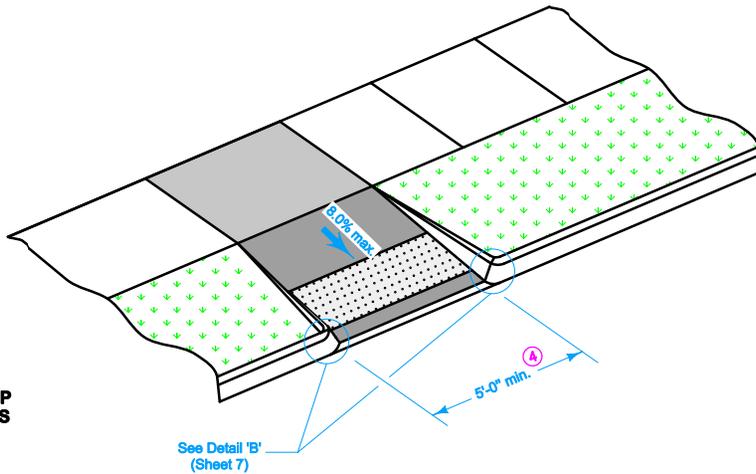
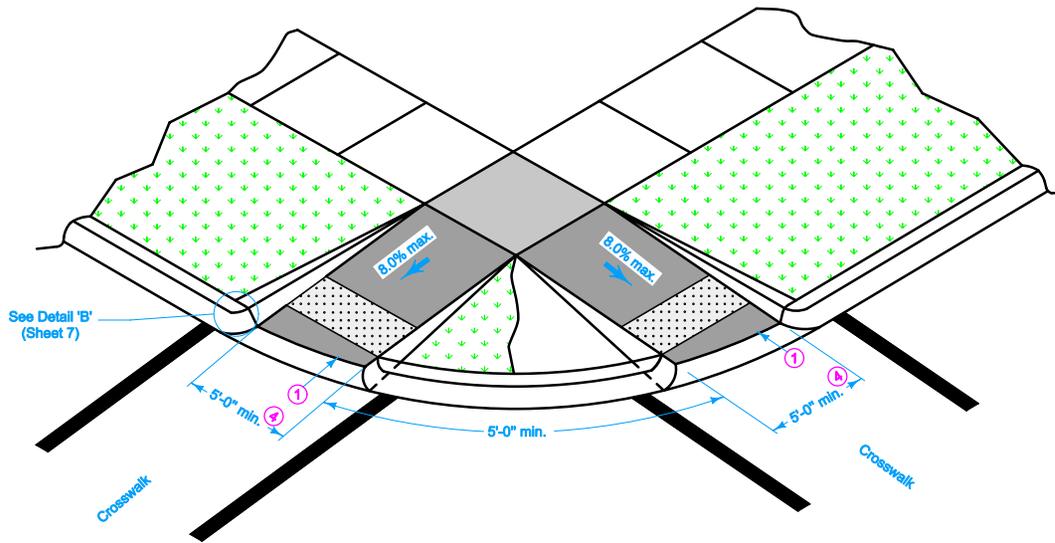


**TYPE 1-R  
PERPENDICULAR RAMP  
WITH RETURNED SIDES**



See Detail 'B'  
(Sheet 7)



**TYPICAL APPLICATION  
OF TYPE 1-R RAMPS  
AT A CORNER**

LEGEND	
	Curb Ramp ②
	Landing Area ③
	Detectable Warnings
	Vegetation

Install ramps perpendicular to radius.

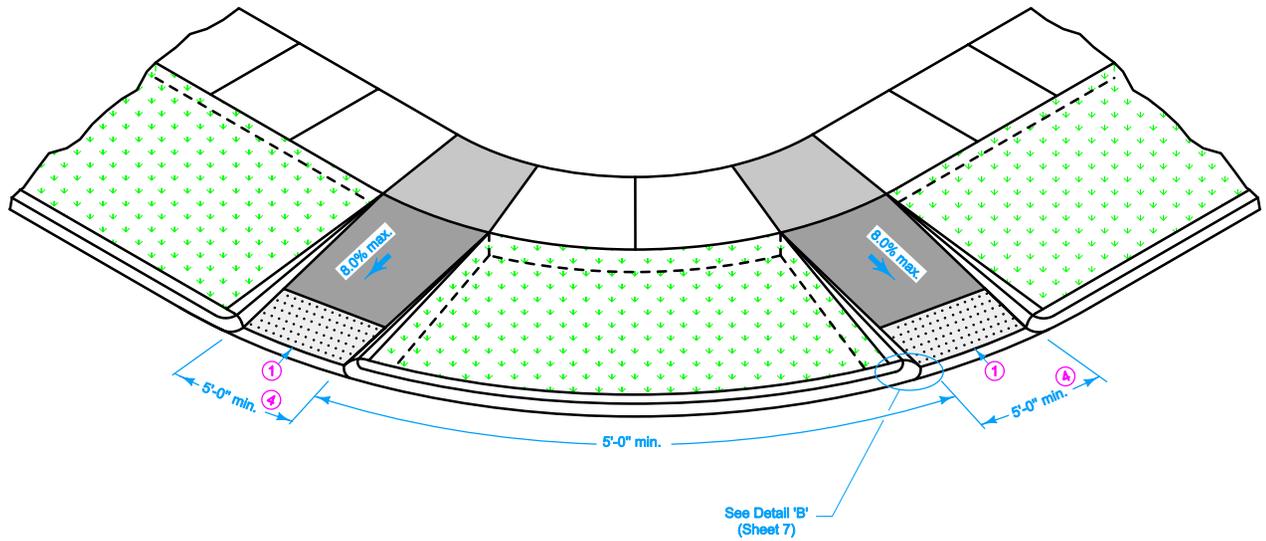
Installation of curb along sidewalk is considered incidental to sidewalk.

- ① Unless curb ramp is aligned perpendicular to the street radius, provide an area of special shaping at the bottom of the ramp. This area allows the grade break at the bottom of the ramp to be perpendicular to the ramp and provides a smooth transition to gutterline for wheelchair access. No curb lip allowed in this area. Maximum cross slope shall be 2%.
- ② Maximum cross slope on all ramps is 2%.
- ③ Provide a 5' min. x 5' min. landing area at all curb ramps. Maximum slope in any direction is 2%.
- ④ Distance measured from face of curb to face of curb.

Possible Contract Items:  
 Detectable Warnings for Curb Ramps  
 Removal of Curb  
 Removal of Sidewalk  
 Sidewalk, P.C. Concrete, 6 in.

Possible Tabulation:  
 112-4

 <b>Iowa Department of Transportation</b> <b>STANDARD ROAD PLAN</b>	REVISION
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REVISIONS: Deleted circle note 6 and renumbered remaining notes. Clarified Detectable Warning details.	
<i>Deanna Mufitt</i> APPROVED BY DESIGN METHODS ENGINEER	
<b>PEDESTRIAN CURB RAMPS</b>	

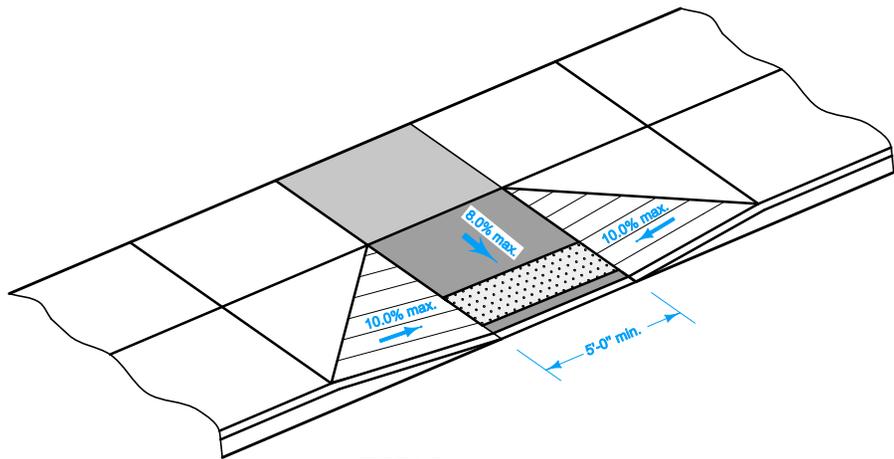


TYPICAL LARGE RADIUS APPLICATION  
OF TYPE 1-R

LEGEND	
	Curb Ramp ②
	Landing Area ③
	Detectable Warnings
	Vegetation

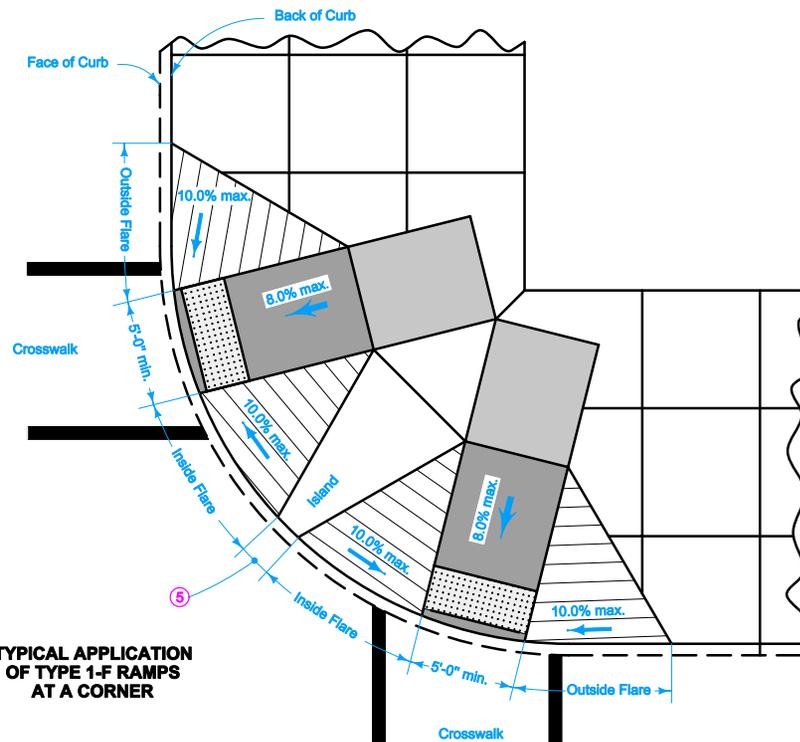
- ① Unless curb ramp is aligned perpendicular to the street radius, provide an area of special shaping at the bottom of the ramp. This area allows the grade break at the bottom of the ramp to be perpendicular to the ramp and provides a smooth transition to gutterline for wheelchair access. No curb lip allowed in this area. Maximum cross slope shall be 2%.
- ② Maximum cross slope on all ramps is 2%.
- ③ Provide a 5' min. x 5' min. landing area at all curb ramps. Maximum slope in any direction is 2%.
- ④ Distance measured from face of curb to face of curb.

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 APPROVED BY DESIGN METHODS ENGINEER		
<b>PEDESTRIAN CURB RAMPS</b>		



**TYPE 1-F  
PERPENDICULAR RAMP  
WITH FLARED SIDES**

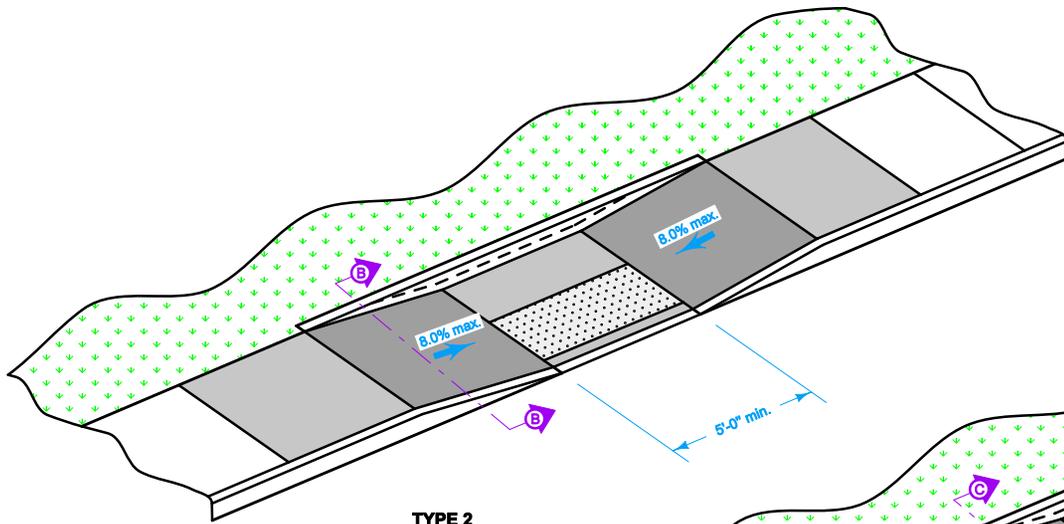
- ② Maximum cross slope on all ramps is 2%.
- ③ Provide a 5' min. x 5' min. landing area at all curb ramps. Maximum slope in any direction in 2%.
- ⑤ Width varies; if center island cannot be constructed at a minimum width of 2 feet and height of 3 inches by reducing the width of the island flares, refer to Type 5.



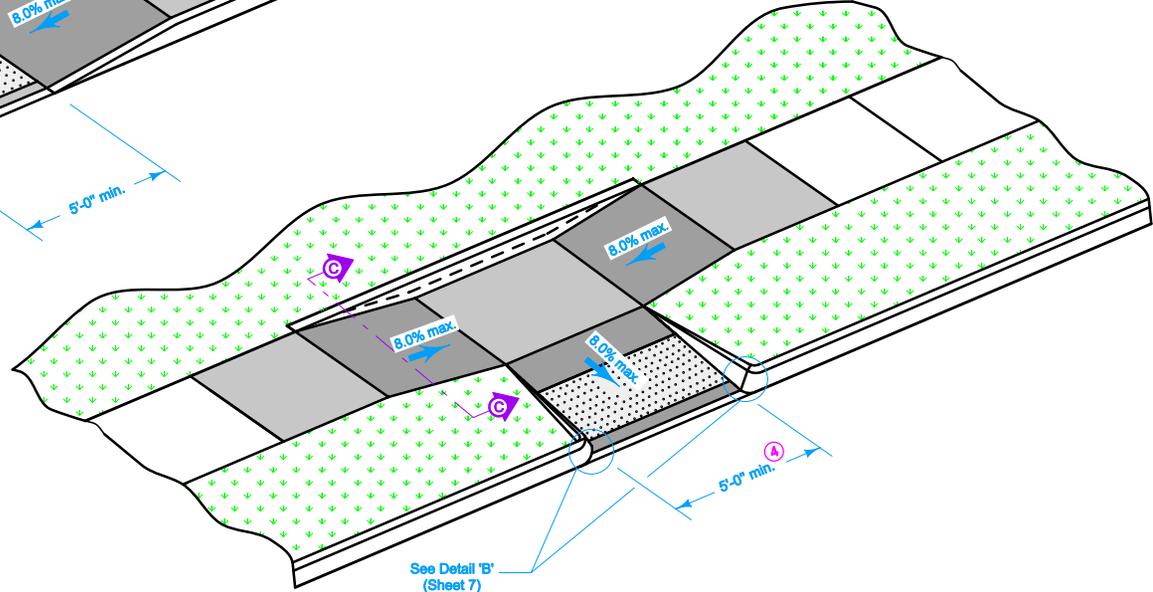
**TYPICAL APPLICATION  
OF TYPE 1-F RAMP  
AT A CORNER**

LEGEND	
	Curb Ramp ②
	Landing Area ③
	Detectable Warnings
	Flared Sides

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<b>PEDESTRIAN CURB RAMPS</b>	



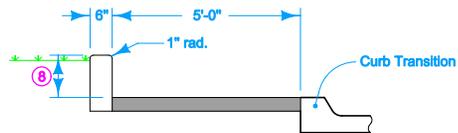
**TYPE 2  
PARALLEL RAMP**



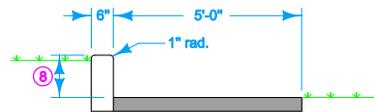
**TYPE 3  
COMBINATION RAMP**

- ② Maximum cross slope on all ramps is 2%.
- ③ Provide a 5' min. x 5' min. landing area at all curb ramps. Maximum slope in any direction is 2%.
- ④ Distance measured from face of curb to face of curb.
- ⑧ Maximum height above sidewalk is 12 inches. If more than 12 inches, refer to MI-221 for wall reinforcement details. Payment is included in sidewalk quantities as 6 inch width.

LEGEND	
	Curb Ramp ②
	Landing Area ③
	Detectable Warnings
	Vegetation



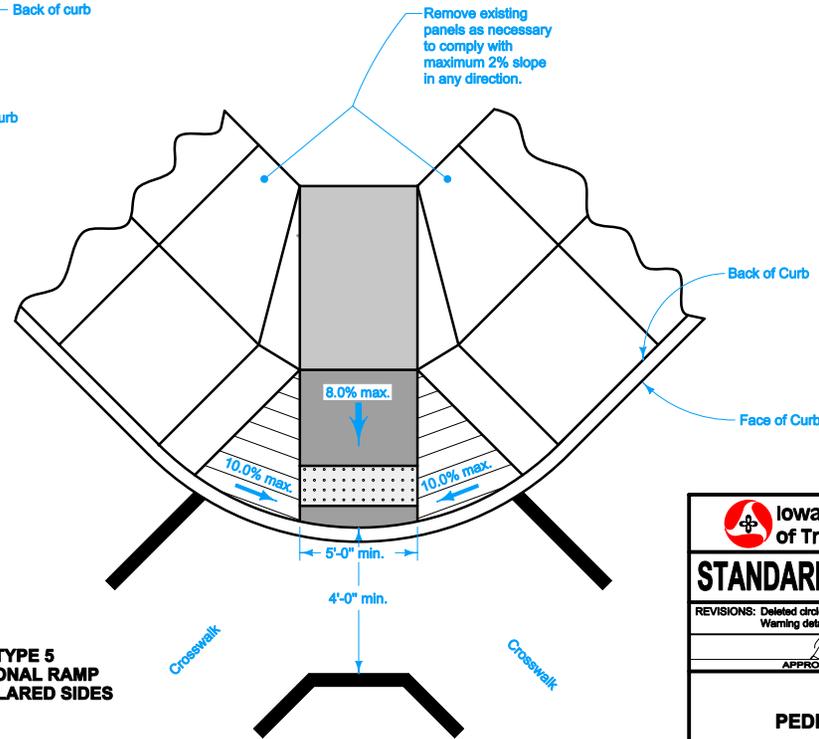
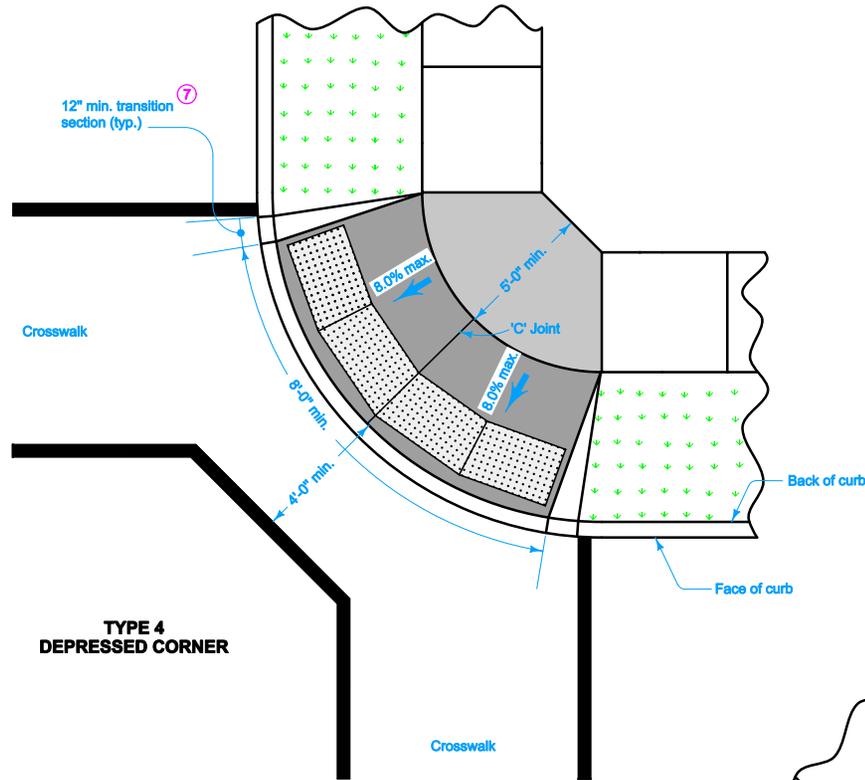
**SECTION B-B**



**SECTION C-C**

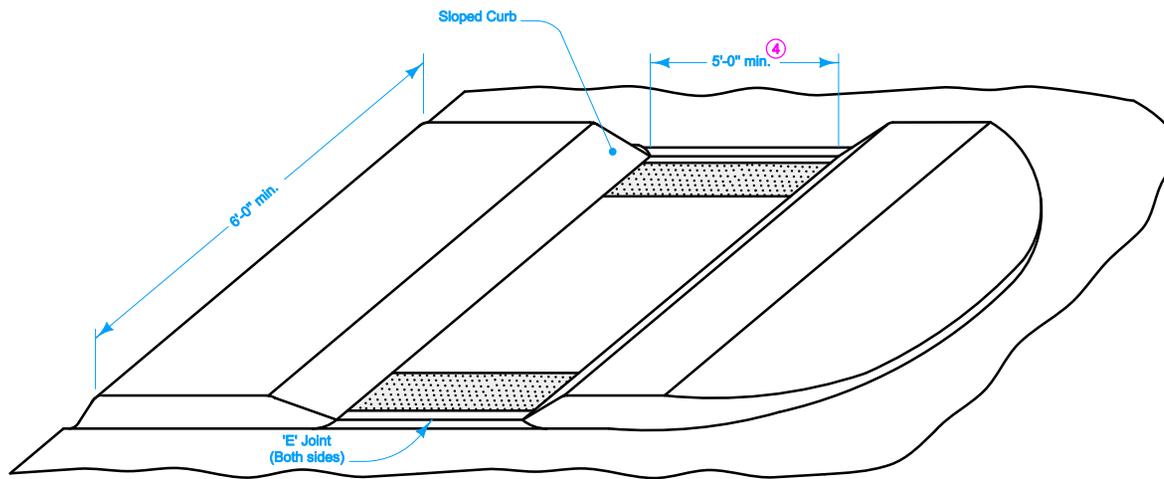
<p>Iowa Department of Transportation</p> <p><b>STANDARD ROAD PLAN</b></p> <p>REVISIONS: Deleted circle note 6 and renumbered remaining notes. Clarified Detectable Warning details.</p> <p><i>Deanna Mifflin</i> APPROVED BY DESIGN METHODS ENGINEER</p>	<p>REVISION</p> <table border="1"> <tr> <td>2</td> <td>04-19-11</td> </tr> </table>	2	04-19-11
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	<p><b>MI-220</b></p> <p>SHEET 4 of 7</p>		
<p><b>PEDESTRIAN CURB RAMPS</b></p>			

- ② Maximum cross slope on all ramps is 2%.
- ③ Provide a 5' min. x 5' min. landing area at all curb ramps. Maximum slope in any direction is 2%.
- ⑦ At existing curb and gutter locations, remove curb and build transition section.



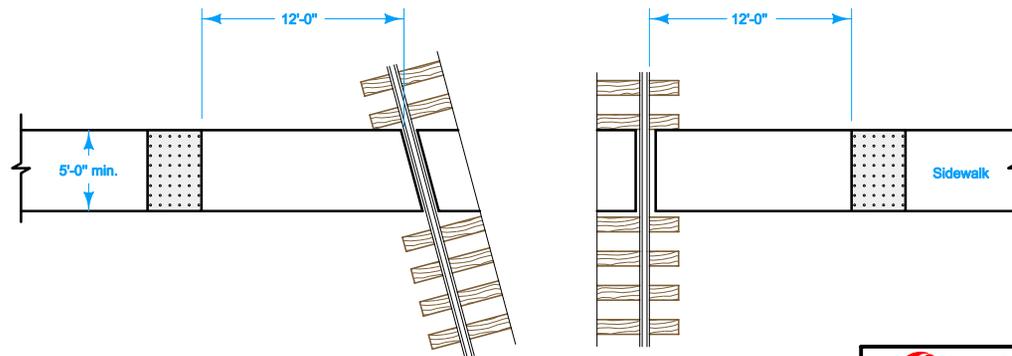
LEGEND	
	Curb Ramp ②
	Landing Area ③
	Detectable Warnings
	Vegetation
	Flared Sides

<p>Iowa Department of Transportation</p> <p><b>STANDARD ROAD PLAN</b></p> <p>REVISIONS: Deleted circle note 6 and renumbered remaining notes. Clarified Detectable Warning details.</p> <p><i>Deanna Mifflin</i> APPROVED BY DESIGN METHODS ENGINEER</p>	<p>REVISION</p> <p>2 04-19-11</p>
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	<p><b>PEDESTRIAN CURB RAMPS</b></p>



④ Distance measured from face of curb to face of curb.

**TYPE 6  
ACCESS AT CURBED MEDIANS**

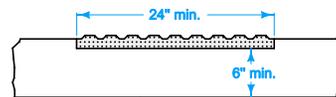
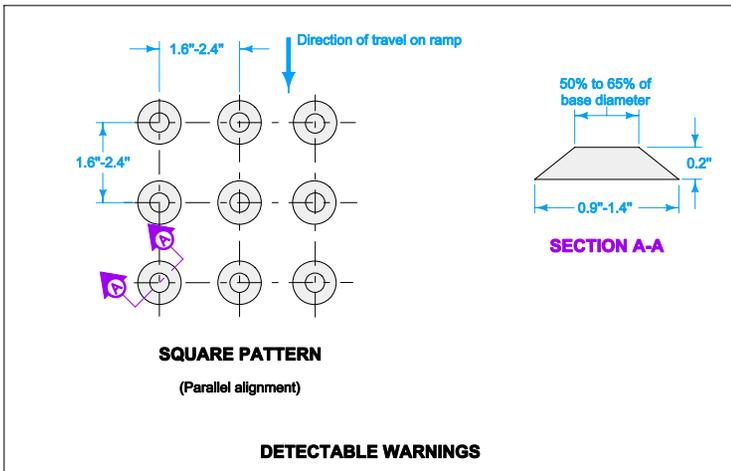


**TYPE 7  
RAILROAD CROSSING**

**LEGEND**

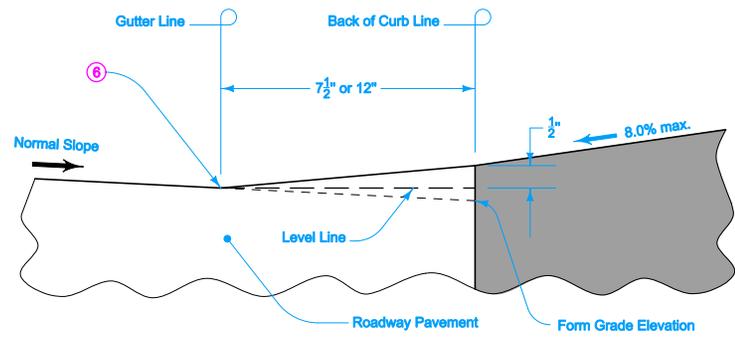
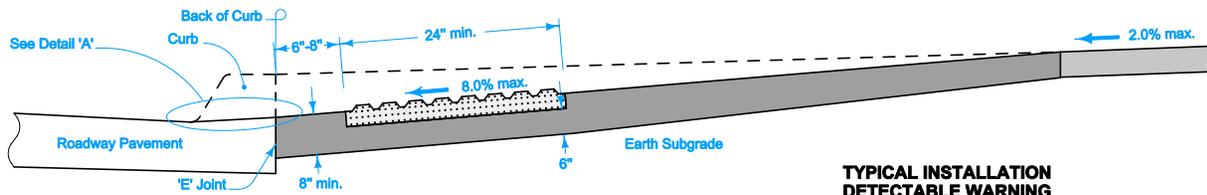
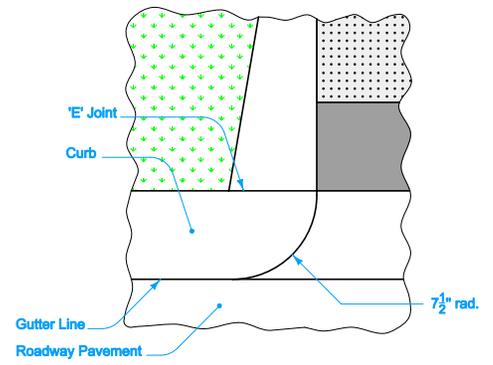
 Detectable Warnings

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<small>REVISIONS: Deleted circle note 6 and renumbered remaining notes. Clarified Detectable Warning details.</small>		
<i>Deanna Muflett</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>		
<b>PEDESTRIAN CURB RAMPS</b>		



**DETECTABLE WARNING  
FLAT SURFACE INSTALLATION**

- ② Maximum cross slope on all ramps is 2%.
- ③ Provide a 5' min. x 5' min. landing area at all curb ramps. Maximum slope in any direction is 2%.
- ⑥ At points where a change in slope occurs, the algebraic grade difference shall not exceed 11%.



**LEGEND**

	Curb Ramp ②
	Landing Area ③
	Detectable Warnings
	Vegetation

<p>Iowa Department of Transportation</p> <p><b>STANDARD ROAD PLAN</b></p> <p>REVISIONS: Deleted circle note 6 and renumbered remaining notes. Clarified Detectable Warning details.</p> <p><i>Deanna Mifflin</i> APPROVED BY DESIGN METHODS ENGINEER</p>	<p>REVISION</p> <p>2 04-19-11</p>
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