STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

SUPPLEMENT 1062
TESTING PROCEDURES FOR
RAISED PAVEMENT MARKER MATERIALS
April 21, 2017

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1062.01 Description. This supplement describes the testing procedure by which the Ohio Department of Transportation (ODOT) will maintain a List of Prequalified Raised Pavement Marker (RPM) Materials meeting the requirements of item 721. This procedure shall consist of comparative laboratory testing and evaluation of the field performance of RPM materials. ODOT will use the American Association of State Highway and Transportation Officials’ National Transportation Product Evaluation Program (NTPEP) test data for comparative evaluation.

1062.02 Eligibility for Field Service Testing. Raised pavement marker materials (721.01 Raised Pavement Marker Casting and 721.02 Prismatic Reflector) must be tested under NTPEP guidelines. Currently approved RPM materials are subject to laboratory and field testing at any time as determined by ODOT.

1062.03 Raised Pavement Marker Materials Installation. Raised pavement marker materials shall be installed at a selected location under the auspices of NTPEP. The NTPEP locations similar in climate to that of Ohio will be used.

1062.04 Optical Performance. The Coefficient of Luminous Intensity for white, yellow and red reflectors shall be measured according to ASTM D 4383. The Coefficient of Luminous Intensity values for new reflectors shall not be less than the values in Table 1 of ASTM D 4383.

1062.05 Rating of Field Performance. Raised pavement marker’s field performance results, published by the NTPEP, will be reviewed and evaluated.
1062.06 Field Performance. ODOT will select those raised pavement marker materials that equal or outperform the durability and reflectivity of presently approved RPM materials and shall meet the requirements of 721.

ODOT, at its sole discretion, may select these RPM materials from the NTPEP test data. The basis of selection will be as follows:

1. Rockwell C Hardness (IIRC) of RPM castings shall be 51 to 55 as per ASTM A 536 (as specified under C&M Spec Item 721.01)
2. Minimum durability of RPM castings shall be 4.5 out of 5 after two years of installation on both asphalt and concrete pavement.
3. Minimum durability of RPM reflectors shall be 3 out of 5 after two years of installation on both asphalt and concrete pavement.
4. Minimum Nighttime Visibility of RPM reflectors shall be 3 out of 5 on asphalt pavement and 3.5 out of 5 on concrete pavement after two years of installation.

1062.07 Qualified Product List (QPL). Raised pavement marker materials meeting the requirements listed above will be added to the QPL.

1062.08 Removal from the QPL. Raised pavement marker materials shall be removed from the QPL, at ODOT’s sole discretion, if the RPM materials have substantially or recurrently failed to perform satisfactorily in the field, and/or in the NTPEP test decks.

1062.09 Re-approval. Raised pavement marker materials removed from the QPL due to unsatisfactory field performance shall not be returned to the list until the manufacturer identifies the reason for the failure, and the problem has been corrected to the satisfaction of ODOT. Experiences of other States or governmental agencies may be considered in this action. Use of RPM materials returned to the QPL may be limited in quantity until field performance can be assured.

1062.10 Modifications to Prequalified Raised Pavement Marker Materials. It is recognized that manufacturers will occasionally modify certain aspects of their products in an effort to enhance performance, improve durability, reduce costs, or for other similar reasons. RPM material manufacturers shall notify ODOT whenever modifications are made to products contained on the QPL. ODOT will review the changes being made to the RPM materials, and, at its sole discretion, decide what action, if any, is appropriate. Appropriate action includes limitation of usage or removal from the QPL.