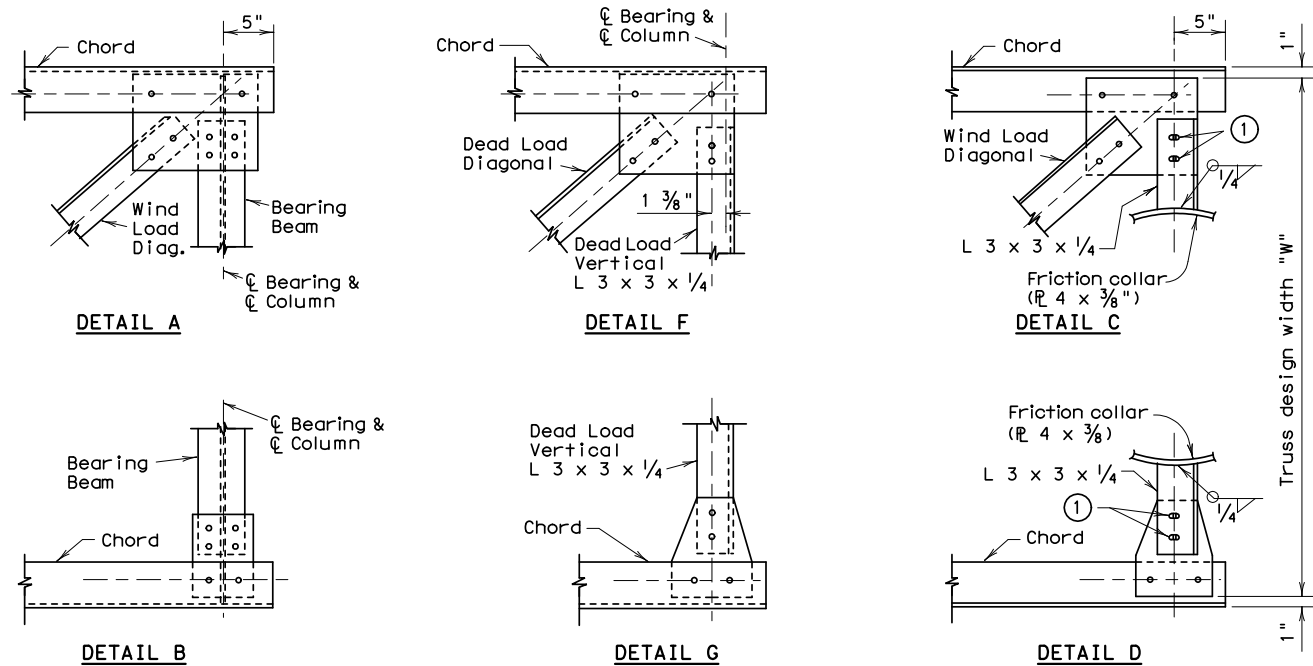
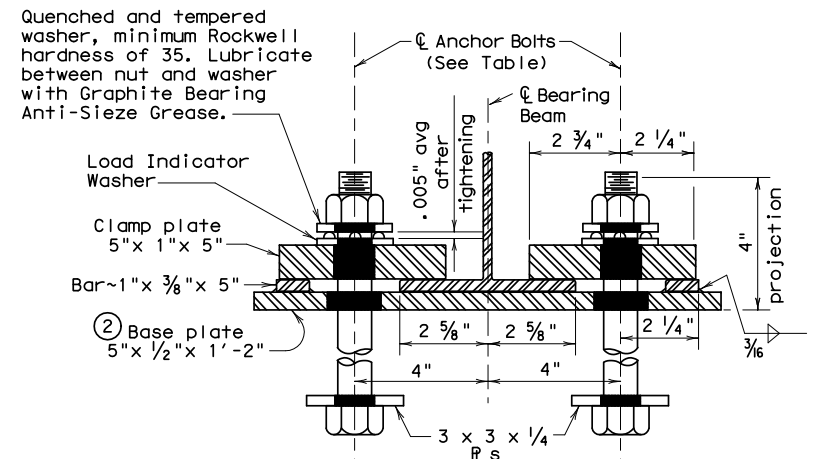
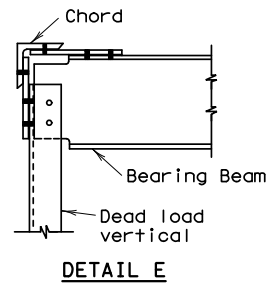


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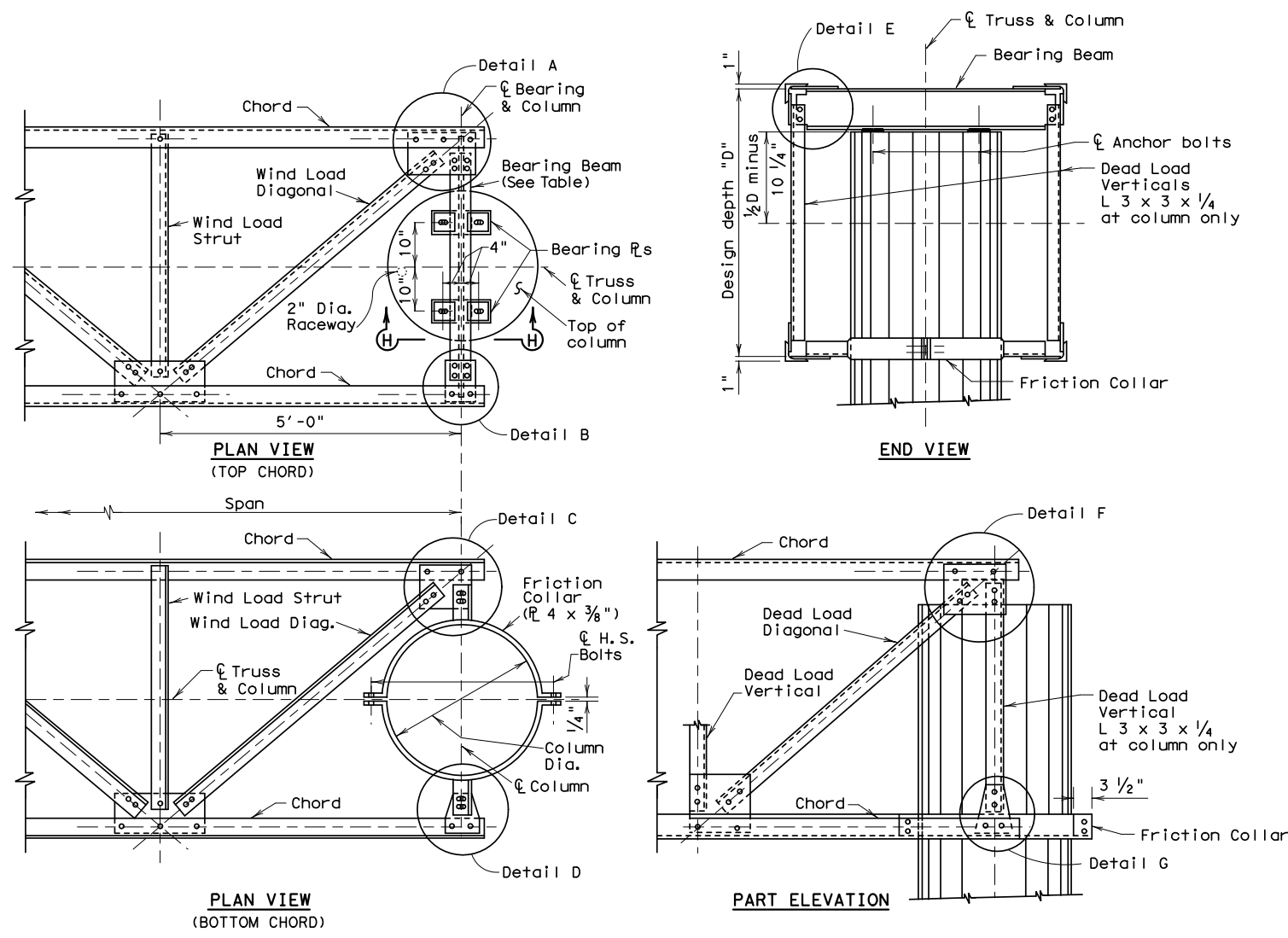
- ① Slotted holes in gusset plates only.
- ② Oversized Hole diameter = Anchor Bolt diameter + 1/2"



Note: When Bearing Beam is located off center, clamp plate may be turned as needed to give bearing area.

**GENERAL NOTES:**

Design conforms to the 1975 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals and Interim revisions thereto.  
 All structural steel shall conform to ASTM A36.  
 All parts, including anchor bolts, shall be galvanized after fabrication per Item 445, "Galvanizing".  
 Details on this sheet are applicable for design wind heights between 15 and 30 feet.  
 All connection bolts shall conform to ASTM A325 Type 1.  
 After truss is aligned in its final position, anchor bolt nuts shall be tack welded to washer and washer tack welded to clamp plate. Galvanizing in welded area shall be repaired in accordance with Item 445, "Galvanizing".  
 Anchor bolts and nuts for anchor bolts shall be "Alloy Steel" per Item 449 "Anchor Bolts".  
 Anchor bolts shall be tightened per Item 449.  
 Truss End Wind Struts are replaced by Bearing Beam on top and Friction Collar with L 3 x 3 x 1/4 on bottom. End Dead Load Verticals are replaced by L 3 x 3 x 1/4.  
 Details and towers shown on standard drawing OSBT are not used with single column towers.  
 For connection details not shown hereon see standard drawing OSBC.  
 All concrete shall be Class C.  
 All reinforcing steel shall conform to Item 440, "Reinforcing Steel".  
 Details shown hereon are intended to be used with standard drawings "Overhead Sign Bridge Details" and OSBC. Details shown on standard drawing OSBC should be modified as shown on this drawing. When this drawing is used standard drawing OSBT is not required.



**TRUSS END CONNECTION MODIFICATION DETAILS**

SHEET 1 OF 2

Texas Department of Transportation  
Traffic Operations Division

**OVERHEAD SIGN BRIDGE  
TRUSS DETAILS  
SINGLE COLUMN**

**OSBC-SC-Z4**

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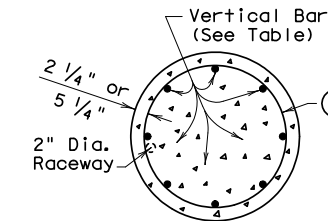
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ZONE 4 70 M.P.H. WIND

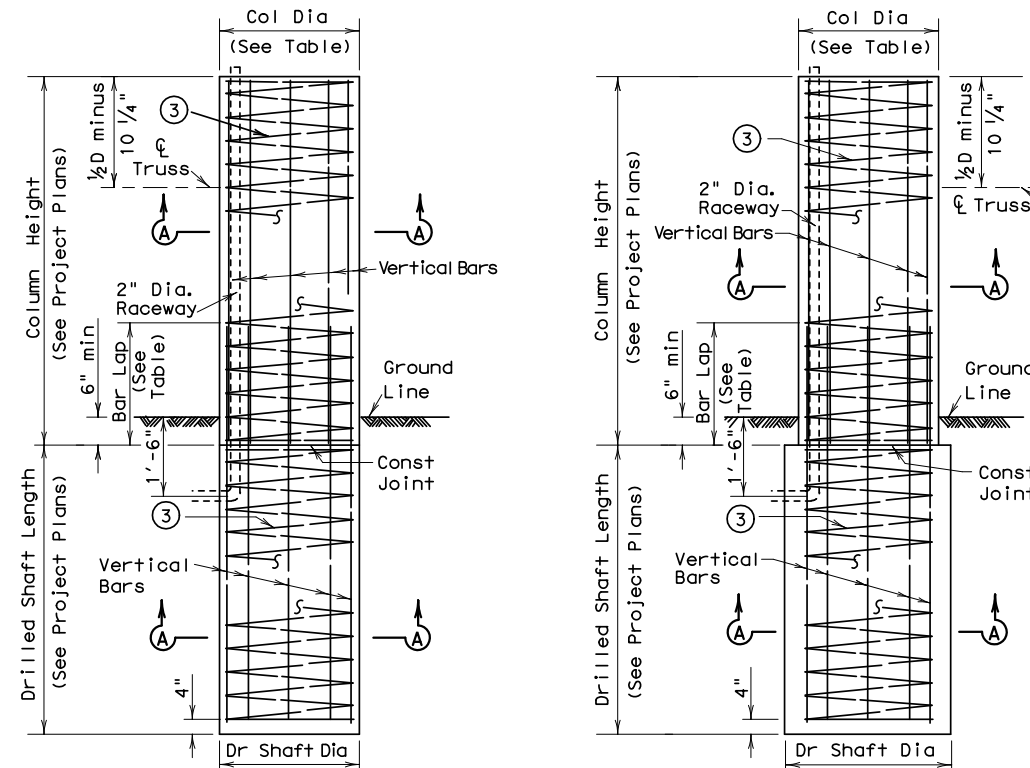
SPAN Ft.	REACTIONS			COLUMN BENDING MOMENTS (Kip-Ft.)																			Height
	D.L.	W.L.	Torque	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	25'	26'	27'	28'	29'	30'	31'	32'	
40	2.65	5.03	8.97	81	86	91	96	101	106	112	117	122	127	132	137	142	147	153	158	163	168	173	30" Diameter Column
45	2.98	5.66	10.09	91	97	102	108	114	120	126	131	137	143	149	154	160	166	172	178	183	189	195	
50	3.33	6.29	11.21	101	107	114	120	127	133	140	146	152	159	165	172	178	184	191	197	204	210	217	
55	3.81	6.93	12.34	111	118	125	133	140	147	154	161	168	175	182	189	196	203	210	217	224	231	239	
60	4.15	7.57	13.46	122	129	137	145	152	160	168	176	183	191	199	206	214	222	230	237	245	253	261	
65	4.55	8.21	14.58	132	140	149	157	165	174	182	190	199	207	216	224	232	241	249	257	266	274	283	
70	5.09	8.85	15.71	142	151	160	169	178	187	196	205	214	223	232	241	250	259	268	277	287	296	305	
75	5.44	9.49	16.83	152	162	172	181	191	201	210	220	230	239	249	259	269	278	288	298	307	317	327	
80	6.02	9.87	18.06	159	169	179	189	199	209	219	229	240	250	260	270	280	290	300	310	320	330	340	
85	6.61	10.51	19.19	169	180	191	201	212	223	234	244	255	266	276	287	298	309	319	330	341	352	362	
90	7.03	11.15	20.32	180	191	202	214	225	236	248	259	271	282	293	305	316	327	339	350	362	373	384	
95	7.55	11.79	21.45	190	202	214	226	238	250	262	274	286	298	310	322	334	346	358	370	382	394	406	
100	8.20	12.81	23.65	207	220	233	246	259	272	285	298	311	324	337	350	363	376	390	403	416	429	442	
105	8.91	13.48	24.83	217	231	245	259	272	286	299	314	327	341	355	369	382	396	410	424	437	451	465	
110	9.34	14.15	26.02	228	243	257	271	286	300	315	329	344	358	372	387	401	416	430	445	459	473	488	
115	9.87	14.81	27.20	239	254	269	284	299	314	329	344	360	375	390	405	420	435	450	465	480	495	511	
120	10.45	15.52	29.82	251	267	283	299	315	331	346	362	378	394	410	426	441	457	473	489	505	521	536	
125	11.30	16.20	31.06	262	279	295	312	328	345	362	378	395	411	428	444	461	477	494	510	527	543	560	
130	12.04	16.87	32.31	273	290	308	325	342	359	376	394	411	428	445	462	480	497	514	531	549	566	583	
135	12.60	17.55	33.56	284	302	320	338	356	374	392	409	427	445	463	481	499	517	535	553	571	588	606	
140	13.76	18.28	34.81	296	314	333	352	370	389	408	426	445	464	482	501	520	538	557	576	594	613	631	
145	14.26	19.01	36.06	308	327	346	366	385	404	424	443	463	482	501	521	540	560	579	598	618	637	657	
150	15.72	19.75	37.32	319	339	360	380	400	420	440	460	481	501	521	541	561	581	601	622	642	662	682	
155	16.25	20.54	38.57	332	353	374	395	416	437	458	479	499	520	541	562	583	604	625	646	667	688	709	

COLUMN BARS		
BAR SIZE	BAR LAP	
	Gr 40	Gr 60
# 9	3'-10"	5'-8"
#10	4'-10"	7'-3"
#11	5'-11"	8'-11"



COLUMN & SHAFT SECTION A-A

For column and drilled shaft reinforcing steel see standard drawing OSBS-SC.  
D.L. and W.L. reactions are in Kips.  
Torque reactions are in Kip-Feet (Kip-Ft.).



COLUMN & SHAFT  
EQUAL SIZE

COLUMN & SHAFT  
UNEQUAL SIZE

③ #3 spiral at 6" pitch. Three flat turns top and one flat turn bottom.  
One flat turn top and bottom in Drilled shaft.

COLUMN AND DRILLED SHAFT DETAILS

NOTE: Use same diameter spiral for both column and drilled shaft.

SHEET 2 OF 2



OVERHEAD SIGN BRIDGE  
TRUSS DETAILS  
SINGLE COLUMN

OSBC-SC-Z4

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