

COMMITTEE ON BRIDGES

The PCI Committee on Bridges met in Orlando on October 14, 1984. The following is a summary of discussion items of interest.

LUMP SUM LOSSES

The Committee has recommended to AASHTO that the use of Lump Sum Losses in the design of prestressed bridge structures be eliminated, since they are considered obsolete. Computation of actual losses by the method presented in AASHTO is a matter of simple arithmetic using bending moments and section properties already established in the design of the structure. Over or under estimation of losses can adversely affect service load behavior.

PRECAST CONCRETE DECK PANELS

A survey of the industry to develop a state-of-the-art report on the use of precast deck panels has indicated that precast concrete deck panels will perform satisfactorily as intended if positive supports are provided for the panels. The Committee proposes to publish the state-of-the-art report this year. The report will include suggested details to provide the positive supports necessary.

SEISMIC DESIGN IN PRESTRESSED CONCRETE BRIDGES

A subcommittee is in the process of reviewing the AASHTO Guide Specifications for the Seismic Design of Highway Bridges, 1983, as related to prestressed concrete bridges, so that comments can be provided to AASHTO prior to inclusion of the Guide Specifications in the standard specifications.

TRANSFORMED AREAS OF BONDED REINFORCEMENT

Section 9.17.1 of the 1983 AASHTO, Standard Specifications for Highway Bridges, permits the use of the transformed area of bonded reinforcement in calculations for section properties for pretensioned members and post-tensioned members after grouting. Apparently, some engineers are not taking advantage of this provision.

RATING OF EXISTING PRESTRESSED CONCRETE BRIDGES

A subcommittee has been formed to aid in the development of criteria for the rating of existing prestressed concrete bridges. The subcommittee has offered its assistance to NCHRP on their project 12-28(1), FY '85, "Load Capacity Evaluation of Existing Bridges".