



**PROGRAM
COST MODEL**

for

**PEER Tall Buildings Study
Steel Structural Option
Los Angeles, California**

March 8, 2010

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OVERALL SUMMARY

	Gross Floor Area	\$ / SF	\$x1,000
Construction Cost (Including Design)			
Code Based	959,110 SF	369.76	354,636
Performance Based	959,110 SF	354.02	339,546
Performance Based Plus	959,110 SF	359.97	345,251
FF&E Cost			
Furniture & Fittings, including system furniture	763,350 SF	50.00	38,168
Equipment, including computer systems	763,350 SF	35.00	26,717
Personal Property			
Personal Contents	763,350 SF	2.00	1,527
Cars in parking (Maximum count)	490 EA	25,000.00	12,250

Please refer to the Inclusions and Exclusions sections of this report

AREAS & CONTROL QUANTITIES

Areas

	SF	SF	SF
Enclosed Areas			
Basement Levels B1 - B4	199,760		
Ground Level	49,940		
Levels 1 - 10	181,900		
Levels 11 - 39	527,510		
SUBTOTAL, Enclosed Area		959,110	
Covered area			
SUBTOTAL, Covered Area @ ½ Value			
TOTAL GROSS FLOOR AREA			959,110

Control Quantities

			Ratio to Gross Area
Number of stories (x1,000)	44	EA	0.046
Gross Area	959,110	SF	1.000
Enclosed Area	959,110	SF	1.000
Covered Area	0	SF	0.000
Footprint Area	49,940	SF	0.052
Volume	12,301,575	CF	12.826
Basement Volume	2,397,120	CF	2.499
Gross Wall Area	344,565	SF	0.359
Retaining Wall Area	42,912	SF	0.045
Finished Wall Area	301,653	SF	0.315
Windows or Glazing Area	21.89% 75,414	SF	0.079
Roof Area - Flat	49,940	SF	0.052
Roof Area - Sloping	0	SF	0.000
Roof Area - Total	49,940	SF	0.052
Roof Glazing Area	0	SF	0.000
Interior Partition Length	58,608	LF	0.061
Finished Area	959,110	SF	1.000
Elevators (x10,000)	6	EA	0.063
Plumbing Fixtures (x1,000)	924	EA	0.963
Electrical Load	12,000	KW	12.512

CODE BASED COMPONENT SUMMARY

Gross Area: 959,110 SF

		\$/SF	\$x1,000
1. Foundations		19.53	18,730
2. Vertical Structure		57.00	54,668
3. Floor & Roof Structures		26.34	25,262
4. Exterior Cladding		42.43	40,697
5. Roofing, Waterproofing & Skylights		2.63	2,526
<i>Shell (1-5)</i>		147.93	141,884
6. Interior Partitions, Doors & Glazing		10.18	9,760
7. Floor, Wall & Ceiling Finishes		13.93	13,358
<i>Interiors (6-7)</i>		24.10	23,119
8. Function Equipment & Specialties		9.87	9,471
9. Stairs & Vertical Transportation		9.99	9,584
<i>Equipment & Vertical Transportation (8-9)</i>		19.87	19,055
10 Plumbing Systems		6.12	5,872
11 Heating, Ventilating & Air Conditioning		29.23	28,033
12 Electric Lighting, Power & Communications		23.64	22,670
13 Fire Protection Systems		5.26	5,046
<i>Mechanical & Electrical (10-13)</i>		64.25	61,621
Total Building Construction (1-13)		256.15	245,679
14 Site Preparation & Demolition		1.56	1,500
15 Site Paving, Structures & Landscaping		1.30	1,252
16 Utilities on Site		0.52	500
Total Site Construction (14-16)		3.39	3,252
TOTAL BUILDING & SITE (1-16)		259.54	248,930
General Conditions	12.00%	31.15	29,872
Contractor's Overhead & Profit or Fee	6.00%	17.44	16,728
PLANNED CONSTRUCTION COST		March 2010	308.13
Design, Management and Inspection	20.00%	61.63	59,106
Escalation is excluded	0.00%	0.00	0
RECOMMENDED BUDGET		March 2010	369.76

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
1. Foundations				
Mass excavation				
Excavate for basement and mat foundation	140,778	CY	15.00	2,111,670
Shoring at perimeter	53,640	SF	50.00	2,682,000
Backfill with imported material	29,802	CY	35.00	1,043,070
Dispose off site	140,778	CY	20.00	2,815,560
Hazardous material remediation				Excluded
Foundations				
Reinforced concrete mat foundation, 12'-0"	49,940	SF	200.00	9,988,000
Elevator pits	6	EA	15,000.00	90,000
				18,730,300
2. Vertical Structure				
Columns and pilasters				
Wide flange	880	TN	4,000.00	3,520,000
Box columns				
Metal plate frame	5,436	TN	6,000.00	32,616,000
Studs- 3/4" diameter, 6" long	101,088	EA	60.00	6,065,280
Concrete fill	3,101	CY	450.00	1,395,450
Sprayed fireproofing	880	TN	350.00	308,000
Diagonal reinforcing				
Buckling restraint braces				
1026 k	1,368	LF	300.00	410,400
950 k	1,260	LF	225.00	283,500
703 k	902	LF	180.00	162,360
589 k	7,326	LF	150.00	1,098,900
532 k	912	LF	150.00	136,800
513 k	6,516	LF	150.00	977,400
418 k	608	LF	120.00	72,960
380 k	960	LF	120.00	115,200
342 k	836	LF	120.00	100,320
304 k	720	LF	120.00	86,400
266 k	1,252	LF	100.00	125,200
228 k	380	LF	100.00	38,000
Brace connections				
Gusset plates				
3/4" thick plate steel welded connection	168	EA	1,500.00	252,000
1" thick plate steel welded connection	1,916	EA	2,000.00	3,832,000
2" thick plate steel welded connection	232	EA	4,000.00	928,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Concrete retaining walls				
18" Concrete retaining wall				
Formwork to one side	21,456	SF	15.00	321,840
Reinforcing steel	283,824	LBS	1.15	326,398
Concrete	1,311	CY	225.00	294,975
24" Concrete retaining wall				
Formwork to one side	21,456	SF	15.00	321,840
Reinforcing steel	422,059	LBS	1.15	485,368
Concrete	1,748	CY	225.00	393,300
				54,667,890

3. Floor and Roof Structure

Floor at lowest level				
Slab on grade - See foundations (mat slab)				
Suspended floors				
Wide flange framing	3,359	TN	4,000.00	13,436,000
Channel and angle ledger	101,965	LBS	2.50	254,913
3" formlock deck, 18 ga.	859,230	SF	4.50	3,866,535
3 1/4" lightweight concrete	859,230	SF	5.00	4,296,150
Sprayed fireproofing	3,359	TN	350.00	1,175,650
Plaza level slab/roof				
Wide flange framing	295	TN	4,000.00	1,180,000
Channel and angle ledger	33,988	LBS	2.50	84,970
3" formlock deck, 16 ga.	49,940	SF	4.50	224,730
9" normal weight concrete	49,940	SF	5.00	249,700
Sprayed fireproofing	295	TN	350.00	103,250
High roof				
Wide flange framing	50	TN	4,000.00	200,000
3" formlock deck, 18 ga.	18,190	SF	4.50	81,855
3 1/4" lightweight concrete	18,190	SF	5.00	90,950
Sprayed fireproofing	50	TN	350.00	17,500
				25,262,203

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
4. Exterior Cladding				
Wall framing, furring and insulation				
Exterior wall framing	301,653	SF	8.00	2,413,224
Furring to interior face of retaining wall	42,912	SF	4.00	171,648
Insulation and vapor barrier	226,240	SF	1.50	339,360
Applied exterior finishes				
Exterior wall finish - curtain wall with spandrel panels	226,240	SF	120.00	27,148,800
Parapets & edge detailing	554	LF	250.00	138,500
Interior finish to exterior walls				
Gypsum board, taped and sanded	269,152	SF	3.50	942,032
Windows, glazing and louvers				
Exterior wall finish - curtain wall with glazing	75,414	SF	120.00	9,049,680
Exterior doors, frames and hardware				
Glazed Doors & Entrances (allow revolving)	12	EA	35,000.00	420,000
Solid Exterior Doors	8	EA	3,000.00	24,000
Overhead Doors	2	EA	25,000.00	50,000
				40,697,244
5. Roofing, Waterproofing & Skylights				
Waterproofing				
Waterproofing at slab on grade	49,940	SF	10.00	499,400
Waterproofing at retaining wall	42,912	SF	10.00	429,120
Waterproofing membrane under plaza	31,750	SF	15.00	476,250
Roof insulation				
Rigid insulation at roof	18,190	SF	6.00	109,140
Roofing				
Balconies & accessible roofs	31,750	SF	25.00	793,750
High roof	18,190	SF	12.00	218,280
				2,525,940

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
6. Interior Partitions, Doors & Glazing				
Partition framing and cores				
CMU partitions at basement levels	400	LF	325.00	130,000
Core partitions	7,276	LF	90.00	654,840
Standard partitions	50,932	LF	72.00	3,667,104
Window walls and borrowed lights	1,020	SF	45.00	45,900
Doors, frames & hardware				
Interior doors	2,392	EA	2,200.00	5,262,400
				9,760,244
7. Floor, Wall & Ceiling Finishes				
Floors including base				
Lobby flooring	5,000	SF	35.00	175,000
Core circulation	88,000	SF	6.00	528,000
Restrooms	44,000	SF	15.00	660,000
Office	616,350	SF	5.00	3,081,750
Special use areas	10,000	SF	10.00	100,000
Concrete sealer at basement	195,760	SF	2.00	391,520
Walls				
Lobby	1	EA	75,000.00	75,000
Core circulation	176,000	SF	3.00	528,000
Restroom walls	79,200	SF	15.00	1,188,000
Office	739,620	SF	1.50	1,109,430
Special use areas	15,000	SF	5.00	75,000
Paint to concrete and CMU at basement	52,512	SF	1.00	52,512
Ceilings				
Lobby	5,000	SF	25.00	125,000
Core circulation	88,000	SF	12.00	1,056,000
Restrooms	44,000	SF	15.00	660,000
Office	616,350	SF	5.00	3,081,750
Special use areas	10,000	SF	8.00	80,000
Paint to exposed structure at basement	195,760	SF	2.00	391,520
				13,358,482

Item Description	Quantity	Unit	Rate	Total
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8. Function Equipment & Specialties

Built in Equipment				
Lobby/entry	1	LS	25,000.00	25,000
Core area	40	EA	18,000.00	720,000
Office areas	616,350	SF	12.00	7,396,200
Restroom areas	44,000	SF	20.00	880,000
Window washing equipment	1	LS	450,000.00	450,000
				9,471,200

9. Stairs & Vertical Transportation

Stairs				
Regular stair flights	88	EA	22,000.00	1,936,000
Elevators				
Passenger Elevators, gearless traction	264	STOP	28,000.00	7,392,000
Freight Elevators, geared traction, 4 stop	8	STOP	32,000.00	256,000
				9,584,000

10. Plumbing Systems

Sanitary fixtures and connection piping				
Toilets	440	EA	1,600.00	704,000
Urinals	88	EA	1,800.00	158,400
Lavatories	264	EA	1,200.00	316,800
Drinking Fountains and Coolers	44	EA	2,500.00	110,000
Sinks	44	EA	1,700.00	74,800
Hose bibbs	44	EA	500.00	22,000
Domestic water and distribution				
Cold Water Service				
Copper piping incl. fittings >2"	1,300	LF	50.00	65,000
Copper piping incl. fittings to 2"	13,860	LF	32.00	443,520
Hot Water Service				
Copper piping incl. fittings >2"	2,600	LF	50.00	130,000
Copper piping incl. fittings to 2"	27,720	LF	32.00	887,040
Insulation	30,320	LF	9.00	272,880
Valves				
Isolation valves to 3/4"	1,232	EA	65.00	80,080
Domestic Water Supply Equipment				
Hot water heating and circulation	1	LS	200,000.00	200,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Sanitary waste				
Waste & vent pipework-above ground				
Cast Iron No Hub, >6"	1,300	LF	75.00	97,500
Cast Iron No Hub, to 3"	13,860	LF	32.00	443,520
Sanitary waste, vent and service piping				
Floor Drains	88	EA	1,000.00	88,000
Rain Water Drainage				
Pipe and Fittings	47,609	LF	35.00	1,666,331
Roof/Overflow Drains	83	EA	750.00	62,425
Gas distribution				
Copper piping incl. fittings to 2"	2,000	LF	25.00	50,000
				5,872,296

11. Heating, Ventilation & Air Conditioning

Heat generating systems				
Heating hot water boilers, high efficiency condensing	43,200	MBTH	25.00	1,080,000
Heating hot water pumps	2	EA	35,000.00	70,000
Cooling Generating Systems				
Cooling towers	3,000	TN	350.00	1,050,000
Chillers, 2 each	3,000	TN	550.00	1,650,000
Chilled water pumps	2	EA	30,000.00	60,000
Condenser water pumps	2	EA	28,000.00	56,000
Variable speed drives, vibration isolation, etc.	6	EA	12,000.00	72,000
Distribution systems				
Piping, fittings, valves and insulation				
Chilled water				
Chilled water pipework, fittings	1,400	LF	95.00	133,000
Valves and specialties	1	LS	75,000.00	75,000
Heating hot water				
Heating hot water pipework, fittings, including insulation				
6" - 4"	1,200	LF	85.00	102,000
< = 3"	36,000	LF	30.00	1,080,000
Valves and specialties	1	LS	150,000.00	150,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Condenser water				
Condenser water pipework, fittings	1,200	LF	90.00	108,000
Valves and specialties	1	LS	25,000.00	25,000
Connections to VAV boxes	1,517	EA	350.00	531,038
Air handling equipment				
Air handler units	700,000	CFM	5.00	3,500,000
VAV boxes				
Core/Shell	294	EA	1,250.00	367,500
Tenant areas, 1 per 600 USF	1,027	EA	1,250.00	1,284,063
Parking area	196	EA	1,250.00	245,000
Sound attenuation - duct mounted	700,000	CFM	0.25	175,000
Air distribution, return and exhaust				
Galvanized sheet metal ductwork	959,110	LB	8.00	7,672,880
Flexible ductwork	36,000	LF	6.00	216,000
Dampers, volume	750	EA	40.00	30,000
Dampers, smoke/fire	80	EA	1,200.00	96,000
Insulation/duct liner	400,000	SF	2.50	1,000,000
Diffusers, registers and grilles				
Ceiling				
Core/Shell	1,470	EA	200.00	294,000
Tenant areas, 1 per 150 USF	4,109	EA	150.00	616,350
Parking area				
Terminal & Package Units				
Exhaust fans to toilet rooms etc.	1	LS	300,000.00	300,000
Controls and instrumentation				
DDC Control system	959,110	SF	5.00	4,795,550
Test and balance				
Test and balance	959,110	SF	1.25	1,198,888
				28,033,268

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
12. Electrical Lighting, Power & Communication				
Primary Service, Medium voltage				
Switchgear 13.8KV including (2) tie breakers, (2) feeder breakers, and customer Transformer substation 13.8KV/480V, double-ended including secondary	12,000	KVA	60.00	720,000
Distribution switchboards - 480V	12,000	KVA	150.00	1,800,000
Distribution panelboards - 480V	12,500	AMP	40.00	500,000
Transformers 480/120V	4,000	AMP	25.00	100,000
Distribution panelboards - 208V	3,000	KVA	75.00	225,000
Feeder conduit and wire - 600V	8,000	AMP	25.00	200,000
	2,000	LF	120.00	240,000
Emergency and Uninterrupted Power				
Emergency Generator	1,500	KVA	350.00	525,000
Automatic transfer switch	1,500	AMP	45.00	67,500
Distribution panelboards	1,500	AMP	25.00	37,500
General Purpose Lighting				
Panelboards	44	EA	2,500.00	110,000
Lighting				
Core Area	147,000	SF	12.00	1,764,000
Tenant Area	616,350	SF	6.00	3,698,100
Parking area	195,760	SF	4.00	783,040
Machine and Equipment Power				
Connections and switches including conduit and wire				
Elevators	16	EA	1,000.00	16,000
Cooling towers	2	EA	5,000.00	10,000
Chillers	2	EA	12,000.00	24,000
Pumps	6	EA	2,000.00	12,000
Miscellaneous connections	959,110	SF	0.75	719,333
User Convenience Power				
Panelboards	88	EA	2,500.00	220,000
Receptacles				
Core/Shell	147,000	SF	3.00	441,000
Tenant Area	616,350	SF	5.00	3,081,750
Parking area	195,760	SF	2.00	391,520
Communications				
Telephone and communications				
Core Area, panels and backbone only	1	LS	75,000.00	75,000
Tenant Area	616,350	SF	3.00	1,849,050

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Security Systems				
Security System	959,110	SF	2.00	1,918,220
Fire Alarm Systems				
Fire Alarm Systems	959,110	SF	3.00	2,877,330
Other Electrical Systems				
Grounding Systems	959,110	SF	0.25	239,778
Lightning protection	1	LS	25,000.00	25,000
				22,670,120

13. Fire Protection Systems

Sprinkler and Standpipe Systems				
Fire Protection Sprinkler Systems	959,110	SF	4.00	3,836,440
Standpipe and Hose Systems	959,110	SF	1.00	959,110
Specialties and Other Systems				
Smoke Evacuation	1	LS	250,000.00	250,000
				5,045,550

14. Site Preparation & Building Demolition

Site Preparation	100,000	SF	15.00	1,500,000
				1,500,000

15. Site Paving, Structures & Landscaping

Site Development	50,060	SF	25.00	1,251,500
				1,251,500

16. Utilities on Site

Site Utilities	1	LS	500,000.00	500,000
				500,000

PERFORMANCE BASED COMPONENT SUMMARY

		Gross Area: 959,110 SF	
		\$/SF	\$x1,000
1.	Foundations	17.93	17,193
2.	Vertical Structure	48.39	46,414
3.	Floor & Roof Structures	25.49	24,449
4.	Exterior Cladding	42.43	40,697
5.	Roofing, Waterproofing & Skylights	2.63	2,526
Shell (1-5)		136.88	131,279
6.	Interior Partitions, Doors & Glazing	10.18	9,760
7.	Floor, Wall & Ceiling Finishes	14.34	13,751
Interiors (6-7)		24.51	23,512
8.	Function Equipment & Specialties	9.48	9,090
9.	Stairs & Vertical Transportation	9.99	9,584
Equipment & Vertical Transportation (8-9)		19.47	18,674
10.	Plumbing Systems	6.12	5,872
11.	Heating, Ventilating & Air Conditioning	29.23	28,033
12.	Electric Lighting, Power & Communications	23.64	22,670
13.	Fire Protection Systems	5.26	5,046
Mechanical & Electrical (10-13)		64.25	61,621
Total Building Construction (1-13)		245.11	235,086
14.	Site Preparation & Demolition	1.56	1,500
15.	Site Paving, Structures & Landscaping	1.30	1,252
16.	Utilities on Site	0.52	500
Total Site Construction (14-16)		3.39	3,252
TOTAL BUILDING & SITE (1-16)		248.50	238,338
	General Conditions	12.00%	29.82 28,601
	Contractor's Overhead & Profit or Fee	6.00%	16.70 16,016
PLANNED CONSTRUCTION COST		March 2010	295.02 282,955
	Design, Management and Inspection	20.00%	59.00 56,591
	Escalation is excluded	0.00%	0.00 0
RECOMMENDED BUDGET		March 2010	354.02 339,546

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
1. Foundations				
Mass excavation				
Excavate for basement and Mat foundation	136,085	CY	15.00	2,041,275
Shoring at perimeter	51,852	SF	50.00	2,592,600
Backfill with imported material	28,807	CY	35.00	1,008,233
Dispose off site	136,085	CY	20.00	2,721,700
Hazardous material remediation				Excluded
Foundations				
Reinforced concrete Mat foundation, 10'-0"	49,940	SF	175.00	8,739,500
Elevator pits	6	EA	15,000.00	90,000
				17,193,308
2. Vertical Structure				
Columns and pilasters				
Wide flange	989	TN	4,000.00	3,956,000
Box columns				
Metal plate frame	4,533	TN	6,000.00	27,198,000
Studs- 3/4" diameter, 6" long	85,200	EA	60.00	5,112,000
Concrete fill	2,465	CY	450.00	1,109,250
Sprayed fireproofing	989	TN	350.00	346,150
Diagonal reinforcing				
Buckling restraint braces				
703 k	850	LF	180.00	153,000
589 k	288	LF	150.00	43,200
532 k	912	LF	150.00	136,800
513 k	926	LF	150.00	138,900
418 k	3,402	LF	120.00	408,240
342 k	11,236	LF	120.00	1,348,320
304 k	720	LF	120.00	86,400
266 k	872	LF	100.00	87,200
228 k	988	LF	100.00	98,800
Brace connections				
Gusset plates				
3/4" thick plate steel welded connection	192	EA	1,500.00	288,000
1" thick plate steel welded connection	1,880	EA	2,000.00	3,760,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Concrete retaining walls				
18" Concrete retaining wall				
Formwork to one side	21,456	SF	15.00	321,840
Reinforcing steel	283,824	LBS	1.15	326,398
Concrete	1,311	CY	225.00	294,975
24" Concrete retaining wall				
Formwork to one side	21,456	SF	15.00	321,840
Reinforcing steel	422,059	LBS	1.15	485,368
Concrete	1,748	CY	225.00	393,300
				46,413,980

3. Floor and Roof Structure

Floor at lowest level				
Slab on grade - See foundations (mat slab)				
Suspended floors				
Wide flange framing	3,144	TN	4,000.00	12,576,000
Channel and angle ledger	101,965	LBS	2.50	254,913
3" formlock deck, 18 ga.	859,230	SF	4.50	3,866,535
3 1/4" lightweight concrete	859,230	SF	5.00	4,296,150
Sprayed fireproofing	3,144	TN	350.00	1,100,400
Plaza level slab/roof				
Wide flange framing	311	TN	4,000.00	1,244,000
Channel and angle ledger	33,988	LBS	2.50	84,970
3" formlock deck, 16 ga.	49,940	SF	4.50	224,730
9" normal weight concrete	49,940	SF	5.00	249,700
Sprayed fireproofing	311	TN	350.00	108,850
High roof				
Wide flange framing	62	TN	4,000.00	248,000
3" formlock deck, 18 ga.	18,190	SF	4.50	81,855
3 1/4" lightweight concrete	18,190	SF	5.00	90,950
Sprayed fireproofing	62	TN	350.00	21,700
				24,448,753

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
4. Exterior Cladding				
Wall framing, furring and insulation				
Exterior wall framing	301,653	SF	8.00	2,413,224
Furring to interior face of retaining wall	42,912	SF	4.00	171,648
Insulation and vapor barrier	226,240	SF	1.50	339,360
Applied exterior finishes				
Exterior wall finish - curtain wall with spandrel panels	226,240	SF	120.00	27,148,800
Parapets & edge detailing	554	LF	250.00	138,500
Interior finish to exterior walls				
Gypsum board, taped and sanded	269,152	SF	3.50	942,032
Windows, glazing and louvers				
Exterior wall finish - curtain wall with glazing	75,414	SF	120.00	9,049,680
Exterior doors, frames and hardware				
Glazed Doors & Entrances (allow revolving)	12	EA	35,000.00	420,000
Solid Exterior Doors	8	EA	3,000.00	24,000
Overhead Doors	2	EA	25,000.00	50,000
				40,697,244
5. Roofing, Waterproofing & Skylights				
Waterproofing				
Waterproofing at slab on grade	49,940	SF	10.00	499,400
Waterproofing at retaining wall	42,912	SF	10.00	429,120
Waterproofing membrane under plaza	31,750	SF	15.00	476,250
Insulation				
Rigid insulation at roof	18,190	SF	6.00	109,140
Roofing				
Balconies & accessible roofs	31,750	SF	25.00	793,750
High roof	18,190	SF	12.00	218,280
				2,525,940

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
6. Interior Partitions, Doors & Glazing				
Partition framing and cores				
CMU partitions at basement levels	400	LF	325.00	130,000
Core partitions	7,276	LF	90.00	654,840
Standard partitions	50,932	LF	72.00	3,667,104
Window walls and borrowed lights	1,020	SF	45.00	45,900
Doors, frames & hardware				
Interior doors	2,392	EA	2,200.00	5,262,400
				9,760,244
7. Floor, Wall & Ceiling Finishes				
Floors including base				
Lobby flooring	5,000	SF	35.00	175,000
Core circulation	88,000	SF	6.00	528,000
Restrooms	44,000	SF	15.00	660,000
Office	584,600	SF	5.00	2,923,000
Special use areas	10,000	SF	10.00	100,000
Concrete sealer at basement	195,760	SF	2.00	391,520
Walls				
Lobby	1	EA	75,000.00	75,000
Core circulation	176,000	SF	3.00	528,000
Restroom walls	79,200	SF	15.00	1,188,000
Office	1,137,200	SF	1.50	1,705,800
Special use areas	33,000	SF	5.00	165,000
Paint to concrete and CMU at basement	52,512	SF	1.00	52,512
Ceilings				
Lobby	5,000	SF	25.00	125,000
Core circulation	88,000	SF	12.00	1,056,000
Restrooms	44,000	SF	15.00	660,000
Office	568,600	SF	5.00	2,843,000
Special use areas	22,000	SF	8.00	176,000
Paint to exposed structure at basement	199,760	SF	2.00	399,520
				13,751,352

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
8. Function Equipment & Specialties				
Built in Equipment				
Lobby/entry	1	LS	25,000.00	25,000
Core area	40	EA	18,000.00	720,000
Office areas	584,600	SF	12.00	7,015,200
Restroom areas	44,000	SF	20.00	880,000
Window washing equipment	1	LS	450,000.00	450,000
				9,090,200

9. Stairs & Vertical Transportation

Stairs				
Regular stair flights	88	EA	22,000.00	1,936,000
Elevators				
Passenger Elevators, gearless traction	264	STOP	28,000.00	7,392,000
Freight Elevators, geared traction, 4 stop	8	STOP	32,000.00	256,000
				9,584,000

10. Plumbing Systems

Sanitary fixtures and connection piping				
Toilets	440	EA	1,600.00	704,000
Urinals	88	EA	1,800.00	158,400
Lavatories	264	EA	1,200.00	316,800
Drinking Fountains and Coolers	44	EA	2,500.00	110,000
Sinks	44	EA	1,700.00	74,800
Hose bibbs	44	EA	500.00	22,000
Domestic water and distribution				
Cold Water Service				
Copper piping incl. fittings >2"	1,300	LF	50.00	65,000
Copper piping incl. fittings to 2"	13,860	LF	32.00	443,520
Hot Water Service				
Copper piping incl. fittings >2"	2,600	LF	50.00	130,000
Copper piping incl. fittings to 2"	27,720	LF	32.00	887,040
Insulation	30,320	LF	9.00	272,880
Valves				
Isolation valves to 3/4"	1,232	EA	65.00	80,080
Domestic Water Supply Equipment				
Hot water heating and circulation	1	LS	200,000.00	200,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Sanitary waste				
Waste & vent pipework-above ground				
Cast Iron No Hub, >6"	1,300	LF	75.00	97,500
Cast Iron No Hub, to 3"	13,860	LF	32.00	443,520
Sanitary waste, vent and service piping				
Floor Drains	88	EA	1,000.00	88,000
Rain Water Drainage				
Pipe and Fittings	47,609	LF	35.00	1,666,331
Roof/Overflow Drains	83	EA	750.00	62,425
Gas distribution				
Copper piping incl. fittings to 2"	2,000	LF	25.00	50,000
				5,872,296

11. Heating, Ventilation & Air Conditioning

Heat generating systems				
Heating hot water boilers, high efficiency condensing	43,200	MBTH	25.00	1,080,000
Heating hot water pumps	2	EA	35,000.00	70,000
Cooling Generating Systems				
Cooling towers	3,000	TN	350.00	1,050,000
Chillers, 2 each	3,000	TN	550.00	1,650,000
Chilled water pumps	2	EA	30,000.00	60,000
Condenser water pumps	2	EA	28,000.00	56,000
Variable speed drives, vibration isolation, etc.	6	EA	12,000.00	72,000
Distribution systems				
Piping, fittings, valves and insulation				
Chilled water				
Chilled water pipework, fittings	1,400	LF	95.00	133,000
Valves and specialties	1	LS	75,000.00	75,000
Heating hot water				
Heating hot water pipework, fittings, including insulation				
6" - 4"	1,200	LF	85.00	102,000
< = 3"	36,000	LF	30.00	1,080,000
Valves and specialties	1	LS	150,000.00	150,000
Condenser water				
Condenser water pipework, fittings	1,200	LF	90.00	108,000
Valves and specialties	1	LS	25,000.00	25,000
Connections to VAV boxes	1,517	EA	350.00	531,038

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Air handling equipment				
Air handler units	700,000	CFM	5.00	3,500,000
VAV boxes				
Core/Shell	294	EA	1,250.00	367,500
Tenant areas, 1 per 600 USF	1,027	EA	1,250.00	1,284,063
Parking area	196	EA	1,250.00	245,000
Sound attenuation - duct mounted	700,000	CFM	0.25	175,000
Air distribution, return and exhaust				
Galvanized sheet metal ductwork	959,110	LB	8.00	7,672,880
Flexible ductwork	36,000	LF	6.00	216,000
Dampers, volume	750	EA	40.00	30,000
Dampers, smoke/fire	80	EA	1,200.00	96,000
Insulation/duct liner	400,000	SF	2.50	1,000,000
Diffusers, registers and grilles				
Ceiling				
Core/Shell	1,470	EA	200.00	294,000
Tenant areas, 1 per 150 USF	4,109	EA	150.00	616,350
Parking area				
Terminal & Package Units				
Exhaust fans to toilet rooms etc.	1	LS	300,000.00	300,000
Controls and instrumentation				
DDC Control system	959,110	SF	5.00	4,795,550
Test and balance				
Test and balance	959,110	SF	1.25	1,198,888
				28,033,268

12. Electrical Lighting, Power & Communication

Primary Service, Medium voltage				
Switchgear 13.8KV including (2) tie breakers, (2) feeder breakers, and customer Transformer substation 13.8KV/480V, double-ended including secondary	12,000	KVA	60.00	720,000
Distribution switchboards - 480V	12,500	AMP	40.00	500,000
Distribution panelboards - 480V	4,000	AMP	25.00	100,000
Transformers 480/120V	3,000	KVA	75.00	225,000
Distribution panelboards - 208V	8,000	AMP	25.00	200,000
Feeder conduit and wire - 600V	2,000	LF	120.00	240,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Emergency and Uninterrupted Power				
Emergency Generator	1,500	KVA	350.00	525,000
Automatic transfer switch	1,500	AMP	45.00	67,500
Distribution panelboards	1,500	AMP	25.00	37,500
General Purpose Lighting				
Panelboards	44	EA	2,500.00	110,000
Lighting				
Core Area	147,000	SF	12.00	1,764,000
Tenant Area	616,350	SF	6.00	3,698,100
Parking area	195,760	SF	4.00	783,040
Machine and Equipment Power				
Connections and switches including conduit and wire				
Elevators	16	EA	1,000.00	16,000
Cooling towers	2	EA	5,000.00	10,000
Chillers	2	EA	12,000.00	24,000
Pumps	6	EA	2,000.00	12,000
Miscellaneous connections	959,110	SF	0.75	719,333
User Convenience Power				
Panelboards	88	EA	2,500.00	220,000
Receptacles				
Core/Shell	147,000	SF	3.00	441,000
Tenant Area	616,350	SF	5.00	3,081,750
Parking area	195,760	SF	2.00	391,520
Communications				
Telephone and communications				
Core Area, panels and backbone only	1	LS	75,000.00	75,000
Tenant Area	616,350	SF	3.00	1,849,050
Security Systems				
Security System	959,110	SF	2.00	1,918,220
Fire Alarm Systems				
Fire Alarm Systems	959,110	SF	3.00	2,877,330
Other Electrical Systems				
Grounding Systems	959,110	SF	0.25	239,778
Lightning protection	1	LS	25,000.00	25,000
				22,670,120

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
13. Fire Protection Systems				
Sprinkler and Standpipe Systems				
Fire Protection Sprinkler Systems	959,110	SF	4.00	3,836,440
Standpipe and Hose Systems	959,110	SF	1.00	959,110
Specialties and Other Systems				
Smoke Evacuation	1	LS	250,000.00	250,000
				5,045,550
14. Site Preparation & Building Demolition				
Site Preparation	100,000	SF	15.00	1,500,000
				1,500,000
15. Site Paving, Structures & Landscaping				
Site Development	50,060	SF	25.00	1,251,500
				1,251,500
16. Utilities on Site				
Site Utilities	1	LS	500,000.00	500,000
				500,000

PERFORMANCE BASED PLUS COMPONENT SUMMARY

Gross Area: 959,110 SF

		\$/SF	\$x1,000
1. Foundations		17.93	17,193
2. Vertical Structure		52.90	50,733
3. Floor & Roof Structures		25.87	24,814
4. Exterior Cladding		42.43	40,697
5. Roofing, Waterproofing & Skylights		2.63	2,526
Shell (1-5)		141.76	135,964
6. Interior Partitions, Doors & Glazing		10.18	9,760
7. Floor, Wall & Ceiling Finishes		14.34	13,751
Interiors (6-7)		24.51	23,512
8. Function Equipment & Specialties		8.77	8,410
9. Stairs & Vertical Transportation		9.99	9,584
Equipment & Vertical Transportation (8-9)		18.76	17,994
10. Plumbing Systems		6.12	5,872
11. Heating, Ventilating & Air Conditioning		29.23	28,033
12. Electric Lighting, Power & Communications		23.64	22,670
13. Fire Protection Systems		5.26	5,046
Mechanical & Electrical (10-13)		64.25	61,621
Total Building Construction (1-13)		249.28	239,091
14. Site Preparation & Demolition		1.56	1,500
15. Site Paving, Structures & Landscaping		1.30	1,252
16. Utilities on Site		0.52	500
Total Site Construction (14-16)		3.39	3,252
TOTAL BUILDING & SITE (1-16)		252.67	242,343
General Conditions	12.00%	30.32	29,081
Contractor's Overhead & Profit or Fee	6.00%	16.98	16,285
PLANNED CONSTRUCTION COST		March 2010	299.97
Design, Management and Inspection	20.00%	60.00	57,542
Escalation is excluded	0.00%	0.00	0
RECOMMENDED BUDGET		March 2010	359.97
			345,251

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
1. Foundations				
Mass excavation				
Excavate for basement and Mat foundation	136,085	CY	15.00	2,041,275
Shoring at perimeter	51,852	SF	50.00	2,592,600
Backfill with imported material	28,807	CY	35.00	1,008,233
Dispose off site	136,085	CY	20.00	2,721,700
Hazardous material remediation				
Foundations				
Reinforced concrete Mat foundation, 10'-0"	49,940	SF	175.00	8,739,500
Elevator pits	6	EA	15,000.00	90,000
				17,193,308
2. Vertical Structure				
Columns and pilasters				
Wide flange	1,117	TN	4,000.00	4,468,000
Box columns				
Metal plate frame	4,980	TN	6,000.00	29,880,000
Studs- 3/4" diameter, 6" long	90,144	EA	60.00	5,408,640
Concrete fill	2,687	CY	450.00	1,209,150
Sprayed fireproofing	1,117	TN	350.00	390,950
Diagonal reinforcing				
Buckling restraint braces				
950 k	192	LF	225.00	43,200
703 k	1,458	LF	180.00	262,440
665 k	192	LF	180.00	34,560
589 k	592	LF	150.00	88,800
513 k	926	LF	150.00	138,900
456 k	6,292	LF	150.00	943,800
418 k	8,912	LF	120.00	1,069,440
380 k	880	LF	120.00	105,600
342 k	228	LF	120.00	27,360
304 k	480	LF	120.00	57,600
266 k	1,252	LF	100.00	125,200
Brace connections				
Gusset plates				
3/4" thick plate steel welded connection	128	EA	1,500.00	192,000
1" thick plate steel welded connection	2,040	EA	2,000.00	4,080,000
2" thick plate steel welded connection	16	EA	4,000.00	64,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Concrete retaining walls				
18" Concrete retaining wall				
Formwork to one side	21,456	SF	15.00	321,840
Reinforcing steel	283,824	LBS	1.15	326,398
Concrete	1,311	CY	225.00	294,975
24" Concrete retaining wall				
Formwork to one side	21,456	SF	15.00	321,840
Reinforcing steel	422,059	LBS	1.15	485,368
Concrete	1,748	CY	225.00	393,300
				50,733,360

3. Floor and Roof Structure

Floor at lowest level				
Slab on grade - See foundations (mat slab)				
Suspended floors				
Wide flange framing	3,218	TN	4,000.00	12,872,000
Channel and angle ledger	101,965	LBS	2.50	254,913
3" formlock deck, 18 ga.	859,230	SF	4.50	3,866,535
3 1/4" lightweight concrete	859,230	SF	5.00	4,296,150
Sprayed fireproofing	3,218	TN	350.00	1,126,300
Plaza level slab/roof				
Wide flange framing	311	TN	4,000.00	1,244,000
Channel and angle ledger	33,988	LBS	2.50	84,970
3" formlock deck, 16 ga.	49,940	SF	4.50	224,730
9" normal weight concrete	49,940	SF	5.00	249,700
Sprayed fireproofing	311	TN	350.00	108,850
High roof				
Wide flange framing	72	TN	4,000.00	288,000
3" formlock deck, 18 ga.	18,190	SF	4.50	81,855
3 1/4" lightweight concrete	18,190	SF	5.00	90,950
Sprayed fireproofing	72	TN	350.00	25,200
				24,814,153

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
4. Exterior Cladding				
Wall framing, furring and insulation				
Exterior wall framing	301,653	SF	8.00	2,413,224
Furring to interior face of retaining wall	42,912	SF	4.00	171,648
Insulation and vapor barrier	226,240	SF	1.50	339,360
Applied exterior finishes				
Exterior wall finish - curtain wall with spandrel panels	226,240	SF	120.00	27,148,800
Parapets & edge detailing	554	LF	250.00	138,500
Interior finish to exterior walls				
Gypsum board, taped and sanded	269,152	SF	3.50	942,032
Windows, glazing and louvers				
Exterior wall finish - curtain wall with glazing	75,414	SF	120.00	9,049,680
Exterior doors, frames and hardware				
Glazed Doors & Entrances (allow revolving)	12	EA	35,000.00	420,000
Solid Exterior Doors	8	EA	3,000.00	24,000
Overhead Doors	2	EA	25,000.00	50,000
				40,697,244
5. Roofing, Waterproofing & Skylights				
Waterproofing				
Waterproofing at slab on grade	49,940	SF	10.00	499,400
Waterproofing at retaining wall	42,912	SF	10.00	429,120
Waterproofing membrane under plaza	31,750	SF	15.00	476,250
Insulation				
Rigid insulation at roof	18,190	SF	6.00	109,140
Roofing				
Balconies & accessible roofs	31,750	SF	25.00	793,750
High roof	18,190	SF	12.00	218,280
				2,525,940

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
6. Interior Partitions, Doors & Glazing				
Partition framing and cores				
CMU partitions at basement levels	400	LF	325.00	130,000
Core partitions	7,276	LF	90.00	654,840
Standard partitions	50,932	LF	72.00	3,667,104
Window walls and borrowed lights	1,020	SF	45.00	45,900
Doors, frames & hardware				
Interior doors	2,392	EA	2,200.00	5,262,400
				9,760,244
7. Floor, Wall & Ceiling Finishes				
Floors including base				
Lobby flooring	5,000	SF	35.00	175,000
Core circulation	88,000	SF	6.00	528,000
Restrooms	44,000	SF	15.00	660,000
Office	584,600	SF	5.00	2,923,000
Special use areas	10,000	SF	10.00	100,000
Concrete sealer at basement	195,760	SF	2.00	391,520
Walls				
Lobby	1	EA	75,000.00	75,000
Core circulation	176,000	SF	3.00	528,000
Restroom walls	79,200	SF	15.00	1,188,000
Office	1,137,200	SF	1.50	1,705,800
Special use areas	33,000	SF	5.00	165,000
Paint to concrete and CMU at basement	52,512	SF	1.00	52,512
Ceilings				
Lobby	5,000	SF	25.00	125,000
Core circulation	88,000	SF	12.00	1,056,000
Restrooms	44,000	SF	15.00	660,000
Office	568,600	SF	5.00	2,843,000
Special use areas	22,000	SF	8.00	176,000
Paint to exposed structure at basement	199,760	SF	2.00	399,520
				13,751,352

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
8. Function Equipment & Specialties				
Built in Equipment				
Lobby/entry	1	LS	25,000.00	25,000
Core area	40	EA	18,000.00	720,000
Office areas	584,600	SF	12.00	7,015,200
Restroom areas	10,000	SF	20.00	200,000
Window washing equipment	1	LS	450,000.00	450,000
				8,410,200

9. Stairs & Vertical Transportation

Stairs				
Regular stair flights	88	EA	22,000.00	1,936,000
Elevators				
Passenger Elevators, gearless traction	264	STOP	28,000.00	7,392,000
Freight Elevators, geared traction, 4 stop	8	STOP	32,000.00	256,000
				9,584,000

10. Plumbing Systems

Sanitary fixtures and connection piping				
Toilets	440	EA	1,600.00	704,000
Urinals	88	EA	1,800.00	158,400
Lavatories	264	EA	1,200.00	316,800
Drinking Fountains and Coolers	44	EA	2,500.00	110,000
Sinks	44	EA	1,700.00	74,800
Hose bibbs	44	EA	500.00	22,000
Domestic water and distribution				
Cold Water Service				
Copper piping incl. fittings >2"	1,300	LF	50.00	65,000
Copper piping incl. fittings to 2"	13,860	LF	32.00	443,520
Hot Water Service				
Copper piping incl. fittings >2"	2,600	LF	50.00	130,000
Copper piping incl. fittings to 2"	27,720	LF	32.00	887,040
Insulation	30,320	LF	9.00	272,880
Valves				
Isolation valves to 3/4"	1,232	EA	65.00	80,080
Domestic Water Supply Equipment				
Hot water heating and circulation	1	LS	200,000.00	200,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Sanitary waste				
Waste & vent pipework-above ground				
Cast Iron No Hub, >6"	1,300	LF	75.00	97,500
Cast Iron No Hub, to 3"	13,860	LF	32.00	443,520
Sanitary waste, vent and service piping				
Floor Drains	88	EA	1,000.00	88,000
Rain Water Drainage				
Pipe and Fittings	47,609	LF	35.00	1,666,331
Roof/Overflow Drains	83	EA	750.00	62,425
Gas distribution				
Copper piping incl. fittings to 2"	2,000	LF	25.00	50,000
				5,872,296

11. Heating, Ventilation & Air Conditioning

Heat generating systems				
Heating hot water boilers, high efficiency condensing	43,200	MBTH	25.00	1,080,000
Heating hot water pumps	2	EA	35,000.00	70,000
Cooling Generating Systems				
Cooling towers	3,000	TN	350.00	1,050,000
Chillers, 2 each	3,000	TN	550.00	1,650,000
Chilled water pumps	2	EA	30,000.00	60,000
Condenser water pumps	2	EA	28,000.00	56,000
Variable speed drives, vibration isolation, etc.	6	EA	12,000.00	72,000
Distribution systems				
Piping, fittings, valves and insulation				
Chilled water				
Chilled water pipework, fittings	1,400	LF	95.00	133,000
Valves and specialties	1	LS	75,000.00	75,000
Heating hot water				
Heating hot water pipework, fittings, including insulation				
6" - 4"	1,200	LF	85.00	102,000
< = 3"	36,000	LF	30.00	1,080,000
Valves and specialties	1	LS	150,000.00	150,000
Condenser water				
Condenser water pipework, fittings	1,200	LF	90.00	108,000
Valves and specialties	1	LS	25,000.00	25,000
Connections to VAV boxes	1,517	EA	350.00	531,038

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Air handling equipment				
Air handler units	700,000	CFM	5.00	3,500,000
VAV boxes				
Core/Shell	294	EA	1,250.00	367,500
Tenant areas, 1 per 600 USF	1,027	EA	1,250.00	1,284,063
Parking area	196	EA	1,250.00	245,000
Sound attenuation - duct mounted	700,000	CFM	0.25	175,000
Air distribution, return and exhaust				
Galvanized sheet metal ductwork	959,110	LB	8.00	7,672,880
Flexible ductwork	36,000	LF	6.00	216,000
Dampers, volume	750	EA	40.00	30,000
Dampers, smoke/fire	80	EA	1,200.00	96,000
Insulation/duct liner	400,000	SF	2.50	1,000,000
Diffusers, registers and grilles				
Ceiling				
Core/Shell	1,470	EA	200.00	294,000
Tenant areas, 1 per 150 USF	4,109	EA	150.00	616,350
Parking area				
Terminal & Package Units				
Exhaust fans to toilet rooms etc.	1	LS	300,000.00	300,000
Controls and instrumentation				
DDC Control system	959,110	SF	5.00	4,795,550
Test and balance				
Test and balance	959,110	SF	1.25	1,198,888
				28,033,268

12. Electrical Lighting, Power & Communication

Primary Service, Medium voltage				
Switchgear 13.8KV including (2) tie breakers, (2) feeder breakers, and customer Transformer substation 13.8KV/480V,	12,000	KVA	60.00	720,000
double-ended including secondary	12,000	KVA	150.00	1,800,000
Distribution switchboards - 480V	12,500	AMP	40.00	500,000
Distribution panelboards - 480V	4,000	AMP	25.00	100,000
Transformers 480/120V	3,000	KVA	75.00	225,000
Distribution panelboards - 208V	8,000	AMP	25.00	200,000
Feeder conduit and wire - 600V	2,000	LF	120.00	240,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Emergency and Uninterrupted Power				
Emergency Generator	1,500	KVA	350.00	525,000
Automatic transfer switch	1,500	AMP	45.00	67,500
Distribution panelboards	1,500	AMP	25.00	37,500
General Purpose Lighting				
Panelboards	44	EA	2,500.00	110,000
Lighting				
Core Area	147,000	SF	12.00	1,764,000
Tenant Area	616,350	SF	6.00	3,698,100
Parking area	195,760	SF	4.00	783,040
Machine and Equipment Power				
Connections and switches including conduit and wire				
Elevators	16	EA	1,000.00	16,000
Cooling towers	2	EA	5,000.00	10,000
Chillers	2	EA	12,000.00	24,000
Pumps	6	EA	2,000.00	12,000
Miscellaneous connections	959,110	SF	0.75	719,333
User Convenience Power				
Panelboards	88	EA	2,500.00	220,000
Receptacles				
Core/Shell	147,000	SF	3.00	441,000
Tenant Area	616,350	SF	5.00	3,081,750
Parking area	195,760	SF	2.00	391,520
Communications				
Telephone and communications				
Core Area, panels and backbone only	1	LS	75,000.00	75,000
Tenant Area	616,350	SF	3.00	1,849,050
Security Systems				
Security System	959,110	SF	2.00	1,918,220
Fire Alarm Systems				
Fire Alarm Systems	959,110	SF	3.00	2,877,330
Other Electrical Systems				
Grounding Systems	959,110	SF	0.25	239,778
Lightning protection	1	LS	25,000.00	25,000
				22,670,120

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
13. Fire Protection Systems				
Sprinkler and Standpipe Systems				
Fire Protection Sprinkler Systems	959,110	SF	4.00	3,836,440
Standpipe and Hose Systems	959,110	SF	1.00	959,110
Specialties and Other Systems				
Smoke Evacuation	1	LS	250,000.00	250,000
				5,045,550
14. Site Preparation & Building Demolition				
Site Preparation	100,000	SF	15.00	1,500,000
				1,500,000
15. Site Paving, Structures & Landscaping				
Site Development	50,060	SF	25.00	1,251,500
				1,251,500
16. Utilities on Site				
Site Utilities	1	LS	500,000.00	500,000
				500,000