



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

DATE: August 13, 2024

TO: Division Engineers

FROM: Brian Mayhew, PE
State Traffic Engineer

Director, Transportation Mobility & Safety Division

DocuSigned by:

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SUBJECT: Snowplowable Delineation

The Department released a memo on July 7, 2021 titled [Non-Cast Iron Snowplowable Markers](#) addressing the move from cast iron snowplowable markers. This memo establishes additional proven options for non-cast iron snowplowable markers to be used effective in October 2024 letting.

The Department has been testing other alternatives for snowplowable delineation. This research has allowed the Department to find effective alternatives through field testing and industry review for use on the roadway system. There are up to five recommended choices depending on geographical location in the state for non-cast iron snowplowable pavement markers. These alternatives can be found at the following link: [Snowplowable Delineation Alternatives.pdf \(ncdot.gov\)](#)

When incorporating snowplowable delineation into a project, the Special Provision [SP12 R053.docx](#) for snowplowable alternatives is to be utilized with any project being developed for let in October and beyond. This summary of alternatives is attached and can also be found on the Signing and Delineation NCDOT Website. A preferred alternative can be chosen by the Division, or the project can list all alternatives on contract for contractor to select. If a preferred alternative is desired please contact the Signing and Delineation Unit to list on the Pavement marking/marker recommendation letter.

If you have any questions concerning these products and or standards, please contact Signing and Delineation Standards Engineer Matt Springer at 919-814-5025 or mspringer@ncdot.gov.

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Summary of Alternatives

To assist with this change we have developed two supporting documents that can be found on the Signing and Delineation NCDOT Website.

The first describes the alternatives and the research behind institutionalizing these options.

- (1) Polycarbonate H-shaped Markers
- (2) Inlaid Raised Pavement Markers
- (3) 10' Rumble Skips
- (4) Inlaid Cradle Markers
- (5) 10' Inlaid Pavement Markings

More information about these alternatives can be found at this link: Snowplowable Delineation Alternatives

<https://connect.ncdot.gov/resources/safety/Signing%20and%20Delineation%20Library/Snowplowable%20Delineation%20Alternatives.pdf>.

The best option should be chosen based on the location in the state and the conditions that are present by following the link Pavement Marking and Marker Material Selection Chart https://connect.ncdot.gov/resources/safety/Signing%20and%20Delineation%20Library/PM_Selection.pdf found on the NCDOT Signing and Delineation Website. The *Pavement Marking and Marker Material Selection Chart* indicates that 4 of the 5 options are available in select counties whereas most counties all 5 options are feasible. Option 1 is not shown as a recommended alternative in portions of the state where multiple snow plowable events are more likely to occur; however, affected Divisions may choose option 1 on a case-by-case basis.

This will be accompanied by a Special Provision SP12 R053 Snowplowable Delineation, as found on the special provision website:

<https://connect.ncdot.gov/resources/Specifications/Pages/2024-Specifications-and-Special-Provisions.aspx>, which will amend Section 1253 of the *Standard Specifications*. This will be required whenever Section 1253 Snowplowable Pavement Markers would be required. There are also associated details required to be used along with this provision for Inlaid Cradle Markers, Inlaid Raised Pavement Markers, Milled Rumble Skips and Raised Pavement Markers. These details can be found on this website under Pavement Marking Details and Details in Lieu of Standards: <https://connect.ncdot.gov/resources/Specifications/Pages/2024-Roadway-Standard-Drawings.aspx>. This provision and details will be effective with October 2024 lettings, so please start incorporating for those lettings and beyond.

This provision replaces NON-CAST IRON SNOFLOWABLE PAVEMENT MARKER 1253 EA and will require the use of up to four or five items (depending on county) as alternates of each other unless a preferred alternative(s) is chosen by the Division as indicated in the pavement marking recommendation letter. The two “markings” items will be (4894900000-E SP Generic Pavement Marking Item) and the three “markers” items will be (4895000000-N SP Generic Pavement Marking Item). The contractor will provide a bid price on only the one item they will be selecting to install. The following should be used as descriptions of POLYCARBONATE H-SHAPED MARKERS, INLAID RAISED PAVEMENT MARKERS, 10' RUMBLE SKIPS, INLAID CRADLE MARKERS, and 10' INLAID PAVEMENT MARKINGS to match the SP.