

**661.2 -- Flexible Plastic Delineators**

Effective Date: September 17, 2019

Contact: Donald Simmons

Email: [donald.w.simmons@wv.gov](mailto:donald.w.simmons@wv.gov)

Materials Code 661.002.013 - Plastic Post

661.002.004 - Tubular Markers

**SOIL ANCHORED FLEXIBLE DELINEATOR POSTS**

Material Code: 661.002.013

MANUFACTURER	PRODUCT	MODEL NUMBER	APPROVED SHEETING(S)**	Approval Number
Carsonite CIC1.01.661	Survivor	CDS30 (See Note A)	N/A	<b>1387336A</b>
Carsonite CIC1.01.661	Greenline	CGDU (See Note A)	N/A	<b>1387337A</b>
PEXCO, Davidson Traffic Control Products PDT1.01.661	Flexi-Guide	FG-500 Series (See Note A)	N/A	<b>1387338A</b>
Safe-Hit SHC1.01.661	Safe-Hit	SH254GP (See Note B)	N/A	<b>1387339A</b>
Shur-Tite STP1.01.661	Shur-Tite Driveable Delineator	SD0031	3M 4000 Series Sheeting	<b>1457460M</b>

Note A - This model shall be considered an approved Type I Soil Anchored Flexible Delineator Post when a Type I model is specified for in Division PO Contracts

Note B - This model shall be considered an approved Type II Soil Anchored Flexible Delineator Post when a Type II model is specified for in Division PO Contracts

**SURFACE MOUNTED FLEXIBLE TUBULAR MARKERS**

Material Code: 661.002.004

MANUFACTURER	PRODUCT	MODEL NUMBER	APPROVED SHEETING(S)**	Approval Number
Safe-Hit SHC1.01.661	Safe-Hit	SH336SMA	N/A	<b>1387341A</b>
Safe-Hit SHC1.01.661	Durapost	730102 or 730102Y	N/A	<b>1387342A</b>
Impact Recovery Systems IRS1.01.661	Delineator Post	TP-36F with 101-NS base	N/A	<b>1387343A</b>
PEXCO, Davidson Traffic Control Products PDT1.01.661	Flexi-Guide FG300	FG300UR Series	N/A	<b>1387344A</b>
PEXCO, Davidson Traffic Control Products PDT1.01.661	Flexi-Guide FG300	FG300EFX Series	N/A	<b>1387345A</b>
Carsonite CIC1.01.661	Channelizer **	SDC20 Hot-laid adhesives not to be used for installation. See manufacturers installation specifications.	N/A	<b>1387340A</b>
Shur-Tite STP1.01.661	Shur Flex Surface Mounted Delineator	SF0040	3M 4000 Series Sheeting	<b>1457461M</b>

\*\* Approved for construction zone temporary traffic control use ONLY

MANUFACTURER	PRODUCT	MODEL NUMBER	APPROVED SHEETING(S)**	Approval Number
Carsonite CIC1.01.661	Guardrail Delineator	CGR4027_ _	N/A	<b>1387347A</b>
PEXCO, Davidson Traffic Control Products PDT1.01.661	Flexi-Guide	FG-527	N/A	<b>1387346A</b>
Flexstake FCX1.01.661	Guardrail Barrier Delineator	GR101 (27-in length)	N/A	<b>1390164A</b>
New Direction Manufacturing NDM1.01.661	Guardrail Delineator	NDM27(W or Y)	N/A	<b>1390165A</b>
American Molded Plastic AMP1.01.661	Guardrail Delineator	AMP-17-600-WV	3M 4090 white, 4092 red, 4081 fl-yellow	<b>1433968A</b>
Shur-Tite STP1.01.661	Guardrail Post "Flat Mount" Delineator	SF2752	3M 4000 Series Sheeting	<b>1457462M</b>

**\*\*If specific sheeting materials are listed in the Approved Sheetings column, only the specific sheetings listed may be utilized with the device.**

**NOTES:**

- Soil anchored flexible delineator posts shall be installed with either a u-channel anchor or round tubular anchor crimped on the end, as supplied by the manufacturer.
- Soil anchored flexible delineator posts shall be installed in accordance with the manufacturers instructions.
- Anchors and posts shall be installed plumb and correctly oriented to traffic.
- Soil anchored flexible delineator posts shall be installed approximately two (2) feet from the edge of the paved shoulder. Soil anchored flexible delineator posts and guardrail mounted flexible delineator posts shall be installed at the spacing specified in the plans, or in accordance with the Standard Details Book, Volume II.
- Soil Anchored Flexible Delineator Posts shall be either white or yellow, as specified. Soil Anchored Flexible Delineator Posts shall be manufactured to a minimum of fifty-four (54) inches in length, and may be flat, semi-flat (half or partially oval shaped), or round. At the reflective portion of the post, soil anchored flexible delineator posts shall be flat or semi-flat (half or partially oval shaped), and shall be of a consistent cross-section.
- Soil anchored flexible delineator posts shall accommodate front and back, as specified, a three (3) inch wide by nine (9) inch tall piece of white, fluorescent-yellow, or red sheeting. The type sheeting used shall be either Type ASTM-IX or type ASTM-XI
- Posts shall be supplied with sheeting pre-installed by the manufacturer. The bottom edge of the sheeting shall be installed no less than forty-three (43) inches from the bottom of the post.
- U-channel anchored posts shall utilize a eighteen (18) inch minimum length piece of u-channel. Round tubular anchor mounted posts shall utilize a eighteen (18) inch minimum length galvanized round steel anchor.
  
- Surface mounted flexible tubular marker bases shall be adhered to the roadway, at the locations indicated, with either mechanical anchors (if compatible), or a hot-laid bituminous, epoxy, or thermoplastic material such as Super Bundy pads, manufactured by Flint Trading of Thomasville, NC, per the manufacturers recommendations.
- The posts shall be inserted into the bases and attached in accordance to the recommendations of the manufacturer of the system supplied.
- Cold laid mastic type adhesive pads may only be used with markers applied for temporary use, if allowed by the manufacturer.
- Surface mounted flexible tubular markers shall be located as specified in the Contract plans.
- Surface Mounted Flexible Tubular Markers shall be either white or yellow, as specified. Surface Mounted Flexible Tubular Markers shall be manufactured to a minimum of thirty-six (36) inches in length.
- Surface Mounted Flexible Tubular Markers shall accommodate, as specified, a six (6) inch band of white or yellow sheeting. The Type sheeting used shall be reboundable Type ASTM-III High Intensity Grade. Posts shall be supplied with sheeting pre-installed by the manufacturer. The sheeting shall be wrapped completely around the post, with the bottom edge of the sheeting no less than twenty-eight (28) inches from the bottom of the post. The posts shall provide 360-degree visibility for their entire length and of a constant cross sectional shape at the reflective portion of the post.
- Hardware or other metal components shall be of the size and length recommended and/or supplied by the manufacturer, and shall be manufactured of stainless, zinc plated, or galvanized steel.
  
- Guardrail mounted flexible delineator posts shall be mounted to the guardrail support posts, in accordance with the Standard Detail shown in the plans.
- Guardrail Mounted Flexible Delineator Posts shall be either white or yellow, as specified. Guardrail Mounted Flexible Delineator Posts shall be manufactured to a minimum of twenty-four (24) inches in length, and may be flat, semi-flat (half or partially oval shaped), or round. At the reflective portion of the post, Guardrail Mounted Flexible Delineator Posts shall be flat or semi-flat (half or partially oval shaped), and shall be of a consistent cross-section.
- Guardrail Mounted Flexible Delineator Posts shall accommodate front and back, as specified, a three (3) inch wide by nine (9) inch tall piece of white, fluorescent-yellow, or red sheeting. The type sheeting used shall be either Type ASTM-IX or Type ASTM-XI.
- Posts shall be supplied with sheeting pre-installed by the manufacturer.
- The posts shall be designed and manufactured to be attached to the guardrail post with the top edge of the sheeting twenty (20) inches above the top of the block-out, while simultaneously allowing the post to overlap the guardrail post a minimum of four (4) inches.
- Fender washers, lag bolts, and self-driving hex screws used for attachment shall be stainless steel.

-White soil anchored flexible delineator posts and guardrail mounted flexible delineator posts with white sheeting on the front and white or red sheeting on the back, as specified, shall be installed to supplement white edge lines. Yellow soil anchored flexible delineator posts and guardrail mounted flexible delineator posts with fluorescent-yellow sheeting on the front and fluorescent-yellow or red sheeting on the back, as specified, shall be installed to supplement yellow edge lines. White surface mounted flexible tubular markers with white sheeting, as specified, shall be installed to supplement white lane line or edge line markings. Yellow surface mounted flexible tubular markers with yellow sheeting, as specified, shall be installed to supplement yellow edge line or yellow centerline markings.