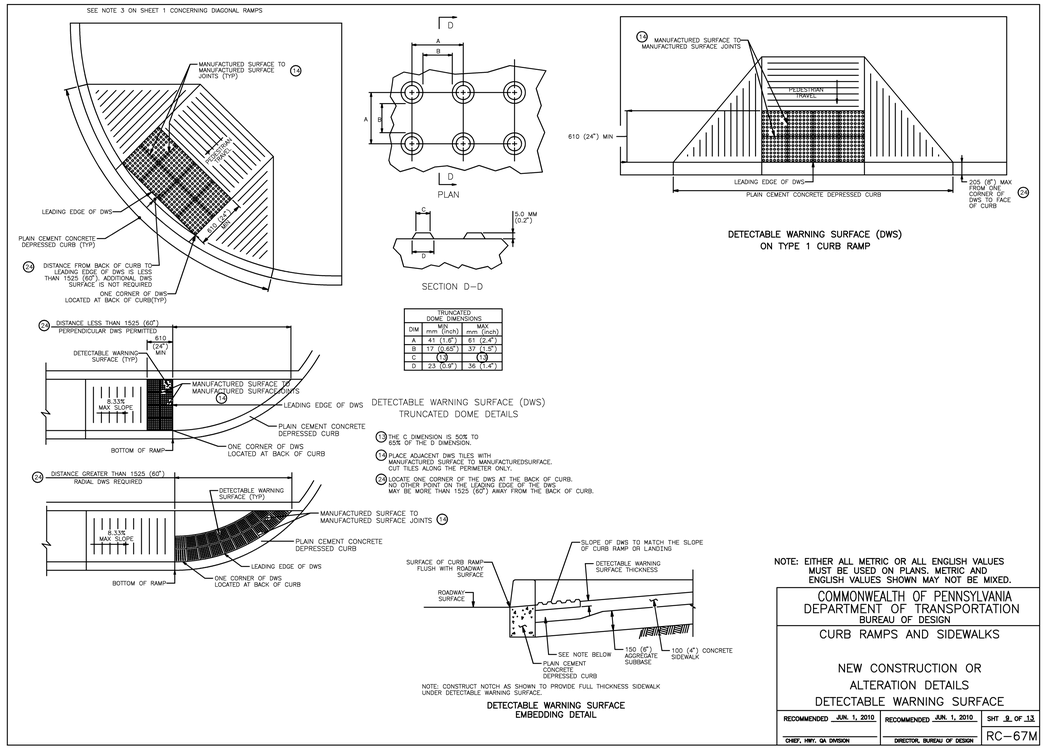

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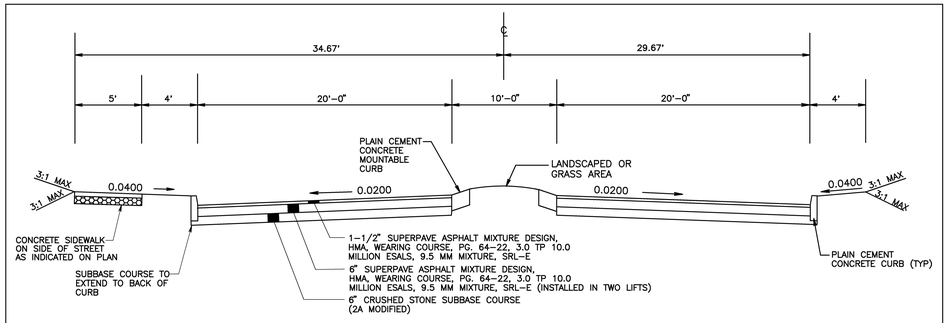
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
DETECTABLE WARNING SURFACE

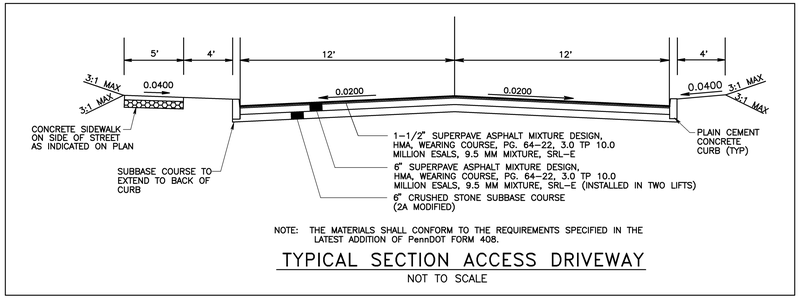
RECOMMENDED JUN. 1, 2010	RECOMMENDED JUN. 1, 2010	SHT 9 OF 13
CHIEF, HWY. QA DIVISION	DIRECTOR, BUREAU OF DESIGN	RC-67M



NOTE: THE MATERIALS SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN THE LATEST ADDITION OF PennDOT FORM 408.

TYPICAL SECTION ACCESS DRIVEWAY WITH CENTER ISLAND

NOT TO SCALE



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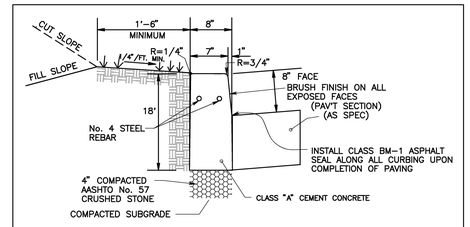
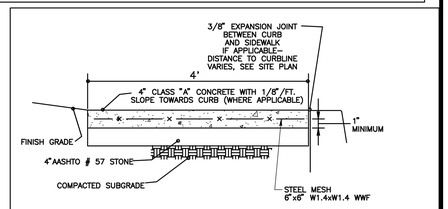


STANDARD STRAIGHT CONCRETE CURB DETAIL

NOT TO SCALE

NOTE: STEEL REBAR TO BE INSTALLED AT STORM INLET CONNECTIONS, SHARP RADII AND DEPRESSED CURB LOCATIONS.

CONCRETE SPECIFICATIONS:
SHALL BE CONSTRUCTED OF MONOLITHIC CONCRETE. SAID CONCRETE SHALL HAVE A LOW SLUMP WITH A MAXIMUM SLUMP OF FOUR INCHES, A COMPRESSIVE STRENGTH OF 3,000 POUNDS PER SQUARE INCH (PSI) MINIMUM IN 28 DAYS, A LOW WATER–CEMENT RATIO OF 0.45 OR LESS, ENTRAINED AIR OF 5% TO 8% TOTAL AIR CONTENT AND A MINIMUM CEMENTITIOUS MATERIALS CONTENT OF 564 POUNDS PER CUBIC YARD (lb/cu yd) OF CONCRETE. CERTIFICATION FOR THE CONCRETE MIX SHALL BE FURNISHED IF REQUIRED BY THE ENGINEER.



TYPICAL SIDEWALK DETAIL

NOT TO SCALE

NOTE:
1/2" EXPANSION JOINTS MUST BE PROVIDED AT 20' C. TO C. (MAX) AND THAT TRANSVERSE CONTROL SCORE JOINTS MUST BE PROVIDED AT 5' C. TO C. (MAX.)

THE SUBGRADE SHALL BE THOROUGHLY COMPACTED TO NOT LESS THAN 100% OF THE MAXIMUM MODIFIED PROCTOR DENSITY.

CONCRETE SPECIFICATIONS:
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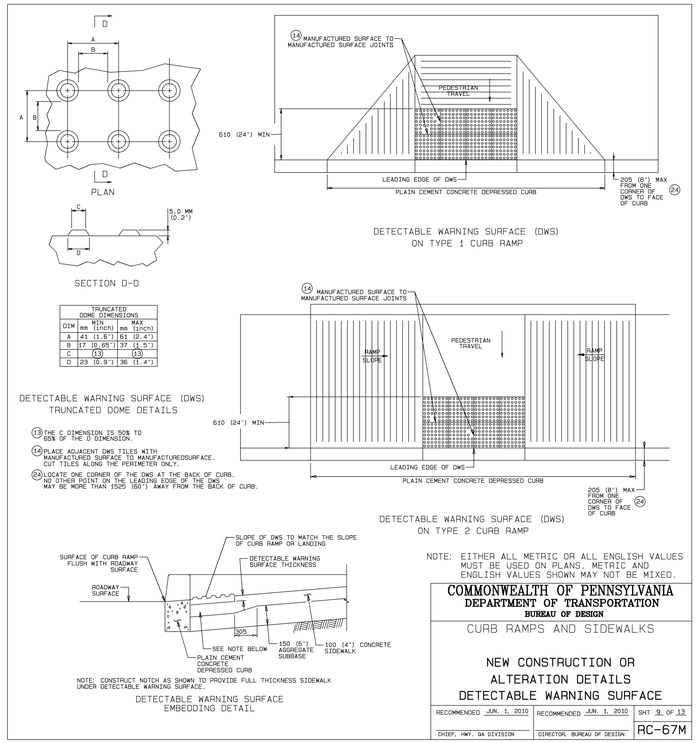

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
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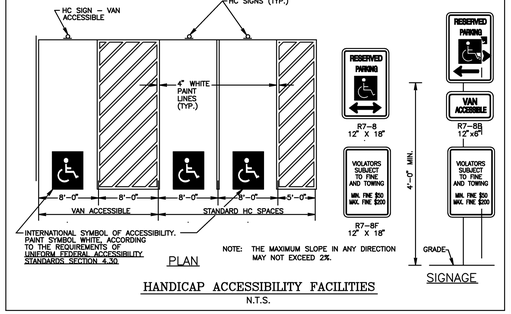
CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR ALTERATION DETAILS
DETECTABLE WARNING SURFACE

RECOMMENDED JUN. 1, 2010	RECOMMENDED JUN. 1, 2010	SHT 9 OF 13
CHIEF, HWY. QA DIVISION	DIRECTOR, BUREAU OF DESIGN	RC-67M

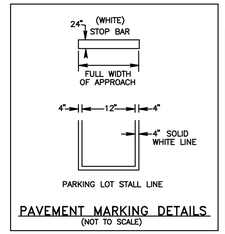
NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676 AND 694.
2. PROVIDE EXPANSION JOINT MATERIAL 13 (1/2") THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. CONSTRUCT DIAGONAL CURB RAMPS WITH A 1220 (4'–0") CLEARSPACE OUTSIDE OF TRAVEL LANES AT THE BOTTOM OF THE RAMP. IF DIAGONAL CURB RAMPS ARE PROVIDED AT MARKED CROSSINGS, THE 1220 (4'–0") CLEAR SPACE IS LOCATED WITHIN THE MARKINGS AND OUTSIDE OF THE TRAVEL LANES. 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 200 (8") HEIGHT.
7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
8. IT MAY BE NECESSARY TO LIMIT THE RUN OF A PARALLEL OR PERPENDICULAR CURB RAMP IN ORDER TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB. RAMP LENGTH NOT TO EXCEED 4500 (15'–0"). ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT POSSIBLE.
9. MEASURE AND PAY FOR DEPRESSED CURB IN ACCORDANCE WITH SECTION 630.4.
10. THE DETAILS DEPICT PEDESTRIAN PUSH BUTTON POLES TO ILLUSTRATE THE PREFERRED PLACEMENT OF PEDESTRIAN PUSH BUTTONS. PEDESTRIAN PUSH BUTTONS ARE TO BE INSTALLED WHERE APPLICABLE.
11. CONSTRUCT BUILT–UP CURB RAMP OF BITUMINOUS MATERIAL AS INDICATED, INCLUDING SURFACE PREPARATION AND TACK COAT, AS REQUIRED.
12. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. US CUSTOMARY UNITS IN () PARENTHESIS.
13. ALIGN DETECTABLE WARNING DOMES 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) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, 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 ACCESSIBLE ROUTE.
16. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
17. THE IMMEDIATE ADJOINING SURFACE AT THE BOTTOM AND TOP OF CURB RAMPS IS NOT TO EXCEED ROADWAY PROFILE SLOPE WHEN LOCATED ADJACENT TO THE ROADWAY. IN AREAS WHERE THE ADJOINING SURFACE IS NOT ADJACENT TO THE ROADWAY, THE LONGITUDINAL SLOPE IS NOT TO EXCEED 5.00%. FOR ALL LOCATIONS DO NOT EXCEED 2.00% CROSSLOPE. FOR LOCATIONS THAT REQUIRE A TURNING MANEUVER, THE MAXIMUM SLOPE IS 2.02% IN ALL DIRECTIONS. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 11.00%. SEE SHEET 8 FOR DETAILS.
18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
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 1800 (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 (5'–0" X 5'–0") ARE PROVIDED EVERY 61 METERS (200').
21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
22. DEPRESSED CURB FOR CURB RAMPS MUST BE FLUSH TO ADJACENT ROADWAY. EDGE OF ROAD ELEVATIONS AT THE FLOW LINE SHALL BE GRADEDTO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING.



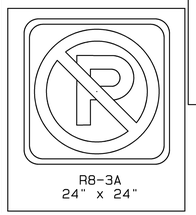
HANDICAP ACCESSIBILITY FACILITIES

N.T.S.

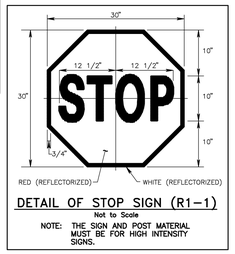


PAVEMENT MARKING DETAILS

(NOT TO SCALE)



R8-3A
24" x 24"



DETAIL OF STOP SIGN (R1–1)

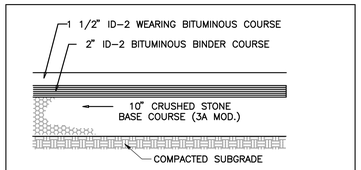
Not to Scale

NOTE: THE SIGN AND POST MATERIAL MUST BE FOR HIGH INTENSITY SIGNS.

W11A–2
30"X30"

PEDESTRIAN CROSSING SIGN

NOT TO SCALE



PARKING PAVING SECTION

Not to Scale

NOTE: FOR POROUS PAVING AREA REFER TO POROUS PAVING SECTION DETAIL.

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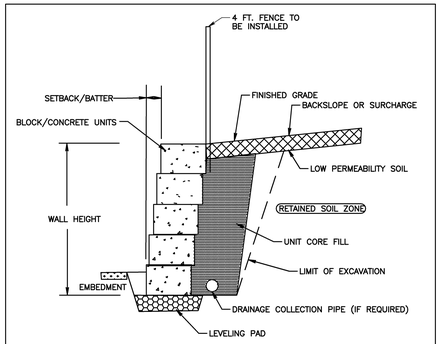


NOTES:

WALL HEIGHT (H) IS THE TOTAL HEIGHT FROM TOP TO BOTTOM.

MINIMUM WALL EMBEDMENT IS 6" (150mm) OR HEIGHT/20.

SUBSURFACE SOILS MUST BE CAPABLE OF SUPPORTING WALL SYSTEM.

UNIT CORE FILL IS 3/4" (20mm) CLEAN CRUSHED STONE.

LEVELING PAD IS CRUSHED STONE BASE MATERIAL.

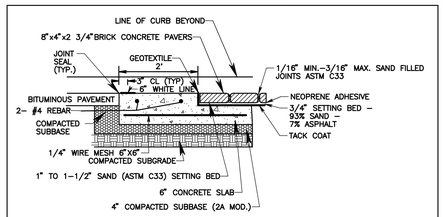
ALL BACKFILL MATERIALS ARE COMPACTED TO 95% MAX. DENSITY.

FINISHED GRADE MUST PROVIDE POSITIVE DRAINAGE.

INDIVIDUAL WALLS MUST BE DESIGNED BY A STRUCTURAL OR GEOTECHNICAL ENGINEER.

TYPICAL GRAVITE WALL DETAIL

NOT TO SCALE



CROSSWALK BRICK PAVER DETAIL IN ROADWAY

NOT TO SCALE

PRELIMINARY PLAN DETAIL SHEET

1	9–28–15	REVISED PER TOWNSHIP CONSULTANT REVIEW COMMENTS

LAND DEVELOPMENT PLAN
FOR
WESTOVER SPORTING COMPLEX

WEST NORRITON TOWNSHIP — MONTGOMERY COUNTY, PA.

Edward B. Walsh & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
LIONVILLE PROFESSIONAL CENTER
125 Dowlin Forge Road
Exton, Pennsylvania 19341
Phone (610) 903–0060
Fax (610) 903–0080

Project–	2769
Date–	12–23–14
Scale–	N/A
Drawn–	SLM
Checked–	A.J.B.
Sheet–	63 OF 65
Ver.–	000

Plotted: 9/25/2015 | *File:* F:\JB\2769\FPS\2769–SPORTS–4.pro