

## Index 700-040 Cantilever Sign Structure

### Design Criteria

***AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (LRFDLTS-1); Structures Manual (SM)***, Volume 3, FDOT Modifications to LRFDLTS-1; ***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 Sign-LRFD v1.0*** 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 Sign-LRFD v1.0*** 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	MEMBER SIZES				BACKRAKE		
		A ft	B ft	C in	N in	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]:*

1. Work these Data Tables with Index 700-040.
2. Design Wind Speed = \_\_\_ mph.
3. Upright wall thickness given is a minimum dimension.

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

1. Design based on Borings taken sealed by \_\_\_\_\_
2. 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 ft	FC in	FD ft	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	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]:**  
 1. Work these Data Tables with Index 700-040.  
 2. Design Wind Speed = \_\_\_ mph.  
 3. Upright wall thickness given is a minimum dimension.

**FOUNDATION NOTES [Notes Date 7-01-12]:**  
 1. Design based on Borings taken sealed by \_\_\_\_\_  
 2. 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.