



South Orient Railroad (SORR) Rehabilitation &
Presidio-Ojinaga International Bridge Reconstruction Project
Appendix D: Detailed Project Cost Estimates

TIGER FY16 Grant Application

April 2016

Summary of Estimates

Item	Amount
International Bridge Replacement	\$7,703,810
Track Tie, Surfacing, and Switches	\$4,030,710
Bridge Component Replacements	\$380,520
Bridge Tie Replacements	\$536,450
Drainage Improvements	\$1,503,850
Subtotal	\$14,155,340
Contingency	\$2,089,232
Total	\$16,244,572

International Bridge Replacement Estimate

Item	Quantity	Unit	Unit Cost	Total
MOBILIZATION	1	LS	\$475,000	\$475,000
CLEARING & GRUBING	3	ACRE	\$2,000	\$6,000
REMOVALS & DEMO	1	LS	\$50,000	\$50,000
EXCAVATION (INCLUDING DITCHES)	2,800	CY	\$30	\$84,000
EMBANKMENT RR	14,000	CY	\$40	\$560,000
EMBANKMENT LEVEE AND RAMP	1,800	CY	\$50	\$90,000
LEVEE ROAD AND RAMP SURFACE	1,800	SY	\$25	\$45,000
LEVEE RIP RAP	700	TON	\$50	\$35,000
RAILROAD SUBBALLAST	900	CY	\$45	\$40,500
BALLAST	2,000	TON	\$50	\$100,000
RAILROAD TRACK (TIES RAIL OTM)	1,800	LF	\$400	\$720,000
TIMBER PLANK CROSSING & SIGNAGE	1	LS	\$15,000	\$15,000
30' PRE STRESSED CONC BOX GIRDERS	8	EA	\$9,000	\$72,000
PRECAST CONCRETE CAPS	7	EA	\$3,500	\$24,500
PRECAST ABUTMENTS	3	EA	\$15,000	\$45,000
H PILING	2,500	LF	\$200	\$500,000
STRUCTURAL STEEL	1,011,800	LB	\$3	\$3,035,400
SUPERSTRUCTURE CONC	200	CY	\$900	\$180,000
SUPERSTRUCTURE REINFORCING BARS	72,100	LB	\$1	\$72,100
SUBSTRUCTURE STRUCTURAL CONC	370	CY	\$900	\$333,000
SUBSTRUCTURE REINFORCING BARS	56,310	LB	\$1	\$56,310
DRILL SHAFT 5' 0 DIA	600	LF	\$500	\$300,000
ROCK SOCKET 5' 0 DIA	90	LF	\$1,000	\$90,000
SITE WORK (SEEDING FENCING & ROADS)	1	LS	\$50,000	\$50,000
PROJECT MANAGEMENT	1	LS	\$500,000	\$500,000
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Subtotal				\$7,478,810
ENGINEERING				\$225,000
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Total (before contingency)				\$7,703,810
Contingency				\$1,540,762
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Total (including contingency)				\$9,244,572

Track Tie, Surfacing, and Switch Estimate

Item	From MP	To MP	Quantity	Unit	Unit Cost	Total
Track Tie Replacements	956.7	1029.0	18223	EA	\$145	\$2,642,335
Surfacing	956.7	1029.0	72.3	MI	\$8,250	\$596,475
Switch Replacements	956.7	1029.0	4	EA	\$150,000	\$600,000
Subtotal						\$3,838,810
Mobilization (5%)						\$191,900
Total						\$4,030,710

Bridge Component Replacement Estimate

Milepost	Item	Quantity	Unit	Unit Cost	Total
958.0	Post Piles	2	EA	\$2,500	\$5,000
964.7	Replace Headwall	1	EA	\$4,600	\$4,600
967.2	Install Framed Bent	2	EA	\$10,200	\$20,400
971.4	Replace Cap	1	EA	\$4,500	\$4,500
973.9	Post Piles	1	EA	\$2,500	\$2,500
977.3	Replace Cap	3	EA	\$4,500	\$13,500
979.7	Install Framed Bent	1	EA	\$10,200	\$10,200
983.1	Replace Cap	1	EA	\$4,500	\$4,500
984.8	Replace Cap	3	EA	\$4,500	\$13,500
989.3	Replace Cap	2	EA	\$4,500	\$9,000
990.9	Replace Cap	3	EA	\$4,500	\$13,500
992.4	Replace Cap	2	EA	\$4,500	\$9,000
998.5	Replace Cap	1	EA	\$4,500	\$4,500
1000.2	Replace Cap	4	EA	\$4,500	\$18,000
1002.6	Replace Cap	1	EA	\$4,500	\$4,500
1000.7	Replace Cap	1	EA	\$4,500	\$4,500
1003.6	Post Piles	2	EA	\$2,500	\$5,000
1005.4	Replace Sill	1	EA	\$4,500	\$4,500
1005.9	Replace Cap	1	EA	\$4,500	\$4,500
1006.8	Replace cap	1	EA	\$4,500	\$4,500
1007.7	Replace Cap	1	EA	\$4,500	\$4,500
1009.2	Stabilize Concrete Footer	1	EA	\$2,500	\$2,500
1011.1	Replace Cap	2	EA	\$4,500	\$9,000
1012.9	Replace Cap	1	EA	\$4,500	\$4,500
1013.5	Preplace Cap	3	EA	\$4,500	\$13,500
1014.7	Replace Cap	1	EA	\$4,500	\$4,500
1014.7	Post Piles	2	EA	\$2,500	\$5,000
1016.9	Replace Cap	4	EA	\$4,500	\$18,000
1017.2	Replace Cap	3	EA	\$4,500	\$13,500
1019.5	Replace Cap	3	EA	\$4,500	\$13,500
1020.1	Replace Cap	2	EA	\$4,500	\$9,000
1021.1	Replace Cap	2	EA	\$4,500	\$9,000
1023.7	Replace Cap	1	EA	\$4,500	\$4,500
1023.7	Install Framed Bent	1	EA	\$10,200	\$10,200
1024.0	Replace Cap	2	EA	\$4,500	\$9,000
1024.3	Replace Cap	2	EA	\$4,500	\$9,000
1025.0	Replace Cap	7	EA	\$4,500	\$31,500
1026.4	Replace Cap	2	EA	\$4,500	\$9,000
1027.3	Replace Cap	1	EA	\$4,500	\$4,500
1027.6	Replace Cap	4	EA	\$4,500	\$18,000
Subtotal					\$362,400
Mobilization (5%)					\$18,120
Total					\$380,520

Bridge Tie Replacement Estimate

Milepost	Quantity	Unit	Unit Cost	Total
957.1	8	EA	\$550	\$4,400
957.5	10	EA	\$550	\$5,500
958.0	9	EA	\$550	\$4,950
959.5	11	EA	\$550	\$6,050
964.1	3	EA	\$550	\$1,650
964.7	4	EA	\$550	\$2,200
965.7	3	EA	\$550	\$1,650
966.6	4	EA	\$550	\$2,200
967.2	29	EA	\$550	\$15,950
968.6	7	EA	\$550	\$3,850
969.5	3	EA	\$550	\$1,650
970.0	17	EA	\$550	\$9,350
970.4	7	EA	\$550	\$3,850
971.4	9	EA	\$550	\$4,950
973.9	11	EA	\$550	\$6,050
975.6	3	EA	\$550	\$1,650
976.1	2	EA	\$550	\$1,100
976.7	3	EA	\$550	\$1,650
977.3	8	EA	\$550	\$4,400
979.7	9	EA	\$550	\$4,950
980.7	8	EA	\$550	\$4,400
981.6	20	EA	\$550	\$11,000
982.1	4	EA	\$550	\$2,200
983.1	17	EA	\$550	\$9,350
984.1	7	EA	\$550	\$3,850
984.8	22	EA	\$550	\$12,100
985.9	8	EA	\$550	\$4,400
987.1	2	EA	\$550	\$1,100
987.4	39	EA	\$550	\$21,450
989.1	7	EA	\$550	\$3,850
989.3	7	EA	\$550	\$3,850
990.1	11	EA	\$550	\$6,050
990.9	11	EA	\$550	\$6,050
991.6	3	EA	\$550	\$1,650
992.4	11	EA	\$550	\$6,050
992.9	7	EA	\$550	\$3,850
993.3	14	EA	\$550	\$7,700
994.0	16	EA	\$550	\$8,800
995.3	3	EA	\$550	\$1,650
997.4	16	EA	\$550	\$8,800
998.5	48	EA	\$550	\$26,400
1000.2	20	EA	\$550	\$11,000
1000.7	8	EA	\$550	\$4,400
1001.5	7	EA	\$550	\$3,850

Bridge Tie Replacement Estimate

Milepost	Quantity	Unit	Unit Cost	Total
1002.6	9	EA	\$550	\$4,950
1003.6	9	EA	\$550	\$4,950
1003.9	7	EA	\$550	\$3,850
1004.3	9	EA	\$550	\$4,950
1004.9	6	EA	\$550	\$3,300
1005.4	5	EA	\$550	\$2,750
1005.9	8	EA	\$550	\$4,400
1006.8	8	EA	\$550	\$4,400
1006.9	4	EA	\$550	\$2,200
1007.7	12	EA	\$550	\$6,600
1009.2	20	EA	\$550	\$11,000
1009.5	40	EA	\$550	\$22,000
1010.7	9	EA	\$550	\$4,950
1011.1	14	EA	\$550	\$7,700
1011.6	5	EA	\$550	\$2,750
1012.4	3	EA	\$550	\$1,650
1012.9	7	EA	\$550	\$3,850
1013.5	5	EA	\$550	\$2,750
1014.4	3	EA	\$550	\$1,650
1014.6	3	EA	\$550	\$1,650
1014.7	7	EA	\$550	\$3,850
1015.3	5	EA	\$550	\$2,750
1015.7	4	EA	\$550	\$2,200
1016.9	9	EA	\$550	\$4,950
1017.0	9	EA	\$550	\$4,950
1017.2	11	EA	\$550	\$6,050
1019.5	115	EA	\$550	\$63,250
1020.1	13	EA	\$550	\$7,150
1020.6	7	EA	\$550	\$3,850
1021.1	8	EA	\$550	\$4,400
1021.4	9	EA	\$550	\$4,950
1023.7	9	EA	\$550	\$4,950
1024.0	5	EA	\$550	\$2,750
1024.3	5	EA	\$550	\$2,750
1024.7	7	EA	\$550	\$3,850
1025.0	9	EA	\$550	\$4,950
1025.7	14	EA	\$550	\$7,700
1026.4	5	EA	\$550	\$2,750
1027.3	7	EA	\$550	\$3,850
1027.6	9	EA	\$550	\$4,950
Subtotal				\$510,950
Mobilization (5%)				\$25,500
Total				\$536,450

Drainage Estimate

Milepost	Item	Quantity	Unit	Unit Cost	Total
970.0	Ditch Profiling/Cut Stabilization	2000	TF	\$85	\$170,000
984.5	Ditch Profiling	150	TF	\$85	\$12,750
985.9	Stabilize Streambed	1000	SF	\$60	\$60,000
991.6	Stabilize Embankment	1000	SF	\$60	\$60,000
1000.2	Increase Freeboard Clearance Flow under Structure	11000	SF	\$60	\$660,000
1003.3	Ditch Profiling	600	TF	\$85	\$51,000
1004.8	Ditch Profiling	400	TF	\$85	\$34,000
1005.4	Stabilize streambed	1000	SF	\$60	\$60,000
1006.5	Ditch Profiling	500	TF	\$85	\$42,500
1007.4	Replace Timber Box Culvert	120	LF	\$450	\$54,000
1008.4	Replace Timber Box Culvert	120	LF	\$450	\$54,000
1011.5	Replace Timber Box Culvert	120	LF	\$450	\$54,000
1021.1	Stabilize Embankment	2000	SF	\$60	\$120,000
Subtotal					\$1,432,250
Mobilization (5%)					\$71,600
Total					\$1,503,850