# **SECTION 402- PRESTRESSED CONCRETE STRUCTURES**

## 402.10 HANDLING, STORAGE AND ERECTION OF PRECAST UNITS

Delete the last paragraph in its entirety and replace with the following:

When erecting structures over existing buildings, structures, utilities, active roadways, walkways, railroads, navigable waterways, recreational and storage areas, catches or protective shielding shall be installed at the locations designated on the plans or as directed by the Engineer before any further operations may proceed over these areas. Design, installation and removal of catches or protective shielding shall meet the requirements of Subsection 417.04 (A) (1) Catches, and Subsection 417.09(B), Methods of Construction. All work shall be done in accordance with the applicable portions of Subsections 104.08, 104.13, 105.14 and 417.04, the contract plans, and as specified herein.

#### (B) ERECTION

Delete the last paragraph in its entirety and replace with the following:

When erecting structures over existing buildings, structures, utilities, active roadways, walkways, railroads, navigable waterways, recreational and storage areas, catches or protective shielding shall be installed at the locations designated on the plans or as directed by the Engineer before any further operations may proceed over these areas. Design, installation and removal of catches or protective shielding shall meet the requirements of Subsection 417.04 (A) (1) Catches *and Section 417.09(B)*, *Methods of Construction*. All work shall be done in accordance with the applicable portions of Subsections 104.08, 104.13, 105.14 and 417.04, the contract plans, and as specified herein.

### (A) DESCRIPTION.

The first paragraph is replaced with the following:

This work shall consist of furnishing, fabricating, and installation of all fascia catches and deck support metal work required for deck construction on bridges . All work shall be done in accordance with the applicable portions of Subsections 104.08, 104.13, 105.14 and 417.04, the contract plans, and as specified herein.

#### (B) METHODS OF CONSTRUCTION.

The eighth paragraph is replaced with the following:

Permissible girder loads and stresses shall be in conformance with the latest AASHTO LRFD Bridge Design Specifications.

All cantilevered deck form support systems shall be designed in accordance with the current edition AASHTO Guide Design Specifications for Bridge Temporary Works, with the modifications as follows:

Design wind loads as defined in Section 2.2.5 and Appendix C of the above noted guide specification shall also be applied vertically for consideration of uplift due to high wind conditions on cantilevered deck form support systems. An uplift restraint system shall be furnished and installed where calculated wind uplift forces exceed the dead load of the cantilevered deck form support system. All uplift restraint systems shall be positively attached to the bridge superstructure via cables, clamps or other devices as approved by the Engineer. For the purposes of wind uplift design only, a factor of safety of 1.0 shall be utilized and live load shall not be considered.

The effective loading combination as shown below is added to Table 2.3 of the AASHTO Guide Design Specifications for Bridge Temporary Works. Group V loading shall be considered for cantilevered deck form support system designs:

Table 2.3 Load Combinations

(	Group	Load Combination	Percentage of Basic Allowable Stress or Load
G	roup V	DL + DP + Wu	100%

Where:

 $DL = design \ dead \ load$ 

 $DP = dead \ load \ of \ supported \ permanent \ structure \ (where \ applicable)$ 

Wu = uplift force due to vertical wind load