




June 2011

Statewide Traffic Engineers Meeting

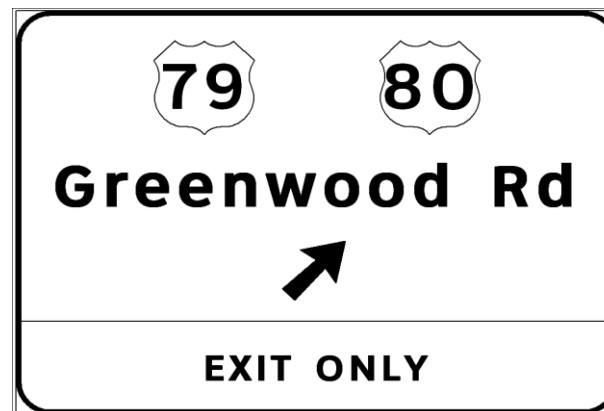
Interstate Guide Sign Upgrade Projects

Items addressed in projects

- ▶ Replacement overhead guide signs should meet the MUTCD minimum retroreflectivity levels by 2018.
 - ▶ Install new Enhanced Reference Location Markers and Intermediate Reference Location Markers (mileposts)
 - ▶ Upgrading existing wooden post ground mounted signs to breakaway post ground mounted signs as per the Department's standards.
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Overhead Guide Signs

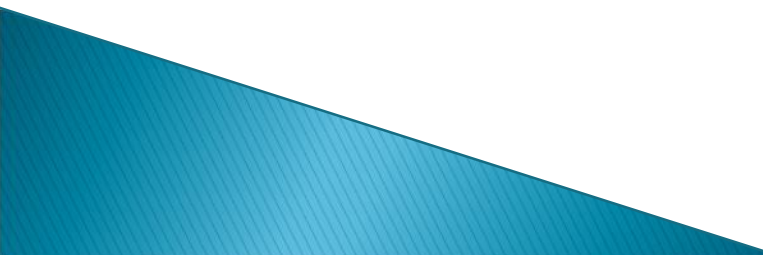
- ▶ All new sheeting to be DOTD Type X
- ▶ Minimize increasing of the size of the new signs – no upgrading of the mounting structures
- ▶ Use Clearview font for signs
- ▶ Developed new pay items to furnish and install the new signs
- ▶ New Left Exit Signs



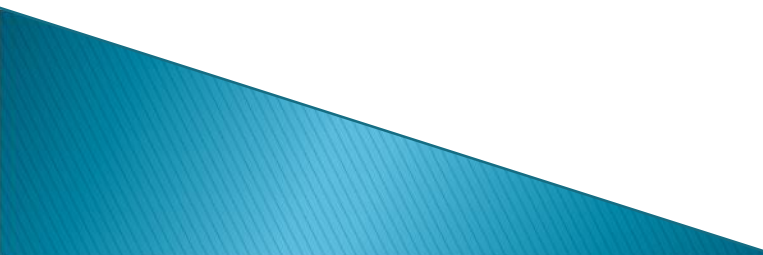
Overhead Guide Signs

- ▶ Consideration was given to two options
 - Overlay of the existing signs
 - Replacement of the existing sign with new extruded aluminum panels

Overlay panels

- ▶ Additional weight for the structure with the new signs attached directly to the old sign face
 - ▶ Additional field work to attached the new sign to the old sign
 - ▶ Possible additional traffic delay
 - ▶ May be less expensive due to the amount of the aluminum for the new sign
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- A blue decorative triangle is located in the bottom-left corner of the slide, pointing towards the top-right.

New extruded aluminum signs

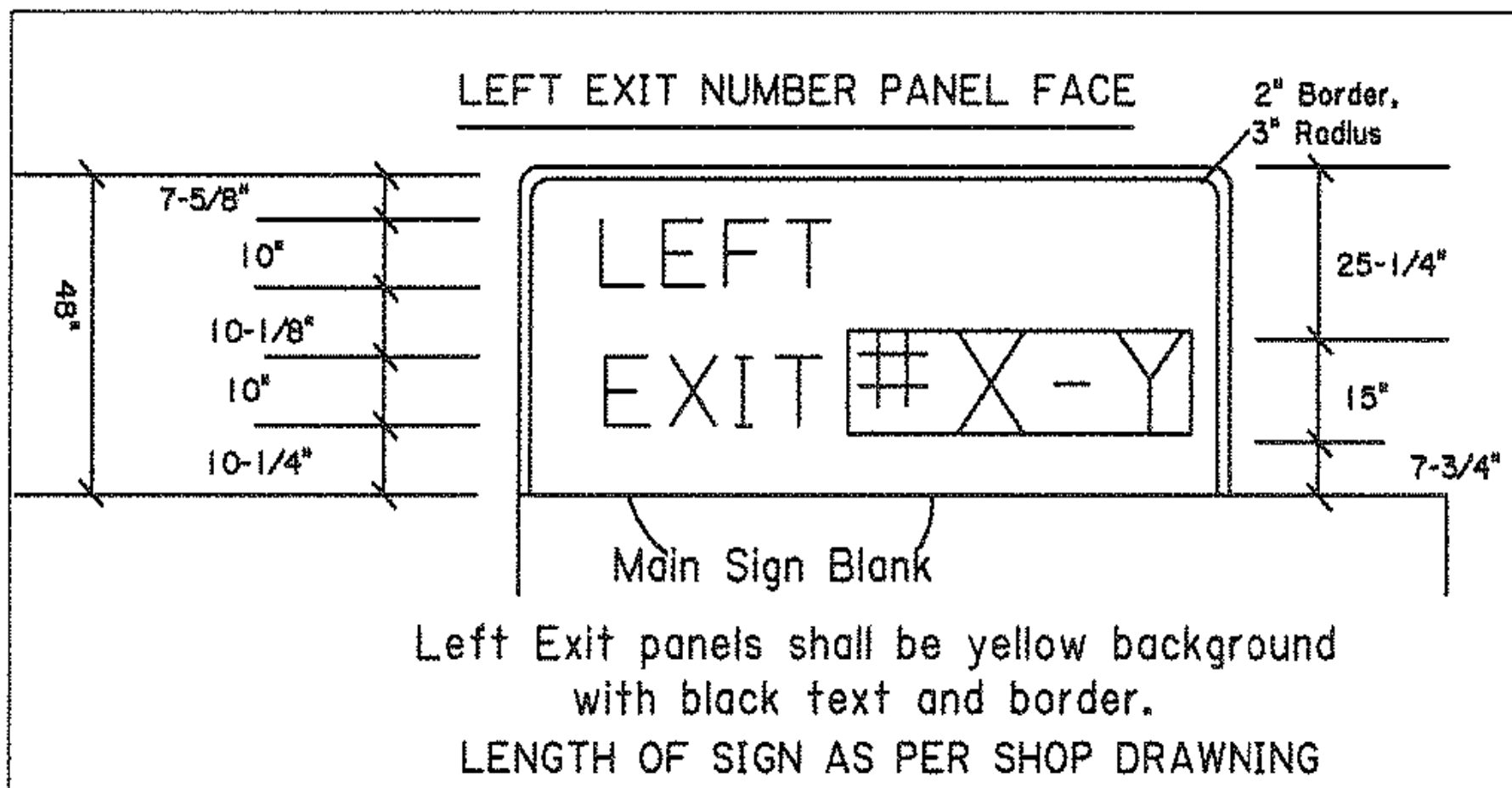
- ▶ Better quality control due to less field work required
 - ▶ Maintain the current weight of the signs
 - ▶ Remove and replaced duration possible in a shorter time period
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- A blue decorative triangle is located in the bottom-left corner of the slide, pointing towards the center.

- Clearview Font
- The use of Clearview font for positive contrast guide signs provides increased legibility of highway sign word messages at the same cost of SHS Standard Alphabet letters. A research study by FHWA published in 1994 recommended a 20 percent increase in letter height of SHS Alphabets for highway signs in order to accommodate the viewing distance and reaction time requirements of older drivers. The use of the Clearview font will help in achieving this increase in sign visibility. Therefore, the FHWA is issuing Interim Approval for Clearview so that this application may be used by jurisdictions that wish to do so pending the rulemaking.

New left exit

Yellow background with black text

Located on the upper left corner of the sign



New Pay item

- ▶ The Department's Specifications included the mounting hardware for new signs in the cost of the sign support
- ▶ In the past, a Non-standard pay item was used to pay for the new hardware
- ▶ Several new pay items were developed for sign items
 - Furnished and install
 - Install
 - Relocate

http://ladotnet/contractsspecs/home.asp?txtPath=/contractsspecs/Master_Item_List

New Pay Items

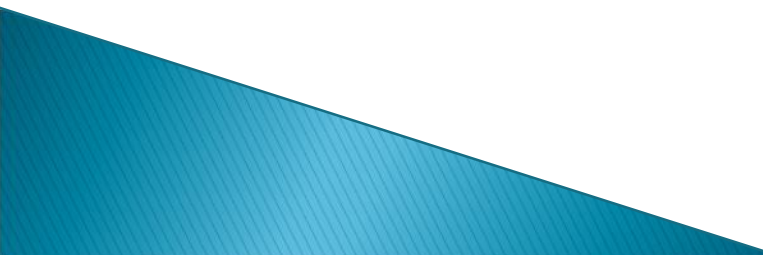
Master Item List 3-24-2011

Pay Item #	Pay item Name
729-04-00100	Sign (Type D)
729-04-00101	Sign (Type D)(Install)
729-04-00102	Sign (Type D)(Furnish and Install)
729-04-00103	Sign (Type D)(Relocate)
729-05-00100	Sign (Type E)
729-05-00101	Sign (Type E)(Install)
729-05-00102	Sign (Type E)(Furnish and Install)
729-05-00103	Sign (Type E)(Relocate)

Enhance Reference Location Markers

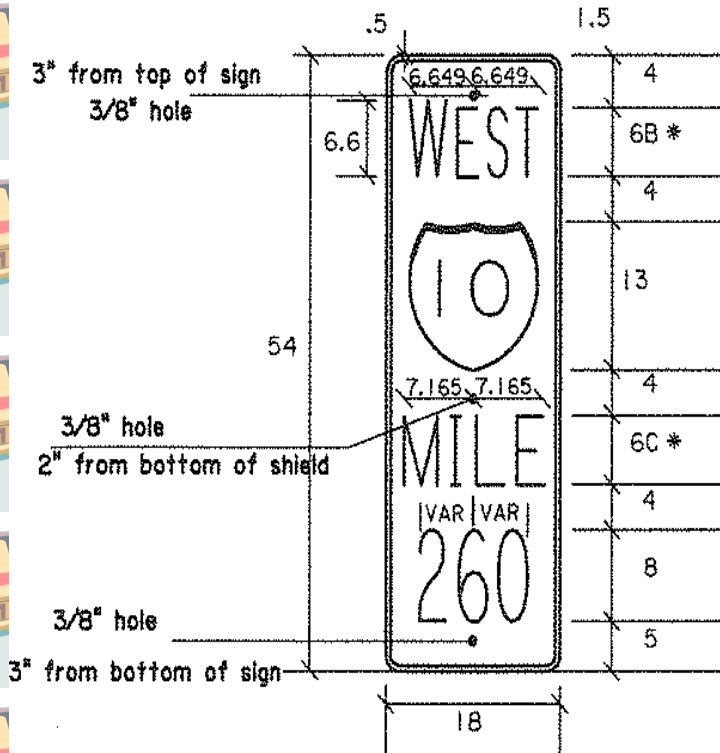
- ▶ Reference location markers provide information to motorists, service patrols, maintenance, law enforcement, fire and emergency responders.
- ▶ This information can be critical when a motorist is reporting an incident or safety issue about the road or events.
- ▶ Due to the increasing use of wireless communication, these markers need to be easy understood so that accurate information can be relayed to 911 and other communication centers.

Enhanced reference location markers

- ▶ Enhanced reference location markers will be installed at a one mile interval along the interstate
 - ▶ These markers will consist for the cardinal direction, the interstate shield with the interstate number and the mile for the location.
 - ▶ These markers will list only the mile
 - ▶ Intermediate reference location markers will be installed at a two tenth of a mile spacing in urban areas with median barriers and along rural bridge greater than 2 miles in length.
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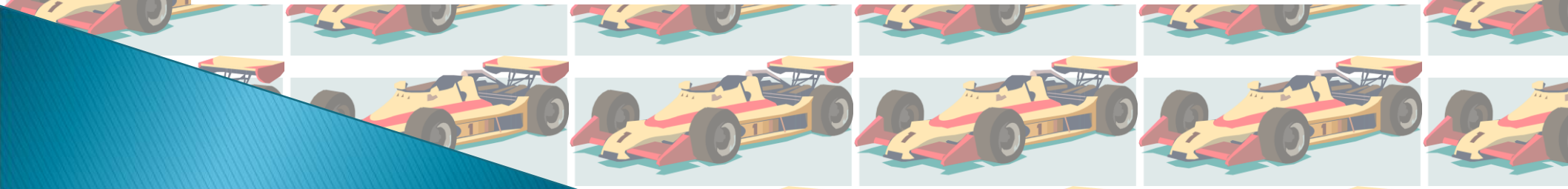
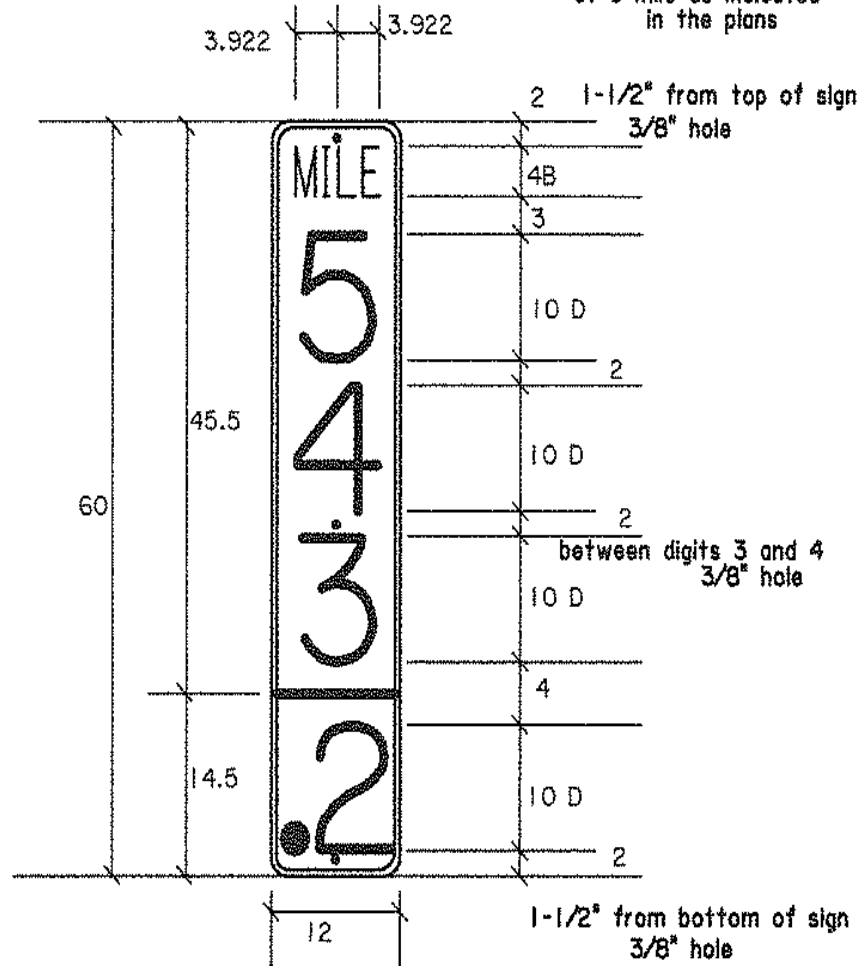
DETAIL OF REFERENCE LOCATION SIGNS

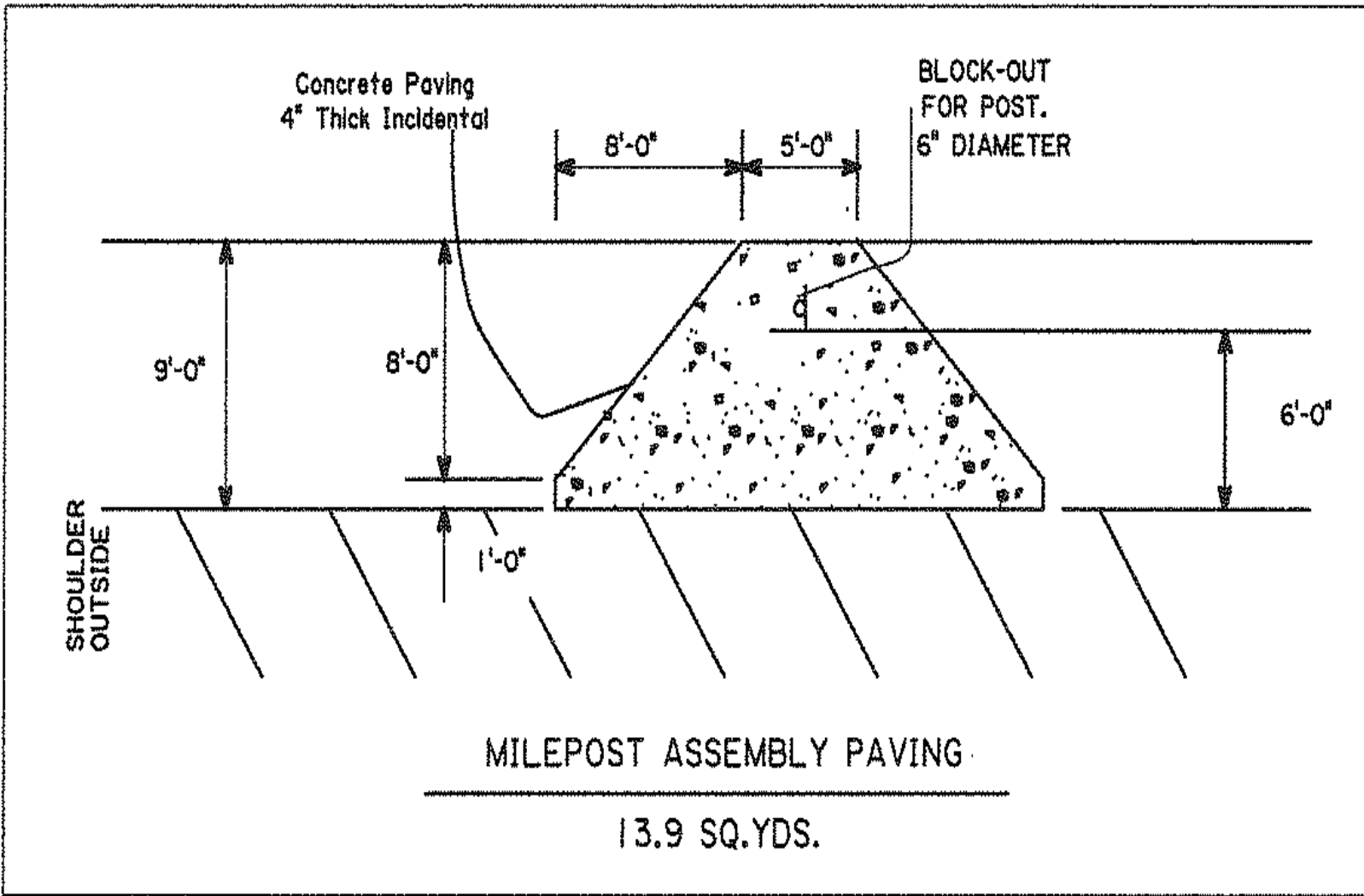
Enhanced Reference Location Signs



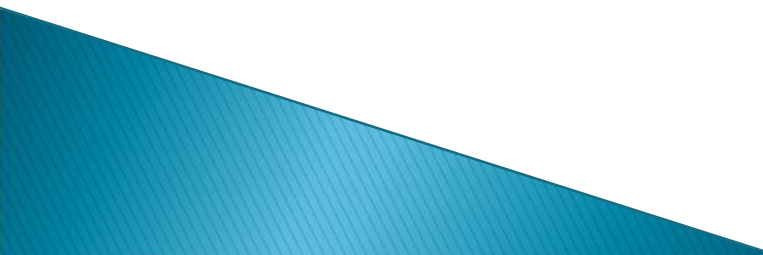
* Series 2000 Standard Alphabets

Intermediate Reference Location Signs Spacing every two tenths of a mile as indicated in the plans





Reference Location Markers

- ▶ These markers will be placed on the right in rural areas
 - ▶ In urban areas with a raised median, the markers will be installed on top of the raised median barrier
 - ▶ Where markers currently exist, unless the new markers are replacing the old markers, the old markers are to remain (1th mile markers)
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- A blue decorative triangle is located in the bottom-left corner of the slide, pointing towards the center.

Reference Location Markers

- ▶ In urban areas with interstate having more than three lanes in each direction, future consideration will be given to install markers on both side of the travel lanes.

Replacement of wooden posts

- ▶ Interstate guide signs are to be mounted with breakaway supports.
- ▶ Temporary wooden post installations will be installed by state wide crews when needed.
- ▶ If possible these installations should be avoided and these sign installations shall be included with either a construction project or a signage project.

Interstate
Upgrades
Projects

Low Bid
Prices

	Dist 02	Dist 03	Dist 04	Dist 05	Dist 07	Dist 08	Dist 61	Dist 62	Ave	Low	High
Low Bid	\$293,118.00	\$647,999.43	\$348,388.08	\$461,487.50	\$667,058.50	\$559,670.00	\$1,059,959.64	\$707,246.75	-	-	-
Type E Sign (Furnish and Install)	\$24.00	\$17.34	\$20.50	\$29.00	\$20.50	\$20.00	\$18.09	\$20.40	\$21.23	\$17.34	\$29.00
Sign (Overhead Mounted)(Furnish and Install)	\$24.00	\$24.22	\$16.25	\$36.00	\$20.50	\$21.00	\$18.09	\$19.41	\$22.43	\$16.25	\$36.00
Milepost (GM)	\$60.00	\$135.00	\$135.00	\$145.00	\$150.00	\$147.00	\$175.00	\$121.89	\$133.61	\$60.00	\$175.00
Milepost (SM)	\$60.00	\$257.00	\$190.00	\$220.00	\$225.00	\$260.00	\$220.00	\$196.76	\$203.60	\$60.00	\$260.00
Milepost (SM)(2nd)	\$75.00	\$260.00	\$190.00	\$220.00	\$225.00	-	\$210.00	\$198.76	\$196.97	\$75.00	\$260.00
Mounting (W6x12)	\$633.00	\$950.00	\$950.00	\$1,200.00	\$1,000.00	\$1,000.00	-	\$415.25	\$878.32	\$415.25	\$1,200.00
Mounting (W8x18)	\$1,100.00	\$1,334.00	\$1,350.00	\$1,500.00	\$1,400.00	\$1,400.00	-	\$723.65	\$1,258.24	\$723.65	\$1,500.00
Mounting (W8x24)	\$1,500.00	-	\$1,550.00	-	-	\$1,600.00	-	-	\$1,550.00	\$1,500.00	\$1,600.00

Interstate
Upgrades
Projects

Total of all Low
Bids

\$4,744,927.90

Interstate Upgrades Projects

	Dist 02	Dist 03	Dist 04	Dist 05	Dist 07	Dist 08	Dist 61	Dist 62		Total	
										-	
Type E Sign (Furnish and Install)	254.0	967.0	418.0	111.0	773.0	921.0	3,066.0	1,294.0		7,804.0	Sq. Ft.
Sign (Overhead Mounted)(Furnish and Install)	4,294.5	11,217.5	3,966.0	1,101.5	8,636.5	12,163.6	36,130.0	11,723.0		89,232.6	Sq. Ft.
Milepost (GM)	40.0	124.0	178.0	232.0	115.0	212.0	88.0	288.0		1,277.0	Each
Milepost (SM)	92.0	36.0	44.0	8.0	40.0	14.0	44.0	60.0		338.0	Each
Milepost (SM)(2nd)	314.0	142.0	126.0	46.0	160.0	-	190.0	228.0		1,206.0	Each
Mounting (W6x12)	4.0	46.0	14.0	16.0	2.0	24.0	-	18.0		124.0	Each
Mounting (W8x18)	4.0	22.0	16.0	6.0	4.0	16.0	-	9.0		77.0	Each
Mounting (W8x24)	4.0	-	5.0	-	-	2.0	-	-		11.0	Each