Index 11310 Cantilever Sign Structure

Design Criteria

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

Design Assumptions and Limitations

The maximum span length of Cantilever Sign Structures is 50 feet. See the ***PPM***, Volume 1, Chapters 7 and 29 for additional information.

See notes on the ***Design Standard***, ***Structures Manual*** Volume 3 and ***SDG***.

Use this ***Design Standard*** in conjunction with the FDOT Cantilever Overhead Sign Program and Index 11300.

Plan Content Requirements

See ***PPM*** Volume 2, Chapter 23.

Complete the appropriate Cantilever Sign Structures Data Table and include it in the plans. There is a choice of two tables, one for a sign structure with a flat slab 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 FDOT Cantilever Overhead Sign Program output. Include Design Wind Speed and soils information. See Introduction I.3 for more information regarding use of Data Tables.

Table for use with a Spread Footing Foundation:

CANTILEVER SIGN STRUCTURES DATA TABLE — Table Date 07-01-14

SIGN NO.	STATION	DIMENSIONS				PANELS	MEMBER SIZES			BACKRAKE
		A	B		C	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

NOTES [Notes Date 7-01-13]:
1. Work these Data Tables with Index 11310.
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	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	Angle (in)	#	in	#

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.) — Table Date 01-01-11

SIGN NO.	BASE CONNECTION										ANCHOR		FOOTING DIMENSIONS										FOOTING REINF.				PED. REINF.	
	BA	BB	BC	BD		BE	BF	BG	BH	BJ	BK		FA		FB		FC		FD		FE		FF	FG	FH	FJ	FK	FL
	in	#	in	in	ft	in	in	in	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	size	size	size	size	in	# / Size

Table for use with a Drilled Shaft Foundation:

CANTILEVER SIGN STRUCTURES DATA TABLE — Table Date 07-01-14

SIGN NO.	STATION	DIMENSIONS				PANELS	MEMBER SIZES			BACKRAKE
		A	B		C	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

NOTES [Notes Date 7-01-13]:
1. Work these Data Tables with Index 11310.
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	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	#

CANTILEVER SIGN STRUCTURES DATA TABLE (CONT.) — Table Date 07-01-15

SIGN NO.	BASE CONNECTION										ANCHOR		FOOTING - DRILLED SHAFT								
	BA	BB	BC	BD	BE		BF	BG	BH	BJ	BK		FA		FB		FC	FD	FE	FF	FG
	in	#	in	in	ft	in	in	in	in	in	ft	in	ft	in	ft	in	# / Size	#	in	#	in

Payment

Item number	Item description	Unit Measure
700-4-ABC	Overhead Static Sign Structure	EA
700-3-ABB	Sign Panel	EA