SPAN (ft)	DESIGN WIND HEIGHT TO ℄ TRUSS (ft)	MAXIMUM DRILLED SHAFT AXIAL LOAD (kips)	MAXIMUM DRILLED SHAFT MOMENT (k-ft)	DRILLED SHAFT EMBEDMENT LENGTH (ft) AVERAGE N (BLOWS/12")			
				10	20	30	40
10	15	63	56	19	14	14	14
	20	76	89	23	14	14	14
	25	91	130	27	17	17	17
	30	106	180	31	20	20	20
	35	122	239	35	23	23	23
	40	139	307	39	27	27	27
	45	157	384	44	30	30	30
	50	176	470	49	33	33	33
	55	196	566	54	37	37	37
15	15	69	56	21	14	14	14
	20	84	89	25	14	14	14
	25	100	130	29	17	17	17
	30	118	180	34	20	20	20
	35	136	239	38	23	23	23
	40	155	307	43	27	27	27
	45	175	384	48	30	30	30
	50	196	470	54	33	33	33
	55	218	566	60	37	37	37
20	15	74	56	22	14	14	14
	20	91	89	27	15	14	14
	25	109	130	31	17	17	17
	30	128	180	36	20	20	20
	35	148	239	41	23	23	23
	40	169	307	47	27	27	27
	45	191	384	53	30	30	30
	50	214	470	59	33	33	33
	55	238	566	65	37	37	37
25	15	80	56	24	14	14	14
	20	98	89	29	16	14	14
	25	118	130	34	18	17	17
	30	139	180	39	21	20	20
	35	161	239	45	24	23	23
	40	183	307	51	27	27	27
	45	207	384	57	30	30	30
	50	232	470	63	33	33	33
	55	258	566	70	37	37	37
30	15	85	56	25	14	14	14
	20	105	89	30	17	14	14
	25	127	130	36	19	17	17
	30	149	180	42	22	20	20
	35	173	239	48	25	23	23
	40	197	307	54	29	27	27
	45	223	384	61	32	30	30
	50	250	470	68	35	33	33
	55	278	566	75	39	37	37

SPAN (ft)	DESIGN WIND HEIGHT TO ℄ TRUSS (ft)	MAXIMUM DRILLED SHAFT AXIAL LOAD (kips)	MAXIMUM DRILLED SHAFT MOMENT (k-ft)	DRILLED SHAFT EMBEDMENT LENGTH (ft) AVERAGE N (BLOWS/12")			
				10	20	30	40
35	15	90	56	26	15	14	14
	20	112	89	32	18	14	14
	25	135	130	38	21	17	17
	30	160	180	44	24	20	20
	35	185	239	51	27	23	23
	40	211	307	58	30	27	27
	45	239	384	65	34	30	30
	50	268	470	73	38	33	33
	55	298	566	80	42	37	37
40	15	96	56	28	15	14	14
	20	119	89	34	18	14	14
	25	144	130	40	22	17	17
	30	170	180	47	25	20	20
	35	197	239	54	29	23	23
	40	226	307	62	32	27	27
	45	255	384	69	36	30	30
	50	286	470	77	40	33	33
	55	318	566	86	44	37	37
45	15	101	56	29	16	14	14
	20	126	89	36	19	14	14
	25	153	130	43	23	17	17
	30	180	180	50	26	20	20
	35	209	239	57	30	23	23
	40	240	307	65	34	27	27
	45	271	384	73	38	30	30
	50	304	470	82	42	33	33
	55	338	566	91	47	37	37

1. DETERMINE DRILLED SHAFT DIAMETER AND MAXIMUM DRILLED SHAFT AXIAL LOAD (KIPS) FROM TABLE BASED ON SPAN LENGTH AND DESIGN WIND HEIGHT TO CENTERLINE OF TRUSS.
2. CONTACT THE HOUSTON DISTRICT LABORATORY FOR CONCISE DRILLED SHAFT EMBEDMENT LENGTH OR USE THE FOLLOWING ITERATIVE PROCEDURE.
3. MAKE AN INITIAL ESTIMATE OF THE DRILLED SHAFT EMBEDMENT LENGTH.
4. FROM SOIL EXPLORATION DATA, DETERMINE AN AVERAGE N VALUE (BLOWS/12") OF THE SOIL THROUGHOUT THE UPPER THIRD OF THE EMBEDMENT LENGTH. USE A WEIGHTED-AVERAGE OF THE BLOW COUNT OF INDIVIDUAL STRATA.
5. USE TABLE TO DETERMINE THE REQUIRED DRILLED SHAFT EMBEDMENT LENGTH BASED ON AXIAL LOAD AND AVERAGE N.
6. IF THE REQUIRED EMBEDMENT LENGTH DIFFERS SIGNIFICANTLY FROM THE INITIAL ESTIMATED EMBEDMENT LENGTH, RETURN TO STEP 3 WITH THE REQUIRED EMBEDMENT LENGTH DETERMINED IN STEP 5 AND REPEAT STEPS 3, 4 & 5.
7. THE EMBEDMENT LENGTH TABLE IS BASED UPON THE GREATEST EMBEDMENT LENGTH DERIVED FROM MOMENT, UPLIFT, OR THE AXIAL LOAD IN THE DRILLED SHAFT.

DESIGNER NOTE:
THIS SHEET IS FOR DESIGNER'S USE IN DETERMINING DRILLED SHAFT DIAMETER, LOADS AND EMBEDMENT. DO NOT INSERT INTO PLANSET.

FOUNDATION DATA AND EMBEDMENT LENGTH TABLE

(42" DIAMETER DRILLED SHAFT FOR ALL CASES)

Texas Department of Transportation
Houston District Bridge
Green Ribbon Project

BRACED TEE OVERHEAD SIGN STRUCTURE FOUNDATION DATA AND EMBEDMENT SELECTION TABLE

VERTICAL SCHEME

BTOSS-VS

FILE: STDN44.DGN	DN: HOU	CK: HOU	DW: HOU	CK: HOU
©TxDOT AUGUST 2011	DISTRICT	FED REG	PROJECT NO.	SHEET
REVISIONS	HOUSTON	6		
	COUNTY		CONTROL	SECT	JOB	HIGHWAY

STDN44C