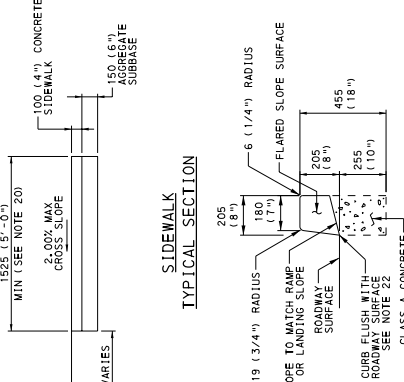


NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676 AND 684.
2. PROVIDE EXPANSION JOINT MATERIAL 13 (1/2") THICK WHERE CURB RAMP ADJOINING ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. CONSTRUCT CURB RAMPS WITH A MINIMUM 1220 (4'-0" X 4'-0") CROSSWALK AND 150 (6") AGGREGATE SUBBASE. THE PARALLEL VEHICLE TRAVEL LANE. SEE SHEET 7 FOR CROSSWALK DETAILS.
4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SIDE RAMPS.
6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 205 (8") HEIGHT.
7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
8. TO AVOID CHASING GRADE INDEFINITELY WHEN TRaversing THE HEIGHT OF CURB, PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
9. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NO-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
10. THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR ALTERNATION PROJECTS, PROVIDE ACCESS TO PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE TO AVOID CREATING INSTANTANEOUS OBSTRUCTIONS.
11. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
12. US CUSTOMARY UNITS IN () PARENTHESES.
13. ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOWNS ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB.
14. PROVIDE DETECTABLE WARNING SURFACES (DWS) 610 (24") MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) CROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET OR SIDEWALK. EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.
15. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESSIBLE ROUTE.
16. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH SLOPE ALLOWABLE SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
17. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00%. SIDEWALKS ADJACENT TO ROADWAY ARE TO BE CONSTRUCTED WITH A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
18. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS TO BE FLUSH WITH THE ROADWAY SURFACE. THE CURB RAMP AND ADJOINING ROAD SURFACE IS TO BE FLUSH WITH THE ROADWAY SURFACE. THE CURB RAMP AND ADJOINING ROAD SURFACE IS TO BE FLUSH WITH THE ROADWAY SURFACE. THE CURB RAMP AND ADJOINING ROAD SURFACE IS TO BE FLUSH WITH THE ROADWAY SURFACE.
19. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 150 (6") CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 1830 (6'-0") FOR A 12:1 (1:12) SLOPE.
20. SIDEWALK WIDTH MAY BE REDUCED TO 1220 (4'-0") WHEN PASSING AREAS 1525 X 1525 (15'-0" X 5'-0") ARE PROVIDED EVERY 61 METERS (200').
21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT.
22. CONSTRUCT DEPRESSIONED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL LANDINGS BEHIND DEPRESSIONED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE.
23. CURB WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES ARE AT 31:1 (1:3) MAXIMUM. DO NOT INSTALL CURB WALLS THAT INTERSECT THE PEDESTRIAN ACCESS ROUTE.
24. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSIONED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).
25. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) IS TO BE FULLY INSIDE OF MARKED CROSSWALK LINES. SEE SHEET 7 FOR DETAILS.
26. 1220 (4'-0") MINIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.

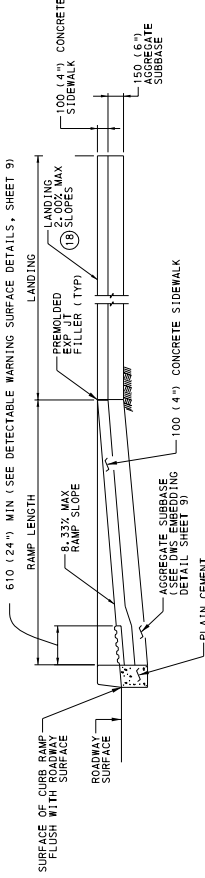


TYPICAL SECTION
SIDEWALK

DEPRESSIONED CURB
FOR CURB RAMPS

1. SIDE FLARES 10.00% MAX SLOPE
2. IF THE LANDING IS INDICATED TO BE LESS THAN 1220 (4'-0"), CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.
3. CURB RAMPS REQUIRE A 1220 (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 5.00% MAX. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
4. CONSTRUCT DEPRESSIONED CURB SLOPE TO MATCH ROADWAY PROFILE AND HAVE A FLUSH CONNECTION. DO NOT EXCEED 3.00% PER 305 (1'-0") CROSS SLOPE OR 5.00% LONGITUDINAL SLOPE. THE CROSS SLOPE PROFILE OF CHANGE WHEN TRANSITIONING FROM LEVEL LANDING REQUIRED WHEN RAMP CROSS SLOPE EXCEEDS 2.00%.

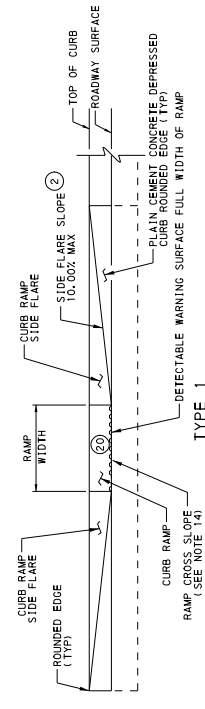
TYPE 1
CURB RAMP



TYPE 1
SECTION A-A

PERCENT SLOPE	EQUIVALENT SLOPE
10.00%	10:1 (1:10)
8.33%	12:1 (1:12)
5.00%	20:1 (1:20)
2.00%	50:1 (1:50)
1.00%	100:1 (1:100)

EQUIVALENT SLOPES



TYPE 1
ELEVATION

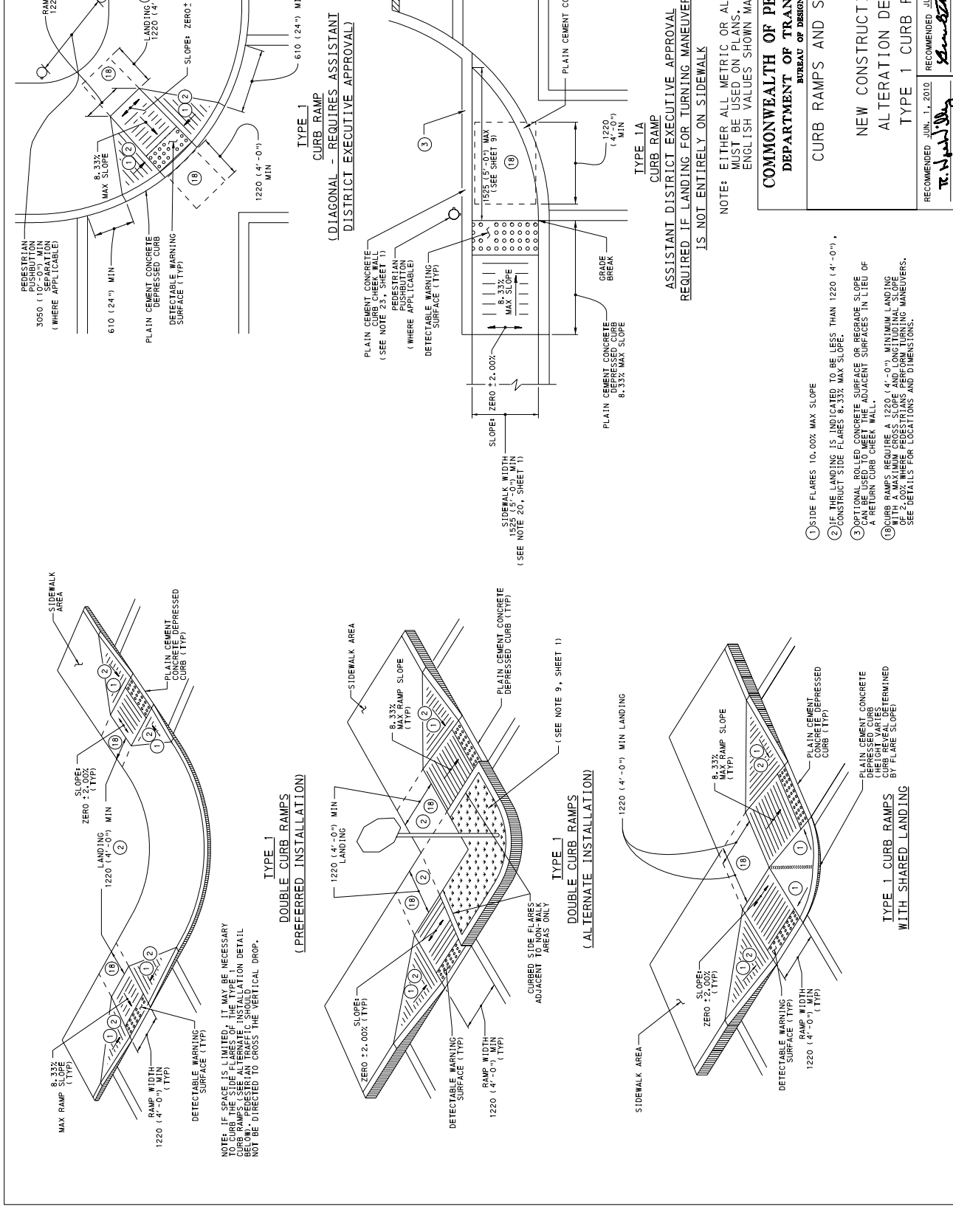
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 1 TYPICAL SECTIONS

RECOMMENDED JUN. 1, 2010	SHT. 1 OF 13
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NOTE: IF SPACE IS LIMITED, IT MAY BE NECESSARY TO CURB THE SIDE FLARES OF THE TYPE 1 CURB RAMPS. (SEE ALTERNATE INSTALLATION DETAIL SHEET 18) THE CURB SHOULD NOT BE DIRECTED TO CROSS THE VERTICAL DROP.

TYPE 1 CURB RAMPS (PREFERRED INSTALLATION)

TYPE 1 CURB RAMPS (ALTERNATE INSTALLATION)

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CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
TYPE 1 CURB RAMPS

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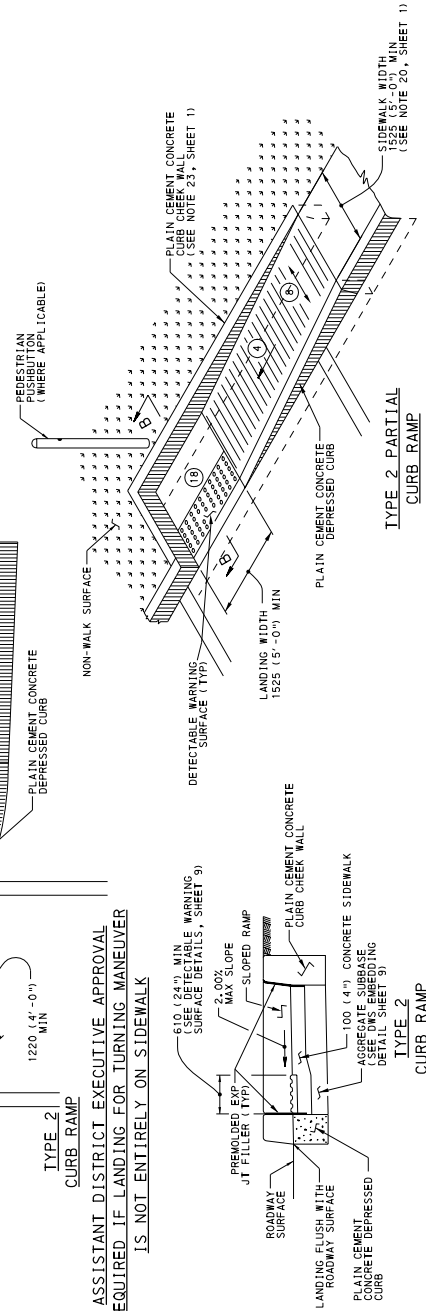
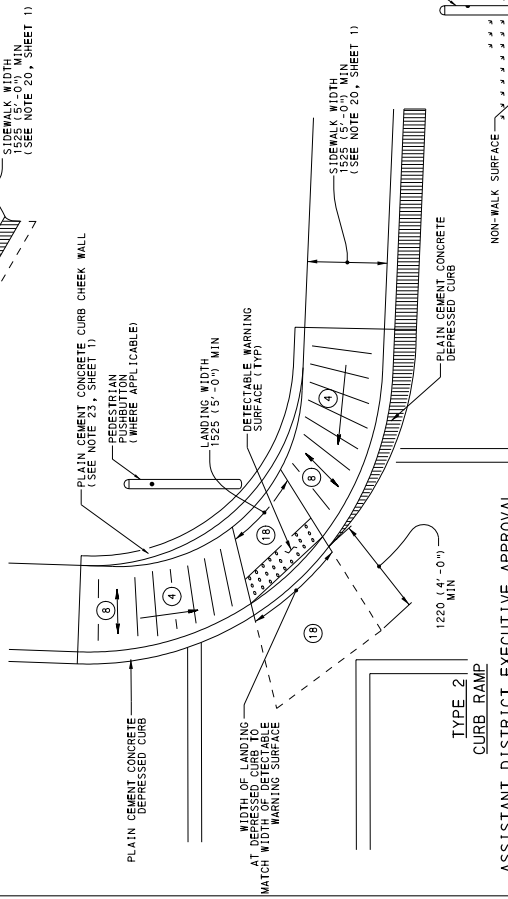
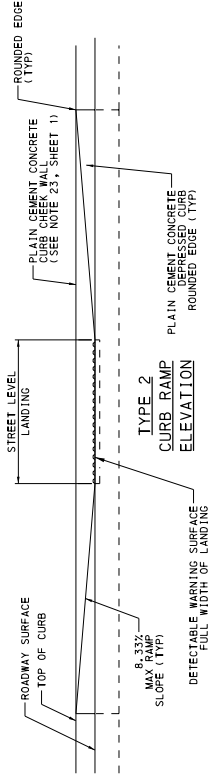
SHT 2 OF 13
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NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF LANDING FOR TURNING MANEUVER IS NOT ENTIRELY ON SIDEWALK

- (1) SIDE FLARES 10.00% MAX SLOPE
- (2) IF THE LANDING IS INDICATED TO BE LESS THAN 1220 (4'-0"), CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.
- (3) OPTIONAL ROLLED CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A RETURN CURB CHIEK WALL.
- (18) CURB RAMPS REQUIRE 1220 (4'-0") MINIMUM LANDING WIDTHS AND 1220 (4'-0") MINIMUM LANDING LENGTHS. PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

TYPE 1 CURB RAMPS
WITH SHARED LANDING



NOTES:
DO NOT USE TYPE 3 CURB RAMPS IN VEHICULAR TRAFFIC LANES, PARKING SPACES, OR ACCESS AISLES.
CONSTRUCT TYPE 3 BUILT-UP CURB RAMP OF BITUMINOUS MATERIAL AS INDICATED, INCLUDING SURFACE PREPARATION AND TACK COAT, AS REQUIRED.

TYPE 3
CURB RAMP
(BUILT-UP, FOR ALTERATIONS ONLY)

- ① SIDE FLARES 10.00% MAX SLOPE
- ② 8.33% MAX RAMP SLOPE
- ③ SLOPE: ZERO $\pm$ 2.00%
- ④ CURB RAMPS REQUIRE A 1200 (4' - 0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

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DEPARTMENT OF TRANSPORTATION
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CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR
ALTERATION DETAILS

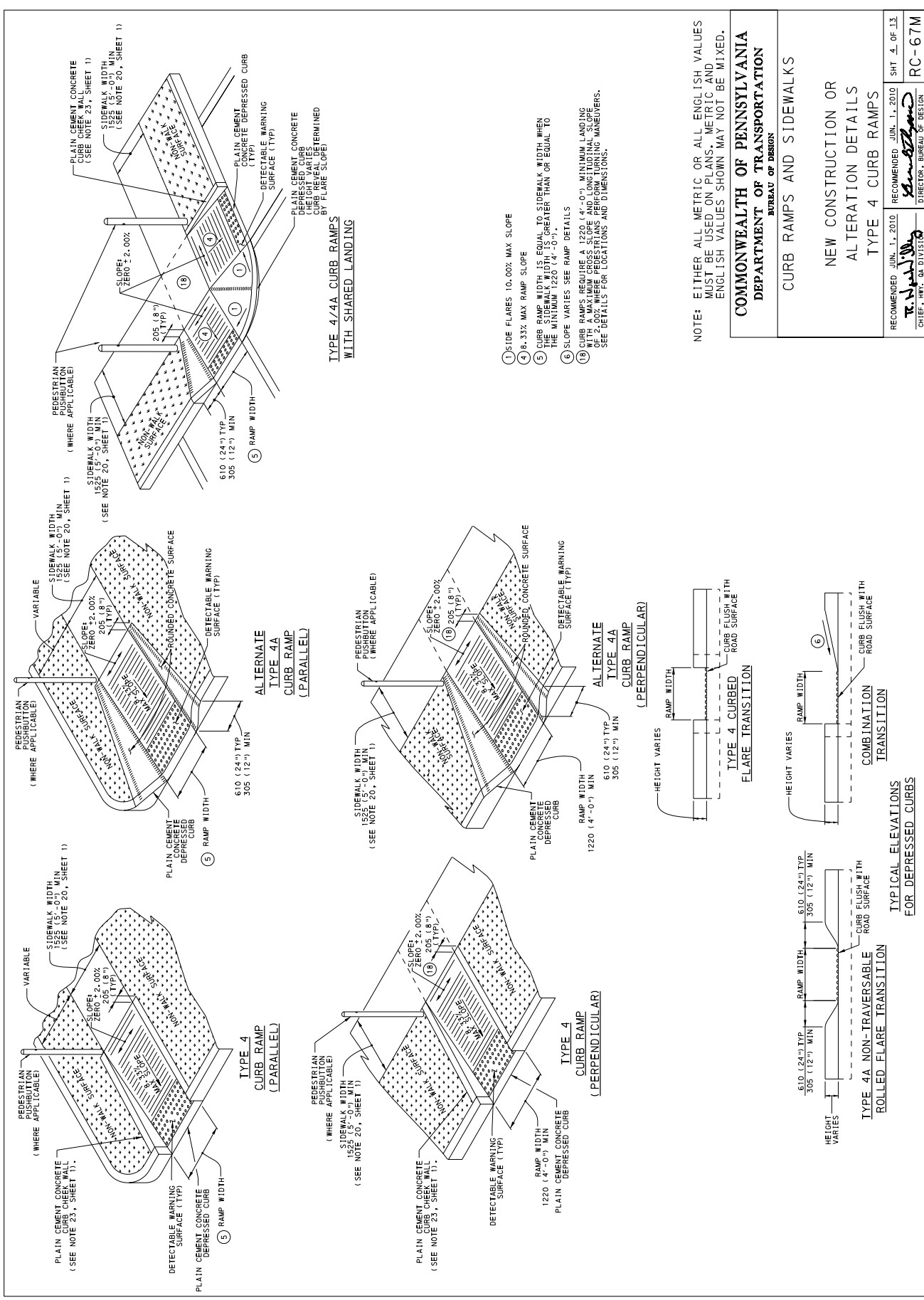
TYPE 2 AND TYPE 3 CURB RAMPS

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CHIEF, HBY. QA DIVISION	DIRECTOR, BUREAU OF DESIGN	

ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF LANDING FOR TURNING MANEUVER
IS NOT ENTIRELY ON SIDEWALK

IS NOT ENTIRELY ON SIDEWALK

TYPE 2
CURB RAMP
SECTION B-B



NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

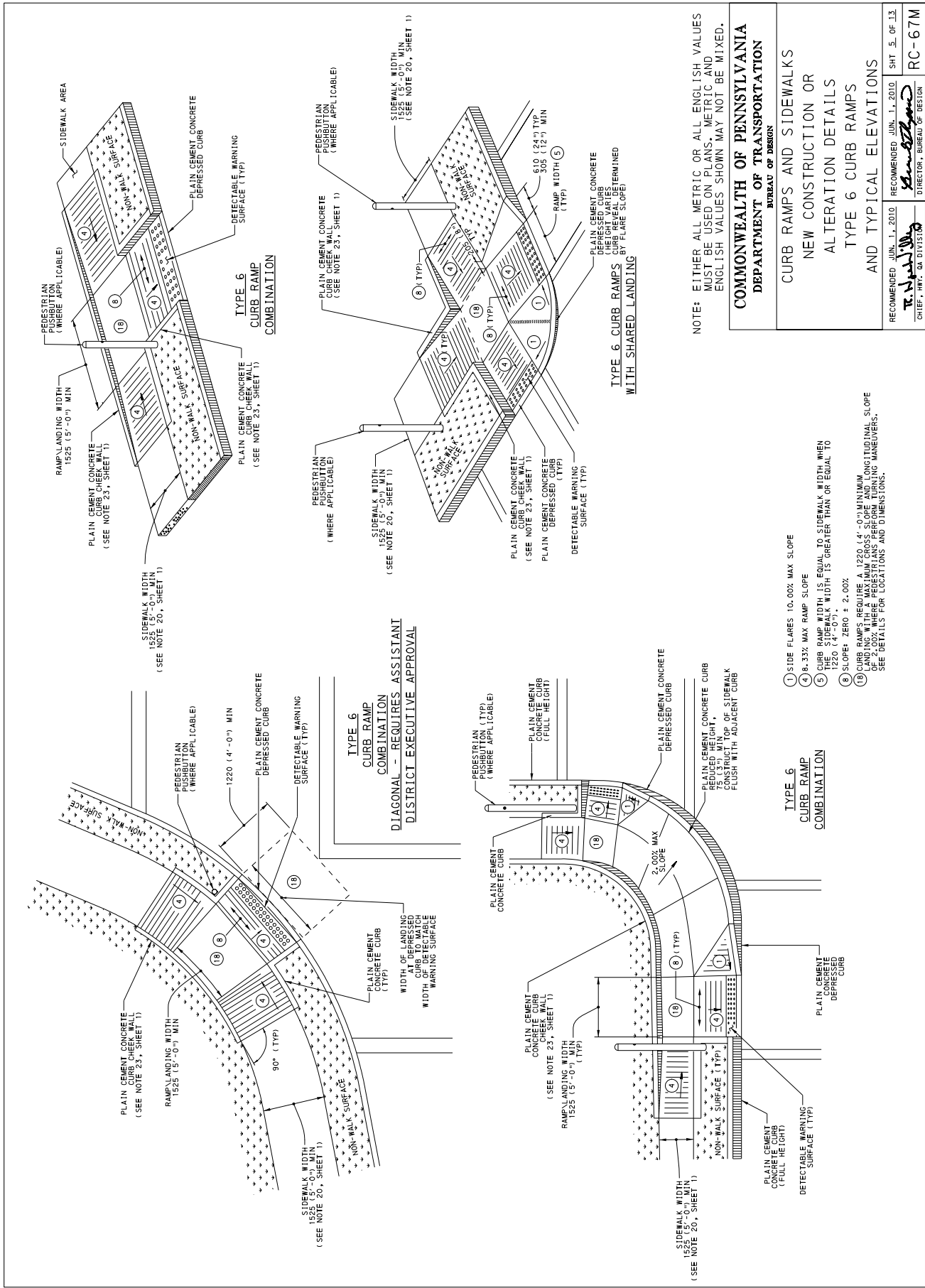
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
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CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 4 CURB RAMPS

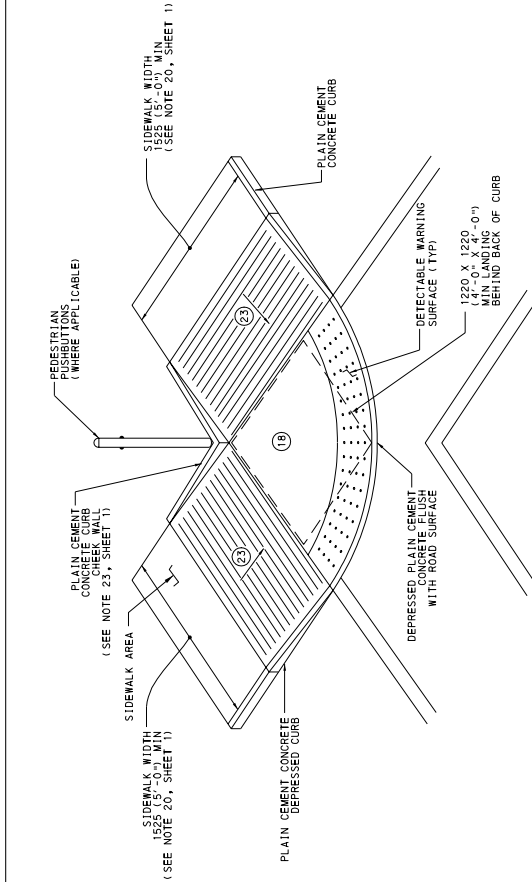
RECOMMENDED JUN. 1, 2010
RC-67M

- 1 SIDE FLARES 10.00% MAX SLOPE
- 4 6.33% MAX RAMP SLOPE
- 5 CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE MINIMUM 1220 (4'-0") MIN
- 6 SLOPE VARIES SEE RAMP DETAILS
- 8 CURB RAMPS REQUIRE A 1220 (4'-0") MINIMUM LANDING OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.



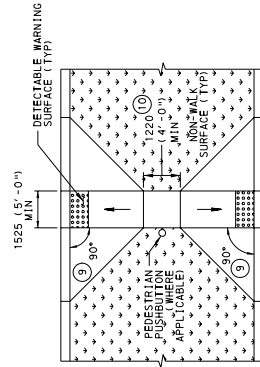
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION BUREAU OF DESIGN	
CURB RAMPS AND SIDEWALKS NEW CONSTRUCTION OR ALTERATION DETAILS TYPE 6 CURB RAMPS AND TYPICAL ELEVATIONS	
RECOMMENDED JUN. 1, 2010 R. H. J. [Signature] CHIEF, M.T. QC DIVISION	RECOMMENDED JUN. 1, 2010 [Signature] DIRECTOR, BUREAU OF DESIGN
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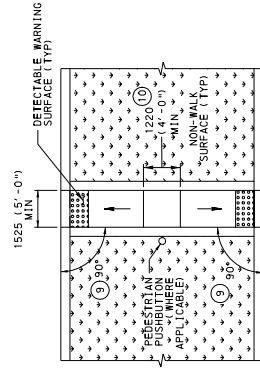


NOTE: DO NOT INSTALL GRATES, ACCESS COVERS AND OTHER APPURTENANCES ON THE BLENDED TRANSITION SURFACE WITHIN THE PEDESTRIAN ACCESS ROUTE. THE WIDTH OF TRAVEL ARE ASCERTAINABLE FROM THE TOP SURFACE OF THE CURB. IF THE TOP SURFACE OF THE CURB IS LESS THAN 6 (1/4") IN ELEVATION DIFFERENCE, FIRM, STABLE AND SLIP RESISTANT INLET GRATES MUST HAVE OPENINGS NO GREATER THAN 13 (1/2") IN DIRECTION OF TRAVEL.

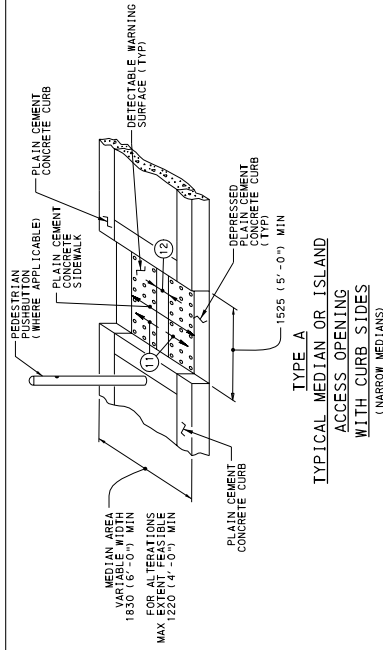
BLENDED TRANSITION



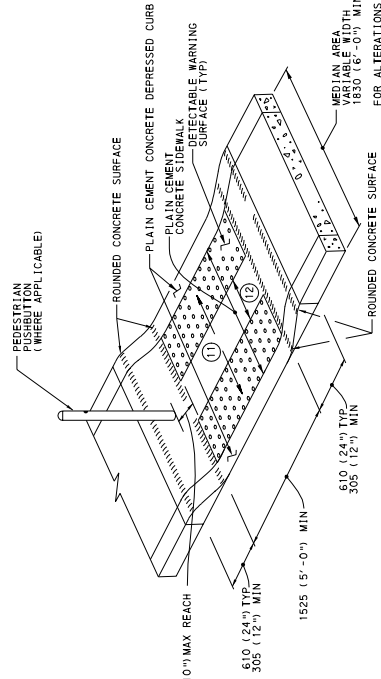
RAMPED MEDIAN OR ISLAND
ACCESS OPENING
(TYPE 1 DOUBLE CURB RAMP)



RAMPED MEDIAN OR ISLAND
ACCESS OPENING
(TYPE A DOUBLE CURB RAMP)



TYPICAL MEDIAN OR ISLAND
ACCESS OPENING
WITH CURB SIDES
(NARROW MEDIANS)



TYPICAL MEDIAN OR ISLAND
ACCESS OPENING
WITH FLARED SIDES
(NARROW MEDIANS)

- (9) 90° DESIRABLE
- (10) LANDINGS ARE NOT REQUIRED FOR LESS THAN 1220 (4'-0") BETWEEN BACK OF CURBS.
- (11) PRIVATE DRIVEWAYS SHALL HAVE DRAINAGE (5.00% MAX)
- (12) NO SEPARATION BETWEEN DETECTABLE WARNING SURFACES FOR MEDIANS WITH LESS THAN 1220 (4'-0") BETWEEN BACK OF CURBS.
- (18) CURB RAMP REQUIRE A 1220 (4'-0") MINIMUM LANDING WITH A MAXIMUM GROSS SLOPE AND LONGITUDINAL SLOPE OF 5.00% MAXIMUM. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
- (23) 5.00% MAX RUNNING SLOPE FOR BLENDED TRANSITION. FOR SLOPES GREATER THAN 5.00% SEE TYPE 2 CURB RAMP ON SHEET 3 FOR ADDITIONAL DETAILS.

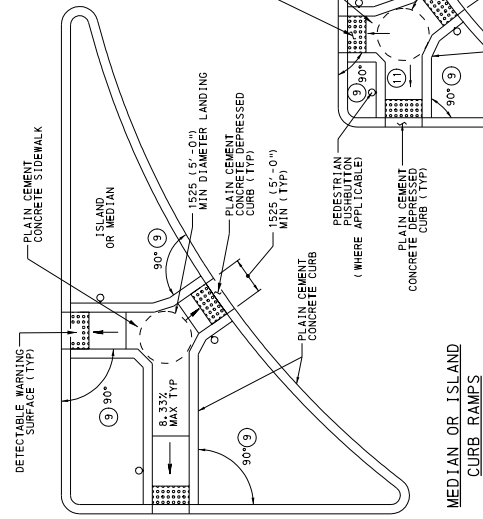
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CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR
ALTERATION DETAILS
BLENDED TRANSITION / MEDIANS

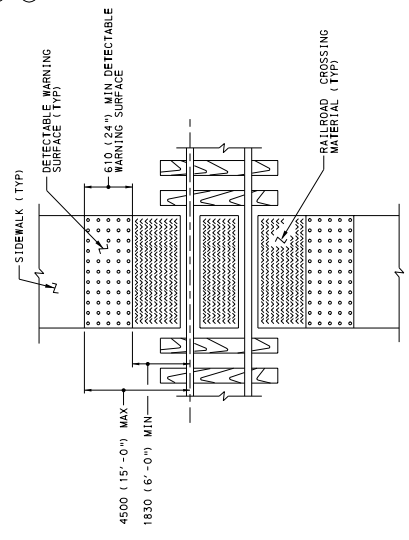
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CHIEF, MTL. QC DIVISION	DIRECTOR, BUREAU OF DESIGN



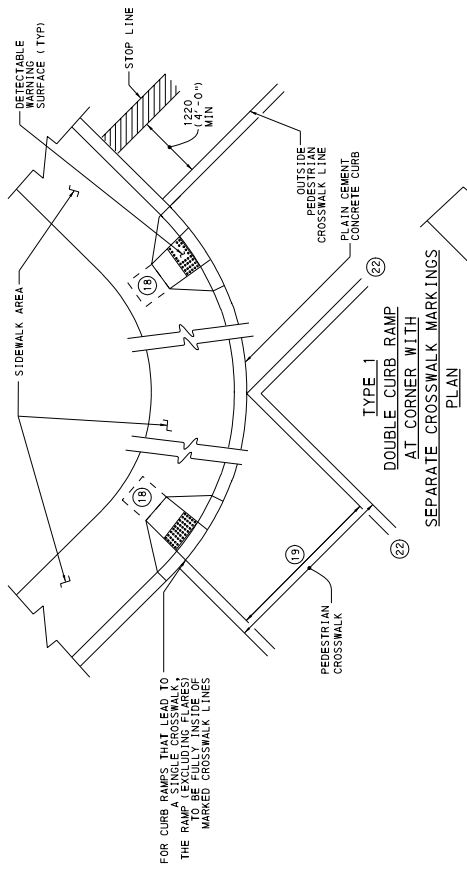
MEDIAN OR ISLAND
 CURB RAMPS

ALTERNATE
 SMALL ISLAND
 WITH CUT THROUGH

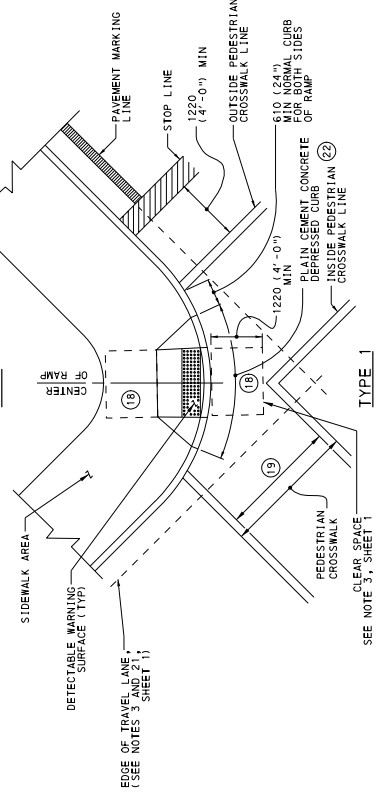
- 9 90° DESIRABLE
- 1 PROVIDE ADEQUATE SLOPE FOR
- 2 CURB RAMPS REQUIRE A 1220 (4'-0") MINIMUM LANDING
- 3 WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE
- 4 OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS.
- 5 SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
- 6 1830 (6'-0") MIN MEASURED FROM INSIDE OF
- 7 PAINTED EDGE TO INSIDE OF PAINTED EDGE
- 8 THE INSIDE PEDESTRIAN CROSSWALK LINES MUST BE OUTSIDE OF
- 9 THE PROJECTED CURB LINES.



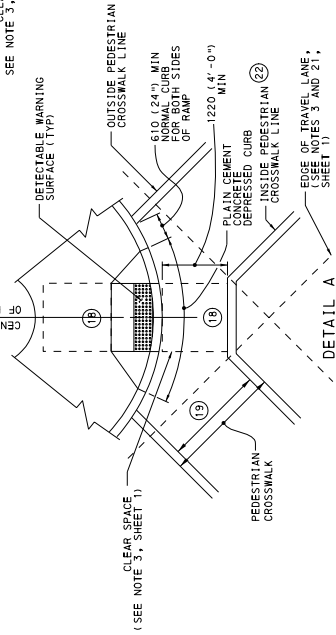
TYPICAL DETECTABLE WARNING
 SURFACE AT RAILROAD CROSSING



TYPE J
 DOUBLE CURB RAMP
 AT CORNER WITH
 SEPARATE CROSSWALK MARKINGS



TYPE 1
 SINGLE CURB RAMP AT
 CORNER WITH CROSSWALK MARKINGS



DETAIL A
 CLEAR SPACE
 AT CROSSWALK MARKINGS

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES
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COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

BUREAU OF DESIGN

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR

ALTERATION DETAILS

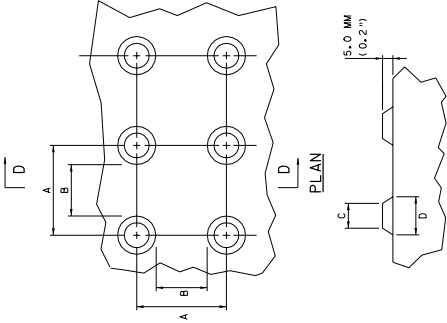
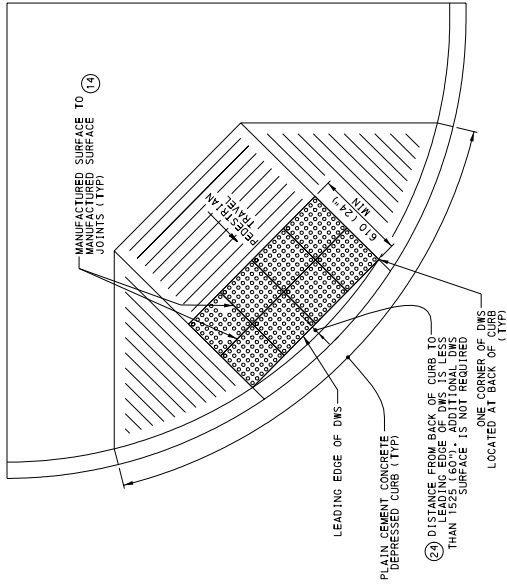
CROSSWALKS, MEDIANS,

RAILROAD CROSSING,

DETECTABLE WARNING SURFACE

(DIAGONAL - REQUIRES ASSISTANT
 DISTRICT EXECUTIVE APPROVAL)

SEE NOTE 3 ON SHEET 1 CONCERNING DIAGONAL RAMPS

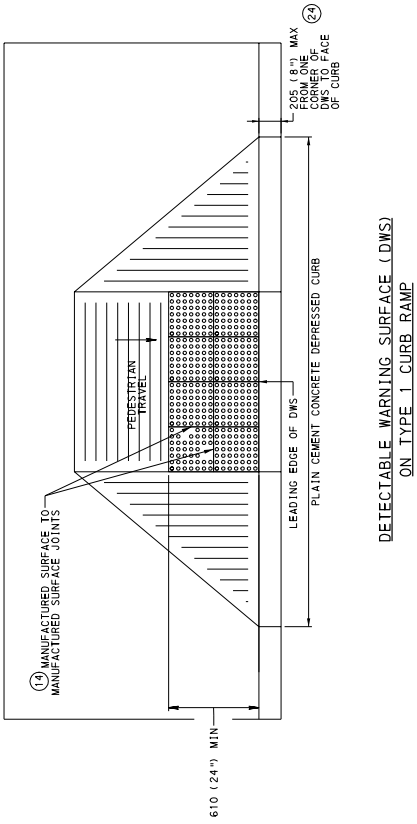


SECTION D-D

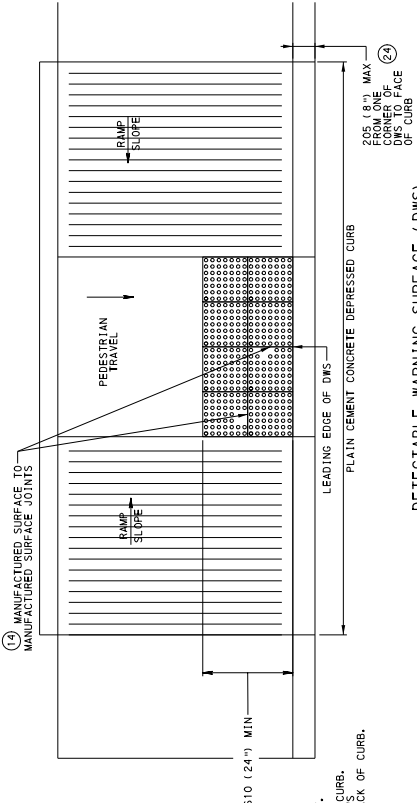
TRUNCATED DOME DIMENSIONS	
DIM	MIN. MAX.
A	41 (1.6") 61 (2.4")
B	17 (0.65") 37 (1.5")
C	(3) (1)
D	23 (0.9") 36 (1.4")

DETECTABLE WARNING SURFACE (DWS) TRUNCATED DOME DETAILS

- (13) THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.
- (14) PLACE ADJACENT DWS TILES WITH MANUFACTURED SURFACE TO MANUFACTURED SURFACE JOINTS ALONG THE PERIMETER ONLY.
- (24) LOCATE ONE CORNER OF THE DWS AT THE BACK OF CURB. THE DWS SURFACE JOINTS MAY BE MORE THAN 1525 (60") AWAY FROM THE BACK OF CURB.



DETECTABLE WARNING SURFACE (DWS) ON TYPE 1 CURB RAMP



DETECTABLE WARNING SURFACE (DWS) ON TYPE 2 CURB RAMP

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

BUREAU OF DESIGN

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS

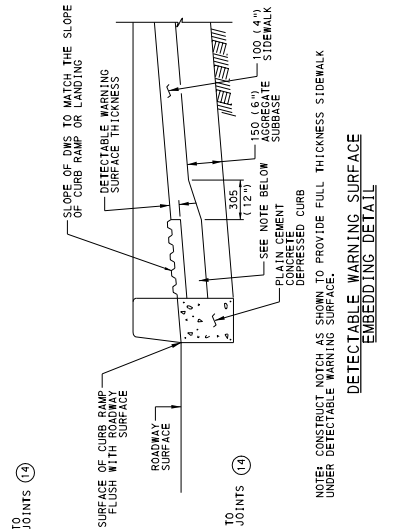
DETECTABLE WARNING SURFACE

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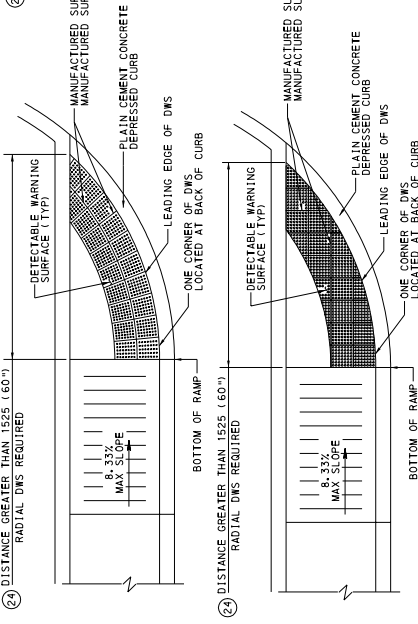
SHT 9 OF 13

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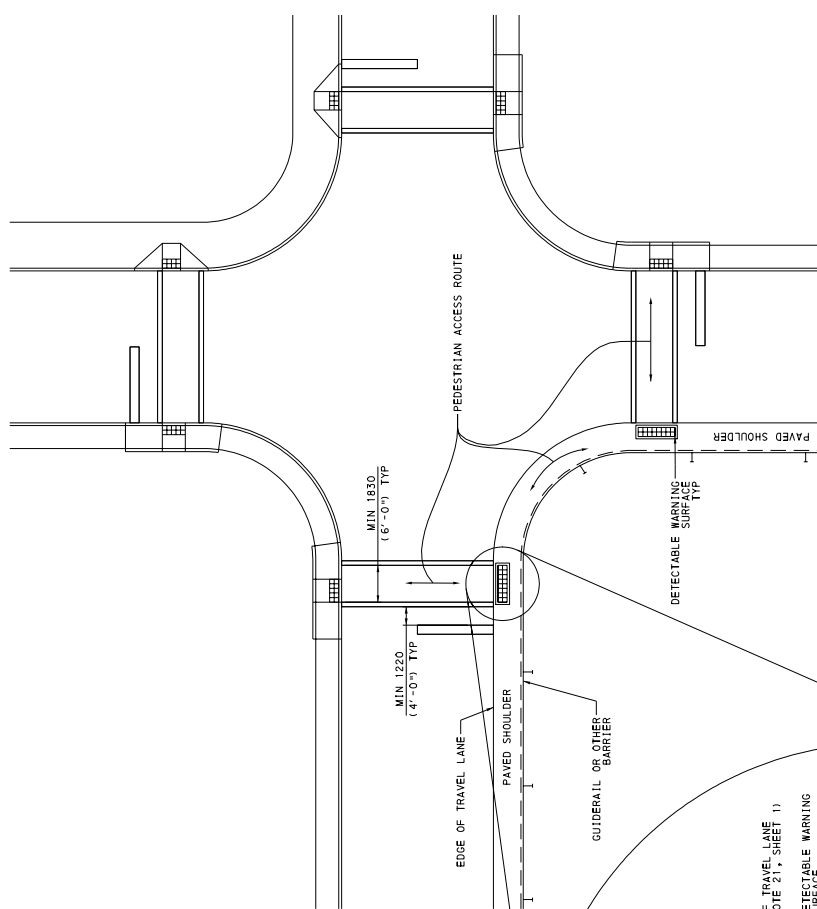


DETECTABLE WARNING SURFACE EMBEDDING DETAIL

NOTE: CONSTRUCT NOTCH AS SHOWN TO PROVIDE FULL THICKNESS SIDEWALK UNDER DETECTABLE WARNING SURFACE



DETECTABLE WARNING SURFACE (DWS) ON CURVED SURFACES



TYPICAL INTERSECTION PLAN
WITH DWS ON PAVED SHOULDERS
WITH BARRIERS
(SHARED USE SHOULDERS)

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

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CURB RAMPS AND SIDEWALKS
DWS PLACEMENT ON
PAVED SHOULDERS

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