

Alternative Comparison Chart
Paint Creek Trailway Bridge 33.7 Replacement

	Advantages	Disadvantages
Truss Style		
Keystone	Preference on look	
Capstone	Preference on look	-5% more cost than Keystone
Pedestrian (Closed Sections Welded)	Preference on look	Difficult to repair
	Lighter bridge	Closed sections can fill with water and burst tubing.
	Round sections and welds are smoother to the touch	
Vehicular (Open Sections Bolted)*	Preference on look	Heavier bridge
	Easier to repair	Not as smooth
	Can see and inspect all members.	Open sections have all surfaces exposed to the elements
	Bolted connections may look more industrial	
Deck Options		
Timber Decking* (Ipe Hardwood)	Natural appearance	Drainage through the deck onto steel supports
	Durable (Rot, mold, insect, and fire resistant)	Requires yearly maintenance cleaning to protect steel below.
	75-year Lifespan	
	Easier to repair / replace	
	Least expensive option presented	
	Light weight	
Concrete	Protects the steel below the deck from water	-10% more than IPE timber decking (Approx \$25K)
	Less maintenance cleaning required	Difficult to repair - requires patching
	Approximately 60-year life with epoxy coated reinforcing	Drainage off the side and end of deck
		Heavy
Ballast Retainer & Limestone	Matches the rest of the trail	More maintenance in grading
	Less initial cost decking	-5% more than IPE timber
		Heavy
Concrete with Timber Stamped Pattern	Protects the steel below the deck from water	-20% more than IPE timber decking (Approx \$40K)
		Drainage off the side and end of deck
		Difficult to match existing color if patching required
		Less maintenance cleaning required
		Heavy
Finish Materials		
Weathering Steel	Natural patina of steel provides protection	tree cover and is over a creek making it less than ideal conditions.
	No maintenance in the right conditions	Can continue to corrode if exposed to salt
	Natural color is brown	Only one option in color - brown
	Least expensive option - Approx. \$95K	<i>IF chosen, H20 loading is recommended.</i>
Painted Steel	Low maintenance	Potential for damage will need touch up
	Large color pallet	Will likely need to be repainted at 25 years +/-
	Second lowest cost option - Approx. \$117K	-25% more cost than weathering -
		<i>IF chosen, H-20 loading is recommended.</i>
Galvanized*	35 year warranty on galvanizing	Only one option in color - silvery grey
	Low maintenance	-35% more cost than weathering
		Approx. \$129K
Galvanized and Painted (Duplex)	Best of galvanizing and paint	May need to be repainted at 25 years +/-
	Large color pallet	-55% more cost than weathering
		Most Expensive - Approx. \$155K
Railings - Similar cost for all options		
Timber Rub Rail with Steel Shapes Below*	Simplified Design	
Timber Rub Rail with Cable Below	Depending on look may be more aesthetic	Thin cables may be a maintenance concern
Timber Rub Rail with Mesh Below	Can be more decorative with mesh patterns	Can be more or less expensive depending on mesh
Other		

* Denotes engineer's recommendation