TYPICAL BRIDGE MOUNTS

**NOTES:**

1. A bypass switch shall be installed to override each timing interval in case of a malfunction.
2. "STOP HERE ON RED" is omitted in Type I operation and "TRAFFIC SIGNALS" are omitted in Type II operation.
3. Time between beginning of flashing yellow on "Drawbridge Ahead" sign and the clearance of traffic to red or beginning of flashing red should not be less than the travel time of a passenger car, from the sign location to the stop line, traveling at the 85 percentile approach speed.
4. Beginning of operation of drawbridge gates shall not be less than 15 seconds after steady red or 20 seconds after flashing red (actual time may be determined by the bridge tender.)
5. Time of gate lowering and raising is dependent upon gate type.
6. Time of bridge opening is determined by the bridge tender.
7. Each gate shall be operated by a separate switch.
8. On each approach (Type II), all four red signals shall be on the same two circuit flashers, with the two top signals on one circuit, and the two bottom signals on the alternately flashing circuit.
9. A drawbridge ahead sign is required for both types of signal operation. However, a flashing beacon shall be added to the sign when physical conditions prevent a driver traveling at the 85% approach speed from having continuous view of at least one signal indication for approximately 10 seconds.
10. Requirements on gate installation are contained in Section 4I of the "Manual on Uniform Traffic Control Devices".
11. "In accordance with Traffic Engineering Manual (Topic Number 750-000-005) Section 2, "Slippery When Wet" signs shall be placed in advance of all MOVABLE and NONMOVABLE STEEL DECK BRIDGES." *Flood conditions may require adjustment of this standard distance.

**SEQUENCE CHART**

<table>
<thead>
<tr>
<th>SIGNALS &amp; SIGNS</th>
<th>TYPE I</th>
<th>TYPE II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIGNAL SWITCH</strong></td>
<td>DRAWBRIDGE</td>
<td>DRAWBRIDGE</td>
</tr>
<tr>
<td><strong>FLASHING BEACON</strong></td>
<td>DRAWBRIDGE AHEAD SIGN</td>
<td>DRAWBRIDGE AHEAD SIGN</td>
</tr>
<tr>
<td><strong>DRAWBRIDGE</strong></td>
<td>(See Note 9)</td>
<td>(See Note 9)</td>
</tr>
<tr>
<td><strong>STOP HERE ON RED SIGN WITH YELLOW FLASHING BEACON</strong></td>
<td><strong>ENTRANCE GATE</strong></td>
<td><strong>EXIT GATE</strong></td>
</tr>
<tr>
<td><strong>DRAWBRIDGE AHEAD SIGN WITH YELLOW FLASHING BEACON</strong></td>
<td><strong>TRAFFIC SIGNALS</strong></td>
<td><strong>TRAFFIC SIGNALS</strong></td>
</tr>
<tr>
<td><strong>ENTRANCE GATE</strong></td>
<td><strong>EXIT GATE</strong></td>
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<td><strong>TRAFFIC SIGNALS</strong></td>
</tr>
</tbody>
</table>

**TIMING**

- Variable Time
- 5 Sec.
- 15 Sec.
- Min.
- Variable Time
- Variable Time
- Bridge Open
- Variable Time
- Operation During Bridge Preemption

**OPERATION:**

- Normal
- Operation
FIGURE - A
MONOTUBE SUPPORT MOUNTING

FIGURE - B
SIGN PANEL MOUNTING ASSEMBLY

FIGURE - C
STOP HERE ON RED

FIGURE - D
Pole Clamp With Wire Entrance

FIGURE - E
Pole Clamp With Wire Entrance

FIGURE - F
1" ID Rubber Grommet

FIGURE - G
DRAW BRIDGE AHEAD

FIGURE - H
Yellow

DETAILS:
- 1/2" Nipple
- "T" With Cap
- Louvered Backplates
- Grommet
- Signal Head (12"
- Lens With Visor
- Steel Clamps
- Hi-Tensile Steel Bands
- Pull Box
- 1" PVC Conduit
- Crushed Rock
- 4" O.D. Aluminum pedestal, 0.188 Wall Thickness, Alloy 6061-T6
- FTP-84-09
- Pulling Elbow
- Flashed Cabinet
- Location When Required
- 4" Slip Fit Collar
- 48" Long, 1" PVC Conduit
- Pull Box
- Crushed Rock
- Backplates Louvered

Pole Mounting Bracket With Stainless Steel Bands

Bridge Mounting Details Not Shown

* Measured from the bottom of the sign to the near edge of the pavement. Horizontal distance between edge of pavement and inside edge of sign will vary with condition at job site.
MONOTUBE SUPPORT MOUNTING

TO BE USED WITH TYPE 1 OPERATION, AS SHOWN ON PREVIOUS SHEET

BLACK OPAQUE LEGEND AND BORDER ON REFLECTORIZED YELLOW BACKGROUND

TYPICAL LAMP PLACEMENT

GATE & ARM DETAIL

NOTES:

1. 12 volt flashing red lights shall be mounted on gate arm and shall operate in the flashing mode only when gate arm is in the lower position or in the process of being lowered. The number of lights shall vary accordingly to length of the gate arm.

2. Alternating 16" pattern of fully reflectorized red and white stripes.

Traffic Control Devices for Movable Span Bridge Signals

REVISION DESCRIPTION:

REV 01/01/17

STANDARD PLANS

FY 2019-20

INDEX 508-T01

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