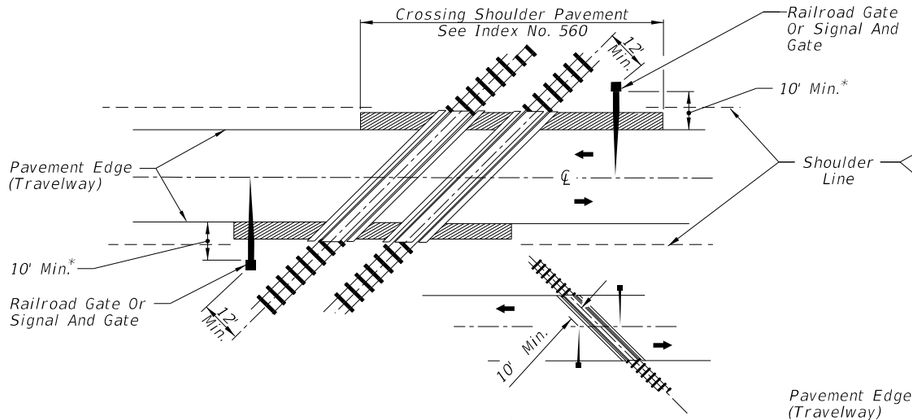
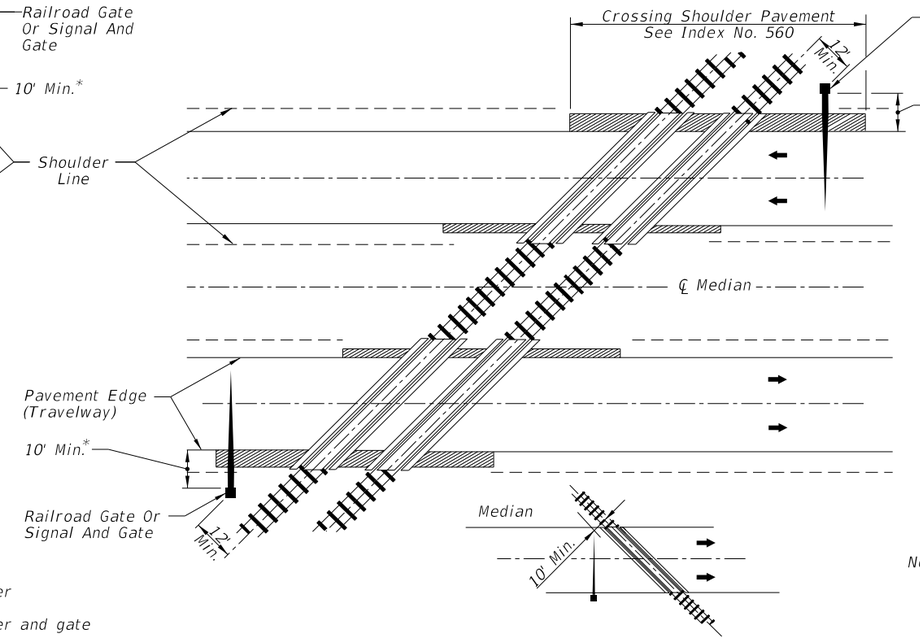


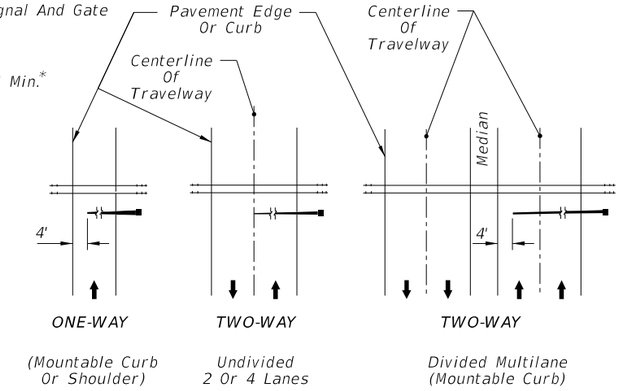

SIGNAL PLACEMENT AT RAILROAD CROSSING

(2 - LANE DESIGN)




SIGNAL PLACEMENT AT RAILROAD CROSSING

(4 - LANE DESIGN)




Note:
Arrows denote direction of travel not pavement markings.
Gate Length Requirements See Note 5 Sheet 3.

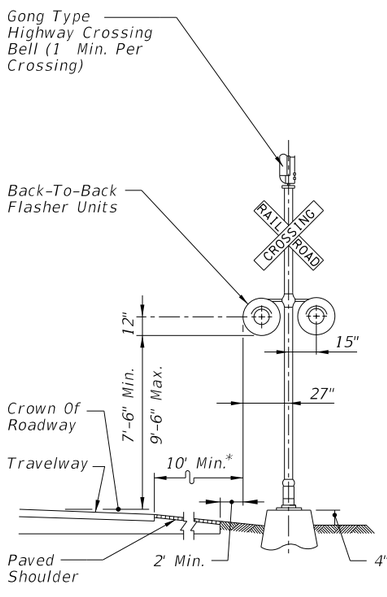
FIGURE 1

GENERAL NOTES:

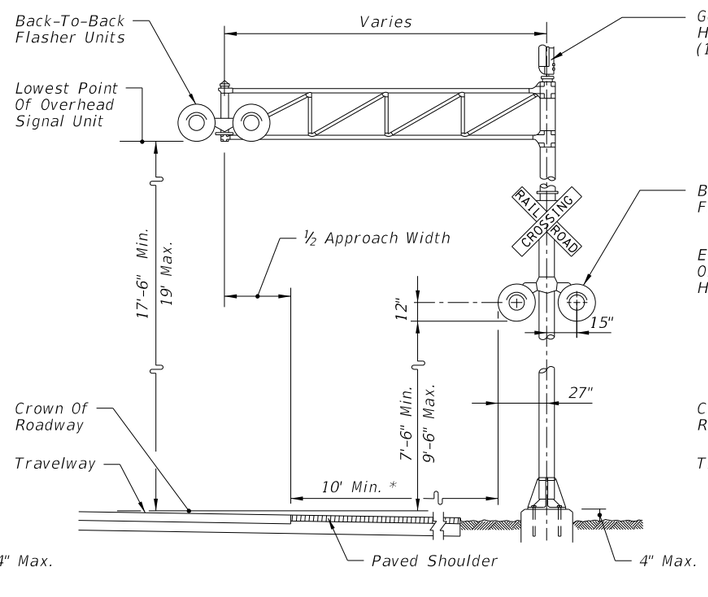
1. No guardrail is proposed for signals; however, some form of impact attenuation device may be specified for certain locations.
2. Advance flasher to be installed when and if called for in plans or specifications.
3. Top of foundation shall be no higher than 4" above finished shoulder grade.
4. Type of traffic control device
   I Flashing warning devices
   II Flashing warning devices with cantilever
   III Flashing warning devices with gate
   IV Flashing warning devices with cantilever and gate
   V Gate
5. Class of traffic control devices (Not Shown)
   I 2 Quadrant flashing warning devices-one track
   II 2 Quadrant flashing warning devices-multiple tracks
   III 2 Quadrant flashing warning devices and gates-one track
   IV 2 Quadrant flashing warning devices and gates-multiple tracks
   V 3-4 Quadrant flashing warning devices and gates-one track
   VI 2-4 Quadrant flashing warning devices and gates-multiple tracks

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

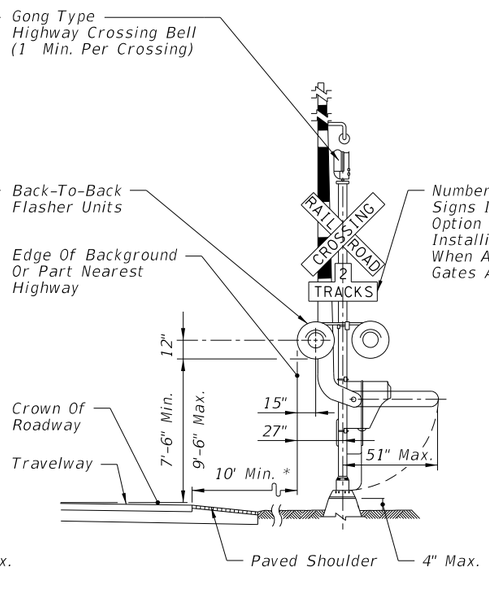
* When 10' is deemed impracticle the control device can be located as close as 2' from the edge of a paved shoulder but not less than 6' from the edge of the near traffic lane.



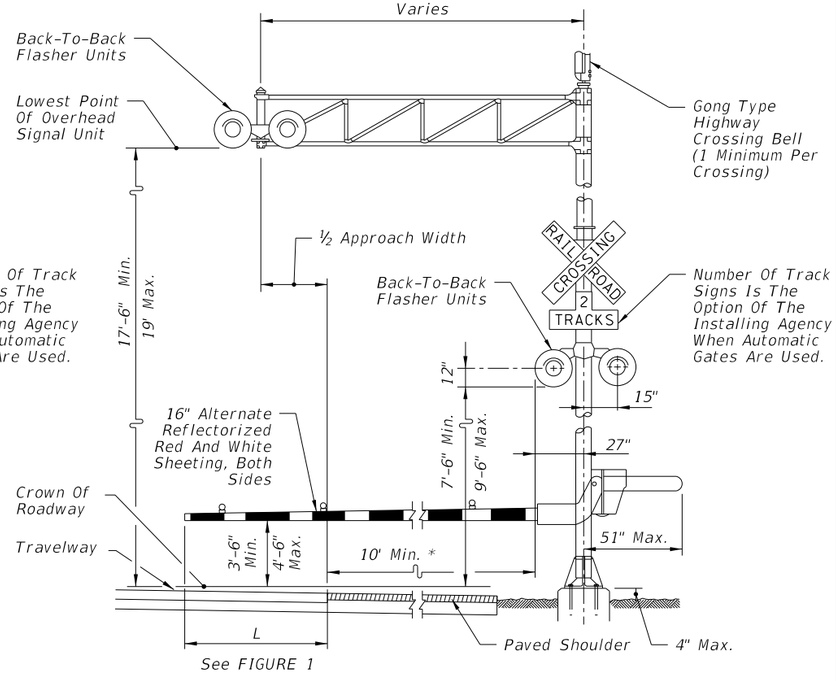

TYPE I




TYPE II




TYPE III AND TYPE V




TYPE IV AND TYPE VI

TRAFFIC CONTROL DEVICES FOR FLUSH SHOULDER ROADWAY

| LAST REVISION | REVISION | DESCRIPTION: | | | INDEX NO. | SHEET NO. |
|---|---|---|---|---|---|---|
| 11/07/16 | | | FDOT FY 2017-18 DESIGN STANDARDS | RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES | 17882 | 1 of 4 |

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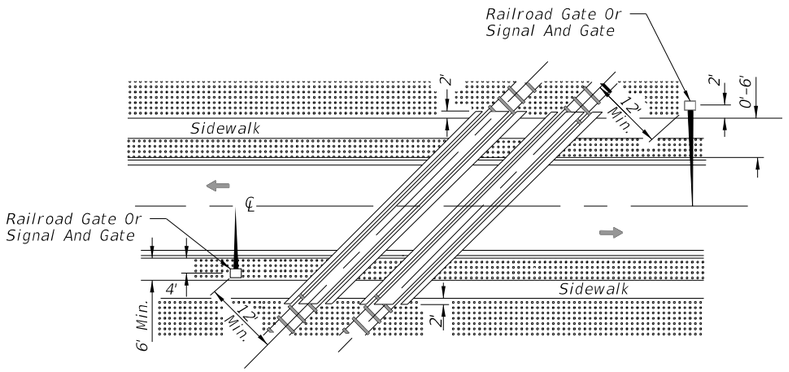
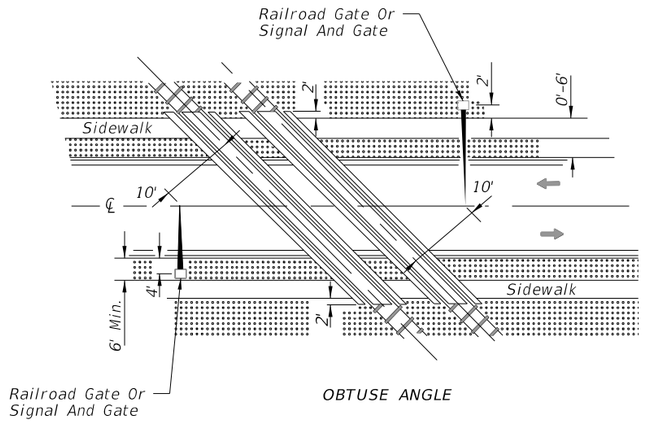



ACUTE ANGLE (AND RIGHT ANGLE)

## SIGNAL PLACEMENT AT RAILROAD CROSSING

(2 LANES, CURB & GUTTER)



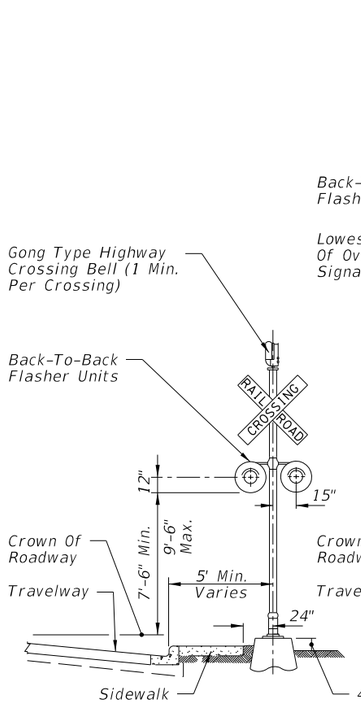

OBTUSE ANGLE

## SIGNAL PLACEMENT AT RAILROAD CROSSING

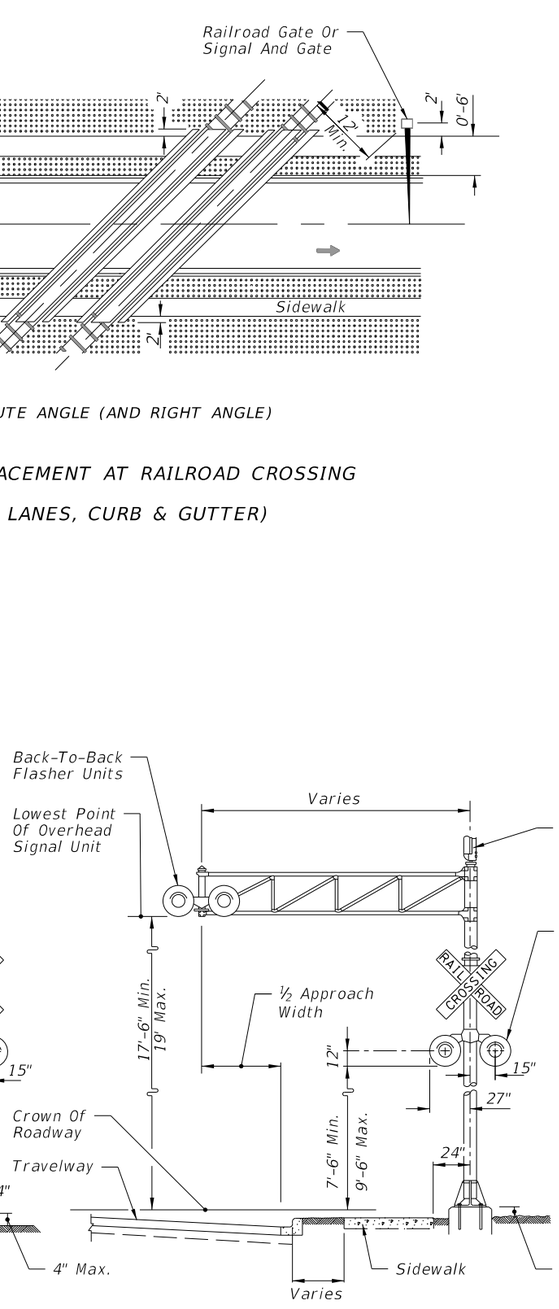
(2 LANES, CURB & GUTTER)

### NOTES:

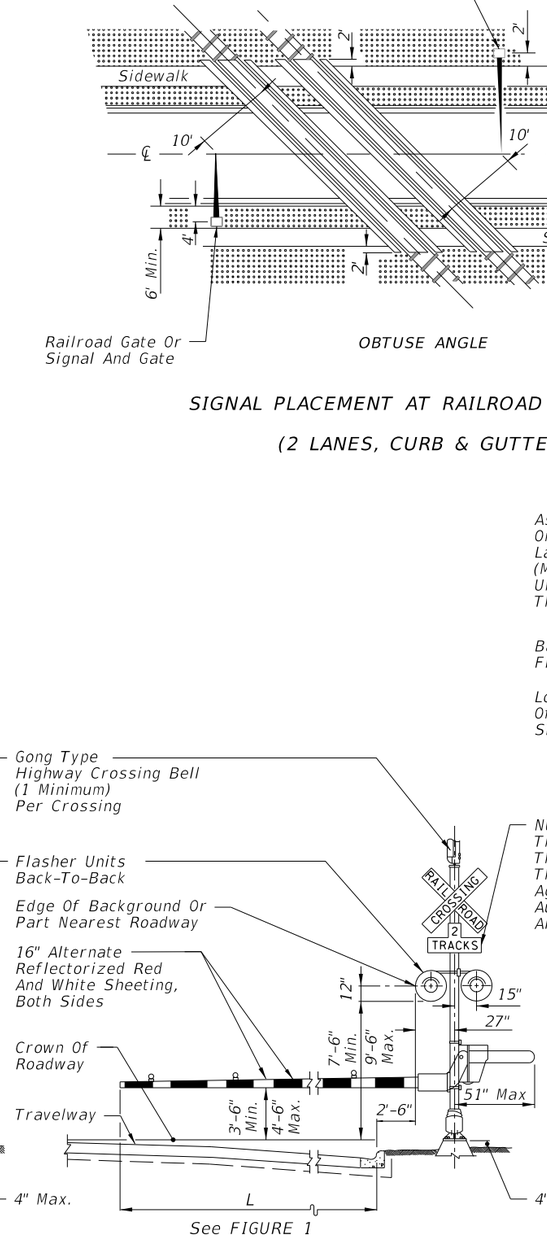
1. The location of flashing warning devices and stop lines shall be established based on future (or present) installation of gate with appropriate track clearances.
2. Where plans call for railroad traffic control devices to be installed in curbed medians, the minimum median width shall be 12'-6".
3. Location of railroad traffic control device is based on the distance available between face of curb & sidewalk. 0' to 6' – Locate device outside sidewalk. Over 6' – 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 17'-6" from above the Crown of Roadway to the Lowest Point of the Overhead Signal Unit.



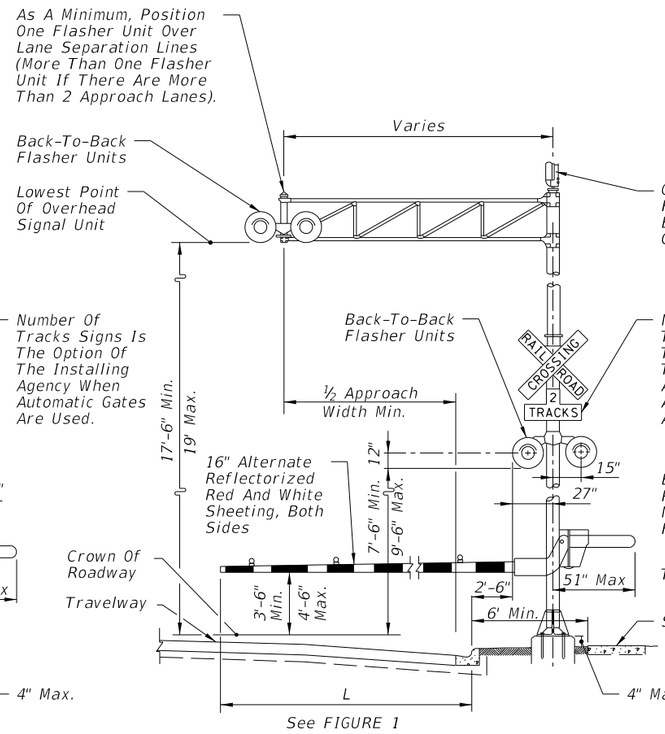

TYPE I



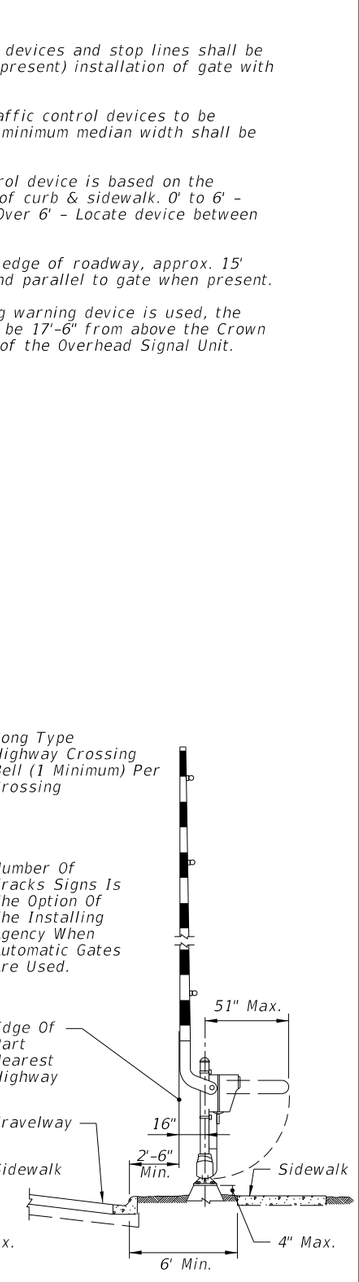

TYPE II




TYPE III




TYPE IV




TYPE V

## TRAFFIC CONTROL DEVICES FOR CRUBED ROADWAY

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|---|---|---|---|---|---|---|
| 11/07/16 | | | FDOT FY 2017-18 DESIGN STANDARDS | RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES | 17882 | 2 of 4 |

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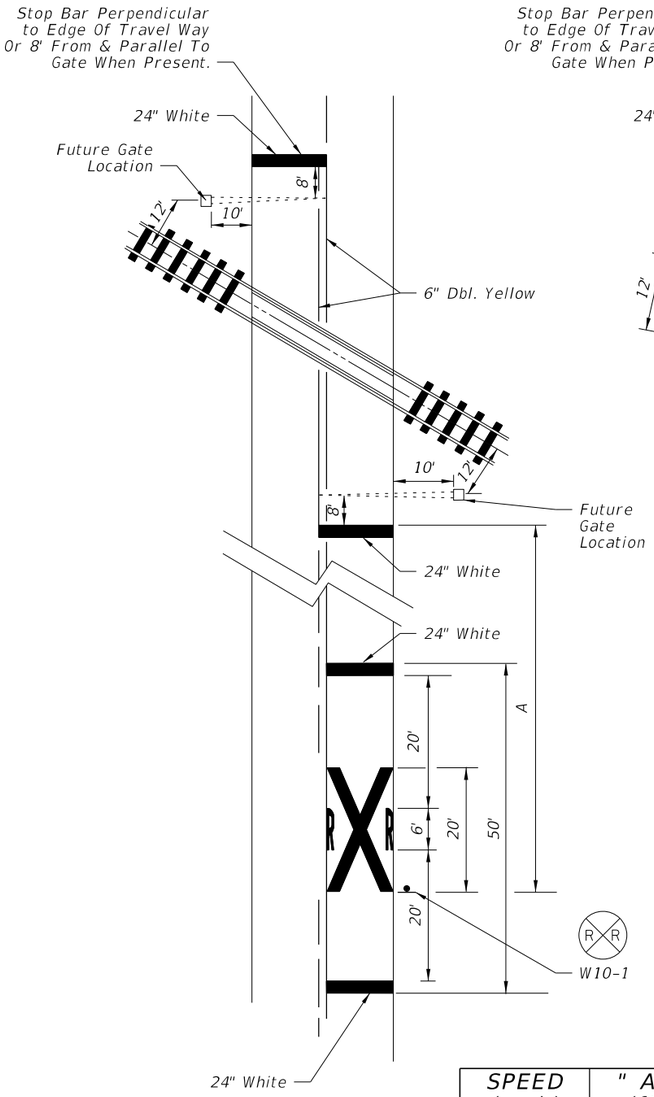
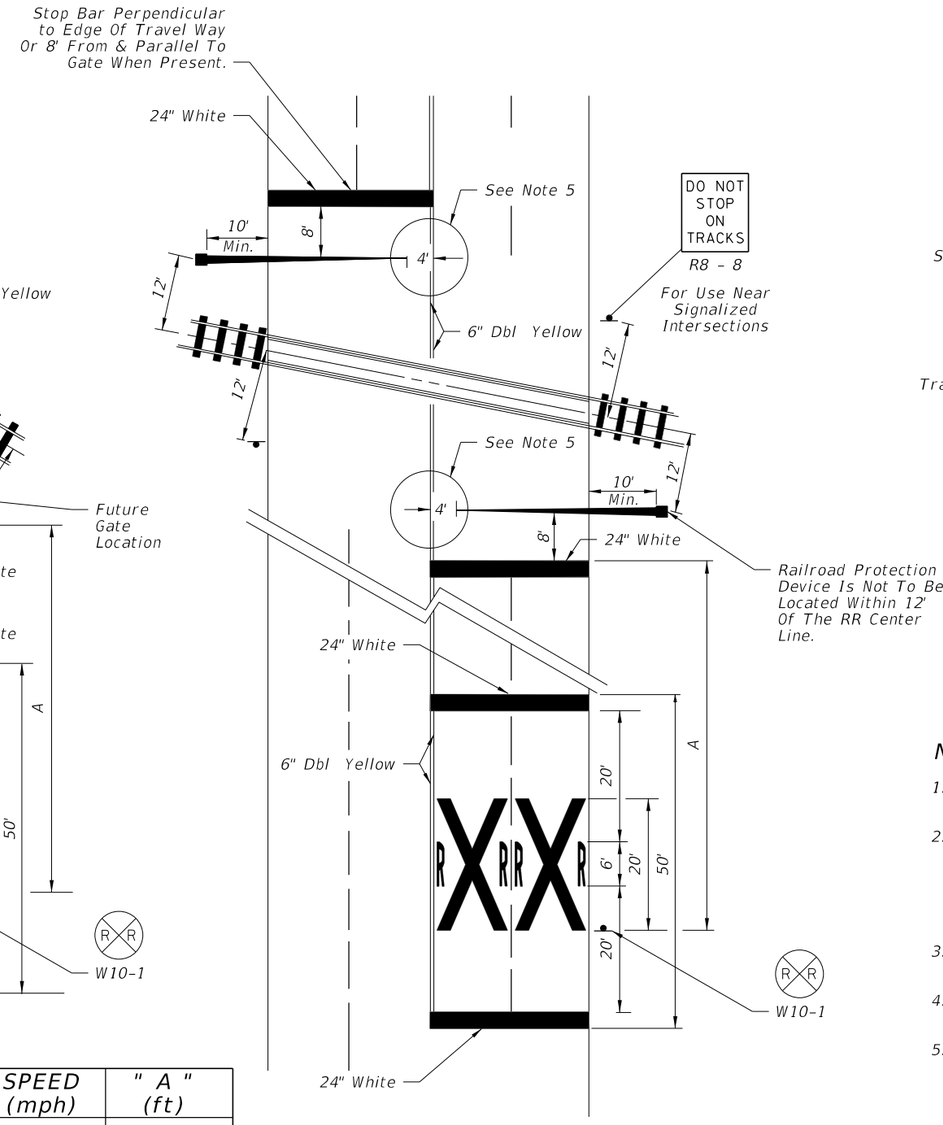
## RAILROAD CROSSING AT TWO (2)-LANE ROADWAY

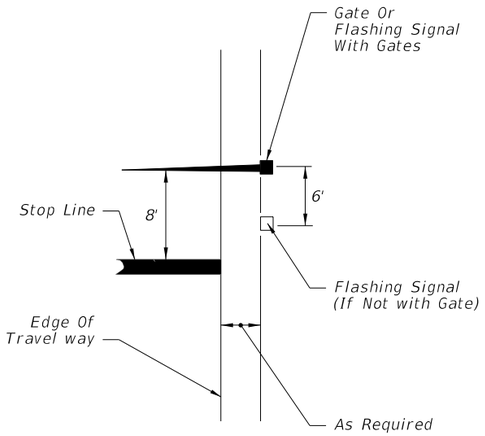


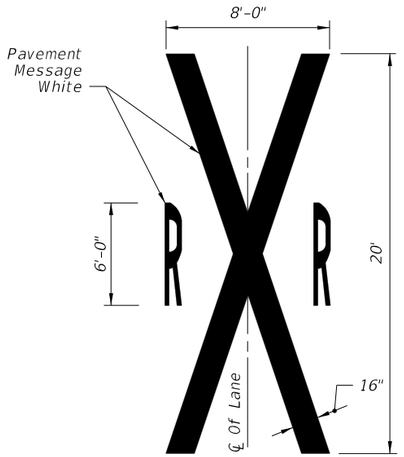

## RAILROAD CROSSING AT MULTILANE ROADWAY




| SPEED (mph) | " A " (ft) |
|---|---|
| 60 | 400 |
| 55 | 325 |
| 50 | 250 |
| 45 | 175 |
| 40 | 125 |
| 35 | 100 |
| URBAN | 85 MIN. |

## RELATIVE LOCATION OF CROSSING TRAFFIC CONTROL DEVICES

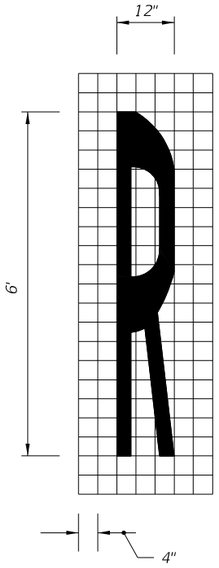



### NOTES:

1. When computing pavement message, quantities do not include traverse lines.
2. Placement of sign W10-1 in a residential or business district, where low speeds are prevalent, the W10-1 sign may be placed a minimum distance of 100' from the crossing. Where street intersections occur between the RR pavement message and the tracks an additional W10-1 sign and additional pavement message should be used.
3. A portion of the pavement markings symbol should be directly opposite the W10-1 sign.
4. Recommended location for FTP-61-06 or FTP-62-06 signs, 100' urban and 300' rural. See Index 17355 for sign details.
5. Gate Length Requirements:
   For Two-way undivided sections:
   The gate should extend to within 1' of the center line. On multiple approaches the maximum gate length may not reach to within 1' of the center line. For those cases, the distance from the gate to the center line shall be a maximum of 4'.

   For one-way or divided sections:
   The gate shall be of sufficient length such that the distance from the gate tip to the inside edge of pavement is a maximum of 4'.

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| LAST REVISION | REVISION | DESCRIPTION: | FDOT FY 2017-18 DESIGN STANDARDS | RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES | INDEX NO. | SHEET NO. |
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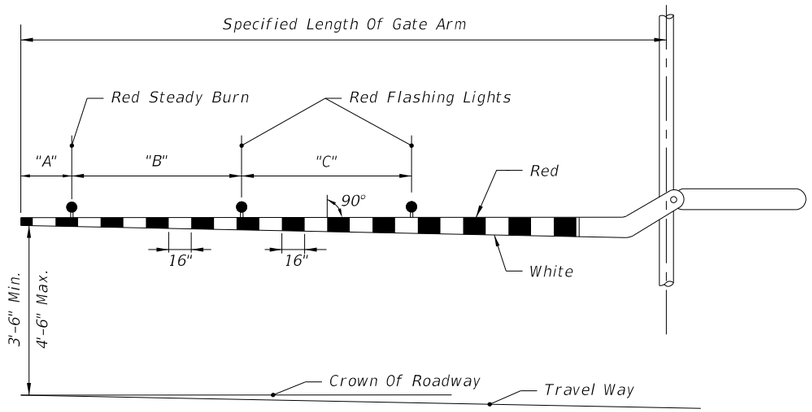
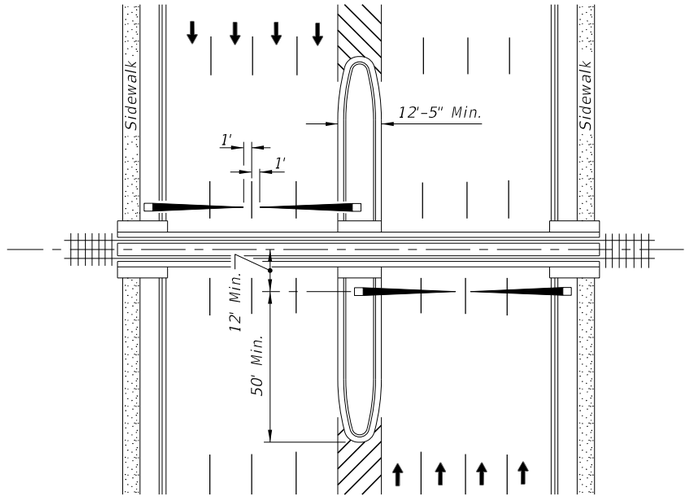
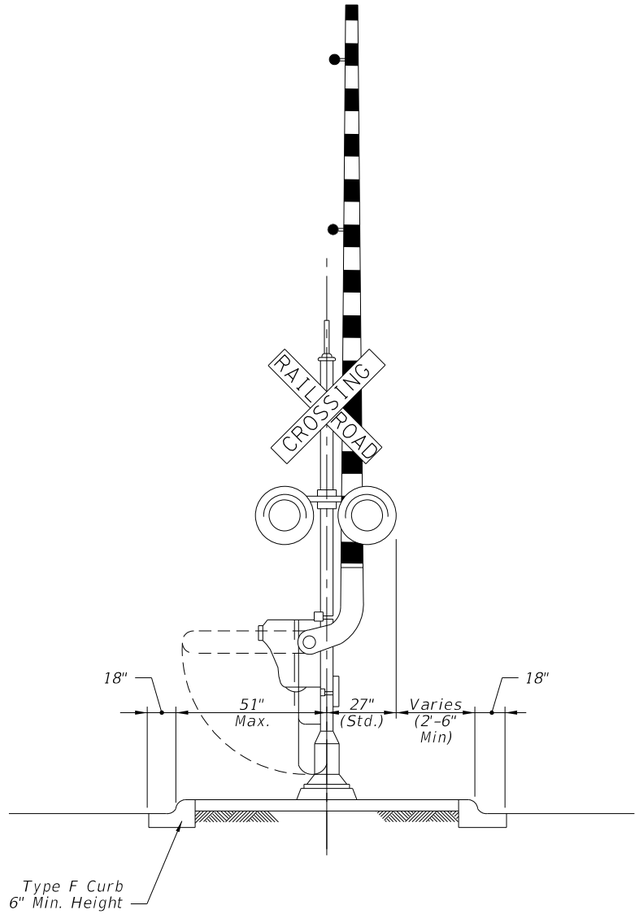



PLAN




MEDIAN SECTION AT SIGNAL GATES

## RAILROAD GATE ARM LIGHT SPACING

| Specified Length Of Gate Arm | Dimension "A" | Dimension "B" | Dimension "C" |
|---|---|---|---|
| 14 Ft. | 6" | 36" | 5' |
| 15 Ft. | 18" | 36" | 5' |
| 16-17 Ft. | 24" | 36" | 5' |
| 18-19 Ft. | 28" | 41" | 5' |
| 20-23 Ft. | 28" | 4' | 5' |
| 24-28 Ft. | 28" | 5' | 5' |
| 29-31 Ft. | 36" | 6' | 6' |
| 32-34 Ft. | 36" | 7' | 7' |
| 35-37 Ft. | 36" | 9' | 9' |
| 38 And Over | 36" | 10' | 10' |

NOTE:
For additional information see the "Manual On Uniform Traffic Control Devices", Part 8; The "Traffic Control Handbook" , Part VIII; and AASHTO "A Policy On Geometric Design Of Streets And Highways".

# MEDIAN SIGNAL GATES FOR MULTILANE UNDIVIDED URBAN SECTIONS (THREE OR MORE DRIVING LANES IN ONE DIRECTION, 45 MPH OR LESS)

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|---|---|---|---|---|---|---|
| 01/01/12 | | | FDOT FY 2017-18 DESIGN STANDARDS | RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES | 17882 | 4 of 4 |