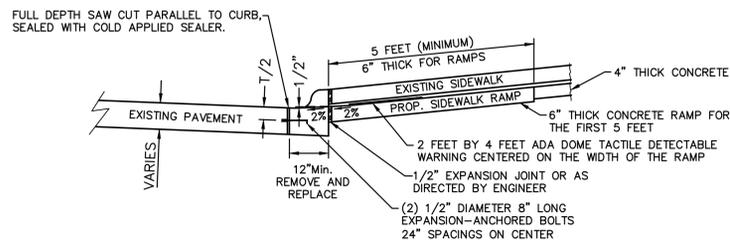
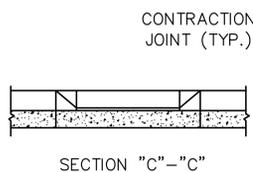
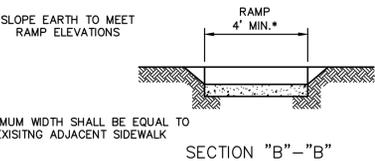
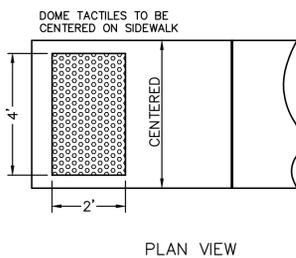
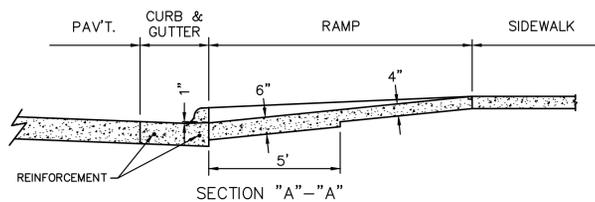
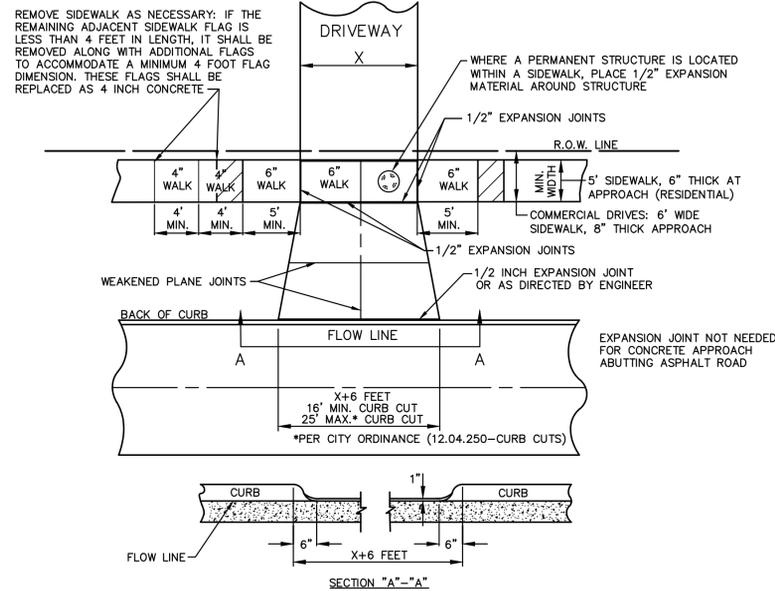


*COLOR OF DOME SHALL CONTRAST THE CONCRETE COLOR

DETECTABLE WARNING DETAILS



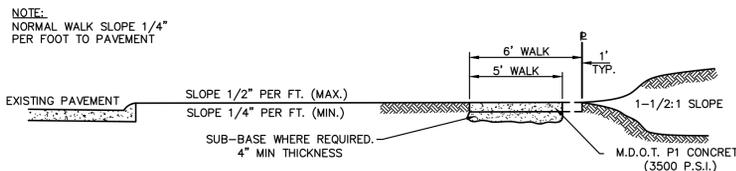
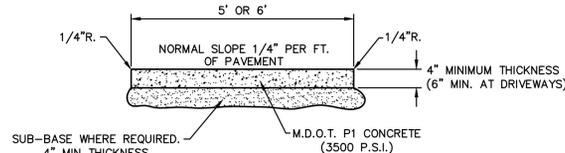
CURB REMOVAL AND REPLACEMENT DETAIL FOR SIDEWALK RAMP



NOTES:

- CURB DROP SHALL BE A HORIZONTAL SAW CUT AT 1 INCH ABOVE GUTTER LINE.
- RESIDENTIAL APPROACH: CONSTRUCT DRIVE APPROACH WITH 6 INCH NON-REINFORCED CONCRETE ON SUITABLE BASE OR 2 INCH HOT MIXED ASPHALT (HMA) ON A 6 INCH 21 AA LESTONE BASE, OR 6 INCH HMA (MIN. TWO LIFTS) ON SUITABLE BASE.
- COMMERCIAL APPROACH: CONSTRUCT DRIVE APPROACH WITH 8 INCH NON-REINFORCED CONCRETE ON 6" OF 21AA AGGREGATE BASE COURSE COMPACTED IN PLACE (CIP) OR 6" HMA LEVELING COURSE ON 9" OF 21AA AGGREGATE BASE COURSE COMPACTED IN PLACE.
- AT ALL CONCRETE DRIVES PLACE A 1/2 INCH EXPANSION JOINT AT BACK OF CURB AND 1/2 INCH EXPANSION JOINT AT FACE OF SIDEWALK OR RIGHT OF WAY LINE. MAINTAIN NORMAL SIDEWALK GRADE ACROSS DRIVE, NOT TO EXCEED 2.0 PERCENT CROSS SLOPE UP FROM FACE OF SIDEWALK.
- *IF CURB CUTS EXCEEDS 25", PRIOR APPROVAL IS NEEDED.
- IF STAMPED CONCRETE OR BRICK PAVERS ARE INSTALLED, THE PROPERTY OWNER ASSUMES ALL LIABILITY FOR MAINTENANCE. THE CITY WILL NOT REPLACE OR REPAIR STAMPED CONCRETE OR BRICK PAVERS WITH SAME DUE TO WATER MAIN BREAKS OR OTHER UTILITY WORK.

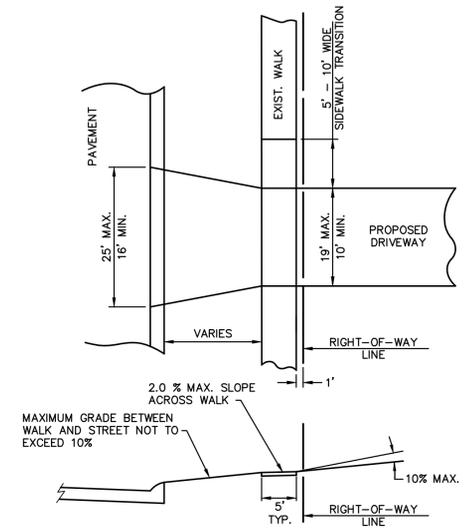
STANDARD DRIVEWAY APPROACH



NOTES:

- SIDEWALKS SHALL BE DIVIDED INTO UNIT AREAS APPROXIMATELY SQUARE, OR NOT MORE THAN 36 NOR LESS THAN 16 SQUARE FEET.
- THE UNIT AREAS SHALL BE CONSTRUCTED BY FORMS OR BY CUTTING JOINTS IN THE PLASTIC CONCRETE TO A DEPTH OF 3/4". A 1/2" PREFORMED FIBER EXPANSION JOINT SHALL BE PLACED BETWEEN ABUTTING PARALLEL CURBS AND SIDEWALKS OR BUILDINGS AND ELSEWHERE AT APPROXIMATELY 50' INTERVALS. A PREFORMED 1/2" X 6" FIBER EXPANSION JOINT SHALL BE PLACED BETWEEN CURB RETURNS AND SIDEWALKS.
- SUB-BASE, WHERE SPECIFIED, SHALL CONSIST OF POROUS BACKFILL M.D.O.T. CLASS II UNLESS OTHERWISE SHOWN ON THE PLANS. SUB-BASE WILL BE CONSIDERED AS INCIDENTAL TO CONSTRUCTION OF CONCRETE SIDEWALK.

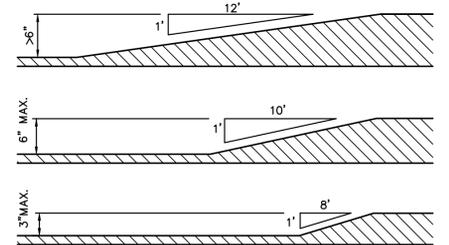
STANDARD SIDEWALK DETAIL



MAXIMUM GRADES FOR DRIVEWAY APPROACHES WITHIN EXISTING SUBDIVISIONS

The slope of a means of egress ramp cannot exceed 1:12 with the following exceptions A maximum 1:8 slope permitted if the vertical rise does not exceed 3" and a maximum 1:10 slope is permitted if the vertical rise does not exceed 6". The maximum permitted slope across the direction of ramp travel is 1:48. Ramped aisles in group A (assembly) occupancies are required to comply with BOCA 1012.0. Any ramp provided whether for barrier free access or not, must comply with these requirements. By definition, a means of egress includes a continuous path of travel from any point within a building to a public way. All ramps serve as an element of a means of egress.

Refer to BOCA National Building Code/1993 for specific code text.



LANDINGS

A ramp that is provided as required by section 1011.1.1 of the Boca code may not have a vertical rise of more than 30 inches between landings.

This Standard is From The 1993 Barrier Free Manual

MAXIMUM RAMP SLOPES

Sidewalk and Approach Details

JOB No.	DATE: 1/24/00	SHEET 1 OF 1
REVISIONS:	REV. DATE	
Add Detectable Warning Strip to Ramps	1/14/05	CADD: dwl
Curb Removal and Replacement Changes	4/03/09	ENG: dwl
		PM: tz
		TECH: Sidewalk and Driveway Details
		FB#:



CITY OF LIVONIA

Department of Public Works - Engineering Division
33000 Civic Center Drive
Livonia, Michigan 48154
(734) 466-2570 Office, (734) 466-2195 Fax

RELEASED FOR :	DATE