SIGNAL PLACEMENT AT RAILROAD CROSSING

(GENERAL NOTES:
1. No guardrail is proposed for signals; however, some form of impact attenuation device may be specified for certain locations.
2. Advance flasher to be installed when and if called for in Plans or Specifications.
3. Toe of foundation shall be no higher than 4" above finished shoulder grade.

4. Type of traffic control device
   i) Flashing warning devices with cantilever
   ii) Flashing warning devices with cantilever and gate
   iii) Flashing warning devices with cantilever and gate and signal
   iv) Flashing warning devices with cantilever and gate and signal and gate
   v) Flashing warning devices with gate
   vi) Flashing warning devices with gate and signal
   vii) Flashing warning devices with gate and signal and gate
   viii) Flashing warning devices

3. Class of traffic control devices (Not Shown)
   i) 1-2 Quadrant flashing warning devices
   ii) 2-3 Quadrant flashing warning devices
   iii) 2-4 Quadrant flashing warning devices
   iv) 3-4 Quadrant flashing warning devices
   v) 4-5 Quadrant flashing warning devices
   vi) 5-6 Quadrant flashing warning devices
   vii) 6-7 Quadrant flashing warning devices
   viii) 7-8 Quadrant flashing warning devices

4. Gate
   i) Flashing warning devices with cantilever and gate
   ii) Flashing warning devices with gate
   iii) Flashing warning devices with cantilever
   iv) Flashing warning devices

5. Number of Track Signs Is The Installing Agency When Automatic Gates Are Used.

SIGNAL PLACEMENT AT RAILROAD CROSSING (2 - LANE DESIGN)

TRAFFIC CONTROL DEVICES FOR FLUSH SHOULDER ROADWAY

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Cross-捨 Flashing warning devices</td>
</tr>
<tr>
<td>II</td>
<td>Cross-捨 Flashing warning devices with cantilever</td>
</tr>
<tr>
<td>III</td>
<td>Cross-捨 Flashing warning devices with cantilever and gate</td>
</tr>
<tr>
<td>IV</td>
<td>Cross-捨 Flashing warning devices with gate</td>
</tr>
<tr>
<td>V</td>
<td>Cross-捨 Flashing warning devices with cantilever and gate</td>
</tr>
<tr>
<td>VI</td>
<td>Cross-捨 Flashing warning devices with gate and signal</td>
</tr>
<tr>
<td>VII</td>
<td>Cross-捨 Flashing warning devices with gate and signal and gate</td>
</tr>
<tr>
<td>VIII</td>
<td>Cross-捨 Flashing warning devices</td>
</tr>
</tbody>
</table>

NOTE: Arrows denote direction of travel not pavement markings.

NOTE: Two separate foundations may be required (one for signals, one for gate), depending on type of equipment used.

When 10' is deemed impractical the control device can be located as close as 2' from the edge of a paved shoulder but not less than 6' from the edge of the near traffic lane.

Reflectorized Sheetings, Both Red And White

See FIGURE 1

FIGURE 1

Gong Type Highway Crossing Bell (1 Min. Per Crossing)

Back-To-Back Flasher Units

Lowest Point Of Overhead Signal Unit

Edge Of Background Or Part Nearest Highway

Number Of Track Signs Is The Installing Agency When Automatic Gates Are Used.

Gong Type Highway Crossing Bell (1 Min. Per Crossing)

Back-To-Back Flasher Units

15' Alternate Reflectiveized Sign And Shoulder, Both Sides

See FIGURE 1

FIGURE 1

Gong Type Highway Crossing Bell (1 Min. Per Crossing)

Back-To-Back Flasher Units

Lowest Point Of Overhead Signal Unit

15' Alternate Reflectiveized Sign And Shoulder, Both Sides

See FIGURE 1

FIGURE 1

Gong Type Highway Crossing Bell (1 Min. Per Crossing)

Back-To-Back Flasher Units

Lowest Point Of Overhead Signal Unit

15' Alternate Reflectiveized Sign And Shoulder, Both Sides

See FIGURE 1

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Back-To-Back Flasher Units

Lowest Point Of Overhead Signal Unit

15' Alternate Reflectiveized Sign And Shoulder, Both Sides

See FIGURE 1

FIGURE 1

Gong Type Highway Crossing Bell (1 Min. Per Crossing)

Back-To-Back Flasher Units

Lowest Point Of Overhead Signal Unit

15' Alternate Reflectiveized Sign And Shoulder, Both Sides

See FIGURE 1

FIGURE 1

Gong Type Highway Crossing Bell (1 Min. Per Crossing)

Back-To-Back Flasher Units

Lowest Point Of Overhead Signal Unit

15' Alternate Reflectiveized Sign And Shoulder, Both Sides

See FIGURE 1

FIGURE 1
NOTES:
1. The location of flashing warning devices and stop lines shall be established based on future (or present) installation of gates with appropriate track clearances.
2. Where plans call for railroad traffic control devices to be installed in curbed medians, the minimum median width shall be 12'-6".
3. Location of railroad traffic control device is based on the distance available between face of curb & sidewalk. 0' to 6' - Locate device outside sidewalk. 6' to 8' - Locate device between face of curb and sidewalk.
4. Stop line to be perpendicular to edge of roadway, approx. 15' from nearest rail; or 8' from and parallel to gate when present.
5. When a cantilevered-arm flashing warning device is used, the minimum vertical clearance shall be 12'-6" from above the crown of roadway to the lowest point of the overhead signal unit.

TRAFFIC CONTROL DEVICES FOR CURBED ROADWAY

SIGNAL PLACEMENT AT RAILROAD CROSSING
(2 LANES, CURB & GUTTER)

SIGNAL PLACEMENT AT RAILROAD CROSSING
(2 LANES, CURB & GUTTER)
DO NOT STOP ON TRACKS

NOTES:
1. Place an additional W10-1 sign where intersections occur between the R/R pavement message and the tracks.
2. Place FTP-61-06 or FTP-62-06 sign 100' in advance of crossing for urban conditions and 300' in advance of crossing for rural conditions. See Index 700-102 for sign details.
3. Install Railroad Dynamic Envelope Pavement Markings only when called for in the Plans.
4. Do not install pavement markings when the distance between tracks is less than 14'.
5. The transverse dimension for the RDE "X" may be reduced to the lane width for two-lane roadways without shoulders when shown in the Plans.
6. Do not install pavement markings in the Foul areas.

<table>
<thead>
<tr>
<th>Design Speed (mph)</th>
<th>Distance &quot;A&quot; (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>400</td>
</tr>
<tr>
<td>55</td>
<td>335</td>
</tr>
<tr>
<td>50</td>
<td>280</td>
</tr>
<tr>
<td>45</td>
<td>200</td>
</tr>
<tr>
<td>40</td>
<td>175</td>
</tr>
<tr>
<td>35</td>
<td>150</td>
</tr>
</tbody>
</table>

R8-8

1. Place an additional W10-1 sign where intersections occur between the R/R pavement message and the tracks.
2. Place FTP-61-06 or FTP-62-06 sign 100' in advance of crossing for urban conditions and 300' in advance of crossing for rural conditions. See Index 700-102 for sign details.
3. Install Railroad Dynamic Envelope Pavement Markings only when called for in the Plans.
4. Do not install pavement markings when the distance between tracks is less than 14'.
5. The transverse dimension for the RDE "X" may be reduced to the lane width for two-lane roadways without shoulders when shown in the Plans.
6. Do not install pavement markings in the Foul areas.

7. Install additional R8-8 pavement marking when the distance between tracks is less than 14'.

Railroad Crossing at Two-Lane Roadway

Railroad Crossing at Multilane Roadway

Railroad Grade Crossing Pavement Message

Railroad Dynamic Envelope (RDE) Pavement Marking Detail

Relative Location of Crossing

Traffic Control Devices

Driving Instructions:
- Do not stop on tracks.
- Stop line is 24" White.
- Flashing signal (if not with gate).
- As required.
- Edge of traveled way.
- Medians and shoulders.
- Railroad gate when present.

Notes:
1. Do not install pavement markings in the Foul areas.
2. Place FTP-61-06 or FTP-62-06 sign 100' in advance of crossing for urban conditions and 300' in advance of crossing for rural conditions. See Index 700-102 for sign details.
3. Install Railroad Dynamic Envelope Pavement Markings only when called for in the Plans.
4. Do not install pavement markings when the distance between tracks is less than 14'.
5. The transverse dimension for the RDE "X" may be reduced to the lane width for two-lane roadways without shoulders when shown in the Plans.
6. Do not install pavement markings in the Foul areas.

Railroad Grade Crossing

Traffic Control Devices

Index

R8-8

Intersections

Signalized

For Use Near Signalized Intersections

6'-0" (See Note 6)

12" White (Typ.)

Rail Side

Traffic Side

Railroad Gate

Flashing Signal

Gate or Flashing Signal

If Not With Gate

6" White

12" White (Typ.)

Foul Area (Typ.)

Foul Area (See Note 6)

Railroad Gate

(See Note 6)

RELATIVE LOCATION OF CROSSING
TRAFFIC CONTROL DEVICES
### Railroad Gate Arm Light Spacing

<table>
<thead>
<tr>
<th>Specified Length Of Gate Arm</th>
<th>Dimension &quot;A&quot;</th>
<th>Dimension &quot;B&quot;</th>
<th>Dimension &quot;C&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Ft.</td>
<td>6&quot;</td>
<td>36&quot;</td>
<td>5</td>
</tr>
<tr>
<td>15 Ft.</td>
<td>10&quot;</td>
<td>36&quot;</td>
<td>5</td>
</tr>
<tr>
<td>16-17 Ft.</td>
<td>12&quot;</td>
<td>36&quot;</td>
<td>5</td>
</tr>
<tr>
<td>18-19 Ft.</td>
<td>12&quot;</td>
<td>40&quot;</td>
<td>5</td>
</tr>
<tr>
<td>20-23 Ft.</td>
<td>12&quot;</td>
<td>4&quot;</td>
<td>5</td>
</tr>
<tr>
<td>24-28 Ft.</td>
<td>28&quot;</td>
<td>5&quot;</td>
<td>6</td>
</tr>
<tr>
<td>29-33 Ft.</td>
<td>30&quot;</td>
<td>8&quot;</td>
<td>6</td>
</tr>
<tr>
<td>34-36 Ft.</td>
<td>30&quot;</td>
<td>7&quot;</td>
<td>7</td>
</tr>
<tr>
<td>37-39 Ft.</td>
<td>36&quot;</td>
<td>5&quot;</td>
<td>9</td>
</tr>
<tr>
<td>38 And Over</td>
<td>36&quot;</td>
<td>10&quot;</td>
<td>10</td>
</tr>
</tbody>
</table>

### Median Section at Signal Gates


### Median Signal Gates for Multilane Undivided Urban Sections

(THREE OR MORE DRIVING LANES IN ONE DIRECTION, 45 MPH OR LESS)