

# Shaft Alternatives Evaluation Matrix

Tunneling Options	Const. Costs	Schedule Impact > Spring 2014	Schedule Related Cost Impact	Total Cost Range	Enviro. Impacts	Tunneling Risks	Operation/ Maint.	Community Impacts
Alt 1 (Working Shaft at Four Points and SS)	\$90-\$100M	+ 10 months	+ \$ 7 M	\$95-\$105M	Moderate	Moderate	Acceptable	High
Alt 2 (Retrieval Shaft at WTP4 and SS)	\$95-\$105M	None	0	\$95-\$105M	Moderate	Moderate to Low	Preferred	Moderate
Alt 3 (Retrieval Shaft at WTP4 and SS-Deeper shaft at Four Points)	\$100-\$110M	+ 5 months	+ \$3.5 M	\$100-\$115M	Moderate	Low	Not preferred	Moderate
Alt 4 (Ventilation Shaft at SS)	\$105-\$115M	+ 6 months	+\$4.2 M	\$105-\$120M	Moderate	High	Acceptable	Low
Alt 5 (Hybrid West-of-620 Route Alignment)	\$145-\$155M	+ 19 months	>\$10 M	>\$155-\$165M	Moderate	Info not available	Not preferred	Moderate