

## Signing and Delineation Product Approval Process

Select a product from the list below to display the steps in our product approval processes for pavement marking and delineation. If the product meets the below requirements, submit the product for evaluation at the Connect NCDOT Products website - <https://connect.ncdot.gov/resources/Products/Pages/default.aspx>.

### Pavement Markings:

1. Pavement markings must meet NC Specifications for Roads and Structures of Division 10 – Materials and Division 12 - Pavement Markings, Markers and Delineation. These specifications are available on the Connect NCDOT Resources website.
2. All pavement markings must be evaluated on a National Transportation Product Evaluation Program (NTPEP) test deck. Visit the NTPEP website for more information on that program.
3. After reviewing the product specifications and NTPEP test data, the material may require a demonstration on a deck in North Carolina for a period of time. This is determined by the Signing and Delineation Standards Engineer on a case-by-case basis. The evaluation may include but not be limited to the following:
  - Retroreflectivity
  - Bond
  - Color
  - Bead distribution and embedment
  - Durability
  - Independent lab test results for the material and glass beads
4. Paint pavement markings will not need any further consideration as long as it meets the appropriate Federal Standard FP-03.
5. Once satisfactory performance has been determined, the product will be placed on "Trial Use" status for a period of time determined by Signing and Delineation Standards Engineer.
6. After receiving feedback, the product will be placed on either "Approved for Use" status or "Unapproved" status.

### Pavement Markers:

1. Pavement markers must meet NC Specifications for Roads and Structures of Division 10 - Materials and Division 12 - Pavement Markings, Markers and Delineation. These specifications are available on the Connect NCDOT Resources website.
2. All pavement markers must be evaluated on a National Transportation Product Evaluation Program (NTPEP) test deck. Visit the NTPEP Web Site for more information on that program.

3. After reviewing the product specifications and NTPEP test data, the marker may require a demonstration on a deck in North Carolina for a period of time. This is determined by the Signing and Delineation Standards Engineer on a case-by-case basis. The evaluation may include but not be limited to the following:
  - Lens cracking
  - Durability
  - Nighttime visibility
  - Installation procedures
4. Snowplowable markers must endure one winter and be snowplowed at least three times.
5. Once satisfactory performance has been determined, the product will be placed on "Trial Use" status for a period of time determined by Signing and Delineation Standards Engineer.
6. After receiving feedback, the product will be placed on either "Approved for Use" status or "Unapproved" status.

### **Flexible Delineators and Tubular Markers:**

1. Flexible delineators and tubular markers must meet NC Specifications for Roads and Structures of Division 10 - Materials and Division 12 - Pavement Markings, Markers and Delineation. These specifications are available on the Connect NCDOT Resources website.
2. All flexible delineators and tubular markers must be evaluated on a National Transportation Product Evaluation Program (NTPEP) test deck. Visit the NTPEP Web Site for more information on that program.
3. After reviewing the product specifications and NTPEP test data, the product may be placed on "Trial Use" status for a period of time determined by Signing and Delineation Standards Engineer.
4. After receiving feedback, the product will be placed on either "Approved for Use" status or "Unapproved" status.

### **Barrier and Guardrail Delineators:**

1. Barrier and guardrail delineators must meet NC Specifications for Roads and Structures of Division 8 – Incidentals and Division 10 – Materials. These specifications are available on the Connect NCDOT Resources website.
2. After reviewing the product specifications, the product may be placed on "Trial Use" status for a period of time determined by Signing and Delineation Standards Engineer.
3. After receiving feedback, the product will be placed on either "Approved for Use" status or "Unapproved" status.

### **Reflective Sheeting (Rigid and Roll-up material):**

1. Reflective sheeting must meet NC Specifications for Roads and Structures of Division 10 – Materials. These specifications are available on the Connect NCDOT Resources website.
2. All reflective sheeting must be evaluated on a National Transportation Product Evaluation Program (NTPEP) test deck. Visit the NTPEP website for more information on that program.
3. After reviewing the product specifications and NTPEP test data, the product may be placed on "Trial Use" status for a period of time determined by Signing and Delineation Standards Engineer.
4. After receiving feedback, the product will be placed on either "Approved for Use" status or "Unapproved" status.