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3.2.9 Type, Size, and Location plans (TS&Ls)

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The office requires a TS&L for each new bridge and each bridge that is to be widened or lengthened. The plan and longitudinal section (or profile) views should be plotted at a 1 inch = 40 feet scale on an 11-inch by 17-inch drawing. For long bridges the designer may use an alternate scale, provided that the alternate scale meets the approval of the supervising Section Leader.

Detailed structural design generally is not required for preparation of a TS&L. Thus pier and abutment details, pile types and lengths, and beam spacings need not be determined unless they affect vertical clearance, constructability, beam type, or structure length. Example TS&Ls are shown in the commentary.

A TS&L for a bridge or culvert of bridge length over a waterway requires the following additional items:

- Hydraulic computations
- Backwater computations
- Scour computations

TS&L plan submittal information to Iowa DOT should include the situation plan, site plan, miscellaneous detail sheet(s), hydraulic calculations, and surveyed valley cross section.

The form "Risk Assessment for Bridges" (Form 621012) is no longer required for consultant projects and FHWA approval. For a bridge-size RCB, length calculations shall be provided and either shown on a pink sheet or in some other format. An RCB is bridge-size when the clear span distance along centerline of roadway is more than 20 feet. The skewed distance along spans and interior walls shall be taken into account, but the exterior walls are not included.

A Preliminary Bridge Plan Checklist and the Electronic Deliverable Format Documents are provided on the Iowa DOT Bridge Office website. Consultants shall apply the checklist as needed and include it with the submittal. Sheet layout guidelines are provided in the commentary.