

CONCEPTUAL ENGINEER'S OPINION OF PROBABLE COST

KENNEDY/JENKS CONSULTANTS

Project: Hubbard WWTP Alternate Discharge Study
 Alternate: Reclaimed Water Agricultural Irrigation
 K/J Proj #: 0491011*00

Prepared By: PLVM
 Date Prepared: December-05
 ENR CCI 7646.87 (Dec 2005)

Item	Description	Quantity	Units	Unit Price	Amount
CAPITAL IMPROVEMENTS					
PUMP STATION					
1	PCC Pump Station Wet Well	1	Lump Sum	\$15,000	\$15,000
2	Submersible Pumps (10 HP) & Appurtenances	2	Each	\$20,000	\$40,000
3	Pump Station Valves & Piping	1	Lump Sum	\$5,000	\$5,000
4	Gated Bypass Channel (2 Slide Gates)	1	Lump Sum	\$15,000	\$15,000
5	Connect to Exist. 8" C900 PVC FM	2	Each	\$1,000	\$2,000
6	Electrical & Controls	1	Lump Sum	\$7,700	\$7,700
FORCE MAIN					
7	6" C900 PVC Force Main (Granular BF)	5,500	Lin.Ft.	\$50	\$275,000
8	6" C900 PVC Fittings	1	Lump Sum	\$2,500	\$2,500
9	Air Release Valves	1	Each	\$5,000	\$5,000
9	Allowance: Site Preparation/Restoration	1	Lump Sum	\$10,000	\$10,000
RECLAIMED WATER HOLDING POND					
10	Basin Excavation	1,100	Cu.Yds.	\$7	\$7,700
11	Embankment	500	Cu.Yds.	\$8	\$4,000
12	HDPE Liner & Geotextile Fabric	20,000	Sq.Ft.	\$5	\$100,000
13	HDPE Liner Anchor Trench	560	Lin.Ft.	\$25	\$14,000
14	Allowance: Site Preparation/Restoration	1	Lump Sum	\$5,000	\$5,000
	Subtotal: Materials & Installation				\$507,900
	Plus: Contractor Mobilization, O&P 15%				\$76,185
	Subtotal: Construction				\$584,085
	Plus: Engr/Survey/Legal/Administrative 25%				\$146,021
	Subtotal: Design & Construction				\$1,314,191
	Plus: Contingency 25%				\$328,548
TOTAL CAPITAL COST					\$1,640,000
OPERATIONS & MAINTENANCE					
15	Annual Maintenance	1	Lump Sum	\$10,000.00	\$10,000
16	Energy (10 hp pump for 5 months)	27,000	kWh	\$0.06	\$1,620
17	City Labor (6 hrs/week for 5 months)	120	Hours	\$45	\$5,400
ANNUAL OPERATIONS & MAINTENANCE COST					\$17,000
TOTAL OPERATIONS & MAINTENANCE COST (20-year Net Present Worth @ 4%)					\$230,000
PERMITTING					
18	Environmental & Permitting	1	Lump Sum	\$60,000	\$60,000
TOTAL PERMITTING					\$60,000
TOTAL ESTIMATED ALTERNATIVE COST					\$1,930,000

OK
 OK
 730,000
 182,600
 912,500