

CONSULTANT PROJECT REVIEW PROCEDURE

Consultants are used on state bridge projects when the workload exceeds the capacity of the Bridge Section or when special expertise is required. Counties and cities also frequently use Consultants to design bridges for LPA projects with Federal Aid funds under LHTAC project management.

A Bridge Section Engineer will be assigned when a new bridge design project is provided to the consultant. The reviewing engineer should have experience in the design of structures similar to the one to be reviewed. The Review Engineer will then become the contact for technical questions raised by the consultant throughout the design phase. This communication allows early identification of critical design areas and reduces the chances of major revisions.

The Review Engineer will not generally perform an exhaustive check on the design. All details, plans, and related work will be reviewed to ensure conformance with the criteria that follows.

The consultant shall apply his own seal and signature to the plans, and thereby assumes full responsibility for their correctness and general conformance with good engineering practice.

The following indicates the degree and type of checking to be performed by the Bridge Section:

Structure Concept Study Review

All concept studies will be thoroughly reviewed to ensure adequate evaluation of:

- Structure types that are compatible to the site conditions
- Preliminary cost estimates
- Advantages/disadvantages of each structure type
- Economy, feasibility, and constructibility
- Structure types recommended for additional study or final design

A review of the bridge layouts will be made to ensure that span lengths, clearances, and all site conditions are adequately addressed.

Final Situation and Layout

Plans should be thoroughly checked by using the checklist located in Chapter 17 of the Bridge Design Manual (*BDM*). Conformance of grades, alignments, and other data between roadway and bridge plans should be checked.

The hydraulic and foundation criteria shown on the plans shall conform to the approved ITD-210 hydraulic report and approved Phase 4 foundation report.

Final Design Review

Plans should be reviewed for completeness, constructibility, compliance with current ITD standards, and good engineering practices.

A review of major structural elements should be performed. However, no stress analysis is generally required unless the detail appears questionable.

Pay items and Special Provisions should be reviewed for conformance with the Standard Specifications. Quantity calculations and rebar schedules are generally not checked in detail.

Design calculations shall be on 8.5"x11" paper with a proper heading and placed a binder with an index. The signature, date and Idaho seal of a registered engineer of the consulting firm shall be on a title sheet.

Final Plan Review

Plans will be checked for all changes required by the Final Design Review.

The signature, date and Idaho seal of a registered engineer of the consulting firm shall be on each drawing.

Any new or significantly modified Special Provisions shall be added to the X:drive SPB folder.