

**Project Number:
TPF-5(221)**

High-level Criteria	Sub-Criteria	Definition
Direct Costs	Construction	This factor captures the estimated costs associated with the construction of the permanent structure(s) and roadway. This factor includes premiums associated with new technologies or innovative construction methods. Premiums might result from factors such as contractor availability, materials availability, and contractor risk. It may include incentive/bonus payments for early completion and other innovative contracting methods.
	Maintenance of Traffic (MOT)	This factor captures the maintenance of traffic costs at the project site. MOT costs may impact preference due to its impact on total costs. This factor includes all costs associated with the maintenance of detours before, during, and after construction. Examples of this factor include; Installation of traffic control devices, maintenance of detour during construction including flagging, shifting of traffic control devices during staged construction, restoration associated with the temporary detours upon completion of construction.
	Design and Construct Detours	This factor captures the costs to design and construct temporary structures and roadways to accommodate traffic through the project site.
	Right of Way (ROW)	This factor captures the cost to procure ROW. This factor includes either permanent or temporary procurements/easements.
	Project Design and Development	This factor captures the costs associated with the design of permanent bridge(s) and costs related to project development based on the construction method.
	Maintenance of Essential Services	This factor captures the costs associated with the need to provide essential services that may be impacted by the construction selected. Examples of this factor include alternate routes or modes of transportation to provide defense, evacuation, emergency access to hospitals, schools, fire station, and law enforcement, etc. This criterion is for situations where measures needed to be implemented beyond those already considered in the "MOT" and "Design and Construct Detours" criteria.
	Construction Engineering	This factor captures the costs associated with the owner's contract administration of the project.
	Inspection, Maintenance and Preservation	This factor captures the life cycle costs associated with the inspection, maintenance and preservation of individual bridge elements.
	Toll Revenue	This factor captures the loss of revenue due to the closure of a toll facility.
Indirect Costs	User Delay	This factor captures costs of user delay at a project site due to reduced speeds and/or off-site detour routes.
	Freight Mobility	This factor captures costs of freight delay at a project site due to reduced speeds and/or off-site detour routes.
	Revenue Loss	This factor captures lost revenues due to limited access to local business resulting from limited or more difficult access stemming from the construction activity.
	Livability During Construction	This factor captures the impact to the communities resulting from construction activities. Examples include noise, air quality, and limited access.
	Road Users Exposure	This factor captures the safety risks associated with user exposure to the construction zone.
	Construction Personnel Exposure	This factor captures the safety risks associated with worker exposure to construction zone.
Schedule Constraints	Calendar or Utility or RxR or Navigational	This factor captures the constraints placed on the project that might effect the timing of construction as a result of weather windows, significant or special events, railroad, or navigational channels.
	Marine and Wildlife	This factor captures the constraints placed on the project by resource agencies to comply with marine or wildlife regulations. Examples include in-water work windows, migratory windows, and nesting requirements.
	Resource Availability	This factor captures resource constraints associated with the availability of staff to design and oversee construction. For example, a state may be required to outsource a project, which may result in additional time requirements.

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Site Constraints	Bridge Span Configurations	This factor captures constraints related to bridge span configurations. This element may impact owner preference regarding bridge layout, structure type, or aesthetics.
	Horizontal/Vertical Obstructions	This factor captures physical constraints that may impact construction alternatives. Examples include bridges next to fixed objects such as tunnels, ROW limitations, sharp curves or steep grades, or other urban area structures that constrain methods and/or bridge locations.
	Environmental	This factor captures the constraints placed on the project by resource agencies to minimize construction impacts on natural resources including marine, wildlife, and flora.
	Historical	This factor captures historical constraints existing on a project site.
	Archaeological Constraints	This factor captures archaeological constraints existing on a project site.
Customer Service	Public Perception	This factor captures both the public's opinion regarding the construction progress and their overall level of satisfaction.
	Public Relations	This factor captures the costs associated with the communication and management of public relations before and during construction.

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