

SECTION 520
TEMPORARY CROSSINGS

520-1.02 DEFINITIONS. Replace the definition of "INDEPENDENT DESIGN CHECK (IDC)." with the following: **INDEPENDENT DESIGN CHECK (IDC).** An independent design check of the temporary bridge package including but not limited to: design, load rating, location and dimensions of the foundation, structural members, connections, erection plan and temporary bracing (when required), safety barrier, and independent calculations of design loads, member stress, material properties, hydraulic capacity and scour protection.

Replace the definition of "TEMPORARY BRIDGE PACKAGE (TBP)." with the following: **TEMPORARY BRIDGE PACKAGE (TBP).** Design calculations from the DOR and IE, working drawings, specifications, load ratings, and all items identified on Form 25D-080 Temporary Bridge Submittal Checklist, necessary to construct a temporary bridge.

520-2.04 DESIGN REQUIREMENTS.

Replace item 3.b. with the following:

- b. Complete seismic design in accordance with the *AASHTO Guide Specifications for LRFD Seismic Bridge Design*. Design the structure using not less than 40% of the site adjusted seismic response spectra indicated on the Plans.

Replace item 3.h. with the following:

- h. Provide a barrier system on the bridge and bridge approaches. Limit barrier system deflection when impacted according to those shown on Alaska Standard Plan G-47.00. The barrier system shall provide minimum TL-3 or better level of safety, as documented by crash test reports from an ISO 17025 accredited test facility, equivalency calculations, or documentation of engineering judgement by the Engineer of Record in the design calculations. Truss-mounted bridge rails are not acceptable.

Replace item 4. with the following:

4. Provide load ratings of the temporary bridge according to the most recent version, including interim revisions, of the *AASHTO Manual for Bridge Evaluation (MBE)* and the *Alaska Bridges and Structures Manual*. Do not submit a temporary bridge with rating factors less than 1.0. Load rate steel and concrete bridges using the Load Factor Rating (LFR) and Load and Resistance Factor Rating (LRFR) methods. Load rate timber bridge components using the Allowable Stress Rating (ASR) method and Load and Resistance Factor Rating (LRFR) methods.

Include values for moment, shear and, where applicable, axial stresses. Specify live load type, placement for maximum stress, distribution factors, and impact. Do not include the Contractor's construction loads.

Include the following cases for LFR load ratings:

- a. Inventory for multiple lanes with impact included.
- b. Operating for multiple lanes with impact included.
- c. Operating for multiple lanes with impact not included.
- d. Operating for one lane centered on the bridge with impact not included.

Include the following cases for LRFR load ratings:

- a. Design inventory for multiple lanes with impact included.
- b. Design operating for multiple lanes with impact included.
- c. Design operating for multiple lanes with impact not included.
- d. Design operating for one lane centered on the bridge with impact not included.

Provide a LFR and LRFR load rating summary table with the general geometry of the structure, assumptions made, and each load rating factor. Provide updated load ratings as necessary to reflect the current condition of the temporary bridge.

Renumber item 6 as item 5.