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October 12, 2022

To: District Engineers

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Director, Bridge Division

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Subject: Revisions to the Monotube Sign Structure (Cantilever) Standard Sheets, MC-22
Revisions to the Monotube Sign Structure (Span) Standard Sheets, MS-22

The Bridge and Traffic Safety Divisions have updated the Monotube Sign Structure (Cantilever) MC-22 and (Span) MS-22 standard sheets. In October 2020 the districts were notified that for wall thicknesses greater than $\frac{3}{4}$ " , unique designs were required. This was due to material availability issues that have not gone away. We have noted recently that some projects have ignored this directive. So, to keep Districts from using these designs, we have updated the monotube standards to remove the 0.986" thick pipe designs.

Descriptions of the revisions are as follows:

MC-22

- Minor revisions for clarity as appropriate.
- Removed 0.968-inch designs due to lack of material availability.

MC(1)-22

- (1): Total Arm Length changed from 26-foot maximum to 21-foot maximum. Pipe Thickness changed from 0.968-inch maximum to 0.687-inch maximum.
- (3): Span Length changed from 40-foot maximum to 35-foot maximum and Post Thickness changed from 0.968-inch maximum to 0.687-inch maximum.

MC(2)-22

- Elevation Detail Total Arm Length changed from 26-foot maximum to 21-foot maximum and (3) Thickness changed from 0.968-inch maximum to 0.687-inch maximum.

MC(4)-22

- Post Elevation Detail (3) Post Height Thickness changed from 0.968-inch maximum to 0.687-inch maximum.

MC(5)-22

- Table 1A: 25-foot Span Length values removed. References Note 20 added.

- Table 1B: Values removed for height and span combinations 20-foot Span Length/50-foot Post Height and 25-foot Span/all Post Heights. References Note 20 added.

MC(6)-22

- Note 26 created: Explanation for designs that have been eliminated due to lack of material availability.
- Table 2A: Values removed for height and span combinations 25-foot Span Length/25- & 30-foot Post Heights, and 30- & 35-foot Span Lengths/all Post Heights.. References to Note 26 added.
- Table 2B: Values removed due to lack of material availability for height and span combinations 30-foot Span Length/50-foot Post Height, 35-foot Span Length/40- & 50-foot Post Heights, 40-foot Span Length/all Post Heights. References to Note 26 added.

MC(7)-22

- 90 MPH Wind Speed Tables: Values removed due to lack of material availability for height and span combinations 30-foot Span Length/50-foot Post Height, 35-foot Span/40- & 50-foot Post Heights, 40-foot Span Length/all Post Heights. References to Note 26 on MC(6) added.
- 130 MPH Wind Speed Tables: Values removed due to lack of material availability for height and span combinations 25-foot Span Length/25- and 30-foot Post Heights, 30- and 35-foot Span Lengths/all Post Heights. References to Note 26 on MC(6) added.
- Renumbered previous note 26 to note 27.

MS-22

- Minor revisions for clarity as appropriate.
- Removed 0.968-inch designs due to lack of material availability.

MS(1)-22

- (1): Total Arm Length changed from 102-foot maximum to 82-foot maximum and Pipe Thickness changed from 0.968-inch maximum to 0.687-inch maximum.
- (3): Span Length changed from 130-foot maximum to 110-foot maximum and Post Thickness changed from 0.968-inch maximum to 0.687-inch maximum.

MS(2)-22

- Elevation Detail Total Arm Length changed from 102-foot maximum to 82-foot maximum and (3) Thickness changed from 0.968-inch maximum to 0.687-inch maximum.

MS(4)-22

- Post Elevation Detail (3) Post Height Thickness changed from 0.968-inch maximum to 0.687-inch maximum.

MS(5)-22

- Table 1A: Values removed due to lack of material availability for height and span combinations 40-foot Span Length/50-foot Post Height, 50-foot Span Length/40-foot Post Height, 60-foot Span Length/40-foot Post Height, 70-foot Span Length/30-foot Post Height, 80-foot Span Length/20- and 30-foot Post Heights, 90- and 100-foot Span Lengths/all Post Heights. References to Note 20 added.
- Table 1B: Values removed due to lack of material availability for height and span combinations 40-foot Span Length/50-foot Post Height, 50-foot Span Length/40-foot Post

Height, 60-foot Span Length/40-foot Post Height, 70-foot Span Length/30-foot Post Height, 80-foot Span Length/30-foot Post Height, 100- and 110-foot Span Lengths/20-foot Post Height, 120- and 130-foot Span Lengths/all Post Heights. References to Note 20 added.

MS(6)-22

- Note 26 created: Explanation for designs that have been eliminated due to lack of material availability.
- Table 2A: Values removed due to lack of material availability for height and span combinations 50-foot Span Length/50-foot Post Height and 70-foot Span Length/40-foot Post Height. References to Note 26 added.
- Table 2B: Values removed due to lack of material availability for height and span combinations 90- and 100-foot Span Lengths/50-foot Post Height, 110-foot Span Length/30-, 40- & 50-foot Post Heights, 120- and 130-foot Span Lengths/all Post Heights. References to Note 26 added.

MS(7)-22

- 90 MPH Wind Speed Table: Values removed due to lack of material availability for height and span combinations 90- and 100-foot Span Lengths/50-foot Post Height, 110-foot Span Length/30-, 40- & 50-foot Post Heights, 120- & 130-foot Span Lengths/all Post Heights. References to Note 26 on MS(6) added.
- 130 MPH Wind Speed Table: Values removed due to lack of material availability for height and span combinations 50-foot Span Length/50-foot Post Height, 60-foot Span Length/40-foot Post Height, 70-foot Span Length/30- & 40-foot Post Heights, 80-foot Span Length/20- & 30-foot Post Heights, 90- and 100-foot Span Lengths/all Post Heights. References to Note 26 on MS(6) added.
- Renumbered previous note 26 to note 27.

These standard sheets may be used immediately and shall be used for all applicable PS&E sets beginning with the April 2023 letting. The new sheets are available in MicroStation® “dgn” and Adobe® “pdf” formats at the following address:

<http://www.txdot.gov/insdtdot/orgchart/cmd/cserve/standard/toc.htm>

If you have any questions, please contact Courtney Holle at (512) 720-1875.

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Attachment