

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** program located on the **Structures Design Programs Library** website.

Plan Content Requirements

See the **FDM 940**.

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 (Spread Footing Foundation):

CANTILEVER SIGN STRUCTURES DATA TABLE											Table Date 07-01-14	
SIGN NO.	STATION	DIMENSIONS				PANELS N #	MEMBER SIZES			BACK RAKE G in		
		A ft	B ft	C in	D (CHORD) O. D. x Wall Thk. (in)		E (WEB) Angle (in)	F (UPRIGHT) O. D. x Wall Thk. (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 01-01-11				
SIGN NO.	BASE CONNECTION										ANCHOR		FOOTING DIMENSIONS						FOOTING REINF.				PED. REINF.	
	BA in	BB #	BC in	BD in	BE ft	BF in	BG in	BH in	BJ in	BK ft	FA in	FB in	FC in	FD in	FE in	FF size	FG size	FH size	FJ size	FK in	FL # / Size			

Cantilever Sign Structures Data Table (Drilled Shaft Foundation):

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