

Index 700-040 Cantilever Sign Structure

Design Criteria

AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (LRFDLTS); Structures Manual (SM), Volume 3, FDOT Modifications to LRFDLTS; **Structures Manual (SM)** Introduction, I.6 References; **Structures Design Guidelines (SDG); FDOT Design Manual (FDM)**

Design Assumptions and Limitations

The maximum span length of Cantilever Sign Structures is 50 feet. See the notes on **Index 700-040, FDM 230, FDM 261, Structures Manual (SM)**, Volume 3 and the **SDG** for additional information.

Use **Index 700-040** in conjunction with **Index 700-030** and the **Cantilever Overhead Sign** Mathcad 15 computer program located on the **Structures Design Programs Library** website.

Plan Content Requirements

See the **FDM 325**.

Complete the appropriate “*Cantilever Sign Structures Data Table*”. There is a choice of two tables, one for a sign structure with a spread footing foundation and the other for a sign structure with a drilled shaft foundation. Much of the data for inclusion in the table may be found in the **Cantilever Overhead Sign** output. Include Design Wind Speed and soils information.

Cantilever Sign Structures Data Table (Drilled Shaft Foundation):

CANTILEVER SIGN STRUCTURES DATA TABLE											Table Date 07-01-14	
SIGN NO.	STATION	DIMENSIONS			PANELS	MEMBER SIZES			BACKRAKE			
		A ft	B ft	C in	N #	D (CHORD) O. D. x Wall Thk. (in)	E (WEB) Angle (in)	F (UPRIGHT) O. D. x Wall Thk. (in)	G in			

NOTES [Notes Date 7-01-13]:

- Work these Data Tables with Index 700-040.
- Design Wind Speed = ___ mph.
- Upright wall thickness given is a minimum dimension.

FOUNDATION NOTES [Notes Date 7-01-12]:

- Design based on Borings taken sealed by _____.
- Assumptions and Values used in design:
Soil Type _____
Soil Layer Thickness = ___ ft.
Soil Friction Angle = ___ deg.
Soil Weight = ___ pcf
Design Water Table is ___ ft. below surface

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)																				Table Date 01-01-11				
SIGN NO.	GUSSET PLATES										TRUSS CONNECTION								SPLICE					
	GA in	GB in	GC ft	GD in	GE ft	GF in	GG ft	GH in	GJ ft	GK in	TA in	TB #	TC #	TD in	TE in	TF in	TG in	TH in	TJ in	SA Angle (in)	SB #	SC in	SD #	

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.)																	Table Date 07-01-15		
SIGN NO.	BASE CONNECTION										ANCHOR		FOOTING - DRILLED SHAFT						
	BA in	BB #	BC in	BD in	BE ft	BF in	BG in	BH in	BJ in	BK ft	FA in	FB ft	FC in	FD # / Size	FE #	FF in	FG in		

Payment

Item number	Item Description	Unit Measure
700-4-11C	Overhead Static Sign Structure (F&I, Cantilever)	EA

See **Standard Plans Instruction** for **Index 700-030** for sign panel.

See the **BOE** and **Specification 700** for additional information on payment, pay item use and compensation.