

100% Completion
Engineer's Opinion of Probable Construction Cost

Project Name: FY2013 Storm Water Pump Station and Flood Warning System Improvements
Project Number: WBS No. M-430241-0009-4

Original Estimate By: KR, ABS, JET
Original Date: 3/31/2014
Revision Number: 5
Revision Date: 12/5/2014

BASE UNIT PRICE TABLE: 5405 MESA DRIVE PUMP STATION							
Item No.	Sheet No	Spec Ref.	Base Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
1		01502	Mobilization	LS	1	\$93,300	\$93,300
2	C-06	01506	Diversion Pumping as specified in Section 01110 – Summary of Work.	LS	1	\$302,500	\$302,500
3	C-08	01570	Inlet Protection	EA	2	\$200	\$400
4	C-08	01570	Inlet Protection Barrier	LF	10	\$45	\$450
5	C-08	01570	Reinforced Filter Fabric Fence	LF	1000	\$3	\$3,000
6	C-08	01740	Site Restoration	LF	1000	\$5	\$5,000
7	C-04 C-05	01110 02220	Remove existing material and equipment including, but not limited to, existing pumps, piping, pipe supports as well as related appurtenances, ladders, landing, handrail, gas meter, gas generator, drives, concrete building and internal housed items, fence, guardrail, and asphalt driveway as shown on demolition drawings.	LS	1	\$83,000	\$83,000
8	S-01 S-02 S-03 S-04	01110 02220	Structural changes to the station wet well and discharge vault including walls, top slab, bottom slab, flooring. Complete in Place.	LS	1	\$60,000	\$60,000
9	C-04	02120	Transportation and disposal of Class I soils	CY	100	\$20	\$2,000
10	C-04	02120	Transportation and disposal of Class II soils	CY	100	\$40	\$4,000
11	C-04	02221	Remove and Dispose of Miscellaneous Concrete And Masonry	CY	60	\$45	\$2,700
12	C-04	02221	*Remove and Dispose of Asphaltic Surface (all thickness, including base & subgrade, w/ or w/o curb, all depths)	SY	1300	\$20	\$26,000
13	C-04	02233	Remove Fence	LF	145	\$8	\$1,160
14	C-06	02315	Excavation for Sidewalk	CY	3.5	\$20	\$70
15	C-06	02319	Borrow (Offsite)	CY	25	\$15	\$375
16	C-04	02321	Cement-stabilized sand	CY	10	\$25	\$250
17	C-04	02336	Lime for Lime Stabilized Subgrade (DRY WEIGHT)	Ton	8	\$170	\$1,360
18	C-04	02336	*Lime Stabilized Subgrade 6-inch Thick	SY	1,300	\$36	\$46,800
19	C-04	02712	*Cement Stabilized Base Course 6-inch Thick	SY	300	\$20	\$6,000
20	C-04	02754	*Concrete Driveways including Excavation 7-inch thick	SF	12,000	\$9.75	\$117,000
21	C-06	02775	Sidewalk 4-1/2-inch thick	SF	250	\$10.00	\$2,500
22	C-04	02821	Installation of security fence	LF	240	\$25	\$6,000
23	C-08	02921	Hydromulch Seeding	AC	0.25	\$5,000	\$1,250
24	C-08	02922	Sodding	SY	200	\$10	\$2,000
25	E-01	03300	Installation of transformer pad	LS	1	\$66,000	\$66,000
26	S-01	05120	Furnish and install steel beams for landings and trash rack support.	LS	1	\$42,000	\$42,000
27	E-01	05500	Removable bollards	EA	11	\$300	\$3,300
28	G-10 C-06	05521	Installation of roadway guardrails	LF	225	\$75	\$16,875
29	M-01 S-03 S-04	05530	Furnish and install landings, trash racks, Aluminum railings, gratings, hatches, access doors, and all related items as shown on the plans. Complete in place.	LS	1	\$61,000	\$61,000
30	C-06 S-05 S-06 M-03 M-04	Div 4, Div 6, Div 7, Div 8 And Div 9	Construction of Control Building	LS	1	\$40,000	\$40,000
31	M-01 M-02	11311	Furnish and install two (2) Submersible Storm Water Pump 27,500 gpm design capacity, including 48-inch discharge tubing and piping.	LS	1	\$336,000	\$336,000
32	ELECT & INST DWGS	13440 13446 13471 & Div 16	Provide a storm water pump station control panel suitable for two 280 horsepower submersible pumps, 460 volt, three phase. Level 2 storm water pump station panel to include the following items on lump sum basis: 1- Storm water pump station control panel suitable for 2-280 hp submersible pumps, in NEMA 1 Enclosure, 1 power monitor, two 18 pulse adjustable frequency drives equipped with bypass contactor and internal filters, NEMA 4X 1000 amp manual transfer switch with service entrance rating and LSIG features, chart recorder, distribution panelboard, 1000 amp buss, Siemens PLC, WiMAX relocation, DC backup pump controller, fence grounding, padmount transformer, lightning protection, City of Houston Manufacturer's training, and Spare Parts. Provide submersible Level Transducers. Provide field wire, fiber optic cables, conduits, and field junction.	LS	1	\$456,000	\$456,000
33	M-01	15053 15101 09901	Installation, commissioning, and testing of electrical and instrumentation related items.	LS	1	\$80,000	\$80,000
34	E-01	01110 16060	Installation of all proposed mechanical items as shown on the plans including but not limited to pumps, piping, valves, fittings, coatings, complete in place	LS	1	\$80,000	\$80,000
			Remove existing motor control center and associated conduit and conductors Remove lighting and power outlets, transformers, and all associated conduit and conductors. Dispose of all as required by all applicable codes and ordinances.	LS	1	\$20,000	\$20,000
TOTAL BASE UNIT PRICES - 5405 MESA DRIVE PUMP STATION							\$1,888,290

*Cost increased for difficulty of work inside narrow access road

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EXTRA UNIT PRICE TABLE:						
Item No.	Spec Ref.	Extra Unit Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total in figures
35	01555	Traffic Control and Regulation	LS	1	\$6,500	\$6,500
36	01570	Extra reinforced filter fabric barrier	LF	300	\$3	\$900
37	02120	Extra off-site transportation and disposal of Class I soils	CY	100	\$20	\$2,000
38	02120	Extra off-site transportation and disposal of Class II soils	CY	100	\$40	\$4,000
39	02221	Remove miscellaneous concrete and masonry	SY	10	\$22.50	\$225
40	02318	Extra Around Obstructions	CY	200	\$15	\$3,000
41	02318	Extra Hand Excavation	CY	300	\$20	\$6,000
42	02318	Extra Machine Excavation	CY	300	\$10	\$3,000
43	02318	Extra Placement of Backfill Materials	CY	300	\$15	\$4,500
44	02319	Extra Borrow (Offsite)	CY	100	\$15	\$1,500
45	02321	Extra Cement Stabilized Sand	CY	400	\$25	\$10,000
46	02741	Extra Asphalt pavement with Base, complete in place	SY	800	\$46	\$36,800
47	02741	Extra Gravel for temporary driveway	SY	800	\$46	\$36,800
48	02754	Extra Concrete Driveways including Excavation 7-inch Thick and Extra Rebar	SF	4800	\$10	\$46,800
49	02775	Extra sidewalk 4-1/2 inch thick	SF	64	\$10	\$640
50	03930	Extra removal of deteriorated concrete and placement of repair mortar. Depth of repair/removal varies from 4" to 8" below water line inside the wet well.	CF	500	\$10	\$5,000
51	05500	Extra removable bollards	EA	4	\$300	\$1,200
52	13440	All required PLC and HMI programming	LS	1	\$100,000	\$100,000
TOTAL EXTRA UNIT PRICES						\$268,865

CASH ALLOWANCE TABLE:			
Item No.	Spec Ref.	Cash Allowance Short Title	Cash Allowance in figures
53	01110	CenterPoint Energy related services	\$25,000
54	13281	Lead and Asbestos Abatement (If Needed)	\$50,000
55	01110	City of Houston Building Permit	\$20,000
TOTAL CASH ALLOWANCES			\$95,000

ALTERNATES TABLE:						
Item No.	Spec Ref.	Alternate Short Title	Unit of Measure	Estimated Quantity	Unit Price (this column controls)	Total Price for Alternate in figures
TOTAL ALTERNATES						\$ -

TOTALS:	
Description	Total in figures
Total Base Unit Prices	\$1,888,290
Total Extra Unit Prices	\$268,865
Total Cash Allowances	\$95,000
Total Alternates	\$0
GRAND TOTAL	\$2,252,155