



TRACK PROTECTION SHORING:

All dimensions are measured perpendicular to \hat{C} Track.

The contractor shall provide and install track protection shoring before commencing excavation. Prior to commencing any work, the contractor shall submit for approval by the Engineer and UPRR, detailed plans indicating the nature and extent of the track protection shoring proposed.

Shoring shall be designed for Coopers E80 live load surcharge and the UPRR may impose more stringent requirements as conditions warrant.

For excavations which encroach into railroad live load surcharge zone, shoring plans will be accompanied by a copy of the design calculations, and both must be stamped by a registered professional engineer.

Design of shoring shall comply with UPRR guidelines for design and construction of shoring adjacent to active railroad tracks.

Shoring must be designed for railroad live load surcharge in addition to OSHA Standards for excavation in Zone A.
 APPLICABLE RAILROAD LIVE LOAD; COOPER E80

Only vertical shoring will be permitted for excavation in this zone, (no sloping cuts).

Shoring will be per OSHA Standards for excavation in Zone C. Sloping cuts will be permitted.

TRACK PROTECTION SHORING REQUIREMENTS



UNION PACIFIC RAILROAD

GENERAL SHORING REQUIREMENTS

OFFICE OF CHIEF ENGINEER DESIGN

DATE: 3-31-98 REDRAWN

C.E. 106613