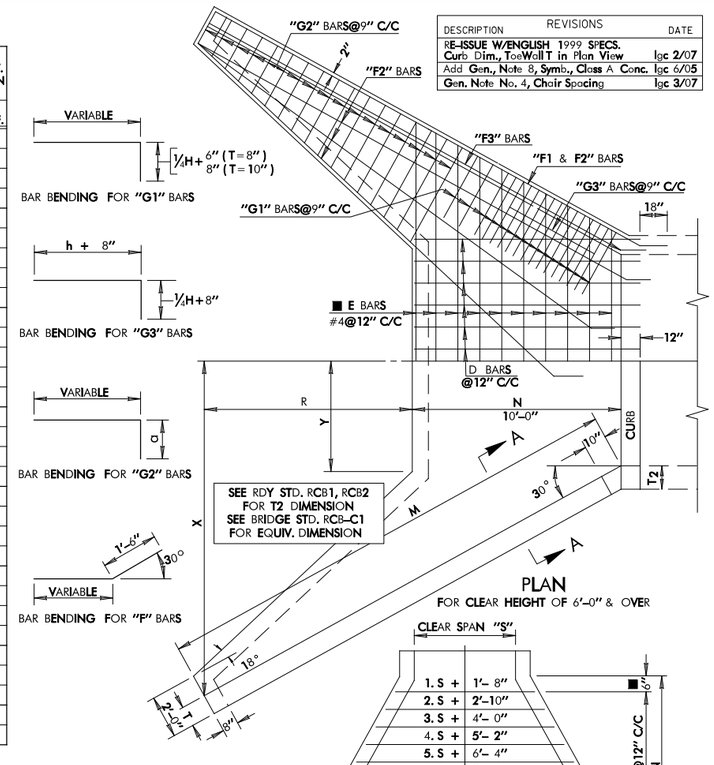
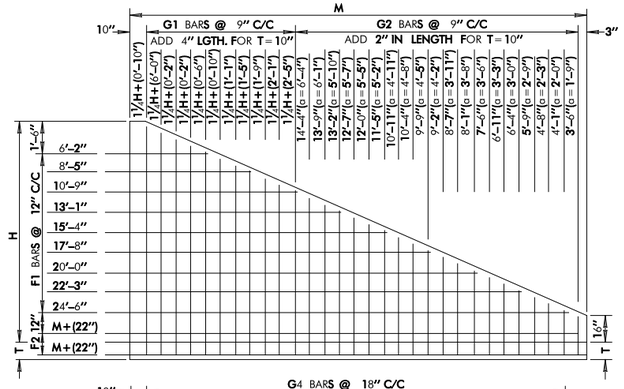
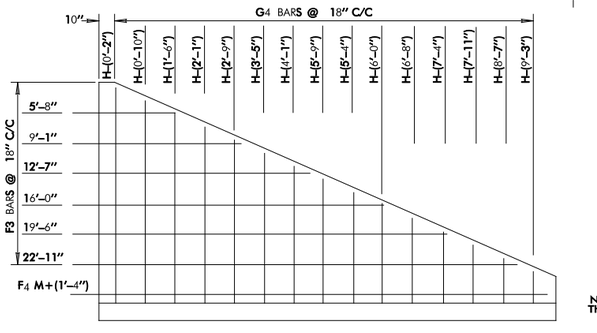
DESIGN NO.	CLEAR SPAN (ft.)	CLEAR HEIGHT (ft.)	X (ft.)	Y (ft.)	WING DIMENSIONS d (ft.)	T	H	M	N	R	APRON "D" BARS NO	"D" BARS SIZE	"D" BARS LGTH.	"E" BARS NO	"E" BARS SIZE	"E" BARS AVER. LENGTH	TWO WINGS "F1" BARS NO	"F1" BARS SIZE	"F1" BARS AVER. LENGTH	"F2" BARS NO	"F2" BARS SIZE	"F2" BARS LGTH	"F3" BARS NO	"F3" BARS SIZE	"F3" BARS AVER. LENGTH	"F4" BARS @ #4 NO	"F4" BARS @ #4 LGTH	"G1" BARS NO	"G1" BARS SIZE	"G1" BARS AVER. LENGTH	"G2" BARS @ #4 NO	"G2" BARS @ #4 AVER. LENGTH	"G3" BARS NO	"G3" BARS SIZE	"G3" BARS h	"G3" BARS AVER. LENGTH	"G4" BARS @ #4 NO	"G4" BARS @ #4 AVER. LENGTH	ONE CURB "CH" BARS @ #4 NO	"CH" BARS @ #4 LGTH	"S" BARS @ #4 NO	"S" BARS @ #4 MIN. LENGTH	* TOTAL QUANT. ONE HEADWALL CONC CU.YD	* TOTAL QUANT. ONE HEADWALL STEEL LBS.	ADD'L QUANT. CURTAIN WALL CONC. C.Y./V.F.
1	2		3.33								4					5′– 5″																											
2	3	2	3.83								5					6′– 5″	2	#4	6′–2″	6	#4	6′–6″	2	#4	5′–8″	2	6′–0″	12	#4	3′–9″							6	2′–2″	2	3′– 8″	5′– 8″	6	4′– 1″	1.59	143	0.33
3	4		4.33								6					7′– 5″																										4′– 8″	7	4′– 3″	1.75	154	0.36
4	5		4.83								7					8′– 5″																										5′– 8″	8	4′– 5″	1.91	165	0.40
5	3		4.96								5					7′– 7″																										3′– 8″	6	4′– 1″	2.57	218	0.41
6	4		5.46								6					8′– 7″																										4′– 8″	7	4′– 3″	2.78	232	0.45
7	5	3	5.96		0.13	8″	4′–0″	6′–11″	6′–0″		7	#4	6′–10″	6	#4	9′– 7″	4	#4	7′–3½″	6	#4	8′–9″	2	#4	5′–8″	2	8′–3″	18	#4	4′–6″							10	2′–6″	2	5′– 8″	8	4′– 5″	2.99	245	0.46
8	6		6.46								8					10′– 7″																										6′– 8″	9	4′– 7″	3.20	259	0.52
9	8		7.46								10					12′– 7″																										8′– 8″	11	4′–11″	3.62	287	0.60
10	4		6.63								6					9′– 9″																										4′– 8″	7	4′– 2″	4.06	336	0.53
11	5		7.13								7					10′– 9″																										5′– 8″	8	4′– 4″	4.32	352	0.57
12	6	4	7.63		0.17	8″	5′–0″	9′–3″	8′–0″		8	#4	8′–10″	8	#4	11′– 9″	6	#4	8′–5″	6	#4	11′–1″	4	#4	7′–4½″	2	10′–7″	24	#4	5′–3½″							12	3′–2½″	2	6′– 8″	9	4′– 6″	4.58	368	0.61
13	8		8.63								10					13′– 9″																										8′– 8″	11	4′–10″	5.11	402	0.68
14	10		9.63								12					15′– 9″																										11′– 0″	13	5′– 0″	5.63	435	0.76
15	5		8.25								7					11′–11″																										5′–10″	8	4′–4″	5.86	480	0.65
16	6	5	8.75		0.21	8″	6′–0″	11′–6″	10′–0″		8	#4	10′–10″	10	#4	12′–11″	8	#4	9′–7″	6	#4	13′–4″	6	#4	9′–1″	2	12′–10″	30	#4	6′–1″							16	3′–7″	2	6′–10″	9	4′– 6″	6.16	498	0.69
17	8		9.75								10					14′–11″																										8′–10″	11	4′–10″	6.79	537	0.76
18	10		10.75								12					16′–11″																										11′–0″	13	5′– 0″	7.41	575	0.84
19	5		9.42	5.32							7					11′–11″																										6′– 0″	8	4′– 3″	7.01	588	0.74
20	6	6	9.92	5.82	0.25	8″	7′–0″	13′–10″	10′–0″	2′–0″	8	#4	10′–10″	10	#4	12′–11″	10	#4	10′–9″	8	#4	15′–8″	6	#4	9′–1″	2	15′–2″	28	#4	7′–6″	8	4′–4½″						18	4′–3″	2	7′– 0″	9	4′– 5″	7.32	607	0.78
21	8		10.92	6.82							10					14′–11″																										9′– 0″	11	4′– 9″	7.95	645	0.85
22	10		11.92	7.82							12					16′–11″																										11′– 0″	13	4′–11″	8.56	682	0.93
23	5		10.58	4.48							7					11′–11″																										6′– 2″	8	4′– 3″	10.38	722	0.83
24	6	7	11.08	4.98	0.29	10″	8′–0″	16′–2″	10′–0″	4′–0″	8	#4	10′–10″	10	#4	12′–11″	12	#4	11′–11″	8	#4	18′–0″	8	#4	10′–10″	2	17′–6″	26	#4	9′–3″	16	5′–5½″						22	4′–7″	2	7′– 2″	9	4′– 5″	10.76	741	0.86
25	8		12.08	5.98							10					14′–11″																										9′– 2″	11	4′– 9″	11.50	779	0.94
26	10		13.08	6.98							12					16′–11″																										11′– 2″	13	4′–11″	12.24	818	1.01
27	6		12.25	3.90							8					12′–11″																										7′– 4″	9	4′– 4″	12.75	955	0.95
28	8	8	13.25	4.90	0.34	10″	9′–0″	18′–6″	10′–0″	6′–0″	10	#4	10′–10″	10	#4	14′–11″	14	#4	13′–1″	10	#4	20′–4″	10	#4	12′–7″	2	19′–10″	24	#4	10′–7½″	24	6′–7½″	12	#4	2′–0″	5′–7″	24	5′–3″	2	9′– 4″	11	4′– 8″	13.49	993	1.02
29	10		14.25	5.90							12					16′–11″																										11′– 4″	13	4′–10″	14.24	1032	1.10
30	10	9	15.38	4.87	0.38	10″	10′–0″	20′–9″	10′–0″	8′–0″	12	#4	10′–10″	10	#4	16′–11″	16	#4	14′–2½″	10	#4	22′–7″	10	#4	12′–7″	2	22′–1″	22	#4	12′–0″	32	7′–9½″	18	#4	3′–0″	6′–10″	28	5′–7″	2	11′– 6″	14	4′–10″	16.46	1208	1.18
31	10	10	16.54	3.79	0.42	10″	11′–0″	23′–1″	10′–0″	10′–0″	12	#4	10′–10″	10	#4	16′–11″	18	#4	15′–4″	12	#4	24′–11″	12	#4	14′–3½″	2	24′–5″	20	#4	13′–5″	40	8′–10½″	24	#5	4′–3″	8′–4″	30	6′–3″	2	11′– 8″	14	4′– 9″	19.00	1545	1.27

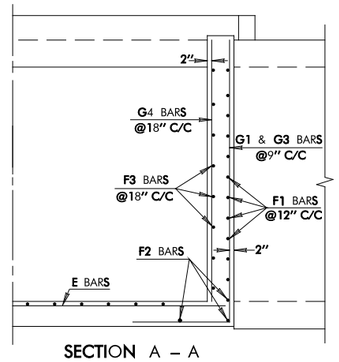
* INCLUDES 2 WINGS, ONE APRON, ONE CURB AND ONE STD. DEPTH CURTAIN WALL

DESCRIPTION	REVISIONS	DATE
RE-ISSUE W/ENGLISH 1999 SPECS.		
Curb Dim., ToeWall T in Plan View		lgc 2/07
Add Gen., Note 8, Symb., Class A Conc.		lgc 6/05
Gen. Note No. 4, Chair Spacing		lgc 3/07

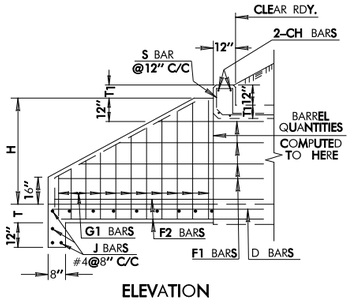




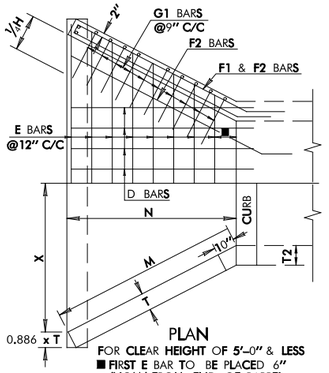




SECTION A – A

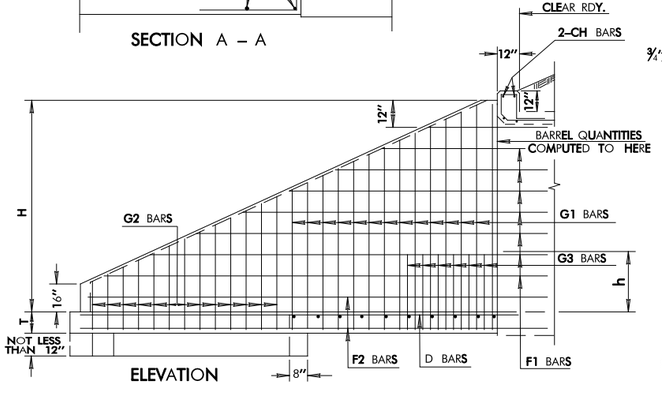


ELEVATION



PLAN

FOR CLEAR HEIGHT OF 5'–0" & LESS
■ FIRST E BAR TO BE PLACED 6" (NOM.) FROM END OF BARREL



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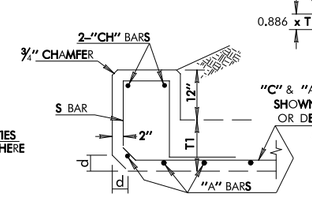
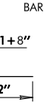


"C" & "A" BARS (OR EQUIV.) SIZES & SPACING SHOWN ON ROADWAY OR BRIDGE STDS. OR DETAIL SHEETS & TO BE FIELD BENT AS SHOWN ON THIS SHEET

d (FT.) = 0.042 x CLR. HT.

T1+9" FOR 2' & 3' CLR. HT.
T1+8" FOR 4' & 5' CLR. HT.
T1+7" FOR 6' & 7' CLR. HT.
T1+6" FOR 8' & 9' CLR. HT.
T1+5" FOR 10' CLR. HT.



BAR BENDING FOR "S" BARS
SEE RDY. STD. RCB1 OR RCB2 FOR T1 DIM. OR BRIDGE STD. RCB-C1 FOR EQUIV. DIM.

2" FOR 5' CLR. HT.
3" FOR 6' & 7' CLR. HT.
4" FOR 8' CLR. HT.
5" FOR 9' & 10' CLR. HT.

BAR BENDING FOR "C" BARS

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
* 509.06(A)	CLASS AA CONCRETE	C. Y.
* 509.06(B)	CLASS A CONCRETE	C. Y.
511.06(A)	REINFORCING STEEL	LBS.

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL SHALL BE IN ACCORDANCE WITH THE 1999 ENGLISH STANDARD SPECICATIONS.
2. REINFORCING STEEL IN APRON SHALL BE SUPPORTED ON BAR CHAIRS.
3. CHAIRS SHALL BE SUPPORTED ON CLASS C CONCRETE STRIPS SPACED AT 4' CENTERS.
4. THE TOP OF CHAIR SUPPORTS, SHALL BE AT THE ELEVATION OF THE BOTTOM OF FOOTING. REINFORCING STEEL IN THE WINGS SHALL BE HELD IN PLACE BY METAL CHAIRS. MAXIMUM SPACING OF CHAIRS SHALL BE 4'–0" CENTERS.
5. COST OF METAL CHAIRS OR CONCRETE STRIPS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.
6. DETAILS OF SINGLE CELL BARRELS CORRESPONDING TO THE HEADWALLS SHOWN ON THIS STANDARD SHALL BE INCLUDED IN THE PLANS.
7. ALL REINFORCING STEEL SHALL HAVE 2" MINIMUM CLEARANCE FROM ALL ADJACENT CONCRETE SURFACES.
8. * WING WALL, CURB AND APRON CONSTRUCTION SHALL CONSIST OF THE SAME CLASS OF CONCRETE USED FOR THE REINFORCED CONCRETE BOX.

APPROVED BY ROADWAY ENGINEER — DATE

OKLAHOMA DEPT. OF TRANSPORTATION
ROADWAY STANDARD (ENGLISH)
HEADWALL
ONE CELL REINFORCED CONCRETE BOX

1999 SPECIFICATIONS	(12" HIGH CURB)	RCB1H–1	02E
			R–55E