
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: June 20, 2023

Originator: Kelli Phillips

Phone: (850) 414-4553

Email: Kelli.Phillips@dot.state.fl.us

Standard Plans:

Index Number: 509-070

Sheet Number (s): 1, 2, and 3 of 3

Index Title:
Railroad Grade Crossing Traffic Control Devices

Summary of the changes:

Sheet 1: Change General Note 5 , Class VI to 3-4; Delete Type V and Type VI from Traffic Control Devices for Flush Shoulder Roadway Details: Added "Std." to the 27" dimension in Type I through Type V.

Sheet 2: Added "Std." to the 27" dimension in Type II through Type IV.

Sheet 3: Change 12'-5" min to 12'-6" Min. in PLAN; Change 51" Max to 57" Min in Median Section at Signal Gates Detail.

Commentary / Background:

These changes are being made to revert to previous versions of the Index.

Other Affected Offices / Documents: (Provide name of person contacted)

Yes	No
☐	☒ Other Standard Plans –
☐	☒ FDOT Design Manual –
☐	☒ Basis of Estimates Manual –
☐	☒ Standard Specifications –
☐	☒ Approved Product List –
☐	☒ Construction –
☐	☒ Maintenance –

Origination Package Includes: (Submit package to Rick Jenkins)

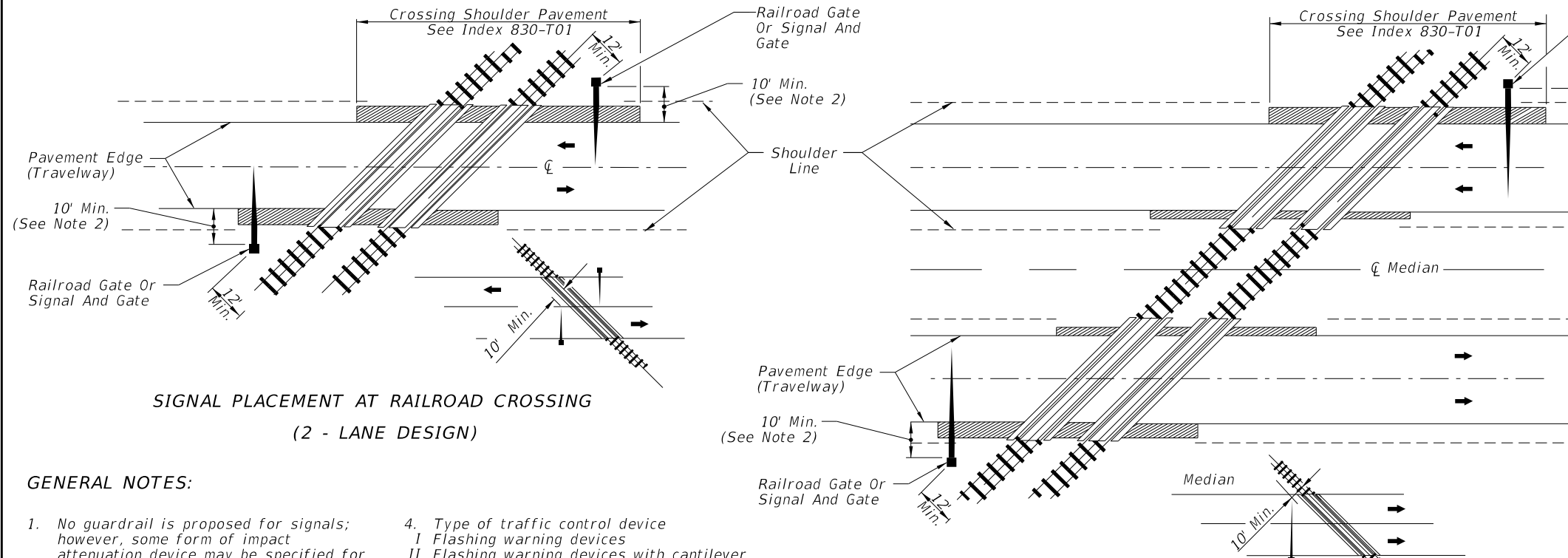
Yes	N/A
☒	☐ Redline Mark-ups
☐	☐ Revised or Proposed Standard Plan Instruction (SPI)
☐	☐ Other Support Documents

Implementation:

☐ Design Bulletin (Interim)
☐ DCE Memo
☐ Program Mgmt. Bulletin
☒ FY-Standard Plans (Next Release)

Contact the Roadway Design Office for assistance in completing this form

Email to: Rick Jenkins rick.jenkins@dot.state.fl.us and Darren Martin darren.martin@dot.state.fl.us

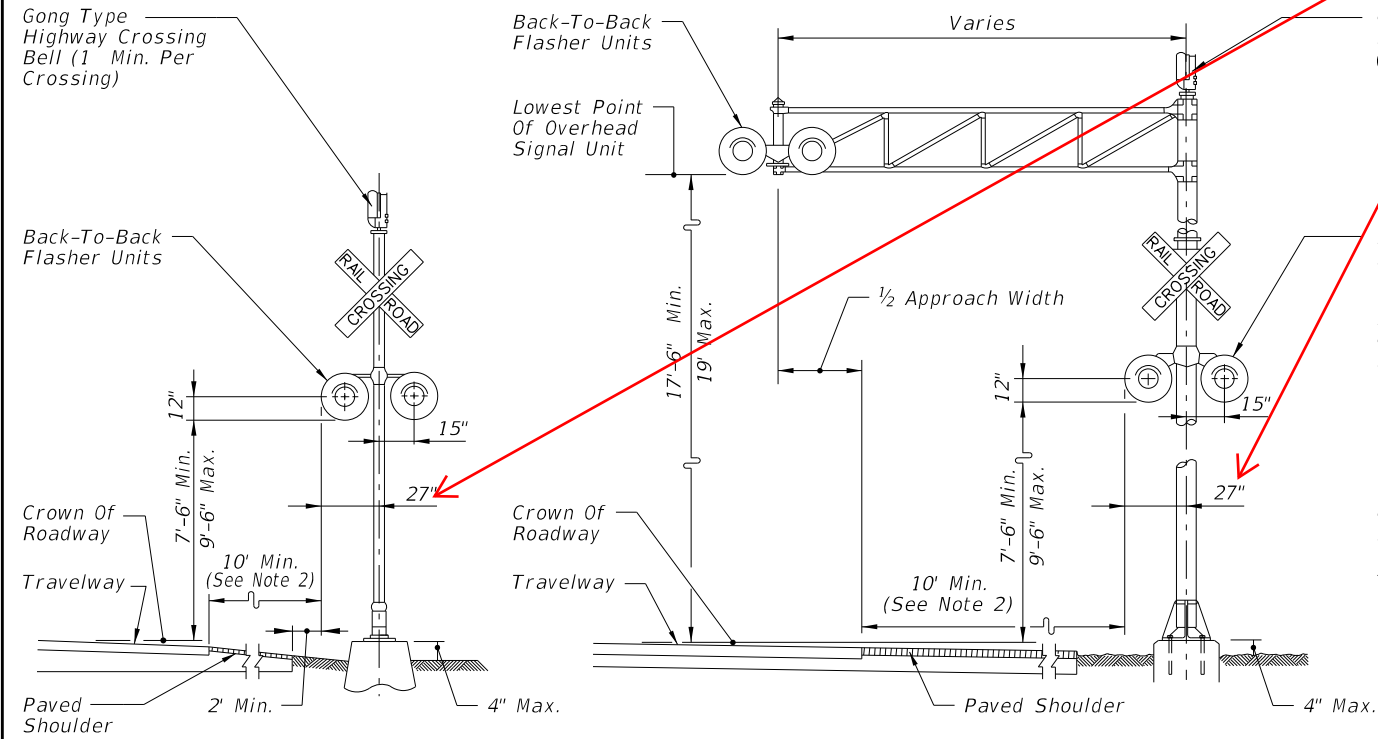


**SIGNAL PLACEMENT AT RAILROAD CROSSING
(2 - LANE DESIGN)**

GENERAL NOTES:

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

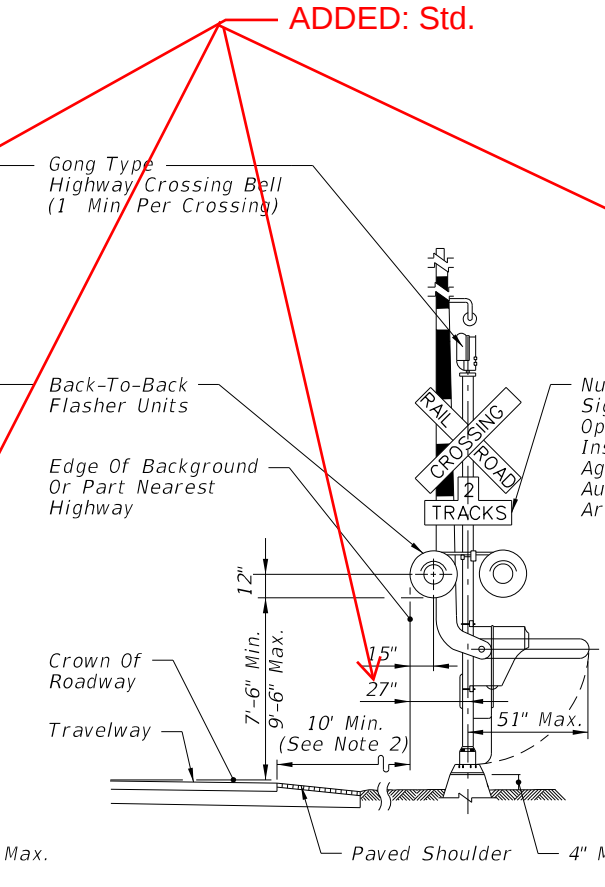
CHANGED TO: 3-4 →



TYPE I

TYPE II

**SIGNAL PLACEMENT AT RAILROAD CROSSING
(4 - LANE DESIGN)**



TYPE III AND TYPE V

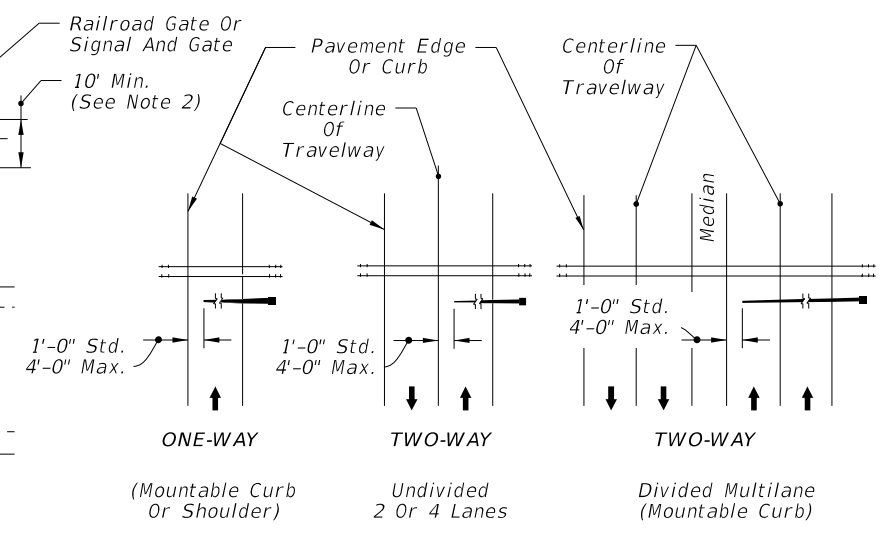
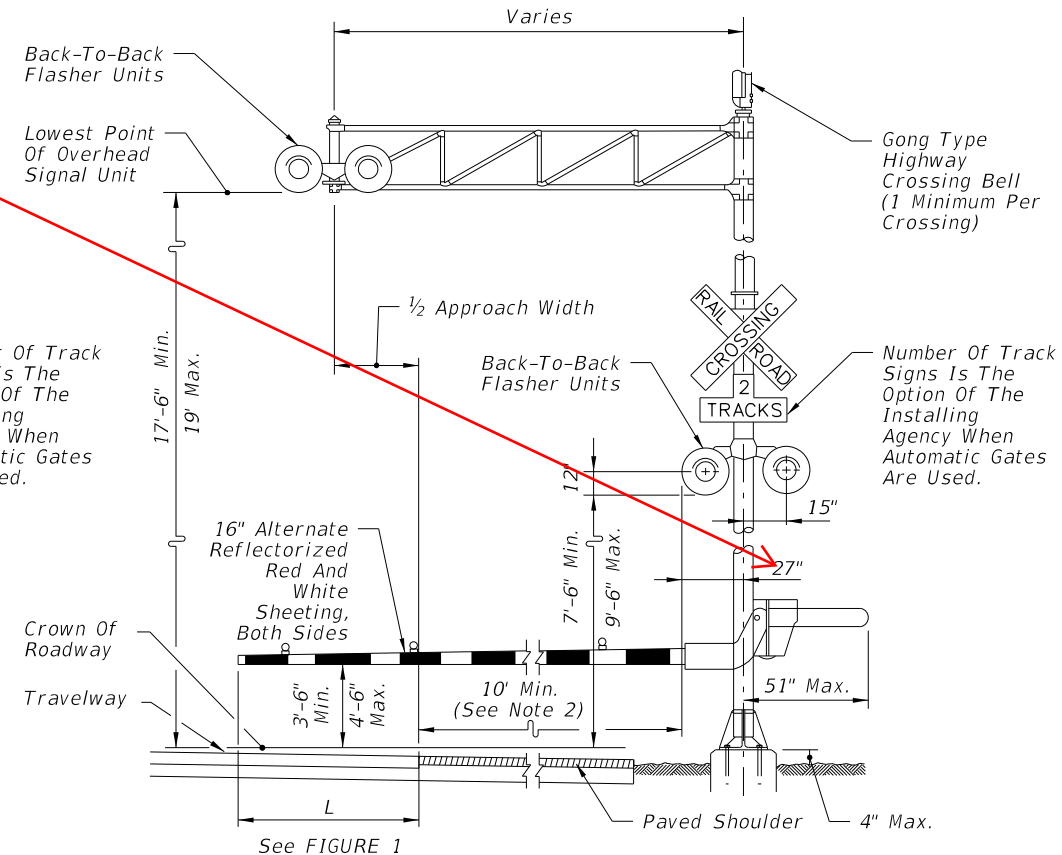


FIGURE 1

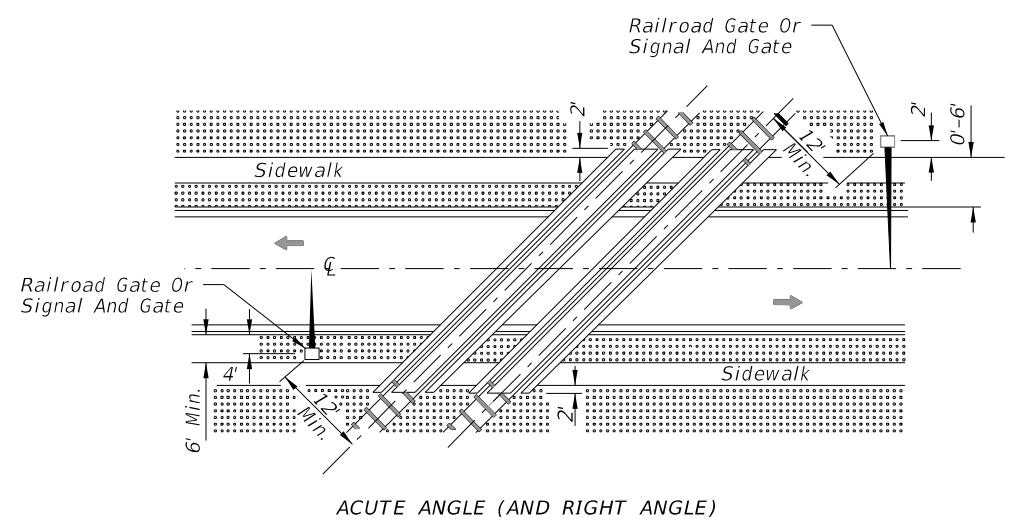
- NOTE:**
- Two separate foundations may be required (one for signals, one for gate), depending on type of equipment used.
 - When 10' is deemed impractical the control device can be located as close as 2' from the edge of a paved shoulder but not less than 6' from the edge of the near traffic lane.



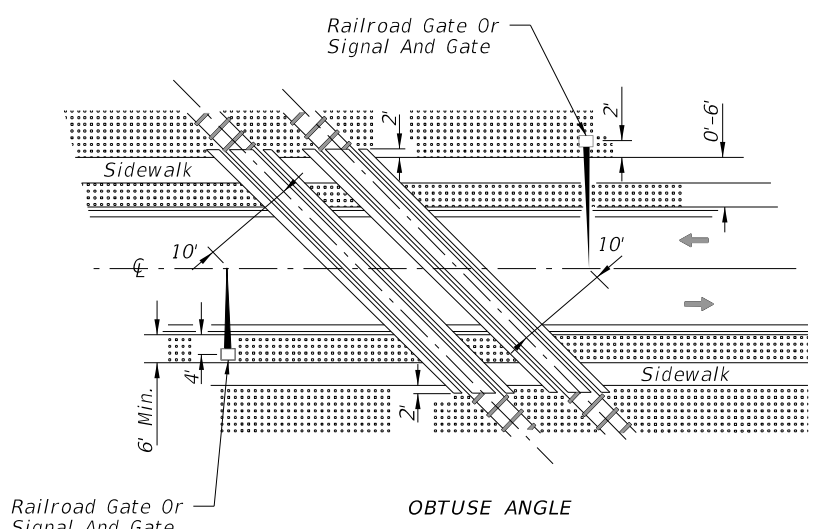
TYPE IV AND TYPE VI

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LAST REVISION		DESCRIPTION:	FY 2023-24 STANDARD PLANS		RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES	INDEX	SHEET
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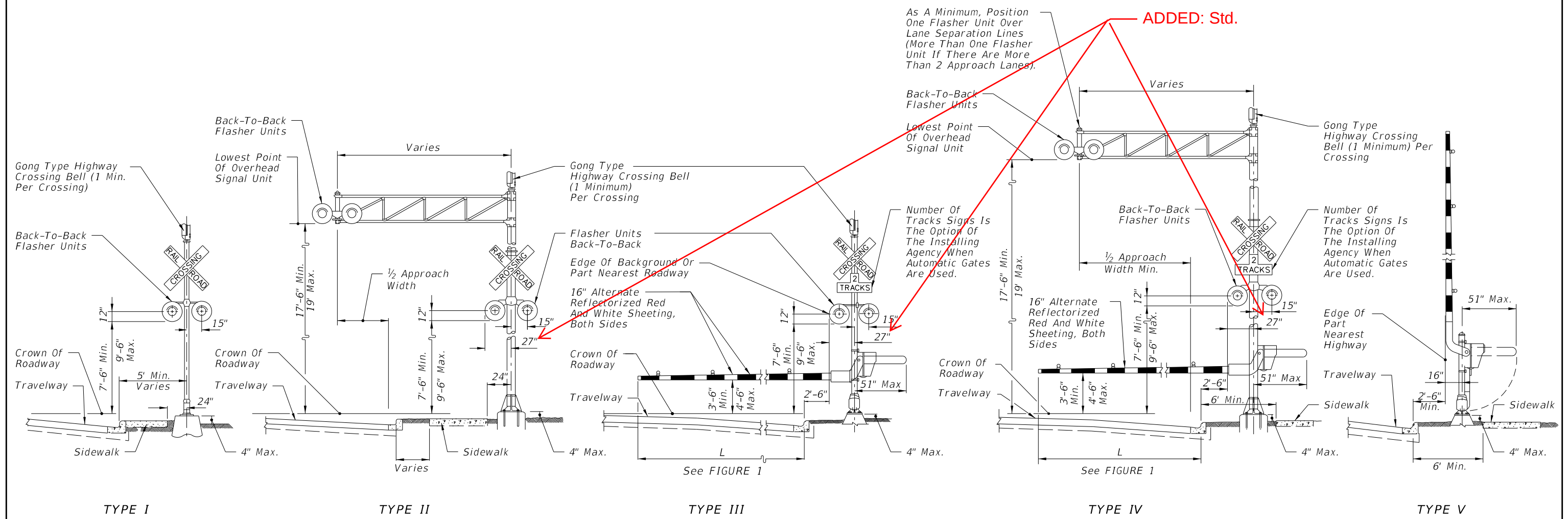
SIGNAL PLACEMENT AT RAILROAD CROSSING
(2 LANES, CURB & GUTTER)



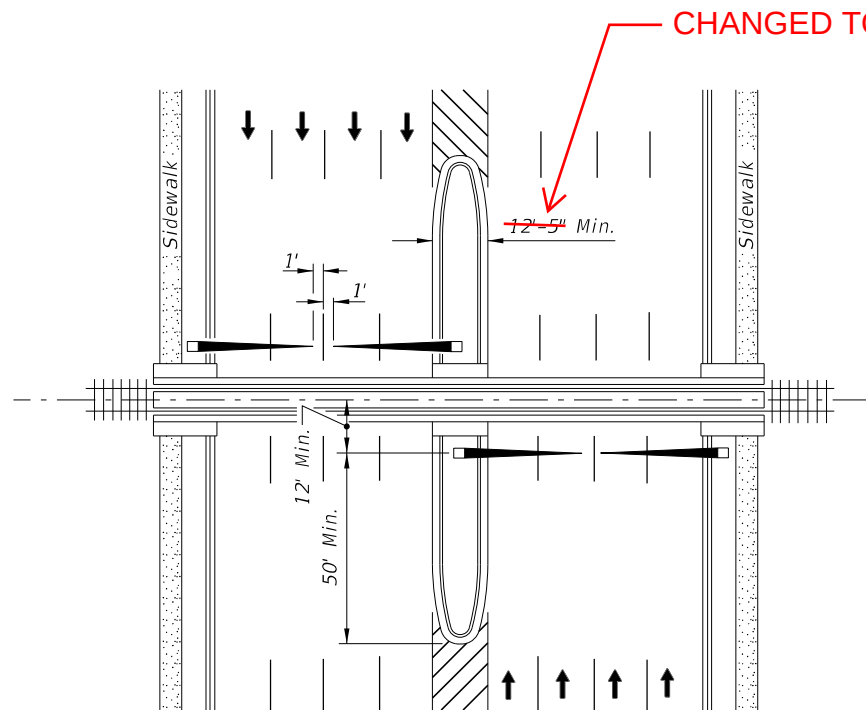
SIGNAL PLACEMENT AT RAILROAD CROSSING
(2 LANES, CURB & GUTTER)

NOTES:

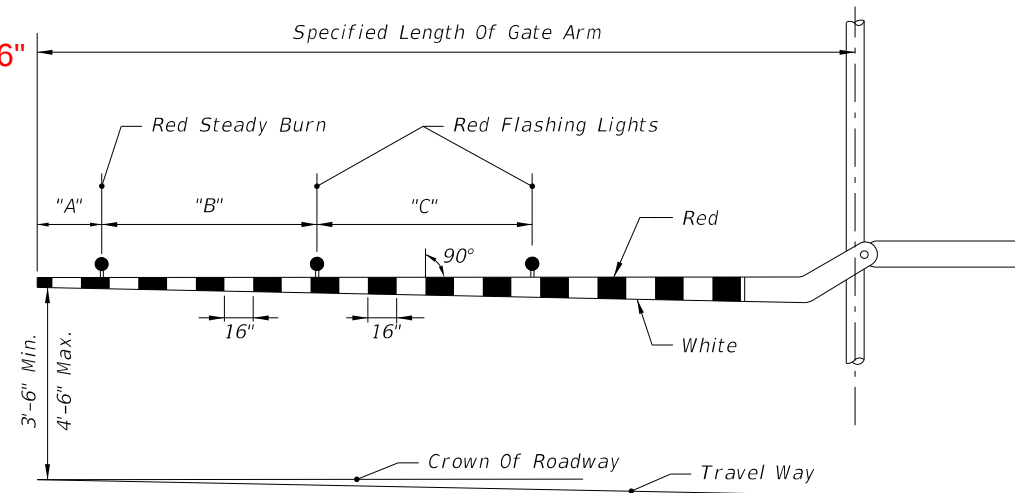
1. The location of flashing warning devices and stop lines shall be established based on future (or present) installation of gate with appropriate track clearances.
2. Where plans call for railroad traffic control devices to be installed in curbed medians, the minimum median width shall be 12'-6".
3. 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.



TRAFFIC CONTROL DEVICES FOR CURBED ROADWAY



PLAN

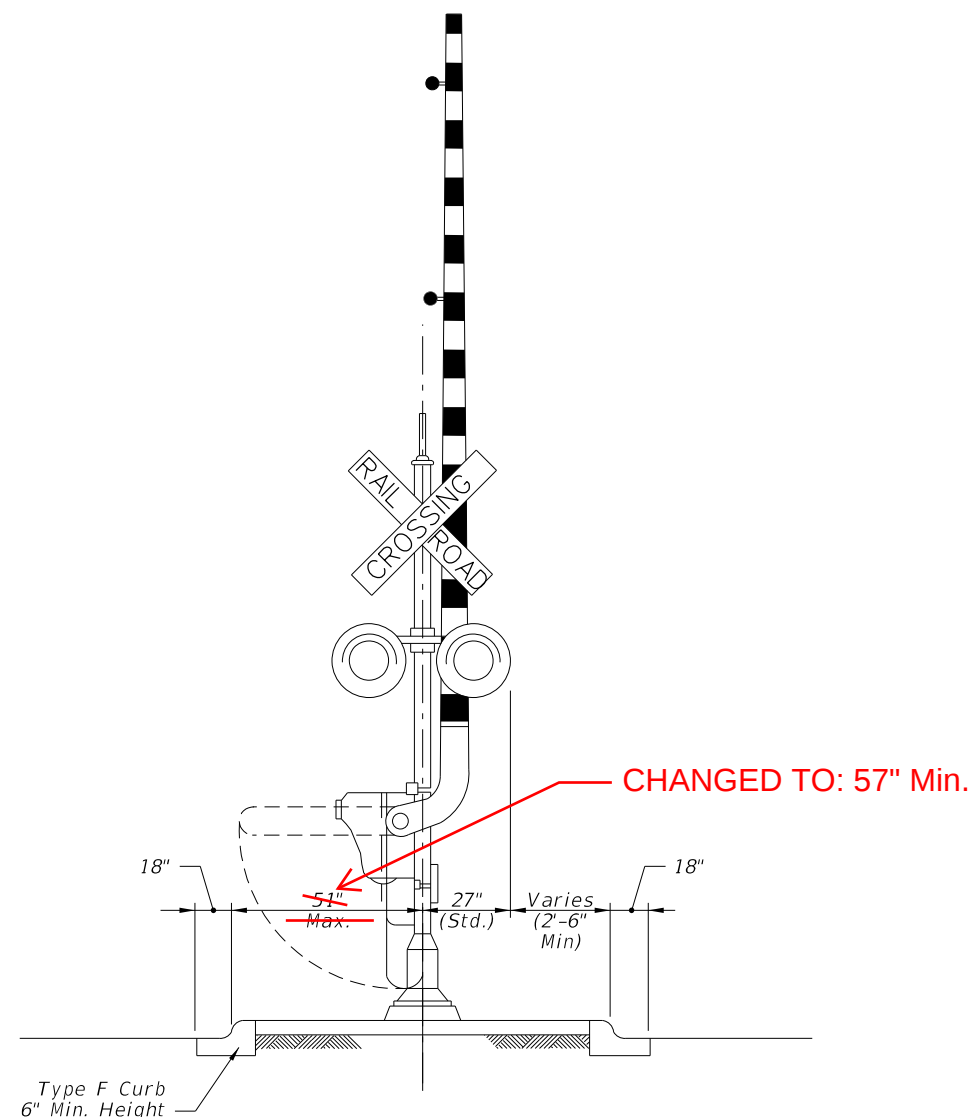


GATE ARM DETAIL

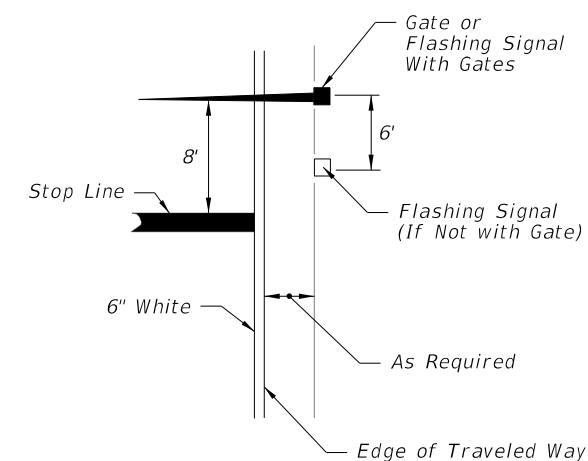
RAILROAD GATE ARM LIGHT SPACING			
Specified Length Of Gate Arm	Dimension "A"	Dimension "B"	Dimension "C"
14 Ft.	6"	36"	5'
15 Ft.	18"	36"	5'
16-17 Ft.	24"	36"	5'
18-19 Ft.	28"	41"	5'
20-23 Ft.	28"	4'	5'
24-28 Ft.	28"	5'	5'
29-31 Ft.	36"	6'	6'
32-34 Ft.	36"	7'	7'
35-37 Ft.	36"	9'	9'
38 And Over	36"	10'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

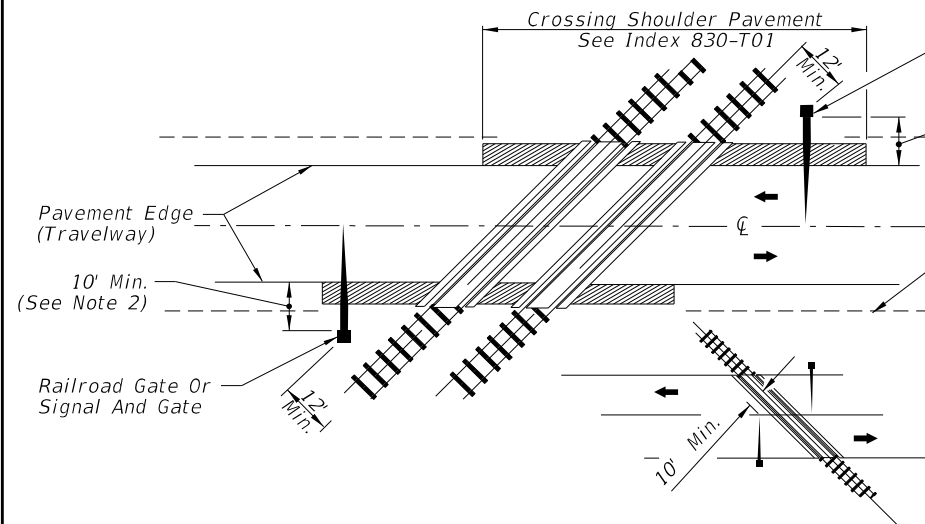


MEDIAN SIGNAL GATES FOR MULTILANE UNDIVIDED URBAN SECTIONS
(Three or More Driving Lanes in one Direction, 45 mph or less)

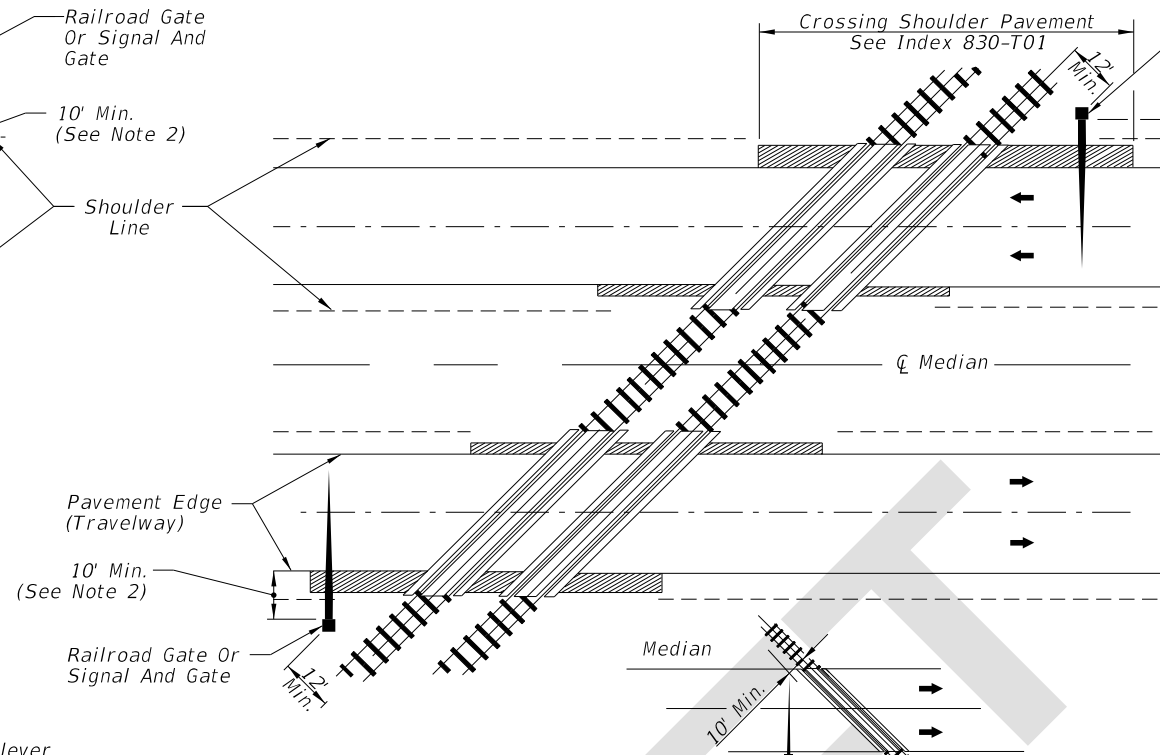
RELATIVE LOCATION OF CROSSING
TRAFFIC CONTROL DEVICES

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LAST REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES	INDEX	SHEET
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**SIGNAL PLACEMENT AT RAILROAD CROSSING
(2 - LANE DESIGN)**



**SIGNAL PLACEMENT AT RAILROAD CROSSING
(4 - LANE DESIGN)**

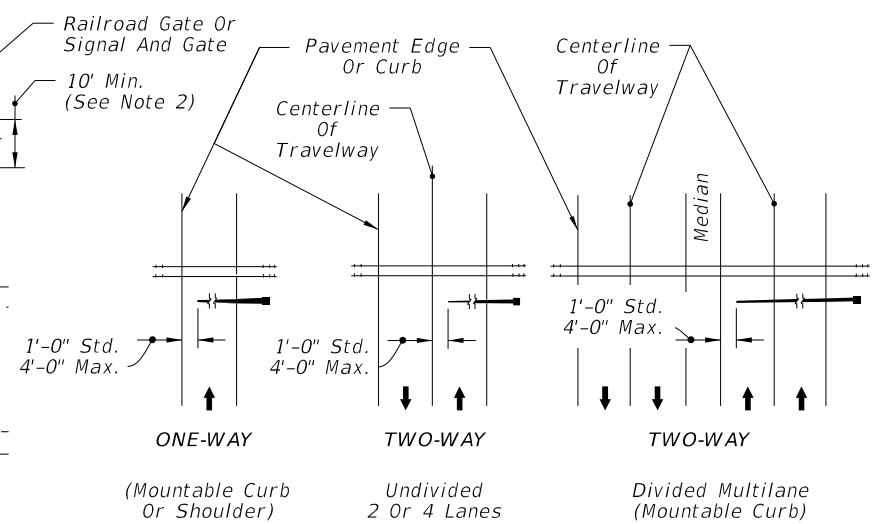


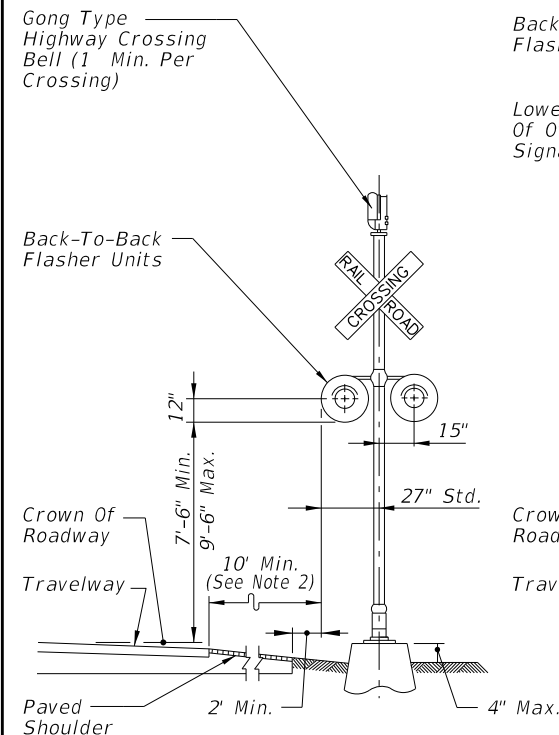
FIGURE 1

GENERAL NOTES:

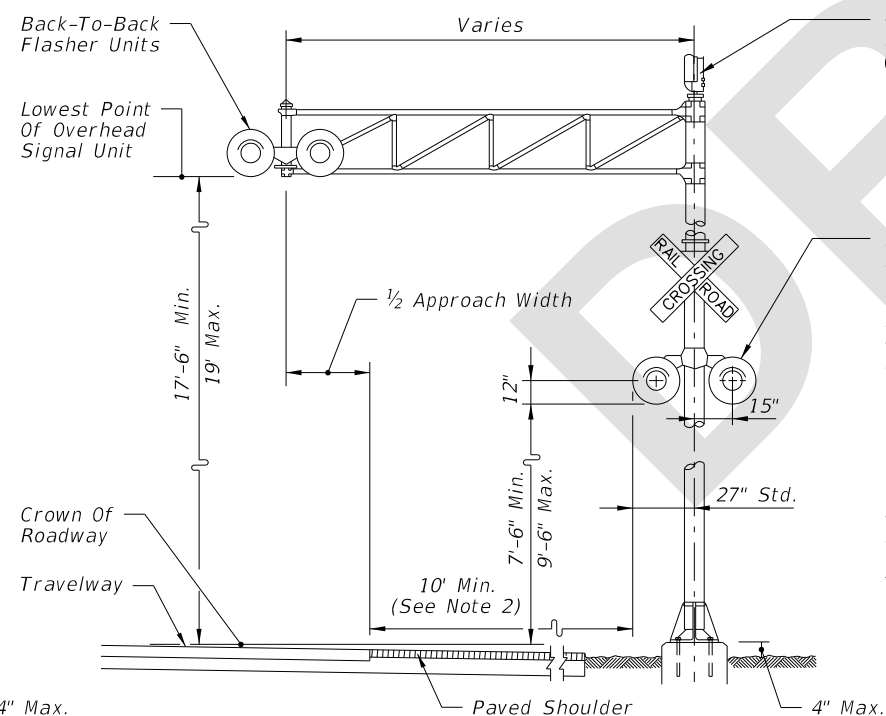
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NOTE:

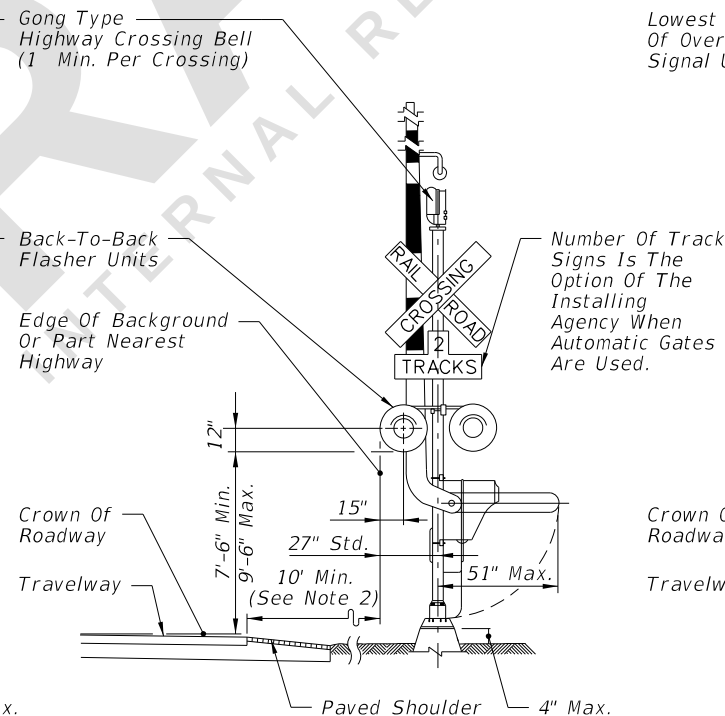
- Two separate foundations may be required (one for signals, one for gate), depending on type of equipment used.
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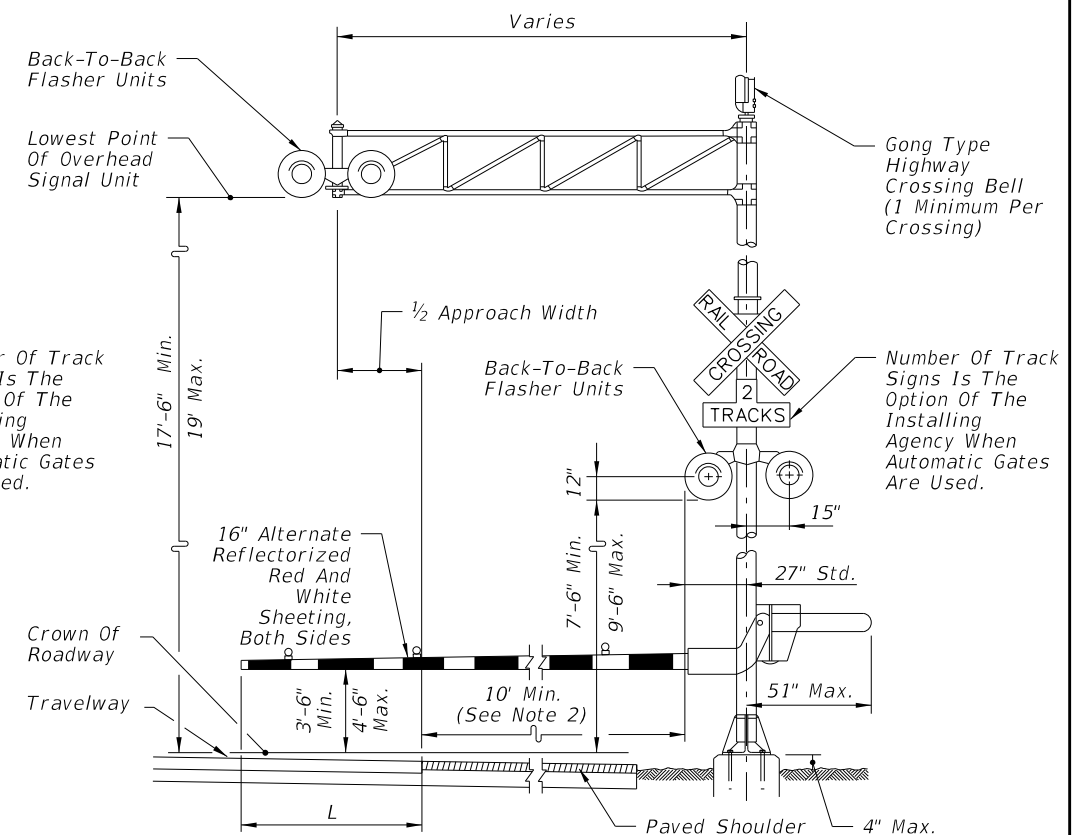
TYPE I



TYPE II



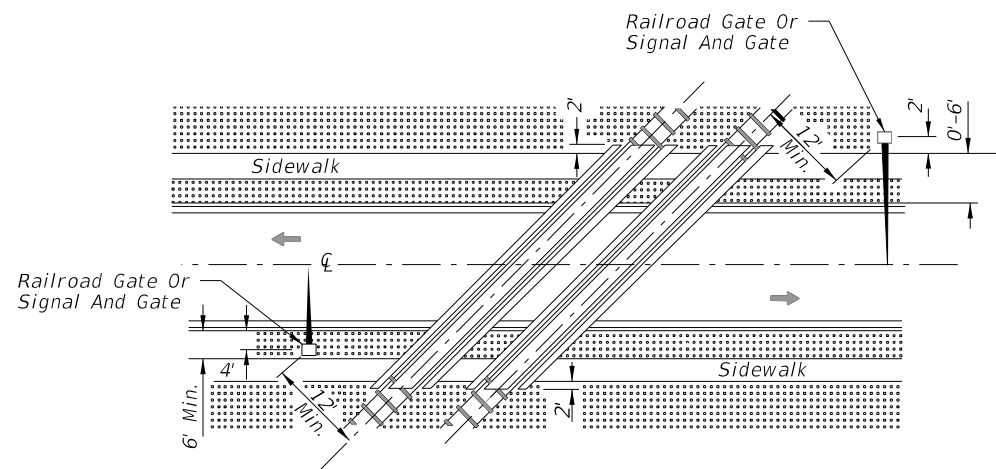
TYPE III



TYPE IV

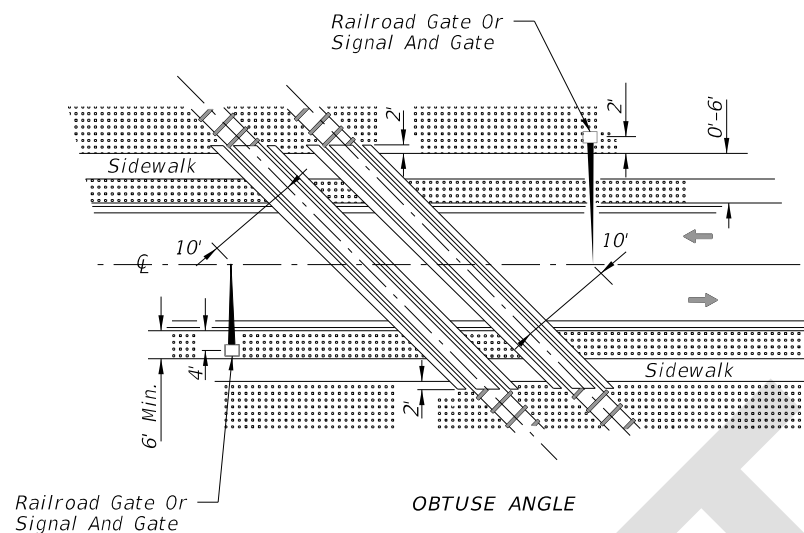
TRAFFIC CONTROL DEVICES FOR FLUSH SHOULDER ROADWAY

LAST REVISION 11/01/23	REVISION	DESCRIPTION:	FDOT	FY 2024-25 STANDARD PLANS	RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES	INDEX 509-070	SHEET 1 of 3
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ACUTE ANGLE (AND RIGHT ANGLE)

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

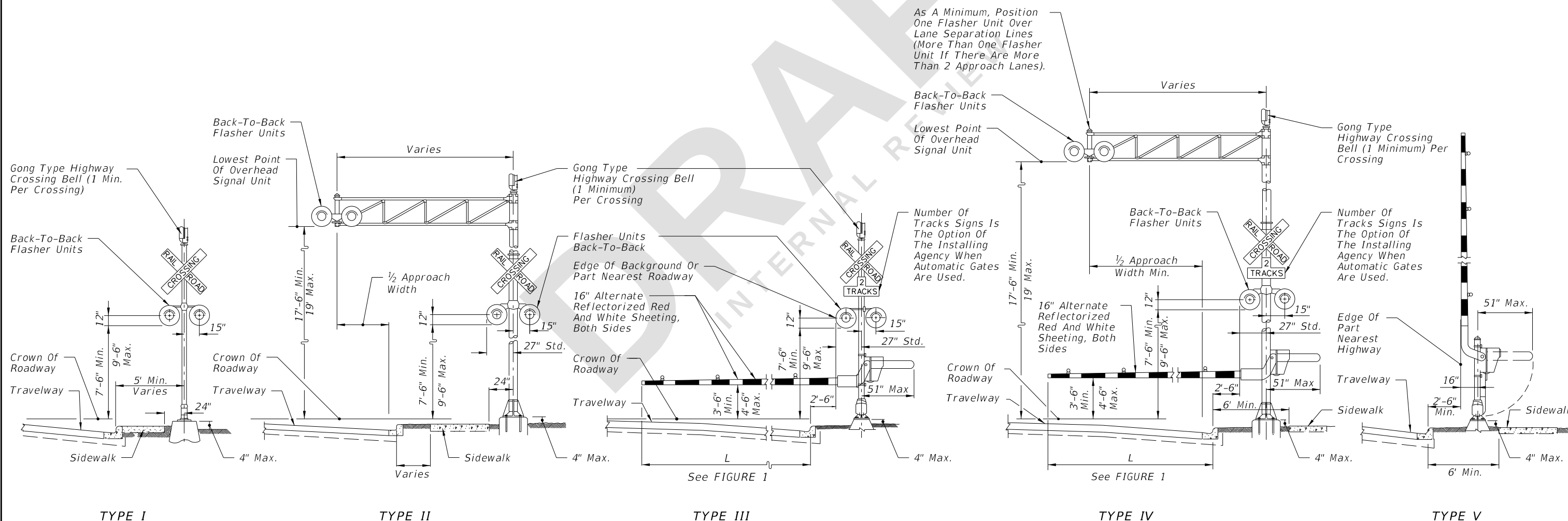


OBTUSE ANGLE

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

NOTES:

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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.



TRAFFIC CONTROL DEVICES FOR CURBED ROADWAY

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NOTE:

Diagram illustrating the placement of a flashing signal and gate at a T-intersection. The diagram shows the intersection of a road with a main road. The main road has a "6" White" line and an "Edge of Traveled Way". The T-intersection road has a "Stop Line". The "Gate or Flashing Signal With Gates" is placed 6' from the "Edge of Traveled Way". The "Flashing Signal (If Not with Gate)" is placed 8' from the "Stop Line". The distance between the "Stop Line" and the "Edge of Traveled Way" is labeled "As Required".

= RELATIVE LOCATION OF CROSSING =
TRAFFIC CONTROL DEVICES