NOTE:
IMPROVEMENT PLANS SHALL INCLUDE DETAILS WITH ELEVATIONS, SLOPES AND WIDTHS FOR ANY CURB RAMP CASE A WITH ADJACENT STREET GRADES OVER 5%.

DELTA = TOTAL ANGLE BETWEEN BCR AND ECR

WEAKENED PLANE JOINT

EXPANSION JOINT
SEE STANDARD No. 205

BACK OF CURB

1 1/2" x 3/16" TOOLED JOINT AT ALL RAMP GRADE BREAKS
CURB AND GUTTER DETAILS PER STANDARD No. 200 OR 201

WEAKENED PLANE JOINT ALIGNS WITH 1/4 DELTA RADIAL AT BACK OF CURB

PLAN

4.00' Y (SEE TABLE Y BELOW)

SEE NOTE 10

2' FLUSH (NO LIP)
SEE NOTE 4

PVMT

SGS

COLD JOINT

36' MIN DETECTABLE WARNING SEE DETAILS ON SHEET 2

1 1/2" x 3/16" TOOLED JOINT

4' MIN

RS = RAMP SLOPE: 7.5% (8.33% MAX AS-BUILT)
CS = CROSS SLOPE: 1.5% (2.00% MAX AS-BUILT)
TS = TRANSITION SLOPE: 9.0% (10.00% MAX AS-BUILT)
SGS = STREET & GUTTER SLOPE: 5.00% MAX AS-BUILT
WA = WIDTH A: 4.00' MIN AS-BUILT
FS = FLOWLINE SLOPE AT CURB OPENING:
  • 1.50% (2.00% MAX AS-BUILT) FOR LEGS WITH STOP OR YIELD CONTROL.
  • 4.50% (5.00% MAX AS-BUILT) FOR LEGS WITHOUT STOP, YIELD, OR GREEN LIGHT SIGNALIZATION.
  • STREET % FOR MID-BLOCK CROSSINGS.

SECTION "A-A"

DETECTABLE WARNING PANEL SET IN WET CONCRETE AT TIME OF POUR. SEE NOTES 12 AND 13

<table>
<thead>
<tr>
<th>TABLE Y</th>
<th>CF</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>8.93'</td>
<td></td>
</tr>
<tr>
<td>8&quot;</td>
<td>11.74'</td>
<td></td>
</tr>
</tbody>
</table>

MOTOR VEHICLES ARE PROHIBITED FROM USING CURB RAMPS AS ACCESS ONTO PRIVATE PROPERTY.

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

MARK LANCASTER, P.E.

DIRECTOR OF TRANSPORTATION

C48048

CIVIL

COUNTY OF RIVERSIDE

CURB RAMP CASE A

STANDARD No. 403 (1 OF 7)
NOTE:
IMPROVEMENT PLANS SHALL INCLUDE DETAILS WITH ELEVATIONS, SLOPES AND WIDTHS FOR ANY CURB RAMP CASE B WITH ADJACENT STREET GRADES OVER 5%.

DELTA = TOTAL ANGLE BETWEEN BCR AND ECR

WEAKENED PLANE JOINT
SEE STANDARD No. 805 FOR CURB RETURN RADIUS

BACK OF WALK
BACK OF CURB

CURB AND GUTTER DETAILS
PER STANDARD No. 200 OR 201
1 1/2" x 3/16" TOOLED JOINT AT ALL RAMP GRADE BREAKS

PLAN

FOR PUBLIC WORKS PROJECTS, PAY QUANTITY FOR CURB RAMP CONSTRUCTION SHALL INCLUDE CURB AND GUTTER AND SIDEWALK FROM BCR TO ECR AND BOTH RAMPS.

MOTOR VEHICLES ARE PROHIBITED FROM USING CURB RAMPS AS ACCESS ONTO PRIVATE PROPERTY.

SECTION "A-A"

ABBREVIATIONS AND VALUES:
WB = WIDTH B: 5.00' MIN AS-BUILT (SEE NOTE 16)
SEE SHEET 1 FOR ADDITIONAL ABBREVIATIONS AND VALUES

NOT TO SCALE
PREPARED UNDER THE SUPERVISION OF:

DIRECTOR OF TRANSPORTATION
MARK LANCASTER, P.E.

COUNTY OF RIVERSIDE
CURB RAMP
CASE B

STANDARD No. 403 (2 OF 7)
**TABLE X - CASE "A" TRANSITION LENGTH ALONG CURB RETURN (FEET)**

<table>
<thead>
<tr>
<th>CF</th>
<th>TRANSITION SLOPE</th>
<th>X</th>
<th>FLOWLINE SLOPE (ALONG CURB RETURN)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>6&quot;</td>
<td>9.0%</td>
<td>Xₘ</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Xₜ</td>
<td>6.25</td>
</tr>
<tr>
<td>8&quot;</td>
<td>9.0%</td>
<td>Xₘ</td>
<td>6.67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Xₜ</td>
<td>8.33</td>
</tr>
</tbody>
</table>

NOTE: THE TRANSITION LENGTH IS NOT REQUIRED TO GO BEYOND THE BCR OR ECR, NOR EXCEED 15' IN LENGTH.

**TABLE Z - CASE "B", "C" AND "D" RAMP LENGTH ALONG BACK OF WALK (FEET)**

<table>
<thead>
<tr>
<th>CF</th>
<th>RAMP SLOPE</th>
<th>Z</th>
<th>FLOWLINE SLOPE (ALONG CURB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>6&quot;</td>
<td>7.5%</td>
<td>Zₘ</td>
<td>5.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zₜ</td>
<td>7.69</td>
</tr>
<tr>
<td>8&quot;</td>
<td>7.5%</td>
<td>Zₘ</td>
<td>7.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zₜ</td>
<td>10.26</td>
</tr>
</tbody>
</table>

* NOTE: RAMP LENGTH IS NOT REQUIRED TO EXCEED 15.0' ALONG THE BACK OF WALK.

**TO CALCULATE "X" OR "Z" LENGTH:**

\[
X_S \text{ OR } Z_S (\text{FT}) = \frac{\text{CURB FACE (FEET)}}{\text{TRANS OR RAMP SLOPE + FL SLOPE}}
\]

\[
X_L \text{ OR } Z_L (\text{FT}) = \frac{\text{CURB FACE (FEET)}}{\text{TRANS OR RAMP SLOPE - FL SLOPE}}
\]

ENGINEER TO SHOW \(X_S\), \(X_L\), \(Z_S\), AND \(Z_L\) ON IMPROVEMENT PLANS

PREPARED UNDER THE SUPERVISION OF:

DIRECTOR OF TRANSPORTATION
MARK LANCASTER, P.E.

REVISION DESCRIPTION MARK DATE APPROVED

COUNTRY OF RIVERSIDE
Curb Ramp Profile

STANDARD No. 403 (3 OF 7)
SECTION "B-B"

RESIDENTIAL DRIVEWAY PER STANDARD No. 213

1 1/2' x 3/16" TOOLED JOINT AT ALL GRADE BREAKS

6" OR 8" RETAINING CURB

6" OR 8" CF

BACK OF SIDEWALK

BACK OF CURB

FLOW LINE

EDGE OF GUTTER

BCR DRIVEWAY

OR TOP OF "X"

FOR PUBLIC WORKS PROJECTS PAY QUANTITY FOR CURB RAMP CONSTRUCTION SHALL INCLUDE CURB AND GUTTER FROM TOP OF RAMP TO TOP OF RAMP AND BOTH RAMPS.

MOTOR VEHICLES ARE PROHIBITED FROM USING CURB RAMPS AS ACCESS ONTO PRIVATE PROPERTY.

SECTION "A-A"

ABBREVIATIONS AND VALUES: SEE SHEET 1

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

Mark Lancaster

11/30/22

DIRECTOR OF TRANSPORTATION

MARK LANCASTER, P.E.

C48048

COUNTY OF RIVERSIDE

CURB RAMP - CASE C
"T" INTERSECTION WITH SIDEWALK AT CURB

STANDARD No. 403 (4 OF 7)

SEE ALL NOTES ON SHEET 7
SECTION "B-B"

EDGE OF DWY OR LOT DRAINAGE FLOW LINE
RESIDENTIAL DRIVEWAY PER STANDARD No. 213
STANDARD No. 213
MIN
2'
2'

SECTION "A-A"

ABBREVIATIONS AND VALUES: SEE SHEET 1

NOT TO SCALE
PREPARED UNDER THE SUPERVISION OF:
Mark Lancaster
11/30/22
DIRECTOR OF TRANSPORTATION
MARK LANCASTER, P.E.

STATE OF CALIFORNIA
COUNTY OF RIVERSIDE
CURB RAMP - CASE D
"T" INTERSECTION WITH SIDEWALK AT R/W
STANDARD No. 403 (5 OF 7)
RAMP LOCATION AT "T" INTERSECTION
(RIGHT TURN SIDE OF STREET A)

CASES "C" AND "D"

NOTE:
DRIVEWAYS TO BE LOCATED SO THAT THEY DO NOT CONFLICT WITH REQUIRED RAMP LOCATION. AVOID LOCATING DRIVEWAYS WITHIN INTERSECTION.
NOTES:

1. TO MEET AMERICAN WITH DISABILITIES ACT STANDARDS, MAXIMUM STATED SLOPES AND MINIMUM STATED DISTANCES ARE ABSOLUTE AND NO CONSTRUCTION TOLERANCES WILL BE PERMITTED.

2. IF THE DISTANCE FROM CENTER OF CURB RETURN TO EXISTING RIGHT-OF-WAY LINE IS INSUFFICIENT TO ACCOMMODATE THE CASE A CURB RAMP AND TOP LANDING, THEN USE THE CASE B CURB RAMP.

3. THE MINIMUM SIDEWALK WIDTH IS 5.00' WHERE A VERTICAL OBJECT (SUCH AS A CURB OR WALL) IS ADJACENT TO THE PEDESTRIAN ACCESS ROUTE.

4. TRANSITIONS FROM CURB RAMPS TO SIDEWALKS, GUTTERS, AND STREETS SHALL BE FLUSH AND FREE FROM ABRUPT LEVEL CHANGES. NO LIPS ARE PERMITTED AT THE GUTTER FLOWLINE OR EDGE OF PAVEMENT.

5. THE TOP OF CURB WIDTH IS NOT INCLUDED IN THE MEASUREMENT OF MINIMUM SIDEWALK WIDTH.


7. FOR CASE B CURB RAMPS, CONSTRUCT WEAKENED PLANE JOINTS AT 1/4 DELTAS WHEN THE RADIUS EQUALS 35' AND AT TOPS OF RAMPS WHEN THE RADIUS EQUALS 25'.

8. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, USE A MODIFIED CONCRETE MIX AND PLACE 6" MIN CLASS 2 AGGREGATE BASE AND 6 MIL PLASTIC SHEETING UNDER AND AROUND ALL SIDES OF CONCRETE IMPROVEMENTS. FOR EXPANSIVE SOIL, PLACE 6" MIN CLASS 2 AGGREGATE BASE UNDER CONCRETE IMPROVEMENTS AS DIRECTED BY THE ENGINEER. SEE SPECIFICATIONS SECTIONS 16.03 & 16.04 AND STANDARD NO. 401 FOR REFERENCE.

9. CONCRETE SHALL HAVE MINIMUM CEMENTITIOUS MATERIAL CONTENT = 505 LB / CU YD.

10. THE ROAD SURFACE AND GUTTER SURFACE SHALL NOT EXCEED 5.00% WITHIN 4' OF THE CURB RAMP EDGE (FLOW LINE).

11. DETECTABLE WARNING SURFACES ARE REQUIRED WHEREVER AT-GRADE PEDESTRIAN SURFACES ENTER INTO A VEHICULAR TRAVEL WAY (EXCEPT NOT REQUIRED AT DRIVEWAY APPROACHES).

12. CURB RAMPS SHALL INCLUDE A YELLOW DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL CURB OPEN WIDTH AND 3'-0" DEPTH OF THE RAMP. DETECTABLE WARNING SURFACES SHALL CONSIST OF A PANEL SET INTO WET CONCRETE AND CONFORM TO THE DETAILS ON SHEET 2 OF THIS STANDARD. NO BOLT DOWN OR GLUE DOWN PANELS WILL BE ALLOWED FOR NEW RAMP CONSTRUCTION.

13. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOWLINE.

14. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER UTILITY FACILITIES ARE NOT TO BE LOCATED WITHIN THE BOUNDARIES OF THE CURB RAMP. EXISTING STRUCTURES WILL BE RELOCATED OR ADJUSTED TO GRADE BY THE OWNER PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION.

15. CROSSWALK STRIPING IS ONLY APPLIED IF SHOWN ON IMPROVEMENT PLANS. CROSSWALK STRIPING, WHEN CALLED FOR, SHALL BE PER STANDARD NO. 1211.

16. FOR NEW CASE B, CASE C, AND CASE D CURB RAMPS THE LEVEL LANDING AT THE BOTTOM OF THE RAMPS SHALL BE A MINIMUM OF 5.00' WIDE. FOR INVENTORYING EXISTING CASE B AND CASE C RAMPS, A CURB OPENING WIDTH OF 4.00' MIN IS ACCEPTABLE.

17. FOR PUBLIC WORKS PROJECTS, THE CONTRACT UNIT PRICE FOR CURB RAMP SHALL INCLUDE RAMP, SIDEWALK, CURB AND GUTTER (OR SPANDREL) FROM BCR TO ECR.