

WOCWB OC-9

Pipeline Diameter - Inches	STEEL CML&C
24	11,223
26	8,731
28	8,169
SUM Feet	28,124

5.33 Miles

Assumptions	Item	Quantity	Unit	Unit Cost	Item Total
	Mobilization	1	LS	\$265,000	\$265,000
Assume 40 Foot pipe lengths	Number of Joints	703	EA	\$1,360	\$956,206
Assume 1 rectifier for 1.5 miles of pipe	Rectifiers w Deep Well Anode	4	EA	\$163,000	\$652,000
	SCE Service	4	EA	\$23,000	\$92,000
Assume 1 per 1000 ft of pipe	Test Stations	29	EA	\$2,800	\$81,200
	Traffic Control	1	LS	\$150,000	\$150,000
	Dewatering, Chlorination, Testing	1	LS	\$100,000	\$100,000
	Install Elliptical Heads	2	EA	\$10,000	\$20,000
	Install Access MH	3	EA	\$20,000	\$60,000
	Install Valves	3	EA	\$ 50,000.00	\$ 150,000.00
				SUM	\$2,526,406
	25% Cost Contingency				\$631,602
	25% Cost Design, Construction Management				\$631,602

Total \$3,789,609

2009 MJ Schiff Report CP Retrofit Estimate \$ 2,914,024
Adjusted for Inflation

2009 RBA (BRADY) Report Replacement Value 2009 \$16,000,000
Replacement Value 2019 \$19,503,911

Ratio of CP Cost to Replacement Value 19%

OC-35 CP Retrofit
Preliminary Cost Estimate

1/9/2020

WOCWB OC-35

Pipeline Diameter - Inches	STEEL CML&C
27	5,731
33	12,199
36	13,491
SUM Feet	31,421

5.95 Miles

Assumptions	Item	Quantity	Unit	Unit Cost	Item Total
	Mobilization	1	LS	\$265,000	\$265,000
Assume 40 Foot pipe lengths	Number of Joints	786	EA	\$1,360	\$1,068,314
Assume 1 rectifier for 1.5 miles of pipe	Rectifiers w Deep Well Anode	5	EA	\$163,000	\$815,000
	SCE Service	5	EA	\$23,000	\$115,000
Assume 1 per 1000 ft of pipe	Test Stations	33	EA	\$2,800	\$92,400
	Traffic Control	1	LS	\$150,000	\$150,000
	Dewatering, Chlorination, Testing	1	LS	\$100,000	\$100,000
	Install Elliptical Heads	4	EA	\$10,000	\$40,000
	Install Access MH	2	EA	\$20,000	\$40,000
	Install Valves	3	EA	\$50,000.00	\$150,000.00
				SUM	\$2,835,714

25% Cost Contingency \$708,929

25% Cost Design, Construction Management \$708,929

Total \$4,253,571

2009 MJ Schiff Report CP Retrofit Estimate \$ 3,255,672
Adjusted for Inflation

2009 RBA (BRADY) Report Replacement Value 2009 \$26,000,000
Replacement Value 2019 \$31,693,855

Ratio of CP Cost to Replacement Value 13%