



MARICOPA COUNTY
Department of Transportation

MEMORANDUM

Date: February 3, 2016

Revised 2/4/2016

To: MAG Specifications and Details Committee

From: Robert Herz, MCDOT Representative

Subject: Adjustment for Withdrawn ASTM C1028

Case 16-04

PURPOSE: Review and adjust Section 340.2.1. Section 340.2.1 is the only section that references ASTM C1028. ASTM C1028 (a test method for determining the static coefficient of friction) was withdrawn in 2014 without replacement.

REVISION:

340.2.1 Detectable Warnings: ~~Truncated dome dimensions and spacing for detectable warnings are defined by the Americans with Disabilities Act Accessibilities Guidelines (ADAAG) for optimal detect ability and public safety. Detectable warnings shall consist of raised truncated domes aligned in a square grid pattern in conformity to the Americans with Disabilities Act Accessibilities Guidelines (ADAAG)ADAAG. Truncated domes shall have the following nominal dimensions: base diameter of 1.0 inches (0.9 inches minimum) top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and height of 0.2 inches. Dome center-to-center spacing of 2.35 inches, measured between the most adjacent domes on the square grid. Dome center-to-center spacing for radial installations shall be 1.6 inches minimum and 2.4 inches maximum with a base-to-base spacing of 0.65 inches minimum. Detectable warning edges-panels shall be sized and installed so that with the dome spacing and alignment is maintained across adjoining panels-edges. Each dome shall have a minimum static friction of coefficient of 0.8 as tested per ASTM C1028.~~

340.2.1.1 Color and Contrast: ~~Detectable warnings shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light. Specific colors to be used shall be approved by the local jurisdictional agency prior to installation. Detectable warnings shall have integral color throughout.~~

340.2.1.2 Materials: ~~Detectable warning materials shall be durable with a non-slip surface not subject to spalling, chipping, delamination, or separation. All detectable warnings shall be approved by the local jurisdictional agency prior to installation.~~

340.2.1.3 Attachment System: ~~Detectable warnings shall be either placed in freshly poured concrete (wet-set) or recessed into pre-formed concrete. Detectable warnings using wet-set placement shall have the bottom of the detectable warning continuously supported by the underlying concrete with no air voids. an anchoring method that assures constant contact of the detectable warning bottom surface with the concrete as it cures, thus rendering the ramp a single monolithic structure. The thicker and heavier Detectable warnings lowered placed into pre-formed recesses in the concrete substrate must demonstrate shall have a firm fitting into metal reinforced frames without gaps along the edges, and that can channel water, sand, or debris. They must also be able to resist movement (i.e. sliding, rocking, or lifting) once in service place. All attachment systems shall be approved by the local jurisdictional agency.~~

TEXT IN FINAL FORM:

340.2.1 Detectable Warnings: Detectable warnings shall consist of raised truncated domes aligned in a square grid pattern in conformity to the Americans with Disabilities Act Accessibilities Guidelines (ADAAG). Truncated domes shall have the following nominal dimensions: base diameter of 1.0 inches (0.9 inches minimum) top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and height of 0.2 inches. Dome center-to-center spacing of 2.35 inches, measured between the most adjacent domes on the square grid. Dome center-to-center spacing for radial installations shall be 1.6 inches minimum and 2.4 inches maximum with a base-to-base spacing of 0.65 inches minimum. Detectable warning panels shall be installed with the dome spacing and alignment maintained across adjoining panels.

Detectable warnings shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light. Specific colors to be used shall be approved by the local jurisdictional agency prior to installation. Detectable warnings shall have integral color throughout.

Detectable warning materials shall be durable with a non-slip surface not subject to spalling, chipping, delamination, or separation. All detectable warnings shall be approved by the local jurisdictional agency prior to installation.

Detectable warnings shall be either placed in freshly poured concrete (wet-set) or recessed into pre-formed concrete. Detectable warnings using wet-set placement shall have the bottom of the detectable warning continuously supported by the underlying concrete with no air voids. Detectable warnings placed into pre-formed recesses in the concrete shall have a firm fit without gaps along the edges, and be able to resist movement (i.e. sliding, rocking, or lifting) once in place.