

UTILITY

POLE

SIDEWALK

POLE

**EXPANSION JOINT** 

**EVERY 25' TO 30'** 

SEE NOTE (E)

**VARIABLE** 

2' MIN.

**SECTION A-A** 

TYPICAL SIDEWALK CROSS SECTION

WITH GRASS STRIP

**MAILBOX DETAIL** 

IF NEEDED. REMOVAL AND RESETTING MAILBOXES TO BE INCLUDED IN THE

20" - 24"

DRAINAGE

CURB AND

**GUTTER** 

2'-6"

41"-45"

WIDTH IS LESS THAN 4 FEET.

COST OF SIDEWALK.

**EXPANSION** 

SEE DETAIL

GRASS STRIP | OR 10' SHARED- USE PATH

**PLAN VIEW** 

SIDEWALK WITH GRASS STRIP

**B →** 

**PLAN VIEW** 

COMPACTED

MATERIAL

(SEE NOTE (N)

SIDEWALK WITHOUT GRASS STRIP

(NOTE: WHEN NEEDED DUE TO EXTREME SITE CONDITIONS THE PLACEMENT OF SERVICE APPURTENANCES SHALL PROVIDE MINIMUM 4' CLEAR PATH.)

> FOR SIDEWALK = 1' (MIN.) FOR SHARED-USE PATH = 2' (MIN.)

> > MIN 5' SIDEWALK

CROSS SLOPE 1.5 % MAX.

**MAINTAIN MIN 4'** CLEAR PATH AT MAIL BOX LOCATION

CROSS SLOPE 1.5 % MAX.

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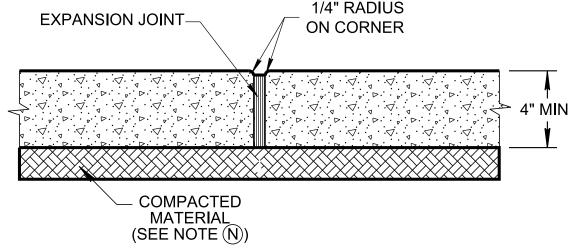
AND GUTTER

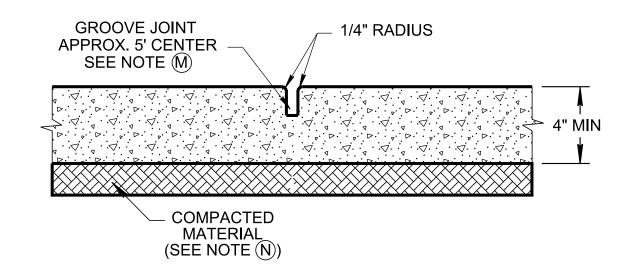
MAINTAIN MIN 4' CLEAR

PATH AT FIXED OBJECT

LOCATION (LIGHT

POLE/BENCH ETC.)





### **EXPANSION JOINT DETAIL**

LONGITUDINAL

SEE NOTE(I)

**GROOVE** 

**JOINTS** 

**CURB AND** 

**GUTTER** 

2'-6"

-EXPANSION

**JOINT** 

MIN. 5'-0" SIDEWALK

CROSS SLOPE 1.5 % MAX.

FOR SIDEWALK = 1' (MIN.)

FOR SHARED-USE PATH = 2' (MIN.)

MIN 5' SIDEWALK

OR 10' SHARED- USE PATH

CROSS SLOPE 1.5 % MAX.

COMPACTED MATERIAL

(SEE NOTE (N))

COMPACTED

MATERIAL (SEE NOTE (N))

**EXPANSION** 

**SECTION B-B** 

TYPICAL SIDEWALK CROSS SECTION

WITHOUT GRASS STRIP

- 12" DESIRED

SERVICE

POLE

TYPICAL POLE

**FOUNDATION** 

(SEE NOTE)

**GRASS STRIP** 

NOTE: IF SERVICE POLE IS PLACED IN GRASS STRIP THE POLE SHALL HAVE MIN. 3' OFFSET FROM

TRAVELLED LANE. MINIMUM 36" DIAMETER AND 15' DEEP FOUNDATION SPACE SHALL BE

EVALUATED TO ELIMINATE CONFLICTS. SEE STANDARD TRAFFIC OPERATION DRAWINGS

SERVICE APPURTENANCES (LARGE SIGNS, STRUCTURES, SIGNAL, LUMINARY AND UTILITY

SPACE. PREFERABLY OUTSIDE THE SIDEWALK AREA AND INSIDE THE RIGHT-OF-WAY.

**SECTION C-C** 

TYPICAL SIDEWALK CROSS SECTION

WITH GRASS STRIP AND SERVICE APPURTENANCES

POLES 2' DIAMETER OR LARGER) SHALL BE PLACED OUTSIDE THE PEDESTRIAN ACCESSIBLE

MIN.

**EXPANSION** 

JOINT

**GROOVE JOINT** 

SEE DETAIL

CURB OR CURB AND

**GUTTER JOINT** 

SHOULD MATCH

TO SIDEWALK JOINT

ROADWAY

OR SHOULDER

**CURB AND** 

GUTTER

2'-6"

T-SG-9 AND T-SG-10 FOR MORE INFORMATION.

ROADWAY

OR SHOULDER

## HAND TOOL GROOVE JOINT DETAIL

SEE T-M-4, FOR CROSS WALK MARKING

SEE MM-CR SERIES FOR CURB RAMP DETAILS

SEE MM-BPR-1, FOR PEDESTRIAN RAIL REQUIREMENTS & S-PL-6, FOR GUARDRAIL PLACEMENT

SEE MM-SW-2, FOR ALTERNATE DETAILS FOR CONCRETE SIDEWALK (REHABILITATION)

SEE RP-SC-1, FOR 6" SLOPING CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS

SEE RP-VC-10 OR 11, FOR VERTICAL CONCRETE CURB AND CONCRETE CURBS AND GUTTER DETAILS

SEE MM-PM-1 THRU MM-PM-5, FOR BIKE LANE/ROUTE PAVEMENT MARKINGS

SEE RP-D-15 & 16 FOR CONCRETE DRIVEWAYS

SEE MM-TS-2 FOR PEDESTRIAN FACILITY LATERAL OFFSETS/ BUFFER GUIDANCE.

SEE MM-TS-3 FOR SHARED USE TYPICAL SECTIONS

#### **GENERAL NOTES**

- (A) ALWAYS PLACE SIDEWALK AS FAR AS AWAY FROM THE TRAVELLED WAY WHEN POSSIBLE. FOR SPECIFICATIONS SEE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION"
- WHERE IT BECOMES NECESSARY TO REMOVE PARTS OF EXISTING CONCRETE SIDEWALKS OR RAMPS, THE RESULTING EDGES SHALL BE CUT TO A NEAT LINE, AND ANY OFFSETS IN SUCH LINES
- SIDEWALK WIDTHS DO NOT INCLUDE THE SIX INCH CURB WIDTH OF PROPOSED TOP OF CURB.
- EXPANSION JOINTS ARE TO BE PLACED 25 TO 30 FEET APART DEPENDING ON TRANSVERSE JOINT MARKINGS AND NEED TO MATCH CURB EXPANSION JOINT WHERE SIDEWALK IS BUILT DIRECTLY AGAINST CURB. OR AS DIRECTED BY THE ENGINEER WHERE THE PROPOSED SIDEWALK IS IN CONTACT WITH THE STREET RETURNS, ON BUILDING LINES PRODUCED AT STREET INTERSECTIONS WHERE WALKS LEAD TO HOUSE OR OTHER ENTRANCES AND AN OTHER LOCATIONS WHERE STRESSES MAY DEVELOP. THE COST OF ALL EXPANSION JOINTS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PROPOSED SIDEWALK.
- CONCRETE JOINT MATERIAL TO BE FLUSH WITH THE SIDEWALK SURFACE, ONE INCH PREFORMED FILLER IN ACCORDANCE WITH SECTION 701.06 OF THE STANDARD SPECIFICATIONS.
- G ONE INCH EXPANSION JOINTS ARE TO BE PLACED WHERE THE PROPOSED SIDEWALK IS IN CONTACT WITH CIRCULAR CURBS. BUILDINGS AND/OR RETAINING WALLS.
- (H) HALF INCH EXPANSION JOINTS ARE TO BE USED AT ALL OTHER LOCATIONS.
- LONGITUDINAL JOINT MARKINGS WILL NOT BE REQUIRED ON SIDEWALKS THAT ARE 5 FEET OR LESS IN WIDTH

LESS THAN 9 FEET IN WIDTH. TWO LONGITUDINAL JOINT MARKINGS WILL BE REQUIRED ON SIDEWALKS OVER 9 FEET

- TRANSVERSE JOINT MARKERS ARE TO BE MADE TO FORM BLOCKS AS NEARLY TO SQUARE
- (K) WHEN LEAVING A SQUARE OPENING IN THE SIDEWALK, THE LENGTH OF THE SIDE OF THE SQUARE OPENING SHOULD BE EQUAL TO THE DIAMETER OF THE FIXED OBJECT PLUS SIXTEEN INCHES. IT WILL BE BORDERED BY HALF INCH EXPANSION JOINT.
- (L) WHEN NEW SIDEWALK IS PLACED ADJACENT TO EXISTING SIDEWALK THE CONTRACTOR SHALL CORRECT ALL ABRUPT CHANGES AND SLOPES TO PROVIDE A SMOOTH TRANSITION FROM THE LIMIT OF CONSTRUCTION TO EXISTING PEDESTRIAN FACILITY.
- SHAPE AND COMPACT THE SUBGRADE TO A FIRM, EVEN SURFACE IN REASONABLY CLOSE SOFT AND YIELDING MATERIAL, REPLACE IT WITH ACCEPTABLE MATERIAL, AND COMPACT

# REFERENCED STANDARD DRAWINGS

- OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION.
- SHALL BE MADE AT RIGHT ANGLES.
- D MAXIMUM SIDEWALK CROSS SLOPE IS 1.5 %. ALL SIDEWALKS SHALL HAVE A BROOM FINISH AND SHALL BE 4" THICK UNLESS THE PLANS CALL FOR 6" THICKNESS. THE CONCRETE SHALL BE CLASS "A" AT 3000 PSI. ALL COST TO BE INCLUDED IN ITEM NO. 701-01.01, CONCRETE SIDEWALK (4"), S.F. OR 701-01.02, CONCRETE SIDEWALK (6"), S.F.

ONE LONGITUDINAL JOINT MARKING WILL BE REQUIRED ON SIDEWALKS OVER 5 FEET BUT

BUT LESS THAN 12 FEET IN WIDTH.

- AS PRACTICAL.

- (M) DIVIDE THE SURFACE OF SIDEWALKS INTO BLOCKS USING A GROOVING TOOL. SPACE THE GROOVES APPROXIMATELY 5 FEET APART TO PRODUCE SQUARE BLOCKS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- CONFORMITY WITH THE GRADE AND CROSS-SECTION SHOWN ON THE PLANS. REMOVE ALL IT AS DIRECTED BY THE ENGINEER.

(Replaced Std Dwg RP-S-7)

**STATE OF TENNESSEE** 

REV. 06-28-19: REVISED GENERAL NOTES (B), (D), (G) & (H) ALONG WITH DETAIL

NOTES FOR "TYPICAL SIDEWALK CROSS

SECTION WITH GRASS STRIP AND

SERVICE APPURTENANCES" AND

TO MAILBOX DETAIL

DETAIL AND NOTE.

"SIDEWALK CONSTRUCTION DETAILS WITHOUT GRASS STRIP". ADDED NOTE

REV. 03-01-2023: SIDEWALK PLAN VIEWS

REV. 07-07-2023: REVISED MAILBOX

AND GROOVE JOINT DETAIL WERE ADDED REMOVED GENERAL NOTE (E), AND ADDEL GENERAL NOTES (M) AND (N) SIDEWALK CONSTRUCTION DETAIL WAS REMOVED. SECTION C-C NOTE WAS REVISED.

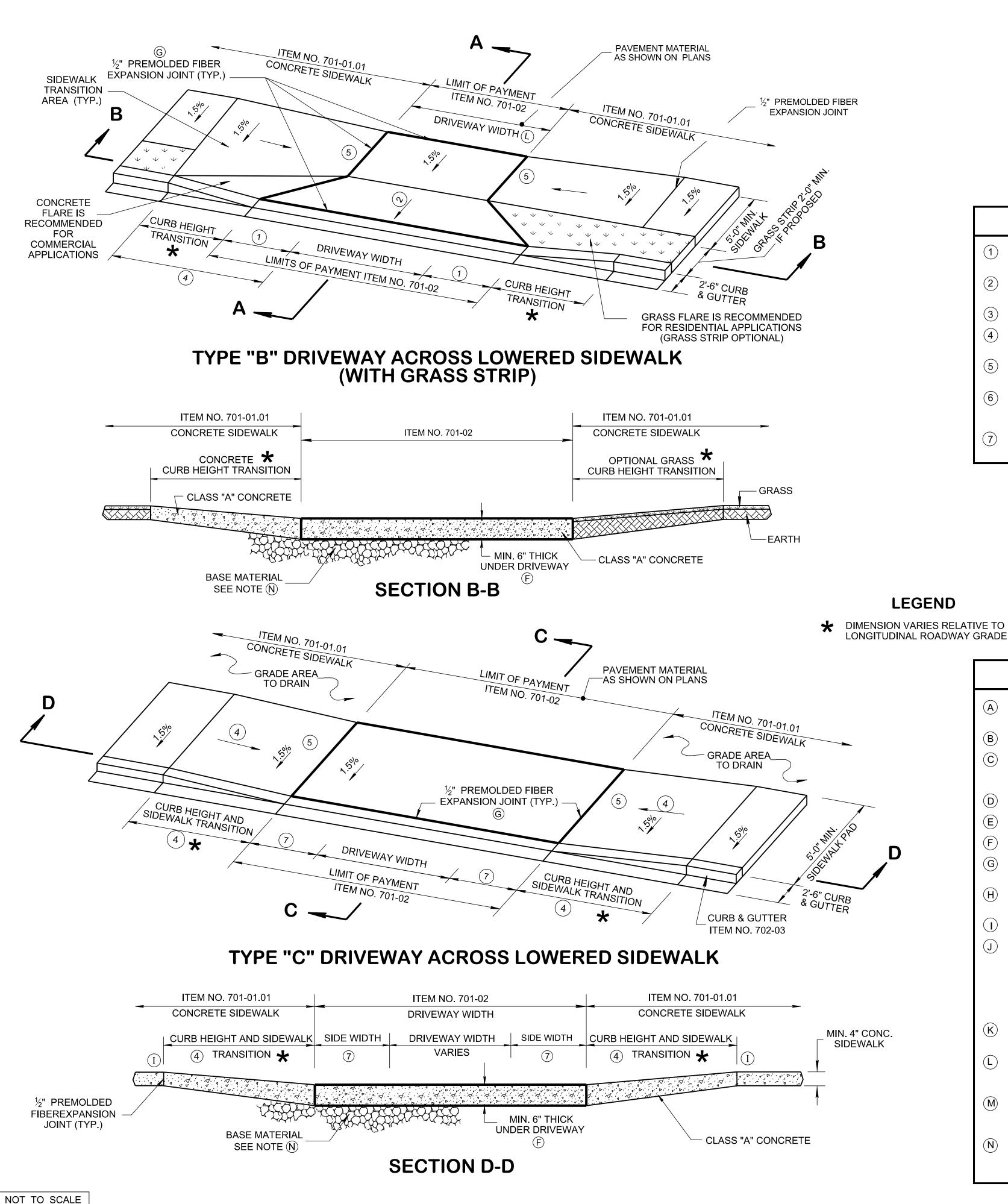
STANDARD DRAWING **DEPARTMENT OF TRANSPORTATION** 

**DETAILS FOR** CONCRETE SIDEWALK

01-07-2019

MM-SW-1

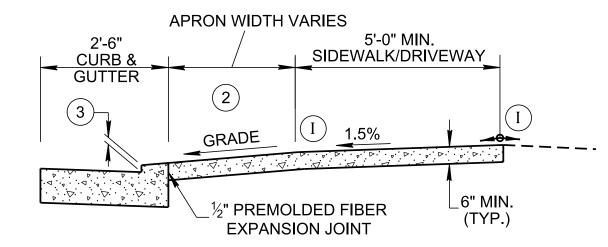
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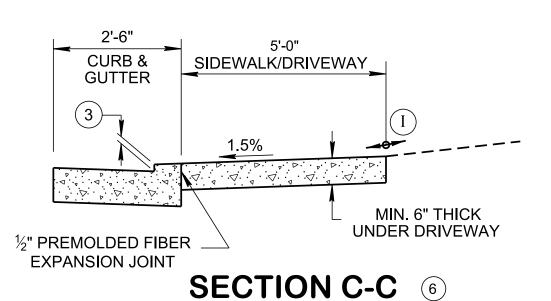
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SECTION A-A 6

# **FOOTNOTES**

- SIDE FLARE WIDTH SHOULD BE A MINIMUM 7'-0" FOR COMMERCIAL DRIVEWAYS. SIDE FLARE WIDTH SHOULD BE A MINIMUM 3'-6" FOR RESIDENTIAL DRIVEWAYS.
- DRIVEWAY RAMP GRADE VARIES, 15% MAX. (10% RECOMMENDED) APRON GRADE FOR RESIDENTIAL DRIVEWAYS. 8% MAX. (5% RECOMMENDED) APRON GRADE FOR COMMERCIAL DRIVEWAYS.
- HEIGHT OF LOWERED CURB SHALL BE 2.25 INCHES. SEE STD DWG RP-VC-10 & RP-VC-11.
- THE SLOPE OF THE SIDEWALK AND/OR CURB HEIGHT TRANSITION VARIES TO A MAXIMUM OF 8.33% LENGTH OF TRANSITION IS RELATIVE TO THE LONGITUDINAL ROADWAY GRADE
- COMMERCIAL DRIVEWAY ENTRANCE TYPICALLY (MAX. 40' WIDE) MAY REQUIRE DETECTABLE WARNING SURFACES IF ENTRANCE SERVES MORE THAN 400 VEHICLES PER DAY. SEE STD. DWG. NOS. MM-CR- SERIES FOR DETAILS
- 3R PROJECTS MAY REQUIRE SLOPE CORRECTION, PARALLEL CROSS-WALK MARKINGS (ESPECIALLY AT TWO WAY DRIVEWAY ENTRANCES), AND DETECTABLE DOME SURFACE TO MAINTAIN CONTINUITY AT COMMERCIAL DRIVE ENTRANCES. ADDITIONAL SIGNS (WATCH FOR PED) MAY BE ADDED AT DRIVEWAYS BY THE DIRECTION OF AN ENGINEER IF NEEDED.
- SIDE WIDTH SHOULD BE A MINIMUM 7'-0" FOR COMMERCIAL DRIVEWAYS. SIDE WIDTH SHOULD BE A MINIMUM 3'-6" FOR RESIDENTIAL DRIVEWAYS.



# **GENERAL NOTES**

- (A) DUE TO THE ELEVATION CHANGE FOR PEDESTRIANS ON THE SIDEWALK, THIS APPLICATION IS UNDESIRABLE AND IS TO BE USED IN LIMITED APPLICATIONS. SEE RP-D-15 FOR THE PREFERRED DRIVEWAY TYPE.
- 5'-0" MINIMUM SIDEWALK WITH A MAXIMUM CROSS SLOPE OF 1.5% THROUGH DRIVEWAYS
- DESIGNER TO CHECK GUTTER FLOW DEPTH AT DRIVEWAY LOCATIONS TO ASSURE THAT THE DESIGN FLOW DOES NOT OVERTOP THE SIDEWALK AREA. IF OVERTOPPING OCCURS, PLACE AN INLET AT THE UPSTREAM SIDE OF THE DRIVEWAY OR PERFORM OTHER DESIGN MITIGATION
- THE SLOPE OF THE LANDING AREA SHALL NOT EXCEED 1.5% IN THE SIDEWALK AREA.
- DRIVEWAYS TO BE BUILT COMPLETE OR IN PART AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ALL CONCRETE DRIVEWAYS TO BE 6" UNIFORM THICKNESS, UNLESS OTHERWISE SHOWN ON PLANS.
- EXPANSION JOINTS ARE TO BE PLACED AS INDICATED ON THE PLANS. WHEN THE BACK OF THE DRIVEWAY ABUTS AGAINST A CONCRETE DRIVEWAY OR BUILDING. AN ADDITIONAL EXPANSION JOINT WILL BE PLACED AT THAT LOCATION.
- THE ROADWAY DESIGNER SHALL CONSIDER THE USE OF A CATCH BASIN ON EITHER SIDE OF DRIVEWAY. CAREFUL CONSIDERATION TO THE PLACEMENT OF CATCH BASINS SHALL BE TAKEN IF THE DRIVEWAY IS IN A VERTICAL SAG CURVE.
- ALGEBRAIC DIFFERENCE NOT TO EXCEED 10.0%.
- (J) PAY ITEMS:

ITEM NO: 303-01, MINERAL AGGREGATE, TYPE A BASE, GRADING D, PER TON. ITEM NO: 701-01.01, CONCRETE SIDEWALK (4"), PER S.F. PER S.F. CONCRETE DRIVEWAY, ITEM NO: 701-02, CONCRETE DRIVEWAY (8") PER S.F. ITEM NO: 701-02.02, ITEM NO: 702-03, CONCRETE COMBINED CURB & GUTTER, PER C.Y.

- WHEN MORE THAN 2 DRIVEWAYS ARE PROPOSED, USE TYPE "A" DRIVEWAY AS SHOWN ON STANDARD DRAWING RP-D-15 TO REDUCE ROLLER COASTER EFFECT FOR PEDESTRIANS.
- TYPICAL DRIVEWAY WIDTHS ARE 12' (14' TWO WAY) FOR RESIDENTIAL AND 24' (40' MAX.) FOR COMMERCIAL REFER TO SECTION 5 (ACCESS DESIGN) IN THE MANUAL FOR CONSTRUCTING DRIVEWAY ENTRANCES ON STATE HIGHWAYS (2015).
- ALL SIDEWALKS SHALL HAVE A MINIMUM CONCRETE THICKNESS OF 4". THE SIDEWALK TRANSITION THICKNESS IS DEPEND ON THE DRIVEWAY AND THE SIDEWALK THICKNESSES, THE COST OF THE SIDEWALK TRANSITION WILL BE INCLUDED IN THE PAY ITEM NO. OF 701-01.01.
- MINIMUM 4" MINERAL AGGREGATE BASE MATERIAL ITEM NO. 303-01 SHALL BE INSTALLED UNDER NEW CONCRETE DRIVEWAYS. SITE SPECIFIC PAVEMENT DESIGN MAY BE REQUIRED FOR COMMERCIAL DRIVEWAYS USED AS A DELIVERY ACCESS AS WELL. A DRIVEWAY PAVEMENT DESIGN WITH 6" CONCRETE PAVEMENT AND 4" AGGREGATE DEPTH MAY BE LIMITED TO LIGHT COMMERCIAL VEHICULAR TRAFFIC.

■ APPROVED BY FHWA (ALL OTHERS APPROVED BY TDOT)

STATE OF TENNESSEE STANDARD DRAWING DEPARTMENT OF TRANSPORTATION

REV. 7-15-08: UPDATED SIDEWALK

■ REV. 4-8-16: ADDED ITEM NUMBERS. UPDATED SLOPES AND DIMENSIONS.

REV. 07-16-18: ADDED NOTES TO CONC

FLARE AND GRASS FLARE IN ISOMETRIC

VIEW. ADDED GENERAL NOTE (M) & (N)

REV. 01-07-19: ADDED LIMITS FOR ITEM

NO. 701-02. ADJUSTED LOCATION OF

GENERAL NOTE NO'S. (J) & (N) ON

REV. 10-16-20: ADDED GENERAL NOTE () MINERAL AGGREGATE ITEM NUMBER AND

BASE MATERIAL ON SECTIONS B-B AND D-D

REV. 06-15-21: REVISED AND MERGED GENERAL NOTES (L) AND (M). ADJUSTED

LOCATION OF GENERAL NOTE NO'S.

ADDED. SIDE WIDTH AND FOOTNOTE

NUMBER 7 WERE ADDED ON TYPE C

DRIVEWAY AND ON SECTION D-D.

ADDED PAY ITEM NO. 701-02.02.

REVISED GENERAL NOTES (G) (M) AND (N)

REV. 10-29-2021: FOOTNOTE NUMBER 7 WAS

DETAILS. REDREW SHEET.

**DIMENSIONS** 

UPDATED NOTES.

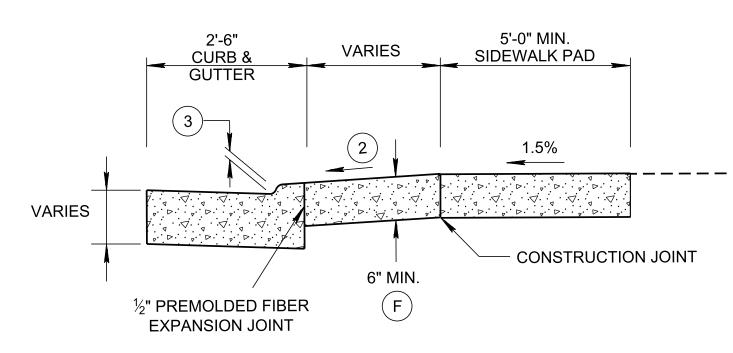
**DETAILS OF LOWERED STANDARD** CONCRETE **DRIVEWAYS** 

02-15-2007

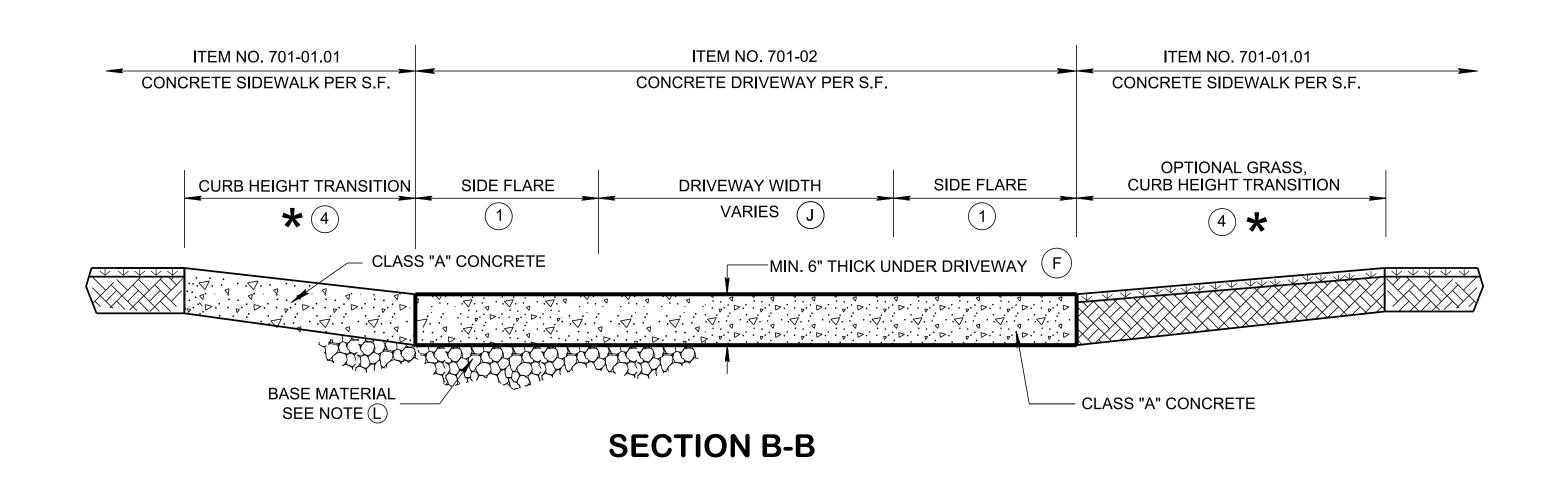
RP-D-16

#### **LEGEND**

DIMENSION VARIES RELATIVE TO LONGITUDINAL ROADWAY GRADE.



# **SECTION A-A**



REV. 7-15-08: UPDATED SIDEWALK DIMENSIONS.

■ REV. 4-8-16: ADDED ITEM NUMBERS. UPDATED SLOPES AND DIMENSIONS. UPDATED NOTES.

■ REV. 07-16-18: ADDED NOTES TO CONC. FLARE AND GRASS FLARE IN ISOMETRIC VIEW. ADDED GENERAL NOTE (€). CHANGED REFERENCED STD. DWG. FROM RP-NMC-10 TO RP-VC-10. ADDED NOTE (A) AND RENUMBERED THE REST. ADDED SPECIAL NOTE. REDREW SHEET.

■ REV. 01-07-19: CORRECTED SPELLING. REDREW SHEET.

REV. 10-16-20: ADDED GENERAL NOTE (M)
ADDED MINERAL AGGREGATE ITEM
NUMBER AND REFERENCE NOTE ON
SECTION B-B.

REV. 06-15-21: REVISED AND MERGED GENERAL NOTES J AND K. ADJUSTED LOCATION OF GENERAL NOTE NO'S. REVISED GENERAL NOTES G K AND L. ADDED PAY ITEM NO'S. 701-01.01, 701-02.02 AND 702-03.

# **FOOTNOTES**

- (1) SIDE FLARE WIDTH SHOULD BE A MINIMUM 7'-0" FOR COMMERCIAL DRIVEWAYS. SIDE FLARE WIDTH SHOULD BE A MINIMUM 3'-6" FOR RESIDENTIAL DRIVEWAYS.
- DRIVEWAY RAMP GRADE VARIES, 15% MAX. (10% RECOMMENDED) APRON GRADE FOR RESIDENTIAL DRIVEWAYS. 8% MAX. (5% RECOMMENDED) APRON GRADE FOR COMMERCIAL DRIVEWAYS.
- HEIGHT OF LOWERED CURB SHALL BE 2.25 INCHES. SEE STD DWG RP-VC-10 & RP-VC-11.
- THE SLOPE OF THE SIDEWALK AND/OR CURB HEIGHT TRANSITION VARIES TO A MAXIMUM OF 8.33% LENGTH OF TRANSITION IS RELATIVE TO THE LONGITUDINAL ROADWAY GRADE.
- COMMERCIAL DRIVEWAY ENTRANCE TYPICALLY (MAX. 40' WIDE) MAY REQUIRE DETECTABLE WARNING SURFACES IF ENTRANCE SERVES MORE THAN 400 VEHICLES PER DAY. SEE STD. DWG. NOS. MM-CR- SERIES FOR DETAILS.
- 3R PROJECTS MAY REQUIRE SLOPE CORRECTION, PARALLEL CROSS-WALK MARKINGS (ESPECIALLY AT TWO WAY DRIVEWAY ENTRANCES), AND DETECTABLE DOME SURFACE TO MAINTAIN CONTINUITY AT COMMERCIAL DRIVE ENTRANCES. ADDITIONAL SIGNS (WATCH FOR PED) MAY BE ADDED AT DRIVEWAYS BY THE DIRECTION OF AN ENGINEER IF NEEDED.

# **GENERAL NOTES**

- A THIS TYPE OF DRIVEWAY IS PREFERRED OVER THE LOWERED TYPE AS SHOWN ON RP-D-16 BECAUSE THE ELEVATION OF THE SIDEWALK REMAINS A CONSTANT FOR PEDESTRIANS.
- B) 5'-0" MINIMUM SIDEWALK WITH A MAXIMUM CROSS SLOPE OF 1.5% THROUGH DRIVEWAYS.
- DESIGNER TO CHECK GUTTER FLOW DEPTH AT DRIVEWAY LOCATIONS TO ASSURE THAT THE DESIGN FLOW DOES NOT OVERTOP THE SIDEWALK AREA. IF OVERTOPPING OCCURS, PLACE AN INLET AT THE UPSTREAM SIDE OF THE DRIVEWAY OR PERFORM OTHER DESIGN MITIGATION.
- THE SLOPE OF THE LANDING AREA SHALL NOT EXCEED 1.5% IN THE SIDEWALK AREA.
- DRIVEWAYS TO BE BUILT COMPLETE OR IN PART AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- $ig( \, {\sf F} \, ig)$  ALL DRIVEWAYS TO BE 6" UNIFORM THICKNESS, UNLESS OTHERWISE SHOWN ON PLANS.
- G EXPANSION JOINTS ARE TO BE PLACED AS INDICATED ON THE PLANS. WHEN THE BACK OF THE DRIVEWAY ABUTS AGAINST A CONCRETE DRIVEWAY OR BUILDING, AN ADDITIONAL EXPANSION JOINT WILL BE PLACED AT THAT LOCATION.
- (H) THE ROADWAY DESIGNER SHALL CONSIDER THE USE OF A CATCH BASIN ON EITHER SIDE OF THE DRIVEWAY. CAREFUL CONSIDERATION TO THE PLACEMENT OF CATCH BASINS SHALL BE TAKEN IF THE DRIVEWAY IS IN A VERTICAL SAG CURVE.
- (I) PAY ITEMS:

ITEM N	O: 303-01,	MINERAL AGGREGATE, TYPE A BASE, GRADING D,	PER TON
ITEM N	O: 701-01.01,	CONCRETE SIDEWALK (4"),	PER S.F.
ITEM N	O: 701-02,	CONCRETE DRIVEWAY,	PER S.F.
ITEM N	O: 701-02.02,	CONCRETE DRIVEWAY (8"),	PER S.F.
ITEM N	O: 702-03,	CONCRETE COMBINED CURB AND GUTTER,	PER C.Y.

- TYPICAL DRIVEWAY WIDTHS ARE 12' (14' TWO WAY) FOR RESIDENTIAL AND 24' (40' MAX.) FOR COMMERCIAL. REFER TO SECTION 5 (ACCESS DESIGN) IN THE MANUAL FOR CONSTRUCTING DRIVEWAY ENTRANCES ON STATE HIGHWAY (2015).
- ALL SIDEWALKS SHALL HAVE A MINIMUM CONCRETE THICKNESS OF 4". THE SIDEWALK TRANSITION THICKNESS IS DEPENDENT UPON THE DRIVEWAY AND SIDEWALK THICKNESSES, THE COST OF THE SIDEWALK TRANSITION WILL BE INCLUDED IN THE PAY ITEM NO. OF 701-01.01.
- L) MINIMUM 4" MINERAL AGGREGATE BASE MATERIAL ITEM NO. 303-01 SHALL BE INSTALLED UNDER NEW CONCRETE DRIVEWAYS. SITE SPECIFIC PAVEMENT DESIGN MAY BE REQUIRED FOR COMMERCIAL DRIVEWAYS USED AS A DELIVERY ACCESS AS WELL. A DRIVEWAY PAVEMENT DESIGN WITH 6" CONCRETE PAVEMENT AND 4" AGGREGATE DEPTH MAY BE LIMITED TO LIGHT COMMERCIAL VEHICULAR TRAFFIC.

☐ APPROVED BY FHWA

(ALL OTHERS APPROVED BY TDOT)

STATE OF TENNESSEE

STANDARD
DRAWING
DEPARTMENT OF TRANSPORTATION

DETAILS OF STANDARD CONCRETE DRIVEWAYS

02-15-2007

RP-D-15

NOT TO SCALE

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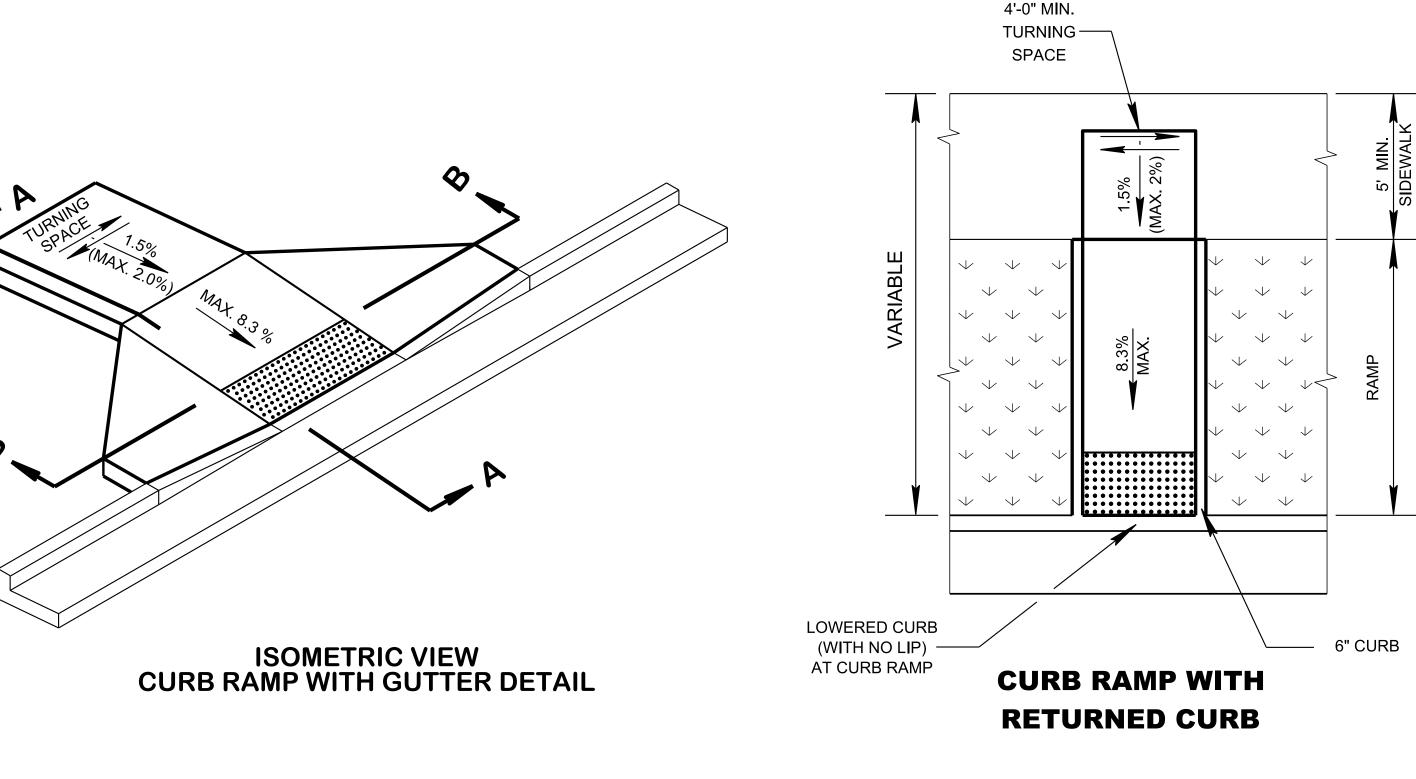
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# **GENERAL NOTES**

- A PERPENDICULAR CURB RAMPS TO BE USED WHEN TOTAL SIDEWALK OR SIDEWALK AND GRASS STRIP WIDTH IS 12' OR GREATER, SEE STD. DWG. RP-H-7 FOR PERPENDICULAR CURB RAMP IN CURVE, AND SEE RP-H-8 FOR PERPENDICULAR CURB RAMP PLACED OUTSIDE CURVE. PERPENDICULAR CURB RAMP MINIMUM DIMENSION SHOWN FOR 6" VERTICAL CURB.
- B CURB SHALL BE FLUSH ACROSS ENTIRE WIDTH OF CURB RAMP. DETECTABLE WARNING SURFACES SHALL EXTEND 2' IN THE DIRECTION OF PEDESTRIAN TRAVEL. AT CURB RAMPS AND BLENDED TRANSITIONS, DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE. SEE STD. DWG. RP-H-3 FOR DETECTABLE WARNING SURFACE DETAILS.
- © DESIGN / CONSTRUCTION MODIFICATIONS MAY BE REQUIRED FOR CURB RAMPS TO BE INSTALLED ALONG A ROADWAY WITH LONGITUDINAL GRADES EXCEEDING 5%. ENGINEER SHOULD BE NOTIFIED FOR ASSESSMENT IF THE CURB RAMP SIDE FLARES EXCEED 10' IN LENGTH DUE TO THE LONGITUDINAL GRADE.
- (D) PAYMENT:

#### NEW:

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN NEWLY CONSTRUCTED SIDEWALK AREAS, SHALL BE PAID BY ITEM NO. 701-02.03, CONCRETE CURB RAMP, PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR CONSTRUCTION OF THE CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

#### RETROFIT:

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN EXISTING SIDEWALK AREAS, REMOVAL OF THE EXISTING SIDEWALK, AND ADJUSTMENT OF GUTTER PAN SLOPE, SHALL BE PAID BY ITEM NO. 701-02.01, CONCRETE CURB RAMP (RETROFIT), PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR INSTALLATION OF CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

COST OF CURB AND GUTTER TO BE INCLUDED IN THE PRICE OF ITEM NO. 702-01, CONCRETE CURB, PER C. Y. OR ITEM NO. 702-03, CONCRETE COMBINED CURB & GUTTER, PER C. Y.

- © WHERE NEW CURB RAMP CONDITIONS DO NOT MEET EXISTING SIDEWALK, THE DESIGNER SHALL ADD ADDITIONAL QUANTITY FOR 15 FEET OF SIDEWALK MODIFICATION TO TIE TO THE EXISTING GRADE.
- SIGNALIZED INTERSECTIONS WITH SIDEWALK SHALL HAVE PEDESTRIAN SIGNAL HEADS AND PUSHBUTTONS. ALL ACCESSIBLE PEDESTRIAN SIGNAL (APS) PUSHBUTTONS SHALL BE ALIGNED WITH THE DIRECTION OF THE RAMP. SEE TDOT TRAFFIC DESIGN MANUAL FOR DETAILS.
- G FOR ADDITIONAL SIDEWALK DETAILS AND IF MAILBOXES ARE REMOVED DURING INSTALLATION OF THE CURB RAMP, PROVIDE A 12" X 12" OPENING BEHIND THE CURB. SEE STD. DWG. RP-S-7.
- (H) IF GRASS STRIP IS INSTALLED, THE SIDE FLARES MAY BE OMITTED AND A RETURNED CURB OPTION MAY BE USED.
- DESIRABLE SIDEWALK CROSS SLOPE IS 1.5 %, ABSOLUTE MAXIMUM IS 2.0 %.
- J SURFACE TEXTURE TO BE OBTAINED BY A COARSE BROOMING TRANSVERSE TO THE SLOPE OF CURB RAMP.
- SEE STD. DWG. T-M-4 FOR CROSSWALK MARKING DETAILS.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

■ REV. 4-13-11: REVISED RAMP DIMENSION

IN SECTION A-A AND ADDED CURB NOTE

ADDED FOOTNOTE 1, MISC. EDITS TO

REV. 1-15-13: ADDED GENERAL NOTES

REV. 6-4-13: CORRECTED SECTION A-A. CHANGED CROSS SLOPE TO 1.5 %

REV. 1-30-15: UPDATED NOTES, REMOVED PAVERS. VARIOUS DRAFTING EDITS.

DESIRABLE. ADDED NOTES (H) AND (I)

REV. 10-10-16: REVISED GENERAL NOTE

REV. 7-16-18: REVISED GENERAL NOTES

REMOVED DETAIL FOR CURB RAMP WITH

CHANGED ITEM DESCRIPTION.

MISC, REVISIONS TO DETAILS.

SIDE FLARES. REDREW SHEET.

REDREW SHEET.

REVISED RAMP LENGTH.

STATE OF TENNESSEE
DEPARTMENT OF
TRANSPORTATION

PERPENDICULAR
CURB RAMP

RP-H-4

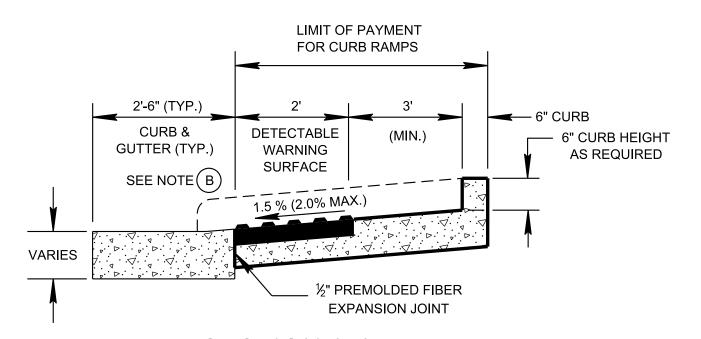
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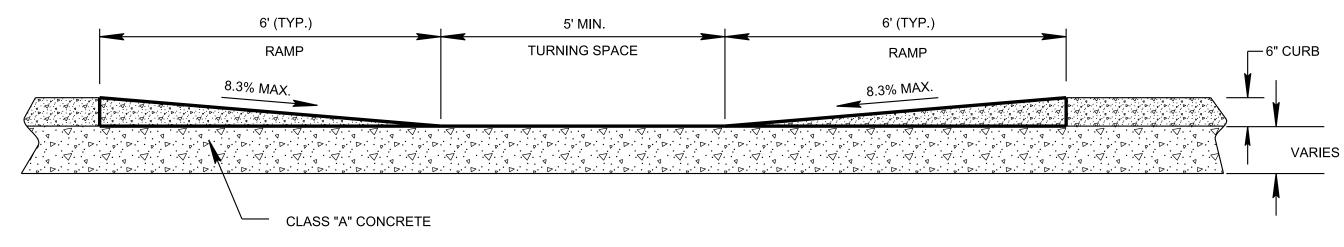
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## PARALLEL CURB RAMP DETAIL

DIMENSIONS SHOWN ABOVE FOR 0% LONGITUDINAL ROADWAY GRADE

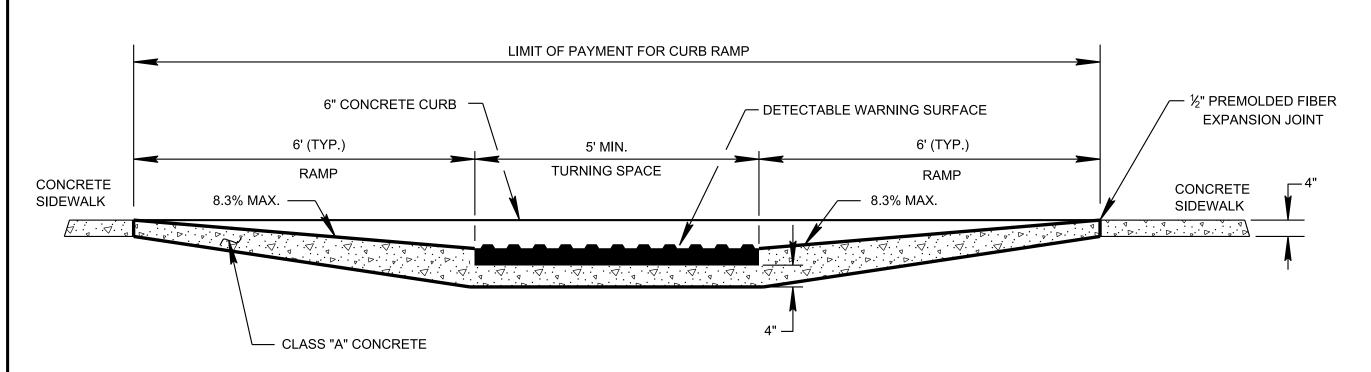


# **SECTION A-A**



#### **SECTION B-B**

DIMENSIONS SHOWN ABOVE FOR 0% LONGITUDINAL ROADWAY GRADE



#### SECTION C-C

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NOT TO SCALE

DIMENSIONS SHOWN ABOVE FOR 0% LONGITUDINAL ROADWAY GRADE

REV. 10-10-16: REVISED GENERAL NOTES, LONG RAMP 4'-0" MIN. (SEE TABLE A) SHORT RAMP TURNING SPACE (SEE TABLE A)  $_{8.3\%}$  MAX VARIES LONGITUDINAL ROADWAY GRADE CLASS "A" CONCRETE

LIMIT OF PAYMENT FOR CURB RAMP

#### **ALTERNATE SECTION B-B**

#### PARALLEL CURB RAMP DETAIL SHOWN WITH LONGITUDINAL ROADWAY GRADE

MODIFICATIONS MAY BE REQUIRED FOR LONGITUDINAL ROADWAY GRADES STEEPER THAN 5%. ENGINEER SHOULD BE NOTIFIED FOR ASSESSMENT IF THE CURB RAMP RUN EXCEEDS 15' IN LENGTH DUE TO THE LONGITUDINAL ROADWAY GRADE.

# **TABLE A**

LONGITUDINAL ROADWAY GRADE	LONG RAMP	SHORT RAMP	PAY AREA S.F.
5 %	15'-0"	3'-9"	114
4 %	11'-6"	4'-1"	98
3 %	9'-5"	4'-5"	90
2 %	7'-11"	4'-10"	84
1 %	6'-10"	5'-5"	92
0 %	6'-0"	6'-0"	80

BASED ON 5' SIDEWALK WIDTH (EXCLUDING BACK CURB)

#### **GENERAL NOTES**

- PARALLEL CURB RAMPS MAY BE USE WHEN SIDEWALK WIDTH IS LESS THAN 12' AND CURB RAMP IS LOCATED ALONG TANGENT SIDEWALK SECTION OF ROADWAY. FOR PARALLEL CURB RAMPS INSTALLED IN CURVE SEE STD. DWG. RP-H-9.
- CURB SHALL BE FLUSH ACROSS ENTIRE WIDTH OF CURB RAMP. DETECTABLE WARNING SURFACES SHALL EXTEND 2' IN THE DIRECTION OF PEDESTRIAN TRAVEL. AT CURB RAMPS AND BLENDED TRANSITIONS, DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE. SEE RP-H-3 FOR DETECTABLE WARNING SURFACE DETAILS.
- DESIGN / CONSTRUCTION MODIFICATIONS MAY BE REQUIRED FOR CURB RAMPS TO BE INSTALLED ALONG A ROADWAY WITH LONGITUDINAL GRADES EXCEEDING 5%. ENGINEER SHOULD BE NOTIFIED FOR ASSESSMENT IF THE CURB RAMP SIDE FLARES EXCEED 15' IN LENGTH DUE TO THE LONGITUDINAL GRADE.
- $\bigcirc$ PAYMENT:

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN NEWLY CONSTRUCTED SIDEWALK AREAS, SHALL BE PAID BY ITEM NO. 701-02.03, CONCRETE CURB RAMP, PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR CONSTRUCTION OF THE CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

#### **RETROFIT:**

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN EXISTING SIDEWALK AREAS, REMOVAL OF THE EXISTING SIDEWALK, AND ADJUSTMENT OF GUTTER PAN SLOPE, SHALL BE PAID BY ITEM NO. 701-02.01, CONCRETE CURB RAMP (RETROFIT), PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR INSTALLATION OF CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

COST OF CURB AND GUTTER TO BE INCLUDED IN THE PRICE OF ITEM NO. 702-01, CONCRETE CURB, PER C. Y. OR ITEM NO. 702-03, CONCRETE COMBINED CURB & GUTTER, PER C. Y.

- FOR SIGNALIZED INTERSECTIONS THAT REQUIRE PEDESTRIAN SIGNAL PUSHBUTTONS, SEE TDOT TRAFFIC DESIGN MANUAL FOR PLACEMENT DETAILS.
- FOR ADDITIONAL SIDEWALK DETAILS AND IF MAILBOXES ARE REMOVED DURING INSTALLATION OF THE CURB RAMP, PROVIDE A 12" X 12" OPENING BEHIND THE CURB. SEE STD. DWG. RP-S-7.
- WHERE NEW CURB RAMP CONDITIONS DO NOT MEET EXISTING SIDEWALK, THE DESIGNER SHALL ADD ADDITIONAL QUANTITY FOR UP TO 15 FEET IN EACH DIRECTION OF SIDEWALK MODIFICATION TO TIE TO THE EXISTING GRADE.
- SURFACE TEXTURE TO BE OBTAINED BY A COARSE BROOMING TRANSVERSE TO THE SLOPE OF CURB RAMP.
- (I) SEE STD. DWG. T-M-4 FOR CROSSWALK MARKING DETAILS.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

REV. 4-13-11: ADDED FOOTNOTE (1)

MISC. EDITS TO DRAWING.

AND REVISED NOTES.

ADJUSTED DIMENSIONS IN RAMP DETAIL.

■ REV 1-15-13: MODIFIED LANDING WIDTH

■ REV. 6-4-13: CHANGED CROSS SLOPE TO

REV. 1-30-15: UPDATE NOTES, REMOVED

(H). CHANGED ITEM DESCRIPTION.

PAVERS. UPDATED TABLE A.

MISC. REVISIONS TO DETAILS.

AND TABLE A. REDREW SHEET.

1.5 % DESIRABLE. ADDED NOTES (G) AND

REV. 07-16-18: REVISED GENERAL NOTES

**STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION** 

PARALLEL **CURB RAMP** 

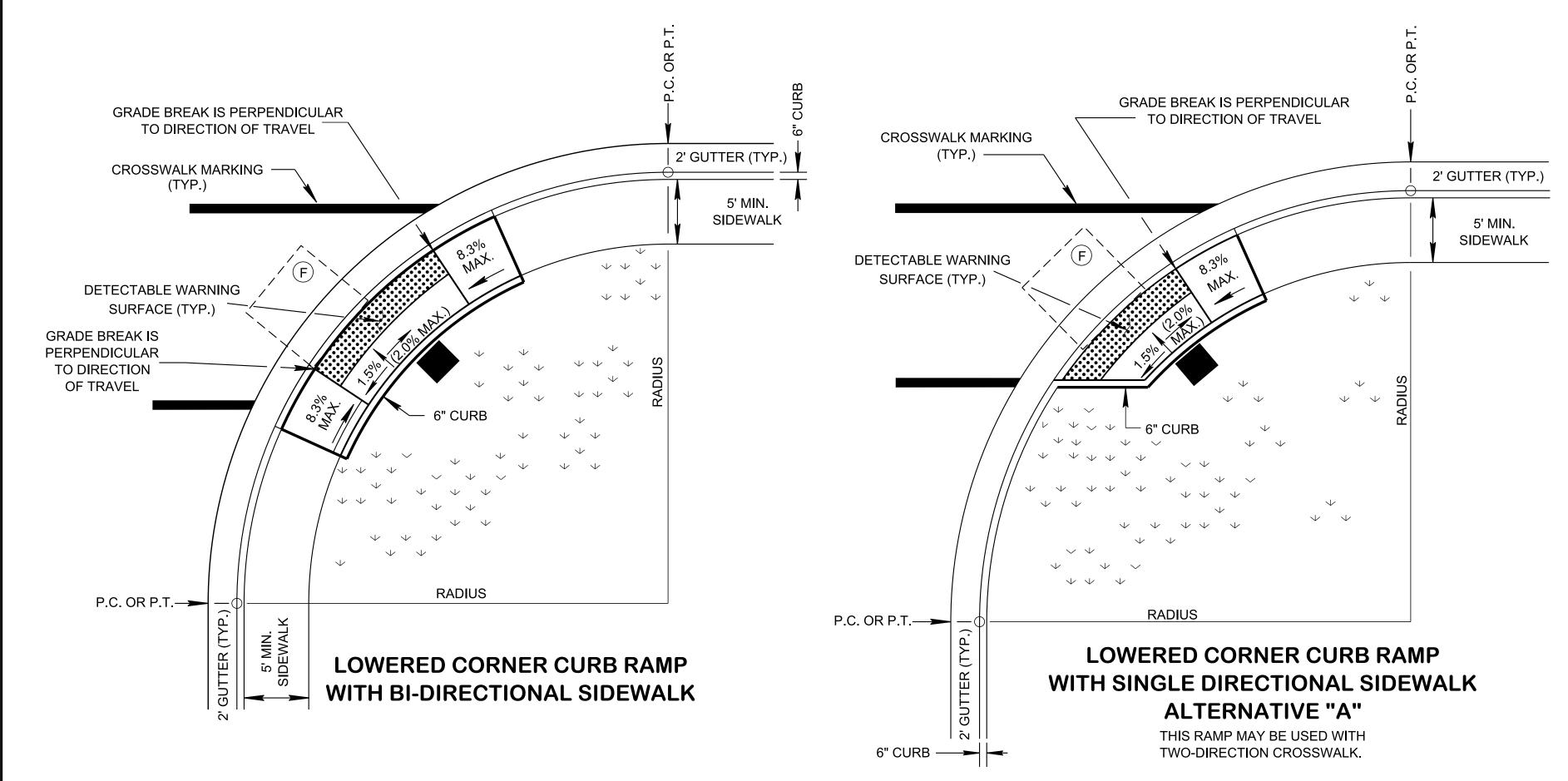
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RP-H-5

**BI-DIRECTIONAL SIDEWALK** 

BI-DIRECTIONAL SIDEWALK ALTERNATIVE PLACEMENT

# PARALLEL CURB RAMPS FOR SINGLE CROSSING



#### LEGEND

© DIMENSION VARIES RELATIVE TO LONGITUDINAL ROADWAY GRADE, 8.3% DESIRABLE (10.0% MAX.)

DENOTES: APPROXIMATE PEDESTRIAN POLE/PUSHBUTTON LOCATION FOR SIGNALIZED INTERSECTIONS

#### **GENERAL NOTES**

- (A) FOR DETECTABLE WARNING SURFACE DETAILS SEE STD. DWG. RP-H-3. FOR ADDITIONAL DETAILS AND OTHER INFORMATION FOR PERPENDICULAR CURB RAMPS NOT SHOWN ON THIS DRAWING SEE STD. DWG. RP-H-4 AND FOR PARALLEL CURB RAMPS SEE STD. DWG. RP-H-5. FOR CROSSWALK MARKING DETAILS SEE STD. DWG. T-M-4.
- B IF PERPENDICULAR CURB RAMPS AND TURNING SPACE CANNOT BE CONSTRUCTED DUE TO LIMITED RIGHT-OF-WAY, USE PARALLEL CURB RAMP INSTEAD.
- C CARE SHALL BE TAKEN ON ALL ROADWAY CURB RAMPS AT INTERSECTIONS WITH SIDEWALK AND CURB RAMPS TO ENSURE A UNIFORM GRADE AROUND THEM. THE ROADWAY CURB RAMP GRADE SHALL BE FREE OF SAGS AND SHORT GRADE CHANGES.
- (D) SIDEWALK WIDTH SHALL NOT INCLUDE 6" CONCRETE CURB. THE DESIRABLE SIDEWALK CROSS SLOPE IS 1.5 %, ABSOLUTE MAXIMUM IS 2.0%.
- © DRAINAGE STRUCTURES SHALL NOT BE PLACED IN THE CROSSWALK OR IN FRONT OF THE CURB RAMP.
- (F) TURNING SPACE \ CLEAR SPACE:

CLEAR SPACE BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.

TURNING SPACE MUST BE PROVIDED AT THE TOP OF PERPENDICULAR CURB RAMPS. THE TURNING SPACE MUST BE 4' (MIN.) BY 4' (MIN.), AND IS PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK, THE TURNING SPACE MUST BE 4' (MIN.) BY 5' (MIN.), WITH THE 5' DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.

FOR PARALLEL CURB RAMPS, A TURNING SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED AT THE BOTTOM OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. IF THE TURNING SPACE IS CONSTRAINED ON 2 OR MORE SIDES, THE TURNING SPACE SHALL 4' (MIN.) BY 5' (MIN.). THE 5' DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

G GRADE BREAKS:

GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE CURB RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

WHERE THE END OF BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS 5' OR LESS, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE CURB RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK.

(H) PEDESTRIAN SIGNAL PUSHBUTTON:

WHERE PEDESTRIAN SIGNALS ARE PROVIDED AT PEDESTRIAN STREET CROSSINGS, THEY SHALL INCLUDE ACCESSIBLE PEDESTRIAN SIGNALS AND POLE\PEDESTRIAN PUSHBUTTONS COMPLYING WITH SECTIONS 4E.08 THROUGH 4E.13 OF THE MUTCD. FOR DETAILS OF THE PLACING OF PEDESTRIAN SIGNAL PUSHBUTTONS SEE TDOT TRAFFIC DESIGN MANUAL.

WHEN TWO PEDESTRIAN PUSHBUTTONS ARE ON ONE CORNER THEY WILL BE SEPARATED BY 10 FEET.

(I) PAYMENT:

COST OF CURB AND GUTTER TO BE INCLUDED IN THE PRICE OF ITEM NO. 702-01, CONCRETE CURB, PER C. Y. OR ITEM NO. 702-03, CONCRETE COMBINED CURB & GUTTER, PER C. Y.

NEW CURB RAMPS:

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN NEWLY CONSTRUCTED SIDEWALK AREAS, SHALL BE PAID BY ITEM NO. 701-02.03, CONCRETE CURB RAMP, PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR CONSTRUCTION OF THE CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

CURB RAMPS (RETROFIT):

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN EXISTING SIDEWALK AREAS, REMOVAL OF THE EXISTING SIDEWALK, AND ADJUSTMENT OF GUTTER PAN SLOPE, SHALL BE PAID BY ITEM NO. 701-02.01, CONCRETE CURB RAMP (RETROFIT), PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR INSTALLATION OF CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S)

■ REV. 4-13-11: REVISED TABLE DIMENSIONS, ADDED NOTE ①, AND ADDED GUTTER TO CROSSWALK INTERSECTION DIMENSION.

■ REV. 5-8-13: REVISED TITLE FOR TERMINOLOGY.

TITLE.

■ REV. 1-30-15: REMOVED ALTERNATE.

ADDED GENERAL NOTE (E), (F), (G), (H)

REV. 6-4-13: REVISED NOTE ©, CHANGED

■ REV. 10-10-16: REVISED GENERAL NOTES, MISC. REVISIONS TO DETAILS.

REV. 07-16-18: REMOVED THE CURB RAMF DETAIL FOR ACCESS TO PEDESTRIAN REFUGE ISLAND. ADDED SINGLE AND BI-DIRECTIONAL SIDEWALK LABELS. REVISED DETAIL HEADING FOR PERPENDICULAR CURB RAMPS FOR SINGLE CROSSING. ADDED DETAILS FROM STD. DWG. RP-H-10 FOR PARALLEL CURB RAMPS FOR SINGLE CROSSING. REVISED GENERAL NOTES. RENAMED AND REDREW SHEET.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

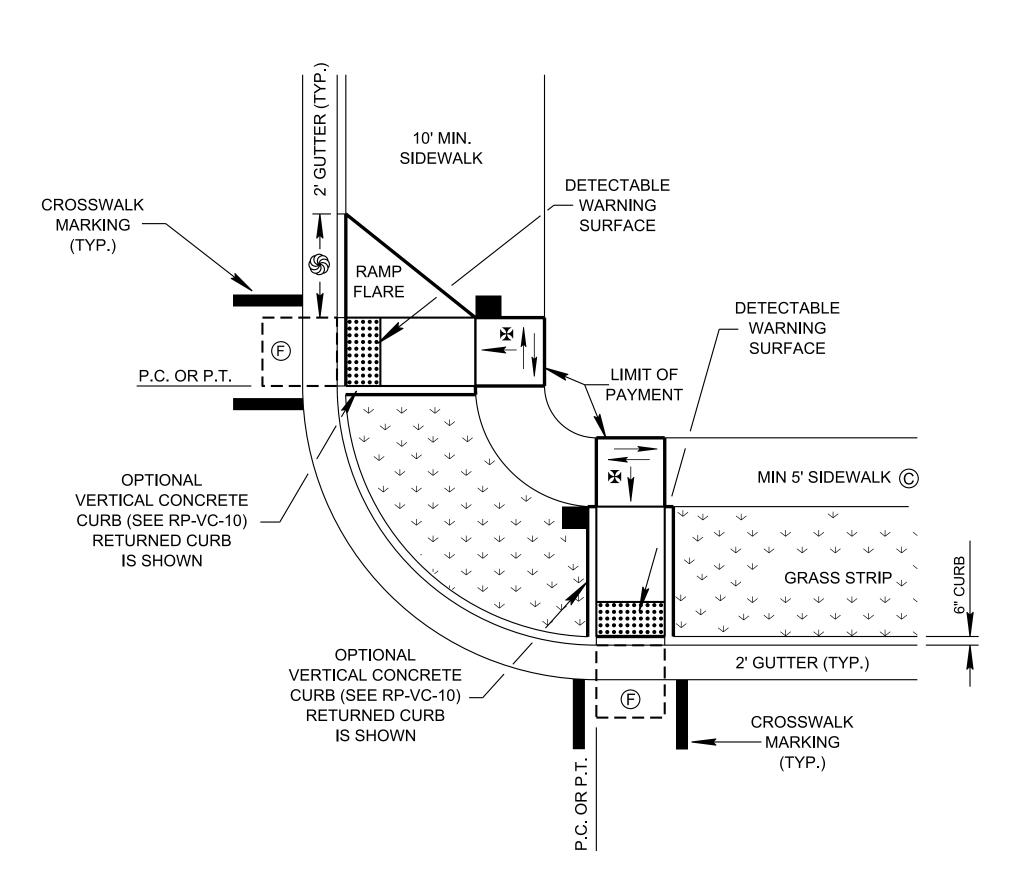
STATE OF TENNESSEE
DEPARTMENT OF
TRANSPORTATION

SINGLE CROSSING CURB RAMP IN CURVE

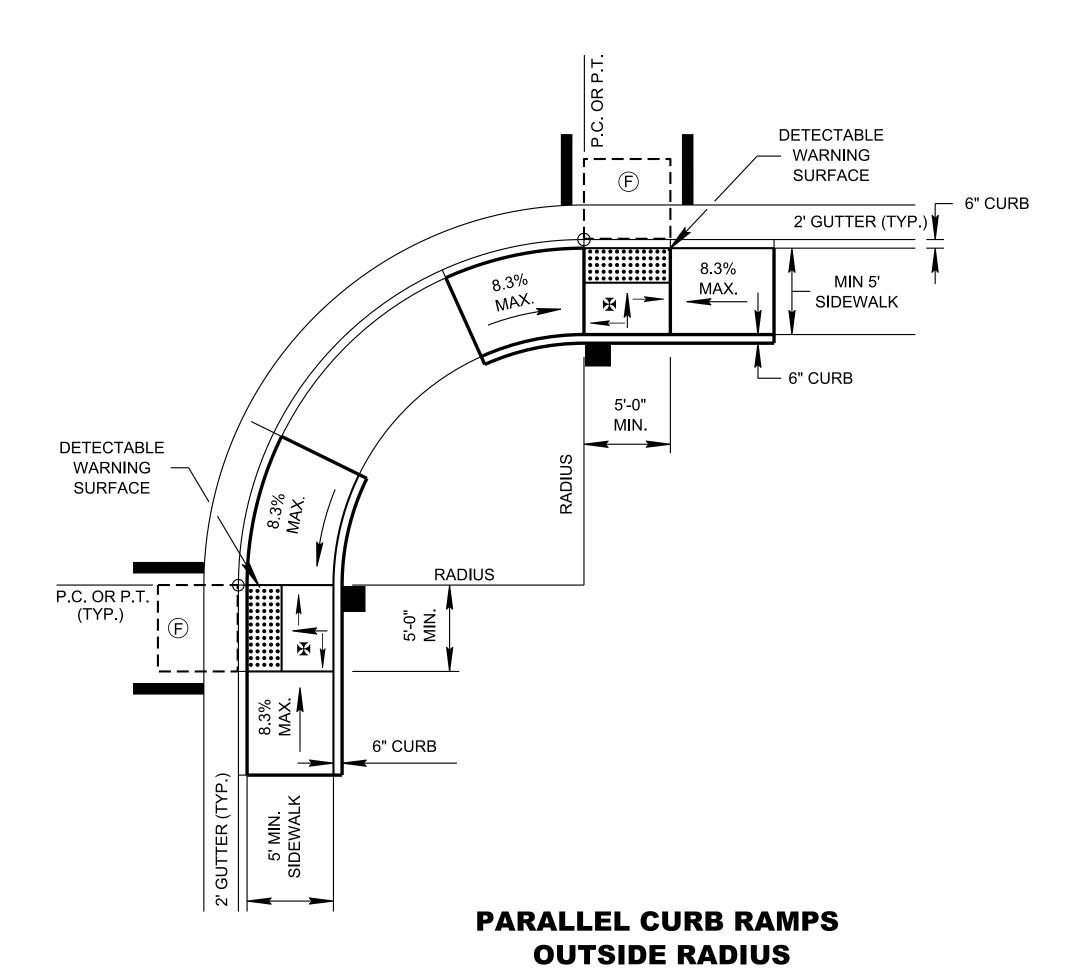
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RP-H-7

NOT TO SCALE



# PERPENDICULAR CURB RAMP OUTSIDE RADIUS (WITH GRASS STRIP OR WIDE SIDEWALK)



# LEGEND

DIMENSION VARIES RELATIVE TO LONGITUDINAL ROADWAY GRADE, 8.3% DESIRABLE (10.0% MAX.)

DENOTES: APPROXIMATE PEDESTRIAN POLE/PUSHBUTTON LOCATION FOR SIGNALIZED INTERSECTIONS

1.5% (2.0% MAX.)

# **GENERAL NOTES**

- A FOR DETECTABLE WARNING SURFACE DETAILS SEE STD. DWG. RP-H-3. FOR ADDITIONAL DETAILS AND OTHER INFORMATION FOR PERPENDICULAR CURB RAMPS NOT SHOWN ON THIS DRAWING SEE STD. DWG. RP-H-4 AND FOR PARALLEL CURB RAMPS SEE STD. DWG. RP-H-5. FOR CROSSWALK MARKING DETAILS SEE STD. DWG. T-M-4.
- B IF PERPENDICULAR CURB RAMPS AND TURNING SPACE CANNOT BE CONSTRUCTED DUE TO LIMITED RIGHT-OF-WAY, USE PARALLEL CURB RAMP INSTEAD.
- C CARE SHALL BE TAKEN ON ALL ROADWAY CURB RAMPS AT INTERSECTIONS WITH SIDEWALK AND CURB RAMPS TO ENSURE A UNIFORM GRADE AROUND THEM. THE ROADWAY CURB RAMP GRADE SHALL BE FREE OF SAGS AND SHORT GRADE CHANGES.
- D SIDEWALK WIDTH SHALL NOT INCLUDE 6" CONCRETE CURB. THE DESIRABLE SIDEWALK CROSS SLOPE IS 1.5 %, ABSOLUTE MAXIMUM IS 2.0%.
- © DRAINAGE STRUCTURES SHALL NOT BE PLACED IN THE CROSSWALK OR IN FRONT OF THE CURB RAMP.
- (F) TURNING SPACE \ CLEAR SPACE:

CLEAR SPACE BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.

TURNING SPACE MUST BE PROVIDED AT THE TOP OF PERPENDICULAR CURB RAMPS. THE TURNING SPACE MUST BE 4' (MIN.) BY 4' (MIN.), AND IS PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK, THE TURNING SPACE MUST BE 4' (MIN.) BY 5' (MIN.), WITH THE 5' DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.

FOR PARALLEL CURB RAMPS, A TURNING SPACE 4' (MIN.) BY 4' (MIN.) SHALL BE PROVIDED AT THE BOTTOM OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. IF THE TURNING SPACE IS CONSTRAINED ON 2 OR MORE SIDES, THE TURNING SPACE SHALL 4' (MIN.) BY 5' (MIN.). THE 5' DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

(G) GRADE BREAKS:

GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE CURB RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

WHERE THE END OF BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS 5' OR LESS, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE CURB RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK.

H) PEDESTRIAN SIGNAL PUSHBUTTON:

WHERE PEDESTRIAN SIGNALS ARE PROVIDED AT PEDESTRIAN STREET CROSSINGS, THEY SHALL INCLUDE ACCESSIBLE PEDESTRIAN SIGNALS AND POLE\PEDESTRIAN PUSHBUTTONS COMPLYING WITH SECTIONS 4E.08 THROUGH 4E.13 OF THE MUTCD. FOR DETAILS OF THE PLACING OF PEDESTRIAN SIGNAL PUSHBUTTONS SEE TDOT TRAFFIC DESIGN MANUAL.

WHEN TWO PEDESTRIAN PUSHBUTTONS ARE ON ONE CORNER THEY WILL BE SEPARATED BY 10 FEET.

PAYMENT:

COST OF CURB AND GUTTER TO BE INCLUDED IN THE PRICE OF ITEM NO. 702-01, CONCRETE CURB, PER C. Y. OR ITEM NO. 702-03, CONCRETE COMBINED CURB & GUTTER, PER C. Y.

NEW CURB RAMPS:

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN NEWLY CONSTRUCTED SIDEWALK AREAS, SHALL BE PAID BY ITEM NO. 701-02.03, CONCRETE CURB RAMP, PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR CONSTRUCTION OF THE CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S).

CURB RAMPS (RETROFIT):

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN EXISTING SIDEWALK AREAS, REMOVAL OF THE EXISTING SIDEWALK, AND ADJUSTMENT OF GUTTER PAN SLOPE, SHALL BE PAID BY ITEM NO. 701-02.01, CONCRETE CURB RAMP (RETROFIT), PER SQUARE FOOT.

PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR INSTALLATION OF CURB RAMP(S), INCLUDING INSTALLATION OF DETECTABLE WARNING SURFACE(S)

■ REV. 4-13-11: ADJUSTED CROSSWALK MARKINGS, ADDED TYPE 2 SIDEWALK DIMENSION, MISC. EDITS TO DRAWING.

REV. 5-8-13: REVISED TITLE FOR TERMINOLOGY.

■ REV. 6-4-13: REVISED NOTE © AND ®, CHANGED TITLE.

■ REV. 1-15-14: REMOVED ALTERNATE, AND REPLACED NOTE (E).

REV. 2-5-16: RENAMED TITLE. REMOVED

ALTERNATE. MINOR DRAFTING EDITS.

REV. 10-10-16: ADDED GENERAL NOTES, MISC. REVISIONS TO DRAWINGS.

REV. 07-16-18: REMOVED RAMP FLARES IN 3 INSTANCES AND REPLACED WITH VERTICAL CURB. ADDED PARALLEL CURB RAMP OUTSIDE RADIUS DETAIL FROM STD. DWG. RP-H-9. REVISED GENERAL NOTES. REMAMED AND REDREW SHEET.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
DEPARTMENT OF
TRANSPORTATION

DUAL CROSSING
CURB RAMP
PLACED
OUTSIDE CURVE

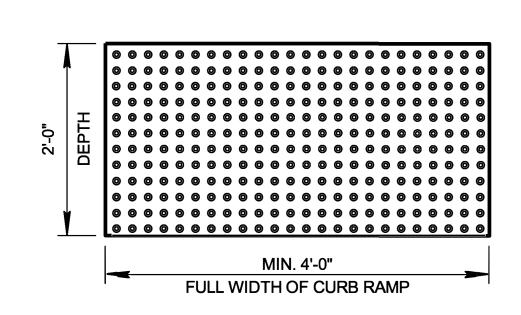
RP-H-8

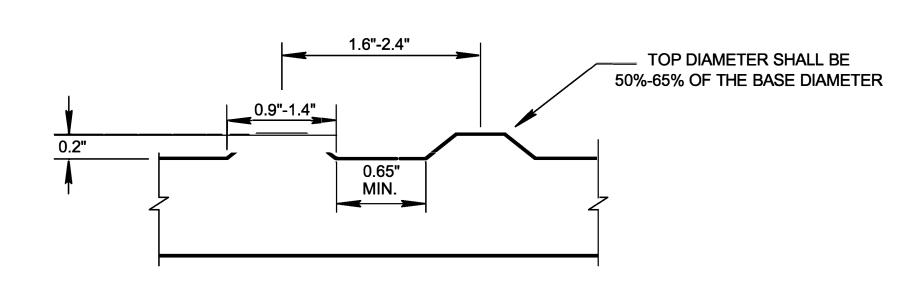
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### **PLAN VIEW**

(EXAMPLE LAYOUT SHOWING EACH RAMP TYPE; SEE REFERENCED STANDARD DRAWINGS FOR SPECIFIC ALIGNMENT INFORMATION)





**DETECTABLE WARNING SURFACE DETAIL** 

**DETECTABLE WARNING SURFACE ELEVATION VIEW (TYP.)** 

#### **GENERAL NOTES**

- DETAILS SHOWN ON THIS STANDARD DRAWING APPLY TO THE CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS, OR SIDEWALKS.
- THE DETECTABLE WARNING SURFACES SHALL BE YELLOW. THE COLOR YELLOW IS USED BECAUSE YELLOW IS THE LAST COLOR A VISUALLY IMPAIRED PERSON CAN DETECT PRIOR TO TOTAL LOSS OF VISION. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED USING PRODUCTS APPROVED ON THE TDOT QUALIFIED PRODUCT LIST 37.
- THE DEPTH OF DETECTABLE WARNING SURFACES SHALL BE 2 FEET, IN THE DIRECTION OF PEDESTRIAN TRAVEL. AT CURB RAMPS AND BLENDED TRANSITIONS DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE.
- THE DETECTABLE WARNING SURFACE SHALL NOT BE EXTENDED BEYOND CROSSWALK BOUNDARIES AT LOCATIONS LACKING PROPER CURB HEIGHT.
- CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS.
- CURB RAMPS SHALL BE PROVIDED AT ALL CORNERS OF STREET INTERSECTIONS WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. CURB RAMPS SHALL ALSO BE PROVIDED AT MIDBLOCK CROSSWALK LOCATIONS AND ACROSS FROM CORNER RAMPS AT T-INTERSECTIONS.
- CARE SHALL BE TAKEN TO ENSURE A UNIFORM GRADE ON THE RAMP. THE GRADE SHALL BE FREE OF SAGS AND SHORT GRADE CHANGES.
- DRAINAGE STRUCTURES SHALL NOT BE PLACED IN LINE WITH RAMPS. INSTALL CATCH BASINS ON UPSTREAM SIDE OF RAMP FOR ROADS WITH GRADES LESS **THAN 2%.**
- CROSSWALK MARKINGS, IF USED, SHALL BE LOCATED AS SHOWN ON THE APPLICABLE CURB RAMP STANDARD DRAWING. FOR CROSSWALK MARKING DETAILS, SEE STD. DWG. T-M-4.
- FOR PERPENDICULAR CURB RAMP DESIGN DETAILS, SEE STD. DWG. RP-H-4. FOR PARALLEL CURB RAMP DESIGN DETAILS, SEE STD. DWG. RP-H-5.
- K PAYMENT:

ALL COSTS OF INSTALLING CURB RAMP(S), INCLUDING DETECTABLE WARNING SURFACE(S) IN NEWLY CONSTRUCTED SIDEWALK AREAS, SHALL BE PAID BY ITEM NO. 701-02.03, CONCRETE CURB RAMP, PER SQUARE FOOT.

FOR SIGNALIZED INTERSECTIONS THAT REQUIRE PEDESTRIAN SIGNAL PUSHBUTTONS, SEE TOOT TRAFFIC DESIGN MANUAL FOR PLACEMENT DETAILS. REV. 7-17-07: REVISED SIZE AND SPACING OF TRUNCATED DOMES, ADDED NOTE (E). MODIFIED SPECIAL PAVER NOTES.

■ REV. 4-13-11: ADDED LOWERED CURB FOOTNOTE 1 TO TRUNCATED DOME DETAIL. MISC. EDITS TO DRAWING.

REV. 5-8-13: ADDED GUTTER SLOPE DETAIL AND REVISED NOTE (), UPDATED TERMINOLOGY.

■ REV. 6-4-13: CHANGED ITEM DESCRIPTION CLARIFIED NOTE (), ADDED NOTE (). ADDED SECTION A-A.

■ REV. 11-25-13: REVISED NOTES ©, (F), (M), (N) AND ADDED NOTE (R).

REV. 1-30-15: VARIOUS DRAFTING EDITS. REVISED GENERAL NOTES.

REV. 10-10-16: REVISED NOTES AND TRUNCATED DOME SURFACE NOTES.

REV. 07-16-18: REVISED GENERAL NOTES. MOVED TRUNCATED DOME SURFACE NOTES TO GENERAL NOTES. RENAMED AND REDREW SHEET.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

> STATE OF TENNESSEE **DEPARTMENT OF TRANSPORTATION**

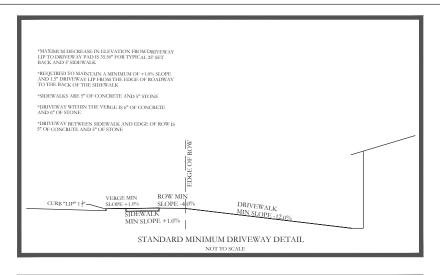
DETECTABLE WARNING SURFACE PLACEMENT ON **CURB RAMPS** 

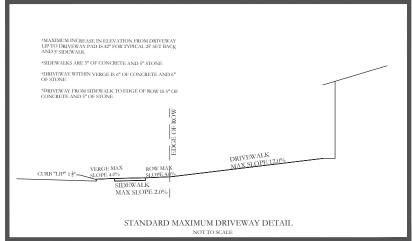
RP-H-3

09-OCT-2018 09:59 NOT TO SCALE

RP-Ds/DGNs

01-15-07





			HAMILTON COUNTY		
			PRIVATE DRIVEWAY ENTRANCE		
0 NO.	INITIAL ISSUE 07. REVISION	7/18/22 DATE	DATE OF ORIGINAL ISSUE JULY 18, 2022	STANDARD NUMBER: HCSD-200.03	