

# **Contract Specifications for Curb Ramp Improvements Project – Phase 1 (PN:RL46)**

**Department of Public Works  
Project Delivery Division  
County of Sacramento, California**

Please feel free to print this PDF form. The document is below. Please scroll down.

For more relevant information, please visit the Armor Tile website. This website is an excellent resource on ADA solutions, ADA regulations and requirements, truncated domes, detectable warning surface tiles and more.

You will find extensive content in the form of PDF files, Videos, Images, Word Documents, Power Point Presentations, Flash Presentations and AutoCAD Drawings on the Armor Tile website, by clicking the link below. Be sure to bookmark the Armor Tile site as a favorite.

**<http://www.armor-tile.com>**



DEPARTMENT OF  
PUBLIC WORKS

CITY OF SACRAMENTO  
CALIFORNIA

927 10th STREET  
SUITE 100  
SACRAMENTO, CA  
95814-2702

PROJECT DELIVERY  
DIVISION

PH 916-808-8300  
FAX 916-264-8281

**CONTRACT SPECIFICATIONS  
FOR**

**CURB RAMP IMPROVEMENTS PROJECT – PHASE 1 (PN:RL46)**

Non-Refundable Fee  
\$ 25.00

For Pre-Bid Information Call:  
Cecilyn Foote, Project Manager  
(916) 808-6843

Bids to be received before  
**2:00 P.M. Wednesday,  
February 18, 2004** at:  
City Hall  
730 I Street, Room 211  
Sacramento, CA 95814

**NEW PROGRAM REQUIREMENTS**

To meet the City of Sacramento's Small Business Enterprise (SBE) and Emerging Business Enterprise (EBE) project goals, the bidder is recommended to attend an Emerging and Small Business Development (ESBD) program meeting within 180 days prior to the bid opening date listed above. The meetings are presented:

1<sup>st</sup> Tuesday at 10:00 AM at Department of Administrative Services, 921 10<sup>th</sup> Street, 4<sup>th</sup> Floor

3<sup>rd</sup> Tuesday at 10:00 AM at Department of Utilities, 1395 35<sup>th</sup> Avenue

Estimated Construction Cost: \$780,000

Construction Time: 65 Working Days

The Contractor shall use 6 sack PCC with one pound of lamp black added per cubic yard to match existing concrete color.

The Contractor shall replace sidewalk and affected walkways with matching material such as colored concrete, exposed aggregate, tile, brick, or other type. Matching material shall be approved by the Engineer prior to placement. The cost shall be included in this item.

Curb No. 15 shall be constructed at the back of the sidewalk for both curb and gutter No. 4 and No.13. Cost for this work shall be included under this item of work.

All edging around embedded objects flush with the finished surface shall have a one-eighth inch (1/8") tooled radius. The cost shall be included in this item.

Included in this item of work is the cost of modifying any existing pedestrian island and any commercial driveway or removal of any portion of the sidewalk and replacing the removed sidewalk area with sod or matching fill material as approved and directed by the Engineer. The cost of the sod and matching material shall be included in the unit cost bid for this item.

Payment shall be at the unit price bid per square foot of new sidewalk constructed and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in removing and replacing PCC sidewalk, which includes all elements of the curb ramps (except curb and gutter), as specified in these Special Provisions and as directed by the Engineer.

### **ITEM NO. 3 - TRUNCATED DOMES TO PLACE**

Truncated domes shall be installed at each curb ramp regardless of slope. Included in this item is the purchase and installation of cast-in-place truncated domes for each curb ramp in conformance with the City's current curb ramp details (see Appendix) and these Specifications.

Truncated domes shall be Armor Tile, as manufactured by Engineered Plastics Inc., Product #ADA-C-3648S-YW, Cast in Place, 36"x 48", Sound Amplifying, Color Yellow or approved equal. With written approval of the City Engineer, Armor Tile, as manufactured by Engineered Plastics Inc., Product #ADA-S-3648-YW, Surface Applied, 36"x48", Color Yellow, may be used where cast-in-place is not possible.

Installation of detectable warnings shall be by manufacturer trained and certified individuals. The Contractor shall provide the Engineer with copies of these certificates prior to beginning work. Installation shall have a five (5) year written warranty from the Contractor. A copy of the written warranty shall be submitted to the Engineer. Product is locally available at Spec West (916-361-1300) or White Cap (916-636-3215).

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in placing truncated domes, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 4 - CURB AND GUTTER NO. 4 AND NO. 13 TO REMOVE AND REPLACE**

Portland cement concrete curb and gutter No. 4 and No. 13 shall be removed and replaced as specified in these Special Provisions and as directed by the Engineer. Removal of curb and gutter shall be determined in the field. Curb and gutter to be removed shall be saw cut in a neat straight line, in accordance with the requirements of Sections 13 and 19 of the Standard Specifications, and shall be disposed of away from the project site by the Contractor in a location and manner satisfactory to the Engineer. No material may be stored temporarily within the City right-of-way unless specifically approved by the Engineer.

Included in this item is the removal and disposal of existing material to place five inches (5") of aggregate base Class 2 under the new curb and gutter. The cost and placement of AB shall be included in the cost of this bid item and shall conform to the requirements of Sections 10 and 17 of the Standard Specifications.

The transition from existing curb and gutter to new curb and gutter shall be included in the cost of this item.

Payment shall be at the unit price bid per lineal foot of new curb and gutter constructed and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in removing and replacing curb and gutter No. 4 and No 13 as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 5 - RETAINING WALL TO CONSTRUCT**

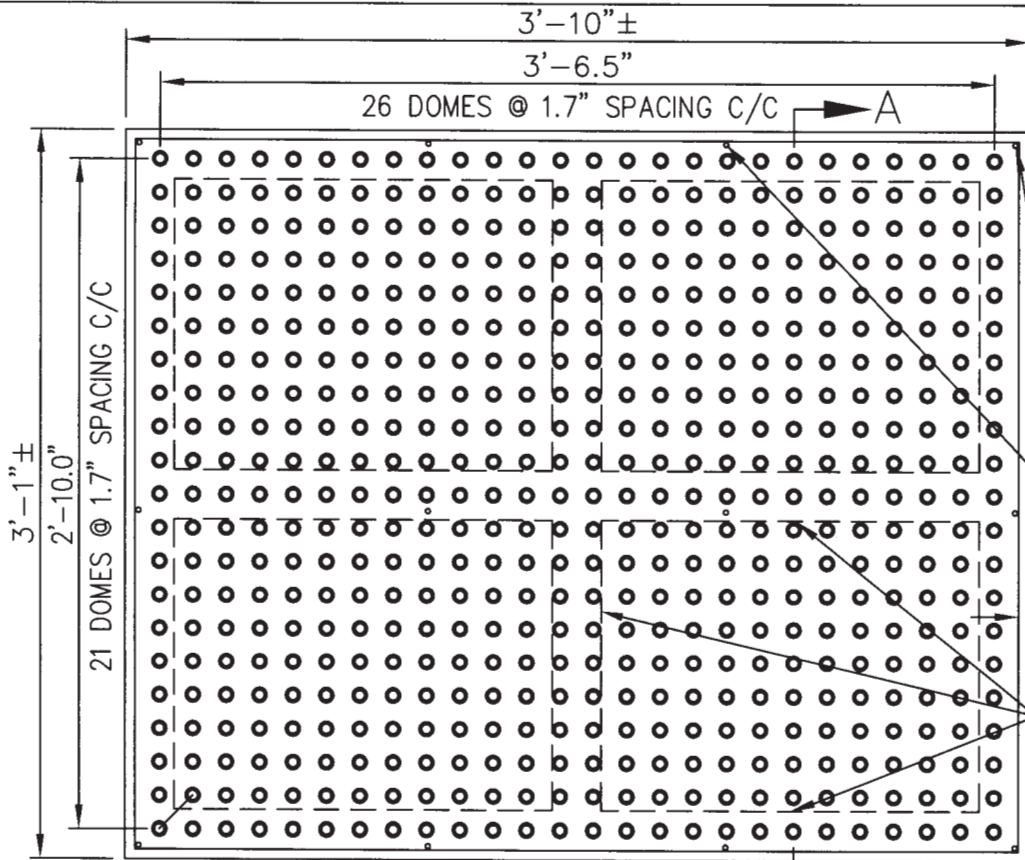
Portland cement concrete Class "C" retaining wall shall be constructed as directed by the Engineer, and shall conform to the applicable requirements of Sections 20 and 21 of the Standard Specifications. It is anticipated that the retaining wall will be a maximum height of two feet (2') with No. 4 reinforcement at 12" o. c. each way.

Payment shall be at the unit price bid per square foot and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in constructing retaining wall, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 6 - MISCELLANEOUS ITEMS TO ADJUST TO GRADE**

Miscellaneous items including but not limited to fire alarm, City Utilities and public utilities maintenance holes, valves and valve boxes, and gutter drains shall be adjusted to grade in accordance with Section 10,24,25,27, and 29 of the Standard Specifications.

All debris, which enters maintenance holes, valves, and gutter drains as a result of this operation, shall be immediately removed.



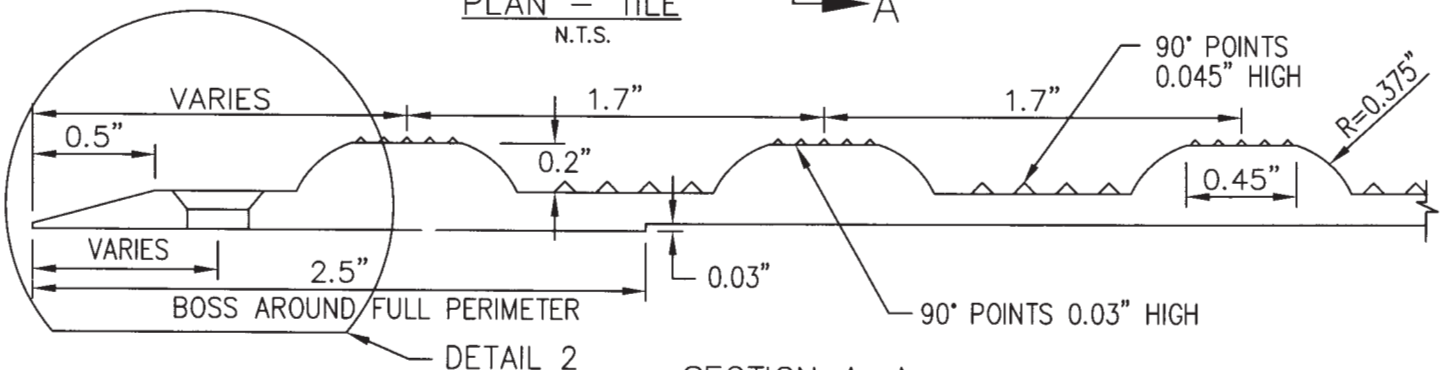
**NOTE:**  
 SURFACE MOUNTED TILE  
 DETAILS SHOWN. DETAILS  
 ARE APPLICABLE TO TILE  
 SURFACE SECTION ONLY.  
 CAST-IN-PLACE TILE UNIT  
 DESIGN AND DETAILS TO  
 BE APPROVED BY THE  
 ENGINEER. TILE MATERIAL,  
 FASTENERS, AND ADHESIVE  
 TO BE APPROVED BY THE  
 ENGINEER.

1/4" DIA. CTSK HOLES  
 (TYP. 12 LOCATIONS)

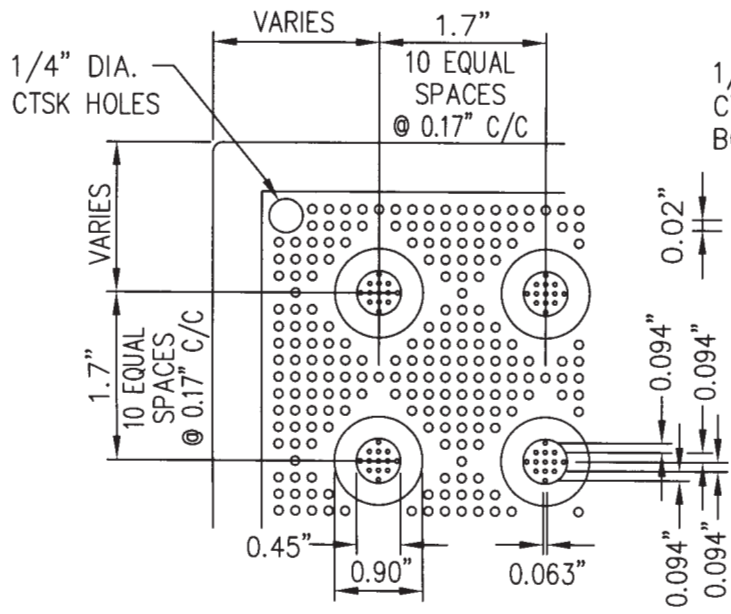
0.5" (TYP. AROUND  
 PERIMETER)

2.5" WIDE BOSS AT UNDERSIDE  
 OF TILE FOR STRUCTURAL  
 ADHESIVE AT FULL PERIMETER  
 AND THROUGH CENTER TILE

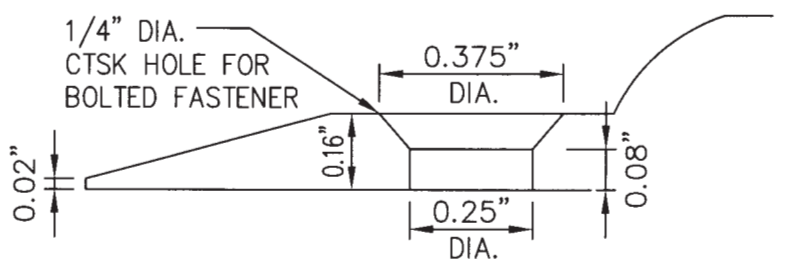
PLAN - TILE  
 N.T.S.



SECTION A-A  
 N.T.S.

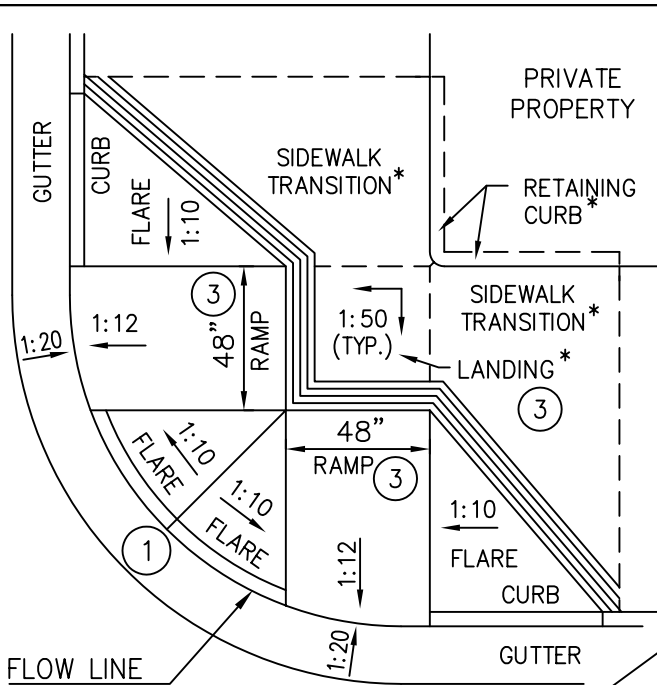


DETAIL 1



DETAIL 2

REV. NO.	DATE	DESCR.
CITY OF SACRAMENTO ENGINEERING DIVISION		
TRUNCATED DOME DETAIL		
APPROVED BY:	SCALE: NONE	
DATE: 01/23/02	DWG NO.: CE 3.1	

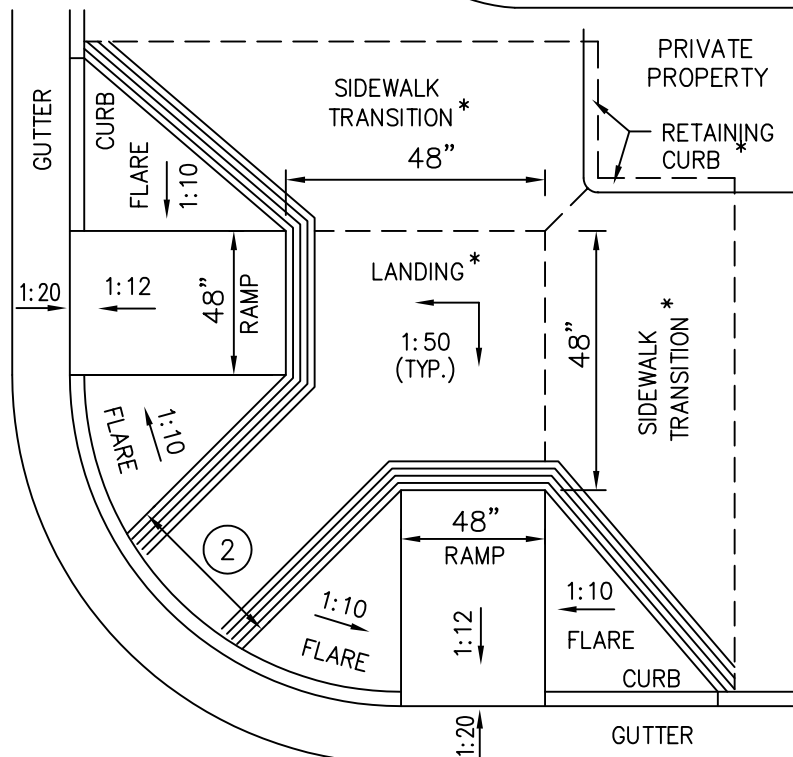
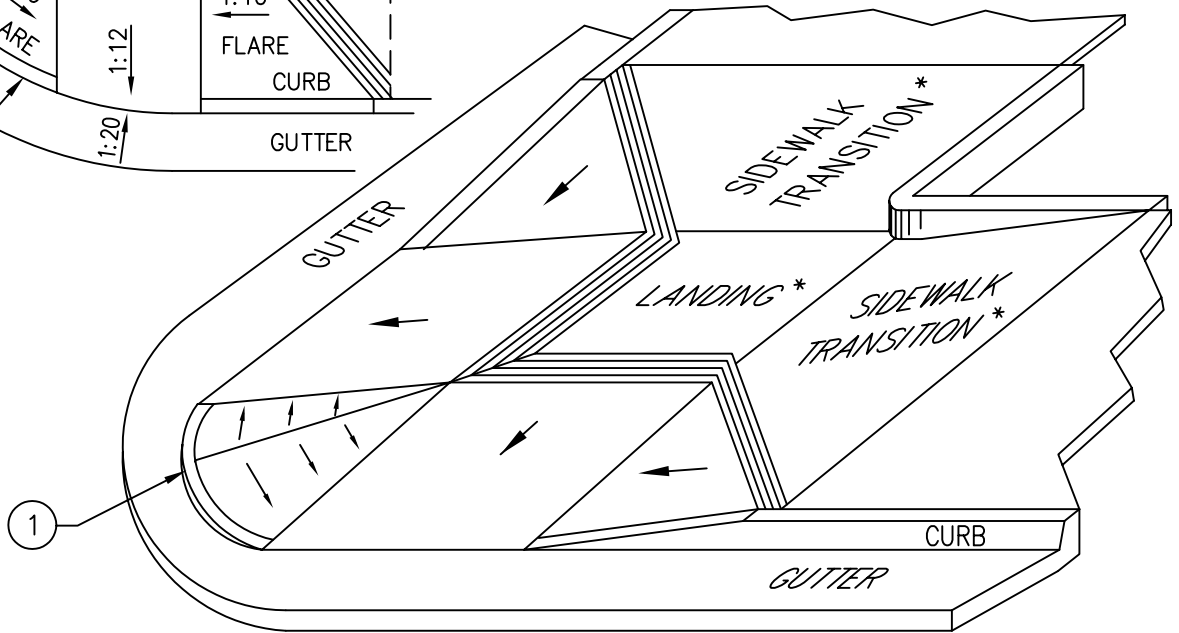


**NOTES:**

- A. ALL SLOPES SHOWN ARE MAXIMUMS.
- B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
- C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.

\* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

--- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.



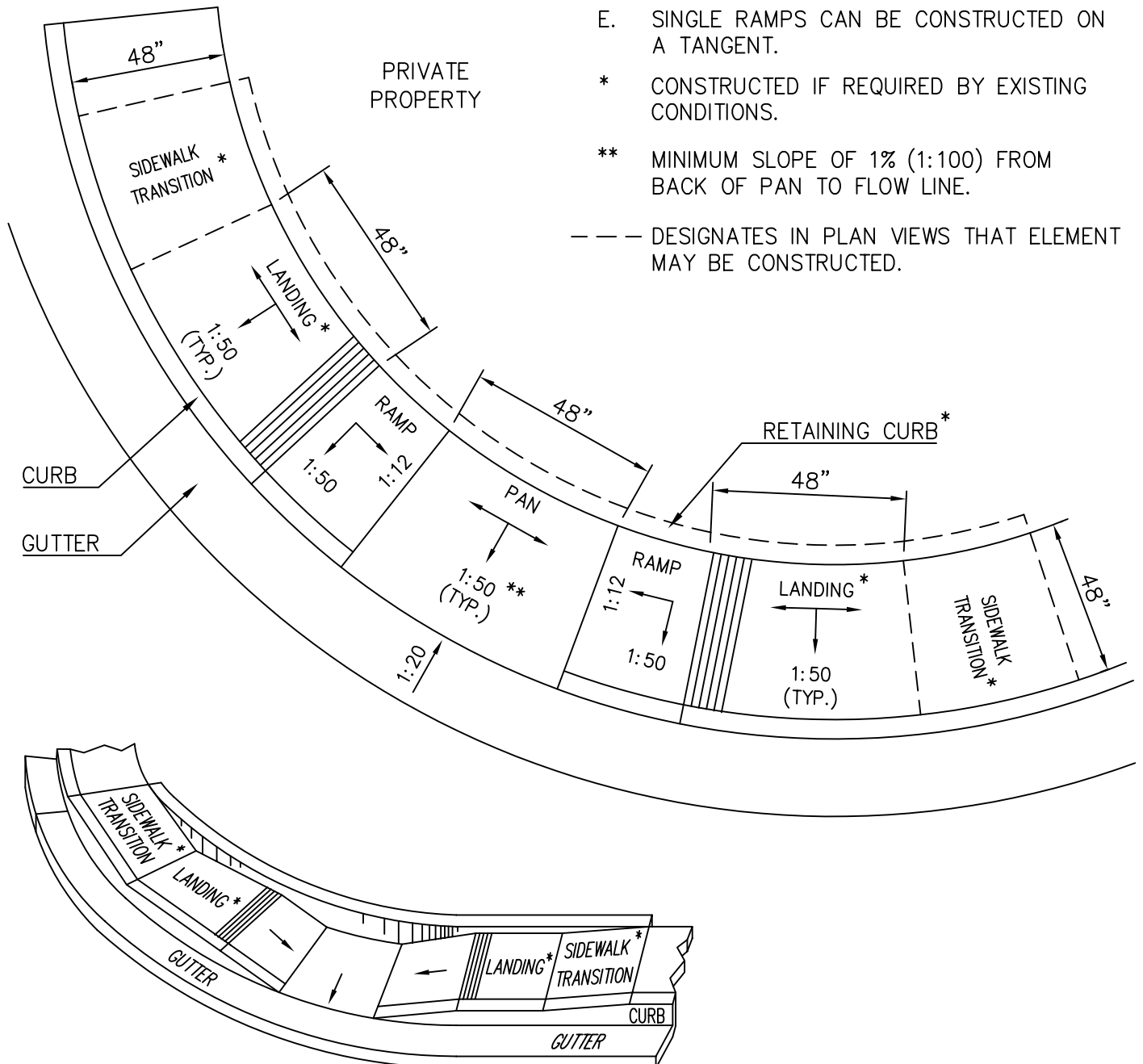
**NOTES:**

- ① 4" MINIMUM CURB HEIGHT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- ② NO MINIMUM DIMENSION. GROOVE PATTERNS OR FLARES CAN INTERSECT.
- ③ IF LANDING CONSTRUCTED, 48" MIN. LANDING DIMENSIONS REQUIRED.

REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
DUAL FLARE CURB RAMPS		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 4.3	

NOTES:

- A. ALL SLOPES SHOWN ARE MAXIMUMS.
- B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
- C. ALL PANS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
- D. ALL JOINTS BETWEEN ELEMENTS ARE RADIAL.
- E. SINGLE RAMPS CAN BE CONSTRUCTED ON A TANGENT.
- \* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.
- \*\* MINIMUM SLOPE OF 1% (1:100) FROM BACK OF PAN TO FLOW LINE.
- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.



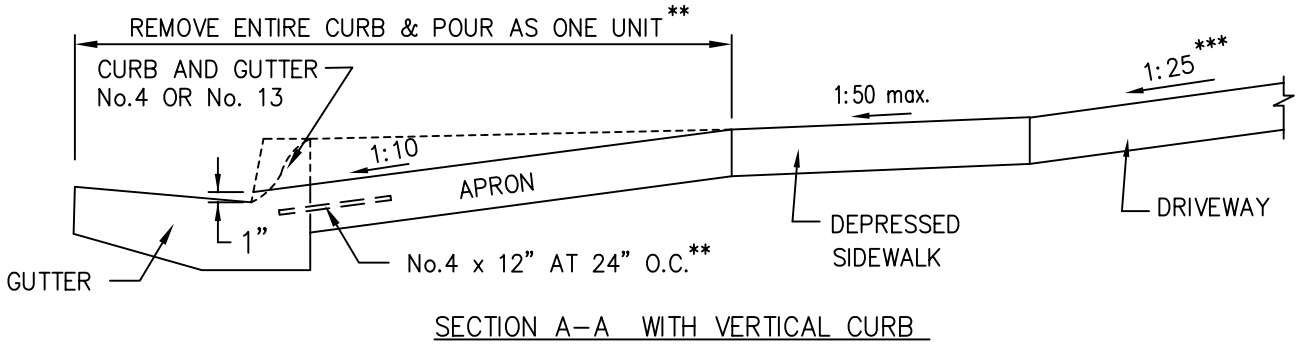
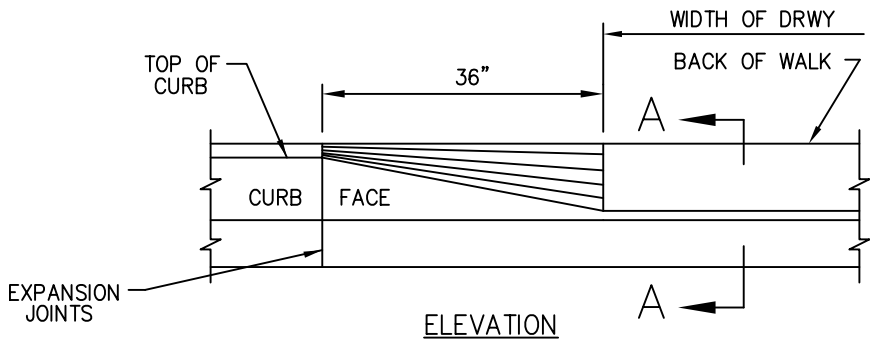
REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		

CITY OF SACRAMENTO  
ENGINEERING DIVISION

SINGLE PAN CURB RAMPS

APPROVED BY:  
DATE: 01/09/01

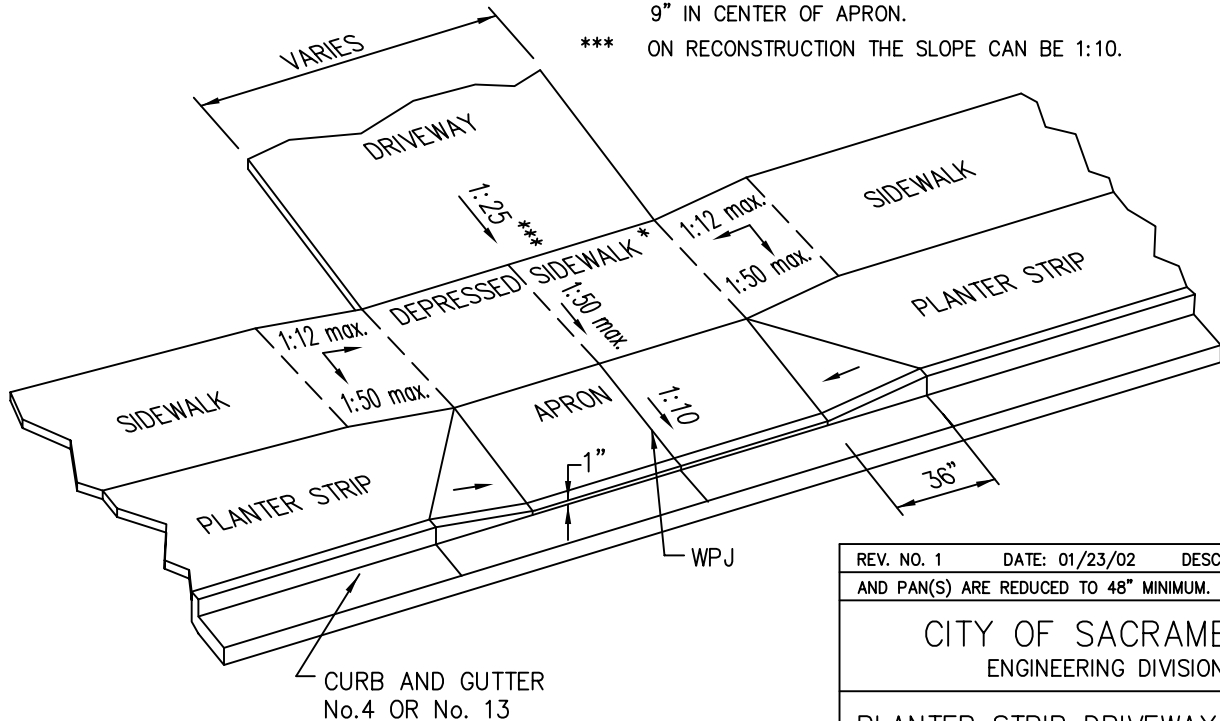
SCALE: NONE  
DWG NO.: CE 4.0



SECTION A-A WITH VERTICAL CURB

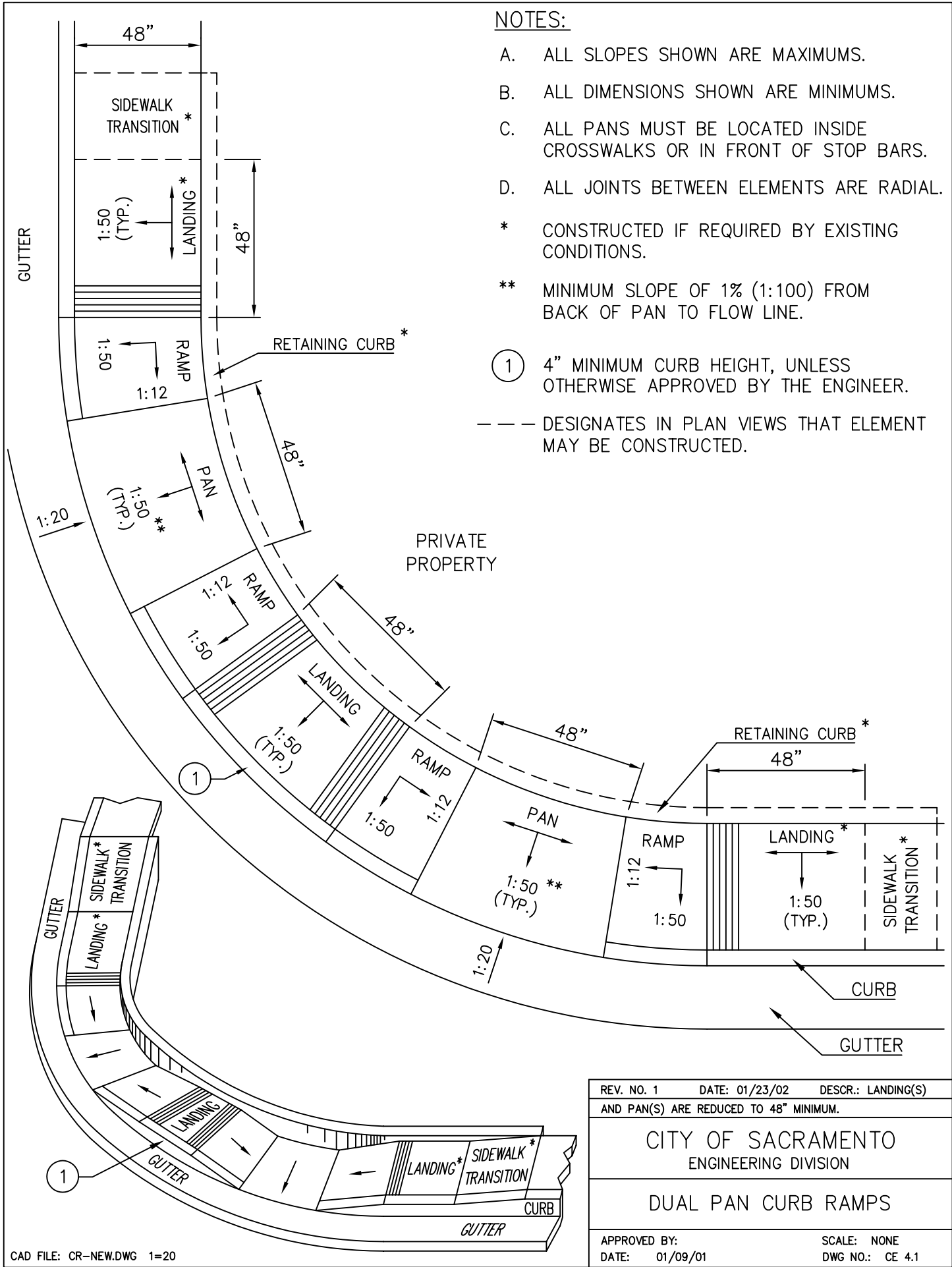
**NOTES:**

- A. DRIVEWAY WIDTH AS PER SEC. 38 CITY CODE.
  - B. WEAKENED PLANE JOINTS (WPJ) REQUIRED ON CENTERLINE FOR DRIVEWAYS 10' TO 20' WIDE. DRIVEWAYS 22' TO 35' WIDE SHALL HAVE TWO WPJ EVENLY SPACED AT 1/3 AND 2/3 POINTS.
  - C. ALL CONSTRUCTION AND MATERIALS IN CONFORMANCE WITH SEC. 24 OF STANDARD SPECIFICATIONS.
  - D. THICKNESS OF APRONS SHALL BE 4" ON RESIDENTIAL DRIVEWAYS AND 6" ON COMMERCIAL DRIVEWAYS. ON COMMERCIAL DRIVEWAYS SIDEWALK SHALL BE REMOVED AND REPLACED WITH 6" OF CONCRETE.
- DESIGNATES THAT ELEMENT MAY BE CONSTRUCTED.
- \* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.
- \*\* IF CURB AND GUTTER ARE POURED SEPARATE OF APRON THEN DOWELS ARE REQUIRED AT BACK OF CURB. 3" IN CURB AND 9" IN CENTER OF APRON.
- \*\*\* ON RECONSTRUCTION THE SLOPE CAN BE 1:10.



REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
PLANTER STRIP DRIVEWAY DETAIL		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 4.8	





**NOTES:**

- A. ALL SLOPES SHOWN ARE MAXIMUMS.
- B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
- C. ALL PANS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
- D. ALL JOINTS BETWEEN ELEMENTS ARE RADIAL.

\* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

\*\* MINIMUM SLOPE OF 1% (1:100) FROM BACK OF PAN TO FLOW LINE.

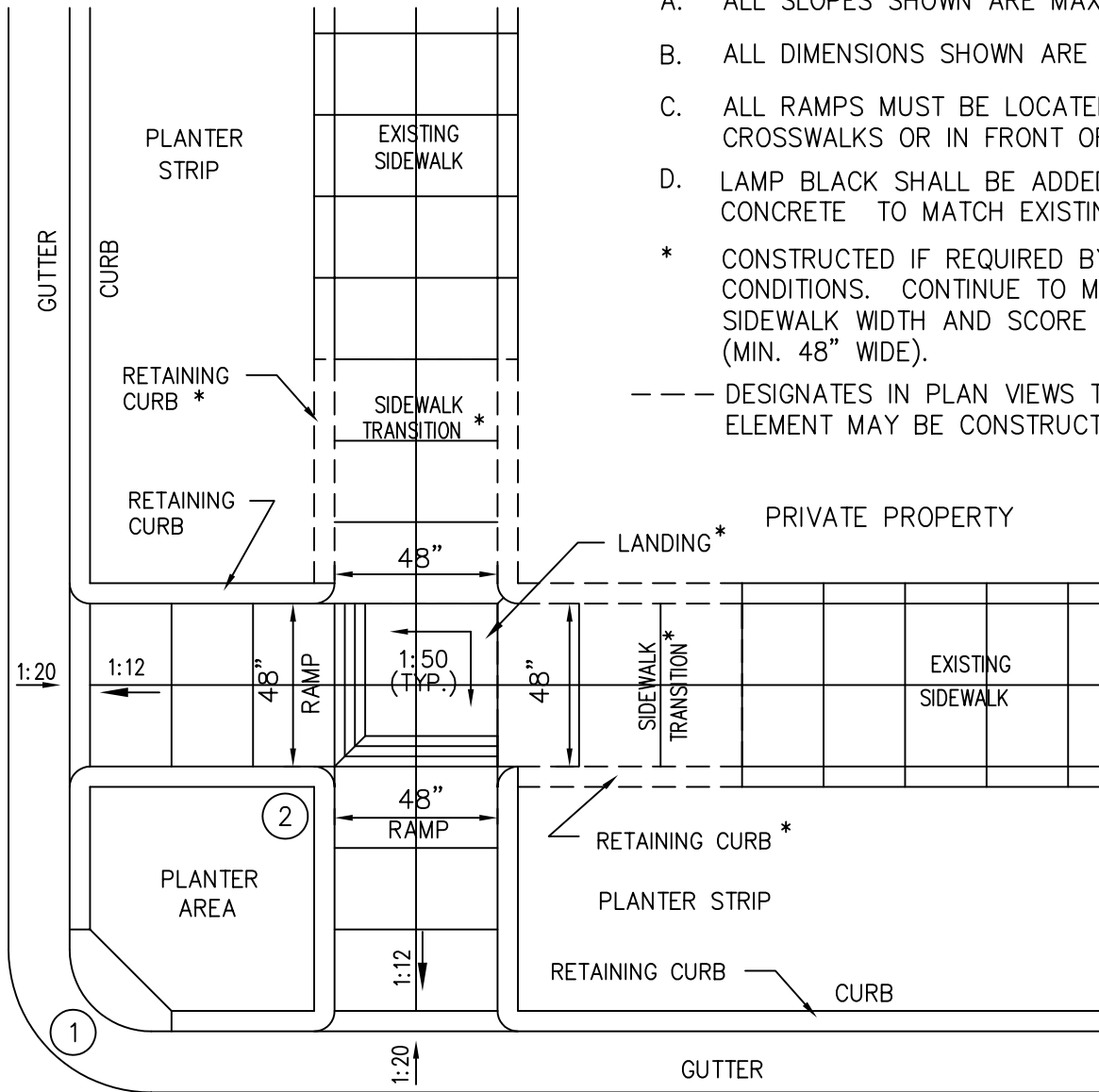
① 4" MINIMUM CURB HEIGHT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

--- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.

REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
DUAL PAN CURB RAMPS		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 4.1	

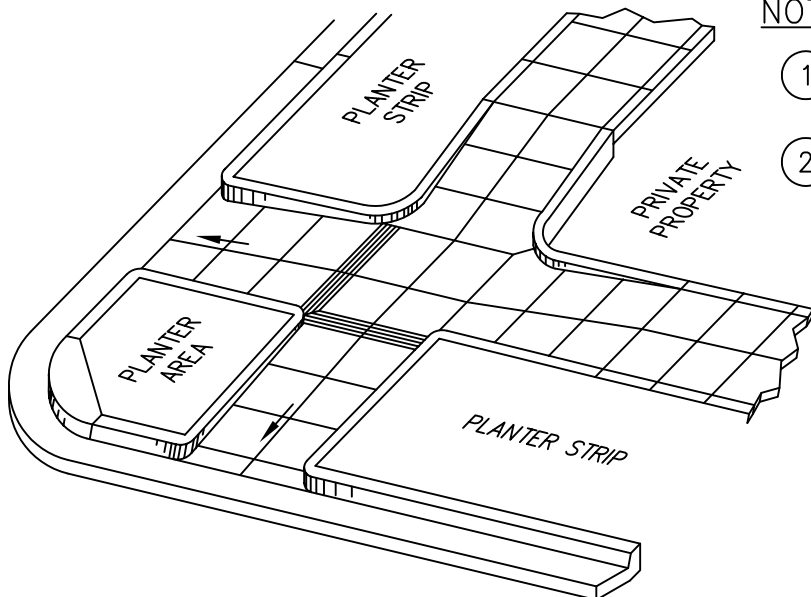
NOTES:

- A. ALL SLOPES SHOWN ARE MAXIMUMS.
- B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
- C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
- D. LAMP BLACK SHALL BE ADDED TO NEW CONCRETE TO MATCH EXISTING COLOR.
- \* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS. CONTINUE TO MATCH SIDEWALK WIDTH AND SCORE PATTERN (MIN. 48" WIDE).
- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.

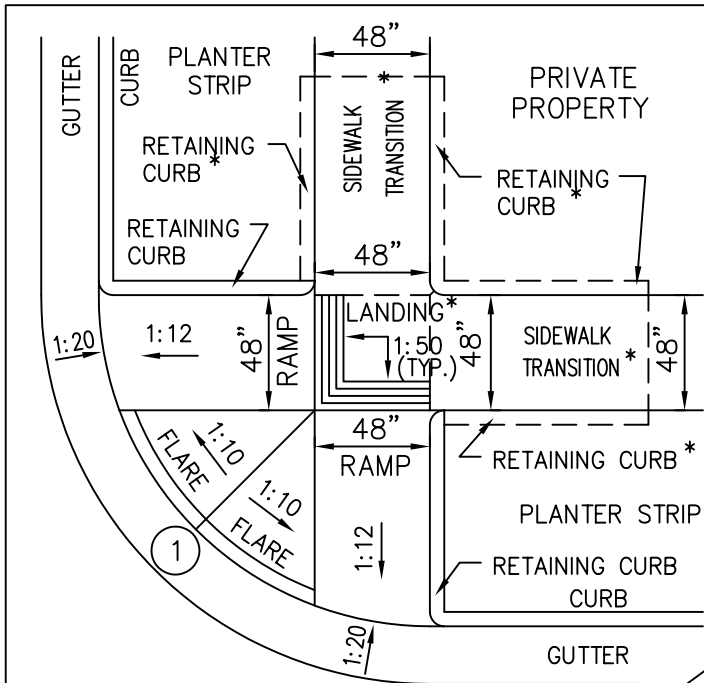


NOTES:

- ① STANDARD CURB HEIGHT TO MATCH EXISTING.
- ② TOP OF RETAINING CURB TO MATCH ADJACENT RETAINING CURB ELEVATIONS. CAN BE FLUSH WITH LANDING.



REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
PLANTER STRIP CURB RAMPS		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 4.6	

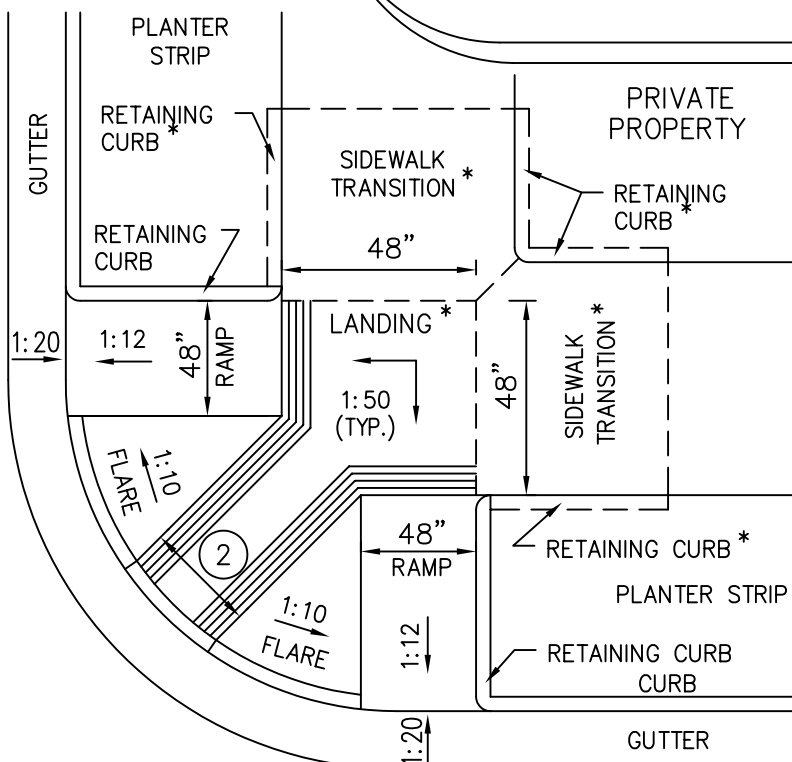
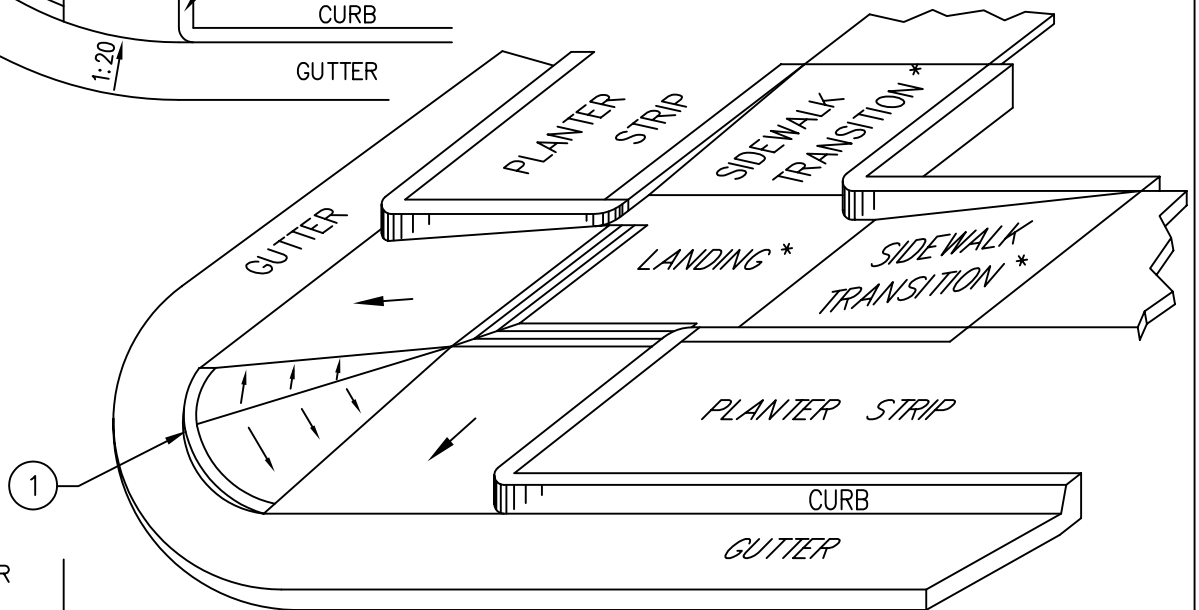


**NOTES:**

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- B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
- C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.

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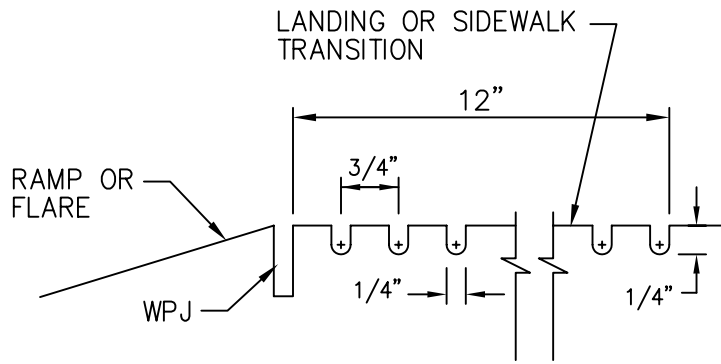
--- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.



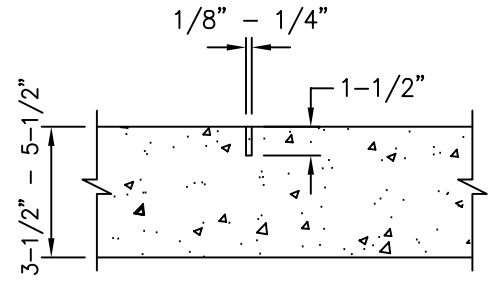
**NOTES:**

- ① 4" MINIMUM CURB HEIGHT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- ② NO MINIMUM DIMENSION. GROOVE PATTERNS OR FLARES CAN INTERSECT.

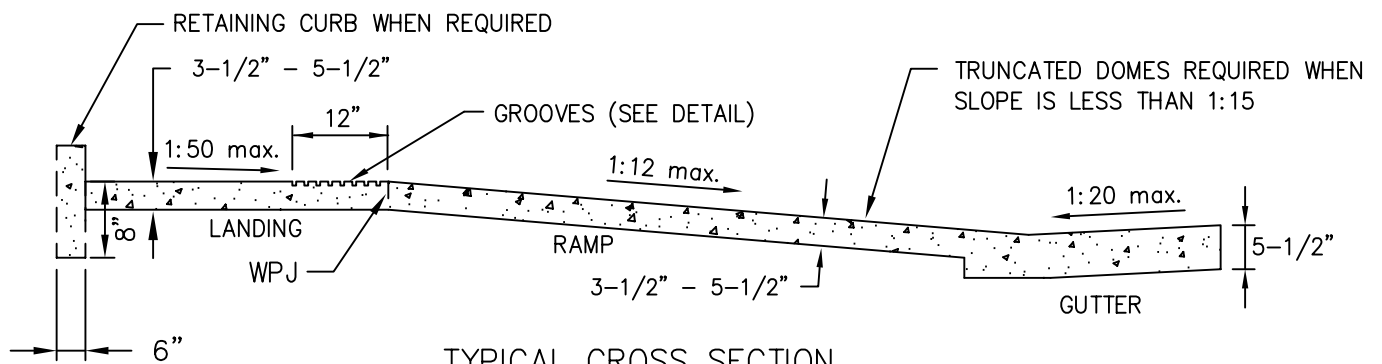
REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
DUAL COMBINATION CURB RAMPS		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 4.5	



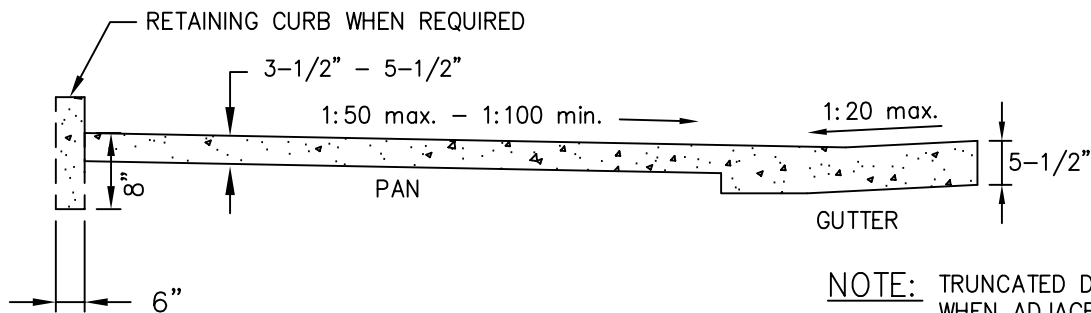
12" GROOVING DETAIL



WEAKENED PLANE JOINT (WPJ)



TYPICAL CROSS SECTION  
FOR CENTER LINE OF FLARE, COMBO,  
OR PLANTER STRIP CURB RAMP



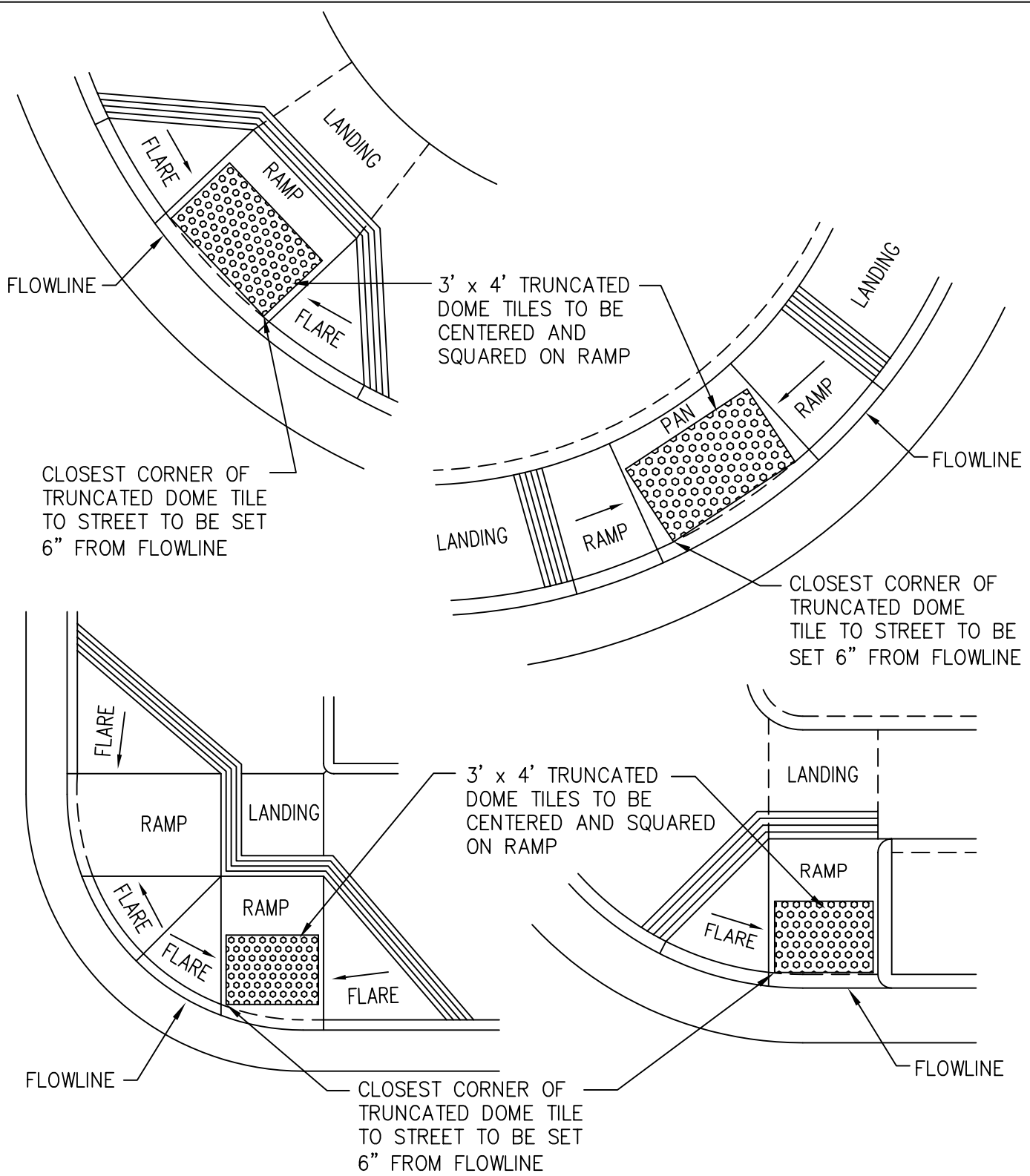
TYPICAL CROSS SECTION  
FOR CENTER LINE OF  
PAN CURB RAMP

NOTE: TRUNCATED DOMES REQUIRED IN PAN WHEN ADJACENT SLOPE OF EITHER RAMP IS LESS THAN 1:15

NOTES:

- A. SURFACE OF RAMPS AND PANS SHALL HAVE A TRANSVERSE BROOM SURFACE TEXTURE ROUGHER THAN ADJACENT SIDEWALK.
- B. LAMP BLACK OR OTHER COLORING SHALL BE ADDED TO NEW CONCRETE AS NECESSARY TO MATCH EXISTING COLOR.

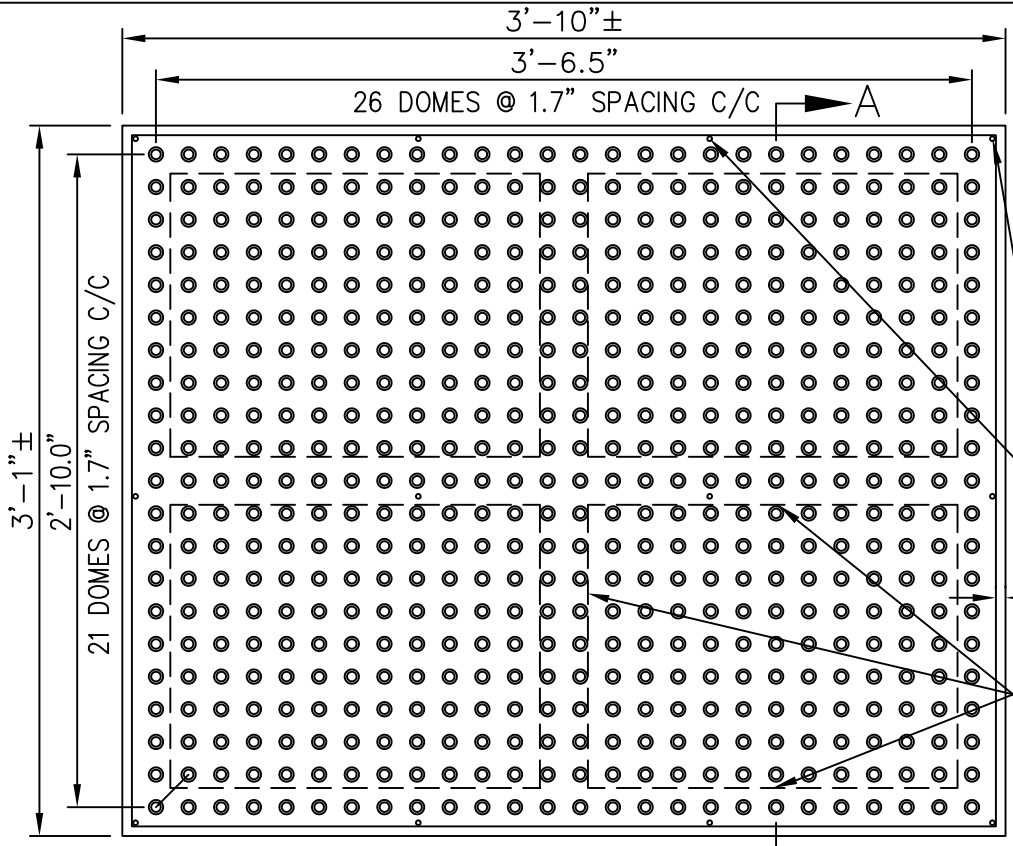
REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
CURB RAMP GENERAL DETAILS		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 3.0	



**NOTES:**

1. TRUNCATED DOMES REQUIRED IN PAN WHEN ADJACENT SLOPE OF EITHER RAMP IS LESS THAN 1:15
2. TRUNCATED DOMES REQUIRED ON RAMP WHEN SLOPE IS LESS THAN 1:15
3. 3' x 4' DIMENSION IS NOMINAL (SEE DWG CE. 3.1)

REV. NO.	DATE	DESCR.
CITY OF SACRAMENTO ENGINEERING DIVISION		
TRUNCATED DOME STANDARD LAYOUT		
APPROVED BY:		SCALE: NONE
DATE: 01/23/02		DWG NO.: CE 3.2



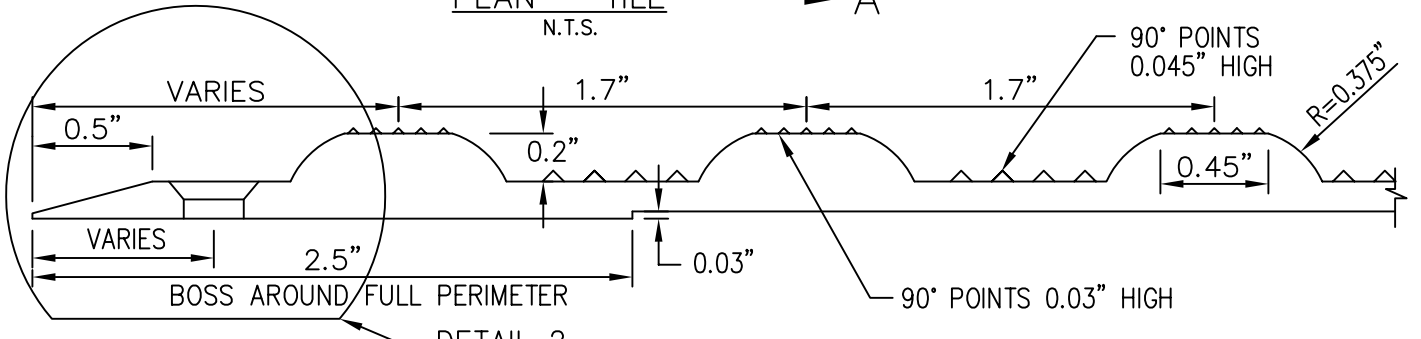
**NOTE:**  
 SURFACE MOUNTED TILE  
 DETAILS SHOWN. DETAILS  
 ARE APPLICABLE TO TILE  
 SURFACE SECTION ONLY.  
 CAST-IN-PLACE TILE UNIT  
 DESIGN AND DETAILS TO  
 BE APPROVED BY THE  
 ENGINEER. TILE MATERIAL,  
 FASTENERS, AND ADHESIVE  
 TO BE APPROVED BY THE  
 ENGINEER.

1/4" DIA. CTSK HOLES  
 (TYP. 12 LOCATIONS)

0.5" (TYP. AROUND  
 PERIMETER)

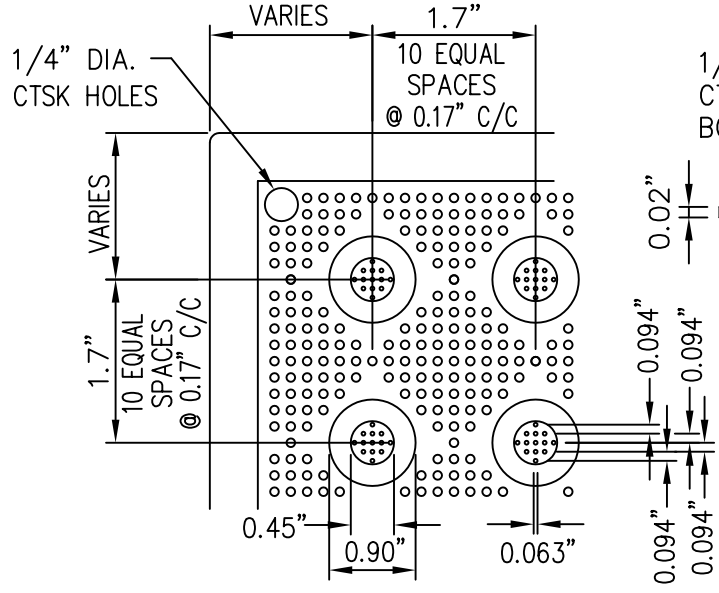
2.5" WIDE BOSS AT UNDERSIDE  
 OF TILE FOR STRUCTURAL  
 ADHESIVE AT FULL PERIMETER  
 AND THROUGH CENTER TILE

PLAN - TILE  
 N.T.S.

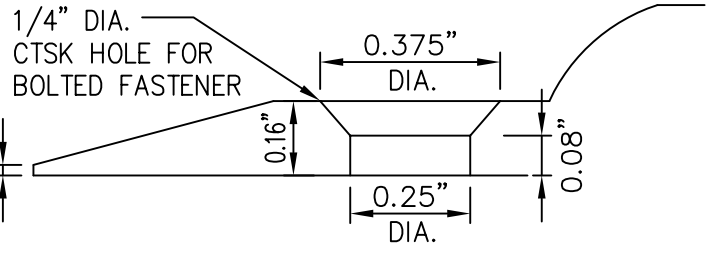


DETAIL 2

SECTION A-A  
 N.T.S.



DETAIL 1



DETAIL 2

REV. NO.	DATE	DESCR.
CITY OF SACRAMENTO ENGINEERING DIVISION		
TRUNCATED DOME DETAIL		
APPROVED BY:	SCALE: NONE	
DATE: 01/23/02	DWG NO.: CE 3.1	

NOTES:

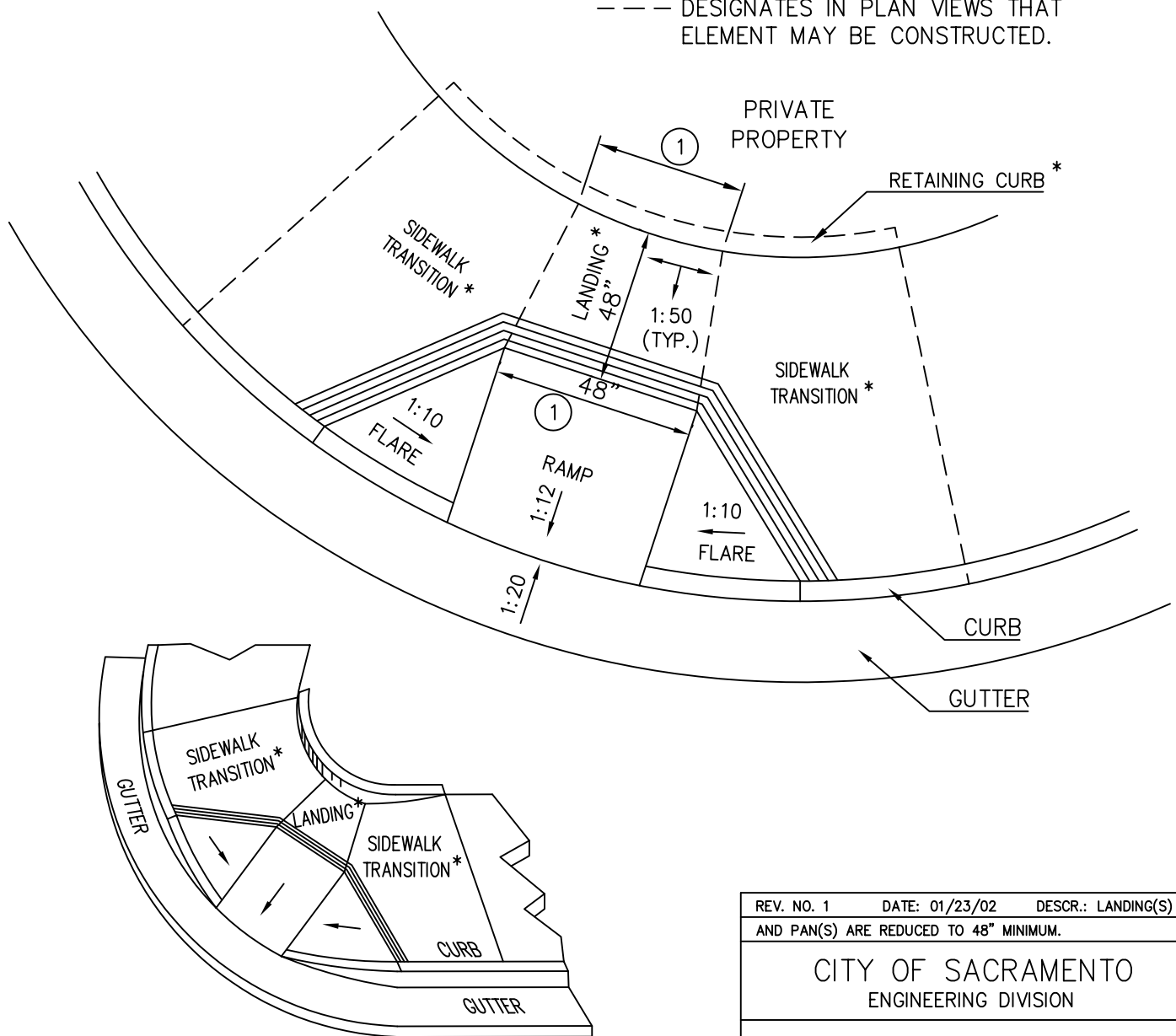
- A. ALL SLOPES SHOWN ARE MAXIMUMS.
- B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
- C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
- D. ALL JOINTS BETWEEN ELEMENTS, EXCEPT BETWEEN RAMP AND FLARE, ARE RADIAL. RAMP WIDTH REMAINS CONSTANT.

① IF LANDING CONSTRUCTED, 48" MIN. LANDING DIMENSION REQUIRED. WIDTH OF RAMP TO MATCH LANDING WIDTH DIMENSION AT TOP OF RAMP.

E. SINGLE RAMPS CAN BE CONSTRUCTED ON A TANGENT.

\* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

--- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.

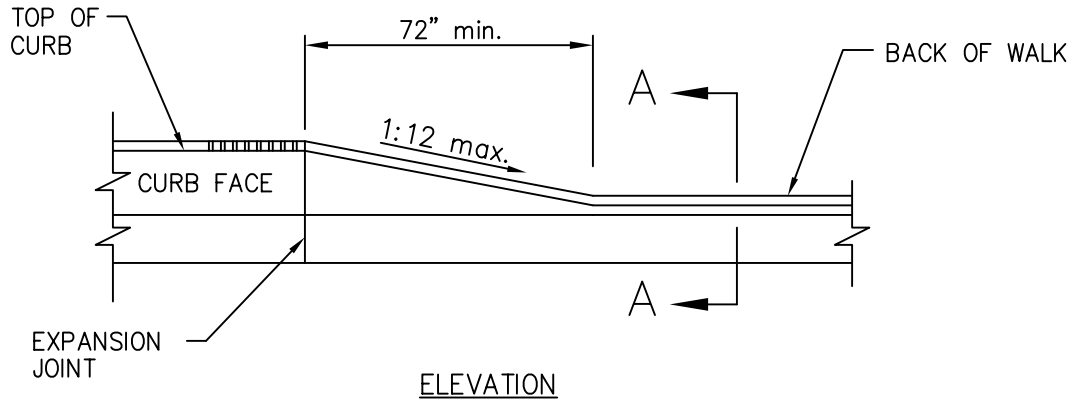


REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		

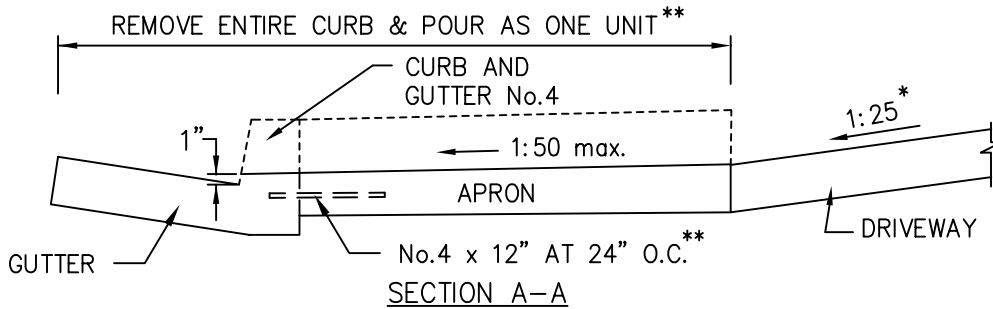
CITY OF SACRAMENTO  
ENGINEERING DIVISION

SINGLE FLARE CURB RAMP

APPROVED BY:	SCALE: NONE
DATE: 01/09/01	DWG NO.: CE 4.2



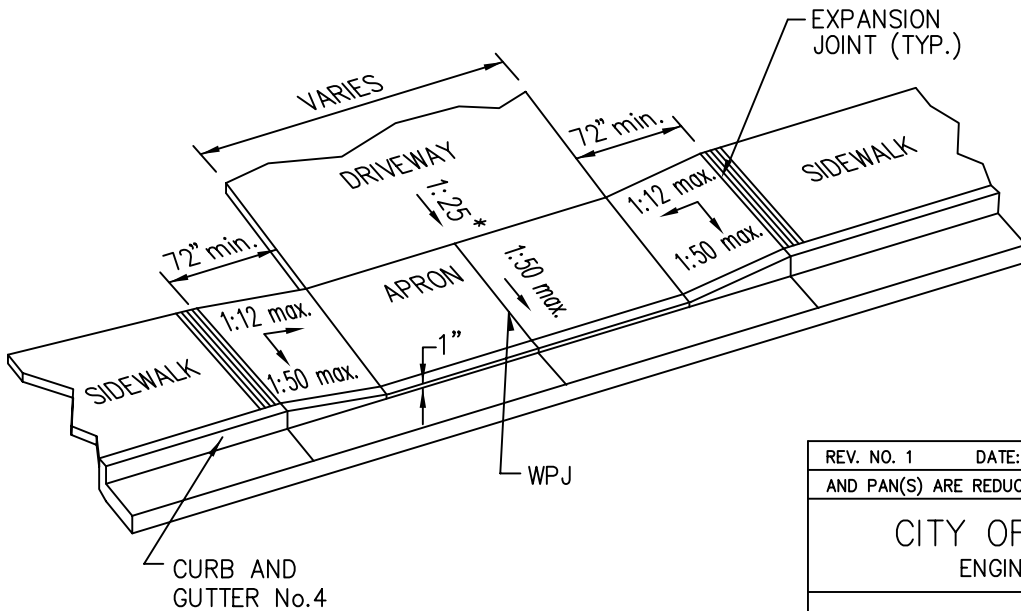
ELEVATION



SECTION A-A

**NOTES:**

- A. DRIVEWAY WIDTH AS PER SEC. 38 CITY CODE.
  - B. WEAKENED PLANE JOINTS (WPJ) REQUIRED ON CENTERLINE FOR DRIVEWAYS 10' TO 20' WIDE. DRIVEWAYS 22' TO 35' WIDE SHALL HAVE TWO WPJ EVENLY SPACED AT 1/3 AND 2/3 POINTS.
  - C. ALL CONSTRUCTION AND MATERIALS IN CONFORMANCE WITH SEC. 24 OF STANDARD SPECIFICATIONS.
  - D. THICKNESS OF APRONS SHALL BE 4" ON RESIDENTIAL DRIVEWAYS AND 6" ON COMMERCIAL DRIVEWAYS. ON COMMERCIAL DRIVEWAYS SIDEWALK SHALL BE REMOVED AND REPLACED WITH 6" OF CONCRETE.
  - E. APRON WILL BE DEPRESSED ON CURB AND GUTTER No.13 WHEN RECONSTRUCTING EXISTING COMMERCIAL DRIVEWAYS.
- — — DESIGNATES THAT ELEMENT MAY BE CONSTRUCTED.
- \* ON RECONSTRUCTION THE SLOPE CAN BE 1:10.
- \*\* IF CURB & GUTTER ARE POURED SEPARATE OF APRON THEN DOWELS ARE REQUIRED AT BACK OF CURB. 3" IN CURB AND 9" IN CENTER OF APRON.



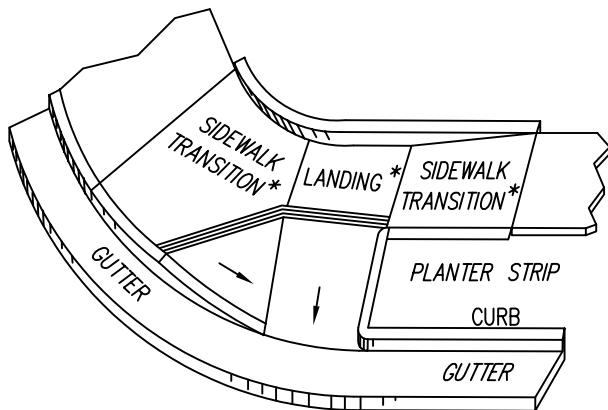
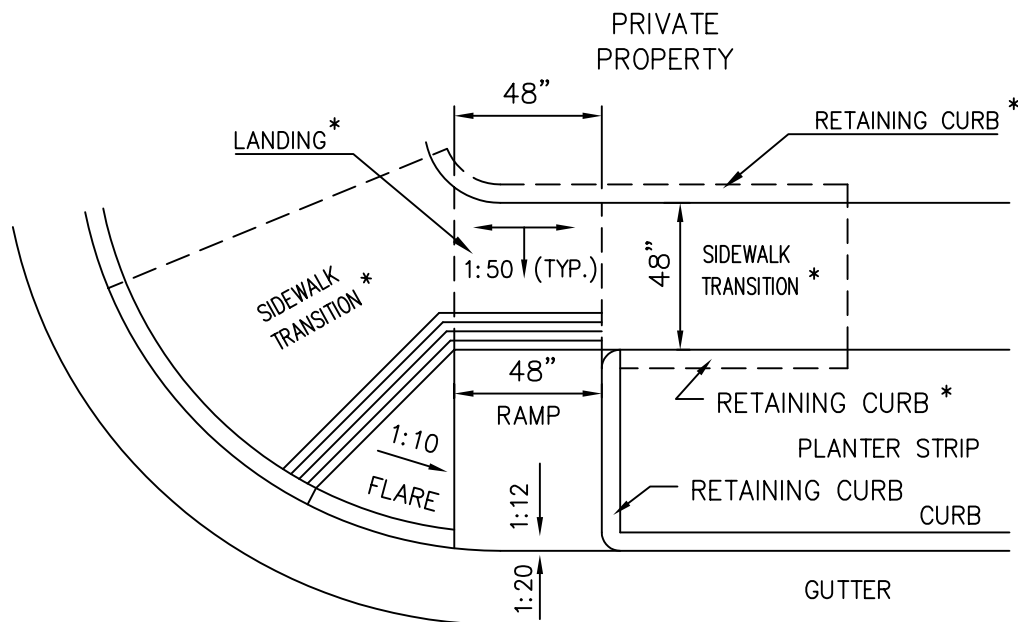
REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
SIDEWALK DRIVEWAY DETAIL		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 4.7	



NOTES:

- A. ALL SLOPES SHOWN ARE MAXIMUMS.
- B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
- C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
- D. ALL JOINTS BETWEEN ELEMENTS, EXCEPT BETWEEN RAMP AND FLARE, ARE RADIAL. RAMP WIDTH REMAINS CONSTANT.
- E. SINGLE RAMPS CAN BE CONSTRUCTED ON A TANGENT.
- \* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

— — — DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.



REV. NO. 1	DATE: 01/23/02	DESCR.: LANDING(S)
AND PAN(S) ARE REDUCED TO 48" MINIMUM.		
CITY OF SACRAMENTO ENGINEERING DIVISION		
SINGLE COMBINATION CURB RAMP		
APPROVED BY:	SCALE: NONE	
DATE: 01/09/01	DWG NO.: CE 4.4	