APPENDIX C: TAKEOFF INFO AND MEANS REFERENCES

Takeoff Spreadsheet, Concrete Structural System

CSI #	Description	Quantity	Units	Mat	Mat Cost	Labor	Labor Cost	Equip	Equip Cost	Daily Output	Crew	Duration	Total	OP	InclOP
2400900	Concrete Cols 24x24	33	CY	225	7425	370	12210	37.5	1237.5	16.2	C-14A	2.03704	20872.5	905	29865
	Average Size	34.1		225	7672.5	370	12617	37.5	1278.75	16.2		2.10234	21568.25	905	30860.5
	Minimum Reinforcement	34.1		225	7672.5	370	12617	37.5	1278.75	16.2		2.10234	21568.25	905	30860.5
		34.1		225	7672.5	370	12617	37.5	1278.75	16.2		2.10234	21568.25	905	30860.5
		75.9		225	17077.5	370	28083	37.5	2846.25	16.2		4.67941	48006.75	905	68689.5
		211.2			47520		78144		7920			13.0235	133584		191136
2401900	Flat Slab w/Drops, 20' Span	72.1		242	17448.2	192	13843.2	18.75	1351.875	38.5	C-14B	1.87516	32643.28	610	43981
	Flat Slab w/Drops, 25' Span	50		246	12300	169	8450	16.45	822.5	44.8		1.11732	21572.5	570	28500
		61.8		246	15202.8	169	10444.2	16.45	1016.61	44.8		1.37946	26663.61	570	35226
		61.8		246	15202.8	169	10444.2	16.45	1016.61	44.8		1.37946	26663.61	570	35226
		61.8		246	15202.8	169	10444.2	16.45	1016.61	44.8		1.37946	26663.61	570	35226
		102.3		246	25165.8	169	17288.7	16.45	1682.835	44.8		2.28348	44137.34	570	58311
	Flat Slab w/Drops, 30' Span	239		250	59750	145	34655	14.15	3381.85	51		4.68719	97786.85	530	126670
		295.8		250	73950	145	42891	14.15	4185.57	51		5.8	121026.6	530	156774
		295.8		250	73950	145	42891	14.15	4185.57	51		5.8	121026.6	530	156774
		295.8		250	73950	145	42891	14.15	4185.57	51		5.8	121026.6	530	156774
		607.5		250	151875	145	88087.5	14.15	8596.125	51		11.9118	248558.6	530	321975
		2143.7			533997		322330		31441.725			43.4133	887769.1		1155437
2402550	One Way Beam, 25' Avg Span	27.2	CY	287	7806.4	455	12376	46	1251.2	15.6	C14A	1.74136	21433.6	1125	30600
		20.4		287	5854.8	455	9282	46	938.4	15.6		1.30769	16075.2	1125	22950
		20.4		287	5854.8	455	9282	46	938.4	15.6		1.30769	16075.2	1125	22950
		20.4		287	5854.8	455	9282	46	938.4	15.6		1.30769	16075.2	1125	22950
		37.5		287	10762.5	455	17062.5	46	1725	15.6		2.40385	29550	1125	42187.5
		125.9			36133.3		57284.5		5791.4			8.06828	99209.2		141638
2402850	Footings	798.2		242	193164	47	37515.4	0.26	207.532	81	C-14C	9.84946	230887.3	345	275379
												9.84946	230887.3		275379
											$TOT:	**66.2862**	**1252240**		**1621952**

Takeoff Spreadsheet, Composite Steel Structural System

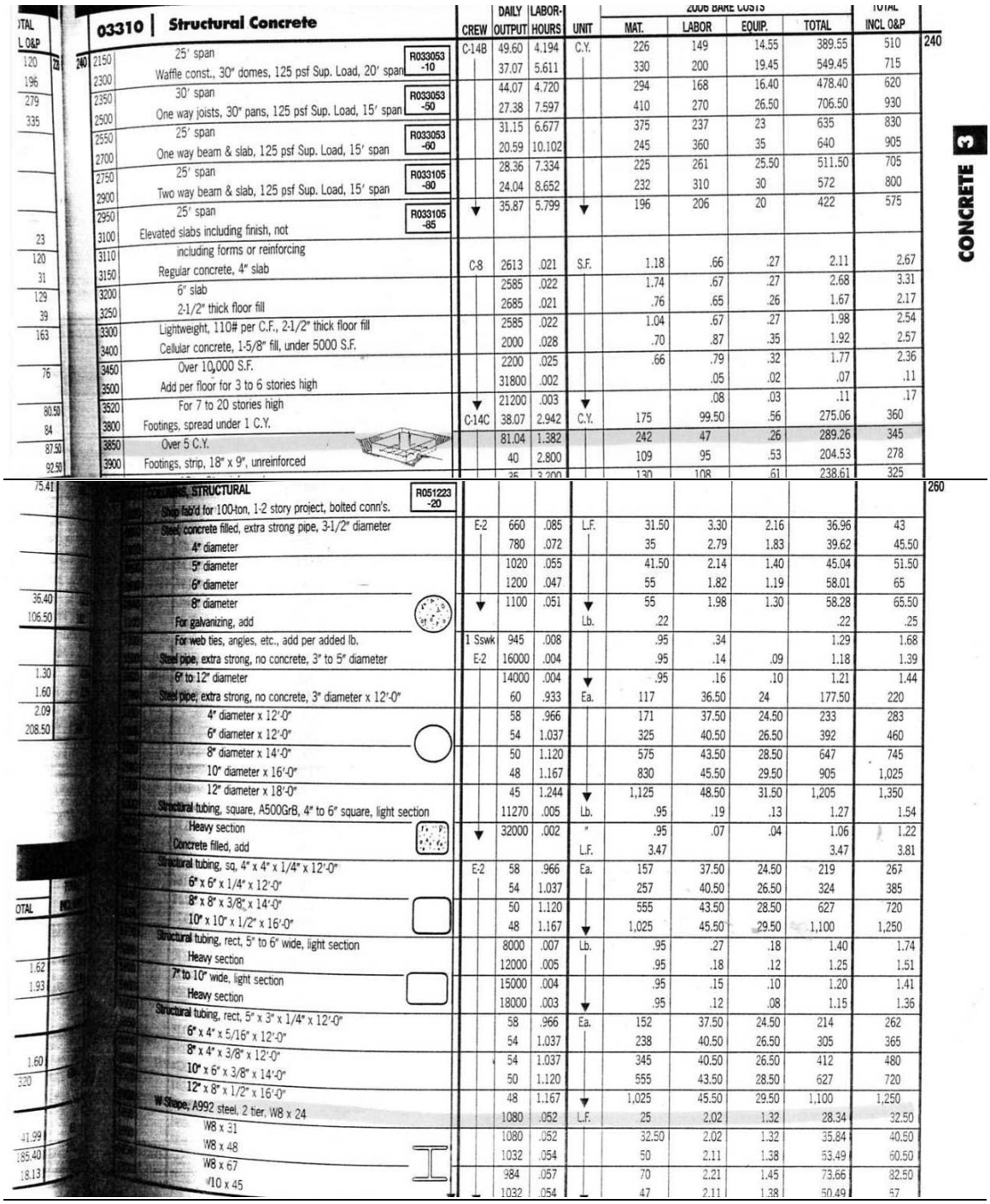
260600	Columns, Supporting Roof														
	W10x33	252.7	LF	47	11876.9	2.11	533.197	1.38	348.726	1032		0.24486	12758.82	57	14403.9
	W10x39	53.2		47	2500.4	2.11	112.252	1.38	73.416	1032		0.05155	2686.068	57	3032.4
	W10x49	26.7		71	1895.7	2.21	59.007	1.45	38.715	984		0.02713	1993.422	83.5	2229.45
	W12x40	66.5		52.5	3491.25	2.11	140.315	1.38	91.77	1032		0.06444	3723.335	63	4189.5
	W12x45	13.3		52.5	698.25	2.11	28.063	1.38	18.354	1032		0.01289	744.667	63	837.9
		412.4			20462.5		872.834		570.981			0.40087	21906.32		24693.2
	Columns, Supporting 3-4														
	W10x33	239.4		47	11251.8	2.11	505.134	1.38	330.372	1032		0.23198	12087.31	57	13645.8
	W10x39	106.4		47	5000.8	2.11	224.504	1.38	146.832	1032		0.1031	5372.136	57	6064.8
	W10x45	106.4		47	5000.8	2.11	224.504	1.38	146.832	1032		0.1031	5372.136	57	6064.8
	W10x49	53.2		71	3777.2	2.21	117.572	1.45	77.14	984		0.05407	3971.912	83.5	4442.2
	W10x54	79.8		71	5665.8	2.21	176.358	1.45	115.71	984		0.0811	5957.868	83.5	6663.3
	W10x60	26.7		71	1895.7	2.21	59.007	1.45	38.715	984		0.02713	1993.422	83.5	2229.45
	W10x68	26.7		71	1895.7	2.21	59.007	1.45	38.715	984		0.02713	1993.422	83.5	2229.45
	W12x40	26.7		52.5	1401.75	2.11	56.337	1.38	36.846	1032		0.02587	1494.933	63	1682.1
	W12x45	26.7		52.5	1401.75	2.11	56.337	1.38	36.846	1032		0.02587	1494.933	63	1682.1
	W12x58	53.2		52.5	2793	2.11	112.252	1.38	73.416	1032		0.05155	2978.668	63	3351.6
	W12x65	53.2		91	4841.2	2.21	117.572	1.45	77.14	984		0.05407	5035.912	106	5639.2
		798.4			44925.5		1708.584		1118.564			0.78497	47752.65		53694.8
	Columns, Supporting P-2														
	W10x33	26.7		47	1254.9	2.11	56.337	1.38	36.846	1032		0.02587	1348.083	57	1521.9
	W10x45	26.7		47	1254.9	2.11	56.337	1.38	36.846	1032		0.02587	1348.083	57	1521.9
	W10x49	438.9		71	31161.9	2.21	969.969	1.45	636.405	984		0.44604	32768.27	83.5	36648.2
	W10x54	53.2		71	3777.2	2.21	117.572	1.45	77.14	984		0.05407	3971.912	83.5	4442.2
	W10x68	93.1		71	6610.1	2.21	205.751	1.45	134.995	984		0.09461	6950.846	83.5	7773.85
	W10x88	53.2		71	3777.2	2.21	117.572	1.45	77.14	984		0.05407	3971.912	83.5	4442.2
	W12x65	53.2		91	4841.2	2.21	117.572	1.45	77.14	984		0.05407	5035.912	106	5639.2
	W12x79	26.6		91	2420.6	2.21	58.786	1.45	38.57	984		0.02703	2517.956	106	2819.6
	W12x96	39.9		125	4987.5	227	9057.3	1.49	59.451	960		0.04156	14104.25	144	5745.6
		811.5			60085.5		10757.2		1174.533			0.82318	72017.23		70554.6
6400010	Structural Steel Members, Roof														
	W8x10	32		10.45	334.4	3.63	116.16	2.38	76.16	600	E-2	0.05333	526.72	20.5	656
	W12x14	332.5		14.65	4871.13	2.48	824.6	1.62	538.65	880		0.37784	6234.375	22.5	7481.25
	W12x16	902.5		16.74	15107.9	2.48	2238.2	1.62	1462.05	880		1.02557	18808.1	25	22562.5
	W14x22	150		27	4050	2.2	330	1.44	216	990		0.15152	4596	35.5	5325
	W16x26	245		27	6615	2.18	534.1	1.43	350.35	1000		0.245	7499.45	35.5	8697.5
	W18x35	120		36.5	4380	3.28	393.6	1.58	189.6	960	E-5	0.125	4963.2	47.5	5700
	W18x40	360		42	15120	3.28	1180.8	1.58	568.8	960		0.375	16869.6	53.5	19260

		2142			50478.4		5617.46		3401.61			2.35326	59497.45		69682.3
	Structural Steel Members, 2-4														
	W8x10	25		10.5	262.5	3.63	90.75	2.38	59.5	600	E-2	0.04167	412.75	20.5	512.5
	W10x15	1080.5		23	24851.5	3.63	3922.215	2.38	2571.59	600		1.80083	31345.31	34.5	37277.3
	W10x22	35		23	805	3.63	127.05	2.38	83.3	600		0.05833	1015.35	34.5	1207.5
	W14x22	30		27	810	2.2	66	1.44	43.2	990		0.0303	919.2	35.5	1065
	W14x26	40		27	1080	2.2	88	1.44	57.6	990		0.0404	1225.6	35.5	1420
	W16x26	75		27	2025	2.18	163.5	1.43	107.25	1000		0.075	2295.75	35.5	2662.5
	W16x31	150		32.5	4875	2.42	363	1.59	238.5	900		0.16667	5476.5	41.5	6225
	W18x35	210		36.5	7665	3.28	688.8	1.58	331.8	960	E-5	0.21875	8685.6	47.5	9975
	W18x40	50		42	2100	3.28	164	1.58	79	960		0.05208	2343	53.5	2675
	W21x44	390		46	17940	2.96	1154.4	1.42	553.8	1064		0.36654	19648.2	57.5	22425
		2085.5			62414		6827.715		4125.54			2.85058	73367.26		85444.8
	Structural Steel Members, Park														
	W8x10	22.5	LF	10.5	236.25	3.63	81.675	2.38	53.55	600	E-2	0.0375	371.475	20.5	461.25
	W10x15	1927.5		23	44332.5	3.63	6996.825	2.38	4587.45	600		3.2125	55916.78	34.5	66498.8
	W10x19	1060		23	24380	3.63	3847.8	2.38	2522.8	600		1.76667	30750.6	34.5	36570
	W12x19	39.5		23	908.5	2.48	97.96	1.62	63.99	880		0.04489	1070.45	31.5	1244.25
	W12x22	40		23	920	2.48	99.2	1.62	64.8	880		0.04545	1084	31.5	1260
	W14x22	47.5		27	1282.5	2.2	104.5	1.44	68.4	990		0.04798	1455.4	35.5	1686.25
	W16x26	353		27	9531	2.18	769.54	1.43	504.79	1000		0.353	10805.33	35.5	12531.5
	W18x35	185		36.5	6752.5	3.28	606.8	1.58	292.3	960	E-5	0.19271	7651.6	47.5	8787.5
	W18x40	40		42	1680	3.28	131.2	1.58	63.2	960		0.04167	1874.4	53.5	2140
	W16x31	17		32.5	552.5	2.42	41.14	1.59	27.03	900		0.01889	620.67	41.5	705.5
	W21x50	25		52.5	1312.5	2.96	74	1.42	35.5	1064		0.0235	1422	64.5	1612.5
	W24x55	52.33		57.5	3008.98	2.84	148.6172	1.37	71.6921	1110		0.04714	3229.284	69.5	3636.94
	W24x62	150		65	9750	2.84	426	1.37	205.5	1110		0.13514	10381.5	78	11700
	W24x76	230		79.5	18285	2.84	653.2	1.37	315.1	1110		0.20721	19253.3	94	21620
		4189.33			122932		14078.46		8876.1021			6.17423	145886.8		170454
2403200	NonComposite Deck, Roof 22 Ga, 3" Deep	13335.5	SF	2.02	26937.7	0.36	4800.78	0.02	266.71	3600	E-4	3.70431	32005.2	2.92	38939.7
2405800	Composite Deck, 2-4 20 Ga, 3"	11469.5		1.71	19612.8	0.43	4931.885	0.03	344.085	3000		3.82317	24888.82	2.72	31197
	Composite Deck, Park 20 Ga, 3"	22214.2		1.71	37986.3	0.43	9552.106	0.03	666.426	3000		7.40473	48204.81	2.72	60422.6
7001500	Poured Concrete on Deck, 2-4	123.9	CY	246	30479.4	13.55	1678.845	5.3	656.67	160	C-20	0.77438	32814.92	28	3469.2

	Poured Concrete on Deck, Park	240		246	59040	13.55	3252	5.3	1272	160		1.5	63564	28	6720
8401000	Weld Shear Connectors, 2-4 3/4" Diameter, 5.5" Long, Park	1629	Ea	0.62	1009.98	0.72	1172.88	0.29	472.41	905	E-10	1.8	2655.27	2.35	3828.15
		4603		0.62	2853.86	0.72	3314.16	0.29	1334.87	905		5.08619	7502.89	2.35	10817.1
7812	Cementitious Fireproofing On Corrugated Deck, 1"	11469.5	SF	0.64	7340.48	0.56	6422.92	0.09	1032.255	1250	G-2	9.1756	14795.66	1.71	19612.8
		22214.2		0.64	14217.1	0.56	12439.95	0.09	1999.278	1250		17.7714	28656.32	1.71	37986.3
2402850	Footings	235.7	CY	242	57039.4	47	11077.9	0.26	61.282	81	C-14C	2.90988	68178.58	345	81316.5

R.S. Means 2006 Cost Data

240													
0010	CONCRETE IN PLACE	R033053-10											
0020	Including forms (4 uses), concrete, placement, reinforcing												
0050	steel and finishing unless otherwise indicated	R033053-50											
0300	Beams, 5 kip per L.F., 10' span		C-14A	15.62	12.804	C.Y.	287	455	46	788	1,12
0350	25' span	R033053-60	"	18.55	10.782		298	385	39	722	1,0
0500	Chimney foundations, industrial, minimum		C-14C	32.22	3.476		129	118	.66	247.66	3
0510	Maximum	R033105-80	"	23.71	4.724		152	160	.90	312.90	4
0700	Columns, square, 12" x 12", minimum reinforcing		C-14A	11.96	16.722		305	595	60.50	960.50	1,4
0720	Average reinforcing	R033105-85		10.13	19.743		485	705	71.50	1,261.50	1,7
0740	Maximum reinforcing			9.03	22.148		725	790	80	1,595	2,2
0800	16" x 16", minimum reinforcing			16.22	12.330		243	440	44.50	727.50	1,0
0820	Average reinforcing			12.57	15.911		410	565	57.50	1,032.50	1,4
0840	Maximum reinforcing			10.25	19.512		640	695	70.50	1,405.50	1,9
0900	24" x 24", minimum reinforcing			23.66	8.453		207	300	30.50	537.50	7
0920	Average reinforcing			17.71	11.293		370	400	41	811	1,1
0940	Maximum reinforcing			14.15	14.134		585	505	51	1,141	1,5
1000	36" x 36", minimum reinforcing			33.69	5.936		182	211	21.50	414.50	5
1020	Average reinforcing			23.32	8.576		325	305	31	661	8
1040	Maximum reinforcing			17.82	11.223		545	400	40.50	985.50	1,3
1200	16" diameter, minimum reinforcing			31.49	6.351		236	226	23	485	6
1220	Average reinforcing			19.12	10.460		415	370	38	823	1,1
1240	Maximum reinforcing			13.77	14.524		630	515	52.50	1,197.50	1,6
1300	20" diameter, minimum reinforcing			41.04	4.873		238	174	17.60	429.60	5
1320	Average reinforcing			24.05	8.316		400	296	30	726	9
1340	Maximum reinforcing			17.01	11.758		630	420	42.50	1,092.50	1,4
1400	24" diameter, minimum reinforcing			51.85	3.857		223	137	13.90	373.90	4
1420	Average reinforcing			27.06	7.391		400	263	26.50	689.50	9
1440	Maximum reinforcing			18.29	10.935		620	390	39.50	1,049.50	1,3
1500	36" diameter, minimum reinforcing			75.04	2.665		224	95	9.60	328.60	4
1520	Average reinforcing			37.49	5.335		380	190	19.25	589.25	7
1540	Maximum reinforcing			22.84	8.757		600	310	31.50	941.50	1,2
1900	Elevated slabs, flat slab with drops, 125 psf Sup. Load, 20' span		C-14B	38.45	5.410		242	192	18.75	452.75	6
1950	30' span			50.99	4.079		250	145	14.15	409.15	5
2100	Flat plate, 125 psf Sup. Load, 15' span			30.24	6.878		220	245	24	489	6



03310 | Structural Concrete		CREW	DAILY OUTPUT	LABOR-HOURS	UNIT	2006 BARE COSTS MAT.	LABOR	EQUIP.	TOTAL	TOTAL INCL O&P
2150	25' span	C-14B	49.60	4.194	C.Y.	226	149	14.55	389.55	510
2300	Waffle const., 30" domes, 125 psf Sup. Load, 20' span R033053-10		37.07	5.611		330	200	19.45	549.45	715
2350	30' span		44.07	4.720		294	168	16.40	478.40	620
2500	One way joists, 30" pans, 125 psf Sup. Load, 15' span R033053-50		27.38	7.597		410	270	26.50	706.50	930
2550	25' span		31.15	6.677		375	237	23	635	830
2700	One way beam & slab, 125 psf Sup. Load, 15' span R033053-60		20.59	10.102		245	360	35	640	905
2750	25' span		28.36	7.334		225	261	25.50	511.50	705
2900	Two way beam & slab, 125 psf Sup. Load, 15' span R033105-80		24.04	8.652		232	310	30	572	800
2950	25' span	▼	35.87	5.799	▼	196	206	20	422	575
3100	Elevated slabs including finish, not R033105-85									
3110	including forms or reinforcing									
3150	Regular concrete, 4" slab	C-8	2613	.021	S.F.	1.18	.66	.27	2.11	2.67
3200	6" slab		2585	.022		1.74	.67	.27	2.68	3.31
3250	2-1/2" thick floor fill		2685	.021		.76	.65	.26	1.67	2.17
3300	Lightweight, 110# per C.F., 2-1/2" thick floor fill		2585	.022		1.04	.67	.27	1.98	2.54
3400	Cellular concrete, 1-5/8" fill, under 5000 S.F.		2000	.028		.70	.87	.35	1.92	2.57
3450	Over 10,000 S.F.		2200	.025		.66	.79	.32	1.77	2.36
3500	Add per floor for 3 to 6 stories high		31800	.002			.05	.02	.07	.11
3520	For 7 to 20 stories high	▼	21200	.003	▼		.08	.03	.11	.17
3800	Footings, spread under 1 C.Y.	C-14C	38.07	2.942	C.Y.	175	99.50	.56	275.06	360
3850	Over 5 C.Y.		81.04	1.382		242	47	.26	289.26	345
3900	Footings, strip, 18" x 9", unreinforced		40	2.800		109	95	.53	204.53	278
			35	3.200		130	108	.61	238.61	325
	COLUMNS, STRUCTURAL R051223-20									
	Shop fab'd for 100-ton, 1-2 story project, bolted conn's.									
	Steel, concrete filled, extra strong pipe, 3-1/2" diameter	E-2	660	.085	L.F.	31.50	3.30	2.16	36.96	43
	4" diameter		780	.072		35	2.79	1.83	39.62	45.50
	5" diameter		1020	.055		41.50	2.14	1.40	45.04	51.50
	6" diameter		1200	.047		55	1.82	1.19	58.01	65
	8" diameter	▼	1100	.051	▼	55	1.98	1.30	58.28	65.50
	For galvanizing, add				Lb.	.22			.22	.25
	For web ties, angles, etc., add per added lb.	1 Sswk	945	.008		.95	.34		1.29	1.68
	Steel pipe, extra strong, no concrete, 3" to 5" diameter	E-2	16000	.004		.95	.14	.09	1.18	1.39
	6" to 12" diameter		14000	.004	▼	.95	.16	.10	1.21	1.44
	Steel pipe, extra strong, no concrete, 3" diameter x 12'-0"		60	.933	Ea.	117	36.50	24	177.50	220
	4" diameter x 12'-0"		58	.966		171	37.50	24.50	233	283
	6" diameter x 12'-0"		54	1.037		325	40.50	26.50	392	460
	8" diameter x 14'-0"		50	1.120		575	43.50	28.50	647	745
	10" diameter x 16'-0"		48	1.167		830	45.50	29.50	905	1,025
	12" diameter x 18'-0"		45	1.244	▼	1,125	48.50	31.50	1,205	1,350
	Structural tubing, square, A500GrB, 4" to 6" square, light section		11270	.005	Lb.	.95	.19	.13	1.27	1.54
	Heavy section	▼	32000	.002	"	.95	.07	.04	1.06	1.22
	Concrete filled, add				L.F.	3.47			3.47	3.81
	Structural tubing, sq, 4" x 4" x 1/4" x 12'-0"	E-2	58	.966	Ea.	157	37.50	24.50	219	267
	6" x 6" x 1/4" x 12'-0"		54	1.037		257	40.50	26.50	324	385
	8" x 8" x 3/8" x 14'-0"		50	1.120		555	43.50	28.50	627	720
	10" x 10" x 1/2" x 16'-0"		48	1.167	▼	1,025	45.50	29.50	1,100	1,250
	Structural tubing, rect, 5" to 6" wide, light section		8000	.007	Lb.	.95	.27	.18	1.40	1.74
	Heavy section		12000	.005		.95	.18	.12	1.25	1.51
	7" to 10" wide, light section		15000	.004		.95	.15	.10	1.20	1.41
	Heavy section		18000	.003	▼	.95	.12	.08	1.15	1.36
	Structural tubing, rect, 5" x 3" x 1/4" x 12'-0"		58	.966	Ea.	152	37.50	24.50	214	262
	6" x 4" x 5/16" x 12'-0"		54	1.037		238	40.50	26.50	305	365
	8" x 4" x 3/8" x 12'-0"		54	1.037		345	40.50	26.50	412	480
	10" x 6" x 3/8" x 14'-0"		50	1.120		555	43.50	28.50	627	720
	12" x 8" x 1/2" x 16'-0"		48	1.167	▼	1,025	45.50	29.50	1,100	1,250
	W Shape, A992 steel, 2 tier, W8 x 24		1080	.052	L.F.	25	2.02	1.32	28.34	32.50
	W8 x 31		1080	.052		32.50	2.02	1.32	35.84	40.50
	W8 x 48		1032	.054		50	2.11	1.38	53.49	60.50
	W8 x 67		984	.057		70	2.21	1.45	73.66	82.50
	W10 x 45		1032	.054		47	2.11	1.38	50.49	57

METALS

640	0010	**STRUCTURAL STEEL MEMBERS** R051223-10											
	0020	Shop fab'd for 100-ton, 1-2 story project, bolted conn's. R051223-15											
	0102	W 6 x 9	E-2	600	.093	L.F.	9.40	3.63	2.38	15.41	19.45
	0302	W 8 x 10		600	.093		10.45	3.63	2.38	16.46	20.50
	0502	x 31		550	.102		32.50	3.96	2.59	39.05	45.50
	0702	W 10 x 22		600	.093		23	3.63	2.38	29.01	34.50
	0902	x 49		550	.102		51	3.96	2.59	57.55	66.50
	1102	W 12 x 14		880	.064		14.65	2.48	1.62	18.75	22.50
	1302	x 22		880	.064		23	2.48	1.62	27.10	31.50
	1502	x 26		880	.064		27	2.48	1.62	31.10	36
	1702	x 72		640	.088		75	3.40	2.23	80.63	91.50
	1902	W 14 x 26		990	.057		27	2.20	1.44	30.64	35.50
	2102	x 30		900	.062		31.50	2.42	1.59	35.51	40.50
	2302	x 34		810	.069		35.50	2.69	1.76	39.95	46
	2502	x 120		720	.078		125	3.03	1.98	130.01	146
	2702	W 16 x 26		1000	.056		27	2.18	1.43	30.61	35.50
	2902	x 31		900	.062		32.50	2.42	1.59	36.51	41.50
	3102	x 40		800	.070		42	2.72	1.78	46.50	53
	3302	W 18 x 35	E-5	960	.083		36.50	3.28	1.58	41.36	47.50
	3502	x 40		960	.083		42	3.28	1.58	46.86	53.50
	3702	x 50		912	.088		52.50	3.46	1.66	57.62	65.50
	3902	x 55		912	.088		57.50	3.46	1.66	62.62	71
	4102	W 21 x 44		1064	.075		46	2.96	1.42	50.38	57.50
	4302	x 50		1064	.075		52.50	2.96	1.42	56.88	64.50
	4502	x 62		1036	.077		65	3.04	1.46	69.50	78.50
	4702	x 68		1036	.077		71	3.04	1.46	75.50	85
	4902	W 24 x 55		1110	.072		57.50	2.84	1.37	61.71	69.50
	5102	x 62		1110	.072		65	2.84	1.37	69.21	78
	5302	x 68		1110	.072		71	2.84	1.37	75.21	84.50
	5502	x 76		1110	.072		79.50	2.84	1.37	83.71	94
	5702	x 84		1080	.074		88	2.92	1.40	92.32	103
	5902	W 27 x 94		1190	.067		98	2.65	1.27	101.92	114
								2.63	1.26	106.89	120

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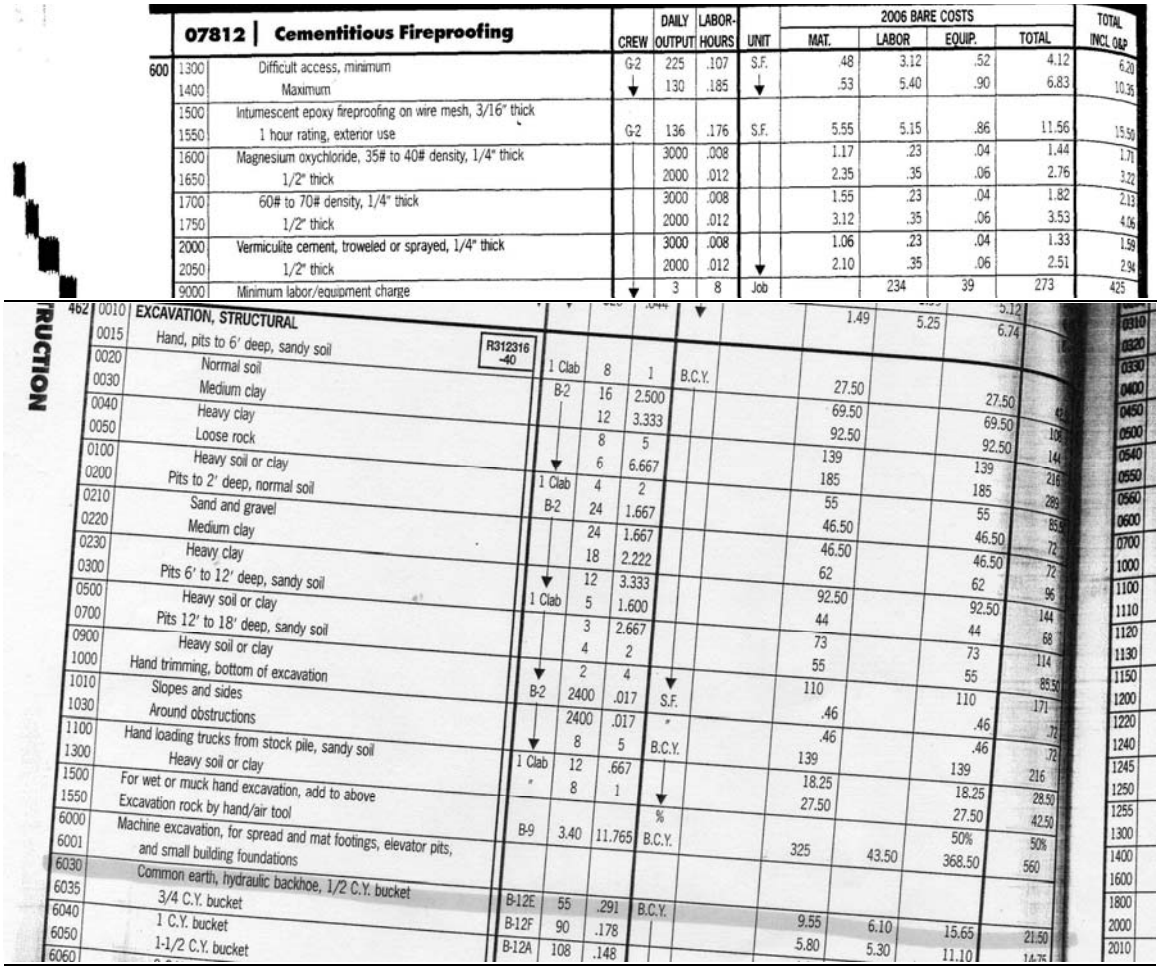
		05310 | Steel Deck	CREW	DAILY OUTPUT	LABOR-HOURS	UNIT	2006 BARE COSTS MAT.	LABOR	EQUIP.	TOTAL	TOTAL INCL O&P
300	0010	**METAL DECKING** Steel decking R053100-10									
	0200	Cellular units, galv, 2" deep, 20-20 gauge, over 15 squares	E-4	1460	.022	S.F.	5.85	.89	.06	6.80	8.20
	0250	18-20 gauge		1420	.023		6.65	.91	.06	7.62	9.05
	0300	18-18 gauge		1390	.023		6.85	.93	.06	7.84	9.30
	0320	16-18 gauge		1360	.024		8.15	.95	.07	9.17	10.80
	0340	16-16 gauge		1330	.024		9.05	.97	.07	10.09	11.85
	0400	3" deep, galvanized, 20-20 gauge		1375	.023		6.45	.94	.06	7.45	8.95
	0500	18-20 gauge		1350	.024		7.80	.96	.07	8.83	10.40
	0600	18-18 gauge		1290	.025		7.75	1	.07	8.82	10.50
	0700	16-18 gauge		1230	.026		8.75	1.05	.07	9.87	11.65
	0800	16-16 gauge		1150	.028		9.55	1.13	.08	10.76	12.70
	1000	4-1/2" deep, galvanized, 20-18 gauge		1100	.029		9	1.18	.08	10.26	12.20
	1100	18-18 gauge		1040	.031		8.95	1.24	.09	10.28	12.25
	1200	16-18 gauge		980	.033		10.05	1.32	.09	11.46	13.60
	1300	16-16 gauge		935	.034		10.95	1.38	.10	12.43	14.75
	1500	For acoustical deck, add					15%				
	1700	For cells used for ventilation, add					15%				
	1900	For multi-story or congested site, add						50%			
	2100	Open type, galv., 1-1/2" deep wide rib, 22 gauge, under 50 squares	E-4	4500	.007	S.F.	1.47	.29	.02	1.78	2.17
	2400	Over 500 squares		5100	.006		1.06	.25	.02	1.33	1.65
	2600	20 gauge, under 50 squares		3865	.008		1.73	.33	.02	2.08	2.56
	2700	Over 500 squares		4300	.007		1.24	.30	.02	1.56	1.95
	2900	18 gauge, under 50 squares		3800	.008		2.24	.34	.02	2.60	3.13
	3000	Over 500 squares		4300	.007		1.61	.30	.02	1.93	2.35
	3050	16 gauge, under 50 squares		3700	.009		3.01	.35	.02	3.38	3.99
	3100	Over 500 squares		4200	.008		2.17	.31	.02	2.50	2.99
	3200	3" deep, 22 gauge, under 50 squares		3600	.009		2.02	.36	.02	2.40	2.92
	3300	20 gauge, under 50 squares		3400	.009		2.33	.38	.02	2.73	3.32
840	0010	**WELD SHEAR CONNECTORS**									
	0020	3/4" diameter, 3-3/16" long	E-10	960	.017	Ea.	.41	.68	.28	1.37	2.03
	0030	3-3/8" long		950	.017		.43	.69	.28	1.40	2.07
	0200	3-7/8" long		945	.017		.46	.69	.28	1.43	2.12
	0300	4-3/16" long		935	.017		.48	.70	.28	1.46	2.15
	0500	4-7/8" long		930	.017		.54	.70	.29	1.53	2.22
	0600	5-3/16" long		920	.017		.56	.71	.29	1.56	2.27
	0800	5-3/8" long		910	.018		.57	.72	.29	1.58	2.29



		07812 | Cementitious Fireproofing	CREW	DAILY OUTPUT	LABOR-HOURS	UNIT	2006 BARE COSTS MAT.	LABOR	EQUIP.	TOTAL	TOTAL INCL O&P
600	1300	Difficult access, minimum	G-2	225	.107	S.F.	.48	3.12	.52	4.12	6.20
	1400	Maximum	↓	130	.185	↓	.53	5.40	.90	6.83	10.35
	1500	Intumescent epoxy fireproofing on wire mesh, 3/16" thick									
	1550	1 hour rating, exterior use	G-2	136	.176	S.F.	5.55	5.15	.86	11.56	15.50
	1600	Magnesium oxychloride, 35# to 40# density, 1/4" thick		3000	.008		1.17	.23	.04	1.44	1.71
	1650	1/2" thick		2000	.012		2.35	.35	.06	2.76	3.22
	1700	60# to 70# density, 1/4" thick		3000	.008		1.55	.23	.04	1.82	2.13
	1750	1/2" thick		2000	.012		3.12	.35	.06	3.53	4.06
	2000	Vermiculite cement, troweled or sprayed, 1/4" thick		3000	.008		1.06	.23	.04	1.33	1.59
	2050	1/2" thick		2000	.012	↓	2.10	.35	.06	2.51	2.94
	9000	Minimum labor/equipment charge	↓	3	8	Job		234	39	273	425

		EXCAVATION, STRUCTURAL	R312316-40									
462	0010								1.49	5.25	6.74	
	0015	Hand, pits to 6' deep, sandy soil		1 Clab	8	1	B.C.Y.					
	0020	Normal soil		B-2	16	2.500			27.50		27.50	
	0030	Medium clay			12	3.333			69.50		69.50	
	0040	Heavy clay			8	5			92.50		92.50	
	0050	Loose rock		↓	6	6.667			139		139	
	0100	Heavy soil or clay		1 Clab	4	2			185		185	
	0200	Pits to 2' deep, normal soil		B-2	24	1.667			55		55	
	0210	Sand and gravel			24	1.667			46.50		46.50	
	0220	Medium clay			18	2.222			46.50		46.50	
	0230	Heavy clay		↓	12	3.333			62		62	
	0300	Pits 6' to 12' deep, sandy soil		1 Clab	5	1.600			92.50		92.50	
	0500	Heavy soil or clay			3	2.667			44		44	
	0700	Pits 12' to 18' deep, sandy soil			4	2			73		73	
	0900	Heavy soil or clay		↓	2	4	▼		55		55	
	1000	Hand trimming, bottom of excavation		B-2	2400	.017	S.F.		110		110	
	1010	Slopes and sides			2400	.017	"		.46		.46	
	1030	Around obstructions		↓	8	5	B.C.Y.		.46		.46	
	1100	Hand loading trucks from stock pile, sandy soil		1 Clab	12	.667			139		139	
	1300	Heavy soil or clay		"	8	1	▼		18.25		18.25	
	1500	For wet or muck hand excavation, add to above							27.50		27.50	
	1550	Excavation rock by hand/air tool					%				50%	
	6000	Machine excavation, for spread and mat footings, elevator pits,		B-9	3.40	11.765	B.C.Y.		325	43.50	368.50	
	6001	and small building foundations										
	6030	Common earth, hydraulic backhoe, 1/2 C.Y. bucket		B-12E	55	.291	B.C.Y.					
	6035	3/4 C.Y. bucket		B-12F	90	.178			9.55	6.10	15.65	
	6040	1 C.Y. bucket		B-12A	108	.148			5.80	5.30	11.10	
	6050	1-1/2 C.Y. bucket										
	6060											