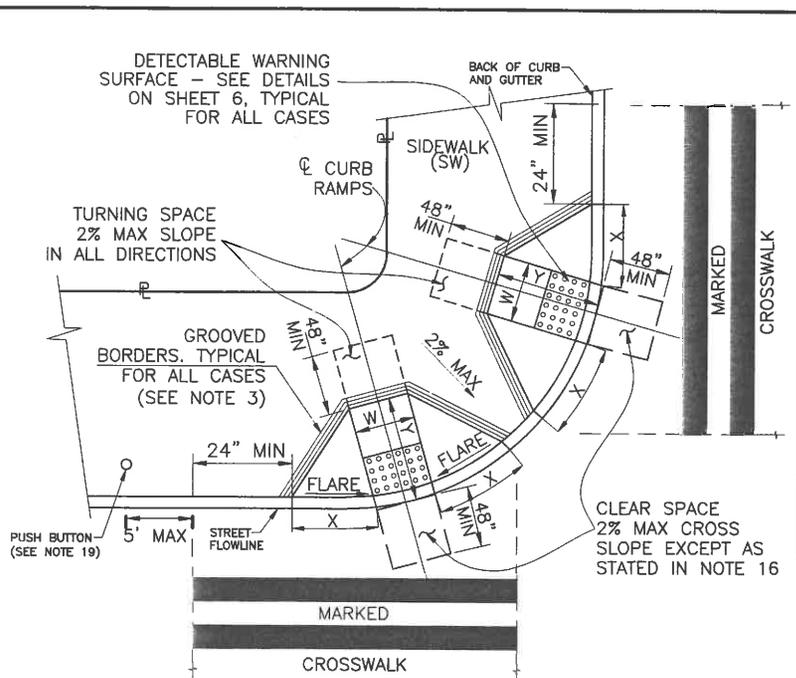


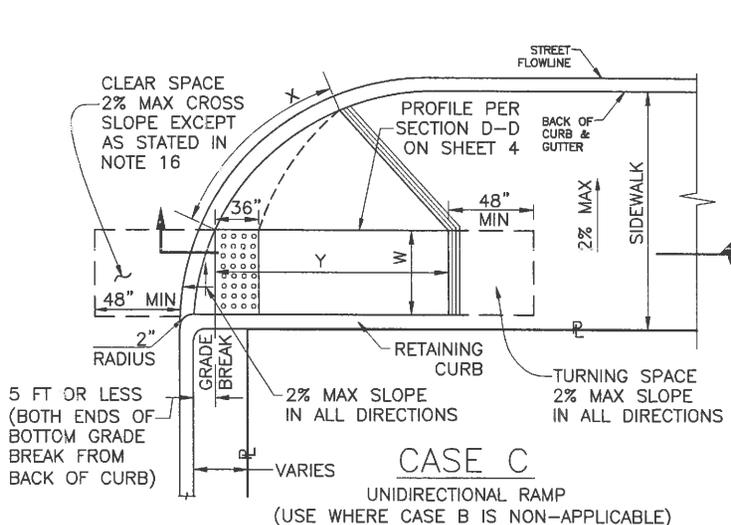
**CASE A**

DIAGONAL CURB RAMP USE DETAILS ON SHEETS 3 AND 4 AS APPLICABLE



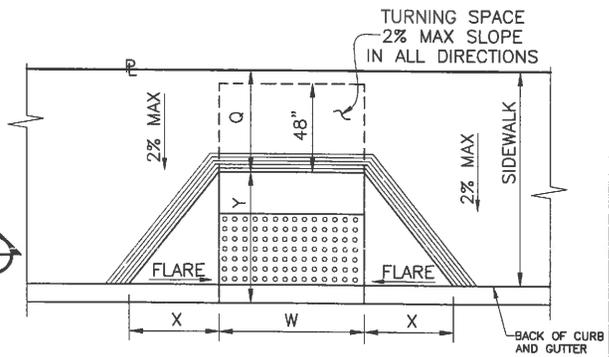
**CASE B**

TYPICAL DUAL CURB RAMP (SEE NOTE 1) USE DETAILS ON SHEETS 3 AND 4 AS APPLICABLE



**CASE C**

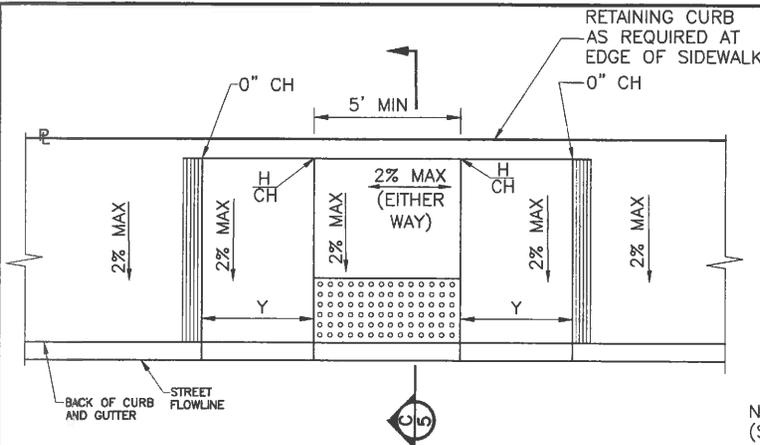
UNIDIRECTIONAL RAMP (USE WHERE CASE B IS NON-APPLICABLE)



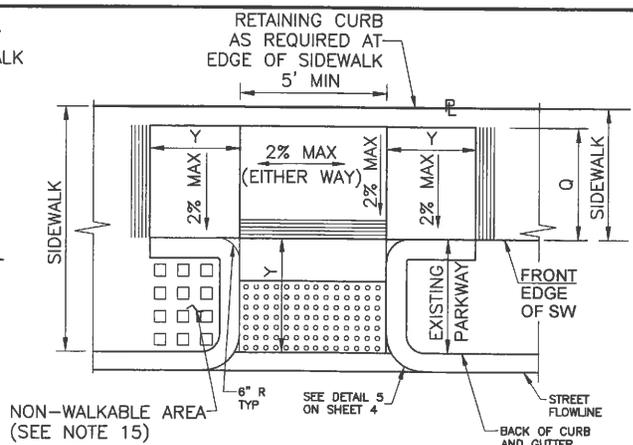
**CASE D**

FOR USE AT MID-BLOCKS USE DETAIL 1, DETAIL 3, OR DETAIL 4 ON SHEETS 3 AND 4 AS APPLICABLE

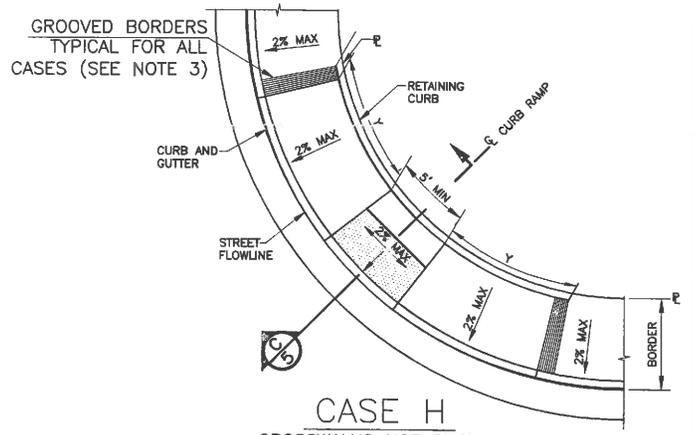
4		CITY OF LONG BEACH, DEPARTMENT OF PUBLIC WORKS STANDARD PLANS	STANDARD PLAN NO.	
3				
2			<b>CURB RAMP</b>	122
1				
NO. DATE REVISIONS	APPROVED BY:	DATE: 10/25/10	SHEET 1 OF 8	



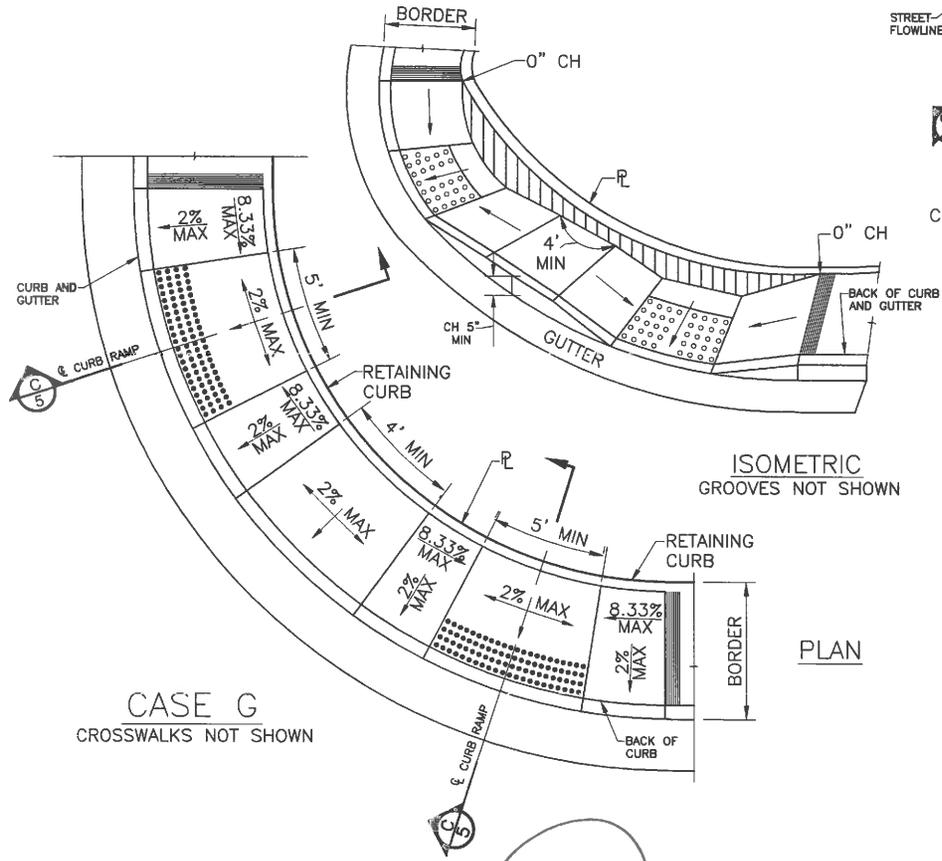
**CASE E**  
FOR USE AT MID-BLOCKS



**CASE F**  
FOR USE AT MID-BLOCKS



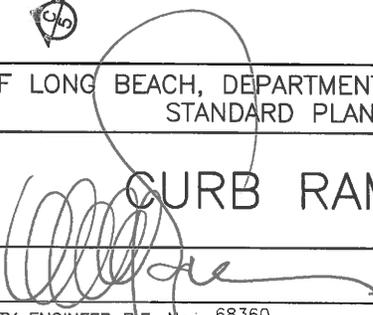
**CASE H**  
CROSSWALKS NOT SHOWN

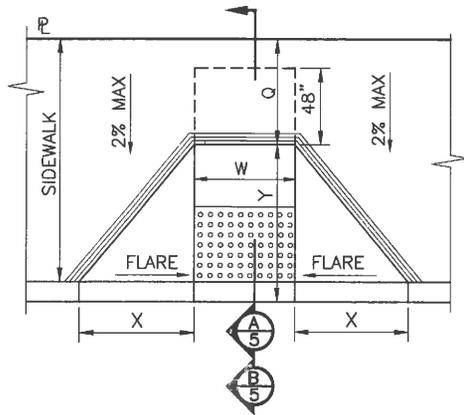


**CASE G**  
CROSSWALKS NOT SHOWN

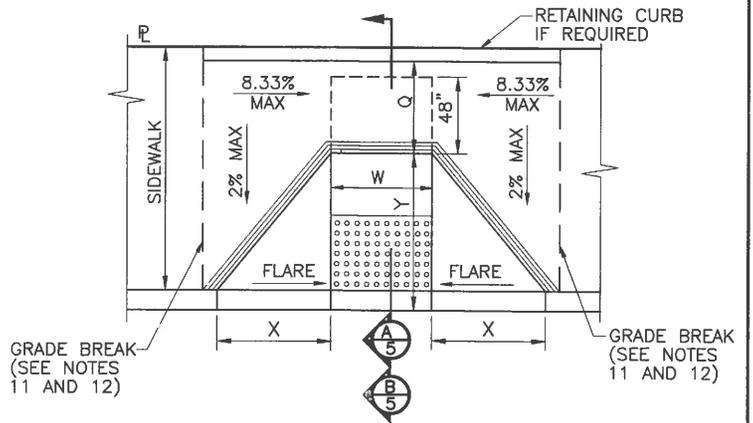
ISOMETRIC  
GROOVES NOT SHOWN

PLAN

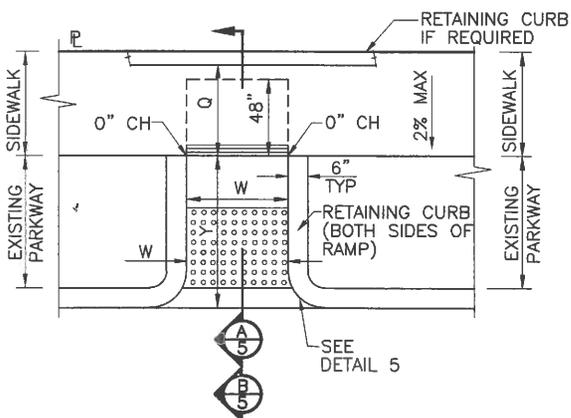
4		CITY OF LONG BEACH, DEPARTMENT OF PUBLIC WORKS STANDARD PLANS	STANDARD PLAN NO.	
3				
2			<b>CURB RAMP</b>	122
1				
NO. DATE	APPROVED BY: 	DATE: 10/25/18	SHEET	
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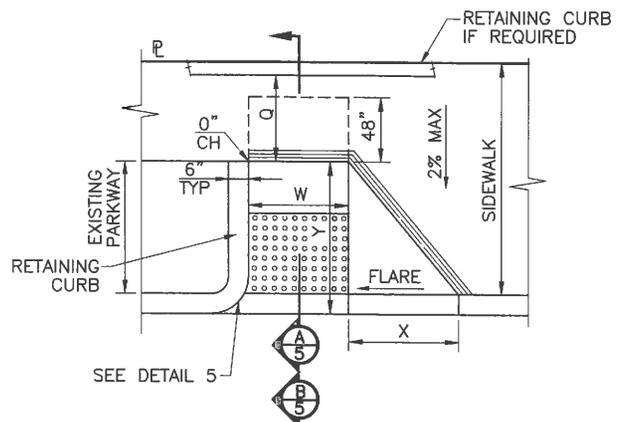
DETAIL 1A



DETAIL 1B

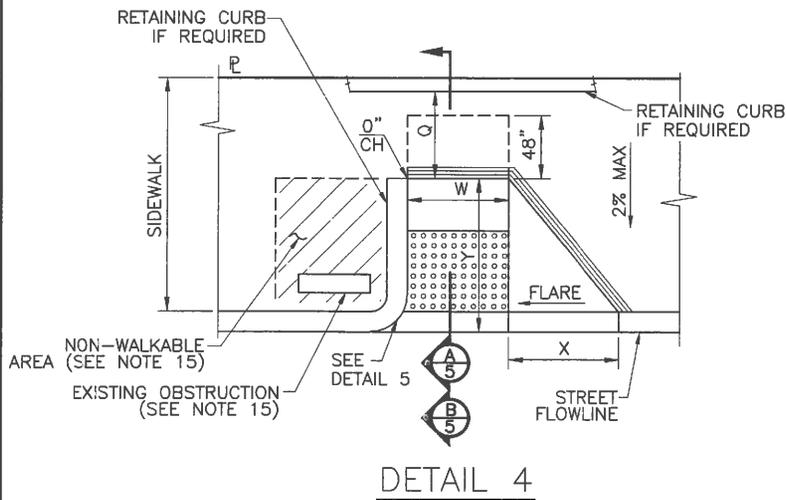


DETAIL 2

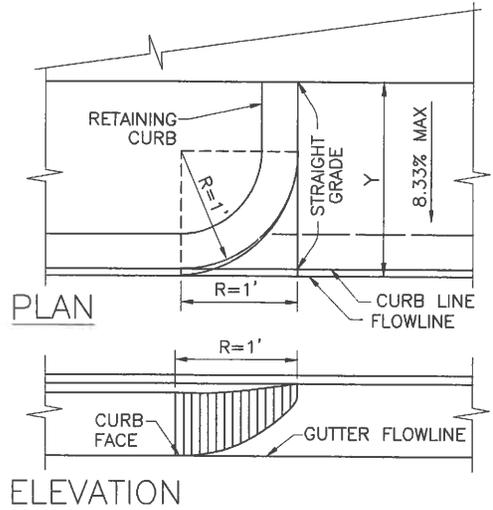


DETAIL 3

4		CITY OF LONG BEACH, DEPARTMENT OF PUBLIC WORKS STANDARD PLANS  <h1 style="margin: 0;">CURB RAMP</h1>	STANDARD PLAN NO.
3			122
2			
1			
NO. REVISIONS	DATE	APPROVED BY: 	DATE: 10/25/10
		CITY ENGINEER R.E. No. 68360	SHEET 3 OF 8

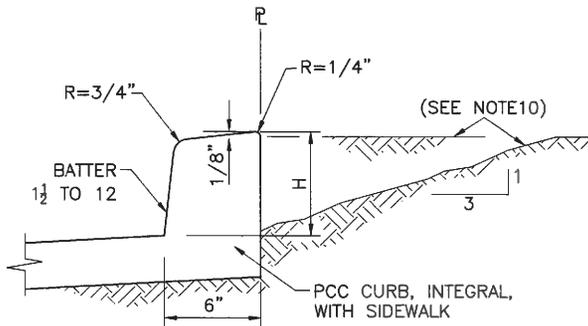


DETAIL 4



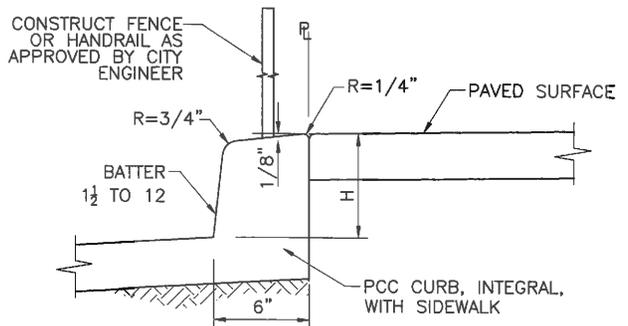
ELEVATION

DETAIL 5



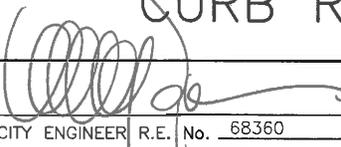
NOTE: FOR "H" EXCEEDING 9 INCHES,  
DESIGN CURB AS AN ISOLATED  
REINFORCED CONCRETE RETAINING CURB.

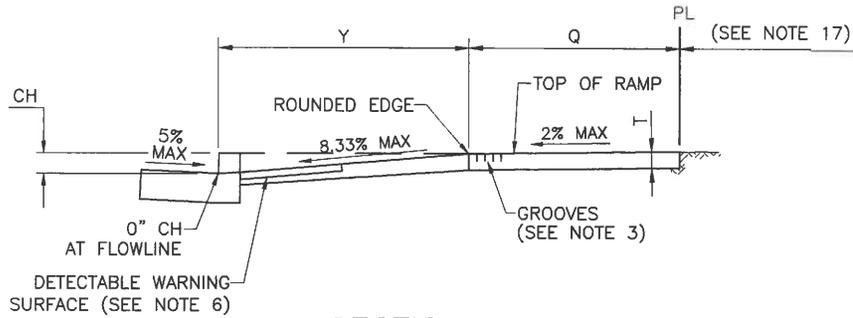
DETAIL 6  
EARTH BACKED  
RETAINING CURB



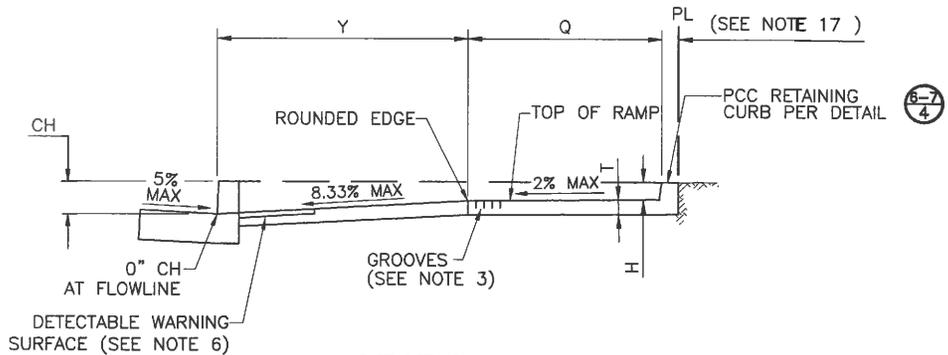
NOTE: FOR "H" EXCEEDING 9 INCHES,  
DESIGN CURB AS AN ISOLATED  
REINFORCED CONCRETE RETAINING CURB.

DETAIL 7  
PAVING BACKED  
RETAINING CURB

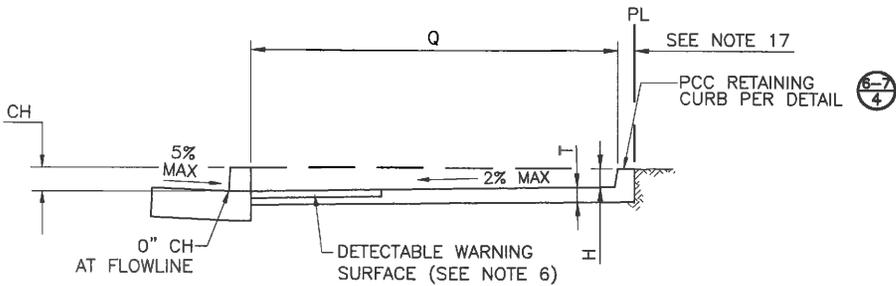
4		CITY OF LONG BEACH, DEPARTMENT OF PUBLIC WORKS STANDARD PLANS	STANDARD PLAN NO.	
3			CURB RAMP	
2				122
1				
NO.	DATE	APPROVED BY: 	SHEET	
REVISIONS		CITY ENGINEER R.E. No. 68360	4 OF 8	
		DATE: 10/25/19		



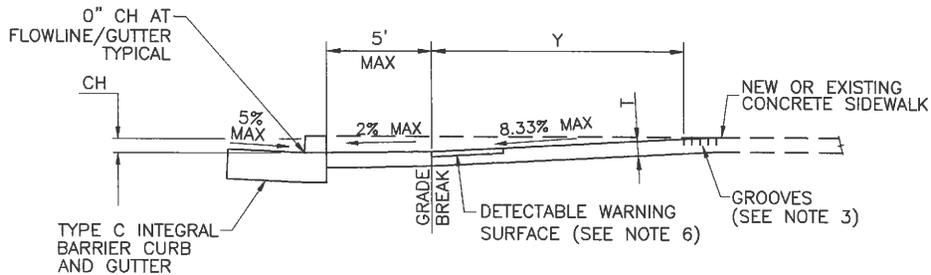
**A** SECTION A



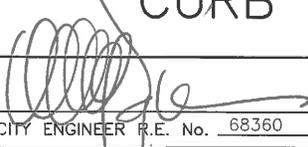
**B** SECTION B  
PARTIALLY DEPRESSED

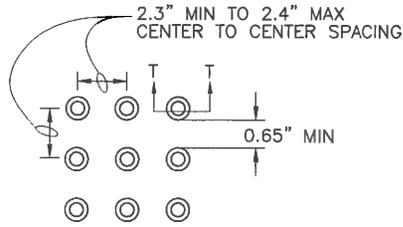


**C** SECTION C  
FULLY DEPRESSED

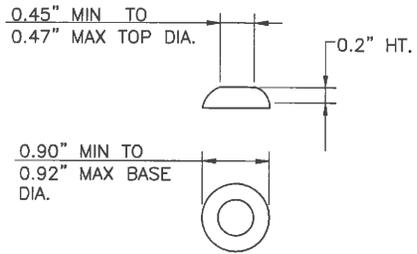


**D** SECTION D  
PROFILE

4		CITY OF LONG BEACH, DEPARTMENT OF PUBLIC WORKS STANDARD PLANS	STANDARD PLAN NO.  122
3			
2			
1			
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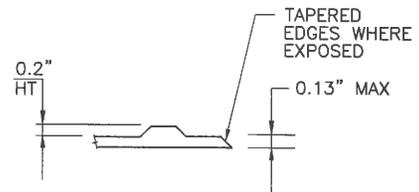


RAISED TRUNCATED DOME  
PATTERN (IN-LINE)



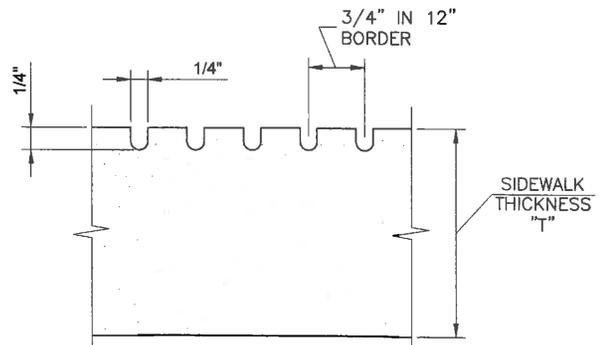
RAISED TRUNCATED DOME

NOTE:  
WHERE INSTALLED IN A RADIAL PATTERN, TRUNCATED  
DOMES SHALL HAVE A CENTER-TO-CENTER SPACING  
OF 1.6 INCHES MINIMUM TO 2.4 INCHES MAXIMUM.  
BASE-TO-BASE SPACING SHALL BE 0.65 INCH  
MINIMUM, MEASURED BETWEEN THE MOST ADJACENT  
DOMES ON A SQUARE GRID.

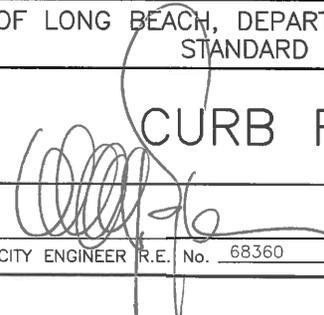


TYPICAL SECTION T-T

DETECTABLE WARNING SURFACE  
(DWS) SEE NOTE 6

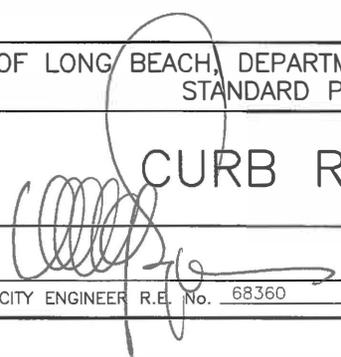


GROOVED BORDER DETAIL

4		CITY OF LONG BEACH, DEPARTMENT OF PUBLIC WORKS STANDARD PLANS	STANDARD PLAN NO.  122
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2			
1			
NO.	DATE	APPROVED BY: 	DATE: 10/25/18
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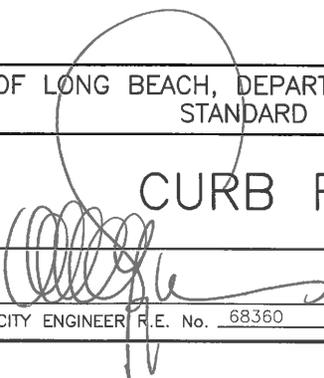
# NOTES

1. CASE B "DUAL CURB RAMPS" MAY BE INSTALLED OUTSIDE THE CURB RETURN RADIUS IN THE TANGENT PARTS OF THE STREET CURB WHEN THE RADIUS OF THE CURB RETURN CAN NOT ACCOMMODATE TWO CURB RAMPS.
2. ALL NOTED SLOPES SHALL INCLUDE ALL ALLOWABLE CONSTRUCTION TOLERANCES. COMPLIANCE OF SLOPES ON WALKING SURFACES AS STATED ON THE PLANS SHALL BE VERIFIED BY CITY'S REPRESENTATIVE UTILIZING A 24-INCH DIGITAL LEVEL. THE 24-INCH DIGITAL LEVEL WILL BE SUPPLIED BY THE CITY AND SHALL BE CALIBRATED BY THE CITY'S REPRESENTATIVE PRIOR TO THE TAKING OF ANY MEASUREMENTS. MEASUREMENTS SHALL BE TAKEN IN ANY DIRECTION WITH THE 24" DIGITAL LEVEL, AND MEASUREMENTS TAKEN SHALL COMPLY WITH SLOPES SPECIFIED ON THE PLANS. CONCRETE OR ASPHALT WORK THAT DOES NOT MEET THE REQUIREMENTS SHALL BE CONSIDERED NON-COMPLIANT AND WILL NOT BE ACCEPTED BY THE CITY. ANY AREA WHICH IS NON-COMPLIANT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PROVIDE A 12-INCH WIDE BORDER IN THE PLANE OF THE SIDEWALK AT RAMPS AS SHOWN WITH 1/4-INCH GROOVES APPROXIMATELY 3/4-INCH ON CENTER. SEE GROOVED BORDER DETAIL ON SHEET 6. THE SURFACE OF THE BORDER SHALL HAVE A FINE, HAIR BROOMED FINISH.
4. THE BOTTOM OF THE RAMP SHALL HAVE A 0-INCH CURB HEIGHT WITHIN "W" AREA.
5. CONCRETE CURB RAMP SHALL BE CONSTRUCTED WITH CLASS 520-C-2500 PCC AND THE THICKNESS, "T", SHALL BE 3 INCHES MINIMUM.
6. ALL CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE (DWS) THAT EXTENDS THE FULL WIDTH (W) AND 36" DEPTH OF THE RAMP. SURFACE COLOR OF THE DWS SHALL CONFORM TO FEDERAL STANDARD 595C COLOR NUMBER FS 33538 (YELLOW) AND BE WET SET IN CONCRETE. SURFACE APPLIED DWS WILL BE ALLOWED AT THE OPTION OF THE ENGINEER OR WHEN RETROFITTING EXISTING CURB RAMPS. INSTALL DETECTABLE WARNING SURFACE FLUSH AT CORNERS AND ALONG SEAMS TO ADJACENT FACILITIES. MATERIAL SHALL BE PER CONTRACT DOCUMENTS OR PERMIT REQUIREMENTS.
7. ALL RAMPED SURFACES SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE.
8. STANDARD DIMENSIONS AND DEFINITIONS:
  - BCR = BEGINNING OF CURB RETURN.
  - CH = STREET CURB HEIGHT.
  - ECR = END OF CURB RETURN.
  - FS = FINISHED SURFACE.
  - H = HEIGHT OF RETAINING CURB.
  - PL = PROPERTY LINE.
  - Q = THE WIDTH OF THE PEDESTRIAN ACCESS ROUTE WIDTH Q IS 5 FT MINIMUM FOR SECTION B, C (SHEET 5) WHEN A WALL, BUILDING, FENCE, OR OTHER IMPROVEMENT THAT INHIBITS TURNING MOVEMENT OF WHEELCHAIR IS ON ADJACENT PROPERTY LINE AND 4 FT MINIMUM FOR SECTION A (SHEET 5).
  - R = RADIUS OF CURB TRANSITION.
  - SW = SIDEWALK.
  - T = THICKNESS OF CONCRETE PAVEMENT, 3 INCHES MINIMUM UNLESS OTHERWISE DOCUMENTED AND APPROVED PER NOTE 18.
  - W = 4 FT MINIMUM WIDTH OF CURB RAMP MEASURED PERPENDICULAR TO THE DIRECTION OF RAMP TRAVEL. WALKS LESS THAN 4' MINIMUM REQUIRE CITY ENGINEER APPROVAL.
  - W GRADE = 2% MAXIMUM UNLESS OTHERWISE DOCUMENTED AND APPROVED PER NOTE 18. SEE ALSO NOTE 16.
  - X = THE HORIZONTAL ARC OR LINEAR LENGTH OF CURB TRANSITION MEASURED ALONG THE STREET FLOWLINE.
  - X GRADE = THE GRADE OF THE FLARE ALONG THE CURBLINE SHALL BE 10% MAXIMUM. ANY DEVIATION FROM THIS TRANSITION GRADE SHALL BE DOCUMENTED AND APPROVED PER NOTE 18.
  - Y DISTANCE = MINIMUM LENGTH IS 3.5 FEET IF SECTION A OR B (SHEET 5) IS USED.
  - Y GRADE = 8.33% MAXIMUM UNLESS OTHERWISE DOCUMENTED AND APPROVED PER NOTE 18.

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# NOTES CONT.

9. GUTTER SHALL HAVE A MAXIMUM OF 5% GRADE FROM FLOWLINE WITHIN "W" AREA WITH "X" AREA (IF PROVIDED) TO BE USED FOR TRANSITION TO CITY ESTABLISHED CURB GRADE.
10. THE RETAINING CURB FOR SECTIONS B AND C (SHEET 5) MAY BE OMITTED IF THE AREA IN BACK OF THE DEPRESSED SIDEWALK IS REGRADED (MAX 1V:3H) TO JOIN THE SIDEWALK. USE DETAIL 7 ON SHEET 4 IF EXISTING SURFACE BEHIND RIGHT OF WAY IS PAVED.
11. GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACES.
12. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
13. NEW PULL BOXES, METER BOXES, MAINTENANCE HOLE COVERS, VAULT LIDS, POWER POLES, ETC. SHALL NOT BE CONSTRUCTED WITHIN ANY PART OF CURB RAMPS, INCLUDING FLARED TRANSITIONS AND THE TURNING CLEAR SPACE AT THE TOP OF THE CURB RAMP.
14. CURB RAMPS SHOULD NOT BE CONSTRUCTED IN PUBLIC RIGHT OF WAYS HAVING STREET BORDERS OF LESS THAN FIVE (5) FEET UNLESS AN UNREASONABLE HARDSHIP EXISTS AS VERIFIED AND AS DOCUMENTED AND APPROVED PER NOTE 18.
15. NON-WALKABLE SURFACES OR AREAS MAY INCLUDE BUT ARE NOT LIMITED TO: LANDSCAPING, UTILITY POLES, TREE WELLS, OR ANY OTHER FIXED STRUCTURES WHICH DO NOT PERMIT CONSTRUCTING A FLARED CURB TRANSITION, AND SHALL BE DOCUMENTED AND APPROVED PER NOTE 18.
16. THE CROSS SLOPE OF CURB RAMPS, BLENDED TRANSITIONS, AND TURNING SPACES (LANDINGS) SHALL BE 2.0% MAXIMUM. AT PEDESTRIAN STREET CROSSINGS WITHOUT YIELD OR STOP CONTROL AND AT MIDBLOCK PEDESTRIAN STREET CROSSINGS, THE CROSS SLOPE MAY BE PERMITTED TO EQUAL THE STREET OR HIGHWAY GRADE. THE DESIGNER SHOULD STRIVE TO HOLD A 2.0% CROSS SLOPE BEFORE DECIDING TO MATCH THE STREET OR HIGHWAY GRADE. TO ACCOMPLISH THIS, THE GUTTER PAN MUST BE WARPED BEFORE ADDITIONAL SLOPE, BEYOND THE 2.0%, IS INTRODUCED OUTSIDE OF THE CURB RAMP ITSELF (ON THE PAVEMENT AND SIDEWALK).
17. TEMPORARY CONSTRUCTION EASEMENT OR RIGHT OF ENTRY SHALL BE OBTAINED FROM AFFECTED PROPERTY OWNERS PRIOR TO PLACING BACK OF SIDEWALK OR RETAINING CURB/WALL ALONG PROPERTY LINES.
18. DOCUMENTATION AND APPROVALS IDENTIFIED IN NOTES 8, 14 & 15 SHALL BE GRANTED BY THE CITY ENGINEER.
19. FOR ALL PEDESTRIAN PUSH BUTTONS, AT LEAST ONE 30" MIN. X 48" MIN. CLEAR SPACE (1:48 MAX SLOPE) IS REQUIRED AT OPERABLE PARTS.

4		CITY OF LONG BEACH, DEPARTMENT OF PUBLIC WORKS STANDARD PLANS  <b>CURB RAMP</b>	STANDARD PLAN NO.
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2			
1			
NO.	DATE	APPROVED BY: 	SHEET
REVISIONS		CITY ENGINEER P.E. No. 68360	8 OF 8
		DATE: 10/25/16	