

NOTES

THE TYPE OF RAMP TO BE USED SHALL BE AS SPECIFIED ON THE PLANS. THESE STANDARDS CAN BE CONSIDERED GUIDELINES IN SELECTING RAMP TYPES, HOWEVER THEY CAN BE DEVIATED FROM WITH A SPECIAL DETAIL AS NOTED IN PLANS.

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NORMAL GUTTER FLOW LINE AND PROFILE SHALL BE MAINTAINED THROUGH THE RAMP AREA, UNLESS OTHERWISE SHOWN OR SPECIFIED. POSITIVE DRAINAGE MUST BE MAINTAINED SO THAT NO PONDING OCCURS WITHIN THE RAMP OR CLEAR SPACE AREA.

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WHERE EXISTING SIDEWALK CONNECTS TO PROPOSED SIDEWALK OR RAMPS, EXPANSION JOINTS ALONG WITH DOWEL BARS WILL BE PLACED. DOWEL BARS WILL BE UTILIZED BETWEEN EXISTING AND PROPOSED TO REDUCE VERTICAL CHANGE. SEE SHEET 11 FOR ADDITIONAL INFORMATION.

SAWCUTS WILL BE UTILIZED DURING DEMOLITION OF EXISTING SIDEWALKS. SIMILAR METHODS MAY BE USED UPON APPROVAL BY FIELD ENGINEER.

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ANY GRATE IN PEDESTRIAN AREAS SHALL HAVE OPENINGS NOT GREATER THAN 1/2" AND SHALL BE PLACED WITH LONG DIMENSION OF OPENING PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

IF THE 8.33% (12:1) SLOPE CANNOT BE OBTAINED DUE TO GRADE OF THE ADJACENT ROADWAY, THE SLOPED PORTION OF THE RAMP SHALL BE EXTENDED TO A MINIMUM LENGTH OF 15'-0".

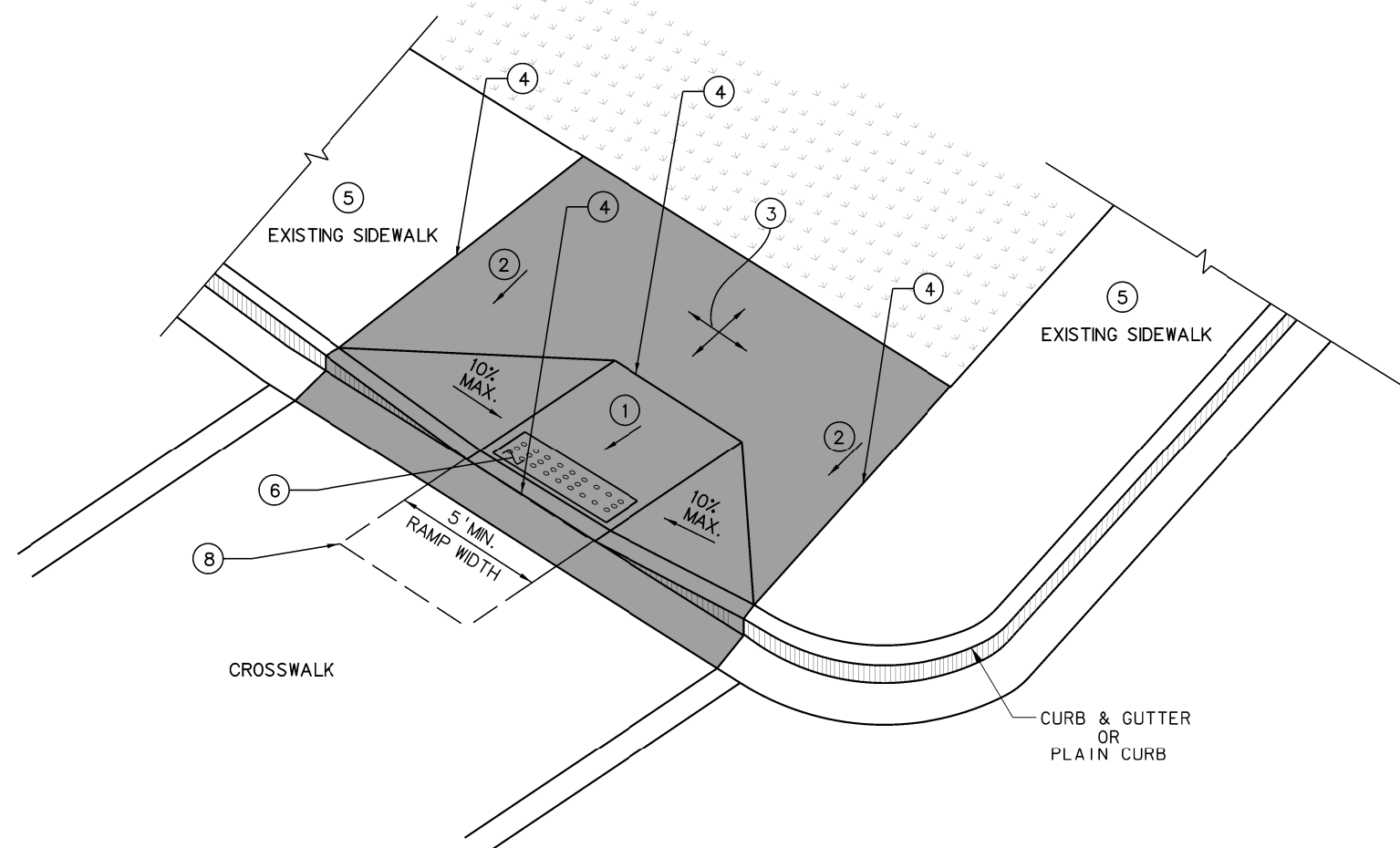
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GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

CLEAR SPACE- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE THE WIDTH OF THE CURB RAMP AND EXTENDING 4' MINIMUM INTO THE ABUTTING ROADWAY SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL TRAVEL LANE. SURFACE TO MATCH EXISTING. ANY CLEAR SPACE WORK TO BE COMPLETED WILL BE INCIDENTAL TO THE COST OF THE RAMP.

ALL CURB RAMPS SHALL BE CONSTRUCTED TO PROVIDE ACCESS TO EXISTING OPERABLE PARTS. AN EXAMPLE OF THIS WOULD BE PEDESTRIAN PUSH BUTTONS.



**TYPE I RAMP**

**LEGEND**

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- ② CROSS SLOPE: 2.00% MAXIMUM INCLUDING CONSTRUCTION TOLERANCE
- ③ CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WHERE PEDESTRIANS PERFORM TURNING MANEUVERS WITH A MAXIMUM CROSS SLOPE OF 2% AND LONGITUDINAL SLOPE MATCHING ROADWAY
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- ⑥ DETECTABLE WARNING SURFACE SEE "DETECTABLE WARNING SURFACE (DWS)" DETAIL SHEET 11
- ⑦ CURB WALL OR CHEEK WALL AS DICTATED BY FIELD CONDITIONS. SEE "EXISTING ADJACENT SURFACE TRANSITION" DETAIL SHEET 13
- ⑧ CLEAR SPACE - WIDTH OF CURB RAMP AND EXTENDING 4' MINIMUM
- ⑨ 3/4" CHAMFER EDGE

PAY LIMITS FOR CURB RAMPS (EXCLUDING DWS)

NOT TO SCALE

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
STANDARD DETAIL**

PREPARED 1-1-1999

REVISION DATE
7/21/10
10/22/13
10/01/20

**SIDEWALK RAMPS  
(Sheet 1 of 13)  
TYPE I RAMP**

STANDARD SHEET PVT 7

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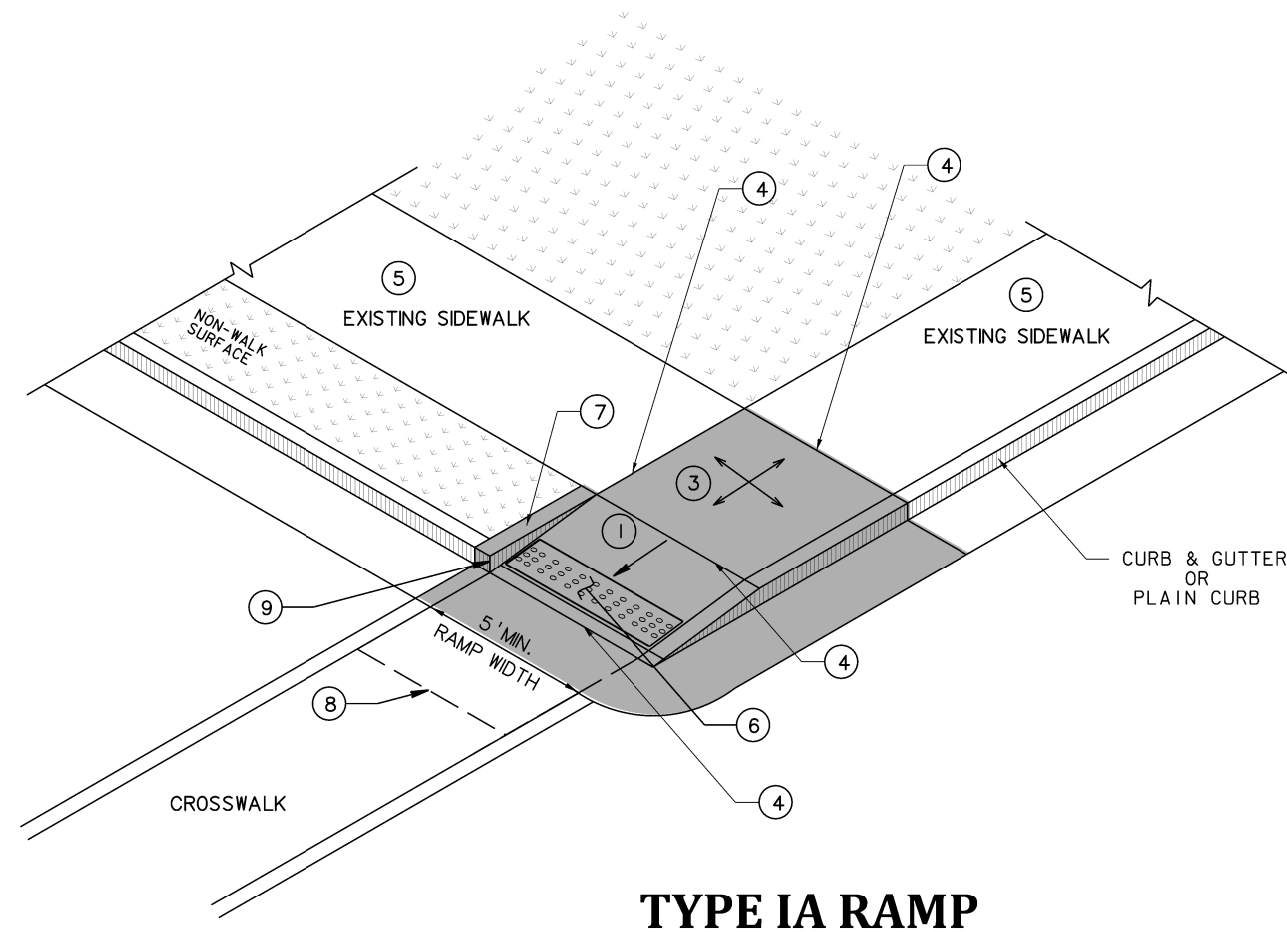
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NOT TO SCALE

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STANDARD DETAIL**

PREPARED 1-1-1999

REVISION DATE
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**SIDEWALK RAMPS**

(Sheet 2 of 13)

**TYPE IA RAMP**

STANDARD SHEET PVT 7

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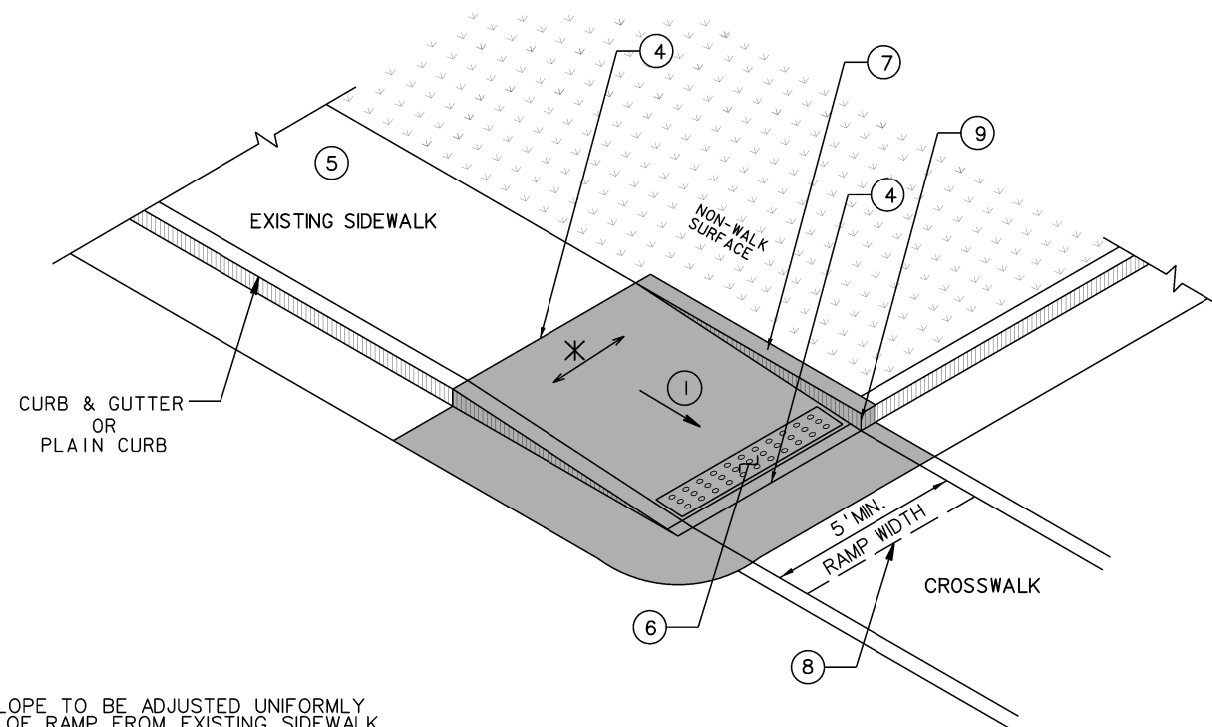
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\* RAMP CROSS SLOPE TO BE ADJUSTED UNIFORMLY ALONG LENGTH OF RAMP FROM EXISTING SIDEWALK TO GRADE OF CONNECTING ROADWAY.

**TYPE IB RAMP**

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PAY LIMITS FOR CURB RAMPS (EXCLUDING DWS)

NOT TO SCALE

<b>WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS STANDARD DETAIL</b>	
<small>PREPARED 1-1-1999</small>	<b>SIDEWALK RAMPS (Sheet 3 of 13) TYPE IB RAMP</b>
<small>REVISION DATE</small>	
<small>7/21/10</small>	
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<small>STANDARD SHEET PVT 7</small>	

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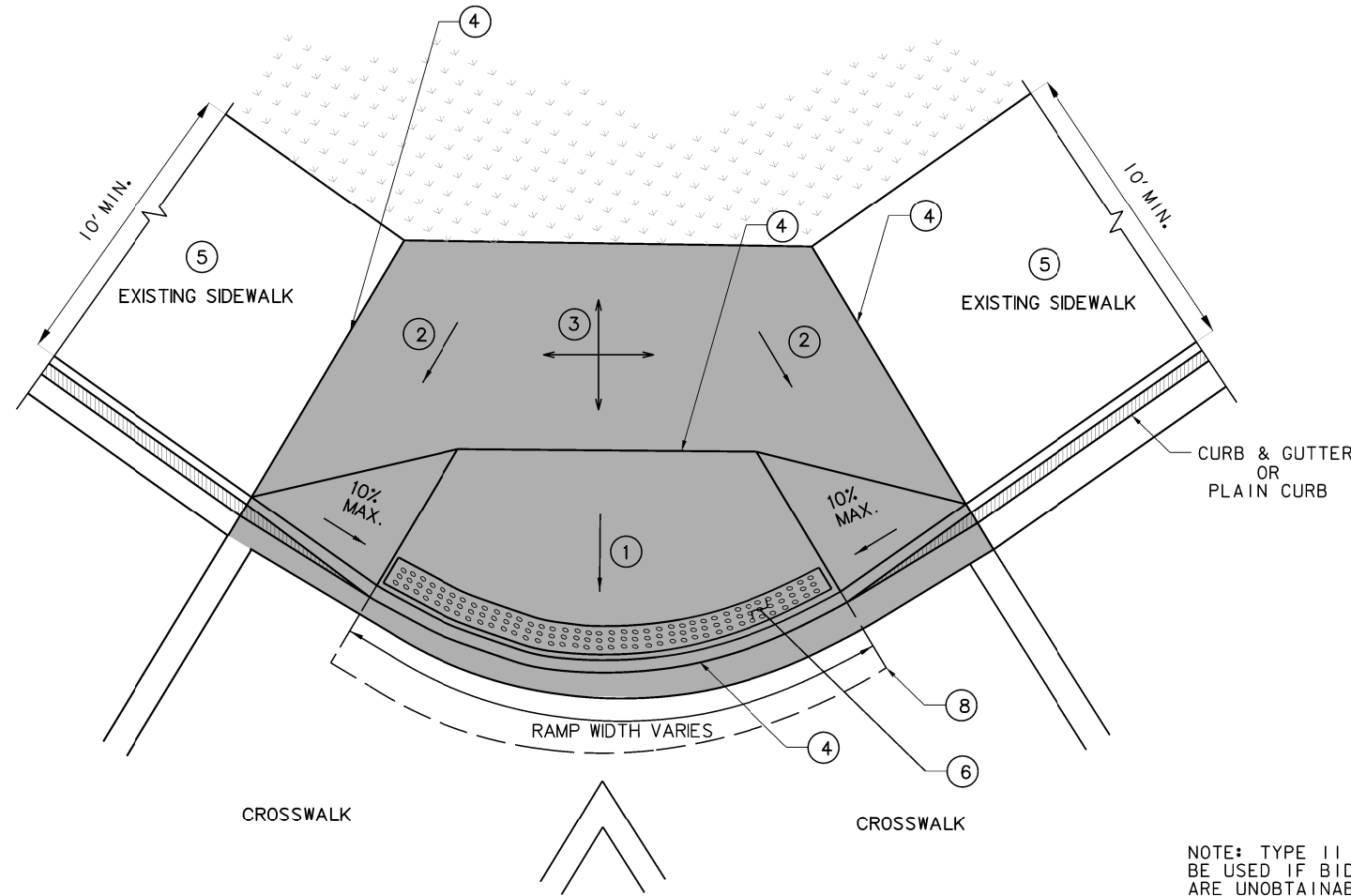
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NOT TO SCALE



**TYPE II RAMP**

NOTE: TYPE II RAMPS ARE ONLY TO BE USED IF BIDIRECTIONAL RAMPS ARE UNOBTAINABLE DUE TO PHYSICAL CONSTRAINTS AND THE PEDESTRIAN ACCESS ROUTE (PAR) IS GREATER THAN (>) 10' WIDE FROM BACK OF CURB TO BACK OF SIDEWALK.

LEGEND

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**SIDEWALK RAMPS**

(Sheet 4 of 13)

**TYPE II RAMP**

STANDARD SHEET PVT 7

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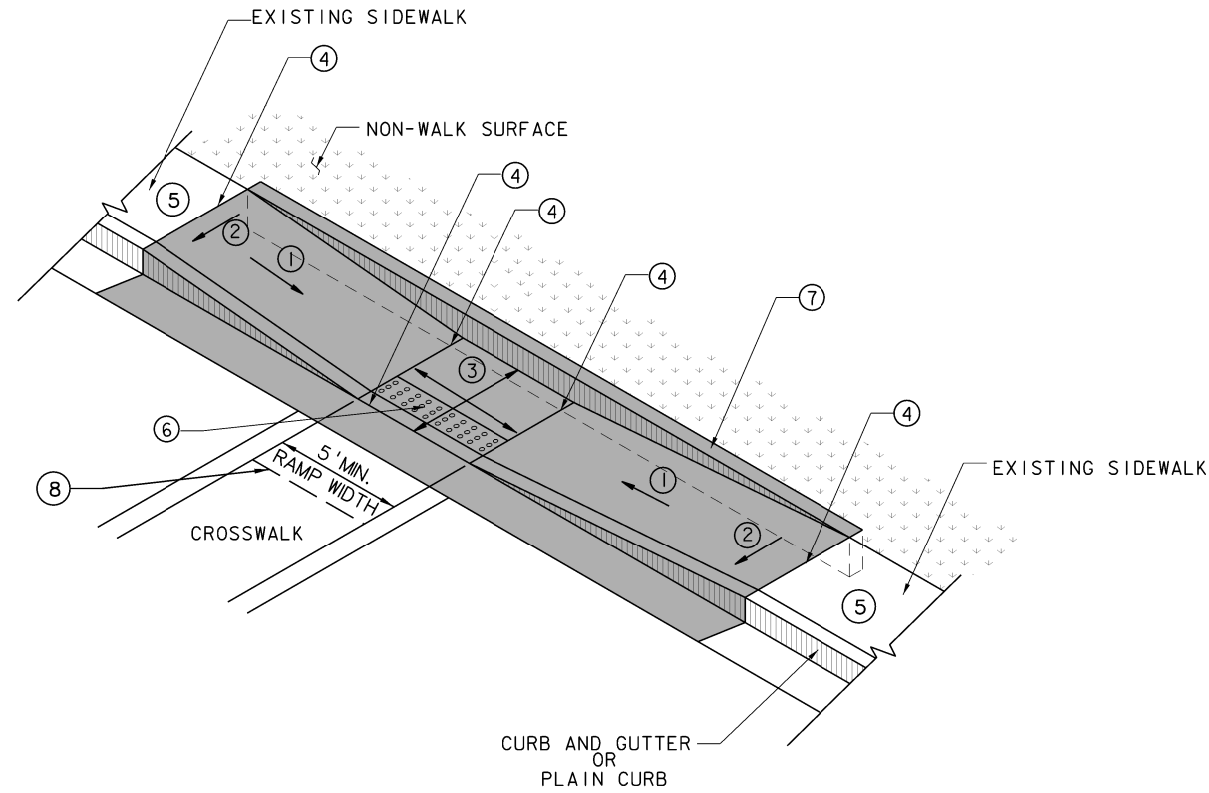
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**TYPE III RAMP**

LEGEND

- ① 8.33% (12:1) MAXIMUM RAMP SLOPE INCLUDING CONSTRUCTION TOLERANCE  
SLOPE OF RAMP SHALL CARRY THROUGH TO FACE OF CURB
- ② CROSS SLOPE: 2.00% MAXIMUM INCLUDING CONSTRUCTION TOLERANCE
- ③ CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WHERE PEDESTRIANS PERFORM TURNING MANEUVERS WITH A MAXIMUM CROSS SLOPE OF 2% AND LONGITUDINAL SLOPE MATCHING ROADWAY
- ④ GRADE BREAK REQUIRED TO BE FLUSH (0") AND PERPENDICULAR TO PEDESTRIAN PATH OF TRAVEL
- ⑤ IF SIDEWALK IS EXISTING AND NON-COMPLIANT SEE "TRANSITION TO EXISTING NON-COMPLIANT SIDEWALK" DETAIL SHEET 12
- ⑥ DETECTABLE WARNING SURFACE  
SEE "DETECTABLE WARNING SURFACE (DWS)" DETAIL SHEET 11
- ⑦ CURB WALL OR CHEEK WALL AS DICTATED BY FIELD CONDITIONS. SEE "EXISTING ADJACENT SURFACE TRANSITION" DETAIL SHEET 13
- ⑧ CLEAR SPACE - WIDTH OF CURB RAMP AND EXTENDING 4' MINIMUM
- ⑨ 3/4" CHAMFER EDGE

 PAY LIMITS FOR CURB RAMPS (EXCLUDING DWS)

NOT TO SCALE

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
STANDARD DETAIL**

PREPARED 1-1-1999

REVISION DATE
7/21/10
10/22/13
10/01/20

**SIDEWALK RAMPS**

(Sheet 5 of 13)

**TYPE III RAMP**

STANDARD SHEET PVT 7

NOTES

THE TYPE OF RAMP TO BE USED SHALL BE AS SPECIFIED ON THE PLANS. THESE STANDARDS CAN BE CONSIDERED GUIDELINES IN SELECTING RAMP TYPES, HOWEVER THEY CAN BE DEVIATED FROM WITH A SPECIAL DETAIL AS NOTED IN PLANS.

RAMP CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 609 OF THE CURRENT WVDOT, DOH STANDARD SPECIFICATIONS ROADS AND BRIDGES AND ANY SUBSEQUENT DOH SUPPLEMENTAL SPECIFICATIONS, AND THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) DATED JULY 26, 2011. RAMP SURFACE SHALL INCLUDE A "DETECTABLE WARNING SURFACE" (SEE PVT 7 SHT. 11 OF 13) AS SHOWN FOR EACH RAMP TYPE. A COARSE BROOM FINISH, TRANSVERSE TO FLARE SLOPES, OR EQUAL NON-SKID FINISH SHALL BE PROVIDED ON CONCRETE SURFACES.

NORMAL GUTTER FLOW LINE AND PROFILE SHALL BE MAINTAINED THROUGH THE RAMP AREA, UNLESS OTHERWISE SHOWN OR SPECIFIED. POSITIVE DRAINAGE MUST BE MAINTAINED SO THAT NO PONDING OCCURS WITHIN THE RAMP OR CLEAR SPACE AREA.

1/4" MINIMUM, 1/2" MAXIMUM PREFORMED EXPANSION JOINT FILLER, MEETING THE REQUIREMENTS OF SECTION 609 OF THE SPECIFICATIONS, AS NOTED ABOVE, SHALL BE PLACED AT ALL LOCATIONS WHERE RAMP CONTACTS CURB, GUTTER, CONCRETE PAVEMENT, OR OTHER RIGID OBJECTS.

WHERE EXISTING SIDEWALK CONNECTS TO PROPOSED SIDEWALK OR RAMPS, EXPANSION JOINTS ALONG WITH DOWEL BARS WILL BE PLACED. DOWEL BARS WILL BE UTILIZED BETWEEN EXISTING AND PROPOSED TO REDUCE VERTICAL CHANGE. SEE SHEET 11 FOR ADDITIONAL INFORMATION.

SAWCUTS WILL BE UTILIZED DURING DEMOLITION OF EXISTING SIDEWALKS. SIMILAR METHODS MAY BE USED UPON APPROVAL BY FIELD ENGINEER.

RAMPS SHALL NOT BE PLACED IN LINE WITH DRAINAGE STRUCTURES. LOCATION OF THE RAMP SHALL TAKE PRECEDENCE OVER LOCATION OF THE DRAINAGE STRUCTURE, EXCEPT WHERE EXISTING STRUCTURES ARE BEING UTILIZED FOR CONSTRUCTION OF NEW RAMPS.

ANY GRATE IN PEDESTRIAN AREAS SHALL HAVE OPENINGS NOT GREATER THAN 1/2" AND SHALL BE PLACED WITH LONG DIMENSION OF OPENING PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

IF THE 8.33% (12:1) SLOPE CANNOT BE OBTAINED DUE TO GRADE OF THE ADJACENT ROADWAY, THE SLOPED PORTION OF THE RAMP SHALL BE EXTENDED TO A MINIMUM LENGTH OF 15'-0".

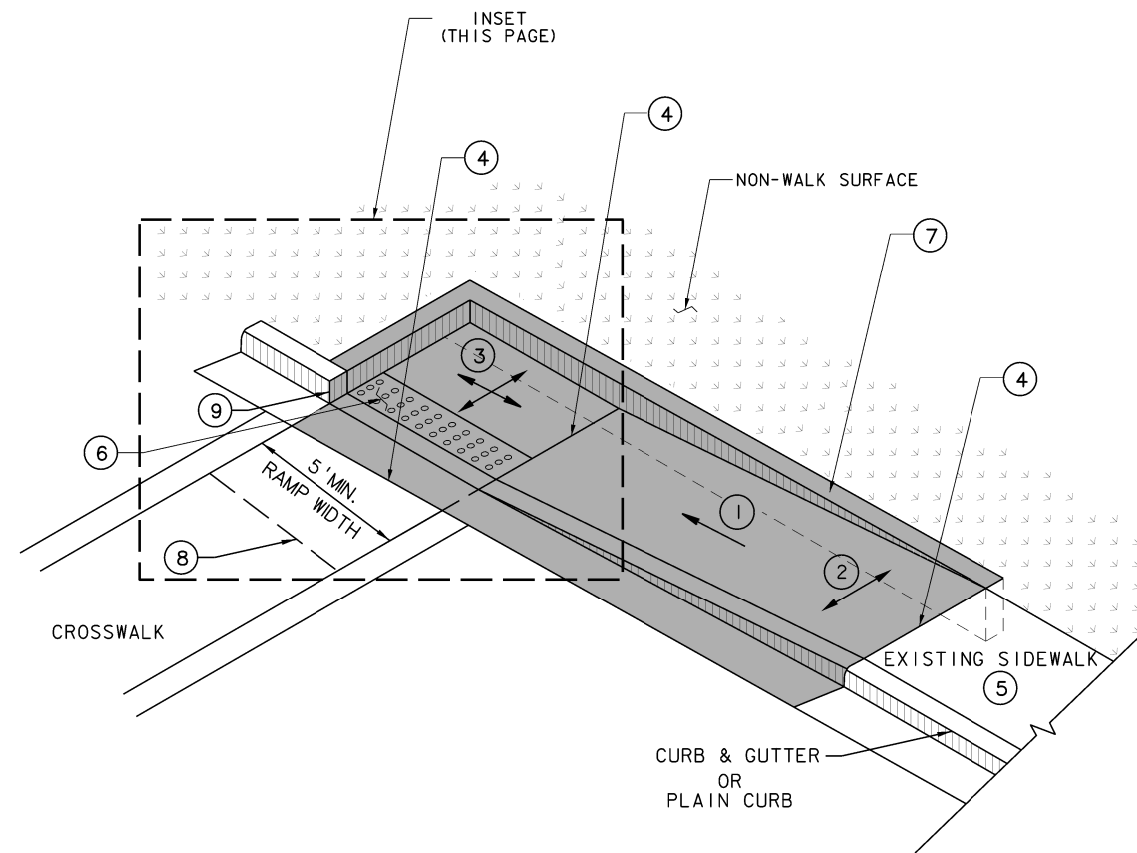
EXISTING CROSS WALK AND STOP BAR MARKINGS TO BE ERADICATED AND RELOCATED AS DICTATED BY PROPOSED RAMP LOCATIONS. COST NOT INCIDENTAL TO COST OF PROPOSED RAMP.

CURB RAMP WIDTH SHALL MATCH SIDEWALK WIDTH PLUS CLEARANCE. TYPICAL SIDEWALK WIDTH IS 5' MINIMUM. RAMP WIDTHS LESS THAN 5' REQUIRE DIVISION/DISTRICT ENGINEER APPROVAL. WIDTHS LESS THAN 4' REQUIRE AN EXCEPTION JUSTIFICATION REPORT. SEE SHEET 11 FOR INFORMATION REGARDING RAMP THICKNESS.

GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

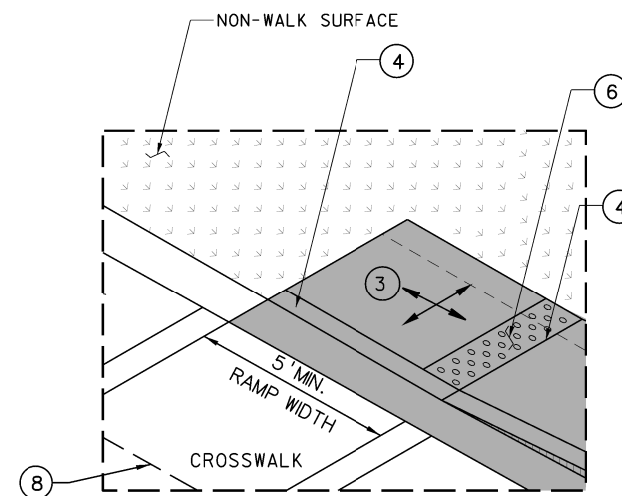
CLEAR SPACE- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE THE WIDTH OF THE CURB RAMP AND EXTENDING 4' MINIMUM INTO THE ABUTTING ROADWAY SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL TRAVEL LANE. SURFACE TO MATCH EXISTING. ANY CLEAR SPACE WORK TO BE COMPLETED WILL BE INCIDENTAL TO THE COST OF THE RAMP.

ALL CURB RAMPS SHALL BE CONSTRUCTED TO PROVIDE ACCESS TO EXISTING OPERABLE PARTS. AN EXAMPLE OF THIS WOULD BE PEDESTRIAN PUSH BUTTONS.



**TYPE IIIA - OPTION 1**

END OF SIDEWALK  
PREFERRED OPTION



**TYPE IIIA - OPTION 2**

END OF SIDEWALK  
ALTERNATE OPTION  
(WITHOUT CURB OR  
CHEEK WALL)

LEGEND

- ① 8.33% (12:1) MAXIMUM RAMP SLOPE INCLUDING CONSTRUCTION TOLERANCE  
SLOPE OF RAMP SHALL CARRY THROUGH TO FACE OF CURB
- ② CROSS SLOPE: 2.00% MAXIMUM INCLUDING CONSTRUCTION TOLERANCE
- ③ CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WHERE PEDESTRIANS  
PERFORM TURNING MANEUVERS WITH A MAXIMUM CROSS SLOPE OF 2% AND  
LONGITUDINAL SLOPE MATCHING ROADWAY
- ④ GRADE BREAK REQUIRED TO BE FLUSH (0") AND PERPENDICULAR TO  
PEDESTRIAN PATH OF TRAVEL
- ⑤ IF SIDEWALK IS EXISTING AND NON-COMPLIANT SEE "TRANSITION  
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- ⑥ DETECTABLE WARNING SURFACE  
SEE "DETECTABLE WARNING SURFACE (DWS)" DETAIL SHEET 11
- ⑦ CURB WALL OR CHEEK WALL AS DICTATED BY FIELD  
CONDITIONS. SEE "EXISTING ADJACENT SURFACE TRANSITION"  
DETAIL SHEET 13
- ⑧ CLEAR SPACE - WIDTH OF CURB RAMP AND EXTENDING 4'  
MINIMUM
- ⑨ 3/4" CHAMFER EDGE

PAY LIMITS FOR CURB RAMPS  
(EXCLUDING DWS)

NOT TO SCALE

SHEET 1 OF 2

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
STANDARD DETAIL**

PREPARED 1-1-1999
REVISION DATE
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**SIDEWALK RAMPS  
(Sheet 6 of 13)  
TYPE IIIA RAMP**

STANDARD SHEET PVT 7

NOTES

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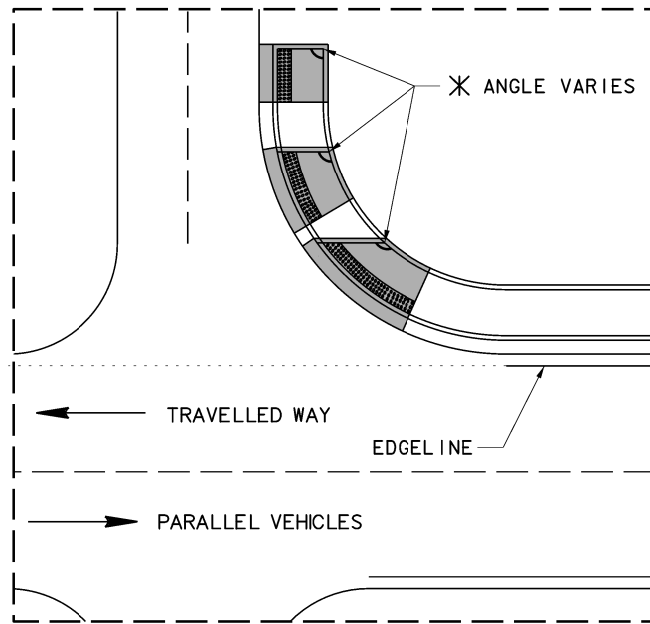
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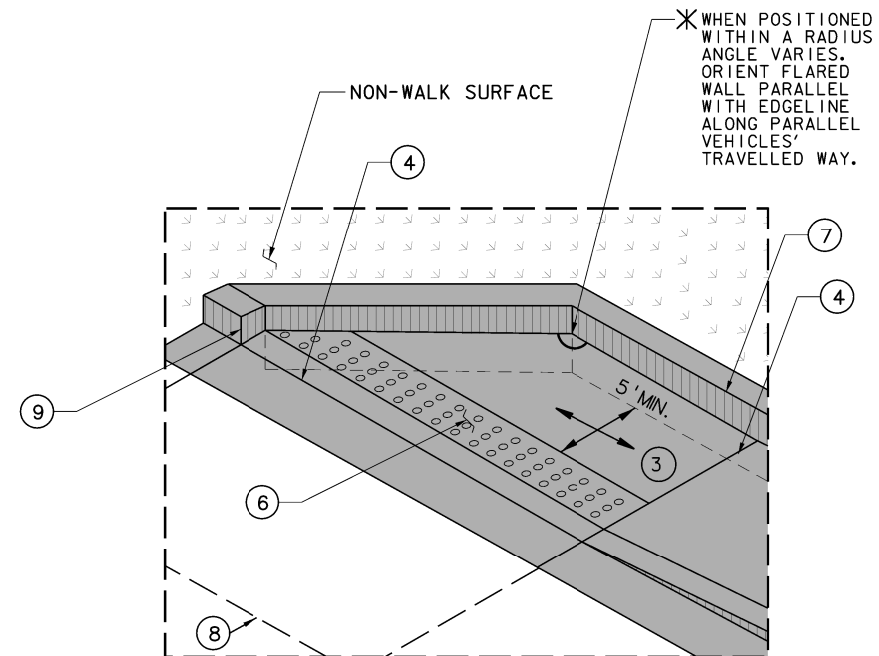
ALL CURB RAMPS SHALL BE CONSTRUCTED TO PROVIDE ACCESS TO EXISTING OPERABLE PARTS. AN EXAMPLE OF THIS WOULD BE PEDESTRIAN PUSH BUTTONS.



\* LOCATIONS NOTED ARE EXAMPLES ONLY. CURB RAMP CAN BE LOCATED AT ANY POINT ALONG RADIUS OF SIDEWALK AS DETERMINED BY FIELD CONDITIONS. WIDTH AT CURB DEPENDENT ON ANGLE.

**TYPE IIIA - OPTION 3**

EXAMPLE OF RAMP LOCATION ALONG RADIUS



**TYPE IIIA - OPTION 3**

END OF SIDEWALK  
PREFERRED OPTION  
(LARGER CURB ANGLE)

LEGEND

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PAY LIMITS FOR CURB RAMPS (EXCLUDING DWS)

NOT TO SCALE

SHEET 2 OF 2

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
STANDARD DETAIL**

PREPARED 1-1-1999

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**SIDEWALK RAMPS  
(Sheet 7 of 13)  
TYPE IIIA RAMP**

STANDARD SHEET PVT 7

NOTES

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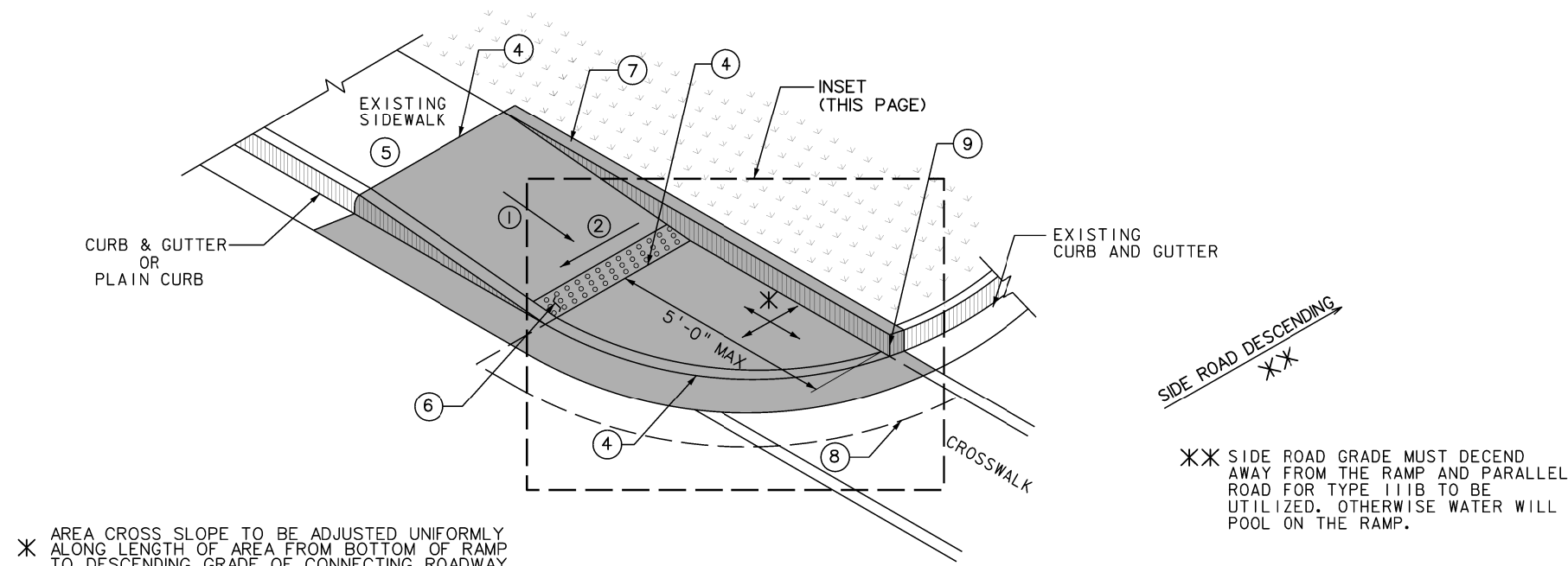
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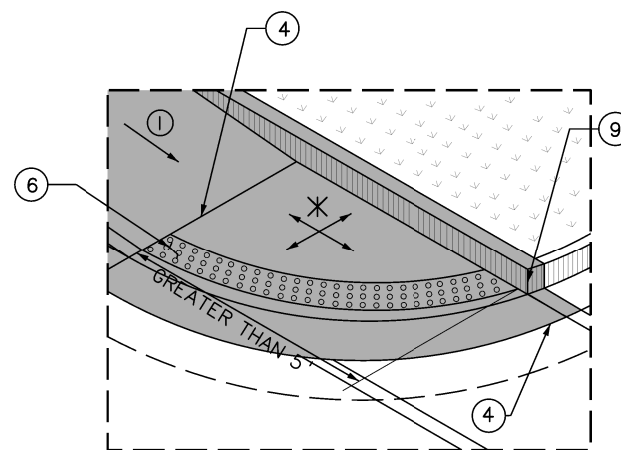
\* AREA CROSS SLOPE TO BE ADJUSTED UNIFORMLY ALONG LENGTH OF AREA FROM BOTTOM OF RAMP TO DESCENDING GRADE OF CONNECTING ROADWAY.

SIDE ROAD DESCENDING  
\*\*

\*\* SIDE ROAD GRADE MUST DECEND AWAY FROM THE RAMP AND PARALLEL ROAD FOR TYPE III B TO BE UTILIZED. OTHERWISE WATER WILL POOL ON THE RAMP.

**TYPE III B**

(DESCENDING SIDE ROAD ONLY)



**TYPE III B (INSET)**

LEGEND

- ① 8.33% (12:1) MAXIMUM RAMP SLOPE INCLUDING CONSTRUCTION TOLERANCE SLOPE OF RAMP SHALL CARRY THROUGH TO FACE OF CURB
- ② CROSS SLOPE: 2.00% MAXIMUM INCLUDING CONSTRUCTION TOLERANCE
- ③ CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WHERE PEDESTRIANS PERFORM TURNING MANEUVERS WITH A MAXIMUM CROSS SLOPE OF 2% AND LONGITUDINAL SLOPE MATCHING ROADWAY
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- ⑧ CLEAR SPACE - WIDTH OF CURB RAMP AND EXTENDING 4' MINIMUM
- ⑨ 3/4" CHAMFER EDGE

PAY LIMITS FOR CURB RAMPS (EXCLUDING DWS)

NOT TO SCALE

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
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PREPARED 1-1-1999

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10/01/20

**SIDEWALK RAMPS**

(Sheet 8 of 13)

**TYPE III B RAMP**

STANDARD SHEET PVT 7



NOTES

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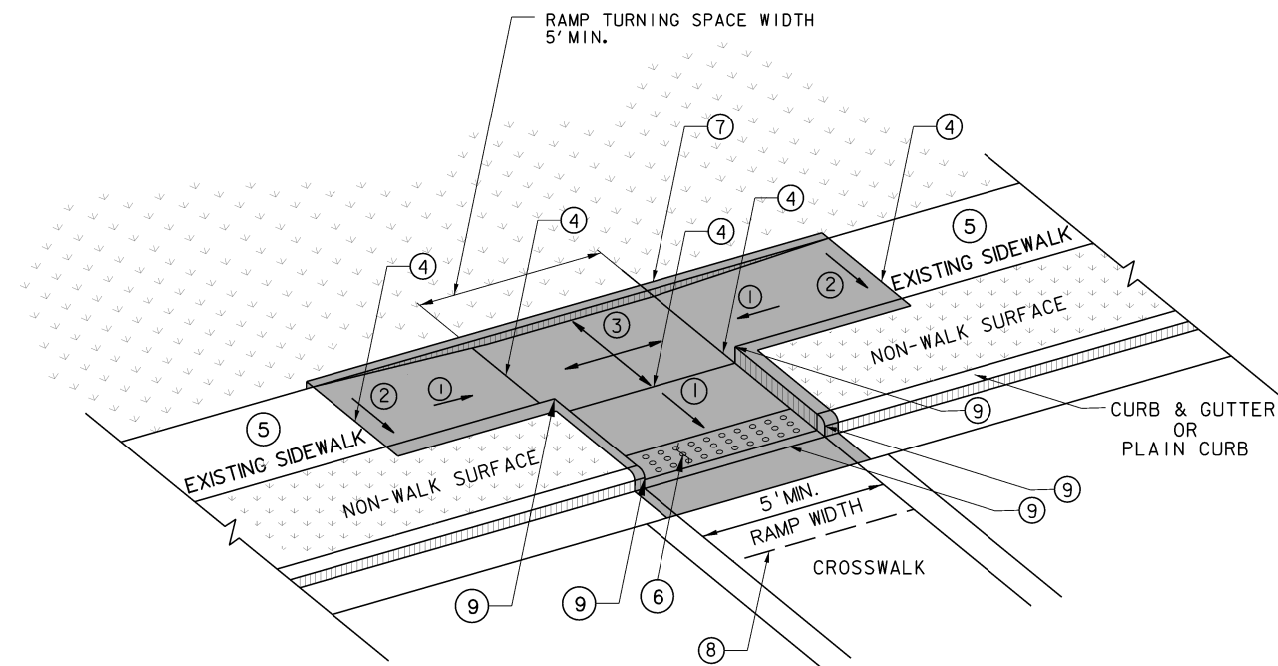
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**TYPE IV RAMP**

LEGEND

- ① 8.33% (12:1) MAXIMUM RAMP SLOPE INCLUDING CONSTRUCTION TOLERANCE  
SLOPE OF RAMP SHALL CARRY THROUGH TO FACE OF CURB
- ② CROSS SLOPE: 2.00% MAXIMUM INCLUDING CONSTRUCTION TOLERANCE
- ③ CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WHERE PEDESTRIANS  
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- ⑨ 3/4" CHAMFER EDGE

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(EXCLUDING DWS)

NOT TO SCALE

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
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**SIDEWALK RAMPS**

(Sheet 9 of 13)

**TYPE IV RAMP**

STANDARD SHEET PVT 7

NOTES

THE TYPE OF RAMP TO BE USED SHALL BE AS SPECIFIED ON THE PLANS. THESE STANDARDS CAN BE CONSIDERED GUIDELINES IN SELECTING RAMP TYPES, HOWEVER THEY CAN BE DEVIATED FROM WITH A SPECIAL DETAIL AS NOTED IN PLANS.

RAMP CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 609 OF THE CURRENT WVDOT, DOH STANDARD SPECIFICATIONS ROADS AND BRIDGES AND ANY SUBSEQUENT DOH SUPPLEMENTAL SPECIFICATIONS, AND THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) DATED JULY 26, 2011. RAMP SURFACE SHALL INCLUDE A "DETECTABLE WARNING SURFACE" (SEE PVT7 SHT. 11 OF 13) AS SHOWN FOR EACH RAMP TYPE. A COARSE BROOM FINISH, TRANSVERSE TO FLARE SLOPES, OR EQUAL NON-SKID FINISH SHALL BE PROVIDED ON CONCRETE SURFACES.

NORMAL GUTTER FLOW LINE AND PROFILE SHALL BE MAINTAINED THROUGH THE RAMP AREA, UNLESS OTHERWISE SHOWN OR SPECIFIED. POSITIVE DRAINAGE MUST BE MAINTAINED SO THAT NO PONDING OCCURS WITHIN THE RAMP OR CLEAR SPACE AREA.

1/4" MINIMUM, 1/2" MAXIMUM PREFORMED EXPANSION JOINT FILLER, MEETING THE REQUIREMENTS OF SECTION 609 OF THE SPECIFICATIONS, AS NOTED ABOVE, SHALL BE PLACED AT ALL LOCATIONS WHERE RAMP CONTACTS CURB, GUTTER, CONCRETE PAVEMENT, OR OTHER RIGID OBJECTS.

WHERE EXISTING SIDEWALK CONNECTS TO PROPOSED SIDEWALK OR RAMPS, EXPANSION JOINTS ALONG WITH DOWEL BARS WILL BE PLACED. DOWEL BARS WILL BE UTILIZED BETWEEN EXISTING AND PROPOSED TO REDUCE VERTICAL CHANGE. SEE SHEET 11 FOR ADDITIONAL INFORMATION.

SAWCUTS WILL BE UTILIZED DURING DEMOLITION OF EXISTING SIDEWALKS. SIMILAR METHODS MAY BE USED UPON APPROVAL BY FIELD ENGINEER.

RAMPS SHALL NOT BE PLACED IN LINE WITH DRAINAGE STRUCTURES. LOCATION OF THE RAMP SHALL TAKE PRECEDENCE OVER LOCATION OF THE DRAINAGE STRUCTURE, EXCEPT WHERE EXISTING STRUCTURES ARE BEING UTILIZED FOR CONSTRUCTION OF NEW RAMPS.

ANY GRATE IN PEDESTRIAN AREAS SHALL HAVE OPENINGS NOT GREATER THAN 1/2" AND SHALL BE PLACED WITH LONG DIMENSION OF OPENING PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

IF THE 8.33% (12:1) SLOPE CANNOT BE OBTAINED DUE TO GRADE OF THE ADJACENT ROADWAY, THE SLOPED PORTION OF THE RAMP SHALL BE EXTENDED TO A MINIMUM LENGTH OF 15'-0".

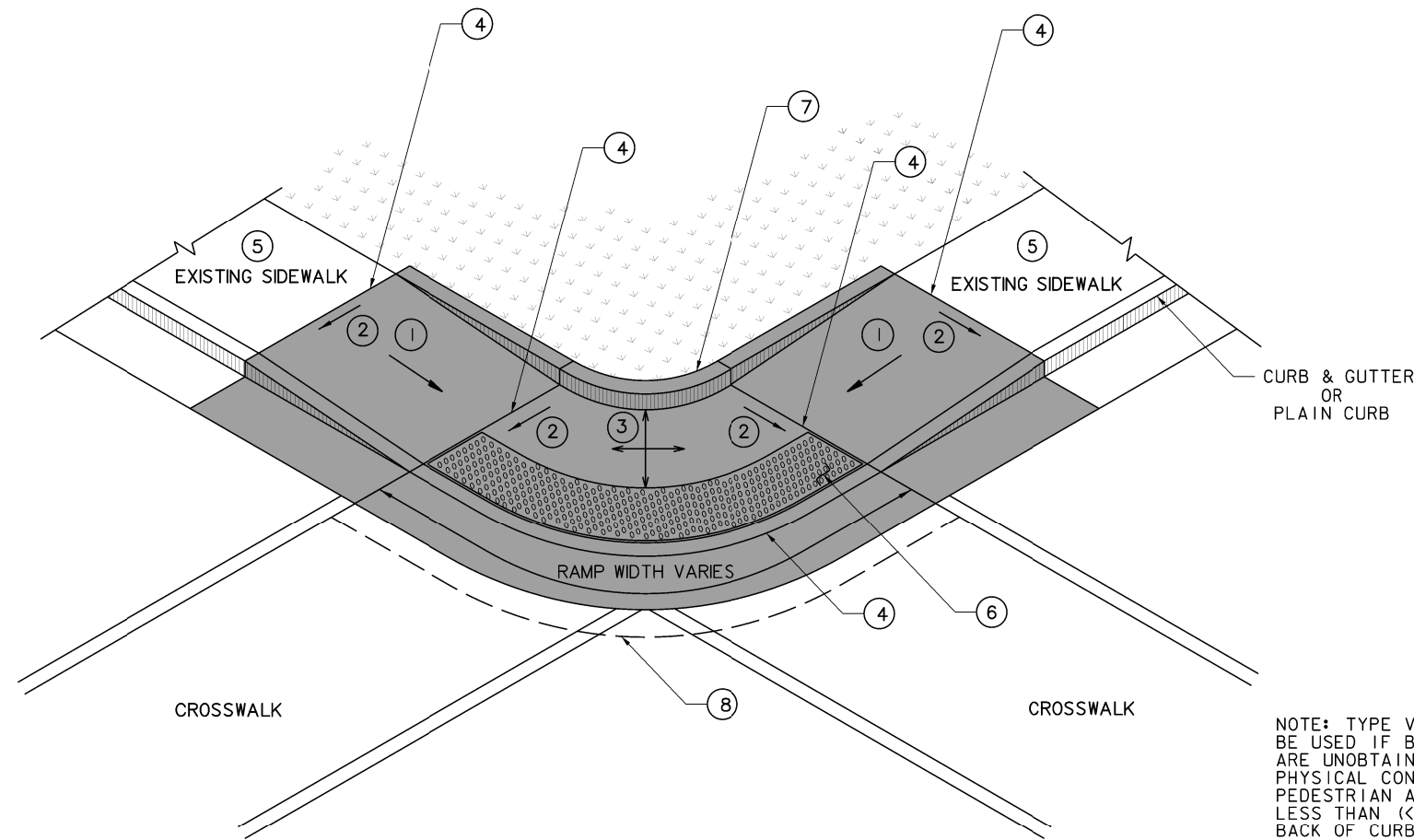
EXISTING CROSS WALK AND STOP BAR MARKINGS TO BE ERADICATED AND RELOCATED AS DICTATED BY PROPOSED RAMP LOCATIONS. COST NOT INCIDENTAL TO COST OF PROPOSED RAMP.

CURB RAMP WIDTH SHALL MATCH SIDEWALK WIDTH PLUS CLEARANCE. TYPICAL SIDEWALK WIDTH IS 5' MINIMUM. RAMP WIDTHS LESS THAN 5' REQUIRE DIVISION/DISTRICT ENGINEER APPROVAL. WIDTHS LESS THAN 4' REQUIRE AN EXCEPTION JUSTIFICATION REPORT. SEE SHEET 11 FOR INFORMATION REGARDING RAMP THICKNESS.

GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

CLEAR SPACE- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE THE WIDTH OF THE CURB RAMP AND EXTENDING 4' MINIMUM INTO THE ABUTTING ROADWAY SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL TRAVEL LANE. SURFACE TO MATCH EXISTING. ANY CLEAR SPACE WORK TO BE COMPLETED WILL BE INCIDENTAL TO THE COST OF THE RAMP.

ALL CURB RAMPS SHALL BE CONSTRUCTED TO PROVIDE ACCESS TO EXISTING OPERABLE PARTS. AN EXAMPLE OF THIS WOULD BE PEDESTRIAN PUSH BUTTONS.



NOTE: TYPE V RAMPS ARE ONLY TO BE USED IF BIDIRECTIONAL RAMPS ARE UNOBTAINABLE DUE TO PHYSICAL CONSTRAINTS AND THE PEDESTRIAN ACCESS ROUTE (PAR) IS LESS THAN (<) 10' WIDE FROM BACK OF CURB TO BACK OF SIDEWALK.

**TYPE V**  
DROP CORNER

LEGEND

- ① 8.33% (12:1) MAXIMUM RAMP SLOPE INCLUDING CONSTRUCTION TOLERANCE  
SLOPE OF RAMP SHALL CARRY THROUGH TO FACE OF CURB
- ② CROSS SLOPE: 2.00% MAXIMUM INCLUDING CONSTRUCTION TOLERANCE
- ③ CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WHERE PEDESTRIANS PERFORM TURNING MANEUVERS WITH A MAXIMUM CROSS SLOPE OF 2% AND LONGITUDINAL SLOPE MATCHING ROADWAY
- ④ GRADE BREAK REQUIRED TO BE FLUSH (0") AND PERPENDICULAR TO PEDESTRIAN PATH OF TRAVEL
- ⑤ IF SIDEWALK IS EXISTING AND NON-COMPLIANT SEE "TRANSITION TO EXISTING NON-COMPLIANT SIDEWALK" DETAIL SHEET 12
- ⑥ DETECTABLE WARNING SURFACE  
SEE "DETECTABLE WARNING SURFACE (DWS)" DETAIL SHEET 11
- ⑦ CURB WALL OR CHEEK WALL AS DICTATED BY FIELD CONDITIONS. SEE "EXISTING ADJACENT SURFACE TRANSITION" DETAIL SHEET 13
- ⑧ CLEAR SPACE - WIDTH OF CURB RAMP AND EXTENDING 4' MINIMUM
- ⑨ 3/4" CHAMFER EDGE

PAY LIMITS FOR CURB RAMPS (EXCLUDING DWS)

NOT TO SCALE

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**STANDARD DETAIL**

PREPARED 1-1-1999

REVISION DATE
7/21/10
10/22/13
10/01/20

**SIDEWALK RAMPS**  
**(Sheet 10 of 13)**  
**TYPE V RAMP**

STANDARD SHEET PVT 7

NOTES

DETECTABLE WARNING SURFACES (DWS'S) SHALL ONLY BE PURCHASED FROM VENDORS ON THE WEST VIRGINIA DIVISION OF HIGHWAYS APPROVED VENDOR LIST 609.2 - DETECTABLE WARNING SURFACES.

DESIGN AND PLACEMENT OF DETECTABLE WARNING SURFACE (DWS) SHALL BE IN ACCORDANCE WITH SECTION 609 OF THE CURRENT WVDOT, DOH STANDARD SPECIFICATIONS ROADS AND BRIDGES AND AND SUBSEQUENT DOH SUPPLEMENTAL SPECIFICATIONS AND THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) DATED JULY 26, 2011.

DETECTABLE WARNING SURFACES SHALL EXTEND ACROSS THE FULL WIDTH OF THE CURB RAMP THRESHOLD WHERE THE CURB IS FLUSH WITH THE ROADWAY AND SHALL BE PLACED AT THE BACK OF THE CURB WITH A 0" MINIMUM, 2" MAXIMUM BORDER DIMENSION FROM JOINTS ON EACH SIDE OF THE DWS. WHERE THE BACK OF THE CURB EDGE IS TOOLED TO PROVIDE A RADIUS, THE BORDER DIMENSION SHOULD BE MEASURED FROM THE END OF THE RADIUS.

DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, STREET, OR HIGHWAY. EITHER LIGHT ON DARK OR DARK ON LIGHT.

A WET OR PLASTIC SET-IN-PLACE DETECTABLE WARNING SURFACE (DWS) SHALL BE INSTALLED AT THE TIME OF THE PLACEMENT OF THE CURB RAMP, WHILE THE CONCRETE IS STILL PLASTIC.

MOLD-IN-PLACE CONCRETE DOMES, BRICK PAVERS, OR IRON OR STEEL WARNING SYSTEMS SHALL NOT BE USED.

SET-IN-PLACE DWS SHALL BE USED IN NEW CONSTRUCTION. SURFACE MOUNTED DWS ARE NOT PERMITTED.

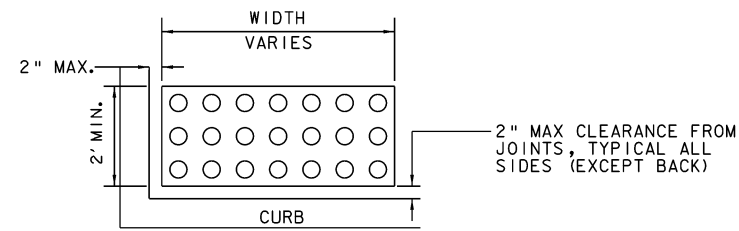
CONCRETE SHALL BE EDGED AROUND THE DWS AT TIME OF PLACEMENT.

A SINGLE DWS PANEL SHALL BE USED WITH CURB RAMP WIDTHS OF 5' OR LESS.

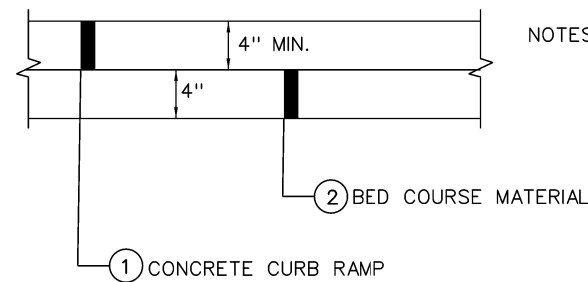
ANY CUTTING OF DWS DURING INSTALLATION SHALL BE APPROVED BY PROJECT ENGINEER.

IF DWS IS CUT TO CONFORM TO A SPECIFIC SHAPE OF RAMP AND ANCHORING DEVICES BECOME PART OF THE WASTE, THEN ANCHOR WILL BE REMOVED AND REATTACHED INTO THE DWS AT THE ORIGINAL EDGE OFFSET AS PER MANUFACTURER.

ALL DOWEL BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 709.1 OF THE CURRENT WVDOT STANDARD SPECIFICATIONS ROADS AND BRIDGES

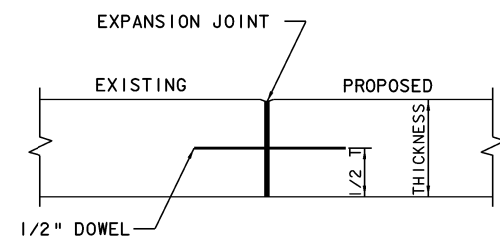


DETECTABLE WARNING SURFACE (DWS)



NOTES: CURB RAMP AND BED COURSE MATERIAL TO BE PAID BY ITEM 609005-001 CURB RAMP. THICKNESS OF CONCRETE SHALL BE INCREASED TO 6" MINIMUM IN AREAS EXPOSED TO TRAFFIC.

CURB RAMP TYPICAL



NOTE: 1/2" DOWEL TO BE EVENLY SPACED, MINIMUM LENGTH 8". COST OF DOWEL INSTALLATION INCIDENTAL TO COST OF RAMP.

CURB RAMP TYPICAL

NOT TO SCALE

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
STANDARD DETAIL

PREPARED 1-1-1999

REVISION DATE
7/21/10
10/22/13
10/01/20

SIDEWALK RAMPS  
(Sheet 11 of 13)  
DETECTABLE WARNING  
SURFACES & TYPICALS

STANDARD SHEET PVT 7

NOTES

TRANSITION CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 609 OF THE CURRENT WVDOT, DOH STANDARD SPECIFICATIONS ROADS AND BRIDGES AND ANY SUBSEQUENT DOH SUPPLEMENTAL SPECIFICATIONS, AND THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) DATED JULY 26, 2011. A COARSE BROOM FINISH, TRANSVERSE TO FLARE SLOPES, OR EQUAL NON-SKID FINISH SHALL BE PROVIDED ON CONCRETE SURFACES.

NORMAL GUTTER FLOW LINE AND PROFILE SHALL BE MAINTAINED THROUGH THE TRANSITION AREA, UNLESS OTHERWISE SHOWN OR SPECIFIED. POSITIVE DRAINAGE MUST BE MAINTAINED SO THAT NO PONDING OCCURS.

SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

ANY GRATE IN PEDESTRIAN AREAS SHALL HAVE OPENINGS NOT GREATER THAN 1/2" AND SHALL BE PLACED WITH LONG DIMENSION OF OPENING PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

ENSURE THAT THE TRANSITION AREA IS FULLY TAPERED FROM THE EXISTING NON-COMPLIANT SIDEWALK TO THE NEW SIDEWALK IN ORDER TO AVOID CREATING SUDDEN DROP OFFS ALONG THE PEDESTRIAN PATH OF TRAVEL.

WARP CONCRETE PLACED IN THE PROPOSED TRANSITION AREA TO MATCH THE EXISTING NON-COMPLIANT SIDEWALK CROSS SLOPE AND WIDTH.

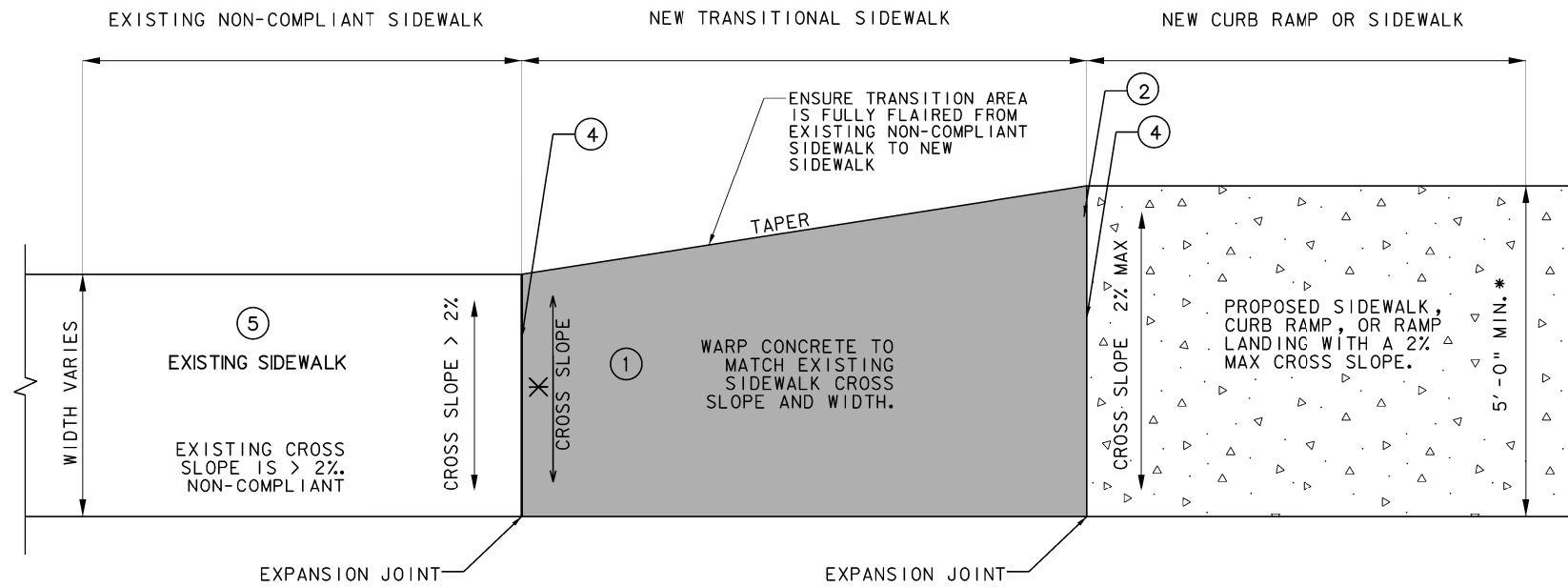
THE LENGTH OF THE PROPOSED TRANSITION AREA IS BASED ON THE TRANSITION REQUIRED TO MEET CROSS SLOPE AND GRADE STANDARDS. SEE THE CHART ON THIS SHEET FOR CROSS SLOPE RANGES AND ASSOCIATED PROPOSED TRANSITION SIDEWALK AREA LENGTH. SHOULD EXISTING CROSS SLOPE EXCEED 9%, USE THE TREND SEEN IN THE CHART TO DETERMINE APPROPRIATE PROPOSED SIDEWALK TRANSITION AREA LENGTH.

SIDEWALK TRANSITION TO BE PAID AS 609001- $\star$  CONCRETE SIDEWALK AND 609002- $\star$  BED COURSE MATERIAL

TAPER LENGTHS TO BE DETERMINED BY SIDEWALK TRANSITION LENGTH. TAPER TO RUN CONSISTENTLY ALONG THE FULL LENGTH OF NEW TRANSITIONAL SIDEWALK AS SHOWN.

TRANSITION PIECE TO BE POURED BEYOND RAMP SLOPE WHEN TYING RAMP INTO NON-COMPLIANT EXISTING SIDEWALK.

ALL RAMP SLOPES TO BE BROUGHT TO FULL HEIGHT OF CURB BEFORE TRANSITION AREA STARTS.



SIDEWALK TRANSITION FROM NON-COMPLIANT EXISTING TO PROPOSED

\* SIDEWALK CROSS SLOPE TO BE ADJUSTED TO TRANSITION FROM EXISTING SIDEWALK TO PROPOSED RAMP

CROSS SLOPE

EXISTING SIDEWALK CROSS SLOPE	SIDEWALK TRANSITIONAL LENGTH
0.00 - 2.00%	NOT REQUIRED
2.01 - 3.00%	1' 0"
3.01 - 4.00%	2' 0"
4.01 - 5.00%	3' 0"
5.01 - 6.00%	4' 0"
6.01 - 7.00%	5' 0"
7.01 - 8.00%	6' 0"
8.01 - 9.00%	7' 0"

LEGEND

- ① 8.33%(12:1) MAXIMUM TRANSITION SIDEWALK SLOPE INCLUDING CONSTRUCTION TOLERANCE
- ② CROSS SLOPE: 2.00% MAX. INCLUDING CONSTRUCTION TOLERANCE
- ③ CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WITH A MAXIMUM CROSS SLOPE OF 2% AND LONGITUDINAL SLOPE MATCHING ROADWAY WHERE PEDESTRIANS PERFORM TURNING MANEUVERS.
- ④ GRADE BREAK REQUIRED TO BE FLUSH (0") AND PERPENDICULAR TO PEDESTRIAN PATH OF TRAVEL
- ⑤ IF SIDEWALK IS EXISTING AND NON-COMPLIANT SEE "TRANSITION TO EXISTING NON-COMPLIANT SIDEWALK" DETAIL SHEET 11
- ⑥ DETECTABLE WARNING SURFACE SEE "DETECTABLE WARNING SURFACE (DWS)" DETAIL SHEET 10
- ⑦ CURB WALL OR CHEEK WALL AS DICTATED BY FIELD CONDITIONS. SEE "EXISTING ADJACENT SURFACE TRANSITION" DETAIL SHEET 13
- ⑧ CLEAR SPACE - WIDTH OF CURB RAMP AND EXTENDING 4' MINIMUM
- ⑨ 3/4" CHAMFER EDGE

PAY LIMITS FOR SIDEWALK TRANSITION

NOT TO SCALE

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
STANDARD DETAIL

PREPARED 1-1-1999

REVISION DATE
7/21/10
10/22/13
10/01/20

SIDEWALK RAMPS  
(Sheet 12 of 13)  
SIDEWALK TRANSITION AREA

STANDARD SHEET PVT 7

NOTES

DETAILS ON THIS SHEET USED TO SHOW OPTIONAL METHODS TO TRANSITION FROM EXISTING ROLLABLE AND NON-ROLLABLE SURFACES TO ADJACENT PROPOSED CURB RAMP AND SIDEWALKS ONLY. ROLLABLE SURFACES INCLUDE, BUT ARE NOT LIMITED TO COMMERCIAL AREAS ADJACENT TO PROPOSED RAMPS.

CHEEK WALLS AND CURB WALLS SHALL MEET THE REQUIREMENTS OF SECTION 610 OF THE CURRENT WVDOT, DOH STANDARD SPECIFICATIONS ROADS AND BRIDGES AND ANY SUBSEQUENT DOH SUPPLEMENTAL SPECIFICATIONS.

1/4" MINIMUM, 1/2" MAXIMUM PREFORMED EXPANSION JOINT FILLER, MEETING THE REQUIREMENTS OF SECTION 609 OF THE SPECIFICATIONS, AS NOTED ABOVE, SHALL BE PLACED AT ALL LOCATIONS WHERE RAMP CONTACTS CURB, GUTTER, CONCRETE PAVEMENT, OR OTHER RIGID OBJECTS.

WHERE PROPOSED CURB RAMP CONNECTS TO PROPOSED CURB/ CHEEK WALL, EXPANSION JOINTS ALONG WITH DOWEL BARS WILL BE PLACED. DOWEL BARS WILL BE UTILIZED BETWEEN EXISTING AND PROPOSED TO REDUCE VERTICAL CHANGE. SEE SHEET 11 FOR ADDITIONAL INFORMATION.

SAWCUTS WILL BE UTILIZED DURING DEMOLITION OF EXISTING SIDEWALKS. SIMILAR METHODS MAY BE USED UPON APPROVAL BY FIELD ENGINEER.

AS A MINIMUM, TOP AND BACK OF VISIBLE CURB WALL ABUTTING ADJUSTING ROLLABLE SURFACE SHALL BE PAINTED WITH HIGH DEFINITION YELLOW PAINT.

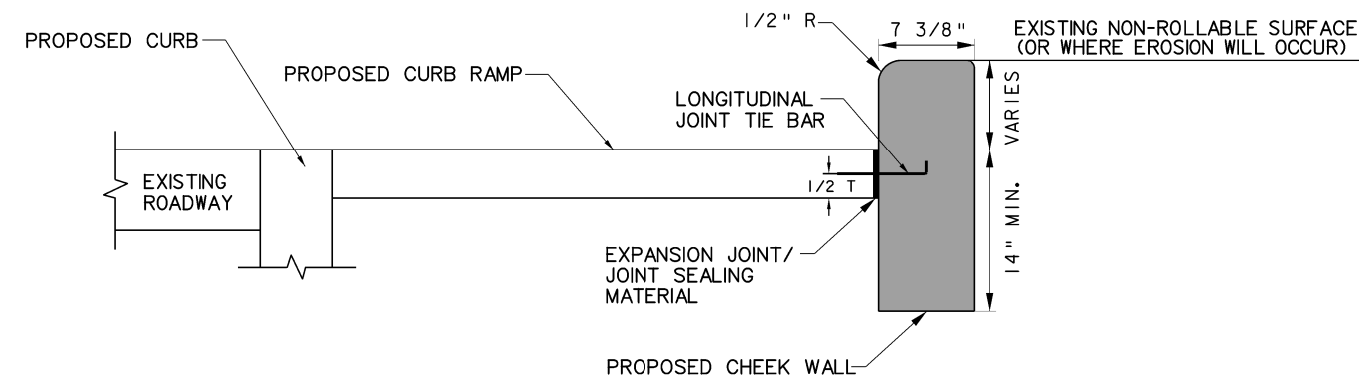
CHEEK AND CURB WALLS MAY NOT BE REQUIRED WHEN WALL OR BUILDING PRESENT.

AS PREVIOUSLY NOTED, THE COST OF CHEEK WALL OR CURB WALL IS INCIDENTAL TO COST OF CURB RAMP.

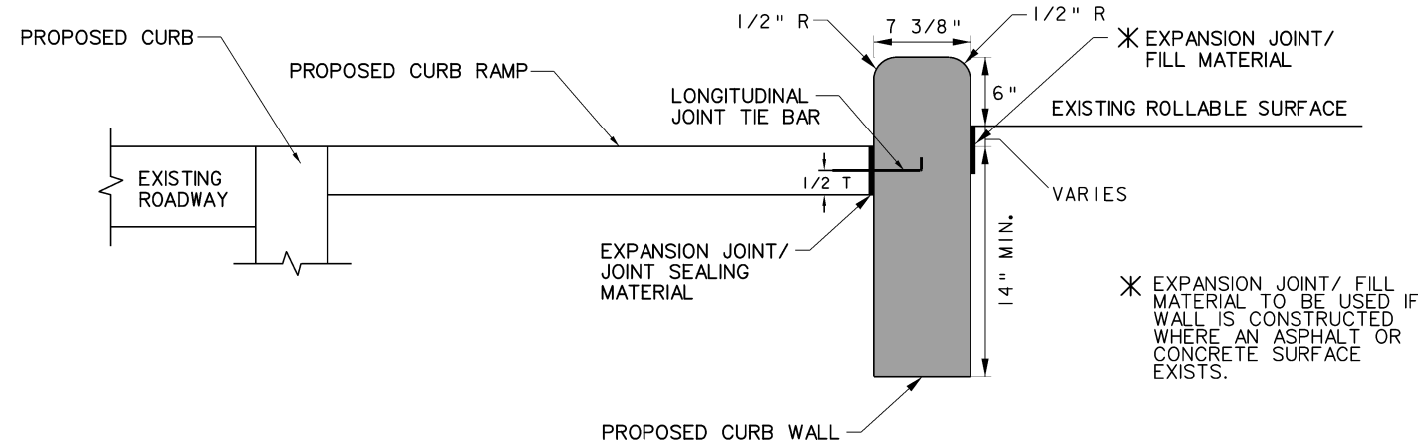
1/2" DOWEL TO BE EVENLY SPACED. MINIMUM LENGTH TO BE 8". COST OF DOWEL INSTALLATION TO BE INCIDENTAL TO COST OF RAMP.

SEE STANDARD SHEET PVT3 FOR DETAIL OF TIE BAR AND CHANNEL TO BE USED FOR FORMING LONGITUDINAL JOINT.

ALL DOWEL BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 709.1 OF THE CURRENT WVDOT STANDARD SPECIFICATIONS ROADS AND BRIDGES.



① CHEEK WALL



② CURB WALL

EXISTING ADJACENT SURFACE TRANSITION DETAIL



PAY LIMITS FOR PROPOSED ADJACENT SURFACE TRANSITION DETAIL (INCIDENTAL TO 609005-CURB RAMP)

NOT TO SCALE

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
STANDARD DETAIL**

PREPARED 1-1-1999

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**SIDEWALK RAMPS  
(Sheet 13 of 13)  
EXISTING ADJACENT  
SURFACE TRANSITION  
DETAIL  
STANDARD SHEET PVT 7**