



**MARICOPA COUNTY**  
*Department of Transportation*

MEMORANDUM

**Date:** May 4, 2011

**To:** MAG Specifications and Details Committee

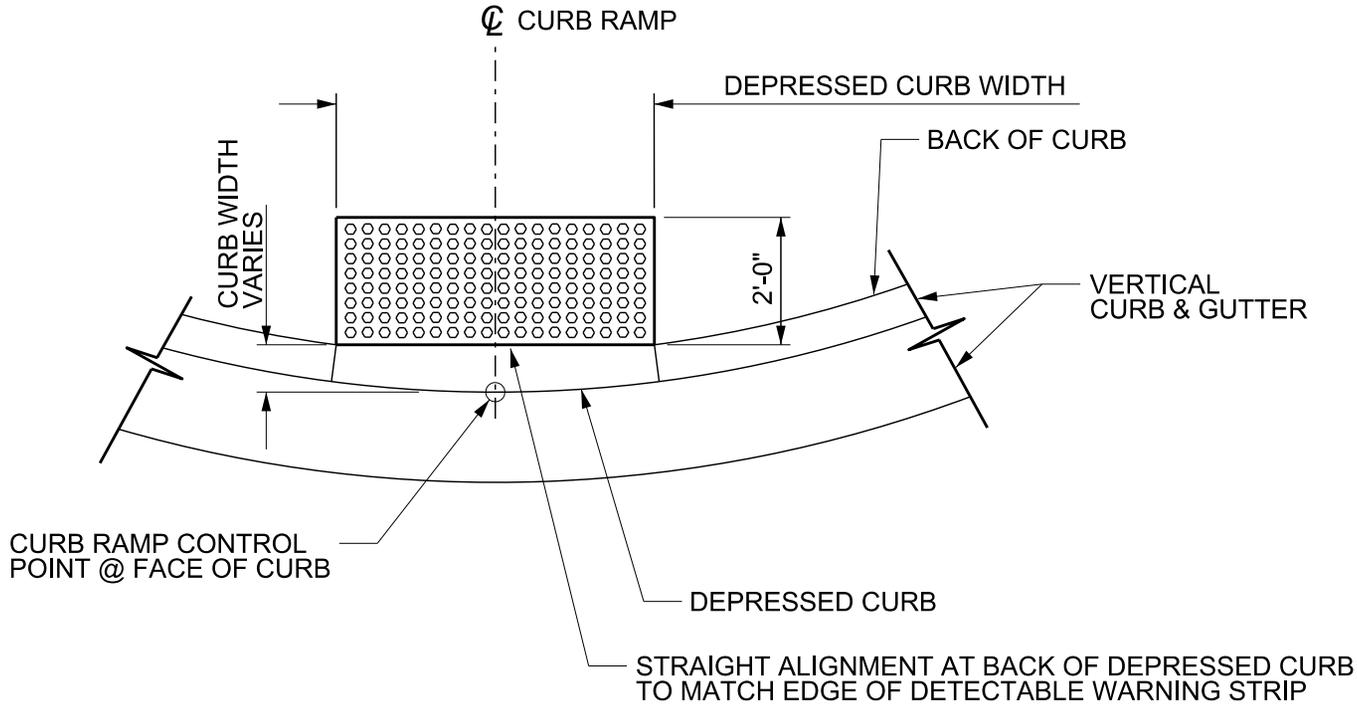
**From:** Robert Herz, MCDOT Representative

**Subject:** Curb Ramp Modification for Radial Installations

**Case 11-10**

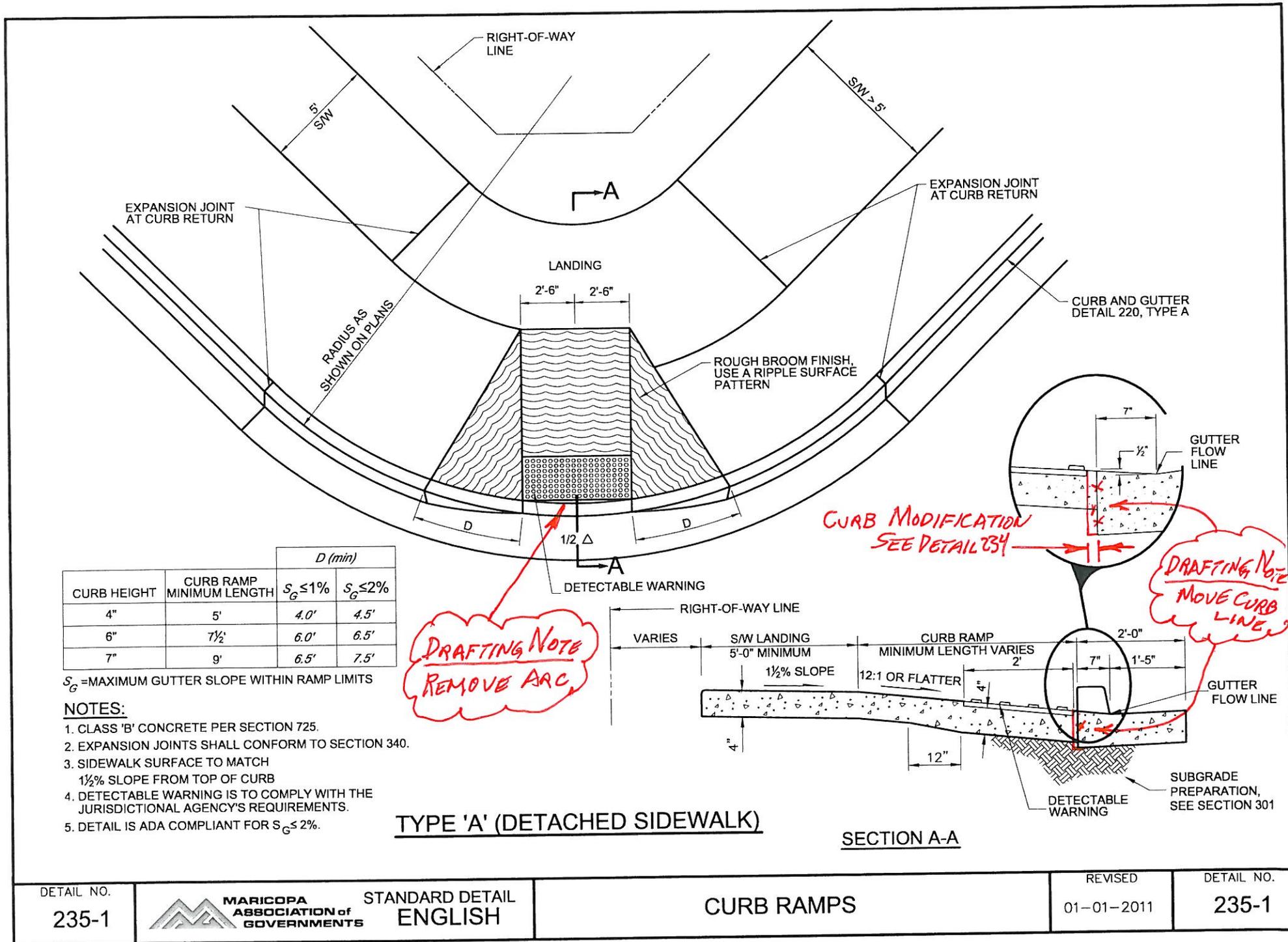
**PURPOSE:** Eliminate concrete spalling that may occur in the narrow circular segment between the back of curb and the detectable warnings for curb ramps installed within a curb return.

**REVISION:** Modify the back of curb to include the circular segment area between the back of curb and the detectable warnings. This proposed revision involves the creation of the attached new Detail 234 showing the curb modification and also revising Type A, B, and C Curb Ramps shown in Details 235-1, 235-2 and 235-3.



PLAN VIEW

DETAIL NO. <b>234</b>	 <b>MARICOPA ASSOCIATION of GOVERNMENTS</b> STANDARD DETAIL <b>ENGLISH</b>	<b>CURB MODIFICATION @ DETECTABLE WARNING</b>	REVISED	DETAIL NO. <b>234</b>
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CURB HEIGHT	CURB RAMP MINIMUM LENGTH	D (min)	
		$S_G \leq 1\%$	$S_G \leq 2\%$
4"	5'	4.0'	4.5'
6"	7½'	6.0'	6.5'
7"	9'	6.5'	7.5'

$S_G$  = MAXIMUM GUTTER SLOPE WITHIN RAMP LIMITS

**NOTES:**

1. CLASS 'B' CONCRETE PER SECTION 725.
2. EXPANSION JOINTS SHALL CONFORM TO SECTION 340.
3. SIDEWALK SURFACE TO MATCH 1½% SLOPE FROM TOP OF CURB
4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
5. DETAIL IS ADA COMPLIANT FOR  $S_G \leq 2\%$ .

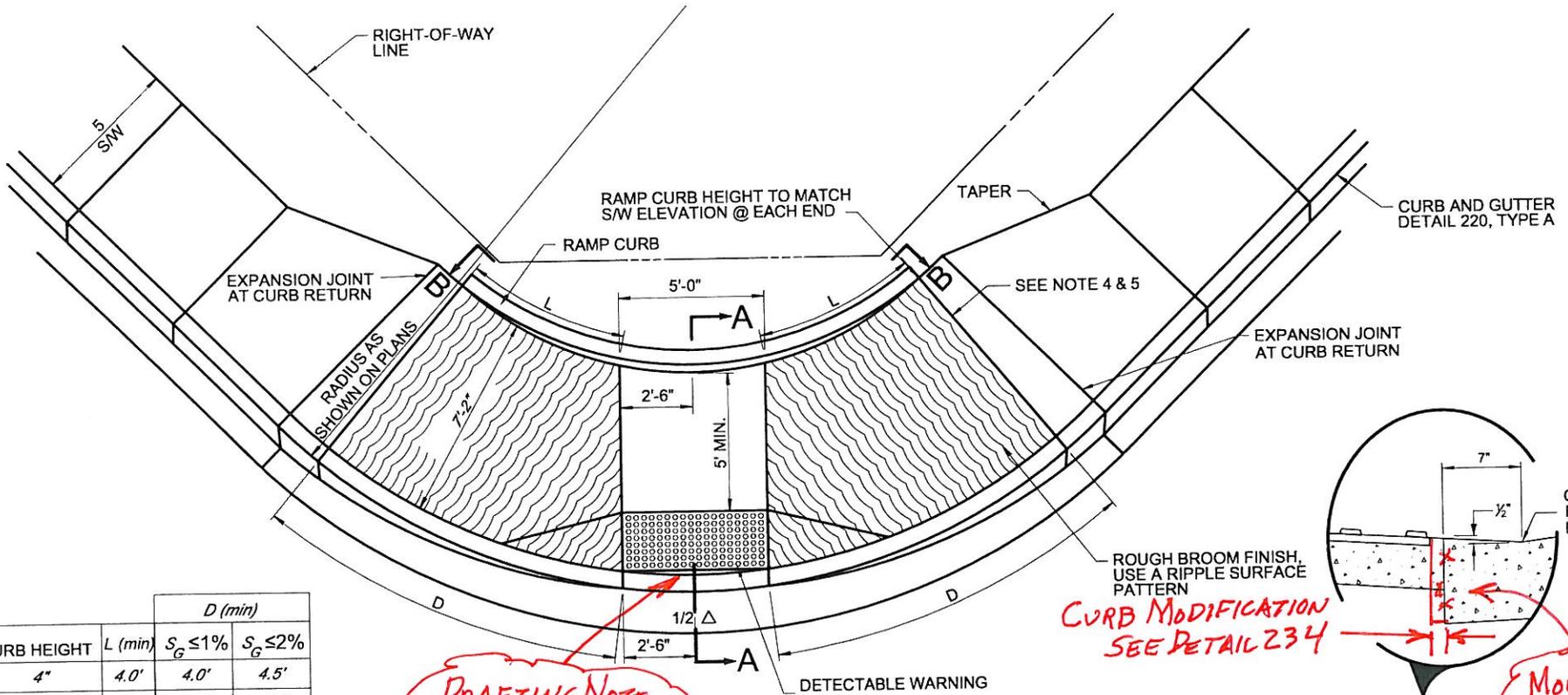
*DRAFTING NOTE REMOVE ARC*

*CURB MODIFICATION SEE DETAIL 334*

*DRAFTING NOTE MOVE CURB LINE*

**TYPE 'A' (DETACHED SIDEWALK)**

**SECTION A-A**



CURB HEIGHT	L (min)	D (min)	
		$S_G \leq 1\%$	$S_G \leq 2\%$
4"	4.0'	4.0'	4.5'
6"	6.0'	6.0'	6.5'
7"	7.0'	6.5'	7.5'

$S_G$  = MAXIMUM GUTTER SLOPE WITHIN RAMP LIMITS

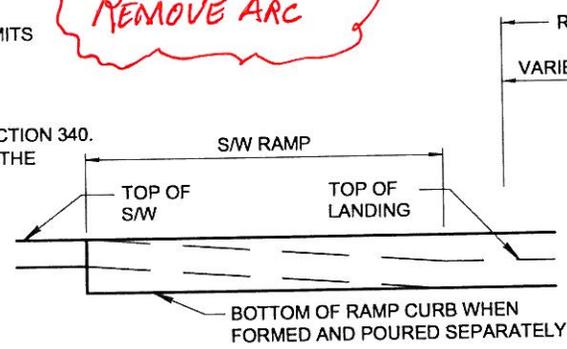
**NOTES:**

1. CLASS 'B' CONCRETE PER SECTION 725.
2. EXPANSION JOINTS SHALL CONFORM TO SECTION 340.
3. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.
4. INCREASE 'L' OR 'D' AS NEEDED TO HAVE THE TOP OF RAMP FORM A RADIAL LINE.
5. WHEN TOP OF RAMP IS LESS THAN 4' FROM CURB RETURN, EXTEND RAMP TO THE CURB RETURN.
6. DETAIL IS ADA COMPLIANT FOR  $S_G \leq 2\%$ .

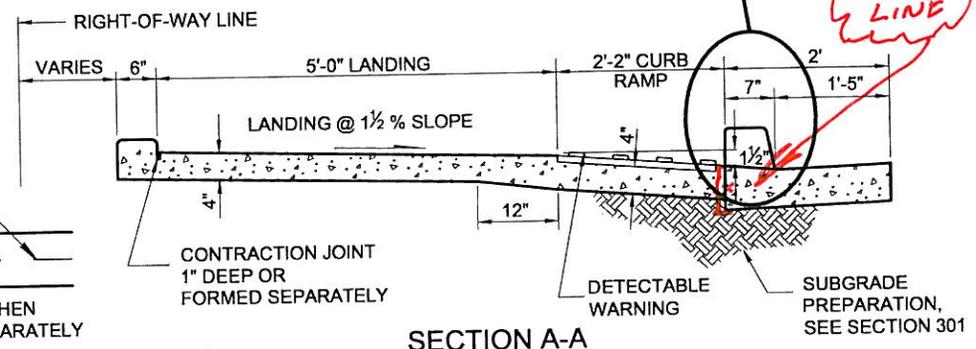
*DRAFTING NOTE REMOVE ARC*

*CURB MODIFICATION SEE DETAIL 234*

*MOVE CURB LINE*



**SECTION B-B**



**TYPE 'B'**

**SECTION A-A**

DETAIL NO.  
**235-2**



STANDARD DETAIL  
**ENGLISH**

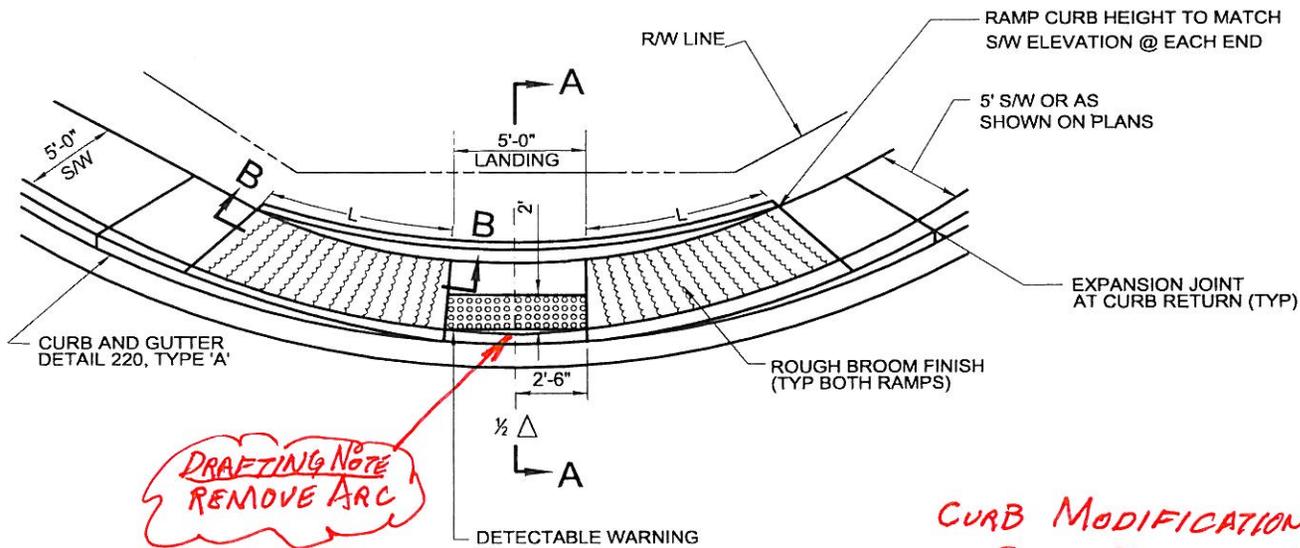
**CURB RAMPS**

REVISED  
01-01-2011

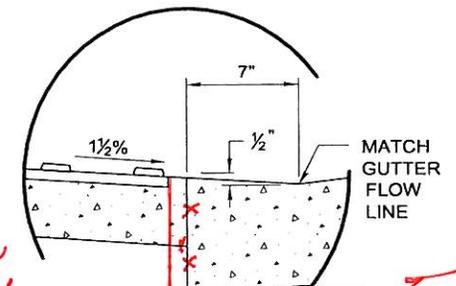
DETAIL NO.  
**235-2**

**NOTES:**

1. CLASS 'B' CONCRETE CONSTRUCTION PER SECTION 725.
2. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENT.
3. RAMP LONGITUDINAL SLOPE SHALL BE 12:1 OR FLATTER.
4. RAMP CROSS SLOPE SHALL BE 1½%.
5. DETAIL IS ADA COMPLIANT FOR CURB RADIUS ≥ 20' AND GUTTER SLOPE ≤ 2.0%.



*DRAFTING NOTE REMOVE ARC*

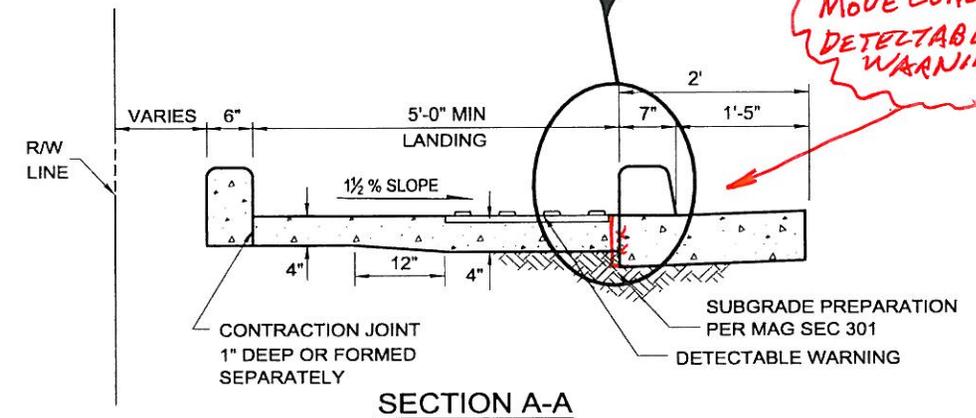
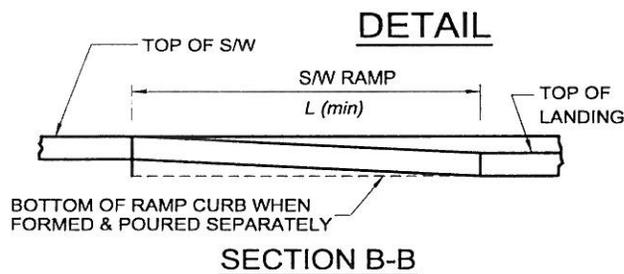


*CURB MODIFICATION SEE DETAIL 234*

*DRAFTING NOTE MOVE CURB TO DETECTABLE WARNING*

CURB HEIGHT	L (min)	
	$S_G \leq 1\%$	$S_G \leq 2\%$
4"	5.0'	6.0'
6"	7.0'	8.5'

$S_G$  = MAXIMUM GUTTER SLOPE WITHIN RAMP LIMITS



**TYPE 'C'**

DETAIL NO.  
235-3



STANDARD DETAIL  
ENGLISH

CURB RAMPS

REVISED  
01-01-2011

DETAIL NO.  
235-3