

01 31 13 – Project Coordination

01 31 13.30 Insurance		Crew	Daily Output	Labor Hours	Unit	Material	2007 Bare Costs		Total	Total Ind O&P
2100	Average				Payroll		Labor	Equipment		
2200	Maximum				↓		16.30%			
							197.85%			
01 31 13.40 Main Office Expense										
0010	MAIN OFFICE EXPENSE Average for General Contractors									
0020	As a percentage of their annual volume									
0125	Annual volume under 1 million dollars				% Vol.					13.60%
0145	Up to 2.5 million dollars									8%
0150	Up to 4.0 million dollars									6.80%
0200	Up to 7.0 million dollars									5.60%
0250	Up to 10 million dollars									5.10%
0300	Over 10 million dollars				↓					3.90%
01 31 13.50 Mark-Up										
0010	MARK-UP For General Contractors for change									
0100	of scope of job as bid									
0200	Extra work, by subcontractors, add				%					10%
0250	By General Contractor, add									15%
0400	Omitted work, by subcontractors, deduct all but									5%
0450	By General Contractor, deduct all but									7.50%
0600	Overtime work, by subcontractors, add									15%
0650	By General Contractor, add									10%
1000	Installing contractors, on his own labor, minimum								60.90%	
1100	Maximum				↓				101.30%	
01 31 13.60 Overhead										
0010	OVERHEAD									
0020	As percent of direct costs, minimum				%					5%
0050	Average									25%
0100	Maximum				↓					30%
01 31 13.80 Overhead and Profit										
0010	OVERHEAD & PROFIT Allowance to add to items in this									
0020	book that do not include Subs O&P, average				%					25%
0100	Allowance to add to items in this book that									
0110	do include Subs O&P, minimum				%					5%
0150	Average									10%
0200	Maximum									15%
0300	Typical, by size of project, under \$100,000									30%
0350	\$500,000 project									25%
0400	\$2,000,000 project									20%
0450	Over \$10,000,000 project				↓					15%
01 31 13.90 Performance Bond										
0010	PERFORMANCE BOND									
0020	For buildings, minimum				Job					60%
0100	Maximum				"					2.50%

01 32 Construction Progress Documentation

01 32 13 - Scheduling of work

01 32 13.50 Scheduling

Code	Description	Daily Crew	Output	Labor-Hours	Unit	Material	2007 Bare Costs			Total Incl O&P
							Labor	Equipment	Total	
0010	SCHEDULING									
0020	Critical path, as % of architectural fee, minimum				%					.50%
0100	Maximum				"					1%
0300	Computer-update, micro, no plots, minimum				Ea.				455	500
0400	Including plots, maximum				"				1,455	1,600
0600	Rule of thumb, CPM scheduling, small job (\$10 Million)				Job					.05%
0650	Large job (\$50 Million +)				"					.03%
0700	Including cost control, small job				"					.08%
0750	Large job				"					.04%

01 32 33 - Photographic Documentation

01 32 33.50 Photographs

Code	Description	Daily Crew	Output	Labor-Hours	Unit	Material	2007 Bare Costs			Total Incl O&P
							Labor	Equipment	Total	
0010	PHOTOGRAPHS									
0020	8" x 10", 4 shots, 2 prints ea., std. mounting				Set	450			450	495
0100	Hinged linen mounts				"					
0200	8" x 10", 4 shots, 2 prints each, in color				"	530			530	580
0300	For I.D. slugs, add to all above				"	455			455	505
0500	Aerial photos, initial fly-over, 6 shots, 1 print ea., 8" x 10"				"	5.30			5.30	5.85
0550	11" x 14" prints				"	790			790	870
0600	16" x 20" prints				"	920			920	1,025
0700	For full color prints, add				"	1,150			1,150	1,250
0750	Add for traffic control area				"	40%				40%
0900	For over 30 miles from airport, add per				"	294			294	325
1000	Vertical photography, 4 to 6 shots with				Mile	5.30			5.30	5.85
1010	different scales, 1 print each				"					
1500	Time lapse equipment, camera and projector, buy				Set	1,100			1,100	1,200
1550	Rent per month				"	3,775			3,775	4,175
1700	Cameras and film, including processing, B.&W.				"	565			565	620
1720	Color				Day	1,375			1,375	1,525
					"	1,375			1,375	1,525

01 41 Regulatory Requirements

01 41 26 - Permits

01 41 26.50 Permits

Code	Description	Daily Crew	Output	Labor-Hours	Unit	Material	2007 Bare Costs			Total Incl O&P
							Labor	Equipment	Total	
0010	PERMITS									
0020	Rule of thumb, most cities, minimum				Job					.50%
0100	Maximum				"					2%

01 45 Quality Control

01 45 23 - Testing and Inspecting Services

01 45 23.50 Testing

Code	Description	Daily Crew	Output	Labor-Hours	Unit	Material	2007 Bare Costs			Total Incl O&P
							Labor	Equipment	Total	
0010	TESTING and Inspecting Services									
0015	For concrete building costing \$1,000,000, minimum				Project				4,725	5,200
0020	Maximum				"					
0050	Steel building, minimum				"				38,000	41,800
0070	Maximum				"				4,727	5,200
0100	For building costing, \$10,000,000, minimum				"				14,818	16,300
0150	Maximum				"				30,091	33,100
0200	Asphalt testing, compressive strength Marshall stability, set of 3				"				48,182	53,000
0220	Density, set of 3				Ea.				145	165

01 52 13 – Field Offices and Sheds

01 52 13.20 Office and Storage Space		Daily Crew	Output	Labor-Hours	Unit	Material	2007 Labor	Bare Costs Equipment	Total	Total Incl O&P
0010	OFFICE AND STORAGE SPACE									
0020	Trailer, furnished, no hookups, 20' x 8', buy	2 Skwk	1	16	Ea.	7,975	465		8,440	9,550
0250	Rent per month					201			201	221
0300	32' x 8', buy	2 Skwk	.70	22.857		11,900	665		12,565	14,100
0350	Rent per month					241			241	265
0400	50' x 10', buy	2 Skwk	.60	26.667		20,500	780		21,280	23,800
0450	Rent per month					330			330	365
0500	50' x 12', buy	2 Skwk	.50	32		25,600	935		26,535	29,800
0550	Rent per month					375			375	410
0700	For air conditioning, rent per month, add					41			41	45
0800	For delivery, add per mile				Mile	4.50			4.50	4.95
1000	Portable buildings, prefab, on skids, economy, 8' x 8'	2 Corp	.265	.060	S.F.	85	1.73		86.73	96.50
1100	Deluxe, 8' x 12'	"	.150	.107	"	95	3.06		98.06	110
1200	Storage boxes, 20' x 8', buy	2 Skwk	1.80	8.889	Ea.	4,175	260		4,435	5,025
1250	Rent per month					76			76	83.50
1300	40' x 8', buy	2 Skwk	1.40	11.429		6,175	335		6,510	7,350
1350	Rent per month					101			101	111
5000	Air supported structures, see division 13 31 13.13									

01 52 13.40 Field Office Expense

0010	FIELD OFFICE EXPENSE									
0100	Field office expense, office equipment rental average				Month	150			150	165
0120	Office supplies, average				"	95			95	105
0125	Office trailer rental, see division 01 52 13.20									
0140	Telephone bill, avg. bill/month incl. long dist.				Month	210			210	231
0160	Field office lights & HVAC				"	110			110	121

01 54 Construction Aids

01 54 09 – Protection Equipment

01 54 09.50 Personnel Protective Equipment

0010	PERSONNEL PROTECTIVE EQUIPMENT									
0015	Hazardous waste protection									
0020	Respirator mask only, full face, silicone				Ea.	207			207	228
0030	Half face, silicone					31.50			31.50	34.50
0040	Respirator cartridges, 2 req'd/mask, dust or asbestos					5.10			5.10	5.60
0050	Chemical vapor					4.30			4.30	4.73
0060	Combination vapor and dust					8.95			8.95	9.85
0100	Emergency escape breathing apparatus, 5 min					455			455	500
0110	10 min					525			525	575
0150	Self contained breathing apparatus with full face piece, 30 min					1,900			1,900	2,075
0160	60 min					3,025			3,025	3,325
0200	Encapsulating suits, limited use, level A					885			885	975
0210	Level B					178			178	196
0300	Over boots, latex				Pr.	4.11			4.11	4.52
0310	PVC					14.40			14.40	15.85
0320	Neoprene					51			51	56.50
0400	Gloves, nitrile/PVC					5.70			5.70	6.25
0410	Neoprene coated					26.50			26.50	29

01 54 09.60 Safety Nets

0010	SAFETY NETS									
0020	No supports, stock sizes, nylon, 4" mesh				S.F.	1.10			1.10	1.21

01 54 Construction Aids

01 54 09 - Protection Equipment

01 54 09.60 Safety Nets

	Daily Crew	Labor-Output	Hours	Unit	2007 Bare Costs			Total	Total Incl O&P
					Material	Labor	Equipment		
0100				S.F.	1.59			1.59	1.75
0200					.74			.74	.81
0220					2.05			2.05	2.26
0300					.50			.50	.55
0320					.25			.25	.28
0340					1.15			1.15	1.27

01 54 23 - Temporary Scaffolding and Platforms

01 54 23.60 Pump Staging

0100 PUMP STAGING, Aluminum		R015423-20							
0200	24' long pole section, buy			Ea.	370			370	405
0300	18' long pole section, buy				286			286	315
0400	12' long pole section, buy				193			193	212
0500	6' long pole section, buy				102			102	112
0600	6' long splice joint section, buy				76			76	83.50
0700	Pump jack				123			123	136
0900	Foldable brace				53.50			53.50	59
1000	Workbench/back safety rail support				65.50			65.50	72
1100	Scaffolding planks/workbench, 14" wide x 24' long				605			605	665
1200	Plank end safety rail				315			315	350
1250	Safety net, 22' long				291			291	320
1300	System in place, 50' working height, per use based on 50 uses	2 Carp	84.80	.189	C.S.F.	5.65	5.40	11.05	15.40
1400	100 uses		84.80	.189		2.83	5.40	8.23	12.25
1500	150 uses		84.80	.189		1.90	5.40	7.30	11.25

01 54 23.70 Scaffolding

0100 SCAFFOLDING		R015423-10							
0015	Steel tube, regular, no plank, labor only to erect & dismantle								
0091	Building exterior, wall face, 1 to 5 stories, 6'-4" x 5' frames	3 Clab	8	3	C.S.F.		66.50	66.50	113
0201	6 to 12 stories	4 Clab	8	4			88.50	88.50	150
0301	13 to 20 stories	5 Clab	8	5			111	111	188
0461	Building interior, walls face area, up to 16' high	3 Clab	12	2			44	44	75
0561	16' to 40' high		10	2.400			53	53	90
0801	Building interior floor area, up to 30' high		150	.160	C.C.F.		3.54	3.54	6
0901	Over 30' high	4 Clab	160	.200			4.42	4.42	7.50
0906	Complete system for face of walls, no plank, material only rent/mo				C.S.F.	34.50		34.50	37.50
0908	Interior spaces, no plank, material only rent/mo				C.C.F.	3.30		3.30	3.63
0910	Steel tubular, heavy duty shoring, buy								
0920	Frames 5' high 2' wide				Ea.	82.50		82.50	91
0925	5' high 4' wide					93.50		93.50	103
0930	6' high 2' wide					94.50		94.50	104
0935	6' high 4' wide					110		110	121
0940	Accessories								
0945	Cross braces				Ea.	16		16	17.60
0950	U-head, 8" x 8"					19.30		19.30	21
0955	J-head, 4" x 8"					14.10		14.10	15.50
0960	Base plate, 8" x 8"					15.70		15.70	17.25
0965	Leveling jack					33.50		33.50	37
1000	Steel tubular, regular, buy								
1100	Frames 3' high 5' wide				Ea.	64		64	70
1150	5' high 5' wide					73.50		73.50	81
1200	6'-4" high 5' wide					92.50		92.50	102

01 55 Vehicular Access and Parking

01 55 23 - Temporary Roads

01 55 23.50 Roads and Sidewalks		Daily Crew	Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Ind O&P
							Labor	Equipment		
0010	ROADS AND SIDEWALKS Temporary									
0050	Roads, gravel fill, no surfacing, 4" gravel depth	B-14	715	.067	S.Y.	3.87	1.58	.34	5.79	7.30
0100	8" gravel depth	"	615	.078	"	7.75	1.83	.40	9.98	12.05
1001	Ramp, 3/4" plywood on 2" x 6" joists, 16" O.C.	2 Clab	300	.053	S.F.	1.66	1.18		2.84	3.83
1101	On 2" x 10" joists, 16" O.C.	"	275	.058	"	2.04	1.29		3.33	4.42

01 56 Temporary Barriers and Enclosures

01 56 13 - Temporary Air Barriers

01 56 13.60 Tarpaulins

0010	TARPAULINS									
0020	Cotton duck, 10 oz. to 13.13 oz. per S.Y., minimum				S.F.	.48			.48	.53
0050	Maximum					.62			.62	.68
0100	Polyvinyl coated nylon, 14 oz. to 18 oz., minimum					.48			.48	.53
0150	Maximum					.68			.68	.75
0200	Reinforced polyethylene 3 mils thick, white					.15			.15	.17
0300	4 mils thick, white, clear or black					.20			.20	.22
0400	5.5 mils thick, clear					.25			.25	.28
0500	White, fire retardant					.35			.35	.39
0600	7.5 mils, oil resistant, fire retardant					.40			.40	.44
0700	8.5 mils, black					.53			.53	.58
0710	Woven polyethylene, 6 mils thick					.35			.35	.39
0730	Polyester reinforced w/ integral fastening system 11 mils thick					1.07			1.07	1.18
0740	Mylar polyester, non-reinforced, 7 mils thick					1.17			1.17	1.29

01 56 13.90 Winter Protection

0010	WINTER PROTECTION Reinforced plastic on wood									
0100	Framing to close openings	2 Clab	750	.021	S.F.	.39	.47		.86	1.23
0200	Tarpaulins hung over scaffolding, 8 uses, not incl. scaffolding		1500	.011		.25	.24		.49	.68
0250	Tarpaulin polyester reinf. w/ integral fastening system 11 mils thick		1600	.010		.80	.22		1.02	1.26
0300	Prefab fiberglass panels, steel frame, 8 uses		1200	.013		.85	.29		1.14	1.44

01 56 23 - Temporary Barricades

01 56 23.10 Barricades

0011	BARRICADES									
0030	5' high, 3 rail @ 2" x 8", fixed	2 Clab	20	.800	L.F.	11	17.70		28.70	42
0200	Precast barrier walls, 10' sections	B-6	240	.100	"	29	2.42	1.01	32.43	37
0300	Stock units, 6' high, 8' wide, plain, buy					Ea.	435		435	480
0350	With reflective tape, buy					"	525		525	580
0400	Break-a-way 3" PVC pipe barricade									
0410	with 3 ea. 1' x 4' reflectorized panels, buy					Ea.	305		305	335
0500	Plywood with steel legs, 32" wide						72		72	79
0600	Telescoping Christmas tree, 9' high, 5 flags, buy						122		122	134
0800	Traffic cones, PVC, 18" high						7.10		7.10	7.80
0850	28" high						14.20		14.20	15.65
1001	Guardrail, wooden, 3' high, 1" x 6" on 2" x 4" posts	2 Clab	200	.080	L.F.	1.14	1.77		2.91	4.26
1101	2" x 6" on 4" x 4" posts	"	165	.097		2.77	2.14		4.91	6.70
1200	Portable metal with base pads, buy						13.15		13.15	14.50
1251	Typical installation, assume 10 reuses	2 Clab	600	.027		1.31	.59		1.90	2.44

01 56 26 - Temporary Fencing

01 56 26.50 Temporary Fencing

03 11 Concrete Forming

03 11 13 - Structural Cast-In-Place Concrete Forming

03 11 13.45 Forms In Place, Footings		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
1500	Keyway, 4 use, tapered wood, 2" x 4"	1 Carp	530	.015	L.F.	.20	.43		.63	.95
1550	2" x 6"		500	.016		.29	.46		.75	1.10
2000	Tapered plastic, 2" x 3"		530	.015		.70	.43		1.13	1.50
2050	2" x 4"		500	.016		.90	.46		1.36	1.77
2250	For keyway hung from supports, add		150	.053		.84	1.53		2.37	3.52
3000	Pile cap, square or rectangular, job-built plywood, 1 use	C-1	290	.110	SFCA	2.46	2.78		5.24	7.40
3050	2 use		346	.092		1.35	2.33		3.68	5.45
3100	3 use		371	.086		.98	2.17		3.15	4.76
3150	4 use		383	.084		.80	2.10		2.90	4.44
4000	Triangular or hexagonal, 1 use		225	.142		2.90	3.58		6.48	9.25
4050	2 use		280	.114		1.60	2.88		4.48	6.65
4100	3 use		305	.105		1.16	2.64		3.80	5.75
4150	4 use		315	.102		.94	2.56		3.50	5.35
5000	Spread footings, job-built lumber, 1 use		305	.105		1.81	2.64		4.45	6.45
5050	2 use		371	.086		1	2.17		3.17	4.78
5100	3 use		401	.080		.72	2.01		2.73	4.19
5150	4 use		414	.077		.59	1.94		2.53	3.95
6000	Supports for dowels, plinths or templates, 2' x 2' footing		25	1.280	Ec.	5.45	32		37.45	60.50
6050	4' x 4' footing		22	1.455		10.95	36.50		47.45	74
6100	8' x 8' footing		20	1.600		22	40.50		62.50	92.50
6150	12' x 12' footing		17	1.882		26.50	47.50		74	110
7000	Plinths, job-built plywood, 1 use		250	.128	SFCA	2.76	3.22		5.98	8.50
7100	4 use		270	.119	"	.91	2.98		3.89	6.05
03 11 13.47 Forms In Place, Gas Station Forms										
0010	FORMS IN PLACE, GAS STATION FORMS									
0050	Curb fascia, with template, 12 ga. steel, left in place, 9" high	1 Carp	50	.160	L.F.	10.75	4.58		15.33	19.60
1000	Sign or light bases, 18" diameter, 9" high		9	.889	Ec.	67.50	25.50		93	118
1050	30" diameter, 13" high		8	1		108	28.50		136.50	167
2000	Island forms, 10' long, 9" high, 3'-6" wide	C-1	10	3.200		300	80.50		380.50	465
2050	4' wide		9	3.556		310	89.50		399.50	490
2500	20' long, 9" high, 4' wide		6	5.333		500	134		634	780
2550	5' wide		5	6.400		520	161		681	845
03 11 13.50 Forms In Place, Grade Beam										
0010	FORMS IN PLACE, GRADE BEAM									
0020	Job-built plywood, 1 use	R031113-40	C-2	530	.091	SFCA	1.73	2.30	4.03	5.80
0050	2 use	R031113-60		580	.083		.95	2.10	3.05	4.62
0100	3 use			600	.080		.69	2.03	2.72	4.21
0150	4 use			605	.079		.56	2.02	2.58	4.04
03 11 13.55 Forms In Place, Mat Foundation										
0010	FORMS IN PLACE, MAT FOUNDATION									
0020	Job-built plywood, 1 use	R031113-40	C-2	290	.166	SFCA	2.54	4.21	6.75	9.95
0050	2 use	R031113-60		310	.155		.99	3.94	4.93	7.75
0100	3 use			330	.145		.70	3.70	4.40	7
0120	4 use			350	.137		.59	3.49	4.08	6.55
03 11 13.65 Forms In Place, Slab On Grade										
0010	FORMS IN PLACE, SLAB ON GRADE									
1000	Bulkhead forms w/keyway, wood, 6" high, 1 use	R031113-40	C-1	510	.063	L.F.	.87	1.58	2.45	3.64
1050	2 usas	R031113-60		400	.080		.48	2.01	2.49	3.94
1100	4 usas			350	.091		.28	2.30	2.58	4.21
1400	Bulkhead form for slab, 4-1/2" high, exp metal, incl keyway & stakes			1200	.027		.84	.67	1.51	2.06
1410	5-1/2" high			1100	.029		.90	.73	1.63	2.23
1420	7-1/2" high			960	.033		1.08	.84	1.92	2.61

13 - Structural Cast-in-Place Concrete Forming

13.85 Forms In Place, Slab On Grade		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Labor	Bare Costs Equipment	Total	Total Ind O&P
1385	5 1/2" high	C-1	840	.038	L.F.	1.88	.96		2.84	3.70
1386	Card forms, wood, 6" to 12" high, on grade, 1 use		215	.149	SFCA	1.95	3.74		5.69	8.50
1387	2 use		250	.128		1.08	3.22		4.30	6.65
1388	3 use		265	.121		.78	3.04		3.82	6
1389	4 use		275	.116		.63	2.93		3.56	5.65
1390	Edge forms, wood, 4 use, on grade, to 6" high		600	.053	L.F.	.29	1.34		1.63	2.60
1391	7" to 12" high		435	.074	SFCA	.65	1.85		2.50	3.85
1392	For depressed slabs, 4 use, to 12" high		300	.107	L.F.	.66	2.68		3.34	5.25
1393	To 24" high		175	.183		.85	4.60		5.45	8.75
1394	For slab blockouts, to 12" high, 1 use		200	.160		.68	4.03		4.71	7.60
1395	To 24" high, 1 use		120	.267		.86	6.70		7.56	12.35
1396	Plastic (extruded), to 6" high, multiple use, on grade		800	.040		.40	1.01		1.41	2.15
1397	Steel, 24 ga. metal key joint, see Div 03 15 05.25									
1398	Wood, incl. wood stakes, 1" x 3"	C-1	900	.036	L.F.	.45	.89		1.34	2.01
1399	2" x 4"		900	.036	"	.60	.89		1.49	2.18
1400	Teach forms in floor, wood, 1 use		160	.200	SFCA	2.51	5.05		7.56	11.30
1401	2 use		175	.183		1.21	4.60		5.81	9.15
1402	3 use		180	.178		.88	4.47		5.35	8.55
1403	4 use		185	.173		.71	4.35		5.06	8.20
1404	Lead form, corrugated fiberboard, 6" x 12", 10' long		240	.133	S.F.	.91	3.35		4.26	6.70

13.85 Forms In Place, Walls

FORMS IN PLACE, WALLS										
1405	Allow out for wall openings, to 16" thick, to 10 S.F.	R031113-10	C-2	24	2	Eq.	22	51	73	110
1406	Over 10 S.F. (use perimeter)	R031113-40	"	280	.171	L.F.	1.93	4.36	6.29	9.55
1407	Brick shelf, 4" w, add to wall forms, use wall area abv shelf									
1408	1 use	R031113-60	C-2	240	.200	SFCA	2.14	5.10	7.24	10.95
1409	2 use			275	.175		1.17	4.44	5.61	8.80
1410	4 use			300	.160		.85	4.07	4.92	7.85
1411	Bulkhead, with keyway, 1 use, 2 piece			265	.181	L.F.	3.49	4.61	8.10	11.65
1412	3 piece			175	.274		4.40	7	11.40	16.65
1413	Bulkhead forms with keyway, 1 piece expanded metal, 8" wall		C-1	1000	.032		1.08	.81	1.89	2.56
1414	10" wall			800	.040		1.88	1.01	2.89	3.78
1415	12" wall			525	.061		2.29	1.53	3.82	5.10
1416	Buttress, to 8' high, 1 use		C-2	350	.137	SFCA	3.82	3.49	7.31	10.10
1417	2 use			430	.112		2.10	2.84	4.94	7.10
1418	3 use			460	.104		1.53	2.65	4.18	6.20
1419	4 use			480	.100		1.26	2.54	3.80	5.70
1420	Chisel or hunch, to 12" wide, add to wall forms, 1 use			150	.320	L.F.	2.14	8.15	10.29	16.15
1421	2 use			170	.282		1.18	7.20	8.38	13.45
1422	3 use			175	.274		.86	7	7.86	12.75
1423	4 use			180	.267		.70	6.80	7.50	12.25
1424	Wall, below grade, job-built plywood, to 8' high, 1 use			300	.160	SFCA	2.49	4.07	6.56	9.65
1425	2 use			365	.132		1.58	3.34	4.92	7.40
1426	3 use			425	.113		1.15	2.87	4.02	6.15
1427	4 use			435	.110		.94	2.81	3.75	5.80
1428	Over 8' to 16' high, 1 use			280	.171		5.20	4.36	9.56	13.10
1429	2 use			345	.139		1.98	3.54	5.52	8.20
1430	3 use			375	.128		1.68	3.26	4.94	7.35
1431	4 use			395	.122		1.53	3.09	4.62	6.95
1432	Exterior wall, 8' to 16' high, 1 use			280	.171		2.06	4.36	6.42	9.65
1433	2 use			345	.139		1.14	3.54	4.68	7.25
1434	3 use			375	.128		.81	3.26	4.07	6.40

03 21 05 - Reinforcing Steel Accessories

03 21 05.75 Splicing Reinforcing Bars

		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
2100	#11 to #18 & #14 to #18 transition	C-5	75	.640	Ea.	38.50	18.10	9.85	66.45	85
2400	Bent bars, #10 & #11		105	.457		15.75	12.95	7.05	35.75	47.50
2500	#14		90	.533		27	15.10	8.20	50.30	64.50
2600	#18		70	.686		44.50	19.40	10.55	74.45	93.50
2800	#11 to #14 transition		75	.640		25.50	18.10	9.85	53.45	70.50
2900	#11 to #18 & #14 to #18 transition		70	.686		42	19.40	10.55	71.95	91

03 21 10 - Uncoated Reinforcing Steel

03 21 10.60 Reinforcing In Place

0015	REINFORCING IN PLACE A615 Grade 60, incl. access. labor	R032110-10								
0100	Beams & Girders, #3 to #7		4 Rodm	1.60	20	Ton	895	620	1,515	2,075
0150	#8 to #18	R032110-20		2.70	11.852		895	365	1,260	1,650
0200	Columns, #3 to #7			1.50	21.333		895	660	1,555	2,150
0250	#8 to #18			2.30	13.913		895	430	1,325	1,750
0300	Spirals, hot rolled, 8" to 15" diameter			2.20	14.545		1,175	450	1,625	2,100
0320	15" to 24" diameter	R032110-40		2.20	14.545		1,125	450	1,575	2,025
0330	24" to 36" diameter			2.30	13.913		1,075	430	1,505	1,950
0340	36" to 48" diameter	R032110-50		2.40	13.333		1,025	415	1,440	1,850
0360	48" to 64" diameter			2.50	12.800		1,125	395	1,520	1,925
0380	64" to 84" diameter	R032110-70		2.60	12.308		1,175	380	1,555	1,975
0390	84" to 96" diameter			2.70	11.852		1,225	365	1,590	2,000
0400	Elevated slabs, #4 to #7	R032110-80		2.90	11.034		950	340	1,290	1,650
0500	Footings, #4 to #7			2.10	15.238		850	470	1,320	1,775
0550	#8 to #18			3.60	8.889		805	276	1,081	1,375
0600	Slab on grade, #3 to #7			2.30	13.913		850	430	1,280	1,700
0700	Walls, #3 to #7			3	10.667		850	330	1,180	1,525
0750	#8 to #18			4	8		850	248	1,098	1,375
0900	Use the following for a rough estimate guide									
1000	Typical in place, average, under 10 ton job, #3 to #7		4 Rodm	1.80	17.778	Ton	925	550	1,475	2,000
1010	#8 to #18			2.70	11.852		945	365	1,310	1,700
1050	10 - 50 ton job, #3 to #7			2.10	15.238		910	470	1,380	1,850
1060	#8 to #18			3	10.667		925	330	1,255	1,625
1100	50 - 100 ton job, #3 - #7			2.20	14.545		885	450	1,335	1,775
1110	#8 to #18			3.10	10.323		905	320	1,225	1,575
1150	Over 100 ton job, #3 - #7			2.30	13.913		875	430	1,305	1,725
1160	#8 - #18			3.20	10		895	310	1,205	1,525
1200	High strength steel, Grade 75, #14 bars only, add						65		65	71.50
2000	Unloading & sorting, add to above		C-5	100	.480		13.60	7.40	21	31.50
2200	Crane cost for handling, add to above, minimum			135	.356		10.05	5.50	15.55	23.50
2210	Average			92	.522		14.75	8.05	22.80	34.50
2220	Maximum			35	1.371		39	21	60	91
2400	Dowels, 2 feet long, deformed, #3		2 Rodm	520	.031	Ea.	.37	.95	1.32	2.11
2410	#4			480	.033		.66	1.03	1.69	2.56
2420	#5			435	.037		1.03	1.14	2.17	3.16
2430	#6			360	.044		1.48	1.38	2.86	4.08
2450	Longer and heavier dowels, add			725	.022	Lb.	.49	.68	1.17	1.76
2500	Smooth dowels, 12" long, 1/4" or 3/8" diameter			140	.114	Ea.	.74	3.54	4.28	7.10
2520	5/8" diameter			125	.128		1.29	3.97	5.26	8.45
2530	3/4" diameter			110	.145		1.60	4.51	6.11	9.80
2600	Dowel sleeves for CIP concrete, 2-part system									
2610	Sleeve base, plastic, for #5 bar, fasten to edge form		1 Rodm	200	.040	Ea.	.40	1.24	1.64	2.65
2615	Sleeve, plastic, for #5 bar x 9" long, snap onto base			400	.020		1.14	.62	1.76	2.35
2620	Sleeve base, for #6 bar			175	.046		.40	1.42	1.82	2.96

03 21 Reinforcing Steel

03 21 10 - Uncoated Reinforcing Steel

03 21 10.60 Reinforcing In Place

	Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs			Total	Total Incl O&P
						Labor	Equipment			
2625 Sleeve, for #6 bar	1 Rodm	350	.023	Eq.	1.17	.71		1.88	2.55	
2630 Sleeve base, for #8 bar		150	.053		.49	1.65		2.14	3.48	
2635 Sleeve, for #8 bar		300	.027		1.30	.83		2.13	2.90	
2700 Dowel caps, visual warning only, plastic, #3 to #8	2 Rodm	800	.020		.28	.62		.90	1.41	
2720 #7 to #14		750	.021		.50	.66		1.16	1.73	
2750 Impalement protective, plastic, #3 to #7		800	.020		1.60	.62		2.22	2.86	
2760 #7 to #11		775	.021		2.18	.64		2.82	3.54	
2770 #11 to #16		750	.021		2.22	.66		2.88	3.62	

03 21 13 - Galvanized Reinforcing Steel

03 21 13.10 Galvanized Reinforcing

0010 GALVANIZED REINFORCING										
0150	Galvanized, #3									
0200	#4			Ton	740			740	815	
0250	#5				740			740	815	
0300	#6 or over				725			725	795	
1000	For over 20 tons, #6 or larger, minimum				675			675	740	
1500	Maximum				805			805	885	

03 21 16 - Epoxy-Coated Reinforcing Steel

03 21 16.10 Epoxy-Coated Reinforcing

0010 EPOXY-COATED REINFORCING										
0100	Epoxy coated, A775			Ton	380			380	420	

03 22 Welded Wire Fabric Reinforcing

03 22 05 - Uncoated Welded Wire Fabric

03 22 05.50 Welded Wire Fabric

0010 WELDED WIRE FABRIC ASTM A185 R032205-30										
0050	Sheets									
0100	6 x 6 - W1.4 x W1.4 (10 x 10) 21 lb. per C.S.F.	2 Rodm	35	.457	C.S.F.	12.75	14.15	26.90	39	
0200	6 x 6 - W2.1 x W2.1 (8 x 8) 30 lb. per C.S.F.		31	.516		15.40	16	31.40	45.50	
0300	6 x 6 - W2.9 x W2.9 (6 x 6) 42 lb. per C.S.F.		29	.552		19.80	17.10	36.90	52.50	
0400	6 x 6 - W4 x W4 (4 x 4) 58 lb. per C.S.F.		27	.593		28	18.35	46.35	63	
0500	4 x 4 - W1.4 x W1.4 (10 x 10) 31 lb. per C.S.F.		31	.516		18.45	16	34.45	49	
0600	4 x 4 - W2.1 x W2.1 (8 x 8) 44 lb. per C.S.F.		29	.552		23.50	17.10	40.60	56	
0650	4 x 4 - W2.9 x W2.9 (6 x 6) 61 lb. per C.S.F.		27	.593		34	18.35	52.35	69.50	
0700	4 x 4 - W4 x W4 (4 x 4) 85 lb. per C.S.F.		25	.640		44	19.85	63.85	84	
0750	Rolls									
0800	2 x 2 - #14 galv., 21 lb./C.S.F., beam & column wrap	2 Rodm	6.50	2.462	C.S.F.	31.50	76.50	108	171	
0900	2 x 2 - #12 galv. for gunite reinforcing	"	6.50	2.462	"	37.50	76.50	114	178	

03 30 Cast-In-Place Concrete

03 30 53 - Miscellaneous Cast-In-Place Concrete

03 30 53.40 Concrete In Place		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
7000	Stair landings, free standing	C-14H	200	.240	S.F.	4.63	6.75	.11	11.49	16.65
7050	Cast on ground	↓	475	.101	"	3.45	2.84	.05	6.34	8.65

03 31 Structural Concrete

03 31 05 - Normal Weight Structural Concrete

03 31 05.30 Concrete, Field Mix

0010	CONCRETE, FIELD MIX	R033105-65								
0015	FOB forms 2250 psi				C.Y.	92.50			92.50	102
0020	3000 psi				"	96.50			96.50	106

03 31 05.35 Normal Weight Concrete, Ready Mix

0010	NORMAL WEIGHT CONCRETE, READY MIX	R033105-10								
0012	Includes local aggregate, sand, portland cement, and water									
0015	Excludes all additives and treatments	R033105-20								
0020	2000 psi				C.Y.	99.50			99.50	110
0100	2500 psi	R033105-30				101			101	111
0150	3000 psi					104			104	114
0200	3500 psi	R033105-40				106			106	116
0300	4000 psi					108			108	119
0350	4500 psi	R033105-50				110			110	121
0400	5000 psi					114			114	125
0411	6000 psi					130			130	143
0412	8000 psi					212			212	233
0413	10,000 psi					300			300	330
0414	12,000 psi					365			365	400
1000	For high early strength cement, add					10%				
1010	For structural lightweight with regular sand, add					25%				
2000	For all lightweight aggregate, add					45%				

03 31 05.70 Placing Concrete

0010	PLACING CONCRETE	R033105-70								
0020	Includes labor and equipment to place and vibrate									
0050	Beams, elevated, small beams, pumped		C-20	60	1.067	C.Y.	25.50	12.50	38	57
0100	With crane and bucket		C-7	45	1.600		39	25	64	92.50
0200	Large beams, pumped		C-20	90	.711		17.05	8.35	25.40	37.50
0250	With crane and bucket		C-7	65	1.108		27	17.25	44.25	64
0400	Columns, square or round, 12" thick, pumped		C-20	60	1.067		25.50	12.50	38	57
0450	With crane and bucket		C-7	40	1.800		43.50	28	71.50	104
0600	18" thick, pumped		C-20	90	.711		17.05	8.35	25.40	37.50
0650	With crane and bucket		C-7	55	1.309		31.50	20.50	52	75.50
0800	24" thick, pumped		C-20	92	.696		16.70	8.15	24.85	37
0850	With crane and bucket		C-7	70	1.029		25	16	41	59
1000	36" thick, pumped		C-20	140	.457		10.95	5.35	16.30	24.50
1050	With crane and bucket		C-7	100	.720		17.45	11.20	28.65	41.50
1400	Elevated slabs, less than 6" thick, pumped		C-20	140	.457		10.95	5.35	16.30	24.50
1450	With crane and bucket		C-7	95	.758		18.35	11.80	30.15	43.50
1500	6" to 10" thick, pumped		C-20	160	.400		9.60	4.70	14.30	21.50
1550	With crane and bucket		C-7	110	.655		15.85	10.20	26.05	37.50
1600	Slabs over 10" thick, pumped		C-20	180	.356		8.55	4.17	12.72	18.90
1650	With crane and bucket		C-7	130	.554		13.40	8.60	22	32
1900	Footings, continuous, shallow, direct chute		C-6	120	.400		9.35	.36	9.71	16.10
1950	Pumped		C-20	150	.427		10.25	5	15.25	22.50

03 31 05 - Normal Weight Structural Concrete

03 31 05.70 Placing Concrete		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Labor	Bare Costs Equipment	Total	Total Incl O&P
2000	With crane and bucket	C-7	90	.800	C.Y.		19.40	12.45	31.85	46
2100	Footings, continuous, deep, direct chute	C-6	140	.343			8	.31	8.31	13.80
2150	Pumped	C-20	160	.400			9.60	4.70	14.30	21.50
2200	With crane and bucket	C-7	110	.655			15.85	10.20	26.05	37.50
2400	Footings, spread, under 1 C.Y., direct chute	C-6	55	.873			20.50	.78	21.28	35.50
2450	Pumped	C-20	65	.985			23.50	11.55	35.05	52
2500	With crane and bucket	C-7	45	1.600			39	25	64	92.50
2600	Over 5 C.Y., direct chute	C-6	120	.400			9.35	.36	9.71	16.10
2650	Pumped	C-20	150	.427			10.25	5	15.25	22.50
2700	With crane and bucket	C-7	100	.720			17.45	11.20	28.65	41.50
2900	Foundation mats, over 20 C.Y., direct chute	C-6	350	.137			3.21	.12	3.33	5.55
2950	Pumped	C-20	400	.160			3.84	1.88	5.72	8.50
3000	With crane and bucket	C-7	300	.240			5.80	3.73	9.53	13.80
3200	Grade beams, direct chute	C-6	150	.320			7.50	.28	7.78	12.85
3250	Pumped	C-20	180	.356			8.55	4.17	12.72	18.90
3300	With crane and bucket	C-7	120	.600			14.55	9.35	23.90	35
3500	High rise, for more than 5 stories, pumped, add per story	C-20	2100	.030			.73	.36	1.09	1.62
3510	With crane and bucket, add per story	C-7	2100	.034			.83	.53	1.36	1.98
3700	Pile caps, under 5 C.Y., direct chute	C-6	90	.533			12.45	.47	12.92	21.50
3750	Pumped	C-20	110	.582			13.95	6.85	20.80	31
3800	With crane and bucket	C-7	80	.900			22	14	36	52
3850	Pile cap, 5 C.Y. to 10 C.Y., direct chute	C-6	175	.274			6.40	.24	6.64	11
3900	Pumped	C-20	200	.320			7.65	3.76	11.41	17
3950	With crane and bucket	C-7	150	.480			11.65	7.45	19.10	27.50
4000	Over 10 C.Y., direct chute	C-6	215	.223			5.20	.20	5.40	8.95
4050	Pumped	C-20	240	.267			6.40	3.13	9.53	14.15
4100	With crane and bucket	C-7	185	.389			9.45	6.05	15.50	22.50
4300	Slab on grade, 4" thick, direct chute	C-6	110	.436			10.20	.39	10.59	17.55
4350	Pumped	C-20	130	.492			11.80	5.80	17.60	26
4400	With crane and bucket	C-7	110	.655			15.85	10.20	26.05	37.50
4600	Over 6" thick, direct chute	C-6	165	.291			6.80	.26	7.06	11.70
4650	Pumped	C-20	185	.346			8.30	4.06	12.36	18.35
4700	With crane and bucket	C-7	145	.497			12.05	7.75	19.80	28.50
4900	Walls, 8" thick, direct chute	C-6	90	.533			12.45	.47	12.92	21.50
4950	Pumped	C-20	100	.640			15.35	7.50	22.85	34
5000	With crane and bucket	C-7	80	.900			22	14	36	52
5050	12" thick, direct chute	C-6	100	.480			11.20	.43	11.63	19.30
5100	Pumped	C-20	110	.582			13.95	6.85	20.80	31
5200	With crane and bucket	C-7	90	.800			19.40	12.45	31.85	46
5300	15" thick, direct chute	C-6	105	.457			10.70	.41	11.11	18.40
5350	Pumped	C-20	120	.533			12.80	6.25	19.05	28.50
5400	With crane and bucket	C-7	95	.758			18.35	11.80	30.15	43.50
5600	Wheeled concrete dumping, add to placing costs above									
5610	Walking cart, 50' haul, add	C-18	32	.281	C.Y.		6.30	1.67	7.97	12.50
5620	150' haul, add		24	.375			8.35	2.22	10.57	16.65
5700	250' haul, add		18	.500			11.15	2.97	14.12	22
5800	Riding cart, 50' haul, add	C-19	80	.113			2.51	.99	3.50	5.35
5810	150' haul, add		60	.150			3.35	1.31	4.66	7.15
5900	250' haul, add		45	.200			4.46	1.75	6.21	9.55

03 35 Concrete Finishing

03 35 29 - Tooled Concrete Finishing

03 35 29.30 Finishing Floors

Code	Description	Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
0010	FINISHING FLOORS									
0020	Monolithic, screed finish	1 Cefi	900	.009	S.F.		.25		.25	.40
0100	Screed and bull float (darby) finish		725	.011			.31		.31	.49
0150	Screed, float, and broom finish		630	.013			.35		.35	.57
0200	Screed, float, and hand trowel		600	.013			.37		.37	.59
0250	Machine trowel		550	.015			.40		.40	.65
0400	Integral topping and finish, using 1:1:2 mix, 3/16" thick	C-10B	1000	.040		.07	.97	.19	1.23	1.90
0450	1/2" thick		950	.042		.18	1.03	.20	1.41	2.12
0500	3/4" thick		850	.047		.28	1.15	.22	1.65	2.45
0600	1" thick		750	.053		.37	1.30	.25	1.92	2.83
0800	Granolithic topping, laid after, 1:1-1/2 mix, 1/2" thick		590	.068		.21	1.65	.32	2.18	3.31
0820	3/4" thick		580	.069		.31	1.68	.33	2.32	3.48
0850	1" thick		575	.070		.41	1.69	.33	2.43	3.62
0950	2" thick		500	.080		.82	1.95	.38	3.15	4.56
1200	Heavy duty, 1:1:2, 3/4" thick, preshrunk, gray, 20 MSF		320	.125		.28	3.04	.60	3.92	6
1300	100 MSF		380	.105		.28	2.56	.50	3.34	5.10
1600	Exposed local aggregate finish, minimum	1 Cefi	625	.013		.18	.35		.53	.77
1650	Maximum		465	.017		.26	.48		.74	1.06
1800	Floor abrasives, .25 psf, aluminum oxide		850	.009		.35	.26		.61	.81
1850	Silicon carbide		850	.009		.49	.26		.75	.96
2000	Floor hardeners, metallic, light service, .50 psf, add		850	.009		.45	.26		.71	.92
2050	Medium service, .75 psf		750	.011		.68	.30		.98	1.23
2100	Heavy service, 1.0 psf		650	.012		.91	.34		1.25	1.55
2150	Extra heavy, 1.5 psf		575	.014		1.36	.39		1.75	2.11
2300	Non-metallic, light service, .50 psf		850	.009		.17	.26		.43	.61
2350	Medium service, .75 psf		750	.011		.26	.30		.56	.77
2400	Heavy service, 1.00 psf		650	.012		.35	.34		.69	.93
2450	Extra heavy, 1.50 psf		575	.014		.52	.39		.91	1.19
2800	Trap rock wearing surface for monolithic floors									
2810	2.0 psf	C-10B	1250	.032	S.F.	.02	.78	.15	.95	1.48
3000	Floor coloring, dusted on, minimum (0.6 psf), add to above	1 Cefi	1300	.006		.39	.17		.56	.70
3050	Maximum (1.0 psf), add to above	"	625	.013		.65	.35		1	1.29
3100	Colored powder only				Lb.	.65			.65	.72
3600	1/2" topping using 0.6 psf powdered color	C-10B	590	.068	S.F.	4.95	1.65	.32	6.92	8.55
3650	1/2" topping using 1.0 psf powdered color	"	590	.068		5.20	1.65	.32	7.17	8.65
3800	Dustproofing, solvent-based, 1 coat	1 Cefi	1900	.004		.16	.12		.28	.36
3850	2 coats		1300	.006		.56	.17		.73	.89
4000	Epoxy-based, 1 coat		1500	.005		.12	.15		.27	.37
4050	2 coats		1500	.005		.25	.15		.40	.51
4400	Stair finish, float		275	.029			.81		.81	1.30
4500	Steel trowel finish		200	.040			1.11		1.11	1.78
4600	Silicon carbide finish, .25 psf		150	.053		.35	1.48		1.83	2.77

03 35 29.35 Control Joints, Saw Cut

Code	Description	Crew	Daily Output	Labor-Hours	Unit	Material	Labor	Equipment	Total	Total Incl O&P
0010	CONTROL JOINTS, SAW CUT									
0100	Sawcut in green concrete									
0120	1" depth	C-27	2000	.008	L.F.	.09	.22	.06	.37	.53
0140	1-1/2" depth		1800	.009		.14	.25	.07	.46	.62
0160	2" depth		1600	.010		.18	.28	.07	.53	.73
0200	Clean out control joint of debris	C-28	6000	.001			.04		.04	.06
0300	Joint sealant									
0320	Backer rod, polyethylene, 1/4" diameter	1 Cefi	460	.017	L.F.	.04	.48		.52	.82
0340	Sealant, polyurethane									

05 12 23 - Structural Steel for Buildings

05 12 23.75 Structural Steel Members		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
5920	x 114	E-5	1150	.063	L.F.	129	1.95	1.45	132.40	146
5940	x 146		1150	.063		165	1.95	1.45	168.40	186
5960	x 161		1150	.063		182	1.95	1.45	185.40	205
6100	W 30 x 99		1200	.060		112	1.87	1.39	115.26	128
6300	x 108		1200	.060		122	1.87	1.39	125.26	139
6500	x 116		1160	.062		131	1.94	1.43	134.37	149
6520	x 132		1160	.062		149	1.94	1.43	152.37	169
6540	x 148		1160	.062		167	1.94	1.43	170.37	189
6560	x 173		1120	.064		195	2	1.48	198.48	220
6580	x 191		1120	.064		215	2	1.48	218.48	242
6700	W 33 x 118		1176	.061		133	1.91	1.41	136.32	151
6900	x 130		1134	.063		147	1.98	1.47	150.45	166
7100	x 141		1134	.063		159	1.98	1.47	162.45	180
7120	x 169		1100	.065		191	2.04	1.51	194.55	216
7140	x 201		1100	.065		227	2.04	1.51	230.55	255
7300	W 36 x 135		1170	.062		152	1.92	1.42	155.34	172
7500	x 150		1170	.062		169	1.92	1.42	172.34	191
7600	x 170		1150	.063		192	1.95	1.45	195.40	216
7700	x 194		1125	.064		219	2	1.48	222.48	246
7900	x 230		1125	.064		259	2	1.48	262.48	290
7920	x 260		1035	.070		293	2.17	1.61	296.78	325
8100	x 300		1035	.070		340	2.17	1.61	343.78	375
8490	For projects 75 to 99 tons, add					10%				
8492	50 to 74 tons, add					20%				
8494	25 to 49 tons, add					30%	10%			
8496	10 to 24 tons, add					50%	25%			
8498	2 to 9 tons, add					75%	50%			
8499	Less than 2 tons, add					100%	100%			

05 12 23.77 Structural Steel Projects

05 12 23.77 STRUCTURAL STEEL PROJECTS		R050516-30									
8820	Shop fab'd for 100-ton, 1-2 story project, bolted conn's.										
8891	Apartments, nursing homes, etc., 1 to 2 stories	R050523-10	E-2	6.45	7.442	Ton	2,050	233	240	2,523	2,950
8902	3 to 6 stories	"	"	6.30	7.619		2,100	238	246	2,584	3,025
8902	7 to 15 stories	R051223-10	E-5	8.74	8.238		2,125	257	190	2,572	3,050
8903	Over 15 stories		E-6	13.90	8.633		2,225	267	130	2,622	3,075
8911	Offices, hospitals, etc., steel bearing, 1 to 2 stories	R051223-20	E-2	6.45	7.442		2,050	233	240	2,523	2,950
8911	3 to 6 stories	"	"	6.30	7.619		2,100	238	246	2,584	3,025
8911	7 to 15 stories	R051223-25	E-5	8.74	8.238		2,125	257	190	2,572	3,050 ³¹⁰⁰
8911	Over 15 stories		E-6	13.90	8.633		2,225	267	130	2,622	3,075
8913	For multi-story masonry wall bearing construction, add	R051223-30						30%			
8913	Industrial bldgs., 1 story, beams & girders, steel bearing		E-2	8.06	5.955		2,050	186	192	2,428	2,825
8913	Masonry bearing		"	6.25	7.680		2,050	240	248	2,538	2,975
8913	Industrial bldgs., 1 story, under 10 tons, steel from warehouse, trucked		E-2	7.50	6.400	Ton	2,450	200	206	2,856	3,300
8913	1 story with roof trusses, steel bearing			6.63	7.240		2,425	226	233	2,884	3,325
8913	Masonry bearing			6	8		2,425	250	258	2,933	3,400
8913	Monumental structures, banks, stores, etc., minimum		E-5	8	9		2,050	281	208	2,539	3,025
8913	Maximum		E-6	9	13.333		3,400	410	201	4,011	4,750
8913	Churches, minimum		E-2	7.25	6.621		1,900	207	213	2,320	2,725
8913	Maximum		E-5	5.20	13.846		2,550	430	320	3,300	3,975
8913	Power stations, fossil fuels, minimum		E-6	11	10.909		2,050	335	165	2,550	3,075
8913	Maximum			5.70	21.053		3,075	650	320	4,045	4,975

05 21 19 - Open Web Steel Joist Framing

05 21 19.10 Open Web Joists		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
1440	30CS2, 11.0 Lb/LF	E-7	2400	.030	LF	8.05	.94	.74	9.73	11.45
1460	30CS4, 16.5 Lb/LF	↓	2400	.030	↓	12.05	.94	.74	13.73	15.85
6700	For less than 40-ton job lots									
6702	For 30 to 39 tons, add					10%				
6704	20 to 29 tons, add					20%				
6706	10 to 19 tons, add					30%				
6707	5 to 9 tons, add					50%	25%			
6708	1 to 4 tons, add					75%	50%			
6709	Less than 1 ton, add					100%	100%			
6200	For shop prime point other than mfrs. standard, add					20%				
6200	For bottom chord extensions, add per chord				Ea.	31			31	34
6400	Individual steel bearing plate, 6" x 6" x 1/4" with J-hook	1 Bric	160	.050	"	6.15	1.49		7.64	9.20

05 21 23 - Steel Joist Girder Framing

05 21 23.50 Joist Girders

JOIST GIRDERS		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
7000	Joist girders, minimum	E-5	15	4.800	Ton	1,300	150	111	1,561	1,825
8000	Trusses, factory fabricated WT chords, average	"	11	6.545	"	4,675	204	151	5,030	5,675

05 31 Steel Decking

05 31 13 - Steel Floor Decking

05 31 13.50 Floor Decking

FLOOR DECKING										
1000	Open decking, 3" deep, 22 gauge, under 50 squares	E-4	3600	.009	S.F.	2.14	.28	.03	2.45	2.94
1200	20 gauge, under 50 squares		3400	.009		2.47	.30	.03	2.80	3.34
1400	18 gauge, under 50 squares		3200	.010		3.19	.32	.04	3.55	4.16
1600	16 gauge, under 50 squares		3000	.011		4.22	.34	.04	4.60	5.35
1700	4-1/2" deep, long span roof, over 50 squares, 20 gauge		2700	.012		3.97	.37	.04	4.38	5.15
1800	18 gauge		2460	.013		5.10	.41	.05	5.56	6.50
1900	16 gauge		2350	.014		3.82	.43	.05	4.30	5.10
2000	6" deep, long span, 18 gauge		2000	.016		7.30	.50	.06	7.86	9.10
2100	16 gauge		1930	.017		5.45	.52	.06	6.03	7.10
2200	14 gauge		1860	.017		7.05	.54	.06	7.65	8.90
2300	7-1/2" deep, long span, 18 gauge		1690	.019		8.05	.60	.07	8.72	10.10
2400	16 gauge		1590	.020		6	.63	.07	6.70	7.90
2500	14 gauge	↓	1490	.021	↓	7.75	.68	.08	8.51	9.90
2600	For painted instead of galvanized, deduct					2%				
2700	For acoustical perforated, with fiberglass, add				S.F.	1.05			1.05	1.16
2800	Non-cellular composite deck, galv., 2" deep, 22 gauge	E-4	3860	.008		1.47	.26	.03	1.76	2.16
2900	20 gauge		3600	.009		1.63	.28	.03	1.94	2.38
3000	18 gauge		3380	.009		2.07	.30	.03	2.40	2.89
3100	16 gauge		3200	.010		2.59	.32	.04	2.95	3.50
3200	3" deep, galv., 22 gauge		3200	.010		1.60	.32	.04	1.96	2.41
3300	20 gauge		3000	.011		1.79	.34	.04	2.17	2.67
3400	18 gauge		2850	.011		2.20	.35	.04	2.59	3.15
3500	16 gauge	↓	2700	.012	↓	2.94	.37	.04	3.35	4.01

05 31 23 - Steel Roof Decking

05 31 23.50 Roof Decking

ROOF DECKING		Crew	Daily Output	Labor-Hours	Unit	Material	2007 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
1000	Open type, galv., 1-1/2" deep wide rib, 22 gauge, under 50 squares	E-4	4500	.007	S.F.	1.55	.22	.03	1.80	2.17
1100	Over 500 squares	↓	5100	.006	↓	1.11	.20	.02	1.33	1.63