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 (Spread Footing Foundation):

CANTILEVER SIGN STRUCTURES DATA TABLE												
			DIME	NSIONS		PANELS		MEMBER SIZES		BACKRAKE		
SIGN NO.	STATION	Α		В	С	N	D (CHORD)	E (WEB)	F (UPRIGHT)	G		
		ft	ft	in	in	#	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in) in		
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NOTES [Notes Date 7-01-13]:

- 1. 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):

 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

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								GUS	SET	PLATES												TRUSS	CONNECT	TION			SPI	LICE		
SIGN NO.	GA	GB		GC		GD		GE		GF		GG		GH		GJ	GK	TA	TB	TC	TD	TE	TF	TG	TH	TJ	SA	SB	SC	SD
	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in	in	#	#	in	in	in	in	in	in	Angle (in)	#	in	#
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SIGN NO.	BA	BB	BC	BD		BE	BF	BG	BH	BJ	- 1	3 <i>K</i>		FA		FB		FC		FD		FE	FF	FG	FH	FJ	FK	FL
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Cantilever Sign Structures Data Table (Drilled Shaft Foundation):

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							DIME	ENSION	IS		PAN	IELS					М	EMBER .	SIZES	5					BACKR	AKE	1. Work these Data	Tables wi	th	
SIGN NO.		STA	ATION			Α		В		С	1	v		D (CHC	ORD)			E (W	EB)			F	(UPRIGH	r)	G		Index 700-040. 2. Design Wind Spe	od -	mnh	
						ft	ft	in		in		#	O. D.	x Wall	l Thk	. (in)		Angle	(in)			O. D.	x Wall Th	k. (in)	in		3. Upright wall this	:kness aive	n is a	minii
																											dimension. FOUNDATION NOTES [1. Design based on B. sealed by 2. Assumptions and V. Soil Type Soil Layer Thicknes Soil Friction Angle Soil Weight = Design Water Table	orings take alues used fi = deg pcf	in des t.	ign:
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SIGN NO.	GA in	GB in		GC in	ft	GD in		3E			ft	GG	G	Н						TC		TRUSS			TH in	in	SA	PLICE		1
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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.