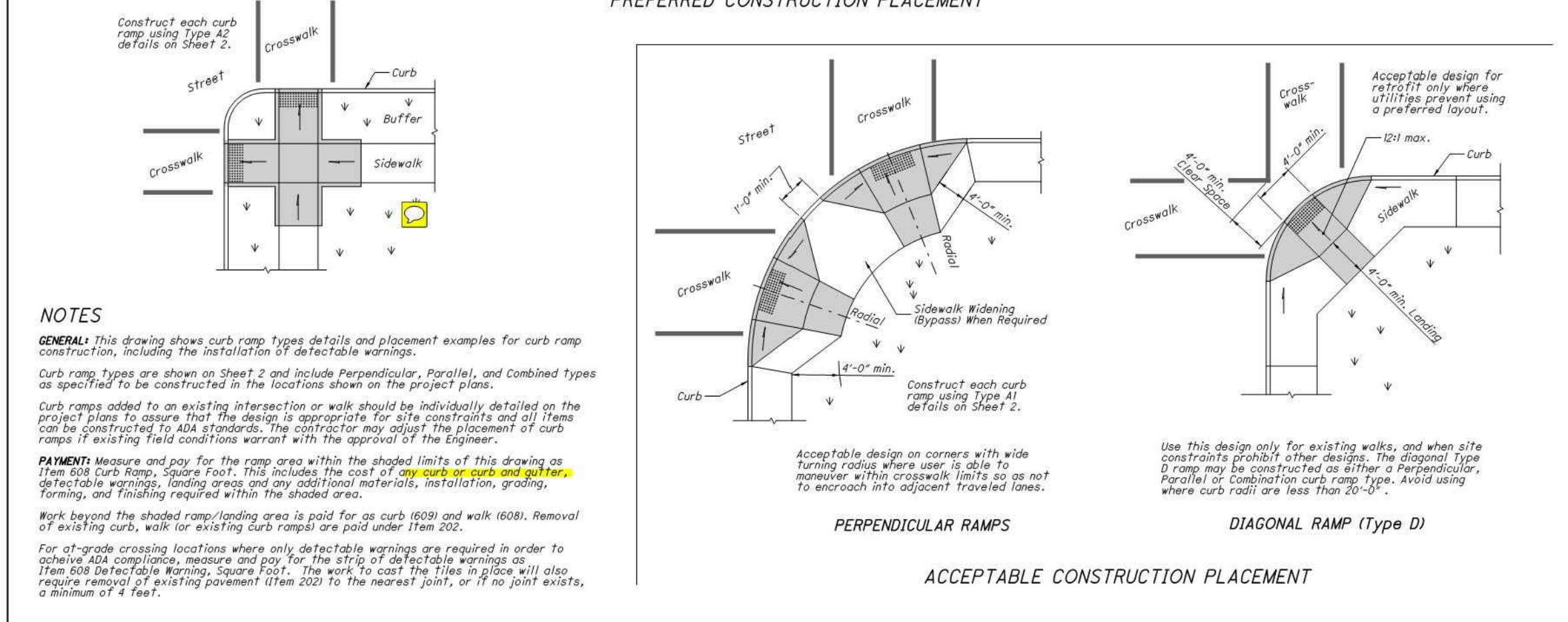
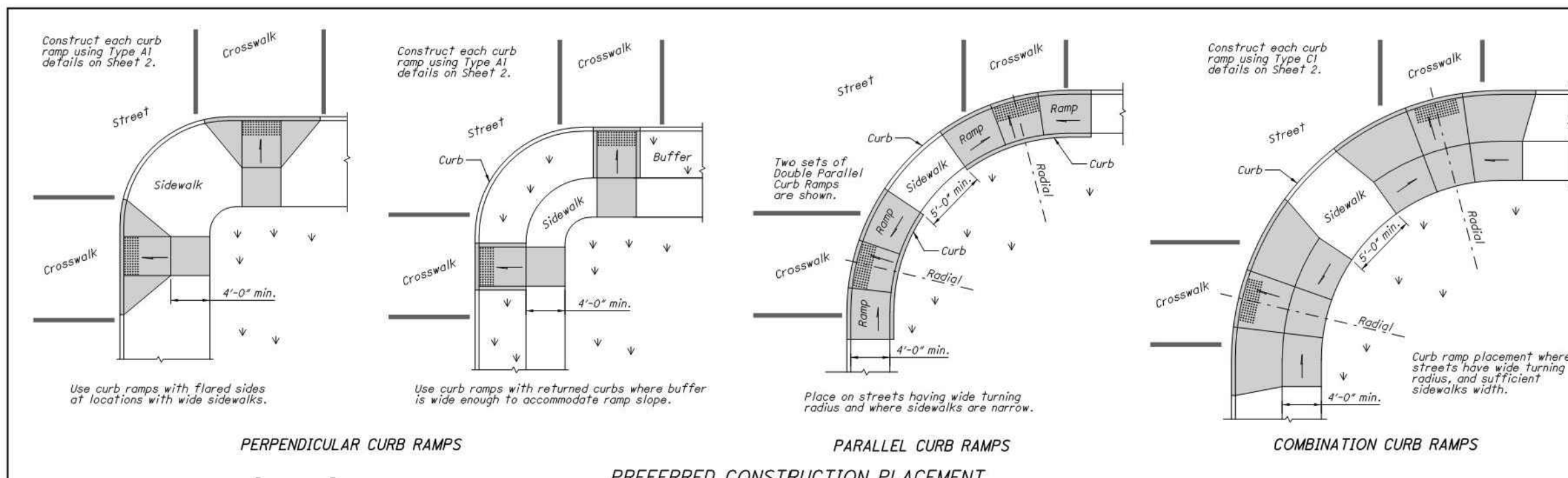


NOTE:  
 1. CONTRACTOR SHALL EXTEND CONCRETE ENCASEMENT FROM STRUCTURE TO STRUCTURE.

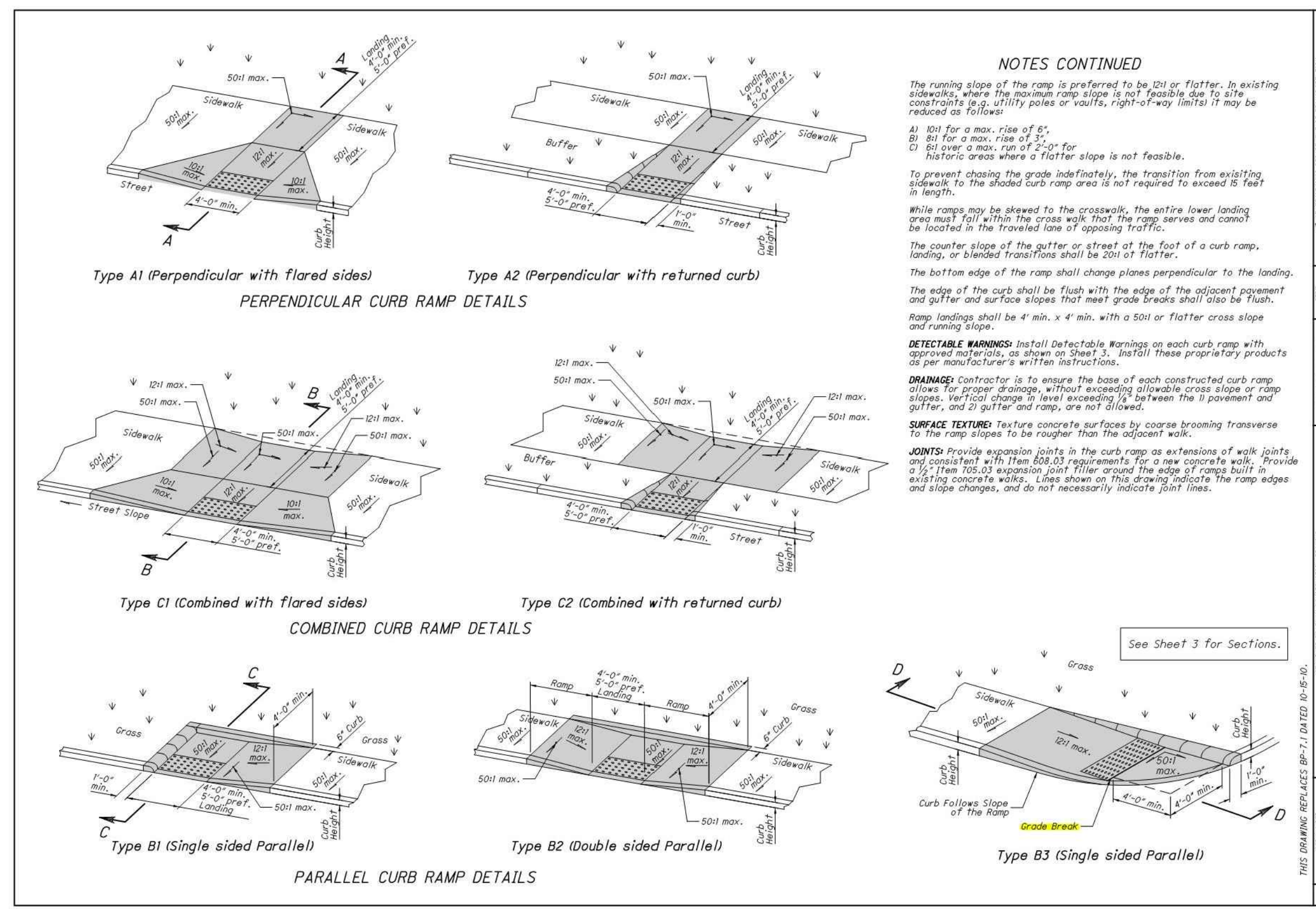
**ENCASEMENT DETAIL**  
 N.T.S.



**NOTES**  
**GENERAL:** This drawing shows curb ramp types details and placement examples for curb ramp construction, including the installation of detectable warnings.  
 Curb ramp types are shown on Sheet 2 and include Perpendicular, Parallel, and Combined types as specified to be constructed in the locations shown on the project plans.  
 Curb ramps added to an existing intersection or walk should be individually detailed on the project plans to assure that the design is appropriate for site constraints and all items can be constructed to standards. The contractor may adjust the placement of curb ramps if existing field conditions warrant with the approval of the Engineer.  
**PAVEMENT:** Measure and pay for the ramp area within the shaded limits of this drawing as Item 608 Curb Ramp, Square Foot. This includes the cost of **any curb or curb and gutter**, detectable warnings, landing areas and any additional materials, installation, grading, forming, and finishing required within the shaded area.  
 Work beyond the shaded ramp/landing area is paid for as curb (609) and walk (608). Removal of existing curb, walk or existing curb ramps are paid under Item 202.  
 For at-grade crossing locations where only detectable warnings are required in order to achieve ADA compliance, measure and pay for the strip of detectable warnings as Item 608 Detectable Warning, Square Foot. The work to cast the tiles in place will also require removal of existing pavement items 200 to the nearest joint, or if no joint exists, a minimum of 4 feet.

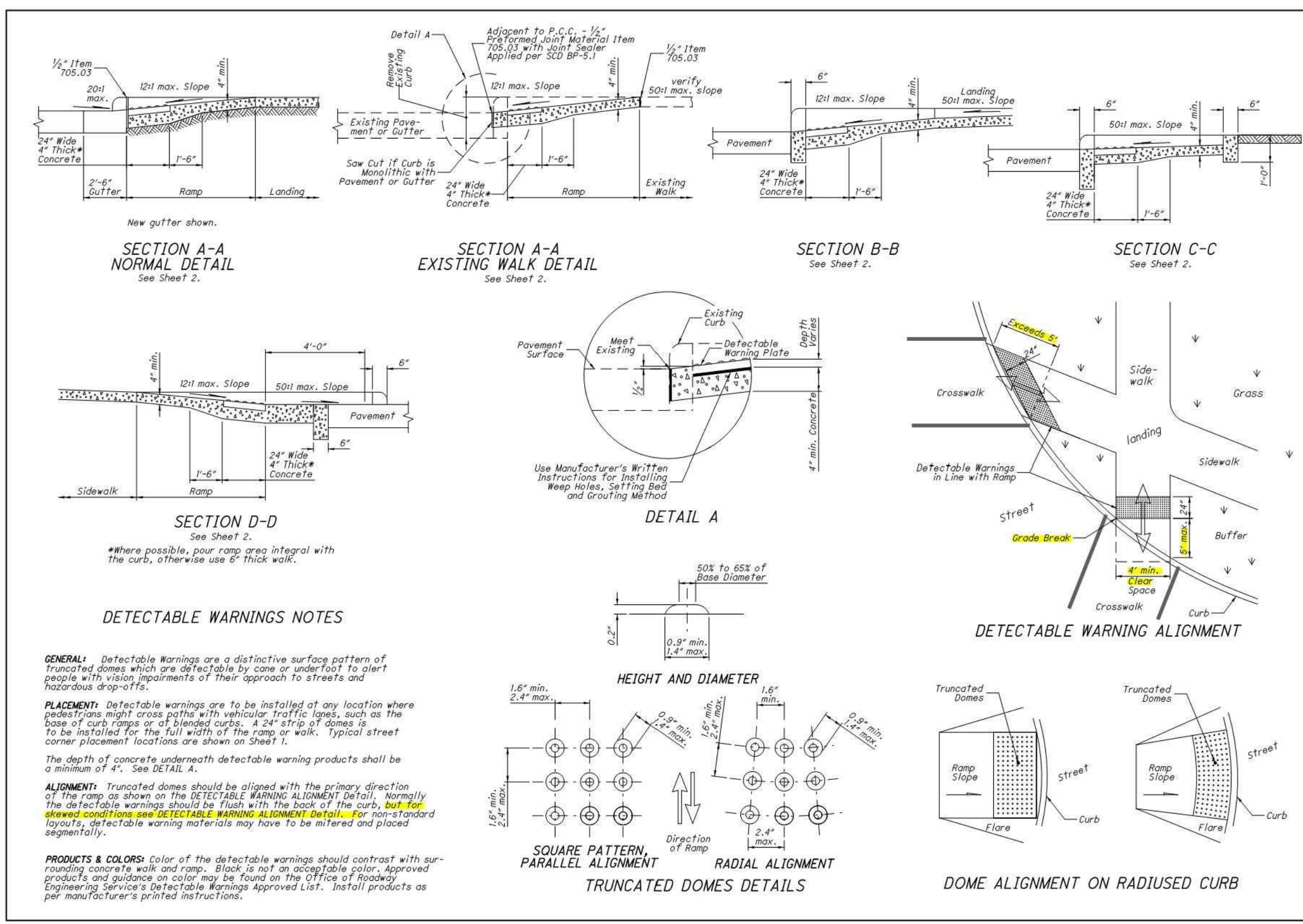
DATE: 7-18-2014  
 DRAWN BY: M. Huges  
 CHECKED BY: M. Huges  
 OFFICE OF ROADWAY ENGINEERING  
 THIS DRAWING REPLACES BP-7.1, DATED 01-05-05.  
 NEW CURB RAMPS (with Detectable Warnings)  
**BP-7.1**  
 1/3

REV.	DATE	DESCRIPTION
01/23/17	ISSUED FOR REVIEW	
04/17/17	REVISED PER AGENCY COMMENTS	



**NOTES CONTINUED**  
 The running slope of the ramp is preferred to be 2:1 or flatter. In existing sidewalks, where the maximum ramp slope is not feasible due to site constraints (e.g., utility poles or vaults, right-of-way limits) it may be reduced as follows:  
 A) 10:1 for a max. rise of 6".  
 B) 8:1 for a max. rise of 3".  
 C) 6:1 over a max. run of 2'-0" for historic areas where a flatter slope is not feasible.  
 To prevent chasing the grade indefinitely, the transition from existing sidewalk to the sloped curb ramp area is not required to exceed 12 feet in length.  
 While ramps may be skewed to the crosswalk, the entire lower landing area must fall within the crosswalk that the ramp serves and cannot be located in the traveled lane of opposing traffic.  
 The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transitions shall be 2:1 or flatter.  
 The bottom edge of the ramp shall change planes perpendicular to the landing.  
 The edge of the curb shall be flush with the edge of the adjacent pavement and gutter and surface slopes that meet grade breaks shall also be flush.  
 Ramp landings shall be 4' min. x 4' min. with a 5:01 or flatter cross slope and running slope.  
**DETECTABLE WARNINGS:** Install Detectable Warnings on each curb ramp with approved materials, as shown on Sheet 3. Install these proprietary products as per manufacturer's written instructions.  
**DRAINAGE:** Contractor is to ensure the base of each constructed curb ramp allows for proper drainage, without exceeding allowable cross slope or ramp slopes. Vertical change in level exceeding 1/2" between the pavement and gutter, and 2" gutter and ramp, are not allowed.  
**SURFACE TEXTURE:** Texture concrete surfaces by coarse brooming transverse to the ramp slopes to be rougher than the adjacent walk.  
**JOINTS:** Provide expansion joints in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. Provide a 1/2" Free 105.03 expansion joint filler around the edge of ramps built in existing concrete walks. Lines shown on this drawing indicate the ramp edges and slope changes, and do not necessarily indicate joint lines.

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 THIS DRAWING REPLACES BP-7.1, DATED 01-05-05.  
 NEW CURB RAMPS (with Detectable Warnings)  
**BP-7.1**  
 2/3



**DETECTABLE WARNINGS NOTES**  
**GENERAL:** Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane and/or foot to alert people with vision impairments of their approach to streets and hazardous drop-offs.  
**PLACEMENT:** Detectable warnings are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or blended curbs, 4' x 24" strip of domes is to be installed for the full width of the ramp or walk. Typical street corner placement locations are shown on Sheet 1.  
 The depth of concrete underneath detectable warning products shall be a minimum of 4". See DETAIL A.  
**ALIGNMENT:** Truncated domes should be aligned with the primary direction of the ramp as shown on the DETECTABLE WARNING ALIGNMENT detail. Normally the detectable warnings should be flush with the back of the curb, but **do not exceed conditions shown on DETECTABLE WARNING ALIGNMENT detail** for non-truncated layouts, detectable warning materials may have to be mitered and placed segmentally.  
**PRODUCTS & COLORS:** Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Block is not an acceptable color. Approved products and guidance on color may be found on the Office of Roadway Engineering Services Detectable Warning Alignment detail. Install products as per manufacturer's printed instructions.

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 THIS DRAWING REPLACES BP-7.1, DATED 01-05-05.  
 NEW CURB RAMPS (with Detectable Warnings)  
**BP-7.1**  
 3/3

**THE PRESERVE AT MILLER'S FARM**  
**PHASE 4**  
 SE CORNER OF SR 18 AND MEDINA LINE RD  
 COPLEY, OHIO 44321

ISSUED FOR:	
PERMIT	01/23/17
BID	
CONSTRUCTION	
AS-BUILT	
PROJECT MANAGER	DESIGNER
MAL	ALF

JOB NO  
**2013258.04**