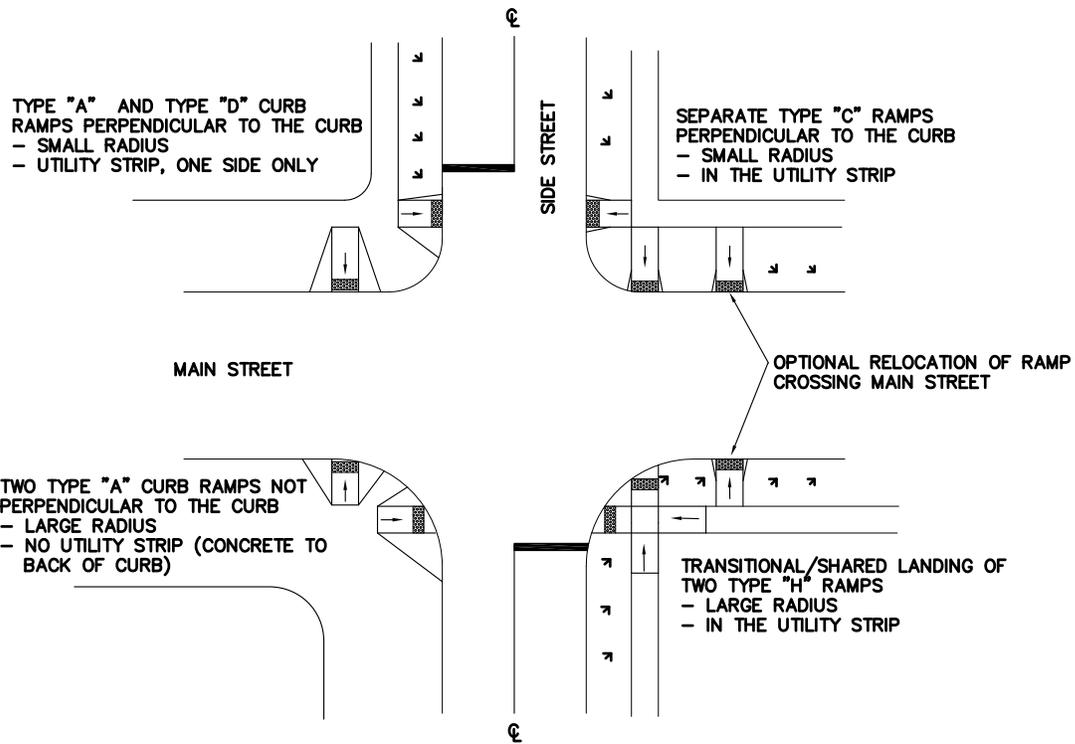


GENERAL NOTES. CURB RAMPS

1. CURB RAMP COMPONENTS: THE CURB RAMP INCLUDES THE RAMP PANEL, FLARED SIDES, AND LANDING WHEN NEEDED.
2. MATERIAL: THE RAMP PANEL AND FLARED SIDES SHALL BE CONCRETE. THE USE OF BRICK OR PAVERS IS NOT PERMITTED.
3. CURB RAMP TYPE: CURB RAMPS SHALL BE SPECIFIED BY THE APPROPRIATE TYPE AND SHALL BE PERPENDICULAR TO THE CENTERLINE OF THE CROSSING STREET
 - TYPE A – RAMP WITH LONG FLARES
 - TYPE C – RAMP IN UTILITY STRIP
 - TYPE D – RAMP OBSTRUCTED ON ONE SIDE
 - TYPE G – RAMP WITH RECESSED LOWER LANDING.
 - TYPE H – RAMP WITH RECESSED LOWER LANDING IN A UTILITY STRIP
 - TYPE L – MEDIAN RAMP WITH CENTER LANDING
 - TYPE P1 – COMBINED PERPENDICULAR AND PARALLEL RAMP
 - TYPE P2 – COMBINED PERPENDICULAR AND PARALLEL RAMP IN ONE DIRECTION

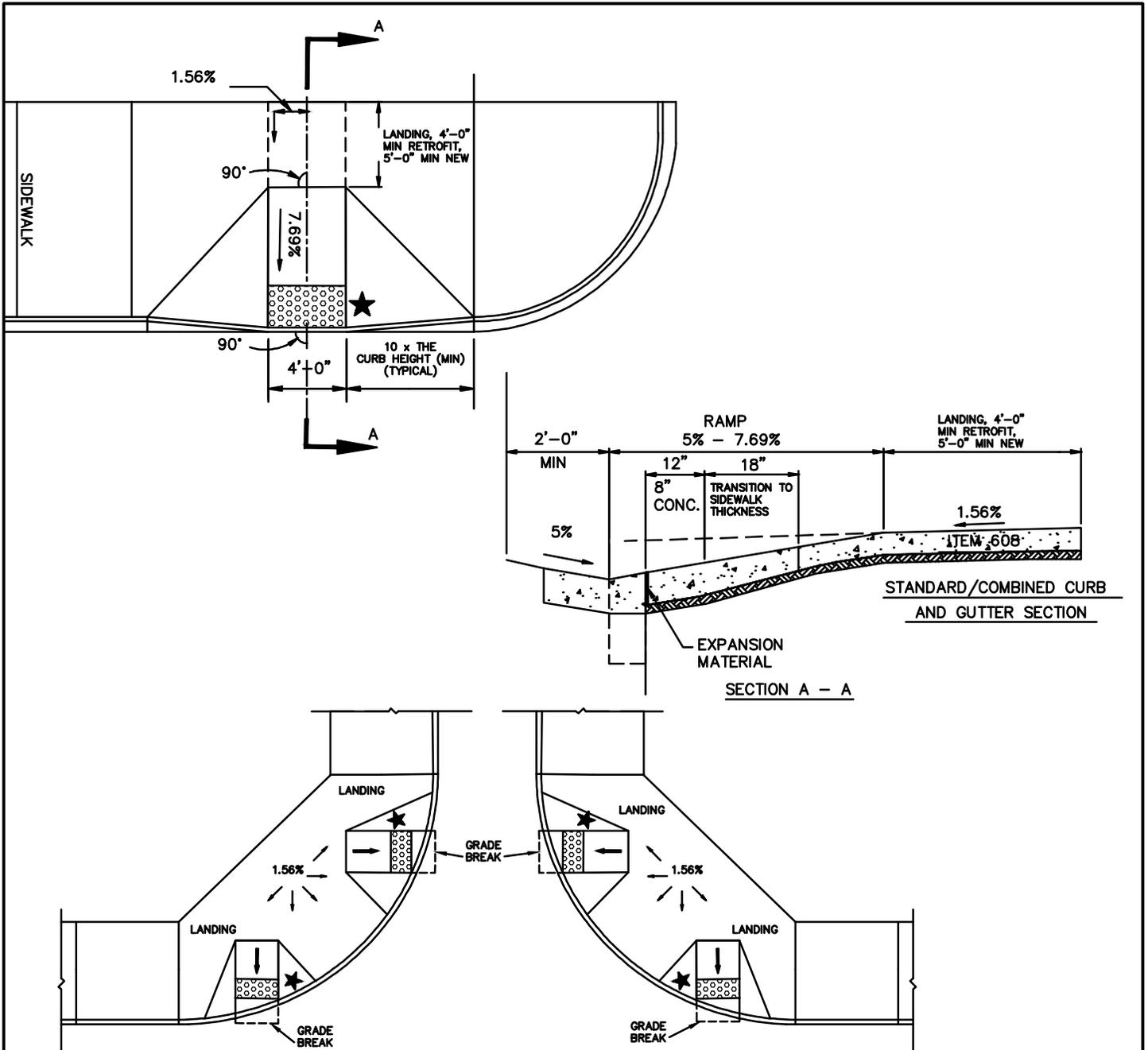
NOTE: CITY OF HILLIARD ORDER OF PREFERENCE IS (1) KEEP RAMPS IN LINE WITH APPROACH WALKS AND (2) KEEP RAMPS IN FRONT OF SIDE STREET STOP SIGNS. RAMPS THAT DIRECT PEDESTRIANS INTO THE MIDDLE OF AN INTERSECTION AT AN ANGLE ARE NOT PERMITTED. WHEN RAMPS ARE NOT PERPENDICULAR TO THE CURB, A LANDING RECESSED SHALL BE PROVIDED AT THE BOTTOM OF THE RAMP & THE GRADE BREAK SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL. EXAMPLES OF RECOMMENDED CURB RAMP ALIGNMENTS ARE SHOWN BELOW:



	CURB RAMP GENERAL NOTES	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		1/12	CR-1

4. CURB RAMPS AT ALLEY AND ARTERIAL CROSSINGS SHALL BE 8" THICK CONCRETE
5. RAMP RUNNING SLOPE: THE RUNNING SLOPE SHALL BE 5% TO 7.7%. THE RUNNING SLOPE MAY BE INCREASED TO 10 % WITH PRIOR WRITTEN CITY APPROVAL.
6. RAMP CROSS SLOPE: THE MAXIMUM CROSS SLOPE SHALL BE 1.56%.
7. FOR NEW CONSTRUCTION, MINIMUM RAMP WIDTH AND LANDING SIZE SHALL BE:
 - SIDEWALKS: 5' RAMP AND 5'X5' LANDING
 - MULTI-USE PATHS: 8' RAMP AND 5'X8' LANDING
 - LANDING AT INTERSECTING SIDEWALKS – WHEREVER SIDEWALKS INTERSECT, THERE SHALL BE A LANDING MEETING THE ABOVE REQUIREMENTS.
10. IN RETROFIT SITUATIONS, THE RAMP WIDTH MAY MATCH THE EXISTING APPROACH SIDEWALK OR MULTI-USE PATH OR 4' MINIMUM, WHICHEVER IS GREATER. THE MINIMUM LANDING SIZE SHALL BE 4' BY THE WIDTH OF THE EXISTING APPROACH WALK OR MULTI-USE PATH.
11. ALL JOINTS BETWEEN NEW AND EXISTING MATERIALS SHALL BE FLUSH.
12. LONG FLARES: THE LENGTH MEASUREMENT OF THE FLARE AT THE FACE OF CURB SHALL BE A MINIMUM OF 10 TIMES THE CURB HEIGHT
13. 1-FT FLARES: THE MEASUREMENT OF THE FLARE AT THE FACE OF CURB SHALL BE A MINIMUM OF 1-FT.
14. STREET COUNTER SLOPE: THE COUNTER SLOPE AT THE BASE OF THE RAMP SHALL BE A MAXIMUM OF 5% FOR A MINIMUM OF 2-FT.
15. RAMPS AT MARKED AND UNMARKED CROSSINGS: AT MARKED CROSSINGS THE RAMP AND STREET LANDING MUST BE FULLY CONTAINED WITHIN THE MARKED CROSSWALK. AT UNMARKED CROSSINGS THE RAMP AND STREET LANDING MUST BE WITHIN THE PEDESTRIAN RIGHT-OF-WAY AS DEFINED BY CITY CODE.
16. SURFACES: RAMP, FLARE, AND LANDING SURFACES MUST BE STABLE AND SLIP RESISTENT. RAMPS SHALL BE MEDIUM BROOMED TRANSVERSE TO THE DIRECTION OF TRAVEL. GRATINGS, VALVE BOXES, AND UTILITY BOXES SHALL NOT BE LOCATED IN THE RAMP, LANDING, OR TRANSITION AREAS.
17. OFFSET INTERSECTIONS: AT OFFSET 'T' INTERSECTIONS RAMPS BETWEEN OFFSET STREETS MAY BE DELETED IF THE CENTERLINES OF OFFSET STREETS ARE NO MORE THAN 200-FT APART.
18. OPPOSING RAMPS SHALL HAVE A PEDESTRIAN WALKWAY ACROSS THE STREET, ATLEAST 7' WIDE, WITH A CROSS SLOPE (LONGITUDINAL STREET SLOPE) OF NO GREATER THAN 1.56%. VERTICAL CURVES SHALL BE INSTALLED AS NEEDED.
19. FOR SIDEWALK OR MULTI-USE PATH CROSSINGS OF PRIVATE DRIVEWAYS:
 - PEDESTRIANS HAVE THE RIGHT OF WAY FOR CROSSINGS OF UNSIGNALIZED PRIVATE DRIVEWAYS (RESIDENTIAL AND COMMERCIAL): THEREFORE, THE SIDEWALK OR PATH SHOULD EXTEND THROUGH THE DRIVEWAY AT GRADE WITH NO CURB RAMP OR DETECTABLE WARNING.
 - IN LOCATIONS WHERE TREE LAWN WIDTHS ARE NARROW MAKING THE DRIVEWAY APPROACH TOO STEEP TO PROVIDE A SAFE TRANSITION FOR VEHICLES BETWEEN THE STREET AND DRIVEWAY, THE SIDEWALK OR PATH MAY DROP IN ELEVATION 10'-15' ON EITHER SIDE OF THE DRIVEWAY. NO CURB RAMP OR DETECTABLE WARNING IS REQUIRED IN THIS CASE. THE MAX CROSS SLOPE SHALL BE 1.56%.
 - AT LARGE COMMERCIAL UNSIGNALIZED DRIVEWAYS, PROVISIONS FOR SIDEWALKS AND PATHS AND THE NEED FOR RAMPS AND DETECTABLE WARNINGS SHALL BE EVALUATED ON A CASE-BY-CASE BASIS.
 - LARGE COMMERCIAL SIGNALIZED DRIVEWAYS SHALL BE TREATED AS PUBLIC STREET INTERSECTIONS WITH RESPECT TO LOCATION AND DESIGN OF ALL SIDEWALKS, MULTI-USE PATHS, CURB RAMPS, AND DETECTABLE WARNINGS.

	CURB RAMP GENERAL NOTES	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		2/12	CR-1

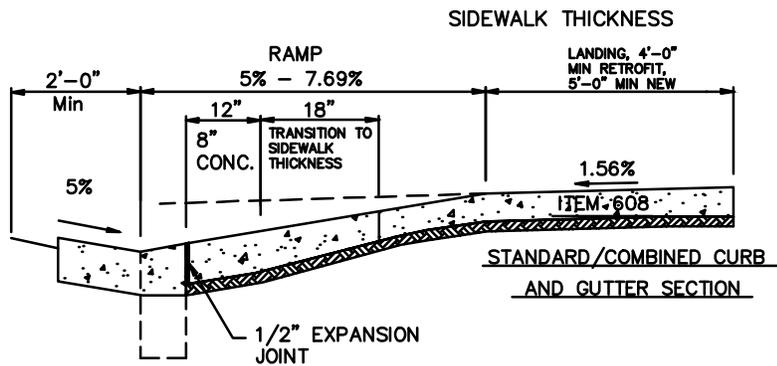
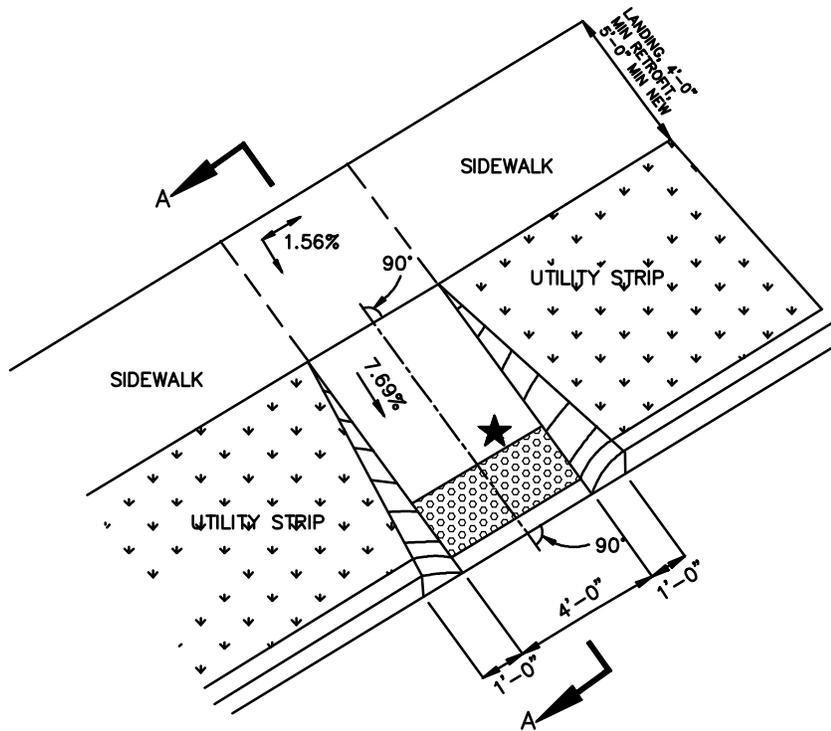


NOTES:

1. RAMP SHALL NOT ORIENT PEDESTRIANS INTO THE CENTER OF AN INTERSECTION. WHEN PLACED WITHIN THE RADIUS, A TYPE A RAMP SHALL BE ORIENTED DIRECTLY ACROSS FROM THE OPPOSING RAMP, PERPENDICULAR TO THE CENTERLINE OF THE CROSSING STREET.
2. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS
3. WHEN RAMPS ARE NOT PERPENDICULAR TO THE CURB, A RECESSED LANDING SHALL BE PROVIDED AT THE BOTTOM OF THE RAMP AND THE GRADE BREAK SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE A	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS	RAMP WITH LONG FLARES	3/12	CR-1



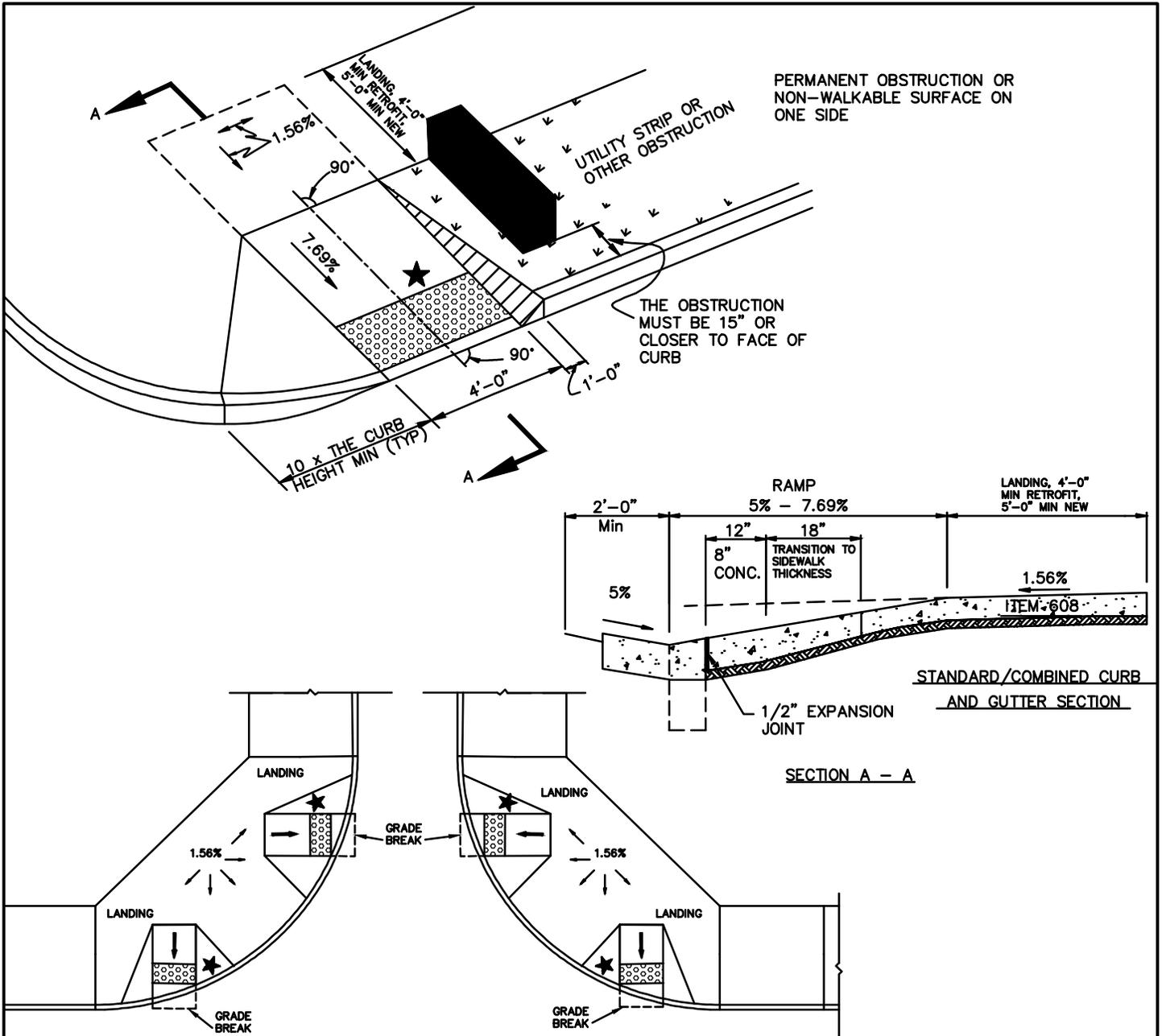
SECTION A - A

NOTES:

1. RAMP SHALL NOT BE PLACED IN FRONT OF A STOP SIGN OR IN FRONT OF THE NORMAL STOPPING LOCATION OF VEHICLES AT A STOP OR SIGNAL CONTROLLED INTERSECTION. A TYPE H RAMP SHOULD BE USED INSTEAD.
2. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE C	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	RAMP IN UTILITY STRIP	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		4/12	CR-1

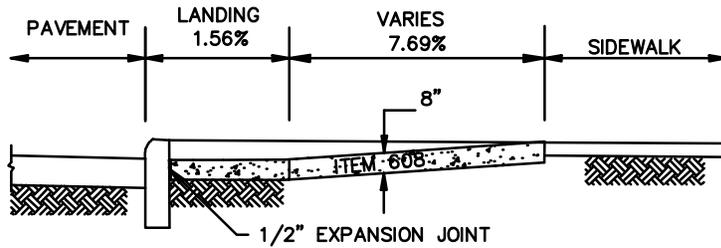
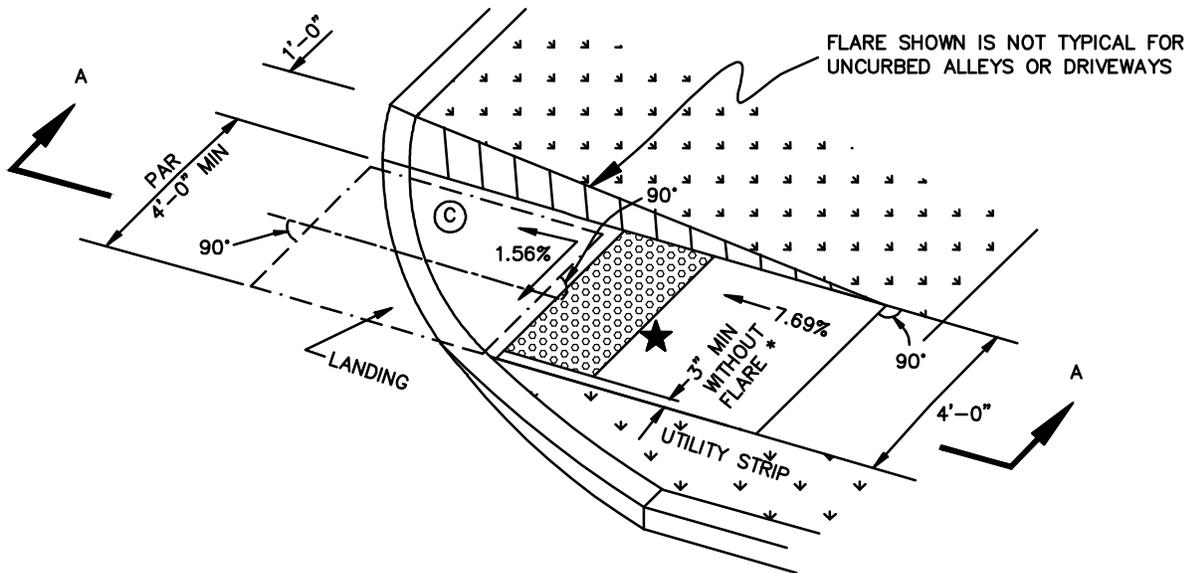


NOTES:

1. RAMP SHALL NOT ORIENT PEDESTRIANS INTO THE CENTER OF AN INTERSECTION. WHEN PLACED WITHIN THE RADIUS, A TYPE "D" RAMP SHALL BE ORIENTED DIRECTLY ACROSS FROM THE OPPOSING RAMP, PERPENDICULAR TO THE CENTERLINE OF THE CROSSING STREET.
2. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS
3. WHEN RAMPS ARE NOT PERPENDICULAR TO THE CURB, A RECESSED LANDING SHALL BE PROVIDED AT THE BOTTOM OF THE RAMP AND THE GRADE BREAK SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE D	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	RAMP OBSTRUCTED ON ONE SIDE	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		5/12	CR-1



SECTION A-A

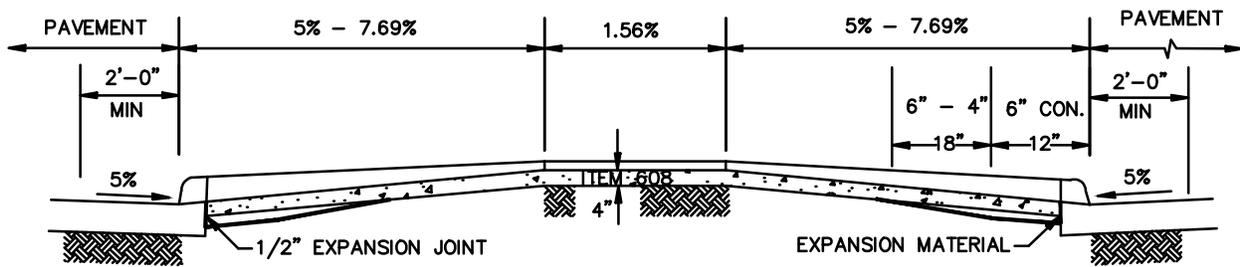
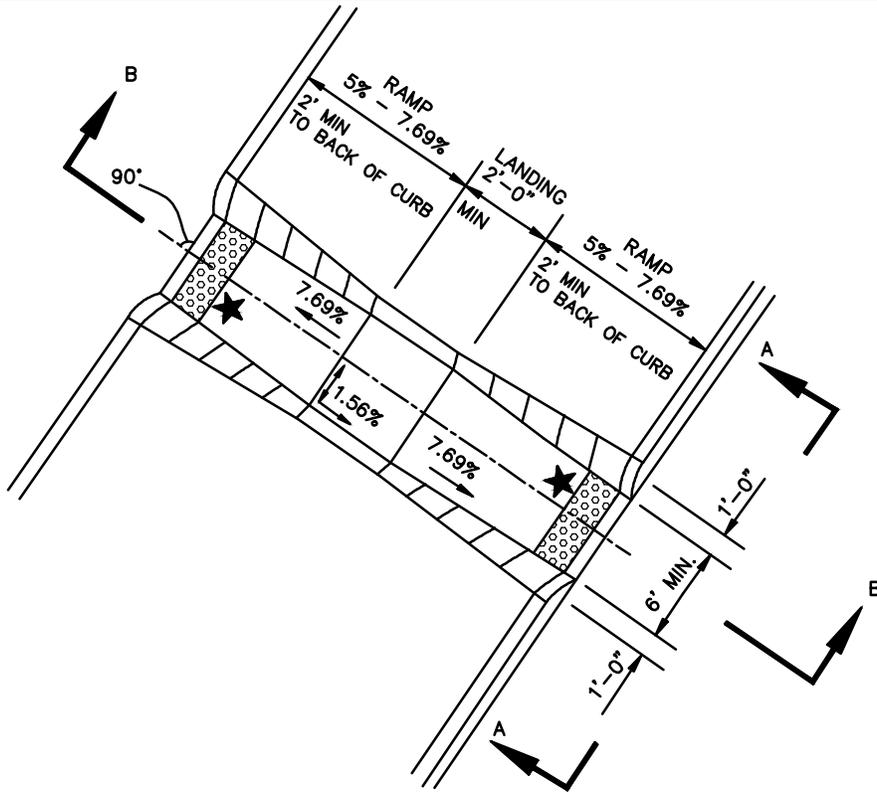
SUPPLEMENTAL NOTES

- A. THE BOTTOM EDGE OF THE RAMP SHALL CHANGE PLANES PERPENDICULAR TO THE LANDING.
- B. THE EDGE OF THE CURB SHALL BE FLUSH WITH THE EDGE OF THE ADJACENT PAVEMENT AND GUTTER.
- C. THE LANDING AT THE BOTTOM OF THE RAMP SHALL BE \geq 2.5-FT BY 4-FT WITH A MAXIMUM CROSS SLOPE OF 1.56% IN TWO DIRECTIONS.
- D. THE PEDESTRIAN ACCESS ROUTE (PAR) BETWEEN THE TWO RAMP SHALL HAVE A MAXIMUM OF 1.56% CROSS SLOPE WITH A 5% MAXIMUM RUNNING SLOPE
- E. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

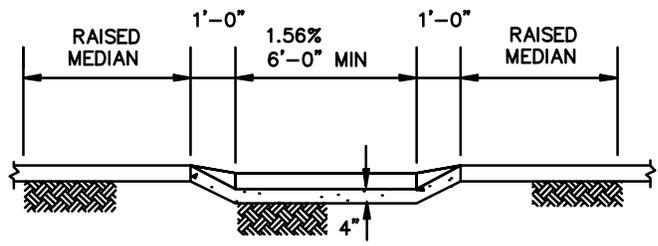
* THIS IS FOR EMBEDDED (NON-SURFACE APPLIED) DETECTABLE WARNINGS ONLY

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE H	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	RAMP WITH RECESSED LOWER LANDING IN UTILITY STRIP	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		7/12	CR-1



SECTION B-B

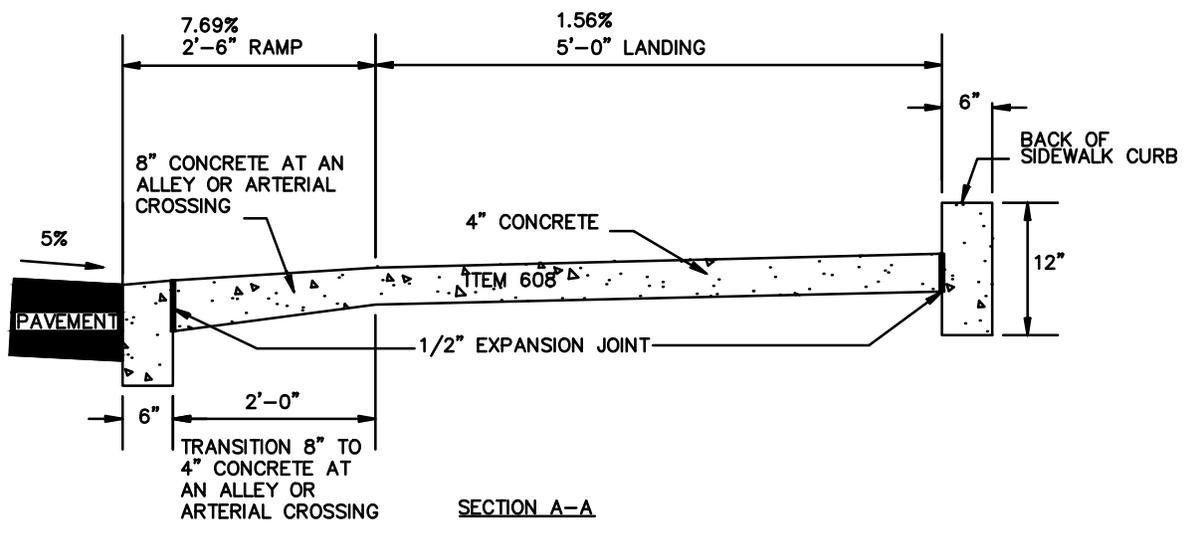
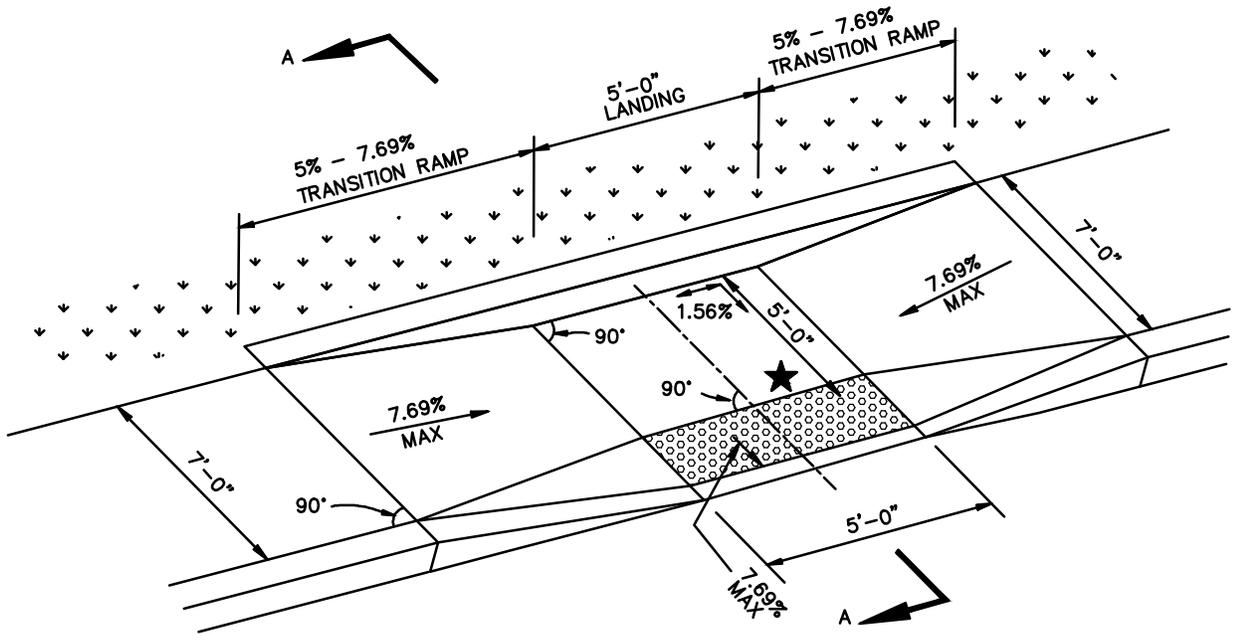


SECTION A-A

RAMPS MAY BE OMITTED IN MEDIANS IF PEDESTRIANS CAN CROSS THROUGH THE MEDIAN AT STREET GRADE

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

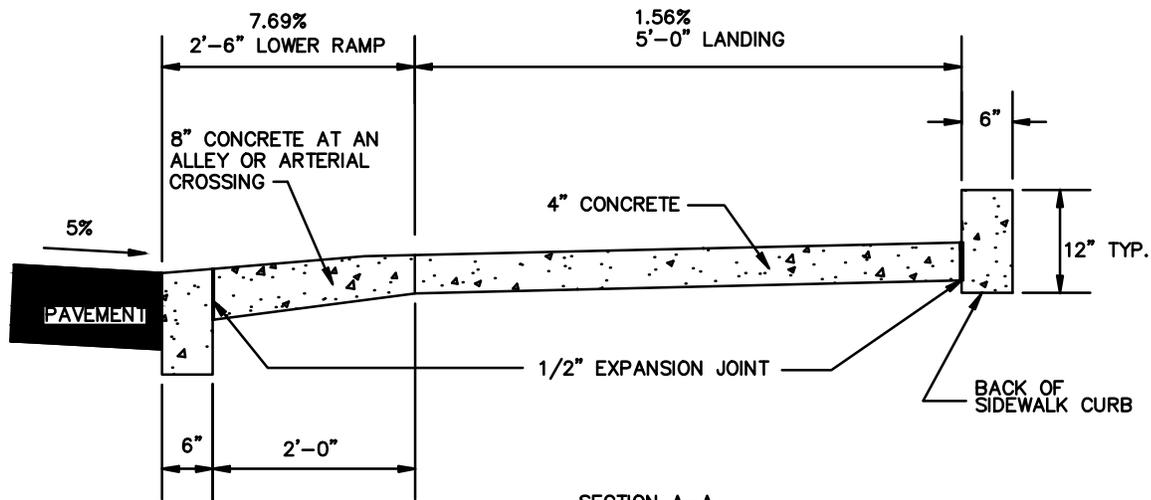
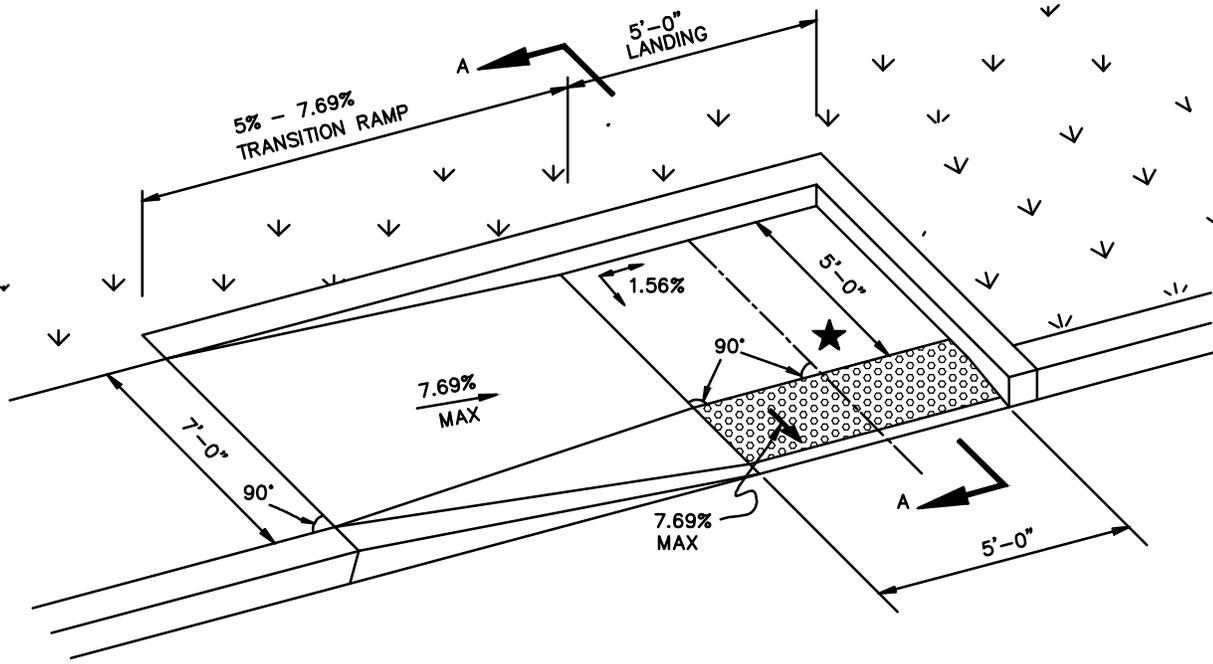
	<p>CURB RAMP TYPE L</p>	<p>CITY OF HILLIARD, OHIO</p>	
<p>DATE: March 6, 2015</p>	<p>MEDIAN RAMP WITH CENTER LANDING</p>	<p>STANDARD CONSTRUCTION DRAWING</p>	
<p>SCALE: NTS</p>		<p>8/12</p>	<p>CR-1</p>



THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE P1	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	COMBINED PERPENDICULAR & PARALLEL RAMP	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		9/12	CR-1



THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

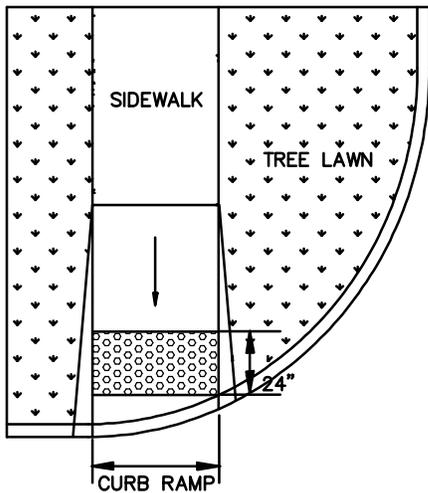
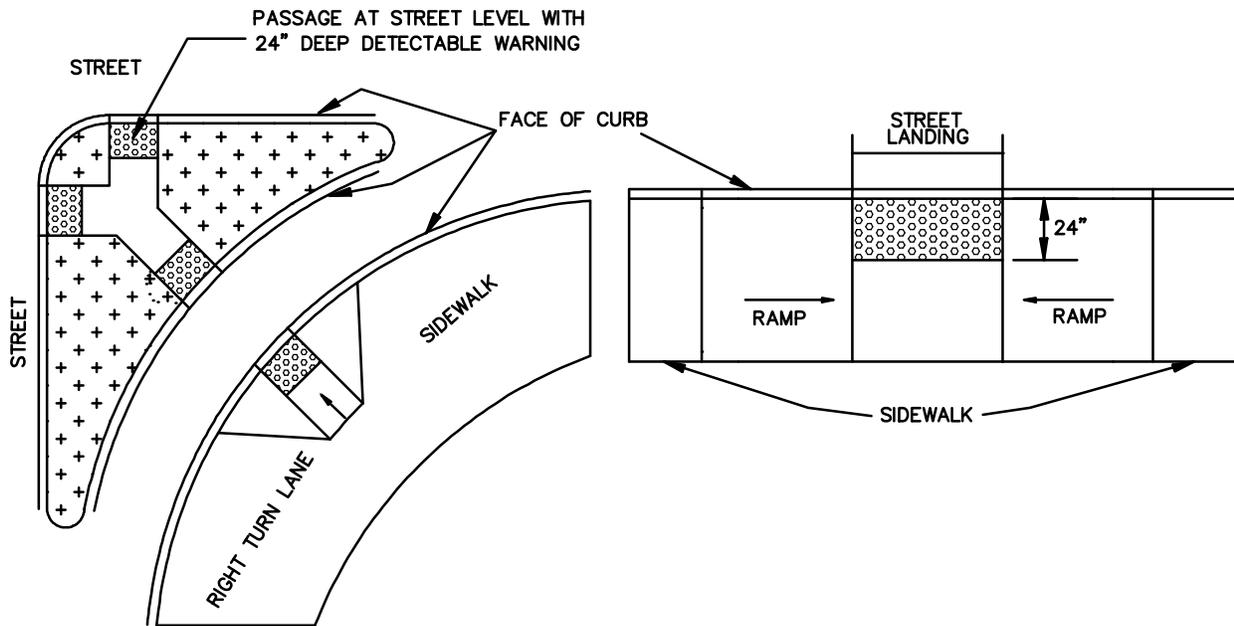
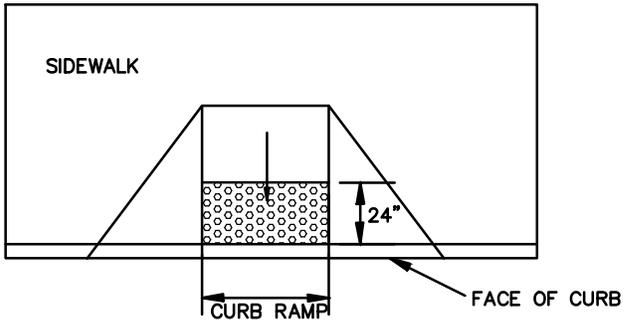
★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE P2	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	COMBINED PERPENDICULAR & PARALLEL RAMP IN ONE DIRECTION	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		10/12	CR-1

NOTES

1. DETECTABLE WARNINGS SHALL BE PROVIDED WHEREVER A CURB RAMP CROSSES A VEHICULAR WAY. EXCLUDING UNSIGNALIZED DRIVEWAY CROSSINGS. SEE #19 OF GENERAL CURB RAMP NOTES.
2. DETECTABLE WARNINGS SHALL BE PROVIDED 24" IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. THE DETECTABLE WARNING SHALL BE LOCATED ADJACENT TO THE CURB LINE.
3. DETECTABLE WARNINGS SHALL BE PLACED 6" TO 8" BEHIND THE FACE OF CURB AND BEHIND CURB JOINT
4. CAST IN PLACE OR ANY NON-SURFACE APPLIED DETECTABLE WARNING SHALL HAVE A MIN OF 3" OF CONCRETE ON EACH SIDE OF THE WARNING.
5. MATERIALS SHALL COMPLY WITH C.O.C. SUPPLEMENTAL SPECIFICATION 1551 WITH THE FOLLOWING NOTED EXCEPTIONS:
 - A. BRICK RED IS THE ONLY APPROVED COLOR UNLESS OTHERWISE APPROVED IN ADVANCE IN WRITING BY THE CITY ENGINEER
 - B. TYPE "A", "B" AND "C" DETECTABLE WARNING SURFACES ARE NOT APPROVED
 - C. TYPE "D" THIN TILE AND THIN MOLDED SHEET GOODS ARE APPROVED ON RETROFIT INSTALLATIONS ONLY.
 - THE PRE-APPROVED TYPE "D" MATERIAL IS "ARMOR TILE TACTILE SYSTEMS" FLAT SURFACE APPLIED MAT.
 - OTHER MATERIALS MAY BE SUBSTITUTED FOR THIS PRODUCT IF PRIOR APPROVAL IS GRANTED TO THE CITY ENGINEER
 - D. TYPE "E" PRE-MANUFACTURED WET-SET PROJECTS ARE APPROVED FOR USE ON NEW CONSTRUCTION ONLY. THESE PRODUCTS MUST BE 24" WIDE AND 1/2" THICK. ONE PIECE PANELS SHOULD BE USED FOR SIDEWALK INSTALLATIONS. ALL PRODUCTS MUST BE APPLIED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND GUIDELINES. THE TYPE "E" PRODUCTS PRE-APPROVED FOR USE IN THE CITY OF HILLIARD ARE LISTED BELOW.
 - ENGINEERED PLASTICS, INC. - ARMOR-TILE CAST IN PLACE SYSTEMS
 - ADA SOLUTIONS, INC. - COMPOSITE (WET SET) REPLACEABLE TWS UNIT
 - ARMORCAST PRODUCTS COMPANY - CAST IN PLACE DETECTABLE WARNING PANEL
 - OTHER MATERIALS MAY BE SUBSTITUTED FOR THE ABOVE LISTED PRODUCTS IF PRIOR APPROVAL IS GRANTED BY THE CITY ENGINEER.
 - E. DETECTABLE WARNINGS SHALL EXTEND THE ENTIRE WIDTH OF THE CURB RAMP FOR SIDEWALKS AND MULTI-USE PATHS LOCATED PARALLEL TO A PUBLIC STREET (SIDE PATHS).
 - F. DETECTABLE WARNING STRIPS MUST COMPLY WITH ADA SPECIFICATIONS FOR RAMP AREA, INCLUDING RUNNING SLOPE, CROSS-SLOPE, FLATNESS AND SMOOTHNESS CRITERIA AS WELL AS FLUSH TRANSITIONS BETWEEN THE CONCRETE RAMP AND THE DETECTABLE WARNING SURFACE.
 - G. ALL DETECTABLE WARNING STRIP INSTALLATIONS SHALL BE WARRANTED BY THE INSTALLING CONTRACTOR AND MANUFACTURER TO BE FREE OF DEFECTS FOR A PERIOD OF THREE (3) YEARS FROM THE DATE OF INSTALLATION. THE DETECTABLE WARNING STRIP SHALL LOSE NO MORE THAN FIVE PERCENT (5.0 %) OF TRUNCATED DOMES DUE TO DELAMINATION BECAUSE OF PRODUCT FAILURE. SURFACE SHALL BE WARRANTED FOR THAT 3-YEAR PERIOD FROM FADING, CHIPPING, CRACKING, PEELING, OR LOSS OF COLOR DUE TO THE EXPOSURE TO WEATHERING, DE-ICING SALTS, AND SUNLIGHT.

	CURB RAMP	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	DETECTABLE WARNING NOTES	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		11/12	CR-1



	<p>CURB RAMP DETECTABLE WARNINGS</p>	<p>CITY OF HILLIARD, OHIO</p>	
<p>DATE: March 6, 2015</p>		<p>STANDARD CONSTRUCTION DRAWING</p>	
<p>SCALE: NTS</p>		<p>12/12</p>	<p>CR-1</p>