

ORIGINATION FORM

Proposed Revisions to a Standard Plans Index
(Please provide all information – Incomplete forms will be returned)

Contact Information:

Date: May 29, 2018
Originator: Derwood Sheppard
Phone: (850) 414-4334
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Standard Plans:

Index Number: 522-002
Sheet Number (s): 1,2,3,4,5,6,8 of 8
Index Title: Detectable Warnings and Sidewalk Curb Ramps

Summary of the changes:

Updated CR-A dimensions to match FDM Standard sidewalk widths.
Clarified notes and dimensions, updated dimension callouts.
Reorganized details and added sidewalk to detail CR-E.
Added dimensions for curb height transition.



Commentary / Background:

Other Affected Offices / Documents: (Provide name of responsible personnel)

- | Yes | No | |
|--------------------------|--------------------------|-----------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans – |
| <input type="checkbox"/> | <input type="checkbox"/> | FDOT Design Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Standard Specifications – |
| <input type="checkbox"/> | <input type="checkbox"/> | Approved Product List – |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction – |
| <input type="checkbox"/> | <input type="checkbox"/> | Maintenance – |

Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

- | Yes | N/A | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups |
| <input type="checkbox"/> | <input type="checkbox"/> | Proposed Standard Plan Instructions (SPI) |
| <input type="checkbox"/> | <input type="checkbox"/> | Revised SPI |
| <input type="checkbox"/> | <input type="checkbox"/> | 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

Maintain a single longitudinal slope along each side of the curb ramp.

GENERAL NOTES

1. Cross Slopes and Grades:

- A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.
- B. Landings must have cross-slopes less than or equal to 0.02 in any direction.
- C. ~~Install ramp slopes along a single linear plane (i.e. no warps or varying slopes).~~ Ramp slopes are not required to exceed 15 feet in length.
- D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.

2. Grade Breaks:

Grade breaks at the top and bottom of ramps must be parallel to each other and perpendicular to the direction of the ramp slope.

3. Curb, Curb and Gutter and/or Sidewalk:

- A. Refer to Index 522-001 for concrete thickness and sidewalk details.
- B. Remove any existing curb or curb and gutter to the nearest joint beyond the curb transition or to the extent that no remaining section of curb or curb and gutter is less than 5 feet long. Remove any existing sidewalk to the nearest joint beyond the transition slope or to the extent that no remaining section of sidewalk is less than 5 feet long.

4. Curb Ramp Alpha-Identification:

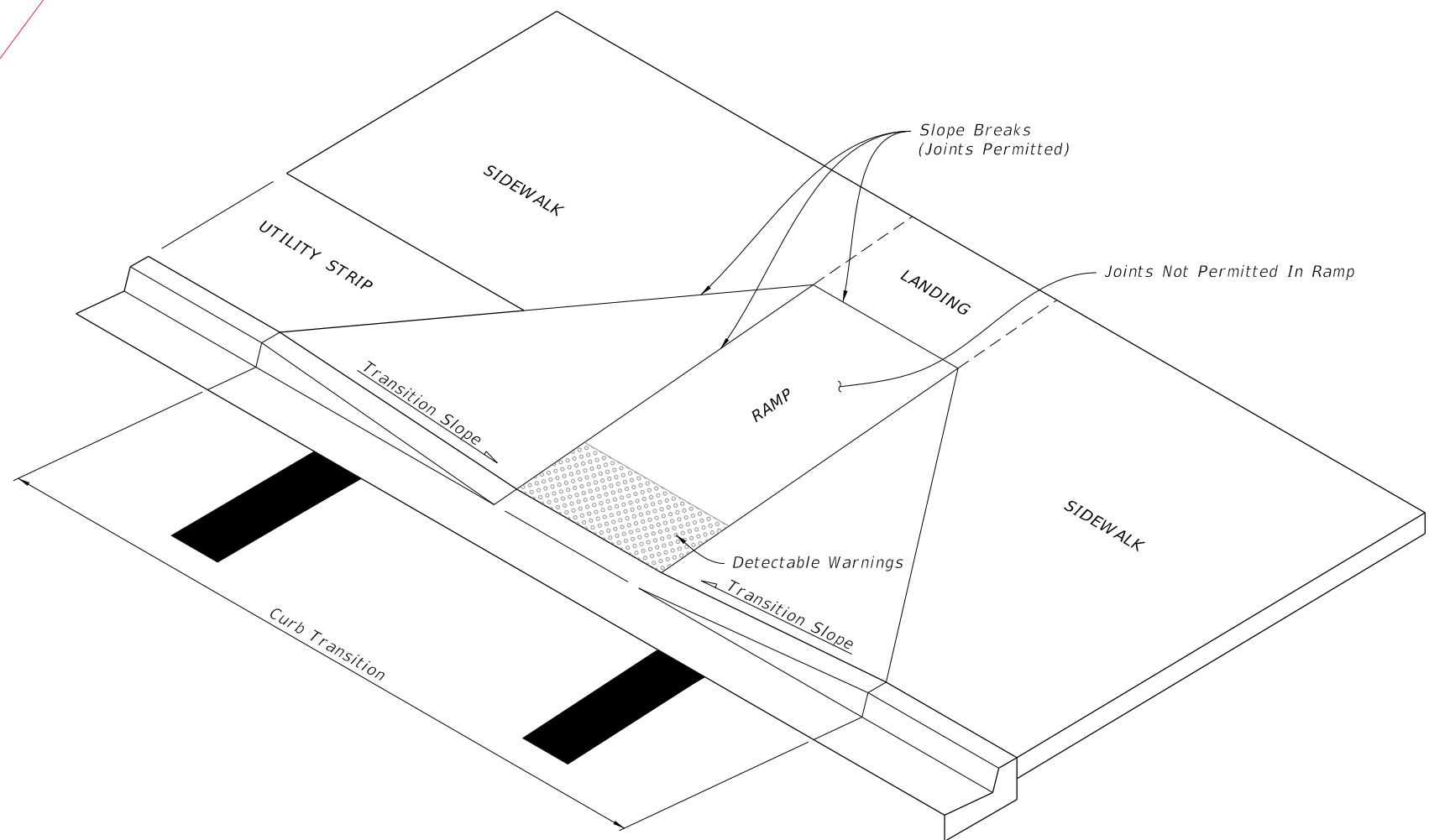
- A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.
- B. Alpha-identifications CR-I and CR-J are intentionally omitted.

5. Detectable Warnings:

- A. Install detectable warnings in accordance with Specification 527.
- B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.
- C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.

6. Detectable Warnings - Acceptance Criteria:

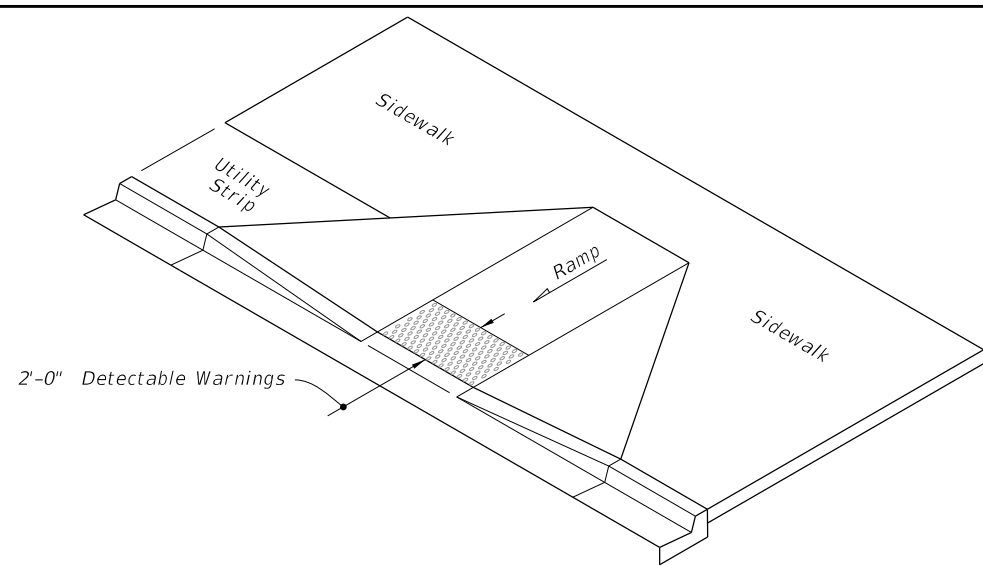
- A. Color and texture shall be complete and uniform.
- B. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
- C. There shall be no more than 4 non-compliant domes in any one square foot.
- D. Non-compliant domes shall not be adjacent to other non-compliant domes.
- E. Surfaces shall not deviate more than 0.10" from a true plane.



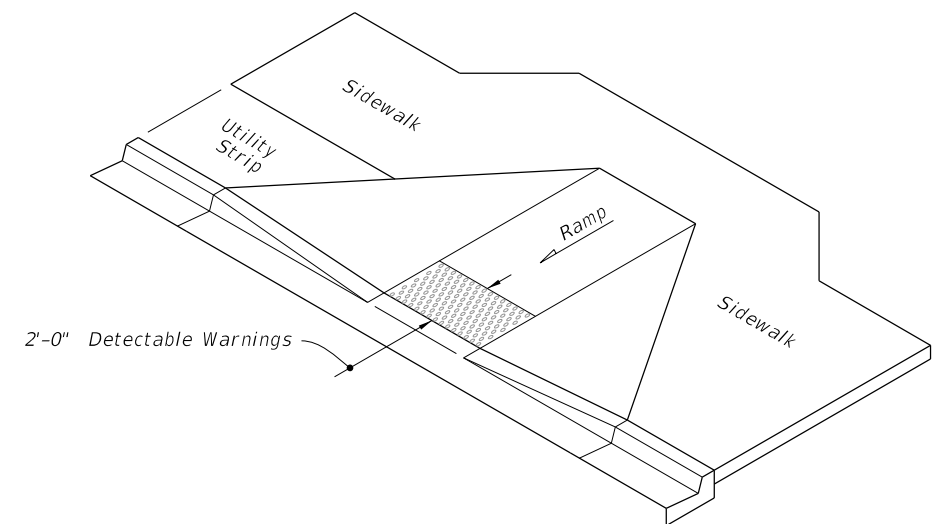
==== CURB RAMP NOMENCLATURE ====

10/16/2017 9:47:56 AM

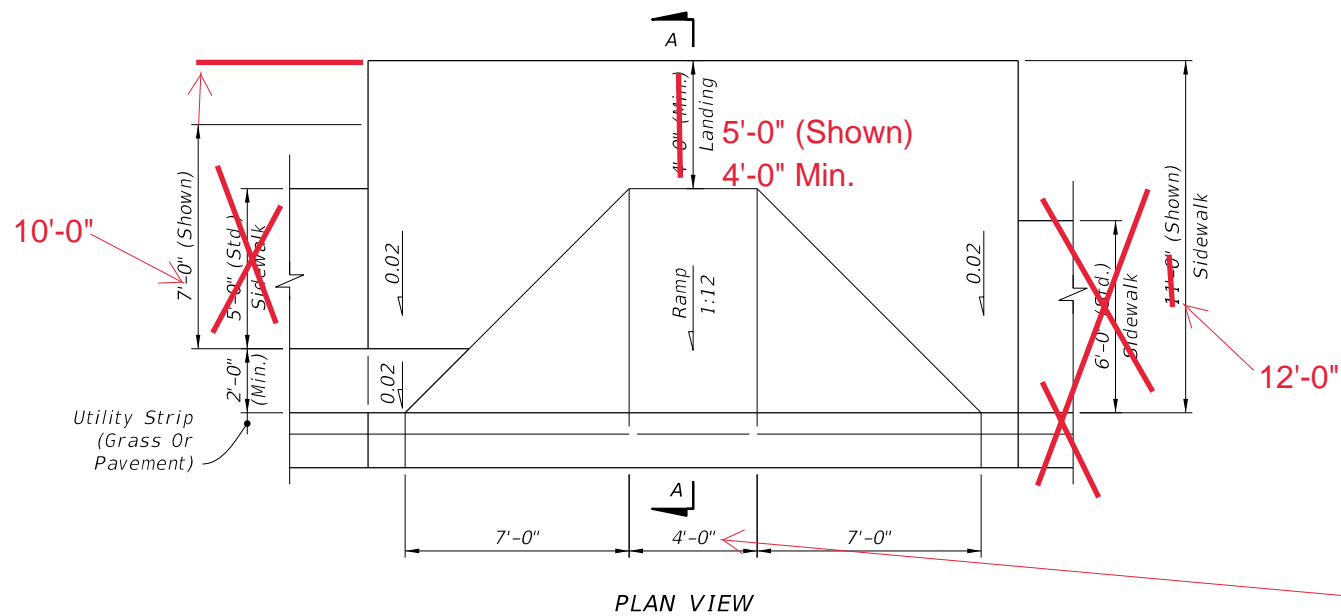
LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 1 of 8
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ISOMETRIC VIEW

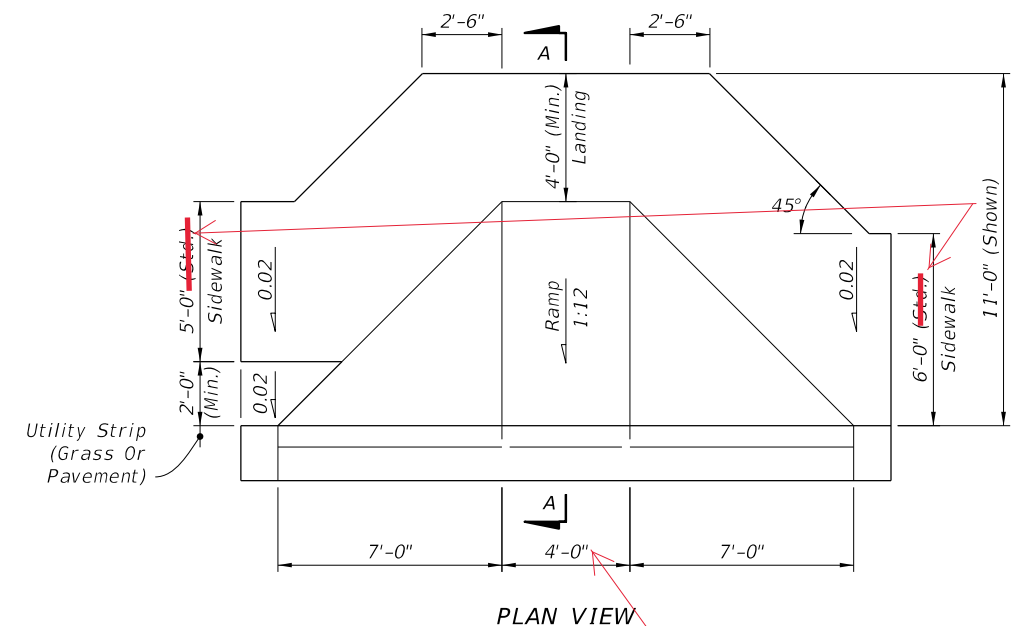


ISOMETRIC VIEW



PLAN VIEW

CR-A



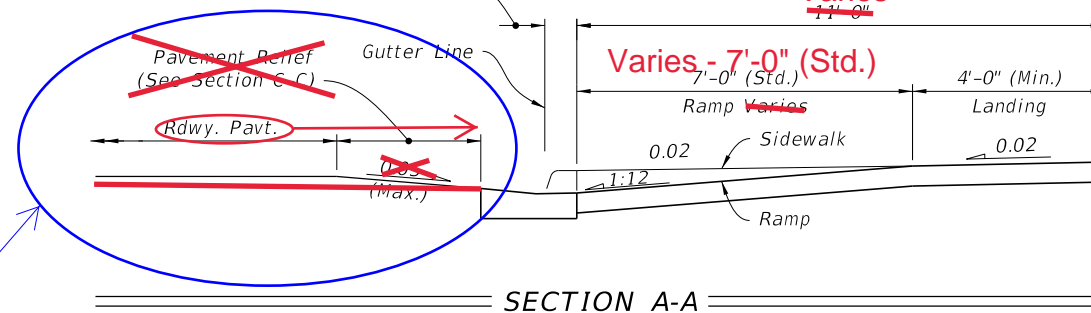
PLAN VIEW

CR-B

Min.

Note: For Example of CR-A used in Radial Curb Returns, See Sheet 8.

8" For Type F Curb
9" For Type E Curb
(Type F Curb Shown)



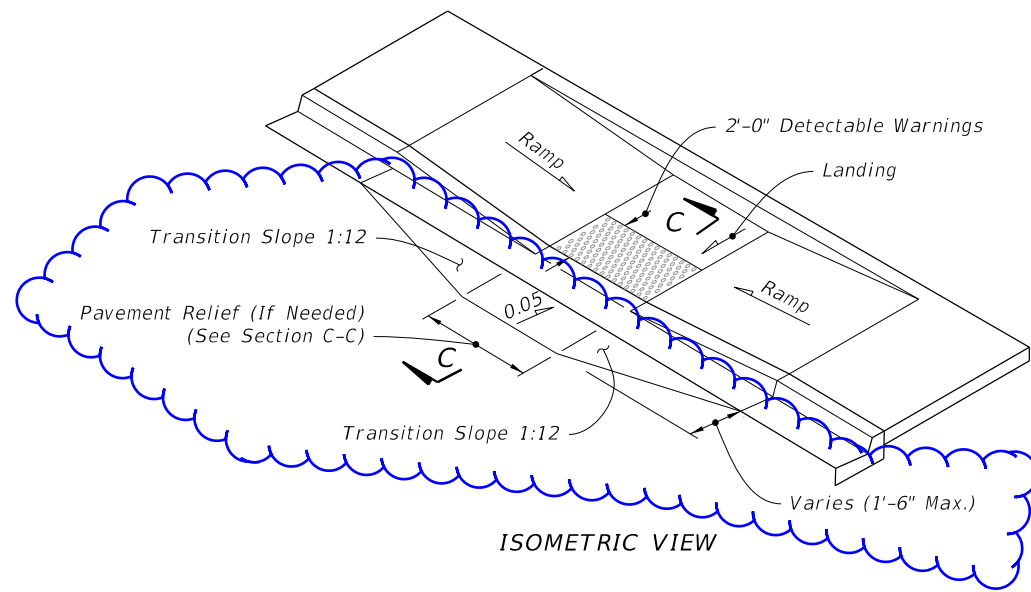
SECTION A-A

Make like Section B-B

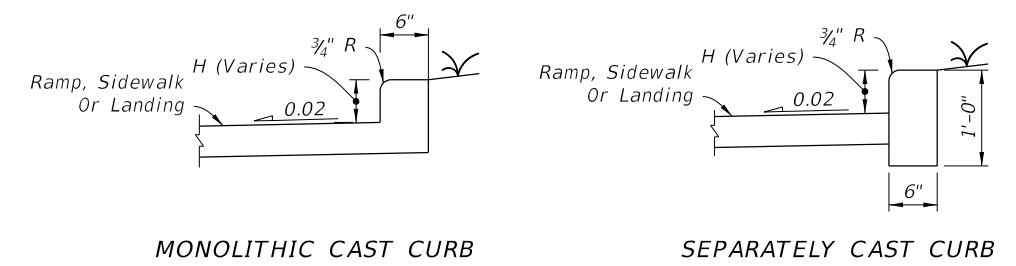
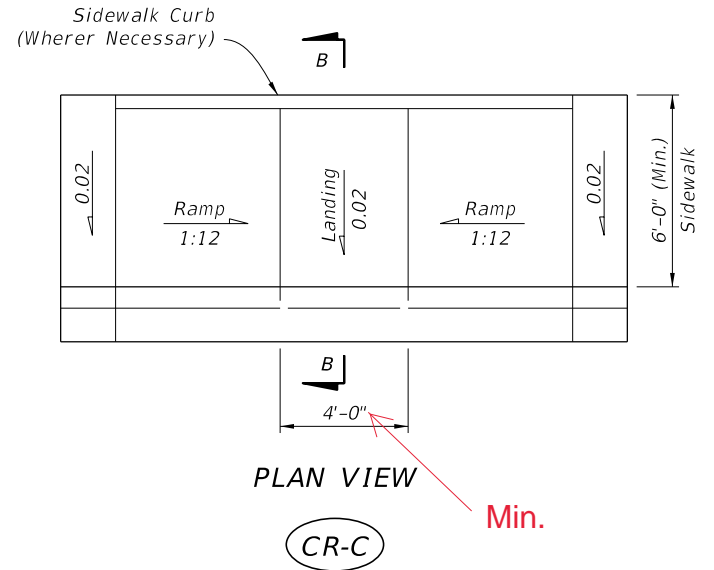
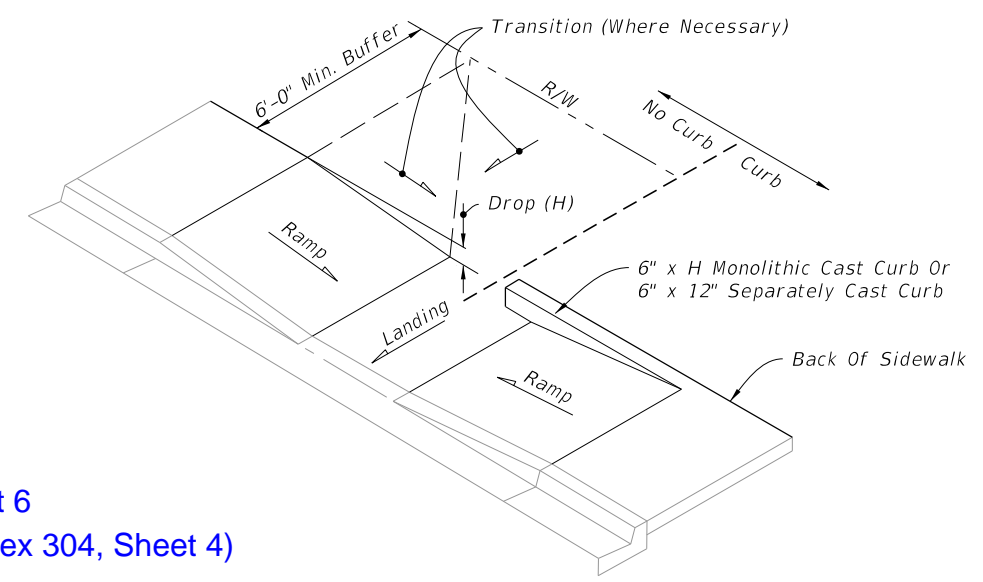
SIDEWALK CURB RAMPS CR-A AND CR-B

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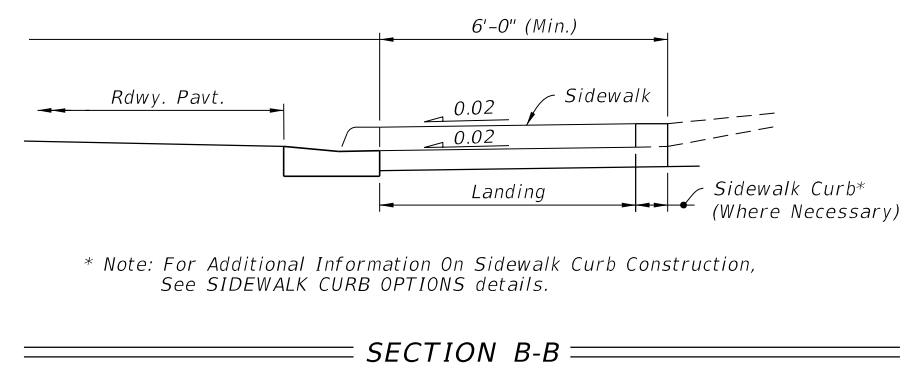
LAST REVISION 11/01/17	DESCRIPTION:	FDOT FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 2 of 8
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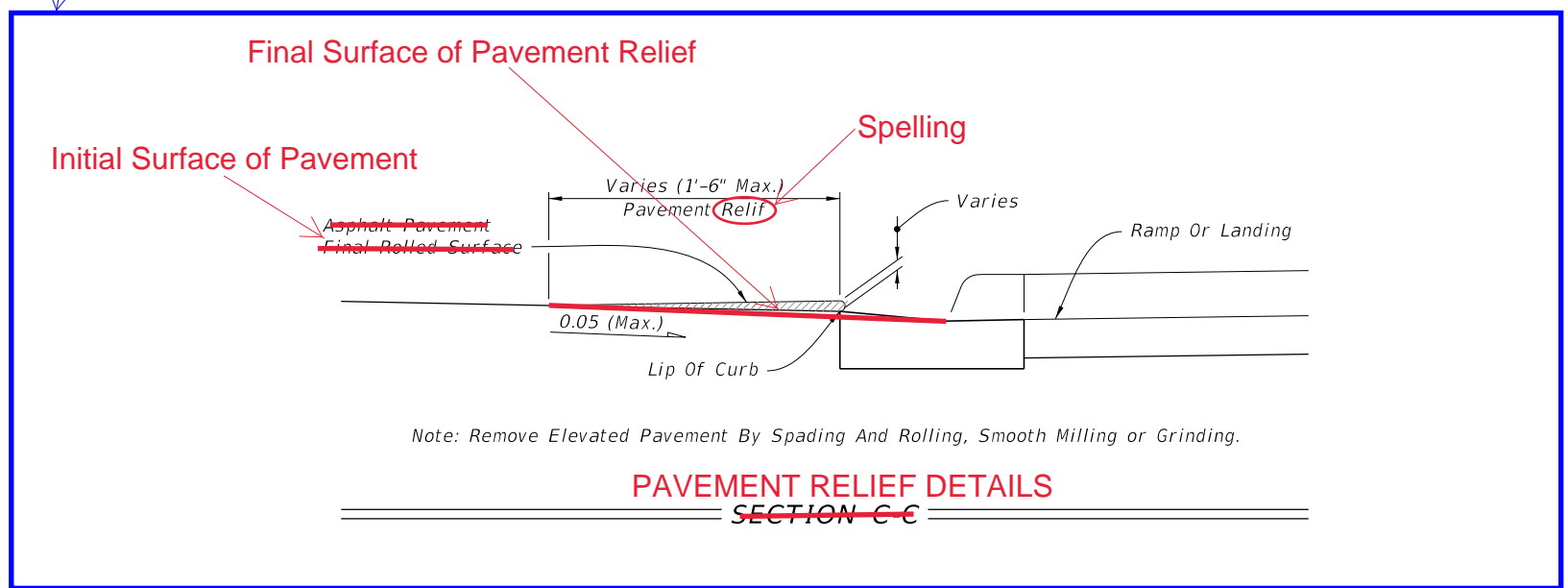
Move to Sheet 6
(See 2015 Index 304, Sheet 4)



SIDEWALK CURB OPTIONS



* Note: For Additional Information On Sidewalk Curb Construction, See SIDEWALK CURB OPTIONS details.



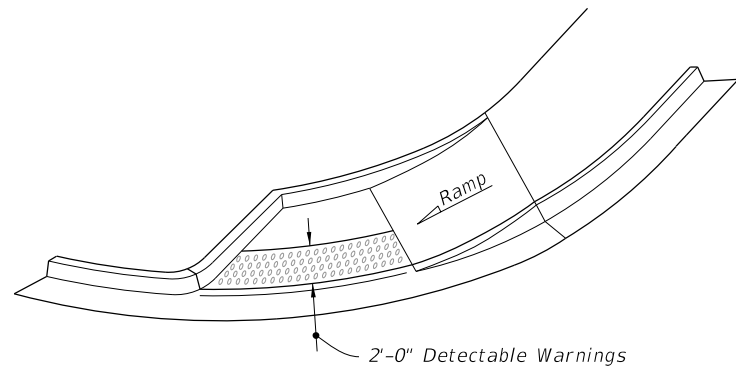
Note: Remove Elevated Pavement By Spading And Rolling, Smooth Milling or Grinding.

SIDEWALK CURB RAMPS CR-C AND SIDEWALK CURB

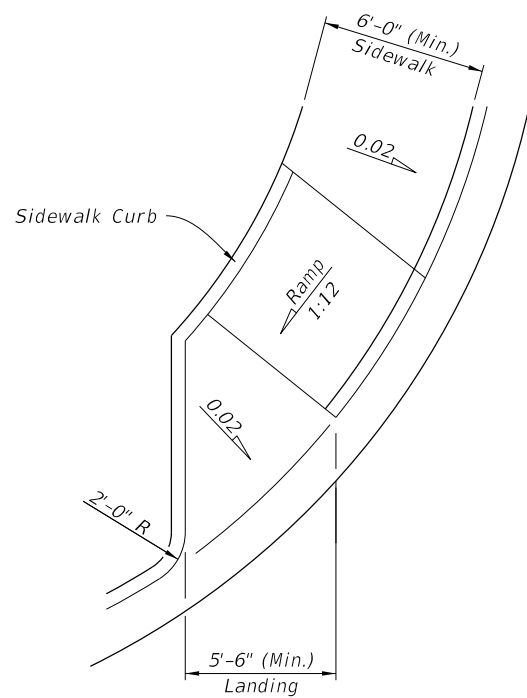
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LAST REVISION 11/01/17	DESCRIPTION:		FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 3 of 8
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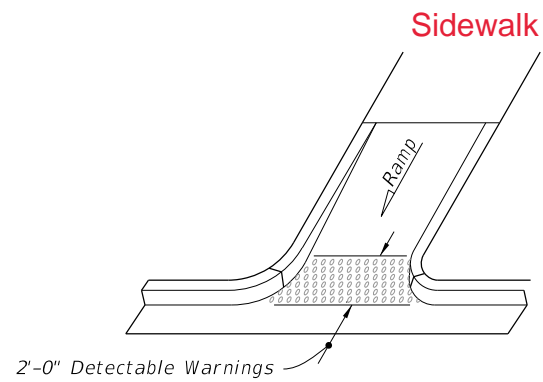


ISOMETRIC VIEW



PLAN VIEW

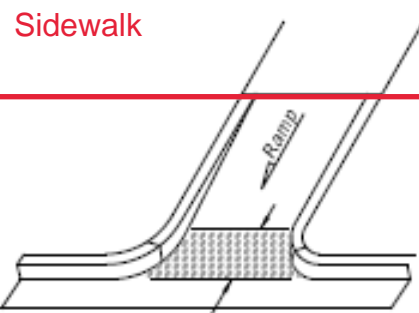
CR-D



2'-0" Detectable Warnings

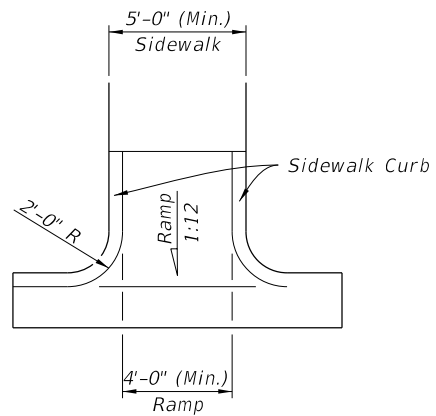
OPTION A

ISOMETRIC VIEW



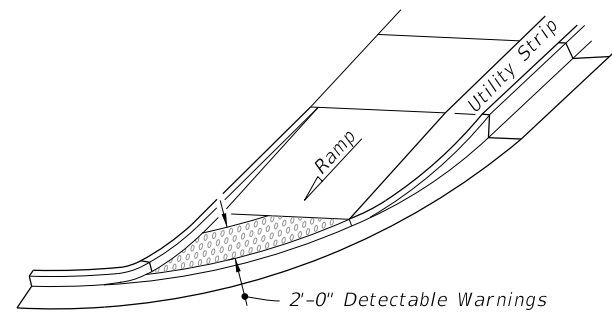
2'-0" Detectable Warnings

OPTION B

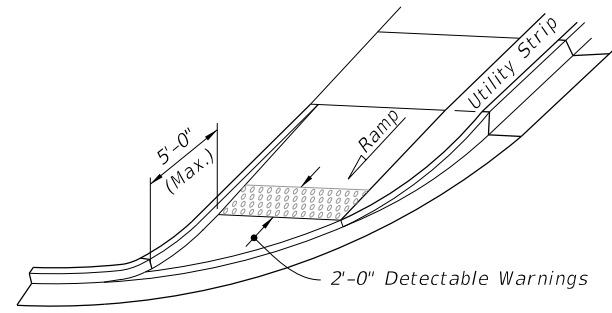


PLAN VIEW

CR-E

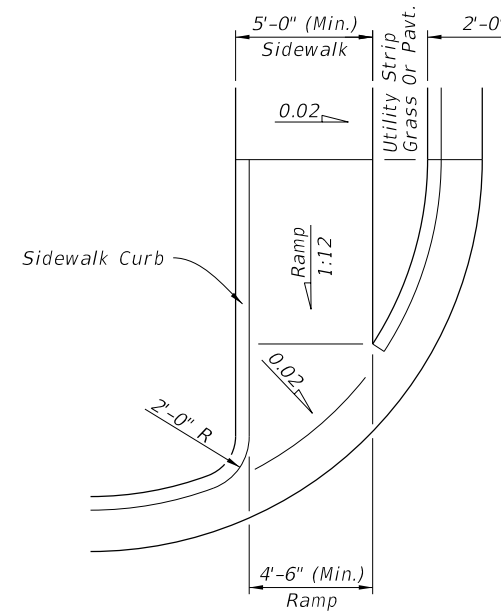


OPTION A



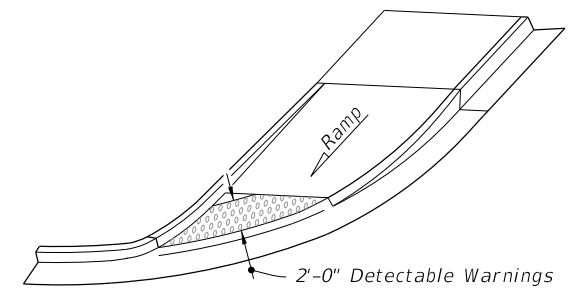
OPTION B

ISOMETRIC VIEW

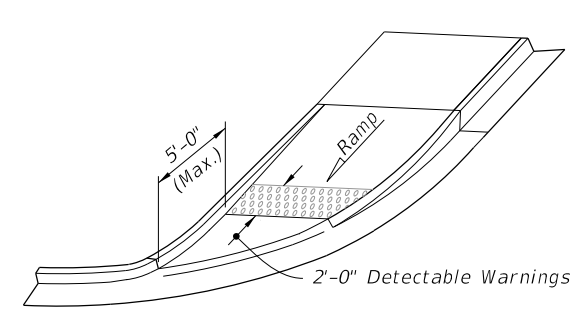


PLAN VIEW

CR-F

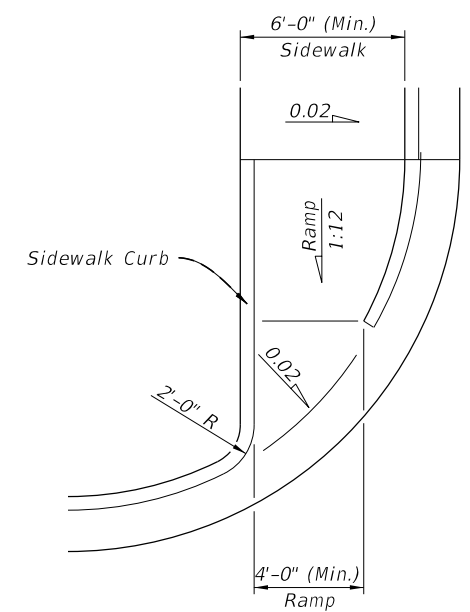


OPTION A



OPTION B

ISOMETRIC VIEW



PLAN VIEW

CR-G

SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G

LAST REVISION 11/01/17	REVISION	DESCRIPTION:
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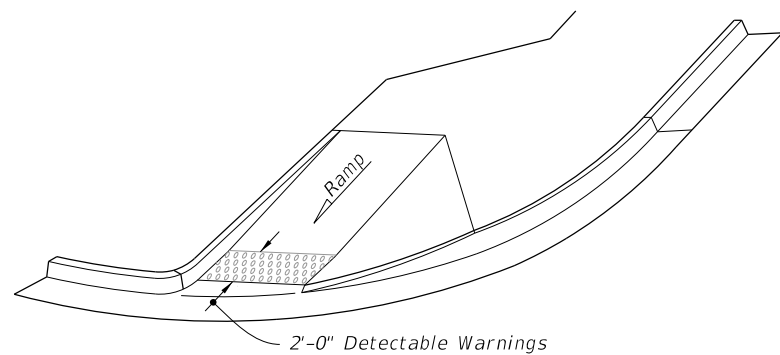


FY 2018-19
STANDARD PLANS

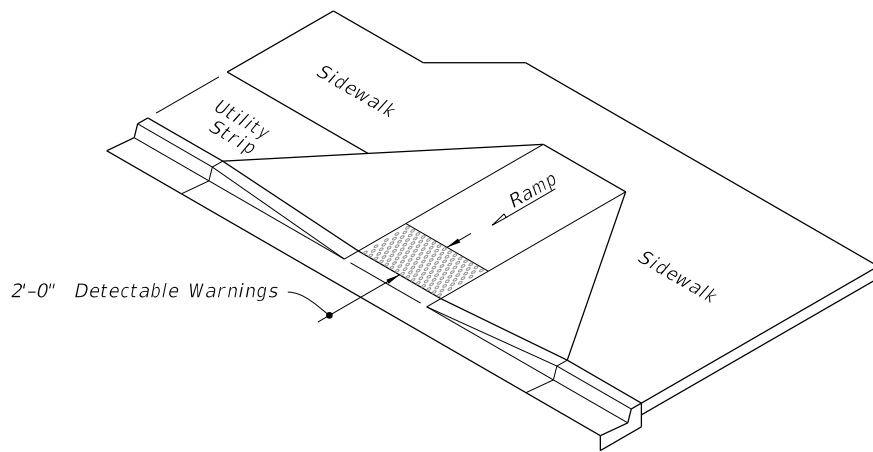
DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

INDEX
522-002

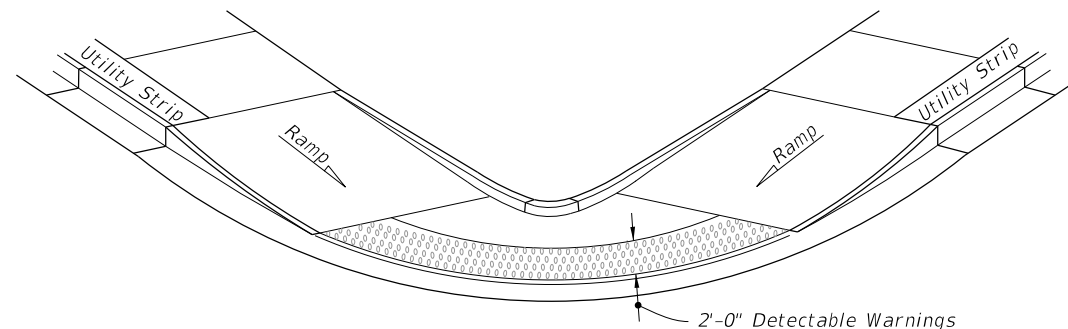
SHEET
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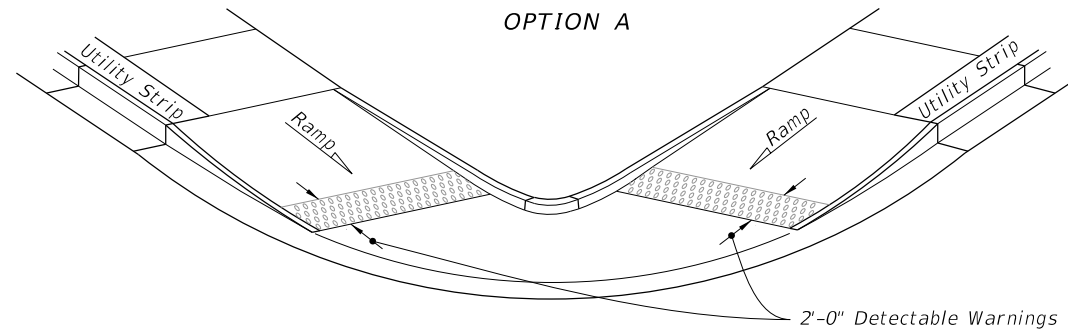
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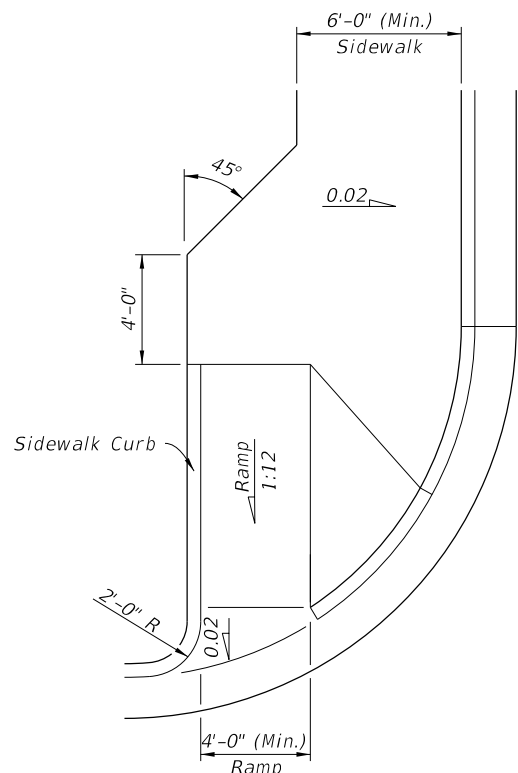
ISOMETRIC VIEW



OPTION A

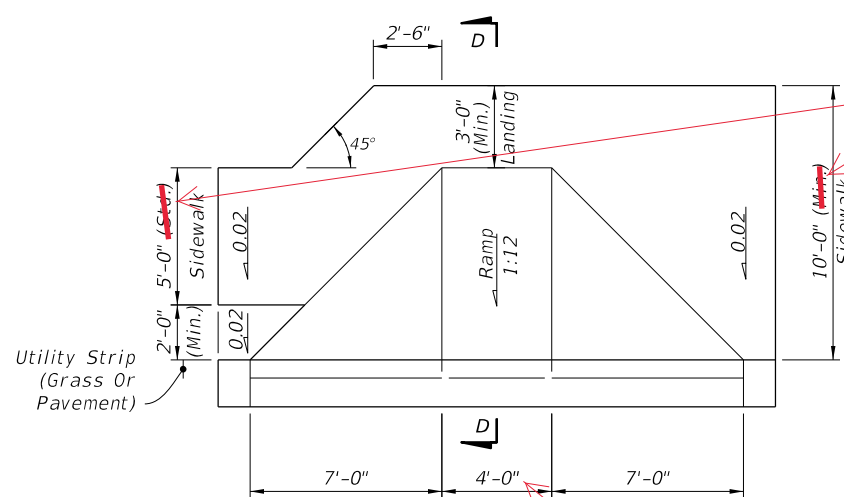


OPTION B



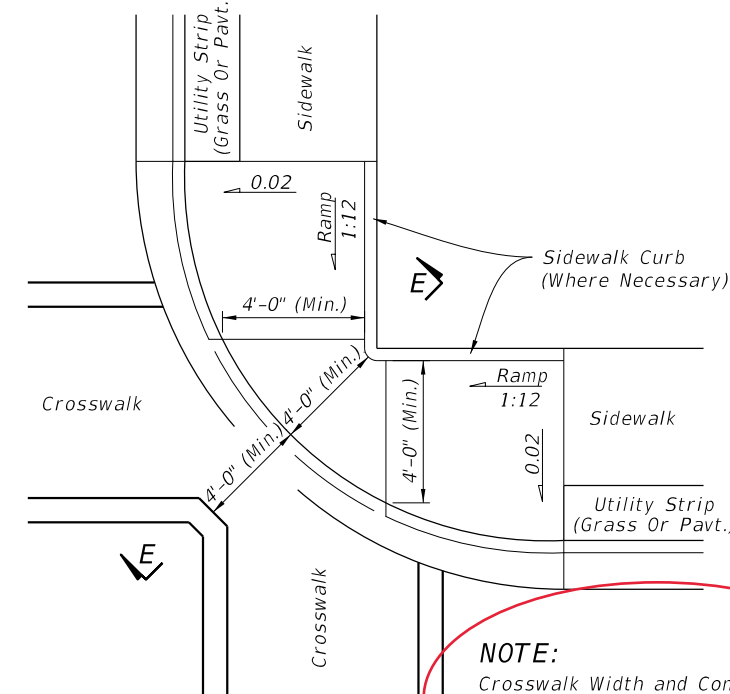
PLAN VIEW

CR-H



PLAN VIEW

CR-K



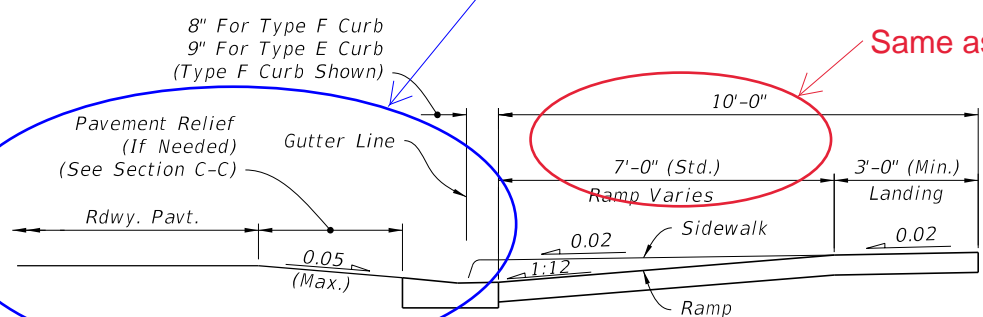
PLAN VIEW

CR-L

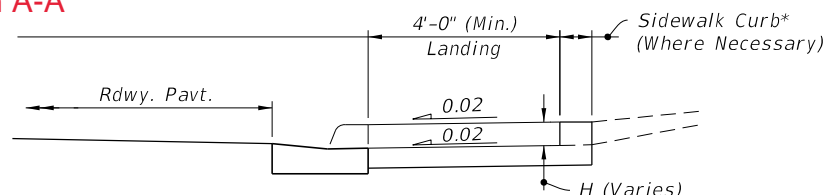
NOTE:
Crosswalk Width and Configuration Vary; Must Conform to Index 711-001.
15' Radius Curve Shown for CR-L.

Make like Section B-B

Same as Section A-A



SECTION D-D



SECTION E-E

* Note: For Additional Information On Sidewalk Curb Construction, See SIDEWALK CURB OPTIONS details.

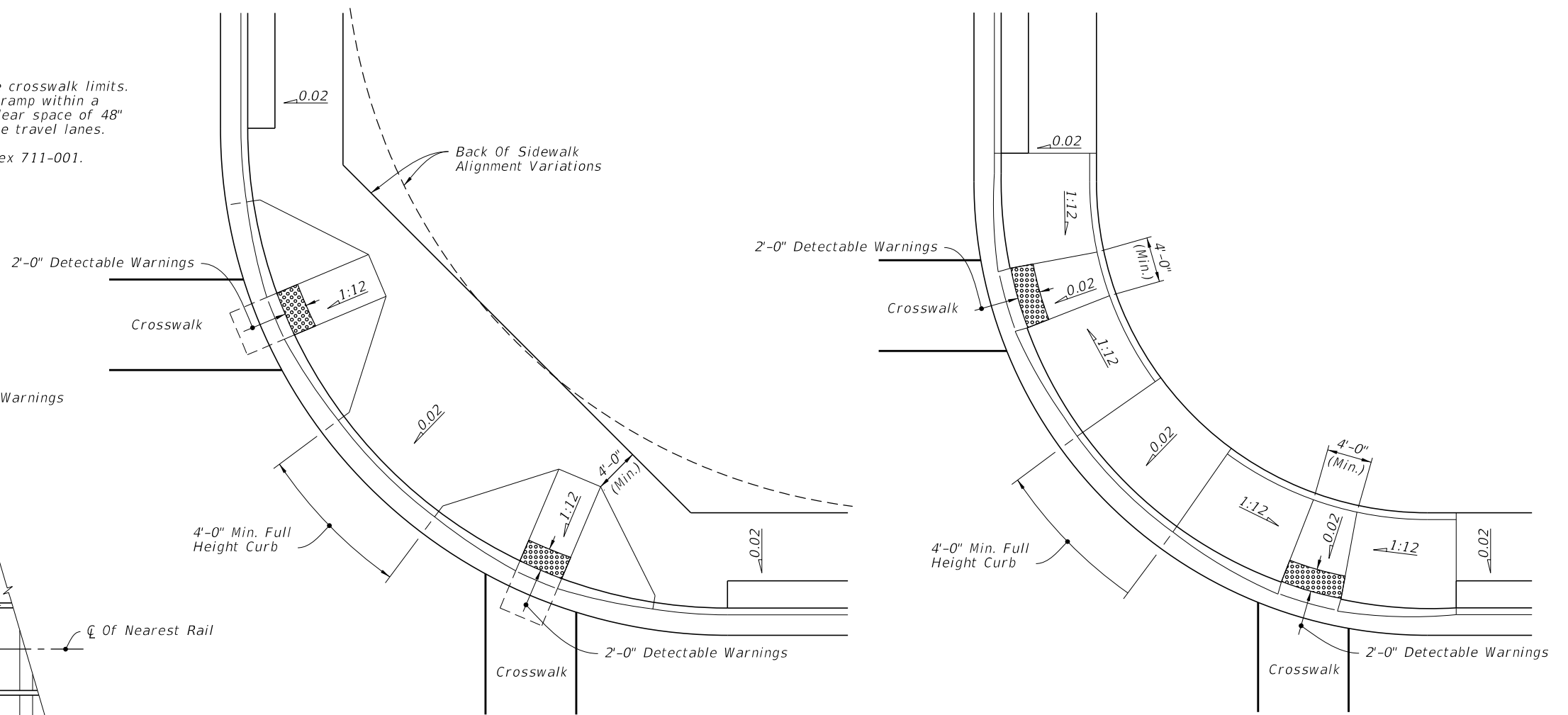
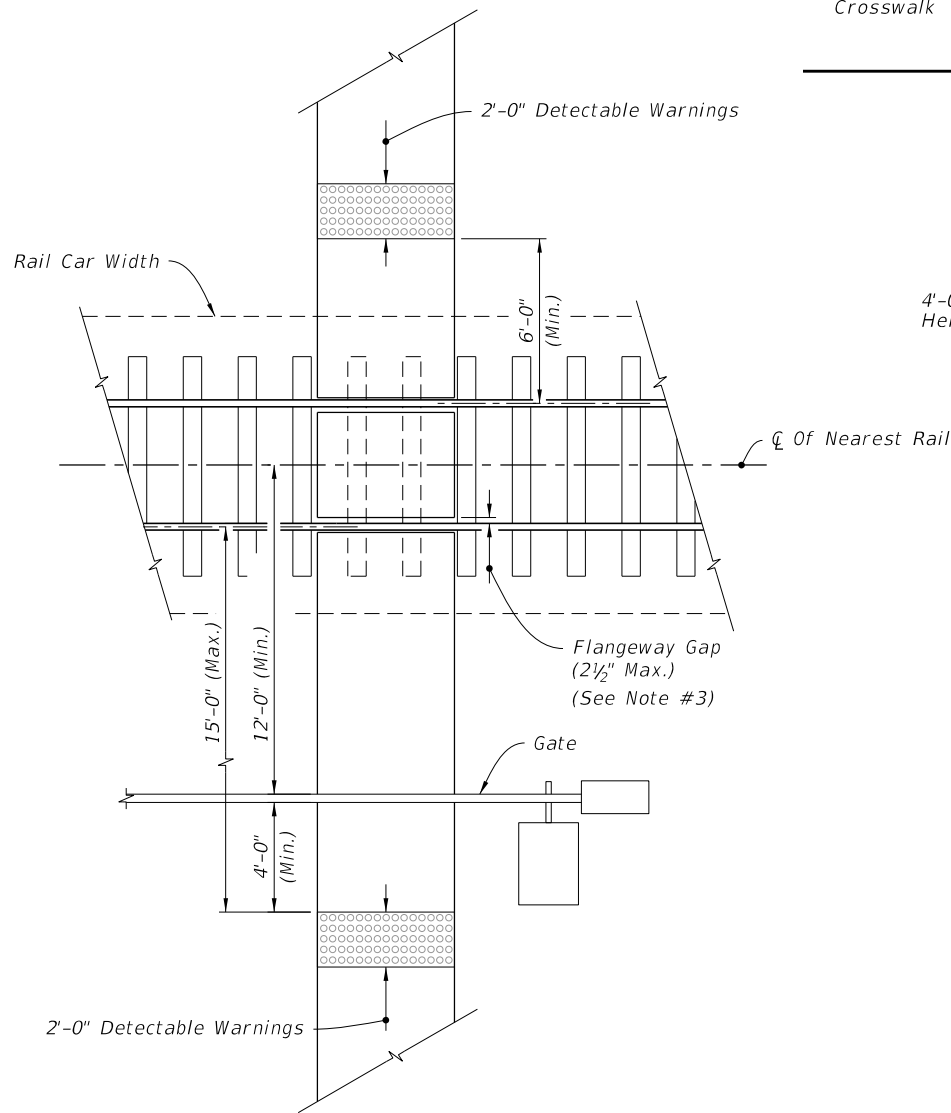
SIDEWALK CURB RAMPS CR-H, CR-K & CR-L

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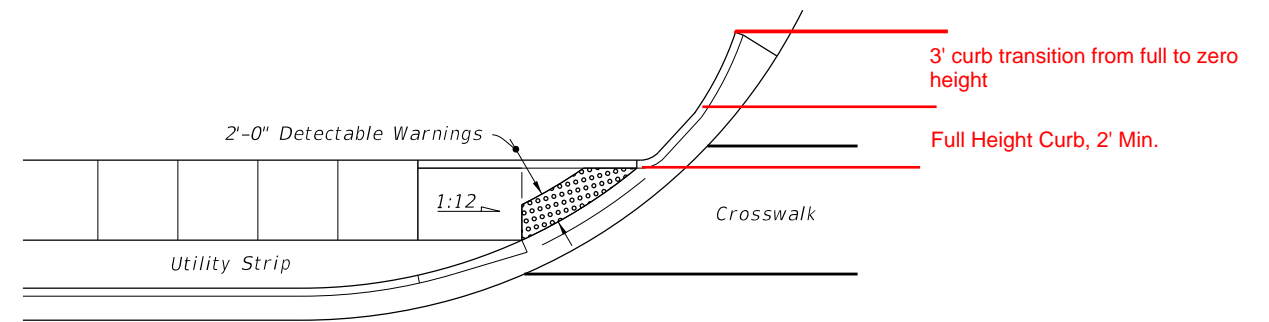
LAST REVISION 11/01/17	DESCRIPTION:		FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 5 of 8
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NOTES:

1. Where crosswalk markings are used, ramps must fall within the crosswalk limits. A clear space of 48" minimum is required at the bottom of the ramp within a marked crosswalk. If crosswalk markings are not present, a clear space of 48" minimum is required at the bottom of the ramp outside of active travel lanes.
2. Crosswalk widths and configurations vary; must conform to Index 711-001.
3. Flangeway Gap may be up to 3" for Freight-only Railways.



RADIAL SIDEWALK RAMPS




LINEAR SIDEWALK RAMPS

RAILROAD CROSSING

PLACEMENT OF SIDEWALK CURB RAMPS AT CURBED RETURNS (TYP.)

RAILROAD CROSSING AND CURB RAMPS AT CURBED RETURNS

10/16/2017 9:47:59 AM

LAST REVISION 11/01/17	DESCRIPTION:	 FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 8 of 8
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GENERAL NOTES:

1. Cross Slopes and Grades:

- A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.
- B. Landings must have cross-slopes less than or equal to 0.02 in any direction.
- C. Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.
- D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.

2. Grade Breaks:

Grade breaks at the top and bottom of ramps must be parallel to each other and perpendicular to the direction of the ramp slope.

3. Curb, Curb and Gutter and/or Sidewalk:

- A. Refer to Index 522-001 for concrete thickness and sidewalk details.
- B. Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.

4. Curb Ramp Alpha-Identification:

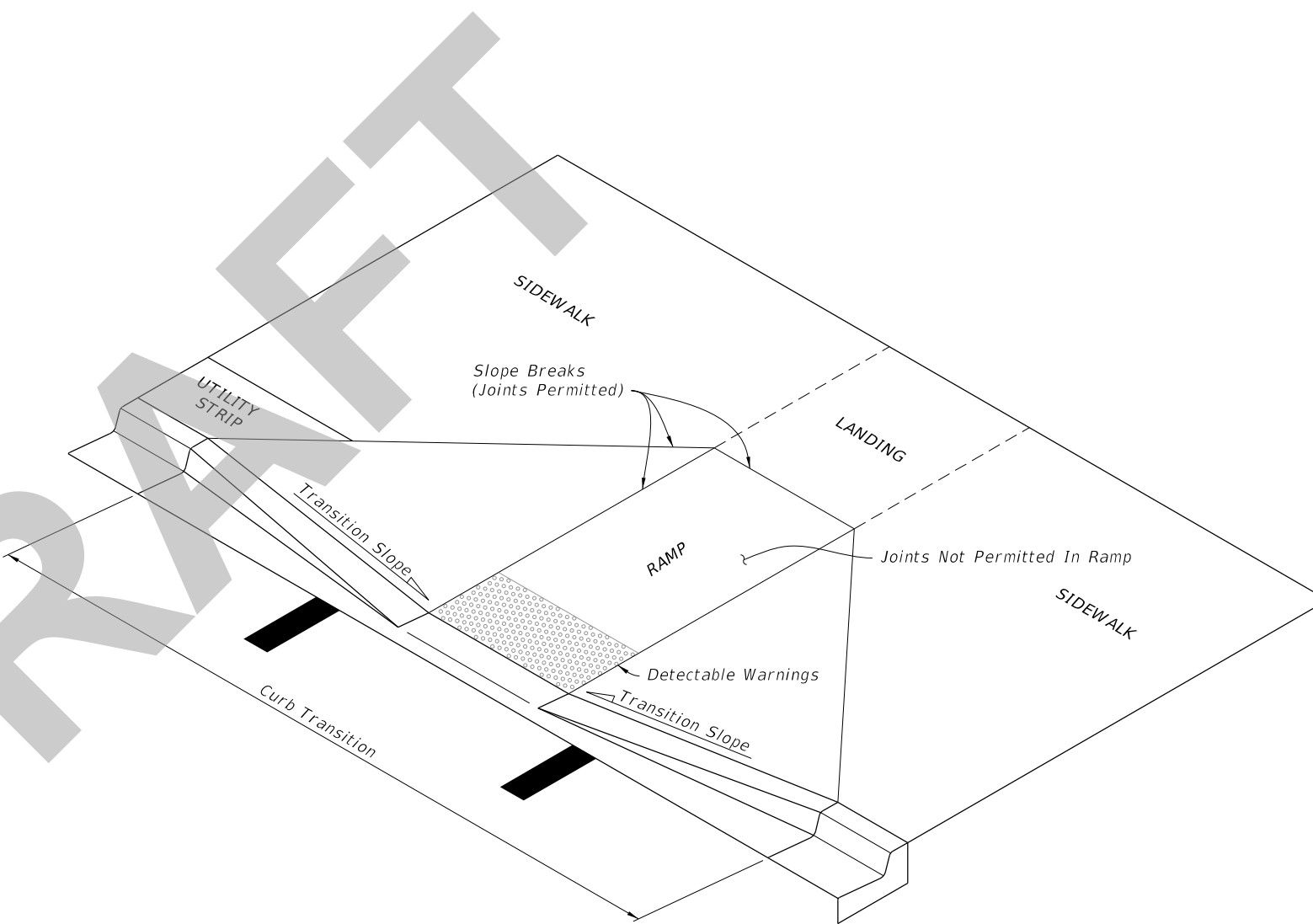
- A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.
- B. Alpha-identifications CR-I and CR-J are intentionally omitted.

5. Detectable Warnings:

- A. Install detectable warnings in accordance with Specification 527.
- B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.
- C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.


6. Detectable Warnings - Acceptance Criteria:

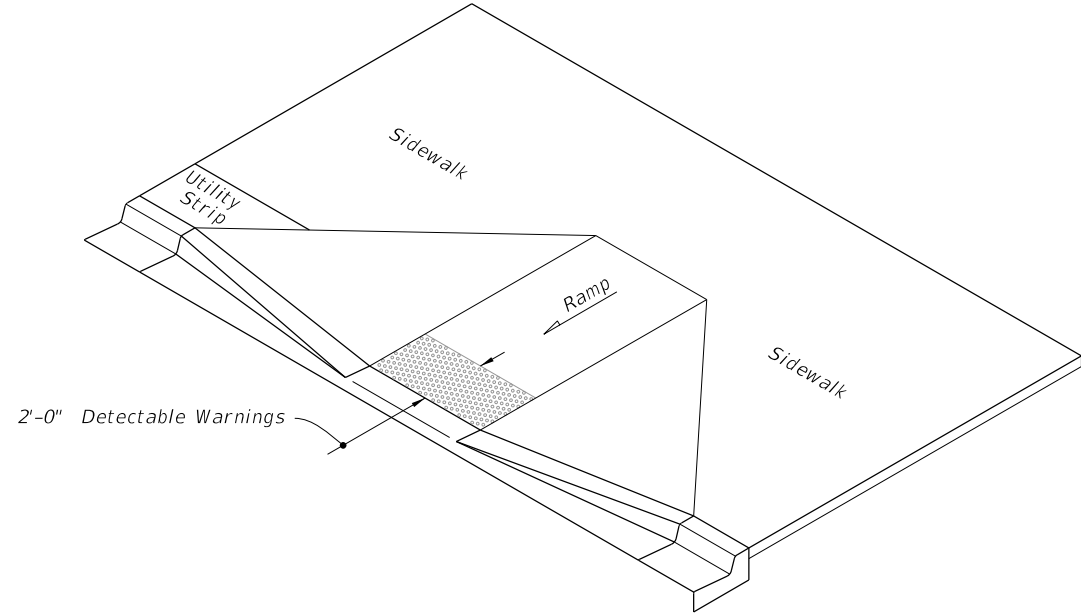
- A. Color and texture shall be complete and uniform.
- B. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
- C. There shall be no more than 4 non-compliant domes in any one square foot.
- D. Non-compliant domes shall not be adjacent to other non-compliant domes.
- E. Surfaces shall not deviate more than 0.10" from a true plane.



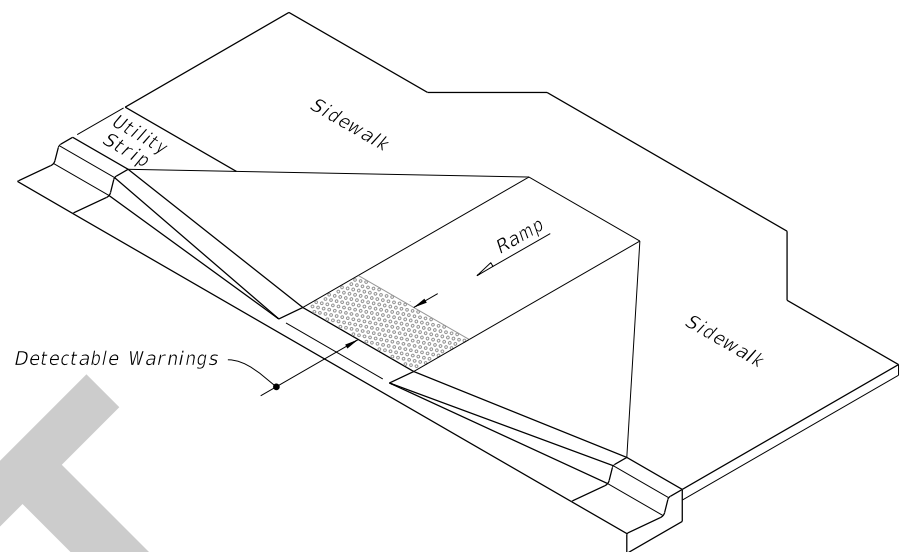
==== CURB RAMP NOMENCLATURE =====

9/16/2018 6:47:08 AM

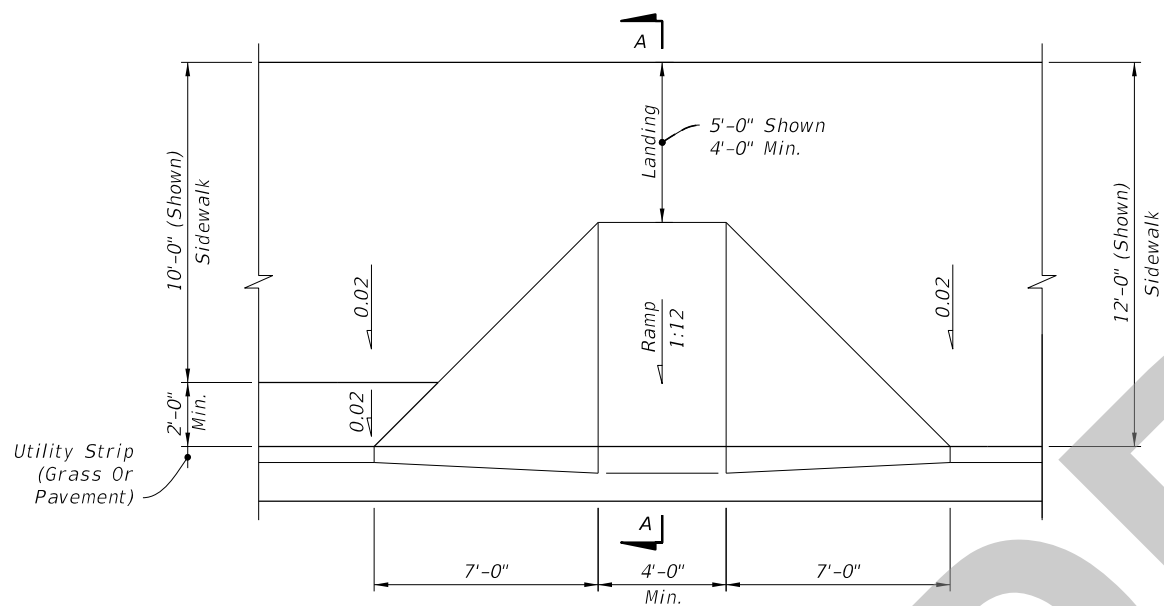
LAST REVISION 11/01/18	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 1 of 8
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ISOMETRIC VIEW



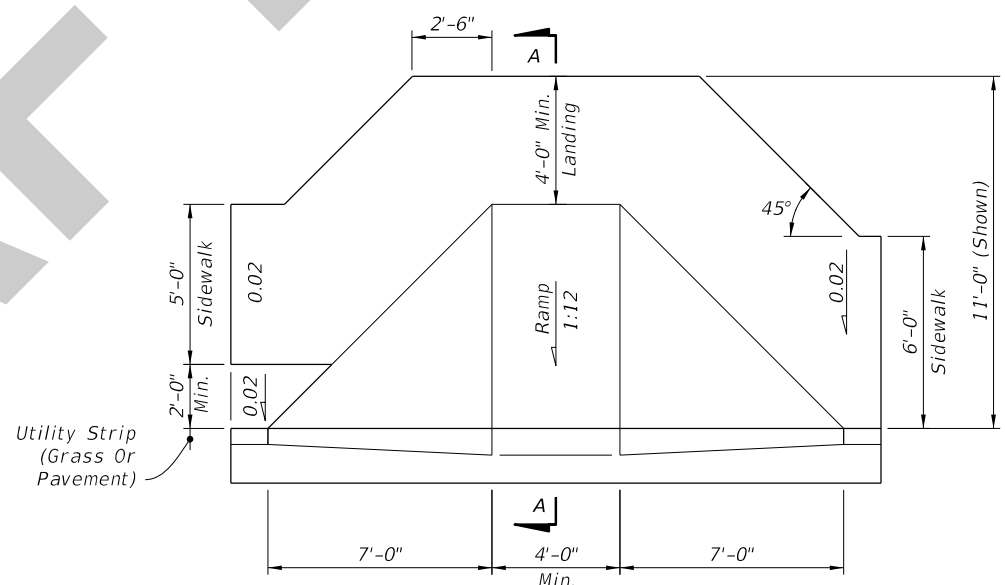
ISOMETRIC VIEW



PLAN VIEW

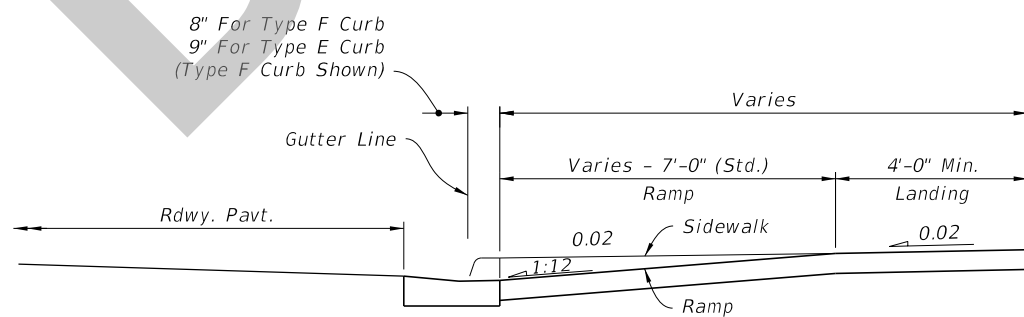
NOTE: For Example of CR-A used in Radial Curb Returns, See Sheet 8.

CR-A



PLAN VIEW

CR-B



SECTION A-A

SIDEWALK CURB RAMPS CR-A AND CR-B

9/16/2018 6:47:08 AM

LAST REVISION 11/01/18	DESCRIPTION:
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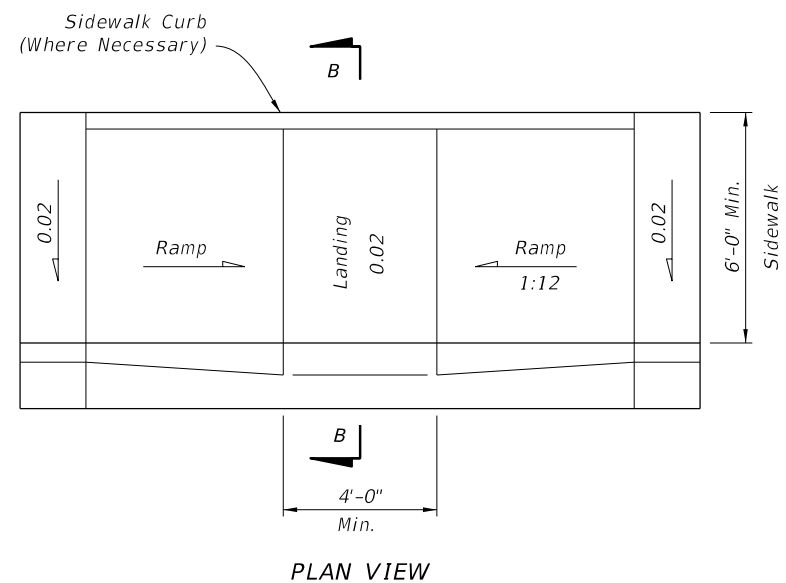


FY 2019-20
STANDARD PLANS

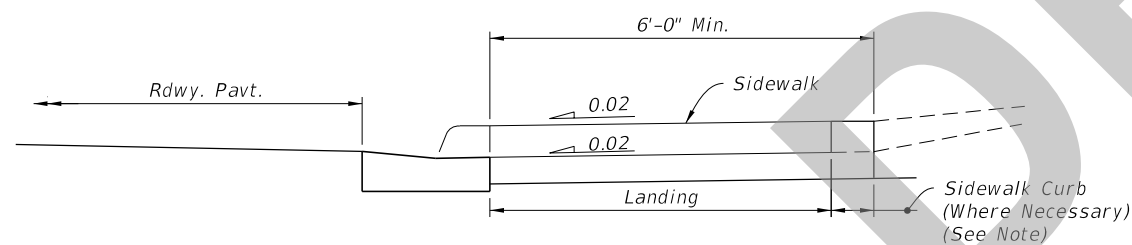
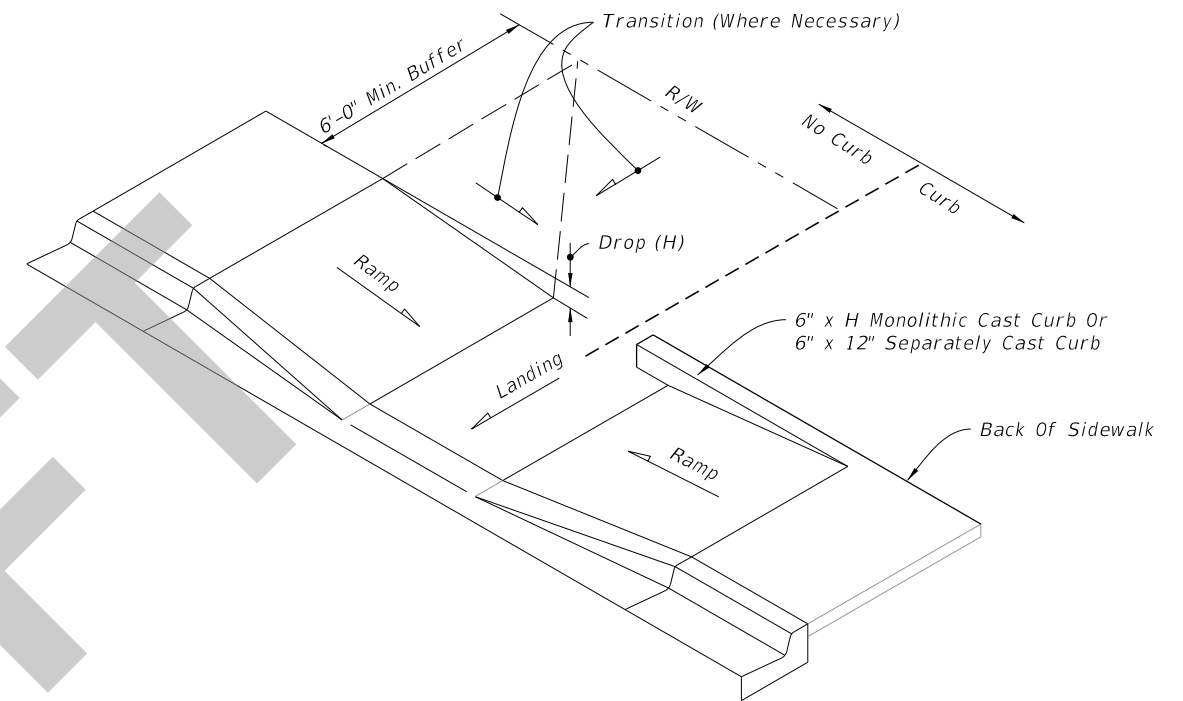
DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

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522-002

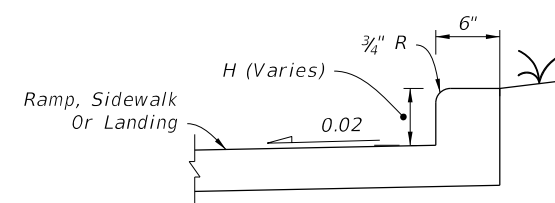
SHEET
2 of 8



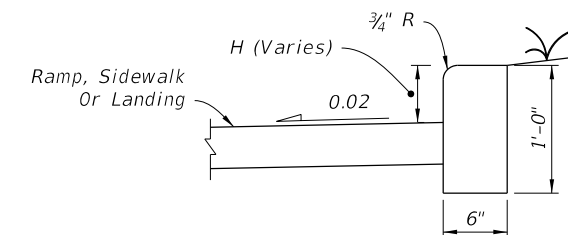
CR-C



NOTE: For additional information on sidewalk curb construction, see SIDEWALK CURB OPTIONS details.



MONOLITHIC CAST CURB




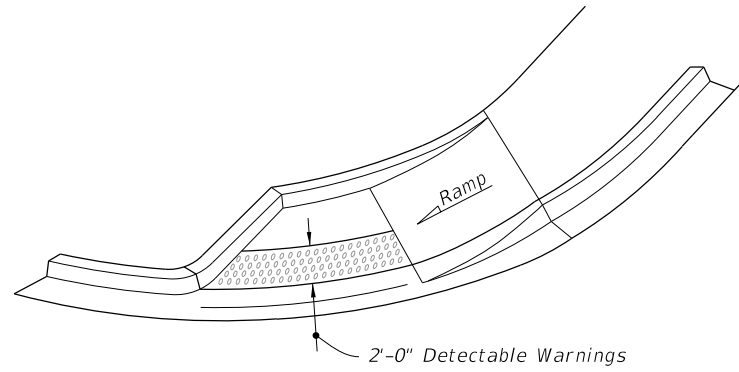
SEPARATELY CAST CURB

SIDEWALK CURB OPTIONS

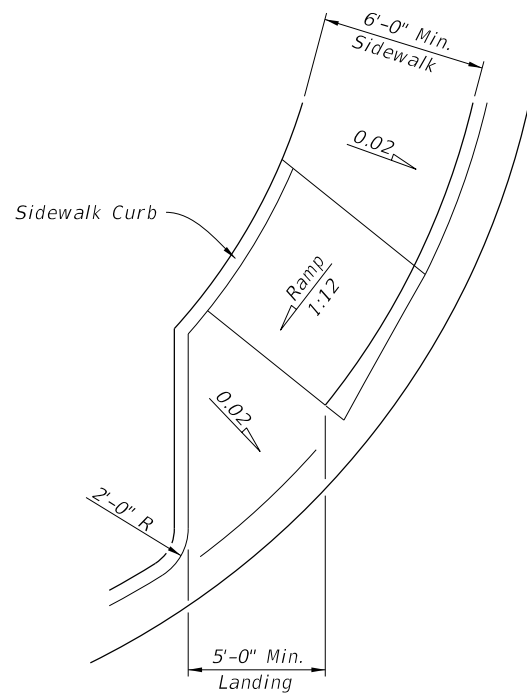
SIDEWALK CURB RAMPS CR-C AND SIDEWALK CURB

9/6/2018 6:47:09 AM

LAST REVISION 11/01/18	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 3 of 8
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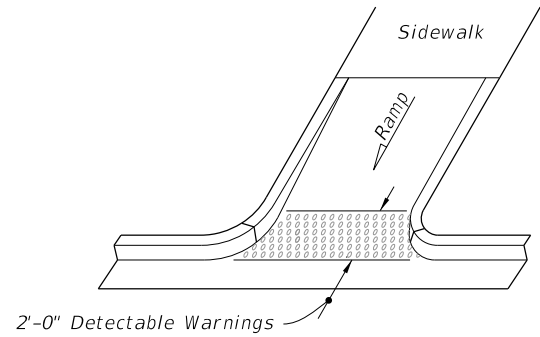


ISOMETRIC VIEW

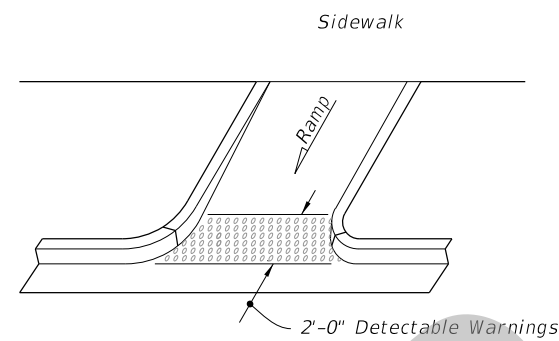


PLAN VIEW

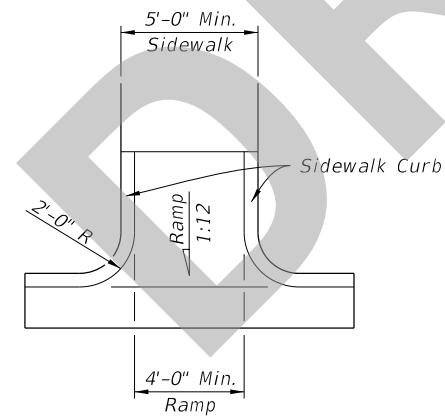
CR-D



OPTION A

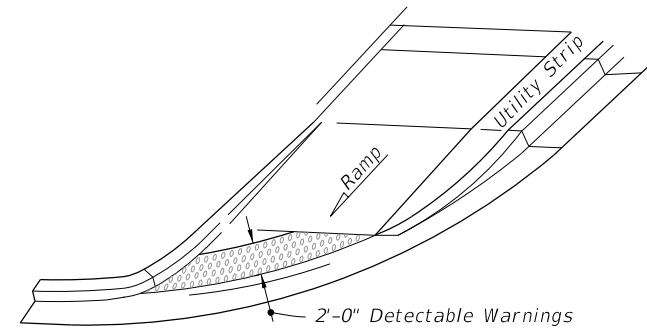


OPTION B
ISOMETRIC VIEW

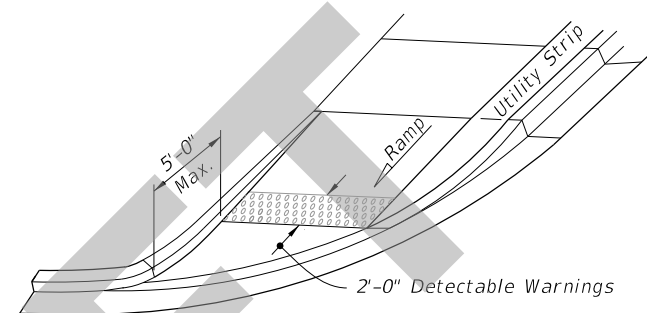


PLAN VIEW

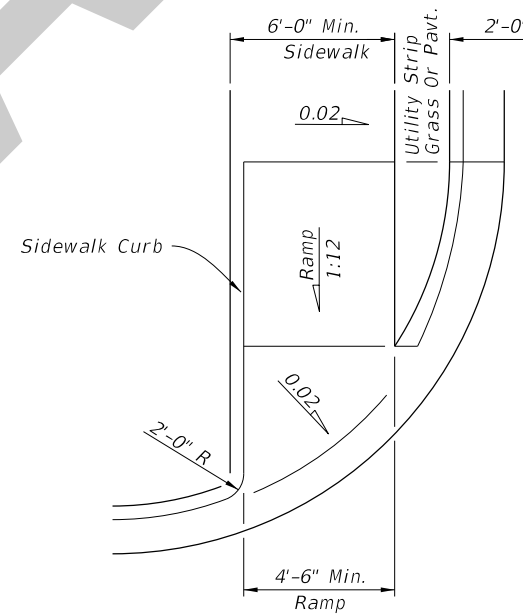
CR-E



OPTION A

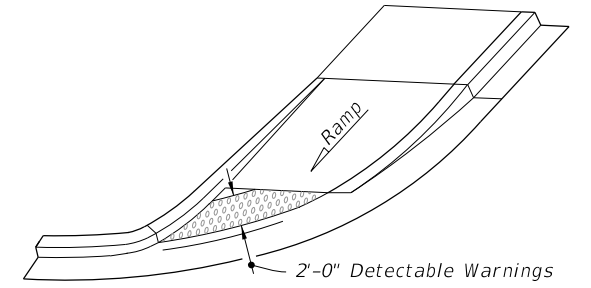


OPTION B
ISOMETRIC VIEW

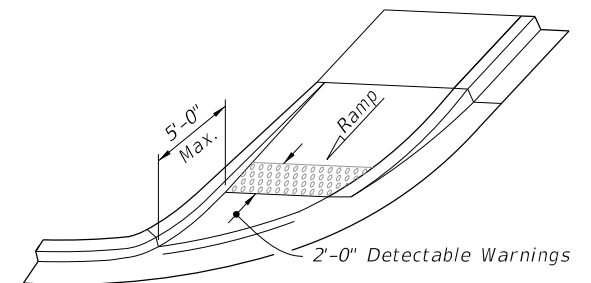


PLAN VIEW

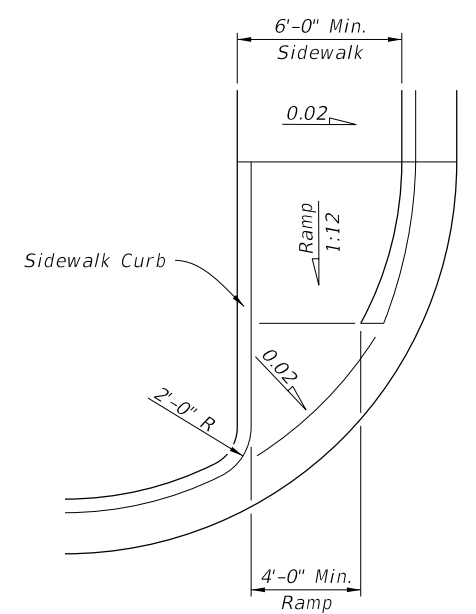
CR-F



OPTION A



OPTION B
ISOMETRIC VIEW



PLAN VIEW

CR-G

SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G

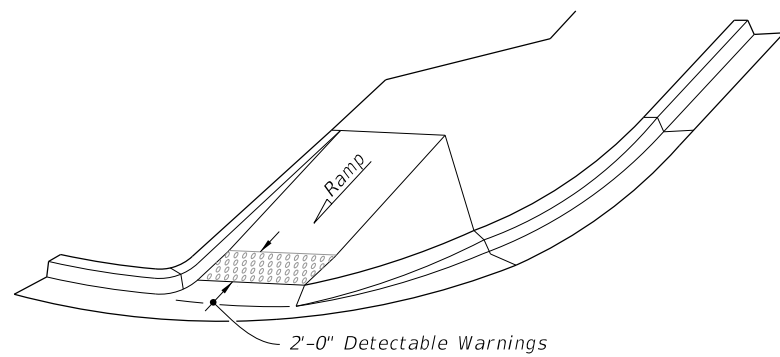
9/6/2018 6:47:09 AM

LAST REVISION 11/01/18	DESCRIPTION:
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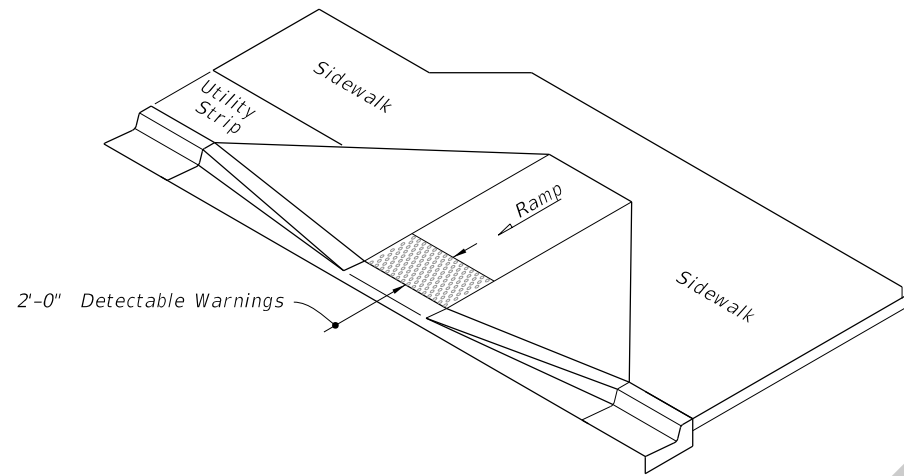

**FY 2019-20
STANDARD PLANS**

DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

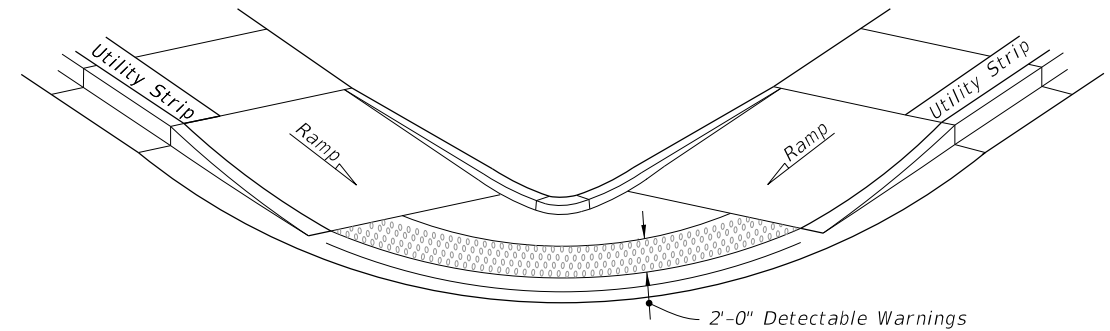
INDEX 522-002	SHEET 4 of 8
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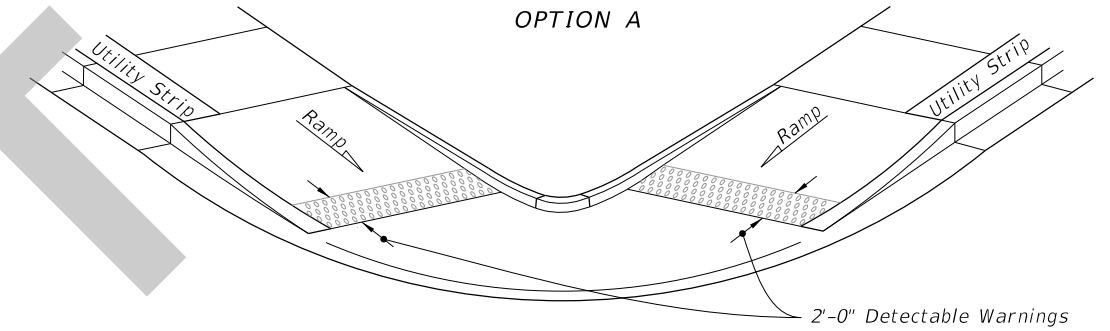
ISOMETRIC VIEW



ISOMETRIC VIEW

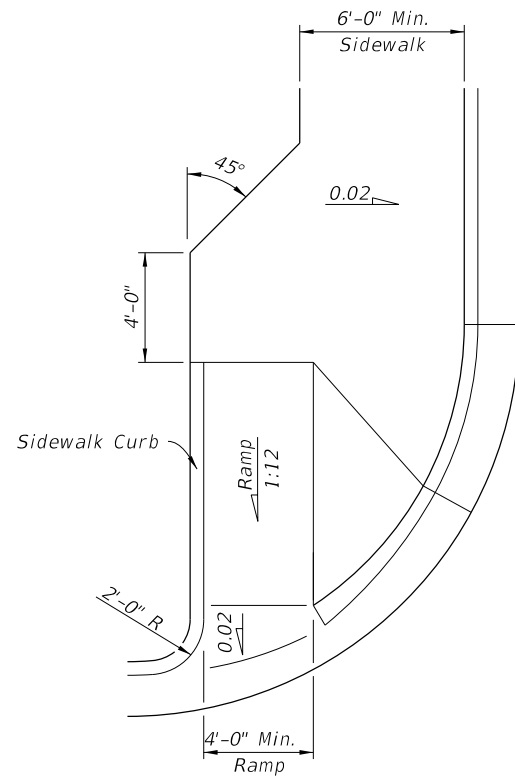


OPTION A



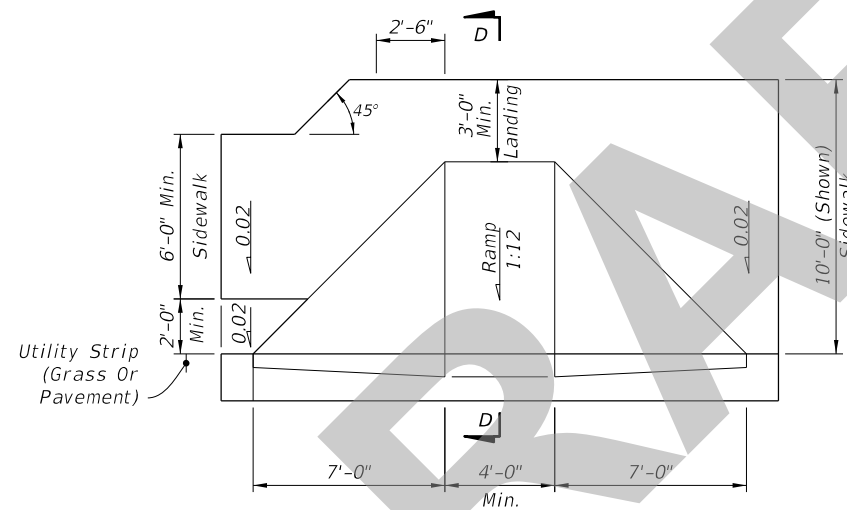
OPTION B

ISOMETRIC VIEW



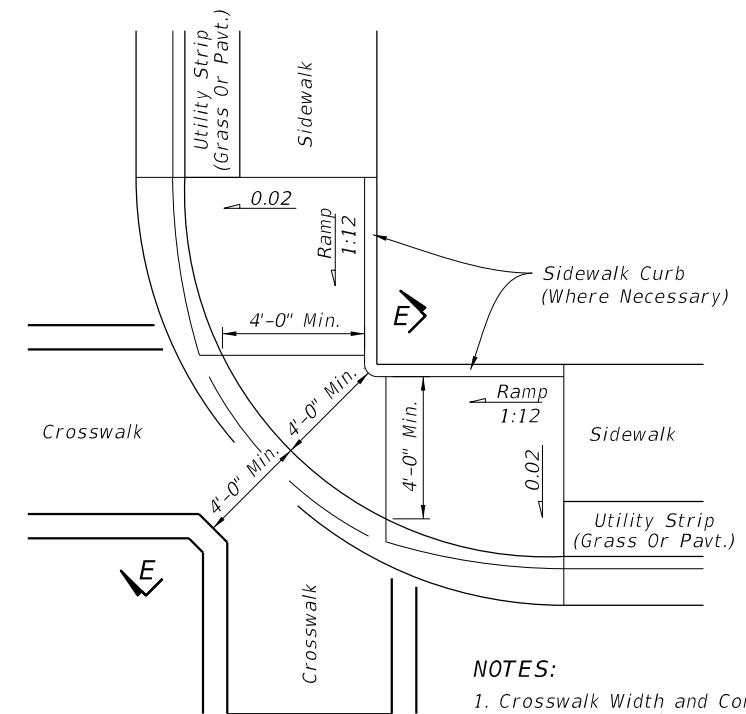
PLAN VIEW

CR-H



PLAN VIEW

CR-K

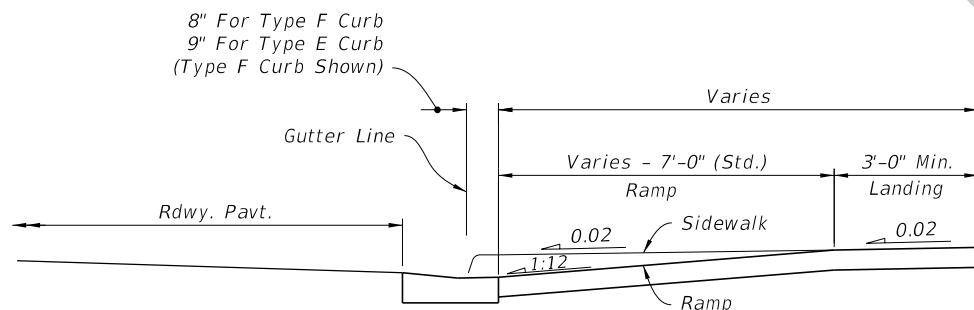


PLAN VIEW

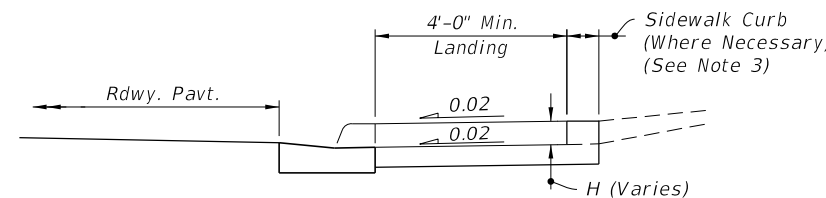
CR-L

NOTES:

1. Crosswalk Width and Configuration Vary; Must Conform to Index 711-001.
2. 15' Radius Curve Shown for CR-L.
3. For additional information on sidewalk curb construction, see SIDEWALK CURB OPTIONS details, on Sheet 3.



SECTION D-D



SECTION E-E

SIDEWALK CURB RAMPS CR-H, CR-K & CR-L

9/6/2018 6:47:10 AM

LAST REVISION	DESCRIPTION:
11/01/18	

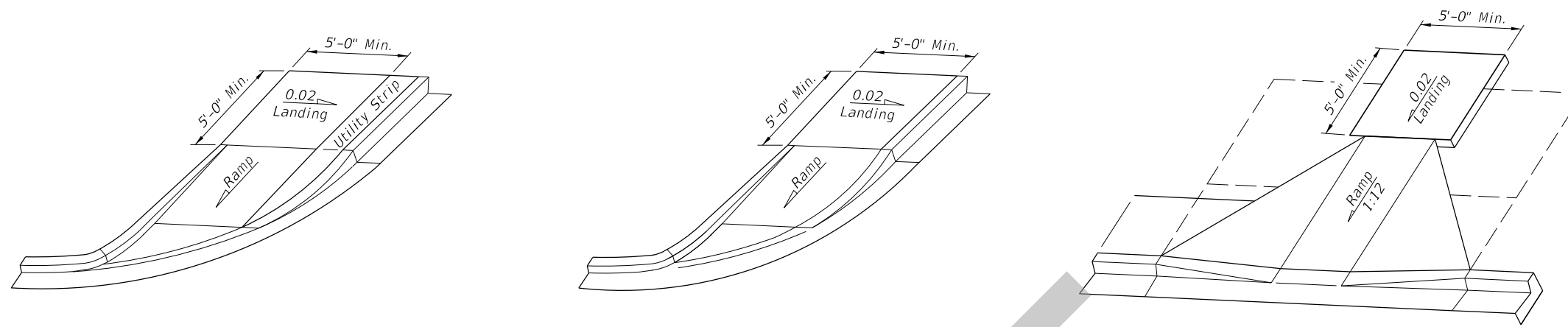


FY 2019-20
STANDARD PLANS

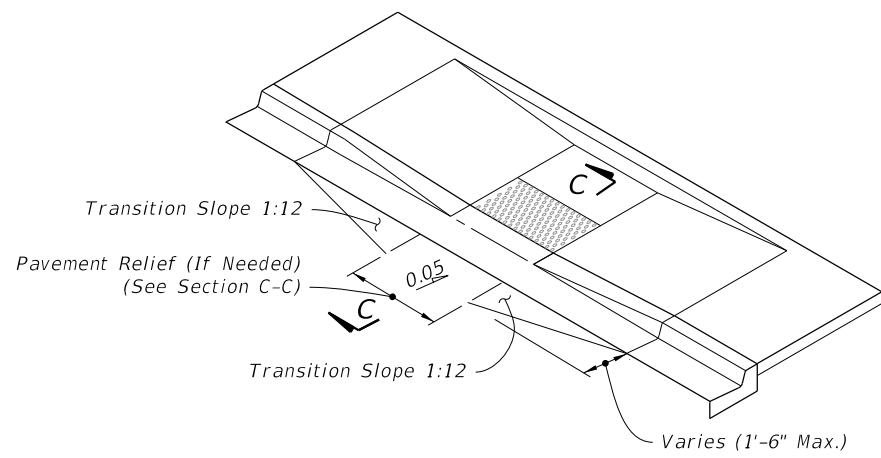
DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

INDEX
522-002

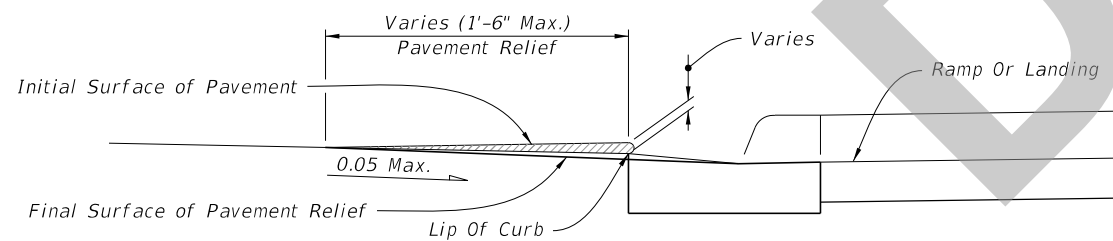
SHEET
5 of 8



LANDINGS FOR CURB RAMPS WITHOUT SIDEWALKS
 (See CR-F, CR-G & CR-K Respectively For Detectable Warning Details/Options)

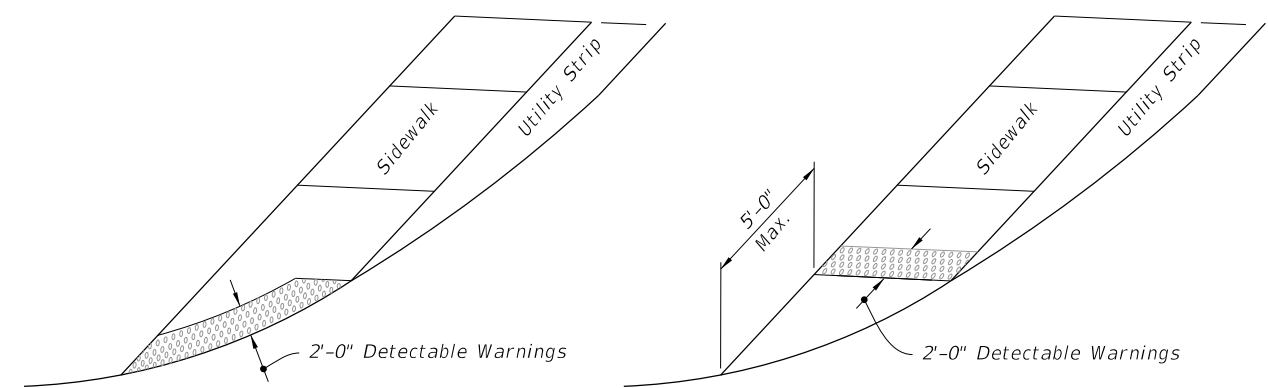


ISOMETRIC VIEW
 (CR-C Shown, Other Similar)



SECTION C-C

PAVEMENT RELIEF DETAILS



OPTION A

OPTION B

DETECTABLE WARNING ON FLUSH SHOULDER SIDEWALKS

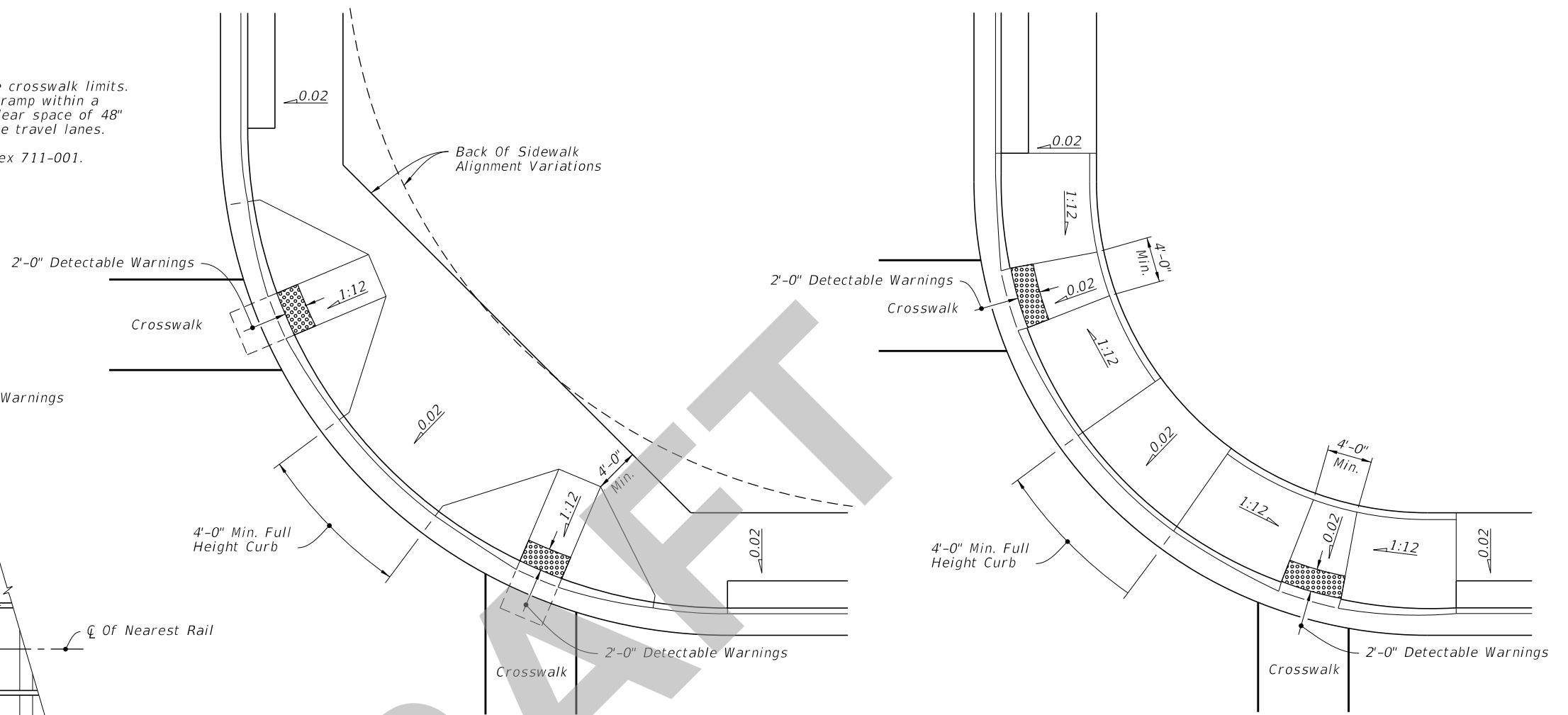
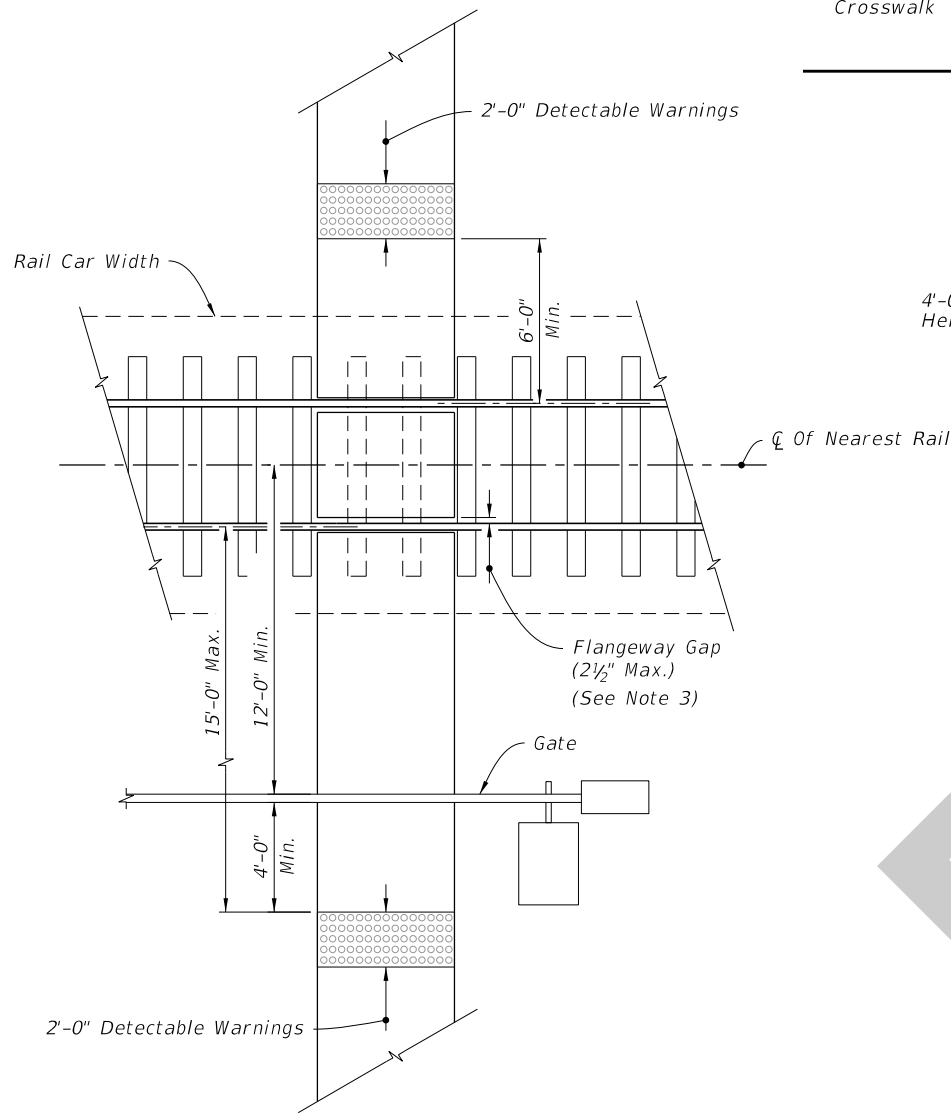
CURB RAMPS WITHOUT SIDEWALKS AND FLUSH SHOULDER SIDEWALKS

9/6/2018 6:47:10 AM

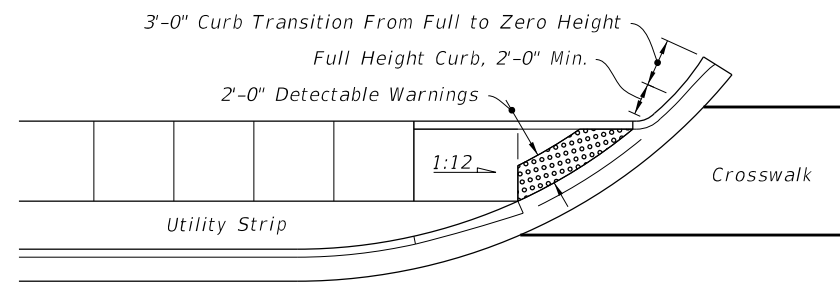
LAST REVISION 11/01/18	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 6 of 8
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NOTES:

1. Where crosswalk markings are used, ramps must fall within the crosswalk limits. A clear space of 48" minimum is required at the bottom of the ramp within a marked crosswalk. If crosswalk markings are not present, a clear space of 48" minimum is required at the bottom of the ramp outside of active travel lanes.
2. Crosswalk widths and configurations vary; must conform to Index 711-001.
3. Flangeway Gap may be up to 3" for Freight-only Railways.



RADIAL SIDEWALK RAMPS




LINEAR SIDEWALK RAMPS

RAILROAD CROSSING

PLACEMENT OF SIDEWALK CURB RAMPS AT CURBED RETURNS (TYP.)

RAILROAD CROSSING AND CURB RAMPS AT CURBED RETURNS

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LAST REVISION 11/01/17	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 8 of 8
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