0	EA	15.5	0.250	5.42	336	W/BILCO	0		0		0		0	336	477	DIV03	3	1					
	EXTERIOR LADDER S27 X 15'-0" HDG	1.0	EA	12.0	12.000	260.00	260	1,500.00	1,500		0		0		0	1,760	1,869	DIV03	3	1					
	5/8X4" SS ANCHOR BOLTS AT ABOVE	6.0	EA	1.5	0.250	5.42	33	6.50	39		0		0		0	72	85	DIV03	3	1					
	5/8" INSULATING SLEEVES AT ANCHORS	6.0	EA	0.3	0.050	1.08	7	3.50	21		0		0		0	28	30	DIV03	3	1					
	GRAB BARS INSIDE HATCH S27	3.0	EA	4.5	1.500	32.50	98	25.00	75		0		0		0	173	213	DIV03	3	1					
	FRP INTERIOR ACCESS LADDER TO TA	1.0	EA	14.0	14.000	303.33	303	W/FRP	0		0		0		0	303	431	DIV03	3	1					
	5/8X4" SS ANCHOR BOLTS AT ABOVE	10.0	EA	2.5	0.250	5.42	54	6.50	65		0		0		0	119	142	DIV03	3	1					
	5/8" INSULATING SLEEVES AT ANCHORS	10.0	EA	0.5	0.050	1.08	11	3.50	35		0		0		0	46	50	DIV03	3	1					
	DBI SALA LAD-SAF FLEX CABLE FALL	1.0	EA	6.0	6.000	130.00	130	500.00	500		0		0		0	630	685	DIV03	3	1					
	1/2"X2 1/2" NEOPRENE GASKET SHORE	30.0	LF	4.5	0.150	3.25	98	15.00	450		0		0		0	548	588	DIV03	3	1					
	JOINT SEALANT	60.0	LF	4.0	0.067	1.45	87	2.50	150		0		0		0	237	274	DIV03	3	1					
	EQUIPMENT HATCH																								
	BILCO TYPE D ALUM ROOF SCUTTLE 5	1.0	EA	12.0	12.000	260.00	260	W/BILCO	0		0		0		0	260	369	DIV03	3	1					
	3/8"x4" SS EXP ANCHORS FOR ABOVE	62.0	EA	15.5	0.250	5.42	336	W/BILCO	0		0		0		0	336	477	DIV03	3	1					
	1/2"X2 1/2" NEOPRENE GASKET SHORE	30.0	LF	3.0	0.100	2.17	65	15.00	450		0		0		0	515	542	DIV03	3	1					
	JOINT SEALANT	60.0	LF	4.0	0.067	1.45	87	2.50	150		0		0		0										

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open		
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total											
MISCELLANEOUS																										
2 AREAS	EXTERIOR TANK ACCESS LADDER S27	1.0	EA	16.0	16.000	346.67	347	2,500.00	2,500			0		0	2,847	2,992	DIV03	3	1							
	NSF 61 FRP ANGLE 6" X 6" X 1/2" 2EA	42.0	LF	12.0	0.286	6.19	260	35.00	1,470			0		0	1,730	1,839	DIV03	3	1							
	5/8" DIAM 316 SSTL ANCHORS X 21/2" EMI	42.0	EA	16.0	0.381	8.25	347	6.50	273			0		0	620	765	DIV03	3	1							
	5/8X4" SS ANCHOR BOLTS AT ABOVE	8.0	EA	2.0	0.250	5.42	43	6.50	52			0		0	95	114	DIV03	3	1							
	5/8" INSULATING SLEEVES AT ANCHORS	8.0	EA	0.4	0.050	1.08	9	3.50	28			0		0	37	40	DIV03	3	1							
	HANDRAIL GALV STEEL AROUND ACCESS	90.0	LF	80.0	0.889	19.26	1,733	50.00	4,500			0		0	6,233	6,961	DIV03	3	1							
	STAFF GAGE 20" S33	1.0	EA	16.0	16.000	346.67	347	5,000.00	5,000			0		0	5,347	5,492	DIV03	3	1							
	1/2"x5 1/2" SS EXP ANCHORS FOR ABOVE	18.0	EA	5.0	0.275	5.96	107	6.50	117			0		0	224	269	DIV03	3	1							
	DBI SALA LAD-SAF FLEX CABLE FALL	1.0	EA	4.0	4.000	86.67	87	500.00	500			0		0	587	623	DIV03	3	1							
	DAVIT CRANE DBI SALA MODEL 8518387	1.0	EA	8.0	8.000	173.33	173	3,800.00	3,800			0		0	3,973	4,046	DIV03	3	1							
	DAVIT CRANE BASE DBI SALA MODEL 16	1.0	EA	1.0	1.000	21.67	22	1,100.00	1,100			0		0	1,122	1,131	DIV03	3	1							
	DAVIT CRANE 100 SER WINCH DBI SALA	1.0	EA	4.0	4.000	86.67	87	2,700.00	2,700			0		0	2,787	2,823	DIV03	3	1							
	3/4"x6" SS EXP ANCHORS FOR ABOVE	4.0	EA	1.0	0.250	5.42	22	6.50	26			0		0	48	57	DIV03	3	1							
																0	DIV03	3	1							
		CLEAN / WASH DOWN RESERVOIR	1.0	EA	60.0	60.000	1,300.00	1,300	750.00	750		0	1,500.00	1,500		3,550	4,096	DIV03	3	1						
		WATER STOR. TANK CLEANING & DISI	1.0	EA	24.0	24.000	520.00	520		0	4,000.00	4,000		0		4,520	4,738	DIV03	3	1						
		WATER-TIGHTNESS TESTING	1.0	EA	32.0	32.000	693.33	693	1,500.00	1,500			0		0	2,193	2,485	DIV03	3	1						
																0	DIV03	3	1							
		CONCRETE TESTING	901.0	CY				0		0		0		0	8.88	8,000	8,000	8,000	DIV03	3	1					
																0	DIV03	3	1							
		EVAPORATION RETARDER - FOGGING	14202.0	SF	42.6	0.003	0.07	923	0.10	1,420		0	0.35	5,000		0	7,343	7,731	DIV03	3	1					
																0	DIV03	3	1							
		FINE GRADE	7887.0	SF	110.4	0.014	0.30	2,392		0		0		0		0	2,392	3,397	DIV03	3	1					
																0	DIV03	3	1							
	FINISH CONCRETE	1535.0	SF	21.5	0.014	0.30	466		0		0		0		0	466	661	DIV03	3	1						
															0	DIV03	3	1								
	FLOAT FINISH TANK SOG	7262.0	SF	108.9	0.015	0.33	2,360		0		1.00	7,262		0	9,622	10,613	DIV03	3	1							
	FLOAT FINISH TANK ELEV. DECK	6940.0	SF	92.0	0.013	0.29	1,993		0	1.00	6,940			0	8,933	9,771	DIV03	3	1							
	BOTTOM OF DECK FINISH (FINS)	6362.0	SF	40.0	0.006	0.14	867	0.05	318			0		0	1,185	1,549	DIV03	3	1							
	CURE CONCRETE	45,215.0	SF	135.6	0.003	0.07	2,939	0.08	3,617			0		0	6,556	7,791	DIV03	3	1							
	POINT AND PATCH	16921.0	SF	236.9	0.014	0.30	5,133	0.15	2,538			0		0	7,671	9,827	DIV03	3	1							
	RUB CONCRETE	8460.5	SF	355.3	0.042	0.91	7,699	0.30	2,538			0		0	10,237	13,471	DIV03	3	1							
RAW WATER METER VAULT																										
	SOG @ 147.00 A/S200 16"	39.0	CY	20.3	0.520	10.14	395		0		0		0		0	395	562	DIV03	3	2						
	WALLS TO 156.67 @ ABOVE 10'	36.9	CY	24.7	0.670	13.07	482		0		0		0		0	482	685	DIV03	3	2						
	ELEV. DECK @ 158.00 16"	31.3	CY	22.5	0.720	14.04	439		0		0		0		0	439	624	DIV03	3	2						
	EQ. PAD @ ABOVE 1EA	0.4	CY	1.0	2.500	48.75	20		0		0		0		0	20	28	DIV03	3	2						
																0	DIV03	3	2							
ADVANCED TREATMENT STRUCTURE																										
	FTG. @ A/S300 18"TK. X 6'-0" WIDE	258.6	CY	129.3	0.500	9.75	2,521		0		0		0		2,521	3,580	DIV03	3	2							
	FDN WALLS @ 1'-8" TK. X 4'-0" TALL	161.2	CY	104.5	0.648	12.64	2,037		0		0		0		2,037	2,892	DIV03	3	2							
	SOG @ GRADE FOR STRUCTURE 8"	222.6	CY	115.8	0.520	10.14	2,257		0		0		0		2,257	3,205	DIV03	3	2							
	SOG @ GRADE FOR STRUCTURE 12"	203.4	CY	101.7	0.500	9.75	1,983		0		0		0		1,983	2,816	DIV03	3	2							
	EQ. PADS @ PLAN/S300 3EA	24.5	CY	24.0	0.980	19.10	468		0		0		0		468	665	DIV03	3	2							
	EQ. PADS @ PLAN/S300 2EA	1.5	CY	2.3	1.500	29.25	44		0		0		0		44	62	DIV03	3	2							
	CONTAINMENT WALL @ ABOVE 3'	6.2	CY	4.7	0.750	14.63	91		0		0		0		91	129	DIV03	3	2							
	TWIN T TOPPING CONCRETE - 3"	176.0	CY	198.0	1.125	21.94	3,861		0		0		0		3,861	5,483	DIV03	3	2							
	EQ. PADS @ PLAN/A300 13EA	5.4	CY	12.0	2.222	43.33	234		0		0		0		234	332	DIV03	3	2							
	GAC SKID EQUIPMENT PADS 4EA	36.0	CY	24.0	0.667	13.00	468		0		0		0		468	665	DIV03	3	2							
	MCC/ELEC. EQ. PADS	2.0	CY	2.0	1.000	19.50	39		0		0		0		39	55	DIV03	3	2							
															0	DIV03	3	2								
SOLIDS STORAGE TANKS																										
	SOG @ 154.65 @ A/S400 18"	110.3	CY	52.4	0.475	9.26	1,022		0		0		0		1,022	1,451	DIV03	3	2							
	WALLS TO 173.65 @ ABOVE 19'	222.8	CY	154.2	0.692	13.49	3,006		0		0		0		3,006	4,269	DIV03	3	2							
	ELEV. DECK @ 174.65 @ ABOVE 12"	68.7	CY	48.1	0.700	13.65	938		0		0		0		938	1,332	DIV03	3	2							
	ELEV. BEAMS @ ABOVE	12.4	CY	8.7	0.700	13.65	169		0		0		0		169	240	DIV03	3	2							
															0	DIV03	3	2								
SITE DRAWINGS																										
	GENERATOR SOG @ E002		CY		EXISTING		0		0		0		0		0	0	0	DIV03	3	2						
	ELEC. EQ. SOGS @ ABOVE 3EA	9.0	CY	6.0	0.667	13.00	117		0		0		0		117	166	DIV03	3	2							
	LOX EQUIPMENT SOG (24' X 24' X 24"TK.)	44.8	CY	24.0	0.536	10.45	468		0		0		0		468	665	DIV03	3	2							
																0	DIV03	3	2							
EXISTING BUILDING - FILTER AREA																										
	ADD TO TOP OF FILTER GULLET WALL	4.0	CY	16.0	4.000	78.00	312		0		0		0		312	443	DIV03	3	2							
															0	DIV03	3	2								
															0	DIV03	3	2								
	SUPPLY CONCRETE STRUCTURAL 4500	1677.0	CY				0	135.00	226,395		0		0		226,395	226,395	DIV03	3	2							
	SUPPLY CONCRETE - TWIN T TOPPING 3/8	176.0	CY				0	140.00	24,640		0		0		24,640	24,640	DIV03	3	2							
	SHORT LOAD CHARGES	40.0	LDS				0	180.00	7,200		0		0		7,200	7,200	DIV03	3	2							
	FUEL CHARGES	175.0	LDS				0	10.00	1,750		0		0		1,750	1,750	DIV03	3	2							
	WINTER CONCRETE CHARGES	1677.0	CY				0	3.50	5,870		0		0		5,870	5,870	DIV03	3	2							
	ESCALATION CHARGE	1677.0	CY				0	8.00	13,416		0		0		13,416	13,416	DIV03	3	2							
															0	DIV03	3	2								
	PUMP CONCRETE	1677.0	CY				0		0		0		0	18.00	30,186	30,186	30,186	DIV03	3	2						
															0	DIV03	3	2								
1133.5	FURNISH/INSTALL REBAR 250 #CY - SLAE	141.7	TN				0	1,10																		

21,497,619

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Estimate for

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TOTALS				40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619														
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor Unit	Labor Total	Matl Unit	Matl Total	Subcontract Sub Unit	Sub Total	Equipment Equip Unit	Equip Total	Other Orth Unit	Oth Total	Total Cost	Burden & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open	
	NEOP. BEARING PADS	118.0	EA	59.0	0.500	10.83	1,278			W/ABOVE	0		0		0	1,278	1,815	DIV03	3	2					
	SSTL TWIN T CONNECTIONS	1.0	LS				0		0	W/ABOVE	0		0		0	0	0	DIV03	3	2					
	3/4" DIAM X 8" SSTL ADH. ANCHORS	100.0	EA	50.0	0.500	10.83	1,083			W/ABOVE	0		0		0	1,083	1,538	DIV03	3	2					
	SSTL 6 X 4 X 3/8" X 4" CONN. ANGLE DT-2	100.0	EA	20.0	0.200	4.33	433			W/ABOVE	0		0		0	433	615	DIV03	3	2					
	SSTL TWIN T CONNECTIONS	1.0	LS				0		0	25,000.00	25,000		0		0	25,000	25,000	DIV03	3	2					
	CAULK TWIN T'S	1775.0	LF				0		0	6.50	11,538		0		0	11,538	11,538	DIV03	3	2					
	FINE GRADE	22312.0	SF	267.7	0.012	0.26	5,801		0		0		0		0	5,801	8,238	DIV03	3	2					
	FINISH CONCRETE	42740.0	SF	598.4	0.014	0.30	12,964		0		0		0		0	12,964	18,410	DIV03	3	2					
	CURE CONCRETE	65878.0	SF	197.6	0.003	0.07	4,282	0.08	5,270		0		0		0	9,552	11,351	DIV03	3	2					
	POINT AND PATCH	16568.0	SF	232.0	0.014	0.30	5,026	0.15	2,485		0		0		0	7,511	9,622	DIV03	3	2					
	RUB CONCRETE	8284.0	SF	347.9	0.042	0.91	7,538	0.30	2,485		0		0		0	10,024	13,190	DIV03	3	2					
	CIVIL / SITE WORK															0	DIV03	3	2						
	CURB & GUTTER	1168.0	LF				0		0	30.00	35,040		0		0	35,040	35,040	DIV03	3	2					
	VALLEY PAN - 8" TK.	1388.0	SF				0		0	10.00	13,880		0		0	13,880	13,880	DIV03	3	2					
	CONCRETE SIDEWALKS & STOOPS	64.0	SF				0		0	8.00	512		0		0	512	512	DIV03	3	2					
	CONCRETE PAVING - 8" TK.	11240.0	SF				0		0	10.00	112,400		0		0	112,400	112,400	DIV03	3	2					
	CONCRETE TESTING	1,677.0	CY				0		0		0		0	8.94	15,000	15,000	15,000	DIV03	3	2					
	MISC SUPT PAD ALLOWANCE	20.0	CY	120.0	6.000	130.00	2,600	250.00	5,000	125.00	2,500		0	50.00	1,000	11,100	12,192	DIV03	3	2					
	Diameter & Height minimal change to Bates Tank						0		0		0		0		0	0	0	DIV03	3	2					
	Aluminum stairs going up and FRP stairs go	1.0	ls				0		0		0		0	10,000.00	10,000	10,000	10,000	DIV03	3	2					
	Confirm use of ozone resistance waterstop	1.0	ls				0		0		0		0	7,500.00	7,500	7,500	7,500	DIV03	3	2					
	Use EPDM for Bearing Pad. Garney to talk	1.0	ls				0		0		0		0	14,000.00	14,000	14,000	14,000	DIV03	3	2					
	Use 30" manways inside of tank. Garney to	1.0	ls				0		0		0		0	12,000.00	12,000	12,000	12,000	DIV03	3	2					
	Tank mixing system (static). BMCd to provide Garney quote to validate.						0		0		0		0		0	0	0	DIV03	3	2					
	Include 12" tank drain line tank to stormwat	1.0	ls				0		0		0		0	45,000.00	45,000	45,000	45,000	DIV03	3	2					
	Include sample line that ties back to lab	1.0	ls				0		0		0		0	35,000.00	35,000	35,000	35,000	DIV03	3	2					
	Tank to be stained on vertical surface and d	1.0	ls				0		0		0		0	38,500.00	38,500	38,500	38,500	DIV03	3	2					
																	0	DIV03							
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Estimate for

TOTALS

40,174

897,285

10,757,403

5,294,206

2,874,436

1,297,429

21,120,760

21,497,619

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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burdens & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
s301	anchor bolts	32.0 ea		16.0	0.500	11.00	352	w/misc meta			0		0		0	352	500	DIV05	5	2				
	grout pad	8.0 ea		16.0	2.000	44.00	352	25.00	200		0		0		0	552	700	DIV05	5	2				
	struc bracing w/ bolts - alum	120.0 lf		15.0	0.125	2.75	330	w/misc meta			0		0		0	330	469	DIV05	5	2				
	handrail 2 rail stair mnt - alum	120.0 lf		78.0	0.650	14.30	1,716	w/handrail			0		0		0	1,716	2,437	DIV05	5	2				
	roof hatch 9-0x2-6 w/ curb	1.0 ea		8.0	8.000	176.00	176	w/roof hatch			0		0		0	176	250	DIV05	5	2				
	safety handrail system @ above	1.0 ls		16.0	16.000	352.00	352	1,500.00	1,500		0		0		0	1,852	2,000	DIV05	5	2				
	lintel - sngl door	42.0 lf		14.7	0.350	7.70	323	w/misc meta			0		0		0	323	459	DIV05	5	2				
	lintel - oh door	58.0 lf		20.3	0.350	7.70	447	w/misc meta			0		0		0	447	634	DIV05	5	2				
	oh door jamb angle	112.0 lf		39.2	0.350	7.70	862	w/misc meta			0		0		0	862	1,225	DIV05	5	2				
	oh door sill angle	52.0 lf		13.0	0.250	5.50	286	w/misc meta			0		0		0	286	406	DIV05	5	2				
s008	twin-tee bearing pl	1.0 ls		0.0	w/pc dt	0.00	0	w/pc dt			0		0		0	0	0	DIV05	5	2				
	twin-tee embed pl	1.0 ls		0.0	w/pc dt	0.00	0	w/pc dt			0		0		0	0	0	DIV05	5	2				
	twin-tee splice pl	1.0 ls		0.0	w/pc dt	0.00	0	w/pc dt			0		0		0	0	0	DIV05	5	2				
dt4	closure angle L4x3x1/4 - 304sstl	332.0 lf		99.6	0.300	6.60	2,191	w/misc meta			0		0		0	2,191	3,112	DIV05	5	2				
dt5	closure angle L7x4x3/8x4 - 304sstl	20.0 ea		20.0	1.00	22.00	440	w/misc meta			0		0		0	440	625	DIV05	5	2				
dt10	bent pl 1/4" center - 304sstl	60.0 lf		24.0	0.40	8.80	528	w/misc meta			0		0		0	528	750	DIV05	5	2				
dt11	bent pl 1/4" offset - 304sstl	50.0 lf		20.0	0.40	8.80	440	w/misc meta			0		0		0	440	625	DIV05	5	2				
Q-017	2" neoprene joint seal	281.0 lf		16.9	0.060	1.32	371	3.00	843		0		0		0	1,214	1,370	DIV05	5	2				
	welding @ above	160.0 lf					0			50.00	8,000				0	8,000	8,000	DIV05	5	2				
	pre-fab trench drain 12"	244.0 lf		305.0	1.250	27.50	6,710	w/trench dra			0		0		0	6,710	9,528	DIV05	5	2				
Solids Storage Tanks																								
s400	stair stringer - alum	52.0 lf		18.2	0.350	7.70	400	w/misc meta			0		0		0	400	569	DIV05	5	2				
	stair landing stringer - alum	26.0 lf		9.1	0.350	7.70	200	w/misc meta			0		0		0	200	284	DIV05	5	2				
	tread grating 3" - alum	26.0 ea		26.0	1.000	22.00	572	w/misc meta			0		0		0	572	812	DIV05	5	2				
	grating - alum	20.0 sf		3.0	0.150	3.30	66	w/misc meta			0		0		0	66	94	DIV05	5	2				
	struc landing brace w/ bolts	4.0 ea		0.5	0.125	2.75	11	w/misc meta			0		0		0	11	16	DIV05	5	2				
	anchor bolts	16.0 ea		8.0	0.500	11.00	176	w/misc meta			0		0		0	176	250	DIV05	5	2				
	struc bracing w/ bolts - alum	16.0 lf		2.0	0.125	2.75	44	w/misc meta			0		0		0	44	62	DIV05	5	2				
	handrail 2 rail stair mnt - alum	65.0 lf		42.3	0.650	14.30	930	w/handrail			0		0		0	930	1,320	DIV05	5	2				
	handrail 2 rail conc side mnt w/kp - alum	177.0 lf		115.1	0.650	14.30	2,531	w/handrail			0		0		0	2,531	3,594	DIV05	5	2				
	access hatch 42"x42" - alum	2.0 ea		10.0	5.000	110.00	220	w/hatch			0		0		0	220	312	DIV05	5	2				
Raw Water Meter Vault																								
s200	access hatch 30"x30" - alum	1.0 ea		4.0	4.000	88.00	88	w/hatch			0		0		0	88	125	DIV05	5	2				
	access hatch 36"x36" - alum	1.0 ea		4.0	4.000	88.00	88	w/hatch			0		0		0	88	125	DIV05	5	2				
	access hatch 42"x42" - alum	2.0 ea		10.0	5.000	110.00	220	w/hatch			0		0		0	220	312	DIV05	5	2				
	access hatch dbl dr 84"x48" - alum	1.0 ea		10.0	10.000	220.00	220	w/hatch			0		0		0	220	312	DIV05	5	2				
	ladder 11' - alum	1.0 ea		12.0	12.000	264.00	264	w/misc meta			0		0		0	264	375	DIV05	5	2				
	ladder-up safety post - alum	1.0 ea		1.0	1.000	22.00	22	250.00	250		0		0		0	272	281	DIV05	5	2				
																0	DIV05							
	Add screen walls for building HVAC units	1.0 ea					0		0		0		0	10,000.00	10,000	10,000	10,000	DIV05	5	2				
DIVISION 6 - WOOD & PLASTICS																								
SPEC 061000 ROUGH CARPENTRY																								
SPEC 064023 INTERIOR ARCHITECTURAL WOODWORK																								
SPEC 067413 FIBERGLASS REINFORCED GRATINGS																								
BASE BID																								
s300	pt 2x8 nailer	1,720.0 bf		172.0	0.100	2.20	3,784	1.20	2,064		0		0		0	5,848	7,437	DIV06	6	2				
	exterior plywood @ nailers	1,848.0 sf		166.3	0.090	1.98	3,659	1.00	1,848		0		0		0	5,507	7,044	DIV06	6	2				
	anchor bolt	308.0 ea		102.6	0.333	7.33	2,256	5.00	1,540		0		0		0	3,796	4,744	DIV06	6	2				
	nails & hardware	30.0 lb					0	5.00	150		0		0		0	150	150	DIV06	6	2				
	frp crossover ladder @ chem cont. wall	1.0 ea		16.0	16.000	352.00	352	5,000.00	5,000		0		0		0	5,352	5,500	DIV06	6	2				
	frp ladder 20'	2.0 ea		24.0	12.000	264.00	528	4,000.00	8,000		0		0		0	8,528	8,750	DIV06	6	2				
	safety rail fall protection system - sssl	2.0 ea		8.0	4.000	88.00	176	1,500.00	3,000		0		0		0	3,176	3,250	DIV06	6	2				
	ladder-up safety post - sssl	2.0 ea		4.0	2.000	44.00	88	500.00	1,000		0		0		0	1,088	1,125	DIV06	6	2				
																0	DIV06							
																0	DIV07							
DIVISION 7 - THERMAL & MOISTURE PROT.																								
SPEC 071113 BITUMINOUS DAMPPROOFING																								
SPEC 074213 FORMED METAL WALL PANELS																								
SPEC 075323 EPDM ROOFING																								
SPEC 078413 PENETRATION FIRESTOPPING																								
SPEC 078443 JOINT FIRESTOPPING																								
SPEC 079200 JOINT SEALANTS																								
BASE BID																								
s200	dampproofing @ rw meter vault	1,370.0 sf					0		0	2.50	3,425		0		0	3,425	3,425	DIV07	7	2				
Q-027	dampproofing @ masonry cavity wall	17,374.0 sf					0		0	2.50	43,435		0		0	43,435	43,435	DIV07	7	2				
a302	epdm roofing - fully adhered white	14,920.0 sf					0		0	20.00	298,400		0		0	298,400	298,400	DIV07	7	2				
	5" rigid insulation - tapered	14,920.0 sf					0		0	w/above	0		0		0	0	0	DIV07	7	2				
	vapor retarder	14,920.0 sf					0		0	w/above	0		0		0	0	0	DIV07	7	2				
	roof crickets	1.0 ls					0		0	w/above	0		0		0	0	0	DIV07	7	2				
	pre-fin metal coping 18" w/ drip edge	616.0 lf					0		0	w/above	0		0		0	0	0	DIV07	7	2				
	pre-fin metal scupper w/ flashing	5.0 ea					0		0	w/above	0		0		0	0	0	DIV07	7	2				
	pre-fin metal conductor head	5.0 ea					0		0	w/above	0		0		0	0	0	DIV07	7	2				
	pre-fin metal downspout	142.0 lf					0		0	w/above	0		0		0	0	0	DIV07	7	2				
	concrete splash block	5.0 ea		5.0	1.000	22.00	110	100.00	500		0		0		0	610	656	DIV07	7	2				
	fire stopping	176.0 lf					0		0	10.00	1,760		0		0	1,760	1,760	DIV07	7	2				
	fire sealants	352.0 lf					0		0	25.00	8,800		0		0	8,800	8,800	DIV07	7	2				

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Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
Yard / AG	SUPPLY - PROCESS VALVES	1.0	LS	0.0			0	52500.00	52,500		0		0		0	52,500	52,500 YP		33	2				52500
Yard	SUPPLY - PRECAST MANHOLES & VAL	1.0	LS	0.0			0		0				0		0	0	0 YP		33	2				0
Yard	SUPPLY - CATHODIC PROTECTION	1.0	LS	120.0	120.000	3000.00	3,000	15000.00	15,000	5000.00	5,000		0		0	23,000	24,260 YP		33	2				23000
	30" RW FEED FROM EXISTING YARD CONNECTION TO OZONE REACTOR IN VAULT																0 YP		33	2				0
	SHEET D201, 1003																0 YP		33	2				0
	EQUIP OZONE FLASH MIX REACTOR 30"	1.0	EA	5.6	5.600	140.00	140	W/EQUIP	0		0		0		0	140	199 YP		33	2				140
	INST MAG FLOWMETER 30" FLG TAG: 1	1.0	EA	5.0	5.000	125.00	125	W/I&C	0		0		0		0	125	178 YP		33	2				125
	DIP CML 30" X 04'-0" SPOOL - FLG X FL	1.0	EA	5.1	5.100	127.51	128	W/MISC PP	0		0		0		0	128	181 YP		33	2				128
	DIP CML 30" X 6" FLG REDUCING TEE	1.0	EA	7.5	7.500	187.50	188	W/MISC PP	0		0		0		0	188	266 YP		33	2				188
	DIP CML 30" X 09'-0" SPOOL - FLG X PE	1.0	EA	4.3	4.284	107.10	107	W/MISC PP	0		0		0		0	107	152 YP		33	2				107
	SUPP-HDG 30" X 3'-0" (CL) ADJ FLR W/ 1	3.0	EA	18.0	6.000	150.00	450	W/MISC PP	0		0		0		0	450	639 YP		33	2				450
	FLG ACC-STAINLESS STEEL 30"	2.0	EA	0.0			0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	FLG ACC-ABOVE GRADE 30"	3.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	WEDGE ANCHOR 316 SS 3/4" DIA. X 8-1	12.0	EA	3.0	0.250	6.25	75	26.21	314		0		0		0	389	421 YP		33	2				389
	GROUT PIPE SUPPORT BASE	3.0	EA	3.0	1.000	25.00	75	15.00	45		0		0		0	120	152 YP		33	2				120
	SLEEVE - HDG 36" X 1'-0" LONG W/SEE	1.0	EA	9.5	9.500	237.50	238	W/MISC PP	0		0		0		0	238	337 YP		33	2				238
	LINK SEAL LS-400-SS-29 LINKS / SEAL	58.0	EA	4.4	0.075	1.88	109	W/MISC PP	0		0		0		0	109	154 YP		33	2				109
	VLV BFV 30" MJ W/NUT OP	2.0	EA	16.8	8.400	210.00	420	W/VALVES	0		0		0		0	420	596 YP		33	2				420
	VLV BOX 5-1/4" X 3' SLIP TYPE W/LID	2.0	EA	8.0	4.000	100.00	200	W/VALVES	0		0		0		0	200	284 YP		33	2				200
	CONCRETE PAD AT BURIED VALVES	2.0	EA	8.0	4.000	100.00	200	50.00	100		0		0		0	300	384 YP		33	2				300
	TIE INTO EXISTING 30" RW (PVC)	1.0	EA	48.0	48.000	1200.00	1,200		0		0	960.00	960	268.80	269	2,429	2,933 YP		33	2				2429
	DIP CML 30" MJ SOLID SLEEVE (2 FOR	3.0	EA	9.0	3.000	75.00	225	W/MISC PP	0		0		0		0	225	320 YP		33	2				225
	DIP CML 30" MJ TEE	1.0	EA	4.5	4.500	112.50	113	W/MISC PP	0		0		0		0	113	160 YP		33	2				113
	PVC C905 30" MEGA LUG RESTRAINT V	13.0	EA	42.9	3.300	82.50	1,073	W/MISC PP	0		0		0		0	1,073	1,523 YP		33	2				1073
	PVC C905 30" PIPE	90.0	LF	29.7	0.330	8.25	743	W/MISC PP	0		0		0		0	743	1,054 YP		33	2				743
	PVC C905 30" BELL RESTRAINT HARNE	5.0	EA	13.5	2.700	67.50	338	W/MISC PP	0		0		0		0	338	479 YP		33	2				338
	MARKING TAPE DETECTABLE	100.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
#01	EXCV,LAY,BKFL PIPE (30" X 5' X 10')(8	90.0	LF	52.5	0.584	14.59	1,313		0		0	15.60	1,404	2.94	264	2,981	3,533 YP		33	2				2981
#01	PIPE BEDDING	116.2	TONS	0.0			0	20.00	2,325		0		0		0	2,325	2,325 YP		33	2				2325
#01	HAUL EXCESS	88.0	CY	4.4	0.050	1.25	110		0	4.25	374	1.79	157	0.50	44	685	732 YP		33	2				685
	30" RW TANK FEED DOWNSTREAM OF FLASH REACTOR																0 YP		33	2				
	SHEET D101, D102, 1003																0 YP		33	2				
	VLV BFV 30" FLG W/HW OP (SSTL, OZC	1.0	EA	6.0	6.000	150.00	150	25000.00	25,000		0		0		0	25,150	25,213 YP		33	2				25150
	FLG ACC-STAINLESS STEEL 30"	1.0	EA	0.0			0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	FABD SSTL 30" X 8'-0" PIPE SPOOL	1.0	EA	4.0	4.000	100.00	100	W/MISC PP	0		0		0		0	100	142 YP		33	2				100
	FABD SSTL 30" BOLTED SLEEVE-TYPS	4.0	EA	18.0	4.500	112.50	450	W/MISC PP	0		0		0		0	450	639 YP		33	2				450
	HARNES ROD ASSEMBLY SSTL 30" (A	4.0	EA	24.0	6.000	150.00	600	W/MISC PP	0		0		0		0	600	852 YP		33	2				600
	FABD SSTL SCH10 316L 30" PIPE	130.0	LF	46.6	0.359	8.97	1,166	W/MISC PP	0		0		0		0	1,166	1,656 YP		33	2				1166
	FABD SSTL SCH10 316L 30" 90 ELL	2.0	EA	6.0	3.000	75.00	150	7500.00	15,000		0		0		0	15,150	15,213 YP		33	1				15150
	WELD SSTL S10 30"	8.0	EA	0.0			0		0	706.50	5,652		0	29.00	232	5,884	5,884 YP		33	2				5884
	PICKLE/PASSIFY 30" SSTL	130.0	LF	26.0	0.200	5.00	650	3.00	390		0		0		0	1,040	1,313 YP		33	2				1040
	CRIB & PREP CONC ENCASED PIPE 30"	30.0	LF	13.5	0.450	11.25	338	9.90	297		0		0		0	635	776 YP		33	1				635
	FORM 30" ENCASEMENT UNDERSLAB	320.0	SF					W/DIV.3	0		0		0		0	0	0 YP		33	2				0
	FORM 30" ENCASEMENT UNDERSLAB	8.0	CY					W/DIV.3	0		0		0		0	0	0 YP		33	2				0
#02	EXCV,LAY,BKFL PIPE (30" X 5' X 10')(8	130.0	LF	64.5	0.496	12.40	1,612		0		0	14.88	1,934	2.50	324	3,871	4,548 YP		33	2				3871
#02	PIPE BEDDING	167.9	TONS	0.0			0	20.00	3,358		0		0		0	3,358	3,358 YP		33	2				3358
#02	HAUL EXCESS	127.1	CY	6.4	0.050	1.25	159		0	4.25	540	1.79	227	0.50	64	990	1,057 YP		33	2				990
	30" RW FROM RW BLENDING TANK THRU VAULT ON TO EXISTING RW TIE-IN POINT																0 YP		33	2				
	SHEET D101, D102, 1003																0 YP		33	2				
	VLV BFV 24" FLG W/HW OP	1.0	EA	4.8	4.800	120.00	120	W/VALVES	0		0		0		0	120	170 YP		33	2				120
	INST MAG FLOWMETER 24" FLG	1.0	EA	5.0	5.000	125.00	125	W/I&C	0		0		0		0	125	178 YP		33	2				125
	FLG ACC-ABOVE GRADE 24"	5.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	FLG ACC-ABOVE GRADE 30"	4.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	SUPP-HDG 24" X 3'-0" (CL) ADJ FLR W/ 1	3.0	EA	14.4	4.800	120.00	360	W/MISC PP	0		0		0		0	360	511 YP		33	2				360
	SUPP-HDG 30" X 3'-0" (CL) ADJ FLR W/ 1	2.0	EA	12.0	6.000	150.00	300	W/MISC PP	0		0		0		0	300	426 YP		33	2				300
	SLEEVE - HDG 36" X 1'-0" LONG W/SEE	2.0	EA	19.0	9.500	237.50	475	W/MISC PP	0		0		0		0	475	675 YP		33	2				475
	LINK SEAL LS-400-SS-29 LINKS / SEAL	116.0	EA	8.7	0.075	1.88	218	W/MISC PP	0		0		0		0	218	309 YP		33	2				218
	DIP CML 24" X 07'-0" SPOOL - FLG X FL	1.0	EA	4.1	4.080	102.01	102																	

Estimate for

TOTALS

40,174

897,285

10,757,403

5,294,206

2,874,436

1,297,429

21,120,760

21,497,619

0

Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burdens & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
	DIP CML 30" MJ TEE	1.0	EA	4.5	4.500	112.50	113	W/MISC PP	0		0		0		0	113	160	YP	33	2				113
	DIP CML 30" MJ 90 BEND	2.0	EA	6.0	3.000	75.00	150	3000.00	6,000		0		0		0	6,150	6,213	YP	33	1				6150
	PVC C905 30" MEGA LUG RESTRAINT V	12.0	EA	39.6	3.300	82.50	990	W/MISC PP	0		0		0		0	990	1,406	YP	33	2				990
	PVC C905 30" PIPE	210.0	LF	69.3	0.330	8.25	1,733	W/MISC PP	0		0		0		0	1,733	2,460	YP	33	2				1733
	PVC C905 30" BELL RESTRAINT HARNE	12.0	EA	32.4	2.700	67.50	810	W/MISC PP	0		0		0		0	810	1,150	YP	33	2				810
	CRIB & PREP CONC ENCASED PIPE 30"	30.0	LF	13.5	0.450	11.25	338	9.90	297		0		0		0	635	776	YP	33	1				635
	FORM 30" ENCASEMENT UNDERSLAB	320.0	SF					W/DIV.3	0		0		0		0	0	0	YP	33	2				0
	FORM 30" ENCASEMENT UNDERSLAB	8.0	CY					W/DIV.3	0		0		0		0	0	0	YP	33	2				0
	MARKING TAPE DETECTABLE	250.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0	YP	33	2				0
#03	EXCV,LAY,BKFL PIPE (30" X 5 ' X 10')(8)	240.0	LF	110.2	0.459	11.48	2,754		0		0	12.22	2,933	2.31	554	6,242	7,398	YP	33	2				6242
#03	PIPE BEDDING	310.0	TONS	0.0			0	20.00	6,199		0		0		0	6,199	6,199	YP	33	2				6199
#03	HAUL EXCESS	234.7	CY	11.7	0.050	1.25	293		0	4.25	997	1.79	420	0.50	117	1,828	1,951	YP	33	2				1828
	24" ADVANCED WATER TREATMENT FEED FROM EXISTING TREATMENT FACILITY																							
	SHEET D101, D102, 1003																							
	TIE INTO EXISTING 24" FEED PIPING	1.0	EA	24.0	24.000	600.00	600		0		0		0		0	600	852	YP	33	2				600
	PVC C905 24" PIPE	460.0	LF	110.4	0.240	6.00	2,760	W/MISC PP	0		0		0		0	2,760	3,919	YP	33	2				2760
	PVC C905 24" BELL RESTRAINT HARNE	22.0	EA	52.8	2.400	60.00	1,320	W/MISC PP	0		0		0		0	1,320	1,874	YP	33	2				1320
	DIP CML 24" MJ 90 BEND	3.0	EA	7.2	2.400	60.00	180	W/MISC PP	0		0		0		0	180	256	YP	33	2				180
	DIP CML 24" MJ 45 BEND	4.0	EA	9.6	2.400	60.00	240	W/MISC PP	0		0		0		0	240	341	YP	33	2				240
	PVC C905 24" MEGA LUG RESTRAINT V	20.0	EA	52.8	2.640	66.00	1,320	W/MISC PP	0		0		0		0	1,320	1,874	YP	33	2				1320
	PROTECT EXISTING UTILITIES	5.0	EA	15.0	3.000	75.00	375	150.00	750		0		0		0	1,125	1,283	YP	33	2				1125
	HAND EXCAVATE AT EXISTING UTILIT	14.0	CY	32.9	2.350	58.75	823		0		0		0		0	823	1,168	YP	33	2				823
	SLURRY FILL AT NEW/EXISTING INTE	15.0	CY	24.0	1.600	40.00	600	125.00	1,875		0	42.67	640	11.95	179	3,294	3,546	YP	33	2				3294
	MARKING TAPE DETECTABLE	500.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0	YP	33	2				0
#04	EXCV,LAY,BKFL PIPE (24" X 4 ' X 10')(7)	460.0	LF	197.1	0.429	10.71	4,928		0		0	11.40	5,244	2.46	1,133	11,306	13,375	YP	33	2				11306
#04	PIPE BEDDING	377.4	TONS	0.0			0	20.00	7,549		0		0		0	7,549	7,549	YP	33	2				7549
#04	HAUL EXCESS	286.2	CY	14.3	0.050	1.25	358		0	4.25	1,216	1.79	512	0.50	143	2,229	2,379	YP	33	2				2229
	24" FROM ADVANCED WATER TREATMENT FACILITY TO CLEARWELL																							
	SHEET D101, D102, 1003																							
	TIE INTO EXISTING 24" FEED PIPING	1.0	EA	24.0	24.000	600.00	600		0		0		0		0	600	852	YP	33	2				600
	PVC C905 24" PIPE	420.0	LF	100.8	0.240	6.00	2,520	W/MISC PP	0		0		0		0	2,520	3,578	YP	33	2				2520
	PVC C905 24" BELL RESTRAINT HARNE	20.0	EA	48.0	2.400	60.00	1,200	W/MISC PP	0		0		0		0	1,200	1,704	YP	33	2				1200
	DIP CML 24" MJ 90 BEND	3.0	EA	7.2	2.400	60.00	180	W/MISC PP	0		0		0		0	180	256	YP	33	2				180
	DIP CML 24" MJ 45 BEND	4.0	EA	9.6	2.400	60.00	240	W/MISC PP	0		0		0		0	240	341	YP	33	2				240
	PVC C905 24" MEGA LUG RESTRAINT V	20.0	EA	52.8	2.640	66.00	1,320	W/MISC PP	0		0		0		0	1,320	1,874	YP	33	2				1320
	PROTECT EXISTING UTILITIES	5.0	EA	15.0	3.000	75.00	375	150.00	750		0		0		0	1,125	1,283	YP	33	2				1125
	HAND EXCAVATE AT EXISTING UTILIT	14.0	CY	32.9	2.350	58.75	823		0		0		0		0	823	1,168	YP	33	2				823
	SLURRY FILL AT NEW/EXISTING INTE	15.0	CY	24.0	1.600	40.00	600	125.00	1,875		0	42.67	640	11.95	179	3,294	3,546	YP	33	2				3294
	MARKING TAPE DETECTABLE	500.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0	YP	33	2				0
#05	EXCV,LAY,BKFL PIPE (24" X 4 ' X 10')(7)	420.0	LF	188.0	0.448	11.19	4,700		0		0	12.66	5,317	2.57	1,081	11,099	13,073	YP	33	2				11099
#05	PIPE BEDDING	344.6	TONS	0.0			0	20.00	6,892		0		0		0	6,892	6,892	YP	33	2				6892
#05	HAUL EXCESS	261.3	CY	13.1	0.050	1.25	327		0	4.25	1,111	1.79	467	0.50	131	2,035	2,173	YP	33	2				2035
	12" GAC BACKWASH PIPELINE																							
	SHEET D101																							
	PVC C900 12" PIPE	640.0	LF	92.2	0.144	3.60	2,304	W/MISC PP	0		0		0		0	2,304	3,272	YP	33	2				2304
	PVC C900 12" BELL RESTRAINT HARNE	24.0	EA	28.8	1.200	30.00	720	W/MISC PP	0		0		0		0	720	1,022	YP	33	2				720
	DIP CML 12" MJ SOLID SLEEVE (FLEX'S	4.0	EA	4.8	1.200	30.00	120	W/MISC PP	0		0		0		0	120	170	YP	33	2				120
	DIP CML 12" MJ 90 BEND	3.0	EA	3.6	1.200	30.00	90	W/MISC PP	0		0		0		0	90	128	YP	33	2				90
	DIP CML 12" MJ 45 BEND	1.0	EA	1.2	1.200	30.00	30	W/MISC PP	0		0		0		0	30	43	YP	33	2				30
	PVC C900 12" MEGA LUG RESTRAINT V	12.0	EA	17.3	1.440	36.00	432	W/MISC PP	0		0		0		0	432	613	YP	33	2				432
	CORE DRILL 16"DIA. X 12" THK CONCR	1.0	EA	1.8	1.800	45.00	45		0	300.00	300		0		0	345	364	YP	33	2				345
	LINK SEAL LS-475-SS-18 LINKS / SEAL	72.0	EA	5.4	0.075	1.88	135	W/MISC PP	0		0		0		0	135	192	YP	33	2				135
	CORE DRILL 16"DIA. X 12" THK CONCR	1.0	EA	1.8	1.800	45.00	45		0	300.00	300		0		0	345	364	YP	33	2				345
	SLEEVE - HDG 18" X 1'-0" LONG W/SEE	1.0	EA	2.0	2.000	50.00	50	W/MISC PP	0		0		0		0	50	71	YP	33	2				50
	MARKING TAPE DETECTABLE	700.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0	YP	33	2				0
#06	EXCV,LAY,BKFL PIPE (12" X 3 ' X 10')(6)	640.0	LF	191.6	0.299	7.49	4,791		0		0	10.54	6,746	2.01	1,286	12,822	14,835	YP	33	2				12822
#06	PIPE BEDDING	324.7	TONS	0.0			0	20.00	6,494		0		0		0	6,494	6,494	YP	33	2				6494
#06	HAUL EXCESS	213.3	CY	10.7	0.050	1.25	267		0	4.25	907	1.79	381	0.50	107	1,662	1,774	YP	33	2				1662
	12" BACKWASH WATER SUPPLY FOR GAC																							
	SHEET D101																							
	VLV GATE VALVE 12" MJ W/NUOT OP (L	1.0	EA	2.4	2.400	60.00	60	W/VALVES	0		0		0		0	60	85	YP	33	2				60
	VLV BOX 5-1/4" X 3' SLIP TYPE W/LID	1.0	EA	4.0	4.000	100.00	100	W/VALVES	0		0		0		0	100	142	YP	33	2				100
	CONCRETE PAD AT BURIED VALVES	1.0	EA	4.0	4.000	100.00	100	50.00	50		0		0		0	150	192	YP	33	2				150
	POTHOLE EX 16" FINISHED WATER - H	4.0	HR	4.0	1.000	25.00	100		0	275.00	1,100		0		0	1,200	1,242	YP	33	2				1200
	TIE INTO EXISTING 16" FW	1.0	EA	24.0	24.000	600.00	600		0		0		468.00	468	131.04	1,199	1,451	YP	33	2				1199
	DIP CML 16" MJ SOLID SLEEVE	1.0	EA	1.6	1.600	40.00	40	W/MISC PP	0		0		0		0	40	57	YP	33	2				40
	DIP CML 16" X 12" MJ RED TEE	1.0	EA	2.4	2.400	60.00	60	W/MISC PP	0		0		0		0	60	85	YP	33	2				60

Estimate for

0

TOTALS				40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619													
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Oth Total									
	PVC C905 16" PIPE	20.0	LF	3.5	0.176	4.40	88	W/MISC PP	0		0		0		0	88	125 YP		33	2				88
	PVC C900 12" PIPE	100.0	LF	14.4	0.144	3.60	360	W/MISC PP	0		0		0		0	360	511 YP		33	2				360
	PVC C900 12" BELL RESTRAINT HARNE	4.0	EA	4.8	1.200	30.00	120	W/MISC PP	0		0		0		0	120	170 YP		33	2				120
	DIP CML 12" MJ 90 BEND	1.0	EA	1.2	1.200	30.00	30	W/MISC PP	0		0		0		0	30	43 YP		33	2				30
	PVC C905 16" MEGA LUG RESTRAINT V	5.0	EA	9.6	1.920	48.00	240	W/MISC PP	0		0		0		0	240	341 YP		33	2				240
	PVC C900 12" MEGA LUG RESTRAINT V	5.0	EA	7.2	1.440	36.00	180	W/MISC PP	0		0		0		0	180	256 YP		33	2				180
	CORE DRILL 16"DIA. X 12" THK CONCR	1.0	EA	1.8	1.800	45.00	45		0	300.00	300		0		0	345	364 YP		33	2				345
	LINK SEAL LS-475-SS-18 LINKS / SEAL	36.0	EA	2.7	0.075	1.88	68	W/MISC PP	0		0		0		0	68	96 YP		33	2				68
	CHLORINATE 12" FW PIPE	100.0	LF	20.0	0.200	5.00	500	5.00	500		0		0		0	1,000	1,210 YP		33	2				1000
	MARKING TAPE DETECTABLE	100.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
#07	EXCV,LAY,BKFL PIPE (12" X 3' X 8')(4M	100.0	LF	40.0	0.400	10.00	1,000		0		0	15.52	1,552	3.56	356	2,908	3,328 YP		33	2				2908
	PIPE BEDDING	50.7	TONS	0.0			0	20.00	1,015		0		0		0	1,015	1,015 YP		33	2				1015
#07	HAUL EXCESS	33.3	CY	1.7	0.050	1.25	42		0	4.25	142	1.79	60	0.50	17	260	277 YP		33	2				260
6" SLUDGE LINE FROM EXISTING LIFT STATION DISCHARGE LINE TO SOLIDS TANKS																								
SHEET D101																								
	TIE INTO EXISTING 6" SLUDGE LINE	1.0	EA	45.0	45.000	1125.00	1,125		0		0	275.00	275	77.00	77	1,477	1,950 YP		33	2				1477
	DIP CML 06" MJ SOLID SLEEVE	1.0	EA	0.6	0.600	15.00	15	W/MISC PP	0		0		0		0	15	21 YP		33	2				15
	DIP CML 06" MJ 90 BEND	2.0	EA	1.2	0.600	15.00	30	W/MISC PP	0		0		0		0	30	43 YP		33	2				30
	DIP CML 06" MJ 45 BEND	2.0	EA	1.2	0.600	15.00	30	W/MISC PP	0		0		0		0	30	43 YP		33	2				30
	DIP CML 06" MJ TEE	1.0	EA	0.9	0.900	22.50	23	W/MISC PP	0		0		0		0	23	32 YP		33	2				23
	PVC C900 06" PIPE	180.0	LF	21.6	0.120	3.00	540	W/MISC PP	0		0		0		0	540	767 YP		33	2				540
	PVC C900 06" BELL RESTRAINT HARNE	7.0	EA	4.2	0.600	15.00	105	W/MISC PP	0		0		0		0	105	149 YP		33	2				105
	PVC C900 06" MEGA LUG RESTRAINT V	13.0	EA	9.4	0.720	18.00	234	W/MISC PP	0		0		0		0	234	332 YP		33	2				234
	VLV PLUG 06" MJ W/NUT OP	2.0	EA	3.4	1.680	42.00	84	W/VALVES	0		0		0		0	84	119 YP		33	2				84
	VLV BOX 5-1/4" X 3' SLIP TYPE W/LID	2.0	EA	8.0	4.000	100.00	200	W/VALVES	0		0		0		0	200	284 YP		33	2				200
	CONCRETE PAD AT BURIED VALVES	2.0	EA	8.0	4.000	100.00	200	50.00	100		0		0		0	300	384 YP		33	2				300
	SLEEVE - HDG 10" X 1'-0" LONG W/SEE	1.0	EA	2.5	2.500	62.50	63	W/MISC PP	0		0		0		0	63	89 YP		33	2				63
	LINK SEAL LS-410-SS-10 LINKS / SEAL	20.0	EA	1.5	0.075	1.88	38	W/MISC PP	0		0		0		0	38	53 YP		33	2				38
	MARKING TAPE DETECTABLE	200.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
#08	EXCV,LAY,BKFL PIPE (6" X 2' X 6')(4M	180.0	LF	57.6	0.320	8.00	1,440		0		0	8.12	1,462	1.93	347	3,248	3,853 YP		33	2				3248
#08	PIPE BEDDING	65.3	TONS	0.0			0	20.00	1,307		0		0		0	1,307	1,307 YP		33	2				1307
#08	HAUL EXCESS	40.0	CY	2.0	0.050	1.25	50		0	4.25	170	1.79	72	0.50	20	312	333 YP		33	2				312
6" FILTRATE LINE FROM SOLIDS TANKS TO ADVANCED TREATMENT FACILITY																								
SHEET D101																								
	TIE INTO EXISTING 6" SLUDGE LINE	1.0	EA	15.0	15.000	375.00	375		0		0	275.00	275	77.00	77	727	885 YP		33	2				727
	DIP CML 06" MJ SOLID SLEEVE	1.0	EA	0.6	0.600	15.00	15	W/MISC PP	0		0		0		0	15	21 YP		33	2				15
	DIP CML 06" MJ 90 BEND	2.0	EA	1.2	0.600	15.00	30	W/MISC PP	0		0		0		0	30	43 YP		33	2				30
	DIP CML 06" MJ 45 BEND	4.0	EA	2.4	0.600	15.00	60	W/MISC PP	0		0		0		0	60	85 YP		33	2				60
	DIP CML 06" MJ TEE	1.0	EA	0.9	0.900	22.50	23	W/MISC PP	0		0		0		0	23	32 YP		33	2				23
	PVC C900 06" PIPE	280.0	LF	33.6	0.120	3.00	840	W/MISC PP	0		0		0		0	840	1,193 YP		33	2				840
	PVC C900 06" BELL RESTRAINT HARNE	10.0	EA	6.0	0.600	15.00	150	W/MISC PP	0		0		0		0	150	213 YP		33	2				150
	PVC C900 06" MEGA LUG RESTRAINT V	17.0	EA	12.2	0.720	18.00	306	W/MISC PP	0		0		0		0	306	435 YP		33	2				306
	VLV PLUG 06" MJ W/NUT OP	2.0	EA	3.4	1.680	42.00	84	W/VALVES	0		0		0		0	84	119 YP		33	2				84
	VLV BOX 5-1/4" X 3' SLIP TYPE W/LID	2.0	EA	8.0	4.000	100.00	200	W/VALVES	0		0		0		0	200	284 YP		33	2				200
	CONCRETE PAD AT BURIED VALVES	2.0	EA	8.0	4.000	100.00	200	50.00	100		0		0		0	300	384 YP		33	2				300
	SLEEVE - HDG 10" X 1'-0" LONG W/SEE	1.0	EA	2.5	2.500	62.50	63	W/MISC PP	0		0		0		0	63	89 YP		33	2				63
	LINK SEAL LS-410-SS-10 LINKS / SEAL	20.0	EA	1.5	0.075	1.88	38	W/MISC PP	0		0		0		0	38	53 YP		33	2				38
	MARKING TAPE DETECTABLE	300.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
#09	EXCV,LAY,BKFL PIPE (6" X 2' X 6')(4M	280.0	LF	68.9	0.246	6.15	1,723		0		0	7.66	2,145	1.48	415	4,283	5,006 YP		33	2				4283
#09	PIPE BEDDING	101.6	TONS	0.0			0	20.00	2,033		0		0		0	2,033	2,033 YP		33	2				2033
#09	HAUL EXCESS	62.2	CY	3.1	0.050	1.25	78		0	4.25	264	1.79	111	0.50	31	485	517 YP		33	2				485
2" LOX SYSTEM FROM STORAGE FACILITY TO TREATMENT PLANT																								
SHEET D102																								
	VLV SS316 THRD-BALL VALVE 02"	1.0	EA	0.7	0.650	16.25	16	W/VALVES	0		0		0		0	16	23 YP		33	2				16
	SS304 S40 PIPE 02"	150.0	LF	25.9	0.173	4.31	647	W/MISC PP	0		0		0		0	647	919 YP		33	2				647
	SS316 3000# SW 2" FITTINGS	12.0	EA	5.0	0.420	10.50	126	W/MISC PP	0		0		0		0	126	179 YP		33	2				126
	WELD SSTL S40 02"	24.0	EA	0.0			0		0	75.00	1,800	3.14	75	0.63	15	1,890	1,890 YP		33	2				1890
	FLG ACC-STAINLESS STEEL <=02"	1.0	EA	0.0			0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	PICKLE/PASSIFY 2" SSTL	150.0	LF	12.0	0.080	2.00	300	2.00	300				0		0	600	726 YP		33	2				600
	EXCV,LAY,BKFL PIPE (2" X 5' X 7')(4M	150.0	LF	40.0	0.267	6.67	1,000		0		0	9.33	1,399	2.61	392	2,791	3,211 YP		33	2				2791
	PIPE BEDDING	42.0	TONS	0.0			0	20.00	840		0		0		0	840	840 YP		33	2				840
	HAUL EXCESS	42.0	CY	2.1	0.050	1.25	53		0	4.25	179	1.79	75	0.50	21	327	349 YP		33	2				327
PHOSPHORIC ACID FEED TO ADV TREATMENT FACILITY FROM EXISTING TREATMENT PLANT																								
SHEET D102																								
	CPVC S80 02" X 20 FT PIPE PE	120.0	LF	9.6	0.080	2.00	240	W/MISC PP	0		0		0		0	240	341 YP		33	2				240
	CPVC S80 02" 90 ELL SXS	2.0	EA	0.6	0.300	7.50	15	W/MISC PP	0		0		0		0	15	21 YP		33	2				15
	CPVC S80 02" COUPLING SXS	5.0	EA	1.5	0.300	7.50	38	W/MISC PP	0		0													

Estimate for

TOTALS

40,174

897,285

10,757,403

5,294,206

2,874,436

1,297,429

21,120,760

21,497,619

0

Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burdens & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
	CORE DRILL 04"DIA. X 12" THK CONCR	1.0	EA	0.4	0.400	10.00	10		0	70.80	71		0		0	81	85 YP		33	2				81
	SLEEVE - HDG 03-1/2" X 1'-0" LONG W/S	1.0	EA	0.8	0.750	18.75	19	W/MISC PP	0		0		0		0	19	27 YP		33	2				19
	LINK SEAL LS-200-SS-8 LINKS / SEAL	32.0	EA	2.4	0.075	1.88	60	W/MISC PP	0		0		0		0	60	85 YP		33	2				60
	MARKING TAPE DETECTABLE	120.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
#10	EXCV,LAY,BKFL PIPE (2" X 2' X 6')(4M	120.0	LF	32.0	0.267	6.67	800		0		0	5.73	688	1.60	193	1,680	2,016 YP		33	2				1680
#10	PIPE BEDDING	32.5	TONS	0.0			0	20.00	651		0		0		0	651	651 YP		33	2				651
#10	HAUL EXCESS	19.3	CY	1.0	0.050	1.25	24		0	4.25	82	1.79	34	0.50	10	150	160 YP		33	2				150
	AMMONIA HYDROXIDE FEED TO ADV TREATMENT FACILITY FROM EXISTING TREATMENT PLANT															0 YP		33	2					
	SHEET D102															0 YP		33	2					
	CPVC S80 02" X 20 FT PIPE PE	120.0	LF	9.6	0.080	2.00	240	W/MISC PP	0		0		0		0	240	341 YP		33	2				240
	CPVC S80 02" 90 ELL SXS	2.0	EA	0.6	0.300	7.50	15	W/MISC PP	0		0		0		0	15	21 YP		33	2				15
	CPVC S80 02" COUPLING SXS	5.0	EA	1.5	0.300	7.50	38	W/MISC PP	0		0		0		0	38	53 YP		33	2				38
	CORE DRILL 04"DIA. X 12" THK CONCR	1.0	EA	0.4	0.400	10.00	10		0	70.80	71		0		0	81	85 YP		33	2				81
	SLEEVE - HDG 03-1/2" X 1'-0" LONG W/S	1.0	EA	0.8	0.750	18.75	19	W/MISC PP	0		0		0		0	19	27 YP		33	2				19
	LINK SEAL LS-200-SS-8 LINKS / SEAL	32.0	EA	2.4	0.075	1.88	60	W/MISC PP	0		0		0		0	60	85 YP		33	2				60
	MARKING TAPE DETECTABLE	120.0	LF	0.0	w/Pipe		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
#11	EXCV,LAY,BKFL PIPE (2" X 2' X 6')(4M	120.0	LF	32.0	0.267	6.67	800		0		0	5.73	688	1.60	193	1,680	2,016 YP		33	2				1680
#11	PIPE BEDDING	32.5	TONS	0.0			0	20.00	651		0		0		0	651	651 YP		33	2				651
#11	HAUL EXCESS	19.3	CY	1.0	0.050	1.25	24		0	4.25	82	1.79	34	0.50	10	150	160 YP		33	2				150
	2" HYDROGEN PEROXIDE FROM NEW ADV TREATMENT FACILITY TO EXISTING TREATMENT PLANT															0 YP		33	2					
	SHEET D102															0 YP		33	2					
	VLV SS316 THRD-BALL VALVE 02"	1.0	EA	0.7	0.650	16.25	16	W/VALVES	0		0		0		0	16	23 YP		33	2				16
	SS304 S40 PIPE 02"	120.0	LF	20.7	0.173	4.31	518	W/MISC PP	0		0		0		0	518	735 YP		33	2				518
	SS316 3000# SW 2" FITTINGS	12.0	EA	5.0	0.420	10.50	126	W/MISC PP	0		0		0		0	126	179 YP		33	2				126
	WELD SSTL S40 02"	22.0	EA	0.0			0		0	75.00	1,650	3.14	69	0.63	14	1,733	1,733 YP		33	2				1733
	FLG ACC-STAINLESS STEEL <=02"	1.0	EA	0.0			0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	PICKLE/PASSIFY 2" SSTL	120.0	LF	9.6	0.080	2.00	240	2.00	240		0		0		0	480	581 YP		33	2				480
	EXCV,LAY,BKFL PIPE (2" X 5' X 7')(4M	150.0	LF	40.0	0.267	6.67	1,000		0		9.33	1,399	2.61	392	2,791	3,211 YP		33	2				2791	
	PIPE BEDDING	38.0	TONS	0.0			0	20.00	760		0		0		0	760	760 YP		33	2				760
	HAUL EXCESS	32.0	CY	1.6	0.050	1.25	40		0	4.25	136	1.79	57	0.50	16	249	266 YP		33	2				249
	8" TANK DRAIN PIPING IN RAW WATER VAULT															0 YP		33	2					
	SHEET D201, 1003															0 YP		33	2					
	VLV BFV 08" FLG W/MTR OP	1.0	EA	2.6	2.560	64.00	64	W/VALVES	0		0		0		0	64	91 YP		33	2				64
	VLV BFV 08" FLG W/HW OP	2.0	EA	3.2	1.600	40.00	80	W/VALVES	0		0		0		0	80	114 YP		33	2				80
	VLV SWING CHECK VALVE-FLG 08"	1.0	EA	1.6	1.600	40.00	40	W/VALVES	0		0		0		0	40	57 YP		33	2				40
	VLV 2" DRAIN ASSEM	2.0	EA	6.0	3.000	75.00	150	500.00	1,000		0		0		0	1,150	1,213 YP		33	2				1150
	INST MAG FLOWMETER 8" FLG	1.0	EA	1.5	1.500	37.50	38	W/I&C	0		0		0		0	38	53 YP		33	2				38
	INST PRESSURE INDICATOR ASSEMBLY	1.0	EA	1.6	1.600	40.00	40	450.00	450		0		0		0	490	507 YP		33	2				490
	DIP CML 08" FLG 90 BEND	7.0	EA	9.5	1.360	34.00	238	W/MISC PP	0		0		0		0	238	338 YP		33	2				238
	DIP CML 08" FLG BASE 90 BEND	1.0	EA	1.4	1.360	34.00	34	W/MISC PP	0		0		0		0	34	48 YP		33	2				34
	DIP CML 08" FLG TEE	2.0	EA	4.0	2.000	50.00	100	W/MISC PP	0		0		0		0	100	142 YP		33	2				100
	DIP CML 08" X 05'-0" SPOOL - FLG X FLG	2.0	EA	2.7	1.360	34.00	68	W/MISC PP	0		0		0		0	68	97 YP		33	2				68
	DIP CML 08" X 03'-0" SPOOL - FLG X FLG	2.0	EA	2.7	1.360	34.00	68	W/MISC PP	0		0		0		0	68	97 YP		33	2				68
	DIP CML 08" X 01'-0" SPOOL - FLG X FLG	4.0	EA	5.4	1.360	34.00	136	W/MISC PP	0		0		0		0	136	193 YP		33	2				136
	DIP CML 08" X 01'-0" SPOOL - FLG X PE	4.0	EA	4.6	1.142	28.56	114	W/MISC PP	0		0		0		0	114	162 YP		33	2				114
	MECH COUPLING 08" (FLEXIBLE SLEEVE)	2.0	EA	2.4	1.200	30.00	60	W/MISC PP	0		0		0		0	60	85 YP		33	2				60
	HARNES ROD ASSEMBLY GALV 08" (6" DIA)	2.0	EA	1.2	0.576	14.40	29	W/MISC PP	0		0		0		0	29	41 YP		33	2				29
	DISMANTLING JOINT 08" FLANGED	2.0	EA	3.4	1.680	42.00	84	W/MISC PP	0		0		0		0	84	119 YP		33	2				84
	FLG ACC-ABOVE GRADE 08"	34.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 YP		33	2				0
	SUPP-HDG 08" X 3'-0" (CL) ADJ FLR W/VALVES	9.0	EA	18.0	2.000	50.00	450	W/MISC PP	0		0		0		0	450	639 YP		33	2				450
	WEDGE ANCHOR 316 SS 5/8" DIA. X 7"	36.0	EA	4.0	0.111	2.78	100	15.23	548		0		0		0	648	690 YP		33	2				648
	GROUT PIPE SUPPORT BASE	9.0	EA	4.5	0.500	12.50	113	15.00	135		0		0		0	248	295 YP		33	2				248
	6" PRE-OZONE TO/FROM ADV TREATMENT FACILITY AND VALVE VAULT															0 YP		33	2					
	SHEET D201, 1003															0 YP		33	2					
	FABD SSTL 06" PIPE	220.0	LF	30.4	0.138	3.45	759	W/MISC PP	0		0		0		0	759	1,078 YP		33	2				759
	FABD SSTL 06" 90 ELL	4.0	EA	2.4	0.600	15.00	60	W/MISC PP	0		0		0		0	60	85 YP		33	2				60
	FABD SSTL 06" 45 ELL	4.0	EA	2.4	0.600	15.00	60	W/MISC PP	0		0		0		0	60	85 YP		33	2				60
	WELD SSTL S10 06"	16.0	EA	0.0			0		0	260.00	4,160		0	1.88	30	4,190	4,190 YP		33	2				4190
	PICKLE/PASSIVATE 6" OZONE PIPE	1.0	LS	0.0			0		0	W/DIV.15	0		0		0	0	0 YP		33	2				0
#12	EXCV,LAY,BKFL PIPE (6" X 2' X 6')(4M	120.0	LF	32.0	0.267	6.67	800		0		0	8.60	1,032	2.41	289	2,121	2,457 YP		33	2				2121
#12	PIPE BEDDING	34.5	TONS	0.0			0	20.00	690		0		0		0	690	690 YP		33	2				690
#12	HAUL EXCESS	21.3	CY	1.1	0.050	1.25	27		0	4.25	91	1.79	38	0.50	11	166	177 YP		33	2				

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Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Random & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Orth Total									
	Pre-Op Checkout - Clean - Tanks	2.0	EA	16.0	8.000	168.00	336	75.00	150		0		0		0	486	627	DIV11	43	2		ATB	57	486
	Startup, Functional & Performance Testing -	2.0	LS	0.0	Above		0	Above	0		0		0		0	0	0	DIV11	43	2		ATB	58	0
																	0	DIV11	43	2		ATB	59	
																	0	DIV11	46	1		ATB	60	0
	Section 46-31-53 - Ozone Generation Equipment																0	DIV11	46	1		ATB	61	0
	Mfrgr: Quote by Aqua Aerobic (Kyle Winneker - Goble Sampson)																0	DIV11	46	1		ATB	62	
	B&M Summary of Quotes - 1-LS Unit Cost \$2,400,000 - Aqua Aerobics																0	DIV11	46	1		ATB	63	2400000
Aqua Aerobic	Supply Section 46-31-53 - Ozone Generation	1.0	EA	0.0			0	2400000.00	2,400,000		0		0		0	2,400,000	2,400,000	DIV11	46	1		ATB	64	0
	Supply Section 46-31-53 - LOX Tank & Vaporizers	1.0	EA	0.0				w/Above	0		0		0		0	0	0	DIV11	46	1		ATB	65	2016
#25, 26	Ozone Generators (OZO-GEN) - Future	2.0	EA	96.0	48.000	1008.00	2,016	//Ozone Gen	0		0		0		0	2,016	2,863	DIV11	46	1		ATB	66	4032
#27	Ozone Generators (OZO-GEN) - Future	1.0	EA	0.0	Future		0	//Ozone Gen	0		0		0		0	0	0	DIV11	46	1		ATB	67	0
#47,48	Ozone Generation Closed Loop Chillers (OZC) - Future	2.0	EA	192.0	96.000	2016.00	4,032	//Ozone Gen	0		0		0		0	4,032	5,725	DIV11	46	1		ATB	68	0
#49	Ozone Generation Closed Loop Chillers (OZC) - Future	1.0	EA	0.0	Future		0	Future	0		0		0		0	0	0	DIV11	46	1		ATB	69	2630
	Anchor - Satl / Epoxy Type	40.0	EA	30.0	0.750	15.75	630	50.00	2,000		0		0		0	2,630	2,895	DIV11	46	1		ATB	70	1052
	Grout - Ozone Eqpt	1.0	LS	12.0	12.000	252.00	252	800.00	800		0		0		0	1,052	1,158	DIV11	46	1		ATB	71	1512
Add#3	LOX Tank 3000 gallon (Add#3 - located between skids)	1.0	EA	72.0	72.000	1512.00	1,512	//Ozone Gen	0		0		0		0	1,512	2,147	DIV11	46	1		ATB	72	1680
Add#3	LOX Vaporizers (Add#3 - located between skids)	2.0	EA	80.0	40.000	840.00	1,680	//Ozone Gen	0		0		0		0	1,680	2,386	DIV11	46	1		ATB	73	0
Add#3	Concrete Pads at LOX Tank & Vaporizers -	1.0	LS	0.0	w/Div.3		0	//Ozone Gen	0		0		0		0	0	0	DIV11	46	1		ATB	74	669
Add#3	Initial LOX Tank Fill - w/Owner (Add#3)	1.0	EA	0.0	w/Owner		0	w/Owner	0		0		0		0	0	0	DIV11	46	1		ATB	75	652
Add#3	Anchor - Lox Tank	12.0	EA	9.0	0.750	15.75	189	40.00	480		0		0		0	669	748	DIV11	46	1		ATB	76	244
Add#3	Grout - Lox Tank	1.0	EA	12.0	12.000	252.00	252	400.00	400		0		0		0	652	758	DIV11	46	1		ATB	77	5840
Add#3	Anchor - Vaporizers	8.0	EA	4.0	0.500	10.50	84	20.00	160		0		0		0	244	279	DIV11	46	1		ATB	78	1004
	Ozone InLine Instruments & Misc Ozone Items	1.0	LS	80.0	80.000	1680.00	1,680	//Ozone Gen	0		0		0		0	1,680	2,386	DIV11	46	1		ATB	79	0
	Misc Install Mats	1.0	LS	40.0	40.000	840.00	840	5000.00	5,000		0		0		0	5,840	6,193	DIV11	46	1		ATB	80	
	Pre-Op Checkout, Inspect - Ozone Equipment	1.0	LS	24.0	24.000	504.00	504	500.00	500		0		0		0	1,004	1,216	DIV11	46	1		ATB	81	
	Startup, Functional & Performance Testing -	1.0	LS	0.0	Above		0	Above	0		0		0		0	0	0	DIV11	46	1		ATB	82	
	Notes from Aqua Aerobics Email & Proposal																0	DIV11	46	1		ATB	83	
	Aqua Aerobics																0	DIV11	46	1		ATB	84	
	Ozone Type M-Series (Pinnacle) - Ozone Generators - Small footprint, 10 year warranty, Requires Air Cooled Chiller - 20 ton unit / Generator, No Nitrogen Boost Required,																0	DIV11	46	1		ATB	85	
	Ozone Type F-Series (Fuji) Ozone Generators - 10 year warranty, No Chillers Required, Requires a Nitrogen Boost Skid,																0	DIV11	46	1		ATB	86	
	w/Lox System - 3000 gal. Tank (1), Vaporizers (2)																0	DIV11	46	1		ATB	87	
	w/Ozone Generators (2) 267 ppd w/ master ozone control panel , integrated power supply unit - NEMA 12																0	DIV11	46	1		ATB	88	
	w/Ozone Cooling Water System (Closed Loop w/Chiller) - (2) systems w/Air Cooled Chillers, Pumps, auto makeup fill & Expansion Tanks - Mode #Tech301-UL-NF																0	DIV11	46	1		ATB	89	
	w/Ozone Destruct Unit - (2) skids w/preheater, catalytic destruct vessel, and off-gas blowers																0	DIV11	46	1		ATB	90	
	Aqua Aerobic Exclusions																0	DIV11	46	1		ATB	91	
	Ozone Dissolution - Does not include sidestream injection skids, degas separator, Pipeline flash reactors																0	DIV11	46	1		ATB	92	
																	0	DIV11	46	1		ATB	93	
	Section 46-31-55 - Ozone Destruction System																0	DIV11	46	1		ATB	94	
	Mfrgr: Included in Quote by Aqua Aerobic - Ozone Generation																0	DIV11	46	1		ATB	95	
	Supply Section 46-31-55 - Ozone Destruction	2.0	LS	0.0			0	//Ozone Gen	0		0		0		0	0	0	DIV11	46	1		ATB	96	
#12, #13	Ozone Destruct Skid (OZD-DB) - 3kVA & w/Preheater	2.0	EA	144.0	72.000	1512.00	3,024	luded Above	0		0		0		0	3,024	4,294	DIV11	46	1		ATB	97	3024
#17	Ozone Destruct Skid (OZD-DB) - 3kVA	1.0	EA	0.0	Future		0	luded Above	0		0		0		0	0	0	DIV11	46	1		ATB	98	0
w/Destruct	Ozone Destruction Blowers - 3 hp -	2.0	EA	0.0	Integral		0	luded Above	0		0		0		0	0	0	DIV11	46	1		ATB	99	
	Anchor - Satl / Epoxy Type	16.0	EA	8.0	0.500	10.50	168	30.00	480		0		0		0	648	719	DIV11	46	1		ATB	100	648
	Grout - skids	2.0	EA	24.0	12.000	252.00	504	250.00	500		0		0		0	1,004	1,216	DIV11	46	1		ATB	101	1004
	Pre-Op Checkout Equipment - Ozone Destruction	2.0	EA	16.0	8.000	168.00	336	100.00	200		0		0		0	536	677	DIV11	46	1		ATB	102	536
	Startup, Functional & Performance Testing -	2.0	EA	0.0	Above		0	Above	0		0		0		0	0	0	DIV11	46	1		ATB	103	0
																	0	DIV11	46	1		ATB	104	
	Section 46-31-57 - Ozone Injection System																0	DIV11	46	1		ATB	105	
	Mfrgr: Aqua Aerobics / Mazzei																0	DIV11	46	1		ATB	106	
	B&M Summary of Quotes - 1-LS Unit Cost \$975,000 Aqua Aerobics / Mazzei (Kyle Winneker - Goble Sampson)																0	DIV11	46	1		ATB	107	
	Add#3 - Two Skids are dual pump units (one for each pre-ozone and ozone AOP, Third unit is a single pump skid (Redundant))																0	DIV11	46	1		ATB	108	
Aqua Aerobic	Supply Section 46-31-57 - Ozone Injection System	1.0	LS	0.0			0	975000.00	975,000		0		0		0	975,000	975,000	DIV11	46	1		ATB	109	975000
Confirm in B	Supply Section 46-31-57 - Ozone Pipeline Flash Reactors	2.0	LS	0.0			0	//Ozone Inject	0		0		0		0	0	0	DIV11	46	1		ATB	110	0
#10	AOP Ozone Injection Skid (OZO-INJ) - Dual Pump	1.0	EA	40.0	40.000	840.00	840	luded Above	0		0		0		0	840	1,193	DIV11	46	1		ATB	111	840
#07	PRE-Ozone Injection Skid (OZO-INJ) - Dual Pump	1.0	EA	32.0	32.000	672.00	672	luded Above	0		0		0		0	672	954	DIV11	46	1		ATB	112	672
#11	AOP Ozone Injection Skid (OZO-INJ) - Single Pump	1.0	EA	32.0	32.000	672.00	672	luded Above	0		0		0		0	672	954	DIV11	46	1		ATB	113	672
#16	AOP Ozone Injection Skid (OZO-INJ) - Future	1.0	EA	0.0	Future		0		0		0		0		0	0	0	DIV11	46	1		ATB	114	0
	Variable Frequency Drives	3.0	EA	0.0	w/Elect		0	w/Elect	0		0		0		0	0	0	DIV11	46	1		ATB	115	0
	Anchor - Satl / Epoxy Type	24.0	EA	12.0	0.500	10.50	252	40.00	960		0		0		0	1,212	1,318	DIV11	46	1		ATB	116	1212
	Grout - skids	3.0	EA	24.0	8.000	168.00	504	300.00	900		0		0		0	1,404	1,616	DIV11	46	1		ATB	117	1404
	Pipeline Flash Reactors - Confirm Included within Budget Pricing from B&M																0	DIV11	46	1		ATB	118	
#02	Pre-Ozone Pipeline Flash Reactor (OZO-INJ) - Dual Pump	1.0	EA	16.0	16.000	336.00	336	luded Above	0		0		0		0	336	477	DIV11	46	1		ATB	119	336
#09	AOP Ozone Pipeline Flash Reactor (OZO-INJ) - Single Pump	1.0	EA	16.0	16.000	336.00	336	luded Above	0		0		0		0	336	477	DIV11	46	1		ATB	120	336
#15	AOP Ozone Pipeline Flash Reactor (OZO-INJ) - Future	1.0	EA	0.0	Future		0	Future	0		0		0		0	0	0	DIV11	46	1		ATB	121	0
	Pre-Op Checkout Equipment - Lube & Adjust	1.0	EA	0.0			0		0		0		0		0	0	0	DIV11	46	1		ATB	122	0
	Startup, Functional & Performance Testing	1.0	EA	0.0	Above		0	Above	0		0		0		0	0	0	DIV11	46	1		ATB	123	0
																	0	DIV11	46	1		ATB	124	

Estimate for

TOTALS				40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619								
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/Unit	Labor Labor Unit Labor Total	Materials Matl Unit Matl Total	Subcontract Sub Unit Sub Total	Equipment Equip Unit Equip Total	Other Orth Unit Orth Total	Total Cost	Burden & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
	Section 46-33-00 - Liquid Chemical Feed Equipment											0	DIV11	46	2		ATB	170	0
	Peristaltic Pump Mfr: Watson Marlow - per Add#3 w/Panel Mounted Feed Systems - Similar to Existing Plant											0	DIV11	46	2		ATB	171	132
	Pricing to be Provided by B&M when Available											0	DIV11	46	2		ATB	172	
												0	DIV11	46	2		ATB		
	Hydrogen Peroxide Chemical Metering Pumps											0	DIV11	46	2		ATB	175	
#40,41,42	Supply Section 46-33-00 - Peristaltic Pum	3.0	EA	0.0		0	25000.00	75,000	0	0	75,000	75,000	DIV11	46	2		ATB	173	133
#43,44,45	Supply Section 46-33-00 - Chemical Feed	3.0	EA	0.0		0	uded Above	0	0	0	0	0	DIV11	46	2		ATB	174	133
#46	Supply Section 46-33-00 - Chemical Fill S	1.0	EA	0.0		0	uded Above	0	0	0	0	0	DIV11	46	2		ATB	174	133
#40,41,42	Hydrogen Peroxide Feed Pumps (HYP-P) - I	3.0	EA	24.0	8.000	168.00	504	luded Above	0	0	504	716	DIV11	46	2		ATB	176	134
#40,41,42	Pump Support Shelf	3.0	EA	12.0	4.000	84.00	252	850.00	2,550	0	2,802	2,908	DIV11	46	2		ATB	176	134
#40,41,42	Anchor Pump Support Shelf	12.0	EA	4.8	0.400	8.40	101	10.00	120	0	221	263	DIV11	46	2		ATB	176	134
#43,44,45	Hydrogen Peroxide Chemical Feed Panel (H	3.0	EA	24.0	8.000	168.00	504	luded Above	0	0	504	716	DIV11	46	2		ATB	176	134
#46	Hydrogen Peroxide Chemical Fill Station (H	1.0	EA	12.0	12.000	252.00	252	luded Above	0	0	252	358	DIV11	46	2		ATB	176	134
	Anchor Panels & Fill Station	16.0	EA	6.4	0.400	8.40	134	10.00	160	0	294	351	DIV11	46	2		ATB		294
	Ammonia Hydroxide Chemical Metering Pumps											0	DIV11	46	2		Existing Tmt Bldg		
												0	DIV11	46	2		Existing Tmt Bldc	177	
#50	Supply Section 46-33-00 - Peristaltic Pum	1.0	EA	0.0		0	20000.00	20,000	0	0	20,000	20,000	DIV11	46	2		Existing Tmt Bldc	173	133
#51	Supply Section 46-33-00 - Chemical Feed	1.0	EA	0.0		0	uded Above	0	0	0	0	0	DIV11	46	2		Existing Tmt Bldc	174	133
#50	Ammonia Feed Pumps (AAM-P) - Peristaltic	1.0	EA	8.0	8.000	168.00	168	luded Above	0	0	168	239	DIV11	46	2		Existing Tmt Bldc	178	134
	Pump Support Shelf	1.0	EA	4.0	4.000	84.00	84	850.00	850	0	934	969	DIV11	46	2		Existing Tmt Bldc	176	134
	Anchor Pump Support Shelf	4.0	EA	1.6	0.400	8.40	34	10.00	40	0	74	88	DIV11	46	2		Existing Tmt Bldc	176	134
	Ammonia Chemical Feed Panel (AAM-FP)	1.0	EA	8.0	8.000	168.00	168	luded Above	0	0	168	239	DIV11	46	2		Existing Tmt Bldg		168
	Anchor Panel	4.0	EA	1.6	0.400	8.40	34	10.00	40	0	74	88	DIV11	46	2		Existing Tmt Bldg		74
												0	DIV11	46	2		Existing Tmt Bldg		
	Phosphoric Acid Chemical Metering Pumps											0	DIV11	46	2		Existing Tmt Bldc	179	
#54,55	Supply Section 46-33-00 - Peristaltic Pum	2.0	EA	0.0		0	22500.00	45,000	0	0	45,000	45,000	DIV11	46	2		Existing Tmt Bldc	173	133
#56,57	Supply Section 46-33-00 - Chemical Feed	2.0	EA	0.0		0	uded Above	0	0	0	0	0	DIV11	46	2		Existing Tmt Bldc	174	133
Plug MTE	Supply Section 46-33-00 - Weigh Scales -	2.0	EA	0.0		0	5000.00	10,000	0	0	10,000	10,000	DIV11	46	2		Existing Tmt Bldc	174	133
#54,55	Phosphoric Acid Feed Pumps (PHA-P) - Per	2.0	EA	24.0	12.000	252.00	504		0	0	504	716	DIV11	46	2		Existing Tmt Bldc	180	134
	Pump Support Shelf	2.0	EA	8.0	4.000	84.00	168	850.00	1,700	0	1,868	1,939	DIV11	46	2		Existing Tmt Bldc	176	134
	Anchor Pump Support Shelf	8.0	EA	3.2	0.400	8.40	67	10.00	80	0	147	175	DIV11	46	2		Existing Tmt Bldc	176	134
#56,57	Phosphoric Acid Chemical Feed Panels	2.0	EA	24.0	12.000	252.00	504		0	0	504	716	DIV11	46	2		Existing Tmt Bldc	180	134
Plug	Frp Containment Basin at Chem Drums	2.0	EA	16.0	8.000	168.00	336	1200.00	2,400	0	2,736	2,877	DIV11	46	2		Existing Tmt Bldg		2736
	Weight Scales at 55 gallon Phosphoric Acid	2.0	EA	0.0		0	0		0	0	0	0	DIV11	46	2		Existing Tmt Bldg		0
	Anchor Panels & Scales	16.0	EA	6.4	0.400	8.40	134	10.00	160	0	294	351	DIV11	46	2		Existing Tmt Bldg		294
	Phosphoric Acid Drums (Dwg I014)	2.0	EA	0.0	w/Owner	0	w/Owner	0	0	0	0	0	DIV11	46	2		Existing Tmt Bldg		0
												0	DIV11	46	2		Existing Tmt Bldc	181	
	Sodium Bisulfite Chemical Metering Pumps - Diaphragm Type											0	DIV11	46	2		Existing Tmt Bldc	184	
	Diaphragm Pump Type											0	DIV11	46	2		Existing Tmt Bldc	182	
#53	Supply Section 46-33-00 - Diaphragm Pum	1.0	EA	0.0		0	18000.00	18,000	0	0	18,000	18,000	DIV11	46	2		Existing Tmt Bldc	173	133
#52	Supply Section 46-33-00 - Chemical Feed	1.0	EA	0.0		0	uded Above	0	0	0	0	0	DIV11	46	2		Existing Tmt Bldc	174	133
#53	Sodium Bisulfite Feed Pump - (SBI-P) Diap	1.0	EA	12.0	12.000	252.00	252	luded Above	0	0	252	358	DIV11	46	2		Existing Tmt Bldc	185	134
	Pump Support Shelf	1.0	EA	4.0	4.000	84.00	84	800.00	800	0	884	919	DIV11	46	2		Existing Tmt Bldc	187	159
	Anchor Pump Support Shelf	4.0	EA	1.6	0.400	8.40	34	10.00	40	0	74	88	DIV11	46	2		Existing Tmt Bldc	188	160
#52	Sodium Bisulfite Chemical Feed Panel (AA)	1.0	EA	8.0	8.000	168.00	168	luded Above	0	0	168	239	DIV11	46	2		Existing Tmt Bldg		168
	Anchor Panel	4.0	EA	1.6	0.400	8.40	34	10.00	40	0	74	88	DIV11	46	2		Existing Tmt Bldg		74
	Pre-op check - Chemical Metering Pumps at	7.0	LS	28.0	4.000	84.00	588	25.00	175	0	763	1,010	DIV11	46	2		Existing Tmt Bldc	191	165
	Startup & Performance Test - pumps	7.0	EA	0.0	Above	0	Above	0	0	0	0	0	DIV11	46	2		Existing Tmt Bldc	192	166
	Chemical Diffusers - Dwg D002 Process Flow Diagram											0	DIV11	46	2		ATB	193	
	Supply Section 46-33-00 - Chemical Inject	6.0	EA	0.0		0	1000.00	6,000	0	0	6,000	6,000	DIV11	46	2		ATB	173	133
X	Chemical Quill Injection Diffusers - Assembl	3.0	EA	12.0	4.000	84.00	252	luded Above	0	0	252	358	DIV11	46	2		ATB	194	252
X	Chemical Quill Injection Diffusers - Assembl	1.0	EA	4.0	4.000	84.00	84	luded Above	0	0	84	119	DIV11	46	2		ATB	195	84
X	Chemical Quill Injection Diffusers - Assembl	1.0	EA	4.0	4.000	84.00	84	luded Above	0	0	84	119	DIV11	46	2		ATB	196	84
X	Chemical Quill Injection Diffusers - Assembl	1.0	EA	4.0	4.000	84.00	84	luded Above	0	0	84	119	DIV11	46	2		ATB	197	84
												0	DIV11	46	2		ATB	198	
												0	DIV11	46	2		ATB	324	0
	Section 46-33-33 - Polymer Blending and Feed Equipment											0	DIV11	46	2		ATB	326	300000
	Supply Section 46-33-33 - Polymer Blendi	2.0	LS	0.0		0	150000.00	300,000	0	0	300,000	300,000	DIV11	46	2		ATB	327	30024
#35, 36	Polymer Feed Systems Equipment Complete	2.0	EA	144.0	72.000	1512.00	3,024		0	0	3,024	4,294	DIV11	46	2		ATB	328	0
#37	Polymer Feed Systems - Future	1.0	EA	0.0	Future	0	Future		0	0	0	0	DIV11	46	2		ATB	329	442
	Anchors - Sstl / Epoxy Type	24.0	EA	9.6	0.400	8.40	202	10.00	240	0	442	526	DIV11	46	2		ATB	330	736
	Grout - Polymer System	2.0	EA	16.0	8.000	168.00	336	200.00	400	0	736	877	DIV11	46	2		ATB	331	636
	Pre-Op Checkout Equipment - Polymer Syst	2.0	EA	16.0	8.000	168.00	336	150.00	300	0	636	777	DIV11	46	2		ATB	332	0
	Startup, Functional & Performance Testing -	2.0	LS	0.0	Above	0	Above	0	0	0	0	0	DIV11	46	2		ATB	368	
												0	DIV11	46	2		Solids Tanks	369	0
	Section 46-41-41 - Top Entry Tank Mixers, Dwg D400											0	DIV11	46	2		Solids Tanks	370	
	At Solids Tank: Mixers B&M Summary of Quotes - 1-LS Unit Cost \$52,000 - Lightnin - (Add#2 - See Revised D009)											0	DIV11	46	2		Solids Tanks	371	
	Solid Tank Mixers - 2 mixers per Addendum											0	DIV11	46	2		Solids Tanks		

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Estimate for

TOTALS				40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619													
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
	Mfrgr: Andritz (Coombs-Hopkins - Bill Peretti)																0	DIV11	46	1		ATB	439	0
	B&M Summary of Quotes - 1-LS Unit Cost \$224,700 Andritz Proposal																0	DIV11	46	1		ATB	440	
	Supply Section 46-76-33 - Dewatering Centri	2.0	LS	0.0				0	224700.00			0		0		449,400	449,400	DIV11	46	1		ATB	441	449400
#31, 32	Solids Dewatering Centrifuges (SLD-C) - Ss	2.0	EA	240.0	120.000	2520.00		5,040	luded Above			0		0		5,040	7,157	DIV11	46	1		ATB	442	5040
#33	Solids Dewatering Centrifuges (SLD-C) - Fi	1.0	EA	0.0				0	Future			0		0		0		DIV11	46	1		ATB	443	0
	Size - 134" x 42" x 41" x 7419 lbs - Andritz D4L				Included				Included Above									DIV11	46	1		ATB	444	
	w/ De-Aerator (Centrate Chute)				Included				Included Above									DIV11	46	1		ATB	445	
	w/ Controls - Allen Bradley - Nema 4X Panel				Included				Included Above									DIV11	46	1		ATB	446	
	w/ Flexible Connectors - Sludge Feed, Centrate Discharge, Solids Discharge				Included				Included Above									DIV11	46	1		ATB	447	
	w/ Standard Tool List - Included				Included				Included Above									DIV11	46	1		ATB	448	
	w/ Startup Included				Included				Included Above									DIV11	46	1		ATB	449	
	Access Platform & Stairs (TBD) - Not show	2.0	EA	0.0	Not Req.			0	Not Required		0	0		0		0		DIV11	46	1		ATB	450	0
	Anchor - Sstl / Epoxy Type	24.0	EA	18.0	0.750	15.75		378	40.00		0		0			1,338	1,497	DIV11	46	1		ATB	452	1338
	Grout - Centrifuge support feet	2.0	EA	16.0	8.000	168.00		336	150.00		0		0			636	777	DIV11	46	1		ATB	453	636
	Pre-Op Checkout Equipment - Lube & Adju	2.0	EA	24.0	12.000	252.00		504	250.00		0		0			1,004	1,216	DIV11	46	1		ATB	454	1004
	Startup, Functional & Performance Testing -	2.0	EA	0.0	Above			0	Above		0		0			0		DIV11	46	1		ATB	455	0
																		DIV11	46	2		ATB	457	
	Misc Equipment																	DIV11	46	2		ATB	458	0
#01	Raw Water Magnetic Flow Meter (RWS-M-	1.0	EA	0.0	w/Div.15			0	w/l&C		0		0			0		DIV11	46	2		Pre-Ozone Vault	459	0
#04, #05	Magnetic Flow Meter (RWS-M) at Raw Wa	2.0	EA	0.0	w/Div.15			0	w/l&C		0		0			0		DIV11	46	2		Raw Water Vault	460	0
#08	Magnetic Flow Meter (OZO-M) at ATB	1.0	EA	0.0	w/Div.15			0	w/l&C		0		0			0		DIV11	46	2		ATB	461	0
#14	Magnetic Flow Meter (OZO-M) at ATB - Fi	1.0	EA	0.0	Future			0	Future		0		0			0		DIV11	46	2		ATB	462	0
#34	Polymer Storage Tote - not by Contractor	1.0	EA	0.0	by Owner			0	by Owner		0		0			0		DIV11	46	2		ATB	463	0
Existing	Phosphoric Acid Totes - 250 GA. (Dwg D00	2.0	EA	0.0	by Owner			0	by Owner		0		0			0		DIV11	46	2		ATB	463	0
																		DIV11	46	2		Raw Water Vault		
	Raw Water Blending Tank - Drain Pump - Per Add#3 Q&A (Budget Pricing to be by B&M)																	DIV11	46	2		Raw Water Vault		
	Per Pre-Bid Meeting - This pump is the one in the Raw Water Vault - Listed Above																	DIV11	46	2		Raw Water Vault		
	Supply Submersible Pump - 1 MGD in a Su	1.0	LS	0.0				0	Above		0		0			0		DIV11	46	2		Raw Water Vault	465	0
	Submersible Pump - 1 MGD in a Sump to P	1.0	EA	0.0	Above						0		0			0		DIV11	46	2		Raw Water Vault		0
																		DIV11						
	Platform for centrifuges all the way around	1.0						0			0		0	50000.00	50,000	50,000	50,000	DIV11	46	2				
	Access and platform all along solids convey	1.0						0			0		0	25000.00	25,000	25,000	25,000	DIV11	46	2				
	Comparison w/ BMcD estimate/quotes looks	1.0						0			0		0	150000.00	150,000	150,000	150,000	DIV11	46	2				
																		DIV11						
	BASE BID																	DIV15						
	GENERAL PIPING REQUIREMENTS																	DIV15						
																		DIV15	11	2			2	
Yard / AG	TEST PIPING	1.0	LS	300.0	300.000	6300.00		6,300	14500.00		14,500		0			20,800	23,446	DIV15	11	2			3	
Yard / AG	FLUSH & CLEAN PIPING	1.0	LS	40.0	40.000	840.00		840	200.00		200		0			1,040	1,393	DIV15	11	2			4	
Yard / AG	OXYGEN CLEANING OF OZONE PIPING	1.0	LS	8.0	8.000	168.00		168		50000.00	50,000		0			50,168	50,239	DIV15	11	2			5	
Yard / AG	UNLOAD, STORE & INVENTORY - PIPIN	1.0	LS	60.0	60.000	1260.00		1,260			0	W/GC	0			1,260	1,789	DIV15	11	2			6	
Yard / AG	CERTIFIED WELDING INSPECTION & W	1.0	LS	0.0				0		1250.00	1,250		0			1,250	1,250	DIV15	11	2			7	
Yard / AG	PICKLE & PASSIVATE - STAINLESS FIE	1.0	LS	0.0				0			0		0			0	0	DIV15	11	2			8	
AG	STOCK PIPING MATLS - GALLERIES & T	1.0	LS	24.0	24.000	504.00		504	250.00		250		0			754	966	DIV15	11	2			9	
	SUPPLY MATERIALS																	DIV15	11	2			10	
Yard / AG	SUPPLY - DUCTILE IRON PIPING	1.0	LS	0.0				0	60514.65		60,515		0			60,515	60,515	DIV15	11	2			11	
Yard / AG	SUPPLY - FABD STEEL / STAINLESS ST	1.0	LS	0.0				0	664713.00		664,713		0			664,713	664,713	DIV15	11	2			12	
Yard / AG	SUPPLY - MISC PIPING & ACC	1.0	LS	0.0				0	106648.50		106,649		0			106,649	106,649	DIV15	11	2			13	
Yard / AG	SUPPLY - PROCESS VALVES	1.0	LS	0.0				0	204857.10		204,857		0			204,857	204,857	DIV15	11	2			14	
Yard / AG	SUPPLY - PIPE SUPPORTS & DESIGN	1.0	LS	0.0				0	187555.20		187,555		0			187,555	187,555	DIV15	11	2			15	
	SUBCONTRACTORS																	DIV15	11	2			16	
AG	HVAC - SUB	14,395.0	SF	0.0				0		45.00	647,775		0			647,775	647,775	DIV15	23	2			17	
AG	PLUMBING - SUB	14,395.0	SF	0.0				0		12.00	172,740		0			172,740	172,740	DIV15	22	2			18	
AG	PIPING INSULATION - SUB	1.0	LS	0.0				0		10000.00	10,000		0			10,000	10,000	DIV15	11	2			19	
AG	FIRE PROTECTION - SUB	532.0	SF	0.0				0		30.00	15,960		0			15,960	15,960	DIV15	21	2			20	
																		DIV15	11	2			21	
	GAC & TREATMENT ROOM - DWG D302, D303																	DIV15	11	2		24UV	22	
	24" UV INFLUENT & EFFLUENT																	DIV15	11	2		24UV	23	
	FABD STEEL PIPE - FLG																	DIV15	11	2		24UV	24	
	24" GAC EFFLUENT/UV INFLUENT HEADER THRU UV REACTORS TO USLAB																	DIV15	11	2		24UV	25	
	UV REACTOR	2.0	EA	0.0	W/EQUIP			0	W/EQUIP		0		0			0		DIV15	11	2		24UV	26	
	VLV BFV 24" FLG W/HW OP	5.0	EA	26.4	5.280	110.88		554	W/VALVES		0		0			554	787	DIV15	11	2		24UV	27	
	FABD STEEL 24" PIPE	200.0	LF	50.0	0.250	5.25		1,050	/FABD STL		0		0			1,050	1,491	DIV15	11	2		24UV	28	
	FABD STEEL 24" 90 ELL	9.0	EA	23.8	2.640	55.44		499	/FABD STL		0		0			499	709	DIV15	11	2		24UV	29	
	FABD STEEL 24" TEE	4.0	EA	12.7	3.168	66.53		266	/FABD STL		0		0			266	378	DIV15	11	2		24UV	30	
	FABD STEEL 24" CROSS	2.0	EA	7.0	3.520	73.92		148	/FABD STL		0		0			148	210	DIV15	11	2		24UV	31	
	FABD STEEL 24" X 14" REDUCING TEE	2.0	EA	5.8	2.904	60.98		122	/FABD STL		0		0			122	173	DIV15	11	2		24UV	32	
	FABD STEEL 24" MECHANICAL COUPL	1.0	EA	4.0	3.960	83.16		83	/FABD STL		0		0			83	118	DIV15	11	2		24UV	33	

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
	FABD STEEL 24" FLANGE	29.0 EA		34.5	1.188	24.95	723	/FABD STL	0		0		0		0	723	1,027 DIV15		11	2	24UV		34	
	FABD STEEL 24" BLIND FLANGE	4.0 EA		8.4	2.112	44.35	177	/FABD STL	0		0		0		0	177	252 DIV15		11	2	24UV		35	
	FLG ACC-ABOVE GRADE 24"	24.0 EA		0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15		11	2	24UV		36	
	SUPP-HDG 24" X 3'-0" (CL) ADJ FLR W/1	6.0 EA		31.7	5.280	110.88	665	SUPPORTS	0		0		0		0	665	945 DIV15		11	2	24UV		37	
	SUPP-HDG 24" X 6'-0" (CL) ADJ FLR W/1	4.0 EA		25.5	6.380	133.98	536	SUPPORTS	0		0		0		0	536	761 DIV15		11	2	24UV		38	
	SUPP-HDG 24" X 9'-6" (CL) ADJ FLR W/1	4.0 EA		25.5	6.380	133.98	536	SUPPORTS	0		0		0		0	536	761 DIV15		11	2	24UV		39	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	56.0 EA		18.5	0.330	6.93	388	SUPPORTS	0		0		0		0	388	551 DIV15		11	2	24UV		40	
	GROUT PIPE SUPPORT BASE	14.0 EA		7.7	0.550	11.55	162	15.00	210		0		0		0	372	440 DIV15		11	2	24UV		41	
	SUPP-HDG 24" X 5'-0" (CL) CLEVIS HAN	2.0 EA		7.1	3.564	74.84	150	SUPPORTS	0		0		0		0	150	213 DIV15		11	2	24UV		42	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0 EA		2.6	0.330	6.93	55	SUPPORTS	0		0		0		0	55	79 DIV15		11	2	24UV		43	
WALL SLEEVE	SLEEVE - HDG 28" X 1'-0" LONG W/SEE	1.0 EA		8.3	8.250	173.25	173	W/MISC PP	0		0		0		0	173	246 DIV15		11	2	24UV		44	
	LINK SEAL LS-475-SS-30 LINKS / SEAL	60.0 EA		5.0	0.083	1.73	104	W/MISC PP	0		0		0		0	104	148 DIV15		11	2	24UV		45	
	GROUT NON-SHRINK	2.0 CF		0.9	0.440	9.24	18	26.09	52		0		0		0	71	78 DIV15		11	2	24UV		46	
FLOOR SLEEVE	SLEEVE - HDG 28" X 1'-0" LONG W/SEE	1.0 EA		8.3	8.250	173.25	173	W/MISC PP	0		0		0		0	173	246 DIV15		11	2	24UV		47	
	INSTR-PRESSURE GAUGE ASSEMBLY \	2.0 EA		3.3	1.650	34.65	69	W/MISC PP	0		0		0		0	69	98 DIV15		11	2	24UV		48	
	SAMPLE PORTS	4.0 EA		5.5	1.375	28.88	116	150.00	600		0		0		0	716	764 DIV15		11	2	24UV		49	
	CUT & BEVEL STL 24"	1.0 EA		5.2	5.181	108.80	109		0		0		0		0	109	154 DIV15		11	2	24UV		50	
	WELD BW STL S40 24"	1.0 EA		1.0	1.000	21.00	21		0	565.20	565		0	23.00	23	609	618 DIV15		11	2	24UV		51	
	FABD STEEL 24" GROUT INTERIOR JOI	1.0 EA		4.0	3.960	83.16	83	31.40	31		0		0		0	115	149 DIV15		11	2	24UV		52	
	REPAIR EXTERIOR COATING AT WELD	1.0 EA		2.2	2.200	46.20	46	100.00	100		0		0		0	146	166 DIV15		11	2	24UV		53	
	Q-009 ADDITIONAL 24" GAC BYPASS PIPING																0 DIV15		11	2	24UV		54	
	FABD STEEL 24" PIPE	5.0 LF		1.3	0.250	5.25	26	/FABD STL	0		0		0		0	26	37 DIV15		11	2	24UV		55	
	FABD STEEL 24" FLANGE	4.0 EA		4.8	1.188	24.95	100	/FABD STL	0		0		0		0	100	142 DIV15		11	2	24UV		56	
	FLG ACC-ABOVE GRADE 24"	4.0 EA		0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15		11	2	24UV		57	
	VLV BFV 24" FLG W/MTR OP	1.0 EA		8.4	8.448	177.41	177	W/VALVES	0		0		0		0	177	252 DIV15		11	2	24UV		58	
	VLV BFV 24" FLG W/MTR OP	1.0 EA		8.4	8.448	177.41	177	W/VALVES	0		0		0		0	177	252 DIV15		11	2	24UV		59	
	SUPP-HDG 24" X 3'-0" (CL) ADJ FLR W/1	2.0 EA		10.6	5.280	110.88	222	SUPPORTS	0		0		0		0	222	315 DIV15		11	2	24UV		60	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0 EA		2.6	0.330	6.93	55	SUPPORTS	0		0		0		0	55	79 DIV15		11	2	24UV		61	
	GROUT PIPE SUPPORT BASE	2.0 EA		1.1	0.550	11.55	23	15.00	30		0		0		0	53	63 DIV15		11	2	24UV		62	
	GAC & TREATMENT ROOM - DWG D302, D303																0 DIV15		11	2	14GAC		63	
	08" & 14" GAC PIPING																0 DIV15		11	2	14GAC		64	
	FABD STEEL PIPE - FLG																0 DIV15		11	2	14GAC		65	
	14" GAC PIPING																0 DIV15		11	2	14GAC		66	
	FABD STEEL 14" PIPE	356.0 LF		50.9	0.143	3.00	1,069	/FABD STL	0		0		0		0	1,069	1,518 DIV15		11	2	14GAC		67	
	FABD STEEL 14" 90 ELL	14.0 EA		21.6	1.540	32.34	453	/FABD STL	0		0		0		0	453	643 DIV15		11	2	14GAC		68	
	FABD STEEL 14" TEE	2.0 EA		3.7	1.848	38.81	78	/FABD STL	0		0		0		0	78	110 DIV15		11	2	14GAC		69	
	FABD STEEL 14" X 08" REDUCER	4.0 EA		6.2	1.540	32.34	129	/FABD STL	0		0		0		0	129	184 DIV15		11	2	14GAC		70	
	FABD STEEL 14" FLANGE	20.0 EA		13.9	0.693	14.55	291	/FABD STL	0		0		0		0	291	413 DIV15		11	2	14GAC		71	
	FLG ACC-ABOVE GRADE 14"	10.0 EA		0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15		11	2	14GAC		72	
Connect to ss	FLG INSULATING KIT 14" (POLY SLV W	2.0 EA		1.0	0.484	10.16	20	W/MISC PP	0		0		0		0	20	29 DIV15		11	2	14GAC		73	
	SUPP-PIPE RACK 24" WIDE X 7'-0" TALL	4.0 EA		25.3	6.325	132.83	531	SUPPORTS	0		0		0		0	531	754 DIV15		11	2	14GAC		74	
	SUPP-PIPE RACK 24" WIDE X 7'-0" TALL	12.0 EA		89.1	7.425	155.93	1,871	SUPPORTS	0		0		0		0	1,871	2,657 DIV15		11	2	14GAC		75	
	SUPP-HDG 14" BASE SADDLE W/ PIPE C	56.0 EA		241.5	4.312	90.55	5,071	SUPPORTS	0		0		0		0	5,071	7,201 DIV15		11	2	14GAC		76	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	128.0 EA		42.2	0.330	6.93	887	SUPPORTS	0		0		0		0	887	1,260 DIV15		11	2	14GAC		77	
	GROUT PIPE SUPPORT BASE	32.0 EA		17.6	0.550	11.55	370	15.00	480		0		0		0	850	1,005 DIV15		11	2	14GAC		78	
	INSTR-PRESSURE GAUGE ASSEMBLY \	4.0 EA		6.6	1.650	34.65	139	W/MISC PP	0		0		0		0	139	197 DIV15		11	2	14GAC		79	
	SAMPLE PORTS	4.0 EA		5.5	1.375	28.88	116	150.00	600		0		0		0	716	764 DIV15		11	2	14GAC		80	
	08" GAC PIPING																0 DIV15		11	2	14GAC		81	
	VLV BFV 08" FLG W/MTR OP	40.0 EA		0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0 DIV15		11	2	14GAC		82	
	FABD STEEL 08" PIPE	340.0 LF		0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0 DIV15		11	2	14GAC		83	
	FABD STEEL 08" 90 ELL	32.0 EA		0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0 DIV15		11	2	14GAC		84	
	FABD STEEL 08" TEE	48.0 EA		0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0 DIV15		11	2	14GAC		85	
	FABD STEEL 08" MECHANICAL COUPL	4.0 EA		0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0 DIV15		11	2	14GAC		86	
	FABD STEEL 08" FLANGE	160.0 EA		0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0 DIV15		11	2	14GAC		87	
	FLG ACC-ABOVE GRADE 08"	160.0 EA		0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0 DIV15		11	2	14GAC		88	
	12" BACKWASH WASTE HEADER																0 DIV15		11	2	14GAC		89	
	FABD STEEL 12" PIPE	360.0 LF		47.5	0.132	2.77	998	/FABD STL	0		0		0		0	998	1,417 DIV15		11	2	14GAC		90	
	FABD STEEL 12" 90 ELL	36.0 EA		47.5	1.320	27.72	998	/FABD STL	0		0		0		0	998	1,417 DIV15		11	2	14GAC		91	
	FABD STEEL 12"																							

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Bonds & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orh Unit	Oth Total									
	GAC & TREATMENT ROOM - DWG D302, D303																	0 DIV15	11	2	240Z		100	
	24" GAC INFLUENT HEADER/OZONE EFFLUENT HEADER																	0 DIV15	11	2	240Z		101	
	FABD STAINLESS STEEL PIPE - FLG																	0 DIV15	11	2	240Z		102	
	24" GAC INFLUENT HEADER/OZONE EFFLUENT HEADER																	0 DIV15	11	2	240Z		103	
	FABD SSTL 24" PIPE	150.0	LF	48.0	0.320	6.72	1,008	FABD SSTL	0		0		0		0	1,008	1,431	DIV15	11	2	240Z		104	
	FABD SSTL 24" 90 ELL	2.0	EA	5.3	2.640	55.44	111	FABD SSTL	0		0		0		0	111	157	DIV15	11	2	240Z		105	
	FABD SSTL 24" TEE	1.0	EA	4.8	4.752	99.79	100	FABD SSTL	0		0		0		0	100	142	DIV15	11	2	240Z		106	
	FABD SSTL 24" X 18" REDUCING TEE	1.0	EA	4.5	4.488	94.25	94	FABD SSTL	0		0		0		0	94	134	DIV15	11	2	240Z		107	
	FABD SSTL 24" X 14" REDUCING TEE	2.0	EA	9.0	4.488	94.25	188	FABD SSTL	0		0		0		0	188	268	DIV15	11	2	240Z		108	
	FABD SSTL 24" FLANGE	8.0	EA	21.1	2.640	55.44	444	FABD SSTL	0		0		0		0	444	630	DIV15	11	2	240Z		109	
	FABD SSTL 24" BLIND FLANGE	2.0	EA	9.5	4.752	99.79	200	FABD SSTL	0		0		0		0	200	283	DIV15	11	2	240Z		110	
	FLG ACC-STAINLESS STEEL 24"	8.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	240Z		111	
	SUPP-HDG 24" WALL BRACKET W/U-BK	6.0	EA	46.4	7.728	162.29	974	SUPPORTS	0		0		0		0	974	1,383	DIV15	11	2	240Z			
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	24.0	EA	7.9	0.330	6.93	166	SUPPORTS	0		0		0		0	166	236	DIV15	11	2	240Z		113	
	SUPP-316SS 24" X 7-6" (CL) ADJ FLR W/	4.0	EA	23.1	5.775	121.28	485	SUPPORTS	0		0		0		0	485	689	DIV15	11	2	240Z		114	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	16.0	EA	5.3	0.330	6.93	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	240Z		115	
	GROUT PIPE SUPPORT BASE	4.0	EA	2.2	0.550	11.55	46	15.00	60				0		0	106	126	DIV15	11	2	240Z		116	
	INSTR-PRESSURE GAUGE ASSEMBLY \	4.0	EA	6.6	1.650	34.65	139	W/MISC PP	0		0		0		0	139	197	DIV15	11	2	240Z		117	
	SAMPLE PORTS	4.0	EA	5.5	1.375	28.88	116	150.00	600		0		0		0	716	764	DIV15	11	2	240Z		118	
	ELEVATED WORK	1.0	EA	8.0	8.000	168.00	168		0		0		0	200.00	200	368	439	DIV15	11	2	240Z			
	GAC & TREATMENT ROOM - DWG D302, D303																	0 DIV15	11	2	180Z		119	
	18" OZONE PIPE																	0 DIV15	11	2	180Z		120	
	FABD STAINLESS STEEL PIPE - FLG																	0 DIV15	11	2	180Z		121	
	18" OZONE PIPE FROM INJECTION POINT																	0 DIV15	11	2	180Z		122	
	VLV BFV 18" FLG W/HW OP	3.0	EA	11.9	3.960	83.16	249	W/VALVES	0		0		0		0	249	354	DIV15	11	2	180Z		123	
	FABD SSTL 18" PIPE	240.0	LF	54.6	0.228	4.78	1,148	FABD SSTL	0		0		0		0	1,148	1,630	DIV15	11	2	180Z		124	
	FABD SSTL 18" 90 ELL	20.0	EA	39.6	1.980	41.58	832	FABD SSTL	0		0		0		0	832	1,181	DIV15	11	2	180Z		125	
	FABD SSTL 18" TEE	1.0	EA	3.6	3.564	74.84	75	FABD SSTL	0		0		0		0	75	106	DIV15	11	2	180Z		126	
	FABD SSTL 18" FLANGE	14.0	EA	27.7	1.980	41.58	582	FABD SSTL	0		0		0		0	582	827	DIV15	11	2	180Z		127	
	FABD SSTL 18" BLIND FLANGE	1.0	EA	3.6	3.564	74.84	75	FABD SSTL	0		0		0		0	75	106	DIV15	11	2	180Z		128	
	FLG ACC-STAINLESS STEEL 18"	7.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	180Z		129	
	SUPP-PIPE RACK 7-6" WIDE X 20-0" TA	2.0	EA	24.5	12.250	257.25	515	8500.00	17,000				0		0	17,515	17,731	DIV15	11	2	180Z		130	
	SUPP-HDG 18" BASE SADDLE W/ PIPE C	20.0	EA	105.0	5.250	110.25	2,205	SUPPORTS	0		0		0		0	2,205	3,131	DIV15	11	2	180Z		131	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	16.0	EA	5.3	0.330	6.93	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	180Z		132	
	GROUT PIPE SUPPORT BASE	16.0	EA	8.8	0.550	11.55	185	15.00	240		0		0		0	425	502	DIV15	11	2	180Z		133	
	MISC SUPPORT HARDWARE	20.0	EA	3.3	0.165	3.47	69	20.00	400		0		0		0	469	498	DIV15	11	2	180Z		134	
	PIPELINE FLASH REACTOR	1.0	EA	0.0	W/EQUIP		0	W/EQUIP	0		0		0		0	0	0	DIV15	11	2	180Z		135	
	INSTR-PRESSURE GAUGE ASSEMBLY \	1.0	EA	1.7	1.650	34.65	35	W/MISC PP	0		0		0		0	35	49	DIV15	11	2	180Z		136	
	SAMPLE PORTS	1.0	EA	1.4	1.375	28.88	29	150.00	150		0		0		0	179	191	DIV15	11	2	180Z		137	
	GAC & TREATMENT ROOM - DWG D302, D303																	0 DIV15	11	2	180Z		138	
	18" OZONE REACTOR INFLUENT PIPE																	0 DIV15	11	2	180Z		139	
	FABD STEEL PIPE - FLG																	0 DIV15	11	2	180Z		140	
	FROM OZONE INFLUENT HEADER TO OZONE REACTOR																	0 DIV15	11	2	180Z		141	
	FLOW METER 18"	1.0	EA	3.8	3.750	78.75	79	W/I&C	0		0		0		0	79	112	DIV15	11	2	180Z		142	
	FABD STEEL 18" PIPE	36.0	LF	5.9	0.165	3.47	125	/FABD STL	0		0		0		0	125	177	DIV15	11	2	180Z		143	
	FABD STEEL 18" TEE	2.0	EA	4.8	2.376	49.90	100	/FABD STL	0		0		0		0	100	142	DIV15	11	2	180Z		144	
	FABD STEEL 18" X 08" REDUCER	2.0	EA	4.0	1.980	41.58	83	/FABD STL	0		0		0		0	83	118	DIV15	11	2	180Z		145	
	FABD STEEL 18" FLANGE	6.0	EA	5.3	0.891	18.71	112	/FABD STL	0		0		0		0	112	159	DIV15	11	2	180Z		146	
	FABD STEEL 18" BLIND FLANGE	1.0	EA	1.6	1.584	33.26	33	/FABD STL	0		0		0		0	33	47	DIV15	11	2	180Z		147	
	FLG ACC-STAINLESS STEEL 18"	6.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	180Z		148	
	FLG INSULATING KIT 18" (POLY SLV W	1.0	EA	0.6	0.616	12.94	13	W/MISC PP	0		0		0		0	13	18	DIV15	11	2	180Z		149	
	INSTR-PRESSURE GAUGE ASSEMBLY \	1.0	EA	1.7	1.650	34.65	35	W/MISC PP	0		0		0		0	35	49	DIV15	11	2	180Z		150	
	SAMPLE PORTS	1.0	EA	1.4	1.375	28.88	29	150.00	150		0		0		0	179	191	DIV15	11	2	180Z		151	
	SUPP-HDG 18" X 3'-0" (CL) ADJ FLR W/	4.0	EA	17.4	4.356	91.48	366	SUPPORTS	0		0		0		0	366	520	DIV15	11	2	180Z		152	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	16.0	EA	5.3	0.330	6.93	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	180Z		153	
	GROUT PIPE SUPPORT BASE	4.0	EA	2.2	0.550	11.55	46	15.00	60		0		0		0	106	126	DIV15	11	2	180Z		154	
	GAC & TREATMENT ROOM - DWG D302, D303																	0 DIV15	11	2	240Z INF		155	
	24" OZONE REACTOR INFLUENT HEADER																	0 DIV15	11	2	240Z INF		156	
	FABD STEEL PIPE - FLG																	0 DIV15	11	2	240Z INF		157	
	FROM USLAB TO OZONE INFLUENT HEADER																	0 DIV15	11	2	240Z INF		158	
	VLV BFV 24" FLG W/CW OP	1.0	EA	6.6	6.600	138.60	139	W/VALVES	0		0		0		0	139	197	DIV15	11	2	240Z INF		159	
	FABD STEEL 24" PIPE	30.0	LF	6.6	0.220	4.62	139	/FABD STL	0		0		0		0	139	197	DIV15	11	2	240Z INF		160	
	FABD STEEL 24" 90 ELL	2.0	EA	5.3	2.640	55.44	111	/FABD STL	0		0		0		0	111	157	DIV15	11	2	240Z INF		161	
	FABD STEEL 24" CROSS	1.0	EA	3.2	3.168	66.53	67	/FABD STL	0		0		0		0	67	94	DIV15	11	2	240Z INF		162	
	FABD STEEL 24" X 18" REDUCER	2.0	EA	5.3	2.640	55.44	111	/FABD STL	0		0		0		0	111	157	DIV15	11	2	240Z INF		163	
	FABD STEEL 24" FLANGE	3.0	EA	3.6	1.188	24.95	75	/FABD STL	0		0		0		0	75	106	DIV15	11	2	240Z INF		164	
	FLG ACC-ABOVE GRADE 24"	2.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	240Z INF		165	

Estimate for

TOTALS				40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619													
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markups Harked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Orth Total									
	FLG INSULATING KIT 24" (POLY SLV W	1.0	EA	0.8	0.810	17.00	17	W/MISC PP	0		0		0		0	17	24	DIV15	11	2	24OZ INF		166	
	SUPP-HDG 24" X 14'-6" (CL) ADJ FLR W/	1.0	EA	6.1	6.050	127.05	127	SUPPORTS	0		0		0		0	127	180	DIV15	11	2	24OZ INF		167	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	4.0	EA	1.3	0.330	6.93	28	SUPPORTS	0		0		0		0	28	39	DIV15	11	2	24OZ INF		168	
	GROUT PIPE SUPPORT BASE	1.0	EA	0.6	0.550	11.55	12	15.00	15		0		0		0	27	31	DIV15	11	2	24OZ INF		169	
	OZONE SYSTEM																0	DIV15	11	2	6OZ		170	
	06" OZONE PFR TO FLASH REACTOR																0	DIV15	11	2	6OZ		171	
	FABD STAINLESS STEEL PIPE - FLG																0	DIV15	11	2	6OZ		172	
LIST BELOW	VLV SWING CHECK VALVE-FLG 06"	1.0	EA	1.3	1.320	27.72	28	W/VALVES	0		0		0		0	28	39	DIV15	11	2	6OZ		173	
LIST BELOW	VLV SWING CHECK VALVE-FLG 06"	1.0	EA	1.3	1.320	27.72	28	W/VALVES	0		0		0		0	28	39	DIV15	11	2	6OZ		174	
LIST BELOW	VLV BFV 06" FLG W/CW OP	1.0	EA	1.7	1.650	34.65	35	W/VALVES	0		0		0		0	35	49	DIV15	11	2	6OZ		175	
LIST BELOW	VLV BFV 06" FLG W/CW OP	1.0	EA	1.7	1.650	34.65	35	W/VALVES	0		0		0		0	35	49	DIV15	11	2	6OZ		176	
LIST BELOW	EXPANSION JOINT 06"	2.0	EA	3.3	1.650	34.65	69	W/MISC PP	0		0		0		0	69	98	DIV15	11	2	6OZ		177	
	FABD SSTL 06" PIPE	45.0	LF	6.8	0.152	3.19	143	FABD SSTL	0		0		0		0	143	204	DIV15	11	2	6OZ		178	
	FABD SSTL 06" 90 ELL	11.0	EA	7.3	0.660	13.86	152	FABD SSTL	0		0		0		0	152	216	DIV15	11	2	6OZ		179	
	FABD SSTL 06" FLANGE	15.0	EA	9.9	0.660	13.86	208	FABD SSTL	0		0		0		0	208	295	DIV15	11	2	6OZ		180	
	FLG ACC-STAINLESS STEEL 06"	13.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	6OZ		181	
	SUPP-HDG 06" X 6'-0" (CL) ADJ FLR W/ I	5.0	EA	8.3	1.650	34.65	173	SUPPORTS	0		0		0		0	173	246	DIV15	11	2	6OZ		182	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	20.0	EA	6.6	0.330	6.93	139	SUPPORTS	0		0		0		0	139	197	DIV15	11	2	6OZ		183	
	GROUT NON-SHRINK	5.0	CF	2.2	0.440	9.24	46	26.09	130		0		0		0	177	196	DIV15	11	2	6OZ		184	
	SLEEVE - HDG 10" X 1'-0" LONG W/SEEI	1.0	EA	2.8	2.750	57.75	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	6OZ		185	
	LINK SEAL LS-475-SS-10 LINKS / SEAL	20.0	EA	1.7	0.083	1.73	35	W/MISC PP	0		0		0		0	35	49	DIV15	11	2	6OZ		186	
	GROUT NON-SHRINK	1.0	CF	0.4	0.440	9.24	9	26.09	26		0		0		0	35	39	DIV15	11	2	6OZ		187	
	OZONE SYSTEM																0	DIV15	11	2	8OZ		188	
	08" OZONE INJECTION SKID SIDESTREAM																0	DIV15	11	2	8OZ		189	
	FABD STAINLESS STEEL PIPE - FLG																0	DIV15	11	2	8OZ		190	
	VLV BFV 08" FLG W/HW OP	2.0	EA	3.5	1.760	36.96	74	W/VALVES	0		0		0		0	74	105	DIV15	11	2	8OZ		191	
LIST BELOW	EXPANSION JOINT 08"	2.0	EA	3.9	1.925	40.43	81	W/MISC PP	0		0		0		0	81	115	DIV15	11	2	8OZ		192	
	FABD SSTL 08" PIPE	75.0	LF	12.5	0.167	3.51	263	FABD SSTL	0		0		0		0	263	373	DIV15	11	2	8OZ		193	
	FABD SSTL 08" 90 ELL	8.0	EA	7.0	0.880	18.48	148	FABD SSTL	0		0		0		0	148	210	DIV15	11	2	8OZ		194	
	FABD SSTL 08" FLANGE	9.0	EA	7.9	0.880	18.48	166	FABD SSTL	0		0		0		0	166	236	DIV15	11	2	8OZ		195	
	FLG ACC-STAINLESS STEEL 08"	10.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	8OZ		196	
	SUPP-SS316 08" X 1'-6" (CL) ADJ FLR W/	7.0	EA	15.4	2.200	46.20	323	SUPPORTS	0		0		0		0	323	459	DIV15	11	2	8OZ		197	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	24.0	EA	7.9	0.330	6.93	166	SUPPORTS	0		0		0		0	166	236	DIV15	11	2	8OZ		198	
	GROUT PIPE SUPPORT BASE	7.0	EA	3.9	0.550	11.55	81	15.00	105		0		0		0	186	220	DIV15	11	2	8OZ		199	
	SLEEVE - HDG 12" X 1'-0" LONG W/SEEI	1.0	EA	3.3	3.300	69.30	69	W/MISC PP	0		0		0		0	69	98	DIV15	11	2	8OZ		200	
	LINK SEAL LS-475-SS-12 LINKS / SEAL	12.0	EA	1.0	0.083	1.73	21	W/MISC PP	0		0		0		0	21	30	DIV15	11	2	8OZ		201	
	GROUT NON-SHRINK	1.0	CF	0.4	0.440	9.24	9	26.09	26		0		0		0	35	39	DIV15	11	2	8OZ		202	
	OZONE SYSTEM																0	DIV15	11	2	3OZ		203	
	02" / 03" OZONE GAS TO INJECTION SKID																0	DIV15	11	2	3OZ		204	
	FABD STAINLESS STEEL PIPE - FLG																0	DIV15	11	2	3OZ		205	
LIST BELOW	VLV SS316 THRD-BALL VALVE 02"	2.0	EA	1.4	0.715	15.02	30	W/VALVES	0		0		0		0	30	43	DIV15	11	2	3OZ		206	
LIST BELOW	EXPANSION JOINT 02"	2.0	EA	1.7	0.825	17.33	35	W/MISC PP	0		0		0		0	35	49	DIV15	11	2	3OZ		207	
	FABD SSTL 03" PIPE	160.0	LF	21.9	0.137	2.87	459	FABD SSTL	0		0		0		0	459	652	DIV15	11	2	3OZ		208	
	FABD SSTL 03" 90 ELL	10.0	EA	4.4	0.440	9.24	92	FABD SSTL	0		0		0		0	92	131	DIV15	11	2	3OZ		209	
	FABD SSTL 03" TEE	2.0	EA	1.6	0.792	16.63	33	FABD SSTL	0		0		0		0	33	47	DIV15	11	2	3OZ		210	
	FABD SSTL 03" X 02" REDUCER	2.0	EA	0.9	0.440	9.24	18	FABD SSTL	0		0		0		0	18	26	DIV15	11	2	3OZ		211	
	FABD SSTL 02" PIPE	20.0	LF	2.7	0.137	2.87	57	FABD SSTL	0		0		0		0	57	81	DIV15	11	2	3OZ		212	
	FABD SSTL 02" 90 ELL	4.0	EA	1.8	0.440	9.24	37	FABD SSTL	0		0		0		0	37	52	DIV15	11	2	3OZ		213	
	FABD SSTL 02" FLANGE	4.0	EA	1.8	0.440	9.24	37	FABD SSTL	0		0		0		0	37	52	DIV15	11	2	3OZ		214	
	FLG ACC-STAINLESS STEEL 03"	2.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	3OZ		215	
	FLG ACC-STAINLESS STEEL 02"	4.0	EA	0.0	w/Fig		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	3OZ		216	
	SLEEVE - HDG 06" X 1'-0" LONG W/SEEI	2.0	EA	2.8	1.375	28.88	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	3OZ		217	
	LINK SEAL LS-360-SS-7 LINKS / SEAL	28.0	EA	2.3	0.083	1.73	49	W/MISC PP	0		0		0		0	49	69	DIV15	11	2	3OZ		218	
	SUPP-SS316 03" X 3'-0" (CL) ADJ FLR W/	2.0	EA	1.7	0.825	17.33	35	SUPPORTS	0		0		0		0	35	49	DIV15	11	2	3OZ		219	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0	EA	2.6	0.330	6.93	55	SUPPORTS	0		0		0		0	55	79	DIV15	11	2	3OZ		220	
	GROUT NON-SHRINK	2.0	CF	0.9	0.440	9.24	18	26.09	52		0		0		0	71	78	DIV15	11	2	3OZ		221	
	SUPP-HDG 03" X 5'-0" (CL) CLEVIS HAN	6.0	EA	2.7	0.446	9.36	56	SUPPORTS	0		0		0		0	56	80	DIV15	11	2	3OZ		222	
	SUPP-INSULATE BETWEEN HDG & SST	6.0	EA	1.0	0.165	3.47	21	SUPPORTS	0		0		0		0	21	30	DIV15	11	2	3OZ		223	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	24.0	EA	7.9	0.330	6.93	166	SUPPORTS	0		0		0		0	166	236	DIV15	11	2	3OZ		224	
	SUPP-HDG 03" WALL BRACKET W/U-BR	4.0	EA	4.0	0.990	20.79	83	SUPPORTS	0		0		0		0	83	118	DIV15	11	2	3OZ		225	
	SUPP-INSULATE BETWEEN HDG & SST	4.0	EA	0.																				

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Bond & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orh Unit	Orh Total									
	SS316 150# THD 02-1/2" 90 ELL	6.0	EA	3.6	0.592	12.43	75	W/MISC PP	0		0		0		0	75	106	DIV15	11	2	2PFR		233	
	SS316 150# THD 2" FLANGE	2.0	EA	0.8	0.418	8.78	18	W/MISC PP	0		0		0		0	18	25	DIV15	11	2	2PFR		234	
	FLG ACC-STAINLESS STEEL <=02"	2.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	2PFR		235	
	SLEEVE - 316 SSTL 03-1/2" X 2'-0" LONG	2.0	EA	1.7	0.825	17.33	35	W/MISC PP	0		0		0		0	35	49	DIV15	11	2	2PFR		236	
	LINK SEAL LS-200-SS-8 LINKS / SEAL	32.0	EA	2.6	0.083	1.73	55	W/MISC PP	0		0		0		0	55	79	DIV15	11	2	2PFR		237	
	GROUT NON-SHRINK	1.0	CF	0.4	0.440	9.24	9	26.09	26		0		0		0	35	39	DIV15	11	2	2PFR		238	
	SUPP-HDG 02" X 5'-0" (CL) CLEVIS HAN	4.0	EA	1.8	0.446	9.36	37	SUPPORTS	0		0		0		0	37	53	DIV15	11	2	2PFR		239	
02" PIPE	SUPP-INSULATE BETWEEN HDG & SST	4.0	EA	0.7	0.165	3.47	14	SUPPORTS	0		0		0		0	14	20	DIV15	11	2	2PFR		240	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	16.0	EA	3.5	0.220	4.62	74	SUPPORTS	0		0		0		0	74	105	DIV15	11	2	2PFR		241	
	OZONE SYSTEM										0		0		0		0	DIV15	11	2	2LOX		242	
	02" LOX (INSULATE)																0	DIV15	11	2	2LOX		243	
	FABD STAINLESS STEEL PIPE - FLG																0	DIV15	11	2	2LOX		244	
	FABD SSTL 02" PIPE	120.0	LF	16.8	0.140	2.94	353	FABD SSTL	0		0		0		0	353	501	DIV15	11	2	2LOX		245	
	FABD SSTL 02" TEE	1.0	EA	0.8	0.792	16.63	17	FABD SSTL	0		0		0		0	17	24	DIV15	11	2	2LOX		246	
	FABD SSTL 02" 90 ELL	8.0	EA	3.5	0.440	9.24	74	FABD SSTL	0		0		0		0	74	105	DIV15	11	2	2LOX		247	
	FABD SSTL 02" FLANGE	15.0	EA	6.6	0.440	9.24	139	FABD SSTL	0		0		0		0	139	197	DIV15	11	2	2LOX		248	
	FLG ACC-STAINLESS STEEL 02"	10.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	2LOX		249	
	SLEEVE - 316 SSTL 03-1/2" X 2'-0" LONG	2.0	EA	1.7	0.825	17.33	35	W/MISC PP	0		0		0		0	35	49	DIV15	11	2	2LOX		250	
Double	LINK SEAL LS-200-SS-8 LINKS / SEAL	32.0	EA	2.6	0.083	1.73	55	W/MISC PP	0		0		0		0	55	79	DIV15	11	2	2LOX		251	
Both Sides	GROUT NON-SHRINK	2.0	CF	0.9	0.440	9.24	18	26.09	52		0		0		0	71	78	DIV15	11	2	2LOX		252	
	SUPP-HDG 03" WALL BRACKET W/U-BK	7.0	EA	6.9	0.990	20.79	146	SUPPORTS	0		0		0		0	146	207	DIV15	11	2	2LOX		253	
02" PIPE	SUPP-INSULATE BETWEEN HDG & SST	7.0	EA	1.2	0.165	3.47	24	SUPPORTS	0		0		0		0	24	34	DIV15	11	2	2LOX		254	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	24.0	EA	7.9	0.330	6.93	166	SUPPORTS	0		0		0		0	166	236	DIV15	11	2	2LOX		255	
	PIPE INSULATION W/JACKET 02"	120.0	LF	0.0			0		0	w/Insulation	0		0		0	0	0	DIV15	11	2	2LOX		256	
	OZONE SYSTEM																0	DIV15	11	2	2CWR		257	
	02" COOLING WATER RETURN																0	DIV15	11	2	2CWR		258	
	FABD STEEL PIPE - FLG																0	DIV15	11	2	2CWR		259	
	FABD STEEL 02" PIPE	100.0	LF	10.3	0.103	2.15	215	/FABD STL	0		0		0		0	215	306	DIV15	11	2	2CWR		260	
	FABD STEEL 02" 90 ELL	6.0	EA	2.6	0.440	9.24	55	/FABD STL	0		0		0		0	55	79	DIV15	11	2	2CWR		261	
	FABD STEEL 02" TEE	1.0	EA	0.5	0.528	11.09	11	/FABD STL	0		0		0		0	11	16	DIV15	11	2	2CWR		262	
	FABD STEEL 02" FLANGE	2.0	EA	0.5	0.231	4.85	10	/FABD STL	0		0		0		0	10	14	DIV15	11	2	2CWR		263	
	FLG ACC-STAINLESS STEEL 02"	2.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	2CWR		264	
	SUPP-HDG 03" WALL BRACKET W/U-BK	4.0	EA	4.0	0.990	20.79	83	SUPPORTS	0		0		0		0	83	118	DIV15	11	2	2CWR		265	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0	EA	2.6	0.330	6.93	55	SUPPORTS	0		0		0		0	55	79	DIV15	11	2	2CWR		266	
	SUPP-HDG 03" X 5'-0" (CL) CLEVIS HAN	4.0	EA	1.8	0.446	9.36	37	SUPPORTS	0		0		0		0	37	53	DIV15	11	2	2CWR		267	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	16.0	EA	5.3	0.330	6.93	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	2CWR		268	
	SLEEVE - 316 SSTL 06" X 1'-0" LONG W/	1.0	EA	1.1	1.100	23.10	23	W/MISC PP	0		0		0		0	23	33	DIV15	11	2	2CWR		269	
	LINK SEAL LS-360-SS-7 LINKS / SEAL	7.0	EA	0.6	0.083	1.73	12	W/MISC PP	0		0		0		0	12	17	DIV15	11	2	2CWR		270	
	PIPE INSULATION W/JACKET 02"	100.0	LF	0.0			0		0	w/Insulation	0		0		0	0	0	DIV15	11	2	2CWR		271	
	Add Flange or Coupling Connection on 02"	1.0	EA	4.4	4.400	92.40	92	250.00	250		0		0		0	342	381	DIV15	11	2	2CWR		272	
	ROOF PENETRATION 02"	1.0	EA	6.6	6.600	138.60	139	350.00	350		0		0		0	489	547	DIV15	11	2	2CWR		273	
	OZONE SYSTEM																0	DIV15	11	2	2CWS		274	
	03" COOLING WATER SUPPLY																0	DIV15	11	2	2CWS		275	
	FABD STEEL PIPE - FLG																0	DIV15	11	2	2CWS		276	
	FABD STEEL 03" PIPE	100.0	LF	11.0	0.110	2.31	231	/FABD STL	0		0		0		0	231	328	DIV15	11	2	2CWS		277	
	FABD STEEL 03" 90 ELL	10.0	EA	4.4	0.440	9.24	92	/FABD STL	0		0		0		0	92	131	DIV15	11	2	2CWS		278	
	FABD STEEL 03" TEE	1.0	EA	0.5	0.528	11.09	11	/FABD STL	0		0		0		0	11	16	DIV15	11	2	2CWS		279	
	FABD STEEL 03" FLANGE	2.0	EA	0.5	0.231	4.85	10	/FABD STL	0		0		0		0	10	14	DIV15	11	2	2CWS		280	
	FLG ACC-STAINLESS STEEL 03"	2.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	2CWS		281	
	SUPP-HDG 03" WALL BRACKET W/U-BK	4.0	EA	4.0	0.990	20.79	83	SUPPORTS	0		0		0		0	83	118	DIV15	11	2	2CWS		282	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	16.0	EA	5.3	0.330	6.93	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	2CWS		283	
	SUPP-HDG 03" X 5'-0" (CL) CLEVIS HAN	2.0	EA	0.9	0.446	9.36	19	SUPPORTS	0		0		0		0	19	27	DIV15	11	2	2CWS		284	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0	EA	2.6	0.330	6.93	55	SUPPORTS	0		0		0		0	55	79	DIV15	11	2	2CWS		285	
	PIPE INSULATION W/JACKET 03"	100.0	LF	0.0			0		0	w/Insulation	0		0		0	0	0	DIV15	11	2	2CWS		286	
	Add Flange or Coupling Connection for 03"	1.0	EA	4.4	4.400	92.40	92	250.00	250		0		0		0	342	381	DIV15	11	2	2CWS		287	
	ROOF PENETRATION 03"	1.0	EA	6.6	6.600	138.60	139	350.00	350		0		0		0	489	547	DIV15	11	2	2CWS		288	
	OZONE SYSTEM																0	DIV15	11	2	2OX		289	
MAY NOT B 02" OXYGEN SUPPLY																	0	DIV15	11	2	2OX		290	
	FABD STAINLESS STEEL PIPE - FLG																0	DIV15	11	2	2OX		291	
	FABD SSTL 02" PIPE	40.0	LF	5.5	0.137	2.87	115	FABD SSTL	0		0		0		0	115	163	DIV15	11	2	2OX		292	
	FABD SSTL 02" 90 ELL	5.0	EA	2.2	0.440	9.24	46	FABD SSTL	0		0		0		0	46	66	DIV15	11	2	2OX		293	
	FABD SSTL 02" TEE	2.0	EA	1.6	0.792	16.63	33	FABD SSTL	0		0		0		0	33	47	DIV15	11	2	2OX		294	
	FABD SSTL 02" FLANGE	3.0	EA	1.3	0.440	9.24	28	FABD SSTL	0		0		0		0	28	39	DIV15	11	2	2OX		295	
	FLG ACC-STAINLESS STEEL 02"	3.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	2OX		296	
	Add Flange or Coupling Connection for Fab	3.0	EA	13.2	4.400	92.40	277	250.00	750		0		0		0	1,027	1,144	DIV15	11	2	2OX		297	
	SUPP-HDG 02" X 5'-0" (CL) CLEVIS HAN	2.0	EA	0.9	0.446	9.36	19	SUPPORTS	0		0		0		0	19	27	DIV15	11	2	2OX		298	
02" PIPE	SUPP-INSULATE BETWEEN HDG & SST	2.0	EA	0.3	0.165	3.47	7	SUPPORTS	0		0		0		0	7	10	DIV15	11	2	2OX		299	

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Bid Item & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Oth Total									
02" PIPE	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0	EA	2.6	0.330	6.93	55	SUPPORTS	0		0		0		0	55	79 DIV15	11	2	20X			300	
	SUPP-HDG 02" WALL BRACKET W/U-BK	3.0	EA	3.0	0.990	20.79	62	SUPPORTS	0		0		0		0	62	89 DIV15	11	2	20X			301	
	SUPP-INSULATE BETWEEN HDG & SST	1.0	EA	0.2	0.165	3.47	3	SUPPORTS	0		0		0		0	3	5 DIV15	11	2	20X			302	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	6.0	EA	2.0	0.330	6.93	42	SUPPORTS	0		0		0		0	42	59 DIV15	11	2	20X			303	
	OZONE SYSTEM																0 DIV15	11	2	40ZOG			304	
	04" OZONE OFFGASS																0 DIV15	11	2	40ZOG			305	
	FABD STAINLESS STEEL PIPE - FLG																0 DIV15	11	2	40ZOG			306	
LIST BELOW	VLV BFV 04" FLG W/HW OP	2.0	EA	1.8	0.880	18.48	37	W/VALVES	0		0		0		0	37	52 DIV15	11	2	40ZOG			307	
	FABD SSTL 04" PIPE	50.0	LF	7.3	0.145	3.05	152	FABD SSTL	0		0		0		0	152	216 DIV15	11	2	40ZOG			308	
	FABD SSTL 04" TEE	1.0	EA	0.8	0.792	16.63	17	FABD SSTL	0		0		0		0	17	24 DIV15	11	2	40ZOG			309	
	FABD SSTL 04" 90 ELL	7.0	EA	3.1	0.440	9.24	65	FABD SSTL	0		0		0		0	65	92 DIV15	11	2	40ZOG			310	
	FABD SSTL 04" FLANGE	4.0	EA	1.8	0.440	9.24	37	FABD SSTL	0		0		0		0	37	52 DIV15	11	2	40ZOG			311	
	FLG ACC-STAINLESS STEEL 04"	6.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15	11	2	40ZOG			312	
04" PIPE	SUPP-HDG 04" X 6'-0" (CL) ADJ FLR W/	4.0	EA	4.4	1.100	23.10	92	SUPPORTS	0		0		0		0	92	131 DIV15	11	2	40ZOG			313	
	SUPP-INSULATE BETWEEN HDG & SST	7.0	EA	1.2	0.165	3.47	24	SUPPORTS	0		0		0		0	24	34 DIV15	11	2	40ZOG			314	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	28.0	EA	9.2	0.330	6.93	194	SUPPORTS	0		0		0		0	194	276 DIV15	11	2	40ZOG			315	
	GROUT PIPE SUPPORT BASE	7.0	EA	3.9	0.550	11.55	81	15.00	105		0		0		0	186	220 DIV15	11	2	40ZOG			316	
	CONNECT TO OZONE EFFLUENT LINE	2.0	EA	3.3	1.650	34.65	69	225.00	450		0		0		0	519	548 DIV15	11	2	40ZOG			317	
	SLEEVE - HDG 06" X 1'-0" LONG W/SEE	1.0	EA	1.7	1.650	34.65	35	W/MISC PP	0		0		0		0	35	49 DIV15	11	2	40ZOG			318	
	LINK SEAL LS-300-SS-10 LINKS / SEAL	10.0	EA	0.8	0.083	1.73	17	W/MISC PP	0		0		0		0	17	25 DIV15	11	2	40ZOG			319	
	GROUT NON-SHRINK	1.0	CF	0.4	0.440	9.24	9	26.09	26		0		0		0	35	39 DIV15	11	2	40ZOG			320	
	OZONE SYSTEM																0 DIV15	11	2	40ZD			321	
	04" OZONE DESTRUCT VENT																0 DIV15	11	2	40ZD			322	
	FABD STAINLESS STEEL PIPE - FLG																0 DIV15	11	2	40ZD			323	
	FABD SSTL 04" PIPE	50.0	LF	7.3	0.145	3.05	152	FABD SSTL	0		0		0		0	152	216 DIV15	11	2	40ZD			324	
	FABD SSTL 04" 90 ELL	4.0	EA	1.8	0.440	9.24	37	FABD SSTL	0		0		0		0	37	52 DIV15	11	2	40ZD			325	
	FABD SSTL 04" FLANGE	2.0	EA	0.9	0.440	9.24	18	FABD SSTL	0		0		0		0	18	26 DIV15	11	2	40ZD			326	
	FLG ACC-STAINLESS STEEL 04"	2.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15	11	2	40ZD			327	
	ROOF PENETRATION FOR 04" VENT PI	2.0	EA	8.0	4.000	84.00	168	150.00	300		0		0		0	468	539 DIV15	11	2	40ZD			328	
LIST BELOW	SAMPLE LINES NOT SHOWN																0 DIV15	11	2	SAM			329	
LIST BELOW	SAMPLE LINES FROM PROCESS PIPING	300.0	LF	99.0	0.330	6.93	2,079	14.00	4,200		0		0		0	6,279	7,152 DIV15	11	2	SAM			330	
LIST BELOW	SAMPLE PUMP ASSEMBLY	2.0	EA	30.8	15.400	323.40	647	1100.00	2,200		0		0		0	2,847	3,118 DIV15	11	2	SAM			331	
	CHEMICAL ROOM																0 DIV15	11	2	HP			332	
	01" / 02" HYDROGEN PEROXIDE FROM TANKS TO FEED PUMPS																0 DIV15	11	2	HP			333	
	SSTL 304L SCH 40 / WELD																0 DIV15	11	2	HP			334	
	SS316 3000# SW 04" X 2" REDUCER	2.0	EA	2.6	1.301	27.32	55	W/MISC PP	0		0		0		0	55	78 DIV15	11	2	HP			335	
	SS316 S40 BW 4" SLIP ON FLANGE (150#	2.0	EA	1.2	0.593	12.45	25	W/MISC PP	0		0		0		0	25	35 DIV15	11	2	HP			336	
	FLG ACC-STAINLESS STEEL 04"	2.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15	11	2	HP			337	
	VLV SS316 FLG-BALL VALVE 02"	2.0	EA	1.6	0.787	16.52	33	W/EQUIP	0		0		0		0	33	47 DIV15	11	2	HP			338	
	VLV SS316 FLG -CHECK VALVE 02" T/A	1.0	EA	0.8	0.787	16.52	17	W/EQUIP	0		0		0		0	17	23 DIV15	11	2	HP			339	
	SSTL BRAIDED HOSE 02" (NSF61) X 24"	2.0	EA	1.7	0.825	17.33	35	W/EQUIP	0		0		0		0	35	49 DIV15	11	2	HP			340	
	SS316 ADAPTER 02"	4.0	EA	0.9	0.220	4.62	18	W/MISC PP	0		0		0		0	18	26 DIV15	11	2	HP			341	
	SS316 S40 PIPE 02"	20.0	LF	4.5	0.225	4.73	95	W/MISC PP	0		0		0		0	95	134 DIV15	11	2	HP			342	
	SS316 3000# SW 2" 90 ELL	8.0	EA	3.7	0.460	9.66	77	W/MISC PP	0		0		0		0	77	110 DIV15	11	2	HP			343	
	SS316 3000# SW 2" TEE	2.0	EA	1.1	0.575	12.07	24	W/MISC PP	0		0		0		0	24	34 DIV15	11	2	HP			344	
	SS316 3000# SW 2" COUP	4.0	EA	2.0	0.508	10.67	43	W/MISC PP	0		0		0		0	43	61 DIV15	11	2	HP			345	
	SS316 FLANGE-SW 02"	12.0	EA	6.1	0.508	10.67	128	W/MISC PP	0		0		0		0	128	182 DIV15	11	2	HP			346	
	FLG ACC-STAINLESS STEEL 02"	12.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15	11	2	HP			347	
	SUPP-316SS 02" PIPE STRUT SUPPORT /	6.0	EA	2.9	0.484	10.16	61	SUPPORTS	0		0		0		0	61	87 DIV15	11	2	HP			348	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	12.0	EA	2.9	0.242	5.08	61	SUPPORTS	0		0		0		0	61	87 DIV15	11	2	HP			349	
	VLV SS316 FLG-BALL VALVE 01"	6.0	EA	3.3	0.545	11.43	69	W/EQUIP	0		0		0		0	69	97 DIV15	11	2	HP			350	
	WYE STRAINER 01"	2.0	EA	1.1	0.550	11.55	23	450.00	900		0		0		0	923	933 DIV15	11	2	HP			351	
	CALIBRATION COLUMN 01"	2.0	EA	1.7	0.825	17.33	35	W/EQUIP	0		0		0		0	35	49 DIV15	11	2	HP			352	
	SSTL BRAIDED HOSE 01" (NSF61) X 24"	2.0	EA	1.7	0.825	17.33	35	W/EQUIP	0		0		0		0	35	49 DIV15	11	2	HP			353	
	SS316 ADAPTER 01"	2.0	EA	0.4	0.220	4.62	9	W/MISC PP	0		0		0		0	9	13 DIV15	11	2	HP			354	
	SS316 S40 PIPE 01"	10.0	LF	1.2	0.118	2.48	25	W/MISC PP	0		0		0		0	25	35 DIV15	11	2	HP			355	
	SS316 3000# SW 1" 90 ELL	4.0	EA	1.2	0.296	6.23	25	W/MISC PP	0		0		0		0	25	35 DIV15	11	2	HP			356	
	SS316 3000# SW 1" TEE	4.0	EA	1.5	0.370	7.78	31	W/MISC PP	0		0		0		0	31	44 DIV15	11	2	HP			357	
	SS316 3000# SW 02" X 01" RED COUPLIN	2.0	EA	0.9	0.460	9.66	19	W/MISC PP	0		0		0		0	19	27 DIV15	11	2	HP			358	
	SS316 FLANGE-SW 01"	20.0	EA	5.9	0.296	6.23	125	W/MISC PP	0		0		0		0	125	177 DIV15	11	2	HP			359	
	FLG ACC-STAINLESS STEEL 01"	20.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0 DIV15	11	2	HP			360	
	SUPP-316SS 01" PIPE STRUT SUPPORT /	2.0	EA	1.0	0.484	10.16	20	SUPPORTS	0		0		0		0	20	29 DIV15	11	2	HP			361	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	4.0	EA	1.0	0.242	5.08	20	SUPPORTS	0		0		0		0	20	29 DIV15	11	2	HP			362	
	CUT & BEVEL SSTL PIPE 01"	20.0	EA	7.3	0.363	7.62	152		0		0		0		0	152	216 DIV15	11	2	HP			363	
	WELD SSTL S40 01"	20.0	EA	10.0	0.500	10.50	210		0	37.50	750		0	1.00	20	980	1,068 DIV15	11	2	HP			364	
	CUT & BEVEL SSTL PIPE 02"	20.0	EA	9.5	0.475	9.97	199		0		0		0		0	199	283 DIV15	11	2	HP			365	
	WELD SSTL S40 02"	20.0	EA	20.0	1.000	21.00	420		0	58.88	1,178		0	2.00	40	1,638	1,814 DIV15	11	2	HP			366	

Estimate for

TOTALS

40,174

897,285

10,757,403

5,294,206

2,874,436

1,297,429

21,120,760

21,497,619

0

Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burdens & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
	PICKLE & PASSIVATE (HYDROGEN PEI	30.0	LF		5.0	0.165	3.47	104	5.00	150			0		0	254	298	DIV15	11	2	HP		367	
	CHEMICAL ROOM																0	DIV15	11	2	HP		368	
	00-3/4" HYDROGEN PEROXIDE FEED PUMPS TO INJECTION POI																0	DIV15	11	2	HP		369	
	SSTL 304L SCH 40 / WELD																0	DIV15	11	2	HP		370	
HYDROGEN	INJECTION QUILL	3.0	EA		4.1	1.375	28.88	87	W/EQUIP	0			0		0	87	123	DIV15	11	2	HP		371	
	PULSATION DAMPENER	3.0	EA		1.3	0.440	9.24	28	W/EQUIP	0			0		0	28	39	DIV15	11	2	HP		372	
SSTL	INSTR-PRESSURE GAUGE ASSEMBLY	3.0	EA		5.0	1.650	34.65	104	W/EQUIP	0			0		0	104	148	DIV15	11	2	HP		373	
	VLV SS316 PRESSURE RELIEF 00-3/4"	3.0	EA		2.5	0.825	17.33	52	W/EQUIP	0			0		0	52	74	DIV15	11	2	HP		374	
	SSTL BRAIDED HOSE 00-3/4" X 24" LON	3.0	EA		2.5	0.825	17.33	52	W/EQUIP	0			0		0	52	74	DIV15	11	2	HP		375	
	VLV BACKPRESSURE REGULATOR 01"	3.0	EA		1.7	0.550	11.55	35	W/EQUIP	0			0		0	35	49	DIV15	11	2	HP		376	
	VLV SS316 FLG-BALL VALVE 01"	9.0	EA		4.9	0.545	11.43	103	W/EQUIP	0			0		0	103	146	DIV15	11	2	HP		377	
	VLV SS316 FLG-CHECK VALVE 01"	3.0	EA		1.6	0.545	11.43	34	W/EQUIP	0			0		0	34	49	DIV15	11	2	HP		378	
	SS304 S10 PIPE 01"	435.0	LF		51.3	0.118	2.48	1,078	W/MISC PP	0			0		0	1,078	1,530	DIV15	11	2	HP		379	
	SS304 3000# SW 01" 90 ELL	24.0	EA		7.1	0.296	6.23	149	W/MISC PP	0			0		0	149	212	DIV15	11	2	HP		380	
	SS304 3000# SW 01" TEE	6.0	EA		2.2	0.370	7.78	47	W/MISC PP	0			0		0	47	66	DIV15	11	2	HP		381	
	SS304 3000# SW 01" UNION	6.0	EA		1.8	0.296	6.23	37	W/MISC PP	0			0		0	37	53	DIV15	11	2	HP		382	
	SS304 3000# SW 01" SLIP ON FLANGE (I	33.0	EA		9.8	0.296	6.23	205	W/MISC PP	0			0		0	205	292	DIV15	11	2	HP		383	
	FLG ACC-STAINLESS STEEL 01"	27.0	EA		0.0	w/Ftg		0	W/MISC PP	0			0		0	0	0	DIV15	11	2	HP		384	
FLOOR SLEEVE	SLEEVE - HDG 02-1/2" X 1'-0" LONG W/S	2.0	EA		1.4	0.688	14.44	29	W/MISC PP	0			0		0	29	41	DIV15	11	2	HP		385	
WALL SLEEVE	SLEEVE - HDG 02-1/2" X 1'-0" LONG W/S	8.0	EA		5.5	0.688	14.44	116	W/MISC PP	0			0		0	116	164	DIV15	11	2	HP		386	
01" PIPE	LINK SEAL LS-200-SS-5 LINKS / SEAL	100.0	EA		9.1	0.091	1.91	191	W/MISC PP	0			0		0	191	271	DIV15	11	2	HP		387	
	FIRE RATED WALL PENETRATION 3-H	3.0	EA		5.0	1.650	34.65	104	W/MISC PP	0			0		0	104	148	DIV15	11	2	HP		388	
	SUPP-316SS 03" X 5'-0" (CL) CLEVIS HA	15.0	EA		6.7	0.446	9.36	140	SUPPORTS	0			0		0	140	199	DIV15	11	2	HP		389	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	30.0	EA		9.9	0.330	6.93	208	SUPPORTS	0			0		0	208	295	DIV15	11	2	HP		390	
	SUPP-316SS 02" & LESS PIPE SUPPORT	45.0	EA		19.8	0.440	9.24	416	SUPPORTS	0			0		0	416	590	DIV15	11	2	HP		391	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	90.0	EA		21.8	0.242	5.08	457	SUPPORTS	0			0		0	457	649	DIV15	11	2	HP		392	
	CUT & BEVEL SSTL PIPE 01"	120.0	EA		43.6	0.363	7.62	915		0			0		0	915	1,299	DIV15	11	2	HP		393	
	WELD SSTL S40 01"	120.0	EA		60.0	0.500	10.50	1,260		0	37.50	4,500		1.00	120	5,880	6,409	DIV15	11	2	HP		394	
	PICKLE & PASSIVATE (HYDROGEN PEI	435.0	LF		71.8	0.165	3.47	1,507	5.00	2,175			0		0	3,682	4,315	DIV15	11	2	HP		395	
	CHEMICAL ROOM																0	DIV15	11	2	HP		396	
	02" HYDROGEN PEROXIDE TANK FILL																0	DIV15	11	2	HP		397	
	SSTL 304L SCH 40 / WELD																0	DIV15	11	2	HP		398	
HYDROGEN	CHEMICAL FILL STATION	1.0	EA		3.3	3.300	69.30	69	W/MISC PP	0			0		0	69	98	DIV15	11	2	HP		399	
	VLV SS316 FLG-BALL VALVE 02"	2.0	EA		1.6	0.787	16.52	33	W/EQUIP	0			0		0	33	47	DIV15	11	2	HP		400	
	VLV SS316 FLG-CHECK VALVE 02"	2.0	EA		1.6	0.787	16.52	33	W/EQUIP	0			0		0	33	47	DIV15	11	2	HP		401	
	SS304 S40 PIPE 02"	60.0	LF		13.5	0.225	4.73	284	W/MISC PP	0			0		0	284	403	DIV15	11	2	HP		402	
	SS304 3000# SW 02" 90 ELL	7.0	EA		3.2	0.460	9.66	68	W/MISC PP	0			0		0	68	96	DIV15	11	2	HP		403	
	SS304 3000# SW 02" TEE	1.0	EA		0.6	0.575	12.07	12	W/MISC PP	0			0		0	12	17	DIV15	11	2	HP		404	
	SS304 3000# SW 02" COUPLING	2.0	EA		0.9	0.460	9.66	19	W/MISC PP	0			0		0	19	27	DIV15	11	2	HP		405	
	SS304 3000# SW 02" SLIP ON FLANGE (I	10.0	EA		4.6	0.460	9.66	97	W/MISC PP	0			0		0	97	137	DIV15	11	2	HP		406	
EPDM	FLG ACC-STAINLESS STEEL <=02"	10.0	EA		0.0	w/Ftg		0	W/MISC PP	0			0		0	0	0	DIV15	11	2	HP		407	
	UNISTRUT 1-5/8 SSTL	10.0	LF		1.8	0.182	3.81	38	SUPPORTS	0			0		0	38	54	DIV15	11	2	HP		408	
	SUPP-316SS 02" X 9'-0" (CL) CLEVIS HA	4.0	EA		2.0	0.490	10.29	41	SUPPORTS	0			0		0	41	58	DIV15	11	2	HP		409	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0	EA		1.9	0.242	5.08	41	SUPPORTS	0			0		0	41	58	DIV15	11	2	HP		410	
	SUPP-316SS 02" PIPE STRUT SUPPORT /	4.0	EA		1.9	0.484	10.16	41	SUPPORTS	0			0		0	41	58	DIV15	11	2	HP		411	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0	EA		1.9	0.242	5.08	41	SUPPORTS	0			0		0	41	58	DIV15	11	2	HP		412	
	SLEEVE - HDG 03-1/2" X 1'-0" LONG W/S	1.0	EA		0.8	0.825	17.33	17	W/MISC PP	0			0		0	17	25	DIV15	11	2	HP		413	
	LINK SEAL LS-200-SS-8 LINKS / SEAL	8.0	EA		0.7	0.091	1.91	15	W/MISC PP	0			0		0	15	22	DIV15	11	2	HP		414	
	GROUT NON-SHRINK	1.0	CF		0.5	0.484	10.16	10	26.09	26			0		0	36	41	DIV15	11	2	HP		415	
	CUT & BEVEL SSTL PIPE 02"	12.0	EA		5.7	0.475	9.97	120		0			0		0	120	170	DIV15	11	2	HP		416	
	WELD SSTL S40 02"	30.0	EA		30.0	1.000	21.00	630		0	58.88	1,766		2.00	60	2,456	2,721	DIV15	11	2	HP		417	
	PICKLE & PASSIVATE (HYDROGEN PEI	60.0	LF		9.9	0.165	3.47	208	5.00	300			0		0	508	595	DIV15	11	2	HP		418	
	CHEMICAL ROOM																0	DIV15	11	2	HP		419	
	08" HYDROGEN PEROXIDE TANK VENT																0	DIV15	11	2	HP		420	
	SSTL 304L SCH 40 / WELD																0	DIV15	11	2	HP		421	
	SS316 S40 PIPE 08"	34.0	LF		12.5	0.368	7.72	263	W/MISC PP	0			0		0	263	373	DIV15	11	2	HP		422	
	SS316 S40 BW 8" 90 ELL	5.0	EA		5.1	1.016	21.34	107	W/MISC PP	0			0		0	107	152	DIV15	11	2	HP		423	
	SS316 S40 BW 8" TEE	1.0	EA		1.3	1.271	26.68	27	W/MISC PP	0			0		0	27	38	DIV15	11	2	HP		424	
	SS316 S40 BW 8" SLIP ON FLANGE (150#	2.0	EA		2.0	1.016	21.34	43	W/MISC PP	0			0		0	43	61	DIV15	11	2	HP		425	
	FLG ACC-STAINLESS STEEL 08"	2.0	EA		0.0	w/Ftg		0	W/MISC PP	0			0		0	0	0	DIV15	11	2	HP		426	
	ROOF PENETRATION 08" CPVC	1.0	EA		8.8	8.800	184.80	185	400.00	40														

Estimate for

TOTALS				40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619													
Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burdens & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Orth Total									
	PICKLE & PASSIVATE (HYDROGEN PEI VENT FROM PUMPS	34.0	LF	5.6	0.165	3.47	118	5.00	170		0		0		0	288	337	DIV15	11	2	HP		434	
	SS304 S40 PIPE 01"	20.0	LF	2.4	0.118	2.48	50	W/MISC PP	0		0		0		0	50	70	DIV15	11	2	HP		435	
	SS304 3000# SW 01" 90 ELL	9.0	EA	2.7	0.296	6.23	56	W/MISC PP	0		0		0		0	56	80	DIV15	11	2	HP		437	
	SS304 3000# SW 01" COUPLING	3.0	EA	0.9	0.296	6.23	19	W/MISC PP	0		0		0		0	19	27	DIV15	11	2	HP		438	
	SS304 3000# SW 01" UNION	3.0	EA	0.9	0.296	6.23	19	W/MISC PP	0		0		0		0	19	27	DIV15	11	2	HP		439	
	SS304 3000# SW 08" X 4" RED TEE	1.0	EA	1.3	1.271	26.68	27	W/MISC PP	0		0		0		0	27	38	DIV15	11	2	HP		440	
	SS304 3000# SW 04" X 2" RED COUPLIN	1.0	EA	1.0	1.041	21.85	22	W/MISC PP	0		0		0		0	22	31	DIV15	11	2	HP		441	
	SS304 S40 PIPE 02"	25.0	LF	5.2	0.209	4.38	110	W/MISC PP	0		0		0		0	110	156	DIV15	11	2	HP		442	
	SS304 3000# SW 02" 90 ELL	4.0	EA	1.8	0.460	9.66	39	W/MISC PP	0		0		0		0	39	55	DIV15	11	2	HP		443	
	SS304 3000# SW 02" X 1" RED TEE	2.0	EA	1.1	0.575	12.07	24	W/MISC PP	0		0		0		0	24	34	DIV15	11	2	HP		444	
	SS304 3000# SW 02" CAP	1.0	EA	0.5	0.460	9.66	10	W/MISC PP	0		0		0		0	10	14	DIV15	11	2	HP		445	
	SUPP-316SS 01" PIPE STRUT X 12" W/PI	5.0	EA	2.4	0.484	10.16	51	SUPPORTS	0		0		0		0	51	72	DIV15	11	2	HP		446	
	SUPP-316SS 02" PIPE STRUT X 12" W/PI	2.0	EA	1.0	0.484	10.16	20	SUPPORTS	0		0		0		0	20	29	DIV15	11	2	HP		447	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	14.0	EA	3.4	0.242	5.08	71	SUPPORTS	0		0		0		0	71	101	DIV15	11	2	HP		448	
	UNISTRUT 1-5/8 COATED	20.0	LF	3.6	0.182	3.81	76	SUPPORTS	0		0		0		0	76	108	DIV15	11	2	HP		449	
	SUPP-316SS 02" X 5'-0" (CL) CLEVIS HA	4.0	EA	2.0	0.490	10.29	41	SUPPORTS	0		0		0		0	41	58	DIV15	11	2	HP		450	
	MISC SUPPORT HARDWARE	8.0	EA	2.2	0.275	5.78	46	15.00	120		0		0		0	166	186	DIV15	11	2	HP		451	
	CUT & BEVEL SSTL PIPE 01"	4.0	EA	1.5	0.363	7.62	30		0		0		0		0	30	43	DIV15	11	2	HP		452	
	WELD SSTL S40 01"	34.0	EA	17.0	0.500	10.50	357		0	37.50	1,275		0	1.00	34	1,666	1,816	DIV15	11	2	HP		453	
	CUT & BEVEL SSTL PIPE 02"	4.0	EA	1.9	0.475	9.97	40		0		0		0		0	40	57	DIV15	11	2	HP		454	
	WELD SSTL S40 02"	16.0	EA	16.0	1.000	21.00	336		0	58.88	942		0	2.00	32	1,310	1,451	DIV15	11	2	HP		455	
	PICKLE & PASSIVATE (HYDROGEN PEI	45.0	LF	7.4	0.165	3.47	156	5.00	225		0		0		0	381	446	DIV15	11	2	HP		456	
	CHEMICAL ROOM																0	DIV15	11	2	HP		457	
	08" HYDROGEN PEROXIDE TANK OVERFLOW																0	DIV15	11	2	HP		458	
	SSTL 304L SCH 40 / WELD																0	DIV15	11	2	HP		459	
	SS304 S40 PIPE 04"	20.0	LF	5.7	0.285	5.99	120	W/MISC PP	0		0		0		0	120	170	DIV15	11	2	HP		460	
	SS304 S40 BW 4" 90 ELL	2.0	EA	1.2	0.593	12.45	25	W/MISC PP	0		0		0		0	25	35	DIV15	11	2	HP		461	
	SS304 S40 BW 4" SLIP ON FLANGE (150#	2.0	EA	1.2	0.593	12.45	25	W/MISC PP	0		0		0		0	25	35	DIV15	11	2	HP		462	
	FLG ACC-STAINLESS STEEL 04"	2.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	HP		463	
	DEWATERING ROOM																0	DIV15	11	2	6SLD		464	
	04" / 06" SOLIDS PUMP SUCTION																0	DIV15	11	2	6SLD		465	
	DUCTILE IRON PIPE - FLG																0	DIV15	11	2	6SLD		466	
	FLOW METER 06"	2.0	EA	4.4	2.200	46.20	92	W/VALVES	0		0		0		0	92	131	DIV15	11	2	6SLD		467	
	VLV PLUG 06" FLG W/HW OP	4.0	EA	5.3	1.320	27.72	111	W/VALVES	0		0		0		0	111	157	DIV15	11	2	6SLD		468	
	VLV PLUG 06" FLG W/MTR OP	2.0	EA	4.2	2.112	44.35	89	W/VALVES	0		0		0		0	89	126	DIV15	11	2	6SLD		469	
	VLV SWING CHECK VALVE-FLG 04"	2.0	EA	1.8	0.880	18.48	37	W/VALVES	0		0		0		0	37	52	DIV15	11	2	6SLD		470	
	VLV PLUG 04" FLG W/HW OP	2.0	EA	1.8	0.880	18.48	37	W/VALVES	0		0		0		0	37	52	DIV15	11	2	6SLD		471	
	DISMANTLING JOINT 04" FLANGED	2.0	EA	1.8	0.924	19.40	39	V/DIP&ACC	0		0		0		0	39	55	DIV15	11	2	6SLD		472	
	EXPANSION JOINT 04"	2.0	EA	1.9	0.935	19.64	39	W/MISC PP	0		0		0		0	39	56	DIV15	11	2	6SLD		473	
	DIP CML 06" X 05'-0" SPOOL - FLG X FL	2.0	EA	2.2	1.122	23.56	47	V/DIP&ACC	0		0		0		0	47	67	DIV15	11	2	6SLD		474	
	DIP CML 06" X 01'-0" SPOOL - FLG X FL	2.0	EA	2.2	1.122	23.56	47	V/DIP&ACC	0		0		0		0	47	67	DIV15	11	2	6SLD		475	
	DIP CML 06" FLG 90 BEND	2.0	EA	2.2	1.122	23.56	47	V/DIP&ACC	0		0		0		0	47	67	DIV15	11	2	6SLD		476	
	DIP CML 06" FLG TEE	2.0	EA	3.3	1.650	34.65	69	V/DIP&ACC	0		0		0		0	69	98	DIV15	11	2	6SLD		477	
	DIP CML 06" BLIND FLANGE	1.0	EA	1.1	1.122	23.56	24	V/DIP&ACC	0		0		0		0	24	33	DIV15	11	2	6SLD		478	
	DIP CML 06" X 04" FLG RED TEE	1.0	EA	1.7	1.650	34.65	35	V/DIP&ACC	0		0		0		0	35	49	DIV15	11	2	6SLD		479	
	DIP CML 06" X 04" FLG CONC REDUCE	1.0	EA	1.1	1.122	23.56	24	V/DIP&ACC	0		0		0		0	24	33	DIV15	11	2	6SLD		480	
	DIP CML 04" X 01'-0" SPOOL - FLG X FL	4.0	EA	3.3	0.818	17.19	69	V/DIP&ACC	0		0		0		0	69	98	DIV15	11	2	6SLD		481	
	DIP CML 04" FLG 90 BEND	3.0	EA	2.2	0.748	15.71	47	V/DIP&ACC	0		0		0		0	47	67	DIV15	11	2	6SLD		482	
	FLG ACC-ABOVE GRADE 06"	16.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	6SLD		483	
	FLG ACC-ABOVE GRADE 04"	17.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	6SLD		484	
	SLEEVE - HDG 10" X 1'-0" LONG W/SEE	1.0	EA	2.8	2.750	57.75	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	6SLD		485	
	LINK SEAL LS-410-SS-10 LINKS / SEAL	10.0	EA	0.8	0.083	1.73	17	W/MISC PP	0		0		0		0	17	25	DIV15	11	2	6SLD		486	
	SUPP-HDG 06" X 3'-0" (CL) ADJ FLR W/	2.0	EA	3.3	1.650	34.65	69	SUPPORTS	0		0		0		0	69	98	DIV15	11	2	6SLD		487	
	SUPP-HDG 04" X 3'-0" (CL) ADJ FLR W/	2.0	EA	2.2	1.100	23.10	46	SUPPORTS	0		0		0		0	46	66	DIV15	11	2	6SLD		488	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	16.0	EA	5.3	0.330	6.93	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	6SLD		489	
	GROUT PIPE SUPPORT BASE	4.0	EA	2.2	0.550	11.55	46	15.00	60		0		0		0	106	126	DIV15	11	2	6SLD		490	
	INSTR-PRESSURE GAUGE ASSEMBLY	2.0	EA	3.3	1.650	34.65	69	W/MISC PP	0		0		0		0	69	98	DIV15	11	2	6SLD		491	
	DEWATERING ROOM																							

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open					
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total														
POLYMER	DIP CML 10" X 07'-6" SPOOL - FLG X FL	1.0	EA	1.9	1.870	39.27	39	V/DIP&ACC	0		0		0		0	39	56	DIV15	11	2	10SLD		501						
	DIP CML 10" X 04'-0" SPOOL - FLG X FL	2.0	EA	3.7	1.870	39.27	79	V/DIP&ACC	0		0		0		0	79	112	DIV15	11	2	10SLD		502						
	DIP CML 10" X 02'-0" SPOOL - FLG X FL	2.0	EA	3.7	1.870	39.27	79	V/DIP&ACC	0		0		0		0	79	112	DIV15	11	2	10SLD		503						
	DIP CML 10" X 03'-6" SPOOL - FLG X FL	1.0	EA	1.9	1.870	39.27	39	V/DIP&ACC	0		0		0		0	39	56	DIV15	11	2	10SLD		504						
	DIP CML 10" X 03'-0" SPOOL - FLG X FL	4.0	EA	7.5	1.870	39.27	157	V/DIP&ACC	0		0		0		0	157	223	DIV15	11	2	10SLD		505						
	DIP CML 10" X 01'-0" SPOOL - FLG X FL	2.0	EA	3.7	1.870	39.27	79	V/DIP&ACC	0		0		0		0	79	112	DIV15	11	2	10SLD		506						
	DIP CML 10" FLG 90 BEND	7.0	EA	13.1	1.870	39.27	275	V/DIP&ACC	0		0		0		0	275	390	DIV15	11	2	10SLD		507						
	DIP CML 10" FLG TEE	2.0	EA	5.5	2.750	57.75	116	V/DIP&ACC	0		0		0		0	116	164	DIV15	11	2	10SLD		508						
	DIP CML 10" BLIND FLANGE	1.0	EA	1.9	1.870	39.27	39	V/DIP&ACC	0		0		0		0	39	56	DIV15	11	2	10SLD		509						
	DIP CML 10" X 04" FLG RED TEE	1.0	EA	2.8	2.750	57.75	58	V/DIP&ACC	0		0		0		0	58	82	DIV15	11	2	10SLD		510						
	DIP CML 10" X 04" FLG CONC REDUCE	1.0	EA	1.9	1.870	39.27	39	V/DIP&ACC	0		0		0		0	39	56	DIV15	11	2	10SLD		511						
	DIP CML 04" X 01'-0" SPOOL - FLG X FL	4.0	EA	3.3	0.818	17.19	69	V/DIP&ACC	0		0		0		0	69	98	DIV15	11	2	10SLD		512						
	DIP CML 04" FLG 90 BEND	1.0	EA	0.7	0.748	15.71	16	V/DIP&ACC	0		0		0		0	16	22	DIV15	11	2	10SLD		513						
	FLG ACC-ABOVE GRADE 10"	34.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	0	DIV15	11	2	10SLD		514					
	FLG ACC-ABOVE GRADE 04"	12.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	0	DIV15	11	2	10SLD		515					
	SUPP-HDG 10" X 3'-0" (CL) ADJ FLR W/1	10.0	EA	27.5	2.750	57.75	578	SUPPORTS	0		0		0		0	578	820	DIV15	11	2	10SLD		516						
	SUPP-HDG 04" X 3'-0" (CL) ADJ FLR W/1	2.0	EA	2.2	1.100	23.10	46	SUPPORTS	0		0		0		0	46	66	DIV15	11	2	10SLD		517						
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	48.0	EA	15.8	0.330	6.93	333	SUPPORTS	0		0		0		0	333	472	DIV15	11	2	10SLD		518						
	GROUT PIPE SUPPORT BASE	12.0	EA	6.6	0.550	11.55	139	15.00	180		0		0		0	319	377	DIV15	11	2	10SLD		519						
	INSTR-PRESSURE GAUGE ASSEMBLY V	2.0	EA	3.3	1.650	34.65	69	W/MISC PP	0		0		0		0	69	98	DIV15	11	2	10SLD		520						
	DEWATERING ROOM																												
	01" POLYMER FEED PUMPS TO INJECTION																												
	PVC SCH 80 - SW																												
	STATIC MIXER 01"																												
			2.0	EA	0.8	0.385	8.09	16	W/MISC PP	0		0		0		0	16	23	DIV15	11	2	1POLY		524					
	PULSATION DAMPENR																												
			2.0	EA	0.8	0.385	8.09	16	W/EQUIP	0		0		0		0	16	23	DIV15	11	2	1POLY		525					
	INSTR-PRESSURE GAUGE ASSEMBLY V																												
			2.0	EA	3.3	1.650	34.65	69	W/MISC PP	0		0		0		0	69	98	DIV15	11	2	1POLY		526					
	VLV PVC BALL CHECK VALVE 1" T/U																												
			2.0	EA	0.6	0.275	5.78	12	W/VALVES	0		0		0		0	12	16	DIV15	11	2	1POLY		527					
	VLV PVC-BALL VALVE 01" T/U																												
			3.0	EA	0.8	0.275	5.78	17	W/VALVES	0		0		0		0	17	25	DIV15	11	2	1POLY		528					
	PVC HOSE W/ CONNECTIONS																												
			2.0	EA	1.0	0.495	10.40	21	W/MISC PP	0		0		0		0	21	30	DIV15	11	2	1POLY		529					
	TAPPING SADDLE 10" X 01"																												
			2.0	EA	2.8	1.375	28.88	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	1POLY		530					
	PVC S80 01" X 20 FT PIPE PE																												
			180.0	LF	11.9	0.066	1.39	249	W/MISC PP	0		0		0		0	249	354	DIV15	11	2	1POLY		531					
	PVC S80 01" COUPLING SXS																												
			4.0	EA	0.9	0.220	4.62	18	W/MISC PP	0		0		0		0	18	26	DIV15	11	2	1POLY		532					
	PVC S80 01" 90 ELL SXS																												
			14.0	EA	3.1	0.220	4.62	65	W/MISC PP	0		0		0		0	65	92	DIV15	11	2	1POLY		533					
	PVC S80 01" TEE SXS																												
			2.0	EA	0.6	0.286	6.01	12	W/MISC PP	0		0		0		0	12	17	DIV15	11	2	1POLY		534					
	PVC S80 01" UNION SXS																												
			4.0	EA	0.9	0.220	4.62	18	W/MISC PP	0		0		0		0	18	26	DIV15	11	2	1POLY		535					
	PVC S80 01" MALE ADAPTER (MIPT X S																												
			4.0	EA	0.9	0.220	4.62	18	W/MISC PP	0		0		0		0	18	26	DIV15	11	2	1POLY		536					
	PVC S80 01" FLANGE VAN STONE STYL																												
		4.0	EA	1.1	0.275	5.78	23	W/MISC PP	0		0		0		0	23	33	DIV15	11	2	1POLY		537						
FLG ACC-STAINLESS STEEL <=02"																													
		4.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	1POLY		538						
SUPP-316SS 02" & LESS PIPE SUPPORT																													
		12.0	EA	5.3	0.440	9.24	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	1POLY		539						
SUPP-SSTL ANCHOR AT PIPE SUPPORT																													
		24.0	EA	5.3	0.220	4.62	111	SUPPORTS	0		0		0		0	111	157	DIV15	11	2	1POLY		540						
SUPP-HDG 03" X 5'-0" (CL) CLEVIS HAN																													
		10.0	EA	4.5	0.446	9.36	94	SUPPORTS	0		0		0		0	94	133	DIV15	11	2	1POLY		541						
SUPP-SSTL ANCHOR AT PIPE SUPPORT																													
		20.0	EA	6.6	0.330	6.93	139	SUPPORTS	0		0		0		0	139	197	DIV15	11	2	1POLY		542						
DEWATERING ROOM																													
01" POLYMER TOTE TO FEED PUMPS																													
PVC SCH 80 - SW																													
CALIBRATION COLUMN 01"																													
		2.0	EA	1.1	0.550	11.55	23	W/EQUIP	0		0		0		0	23	33	DIV15	11	2	1POLY		546						
INSTR-PRESSURE GAUGE ASSEMBLY V																													
		2.0	EA	3.3	1.650	34.65	69	W/MISC PP	0		0		0		0	69	98	DIV15	11	2	1POLY		547						
VLV PVC-BALL VALVE 01" T/U																													
		5.0	EA	1.4	0.275	5.78	29	W/VALVES	0		0		0		0	29	41	DIV15	11	2	1POLY		548						
PVC HOSE W/ CONNECTIONS																													
		3.0	EA	1.5	0.495	10.40	31	W/MISC PP	0		0		0		0	31	44	DIV15	11	2	1POLY		549						
PVC S80 01" X 20 FT PIPE PE																													
		40.0	LF	2.6	0.066	1.39	55	W/MISC PP	0		0		0		0	55	79	DIV15	11	2	1POLY		550						
PVC S80 01" 90 ELL SXS																													
		12.0	EA	2.6	0.220	4.62	55	W/MISC PP	0		0		0		0	55	79	DIV15	11	2	1POLY		551						
PVC S80 01" TEE SXS																													
		2.0	EA	0.6	0.286	6.01	12	W/MISC PP	0		0		0		0	12	17	DIV15	11	2	1POLY		552						
PVC S80 01" UNION SXS																													
		2.0	EA	0.4	0.220	4.62	9	W/MISC PP	0</																				

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Bids & Markup Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Mat Unit	Mat Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orh Unit	Oth Total									
	FORM CONC ENCASED PIPE 06"	15.0	LF	16.5	1.100	23.10	347	7.00	105		0		0		0	452	597	DIV15	11	2	6SLD		568	
	REBAR CONC ENCASED PIPE 06"	15.0	LF	0.0			0	27.13	407	8.63	129		0		0	536	536	DIV15	11	2	6SLD		569	
	PLACE CONC ENCASED PIPE 06"	15.0	LF	3.1	0.203	4.27	64	20.96	314		0		0		0	379	405	DIV15	11	2	6SLD		570	
	DEWATERING ROOM - UNDERSLAB																0	DIV15	11	2	6FLTRT		571	
	06" FILTRATE FROM CENTRIFUGE UNDERSLAB PIPE																0	DIV15	11	2	6FLTRT		572	
	DUCTILE IRON PIPE - MJ																0	DIV15	11	2	6FLTRT		573	
	DIP CML 06" X 10'-0" SPOOL - FLG X PE	3.0	EA	4.2	1.398	29.36	88	V/DIP&ACC	0		0		0		0	88	125	DIV15	11	2	6FLTRT		574	
	DIP CML 06" PIPE-RESTRAINED JOINT	50.0	LF	7.8	0.155	3.26	163	V/DIP&ACC	0		0		0		0	163	231	DIV15	11	2	6FLTRT		575	
	DIP CML 06" MJ 90 BEND	1.0	EA	0.7	0.660	13.86	14	V/DIP&ACC	0		0		0		0	14	20	DIV15	11	2	6FLTRT		576	
	DIP CML 06" MJ TEE	2.0	EA	2.0	0.990	20.79	42	V/DIP&ACC	0		0		0		0	42	59	DIV15	11	2	6FLTRT		577	
	MEGALUG 06" W/MJ ACC (GSKT,BOLT)	8.0	EA	4.0	0.506	10.63	85	V/DIP&ACC	0		0		0		0	85	121	DIV15	11	2	6FLTRT		578	
	FLG ACC-ABOVE GRADE 06"	3.0	EA	0.0	w/Flg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	6FLTRT		579	
	CRIB & PREP CONC ENCASED PIPE 06"	50.0	LF	7.5	0.150	3.15	158	1.98	99		0		0		0	257	323	DIV15	11	2	6FLTRT		580	
	FORM CONC ENCASED PIPE 06"	50.0	LF	55.0	1.100	23.10	1,155	7.00	350		0		0		0	1,505	1,990	DIV15	11	2	6FLTRT		581	
	REBAR CONC ENCASED PIPE 06"	50.0	LF	0.0			0	27.13	1,356	8.63	432		0		0	1,788	1,788	DIV15	11	2	6FLTRT		582	
	PLACE CONC ENCASED PIPE 06"	50.0	LF	10.2	0.203	4.27	214	20.96	1,048		0		0		0	1,262	1,352	DIV15	11	2	6FLTRT		583	
	TREATMENT ROOM - UNDERSLAB																0	DIV15	11	2	24UV		584	
	24" UV EFFLUENT UNDERSLAB PIPE																0	DIV15	11	2	24UV		585	
	DUCTILE IRON PIPE - MJ																0	DIV15	11	2	24UV		586	
	DIP CML 24" X 12'-0" SPOOL - FLG X PE	1.0	EA	4.4	4.361	91.59	92	V/DIP&ACC	0		0		0		0	92	130	DIV15	11	2	24UV		587	
	DIP CML 24" PIPE-RESTRAINED JOINT	40.0	LF	11.0	0.275	5.78	231	V/DIP&ACC	0		0		0		0	231	328	DIV15	11	2	24UV		588	
	DIP CML 24" MJ 90 BEND	1.0	EA	2.6	2.640	55.44	55	V/DIP&ACC	0		0		0		0	55	79	DIV15	11	2	24UV		589	
	MEGALUG 24" W/MJ ACC (GSKT,BOLT)	2.0	EA	4.0	2.023	42.48	85	V/DIP&ACC	0		0		0		0	85	121	DIV15	11	2	24UV		590	
	CRIB & PREP CONC ENCASED PIPE 24"	35.0	LF	14.9	0.425	8.93	312	7.92	277		0		0		0	590	721	DIV15	11	2	24UV		591	
	FORM CONC ENCASED PIPE 24"	35.0	LF	61.6	1.760	36.96	1,294	11.20	392		0		0		0	1,686	2,229	DIV15	11	2	24UV		592	
	REBAR CONC ENCASED PIPE 24"	35.0	LF	0.0			0	57.63	2,017	18.34	642		0		0	2,659	2,659	DIV15	11	2	24UV		593	
	PLACE CONC ENCASED PIPE 24"	35.0	LF	15.1	0.432	9.08	318	44.53	1,559		0		0		0	1,876	2,010	DIV15	11	2	24UV		594	
	TREATMENT ROOM - UNDERSLAB																0	DIV15	11	2	24OZINF		595	
	24" OZONE INFLUENT UNDERSLAB PIPE																0	DIV15	11	2	24OZINF		596	
	DUCTILE IRON PIPE - MJ																0	DIV15	11	2	24OZINF		597	
	DIP CML 24" X 12'-0" SPOOL - FLG X PE	1.0	EA	4.4	4.361	91.59	92	V/DIP&ACC	0		0		0		0	92	130	DIV15	11	2	24OZINF		598	
	DIP CML 24" PIPE-RESTRAINED JOINT	45.0	LF	12.4	0.275	5.78	260	V/DIP&ACC	0		0		0		0	260	369	DIV15	11	2	24OZINF		599	
	DIP CML 24" MJ 90 BEND	1.0	EA	2.6	2.640	55.44	55	V/DIP&ACC	0		0		0		0	55	79	DIV15	11	2	24OZINF		600	
	MEGALUG 24" W/MJ ACC (GSKT,BOLT)	2.0	EA	4.0	2.023	42.48	85	V/DIP&ACC	0		0		0		0	85	121	DIV15	11	2	24OZINF		601	
	CRIB & PREP CONC ENCASED PIPE 24"	40.0	LF	17.0	0.425	8.93	357	7.92	317		0		0		0	674	824	DIV15	11	2	24OZINF		602	
	FORM CONC ENCASED PIPE 24"	40.0	LF	70.4	1.760	36.96	1,478	11.20	448		0		0		0	1,926	2,547	DIV15	11	2	24OZINF		603	
	REBAR CONC ENCASED PIPE 24"	40.0	LF	0.0			0	57.63	2,305	18.34	733		0		0	3,039	3,039	DIV15	11	2	24OZINF		604	
	PLACE CONC ENCASED PIPE 24"	40.0	LF	17.3	0.432	9.08	363	44.53	1,781		0		0		0	2,144	2,297	DIV15	11	2	24OZINF		605	
	GAC ROOM - UNDERSLAB																0	DIV15	11	2	12BWS		606	
	12" BACKWASH SUPPLY UNDERSLAB PIPE																0	DIV15	11	2	12BWS		607	
	DUCTILE IRON PIPE - MJ																0	DIV15	11	2	12BWS		608	
	DIP CML 12" X 16'-0" SPOOL - FLG X PE	2.0	EA	5.8	2.895	60.80	122	V/DIP&ACC	0		0		0		0	122	173	DIV15	11	2	12BWS		609	
	DIP CML 12" PIPE-RESTRAINED JOINT	20.0	LF	3.8	0.188	3.95	79	V/DIP&ACC	0		0		0		0	79	112	DIV15	11	2	12BWS		610	
	DIP CML 12" MJ 90 BEND	2.0	EA	2.6	1.320	27.72	55	V/DIP&ACC	0		0		0		0	55	79	DIV15	11	2	12BWS		611	
	MEGALUG 12" W/MJ ACC (GSKT,BOLT)	4.0	EA	4.0	1.011	21.23	85	V/DIP&ACC	0		0		0		0	85	121	DIV15	11	2	12BWS		612	
	CRIB & PREP CONC ENCASED PIPE 12"	15.0	LF	3.3	0.222	4.66	70	3.96	59		0		0		0	129	159	DIV15	11	2	12BWS		613	
	FORM CONC ENCASED PIPE 12"	15.0	LF	19.8	1.320	27.72	416	8.40	126		0		0		0	542	716	DIV15	11	2	12BWS		614	
	REBAR CONC ENCASED PIPE 12"	15.0	LF	0.0			0	36.82	552	11.71	176		0		0	728	728	DIV15	11	2	12BWS		615	
	PLACE CONC ENCASED PIPE 12"	15.0	LF	4.1	0.276	5.80	87	28.45	427		0		0		0	514	550	DIV15	11	2	12BWS		616	
	GAC ROOM - UNDERSLAB																0	DIV15	11	2	12BWW		617	
	12" BACKWASH WASTE UNDERSLAB PIPE																0	DIV15	11	2	12BWW		618	
	DUCTILE IRON PIPE - MJ																0	DIV15	11	2	12BWW		619	
	DIP CML 12" X 16'-0" SPOOL - FLG X PE	2.0	EA	5.8	2.895	60.80	122	V/DIP&ACC	0		0		0		0	122	173	DIV15	11	2	12BWW		620	
	DIP CML 12" PIPE-RESTRAINED JOINT	20.0	LF	3.8	0.188	3.95	79	V/DIP&ACC	0		0		0		0	79	112	DIV15	11	2	12BWW		621	
	DIP CML 12" MJ 90 BEND	2.0	EA	2.6	1.320	27.72	55	V/DIP&ACC	0		0		0		0	55	79	DIV15	11	2	12BWW		622	
	MEGALUG 12" W/MJ ACC (GSKT,BOLT)	4.0	EA	4.0	1.011	21.23	85	V/DIP&ACC	0		0		0		0	85	121	DIV15	11	2	12BWW		623	
	CRIB & PREP CONC ENCASED PIPE 12"	15.0	LF	3.3	0.222	4.66	70	3.96	59		0		0		0	129	159	DIV15	11	2	12BWW		624	
	FORM CONC ENCASED PIPE 12"	15.0	LF	19.8	1.320	27.72	416	8.40	126		0		0		0	542	716	DIV15	11	2	12BWW		625	
	REBAR CONC ENCASED PIPE 12"	15.0	LF	0.0			0	36.82	552	11.71	176		0		0	728	728	DIV15	11	2	12BWW		626	
	PLACE CONC ENCASED PIPE 12"	15.0	LF	4.1	0.276	5.80	87	28.45	427		0		0		0	514	550	DIV15	11	2	12BWW		627	
	TREATMENT ROOM - UNDERSLAB																0	DIV15	11	2	6OZ		628	
	06" OZONE PFR UNDERSLAB PIPE																0	DIV15	11	2	6OZ		629	
	FABD STAINLESS STEEL PIPE - FLG																0	DIV15	11	2	6OZ		630	
	FABD SSTL 06" PIPE	20.0	LF	3.7	0.185	3.89	78	FABD SSTL	0		0		0		0	78	110	DIV15	11	2	6OZ		631	
	FABD SSTL 06" 90 ELL	1.0	EA	0.7	0.660	13.86	14	FABD SSTL	0		0		0		0	14	20	DIV15	11	2	6OZ		632	
	FABD SSTL 06" FLANGE	1.0	EA	0.7	0.660	13.86	14	FABD SSTL	0		0		0		0	14	20	DIV15	11	2	6OZ		633	
	CRIB & PREP CONC ENCASED PIPE 06"	15.0	LF	2.3	0.150	3.15	47	1.98	30		0		0		0	77	97	DIV15	11	2	6OZ		634	

Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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(Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Burden & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Oth Unit	Oth Total									
	FORM CONC ENCASED PIPE 06"	15.0	LF	16.5	1.100	23.10	347	7.00	105		0		0		0	452	597	DIV15	11	2	60Z		635	
	REBAR CONC ENCASED PIPE 06"	15.0	LF	0.0			0	27.13	407	8.63	129		0		0	536	536	DIV15	11	2	60Z		636	
	PLACE CONC ENCASED PIPE 06"	15.0	LF	3.1	0.203	4.27	64	20.96	314		0		0		0	379	405	DIV15	11	2	60Z		637	
	TREATMENT ROOM - UNDERSLAB																0	DIV15	11	2	8SDSTRM		638	
	08" SIDESTREAM UNDERSLAB PIPE																0	DIV15	11	2	8SDSTRM		639	
	FABD STAINLESS STEEL PIPE - FLG																0	DIV15	11	2	8SDSTRM		640	
	FABD SSTL 08" PIPE	20.0	LF	3.9	0.195	4.10	82	FABD SSTL	0		0		0		0	82	116	DIV15	11	2	8SDSTRM		641	
	FABD SSTL 08" 90 ELL	1.0	EA	0.9	0.880	18.48	18	FABD SSTL	0		0		0		0	18	26	DIV15	11	2	8SDSTRM		642	
	FABD SSTL 08" FLANGE	1.0	EA	0.9	0.880	18.48	18	FABD SSTL	0		0		0		0	18	26	DIV15	11	2	8SDSTRM		643	
	CRIB & PREP CONC ENCASED PIPE 08"	15.0	LF	2.5	0.165	3.47	52	2.64	40		0		0		0	92	113	DIV15	11	2	8SDSTRM		644	
	FORM CONC ENCASED PIPE 08"	15.0	LF	17.6	1.173	24.64	370	7.47	112		0		0		0	482	637	DIV15	11	2	8SDSTRM		645	
	REBAR CONC ENCASED PIPE 08"	15.0	LF	0.0			0	30.30	455	9.64	145		0		0	599	599	DIV15	11	2	8SDSTRM		646	
	PLACE CONC ENCASED PIPE 08"	15.0	LF	3.4	0.227	4.77	72	23.42	351		0		0		0	423	453	DIV15	11	2	8SDSTRM		647	
	EXISTING FACILITIES																0	DIV15	11	2			648	
	EXISTING CHEMICAL ROOM																0	DIV15	11	2	PA		649	
	01" PHOSPHORIC ACID																0	DIV15	11	2	PA		650	
	CPVC SCH 80 - SW																0	DIV15	11	2	PA		651	
	PHOSPHORIC ACID FROM STORAGE TOTE TO FEED PUMPS																0	DIV15	11	2	PA		652	
VITON	VLV CPVC-BALL VALVE 01" T/U	6.0	EA	2.2	0.368	7.73	46	W/VALVES	0		0		0		0	46	66	DIV15	11	2	PA		653	
	WYE STRAINER 01"	1.0	EA	0.6	0.550	11.55	12	450.00	450		0		0		0	462	466	DIV15	11	2	PA		654	
	CALIBRATION COLUMN 01"	1.0	EA	0.6	0.575	12.08	12	W/EQUIP	0		0		0		0	12	17	DIV15	11	2	PA		655	
	NYLON REINFORCED PVC TUBING 01"	3.0	EA	1.2	0.403	8.45	25	W/MISC PP	0		0		0		0	25	36	DIV15	11	2	PA		656	
	CPVC BARB TO THRD ADAPTER	6.0	EA	1.7	0.288	6.04	36	W/MISC PP	0		0		0		0	36	51	DIV15	11	2	PA		657	
	CPVC S80 01" X 20 FT PIPE PE	40.0	LF	2.8	0.069	1.45	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	PA		658	
	CPVC S80 01" 90 ELL SXS	12.0	EA	2.8	0.230	4.83	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	PA		659	
	CPVC S80 01" TEE SXS	4.0	EA	1.2	0.299	6.28	25	W/MISC PP	0		0		0		0	25	36	DIV15	11	2	PA		660	
	CPVC S80 01" UNION SXS	4.0	EA	0.9	0.230	4.83	19	W/MISC PP	0		0		0		0	19	27	DIV15	11	2	PA		661	
	CPVC S80 01" MALE ADAPTER (MIPT X	12.0	EA	2.8	0.230	4.83	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	PA		662	
	SUPP-FRP 01" PIPE STRUT SUPPORT AS	7.0	EA	3.2	0.460	9.66	68	SUPPORTS	0		0		0		0	68	96	DIV15	11	2	PA		663	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	14.0	EA	3.2	0.230	4.83	68	SUPPORTS	0		0		0		0	68	96	DIV15	11	2	PA		664	
	EXISTING CHEMICAL ROOM																0	DIV15	11	2	PA		665	
	00-3/4" PHOSPHORIC ACID																0	DIV15	11	2	PA		666	
	CPVC SCH 80 - SW																0	DIV15	11	2	PA		667	
	PHOSPHORIC ACID FROM FEED PUMPS TO INJECTION POINTS																0	DIV15	11	2	PA		668	
PHOSPHOR	INJECTION QUILL	1.0	EA	1.7	1.725	36.23	36	W/MISC PP	0		0		0		0	36	51	DIV15	11	2	PA		669	
	PULSATION DAMPENER	2.0	EA	1.2	0.575	12.08	24	W/EQUIP	0		0		0		0	24	34	DIV15	11	2	PA		670	
	INSTR-PRESSURE GAUGE ASSEMBLY V	2.0	EA	3.5	1.725	36.23	72	W/MISC PP	0		0		0		0	72	103	DIV15	11	2	PA		671	
	VLV CPVC- PRESSURE RELIEF 00-3/4"	2.0	EA	0.8	0.403	8.45	17	W/VALVES	0		0		0		0	17	24	DIV15	11	2	PA		672	
	VLV BACKPRESSURE REGULATOR 00-	1.0	EA	0.4	0.403	8.45	8	W/VALVES	0		0		0		0	8	12	DIV15	11	2	PA		673	
VITON	VLV CPVC-BALL VALVE 00-3/4" T/U	11.0	EA	3.8	0.345	7.25	80	W/VALVES	0		0		0		0	80	113	DIV15	11	2	PA		674	
VITON	VLV CPVC BALL CHECK VALVE 00-3/4"	2.0	EA	0.7	0.345	7.25	14	W/VALVES	0		0		0		0	14	21	DIV15	11	2	PA		675	
	NYLON REINFORCED PVC TUBING 00-	4.0	EA	1.6	0.403	8.45	34	W/MISC PP	0		0		0		0	34	48	DIV15	11	2	PA		676	
	CPVC BARB TO THRD ADAPTER	8.0	EA	2.8	0.345	7.25	58	W/MISC PP	0		0		0		0	58	82	DIV15	11	2	PA		677	
	CPVC S80 00-3/4" X 20 FT PIPE PE	200.0	LF	13.8	0.069	1.45	290	W/MISC PP	0		0		0		0	290	412	DIV15	11	2	PA		678	
	CPVC S80 00-3/4" 90 ELL SXS	16.0	EA	3.3	0.207	4.35	70	W/MISC PP	0		0		0		0	70	99	DIV15	11	2	PA		679	
	CPVC S80 00-3/4" 45 ELL SXS	4.0	EA	0.8	0.207	4.35	17	W/MISC PP	0		0		0		0	17	25	DIV15	11	2	PA		680	
	CPVC S80 00-3/4" TEE SXS	16.0	EA	4.3	0.269	5.65	90	W/MISC PP	0		0		0		0	90	128	DIV15	11	2	PA		681	
	CPVC S80 00-3/4" UNION SXS	6.0	EA	1.2	0.207	4.35	26	W/MISC PP	0		0		0		0	26	37	DIV15	11	2	PA		682	
	CPVC S80 00-3/4" COUPLING SXS	11.0	EA	2.3	0.207	4.35	48	W/MISC PP	0		0		0		0	48	68	DIV15	11	2	PA		683	
	CPVC S80 00-3/4" MALE ADAPTER (MIP	8.0	EA	1.7	0.207	4.35	35	W/MISC PP	0		0		0		0	35	49	DIV15	11	2	PA		684	
	CPVC S80 00-3/4" VAN STONE STYLE F	2.0	EA	0.6	0.288	6.04	12	W/MISC PP	0		0		0		0	12	17	DIV15	11	2	PA		685	
VITON	FLG ACC-STAINLESS STEEL 00-3/4"	2.0	EA	0.0	w/Ftg		0	W/MISC PP	0		0		0		0	0	0	DIV15	11	2	PA		686	
	CORE DRILL 03"DIA. X 12" THK CONCR	1.0	EA	0.3	0.288	6.04	6		0	75.00	75		0		0	81	84	DIV15	11	2	PA		687	
	LINK SEAL LS-275-SS-6 LINKS / SEAL	5.0	EA	0.4	0.086	1.81	9	W/MISC PP	0		0		0		0	9	13	DIV15	11	2	PA		688	
00-3/4" PIPE	FIRE RATED WALL PENETRATION 3-H	1.0	EA	2.0	2.013	42.26	42	W/MISC PP	0		0		0		0	42	60	DIV15	11	2	PA		689	
CONCRETE	CORE DRILL 03"DIA. X 12" THK CONCR	1.0	EA	0.3	0.288	6.04	6		0	75.00	75		0		0	81	84	DIV15	11	2	PA		690	
	LINK SEAL LS-275-SS-6 LINKS / SEAL	5.0	EA	0.4	0.086	1.81	9	W/MISC PP	0		0		0		0	9	13	DIV15	11	2	PA		691	
	SUPP-316SS 00-3/4" PIPE CLAMP	52.0	EA	23.9	0.460	9.66	502	SUPPORTS	0		0		0		0	502	713	DIV15	11	2	PA		692	
	SUPP-316SS 00-3/4" PIPE STRUT X 6" LG	16.0	EA	7.4	0.460	9.66	155	SUPPORTS	0		0		0		0	155	219	DIV15	11	2	PA		693	
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	32.0	EA	7.4	0.230	4.83	155	SUPPORTS	0		0		0		0	155	219	DIV15	11	2	PA		694	
	EXISTING CHEMICAL ROOM																0	DIV15	11	2	PA		695	
	08" PHOSPHORIC ACID																0	DIV15	11	2	PA		696	
	CPVC SCH 80 - SW																0	DIV15	11	2	PA		697	
	PHOSPHORIC ACID TOTE VENT																0	DIV15	11	2	PA		698	
	CPVC S80 08" X 20 FT PIPE PE	40.0	LF	6.4	0.161	3.38	135	W/MISC PP	0		0		0		0	135	192	DIV15	11					

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Estimate for

TOTALS	40,174	897,285	10,757,403	5,294,206	2,874,436	1,297,429	21,120,760	21,497,619
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Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor Labor Unit Labor Total	Materials Mat Unit Mat Total	Subcontract Sub Unit Sub Total	Equipment Equip Unit Equip Total	Other Oth Unit Oth Total	Total Cost	Burden & Markups Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open	
	01" SODIUM BISULFITE												0 DIV15	11	2	SB			769	
	CPVC SCH 80 - SW												0 DIV15	11	2	SB			770	
	SODIUM BISULFITE FROM HEADER TO NEW FEED PUMP												0 DIV15	11	2	SB			771	
VITON	VLV CPVC-BALL VALVE 01" T/U	2.0	EA	0.7	0.368	7.73	15 W/VALVES	0	0	0	15	22 DIV15	11	2	SB			772		
	WYE STRAINER 01"	1.0	EA	0.6	0.550	11.55	12 450.00	0	0	0	462	466 DIV15	11	2	SB			773		
	CALIBRATION COLUMN 01"	1.0	EA	0.6	0.575	12.08	12 W/EQUIP	0	0	0	12	17 DIV15	11	2	SB			774		
	NYLON REINFORCED PVC TUBING 01"	1.0	EA	0.4	0.403	8.45	8 W/MISC PP	0	0	0	8	12 DIV15	11	2	SB			775		
	CPVC BARB TO THRD ADAPTER	2.0	EA	0.7	0.345	7.25	14 W/MISC PP	0	0	0	14	21 DIV15	11	2	SB			776		
	CPVC S80 01" X 20 FT PIPE PE	20.0	LF	1.4	0.069	1.45	29 W/MISC PIPE	0	0	0	29	41 DIV15	11	2	SB			777		
	CPVC S80 01" 90 ELL SXS	4.0	EA	0.9	0.230	4.83	19 W/MISC PP	0	0	0	19	27 DIV15	11	2	SB			778		
	CPVC S80 01" TEE SXS	2.0	EA	0.6	0.299	6.28	13 W/MISC PP	0	0	0	13	18 DIV15	11	2	SB			779		
	CPVC S80 01" UNION SXS	1.0	EA	0.2	0.230	4.83	5 W/MISC PP	0	0	0	5	7 DIV15	11	2	SB			780		
	CPVC S80 01" MALE ADAPTER (MIPT X	4.0	EA	0.9	0.230	4.83	19 W/MISC PP	0	0	0	19	27 DIV15	11	2	SB			781		
	SUPP-FRP 01" PIPE STRUT SUPPORT AS	4.0	EA	1.8	0.460	9.66	39 SUPPORTS	0	0	0	39	55 DIV15	11	2	SB			782		
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	8.0	EA	1.8	0.230	4.83	39 SUPPORTS	0	0	0	39	55 DIV15	11	2	SB			783		
	CUT & TIE-IN EXISTING CHEM FEED H	1.0	EA	6.9	6.900	144.90	145 150.00	150	0	0	295	356 DIV15	11	2	SB			784		
	EXISTING CHEMICAL ROOM												0 DIV15	11	2	SB			785	
	00-3/4" SODIUM BISULFITE												0 DIV15	11	2	SB			786	
	CPVC SCH 80 - SW												0 DIV15	11	2	SB			787	
	SODIUM BISULFITE FROM FEED PUMPS TO INJECTION POINT												0 DIV15	11	2	SB			788	
SODIUM BISULFITE	INJECTION QUILL	1.0	EA	2.0	2.013	42.26	42 W/MISC PP	0	0	0	42	60 DIV15	11	2	SB			789		
	PULSATION DAMPENER	1.0	EA	0.6	0.575	12.08	12 W/EQUIP	0	0	0	12	17 DIV15	11	2	SB			790		
	INSTR-PRESSURE GAUGE ASSEMBLY 1/2"	2.0	EA	3.5	1.725	36.23	72 W/MISC PP	0	0	0	72	103 DIV15	11	2	SB			791		
	VLV CPVC- PRESSURE RELIEF 00-3/4"	1.0	EA	0.4	0.403	8.45	8 W/VALVES	0	0	0	8	12 DIV15	11	2	SB			792		
VITON	VLV CPVC-BALL VALVE 00-3/4" T/U	5.0	EA	1.7	0.345	7.25	36 W/VALVES	0	0	0	36	51 DIV15	11	2	SB			793		
	NYLON REINFORCED PVC TUBING 00-3/4"	1.0	EA	0.4	0.403	8.45	8 W/MISC PP	0	0	0	8	12 DIV15	11	2	SB			794		
	CPVC BARB TO THRD ADAPTER	2.0	EA	0.7	0.345	7.25	14 W/MISC PP	0	0	0	14	21 DIV15	11	2	SB			795		
	CPVC S80 00-3/4" X 20 FT PIPE PE	260.0	LF	17.9	0.069	1.45	377 W/MISC PP	0	0	0	377	535 DIV15	11	2	SB			796		
	CPVC S80 00-3/4" 90 ELL SXS	16.0	EA	3.3	0.207	4.35	70 W/MISC PP	0	0	0	70	99 DIV15	11	2	SB			797		
	CPVC S80 00-3/4" 45 ELL SXS	4.0	EA	0.8	0.207	4.35	17 W/MISC PP	0	0	0	17	25 DIV15	11	2	SB			798		
	CPVC S80 00-3/4" TEE SXS	16.0	EA	4.3	0.269	5.65	90 W/MISC PP	0	0	0	90	128 DIV15	11	2	SB			799		
	CPVC S80 00-3/4" UNION SXS	3.0	EA	0.6	0.207	4.35	13 W/MISC PP	0	0	0	13	19 DIV15	11	2	SB			800		
	CPVC S80 00-3/4" COUPLING SXS	11.0	EA	2.3	0.207	4.35	48 W/MISC PP	0	0	0	48	68 DIV15	11	2	SB			801		
	CPVC S80 00-3/4" MALE ADAPTER (MIP	7.0	EA	1.4	0.207	4.35	30 W/MISC PP	0	0	0	30	43 DIV15	11	2	SB			802		
	CPVC S80 00-3/4" VAN STONE STYLE F	2.0	EA	0.6	0.288	6.04	12 W/MISC PP	0	0	0	12	17 DIV15	11	2	SB			803		
VITON	FLG ACC-STAINLESS STEEL 00-3/4"	2.0	EA	0.0	w/Fig		0 W/MISC PP	0	0	0	0	0 DIV15	11	2	SB			804		
	CORE DRILL 03"DIA. X 12" THK CONCR	1.0	EA	0.3	0.288	6.04	6	75.00	75	0	81	84 DIV15	11	2	SB			805		
	LINK SEAL LS-275-SS-6 LINKS / SEAL	6.0	EA	0.5	0.086	1.81	11 W/MISC PP	0	0	0	11	15 DIV15	11	2	SB			806		
00-3/4" PIPE	FIRE RATED WALL PENETRATION 3-H	1.0	EA	1.7	1.725	36.23	36 W/MISC PP	0	0	0	36	51 DIV15	11	2	SB			807		
	SUPP-316SS 02" & LESS PIPE SUPPORT	50.0	EA	23.0	0.460	9.66	483 SUPPORTS	0	0	0	483	686 DIV15	11	2	SB			808		
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	100.0	EA	23.0	0.230	4.83	483 SUPPORTS	0	0	0	483	686 DIV15	11	2	SB			809		
	EXISTING FILTER GALLERY - DWG D204-A												0 DIV15	11	2	12GACBW			810	
	12" GAC BACKWASH												0 DIV15	11	2	12GACBW			811	
	DUCTILE IRON PIPE - FLG												0 DIV15	11	2	12GACBW			812	
	VLV TIDFLEX CHECK VALVE 12"	1.0	EA	2.8	2.760	57.96	58 W/VALVES	0	0	0	58	82 DIV15	11	2	12GACBW			813		
	DIP CML 12" X 10'-0" SPOOL - FLG X PE	1.0	EA	2.0	2.022	42.47	42 V/DIP&ACC	0	0	0	42	60 DIV15	11	2	12GACBW			814		
	DIP CML 12" X 06'-0" SPOOL - FLG X PE	1.0	EA	2.0	1.971	41.38	41 V/DIP&ACC	0	0	0	41	59 DIV15	11	2	12GACBW			815		
	DIP CML 12" X 16'-0" SPOOL - FLG X FL	2.0	EA	6.8	3.415	71.72	143 V/DIP&ACC	0	0	0	143	204 DIV15	11	2	12GACBW			816		
	DIP CML 12" FLG 90 BEND	1.0	EA	2.3	2.346	49.27	49 V/DIP&ACC	0	0	0	49	70 DIV15	11	2	12GACBW			817		
	FLG ACC-ABOVE GRADE 12"	6.0	EA	0.0	w/Fig		0 W/MISC PP	0	0	0	0	0 DIV15	11	2	12GACBW			818		
	DUCTILE IRON FLANGE COUPLING AD	1.0	EA	2.9	2.898	60.86	61 V/DIP&ACC	0	0	0	61	86 DIV15	11	2	12GACBW			819		
	CORE DRILL 16"DIA. X 18" THK CONCR	2.0	EA	4.6	2.300	48.30	97	350.00	700	0	797	837 DIV15	11	2	12GACBW			820		
	LINK SEAL LS-425-SS-12 LINKS / SEAL	48.0	EA	4.1	0.086	1.81	87 W/MISC PP	0	0	0	87	123 DIV15	11	2	12GACBW			821		
	GROUT NON-SHRINK	4.0	CF	1.8	0.460	9.66	39 26.09	104	0	0	143	159 DIV15	11	2	12GACBW			822		
	WORKING DOWN IN EXISTING BASIN &	1.0	EA	18.4	18.400	386.40	386 250.00	250	0	500.00	1,136	1,299 DIV15	11	2	12GACBW			823		
	SUPP-HDG 12" X 3'-0" (CL) ADJ FLR W/	3.0	EA	10.4	3.450	72.45	217 SUPPORTS	0	0	0	217	309 DIV15	11	2	12GACBW			824		
	SUPP-SSTL ANCHOR AT PIPE SUPPORT	12.0	EA	4.1	0.345	7.25	87 SUPPORTS	0	0	0	87	123 DIV15	11	2	12GACBW			825		
	GROUT PIPE SUPPORT BASE	3.0	EA	1.7	0.575	12.08	36 15.00	45	0	0	81	96 DIV15	11	2	12GACBW			826		
	ADDITIONAL ITEMS												0 DIV15	11	2				827	
	PLANT WATER	500.0	EA	150.0	0.300	6.30	3,150 17.00	8,500	0	0	11,650	12,973 DIV15	11	2	PW			828		
	HVAC ROOF PENETRATIONS - RTUS	2.0	EA	8.0	4.000	84.00	168 550.00	1,100	0	0	1,268	1,339 DIV15	23	2	HVAC			829		
	HVAC ROOF PENETRATIONS - EPS	12.0	EA	24.0	2.000	42.00	504 300.00	3,600	0	0	4,104	4,316 DIV15	23	2	HVAC			830		
VLV SCH, N	VLV BFV 24" FLG W/HW OP	3.0	EA	14.4	4.800	100.80	302 W/VALVES	0	0	0	302	429 DIV15	11	2	OZ			831		
VLV SCH, N	FABD SSTL 24" PIPE	18.0	LF	5.0	0.276	5.80	104 FABD SSTL	0	0	0	104	148 DIV15	11	2	OZ			832		
VLV SCH, N	FABD SSTL 24" FLANGE	6.0	EA	14.4	2.400	50.40	302 FABD SSTL	0	0	0	302	429 DIV15	11	2	OZ			833		
VLV SCH, N	FLG ACC-STAINLESS STEEL 24"	6.0	EA	0.0			0 W/MISC PP	0	0	0	0	0 DIV15	11	2	OZ			834		
VLV SCH, N	SUPP-HDG 24" X 3'-0" (CL) ADJ FLR W/	3.0	EA	14.4	4.800	100.80	302 SUPPORTS	0	0	0	302	429 DIV15	11	2	OZ			835		

Estimate for

TOTALS

40,174

897,285

10,757,403

5,294,206

2,874,436

1,297,429

21,120,760

21,497,619

0

Comments (Spec/Dwg)	Description	Quantity	Unit	Total MH	MH/U	Labor		Materials		Subcontract		Equipment		Other		Total Cost	Baden & Markaps Marked Up Cost	Division	Bid Item	Structure	W1	W2	Sort	Open
						Labor Unit	Labor Total	Matl Unit	Matl Total	Sub Unit	Sub Total	Equip Unit	Equip Total	Orth Unit	Oth Total									
VLV SCH, N	SUPP-SSTL ANCHOR AT PIPE SUPPORT	12.0	EA	3.6	0.300	6.30	76	SUPPORTS	0		0		0		0	76	107	DIV15	11	2	OZ		836	
VLV SCH, N	GROUT PIPE SUPPORT BASE	3.0	EA	1.5	0.500	10.50	32	15.00	45		0		0		0	77	90	DIV15	11	2	OZ		837	
																	0	DIV15						
	Add in backflow preventer	1.0					0		0		0		0	15000.00	15,000	15,000	15,000	DIV15	21	2			829	
	Larger trench drains with truck loading dew	1.0					0		0		0		0		0	0	0	DIV15	11	2			829	
	Review gas piping #	1.0					0		0		0		0		0	0	0	DIV15	11	2			829	
	3 Eye Washes W/ Tempered water	1.0					0		0		0		0	22500.00	22,500	22,500	22,500	DIV15	22	2			829	
																	0	DIV15						
	BASE BID																0	DIV16						
																	0	DIV16						
Revised	Electrical	1.0	LS	0.0		0.00	0		0		0	1,939,000.00	1,939,000		0	1,939,000	1,939,000	DIV16	26	2				
	Temp Power	1.0	LS	0.0		0.00	0		0		0	15,000.00	15,000		0	15,000	15,000	DIV16	26	2				
	Lighting	1.0	LS	0.0		0.00	0		0		0	W/ELECTRIC	0		0	0	0	DIV16	26	2				
	Electrical Gear	1.0	LS	0.0		0.00	0		0		0	W/ELECTRIC	0		0	0	0	DIV16	26	2				
	I&C	1.0	LS	0.0		0.00	0		0		0	250,000.00	250,000		0	250,000	250,000	DIV16	26	2				
	Lightning Protection	1.0	LS	0.0		0.00	0		0		0	W/ELECTRIC	0		0	0	0	DIV16	26	2				
	Duct Bank	1.0	LS	0.0		0.00	0		0		0	W/ELECTRIC	0		0	0	0	DIV16	26	2				
	750 KW Generator	1.0	LS	0.0		0.00	0		0		0	246,000.00	246,000		0	246,000	246,000	DIV16	26	2				
deleted	1250 KW Generator	1.0	LS	0.0		0.00	0		0		0	0.00	0		0	0	0	DIV16	26	2				
	Security	1.0	LS	0.0		0.00	0		0		0	65,000.00	65,000		0	65,000	65,000	DIV16	28	2				
	Fire Alarm	1.0	LS	0.0		0.00	0		0		0	50,000.00	50,000		0	50,000	50,000	DIV16	28	2				
																	0	DIV16						

EXHIBIT B1

**PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT
DETAILED GENERAL CONDITIONS COSTS**

WORK PACKAGE 1

Issued Date: 04/25/2018

Submitted Date: _____

FIRM NAME: _____

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	PROJECT SUPERVISION TOTAL				\$ 315,965.56
2	Officers of the Company (included in fee)	---	---	---	Included in Fee
3	Project Executive (included in fee)	---	---	---	Included in Fee
4	Project Manager	1157	HR	\$ 75.09	\$ 86,879.13
5	Assistant Project Manager		HR		\$ -
6	Project Engineer	1157	HR	\$ 45.21	\$ 52,307.97
7	Assistant Engineer		HR		\$ -
8	Senior Project Superintendent	1157	HR	\$ 77.01	\$ 89,100.57
9	Project Superintendent		HR		\$ -
10	Assistant Superintendent		HR		\$ -
11	Field Engineer	1157	HR	\$ 42.87	\$ 49,600.59
12	MEP Coordinator		HR		\$ -
13	Administrative Support		HR		\$ -
14	Project Specific Accounting		HR		\$ -
15	Scheduling		HR		\$ -
16	Safety Personal		HR		\$ -
17	Quality Control Personnel		HR		\$ -
18	Project Estimator		HR		\$ -
19	Carpenter Foreman		HR		\$ -
20	Carpenter		HR		\$ -
21	Labor Foreman		HR		\$ -
22	Laborer		HR		\$ -
23	Hoisting Operator		HR		\$ -
24	Crane Operator	865	HR	\$ 44.02	\$ 38,077.30
25	[enter other staff positions]		HR		\$ -
26	[enter other staff positions]		HR		\$ -
27					\$ -
28	PROJECT ON-SITE OFFICE TOTAL				\$ 69,920.00
29	Office Facilities / Rent	7 months		\$ 750.00	\$ 5,250.00
30	Office Equipment	1 ls		\$ 5,000.00	\$ 5,000.00
31	Office Furniture				\$ -
32	Office Mobilization	1 ls		\$ 5,000.00	\$ 5,000.00
33	Janitorial				\$ -
34	Radios and Communication				\$ -
35	Company Vehicles	7 months		\$ 6,960.00	\$ 48,720.00
36	Trailer				\$ -
37	Courier service				\$ -
38	Internet service	7 months		\$ 500.00	\$ 3,500.00
39	Data Processing				\$ -
40	Travel Expense				\$ -
41	Digital camera/Project photos				\$ -
42	Office Supplies	7 months		\$ 150.00	\$ 1,050.00
43	Postage/Fed ex				\$ -
44	Printing and reproduction				\$ -
45	Drinking Water	7 months		\$ 200.00	\$ 1,400.00
46					\$ -
47	TEMPORARY FACILITIES TOTAL				\$ 16,125.00
48	Electrical Utility Fees				\$ -
49	Electrical distribution / set-up	1 ls		\$ 10,000.00	\$ 10,000.00
50	Lighting				\$ -
51	Electrical Generator				\$ -
52	Water - Construction				\$ -
53	Heating				\$ -
54	Heating and Cooling				\$ -
55	Fire protection and hydrant use				\$ -
56	Sanitation facilities	7 months		\$ 375.00	\$ 2,625.00
57	Fuel				\$ -

EXHIBIT B1

**PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT
DETAILED GENERAL CONDITIONS COSTS**

WORK PACKAGE 1

Issued Date: 04/25/2018

Submitted Date: _____

FIRM NAME: _____

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
58	Utility consumption costs	7 months		\$ 500.00	\$ 3,500.00
59	Hoisting				\$ -
60	Hoisting Operator				\$ -
61	Temp Elevator Set-up and use				\$ -
62	Site Protection / Security				\$ -
63	Stairs				\$ -
64	Fencing				\$ -
65	Access to the site				\$ -
66	Staging areas				\$ -
67	Storage Containers				\$ -
68	Signage				\$ -
69	Temporary Utility Connection fees				\$ -
70	Temporary Enclosures				\$ -
71	Rodent and Pest Control				\$ -
72					\$ -
73	ENGINEERING TOTAL				\$ 5,000.00
74	Layout				\$ -
75	Building controls				\$ -
76	Surveying	1 ls		\$ 5,000.00	\$ 5,000.00
77	Shop drawing detailing				\$ -
78	As-Built Coordination				\$ -
79					\$ -
80	SAFETY & SECURITY TOTAL				\$ 6,500.00
81	Safety inspections				\$ -
82	Flagman				\$ -
83	Jobsite safety				\$ -
84	Perimeter guardrails				\$ -
85	Barricades, lights, and signs				\$ -
86	Covered sidewalk enclosures				\$ -
87	Scaffolding, ladders, platforms				\$ -
88	Protective equipment	1 ls		\$ 6,500.00	\$ 6,500.00
89	Protective materials				\$ -
90	Fire safety				\$ -
91	First aid				\$ -
92					\$ -
93	SITE CONDITIONS TOTALS				\$ 134,530.00
94	Project interim clean-up	7 months		\$ 3,100.00	\$ 21,700.00
95	Project final clean-up				\$ -
96	Contractor site equipment	7 months		\$ 4,640.00	\$ 32,480.00
97	Material & Man Hoist				\$ -
98	Crane	5 months		\$ 9,200.00	\$ 46,000.00
99	Debris Boxes				\$ -
100	Weather protection	3 months		\$ 5,500.00	\$ 16,500.00
101	Dust control				\$ -
102	Traffic Control				\$ -
103	Street Cleaning				\$ -
104	Exterior Protection				\$ -
105	Roof Protection				\$ -
106	Small Tools and Consumables	7 months		\$ 2,550.00	\$ 17,850.00
107					\$ -
TOTAL GENERAL CONDITIONS					\$ 548,040.56

NOTES:

- 1 It is the Owner's intent that the General Contractor work under a complete "open book" approach.
- 2 It is the Owner's intent that all General Conditions' costs will be identified and included in this Attachment.
- 3 Do not modify the order of these items. If additional space is required to capture further detail, rows may be added at the bottom of the list under the appropriate headings within the spreadsheet.
- 4 General Conditions will become a separate guarantee within the total GMP.

EXHIBIT B2

**PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT
DETAILED GENERAL CONDITIONS**

WORK PACKAGE 2

Issued Date: 04/25/18

Submitted Date: _____

FIRM NAME: _____

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	PROJECT SUPERVISION TOTAL				\$ 689,545.04
2	Officers of the Company (included in fee)	---	---	---	Included in Fee
3	Project Executive (included in fee)	---	---	---	Included in Fee
4	Project Manager	2649	HR	\$ 75.09	\$ 198,913.41
5	Assistant Project Manager		HR		\$ -
6	Project Engineer	2649	HR	\$ 45.21	\$ 119,761.29
7	Assistant Engineer		HR		\$ -
8	Senior Project Superintendent	2649	HR	\$ 77.01	\$ 203,999.49
9	Project Superintendent		HR		\$ -
10	Assistant Superintendent		HR		\$ -
11	Field Engineer	2649	HR	\$ 42.87	\$ 113,562.63
12	MEP Coordinator		HR		\$ -
13	Administrative Support		HR		\$ -
14	Project Specific Accounting		HR		\$ -
15	Scheduling		HR		\$ -
16	Safety Personal		HR		\$ -
17	Quality Control Personnel		HR		\$ -
18	Project Estimator		HR		\$ -
19	Carpenter Foreman		HR		\$ -
20	Carpenter		HR		\$ -
21	Labor Foreman		HR		\$ -
22	Laborer		HR		\$ -
23	Hoisting Operator		HR		\$ -
24	Crane Operator	1211	HR	\$ 44.02	\$ 53,308.22
25	[enter other staff positions]		HR		\$ -
26	[enter other staff positions]		HR		\$ -
27					\$ -
28	PROJECT ON-SITE OFFICE TOTAL				\$ 128,400.00
29	Office Facilities / Rent	15	months	\$ 750.00	\$ 11,250.00
30	Office Equipment				\$ -
31	Office Furniture				\$ -
32	Office Mobilization				\$ -
33	Janitorial				\$ -
34	Radios and Communication				\$ -
35	Company Vehicles	15	months	\$ 6,960.00	\$ 104,400.00
36	Trailer				\$ -
37	Courier service				\$ -
38	Internet service	15	months	\$ 500.00	\$ 7,500.00
39	Data Processing				\$ -
40	Travel Expense				\$ -
41	Digital camera/Project photos				\$ -
42	Office Supplies	15	months	\$ 150.00	\$ 2,250.00
43	Postage/Fed ex				\$ -
44	Printing and reproduction				\$ -
45	Drinking Water	15	months	\$ 200.00	\$ 3,000.00
46					\$ -
47	TEMPORARY FACILITIES TOTAL				\$ 13,125.00
48	Electrical Utility Fees				\$ -
49	Electrical distribution / set-up				\$ -
50	Lighting				\$ -
51	Electrical Generator				\$ -
52	Water - Construction				\$ -
53	Heating				\$ -
54	Heating and Cooling				\$ -
55	Fire protection and hydrant use				\$ -
56	Sanitation facilities	15	months	\$ 375.00	\$ 5,625.00
57	Fuel				\$ -

EXHIBIT B2

**PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT
DETAILED GENERAL CONDITIONS**

WORK PACKAGE 2

Issued Date: 04/25/18

Submitted Date: _____

FIRM NAME: _____

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
58	Utility consumption costs	15	months	\$ 500.00	\$ 7,500.00
59	Hoisting				\$ -
60	Hoisting Operator				\$ -
61	Temp Elevator Set-up and use				\$ -
62	Site Protection / Security				\$ -
63	Stairs				\$ -
64	Fencing				\$ -
65	Access to the site				\$ -
66	Staging areas				\$ -
67	Storage Containers				\$ -
68	Signage				\$ -
69	Temporary Utility Connection fees				\$ -
70	Temporary Enclosures				\$ -
71	Rodent and Pest Control				\$ -
72					\$ -
73	ENGINEERING TOTAL				\$ -
74	Layout				\$ -
75	Building controls				\$ -
76	Surveying				\$ -
77	Shop drawing detailing				\$ -
78	As-Built Coordination				\$ -
79					\$ -
80	SAFETY & SECURITY TOTAL				\$ -
81	Safety inspections				\$ -
82	Flagman				\$ -
83	Jobsite safety				\$ -
84	Perimeter guardrails				\$ -
85	Barricades, lights, and signs				\$ -
86	Covered sidewalk enclosures				\$ -
87	Scaffolding, ladders, platforms				\$ -
88	Protective equipment	15	ls	\$ 14,000.00	\$ -
89	Protective materials				\$ -
90	Fire safety				\$ -
91	First aid				\$ -
92					\$ -
93	SITE CONDITIONS TOTALS				\$ 210,900.00
94	Project interim clean-up	15	months	\$ 3,100.00	\$ 46,500.00
95	Project final clean-up				\$ -
96	Contractor site equipment	15	months	\$ 3,750.00	\$ 56,250.00
97	Material & Man Hoist				\$ -
98	Crane	7	months	\$ 9,200.00	\$ 64,400.00
99	Debris Boxes				\$ -
100	Weather protection	1	months	\$ 5,500.00	\$ 5,500.00
101	Dust control				\$ -
102	Traffic Control				\$ -
103	Street Cleaning				\$ -
104	Exterior Protection				\$ -
105	Roof Protection				\$ -
106	Small Tools and Consumables	15	months	\$ 2,550.00	\$ 38,250.00
107					\$ -
TOTAL GENERAL CONDITIONS					\$ 1,041,970.04

NOTES:

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- 4 General Conditions will become a separate guarantee within the total GMP.

EXHIBIT C

PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT

LABOR BURDEN RATES

WORK PACKAGES 1 & 2

4/25/2018

Submitted Date: _____

FIRM NAME: _____				2018			2019			2020		
ITEM NO.	SALARIED STAFF POSITION (PRECON)	BASE HOURLY LABOR RATE	BURDEN RATE %	BILLABLE HOURLY RATE	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE	BILLABLE HOURLY RATE	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE	BILLABLE HOURLY RATE	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE
1	Officers of the Company (included in fee)	---	---	---	---	---	---	---	---	---	---	---
2	Project Executive (included in fee)	---	---	---	---	---	---	---	---	---	---	---
3	Sr. Preconstruction Manager	\$ 52.88	42%	\$ 75.09	---	---	\$ 77.34	---	---	\$ 79.66	---	---
4	Preconstruction Manager	\$ 43.27	42%	\$ 61.44	---	---	\$ 63.29	---	---	\$ 65.19	---	---
5	Sr. Estimator	\$ 61.92	42%	\$ 87.93	---	---	\$ 90.56	---	---	\$ 93.28	---	---
6	Estimator	\$ 54.12	42%	\$ 76.85	---	---	\$ 79.16	---	---	\$ 81.53	---	---
7	Sr. Project Manager	\$ 52.88	42%	\$ 75.09	---	---	\$ 77.34	---	---	\$ 79.66	---	---
8	Project Manager	\$ 43.27	42%	\$ 61.44	---	---	\$ 63.29	---	---	\$ 65.19	---	---
9	Sr. Project Engineer	\$ 38.79	42%	\$ 55.08	---	---	\$ 56.73	---	---	\$ 58.44	---	---
10	Project Engineer	\$ 31.84	42%	\$ 45.21	---	---	\$ 46.57	---	---	\$ 47.97	---	---
11	Assistant Engineer	\$ 30.19	42%	\$ 42.87	---	---	\$ 44.16	---	---	\$ 45.48	---	---
12	Senior Project Superintendent	\$ 54.23	42%	\$ 77.01	---	---	\$ 79.32	---	---	\$ 81.70	---	---
13	Project Superintendent	\$ 42.87	42%	\$ 60.88	---	---	\$ 62.70	---	---	\$ 64.58	---	---
14	Assistant Superintendent	\$ 37.31	42%	\$ 52.98	---	---	\$ 54.57	---	---	\$ 56.21	---	---
15	Field Engineer	\$ 30.19	42%	\$ 42.87	---	---	\$ 44.16	---	---	\$ 45.48	---	---
16	MEP Coordinator	N/A	N/A	---	---	---	\$ -	---	---	\$ -	---	---
17	Administrative Support	N/A	N/A	---	---	---	\$ -	---	---	\$ -	---	---
18	Project Specific Accounting	N/A	N/A	---	---	---	\$ -	---	---	\$ -	---	---
19	Scheduling	\$ 31.84	42%	\$ 45.21	---	---	\$ 46.57	---	---	\$ 47.97	---	---
20	3D Modeling/BIM	\$ 31.84	42%	\$ 45.21	---	---	\$ 46.57	---	---	\$ 47.97	---	---
21	[enter other staff positions]	---	---	---	---	---	---	---	---	---	---	---
22	[enter other staff positions]	---	---	---	---	---	---	---	---	---	---	---
	SALARIED STAFF POSITION (ON-SITE)	BASE HOURLY LABOR RATE	BURDEN RATE %	BILLABLE HOURLY RATE	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE	BILLABLE HOURLY RATE	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE	BILLABLE HOURLY RATE	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE
23	Officers of the Company (included in fee)	---	---	---	---	---	---	---	---	---	---	---
24	Project Executive (included in fee)	---	---	---	---	---	---	---	---	---	---	---
25	Sr. Project Manager	\$ 52.88	42%	\$ 75.09	---	---	\$ 77.34	---	---	\$ 79.66	---	---
26	Project Manager	\$ 43.27	42%	\$ 61.44	---	---	\$ 63.29	---	---	\$ 65.19	---	---
27	Assistant Project Manager	\$ 38.79	42%	\$ 55.08	---	---	\$ 56.73	---	---	\$ 58.44	---	---
28	Sr. Project Engineer	\$ 38.79	42%	\$ 55.08	---	---	\$ 56.73	---	---	\$ 58.44	---	---
29	Project Engineer	\$ 31.84	42%	\$ 45.21	---	---	\$ 46.57	---	---	\$ 47.97	---	---
30	Assistant Engineer	\$ 30.19	42%	\$ 42.87	---	---	\$ 44.16	---	---	\$ 45.48	---	---
31	Senior/General Superintendent	\$ 54.23	42%	\$ 77.01	---	---	\$ 79.32	---	---	\$ 81.70	---	---
32	Project Superintendent	\$ 42.87	42%	\$ 60.88	---	---	\$ 62.70	---	---	\$ 64.58	---	---
33	Assistant Superintendent	\$ 37.31	42%	\$ 52.98	---	---	\$ 54.57	---	---	\$ 56.21	---	---
34	Field Engineer	\$ 30.19	42%	\$ 42.87	---	---	\$ 44.16	---	---	\$ 45.48	---	---
35	MEP Coordinator	N/A	N/A	---	---	---	\$ -	---	---	\$ -	---	---
36	Administrative Support	N/A	N/A	---	---	---	\$ -	---	---	\$ -	---	---
37	Project Specific Accounting	N/A	N/A	---	---	---	\$ -	---	---	\$ -	---	---
38	Scheduling	N/A	N/A	---	---	---	\$ -	---	---	\$ -	---	---
39	Safety Director	\$ 41.10	42%	\$ 58.36	---	---	\$ 60.11	---	---	\$ 61.92	---	---
40	Safety Personnel	\$ 35.25	42%	\$ 50.06	---	---	\$ 51.56	---	---	\$ 53.10	---	---
41	Quality Control Personnel	\$ 31.84	42%	\$ 45.21	---	---	\$ 46.57	---	---	\$ 47.97	---	---
42	Project Estimator (on site)	N/A	N/A	---	---	---	---	---	---	---	---	---
43	3D Modeling/BIM	N/A	N/A	---	---	---	---	---	---	---	---	---
44	[enter other staff positions]	---	---	---	---	---	---	---	---	---	---	---
45	[enter other staff positions]	---	---	---	---	---	---	---	---	---	---	---
	CRAFT PERSONNEL POSITION	HOURLY LABOR RATE	BURDEN RATE %	TOTAL HOURLY RATE W/BURDEN	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE	TOTAL HOURLY RATE W/BURDEN	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE	TOTAL HOURLY RATE W/BURDEN	TIME AND HALF HOURLY RATE	DOUBLE TIME HOURLY RATE
46	Carpenter Foreman	\$ 29.00	42%	\$ 41.18	\$ 61.77	N/A	\$ 42.42	\$ 63.62	N/A	\$ 43.69	\$ 65.53	N/A
47	Carpenter	\$ 21.00	42%	\$ 29.82	\$ 44.73	N/A	\$ 30.71	\$ 46.07	N/A	\$ 31.64	\$ 47.45	N/A
48	Labor Foreman	\$ 29.00	42%	\$ 41.18	\$ 61.77	N/A	\$ 42.42	\$ 63.62	N/A	\$ 43.69	\$ 65.53	N/A
49	Laborer	\$ 17.50	42%	\$ 24.85	\$ 37.28	N/A	\$ 25.60	\$ 38.39	N/A	\$ 26.36	\$ 39.55	N/A
50	Hoist / Elevator Operator	N/A	N/A	---	---	---	---	---	---	---	---	---
51	Crane Operator	\$ 31.00	42%	\$ 44.02	\$ 66.03	N/A	\$ 45.34	\$ 68.01	N/A	\$ 46.70	\$ 70.05	N/A
52	[enter other positions]	\$ 25.00	42%	\$ 35.50	\$ 53.25	N/A	\$ 36.57	\$ 54.85	N/A	\$ 37.66	\$ 56.49	N/A
53	[enter other positions]	\$ 23.50	42%	\$ 33.37	\$ 50.06	N/A	\$ 34.37	\$ 51.56	N/A	\$ 35.40	\$ 53.10	N/A

NOTES:

- Provide the applicable rates and labor burden as a percentage for the staff positions listed above. Do not use a blended rate, use actual burden rates per title.
- The General Conditions estimate for Staff should take into consideration the duration of the Project. Therefore, the staff costs carried forward in Attachment B should represent a blended rate for the duration of the Project.
- Add any staff positions and applicable rates for individuals not included here that are proposed on the project.
- No fee markups (overhead or profit, bonuses, phones, computers or vehicle allowances, etc.) are allowed within these rates.
- Rates above are subject to pre-audit.
- For Salaried Individuals, Premium Time is not allowed.
- Return Exhibit C in electronic format. **Do not convert to PDF.**

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EXHIBIT D1

PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT

STAFF TIME ALLOCATION

WORK PACKAGE 1

Issued Date: 04/25/18

Submitted Date: _____

FIRM NAME: _____				2018									2019					
ITEM NO.	STAFF POSITION	INDIVIDUAL	TOTAL MONTHS	TOTAL HOURS	MAY HRS	JUNE HRS	JULY HRS	AUG HRS	SEPT HRS	OCT HRS	NOV HRS	DEC HRS	JAN HRS	FEB HRS	MAR HRS	APR HRS	MAY HRS	JUN HRS
PRECONSTRUCTION				544	0	192	40	176	136	0	0	0	0	0	0	0	0	0
1	Officers of the Company (included in fee)	Wayne O'Brien	Incl. In Fee	0														
2	Project Executive (included in fee)	Joel Heimbuck	Incl. In Fee	0														
3	Sr. Preconstruction Manager	Keith Hinds	0	120		40	40	40										
4	Preconstruction Manager		0	0														
5	Sr. Estimator	Eric Coe	0	48		16		16	16									
6	Estimator	Estimating Team	0	360		120		120	120									
7	Sr. Project Manager		0	0														
8	Project Manager		0	0														
9	Sr. Project Engineer		0	0														
10	Project Engineer		0	0														
11	Assistant Engineer		0	0														
12	Senior Project Superintendent	Doug Langfeldt	0	16		16												
13	Project Superintendent		0	0														
14	Assistant Superintendent		0	0														
15	Field Engineer		0	0														
16	MEP Coordinator		0	0														
17	Administrative Support		0	0														
18	Project Specific Accounting		0	0														
19	Scheduling		0	0														
20	3D Modeling/BIM		0	0														
21	[enter other staff positions]		0	0														
22	[enter other staff positions]		0	0														
CONSTRUCTION - SALARY				4628	0	0	0	0	692	692	692	692	692	292	292	292	292	0
23	Officers of the Company (included in fee)	Wayne O'Brien	Incl. In Fee	0														
24	Project Executive (included in fee)	Joel Heimbuck	Incl. In Fee	0														
25	Sr. Project Manager	Keith Hinds	3	1157					173	173	173	173	173	73	73	73	73	
26	Project Manager		0	0														
27	Assistant Project Manager		0	0														
28	Sr. Project Engineer		0	0														
29	Project Engineer	Abel Alvarez	3	1157					173	173	173	173	173	73	73	73	73	
30	Assistant Engineer		0	0														
31	Senior/General Superintendent	Doug Langfeldt	3	1157					173	173	173	173	173	73	73	73	73	
32	Project Superintendent		0	0														
33	Assistant Superintendent		0	0														
34	Field Engineer	Tommy Barth	3	1157					173	173	173	173	173	73	73	73	73	
35	MEP Coordinator		0	0														
36	Administrative Support		0	0														
37	Project Specific Accounting		0	0														
38	Scheduling		0	0														
39	Safety Director		0	0														
40	Safety Personnel		0	0														
41	Quality Control Personnel		0	0														
42	Project Estimator (on site)		0	0														
43	3D Modeling/BIM		0	0														
44	[enter other staff positions]		0	0														
45	[enter other staff positions]		0	0														
CONSTRUCTION - CRAFT/HOURLY				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Carpenter Foreman	w/cost of work detail	0	0														
47	Labor Foreman	w/cost of work detail	0	0														
48	Hoist / Elevator Operator	w/cost of work detail	0	0														
49	Crane Operator	w/cost of work detail	0	0														
50	[enter other positions]	w/cost of work detail	0	0														
51	[enter other positions]	w/cost of work detail	0	0														
			TOTAL:	5172	0	192	40	176	828	692	692	692	692	292	292	292	292	0

NOTES:

- 1 Include the individual per title and breakdown of committed hours per month of each member of staff that shall be on the project for each month of the project.
- 2 Include the total months duration that each staff member will be working on the project.
- 3 Add any columns for additional months you feel is appropriate.
- 4 Assume 173 working hours per month as standard.

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EXHIBIT D2

PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT

STAFF TIME ALLOCATION

WORK PACKAGE 2

Issued Date: 04/25/18

Submitted Date: _____

FIRM NAME: _____			2018											2019										
ITEM NO.	STAFF POSITION	INDIVIDUAL	TOTAL MONTHS	TOTAL HOURS	MAY HRS	JUNE HRS	JULY HRS	AUG HRS	SEPT HRS	OCT HRS	NOV HRS	DEC HRS	JAN HRS	FEB HRS	MAR HRS	APR HRS	MAY HRS	JUN HRS	JUL HRS	AUG HRS	SEP HRS	OCT HRS		
PRECONSTRUCTION				1512	0	504	64	504	440	0	0	0	0	0	0	0	0	0	0	0	0	0		
1	Officers of the Company (included in fee)	Wayne O'Brien	Incl. In Fee	0																				
2	Project Executive (included in fee)	Joel Heimbuck	Incl. In Fee	0																				
3	Sr. Preconstruction Manager	Keith Hinds	3	120		40	40	40																
4	Preconstruction Manager		0	0																				
5	Sr. Estimator	Eric Coe	3	120		40		40	40															
6	Estimator	Estimating Team	3	1200		400		400	400															
7	Sr. Project Manager		0	0																				
8	Project Manager		0	0																				
9	Sr. Project Engineer		0	0																				
10	Project Engineer		0	0																				
11	Assistant Engineer		0	0																				
12	Senior Project Superintendent	Doug Langfeldt	3	72		24	24	24																
13	Project Superintendent		0	0																				
14	Assistant Superintendent		0	0																				
15	Field Engineer		0	0																				
16	MEP Coordinator		0	0																				
17	Administrative Support		0	0																				
18	Project Specific Accounting		0	0																				
19	Scheduling		0	0																				
20	3D Modeling/BIM		0	0																				
21	[enter other staff positions]		0	0																				
22	[enter other staff positions]		0	0																				
CONSTRUCTION - SALARY				10596	0	0	0	0	0	0	0	0	0	400	400	400	400	692	692	692	692	692		
23	Officers of the Company (included in fee)	Wayne O'Brien	Incl. In Fee	0																				
24	Project Executive (included in fee)	Joel Heimbuck	Incl. In Fee	0																				
25	Sr. Project Manager	Keith Hinds	17	2649										100	100	100	100	173	173	173	173	173		
26	Project Manager		0	0																				
27	Assistant Project Manager		0	0																				
28	Sr. Project Engineer		0	0																				
29	Project Engineer	Abel Alvarez	17	2649										100	100	100	100	173	173	173	173	173		
30	Assistant Engineer		0	0																				
31	Senior/General Superintendent	Doug Langfeldt	17	2649										100	100	100	100	173	173	173	173	173		
32	Project Superintendent		0	0																				
33	Assistant Superintendent		0	0																				
34	Field Engineer	Tommy Barth	17	2649										100	100	100	100	173	173	173	173	173		
35	MEP Coordinator		0	0																				
36	Administrative Support		0	0																				
37	Project Specific Accounting		0	0																				
38	Scheduling		0	0																				
39	Safety Director		0	0																				
40	Safety Personnel		0	0																				
41	Quality Control Personnel		0	0																				
42	Project Estimator (on site)		0	0																				
43	3D Modeling/BIM		0	0																				
44	[enter other staff positions]		0	0																				
45	[enter other staff positions]		0	0																				
CONSTRUCTION - CRAFT/HOURLY				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
46	Carpenter Foreman	w/cost of work detail	0	0																				
47	Labor Foreman	w/cost of work detail	0	0																				
48	Hoist / Elevator Operator	w/cost of work detail	0	0																				
49	Crane Operator	w/cost of work detail	0	0																				
50	[enter other positions]	w/cost of work detail	0	0																				
51	[enter other positions]	w/cost of work detail	0	0																				

NOTES:

- 1 Include the individual per title and breakdown of committed hours per month of each member of staff that shall be on the project for each month of the project.
- 2 Include the total months duration that each staff member will be working on the project.
- 3 Add any columns for additional months you feel is appropriate.
- 4 Assume 173 working hours per month as standard.

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EXHIBIT D2

PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT

STAFF TIME ALLOCATION

WORK PACKAGE 2

Issued Date: 04/25/18

Submitted Date: _____

FIRM NAME: _____								2020			
ITEM NO.	STAFF POSITION	INDIVIDUAL	NOV HRS	DEC HRS	JAN HRS	FEB HRS	MAR HRS	APR HRS	MAY HRS	JUN HRS	JUL HRS
PRECONSTRUCTION			0	0	0	0	0	0	0	0	0
1	Officers of the Company (included in fee)	Wayne O'Brien									
2	Project Executive (included in fee)	Joel Heimbuck									
3	Sr. Preconstruction Manager	Keith Hinds									
4	Preconstruction Manager										
5	Sr. Estimator	Eric Coe									
6	Estimator	Estimating Team									
7	Sr. Project Manager										
8	Project Manager										
9	Sr. Project Engineer										
10	Project Engineer										
11	Assistant Engineer										
12	Senior Project Superintendent	Doug Langfeldt									
13	Project Superintendent										
14	Assistant Superintendent										
15	Field Engineer										
16	MEP Coordinator										
17	Administrative Support										
18	Project Specific Accounting										
19	Scheduling										
20	3D Modeling/BIM										
21	[enter other staff positions]										
22	[enter other staff positions]										
CONSTRUCTION - SALARY			692	692	692	692	692	692	692	692	0
23	Officers of the Company (included in fee)	Wayne O'Brien									
24	Project Executive (included in fee)	Joel Heimbuck									
25	Sr. Project Manager	Keith Hinds	173	173	173	173	173	173	173	173	
26	Project Manager										
27	Assistant Project Manager										
28	Sr. Project Engineer										
29	Project Engineer	Abel Alvarez	173	173	173	173	173	173	173	173	
30	Assistant Engineer										
31	Senior/General Superintendent	Doug Langfeldt	173	173	173	173	173	173	173	173	
32	Project Superintendent										
33	Assistant Superintendent										
34	Field Engineer	Tommy Barth	173	173	173	173	173	173	173	173	
35	MEP Coordinator										
36	Administrative Support										
37	Project Specific Accounting										
38	Scheduling										
39	Safety Director										
40	Safety Personnel										
41	Quality Control Personnel										
42	Project Estimator (on site)										
43	3D Modeling/BIM										
44	[enter other staff positions]										
45	[enter other staff positions]										
CONSTRUCTION - CRAFT/HOURLY			0	0	0	0	0	0	0	0	0
46	Carpenter Foreman	w/cost of work detail									
47	Labor Foreman	w/cost of work detail									
48	Hoist / Elevator Operator	w/cost of work detail									
49	Crane Operator	w/cost of work detail									
50	[enter other positions]	w/cost of work detail									
51	[enter other positions]	w/cost of work detail									
			692	692	692	692	692	692	692	692	0

NOTES:

- 1 Include the individual per title and breakdown of committed hours per month of each member o
- 2 Include the total months duration that each staff member will be working on the project.
- 3 Add any columns for additional months you feel is appropriate.
- 4 Assume 173 working hours per month as standard.

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EXHIBIT E

PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT
ALLOWANCE LIST, ALTERNATES & UNIT PRICES

WORK PACKAGES 1 & 2

Issue Date: 04/25/2018

Submitted Date: _____

FIRM NAME: _____

ALLOWANCE LIST (INCLUDED IN THE IGMP)

ITEM NO.	DESCRIPTION	AMOUNT
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

ALTERNATES (NOT INCLUDED IN THE IGMP)

ITEM NO.	DESCRIPTION	AMOUNT
1	D110 Type 3 Prestressed Tank instead of a D115 Post Tensioned Tank	\$ (200,000)
2		
3		
4		
5		
6		
7		
8		
9		
10		

UNIT PRICE LIST - TBD

ITEM NO.	DESCRIPTION	AMOUNT
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

EXHIBIT F

PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT

RESPONSIBILITY & BUDGET MATRIX

Issue Date: 04/25/18

Submitted Date: _____

ITEM NO.	DESCRIPTION	OWNER	OWNER'S DESIGN CONSULTANT	GENERAL CONTRACTOR
1	PREDEVELOPMENT			
2	Phase I Environmental Report	X		
3	Phase II Environmental Report	X		
4	Environmental Abatement	X		
5				
6	PLAN REVIEW / BUILDING PERMITS			
7	General Building Plan Review & Permit Fees	X		
8	Fire Department Plan Review & Permit Fees	X		
9	Sign Plan Review & Permit Fees	X		
10	Fence/Screen Wall Plan Review & Permit Fees	X		
11	Fire Protection Plan Review & Permit Fees	X		
12	Fire Alarm Plan Review & Permit Fees	X		
13	Plumbing Plan Review & Permit Fees	X		
14	Mechanical Plan Review & Permit Fees	X		
15	Electrical Plan Review & Permit Fees	X		
16	All other permits not described above but required for Project			X
17				
18	UTILITIES			
19	Permanent Water Permit & Meter Fees	X		
20	Permanent Sanitary Permit Fees	X		
21	Permanent Storm Water Permit Fee	X		
22	Electrical Service From Main Electrical Room to Floor Elec Rooms			X
23	Electrical distribution from Floor Electrical Room			X
24	Gas Service Fee for New Meter	X		
25	Gas Meter and Distribution			X
26	Telephone/Fiber Service Coordination	X		
27	Telephone/Fiber Main Wire/Service from Pedestal to DMARK Room			X
28	Telephone/Fiber Raceway from Pedestal to Telephone Closets			X
29	Telephone/Fiber Wire/Conduit distribution from Telephone Rooms throughout Building			X
30	Cable Service Coordination	X		
31	Cable Main Wire/Service from Pedestal to Telephone Closets			X
32	Cable Raceway from Pedestal to Telephone Closets			X
33	Cable Wire/Conduit distribution from Telephone Rooms throughout Bld.			X
34	Satellite Service Coordination	X		
35	Satellite Main Wire/Service from Dish to Telephone Closets	X		
36	Satellite Raceway from Dish to Telephone Closets			X
37	Satellite Wire/Conduit distribution from Telephone Rooms throughout Building			X
38	Temporary Gas Hook-up and Monthly Usage Fees			X
39	Temporary Electric Hook-up and Monthly Usage Fees			X
40	Temporary Phone Hook-up and Monthly Usage Fees			X
41	Temporary Water & Sewer Hook-up and Monthly Usage Fees			X
42	All Temporary Heating & Cooling During Construction (including propane bottles, temporary heaters, etc...)			X
43				
44				
45	TAXES AND DEVELOPMENT FEES			
46	Property Taxes	X		
47	Use Tax			X
48	All Local, State and Federal Taxes for construction			X
49				
50	INSURANCE, BUILDERS RISK, BONDS			
51	Commercial General Liability Insurance & Deductible			X
52	Excess Liability Insurance & Deductible			X
53	Worker's Compensation & Liability Insurance & Deductible			X
54	Automobile Liability Insurance & Deductible			X
55	Builders Risk & Deductible			X
56	General Contractor Payment & Performance Bond			X
57	Subcontractor Payment & Performance Bonds			X
58				
59	TESTING AND INSPECTION / QUALITY CONTROL			
60	Coordinate and schedule all testing and inspections			X
61	Soils Testing & Inspection (cost)			X
62	Asphalt Testing & Inspection			X
63	Concrete Testing & Inspection			X
64	Masonry Testing & Inspection			X
65	Reinforcing Steel Testing & Inspection			X

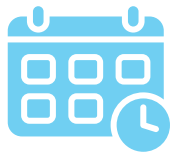
EXHIBIT F

**PLUM CREEK WATER PURIFICATION FACILITY - ADVANCED TREATMENT PROJECT
RESPONSIBILITY & BUDGET MATRIX
Issue Date: 04/25/18
Submitted Date: _____**

ITEM NO.	DESCRIPTION	OWNER	OWNER'S DESIGN CONSULTANT	GENERAL CONTRACTOR
66	Structural Steel Testing & Inspection			X
67	Exterior Framing Weld/Fasteners Testing & Inspection			X
68	Fire Resistive Paint Testing & Inspection			n/a
69	Fire Rated Joint Testing & Inspection			n/a
70	Fire Proofing Testing & Inspection			X
71	3rd Party Independent Inspections	X		
72	Special Inspections required by Town Building Department			X
73				
74	PRECONSTRUCTION			
75	Design Development RFP Pricing (Initial GMP)			X
76	30% Design Document Budget Update			X
77	60% Design Document Budget Update			X
78	90% Design Document Budget Update			X
79	100% Construction Document Pricing (Final GMP)			X
80	Regular Coordination Meetings	X		X
81	Construction Feasibility Review / Studies			X
82	Value Engineering/Alternates			X
83	Construction Schedule			X
84	Long Lead Items List			X
85	Bid Document Reproductions (beyond Arch Provided)			X
86				
87	CONSTRUCTION			
88	All work per the documents and reasonably inferable for complete project			X
89	All worker onsite & offsite parking, transportation, and housing in performance with the construction.			X
90	Temporary protection			X
91	Printing or Reproduction During Construction			X
92	LEED Certification Construction Coordination			X
93	Construction Surveying			X
94	Record Drawings			X
95	Standard Warranty			X
96	Special Extended Warranty (i.e. equipment, flooring, etc...)			X
97	Operation and Maintenance Manuals			X
98				
99	FURNITURE, FIXTURES & EQUIPMENT			
100	Furniture	X		
101	Data Center Racks & Cabling (excluding Cross Connects)			X
102	Data Center Computer Equipment	X		
103	Security - Conduit/Wire/Equipment			X
104	Low Voltage Tele/Data Distribution - Wire/Equipment			X
105	Audio Visual - R/I, Conduits, Pull strings, Power, Sleeves, Backing, etc.			X
106	Audio Visual - Equipment/wire			X
107	Kitchen/Servery Equipment			X
108				

NOTES:

- The Responsibility and Budget Matrix is intended to aid in defining "Gray Areas" of scope between the Owner and General Contractor. This document is NOT inclusive of all of either parties responsibilities and needs to be used in conjunction with the other contract documents.



4 - SCHEDULING/LOGISTICS

A. OVERALL PROJCT SCHEDULE

