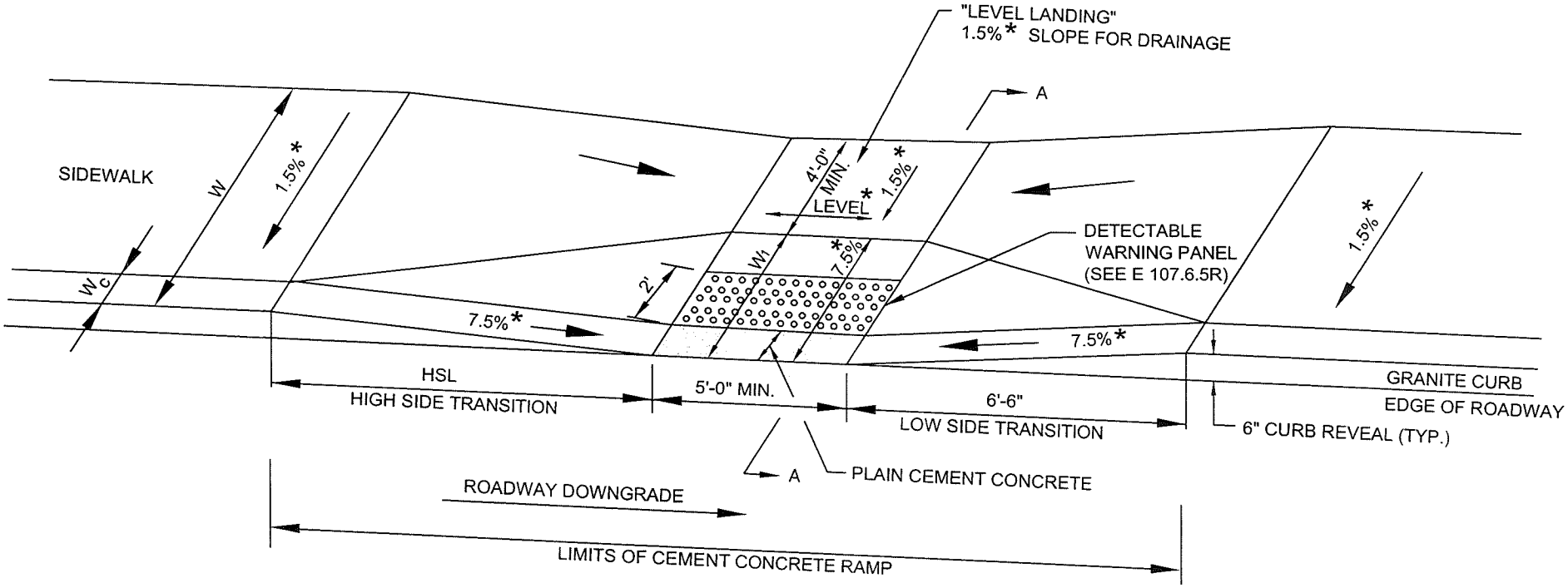
massDOT
Massachusetts Department of Transportation
Highway Division

CONSTRUCTION STANDARDS

WHEELCHAIR RAMPS
LESS THAN 12'-4" SIDEWALK



LEGEND

HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0R)

W = SIDEWALK WIDTH

W_c = CURB WIDTH

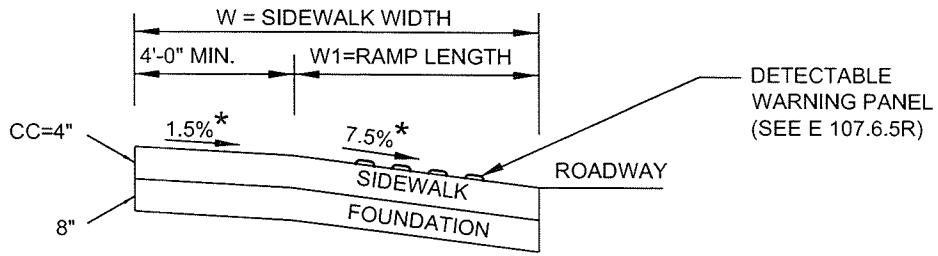
W_1 = PERPENDICULAR RAMP LENGTH

CC = CEMENT CONCRETE

* = TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = W-Wc

RAMP LENGTH, W1 = W-4'-0" Min



SECTION A-A

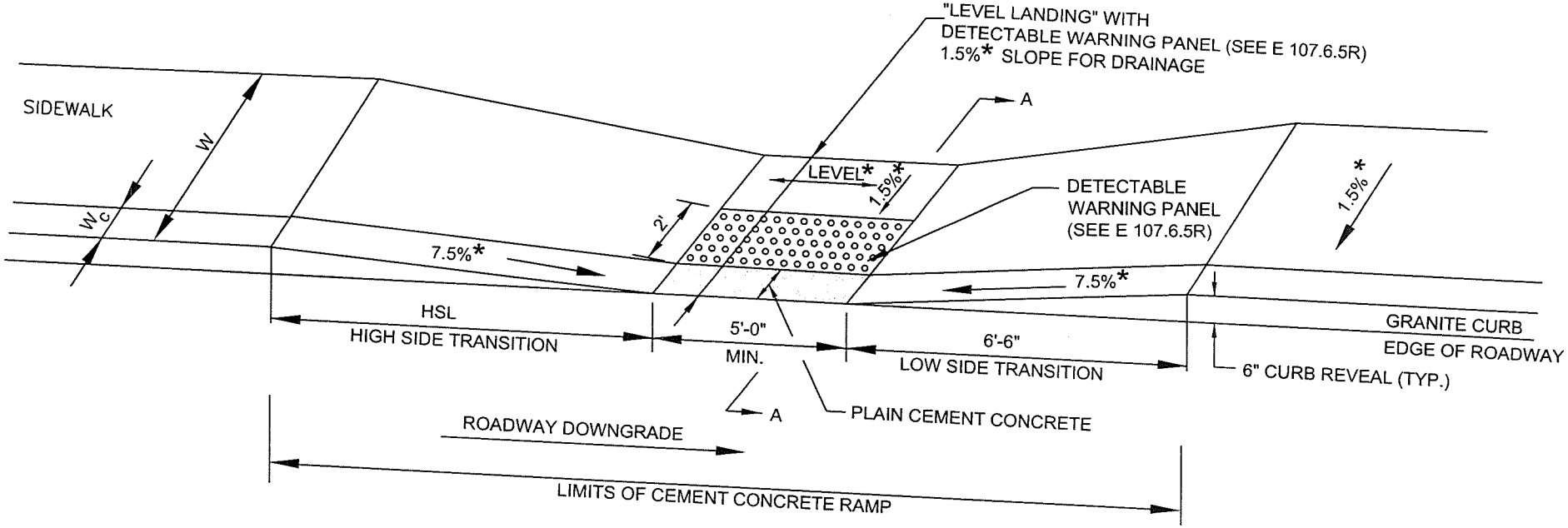
DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.2.0

massDOT
Massachusetts Department of Transportation
Highway Division

CONSTRUCTION STANDARDS

WHEELCHAIR RAMP ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL



LEGEND

HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0R)

W = SIDEWALK WIDTH

W_C = CURB WIDTH

CC = CEMENT CONCRETE

* = TOLERANCE FOR CONSTRUCTION ±0.5%

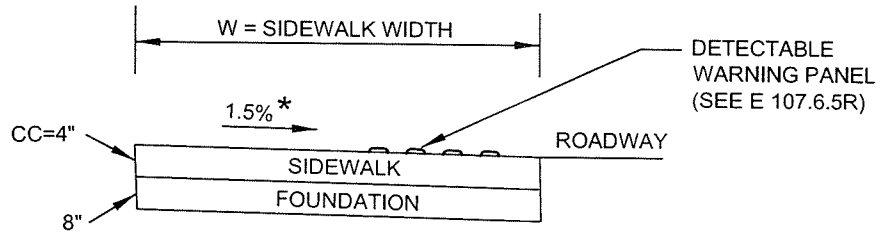
USABLE SIDEWALK WIDTH PER AAB = W-Wc

USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"

SEE E 107.6.5R FOR DETAILS OF DETECTABLE WARNING PANEL

NOTE:

ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS



SECTION A-A

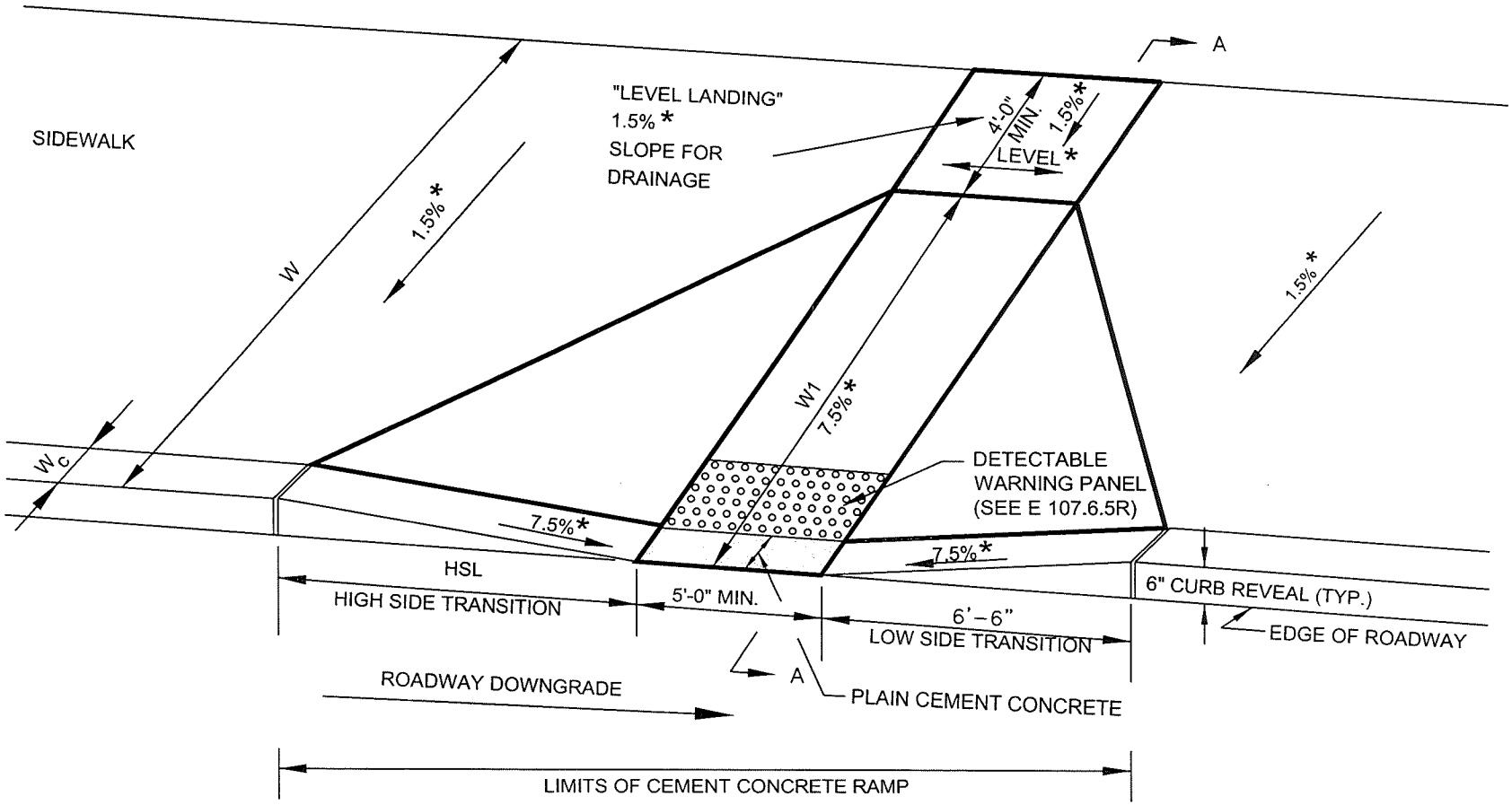
DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.2.1

massDOT
Massachusetts Department of Transportation
Highway Division

CONSTRUCTION STANDARDS

WHEELCHAIR RAMPS
GREATER THAN 12'-4" SIDEWALK



LEGEND

HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0R)

W = SIDEWALK WIDTH

W_C = CURB WIDTH

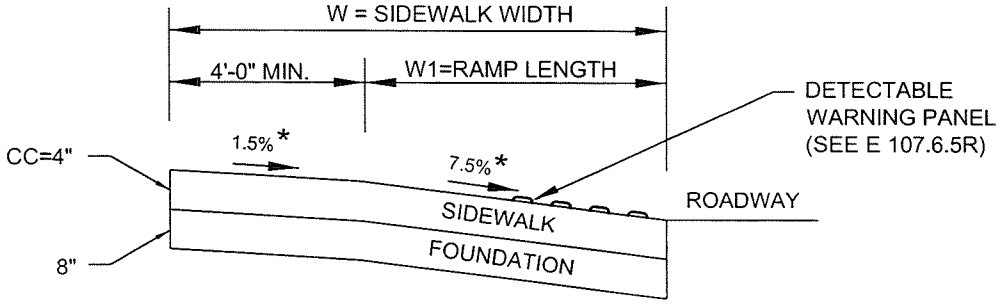
W 1 = PERPENDICULAR RAMP LENGTH

Cc = CEMENT CONCRETE

* = TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = W-Wc

RAMP LENGTH, W1 = W-4'-0" Min



SECTION A-A

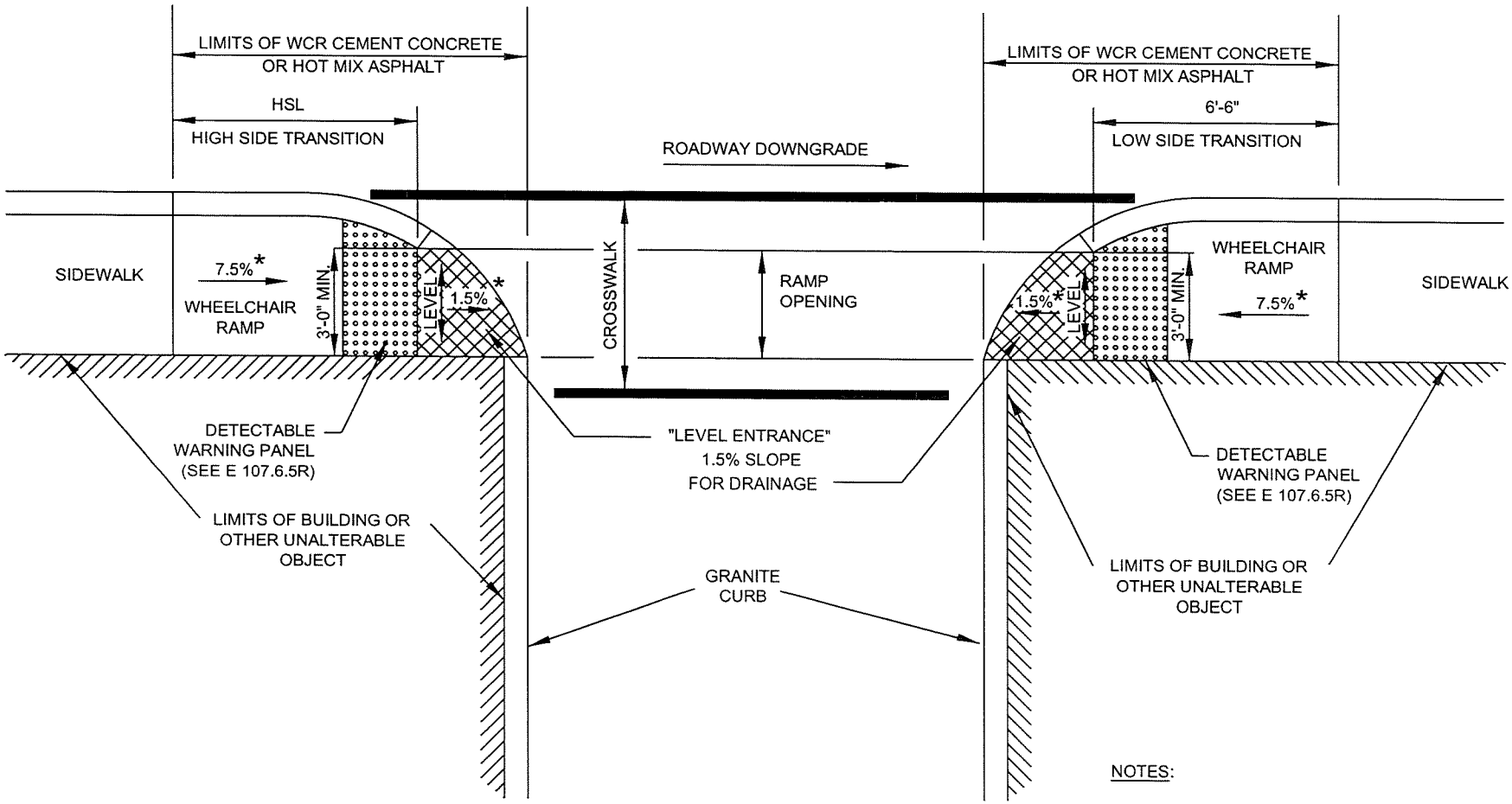
DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.3.0

massDOT
Massachusetts Department of Transportation
Highway Division

CONSTRUCTION STANDARDS

WHEELCHAIR RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL



LEGEND

HSL = HIGH SIDE TRANSITION LENGTH
(SEE E 107.9.0R)

* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

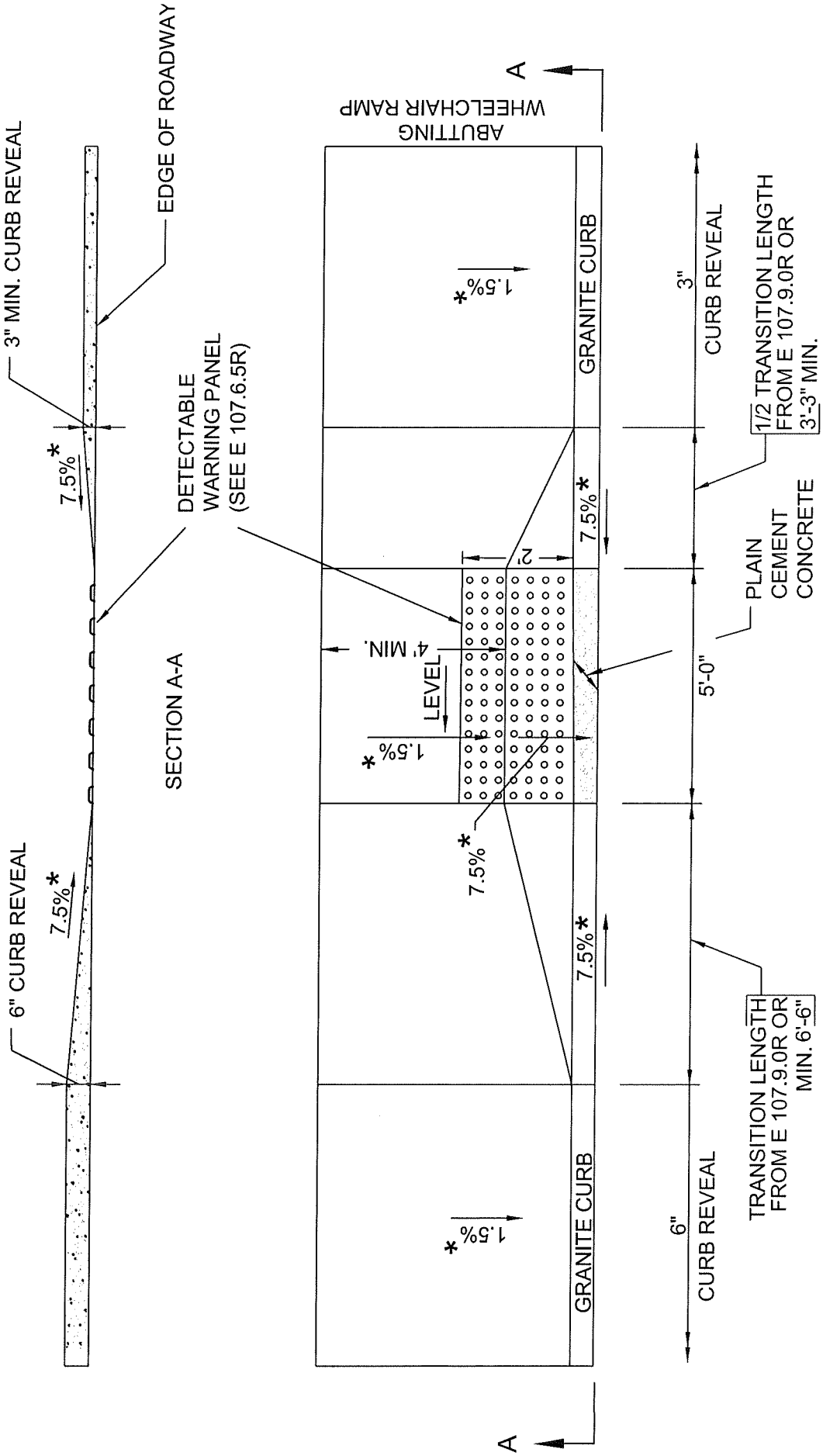
DETECTABLE WARNING PANEL
LOCATED NOT LESS THAN 6" OR MORE THAN 24"
FROM ROADWAY EDGE (GUTTER LINE). TRUNCATED
DOMES TO BE ALIGNED WITH DIRECTION OF TRAVEL.

FOR DETAILS OF TRUNCATED DOMES SEE DRAWING
E 107.6.5R.

ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO
BE ADJUSTED FOR FIELD CONDITIONS.

DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.6.0



LEGEND

HSL = HIGH SIDE TRANSITION LENGTH SEE E 107.9.0R

* = TOLERANCE FOR CONSTRUCTION ±0.5%

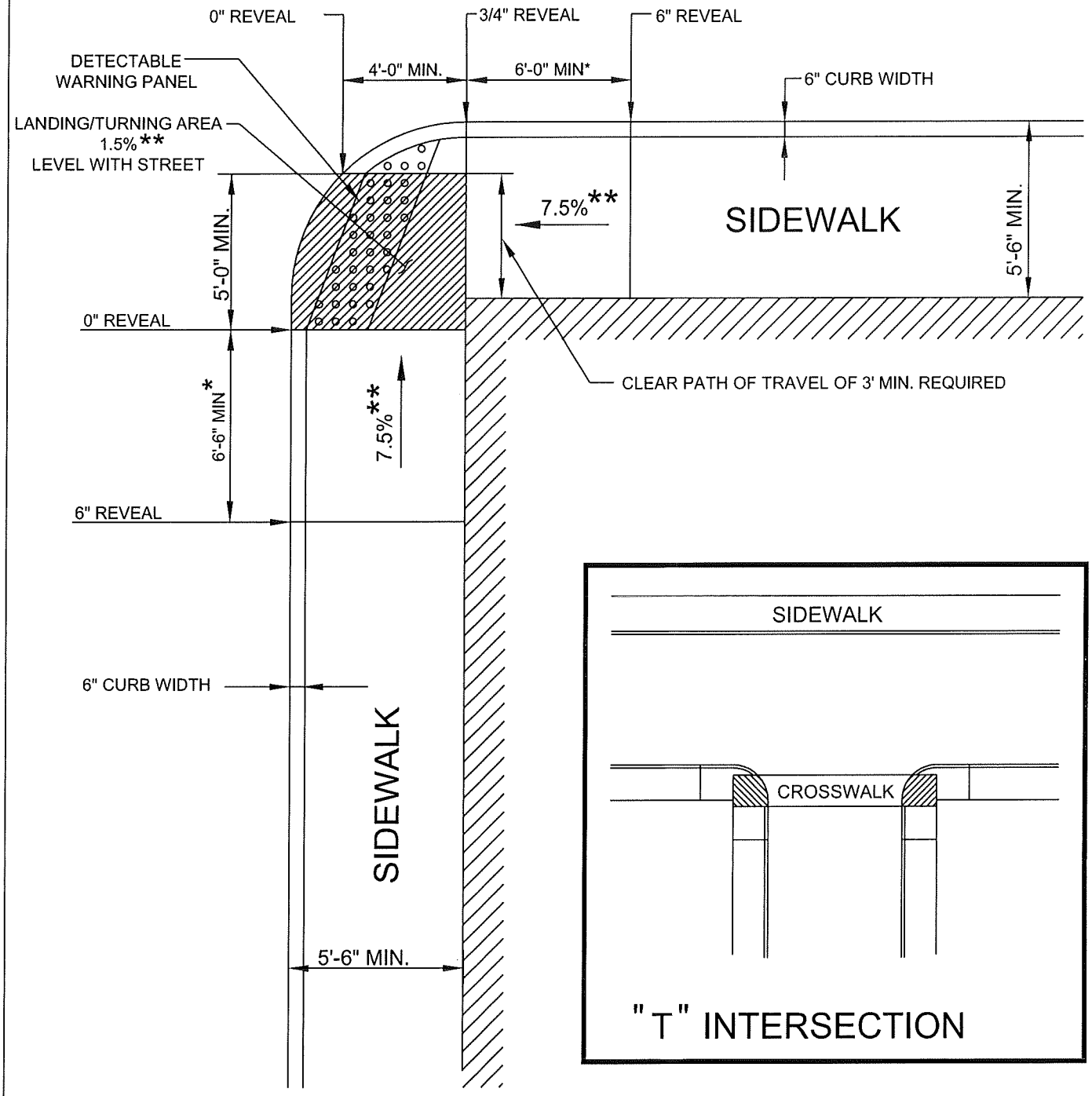
massDOT Massachusetts Department of Transportation Highway Division

CONSTRUCTION STANDARDS

WHEELCHAIR RAMP WITH 3" CURB REVEAL

DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.6.3



LEGEND

BUILDING OR OTHER UNALTERABLE CONDITION

* TRANSITION LENGTH SHOWN IS MINIMUM. (SEE E 107.9.0R)

** TOLERANCE FOR CONSTRUCTION ±0.5%

NOTE:

ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS

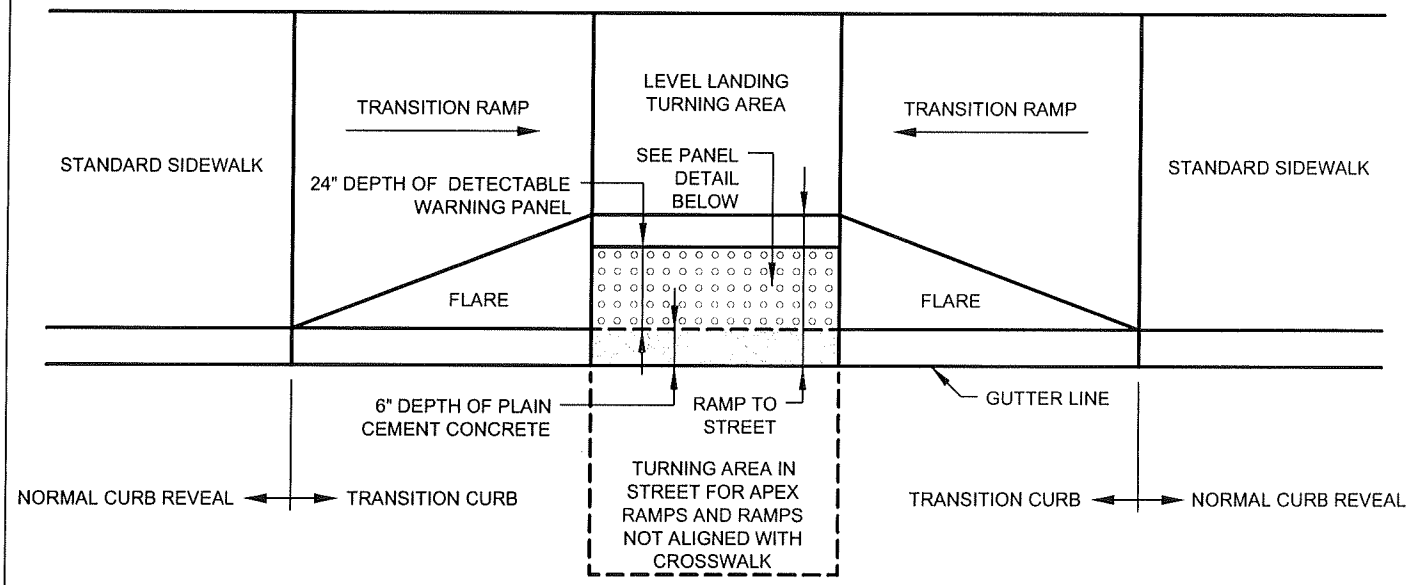
massDOT Massachusetts Department of Transportation Highway Division

CONSTRUCTION STANDARDS

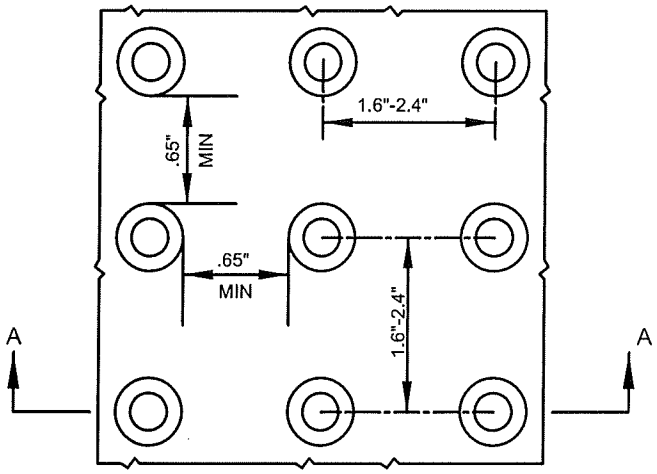
"T" INTERSECTION WHEELCHAIR RAMP

DATE OF ISSUE JUNE 2014

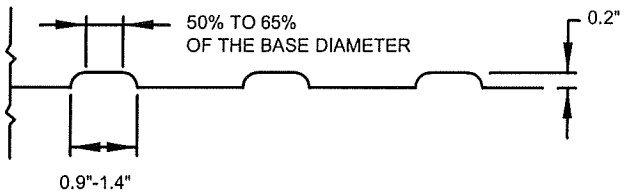
DRAWING NUMBER **E 107.6.4**



TYPICAL INSTALLATION



DETAIL OF DETECTABLE WARNING PANEL



SECTION A-A

NOTE:

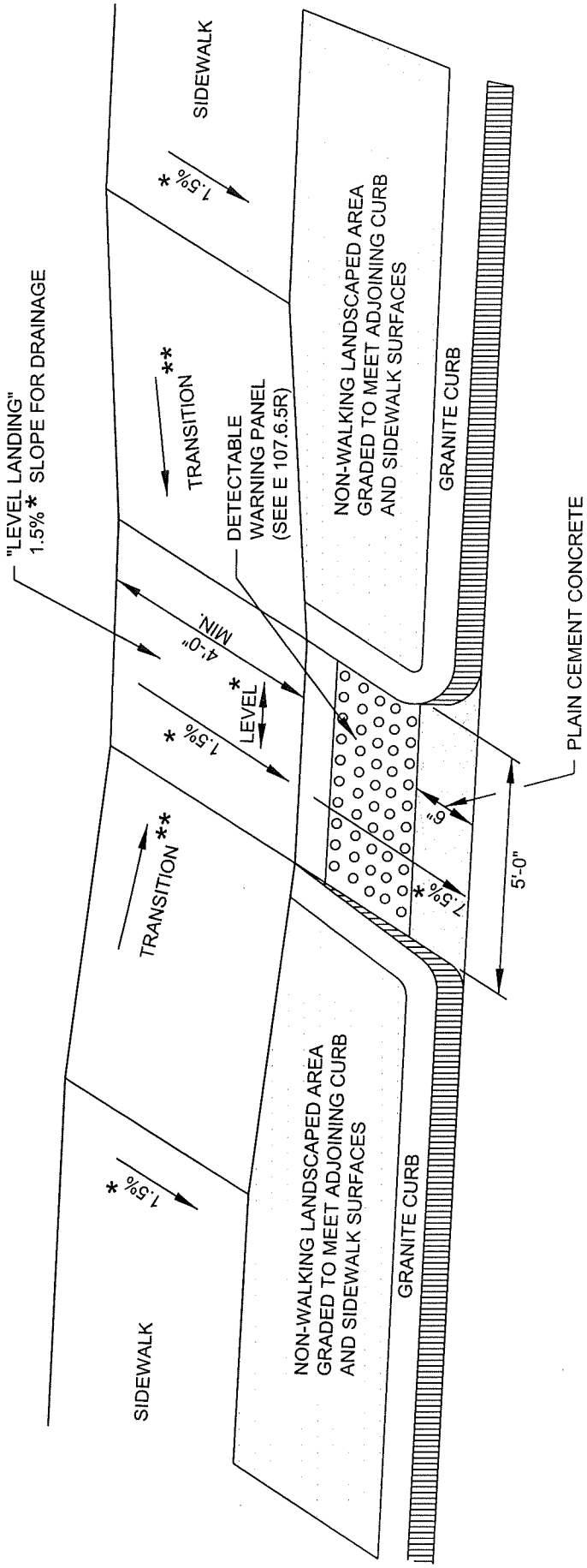
PANELS MAY BE CONCRETE PRECAST OR CAST IN PLACE OR OTHER SUITABLE MATERIAL PERMANENTLY APPLIED TO THE RAMP. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.

massDOT Massachusetts Department of Transportation Highway Division
CONSTRUCTION STANDARDS

DETECTABLE WARNING PANEL FOR WHEELCHAIR RAMPS AND STANDARD RAMP TERMINOLOGY

DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.6.5



LEGEND

* = TOLERANCE FOR CONSTRUCTION ±0.5%

** = SEE E 107.9R FOR TRANSITION LENGTH

massDOT
Massachusetts Department of Transportation
Highway Division
CONSTRUCTION STANDARDS

WHEELCHAIR RAMP WITH LANDSCAPING STRIP

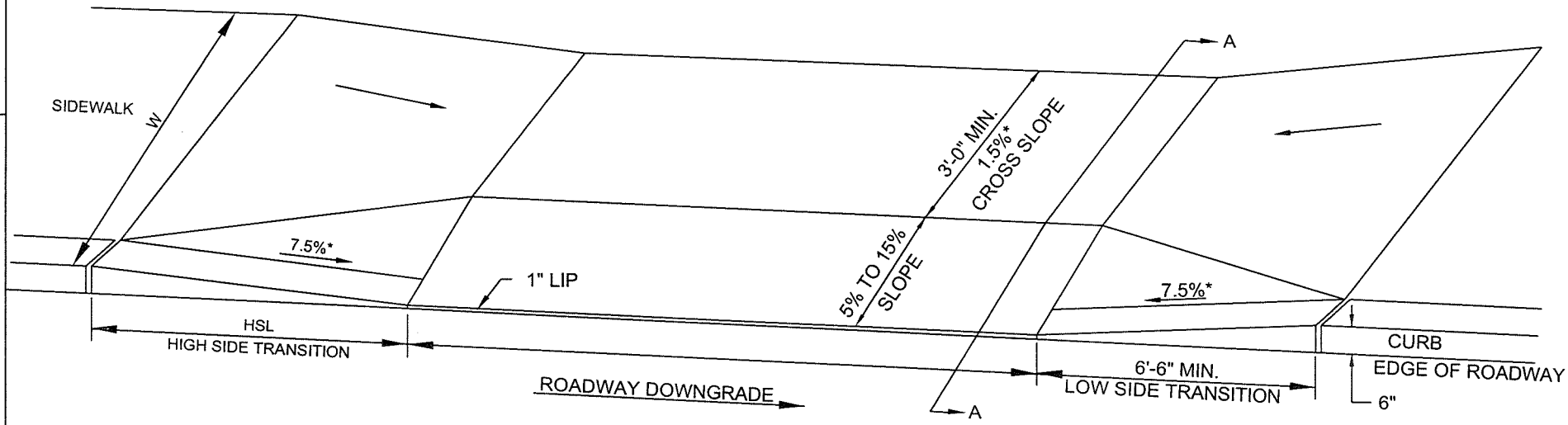
DATE OF ISSUE
JUNE 2014

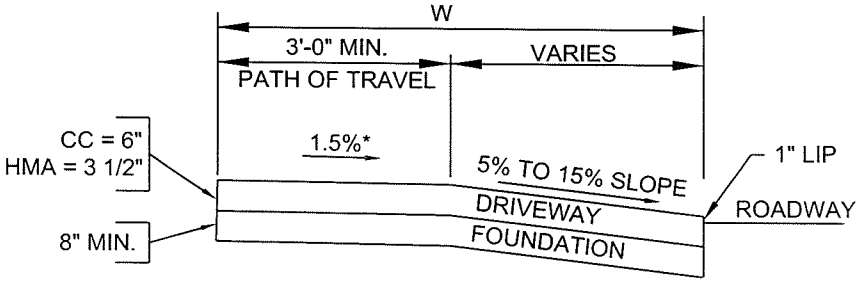
DRAWING NUMBER
E 107.6.9

massDOT
Massachusetts Department of Transportation
Highway Division

CONSTRUCTION STANDARDS

SIDEWALK THROUGH DRIVEWAYS WITHOUT CURB RETURNS





SECTION A-A

LEGEND

HSL = HIGH SIDE TRANSITION LENGTH. SEE E 107.9.0
W = SIDEWALK WIDTH
* = TOLERANCE FOR CONSTRUCTION ±0.5%
CC = CEMENT CONCRETE
HMA = HOT MIX ASPHALT

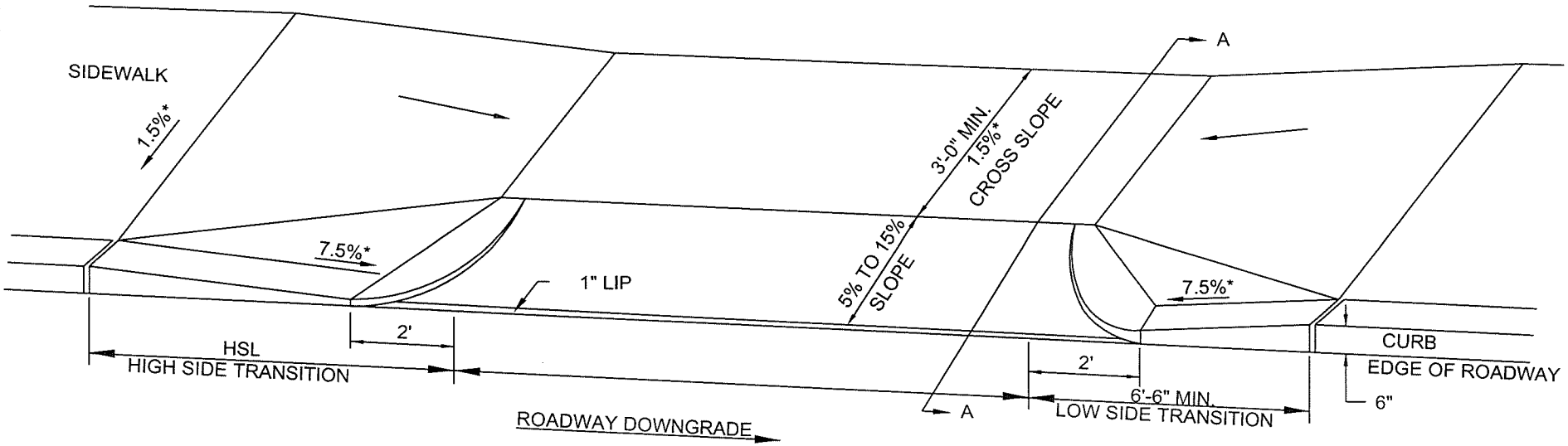
DATE OF ISSUE
JUNE 2014

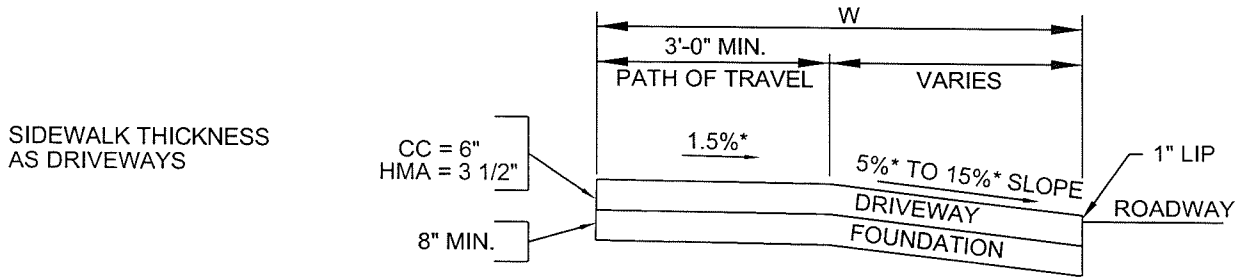
DRAWING NUMBER
E 107.7.0

massDOT
Massachusetts Department of Transportation
Highway Division

CONSTRUCTION STANDARDS

SIDEWALK THROUGH DRIVEWAYS WITH CURB RETURNS 2' CURB CORNERS





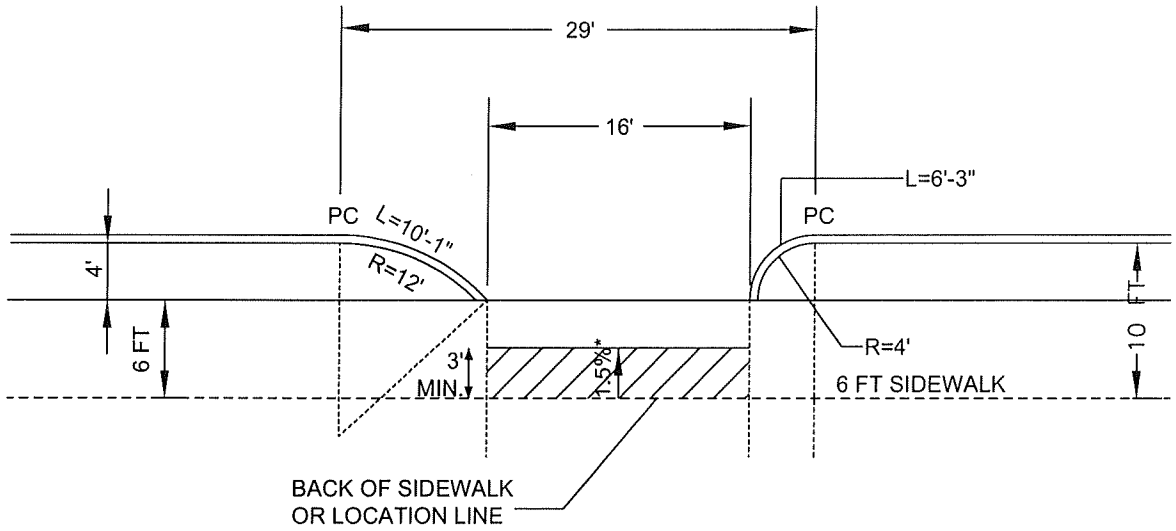
SECTION A-A

LEGEND

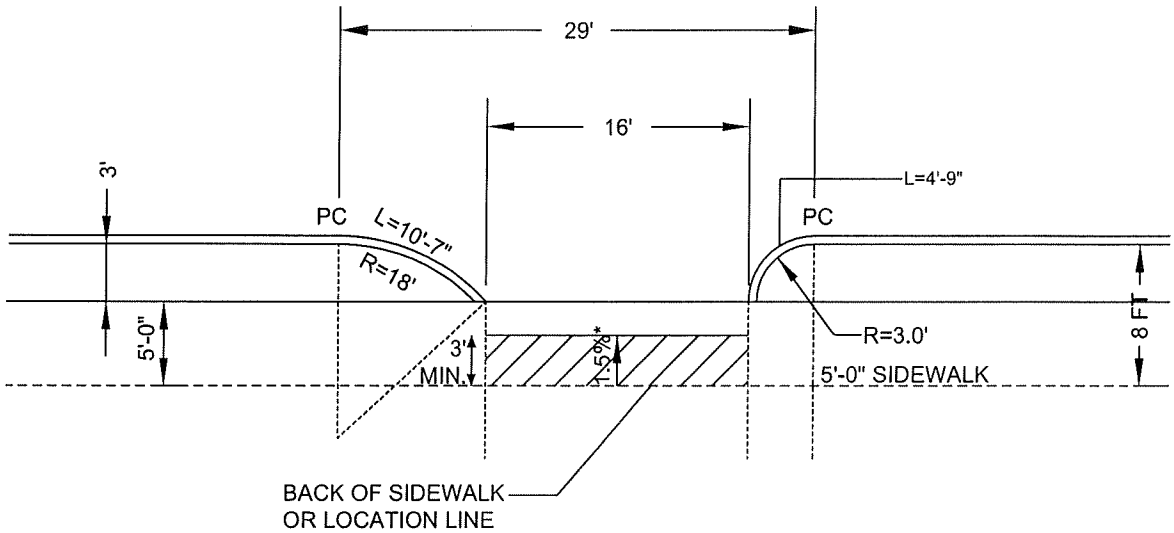
HSL = HIGH SIDE TRANSITION LENGTH
W = SIDEWALK WIDTH
* = TOLERANCE FOR CONSTRUCTION ±0.5%
CC = CEMENT CONCRETE
HMA = HOT MIX ASPHALT

DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.8.0



10 FT SIDEWALK LAYOUT



8 FT SIDEWALK LAYOUT

NOTES:

1. WHEN THE SIDEWALK IS PAVED TO THE CURB LINE, USE SHORT CURB RETURNS AT THE HIGHWAY CURB LINE PC'S, SHOWN IN THESE DESIGNS.

*MUST MAINTAIN PATH OF TRAVEL WITH 1.5% CROSS SLOPE (± 0.5% CONSTRUCTION TOLERANCE)

massDOT Massachusetts Department of Transportation Highway Division

CONSTRUCTION STANDARDS

RESIDENTIAL DRIVEWAYS

DATE OF ISSUE
JUNE 2014

DRAWING NUMBER
E 107.8.1

ROADWAY PROFILE GRADE	* HIGH SIDE TRANSITION LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" Max

NOTE:

* BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".

massDOT Massachusetts Department of Transportation Highway Division

CONSTRUCTION STANDARDS

CURB TRANSITION LENGTH FOR WHEELCHAIR RAMPS

DATE OF ISSUE JUNE 2014

DRAWING NUMBER E 107.9.0