DECK PLACING SEQUENCE

A deck placing sequence diagram and notes shall be shown on the plans for all multi-span bridges and single-span integral abutment bridges. Continuous placement shall not be allowed.

STANDARD SEQUENCE FOR BRIDGES DESIGNED AS SIMPLE SPANS OR DESIGNED CONTINUOUS FOR LIVE LOAD WHEN GIRDERS ARE AT LEAST 90 DAYS OLD.



T = 20% - 25% of the adjacent span length

NOTES

- 1. No deviation from the deck placing sequence shown will be permitted.
- 2. Areas marked 1 shall be placed before areas marked 2, but areas of the same number need not be placed simultaneously.
- 3. Placement of areas marked 2 shall not commence until at least 48 hours have elapsed after completion of placement of areas marked 1.
- 4. When the deck slab is continuous over the piers, the pier diaphragm shall be placed simultaneously with the adjacent deck area.

BRIDGES DESIGNED CONTINUOUS FOR LIVE LOAD WHEN GIRDERS ARE LESS THAN 90 DAYS OLD

When the deck is placed on girders that are less than 90 days old from the time they are cast, any rational deck placement sequence (other than continuous placement) may be used provided the girders are designed in accordance with Article 5.14.1.4.3 for the loading, creep and shrinkage that result from the sequence that is chosen.

STANDARD SEQUENCE FOR INTEGRAL ABUTMENT BRIDGES

The end diaphragms of integral abutment bridges should be placed only after at least 75% of the adjacent deck has been placed. On single-span bridges this is typically accomplished by placing a bulkhead where the deck meets the end diaphragm at abutment 1 and then starting the deck placement at that bulkhead and proceeding to abutment 2. When the placement reaches abutment 2 the end the diaphragm at abutment 2 can then be placed as a continuation of the deck placement. After 24 hours the bulkhead at abutment 1 can be removed and the abutment 1 end diaphragm can be placed. It should be noted that this last placement at the end diaphragm is only about 3' long and does not need to be finished with a Bidwell type screed.

SINGLE SPAN INTEGRAL ABUTMENT BRIDGES



NOTES

- 1. Areas marked 1 shall be placed before areas marked 2.
- 2. Placement of areas marked 2 shall not commence until at least 24 hours have elapsed after completion of placement of areas marked 1.

MULTI-SPAN INTEGRAL ABUTMENT BRIDGES



T = 20% - 25% of the adjacent span length

NOTES

- 1. No deviation from the deck placing sequence shown will be permitted.
- 2. Areas marked 1 shall be placed before areas marked 2, but areas of the same number need not be placed simultaneously.
- 3. Placement of areas marked 2 shall not commence until at least 48 hours have elapsed after completion of placement of areas marked 1.
- 4. When the deck slab is continuous over the piers, the pier diaphragm shall be placed simultaneously with the adjacent deck area.

Commentary

Refer to Article 5.12.3.3 Bridge Composed of Simple Span Precast Girders Made Continuous

In order to mitigate the development of positive moments at the piers due to girder creep, the girders are required to mature for 90 days to prevent excessive creep after the deck is placed. In accordance with the AASHTO Specifications this allows the same placing sequence as girders designed as simple spans without the need to calculate the effects of creep as is required for girders less than 90 days old.

Revisions:

June 2006	Article was renumbered to 17.5 to allow for new article 17.1.
August 2006	The deck placement sequence for bridges designed continuous for live load was revised to reflect changes that were adopted by AASHTO 2006 ballot item #13.
March 2011	The deck placement sequence for integral abutment bridges was added.
May 2021	Revised reference in Commentary to agree with the LRFD Bridge Design Specifications 9th Edition.