

## 903 FALSEWORK POLICY FOR BRIDGE CONSTRUCTION

### 903.01 FALSEWORK REQUIREMENTS

To ensure that traffic handling is given proper consideration in the early design stages, it is necessary to identify traffic handling and falsework assumptions in the Bridge Selection Report. If falsework is to be used, the horizontal and vertical clearances shall be shown on the General Plan. Usually, one of the following listed conditions will prevail:

1. Traffic will be routed around construction site.
2. Traffic will pass through construction site.
  - A. No falsework allowed over traffic. This restriction would require precast concrete or steel superstructure with field splices located clear of traffic.
  - B. Stage construction required. Stage construction must be detailed on the plans. Construction joints or hinges would be required.
  - C. Falsework openings required. The size and number of openings must be shown.

General discussions and a table of falsework openings are covered under "Falsework Clearances".

### 903.02 FALSEWORK USE

When traffic must pass through the construction site, three possible conditions exist. Condition 2.A. is limited to sites which can be spanned by precast members or where steel is competitive in cost. The staged construction option of Condition 2.B. is not always feasible while the presence of a hinge is a permanent disadvantage. Condition 2.C. is used for all other cases when it is necessary to route traffic through the construction site. The elimination of permanent obstructions by using longer spans and eliminating shoulder piers will usually outweigh objections to the temporary inconvenience of falsework during construction.

### 903.03 FALSEWORK CLEARANCES

For cast-in-place structures, the preferred method of construction is to route traffic around the construction site and to use earth fills for falsework. This provides an economical solution, a safe working area and eliminates possible problems associated with the design, approval, construction and performance of falsework including the possible effect of excessive deflections of falsework on the structure.

When the street or highway must be kept open and detours are not feasible, falsework shall be used with openings through which traffic may pass. Because the width of traffic openings through falsework can significantly affect costs, special care should be given to minimizing opening widths consistent with traffic and safety considerations. The following should be considered:

1. Staging and traffic handling requirements.
2. The width of approach roadway that will exist at the time the bridge is constructed.
3. Traffic volumes and percentage of trucks.
4. Vehicular design speed.
5. Desires of local agencies.
6. Controls in the form of existing facilities.
7. The practical problems of falsework construction.
8. Consideration of pedestrian requirements.

The minimum width of traffic openings through falsework for various lane and shoulder requirements shall be as shown in Table 900.01. The resulting falsework span shown in Table 900.01 is the minimum span. When temporary concrete barrier is used, 0.6 meters of safety margin per side is allowed for deflection. When blocked-out "W" beam is used, 1.2 meters of safety margin per side is allowed for deflection. The normal spans may be reduced or increased if other forms of protection are used depending on the required space for installation and deflection. The actual width of traffic openings through falsework and the resulting falsework span to be used in design shall be determined by the Abu