BRIDGE DESIGN TS&L CHECKLIST

PROJECT INFORMATION

- Project Name:
- Project No:
- Bridge No:
- Location:
- Designer:
- Checker:
- Drafter:
- Reviewer:

- NOTE: Each Task, when applicable & completed, is Checked (Y, N, N/A), Dated and Initialed by the Designer, Checker, and Reviewer.

TS&L Tasks	Y	N	N/A	Designer / Checker / Reviewer		DATE	
Preliminary Data Collection							
• *Project Prospectus*				Comments:			
• *Location Map*							
• *Assign Bridge Number*							
• *Develop Scope of Work*							
• *Submit Environmental Green Sheet*							
• *Boring Request*							
• *Traffic Forecast*							
• *Paint Condition Evaluation*							
• *Bridge Deck Evaluation*							
• *Accident Study Request*							
• *Survey Request*							
• *Pavement Evaluation Request*							
• *Utility Verification Request*							
• *ITS Initial Review Request*							
• *ROW Abstract Request*							
• *Final Hydraulic Study*							
• *Grades & Alignments*							
Plan & Elevation Drawing(s)						DATE	
• *Proposed Alignment and Stations*				Comments:			
• *Alignment Data*							
• *Roadway Width*							
• *Intersection Stations & Angles*							
• *Span Lengths*							
• *Angles between Bents & Centerline*							
• *Existing Structures*							
• *Right-of-Way lines*							
• *Detours / Temporary Diversion*							
• *Utilities*							
• *North Arrow*							
• *Bridge Width Dimensions*							
• *Contours*							
• *Design Loads, Materials & Spec.*							
• *Type of Bridge Rail*							
• *Expansion & Fixed joints*							
• *Typical Bridge Section*							
• *Existing Ground Line*							
• *High Water, O.H.W., Scour Elevations*							
• *Proposed Ground Line*							

*Checklist is to be used as a general guide. The list is **not** inclusive. Additional information may be required on plans.*

TS&L Tasks - Cont.	Y	N	N/A	Designer / Checker / Reviewer		DATE	
Plan & Elevation Drawing(s) Cont.							
• *End Slope & Protection*				Comments:			
• *Hydraulic Data*							
• *Grade Lines*							
• *Typical Bent Section*							
• *Roadway Clearances*							
• *Railroad Final and Construction Clearance*							
• *Guardrail Transitions*							
• *Foundation Types*							
• *Datum Elevation*							
TS&L Estimate						DATE	
• *Title Block w/ project name, number, location, bridge number, & date*				Comments:			
• *Based on construction costs*							
• *Account for tall abutments using projected quantities*							
• *Include contingencies*							
TS&L Narrative Report						DATE	
• *General Background:*				Comments:			
○ Project Development & justification							
○ Right-of- way restrictions							
○ Permits and restrictions							
○ Utility conflicts or restrictions							
○ Railroad Clearances & restrictions							
• *Geometry and Layout:*							
○ Roadway Width, ADT, Grades & Alignment (exceptions as necessary)							
○ Sidewalks, bridge rails & protective screening							
• *Hydraulics:*							
○ Waterway openings, High water & Scour elevations, and Clearances							
○ Embankment or bent protection							
○ Floodway information, when appropriate							
• *Foundations:*							
○ Piling, drilled shafts, spread footings							
○ Fills, surcharges							
○ Settlement							
○ Lateral Earth, Seismic loads							
○ Liquefaction Potential							
• *Structure Features (discussion items):*							
○ Span length & span arrangements							

TS&L Tasks - Cont.	Y	N	N/A	Designer / Checker / Reviewer		DATE	
TS&L Narrative Report Cont.							
○ Type of superstructure				Comments:			
○ Type of bents & location							
○ Alternate structure types considered and estimated costs							
○ Phase construction & detour requirements.							
• *Design Concepts (decision/ assumptions):*							
○ Building a new bridge vs. widening existing one							
○ Use a bridge vs. culvert							
○ Foundation support assumptions							
○ Assumed foundation bearing capacity loads							
○ Seismic load assumptions							
• *Environmental Assessment* Considerations (applies to many bridge replacements):							
○ Project timing and chronology							
○ In-Water Work Period							
○ Environmental concerns							
○ Invasive species							
○ Alignment and size of the new bridge in relation to the existing (e.g., no. of spans, length)							
○ Type of new deck and construction methods							
○ Proposed treatment of the runoff							
○ Number & sizes of bents/footings added for new bridge w/in OHWM and the wetted channel. Discuss construction of new footings, bents & piles.							
○ Type of water diversion methods used during construction (e.g., cofferdam)							
○ If a detour bridge is required, how many bents & types of temporary supports that may be within the OHWM and wetted channel. Discuss the construction & removal methods that might be used.							
○ Extent and duration of in-water work (e.g., heavy machinery in wetted channel)							
○ Amount or extent of fill or rip-rap							