**Central Office**
605 Suwannee Street, MS 33
Tallahassee, Florida 32399-0450

**Structures Design Office**

**Erection Sequence (Sheet 1 of 2)**

**Erection Sequence Example 1**

**Spliced Girder Erection Sequence**

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**Step 1**

Construct Piers 45 through 48, erect temporary supports in Spans 45 & 47.

**Step 2**

Erect end span segments in Spans 45 & 47. Once end spans are in place, erect pier segments & vertical uplift restraints (hold down device) at temporary supports. Install temporary lateral wind bracing between girders as adjacent girders are erected. Check alignment of girders and secure position. Temporarily lock bearings at Piers 45 & 46 in the longitudinal direction to prevent the girders from sliding longitudinally during construction. Loads after this sequence without construction loads:

- R1 = 106 kips
- R2 = 94 kips
- R3 = 9 kips
- R4 = 319 kips

Shear load per strongback: 108 kips

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**Step 3**

Attach strong backs to each drop-in segment. Erect drop-in segments in Spans 46 & 47. Cast closure pours in Spans 45 & 47 first, then cast closure pours in Span 46. Loads after this sequence without construction loads:

- R1 = 106 kips
- R2 = 94 kips
- R3 = 9 kips
- R4 = 319 kips

Shear load per strongback: 108 kips

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**Step 4**

First stage post-tensioning: After closure pours reach 4000 psi strength & after removal of bearing locking devices at Piers 45 & 46 stress Tendon #1 to 100%. Stress the center girders first, & move outward to adjacent girders alternating to each side of centerline bridge, ending with the exterior girders. After Tendon #1 has been stressed in all girders, release vertical uplift restraints at temporary supports. Do not remove or adjust temporary supports/stress Tendon #2 to 100% in the same order as tendon #1. Stress Tendon #2 per standard drawings. Loads after this sequence without construction loads:

- R1 = 132 kips
- R2 = 81 kips
- R3 = 9 kips
- R4 = 419 kips

Shear load per strongback: 108 kips

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**Notes:**

* Negative indicates restrained uplift.
POST-TENSIONING TENDON DATA TABLE

<table>
<thead>
<tr>
<th>TENDON DESIGNATION</th>
<th>NO. REQUIRED</th>
<th>TENDON SIZE</th>
<th>TENDON LENGTH (ft-in)</th>
<th>TENDON WEIGHT (lbs)</th>
<th>TOTAL WEIGHT (lbs)</th>
<th>HEAD-STATION ELONGATION @ THEORETICAL</th>
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</thead>
<tbody>
<tr>
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<td></td>
<td></td>
<td>AHEAD-STATION END</td>
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<td>FORCE / TENDON END</td>
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<td>FORCE / ANCHOR END</td>
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<td>*** STRESSING END</td>
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<td>THEORETICAL STA.</td>
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<td>AHEAD-STATION END</td>
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<td></td>
<td>** TENDON PROFILE</td>
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<td></td>
<td>AHEAD STA.</td>
</tr>
</tbody>
</table>

In general, for non-longitudinal tendons, ahead-station denotes left anchor, back-station denotes right anchor (looking ahead-station). For mostly vertical tendons, ahead-station denotes op anchor, back-station denotes bottom anchor.

** See Post-Tensioning Vertical Profiles, Design Standards Index 21802.
** See Post-Tensioning Anchorages, Design Standards Index 21802.
** Stressing End Definitions:
  - Ahead Station: Tendon Live/Stressing End is ahead station anchor.
  - Back Station: Tendon Live/Stressing End is back station anchor.
  - Alternate (ahead/back): Tendon Initial Live/Stressing End is ahead station anchor with associated elongation.
  - Alternate (back/ahead): Tendon Initial Live/Stressing End is back station anchor with associated elongation.
  - Double: Tendon Live/Stressing End is simultaneously the ahead station and back station anchor with respective elongations.

NOTES:
1. Reactions listed are per beam line.
2. Instructions to stress tendons to 100% indicates the full jacking forces provided in the tendon schedule on sheet BY-XX.
3. See sheet BY-XX for slab pour details.
4. Contractor shall include anticipated reactions.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ELECTION SEQUENCE (SHEET 2 OF 2)

** SPLICED GIRDER ERECTION SEQUENCE