

Arlington High School Building Committee

Meeting Date: Tuesday, April 21, - 6:00 pm
Location: Conducted by Remote Participation

Agenda

1. Cost Estimate Review
2. Value Engineering Discussion
3. Project Schedule Updates/Discussion
4. Subcommittee Reports
 - ◆ Communications
 - ◆ Finance
 - ◆ Interiors
 - ◆ Landscape & Exteriors
 - ◆ Memorials
 - ◆ SMEPFP
 - ◆ Security
 - ◆ Temp Use-Phasing
5. Meeting Schedule
6. New Business

The listings of matters are those reasonably anticipated by the Chair which may be discussed at the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law.

Members of the public are asked to send written comment to ktassone@arlington.k12.ma.us. Documents regarding agenda items will be made available via the Town's website.

<https://www.mass.gov/doc/open-meeting-law-order-march-12-2020/download>

Topic: AHSBC Meeting

Time: Apr 21, 2020 06:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

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COST ESTIMATE COMPARISON SPREADSHEET (UNIFORMAT)

Arlington High School New Construction

Division #	Description	Project Scope & Budget		Consigli 60% Estimate		PM&C 60% Estimate		60% Estimate DELTA		Budget / Consigli 60% Estimate DELTA	
		Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost
A	Substructure	\$13,474,721	\$33	\$14,759,326	\$36	\$14,271,993	\$35	\$487,333	\$1	\$1,284,605	-\$69
B	Shell							\$0	\$0	\$0	\$0
	B10 Superstructure	\$21,791,712	\$53	\$19,730,702	\$48	\$19,667,883	\$48	\$62,819	\$0	(\$2,061,010)	-\$102
	B20 Exterior Enclosure	\$21,017,633	\$51	\$17,939,498	\$44	\$20,092,914	\$49	(\$2,153,416)	-\$5	(\$3,078,135)	-\$95
	B30 Roofing	\$4,588,033	\$11	\$3,509,040	\$9	\$3,431,347	\$8	\$77,693	\$0	(\$1,078,993)	-\$20
C	Interiors	\$30,023,786	\$73	\$31,091,078	\$76	\$32,068,436	\$78	(\$977,358)	-\$2	\$1,067,292	-\$150
	Services							\$0	\$0	\$0	\$0
	D10 Conveying	\$615,000	\$2	\$724,500	\$2	\$680,000	\$2	\$44,500	\$0	\$109,500	-\$3
	D20 Plumbing	\$6,656,440	\$16	\$4,863,193	\$12	\$5,095,003	\$12	(\$231,810)	-\$1	(\$1,793,247)	-\$28
	D30 HVAC	\$25,607,633	\$63	\$27,698,127	\$68	\$27,152,565	\$66	\$545,562	\$1	\$2,090,494	-\$130
	D40 Fire Protection	\$2,042,950	\$5	\$2,648,033	\$6	\$2,624,833	\$6	\$23,200	\$0	\$605,083	-\$11
	D50 Electrical	\$14,377,110	\$35	\$19,065,956	\$47	\$20,017,223	\$49	(\$951,267)	-\$2	\$4,688,846	-\$82
E	Furnishings & Fixed Equipment	\$5,844,282	\$14	\$8,964,253	\$22	\$8,927,383	\$22	\$36,870	\$0	\$3,119,971	-\$36
T	Toilet Building			\$486,526	\$1	\$663,217	\$2	(\$176,691)	\$0	\$486,526	-\$1
	Building Subtotal	\$146,039,300	\$357	\$151,480,232	\$371	\$154,692,797	\$379	-3,212,565	-\$8	5,440,932	-\$728
F	Demolition & Abatement	\$7,414,100	\$18	\$6,946,189	\$17	\$6,508,600	\$16	\$437,589	\$1	(\$467,911)	-\$35
G	Other Site Construction							\$0	\$0	\$0	\$0
	G10 Site Preparation	\$5,704,532	\$14	\$4,322,358	\$11	\$3,530,693	\$9	\$791,665	\$2	(\$1,382,174)	-\$25
	G20 Site Improvements	\$8,712,200	\$21	\$8,656,559	\$21	\$8,704,811	\$21	(\$48,252)	\$0	(\$55,641)	-\$43
	G30 Mechanical Utilities	\$1,548,710	\$4	\$1,014,650	\$2	\$884,225	\$2	\$130,425	\$0	(\$534,060)	-\$6
	G40 Electrical Utilities	\$2,660,200	\$7	\$2,502,843	\$6	\$1,689,098	\$4	\$813,745	\$2	(\$157,357)	-\$13
EBP2	Early Bid Package #2			\$8,810,430	\$22	\$8,927,741	\$22	(\$117,311)	\$0	\$8,810,430	-\$22
	Subtotal	\$172,079,042	\$421	\$183,733,261	\$450	\$184,937,965	\$453	-1,204,704	-\$3	11,654,219	-\$871
Z	Mark-Ups	\$47,720,671	28%	\$40,833,639	22%	\$38,471,831	21%	\$2,361,808	1.4%	(\$6,887,032)	-50.0%
Z	GMP Insurance	\$2,214,657	1%	\$2,588,155	1%	\$2,588,155	1%	\$0	0.0%	\$373,498	-2.7%
Z	GC Bonds	\$1,509,994	3%	\$3,419,917	8%	\$2,251,695	6%	\$1,168,222	2.5%	\$1,909,923	-11.5%
Z	Design & Phasing Contingency	\$13,766,323	8%	\$7,349,330	4%	\$6,160,358	3%	\$1,188,972	0.7%	(\$6,416,993)	-12.0%
Z	General Conditions & General Req.	\$18,493,299	11%	\$16,804,112	9%	\$16,804,112	9%	\$0	0.1%	(\$1,689,187)	-19.9%
Z	GMP Contingency	\$6,706,513	4%	\$5,966,388	3%	\$5,961,774	3%	\$4,614	0.0%	(\$740,125)	-7.1%
Z	Overhead & Profit	\$5,029,885	3%	\$4,705,737	3%	\$4,705,737	3%	\$0	0.0%	(\$324,148)	-5.5%
	Construction Subtotal	\$219,799,713	\$538	\$224,566,900	\$550	\$223,409,796	\$547	1,157,104	\$3	4,767,187	-\$1,088
Z	Escalation to Construction Mid-Point	\$15,487,114	9%	\$9,612,541	5%	\$10,580,468	6%	(\$967,927)	-0.5%	(\$5,874,573)	-14%
	Total Addition Cost	\$235,286,827		\$234,179,441		\$233,990,264		\$189,177		(\$1,107,386)	
	\$/GSF	\$576		\$573		\$573		\$0.46		\$3.17	



60% CD Estimate
Add Alternates

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount	Grand Total Amount
0 Estimated Savings from Eliminating Geothermal				
051200 Structural Steel				
Added roof screen supports - 80'x11' 6.5#/sf	2.86 tn	3,400.00 /tn	9,724	11,248
051200 Structural Steel			9,724	11,248
074200 Metal Wall Panels				
Metal panels at roof screens; acoustical - added for HVAC redesign	880.00 sf	72.00 /sf	63,360	73,289
074200 Metal Wall Panels		/sf	63,360	73,289
230005 HVAC - Misc				
HVAC at DD	(1.00) ls	27,464,831.00 /ls	(27,464,831)	(31,384,370)
HVAC at 60% CD	1.00 ls	27,706,658.00 /ls	27,706,658	31,660,709
230005 HVAC - Misc			241,827	276,338
260583 Equipment Wiring				
Equipment wiring complete at DD	(1.00) ls	1,657,417.00 /ls	(1,657,417)	(1,893,949)
Equipment wiring complete at 60%CD	1.00 ls	2,026,591.00 /ls	2,026,591	2,315,808
260583 Equipment Wiring			369,174	421,859
262700 Distribution Equipment				
Normal power distribution equipment at DD	(1.00) ls	1,561,761.00 /ls	(1,561,761)	(1,784,642)
Normal power distribution equipment at 60%CD	1.00 ls	2,100,791.00 /ls	2,100,791	2,400,597
262700 Distribution Equipment		/gsf	539,030	615,956
262705 Distribution Feeders				
Distribution feeders at DD	(1.00) ls	1,188,917.00 /ls	(1,188,917)	(1,358,589)
Distribution feeders at 60%CD	1.00 ls	1,246,012.00 /ls	1,246,012	1,423,832
262705 Distribution Feeders		/gsf	57,095	65,243
312600 Management and Disposition of Contaminated Material				
MCP Regulated Soil-Type A Mass Unlined Landfill 1,500x1.6	(2,400.00) tns	48.00 /tns	(115,200)	(133,253)
312600 Management and Disposition of Contaminated Material			(115,200)	(133,253)
332313 Geothermal Well Field				
Geothermal well - drilling and piping - 500' dp	(130.00) ea	16,800.00 /ea	(2,184,000)	(2,526,257)
13# steel casing to 60' per well	0.01 ls	1.00 /ls	0	0
1.25" DR11 closed loop piping	0.01 ls	1.00 /ls	0	0
Grout all vertical bores with bentonite based grout	0.01 ls	1.00 /ls	0	0
Connect wells	0.01 ls	1.00 /ls	0	0
Pipe manifold allowance	0.01 ls	1.00 /ls	0	0
Pressure testing, flush and purge	0.01 ls	1.00 /ls	0	0
Glycol (20%) solution after test and flush	0.01 ls	1.00 /ls	0	0
Vaults	(2.00) ea	24,999.99 /ea	(50,000)	(57,836)
332313 Geothermal Well Field			(2,234,000)	(2,584,093)
332315 Support of Geothermal Well Operations				
Allowance for support of geothermal well operations	(1.00) allw	200,000.00 /allw	(200,000)	(231,342)
Allowance to treat water	(130.00) allw	3,000.00 /allw	(390,000)	(451,117)
Excavating for piping, - ph 1	(130.00) ea	2,000.00 /ea	(260,000)	(300,745)
Settlement tank and pumping	(6.00) mo	41,000.00 /mo	(246,000)	(284,551)
332315 Support of Geothermal Well Operations			(1,096,000)	(1,267,755)
0 Estimated Savings from Eliminating Geothermal			(2,164,990)	(2,521,168)



CONSIGLI
Est. 1905

60% CD ESTIMATE

Town Of Arlington
Arlinton High School

SUBMITTED BY:
Consigli Construction Co., Inc.
72 Sumner Street
Milford, MA 01757

April 19, 2020



CONSIGLI
Est. 1905

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Arlington High School



The Right Choice

Consigli Construction Co., Inc. is a fourth-generation family-led organization that can offer the resources and experience of one of the strongest construction management firms in the Northeast with the creativity and flexibility of a start-up.

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- 2.** Summary of Trade Sub Values
- 3.** Full Estimate in CSI
- 4.** Full Estimate in Uniformat
- 5.** Alternates
- 6.** EPB#3 Estimate
- 7.** Assumptions and Qualifications



CONSIGLI
Est. 1905

**Arlington High School
60% CD Estimate Reconciliation**



BASE BID	Consigli				PM&C	
	April 19, 2020		Dec 23, 2019		April 19, 2020	
		\$/sf		Delta		Delta
02.01 DEMOLITION & ABATEMENT	6,946,189	17.00	7,132,600	(186,411)	6,508,600	437,589
03.01 CONCRETE	12,316,075	30.15	11,673,898	642,177	12,220,084	95,991
03.02 POLISHED CONCRETE	445,843	1.09	483,504	(37,661)	512,630	(66,787)
04.01 MASONRY (TS)	6,381,960	15.62	5,540,755	841,205	6,718,780	(336,820)
05.01 STRUCTURAL STEEL	15,597,525	38.18	15,146,549	450,976	15,852,279	(254,754)
05.02 MISCELLANEOUS AND ORNAMENTAL (TS)	2,383,389	5.83	2,819,816	(436,427)	2,452,581	(69,192)
05.03 ARTISTIC COLUMN COVER	40,000	0.10		40,000		40,000
06.02 FINISH CARPENTRY	2,550,727	6.24	1,723,715	827,012	1,873,035	677,692
06.03 HISTORIC SALVAGE & REUSE	279,000	0.68	95,000	184,000	250,000	29,000
07.01 WATERPROOFING, DAMPPROOFING & CAULKING (TS)	1,885,236	4.62	2,050,998	(165,762)	2,420,196	(534,960)
07.02 ROOFING & FLASHING (TS)	2,899,546	7.10	2,967,475	(67,929)	3,044,947	(145,401)
07.03 SUB SLAB VAPOR MEMBRANE	724,075	1.77	590,968	133,107	765,479	(41,404)
07.04 EXTERIOR WALL PANELS	1,454,726	3.56	1,830,252	(375,526)	1,621,920	(167,194)
07.05 THERMAL INSULATION	with trades	-	w/trades	-	784,891	(784,891)
07.09 SPRAY FIREPROOFING	951,928	2.33	951,928	-	1,021,050	(69,122)
07.10 FIRE STOPPING	73,530	0.18	102,125	(28,595)	75,000	(1,470)
08.01 WINDOWS (TS)	779,190	1.91	821,250	(42,060)	837,495	(58,305)
08.02 GLASS & GLAZING (TS)	787,695	1.93	967,875	(180,180)	965,020	(177,325)
08.03 CURTAIN-WALL & SKYLIGHTS (TS?)	5,762,226	14.11	5,286,416	475,810	5,664,800	97,426
08.04 DOORS AND HARDWARE	1,562,579	3.83	1,519,790	42,789	1,784,825	(222,246)
08.05 ACCESS DOORS	25,000	0.06	25,000	-	20,000	5,000
08.07 OVERHEAD DOORS & LOADING DOCK EQUIPMENT	148,522	0.36	114,618	33,904	32,055	116,467
09.01 DRYWALL & CARPENTRY	14,643,051	35.85	14,359,063	283,988	15,160,521	(517,470)
09.02 TILE (TS)	1,424,276	3.49	1,103,877	320,399	1,448,710	(24,434)
09.03 ACOUSTICAL TILE (TS)	2,984,842	7.31	2,574,355	410,487	3,709,434	(724,592)
09.06 RESILIENT FLOORS (TS)	2,021,076	4.95	1,944,675	76,401	1,704,311	316,765
09.07 PAINTING (TS)	1,072,895	2.63	951,989	120,906	1,398,410	(325,515)
09.08 VAPOR MITIGATION	109,702	0.27	182,109	(72,407)	113,160	(3,458)
09.09 ACOUSTICAL INSULATION	305,238	0.75	351,720	(46,482)	320,340	(15,102)
09.10 WOOD FLOORING	423,764	1.04	415,844	7,920	425,900	(2,136)
09.11 RESINOUS FLOORING	183,923	0.45	215,038	(31,115)	187,993	(4,070)
09.12 CARPET AND ENTRANCE MATS	214,625	0.53	238,426	(23,801)	332,599	(117,974)
09.13 ACOUSTICAL TREATMENT	619,412	1.52	1,369,420	(750,008)	583,781	35,631
09.14 PRECAST TERRAZZO	67,200	0.16		67,200	47,875	19,325
09.15 TEMPORARY CONSTRUCTION	2,596,335	6.36	1,370,970	1,225,365	1,609,558	986,777
09.20 TRADE SUPPORT	597,900	1.46	597,900	-	200,000	397,900
10.02 SIGNAGE	244,250	0.60	257,160	(12,910)	235,510	8,740
10.03 SPECIALTIES	1,101,278	2.70	964,402	136,876	1,450,644	(349,366)
10.06 FOLDING PANEL PARTITIONS	48,600	0.12	50,820	(2,220)	47,600	1,000
11.02 FOOD SERVICE EQUIPMENT	700,848	1.72	635,065	65,783	700,848	-
11.04 STAGE CURTAIN & RIGGING	769,133	1.88	382,500	386,633	769,133	-
11.05 GYMNASIUM EQUIPMENT & STANDS	564,888	1.38	606,661	(41,773)	634,360	(69,472)
11.06 APPLIANCES	209,600	0.51	106,680	102,920	144,600	65,000
12.01 FUME HOODS	227,500	0.56	69,300	158,200	227,500	-
12.02 WINDOW TREATMENT	396,274	0.97	330,464	65,810	285,214	111,060
12.03 FIXED AUDIENCE SEATING	340,672	0.83	355,920	(15,248)	331,650	9,022
12.30 MANUFACTURED CASEWORK	1,537,159	3.76	1,328,974	208,185	2,172,800	(635,641)
14.01 ELEVATOR (TS)	724,500	1.77	724,500	-	680,000	44,500
21.01 FIRE PROTECTION (TS)	2,648,033	6.48	2,871,272	(223,239)	2,782,833	(134,800)
22.01 PLUMBING (TS)	5,022,950	12.30	5,191,285	(168,335)	5,487,689	(464,739)
23.01 HVAC (TS)	27,706,658	67.83	27,464,831	241,827	27,519,065	187,593
26.01 ELECTRICAL (TS)	20,958,929	51.31	18,622,741	2,336,188	21,851,901	(892,972)
31.21 TEMP FENCING	411,835	1.01	411,805	30	479,950	(68,115)
31.22 SITEWORK - Phase 1	8,195,000	20.06	8,195,000	-	8,312,641	(117,641)
31.23 SITEWORK - Phase 2,3	10,962,570	26.84	13,984,002	(3,021,432)	8,602,180	2,360,390
31.25 PILES	2,040,834	5.00	1,913,843	126,991	2,068,200	(27,366)

**Arlington High School
60% CD Estimate Reconciliation**



	Consigli				PM&C	
	April 19, 2020		Dec 23, 2019		April 19, 2020	
32.02 SITE CONCRETE	1,767,219	4.33	1,843,404	(76,185)	1,784,463	(17,244)
32.04 LANDSCAPING AND SITE FURNISHINGS	2,224,944	5.45	1,947,314	277,630	2,421,492	(196,548)
32.07 SYNTHETIC FIELD SPORT SURFACING	1,624,955	3.98	1,669,034	(44,079)	1,311,870	313,085
32.08 FENCING	822,111	2.01	656,412	165,699	888,643	(66,532)
33.04 GEOTHERMAL WELLS	-	-	2,234,000	(2,234,000)	-	-
99.30 EBP #3 SUMMER 2020 SWING SPACE	792,224	1.94	w/above	792,224	647,820	144,404
EBP #2		-				-
FIRE PROTECTION, PLUMBING, HVAC	431,100	1.06	w/above	431,100	431,100	-
		-				0
Subtotal	\$ 183,733,264	449.78	\$ 180,337,307	\$ 3,582,368	\$ 184,937,965	\$ (1,204,701)
Subcontractor Bonds	\$ 1,168,222	2.86	\$ 1,189,583	\$ (21,361)	\$ -	\$ 1,168,222
Subtotal	\$ 184,901,486	452.64	\$ 181,526,890	\$ 6,538,859	\$ 184,937,965	\$ (36,479)
Design and Estimate Contingency	\$ 6,430,664	15.74	\$ 9,917,814	\$ (3,487,150)	6,160,358	\$ 270,306
Phasing and Acceleration Contingency	\$ 918,666	2.25			-	\$ 918,666
Escalation	\$ 9,612,541	23.53	\$ 11,486,682	\$ (1,874,141)	10,580,468	\$ (967,927)
GCs	\$ 11,931,225	29.21	\$ 11,931,225	\$ -	11,931,225	\$ -
GRs	\$ 4,872,887	11.93	\$ 4,872,887	\$ -	4,872,887	\$ -
Bonds	\$ 2,251,695	5.51	\$ 2,251,695	\$ -	2,251,695	\$ -
Builder's Risk	\$ 369,468	0.90	\$ 369,468	\$ -	2,588,155	\$ (2,218,687)
GL Insurance	\$ 2,588,155	6.34	\$ 2,588,155	\$ -	369,468	\$ 2,218,687
Permit	\$ -	-	\$ -	\$ -		\$ -
Fee	\$ 4,705,730	11.52	\$ 4,705,737	\$ (7)	4,705,737	\$ (7)
GMP Contingency	\$ 5,596,920	13.70	\$ 5,623,620	\$ (26,700)	5,592,306	\$ 4,614
Total	\$ 234,179,437	573.27	\$ 235,274,173	\$ (1,094,736)	\$ 233,990,264	\$ 189,173

Project: **Arlington High School**
 Location **60% CD Estimate Reconciliation**
 Date: April 19, 2020



	Consigli	PM&C	Delta
B Base			
A Substructure			
A10 Foundations			
A1010 Standard Foundations	5,928,294	5,727,240	201,054
A1020 Special Foundations	3,355,187	3,153,829	201,358
A1030 Lowest Floor Construction	5,475,845	5,390,924	84,921
	14,759,326	14,271,993	
B10 Superstructure			
B1010 Floor Construction	17,991,952	17,789,550	202,402
B1020 Roof Construction	1,738,750	1,878,333	(139,583)
	19,730,702	19,667,883	
B20 Exterior Enclosure			
B2010 Exterior Walls	11,405,550	13,541,514	(2,135,964)
B2020 Exterior Windows	6,216,447	6,212,886	3,561
B2030 Exterior Doors	317,501	338,514	(21,013)
	17,939,498	20,092,914	
B30 Roofing			
B3010 Roof Coverings	3,166,926	3,023,695	143,231
B3020 Roof Openings	342,114	407,652	(65,538)
	3,509,040	3,431,347	
C10 Interior Construction			
C1010 Partitions	11,232,308	11,643,737	(411,429)
C1020 Interior Doors	2,146,342	2,313,146	(166,804)
C1030 Specialties/Millwork	3,985,512	3,888,956	96,556
	17,364,162	17,845,839	
C20 Stairs			
C2010 Stair Construction	1,424,806	1,151,000	273,806
C2020 Stair Finishes	450,320	401,865	48,455
	1,875,126	1,552,865	
C30 Interior Finishes			
C3010 Wall Finishes	3,683,957	3,788,836	(104,879)
C3020 Floor Finishes	3,229,446	3,137,708	91,738
C3030 Ceiling Finishes	4,938,387	5,743,188	(804,801)
	11,851,790	12,669,732	
D10 Conveying Systems			
D1010 Elevators & Lifts	724,500	680,000	44,500
	724,500	680,000	
D20 Plumbing			
D20 Plumbing	4,863,193	5,095,003	(231,810)
	4,863,193	5,095,003	
D30 Heating, Ventilating, and Air Conditioning (HVAC)			
D30 HVAC	27,698,127	27,152,565	545,562
	27,698,127	27,152,565	
D40 Fire Protection Systems			
D40 Fire Protection	2,648,033	2,624,833	23,200
	2,648,033	2,624,833	

D50 Electrical Systems			
D5010 Electrical Service and Distribution	19,065,956	20,017,223	(951,267)
	19,065,956	20,017,223	
E10 Equipment			
E10 Equipment General	2,817,641	2,813,091	4,550
	2,817,641	2,813,091	
E20 Furnishings			
E2010 Fixed Furnishings	1,961,548	2,520,564	(559,016)
	1,961,548	2,520,564	
F10 Special Construction			
F10 Special Construction	4,185,064	3,593,728	591,336
	4,185,064	3,593,728	
T Toilet Building			
T Toilet Bldg Complete	486,526	663,217	(176,691)
	486,526	663,217	
	151,480,232	154,692,797	(3,212,565)
F20 Demolition			
F2010 Building Elements Demolition	3,392,500	3,234,000	158,500
F20 Abatement			
F2020 Hazardous Component Abatement	3,553,689	3,274,600	279,089
G Sitework			
G10 Site Preparation	4,322,358	3,530,693	791,665
G20 Site Improvements	8,656,559	8,704,811	(48,252)
G30 Civil/Mech Utilities	1,014,650	884,225	130,425
G40 Site Electric Utilities	2,502,843	1,689,098	813,745
	16,496,410	14,808,827	1,687,583
Early Bid Package #2			
Early Bid Package #2	8,810,430	8,927,741	(117,311)
	183,733,261	184,937,965	(1,204,704)
None Trade Bonds	1,168,222	-	1,168,222
	184,901,483	184,937,965	
Design Contingency	6,430,664	6,160,358	270,306
Phasing Contingency	918,666	-	918,666
Escalation	9,612,541	10,580,468	(967,927)
General Conditions	11,931,225	11,931,225	-
General Requirements	4,872,887	4,872,887	-
Bonds	2,251,695	2,251,695	-
Insurance	2,588,155	2,588,155	-
Builder's Risk	369,468	369,468	-
Permit			-
Fee	4,705,737	4,705,737	-
GC Contingency	5,596,920	5,592,306	4,614
	234,179,441	233,990,264	189,177



CONSIGLI
Est. 1905



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
TC Trade Contractor			
04.01 MASONRY (TS)	408,500.00 gsf	15.62 /gsf	6,381,960
05.02 MISCELLANEOUS AND ORNAMENTAL (TS)	408,500.00 gsf	5.83 /gsf	2,383,389
07.01 WATERPROOFING, DAMPPROOFING & CAULKING (TS)	408,500.00 gsf	4.62 /gsf	1,885,236
07.02 ROOFING & FLASHING (TS)	408,500.00 gsf	7.10 /gsf	2,899,546
08.01 ALUMINUM WINDOWS (TS)	408,500.00 gsf	1.91 /gsf	779,190
08.02 GLASS & GLAZING (TS)	408,500.00 gsf	1.93 /gsf	787,695
08.03 CURTAIN-WALL (TS?)	408,500.00 gsf	14.11 /gsf	5,762,226
09.02 TILE (TS)	408,500.00 gsf	3.49 /gsf	1,424,276
09.03 ACOUSTICAL TILE (TS)	408,500.00 gsf	7.31 /gsf	2,984,842
09.06 RESILIENT FLOORS (TS)	408,500.00 gsf	4.95 /gsf	2,021,076
09.07 PAINTING (TS)	408,500.00 gsf	2.63 /gsf	1,072,895
09.14 PRECAST TERRAZZO (TC)		/gsf	67,200
14.01 ELEVATOR (TS)	408,500.00 gsf	1.77 /gsf	724,500
21-01 FIRE PROTECTION (TS)	408,500.00 gsf	6.48 /gsf	2,648,033
22-01 PLUMBING (TS)	408,500.00 gsf	12.30 /gsf	5,022,950
23-01 HVAC (TS)	408,500.00 gsf	67.83 /gsf	27,706,658
26-01 ELECTRICAL (TS)	408,500.00 gsf	51.31 /gsf	20,958,929
99.11 EBP #3 SUMMER 2020 SWING SPACE (TS)	9,800.00 gsf	44.87 /gsf	439,694
99.20 EBP #2 SERVICE RELOCATIONS (TS)			431,100
TC Trade Contractor	408,500.00 gsf	211.46 /gsf	86,381,393



CONSIGLI
Est. 1905



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
02.01 DEMOLITION & ABATEMENT	408,500.00 gsf	17.00 /gsf	6,946,189
03.01 CONCRETE	408,500.00 gsf	30.15 /gsf	12,316,075
03.02 POLISHED CONCRETE	408,500.00 gsf	1.09 /gsf	445,843
04.01 MASONRY (TS)	408,500.00 gsf	15.62 /gsf	6,381,960
05.01 STRUCTURAL STEEL	408,500.00 gsf	38.18 /gsf	15,597,525
05.02 MISCELLANEOUS AND ORNAMENTAL (TS)	408,500.00 gsf	5.83 /gsf	2,383,389
05.03 ARTISTIC COLUMN COVER	408,500.00 gsf	0.10 /gsf	40,000
06.02 FINISH CARPENTRY	408,500.00 gsf	6.24 /gsf	2,550,727
06.03 HISTORIC SALVAGE & REUSE	408,500.00 gsf	0.68 /gsf	279,000
07.01 WATERPROOFING, DAMPPROOFING & CAULKING (TS)	408,500.00 gsf	4.62 /gsf	1,885,236
07.02 ROOFING & FLASHING (TS)	408,500.00 gsf	7.10 /gsf	2,899,546
07.03 SUB SLAB VAPOR MEMBRANE	408,500.00 gsf	1.77 /gsf	724,075
07.04 EXTERIOR WALL PANELS	408,500.00 gsf	3.56 /gsf	1,454,726
07.09 SPRAY FIREPROOFING	408,500.00 gsf	2.33 /gsf	951,928
07.10 FIRE STOPPING	408,500.00 gsf	0.18 /gsf	73,530
08.01 ALUMINUM WINDOWS (TS)	408,500.00 gsf	1.91 /gsf	779,190
08.02 GLASS & GLAZING (TS)	408,500.00 gsf	1.93 /gsf	787,695
08.03 CURTAIN-WALL (TS?)	408,500.00 gsf	14.11 /gsf	5,762,226
08.04 DOORS AND HARDWARE	408,500.00 gsf	3.83 /gsf	1,562,579
08.05 ACCESS DOORS	408,500.00 gsf	0.06 /gsf	25,000
08.07 OVERHEAD DOORS & LOADING DOCK EQUIPMENT	408,500.00 gsf	0.36 /gsf	148,522
09.01 DRYWALL & CARPENTRY	408,500.00 gsf	35.85 /gsf	14,643,051
09.02 TILE (TS)	408,500.00 gsf	3.49 /gsf	1,424,276
09.03 ACOUSTICAL TILE (TS)	408,500.00 gsf	7.31 /gsf	2,984,842
09.06 RESILIENT FLOORS (TS)	408,500.00 gsf	4.95 /gsf	2,021,076
09.07 PAINTING (TS)	408,500.00 gsf	2.63 /gsf	1,072,895
09.08 VAPOR MITIGATION	408,500.00 gsf	0.27 /gsf	109,702
09.09 ACOUSTICAL INSULATION	408,500.00 gsf	0.75 /gsf	305,238
09.10 WOOD FLOORING	408,500.00 gsf	1.04 /gsf	423,764
09.11 RESINOUS FLOORING	408,500.00 gsf	0.45 /gsf	183,923
09.12 CARPET AND ENTRANCE MATS	408,500.00 gsf	0.53 /gsf	214,625



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
09.13 ACOUSTICAL TREATMENT	408,500.00 gsf	1.52 /gsf	619,412
09.14 PRECAST TERRAZZO (TC)	408,500.00 gsf	0.17 /gsf	67,200
09.15 TEMPORARY CONSTRUCTION	408,500.00 gsf	6.36 /gsf	2,596,335
09.20 TRADE SUPPORT	408,500.00 gsf	1.46 /gsf	597,900
10.02 SIGNAGE	408,500.00 gsf	0.60 /gsf	244,250
10.03 SPECIALTIES	408,500.00 gsf	2.70 /gsf	1,101,278
10.06 FOLDING PANEL PARTITIONS	408,500.00 gsf	0.12 /gsf	48,600
11.02 FOOD SERVICE EQUIPMENT	408,500.00 gsf	1.72 /gsf	700,848
11.04 STAGE CURTAIN & RIGGING	408,500.00 gsf	1.88 /gsf	769,133
11.05 GYMNASIUM EQUIPMENT & STANDS	408,500.00 gsf	1.38 /gsf	564,888
11.06 APPLIANCES	408,500.00 gsf	0.51 /gsf	209,600
12.01 MFG CASEWORK & LAB EQUIPMENT	408,500.00 gsf	0.56 /gsf	227,500
12.02 WINDOW TREATMENT	408,500.00 gsf	0.97 /gsf	396,274
12.03 FIXED AUDIENCE SEATING	408,500.00 gsf	0.83 /gsf	340,672
12.30 MANUFACTURED CASEWORK	408,500.00 gsf	3.76 /gsf	1,537,159
14.01 ELEVATOR (TS)	408,500.00 gsf	1.77 /gsf	724,500
21-01 FIRE PROTECTION (TS)	408,500.00 gsf	6.48 /gsf	2,648,033
22-01 PLUMBING (TS)	408,500.00 gsf	12.30 /gsf	5,022,950
23-01 HVAC (TS)	408,500.00 gsf	67.83 /gsf	27,706,658
26-01 ELECTRICAL (TS)	408,500.00 gsf	51.31 /gsf	20,958,929
31.21 TEMP FENCING	408,500.00 gsf	1.01 /gsf	411,835
31.22 SITEWORK - Phase 1	408,500.00 gsf	20.06 /gsf	8,195,000
31.23 SITEWORK - Phase 2-4	408,500.00 gsf	26.84 /gsf	10,962,570
31.25 PILES	408,500.00 gsf	5.00 /gsf	2,040,834
31-23 TRAFFIC SIGNAL	408,500.00 gsf	/gsf	
32.02 SITE CONCRETE	408,500.00 gsf	4.33 /gsf	1,767,219
32.04 LANDSCAPING AND SITE FURNISHINGS	408,500.00 gsf	5.45 /gsf	2,224,944
32.07 SYNTHETIC FIELD SPORT SURFACING	408,500.00 gsf	3.98 /gsf	1,624,955
32.08 FENCING	408,500.00 gsf	2.01 /gsf	822,111
99.10 EBP #3 SUMMER 2020 SWING SPACE		/gsf	352,530
99.11 EBP #3 SUMMER 2020 SWING SPACE (TS)		/gsf	439,694



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
99.20 EBP #2 SERVICE RELOCATIONS (TS)			431,100

Estimate Totals

Description	Amount	Totals	Rate	Cost per Unit
Subtotal	183,733,260	183,733,260		449.775 /SF
Non-trade sub bonds	1,168,222		1.200 %	2.860 /SF
Phasing	918,666		0.500 %	2.249 /SF
Design & Estimating Contingency	6,430,664		3.500 %	15.742 /SF
Subtotal	8,517,552	192,250,812		470.626 /SF
Escalation	9,612,541		5.000 %	23.531 /SF
Subtotal	9,612,541	201,863,353		494.158 /SF
General Conditions (C.1-3)	11,931,225			29.207 /SF
General Requirements (C.5-6)	4,872,887			11.929 /SF
P&P Bond	2,251,695			5.512 /SF
Builder's Risk	369,468			0.904 /SF
GL Insurance	2,588,155			6.336 /SF
Subtotal	22,013,430	223,876,783		548.046 /SF
Contractor's Contingency	5,596,920		2.500 %	13.701 /SF
Fee	4,705,737			11.520 /SF
Total		234,179,440		573.267 /SF



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
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02.01 DEMOLITION & ABATEMENT

022820 Asbestos Remediation

Flooring and mastic	195,000.00 sf	0.01 /sf	1,950
Ceiling plaster	45,000.00 sf	0.01 /sf	450
Interior windows	900.00 ea	0.01 /ea	9
Interior doors with windows	250.00 ea	0.01 /ea	3
Hard joint insulation	500.00 ea	0.01 /ea	5
Sinks	60.00 ea	0.01 /ea	1
Blackboards/tackboards	450.00 ea	0.01 /ea	5
Misc hazardous materials	1.00 ls	0.01 /ls	0
Hidden ACM	1.00 ls	0.01 /ls	0
Light fixtures	4,500.00 ea	0.01 /ea	45
Glue daub for wall tiles	5,000.00 sf	0.01 /sf	50
Transite fume hoods	5.00 ea	0.01 /ea	0
Transite drying racks	2.00 ea	0.01 /ea	0
Linoleum covering on heating cabinets	150.00 sf	0.01 /sf	2
Transite panel	6.00 sf	0.01 /sf	0
Vertical caulking	300.00 lf	0.01 /lf	3
Fire curtain	1.00 ea	0.01 /ea	0
Hard joint insulation	1,000.00 ea	0.01 /ea	10
Crawl space debris	5,000.00 sf	0.01 /sf	50
ACM debris on mechanical room floor	600.00 sf	0.01 /sf	6
Transite panels	500.00 sf	0.01 /sf	5
Boiler insulation	200.00 sf	0.01 /sf	2
Duct insulation	800.00 sf	0.01 /sf	8
Hard joint insulation	50.00 ea	0.01 /ea	1
Boiler	1.00 ea	0.01 /ea	0
Boiler insulation	300.00 sf	0.01 /sf	3
Duct insulation	600.00 sf	0.01 /sf	6
Boilers	2.00 ea	0.01 /ea	0
Roofing materials	100,000.00 sf	0.01 /sf	1,000
Windows	1,500.00 ea	0.01 /ea	15
Doors	45.00 ea	0.01 /ea	0
Unit vent grilles	150.00 ea	0.01 /ea	2
Transite deck	1,500.00 sf	0.01 /sf	15
Transite sewer pipes	1.00 ls	0.01 /ls	0
Damproofing/flashing on walls	4,500.00 tn	0.01 /tn	45
Lump sum	1.00 ls	3,550,000.00 /ls	3,550,000

022820 Asbestos Remediation

/sf 3,553,689

024119 Demolition

Complete knock-down and removal Ph2	182,924.00 sf	6.80 /sf	1,243,883
Complete knock-down and removal Ph3	128,176.00 sf	6.50 /sf	833,144
Complete knock-down and removal Ph4	80,766.00 sf	5.00 /sf	403,830
Add for removal of foundation Ph3	39,000.00 sf	5.00 /sf	195,000
Add for removal of foundation Ph2	63,000.00 sf	5.00 /sf	315,000
Add for removal of foundation Ph4	33,000.00 sf	5.00 /sf	165,000
Add for pile cap removal	1.00 al	200,003.00 /al	200,003
Remove stadium bleachers	3,664.00 sf	10.00 /sf	36,640



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
024119 Demolition		/sf	3,392,500
02.01 DEMOLITION & ABATEMENT	408,500.00 gsf	17.00 /gsf	6,946,189
03.01 CONCRETE			
033028 Concrete - Cont Ftgs			
Form/place/strip continuous footings - 24x12 - 285'	565.00 sfca	15.30 /sfca	8,643
Form/place/strip continuous footings - 26x12 - 785'	1,565.00 sfca	15.30 /sfca	23,942
Form/place/strip continuous footings - 36x12 - 140'	280.00 sfca	15.30 /sfca	4,283
Form/place/strip continuous footings - 54x20 - 75'	255.00 sfca	15.30 /sfca	3,901
Form/place/strip continuous footings - 60x20 - 380'	1,265.00 sfca	15.30 /sfca	19,353
Form/place/strip continuous footings - 66x20 - 75'	250.00 sfca	15.30 /sfca	3,825
Form/place/strip continuous footings - 72x24 - 40'	160.00 sfca	15.30 /sfca	2,448
Form/place/strip continuous footings - 84'x24 - 55'	205.00 sfca	15.30 /sfca	3,136
Form/place/strip grade beam - 24x 30" - Ph1 - 225'	1,115.00 sfca	21.67 /sfca	24,167
Rebar at continuous footings (160#/cy)	14.74 ton	3,064.77 /ton	45,175
Ready-mix - continuous footings (3000 psi)	304.00 cy	190.98 /cy	58,057
Placing concrete - cont footing	304.00 cy	128.58 /cy	39,090
033028 Concrete - Cont Ftgs	243.00 cy	971.27 /cy	236,019
033029 Concrete - Walls			
Form/place/strip auditorium walls - 10" x 425'	6,800.00 sfca	35.00 /sfca	238,000
Form/place/strip fnd walls - 12" x 5.0' - 40'	395.00 sfca	21.67 /sfca	8,561
Form/place/strip fnd walls - 12" x 8.0' - 285'	4,535.00 sfca	21.68 /sfca	98,294
Form/place/strip fnd walls - 12"x 16.0' - 50'	1,550.00 sfca	21.67 /sfca	33,595
Form/place/strip fnd walls - 12"x 22.0' - 75'	3,350.00 sfca	21.67 /sfca	72,609
Form/place/strip fnd walls - 18"x3.5 - 835"	5,840.00 sfca	21.67 /sfca	126,578
Form/place/strip fnd walls - 18"x6.5' - 650'	8,430.00 sfca	21.67 /sfca	182,714
Add for pilasters - 24x24 (26/42" 22/76")	230.00 lf	57.39 /lf	13,199
Rebar at walls (180#/cy)	66.42 ton	3,064.78 /ton	203,562
Placing concrete	738.00 cy	128.58 /cy	94,895
Ready-mix - walls (3000 psi) no waste	704.00 cy	190.98 /cy	134,449
Ready-mix - pilaster (3000 psi)	34.07 cy	190.98 /cy	6,507
033029 Concrete - Walls	391.00 cy	3,102.21 /cy	1,212,962
033030 Concrete - Ph 1 Spread Footings			
Form/place/strip - elev pit footing - 12'x12' x 16" x3	64.32 sfca	20.40 /sfca	1,312
F4 Form/place/strip spread footings - 8 ea	192.00 sfca	20.38 /sfca	3,913
F4RI Form/place/strip spread footings - 2 ea	64.00 sfca	20.40 /sfca	1,306
F5 Form/place/strip spread footings - 10 ea	333.00 sfca	20.40 /sfca	6,794
F5BR Form/place/strip spread footings - 12 ea	600.00 sfca	20.40 /sfca	12,242
F5x10 Form/place/strip spread footings - 3 ea	210.00 sfca	20.40 /sfca	4,284
F6 Form/place/strip spread footings - 18 ea	936.00 sfca	20.40 /sfca	19,096
F6BR/RI Form/place/strip spread footings - 7 ea	420.00 sfca	20.40 /sfca	8,568
F7 Form/place/strip spread footings - 11 ea	667.00 sfca	20.40 /sfca	13,608
F7BR Form/place/strip spread footings - 16 ea	1,120.00 sfca	20.40 /sfca	22,850
F8 Form/place/strip spread footings - 11 ea	880.00 sfca	20.40 /sfca	17,953
F9 Form/place/strip spread footings - 24 ea	2,592.00 sfca	20.40 /sfca	52,879



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
033030 Concrete - Ph 1 Spread Footings			
F10BR Form/place/strip spread footings - 8 ea	960.00 sfca	20.40 /sfca	19,586
F10RI Form/place/strip spread footings -2 ea	280.00 sfca	20.40 /sfca	5,712
F11BR Form/place/strip spread footings - 4 ea	528.00 sfca	20.40 /sfca	10,772
F9x31 Form/place/strip spread footings - 1 ea	241.00 sfca	20.40 /sfca	4,917
F12 Form/place/strip spread footings - 1 ea	156.00 sfca	20.40 /sfca	3,183
F12RI Form/place/strip spread footings - 2 ea	360.00 sfca	20.40 /sfca	7,345
F14RI Form/place/strip spread footings - 1 ea	261.00 sfca	20.40 /sfca	5,325
Rebar at column footings 150#/cy	62.06 ton	3,064.77 /ton	190,200
Rebar at column footings (100#/cy) - elevator	5.56 ton	3,064.77 /ton	17,046
Ready-mix - column footings (3000 psi) no waste	827.50 cy	190.98 /cy	158,034
Ready-mix - column footings (3000 psi) - elev	21.00 cy	190.98 /cy	4,011
Placing concrete - column ftg	848.50 cy	128.58 /cy	109,104
033030 Concrete - Ph 1 Spread Footings	848.50 cy	825.03 /cy	700,039
033031 Concrete - Grade Beams - Int			
Form/place/strip grade beam - 24x 30" - Ph1 - 222'	1,112.00 sfca	21.67 /sfca	24,102
Form/place/strip grade beam - 24x 42" - Ph2&3 - 1,392'	9,744.00 sfca	21.67 /sfca	211,194
Rebar at grade beam (75#/lf) - ph 2,3	60.53 ton	3,064.77 /ton	185,511
Placing concrete - ph 2,3	396.00 cy	128.58 /cy	50,919
Ready-mix - grade beam (3000 psi) no waste - ph 2,3	396.00 cy	190.98 /cy	75,627
033031 Concrete - Grade Beams - Int	240.00 cy	2,280.64 /cy	547,353
033032 Concrete - Grade Beams and Pilasters - Ext			
Form/place/strip ext grade beams- 12x6.0' - 205'	2,435.00 sfca	21.67 /sfca	52,777
Form/place/strip ext grade beams- 16x28.5' - 20'	1,105.00 sfca	21.67 /sfca	23,950
Form/place/strip ext grade beams - 18x6.6' - 65'	870.00 sfca	21.67 /sfca	18,856
Form/place/strip ext grade beams - 20x25.0' - 290'	14,515.00 sfca	21.67 /sfca	314,600
Form/place/strip ext grade beams - 24x4.5' - 1,250'	11,280.00 sfca	21.68 /sfca	244,490
Form/place/strip ext grade beams - 24x5.5' - 85'	900.00 sfca	21.67 /sfca	19,507
Form/place/strip ext grade beams - 24x6.5' - 75'	980.00 sfca	21.67 /sfca	21,241
Form/place/strip ext grade beams - 48x5.0' - 85'	850.00 sfca	21.68 /sfca	18,423
Add for pilasters - 24x24 (19/24' 60/3')	612.00 lf	57.38 /lf	35,119
Rebar at high wall (10#/sf at basement walls)	75.79 ton	3,064.77 /ton	232,273
Rebar at perimeter grade beam (90#/lf at frost locations)	80.52 ton	3,064.77 /ton	246,763
Rebar at pilasters (50#/lf)	17.73 ton	3,064.77 /ton	54,338
Placing concrete	1,185.00 cy	128.58 /cy	152,373
Ready-mix - grade beams (3000 psi) no waste	1,094.00 cy	190.98 /cy	208,930
Ready-mix - pilaster (3000 psi)	91.00 cy	190.98 /cy	17,379
033032 Concrete - Grade Beams and Pilasters - Ext	1,224.00 cy	1,357.04 /cy	1,661,020
033034 Concrete - Ph 2,3 Pile Caps			
Pile cap 1 - 74 ea	4,144.00 sfca	20.40 /sfca	84,543
Pile cap 2 - 118 ea	10,384.00 sfca	20.40 /sfca	211,847
Pile cap 3 - 45 ea	5,400.00 sfca	20.40 /sfca	110,167
Pile cap 3SP - 1 ea	136.00 sfca	20.40 /sfca	2,775
Pile cap 4 - 16 ea	1,920.00 sfca	20.40 /sfca	39,170
Pile cap 5 - 1 ea	147.00 sfca	20.40 /sfca	2,999



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
033034 Concrete - Ph 2,3 Pile Caps			
Pile cap 5SP - 3 ea	504.00 sfca	20.40 /sfca	10,282
Rebar at PC1 90# x 74 ea	3.33 ton	3,064.78 /ton	10,206
Rebar at PC2 280# x118 ea	16.52 ton	3,064.77 /ton	50,630
Rebar at PC3 380# x 45 ea	8.55 ton	3,064.77 /ton	26,204
Rebar at PC4 350# x 16 ea	2.80 ton	3,064.78 /ton	8,581
Rebar at PC5 480# x 4 ea	0.96 ton	3,064.78 /ton	2,942
Redimix - Pile caps (3000 psi) no waste	1,173.00 cy	190.98 /cy	224,017
Placing concrete - pile cap	1,173.00 cy	128.58 /cy	150,830
	1,104.00 cy	847.10 /cy	935,193
033035 Piers			
Form/place/strip - elev pit footing - 24" x 24" x 2' x 40	640.00 sfca	20.40 /sfca	13,057
Rebar at piers	0.70 ton	3,064.76 /ton	2,130
Redimix at piers (3000#)	5.93 cy	190.98 /cy	1,133
Placing concrete	5.93 cy	116.90 /cy	693
	6.00 cy	2,835.41 /cy	17,012
033042 Concrete - Structural & Non-Structural Slabs			
Form and set box outs	377.00 ea	265.67 /ea	100,158
Form slab perimeter - 24" dp - structural slab	4,080.00 sfca	21.67 /sfca	88,431
Allowance for slab depressions, eqp pds	1.00 ls	31,880.45 /ls	31,880
Pour stop at sloped slab - auditorium	190.00 lf	23.38 /lf	4,442
Edge form at tiered slab - auditorium	432.00 lf	47.82 /lf	20,659
Slab depressions shown and edge form less than 12"	2,460.00 lf	21.25 /lf	52,284
Rebar (9.2 #/sf) - ph 2 & 3 (per Harris Rebar)	405.00 ton	3,064.77 /ton	1,241,233
Rebar (1.75 #/sf) - ph 1	56.59 ton	3,064.77 /ton	173,426
WWM - topping slab	16,988.00 sf	0.53 /sf	9,026
Placing concrete - structural slabs	4,402.00 cy	57.39 /cy	252,608
Placing concrete - non-structural slab	1,033.00 cy	57.39 /cy	59,279
Ready-mix - slabs-on-grade (4000 psi) 9",10".12" no waste	3,034.00 cy	196.00 /cy	594,659
Ready-mix - slabs-on-grade (4000 psi) 6" no waste - ph 1	1,103.00 cy	196.00 /cy	216,186
Add for perimeter haunch - 24" ilo of 12" x 24" x 2,040'	151.11 cy	196.00 /cy	29,617
Add for thickned slab at structural	1,217.00 cy	196.00 /cy	238,530
Place & finish slab-on-grade (6")	54,460.00 sf	2.55 /sf	138,656
Place & finish slab-on-grade (6") - exterior	1,200.00 sf	2.55 /sf	3,055
Place & finish slab-on-grade (6") - sloped at theater	2,880.00 sf	2.55 /sf	7,333
Place & finish slab-on-grade (6") - tiered at theater	1,050.00 sf	2.55 /sf	2,673
Place & finish structural slab-on-grade (9")	2,890.00 sf	2.87 /sf	8,286
Place & finish structural slab-on-grade (10")	27,720.00 sf	2.87 /sf	79,474
Place & finish structural slab-on-grade (12")	55,770.00 sf	2.87 /sf	159,894
Place & finish structural slab-on-grade (12") at loading dock	1,060.00 sf	2.87 /sf	3,039
	163,832.00 sf	21.45 /sf	3,514,828
033045 Concrete - SOD			
Allowance for slab depressions, eqp pds no shown	1.00 ls	21,253.63 /ls	21,254
Slab depressions shown	835.00 lf	21.25 /lf	17,747
WWM material - floor SOMD (6x6 W2.9/W2.9)	288,255.00 sf	0.53 /sf	153,162



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
033045 Concrete - SOD			
WWM material - roof SOMD (6x6 W2.9/W2.9)	14,600.00 sf	0.53 /sf	7,758
Ready-mix - slabs-on-deck - floor (4000 psi NW) (6.5")	5,782.89 cy	196.00 /cy	1,133,437
Ready-mix - slabs-on-deck - roof (4000 psi NW) (5.5")	248.00 cy	196.00 /cy	48,608
Place & finish slab-on-deck (F6.5) - Floor	288,255.00 sf	2.92 /sf	842,389
Place & finish slab-on-deck (F5.5) - Roof	14,600.00 sf	2.92 /sf	42,667
Place & finish pan fill stairs	31.00 fl	2,800.00 /fl	86,800
Rebar at slab edge	37.00 tn	3,064.77 /tn	113,397
Edge form	14,600.00 sf	12.00 /sf	175,200
	306,222.00 sf	8.63 /sf	2,642,416
033046 Concrete - Topping Slab at Radiant Heat			
Rigid insulation - radiant heat slab (SOG)	8,510.00 sf	3.19 /sf	27,130
Rigid insulation - radiant heat slab (SOD)	7,830.00 sf	3.19 /sf	24,962
WWM (SOG)	8,510.00 sf	0.25 /sf	2,128
WWM material - floor SOMD (6x6 W2.9/W2.9)	7,830.00 sf	0.53 /sf	4,160
Placing concrete - topping slab (SOG)	131.33 cy	57.39 /cy	7,536
Ready-mix - (4000 psi) 5" no waste - topping slab (SOG)	132.33 cy	196.00 /cy	25,936
Ready-mix - topping slab - floor (4000 psi NW) (5.0") (SOD)	120.83 cy	196.00 /cy	23,682
Place & finish topping slab at radiant heat - 5" (SOG)	8,510.00 sf	2.55 /sf	21,667
Place & finish topping slab at radiant heat - 5" (SOD)	7,830.00 sf	2.92 /sf	22,882
		/sf	160,085
033048 Concrete - Stepped SOD at theater			
Rebar (3.0#/sf)	3.75 tons	3,064.77 /tons	11,493
Ready-mix - slabs-on-deck - floor (4000 psi NW) tier seating	46.30 cy	196.00 /cy	9,075
Place & finish slab-on-deck (F6.5) - Floor tiered	1,280.00 sf	2.92 /sf	3,741
Form radius slab edge and steps	830.00 lf	47.82 /lf	39,691
	2,500.00 sf	25.60 /sf	63,999
033088 Concrete Deadman			
Deadman - conc 4000#	172.00 cy	183.74 /cy	31,604
Deadman - formwork - 36x96 - 474'	3,100.00 sfsa	17.60 /sfsa	54,560
Deadman - rebar (18 psf)	52.17 tn	2,956.80 /tn	154,256
Deadman - place concrete	172.00 cy	93.50 /cy	16,082
		/cy	256,502
033089 Concrete Wall at SOE			
Concrete wall - conc 4000# - 12"	101.11 cy	183.74 /cy	18,578
Concrete wall - sngl sided form - 195' x 14	2,730.00 sfsa	44.00 /sfsa	120,120
Concrete wall - rebar #6 x 4	15.00 tn	2,956.80 /tn	44,352
Concrete wall - place concrete	101.00 cy	127.78 /cy	12,905
	8,840.00 cy	22.17 /cy	195,956
033094 Concrete - Toilet Bldg			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
033094 Concrete - Toilet Bldg			
Form/place/strip ext grade beams - 24" x 36'	120.00 lf	19.13 /lf	2,295
Rebar #7 12" oc t & b (13.0#/sf)	5.20 tn	3,064.00 /tn	15,933
Rebar at grade beam (25#/lf)	1.50 ton	3,064.77 /ton	4,597
Ready-mix - grade beams (3000 psi)	26.67 cy	190.98 /cy	5,093
Ready-mix - slabs-on-grade (4000 psi) 12"+10%	29.63 cy	196.00 /cy	5,807
Ready-mix - slabs-on-grade add for haunch	8.85 cy	196.00 /cy	1,735
Place & finish slab-on-grade - toilet building	800.00 sf	3.30 /sf	2,639
Edge form - 16"	120.00 sf	21.25 /sf	2,550
Concrete pumping - foundations	1.00 day	2,125.15 /day	2,125
033094 Concrete - Toilet Bldg	772.00 gsf	55.41 /gsf	42,775
035320 Isolated Concrete Floating Floor			
WWM material - isolation slab (6x6 W2.9/W2.9)	4,420.00 sf	0.53 /sf	2,349
Ready-mix - isolation slab (4000 psi NW) (4.0") no waste	51.24 cy	196.00 /cy	10,043
Place & finish slab-on-deck - isolation slab	4,420.00 sf	2.39 /sf	10,568
Isolation deck and pucks - material only D wing, level 2	4,420.00 sf	14.76 /sf	65,220
Isolation deck and pucks - install only	4,420.00 sf	9.44 /sf	41,735
035320 Isolated Concrete Floating Floor	4,150.00 sf	31.31 /sf	129,916
03.01 CONCRETE	408,500.00 gsf	30.15 /gsf	12,316,075
03.02 POLISHED CONCRETE			
033650 Concrete Finishes (polished concrete)			
AFC-1 Arch finished floor type 1, polished & stained	29,295.00 sf	11.00 /sf	322,245
AFC-2 Arch finished floor type 2, polished, unstained	12,612.00 sf	9.80 /sf	123,598
033650 Concrete Finishes (polished concrete)	45,886.00 sf	9.72 /sf	445,843
03.02 POLISHED CONCRETE	408,500.00 gsf	1.09 /gsf	445,843
04.01 MASONRY (TS)			
015090 Mock-ups			
Mock-up	1.00 ls	150,000.00 /ls	150,000
015090 Mock-ups	1.00 ls	##### /ls	150,000
042000 Unit Masonry			
Multi trade staging at rear of phase 1 - 6 mo	30,000.00 sf	12.00 /sf	360,000
Exterior staging	100,224.00 sf	4.00 /sf	400,896
Brick veneer A, Endicott Clay Smooth/Artisan blend (\$9.87/sf) incl insulation & SS ties	59,874.00 sf	39.75 /sf	2,379,992
Brick veneer B, Endicott Clay Smooth/Riverbirch blend (\$8.82/sf)	12,837.00 sf	38.70 /sf	496,792
Premium for soldier course accent - H	2,595.00 sf	1.50 /sf	3,893
Premium for articulated brick	11,170.00 sf	3.00 /sf	33,510



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
042000 Unit Masonry			
Polished ground face CMU -Jandris with accents Type A	50,882.00 sf	28.50 /sf	1,450,137
Polished ground face CMU A2 including insulation & SS ties	4,874.00 sf	28.50 /sf	138,909
Polished ground face CMU C (projecting) including insulation & SS ties	1,046.00 sf	32.00 /sf	33,472
Glazed Brick, Beldin veneer including insulation & SS ties	711.00 sf	48.00 /sf	34,128
Add for date stone	1.00 ls	1,000.00 /ls	1,000
CMU backup 8" reinforced - 121' x 12' at toilet bldg	1,452.00 sf	23.50 /sf	34,122
Polished ground CMU veneer w/ insulation - 4" 121'x15' at toilet bldg	1,671.00 sf	31.00 /sf	51,801
CMU partition - interior - elevator shafts	12,340.00 sf	32.00 /sf	394,880
CMU partition - interior at locker area - 16A - 960' x 12'-8"	12,158.00 sf	24.00 /sf	291,792
CMU partition - interior at locker area - 16B - 213' x 12'-8"	2,697.00 sf	24.00 /sf	64,728
CMU partition - interior at locker area - 16C	340.00 sf	24.00 /sf	8,160
Install HM frame	30.00 ea	197.31 /ea	5,919
CMU partition type 16 A - interior 84' x 12'h toilet bldg	1,010.00 sf	24.00 /sf	24,240
CMU partition type 16 B - interior 16' x 12'h toilet bldg	700.00 sf	24.00 /sf	16,800
Install HM frame at toilet bldg toilet bldg	4.00 ea	197.31 /ea	789
Precast sill at 5'w x 24" dp	30.00 lf	200.00 /lf	6,000

042000 Unit Masonry	150,318.00 sf	41.46 /sf	6,231,960
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04.01 MASONRY (TS)	408,500.00 gsf	15.62 /gsf	6,381,960
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05.01 STRUCTURAL STEEL

051200 Structural Steel

Structural steel per engineer - floors (incl relieving angles)	2,815.00 tn	3,400.00 /tn	9,571,000
Long span joist - at gym	165.00 tn	3,800.00 /tn	627,000
Structural steel per engineer - roof	1,100.00 tn	3,400.00 /tn	3,740,000
Reduce tonage for grating	(17.00) tn	3,400.00 /tn	(57,800)
Added roof screen supports - 80'x11' 6.5#/sf	2.86 tn	3,400.00 /tn	9,724
Metal decking 1.5" (F1.5) 18ga - roof	99,500.00 sf	3.10 /sf	308,450
Acoustical metal roof decking 3.0" (F3.0) 18/20ga - roof	36,450.00 sf	8.00 /sf	291,600
Metal floor decking 2" (F6.5) 18ga - SOD	288,255.00 sf	3.10 /sf	893,591
Metal floor decking 2" (F5.5) 18ga - SOD	14,600.00 sf	3.10 /sf	45,260
Grating at catwalk - auditorium	1,740.00 sf	70.00 /sf	121,800
Grating at catwalk - black box	670.00 sf	70.00 /sf	46,900

051200 Structural Steel	4,025.00 tn	3,875.16 /tn	15,597,525
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05.01 STRUCTURAL STEEL	408,500.00 gsf	38.18 /gsf	15,597,525
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05.02 MISCELLANEOUS AND ORNAMENTAL (TS)

055000 Metal Fabrications

Egress stair 1- painted mesh rails - L1 to roof (6 fl) - 6'-6"w	138.00 rs	1,140.00 /rs	157,320
Egress stair 2- painted mesh rails - L2 to roof (4 fl) - 6'-6"w	98.00 rs	1,140.00 /rs	111,720
Egress stair 3- painted mesh rails - L2 to L5 (3 fl) - 6'w	73.00 rs	1,140.00 /rs	83,220
Egress stair 9 - painted mesh rails - L2 to L3 auditorium (1 fl) - 4'w	27.00 rs	1,400.00 /rs	37,800
Egress stair 4- painted mesh rails - L1 to L5 (5 fl) - 6'w	113.00 rs	1,140.00 /rs	128,820
Egress stair 6 - painted mesh rails - L1 to L1+ (1 fl) - 4'-6"	20.00 rs	1,140.00 /rs	22,800



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
055000 Metal Fabrications			
Egress stair 8- painted mesh rails - L1 to L2 (2 fl) - 4'-6"	40.00 rs	1,140.00 /rs	45,600
Egress stair 7 (gym)- painted mesh rails - L1 to L2 (2 fl) -5'w	40.00 rs	1,140.00 /rs	45,600
Egress stair 5 (gym)- painted mesh rails - L1 to L2 (2 fl) - 5'w	40.00 rs	1,140.00 /rs	45,600
Stair 10 Custom stairs L2 to L3 music wing - not incl rail (1 fl) - 5'-6"w	27.00 rs	1,140.00 /rs	30,780
Stair 10 custom concealed railing to support wood - stairs	35.00 lf	200.00 /lf	7,000
Stair 10 custom concealed railing to support wood - adjacent half wall	57.00 lf	200.00 /lf	11,400
Stair 10 wall mtd rail	70.00 lf	150.00 /lf	10,500
Stair 12 Custom stairs L3 to L4 library - not incl rail (1 fl) - 4'-6"w	23.00 rs	1,500.00 /rs	34,500
Stair 12 custom concealed railing to support wood - stairs	66.00 lf	0.01 /lf	1
Stair 12 curved glass rail	35.00 lf	600.00 /lf	21,000
Stair 12 wall mtd rail	66.00 lf	150.00 /lf	9,900
Stair 13 wall mtd rail	52.00 lf	150.00 /lf	7,800
Stair 13 Custom stairs L1 to L1+ at Guidance - not incl rail (1 fl) - 4'-6"w	20.00 rs	1,000.00 /rs	20,000
Stair 13 custom concealed railing to support wood - stairs	26.00 lf	0.01 /lf	0
Stair 13 custom concealed railing to support wood - adjacent half wall	52.00 lf	200.00 /lf	10,400
Stair 11 wall mtd rail	58.00 lf	150.00 /lf	8,700
Stair 11 Custom stairs L1 to L1+ at PreK - not incl rail (1 fl) - 5'w	20.00 rs	925.00 /rs	18,500
Stair 11 custom concealed railing to support wood - stairs	29.00 lf	0.01 /lf	0
Stair 11 custom concealed railing to support wood - adjacent half wall	40.00 lf	200.00 /lf	8,000
Stepped seating/stairs at Forum L1 to L2- not incl rail (2 fl)	2.00 fl	90,000.00 /fl	180,000
Stepped seating/stairs at Forum L1 to L2- wall mtd rail SS	60.00 lf	225.00 /lf	13,500
Stepped seating/stairs at Forum L1 to L2- ailes rail SS	52.00 lf	450.00 /lf	23,400
Stepped seating/stairs custom concealed railing to support wood - stairs	120.00 lf	225.00 /lf	27,000
Stepped seating/stairs custom concealed railing to support wood - adjacent half wall	95.00 lf	225.00 /lf	21,375
Auditorium railing at front of balcony, SS short	0.00 lf	0.00 /lf	0
Auditorium railing at bottom balcony aile	8.00 lf	300.00 /lf	2,400
Auditorium railing floor mtd at balcony - side steps only	22.00 lf	300.00 /lf	6,600
Auditorium floor mtd ailes railings balcony(24 loc)	0.00 lf	0.00 /lf	0
Auditorium railing on top of short wall lower level , SS short, radius (6/A8.75)	81.00 lf	375.00 /lf	30,375
Auditorium railing at top of short wall lower level, SS floor mtd hndcp	38.00 lf	300.00 /lf	11,400
Auditorium floor mtd ailes railings lower level (6 loc)	0.00 lf	0.00 /lf	0
Decorative ramp rail, radius at D-lab - wall mtd	25.00 lf	175.00 /lf	4,375
Decorative ramp rail, radius at D-lab - floor mtd	20.00 lf	550.00 /lf	11,000
Decorative glass railing at Forum/bridge- straight (3/A10.0.2)	100.00 lf	445.00 /lf	44,500
Roof ladders (2.5',3.0',6.0',13.0',14.0',15.5',17.0')	71.00 vlf	900.00 /vlf	63,900
Seismic clips - 4'oc each side - interior	456.00 ea	66.00 /ea	30,096
Straight ladder - black box 1/19.5'	19.50 lf	650.00 /lf	12,675
Straight ladder - auditorium (A2.8),	102.00 lf	650.00 /lf	66,300
Elevator pit ladders	3.00 ls	2,600.00 /ls	7,800
Ships ladder at stair 12	1.00 ls	15,000.00 /ls	15,000
Rail at auditorium catwalks - A2.4E, A3.3E	730.00 lf	290.00 /lf	211,700
Rail at black box catwalks - A2.3E	180.00 lf	290.00 /lf	52,200
Additional misc metals	408,500.00 gsf	0.75 /gsf	306,375
Loose lintels (base on sf of brick)	130,224.00 sf	0.50 /sf	65,112
055000 Metal Fabrications	408,500.00 gsf	5.10 /gsf	2,084,044
057500 Decorative Formed Metal (column covers)			
Int aluminum column covers say 24" diam - 5/14 28/16 6/24	662.00 lf	310.00 /lf	205,220



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
057500 Decorative Formed Metal (column covers)	1,028.00 lf	199.63 /lf	205,220
110140 Tieback and Lifeline Anchors			
Tie off davits	1.00 ls	75,000.00 /ls	75,000
110140 Tieback and Lifeline Anchors	408,500.00 gsf	0.18 /gsf	75,000
321010 Pedestrian Paving			
Galv railing at stairs at loading dock	25.00 lf	225.00 /lf	5,625
321010 Pedestrian Paving	408,500.00 gsf	0.01 /gsf	5,625
321030 Amphitheater			
Galv railing at ramp ampitheater	60.00 lf	225.00 /lf	13,500
321030 Amphitheater	408,500.00 gsf	0.03 /gsf	13,500
05.02 MISCELLANEOUS AND ORNAMENTAL (TS)	408,500.00 gsf	5.83 /gsf	2,383,389
05.03 ARTISTIC COLUMN COVER			
059050 Specialized Column Cover			
Custom fabricated "tree" FOB	1.00 ls	54,500.00 /ls	54,500
Custom painting and supervision	1.00 ls	6,500.00 /ls	6,500
Field installation	1.00 ls	15,000.00 /ls	15,000
Adjust to Blue Bird	(1.00) ls	36,000.00 /ls	(36,000)
059050 Specialized Column Cover			40,000
05.03 ARTISTIC COLUMN COVER	408,500.00 gsf	0.10 /gsf	40,000
06.02 FINISH CARPENTRY			
064020 Interior Architectural Woodwork			
Window sills at borrowed lights- solid surface per 3/A7.1.2	850.00 lf	60.00 /lf	51,000
Window sills at exterior- solid surface per 3/A7.1.2	2,270.00 lf	60.00 /lf	136,200
Framing, circular around Lockers - radius/straight, trim between lockers, wood soffit cap (A8.5.1)	843.00 lf	200.00 /lf	168,600
Decorative Stairs & Mezz Railing at Preschool (A10.2.2)	68.00 lf	250.00 /lf	17,000
Counter at kitchen/servery - with food service eqp	0.00 lf	490.00 /lf	0
Cafeteria Island Counter	70.00 lf	450.00 /lf	31,500
Steam Small Display	7.00 lf	480.00 /lf	3,360
Performing Arts Spine Bench	313.00 sf	148.00 /sf	46,324
Performing Arts Under stair Bench	201.00 sf	148.00 /sf	29,748
Library Bench Under Stair - radius (14/A8.6.2)	126.00 sf	196.00 /sf	24,696
Auditorium Balcony Lobby Bench	91.00 sf	148.00 /sf	13,468
Courtyard Window Bay Bench (12/A8.6.2)	172.00 sf	148.00 /sf	25,456
Library Bench - mostly radius (10/A8.6.2)	80.00 sf	196.00 /sf	15,680



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
064020 Interior Architectural Woodwork			
Work Bars Overlooking Forum (12/A8.6.5) counter/wall panels	346.00 sf	110.00 /sf	38,060
Upper Forum Seating Area (11/A8.6.5)	408.00 sf	148.00 /sf	60,384
Lobby Millwork Pop Out (1/A8.6.5)	186.00 sf	110.00 /sf	20,460
Cafeteria Wall Bench	267.00 sf	124.00 /sf	33,108
Preschool Understair Bench	175.00 sf	148.00 /sf	25,900
Preschool Peg Board (5/A8.6.5)	84.00 sf	90.00 /sf	7,560
Lightwell Counter - curved premium	265.00 lf	500.00 /lf	132,500
Library Light Cone Counter - curved premium	93.00 lf	500.00 /lf	46,500
Media Circulation Desk - partially radius, full height behind (7/A8.6.3)	22.00 lf	1,050.00 /lf	23,100
Media Circulation Desk - tall cabinets (7/A8.6.3)	12.00 lf	726.00 /lf	8,712
Media Circulation Desk - back counter (7/A8.6.3)	9.00 lf	850.00 /lf	7,650
Media Circulation Desk - wall shelving (7/A8.6.3)	27.00 lf	300.00 /lf	8,100
Mass Ave Admin Desk (65/A8.6.3)	13.00 lf	980.00 /lf	12,740
First Floor Admin Desk (3/A8.6.3)	10.00 lf	980.00 /lf	9,800
Preschool Admin Desk - partially radius (1/A8.6.3)	25.00 lf	1,450.00 /lf	36,250
Display Cases at Gym - built-in component (6/A8.6.4)	31.00 lf	480.00 /lf	14,880
Display Cases at Gym - glass shelving (6/A8.6.4)	80.00 sf	1.00 /sf	80
Display Cases at Gym - glass doors (6/A8.6.4)	248.00 sf	1.00 /sf	248
Steam Small Display	7.00 lf	479.99 /lf	3,360
Single Tall Display - built-in component (8/A8.6.4)	4.00 lf	479.99 /lf	1,920
Single Tall Display - glass shelving (8/A8.6.4)	19.00 sf	1.00 /sf	19
Single Tall Display - glass doors (8/A8.6.4)	50.00 sf	1.00 /sf	50
Double Tall Display - built-in component (7/A8.6.4)	8.00 lf	480.00 /lf	3,840
Double Tall Display - glass shelving (7/A8.6.4)	37.00 sf	1.00 /sf	37
Double Tall Display - glass doors (7/A8.6.4)	99.00 sf	1.00 /sf	99
Corridor Display - built-in component (11/A8.6.4)	4.00 lf	479.99 /lf	1,920
Corridor Display - glass shelving (11/A8.6.4)	3.00 sf	1.01 /sf	3
Corridor Display - glass doors (11/A8.6.4)	33.00 sf	1.00 /sf	33
Auditorium Displays - built-in component (10/A8.6.4)	8.00 lf	480.00 /lf	3,840
Auditorium Displays - glass doors (10/A8.6.4)	32.00 sf	1.00 /sf	32
Library Entry Display - built-in component (12/A8.6.4)	3.00 lf	479.99 /lf	1,440
Library Entry Display - glass doors (12/A8.6.4)	12.00 sf	1.00 /sf	12
Balcony Entry Display - built-in component (16/A8.6.4)	3.00 lf	479.99 /lf	1,440
Balcony Entry Display - glass shelving (16/A8.6.4)	7.00 sf	1.01 /sf	7
Balcony Lobby Display - built-in component (14/A8.6.4)	11.00 lf	480.00 /lf	5,280
Balcony Lobby Display - glass shelving (14/A8.6.4)	7.00 sf	1.01 /sf	7
Balcony Lobby Display - glass doors (14/A8.6.4)	85.00 sf	1.00 /sf	85
Life Skill Cafe counter - curved premium	48.00 lf	1,057.25 /lf	50,748
Life Skill Cafe pivot sliding cabinet doors	13.00 lf	800.00 /lf	10,400
Tackable Fiber Panel 064020.48	3,801.00 sf	18.00 /sf	68,418
Multi-sensory wall - interactive maple recessed pegboard - PreK multipurpose	110.00 sf	100.00 /sf	11,000
Wall panel at stair at level 1 entry reception 2/A12.8.0.b - 20'x16'h	320.00 sf	78.00 /sf	24,960
3M panel at locker islands -38.5'x6' x 9 loc (11/A8.51) x 3.5	808.50 sf	160.00 /sf	129,360
Wall paneling 064020.44	2,534.00 sf	78.00 /sf	197,652
Auditorium wood panel at auditorium walls	2,150.00 sf	88.00 /sf	189,200
Auditorium wood panel at balcony fascia per 6/A 8.7.4	1,190.00 sf	110.00 /sf	130,900
Auditorium wood panel at lower level half wall segmented	504.00 sf	88.00 /sf	44,352
Auditorium proscenium wall paneling - complete surround	786.00 sf	90.00 /sf	70,740
Wall panel at stair at music entry 4,7/A10.2.1	720.00 sf	78.00 /sf	56,160
Wood resin composite treads/seating forum stairs	963.00 sf	70.00 /sf	67,410
Wood resin composite risers - 6"	270.00 lf	70.00 /lf	18,900



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
064020 Interior Architectural Woodwork			
Wood resin composite risers - 18"	203.00 lf	110.00 /lf	22,330
Stair 7 - wood cap at rail	78.00 lf	30.00 /lf	2,340
Stair 6 - wood cap at rail (33x2 + 60)	126.00 lf	30.00 /lf	3,780
Stair 5 - wood cap at rail (39 + 57)	96.00 lf	30.00 /lf	2,880
Stair 11 - wood cap at rail (29 + 40)	69.00 lf	30.00 /lf	2,070
Forum stairs - wood cap at rail (60x2 + 55)	175.00 lf	60.00 /lf	10,500
Forum stairs - wood paneling at rail - horiz 55x11	550.00 sf	80.00 /sf	44,000
Forum stairs - wood paneling at rail - sloped 120 x 12	1,440.00 sf	80.00 /sf	115,200
WDB - Wood Base	41.00 lf	18.00 /lf	738
Acoustical wood slat ceiling hung at auditorium	2,552.50 sf	80.00 /sf	204,200
064020 Interior Architectural Woodwork	408,500.00 sf	6.24 /sf	2,550,727
06.02 FINISH CARPENTRY	408,500.00 gsf	6.24 /gsf	2,550,727
06.03 HISTORIC SALVAGE & REUSE			
040130 Historic Salvage & Reuse			
Clock mechanism at tower - salvage and turn over to Owner x	1.00 ls	15,000.00 /ls	15,000
Old Hall proscenium and return to owner x	1.00 ls	10,000.00 /ls	10,000
Remove and reinstall carved frieze for Fusco old hall x	1.00 ls	4,000.00 /ls	4,000
River of Hands Mosaic - 60' long - salvage and relocated to 3rd floor corridor	1.00 ls	25,000.00 /ls	25,000
Fusco stone entry facade (2/A12.8.0b) x	1.00 ls	210,000.00 /ls	210,000
Carved wood panel frm Fusco entry stair, remounted at auditorium entry	1.00 ls	15,000.00 /ls	15,000
040130 Historic Salvage & Reuse	408,500.00 gsf	0.68 /gsf	279,000
06.03 HISTORIC SALVAGE & REUSE	408,500.00 gsf	0.68 /gsf	279,000
07.01 WATERPROOFING, DAMPPROOFING & CAULKING (TS)			
070001 Waterproofing, Caulking			
sealing & caulking - int	434,320.00 gsf	0.99 /gsf	429,977
sealing & caulking - exterior - masonry	132,108.00 sf	1.00 /sf	132,108
sealing & caulking - exterior - masonry toilet building	1,671.00 sf	1.10 /sf	1,838
sealing & caulking - exterior - perimeter AW	6,304.00 lf	10.00 /lf	63,040
sealing & caulking - exterior - perimeter CW	11,017.00 lf	10.00 /lf	110,170
sealing & caulking - int	772.00 gsf	0.99 /gsf	764
Waterproofing for elevator pits	0.00 ls	0.00 /ls	0
Sheet waterproofing with drainage board at high walls only	12,176.00 sf	8.50 /sf	103,496
Sheet waterproofing with drainage board - add for footing	3,054.00 sf	8.50 /sf	25,959
Waterproofing at acid neutralization pit	0.00 ls	0.00 /ls	0
Air/vapor barrier - perimeter of curtain-wall	10,222.00 lf	10.80 /lf	110,398
Air/vapor barrier - exterior walls - masonry	132,108.00 sf	5.50 /sf	726,594
Air/vapor barrier - exterior walls - exterior walls - mtl panel	13,724.00 sf	5.94 /sf	81,521
Air/vapor barrier - exterior walls - exterior soffits - DAFS	9,663.00 sf	5.94 /sf	57,398
Air/vapor barrier - exterior walls - masonry - toilet bldg	1,671.00 sf	5.94 /sf	9,926



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
070001 Waterproofing, Caulking	408,500.00 gsf	4.54 /gsf	1,853,188
071100 Bituminous Dampproofing			
Dampproofing at frost walls, no drainage bd	950.00 sf	/sf	
071100 Bituminous Dampproofing	408,500.00 gsf	/gsf	
071300 Fluid Applied Waterproofing (vapor membrane)			
6 mil reinforced poly	912.00 sf	0.60 /sf	547
071300 Fluid Applied Waterproofing (vapor membrane)	408,500.00 gsf	0.00 /gsf	547
072100 Thermal Insulation			
Rigid insulation at perimeter walls (2.0' at frost walls, 10.0' at basement walls)	9,000.00 sf	3.50 /sf	31,500
072100 Thermal Insulation	408,500.00 gsf	0.08 /gsf	31,500
07.01 WATERPROOFING, DAMPPROOFING & CAULKING (TS)	408,500.00 gsf	4.62 /gsf	1,885,236
07.02 ROOFING & FLASHING (TS)			
070002 Roofing & Flashing			
Thermoplastic roofing, min R40 R1A (flat)	75,283.00 sf	13.45 /sf	1,012,556
Thermoplastic roofing, min R40 R1B, 1B1 (tapered)	55,116.00 sf	15.00 /sf	826,740
Thermoplastic roofing 60 mil - vertical at parapet 743' x 2'	2,580.00 sf	15.50 /sf	39,990
Thermoplastic roofing, min R40 R1C (tapered)	13,259.00 sf	15.00 /sf	198,885
Thermoplastic roofing, min R40 R1D (canopies)	1,869.00 sf	18.00 /sf	33,642
Thermoplastic roofing, min R40 R1E,F (Green Roof)	9,213.00 sf	22.00 /sf	202,686
R1G Roofing at tilt building	750.00 sf	15.00 /sf	11,250
Pavers with landscaping	1.00 ls	0.01 /ls	0
Parapet roof edge (7/A6.2)	860.00 lf	54.00 /lf	46,440
Roof edge without taper	3,233.00 lf	52.00 /lf	168,116
Flashing at stair towers	400.00 lf	31.50 /lf	12,600
Flashing at green roof	312.00 lf	31.50 /lf	9,828
Flashing at canopies	371.00 lf	31.50 /lf	11,687
Add for overflow scuppers	25.00 ea	360.00 /ea	9,000
Flashing at roof curbs - US 1-5 skylights	1,406.00 lf	36.00 /lf	50,616
Flashing at roof curbs - US 6-7 skylights	575.00 lf	36.00 /lf	20,700
070002 Roofing & Flashing	164,579.00 sf	16.13 /sf	2,654,736
077200 Roof Accessories			
Smoke hatches above stage 5.5'x12' acoustically rated	2.00 ea	12,000.00 /ea	24,000
Elevator vent	3.00 ea	1,800.00 /ea	5,400
077200 Roof Accessories			29,400



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
086200 Unit Skylights			
US 2 - Prefabricated unit skylights at gym - 4' 7" x 4' 7"; w/ integral motorized shades	48.00 ea	1,800.00 /ea	86,400
US 3 - Prefabricated unit skylights - 4' x 4'	6.00 ea	1,440.00 /ea	8,640
US 4 - Prefabricated unit skylights - 3' 6" x 3' 6"	10.00 ea	1,350.00 /ea	13,500
US 5 - Prefabricated unit skylights - 2' 4" x 2' x 4"	1.00 ea	1,300.00 /ea	1,300
US 6- Prefabricated unit skylights - D = 8'	6.00 ea	6,696.00 /ea	40,176
US 7 - Prefabricated unit skylights - D = 5'	27.00 ea	2,422.00 /ea	65,394
086200 Unit Skylights		/ea	215,410
07.02 ROOFING & FLASHING (TS)	408,500.00 gsf	7.10 /gsf	2,899,546
07.03 SUB SLAB VAPOR MEMBRANE			
312115 Sub-Slab Ventilation System			
Vapor Mitigation membrane - 40 dry mils covered with a G1000 protection fabric - ph 1	59,000.00 sf	4.15 /sf	244,850
Vapor Mitigation membrane - 40 dry mils covered with a G1000 protection fabric - ph 2 & 3	88,030.00 sf	4.15 /sf	365,325
Flat vent for vapor mitigation - phase 1	2,505.00 lf	20.00 /lf	50,100
Flat vent for vapor mitigation - ph 2 & 3	3,190.00 lf	20.00 /lf	63,800
312115 Sub-Slab Ventilation System	142,402.00 sf	5.09 /sf	724,075
07.03 SUB SLAB VAPOR MEMBRANE	408,500.00 gsf	1.77 /gsf	724,075
07.04 EXTERIOR WALL PANELS			
057500 Decorative Formed Metal (column covers)			
Exterior column covers - 24" diam x 16.0' North Canopy 8 ea	128.00 lf	350.00 /lf	44,800
Exterior column covers - 24" diam x 16.0' South Canopy 8 ea	128.00 lf	350.00 /lf	44,800
Exterior column covers - 24" x 14.0' diam east courtyard 2 ea	28.00 lf	350.00 /lf	9,800
057500 Decorative Formed Metal (column covers)	408,500.00 lf	0.24 /lf	99,400
074200 Metal Wall Panels			
Metal panel siding - corrugated	12,681.00 sf	62.00 /sf	786,222
Metal panel siding - corrugated radius	300.00 sf	70.00 /sf	21,000
Metal panels at roof screens; acoustical incl purlins	1,507.00 sf	72.00 /sf	108,504
Metal panels at roof screens; acoustical - added for HVAC redesign	880.00 sf	72.00 /sf	63,360
Metal fascia at canopies	1,051.00 lf	90.00 /lf	94,590
074200 Metal Wall Panels	408,500.00 gsf	2.63 /gsf	1,073,676
074241 Porcelain Tile Wall System (Porcelanosa)			
Porcelain panel North Entry (flush with CW)	177.00 sf	110.00 /sf	19,470



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
074241 Porcelain Tile Wall System (Porcelanosa)			
Porcelain cornice/soffit - South entry	1,544.00 sf	110.00 /sf	169,840
Porcelain cornice/soffit - frize beneath	121.00 sf	110.00 /sf	13,310
Porcelain at projected bay windows	173.00 sf	110.00 /sf	19,030
074241 Porcelain Tile Wall System (Porcelanosa)		/sf	221,650
089000 Louvers & Vents			
Louvers at exterior	600.00 sf	100.00 /sf	60,000
089000 Louvers & Vents	408,500.00 gsf	0.15 /gsf	60,000
07.04 EXTERIOR WALL PANELS	408,500.00 gsf	3.56 /gsf	1,454,726
07.09 SPRAY FIREPROOFING			
078100 Applied Fireproofing			
New steel beams and columns - floors	284,102.00 sf	2.55 /sf	724,460
New steel beams and columns - roof	85,837.00 sf	2.65 /sf	227,468
078100 Applied Fireproofing	408,500.00 sf	2.33 /sf	951,928
07.09 SPRAY FIREPROOFING	408,500.00 gsf	2.33 /gsf	951,928
07.10 FIRE STOPPING			
078410 Firestopping			
Fire stopping - MEP penetrations	408,500.00 gsf	0.18 /gsf	73,530
078410 Firestopping	408,500.00 gsf	0.18 /gsf	73,530
07.10 FIRE STOPPING	408,500.00 gsf	0.18 /gsf	73,530
08.01 ALUMINUM WINDOWS (TS)			
085110 Aluminum Windows			
Aluminum windows - standard	8,216.00 sf	93.00 /sf	764,088
Add for - North facing - SHGC glass	3,356.00 sf	4.50 /sf	15,102
085110 Aluminum Windows	408,500.00 sf	1.91 /sf	779,190
08.01 ALUMINUM WINDOWS (TS)	408,500.00 gsf	1.91 /gsf	779,190
08.02 GLASS & GLAZING (TS)			
080007 Glazing			
9/16" Laminated glass in 1" alum frame	1,943.00 sf	55.00 /sf	106,865



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
080007 Glazing			
3/8" Tempered glass in alum frame	4,421.00 sf	50.00 /sf	221,050
9/16" Laminated glass in 1" alum frame acoustical (dbl)	631.00 sf	110.00 /sf	69,410
3/8" Tempered glass in alum frame acoustical (dbl)	1,559.00 sf	100.00 /sf	155,900
applied film on glass	245.00 ea	200.00 /ea	49,000
# of lights	573.00 ea	0.00 /ea	1
Mirror, frameless at ALT PE (1 room)	431.00 sf	38.00 /sf	16,378
Mirror, frameless - dressing rooms (3 loc)	300.00 sf	38.00 /sf	11,400
Mirror glass at typ practied room (8 loc)	107.00 sf	38.00 /sf	4,066
Double sided mirror at PS Observation	2.00 ls	500.00 /ls	1,000
Anti-reflective glass at auditorium	28.00 sf	150.00 /sf	4,200
Non-rated glass in wd door - type B - 18" x 65"	40.00 ea	325.00 /ea	13,000
Non-rated glass in wd door - type E - 9" x 65"	167.00 ea	250.00 /ea	41,750
Non-rated glass in wd door - type F - 9" x 32"	118.00 ea	175.00 /ea	20,650
Non-rated glass in wd door - type H - 6" x 26"	19.00 ea	150.00 /ea	2,850
Non-rated glass in wd door - type H - 12" x 31"	19.00 ea	225.00 /ea	4,275
Rated glass in wood door type D 3"x30"	41.00 ea	300.00 /ea	12,300
080007 Glazing	408,500.00 gsf	1.80 /gsf	734,095
083513 Folding Doors			
Interior glass folding door (Nana Wall)- 24'x10' at library L3 346.2	1.00 ea	45,600.00 /ea	45,600
Interior glass folding door 235 - 6' long x 4'-2" h	1.00 ea	8,000.00 /ea	8,000
083513 Folding Doors	408,500.00 gsf	0.13 /gsf	53,600
08.02 GLASS & GLAZING (TS)	408,500.00 gsf	1.93 /gsf	787,695
08.03 CURTAIN-WALL (TS?)			
084410 Glazed Aluminum Curtainwall			
Silicone sealant and extrusion at perimeter of CW	11,017.00 lf	20.00 /lf	220,340
Premium for custom extrusion profile	2,750.00 lf	40.00 /lf	110,000
Curtain-wall	38,874.00 sf	110.00 /sf	4,276,140
Premium Bump out windows at Pre-K area - Curtain-wall (CW 20x10)	449.00 sf	40.00 /sf	17,960
Interior Curtain-wall	2,009.00 sf	110.00 /sf	220,990
Premium for North Facing (includes SHGC premium)	14,392.00 sf	6.00 /sf	86,352
Add for security glazing where shown	2,800.00 sf	40.00 /sf	112,000
Curtain-wall add for operable sash	3,434.00 sf	60.00 /sf	206,040
Curtainwall canopy	2.00 ls	10,000.00 /ls	20,000
Aluminum (ext) doors complete	56.00 lvs	4,500.00 /lvs	252,000
Aluminum (int) doors complete	25.00 lvs	4,500.00 /lvs	112,500
Handicap operators Hrdw set 56, 64, 65 int	4.00 lvs	4,000.00 /lvs	16,000
FRP doors in alum frames	7.00 lvs	1,800.00 /lvs	12,600
Handicap operators Hrdw set 56, 64, 65 ext	4.00 lvs	4,000.00 /lvs	16,000
084410 Glazed Aluminum Curtainwall	37,848.00 sf	150.05 /sf	5,678,922
086300 Metal-Framed Skylights			
US1 Metal framed skylights - 120' x 5'-4"	640.80 sf	130.00 /sf	83,304



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
086300 Metal-Framed Skylights	457.00 sf	182.28 /sf	83,304
107113 Sun Control Devices			
Horizontal sunshade	0.00 lf	/lf	
107113 Sun Control Devices	96.00 lf	/lf	
08.03 CURTAIN-WALL (TS?)	408,500.00 gsf	14.11 /gsf	5,762,226
08.04 DOORS AND HARDWARE			
081110 Hollow Metal Frames			
HM doors - interior at toilet building	4.00 lvs	250.00 /lvs	1,000
HM frames - single (3' x 7') at toilet building	4.00 ea	250.00 /ea	1,000
HM frames - type 1, single	563.00 ea	362.00 /ea	203,806
HM frames - type 2, double	89.00 ea	410.00 /ea	36,490
HM frames - type 3, single	32.00 ea	362.00 /ea	11,584
HM frame - type 4	27.00 ea	362.00 /ea	9,774
081110 Hollow Metal Frames	408,500.00 gsf	0.65 /gsf	263,654
081400 Flush Wood Doors			
Wood doors - A flush	417.00 lvs	365.00 /lvs	152,205
Wood doors - B two lights	40.00 lvs	425.00 /lvs	17,000
Wood doors - D single light	41.00 lvs	392.00 /lvs	16,072
Wood doors - E single light	167.00 lvs	392.00 /lvs	65,464
Wood doors - F single light	118.00 lvs	392.00 /lvs	46,256
Wood doors - H two lights	19.00 lvs	480.00 /lvs	9,120
add for STC30	146.00 lvs	40.00 /lvs	5,840
add for STC40	18.00 lvs	250.00 /lvs	4,500
add for 90 minute FR	77.00 lvs	125.00 /lvs	9,625
081400 Flush Wood Doors	814.00 lvs	400.59 /lvs	326,082
087010 Install Doors and Hardware			
Install door & hardware - interior	802.00 lvs	491.00 /lvs	393,782
Hardware - 24 VDC power supply for mortise lock	82.00 ea	0.00 /ea	0
Hardware - 2-ball bearing hinge	1,920.00 ea	0.00 /ea	2
Hardware - 4-ball bearing hinge	371.00 ea	0.00 /ea	0
Hardware - acoustic automatic door bottom seal	51.00 ea	0.00 /ea	0
Hardware - acoustic automatic door bottoms	16.00 ea	0.00 /ea	0
Hardware - acoustic meeting stile gasketing	29.00 ea	0.00 /ea	0
Hardware - auto drop door bottom	108.00 ea	0.00 /ea	0
Hardware - automatic door operator	2.00 ea	0.01 /ea	0
Hardware - classroom function deadbolt	16.00 ea	0.00 /ea	0
Hardware - cylinder core housing	750.00 ea	0.00 /ea	1
Hardware - door closer	267.00 ea	0.00 /ea	0
Hardware - door closer w mech HO	16.00 ea	0.00 /ea	0
Hardware - door kick plates	677.00 ea	0.00 /ea	1



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
087010 Install Doors and Hardware			
Hardware - door protection plaets	254.00 ea	0.00 /ea	0
Hardware - door stop	791.00 ea	0.00 /ea	1
Hardware - electric & RQE mortise lock	7.00 ea	0.00 /ea	0
Hardware - electric dogging & RQE device w trim	4.00 ea	0.01 /ea	0
Hardware - electric latch retract & RQE device w trim	61.00 ea	0.00 /ea	0
Hardware - flushmount auto door bottom	153.00 ea	0.00 /ea	0
Hardware - frame silencers	2,029.00 ea	0.00 /ea	2
Hardware - LBR device w elec trim & RQE	28.00 ea	0.00 /ea	0
Hardware - LBR devise w mech trim & RQE	28.00 ea	0.00 /ea	0
Hardware - magnetic door hold-opens	56.00 ea	0.00 /ea	0
Hardware - mortise lockset	402.00 ea	0.00 /ea	0
Hardware - mortise lockset w "occupied" indication	41.00 ea	0.00 /ea	0
Hardware - mortise lockset w securty function	150.00 ea	0.00 /ea	0
Hardware - perimeter acoustic gasketing	155.00 ea	0.00 /ea	0
Hardware - pushpad actuators	4.00 ea	0.01 /ea	0
Hardware - RIM device w mech trim & CD	11.00 ea	0.00 /ea	0
Hardware - RQE exist bearing device w trim	36.00 ea	0.00 /ea	0
Hardware - set-in & ext hinge fingershields	30.00 ea	0.00 /ea	0
Hardware - set-perimeter gasketing	152.00 ea	0.00 /ea	0
Hardware - set-top & bottom manual flushbolts	31.00 ea	0.00 /ea	0
Hardware - single sided cylinder deadbolt	128.00 ea	0.00 /ea	0
Hardware - small format cylinder core	972.00 ea	0.00 /ea	1
Hardware - SVR device w mech trim & CD	4.00 ea	0.01 /ea	0
Hardware - thru-wire electric hinge	128.00 ea	0.00 /ea	0
Hardware - material	47.00 lvs	600.00 /lvs	28,200
Hardware - automatic door operator	2.00 ea	0.10 /ea	0
Hardware - continuous hinge w electric thru-wire	56.00 ea	0.00 /ea	0
Hardware - cylinder core housing	54.00 ea	0.00 /ea	0
Hardware - device w dummy trim & RQE	1.00 ea	0.10 /ea	0
Hardware - device w electric latch & RQE, weather	6.00 ea	0.00 /ea	0
Hardware - device w trim & RQE	40.00 ea	0.00 /ea	0
Hardware - device w trim, elect latch & RQE	3.00 ea	0.03 /ea	0
Hardware - door bottom sweep/raindrip	56.00 ea	0.00 /ea	0
Hardware - door closer	54.00 ea	0.00 /ea	0
Hardware - door stop	50.00 ea	0.00 /ea	0
Hardware - frame silencers	160.00 ea	0.00 /ea	0
Hardware - matched power supply	43.00 ea	0.00 /ea	0
Hardware - mortise lockset w knurled lever	6.00 ea	0.00 /ea	0
Hardware - overhead raindrip	48.00 ea	0.00 /ea	0
Hardware - perimeter weather gasketing	48.00 ea	0.00 /ea	0
Hardware - pushpad actuators	4.00 ea	0.01 /ea	0
Hardware - set-magnetic door contacts	56.00 ea	0.00 /ea	0
Hardware - small format cylinder core	54.00 ea	0.00 /ea	0
Hardware - threshold	54.00 ea	0.00 /ea	0
Install door & hardware - toilet bldg	4.00 lvs	491.01 /lvs	1,964
087010 Install Doors and Hardware	765.00 lvs	554.19 /lvs	423,957

087100 Door Hardware

Furnish hardware	802.00 lvs	681.00 /lvs	546,162
Hardware sets - interior (HM & Wood doors) - toilet building	4.00 lvs	681.01 /lvs	2,724



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
087100 Door Hardware	765.00 lvs	717.50 /lvs	548,886
08.04 DOORS AND HARDWARE	408,500.00 gsf	3.83 /gsf	1,562,579
08.05 ACCESS DOORS			
083100 Access Doors and Panels			
Access doors & frames	1.00 ls	25,000.00 /ls	25,000
083100 Access Doors and Panels	408,500.00 gsf	0.06 /gsf	25,000
08.05 ACCESS DOORS	408,500.00 gsf	0.06 /gsf	25,000
08.07 OVERHEAD DOORS & LOADING DOCK EQUIPMENT			
083300 Overhead Coiling Doors			
Manual coiling door at theater control room 2/A12.7.2	1.00 ea	3,900.00 /ea	3,900
Coiling door at toilet building - 8' w	1.00 ea	5,000.00 /ea	5,000
Overhead coiling door - 7'x10' at stage vestibule 236	1.00 ea	4,522.00 /ea	4,522
083300 Overhead Coiling Doors	5.00 ea	2,684.40 /ea	13,422
083320 Overhead Coiling Grilles			
OH027A - 5'-5"	6.00 lf	900.00 /lf	5,400
OH231A - 5'-0"	5.00 lf	900.00 /lf	4,500
OH334B - 7'-5"	8.00 lf	900.00 /lf	7,200
083320 Overhead Coiling Grilles	1.00 ea	17,100.00 /ea	17,100
083330 Exterior OH Coiling Door			
Insulated coiling door EX227 Maker/Wood	120.00 sf	60.00 /sf	7,200
Add for operator	1.00 ls	1,500.00 /ls	1,500
083330 Exterior OH Coiling Door	1.00 ea	8,700.00 /ea	8,700
083336 Side Coiling Grilles			
Side coiling grille at servery	62.00 lf	1,050.00 /lf	65,100
083336 Side Coiling Grilles		/gsf	65,100
083510 Horizontal-Sliding Accordion Door			
Horizontal fire door at level 2 star 2	28.00 lf	1,400.00 /lf	39,200
083510 Horizontal-Sliding Accordion Door		/ea	39,200
111300 Loading Dock Equipment			
Loading dock eqp	1.00 ls	5,000.00 /ls	5,000



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
111300 Loading Dock Equipment	1.00 ls	5,000.00 /ls	5,000
08.07 OVERHEAD DOORS & LOADING DOCK EQUIPMENT	408,500.00 gsf	0.36 /gsf	148,522
09.01 DRYWALL & CARPENTRY			
061000 Rough Carpentry			
Roof blocking - edge condition - rev to 7 pc/lf (7/A6.1)	5,105.00 lf	44.00 /lf	224,620
Roof blocking - misc based on roof sf	153,059.00 sf	0.75 /sf	114,794
Roof blocking - at skylights - straight	1,406.00 lf	36.00 /lf	50,616
Roof blocking - at skylights - radius	575.00 lf	60.00 /lf	34,500
Window blocking - aluminum windows	7,274.00 lf	8.66 /lf	63,011
Window blocking - curtain wall	10,294.00 lf	8.66 /lf	89,172
Window blocking - curtain wall; interior	350.00 lf	8.66 /lf	3,032
Additional wood blocking - building interior	408,500.00 gsf	0.62 /gsf	253,270
Wood base lgm at lockers	1,300.00 lf	69.30 /lf	90,090
Framing for D lab raised seating	1,300.00 sf	30.00 /sf	39,000
061000 Rough Carpentry	408,500.00 gsf	2.36 /gsf	962,105
061753 Shop Fabricated Wood Trusses			
20" dp TJI with bracing at toilet building	800.00 sf	13.86 /sf	11,088
Plywd roof	800.00 sf	8.00 /sf	6,400
061753 Shop Fabricated Wood Trusses	408,500.00 gsf	0.04 /gsf	17,488
066400 FRP Paneling			
FRP - Fiberglass Reinforced Plastic Paneling 10'4" at kitchen	1,119.00 sf	13.86 /sf	15,509
FRP - Fiberglass Reinforced Plastic Paneling 8'4" closets	6,144.00 sf	0.00 /sf	6
066400 FRP Paneling	408,500.00 gsf	0.04 /gsf	15,515
079500 Expansion Control			
Expansion joint complete	1.00 ls	150,000.00 /ls	150,000
079500 Expansion Control	408,500.00 gsf	0.37 /gsf	150,000
092900 Gypsum Board Assemblies			
Install HM Frame	781.00 op	80.00 /op	62,480
Ceiling assembly at vestibule complete	430.00 sf	90.00 /sf	38,700
Premium for MR board at wall tile	65,185.00 sf	0.10 /sf	6,519
Premium for high impact at stairs	20,000.00 sf	0.95 /sf	19,000
Gyp board at stairs walls	995.00 sf	6.00 /sf	5,970
Gyp board at stair soffit	120.00 sf	6.00 /sf	720
Gyp partition type 1A - stud + gyp (1+1+ insul)	71,486.00 sf	12.35 /sf	882,852
Gyp partition type 1B - stud + gyp (1+1+ insul)	768.00 sf	12.35 /sf	9,485
Gyp partition type 1C - stud + gyp (1+1+ insul)	570.00 sf	12.35 /sf	7,040
Gyp partition type 2A - stud + gyp (2+1+ insul)	166,781.00 sf	15.44 /sf	2,574,682
Gyp partition type 2B - stud + gyp (2+1+ insul)	469.00 sf	15.44 /sf	7,241
Gyp partition type 2C - stud + gyp (2+1+ insul)	23,805.00 sf	15.44 /sf	367,490



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
092900 Gypsum Board Assemblies			
Gyp partition type 3A - stud + gyp (2+2+ insul)	65,339.00 sf	18.53 /sf	1,210,405
Gyp partition type 3C - stud + gyp (2+2+ insul)	2,285.00 sf	18.53 /sf	42,330
Gyp partition type 4A - stud + gyp (1+ insul)	4,244.00 sf	8.31 /sf	35,278
Gyp partition type 5A - stud + gyp (1+1+ insul)	10,204.00 sf	12.35 /sf	126,019
Gyp partition type 5B - stud + gyp (1+1+ insul)	160.00 sf	12.35 /sf	1,976
Gyp partition type 6A - stud + gyp (1+ insul)	23,728.00 sf	8.31 /sf	197,239
Gyp partition type 6B - stud + gyp (1+ insul)	10,036.00 sf	8.31 /sf	83,399
Gyp partition type 7A - stud + gyp (2+ insul)	115,881.00 sf	11.40 /sf	1,321,043
Gyp partition type 7B - stud + gyp (2+ insul)	12,688.00 sf	11.40 /sf	144,643
Gyp partition type 7C - stud + gyp (2+ insul)	524.00 sf	11.40 /sf	5,974
Gyp partition type 8A - stud + gyp (1)	30,590.00 sf	8.31 /sf	254,203
Gyp partition type 8B - stud + gyp (1) at column surrounds	79,606.00 sf	9.50 /sf	756,257
Gyp partition type 10A shaftwall 2 hr	15,835.00 sf	18.05 /sf	285,822
Gyp partition type 12A - staggered dbl ms + gyp (2+2+ insul)	1,354.00 sf	24.23 /sf	32,801
Gyp partition type 12B - staggered dbl ms + gyp (2+2+ insul)	18,945.00 sf	24.23 /sf	458,943
Gyp partition type 14A - low wall - stud + gyp (1+1+ insul)	1,443.00 sf	24.23 /sf	34,957
Gyp partition type 14B - low wall - stud + gyp (1+1+ insul)	263.00 sf	24.23 /sf	6,371
Gypsum board ceilings - C 2A	623.00 sf	9.00 /sf	5,607
Interior gypsum at exterior walls	141,713.00 sf	3.10 /sf	439,310
LGF and sheathing at exterior walls - masonry	136,398.00 sf	14.50 /sf	1,977,770
LGF and sheathing at exterior walls - siding	14,996.00 sf	14.50 /sf	217,442
LGF and sheathing at exterior soffits - DAFS	9,663.00 sf	14.50 /sf	140,113
Engineering	1.00 ls	50,000.00 /ls	50,000
Gypsum Board Ceiling - C 2A	25,819.00 sf	12.00 /sf	309,828
Sloped ceilings at underside of stairs	5,233.00 sf	14.00 /sf	73,262
Acoustically Isolated Suspended Gypsum Board - C 2B 2 layer + batt insul	14,061.00 sf	28.00 /sf	393,708
GWB soffit vert - one sided (horiz with ceiling above) - 5' typ	4,100.00 lf	80.00 /lf	328,000
GWB soffit vert - two sided - 5' typ	1,109.00 lf	96.00 /lf	106,464
GWB soffit vert - one sided at skylights	563.00 lf	40.00 /lf	22,520
GWB soffit horiz	3,645.00 sf	12.00 /sf	43,740
092900 Gypsum Board Assemblies	408,500.00 sf	32.04 /sf	13,087,602

092910 Direct Applied Finish System (DAFS)

DAFS	9,770.00 sf	42.00 /sf	410,340
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092910 Direct Applied Finish System (DAFS)	408,500.00 sf	1.01 /sf	410,340
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09.01 DRYWALL & CARPENTRY	408,500.00 gsf	35.85 /gsf	14,643,051
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09.02 TILE (TS)

093000 Tiling (TS)

Wall tile at staff bathroom - 3'-4" (255 lf)	850.00 sf	21.00 /sf	17,850
Wall tile at preschool - 4'-4" (1,256 lf)	5,446.00 sf	21.00 /sf	114,366
Wall tile at corridors - 4'-8" (6,920 lf)	32,310.00 sf	21.00 /sf	678,510
Wall tile at bathrooms - 6'-10" (3,405 lf)	24,405.00 sf	21.00 /sf	512,505
Wall tile at cafeteria millwork - 3'-6"	438.00 sf	45.00 /sf	19,710
Wall tile at furum stair - 3'-2"	263.00 sf	45.00 /sf	11,835



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
093000 Tiling (TS)			
Wall tile at lightwells	1,390.00 sf	50.00 /sf	69,500
093000 Tiling (TS)	81,642.00 sf	17.45 /sf	1,424,276
09.02 TILE (TS)	408,500.00 gsf	3.49 /gsf	1,424,276
09.03 ACOUSTICAL TILE (TS)			
090003 Acoustical Tile (TS)			
Wood Plank System - C 6	1,152.00 sf	40.00 /sf	46,080
Acoustical Ceiling Suspension System - C 1A, 2'x2' Armstrong Calla 2820/2821	18,071.00 sf	5.40 /sf	97,583
Acoustical Ceiling Suspension System - C 1A, 2'x4' Armstrong Calla 2820/2821	144,685.00 sf	5.30 /sf	766,831
Acoustical Ceiling Suspension System - C 1B, clouds USG Mars ClimaPlus 2'x6'	4,959.00 sf	11.00 /sf	54,549
Acoustical Ceiling Suspension System - C 1B, 2'x6' USG Mars ClimaPlus	29,398.00 sf	8.00 /sf	235,184
Acoustical Ceiling Suspension System - C 1B, 2'x6', offset USG Mars ClimaPlus	57,795.00 sf	8.00 /sf	462,360
Acoustical Ceiling Suspension System - C 1C, 2'x6' Armstrong, Optima 3161	4,187.00 sf	8.00 /sf	33,496
Acoustical Ceiling Suspension System - C 1C, 2'x6', offset Armstrong, Optima 3161	8,076.00 sf	8.00 /sf	64,608
Acoustic Ceiling Suspension System - Black Tile and Grid - C 1D, 2'x2'	248.00 sf	8.50 /sf	2,108
Acoustic Ceiling Suspension System - Washable - C 1E, 2'x4'	2,641.00 sf	7.25 /sf	19,147
Acoustic Gypsum Lay-in Suspension System - C 1F, 2'x2'	3,373.00 sf	4.60 /sf	15,516
Acoustic Gypsum Lay-in Suspension System - C 1F, 2'x4'	7,741.00 sf	4.50 /sf	34,835
Acoustic Ceiling Suspension System w Pyramid Diffser - C 1G, 4'x4'	4,998.00 sf	35.00 /sf	174,930
Acoustic Ceiling Suspension System - C 1H, 2'x4'	23,155.00 sf	5.40 /sf	125,037
Axiom trim - radius at suspended clouds - 6"	1,134.00 lf	40.00 /lf	45,360
090003 Acoustical Tile (TS)	408,500.00 gsf	5.33 /gsf	2,177,623
098400 Acoustic Room Components			
Wood Baffle, metal with wood look - C 4A - 12" oc	12,548.00 sf	56.43 /sf	708,084
3D Solid Ceiling Tile System - C 5A	1,871.00 sf	45.00 /sf	84,195
3D Open Ceiling tile System - C 5B	332.00 sf	45.00 /sf	14,940
098400 Acoustic Room Components	408,500.00 sf	1.98 /sf	807,219
09.03 ACOUSTICAL TILE (TS)	408,500.00 gsf	7.31 /gsf	2,984,842
09.06 RESILIENT FLOORS (TS)			
090005 Resilient Flooring (TS)			
RFF Resilient Tile Flocked flooring (Forbo Flotex) Life Skills	1,155.00 sf	7.50 /sf	8,663
Linoleum Sheet flooring Forbo Marmoleum MCS (PreK only)	5,000.00 sf	7.00 /sf	35,000
Rubber floor tile (Elevators)	112.00 sf	14.00 /sf	1,568
RF - Linoleum tile (Forbo MCT)	228,779.00 sf	4.80 /sf	1,098,139
RBRF Rubber treads and risers	4,002.00 lf	40.00 /lf	160,080
RF - Linoleum tile premium for high moisture adhesive	233,779.00 sf	0.75 /sf	175,334
Floor prep	233,779.00 sf	0.50 /sf	116,890
RB - Rubber base	64,629.00 lf	3.50 /lf	226,202



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
090005 Resilient Flooring (TS)			
RF - Linoleum tile/sheet premium for water jet cutting (Preschool corridor leaves)	1.00 ls	25,000.00 /ls	25,000
090005 Resilient Flooring (TS)	235,046.00 gsf	7.86 /gsf	1,846,875
096566 Resilient Athletic Flooring			
RAF1 - Resilient athletic flooring type 1 Taraflex Sport M plus, (Part C)	1,464.00 sf	10.00 /sf	14,640
RAF2 - Resilient athletic flooring type 2, 3/8" Rubber(Part A)	3,064.00 sf	10.00 /sf	30,640
RAF3 - Resilient athletic flooring type 3, poured seamless, with shock pad (Part A)	9,917.00 sf	13.00 /sf	128,921
096566 Resilient Athletic Flooring	14,445.00 gsf	12.06 /gsf	174,201
09.06 RESILIENT FLOORS (TS)	408,500.00 gsf	4.95 /gsf	2,021,076
09.07 PAINTING (TS)			
033560 Concrete Densifier/Hardener/Sealer			
Exp-C exposed concrete/hardner sealer	24,233.00 sf	2.20 /sf	53,313
033560 Concrete Densifier/Hardener/Sealer	408,500.00 gsf	0.13 /gsf	53,313
078101 Intumescent Paint			
Intumescent paint	1.00 ls	40,000.00 /ls	40,000
Intumescent paint	1.00 ls	10,000.00 /ls	10,000
078101 Intumescent Paint	408,500.00 gsf	0.12 /gsf	50,000
090007 Painting			
Paint HM frame - interior	711.00 lvs	175.00 /lvs	124,425
Paint HM doors - interior at toilet building	4.00 lvs	95.00 /lvs	380
Paint HM frames - at toilet building	4.00 ea	105.00 /ea	420
Paint bathroom walls	950.00 sf	1.25 /sf	1,188
Paint Stairs	26.00 fl	2,000.00 /fl	52,000
Paint drywall partitions	520,000.00 sf	0.90 /sf	468,000
Premium for high performance paint	30,000.00 sf	0.60 /sf	18,000
Premium for high performance paint at closets	65,000.00 sf	0.60 /sf	39,000
Paint drywall ceilings & soffits	53,068.00 sf	0.83 /sf	43,781
Custom graphics	0.01 allw	1.00 /allw	0
Paint CMU - interior - toilet bldg	3,302.00 sf	1.10 /sf	3,632
Anti-graffiti coating to 12' hic	1,500.00 sf	4.00 /sf	6,000
Paint exposed ceilings - no K13	50,441.00 sf	1.65 /sf	83,228
090007 Painting	408,500.00 gsf	2.06 /gsf	840,053
099000 Painting and Coating			
Paint drywall ceilings	623.00 sf	1.10 /sf	685



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
099000 Painting and Coating	408,500.00	0.00	685
101400 Signage			
Vinyl Grapic Wall Mural at Cafeteria	862.00 sf	12.00 /sf	10,344
Vinyl Grapic Wall Mural at PreK, behind stairs 41'x20'h	820.00 sf	12.00 /sf	9,840
Vinyl Grapic Wall Mural at Wing E (1A/12.8.6)	630.00 sf	12.00 /sf	7,560
Vinyl Grapic Wall Mural at Music Entry Stairs (5/A12.8.6)	1,230.00 sf	12.00 /sf	14,760
Vinyl Grapic Wall - large gym (2/A12.5.2)	875.00 sf	12.00 /sf	10,500
Vinyl Grapic Wall - at black box	1,120.00 sf	12.00 /sf	13,440
101400 Signage	408,500.00 gsf	0.16 /gsf	66,444
101500 Photoluminescent Safety Products			
Photoluminescent safety at stairs	26.00 fl	2,400.00 /fl	62,400
101500 Photoluminescent Safety Products	26.00 fl	2,400.00 /fl	62,400
09.07 PAINTING (TS)	408,500.00 gsf	2.63 /gsf	1,072,895
09.08 VAPOR MITIGATION			
090160 Vapor Mitigation at Slabs			
Moisture mitigation at resilient flooring n/r	253,381.00 sf	0.00 /sf	253
Moisture mitigation at carpet n/r	23,463.00 sf	0.00 /sf	23
Moisture mitigation and leveling at wood athletic flooring	16,253.00 sf	5.10 /sf	82,890
Moisture mitigation at stage flooring	5,203.00 sf	5.10 /sf	26,535
090160 Vapor Mitigation at Slabs	21,456.00 sf	5.11 /sf	109,702
09.08 VAPOR MITIGATION	408,500.00 gsf	0.27 /gsf	109,702
09.09 ACOUSTICAL INSULATION			
098400 Acoustic Room Components			
Spray Applied Acoustic Treatment - 098400 - C 3	17,249.00 sf	6.00 /sf	103,494
SAFS at inside of light wells SonaSpray fc - cones - 32' x 32' x 2	2,048.00 sf	9.00 /sf	18,432
SAFS at inside of light wells - ovals 52' x 78 x 2	8,112.00 sf	9.00 /sf	73,008
SAFS at inside of light wells - trapaziod 47' x 164	7,708.00 sf	8.00 /sf	61,664
SAFS at inside of light wells - adj to gym 64' x 95'	6,080.00 sf	8.00 /sf	48,640
098400 Acoustic Room Components	48,432.00 sf	6.30 /sf	305,238
09.09 ACOUSTICAL INSULATION	408,500.00 gsf	0.75 /gsf	305,238
09.10 WOOD FLOORING			
064020 Interior Architectural Woodwork			



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
064020 Interior Architectural Woodwork			
Wood resin composite floor - level 2	384.00 sf	45.00 /sf	17,280
064020 Interior Architectural Woodwork	384.00 sf	45.00 /sf	17,280
096400 Stage Wood Flooring			
SWF - Stage Wood Flooring - auditorium stage	2,572.00 sf	20.00 /sf	51,440
SWF - Stage Wood Flooring - Performing Arts	2,631.00 sf	20.00 /sf	52,620
096400 Stage Wood Flooring	5,203.00 sf	20.00 /sf	104,060
096466 Wood Athletic Flooring			
VCB - Rubber Ventilating Cove Base (used with WAF & SWF)	987.00 lf	10.00 /lf	9,870
WAF - Wood Athletic Flooring (Gym)	16,253.00 sf	18.00 /sf	292,554
096466 Wood Athletic Flooring	16,253.00 sf	18.61 /sf	302,424
09.10 WOOD FLOORING	408,500.00 gsf	1.04 /gsf	423,764
09.11 RESINOUS FLOORING			
096700 Fluid-Applied Flooring			
RSF - Resinous Flooring System	11,512.00 sf	14.00 /sf	161,168
RSFB - 4" Resinous flooring integral base	4,551.00 lf	5.00 /lf	22,755
096700 Fluid-Applied Flooring	12,841.00 sf	14.32 /sf	183,923
09.11 RESINOUS FLOORING	408,500.00 gsf	0.45 /gsf	183,923
09.12 CARPET AND ENTRANCE MATS			
096820 Carpeting			
CPT Tile	16,967.00 sf	6.00 /sf	101,802
CPT Roll goods (Auditorium aisles, Story Room stepped seating)	6,496.00 sf	6.00 /sf	38,976
Floor prep	23,463.00 sf	0.50 /sf	11,732
096820 Carpeting	26,954.00 sf	5.66 /sf	152,510
124810 Entrance Floor Mats and Frames			
EM1 - entrance mat type 1, forbo carpet	182.00 sf	15.00 /sf	2,730
EM2 - entrance mat type 2, forbo carpet	1,328.00 sf	15.00 /sf	19,920
EM3 - entrance mat type 3, forbo carpet	2,631.00 sf	15.00 /sf	39,465
124810 Entrance Floor Mats and Frames	4,215.00 sf	14.74 /sf	62,115
09.12 CARPET AND ENTRANCE MATS	408,500.00 gsf	0.53 /gsf	214,625



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
09.13 ACOUSTICAL TREATMENT			
098400 Acoustic Room Components			
Ceiling reflector with fiber reinforced gel coat finish at auditorium	288.00 sf	90.00 /sf	25,920
AWP1 Wood fiber panels Tetcum Finale 098400.08	6,844.00 sf	28.00 /sf	191,632
AWP1 Wood fiber panels - Band, Chorus & Ensemble	2,580.00 sf	28.00 /sf	72,240
AWP1 Wood fiber panels - Practice Rooms (8 rms)	864.00 sf	28.00 /sf	24,192
AWP1 Wood Fiber Panel - Production Lab & Studio	1,016.00 sf	28.00 /sf	28,448
AWP2 Fiberglass Acoustic Wall Panel - Library	990.00 sf	35.00 /sf	34,650
AWP2 Fiberglass Acoustic Wall Panel - Language Labs	553.00 sf	35.00 /sf	19,355
AWP2 Fiberglass Acoustic Wall Panel - DLab	455.00 sf	35.00 /sf	15,925
AWP2 Fiberglass Acoustical Panel Type 2 Fusco Facade	453.00 sf	50.00 /sf	22,650
AWP3 Black arch fiberglass boards at Performing Arts	1,200.00 sf	12.00 /sf	14,400
Paint grade wood acoustical panels at auditorium	2,000.00 sf	85.00 /sf	170,000
098400 Acoustic Room Components	19,016.00 sf	32.57 /sf	619,412
09.13 ACOUSTICAL TREATMENT	408,500.00 gsf	1.52 /gsf	619,412
09.14 PRECAST TERRAZZO (TC)			
096625 Precast Terrazzo			
Precast Terrazzo stair treads&riser (1 1/2" thick) Forum Stairs	384.00 lf	175.00 /lf	67,200
096625 Precast Terrazzo			67,200
09.14 PRECAST TERRAZZO (TC)	408,500.00 gsf	0.17 /gsf	67,200
09.15 TEMPORARY CONSTRUCTION			
015060 Temporary Enclosures			
Temp exterior/interior enclosure end of phase 1 (130'x18'+130'x14'+60'x14'+20'x15')	5,140.00 sf	28.00 /sf	143,920
Temp exterior only enclosure end of phase 1 (20'x18' + 36'x14' + 65'x14' +20'x15')	1,774.00 sf	20.00 /sf	35,480
Temp exterior/interior enclosure end of phase 2 (140'x56')	7,840.00 sf	28.00 /sf	219,520
Temp exterior only enclosure end of phase 2 (70'x56')	3,920.00 sf	20.00 /sf	78,400
015060 Temporary Enclosures	408,500.00 gsf	1.17 /gsf	477,320
015070 Temporary Construction			
Temp enclosed stairs from GF to level 2	2.00 fl	75,000.00 /fl	150,000
Temporary construction for safe egress	1.00 allw	75,000.00 /allw	75,000
Temporary modifications to existing to allow for separation	1.00 ls	100,000.00 /ls	100,000
015070 Temporary Construction	408,500.00 gsf	0.80 /gsf	325,000
015075 Bridge Connection (A1.2.4)			
Seclective demo	1,600.00 gsf	12.00 /gsf	19,200



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
015075 Bridge Connection (A1.2.4)			
Railings	135.00 lf	180.00 /lf	24,300
Ramp, platform and rails per quate from Amramp	660.00 sf	67.56 /sf	44,590
Drywall, ceilings, flooring, painting	1,600.00 sf	45.00 /sf	72,000
HVAC	1,600.00 gsf	15.00 /gsf	24,000
Electrical	1,600.00 gsf	24.00 /gsf	38,400
New bridge building complete	1,100.00 gsf	250.00 /gsf	275,000
			497,489
015075 Bridge Connection (A1.2.4)			
015080 Swing Spacing			
1st floor temp PE at pit - no scope	0.40 gsf	0.10 /gsf	0
3rd floor LABB program, rooms 331,333 - no work	0.40 sf	0.10 /sf	0
3rd floor temp library	4,605.00 sf	80.00 /sf	368,400
2nd floor room 001 temp drama	0.40 sf	0.10 /sf	0
2nd floor ada lift and modifications to ramp	1.00 ls	100,000.00 /ls	100,000
2nd floor temp kitchen, minor plumbing, health dept improv	7,000.00 gsf	35.00 /gsf	245,000
2nd floor temp summmit program - no scope	0.40 sf	0.10 /sf	0
3rd floor LABB program, nurse suite, kitchentte	1,626.00 gsf	150.00 /gsf	243,900
3rd floor LABB program, rooms 331,333 - no work	0.40 sf	0.10 /sf	0
3rd floor temp library	4,605.00 sf	45.00 /sf	207,225
3rd floor rooms 305,306	0.40 sf	0.10 /sf	0
3rd floor rooms guidance offices	0.40 sf	0.10 /sf	0
3rd floor rooms 305,306	0.40 sf	0.10 /sf	0
4th floor sped office/science center, fire alarm, hvac, drywall	1,100.00 sf	120.00 /sf	132,000
	408,500.00 gsf	3.17 /gsf	1,296,525
09.15 TEMPORARY CONSTRUCTION	408,500.00 gsf	6.36 /gsf	2,596,335
09.20 TRADE SUPPORT			
015020 Trade Support			
Hoisting	60.00 mo	5,000.00 /mo	300,000
Staging at stairs	30.00 fl	2,750.00 /fl	82,500
Dance floor at auditorium	10,770.00 sf	20.00 /sf	215,400
Laborer for trade support - Demo	38.00 wks	4,334.00 /wks	164,692
Laborer for trade support - Masonry	34.00 wks	4,334.00 /wks	147,356
Laborer for trade support - Structural Steel	60.00 wks	4,334.00 /wks	260,040
Laborer for trade support - Glazing	43.00 wks	4,334.00 /wks	186,362
Laborer for trade support - Drywall	60.00 wks	4,334.00 /wks	260,040
Laborer for trade support - Electric	81.00 wks	4,334.00 /wks	351,054
Laborer for trade support - Site	94.00 wks	4,334.00 /wks	407,396
Laborer for trade support - Demo	(38.00) wks	4,334.00 /wks	(164,692)
Laborer for trade support - Masonry	(34.00) wks	4,334.00 /wks	(147,356)
Laborer for trade support - Structural Steel	(60.00) wks	4,334.00 /wks	(260,040)
Laborer for trade support - Glazing	(43.00) wks	4,334.00 /wks	(186,362)
Laborer for trade support - Drywall	(60.00) wks	4,334.00 /wks	(260,040)
Laborer for trade support - Electric	(81.00) wks	4,334.00 /wks	(351,054)
Laborer for trade support - Site	(94.00) wks	4,334.00 /wks	(407,396)



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
015020 Trade Support			
Laborer for trade support - Concrete	wks	/wks	
Laborer for trade support - Glazing	wks	/wks	
015020 Trade Support	408,500.00 gsf	1.46 /gsf	597,900
09.20 TRADE SUPPORT	408,500.00 gsf	1.46 /gsf	597,900
10.02 SIGNAGE			
101400 Signage			
Building signage and graphics- interior	408,500.00 gsf	0.50 /gsf	204,250
Allowance for exterior building signage	1.00 ls	40,000.00 /ls	40,000
101400 Signage	408,500.00 gsf	0.60 /gsf	244,250
10.02 SIGNAGE	408,500.00 gsf	0.60 /gsf	244,250
10.03 SPECIALTIES			
101100 Visual Display Surfaces			
Tackboards - 3'	9.00 lf	216.00 /lf	1,944
Tackboards - 4'	112.00 ea	288.00 /ea	32,256
Tackboards - 8'	24.00 ea	576.00 /ea	13,824
Markerboards - 6'	30.00 ea	432.00 /ea	12,960
Markerboards - 6' lined	6.00 ea	432.00 /ea	2,592
Markerboards - 8'	200.00 ea	576.00 /ea	115,200
Markerboards - 8' lined	8.00 ea	576.00 /ea	4,608
Markerboards - 10'	130.00 ea	720.00 /ea	93,600
Markerboards - 10' lined	10.00 ea	720.00 /ea	7,200
Markerboards - 12'	24.00 ea	864.00 /ea	20,736
Markerboards - 12' lined	24.00 ea	864.00 /ea	20,736
Markerboards - 16' lined	32.00 ea	1,152.00 /ea	36,864
101100 Visual Display Surfaces	408,500.00 gsf	0.89 /gsf	362,520
102100 Toilet Compartments and Cubicles			
Toilet partitions - handicap	8.00 ea	1,815.00 /ea	14,520
Toilet partitions - regular	39.00 ea	1,276.00 /ea	49,764
Toilet partitions - urinal screen	18.00 ea	467.50 /ea	8,415
Toilet partitions - handicap	2.00 ea	1,815.00 /ea	3,630
Toilet partitions - regular	4.00 ea	1,276.00 /ea	5,104
Toilet partitions - urinal screen	1.00 ea	467.50 /ea	468
102100 Toilet Compartments and Cubicles	408,500.00 gsf	0.20 /gsf	81,901
102610 Corner Guards			
Corner guards - at kitchen	1.00 ls	15,000.00 /ls	15,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
102610 Corner Guards	408,500.00 gsf	0.04 /gsf	15,000
102800 Toilet Accessories			
Toilet paper dispenser, install only	116.00 ea	90.00 /ea	10,440
Sanitary napkin disposal	120.00 ea	214.00 /ea	25,680
Toilet paper dispenser furnish only	7.00 ea	65.00 /ea	455
Sanitary napkin disposal	4.00 ea	213.95 /ea	856
Grab bars (42") furnish and install only	136.00 ea	125.00 /ea	17,000
Grab bars (42") furnish and install	3.00 ea	125.01 /ea	375
Soap dispenser - surface mounted, install only	120.00 ea	45.00 /ea	5,400
Soap dispenser - surface mounted install only	5.00 ea	44.99 /ea	225
Waste receptacle - recessed furnish only	91.00 ea	137.50 /ea	12,512
HD1 hand dryers furnish only	28.00 ea	458.86 /ea	12,848
Waste receptacle - recessed (1 per single bathroom 2 per gang bathroom) furnish only	3.00 ea	224.99 /ea	675
HD1 hand dryers (1 per single bathroom 2 per gang bathroom) furnish only	3.00 ea	550.00 /ea	1,650
Framed mirrors (18" x 36") furnish only	120.00 ea	225.00 /ea	27,000
Framed mirrors (18" x 36") furnish only	5.00 ea	225.01 /ea	1,125
Shower rod and curtain furnish only	13.00 ea	178.20 /ea	2,317
Shower seat - folding furnish only	7.00 ea	400.00 /ea	2,800
Janitors/mop sink - furnish only	12.00 ea	275.00 /ea	3,300
Janitors/mop sink furnish only	1.00 ea	275.00 /ea	275
102800 Toilet Accessories	408,500.00 gsf	0.31 /gsf	124,933
104400 Fire Protection Specialties			
Multi-purpose dry chemical extinguishers & cabinet	120.00 ea	300.00 /ea	36,000
104400 Fire Protection Specialties	408,500.00 gsf	0.09 /gsf	36,000
105100 Lockers			
benches	25.00 ea	440.00 /ea	11,000
Lockers, 1 openings - locker rooms	100.00 ea	375.00 /ea	37,500
Lockers, 5 openings - locker rooms	310.00 ea	475.00 /ea	147,250
Lockers, 3 openings - typ classroom corridor	671.00 ea	425.00 /ea	285,175
105100 Lockers	408,500.00 gsf	1.18 /gsf	480,925
117010 Vocational Equipment			
Allowance for vocational and technology eqp	0.00 allw	0.00 /allw	0
Kiln	0.00 ea	0.00 /ea	0
117010 Vocational Equipment	408,500.00 gsf	/gsf	
10.03 SPECIALTIES	408,500.00 gsf	2.70 /gsf	1,101,278

10.06 FOLDING PANEL PARTITIONS



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
102220 Operable Partitions			
Operable partition at Sped conf 232	12.00 lf	750.00 /lf	9,000
Operable partition classroom 414,415	30.00 lf	660.00 /lf	19,800
Operable partition classroom 429/430	30.00 lf	660.00 /lf	19,800
102220 Operable Partitions	77.00 lf	631.17 /lf	48,600
10.06 FOLDING PANEL PARTITIONS	408,500.00 gsf	0.12 /gsf	48,600
11.02 FOOD SERVICE EQUIPMENT			
114000 Food Service Equipment			
1 - Walk-in cooler/freezer	1.00 ea	91,505.07 /ea	91,505
6 - Mobile walk-in shelving	16.00 ea	491.73 /ea	7,868
7 - Mobile walk-in shelving	3.00 ea	470.64 /ea	1,412
8 - Mobile walk-in shelving	4.00 ea	543.90 /ea	2,176
9 - Mobile dry storage shelving	14.00 ea	491.73 /ea	6,884
11 - Mobile dry storage shelving	1.00 ea	470.64 /ea	471
12 - Soiled dishtable w/sink Disposer/controls	1.00 ea	2,989.23 /ea	2,989
13 - Waste bin	1.00 ea	8,218.44 /ea	8,218
14 - Dishmachine	6.00 ea	600.00 /ea	3,600
15 - 3 Bay pot sink	1.00 ea	29,382.81 /ea	29,383
16 - Wall shelf w/ pot hooks	1.00 ea	7,035.18 /ea	7,035
17 - Hand sink	1.00 ea	1,215.45 /ea	1,215
18 - Mobile pot shelving	1.00 ea	1,148.85 /ea	1,149
19 - Mobile pot shelving	2.00 ea	491.73 /ea	983
21 - Dry storage shelving	1.00 ea	543.90 /ea	544
23 - Reach in refrigerator	4.00 ea	543.90 /ea	2,176
24 - Work table w/ overshelf	1.00 ea	5,354.64 /ea	5,355
25 - Food processor	1.00 ea	4,548.78 /ea	4,549
26 - Work table with sink	1.00 ea	4,860.69 /ea	4,861
27 - Work table w/ overshelf	1.00 ea	4,711.95 /ea	4,712
28 - Food slicer	1.00 ea	4,548.78 /ea	4,549
30 - Reach in heated cabinet	1.00 ea	4,408.92 /ea	4,409
31 - Work table with hand sink	1.00 ea	5,132.64 /ea	5,133
34F -6 Burner range with oven	1.00 ea	4,711.95 /ea	4,712
35 - 40 gal tilting kettle	1.00 ea	8,019.75 /ea	8,020
36 - Floor trough	1.00 ea	20,861.34 /ea	20,861
37 - 30 gal tilting skillet	1.00 ea	2,555.22 /ea	2,555
38 - Floor trough	1.00 ea	18,420.45 /ea	18,420
39 -Convection steamer	1.00 ea	2,555.22 /ea	2,555
40 - Exhaust hoods	1.00 ea	20,699.28 /ea	20,699
41 - Fire suppression system	1.00 ea	39,684.72 /ea	39,685
43 - Demand controls	1.00 ea	8,151.84 /ea	8,152
44 - Conveyor pizza oven	1.00 ea	5,975.13 /ea	5,975
45 - Double convection oven	1.00 ea	12,753.90 /ea	12,754
46 - Double convection oven	1.00 ea	17,772.21 /ea	17,772
47 - Work table w/ handsink & overshelf	1.00 ea	19,075.35 /ea	19,075
49 - Reach in heated cabinet	1.00 ea	7,001.88 /ea	7,002
50 - Prep table w/ sinks	1.00 ea	5,132.64 /ea	5,133
	1.00 ea	5,148.18 /ea	5,148



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
114000 Food Service Equipment			
51 - Pan rack cart	4.00 ea	459.54 /ea	1,838
52 - Work table w/ handsink and overshelf	1.00 ea	4,064.82 /ea	4,065
54 - Reach in refrigerator	1.00 ea	4,982.79 /ea	4,983
55- Prep table w/ sinks & overshelf	1.00 ea	5,929.62 /ea	5,930
56 - Mobile dry storage shelving	3.00 ea	491.73 /ea	1,475
59 - Hand sink	1.00 ea	1,148.85 /ea	1,149
62 - Service counter	1.00 ea	80,857.95 /ea	80,858
reduce pricing on counter	(1.00) ea	42,295.00 /ea	(42,295)
63 - Heated shelf food warmer	1.00 ea	1,060.05 /ea	1,060
63A - sneeze guard w/ light & heat	1.00 ea	6,269.28 /ea	6,269
64 - Heated shelf food warmer	1.00 ea	1,060.05 /ea	1,060
64A - Sneeze guard w/ light & heat	1.00 ea	6,269.28 /ea	6,269
65 - Folding cutting board	3.00 ea	183.15 /ea	549
66 -Hot food wells	1.00 ea	23,734.02 /ea	23,734
66A - Sneeze guard w/ light & heat	1.00 ea	9,920.07 /ea	9,920
67 - Folding cutting board	3.00 ea	183.15 /ea	549
68 - Hot food wells	1.00 ea	23,734.02 /ea	23,734
68A - Sneeze guard w/ light & heat	1.00 ea	9,920.07 /ea	9,920
69F -Refrigerated merchandiser	1.00 ea	10,225.32 /ea	10,225
70F - Refrigerated mechandiser	1.00 ea	10,225.32 /ea	10,225
71 - Folding cutting board	3.00 ea	183.15 /ea	549
72 - Cold food wells	1.00 ea	23,734.02 /ea	23,734
72A - Sneeze guard w/ light	1.00 ea	7,532.46 /ea	7,532
73 - Cold food wells	1.00 ea	23,734.02 /ea	23,734
73A - Sneeze guard w/ light	1.00 ea	7,532.46 /ea	7,532
74 - Open display merchandiser	3.00 ea	10,225.32 /ea	30,676
75 - Refrigerated merchandiser	1.00 ea	10,225.32 /ea	10,225
76 - Refrigerated mechandiser	1.00 ea	10,225.32 /ea	10,225
77 - Cashier counter	1.00 ea	6,683.31 /ea	6,683
80 - Milk cooler	1.00 ea	3,222.33 /ea	3,222
81 - Cashier counter	1.00 ea	6,683.31 /ea	6,683
84 - Milk cooler	1.00 ea	225.33 /ea	225
85 - Cashier counter	1.00 ea	5,891.88 /ea	5,892
88 - Milk cooler	1.00 ea	2,720.61 /ea	2,721
114000 Food Service Equipment	408,500.00 gsf	1.72 /gsf	700,848
11.02 FOOD SERVICE EQUIPMENT	408,500.00 gsf	1.72 /gsf	700,848
11.04 STAGE CURTAIN & RIGGING			
110610 Theatrical Equipment			
Theater rigging and curtains per quote from High Output	1.00 ls	500,693.00 /ls	500,693
Retractable acoustic panels on stage	1.00 ls	138,520.00 /ls	138,520
110610 Theatrical Equipment	408,500.00 gsf	1.57 /gsf	639,213
110680 Portable Platforms and Seating			
Stage extension - per quote from Walker	1.00 ls	129,920.00 /ls	129,920



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
110680 Portable Platforms and Seating			
Portable platform at black box	0.00 ls	0.00 /ls	0
110680 Portable Platforms and Seating	434,320.00 gsf	0.30 /gsf	129,920
11.04 STAGE CURTAIN & RIGGING			
	408,500.00 gsf	1.88 /gsf	769,133
11.05 GYMNASIUM EQUIPMENT & STANDS			
116620 Athletic Equipment - Gym			
Basketball backstop - ceiling-hung - retractable glass	7.00 ea	8,316.00 /ea	58,212
Gym divider curtain (gym) - electric roll up 102' x 30'h	3,060.00 sf	8.00 /sf	24,480
Wall padding	2,496.00 sf	18.50 /sf	46,176
Volleyball Equipment (floor sleeves)	2.00 ls	1,100.00 /ls	2,200
Wrestling mat mover	1.00 ls	23,100.00 /ls	23,100
Wrestling mat 42'x42' - supplied by Owner	0.00 ls	0.00 /ls	0
Rock Climbing Wall (1 ea)	497.00 sf	40.00 /sf	19,880
Climbing rope & hoist	0.00 ls	0.00 /ls	0
Score Boards (2 ea) & Shot clocks (6 ea) - gym only	1.00 ls	35,000.00 /ls	35,000
116620 Athletic Equipment - Gym	408,500.00 gsf	0.51 /gsf	209,048
126600 Telescoping Stands			
Retractable Bleachers at gym (seat number is gross)	2,560.00 seat	139.00 /seat	355,840
126600 Telescoping Stands	408,500.00 gsf	0.87 /gsf	355,840
11.05 GYMNASIUM EQUIPMENT & STANDS			
	408,500.00 gsf	1.38 /gsf	564,888
11.06 APPLIANCES			
114500 Residential Appliances			
Full size fridge	21.00 ea	1,600.00 /ea	33,600
UC fridge	16.00 ea	1,000.00 /ea	16,000
Full size freezer	2.00 ea	2,000.00 /ea	4,000
UC freezer	1.00 ea	1,500.00 /ea	1,500
Microwave	32.00 ea	500.00 /ea	16,000
Washer	5.00 ea	1,500.00 /ea	7,500
Dryer	5.00 ea	1,500.00 /ea	7,500
Dishwasher	12.00 ea	1,000.00 /ea	12,000
Wall oven	6.00 ea	1,000.00 /ea	6,000
Cookstove	10.00 ea	1,500.00 /ea	15,000
Exhaust hood	13.00 ea	500.00 /ea	6,500
ADA cooktop	8.00 ea	1,500.00 /ea	12,000
Ice machine - IM-1	1.00 ea	4,000.00 /ea	4,000
Undercounter ice machine - IM-2	2.00 ea	1,500.00 /ea	3,000
Premium for solid plate cookstoves	10.00 ea	6,500.00 /ea	65,000



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
114500 Residential Appliances	408,500.00 gsf	0.51 /gsf	209,600
11.06 APPLIANCES	408,500.00 gsf	0.51 /gsf	209,600
12.01 MFG CASEWORK & LAB EQUIPMENT			
123000 Manufactured Casework			
Pass thru fume hoods	7.00 ea	32,500.00 /ea	227,500
123000 Manufactured Casework	408,500.00 gsf	0.56 /gsf	227,500
12.01 MFG CASEWORK & LAB EQUIPMENT	408,500.00 gsf	0.56 /gsf	227,500
12.02 WINDOW TREATMENT			
102123 Cubicle Curtains and Tracts			
Track and curtain (preschool nurse)	1.00 bed	2,500.00 /bed	2,500
Track and curtain (LABBB nurse)	1.00 bed	2,500.00 /bed	2,500
Track and curtain (HS nurse)	6.00 bed	2,500.00 /bed	15,000
102123 Cubicle Curtains and Tracts	408,500.00 gsf	0.05 /gsf	20,000
122400 Window Shades			
US 2 gym skylight - integral shades, power operated - NIC	0.00 ea	0.00 /ea	0
US 6 unit skylights - D = 8' - integral shade, power operated	2.00 ea	3,000.00 /ea	6,000
US 7 unit skylights - D = 5' - integral shade, power operated	4.00 ea	2,000.00 /ea	8,000
Sngl roller shade assemblies per shade drawing (411 ea)	18,240.00 sf	10.00 /sf	182,400
Dbl roller shade assemblies per shade drawing (18 ea)	1,298.00 sf	20.00 /sf	25,960
Motorized shades - singl (21 ea)	2,136.00 sf	12.00 /sf	25,632
Motorized shades - dbl (12 ea)	507.00 sf	26.00 /sf	13,182
add for motors (no wider than 10')	45.00 ea	1,100.00 /ea	49,500
Interior shades at language lab, smart center, committee rm	16.00 ea	350.00 /ea	5,600
Interior blinds at all borrowed lights per note B A9.4	6,000.00 sf	10.00 /sf	60,000
122400 Window Shades	408,500.00 gsf	0.92 /gsf	376,274
12.02 WINDOW TREATMENT	408,500.00 gsf	0.97 /gsf	396,274
12.03 FIXED AUDIENCE SEATING			
126100 Fixed Audience Seating			
Fixed audience seating - auditorium - based on quote from CBS	736.00 ea	382.00 /ea	281,152
Fixed audience seating - auditorium - loose chair	76.00 ea	180.00 /ea	13,680
Fixed audience seating - debate lab - based on quote from CBS	120.00 ea	382.00 /ea	45,840
126100 Fixed Audience Seating	408,500.00 gsf	0.83 /gsf	340,672
12.03 FIXED AUDIENCE SEATING	408,500.00 gsf	0.83 /gsf	340,672



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
12.30 MANUFACTURED CASEWORK			
123000 Manufactured Casework			
Bookcases (6 ea)	18.00 lf	280.00 /lf	5,040
Built-in desk at daycare	33.00 lf	312.00 /lf	10,296
Mail boxes - M3648 (4ea)	5.00 lf	340.00 /lf	1,700
Preschool lockers/cubbies	0.00 lf	0.00 /lf	0
Base cabinet - type ADA3633	291.00 lf	297.72 /lf	86,637
Base cabinet - type B03033	5.00 lf	297.73 /lf	1,489
Base cabinet - type B03633	15.00 lf	297.72 /lf	4,466
Base cabinet - type B11833	9.00 lf	297.72 /lf	2,679
Base cabinet - type B12433	44.00 lf	297.72 /lf	13,100
Base cabinet - type B12833	2.33 lf	297.73 /lf	694
Base cabinet - type B13033	707.50 lf	297.72 /lf	210,637
Base cabinet - type B13233	5.33 lf	297.72 /lf	1,587
Base cabinet - type B13433	2.83 lf	297.74 /lf	843
Base cabinet - type B13633	459.00 lf	297.72 /lf	136,653
Base cabinet - type BS3633	159.00 lf	297.72 /lf	47,337
Countertop epoxy resin at science and prep rooms	963.00 lf	105.00 /lf	101,115
Countertop solid surface	985.00 lf	70.00 /lf	68,950
Hat shelf - H3012A	10.00 lf	110.00 /lf	1,100
Hat shelf - H3312A	5.50 lf	110.00 /lf	605
Hat shelf - H3612A	15.00 lf	110.00 /lf	1,650
Storage music - M-S06 (12ea)	24.00 lf	420.00 /lf	10,080
Storage music - M01G (2ea)	4.00 lf	420.01 /lf	1,680
Storage music - M02G (1ea)	2.00 lf	420.00 /lf	840
Storage music - M04G (5ea)	10.00 lf	420.00 /lf	4,200
Storage music - M05G (10ea)	20.00 lf	420.00 /lf	8,400
Storage music - M11G (2ea)	4.00 lf	420.01 /lf	1,680
Storage music - M18G (1ea)	2.50 lf	420.00 /lf	1,050
Storage music - M43G (2ea)	4.00 lf	420.01 /lf	1,680
Tall wall oven cabinet - TO2726	15.75 lf	312.00 /lf	4,914
Tall storage - TS3030	180.00 lf	324.00 /lf	58,320
Tall storage - TS3624	12.00 lf	324.00 /lf	3,888
Tall storage - TS3626	108.00 lf	324.00 /lf	34,992
Tall storage - TS3626M	45.00 lf	324.00 /lf	14,580
Tall storage - TS3630L	216.00 lf	324.00 /lf	69,984
Tall storage - TS3631	24.00 lf	324.00 /lf	7,776
Tall storage - TS3631D	9.00 lf	324.00 /lf	2,916
Tall storage - TT3631	3.00 lf	324.00 /lf	972
Tall storage - TW3624	6.00 lf	324.00 /lf	1,944
Tall storage - TW3626	48.00 lf	324.00 /lf	15,552
Tall storage - TW3630	222.00 lf	324.00 /lf	71,928
Wall cabinet - W2430	114.00 lf	240.00 /lf	27,360
Wall cabinet - W3018	15.00 lf	240.00 /lf	3,600
Wall cabinet - W3024	25.00 lf	240.00 /lf	6,000
Wall cabinet - W3030	300.00 lf	240.00 /lf	72,000
Wall cabinet - W3030D	380.04 lf	240.00 /lf	91,210
Wall cabinet - W3230	2.67 lf	240.00 /lf	641
Wall cabinet - W3618	18.00 lf	240.00 /lf	4,320
Wall cabinet - W3624	216.00 lf	240.00 /lf	51,840
Wall cabinet - W3624D	192.00 lf	240.00 /lf	46,080



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
123000 Manufactured Casework			
Wall cabinet - W3630	408.00 lf	240.00 /lf	97,920
Wall cabinet - W3630D	75.00 lf	240.00 /lf	18,000
Wall cabinet - W4230	24.50 lf	240.00 /lf	5,880
Wall cabinet - WD3018	5.00 lf	240.00 /lf	1,200
Wall cabinet - WD4230	14.00 lf	240.00 /lf	3,360
Science sinks, faucet only	77.00 ea	435.00 /ea	33,495
Classroom sinks	67.00 ea	900.00 /ea	60,300
123000 Manufactured Casework	408,500.00 gsf	3.76 /gsf	1,537,159
12.30 MANUFACTURED CASEWORK	408,500.00 gsf	3.76 /gsf	1,537,159
14.01 ELEVATOR (TS)			
142400 Election Traction Elevators			
B Wing elevator - MRL - cab and machine - 4000#	1.00 ls	75,000.00 /ls	75,000
B Wing elevators - MRL stop - 4000#	6.00 stop	35,000.00 /stop	210,000
C Wing elevators - MRL - cab and machine - 3500# (2 door)	1.00 ls	70,000.00 /ls	70,000
C Wing elevators - MRL stop - 3500#	3.00 stop	35,000.00 /stop	105,000
C Wing elevators - MRL stop - 3500# - 2nd door at ground floor	1.00 stop	18,000.00 /stop	18,000
D Wing elevators - MRL - cab and machine - 3500#, 1 door	1.00 ls	70,000.00 /ls	70,000
D Wing elevators - MRL stop - 3500#	4.00 stop	35,000.00 /stop	140,000
142400 Election Traction Elevators	408,500.00 st	1.68 /st	688,000
142600 Limited-Use/Limited-Application Elevators			
Wheelchair lift	1.00 ls	34,000.00 /ls	34,000
Custom panels	1.00 ls	2,500.00 /ls	2,500
142600 Limited-Use/Limited-Application Elevators	408,500.00 ls	0.09 /ls	36,500
14.01 ELEVATOR (TS)	408,500.00 gsf	1.77 /gsf	724,500
21-01 FIRE PROTECTION (TS)			
210005 Fire Protection			
Sprinkler permits, as-builts, coring, fire stopping	408,500.00 sf	0.40 /sf	163,400
Project management	3.00 ph	15,000.00 /ph	45,000
Sprinkler contractor 3D/BIM costs	3.00 ph	5,000.00 /ph	15,000
Premium for phasing on project	3.00 ph	10,000.00 /ph	30,000
Fire dept. inlet connection - 2-1/2" polished brass - 2 -way - RECON	(1.00) ea	907.23 /ea	(907)
Fire dept. inlet connection - 2-1/2" polished brass - roof	3.00 ea	907.23 /ea	2,722
Post indicator valve	3.00 ea	500.01 /ea	1,500
Fire dept. inlet connection - Storz 6" - RECON	2.00 ea	1,863.93 /ea	3,728
Standpipe - sch 10 black steel piping w/ fittings	2,475.00 lf	64.45 /lf	159,501
Standpipe - sch 10 black steel piping w/ fittings - RECON	(2,475.00) lf	5.00 /lf	(12,375)
Drain riser - sch 40 black steel piping w/ fittings	650.00 lf	36.07 /lf	23,446
Fire hose valve - 2-1/2" - pressure regulating	38.00 ea	362.76 /ea	13,785



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
210005 Fire Protection			
Fire hose cabinet - aluminum - recessed	38.00 ea	1,141.44 /ea	43,375
Sprinkler head - wet - recessed pendant	3,049.00 ea	129.60 /ea	395,142
Sprinkler head - wet - pendant or upright	332.00 ea	79.74 /ea	26,472
Sprinkler head - wet - above ceiling	45.00 ea	100.92 /ea	4,541
Sprinkler branch piping black steel sch. 40 w/ fittings	30,429.00 lf	28.71 /lf	873,610
Sprinkler branch piping black steel sch. 40 w/ fittings - above ceiling	225.00 lf	28.71 /lf	6,460
Sprinkler main piping black steel sch. 10 w/ fittings	10,380.00 lf	52.00 /lf	539,760
Sprinkler main piping black steel sch. 10 w/ fittings - RECON	(10,380.00) lf	6.00 /lf	(62,280)
Wet alarm valve	4.00 ea	4,135.52 /ea	16,542
Wet alarm valve - RECON	2.00 ea	4,135.52 /ea	8,271
Double check valve (BFP) assembly - 8"	2.00 ea	11,544.72 /ea	23,089
Double check valve (BFP) assembly - 8" - RECON	(1.00) ea	11,544.72 /ea	(11,545)
Zone flow control valve w/ pressure reducing valve	17.00 ea	2,540.52 /ea	43,189
Waterflow switch	23.00 ea	429.80 /ea	9,885
Tamper switch	23.00 ea	364.80 /ea	8,390
Test port/test header/flush mount - 4 way	1.00 ea	389.80 /ea	390
Sprinkler head - dry - pendant or upright	45.00 ea	84.74 /ea	3,813
Dry branch piping galvanized sch. 40 - w/ fittings	450.00 lf	33.21 /lf	14,944
Dry main piping galvanized sch. 40 - w/ fittings	185.00 lf	105.79 /lf	19,571
Dry main piping galvanized sch. 40 - w/ fittings - RECON	(185.00) lf	8.00 /lf	(1,480)
Dry alarm valve	2.00 ea	6,835.52 /ea	13,671
Dry alarm valve - RECON	(1.00) ea	6,835.52 /ea	(6,836)
Fire pump w jockey & controller (1000 gpm, 150 hp)	1.00 ea	99,999.96 /ea	100,000
210005 Fire Protection	408,500.00 gsf	6.15 /gsf	2,513,776
210010 Water Curtain at Rated Walls			
Sprinkler head - water curtain	365.00 ea	252.99 /ea	92,341
Sprinkler branch piping black steel sch. 40 w/ fittings - water curtain feed	1,460.00 lf	28.71 /lf	41,916
210010 Water Curtain at Rated Walls	408,500.00 gsf	0.33 /gsf	134,258
21-01 FIRE PROTECTION (TS)	408,500.00 gsf	6.48 /gsf	2,648,033
22-01 PLUMBING (TS)			
220005 Plumbing - Misc			
Pibg contractor permits, as-builts, coring, fire stopping)	408,500.00 sf	1.07 /sf	437,095
General requirements (lump sum)	1.00 ls	2,500.00 /ls	2,500
Plumbing contractor 3D/BIM costs	3.00 ph	7,500.00 /ph	22,500
Project management	3.00 ph	20,000.00 /ph	60,000
Premium for phasing on project	3.00 ph	40,000.00 /ph	120,000
Commissioning support/lump sum	3.00 ph	1,000.00 /ph	3,000
220005 Plumbing - Misc	408,500.00 gsf	1.58 /gsf	645,095
220700 Plumbing Insulation			
Insulation/copper pipe/fiberglass	26,900.00 lf	8.18 /lf	220,043
Insulation/rainleader pipe/fiberglass/horiz. & vert.	5,600.00 lf	7.03 /lf	39,346



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
220700 Plumbing Insulation	408,500.00 gsf	0.64 /gsf	259,388
221000 Plumbing Facility Water Distribution			
Water meter w/remote readout - 3"	2.00 ea	2,111.30 /ea	4,223
Water meter w/remote readout	1.00 ea	2,317.35 /ea	2,317
Water sub-meter	2.00 ea	317.26 /ea	635
Backflow preventer/RPZ-BFP - lab	1.00 ea	1,836.30 /ea	1,836
Backflow preventer/RPZ-BFP - lab - RECON	1.00 ea	1,836.30 /ea	1,836
Backflow preventer/RPZ-BFP - 3"	3.00 ea	1,836.30 /ea	5,509
Backflow preventer/mop sink	12.00 ea	206.05 /ea	2,473
Backflow preventer/irrigation	3.00 ea	206.05 /ea	618
Backflow preventer/irrigation - RECON	(1.00) ea	206.05 /ea	(206)
Recirculation pump/bronze	4.00 ea	727.20 /ea	2,909
Recirculation pump/bronze - lab	1.00 ea	727.20 /ea	727
Recirculation pump/bronze - TW	1.00 ea	727.20 /ea	727
Recirculation pump/bronze - RECON	3.00 ea	727.20 /ea	2,182
Expansion tank/ASME/potable	4.00 ea	1,774.20 /ea	7,097
Expansion tank/ASME/potable - lab	1.00 ea	1,774.20 /ea	1,774
Expansion tank/ASME/potable - RECON	2.00 ea	1,774.20 /ea	3,548
Thermostatic mixing valve/TMV	4.00 ea	1,180.28 /ea	4,721
Thermostatic mixing valve/TMV - lab	1.00 ea	1,180.28 /ea	1,180
Thermostatic mixing valve/TMV - emergency	1.00 ea	1,180.28 /ea	1,180
Thermostatic mixing valve/TMV - RECON	1.00 ea	1,180.28 /ea	1,180
Hose bibbs w/vac. breaker - interior	37.00 ea	209.08 /ea	7,736
Hose bibbs w/vac. breaker - exterior	16.00 ea	474.10 /ea	7,586
Shock absorbers & trap primers	408,500.00 sf	0.10 /sf	40,850
Valve box/dishwasher	15.00 ea	231.05 /ea	3,466
Valve box/washing machine	4.00 ea	231.05 /ea	924
Valve box/ice machine	5.00 ea	181.05 /ea	905
Domestic water entrance UG/ductile iron	85.00 lf	324.20 /lf	27,557
Domestic water AG/type "L" copper/solder - fixture connections	2,055.00 lf	25.69 /lf	52,784
Domestic water AG/type "L" copper/solder	19,250.00 lf	25.69 /lf	494,448
Domestic water AG/type "L" copper/solder - fixture connections	160.00 lf	25.69 /lf	4,110
Domestic water AG/type "L" copper/solder	225.00 lf	25.69 /lf	5,779
Non-potable water AG/type "L" copper/solder - fixture connections	385.00 lf	22.26 /lf	8,568
Non-potable water AG/type "L" copper/solder	3,370.00 lf	22.26 /lf	75,001
Non-potable water AG/type "L" copper/solder - irrigation	275.00 lf	22.26 /lf	6,120
Tempered water piping AG/type "L" copper/solder - fixture connections	130.00 lf	22.26 /lf	2,893
Tempered water piping AG/type "L" copper/solder	1,050.00 lf	22.26 /lf	23,368
- Domestic water piping accessories	26,900.00 lf	2.59 /lf	69,697
- Domestic water clean & test piping system	3.00 ea	1,046.80 /ea	3,140
221000 Plumbing Facility Water Distribution	408,500.00 gsf	2.16 /gsf	881,399
221300 Plumbing - Sanitary, Waste & Vent Piping			
Allowance for kitchen fit-out	Is	/Is	
Floor drain	58.00 ea	362.10 /ea	21,002
Floor sink	7.00 ea	2,571.18 /ea	17,998
Lint interceptor	3.00 ea	724.20 /ea	2,173
Grease interceptor/interior	2.00 ea	4,363.80 /ea	8,728



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
221300 Plumbing - Sanitary, Waste & Vent Piping			
Elevator sump pump/oil minder	0.00 ea	/ea	
Sanitary UG/cast iron single hub pipe & ftgs.	4,350.00 lf	58.07 /lf	252,616
Sanitary AG/cast iron no hub pipe & ftgs.- fixture connections	2,055.00 lf	49.37 /lf	101,456
Sanitary AG/cast iron no hub pipe & ftgs.	8,960.00 lf	49.37 /lf	442,357
Grease waste UG/CI single hub pipe & ftgs.	500.00 lf	58.07 /lf	29,036
Grease waste & vent AG/cast iron no hub pipe & ftgs.	500.00 lf	49.37 /lf	24,685
- Sanitary waste & vent piping accessories	16,365.00 lf	1.84 /lf	30,127
- Sanitary waste & vent clean & test piping system	2.00 ea	996.80 /ea	1,994
	408,500.00 gsf	2.28 /gsf	932,172
221310 Sub Slab Venting			
Sub-slab piping above grade (18 locations)	2,250.00 lf	30.00 /lf	67,500
		/sf	67,500
221400 Plumbing - Rainleader Piping			
Roof drain	69.00 ea	366.10 /ea	25,261
Area drain	3.00 ea	408.84 /ea	1,227
Rainleader UG/cast iron single hub pipe & ftgs.	1,100.00 lf	147.25 /lf	161,973
Rainleader AG/cast iron no hub pipe & ftgs.	5,600.00 lf	111.14 /lf	622,380
- Rainleader piping accessories	6,700.00 lf	1.84 /lf	12,334
- Rainleader clean & test piping system	1.00 ea	498.40 /ea	498
	408,500.00 gsf	2.02 /gsf	823,673
221500 General Service Compressed Air Systems			
Duplex air compressor	1.00 ea	22,948.40 /ea	22,948
- Refrigerated dryer	1.00 ea	4,574.20 /ea	4,574
- Line filter	1.00 ea	606.05 /ea	606
Compressed air piping/type "L" copper	300.00 lf	34.39 /lf	10,317
- Compressed air piping accessories	300.00 lf	2.09 /lf	627
- Compressed air clean & test piping system	1.00 ea	772.60 /ea	773
	408,500.00 gsf	0.10 /gsf	39,846
222000 Plumbing - Gas Piping			
Emergency gas shut off/cabinet w/1" solenoid & UL ball valve	13.00 ea	4,022.60 /ea	52,294
Emergency gas shut off/cabinet w/1" solenoid & UL ball valve - RECON	(7.00) ea	4,022.60 /ea	(28,158)
Gas turret/double	151.00 ea	325.05 /ea	49,083
Gas turret/double - RECON	(76.00) ea	325.05 /ea	(24,704)
Gas piping UG/Trac st. stl. flex piping	30.00 lf	63.46 /lf	1,904
Gas piping/sch 40 black steel CW t&c	2,700.00 lf	34.02 /lf	91,839
Gas piping/sch 40 black steel CW t&c - RECON	(1,020.00) lf	34.02 /lf	(34,695)
Gas piping/sch 40 blk stl ERW weld	275.00 lf	57.76 /lf	15,884
- Gas piping accessories	2,975.00 lf	2.59 /lf	7,708
- Gas piping accessories - RECON	(1,050.00) lf	2.59 /lf	(2,721)
- Gas piping clean & test piping system	1.00 ea	1,595.20 /ea	1,595



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
222000 Plumbing - Gas Piping	408,500.00 gsf	0.32 /gsf	130,029
223000 Plumbing - Equipment			
Water heaters/electric	5.00 ea	1,892.35 /ea	9,462
Water heaters/electric - 250 gal	4.00 ea	33,121.00 /ea	132,484
Water heaters/electric	1.00 ea	1,892.35 /ea	1,892
Water heaters/electric/point of service	26.00 ea	597.25 /ea	15,529
HWH/indirect fed - 300 gal storage heater	4.00 ea	8,560.50 /ea	34,242
223000 Plumbing - Equipment	408,500.00 gsf	0.47 /gsf	193,609
224000 Plumbing Fixtures			
Water closet/wall mnt./carrier/sensor flush valve	56.00 ea	1,614.60 /ea	90,418
Water closet/wall mnt./carrier/sensor flush valve/ADA	79.00 ea	1,648.60 /ea	130,239
Urinal/wall mnt./carrier/sensor flush valve	21.00 ea	1,293.53 /ea	27,164
Lavatory/wall hung/solar faucet/carrier/ADA	137.00 ea	1,602.45 /ea	219,536
Faucet/gooseneck/integral lavatory/ADA - for science sink (INSTALL ONLY)	77.00 ea	268.15 /ea	20,648
Integral sink/1-bowl/std faucet - (INSTALL ONLY)	61.00 ea	464.33 /ea	28,324
Integral sink/1-bowl/std fauce - art & maker spaces (INSTALL ONLY)	6.00 ea	548.40 /ea	3,290
Trough type wash sink/1-faucet - art rooms	2.00 ea	3,248.40 /ea	6,497
- Solids interceptors (art & maker space sinks)	8.00 ea	539.20 /ea	4,314
Mop sink - typical	17.00 ea	1,199.40 /ea	20,390
Shower stall/std valve & access./3'x3' fiberglass	6.00 ea	1,078.66 /ea	6,472
Shower stall/std valve & access./3'x3' fiberglass/ADA	6.00 ea	1,527.85 /ea	9,167
Emergency shower/eye wash sta./no mixing valve/wall mount	13.00 ea	1,935.50 /ea	25,162
Water cooler/bottle filler only	14.00 ea	1,812.28 /ea	25,372
Water cooler/bottle filler/single	14.00 ea	2,107.40 /ea	29,504
Water cooler/bottle filler/bi-level/ADA	8.00 ea	4,494.60 /ea	35,957
- Plumbing fixtures offload & distribution (major fixtures)	357.00 ea	112.10 /ea	40,020
- Plumbing fixtures offload & distribution (minor fixtures)	152.00 ea	112.10 /ea	17,039
- Plumbing fixtures offload & distribution	16.00 ea	112.10 /ea	1,794
- Plumbing fixtures rough-in	373.00 ea	137.10 /ea	51,138
224000 Plumbing Fixtures	408,500.00 gsf	1.94 /gsf	792,442
226600 Plumbing Acid Neutrilization System			
Acid neut. system w/monitor/? gal. tank	1.00 ea	42,569.40 /ea	42,569
Floor drain	23.00 ea	350.10 /ea	8,052
Acid waste UG/sch 40 polypropylene fuseal	100.00 lf	59.29 /lf	5,929
Acid waste AG/sch 40 polypropylene fuseal - fixture connections	385.00 lf	63.16 /lf	24,316
Acid waste AG/sch 40 polypropylene fuseal	2,300.00 lf	63.16 /lf	145,263
Acid waste AG/sch 40 polypropylene fuseal - RECON	385.00 lf	63.16 /lf	24,316
- Acid waste & vent piping accessories	2,785.00 lf	2.09 /lf	5,823
- Acid waste & vent piping accessories - RECON	385.00 lf	2.09 /lf	805
- Acid waste & vent clean & test piping system	1.00 ea	722.60 /ea	723
226600 Plumbing Acid Neutrilization System	408,500.00 gsf	0.63 /gsf	257,796
22-01 PLUMBING (TS)	408,500.00 gsf	12.30 /gsf	5,022,950



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
23-01 HVAC (TS)			
230005 HVAC - Misc			
Shop drawings/ BIM/ ENG Support/ As-Builts	408,500.00 sf	1.25 /sf	510,625
System testing and flushing	1.00 ls	75,000.00 /ls	75,000
Commissioning support/lump sum	408,500.00 gsf	0.30 /gsf	122,550
Coring, sleeves & firestopping	408,500.00 gsf	0.10 /gsf	40,850
Vibration & seismic restraints	408,500.00 gsf	0.25 /gsf	102,125
230005 HVAC - Misc	408,500.00 gsf	2.08 /gsf	851,150
230006 HVAC - Phasing			
Backfeeding and maintaining systems for phasing	1.00 ls	120,000.00 /ls	120,000
230006 HVAC - Phasing	408,500.00 gsf	0.29 /gsf	120,000
230007 HVAC Demo			
Demolition/cut, drop (partial) & make safe (sq. ft.)	408,500.00 gsf	0.60 /gsf	245,100
230007 HVAC Demo	408,500.00 gsf	0.60 /gsf	245,100
230593 Testing, Adjusting and Balancing for HVAC			
Testing & balancing/cost per sq. ft.	408,500.00 sf	1.33 /sf	543,305
230593 Testing, Adjusting and Balancing for HVAC	408,500.00 gsf	1.33 /gsf	543,305
230700 HVAC Insulation			
Insulation/ductwork/blanket wrap	235,695.00 sf	3.81 /sf	897,938
Insulation/equipment/weatherproof exposed	2,250.00 sf	12.69 /sf	28,555
Insulation/pipe/copper (avg. size)	10,380.00 lf	9.61 /lf	99,760
Insulation/pipe/copper (refrigerant)	21,900.00 lf	9.61 /lf	210,477
Insulation/pipe/copper (condensate - VRF)	5,200.00 lf	9.61 /lf	49,976
Insulation/pipe/copper (condensate - FCU)	5,320.00 lf	9.61 /lf	51,130
Insulation/pipe/copper (1/2"-1")	22,875.00 lf	8.37 /lf	191,436
Insulation/pipe/copper (1-1/4"-2")	10,335.00 lf	10.98 /lf	113,427
Insulation/pipe/weld (avg. size)	960.00 lf	29.19 /lf	28,022
Insulation/pipe/weld (2-1/2"-4")	4,100.00 lf	16.13 /lf	66,128
Insulation/pipe/weld (5"-8")	4,090.00 lf	26.04 /lf	106,516
Insulation/pipe/copper/weatherproof exposed (roof refrigerant)	3,800.00 lf	14.50 /lf	55,100
Insulation/pipe/weld/weatherproof exposed (5"-8")	3,370.00 lf	37.11 /lf	125,050
230700 HVAC Insulation	408,500.00 gsf	4.95 /gsf	2,023,517
230900 Direct Digital Control System for HVAC			
Automatic temperature controls/cost per sq. ft. - toilet bldg	1,800.00 sf	3.00 /sf	5,400
Automatic temperature controls/cost per sq. ft. (proprietary)	408,500.00 sf	6.25 /sf	2,553,125
ATC - CO2 demand ventilation (add @ recon)	408,500.00 sf	0.25 /sf	102,125
ATC - AirCuity (system hardware, start-up/commissioning, training, and support (Flow Tech quote)	1.00 ls	478,000.00 /ls	478,000
ATC - AirCuity (installation)	244.00 loc	480.60 /loc	117,266



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
230900 Direct Digital Control System for HVAC			
ATC - AirCuity (system hardware, start-up/commissioning, training, and support (Flow Tech quote) removed @ recon***	(1.00) ls	478,000.00 /ls	(478,000)
ATC - AirCuity (installation) removed @ recon***	(244.00) loc	480.60 /loc	(117,266)
ATC - Mini-split condensing units (w/factory controls)	2.00 ea	1,041.36 /ea	2,083
ATC - Mini-split indoor units (w/factory controls)	8.00 ea	688.35 /ea	5,507
ATC - VRF outdoor units (wiring only) - each	21.00 ea	1,041.36 /ea	21,869
ATC - VRF indoor units (wiring only) - each	150.00 ea	688.35 /ea	103,253
ATC - VRF refrigerant leak detection (1 per indoor unit) BACnet (classrooms only)	52.00 ea	1,295.68 /ea	67,375
230900 Direct Digital Control System for HVAC	408,500.00 gsf	7.00 /gsf	2,860,736
232113 Hydronic Piping, incl Chilled Beams			
Hot water s&r/type "L" copper solder - avg. size (misc.)	4,200.00 lf	25.89 /lf	108,717
Hot water s&r/type "L" copper solder - avg. size (VAV's)	1,980.00 lf	25.89 /lf	51,252
Hot water s&r/type "L" copper solder - 3/4"	9,040.00 lf	18.65 /lf	168,596
Hot water s&r/type "L" copper solder - 1"	3,600.00 lf	23.19 /lf	83,484
Hot water s&r/type "L" copper solder - 1-1/4"	1,355.00 lf	26.69 /lf	36,165
Hot water s&r/type "L" copper solder - 1-1/2"	1,220.00 lf	31.52 /lf	38,450
Hot water s&r/type "L" copper solder - 2"	2,060.00 lf	41.71 /lf	85,918
Hot water s&r/sch 40 blk stl ERW weld - avg. size	480.00 lf	94.20 /lf	45,214
Hot water s&r/sch 40 blk stl ERW weld - 2-1/2"	620.00 lf	49.09 /lf	30,436
Hot water s&r/sch 40 blk stl ERW weld - 2-1/2" (To RTU's)	500.00 lf	49.09 /lf	24,545
Hot water s&r/sch 40 blk stl ERW weld - 4"	740.00 lf	81.09 /lf	60,007
Hot water s&r/sch 40 blk stl ERW weld - 5"	900.00 lf	97.34 /lf	87,603
Hot water s&r/sch 40 blk stl ERW weld - 6"	1,285.00 lf	125.69 /lf	161,512
Hot water s&r/sch 40 blk stl ERW weld - 6" (roof mounted)	1,685.00 lf	125.69 /lf	211,788
Chilled water s&r/type "L" copper solder - avg. size (misc.)	4,200.00 lf	25.89 /lf	108,717
Chilled water s&r/type "L" copper solder - 3/4"	7,845.00 lf	18.65 /lf	146,309
Chilled water s&r/type "L" copper solder - 1"	2,390.00 lf	23.19 /lf	55,424
Chilled water s&r/type "L" copper solder - 1-1/4"	2,750.00 lf	26.69 /lf	73,397
Chilled water s&r/type "L" copper solder - 1-1/2"	880.00 lf	31.52 /lf	27,735
Chilled water s&r/type "L" copper solder - 2"	2,070.00 lf	41.71 /lf	86,335
Chilled water s&r/sch 40 blk stl ERW weld - avg. size	480.00 lf	94.20 /lf	45,214
Chilled water s&r/sch 40 blk stl ERW weld - 2-1/2"	925.00 lf	49.09 /lf	45,408
Chilled water s&r/sch 40 blk stl ERW weld - 4"	1,315.00 lf	81.09 /lf	106,633
Chilled water s&r/sch 40 blk stl ERW weld - 5"	625.00 lf	97.34 /lf	60,836
Chilled water s&r/sch 40 blk stl ERW weld - 6"	1,280.00 lf	125.69 /lf	160,883
Chilled water s&r/sch 40 blk stl ERW weld - 6" (roof mounted)	1,685.00 lf	125.69 /lf	211,788
- Hydronic piping accessories	56,110.00 lf	2.60 /lf	145,610
- Hydronic pipe - Roof support stand - 3'L x 2'H (#ES200)	110.00 ea	317.29 /ea	34,902
HWP Pump/in-line/20 hp	6.00 ea	6,373.30 /ea	38,240
CHWP Pump/in-line/20 hp	10.00 ea	6,373.30 /ea	63,733
- Flex connector/HVAC pumps - 5"	32.00 ea	351.29 /ea	11,241
- Triple duty valves	16.00 ea	1,672.14 /ea	26,754
Air separators	5.00 ea	1,990.16 /ea	9,951
Expansion tanks/ASME	10.00 ea	5,878.36 /ea	58,784
Flow meter/ultrasonic	6.00 ea	2,725.30 /ea	16,352
Temp boiler pumps, air seperator, expansion tank, etc.	1.00 ls	17,000.00 /ls	17,000
Steam piping/sch 40 blk stl/SMLS/t&c - 1-1/2"	125.00 lf	60.08 /lf	7,510
Steam piping/sch 40 blk stl/ERW/weld - 10"	125.00 lf	242.41 /lf	30,301



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
232113 Hydronic Piping, incl Chilled Beams			
A/C cond. pump (VRF)	130.00 ea	232.16 /ea	30,181
A/C cond. pump (FCU)	133.00 ea	232.16 /ea	30,878
A/C cond. drains/type "L" copper (VRF system)	5,200.00 lf	21.65 /lf	112,571
A/C cond. drains/type "L" copper (4-pipe FCU's)	5,320.00 lf	21.65 /lf	115,169
- A/C condensate piping accessories	10,520.00 lf	2.35 /lf	24,670
	408,500.00 gsf	7.58 /gsf	3,096,213
232113 Hydronic Piping, incl Chilled Beams			
232300 Refrigerant Piping			
Refrigerant piping/type "ACR" hard copper/brazed (HRU's to remote condensing units 200lf/unit)	3,800.00 lf	67.29 /lf	255,710
- Refrigeration piping accessories	3,800.00 lf	2.28 /lf	8,671
- Refrigeration clean & test piping system (nitrogen purge)	3,800.00 lf	1.03 /lf	3,921
- Refrigerant charge/R410B	650.00 lbs	37.02 /lbs	24,062
- Refrigeration piping - Roof support stand - 2'L x 2'H (#ES200)	300.00 ea	263.23 /ea	78,969
		/gsf	371,334
232300 Refrigerant Piping			
232500 HVAC Water Treatment			
Chemical treatment (lump sum)	2.00 ls	15,000.00 /ls	30,000
Glycol feed/50 gal. tank w/pump (Neptune #G-50-1) (HW)	2.00 ea	5,306.60 /ea	10,613
Glycol feed/50 gal. tank w/pump (Neptune #G-50-1) (CHW)	2.00 ea	5,306.60 /ea	10,613
- Glycol solution/25% propylene (HW)	7,500.00 gal	25.63 /gal	192,244
	408,500.00 gsf	0.60 /gsf	243,470
232500 HVAC Water Treatment			
233000 HVAC Sheetmetal			
Sheetmetal & accessories/galvanized	225.00 lb	12.74 /lb	2,867
Sheetmetal & accessories/galvanized (take-off)	330,600.00 lb	12.74 /lb	4,212,201
Sheetmetal & accessories/galvanized (take-off - exposed)	3,500.00 lb	12.74 /lb	44,594
Sheetmetal & accessories/galvanized (duct distribution: Part A 1st .5 lbs/SF)	9,250.00 lb	12.74 /lb	117,855
Sheetmetal & accessories/galvanized (duct distribution: Part B 1st .65 lbs/SF)	16,500.00 lb	12.74 /lb	210,228
Sheetmetal & accessories/galvanized (duct distribution: Chorus/Band/Performing arts/support .85lbs/sf)	19,500.00 lb	12.74 /lb	248,451
Sheetmetal & accessories/galvanized (complete auditorium .35lbs/sf)	4,500.00 lb	12.74 /lb	57,335
Sheetmetal & accessories/galvanized (dust collection)	2,850.00 lb	12.74 /lb	36,312
Sheetmetal & accessories/galvanized (laser cutter exhaust)	2,400.00 lb	12.74 /lb	30,579
Sheetmetal & accessories/welded stainless steel (fume hoods - recirculating)	0.00 lb	/lb	
Sheetmetal & accessories/welded stainless steel (chem storage exhaust)	2,500.00 lb	36.52 /lb	91,309
Sheetmetal & accessories/welded stainless steel (cooking range hoods)	2,500.00 lb	36.52 /lb	91,309
Sheetmetal & accessories/welded stainless steel (dishwasher)	1,500.00 lb	36.52 /lb	54,785
Sheetmetal & accessories/welded black iron (kitchen exhaust)	6,000.00 lb	21.65 /lb	129,903
Sheetmetal & accessories/welded black iron (kiln)	500.00 lb	21.65 /lb	10,825
SM - Add for internal ductwork liner	25,000.00 sf	7.88 /sf	197,088
SM - Diffusers, registers & grilles (misc.)	408,500.00 sf	0.05 /sf	20,425
SM - Diffusers, registers & grilles	699.00 ea	196.59 /ea	137,413
SM - Linear slot diffusers	639.00 ea	389.76 /ea	249,055
SM - Combination fire/smoke dampers/louver type/UL	55.00 ea	844.20 /ea	46,431
SM - Motorized damper	32.00 ea	1,001.30 /ea	32,042



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
233000 HVAC Sheetmetal			
SM - Smoke detectors/duct mount	21.00 ea	767.67 /ea	16,121
SM - Sound attenuators/in-line/std. gauge	429,500.00 cfm	0.56 /cfm	241,376
SM - Kitchen exhaust hood/st. steel/install only (by KES)	3.00 ea	1,882.72 /ea	5,648
SM - Dishwasher exhaust hood/st. steel/install only (by KES)	1.00 ea	1,176.70 /ea	1,177
Louvers - misc. - with arch	0.00 sf	/sf	
233000 HVAC Sheetmetal	408,500.00 gsf	15.39 /gsf	6,285,326
233400 HVAC Fans			
Misc. exhaust fans	408,500.00 sf	0.15 /sf	61,275
Exhaust fan/roof - mech room	4.00 ea	6,412.04 /ea	25,648
Exhaust fan/roof - chem storage	1.00 ea	6,412.04 /ea	6,412
Exhaust fan/roof - Toilet exhaust	4.00 ea	6,412.04 /ea	25,648
Exhaust fan/roof - kitchen exhaust	1.00 ea	8,912.04 /ea	8,912
Exhaust fan/roof - kitchen general exhaust	1.00 ea	8,912.04 /ea	8,912
Exhaust fan/roof - kiln exhaust	1.00 ea	4,441.36 /ea	4,441
Exhaust fan/roof - laser cutter (300 cfm)	3.00 ea	2,791.36 /ea	8,374
EF/centrifugal inline/box - 800 cfm	2.00 ea	1,586.61 /ea	3,173
Destratification fans/ceiling propeller 16'	4.00 ea	6,382.72 /ea	25,531
Dust collector/ 4,000 cfm	1.00 ea	48,624.08 /ea	48,624
Fan powered box w/coil & controls (4-pipe)	46.00 ea	3,485.54 /ea	160,335
Fan powered box w/coil & controls (2-pipe) (adj. rate @ Recon***)	(46.00) ea	1,000.00 /ea	(46,000)
Fan powered box w/coil & controls (2-pipe) (adj. @ Recon***)	(14.00) ea	3,485.54 /ea	(48,797)
233400 HVAC Fans	408,500.00 gsf	0.72 /gsf	292,488
233600 Air Terminal Units			
VAV's misc.	408,500.00 sf	0.05 /sf	20,425
VAV/box w controls/ - 4-5"	124.00 ea	742.88 /ea	92,117
VAV/box w controls/ - 6-7"	52.00 ea	756.88 /ea	39,358
VAV/box w controls/ - 8-9"	34.00 ea	869.35 /ea	29,558
VAV/box w controls/ - 8-9" (adj. @ Recon***)	65.00 ea	869.35 /ea	56,508
VAV/box w controls/ - 10"	4.00 ea	923.35 /ea	3,693
VAV/box w controls/ - 12"	5.00 ea	1,031.82 /ea	5,159
VAV/box w 2-row coil & controls/ - 6"	11.00 ea	760.41 /ea	8,365
VAV/box w 2-row coil & controls/ - 10"	13.00 ea	933.88 /ea	12,140
VAV/box w 2-row coil & controls/ - 10" (adj. @ Recon***)	16.00 ea	933.88 /ea	14,942
VAV/box w electric coil & controls/ - 10"	4.00 ea	1,834.82 /ea	7,339
VAV/box w electric coil & controls/ - 10" (adj. @ Recon***)	69.00 ea	1,834.82 /ea	126,603
VAV/box w electric coil & controls/ - 16"	5.00 ea	2,184.82 /ea	10,924
233600 Air Terminal Units		/gsf	427,131
235000 HVAC Boilers & Heat Exchangers			
Boiler/HW/electric 490mbh	2.00 ea	62,084.60 /ea	124,169
Boilers/steam/gas/high eff. cond. - 250 hp 1,000 gal tank	18.00 mo	15,700.00 /mo	282,600
Boiler circulator pump	4.00 ea	806.35 /ea	3,225
Fuel for start-up	1.00 ls	2,500.00 /ls	2,500
Weekly maintenance	72.00 wks	800.00 /wks	57,600
24/7 on call maintenance	1.00 ls	30,000.00 /ls	30,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
235000 HVAC Boilers & Heat Exchangers	408,500.00 gsf	1.22 /gsf	500,095
237000 HVAC - Central Air Handling Equipment			
ERU-1	12,000.00 cfm	17.00 /cfm	204,000
ERU-2	4,000.00 cfm	17.00 /cfm	68,000
ERU-3	1,100.00 cfm	17.00 /cfm	18,700
ERU-4	8,000.00 cfm	17.00 /cfm	136,000
HRU-1	18,000.00 cfm	15.00 /cfm	270,000
HRU-2	18,000.00 cfm	15.00 /cfm	270,000
HRU-3	12,000.00 cfm	15.00 /cfm	180,000
HRU-4	18,000.00 cfm	15.00 /cfm	270,000
HRU-5	18,000.00 cfm	15.00 /cfm	270,000
HRU-6	14,000.00 cfm	15.00 /cfm	210,000
HRU-7	3,650.00 cfm	15.00 /cfm	54,750
HRU-8	10,000.00 cfm	15.00 /cfm	150,000
HRU-9	5,250.00 cfm	15.00 /cfm	78,750
HRU-10	3,850.00 cfm	15.00 /cfm	57,750
HRU-11	15,000.00 cfm	15.00 /cfm	225,000
HRU-12	11,200.00 cfm	15.00 /cfm	168,000
HRU-13	11,200.00 cfm	15.00 /cfm	168,000
HRU-14	14,000.00 cfm	15.00 /cfm	210,000
HRU-15	12,500.00 cfm	15.00 /cfm	187,500
HV-1 Kitchen	5,000.00 cfm	6.50 /cfm	32,500
- Roof curb/vibration isolation (1 - 5,000 cfm)	6.00 ea	7,500.00 /ea	45,000
- Roof curb/vibration isolation (6 - 20,000 cfm)	14.00 ea	15,000.00 /ea	210,000
237000 HVAC - Central Air Handling Equipment	408,500.00 gsf	8.53 /gsf	3,483,950
238000 Evaporative HVAC Equipment			
Heat recovery condensing unit (72 mbh)	2.00 ea	14,887.35 /ea	29,775
Heat recovery condensing unit (96 mbh)	4.00 ea	16,987.35 /ea	67,949
Heat recovery condensing unit (120 mbh)	37.00 ea	18,984.82 /ea	702,438
Air cooled heat pump ACHP-1 (335 tons)	1.00 ea	738,898.80 /ea	738,899
Air cooled heat pump ACHP-2 (335 tons)	1.00 ea	738,898.80 /ea	738,899
Air cooled chiller ACH-1 (176 tons)	1.00 ea	251,949.40 /ea	251,949
Air cooled chiller ACH-2 (176 tons)	1.00 ea	251,949.40 /ea	251,949
238000 Evaporative HVAC Equipment	408,500.00 gsf	6.81 /gsf	2,781,859
238025 Mini-Split VRF Heat Pump Systems			
Mini-split HP/multi-zone/indoor/clg. csstt - 8 mbh	5.00 ea	964.15 /ea	4,821
Mini-split HP/multi-zone/indoor/clg. csstt - 15 mbh	2.00 ea	1,205.52 /ea	2,411
Mini-split HP/multi-zone/indoor/clg. csstt - 24 mbh	2.00 ea	1,565.52 /ea	3,131
HP outdoor cond. unit/heat or cool - 72 mbh	1.00 ea	12,387.35 /ea	12,387
HP outdoor cond. unit/heat or cool - 120 mbh	1.00 ea	16,484.82 /ea	16,485
Mini-split refrigerant piping/type "ACR" soft copper/brazed	1,200.00 lf	35.41 /lf	42,495
Mini-split clean & test piping system (nitrogen purge)	1,200.00 lf	1.13 /lf	1,359
Mini-split refrigerant charge/R410B	150.00 lbs	30.88 /lbs	4,633
VRF/Indoor units/4-way clg. csstt (small)	67.00 ea	1,958.15 /ea	131,196
VRF/Indoor units/4-way clg. csstt (medium)	42.00 ea	2,483.25 /ea	104,296



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
238025 Mini-Split VRF Heat Pump Systems			
VRF/Indoor units/ducted horiz. - small	1.00 ea	1,986.85 /ea	1,987
VRF/Indoor units/ducted horiz. - medium	15.00 ea	2,360.68 /ea	35,410
VRF/Indoor units/ducted horiz. - medium (Part E)	20.00 ea	2,360.68 /ea	47,214
VRF/Indoor units/ducted horiz. - large	5.00 ea	2,871.52 /ea	14,358
VRF/Outdoor cond. unit/heat or cool - 140 mbh	19.00 ea	24,382.72 /ea	463,272
VRF/Outdoor cond. unit/heat or cool - 140 mbh (Part E)	2.00 ea	24,382.72 /ea	48,765
VRF/Main-branch circuit controller/max. 10-indoor units	9.00 ea	6,876.31 /ea	61,887
VRF/Main-branch circuit controller/max. 10-indoor units (Part E)	1.00 ea	6,876.31 /ea	6,876
VRF/Main-branch circuit controller/max. 13-indoor units	10.00 ea	7,968.68 /ea	79,687
VRF/Main-branch circuit controller/max. 13-indoor units (Part E)	1.00 ea	7,968.68 /ea	7,969
VRF system refrigerant piping/type "ACR" hard copper/brazed	2,850.00 lf	52.92 /lf	150,808
VRF system refrigerant piping/type "ACR" hard copper/brazed (Part E)	300.00 lf	52.92 /lf	15,874
VRF system refrigerant piping/type "ACR" soft copper/brazed	16,250.00 lf	35.41 /lf	575,457
VRF system refrigerant piping/type "ACR" soft copper/brazed (Part E)	2,500.00 lf	35.41 /lf	88,532
VRF system clean & test piping system (nitrogen purge)	21,900.00 lf	1.13 /lf	24,807
VRF system refrigerant charge/R410B	1,200.00 lbs	30.88 /lbs	37,060
238025 Mini-Split VRF Heat Pump Systems	408,500.00 gsf	4.86 /gsf	1,983,176
238200 Convection Heating Units			
Terminal equipment (misc.)	408,500.00 sf	0.05 /sf	20,425
Terminal equipment (@ chorus/band/performing arts & support areas)	21,550.00 sf	0.75 /sf	16,163
Fan coil unit/hydronic 4-pipe/horiz. or vert. - small	15.00 ea	1,177.20 /ea	17,658
Fan coil unit/hydronic 4-pipe/horiz. or vert. - medium	116.00 ea	2,699.77 /ea	313,174
Fan coil unit/hydronic 4-pipe/horiz. or vert. - medium (adj. @ Recon***)	12.00 ea	2,699.77 /ea	32,397
Fan coil unit/hydronic 4-pipe/horiz. or vert. - large	2.00 ea	2,850.74 /ea	5,701
Radiant floor heating system - 4-pipe	14,035.00 sf	18.80 /sf	263,910
- Manifolds	5.00 ea	4,302.40 /ea	21,512
PR-1 Runtal Baseboard Radiation UF/RF - 8-row	150.00 lf	365.23 /lf	54,785
Cabinet unit heater/hot water/wall mount/recessed - avg. size	10.00 ea	1,664.52 /ea	16,645
Cabinet unit heater/hot water/ceiling mount - avg. size	6.00 ea	1,825.26 /ea	10,952
Wall heaters/electric	10.00 ea	853.01 /ea	8,530
Unit heater/hot water/horiz./propeller - avg. size	12.00 ea	1,153.01 /ea	13,836
Unit ventilator (@ kiln)	1.00 ea	6,569.64 /ea	6,570
238200 Convection Heating Units	408,500.00 gsf	1.96 /gsf	802,257
238500 HVAC Equipment VFD's			
VFD w/keypad/disconnect/bypass/NEMA 1 (misc)	1.00 ls	75,000.00 /ls	75,000
VFD w/keypad/disconnect/bypass/NEMA 1 - 20 hp	16.00 ea	4,184.47 /ea	66,952
238500 HVAC Equipment VFD's	408,500.00 gsf	0.35 /gsf	141,952
239000 HVAC Equipment Rigging/Setting/Start Up			
Equipment hoisting/rigging/setting/start-up	408,500.00 sf	1.60 /sf	653,600
239000 HVAC Equipment Rigging/Setting/Start Up	408,500.00 gsf	1.60 /gsf	653,600
23-01 HVAC (TS)	408,500.00 gsf	67.83 /gsf	27,706,658



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
26-01 ELECTRICAL (TS)			
110615 Audiovisual Systems & Projection Screens			
Auditorium devices, cabling, power, and equipment	1.00 ls	216,000.00 /ls	216,000
Black Box devices, cabling, power, and equipment	1.00 ls	60,000.00 /ls	60,000
Chorus devices, cabling, power, and equipment	1.00 ls	9,600.00 /ls	9,600
Band devices, cabling, power, and equipment	1.00 ls	9,600.00 /ls	9,600
Production Lab & Studio devices, cabling, power, and equipment	1.00 ls	24,000.00 /ls	24,000
Ampitheater Lab devices, cabling, power, and equipment	0.00 ea	/ea	
110615 Audiovisual Systems & Projection Screens	408,500.00 gsf	0.78 /gsf	319,200
110620 Stage Curtains and Riggings - Auditorium			
Tie into fire alarm system	408,500.00 sf	0.02 /sf	8,170
Junction box - 4" square	30.00 ea	57.54 /ea	1,726
Cafeteria devices, cabling, power, and equipment	1.00 ea	1.00 /ea	1
Gymnasium devices, cabling, power, and equipment	1.00 ea	1.00 /ea	1
Junction box - 4-11/16" square x 2-1/8"	7.00 ea	83.48 /ea	584
Screw cover pull box	1.00 ea	404.94 /ea	405
Touch panel	4.00 ea	1,241.80 /ea	4,967
HDMI input jack and plate	4.00 ea	173.89 /ea	696
Plywood blocking for displays and speakers	10.00 ea	214.56 /ea	2,146
TV monitor - 70" Display	4.00 ea	5,307.41 /ea	21,230
TV monitor - 90" Display	1.00 ea	10,409.88 /ea	10,410
TV monitor - 98" Display	5.00 ea	12,512.35 /ea	62,562
Video intercom 60" LCD master monitor	1.00 ea	1,328.09 /ea	1,328
Wall audio plate for line-in and microphone	4.00 ea	1,164.82 /ea	4,659
A/V floor box	1.00 ea	1,819.76 /ea	1,820
A/V rack enclosure	4.00 ea	1,046.48 /ea	4,186
Laser projector	3.00 ea	35,739.44 /ea	107,218
Empty conduit (EMT): 3/4"	448.00 lf	5.33 /lf	2,386
Empty conduit (EMT): 1"	532.00 lf	6.51 /lf	3,465
Empty conduit (EMT): 1.25"	235.00 lf	8.35 /lf	1,963
Empty conduit (EMT): 1.5"	135.00 lf	9.80 /lf	1,323
Empty conduit (EMT): 2"	142.00 lf	11.58 /lf	1,645
Empty conduit (EMT): 2.5"	39.00 lf	22.11 /lf	862
Control console	3.00 ea	16,639.52 /ea	49,919
Keypad, Nortek EI212SE	1.00 ea	491.71 /ea	492
Motorized projector lift	1.00 ea	728.15 /ea	728
Bluetooth audio receiver	1.00 ea	402.47 /ea	402
Projector screen - 100" x 160"	1.00 ea	2,472.41 /ea	2,472
Projector screen - 177" x 284"	1.00 ea	6,949.82 /ea	6,950
Projector screen - 72" x 116"	1.00 ea	1,832.41 /ea	1,832
A/V equipment power connection	25.00 ea	269.94 /ea	6,749
110620 Stage Curtains and Riggings - Auditorium		/gsf	313,296
260005 Electrical - Misc			
Coordination of switchboard dimensions and feeder routing	60.00 mh	123.24 /mh	7,394
Coordination of routing of PV conduit distribution system	80.00 mh	123.24 /mh	9,859
Coordination of Fusco building new and adaptation of existing power	100.00 mh	123.24 /mh	12,324



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260005 Electrical - Misc			
Coordination of lighting control zones for light shafts, corridors, classrooms, open areas	100.00 mh	123.24 /mh	12,324
Coordination of power connections to Auditorium and Performing Arts	40.00 mh	123.24 /mh	4,930
Coordination of theatrical lighting controls with BMS	24.00 mh	123.24 /mh	2,958
Coordination of Auditorium house lighting with walls and ceiling	80.00 mh	123.24 /mh	9,859
Coordination of Performing Arts facade lighting with walls	60.00 mh	123.24 /mh	7,394
Coordination of power to door hardware equipment and access control features	200.00 mh	123.24 /mh	24,648
Coordination of power to water heaters	4.00 mh	123.24 /mh	493
Coordination of power to new and existing telecom	16.00 mh	123.24 /mh	1,972
Coordination of fire alarm and fire protection	24.00 mh	123.24 /mh	2,958
Coordination of lighting and power to Toilet Facility	30.00 mh	123.24 /mh	3,697
Temp light stringers & GFCI power	772.00 sf	0.50 /sf	386
Coring - patching - firestopping	408,500.00 sf	0.13 /sf	51,063
Project management	810.00 mh	123.24 /mh	99,824
Electrical contractor 3D/BIM costs	408,500.00 sf	0.22 /sf	89,870
Electrical contractor 3D/BIM costs	772.00 sf	0.27 /sf	211
Testing & seismic	1.00 ls	45,000.00 /ls	45,000
Testing & seismic	1.00 ls	500.00 /ls	500
Premium for phasing on project	1.00 ls	75,000.00 /ls	75,000
Hoisting & rigging (switchboard)	1.00 ls	115,901.36 /ls	115,901
260005 Electrical - Misc	408,500.00 gsf	1.42 /gsf	578,565
260010 Temporary Lighting, Power & FA			
Temporary light stringers and GFI power drops	408,500.00 sf	0.50 /sf	204,250
Temporary electric service (400A @ 480V)	2.00 ea	20,315.52 /ea	40,631
Temp power for welders / tower cranes	10.00 ea	12,593.68 /ea	125,937
Temp power for trailer	8.00 ea	1,559.16 /ea	12,473
Temp internet connection for trailer	8.00 ea	2,155.78 /ea	17,246
Fire alarm impairment plan (NFPA-101 / NFPA-241)	1.00 ls	5,000.00 /ls	5,000
260010 Temporary Lighting, Power & FA		/gsf	405,537
260505 Enabling Work for Electrical			
Make-safe electrical demolition (removal/disposal by others)	1.00 ls	59,000.00 /ls	59,000
Backfeed existing fire alarm equipment from FACP in Phase 1	1.00 ea	23,324.00 /ea	23,324
Interface new and existing fire alarm to meet phasing requirements	1.00 ea	17,359.20 /ea	17,359
Remove FUSCO including fire alarm and electric services	2.00 ls	15,091.60 /ls	30,183
Remove existing sports lighting and cut post foundation below grade	1.00 ls	19,788.80 /ls	19,789
Remove primary and secondary electric service to Downs House	1.00 ls	9,894.40 /ls	9,894
Remove primary and secondary electric service to Red Gym	1.00 ls	9,894.40 /ls	9,894
Demolish temporary parking area lighting	1.00 ls	25,000.00 /ls	25,000
Re-route existing sports lighting circuits to avoid new field drainage	2.00 ls	31,500.00 /ls	63,000
Relocate press box and elevator feeders	1.00 ls	50,000.00 /ls	50,000
Relocate power for dugouts	3.00 ls	15,000.00 /ls	45,000
Remove existing underground telephone service	390.00 lf	28.69 /lf	11,190
Remove existing underground primary electric service	250.00 lf	49.65 /lf	12,412
Remove enabling primary electric service	1.00 ls	10,000.00 /ls	10,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260505 Enabling Work for Electrical	408,500.00 gsf	0.95 /gsf	386,046
260508 Site Electric			
Feeder (PVC/CU) - 125A	400.00 lf	19.06 /lf	7,625
Feeder (PVC/CU) - 200A [fire pump normal feed]	55.00 lf	30.47 /lf	1,676
Feeder (PVC/CU) - 225A [generator to fire pump]	411.00 lf	36.28 /lf	14,912
Feeder (PVC/CU) - 225A [sports lighting / controllers]	1,500.00 lf	33.96 /lf	50,939
Feeder (PVC/CU) - 400A [generator to ATS-E]	391.00 lf	60.90 /lf	23,812
Feeder (PVC/CU) - 400A [generator to ATS-LRS]	110.00 lf	60.90 /lf	6,699
Feeder (PVC/CU) - 3000A [generator to ATS-OSA]	395.00 lf	568.29 /lf	224,474
Feeder (PVC/CU) - 3000A [generator to ATS-OSC]	395.00 lf	568.29 /lf	224,474
Feeder (PVC/CU) - 4000A [secondary]	70.00 lf	829.36 /lf	58,055
Empty conduit - sch 40 PVC: 1 x 1" [future P.V.]	675.00 lf	5.61 /lf	3,786
Empty conduit - sch 40 PVC: 1 x 1.5" [future P.V.]	250.00 lf	6.57 /lf	1,644
Empty conduit - sch 40 PVC: 2 x 1.5" [future P.V.]	200.00 lf	11.38 /lf	2,276
Empty conduit - sch 40 PVC: 2 x 2" [future E.V.]	2,000.00 lf	12.82 /lf	25,644
Empty conduit - sch 40 PVC: 2 x 2" [future P.V.]	500.00 lf	12.82 /lf	6,411
Empty conduit - sch 40 PVC: 2 x 4" [secondary]	70.00 lf	19.98 /lf	1,399
Empty conduit - sch 40 PVC: 2 x 4" [spare]	350.00 lf	19.98 /lf	6,993
Empty conduit - sch 40 PVC: 2 x 4" [primary]	223.00 lf	19.98 /lf	4,455
Empty conduit - sch 40 PVC: 1 x 3" [P.V.]	250.00 lf	28.37 /lf	7,092
Empty conduit - sch 40 PVC: 4 x 4"	400.00 lf	38.87 /lf	15,548
Empty conduit - sch 40 PVC: 12 x 4" [secondary]	70.00 lf	76.24 /lf	5,336
Empty conduit - GRC - 3" - HH circuitry	971.00 lf	51.56 /lf	50,061
Magnetic warning tape - 1/8"	7,900.00 lf	5.08 /lf	40,120
Connect to existing Utility Co. manhole	1.00 ea	2,705.64 /ea	2,706
Electric manhole - 6'x12x7'	4.00 ea	7,668.88 /ea	30,676
Cast iron manhole frame/cover, 32"D x 6'H grade rings	4.00 ea	1,310.20 /ea	5,241
Hand hole & cover - 2'x2'x3'	12.00 ea	752.96 /ea	9,036
Utility meter sockets (meter by Util. Co.)	5.00 ea	346.73 /ea	1,734
Transclosures - 4'W x 4'L x 4'D (N3R)	2.00 ea	10,071.84 /ea	20,144
260508 Site Electric	408,500.00	2.09	852,968
260526 Grounding and Bonding for Electrical Systems			
Building grounding & bonding	408,500.00 sf	0.11 /sf	44,302
Exterior (utility) transformer - grounding & bonding	3.00 ea	1,288.42 /ea	3,865
Primary switch - grounding & bonding	1.00 ea	1,288.42 /ea	1,288
Dry-type transformer grounding	30.00 ea	252.87 /ea	7,586
Copper ground bar - 2"x1/4" (ea.)	1.00 ea	336.48 /ea	336
Copper ground bar terminations	8.00 ea	89.12 /ea	713
Ground rods	4.00 ea	284.98 /ea	1,140
Bare copper wire - #6	50.00 lf	1.40 /lf	70
Bare copper wire - #2/0	250.00 lf	3.95 /lf	987
260526 Grounding and Bonding for Electrical Systems	408,500.00 gsf	0.15 /gsf	60,288
260583 Equipment Wiring			
Feeder (PVC/CU) - 40A [EVC]	3,800.00 lf	8.93 /lf	33,941
Feeder (EMT/CU) - 60A	1,500.00 lf	16.76 /lf	25,140



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260583 Equipment Wiring			
Feeder (EMT/CU) - 100A	200.00 lf	23.15 /lf	4,630
Feeder (EMT/CU) - 400A	700.00 lf	81.46 /lf	57,023
Feeder (EMT/CU) - 800A	600.00 lf	151.94 /lf	91,166
Power (120V) for ATC panels	75.00 ea	516.37 /ea	38,728
Power (120V) for ATC panel	1.00 ea	516.37 /ea	516
Fused Disco: 20A, 240V/3P, NEMA-1 [Kitchen]	10.00 ea	380.94 /ea	3,809
Fused Disco: 20A, 240V/3P, NEMA-1 [MBL]	2.00 ea	380.94 /ea	762
Fused Disco: 60AF, 600V/3P, NEMA-1	1.00 ea	954.84 /ea	955
Fused Disco: 60A, 600V/3P, NEMA-3R	3.00 ea	1,152.07 /ea	3,456
Fused Disco: 100AF, 240V/3P, NEMA-1	2.00 ea	1,641.37 /ea	3,283
Fused Disco: 400A, 600V/3P, NEMA-3R	2.00 ea	2,892.32 /ea	5,785
Fused Disco: 600A, 600V/3P, NEMA-1	1.00 ea	3,127.33 /ea	3,127
Fused Disco: 800A, 600V/3P, NEMA-1	4.00 ea	6,262.35 /ea	25,049
Shot timer controls	1.00 ea	1,916.32 /ea	1,916
Kitchen kilns	4.00 ea	2,186.84 /ea	8,747
Motorized backstops and curtains	8.00 ea	2,634.08 /ea	21,073
Motorized backdrop	1.00 ea	2,634.08 /ea	2,634
Fire pump (150HP)	1.00 ea	6,443.68 /ea	6,444
Elevators and controllers	3.00 ea	5,197.20 /ea	15,592
Motor starters	26.00 ea	474.17 /ea	12,328
Install and wire VFD's (furnished by Division 23)	35.00 ea	1,040.92 /ea	36,432
Electric vehicle charging station / dual pedestal / cable mgmt.	10.00 ea	11,414.88 /ea	114,149
Elevator cab lights / fan	3.00 ea	2,485.92 /ea	7,458
Misc. terminal equipment	408,500.00 sf	0.05 /sf	21,424
Cabinet unit heaters (hot water)	16.00 ea	816.20 /ea	13,059
Unit heaters (hot water)	12.00 ea	816.20 /ea	9,794
Unit ventilator (kiln)	1.00 ea	1,324.92 /ea	1,325
Unit heaters	2.00 ea	816.20 /ea	1,632
Electric unit wallheaters	5.00 ea	1,415.92 /ea	7,080
Fan powered boxes w/ 4-pipes	145.00 ea	1,014.44 /ea	147,094
Fan powered boxes w/ 2-pipes	32.00 ea	1,014.44 /ea	32,462
Radiant floor manifolds	5.00 ea	458.10 /ea	2,291
Elevator penthouse louvered vent	1.00 ea	1,541.38 /ea	1,541
Dust collector (4000cfm)	1.00 ea	6,197.20 /ea	6,197
VRF indoor units	150.00 ea	989.44 /ea	148,416
VRF outdoor units	21.00 ea	2,525.36 /ea	53,033
VRF branch circuit controllers	21.00 ea	682.96 /ea	14,342
Mini-split system indoor units	9.00 ea	1,076.44 /ea	9,688
Mini-split system outdoor units	2.00 ea	3,664.80 /ea	7,330
Hot water pumps (20hp)	10.00 ea	3,138.32 /ea	31,383
Chilled water pumps (20hp)	10.00 ea	3,138.32 /ea	31,383
Heat recovery condensing units	43.00 ea	5,197.20 /ea	223,480
Condensate pumps	263.00 ea	457.29 /ea	120,267
Glycol feed pumps	4.00 ea	1,485.92 /ea	5,944
Energy recovery units	4.00 ea	10,394.40 /ea	41,578
Kitchen HV unit	1.00 ea	10,394.40 /ea	10,394
Heat recovery units	15.00 ea	10,394.40 /ea	155,916
VAV boxes w/ electric coils	78.00 ea	1,385.92 /ea	108,102
Electric water heaters (60A)	9.00 ea	2,721.84 /ea	24,497
Electric water heaters / point of service	26.00 ea	1,420.92 /ea	36,944
Electric water heater (60A)	1.00 ea	2,721.84 /ea	2,722



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260583 Equipment Wiring			
Air cooled chillers (176T)	2.00 ea	15,824.00 /ea	31,648
Exhaust fans	17.00 ea	2,228.88 /ea	37,891
Air cooled heat pumps (335T)	2.00 ea	19,788.80 /ea	39,578
Misc. exhaust fans	408,500.00 sf	0.05 /sf	20,423
Destratification fans	4.00 ea	1,360.92 /ea	5,444
Exhaust fans	2.00 ea	1,645.78 /ea	3,292
Sensor flush valves	156.00 ea	170.92 /ea	26,663
Temporary boilers and boiler pumps	2.00 ea	3,138.32 /ea	6,277
Electric boilers	2.00 ea	2,008.70 /ea	4,017
Temporary fuel oil pump	1.00 ea	3,264.80 /ea	3,265
Boiler circulation pumps	8.00 ea	1,453.92 /ea	11,631
Rental steam boilers	1.00 ls	5,697.20 /ls	5,697
Hot water heaters	4.00 ea	703.94 /ea	2,816
Electric hand dryers	3.00 ea	826.94 /ea	2,481
Electric water coolers	35.00 ea	608.10 /ea	21,284
Electric water cooler	1.00 ea	608.10 /ea	608
Recirculation pumps	6.00 ea	1,210.88 /ea	7,265
Duplex air compressor	1.00 ea	940.39 /ea	940
Acid neut. system	1.00 ea	1,909.41 /ea	1,909
260583 Equipment Wiring	408,500.00 gsf	4.96 /gsf	2,026,591
260923 Lighting Control Devices			
On-site programming & startup (manufacturer)	1.00 ls	14,859.20 /ls	14,859
Single pole switch (120/277V)	36.00 ea	80.18 /ea	2,887
Low voltage switch	298.00 ea	179.40 /ea	53,460
Digital wall (scene) switch, 2-button	11.00 ea	224.64 /ea	2,471
Digital wall (scene) switch, 3-button	9.00 ea	249.56 /ea	2,246
Digital wall (scene) switch, 4-button	93.00 ea	249.56 /ea	23,209
Wall PIR occupancy sensor (24VDC)	103.00 ea	281.72 /ea	29,017
Wall PIR vacancy sensor (24VDC)	43.00 ea	281.72 /ea	12,114
Wall PIR occupancy sensor (24VDC)	2.00 ea	281.72 /ea	563
Ceiling US vacancy sensor (24VDC)	472.00 ea	350.37 /ea	165,374
Ceiling US occupancy sensor (24VDC)	121.00 ea	350.37 /ea	42,395
Occupancy sensor power pack (120V)	3.00 ea	89.95 /ea	270
Wall dimmer switch (0-10V)	2.00 ea	150.78 /ea	302
Photocell (single zone)	220.00 ea	325.83 /ea	71,683
Digital dimming room controller, 3-relay - allowance (ea.)	350.00 allw	478.88 /allw	167,608
Emergency bypass relays - allowance (ea.)	300.00 allw	326.00 /allw	97,800
Emergency lighting transfer station controller ELTS	2.00 ea	2,117.70 /ea	4,235
Interface with BMS	1.00 ea	912.96 /ea	913
Lighting control racks	10.00 ea	1,451.96 /ea	14,520
Backfeed existing lighting control box	1.00 ea	4,971.84 /ea	4,972
Connect to main building networked lighting controls	1.00 ea	842.96 /ea	843
Lighting control panel, 8-relay	20.00 ea	2,904.00 /ea	58,080
Tie to main building lighting control system	1.00 ea	2,485.92 /ea	2,486
MC Cable (12/2) - 20A	26,780.00 lf	4.23 /lf	113,216
MC Cable (12/3) - 20A	4,380.00 lf	4.65 /lf	20,353
MC Cable (12/4) - 20A	17,200.00 lf	5.19 /lf	89,247
Digital lighting LV cable	7,500.00 lf	4.51 /lf	33,804
EMT (12/2) - 20A	380.00 lf	8.25 /lf	3,134



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260923 Lighting Control Devices			
EMT (10/2) - 20A	4,200.00 lf	8.32 /lf	34,923
EMT (12/3) - 20A	100.00 lf	8.32 /lf	832
3-circuits in 3/4" EMT - 20A	500.00 lf	15.56 /lf	7,778
RJ45 Cable, 15LF (plenum-rated)	813.00 ea	86.50 /ea	70,326
RJ45 Cable, 25LF (plenum-rated)	413.00 ea	89.24 /ea	36,855
RJ45 Cable, 100LF (plenum rated)	450.00 ea	185.23 /ea	83,352
260923 Lighting Control Devices	408,500.00 gsf	3.10 /gsf	1,266,128
261000 Electrical Distribution and Feeders			
CT meter enclosure	5.00 ea	1,709.92 /ea	8,550
261000 Electrical Distribution and Feeders	408,500.00 gsf	0.02 /gsf	8,550
262700 Distribution Equipment			
Normal power distribution equipment	408,500.00 sf	0.25 /sf	102,125
Short circuit / arc flash / selective coordination	1.00 ea	7,000.00 /ea	7,000
Short circuit / arc flash / coordination study (per panel)	1.00 ea	250.00 /ea	250
Backfeed existing lighting and power panel boards from Phase 1/4	1.00 ls	29,788.80 /ls	29,789
EV charging station service (125A)	1.00 ea	9,613.64 /ea	9,614
EV charging station service (200A)	1.00 ea	12,444.08 /ea	12,444
Enclosed circuit breaker: 225A/3P	1.00 ea	2,587.32 /ea	2,587
Electrical wireway - 12"x12"x36"L	42.00 ea	955.84 /ea	40,145
225A/3P enclosed C/B - 600V (N1)	2.00 ea	3,476.25 /ea	6,952
EPO / shut trip MCB for panelboards	22.00 ea	757.96 /ea	16,675
Multiple meter unit	19.00 ea	2,447.40 /ea	46,501
Switchboard - 1200A	1.00 ea	27,640.88 /ea	27,641
Switchboard - 1600A	1.00 ea	31,873.28 /ea	31,873
Switchboard - 2500A, 480/277V	2.00 ea	54,788.80 /ea	109,578
Switchboard - 3000A, 480/277V	4.00 ea	61,253.60 /ea	245,014
Switchboard - 4000A, 480/277V	2.00 ea	82,218.40 /ea	164,437
Panelboard - 100A	65.00 ea	3,021.84 /ea	196,420
Panelboard - 225A	45.00 ea	4,024.80 /ea	181,116
Panelboard: 225A	1.00 ea	4,024.80 /ea	4,025
Panelboard - 400A	5.00 ea	6,284.24 /ea	31,421
Distribution panel - 225A	4.00 ea	11,289.60 /ea	45,158
Distribution panel - 400A	38.00 ea	11,289.60 /ea	429,005
Distribution panel - 500A	1.00 ea	11,289.60 /ea	11,290
Distribution panel - 600A	8.00 ea	11,289.60 /ea	90,317
Distribution panel - 800A	3.00 ea	12,969.60 /ea	38,909
Distribution panel - 1000A	1.00 ea	12,969.60 /ea	12,970
Distribution panel - 1200A	3.00 ea	12,969.60 /ea	38,909
Transformer: floor/wall - 30kVA, 480V:208V	1.00 ea	2,778.88 /ea	2,779
Transformer: floor/wall - 45kVA, 480V:208V	7.00 ea	3,165.36 /ea	22,158
Transformer: floor/wall - 75kVA, 480V:208V	13.00 ea	4,769.80 /ea	62,007
Transformer: floor/wall - 112.5kVA, 480V:208V (for T6)	5.00 ea	6,249.00 /ea	31,245
Transformer: floor/wall - 150kVA, 480V:208V	1.00 ea	8,252.20 /ea	8,252
Transformer: floor - 225kVA, 480V:208V	3.00 ea	11,212.20 /ea	33,637



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
262700 Distribution Equipment	408,500.00 gsf	5.12 /gsf	2,092,241
262705 Distribution Feeders			
Mineral insulated (MI cable)	408,500.00 sf	0.25 /sf	102,125
Feeder (PVC/CU) - 400A	30.00 lf	60.16 /lf	1,805
Feeder (EMT/CU) - 15A [MMU's]	1,425.00 lf	8.82 /lf	12,567
Feeder (EMT/CU) - 125A	15.00 lf	24.52 /lf	368
Feeder (EMT/AL) - 100A	3,725.00 lf	21.16 /lf	78,813
Feeder (EMT/AL) - 125A	50.00 lf	24.73 /lf	1,236
Feeder (EMT/AL) - 225A	4,900.00 lf	47.75 /lf	233,949
Feeder (EMT/AL) - 400A	2,525.00 lf	69.50 /lf	175,497
Feeder (EMT/AL) - 600A	2,700.00 lf	109.75 /lf	296,313
Feeder (EMT/AL) - 800A	1,000.00 lf	156.40 /lf	156,399
Feeder (EMT/AL) - 2000A	70.00 lf	433.32 /lf	30,332
Feeder (EMT/AL) - 3000A	70.00 lf	508.73 /lf	35,611
Feeder (EMT/AL) - 4000A	70.00 lf	593.27 /lf	41,529
Empty conduit (EMT) - 1.25"	300.00 lf	9.66 /lf	2,897
Empty conduit (sch 40 PVC) - 2 x 3"	1,300.00 lf	29.32 /lf	38,112
Feeder (MC) - 50A	40.00 lf	7.48 /lf	299
Feeder (MC) - 80A	20.00 lf	9.23 /lf	185
Feeder (MC) - 100A	40.00 lf	12.17 /lf	487
Feeder (MC) - 125A	100.00 lf	13.81 /lf	1,381
Feeder (MC) - 150A	20.00 lf	20.85 /lf	417
Feeder (MC) - 175A	40.00 lf	28.52 /lf	1,141
Feeder (MC) - 225A	100.00 lf	37.38 /lf	3,738
Feeder (MC) - 175A	40.00 lf	28.52 /lf	1,141
Feeder (MC) - 225A	20.00 lf	37.38 /lf	748
Feeder (MC) - 175A	80.00 lf	28.52 /lf	2,282
Feeder (MC) - 225A	10.00 lf	37.38 /lf	374
Feeder (MC) - 400A	240.00 lf	65.69 /lf	15,766
Feeder (MC) - 600A	60.00 lf	92.87 /lf	5,572
Feeder (MC) - 800A	40.00 lf	123.19 /lf	4,927
262705 Distribution Feeders	408,500.00 gsf	3.05 /gsf	1,246,012
262726 Wiring Devices			
Romex (6/3 w/ G) - 50A	1,500.00 lf	3.56 /lf	5,340
MC Cable (12/2) - 20A	44,250.00 lf	4.23 /lf	187,073
MC Cable (10/2) - 30A (A/V)	6,825.00 lf	5.28 /lf	36,022
MC Cable (10/2) - 20A [cord reels]	6,000.00 lf	5.21 /lf	31,254
EMT (12/2) - 20A	400.00 lf	8.25 /lf	3,299
Duplex receptacle - 20A	819.00 ea	83.25 /ea	68,181
Duplex receptacle - 20A - Controlled	780.00 ea	101.74 /ea	79,354
Duplex receptacle - 20A (A/V)	75.00 ea	83.25 /ea	6,244
Duplex receptacle - 20A - GFCI	945.00 ea	110.24 /ea	104,178
Duplex receptacle - 20A - GFCI - W.P.	20.00 ea	151.54 /ea	3,031
Quadruplex receptacle - 20A	76.00 ea	114.89 /ea	8,732
Quadruplex receptacle - 20A - Controlled	291.00 ea	133.38 /ea	38,813
Quadruplex receptacle - 20A (A/V)	9.00 ea	114.89 /ea	1,034
Special receptacle - 30A (A/V)	7.00 ea	130.01 /ea	910
Special receptacle	15.00 ea	167.38 /ea	2,511



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
262726 Wiring Devices			
Power and low voltage control for motorized skylight shades (20' AFF)	56.00 ea	886.09 /ea	49,621
Power and low voltage control for motorized window shades (20' AFF)	45.00 ea	886.09 /ea	39,874
Floor box - 2 gang outlet/data	95.00 ea	996.72 /ea	94,688
Power junction w/feed (MC) - 20A [fire alarm equipment]	1.00 ea	396.48 /ea	396
Power junction w/feed (MC) - 20A (FA)	1.00 ea	261.37 /ea	261
Power junction w/feed (MC) - 20A [motorized dampers]	32.00 ea	396.48 /ea	12,687
Power junction w/feed (MC) - 20A [combination fire/smoke dampers]	55.00 ea	396.48 /ea	21,806
Trash compactor feed & connection	1.00 ea	2,715.08 /ea	2,715
Cord drop	1.00 ea	679.67 /ea	680
Emergency power off (EPO) (FA)	3.00 ea	357.35 /ea	1,072
Emergency power off (EPO) - Riser	22.00 ea	357.35 /ea	7,862
Pull box - 18"x18' x6"	21.00 ea	753.71 /ea	15,828
Pull boxes - 40"x40"x24"	3.00 ea	1,330.49 /ea	3,991
Cord reel (20A) w/ duplex receptacle	80.00 ea	337.52 /ea	27,001
262726 Wiring Devices	408,500.00 gsf	2.09 /gsf	854,460
263200 Packaged Generator Assemblies			
Diesel generator: 2000kW, 277/480V	1.00 ea	647,699.73 /ea	647,700
Generator grounding	1.00 ea	989.44 /ea	989
Generator testing & start-up	1.00 ea	14,929.60 /ea	14,930
Generator setting & rigging (grade level)	1.00 ea	36,971.84 /ea	36,972
Sound attenuated, weatherproof enclosure	1.00 ea	72,894.40 /ea	72,894
Starting circuit - 2#14 MI cable (4" PVC)	75.00 lf	14.02 /lf	1,051
Remote annunciator panel - 16#14 (4" PVC)	100.00 lf	18.47 /lf	1,847
Generator EPO and wiring	1.00 ea	581.34 /ea	581
Camlock connection box	1.00 ea	1,938.03 /ea	1,938
263200 Packaged Generator Assemblies	408,500.00 gsf	1.91 /gsf	778,903
263600 Transfer Switches			
ATS-E: 400A, 480V/3P w/ iso by-pass	1.00 ea	20,270.07 /ea	20,270
ATS-LRS: 600A, 480V/3P w/ iso by-pass	1.00 ea	32,511.80 /ea	32,512
ATS-OSE: 2500A, 480V/3P w/ iso by-pass	1.00 ea	129,736.08 /ea	129,736
ATS-OSC: 3000A, 480V/3P w/ iso by-pass	1.00 ea	146,094.40 /ea	146,094
MTS - no iso by-pass - open trans - 400A	1.00 ea	3,523.95 /ea	3,524
Wire fire pump controller (furnished and installed by Div. 21)	1.00 ea	2,964.80 /ea	2,965
263600 Transfer Switches	408,500.00 gsf	0.82 /gsf	335,101
264000 Lightning Protection			
Lightning protection system	1.00 ls	175,000.00 /ls	175,000
264000 Lightning Protection	408,500.00 gsf	0.43 /gsf	175,000
265000 Lighting			
XCS1: white face green letters thermoplastic exit sign	5.00 ea	144.99 /ea	725
XRC1: edge-lit green LED exit sign	94.00 ea	205.52 /ea	19,319
XRC2: edge-lit green LED exit sign	32.00 ea	219.49 /ea	7,024
XRC3: edge-lit green LED exit sign	4.00 ea	205.52 /ea	822



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
265000 Lighting			
XRC4: edge-lit green LED exit sign	13.00 ea	205.52 /ea	2,672
XRC5: edge-lit green LED exit sign	1.00 ea	219.44 /ea	219
XWS1: edge-lit green LED exit sign	50.00 ea	219.49 /ea	10,974
XWS2: white face green letters die cast aluminum exit sign	16.00 ea	202.74 /ea	3,244
XWS3: white face green letters wet label vandal resistant exit sign	2.00 ea	411.38 /ea	823
XWS4: white face green letters wet label vandal resistant exit sign	12.00 ea	411.40 /ea	4,937
XWS5: edge-lit green LED exit sign	7.00 ea	219.49 /ea	1,536
XWS6: black face green letters die cast aluminum exit sign	1.00 ea	151.48 /ea	151
XWS7: master/remote white face green letters exit sign	2.00 ea	259.54 /ea	519
PC01 - LED Direct/Indirect pendant	5,805.00 lf	118.99 /lf	690,743
PC02 - LED Direct/Indirect pendant	1,690.00 lf	146.92 /lf	248,297
PC03 - 3' diameter LED fixture	3.00 ea	1,649.25 /ea	4,948
PC04 - 4' LED Utility Strip	92.00 ea	167.05 /ea	15,369
PC04A - 4' LED Utility Strip	25.00 ea	186.60 /ea	4,665
PC05 - 4' Ring Pendant	22.00 ea	1,773.02 /ea	39,006
PC06 - 6' Ring Pendant	10.00 ea	2,316.55 /ea	23,166
PC07 - Jelly Jar	30.00 ea	370.76 /ea	11,123
PC08 - 8' LED Utility Strip With Lens	38.00 ea	270.21 /ea	10,268
PC09 - LED tunable full indirect pendant	136.00 lf	583.70 /lf	79,383
PC10 - 2' Diameter Ring Pendant	4.00 ea	1,581.06 /ea	6,324
PC11 - Suspended Linear LED Strip	253.00 lf	136.59 /lf	34,557
PC12 - 12' Diameter Ring Pendant	2.00 ea	1,205.17 /ea	2,410
PC13C - New gym pendant	24.00 ea	834.62 /ea	20,031
PC14 - 6" Diameter Pendant Cylinder	39.00 ea	534.79 /ea	20,857
PC15 - 8' Diameter Ring Pendant	3.00 ea	5,471.90 /ea	16,416
PC16 - Direct/Indirect Pendant	1,270.00 lf	138.54 /lf	175,948
PC13D - New gym pendant	16.00 ea	834.62 /ea	13,354
PC13E - New gym pendant	6.00 ea	834.62 /ea	5,008
PC18 - 13' Diameter Ring Pendant	2.00 ea	8,838.57 /ea	17,677
PC19 - Linear Acoustic Lighted Baffle	1,685.00 lf	100.75 /lf	169,755
PC20 - Pendant Whiteboard Wall Washer	168.00 lf	155.67 /lf	26,153
PC22 - New Auditorium Downlight Can	15.00 ea	646.92 /ea	9,704
PC24 - Linear Forward Throw Indirect Pendant	205.00 lf	133.33 /lf	27,333
PC25 - Small Decorative Glass Pendant	9.00 ea	747.45 /ea	6,727
PC26 - Direct/Indirect Lensed Pendant	296.00 lf	281.36 /lf	83,282
PC27 - 3' Diameter Ring Pendant	3.00 ea	1,919.24 /ea	5,758
PC29 - Melissa's New Teardrop D-Lab Pendant	12.00 ea	1,216.33 /ea	14,596
PC30 - Reception Desk Pendant	4.00 ea	1,016.17 /ea	4,065
PC31 - 6" Diameter Pendant Cylinder	7.00 ea	640.04 /ea	4,480
RB03 - Tunable LED Segmented Curvable LED Cove	1,115.00 lf	89.45 /lf	99,737
RB04 - Segmented LED Cove Uplight	60.00 lf	138.79 /lf	8,328
RC04 - 4' Wall Slot	15.00 ea	246.81 /ea	3,702
RB09 - 1" Wide extrusion	45.00 lf	172.31 /lf	7,754
RB09-2 - Opal Lens Down 1"x1" extrusion	15.00 lf	161.14 /lf	2,417
RB09T - 1" Wide extrusion	70.00 lf	172.31 /lf	12,062
RB10 - 3-4" Wide LED Opal Lens Slot	308.00 lf	112.73 /lf	34,719
RB11 - 12" RGBW Modules	25.00 lf	347.34 /lf	8,684
RB13 - Opal Lens Upright 1"x1" Extrusion	42.00 lf	161.14 /lf	6,768
RB14 - Lens Up 1"x1" Extrusion	112.00 lf	161.14 /lf	18,047
RB16T - LED Strip in channel	835.00 lf	79.21 /lf	66,140
RB16T - DMX drivers	103.00 ea	281.74 /ea	29,019



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
265000 Lighting			
RC01 - 6-8" Diameter Lensed Downlight	4.00 ea	226.81 /ea	907
RC02 - Wet Label Lensed Downlight	38.00 ea	265.91 /ea	10,105
RC04 - 4' Diameter LED Recessed Dome	14.00 ea	1,181.09 /ea	16,535
RB08 - white LED neon light fixture	60.00 lf	97.83 /lf	5,870
RC05 - 4" Wide LED Lensed ceiling slot	3,674.00 lf	89.57 /lf	329,091
RC06 - LED Recessed Wall Slot	670.00 lf	95.62 /lf	64,068
RC07 - 4" Wide LED Lensed ceiling slot	148.00 lf	89.57 /lf	13,257
RC09 - 8" Dia Recessed LED Downlight	26.00 ea	271.45 /ea	7,058
RC13 - Recessed Downlight	36.00 ea	394.36 /ea	14,197
RC14 - LED 2'x4' Flat Panel	150.00 ea	193.42 /ea	29,013
RC15 - LED Kitchen Troffer	27.00 ea	505.13 /ea	13,638
RC16 - Recessed Shower Light	15.00 ea	344.06 /ea	5,161
RC17 - LED Lensed Downlight	140.00 ea	356.17 /ea	49,863
RC22 - Arch LED 2x2	41.00 ea	220.42 /ea	9,037
RC23 - Wall Washer	4.00 ea	341.44 /ea	1,366
RC24 - Arch LED 2x4	202.00 ea	224.14 /ea	45,277
RC27T - Wall Washer	28.00 ea	423.38 /ea	11,855
RC28 - Aperture Downlight	21.00 ea	263.24 /ea	5,528
RC29 - LED Edgelit Disk	3.00 ea	164.60 /ea	494
RC31 - LED Damp Surface 1x4	16.00 ea	480.17 /ea	7,683
RC29 - LED Edgelit Disk	3.00 ea	164.60 /ea	494
RC32 - Recessed LED 2'x2' Troffer	128.00 ea	211.11 /ea	27,022
RC34 - Recessed LED 2'x4' Troffer	148.00 ea	214.83 /ea	31,795
RC42 - Linear LED Wallwasher	13.00 ea	255.79 /ea	3,325
RC44 - 4' Wall Washer	38.00 ea	329.31 /ea	12,514
RC52 - LED 2x2	21.00 ea	128.21 /ea	2,692
RC54 - LED 2x4	153.00 ea	149.62 /ea	22,892
RW02 - LED Shielded Steplight	65.00 ea	539.57 /ea	35,072
SC18 - 96" Wraparound stair light	44.00 ea	412.30 /ea	18,141
SC18P - 96" Wraparound stair light	13.00 ea	419.75 /ea	5,457
SC01 - LED lighting	35.00 lf	326.05 /lf	11,412
SC04 - LED Utility Strip	300.00 lf	127.74 /lf	38,323
SW03 - Shovelnose Egress Light	19.00 ea	576.16 /ea	10,947
SW04 - Blue Running Light Dome	136.00 ea	289.41 /ea	39,360
SW06 - Throw Scoop	25.00 ea	1,827.42 /ea	45,686
SW07 - Sidemount Downlight Cylinder	3.00 ea	471.86 /ea	1,416
SW10 - Indirect Wall Bracket Can	5.00 ea	784.71 /ea	3,924
SW11 - Wall Mounted Jelly Jar	3.00 ea	296.88 /ea	891
SC04 - LED utility strip	44.00 lf	127.74 /lf	5,621
TM01 - Track Mounted Accent Light	12.00 ea	630.16 /ea	7,562
TR01 - Surface Track	114.00 lf	58.85 /lf	6,709
UC01 - LED Tape	809.00 lf	74.68 /lf	60,414
Emergency battery unit, dual head	5.00 ea	344.22 /ea	1,721
SC04 - 4' linear	11.00 ea	269.50 /ea	2,964
Emergency battery unit, dual head	4.00 ea	362.36 /ea	1,449
MC Cable (12/2) - 20A	23,103.00 lf	3.94 /lf	90,932
MC Cable (12/2) - 20A	300.00 lf	4.14 /lf	1,243
EMT (12/2) - 20A	7,701.00 lf	7.68 /lf	59,139
EMT (12/2) - 20A	75.00 lf	8.08 /lf	606



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
265000 Lighting	408,500.00 gsf	8.16 /gsf	3,331,467
265010 Theatrical Lighting and Control			
Auditorium theatrical light fixtures & Dimming - procurement	1.00 allw	400,000.00 /allw	400,000
Black Box theatrical light fixtures & Dimming - procurement	1.00 allw	150,000.00 /allw	150,000
Amphitheater theatrical light fixtures - specialty testing, connections and installation	0.00 allw	/allw	
Auditorium theatrical light fixtures - wiring (300 man hours)	1.00 allw	49,840.62 /allw	49,841
Black Box theatrical light fixtures - wiring (125 man hours)	1.00 allw	20,699.15 /allw	20,699
Amphitheater theatrical light fixtures - wiring (200 man hours)	0.00 allw	/allw	
Auditorium theatrical light fixtures - conduit pathways	1.00 allw	20,660.99 /allw	20,661
Blackbox theatrical light fixtures - conduit pathways	1.00 allw	7,783.88 /allw	7,784
Amphitheater theatrical light fixtures - conduit pathways	0.00 allw	/allw	
Architectural control processor	1.00 ea	3,001.48 /ea	3,001
Box with pigtails, DMX output	6.00 ea	399.04 /ea	2,394
Box with pigtails, DMX output, ethernet	47.00 ea	411.24 /ea	19,328
Box with pigtails, DMX output, ethernet	11.00 ea	679.56 /ea	7,475
Box with pigtails, ethernet	13.00 ea	411.24 /ea	5,346
Box with receptacle, DMX output	2.00 ea	933.10 /ea	1,866
Box with receptacle, DMX output, ethernet	30.00 ea	679.56 /ea	20,387
Box with receptacle and ethernet	17.00 ea	411.24 /ea	6,991
Box with receptacle, DMX output, ethernet	4.00 ea	962.15 /ea	3,849
Control console connection	1.00 ea	596.48 /ea	596
Floor box control plug-in	3.00 ea	596.48 /ea	1,789
DMX output gateway, 8-port	4.00 ea	3,887.92 /ea	15,552
Entry panel	5.00 ea	3,980.88 /ea	19,904
Ethernet switch	1.00 ea	1,862.85 /ea	1,863
Floor box panel	2.00 ea	1,502.82 /ea	3,006
Theatrical lighting control rack	1.00 ea	1,604.05 /ea	1,604
A/V power panel	2.00 ea	3,485.92 /ea	6,972
Connector strip with pigtails, DMX output, ethernet	4.00 ea	679.30 /ea	2,717
Touch panel	1.00 ea	444.05 /ea	444
WL1 - Work light control panel	5.00 ea	2,589.44 /ea	12,947
WL2 - Work light control panel	2.00 ea	2,589.44 /ea	5,179
265010 Theatrical Lighting and Control		/gsf	792,196
265098 Sports Lighting			
Sports lighting controller	2.00 ea	2,778.88 /ea	5,558
265098 Sports Lighting	408,500.00 gsf	0.01 /gsf	5,558
265600 Exterior Lighting			
Hand hole & cover - 4'x4'x4'	85.00 ea	1,471.43 /ea	125,071
SW05 - Wall Bracket Wallwasher	136.00 lf	351.19 /lf	47,762
SW08 - Linear Forward Throw	463.00 lf	123.49 /lf	57,176
PT02-1: single 4,000LM Type II fixture on 14' pole	10.00 ea	2,913.66 /ea	29,137
PT02-2: single 4,000LM Type II fixture on 14' pole	41.00 ea	2,913.66 /ea	119,460
PT01-3: single 20,000LM Type III fixture on 30' pole	1.00 ea	4,358.56 /ea	4,359
PT01-23: twin back to back 20,000LM Type III fixture on 30' pole	3.00 ea	4,358.56 /ea	13,076



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
265600 Exterior Lighting			
PT02-3: single 4,000LM Type II fixture on 14' pole	2.00 ea	2,913.66 /ea	5,827
PT02-4: single 4,000LMN Type IV fixture on 14' pole	4.00 ea	2,913.66 /ea	11,655
PT02-23: twin back to back 20,000LM Type III fixture on 30' pole	4.00 ea	3,714.16 /ea	14,857
RB06: 800LM/FT segmented louvered down light LED cove	61.00 lf	239.96 /lf	14,637
RB07: 800LM/FT louvered LED cove	180.00 lf	239.96 /lf	43,192
PT03: 12,000LM Type V fixture pedestrian (no multi-function)	16.00 ea	3,150.01 /ea	50,400
PT03: 12,000LM Type V fixture pedestrian multi-function pylon	3.00 ea	8,694.83 /ea	26,084
RG02: 2,000LM in ground tree uplight	16.00 ea	1,670.36 /ea	26,726
RG01: 2,000LM LED flagpole spot	2.00 ea	1,404.31 /ea	2,809
SW09-4: 6,500LM Type IV wall mounted single fixture	23.00 ea	645.39 /ea	14,844
Catenary lighting	180.00 lf	175.50 /lf	31,590
1" PVC - 30A (3#8 & #10G)	12,600.00 lf	11.12 /lf	140,068
1" PVC - 50A (3#6 & #10G)	2,000.00 lf	12.91 /lf	25,815
265600 Exterior Lighting	408,500.00 gsf	1.97 /gsf	804,545
270001 Voice/Data/CATV			
Horizontal j-hook cable management system	408,500.00 sf	0.16 /sf	66,177
Ceiling backbox (1-gang)	340.00 ea	41.20 /ea	14,006
Wall backbox (1-gang) w/ 1" EMT above ceiling	919.00 ea	90.22 /ea	82,913
Plywood backboard - 3/4" w/ fire retardant paint	135.00 lf	79.77 /lf	10,768
Cable tray - 12"W x 4"H	290.00 lf	46.57 /lf	13,504
Empty conduit (EMT): 2 x 4"	20.00 lf	41.29 /lf	826
Empty conduit (EMT): 3 x 4"	325.00 lf	62.36 /lf	20,268
Empty conduit (EMT): 4 x 4"	300.00 lf	82.76 /lf	24,829
Empty conduit (EMT): 6 x 4"	350.00 lf	119.56 /lf	41,846
Empty conduit (sch 40 PVC) - 1 x 4" [technology]	350.00 lf	11.18 /lf	3,914
Empty conduit (sch 40 PVC) - 4 x 4" [technology]	380.00 lf	38.87 /lf	14,771
Communications utility pole conduit riser (GRC - 4"C)	10.00 ea	2,705.64 /ea	27,056
Copper ground bar w/isolators - 2"x1/4"	14.00 ea	238.90 /ea	3,345
Conduit sleeve w/ fireproofing - 4"	116.00 ea	172.10 /ea	19,964
Data outlet - (1) CAT-6A cable	60.00 ea	226.77 /ea	13,606
Telephone outlet - (1) CAT-6A cable	170.00 ea	226.77 /ea	38,551
Data outlet - (1) CAT-6A cable [TV]	130.00 ea	226.77 /ea	29,480
Data outlet - (1) CAT-6A cable [CAM]	5.00 ea	226.77 /ea	1,134
Data outlet - (2) CAT-6A cables	528.00 ea	399.59 /ea	210,984
Data outlet - (6) CAT-6A cables	1.00 ea	908.22 /ea	908
Data outlet - (4) CAT-6A cables	18.00 ea	720.33 /ea	12,966
Data outlet - (8) CAT-6A cables	7.00 ea	1,229.00 /ea	8,603
WAP location: (2) CAT-6A cables (WAP's by Owner)	340.00 ea	428.64 /ea	145,738
TV outlet - (1) RG-6 cable	130.00 ea	212.90 /ea	27,677
Backbone copper cable - 25 pair CAT-6 (plenum)	2,800.00 lf	3.26 /lf	9,127
Backbone fiber optic cable - 24 strand MM (plenum)	2,800.00 lf	9.05 /lf	25,340
2-post full height rack	25.00 ea	701.10 /ea	17,528
4-post full height rack	3.00 ea	1,005.06 /ea	3,015
Vertical cable wire manager	41.00 ea	269.76 /ea	11,060
Horizontal cable wire manager	28.00 ea	68.73 /ea	1,925
Copper patch panel: 48-port	1.00 ea	672.20 /ea	672
Fiber optic patch panel: 24-port	1.00 ea	487.63 /ea	488
Fiber optic patch panel: 24-port (for PA)	1.00 ea	487.63 /ea	488
Network switch - 24 port	2.00 ea	4,604.03 /ea	9,208



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
270001 Voice/Data/CATV			
Telecom handhole and cover - 4' x 4'	3.00 ea	1,639.44 /ea	4,918
270001 Voice/Data/CATV	408,500.00 gsf	2.25 /gsf	917,603
275000 Public Address			
Ceiling backbox (1-gang)	132.00 ea	50.86 /ea	6,713
Volume control	75.00 ea	151.61 /ea	11,370
Power supply (24) units - speakers 24V DC	6.00 ea	1,609.88 /ea	9,659
Battery back up system	1.00 ea	213.82 /ea	214
Surface mounted loudspeakers	8.00 ea	756.18 /ea	6,049
Ceiling mounted speakers - JBL control 26CT speakers	119.00 ea	471.02 /ea	56,051
Ceiling mounted speakers - JBL control 47HC	5.00 ea	669.83 /ea	3,349
Passive-flush in-ceiling subwoofers	2.00 ea	1,549.88 /ea	3,100
Equipment rack	1.00 ea	457.41 /ea	457
PA console	1.00 ea	15,149.76 /ea	15,150
Page control - 24 zones	2.00 ea	3,039.52 /ea	6,079
Public address wiring (EMT)	2,500.00 lf	7.44 /lf	18,589
Speaker wiring (plenum)	27,200.00 lf	3.05 /lf	82,881
Public address wiring (plenum)	10,050.00 lf	2.60 /lf	26,124
PA equipment power connection - 120V	3.00 ea	269.94 /ea	810
Public address system testing	1.00 ea	2,089.07 /ea	2,089
275000 Public Address	408,500.00 gsf	0.61 /gsf	248,686
275119 Video Intercom			
Intercom sub-station	6.00 ea	1,512.34 /ea	9,074
Arch Control Processor	1.00 ea	4,664.24 /ea	4,664
Intercom master-station	5.00 ea	5,853.90 /ea	29,270
Intercom wiring (EMT)	1,500.00 lf	10.46 /lf	15,695
275119 Video Intercom	408,500.00 gsf	0.14 /gsf	58,703
275126 Assistive Listening			
Speech amplification ceiling speakers	524.00 ea	190.47 /ea	99,804
Speech amplification system control panel	131.00 ea	689.64 /ea	90,342
Speech amplification system wireless receiver	131.00 ea	405.04 /ea	53,060
Speech amplification system power amplifier	131.00 ea	672.74 /ea	88,128
Speaker wiring (plenum)	15,720.00 lf	1.95 /lf	30,666
Reconciliation adjustment to \$362,000 total value	0.00 ls	/ls	
275126 Assistive Listening		/gsf	362,000
275129 Emergency Communication / Area of Rescue			
Area of rescue assistance stations	20.00 loc	3,000.00 /loc	60,000
275129 Emergency Communication / Area of Rescue	408,500.00 gsf	0.15 /gsf	60,000
275300 Master Clock System			
Exterior building mounted clock - allowance (ea.)	1.00 ls	50,000.00 /ls	50,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
275300 Master Clock System			
Single face clock	211.00 ea	293.46 /ea	61,921
Master clock	1.00 ea	4,012.35 /ea	4,012
Signal generator	1.00 ea	3,284.26 /ea	3,284
Control board	1.00 ea	843.23 /ea	843
Clock back box w/ receptacle	211.00 ea	213.58 /ea	45,066
Clock wiring (plenum)	15,825.00 lf	3.43 /lf	54,342
Master clock programming and testing	1.00 ls	9,098.80 /ls	9,099
275300 Master Clock System	408,500.00 gsf	0.56 /gsf	228,567
281000 Integrated Security System			
High/low temperature sensors (Allowance)	408,500.00 sf	0.10 /sf	40,850
On-floor water sensor and processor (Allowance)	408,500.00 sf	0.10 /sf	40,850
Backboxes, conduits, and 120V power for access control / intrusion	408,500.00 sf	0.30 /sf	122,501
Card reader	27.00 ea	921.00 /ea	24,867
Magnetic switch	40.00 ea	322.60 /ea	12,904
Electric latch retraction panic hardware	58.00 ea	322.60 /ea	18,711
Magnetic lock - single door	2.00 ea	714.60 /ea	1,429
Electric strike	1.00 ea	439.66 /ea	440
Door release button / push to exit	21.00 ea	221.25 /ea	4,646
24V power supply	17.00 ea	321.30 /ea	5,462
24V power supply - video intercom	1.00 ea	321.30 /ea	321
Junction box - 6"x6"x4"	21.00 ea	146.30 /ea	3,072
Electric Trim	12.00 ea	411.89 /ea	4,943
Digital keypad	4.00 ea	1,071.73 /ea	4,287
Ultrasonic motion detector	52.00 ea	659.55 /ea	34,297
Curtain motion detector	14.00 ea	659.55 /ea	9,234
Security siren	1.00 ea	397.60 /ea	398
Door release button	3.00 ea	322.43 /ea	967
Local door alarm	4.00 ea	472.43 /ea	1,890
Access control / intrusion head end panels and equipment	1.00 ls	64,999.99 /ls	65,000
Intrusion detection controller/communicator	10.00 ea	1,644.78 /ea	16,448
Security wiring (EMT)	6,500.00 lf	9.71 /lf	63,142
Empty Conduit (EMT): 3/4"	1,800.00 lf	5.74 /lf	10,326
Power junction - 120V/20A	20.00 ea	215.82 /ea	4,316
Access control system programming & testing	1.00 ea	11,952.00 /ea	11,952
281000 Integrated Security System	408,500.00 gsf	1.23 /gsf	503,252
281010 Shooting Detection Sensors			
Shooting detection sensor	95.00 ea	2,000.00 /ea	190,000
281010 Shooting Detection Sensors		/gsf	190,000
282000 Video Surveillance			
Backboxes, conduits, and 120V power for video surveillance	408,500.00 sf	0.15 /sf	61,275
Fixed interior camera - 180 deg	9.00 ea	964.78 /ea	8,683
Fixed interior camera - 360 deg	52.00 ea	1,139.78 /ea	59,269
Fixed interior camera	56.00 ea	1,178.25 /ea	65,982
Exterior camera - 180 deg (WP housings / PoE Injectors / fiber converters)	3.00 ea	2,278.25 /ea	6,835



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
282000 Video Surveillance			
Exterior camera - 270 deg (WP housings / PoE Injectors / fiber converters)	12.00 ea	2,778.25 /ea	33,339
Exterior camera - fixed (WP housings / PoE Injectors / fiber converters)	5.00 ea	2,078.25 /ea	10,391
Network recorder	1.00 ea	3,390.40 /ea	3,390
Network switcher	1.00 ea	2,167.80 /ea	2,168
Video surveillance cable (EMT)	3,425.00 lf	9.91 /lf	33,956
Video surveillance cable (plenum)	13,700.00 lf	4.56 /lf	62,489
Video surveillance head end monitors, controllers, equipment	1.00 ls	47,500.05 /ls	47,500
Video surveillance system software & licensing	1.00 ea	4,390.40 /ea	4,390
Video surveillance system programming & testing	1.00 ea	5,652.00 /ea	5,652
282000 Video Surveillance	408,500.00 gsf	0.99 /gsf	405,319
284620 Fire Detection and Alarm			
Wire elevator status panel	1.00 ea	850.68 /ea	851
Manual pull station	85.00 ea	198.56 /ea	16,877
Add for weatherproofing	4.00 ea	95.09 /ea	380
Manual pull station	1.00 ea	198.57 /ea	199
Smoke detector	327.00 ea	217.83 /ea	71,231
Smoke detector	1.00 ea	217.85 /ea	218
Heat detector	4.00 ea	217.85 /ea	871
Carbon monoxide detector (w/ monitor module)	36.00 ea	364.50 /ea	13,122
Duct smoke detectors (furnish & wire)	21.00 ea	817.64 /ea	17,170
Remote indicating light	51.00 ea	132.26 /ea	6,745
Remote indicating light	1.00 ea	132.27 /ea	132
Control module	51.00 ea	260.93 /ea	13,308
Addressable monitor module	11.00 ea	159.15 /ea	1,751
Addressable monitor module	2.00 ea	167.56 /ea	335
Addressable relay module	4.00 ea	225.15 /ea	901
Tamper switch connection (via monitor module)	23.00 ea	588.85 /ea	13,544
Flow switch connection (via monitor module)	23.00 ea	424.68 /ea	9,768
Flow switch connection (via monitor module)	2.00 ea	424.68 /ea	849
Post indicating valve connection (via monitor module)	3.00 ea	466.95 /ea	1,401
Pressure switch connection (via monitor module)	2.00 ea	466.95 /ea	934
Door hold device (magnetic)	93.00 ea	372.32 /ea	34,626
Wire combination fire/smoke dampers (SLC)	55.00 ea	629.60 /ea	34,628
Speaker only - wall	5.00 ea	147.13 /ea	736
Strobe only - ceiling	215.00 ea	177.55 /ea	38,174
Strobe only	2.00 ea	177.57 /ea	355
Speaker/strobe - wall	53.00 ea	244.21 /ea	12,943
Speaker/strobe - wall	2.00 ea	244.22 /ea	488
Speaker/strobe - ceiling	509.00 ea	244.21 /ea	124,301
Exterior beacon (weatherproof)	4.00 ea	388.06 /ea	1,552
Exterior beacon (weatherproof)	1.00 ea	388.06 /ea	388
Wire 120V sprinkler bell	1.00 ea	208.76 /ea	209
Fire alarm transponder panel	15.00 ea	2,274.68 /ea	34,120
Fire alarm network node	1.00 ea	918.77 /ea	919
Battery backup cabinet	1.00 ea	1,476.36 /ea	1,476
Battery backup cabinet	1.00 ea	715.68 /ea	716
Fire alarm annunciator	2.00 ea	6,102.72 /ea	12,205
Fire alarm graphic annunciator	1.00 ea	6,102.72 /ea	6,103
FACP (2-5 zone)	1.00 ea	1,898.99 /ea	1,899



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
284620 Fire Detection and Alarm			
FACP	3.00 ea	11,203.74 /ea	33,611
Terminal equipment	1.00 ls	10,756.80 /ls	10,757
Head end panels and terminal equipment	1.00 ls	31,499.99 /ls	31,500
Masterbox	1.00 ea	4,086.36 /ea	4,086
Key (Knox) box	4.00 ea	785.34 /ea	3,141
Fire alarm command center	1.00 ea	57,020.40 /ea	57,020
Fire pump/jockey pump fire alarm connection	1.00 ea	3,124.66 /ea	3,125
Backfeed existing fire alarm equipment from FACP in Phase 1	1.00 ls	19,538.79 /ls	19,539
Tie to main FACP	1.00 ea	935.60 /ea	936
Tie to BMS	1.00 ea	985.68 /ea	986
Fire alarm system testing	1.00 ls	13,006.80 /ls	13,007
Fire alarm system testing	1.00 ls	2,401.02 /ls	2,401
Fire alarm system programming	801.00 ea	20.03 /ea	16,047
MC Cable (FA) - #14-4/c	25,000.00 lf	3.96 /lf	98,879
MC Cable (FA) - #16-2/c	21,600.00 lf	2.94 /lf	63,394
EMT (red) - 3/4"C w/ #16-2/c	10,550.00 lf	7.31 /lf	77,075
EMT (red) - 3/4"C w/ #14-4/c	9,725.00 lf	8.06 /lf	78,371
Circuit integrity cabling (CIC)	2,500.00 lf	18.72 /lf	46,796
Ductbank w/ IMSA cable - 2" PVC	250.00 lf	16.60 /lf	4,150
284620 Fire Detection and Alarm	408,500.00 gsf	2.55 /gsf	1,041,245
284624 Bi-Directional Amplifier (BDA)			
Furnish controller, antennas, cabling, components (dual-frequency)	408,500.00 sf	0.40 /sf	163,400
Installation of BDA system	408,500.00 sf	0.07 /sf	30,311
Minor material for BDA system	408,500.00 sf	0.15 /sf	61,275
284624 Bi-Directional Amplifier (BDA)	408,500.00 gsf	0.62 /gsf	254,986
321825 Sport Fields			
Softball field scoreboard	1.00 ea	27,957.97 /ea	27,958
Baseball field scoreboard	1.00 ea	27,958.05 /ea	27,958
321825 Sport Fields	408,500.00 sf	0.14 /sf	55,916
26-01 ELECTRICAL (TS)	408,500.00 gsf	51.31 /gsf	20,958,929
31.21 TEMP FENCING			
323111 Temporary Fencing			
Temporary construction fence - phase 1	1.00 ls	184,330.00 /ls	184,330
Temporary construction fence - gates - phase 2	4.00 ea	990.00 /ea	3,960
Temporary construction fence - phase 2	1,860.00 lf	38.00 /lf	70,680
Temporary construction fence - gates - phase 2	2.00 ea	990.00 /ea	1,980
Temporary construction fence - phase 3	500.00 lf	38.00 /lf	19,000
Temporary construction fence - gates	2.00 ea	990.00 /ea	1,980
Temporary construction fence - phase 4	2,200.00 lf	38.00 /lf	83,600
Temporary construction fence - gates	4.00 ea	990.00 /ea	3,960
Temporary construction fence - scrim	9,410.00 lf	4.50 /lf	42,345



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
323111 Temporary Fencing	408,500.00 gsf	1.01 /gsf	411,835
31.21 TEMP FENCING	408,500.00 gsf	1.01 /gsf	411,835
31.22 SITEWORK - Phase 1			
010200 Allowances			
Allowance for foundation and obstruction removal	1.00 allw	75,000.00 /allw	75,000
Allowance for additional ground improvements	1.00 allw	50,000.00 /allw	50,000
Allowance for modifications to segment ed retaining wall	1.00 allw	30,000.00 /allw	30,000
Allowance for snow plowing	1.00 allw	40,000.00 /allw	40,000
Allowance for sewer bypass	1.00 allw	50,000.00 /allw	50,000
010200 Allowances	408,500.00 gsf	0.60 /gsf	245,000
015070 Temporary Construction			
Additional earth moving at interim of 1A (enabling) to 1B	1.00 ls	50,000.00 /ls	50,000
Temp parking and staging areas	1.00 ls	150,000.00 /ls	150,000
015070 Temporary Construction	408,500.00 gsf	0.49 /gsf	200,000
310000 Site Misc			
Demo site walls - ph 1	355.00 lf	40.00 /lf	14,200
Equipment mobilization, project manager, sitework superintendent - ph 1	1.00 ls	396,897.00 /ls	396,897
Survey/layout - ph 1	28.00 wk	1,650.00 /wk	46,200
Street sweeping	1.00 ls	90,000.00 /ls	90,000
Police details - for use by site contractor during trucking & utilities	30.00 dy	800.00 /dy	24,000
310000 Site Misc	408,500.00 gsf	1.40 /gsf	571,297
311000 Site Clearing			
Strip loam - phase 1	3,300.00 cy	8.00 /cy	26,400
Clear and grub site - phase 1	1.00 ls	27,500.00 /ls	27,500
Haul and Screened Topsoil (12") from Phase 1 site	3,300.00 cy	15.00 /cy	49,500
Dispose of Topsoil Tailing from Phase 1 Screening	660.00 cy	25.00 /cy	16,500
311000 Site Clearing	408,500.00 gsf	0.29 /gsf	119,900
312000 Earth Work			
Cut to subgrade outside building footprint- Phase 1	456.00 cy	15.00 /cy	6,840
Fill from cut outside building footprint- Phase 1	456.00 cy	15.00 /cy	6,840
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 1	2,474.00 cy	36.00 /cy	89,064
Rough grade- Phase 1	130,492.00 sf	0.25 /sf	32,623
Support SOE/drilled shaft operations incl spoil removal	45.00 dy	2,500.00 /dy	112,500
Excavation for Concrete Deadman (400 lf x 3' wide x 8' deep)	948.15 cy	10.00 /cy	9,482
Excavation for Concrete Deadman Tie Rods (640 lf x 3' wide x 8' deep)	568.89 cy	20.00 /cy	11,378
312000 Earth Work	408,500.00 gsf	0.66 /gsf	268,726
312002 Earth Moving within Building Footprint			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
312002 Earth Moving within Building Footprint			
Cut to fill subgrade within building footprint- Phase 1	588.00 cy	15.00 /cy	8,820
Fill from cut inside building footprint- Phase 1	588.00 cy	15.00 /cy	8,820
Fill to subgrade with offsite "ordinary fill" inside building footprint- Phase 1	4,920.00 cy	40.00 /cy	196,800
3/4" Crushed stone below SOG (12") - ph 1	3,866.00 tn	28.00 /tn	108,248
3/4" Crushed stone below New Exterior & Interior Foundations (3") - ph 1	1,950.00 tn	28.00 /tn	54,600
E/b foundation walls/footings (F2.2C & F5.0C) - perimeter - ph 1	1,258.00 lf	46.15 /lf	58,050
Excavate/backfill foundation Grade Beams - ph 1	455.00 lf	46.15 /lf	20,996
Excavate for spread footings - ph 1	130.00 ea	100.00 /ea	13,000
Excavate for elevator pits - ph 1	1.00 ea	2,420.00 /ea	2,420
Fine grade under building - ph 1	59,000.00 sf	1.10 /sf	64,900
Filter fabric under slab - ph 1	59,000.00 sf	1.00 /sf	59,000
Excavate & Backfill for Under Slab Plumbing - ph 1	2,230.00 lf	30.00 /lf	66,900
Excavate & Backfill for Sub-Slab Ventilation low profile vent 3"- ph 1	2,268.00 lf	6.00 /lf	13,608
312002 Earth Moving within Building Footprint	408,500.00 gsf	1.66 /gsf	676,162
312319 Dewatering			
Dewatering of deep trenches	1.00 ls	35,000.00 /ls	35,000
Treatment (no wells)	1.00 ls	30,000.00 /ls	30,000
312319 Dewatering	408,500.00 gsf	0.16 /gsf	65,000
312500 Sedimentation and Erosion Control			
Hay bales & silt fence	2,200.00 lf	10.00 /lf	22,000
Hay bales & silt fence - additional at stockpile	500.00 lf	10.00 /lf	5,000
Construction entrance (20' x 50')	2.00 ea	3,500.00 /ea	7,000
Tree protection fence- (4' high Snow Fence)	11.00 ea	1,400.00 /ea	15,400
312500 Sedimentation and Erosion Control		/gsf	49,400
312600 Management and Disposition of Contaminated Material			
MCP Regulated Soil-Type A Mass Unlined Landfill	640.00 tns	50.00 /tns	32,000
MCP Regulated Soil Type C Mass Asphalt Batching Facility	800.00 tns	75.00 /tns	60,000
MCP Regulated Soil-Type D Out of State Subtitle D (Non- Hazardous)	320.00 tns	120.00 /tns	38,400
MCP Regulated Soil Type E Hazardous to be treated in-situ	320.00 tns	350.00 /tns	112,000
MCP Regulated Soil-Less Than RCS-1	320.00 tns	35.00 /tns	11,200
Replace with offsite gravel	1,500.00 cy	35.00 /cy	52,500
312600 Management and Disposition of Contaminated Material		/tns	306,100
315000 Temporary Excavation Support and Protection			
SOE West of permanent SOE - 200' x 12'	2,400.00 sf	90.00 /sf	216,000
SOE East of permanent SOE - 110' x 22'	2,420.00 sf	120.00 /sf	290,400
315000 Temporary Excavation Support and Protection	4,820.00 sf	105.06 /sf	506,400
316600 Aggregate Piers & Rigid Inclusions			
Aggregate Piers as noted on GT drwgs (min 3 per footing- Per GT3.3 Plan)	30,670.00 sf	14.00 /sf	429,380



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
316600 Aggregate Piers & Rigid Inclusions			
Aggregate piers at SOG where rigid inclusion is used for foundation	26,000.00 sf	10.00 /sf	260,000
Rigid Inclusions as noted on GT drwgs (min 3 per footing- Per GT3.3 Plan)	26,000.00 sf	19.00 /sf	494,000
Rigid Inclusions at future foundation	1,800.00 sf	19.00 /sf	34,200
Design, testing and mobilization	1.00 ls	75,000.00 /ls	75,000
		/sf	1,292,580
316616 Permanent Soldier Pile Wall			
Premium to cut in confined space between SOE and existing bldg in phase 2	4,681.00 cy	50.00 /cy	234,050
Piles - W24x117 x 75 (25 ea) galv	109.69 tn	3,200.00 /tn	351,008
Backfill 36" dia Pile Holes w/ Lean Concrete (> 1,000 psi) elev 27 to 44	111.21 cy	150.00 /cy	16,682
Backfill 36" dia Pile Holes w/ Flowable Fill (> 150 psi) elev 44 to 72	183.17 cy	135.88 /cy	24,889
Waler 2 x W24x76 x 194	16.96 tn	4,700.00 /tn	79,712
Drill for 36" caisson - 25 x 45	1,125.00 lf	110.00 /lf	123,750
Lagging 3", phase 1	2,328.00 sf	30.00 /sf	69,840
Hand pack behind boards - phase 1	2,328.00 sf	10.00 /sf	23,280
Trench for Obstructions / Soil Removals at Permanent S.O.E. (5' wide x full length of S.O.E.x Avg. 21'depth)	574.82 cy	30.00 /cy	17,245
Tension rods gr 75 #28 (32.7#/lf, 3.75" diam) tread bars - 640'	10.46 tn	6,500.00 /tn	67,990
Connect and tension tie back to SOE	10.00 loc	1,000.00 /loc	10,000
Connect tie back to deadman	10.00 loc	500.00 /loc	5,000
Lagging 3", phase 2	3,104.00 sf	30.00 /sf	93,120
Hand pack behind boards phase 2	3,104.00 sf	10.00 /sf	31,040
Weld studs to Ibeam	350.00 ea	75.00 /ea	26,250
Additional- Labor/ Hand tool work for chipping Flowable Fill harden to Soldier Piles for Phase 2 Scope of Work- (66 total)	25.00 da	1,000.00 /da	25,000
	408,500.00 gsf	2.94 /gsf	1,198,855
321005 Roadways			
Gravel base course bit paving (3/L7.02) 12" - ph 1	1,622.50 cy	35.20 /cy	57,112
Bituminous concrete paving Binder only - (2.5" + 1.5") - ph 1	3,893.56 sy	16.50 /sy	64,244
	408,500.00 gsf	0.30 /gsf	121,356
321010 Pedestrian Paving			
Gravel base at conc pavement (1/L7.02) 8" - ph 1	663.58 cy	35.20 /cy	23,358
Fine grade under site concrete - ph 1	21,500.00 sf	0.40 /sf	8,600
	408,500.00 gsf	0.08 /gsf	31,958
323201 Big Block Segmental Retaining Wall			
Retaining Wall at Generator 120'x 5.0'	600.00 sf	40.00 /sf	24,000
			24,000
331000 Water Utilities			
8" D.I. 45 deg. Bends - phase 1	4.00 ea	950.00 /ea	3,800
Water line - 6"/8"	940.00 lf	104.50 /lf	98,230



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
331000 Water Utilities			
Fire water line - 8" - phase 1 e/b only	125.00 lf	55.00 /lf	6,875
Tie into existing	4.00 ea	10,000.00 /ea	40,000
Pressure test & chlorinate - ph 1	940.00 lf	5.00 /lf	4,700
	408,500.00 gsf	0.38 /gsf	153,605
333000 Sanitary Sewerage			
Sanitary sewer piping - (6") - ph 1	245.00 lf	82.00 /lf	20,090
Intercept and connect existing sewer to new manhole - Phase 1	1.00 ea	5,500.00 /ea	5,500
Sanitary sewer manholes - ph 1	3.00 ea	5,500.00 /ea	16,500
Sanitary sewer manholes doghouse - ph 1	1.00 ea	9,500.00 /ea	9,500
Sanitary sewer testing - structures - ph 1	3.00 ea	220.00 /ea	660
Clean & Flush New Sanitary Piping - ph 1	245.00 lf	2.00 /lf	490
Video Inspections of New Sanitary Piping w/ DVD Media - ph 1	245.00 lf	9.50 /lf	2,328
	408,500.00 gsf	0.14 /gsf	55,068
334000 Stormwater Utilities			
HDPE - 12" - ph 1	1,005.00 lf	90.00 /lf	90,450
Drain Manholes (< 8' dia.) - ph 1	5.00 ea	5,500.00 /ea	27,500
Drain Manhole - doghouse	1.00 ea	9,000.00 /ea	9,000
Drain AD	5.00 ea	2,000.00 /ea	10,000
Drain Catch Basin - ph 1	1.00 ea	4,500.00 /ea	4,500
	408,500.00 gsf	0.35 /gsf	141,450
334001 Relocate 48" Storm Drain			
Removal of ledge trench - (Allowance for 48" Culvert Relocation Line)	400.00 cy	250.00 /cy	100,000
SOE for relocated culvert	1.00 allw	750,000.00 /allw	750,000
Pre- Trench (for Obstruction Removals) at 48" Culvert Line Temp. S.O.E. (400 lf x 12' wide x 15' deep)	2,666.67 cy	30.00 /cy	80,000
Relocated Culvert CLDI - 48"	194.00 lf	850.00 /lf	164,900
Relocated Culvert CLDI - 48" Elbow	2.00 ea	4,000.00 /ea	8,000
Relocated Culvert CLDI - 48" tee	1.00 ea	6,500.00 /ea	6,500
Relocated Culvert CLDI - 48" riser	12.00 lf	850.00 /lf	10,200
Relocated Culvert CLDI - 48" x36" reducer	1.00 ea	4,500.00 /ea	4,500
Relocated Culvert CLDI - 36"	462.00 lf	550.00 /lf	254,100
Relocated Culvert CLDI - 36" Elbow	12.00 ea	2,500.00 /ea	30,000
Relocated Culvert CLDI - 36" tee	2.00 ea	4,500.00 /ea	9,000
Relocated Culvert CLDI - 36" riser	35.00 lf	550.00 /lf	19,250
Drain Manhole 12' diam - Phase 1	2.00 ea	12,000.00 /ea	24,000
Video Inspections of New Drainage Piping w/ DVD Media - phase 1	698.00 lf	5.00 /lf	3,490
Clean & Flush New Drainage Piping phase 1	698.00 lf	2.00 /lf	1,396
Excavation for 48" Drain Culvert line within SOE & cross trench bracing (9,150 sf profile x 12'w)	4,060.11 cy	40.00 /cy	162,404
Backfill at 48" Drain Culvert line	5,500.00 cy	60.00 /cy	330,000
	742.00 lf	2,638.46 /lf	1,957,741
335000 E/B for Gas			



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
335000 E/B for Gas			
Excavation / backfill for gas line - Option 1 ph 1	340.00 lf	104.50 /lf	35,530
Excavation / backfill for gas line - Option 2 ph 1	65.00 lf	104.50 /lf	6,793
Excavation / backfill for gas line - to Phase 1 Building off of Option #1	40.00 lf	30.00 /lf	1,200
	408,500.00 gsf	0.11 /gsf	43,523
336000 Excavation/Bkfl and Lightpole Bases for Electric			
Excavation / backfill for duct bank	1,180.00 lf	75.00 /lf	88,500
Excavation / backfill for electric manhole	8.00 ea	1,000.00 /ea	8,000
Excavation / backfill for site lighting - ph 1	2,000.00 lf	25.00 /lf	50,000
E/b for light pole bases	35.00 ea	400.00 /ea	14,000
E/b for electric handholes - ph 1	1.00 ea	880.00 /ea	880
Transformer pads	2.00 ea	2,750.00 /ea	5,500
	408,500.00 gsf	0.41 /gsf	166,880
31.22 SITEWORK - Phase 1	408,500.00 gsf	20.06 /gsf	8,195,000
31.23 SITEWORK - Phase 2-4			
010200 Allowances			
Allowance for premiums due to existing piles	1.00 allw	100,000.00 /allw	100,000
	408,500.00 gsf	0.25 /gsf	100,000
015070 Temporary Construction			
Temporary pedestrian protection & access - phase 2	1.00 ls	75,000.00 /ls	75,000
Allowance for selective demo and grading for temporary protection	1.00 ls	50,000.00 /ls	50,000
Temporary egress path	1.00 ls	65,000.00 /ls	65,000
Additional earth moving at interim all other phases (incl paving as required)	1.00 al	100,000.00 /al	100,000
	408,500.00 gsf	0.71 /gsf	290,000
261006 Conduit for PV			
Empty conduit for PV array - West Parking	600.00 lf	18.54 /lf	11,124
Empty conduit for PV array - Rear Stadium	0.00 lf	0.00 /lf	0
	408,500.00 gsf	0.03 /gsf	11,124
310000 Site Misc			
Street sweeping while trucking allowance	1.00 allo	90,000.00 /allo	90,000
Equipment mobilization, project manager, sitework superintendent - ph 2-4	3.00 ls	140,000.00 /ls	420,000
Preconstruction survey of neighboring properties by 3rd party (bought with site)	0.00 ls	0.00 /ls	0
Survey/layout - ph 2-4	80.00 wk	1,650.00 /wk	132,000
Police details - for use by site contractor during trucking & utilities	100.00 dy	800.00 /dy	80,000
Temporary site signage	1.00 ls	40,000.00 /ls	40,000
Prep for construction trailers, incl paving	0.00 ls	0.00 /ls	0



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
310000 Site Misc	408,500.00 gsf	1.87 /gsf	762,000
311000 Site Clearing			
Demo drain/sewer structures	48.00 ea	550.00 /ea	26,400
Sawcut Bituminous concrete paving	1,250.00 lf	6.05 /lf	7,563
Remove & Dispose Bituminous Pavements	75,000.00 sf	1.00 /sf	75,000
Remove & Dispose Exist.Tennis/Basketball Court Pavement	13,841.00 sf	1.00 /sf	13,841
Remove & Dispose Concrete Pads & Sidewalks	30,000.00 sf	2.20 /sf	66,000
Remove & Dispose Bituminous Pavement at Mass Ave.	1,300.00 sf	1.50 /sf	1,950
Remove & Dispose Bituminous Pavement at Schouler Court	11,490.00 sf	1.00 /sf	11,490
Demo water piping	1,592.00 lf	24.00 /lf	38,208
Demo ug elec service lines	300.00 lf	24.00 /lf	7,200
Demo Drainage piping	3,031.00 lf	24.00 /lf	72,744
Demo Gas piping	350.00 lf	24.00 /lf	8,400
Demo sewer piping	350.00 lf	24.00 /lf	8,400
Clear and grub site - phase 2-4	1.00 ls	40,000.00 /ls	40,000
Demo Light Poles w/ Bases	26.00 ea	250.00 /ea	6,500
Remove & Dispose Trees, incl stumps (12"-20")	48.00 ea	800.00 /ea	38,400
Demo misc. site items bollards, poles pole bases, etc...	1.00 ls	50,000.00 /ls	50,000
Protect Exist. Utility poles	3.00 ea	550.00 /ea	1,650
Demo site guardrailing	400.00 lf	25.00 /lf	10,000
Remove & Dispose Site Curbing	2,940.00 lf	2.50 /lf	7,350
Remove & Dispose Site Curbing at Mass Ave.	230.00 lf	3.50 /lf	805
Demo site walls - ph 2-4 (not clear)	1.00 ls	10,000.00 /ls	10,000
311000 Site Clearing	408,500.00 gsf	1.23 /gsf	501,901
312000 Earth Work			
Removal of ledge trench - NIC	0.00 cy	/cy	
Strip loam - phase 2-4 (6")	4,000.00 cy	5.00 /cy	20,000
Cut to subgrade outside building footprint- Phase 2	4,110.00 cy	16.00 /cy	65,760
Fill from cut outside building footprint- Phase 2	4,110.00 cy	16.00 /cy	65,760
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 2	17,825.00 cy	35.00 /cy	623,875
Cut to subgrade outside building footprint- Phase 3	2,875.00 cy	16.00 /cy	46,000
Fill from cut outside building footprint- Phase 3	2,875.00 cy	16.00 /cy	46,000
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 3	8,920.00 cy	35.00 /cy	312,200
Cut to subgrade outside building footprint- Phase 4	3,915.00 cy	16.00 /cy	62,640
Fill from cut outside building footprint- Phase 4	3,915.00 cy	16.00 /cy	62,640
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 4	16,523.00 cy	35.00 /cy	578,305
Cut to haul, T& D carried elsewhere	0.00 cy	/cy	
Rough grade- Phase 2	182,649.00 sf	0.13 /sf	24,110
Rough grade- Phase 3	151,106.00 sf	0.13 /sf	19,946
Rough grade- Phase 4	299,780.00 sf	0.13 /sf	39,571
Replace contaminated material with offsite ordinary fill	4,650.00 cy	35.00 /cy	162,750
Disposal of loam	4,000.00 cy	20.00 /cy	80,000
312000 Earth Work	408,500.00 gsf	5.41 /gsf	2,209,557
312002 Earth Moving within Building Footprint			
Localized dewatering - ph 2-4	1.00 ls	140,000.00 /ls	140,000



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
312002 Earth Moving within Building Footprint			
Cut to fill subgrade within building footprint- Phase 2	1,441.00 cy	18.00 /cy	25,938
Fill from cut inside building footprint- Phase 2	1,441.00 cy	18.00 /cy	25,938
Fill to subgrade with offsite material inside building footprint- Phase 2	7,953.00 cy	38.00 /cy	302,214
Cut to fill subgrade within building footprint- Phase 3	1,642.00 cy	18.00 /cy	29,556
Fill from cut inside building footprint- Phase 3	1,642.00 cy	18.00 /cy	29,556
Fill to subgrade with offsite material inside building footprint- Phase 3	436.00 cy	40.00 /cy	17,440
3/4" Crushed stone below SOG (12") - ph 2,3	6,155.00 tn	28.00 /tn	172,340
3/4" Crushed stone below New Exterior & Interior Foundations (3") - ph 2,3	4,550.00 tn	28.00 /tn	127,400
E/b foundation walls/footings (F2.2C & F5.0C) - perimeter - ph 2-3	1,727.00 lf	46.15 /lf	79,692
Excavate/backfill foundation Grade Beams - ph 2-3	3,850.00 lf	46.15 /lf	177,658
Excavate for pile caps - ph 2,3	244.00 ea	247.50 /ea	60,390
Excavate for elevator pits - ph 2	2.00 ea	2,420.00 /ea	4,840
Fine grade under building - ph 2,3	83,422.00 sf	1.10 /sf	91,764
Filter fabric under slab - ph 2,3	83,402.00 sf	1.00 /sf	83,402
Temporary gravel working platform for ground improvement 12"	0.00 cy	0.00 /cy	0
Excavate & Backfill for Under Slab Plumbing - ph 2,3	3,080.00 lf	30.00 /lf	92,400
Excavate & Backfill for Sub-Slab Ventilation System - flat vent - ph 2,3	3,132.00 lf	6.00 /lf	18,792
312002 Earth Moving within Building Footprint	408,500.00 gsf	3.62 /gsf	1,479,321
312500 Sedimentation and Erosion Control			
Hay bales & silt fence	10,950.00 lf	10.00 /lf	109,500
Hay bales & silt fence - additional at stockpile	3,000.00 lf	10.00 /lf	30,000
Construction entrance (20' x 50')	2.00 ea	3,500.00 /ea	7,000
Tree protection fence- (4' high Snow Fence)	1,300.00 lf	10.00 /lf	13,000
Clean out catch basin/area drain	35.00 ea	220.00 /ea	7,700
Inspect catch basin after each storm	1.00 ls	10,000.00 /ls	10,000
Construct/Maintain temp stormwater basins	28,000.00 sf	1.10 /sf	30,800
Seeding at temporary basin	28,000.00 sf	0.55 /sf	15,400
Slope protection	55,000.00 sf	1.10 /sf	60,500
312500 Sedimentation and Erosion Control	408,500.00 gsf	0.70 /gsf	283,900
312600 Management and Disposition of Contaminated Material			
MCP Regulated Soil-Type A Mass Unlined Landfill	2,560.00 tns	48.00 /tns	122,880
MCP Regulated Soil Type C Mass Asphalt Batching Facility	3,200.00 tns	52.00 /tns	166,400
MCP Regulated Soil-Type D Out of State Subtitle D (Non- Hazardous)	1,280.00 tns	68.00 /tns	87,040
Hazardous material	1,280.00 tns	350.00 /tns	448,000
MCP Regulated Soil-Less Than RCS-1	1,280.00 tns	24.00 /tns	30,720
312600 Management and Disposition of Contaminated Material	14,400.00 tns	59.38 /tns	855,040
312610 Hazardous Waste Remediation			
Allowance for repairs to engineered barriers	1.00 allw	300,000.00 /allw	300,000
Water treatment	1.00 ls	100,000.00 /ls	100,000
UST removal	1.00 ls	65,000.00 /ls	65,000
Allowance for clean corridor	1.00 allw	100,000.00 /allw	100,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
312610 Hazardous Waste Remediation			565,000
316616 Permanent Soldier Pile Wall			
Filter fabric	5,432.00 sf	2.00 /sf	10,864
Miradrain 6000 panel board	5,432.00 sf	8.00 /sf	43,456
316616 Permanent Soldier Pile Wall	408,500.00 gsf	0.13 /gsf	54,320
321005 Roadways			
Gravel base course bit paving 12" - ph 2-4	3,971.43 cy	38.00 /cy	150,914
Bituminous concrete paving Top course only - (1.5") - ph 2-4	3,893.56 sy	18.00 /sy	70,084
Bituminous concrete paving RD - (2.5" + 1.5") - ph 2-4	9,531.44 sy	31.50 /sy	300,240
Bituminous concrete paving HD - (3.25"+1.75"+1.50") - ph 2-4	0.00 sy	0.00 /sy	0
Vertical granite curbs - replace portion of curb at Mass Ave	223.00 lf	55.00 /lf	12,265
Vertical granite curbs - straight	4,645.00 lf	48.00 /lf	222,960
Vertical granite curbs - radius	1,085.00 lf	54.00 /lf	58,590
Traffic signs	38.00 ea	495.00 /ea	18,810
Reserved praking	55.00 ea	350.00 /ea	19,250
Pavement markings - temp	1.00 ls	5,500.00 /ls	5,500
Pavement markings - parking spots	233.00 ea	49.50 /ea	11,534
Pavement markings - add for handicap	8.00 ea	121.00 /ea	968
Pavement markings - cross walks, misc	3.00 ls	2,000.00 /ls	6,000
Pavement markings - add for "reserved"	55.00 ea	55.00 /ea	3,025
321005 Roadways	408,500.00 gsf	2.16 /gsf	880,140
321010 Pedestrian Paving			
Gravel base at conc pavement (1/L7.02) 8" - ph 2-4	1,766.24 cy	40.00 /cy	70,650
Fine grade under site concrete - ph 2-4	57,226.00 sf	0.40 /sf	22,890
Gravel base at bituminous walks (2/L7.02) - ph 2-4	782.92 cy	40.00 /cy	31,317
Bituminous paving - pedestrian	1,879.11 sy	38.00 /sy	71,406
321010 Pedestrian Paving	408,500.00 gsf	0.48 /gsf	196,263
321034 Playground			
Dense grade under safety surfacing (14/L7.02) 6" - with surfacing cost below	164.44 tn	28.00 /tn	4,604
Crushed stone under safety surfacing (14/L7.02) 12"	322.00 tn	32.00 /tn	10,304
321034 Playground			14,908
321405 CIP Stairs & Walls			
Retaining Wall at east property line "below walk - 130x3	390.00 sf	45.00 /sf	17,550
Retaining Wall at east property line adjacent to fence- 115x3	445.00 sf	45.00 /sf	20,025
321405 CIP Stairs & Walls		/gsf	37,575
321825 Sport Fields			
Synthetic turf field - stone base - (10" min), 2 types of stone) profile	10,851.86 tn	28.00 /tn	303,852
Synthetic turf field - grading	175,800.00 sf	0.20 /sf	35,160



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321825 Sport Fields			
Synthetic turf field - geotec fabric	175,800.00 sf	0.40 /sf	70,320
Perimeter ACO drain in place (concrete by others)	1,800.00 lf	100.00 /lf	180,000
Drainage chambers F&I	1,700.00 lf	125.00 /lf	212,500
Drain piping 12" - to connect chambers	330.00 lf	40.00 /lf	13,200
STDI + TBD + piping structures	30.00 ea	3,000.00 /ea	90,000
Crushed stone (6/L8.9) - 6.5'w x 3.0" dp x 2100 less chambers	1,421.87 cy	65.00 /cy	92,422
Filter fabric - 2 layers	28,800.00 sf	1.50 /sf	43,200
Shot put circle	1.00 ls	10,000.00 /ls	10,000
Discuss cage	1.00 sf	10,000.00 /sf	10,000
321825 Sport Fields	194,525.00 sf	5.45 /sf	1,060,654
331000 Water Utilities			
Fire hydrant - phase 2-4	3.00 ea	4,950.00 /ea	14,850
Gate Valve & Box	5.00 ea	1,485.00 /ea	7,425
Fire water line - 3" Copper Type "K" Phase 4	45.00 lf	30.00 /lf	1,350
Fire water line - no size	705.00 lf	120.00 /lf	84,600
Fire Department Connection	3.00 ea	2,000.00 /ea	6,000
Wet tap for temp service on Schouler Court incl street work - 8" x 8"	1.00 ea	10,000.00 /ea	10,000
Dry tap into existing line	2.00 ea	10,000.00 /ea	20,000
Pressure test & chlorinate - ph 2-4	750.00 lf	5.00 /lf	3,750
331000 Water Utilities	408,500.00 gsf	0.36 /gsf	147,975
333000 Sanitary Sewerage			
Allowance for utility shutdown and temporary bypass - phase 2	1.00 allw	50,000.00 /allw	50,000
Sanitary sewer piping - (6" PVC) - ph 2-4	1,120.00 lf	82.00 /lf	91,840
Sanitary sewer piping - (6" CI) - ph 2-4	60.00 lf	105.00 /lf	6,300
New Science Waste Tank - w/ plumbing	0.00 ea	0.00 /ea	0
Sanitary sewer Doghouse Manhole at MWRA Line	3.00 ea	22,450.00 /ea	67,350
Grease Tank (no size provided, P2.00b)- Phase 2 assume 5,000 gal	1.00 ea	20,000.00 /ea	20,000
Sanitary sewer manholes - ph 2-4	8.00 ea	4,400.00 /ea	35,200
Sanitary sewer testing - structures - ph 2-4	8.00 ea	220.00 /ea	1,760
Clean & Flush New Sanitary Piping - ph 2-4	1,180.00 lf	2.00 /lf	2,360
Video Inspections of New Sanitary Piping w/ DVD Media - ph 2-4	1,180.00 lf	9.50 /lf	11,210
333000 Sanitary Sewerage	408,500.00 gsf	0.70 /gsf	286,020
334000 Stormwater Utilities			
Allowance for drainage retention including excavation, t & d	1.00 allw	50,000.00 /allw	50,000
HDPE - perf at butterfly garden	80.00 lf	80.00 /lf	6,400
HDPE - perf drain line not shown but assumed	900.00 lf	90.00 /lf	81,000
HDPE - ph 2-4 upto 12"	1,580.00 lf	92.00 /lf	145,360
HDPE - ph 2-4 18", 24"	500.00 lf	100.00 /lf	50,000
Catch basins w/ Hoods (5'-12' depth) -	9.00 ea	5,000.00 /ea	45,000
Outlet Control Structure	2.00 ea	4,500.00 /ea	9,000
Water Quality Unit (STC 900)	1.00 ea	16,500.00 /ea	16,500
FES structure	3.00 ea	4,500.00 /ea	13,500
Area Drains (Nyloplast Basins 24" dia.)	2.00 ea	1,500.00 /ea	3,000
Drain Manholes (< 8' dia.) - ph 2-4	9.00 ea	4,500.00 /ea	40,500



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
334000 Stormwater Utilities			
Drain Manholes (extra large.) - ph 2-4	2.00 ea	7,500.00 /ea	15,000
Drain Doghouse manhole	1.00 ea	18,000.00 /ea	18,000
Tie into existing mh - on site	3.00 ea	3,000.00 /ea	9,000
Trench Drain at Loading Dock	32.00 lf	125.00 /lf	4,000
Clean & Flush New Drainage Piping	3,485.00 lf	2.00 /lf	6,970
Video Inspections of New Drainage Piping w/ DVD Media	3,485.00 lf	5.00 /lf	17,425
Temp patching and rework of new structures	1.00 ls	50,000.00 /ls	50,000
334000 Stormwater Utilities	408,500.00 gsf	1.42 /gsf	580,655
336000 Excavation/Bkfl and Lightpole Bases for Electric			
Excavation / backfill for site lighting - ph 2-4	12,000.00 lf	18.00 /lf	216,000
Excavation / backfill for electrical services to Stadium Toilet Building	345.00 lf	27.50 /lf	9,488
Excavation / backfill for Teleom services	254.00 lf	40.00 /lf	10,160
Excavation / backfill for PV array - West Parking	600.00 lf	27.50 /lf	16,500
Excavation / backfill for PV array - Rear Stadium	1,000.00 lf	27.50 /lf	27,500
Emergency Generator pad	1.00 ea	5,000.00 /ea	5,000
Electric hand hole - 13"W x 24"L x 18" D- Quazite PG3048DA36)	20.00 ea	880.00 /ea	17,600
E/b for electric handholes - ph 2-4	4.00 ea	1,980.00 /ea	7,920
336000 Excavation/Bkfl and Lightpole Bases for Electric	408,500.00 gsf	0.76 /gsf	310,168
336020 Light Pole Bases			
Light pole bases - precast conc 24" dia. x 20'-0" (Stadium Lights)	12.00 ea	20,000.00 /ea	240,000
Light Pole Bases - precast conc PT1 24" dia. x 6'-0" - ph 1	3.00 ea	1,200.00 /ea	3,600
Light Bollard Bases - precast conc PT2 24" dia. x 4'-0" - ph 1	29.00 ea	1,200.00 /ea	34,800
Lightbollard bases - precast conc PT3 24" dia. x ph 1	5.00 ea	950.00 /ea	4,750
Light Pole Bases - precast conc PT1 24" dia. x 6'-0" - ph 2-4	7.00 ea	1,200.00 /ea	8,400
Light Pole Bases - precast conc PT2 24" dia. x 4'-0" - ph 2-4	26.00 ea	1,200.00 /ea	31,200
Light bollard bases - precast conc PT3 24" dia. x ph 2-4	14.00 ea	950.00 /ea	13,300
336020 Light Pole Bases			336,050
31.23 SITEWORK - Phase 2-4	408,500.00 gsf	26.84 /gsf	10,962,570
31.25 PILES			
316213 Pressure Injected Footings (PIFs)			
PIF - 120 ton at pile caps (74 +118x2 +46x3 +16x4 +4x5)	532.00 ea	3,678.26 /ea	1,956,834
Mobilization - 3 riggs	0.00 ls	0.00 /ls	0
Load tests (1 static, 2 dynamic)	1.00 ls	/ls	
316213 Pressure Injected Footings (PIFs)	408,500.00 ea	4.79 /ea	1,956,834
316615 Helical Piles			
Heical piles at toilet Building - 10 ton	28.00 ea	2,800.00 /ea	78,400
Heical piles cut-offs at toilet Building	28.00 ea	200.00 /ea	5,600



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
316615 Helical Piles	408,500.00 gsf	0.21 /gsf	84,000
31.25 PILES	408,500.00 gsf	5.00 /gsf	2,040,834
31-23 TRAFFIC SIGNAL			
135400 Traffic Signal			
Traffic signal at Mill Street	0.00 ls	0.00 /ls	0
135400 Traffic Signal	1.00 ls	/ls	
31-23 TRAFFIC SIGNAL	408,500.00 gsf	/gsf	
32.02 SITE CONCRETE			
321005 Roadways			
Rubble strip, 6" concrete with bumps 4/L7.02	900.00 sf	30.00 /sf	27,000
321005 Roadways		/gsf	27,000
321010 Pedestrian Paving			
Generator and transformer pads (4 ea)	1,060.00 sf	15.12 /sf	16,027
Truncated domes - for HC ramps	400.00 sf	25.99 /sf	10,395
Pedestrian concrete walks	45,306.00 sf	11.91 /sf	539,459
Pedestrian concrete walks - inside courtyard colored	2,545.00 sf	15.88 /sf	40,415
Pedestrian concrete walks - replace at Mass Ave	5,607.00 sf	11.91 /sf	66,763
Vehicular concrete paving	10,121.00 sf	13.89 /sf	140,596
HD Concrete paving at loading dock	2,633.00 sf	13.89 /sf	36,576
Thickened slab for benches	14.00 cy	283.50 /cy	3,969
Thickened slab for bike racks 12"	26.00 cy	283.50 /cy	7,371
Concrete plaza for soccer spectators	1,560.00 sf	11.91 /sf	18,575
321010 Pedestrian Paving	408,500.00 gsf	2.16 /gsf	880,145
321030 Amphitheater			
Ramp wall at Amphitheater	56.00 lf	401.63 /lf	22,491
CIP retaining wall footing (5' exp) - say 4'w x 18" dp x 100"	22.22 cy	779.63 /cy	17,323
at amphitheater (3' exp) - say 12"w x 6'h x 100'	22.22 cy	1,350.00 /cy	29,997
321030 Amphitheater	408,500.00 gsf	0.17 /gsf	69,811
321319 Footings For PV			
Concrete footings for PV panels - West parking lot	1.00 ls	47,250.00 /ls	47,250
321319 Footings For PV	408,500.00 gsf	0.12 /gsf	47,250
321400 Site Improvements			
Footings for bollards - fixed, manually retractable	46.00 ea	897.75 /ea	41,297
Footings for bollards - hydraulic	2.00 ea	1,890.00 /ea	3,780



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321400 Site Improvements			
Footing/wall School sign	1.00 ls	5,670.00 /ls	5,670
Footing for flagpole	1.00 ls	2,362.50 /ls	2,363
321400 Site Improvements	408,500.00 gsf	0.13 /gsf	53,109
321402 Fencing & Handrails			
Concrete fence base and mow strip 18"x12" 5/L7.02	850.00 lf	75.00 /lf	63,750
Concrete fence base at lawn (5/L7.02)	270.00 lf	75.00 /lf	20,250
321402 Fencing & Handrails			84,000
321405 CIP Stairs & Walls			
CIP retaining wall footing (5' exp) - say 6'w x 18" dp x 75'	25.00 cy	779.63 /cy	19,491
at butterfly pond CIP retaining walll (5' exp) - say 18"w x 7'h x 76'	29.56 cy	1,550.00 /cy	45,818
CIP retaining wall footing (5' exp) - say 6'w x 18" dp x 155"	51.67 cy	779.63 /cy	40,283
at the cliff CIP retaining walll (5' exp) - say 18"w x 8'h x 155"	68.89 cy	1,550.00 /cy	106,780
CIP retaining wall footing (5' exp) - say 6'w x 18" dp x 25'	6.00 cy	779.63 /cy	4,678
at amphitheater CIP retaining walll (5' exp) - say 18"w x 5'h x 25'	6.94 cy	1,550.00 /cy	10,757
Foundation for swing barrier gate 6/L7.03	1.00 ls	6,000.00 /ls	6,000
321405 CIP Stairs & Walls	408,500.00 gsf	0.57 /gsf	233,806
321825 Sport Fields			
Conc nailer curb at synthetic field perimeter - ph 4	2,400.00 lf	85.00 /lf	204,000
Concrete slab (w#6 rebar) at dugouts (4/L8.6)	4,953.00 sf	12.29 /sf	60,848
Add 18" diam sonotube at fence posts below perimeter curb (1/L8.11)	330.00 ea	325.00 /ea	107,250
321825 Sport Fields	179,240.00 sf	2.08 /sf	372,098
32.02 SITE CONCRETE	408,500.00 gsf	4.33 /gsf	1,767,219
32.04 LANDSCAPING AND SITE FURNISHINGS			
321010 Pedestrian Paving			
Grass paver	385.00 sf	18.00 /sf	6,930
321010 Pedestrian Paving	408,500.00 gsf	0.02 /gsf	6,930
321030 Amphitheater			
Precast conc curb - 12"w x 18"h (9/L7.02)	415.00 lf	85.00 /lf	35,275
Nailers for synthetic	830.00 lf	20.00 /lf	16,600
321030 Amphitheater	408,500.00 gsf	0.13 /gsf	51,875
321032 East Courtyard			
Wood terraced seating on frame IPE	590.00 sf	150.00 /sf	88,500
Prefab weathering steel planter - courtyard 1/L7.11 24" h walls	1,170.00 sf	110.00 /sf	128,700
Prefab weathering steel planter - courtyard 1/L7.11 bottom	1,380.00 sf	110.00 /sf	151,800



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321032 East Courtyard			
Conc pavers on grade, mortored (7/L7.02)	1,270.00 sf	38.00 /sf	48,260
Layered stone and planting mix at raised planters L7.11	103.70 cy	120.00 /cy	12,444
Conc pavers on pedestals (7/L7.02)	8,560.00 sf	35.00 /sf	299,600
			729,304
321034 Playground			
Play equipment, adjacent to wing C TBD	1.00 ls	100,000.00 /ls	100,000
Safety surfacing (13/L702)	4,784.00 sf	34.00 /sf	162,656
			262,656
321400 Site Improvements			
Manually retractable bollard (5/L7.04)	2.00 ea	2,500.00 /ea	5,000
Fixed bollards	37.00 ea	1,200.00 /ea	44,400
Freestanding benches steel and wood, no back (L7.05)	154.00 lf	448.43 /lf	69,058
Benches steel and wood, no back (L7.05) - rad adjacent to bldg	48.00 lf	750.00 /lf	36,000
Benches steel and wood, no back (L7.05) - straight adjacent to bldg	54.00 lf	750.00 /lf	40,500
Trash/recycle receptacles (4/L704)	4.00 ea	3,870.00 /ea	15,480
Memorial bench reinstallation	1.00 ea	1,500.00 /ea	1,500
Memorial in planting	2.00 ea	2,000.00 /ea	4,000
Flagpole (3/L7.04)	1.00 ea	15,570.00 /ea	15,570
Bike repair station (2/L7.04)	1.00 ea	5,580.00 /ea	5,580
Bike rack (1/L7.04)	42.00 ea	819.00 /ea	34,398
Grass pavers	120.00 sf	32.00 /sf	3,840
Granite edging at exit from C wing (6/L7.02)	120.00 lf	100.00 /lf	12,000
School site sign	1.00 ls	20,000.00 /ls	20,000
	408,500.00 gsf	0.75 /gsf	307,326
321402 Fencing & Handrails			
Railing at east property line at retaining wall (C3.5.4)	130.00 lf	150.00 /lf	19,500
ADA rail, both sides at butterfly garden retaining wall - short	190.00 lf	150.00 /lf	28,500
			48,000
321405 CIP Stairs & Walls			
Gabion Retaining wall at East property line - 75' x 4'	300.00 sf	40.00 /sf	12,000
		/gsf	12,000
321825 Sport Fields			
Bases w/ subsurface structures (x/L16, x/L17)	6.00 ea	500.00 /ea	3,000
Home plate with concrete anchor (x/L16, x/L17)	4.00 ea	900.00 /ea	3,600
Pitching plate with concrete anchor (x/L16, x/L17)	4.00 ea	900.00 /ea	3,600
Football goal post	1.00 pr	8,000.00 /pr	8,000
Skinned infill surface at bull pen with marking and edging	420.00 sf	35.00 /sf	14,700



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321825 Sport Fields	179,240.00 sf	0.18 /sf	32,900
329000 Landscaping			
Irrigation - limited fields, mostly plantings	1.00 ls	100,000.00 /ls	100,000
Reuse and ammend loam - at lawns and fields (48,000 sf x 4" +0%) ph 1	592.59 cy	18.00 /cy	10,667
Reuse and ammend loam remaining stockpiled loam - at lawns and fields from ph 2-4	2,700.00 cy	18.00 /cy	48,600
Offsite loam - at lawns at athletic fields (80,000 sf x 8" +30%) ph 2-4	800.00 cy	55.00 /cy	44,000
Furnish and place offsite loam - at planting beds (13,700 sf x 18" +25%)	951.39 cy	60.00 /cy	57,083
Furnish and place offsite loam - at trees (36" = 4 cy per tree)	808.00 cy	60.00 /cy	48,480
Temporary seeding for erosion control	1.00 ls	5,500.00 /ls	5,500
Restoration mix	22,200.00 sf	0.28 /sf	6,216
Lawn & Meadow & Wetland mix	97,835.00 sf	0.29 /sf	28,372
Athletic turf mix (incl 15,000 sf based on small synthetic field)	78,250.00 sf	0.44 /sf	34,430
Lawn Maintenance by Owner	0.00 ph	/ph	
Erosion control mat	24,000.00 sf	0.65 /sf	15,600
Premium loam at bio-retention area - ph 3 (16,507 sf x 12" + 25%)	0.00 cy	0.00 /cy	0
Erosion control mat	2,583.00 sf	0.65 /sf	1,679
Signature tree planting - 8" cal elm and oak	4.00 ea	6,000.00 /ea	24,000
Shade tree - 3"-3.5" Linden, Beach, Oak, Maple	48.00 ea	1,760.00 /ea	84,480
Shade tree - 2"-2.5" Linden, Beach, Oak, Maple	66.00 ea	825.00 /ea	54,450
Shade tree - 5'-6'	17.00 ea	550.00 /ea	9,350
Shade tree - 7'-10'	64.00 ea	825.00 /ea	52,800
Evergreen Tree - 2- 2.5" Pine	3.00 ea	605.00 /ea	1,815
Shrubs - 7'-8'	10.00 ea	400.00 /ea	4,000
Shrubs - 3 gal mix	258.00 ea	90.00 /ea	23,220
Butterfly raingarden, plantings	0.00 sf	/sf	
Ground cover	11,139.00 sf	9.00 /sf	100,251
Ground cover and shrubs	1,870.00 sf	8.00 /sf	14,960
Memorial planting TBD	1.00 ls	4,000.00 /ls	4,000
Stone drip edge	0.00 sf	/sf	
329000 Landscaping	408,500.00 gsf	1.90 /gsf	773,953
32.04 LANDSCAPING AND SITE FURNISHINGS	408,500.00 gsf	5.45 /gsf	2,224,944
32.07 SYNTHETIC FIELD SPORT SURFACING			
321030 Amphitheater			
Synthetic field surfacing - ampitheater	4,200.00 sf	12.00 /sf	50,400
Add for 23 mm resilient pad	4,200.00 sf	1.85 /sf	7,770
Liner material - 25 mil	4,200.00 sf	1.10 /sf	4,620
Specialty drain adjacent to curb	415.00 lf	65.00 /lf	26,975
321030 Amphitheater	4,200.00 gsf	21.37 /gsf	89,765
321825 Sport Fields			
Synthetic field surfacing - main fields (synthetic infill)	175,800.00 sf	5.25 /sf	922,950
Line markings	1.00 ls	80,000.00 /ls	80,000



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321825 Sport Fields			
Add for 23 mm resilient drainage pad	175,800.00 sf	1.40 /sf	246,120
Liner material - 20 mil reinforce impermeable liner	175,800.00 sf	1.40 /sf	246,120
Extended warranty - 8 yr	1.00 ls	0.01 /ls	0
3rd party testing	1.00 ls	25,000.00 /ls	25,000
Maintenace equipment, Gator, with sweeprer and rake	1.00 ls	15,000.00 /ls	15,000
	191,490.00 sf	8.02 /sf	1,535,190
32.07 SYNTHETIC FIELD SPORT SURFACING			
	408,500.00 gsf	3.98 /gsf	1,624,955
32.08 FENCING			
321032 East Courtyard			
Decorative fence adjacent to D wing (Steam Courtyard) - 96"	355.00 lf	225.00 /lf	79,875
Decorative fence adjacent to D wing - gate 12'w x 8'h	2.00 lv	3,500.00 /lv	7,000
			86,875
321402 Fencing & Handrails			
Decorative fence between A and E wings (ampitheater) - 96"	100.00 lf	225.00 /lf	22,500
Decorative fence between A and E wings - gate	3.00 lv	3,000.00 /lv	9,000
Decorative fence at PreK play area wing - 48"	272.00 lf	155.00 /lf	42,160
Decorative fence at PreK play area wing - 48" x 4' gate	2.00 lv	1,800.00 /lv	3,600
Decorative fence adjacent to E (music) wing - 96"	30.00 lf	225.00 /lf	6,750
Decorative fence adjacent to E (music) wing - gate 4'w x 6'h	2.00 lv	3,000.00 /lv	6,000
CLF at bike storage - 8.0'	120.00 lf	80.00 /lf	9,600
CLF gate at bike storage - 8'x4'	2.00 ea	1,200.00 /ea	2,400
CLF at generator - 8.0'	155.00 lf	84.00 /lf	13,020
CLF gate at generator - 8'x4'	2.00 lv	1,200.00 /lv	2,400
CLF between school and fields - 8.0'	910.00 lf	84.00 /lf	76,440
CLF gate between school and fields - 8.0' x 4'w	3.00 ea	1,200.00 /ea	3,600
Swing barrier gate (6/L703) at loading dock - 28'	1.00 ls	14,000.00 /ls	14,000
Swing barrier gate at Mill St parking per 3/30 email - 24'	1.00 ls	14,000.00 /ls	14,000
Fence at butterfly garden retaining wall - short	120.00 lf	155.00 /lf	18,600
			244,070
321825 Sport Fields			
CLF at perimeter of fields - 4.0'	1,535.00 lf	62.00 /lf	95,170
CLF at perimeter of fields - 6.0'	18.00 lf	74.00 /lf	1,332
CLF at perimeter of fields - 8.0'	745.00 lf	86.00 /lf	64,070
CLF at perimeter of fields - 12.0'	364.00 lf	111.00 /lf	40,404
CLF - safety fence at shot put - 6.0'	125.00 lf	74.00 /lf	9,250
Backstop with canopy - 24' w/ 8" post - 70' long	1.00 ls	20,160.00 /ls	20,160
Backstop with canopy - 28 w/ 6" post - 90' long	1.00 ls	27,720.00 /ls	27,720
Fixed ball control netting with high wind safety release - 30'h - 634'	19,020.00 sf	8.00 /sf	152,160
Foul pole 24'	2.00 ea	3,200.00 /ea	6,400
Rolling gate at soccer field - 45'	1.00 ea	15,000.00 /ea	15,000
Posts to suppur baseball net - 30'h assume 20' oc	34.00 ea	1,750.00 /ea	59,500



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321825 Sport Fields	408,500.00 sf	1.20 /sf	491,166
32.08 FENCING	408,500.00 gsf	2.01 /gsf	822,111
99.10 EBP #3 SUMMER 2020 SWING SPACE			
015082 EBP #3 - Summer 2020 Work			
Selective demolition	1.00 ls	45,370.00 /ls	45,370
D/F/H	1.00 ls	44,370.00 /ls	44,370
Glass	1.00 ls	11,700.00 /ls	11,700
Drywall	1.00 ls	63,424.00 /ls	63,424
Tile	1.00 ls	8,000.00 /ls	8,000
Acoustical ceilings	1.00 ls	3,520.00 /ls	3,520
Resilient flooring	1.00 ls	16,470.00 /ls	16,470
Paint	1.00 ls	31,098.00 /ls	31,098
Specialties	1.00 ls	3,578.00 /ls	3,578
GRs	1.00 ls	125,000.00 /ls	125,000
015082 EBP #3 - Summer 2020 Work			352,530
99.10 EBP #3 SUMMER 2020 SWING SPACE		/gsf	352,530
99.11 EBP #3 SUMMER 2020 SWING SPACE (TS)			
015082 EBP #3 - Summer 2020 Work			
Plumbing	1.00 ls	46,137.00 /ls	46,137
HVAC	1.00 ls	195,920.00 /ls	195,920
Electrical	1.00 ls	197,637.00 /ls	197,637
015082 EBP #3 - Summer 2020 Work			439,694
99.11 EBP #3 SUMMER 2020 SWING SPACE (TS)		/gsf	439,694
99.20 EBP #2 SERVICE RELOCATIONS (TS)			
210090 Fire Protection EBP #2			
Rustic Fire Potection	1.00 ls	125,000.00 /ls	125,000
210090 Fire Protection EBP #2			125,000
220090 Plumbing EBP #2			
PJ Kennedy	1.00 ls	118,900.00 /ls	118,900
220090 Plumbing EBP #2			118,900
260099 Electric EBP#2			
Wayne J Griffin	1.00 ls	187,200.00 /ls	187,200



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260099 Electric EBP#2		/gsf	187,200
99.20 EBP #2 SERVICE RELOCATIONS (TS)			431,100



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
B Base			
A Substructure			
A10 Foundations			
A1010 Standard Foundations	408,500.00 gsf	14.51 /gsf	5,928,294
A1020 Special Foundations	408,500.00 gsf	8.21 /gsf	3,355,187
A1030 Lowest Floor Construction	408,500.00 gsf	13.41 /gsf	5,475,845
A10 Foundations	408,500.00 gsf	36.13 /gsf	14,759,326
A Substructure	408,500.00 gsf	36.13 /gsf	14,759,326
B Shell			
B10 Superstructure			
B1010 Floor Construction	408,500.00 gsf	44.04 /gsf	17,991,952
B1020 Roof Construction	408,500.00 gsf	4.26 /gsf	1,738,750
B10 Superstructure	408,500.00 gsf	48.30 /gsf	19,730,701
B20 Exterior Enclosure			
B2010 Exterior Walls	408,500.00 gsf	27.92 /gsf	11,405,550
B2020 Exterior Windows	408,500.00 gsf	15.22 /gsf	6,216,447
B2030 Exterior Doors	408,500.00 gsf	0.78 /gsf	317,501
B20 Exterior Enclosure	408,500.00 gsf	43.92 /gsf	17,939,498
B30 Roofing			
B3010 Roof Coverings	408,500.00 gsf	7.75 /gsf	3,166,926
B3020 Roof Openings	408,500.00 gsf	0.84 /gsf	342,114
B30 Roofing	408,500.00 gsf	8.59 /gsf	3,509,040
B Shell	408,500.00 gsf	100.81 /gsf	41,179,240
C Interiors			
C10 Interior Construction			
C1010 Partitions	408,500.00 gsf	27.50 /gsf	11,232,308
C1020 Interior Doors	408,500.00 gsf	5.25 /gsf	2,146,342
C1030 Specialties/Millwork	408,500.00 gsf	9.76 /gsf	3,985,512
C10 Interior Construction	408,500.00 gsf	42.51 /gsf	17,364,162
C20 Stairs			
C2010 Stair Construction	408,500.00 gsf	3.49 /gsf	1,424,806
C2020 Stair Finishes	408,500.00 gsf	1.10 /gsf	450,320
C20 Stairs	408,500.00 gsf	4.59 /gsf	1,875,126
C30 Interior Finishes			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
C3010 Wall Finishes	408,500.00 gsf	9.02 /gsf	3,683,957
C3020 Floor Finishes	408,500.00 gsf	7.91 /gsf	3,229,446
C3030 Ceiling Finishes	408,500.00 gsf	12.09 /gsf	4,938,387
C30 Interior Finishes	408,500.00 gsf	29.01 /gsf	11,851,790
C Interiors	408,500.00 gsf	76.11 /gsf	31,091,078
D Services			
D10 Conveying Systems			
D1010 Elevators & Lifts	408,500.00 gsf	1.77 /gsf	724,500
D10 Conveying Systems	408,500.00 gsf	1.77 /gsf	724,500
D20 Plumbing			
D20 Plumbing	408,500.00 gsf	11.91 /gsf	4,863,193
D20 Plumbing	408,500.00 gsf	11.91 /gsf	4,863,193
D30 Heating, Ventilating, and Air Conditioning (HVAC)			
D30 HVAC	408,500.00 gsf	67.80 /gsf	27,698,127
D30 Heating, Ventilating, and Air Conditioning (HVAC)	408,500.00 gsf	67.80 /gsf	27,698,127
D40 Fire Protection Systems			
D40 Fire Protection	408,500.00 gsf	6.48 /gsf	2,648,033
D40 Fire Protection Systems	408,500.00 gsf	6.48 /gsf	2,648,033
D50 Electrical Systems			
D50 Electrical	408,500.00 gsf	46.67 /gsf	19,065,956
D50 Electrical Systems	408,500.00 gsf	46.67 /gsf	19,065,956
D Services	408,500.00 gsf	134.64 /gsf	54,999,810
E Equipment & Furnishings			
E10 Equipment			
E10 Equipment General	408,500.00 gsf	6.90 /gsf	2,817,641
E10 Equipment	408,500.00 gsf	6.90 /gsf	2,817,641
E20 Furnishings			
E2010 Fixed Furnishings	408,500.00 gsf	4.80 /gsf	1,961,548
E20 Furnishings	408,500.00 gsf	4.80 /gsf	1,961,548
E Equipment & Furnishings	408,500.00 gsf	11.70 /gsf	4,779,189



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
F Special Construction & Demolition			
F10 Special Construction			
F10 Temporary Construction	408,500.00 gsf	8.31 /gsf	3,392,840
F10 EB#3 Summer 2020 Swing Space EBP#3	408,500.00	1.94	792,224
F10 Special Construction	408,500.00 gsf	10.25 /gsf	4,185,064
F Special Construction & Demolition	408,500.00 gsf	10.25 /gsf	4,185,064
T Toilet Building			
A10 Foundations			
A1010 Standard Foundations	408,500.00 gsf	0.04 /gsf	14,111
A1020 Special Foundations	408,500.00 gsf	0.21 /gsf	84,547
A1030 Lowest Floor Construction	408,500.00 gsf	0.07 /gsf	28,664
A10 Foundations	408,500.00 gsf	0.31 /gsf	127,323
B10 Superstructure			
B1020 Roof Construction	408,500.00 gsf	0.04 /gsf	17,488
B10 Superstructure	408,500.00 gsf	0.04 /gsf	17,488
B20 Exterior Enclosure			
B2010 Exterior Walls	408,500.00 gsf	0.25 /gsf	103,687
B2030 Exterior Doors	408,500.00 gsf	0.01 /gsf	5,000
B20 Exterior Enclosure	408,500.00 gsf	0.27 /gsf	108,687
B30 Roofing			
B3010 Roof Coverings	408,500.00 gsf	0.03 /gsf	11,250
B30 Roofing	408,500.00 gsf	0.03 /gsf	11,250
C10 Interior Construction			
C1010 Partitions	408,500.00 gsf	0.12 /gsf	47,829
C1020 Interior Doors	408,500.00 gsf	0.02 /gsf	7,488
C1030 Specialties/Millwork	408,500.00 gsf	0.04 /gsf	15,602
C3030 Ceiling Finishes	408,500.00 gsf	0.02 /gsf	6,292
C10 Interior Construction	408,500.00 gsf	0.19 /gsf	77,211
C30 Interior Finishes			
C3010 Wall Finishes	408,500.00 gsf	0.01 /gsf	3,632
C3020 Floor Finishes	408,500.00 gsf	0.00 /gsf	1,342
C30 Interior Finishes	408,500.00 gsf	0.01 /gsf	4,974
D20 Plumbing			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
D20 Plumbing	<u>408,500.00 gsf</u>	<u>0.23 /gsf</u>	<u>92,257</u>
D20 Plumbing	408,500.00 gsf	0.23 /gsf	92,257
D30 Heating, Ventilating, and Air Conditioning (HVAC)			
D30 HVAC	<u>408,500.00 gsf</u>	<u>0.02 /gsf</u>	<u>8,530</u>
D30 Heating, Ventilating, and Air Conditioning (HVAC)	408,500.00 gsf	0.02 /gsf	8,530
D50 Electrical Systems			
D50 Electrical		<u>/gsf</u>	<u>38,806</u>
D50 Electrical Systems	408,500.00 gsf	0.10 /gsf	38,806
T Toilet Building	408,500.00 gsf	1.19 /gsf	486,526
B Base	408,500.00 gsf	370.82 /gsf	151,480,231
C Demolition			
F Special Construction & Demolition			
F20 Demolition			
F2010 Building Elements Demolition		<u>/gsf</u>	<u>3,392,500</u>
F20 Demolition		/gsf	3,392,500
F Special Construction & Demolition		/gsf	3,392,500
C Demolition		/gsf	3,392,500
D Abatement			
F Special Construction & Demolition			
F20 Demolition			
F2020 Hazardous Component Abatement		<u>/gsf</u>	<u>3,553,689</u>
F20 Demolition		/gsf	3,553,689
F Special Construction & Demolition		/gsf	3,553,689
D Abatement		/gsf	3,553,689
E Sitework			
G Sitework			
G10 Site Preparation			



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
G10 Site Preparation		/gsf	4,322,357
G10 Site Preparation			4,322,357
G20 Site Improvements			
G20 Site Improvements		/gsf	8,656,561
G20 Site Improvements			8,656,561
G30 Site Civil/Mechanical Utilites			
G30 Civil Mechanical Utilities		/gsf	1,014,650
G30 Site Civil/Mechanical Utilites			1,014,650
G40 Site Electrical Utilities			
G40 Electrical Utilities		/gsf	2,502,842
G40 Site Electrical Utilities			2,502,842
G Sitework			16,496,410
E Sitework			16,496,410
F Early Bid Package #2			
A Substructure			
A10 Foundations			
A1010 Standard Foundations		/gsf	92,046
A1020 Special Foundations		/gsf	3,143,695
A1030 Lowest Floor Construction		/gsf	837,716
A10 Foundations		/gsf	4,073,457
A Substructure			4,073,457
D Services			
D20 Plumbing			
D2090 Plumbing EBP #2		/gsf	118,900
D20 Plumbing		/gsf	118,900
D40 Fire Protection Systems			
D4010 FP - Early Bid Package #2		/gsf	125,000
D40 Fire Protection Systems		/gsf	125,000
D Services			243,900

F Special Construction & Demolition



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
F10 Special Construction			
F10 Temporary Construction		/gsf	<u>384,330</u>
F10 Special Construction		/gsf	384,330
<hr/>			
F Special Construction & Demolition		/gsf	384,330
G Sitework			
A10 Foundations			
A1020 Special Foundations		/gsf	<u>24,000</u>
A10 Foundations		/gsf	24,000
G10 Site Preparation			
G10 Site Preparation		/gsf	<u>1,225,964</u>
G10 Site Preparation			1,225,964
G20 Site Improvements			
G20 Site Improvements		/gsf	<u>153,314</u>
G20 Site Improvements			153,314
G30 Site Civil/Mechanical Utilites			
G3005 Enabling Utilities			1,968,416
G3010 Water Supply		/gsf	142,930
G3020 Sanitary Sewer		/gsf	55,068
G3030 Storm Drainage		/gsf	141,450
G3040 Heating Distribution		/gsf	<u>43,523</u>
G30 Site Civil/Mechanical Utilites			2,351,386
G40 Site Electrical Utilities			
G40 Electrical Utilities		/gsf	166,880
G4090 Early Bid Package #2		/gsf	<u>187,200</u>
G40 Site Electrical Utilities			354,080
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G Sitework			4,108,743
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F Early Bid Package #2			8,810,430



CONSIGLI

Est. 1905

Arlington High School

60% CD Estimate

4/19/2020

Estimate Totals

Description	Amount	Totals	Rate	Cost per Unit
Subtotal	183,733,260	183,733,260		449.775 /SF
Non-trade sub bonds	1,168,222		1.200 %	2.860 /SF
Phasing	918,666		0.500 %	2.249 /SF
Design & Estimating Contingency	6,430,664		3.500 %	15.742 /SF
Subtotal	8,517,552	192,250,812		470.626 /SF
Escalation	9,612,541		5.000 %	23.531 /SF
Subtotal	9,612,541	201,863,353		494.158 /SF
General Conditions (C.1-3)	11,931,225			29.207 /SF
General Requirements (C.5-6)	4,872,887			11.929 /SF
P&P Bond	2,251,695			5.512 /SF
Builder's Risk	369,468			0.904 /SF
GL Insurance	2,588,155			6.336 /SF
Subtotal	22,013,430	223,876,783		548.046 /SF
Contractor's Contingency Fee	5,596,920		2.500 %	13.701 /SF
	4,705,737			11.520 /SF
Total		234,179,440		573.267 /SF



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
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B Base

A Substructure

A10 Foundations

A1010 Standard Foundations

015020 Trade Support

Laborer for trade support - Concrete

wks

/wks

033028 Concrete - Cont Ftgs

Form/place/strip continuous footings - 24x12 - 285'	565.00 sfca	15.30 /sfca	8,643
Form/place/strip continuous footings - 26x12 - 785'	1,565.00 sfca	15.30 /sfca	23,942
Form/place/strip continuous footings - 36x12 - 140'	280.00 sfca	15.30 /sfca	4,283
Form/place/strip continuous footings - 54x20 - 75'	255.00 sfca	15.30 /sfca	3,901
Form/place/strip continuous footings - 60x20 - 380'	1,265.00 sfca	15.30 /sfca	19,353
Form/place/strip continuous footings - 66x20 - 75'	250.00 sfca	15.30 /sfca	3,825
Form/place/strip continuous footings - 72x24 - 40'	160.00 sfca	15.30 /sfca	2,448
Form/place/strip continuous footings - 84'x24 - 55'	205.00 sfca	15.30 /sfca	3,136
Form/place/strip grade beam - 24x 30" - Ph1 - 225'	1,115.00 sfca	21.67 /sfca	24,167
Rebar at continuous footings (160#/cy)	14.74 ton	3,064.77 /ton	45,175
Ready-mix - continuous footings (3000 psi)	304.00 cy	190.98 /cy	58,057
Placing concrete - cont footing	304.00 cy	128.58 /cy	39,090
033028 Concrete - Cont Ftgs		/cy	<u>236,019</u>

033029 Concrete - Walls

Form/place/strip auditorium walls - 10" x 425'	6,800.00 sfca	35.00 /sfca	238,000
Form/place/strip fnd walls - 12" x 5.0' - 40'	395.00 sfca	21.67 /sfca	8,561
Form/place/strip fnd walls - 12" x 8.0' - 285'	4,535.00 sfca	21.68 /sfca	98,294
Form/place/strip fnd walls - 12"x 16.0' - 50'	1,550.00 sfca	21.67 /sfca	33,595
Form/place/strip fnd walls - 12"x 22.0' - 75'	3,350.00 sfca	21.67 /sfca	72,609
Form/place/strip fnd walls - 18"x3.5 - 835"	5,840.00 sfca	21.67 /sfca	126,578
Form/place/strip fnd walls - 18"x6.5' - 650'	8,430.00 sfca	21.67 /sfca	182,714
Add for pilasters - 24x24 (26/42" 22/76")	230.00 lf	57.39 /lf	13,199
Rebar at walls (180#/cy)	66.42 ton	3,064.78 /ton	203,562
Placing concrete	738.00 cy	128.58 /cy	94,895
Ready-mix - walls (3000 psi) no waste	704.00 cy	190.98 /cy	134,449
Ready-mix - pilaster (3000 psi)	34.07 cy	190.98 /cy	6,507
033029 Concrete - Walls		/cy	<u>1,212,962</u>

033030 Concrete - Ph 1 Spread Footings

Form/place/strip - elev pit footing - 12'x12' x 16" x3	64.32 sfca	20.40 /sfca	1,312
F4 Form/place/strip spread footings - 8 ea	192.00 sfca	20.38 /sfca	3,913
F4RI Form/place/strip spread footings - 2 ea	64.00 sfca	20.40 /sfca	1,306
F5 Form/place/strip spread footings - 10 ea	333.00 sfca	20.40 /sfca	6,794
F5BR Form/place/strip spread footings - 12 ea	600.00 sfca	20.40 /sfca	12,242
F5x10 Form/place/strip spread footings - 3 ea	210.00 sfca	20.40 /sfca	4,284
F6 Form/place/strip spread footings - 18 ea	936.00 sfca	20.40 /sfca	19,096
F6BR/RI Form/place/strip spread footings - 7 ea	420.00 sfca	20.40 /sfca	8,568
F7 Form/place/strip spread footings - 11 ea	667.00 sfca	20.40 /sfca	13,608
F7BR Form/place/strip spread footings - 16 ea	1,120.00 sfca	20.40 /sfca	22,850
F8 Form/place/strip spread footings - 11 ea	880.00 sfca	20.40 /sfca	17,953
F9 Form/place/strip spread footings - 24 ea	2,592.00 sfca	20.40 /sfca	52,879
F10BR Form/place/strip spread footings - 8 ea	960.00 sfca	20.40 /sfca	19,586
F10RI Form/place/strip spread footings -2 ea	280.00 sfca	20.40 /sfca	5,712
F11BR Form/place/strip spread footings - 4 ea	528.00 sfca	20.40 /sfca	10,772
F9x31 Form/place/strip spread footings - 1 ea	241.00 sfca	20.40 /sfca	4,917
F12 Form/place/strip spread footings - 1 ea	156.00 sfca	20.40 /sfca	3,183
F12RI Form/place/strip spread footings - 2 ea	360.00 sfca	20.40 /sfca	7,345
F14RI Form/place/strip spread footings - 1 ea	261.00 sfca	20.40 /sfca	5,325
Rebar at column footings 150#/cy	62.06 ton	3,064.77 /ton	190,200



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
033030 Concrete - Ph 1 Spread Footings			
Rebar at column footings (100#/cy) - elevator	5.56 ton	3,064.77 /ton	17,046
Ready-mix - column footings (3000 psi) no waste	827.50 cy	190.98 /cy	158,034
Ready-mix - column footings (3000 psi) - elev	21.00 cy	190.98 /cy	4,011
Placing concrete - column ftg	848.50 cy	128.58 /cy	109,104
033030 Concrete - Ph 1 Spread Footings		/cy	700,039
033031 Concrete - Grade Beams - Int			
Form/place/strip grade beam - 24x 30" - Ph1 - 222'	1,112.00 sfca	21.67 /sfca	24,102
Form/place/strip grade beam - 24x 42" - Ph2&3 - 1,392'	9,744.00 sfca	21.67 /sfca	211,194
Rebar at grade beam (75#/lf) - ph 2,3	60.53 ton	3,064.77 /ton	185,511
Placing concrete - ph 2,3	396.00 cy	128.58 /cy	50,919
Ready-mix - grade beam (3000 psi) no waste - ph 2,3	396.00 cy	190.98 /cy	75,627
033031 Concrete - Grade Beams - Int		/cy	547,353
033032 Concrete - Grade Beams and Pilasters - Ext			
Form/place/strip ext grade beams- 12x6.0' - 205'	2,435.00 sfca	21.67 /sfca	52,777
Form/place/strip ext grade beams- 16x28.5' - 20'	1,105.00 sfca	21.67 /sfca	23,950
Form/place/strip ext grade beams - 18x6.6' - 65'	870.00 sfca	21.67 /sfca	18,856
Form/place/strip ext grade beams - 20x25.0' - 290'	14,515.00 sfca	21.67 /sfca	314,600
Form/place/strip ext grade beams - 24x4.5' - 1,250'	11,280.00 sfca	21.68 /sfca	244,490
Form/place/strip ext grade beams - 24x5.5' - 85'	900.00 sfca	21.67 /sfca	19,507
Form/place/strip ext grade beams - 24x6.5' - 75'	980.00 sfca	21.67 /sfca	21,241
Form/place/strip ext grade beams - 48x5.0' - 85'	850.00 sfca	21.68 /sfca	18,423
Add for pilasters - 24x24 (19/24' 60/3')	612.00 lf	57.38 /lf	35,119
Rebar at high wall (10#/sf at basement walls)	75.79 ton	3,064.77 /ton	232,273
Rebar at perimeter grade beam (90#/lf at frost locations)	80.52 ton	3,064.77 /ton	246,763
Rebar at pilasters (50#/lf)	17.73 ton	3,064.77 /ton	54,338
Placing concrete	1,185.00 cy	128.58 /cy	152,373
Ready-mix - grade beams (3000 psi) no waste	1,094.00 cy	190.98 /cy	208,930
Ready-mix - pilaster (3000 psi)	91.00 cy	190.98 /cy	17,379
033032 Concrete - Grade Beams and Pilasters - Ext		/cy	1,661,020
033034 Concrete - Ph 2,3 Pile Caps			
Pile cap 1 - 74 ea	4,144.00 sfca	20.40 /sfca	84,543
Pile cap 2 - 118 ea	10,384.00 sfca	20.40 /sfca	211,847
Pile cap 3 - 45 ea	5,400.00 sfca	20.40 /sfca	110,167
Pile cap 3SP - 1 ea	136.00 sfca	20.40 /sfca	2,775
Pile cap 4 - 16 ea	1,920.00 sfca	20.40 /sfca	39,170
Pile cap 5 - 1 ea	147.00 sfca	20.40 /sfca	2,999
Pile cap 5SP - 3 ea	504.00 sfca	20.40 /sfca	10,282
Rebar at PC1 90# x 74 ea	3.33 ton	3,064.78 /ton	10,206
Rebar at PC2 280# x118 ea	16.52 ton	3,064.77 /ton	50,630
Rebar at PC3 380# x 45 ea	8.55 ton	3,064.77 /ton	26,204
Rebar at PC4 350# x 16 ea	2.80 ton	3,064.78 /ton	8,581
Rebar at PC5 480# x 4 ea	0.96 ton	3,064.78 /ton	2,942
Redimix - Pile caps (3000 psi) no waste	1,173.00 cy	190.98 /cy	224,017
Placing concrete - pile cap	1,173.00 cy	128.58 /cy	150,830
033034 Concrete - Ph 2,3 Pile Caps		/cy	935,193
033035 Piers			
Form/place/strip - elev pit footing - 24" x 24" x 2' x 40'	640.00 sfca	20.40 /sfca	13,057
Rebar at piers	0.70 ton	3,064.76 /ton	2,130
Redimix at piers (3000#)	5.93 cy	190.98 /cy	1,133
Placing concrete	5.93 cy	116.90 /cy	693
033035 Piers		/cy	17,012
070001 Waterproofing, Caulking			
Sheet waterproofing with drainage board at high walls only	12,176.00 sf	8.50 /sf	103,496
Sheet waterproofing with drainage board - add for footing	3,054.00 sf	8.50 /sf	25,959



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
070001 Waterproofing, Caulking		/gsf	129,455
072100 Thermal Insulation			
Rigid insulation at perimeter walls (2.0' at frost walls, 10.0' at basement walls)	9,000.00 sf	3.50 /sf	31,500
072100 Thermal Insulation		/gsf	31,500
312002 Earth Moving within Building Footprint			
Localized dewatering - ph 2-4	1.00 ls	140,000.00 /ls	140,000
E/b foundation walls/footings (F2.2C & F5.0C) - perimeter - ph 2-3	1,727.00 lf	46.15 /lf	79,692
Excavate/backfill foundation Grade Beams - ph 2-3	3,850.00 lf	46.15 /lf	177,658
Excavate for pile caps - ph 2,3	244.00 ea	247.50 /ea	60,390
312002 Earth Moving within Building Footprint		/gsf	457,741
A1010 Standard Foundations	408,500.00 gsf	14.51 /gsf	5,928,294
A1020 Special Foundations			
010200 Allowances			
Allowance for premiums due to existing piles	1.00 allw	100,000.00 /allw	100,000
010200 Allowances		/gsf	100,000
033088 Concrete Deadman			
Deadman - conc 4000#	172.00 cy	183.74 /cy	31,604
Deadman - formwork - 36x96 - 474'	3,100.00 sfsa	17.60 /sfsa	54,560
Deadman - rebar (18 psf)	52.17 tn	2,956.80 /tn	154,256
Deadman - place concrete	172.00 cy	93.50 /cy	16,082
033088 Concrete Deadman		/cy	256,502
033089 Concrete Wall at SOE			
Concrete wall - conc 4000# - 12"	101.11 cy	183.74 /cy	18,578
Concrete wall - sngl sided form - 195' x 14	2,730.00 sfsa	44.00 /sfsa	120,120
Concrete wall - rebar #6 x 4	15.00 tn	2,956.80 /tn	44,352
Concrete wall - place concrete	101.00 cy	127.78 /cy	12,905
033089 Concrete Wall at SOE		/cy	195,956
221310 Sub Slab Venting			
Sub-slab piping above grade (18 locations)	2,250.00 lf	30.00 /lf	67,500
221310 Sub Slab Venting		/sf	67,500
312115 Sub-Slab Ventilation System			
Vapor Mitigation membrane - 40 dry mils covered with a G1000 protection fabric - ph 1	59,000.00 sf	4.15 /sf	244,850
Vapor Mitigation membrane - 40 dry mils covered with a G1000 protection fabric - ph 2 & 3	88,030.00 sf	4.15 /sf	365,325
Flat vent for vapor mitigation - phase 1	2,505.00 lf	20.00 /lf	50,100
Flat vent for vapor mitigation - ph 2 & 3	3,190.00 lf	20.00 /lf	63,800
312115 Sub-Slab Ventilation System		/sf	724,075
316213 Pressure Injected Footings (PIFs)			
PIF - 120 ton at pile caps (74 +118x2 +46x3 +16x4 +4x5)	532.00 ea	3,678.26 /ea	1,956,834
Mobilization - 3 riggs	0.00 ls	0.00 /ls	0
Load tests (1 static, 2 dynamic)	1.00 ls	/ls	
316213 Pressure Injected Footings (PIFs)		/ea	1,956,834
316616 Permanent Soldier Pile Wall			
Filter fabric	5,432.00 sf	2.00 /sf	10,864
Miradrain 6000 panel board	5,432.00 sf	8.00 /sf	43,456
316616 Permanent Soldier Pile Wall		/gsf	54,320
A1020 Special Foundations	408,500.00 gsf	8.21 /gsf	3,355,187



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
A1030 Lowest Floor Construction			
<i>033042 Concrete - Structural & Non-Structural Slabs</i>			
Form and set box outs	377.00 ea	265.67 /ea	100,158
Form slab perimeter - 24" dp - structural slab	4,080.00 sfca	21.67 /sfca	88,431
Allowance for slab depressions, eqp pds	1.00 ls	31,880.45 /ls	31,880
Pour stop at sloped slab - auditorium	190.00 lf	23.38 /lf	4,442
Edge form at tiered slab - auditorium	432.00 lf	47.82 /lf	20,659
Slab depressions shown and edge form less than 12"	2,460.00 lf	21.25 /lf	52,284
Rebar (9.2 #/sf) - ph 2 & 3 (per Harris Rebar)	405.00 ton	3,064.77 /ton	1,241,233
Rebar (1.75 #/sf) - ph 1	56.59 ton	3,064.77 /ton	173,426
WWM - topping slab	16,988.00 sf	0.53 /sf	9,026
Placing concrete - structural slabs	4,402.00 cy	57.39 /cy	252,608
Placing concrete - non-structural slab	1,033.00 cy	57.39 /cy	59,279
Ready-mix - slabs-on-grade (4000 psi) 9",10".12" no waste	3,034.00 cy	196.00 /cy	594,659
Ready-mix - slabs-on-grade (4000 psi) 6" no waste - ph 1	1,103.00 cy	196.00 /cy	216,186
Add for perimeter haunch - 24" ilo of 12" x 24" x 2,040'	151.11 cy	196.00 /cy	29,617
Add for thickned slab at structural	1,217.00 cy	196.00 /cy	238,530
Place & finish slab-on-grade (6")	54,460.00 sf	2.55 /sf	138,656
Place & finish slab-on-grade (6") - exterior	1,200.00 sf	2.55 /sf	3,055
Place & finish slab-on-grade (6") - sloped at theater	2,880.00 sf	2.55 /sf	7,333
Place & finish slab-on-grade (6") - tiered at theater	1,050.00 sf	2.55 /sf	2,673
Place & finish structural slab-on-grade (9")	2,890.00 sf	2.87 /sf	8,286
Place & finish structural slab-on-grade (10")	27,720.00 sf	2.87 /sf	79,474
Place & finish structural slab-on-grade (12")	55,770.00 sf	2.87 /sf	159,894
Place & finish structural slab-on-grade (12") at loading dock	1,060.00 sf	2.87 /sf	3,039
<i>033042 Concrete - Structural & Non-Structural Slabs</i>		/sf	<u>3,514,828</u>
<i>033046 Concrete - Topping Slab at Radiant Heat</i>			
Rigid insulation - radiant heat slab (SOG)	8,510.00 sf	3.19 /sf	27,130
WWM (SOG)	8,510.00 sf	0.25 /sf	2,128
Placing concrete - topping slab (SOG)	131.33 cy	57.39 /cy	7,536
Ready-mix - (4000 psi) 5" no waste - topping slab (SOG)	132.33 cy	196.00 /cy	25,936
Place & finish topping slab at radiant heat - 5" (SOG)	8,510.00 sf	2.55 /sf	21,667
<i>033046 Concrete - Topping Slab at Radiant Heat</i>		/sf	<u>84,397</u>
<i>070001 Waterproofing, Caulking</i>			
Waterproofing for elevator pits	0.00 ls	0.00 /ls	0
Waterproofing at acid neutralization pit	0.00 ls	0.00 /ls	0
<i>312002 Earth Moving within Building Footprint</i>			
Cut to fill subgrade within building footprint- Phase 2	1,441.00 cy	18.00 /cy	25,938
Fill from cut inside building footprint- Phase 2	1,441.00 cy	18.00 /cy	25,938
Fill to subgrade with offsite material inside building footprint- Phase 2	7,953.00 cy	38.00 /cy	302,214
Cut to fill subgrade within building footprint- Phase 3	1,642.00 cy	18.00 /cy	29,556
Fill from cut inside building footprint- Phase 3	1,642.00 cy	18.00 /cy	29,556
Fill to subgrade with offsite material inside building footprint- Phase 3	436.00 cy	40.00 /cy	17,440
3/4" Crushed stone below SOG (12") - ph 2,3	6,155.00 tn	28.00 /tn	172,340
3/4" Crushed stone below New Exterior & Interior Foundations (3") - ph 2,3	4,550.00 tn	28.00 /tn	127,400
Excavate for elevator pits - ph 2	2.00 ea	2,420.00 /ea	4,840
Fine grade under building - ph 2,3	83,422.00 sf	1.10 /sf	91,764
Filter fabric under slab - ph 2,3	83,402.00 sf	1.00 /sf	83,402
Temporary gravel working platform for ground improvement 12"	0.00 cy	0.00 /cy	0
Excavate & Backfill for Under Slab Plumbing - ph 2,3	3,080.00 lf	30.00 /lf	92,400
Excavate & Backfill for Sub-Slab Ventilation System - flat vent - ph 2,3	3,132.00 lf	6.00 /lf	18,792
<i>312002 Earth Moving within Building Footprint</i>		/gsf	<u>1,021,580</u>
<i>312600 Management and Disposition of Contaminated Material</i>			
MCP Regulated Soil-Type A Mass Unlined Landfill	2,560.00 tns	48.00 /tns	122,880



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
312600 Management and Disposition of Contaminated Material			
MCP Regulated Soil Type C Mass Asphalt Batching Facility	3,200.00 tns	52.00 /tns	166,400
MCP Regulated Soil-Type D Out of State Subtitle D (Non- Hazardous)	1,280.00 tns	68.00 /tns	87,040
Hazardous material	1,280.00 tns	350.00 /tns	448,000
MCP Regulated Soil-Less Than RCS-1	1,280.00 tns	24.00 /tns	30,720
312600 Management and Disposition of Contaminated Material		/tns	855,040
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A1030 Lowest Floor Construction	408,500.00 gsf	13.41 /gsf	5,475,845
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A10 Foundations	408,500.00 gsf	36.13 /gsf	14,759,326
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A Substructure	408,500.00 gsf	36.13 /gsf	14,759,326
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B Shell			
B10 Superstructure			
B1010 Floor Construction			
<i>015020 Trade Support</i>			
Staging at stairs	30.00 fl	2,750.00 /fl	82,500
Laborer for trade support - Structural Steel	wks	/wks	
<i>015020 Trade Support</i>		/gsf	82,500
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<i>033045 Concrete - SOD</i>			
Allowance for slab depressions, eqp pds no shown	1.00 ls	21,253.63 /ls	21,254
Slab depressions shown	835.00 lf	21.25 /lf	17,747
WWM material - floor SOMD (6x6 W2.9/W2.9)	288,255.00 sf	0.53 /sf	153,162
Ready-mix - slabs-on-deck - floor (4000 psi NW) (6.5")	5,782.89 cy	196.00 /cy	1,133,437
Place & finish slab-on-deck (F6.5) - Floor	288,255.00 sf	2.92 /sf	842,389
Rebar at slab edge	37.00 tn	3,064.77 /tn	113,397
033045 Concrete - SOD		/sf	2,281,385
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<i>033046 Concrete - Topping Slab at Radiant Heat</i>			
Rigid insulation - radiant heat slab (SOD)	7,830.00 sf	3.19 /sf	24,962
WWM material - floor SOMD (6x6 W2.9/W2.9)	7,830.00 sf	0.53 /sf	4,160
Ready-mix - topping slab - floor (4000 psi NW) (5.0") (SOD)	120.83 cy	196.00 /cy	23,682
Place & finish topping slab at radiant heat - 5" (SOD)	7,830.00 sf	2.92 /sf	22,882
033046 Concrete - Topping Slab at Radiant Heat		/sf	75,687
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<i>033048 Concrete - Stepped SOD at theater</i>			
Rebar (3.0#/sf)	3.75 tons	3,064.77 /tons	11,493
Ready-mix - slabs-on-deck - floor (4000 psi NW) tier seating	46.30 cy	196.00 /cy	9,075
Place & finish slab-on-deck (F6.5) - Floor tiered	1,280.00 sf	2.92 /sf	3,741
Form radius slab edge and steps	830.00 lf	47.82 /lf	39,691
033048 Concrete - Stepped SOD at theater		/sf	63,999
<hr/>			
<i>035320 Isolated Concrete Floating Floor</i>			
WWM material - isolation slab (6x6 W2.9/W2.9)	4,420.00 sf	0.53 /sf	2,349
Ready-mix - isolation slab (4000 psi NW) (4.0") no waste	51.24 cy	196.00 /cy	10,043
Place & finish slab-on-deck - isolation slab	4,420.00 sf	2.39 /sf	10,568
Isolation deck and pucks - material only D wing, level 2	4,420.00 sf	14.76 /sf	65,220
Isolation deck and pucks - install only	4,420.00 sf	9.44 /sf	41,735
035320 Isolated Concrete Floating Floor		/sf	129,916
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<i>051200 Structural Steel</i>			
Structural steel per engineer - floors (incl relieving angles)	2,815.00 tn	3,400.00 /tn	9,571,000
Structural steel per engineer - roof	1,100.00 tn	3,400.00 /tn	3,740,000
Reduce tonnage for grating	(17.00) tn	3,400.00 /tn	(57,800)



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
051200 Structural Steel			
Added roof screen supports - 80'x11' 6.5#/sf	2.86 tn	3,400.00 /tn	9,724
Metal floor decking 2" (F6.5) 18ga - SOD	288,255.00 sf	3.10 /sf	893,591
Metal floor decking 2" (F5.5) 18ga - SOD	14,600.00 sf	3.10 /sf	45,260
Grating at catwalk - auditorium	1,740.00 sf	70.00 /sf	121,800
Grating at catwalk - black box	670.00 sf	70.00 /sf	46,900
051200 Structural Steel		/tn	14,370,475
078100 Applied Fireproofing			
New steel beams and columns - floors	284,102.00 sf	2.55 /sf	724,460
078100 Applied Fireproofing		/sf	724,460
078101 Intumescent Paint			
Intumescent paint	1.00 ls	40,000.00 /ls	40,000
078101 Intumescent Paint		/gsf	40,000
078410 Firestopping			
Fire stopping - MEP penetrations	408,500.00 gsf	0.18 /gsf	73,530
078410 Firestopping		/gsf	73,530
079500 Expansion Control			
Expansion joint complete	1.00 ls	150,000.00 /ls	150,000
079500 Expansion Control		/gsf	150,000
B1010 Floor Construction	408,500.00 gsf	44.04 /gsf	17,991,952
B1020 Roof Construction			
033045 Concrete - SOD			
WWM material - roof SOMD (6x6 W2.9/W2.9)	14,600.00 sf	0.53 /sf	7,758
Ready-mix - slabs-on-deck - roof (4000 psi NW) (5.5")	248.00 cy	196.00 /cy	48,608
Place & finish slab-on-deck (F5.5) - Roof	14,600.00 sf	2.92 /sf	42,667
Edge form	14,600.00 sf	12.00 /sf	175,200
033045 Concrete - SOD		/sf	274,232
051200 Structural Steel			
Long span joist - at gym	165.00 tn	3,800.00 /tn	627,000
Metal decking 1.5" (F1.5) 18ga - roof	99,500.00 sf	3.10 /sf	308,450
Acoustical metal roof decking 3.0" (F3.0) 18/20ga - roof	36,450.00 sf	8.00 /sf	291,600
051200 Structural Steel		/tn	1,227,050
078100 Applied Fireproofing			
New steel beams and columns - roof	85,837.00 sf	2.65 /sf	227,468
078100 Applied Fireproofing		/sf	227,468
078101 Intumescent Paint			
Intumescent paint	1.00 ls	10,000.00 /ls	10,000
078101 Intumescent Paint		/gsf	10,000
B1020 Roof Construction	408,500.00 gsf	4.26 /gsf	1,738,750
B10 Superstructure	408,500.00 gsf	48.30 /gsf	19,730,701
B20 Exterior Enclosure			
B2010 Exterior Walls			
015020 Trade Support			
Laborer for trade support - Masonry	wks	/wks	



CONSIGLI

Est. 1905

Arlington High School

4/19/2020

60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
015090 Mock-ups			
Mock-up	1.00 ls	150,000.00 /ls	150,000
<i>015090 Mock-ups</i>		/ls	<u>150,000</u>
042000 Unit Masonry			
Multi trade staging at rear of phase 1 - 6 mo	30,000.00 sf	12.00 /sf	360,000
Exterior staging	100,224.00 sf	4.00 /sf	400,896
Brick veneer A, Endicott Clay Smooth/Artisan blend (\$9.87/sf) incl insulation & SS ties	59,874.00 sf	39.75 /sf	2,379,992
Brick veneer B, Endicott Clay Smooth/Riverbirch blend (\$8.82/sf)	12,837.00 sf	38.70 /sf	496,792
Premium for soldier course accent - H	2,595.00 sf	1.50 /sf	3,893
Premium for articulated brick	11,170.00 sf	3.00 /sf	33,510
Polished ground face CMU -Jandris with accents Type A	50,882.00 sf	28.50 /sf	1,450,137
Polished ground face CMU A2 including insulation & SS ties	4,874.00 sf	28.50 /sf	138,909
Polished ground face CMU C (projecting) including insulation & SS ties	1,046.00 sf	32.00 /sf	33,472
Glazed Brick, Beldin veneer including insulation & SS ties	711.00 sf	48.00 /sf	34,128
Add for date stone	1.00 ls	1,000.00 /ls	1,000
<i>042000 Unit Masonry</i>		/sf	<u>5,332,728</u>
055000 Metal Fabrications			
Loose lintels (base on sf of brick)	130,224.00 sf	0.50 /sf	65,112
<i>055000 Metal Fabrications</i>		/gsf	<u>65,112</u>
057500 Decorative Formed Metal (column covers)			
Exterior column covers - 24" diam x 16.0' North Canopy 8 ea	128.00 lf	350.00 /lf	44,800
Exterior column covers - 24" diam x 16.0' South Canopy 8 ea	128.00 lf	350.00 /lf	44,800
Exterior column covers - 24" x 14.0' diam east courtyard 2 ea	28.00 lf	350.00 /lf	9,800
<i>057500 Decorative Formed Metal (column covers)</i>		/lf	<u>99,400</u>
059050 Specialized Column Cover			
Custom fabricated "tree" FOB	1.00 ls	54,500.00 /ls	54,500
Custom painting and supervision	1.00 ls	6,500.00 /ls	6,500
Field installation	1.00 ls	15,000.00 /ls	15,000
Adjust to Blue Bird	(1.00) ls	36,000.00 /ls	(36,000)
<i>059050 Specialized Column Cover</i>			<u>40,000</u>
070001 Waterproofing, Caulking			
sealing & caulking - exterior - masonry	132,108.00 sf	1.00 /sf	132,108
Air/vapor barrier - perimeter of curtain-wall	10,222.00 lf	10.80 /lf	110,398
Air/vapor barrier - exterior walls - masonry	132,108.00 sf	5.50 /sf	726,594
Air/vapor barrier - exterior walls - exterior walls - mtl panel	13,724.00 sf	5.94 /sf	81,521
Air/vapor barrier - exterior walls - exterior soffits - DAFS	9,663.00 sf	5.94 /sf	57,398
<i>070001 Waterproofing, Caulking</i>		/gsf	<u>1,108,018</u>
070002 Roofing & Flashing			
Thermoplastic roofing 60 mil - vertical at parapet 743' x 2'	2,580.00 sf	15.50 /sf	39,990
<i>070002 Roofing & Flashing</i>		/sf	<u>39,990</u>
074200 Metal Wall Panels			
Metal panel siding - corrugated	12,681.00 sf	62.00 /sf	786,222
Metal panel siding - corrugated radius	300.00 sf	70.00 /sf	21,000
Metal panels at roof screens; acoustical incl purlins	1,507.00 sf	72.00 /sf	108,504
Metal panels at roof screens; acoustical - added for HVAC redesign	880.00 sf	72.00 /sf	63,360
Metal fascia at canopies	1,051.00 lf	90.00 /lf	94,590
<i>074200 Metal Wall Panels</i>		/gsf	<u>1,073,676</u>
074241 Porcelain Tile Wall System (Porcelanosa)			
Porcelain panel North Entry (flush with CW)	177.00 sf	110.00 /sf	19,470
Porcelain cornice/soffit - South entry	1,544.00 sf	110.00 /sf	169,840
Porcelain cornice/soffit - frieze beneath	121.00 sf	110.00 /sf	13,310



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
074241 Porcelain Tile Wall System (Porcelanosa)			
Porcelain at projected bay windows	173.00 sf	110.00 /sf	19,030
<i>074241 Porcelain Tile Wall System (Porcelanosa)</i>		/sf	<u>221,650</u>
092900 Gypsum Board Assemblies			
Interior gypsum at exterior walls	141,713.00 sf	3.10 /sf	439,310
LGF and sheathing at exterior walls - masonry	136,398.00 sf	14.50 /sf	1,977,770
LGF and sheathing at exterior walls - siding	14,996.00 sf	14.50 /sf	217,442
LGF and sheathing at exterior soffits - DAFS	9,663.00 sf	14.50 /sf	140,113
Engineering	1.00 ls	50,000.00 /ls	50,000
<i>092900 Gypsum Board Assemblies</i>		/sf	<u>2,824,636</u>
092910 Direct Applied Finish System (DAFS)			
DAFS	9,770.00 sf	42.00 /sf	410,340
<i>092910 Direct Applied Finish System (DAFS)</i>		/sf	<u>410,340</u>
101400 Signage			
Allowance for exterior building signage	1.00 ls	40,000.00 /ls	40,000
<i>101400 Signage</i>		/gsf	<u>40,000</u>
B2010 Exterior Walls	408,500.00 gsf	27.92 /gsf	11,405,550
B2020 Exterior Windows			
<i>015020 Trade Support</i>			
Laborer for trade support - Glazing	wks	/wks	
<i>061000 Rough Carpentry</i>			
Window blocking - aluminum windows	7,274.00 lf	8.66 /lf	63,011
Window blocking - curtain wall	10,294.00 lf	8.66 /lf	89,172
Window blocking - curtain wall; interior	350.00 lf	8.66 /lf	3,032
<i>061000 Rough Carpentry</i>		/gsf	<u>155,215</u>
<i>070001 Waterproofing, Caulking</i>			
sealing & caulking - exterior - perimeter AW	6,304.00 lf	10.00 /lf	63,040
sealing & caulking - exterior - perimeter CW	11,017.00 lf	10.00 /lf	110,170
<i>070001 Waterproofing, Caulking</i>		/gsf	<u>173,210</u>
<i>084410 Glazed Aluminum Curtainwall</i>			
Silicone sealant and extrusion at perimeter of CW	11,017.00 lf	20.00 /lf	220,340
Premium for custom extrusion profile	2,750.00 lf	40.00 /lf	110,000
Curtain-wall	38,874.00 sf	110.00 /sf	4,276,140
Premium Bump out windows at Pre-K area - Curtain-wall (CW 20x10)	449.00 sf	40.00 /sf	17,960
Premium for North Facing (includes SHGC premium)	14,392.00 sf	6.00 /sf	86,352
Add for security glazing where shown	2,800.00 sf	40.00 /sf	112,000
Curtain-wall add for operable sash	3,434.00 sf	60.00 /sf	206,040
Curtainwall canopy	2.00 ls	10,000.00 /ls	20,000
<i>084410 Glazed Aluminum Curtainwall</i>	<u>38,808.00 sf</u>	<u>130.10 /sf</u>	<u>5,048,832</u>
<i>085110 Aluminum Windows</i>			
Aluminum windows - standard	8,216.00 sf	93.00 /sf	764,088
Add for - North facing - SHGC glass	3,356.00 sf	4.50 /sf	15,102
<i>085110 Aluminum Windows</i>		/sf	<u>779,190</u>
<i>089000 Louvers & Vents</i>			
Louvers at exterior	600.00 sf	100.00 /sf	60,000
<i>089000 Louvers & Vents</i>		/gsf	<u>60,000</u>
<i>107113 Sun Control Devices</i>			
Horizontal sunshade	0.00 lf	/lf	



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
B2020 Exterior Windows	408,500.00 gsf	15.22 /gsf	6,216,447
B2030 Exterior Doors			
<i>083330 Exterior OH Coiling Door</i>			
Insulated coiling door EX227 Maker/Wood	120.00 sf	60.00 /sf	7,200
Add for operator	1.00 ls	1,500.00 /ls	1,500
<i>083330 Exterior OH Coiling Door</i>		/ea	8,700
<i>084410 Glazed Aluminum Curtainwall</i>			
Aluminum (ext) doors complete	56.00 lvs	4,500.00 /lvs	252,000
FRP doors in alum frames	7.00 lvs	1,800.00 /lvs	12,600
Handicap operators Hrdw set 56, 64, 65 ext	4.00 lvs	4,000.00 /lvs	16,000
<i>084410 Glazed Aluminum Curtainwall</i>		/sf	280,600
<i>087010 Install Doors and Hardware</i>			
Hardware - material	47.00 lvs	600.00 /lvs	28,200
Hardware - automatic door operator	2.00 ea	0.10 /ea	0
Hardware - continuous hinge w electric thru-wire	56.00 ea	0.00 /ea	0
Hardware - cylinder core housing	54.00 ea	0.00 /ea	0
Hardware - device w dummy trim & RQE	1.00 ea	0.10 /ea	0
Hardware - device w electric latch & RQE, weather	6.00 ea	0.00 /ea	0
Hardware - device w trim & RQE	40.00 ea	0.00 /ea	0
Hardware - device w trim, elect latch & RQE	3.00 ea	0.03 /ea	0
Hardware - door bottom sweep/raindrip	56.00 ea	0.00 /ea	0
Hardware - door closer	54.00 ea	0.00 /ea	0
Hardware - door stop	50.00 ea	0.00 /ea	0
Hardware - frame silencers	160.00 ea	0.00 /ea	0
Hardware - matched power supply	43.00 ea	0.00 /ea	0
Hardware - mortise lockset w knurled lever	6.00 ea	0.00 /ea	0
Hardware - overhead raindrip	48.00 ea	0.00 /ea	0
Hardware - perimeter weather gasketing	48.00 ea	0.00 /ea	0
Hardware - pushpad actuators	4.00 ea	0.01 /ea	0
Hardware - set-magnetic door contacts	56.00 ea	0.00 /ea	0
Hardware - small format cylinder core	54.00 ea	0.00 /ea	0
Hardware - threshold	54.00 ea	0.00 /ea	0
<i>087010 Install Doors and Hardware</i>		/lvs	28,201
B2030 Exterior Doors	408,500.00 gsf	0.78 /gsf	317,501
B20 Exterior Enclosure	408,500.00 gsf	43.92 /gsf	17,939,498
B30 Roofing			
B3010 Roof Coverings			
<i>055000 Metal Fabrications</i>			
Roof ladders (2.5',3.0',6.0',13.0',14.0',15.5',17.0')	71.00 vlf	900.00 /vlf	63,900
<i>055000 Metal Fabrications</i>		/gsf	63,900
<i>061000 Rough Carpentry</i>			
Roof blocking - edge condition - rev to 7 pc/lf (7/A6.1)	5,105.00 lf	44.00 /lf	224,620
Roof blocking - misc based on roof sf	153,059.00 sf	0.75 /sf	114,794
Roof blocking - at skylights - straight	1,406.00 lf	36.00 /lf	50,616
Roof blocking - at skylights - radius	575.00 lf	60.00 /lf	34,500
<i>061000 Rough Carpentry</i>		/gsf	424,530
<i>070002 Roofing & Flashing</i>			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
070002 Roofing & Flashing			
Thermoplastic roofing, min R40 R1A (flat)	75,283.00 sf	13.45 /sf	1,012,556
Thermoplastic roofing, min R40 R1B, 1B1 (tapered)	55,116.00 sf	15.00 /sf	826,740
Thermoplastic roofing, min R40 R1C (tapered)	13,259.00 sf	15.00 /sf	198,885
Thermoplastic roofing, min R40 R1D (canopies)	1,869.00 sf	18.00 /sf	33,642
Thermoplastic roofing, min R40 R1E,F (Green Roof)	9,213.00 sf	22.00 /sf	202,686
Pavers with landscaping	1.00 ls	0.01 /ls	0
Parapet roof edge (7/A6.2)	860.00 lf	54.00 /lf	46,440
Roof edge without taper	3,233.00 lf	52.00 /lf	168,116
Flashing at stair towers	400.00 lf	31.50 /lf	12,600
Flashing at green roof	312.00 lf	31.50 /lf	9,828
Flashing at canopies	371.00 lf	31.50 /lf	11,687
Add for overflow scuppers	25.00 ea	360.00 /ea	9,000
Flashing at roof curbs - US 1-5 skylights	1,406.00 lf	36.00 /lf	50,616
Flashing at roof curbs - US 6-7 skylights	575.00 lf	36.00 /lf	20,700
070002 Roofing & Flashing		/sf	2,603,496
110140 Tieback and Lifeline Anchors			
Tie off davits	1.00 ls	75,000.00 /ls	75,000
110140 Tieback and Lifeline Anchors		/gsf	75,000
B3010 Roof Coverings	408,500.00 gsf	7.75 /gsf	3,166,926
B3020 Roof Openings			
077200 Roof Accessories			
Smoke hatches above stage 5.5'x12' acoustically rated	2.00 ea	12,000.00 /ea	24,000
Elevator vent	3.00 ea	1,800.00 /ea	5,400
077200 Roof Accessories			29,400
086200 Unit Skylights			
US 2 - Prefabricated unit skylights at gym - 4' 7" x 4' 7"; w/ integral motorized shades	48.00 ea	1,800.00 /ea	86,400
US 3 - Prefabricated unit skylights - 4' x 4'	6.00 ea	1,440.00 /ea	8,640
US 4 - Prefabricated unit skylights - 3' 6" x 3' 6"	10.00 ea	1,350.00 /ea	13,500
US 5 - Prefabricated unit skylights - 2' 4" x 2' x 4"	1.00 ea	1,300.00 /ea	1,300
US 6 - Prefabricated unit skylights - D = 8'	6.00 ea	6,696.00 /ea	40,176
US 7 - Prefabricated unit skylights - D = 5'	27.00 ea	2,422.00 /ea	65,394
086200 Unit Skylights		/ea	215,410
086300 Metal-Framed Skylights			
US1 Metal framed skylights - 120' x 5'-4"	640.80 sf	130.00 /sf	83,304
086300 Metal-Framed Skylights		/sf	83,304
122400 Window Shades			
US 2 gym skylight - integral shades, power operated - NIC	0.00 ea	0.00 /ea	0
US 6 unit skylights - D = 8' - integral shade, power operated	2.00 ea	3,000.00 /ea	6,000
US 7 unit skylights - D = 5' - integral shade, power operated	4.00 ea	2,000.00 /ea	8,000
122400 Window Shades		/gsf	14,000
B3020 Roof Openings	408,500.00 gsf	0.84 /gsf	342,114
B30 Roofing	408,500.00 gsf	8.59 /gsf	3,509,040
B Shell	408,500.00 gsf	100.81 /gsf	41,179,240



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
C Interiors			
C10 Interior Construction			
C1010 Partitions			
<i>015020 Trade Support</i>			
Hoisting	60.00 mo	5,000.00 /mo	300,000
Laborer for trade support - Drywall	wks	/wks	
<i>015020 Trade Support</i>		/gsf	300,000
<i>042000 Unit Masonry</i>			
CMU partition - interior - elevator shafts	12,340.00 sf	32.00 /sf	394,880
CMU partition - interior at locker area - 16A - 960' x 12'-8"	12,158.00 sf	24.00 /sf	291,792
CMU partition - interior at locker area - 16B - 213' x 12'-8"	2,697.00 sf	24.00 /sf	64,728
CMU partition - interior at locker area - 16C	340.00 sf	24.00 /sf	8,160
Install HM frame	30.00 ea	197.31 /ea	5,919
<i>042000 Unit Masonry</i>		/sf	765,479
<i>055000 Metal Fabrications</i>			
Seismic clips - 4'oc each side - interior	456.00 ea	66.00 /ea	30,096
<i>055000 Metal Fabrications</i>		/gsf	30,096
<i>061000 Rough Carpentry</i>			
Additional wood blocking - building interior	408,500.00 gsf	0.62 /gsf	253,270
Wood base lgm at lockers	1,300.00 lf	69.30 /lf	90,090
<i>061000 Rough Carpentry</i>		/gsf	343,360
<i>080007 Glazing</i>			
9/16" Laminated glass in 1" alum frame	1,943.00 sf	55.00 /sf	106,865
3/8" Tempered glass in alum frame	4,421.00 sf	50.00 /sf	221,050
9/16" Laminated glass in 1" alum frame acoustical (dbl)	631.00 sf	110.00 /sf	69,410
3/8" Tempered glass in alum frame acoustical (dbl)	1,559.00 sf	100.00 /sf	155,900
applied film on glass	245.00 ea	200.00 /ea	49,000
# of lights	573.00 ea	0.00 /ea	1
Anti-reflective glass at auditorium	28.00 sf	150.00 /sf	4,200
<i>080007 Glazing</i>		/gsf	606,426
<i>084410 Glazed Aluminum Curtainwall</i>			
Interior Curtain-wall	2,009.00 sf	110.00 /sf	220,990
<i>084410 Glazed Aluminum Curtainwall</i>		/sf	220,990
<i>092900 Gypsum Board Assemblies</i>			
Ceiling assembly at vestibule complete	430.00 sf	90.00 /sf	38,700
Premium for MR board at wall tile	65,185.00 sf	0.10 /sf	6,519
Premium for high impact at stairs	20,000.00 sf	0.95 /sf	19,000
Gyp board at stairs walls	995.00 sf	6.00 /sf	5,970
Gyp board at stair soffit	120.00 sf	6.00 /sf	720
Gyp partition type 1A - stud + gyp (1+1+ insul)	71,486.00 sf	12.35 /sf	882,852
Gyp partition type 1B - stud + gyp (1+1+ insul)	768.00 sf	12.35 /sf	9,485
Gyp partition type 1C - stud + gyp (1+1+ insul)	570.00 sf	12.35 /sf	7,040
Gyp partition type 2A - stud + gyp (2+1+ insul)	166,781.00 sf	15.44 /sf	2,574,682
Gyp partition type 2B - stud + gyp (2+1+ insul)	469.00 sf	15.44 /sf	7,241
Gyp partition type 2C - stud + gyp (2+1+ insul)	23,805.00 sf	15.44 /sf	367,490
Gyp partition type 3A - stud + gyp (2+2+ insul)	65,339.00 sf	18.53 /sf	1,210,405
Gyp partition type 3C - stud + gyp (2+2+ insul)	2,285.00 sf	18.53 /sf	42,330
Gyp partition type 4A - stud + gyp (1+ insul)	4,244.00 sf	8.31 /sf	35,278
Gyp partition type 5A - stud + gyp (1+1+ insul)	10,204.00 sf	12.35 /sf	126,019
Gyp partition type 5B - stud + gyp (1+1+ insul)	160.00 sf	12.35 /sf	1,976
Gyp partition type 6A - stud + gyp (1+ insul)	23,728.00 sf	8.31 /sf	197,239
Gyp partition type 6B - stud + gyp (1+ insul)	10,036.00 sf	8.31 /sf	83,399



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
092900 Gypsum Board Assemblies			
Gyp partition type 7A - stud + gyp (2+ insul)	115,881.00 sf	11.40 /sf	1,321,043
Gyp partition type 7B - stud + gyp (2+ insul)	12,688.00 sf	11.40 /sf	144,643
Gyp partition type 7C - stud + gyp (2+ insul)	524.00 sf	11.40 /sf	5,974
Gyp partition type 8A - stud + gyp (1)	30,590.00 sf	8.31 /sf	254,203
Gyp partition type 8B - stud + gyp (1) at column surrounds	79,606.00 sf	9.50 /sf	756,257
Gyp partition type 10A shaftwall 2 hr	15,835.00 sf	18.05 /sf	285,822
Gyp partition type 12A - staggered dbl ms + gyp (2+2+ insul)	1,354.00 sf	24.23 /sf	32,801
Gyp partition type 12B - staggered dbl ms + gyp (2+2+ insul)	18,945.00 sf	24.23 /sf	458,943
Gyp partition type 14A - low wall - stud + gyp (1+1+ insul)	1,443.00 sf	24.23 /sf	34,957
Gyp partition type 14B - low wall - stud + gyp (1+1+ insul)	263.00 sf	24.23 /sf	6,371
<i>092900 Gypsum Board Assemblies</i>		/sf	<u>8,917,357</u>
102220 Operable Partitions			
Operable partition at Sped conf 232	12.00 lf	750.00 /lf	9,000
Operable partition classroom 414,415	30.00 lf	660.00 /lf	19,800
Operable partition classroom 429/430	30.00 lf	660.00 /lf	19,800
<i>102220 Operable Partitions</i>		/lf	<u>48,600</u>
C1010 Partitions	408,500.00 gsf	27.50 /gsf	11,232,308
C1020 Interior Doors			
<i>080007 Glazing</i>			
Non-rated glass in wd door - type B - 18" x 65"	40.00 ea	325.00 /ea	13,000
Non-rated glass in wd door - type E - 9" x 65"	167.00 ea	250.00 /ea	41,750
Non-rated glass in wd door - type F - 9" x 32"	118.00 ea	175.00 /ea	20,650
Non-rated glass in wd door - type H - 6" x 26"	19.00 ea	150.00 /ea	2,850
Non-rated glass in wd door - type H - 12" x 31"	19.00 ea	225.00 /ea	4,275
Rated glass in wood door type D 3"x30"	41.00 ea	300.00 /ea	12,300
<i>080007 Glazing</i>		/gsf	<u>94,825</u>
<i>081110 Hollow Metal Frames</i>			
HM frames - type 1, single	563.00 ea	362.00 /ea	203,806
HM frames - type 2, double	89.00 ea	410.00 /ea	36,490
HM frames - type 3, single	32.00 ea	362.00 /ea	11,584
HM frame - type 4	27.00 ea	362.00 /ea	9,774
<i>081110 Hollow Metal Frames</i>		/gsf	<u>261,654</u>
<i>081400 Flush Wood Doors</i>			
Wood doors - A flush	417.00 lvs	365.00 /lvs	152,205
Wood doors - B two lights	40.00 lvs	425.00 /lvs	17,000
Wood doors - D single light	41.00 lvs	392.00 /lvs	16,072
Wood doors - E single light	167.00 lvs	392.00 /lvs	65,464
Wood doors - F single light	118.00 lvs	392.00 /lvs	46,256
Wood doors - H two lights	19.00 lvs	480.00 /lvs	9,120
add for STC30	146.00 lvs	40.00 /lvs	5,840
add for STC40	18.00 lvs	250.00 /lvs	4,500
add for 90 minute FR	77.00 lvs	125.00 /lvs	9,625
<i>081400 Flush Wood Doors</i>		/lvs	<u>326,082</u>
<i>083100 Access Doors and Panels</i>			
Access doors & frames	1.00 ls	25,000.00 /ls	25,000
<i>083100 Access Doors and Panels</i>		/gsf	<u>25,000</u>
<i>083300 Overhead Coiling Doors</i>			
Manual coiling door at theater control room 2/A12.7.2	1.00 ea	3,900.00 /ea	3,900
Overhead coiling door - 7'x10' at stage vestibule 236	1.00 ea	4,522.00 /ea	4,522
<i>083300 Overhead Coiling Doors</i>		/ea	<u>8,422</u>



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
083320 Overhead Coiling Grilles			
OH027A - 5'-5"	6.00 lf	900.00 /lf	5,400
OH231A - 5'-0"	5.00 lf	900.00 /lf	4,500
OH334B - 7'-5"	8.00 lf	900.00 /lf	7,200
083320 Overhead Coiling Grilles		/ea	17,100
083336 Side Coiling Grilles			
Side coiling grille at servery	62.00 lf	1,050.00 /lf	65,100
083336 Side Coiling Grilles		/gsf	65,100
083510 Horizontal-Sliding Accordion Door			
Horizontal fire door at level 2 star 2	28.00 lf	1,400.00 /lf	39,200
083510 Horizontal-Sliding Accordion Door		/ea	39,200
083513 Folding Doors			
Interior glass folding door (Nana Wall)- 24'x10' at library L3 346.2	1.00 ea	45,600.00 /ea	45,600
Interior glass folding door 235 - 6' long x 4'-2" h	1.00 ea	8,000.00 /ea	8,000
083513 Folding Doors		/gsf	53,600
084410 Glazed Aluminum Curtainwall			
Aluminum (int) doors complete	25.00 lvs	4,500.00 /lvs	112,500
Handicap operators Hrdw set 56, 64, 65 int	4.00 lvs	4,000.00 /lvs	16,000
084410 Glazed Aluminum Curtainwall		/sf	128,500
087010 Install Doors and Hardware			
Install door & hardware - interior	802.00 lvs	491.00 /lvs	393,782
Hardware - 24 VDC power supply for mortise lock	82.00 ea	0.00 /ea	0
Hardware - 2-ball bearing hinge	1,920.00 ea	0.00 /ea	2
Hardware - 4-ball bearing hinge	371.00 ea	0.00 /ea	0
Hardware - acoustic automatic door bottom seal	51.00 ea	0.00 /ea	0
Hardware - acoustic automatic door bottoms	16.00 ea	0.00 /ea	0
Hardware - acoustic meeting stile gasketing	29.00 ea	0.00 /ea	0
Hardware - auto drop door bottom	108.00 ea	0.00 /ea	0
Hardware - automatic door operator	2.00 ea	0.01 /ea	0
Hardware - classroom function deadbolt	16.00 ea	0.00 /ea	0
Hardware - cylinder core housing	750.00 ea	0.00 /ea	1
Hardware - door closer	267.00 ea	0.00 /ea	0
Hardware - door closer w mech HO	16.00 ea	0.00 /ea	0
Hardware - door kick plates	677.00 ea	0.00 /ea	1
Hardware - door protection plaets	254.00 ea	0.00 /ea	0
Hardware - door stop	791.00 ea	0.00 /ea	1
Hardware - electric & RQE mortise lock	7.00 ea	0.00 /ea	0
Hardware - electric dogging & RQE device w trim	4.00 ea	0.01 /ea	0
Hardware - electric latch retract & RQE device w trim	61.00 ea	0.00 /ea	0
Hardware - flushmount auto door bottom	153.00 ea	0.00 /ea	0
Hardware - frame silencers	2,029.00 ea	0.00 /ea	2
Hardware - LBR device w elec trim & RQE	28.00 ea	0.00 /ea	0
Hardware - LBR devise w mech trim & RQE	28.00 ea	0.00 /ea	0
Hardware - magnetic door hold-opens	56.00 ea	0.00 /ea	0
Hardware - mortise lockset	402.00 ea	0.00 /ea	0
Hardware - mortise lockset w "occupied" indication	41.00 ea	0.00 /ea	0
Hardware - mortise lockset w securty function	150.00 ea	0.00 /ea	0
Hardware - perimeter acoustic gasketing	155.00 ea	0.00 /ea	0
Hardware - pushpad actuators	4.00 ea	0.01 /ea	0
Hardware - RIM device w mech trim & CD	11.00 ea	0.00 /ea	0
Hardware - RQE exist bearing device w trim	36.00 ea	0.00 /ea	0
Hardware - set-in & ext hinge fingershields	30.00 ea	0.00 /ea	0
Hardware - set-perimeter gasketing	152.00 ea	0.00 /ea	0
Hardware - set-top & bottom manual flushbolts	31.00 ea	0.00 /ea	0



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
087010 Install Doors and Hardware			
Hardware - single sided cylinder deadbolt	128.00 ea	0.00 /ea	0
Hardware - small format cylinder core	972.00 ea	0.00 /ea	1
Hardware - SVR device w mech trim & CD	4.00 ea	0.01 /ea	0
Hardware - thru-wire electric hinge	128.00 ea	0.00 /ea	0
087010 Install Doors and Hardware		/lvs	<u>393,792</u>
087100 Door Hardware			
Furnish hardware	802.00 lvs	681.00 /lvs	<u>546,162</u>
087100 Door Hardware		/lvs	<u>546,162</u>
090007 Painting			
Paint HM frame - interior	711.00 lvs	175.00 /lvs	<u>124,425</u>
090007 Painting		/gsf	<u>124,425</u>
092900 Gypsum Board Assemblies			
Install HM Frame	781.00 op	80.00 /op	<u>62,480</u>
092900 Gypsum Board Assemblies		/sf	<u>62,480</u>
C1020 Interior Doors	408,500.00 gsf	5.25 /gsf	2,146,342
C1030 Specialties/Millwork			
055000 Metal Fabrications			
Auditorium railing at front of balcony, SS short	0.00 lf	0.00 /lf	0
Auditorium railing at bottom balcony aile	8.00 lf	300.00 /lf	2,400
Auditorium railing floor mtd at balcony - side steps only	22.00 lf	300.00 /lf	6,600
Auditorium floor mtd ailes railings balcony(24 loc)	0.00 lf	0.00 /lf	0
Auditorium railing on top of short wall lower level , SS short, radius (6/A8.75)	81.00 lf	375.00 /lf	30,375
Auditorium railing at top of short wall lower level, SS four mtd hndcp	38.00 lf	300.00 /lf	11,400
Auditorium floor mtd ailes railings lower level (6 loc)	0.00 lf	0.00 /lf	0
Decorative ramp rail, radius at D-lab - wall mtd	25.00 lf	175.00 /lf	4,375
Decorative ramp rail, radius at D-lab - floor mtd	20.00 lf	550.00 /lf	11,000
Decorative glass railing at Forum/bridge- straight (3/A10.0.2)	100.00 lf	445.00 /lf	44,500
Straight ladder - black box 1/19.5'	19.50 lf	650.00 /lf	12,675
Straight ladder - auditorium (A2.8),	102.00 lf	650.00 /lf	66,300
Elevator pit ladders	3.00 ls	2,600.00 /ls	7,800
Rail at auditorium catwalks - A2.4E, A3.3E	730.00 lf	290.00 /lf	211,700
Rail at black box catwalks - A2.3E	180.00 lf	290.00 /lf	52,200
Additional misc metals	408,500.00 gsf	0.75 /gsf	<u>306,375</u>
055000 Metal Fabrications		/gsf	<u>767,700</u>
057500 Decorative Formed Metal (column covers)			
Int aluminum column covers say 24" diam - 5/14 28/16 6/24	662.00 lf	310.00 /lf	<u>205,220</u>
057500 Decorative Formed Metal (column covers)		/lf	<u>205,220</u>
061000 Rough Carpentry			
Framing for D lab raised seating	1,300.00 sf	30.00 /sf	<u>39,000</u>
061000 Rough Carpentry		/gsf	<u>39,000</u>
064020 Interior Architectural Woodwork			
Window sills at borrowed lights- solid surface per 3/A7.1.2	850.00 lf	60.00 /lf	51,000
Window sills at exterior- solid surface per 3/A7.1.2	2,270.00 lf	60.00 /lf	136,200
Framing, circular around Lockers - radius/straight, trim between lockers, wood soffit cap (A8.5.1)	843.00 lf	200.00 /lf	168,600
Decorative Stairs & Mezz Railing at Preschool (A10.2.2)	68.00 lf	250.00 /lf	17,000
Counter at kitchen/servery - with food service eqp	0.00 lf	490.00 /lf	0
Cafeteria Island Counter	70.00 lf	450.00 /lf	31,500
Steam Small Display	7.00 lf	480.00 /lf	3,360
Performing Arts Spine Bench	313.00 sf	148.00 /sf	46,324



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>064020 Interior Architectural Woodwork</i>			
Performing Arts Under stair Bench	201.00 sf	148.00 /sf	29,748
Library Bench Under Stair - radius (14/A8.6.2)	126.00 sf	196.00 /sf	24,696
Auditorium Balcony Lobby Bench	91.00 sf	148.00 /sf	13,468
Courtyard Window Bay Bench (12/A8.6.2)	172.00 sf	148.00 /sf	25,456
Library Bench - mostly radius (10/A8.6.2)	80.00 sf	196.00 /sf	15,680
Work Bars Overlooking Forum (12/A8.6.5) counter/wall panels	346.00 sf	110.00 /sf	38,060
Upper Forum Seating Area (11/A8.6.5)	408.00 sf	148.00 /sf	60,384
Lobby Millwork Pop Out (1/A8.6.5)	186.00 sf	110.00 /sf	20,460
Cafeteria Wall Bench	267.00 sf	124.00 /sf	33,108
Preschool Understair Bench	175.00 sf	148.00 /sf	25,900
Preschool Peg Board (5/A8.6.5)	84.00 sf	90.00 /sf	7,560
Lightwell Counter - curved premium	265.00 lf	500.00 /lf	132,500
Library Light Cone Counter - curved premium	93.00 lf	500.00 /lf	46,500
Media Circulation Desk - partially radius, full height behind (7/A8.6.3)	22.00 lf	1,050.00 /lf	23,100
Media Circulation Desk - tall cabinets (7/A8.6.3)	12.00 lf	726.00 /lf	8,712
Media Circulation Desk - back counter (7/A8.6.3)	9.00 lf	850.00 /lf	7,650
Media Circulation Desk - wall shelving (7/A8.6.3)	27.00 lf	300.00 /lf	8,100
Mass Ave Admin Desk (65/A8.6.3)	13.00 lf	980.00 /lf	12,740
First Floor Admin Desk (3/A8.6.3)	10.00 lf	980.00 /lf	9,800
Preschool Admin Desk - partially radius (1/A8.6.3)	25.00 lf	1,450.00 /lf	36,250
Display Cases at Gym - built-in component (6/A8.6.4)	31.00 lf	480.00 /lf	14,880
Display Cases at Gym - glass shelving (6/A8.6.4)	80.00 sf	1.00 /sf	80
Display Cases at Gym - glass doors (6/A8.6.4)	248.00 sf	1.00 /sf	248
Steam Small Display	7.00 lf	479.99 /lf	3,360
Single Tall Display - built-in component (8/A8.6.4)	4.00 lf	479.99 /lf	1,920
Single Tall Display - glass shelving (8/A8.6.4)	19.00 sf	1.00 /sf	19
Single Tall Display - glass doors (8/A8.6.4)	50.00 sf	1.00 /sf	50
Double Tall Display - built-in component (7/A8.6.4)	8.00 lf	480.00 /lf	3,840
Double Tall Display - glass shelving (7/A8.6.4)	37.00 sf	1.00 /sf	37
Double Tall Display - glass doors (7/A8.6.4)	99.00 sf	1.00 /sf	99
Corridor Display - built-in component (11/A8.6.4)	4.00 lf	479.99 /lf	1,920
Corridor Display - glass shelving (11/A8.6.4)	3.00 sf	1.01 /sf	3
Corridor Display - glass doors (11/A8.6.4)	33.00 sf	1.00 /sf	33
Auditorium Displays - built-in component (10/A8.6.4)	8.00 lf	480.00 /lf	3,840
Auditorium Displays - glass doors (10/A8.6.4)	32.00 sf	1.00 /sf	32
Library Entry Display - built-in component (12/A8.6.4)	3.00 lf	479.99 /lf	1,440
Library Entry Display - glass doors (12/A8.6.4)	12.00 sf	1.00 /sf	12
Balcony Entry Display - built-in component (16/A8.6.4)	3.00 lf	479.99 /lf	1,440
Balcony Entry Display - glass shelving (16/A8.6.4)	7.00 sf	1.01 /sf	7
Balcony Lobby Display - built-in component (14/A8.6.4)	11.00 lf	480.00 /lf	5,280
Balcony Lobby Display - glass shelving (14/A8.6.4)	7.00 sf	1.01 /sf	7
Balcony Lobby Display - glass doors (14/A8.6.4)	85.00 sf	1.00 /sf	85
Life Skill Cafe counter - curved premium	48.00 lf	1,057.25 /lf	50,748
Life Skill Cafe pivot sliding cabinet doors	13.00 lf	800.00 /lf	10,400
<i>064020 Interior Architectural Woodwork</i>		/sf	<u>1,133,637</u>
<i>070001 Waterproofing, Caulking</i>			
sealing & caulking - int	434,320.00 gsf	0.99 /gsf	429,977
<i>070001 Waterproofing, Caulking</i>		/gsf	<u>429,977</u>
<i>080007 Glazing</i>			
Mirror, frameless at ALT PE (1 room)	431.00 sf	38.00 /sf	16,378
Mirror, frameless - dressing rooms (3 loc)	300.00 sf	38.00 /sf	11,400
Mirror glass at typ practiced room (8 loc)	107.00 sf	38.00 /sf	4,066
Double sided mirror at PS Observation	2.00 ls	500.00 /ls	1,000
<i>080007 Glazing</i>		/gsf	<u>32,844</u>
<i>101100 Visual Display Surfaces</i>			
Tackboards - 3'	9.00 lf	216.00 /lf	1,944



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
101100 Visual Display Surfaces			
Tackboards - 4'	112.00 ea	288.00 /ea	32,256
Tackboards - 8'	24.00 ea	576.00 /ea	13,824
Markerboards - 6'	30.00 ea	432.00 /ea	12,960
Markerboards - 6' lined	6.00 ea	432.00 /ea	2,592
Markerboards - 8'	200.00 ea	576.00 /ea	115,200
Markerboards - 8' lined	8.00 ea	576.00 /ea	4,608
Markerboards - 10'	130.00 ea	720.00 /ea	93,600
Markerboards - 10' lined	10.00 ea	720.00 /ea	7,200
Markerboards - 12'	24.00 ea	864.00 /ea	20,736
Markerboards - 12' lined	24.00 ea	864.00 /ea	20,736
Markerboards - 16' lined	32.00 ea	1,152.00 /ea	36,864
101100 Visual Display Surfaces		/gsf	362,520
101400 Signage			
Building signage and graphics- interior	408,500.00 gsf	0.50 /gsf	204,250
Vinyl Grapic Wall Mural at Cafeteria	862.00 sf	12.00 /sf	10,344
Vinyl Grapic Wall Mural at PreK, behind stairs 41'x20'h	820.00 sf	12.00 /sf	9,840
Vinyl Grapic Wall Mural at Wing E (1A/12.8.6)	630.00 sf	12.00 /sf	7,560
Vinyl Grapic Wall Mural at Music Entry Stairs (5/A12.8.6)	1,230.00 sf	12.00 /sf	14,760
Vinyl Grapic Wall - large gym (2/A12.5.2)	875.00 sf	12.00 /sf	10,500
Vinyl Grapic Wall - at black box	1,120.00 sf	12.00 /sf	13,440
101400 Signage		/gsf	270,694
102100 Toilet Compartments and Cubicles			
Toilet partitions - handicap	8.00 ea	1,815.00 /ea	14,520
Toilet partitions - regular	39.00 ea	1,276.00 /ea	49,764
Toilet partitions - urinal screen	18.00 ea	467.50 /ea	8,415
102100 Toilet Compartments and Cubicles		/gsf	72,699
102123 Cubicle Curtains and Tracts			
Track and curtain (preschool nurse)	1.00 bed	2,500.00 /bed	2,500
Track and curtain (LABBB nurse)	1.00 bed	2,500.00 /bed	2,500
Track and curtain (HS nurse)	6.00 bed	2,500.00 /bed	15,000
102123 Cubicle Curtains and Tracts		/gsf	20,000
102610 Corner Guards			
Corner guards - at kitchen	1.00 ls	15,000.00 /ls	15,000
102610 Corner Guards		/gsf	15,000
102800 Toilet Accessories			
Toilet paper dispenser, install only	116.00 ea	90.00 /ea	10,440
Sanitary napkin disposal	120.00 ea	214.00 /ea	25,680
Grab bars (42") furnish and install only	136.00 ea	125.00 /ea	17,000
Soap dispenser - surface mounted, install only	120.00 ea	45.00 /ea	5,400
Waste receptacle - recessed furnish only	91.00 ea	137.50 /ea	12,512
HD1 hand dryers furnish only	28.00 ea	458.86 /ea	12,848
Framed mirrors (18" x 36") furnish only	120.00 ea	225.00 /ea	27,000
Shower rod and curtain furnish only	13.00 ea	178.20 /ea	2,317
Shower seat - folding furnish only	7.00 ea	400.00 /ea	2,800
Janitors/mop sink - furnish only	12.00 ea	275.00 /ea	3,300
102800 Toilet Accessories		/gsf	119,297
104400 Fire Protection Specialties			
Multi-purpose dry chemical extinguishers & cabinet	120.00 ea	300.00 /ea	36,000
104400 Fire Protection Specialties		/gsf	36,000
105100 Lockers			
benches	25.00 ea	440.00 /ea	11,000
Lockers, 1 openings - locker rooms	100.00 ea	375.00 /ea	37,500
Lockers, 5 openings - locker rooms	310.00 ea	475.00 /ea	147,250



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
105100 Lockers			
Lockers, 3 openings - typ classroom corridor	671.00 ea	425.00 /ea	285,175
105100 Lockers		/gsf	480,925
C1030 Specialties/Millwork	408,500.00 gsf	9.76 /gsf	3,985,512
C10 Interior Construction	408,500.00 gsf	42.51 /gsf	17,364,162
C20 Stairs			
C2010 Stair Construction			
033045 Concrete - SOD			
Place & finish pan fill stairs	31.00 fl	2,800.00 /fl	86,800
033045 Concrete - SOD		/sf	86,800
055000 Metal Fabrications			
Egress stair 1- painted mesh rails - L1 to roof (6 fl) - 6'-6"w	138.00 rs	1,140.00 /rs	157,320
Egress stair 2- painted mesh rails - L2 to roof (4 fl) - 6'-6"w	98.00 rs	1,140.00 /rs	111,720
Egress stair 3- painted mesh rails - L2 to L5 (3 fl) - 6'w	73.00 rs	1,140.00 /rs	83,220
Egress stair 9 - painted mesh rails - L2 to L3 auditorium (1 fl) - 4'w	27.00 rs	1,400.00 /rs	37,800
Egress stair 4- painted mesh rails - L1 to L5 (5 fl) - 6'w	113.00 rs	1,140.00 /rs	128,820
Egress stair 6 - painted mesh rails - L1 to L1+ (1 fl) - 4'-6"	20.00 rs	1,140.00 /rs	22,800
Egress stair 8- painted mesh rails - L1 to L2 (2 fl) - 4'-6"	40.00 rs	1,140.00 /rs	45,600
Egress stair 7 (gym)- painted mesh rails - L1 to L2 (2 fl) -5'w	40.00 rs	1,140.00 /rs	45,600
Egress stair 5 (gym)- painted mesh rails - L1 to L2 (2 fl) - 5'w	40.00 rs	1,140.00 /rs	45,600
Stair 10 Custom stairs L2 to L3 music wing - not incl rail (1 fl) - 5'-6"w	27.00 rs	1,140.00 /rs	30,780
Stair 10 custom concealed railing to support wood - stairs	35.00 lf	200.00 /lf	7,000
Stair 10 custom concealed railing to support wood - adjacent half wall	57.00 lf	200.00 /lf	11,400
Stair 10 wall mtd rail	70.00 lf	150.00 /lf	10,500
Stair 12 Custom stairs L3 to L4 library - not incl rail (1 fl) - 4'-6"w	23.00 rs	1,500.00 /rs	34,500
Stair 12 custom concealed railing to support wood - stairs	66.00 lf	0.01 /lf	1
Stair 12 curved glass rail	35.00 lf	600.00 /lf	21,000
Stair 12 wall mtd rail	66.00 lf	150.00 /lf	9,900
Stair 13 wall mtd rail	52.00 lf	150.00 /lf	7,800
Stair 13 Custom stairs L1 to L1+ at Guidance - not incl rail (1 fl) - 4'-6"w	20.00 rs	1,000.00 /rs	20,000
Stair 13 custom concealed railing to support wood - stairs	26.00 lf	0.01 /lf	0
Stair 13 custom concealed railing to support wood - adjacent half wall	52.00 lf	200.00 /lf	10,400
Stair 11 wall mtd rail	58.00 lf	150.00 /lf	8,700
Stair 11 Custom stairs L1 to L1+ at PreK - not incl rail (1 fl) - 5'w	20.00 rs	925.00 /rs	18,500
Stair 11 custom concealed railing to support wood - stairs	29.00 lf	0.01 /lf	0
Stair 11 custom concealed railing to support wood - adjacent half wall	40.00 lf	200.00 /lf	8,000
Stepped seating/stairs at Forum L1 to L2- not incl rail (2 fl)	2.00 fl	90,000.00 /fl	180,000
Stepped seating/stairs at Forum L1 to L2- wall mtd rail SS	60.00 lf	225.00 /lf	13,500
Stepped seating/stairs at Forum L1 to L2- ailes rail SS	52.00 lf	450.00 /lf	23,400
Stepped seating/stairs custom concealed railing to support wood - stairs	120.00 lf	225.00 /lf	27,000
Stepped seating/stairs custom concealed railing to support wood - adjacent half wall	95.00 lf	225.00 /lf	21,375
Ships ladder at stair 12	1.00 ls	15,000.00 /ls	15,000
055000 Metal Fabrications		/gsf	1,157,236
064020 Interior Architectural Woodwork			
Stair 7 - wood cap at rail	78.00 lf	30.00 /lf	2,340
Stair 6 - wood cap at rail (33x2 + 60)	126.00 lf	30.00 /lf	3,780
Stair 5 - wood cap at rail (39 + 57)	96.00 lf	30.00 /lf	2,880
Stair 11 - wood cap at rail (29 + 40)	69.00 lf	30.00 /lf	2,070
Forum stairs - wood cap at rail (60x2 + 55)	175.00 lf	60.00 /lf	10,500
Forum stairs - wood paneling at rail - horiz 55x11	550.00 sf	80.00 /sf	44,000
Forum stairs - wood paneling at rail - sloped 120 x 12	1,440.00 sf	80.00 /sf	115,200



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
064020 Interior Architectural Woodwork		/sf	180,770
C2010 Stair Construction	408,500.00 gsf	3.49 /gsf	1,424,806
C2020 Stair Finishes			
064020 Interior Architectural Woodwork			
Wood resin composite treads/seating forum stairs	963.00 sf	70.00 /sf	67,410
Wood resin composite risers - 6"	270.00 lf	70.00 /lf	18,900
Wood resin composite risers - 18"	203.00 lf	110.00 /lf	22,330
064020 Interior Architectural Woodwork		/sf	108,640
090005 Resilient Flooring (TS)			
RBRF Rubber treads and risers	4,002.00 lf	40.00 /lf	160,080
090005 Resilient Flooring (TS)		/gsf	160,080
090007 Painting			
Paint Stairs	26.00 fl	2,000.00 /fl	52,000
090007 Painting		/gsf	52,000
096625 Precast Terrazzo			
Precast Terrazzo stair treads&riser (1 1/2" thick) Forum Stairs	384.00 lf	175.00 /lf	67,200
096625 Precast Terrazzo			67,200
101500 Photoluminescent Safety Products			
Photoluminescent safety at stairs	26.00 fl	2,400.00 /fl	62,400
101500 Photoluminescent Safety Products		/fl	62,400
C2020 Stair Finishes	408,500.00 gsf	1.10 /gsf	450,320
C20 Stairs	408,500.00 gsf	4.59 /gsf	1,875,126
C30 Interior Finishes			
C3010 Wall Finishes			
064020 Interior Architectural Woodwork			
Tackable Fiber Panel 064020.48	3,801.00 sf	18.00 /sf	68,418
Multi-sensory wall - interactive maple recessed pegboard - PreK multipurpose	110.00 sf	100.00 /sf	11,000
Wall panel at stair at level 1 entry reception 2/A12.8.0.b - 20'x16'h	320.00 sf	78.00 /sf	24,960
3M panel at locker islands -38.5'x6' x 9 loc (11/A8.51) x 3.5	808.50 sf	160.00 /sf	129,360
Wall paneling 064020.44	2,534.00 sf	78.00 /sf	197,652
Auditorium wood panel at auditorium walls	2,150.00 sf	88.00 /sf	189,200
Auditorium wood panel at balcony fascia per 6/A 8.7.4	1,190.00 sf	110.00 /sf	130,900
Auditorium wood panel at lower level half wall segmented	504.00 sf	88.00 /sf	44,352
Auditorium proscenium wall paneling - complete surround	786.00 sf	90.00 /sf	70,740
Wall panel at stair at music entry 4,7/A10.2.1	720.00 sf	78.00 /sf	56,160
064020 Interior Architectural Woodwork		/sf	922,742
066400 FRP Paneling			
FRP - Fiberglass Reinforced Plastic Paneling 10'4" at kitchen	1,119.00 sf	13.86 /sf	15,509
FRP - Fiberglass Reinforced Plastic Paneling 8'4" closets	6,144.00 sf	0.00 /sf	6
066400 FRP Paneling		/gsf	15,515
090007 Painting			
Paint bathroom walls	950.00 sf	1.25 /sf	1,188
Paint drywall partitions	520,000.00 sf	0.90 /sf	468,000
Premium for high performance paint	30,000.00 sf	0.60 /sf	18,000
Premium for high performance paint at closets	65,000.00 sf	0.60 /sf	39,000
Custom graphics	0.01 allw	1.00 /allw	0



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>090007 Painting</i>		/gsf	526,188
<i>093000 Tiling (TS)</i>			
Wall tile at staff bathroom - 3'-4" (255 lf)	850.00 sf	21.00 /sf	17,850
Wall tile at preschool - 4'-4" (1,256 lf)	5,446.00 sf	21.00 /sf	114,366
Wall tile at corridors - 4'8" (6,920 lf)	32,310.00 sf	21.00 /sf	678,510
Wall tile at bathrooms - 6'-10" (3,405 lf)	24,405.00 sf	21.00 /sf	512,505
Wall tile at cafeteria millwork - 3'-6"	438.00 sf	45.00 /sf	19,710
Wall tile at furum stair - 3'-2"	263.00 sf	45.00 /sf	11,835
Wall tile at lightwells	1,390.00 sf	50.00 /sf	69,500
<i>093000 Tiling (TS)</i>		/sf	1,424,276
<i>098400 Acoustic Room Components</i>			
SAFS at inside of light wells SonaSpray fc - cones - 32' x 32' x 2	2,048.00 sf	9.00 /sf	18,432
SAFS at inside of light wells - ovals 52' x 78 x 2	8,112.00 sf	9.00 /sf	73,008
SAFS at inside of light wells - trapaziod 47' x 164	7,708.00 sf	8.00 /sf	61,664
SAFS at inside of light wells - adj to gym 64' x 95'	6,080.00 sf	8.00 /sf	48,640
AWP1 Wood fiber panels Tetcum Finale 098400.08	6,844.00 sf	28.00 /sf	191,632
AWP1 Wood fiber panels - Band, Chorus & Ensemble	2,580.00 sf	28.00 /sf	72,240
AWP1 Wood fiber panels - Practice Rooms (8 rms)	864.00 sf	28.00 /sf	24,192
AWP1 Wood Fiber Panel - Production Lab & Studio	1,016.00 sf	28.00 /sf	28,448
AWP2 Fiberglass Acoustic Wall Panel - Library	990.00 sf	35.00 /sf	34,650
AWP2 Fiberglass Acoustic Wall Panel - Language Labs	553.00 sf	35.00 /sf	19,355
AWP2 Fiberglass Acoustic Wall Panel - DLab	455.00 sf	35.00 /sf	15,925
AWP2 Fiberglass Acoustical Panel Type 2 Fusco Facade	453.00 sf	50.00 /sf	22,650
AWP3 Black arch fiberglass boards at Performing Arts	1,200.00 sf	12.00 /sf	14,400
Paint grade wood acoustical panels at auditorium	2,000.00 sf	85.00 /sf	170,000
<i>098400 Acoustic Room Components</i>		/sf	795,236
C3010 Wall Finishes	408,500.00 gsf	9.02 /gsf	3,683,957
C3020 Floor Finishes			
<i>033560 Concrete Densifier/Hardener/Sealer</i>			
Exp-C exposed concrete/hardner sealer	23,623.00 sf	2.20 /sf	51,971
<i>033560 Concrete Densifier/Hardener/Sealer</i>	408,500.00 gsf	0.13 /gsf	51,971
<i>033650 Concrete Finishes (polished concrete)</i>			
AFC-1 Arch finished floor type 1, polished & stained	29,295.00 sf	11.00 /sf	322,245
AFC-2 Arch finished floor type 2, polished, unstained	12,612.00 sf	9.80 /sf	123,598
<i>033650 Concrete Finishes (polished concrete)</i>	408,500.00 sf	1.09 /sf	445,843
<i>064020 Interior Architectural Woodwork</i>			
Wood resin composite floor - level 2	384.00 sf	45.00 /sf	17,280
WDB - Wood Base	41.00 lf	18.00 /lf	738
<i>064020 Interior Architectural Woodwork</i>	408,500.00 sf	0.04 /sf	18,018
<i>090005 Resilient Flooring (TS)</i>			
RFF Resilient Tile Flocked flooring (Forbo Flotex) Life Skills	1,155.00 sf	7.50 /sf	8,663
Linoleum Sheet flooring Forbo Marmoleum MCS (PreK only)	5,000.00 sf	7.00 /sf	35,000
Rubber floor tile (Elevators)	112.00 sf	14.00 /sf	1,568
RF - Linoleum tile (Forbo MCT)	228,779.00 sf	4.80 /sf	1,098,139
RF - Linoleum tile premium for high moisture adhesive	233,779.00 sf	0.75 /sf	175,334
Floor prep	233,779.00 sf	0.50 /sf	116,890
RB - Rubber base	64,629.00 lf	3.50 /lf	226,202
RF - Linoleum tile/sheet premium for water jet cutting (Preschool corridor leaves)	1.00 ls	25,000.00 /ls	25,000
<i>090005 Resilient Flooring (TS)</i>	408,500.00 gsf	4.13 /gsf	1,686,795
<i>090160 Vapor Mitigation at Slabs</i>			
Moisture mitigation at resilient flooring n/r	253,381.00 sf	0.00 /sf	253



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount	
090160 Vapor Mitigation at Slabs				
Moisture mitigation at carpet n/r	23,463.00 sf	0.00 /sf	23	
Moisture mitigation and leveling at wood athletic flooring	16,253.00 sf	5.10 /sf	82,890	
Moisture mitigation at stage flooring	5,203.00 sf	5.10 /sf	26,535	
090160 Vapor Mitigation at Slabs	408,500.00 sf	0.27 /sf	109,702	
096400 Stage Wood Flooring				
SWF - Stage Wood Flooring - auditorium stage	2,572.00 sf	20.00 /sf	51,440	
SWF - Stage Wood Flooring - Performing Arts	2,631.00 sf	20.00 /sf	52,620	
096400 Stage Wood Flooring	408,500.00 sf	0.26 /sf	104,060	
096466 Wood Athletic Flooring				
VCB - Rubber Ventilating Cove Base (used with WAF & SWF)	987.00 lf	10.00 /lf	9,870	
WAF - Wood Athletic Flooring (Gym)	16,253.00 sf	18.00 /sf	292,554	
096466 Wood Athletic Flooring	408,500.00 sf	0.74 /sf	302,424	
096566 Resilient Athletic Flooring				
RAF1 - Resilient athletic flooring type 1 Taraflex Sport M plus, (Part C)	1,464.00 sf	10.00 /sf	14,640	
RAF2 - Resilient athletic flooring type 2, 3/8" Rubber(Part A)	3,064.00 sf	10.00 /sf	30,640	
RAF3 - Resilient athletic flooring type 3, poured seamless, with shock pad (Part A)	9,917.00 sf	13.00 /sf	128,921	
096566 Resilient Athletic Flooring	408,500.00 gsf	0.43 /gsf	174,201	
096700 Fluid-Applied Flooring				
RSF - Resinous Flooring System	11,512.00 sf	14.00 /sf	161,168	
RSFB - 4" Resinous flooring integral base	4,551.00 lf	5.00 /lf	22,755	
096700 Fluid-Applied Flooring	408,500.00 sf	0.45 /sf	183,923	
096820 Carpeting				
CPT Tile	16,967.00 sf	6.00 /sf	101,802	
CPT Roll goods (Auditorium aisles, Story Room stepped seating)	6,496.00 sf	6.00 /sf	38,976	
Floor prep	23,463.00 sf	0.50 /sf	11,732	
096820 Carpeting	408,500.00 sf	0.37 /sf	152,510	
C3020 Floor Finishes		408,500.00 gsf	7.91 /gsf	3,229,446
C3030 Ceiling Finishes				
015020 Trade Support				
Dance floor at auditorium	10,770.00 sf	20.00 /sf	215,400	
015020 Trade Support	408,500.00 gsf	0.53 /gsf	215,400	
064020 Interior Architectural Woodwork				
Acoustical wood slat ceiling hung at auditorium	2,552.50 sf	80.00 /sf	204,200	
064020 Interior Architectural Woodwork	408,500.00 sf	0.50 /sf	204,200	
090003 Acoustical Tile (TS)				
Wood Plank System - C 6	1,152.00 sf	40.00 /sf	46,080	
Acoustical Ceiling Suspension System - C 1A, 2'x2' Armstrong Calla 2820/2821	18,071.00 sf	5.40 /sf	97,583	
Acoustical Ceiling Suspension System - C 1A, 2'x4' Armstrong Calla 2820/2821	144,685.00 sf	5.30 /sf	766,831	
Acoustical Ceiling Suspension System - C 1B, clouds USG Mars ClimaPlus 2'x6'	4,959.00 sf	11.00 /sf	54,549	
Acoustical Ceiling Suspension System - C 1B, 2'x6' USG Mars ClimaPlus	29,398.00 sf	8.00 /sf	235,184	
Acoustical Ceiling Suspension System - C 1B, 2'x6', offset USG Mars ClimaPlus	57,795.00 sf	8.00 /sf	462,360	
Acoustical Ceiling Suspension System - C 1C, 2'x6' Armstrong, Optima 3161	4,187.00 sf	8.00 /sf	33,496	
Acoustical Ceiling Suspension System - C 1C, 2'x6', offset Armstrong, Optima 3161	8,076.00 sf	8.00 /sf	64,608	
Acoustic Ceiling Suspension System - Black Tile and Grid - C 1D, 2'x2'	248.00 sf	8.50 /sf	2,108	
Acoustic Ceiling Suspension System - Washable - C 1E, 2'x4'	2,641.00 sf	7.25 /sf	19,147	
Acoustic Gypsum Lay-in Suspension System - C 1F, 2'x2'	3,373.00 sf	4.60 /sf	15,516	
Acoustic Gypsum Lay-in Suspension System - C 1F, 2'x4'	7,741.00 sf	4.50 /sf	34,835	
Acoustic Ceiling Suspension System w Pyramid Diffser - C 1G, 4'x4'	4,998.00 sf	35.00 /sf	174,930	



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
090003 Acoustical Tile (TS)			
Acoustic Ceiling Suspension System - C 1H, 2'x4'	23,155.00 sf	5.40 /sf	125,037
Axiom trim - radius at suspended clouds - 6"	1,134.00 lf	40.00 /lf	45,360
090003 Acoustical Tile (TS)	408,500.00 gsf	5.33 /gsf	2,177,623
090007 Painting			
Paint drywall ceilings & soffits	53,068.00 sf	0.83 /sf	43,781
Paint exposed ceilings - no K13	50,441.00 sf	1.65 /sf	83,228
090007 Painting	408,500.00 gsf	0.31 /gsf	127,009
092900 Gypsum Board Assemblies			
Gypsum Board Ceiling - C 2A	25,819.00 sf	12.00 /sf	309,828
Sloped ceilings at underside of stairs	5,233.00 sf	14.00 /sf	73,262
Acoustically Isolated Suspended Gypsum Board - C 2B 2 layer + batt insul	14,061.00 sf	28.00 /sf	393,708
GWB soffit vert - one sided (horiz with ceiling above) - 5' typ	4,100.00 lf	80.00 /lf	328,000
GWB soffit vert - two sided - 5' typ	1,109.00 lf	96.00 /lf	106,464
GWB soffit vert - one sided at skylights	563.00 lf	40.00 /lf	22,520
GWB soffit horiz	3,645.00 sf	12.00 /sf	43,740
092900 Gypsum Board Assemblies	408,500.00 sf	3.13 /sf	1,277,522
098400 Acoustic Room Components			
Spray Applied Acoustic Treatment - 098400 - C 3	17,249.00 sf	6.00 /sf	103,494
Wood Baffle, metal with wood look - C 4A - 12" oc	12,548.00 sf	56.43 /sf	708,084
3D Solid Ceiling Tile System - C 5A	1,871.00 sf	45.00 /sf	84,195
3D Open Ceiling tile System - C 5B	332.00 sf	45.00 /sf	14,940
Ceiling reflector with fiber reinforced gel coat finish at auditorium	288.00 sf	90.00 /sf	25,920
098400 Acoustic Room Components	408,500.00 sf	2.29 /sf	936,633
C3030 Ceiling Finishes	408,500.00 gsf	12.09 /gsf	4,938,387
C30 Interior Finishes	408,500.00 gsf	29.01 /gsf	11,851,790
C Interiors	408,500.00 gsf	76.11 /gsf	31,091,078
D Services			
D10 Conveying Systems			
D1010 Elevators & Lifts			
142400 Election Traction Elevators			
B Wing elevator - MRL - cab and machine - 4000#	1.00 ls	75,000.00 /ls	75,000
B Wing elevators - MRL stop - 4000#	6.00 stop	35,000.00 /stop	210,000
C Wing elevators - MRL - cab and machine - 3500# (2 door)	1.00 ls	70,000.00 /ls	70,000
C Wing elevators - MRL stop - 3500#	3.00 stop	35,000.00 /stop	105,000
C Wing elevators - MRL stop - 3500# - 2nd door at ground floor	1.00 stop	18,000.00 /stop	18,000
D Wing elevators - MRL - cab and machine - 3500#, 1 door	1.00 ls	70,000.00 /ls	70,000
D Wing elevators - MRL stop - 3500#	4.00 stop	35,000.00 /stop	140,000
142400 Election Traction Elevators	13.00 st	52,923.08 /st	688,000
142600 Limited-Use/Limited-Application Elevators			
Wheelchair lift	1.00 ls	34,000.00 /ls	34,000
Custom panels	1.00 ls	2,500.00 /ls	2,500
142600 Limited-Use/Limited-Application Elevators		/ls	36,500
D1010 Elevators & Lifts	408,500.00 gsf	1.77 /gsf	724,500



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
D10 Conveying Systems	408,500.00 gsf	1.77 /gsf	724,500
D20 Plumbing			
D20 Plumbing			
<i>220005 Plumbing - Misc</i>			
Plbg contractor permits, as-builts, coring, fire stopping)	408,500.00 sf	1.07 /sf	437,095
General requirements (lump sum)	1.00 ls	2,500.00 /ls	2,500
Plumbing contractor 3D/BIM costs	3.00 ph	7,500.00 /ph	22,500
Project management	3.00 ph	20,000.00 /ph	60,000
Premium for phasing on project	3.00 ph	40,000.00 /ph	120,000
Commissioning support/lump sum	3.00 ph	1,000.00 /ph	3,000
<i>220005 Plumbing - Misc</i>	<u>408,500.00 gsf</u>	<u>1.58 /gsf</u>	<u>645,095</u>
<i>220700 Plumbing Insulation</i>			
Insulation/copper pipe/fiberglass	26,515.00 lf	8.18 /lf	216,893
Insulation/rainleader pipe/fiberglass/horiz. & vert.	5,600.00 lf	7.03 /lf	39,346
<i>220700 Plumbing Insulation</i>	<u>408,500.00 gsf</u>	<u>0.63 /gsf</u>	<u>256,239</u>
<i>221000 Plumbing Facility Water Distribution</i>			
Water meter w/remote readout - 3"	2.00 ea	2,111.30 /ea	4,223
Water meter w/remote readout	1.00 ea	2,317.35 /ea	2,317
Water sub-meter	2.00 ea	317.26 /ea	635
Backflow preventer/RPZ-BFP - lab	1.00 ea	1,836.30 /ea	1,836
Backflow preventer/RPZ-BFP - lab - RECON	1.00 ea	1,836.30 /ea	1,836
Backflow preventer/mop sink	12.00 ea	206.05 /ea	2,473
Backflow preventer/irrigation	3.00 ea	206.05 /ea	618
Backflow preventer/irrigation - RECON	(1.00) ea	206.05 /ea	(206)
Recirculation pump/bronze	4.00 ea	727.20 /ea	2,909
Recirculation pump/bronze - lab	1.00 ea	727.20 /ea	727
Recirculation pump/bronze - TW	1.00 ea	727.20 /ea	727
Recirculation pump/bronze - RECON	3.00 ea	727.20 /ea	2,182
Expansion tank/ASME/potable	4.00 ea	1,774.20 /ea	7,097
Expansion tank/ASME/potable - lab	1.00 ea	1,774.20 /ea	1,774
Expansion tank/ASME/potable - RECON	2.00 ea	1,774.20 /ea	3,548
Thermostatic mixing valve/TMV	4.00 ea	1,180.28 /ea	4,721
Thermostatic mixing valve/TMV - lab	1.00 ea	1,180.28 /ea	1,180
Thermostatic mixing valve/TMV - emergency	1.00 ea	1,180.28 /ea	1,180
Thermostatic mixing valve/TMV - RECON	1.00 ea	1,180.28 /ea	1,180
Hose bibbs w/vac. breaker - interior	37.00 ea	209.08 /ea	7,736
Hose bibbs w/vac. breaker - exterior	16.00 ea	474.10 /ea	7,586
Shock absorbers & trap primers	408,500.00 sf	0.10 /sf	40,850
Valve box/dishwasher	15.00 ea	231.05 /ea	3,466
Valve box/washing machine	4.00 ea	231.05 /ea	924
Valve box/ice machine	5.00 ea	181.05 /ea	905
Domestic water entrance UG/ductile iron	30.00 lf	324.20 /lf	9,726
Domestic water AG/type "L" copper/solder - fixture connections	2,055.00 lf	25.69 /lf	52,784
Domestic water AG/type "L" copper/solder	19,250.00 lf	25.69 /lf	494,448
Non-potable water AG/type "L" copper/solder - fixture connections	385.00 lf	22.26 /lf	8,568
Non-potable water AG/type "L" copper/solder	3,370.00 lf	22.26 /lf	75,001
Non-potable water AG/type "L" copper/solder - irrigation	275.00 lf	22.26 /lf	6,120
Tempered water piping AG/type "L" copper/solder - fixture connections	130.00 lf	22.26 /lf	2,893
Tempered water piping AG/type "L" copper/solder	1,050.00 lf	22.26 /lf	23,368
- Domestic water piping accessories	26,515.00 lf	2.59 /lf	68,699
- Domestic water clean & test piping system	3.00 ea	1,046.80 /ea	3,140
<i>221000 Plumbing Facility Water Distribution</i>	<u>408,500.00 gsf</u>	<u>2.07 /gsf</u>	<u>847,173</u>
<i>221300 Plumbing - Sanitary, Waste & Vent Piping</i>			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
221300 Plumbing - Sanitary, Waste & Vent Piping			
Allowance for kitchen fit-out	ls	/ls	
Floor drain	54.00 ea	362.10 /ea	19,553
Floor sink	7.00 ea	2,571.18 /ea	17,998
Lint interceptor	3.00 ea	724.20 /ea	2,173
Grease interceptor/interior	2.00 ea	4,363.80 /ea	8,728
Elevator sump pump/oil minder	0.00 ea	/ea	
Sanitary UG/cast iron single hub pipe & ftgs.	4,200.00 lf	58.07 /lf	243,905
Sanitary AG/cast iron no hub pipe & ftgs.- fixture connections	2,055.00 lf	49.37 /lf	101,456
Sanitary AG/cast iron no hub pipe & ftgs.	8,660.00 lf	49.37 /lf	427,546
Grease waste UG/CI single hub pipe & ftgs.	500.00 lf	58.07 /lf	29,036
Grease waste & vent AG/cast iron no hub pipe & ftgs.	500.00 lf	49.37 /lf	24,685
- Sanitary waste & vent piping accessories	15,915.00 lf	1.84 /lf	29,299
- Sanitary waste & vent clean & test piping system	2.00 ea	996.80 /ea	1,994
221300 Plumbing - Sanitary, Waste & Vent Piping	408,500.00 gsf	2.22 /gsf	906,373
221400 Plumbing - Rainleader Piping			
Roof drain	69.00 ea	366.10 /ea	25,261
Area drain	3.00 ea	408.84 /ea	1,227
Rainleader UG/cast iron single hub pipe & ftgs.	1,100.00 lf	147.25 /lf	161,973
Rainleader AG/cast iron no hub pipe & ftgs.	5,600.00 lf	111.14 /lf	622,380
- Rainleader piping accessories	6,700.00 lf	1.84 /lf	12,334
- Rainleader clean & test piping system	1.00 ea	498.40 /ea	498
221400 Plumbing - Rainleader Piping	408,500.00 gsf	2.02 /gsf	823,673
221500 General Service Compressed Air Systems			
Duplex air compressor	1.00 ea	22,948.40 /ea	22,948
- Refrigerated dryer	1.00 ea	4,574.20 /ea	4,574
- Line filter	1.00 ea	606.05 /ea	606
Compressed air piping/type "L" copper	300.00 lf	34.39 /lf	10,317
- Compressed air piping accessories	300.00 lf	2.09 /lf	627
- Compressed air clean & test piping system	1.00 ea	772.60 /ea	773
221500 General Service Compressed Air Systems	408,500.00 gsf	0.10 /gsf	39,846
222000 Plumbing - Gas Piping			
Emergency gas shut off/cabinet w/1" solenoid & UL ball valve	13.00 ea	4,022.60 /ea	52,294
Emergency gas shut off/cabinet w/1" solenoid & UL ball valve - RECON	(7.00) ea	4,022.60 /ea	(28,158)
Gas turret/double	151.00 ea	325.05 /ea	49,083
Gas turret/double - RECON	(76.00) ea	325.05 /ea	(24,704)
Gas piping UG/Trac st. stl. flex piping	30.00 lf	63.46 /lf	1,904
Gas piping/sch 40 black steel CW t&c	2,700.00 lf	34.02 /lf	91,839
Gas piping/sch 40 black steel CW t&c - RECON	(1,020.00) lf	34.02 /lf	(34,695)
Gas piping/sch 40 blk stl ERW weld	275.00 lf	57.76 /lf	15,884
- Gas piping accessories	2,975.00 lf	2.59 /lf	7,708
- Gas piping accessories - RECON	(1,050.00) lf	2.59 /lf	(2,721)
- Gas piping clean & test piping system	1.00 ea	1,595.20 /ea	1,595
222000 Plumbing - Gas Piping	408,500.00 gsf	0.32 /gsf	130,029
223000 Plumbing - Equipment			
Water heaters/electric	5.00 ea	1,892.35 /ea	9,462
Water heaters/electric - 250 gal	4.00 ea	33,121.00 /ea	132,484
Water heaters/electric/point of service	26.00 ea	597.25 /ea	15,529
HWH/indirect fed - 300 gal storage heater	4.00 ea	8,560.50 /ea	34,242
223000 Plumbing - Equipment	408,500.00 gsf	0.47 /gsf	191,716
224000 Plumbing Fixtures			
Water closet/wall mnt./carrier/sensor flush valve	52.00 ea	1,614.60 /ea	83,959
Water closet/wall mnt./carrier/sensor flush valve/ADA	76.00 ea	1,648.60 /ea	125,294
Urinal/wall mnt./carrier/sensor flush valve	19.00 ea	1,293.53 /ea	24,577
Lavatory/wall hung/solar faucet/carrier/ADA	132.00 ea	1,602.45 /ea	211,523



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
224000 Plumbing Fixtures			
Faucet/gooseneck/integral lavatory/ADA - for science sink (INSTALL ONLY)	77.00 ea	268.15 /ea	20,648
Integral sink/1-bowl/std faucet - (INSTALL ONLY)	61.00 ea	464.33 /ea	28,324
Integral sink/1-bowl/std fauce - art & maker spaces (INSTALL ONLY)	6.00 ea	548.40 /ea	3,290
Trough type wash sink/1-faucet - art rooms	2.00 ea	3,248.40 /ea	6,497
- Solids interceptors (art & maker space sinks)	8.00 ea	539.20 /ea	4,314
Mop sink - typical	16.00 ea	1,199.40 /ea	19,190
Shower stall/std valve & access./3'x3' fiberglass	6.00 ea	1,078.66 /ea	6,472
Shower stall/std valve & access./3'x3' fiberglass/ADA	6.00 ea	1,527.85 /ea	9,167
Emergency shower/eye wash sta./no mixing valve/wall mount	13.00 ea	1,935.50 /ea	25,162
Water cooler/bottle filler only	14.00 ea	1,812.28 /ea	25,372
Water cooler/bottle filler/single	14.00 ea	2,107.40 /ea	29,504
Water cooler/bottle filler/bi-level/ADA	8.00 ea	4,494.60 /ea	35,957
- Plumbing fixtures offload & distribution (major fixtures)	357.00 ea	112.10 /ea	40,020
- Plumbing fixtures offload & distribution (minor fixtures)	152.00 ea	112.10 /ea	17,039
- Plumbing fixtures rough-in	357.00 ea	137.10 /ea	48,945
224000 Plumbing Fixtures	408,500.00 gsf	1.87 /gsf	765,252
226600 Plumbing Acid Neutrilization System			
Acid neut. system w/monitor/? gal. tank	1.00 ea	42,569.40 /ea	42,569
Floor drain	23.00 ea	350.10 /ea	8,052
Acid waste UG/sch 40 polypropylene fuseal	100.00 lf	59.29 /lf	5,929
Acid waste AG/sch 40 polypropylene fuseal - fixture connections	385.00 lf	63.16 /lf	24,316
Acid waste AG/sch 40 polypropylene fuseal	2,300.00 lf	63.16 /lf	145,263
Acid waste AG/sch 40 polypropylene fuseal - RECON	385.00 lf	63.16 /lf	24,316
- Acid waste & vent piping accessories	2,785.00 lf	2.09 /lf	5,823
- Acid waste & vent piping accessories - RECON	385.00 lf	2.09 /lf	805
- Acid waste & vent clean & test piping system	1.00 ea	722.60 /ea	723
226600 Plumbing Acid Neutrilization System	408,500.00 gsf	0.63 /gsf	257,796
D20 Plumbing	408,500.00 gsf	11.91 /gsf	4,863,193
D20 Plumbing	408,500.00 gsf	11.91 /gsf	4,863,193
D30 Heating, Ventilating, and Air Conditioning (HVAC)			
D30 HVAC			
230005 HVAC - Misc			
Shop drawings/ BIM/ ENG Support/ As-Builts	408,500.00 sf	1.25 /sf	510,625
System testing and flushing	1.00 ls	75,000.00 /ls	75,000
Commissioning support/lump sum	408,500.00 gsf	0.30 /gsf	122,550
Coring, sleeves & firestopping	408,500.00 gsf	0.10 /gsf	40,850
Vibration & seismic restraints	408,500.00 gsf	0.25 /gsf	102,125
230005 HVAC - Misc	408,500.00 gsf	2.08 /gsf	851,150
230006 HVAC - Phasing			
Backfeeding and maintaining systems for phasing	1.00 ls	120,000.00 /ls	120,000
230006 HVAC - Phasing	408,500.00 gsf	0.29 /gsf	120,000
230007 HVAC Demo			
Demolition/cut, drop (partial) & make safe (sq. ft.)	408,500.00 gsf	0.60 /gsf	245,100
230007 HVAC Demo	408,500.00 gsf	0.60 /gsf	245,100
230593 Testing, Adjusting and Balancing for HVAC			
Testing & balancing/cost per sq. ft.	408,500.00 sf	1.33 /sf	543,305
230593 Testing, Adjusting and Balancing for HVAC	408,500.00 gsf	1.33 /gsf	543,305
230700 HVAC Insulation			
Insulation/ductwork/blanket wrap	235,695.00 sf	3.81 /sf	897,938



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Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
230700 HVAC Insulation			
Insulation/equipment/weatherproof exposed	2,250.00 sf	12.69 /sf	28,555
Insulation/pipe/copper (avg. size)	10,380.00 lf	9.61 /lf	99,760
Insulation/pipe/copper (refrigerant)	21,900.00 lf	9.61 /lf	210,477
Insulation/pipe/copper (condensate - VRF)	5,200.00 lf	9.61 /lf	49,976
Insulation/pipe/copper (condensate - FCU)	5,320.00 lf	9.61 /lf	51,130
Insulation/pipe/copper (1/2"-1")	22,875.00 lf	8.37 /lf	191,436
Insulation/pipe/copper (1-1/4"-2")	10,335.00 lf	10.98 /lf	113,427
Insulation/pipe/weld (avg. size)	960.00 lf	29.19 /lf	28,022
Insulation/pipe/weld (2-1/2"-4")	4,100.00 lf	16.13 /lf	66,128
Insulation/pipe/weld (5"-8")	4,090.00 lf	26.04 /lf	106,516
Insulation/pipe/copper/weatherproof exposed (roof refrigerant)	3,800.00 lf	14.50 /lf	55,100
Insulation/pipe/weld/weatherproof exposed (5"-8")	3,370.00 lf	37.11 /lf	125,050
230700 HVAC Insulation	408,500.00 gsf	4.95 /gsf	2,023,517
230900 Direct Digital Control System for HVAC			
Automatic temperature controls/cost per sq. ft. - toilet bldg	1,800.00 sf	3.00 /sf	5,400
Automatic temperature controls/cost per sq. ft. (proprietary)	408,500.00 sf	6.25 /sf	2,553,125
ATC - CO2 demand ventilation (add @ recon)	408,500.00 sf	0.25 /sf	102,125
ATC - AirCuity (system hardware, start-up/commissioning, training, and support (Flow Tech quote)	1.00 ls	478,000.00 /ls	478,000
ATC - AirCuity (installation)	244.00 loc	480.60 /loc	117,266
ATC - AirCuity (system hardware, start-up/commissioning, training, and support (Flow Tech quote) removed @ recon***	(1.00) ls	478,000.00 /ls	(478,000)
ATC - AirCuity (installation) removed @ recon***	(244.00) loc	480.60 /loc	(117,266)
ATC - Mini-split condensing units (w/factory controls)	2.00 ea	1,041.36 /ea	2,083
ATC - Mini-split indoor units (w/factory controls)	8.00 ea	688.35 /ea	5,507
ATC - VRF outdoor units (wiring only) - each	21.00 ea	1,041.36 /ea	21,869
ATC - VRF indoor units (wiring only) - each	150.00 ea	688.35 /ea	103,253
ATC - VRF refrigerant leak detection (1 per indoor unit) BACnet (classrooms only)	52.00 ea	1,295.68 /ea	67,375
230900 Direct Digital Control System for HVAC	408,500.00 gsf	7.00 /gsf	2,860,736
232113 Hydronic Piping, incl Chilled Beams			
Hot water s&r/type "L" copper solder - avg. size (misc.)	4,200.00 lf	25.89 /lf	108,717
Hot water s&r/type "L" copper solder - avg. size (VAV's)	1,980.00 lf	25.89 /lf	51,252
Hot water s&r/type "L" copper solder - 3/4"	9,040.00 lf	18.65 /lf	168,596
Hot water s&r/type "L" copper solder - 1"	3,600.00 lf	23.19 /lf	83,484
Hot water s&r/type "L" copper solder - 1-1/4"	1,355.00 lf	26.69 /lf	36,165
Hot water s&r/type "L" copper solder - 1-1/2"	1,220.00 lf	31.52 /lf	38,450
Hot water s&r/type "L" copper solder - 2"	2,060.00 lf	41.71 /lf	85,918
Hot water s&r/sch 40 blk stl ERW weld - avg. size	480.00 lf	94.20 /lf	45,214
Hot water s&r/sch 40 blk stl ERW weld - 2-1/2"	620.00 lf	49.09 /lf	30,436
Hot water s&r/sch 40 blk stl ERW weld - 2-1/2" (To RTU's)	500.00 lf	49.09 /lf	24,545
Hot water s&r/sch 40 blk stl ERW weld - 4"	740.00 lf	81.09 /lf	60,007
Hot water s&r/sch 40 blk stl ERW weld - 5"	900.00 lf	97.34 /lf	87,603
Hot water s&r/sch 40 blk stl ERW weld - 6"	1,285.00 lf	125.69 /lf	161,512
Hot water s&r/sch 40 blk stl ERW weld - 6" (roof mounted)	1,685.00 lf	125.69 /lf	211,788
Chilled water s&r/type "L" copper solder - avg. size (misc.)	4,200.00 lf	25.89 /lf	108,717
Chilled water s&r/type "L" copper solder - 3/4"	7,845.00 lf	18.65 /lf	146,309
Chilled water s&r/type "L" copper solder - 1"	2,390.00 lf	23.19 /lf	55,424
Chilled water s&r/type "L" copper solder - 1-1/4"	2,750.00 lf	26.69 /lf	73,397
Chilled water s&r/type "L" copper solder - 1-1/2"	880.00 lf	31.52 /lf	27,735
Chilled water s&r/type "L" copper solder - 2"	2,070.00 lf	41.71 /lf	86,335
Chilled water s&r/sch 40 blk stl ERW weld - avg. size	480.00 lf	94.20 /lf	45,214
Chilled water s&r/sch 40 blk stl ERW weld - 2-1/2"	925.00 lf	49.09 /lf	45,408
Chilled water s&r/sch 40 blk stl ERW weld - 4"	1,315.00 lf	81.09 /lf	106,633
Chilled water s&r/sch 40 blk stl ERW weld - 5"	625.00 lf	97.34 /lf	60,836
Chilled water s&r/sch 40 blk stl ERW weld - 6"	1,280.00 lf	125.69 /lf	160,883
Chilled water s&r/sch 40 blk stl ERW weld - 6" (roof mounted)	1,685.00 lf	125.69 /lf	211,788
- Hydronic piping accessories	56,110.00 lf	2.60 /lf	145,610



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
232113 Hydronic Piping, incl Chilled Beams			
- Hydronic pipe - Roof support stand - 3'L x 2'H (#ES200)	110.00 ea	317.29 /ea	34,902
HWP Pump/in-line/20 hp	6.00 ea	6,373.30 /ea	38,240
CHWP Pump/in-line/20 hp	10.00 ea	6,373.30 /ea	63,733
- Flex connector/HVAC pumps - 5"	32.00 ea	351.29 /ea	11,241
- Triple duty valves	16.00 ea	1,672.14 /ea	26,754
Air separators	5.00 ea	1,990.16 /ea	9,951
Expansion tanks/ASME	10.00 ea	5,878.36 /ea	58,784
Flow meter/ultrasonic	6.00 ea	2,725.30 /ea	16,352
Temp boiler pumps, air seperator, expansion tank, etc.	1.00 ls	17,000.00 /ls	17,000
Steam piping/sch 40 blk stl/SMLS/t&c - 1-1/2"	125.00 lf	60.08 /lf	7,510
Steam piping/sch 40 blk stl/ERW/weld - 10"	125.00 lf	242.41 /lf	30,301
A/C cond. pump (VRF)	130.00 ea	232.16 /ea	30,181
A/C cond. pump (FCU)	133.00 ea	232.16 /ea	30,878
A/C cond. drains/type "L" copper (VRF system)	5,200.00 lf	21.65 /lf	112,571
A/C cond. drains/type "L" copper (4-pipe FCU's)	5,320.00 lf	21.65 /lf	115,169
- A/C condensate piping accessories	10,520.00 lf	2.35 /lf	24,670
232113 Hydronic Piping, incl Chilled Beams	408,500.00 gsf	7.58 /gsf	3,096,213
232300 Refrigerant Piping			
Refrigerant piping/type "ACR" hard copper/brazed (HRU's to remote condensing units 200lf/unit)	3,800.00 lf	67.29 /lf	255,710
- Refrigeration piping accessories	3,800.00 lf	2.28 /lf	8,671
- Refrigeration clean & test piping system (nitrogen purge)	3,800.00 lf	1.03 /lf	3,921
- Refrigerant charge/R410B	650.00 lbs	37.02 /lbs	24,062
- Refrigeration piping - Roof support stand - 2'L x 2'H (#ES200)	300.00 ea	263.23 /ea	78,969
232300 Refrigerant Piping	408,500.00 gsf	0.91 /gsf	371,334
232500 HVAC Water Treatment			
Chemical treatment (lump sum)	2.00 ls	15,000.00 /ls	30,000
Glycol feed/50 gal. tank w/pump (Neptune #G-50-1) (HW)	2.00 ea	5,306.60 /ea	10,613
Glycol feed/50 gal. tank w/pump (Neptune #G-50-1) (CHW)	2.00 ea	5,306.60 /ea	10,613
- Glycol solution/25% propylene (HW)	7,500.00 gal	25.63 /gal	192,244
232500 HVAC Water Treatment	408,500.00 gsf	0.60 /gsf	243,470
233000 HVAC Sheetmetal			
Sheetmetal & accessories/galvanized	225.00 lb	12.74 /lb	2,867
Sheetmetal & accessories/galvanized (take-off)	330,600.00 lb	12.74 /lb	4,212,201
Sheetmetal & accessories/galvanized (take-off - exposed)	3,500.00 lb	12.74 /lb	44,594
Sheetmetal & accessories/galvanized (duct distribution: Part A 1st .5 lbs/SF)	9,250.00 lb	12.74 /lb	117,855
Sheetmetal & accessories/galvanized (duct distribution: Part B 1st .65 lbs/SF)	16,500.00 lb	12.74 /lb	210,228
Sheetmetal & accessories/galvanized (duct distribution: Chorus/Band/Performing arts/support .85lbs/sf)	19,500.00 lb	12.74 /lb	248,451
Sheetmetal & accessories/galvanized (complete auditorium .35lbs/sf)	4,500.00 lb	12.74 /lb	57,335
Sheetmetal & accessories/galvanized (dust collection)	2,850.00 lb	12.74 /lb	36,312
Sheetmetal & accessories/galvanized (laser cutter exhaust)	2,400.00 lb	12.74 /lb	30,579
Sheetmetal & accessories/welded stainless steel (fume hoods - recirculating)	0.00 lb	/lb	
Sheetmetal & accessories/welded stainless steel (chem storage exhaust)	2,500.00 lb	36.52 /lb	91,309
Sheetmetal & accessories/welded stainless steel (cooking range hoods)	2,500.00 lb	36.52 /lb	91,309
Sheetmetal & accessories/welded stainless steel (dishwasher)	1,500.00 lb	36.52 /lb	54,785
Sheetmetal & accessories/welded black iron (kitchen exhaust)	6,000.00 lb	21.65 /lb	129,903
Sheetmetal & accessories/welded black iron (kiln)	500.00 lb	21.65 /lb	10,825
SM - Add for internal ductwork liner	25,000.00 sf	7.88 /sf	197,088
SM - Diffusers, registers & grilles (misc.)	408,500.00 sf	0.05 /sf	20,425
SM - Diffusers, registers & grilles	699.00 ea	196.59 /ea	137,413
SM - Linear slot diffusers	639.00 ea	389.76 /ea	249,055
SM - Combination fire/smoke dampers/louver type/UL	55.00 ea	844.20 /ea	46,431
SM - Motorized damper	32.00 ea	1,001.30 /ea	32,042
SM - Smoke detectors/duct mount	21.00 ea	767.67 /ea	16,121



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
233000 HVAC Sheetmetal			
SM - Sound attenuators/in-line/std. gauge	429,500.00 cfm	0.56 /cfm	241,376
SM - Kitchen exhaust hood/st. steel/install only (by KES)	3.00 ea	1,882.72 /ea	5,648
SM - Dishwasher exhaust hood/st. steel/install only (by KES)	1.00 ea	1,176.70 /ea	1,177
Louvers - misc. - with arch	0.00 sf	/sf	
233000 HVAC Sheetmetal	408,500.00 gsf	15.39 /gsf	6,285,326
233400 HVAC Fans			
Misc. exhaust fans	408,500.00 sf	0.15 /sf	61,275
Exhaust fan/roof - mech room	4.00 ea	6,412.04 /ea	25,648
Exhaust fan/roof - chem storage	1.00 ea	6,412.04 /ea	6,412
Exhaust fan/roof - Toilet exhaust	4.00 ea	6,412.04 /ea	25,648
Exhaust fan/roof - kitchen exhaust	1.00 ea	8,912.04 /ea	8,912
Exhaust fan/roof - kitchen general exhaust	1.00 ea	8,912.04 /ea	8,912
Exhaust fan/roof - kiln exhaust	1.00 ea	4,441.36 /ea	4,441
Exhaust fan/roof - laser cutter (300 cfm)	3.00 ea	2,791.36 /ea	8,374
EF/centrifugal inline/box - 800 cfm	2.00 ea	1,586.61 /ea	3,173
Destratification fans/ceiling propeller 16'	4.00 ea	6,382.72 /ea	25,531
Dust collector/ 4,000 cfm	1.00 ea	48,624.08 /ea	48,624
Fan powered box w/coil & controls (4-pipe)	46.00 ea	3,485.54 /ea	160,335
Fan powered box w/coil & controls (2-pipe) (adj. rate @ Recon***)	(46.00) ea	1,000.00 /ea	(46,000)
Fan powered box w/coil & controls (2-pipe) (adj. @ Recon***)	(14.00) ea	3,485.54 /ea	(48,797)
233400 HVAC Fans	408,500.00 gsf	0.72 /gsf	292,488
233600 Air Terminal Units			
VAV's misc.	408,500.00 sf	0.05 /sf	20,425
VAV/box w controls/ - 4-5"	124.00 ea	742.88 /ea	92,117
VAV/box w controls/ - 6-7"	52.00 ea	756.88 /ea	39,358
VAV/box w controls/ - 8-9"	34.00 ea	869.35 /ea	29,558
VAV/box w controls/ - 8-9" (adj. @ Recon***)	65.00 ea	869.35 /ea	56,508
VAV/box w controls/ - 10"	4.00 ea	923.35 /ea	3,693
VAV/box w controls/ - 12"	5.00 ea	1,031.82 /ea	5,159
VAV/box w 2-row coil & controls/ - 6"	11.00 ea	760.41 /ea	8,365
VAV/box w 2-row coil & controls/ - 10"	13.00 ea	933.88 /ea	12,140
VAV/box w 2-row coil & controls/ - 10" (adj. @ Recon***)	16.00 ea	933.88 /ea	14,942
VAV/box w electric coil & controls/ - 10"	4.00 ea	1,834.82 /ea	7,339
VAV/box w electric coil & controls/ - 10" (adj. @ Recon***)	69.00 ea	1,834.82 /ea	126,603
VAV/box w electric coil & controls/ - 16"	5.00 ea	2,184.82 /ea	10,924
233600 Air Terminal Units	408,500.00 gsf	1.05 /gsf	427,131
235000 HVAC Boilers & Heat Exchangers			
Boiler/HW/electric 490mbh	2.00 ea	62,084.60 /ea	124,169
Boilers/steam/gas/high eff. cond. - 250 hp 1,000 gal tank	18.00 mo	15,700.00 /mo	282,600
Boiler circulator pump	4.00 ea	806.35 /ea	3,225
Fuel for start-up	1.00 ls	2,500.00 /ls	2,500
Weekly maintenance	72.00 wks	800.00 /wks	57,600
24/7 on call maintenance	1.00 ls	30,000.00 /ls	30,000
235000 HVAC Boilers & Heat Exchangers	408,500.00 gsf	1.22 /gsf	500,095
237000 HVAC - Central Air Handling Equipment			
ERU-1	12,000.00 cfm	17.00 /cfm	204,000
ERU-2	4,000.00 cfm	17.00 /cfm	68,000
ERU-3	1,100.00 cfm	17.00 /cfm	18,700
ERU-4	8,000.00 cfm	17.00 /cfm	136,000
HRU-1	18,000.00 cfm	15.00 /cfm	270,000
HRU-2	18,000.00 cfm	15.00 /cfm	270,000
HRU-3	12,000.00 cfm	15.00 /cfm	180,000
HRU-4	18,000.00 cfm	15.00 /cfm	270,000
HRU-5	18,000.00 cfm	15.00 /cfm	270,000
HRU-6	14,000.00 cfm	15.00 /cfm	210,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
237000 HVAC - Central Air Handling Equipment			
HRU-7	3,650.00 cfm	15.00 /cfm	54,750
HRU-8	10,000.00 cfm	15.00 /cfm	150,000
HRU-9	5,250.00 cfm	15.00 /cfm	78,750
HRU-10	3,850.00 cfm	15.00 /cfm	57,750
HRU-11	15,000.00 cfm	15.00 /cfm	225,000
HRU-12	11,200.00 cfm	15.00 /cfm	168,000
HRU-13	11,200.00 cfm	15.00 /cfm	168,000
HRU-14	14,000.00 cfm	15.00 /cfm	210,000
HRU-15	12,500.00 cfm	15.00 /cfm	187,500
HV-1 Kitchen	5,000.00 cfm	6.50 /cfm	32,500
- Roof curb/vibration isolation (1 - 5,000 cfm)	6.00 ea	7,500.00 /ea	45,000
- Roof curb/vibration isolation (6 - 20,000 cfm)	14.00 ea	15,000.00 /ea	210,000
237000 HVAC - Central Air Handling Equipment	408,500.00 gsf	8.53 /gsf	3,483,950
238000 Evaporative HVAC Equipment			
Heat recovery condensing unit (72 mbh)	2.00 ea	14,887.35 /ea	29,775
Heat recovery condensing unit (96 mbh)	4.00 ea	16,987.35 /ea	67,949
Heat recovery condensing unit (120 mbh)	37.00 ea	18,984.82 /ea	702,438
Air cooled heat pump ACHP-1 (335 tons)	1.00 ea	738,898.80 /ea	738,899
Air cooled heat pump ACHP-2 (335 tons)	1.00 ea	738,898.80 /ea	738,899
Air cooled chiller ACH-1 (176 tons)	1.00 ea	251,949.40 /ea	251,949
Air cooled chiller ACH-2 (176 tons)	1.00 ea	251,949.40 /ea	251,949
238000 Evaporative HVAC Equipment	408,500.00 gsf	6.81 /gsf	2,781,859
238025 Mini-Split VRF Heat Pump Systems			
Mini-split HP/multi-zone/indoor/clg. csstt - 8 mbh	5.00 ea	964.15 /ea	4,821
Mini-split HP/multi-zone/indoor/clg. csstt - 15 mbh	2.00 ea	1,205.52 /ea	2,411
Mini-split HP/multi-zone/indoor/clg. csstt - 24 mbh	2.00 ea	1,565.52 /ea	3,131
HP outdoor cond. unit/heat or cool - 72 mbh	1.00 ea	12,387.35 /ea	12,387
HP outdoor cond. unit/heat or cool - 120 mbh	1.00 ea	16,484.82 /ea	16,485
Mini-split refrigerant piping/type "ACR" soft copper/brazed	1,200.00 lf	35.41 /lf	42,495
Mini-split clean & test piping system (nitrogen purge)	1,200.00 lf	1.13 /lf	1,359
Mini-split refrigerant charge/R410B	150.00 lbs	30.88 /lbs	4,633
VRF/Indoor units/4-way clg. csstt (small)	67.00 ea	1,958.15 /ea	131,196
VRF/Indoor units/4-way clg. csstt (medium)	42.00 ea	2,483.25 /ea	104,296
VRF/Indoor units/ducted horiz. - small	1.00 ea	1,986.85 /ea	1,987
VRF/Indoor units/ducted horiz. - medium	15.00 ea	2,360.68 /ea	35,410
VRF/Indoor units/ducted horiz. - medium (Part E)	20.00 ea	2,360.68 /ea	47,214
VRF/Indoor units/ducted horiz. - large	5.00 ea	2,871.52 /ea	14,358
VRF/Outdoor cond. unit/heat or cool - 140 mbh	19.00 ea	24,382.72 /ea	463,272
VRF/Outdoor cond. unit/heat or cool - 140 mbh (Part E)	2.00 ea	24,382.72 /ea	48,765
VRF/Main-branch circuit controller/max. 10-indoor units	9.00 ea	6,876.31 /ea	61,887
VRF/Main-branch circuit controller/max. 10-indoor units (Part E)	1.00 ea	6,876.31 /ea	6,876
VRF/Main-branch circuit controller/max. 13-indoor units	10.00 ea	7,968.68 /ea	79,687
VRF/Main-branch circuit controller/max. 13-indoor units (Part E)	1.00 ea	7,968.68 /ea	7,969
VRF system refrigerant piping/type "ACR" hard copper/brazed	2,850.00 lf	52.92 /lf	150,808
VRF system refrigerant piping/type "ACR" hard copper/brazed (Part E)	300.00 lf	52.92 /lf	15,874
VRF system refrigerant piping/type "ACR" soft copper/brazed	16,250.00 lf	35.41 /lf	575,457
VRF system refrigerant piping/type "ACR" soft copper/brazed (Part E)	2,500.00 lf	35.41 /lf	88,532
VRF system clean & test piping system (nitrogen purge)	21,900.00 lf	1.13 /lf	24,807
VRF system refrigerant charge/R410B	1,200.00 lbs	30.88 /lbs	37,060
238025 Mini-Split VRF Heat Pump Systems	408,500.00 gsf	4.86 /gsf	1,983,176
238200 Convection Heating Units			
Terminal equipment (misc.)	408,500.00 sf	0.05 /sf	20,425
Terminal equipment (@ chorus/band/performing arts & support areas)	21,550.00 sf	0.75 /sf	16,163
Fan coil unit/hydronic 4-pipe/horiz. or vert. - small	15.00 ea	1,177.20 /ea	17,658
Fan coil unit/hydronic 4-pipe/horiz. or vert. - medium	116.00 ea	2,699.77 /ea	313,174
Fan coil unit/hydronic 4-pipe/horiz. or vert. - medium (adj. @ Recon***)	12.00 ea	2,699.77 /ea	32,397



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
238200 Convection Heating Units			
Fan coil unit/hydronic 4-pipe/horiz. or vert. - large	2.00 ea	2,850.74 /ea	5,701
Radiant floor heating system - 4-pipe	14,035.00 sf	18.80 /sf	263,910
- Manifolds	5.00 ea	4,302.40 /ea	21,512
PR-1 Runtal Baseboard Radiation UF/RF - 8-row	150.00 lf	365.23 /lf	54,785
Cabinet unit heater/hot water/wall mount/recessed - avg. size	10.00 ea	1,664.52 /ea	16,645
Cabinet unit heater/hot water/ceiling mount - avg. size	6.00 ea	1,825.26 /ea	10,952
Unit heater/hot water/horiz./propeller - avg. size	12.00 ea	1,153.01 /ea	13,836
Unit ventilator (@ kiln)	1.00 ea	6,569.64 /ea	6,570
238200 Convection Heating Units	408,500.00 gsf	1.94 /gsf	793,727
238500 HVAC Equipment VFD's			
VFD w/keypad/disconnect/bypass/NEMA 1 (misc)	1.00 ls	75,000.00 /ls	75,000
VFD w/keypad/disconnect/bypass/NEMA 1 - 20 hp	16.00 ea	4,184.47 /ea	66,952
238500 HVAC Equipment VFD's	408,500.00 gsf	0.35 /gsf	141,952
239000 HVAC Equipment Rigging/Setting/Start Up			
Equipment hoisting/rigging/setting/start-up	408,500.00 sf	1.60 /sf	653,600
239000 HVAC Equipment Rigging/Setting/Start Up	408,500.00 gsf	1.60 /gsf	653,600
D30 HVAC	408,500.00 gsf	67.80 /gsf	27,698,127
D30 Heating, Ventilating, and Air Conditioning (HVAC)	408,500.00 gsf	67.80 /gsf	27,698,127

D40 Fire Protection Systems

D40 Fire Protection

210005 Fire Protection

Sprinkler permits, as-builts, coring, fire stopping	408,500.00 sf	0.40 /sf	163,400
Project management	3.00 ph	15,000.00 /ph	45,000
Sprinkler contractor 3D/BIM costs	3.00 ph	5,000.00 /ph	15,000
Premium for phasing on project	3.00 ph	10,000.00 /ph	30,000
Fire dept. inlet connection - 2-1/2" polished brass - 2 -way - RECON	(1.00) ea	907.23 /ea	(907)
Fire dept. inlet connection - 2-1/2" polished brass - roof	3.00 ea	907.23 /ea	2,722
Post indicator valve	3.00 ea	500.01 /ea	1,500
Fire dept. inlet connection - Storz 6" - RECON	2.00 ea	1,863.93 /ea	3,728
Standpipe - sch 10 black steel piping w/ fittings	2,475.00 lf	64.45 /lf	159,501
Standpipe - sch 10 black steel piping w/ fittings - RECON	(2,475.00) lf	5.00 /lf	(12,375)
Drain riser - sch 40 black steel piping w/ fittings	650.00 lf	36.07 /lf	23,446
Fire hose valve - 2-1/2" - pressure regulating	38.00 ea	362.76 /ea	13,785
Fire hose cabinet - aluminum - recessed	38.00 ea	1,141.44 /ea	43,375
Sprinkler head - wet - recessed pendant	3,049.00 ea	129.60 /ea	395,142
Sprinkler head - wet - pendant or upright	332.00 ea	79.74 /ea	26,472
Sprinkler head - wet - above ceiling	45.00 ea	100.92 /ea	4,541
Sprinkler branch piping black steel sch. 40 w/ fittings	30,429.00 lf	28.71 /lf	873,610
Sprinkler branch piping black steel sch. 40 w/ fittings - above ceiling	225.00 lf	28.71 /lf	6,460
Sprinkler main piping black steel sch. 10 w/ fittings	10,380.00 lf	52.00 /lf	539,760
Sprinkler main piping black steel sch. 10 w/ fittings - RECON	(10,380.00) lf	6.00 /lf	(62,280)
Wet alarm valve	4.00 ea	4,135.52 /ea	16,542
Wet alarm valve - RECON	2.00 ea	4,135.52 /ea	8,271
Double check valve (BFP) assembly - 8"	2.00 ea	11,544.72 /ea	23,089
Double check valve (BFP) assembly - 8" - RECON	(1.00) ea	11,544.72 /ea	(11,545)
Zone flow control valve w/ pressure reducing valve	17.00 ea	2,540.52 /ea	43,189
Waterflow switch	23.00 ea	429.80 /ea	9,885
Tamper switch	23.00 ea	364.80 /ea	8,390
Test port/test header/flush mount - 4 way	1.00 ea	389.80 /ea	390
Sprinkler head - dry - pendant or upright	45.00 ea	84.74 /ea	3,813
Dry branch piping galvanized sch. 40 - w/ fittings	450.00 lf	33.21 /lf	14,944



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
210005 Fire Protection			
Dry main piping galvanized sch. 40 - w/ fittings	185.00 lf	105.79 /lf	19,571
Dry main piping galvanized sch. 40 - w/ fittings - RECON	(185.00) lf	8.00 /lf	(1,480)
Dry alarm valve	2.00 ea	6,835.52 /ea	13,671
Dry alarm valve - RECON	(1.00) ea	6,835.52 /ea	(6,836)
Fire pump w jockey & controller (1000 gpm, 150 hp)	1.00 ea	99,999.96 /ea	100,000
210005 Fire Protection		/gsf	2,513,776
210010 Water Curtain at Rated Walls			
Sprinkler head - water curtain	365.00 ea	252.99 /ea	92,341
Sprinkler branch piping black steel sch. 40 w/ fittings - water curtain feed	1,460.00 lf	28.71 /lf	41,916
210010 Water Curtain at Rated Walls		/gsf	134,258
D40 Fire Protection	408,500.00 gsf	6.48 /gsf	2,648,033

D40 Fire Protection Systems	408,500.00 gsf	6.48 /gsf	2,648,033
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D50 Electrical Systems

D50 Electrical

015020 Trade Support

Laborer for trade support - Electric

015020 Trade Support

	wks	/wks
	408,500.00 gsf	/gsf

110615 Audiovisual Systems & Projection Screens

Auditorium devices, cabling, power, and equipment	1.00 ls	216,000.00 /ls	216,000
Black Box devices, cabling, power, and equipment	1.00 ls	60,000.00 /ls	60,000
Chorus devices, cabling, power, and equipment	1.00 ls	9,600.00 /ls	9,600
Band devices, cabling, power, and equipment	1.00 ls	9,600.00 /ls	9,600
Production Lab & Studio devices, cabling, power, and equipment	1.00 ls	24,000.00 /ls	24,000
110615 Audiovisual Systems & Projection Screens	408,500.00 gsf	0.78 /gsf	319,200

110620 Stage Curtains and Riggings - Auditorium

Tie into fire alarm system	408,500.00 sf	0.02 /sf	8,170
Junction box - 4" square	30.00 ea	57.54 /ea	1,726
Cafeteria devices, cabling, power, and equipment	1.00 ea	1.00 /ea	1
Gymnasium devices, cabling, power, and equipment	1.00 ea	1.00 /ea	1
Junction box - 4-11/16" square x 2-1/8"	7.00 ea	83.48 /ea	584
Screw cover pull box	1.00 ea	404.94 /ea	405
Touch panel	4.00 ea	1,241.80 /ea	4,967
HDMI input jack and plate	4.00 ea	173.89 /ea	696
Plywood blocking for displays and speakers	10.00 ea	214.56 /ea	2,146
TV monitor - 70" Display	4.00 ea	5,307.41 /ea	21,230
TV monitor - 90" Display	1.00 ea	10,409.88 /ea	10,410
TV monitor - 98" Display	5.00 ea	12,512.35 /ea	62,562
Video intercom 60" LCD master monitor	1.00 ea	1,328.09 /ea	1,328
Wall audio plate for line-in and microphone	4.00 ea	1,164.82 /ea	4,659
AV floor box	1.00 ea	1,819.76 /ea	1,820
AV rack enclosure	4.00 ea	1,046.48 /ea	4,186
Laser projector	3.00 ea	35,739.44 /ea	107,218
Empty conduit (EMT): 3/4"	448.00 lf	5.33 /lf	2,386
Empty conduit (EMT): 1"	532.00 lf	6.51 /lf	3,465
Empty conduit (EMT): 1.25"	235.00 lf	8.35 /lf	1,963
Empty conduit (EMT): 1.5"	135.00 lf	9.80 /lf	1,323
Empty conduit (EMT): 2"	142.00 lf	11.58 /lf	1,645
Empty conduit (EMT): 2.5"	39.00 lf	22.11 /lf	862
Control console	3.00 ea	16,639.52 /ea	49,919
Keypad, Nortek EI212SE	1.00 ea	491.71 /ea	492



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
110620 Stage Curtains and Riggings - Auditorium			
Motorized projector lift	1.00 ea	728.15 /ea	728
Bluetooth audio receiver	1.00 ea	402.47 /ea	402
Projector screen - 100" x 160"	1.00 ea	2,472.41 /ea	2,472
Projector screen - 177" x 284"	1.00 ea	6,949.82 /ea	6,950
Projector screen - 72" x 116"	1.00 ea	1,832.41 /ea	1,832
AV equipment power connection	25.00 ea	269.94 /ea	6,749
110620 Stage Curtains and Riggings - Auditorium	408,500.00 gsf	0.77 /gsf	313,296
260005 Electrical - Misc			
Coordination of switchboard dimensions and feeder routing	60.00 mh	123.24 /mh	7,394
Coordination of routing of PV conduit distribution system	80.00 mh	123.24 /mh	9,859
Coordination of Fusco building new and adaptation of existing power	100.00 mh	123.24 /mh	12,324
Coordination of lighting control zones for light shafts, corridors, classrooms, open areas	100.00 mh	123.24 /mh	12,324
Coordination of power connections to Auditorium and Performing Arts	40.00 mh	123.24 /mh	4,930
Coordination of theatrical lighting controls with BMS	24.00 mh	123.24 /mh	2,958
Coordination of Auditorium house lighting with walls and ceiling	80.00 mh	123.24 /mh	9,859
Coordination of Performing Arts facade lighting with walls	60.00 mh	123.24 /mh	7,394
Coordination of power to door hardware equipment and access control features	200.00 mh	123.24 /mh	24,648
Coordination of power to water heaters	4.00 mh	123.24 /mh	493
Coordination of power to new and existing telecom	16.00 mh	123.24 /mh	1,972
Coordination of fire alarm and fire protection	24.00 mh	123.24 /mh	2,958
Coordination of lighting and power to Toilet Facility	30.00 mh	123.24 /mh	3,697
Temp light stringers & GFCI power	772.00 sf	0.50 /sf	386
Coring - patching - firestopping	408,500.00 sf	0.13 /sf	51,063
Project management	810.00 mh	123.24 /mh	99,824
Electrical contractor 3D/BIM costs	408,500.00 sf	0.22 /sf	89,870
Electrical contractor 3D/BIM costs	772.00 sf	0.27 /sf	211
Testing & seismic	1.00 ls	45,000.00 /ls	45,000
Testing & seismic	1.00 ls	500.00 /ls	500
Premium for phasing on project	1.00 ls	75,000.00 /ls	75,000
Hoisting & rigging (switchboard)	1.00 ls	115,901.36 /ls	115,901
260005 Electrical - Misc	408,500.00 gsf	1.42 /gsf	578,565
260010 Temporary Lighting, Power & FA			
Temporary light stringers and GFI power drops	408,500.00 sf	0.50 /sf	204,250
Temporary electric service (400A @ 480V)	2.00 ea	20,315.52 /ea	40,631
Temp power for welders / tower cranes	10.00 ea	12,593.68 /ea	125,937
Temp power for trailer	8.00 ea	1,559.16 /ea	12,473
Temp internet connection for trailer	8.00 ea	2,155.78 /ea	17,246
Fire alarm impairment plan (NFPA-101 / NFPA-241)	1.00 ls	5,000.00 /ls	5,000
260010 Temporary Lighting, Power & FA	408,500.00 gsf	0.99 /gsf	405,537
260505 Enabling Work for Electrical			
Make-safe electrical demolition (removal/disposal by others)	1.00 ls	59,000.00 /ls	59,000
Backfeed existing fire alarm equipment from FACP in Phase 1	1.00 ea	23,324.00 /ea	23,324
Interface new and existing fire alarm to meet phasing requirements	1.00 ea	17,359.20 /ea	17,359
Remove FUSCO including fire alarm and electric services	2.00 ls	15,091.60 /ls	30,183
Remove existing sports lighting and cut post foundation below grade	1.00 ls	19,788.80 /ls	19,789
Remove primary and secondary electric service to Downs House	1.00 ls	9,894.40 /ls	9,894
Remove primary and secondary electric service to Red Gym	1.00 ls	9,894.40 /ls	9,894
Demolish temporary parking area lighting	1.00 ls	25,000.00 /ls	25,000
Re-route existing sports lighting circuits to avoid new field drainage	2.00 ls	31,500.00 /ls	63,000
Relocate press box and elevator feeders	1.00 ls	50,000.00 /ls	50,000
Relocate power for dugouts	3.00 ls	15,000.00 /ls	45,000
Remove existing underground telephone service	390.00 lf	28.69 /lf	11,190
Remove existing underground primary electric service	250.00 lf	49.65 /lf	12,412
Remove enabling primary electric service	1.00 ls	10,000.00 /ls	10,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>260505 Enabling Work for Electrical</i>	<i>408,500.00 gsf</i>	<i>0.95 /gsf</i>	<i>386,046</i>
<i>260526 Grounding and Bonding for Electrical Systems</i>			
Building grounding & bonding	408,500.00 sf	0.11 /sf	44,302
Exterior (utility) transformer - grounding & bonding	3.00 ea	1,288.42 /ea	3,865
Primary switch - grounding & bonding	1.00 ea	1,288.42 /ea	1,288
Dry-type transformer grounding	30.00 ea	252.87 /ea	7,586
Copper ground bar - 2"x1/4" (ea.)	1.00 ea	336.48 /ea	336
Copper ground bar terminations	8.00 ea	89.12 /ea	713
Ground rods	4.00 ea	284.98 /ea	1,140
Bare copper wire - #6	50.00 lf	1.40 /lf	70
Bare copper wire - #2/0	250.00 lf	3.95 /lf	987
<i>260526 Grounding and Bonding for Electrical Systems</i>	<i>408,500.00 gsf</i>	<i>0.15 /gsf</i>	<i>60,288</i>
<i>260583 Equipment Wiring</i>			
Feeder (PVC/CU) - 40A [EVC]	3,800.00 lf	8.93 /lf	33,941
Feeder (EMT/CU) - 60A	1,500.00 lf	16.76 /lf	25,140
Feeder (EMT/CU) - 100A	200.00 lf	23.15 /lf	4,630
Feeder (EMT/CU) - 400A	700.00 lf	81.46 /lf	57,023
Feeder (EMT/CU) - 800A	600.00 lf	151.94 /lf	91,166
Power (120V) for ATC panels	75.00 ea	516.37 /ea	38,728
Fused Disco: 20A, 240V/3P, NEMA-1 [Kitchen]	10.00 ea	380.94 /ea	3,809
Fused Disco: 20A, 240V/3P, NEMA-1 [MBL]	2.00 ea	380.94 /ea	762
Fused Disco: 60AF, 600V/3P, NEMA-1	1.00 ea	954.84 /ea	955
Fused Disco: 60A, 600V/3P, NEMA-3R	3.00 ea	1,152.07 /ea	3,456
Fused Disco: 100AF, 240V/3P, NEMA-1	2.00 ea	1,641.37 /ea	3,283
Fused Disco: 400A, 600V/3P, NEMA-3R	2.00 ea	2,892.32 /ea	5,785
Fused Disco: 600A, 600V/3P, NEMA-1	1.00 ea	3,127.33 /ea	3,127
Fused Disco: 800A, 600V/3P, NEMA-1	4.00 ea	6,262.35 /ea	25,049
Shot timer controls	1.00 ea	1,916.32 /ea	1,916
Kitchen kilns	4.00 ea	2,186.84 /ea	8,747
Motorized backstops and curtains	8.00 ea	2,634.08 /ea	21,073
Motorized backdrop	1.00 ea	2,634.08 /ea	2,634
Fire pump (150HP)	1.00 ea	6,443.68 /ea	6,444
Elevators and controllers	3.00 ea	5,197.20 /ea	15,592
Motor starters	26.00 ea	474.17 /ea	12,328
Install and wire VFD's (furnished by Division 23)	35.00 ea	1,040.92 /ea	36,432
Electric vehicle charging station / dual pedestal / cable mgmt.	10.00 ea	11,414.88 /ea	114,149
Elevator cab lights / fan	3.00 ea	2,485.92 /ea	7,458
Misc. terminal equipment	408,500.00 sf	0.05 /sf	21,424
Cabinet unit heaters (hot water)	16.00 ea	816.20 /ea	13,059
Unit heaters (hot water)	12.00 ea	816.20 /ea	9,794
Unit ventilator (kiln)	1.00 ea	1,324.92 /ea	1,325
Unit heaters	2.00 ea	816.20 /ea	1,632
Electric unit wallheaters	5.00 ea	1,415.92 /ea	7,080
Fan powered boxes w/ 4-pipes	145.00 ea	1,014.44 /ea	147,094
Fan powered boxes w/ 2-pipes	32.00 ea	1,014.44 /ea	32,462
Radiant floor manifolds	5.00 ea	458.10 /ea	2,291
Elevator penthouse louvered vent	1.00 ea	1,541.38 /ea	1,541
Dust collector (4000cfm)	1.00 ea	6,197.20 /ea	6,197
VRF indoor units	150.00 ea	989.44 /ea	148,416
VRF outdoor units	21.00 ea	2,525.36 /ea	53,033
VRF branch circuit controllers	21.00 ea	682.96 /ea	14,342
Mini-split system indoor units	9.00 ea	1,076.44 /ea	9,688
Mini-split system outdoor units	2.00 ea	3,664.80 /ea	7,330
Hot water pumps (20hp)	10.00 ea	3,138.32 /ea	31,383
Chilled water pumps (20hp)	10.00 ea	3,138.32 /ea	31,383
Heat recovery condensing units	43.00 ea	5,197.20 /ea	223,480
Condensate pumps	263.00 ea	457.29 /ea	120,267
Glycol feed pumps	4.00 ea	1,485.92 /ea	5,944



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260583 Equipment Wiring			
Energy recovery units	4.00 ea	10,394.40 /ea	41,578
Kitchen HV unit	1.00 ea	10,394.40 /ea	10,394
Heat recovery units	15.00 ea	10,394.40 /ea	155,916
VAV boxes w/ electric coils	78.00 ea	1,385.92 /ea	108,102
Electric water heaters (60A)	9.00 ea	2,721.84 /ea	24,497
Electric water heaters / point of service	26.00 ea	1,420.92 /ea	36,944
Air cooled chillers (176T)	2.00 ea	15,824.00 /ea	31,648
Exhaust fans	17.00 ea	2,228.88 /ea	37,891
Air cooled heat pumps (335T)	2.00 ea	19,788.80 /ea	39,578
Misc. exhaust fans	408,500.00 sf	0.05 /sf	20,423
Destratification fans	4.00 ea	1,360.92 /ea	5,444
Sensor flush valves	156.00 ea	170.92 /ea	26,663
Temporary boilers and boiler pumps	2.00 ea	3,138.32 /ea	6,277
Electric boilers	2.00 ea	2,008.70 /ea	4,017
Temporary fuel oil pump	1.00 ea	3,264.80 /ea	3,265
Boiler circulation pumps	8.00 ea	1,453.92 /ea	11,631
Rental steam boilers	1.00 ls	5,697.20 /ls	5,697
Hot water heaters	4.00 ea	703.94 /ea	2,816
Electric water coolers	35.00 ea	608.10 /ea	21,284
Recirculation pumps	6.00 ea	1,210.88 /ea	7,265
Duplex air compressor	1.00 ea	940.39 /ea	940
Acid neut. system	1.00 ea	1,909.41 /ea	1,909
260583 Equipment Wiring	408,500.00 gsf	4.94 /gsf	2,016,972
260923 Lighting Control Devices			
On-site programming & startup (manufacturer)	1.00 ls	14,859.20 /ls	14,859
Single pole switch (120/277V)	36.00 ea	80.18 /ea	2,887
Low voltage switch	298.00 ea	179.40 /ea	53,460
Digital wall (scene) switch, 2-button	11.00 ea	224.64 /ea	2,471
Digital wall (scene) switch, 3-button	9.00 ea	249.56 /ea	2,246
Digital wall (scene) switch, 4-button	93.00 ea	249.56 /ea	23,209
Wall PIR occupancy sensor (24VDC)	103.00 ea	281.72 /ea	29,017
Wall PIR vacancy sensor (24VDC)	43.00 ea	281.72 /ea	12,114
Ceiling US vacancy sensor (24VDC)	472.00 ea	350.37 /ea	165,374
Ceiling US occupancy sensor (24VDC)	118.00 ea	350.37 /ea	41,344
Wall dimmer switch (0-10V)	2.00 ea	150.78 /ea	302
Photocell (single zone)	220.00 ea	325.83 /ea	71,683
Digital dimming room controller, 3-relay - allowance (ea.)	350.00 allw	478.88 /allw	167,608
Emergency bypass relays - allowance (ea.)	300.00 allw	326.00 /allw	97,800
Emergency lighting transfer station controller ELTS	2.00 ea	2,117.70 /ea	4,235
Interface with BMS	1.00 ea	912.96 /ea	913
Lighting control racks	10.00 ea	1,451.96 /ea	14,520
Backfeed existing lighting control box	1.00 ea	4,971.84 /ea	4,972
Connect to main building networked lighting controls	1.00 ea	842.96 /ea	843
Lighting control panel, 8-relay	20.00 ea	2,904.00 /ea	58,080
MC Cable (12/2) - 20A	26,780.00 lf	4.23 /lf	113,216
MC Cable (12/3) - 20A	4,380.00 lf	4.65 /lf	20,353
MC Cable (12/4) - 20A	17,200.00 lf	5.19 /lf	89,247
Digital lighting LV cable	7,500.00 lf	4.51 /lf	33,804
EMT (12/2) - 20A	200.00 lf	8.25 /lf	1,650
EMT (10/2) - 20A	4,200.00 lf	8.32 /lf	34,923
3-circuits in 3/4" EMT - 20A	500.00 lf	15.56 /lf	7,778
RJ45 Cable, 15LF (plenum-rated)	810.00 ea	86.50 /ea	70,067
RJ45 Cable, 25LF (plenum-rated)	410.00 ea	89.24 /ea	36,588
RJ45 Cable, 100LF (plenum rated)	450.00 ea	185.23 /ea	83,352
260923 Lighting Control Devices	408,500.00 gsf	3.08 /gsf	1,258,914
261000 Electrical Distribution and Feeders			
CT meter enclosure	5.00 ea	1,709.92 /ea	8,550



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>261000 Electrical Distribution and Feeders</i>	<i>408,500.00 gsf</i>	<i>0.02 /gsf</i>	<i>8,550</i>
<i>262700 Distribution Equipment</i>			
Normal power distribution equipment	408,500.00 sf	0.25 /sf	102,125
Short circuit / arc flash / selective coordination	1.00 ea	7,000.00 /ea	7,000
Short circuit / arc flash / coordination study (per panel)	1.00 ea	250.00 /ea	250
Backfeed existing lighting and power panel boards from Phase 1/4	1.00 ls	29,788.80 /ls	29,789
EV charging station service (125A)	1.00 ea	9,613.64 /ea	9,614
EV charging station service (200A)	1.00 ea	12,444.08 /ea	12,444
Enclosed circuit breaker: 225A/3P	1.00 ea	2,587.32 /ea	2,587
Electrical wireway - 12"x12"x36"L	42.00 ea	955.84 /ea	40,145
225A/3P enclosed C/B - 600V (N1)	2.00 ea	3,476.25 /ea	6,952
EPO / shut trip MCB for panelboards	22.00 ea	757.96 /ea	16,675
Multiple meter unit	19.00 ea	2,447.40 /ea	46,501
Switchboard - 1200A	1.00 ea	27,640.88 /ea	27,641
Switchboard - 1600A	1.00 ea	31,873.28 /ea	31,873
Switchboard - 2500A, 480/277V	2.00 ea	54,788.80 /ea	109,578
Switchboard - 3000A, 480/277V	4.00 ea	61,253.60 /ea	245,014
Switchboard - 4000A, 480/277V	2.00 ea	82,218.40 /ea	164,437
Panelboard - 100A	65.00 ea	3,021.84 /ea	196,420
Panelboard - 225A	45.00 ea	4,024.80 /ea	181,116
Panelboard - 400A	5.00 ea	6,284.24 /ea	31,421
Distribution panel - 225A	4.00 ea	11,289.60 /ea	45,158
Distribution panel - 400A	38.00 ea	11,289.60 /ea	429,005
Distribution panel - 500A	1.00 ea	11,289.60 /ea	11,290
Distribution panel - 600A	8.00 ea	11,289.60 /ea	90,317
Distribution panel - 800A	3.00 ea	12,969.60 /ea	38,909
Distribution panel - 1000A	1.00 ea	12,969.60 /ea	12,970
Distribution panel - 1200A	3.00 ea	12,969.60 /ea	38,909
Transformer: floor/wall - 30kVA, 480V:208V	1.00 ea	2,778.88 /ea	2,779
Transformer: floor/wall - 45kVA, 480V:208V	7.00 ea	3,165.36 /ea	22,158
Transformer: floor/wall - 75kVA, 480V:208V	12.00 ea	4,769.80 /ea	57,238
Transformer: floor/wall - 112.5kVA, 480V:208V (for T6)	5.00 ea	6,249.00 /ea	31,245
Transformer: floor/wall - 150kVA, 480V:208V	1.00 ea	8,252.20 /ea	8,252
Transformer: floor - 225kVA, 480V:208V	3.00 ea	11,212.20 /ea	33,637
<i>262700 Distribution Equipment</i>	<i>408,500.00 gsf</i>	<i>5.10 /gsf</i>	<i>2,083,447</i>
<i>262705 Distribution Feeders</i>			
Mineral insulated (MI cable)	408,500.00 sf	0.25 /sf	102,125
Feeder (PVC/CU) - 400A	30.00 lf	60.16 /lf	1,805
Feeder (EMT/CU) - 15A [MMU's]	1,425.00 lf	8.82 /lf	12,567
Feeder (EMT/AL) - 100A	3,725.00 lf	21.16 /lf	78,813
Feeder (EMT/AL) - 125A	50.00 lf	24.73 /lf	1,236
Feeder (EMT/AL) - 225A	4,900.00 lf	47.75 /lf	233,949
Feeder (EMT/AL) - 400A	2,525.00 lf	69.50 /lf	175,497
Feeder (EMT/AL) - 600A	2,700.00 lf	109.75 /lf	296,313
Feeder (EMT/AL) - 800A	1,000.00 lf	156.40 /lf	156,399
Feeder (EMT/AL) - 2000A	70.00 lf	433.32 /lf	30,332
Feeder (EMT/AL) - 3000A	70.00 lf	508.73 /lf	35,611
Feeder (EMT/AL) - 4000A	70.00 lf	593.27 /lf	41,529
Empty conduit (EMT) - 1.25"	300.00 lf	9.66 /lf	2,897
Empty conduit (sch 40 PVC) - 2 x 3"	1,300.00 lf	29.32 /lf	38,112
Feeder (MC) - 50A	40.00 lf	7.48 /lf	299
Feeder (MC) - 80A	20.00 lf	9.23 /lf	185
Feeder (MC) - 100A	40.00 lf	12.17 /lf	487
Feeder (MC) - 125A	100.00 lf	13.81 /lf	1,381
Feeder (MC) - 150A	20.00 lf	20.85 /lf	417
Feeder (MC) - 175A	40.00 lf	28.52 /lf	1,141
Feeder (MC) - 225A	100.00 lf	37.38 /lf	3,738
Feeder (MC) - 175A	40.00 lf	28.52 /lf	1,141



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
262705 Distribution Feeders			
Feeder (MC) - 225A	20.00 lf	37.38 /lf	748
Feeder (MC) - 175A	80.00 lf	28.52 /lf	2,282
Feeder (MC) - 400A	240.00 lf	65.69 /lf	15,766
Feeder (MC) - 600A	60.00 lf	92.87 /lf	5,572
Feeder (MC) - 800A	40.00 lf	123.19 /lf	4,927
262705 Distribution Feeders	408,500.00 gsf	3.05 /gsf	1,245,270
262726 Wiring Devices			
Romex (6/3 w/ G) - 50A	1,500.00 lf	3.56 /lf	5,340
MC Cable (12/2) - 20A	44,250.00 lf	4.23 /lf	187,073
MC Cable (10/2) - 30A (A/V)	6,825.00 lf	5.28 /lf	36,022
MC Cable (10/2) - 20A [cord reels	6,000.00 lf	5.21 /lf	31,254
EMT (12/2) - 20A	200.00 lf	8.25 /lf	1,650
Duplex receptacle - 20A	819.00 ea	83.25 /ea	68,181
Duplex receptacle - 20A - Controlled	780.00 ea	101.74 /ea	79,354
Duplex receptacle - 20A (A/V)	75.00 ea	83.25 /ea	6,244
Duplex receptacle - 20A - GFCI	941.00 ea	110.24 /ea	103,737
Duplex receptacle - 20A - GFCI - W.P.	17.00 ea	151.54 /ea	2,576
Quadruplex receptacle - 20A	76.00 ea	114.89 /ea	8,732
Quadruplex receptacle - 20A - Controlled	291.00 ea	133.38 /ea	38,813
Quadruplex receptacle - 20A (A/V)	9.00 ea	114.89 /ea	1,034
Special receptacle - 30A (A/V)	7.00 ea	130.01 /ea	910
Special receptacle	15.00 ea	167.38 /ea	2,511
Power and low voltage control for motorized skylight shades (20' AFF)	56.00 ea	886.09 /ea	49,621
Power and low voltage control for motorized window shades (20' AFF)	45.00 ea	886.09 /ea	39,874
Floor box - 2 gang outlet/data	95.00 ea	996.72 /ea	94,688
Power junction w/feed (MC) - 20A [fire alarm equipment]	1.00 ea	396.48 /ea	396
Power junction w/feed (MC) - 20A [motorized dampers]	32.00 ea	396.48 /ea	12,687
Power junction w/feed (MC) - 20A [combination fire/smoke dampers]	55.00 ea	396.48 /ea	21,806
Trash compactor feed & connection	1.00 ea	2,715.08 /ea	2,715
Cord drop	1.00 ea	679.67 /ea	680
Emergency power off (EPO) (FA)	3.00 ea	357.35 /ea	1,072
Emergency power off (EPO) - Riser	22.00 ea	357.35 /ea	7,862
Pull box - 18"x18' x6"	21.00 ea	753.71 /ea	15,828
Pull boxes - 40"x40"x24"	3.00 ea	1,330.49 /ea	3,991
Cord reel (20A) w/ duplex receptacle	80.00 ea	337.52 /ea	27,001
262726 Wiring Devices	408,500.00 gsf	2.09 /gsf	851,653
263200 Packaged Generator Assemblies			
Diesel generator: 2000kW, 277/480V	1.00 ea	647,699.73 /ea	647,700
Generator grounding	1.00 ea	989.44 /ea	989
Generator testing & start-up	1.00 ea	14,929.60 /ea	14,930
Generator setting & rigging (grade level)	1.00 ea	36,971.84 /ea	36,972
Sound attenuated, weatherproof enclosure	1.00 ea	72,894.40 /ea	72,894
Starting circuit - 2#14 MI cable (4" PVC)	75.00 lf	14.02 /lf	1,051
Remote annunciator panel - 16#14 (4" PVC)	100.00 lf	18.47 /lf	1,847
Generator EPO and wiring	1.00 ea	581.34 /ea	581
Camlock connection box	1.00 ea	1,938.03 /ea	1,938
263200 Packaged Generator Assemblies	408,500.00 gsf	1.91 /gsf	778,903
263600 Transfer Switches			
ATS-E: 400A, 480V/3P w/ iso by-pass	1.00 ea	20,270.07 /ea	20,270
ATS-LRS: 600A, 480V/3P w/ iso by-pass	1.00 ea	32,511.80 /ea	32,512
ATS-OSE: 2500A, 480V/3P w/ iso by-pass	1.00 ea	129,736.08 /ea	129,736
ATS-OSC: 3000A, 480V/3P w/ iso by-pass	1.00 ea	146,094.40 /ea	146,094
MTS - no iso by-pass - open trans - 400A	1.00 ea	3,523.95 /ea	3,524
Wire fire pump controller (furnished and installed by Div. 21)	1.00 ea	2,964.80 /ea	2,965
263600 Transfer Switches	408,500.00 gsf	0.82 /gsf	335,101



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
264000 Lightning Protection			
Lightning protection system	1.00 ls	175,000.00 /ls	175,000
264000 Lightning Protection	408,500.00 gsf	0.43 /gsf	175,000
265000 Lighting			
XCS1: white face green letters thermoplastic exit sign	5.00 ea	144.99 /ea	725
XRC1: edge-lit green LED exit sign	94.00 ea	205.52 /ea	19,319
XRC2: edge-lit green LED exit sign	32.00 ea	219.49 /ea	7,024
XRC3: edge-lit green LED exit sign	4.00 ea	205.52 /ea	822
XRC4: edge-lit green LED exit sign	13.00 ea	205.52 /ea	2,672
XRC5: edge-lit green LED exit sign	1.00 ea	219.44 /ea	219
XWS1: edge-lit green LED exit sign	50.00 ea	219.49 /ea	10,974
XWS2: white face green letters die cast aluminum exit sign	16.00 ea	202.74 /ea	3,244
XWS3: white face green letters wet label vandal resistant exit sign	2.00 ea	411.38 /ea	823
XWS4: white face green letters wet label vandal resistant exit sign	12.00 ea	411.40 /ea	4,937
XWS5: edge-lit green LED exit sign	7.00 ea	219.49 /ea	1,536
XWS6: black face green letters die cast aluminum exit sign	1.00 ea	151.48 /ea	151
XWS7: master/remote white face green letters exit sign	2.00 ea	259.54 /ea	519
PC01 - LED Direct/Indirect pendant	5,805.00 lf	118.99 /lf	690,743
PC02 - LED Direct/Indirect pendant	1,690.00 lf	146.92 /lf	248,297
PC03 - 3' diameter LED fixture	3.00 ea	1,649.25 /ea	4,948
PC04 - 4' LED Utility Strip	92.00 ea	167.05 /ea	15,369
PC04A - 4' LED Utility Strip	25.00 ea	186.60 /ea	4,665
PC05 - 4' Ring Pendant	22.00 ea	1,773.02 /ea	39,006
PC06 - 6' Ring Pendant	10.00 ea	2,316.55 /ea	23,166
PC07 - Jelly Jar	30.00 ea	370.76 /ea	11,123
PC08 - 8' LED Utility Strip With Lens	38.00 ea	270.21 /ea	10,268
PC09 - LED tunable full indirect pendant	136.00 lf	583.70 /lf	79,383
PC10 - 2' Diameter Ring Pendant	4.00 ea	1,581.06 /ea	6,324
PC11 - Suspended Linear LED Strip	253.00 lf	136.59 /lf	34,557
PC12 - 12' Diameter Ring Pendant	2.00 ea	1,205.17 /ea	2,410
PC13C - New gym pendant	24.00 ea	834.62 /ea	20,031
PC14 - 6" Diameter Pendant Cylinder	39.00 ea	534.79 /ea	20,857
PC15 - 8' Diameter Ring Pendant	3.00 ea	5,471.90 /ea	16,416
PC16 - Direct/Indirect Pendant	1,270.00 lf	138.54 /lf	175,948
PC13D - New gym pendant	16.00 ea	834.62 /ea	13,354
PC13E - New gym pendant	6.00 ea	834.62 /ea	5,008
PC18 - 13' Diameter Ring Pendant	2.00 ea	8,838.57 /ea	17,677
PC19 - Linear Acoustic Lighted Baffle	1,685.00 lf	100.75 /lf	169,755
PC20 - Pendant Whiteboard Wall Washer	168.00 lf	155.67 /lf	26,153
PC22 - New Auditorium Downlight Can	15.00 ea	646.92 /ea	9,704
PC24 - Linear Forward Throw Indirect Pendant	205.00 lf	133.33 /lf	27,333
PC25 - Small Decorative Glass Pendant	9.00 ea	747.45 /ea	6,727
PC26 - Direct/Indirect Lensed Pendant	296.00 lf	281.36 /lf	83,282
PC27 - 3' Diameter Ring Pendant	3.00 ea	1,919.24 /ea	5,758
PC29 - Melissa's New Teardrop D-Lab Pendant	12.00 ea	1,216.33 /ea	14,596
PC30 - Reception Desk Pendant	4.00 ea	1,016.17 /ea	4,065
PC31 - 6" Diameter Pendant Cylinder	7.00 ea	640.04 /ea	4,480
RB03 - Tunable LED Segmented Curvable LED Cove	1,115.00 lf	89.45 /lf	99,737
RB04 - Segmented LED Cove Uplight	60.00 lf	138.79 /lf	8,328
RC04 - 4' Wall Slot	15.00 ea	246.81 /ea	3,702
RB09 - 1" Wide extrusion	45.00 lf	172.31 /lf	7,754
RB09-2 - Opal Lens Down 1"x1" extrusion	15.00 lf	161.14 /lf	2,417
RB09T - 1" Wide extrusion	70.00 lf	172.31 /lf	12,062
RB10 - 3-4" Wide LED Opal Lens Slot	308.00 lf	112.73 /lf	34,719
RB11 - 12" RGBW Modules	25.00 lf	347.34 /lf	8,684
RB13 - Opal Lens Upright 1"x1" Extrusion	42.00 lf	161.14 /lf	6,768
RB14 - Lens Up 1"x1" Extrusion	112.00 lf	161.14 /lf	18,047
RB16T - LED Strip in channel	835.00 lf	79.21 /lf	66,140



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>265000 Lighting</i>			
RB16T - DMX drivers	103.00 ea	281.74 /ea	29,019
RC01 - 6-8" Diameter Lensed Downlight	4.00 ea	226.81 /ea	907
RC02 - Wet Label Lensed Downlight	38.00 ea	265.91 /ea	10,105
RC04 - 4' Diameter LED Recessed Dome	14.00 ea	1,181.09 /ea	16,535
RB08 - white LED neon light fixture	60.00 lf	97.83 /lf	5,870
RC05 - 4" Wide LED Lensed ceiling slot	3,674.00 lf	89.57 /lf	329,091
RC06 - LED Recessed Wall Slot	670.00 lf	95.62 /lf	64,068
RC07 - 4" Wide LED Lensed ceiling slot	148.00 lf	89.57 /lf	13,257
RC09 - 8" Dia Recessed LED Downlight	26.00 ea	271.45 /ea	7,058
RC13 - Recessed Downlight	36.00 ea	394.36 /ea	14,197
RC14 - LED 2'x4' Flat Panel	150.00 ea	193.42 /ea	29,013
RC15 - LED Kitchen Troffer	27.00 ea	505.13 /ea	13,638
RC16 - Recessed Shower Light	15.00 ea	344.06 /ea	5,161
RC17 - LED Lensed Downlight	140.00 ea	356.17 /ea	49,863
RC22 - Arch LED 2x2	41.00 ea	220.42 /ea	9,037
RC23 - Wall Washer	4.00 ea	341.44 /ea	1,366
RC24 - Arch LED 2x4	202.00 ea	224.14 /ea	45,277
RC27T - Wall Washer	28.00 ea	423.38 /ea	11,855
RC28 - Aperture Downlight	21.00 ea	263.24 /ea	5,528
RC29 - LED Edgelit Disk	3.00 ea	164.60 /ea	494
RC31 - LED Damp Surface 1x4	16.00 ea	480.17 /ea	7,683
RC29 - LED Edgelit Disk	3.00 ea	164.60 /ea	494
RC32 - Recessed LED 2'x2' Troffer	128.00 ea	211.11 /ea	27,022
RC34 - Recessed LED 2'x4' Troffer	148.00 ea	214.83 /ea	31,795
RC42 - Linear LED Wallwasher	13.00 ea	255.79 /ea	3,325
RC44 - 4' Wall Washer	38.00 ea	329.31 /ea	12,514
RC52 - LED 2x2	21.00 ea	128.21 /ea	2,692
RC54 - LED 2x4	153.00 ea	149.62 /ea	22,892
RW02 - LED Shielded Steplight	65.00 ea	539.57 /ea	35,072
SC18 - 96" Wraparound stair light	44.00 ea	412.30 /ea	18,141
SC18P - 96" Wraparound stair light	13.00 ea	419.75 /ea	5,457
SC01 - LED lighting	35.00 lf	326.05 /lf	11,412
SC04 - LED Utility Strip	300.00 lf	127.74 /lf	38,323
SW03 - Shovelnose Egress Light	19.00 ea	576.16 /ea	10,947
SW04 - Blue Running Light Dome	136.00 ea	289.41 /ea	39,360
SW06 - Throw Scoop	25.00 ea	1,827.42 /ea	45,686
SW07 - Sidemount Downlight Cylinder	3.00 ea	471.86 /ea	1,416
SW10 - Indirect Wall Bracket Can	5.00 ea	784.71 /ea	3,924
SW11 - Wall Mounted Jelly Jar	3.00 ea	296.88 /ea	891
SC04 - LED utility strip	44.00 lf	127.74 /lf	5,621
TM01 - Track Mounted Accent Light	12.00 ea	630.16 /ea	7,562
TR01 - Surface Track	114.00 lf	58.85 /lf	6,709
UC01 - LED Tape	809.00 lf	74.68 /lf	60,414
Emergency battery unit, dual head	5.00 ea	344.22 /ea	1,721
MC Cable (12/2) - 20A	23,103.00 lf	3.94 /lf	90,932
EMT (12/2) - 20A	7,701.00 lf	7.68 /lf	59,139
<i>265000 Lighting</i>	<i>408,500.00 gsf</i>	<i>8.14 /gsf</i>	<i>3,325,204</i>
<i>265010 Theatrical Lighting and Control</i>			
Auditorium theatrical light fixtures & Dimming - procurement	1.00 allw	400,000.00 /allw	400,000
Black Box theatrical light fixtures & Dimming - procurement	1.00 allw	150,000.00 /allw	150,000
Amphitheater theatrical light fixtures - specialty testing, connections and installation	0.00 allw	/allw	
Auditorium theatrical light fixtures - wiring (300 man hours)	1.00 allw	49,840.62 /allw	49,841
Black Box theatrical light fixtures - wiring (125 man hours)	1.00 allw	20,699.15 /allw	20,699
Amphitheater theatrical light fixtures - wiring (200 man hours)	0.00 allw	/allw	
Auditorium theatrical light fixtures - conduit pathways	1.00 allw	20,660.99 /allw	20,661
Blackbox theatrical light fixtures - conduit pathways	1.00 allw	7,783.88 /allw	7,784



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>265010 Theatrical Lighting and Control</i>			
Amphiteater theatrical light fixtures - conduit pathways	0.00 allw	/allw	
Architectural control processor	1.00 ea	3,001.48 /ea	3,001
Box with pigtails, DMX output	6.00 ea	399.04 /ea	2,394
Box with pigtails, DMX output, ethernet	47.00 ea	411.24 /ea	19,328
Box with pigtails, DMX output, ethernet	11.00 ea	679.56 /ea	7,475
Box with pigtails, ethernet	13.00 ea	411.24 /ea	5,346
Box with receptacle, DMX output	2.00 ea	933.10 /ea	1,866
Box with receptacle, DMX output, ethernet	30.00 ea	679.56 /ea	20,387
Box with receptacle and ethernet	17.00 ea	411.24 /ea	6,991
Box with receptacle, DMX output, ethernet	4.00 ea	962.15 /ea	3,849
Control console connection	1.00 ea	596.48 /ea	596
Floor box control plug-in	3.00 ea	596.48 /ea	1,789
DMX output gateway, 8-port	4.00 ea	3,887.92 /ea	15,552
Entry panel	5.00 ea	3,980.88 /ea	19,904
Ethernet switch	1.00 ea	1,862.85 /ea	1,863
Floor box panel	2.00 ea	1,502.82 /ea	3,006
Theatrical lighting control rack	1.00 ea	1,604.05 /ea	1,604
A/V power panel	2.00 ea	3,485.92 /ea	6,972
Connector strip with pigtails, DMX output, ethernet	4.00 ea	679.30 /ea	2,717
Touch panel	1.00 ea	444.05 /ea	444
WL1 - Work light control panel	5.00 ea	2,589.44 /ea	12,947
WL2 - Work light control panel	2.00 ea	2,589.44 /ea	5,179
<i>265010 Theatrical Lighting and Control</i>	<i>408,500.00 gsf</i>	<i>1.94 /gsf</i>	<i>792,196</i>
<i>270001 Voice/Data/CATV</i>			
Horizontal j-hook cable management system	408,500.00 sf	0.16 /sf	66,177
Ceiling backbox (1-gang)	340.00 ea	41.20 /ea	14,006
Wall backbox (1-gang) w/ 1" EMT above ceiling	919.00 ea	90.22 /ea	82,913
Plywood backboard - 3/4" w/ fire retardant paint	135.00 lf	79.77 /lf	10,768
Cable tray - 12"W x 4"H	290.00 lf	46.57 /lf	13,504
Empty conduit (EMT): 2 x 4"	20.00 lf	41.29 /lf	826
Empty conduit (EMT): 3 x 4"	325.00 lf	62.36 /lf	20,268
Empty conduit (EMT): 4 x 4"	300.00 lf	82.76 /lf	24,829
Empty conduit (EMT): 6 x 4"	350.00 lf	119.56 /lf	41,846
Copper ground bar w/isolators - 2"x1/4"	14.00 ea	238.90 /ea	3,345
Conduit sleeve w/ fireproofing - 4"	116.00 ea	172.10 /ea	19,964
Data outlet - (1) CAT-6A cable	60.00 ea	226.77 /ea	13,606
Telephone outlet - (1) CAT-6A cable	170.00 ea	226.77 /ea	38,551
Data outlet - (1) CAT-6A cable [TV]	130.00 ea	226.77 /ea	29,480
Data outlet - (1) CAT-6A cable [CAM]	5.00 ea	226.77 /ea	1,134
Data outlet - (2) CAT-6A cables	528.00 ea	399.59 /ea	210,984
Data outlet - (6) CAT-6A cables	1.00 ea	908.22 /ea	908
Data outlet - (4) CAT-6A cables	18.00 ea	720.33 /ea	12,966
Data outlet - (8) CAT-6A cables	7.00 ea	1,229.00 /ea	8,603
WAP location: (2) CAT-6A cables (WAP's by Owner)	340.00 ea	428.64 /ea	145,738
TV outlet - (1) RG-6 cable	130.00 ea	212.90 /ea	27,677
Backbone copper cable - 25 pair CAT-6 (plenum)	2,800.00 lf	3.26 /lf	9,127
Backbone fiber optic cable - 24 strand MM (plenum)	2,800.00 lf	9.05 /lf	25,340
2-post full height rack	25.00 ea	701.10 /ea	17,528
4-post full height rack	3.00 ea	1,005.06 /ea	3,015
Vertical cable wire manager	41.00 ea	269.76 /ea	11,060
Horizontal cable wire manager	28.00 ea	68.73 /ea	1,925
Copper patch panel: 48-port	1.00 ea	672.20 /ea	672
Fiber optic patch panel: 24-port	1.00 ea	487.63 /ea	488
Fiber optic patch panel: 24-port (for PA)	1.00 ea	487.63 /ea	488
Network switch - 24 port	2.00 ea	4,604.03 /ea	9,208
<i>270001 Voice/Data/CATV</i>	<i>408,500.00 gsf</i>	<i>2.12 /gsf</i>	<i>866,944</i>
<i>275000 Public Address</i>			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
275000 Public Address			
Ceiling backbox (1-gang)	132.00 ea	50.86 /ea	6,713
Volume control	75.00 ea	151.61 /ea	11,370
Power supply (24) units - speakers 24V DC	6.00 ea	1,609.88 /ea	9,659
Battery back up system	1.00 ea	213.82 /ea	214
Surface mounted loudspeakers	8.00 ea	756.18 /ea	6,049
Ceiling mounted speakers - JBL control 26CT speakers	119.00 ea	471.02 /ea	56,051
Ceiling mounted speakers - JBL control 47HC	5.00 ea	669.83 /ea	3,349
Passive-flush in-ceiling subwoofers	2.00 ea	1,549.88 /ea	3,100
Equipment rack	1.00 ea	457.41 /ea	457
PA console	1.00 ea	15,149.76 /ea	15,150
Page control - 24 zones	2.00 ea	3,039.52 /ea	6,079
Public address wiring (EMT)	2,500.00 lf	7.44 /lf	18,589
Speaker wiring (plenum)	27,200.00 lf	3.05 /lf	82,881
Public address wiring (plenum)	10,050.00 lf	2.60 /lf	26,124
PA equipment power connection - 120V	3.00 ea	269.94 /ea	810
Public address system testing	1.00 ea	2,089.07 /ea	2,089
275000 Public Address	408,500.00 gsf	0.61 /gsf	248,686
275119 Video Intercom			
Intercom sub-station	6.00 ea	1,512.34 /ea	9,074
Arch Control Processor	1.00 ea	4,664.24 /ea	4,664
Intercom master-station	5.00 ea	5,853.90 /ea	29,270
Intercom wiring (EMT)	1,500.00 lf	10.46 /lf	15,695
275119 Video Intercom	408,500.00 gsf	0.14 /gsf	58,703
275126 Assistive Listening			
Speech amplification ceiling speakers	524.00 ea	190.47 /ea	99,804
Speech amplification system control panel	131.00 ea	689.64 /ea	90,342
Speech amplification system wireless receiver	131.00 ea	405.04 /ea	53,060
Speech amplification system power amplifier	131.00 ea	672.74 /ea	88,128
Speaker wiring (plenum)	15,720.00 lf	1.95 /lf	30,666
Reconciliation adjustment to \$362,000 total value	0.00 ls	/ls	
275126 Assistive Listening	408,500.00 gsf	0.89 /gsf	362,000
275129 Emergency Communication / Area of Rescue			
Area of rescue assistance stations	20.00 loc	3,000.00 /loc	60,000
275129 Emergency Communication / Area of Rescue	408,500.00 gsf	0.15 /gsf	60,000
275300 Master Clock System			
Exterior building mounted clock - allowance (ea.)	1.00 ls	50,000.00 /ls	50,000
Single face clock	211.00 ea	293.46 /ea	61,921
Master clock	1.00 ea	4,012.35 /ea	4,012
Signal generator	1.00 ea	3,284.26 /ea	3,284
Control board	1.00 ea	843.23 /ea	843
Clock back box w/ receptacle	211.00 ea	213.58 /ea	45,066
Clock wiring (plenum)	15,825.00 lf	3.43 /lf	54,342
Master clock programming and testing	1.00 ls	9,098.80 /ls	9,099
275300 Master Clock System	408,500.00 gsf	0.56 /gsf	228,567
281000 Integrated Security System			
High/low temperature sensors (Allowance)	408,500.00 sf	0.10 /sf	40,850
On-floor water sensor and processor (Allowance)	408,500.00 sf	0.10 /sf	40,850
Backboxes, conduits, and 120V power for access control / intrusion	408,500.00 sf	0.30 /sf	122,501
Card reader	27.00 ea	921.00 /ea	24,867
Magnetic switch	40.00 ea	322.60 /ea	12,904
Electric latch retraction panic hardware	58.00 ea	322.60 /ea	18,711
Magnetic lock - single door	2.00 ea	714.60 /ea	1,429
Electric strike	1.00 ea	439.66 /ea	440
Door release button / push to exit	21.00 ea	221.25 /ea	4,646



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
281000 Integrated Security System			
24V power supply	17.00 ea	321.30 /ea	5,462
24V power supply - video intercom	1.00 ea	321.30 /ea	321
Junction box - 6"x6"x4"	21.00 ea	146.30 /ea	3,072
Electric Trim	12.00 ea	411.89 /ea	4,943
Digital keypad	4.00 ea	1,071.73 /ea	4,287
Ultrasonic motion detector	52.00 ea	659.55 /ea	34,297
Curtain motion detector	14.00 ea	659.55 /ea	9,234
Security siren	1.00 ea	397.60 /ea	398
Door release button	3.00 ea	322.43 /ea	967
Local door alarm	4.00 ea	472.43 /ea	1,890
Access control / intrusion head end panels and equipment	1.00 ls	64,999.99 /ls	65,000
Intrusion detection controller/communicator	10.00 ea	1,644.78 /ea	16,448
Security wiring (EMT)	6,500.00 lf	9.71 /lf	63,142
Empty Conduit (EMT): 3/4"	1,800.00 lf	5.74 /lf	10,326
Power junction - 120V/20A	20.00 ea	215.82 /ea	4,316
Access control system programming & testing	1.00 ea	11,952.00 /ea	11,952
281000 Integrated Security System	408,500.00 gsf	1.23 /gsf	503,252
281010 Shooting Detection Sensors			
Shooting detection sensor	95.00 ea	2,000.00 /ea	190,000
281010 Shooting Detection Sensors	408,500.00 gsf	0.47 /gsf	190,000
282000 Video Surveillance			
Backboxes, conduits, and 120V power for video surveillance	408,500.00 sf	0.15 /sf	61,275
Fixed interior camera - 180 deg	9.00 ea	964.78 /ea	8,683
Fixed interior camera - 360 deg	52.00 ea	1,139.78 /ea	59,269
Fixed interior camera	56.00 ea	1,178.25 /ea	65,982
Network recorder	1.00 ea	3,390.40 /ea	3,390
Network switcher	1.00 ea	2,167.80 /ea	2,168
Video surveillance cable (plenum)	13,700.00 lf	4.56 /lf	62,489
Video surveillance head end monitors, controllers, equipment	1.00 ls	47,500.05 /ls	47,500
Video surveillance system software & licensing	1.00 ea	4,390.40 /ea	4,390
Video surveillance system programming & testing	1.00 ea	5,652.00 /ea	5,652
282000 Video Surveillance	408,500.00 gsf	0.79 /gsf	320,798
284620 Fire Detection and Alarm			
Wire elevator status panel	1.00 ea	850.68 /ea	851
Manual pull station	85.00 ea	198.56 /ea	16,877
Add for weatherproofing	4.00 ea	95.09 /ea	380
Smoke detector	327.00 ea	217.83 /ea	71,231
Carbon monoxide detector (w/ monitor module)	36.00 ea	364.50 /ea	13,122
Duct smoke detectors (furnish & wire)	21.00 ea	817.64 /ea	17,170
Remote indicating light	51.00 ea	132.26 /ea	6,745
Control module	51.00 ea	260.93 /ea	13,308
Addressable monitor module	11.00 ea	159.15 /ea	1,751
Addressable monitor module	2.00 ea	167.56 /ea	335
Addressable relay module	4.00 ea	225.15 /ea	901
Tamper switch connection (via monitor module)	23.00 ea	588.85 /ea	13,544
Flow switch connection (via monitor module)	23.00 ea	424.68 /ea	9,768
Flow switch connection (via monitor module)	2.00 ea	424.68 /ea	849
Post indicating valve connection (via monitor module)	3.00 ea	466.95 /ea	1,401
Pressure switch connection (via monitor module)	2.00 ea	466.95 /ea	934
Door hold device (magnetic)	93.00 ea	372.32 /ea	34,626
Wire combination fire/smoke dampers (SLC)	55.00 ea	629.60 /ea	34,628
Speaker only - wall	5.00 ea	147.13 /ea	736
Strobe only - ceiling	215.00 ea	177.55 /ea	38,174
Speaker/strobe - wall	53.00 ea	244.21 /ea	12,943
Speaker/strobe - ceiling	509.00 ea	244.21 /ea	124,301
Exterior beacon (weatherproof)	4.00 ea	388.06 /ea	1,552



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
284620 Fire Detection and Alarm			
Wire 120V sprinkler bell	1.00 ea	208.76 /ea	209
Fire alarm transponder panel	15.00 ea	2,274.68 /ea	34,120
Fire alarm network node	1.00 ea	918.77 /ea	919
Battery backup cabinet	1.00 ea	1,476.36 /ea	1,476
Fire alarm annunciator	2.00 ea	6,102.72 /ea	12,205
Fire alarm graphic annunciator	1.00 ea	6,102.72 /ea	6,103
FACP (2-5 zone)	1.00 ea	1,898.99 /ea	1,899
FACP	3.00 ea	11,203.74 /ea	33,611
Terminal equipment	1.00 ls	10,756.80 /ls	10,757
Head end panels and terminal equipment	1.00 ls	31,499.99 /ls	31,500
Masterbox	1.00 ea	4,086.36 /ea	4,086
Key (Knox) box	4.00 ea	785.34 /ea	3,141
Fire alarm command center	1.00 ea	57,020.40 /ea	57,020
Fire pump/jockey pump fire alarm connection	1.00 ea	3,124.66 /ea	3,125
Backfeed existing fire alarm equipment from FACP in Phase 1	1.00 ls	19,538.79 /ls	19,539
Tie to main FACP	1.00 ea	935.60 /ea	936
Tie to BMS	1.00 ea	985.68 /ea	986
Fire alarm system testing	1.00 ls	13,006.80 /ls	13,007
Fire alarm system testing	1.00 ls	2,401.02 /ls	2,401
Fire alarm system programming	801.00 ea	20.03 /ea	16,047
MC Cable (FA) - #14-4/c	25,000.00 lf	3.96 /lf	98,879
MC Cable (FA) - #16-2/c	21,600.00 lf	2.94 /lf	63,394
EMT (red) - 3/4"C w/ #16-2/c	10,550.00 lf	7.31 /lf	77,075
EMT (red) - 3/4"C w/ #14-4/c	9,725.00 lf	8.06 /lf	78,371
Circuit integrity cabling (CIC)	2,500.00 lf	18.72 /lf	46,796
Ductbank w/ IMSA cable - 2" PVC	250.00 lf	16.60 /lf	4,150
284620 Fire Detection and Alarm	408,500.00 gsf	2.54 /gsf	1,037,878
284624 Bi-Directional Amplifier (BDA)			
Furnish controller, antennas, cabling, components (dual-frequency)	408,500.00 sf	0.40 /sf	163,400
Installation of BDA system	408,500.00 sf	0.07 /sf	30,311
Minor material for BDA system	408,500.00 sf	0.15 /sf	61,275
284624 Bi-Directional Amplifier (BDA)	408,500.00 gsf	0.62 /gsf	254,986
D50 Electrical	408,500.00 gsf	46.67 /gsf	19,065,956
D50 Electrical Systems	408,500.00 gsf	46.67 /gsf	19,065,956
D Services	408,500.00 gsf	134.64 /gsf	54,999,810
E Equipment & Furnishings			
E10 Equipment			
E10 Equipment General			
110610 Theatrical Equipment			
Theater rigging and curtains per quote from High Output	1.00 ls	500,693.00 /ls	500,693
Retractable acoustic panels on stage	1.00 ls	138,520.00 /ls	138,520
110610 Theatrical Equipment		/gsf	639,213
110680 Portable Platforms and Seating			
Stage extension - per quote from Walker	1.00 ls	129,920.00 /ls	129,920
Portable platform at black box	0.00 ls	0.00 /ls	0
110680 Portable Platforms and Seating		/gsf	129,920
111300 Loading Dock Equipment			
Loading dock eqp	1.00 ls	5,000.00 /ls	5,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>111300 Loading Dock Equipment</i>		/ls	5,000
<i>114000 Food Service Equipment</i>			
1 - Walk-in cooler/freezer	1.00 ea	91,505.07 /ea	91,505
6 - Mobile walk-in shelving	16.00 ea	491.73 /ea	7,868
7 - Mobile walk-in shelving	3.00 ea	470.64 /ea	1,412
8 - Mobile walk-in shelving	4.00 ea	543.90 /ea	2,176
9 - Mobile dry storage shelving	14.00 ea	491.73 /ea	6,884
11 - Mobile dry storage shelving	1.00 ea	470.64 /ea	471
12 - Soiled dishtable w/sink Disposer/controls	1.00 ea	2,989.23 /ea	2,989
13 - Waste bin	1.00 ea	8,218.44 /ea	8,218
14 - Dishmachine	6.00 ea	600.00 /ea	3,600
15 - 3 Bay pot sink	1.00 ea	29,382.81 /ea	29,383
16 - Wall shelf w/ pot hooks	1.00 ea	7,035.18 /ea	7,035
17 - Hand sink	1.00 ea	1,215.45 /ea	1,215
18 - Mobile pot shelving	1.00 ea	1,148.85 /ea	1,149
19 - Mobile pot shelving	2.00 ea	491.73 /ea	983
21 - Dry storage shelving	1.00 ea	543.90 /ea	544
23 - Reach in refrigerator	4.00 ea	543.90 /ea	2,176
24 - Work table w/ overshelf	1.00 ea	5,354.64 /ea	5,355
25 - Food processor	1.00 ea	4,548.78 /ea	4,549
26 - Work table with sink	1.00 ea	4,860.69 /ea	4,861
27 - Work table w/ overshelf	1.00 ea	4,711.95 /ea	4,712
28 - Food slicer	1.00 ea	4,548.78 /ea	4,549
30 - Reach in heated cabinet	1.00 ea	4,408.92 /ea	4,409
31 - Work table with hand sink	1.00 ea	5,132.64 /ea	5,133
34F -6 Burner range with oven	1.00 ea	4,711.95 /ea	4,712
35 - 40 gal tilting kettle	1.00 ea	8,019.75 /ea	8,020
36 - Floor trough	1.00 ea	20,861.34 /ea	20,861
37 - 30 gal tilting skillet	1.00 ea	2,555.22 /ea	2,555
38 - Floor trough	1.00 ea	18,420.45 /ea	18,420
39 -Convection steamer	1.00 ea	2,555.22 /ea	2,555
40 - Exhaust hoods	1.00 ea	20,699.28 /ea	20,699
41 - Fire suppression system	1.00 ea	39,684.72 /ea	39,685
43 - Demand controls	1.00 ea	8,151.84 /ea	8,152
44 - Conveyor pizza oven	1.00 ea	5,975.13 /ea	5,975
45 - Double convectoin oven	1.00 ea	12,753.90 /ea	12,754
46 - Double convection oven	1.00 ea	17,772.21 /ea	17,772
47 - Work table w/ handsink & overshelf	1.00 ea	19,075.35 /ea	19,075
49 - Reach in heated cabinet	1.00 ea	7,001.88 /ea	7,002
50 - Prep table w/ sinks	1.00 ea	5,132.64 /ea	5,133
51 - Pan rack cart	1.00 ea	5,148.18 /ea	5,148
52 - Work table w/ handsink and overshelf	4.00 ea	459.54 /ea	1,838
54 - Reach in refrigerator	1.00 ea	4,064.82 /ea	4,065
55- Prep table w/ sinks & overshelf	1.00 ea	4,982.79 /ea	4,983
56 - Mobile dry storage shelving	1.00 ea	5,929.62 /ea	5,930
59 - Hand sink	3.00 ea	491.73 /ea	1,475
62 - Service counter	1.00 ea	1,148.85 /ea	1,149
reduce pricing on counter	1.00 ea	80,857.95 /ea	80,858
63 - Heated shelf food warmer	(1.00) ea	42,295.00 /ea	(42,295)
63A - sneeze guard w/ light & heat	1.00 ea	1,060.05 /ea	1,060
64 - Heated shelf food warmer	1.00 ea	6,269.28 /ea	6,269
64A - Sneeze guard w/ light & heat	1.00 ea	1,060.05 /ea	1,060
65 - Folding cutting board	1.00 ea	6,269.28 /ea	6,269
66 -Hot food wells	3.00 ea	183.15 /ea	549
66A - Sneeze guard w/ light & heat	1.00 ea	23,734.02 /ea	23,734
67 - Folding cutting board	1.00 ea	9,920.07 /ea	9,920
68 - Hot food wells	3.00 ea	183.15 /ea	549
	1.00 ea	23,734.02 /ea	23,734



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
114000 Food Service Equipment			
68A - Sneeze guard w/ light & heat	1.00 ea	9,920.07 /ea	9,920
69F -Refrigerated merchandiser	1.00 ea	10,225.32 /ea	10,225
70F - Refrigerated merchandiser	1.00 ea	10,225.32 /ea	10,225
71 - Folding cutting board	3.00 ea	183.15 /ea	549
72 - Cold food wells	1.00 ea	23,734.02 /ea	23,734
72A - Sneeze guard w/ light	1.00 ea	7,532.46 /ea	7,532
73 - Cold food wells	1.00 ea	23,734.02 /ea	23,734
73A - Sneeze guard w/ light	1.00 ea	7,532.46 /ea	7,532
74 - Open display merchandiser	3.00 ea	10,225.32 /ea	30,676
75 - Refrigerated merchandiser	1.00 ea	10,225.32 /ea	10,225
76 - Refrigerated merchandiser	1.00 ea	10,225.32 /ea	10,225
77 - Cashier counter	1.00 ea	6,683.31 /ea	6,683
80 - Milk cooler	1.00 ea	3,222.33 /ea	3,222
81 - Cashier counter	1.00 ea	6,683.31 /ea	6,683
84 - Milk cooler	1.00 ea	225.33 /ea	225
85 - Cashier counter	1.00 ea	5,891.88 /ea	5,892
88 - Milk cooler	1.00 ea	2,720.61 /ea	2,721
114000 Food Service Equipment		/gsf	700,848
114500 Residential Appliances			
Full size fridge	21.00 ea	1,600.00 /ea	33,600
UC fridge	16.00 ea	1,000.00 /ea	16,000
Full size freezer	2.00 ea	2,000.00 /ea	4,000
UC freezer	1.00 ea	1,500.00 /ea	1,500
Microwave	32.00 ea	500.00 /ea	16,000
Washer	5.00 ea	1,500.00 /ea	7,500
Dryer	5.00 ea	1,500.00 /ea	7,500
Dishwasher	12.00 ea	1,000.00 /ea	12,000
Wall oven	6.00 ea	1,000.00 /ea	6,000
Cookstove	10.00 ea	1,500.00 /ea	15,000
Exhaust hood	13.00 ea	500.00 /ea	6,500
ADA cooktop	8.00 ea	1,500.00 /ea	12,000
Ice machine - IM-1	1.00 ea	4,000.00 /ea	4,000
Undercounter ice machine - IM-2	2.00 ea	1,500.00 /ea	3,000
Premium for solid plate cookstoves	10.00 ea	6,500.00 /ea	65,000
114500 Residential Appliances		/gsf	209,600
116620 Athletic Equipment - Gym			
Basketball backstop - ceiling-hung - retractable glass	7.00 ea	8,316.00 /ea	58,212
Gym divider curtain (gym) - electric roll up 102' x 30'h	3,060.00 sf	8.00 /sf	24,480
Wall padding	2,496.00 sf	18.50 /sf	46,176
Volleyball Equipment (floor sleeves)	2.00 ls	1,100.00 /ls	2,200
Wrestling mat mover	1.00 ls	23,100.00 /ls	23,100
Wrestling mat 42'x42' - supplied by Owner	0.00 ls	0.00 /ls	0
Rock Climbing Wall (1 ea)	497.00 sf	40.00 /sf	19,880
Climbing rope & hoist	0.00 ls	0.00 /ls	0
Score Boards (2 ea) & Shot clocks (6 ea) - gym only	1.00 ls	35,000.00 /ls	35,000
116620 Athletic Equipment - Gym		/gsf	209,048
117010 Vocational Equipment			
Allowance for vocational and technology eqp	0.00 allw	0.00 /allw	0
Kiln	0.00 ea	0.00 /ea	0
123000 Manufactured Casework			
Pass thru fume hoods	7.00 ea	32,500.00 /ea	227,500
123000 Manufactured Casework		/gsf	227,500
126100 Fixed Audience Seating			
Fixed audience seating - auditorium - based on quote from CBS	736.00 ea	382.00 /ea	281,152



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
126100 Fixed Audience Seating			
Fixed audience seating - auditorium - loose chair	76.00 ea	180.00 /ea	13,680
Fixed audience seating - debate lab - based on quote from CBS	120.00 ea	382.00 /ea	45,840
126100 Fixed Audience Seating		/gsf	340,672
126600 Telescoping Stands			
Retractable Bleachers at gym (seat number is gross)	2,560.00 seat	139.00 /seat	355,840
126600 Telescoping Stands		/gsf	355,840
E10 Equipment General	408,500.00 gsf	6.90 /gsf	2,817,641
E10 Equipment	408,500.00 gsf	6.90 /gsf	2,817,641

E20 Furnishings

E2010 Fixed Furnishings

122400 Window Shades			
Sngl roller shade assemblies per shade drawing (411 ea)	18,240.00 sf	10.00 /sf	182,400
Dbl roller shade assemblies per shade drawing (18 ea)	1,298.00 sf	20.00 /sf	25,960
Motorized shades - singl (21 ea)	2,136.00 sf	12.00 /sf	25,632
Motorized shades - dbl (12 ea)	507.00 sf	26.00 /sf	13,182
add for motors (no wider than 10')	45.00 ea	1,100.00 /ea	49,500
Interior shades at language lab, smart center, comittee rm	16.00 ea	350.00 /ea	5,600
Interior blinds at all borrowed lights per note B A9.4	6,000.00 sf	10.00 /sf	60,000
122400 Window Shades		/gsf	362,274
123000 Manufactured Casework			
Bookcases (6 ea)	18.00 lf	280.00 /lf	5,040
Built-in desk at daycare	33.00 lf	312.00 /lf	10,296
Mail boxes - M3648 (4ea)	5.00 lf	340.00 /lf	1,700
Preschool lockers/cubbies	0.00 lf	0.00 /lf	0
Base cabinet - type ADA3633	291.00 lf	297.72 /lf	86,637
Base cabinet - type B03033	5.00 lf	297.73 /lf	1,489
Base cabinet - type B03633	15.00 lf	297.72 /lf	4,466
Base cabinet - type B11833	9.00 lf	297.72 /lf	2,679
Base cabinet - type B12433	44.00 lf	297.72 /lf	13,100
Base cabinet - type B12833	2.33 lf	297.73 /lf	694
Base cabinet - type B13033	707.50 lf	297.72 /lf	210,637
Base cabinet - type B13233	5.33 lf	297.72 /lf	1,587
Base cabinet - type B13433	2.83 lf	297.74 /lf	843
Base cabinet - type B13633	459.00 lf	297.72 /lf	136,653
Base cabinet - type BS3633	159.00 lf	297.72 /lf	47,337
Countertop epoxy resin at science and prep rooms	963.00 lf	105.00 /lf	101,115
Countertop solid surface	985.00 lf	70.00 /lf	68,950
Hat shelf - H3012A	10.00 lf	110.00 /lf	1,100
Hat shelf - H3312A	5.50 lf	110.00 /lf	605
Hat shelf - H3612A	15.00 lf	110.00 /lf	1,650
Storage music - M-S06 (12ea)	24.00 lf	420.00 /lf	10,080
Storage music - M01G (2ea)	4.00 lf	420.01 /lf	1,680
Storage music - M02G (1ea)	2.00 lf	420.00 /lf	840
Storage music - M04G (5ea)	10.00 lf	420.00 /lf	4,200
Storage music - M05G (10ea)	20.00 lf	420.00 /lf	8,400
Storage music - M11G (2ea)	4.00 lf	420.01 /lf	1,680
Storage music - M18G (1ea)	2.50 lf	420.00 /lf	1,050
Storage music - M43G (2ea)	4.00 lf	420.01 /lf	1,680
Tall wall oven cabinet - TO2726	15.75 lf	312.00 /lf	4,914
Tall storage - TS3030	180.00 lf	324.00 /lf	58,320
Tall storage - TS3624	12.00 lf	324.00 /lf	3,888



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>123000 Manufactured Casework</i>			
Tall storage - TS3626	108.00 lf	324.00 /lf	34,992
Tall storage - TS3626M	45.00 lf	324.00 /lf	14,580
Tall storage - TS3630L	216.00 lf	324.00 /lf	69,984
Tall storage - TS3631	24.00 lf	324.00 /lf	7,776
Tall storage - TS3631D	9.00 lf	324.00 /lf	2,916
Tall storage - TT3631	3.00 lf	324.00 /lf	972
Tall storage - TW3624	6.00 lf	324.00 /lf	1,944
Tall storage - TW3626	48.00 lf	324.00 /lf	15,552
Tall storage - TW3630	222.00 lf	324.00 /lf	71,928
Wall cabinet - W2430	114.00 lf	240.00 /lf	27,360
Wall cabinet - W3018	15.00 lf	240.00 /lf	3,600
Wall cabinet - W3024	25.00 lf	240.00 /lf	6,000
Wall cabinet - W3030	300.00 lf	240.00 /lf	72,000
Wall cabinet - W3030D	380.04 lf	240.00 /lf	91,210
Wall cabinet - W3230	2.67 lf	240.00 /lf	641
Wall cabinet - W3618	18.00 lf	240.00 /lf	4,320
Wall cabinet - W3624	216.00 lf	240.00 /lf	51,840
Wall cabinet - W3624D	192.00 lf	240.00 /lf	46,080
Wall cabinet - W3630	408.00 lf	240.00 /lf	97,920
Wall cabinet - W3630D	75.00 lf	240.00 /lf	18,000
Wall cabinet - W4230	24.50 lf	240.00 /lf	5,880
Wall cabinet - WD3018	5.00 lf	240.00 /lf	1,200
Wall cabinet - WD4230	14.00 lf	240.00 /lf	3,360
Science sinks, faucet only	77.00 ea	435.00 /ea	33,495
Classroom sinks	67.00 ea	900.00 /ea	60,300
<i>123000 Manufactured Casework</i>		/gsf	1,537,159
<i>124810 Entrance Floor Mats and Frames</i>			
EM1 - entrance mat type 1, forbo carpet	182.00 sf	15.00 /sf	2,730
EM2 - entrance mat type 2, forbo carpet	1,328.00 sf	15.00 /sf	19,920
EM3 - entrance mat type 3, forbo carpet	2,631.00 sf	15.00 /sf	39,465
<i>124810 Entrance Floor Mats and Frames</i>		/sf	62,115
E2010 Fixed Furnishings	408,500.00 gsf	4.80 /gsf	1,961,548
E20 Furnishings	408,500.00 gsf	4.80 /gsf	1,961,548
E Equipment & Furnishings	408,500.00 gsf	11.70 /gsf	4,779,189

F Special Construction & Demolition

F10 Special Construction

F10 Temporary Construction

015060 Temporary Enclosures

Temp exterior/interior enclosure end of phase 1 (130'x18'+130'x14'+60'x14'+20'x15')	5,140.00 sf	28.00 /sf	143,920
Temp exterior only enclosure end of phase 1 (20'x18' + 36'x14' + 65'x14' +20'x15')	1,774.00 sf	20.00 /sf	35,480
Temp exterior/interior enclosure end of phase 2 (140'x56')	7,840.00 sf	28.00 /sf	219,520
Temp exterior only enclosure end of phase 2 (70'x56')	3,920.00 sf	20.00 /sf	78,400
<i>015060 Temporary Enclosures</i>		/gsf	477,320

015070 Temporary Construction

Temp enclosed stairs from GF to level 2	2.00 fl	75,000.00 /fl	150,000
Temporary construction for safe egress	1.00 allw	75,000.00 /allw	75,000
Temporary modifications to existing to allow for separation	1.00 ls	100,000.00 /ls	100,000



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
015070 Temporary Construction			
Temporary pedestrian protection & access - phase 2	1.00 ls	75,000.00 /ls	75,000
Allowance for selective demo and grading for temporary protection	1.00 ls	50,000.00 /ls	50,000
Temporary egress path	1.00 ls	65,000.00 /ls	65,000
Additional earth moving at interim all other phases (incl paving as required)	1.00 al	100,000.00 /al	100,000
015070 Temporary Construction		/gsf	615,000
015075 Bridge Connection (A1.2.4)			
Seclective demo	1,600.00 gsf	12.00 /gsf	19,200
Railings	135.00 lf	180.00 /lf	24,300
Ramp, platform and rails per quaoate from Amramp	660.00 sf	67.56 /sf	44,590
Drywall, ceilings, flooring, painting	1,600.00 sf	45.00 /sf	72,000
HVAC	1,600.00 gsf	15.00 /gsf	24,000
Electrical	1,600.00 gsf	24.00 /gsf	38,400
New bridge building complete	1,100.00 gsf	250.00 /gsf	275,000
015075 Bridge Connection (A1.2.4)			497,489
015080 Swing Spacing			
1st floor temp PE at pit - no scope	0.40 gsf	0.10 /gsf	0
3rd floor LABB program, rooms 331,333 - no work	0.40 sf	0.10 /sf	0
3rd floor temp library	4,605.00 sf	80.00 /sf	368,400
2nd floor room 001 temp drama	0.40 sf	0.10 /sf	0
2nd floor ada lift and modifications to ramp	1.00 ls	100,000.00 /ls	100,000
2nd floor temp kitchen, minor plumbing, health dept improv	7,000.00 gsf	35.00 /gsf	245,000
2nd floor temp summmit program - no scope	0.40 sf	0.10 /sf	0
3rd floor LABB program, nurse suite, kitchentte	1,626.00 gsf	150.00 /gsf	243,900
3rd floor LABB program, rooms 331,333 - no work	0.40 sf	0.10 /sf	0
3rd floor temp library	4,605.00 sf	45.00 /sf	207,225
3rd floor rooms 305,306	0.40 sf	0.10 /sf	0
3rd floor rooms guidance offices	0.40 sf	0.10 /sf	0
3rd floor rooms 305,306	0.40 sf	0.10 /sf	0
4th floor sped office/science center, fire alarm, hvac, drywall	1,100.00 sf	120.00 /sf	132,000
015080 Swing Spacing		/gsf	1,296,525
040130 Historic Salvage & Reuse			
Clock mechanisim at tower - salvage and turn over to Owner x	1.00 ls	15,000.00 /ls	15,000
Old Hall proscenium and return to owner x	1.00 ls	10,000.00 /ls	10,000
Remove and reinstall carved frieze for Fusco old hall x	1.00 ls	4,000.00 /ls	4,000
River of Hands Mosaic - 60' long - salvage and relocated to 3rd floor corridor	1.00 ls	25,000.00 /ls	25,000
Fusco stone entry facade (2/A12.8.0b) x	1.00 ls	210,000.00 /ls	210,000
Carved wood panel frm Fusco entry stair, remounted at auditorium entry	1.00 ls	15,000.00 /ls	15,000
040130 Historic Salvage & Reuse		/gsf	279,000
323111 Temporary Fencing			
Temporary construction fence - gates - phase 2	4.00 ea	990.00 /ea	3,960
Tempoporary construction fence - phase 2	1,860.00 lf	38.00 /lf	70,680
Temporary construction fence - gates - phase 2	2.00 ea	990.00 /ea	1,980
Temporary construction fence - phase 3	500.00 lf	38.00 /lf	19,000
Temporary construction fence - gates	2.00 ea	990.00 /ea	1,980
Tempoporary construction fence - phase 4	2,200.00 lf	38.00 /lf	83,600
Temporary construction fence - gates	4.00 ea	990.00 /ea	3,960
Temporary construction fence - scrim	9,410.00 lf	4.50 /lf	42,345
323111 Temporary Fencing		/gsf	227,505
F10 Temporary Construction	408,500.00 gsf	8.31 /gsf	3,392,840
F10 EB#3 Summer 2020 Swing Space EBP#3			
015082 EBP #3 - Summer 2020 Work			
Selective demolition	1.00 ls	45,370.00 /ls	45,370



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>015082 EBP #3 - Summer 2020 Work</i>			
D/F/H	1.00 ls	44,370.00 /ls	44,370
Glass	1.00 ls	11,700.00 /ls	11,700
Drywall	1.00 ls	63,424.00 /ls	63,424
Tile	1.00 ls	8,000.00 /ls	8,000
Acoustical ceilings	1.00 ls	3,520.00 /ls	3,520
Resilient flooring	1.00 ls	16,470.00 /ls	16,470
Paint	1.00 ls	31,098.00 /ls	31,098
Specialties	1.00 ls	3,578.00 /ls	3,578
Plumbing	1.00 ls	46,137.00 /ls	46,137
HVAC	1.00 ls	195,920.00 /ls	195,920
Electrical	1.00 ls	197,637.00 /ls	197,637
GRs	1.00 ls	125,000.00 /ls	125,000
<i>015082 EBP #3 - Summer 2020 Work</i>			<u>792,224</u>
F10 EB#3 Summer 2020 Swing Space EBP#3	408,500.00	1.94	792,224
F10 Special Construction	408,500.00 gsf	10.25 /gsf	4,185,064
F Special Construction & Demolition	408,500.00 gsf	10.25 /gsf	4,185,064

T Toilet Building

A10 Foundations

A1010 Standard Foundations

033094 Concrete - Toilet Bldg

Form/place/strip ext grade beams - 24" x 36'	120.00 lf	19.13 /lf	2,295
Rebar at grade beam (25#/lf)	1.50 ton	3,064.77 /ton	4,597
Ready-mix - grade beams (3000 psi)	26.67 cy	190.98 /cy	5,093
Concrete pumping - foundations	1.00 day	2,125.15 /day	2,125
<i>033094 Concrete - Toilet Bldg</i>		/gsf	<u>14,111</u>

071100 Bituminous Dampproofing

Dampproofing at frost walls, no drainage bd	950.00 sf	/sf	
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A1010 Standard Foundations	408,500.00 gsf	0.04 /gsf	14,111
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A1020 Special Foundations

071300 Fluid Applied Waterproofing (vapor membrane)

6 mil reinforced poly	912.00 sf	0.60 /sf	547
<i>071300 Fluid Applied Waterproofing (vapor membrane)</i>		/gsf	<u>547</u>

316615 Helical Piles

Heical piles at toilet Building - 10 ton	28.00 ea	2,800.00 /ea	78,400
Heical piles cut-offs at toilet Building	28.00 ea	200.00 /ea	5,600
<i>316615 Helical Piles</i>		/gsf	<u>84,000</u>

A1020 Special Foundations	408,500.00 gsf	0.21 /gsf	84,547
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A1030 Lowest Floor Construction

033094 Concrete - Toilet Bldg

Rebar #7 12" oc t & b (13.0#/sf)	5.20 tn	3,064.00 /tn	15,933
Ready-mix - slabs-on-grade (4000 psi) 12"+10%	29.63 cy	196.00 /cy	5,807
Ready-mix - slabs-on-grade add for haunch	8.85 cy	196.00 /cy	1,735



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
033094 Concrete - Toilet Bldg			
Place & finish slab-on-grade - toilet building	800.00 sf	3.30 /sf	2,639
Edge form - 16"	120.00 sf	21.25 /sf	2,550
<i>033094 Concrete - Toilet Bldg</i>		/gsf	28,664
A1030 Lowest Floor Construction	408,500.00 gsf	0.07 /gsf	28,664
A10 Foundations	408,500.00 gsf	0.31 /gsf	127,323
B10 Superstructure			
B1020 Roof Construction			
<i>061753 Shop Fabricated Wood Trusses</i>			
20" dp TJI with bracing at toilet building	800.00 sf	13.86 /sf	11,088
Plywd roof	800.00 sf	8.00 /sf	6,400
<i>061753 Shop Fabricated Wood Trusses</i>		/gsf	17,488
B1020 Roof Construction	408,500.00 gsf	0.04 /gsf	17,488
B10 Superstructure	408,500.00 gsf	0.04 /gsf	17,488
B20 Exterior Enclosure			
B2010 Exterior Walls			
<i>042000 Unit Masonry</i>			
CMU backup 8" reinforced - 121' x 12' at toilet bldg	1,452.00 sf	23.50 /sf	34,122
Polished ground CMU veneer w/ insulation - 4" 121'x15' at toilet bldg	1,671.00 sf	31.00 /sf	51,801
<i>042000 Unit Masonry</i>		/sf	85,923
<i>070001 Waterproofing, Caulking</i>			
sealing & caulking - exterior - masonry toilet building	1,671.00 sf	1.10 /sf	1,838
Air/vapor barrier - exterior walls - masonry - toilet bldg	1,671.00 sf	5.94 /sf	9,926
<i>070001 Waterproofing, Caulking</i>		/gsf	11,764
<i>090007 Painting</i>			
Anti-graffiti coating to 12' hic	1,500.00 sf	4.00 /sf	6,000
<i>090007 Painting</i>		/gsf	6,000
B2010 Exterior Walls	408,500.00 gsf	0.25 /gsf	103,687
B2030 Exterior Doors			
<i>083300 Overhead Coiling Doors</i>			
Coiling door at toilet building - 8' w	1.00 ea	5,000.00 /ea	5,000
<i>083300 Overhead Coiling Doors</i>		/ea	5,000
B2030 Exterior Doors	408,500.00 gsf	0.01 /gsf	5,000
B20 Exterior Enclosure	408,500.00 gsf	0.27 /gsf	108,687
B30 Roofing			
B3010 Roof Coverings			
<i>070002 Roofing & Flashing</i>			
R1G Roofing at tilt building	750.00 sf	15.00 /sf	11,250



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
070002 Roofing & Flashing		/sf	11,250
B3010 Roof Coverings	408,500.00 gsf	0.03 /gsf	11,250
B30 Roofing	408,500.00 gsf	0.03 /gsf	11,250
C10 Interior Construction			
C1010 Partitions			
042000 Unit Masonry			
CMU partition type 16 A - interior 84' x 12'h toilet bldg	1,010.00 sf	24.00 /sf	24,240
CMU partition type 16 B - interior 16' x 12'h toilet bldg	700.00 sf	24.00 /sf	16,800
Install HM frame at toilet bldg toilet bldg	4.00 ea	197.31 /ea	789
Precast sill at 5'w x 24" dp	30.00 lf	200.00 /lf	6,000
042000 Unit Masonry		/sf	47,829
C1010 Partitions	408,500.00 gsf	0.12 /gsf	47,829
C1020 Interior Doors			
081110 Hollow Metal Frames			
HM doors - interior at toilet building	4.00 lvs	250.00 /lvs	1,000
HM frames - single (3' x 7') at toilet building	4.00 ea	250.00 /ea	1,000
081110 Hollow Metal Frames		/gsf	2,000
087010 Install Doors and Hardware			
Install door & hardware - toilet bldg	4.00 lvs	491.01 /lvs	1,964
087010 Install Doors and Hardware		/lvs	1,964
087100 Door Hardware			
Hardware sets - interior (HM & Wood doors) - toilet building	4.00 lvs	681.01 /lvs	2,724
087100 Door Hardware		/lvs	2,724
090007 Painting			
Paint HM doors - interior at toilet building	4.00 lvs	95.00 /lvs	380
Paint HM frames - at toilet building	4.00 ea	105.00 /ea	420
090007 Painting		/gsf	800
C1020 Interior Doors	408,500.00 gsf	0.02 /gsf	7,488
C1030 Specialties/Millwork			
070001 Waterproofing, Caulking			
sealing & caulking - int	772.00 gsf	0.99 /gsf	764
070001 Waterproofing, Caulking		/gsf	764
102100 Toilet Compartments and Cubicles			
Toilet partitions - handicap	2.00 ea	1,815.00 /ea	3,630
Toilet partitions - regular	4.00 ea	1,276.00 /ea	5,104
Toilet partitions - urinal screen	1.00 ea	467.50 /ea	468
102100 Toilet Compartments and Cubicles		/gsf	9,202
102800 Toilet Accessories			
Toilet paper dispenser furnish only	7.00 ea	65.00 /ea	455
Sanitary napkin disposal	4.00 ea	213.95 /ea	856
Grab bars (42") furnish and install	3.00 ea	125.01 /ea	375
Soap dispenser - surface mounted install only	5.00 ea	44.99 /ea	225



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
102800 Toilet Accessories			
Waste receptacle - recessed (1 per single bathroom 2 per gang bathroom) furnish only	3.00 ea	224.99 /ea	675
HD1 hand dryers (1 per single bathroom 2 per gang bathroom) furnish only	3.00 ea	550.00 /ea	1,650
Framed mirrors (18" x 36") furnish only	5.00 ea	225.01 /ea	1,125
Janitors/mop sink furnish only	1.00 ea	275.00 /ea	275
102800 Toilet Accessories		/gsf	5,636
<hr/>			
C1030 Specialties/Millwork	408,500.00 gsf	0.04 /gsf	15,602
C3030 Ceiling Finishes			
<i>092900 Gypsum Board Assemblies</i>			
Gypsum board ceilings - C 2A	623.00 sf	9.00 /sf	5,607
<i>092900 Gypsum Board Assemblies</i>		<i>/sf</i>	<i>5,607</i>
<i>099000 Painting and Coating</i>			
Paint drywall ceilings	623.00 sf	1.10 /sf	685
<i>099000 Painting and Coating</i>			<i>685</i>
<hr/>			
C3030 Ceiling Finishes	408,500.00 gsf	0.02 /gsf	6,292
<hr/>			
C10 Interior Construction	408,500.00 gsf	0.19 /gsf	77,211
C30 Interior Finishes			
C3010 Wall Finishes			
<i>090007 Painting</i>			
Paint CMU - interior - toilet bldg	3,302.00 sf	1.10 /sf	3,632
<i>090007 Painting</i>		<i>/gsf</i>	<i>3,632</i>
<hr/>			
C3010 Wall Finishes	408,500.00 gsf	0.01 /gsf	3,632
C3020 Floor Finishes			
<i>033560 Concrete Densifier/Hardener/Sealer</i>			
Exp-C exposed concrete/hardner sealer	610.00 sf	2.20 /sf	1,342
<i>033560 Concrete Densifier/Hardener/Sealer</i>		<i>/gsf</i>	<i>1,342</i>
<hr/>			
C3020 Floor Finishes	408,500.00 gsf	0.00 /gsf	1,342
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C30 Interior Finishes	408,500.00 gsf	0.01 /gsf	4,974
D20 Plumbing			
D20 Plumbing			
<i>220700 Plumbing Insulation</i>			
Insulation/copper pipe/fiberglass	385.00 lf	8.18 /lf	3,149
<i>220700 Plumbing Insulation</i>		<i>/gsf</i>	<i>3,149</i>
<i>221000 Plumbing Facility Water Distribution</i>			
Backflow preventer/RPZ-BFP - 3"	3.00 ea	1,836.30 /ea	5,509
Domestic water entrance UG/ductile iron	55.00 lf	324.20 /lf	17,831
Domestic water AG/type "L" copper/solder - fixture connections	160.00 lf	25.69 /lf	4,110
Domestic water AG/type "L" copper/solder	225.00 lf	25.69 /lf	5,779
- Domestic water piping accessories	385.00 lf	2.59 /lf	998



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
221000 Plumbing Facility Water Distribution		/gsf	34,226
221300 Plumbing - Sanitary, Waste & Vent Piping			
Floor drain	4.00 ea	362.10 /ea	1,448
Sanitary UG/cast iron single hub pipe & ftgs.	150.00 lf	58.07 /lf	8,711
Sanitary AG/cast iron no hub pipe & ftgs.	300.00 lf	49.37 /lf	14,811
- Sanitary waste & vent piping accessories	450.00 lf	1.84 /lf	828
221300 Plumbing - Sanitary, Waste & Vent Piping		/gsf	25,799
223000 Plumbing - Equipment			
Water heaters/electric	1.00 ea	1,892.35 /ea	1,892
223000 Plumbing - Equipment		/gsf	1,892
224000 Plumbing Fixtures			
Water closet/wall mnt./carrier/sensor flush valve	4.00 ea	1,614.60 /ea	6,458
Water closet/wall mnt./carrier/sensor flush valve/ADA	3.00 ea	1,648.60 /ea	4,946
Urinal/wall mnt./carrier/sensor flush valve	2.00 ea	1,293.53 /ea	2,587
Lavatory/wall hung/solar faucet/carrier/ADA	5.00 ea	1,602.45 /ea	8,012
Mop sink - typical	1.00 ea	1,199.40 /ea	1,199
- Plumbing fixtures offload & distribution	16.00 ea	112.10 /ea	1,794
- Plumbing fixtures rough-in	16.00 ea	137.10 /ea	2,194
224000 Plumbing Fixtures		/gsf	27,190
D20 Plumbing	408,500.00 gsf	0.23 /gsf	92,257
D20 Plumbing	408,500.00 gsf	0.23 /gsf	92,257
D30 Heating, Ventilating, and Air Conditioning (HVAC)			
D30 HVAC			
238200 Convection Heating Units			
Wall heaters/electric	10.00 ea	853.01 /ea	8,530
238200 Convection Heating Units		/gsf	8,530
D30 HVAC	408,500.00 gsf	0.02 /gsf	8,530
D30 Heating, Ventilating, and Air Conditioning (HVAC)	408,500.00 gsf	0.02 /gsf	8,530
D50 Electrical Systems			
D50 Electrical			
260583 Equipment Wiring			
Power (120V) for ATC panel	1.00 ea	516.37 /ea	516
Electric water heater (60A)	1.00 ea	2,721.84 /ea	2,722
Exhaust fans	2.00 ea	1,645.78 /ea	3,292
Electric hand dryers	3.00 ea	826.94 /ea	2,481
Electric water cooler	1.00 ea	608.10 /ea	608
260583 Equipment Wiring		/gsf	9,619
260923 Lighting Control Devices			
Wall PIR occupancy sensor (24VDC)	2.00 ea	281.72 /ea	563
Ceiling US occupancy sensor (24VDC)	3.00 ea	350.37 /ea	1,051
Occupancy sensor power pack (120V)	3.00 ea	89.95 /ea	270
Tie to main building lighting control system	1.00 ea	2,485.92 /ea	2,486
EMT (12/2) - 20A	180.00 lf	8.25 /lf	1,485
EMT (12/3) - 20A	100.00 lf	8.32 /lf	832
RJ45 Cable, 15LF (plenum-rated)	3.00 ea	86.50 /ea	260



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>260923 Lighting Control Devices</i>			
RJ45 Cable, 25LF (plenum-rated)	3.00 ea	89.24 /ea	268
<i>260923 Lighting Control Devices</i>		/gsf	7,214
<i>262700 Distribution Equipment</i>			
Panelboard: 225A	1.00 ea	4,024.80 /ea	4,025
Transformer: floor/wall - 75kVA, 480V:208V	1.00 ea	4,769.80 /ea	4,770
<i>262700 Distribution Equipment</i>		/gsf	8,795
<i>262705 Distribution Feeders</i>			
Feeder (EMT/CU) - 125A	15.00 lf	24.52 /lf	368
Feeder (MC) - 225A	10.00 lf	37.38 /lf	374
<i>262705 Distribution Feeders</i>		/gsf	742
<i>262726 Wiring Devices</i>			
EMT (12/2) - 20A	200.00 lf	8.25 /lf	1,650
Duplex receptacle - 20A - GFCI	4.00 ea	110.24 /ea	441
Duplex receptacle - 20A - GFCI - W.P.	3.00 ea	151.54 /ea	455
Power junction w/feed (MC) - 20A (FA)	1.00 ea	261.37 /ea	261
<i>262726 Wiring Devices</i>		/gsf	2,807
<i>265000 Lighting</i>			
SC04 - 4' linear	11.00 ea	269.50 /ea	2,964
Emergency battery unit, dual head	4.00 ea	362.36 /ea	1,449
MC Cable (12/2) - 20A	300.00 lf	4.14 /lf	1,243
EMT (12/2) - 20A	75.00 lf	8.08 /lf	606
<i>265000 Lighting</i>		/gsf	6,263
<i>284620 Fire Detection and Alarm</i>			
Manual pull station	1.00 ea	198.57 /ea	199
Smoke detector	1.00 ea	217.85 /ea	218
Heat detector	4.00 ea	217.85 /ea	871
Remote indicating light	1.00 ea	132.27 /ea	132
Strobe only	2.00 ea	177.57 /ea	355
Speaker/strobe - wall	2.00 ea	244.22 /ea	488
Exterior beacon (weatherproof)	1.00 ea	388.06 /ea	388
Battery backup cabinet	1.00 ea	715.68 /ea	716
<i>284620 Fire Detection and Alarm</i>		/gsf	3,367
D50 Electrical		/gsf	38,806
D50 Electrical Systems	408,500.00 gsf	0.10 /gsf	38,806
T Toilet Building	408,500.00 gsf	1.19 /gsf	486,526
B Base	408,500.00 gsf	370.82 /gsf	151,480,231

C Demolition

F Special Construction & Demolition

F20 Demolition

F2010 Building Elements Demolition

015020 Trade Support

Laborer for trade support - Demo

wks

/wks



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
<i>024119 Demolition</i>			
Complete knock-down and removal Ph2	182,924.00 sf	6.80 /sf	1,243,883
Complete knock-down and removal Ph3	128,176.00 sf	6.50 /sf	833,144
Complete knock-down and removal Ph4	80,766.00 sf	5.00 /sf	403,830
Add for removal of foundation Ph3	39,000.00 sf	5.00 /sf	195,000
Add for removal of foundation Ph2	63,000.00 sf	5.00 /sf	315,000
Add for removal of foundation Ph4	33,000.00 sf	5.00 /sf	165,000
Add for pile cap removal	1.00 al	200,003.00 /al	200,003
Remove stadium bleachers	3,664.00 sf	10.00 /sf	36,640
<i>024119 Demolition</i>		/sf	3,392,500
F2010 Building Elements Demolition		/gsf	3,392,500
F20 Demolition		/gsf	3,392,500
F Special Construction & Demolition		/gsf	3,392,500
C Demolition		/gsf	3,392,500

D Abatement

F Special Construction & Demolition

F20 Demolition

F2020 Hazardous Component Abatement

022820 Asbestos Remediation

Flooring and mastic	195,000.00 sf	0.01 /sf	1,950
Ceiling plaster	45,000.00 sf	0.01 /sf	450
Interior windows	900.00 ea	0.01 /ea	9
Interior doors with windows	250.00 ea	0.01 /ea	3
Hard joint insulation	500.00 ea	0.01 /ea	5
Sinks	60.00 ea	0.01 /ea	1
Blackboards/tackboards	450.00 ea	0.01 /ea	5
Misc hazardous materials	1.00 ls	0.01 /ls	0
Hidden ACM	1.00 ls	0.01 /ls	0
Light fixtures	4,500.00 ea	0.01 /ea	45
Glue daub for wall tiles	5,000.00 sf	0.01 /sf	50
Transite fume hoods	5.00 ea	0.01 /ea	0
Transite drying racks	2.00 ea	0.01 /ea	0
Linoleum covering on heating cabinets	150.00 sf	0.01 /sf	2
Transite panel	6.00 sf	0.01 /sf	0
Vertical caulking	300.00 lf	0.01 /lf	3
Fire curtain	1.00 ea	0.01 /ea	0
Hard joint insulation	1,000.00 ea	0.01 /ea	10
Crawl space debris	5,000.00 sf	0.01 /sf	50
ACM debris on mechanical room floor	600.00 sf	0.01 /sf	6
Transite panels	500.00 sf	0.01 /sf	5
Boiler insulation	200.00 sf	0.01 /sf	2
Duct insulation	800.00 sf	0.01 /sf	8
Hard joint insulation	50.00 ea	0.01 /ea	1
Boiler	1.00 ea	0.01 /ea	0
Boiler insulation	300.00 sf	0.01 /sf	3
Duct insulation	600.00 sf	0.01 /sf	6
Boilers	2.00 ea	0.01 /ea	0



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
022820 Asbestos Remediation			
Roofing materials	100,000.00 sf	0.01 /sf	1,000
Windows	1,500.00 ea	0.01 /ea	15
Doors	45.00 ea	0.01 /ea	0
Unit vent grilles	150.00 ea	0.01 /ea	2
Transite deck	1,500.00 sf	0.01 /sf	15
Transite sewer pipes	1.00 ls	0.01 /ls	0
Damproofing/flashing on walls	4,500.00 tn	0.01 /tn	45
Lump sum	1.00 ls	3,550,000.00 /ls	3,550,000
022820 Asbestos Remediation		/sf	3,553,689
F2020 Hazardous Component Abatement			/gsf 3,553,689
F20 Demolition			/gsf 3,553,689
F Special Construction & Demolition			/gsf 3,553,689
D Abatement			/gsf 3,553,689

E Sitework

G Sitework

G10 Site Preparation

G10 Site Preparation

015020 Trade Support

Laborer for trade support - Site

wks /wks

310000 Site Misc

Street sweeping while trucking allowance	1.00 allo	90,000.00 /allo	90,000
Equipment mobilization, project manager, sitework superintendent - ph 2-4	3.00 ls	140,000.00 /ls	420,000
Preconstruction survey of neighboring properties by 3rd party (bought with site)	0.00 ls	0.00 /ls	0
Survey/layout - ph 2-4	80.00 wk	1,650.00 /wk	132,000
Police details - for use by site contractor during trucking & utilities	100.00 dy	800.00 /dy	80,000
Temporary site signage	1.00 ls	40,000.00 /ls	40,000
Prep for construction trailers, incl paving	0.00 ls	0.00 /ls	0
310000 Site Misc		/gsf	762,000

311000 Site Clearing

Demo drain/sewer structures	48.00 ea	550.00 /ea	26,400
Sawcut Bituminous concrete paving	1,250.00 lf	6.05 /lf	7,563
Remove & Dispose Bituminous Pavements	75,000.00 sf	1.00 /sf	75,000
Remove & Dispose Exist.Tennis/Basketball Court Pavement	13,841.00 sf	1.00 /sf	13,841
Remove & Dispose Concrete Pads & Sidewalks	30,000.00 sf	2.20 /sf	66,000
Remove & Dispose Bituminous Pavement at Mass Ave.	1,300.00 sf	1.50 /sf	1,950
Remove & Dispose Bituminous Pavement at Schouler Court	11,490.00 sf	1.00 /sf	11,490
Demo water piping	1,592.00 lf	24.00 /lf	38,208
Demo ug elec service lines	300.00 lf	24.00 /lf	7,200
Demo Drainage piping	3,031.00 lf	24.00 /lf	72,744
Demo Gas piping	350.00 lf	24.00 /lf	8,400
Demo sewer piping	350.00 lf	24.00 /lf	8,400
Clear and grub site - phase 2-4	1.00 ls	40,000.00 /ls	40,000
Demo Light Poles w/ Bases	26.00 ea	250.00 /ea	6,500
Remove & Dispose Trees, incl stumps (12"-20")	48.00 ea	800.00 /ea	38,400



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
311000 Site Clearing			
Demo misc. site items bollards, poles pole bases, etc...	1.00 ls	50,000.00 /ls	50,000
Protect Exist. Utility poles	3.00 ea	550.00 /ea	1,650
Demo site guardrailing	400.00 lf	25.00 /lf	10,000
Remove & Dispose Site Curbing	2,940.00 lf	2.50 /lf	7,350
Remove & Dispose Site Curbing at Mass Ave.	230.00 lf	3.50 /lf	805
Demo site walls - ph 2-4 (not clear)	1.00 ls	10,000.00 /ls	10,000
311000 Site Clearing		/gsf	501,901
312000 Earth Work			
Removal of ledge trench - NIC	0.00 cy	/cy	
Strip loam - phase 2-4 (6")	4,000.00 cy	5.00 /cy	20,000
Cut to subgrade outside building footprint- Phase 2	4,110.00 cy	16.00 /cy	65,760
Fill from cut outside building footprint- Phase 2	4,110.00 cy	16.00 /cy	65,760
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 2	17,825.00 cy	35.00 /cy	623,875
Cut to subgrade outside building footprint- Phase 3	2,875.00 cy	16.00 /cy	46,000
Fill from cut outside building footprint- Phase 3	2,875.00 cy	16.00 /cy	46,000
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 3	8,920.00 cy	35.00 /cy	312,200
Cut to subgrade outside building footprint- Phase 4	3,915.00 cy	16.00 /cy	62,640
Fill from cut outside building footprint- Phase 4	3,915.00 cy	16.00 /cy	62,640
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 4	16,523.00 cy	35.00 /cy	578,305
Cut to haul, T& D carried elsewhere	0.00 cy	/cy	
Rough grade- Phase 2	182,649.00 sf	0.13 /sf	24,110
Rough grade- Phase 3	151,106.00 sf	0.13 /sf	19,946
Rough grade- Phase 4	299,780.00 sf	0.13 /sf	39,571
Replace contaminated material with offsite ordinary fill	4,650.00 cy	35.00 /cy	162,750
Disposal of loam	4,000.00 cy	20.00 /cy	80,000
312000 Earth Work		/gsf	2,209,557
312500 Sedimentation and Erosion Control			
Hay bales & silt fence	10,950.00 lf	10.00 /lf	109,500
Hay bales & silt fence - additional at stockpile	3,000.00 lf	10.00 /lf	30,000
Construction entrance (20' x 50')	2.00 ea	3,500.00 /ea	7,000
Tree protection fence- (4' high Snow Fence)	1,300.00 lf	10.00 /lf	13,000
Clean out catch basin/area drain	35.00 ea	220.00 /ea	7,700
Inspect catch basin after each storm	1.00 ls	10,000.00 /ls	10,000
Construct/Maintain temp stormwater basins	28,000.00 sf	1.10 /sf	30,800
Seeding at temporary basin	28,000.00 sf	0.55 /sf	15,400
Slope protection	55,000.00 sf	1.10 /sf	60,500
312500 Sedimentation and Erosion Control		/gsf	283,900
312610 Hazardous Waste Remediation			
Allowance for repairs to engineered barriers	1.00 allw	300,000.00 /allw	300,000
Water treatment	1.00 ls	100,000.00 /ls	100,000
UST removal	1.00 ls	65,000.00 /ls	65,000
Allowance for clean corridor	1.00 allw	100,000.00 /allw	100,000
312610 Hazardous Waste Remediation			565,000
G10 Site Preperation		/gsf	4,322,357
G10 Site Preparation			4,322,357
G20 Site Improvements			
G20 Site Improvements			
321005 Roadways			
Gravel base course bit paving 12" - ph 2-4	3,971.43 cy	38.00 /cy	150,914
Bituminous concrete paving Top course only - (1.5") - ph 2-4	3,893.56 sy	18.00 /sy	70,084



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321005 Roadways			
Bituminous concrete paving RD - (2.5" + 1.5") - ph 2-4	9,531.44 sy	31.50 /sy	300,240
Bituminous concrete paving HD - (3.25"+1.75"+1.50") - ph 2-4	0.00 sy	0.00 /sy	0
Vertical granite curbs - replace portion of curb at Mass Ave	223.00 lf	55.00 /lf	12,265
Vertical granite curbs - straight	4,645.00 lf	48.00 /lf	222,960
Vertical granite curbs - radius	1,085.00 lf	54.00 /lf	58,590
Traffic signs	38.00 ea	495.00 /ea	18,810
Reserved praking	55.00 ea	350.00 /ea	19,250
Pavement markings - temp	1.00 ls	5,500.00 /ls	5,500
Pavement markings - parking spots	233.00 ea	49.50 /ea	11,534
Pavement markings - add for handicap	8.00 ea	121.00 /ea	968
Pavement markings - cross walks, misc	3.00 ls	2,000.00 /ls	6,000
Pavement markings - add for "reserved"	55.00 ea	55.00 /ea	3,025
Rubble strip, 6" concrete with bumps 4/L7.02	900.00 sf	30.00 /sf	27,000
321005 Roadways		/gsf	907,140
321010 Pedestrian Paving			
Galv railing at stairs at loading dock	25.00 lf	225.00 /lf	5,625
Gravel base at conc pavement (1/L7.02) 8" - ph 2-4	1,766.24 cy	40.00 /cy	70,650
Fine grade under site concrete - ph 2-4	57,226.00 sf	0.40 /sf	22,890
Gravel base at bituminous walks (2/L7.02) - ph 2-4	782.92 cy	40.00 /cy	31,317
Generator and transformer pads (4 ea)	1,060.00 sf	15.12 /sf	16,027
Bituminous paving - pedestrian	1,879.11 sy	38.00 /sy	71,406
Truncated domes - for HC ramps	400.00 sf	25.99 /sf	10,395
Grass paver	385.00 sf	18.00 /sf	6,930
Pedestrian concrete walks	45,306.00 sf	11.91 /sf	539,459
Pedestrian concrete walks - inside courtyard colored	2,545.00 sf	15.88 /sf	40,415
Pedestrian concrete walks - replace at Mass Ave	5,607.00 sf	11.91 /sf	66,763
Vehicular concrete paving	10,121.00 sf	13.89 /sf	140,596
HD Concrete paving at loading dock	2,633.00 sf	13.89 /sf	36,576
Thickened slab for benches	14.00 cy	283.50 /cy	3,969
Thickened slab for bike racks 12"	26.00 cy	283.50 /cy	7,371
Concrete plaza for soccer spectators	1,560.00 sf	11.91 /sf	18,575
321010 Pedestrian Paving		/gsf	1,088,963
321030 Amphitheater			
Precast conc curb - 12"w x 18"h (9/L7.02)	415.00 lf	85.00 /lf	35,275
Nailers for synthetic	830.00 lf	20.00 /lf	16,600
Synthetic field surfacing - ampitheater	4,200.00 sf	12.00 /sf	50,400
Add for 23 mm resilient pad	4,200.00 sf	1.85 /sf	7,770
Liner material - 25 mil	4,200.00 sf	1.10 /sf	4,620
Specialty drain adjacent to curb	415.00 lf	65.00 /lf	26,975
Galv railing at ramp ampitheater	60.00 lf	225.00 /lf	13,500
Ramp wall at Ampitheater	56.00 lf	401.63 /lf	22,491
CIP retaining wall footing (5' exp) - say 4'w x 18" dp x 100"	22.22 cy	779.63 /cy	17,323
at ampitheater (3' exp) - say 12"w x 6'h x 100'	22.22 cy	1,350.00 /cy	29,997
321030 Amphitheater		/gsf	224,951
321032 East Courtyard			
Decorative fence adjacent to D wing (Steam Courtyard) - 96"	355.00 lf	225.00 /lf	79,875
Decorative fence adjacent to D wing - gate 12'w x 8'h	2.00 lv	3,500.00 /lv	7,000
Wood terraced seating on frame IPE	590.00 sf	150.00 /sf	88,500
Prefab weathering steel planter - courtyard 1/L7.11 24" h walls	1,170.00 sf	110.00 /sf	128,700
Prefab weathering steel planter - courtyard 1/L7.11 bottom	1,380.00 sf	110.00 /sf	151,800
Conc pavers on grade, mortored (7/L7.02)	1,270.00 sf	38.00 /sf	48,260
Layered stone and planting mix at raised planters L7.11	103.70 cy	120.00 /cy	12,444
Conc pavers on pedestals (7/L7.02)	8,560.00 sf	35.00 /sf	299,600
321032 East Courtyard			816,179
321034 Playground			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321034 Playground			
Dense grade under safety surfacing (14/L7.02) 6" - with surfacing cost below	164.44 tn	28.00 /tn	4,604
Crushed stone under safety surfacing (14/L7.02) 12"	322.00 tn	32.00 /tn	10,304
Play equipment, adjacent to wing C TBD	1.00 ls	100,000.00 /ls	100,000
Safety surfacing (13/L702)	4,784.00 sf	34.00 /sf	162,656
321034 Playground			277,564
321400 Site Improvements			
Manually retractable bollard (5/L7.04)	2.00 ea	2,500.00 /ea	5,000
Fixed bollards	37.00 ea	1,200.00 /ea	44,400
Footings for bollards - fixed, manually retractable	46.00 ea	897.75 /ea	41,297
Footings for bollards - hydraulic	2.00 ea	1,890.00 /ea	3,780
Footing/wall School sign	1.00 ls	5,670.00 /ls	5,670
Footing for flagpole	1.00 ls	2,362.50 /ls	2,363
Freestanding benches steel and wood, no back (L7.05)	154.00 lf	448.43 /lf	69,058
Benches steel and wood, no back (L7.05) - rad adjacent to bldg	48.00 lf	750.00 /lf	36,000
Benches steel and wood, no back (L7.05) - straight adjacent to bldg	54.00 lf	750.00 /lf	40,500
Trash/recycle receptacles (4/L704)	4.00 ea	3,870.00 /ea	15,480
Memorial bench reinstallation	1.00 ea	1,500.00 /ea	1,500
Memorial in planting	2.00 ea	2,000.00 /ea	4,000
Flagpole (3/L7.04)	1.00 ea	15,570.00 /ea	15,570
Bike repair station (2/L7.04)	1.00 ea	5,580.00 /ea	5,580
Bike rack (1/L7.04)	42.00 ea	819.00 /ea	34,398
Grass pavers	120.00 sf	32.00 /sf	3,840
Granite edging at exit from C wing (6/L7.02)	120.00 lf	100.00 /lf	12,000
School site sign	1.00 ls	20,000.00 /ls	20,000
321400 Site Improvements		/gsf	360,435
321402 Fencing & Handrails			
Decorative fence between A and E wings (amphitheater) - 96"	100.00 lf	225.00 /lf	22,500
Decorative fence between A and E wings - gate	3.00 lv	3,000.00 /lv	9,000
Decorative fence at PreK play area wing - 48"	272.00 lf	155.00 /lf	42,160
Decorative fence at PreK play area wing - 48" x 4' gate	2.00 lv	1,800.00 /lv	3,600
Decorative fence adjacent to E (music) wing - 96"	30.00 lf	225.00 /lf	6,750
Decorative fence adjacent to E (music) wing - gate 4'w x 6'h	2.00 lv	3,000.00 /lv	6,000
CLF at bike storage - 8.0'	120.00 lf	80.00 /lf	9,600
CLF gate at bike storage - 8'x4'	2.00 ea	1,200.00 /ea	2,400
CLF at generator - 8.0'	155.00 lf	84.00 /lf	13,020
CLF gate at generator - 8'x4'	2.00 lv	1,200.00 /lv	2,400
CLF between school and fields - 8.0'	910.00 lf	84.00 /lf	76,440
CLF gate between school and fields - 8.0' x 4'w	3.00 ea	1,200.00 /ea	3,600
Swing barrier gate (6/L703) at loading dock - 28'	1.00 ls	14,000.00 /ls	14,000
Swing barrier gate at Mill St parking per 3/30 email - 24'	1.00 ls	14,000.00 /ls	14,000
Concrete fence base and mow strip 18"x12" 5/L7.02	850.00 lf	75.00 /lf	63,750
Concrete fence base at lawn (5/L7.02)	270.00 lf	75.00 /lf	20,250
Fence at butterfly garden retaining wall - short	120.00 lf	155.00 /lf	18,600
Railing at east property line at retaining wall (C3.5.4)	130.00 lf	150.00 /lf	19,500
ADA rail, both sides at butterfly garden retaining wall - short	190.00 lf	150.00 /lf	28,500
321402 Fencing & Handrails			376,070
321405 CIP Stairs & Walls			
CIP retaining wall footing (5' exp) - say 6'w x 18" dp x 75'	25.00 cy	779.63 /cy	19,491
at butterfly pond CIP retaining wall (5' exp) - say 18" w x 7' h x 76'	29.56 cy	1,550.00 /cy	45,818
CIP retaining wall footing (5' exp) - say 6'w x 18" dp x 155"	51.67 cy	779.63 /cy	40,283
at the cliff CIP retaining wall (5' exp) - say 18" w x 8' h x 155"	68.89 cy	1,550.00 /cy	106,780
CIP retaining wall footing (5' exp) - say 6'w x 18" dp x 25'	6.00 cy	779.63 /cy	4,678
at amphitheater CIP retaining wall (5' exp) - say 18" w x 5' h x 25'	6.94 cy	1,550.00 /cy	10,757
Foundation for swing barrier gate 6/L7.03	1.00 ls	6,000.00 /ls	6,000
Gabion Retaining wall at East property line - 75' x 4'	300.00 sf	40.00 /sf	12,000
Retaining Wall at east property line "below walk - 130x3	390.00 sf	45.00 /sf	17,550



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
321405 CIP Stairs & Walls			
Retaining Wall at east property line adjacent to fence- 115x3	445.00 sf	45.00 /sf	<u>20,025</u>
321405 CIP Stairs & Walls		/gsf	<u>283,381</u>
321825 Sport Fields			
Softball field scoreboard	1.00 ea	27,957.97 /ea	27,958
Baseball field scoreboard	1.00 ea	27,958.05 /ea	27,958
Synthetic turf field - stone base - (10" min), 2 types of stone) profile	10,851.86 tn	28.00 /tn	303,852
Synthetic turf field - grading	175,800.00 sf	0.20 /sf	35,160
Synthetic turf field - geotec fabric	175,800.00 sf	0.40 /sf	70,320
Synthetic field surfacing - main fields (synthetic infill)	175,800.00 sf	5.25 /sf	922,950
Line markings	1.00 ls	80,000.00 /ls	80,000
Add for 23 mm resilient drainage pad	175,800.00 sf	1.40 /sf	246,120
Liner material - 20 mil reinforce impermeable liner	175,800.00 sf	1.40 /sf	246,120
Extended warranty - 8 yr	1.00 ls	0.01 /ls	0
3rd party testing	1.00 ls	25,000.00 /ls	25,000
Maintenace equipment, Gator, with sweeprer and rake	1.00 ls	15,000.00 /ls	15,000
Perimeter ACO drain in place (concrete by others)	1,800.00 lf	100.00 /lf	180,000
Drainage chambers F&I	1,700.00 lf	125.00 /lf	212,500
Drain piping 12" - to connect chambers	330.00 lf	40.00 /lf	13,200
STD1 + TBD + piping structures	30.00 ea	3,000.00 /ea	90,000
CLF at perimeter of fields - 4.0'	1,535.00 lf	62.00 /lf	95,170
CLF at perimeter of fields - 6.0'	18.00 lf	74.00 /lf	1,332
CLF at perimeter of fields - 8.0'	745.00 lf	86.00 /lf	64,070
CLF at perimeter of fields - 12.0'	364.00 lf	111.00 /lf	40,404
CLF - safety fence at shot put - 6.0'	125.00 lf	74.00 /lf	9,250
Backstop with canopy - 24' w/ 8" post - 70' long	1.00 ls	20,160.00 /ls	20,160
Backstop with canopy - 28 w/ 6" post - 90' long	1.00 ls	27,720.00 /ls	27,720
Fixed ball control netting with high wind safety release - 30'h - 634'	19,020.00 sf	8.00 /sf	152,160
Bases w/ subsurface structures (x/L16, x/L17)	6.00 ea	500.00 /ea	3,000
Home plate with concrete anchor (x/L16, x/L17)	4.00 ea	900.00 /ea	3,600
Conc nailer curb at synthetic field perimeter - ph 4	2,400.00 lf	85.00 /lf	204,000
Foul pole 24'	2.00 ea	3,200.00 /ea	6,400
Rolling gate at soccer field - 45'	1.00 ea	15,000.00 /ea	15,000
Posts to support baseball net - 30'h assume 20' oc	34.00 ea	1,750.00 /ea	59,500
Concrete slab (w#6 rebar) at dugouts (4/L8.6)	4,953.00 sf	12.29 /sf	60,848
Add 18" diam sonotube at fence posts below perimeter curb (1/L8.11)	330.00 ea	325.00 /ea	107,250
Pitching plate with concrete anchor (x/L16, x/L17)	4.00 ea	900.00 /ea	3,600
Football goal post	1.00 pr	8,000.00 /pr	8,000
Skinned infill surface at bull pen with marking and edging	420.00 sf	35.00 /sf	14,700
Crushed stone (6/L8.9) - 6.5'w x 3.0" dp x 2100 less chambers	1,421.87 cy	65.00 /cy	92,422
Filter fabric - 2 layers	28,800.00 sf	1.50 /sf	43,200
Shot put circle	1.00 ls	10,000.00 /ls	10,000
Discuss cage	1.00 sf	10,000.00 /sf	<u>10,000</u>
321825 Sport Fields		/sf	<u>3,547,923</u>
329000 Landscaping			
Irrigation - limited fields, mostly plantings	1.00 ls	100,000.00 /ls	100,000
Reuse and ammend loam - at lawns and fields (48,000 sf x 4" +0%) ph 1	592.59 cy	18.00 /cy	10,667
Reuse and ammend loam remaining stockpiled loam - at lawns and fields from ph 2-4	2,700.00 cy	18.00 /cy	48,600
Offsite loam - at lawns at athletic fields (80,000 sf x 8" +30%) ph 2-4	800.00 cy	55.00 /cy	44,000
Furnish and place offsite loam - at planting beds (13,700 sf x 18" +25%)	951.39 cy	60.00 /cy	57,083
Furnish and place offsite loam - at trees (36" = 4 cy per tree)	808.00 cy	60.00 /cy	48,480
Temporary seeding for erosion control	1.00 ls	5,500.00 /ls	5,500
Restoration mix	22,200.00 sf	0.28 /sf	6,216
Lawn & Meadow & Wetland mix	97,835.00 sf	0.29 /sf	28,372
Athletic turf mix (incl 15,000 sf based on small synthetic field)	78,250.00 sf	0.44 /sf	34,430
Lawn Maintenance by Owner	0.00 ph	/ph	
Erosion control mat	24,000.00 sf	0.65 /sf	15,600



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
329000 Landscaping			
Premium loam at bio-retention area - ph 3 (16,507 sf x 12" + 25%)	0.00 cy	0.00 /cy	0
Erosion control mat	2,583.00 sf	0.65 /sf	1,679
Signature tree planting - 8" cal elm and oak	4.00 ea	6,000.00 /ea	24,000
Shade tree - 3"-3.5" Linden, Beach, Oak, Maple	48.00 ea	1,760.00 /ea	84,480
Shade tree - 2"-2.5" Linden, Beach, Oak, Maple	66.00 ea	825.00 /ea	54,450
Shade tree - 5'-6'	17.00 ea	550.00 /ea	9,350
Shade tree - 7'-10'	64.00 ea	825.00 /ea	52,800
Evergreen Tree - 2- 2.5" Pine	3.00 ea	605.00 /ea	1,815
Shrubs - 7'-8'	10.00 ea	400.00 /ea	4,000
Shrubs - 3 gal mix	258.00 ea	90.00 /ea	23,220
Butterfly raingarden, plantings	0.00 sf	/sf	
Ground cover	11,139.00 sf	9.00 /sf	100,251
Ground cover and shrubs	1,870.00 sf	8.00 /sf	14,960
Memorial planting TBD	1.00 ls	4,000.00 /ls	4,000
Stone drip edge	0.00 sf	/sf	
329000 Landscaping		/gsf	773,953
G20 Site Improvements		/gsf	8,656,561

G20 Site Improvements

8,656,561

G30 Site Civil/Mechanical Utilites

G30 Civil Mechanical Utilities

331000 Water Utilities

Fire hydrant - phase 2-4	3.00 ea	4,950.00 /ea	14,850
Gate Valve & Box	5.00 ea	1,485.00 /ea	7,425
Fire water line - 3" Copper Type "K" Phase 4	45.00 lf	30.00 /lf	1,350
Fire water line - no size	705.00 lf	120.00 /lf	84,600
Fire Department Connection	3.00 ea	2,000.00 /ea	6,000
Wet tap for temp service on Schouler Court incl street work - 8" x 8"	1.00 ea	10,000.00 /ea	10,000
Dry tap into existing line	2.00 ea	10,000.00 /ea	20,000
Pressure test & chlorinate - ph 2-4	750.00 lf	5.00 /lf	3,750
331000 Water Utilities		/gsf	147,975

333000 Sanitary Sewerage

Allowance for utility shutdown and tempoary bypass - phase 2	1.00 allw	50,000.00 /allw	50,000
Sanitary sewer piping - (6" PVC) - ph 2-4	1,120.00 lf	82.00 /lf	91,840
Sanitary sewer piping - (6" CI) - ph 2-4	60.00 lf	105.00 /lf	6,300
New Science Waste Tank - w/ plumbing	0.00 ea	0.00 /ea	0
Sanitary sewer Doghouse Manhole at MWRA Line	3.00 ea	22,450.00 /ea	67,350
Grease Tank (no size provided, P2.00b)- Phase 2 assume 5,000 gal	1.00 ea	20,000.00 /ea	20,000
Sanitary sewer manholes - ph 2-4	8.00 ea	4,400.00 /ea	35,200
Sanitary sewer testing - structures - ph 2-4	8.00 ea	220.00 /ea	1,760
Clean & Flush New Sanitary Piping - ph 2-4	1,180.00 lf	2.00 /lf	2,360
Video Inspections of New Sanitary Piping w/ DVD Media - ph 2-4	1,180.00 lf	9.50 /lf	11,210
333000 Sanitary Sewerage		/gsf	286,020

334000 Stormwater Utilities

Allowance for drainage retention including excavation, t & d	1.00 allw	50,000.00 /allw	50,000
HDPE - perf at butterfly garden	80.00 lf	80.00 /lf	6,400
HDPE - perf drain line not shown but assumed	900.00 lf	90.00 /lf	81,000
HDPE - ph 2-4 upto 12"	1,580.00 lf	92.00 /lf	145,360
HDPE - ph 2-4 18", 24"	500.00 lf	100.00 /lf	50,000
Catch basins w/ Hoods (5'-12' depth) -	9.00 ea	5,000.00 /ea	45,000
Outlet Control Structure	2.00 ea	4,500.00 /ea	9,000
Water Quality Unit (STC 900)	1.00 ea	16,500.00 /ea	16,500



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
334000 Stormwater Utilities			
FES structure	3.00 ea	4,500.00 /ea	13,500
Area Drains (Nyloplast Basins 24" dia.)	2.00 ea	1,500.00 /ea	3,000
Drain Manholes (< 8' dia.) - ph 2-4	9.00 ea	4,500.00 /ea	40,500
Drain Manholes (extra large.) - ph 2-4	2.00 ea	7,500.00 /ea	15,000
Drain Doghouse manhole	1.00 ea	18,000.00 /ea	18,000
Tie into existing mh - on site	3.00 ea	3,000.00 /ea	9,000
Trench Drain at Loading Dock	32.00 lf	125.00 /lf	4,000
Clean & Flush New Drainage Piping	3,485.00 lf	2.00 /lf	6,970
Video Inspections of New Drainage Piping w/ DVD Media	3,485.00 lf	5.00 /lf	17,425
Temp patching and rework of new structures	1.00 ls	50,000.00 /ls	50,000
334000 Stormwater Utilities		/gsf	580,655
G30 Civil Mechanical Utilities			/gsf 1,014,650
G30 Site Civil/Mechanical Utilites			1,014,650
G40 Site Electrical Utilities			
G40 Electrical Utilities			
<i>110615 Audiovisual Systems & Projection Screens</i>			
Amptheater Lab devices, cabling, power, and equipment	0.00 ea	/ea	
<i>135400 Traffic Signal</i>			
Traffic signal at Mill Street	0.00 ls	0.00 /ls	0
<i>260508 Site Electric</i>			
Feeder (PVC/CU) - 125A	400.00 lf	19.06 /lf	7,625
Feeder (PVC/CU) - 200A [fire pump normal feed]	55.00 lf	30.47 /lf	1,676
Feeder (PVC/CU) - 225A [generator to fire pump]	411.00 lf	36.28 /lf	14,912
Feeder (PVC/CU) - 225A [sports lighting / controllers	1,500.00 lf	33.96 /lf	50,939
Feeder (PVC/CU) - 400A [generator to ATS-E]	391.00 lf	60.90 /lf	23,812
Feeder (PVC/CU) - 400A [generator to ATS-LRS]	110.00 lf	60.90 /lf	6,699
Feeder (PVC/CU) - 3000A [generator to ATS-OSA]	395.00 lf	568.29 /lf	224,474
Feeder (PVC/CU) - 3000A [generator to ATS-OSC]	395.00 lf	568.29 /lf	224,474
Feeder (PVC/CU) - 4000A [secondary]	70.00 lf	829.36 /lf	58,055
Empty conduit - sch 40 PVC: 1 x 1" [future P.V.]	675.00 lf	5.61 /lf	3,786
Empty conduit - sch 40 PVC: 1 x 1.5" [future P.V.]	250.00 lf	6.57 /lf	1,644
Empty conduit - sch 40 PVC: 2 x 1.5" [future P.V.]	200.00 lf	11.38 /lf	2,276
Empty conduit - sch 40 PVC: 2 x 2" [future E.V.]	2,000.00 lf	12.82 /lf	25,644
Empty conduit - sch 40 PVC: 2 x 2" [future P.V.]	500.00 lf	12.82 /lf	6,411
Empty conduit - sch 40 PVC: 2 x 4" [secondary]	70.00 lf	19.98 /lf	1,399
Empty conduit - sch 40 PVC: 2 x 4" [spare]	350.00 lf	19.98 /lf	6,993
Empty conduit - sch 40 PVC: 2 x 4" [primary]	223.00 lf	19.98 /lf	4,455
Empty conduit - sch 40 PVC: 1 x 3" [P.V.]	250.00 lf	28.37 /lf	7,092
Empty conduit - sch 40 PVC: 4 x 4"	400.00 lf	38.87 /lf	15,548
Empty conduit - sch 40 PVC: 12 x 4" [secondary]	70.00 lf	76.24 /lf	5,336
Empty conduit - GRC - 3" - HH circuitry	971.00 lf	51.56 /lf	50,061
Magnetic warning tape - 1/8"	7,900.00 lf	5.08 /lf	40,120
Connect to existing Utility Co. manhole	1.00 ea	2,705.64 /ea	2,706
Electric manhole - 6'x12x7'	4.00 ea	7,668.88 /ea	30,676
Cast iron manhole frame/cover, 32"D x 6'H grade rings	4.00 ea	1,310.20 /ea	5,241
Hand hole & cover - 2'x2'x3'	12.00 ea	752.96 /ea	9,036
Utility meter sockets (meter by Util. Co.)	5.00 ea	346.73 /ea	1,734
Transclosures - 4'W x 4'L x 4'D (N3R)	2.00 ea	10,071.84 /ea	20,144
260508 Site Electric			852,968
<i>261006 Conduit for PV</i>			



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
261006 Conduit for PV			
Empty conduit for PV array - West Parking	600.00 lf	18.54 /lf	11,124
Empty conduit for PV array - Rear Stadium	0.00 lf	0.00 /lf	0
261006 Conduit for PV		/gsf	11,124
265098 Sports Lighting			
Sports lighting controller	2.00 ea	2,778.88 /ea	5,558
265098 Sports Lighting		/gsf	5,558
265600 Exterior Lighting			
Hand hole & cover - 4'x4'x4'	85.00 ea	1,471.43 /ea	125,071
SW05 - Wall Bracket Wallwasher	136.00 lf	351.19 /lf	47,762
SW08 - Linear Forward Throw	463.00 lf	123.49 /lf	57,176
PT02-1: single 4,000LM Type II fixture on 14' pole	10.00 ea	2,913.66 /ea	29,137
PT02-2: single 4,000LM Type II fixture on 14' pole	41.00 ea	2,913.66 /ea	119,460
PT01-3: single 20,000LM Type III fixture on 30' pole	1.00 ea	4,358.56 /ea	4,359
PT01-23: twin back to back 20,000LM Type III fixture on 30' pole	3.00 ea	4,358.56 /ea	13,076
PT02-3: single 4,000LM Type II fixture on 14' pole	2.00 ea	2,913.66 /ea	5,827
PT02-4: single 4,000LMN Type IV fixture on 14' pole	4.00 ea	2,913.66 /ea	11,655
PT02-23: twin back to back 20,000LM Type III fixture on 30' pole	4.00 ea	3,714.16 /ea	14,857
RB06: 800LM/FT segmented louvered down light LED cove	61.00 lf	239.96 /lf	14,637
RB07: 800LM/FT louvered LED cove	180.00 lf	239.96 /lf	43,192
PT03: 12,000LM Type V fixture pedestrian (no multi-function)	16.00 ea	3,150.01 /ea	50,400
PT03: 12,000LM Type V fixture pedestrian multi-function pylon	3.00 ea	8,694.83 /ea	26,084
RG02: 2,000LM in ground tree uplight	16.00 ea	1,670.36 /ea	26,726
RG01: 2,000LM LED flagpole spot	2.00 ea	1,404.31 /ea	2,809
SW09-4: 6,500LM Type IV wall mounted single fixture	23.00 ea	645.39 /ea	14,844
Catenary lighting	180.00 lf	175.50 /lf	31,590
1" PVC - 30A (3#8 & #10G)	12,600.00 lf	11.12 /lf	140,068
1" PVC - 50A (3#6 & #10G)	2,000.00 lf	12.91 /lf	25,815
265600 Exterior Lighting		/gsf	804,545
270001 Voice/Data/CATV			
Empty conduit (sch 40 PVC) - 1 x 4" [technology]	350.00 lf	11.18 /lf	3,914
Empty conduit (sch 40 PVC) - 4 x 4" [technology]	380.00 lf	38.87 /lf	14,771
Communications utility pole conduit riser (GRC - 4"C)	10.00 ea	2,705.64 /ea	27,056
Telecom handhole and cover - 4' x 4'	3.00 ea	1,639.44 /ea	4,918
270001 Voice/Data/CATV		/gsf	50,659
282000 Video Surveillance			
Exterior camera - 180 deg (WP housings / PoE Injectors / fiber converters)	3.00 ea	2,278.25 /ea	6,835
Exterior camera - 270 deg (WP housings / PoE Injectors / fiber converters)	12.00 ea	2,778.25 /ea	33,339
Exterior camera - fixed (WP housings / PoE Injectors / fiber converters)	5.00 ea	2,078.25 /ea	10,391
Video surveillance cable (EMT)	3,425.00 lf	9.91 /lf	33,956
282000 Video Surveillance		/gsf	84,521
321319 Footings For PV			
Concrete footings for PV panels - West parking lot	1.00 ls	47,250.00 /ls	47,250
321319 Footings For PV		/gsf	47,250
336000 Excavation/Bkfl and Lightpole Bases for Electric			
Excavation / backfill for site lighting - ph 2-4	12,000.00 lf	18.00 /lf	216,000
Excavation / backfill for electrical services to Stadium Toilet Building	345.00 lf	27.50 /lf	9,488
Excavation / backfill for Telecom services	254.00 lf	40.00 /lf	10,160
Excavation / backfill for PV array - West Parking	600.00 lf	27.50 /lf	16,500
Excavation / backfill for PV array - Rear Stadium	1,000.00 lf	27.50 /lf	27,500
Emergency Generator pad	1.00 ea	5,000.00 /ea	5,000
Electric hand hole - 13"W x 24"L x 18" D- Quazite PG3048DA36)	20.00 ea	880.00 /ea	17,600
E/b for electric handholes - ph 2-4	4.00 ea	1,980.00 /ea	7,920
336000 Excavation/Bkfl and Lightpole Bases for Electric		/gsf	310,168



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
336020 Light Pole Bases			
Light pole bases - precast conc 24" dia. x 20'-0" (Stadium Lights)	12.00 ea	20,000.00 /ea	240,000
Light Pole Bases - precast conc PT1 24" dia. x 6'-0" - ph 1	3.00 ea	1,200.00 /ea	3,600
Light Bollard Bases - precast conc PT2 24" dia. x 4'-0" - ph 1	29.00 ea	1,200.00 /ea	34,800
Lightbollard bases - precast conc PT3 24" dia. x ph 1	5.00 ea	950.00 /ea	4,750
Light Pole Bases - precast conc PT1 24" dia. x 6'-0" - ph 2-4	7.00 ea	1,200.00 /ea	8,400
Light Pole Bases - precast conc PT2 24" dia. x 4'-0" - ph 2-4	26.00 ea	1,200.00 /ea	31,200
Light bollard bases - precast conc PT3 24" dia. x ph 2-4	14.00 ea	950.00 /ea	13,300
336020 Light Pole Bases			<u>336,050</u>
G40 Electrical Utilities		/gsf	2,502,842
G40 Site Electrical Utilities			2,502,842
G Sitework			16,496,410
E Sitework			16,496,410
F Early Bid Package #2			
A Substructure			
A10 Foundations			
A1010 Standard Foundations			
<i>312002 Earth Moving within Building Footprint</i>			
E/b foundation walls/footings (F2.2C & F5.0C) - perimeter - ph 1	1,258.00 lf	46.15 /lf	58,050
Excavate/backfill foundation Grade Beams - ph 1	455.00 lf	46.15 /lf	20,996
Excavate for spread footings - ph 1	130.00 ea	100.00 /ea	13,000
<i>312002 Earth Moving within Building Footprint</i>		<i>/gsf</i>	<u>92,046</u>
A1010 Standard Foundations		/gsf	92,046
A1020 Special Foundations			
<i>010200 Allowances</i>			
Allowance for foundation and obstruction removal	1.00 allw	75,000.00 /allw	75,000
Allowance for additional ground improvements	1.00 allw	50,000.00 /allw	50,000
<i>010200 Allowances</i>		<i>/gsf</i>	<u>125,000</u>
<i>312000 Earth Work</i>			
Excavation for Concrete Deadman (400 lf x 3' wide x 8' deep)	948.15 cy	10.00 /cy	9,482
Excavation for Concrete Deadman Tie Rods (640 lf x 3' wide x 8' deep)	568.89 cy	20.00 /cy	11,378
<i>312000 Earth Work</i>		<i>/gsf</i>	<u>20,859</u>
<i>315000 Temporary Excavation Support and Protection</i>			
SOE West of permanent SOE - 200' x 12'	2,400.00 sf	90.00 /sf	216,000
SOE East of permanent SOE - 110' x 22'	2,420.00 sf	120.00 /sf	290,400
<i>315000 Temporary Excavation Support and Protection</i>		<i>/sf</i>	<u>506,400</u>
<i>316600 Aggregate Piers & Rigid Inclusions</i>			
Aggregate Piers as noted on GT drwgs (min 3 per footing- Per GT3.3 Plan)	30,670.00 sf	14.00 /sf	429,380
Aggregate piers at SOG where rigid inclusion is used for foundation	26,000.00 sf	10.00 /sf	260,000
Rigid Inclusions as noted on GT drwgs (min 3 per footing- Per GT3.3 Plan)	26,000.00 sf	19.00 /sf	494,000
Rigid Inclusions at future foundation	1,800.00 sf	19.00 /sf	34,200



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
316600 Aggregate Piers & Rigid Inclusions			
Design, testing and mobilization	1.00 ls	75,000.00 /ls	75,000
316600 Aggregate Piers & Rigid Inclusions		/sf	1,292,580
316616 Permanent Soldier Pile Wall			
Premium to cut in confined space between SOE and existing bldg in phase 2	4,681.00 cy	50.00 /cy	234,050
Piles - W24x117 x 75 (25 ea) galv	109.69 tn	3,200.00 /tn	351,008
Backfill 36" dia Pile Holes w/ Lean Concrete (> 1,000 psi) elev 27 to 44	111.21 cy	150.00 /cy	16,682
Backfill 36" dia Pile Holes w/ Flowable Fill (> 150 psi) elev 44 to 72	183.17 cy	135.88 /cy	24,889
Waler 2 x W24x76 x 194	16.96 tn	4,700.00 /tn	79,712
Drill for 36" caisson - 25 x 45	1,125.00 lf	110.00 /lf	123,750
Lagging 3", phase 1	2,328.00 sf	30.00 /sf	69,840
Hand pack behind boards - phase 1	2,328.00 sf	10.00 /sf	23,280
Trench for Obstructions / Soil Removals at Permanent S.O.E. (5' wide x full length of S.O.E.x Avg. 21'depth)	574.82 cy	30.00 /cy	17,245
Tension rods gr 75 #28 (32.7#/lf, 3.75" diam) tread bars - 640'	10.46 tn	6,500.00 /tn	67,990
Connect and tension tie back to SOE	10.00 loc	1,000.00 /loc	10,000
Connect tie back to deadman	10.00 loc	500.00 /loc	5,000
Lagging 3", phase 2	3,104.00 sf	30.00 /sf	93,120
Hand pack behind boards phase 2	3,104.00 sf	10.00 /sf	31,040
Weld studs to lbeam	350.00 ea	75.00 /ea	26,250
Additional- Labor/ Hand tool work for chipping Flowable Fill harden to Soldier Piles for Phase 2 Scope of Work- (66 total)	25.00 da	1,000.00 /da	25,000
316616 Permanent Soldier Pile Wall		/gsf	1,198,855
A1020 Special Foundations		/gsf	3,143,695
A1030 Lowest Floor Construction			
312002 Earth Moving within Building Footprint			
Cut to fill subgrade within building footprint- Phase 1	588.00 cy	15.00 /cy	8,820
Fill from cut inside building footprint- Phase 1	588.00 cy	15.00 /cy	8,820
Fill to subgrade with offsite "ordinary fill" inside building footprint- Phase 1	4,920.00 cy	40.00 /cy	196,800
3/4" Crushed stone below SOG (12") - ph 1	3,866.00 tn	28.00 /tn	108,248
3/4" Crushed stone below New Exterior & Interior Foundations (3") - ph 1	1,950.00 tn	28.00 /tn	54,600
Excavate for elevator pits - ph 1	1.00 ea	2,420.00 /ea	2,420
Fine grade under building - ph 1	59,000.00 sf	1.10 /sf	64,900
Filter fabric under slab - ph 1	59,000.00 sf	1.00 /sf	59,000
Excavate & Backfill for Under Slab Plumbing - ph 1	2,230.00 lf	30.00 /lf	66,900
Excavate & Backfill for Sub-Slab Ventilation low profile vent 3"- ph 1	2,268.00 lf	6.00 /lf	13,608
312002 Earth Moving within Building Footprint		/gsf	584,116
312600 Management and Disposition of Contaminated Material			
MCP Regulated Soil-Type A Mass Unlined Landfill	640.00 tns	50.00 /tns	32,000
MCP Regulated Soil Type C Mass Asphalt Batching Facility	800.00 tns	75.00 /tns	60,000
MCP Regulated Soil-Type D Out of State Subtitle D (Non- Hazardous)	320.00 tns	120.00 /tns	38,400
MCP Regulated Soil Type E Hazardous to be treated in-situ	320.00 tns	350.00 /tns	112,000
MCP Regulated Soil-Less Than RCS-1	320.00 tns	35.00 /tns	11,200
312600 Management and Disposition of Contaminated Material		/tns	253,600
A1030 Lowest Floor Construction		/gsf	837,716
A10 Foundations		/gsf	4,073,457
A Substructure		/gsf	4,073,457



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
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D Services

D20 Plumbing

D2090 Plumbing EBP #2

220090 Plumbing EBP #2

PJ Kennedy

220090 Plumbing EBP #2

1.00 ls	118,900.00 /ls	118,900
		118,900

D2090 Plumbing EBP #2	/gsf	118,900
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D20 Plumbing	/gsf	118,900
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D40 Fire Protection Systems

D4010 FP - Early Bid Package #2

210090 Fire Protection EBP #2

Rustic Fire Protection

210090 Fire Protection EBP #2

1.00 ls	125,000.00 /ls	125,000
		125,000

D4010 FP - Early Bid Package #2	/gsf	125,000
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D40 Fire Protection Systems	/gsf	125,000
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D Services	/gsf	243,900
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F Special Construction & Demolition

F10 Special Construction

F10 Temporary Construction

015070 Temporary Construction

Additional earth moving at interim of 1A (enabling) to 1B

Temp parking and staging areas

015070 Temporary Construction

1.00 ls	50,000.00 /ls	50,000
1.00 ls	150,000.00 /ls	150,000
	/gsf	200,000

323111 Temporary Fencing

Temporary construction fence - phase 1

323111 Temporary Fencing

1.00 ls	184,330.00 /ls	184,330
	/gsf	184,330

F10 Temporary Construction	/gsf	384,330
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F10 Special Construction	/gsf	384,330
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F Special Construction & Demolition	/gsf	384,330
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G Sitework

A10 Foundations

A1020 Special Foundations

323201 Big Block Segmental Retaining Wall

Retaining Wall at Generator 120'x 5.0'

600.00 sf	40.00 /sf	24,000
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60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
323201 Big Block Segmental Retaining Wall			24,000
A1020 Special Foundations		/gsf	24,000
A10 Foundations		/gsf	24,000
G10 Site Preparation			
G10 Site Preparation			
<i>010200 Allowances</i>			
Allowance for modifications to segment ed retaining wall	1.00 allw	30,000.00 /allw	30,000
Allowance for snow plowing	1.00 allw	40,000.00 /allw	40,000
Allowance for sewer bypass	1.00 allw	50,000.00 /allw	50,000
<i>010200 Allowances</i>		<i>/gsf</i>	<u>120,000</u>
<i>310000 Site Misc</i>			
Demo site walls - ph 1	355.00 lf	40.00 /lf	14,200
Equipment mobilization, project manager, sitework superintendent - ph 1	1.00 ls	396,897.00 /ls	396,897
Survey/layout - ph 1	28.00 wk	1,650.00 /wk	46,200
Street sweeping	1.00 ls	90,000.00 /ls	90,000
Police details - for use by site contractor during trucking & utilities	30.00 dy	800.00 /dy	24,000
<i>310000 Site Misc</i>		<i>/gsf</i>	<u>571,297</u>
<i>311000 Site Clearing</i>			
Strip loam - phase 1	3,300.00 cy	8.00 /cy	26,400
Clear and grub site - phase 1	1.00 ls	27,500.00 /ls	27,500
Haul and Screened Topsoil (12") from Phase 1 site	3,300.00 cy	15.00 /cy	49,500
Dispose of Topsoil Tailing from Phase 1 Screening	660.00 cy	25.00 /cy	16,500
<i>311000 Site Clearing</i>		<i>/gsf</i>	<u>119,900</u>
<i>312000 Earth Work</i>			
Cut to subgrade outside building footprint- Phase 1	456.00 cy	15.00 /cy	6,840
Fill from cut outside building footprint- Phase 1	456.00 cy	15.00 /cy	6,840
Fill to subgrade with offsite "ordinary fill" outside building footprint- Phase 1	2,474.00 cy	36.00 /cy	89,064
Rough grade- Phase 1	130,492.00 sf	0.25 /sf	32,623
Support SOE/drilled shaft operations incl spoil removal	45.00 dy	2,500.00 /dy	112,500
<i>312000 Earth Work</i>		<i>/gsf</i>	<u>247,867</u>
<i>312319 Dewatering</i>			
Dewatering of deep trenches	1.00 ls	35,000.00 /ls	35,000
Treatment (no wells)	1.00 ls	30,000.00 /ls	30,000
<i>312319 Dewatering</i>		<i>/gsf</i>	<u>65,000</u>
<i>312500 Sedimentation and Erosion Control</i>			
Hay bales & silt fence	2,200.00 lf	10.00 /lf	22,000
Hay bales & silt fence - additional at stockpile	500.00 lf	10.00 /lf	5,000
Construction entrance (20' x 50')	2.00 ea	3,500.00 /ea	7,000
Tree protection fence- (4' high Snow Fence)	11.00 ea	1,400.00 /ea	15,400
<i>312500 Sedimentation and Erosion Control</i>		<i>/gsf</i>	<u>49,400</u>
<i>312600 Management and Disposition of Contaminated Material</i>			
Replace with offsite gravel	1,500.00 cy	35.00 /cy	52,500
<i>312600 Management and Disposition of Contaminated Material</i>		<i>/tns</i>	<u>52,500</u>
G10 Site Preparation		/gsf	1,225,964
G10 Site Preparation			1,225,964



60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
G20 Site Improvements			
G20 Site Improvements			
<i>321005 Roadways</i>			
Gravel base course bit paving (3/L7.02) 12" - ph 1	1,622.50 cy	35.20 /cy	57,112
Bituminous concrete paving Binder only - (2.5" + 1.5") - ph 1	3,893.56 sy	16.50 /sy	64,244
<i>321005 Roadways</i>		/gsf	121,356
<i>321010 Pedestrian Paving</i>			
Gravel base at conc pavement (1/L7.02) 8" - ph 1	663.58 cy	35.20 /cy	23,358
Fine grade under site concrete - ph 1	21,500.00 sf	0.40 /sf	8,600
<i>321010 Pedestrian Paving</i>		/gsf	31,958
G20 Site Improvements		/gsf	153,314

G20 Site Improvements 153,314

G30 Site Civil/Mechanical Utilites

G3005 Enabling Utilities

331000 Water Utilities

8" D.I. 45 deg. Bends - phase 1	4.00 ea	950.00 /ea	3,800
Fire water line - 8" - phase 1 e/b only	125.00 lf	55.00 /lf	6,875
<i>331000 Water Utilities</i>		/gsf	10,675

334001 Relocate 48" Storm Drain

Removal of ledge trench - (Allowance for 48" Culvert Relocation Line)	400.00 cy	250.00 /cy	100,000
SOE for relocated culvert	1.00 allw	750,000.00 /allw	750,000
Pre- Trench (for Obstruction Removals) at 48" Culvert Line Temp. S.O.E. (400 lf x 12' wide x 15' deep)	2,666.67 cy	30.00 /cy	80,000
Relocated Culvert CLDI - 48"	194.00 lf	850.00 /lf	164,900
Relocated Culvert CLDI - 48" Elbow	2.00 ea	4,000.00 /ea	8,000
Relocated Culvert CLDI - 48" tee	1.00 ea	6,500.00 /ea	6,500
Relocated Culvert CLDI - 48" riser	12.00 lf	850.00 /lf	10,200
Relocated Culvert CLDI - 48" x36" reducer	1.00 ea	4,500.00 /ea	4,500
Relocated Culvert CLDI - 36"	462.00 lf	550.00 /lf	254,100
Relocated Culvert CLDI - 36" Elbow	12.00 ea	2,500.00 /ea	30,000
Relocated Culvert CLDI - 36" tee	2.00 ea	4,500.00 /ea	9,000
Relocated Culvert CLDI - 36" riser	35.00 lf	550.00 /lf	19,250
Drain Manhole 12' diam - Phase 1	2.00 ea	12,000.00 /ea	24,000
Video Inspections of New Drainage Piping w/ DVD Media - phase 1	698.00 lf	5.00 /lf	3,490
Clean & Flush New Drainage Piping phase 1	698.00 lf	2.00 /lf	1,396
Excavation for 48" Drain Culvert line within SOE & cross trench bracing (9,150 sf profile x 12'w)	4,060.11 cy	40.00 /cy	162,404
Backfill at 48" Drain Culvert line	5,500.00 cy	60.00 /cy	330,000
<i>334001 Relocate 48" Storm Drain</i>		/lf	1,957,741

G3005 Enabling Utilities 1,968,416

G3010 Water Supply

331000 Water Utilities

Water line - 6"/8"	940.00 lf	104.50 /lf	98,230
Tie into existing	4.00 ea	10,000.00 /ea	40,000
Pressure test & chlorinate - ph 1	940.00 lf	5.00 /lf	4,700
<i>331000 Water Utilities</i>		/gsf	142,930



CONSIGLI

Est. 1905

Arlington High School

4/19/2020

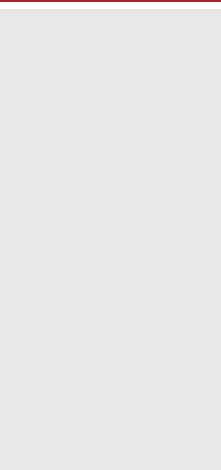
60% CD Estimate

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
G3010 Water Supply		/gsf	142,930
G3020 Sanitary Sewer			
<i>333000 Sanitary Sewerage</i>			
Sanitary sewer piping - (6") - ph 1	245.00 lf	82.00 /lf	20,090
Intercept and connect existing sewer to new manhole - Phase 1	1.00 ea	5,500.00 /ea	5,500
Sanitary sewer manholes - ph 1	3.00 ea	5,500.00 /ea	16,500
Sanitary sewer manholes doghouse - ph 1	1.00 ea	9,500.00 /ea	9,500
Sanitary sewer testing - structures - ph 1	3.00 ea	220.00 /ea	660
Clean & Flush New Sanitary Piping - ph 1	245.00 lf	2.00 /lf	490
Video Inspections of New Sanitary Piping w/ DVD Media - ph 1	245.00 lf	9.50 /lf	2,328
<i>333000 Sanitary Sewerage</i>		<i>/gsf</i>	<u>55,068</u>
G3020 Sanitary Sewer		/gsf	55,068
G3030 Storm Drainage			
<i>334000 Stormwater Utilities</i>			
HDPE - 12" - ph 1	1,005.00 lf	90.00 /lf	90,450
Drain Manholes (< 8' dia.) - ph 1	5.00 ea	5,500.00 /ea	27,500
Drain Manhole - doghouse	1.00 ea	9,000.00 /ea	9,000
Drain AD	5.00 ea	2,000.00 /ea	10,000
Drain Catch Basin - ph 1	1.00 ea	4,500.00 /ea	4,500
<i>334000 Stormwater Utilities</i>		<i>/gsf</i>	<u>141,450</u>
G3030 Storm Drainage		/gsf	141,450
G3040 Heating Distribution			
<i>335000 E/B for Gas</i>			
Excavation / backfill for gas line - Option 1 ph 1	340.00 lf	104.50 /lf	35,530
Excavation / backfill for gas line - Option 2 ph 1	65.00 lf	104.50 /lf	6,793
Excavation / backfill for gas line - to Phase 1 Building off of Option #1	40.00 lf	30.00 /lf	1,200
<i>335000 E/B for Gas</i>		<i>/gsf</i>	<u>43,523</u>
G3040 Heating Distribution		/gsf	43,523
G30 Site Civil/Mechanical Utilites			2,351,386
G40 Site Electrical Utilities			
G40 Electrical Utilities			
<i>336000 Excavation/Bkfl and Lightpole Bases for Electric</i>			
Excavation / backfill for duct bank	1,180.00 lf	75.00 /lf	88,500
Excavation / backfill for electric manhole	8.00 ea	1,000.00 /ea	8,000
Excavation / backfill for site lighting - ph 1	2,000.00 lf	25.00 /lf	50,000
E/b for light pole bases	35.00 ea	400.00 /ea	14,000
E/b for electric handholes - ph 1	1.00 ea	880.00 /ea	880
Transformer pads	2.00 ea	2,750.00 /ea	5,500
<i>336000 Excavation/Bkfl and Lightpole Bases for Electric</i>		<i>/gsf</i>	<u>166,880</u>
G40 Electrical Utilities		/gsf	166,880

G4090 Early Bid Package #2



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount
260099 Electric EBP#2 Wayne J Griffin 260099 Electric EBP#2	1.00 ls	187,200.00 /ls /gsf	187,200 187,200
G4090 Early Bid Package #2		/gsf	187,200
G40 Site Electrical Utilities			354,080
G Sitework			4,108,743
F Early Bid Package #2			8,810,430



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60% CD Estimate

Add Alternates

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount	Grand Total Amount
Electric 1 Adjust (77) Classroom LTG CTRL from 3-Zone to 5-Zone			42,109	48,055
Electric 2 Remote Mount (369) LED Drivers at 100LF from Fixture			268,542	306,460
Electric 3 Provisions for Future PV			15,143	17,281
Electric 4 Networked 0-10V Lighting Control System			306,375	349,635
Interior 1 Replace Polished Concrete with Terrazzo			265,443	301,146
Interior 2 Folding Glass Door at Library			24,453	27,906
Site 1 Add Sports Lighting			1,110,000	1,266,731
Site 2 Add Minuteman Bike Path Ramp			694,408	800,478
Site 3 Add Traffic Light at Mill Street			350,000	404,320
Site 4 Add 2 Batting Cages			94,300	108,935
Site 5 Add 2 Bull Pens			27,990	32,334
Site 6 Maroon Monster Windscreen			56,000	64,691
Site 7 Increase Wood Terrace Seating			45,257	52,281



60% CD Estimate
Add Alternates

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount	Grand Total Amount
Electric 1 Adjust (77) Classroom LTG CTRL from 3-Zone to 5-Zone				
260923 Lighting Control Devices				
Digital wall (scene) switch, 3-button	(154.00) ea	249.56 /ea	(38,433)	(43,860)
Digital wall (scene) switch, 5-button	154.00 ea	298.76 /ea	46,010	52,506
Digital dimming room controller, 3-relay	(77.00) ea	478.88 /ea	(36,874)	(42,080)
Digital dimming room controller, 5-relay	77.00 ea	596.01 /ea	45,893	52,373
Input/output modules (per classroom)	77.00 ea	178.98 /ea	13,782	15,728
MC Cable (12/2) - 20A	2,775.00 lf	4.23 /lf	11,732	13,388
260923 Lighting Control Devices			42,109	48,055
Electric 1 Adjust (77) Classroom LTG CTRL from 3-Zone to 5-Zone			42,109	48,055
Electric 2 Remote Mount (369) LED Drivers at 100LF from Fixture				
265000 Lighting				
Remote mount LED driver	369.00 ea	105.11 /ea	38,784	44,260
Low voltage cable (plenum) - 75%	27,675.00 lf	4.74 /lf	131,223	149,751
Low voltage cable (EMT) - 25%	9,225.00 lf	10.68 /lf	98,536	112,449
265000 Lighting			268,542	306,460
Electric 2 Remote Mount (369) LED Drivers at 100LF from Fixture			268,542	306,460
Electric 3 Provisions for Future PV				
260508 Site Electric				
Empty conduit - sch 40 PVC: 2 x 2" [P.V.]	475.00 lf	13.20 /lf	6,270	7,156
Magnetic warning tape - 1/8"	475.00 lf	5.08 /lf	2,412	2,753
Hand hole & cover - 2'x2'x3'	4.00 ea	752.96 /ea	3,012	3,437
260508 Site Electric			11,694	13,346
260526 Grounding and Bonding for Electrical Systems				
Handhole grounding & bonding	4.00 ea	269.86 /ea	1,079	1,232
260526 Grounding and Bonding for Electrical Systems			1,079	1,232
262705 Distribution Feeders				
Thruwall & floor double seal	2.00 ea	1,184.72 /ea	2,369	2,704
262705 Distribution Feeders			2,369	2,704
Electric 3 Provisions for Future PV			15,143	17,281
Electric 4 Networked 0-10V Lighting Control System				
260923 Lighting Control Devices				
Fully wired 0-10V networked lighting control system (Wattstopper/DLM/n-Light)	408,500.00 sf	0.75 /sf	306,375	349,635



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount	Grand Total Amount
260923 Lighting Control Devices			306,375	349,635
Electric 4 Networked 0-10V Lighting Control System			306,375	349,635
Interior 1 Replace Polished Concrete with Terrazzo				
033650 Concrete Finishes (polished concrete)				
Polished & dyed concrete	(11,541.00) sf	11.00 /sf	(126,951)	(146,654)
033650 Concrete Finishes (polished concrete)			(126,951)	(146,654)
096600 Terrazzo				
Terrazzo	11,541.00 sf	34.00 /sf	392,394	447,800
096600 Terrazzo			392,394	447,800
Interior 1 Replace Polished Concrete with Terrazzo			265,443	301,146
Interior 2 Folding Glass Door at Library				
055000 Metal Fabrications				
Steel to support folding partition	1.00 ls	3,000.00 /ls	3,000	3,424
055000 Metal Fabrications			3,000	3,424
080007 Glazing				
9/16" Laminated glass in 1" alum frame	(158.91) sf	55.00 /sf	(8,740)	(9,974)
080007 Glazing			(8,740)	(9,974)
083513 Folding Doors				
Interior glass folding door (Nana Wall)	158.91 ea	190.00 /ea	30,193	34,456
083513 Folding Doors			30,193	34,456
Interior 2 Folding Glass Door at Library			24,453	27,906
Site 1 Add Sports Lighting				
265098 Sports Lighting				
SP1: athletic lighting w/ electrical components & enclosures -90' h	12.00 ea	92,500.00 /ea	1,110,000	1,266,731
265098 Sports Lighting			1,110,000	1,266,731
Site 1 Add Sports Lighting			1,110,000	1,266,731
Site 2 Add Minuteman Bike Path Ramp				
312000 Earth Work				
Grading for bike ramp	1.00 ls	40,000.00 /ls	40,000	46,208
312000 Earth Work			40,000	46,208
321010 Pedestrian Paving				



60% CD Estimate

Add Alternates

Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount	Grand Total Amount
321010 Pedestrian Paving				
Fine grade under site concrete	3,700.00 sf	0.40 /sf	1,480	1,710
Gravel base at pavement (1/L7.02) 8"	115.00 cy	35.20 /cy	4,048	4,676
Pedestrian pavement	411.11 sy	38.00 /sy	15,622	18,047
321010 Pedestrian Paving			21,150	24,433
321020 Bike Ramps				
Bike guard rail w/ mesh - North (2/L7.7) - straight	410.00 lf	275.00 /lf	112,750	128,670
Bike guard rail w/ mesh - North (2/L7.7) - radius	25.00 lf	350.00 /lf	8,750	9,986
Gravel base course bit bike path paving (3/L7.02) 8"	138.00 cy	35.20 /cy	4,858	5,611
Trail surface at bikeway- 3.5"	500.00 sy	38.00 /sy	19,000	21,949
Allowance for path walls and retaining Wall	1.00 ls	400,000.00 /ls	400,000	462,080
321020 Bike Ramps			545,358	628,296
321825 Sport Fields				
Fixed ball control netting with high wind safety release - from 8'to 16"	4,800.00 sf	8.00 /sf	38,400	44,360
Posts to support baseball net - 18"h assume 20' oc	30.00 ea	1,650.00 /ea	49,500	57,182
321825 Sport Fields		/sf	87,900	101,542
Site 2 Add Minuteman Bike Path Ramp			694,408	800,478
Site 3 Add Traffic Light at Mill Street				
135400 Traffic Signal				
Traffic signal at Mill Street	1.00 ls	350,000.00 /ls	350,000	404,320
135400 Traffic Signal			350,000	404,320
Site 3 Add Traffic Light at Mill Street			350,000	404,320
Site 4 Add 2 Batting Cages				
321825 Sport Fields				
Netting at batting cage with tension wires -355' x 14'h	4,970.00 sf	10.00 /sf	49,700	57,413
Post at batting cage - 8.5" diam x 21.5' in 8' of concrete	344.00 lf	25.00 /lf	8,600	9,935
Clay at batting cages	2,400.00 sf	15.00 /sf	36,000	41,587
321825 Sport Fields		/sf	94,300	108,935
Site 4 Add 2 Batting Cages			94,300	108,935
Site 5 Add 2 Bull Pens				
321825 Sport Fields				
CLF at bull pen - 4.0'	320.00 lf	65.00 /lf	20,800	24,028
CLF gate at bull pen - 4'x4'	2.00 ea	580.00 /ea	1,160	1,340
CLF at bull pen - 8.0'	36.00 lf	80.00 /lf	2,880	3,327
Clay at bull pens	110.00 sf	15.00 /sf	1,650	1,906
Bases and anchors	1.00 ls	1,500.00 /ls	1,500	1,733



Spreadsheet Level	Takeoff Quantity	Total Cost/Unit	Total Amount	Grand Total Amount
321825 Sport Fields		/sf	27,990	32,334
Site 5 Add 2 Bull Pens			27,990	32,334
Site 6 Maroon Monster Windscreen				
321825 Sport Fields				
Maroon Monster	140.00 lf	400.00 /lf	56,000	64,691
321825 Sport Fields		/sf	56,000	64,691
Site 6 Maroon Monster Windscreen			56,000	64,691
Site 7 Increase Wood Terrace Seating				
321400 Site Improvements				
Wood terraced seating on frame IPE	340.00 sf	133.11 /sf	45,257	52,281
321400 Site Improvements			45,257	52,281
Site 7 Increase Wood Terrace Seating			45,257	52,281



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EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
02.01 SELECTIVE DEMOLITION	9,800.00 gsf	7.33 /gsf	71,788
02.02 ASBESTOS & HZRD MATERIAL ABATEMENT	9,800.00 sf	5.50 /sf	53,900
03.01 CONCRETE	9,800.00 gsf	1.41 /gsf	13,818
04-20 MASONRY	9,800.00 gsf	0.16 /gsf	1,600
07.03 ROOFING	9,800.00 gsf	1.49 /gsf	14,565
08.01 DOORS, FRAMES & HARDWARE	9,800.00 gsf	4.81 /gsf	47,120
08.02 GLASS & GLAZING	9,800.00 gsf	1.86 /gsf	18,200
09.01 DRYWALL	9,800.00 gsf	7.66 /gsf	75,072
09.02 TILE	9,800.00 gsf	2.48 /gsf	24,344
09.04 ACOUSTICAL CEILINGS (TS)	9,800.00 gsf	4.31 /gsf	42,257
09.06 RESILIENT FLOORING & CARPET	9,800.00 gsf	1.46 /gsf	14,319
09.09 PAINTING (TS)	9,800.00 gsf	4.48 /gsf	43,896
10.03 SPECIALTIES	9,800.00 gsf	0.39 /gsf	3,853
22-01 PLUMBING (TS)	9,800.00 gsf	4.71 /gsf	46,137
23-01 HVAC (TS)	9,800.00 gsf	19.99 /gsf	195,920
26-01 ELECTRICAL (TS)	9,800.00 gsf	20.34 /gsf	199,337
31.01 EARTHWORK			17,400

Estimate Totals

Description	Amount	Totals	Rate	Cost per Unit
Subtotal	883,526	883,526		
Non-trade sub bonds	4,740		1.400 %	
Design & Estimating Contingency	70,682		8.000 %	
Escalation				
Subtotal	75,422	958,948		
General Conditions (C.1-3)				
General Requirements (C.5-6)	157,200			
P&P Bond	7,672		0.800 %	
Builder's Risk	5,754		0.600 %	
GL Insurance	11,507		1.200 %	
Subtotal	182,133	1,141,081		
Contractor's Contingency	34,232		3.000 %	
Fee	23,506		2.000 %	
Total		1,198,819		



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
02.01 SELECTIVE DEMOLITION			
02.41.40 Demolition - Walls / Partitions			
Cut new opening in GWB and stud partition	3.00 lf	300.00 /lf	900
Cut new opening in plaster and stud partition	3.00 lf	90.00 /lf	270
Infill opening between top of partition and bottom of structure per 17/A1.1.5	6.00 lf	25.00 /lf	150
Remove all wall mounted boards, furniture/rugs and AV equipment at B137	956.00 sf	6.00 /sf	5,736
Remove all wall mounted boards, furniture/rugs and AV equipment at B152	1,609.00 sf	6.00 /sf	9,654
Remove all wall mounted boards, furniture/rugs and AV equipment at T119	838.00 sf	6.00 /sf	5,028
Remove benches	20.00 ea	10.00 /ea	200
Remove existing cabinet	12.00 lf	12.00 /lf	144
Remove existing office partitions, door and salvage for reuse	1.00 ls	6,000.00 /ls	6,000
Remove existing shower valve cabinet	1.00 ea	250.00 /ea	250
Remove existing wall, door and frame	1.00 ls	12,000.00 /ls	12,000
Remove floor drain with associated plumbing	1.00 ls	2,000.00 /ls	2,000
Remove GWB and stud partition, complete	1.00 ls	6,250.07 /ls	6,250
Remove lockers	20.00 ea	112.50 /ea	2,250
Remove lockers with CMU base	11.00 lf	200.00 /lf	2,200
Remove plaster and stud partition, complete	1.00 ls	4,750.95 /ls	4,751
Remove plumbing fixtures	3.00 ea	499.98 /ea	1,500
Remove projection screen and associated attachments	1.00 ls	1,800.06 /ls	1,800
Remove shower partitions	51.00 lf	55.00 /lf	2,805
Remove toilet accessories and all associated attachments	2.00 ea	450.00 /ea	900
Salvage lockers for reuse	9.00 ea	555.56 /ea	5,000
Salvage surface mounted light fixtures for reuse	6.00 ea	333.33 /ea	2,000
Demolition - Walls / Partitions			71,788
02.01 SELECTIVE DEMOLITION	9,800.00 gsf	7.33 /gsf	71,788
02.02 ASBESTOS & HZRD MATERIAL ABATEMENT			
02.82.00 Asbestos Remediation			
Asbestos abatement allowance	9,800.00 sf	5.50 /sf	53,900
Asbestos Remediation			53,900
02.02 ASBESTOS & HZRD MATERIAL ABATEMENT	9,800.00 sf	5.50 /sf	53,900
03.01 CONCRETE			
03.11.25 Concrete Forming - Footings			



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
03.11.25 Concrete Forming - Footings			
Form/place/strip - ADA accessible ramp and landing (22.6' x5'lf)	2.00 cd	3,500.00 /cd	7,000
Place and finish ramp and landing incl load by wheel barrow	138.00 sf	45.00 /sf	6,210
Redimix, assume full thickness to be conc max 8"	2.79 cy	200.00 /cy	558
WWM	200.00 sf	0.25 /sf	50
Concrete Forming - Footings			13,818
03.01 CONCRETE	9,800.00 gsf	1.41 /gsf	13,818
04-20 MASONRY			
04.05.23 Masonry Accessories			
Sawcut new opening in masonry partition at patch, at T112	1.00 cd	1,600.00 /cd	1,600
Masonry Accessories			1,600
04-20 MASONRY	9,800.00 gsf	0.16 /gsf	1,600
07.03 ROOFING			
07.41.00 Roof Panels			
Aluminum roof panels - corrugated	174.00 sf	60.00 /sf	10,440
Roof Panels			10,440
07.60.00 Flashing & Sheet Metal			
Flashing at face of existing building at corrugated roof	24.00 lf	75.00 /lf	1,800
Drip edge at roof of existing building for entire depth of new roof shed	31.00 lf	75.00 /lf	2,325
Flashing & Sheet Metal			4,125
07.03 ROOFING	9,800.00 gsf	1.49 /gsf	14,565
08.01 DOORS, FRAMES & HARDWARE			
08.10.05 Doors & Frames			
Install door & hardware int	18.00 ea	610.00 /ea	10,980
Install door & hardware ext	1.00 ea	609.98 /ea	610
Doors & Frames			11,590
08.11.13 Hollow Metal Doors & Frames			
HM doors - exterior, single	1.00 lvs	565.00 /lvs	565
HM frames - interior, single	16.00 ea	400.00 /ea	6,400
HM frames - interior, double	1.00 ea	450.00 /ea	450
HM frames - exterior	1.00 ea	525.00 /ea	525



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
Hollow Metal Doors & Frames			7,940
08.14.00 Wood Doors			
Wood door - type A	11.00 lvs	520.00 /lvs	5,720
Wood door - type B	2.00 lvs	520.00 /lvs	1,040
Wood door - type C	4.00 lvs	520.00 /lvs	2,080
Wood door - type G	1.00 lvs	520.00 /lvs	520
Wood Doors			9,360
08.71.00 Door Hardware			
Hardware sets - exterior door, w/ panic device	1.00 set	1,050.05 /set	1,050
Hardware sets - standard interior	18.00 set	760.00 /set	13,680
Automatic operators	1.00 ea	3,500.00 /ea	3,500
Card reader system	2.00 ea	/ea	
Buzzer system	1.00 ea	/ea	
Door Hardware			18,230
08.01 DOORS, FRAMES & HARDWARE	9,800.00 gsf	4.81 /gsf	47,120
08.02 GLASS & GLAZING			
08.41.00 Entrances & Storefronts			
New alum door in existing frame	2.00 lvs	6,500.00 /lvs	13,000
Entrances & Storefronts			13,000
08.80.00 Glazing			
Vision panel glazing - tempered glass (TG) premium	4.00 ea	200.00 /ea	800
Vision panel glazing - wire glass	2.00 ea	200.00 /ea	400
Pass thru window -4' long	1.00 ea	4,000.00 /ea	4,000
Glazing			5,200
08.02 GLASS & GLAZING	9,800.00 gsf	1.86 /gsf	18,200
09.01 DRYWALL			
05.05.23 Metal Fastenings			
4" Structural metal studs at windows per 1/A1.1.5 (assuming 2 per window)	1.00 ls	1,000.00 /ls	1,000
Metal Fastenings			1,000
06.10.00 Rough Carpentry			
Blocking at windows per 1/A1.1.5	46.00 lf	40.00 /lf	1,840
Corrugated roof sheathing and framing	174.00 sf	40.00 /sf	6,960



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
Rough Carpentry			8,800
06.11.00 Wood Framing			
Wood rafters at corrugated roof	12.00 ea	188.33 /ea	2,260
4x4 Pressure treated wood posts at corrugated roof	2.00 ea	13.40 /ea	27
1/2" Plywood furring at windows per 1/A1.1.5	46.00 lf	1.85 /lf	85
Wood Framing			2,372
07.26.00 Vapor Retarders			
Air/vapor barrier - exterior walls at windows per 1/A1.1.5	232.00 sf	12.00 /sf	2,784
Vapor Retarders			2,784
09.21.13 Gypsum Board Assemblies - Walls			
Gyp partition type 1A - 6" stud + gyp (1+1+ insul) - 20'	176.00 sf	15.44 /sf	2,717
Gyp partition type 1B - 3-5/8" stud + gyp (1+1+ insul) - 287'	2,587.00 sf	15.44 /sf	39,943
Gyp partition type 2A - 6" stud + gyp (2+1+ insul) - 6'	56.00 sf	15.44 /sf	865
Gyp partition type 8B - 3-5/8" stud + gyp (1) - 25'	229.00 sf	11.88 /sf	2,721
Gyp partition type 8D - 2-1/2" stud + gyp (1) - 7'	63.00 sf	11.88 /sf	748
Additional wood blocking - building interior	1.00 ls	5,000.00 /ls	5,000
Install hm frame	18.00 ea	175.00 /ea	3,150
Gypsum Board Assemblies - Walls			55,144
09.21.22 Gypsum Board Assemblies - Gypsum Board			
5/8" GWB, 2 layers at windows per 1/A1.1.5	464.00 sf	8.00 /sf	3,712
5/8" GWB at window sill per 15/A1.1.5	45.00 sf	8.00 /sf	360
Gypsum Board Assemblies - Gypsum Board			4,072
10.22.00 Partitions			
Reinstall demountable partitions at T132B	1.00 ls	900.00 /ls	900
Partitions			900
09.01 DRYWALL	9,800.00 gsf	7.66 /gsf	75,072
09.02 TILE			
09.30.00 Tiling			
Patch / repair tile - floors as required	3,043.00 sf	8.00 /sf	24,344
Tiling			24,344
09.02 TILE	9,800.00 gsf	2.48 /gsf	24,344
09.04 ACOUSTICAL CEILINGS (TS)			



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
09.51.00 Acoustical Ceilings			
ACT C 1A	7,683.00 sf	5.50 /sf	42,257
Acoustical Ceilings			42,257
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09.04 ACOUSTICAL CEILINGS (TS)	9,800.00 gsf	4.31 /gsf	42,257
<hr/>			
09.06 RESILIENT FLOORING & CARPET			
09.68.00 Carpeting			
Resilient flooring	717.00 sf	10.00 /sf	7,170
Floor prep	717.00 gsf	3.00 /gsf	2,151
RB - Rubber base	1,428.00 lf	3.50 /lf	4,998
Carpeting			14,319
<hr/>			
09.06 RESILIENT FLOORING & CARPET	9,800.00 gsf	1.46 /gsf	14,319
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09.09 PAINTING (TS)			
08.11.13 Hollow Metal Doors & Frames			
Paint HM frame -	18.00 ea	175.00 /ea	3,150
Hollow Metal Doors & Frames			3,150
<hr/>			
09.90.00 Painting & Coating			
Paint drywall partitions	17,765.00 sf	1.10 /sf	19,542
Paint existing classrooms	9,424.00 gsf	2.25 /gsf	21,204
Painting & Coating			40,746
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09.09 PAINTING (TS)	9,800.00 gsf	4.48 /gsf	43,896
<hr/>			
10.03 SPECIALTIES			
10.28.00 Toilet, Bath, & Laundry Accessories			
Toilet paper dispenser	5.00 ea	99.00 /ea	495
Sanitary napkin disposal	5.00 ea	213.95 /ea	1,070
Grab bars (42")	3.00 ea	137.50 /ea	413
Soap dispenser - surface mounted, install only	4.00 ea	82.50 /ea	330
Waste receptacle - recessed (1 per single bathroom 2 per gang bathroom)	5.00 ea	137.50 /ea	687
Framed mirrors (18" x 36")	5.00 ea	171.60 /ea	858
Toilet, Bath, & Laundry Accessories			3,853
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10.03 SPECIALTIES	9,800.00 gsf	0.39 /gsf	3,853



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
22-01 PLUMBING (TS)			
22.00.05 PLUMBING - General Requirements			
General requirements (management, permits, as-builts, coring, fire stopping)	9,800.00 sf	0.50 /sf	4,900
Demolition/cut, drop & make safe (sq. ft.)	9,800.00 sf	0.35 /sf	3,430
Project management (20 hrs/wk)	1.00 wks	3,200.00 /wks	3,200
PLUMBING - General Requirements			11,530
22.07.00 PLUMBING - Insulation			
Insulation/copper pipe/fiberglass	185.00 lf	8.19 /lf	1,515
PLUMBING - Insulation			1,515
22.10.00 Plumbing Facility Water Distribution			
Shock absorbers	1.00 ea	149.06 /ea	149
Tie-ins to existing domestic water	3.00 ea	436.75 /ea	1,310
Domestic water AG/type "L" copper/solder - 1/2"	120.00 lf	16.74 /lf	2,009
Domestic water AG/type "L" copper/solder - 1-1/4"	65.00 lf	27.76 /lf	1,804
- Domestic water piping accessories	185.00 lf	2.59 /lf	480
- Domestic water clean & test piping system	1.00 ea	599.00 /ea	599
Plumbing Facility Water Distribution			6,351
22.13.00 PLUMBING - Sanitary, Waste & Vent Piping			
Floor cleanouts	1.00 ea	266.25 /ea	266
Tie-ins to existing sanitary & vent - U/G	1.00 ea	436.75 /ea	437
Sanitary UG/cast iron single hub pipe & ftgs. - 4"	10.00 lf	47.30 /lf	473
Tie-ins to existing sanitary & vent - A/G	3.00 ea	380.63 /ea	1,142
Sanitary AG/cast iron no hub pipe & ftgs. - 2"	40.00 lf	36.56 /lf	1,462
Sanitary AG/cast iron no hub pipe & ftgs. - 3"	25.00 lf	46.42 /lf	1,161
Sanitary AG/cast iron no hub pipe & ftgs. - 4"	65.00 lf	54.76 /lf	3,559
- Sanitary waste & vent piping accessories	140.00 lf	1.84 /lf	258
- Sanitary waste & vent clean & test piping system	1.00 ea	549.00 /ea	549
PLUMBING - Sanitary, Waste & Vent Piping			9,307
22.40.00 PLUMBING - Fixtures			
Water closet/wall mnt./carrier/sensor flush valve	2.00 ea	1,615.50 /ea	3,231
Water closet/wall mnt./carrier/sensor flush valve/ADA	3.00 ea	1,649.50 /ea	4,949
Lavatory/wall hung/sensor faucet/carrier/ADA	4.00 ea	1,407.13 /ea	5,629
Sink/lay-in/1-bowl	1.00 ea	1,131.00 /ea	1,131
- Plumbing fixtures offload & distribution	10.00 ea	112.25 /ea	1,123
- Plumbing fixtures rough-in	10.00 ea	137.25 /ea	1,373
PLUMBING - Fixtures			17,434



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
22-01 PLUMBING (TS)	9,800.00 gsf	4.71 /gsf	46,137
23-01 HVAC (TS)			
23.00.05 HVAC - General Requirements			
General requirements (permits, as-builts, coring, fire stopping)	9,800.00 sf	1.00 /sf	9,800
3D/BIM coordination (1 coordinator/week)	0.50 wks	4,500.00 /wks	2,250
Demolition/cut, drop & make safe (sq. ft.)	9,800.00 sf	0.65 /sf	6,370
Project management (20 hrs/wk)	2.00 wks	2,500.00 /wks	5,000
Temporary HVAC	1.00 ls	5,000.00 /ls	5,000
HVAC - General Requirements			28,420
23.05.93 HVAC Testing Adjusting & Balancing (TAB)			
Testing & balancing/cost per sq. ft.	9,800.00 sf	0.85 /sf	8,330
HVAC Testing Adjusting & Balancing (TAB)			8,330
23.07.00 HVAC - Insulation			
Insulation/ductwork/blanket wrap	2,700.00 sf	5.37 /sf	14,501
Insulation/pipe/copper (avg. size)	285.00 lf	11.12 /lf	3,168
HVAC - Insulation			17,669
23.09.00 HVAC - Automatic Temperature Controls			
ATC - Tie-ins to exist. BAS	1.00 ls	3,329.50 /ls	3,330
ATC - ERU's/package (w/factory controls)	4.00 ea	2,197.70 /ea	8,791
ATC - Exhaust fans - 3 pts.	6.00 pnt	878.11 /pnt	5,269
ATC - electric terminal equipment - 2 pts.	26.00 pnt	464.06 /pnt	12,065
HVAC - Automatic Temperature Controls			29,454
23.23.00 Refrigeration Piping			
Refrigerant piping/type "ACR" soft copper/brazed - avg. size	210.00 lf	31.49 /lf	6,613
- Refrigeration piping accessories	210.00 lf	2.56 /lf	538
- Refrigeration clean & test piping system (nitrogen purge)	210.00 lf	1.31 /lf	275
- Refrigerant charge/R410B	50.00 lbs	48.19 /lbs	2,410
Refrigeration Piping			9,836
23.23.50 AC Condensate Drains			
A/C cond. pump	2.00 ea	239.37 /ea	479
A/C cond. drains/type "L" copper	75.00 lf	32.33 /lf	2,425
AC Condensate Drains			2,903
23.30.00 HVAC - Sheetmetal & Fans			
Sheetmetal & accessories/galvanized	3,200.00 lb	12.74 /lb	40,768
SM - Diffusers, registers & grilles	28.00 ea	185.03 /ea	5,181



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
HVAC - Sheetmetal & Fans			45,949
23.34.00 HVAC Fans - Exhaust & Supply			
F-1 centrifugal inline 150 cfm	1.00 ea	662.57 /ea	663
F-2 sidewall	1.00 ea	525.06 /ea	525
HVAC Fans - Exhaust & Supply			1,188
23.37.23 HVAC Gravity Ventilators - Louvers, Gravity Hoods, Wall Caps			
Exterior louver	5.00 ea	437.55 /ea	2,188
HVAC Gravity Ventilators - Louvers, Gravity Hoods, Wall Caps			2,188
23.70.00 HVAC - Central Air Handling Equipment			
ERV/indoor horiz.	4.00 ea	5,650.45 /ea	22,602
HVAC - Central Air Handling Equipment			22,602
23.80.20 Mini-Split AC & Heat Pump Systems			
Window AC unit (LG-AEC-08LY)	3.00 ea	625.06 /ea	1,875
Mini-split HP/multi-zone/indoor/wall mnt. - 6 mbh	1.00 ea	805.13 /ea	805
Mini-split HP/multi-zone/indoor/wall mnt. - 18 mbh	1.00 ea	1,038.64 /ea	1,039
Multi-zone HP /outdoor cond. unit/heat or cool - 18 mbh	1.00 ea	1,556.11 /ea	1,556
ATC - Mini-split condensing units (w/factory controls)	1.00 ea	1,300.30 /ea	1,300
ATC - Mini-split indoor units (w/factory controls)	2.00 ea	850.19 /ea	1,700
Mini-Split AC & Heat Pump Systems			8,276
23.82.00 Heating & Cooling Terminal Equipment			
Terminal equipment misc.	9,800.00 sf	0.75 /sf	7,350
Duct mount coil/electric	4.00 ea	775.10 /ea	3,100
Baseboard radiation/electric - 6'	3.00 ea	235.04 /ea	705
Baseboard radiation/electric - 8'	4.00 ea	270.04 /ea	1,080
Wall heaters/electric	2.00 ea	250.04 /ea	500
Heating & Cooling Terminal Equipment			12,736
23.90.00 HVAC Equipment Rigging/Setting/Start Up			
Equipment rigging/setting/start-up	9,800.00 sf	0.65 /sf	6,370
HVAC Equipment Rigging/Setting/Start Up			6,370
23-01 HVAC (TS)	9,800.00 gsf	19.99 /gsf	195,920
26-01 ELECTRICAL (TS)			
26.00.05 Electrical General Requirements			
Project management (20 hrs/wk)	2.00 wks	2,800.00 /wks	5,600
3D/BIM coordination (1 coordinator/week)	1.00 wks	4,500.00 /wks	4,500



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
26.00.05 Electrical General Requirements			
Permit fee (excluded - waived by municipality)	ls	/ls	
Premium time for shutdowns / tie-ins	1.00 ls	4,104.80 /ls	4,105
Revise panelboard directory	3.00 ea	560.48 /ea	1,681
Circuit survey of all existing area receptacles	1.00 ea	3,783.84 /ea	3,784
Electrical General Requirements			19,670
26.00.10 Temporary Electric and Fire Alarm			
Fire alarm impairment plan (NFPA-101 / NFPA-241)	1.00 ls	2,500.00 /ls	2,500
Temporary manual pull station	1.00 ea	159.18 /ea	159
Temporary heat detectors	4.00 ea	172.55 /ea	690
Temporary monitor modules (addressable)	1.00 ea	115.22 /ea	115
Temporary notification appliances	2.00 ea	143.90 /ea	288
MC Cable (FA) - #14-4/c	100.00 lf	4.11 /lf	411
MC Cable (FA) - #16-2/c	100.00 lf	3.26 /lf	326
Temporary fire alarm system testing	1.00 ls	1,000.00 /ls	1,000
Temporary fire alarm system programming	1.00 ls	500.00 /ls	500
Temporary Electric and Fire Alarm			5,989
26.05.05 Demolition for Electrical			
Remove existing light fixture	42.00 ea	30.66 /ea	1,288
Remove existing receptacle	17.00 ea	25.52 /ea	434
Remove existing fire alarm device	22.00 ea	33.16 /ea	729
Remove existing wall switch	29.00 ea	25.52 /ea	740
Remove existing junction box	1.00 ea	33.16 /ea	33
Disconnect existing mechanical equipment power connection	5.00 ea	66.31 /ea	332
Remove existing wall mounted furniture feed	4.00 ea	127.62 /ea	510
Demolition for Electrical			4,066
26.05.83 Equipment Wiring			
Power for condensate pumps	2.00 ea	446.55 /ea	893
Power for exhaust fans	2.00 ea	907.22 /ea	1,814
Power for indoor ERV's	4.00 ea	1,731.44 /ea	6,926
Power for mini-split indoor units	2.00 ea	861.79 /ea	1,724
Power for mini-split outdoor unit	1.00 ea	2,441.92 /ea	2,442
Power for misc. terminal equipment	9,800.00 sf	0.25 /sf	2,450
Power for duct mounted electric coils	4.00 ea	730.48 /ea	2,922
Power for electric wall heaters	2.00 ea	907.22 /ea	1,814
Power for electric baseboard radiation	7.00 ea	833.10 /ea	5,832
Power for sensor faucets	4.00 ea	152.36 /ea	609
Power for sensor flush valves	5.00 ea	152.36 /ea	762
Equipment Wiring			28,188



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
26.09.23 Lighting Control Devices			
On-site programming & startup (manufacturer)	1.00 ls	4,141.92 /ls	4,142
Single pole switch (120/277V)	1.00 ea	68.43 /ea	68
Wall occupancy sensor switch	6.00 ea	291.67 /ea	1,750
Low voltage switch	17.00 ea	224.82 /ea	3,822
Wall mounted vacancy sensor switch w/ 0-10V dimming	10.00 ea	274.02 /ea	2,740
Ceiling PIR occupancy sensor	25.00 ea	261.72 /ea	6,543
Occupancy sensor power pack (120V)	25.00 ea	81.49 /ea	2,037
Daylight sensor	4.00 ea	345.23 /ea	1,381
Routing devices	10.00 ea	212.82 /ea	2,128
Plug load controller (20A/120V)	9.00 ea	317.71 /ea	2,859
Network switch	1.00 ea	2,531.44 /ea	2,531
Mesh border routers	4.00 ea	1,075.48 /ea	4,302
MC Cable (12/2) - 20A	1,000.00 lf	3.63 /lf	3,632
MC Cable (12/4) - 20A	250.00 lf	4.53 /lf	1,132
EMT (12/2) - 20A	50.00 lf	7.05 /lf	353
EMT (12/3) - 20A	180.00 lf	7.12 /lf	1,281
RJ45 Cable, 15LF (plenum-rated)	29.00 ea	73.10 /ea	2,120
RJ45 Cable, 25LF (plenum-rated)	27.00 ea	75.84 /ea	2,048
Lighting Control Devices			44,870
26.27.00 Low-Voltage Distribution Equipment			
Circuit breakers: 20A/1P, 120V (existing panels)	1.00 ls	3,962.88 /ls	3,963
Low-Voltage Distribution Equipment			3,963
26.27.26 Wiring Devices			
MC Cable (12/2) - 20A	1,250.00 lf	3.61 /lf	4,507
MC Cable (10/2) - 20A [cord reels]	600.00 lf	4.53 /lf	2,718
EMT (12/2) - 20A	225.00 lf	7.05 /lf	1,587
Simplex receptacle - 20A [copier]	1.00 ea	74.87 /ea	75
Simplex receptacle - 20A [A/C window unit]	3.00 ea	74.87 /ea	225
Simplex receptacle - 20A [refridgerator]	1.00 ea	74.87 /ea	75
Duplex receptacle - 20A - surface mounted	9.00 ea	109.47 /ea	985
Duplex receptacle - 20A - GFCI	4.00 ea	88.56 /ea	354
Duplex receptacle - 20A - tamper resistant	18.00 ea	82.85 /ea	1,491
Quadruplex receptacle - 20A	15.00 ea	98.73 /ea	1,481
Power junction w/feed (EMT) - 20A [fire alarm booster panel]	1.00 ea	507.86 /ea	508
Cord reel (20A) w/ quad receptacle	6.00 ea	550.90 /ea	3,305
Wiring Devices			17,311
26.50.00 Lighting			
EB1: wall mounted emergency battery unit	9.00 ea	366.97 /ea	3,303



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
26.50.00 Lighting			
PC01-4: suspended linear LED - 4' length	34.00 ea	452.10 /ea	15,371
PC01-8: suspended linear LED - 8' length	1.00 ea	803.28 /ea	803
PC04: suspended linear LED - 4' length	3.00 ea	452.10 /ea	1,356
RC32: recessed linear LED 2'x2'	3.00 ea	378.70 /ea	1,136
SC18P: suspended linear LED - 5' length	1.00 ea	567.62 /ea	568
SW03: full cutoff LED wall pack	3.00 ea	583.93 /ea	1,752
SW08: wall surface linear LED	1.00 ea	638.28 /ea	638
XWS1: wall mounted exit sign	7.00 ea	352.10 /ea	2,465
MC Cable (12/2) - 20A	620.00 lf	3.61 /lf	2,236
EMT (12/2) - 20A	620.00 lf	7.05 /lf	4,373
Lighting			34,000
28.10.00 Electronic Access Control & Intrusion Detection			
Backbox (1-gang) w/ 1" EMT above ceiling	1.00 ea	111.28 /ea	111
Card reader	1.00 ea	1,789.69 /ea	1,790
Electric lock	1.00 ea	423.60 /ea	424
24V power supply	1.00 ea	312.62 /ea	313
Junction box - 6"x6"x4"	1.00 ea	137.62 /ea	138
Power transfer hinge	1.00 ea	399.96 /ea	400
Access control cable (plenum)	150.00 lf	4.00 /lf	600
Empty Conduit (EMT): 3/4"	25.00 lf	5.33 /lf	133
Connect to existing system	1.00 ea	705.24 /ea	705
Electronic Access Control & Intrusion Detection			4,613
28.46.20 Fire Detection and Alarm			
Manual pull station	2.00 ea	214.02 /ea	428
Smoke detector	21.00 ea	233.09 /ea	4,895
Flow switch connection (via monitor module)	1.00 ea	426.50 /ea	427
Pressure switch connection (via monitor module)	1.00 ea	465.60 /ea	466
Wall mounted visual appliance	15.00 ea	185.04 /ea	2,776
Wall mounted audio/visual appliance	8.00 ea	260.66 /ea	2,085
120V NAC booster panel	1.00 ea	1,570.96 /ea	1,571
Fire alarm annunciator	1.00 ea	1,895.57 /ea	1,896
Key (Knox) box	1.00 ea	855.24 /ea	855
Fire alarm building service contractor costs (American Alarm)	1.00 ls	5,141.92 /ls	5,142
Fire alarm pre-test / final test	2.00 ea	1,415.72 /ea	2,831
Fire alarm device programming	25.00 ea	25.66 /ea	641
MC Cable (FA) - #14-2/c	600.00 lf	3.56 /lf	2,135
MC Cable (FA) - #14-4/c	320.00 lf	4.11 /lf	1,315
MC Cable (FA) - #16-2/c	1,250.00 lf	3.26 /lf	4,069
EMT (red) - 3/4"C	500.00 lf	7.57 /lf	3,784
Fire alarm network cable	150.00 lf	9.02 /lf	1,353



EBP #3 - Summer 2020 Improvements to Existing HS

Description	Takeoff Quantity	Total Cost/Unit	Total Amount
Fire Detection and Alarm			36,667
26-01 ELECTRICAL (TS)	9,800.00 gsf	20.34 /gsf	199,337
31.01 EARTHWORK			
31.23.04 Excavation & Fill - Site Improvements			
Excavation, backfill and gravel base for ramp	1.00 ls	15,000.00 /ls	15,000
E/b for post	2.00 ea	1,200.00 /ea	2,400
Excavation & Fill - Site Improvements			17,400
31.01 EARTHWORK			17,400



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ASSUMPTIONS & QUALIFICATIONS

ARLINGTON HIGH SCHOOL

60% CD ESTIMATE

APRIL 19, 2020



GENERAL

1. Pricing is based on the following:
 - Construction Documents 60% Estimating Drawings and Specifications prepared by HMFH dated 3/18/2012
 - Salvaged Items Photographs (12 pages)
 - Interior Shade Overall Floor Plans 3/22/20
 - Exterior Shade Elevations dated 3/19/20
 - West lot PV Footing Layout 2/6/20
 - Luminaire Schedule dated 3/18/2020 (26 pages)
 - Gate at Mill Street Parking Lot
 - Stadium Seating – PV Conduit Alternate
 - Clarifications to Auditorium drawings A12.7.3 and A12.7.2
 - Drawing L8.3 updated with Notes on Add Alternate
 - Courtyard Curtainwall Bay Sketch dated 4/2/20
 - Fence Clarification Drawing 3/30/20
 - Final Report for Hazardous Materials Identification Study dated 2/28/18, with edits
 - RFI log updated 4/10/2020
2. Pricing is based on current market costs. Escalation is included at a rate of 5.0%.
3. Testing and/or inspections are not included.
4. Builders Risk Insurance is included.
5. All building permit cost is not included and assumed waived by the Town of Arlington.
6. All MEP permit costs are excluded and assumed waived by the Town of Arlington.
7. A Payment and Performance Bond is included.
8. Sales tax is not included as this project is assumed to be tax exempt.
9. Subcontractor insurances are included per Consigli standard subcontract.
10. Utility company back charges, user fees, etc (temporary electric, water, gas, etc.) are excluded.
11. We have included premiums for overtime with bid package #2 (early site work) and asbestos abatement. Overtime for other trades may require funding from the phasing allowance.
12. Winter/Weather and weather protection conditions are included as an allowance of \$408,750 as part of Consigli's cost proposal. Any and all costs and/or schedule implications associated with weather conditions shall be allocated appropriately to the allowance. This allowance includes, but is not limited to the following:
 - snow and ice removal
 - tarping or other temporary enclosures
 - temporary heaters, duct connections, etc.
 - fuel consumptions
 - any other labor and material costs related to winter weather
 - changes in schedule such as accelerating prior to a storm in order to avoid major delays later.
13. Site Security costs or provisions are not included.

ASSUMPTIONS & QUALIFICATIONS

ARLINGTON HIGH SCHOOL

60% CD ESTIMATE

APRIL 19, 2020



14. Pricing excludes schedule and/or cost impacts that may arise out of the Covid 19 pandemic due to events and circumstances occurring on this Project or off site, including but not limited to material shortages, labor shortages, supply chain disruption, delays to delivery, quarantines, or Owner or Government stop work orders. If incurred, impacts to cost and schedule will be addressed via change order.
15. Assumptions and Qualifications included with the EBP#2 GMP are to be incorporated into the overall project GMP.

BUILDING

16. We have included fire rated glass within wood doors where indicated. We have not included fire rated glass within rated light wall partitions.
17. All exterior glazing is double pane.
18. Moisture mitigation is included at carpet and rubber sports flooring only.
19. A premium high moisture adhesive has been included at reliant flooring.
20. Sheet marmoleum is included in PreK hallways. All other Resilient flooring to be a 2.0 mil Marmoleum Composite Tile (MCT).

MECHANICAL

21. CH-1 (39 tons) and CH-2 (64 tons) are indicated on the schedule but are not included as they do not seem to fit with the new HVAC design.
22. ACH-1-4 (63 tons ea.) are indicated on the schedule but are not included as they do not seem to fit with the new HVAC design.
23. Interior VRF units are included with assumed sizing as the tags on plans do not match an equipment schedule.
24. HVAC is included in part E with a system based on VRF.
25. We have not anticipated stair pressurization or other premiums associated with high rise construction.
26. Cost for HRU's & ERU's are included as determined at reconciliation (\$15/cfm range). Consigli received a number from Trane at \$4.3m (about \$20/cfm) but feel that this is high and through the competitive nature of the material procurement costs will be in line with what is included in the 60% cost estimate

ELECTRICAL

27. Electrical and fire alarm permit fees are excluded.
28. Temporary fire alarm heat detection coverage is excluded.
29. Utility pad mount transformers, primary switchgear, primary cabling, and primary terminations by Utility Co.
30. Interior distribution feeders are routed in EMT and aluminum XHHW wire.
31. An allowance of three hundred and fifty (350) lighting control 3-relay digital room controllers are included.
32. An allowance of three hundred (300) lighting control emergency bypass relays are included.
33. Relocation of existing roof mounted PV equipment to new location(s) is excluded.
34. Light fixture type RW01 is to be provided by seating contractor, wired by E.C.
35. We have included conduit and provisions for future AV and lighting at Amphitheater. However, equipment, theater lighting and or dimming system is not included.

ASSUMPTIONS & QUALIFICATIONS

ARLINGTON HIGH SCHOOL

60% CD ESTIMATE

APRIL 19, 2020



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36. Intrusion detection glass break sensors are excluded.
37. A total of ten (10) dual-port electrical vehicle charging stations are included, with 40A dedicated power circuits.
38. Twenty-one (21) duct smoke detectors and wiring of fifty-five (55) comb fire/smoke dampers are included.
39. CATV and communication service entrance fiber optic and copper cabling provided by Verizon/Comcast.
40. A total of one hundred and twenty-four (124) ceiling mounted public address speakers are included.
41. A distributed broadband antenna system (i.e. cell phone repeater) is excluded.
42. Additional electrical and low voltage work outlined in BALA's Memo dated 4/8/20 is included.
43. For fixture type PT03, only three (3) are included with security integration (as spec'd); the remainder are priced as typical illuminated site bollards.
44. Twelve (12) total sports lighting locations are included (in lieu of eleven (11) as shown on drawings).
45. VAV boxes are assumed powered via low voltage cabling (provided by others).

SITework

46. Qualifications for EBP#2 are in addition to the following
47. We have included disposal of regulated soils per specification 312001 – Management and Disposition of Excavated Material. We have included 20% of these quantities with EBP#2 (phase 1) and 80% with phases 2-4.
48. Rock/ledge removal premiums are not included.
49. Preparation of SWPPP is assumed to be by others.
50. Treatment of collected surface or ground water is included as an allowance per the estimate.
51. It is assumed that existing loam may screen and reused in all phases with the use of surface applied amendments only.
52. We have included the disposal of loam and loam tailings as clean, unregulated material.
53. Roof structure at bull pens is not included.

Allowances

54. Winter Conditions and Enclosures - \$408,750.
55. Temporary Construction for Phasing: per estimate
56. Removal of underground fuel storage tank - \$65,000
57. Foundation and obstruction removal - \$75,00
58. Repair of engineered barriers - \$300,000
59. Create clean corridors - \$100,000
60. Street sweeping phases 2-4 - \$90,000
61. Police detail for site work - \$80,000
62. Temporary pedestrian protection and egress paths all phases - \$190,000
63. Irrigation cistern and equipment - \$0
64. Water retention system complete - \$50,000
65. Building signage - \$40,000
66. Vocational and technology equipment - \$0



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60% Construction Document Estimate

Arlington High School
Arlington, MA

Prepared for:

HMFH

April 17, 2020



Arlington High School

17-Apr-20

Arlington, MA

60% Construction Document Estimate

INTRODUCTION

This 60% Construction Document cost estimate was produced from drawings and specifications, dated March 18, 2020 prepared by HMFH and their design team.

This estimate includes all direct construction costs, construction managers overhead and profit and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- All professional fees and insurance
- Building Permit costs
- Removal of existing PV systems
- Removal of contaminated soils
- Rock excavation
- Land acquisition, feasibility, and financing costs
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items (e.g. draperies, furniture and equipment)
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)

Notes per Summary sheets

¹ Costs from UEC report dated 4.1.20 (excludes design and monitoring services)



Arlington High School
Arlington, MA

17-Apr-20

60% Construction Document Estimate

MAIN CONSTRUCTION COST SUMMARY

		Gross Floor Area	\$/sf	Estimated Construction Cost
NEW CONSTRUCTION				
NEW SCHOOL (School 408,590 + Athletic Toilet Facility 800)		409,390	\$377.86	\$154,692,797
DEMOLISH OTHER BUILDING WINGS		392,000	\$8.25	\$3,234,000
REMOVE HAZARDOUS MATERIALS ¹				\$3,274,600
Paramenter School Renovation/Swing space costs				Below the Line
SITework				\$14,808,827
EBP #2				\$8,927,741
SUB-TOTAL		409,390	\$451.74	\$184,937,965
DESIGN AND PRICING CONTINGENCY	3.5%			\$6,160,358
PHASING				Included
ESCALATION				
Phase 1 - July 1, 2020 Start	0.50%			\$322,099
Phase 2 - January 1, 2022 Start	7.93%			\$5,959,900
Phase 3 - July 1, 2023 Start	11.33%			\$2,971,352
Phase 4 - July 1, 2024 Start	13.00%			\$1,327,117
SUB-TOTAL				\$201,678,791
NON TRADES SUB BONDS				Included In Rates
GENERAL CONDITIONS			\$180,000	\$11,931,225
GENERAL REQUIREMENTS				\$4,872,887
BONDS	0.75%			\$2,251,695
INSURANCE	1.10%			\$2,588,155
BUILDERS RISK				\$369,468
PERMIT				NIC
SUB-TOTAL				\$223,692,221
OVERHEAD AND FEE				\$4,705,737
GMP CONTINGENCY	2.5%			\$5,592,306
PHASING	0.5%			Included
TOTAL OF ALL CONSTRUCTION		409,390	\$571.56	\$233,990,264

Paramenter School Renovation

EBP #1

\$2,580,810



CONSTRUCTION COST SUMMARY IN CSI FORMAT

	NEWSCHOOL		TOILET FACILITY		SITEWORK		TOTAL PROJECT	
	Subtotal	Total	Subtotal	Total	Subtotal	Total	Subtotal	Total
NEW SCHOOL BUILDING								
DIV. 2 EXISTING CONDITIONS								
024100 Site Demolition					\$410,122		\$410,122	\$410,122
DIV. 3 CONCRETE		\$11,998,809		\$56,520		\$677,385		\$12,732,714
030513 Concrete Sealers	\$53,525		\$1,130				\$54,655	
033000 Cast In Place Concrete	\$11,432,654		\$55,390		\$677,385		\$12,165,429	
033650 Polished Concrete	\$512,630						\$512,630	
DIV. 4 MASONRY		\$6,570,596		\$148,184				\$6,718,780
042000 Unit Masonry	\$6,570,596		\$148,184				\$6,718,780	
DIV. 5 METALS		\$18,301,980		\$2,880				\$18,304,860
051200 Structural Steel Framing	\$15,852,279						\$15,852,279	
055000 Metal Fabrications	\$2,449,701		\$2,880				\$2,452,581	
DIV. 6 WOODS, PLASTICS & COMPOSITES		\$3,147,475		\$17,120				\$3,164,595
061000 Rough Carpentry	\$1,200,940		\$17,120				\$1,218,060	
062000 Finish Carpentry	\$1,873,035						\$1,873,035	
066400 FRP	\$73,500						\$73,500	
DIV. 7 THERMAL & MOISTURE PROTECTION		\$8,798,380		\$35,732				\$8,834,112
070001 Waterproofing, Dampproofing and Caulking	\$2,403,424		\$16,772				\$2,420,196	
070002 Roofing	\$2,772,095		\$13,200				\$2,785,295	
072100 Thermal Insulation	\$779,131		\$5,760				\$784,891	
074200 Metal Wall Panels	\$1,561,920						\$1,561,920	
075419 PVC Roofing								
078100 Applied Fireproofing	\$1,021,050						\$1,021,050	
078400 Firestopping	\$75,000						\$75,000	
079513 Construction & Expansion Joints	\$185,760						\$185,760	
DIV. 8 DOORS & WINDOWS		\$9,606,447		\$12,400				\$9,618,847
080001 Aluminum Windows	\$837,495						\$837,495	
080002 Glazing	\$965,020						\$965,020	
081113 Doors, Frames and Hardware	\$1,777,625		\$7,200				\$1,784,825	
083100 Access Doors and Panels	\$20,000						\$20,000	
083300 Overhead Doors	\$21,855		\$5,200				\$27,055	
084413 Glazed Aluminum Curtainwall	\$5,564,800						\$5,564,800	
086300 Metal Framed Skylights	\$359,652						\$359,652	
089000 Louvers and Vents	\$60,000						\$60,000	
DIV. 9 FINISHES		\$24,076,934		\$16,230				\$24,093,164
090002 Tile	\$1,448,710						\$1,448,710	
090003 Acoustical Tile	\$3,709,434						\$3,709,434	
090005 Resilient Flooring	\$1,521,879						\$1,521,879	
090007 Painting	\$1,390,655		\$7,755				\$1,398,410	
092900 GWB, Lath and Plastering	\$13,874,726		\$8,475				\$13,883,201	



CONSTRUCTION COST SUMMARY IN CSI FORMAT

	NEWSCHOOL		TOILET FACILITY		SITEWORK		TOTAL PROJECT	
	Subtotal	Total	Subtotal	Total	Subtotal	Total	Subtotal	Total
NEW SCHOOL BUILDING								
096466 Wood Athletic Flooring		\$721,492						\$721,492
096625 Precast Terrazzo		\$47,875						\$47,875
096700 Fluid Applied Floor		\$187,993						\$187,993
096800 Carpet		\$270,049						\$270,049
098414 Acoustic Panels		\$904,121						\$904,121
DIV 10 SPECIALTIES								
		\$1,699,804		\$33,950				\$1,733,754
101100 Markerboards		\$378,294						\$378,294
101400 Signage		\$223,760		\$11,750				\$235,510
102113 Toilet Compartments		\$159,400		\$10,650				\$170,050
102228 Folding Partition		\$47,600						\$47,600
102813 Toilet Accessories		\$146,200		\$10,850				\$157,050
104400 Fire Protection Specialties		\$47,600		\$700				\$48,300
105113 Metal Lockers		\$696,950						\$696,950
107113 Sun Control Devices								
DIV. 11 EQUIPMENT								
		\$2,136,741						\$2,136,741
111300 Loading Dock Equipment		\$5,000						\$5,000
114000 Foodservice Equipment		\$700,848						\$700,848
114500 Appliances		\$144,600						\$144,600
116000 Laboratory Equipment		\$227,500						\$227,500
116100 Theatre Equipment		\$769,133						\$769,133
116623 Gymnasium Equipment		\$289,660						\$289,660
119000 Miscellaneous Equipment								
DIV. 12 FURNISHINGS								
		\$3,196,914						\$3,196,914
122400 Window Shades		\$285,214						\$285,214
123000 Casework		\$2,172,800						\$2,172,800
124813 Entrance Floor Mats and Frames		\$62,550						\$62,550
126100 Fixed Audience Seating		\$331,650						\$331,650
126613 Telescoping Bleachers		\$344,700						\$344,700
DIV. 13 SPECIAL CONSTRUCTION								
		\$2,507,378						\$2,507,378
130000 Temporary Work		\$2,507,378						\$2,507,378
DIV. 14 CONVEYING SYSTEMS								
		\$680,000						\$680,000
142424 Holeless Hydraulic Elevators		\$680,000						\$680,000
DIV. 21 FIRE SUPPRESSION								
		\$2,782,833						\$2,782,833
210000 Fire Suppression		\$2,782,833						\$2,782,833
DIV.22 PLUMBING								
		\$5,390,353		\$97,336				\$5,487,689
220000 Plumbing		\$5,390,353		\$97,336				\$5,487,689
DIV. 23 HVAC								
		\$27,485,565		\$33,500				\$27,519,065
230000 HVAC		\$27,485,565		\$33,500				\$27,519,065
DIV.26 ELECTRICAL								
		\$20,317,223		\$148,030		\$1,386,648		\$21,851,901



Arlington High School
 Arlington, MA
 60% Construction Document Estimate

17-Apr-20

GFA 159,989

CONSTRUCTION COST SUMMARY IN CSI FORMAT

	NEWSCHOOL		TOILET FACILITY		SITEWORK		TOTAL PROJECT	
	Subtotal	Total	Subtotal	Total	Subtotal	Total	Subtotal	Total
NEW SCHOOL BUILDING								
260000 Electrical	\$16,874,584		\$148,030		\$1,386,648		\$18,409,262	
270000 Communications	\$2,257,752						\$2,257,752	
280000 Electronic Safety and Equipment	\$1,184,887						\$1,184,887	
DIV. 31 EARTHWORK		\$5,332,148		\$61,335		\$3,204,573		\$8,598,056
311000 Site Preparation & Clearing					\$583,300		\$583,300	
312000 Earthwork	\$2,551,469		\$8,335		\$2,424,773		\$4,984,577	
312115 Sub-slab Ventilation System	\$765,479						\$765,479	
312500 Erosion Control					\$196,500		\$196,500	
315000 Temporary Excavation Support and Protection								
316213 PIFs	\$2,015,200						\$2,015,200	
316615 Helical Piles			\$53,000				\$53,000	
316616 Permanent Soldier Pile Wall								
316700 Rigid Inclusions								
DIV. 32 EXTERIOR IMPROVEMENTS						\$8,265,874		\$8,265,874
320000 Paving, curbing & Edging					\$2,469,886		\$2,469,886	
323119 Site Improvements					\$2,212,556		\$2,212,556	
321800 Synthetic Field Surfacing					\$2,660,590		\$2,660,590	
329900 Landscaping					\$922,842		\$922,842	
DIV. 33 UTILITIES						\$864,225		\$864,225
330513 Drainage Manholes and Catch Basins								
331000 Water Distribution					\$131,075		\$131,075	
332313 Geothermal Wells								
333000 Sanitary Sewerage					\$261,300		\$261,300	
334000 Storm Drainage Systems					\$471,850		\$471,850	
SUBTOTAL DIRECT (TRADE) COST		\$154,029,580		\$663,217		\$14,808,827		\$169,501,624



Arlington High School
Arlington, MA

17-Apr-20

60% Construction Document Estimate

Building	GFA	408,590
Toilet Facility	GFA	800
		409,390

CONSTRUCTION COST SUMMARY

BUILDING SYSTEM	SUB-TOTAL		TOTAL	\$/SF	%
NEW CONSTRUCTION INCLUDING STADIUM TOILET FACILITY	BUILDING	TOILET FACILITY			
A10 FOUNDATIONS					
A1010 Standard Foundations	\$5,727,240	\$41,357			
A1020 Special Foundations	\$3,153,829	\$53,000			
A1030 Lowest Floor Construction	\$5,390,924	\$22,368	\$14,388,718	\$35.15	9.3%
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation	\$0				
A2020 Basement Walls	\$0		\$0	\$0.00	0.0%
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$17,789,550	\$0			
B1020 Roof Construction	\$1,878,333	\$14,400	\$19,682,283	\$48.08	12.7%
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$13,541,514	\$137,510			
B2020 Windows	\$6,212,886	\$0			
B2030 Exterior Doors	\$338,514	\$5,452	\$20,235,876	\$49.43	13.1%
B30 ROOFING					
B3010 Roof Coverings	\$3,023,695	\$16,560			
B3020 Roof Openings	\$407,652	\$0	\$3,447,907	\$8.42	2.2%
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$11,643,737	\$46,424			
C1020 Interior Doors	\$2,313,146	\$8,520			
C1030 Specialties/Millwork	\$3,888,956	\$22,200	\$17,922,983	\$43.78	11.6%
C20 STAIRCASES					
C2010 Stair Construction	\$1,151,000	\$0			
C2020 Stair Finishes	\$401,865	\$0	\$1,552,865	\$3.79	1.0%
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$3,788,836	\$6,390			
C3020 Floor Finishes	\$3,137,708	\$1,130			
C3030 Ceiling Finishes	\$5,743,188	\$9,040	\$12,686,292	\$30.99	8.2%
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$680,000	\$0	\$680,000	\$1.66	0.4%
D20 PLUMBING					
D20 Plumbing	\$5,095,003	\$97,336	\$5,192,339	\$12.68	3.4%
D30 HVAC					
D30 HVAC	\$27,152,565	\$33,500	\$27,186,065	\$66.41	17.6%
D40 FIRE PROTECTION					
D40 Fire Protection	\$2,624,833	\$0	\$2,624,833	\$6.41	1.7%



Arlington High School
Arlington, MA

17-Apr-20

60% Construction Document Estimate

Building	GFA	408,590
Toilet Facility	GFA	800
		409,390

CONSTRUCTION COST SUMMARY						
<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>		<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>	
NEW CONSTRUCTION INCLUDING STADIUM TOILET FACILITY	BUILDING	TOILET FACILITY				
D50 ELECTRICAL						
D5010 Complete System	\$20,017,223	\$148,030	\$20,165,253	\$49.26	13.0%	
E10 EQUIPMENT						
E10 Equipment	\$2,813,091	\$0	\$2,813,091	\$6.87	1.8%	
E20 FURNISHINGS						
E2010 Fixed Furnishings	\$2,520,564	\$0				
E2020 Movable Furnishings	NIC		\$2,520,564	\$6.16	1.6%	
F10 SPECIAL CONSTRUCTION						
F10 Special Construction	\$3,593,728	\$0	\$3,593,728	\$8.80	2.3%	
F20 HAZMAT REMOVALS						
F2010 Building Elements Demolition	\$0	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)			\$154,692,797	\$378.60	100.0%	



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
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NEW CONSTRUCTION

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

033000 CONCRETE

Continuous Footings/Grade Beams	1,253	CY					
Foundation Walls	890	CY					
Retaining Walls	723	CY					
Spread Footings	802	CY					
Pile Caps	1,230	CY					
Structural Slabs	4,342	CY					
Slab Thickening	1,013	CY					
Total Foundation Concrete	10,253	CY					
Total Rebar	947	tons					

PHASE 1

Strip Footings/Grade Beams

Formwork	6,544	sf	15.00	98,160		
Re-bar	37,760	lbs.	1.50	56,640		
Concrete material; 4,000 psi	370	cy	148.00	54,760		
Placing concrete	370	cy	120.00	44,400		
<u>Foundation walls</u>						
Formwork	32,600	sf	20.00	652,000		
Re-bar	84,354	lbs.	1.50	126,531		
Concrete material; 4,000 psi	890	cy	148.00	131,720		
Placing concrete	890	cy	120.00	106,800		
Form shelf	1,475	lf	10.00	14,750		
<u>Spread Footings</u>						
Formwork	9,780	sf	18.00	176,040		
Re-bar	111,518	lbs.	1.50	167,277		
Concrete material; 4,000 psi	802	cy	148.00	118,696		
Placing concrete	802	cy	120.00	96,240		
Set anchor bolts grout plates	124	ea	165.00	20,460		

PHASES 2 + 3

Grade Beams

Formwork	22,152	sf	15.00	332,280		
Re-bar	437,564	lbs.	1.50	656,346		
Concrete material; 4000 psi	883	cy	148.00	130,684		
Placing concrete	883	cy	120.00	105,960		
<u>Retaining walls</u>						
Formwork	18,780	sf	22.00	413,160		
Re-bar	107,985	lbs.	1.50	161,978		
Concrete material; 4000 psi	723	cy	148.00	107,004		
Placing concrete	723	cy	120.00	86,760		
Form shelf	335	lf	10.00	3,350		
<u>Pile Caps</u>						
Formwork	22,395	sf	18.00	403,110		
Re-bar	134,271	lbs.	1.50	201,407		
Concrete material; 4,000 psi	1,230	cy	148.00	182,040		
Placing concrete	1,230	cy	120.00	147,600		
Set anchor bolts grout plates	252	ea	165.00	41,580		

Strip Footings @ Area A

Formwork	400	sf	15.00	6,000		
Re-bar	1,920	lbs.	1.50	2,880		
Concrete material; 4,000 psi	52	cy	148.00	7,696		
Placing concrete	52	cy	120.00	6,240		
<u>Foundation walls</u>						
Formwork	2,240	sf	20.00	44,800		
Re-bar	5,040	lbs.	1.50	7,560		
Concrete material; 4,000 psi	44	cy	148.00	6,512		
Placing concrete	44	cy	120.00	5,280		

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Waterproofing at retaining wall	9,390	sf	8.50	79,815		
Waterproofing at plaza deck					w/roofing	
Dampproofing foundation wall and footing					NR	

072100 THERMAL INSULATION

Insulation at foundation walls	15,290	sf	3.00	45,870		
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312000 EARTHWORK



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
86	Assumed below excavation is in clean fill						
87	PHASE 1						
88	<u>Strip Footings/Grade Beams</u>						
89	Excavation					w/ EBP#2	
90	Store on site					w/ EBP#2	
91	Backfill with existing material					w/ EBP#2	
92	<u>Spread footings</u>						
93	Excavation					w/ EBP#2	
94	Store on site					w/ EBP#2	
95	Backfill with existing material					w/ EBP#2	
96	Dewatering for foundation work					w/ EBP#2	
97	PHASES 2 + 3						
98	<u>Grade Beams/Strip Footings</u>						
99	Excavation	3,522	cy	25.00	88,050		
100	Store on site	3,522	cy	12.00	42,264		
101	Backfill with existing material	2,543	cy	16.00	40,688		
102	<u>Retaining walls</u>						
103	Excavation	3,877	cy	22.00	85,294		
104	Store on site	3,877	cy	12.00	46,524		
105	Backfill with existing material	3,154	cy	16.00	50,464		
106	<u>Pile Caps</u>						
107	Excavation	3,546	cy	25.00	88,650		
108	Store on site	3,546	cy	12.00	42,552		
109	Backfill with existing material	2,316	cy	16.00	37,056		
110							
111							
112	Perimeter drain at retaining walls	638	lf	24.00	15,312		
113	Dewatering for foundation work	1	ls	140,000.00	140,000		
114	SUBTOTAL					5,727,240	
115							
116	A1020 SPECIAL FOUNDATIONS						
117	Excavation	1,340	cy	25.00	w/ EBP#2		
118	Store on site	1,340	cy	12.00	w/ EBP#2		
119	Backfill with existing material	901	cy	10.00	w/ EBP#2		
120	Concrete Deadman; 3 x 8 x 470 lf	439	cy	850.00	373,150		
121	SOE between SP 1 and 23	185	lf				
122	Excavation; 3ft dia at SP	239	cy	100.00	w/ EBP#2		
123	Allowance for disposal	239	cy	45.00	w/ EBP#2		
124	Backfill with lean concrete	83	cy	150.00	w/ EBP#2		
125	Backfill with flowable fill	155	cy	200.00	w/ EBP#2		
126	SP and lagging	7,400	sf	70.00	w/ EBP#2		
127	Tieback	21,120	lbs	3.00	w/ EBP#2		
128	Premium for location of existing building	1	ls	250,000.00	w/ EBP#2		
129	SOE between SP 24 and 66	340	lf				
130	Excavation; 3ft dia at SP	557	cy	100.00	w/ EBP#2		
131	Allowance for disposal	557	cy	45.00	w/ EBP#2		
132	Backfill with lean concrete	201	cy	150.00	w/ EBP#2		
133	Backfill with flowable fill	356	cy	200.00	w/ EBP#2		
134	SP and lagging	17,000	sf	70.00	w/ EBP#2		
135	Tieback	37,785	lbs	3.00	w/ EBP#2		
136	Exposed concrete permanent face with finish	8,840	sf	55.00	w/ EBP#2		
137							
138	PHASE 1						
139	RAPS foundation; includes rigid inclusions	28,000	sf	16.00	w/ EBP#2		
140	RAPS foundation	29,175	sf	16.00	w/ EBP#2		
141	RAPS foundation (future expansion)	3,600	sf	12.00	w/ EBP#2		
142							
143	PHASES 2 + 3						
144	Pile foundation						
145	Mobilization					INCL	
146	Load & Tension testing					INCL	
147	PIFS; 120 T; assumed 30 FT deep; at pile caps	532	loc	3,600.00	1,915,200		
148	Obstructions, allow	1	ls	100,000.00	100,000		
149							
150	Vapor intrusion membrane, min 40-mil fluid applied HDPE	144,430	sf	4.50	649,935		
151	Piping for mitigation system; flat vent	144,430	sf	0.80	115,544		
152	SUBTOTAL					3,153,829	
153							
154	A1030 LOWEST FLOOR CONSTRUCTION						
155	033000 CONCRETE						
156							
157	Structural slab on grade, 10" thick	24,750	sf				



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
158	Formwork	1,741	sf	12.00	20,892		
159	Rebar	210,375	lbs	1.50	315,563		
160	Concrete - 10" thick	799	cy	148.00	118,252		
161	Placing concrete	799	cy	90.00	71,910		
162	Finishing and curing concrete	24,750	sf	2.00	49,500		
163	<u>Structural slab on grade, 12" thick</u>	59,605	sf				
164	Formwork	1,741	sf	12.00	20,892		
165	Rebar	506,643	lbs	1.50	759,965		
166	Concrete - 12" thick	2,318	cy	148.00	343,064		
167	Placing concrete	2,318	cy	90.00	208,620		
168	Finishing and curing concrete	59,605	sf	2.00	119,210		
169	<u>Slab on grade, 6"</u>	57,175	sf				
170	Rebar reinforcement, #4 @ 12" oc	88,107	lbs	1.50	132,161		
171	Concrete - 6" thick	1,112	cy	148.00	164,576		
172	Placing concrete	1,112	cy	65.00	72,280		
173	Finishing and curing concrete	57,175	sf	3.50	200,113		
174	Sawcut full depth control joints	57,175	sf	0.22	12,579		
175	<u>Miscellaneous</u>						
176	Thickened slabs at pile locations	1,013	cy	500.00	506,500		
177	<u>Loading Area/Courtyard</u>						
178	<u>Structural slab on grade, 12" thick</u>	2,900	sf				
179	Formwork	255	sf	12.00	3,060		
180	Rebar	21,750	lbs	1.50	32,625		
181	Concrete - 12" thick	113	cy	148.00	16,724		
182	Placing concrete	113	cy	90.00	10,170		
183	Finishing and curing concrete	2,900	sf	2.00	5,800		
184	<u>Structural slab on grade, 10" thick</u>	3,900	sf				
185	Formwork	420	sf	12.00	5,040		
186	Rebar	33,150	lbs	1.50	49,725		
187	Concrete - 10" thick	126	cy	148.00	18,648		
188	Placing concrete	126	cy	90.00	11,340		
189	Finishing and curing concrete	3,900	sf	2.00	7,800		
190	<u>Miscellaneous</u>						
191	Topping slab for radiant heat	8,500	sf	10.00	85,000		
192	Elevator pit	3	ea	30,000.00	90,000		
193	Equipment pads	1	ls	20,000.00	20,000		
194	Slab depressions	1	ls	30,000.00	30,000		
195							
196	072100 THERMAL INSULATION						
197	Rigid insulation, 2' at perimeter	5,720	sf	2.50	14,300		
198							
199	312000 EARTHWORK						
200	<u>Phase one</u>						
201	Cut	411	cy	10.00	w/ EBP#2		
202	Store on site	411	cy	12.00	w/ EBP#2		
203	Backfill with existing material	411	cy	16.00	w/ EBP#2		
204	Fill - common fill material below bldg (per geotech)	4,089	cy	28.00	w/ EBP#2		
205	<u>Phase Two</u>						
206	Fill- common fill material below bldg (per geotech)	5,800	cy	28.00	162,400		
207	<u>Phase Three</u>						
208	Cut	7,300	cy	10.00	73,000		
209	Store on site	7,300	cy	12.00	87,600		
210	Backfill with existing material	1,900	cy	16.00	30,400		
211							
212	Structural fill below Blackbox (Area E)	38	cy	45.00	1,710		
213	Compacted granular fill, 12" at Phases 2 & 3 (Phase 1 with EBP #2)	3,376	cy	45.00	151,920		
214	Compacted granular fill, 3" below footings	1	ls	200,000.00	w/ EBP#2		
215	Compact sub-grade at Phases 2 & 3 (Phase 1 with EBP #2)	91,155	sf	0.55	50,135		
216							
217	Out of sequence work for working platforms	1	ls	100,000.00	100,000		
218	E+B for underslab piping at Phases 2 & 3 (Phase 1 with EBP #2)	5,050	lf	25.00	126,250		
219							
220	Material Disposal Costs; Quantity from Spec Section 312001 - 80% (20% carried with EBP #2)						
221	Less than RCS-1	1,280	ton	35.00	44,800		
222	Unlined Landfill	2,560	ton	50.00	128,000		
223	Unlined Landfill; geothermal drill spoils				NIC		
224	Asphalt batch plant	3,200	ton	75.00	240,000		
225	Out-of-State Subtitle D Landfill	1,280	ton	120.00	153,600		
226	Hazardous	1,280	ton	350.00	448,000		
227	Loading costs	9,600	ton	8.00	76,800		



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
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NEW CONSTRUCTION

SUBTOTAL

5,390,924

TOTAL - FOUNDATIONS

\$14,271,993

A20 BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION

No Work in this section

SUBTOTAL

-

A2020 BASEMENT WALLS

No Work in this section

SUBTOTAL

-

TOTAL - BASEMENT CONSTRUCTION

\$0

B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

19.97 lbs/sf

4,080 tns

033000 CONCRETE

WWF reinforcement, 15% lap

335,593 sf

1.10

369,152

Concrete topping to metal decking, 6-1/2" thick; normal weight

6,151 cy

148.00

910,348

Place and finish concrete

291,820 sf

2.50

729,550

Rebar to decks

87,546 lbs

1.32

115,561

Premium for tiered seating at Auditorium balcony

535 lfr

140.00

74,900

Sound isolation slab

4,375 sf

24.00

105,000

Topping slab for radiant heat

7,830 sf

10.00

78,300

051200 STRUCTURAL STEEL FRAMING

Beams / Columns / Bracing, tonnage provided

3,915 tns

3,200.00

12,528,000

Premium for HSS, 25%

979 tns

250.00

Included

Metal floor decking; 2"

291,820 sf

4.00

1,167,280

Shear studs

72,955 ea

3.80

277,229

Miscellaneous

Moment connections

190 ea

500.00

95,000

Allowance for beam penetrations

1 ls

50,000.00

50,000

Miscellaneous

Structure to support salvaged facades

1 ls

50,000.00

50,000

Premium for structure at Auditorium/Forum Seating

800 lf

180.00

144,000

Premium for catwalk at performing arts

681 sf

60.00

40,860

Premium for catwalks on hanger system at auditorium and stage; A2.8

1,521 sf

60.00

91,260

078400 FIREPROOFING/FIRESTOPPING

Spray-applied fireproofing to beams and columns

291,820 sf

2.50

729,550

Fire stopping

1 ls

75,000.00

75,000

Intumescent paint to exposed beams

1 ls

10,000.00

10,000

079500 EXPANSION CONTROL

Expansion joints

2,476 lf

60.00

148,560

SUBTOTAL

17,789,550

B1020 ROOF CONSTRUCTION

033000 CONCRETE

WWF reinforcement, 15% lap

28,762 sf

1.10

31,638

Concrete topping to metal decking, 6-1/2" thick; normal weight

317 cy

148.00

46,916

Place and finish concrete

25,010 sf

2.50

62,525

Rebar to decks

7,503 lbs

1.32

9,904

051200 STRUCTURAL STEEL FRAMING

Beams / Columns / Bracing

w/ B1010

Premium for HSS

w/ B1010

Open web joists

165 tns

3,200.00

528,000

1-1/2" Type WR Metal galvanized roof deck

111,950 sf

3.50

391,825

2" Metal galvanized roof deck

15,060 sf

4.50

67,770

3" acoustic Metal galvanized roof deck

30,420 sf

9.00

273,780

2" Metal galvanized roof deck at plaza

9,950 sf

4.50

44,775

Miscellaneous



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
299	Moment connections	65	ea	500.00	32,500		
300	Premium for exposed steel	1	ls	50,000.00	50,000		
301	Canopies; included				w/ B1010		
302	Steel support for ADDED roof screens;	4	tns	5,000.00	20,000		
303	078400 FIREPROOFING/FIRESTOPPING						
305	Spray-applied fireproofing to beams and deck	80,500	sf	3.00	241,500		
306	Intumescent paint to exposed beams	1	ls	40,000.00	40,000		
307	079500 EXPANSION CONTROL						
309	Expansion joint	620	lf	60.00	37,200		
310	SUBTOTAL					1,878,333	
TOTAL - SUPERSTRUCTURE							\$19,667,883
B20 EXTERIOR CLOSURE							
B2010 EXTERIOR WALLS							
		151,245	sf				
040001 MASONRY							
320	Face brick; 2-1/4" x 3-5/8" x 7-5/8"	72,560	sf	34.00	2,467,040		
321	Glazed brick	620	sf	40.00	24,800		
322	Decorative CMU - ground faced/glazed	59,550	sf	34.00	2,024,700		
323	Decorative CMU - loading area columns	2,080	sf	34.00	70,720		
324	Premium for soldier course						
325	8" brick	290	lf	20.00	5,800		
326	16" brick	1,060	lf	20.00	21,200		
327	32" CMU	160	lf	40.00	6,400		
328	48" CMU	150	lf	70.00	10,500		
329	Premium for brick patterning/sizes	12,715	sf	15.00	190,725		
330	Premium for anti-graffiti coating at CMU	23,350	sf	6.00	140,100		
331	Premium for CMU patterning	6,585	sf	10.00	65,850		
332	Architectural precast date stone	1	ls	5,000.00	5,000		
333	Precast sills at Auditorium	30	lf	200.00	6,000		
334	Staging/lifts to exterior wall	195,134	sf	4.00	780,536		
335	052000 MISC. METALS						
336	Relieving angle				w/ structural		
338	Misc. metals at masonry	132,730	sf	1.25	165,913		
339	Custom Fabricated Steel "Tree", ADKS Quote	1	ls	93,000.00	93,000		
340	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
342	Self adhered modified bituminous sheet air/vapor barrier	151,245	sf	7.50	1,134,338		
343	AVB at window openings	14,914	lf	6.25	93,213		
344	Miscellaneous sealants	151,245	sf	0.50	75,623		
345	AVB at soffits	10,865	sf	8.00	86,920		
346	070002 ROOFING AND FLASHING						
348	Membrane to walls and parapets	2,060	sf	10.00	20,600		
349	072100 THERMAL INSULATION						
351	Insulation; 4"	151,245	sf	4.00	604,980		
352	Insulation at window openings	14,914	lf	4.00	59,656		
353	Insulation at soffits	10,865	sf	5.00	54,325		
354	074210 WALL PANELS						
356	Metal panel						
357	Exposed fastener lap seam metal panel; Centria	13,745	sf	60.00	824,700		
358	Porcelain Wall Tile System						
359	Porcelain wall tile	450	sf	100.00	45,000		
360	Porcelain wall tile at CW	180	sf	100.00	18,000		
361	Porcelain tile soffit	1,600	sf	100.00	160,000		
362	Mockups	1	ls	150,000.00	150,000		
363	Aluminum Column Covers						
364	16' high	16	ea	10,054.40	160,870		
365	Roof screen at RTU's	2,905	sf				
366	Acoustical	2,905	sf	70.00	203,350		
367	092900 GYPSUM BOARD ASSEMBLIES						



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
369	Exterior gypsum sheathing	151,245	sf	3.00	453,735			
370	6" metal stud	117,115	sf	14.00	1,639,610			
371	8" metal stud	34,130	sf	16.00	546,080			
372	GWB lining, 5/8"	151,245	sf	4.00	604,980			
373	Stucco soffit	9,265	sf	35.00	324,275			
374	Framing at soffits	10,865	sf	15.00	162,975			
375								
376	101400 SIGNAGE							
377	Signage, letters 2' high	2	loc	20,000.00	40,000			
378	SUBTOTAL					13,541,514		
379								
380	B2020 WINDOWS	43,889	sf					
381								
382	061000 ROUGH CARPENTRY							
383	Wood blocking at openings	14,914	lf	12.00	178,968			
384								
385	070001 WATERPROOFING, DAMPPROOFING AND CAULKING							
386	Backer rod & double sealant	14,914	lf	9.50	141,683			
387								
388	080001 WINDOWS							
389	Aluminum windows; double glazed with argon-filled space and solar control low-e coating	8,215	sf	93.00	763,995			
390	Aluminum windows; triple glazed						NIC	
391	Premium for openings	210	loc	350.00	73,500			
392								
393	084413 CURTAIN WALL SYSTEMS							
394	Curtainwall, double glazed with argon-filled space and solar control low-e coating	35,674	sf	125.00	4,459,250			
395	Curtainwall, triple glazed						NIC	
396	Premium for openings	190	loc	1,000.00	190,000			
397	Premium for school guard glass	4,949	sf	30.00	148,470			
398	Premium for porcelain tile	1,358	sf	50.00	67,900			
399	Premium for spandrel glazing	3,890	sf	10.00	Included			
400	Custom extended profile snap cover	2,728	lf	40.00	109,120			
401	Curtainwall canopy	2	loc	10,000.00	20,000			
402								
403	089000 LOUVERS							
404	Louvers	600	sf	100.00	60,000			
405	SUBTOTAL					6,212,886		
406								
407	B2030 EXTERIOR DOORS							
408								
409	061000 ROUGH CARPENTRY							
410	Wood blocking at openings	396	lf	12.00	4,752			
411								
412	079200 JOINT SEALANTS							
413	Backer rod & double sealant	396	lf	9.50	3,762			
414								
415	084110 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS							
416	Glazed aluminum entrance doors including frame and hardware; double	12	pr	11,000.00	132,000			
417	Glazed aluminum entrance doors including frame and hardware; single	4	ea	5,500.00	22,000			
418	Aluminum entrance doors including frame and hardware; double	5	pr	9,000.00	45,000			
419	Aluminum entrance doors including frame and hardware; single	14	ea	4,500.00	63,000			
420	FRP entrance doors including frame and hardware; double	1	pr	8,000.00	8,000			
421	FRP entrance doors including frame and hardware; single	4	ea	4,000.00	16,000			
422	Premium for 8'-4" - 9' high	15	ea	1,000.00	15,000			
423								
424	083300 OVERHEAD DOOR							
425	Overhead door, 10'-4" x 10'	1	ea	9,000.00	9,000			
426								
427	087100 DOOR HARDWARE							
428	Auto openers - allow	4	ea	5,000.00	20,000			
429	SUBTOTAL					338,514		
430								
431	TOTAL - EXTERIOR CLOSURE						\$20,092,914	
432								
433								
434	B30 ROOFING							
435								
436	B3010 ROOF COVERINGS							
437								
438	055000 MISC. METALS							



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
439	Roof ladder	7	ea	2,500.00	17,500			
440	Tie-off davits	1	ls	75,000.00	75,000			
441								
442	061000 ROUGH CARPENTRY							
443	Rough blocking at roofing	22,770	lf	10.00	227,700			
444								
445	070002 ROOFING AND FLASHING							
446	Flat roof							
447	PVC membrane, 60 mil, protection board; 20 year warranty	148,230	sf	14.00	2,075,220			
448	Premium for acoustically sensitive areas - R1B1, Thermal barrier board	4,910	sf	2.00	9,820			
449	Second floor roof terrace; Roof Type 1E/F	9,200	sf	30.00	276,000			
450	Canopy							
451	PVC membrane, 60 mil, protection board, insulation	2,030	sf	13.00	26,390			
452	Miscellaneous Roofing							
453	Overflow scupper	28	ea	500.00	14,000			
454	Factory fabricated fascia trim roof edge	3,385	lf	45.00	152,325			
455	Parapet cap	820	lf	80.00	65,600			
456	Air/Vapor barrier at roof edges	4,205	lf	8.00	33,640			
457	Walkway pads	1	ls	40,000.00	40,000			
458	Elevator ventilation unit	3	ea	3,500.00	10,500			
459	SUBTOTAL					3,023,695		
460								
461	B3020 ROOF OPENINGS							
462	Skylight	480	sf	130.00	62,400			
463	Unit skylights w/ insulated curb							
464	8' diameter	6	ea	6,545.76	39,275			
465	5' diameter	26	ea	2,556.94	66,480			
466	8' x 5'-4"	2	ea	5,512.00	11,024			
467	4'-7" x 4'-7" w/ integral motorized shades	48	ea	3,146.46	151,030			
468	4'-4" x 4'-4"	6	ea	2,403.70	14,422			
469	3'-6" x 3'-6"	9	ea	1,592.50	14,333			
470	2'-4" x 2'-4"	1	ea	687.70	688			
471	Smoke hatch at Stage	2	ea	8,000.00	16,000			
472	Ladder	4	loc	4,000.00	16,000			
473	Ship's ladder	4	loc	4,000.00	16,000			
474	SUBTOTAL					407,652		
475								
476	TOTAL - ROOFING							\$3,431,347
477								
478								
479	C10 INTERIOR CONSTRUCTION							
480								
481	C1010 PARTITIONS							
482								
483	042000 MASONRY							
484	8" CMU	15,689	sf	27.00	423,603			
485	8" CMU, elevator shaft	7,509	sf	32.00	240,288			
486	6" CMU	3,359	sf	26.00	87,334			
487								
488	050001 MISCELLANEOUS METALS							
489	Seismic clips to CMU	477	ea	130.00	62,010			
490	Support at operable partitions	85	lf	150.00	12,750			
491	Miscellaneous metals to CMU	26,557	sf	1.50	39,836			
492								
493	061000 ROUGH CARPENTRY							
494	Wood blocking at interiors	408,600	gsf	0.50	204,300			
495	Rough blocking at partitions	76,311	lf	6.00	457,866			
496	Wood blocking at interior glazing openings	10,162	lf	4.00	40,648			
497								
498	070001 WATERPROOFING, DAMPPROOFING AND CAULKING							
499	Backer rod & double sealant at openings	10,162	lf	5.00	50,810			
500	Miscellaneous sealants at partitions	408,600	gsf	0.65	265,590			
501								
502	080002 GLASS AND GLAZING							
503	Butt glazing							
504	Tempered glass, 3/8"	1,932	sf	74.00	142,968			
505	Laminated glass, 9/16"	5,154	sf	82.00	422,628			
506	Acoustic - double paned	2,032	sf	125.00	254,000			
507	Premium for mirrored glass at PS	1	ls	1,000.00	1,000			



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
508	Premium for ballistic glazing at Transaction window	1	ls	25,000.00	NIC		
509							
510	084413 CURTAIN WALL SYSTEMS						
511	Interior curtainwall	813	sf	120.00	97,560		
512							
513	092900 GYPSUM BOARD ASSEMBLIES						
514	Type 1A- 6" MS w/ 5/8" GWB e/s batt insulation	70,331	sf	13.25	931,886		
515	Type 1B- 3 5/8" MS w/ 5/8" GWB e/s w/ batt insulation	1,247	sf	11.25	14,029		
516	Type 1C- 8" MS w/ 5/8" GWB e/s w/ batt insulation	572	sf	15.25	8,723		
517	Type 2A- 6" MS w/ 2 layers GWB o/s, 1 layer o/s w/ insulation	169,415	sf	14.75	2,498,871		
518	Type 2B- 3-5/8" MS w/ 2 layers GWB o/s, 1 layer o/s w/ insulation	332	sf	12.75	4,233		
519	Type 2C- 8" MS w/ 2 layers GWB o/s, 1 layer o/s w/ insulation	25,255	sf	16.75	423,021		
520	Type 3A 6" MS w/ 2 layers GWB e/s w/ insulation	66,455	sf	16.25	1,079,894		
521	Type 3C 8" MS w/ 2 layers GWB e/s w/ insulation	4,749	sf	18.25	86,669		
522	Type 4A 6" MS w/ 1 layer GWB e/s, 1 layer plywood w/ insulation	3,905	sf	15.75	61,504		
523	Type 5A- 6" MS w/ 5/8" GWB e/s	9,858	sf	12.00	118,296		
524	Type 5B- 3-5/8" MS w/ 5/8" GWB e/s	300	sf	10.00	3,000		
525	Type 6A- 6" MS w/ 5/8" GWB o/s batt insulation	24,632	sf	10.25	252,478		
526	Type 6B- 3-5/8" MS w/ 5/8" GWB o/s batt insulation	8,705	sf	8.25	71,816		
527	Type 7A- 6" MS w/ 2 lyr 5/8" GWB o/s batt insulation	115,568	sf	11.75	1,357,924		
528	Type 7B- 3-5/8" MS w/ 2 lyr 5/8" GWB o/s batt insulation	10,819	sf	9.75	105,485		
529	Type 7C- 8" MS w/ 2 lyr 5/8" GWB o/s batt insulation	81	sf	13.75	1,114		
530	Type 8A- 6" MS w/ 5/8" GWB o/s	27,270	sf	9.00	245,430		
531	Type 8B- 3-5/8" MS w/ 5/8" GWB o/s batt insulation	74,562	sf	7.00	521,934		
532	Premium for wall @ bBB	4,800	sf	15.00	72,000		
533	Type 10A - 4" MS w/ 2 layers 5/8" GWB o/s, 1 layer 1" liner board, batt insulation	18,109	sf	12.75	230,890		
534	Type 12A- 2 rows of 3 5/8" MS w/ 2 layers GWB o/s ea row, w/ insulation in e row	1,453	sf	19.50	28,334		
535	Type 12B- 2 rows of 6" MS w/ 2 layers GWB o/s ea row, w/ insulation in e row	18,707	sf	23.50	439,615		
536	Type 14A - low wall	2,625	sf	12.00	31,500		
537	Miscellaneous drywall	408,600	sf	0.50	204,300		
538							
539	102200 OPERABLE PARTITIONS						
540	8' high operable walls at classrooms	680	sf	70.00	47,600		
541							
542	SUBTOTAL					11,643,737	
543							
544	C1020 INTERIOR DOORS						
545							
546	061000 ROUGH CARPENTRY						
547	Wood blocking at openings	12,614	lf	4.00	50,456		
548							
549	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
550	Backer rod & double sealant	12,614	lf	5.00	63,070		
551							
552	080002 GLASS AND GLAZING						
553	Sidelights - glazing	347	sf	40.00	13,880		
554							
555	081110 HOLLOW METAL DOOR FRAMES						
556	Hollow metal Frames, single	622	ea	450.00	279,900		
557	Hollow metal Frames, double	90	ea	600.00	54,000		
558	Sidelight frames	347	sf	35.00	12,145		
559							
560	081400 WOOD DOORS						
561	Wood door	802	ea	590.00	473,180		
562	Premium for type B	37	ea	300.00	11,100		
563	Premium for type D	42	ea	150.00	6,300		
564	Premium for type E	167	ea	200.00	33,400		
565	Premium for type F	118	ea	300.00	35,400		
566	Premium for type H	19	ea	300.00	5,700		
567	Premium for oversized leaf	10	ea	500.00	5,000		
568	Premium for acoustic gasketing	199	ea	400.00	79,600		
569							
570	083110 ACCESS DOORS AND FRAMES						
571	Access doors	1	ls	20,000.00	20,000		
572							
573	083300 OVERHEAD DOOR						



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
574	Overhead door at reception, 4' x 5'	1	ea	1,300.00	1,300		
575	Overhead door Comm Ed Storage, 5'-5" x 8'	1	ea	2,860.00	2,860		
576	Overhead door at reception, 5' x 5'	1	ea	1,625.00	1,625		
577	Overhead door at stage, 7' x 10'	1	ea	4,550.00	4,550		
578	Overhead door at 237, 3' x 7'	1	ea	2,520.00	2,520		
579							
580	083513 FOLDING DOORS GLASS						
581	Nanawall at T-Plan, 4' x 4'-2"	1	ea	10,560.00	10,560		
582	Nanawall at Library, 24' x 10'	1	ea	52,800.00	52,800		
583							
584	084110 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS						
585	Glazed aluminum entrance doors including frame and hardware; double	13	pr	11,000.00	143,000		
586	Glazed aluminum entrance doors including frame and hardware; single	3	ea	5,500.00	16,500		
587	Premium for 9' high	12	ea	1,000.00	12,000		
588							
589	087100 DOOR HARDWARE						
590	Hardware to doors	802	set	950.00	761,900		
591							
592	090007 PAINTING						
593	Finish doors and frames	802	ea	200.00	160,400		
594	SUBTOTAL					2,313,146	
595							
596	C1030 SPECIALTIES / MILLWORK						
597							
598	055000 MISCELLANEOUS METALS						
599	Catwalk access ladder 13'-4" high	1	ea	6,000.00	6,000		
600	Stage left and right gallery ladder 13'-10" high	2	ea	6,000.00	12,000		
601	Stage left and right lighting slot ladders 27'-6" high	2	ea	12,000.00	24,000		
602	Stage right gallery ladder 20'-10" high	1	ea	10,000.00	10,000		
603	Catwalk access ladder at performing arts, caged	1	ea	15,000.00	15,000		
604	Catwalk at performing arts	681	sf			w/ structural steel	
605	Catwalks on hanger system at auditorium and stage; A2.8	1,521	sf			w/ structural steel	
606	Guardrail at DLab ramp	20	lf	250.00	5,000		
607	Handrail at DLab ramp	22	lf	75.00	1,650		
608	Metal grating above auditorium sound and control room	248	sf	55.00	13,640		
609	Railing at auditorium catwalks	782	lf	175.00	136,850		
610	Railing at performing arts catwalk	180	lf	175.00	31,500		
611	Security partition with door at stairs 1 & 2 roof access	28	lf	400.00	11,200		
612	Glass guardrail at areas open to below, 42" high (3/A10.0.2)	135	lf	380.00	51,300		
613	Miscellaneous metals throughout building	408,590	sf	1.00	408,590		
614	Railing at auditorium half walls- wood cap with short metal pickets	130	lf	90.00	11,700		
615	Stainless steel floor mounted individual hoop handrails at auditorium aisles	8	loc	180.00	1,440		
616							
617	Unistrut pipe grid at maker space classrooms	961	sf	20.00	19,220		
618	Hook and support for suspended swing at OT/PT rooms, allow	3	loc	1,500.00	4,500		
619							
620	057500 DECORATIVE FORMED METAL						
621	Aluminum insulated column cover 9'-6" high	4	ea	2,850.00	11,400		
622	Aluminum insulated column cover 11'-0" high	2	ea	3,300.00	6,600		
623	Aluminum insulated column cover 14'-0" high	5	ea	4,200.00	21,000		
624	Aluminum insulated column cover 17'-6" high	2	ea	5,250.00	10,500		
625	Aluminum insulated column cover 12'-0" high	6	ea	3,600.00	21,600		
626	Aluminum insulated column cover 17'-6" high	2	ea	5,250.00	10,500		
627	Aluminum insulated column cover 25'-0" high	3	ea	7,500.00	22,500		
628	Aluminum insulated column cover 26'-8" high	2	ea	8,001.00	16,002		
629	Aluminum insulated column cover 40'-0" high	4	ea	12,000.00	48,000		
630							
631	061000 ROUGH CARPENTRY						
632	Backer panels in electrical closets	1	ls	10,000.00	10,000		
633	D Lab seating risers and ramp	1,050	sf	25.00	26,250		
634							
635	064020 INTERIOR ARCHITECTURAL WOODWORK						
636	Multi sensory wall - interactive maple recessed pegboard; 5/A8.6.5	90	sf	50.00	4,500		
637	3 tier wall shelving behind media circulation desk	9	lf	150.00	1,350		
638	6" solid surface guardrail cap at open to below; 5/A10.0.2	245	lf	50.00	12,250		
639	Built in tall storage cabs @ life skills cafe w/ Plam face & pivot doors 54"	3	ea	2,925.00	8,775		
640	Solid surface jamb at guardrails 42" high	8	ea	175.00	1,400		
640	Trash/recycling millwork					FF&E	



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
641	4" wood trim at orchestra pit edge and bottom of stage edge; 2/A8.75	100	lf	40.00	4,000		
642	3-3/8" wide x 6'-8" high wood filler panel between lockers with 2x6 blocking at circular locker pods; A8.5.1	216	ea	226.78	48,984		
643	Window sills, exterior windows/CW	2,747	lf	60.00	164,820		
644	Window sills, interior borrowed lites	1,612	lf	60.00	96,720		
645	<i>Benches</i>						
646	ADA Bench at locker and team rooms	14	lf	150.00	2,100		
647	Auditorium balcony lobby bench with back; 11/A8.6.1	17	lf	300.00	5,100		
648	Courtyard window bay wood benches; 12/A8.6.2	19	lf	250.00	4,750		
649	Library bench 18" deep; 10/A8.6.2	26	lf	250.00	6,500		
650	Library bench under stair; 13/A8.6.2	8	lf	250.00	2,000		
651	Library bench under stair - angled back; 13/A8.6.2	11	sf	80.00	880		
652	Library bench under stair wood panel sides; 13/A10.2.3	69	sf	75.00	5,175		
653	Performing arts under stair bench 18" deep; 5/A8.6.1	44	lf	500.00	22,000		
654	Performing arts under stair bench top section - veneer plywood; 5/A8.6.1	27	sf	70.00	1,890		
655	Performing arts/spine bench 18" deep; 3/A8.6.1	36	lf	500.00	18,000		
656	Performing arts/Spine bench; 9/A8.6.1	29	lf	500.00	14,500		
657	Performing arts/spine bench upper piece; 3/A8.6.1	44	sf	70.00	3,080		
658	Preschool under stair bench; 8/A8.6.1	9	lf	500.00	4,500		
659	Preschool under stair bench - angled back; 8/A8.6.1	11	sf	80.00	880		
660	Preschool under stair bench - platform piece; 8/A8.6.1	20	sf	70.00	1,400		
661	Upper forum seating area bench 18" deep; 9/A8.6.5	27	lf	250.00	6,750		
662	Upper forum seating area bench 2 tier; 9/A8.6.5	21	lf	500.00	10,500		
663	Upper forum seating area counter; 9/A8.6.5	8	lf	400.00	3,200		
664	Wood bench with back at cafeteria; 1/A8.6.1	53	lf	500.00	26,500		
665	<i>Desks and counters</i>						
666	Cafeteria island counter 3'-8" deep; 1/A8.6.7	69	lf	400.00	27,600		
667	Counter @ workbars overlooking forum; 3/A8.6.6	19	lf	250.00	4,750		
668	Library light cone 3'-0" wide counter; 2/A8.6.8, curved	100	lf	400.00	40,000		
669	Media center counter/display; 15/A8.6.3	9	lf	250.00	2,250		
670	Life skills cafe counter with cabinets below; A8.6.7	53	lf	800.00	42,400		
671	Lightwell counter with keyboard tray 16" deep; 3/A8.6.8, curved	276	lf	400.00	110,400		
672	Desk @ reception 231A	1	ls	4,200.00	4,200		
673	General office desk; 3/A8.6.3	1	ls	7,116.90	7,117		
674	Library circulation desk; 7/A8.6.3	1	ls	18,000.00	18,000		
675	Mass Ave admin desk; 5/A8.6.3	1	ls	9,750.00	9,750		
676	Preschool admin desk; 1/A8.6.3	1	ls	18,750.00	18,750		
677	<i>Display cases</i>						
678	Display case 3'-6" x 5'-0" at auditorium balcony corridor	3	ea	1,575.00	4,725		
679	Display case at corridor 4'-0" x 4'-0"; 11/A8.6.4	1	ea	1,440.00	1,440		
680	Display case double sided at art rooms 2'-6" x 2'-6"	6	ea	750.00	4,500		
681	Display case double sided at art rooms 3'-8" x 7'-2"	11	ea	3,156.35	34,720		
682	Narrow display case at auditorium balcony entry 3'-0" x 4'-0"; 16/A8.6.4	1	ea	720.00	720		
683	Narrow display case at auditorium entry 4'-0" x 4'-0"; 4/A8.6.4	2	ea	960.00	1,920		
684	Narrow display case at library entry 3'-0" x 4'-0"; 12/A8.6.4	1	ea	720.00	720		
685							
686	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
687	Miscellaneous sealants throughout building	408,600	gsf	1.00	408,600		
688							
689	080002 GLAZING						
690	Mirror at alt pe fitness	1,015	sf	38.00	38,570		
691	Mirror at dressing rooms	303	sf	38.00	11,514		
692	Mirror at ensemble	20	sf	38.00	760		
693	Mirror at SPED alt pe	430	sf	38.00	16,340		
694							
695	101100 VISUAL DISPLAY SURFACES						
696	Marker board	13,214	sf	24.00	317,136		
697	Marker board with music staff lines	546	sf	28.00	15,288		
698	Tackboard	1,995	sf	22.00	43,890		
699	Tackstrip above markerboard in pre-k classrooms	90	sf	22.00	1,980		
700	LCD screen						NIC
701							
702	101400 SIGNAGE						
703	Building directory	1	loc	3,000.00	3,000		
704	Room Signs	728	loc	120.00	87,360		
705	Other signage/graphics	1	ls	5,000.00	5,000		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
706	"Auditorium" cast letter signage at entrance, suspended from above	1	loc	1,000.00	1,000		
707	"Café" cast letter signage at library desk	1	ea	300.00	300		
708	"Disclosure" lab cast letter signage at library desk	1	ea	750.00	750		
709	"Media center" cast letter signage at library desk	3	ea	825.00	2,475		
710	"Circulation" cast letter signage at library desk	1	loc	825.00	825		
711	Custom vinyl graphic at gym & café	2,510	sf	20.00	50,200		
712	Vinyl graphic wall mural in corridors	2,050	sf	15.00	30,750		
713	River of hands mural from existing bldg to be salvaged and reinstalled	140	sf	15.00	2,100		
714							
715	102110 TOILET COMPARTMENTS						
716	ADA	14	ea	1,800.00	25,200		
717	Standard	41	ea	1,600.00	65,600		
718	Urinal screen	9	ea	650.00	5,850		
719	Fourth wall partition at select single bathrooms	18	ea	2,200.00	39,600		
720	Shower curtain and rod including changing stalls	23	ea	400.00	9,200		
721	Shower seat	7	ea	350.00	2,450		
722	Adult changing station	1	ea	1,500.00	1,500		
723	Regular changing station	10	ea	1,000.00	10,000		
724							
725	102800 TOILET ACCESSORIES						
726	Gang bathroom	28	rms	2,200.00	61,600		
727	Single bathroom	73	rms	800.00	58,400		
728	Janitors Closet Accessories	14	rms	300.00	4,200		
729	Custodian work room accessories	1	rms	1,000.00	1,000		
730	Electric hand dryers at gang bathrooms	28	ea	750.00	21,000		
731							
732	104400 FIRE PROTECTION SPECIALTIES						
733	Fire extinguisher cabinets	136	ea	350.00	47,600		
734							
735	105000 LOCKERS						
736	Team room lockers on wood base; single tier	100	ea	350.00	35,000		
737	Locker room, coach and teacher planning lockers on wood base; 5 Tier	1,620	ope	170.00	275,400		
738	Bench at locker and team rooms	184	lf	90.00	16,560		
739	Student lockers on wood base; 3 tier	2,025	ope	190.00	384,750		
740	Kitchen lockers; single tier	6	ea	300.00	1,800		
741	SUBTOTAL					3,888,956	
742							
743	TOTAL - INTERIOR CONSTRUCTION						\$17,845,839
744							
745							
746	C20 STAIRCASES						
747							
748	C2010 STAIR CONSTRUCTION						
749							
750	033000 CONCRETE						
751	Forum seating steps	1	ls	15,000.00	15,000		
752	Concrete to stairs	30	flt	2,800.00	84,000		
753							
754	055000 MISCELLANEOUS METALS						
755	Forum stairs (steel at seating with structural steel tonnage)	1	ls	75,000.00	75,000		
756	Egress stairs - Stair 1, 2, 3, 4, 5, 6, 8, 9	24	flt	32,000.00	768,000		
757	Straight run egress stairs - Stair 7, 9	3	flt	25,000.00	75,000		
758	Straight run stairs with wood panel guardrail and cap at stair 10; A10.2.1	1	flt	30,000.00	30,000		
759	Straight run stairs with GWB/Glass guardrail and wood cap - Stair 11; A10.2.2	1	flt	28,000.00	28,000		
760	Straight run stairs with GWB guardrail and woodcap - Stair 13; A10.2.2	1	flt	26,000.00	26,000		
761	Radiused stair with glass guardrail - Stair 12, A10.2.3	1	flt	35,000.00	35,000		
762	Ships ladder at stair 8	1	loc	15,000.00	15,000		
763	SUBTOTAL					1,151,000	
764							
765	C2020 STAIR FINISHES						
766							
767	064020 INTERIOR ARCHITECTURAL WOODWORK						
768	Wood and resin composite flooring at forum stairs/steps - treads, risers and landing	1,498	sf	35.00	52,430		
769							
770	090005 RESILIENT FLOORS						
771	Rubber tile at stairs - landings	6,300	sf	14.00	88,200		
772	Rubber tile at stairs - treads & risers	2,880	flt	22.00	63,360		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
773	090007 PAINTING							
774								
775	Photo luminescence markings	30	flt	2,000.00	60,000			
776	Paint to staircases	30	flt	3,000.00	90,000			
777								
778	096625 PRECAST EPOXY TERRAZZO							
779	Precast terrazzo tread/riser unit, 8/A10.3.2	383	lf	125.00	47,875			
780								
781	SUBTOTAL					401,865		
782	TOTAL - STAIRCASES							\$1,552,865
783								
784								
785	C30 INTERIOR FINISHES							
786								
787	C3010 WALL FINISHES							
788								
789	064020 INTERIOR ARCHITECTURAL WOODWORK							
790	3/4" solid wood paneling fixed to paint grade wood slats @ 4'-0" o.c at auditorium (A8.7.1 & A8.7.2)	1,080	sf	90.00	97,200			
791	Angled 3/4" solid wood paneling fixed to paint grade wood slats and 4" metal studs at auditorium (detail 3/A8.7.4)	188	sf	110.00	20,680			
792	Wood veneer 3/4" plywood at lobby overlook including flooring (A8.6.5)	300	sf	75.00	22,500			
793	Wood panel at proscenium head and jambs (A8.7.5)	808	sf	90.00	72,720			
794	Plywood behind wood panel at proscenium at front face (A8.7.5)	303	sf	6.00	1,818			
795	Wood panel at front and underside of auditorium balcony including plywood and 4" stud framing (1&6/A8.7.4)	1,644	sf	110.00	180,840			
796	Wood panel at fusco entrance	51	sf	75.00	3,825			
797	Reinstall salvaged fusco entrance	1	ls		w/ demo			
798	Wood panel at media center entrances	184	sf	75.00	13,800			
799	Wood panel at upper auditorium balcony entrance	120	sf	75.00	9,000			
800	Wood panel at D lab entrances	86	sf	75.00	6,450			
801	Wood paneling at auditorium entrance including curved ceiling detail	1,559	sf	110.00	171,490			
802								
803	Wood paneling at corridor balconies (10/A10.0.2)	238	sf	75.00	17,850			
804	Wood veneer plywood top at cafeteria lockers	750	sf	55.00	41,250			
805	Homosote tackable wall panels art rooms, corridor and maker classes	4,612	sf	16.00	73,792			
806	3-form Varia panels at backside surface of semi circle corridor locker pods; quote provided by 3-form	1	ls	33,583.82	33,584			
807								
808	066400 FRP PANELING							
809	FRP wall panels (10'-4" at kitchen, 8'-4" at kitchen support rooms)	5,250	sf	14.00	73,500			
810								
811	090002 TILE							
812	Toilet room wall tile	16,610	sf	22.00	365,420			
813	Full height tile at showers	155	sf	22.00	3,410			
814	Cafeteria tile	2,960	sf	24.00	71,040			
815	High school tile	38,300	sf	24.00	919,200			
816	Pre school wing corridor tile	3,560	sf	24.00	85,440			
817								
818	090007 PAINTING							
819	Paint to GWB	1,003,450	sf	0.80	802,760			
820	Paint to CMU	41,045	sf	1.25	51,306			
821	Premium for high performance paint at select locations	51,170	sf	0.75	38,378			
822	Prime and paint wall panels at rear of auditorium	2,519	sf	2.00	5,038			
823								
824	098400 ACOSUSTIC ROOM COMPONENTS							
825	Modular diffusive wall panels, solid mineral profile paneling at auditorium back wall (Modular Arts)	2,519	sf	59.00	148,621			
826	Sprayed acoustic finish system at library cone and steam and humanities cones and trapezoid features, Acoustic plaster; dwg A8.3.1	14,596	sf	15.00	218,940			
827	<u>Acoustic wall panels - AWP-1 (Tectum)</u>							
828	Band	1,135	sf	20.00	22,700			
829	Chorus	1,070	sf	20.00	21,400			
830	Ensemble	200	sf	20.00	4,000			
831	Practice	810	sf	20.00	16,200			
832	Pre-k multipurpose	754	sf	20.00	15,080			
833	Production studio	80	sf	20.00	1,600			
834	Production lab	200	sf	20.00	4,000			
835	Locker and team rooms	920	sf	20.00	18,400			
836	<u>Acoustic wall panels - AWP-2 (1" Fiberglass)</u>							



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
836	Corridor	1,480	sf	20.00	29,600			
837	D lab	300	sf	30.00	9,000			
838	Spine	1,160	sf	30.00	34,800			
839	Library learning commons	870	sf	30.00	26,100			
840	<u>Acoustic wall panels - AWP- 3 (Black architectural fiberglass boards)</u>							
841	Performing arts; 2" thick	1,000	sf	12.00	12,000			
842	Acoustic wall panels behind solid wood panel slats in Auditorium (1/A8.7.1)	978	sf	18.00	17,604			
843	Troweled acoustic finish system at school committee skylights	130	sf	50.00	6,500			
844	SUBTOTAL					3,788,836		
845								
846	C3020 FLOOR FINISHES							
847								
848	033000 CONCRETE							
849	Exposed concrete with hardener; EXP-C	21,410	sf	2.50	53,525			
850								
851	033650 CONCRETE FINISHES							
852	Polished stained concrete; AFC-1	27,965	sf	12.00	335,580			
853	Polished unstained concrete; AFC-2	17,705	sf	10.00	177,050			
854								
855	064020 INTERIOR ARCHITECTURAL WOODWORK							
856	Wood base	350	lf	20.00	7,000			
857	Wood and resin composite flooring at forum stair platform on 2nd floor	300	sf	35.00	10,500			
858								
859	090002 TILE							
860	Marble threshold at gang bathrooms	28	loc	150.00	4,200			
861								
862	090005 RESILIENT FLOORS							
863	MCT (includes floor prep + premium adhesive)	224,138	sf	5.50	1,232,759			
864	Premium for water jetted graphics at corridor locations (A2.0C)	1,080	sf	10.00	10,800			
865	Resilient Base	36,217	lf	3.50	126,760			
866	Moisture mitigation	224,138	sf		NR			
867								
868	096560 ATHLETIC + WOOD FLOORING							
869	Vinyl athletic flooring - Taraflex sport M plus; RAF-1	1,460	sf	12.20	17,812			
870	Interlocking rubber floor tile 3/8" thick; RAF-2	3,070	sf	10.00	30,700			
871	Poured seamless sports flooring; RAF-3	9,920	sf	13.50	133,920			
872	Wood athletic flooring; WAF	16,070	sf	18.00	289,260			
873	Stage wood flooring	5,270	sf	24.00	126,480			
874	Moisture mitigation at rubber	12,990	sf	5.00	64,950			
875	Moisture mitigation at wood	16,070	sf	3.00	48,210			
876	Ventilating cove base	1,016	lf	10.00	10,160			
877								
878	096700 FLUID APPLIED FLOORING							
879	Poured resinous flooring + cove base	12,965	sf	14.50	187,993			
880	Epoxy terrazzo ILO polished stained concrete at spine	11,395	sf	40.00	Alternate			
881								
882	096820 CARPETING							
883	Carpet tile	19,464	sf	6.25	121,650			
884	Broadloom carpet at auditorium aisles	4,550	sf	7.00	31,850			
885	Broadloom carpet at D-lab stepped risers and ramp	1,863	sf	7.00	13,041			
886	Moisture mitigation at carpet	25,877	sf	4.00	103,508			
887	SUBTOTAL					3,137,708		
888								
889	C3030 CEILING FINISHES							
890								
891	064020 INTERIOR ARCHITECTURAL WOODWORK							
892	1x6 solid maple slat ceiling fixed to blocking on suspended slotted channel framing at Auditorium; 7/A8.7.4	2,541	sf	80.00	203,280			
893								
894	090003 ACOUSTICAL TILE							
895	ACT 2 x 2 - Armstrong Calla Square Lay in; C1A	16,460	sf	7.00	115,220			
896	ACT 2 x 4 - Armstrong Calla Square Lay in; C1A	159,460	sf	6.00	956,760			
897	ACT 2 x 6 - Armstrong Ultima square lay in; C1B	30,130	sf	8.00	241,040			
898	ACT 2 x 6 staggered - Armstrong Ultima square lay in; C1B	56,600	sf	9.00	509,400			
899	ACT 2 x 6 - Armstrong Optima square lay in; C1C	4,180	sf	8.50	35,530			
900	ACT 2 x 6 staggered - Armstrong Optima square lay in; C1C	7,190	sf	10.50	75,495			
901	ACT 2 x 2 - Armstrong Calla Square lay in ; C1D black tile and grid	80	sf	7.00	560			
902	ACT 2 x 4 - Armstrong Ultima Health Zone; C1E washable	5,260	sf	6.50	34,190			
903	ACT 2 x 2; C1F	1,770	sf	4.00	7,080			



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
904	ACT 2 x 4; C1F	7,400	sf	3.50	25,900			
905	ACT 4 x 4 - Armstrong Optima Square lay in; C1G (70% of area)	3,468	sf	6.50	22,542			
906	ACT 2 x 4 - Armstrong Fine Fissure Lay in; C1H	12,735	sf	6.00	76,410			
907	Wood baffle system at corridors, Durlum polylam vertical baffle system with durgraphics wood print; C4A (material only quote)	1	ls	563,200.00	563,200			
908	Wood baffle system at corridors, Durlum polylam vertical baffle system with durgraphics wood print; C4A (install including black iron, threaded rod, and slab anchors)	4,470	lf	30.00	134,100			
909	Felt baffle system at corridors; Turf feltlock straight ceiling baffle; C4B (material only quote)	1	ls	159,167.00	159,167			
910	Felt baffle system at corridors; Turf feltlock straight ceiling baffle; C4B (install including Unistrut and structural supports)	9,772	lf	70.00	684,040			
911	Wood veneer plank ceiling system - C6	1,120	sf	40.00	44,800			
912	Axiom perimeter trim at wood and ACT clouds	1,200	lf	20.00	24,000			
913								
914	090007 PAINTING							
915	Paint to GWB ceilings	52,790	sf	1.00	52,790			
916	Paint to exposed K13	15,600	sf	2.50	NR			
917	Paint to exposed MEP and deck; EXP	6,110	sf	2.50	15,275			
918	Paint to exposed MEP and deck at gym, stage and auditorium; EXP	35,001	sf	3.00	105,003			
919	Paint to exposed MEP, deck to remain unpainted; EXP-U	6,470	sf	1.50	9,705			
920								
921	092900 GYPSUM BOARD ASSEMBLIES							
922	GWB ceiling	4,730	sf	15.00	70,950			
923	Acoustically isolated suspended gypsum board; C2B	14,430	sf	22.00	317,460			
924	GWB ceiling sloped to underside of select stairs	4,735	sf	17.00	80,495			
925	GWB soffits - vertical	31,345	sf	16.00	501,520			
926	GWB soffits - horizontal	11,980	sf	15.00	179,700			
927	Staging	1	ls	200,000.00	200,000			
928								
929	098400 SOUND ABSORBING PANELS							
930	K13 spray insulation - custom color - black & white ; C3A	15,600	sf	6.50	101,400			
931	Geometric sound diffuser panels 30% of area at band and chorus	1,486	sf	40.00	59,440			
932	Curved auditorium clouds with fiber resin gelcoat	343	sf	95.00	32,585			
933	3D solid felt ceiling grid tiles, turf crease tiles; C5A (material only quote)	1	ls	46,676.00	46,676			
934	3D open felt ceiling grid tile, turf slice tiles; C5B (material only quote)	1	ls	16,450.00	16,450			
935	Install C5A & C5B including supplying 2x2 grid	8,205	sf	5.00	41,025			
936	SUBTOTAL					5,743,188		
937								
938	TOTAL - INTERIOR FINISHES						\$12,669,732	
939								
940								
941	D10 CONVEYING SYSTEMS							
942								
943	D1010 ELEVATOR							
944	Machine-room-less, gearless traction elevators							
945	Elevator 3; 3 stop; 2 sided opening	1	ea	165,000.00	165,000			
946	Elevator 2 ; 4 stop	1	ea	180,000.00	180,000			
947	Elevator 1; 6 stop	1	ea	300,000.00	300,000			
948	Lift at Forum stair	1	ea	35,000.00	35,000			
949	SUBTOTAL					680,000		
950								
951	TOTAL - CONVEYING SYSTEMS						\$680,000	
952								
953								
954	D20 PLUMBING							
955								
956	D20 PLUMBING, GENERALLY							
957	Electric domestic HW heater, 99kW 250 gal	2	ea	24,000.00	48,000			
958	DHW preheat storage tank 300 gallons	2	ea	7,000.00	14,000			
959	Electric domestic HW heater, 63kW 250 gal	1	ea	20,000.00	20,000			
960	DHW preheat storage tank 300 gallons	1	ea	7,000.00	7,000			
961	Electric domestic HW heater	4	ea	8,000.00	32,000			
962	Instantaneous electric water heater	22	ea	800.00	17,600			
963	Expansion tank	7	ea	3,500.00	24,500			
964	Hot water circulator pump assembly	9	ea	1,400.00	12,600			
965	Main water mixing valve station	1	ea	4,800.00	4,800			
966	Tempered water mixing valve station	1	ea	3,600.00	3,600			
967	Tempered water circulator pump assembly	1	ea	1,400.00	1,400			
968	Main water meter and PRV assembly, primary and backup	2	ea	6,300.00	12,600			



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
969	Irrigation water meter and RBPB assembly	2	ea	4,300.00	8,600		
970	Domestic water sub-meter assembly	10	ea	650.00	6,500		
971	Connection to natural gas meter	1	ea	1,400.00	1,400		
972	Natural gas sub-meter assembly	1	ea	850.00	850		
973	Kitchen water sub-meter assembly	1	ea	1,200.00	1,200		
974	6" Reduce pressure backflow preventer, main service	1	ea	4,800.00	4,800		
975	4" Reduce pressure backflow preventer, backup service	1	ea	2,900.00	2,900		
976	3/4" Backflow preventer, HVAC/kitchen/misc	8	ea	1,600.00	12,800		
977	Roof drain	73	ea	1,200.00	87,600		
978	Area drain	3	ea	1,050.00	3,150		
979	Floor drain	42	ea	675.00	28,350		
980	Kitchen floor drain	5	ea	800.00	4,000		
981	Kitchen floor sink	9	ea	2,500.00	22,500		
982	Kitchen floor trough installation	3	ea	800.00	2,400		
983	Trench drain	50	lf	75.00	3,750		
984	Trap primer	16	ea	1,050.00	16,800		
985	Freezeproof wall hydrant	17	ea	325.00	5,525		
986	Hose bibb	29	ea	225.00	6,525		
987	Interior grease interceptor	2	ea	3,500.00	7,000		
988	Exterior grease interceptor (by division 33)					by others	
989	Air compressor with tank, filter, ref dryer (maker/wood shop)	1	ea	16,000.00	16,000		
990	Emergency shower/eyewash & drain	21	ea	3,250.00	68,250		
991	Acid neutralization tank w/ pH monitor	1	ea	48,000.00	48,000		
992	Rough-in & connection to kitchen equipment	57	conn	750.00	42,750		
993	<u>Plumbing Fixtures</u>						
994	Water closet	42	ea	1,525.00	64,050		
995	Water closet ADA	73	ea	1,550.00	113,150		
996	Water closet Child	11	ea	1,350.00	14,850		
997	Urinal	6	ea	1,575.00	9,450		
998	Urinal ADA	14	ea	1,600.00	22,400		
999	Lavatory ADA wall hung	132	ea	1,400.00	184,800		
1000	Sink ADA countertop	33	ea	1,275.00	42,075		
1001	Large sink countertop	7	ea	1,625.00	11,375		
1002	Large art room sink with sediment trap (multi faucet)	2	ea	5,000.00	10,000		
1003	Shower 36x36	6	ea	1,650.00	9,900		
1004	Shower ADA 36x36	7	ea	3,600.00	25,200		
1005	Mop sink with BFP	16	ea	1,425.00	22,800		
1006	Drinking fountain; bi-level w/ bottle fill	8	ea	3,850.00	30,800		
1007	Drinking fountain; single-level	14	ea	1,850.00	25,900		
1008	Bottle filler	16	ea	1,400.00	22,400		
1009	Art sink with trap	4	ea	1,850.00	7,400		
1010	Classroom sink conn (integral sink/faucet by others)	19	ea	450.00	8,550		
1011	Science room sink conn (integral sink/faucet by others)	75	ea	450.00	33,750		
1012	ES/EW Emergency shower/eyewash	17	ea	3,450.00	58,650		
1013	Laundry box	3	ea	350.00	1,050		
1014	Whirlpool connection	1	ea	900.00	900		
1015	Ice maker connection	2	ea	325.00	650		
1016	Washer outlet box	3	ea	350.00	1,050		
1017	Condensate drain receptor	10	ea	300.00	3,000		
1018	<u>Domestic/Tempered/NP Water Piping</u>						
1019	Copper pipe type L with fittings & hangers	28,845	lf	36.00	1,038,420		
1020	Valves & accessories	1	ls	155,763.00	155,763		
1021	<u>Pipe insulation</u>						
1022	Pipe insulation	28,845	lf	10.00	288,450		
1023	<u>Sanitary W&V UG, SV Cast Iron Pipe</u>						
1024	6" SV Cast iron pipe with fittings	630	lf	47.00	29,610		
1025	4" SV Cast iron pipe with fittings	3,255	lf	31.00	100,905		
1026	<3" SV Cast iron pipe with fittings	885	lf	24.00	21,240		
1027	<u>Sanitary W&V AG, Hubless Cast Iron Pipe</u>						
1028	Cast iron pipe with fittings & hangers	11,590	lf	45.00	521,550		
1029	<u>Storm Drainage UG, SV Cast Iron Pipe</u>						
1030	15" SV Cast iron pipe with fittings	60	lf	190.00	11,400		
1031	12" SV Cast iron pipe with fittings	385	lf	135.00	51,975		
1032	10" SV Cast iron pipe with fittings	350	lf	106.00	37,100		
1033	8" SV Cast iron pipe with fittings	575	lf	72.00	41,400		
1034	6" SV Cast iron pipe with fittings	570	lf	48.00	27,360		
1035	4" SV Cast iron pipe with fittings	105	lf	31.00	3,255		
1036	<u>Storm Drainage AG, Hubless Cast Iron Pipe</u>						



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1037	Cast iron pipe with fittings & hangers	5,040	lf	55.00	277,200		
1038	Pipe insulation on horizontal runs	2,560	lf	17.00	43,520		
1039	Storm outlets & accessories	1	ls	8,500.00	8,500		
1040	<u>Acid Waste AG, Polypropylene</u>						
1041	Acid waste pipe with fittings	5,610	lf	85.00	476,850		
1042	<u>Natural Gas Piping</u>						
1043	Natural gas pipe with fittings & hangers	2,430	lf	41.00	99,630		
1044	Science lab gas valve shutoff box (3rd,4th,5th floors)	6	ea	450.00	2,700		
1045	Science lab gas turrets	80	ea	450.00	36,000		
1046	<u>Compressed Air Piping</u>						
1047	CA pipe with fittings & hangers (work shop)	490	lf	35.00	17,150		
1048	Outlets, valves & accessories	1	ls	9,000.00	9,000		
1049	<u>Early Bid Package #3 Phase 1</u>						
1050	Water closet ADA	5	ea	1,550.00	7,750		
1051	Lavatory ADA wall hung	4	ea	1,400.00	5,600		
1052	Sink ADA countertop	1	ea	1,275.00	1,275		
1053	Domestic water rough-in and connection	10	ea	800.00	8,000		
1054	Sanitary W&V rough-in and connection	10	ea	1,000.00	10,000		
1055	Demolition	1	ls	6,000.00	6,000		
1056	<u>Miscellaneous</u>						
1057	Demo - drain and make safe	1	ls	40,000.00	40,000		
1058	System testing, flushing, disinfection	1	ls	21,000.00	21,000		
1059	Coring, cutting, sleeves & fire stopping	1	ls	62,500.00	62,500		
1060	Seismic restraints and structural steel comp.	1	ls	36,000.00	36,000		
1061	Hydraulic lifts/rigging	1	ls	80,000.00	80,000		
1062	Shop drawings / BIM / ENG Support / As-Builts	1	ls	165,000.00	165,000		
1063	Commissioning Support	1	ls	29,000.00	29,000		
1064	Fees & permits	1	ls	30,000.00	Waived		
1065	SUBTOTAL					5,095,003	
1066							
1067	TOTAL - PLUMBING						\$5,095,003
1068							
1069							
1070	D30 HVAC						
1071							
1072	D30 HVAC, GENERALLY						
1073	<u>Central plant equipment</u>						
1074	ACHP-1,2 (10 - 30 ton modules); air-cooled heat pump with simultaneous	2	ea	818,500.00	1,637,000		
1075	ACH-1,2 (3 - 60 ton modules); air-cooled chiller with noise reducing package	2	ea	282,000.00	564,000		
1076	B-1,2 Hot water boiler, electric 490 KW	2	ea	45,000.00	90,000		
1077	Expansion tank	10	ea	4,000.00	40,000		
1078	Air separator	4	ea	3,500.00	14,000		
1079	Glycol feed system	4	ea	7,500.00	30,000		
1080	Chemical pot feeder	4	ea	800.00	3,200		
1081	<u>Pumps</u>						
1082	HWP-1,2,3 Hot water loop pump Bldg D/E (ACHP)	3	ea	13,000.00	39,000		
1083	HWP-4,5,6 Hot water loop pump Bldg A/B (ACHP)	3	ea	13,000.00	39,000		
1084	CHWP-1,2,3 Chilled water loop pump Bldg D/E (ACHP)	3	ea	21,000.00	63,000		
1085	CHWP-4,5,6 Chilled water loop pump Bldg A/B (ACHP)	3	ea	21,000.00	63,000		
1086	CHWP-7,8 Chilled water loop pump Bldg D/E (ACH)	2	ea	11,000.00	22,000		
1087	CHWP-9,10 Chilled water loop pump Bldg A/B (ACH)	2	ea	11,000.00	22,000		
1088	BP-1,2 Boiler pump Bldg D/E	2	ea	4,500.00	9,000		
1089	BP-3,4 Boiler pump Bldg A/B	2	ea	4,500.00	9,000		
1090	VFD's	20	ea	4,000.00	80,000		
1091	<u>Heating equipment</u>						
1092	Miscellaneous specialties	1	ls	25,000.00	25,000		
1093	Unit heater, electric	3	ea	950.00	2,850		
1094	Cabinet unit heater HW, ceiling	8	ea	1,150.00	9,200		
1095	Cabinet unit heater HW, wall	9	ea	1,050.00	9,450		
1096	Panel radiator, wall	146	lf	300.00	43,800		
1097	Radiant heating/cooling floor tubing	16,540	sf	14.00	231,560		
1098	Radiant heating/cooling manifolds	12	ea	1,800.00	21,600		
1099	<u>Cooling equipment</u>						
1100	RFCU- Refrigerant fan coil unit, concealed (incl 20 for bldg E)	57	ea	2,800.00	159,600		
1101	RFCU- Refrigerant fan coil unit, cassette	94	ea	3,000.00	282,000		
1102	HRCU- Heat recovery condensing units with BC box (approx tons)	225	tons	1,900.00	427,500		
1103	AC- Air conditioning unit for Data/Elev	13	ea	1,750.00	22,750		
1104	HP-1 Outdoor heat pump CU, 10 tons (serves 8 AC)	1	ea	20,000.00	20,000		
1105	HP-2 Outdoor heat pump CU, 6 tons (serves 5 AC)	1	ea	12,000.00	12,000		
1106	<u>Heat recovery condensing unit</u>						
1107	HRCU-ERU-1: (8 - 8ton compressors)	64	tons	2,000.00	128,000		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1108	HRCU-ERU-2: (3 - 8ton compressors)	24	tons	2,000.00	48,000		
1109	HRCU-ERU-3: (1 - 8ton compressors)	8	tons	2,000.00	16,000		
1110	HRCU-ERU-4: (6 - 8ton compressors)	48	tons	2,000.00	96,000		
1111	HRCU-HRU-3: (5 - 10 ton compressors)	50	tons	2,000.00	100,000		
1112	HRCU-HRU-6: (5 - 10 ton compressors)	50	tons	2,000.00	100,000		
1113	HRCU-HRU-7: (2 - 6 ton compressors)	12	tons	2,000.00	24,000		
1114	HRCU-HRU-8: (4 - 8 ton compressors)	32	tons	2,000.00	64,000		
1115	HRCU-HRU-9: (4 - 10 ton compressors)	40	tons	2,000.00	80,000		
1116	HRCU-HRU-10: (4 - 10 ton compressors)	40	tons	2,000.00	80,000		
1117	HRCU-HRU-11: (6 - 10 ton compressors)	60	tons	2,000.00	120,000		
1118	HRCU-HRU-12: (4 - 10 ton compressors)	40	tons	2,000.00	80,000		
1119	HRCU-HRU-13: (4 - 10 ton compressors)	40	tons	2,000.00	80,000		
1120	HRCU-HRU-14: (5 - 10 ton compressors)	50	tons	2,000.00	100,000		
1121	HRCU-HRU-15: (5 - 10 ton compressors)	50	tons	2,000.00	100,000		
1122	<u>Air distribution</u>						
1123	<u>Air Handling Unit</u>						
1124	ERU-1: 12000 CFM with DX, Elec Ht, ERW	12,000	cfm	15.00	180,000		
1125	ERU-2: 4000 CFM with DX, Elec Ht, ERW	4,000	cfm	15.00	60,000		
1126	ERU-3: 1100 CFM with DX, Elec Ht, ERW	1,100	cfm	16.00	17,600		
1127	ERU-4: 8000 CFM with DX, Elec Ht, ERW	8,000	cfm	15.00	120,000		
1128	HURU-1: 18000 CFM with CHW, HW & ERW	18,000	cfm	14.00	252,000		
1129	HURU-2: 18000 CFM with CHW, HW & ERW	18,000	cfm	14.00	252,000		
1130	HURU-3: 12000 CFM with DX, Elec Ht, ERW	12,000	cfm	15.00	180,000		
1131	HURU-4: 18000 CFM with CHW, HW & ERW	18,000	cfm	14.00	252,000		
1132	HURU-5: 18000 CFM with CHW, HW & ERW	18,000	cfm	14.00	252,000		
1133	HURU-6: 14000 CFM with DX, Elec Ht, ERW	14,000	cfm	15.00	210,000		
1134	HURU-7: 3650 CFM with DX, Elec Ht, ERW	3,650	cfm	15.00	54,750		
1135	HURU-8: 10000 CFM with DX, Elec Ht, ERW	10,000	cfm	15.00	150,000		
1136	HURU-9: 5250 CFM with DX, Elec Ht, ERW	5,250	cfm	15.00	78,750		
1137	HURU-10: 3850 CFM with DX, Elec Ht, ERW	3,850	cfm	15.00	57,750		
1138	HURU-11: 15000 CFM with DX, Elec Ht, ERW	15,000	cfm	15.00	225,000		
1139	HURU-12: 11200 CFM with DX, Elec Ht, ERW	11,200	cfm	15.00	168,000		
1140	HURU-13: 11200 CFM with DX, Elec Ht, ERW	11,200	cfm	15.00	168,000		
1141	HURU-14: 14000 CFM with DX, Elec Ht, ERW	14,000	cfm	15.00	210,000		
1142	HURU-15: 12500 CFM with DX, Elec Ht, ERW	12,500	cfm	15.00	187,500		
1143	HV-1: Kitchen MUA with HW	1	ea	32,000.00	32,000		
1144	Rooftop unit curbs	20	ea	10,000.00	200,000		
1145	FCB- Fan coil unit with CHW, HW	145	ea	6,000.00	870,000		
1146	<u>Fans</u>						
1147	General exhaust fan	1	ea	6,000.00	6,000		
1148	Kitchen hood grease exhaust fan	1	ea	13,000.00	13,000		
1149	Dishwasher exhaust fan	1	ea	3,500.00	3,500		
1150	Kiln exhaust fan	1	ea	3,000.00	3,000		
1151	Mech/elec exhaust fan	4	ea	3,800.00	15,200		
1152	Laser cutting machine exhaust fan (material handling)	3	ea	6,700.00	20,100		
1153	Unit ventilator (Art storage, kiln)	1	ea	11,000.00	11,000		
1154	HVLS fan 16' diameter	7	ea	9,200.00	64,400		
1155	<u>Sheet metal & Accessories</u>						
1156	Galvanized ductwork with fittings & hangers	410,000	lbs	15.00	6,150,000		
1157	Welded black iron grease exhaust ductwork	11,000	lbs	17.50	192,500		
1158	Dishwasher exhaust stainless steel	1,800	lbs	19.50	35,100		
1159	Lab exhaust stainless steel	2,500	lbs	19.50	48,750		
1160	Dust collector flanged/gasket 15" pressure class duct	1	ls	21,000.00	21,000		
1161	Laser cutter flanged/gasket 15" pressure class duct	1	ls	14,000.00	14,000		
1162	Duct insulation	230,000	sf	4.75	1,092,500		
1163	Firewrap kitchen duct insulation	3,000	sf	18.00	54,000		
1164	Registers, grilles & diffusers	408,600	sf	0.65	265,590		
1165	Sound attenuators	38	ea	6,800.00	258,400		
1166	VAV box with electric reheat coil	78	ea	1,200.00	93,600		
1167	VAV box with hot water reheat coil	40	ea	1,300.00	52,000		
1168	VAV box, cooling only	34	ea	900.00	30,600		
1169	VAV box, Exhaust	250	ea	1,100.00	275,000		
1170	Fan powered box with HW reheat coil	32	ea	2,300.00	73,600		
1171	Dust collector, fabric type with funnel bottom	1	ea	27,000.00	27,000		
1172	Fire/smoke dampers	1	ls	100,000.00	100,000		
1173	Miscellaneous sheet metal accessories	408,600	sf	0.25	102,150		
1174	<u>Piping</u>						
1175	<u>Hot Water Pipe</u>						
1176	Hot water piping	24,920	lf	38.00	946,960		
1177	Misc valves & accessories	1	ls	94,696.00	94,696		
1178	<u>Chilled Water Pipe</u>						
1179	Chilled water piping	18,165	lf	46.00	835,590		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
1180	Misc valves & accessories	1	ls	83,559.00	83,559			
1181	<u>Refrigerant Piping</u>							
1182	RFCU refrigerant piping with fittings & hangers	20,130	lf	26.00	523,380			
1183	AC refrigerant piping with fittings & hangers	3,490	lf	26.00	90,740			
1184	ERU/HRU refrigerant piping with fittings & hangers	7,820	lf	42.00	328,440			
1185	<u>Condensate Drain Piping</u>							
1186	Condensate piping with fittings & hangers	4,190	lf	33.00	138,270			
1187	<u>Equipment Piping Hookup:</u>							
1188	Air cooled heat pump	2	ea	13,000.00	26,000			
1189	Air cooled chiller	2	ea	7,000.00	14,000			
1190	Boiler	2	ea	6,500.00	13,000			
1191	Pump	20	ea	3,200.00	64,000			
1192	HRU (CHW, HW)	4	ea	4,000.00	16,000			
1193	Kitchen MUA	1	ea	3,000.00	3,000			
1194	Fan coil box (CHW/HW) inc zone control valve	145	ea	1,900.00	275,500			
1195	Radiant manifold (CHW/HW)	12	ea	1,900.00	22,800			
1196	VAV box (HW)	40	ea	1,000.00	40,000			
1197	Fan powered box (HW)	32	ea	1,000.00	32,000			
1198	CUH & UH	17	ea	500.00	8,500			
1199	Panel radiator	17	ea	500.00	8,500			
1200	<u>Piping Insulation</u>							
1201	Piping insulation	78,715	lf	10.00	787,150			
1202	<u>Controls (DDC)</u>							
1203	Automatic temperature controls DDC	408,600	sf	6.25	2,553,750			
1204	<u>Balancing</u>							
1205	System testing & balancing	408,600	sf	0.80	326,880			
1206	<u>Miscellaneous</u>							
1207	Demo - drain and make safe	1	ls	200,000.00	200,000			
1208	System testing and flushing	1	ls	75,000.00	75,000			
1209	Coring, cutting, sleeves & fire stopping	1	ls	60,000.00	60,000			
1210	Seismic Restraints and Structural Steel Comp.	1	ls	147,700.00	147,700			
1211	Hydraulic lifts/rigging	1	ls	227,600.00	227,600			
1212	Shop drawings / BIM / ENG Support / As-Built	1	ls	384,600.00	384,600			
1213	General conditions	1	ls	385,000.00	385,000			
1214	Commissioning Support	1	ls	33,100.00	33,100			
1215	Fees & permits	1	ls	281,850.00	Waived			
1216	SUBTOTAL					27,152,565		
1217								
1218	TOTAL - HVAC						\$27,152,565	
1219								
1220								
1221	D40 FIRE PROTECTION							
1222								
1223	D40 FIRE PROTECTION, GENERALLY							
1224	Fire pump, jockey pump, and controllers	1	ea	100,000.00	100,000			
1225	8" Fire protection water service	2	ea	5,500.00	11,000			
1226	8" Double check valve assembly	1	ea	16,500.00	16,500			
1227	Wet alarm check valve assembly	6	ea	5,500.00	33,000			
1228	Electric bell	2	ea	400.00	800			
1229	Fire pump test header	1	ea	2,500.00	2,500			
1230	Fire department connection	1	ea	1,500.00	1,500			
1231	Dry alarm check valve/inlet PRV for Overhang dry heads	1	ea	6,000.00	6,000			
1232	Zone control valve stations	17	ea	2,200.00	37,400			
1233	Fire department valve	39	ea	600.00	23,400			
1234	Roof mounted FD valve and PIV assembly	3	ea	1,700.00	5,100			
1235	Sprinkler heads, wet	4,020	ea	130.00	522,600			
1236	Sprinkler heads, dry (under overhang)	45	ea	130.00	5,850			
1237	<1-1/2" branch piping with fittings & hangers	36,355	lf	22.50	817,988			
1238	2"-4" Main piping with fittings & hangers	10,780	lf	36.00	388,080			
1239	6" Main piping with fittings & hangers	1,485	lf	63.00	93,555			
1240	8" Main piping with fittings & hangers	1,360	lf	86.00	116,960			
1241	<u>Miscellaneous</u>							
1242	General conditions	1	ls	225,000.00	225,000			
1243	System testing and flushing	1	ls	13,100.00	13,100			
1244	Coring, cutting, sleeves & fire stopping	1	ls	21,900.00	21,900			
1245	Seismic Restraints and Structural Steel Comp.	1	ls	21,900.00	21,900			
1246	Hydraulic lifts/rigging	1	ls	61,700.00	61,700			
1247	Shop drawings / BIM / ENG Support / As-Built	1	ls	88,500.00	88,500			
1248	Commissioning Support	1	ls	10,500.00	10,500			
1249	Fees & permits	1	ls	23,880.00	Waived			
1250	SUBTOTAL					2,624,833		
1251								
1252	TOTAL - FIRE PROTECTION						\$2,624,833	
1253								
1254								



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
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NEW CONSTRUCTION

D50 ELECTRICAL

D5010 ELECTRICAL SYSTEMS

Gear & Distribution

Normal Power

6000A 277/480V switchboard (MSB-PV-BLDG + MSB-PV-SITE + MSB1)

2000A 277/480V switchboard

1600A 277/480V switchboard

1200A 277/480V switchboard

1000A 277/480V switchboard

1200A 277/480V distribution panelboard

1000A 277/480V distribution panelboard

600A 277/480V distribution panelboard

400A 277/480V distribution panelboard

225A 277/480V distribution panelboard

225A 277/480V panelboard

100A 277/480V panelboard

75KVA transformer

50KVA transformer

45KVA transformer

30KVA transformer

225A 120/208V double tub panelboard

225A 120/208V panelboard

150A 120/208V panelboard

100A 120/208V panelboard

Power monitoring

225A disconnect

100A disconnect

60A disconnect

Per Gap Memo:

600A panelboard

Feeders:

225A CU feed

200A CU feed

175A CU feed

125A CU feed

100A CU feed

80A CU feed

70A CU feed

50A CU feed

2000A AL feed

1600A AL feed

1200A AL feed

1000A AL feed

800A AL feed

600A AL feed

400A AL feed

225A AL feed

Emergency power

2000KW diesel emergency generator with sound WP cover

400KW portable emergency generator, per spec (for construction Phasing)

Fuel for testing

Remote annunciator w/controls and E-stop

400A MTS

3000A 480/277V automatic transfer switch

400A automatic transfer switch

3000A 277/480V switchboard

1600A 277/480V switchboard

1200A 277/480V switchboard

1600A 277/480V distribution panelboard

1200A 277/480V distribution panelboard

1000A 277/480V distribution panelboard

800A 277/480V distribution panelboard

600A 277/480V distribution panelboard

400A 277/480V distribution panelboard

400A 277/480V panelboard

225A 277/480V panelboard



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1323	100A 277/480V panelboard	17	ea	1,600.00	27,200		
1324	175KVA transformer	1	ea	13,000.00	13,000		
1325	150KVA transformer	1	ea	11,610.00	11,610		
1326	112.5KVA transformer	4	ea	9,367.00	37,468		
1327	100KVA transformer	2	ea	8,000.00	16,000		
1328	75KVA transformer	7	ea	7,625.00	53,375		
1329	45KVA transformer	1	ea	5,536.00	5,536		
1330	30KVA transformer	1	ea	4,725.00	4,725		
1331	600A 120/208V distribution panelboard	2	ea	16,000.00	32,000		
1332	400A 120/208V distribution panelboard	2	ea	6,500.00	13,000		
1333	400A 120/208V panelboard	2	ea	3,280.00	6,560		
1334	300A 120/208V panelboard	2	ea	300.00	600		
1335	225A 120/208V panelboard	24	ea	2,670.00	64,080		
1336	125A 120/208V panelboard	1	ea	1,700.00	1,700		
1337	100A 120/208V panelboard	20	ea	1,600.00	32,000		
1338	Pull boxes	6	ea	900.00	5,400		
1339	Feeders:						
1340	600A CU feed	30	lf	159.40	4,782		
1341	500A CU feed	30	lf	126.75	3,803		
1342	400A CU feed	110	lf	111.00	12,210		
1343	300A CU feed	40	lf	65.00	2,600		
1344	250A CU feed	60	lf	59.00	3,540		
1345	225A CU feed	880	lf	51.25	45,100		
1346	175A CU feed	110	lf	41.00	4,510		
1347	150A CU feed	40	lf	34.00	1,360		
1348	125A CU feed	200	lf	32.00	6,400		
1349	100A CU feed	2,090	lf	25.00	52,250		
1350	70A CU feed	30	lf	22.00	660		
1351	50A CU feed	30	lf	13.50	405		
1352	360A MI cable	60	lf	222.00	13,320		
1353	310A MI cable	650	lf	150.00	97,500		
1354	300A MI cable	320	lf	130.00	41,600		
1355	3000A AL feed	1,120	lf	656.00	734,720		
1356	2000A AL feed	60	lf	437.00	26,220		
1357	1600A AL feed	570	lf	379.00	216,030		
1358	1200A AL feed	890	lf	282.25	251,203		
1359	1000A AL feed	400	lf	218.50	87,400		
1360	800A AL feed	200	lf	186.60	37,320		
1361	600A AL feed	450	lf	135.50	60,975		
1362	400A AL feed	2,630	lf	94.35	248,141		
1363	300A AL feed	50	lf	55.25	2,763		
1364	225A AL feed	2,050	lf	43.60	89,380		
1365	Photovoltaic						
1366	Roof mount PV arrays					Future	
1367	400A 277/480V panelboard	3	ea	3,300.00	9,900		
1368	225A 277/480V panelboard	2	ea	2,700.00	5,400		
1369	200A disconnect switch WP	6	ea	2,550.00	15,300		
1370	Feeders: <i>feeder lengths allowed, drawings incomplete</i>						
1371	1200A AL feed	1,300	lf	282.25	366,925		
1372	400A AL feed	1,050	lf	94.35	99,068		
1373	255A AL feed	200	lf	43.60	8,720		
1374	175A AL feed	600	lf	34.85	20,910		
1375	Rough-in with conduit and backboxes	1	ls	15,000.00	15,000		
1376	Equipment Wiring						
1377	Per Gap Memo:						
1378	ACH 500A feed, connection, allow safety switch	1	ea	49,100.00	49,100		
1379	ACH 400A feed, connection, allow safety switch	1	ea	22,800.00	22,800		
1380	ACHP 800A feed, connection, allow safety switch	2	ea	48,700.00	97,400		
1381	Boiler 800A feed, connection, allow safety switch	2	ea	30,300.00	60,600		
1382	Boiler pump 200A feed, connection, allow safety switch	4	ea	1,600.00	6,400		
1383	CWP 600A feed, connection, allow safety switch	6	ea	3,615.00	21,690		
1384	Dust collector 200A feed, connection, allow 100A safety switch	1	ea	3,600.00	3,600		
1385	HWP 600A feed, connection, allow safety switch	4	ea	2,400.00	9,600		
1386	Note: riser, mech schedules, & depicted points do not match, scope incomplete						
1387	AC 30A feed, connection & MMS	2	ea	1,370.00	2,740		
1388	ACCU 30A feed, connection & 30A FSS	3	ea	1,530.00	4,590		
1389	Anerobic digester allow 30A feed & connection	1	ea	1,790.00	1,790		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1390	BSB 20A feed, connection & 30A FSS	1	ea	1,440.00	1,440		
1391	CHB allow 30A feed, connection & 30A FSS	3	ea	1,365.00	4,095		
1392	Chiller 400A feed, connection & 400A FSS	6	ea	17,240.00	103,440		
1393	CHW 30A feed, connection & 30A FSS	3	ea	1,365.00	4,095		
1394	Compactor allow 30A feed & connection	1	ea	1,790.00	1,790		
1395	CP allow 30A feed & connection	2	ea	1,300.00	2,600		
1396	CUH 30A feed, connection & 30A FSS	19	ea	1,125.00	21,375		
1397	DC allow 30A feed, connection & 30SA FSS	1	ea	1,855.00	1,855		
1398	DF 30A feed, connection & MMS	4	ea	1,675.00	6,700		
1399	EF 20A feed, connection & combo MMS, switch with pilot light	15	ea	1,200.00	18,000		
1400	Elevator lit feed, connection & FSS, allow 30A	1	ea	1,890.00	1,890		
1401	Elevator lit feed, connection & NFSS, allow 30A	1	ea	1,250.00	1,250		
1402	Elevator fan feed, connection & NFSS, allow 30A	1	ea	1,890.00	1,890		
1403	Elevator controller 70A feed, connection & 100A FSS	2	ea	4,490.00	8,980		
1404	ERU 125A feed, connection & 200A FSS	2	ea	7,625.00	15,250		
1405	ERU 125A feed, connection & 200A FSS WP	1	ea	4,600.00	4,600		
1406	ERU 150A feed, connection & 200A FSS	1	ea	5,210.00	5,210		
1407	EUH 30A feed, connection & 30SA FSS	9	ea	1,225.00	11,025		
1408	EWH 30A feed, connection & MMS	22	ea	850.00	18,700		
1409	F 20A feed & connection	6	ea	1,010.00	6,060		
1410	FCB 20A feed & connection	88	ea	600.00	52,800		
1411	FCU 20A feed, connection & MMS	132	ea	450.00	59,400		
1412	FCU 30A feed, connection & MMS	1	ea	500.00	500		
1413	Fire pump connection	1	ea	2,500.00	2,500		
1414	Fire pump 225A feed (emergency power)				See Site Work		
1415	Fire pump 225A feed (normal power)	60	lf	51.00	3,060		
1416	FPB 20A feed, connection & MMS	32	ea	725.00	23,200		
1417	Heat tracing, allow	1	ls	15,000.00	15,000		
1418	Food waste recycling system feed & connection, allow 30A	1	ea	1,800.00	1,800		
1419	FPC 20A feed & connection	1	ea	1,235.00	1,235		
1420	HP 40A feed & connection	1	ea	1,065.00	1,065		
1421	HP 60A feed & connection	1	ea	1,750.00	1,750		
1422	HRCU feed, connection & safety switch, allow 60A	84	ea	3,200.00	268,800		
1423	HRU 125A feed, connection & 200A FSS WP	10	ea	7,580.00	75,800		
1424	HRU 150A feed, connection & 200A FSS WP	3	ea	7,910.00	23,730		
1425	HRU 175A feed, connection & 200A FSS WP	4	ea	8,205.00	32,820		
1426	HRU 250A feed, connection & 200A FSS WP	1	ea	9,565.00	9,565		
1427	HV 100A feed, connection & 100A FSS WP	1	ea	7,585.00	7,585		
1428	Jockey 20A feed, connection & 30A FSS	1	ea	1,325.00	1,325		
1429	Kiln feed, connection & NFSS, allow 60A	2	ea	1,740.00	3,480		
1430	Kiln vent feed, connection & NFSS, allow 30A	2	ea	1,155.00	2,310		
1431	Projection screen feed, connection & control station, allow 30A	2	ea	2,200.00	4,400		
1432	UV 30A feed, connection & 30A FSS	1	ea	1,120.00	1,120		
1433	VSD connection	48	ea	650.00	31,200		
1434	FCB feed & connection	145	ea	650.00	94,250		
1435	FPB feed & connection	32	ea	650.00	20,800		
1436	VAV feed & connection	78	ea	650.00	50,700		
1437	VRF feed & connection	151	ea	650.00	98,150		
1438	Kitchen/Servery equipment feed and connections						
1439	50A feed and connection	1	ea	1,100.00	1,100		
1440	40A feed and connection	1	ea	900.00	900		
1441	30A feed and connection	4	ea	800.00	3,200		
1442	20A feed and connection	20	ea	750.00	15,000		
1443	<u>Gymnasium</u>						
1444	Power to scoreboard & control stations	2	loc	3,500.00	7,000		
1445	MB feed & connection, allow 30A	1	ea	1,550.00	1,550		
1446	BB feed & connection, allow 30A	1	ea	1,500.00	1,500		
1447	Motorized bleacher feed, connection & FSS	2	ea	1,800.00	3,600		
1448	Power special purpose receptacle 14 & control to motorized backstop	7	ea	1,500.00	10,500		
1449	Conn ST shot timer	12	ea	100.00	1,200		
1450	Conn BC	1	ea	100.00	100		
1451	Conn SB scoreboard	3	ea	100.00	300		
1452	Conn MC	1	ea	100.00	100		
1453	SUBTOTAL					7,883,881	
1454							
1455	D5020 LIGHTING & POWER						
1456	<u>Lighting</u>						
1457	Exit	246	ea	344.00	84,624		



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1458	PC01-4	50	ea	480.00	24,000		
1459	PC01-6	12	ea	720.00	8,640		
1460	PC01-8	687	ea	960.00	659,520		
1461	PC01A	2	ea	480.00	960		
1462	PC01B	6	ea	480.00	2,880		
1463	PC02-10	2	ea	1,500.00	3,000		
1464	PC02-12	2	ea	1,800.00	3,600		
1465	PC02-14	1	ea	2,100.00	2,100		
1466	PC02-16	6	ea	2,400.00	14,400		
1467	PC02-4	33	ea	600.00	19,800		
1468	PC02-6	35	ea	900.00	31,500		
1469	PC02-8	149	ea	1,200.00	178,800		
1470	PC03??	4	ea	500.00	2,000		
1471	PC04	87	ea	179.00	15,573		
1472	PC04-2	2	ea	158.00	316		
1473	PC04A	28	ea	196.00	5,488		
1474	PC05	22	ea	2,600.00	57,200		
1475	PC06	11	ea	3,153.00	34,683		
1476	PC07	30	ea	365.00	10,950		
1477	PC08	37	ea	289.00	10,693		
1478	PC09-4	6	ea	628.00	3,768		
1479	PC09-8	14	ea	1,256.00	17,584		
1480	PC10	2	ea	2,065.00	4,130		
1481	PC12	2	ea	1,536.00	3,072		
1482	PC13C	24	ea	842.00	20,208		
1483	PC13D	16	ea	842.00	13,472		
1484	PC13E	6	ea	842.00	5,052		
1485	PC14	41	ea	622.00	25,502		
1486	PC15	3	ea	8,165.00	24,495		
1487	PC16-4	21	ea	564.00	11,844		
1488	PC16-6	11	ea	846.00	9,306		
1489	PC16-8	77	ea	1,128.00	86,856		
1490	PC16-104	0	ea	14,664.00	0		
1491	PC16-108	0	ea	15,228.00	0		
1492	PC16-110	2	ea	15,510.00	31,020		
1493	PC16A-04	6	ea	564.00	3,384		
1494	PC16A-08	57	ea	1,128.00	64,296		
1495	PC19-4	8	ea	384.00	3,072		
1496	PC19-6	139	ea	576.00	80,064		
1497	PC19-8	102	ea	768.00	78,336		
1498	PC20-4	5	ea	620.00	3,100		
1499	PC20-6	3	ea	930.00	2,790		
1500	PC20-8	16	ea	1,240.00	19,840		
1501	PC22???	55	ea	640.00	35,200		
1502	PC23-100	210	lf	0.00	Eliminated		
1503	PC23-4	1	ea	900.00	900		
1504	PC24-4	6	ea	524.00	3,144		
1505	PC24-8	22	ea	1,048.00	23,056		
1506	PC25	9	ea	438.00	3,942		
1507	PC-26	296	lf	290.00	85,840		
1508	PC26-12	332	lf	290.00	96,280		
1509	PC27	3	ea	2,400.00	7,200		
1510	PC29	26	ea	2,400.00	62,400		
1511	PC30??	4	ea	600.00	2,400		
1512	PC31	7	ea	576.00	4,032		
1513	RB03	437	lf	78.00	34,086		
1514	RB03-2	35	ea	312.00	10,920		
1515	RB03-3	10	ea	312.00	3,120		
1516	RB03-4	163	ea	312.00	50,856		
1517	RB04-4	15	ea	312.00	4,680		
1518	RB06-4	33	ea	900.00	29,700		
1519	RB07-8	17	ea	1,800.00	30,600		
1520	RB08-12	1	ea	1,008.00	1,008		
1521	RB08-20	2	ea	1,680.00	3,360		
1522	RB08-24	2	ea	2,016.00	4,032		
1523	RB09	20	ea	668.00	13,360		
1524	RB09T	2	ea	668.00	1,336		
1525	RB10-4	33	ea	412.00	13,596		



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1526	RB10-6	12	ea	618.00	7,416		
1527	RB10-8	13	ea	824.00	10,712		
1528	RB11	23	ea	1,420.00	32,660		
1529	RB13-4	1	ea	620.00	620		
1530	RB13-6	1	ea	930.00	930		
1531	RB13-8	4	ea	1,240.00	4,960		
1532	RB14-6	8	ea	620.00	4,960		
1533	RB14-8	8	ea	1,240.00	9,920		
1534	RB16T-4	87	ea	554.00	48,198		
1535	RB16AT-2	4	ea	470.00	1,880		
1536	RB16AT-4	12	ea	554.00	6,648		
1537	RC01	5	ea	277.00	1,385		
1538	RC02	17	ea	319.00	5,423		
1539	RC04	2	ea	1,702.00	3,404		
1540	RC04-4	10	ea	1,702.00	17,020		
1541	RC04-8	1	ea	1,702.00	1,702		
1542	RC05-2	4	ea	168.00	672		
1543	RC05-3	3	ea	252.00	756		
1544	RC05-4	13	ea	336.00	4,368		
1545	RC05-6	521	ea	504.00	262,584		
1546	RC05-8	30	ea	672.00	20,160		
1547	RC05A-3	3	ea	270.00	810		
1548	RC05A-6	30	ea	540.00	16,200		
1549	RC06-4	33	ea	360.00	11,880		
1550	RC06-6	38	ea	540.00	20,520		
1551	RC06-7	1	ea	630.00	630		
1552	RC06-8	32	ea	720.00	23,040		
1553	RC06-10	1	ea	900.00	900		
1554	RC06-18	1	ea	1,620.00	1,620		
1555	RC06-24	1	ea	2,160.00	2,160		
1556	RC07-4	5	ea	336.00	1,680		
1557	RC07-6	46	ea	504.00	23,184		
1558	RC07-8	4	ea	672.00	2,688		
1559	RC07-48??	0	ea	0.00	N/A		
1560	RC09	28	ea	379.00	10,612		
1561	RC13	34	ea	470.00	15,980		
1562	RC14	158	ea	191.00	30,178		
1563	RC15	27	ea	542.00	14,634		
1564	RC16	11	ea	319.00	3,509		
1565	RC17	144	ea	470.00	67,680		
1566	RC18??	1	ea	500.00	500		
1567	RC19	7	ea	470.00	3,290		
1568	RC20-6	3	ea	486.00	1,458		
1569	RC22	40	ea	220.00	8,800		
1570	RC24	192	ea	224.00	43,008		
1571	RC27T	29	ea	488.00	14,152		
1572	RC28	21	ea	266.00	5,586		
1573	RC29	3	ea	160.00	480		
1574	RC31	16	ea	632.00	10,112		
1575	RC32	125	ea	210.00	26,250		
1576	RC34	146	ea	214.00	31,244		
1577	RC42	13	ea	258.00	3,354		
1578	RC44	34	ea	416.00	14,144		
1579	RC52	21	ea	200.00	4,200		
1580	RC54	153	ea	223.00	34,119		
1581	RW01 connection only	56	ea	100.00	5,600		
1582	RW02	65	ea	579.00	37,635		
1583	SC01??	16	ea	413.00	6,608		
1584	SC03??	4	ea	413.00	1,652		
1585	SC04	18	ea	179.00	3,222		
1586	SC08??	18	ea	413.00	7,434		
1587	SC14??	2	ea	500.00	1,000		
1588	SC18	47	ea	356.00	16,732		
1589	SC18P	13	ea	356.00	4,628		
1590	Shower downlight RC16?	4	ea	280.00	1,120		
1591	SR01	2	ea	5,306.00	10,612		
1592	SW02	0	ea	1,820.00	N/A		
1593	SW03	20	ea	524.00	10,480		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1594	SW04	126	ea	216.00	27,216		
1595	SW04 power supply, allow	2	ea	1,000.00	2,000		
1596	SW05-4	3	ea	1,480.00	4,440		
1597	SW05-6	3	ea	2,220.00	6,660		
1598	SW05-8	14	ea	2,960.00	41,440		
1599	SW06	31	ea	2,400.00	74,400		
1600	SW06-4	1	ea	2,400.00	2,400		
1601	SW06-6	1	ea	2,400.00	2,400		
1602	SW07	3	ea	412.00	1,236		
1603	SW08-03	1	ea	375.00	375		
1604	SW08-04	18	ea	500.00	9,000		
1605	SW08-06	14	ea	750.00	10,500		
1606	SW08-08	38	ea	1,000.00	38,000		
1607	SW09	0	ea	509.00	0		
1608	SW09-4	31	ea	509.00	15,779		
1609	SW10	5	ea	848.00	4,240		
1610	SW11	6	ea	224.00	1,344		
1611	TE-01 66 LF	3	ea	1,650.00	4,950		
1612	TE-01 32 LF	5	ea	800.00	4,000		
1613	TE-01 head	116	ea	383.00	44,428		
1614	TG-01 32 LF??	2	ea	400.00	800		
1615	TG-01 head??	24	ea	383.00	9,192		
1616	TM01	12	ea	632.00	7,584		
1617	TR01, head	36	ea	150.00	5,400		
1618	TR01 (Track)	249	lf	50.00	12,450		
1619	TR02-8	10	ea	400.00	4,000		
1620	UC01	78	ea	220.00	17,160		
1621	UC01-4	118	ea	220.00	25,960		
1622	Discount on lighting fixture quote	(1)	ls	179,301.15	(179,301)		
1623	<u>Lighting control system</u>						
1624	Building Networked Lighting Control System	408,600	sf	0.75	306,450		
1625	Lighting control panel	42	ea	2,500.00	105,000		
1626	Single pole switch LV	355	ea	28.00	9,940		
1627	Occupancy sensor	215	ea	200.00	43,000		
1628	\$LV2	4	ea	65.00	260		
1629	\$LV3	5	ea	75.00	375		
1630	LV2	21	ea	100.00	2,100		
1631	LV3	9	ea	110.00	990		
1632	LV4	33	ea	120.00	3,960		
1633	Low voltage dimmer switch	4	ea	130.00	520		
1634	Low voltage over ride switch	71	ea	65.00	4,615		
1635	Photo sensor	221	ea	100.00	22,100		
1636	Single pole switch WP	2	ea	40.00	80		
1637	Single pole switch	31	ea	30.00	930		
1638	Vacancy sensor	517	ea	100.00	51,700		
1639	<u>Lighting circuitry</u>						
1640	Device plate	550	ea	5.25	2,888		
1641	Device box	6,500	ea	29.40	191,100		
1642	3/4" conduit	25,000	lf	6.50	162,500		
1643	#12 THHN	150,000	lf	0.85	127,500		
1644	12-2 MC cable	56,000	lf	4.25	238,000		
1645	12-3 MC cable	20,000	lf	5.00	100,000		
1646	Cat cabling	73,000	lf	1.40	102,200		
1647	<u>Branch devices</u>						
1648	Duplex receptacle	2,045	ea	26.00	53,170		
1649	Duplex receptacle, AV drawings	72	ea	26.00	1,872		
1650	Duplex receptacle in floor box	35	ea	26.00	910		
1651	Double duplex receptacle	502	ea	50.00	25,100		
1652	Double duplex receptacle, AV drawings	6	ea	50.00	300		
1653	Double duplex receptacle, in floor box	79	ea	50.00	3,950		
1654	GFI duplex receptacle	963	ea	42.00	40,446		
1655	GFI double duplex receptacle	8	ea	80.00	640		
1656	Special 13 20A L5-20R twist lock	7	ea	65.00	455		
1657	Special 14 30A35-30R twist lock	1	ea	75.00	75		
1658	Special 15 20A L6-20R twist lock	2	ea	65.00	130		
1659	Special 16 30A L6-30R twist lock	25	ea	75.00	1,875		
1660	Special 17 20A L15-20R twist lock	3	ea	65.00	195		
1661	Special 4 GFI	5	ea	85.00	425		



60% Construction Document Estimate

GFA 408,590

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1662	Special 3 50A 5-50R	4	ea	85.00	340		
1663	Special 7 10-30R	2	ea	75.00	150		
1664	Special 8 10/50R	16	ea	85.00	1,360		
1665	Special purpose receptacle, AV drawings	7	ea	65.00	455		
1666	Connection to aisle light at seat arm	59	ea	100.00	5,900		
1667	Connection to AVR	5	ea	100.00	500		
1668	Connection to control panel	2	ea	100.00	200		
1669	Connection to card reader	25	ea	100.00	2,500		
1670	Connection to door holder	26	ea	100.00	2,600		
1671	Connection to door operator	8	ea	100.00	800		
1672	Connection to ESV	1	ea	100.00	100		
1673	Connection to ESV WP	2	ea	120.00	240		
1674	Connection to fire alarm panel	28	ea	100.00	2,800		
1675	Connection to hand dryer	24	ea	85.00	2,040		
1676	Connection to int	2	ea	100.00	200		
1677	Connection to LL	4	ea	100.00	400		
1678	Connection to lula lift	2	ea	150.00	300		
1679	Connection to MR	1	ea	100.00	100		
1680	Connection to PWR	1	ea	100.00	100		
1681	Connection to security LV power supply	17	ea	85.00	1,445		
1682	Rough-in for future catenary lighting	10	ea	100.00	1,000		
1683	Connection to door operator motor	16	ea	100.00	1,600		
1684	Connection to auditorium equip	16	ea	100.00	1,600		
1685	Connection to black box equip	4	ea	100.00	400		
1686	MPS	4	ea	150.00	600		
1687	Cord reel with duplex	142	ea	600.00	85,200		
1688	Cord reel with GFI	18	ea	525.00	9,450		
1689	FB AV drawings, 12 gang	4	ea	1,200.00	4,800		
1690	Floor box/Poke thru	120	ea	500.00	60,000		
1691	<u>Branch circuitry</u>						
1692	Device plate WP	33	ea	20.00	660		
1693	Device plate	3,900	ea	5.25	20,475		
1694	Device box	4,200	ea	29.40	123,480		
1695	3/4" conduit	20,000	lf	6.50	130,000		
1696	#12 THHN	130,000	lf	0.85	110,500		
1697	#10 THHN	4,000	lf	1.00	4,000		
1698	#8 THHN	2,000	lf	1.40	2,800		
1699	12-2 MC cable	42,300	lf	4.25	179,775		
1700	12-3 MC cable	14,000	lf	5.00	70,000		
1701	1" EMT in floor, allow to FB/PT	4,000	lf	10.00	40,000		
1702	SUBTOTAL					5,881,343	
1703							
1704	D5030 COMMUNICATION & SECURITY SYSTEMS						
1705	<u>Telecommunications - Structured Cabling</u>						
1706	MDF fit-out closet	1	loc	8,000.00	8,000		
1707	IDF fit-out closet	12	loc	4,000.00	48,000		
1708	Rack	18	ea	850.00	15,300		
1709	Network Server					By owner	
1710	1-port device (phone)	172	ea	22.00	3,784		
1711	1-port device	65	ea	22.00	1,430		
1712	2-port device	523	ea	44.00	23,012		
1713	4-port device	18	ea	66.00	1,188		
1714	6-port device	1	ea	130.00	130		
1715	8-port device	9	ea	170.00	1,530		
1716	Data CAM	1	ea	22.00	22		
1717	CAM	4	ea	22.00	88		
1718	TV device	127	ea	44.00	5,588		
1719	WAP device	326	ea	350.00	114,100		
1720	WAP device WP	12	ea	400.00	4,800		
1721	Cat. 6a/5e cable	350,000	lf	1.20	420,000		
1722	Backbone cabling: 25pr cat CU & 25 strand MM fiber	2,000	lf	15.00	30,000		
1723	Rough-in						
1724	MDF fit-out rough-in	1	loc	5,000.00	5,000		
1725	IDF fit-out rough-in	12	loc	2,500.00	30,000		
1726	Device box with 1-1/4" conduit stub to accessible ceiling	510	ea	150.00	76,500		
1727	2 gang device box with 1-1/4" conduit stub to accessible ceiling	748	ea	200.00	149,600		
1728	Rough-in cable tray and J-hooks	408,600	sf	0.50	204,300		
1729	12' cable tray (closets)	200	lf	60.00	12,000		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1730	4" sleeve	60	ea	250.00	15,000		
1731	4" EMT	7,800	lf	31.70	247,260		
1732	Closet backboard	13	ea	500.00	6,500		
1733	System Grounding	1	ls	5,000.00	5,000		
1734	<u>Fire Alarm</u>						
1735	Fire alarm control panel	2	ea	40,000.00	80,000		
1736	Fire alarm terminal cabinet	16	ea	1,500.00	24,000		
1737	FSCP	1	ea	1,600.00	1,600		
1738	Remote annunciator	2	ea	1,600.00	3,200		
1739	Knox box	4	ea	330.00	1,320		
1740	Radio Master box	1	ea	6,500.00	6,500		
1741	Beacon	4	ea	281.00	1,124		
1742	Manual pull station	124	ea	107.00	13,268		
1743	Manual pull station WP	5	ea	117.00	585		
1744	Smoke detector	316	ea	148.00	46,768		
1745	Heat detector, allow	2	ea	148.00	296		
1746	CO detector	39	ea	148.00	5,772		
1747	Duct smoke detector with remote test switch, allow	24	ea	547.00	13,128		
1748	Audio/visual device	514	ea	151.00	77,614		
1749	Audio/visual device WP	2	ea	161.00	322		
1750	Combination AV/CO device	2	ea	200.00	400		
1751	Visual device	215	ea	130.00	27,950		
1752	Audio device	8	ea	130.00	1,040		
1753	Remote alarm indicator	53	ea	203.00	10,759		
1754	Magnetic door holder	94	ea	197.00	NIC		
1755	Lula connection	1	ea	350.00	350		
1756	AR	1	ea	500.00	500		
1757	MDC	1	ea	500.00	500		
1758	BP	7	ea	500.00	3,500		
1759	Connection to elevator status panel	1	ea	147.00	147		
1760	Connection to fire suppression system	1	ea	147.00	147		
1761	Kitchen connection	2	ea	147.00	294		
1762	Elevator recall connection	4	ea	147.00	588		
1763	Tamper/flow switch	5	ea	235.00	1,175		
1764	Control/monitor module	100	ea	235.00	23,500		
1765	Device box WP	7	ea	40.00	280		
1766	Device box	1,550	ea	29.40	45,570		
1767	3/4" conduit	47,000	lf	6.50	305,500		
1768	FA cable	75,000	lf	1.50	112,500		
1769	Testing & programming	1	ls	13,000.00	13,000		
1770	<u>Bi-Directional Amplifier System (DAS)</u>						
1771	Bi-Directional Amplifier System	1	ls	175,000.00	175,000		
1772	BDA amplifier antenna	1	ea		Included		
1773	DAS device	80	ea		Included		
1774	DAS communication port	80	ea	22.00	1,760		
1775	Communication cabling	15,000	lf	1.20	18,000		
1776	2 gang device box with 1-1/4" conduit stub to accessible ceiling	80	ea	200.00	16,000		
1777	<u>Two-Way Communication</u>						
1778	Two-Way Communication	1	ls	25,000.00	25,000		
1779	<u>Public Address/Clock System</u>						
1780	Head end	1	ls	20,000.00	20,000		
1781	Phone/Handset, allow 1/telephone port	172	ea	250.00	43,000		
1782	Clock	49	ea	150.00	7,350		
1783	Clock WP	1	ea	200.00	200		
1784	Exterior building mounted clock	1	ls	50,000.00	50,000		
1785	Speakers, volume control and cabling, not depicted at this scope level	408,600	sf	0.30	122,580		
1786	<u>Classroom Speech Amplification</u>						
1787	Teach Logic IRM-5650/CS4 system equipment	131	ea	1,600.00	209,600		
1788	IMA-520 Maxim III Amplifier				Included		
1789	IRH-35 handheld microphone transmitter				Included		
1790	IRT-60 Sapphire pendant/neck worn classroom microphone transmitter				Included		
1791	BRC-55 Drop-in charger				Included		
1792	SP-628 ceiling speaker with speaker wire x4				Included		
1793	Rough-in						
1794	Wall box with conduit stub & device installation	131	ea	125.00	16,375		
1795	Speakers, assumes no back box, plenum cable, installation of speaker & cabling only	524	ea	75.00	39,300		
1796	Testing & set up	131	ea	750.00	98,250		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1797	<u>Auditorium</u>						
1798	Audio visual equipment, installation & LV cabling	1	ls	243,000.00	243,000		
1799	Production intercom system				Included above		
1800	Assistive Listening system				Included above		
1801	Audio visual rough-in:						
1802	12x12x4" box	5	ea	85.00	425		
1803	12x12x6" box	4	ea	100.00	400		
1804	1 gang back box	15	ea	29.40	441		
1805	2 gang back box	6	ea	39.00	234		
1806	3 gang back box	4	ea	49.00	196		
1807	4 gang back box	8	ea	58.00	464		
1808	4x4x4" box	4	ea	28.00	112		
1809	8x8x4" box	11	ea	49.00	539		
1810	Box as required	1	ea	250.00	250		
1811	Speaker, comes with back box	16	ea	65.00	Included		
1812	3/4" EMT	5,100	lf	6.50	33,150		
1813	1" EMT	3,000	lf	8.50	25,500		
1814	1-1/4" EMT	1,700	lf	12.00	20,400		
1815	1-1/2" EMT	550	lf	14.00	7,700		
1816	2" EMT	200	lf	16.60	3,320		
1817	Stage Lighting:						
1818	Rigging system equipment & installation	1	ls		See equipment		
1819	Power to rigging equipment, Hoist				NIC		
1820	Power to rigging control station				NIC		
1821	Stage dimming system, allowance per Barbizon 4/16/20	1	ls	316,500.00	316,500		
1822	Stage fixture and accessory package, allowance per Barbizon 4/16/20	1	ls	302,000.00	302,000		
1823	Company switch, 200A	1	ea	2,500.00	Incl. above		
1824	Feed to company switch	200	lf	45.00	9,000		
1825	Dimmer rack	3	ea		Incl. above		
1826	Rack installation	3	ea	1,500.00	4,500		
1827	225A feed to each rack, allow to main electric room (not depicted on riser yet)	600	lf	51.25	30,750		
1828	Lighting control rack	1	ls		Incl. above		
1829	Rack installation & power	1	ea	1,000.00	1,000		
1830	ELTS	1	ea		Incl. above		
1831	ELTS installation	1	ea	1,000.00	1,000		
1832	Feed to ELTS, allow 200A	200	lf	45.00	9,000		
1833	Control:						
1834	CC1	1	ea		Incl. above		
1835	CC2	1	ea		Incl. above		
1836	EP	5	ea		Incl. above		
1837	FP	1	ea		Incl. above		
1838	TP	1	ea		Incl. above		
1839	WL1	5	ea		Incl. above		
1840	WL2	2	ea		Incl. above		
1841	1 gang back box	13	ea	29.40	382		
1842	5 gang back box	1	ea	68.00	68		
1843	Floor box	1	ea		Incl. above		
1844	Box per manufacturer	1	ea		Incl. above		
1845	3/4" EMT	8,000	lf	6.50	52,000		
1846	Belden cable	12,000	lf	1.10	13,200		
1847	#14 THHN	1,500	lf	0.80	1,200		
1848	#16 THHN	3,000	lf	0.70	2,100		
1849	Circuitry:						
1850	BP1D	3	ea		Incl. above		
1851	BP1DE	1	ea		Incl. above		
1852	BP1E	2	ea		Incl. above		
1853	BP2DE	5	ea		Incl. above		
1854	BP2E	4	ea		Incl. above		
1855	BR1D	2	ea		Incl. above		
1856	BR1DE	3	ea		Incl. above		
1857	BR1E	8	ea		Incl. above		
1858	BR2DE	4	ea		Incl. above		
1859	SP5DE	4	ea		Incl. above		
1860	Circuit box installation	22	ea	150.00	3,300		
1861	Strip	14	ea		Incl. above		
1862	Strip installation	14	ea	300.00	4,200		
1863	Custom back box	9	ea		Incl. above		
1864	3 gang back box	13	ea	49.00	637		



60% Construction Document Estimate

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1865	3/4" EMT	6,000	lf	6.50	39,000		
1866	1" EMT	500	lf	8.50	4,250		
1867	#10 THHN	30,000	lf	1.00	30,000		
1868	Terminations	406	ea	15.00	6,090		
1869	Testing & system start-up					Incl. above	
1870	Initial light plot, installation & focus					Incl. above	
1871	<u>Blackbox Theater/Performing Arts</u>						
1872	Audio visual equipment, installation & LV cabling, allow	1	ls	67,500.00	67,500		
1873	Audio visual rough-in:						
1874	12x12x6" box	2	ea	100.00	200		
1875	2 gang back box	5	ea	39.00	195		
1876	4 gang back box	8	ea	58.00	464		
1877	8x8x4" box	19	ea	49.00	931		
1878	Speaker, comes with back box	2	ea	65.00	Included		
1879	3/4" EMT	2,500	lf	6.50	16,250		
1880	1" EMT	3,000	lf	8.50	25,500		
1881	1-1/4" EMT	400	lf	12.00	4,800		
1882	1-1/2" EMT	500	lf	14.00	7,000		
1883	Stage Lighting:						
1884	Rigging system equipment & installation, allowance per Barbizon	1	ls		See equipment		
1885	Stage dimming system, allowance per Barbizon 4/16/20	1	ls		Incl. above in Auditorium		
1886	Stage fixture and accessory package 4/16/20	1	ls		Incl. above in Auditorium		
1887	ELTS	1	ea		Incl. above		
1888	Feed to ELTS, allow 200A	200	lf	45.00	9,000		
1889	Control:						
1890	CC3	2	ea		Incl. above		
1891	FP	1	ea		Incl. above		
1892	PP	2	ea		Incl. above		
1893	1 gang back box	2	ea	29.40	59		
1894	5 gang back box	2	ea	68.00	136		
1895	Box per manufacturer	1	ea		Incl. above		
1896	3/4" EMT	7,500	lf	6.50	48,750		
1897	Belden cable	12,000	lf	1.10	13,200		
1898	#14 THHN	300	lf	0.80	240		
1899	#16 THHN	600	lf	0.70	420		
1900	Circuitry:						
1901	BP1D	3	ea		Incl. above		
1902	BP1E	7	ea		Incl. above		
1903	BP2DE	6	ea		Incl. above		
1904	BP2E	9	ea		Incl. above		
1905	BR1DE	5	ea		Incl. above		
1906	BR1E	3	ea		Incl. above		
1907	Circuit box installation	18	ea	150.00	2,700		
1908	Strip	15	ea		Incl. above		
1909	Strip installation	15	ea	300.00	4,500		
1910	Custom back box	10	ea		Incl. above		
1911	3 gang back box	8	ea	49.00	392		
1912	3/4" EMT	7,200	lf	6.50	46,800		
1913	#10 THHN	28,000	lf	1.00	28,000		
1914	Terminations	264	ea	15.00	3,960		
1915	Testing & system start-up					Incl. above	
1916	Initial light plot, installation & focus					Incl. above	
1917	<u>Audio Visual Systems</u>						
1918	Chorus room, carrying previous allowance	1	ls	10,800.00	10,800		
1919	Band room, carrying previous allowance	1	ls	10,800.00	10,800		
1920	Production Lab, carrying previous allowance	1	ls	27,000.00	27,000		
1921	Gymnasium sound system, carrying previous allowance	1	ls	15,000.00	15,000		
1922	Cafeteria sound system, carrying previous allowance	1	ls	15,000.00	15,000		
1923	Gymnasium RI:						
1924	4" square box	31	ea	29.40	911		
1925	4" deep square box	6	ea	29.40	176		
1926	6x6x4" pull box	6	ea	39.00	234		
1927	3/4" EMT	700	lf	6.50	4,550		
1928	1" EMT	800	lf	8.50	6,800		
1929	1-1/4" EMT	300	lf	12.00	3,600		
1930	1-1/2" EMT	100	lf	14.00	1,400		
1931	2" EMT	200	lf	16.60	3,320		
1932	2-1/2" EMT	100	lf	18.00	1,800		



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
1933	General building AV RI:						
1934	3/4" EMT	500	lf	6.50	3,250		
1935	1" EMT	100	lf	8.50	850		
1936	1-1/2" EMT	300	lf	12.00	3,600		
1937	Conduit to AV devices not yet covered in AV risers: allow 1-1/4" conduit per AVO.0 note 2, allow 50' per point	7,800	lf	13.60	106,080		
1938	10x10x4" box	3	ea	100.00	300		
1939	12x12x6" box	1	ea	150.00	150		
1940	1 gang back box	13	ea	29.40	382		
1941	2 gang back box	18	ea	39.00	702		
1942	3 gang back box	2	ea	49.00	98		
1943	4 gang back box	4	ea	58.00	232		
1944	Box as required	1	ea	500.00	500		
1945	Speaker, assumes comes with back box	103	ea		Included		
1946	Loudspeaker back box	2	ea	150.00	300		
1947	<u>Security System</u>						
1948	Head end	1	ls	30,000.00	30,000		
1949	CCTV camera	60	ea	750.00	45,000		
1950	CCTV camera PTZ	62	ea	1,200.00	74,400		
1951	CCTV camera WP	4	ea	950.00	3,800		
1952	CCTV camera PTZ WP	12	ea	1,500.00	18,000		
1953	Rough-in						
1954	Device box with conduit stub to accessible ceiling	138	ea	100.00	13,800		
1955	Cabling	14,000	lf	1.25	17,500		
1956	<u>Access Control System</u>						
1957	Head end including workstation with video display for programming & auditing	1	ls	70,000.00	70,000		
1958	Card reader	26	ea	600.00	15,600		
1959	CM	10	ea	200.00	2,000		
1960	Door contact	71	ea	200.00	14,200		
1961	Duress button	8	ea	150.00	1,200		
1962	Electric power transfer device	4	ea	150.00	600		
1963	Keypad	4	ea	500.00	2,000		
1964	Local door alarm	4	ea	150.00	600		
1965	Low voltage power supply	17	ea	150.00	2,550		
1966	Motion sensor	52	ea	225.00	11,700		
1967	Video intercom master station	5	ea	1,500.00	7,500		
1968	Video intercom station	5	ea	850.00	4,250		
1969	Door release device connection (device by Div 8)	3	ea	80.00	240		
1970	Electric latch retraction device connection (device by Div 8)	26	ea	80.00	2,080		
1971	Electric latch retraction panic hardware device connection (device by Div 8)	16	ea	80.00	1,280		
1972	Request to exit device connection (device by Div 8)	16	ea	80.00	1,280		
1973	Shooting detection sensor	87	ea	500.00	43,500		
1974	Allow for shooting detector sensor system not yet detailed, includes labor, rough-in & cabling	1	ls	160,000.00	160,000		
1975	High/low temperature sensor allowance	1	ls	41,000.00	41,000		
1976	On-floor water sensor and processor allowance	1	ls	41,000.00	41,000		
1977	Rough-in						
1978	3/4" conduit to door junction box	75	ea	85.00	6,375		
1979	4" square box with 3/4" conduit stub to door junction box	7	ea	100.00	700		
1980	4" square door junction box with 1" conduit stub to accessible ceiling	22	ea	130.00	2,860		
1981	Device box with conduit stub to accessible ceiling	220	ea	105.00	23,100		
1982	Cabling	26,000	lf	1.25	32,500		
1983	<u>Lightning Protection</u>						
1984	Lightning protection system, allow	1	ls	205,000.00	205,000		
1985	SUBTOTAL					5,654,499	
1986							
1987	D5040 OTHER ELECTRICAL SYSTEMS						
1988	<u>Common Work Results</u>						
1989	Grounding & bonding	1	ls	25,000.00	25,000		
1990	Coordination study and testing	1	ls	15,000.00	15,000		
1991	Seismic restraints	1	ls	10,000.00	10,000		
1992	Identification	1	ls	2,500.00	2,500		
1993	Fire stopping	1	ls	2,500.00	2,500		
1994	Rigging	1	ls	15,000.00	15,000		
1995	Shop drawings	1	ls	2,500.00	2,500		
1996	Temp power and lights	1	ls	250,000.00	250,000		
1997	Coordination, BIM	1	ls	275,000.00	275,000		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
1998	Permits and fees	1	ls	350,000.00	Waived			
1999	SUBTOTAL					597,500		
TOTAL - ELECTRICAL							\$20,017,223	
E10 EQUIPMENT								
E10 EQUIPMENT, GENERALLY								
111300	LOADING DOCK EQUIPMENT							
2009	Loading dock bumpers	1	ls	5,000.00	5,000			
114500	APPLIANCES							
2012	Full Size Fridge	21	ea	1,600.00	33,600			
2013	UC Fridge	16	ea	1,000.00	16,000			
2014	Full Size Freezer	2	ea	2,000.00	4,000			
2015	UC Freezer	1	ea	1,500.00	1,500			
2016	Microwave	32	ea	500.00	16,000			
2017	Washer	5	ea	1,500.00	7,500			
2018	Dryer	5	ea	1,500.00	7,500			
2019	Dishwasher	12	ea	1,000.00	12,000			
2020	Wall Oven	6	ea	1,000.00	6,000			
2021	Cook stove	10	ea	1,500.00	15,000			
2022	Exhaust Hood	13	ea	500.00	6,500			
2023	ADA Cooktop	8	ea	1,500.00	12,000			
2024	Ice Machine	1	ea	4,000.00	4,000			
2025	Ice Maker	2	ea	1,500.00	3,000			
114000	FOODSERVICE EQUIPMENT							
2028	Kitchen equipment (per Kitteridge Budget)	1	ls	700,848.00	700,848			
116000	LABORATORY EQUIPMENT							
2031	Fume Hoods, ductless	7	ea	32,500.00	227,500			
116200	THEATRE EQUIPMENT							
<u>Audiovisual Systems & Projection Screens</u>								
2035	Auditorium	1	ls	270,000.00	w/ electrical			
2036	Black Box	1	ls	75,000.00	w/ electrical			
2037	Chorus Room	1	ls	12,000.00	w/ electrical			
2038	Band Room	1	ls	12,000.00	w/ electrical			
2039	Production Lab	1	ls	30,000.00	w/ electrical			
2040	Amphitheater	1	ls	25,000.00	w/ electrical			
<u>Theatrical Lighting Systems & Fixtures</u>								
2042	Main Theater	1	ls	235,000	w/ electrical			
2043	Black Box	1	ls	105,000	w/ electrical			
2044	Amphitheater	1	ls	40,000	w/ electrical			
<u>Theatrical Equipment</u>								
2046	Auditorium Rigging	1	ls	500,693.00	500,693			
2047	Auditorium Platforms	1	ls	129,920.00	129,920			
2048	Auditorium Orchestra Ceiling Panels	1	ls	138,520.00	138,520			
2049	Black Box Theater	1	ls	45,000.00	Incl. above			
2050	Black Box, Platforms	1	ls	55,000.00	F,F & E			
126100	FIXED AUDIENCE SEATING							
2053	Auditorium fixed seating	736	ea	360.00	264,960			
2054	Auditorium loose seating	81	ea	290.00	23,490			
2055	DLab fixed seating	120	ea	360.00	43,200			
116600	ATHLETIC EQUIPMENT							
2058	Gym wall pads	1,537	sf	17.00	26,129			
2059	Pre-k multipurpose wall pads	520	sf	17.00	8,840			
2060	Small gym wall pads	1,687	sf	17.00	28,679			
2061	Basketball backstops; swing up; electric operated	7	ea	10,000.00	70,000			
2062	Gymnasium dividing net; electrically operated	1	loc	46,512.00	46,512			
2063	Rock climbing wall at small gym	500	sf	25.00	12,500			
2064	Volleyball net and standards	1	ls	5,000.00	5,000			
2065	Score boards in Gym (per specifications)	2	loc	25,000.00	50,000			
2066	Shot clocks in Gym (per specifications)	6	loc	1,500.00	9,000			



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
2067	Climbing ropes (per specifications)	2	loc	2,500.00	5,000			
2068	Motorized retractable practice cages at gym (per specifications)	1	loc	10,000.00	10,000			
2069	Wrestling mat hoist system (per specifications)	1	loc	8,000.00	8,000			
2070	Wrestling mat roll-up storage system, overhead	1	loc	10,000.00	10,000			
2071								
2072	119000 MISCELLANEOUS EQUIPMENT							
2073	Vocation and technology equipment, allowance	1	ls	50,000.00	F,F & E			
2074	Kiln	2	ea	5,000.00	F,F & E			
2075	3D printer	1	ea		F,F & E			
2076	Drying rack	1	ea		F,F & E			
2077	Engraver	1	ea		F,F & E			
2078	Hydrocollator	1	ea		F,F & E			
2079	Pottery wheel	6	ea		F,F & E			
2080	Print press	1	ea		F,F & E			
2081	Slab roller	1	ea		F,F & E			
2082	Wedging board	1	ea		F,F & E			
2083	Whirlpool	1	ea		F,F & E			
2084								
2085	126600 TELESCOPING STANDS							
2086	Telescoping bleachers (1915 seats)	1	ls	344,700.00	344,700			
2087	SUBTOTAL					2,813,091		
2088								
2089	TOTAL - EQUIPMENT							\$2,813,091
2090								
2091								
2092	E20 FURNISHINGS							
2093								
2094	E2010 FIXED FURNISHINGS							
2095								
2096	122100 WINDOW TREATMENT							
2097	Room darkening shades, manual	18,830	sf	7.00	131,810			
2098	Room darkening shades, motorized	2,120	sf	20.00	42,400			
2099	Dual shades, manual	1,260	sf	18.00	22,680			
2100	Motorized shades, blackout	520	sf	20.00	10,400			
2101	Motorized shades at gym skylights		sf		w/ roofing			
2102	Interior blinds at borrowed lights	8,703	sf	8.00	69,624			
2103	Interior blackout shades at borrowed lights	415	sf	20.00	8,300			
2104								
2105	123000 CASEWORK							
2106	<u>Art classrooms</u>							
2107	Base cabinet with epoxy resin countertop	106	lf	500.00	53,000			
2108	TS 36"	8	ea	1,800.00	14,400			
2109	TW 36"	6	ea	1,800.00	10,800			
2110	Upper cabinet	106	lf	300.00	31,800			
2111	<u>Band/Music Storage/Chorus</u>							
2112	Base cabinet with solid surface countertop	18	lf	450.00	8,100			
2113	TW 36"	3	ea	1,800.00	5,400			
2114	Upper cabinet	18	lf	300.00	5,400			
2115	Music storage	66	lf	800.00	52,800			
2116	<u>Compass Kitchen/Laundry</u>							
2117	Base cabinet with solid surface countertop	35	lf	450.00	15,750			
2118	Oven/Microwave surround 27"	1	ea	1,500.00	1,500			
2119	TW 36"	1	ea	1,800.00	1,800			
2120	Upper cabinet	13	lf	300.00	3,900			
2121	<u>Copy/mail rooms</u>							
2122	Base cabinet with solid surface countertop	14	lf	450.00	6,300			
2123	Mail slots - 4 tier	12	lf	225.00	2,700			
2124	TS 36"	1	ea	1,800.00	1,800			
2125	Upper cabinet	19	lf	300.00	5,700			
2126	<u>Copy/workroom</u>							
2127	Base cabinet with solid surface countertop	11	lf	450.00	4,950			
2128	Upper cabinet	11	lf	300.00	3,300			
2129	<u>Daycare kitchen</u>							
2130	Base cabinet with solid surface countertop	12	lf	450.00	5,400			
2131	Upper cabinet	12	lf	300.00	3,600			



CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
2132	TS 36"	2	ea	1,800.00	3,600		
2133	<u>District entry</u>						
2134	Base cabinet with solid surface countertop	5	lf	450.00	2,250		
2135	Mail slots - 4 tier	5	lf	225.00	1,125		
2136	<u>Dressing rooms</u>						
2137	Single tier upper shelf	51	lf	75.00	3,825		
2138	Wall hung plam counter	78	lf	250.00	19,500		
2139	<u>FACS</u>						
2140	Base cabinet with solid surface countertop	159	lf	450.00	71,550		
2141	Oven/Microwave surround 27"	2	ea	1,500.00	3,000		
2142	Teacher demo table 6'-6" wide	2	ea	2,500.00	5,000		
2143	TS 36"	11	ea	1,800.00	19,800		
2144	Upper cabinet	120	lf	300.00	36,000		
2145	<u>Interview</u>						
2146	Base cabinet with solid surface countertop	20	lf	450.00	9,000		
2147	Upper cabinet	18	lf	300.00	5,400		
2148	<u>LABBB</u>						
2149	Base cabinet with solid surface countertop	34	lf	450.00	15,300		
2150	Oven/Microwave surround 27"	1	ea	1,500.00	1,500		
2151	TS 36"	3	ea	1,800.00	5,400		
2152	Upper cabinet	39	lf	300.00	11,700		
2153	<u>Language lab</u>						
2154	Base cabinet with solid surface countertop	17	lf	450.00	7,650		
2155	Oven/Microwave surround 27"	1	ea	1,500.00	1,500		
2156	Upper cabinet	17	lf	300.00	5,100		
2157	<u>Kitchen</u>						
2158	Base cabinet with solid surface countertop	18	lf	450.00	8,100		
2159	Oven/Microwave surround 27"	1	ea	1,500.00	1,500		
2160	Upper cabinet	18	lf	300.00	5,400		
2161	<u>LLC - work</u>						
2162	Base cabinet with solid surface countertop	8	lf	450.00	3,600		
2163	Upper cabinet	8	lf	300.00	2,400		
2164	<u>Maker CADD lab</u>						
2165	Base cabinet with epoxy resin countertop	8	lf	500.00	4,000		
2166	TS 36"	2	ea	1,800.00	3,600		
2167	<u>Millbrook lunch</u>						
2168	Base cabinet with solid surface countertop	9	lf	450.00	4,050		
2169	Oven/Microwave surround 27"	1	ea	1,500.00	1,500		
2170	Upper cabinet	9	lf	300.00	2,700		
2171	<u>Mother's room</u>						
2172	Base cabinet with solid surface countertop	7	lf	450.00	3,150		
2173	Upper cabinet	7	lf	300.00	2,100		
2174	<u>Nurse</u>						
2175	Base cabinet with solid surface countertop	13	lf	450.00	5,850		
2176	Upper cabinet	13	lf	300.00	3,900		
2177	<u>Preschool classrooms</u>						
2178	Base cabinet with solid surface countertop	81	lf	450.00	36,450		
2179	TS 36"	18	ea	1,800.00	32,400		
2180	Upper cabinet	81	lf	300.00	24,300		
2181	TS 36"	2	ea	1,800.00	3,600		
2182	<u>Preschool teacher lunch</u>						
2183	Base cabinet with solid surface countertop	11	lf	450.00	4,950		
2184	Upper cabinet	11	lf	300.00	3,300		
2185	<u>Production lab</u>						
2186	TS 36"	2	ea	1,800.00	3,600		
2187	<u>Science classrooms</u>						
2188	Base cabinet with epoxy resin countertop	984	lf	500.00	492,000		
2189	Teacher demo table	17	ea	3,300.00	56,100		
2190	Upper cabinets	900	lf	300.00	270,000		
2191	<u>Science prep</u>						
2192	Base cabinet with epoxy resin countertop	189	lf	500.00	94,500		
2193	TS 36"	17	ea	1,800.00	30,600		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
NEW CONSTRUCTION								
2194	Upper cabinets	189	lf	300.00	56,700			
2195	<u>Smart center</u>							
2196	Base cabinet with solid surface countertop	20	lf	450.00	9,000			
2197	TS 36"	2	ea	1,800.00	3,600			
2198	Upper cabinet	14	lf	300.00	4,200			
2199	<u>Staff lunch</u>							
2200	Base cabinet with solid surface countertop	12	lf	450.00	5,400			
2201	Upper cabinet	12	lf	300.00	3,600			
2202	<u>Teacher planning</u>							
2203	Base cabinet with solid surface countertop	116	lf	450.00	52,200			
2204	Upper cabinet	144	lf	300.00	43,200			
2205	<u>Typical classroom</u>	72	rms					
2206	Tall storage 48"	72	ea	2,400.00	172,800			
2207	TS 30"	72	ea	1,500.00	108,000			
2208	TW 30"	72	ea	1,500.00	108,000			
2209	<u>Trainer</u>							
2210	Base cabinet with solid surface countertop	11	lf	450.00	4,950			
2211	TS 36"	1	ea	1,800.00	1,800			
2212	Upper cabinet	17	lf	300.00	5,100			
2213	<u>Workplace storage</u>							
2214	Base cabinet with solid surface countertop	20	lf	450.00	9,000			
2215	TS 36"	1	ea	1,800.00	1,800			
2216	Upper cabinet	20	lf	300.00	6,000			
2217	<u>Miscellaneous</u>							
2218	TS 36"	4	ea	1,800.00	7,200			
2219								
2220	124810 ENTRANCE FLOOR MAT AND FRAMES							
2221	Recessed entrance mats		sf	55.00	none shown			
2222	Walk off mats; EM-2	1,530	sf	15.00	22,950			
2223	Walk off mats; EM-3	2,640	sf	15.00	39,600			
2224	SUBTOTAL					2,520,564		
2225								
2226	E2020 MOVABLE FURNISHINGS							
2227	All movable furnishings to be provided and installed by owner							
2228	SUBTOTAL						NIC	
2229								
2230	TOTAL - FURNISHINGS							\$2,520,564
2231								
2232								
2233	F10 SPECIAL CONSTRUCTION							
2234								
2235								
2236	F10 SPECIAL CONSTRUCTION							
2237	CONSTRUCT TEMPORARY PARKING TO OFF-SET CONSTRUCTION AREA							
2238	Fence at temporary parking - basketball court	617	lf	38.00	23,446			
2239	Fence at PH 1	6,340	lf	38.00	w/ EBP#2			
2240	Fence at PH 2	1,003	lf	38.00	38,114			
2241	Fence at PH 3	2,245	lf	38.00	85,310			
2242	Fence at PH 4	2,660	lf	38.00	101,080			
2243	Construction gates - phasing and parking	24	ea	2,000.00	48,000			
2244	Restriping basketball courts for parking	16,200	sf	0.50	w/ EBP#2			
2245	Restriping existing roads/parking for temp parking	40,855	sf	0.50	w/ EBP#2			
2246	Infill islands for temporary parking	5,153	sf	5.00	w/ EBP#2			
2247	Temporary parking/laydown; assumed for contractor use; gravel base only	25,000	sf	2.50	w/ EBP#2			
2248	Temporary parking/laydown; assumed for contractor use; gravel base only EBP#2 MAJORITY	75,000	sf	2.50	w/ EBP#2			
2249	Temporary front access road	5,000	sf	10.00	w/ EBP#2			
2250	Temporary egress path; sidewalk	8,100	sf	4.00	32,400			
2251	PH2 Temporary access; exterior	1	ls	50,000.00	50,000			
2252	PH3 Temporary covered walkway	1	ls	15,000.00	15,000			
2253	SUBTOTAL Temporary Sitework					393,350		
2254	Salvage clock mechanism	1	ls	1,000.00	1,000			
2255	Salvage, repair and store Fusco stone entry façade	1	ls	200,000.00	200,000			
2256	Salvage, repair, store and reinstall Fusco wood panel	1	ls	15,000.00	15,000			
2257	Salvage Old Hall proscenium	1	ls	10,000.00	10,000			
2258	Salvage Old Hall plaster friezes	1	ls	4,000.00	4,000			



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NEW CONSTRUCTION							
2259	Salvage, repair, store and reinstall River of Hands mosaic	1	ls	20,000.00	20,000		
2260	SUBTOTAL Salvage + Repair Work					250,000	
2261							
2262							
2263	EBP3						
2264	<u>Phase 1 Downs Building</u>						
2265	Demo						
2266	Cut new opening in plaster and stud as required for new work	1	loc	1,500.00	1,500		
2267	Cut new opening in GWB wall as required for new work	1	loc	1,000.00	1,000		
2268	Remove plaster and stud partition complete	319	sf	6.00	1,914		
2269	Remove gwb and stud partition complete	297	sf	3.00	891		
2270	Remove existing folding wall, and door	275	sf	15.00	4,125		
2271	Remove lockers and cmu base- lockers	11	ea	50.00	550		
2272	Remove lockers and cmu base- cmu base sawcut and demo	11	lf	35.00	385		
2273	Remove double doors	2	lvs	150.00	300		
2274	Shower room demo	680	sf	15.00	10,200		
2275	Remove existing shower valve cabinet					in above	
2276	Remove benches					in above	
2277	Remove lockers					in above	
2278	Remove flooring					in above	
2279	Salvage lockers for reuse	96	ea	50.00	4,800		
2280	Individual toilet room demo	196	sf	15.00	2,940		
2281	Remove existing light fixtures					with Trades	
2282	Remove existing mechanical units cabinets and fintube radiator					with Trades	
2283	Remove MEPFP scope after disconnection by trades	3,856	gfa	3.00	11,568		
2284	Misc Demo	3,856	gfa	1.00	3,856		
2285	Demo trenching for new bathrooms	70	sf	25.00	1,750		
2286	Protection of adjacent/ existing	3,856	gfa	1.00	3,856		
2287	<u>Exterior Demo (see A1.1.7)</u>						
2288	Demo exterior wall for new opening	1	ea	3,000.00	scope deleted		
2289	Temporary shoring allowance	1	loc	1,000.00	scope deleted		
2290							
2291	Fitout/ New Construction						
2292	<u>Floor finishes</u>						
2293	A2 ETR- protect existing floors	119	sf	1.10	131		
2294	A2 ETR- minor patching -20%	24	sf	12.00	288		
2295	A1 ETR- protect existing floors	168	sf	1.10	185		
2296	A1 ETR- minor patching -20% incl demo	168	sf	12.00	2,016		
2297	A1 base replacement 20% Incl demo	10	lf	4.00	40		
2298	C1 ETR- protect existing floors	650	sf	1.10	715		
2299	C1 ETR- minor patching -20% incl demo	130	sf	12.00	1,560		
2300	C1 base replacement 20%	109	lf	4.00	436		
2301	C2 ETR- protect existing floors	1,613	sf	1.10	1,774		
2302	C2 ETR- minor patching -20%	323	sf	12.00	3,876		
2303	C3- Floor prep	728	sf	4.00	2,912		
2304	C3 New RF	728	sf	10.00	7,280		
2305	C3 New RB	227	lf	3.00	681		
2306	D2 ETR- protect existing floors	158	sf	1.10	174		
2307	D2 ETR- minor patching -20% incl demo (tile)	32	sf	25.00	800		
2308	D2 base replacement 20%	16	lf	16.00	256		
2309	E2 ETR- protect existing floors	112	sf	1.10	123		
2310	E2 ETR- minor patching -20%	22	sf	12.00	264		
2311	A3 ETR- protect existing floors	61	sf	1.10	67		
2312	A3 ETR- minor patching -20%	12	sf	12.00	144		
2313	Rollup mat 9'-0" x 6'-0"	1	ea	750.00	750		
2314	<u>Ceiling Finishes</u>						
2315	ACT Ceilings 2 x 2	380	sf	8.00	3,040		
2316	Paint exposed	2,800	sf	1.00	2,800		
2317	<u>Wall Finishes</u>						
2318	Paint new walls	7,265	sf	1.75	12,714		
2319	Paint existing	4,000	sf	1.75	7,000		
2320	Paint HM Frames	18	ea	175.00	3,150		
2321	<u>Walls</u>						
2322	Wall type 01 A, 6" MS, 1 lyr GWB ea side, SAB	209	sf	14.50	3,031		
2323	Wall type 01 B, 3-5/8" MS, 1 lyr GWB ea side, SAB	3,102	sf	11.00	34,122		



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NEW CONSTRUCTION							
2324	Wall type 02A, 6" MS, 1 lyr GWB one side, 2 lyrs opp,SAB	66	sf	17.00	1,122		
2325	Wall type 08B furring, 3-5/8" studs	198	sf	10.00	1,980		
2326	Wall type 08D furring, 2-1/2" studs	77	sf	8.00	616		
2327	Furring wall detail 15	236	sf	12.00	2,832		
2328	GWB interface detail at existing glass detail 1	3	loc	700.00	2,100		
2329	<u>Misc</u>						
2330	In wall Blocking	1,173	lf	3.00	3,519		
2331	Sealants	391	lf	4.00	1,564		
2332	Patching existing walls	4,000	sf	3.00	12,000		
2333	Install existing salvaged office partition	1	ls	200.00	200		
2334	Install salvaged items	1	ls	600.00	600		
2335	<u>DOORS</u>						
2336	Type A, WD, Frame and hardware	11	ea	1,255.00	13,805		
2337	Install	11	ea	325.00	3,575		
2338	Type B, WD, Frame and hardware	2	ea	1,300.00	2,600		
2339	Install	2	ea	325.00	650		
2340	Glazing	2	ea	125.00	250		
2341	Type C, WD, Frame and hardware	4	ea	1,255.00	5,020		
2342	Install	4	ea	325.00	1,300		
2343	Glazing	4	ea	200.00	800		
2344	Type G, WD, Frame and hardware	1	ea	1,255.00	1,255		
2345	Install	1	ea	325.00	325		
2346	Louver	1	ea	75.00	75		
2347	Blocking	306	lf	3.00	918		
2348	Sealants	306	lf	4.00	1,224		
2349	<u>Specialties/ Millwork/ Casework</u>						
2350	New accessories @ bathrooms	3	rms	900.00	2,700		
2351	Pass through mirror @ vestibule, track	1	ea	3,000.00	3,000		
2352	Counter @ pass through	4	lf	250.00	1,000		
2353	Plam casework - exam room base cabinets	6	lf	350.00	2,100		
2354	Plam casework - exam room wall cabinets	6	lf	250.00	1,500		
2355	Countertops	6	lf	150.00	900		
2356	Misc metals	1	ls	2,000.00	2,000		
2357							
2358	<u>Phase 1 Auditorium Building</u>						
2359	Demo						
2360	Gen Demo - Remove all wall mounted boards, furniture rugs and AV Equipment	4,300	sf	3.00	12,900		
2361	Toilet room demo	320	sf	15.00	4,800		
2362	Remove all toilet accessories					in above	
2363	Remove all enclosure					in above	
2364	Remove plumbing fixtures after disconnection					in above	
2365	Remove flooring					in above	
2366	Remove office partition and doors	490	sf	3.00	1,470		
2367	Misc protect existing items to remain	1	ls	2,500.00	2,500		
2368	Remove existing light fixtures					with Trades	
2369	Remove existing mechanical units cabinets and fintube radiator					with Trades	
2370	Remove MEPFP scope after disconnection by trades	4,500	gfa	1.00	4,500		
2371	Fitout/ New Construction						
2372	<u>Flooring- B1, C1, A1</u>						
2373	ETR- protect existing floors	3,846	sf	1.10	4,231		
2374	ETR- minor patching -20%	769	sf	12.00	9,228		
2375	Rubber base- replace minor 20%	119	lf	3.00	357		
2376	Bathrooms minor patching infills	1	rm	2,000.00	2,000		
2377	Patch existing tile	316	sf	5.00	1,580		
2378	<u>Walls</u>						
2379	Interior wall infill detail 17	1	loc	600.00	600		
2380	Wall type 01 A, 6" MS, 1 lyr GWB ea side, SAB	110	sf	14.50	1,595		
2381	<u>Misc</u>						
2382	Blocking in walls	1	ls	500.00	500		
2383	Sealants	1	ls	500.00	500		
2384	Door install	1	lvs	325.00	325		
2385	Patching-9' high	5,373	sf	2.00	10,746		
2386	Patching-9' high bathroom	648	sf	3.00	1,944		
2387	<u>Specialties/ Millwork/ Casework</u>						



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
NEW CONSTRUCTION							
2388	New accessories @ bathrooms	1	rms	2,000.00	2,000		
2389	New Enclosures	4	ea	1,300.00	5,200		
2390	Misc metals	1	ls	2,000.00	2,000		
2391	Projection screen	2	ea	3,500.00	7,000		
2392							
2393	<u>HVAC: Early Bid Package #3 Phase 1</u>						
2394	ERV-1,2 Energy recovery unit	2	ea	5,500.00	11,000		
2395	AC-1,2,3 Window air conditioner	3	ea	900.00	2,700		
2396	FCU-1,2	2	ea	1,600.00	3,200		
2397	HP-1 Outdoor heat pump CU, 1.5 tons	1	ea	4,000.00	4,000		
2398	Fin tube radiation	7	ea	700.00	4,900		
2399	Electric wall heater	2	ea	950.00	1,900		
2400	Electric heating coil	1	ea	900.00	900		
2401	F-1 General exhaust fan	1	ea	750.00	750		
2402	F-2 Sidewall exhaust fan	1	ea	1,500.00	1,500		
2403	Galvanized ductwork with fittings & hangers	3,500	lbs	15.00	52,500		
2404	Duct insulation	900	sf	8.00	7,200		
2405	AC refrigerant piping with fittings & hangers	280	lf	26.00	7,280		
2406	Piping insulation	280	lf	9.00	2,520		
2407	Controls	1	ls	25,000.00	25,000		
2408	Testing & balancing	1	ls	15,000.00	15,000		
2409	Demolition	1	ls	10,000.00	10,000		
2410							
2411	<u>Fire Protection; Temporary Phasing Work</u>						
2412	PH1 UG 6" water service piping (assume length)	300	lf	61.00	EBP #2		
2413	PH1 8" Main piping extend Fusco service	240	lf	97.00	EBP #2		
2414	PH1 4" Main piping re-feed riser in stair G3	220	lf	41.00	EBP #2		
2415	PH1 Relocate FDC	1	ls	8,000.00	EBP #2		
2416	PH1 Swing space subdivide classes for admin/nurse	1	ls	10,000.00	10,000		
2417							
2418	<u>Electrical; Temporary Phasing Work</u>						
2419	Temporary Phasing and relocation work per drawings	1	ls	200,000.00	200,000		
2420	SUBTOTAL PHASE 1 (EBP #3)					647,820	
2421							
2422	<u>Temp walls: PH1 (Not included in EBP#3)</u>						
2423	Level 3& 4 New Building Temp wall (Red)	5,808	sf				
2424	Temporary Exterior wall (Red) @new building	5,808	sf	28.00	162,624		
2425	Temporary exterior wall; maintenance	5,808	sf	1.50	8,712		
2426	Temporary exterior wall; demolition	5,808	sf	2.00	11,616		
2427	Disconnect exist sign	1	ls	2,500.00	2,500		
2428	Provide temporary pathway to mass avenue	4,300	sf		with site (check)		
2429							
2430	Phase 2						
2431	<u>Level 1</u>						
2432	Pit - use at Temp PE	3,227	sf	20.00	64,540		
2433	<u>Temp walls</u>						
2434	Temporary Exterior wall (Orange) @ existing opening	300	sf		-		
2435	Temporary exterior wall; 16 Ga studs; sheathing; MB; 4" mineral wool insulation	300	sf	28.00	8,400		
2436	Temporary exterior wall; maintenance	300	sf	1.50	450		
2437	Temporary exterior wall; demolition	300	sf	2.00	600		
2438	Demolition				with Demo		
2439	<u>Level 2</u>						
2440	Temp drama classroom	1,551	gfa	25.00	38,775		
2441	Temp server , café room; reuse existing equipment; minor work	7,111	gfa	10.00	71,110		
2442	Maintain Elevator in use				with GR"S		
2443	Wall lift for ADA Ramp	1	ea	35,000.00	35,000		
2444	<u>Temp walls</u>						
2445	Temporary Exterior wall (Orange) @ existing opening	450	sf	28.00	12,600		
2446	Temporary exterior wall; maintenance	450	sf	1.50	675		
2447	Temporary exterior wall; demolition	450	sf	2.00	900		
2448	Infill allowance	450	sf	10.00	4,500		
2449	<u>Temp Roof</u>						
2450	Temp Roof	500	sf	30.00	15,000		
2451	<u>Level 3</u>						
2452	Temp Library etc.	9,000	gfa	10.00	90,000		
2453	Temp Offices	750	gfa	10.00	7,500		



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NEW CONSTRUCTION							
2454	Temp classrooms	1,452	gfa	15.00	21,780		
2455	Lab spaces	6,750	gfa	30.00	202,500		
2456	Interior ramp & stairs; Portable ramp; includes demo	1	ls	48,437.60	48,438		
2457	Level 3 New Building Temp wall (Red) Extension (117' long to 224' long) . 117' in EBP	1,664	sf				
2458	Temporary Exterior wall (Red) @new building	1,664	sf	28.00	46,592		
2459	Temporary exterior wall; maintenance	1,664	sf	1.50	2,496		
2460	Temporary exterior wall; demolition	1,664	sf	2.00	3,328		
2461	Infills @ existing						
2462	Infills/ temporary exterior wall; 16 Ga studs; sheathing; MB; 4" mineral wool insulation	525	sf	28.00	14,700		
2463							
2464	Temporary exterior wall; maintenance	525	sf	1.50	788		
2465	Temporary exterior wall; demolition	525	sf	2.00	1,050		
2466	Infill allowance	525	sf	10.00	5,250		
2467	<u>Bridge</u>						
2468	Exterior bridge- complete; assume prefabricated structure; installation and removal	1	ls	127,000.00	127,000		
2469	Fire protection/Lighting	1	ls	15,000.00	15,000		
2470	<u>Level 4</u>						
2471	<u>Temp walls</u>						
2472	Temporary Exterior wall (Orange) @ existing opening	350	sf	28.00	9,800		
2473	Temporary exterior wall; maintenance	350	sf	1.50	525		
2474	Temporary exterior wall; demolition	350	sf	2.00	700		
2475	Infill allowance	350	sf	10.00	3,500		
2476	Level 4 New Building Temp wall (Red) Extension (186' long to 236' long)	800	sf				
2477	Temporary Exterior wall (Red) @new building	800	sf	28.00	22,400		
2478	Temporary exterior wall; maintenance	800	sf	1.50	1,200		
2479	Temporary exterior wall; demolition	800	sf	2.00	1,600		
2480	Open to below- no scope anticipated				n/a		
2481							
2482	Stair Wall (See A1.2.4)- Temporary wall around entire stair well -see A1.2.4	1,220	sf				
2483	Temporary Exterior wall (Red) @new building	1,220	sf	28.00	34,160		
2484	Temporary exterior wall; maintenance	1,220	sf	1.50	1,830		
2485	Temporary exterior wall; demolition	1,220	sf	2.00	2,440		
2486							
2487	<u>Temporary Phasing Work: Plumbing</u>						
2488	Phase 2: temp server/café/warming; new pot sink and hand sinks	1	ls	18,000.00	18,000		
2489	Phase 2: temp library and offices misc plumbing mods	1	ls	40,000.00	40,000		
2490	Phase 2: temp (5) classrooms misc plumbing mods	1	ls	25,000.00	25,000		
2491	Phase 2: temp drama classroom misc plumbing mods	1	ls	5,000.00	5,000		
2492							
2493	<u>HVAC: Temporary Phasing Work</u>						
2494	Phase 2: temp server/café/warming hvac mods	1	ls	20,000.00	20,000		
2495	Phase 2: temp library and offices misc hvac mods	1	ls	15,000.00	15,000		
2496	Phase 2: temp (5) classrooms misc hvac mods	1	ls	20,000.00	20,000		
2497	Phase 2: temp drama classroom misc hvac mods	1	ls	4,000.00	4,000		
2498							
2499	<u>Fire Protection: Temporary Phasing Work</u>						
2500	PH2 Swing space Fusco subdivide drama classes	1	ls	5,000.00	5,000		
2501	PH2 Swing space Fusco subdivide drama/connect to PH1 bldg	1	ls	5,000.00	5,000		
2502	PH2 Swing space temp Kitchen/Cafeteria mods	1	ls	15,000.00	15,000		
2503	PH2 Swing space temp Library modifications	1	ls	15,000.00	15,000		
2504	PH2 Swing space temp Classroom modifications	1	ls	10,000.00	10,000		
2505							
2506	<u>Electrical: Temporary Phasing Work</u>						
2507	Temporary Phasing and relocation work per drawings	1	ls	50,000.00	50,000		
2508							
2509	Phase 3						
2510	<u>1st Floor</u>						
2511	Temp PE Offices	1,762	gfa	10.00	with EBP		
2512	Temp Admin (Blue Area balance is in EBP). Scope here is one room	193	gfa	10.00	1,930		
2513	<u>Temp walls</u>						
2514	Temporary Exterior wall (Orange) @ existing opening	75	sf	28.00	2,100		
2515	Temporary exterior wall; maintenance	75	sf	1.50	113		
2516	Temporary exterior wall; demolition	75	sf	2.00	150		
2517	Infill allowance	75	sf	10.00	750		



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NEW CONSTRUCTION								
2518	Exterior Door	1	ea	4,000.00	4,000			
2519	Temporary Exterior wall (Red) @new building 12 ' high	2,460	sf	28.00	68,880			
2520	Temporary exterior wall; maintenance	2,460	sf	1.50	3,690			
2521	Temporary exterior wall; demolition	2,460	sf	2.00	4,920			
2522	<u>2nd floor</u>							
2523	Temp Classrooms	1,811	gfa	25.00	45,275			
2524	<u>Temp walls</u>							
2525	Temporary Exterior wall (Orange) @ existing opening some scope in Phase 2	75	sf	28.00	2,100			
2526	Temporary exterior wall; maintenance	75	sf	1.50	113			
2527	Temporary exterior wall; demolition	75	sf	2.00	150			
2528	Infill allowance	75	sf	10.00	750			
2529	Temporary Exterior wall (Red) @new building 12 ' high	2,232	sf	28.00	62,496			
2530	Temporary exterior wall; maintenance	2,232	sf	1.50	3,348			
2531	Temporary exterior wall; demolition	2,232	sf	2.00	4,464			
2532	<u>3rd floor</u>							
2533	<u>Temp walls</u>							
2534	Temporary Exterior wall (Orange) @ existing opening some scope in Phase 2	100	sf	28.00	2,800			
2535	Temporary exterior wall; maintenance	100	sf	1.50	150			
2536	Temporary exterior wall; demolition	100	sf	2.00	200			
2537	Infill allowance	100	sf	10.00	1,000			
2538	Temporary Exterior wall (Red) @new building 16 ' high (some scope in phase 2)	4,144	sf	28.00	116,032			
2539	Temporary exterior wall; maintenance	4,144	sf	1.50	6,216			
2540	Temporary exterior wall; demolition	4,144	sf	2.00	8,288			
2541	<u>4th floor</u>							
2542	<u>Temp walls</u>							
2543	Temporary Exterior wall (Red) @new building 16 ' high- Height unknown	4,256	sf	28.00	119,168			
2544	Temporary exterior wall; maintenance	4,256	sf	1.50	6,384			
2545	Temporary exterior wall; demolition	4,256	sf	2.00	8,512			
2546								
2547	<u>Temporary Phasing Work: Plumbing</u>							
2548	Phase 3: temp (2) drama classroom misc plumbing mods	1	ls	10,000.00	10,000			
2549	Phase 3: temp PE offices misc plumbing mods	1	ls	10,000.00	10,000			
2550								
2551	<u>HVAC: Temporary Phasing Work</u>							
2552	Phase 3: temp (2) drama classroom misc hvac mods	1	ls	8,000.00	8,000			
2553	Phase 3: temp PE offices misc hvac mods	1	ls	10,000.00	10,000			
2554	200 HP Rental steam boiler/fuel (18 months)	1	ls	288,000.00	288,000			
2555	Rental steam boiler steam/cond/water piping	1	ls	5,000.00	5,000			
2556								
2557	<u>Fire Protection: Temporary Phasing Work</u>							
2558	PH3 Swing space temp walkway modify as req'd	1	ls	5,000.00	5,000			
2559	PH3 Swing space temp Locker Room modifications	1	ls	5,000.00	5,000			
2560	PH3 Swing space subdivide classes for office/conf rooms	1	ls	10,000.00	10,000			
2561	PH1 Demolition- Collumb House/Auditorium service	1	ls	3,000.00	3,000			
2562	PH2 Demolition- Collumb House/Auditorium	1	ls	40,000.00	40,000			
2563	PH3 Demolition- Fusco/Blue Gym	1	ls	10,000.00	10,000			
2564	PH4 Demolition- Downs/Red Gym	1	ls	25,000.00	25,000			
2565	<u>Electrical: Temporary Phasing Work</u>							
2566	Temporary Phasing and relocation work per drawings	1	ls	50,000.00	50,000			
2567	SUBTOTAL PHASE 2 & 3					2,302,558		
2568								
2569	TOTAL - SPECIAL CONSTRUCTION						\$3,593,728	
2570								
2571								
2572	F20 SELECTIVE BUILDING DEMOLITION							
2573								
2574	F2010 BUILDING ELEMENTS DEMOLITION							
2575	See main summary for demolition of existing buildings							
2576	SUBTOTAL						\$0	
2577								
2578	F2020 HAZARDOUS COMPONENTS ABATEMENT							
2579	See main summary for HazMat allowance							
2580	SUBTOTAL						\$0	
2581								
2582	TOTAL - SELECTIVE BUILDING DEMOLITION						\$0	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITWORK

G SITEWORK

G10 SITE PREPARATION & DEMOLITION

	Site construction fence/barricades- EBP#2		lf			F10	
	Mobilization - CM carrying 405k	1	ls	205,000.00	205,000		
	Mobilization	1	ls	70,000.00	w/ EBP#2		
	Site GR's - police details survey	1	ls	225,000.00	225,000		
	Site GR's	1	ls	75,000.00	w/ EBP#2		
	Site construction fence gates	2	loc	15,000.00	w/ EBP#2		
	Stabilized construction entrance/ set-down area including maintenance during construction	2,100	sf	6.00	w/ EBP#2		
	Street sweeping	1	ls	90,000.00	90,000		
	Street sweeping - per leveling sheet	1	ls	90,000.00	w/ EBP#2		
	Temporary signage	1	ls	40,000.00	40,000		
	SUBTOTAL						560,000

	Demolish existing paving - add in shoulder	116,000	sf	1.25	145,000		
	Demolish existing paving	56,105	sf	1.25	w/ EBP#2		
	Demolish existing courtyards	31,400	sf	1.50	47,100		
	Demolish existing concrete pavers	2,895	sf	1.50	w/ EBP#2		
	Demolish existing playground	2,382	sf	1.50	w/ EBP#2		
	Demolish existing shot put landing area	3,268	sf	1.50	4,902		
	Demolish existing fencing	1,660	lf	5.00	8,300		
	Demolish existing fencing	220	lf	5.00	w/ EBP#2		
	Demolish existing backstops	130	lf	12.00	1,560		
	Demolish existing walls	610	lf	95.00	57,950		
	Demolish existing walls	290	lf	95.00	w/ EBP#2		
	Demolish existing trees	6	ea	400.00	2,400		
	Demolish existing trees	77	ea	400.00	w/ EBP#2		
	Clear existing vegetation/invasive species	1	acre	5,000.00	5,000		
	Demolish existing guardrails	343	lf	150.00	51,450		
	Demolish existing guardrails	45	lf	150.00	w/ EBP#2		
	Demolish existing signs	10	ea	150.00	w/ EBP#2		
	Demolish existing playground fence	143	lf	15.00	w/ EBP#2		
	Remove and stockpile existing storage at baseball	3	ea	500.00	1,500		
	Remove and stockpile existing softball benches	4	ea	500.00	2,000		
	Remove and stockpile existing shed at fields	1	ea	1,200.00	1,200		
	Remove and stockpile existing planter boxes	3	ea	350.00	1,050		
	Demolish existing bleacher - visitor	3,600	sf	2.00	7,200		
	Demolish existing bleacher foundations - visitor	16	ea	1,000.00	16,000		
	Demolish existing bleacher steel beams - visitor	2	ea	1,500.00	3,000		
	Demolish existing monitoring well	1	ls	5,000.00	w/ EBP#2		
	Demolish existing hydrant	2	ea	1,000.00	w/ EBP#2		
	Remove and stockpile existing hydrants	1	ea	1,000.00	1,000		
	Cut/cap water lines	3	ea	10,000.00	w/ EBP#2		
	Cut/cap gas lines	3	ea	10,000.00	w/ EBP#2		
	Demolish existing water gate	1	loc	500.00	w/ EBP#2		
	Demolish existing water lines	232	lf	20.00	4,640		
	Demolish existing water lines	1,360	lf	15.00	w/ EBP#2		
	Demolish existing drainage lines	2,131	lf	20.00	42,620		
	Demolish existing drainage lines	900	lf	15.00	w/ EBP#2		
	Demolish existing drainage utility structures	25	ea	250.00	6,250		
	Demolish existing drainage utility structures	13	ea	250.00	w/ EBP#2		
	Demolish existing utility pads	3	ea	250.00	w/ EBP#2		
	Demolish existing sewer lines	350	lf	15.00	w/ EBP#2		
	Demolish existing gas lines	351	lf	10.00	w/ EBP#2		
	Demolish existing duct bank	165	lf	10.00	w/ EBP#2		
	SUBTOTAL						410,122

Site Earthwork

	Preconstruction survey					NIC	
	Remove and dispose lawn	233,000	sf	0.10	23,300		
	Remove and dispose lawn	170,000	sf	0.10	w/ EBP#2		
	Strip & Stockpile topsoil from phase 1 for reuse	3,300	cy	12.00	w/ EBP#2		
	Strip & export topsoil (swelled 25%)	5,125	cy	25.00	128,125		
	<u>Phase One</u>						
	Cut	3,850	cy	10.00	w/ EBP#2		
	Store on site for reuse	3,300	cy	14.00	w/ EBP#2		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework							
70	Fill- reuse existing	3,300	cy	16.00	w/ EBP#2		
71	Export of surplus material; see building for disposal of classified material	688	cy	28.00	w/ EBP#2		
72	<u>Phase Two</u>						
73	Cut	2,400	cy	12.00	28,800		
74	Store on site for reuse	2,400	cy	14.00	33,600		
75	Fill- reuse existing	2,400	cy	16.00	38,400		
76	Fill - reuse from stockpiled foundation spoils (not include)	0	cy	16.00			
77	Fill - common fill import	14,400	cy	35.00	504,000		
78	<u>Phase Three</u>						
79	Cut	700	cy	12.00	8,400		
80	Export spoils for site earthwork- check classification	875	cy	25.00	included in disposal		
81	Fill - common fill import	5,600	cy	35.00	196,000		
82	<u>Phase Four</u>						
83	Cut	4,200	cy	12.00	50,400		
84	Store on site for reuse	4,200	cy	14.00	58,800		
85	Fill- reuse existing	4,200	cy	16.00	67,200		
86	Fill- common fill import	9,800	cy	35.00	343,000		
87	Import fill to replace exported contaminated soil	4,650	cy	35.00	162,750		
88	Support for SOE - equipment and crew	45	dy	2,500.00	w/ EBP#2		
89	Fine grading	58,064	sy	1.50	87,096		
90	SUBTOTAL					1,729,871	
91	<u>Erosion Control</u>						
92	Silt fence	14,000	lf	10.00	140,000		
93	Silt fence- EBP#2	1,200	lf	10.00	w/ EBP#2		
94	Silt fence maintenance and monitoring	1	ls	50,000.00	50,000		
95	Tree protection	700	lf	6.00	4,200		
96	Tree protection- EBP#2	1,054	lf	6.00	w/ EBP#2		
97	Inlet protection	26	ea	250.00	6,500		
98	Inlet protection- EBP#2	9	ea	250.00	w/ EBP#2		
99	Slope protection	1	ls	65,000.00	65,000		
100	Slope protection- EBP#2	1	ls	25,000.00	w/ EBP#2		
101	Repair to neighboring properties	1	ls	25,000.00	w/ EBP#2		
102	<u>Support of Geothermal Wells</u>						
103	Support of geothermal wells operations	1	ls	400,000.00	NIC		
104	Settlement tank	1	ls	492,000.00	NIC		
105	Water treatment	330	ea	3,000.00	NIC		
106	SUBTOTAL					265,700	
107	<u>Hazardous Waste Remediation</u>						
108	Contaminated soils associated with transformer				See Building		
109	Contaminated soils associated with utilities and sitework				See Building		
110	Clean corridor for utilities; allowance from DD	1	ls	100,000.00	100,000		
111	Treatment of water	1	ls	100,000.00	100,000		
112	Allowance to rework existing engineered barrier	1	ls	200,000.00	200,000		
113	Allowance for small repairs to engineered barrier	5	loc	20,000.00	100,000		
114	Remove transformer vault tank	1	ea	50,000.00	50,000		
115	Remove UST 1 (#2 stays in place)	1	ea	15,000.00	15,000		
116	SUBTOTAL					565,000	
117	G20 SITE IMPROVEMENTS						
118	<u>Roadways</u>						
119	Asphalt Paving; parking lot and roadway	86,000	sf				
120	gravel base; 12" thick (swell 25%)	3,981	cy	40.00	159,240		
121	asphalt top; 1.5" thick (Phase 1 work)	3,889	sy	18.00	70,002		
122	asphalt top; 1.5" thick	9,556	sy	18.00	172,008		
123	asphalt binder; 2.5" thick	9,556	sy	13.00	124,228		
124	asphalt binder; 2.5" thick - EBP#2 leveling sheet	3,889	sy	13.00	w/ EBP#2		
125	gravel base; 12" thick - EBP#2 leveling sheet	11,667	cy	40.00	w/ EBP#2		
126	Granite curbs	5,800	lf	46.00	266,800		
127	Granite curbs - landscape	120	lf	65.00	7,800		
128	Granite curbs repair along mass ave. for utility work	223	lf	46.00	10,258		
129	Crosswalk hatching	2	ea	1,200.00	2,400		
130	Other road markings	1	ls	5,000.00	5,000		
131	Parking ADA spaces	8	space	85.00	680		
132	Parking spaces	204	space	40.00	8,160		
133	Parallel parking spaces	24	space	40.00	960		
134	ADA panels	335	sf	18.00	6,030		



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework							
141	HC curb cuts	8	loc	1,500.00	12,000		
142	SUBTOTAL					845,566	
143							
144	<u>Pedestrian Paving</u>						
145	Concrete paving	55,000	sf				
146	gravel base; 8" thick	1,687	cy	40.00	67,480		
147	4" concrete paving	55,000	sf	12.00	660,000		
148	Premium for ramps	460	sf	20.00	9,200		
149	6" concrete pads	2,200	sf	14.00	30,800		
150	6" vehicular concrete paving	10,400	sf	14.00	145,600		
151	6" vehicular concrete paving- loading dock	2,600	sf	14.00	36,400		
152	Asphalt paving	700	sf				
153	gravel base; 6" thick	26	cy	40.00	1,040		
154	asphalt; 3" thick	78	sy	35.00	2,730		
155	<u>Raised concrete speed table</u>	1,800	sf		-		
156	gravel base; 12" thick	67	cy	40.00	2,680		
157	concrete paving; 6" thick	1,800	sf	12.00	21,600		
158	<u>Plaza at baseball field - per RFI log.</u>	1,300	sf		-		
159	gravel base; 8" thick	58	cy	40.00	2,320		
160	4" concrete paving	1,300	sf	12.00	15,600		
161	<u>Rumble strip concrete.</u>	930	sf		-		
162	gravel base; 12" thick	34	cy	40.00	1,360		
163	concrete paving; 6" thick	930	sf	15.00	13,950		
164	<u>Grass pavers</u>	120	sf				
165	gravel base; 4" thick	1	cy	40.00	40		
166	grass pavers	120	sf	25.00	3,000		
167	<u>Gravel surfacing at generator</u>	700	sf				
168	gravel base; 6" thick - assumed	13	cy	40.00	520		
169	SUBTOTAL					1,014,320	
170							
171	<u>Amphitheater - artificial turf detail</u>						
172	Artificial turf surfacing	3,700	sf				
173	Artificial turf surfacing - 1.5" fiber ht. w_ envirofill	3,700	sf	12.00	44,400		
174	Resilient underlayment (23 mm)	3,700	sf	1.95	7,215		
175	Field Liner (impermeable) equal to durascrim	3,700	sf	2.00	7,400		
176	Turf anchor- PT wood	1,040	lf	16.00	16,640		
177	Precast concrete edger/Seat wall - L6.2 1' x 1.5' set in concrete	400	lf	250.00	100,000		
178	2" HDPE perf pipe in stone trench	420	lf	45.00	18,900		
179	SUBTOTAL					194,555	
180							
181	<u>East courtyard lower level</u>						
182	Precast concrete pavers	2,630	sf	30.00	78,900		
183	Metal planter beds	270	sf	200.00	54,000		
184	Metal planter bed - drainage allowance	3	loc	500.00	1,500		
185	Groundcover	270	sf	6.50	1,755		
186	Mulch; 3" thick	3	cy	50.00	150		
187	Planting soil; 6" thick	5	cy	65.00	325		
188	Scarified soil; 4" thick	3	cy	25.00	75		
189	Light weight soil; 5" thick	4	cy	100.00	400		
190	Crushed stone; 6" thick	5	cy	40.00	200		
191	Geotextile	540	sf	1.50	810		
192	Access	1	ls	2,500.00	2,500		
193	SUBTOTAL					140,615	
194							
195	<u>East courtyard upper level</u>						
196	Metal planter beds	1,250	sf	200.00	250,000		
197	Metal planter bed - drainage allowance	7	loc	500.00	3,500		
198	Groundcover	1,250	sf	6.50	8,125		
199	Mulch; 3" thick	15	cy	50.00	750		
200	Planting soil; 6" thick	23	cy	65.00	1,495		
201	Scarified soil; 4" thick	15	cy	25.00	375		
202	Light weight soil; 5" thick	19	cy	100.00	1,900		
203	Crushed stone; 6" thick	23	cy	40.00	920		
204	Geotextile	2,500	sf	1.50	3,750		
205	Access	1	ls	2,500.00	2,500		
206	Precast concrete pavers	7,600	sf	30.00	228,000		



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework							
207	Precast concrete pavers on grade - wet set	1,200	sf	23.00	27,600		
208	1" Mortar setting bed	4	cy	1,000.00	incl. above		
209	4" Cement concrete pavement	1,200	sf	8.00	9,600		
210	8" Gravel base	30	cy	40.00	1,200		
211	Wood stepped seating system	580	sf	125.00	72,500		
212	Ornamental steel fence 8' high	345	lf	120.00	41,400		
213	Double gate	1	ea	5,000.00	5,000		
214	SUBTOTAL					658,615	
215							
216	<u>Playgrounds</u>						
217	<i>Poured-in-place areas</i>	4,700	sf				
218	3/4" crushed stone; 12" thick	174	cy	38.00	6,612		
219	dense graded crushed stone; 6" thick	87	cy	40.00	3,480		
220	Play surface; poured rubber (2 color) Quote DD phase	4,700	sf	35.00	164,500		
221	Playground structures- allowance	1	ls	100,000.00	100,000		
222	SUBTOTAL					274,592	
223							
224	<u>Site Improvements</u>						
225	Flag pole	1	ea	6,500.00	6,500		
226	PV foundations - visitor side of existing field	10	ea	2,000.00	20,000		
227	PV foundations - west parking lot	16	ea	2,000.00	32,000		
228	Free standing bench north plaza east	8	ea	5,000.00	40,000		
229	Free standing bench south plaza	167	lf	400.00	66,800		
230	Bench- pads only	4	ea	2,000.00	8,000		
231	Bicycle racks	42	ea	1,200.00	50,400		
232	Barrier gates - double	1	ea	15,000.00	15,000		
233	Barrier gates - single	2	ea	10,000.00	20,000		
234	Water fountain	1	ea	8,000.00	8,000		
235	Bollards - north plaza west	6	ea	900.00	5,400		
236	Bollards - north plaza west (tabled crosswalk) west	4	ea	900.00	3,600		
237	Bollards - north plaza west (tabled crosswalk) east	4	ea	900.00	3,600		
238	Bollards - south plaza	2	ea	900.00	1,800		
239	Bollards (around utility pads)	23	ea	800.00	18,400		
240	Bollards (manual retractable) Mass Ave.	1	ea	2,500.00	2,500		
241	School sign	1	ea	15,000.00	15,000		
242	School sign - foundation	1	ls	5,000.00	5,000		
243	Bike repair station - allow	1	ea	7,500.00	7,500		
244	Bicycle racks - bike repair area	8	ea	1,200.00	9,600		
245	Memorial bench 5/3.2	1	ea	4,000.00	4,000		
246	SUBTOTAL					343,100	
247							
248	<u>Fencing & handrails</u>						
249	8' fence - steel picket	90	lf	200.00	18,000		
250	8' gate, single	1	ea	2,000.00	2,000		
251	8' gate, double	2	ea	3,500.00	7,000		
252	8' fence	1,150	lf	85.00	97,750		
253	8' gate, single	3	ea	1,200.00	3,600		
254	8' gate, double	2	ea	1,800.00	3,600		
255	Page clips - premium	1,150	lf	15.00	17,250		
256	Ornamental fence - single gates	2	loc	1,500.00	3,000		
257	Ornamental fence playground	259	lf	120.00	31,080		
258	Vinyl CL Fencing 4' - on top of wall	15	lf	55.00	825		
259	Fence mow curb	1,000	lf	75.00	75,000		
260	Guardrail at baseball field	160	lf	350.00	56,000		
261	Guardrail at loading dock	41	lf	350.00	14,350		
262	Handrails at loading dock stairs	41	lf	250.00	10,250		
263	Handrails at ramps	54	lf	250.00	13,500		
264	SUBTOTAL					353,205	
265							
266	<u>Walls</u>						
267	<i>Concrete segmental block wall- walkway at baseball</i>	126	lf				
268	Large block wall- avg. 2' Ht.	315	sf	45.00	14,175		
269	Excavate and prepare wall base	28	cy	100.00	2,800		
270	Backfill wall - crushed stone	9	cy	65.00	585		
271	<i>Concrete segmental block wall- walkway at baseball</i>	114	lf				
272	Large block wall- avg. 2' Ht.	285	sf	45.00	Alt		



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework							
273	Excavate and prepare wall base	25	cy	100.00		Alt	
274	Backfill wall - crushed stone	8	cy	65.00		Alt	
275	Concrete segmental block wall- west parking lot	113	lf				
276	Large block wall- avg. 4' Ht.	509	sf	45.00		w/ EBP#2	
277	Excavate and prepare wall base (wider due to larger block)	25	cy	100.00		w/ EBP#2	
278	Backfill wall - crushed stone	17	cy	65.00		w/ EBP#2	
279	CIP Stairs and Walls at loading dock						
280	Stairs at loading dock	82	lf	225.00			18,450
281	Cheek walls	7	cy	1,200.00			8,400
282	CIP cheek wall footing at 6'-0" OC	4	loc	900.00			3,600
283	Concrete wall east courtyard - 3' avg. (former SOE)	170	lf				
284	E&B for retaining wall	126	cy	100.00			12,600
285	Formwork	1,190	sf	25.00			29,750
286	Re-bar	8,894	lbs	1.50			13,341
287	Concrete material; 4,000 psi	81	cy	145.00			11,745
288	Placing concrete	81	cy	150.00			12,150
289	Concrete wall amphitheater stage wall - 2' avg.	90	lf				
290	E&B for retaining wall	67	cy	100.00			6,700
291	Formwork	684	sf	25.00			17,100
292	Re-bar	4,280	lbs	1.50			6,420
293	Concrete material; 4,000 psi	42	cy	145.00			6,090
294	Placing concrete	42	cy	150.00			6,300
295	Concrete wall butterfly garden - 5' avg.	76	lf				
296	E&B for retaining wall	56	cy	100.00			5,600
297	Formwork	684	sf	25.00			17,100
298	Re-bar	4,280	lbs	1.50			6,420
299	Concrete material; 4,000 psi	42	cy	145.00			6,090
300	Placing concrete	42	cy	150.00			6,300
301	Concrete wall butterfly garden - 2.5' avg.	151	lf				
302	E&B for retaining wall	112	cy	100.00			11,200
303	Formwork	982	sf	25.00			24,550
304	Re-bar	7,749	lbs	1.50			11,624
305	Concrete material; 4,000 psi	69	cy	145.00			10,005
306	Placing concrete	69	cy	150.00			10,350
307							
308	Anti-graffiti coating	1,448	sf	6.00			8,688
309							
310	Misc. Concrete foundations for site elements	123	cy	800.00			98,400
311	E+B for foundations at site elements	185	cy	55.00			10,175
312	SUBTOTAL						396,708
313							
314	Sports Fields						
315	Softball	77,000	sf				
316	Turf field- dual fiber w/thatch zone (sand/rubber infill)	77,000	sf	4.25			327,250
317	Resilient underlayment	77,000	sf	1.40			107,800
318	Logo allowance	1	ls	15,000.00			15,000
319	Field top stone; 2" thick (stone dust)	753	tn	32.00			24,096
320	Field base stone; 8" thick (dense grade)	3,153	tn	28.00			88,284
321	Field Liner (impermeable) equal to durascrip 16 mil.	77,000	sf	0.75			57,750
322	Field Liner 30mil. - per comments	14,000	sf	1.20			16,800
323	Geotextile underlayment below base stone	8,556	sy	1.50			12,834
324	Geotextile- per comments	14,000	sf	0.75			10,500
325	Field slot drainage system and turf anchor	850	lf	180.00			153,000
326	Turf anchor without drain	350	lf	100.00			35,000
327	Trench drain basin - L8.9	9	loc	3,000.00			27,000
328	Turf drain basin - L8.9	15	loc	2,000.00			30,000
329	Field chamber system - L8.9	5,400	sf	45.00			243,000
330	12" HDPE	450	lf	50.00			22,500
331	8" HDPE	35	lf	40.00			1,400
332	Tractor	1	ls	20,000.00			20,000
333	Field safety testing suite (FIFA etc.)	1	ls	10,000.00			10,000
334	Turf bases	1	set	2,500.00			2,500
335	Backstop	1	loc	35,000.00			35,000
336	Scoreboard	1	loc	35,000.00			35,000
337	Vinyl CL 8' fence	165	lf	85.00			14,025
338	Vinyl CL 8' fence - disc cage	120	lf	85.00			10,200



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework							
339	Vinyl CL 6' fence	60	lf	75.00	4,500		
340	Vinyl CL 6' fence - single gate	2	loc	1,000.00	2,000		
341	Vinyl CL Fencing - 51"	1,065	lf	55.00	58,575		
342	Fence guard	1,290	lf	6.50	8,385		
343	Page clips - premium	1,290	lf	15.00	19,350		
344	45' rolling gate	1	ea	15,000.00	15,000		
345	Gate, single - excluding gates for alt bullpens	3	ea	850.00	2,550		
346	Sports netting 30'	180	lf	200.00	36,000		
347	Sports netting 24'	70	lf	190.00	13,300		
348	Allowance for sonotubes/steel at field netting	1	ls	50,000.00	50,000		
349	Bullpen - fortified infield mix	1	loc	10,000.00	10,000		
350	Dugouts concrete pads - no roof	2	loc	10,000.00	20,000		
351	8' Team benches - allow	4	ea	1,500.00	6,000		
352	Removable pitcher's rubber	1	loc	3,500.00	3,500		
353	Foul poles	2	ea	5,000.00	10,000		
354	Foul poles - turf access kit	2	ea	1,200.00	2,400		
355	Football goalpost east end only	1	loc	12,000.00	12,000		
356	Discus	1	ls	20,000.00	20,000		
357	Shotput	1	ls	35,000.00	35,000		
358	Shotput cage	1	ls	20,000.00	20,000		
359	Baseball	97,300	sf				
360	Turf field- dual fiber w/thatch zone (sand/rubber infill)	97,300	sf	4.25	413,525		
361	Resilient underlayment	97,300	sf	1.40	136,220		
362	Logo allowance	1	ls	15,000.00	15,000		
363	Field top stone; 2" thick (stone dust)	951	tn	32.00	30,432		
364	Field base stone; 8" thick (dense grade)	3,984	tn	28.00	111,552		
365	Field Liner (impermeable) equal to durascrim 16 mil.	97,300	sf	0.75	72,975		
366	Field Liner 30mil. - per comments	20,000	sf	1.20	24,000		
367	Geotextile underlayment below base stone	10,811	sy	1.50	16,217		
368	Geotextile- per comments	20,000	sf	0.75	15,000		
369	Field slot drainage system and turf anchor	950	lf	180.00	171,000		
370	Turf anchor without drain	400	lf	100.00	40,000		
371	Trench drain basin - L8.9	14	loc	3,000.00	42,000		
372	Turf drain basin - L8.9	15	loc	2,000.00	30,000		
373	Field chamber system - L8.9 (quote)	4,500	sf	45.00	202,500		
374	12" HDPE	440	lf	50.00	22,000		
375	8" HDPE	35	lf	40.00	1,400		
376	Turf bases	1	set	2,500.00	2,500		
377	Soccer goals (movable)	1	pr	13,800.00	13,800		
378	Soccer corner flags	1	set	1,500.00	1,500		
379	Portable pitcher's mound	1	loc	30,000.00	30,000		
380	Backstop	1	loc	50,000.00	50,000		
381	Backstop 4' padding	152	lf	100.00	15,200		
382	Dugouts concrete pads - no roof	2	loc	10,000.00	20,000		
383	8' Team benches - allow	4	ea	1,500.00	6,000		
384	Bullpen - fortified infield mix	1	loc	10,000.00	10,000		
385	Vinyl CL Fencing 51"	310	lf	55.00	17,050		
386	Gate, single	3	ea	850.00	2,550		
387	Gate, double	1	ea	1,000.00	1,000		
388	Vinyl CL 6' fence	75	lf	75.00	5,625		
389	Gate, single	1	ea	950.00	950		
390	Vinyl CL 8' fence	500	lf	85.00	42,500		
391	Vinyl CL Fencing 12'	400	lf	125.00	50,000		
392	Vinyl CL Fencing 12' corner posts - allow	10	loc	800.00	8,000		
393	Page clips - premium	1,285	lf	15.00	19,275		
394	Fence guard	1,285	lf	6.50	8,353		
395	Sports netting 30'	430	lf	200.00	86,000		
396	Allowance for sonotubes/steel at field netting	1	ls	50,000.00	50,000		
397	Foul poles	2	ea	5,000.00	10,000		
398	Foul poles - turf access kit	2	ea	1,200.00	2,400		
399	Scoreboard	1	loc	65,000.00	65,000		
400	Allowance for sonotubes/steel at field fencing (18" Dia.)	1	ls	75,000.00	75,000		
401	SUBTOTAL					3,584,023	
402	Landscaping						
403							



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework							
404	Soil amend existing stockpiled soil - PH2-4 (1,400cy) 4" thick	2,710	cy	18.00	48,780		
405	Soil amend existing stockpiled soil - PH#1	590	cy	18.00	10,620		
406	Allowance for import of topsoil	800	cy	55.00	44,000		
407	Allowance for planting soil (swell import 25%)	1,300	cy	65.00	84,500		
408	Allowance for mulch	230	cy	55.00	12,650		
409	Lawn	51,500	sf	0.35	18,025		
410	Lawn - slope	4,200	sf	0.35	1,470		
411	Athletic mix (2,000cy) 8" thick	80,000	sf	0.55	44,000		
412	Restoration mix	3,200	sf	0.50	1,600		
413	Meadow mix	33,730	sf	0.50	16,865		
414	Wetland mix	7,400	sf	0.65	4,810		
415	Slope stabilization fabric	11,600	sf	2.00	23,200		
416	Groundcover	13,400	sf	6.50	87,100		
417	Memorial in planting	1	ls	4,000.00	4,000		
418	<u>Trees</u>						
419	Arborvitae - 7-8' ht.	5	ea	1,000.00	5,000		
420	Serviceberry - 7-8' ht.	42	ea	1,000.00	42,000		
421	Multi-stem red maples - 8-10' ht.	22	ea	1,500.00	33,000		
422	Witch hazels - 5-6' ht.	17	ea	2,000.00	34,000		
423	Signature tree planting - 8" single stem	4	ea	5,000.00	20,000		
424	Shade tree - 3"-3.5"	48	ea	1,800.00	86,400		
425	Shade tree - 2"-2.5"	69	ea	1,100.00	75,900		
426	Tree guy wires with deadmen - signature trees	4	ea	500.00	2,000		
427	<u>Shrubs</u>						
428	Butterfly bush - 3 gal.	10	ea	45.00	450		
429	Cranberry bush - 3 gal.	6	ea	42.00	252		
430	Shrubs varies - 3 gal.	242	ea	45.00	10,890		
431	<u>Irrigation systems</u>						
432	Irrigation system quote	1	ls	100,000.00	100,000		
433	landscape beds	9,000	sf	2.50	22,500		
434	Amphitheater	4,200	sf	2.50	NR		
435	Tree rings	30	loc	1,200.00	36,000		
436	Sleeves	450	lf	10.00	4,500		
437	Courtyard planters	1	ls	25,000.00	25,000		
438	SUBTOTAL					899,512	
439							
440	G30 CIVIL MECHANICAL UTILITIES						
441	ENABLING UTILITIES						
442							
443	Reroute existing 8" water service in conflict with proposed building footprint	566	lf	160.00	w/ EBP#2		
444	Hydrant	1	loc	4,000.00	w/ EBP#2		
445	Connect to existing	1	loc	10,000.00	w/ EBP#2		
446							
447	SOE at relocated culvert	660	lf				
448	Excavation; for utility work				See Below		
449	SP and lagging	35,000	sf	70.00	w/ EBP#2		
450	Whalers - included above						
451	Premium for rock excavation	400	cy	300.00	w/ EBP#2		
452	Backfill to elev +55	815	cy	35.00	w/ EBP#2		
453							
454	Relocate existing 48" drain line in conflict with proposed building footprint; Cement Lined ductile Iron	670	lf	450.00	w/ EBP#2		
455	Excavate and backfill	7,356	cy	80.00	w/ EBP#2		
456	Bedding	298	cy	60.00	w/ EBP#2		
457	Drain manholes	6	ea	5,000.00	w/ EBP#2		
458	Drain manholes; premium for deep manholes	3	ea	15,000.00	w/ EBP#2		
459	Remove existing utilities/connections	1	ls	50,000.00	w/ EBP#2		
460	SUBTOTAL						
461							
462	<i>Excavation + Backfill Quantities included below</i>						
463	<i>Trench excavation</i>	2,792	cy				
464	<i>Bedding</i>	1,584	cy				
465	<i>Backfill with existing material</i>	1,208	cy				
466							
467	<u>Water supply; Pricing includes E&B and bedding</u>						
468	8" DI piping	270	lf	120.00	32,400		
469	8" DI piping- EBP#2	270	lf	120.00	w/ EBP#2		



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework							
470	6" DI piping	410	lf	90.00	36,900		
471	6" fire service DI piping- EBP#2	44	lf	90.00	w/ EBP#2		
472	8" fire service DI piping- EBP#2	120	lf	120.00	w/ EBP#2		
473	3" copper piping	45	lf	65.00	2,925		
474	4" DI piping- EBP#2	40	lf	75.00	w/ EBP#2		
475	Connect to existing	2	loc	15,000.00	30,000		
476	Connect to existing- EBP#2	4	loc	15,000.00	w/ EBP#2		
477	FD connection	1	ea	2,000.00	2,000		
478	FD connection- EBP#2	1	ea	2,000.00	w/ EBP#2		
479	8" Gate valves	3	ea	1,200.00	3,600		
480	8" Gate valves- EBP#2	3	ea	1,200.00	w/ EBP#2		
481	6" Gate valves	5	ea	750.00	3,750		
482	6" Gate valves- EBP#2	2	ea	750.00	w/ EBP#2		
483	4" Gate valves- EBP#2	1	ea	750.00	w/ EBP#2		
484	Fire hydrant - front of school hydrant	3	ea	6,500.00	19,500		
485	SUBTOTAL					131,075	
487	Sanitary; Pricing includes E&B and bedding						
488	Temporary by-pass sanitary work; Phase 2-4	1	ls	50,000.00	50,000		
489	MWRA access area	1	ea	20,000.00	20,000		
490	Manholes	9	ea	4,000.00	36,000		
491	Manholes - doghouse	2	ea	6,000.00	12,000		
492	Manholes- EBP#2	4	ea	4,000.00	w/ EBP#2		
493	Grease trap - E/B only (by civil)	1	ea	30,000.00	30,000		
494	6" PVC	1,000	lf	65.00	65,000		
495	6" CI	70	lf	95.00	6,650		
496	6" PVC- EBP#2	200	lf	65.00	w/ EBP#2		
497	4" PVC- EBP#2	40	lf	45.00	w/ EBP#2		
498	4" PVC	10	lf	45.00	450		
499	Connect to existing sewer service- EBP#2	1	ea	10,000.00	w/ EBP#2		
500	Connect to existing sewer culvert	3	ea	20,000.00	60,000		
501	Cleanout	1	ea	1,200.00	1,200		
502	SUBTOTAL					281,300	
504	Storm water; Pricing includes E&B and bedding						
505	Manhole	8	loc	4,000.00	32,000		
506	Manhole - 6' Dia.	1	loc	6,000.00	6,000		
507	Manhole- EBP#2	8	loc	4,000.00	w/ EBP#2		
508	Doghouse Manhole- EBP#2	1	loc	6,000.00	w/ EBP#2		
509	AD	2	loc	2,500.00	5,000		
510	OCS	2	loc	8,000.00	16,000		
511	WQS	1	loc	12,000.00	12,000		
512	Catch basins	10	loc	3,800.00	38,000		
513	Catch basins- EBP#2	2	loc	3,800.00	w/ EBP#2		
514	Convert CB to DMH	1	loc	1,500.00	1,500		
515	Area drains- EBP#2	5	loc	2,500.00	w/ EBP#2		
516	FES	4	loc	1,500.00	6,000		
517	24" HDPE	400	lf	80.00	32,000		
518	18" HDPE	90	lf	75.00	6,750		
519	12" HDPE	1,400	lf	70.00	98,000		
520	12" HDPE- EBP#2	760	lf	70.00	w/ EBP#2		
521	10" HDPE	170	lf	40.00	6,800		
522	10" CI	15	lf	80.00	1,200		
523	8" HDPE- EBP#2	133	lf	35.00	w/ EBP#2		
524	6" HDPE- EBP#2	230	lf	30.00	w/ EBP#2		
525	6" HDPE	80	lf	30.00	2,400		
526	Site trench drain at stage in amphitheater - L6.2	70	lf	180.00	12,600		
527	Trench drain - loading dock	40	lf	140.00	5,600		
528	Connection to existing	2	loc	5,000.00	10,000		
529	Patching and rework structures	1	ls	50,000.00	50,000		
530	Stormwater system - allowance	1	ls	50,000.00	50,000		
531	Temporary earth shoring	1	ls	150,000.00	w/ EBP#2		
532	Perforated wall pipe - not shown allowance	1	ls	80,000.00	80,000		
533	<u>Gas service</u>						
534	E&B trench for new gas pipe- EBP#2	140	lf	25.00	w/ EBP#2		
535	SUBTOTAL					471,850	



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITework

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G40 ELECTRICAL UTILITIES

Civil

Concrete:

Primary DB	50	lf	18.00	900		
Secondary DB	100	lf	25.00	2,500		
Generator DB	350	lf	20.00	7,000		
Telecom DB	50	lf	28.00	1,400		
Sports lighting controller DB	400	lf	25.00	10,000		
Primary switch, Transformer & Generator pad	4	ea	2,500.00	10,000		
Switchboard pad	3	ea	2,500.00	7,500		
Site lighting Pole base	65	ea	750.00	48,750		
Site lighting Bollard base	19	ea	350.00	6,650		
Sports light Pole base, extra deep, environment sensitive	12	ea	15,000.00	180,000		
EV station base	10	ea	350.00	3,500		

Earlier bid package ETR

Excavation and backfill:

Primary DB	50	lf	25.00	1,250		
Secondary DB	100	lf	30.00	3,000		
Generator DB	350	lf	25.00	8,750		
Telecom DB	50	lf	25.00	1,250		
Sports lighting controller DB, allow (assumes at toilet building)	400	lf	25.00	10,000		

Earlier bid package ETR

Power

Primary duct bank 4-5" conduits - BP2	450	lf			ETR	
Manhole, power BP2	4	ea			ETR	
Connection to stubbed BP2 primary	1	ls	1,000.00	1,000		
Primary duct bank 4-5" conduits - extension from BP2 stub to Utility Co Switch	50	lf	80.00	4,000		
Primary duct bank 2-5" conduits Utility Co Switch to Transformers	70	lf	40.00	2,800		
Primary switch	1	ea			By Utility	
Pad mount transformer	2	ea			By Utility	
Primary switch pad	1	ea			See Civil	
Pad mount transformer pad	2	ea			See Civil	
Handhole (EV charging stations) BP2, allow	2	ea	1,500.00	3,000		
Secondary duct bank 3000A (Total of 2 runs)	100	lf	660.00	66,000		
Generator ductbank					-	
3000A feed	350	lf	620.00	217,000		
2500A feed	350	lf	500.00	175,000		
800A feed	350	lf	180.00	63,000		
400A feed	350	lf	90.00	31,500		
225A feed to FP	380	lf	50.00	19,000		
Control wiring	350	lf	10.00	3,500		
Generator pad	1	ea			See Civil	

Communication

Manhole, BP2	3	ea			ETR	
Communications duct bank 4-4" conduits BP2	230	lf			ETR	
Connection to existing stub	1	ea	1,500.00	1,500		
Communications duct bank 4-4" conduits BP2 stub to building entrance	50	lf	80.00	4,000		

See Electrical for interior portion of communication conduits.

Sports lighting

Sports lighting controller	2	ea	10,000.00	20,000		
Sports lighting controller	1	ea			ETR	
Lighting controller 225A AL feeder 2 runs	800	ea	40.00	32,000		
SP1 (Sports field fixture)	11	ea	65,000.00	Alternat		
Sports light Pole base	11	ea			See Civil	

Athletic Scoreboard

Athletic scoreboard	2	loc			See Above	
Power to scoreboard from Toilet Building (allow)	1,100	lf	12.00	13,200		

Amphitheater

Stage dimming system and lighting					NIC Deleted scope	
Installation, rough-in & 120V power to dimming equipment					NIC Deleted scope	
Audio visual equipment, installation & LV cabling, allow					NIC Deleted scope	
Audio visual rough-in and power					NIC Deleted scope	



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK							
599	Misc. Electrical provision	1	ls	32,000.00	32,000		
600	<u>Site Security (allow)</u>						
601	Site Security (allow)	1	ls	100,000.00	100,000		
602	<u>Site Demolition</u>						
603	Demolition and make safe	1	ls	25,000.00	25,000		
604	<u>Site lighting</u>						
605	PTO1-2 (28' pole single head)	13	ea	3,721.00	48,373		
606	PTO1-23 (28' pole double head)	0	ea	5,525.00	N/A		
607	PTO2-2 (14' pole single head)	42	ea	2,805.00	117,810		
608	PTO2-23 (14' pole single head)	4	ea	3,721.00	14,884		
609	PTO2-3 (14' pole single head)	2	ea	2,805.00	5,610		
610	PTO2-4 (14' pole single head)	4	ea	2,805.00	11,220		
611	PTO3 (18' pole 4 head)	19	ea	4,175.00	79,325		
612	RG01 (flagpole spot)	2	ea	1,599.00	3,198		
613	RG02	16	ea	1,833.00	29,328		
614	Handhole, new	67	ea	850.00	56,950		
615	Handhole, installed in earlier bid package	6	ea		ETR		
616	Concrete Base	83	ea		See Civil		
617	Base grounding	83	ea	150.00	12,450		
618	Conduit for circuitry installed in earlier bid package	1,100	lf		ETR		
619	Circuitry installed in existing conduit	1,100	lf	7.00	7,700		
620	Conduit & circuitry	9,000	lf	10.00	90,000		
621	EV charging station	10	ea	9,000.00	90,000		
622	Station base	10	ea		See Civil		
623	Conduit & circuitry	700	lf	9.00	6,300		
624	<u>Traffic Signals</u>						
625	Traffic light at Mill Street				See Add Alt		
626							
627	BLEACHER MOUNTED PVS						
628	Remove bleacher seats; foundations to remain				NIC		
629	Install new PV panels				By Others		
630	Electrical conduit for PV panels 2-2", empty, run along with sportsfield lighting	600	lf		See Add Alt		
631	Handhole	5	ea		See Add Alt		
632	Footings for PV panels; modify existing				NIC		
633	Structural System to mount PV panels; attached to existing bleachers footings				By Others		
634							
635	PARKING LOT PVS						
636	Electrical conduit for PV panels				ETR		
637	Circuitry				By Others		
638	Install new PV panels				By Others		
639	Structural System to mount PV panels				By Others		
640	Footings for PV panels				By Others		
641	SUBTOTAL					\$1,689,098	
642							
643							
TOTAL - SITE DEVELOPMENT							\$14,808,827



60% Construction Document Estimate

GFA

800

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Stadium Toilet Facility Outbuilding

GROSS FLOOR AREA CALCULATION

Toilet Facility 800

TOTAL GROSS FLOOR AREA (GFA)						800 sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Grade beam: 2' x 3'

Formwork	720	sf	15.00	10,800
Re-bar	10,800	lbs.	1.50	16,200
Concrete material; 3,000 psi	29	cy	148.00	4,292
Placing concrete	29	cy	120.00	3,480

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Dampproofing foundation wall and footing	240	sf	3.00	NIC
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072100 THERMAL INSULATION

Insulation	240	sf	3.00	NIC
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312000 EARTHWORK

Grade beam: 2' x 3'

Excavation	133	cy	25.00	3,325
Store on site	133	cy	12.00	1,596
Backfill with existing material	104	cy	16.00	1,664
SUBTOTAL				41,357

A1020 SPECIAL FOUNDATIONS

Mobilization	1	ls	25,000.00	25,000
Helical piles	800	sf	35.00	28,000
SUBTOTAL				53,000

A1030 LOWEST FLOOR CONSTRUCTION

033000 CONCRETE

<u>Structural slab on grade, 12" thick</u>	800	sf		
Formwork	120	sf	12.00	1,440
Rebar	6,800	lbs	1.50	10,200
Concrete - 12" thick	31	cy	148.00	4,588
Placing concrete	31	cy	90.00	2,790
Finishing and curing concrete	800	sf	2.00	1,600

312000 EARTHWORK

Compacted granular fill, 12"	30	cy	45.00	1,350
Compact existing sub-grade	800	sf	0.50	400
SUBTOTAL				22,368

TOTAL - FOUNDATIONS						\$116,725
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A20 BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION

No Work in this section

SUBTOTAL					-
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60% Construction Document Estimate

GFA

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Stadium Toilet Facility Outbuilding

59	A2020 BASEMENT WALLS						
60	No Work in this section						
61	SUBTOTAL					-	
62							
63	TOTAL - BASEMENT CONSTRUCTION						
64							
65							
66	B10 SUPERSTRUCTURE						
67							
68	B1020 ROOF CONSTRUCTION						
69	Wood framed construction	800	sf	18.00	14,400		
70	SUBTOTAL					14,400	
71							
72	TOTAL - SUPERSTRUCTURE						
73							\$14,400
74							
75	B20 EXTERIOR CLOSURE						
76							
77	B2010 EXTERIOR WALLS						
78	Exterior Wall Area; Solid	1,920	sf				
79							
80	042000 MASONRY						
81	CMU backup, 8"	1,920	sf	22.00	42,240		
82	Glazed CMU, 4"	1,920	sf	25.00	48,000		
82	Premium for anti-graffiti coating at CMU	1,920	sf	6.00	11,520		
83	Scaffolding	1,920	sf	4.00	included		
84							
85	055000 MISC. METALS						
86	Miscellaneous metals to exterior masonry; lintels, angles etc.	1,920	sf	1.50	2,880		
87							
88	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
89	Air barrier	1,920	sf	7.00	13,440		
90	Miscellaneous sealants to closure	1,920	sf	1.00	1,920		
91							
92	072100 THERMAL INSULATION						
93	3" insulation	1,920	sf	3.00	5,760		
94							
95	101400 SIGNAGE						
96	Stainless steel sign letters on standoffs						
97	4' high	9	ea	750.00	6,750		
98	3' high	10	ea	500.00	5,000		
99	SUBTOTAL					137,510	
100							
101	B2020 WINDOWS						
102	No work required						
103	SUBTOTAL					-	
104							
105	B2030 EXTERIOR DOORS						
106							
107	079200 JOINT SEALANTS						
108	Backer rod & double sealant	28	lf	9.00	252		
109							
110	083513 OVERHEAD DOORS						
111	Overhead door	80	sf	65.00	5,200		
112	SUBTOTAL					5,452	
113							



60% Construction Document Estimate

GFA

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Stadium Toilet Facility Outbuilding

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TOTAL - EXTERIOR CLOSURE							\$142,962
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B30 ROOFING

B3010 ROOF COVERINGS

061000	ROUGH CARPENTRY						
	Wood blocking at roof edge	120	lf	20.00	2,400		
070001	WATERPROOFING, DAMPPROOFING AND CAULKING						
	AVB at roof perimeter	120	lf	8.00	960		
070002	ROOFING AND FLASHING						
	PVC roofing	800	sf	9.00	7,200		
	Cover board	800	sf	2.00	NR		
	Insulation; including tapered at select areas	800	sf	3.00	2,400		
	Substrate board	800	sf	1.50	NR		
	Reinforced vapor barrier	800	sf	1.00	NR		
	<u>Miscellaneous Roofing</u>						
	Roof edge	120	lf	30.00	3,600		
	SUBTOTAL					16,560	

TOTAL - ROOFING							\$16,560
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C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

042000	MASONRY						
	4" CMU	42	sf	22.00	924		
	6" CMU	770	sf	22.00	16,940		
	8" CMU	1,190	sf	24.00	28,560		
	SUBTOTAL					46,424	

C1020 INTERIOR DOORS

061000	ROUGH CARPENTRY						
	Wood blocking at openings	80	lf	4.00	320		
070001	WATERPROOFING, DAMPPROOFING AND CAULKING						
	Backer rod & double sealant	80	lf	2.50	200		
081110	HOLLOW METAL DOOR FRAMES						
	Door, frame and hardware						
	Single	4	ea	1,800.00	7,200		
090007	PAINTING						
	Finish doors and frames	4	ea	200.00	800		
	SUBTOTAL					8,520	

C1030 SPECIALTIES / MILLWORK

102110	TOILET COMPARTMENTS						
	ADA	2	ea	1,800.00	3,600		



60% Construction Document Estimate

GFA

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Stadium Toilet Facility Outbuilding

172	Standard	4	ea	1,600.00	6,400			
173	Urinal screen	1	ea	650.00	650			
174								
175	102800 TOILET ACCESSORIES							
176	Gang bathroom	2	rms	2,350.00	4,700			
177	Single bathroom	1	rms	800.00	800			
178	Janitors closet accessories	1	rms	300.00	300			
179	Electric hand dryers	5	ea	750.00	3,750			
180	Sanitary napkin vendors	2	ea	650.00	1,300			
181	Fire extinguisher cabinets	2	ea	350.00	700			
182	SUBTOTAL					22,200		
183								
184	TOTAL - INTERIOR CONSTRUCTION							\$77,144

C30 INTERIOR FINISHES

C3010 WALL FINISHES

191	090007 PAINTING						
192	Paint to CMU	5,112	sf	1.25	6,390		
193	SUBTOTAL					6,390	

C3020 FLOOR FINISHES

196	033000 CONCRETE						
197	Sealed concrete; EXP-C	565	sf	2.00	1,130		
198	SUBTOTAL					1,130	

C3030 CEILING FINISHES

202	090007 PAINTING							
203	Paint to GWB ceilings	565	sf	1.00	565			
204								
205	092900 GYPSUM BOARD ASSEMBLIES							
206	GWB ceiling	565	sf	15.00	8,475			
207	SUBTOTAL					9,040		
208								
209	TOTAL - INTERIOR FINISHES							\$16,560

D20 PLUMBING

D20 PLUMBING, GENERALLY

Equipment

217	Electric water heater	1	ea	3,500.00	3,500		
218	Hot water circulator pump assembly	1	ea	800.00	800		
219	Water mixing valve station	1	ea	1,700.00	1,700		
220	Water meter assembly	1	ea	1,100.00	1,100		
221	3" Reduce pressure backflow preventer	1	ea	2,900.00	2,900		
222	Floor drain	4	ea	675.00	2,700		
223	Hose bibb	2	ea	225.00	450		
224	Freezeproof wall hydrant	1	ea	325.00	325		
225							
226	<u>Plumbing Fixtures</u>						
227	Water closet	4	ea	1,525.00	6,100		
228	Water closet ADA	3	ea	1,550.00	4,650		
229	Urinal	1	ea	1,575.00	1,575		



60% Construction Document Estimate

GFA

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Stadium Toilet Facility Outbuilding

230	Urinal ADA	1	ea	1,600.00	1,600		
231	Lavatory ADA wall hung	5	ea	1,400.00	7,000		
232	Mop sink	1	ea	1,150.00	1,150		
233	Drinking fountain, single level	1	ea	2,550.00	2,550		
234	<u>Domestic Water Piping</u>						
235	Copper pipe type L with fittings & hangers	335	lf	45.00	15,075		
236	Valves & accessories	1	ls	2,261.25	2,261		
237	<u>Pipe insulation</u>						
238	Pipe insulation	335	lf	10.00	3,350		
239	<u>Sanitary W&V UG, SV Cast Iron Pipe (hung from slab)</u>						
240	SV Cast iron pipe with fittings	180	lf	45.00	8,100		
241	<u>Sanitary W&V AG, Hubless Cast Iron Pipe</u>						
242	Cast iron pipe with fittings & hangers	260	lf	45.00	11,700		
243	<u>UG Domestic Water Piping from Main Bldg</u>						
244	Ductile iron pipe with fittings	250	lf	44.00	11,000		
245	<u>UG Sanitary from Main Building</u>						
246	SV Cast iron pipe with fittings	250	lf	31.00	7,750		
247	SUBTOTAL					97,336	
248							
249	TOTAL - PLUMBING						\$97,336

D30 HVAC

D30 HVAC, GENERALLY

HVAC Equipment

255	Electric wall unit heater, 3 KW	5	ea	900.00	4,500		
256	<u>Air distribution</u>						
257	Exhaust fan 800 CFM	2	ea	2,000.00	4,000		
258	<u>Sheet metal & Accessories</u>						
259	Sheet metal & accessories, louvers, GRD's	1	ls	9,500.00	9,500		
260	<u>Automatic Temperature Controls</u>						
261	Temperature sensor	7	ea	2,000.00	14,000		
262	<u>Balancing</u>						
263	System testing & balancing	1	ls	1,500.00	1,500		
264	SUBTOTAL					33,500	
265							
266	TOTAL - HVAC						\$33,500

D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

No work in this section

SUBTOTAL

TOTAL - FIRE PROTECTION

D50 ELECTRICAL

SERVICE & DISTRIBUTION

Gear & Distribution

Normal Power

283	75KVA transformer	1	ea	9,900.00	9,900		
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60% Construction Document Estimate

GFA

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
Stadium Toilet Facility Outbuilding							
285	225A 120/208V panelboard	1	ea	\$2,200.00	2,200		
286	225A feed	20	lf	49.00	980		
287	<u>Equipment Wiring</u>						
288	EF 20A feed and connection	2	ea	940.00	1,880		
289	EUH 20A feed, connection & 30 NFSS	5	ea	880.00	4,400		
290	EWH 60A feed, connection & 60A NFSS	1	ea	1,085.00	1,085		
291	Hand dryer feed and connection	3	ea	450.00	1,350		
292	Misc. equipment feed and connections	1,630	sf	1.00	1,630		
293	SUBTOTAL					23,425	
294							
295	Lighting & Branch Power						
296	<u>Lighting</u>						
297	SCo4	11	ea	179.00	1,969		
298	EBU	4	ea	344.00	1,376		
299	EXIT, allow	1	ea	344.00	344		
300	<u>Lighting control</u>						
301	Occupancy sensor	5	ea	180.00	900		
302	Single pole switch LV	3	ea	28.50	86		
303	<u>Branch devices</u>						
304	GFI receptacle	11	ea	36.00	396		
305	Connection to EWC	1	ea	85.00	85		
306	Connection to fire alarm panel	2	ea	100.00	200		
307	<u>Lighting and branch circuitry</u>						
308	Device plate WP	7	ea	20.00	140		
309	Device plate	7	ea	5.00	35		
310	Device box	37	ea	29.40	1,088		
311	Circuitry	900	lf	9.00	8,100		
312	SUBTOTAL					14,719	
313							
314	D5030 COMMUNICATION & SECURITY SYSTEMS						
315	<u>Telecommunications</u>						
316	MDF/IDF fit out closets, devices and cabling	1	ls	2,000.00	2,000		
317	Devices and cabling, not shown at this scope level	1,630	sf	1.50	2,445		
318	<u>Fire Alarm</u>						
319	Fire alarm terminal cabinet	1	ls	5,000.00	5,000		
320	Knox box, allow	1	ea	600.00	600		
321	Radio Master box					NIC	
322	BP	1	ea	500.00	500		
323	Beacon	2	ea	281.00	562		
324	Manual pull station	1	ea	107.00	107		
325	Manual pull station WP	1	ea	117.00	117		
326	Smoke detector	1	ea	148.00	148		
327	Heat detector	4	ea	148.00	592		
328	Audio visual device	2	ea	151.00	302		
329	Visual device	1	ea	130.00	130		
330	Remote alarm indicator WP	1	ea	213.00	213		
331	Control/monitor module	2	ea	235.00	470		
332	Device box	17	ea	29.40	500		
333	Circuitry	400	lf	9.00	3,600		
334	Programming and testing	1	ls	1,300.00	1,300		
335	<u>Security System</u>						
336	Security System, allow	1	ls	10,000.00	10,000		
337	SUBTOTAL					28,586	
338							



60% Construction Document Estimate

GFA

800

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Stadium Toilet Facility Outbuilding

339	D5040 OTHER ELECTRICAL SYSTEMS							
340	<u>Miscellaneous</u>							
341	Grounding & bonding	1	ls	3,500.00	3,500			
342	Temp power and lights	1	ls	1,000.00	1,000			
343	Coordination, BIM	1	ls	4,000.00	4,000			
344	Permits and fees	1	ls	3,200.00	Waived			
345	SUBTOTAL					8,500		
346								
347	G40 ELECTRICAL UTILITIES							
348	<u>Civil</u>							
349	Concrete:							
350	Secondary DB	400	lf	25.00	10,000			
351	LV DB	400	lf	28.00	11,200			
352	Excavation and backfill:							
353	Secondary DB	400	lf	30.00	12,000			
354	LV DB	400	lf	25.00	10,000			
355	SUBTOTAL					43,200		
356								
357	<u>Power</u>							
358	250A feed secondary ductbank from School Building, allow length per E9.0 note 3	400	lf	59.00	23,600			
359	<u>Communication</u>							
360	1-4" PVC conduit	400	lf	15.00	6,000			
361	SUBTOTAL					29,600		
362								
363	TOTAL - ELECTRICAL						\$148,030	
364								
365								
366	E10 EQUIPMENT							
367								
368	E10 EQUIPMENT, GENERALLY							
369	No work in this section							
370	SUBTOTAL					-		
371								
372	TOTAL - EQUIPMENT							
373								
374	SUBTOTAL TOILET BUILDING						\$663,217	
							\$829.02	



60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITE ALTERNATE 1 - SPORTS FIELD LIGHTING

SP1 (Sports field fixture)	12	ea	65,000.00	780,000		
SUBTOTAL						780,000
MARKUPS	15%		780,000.00	117,000		117,000

TOTAL - SITE ALTERNATE 1						897,000
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SITE ALTERNATE 2- MM BIKEWAY CONNECTOR

SITE PREPARATION & DEMOLITION							
Site construction fence/barricades	270	lf	25.00	6,750			
<u>Site Demolition</u>							
Clear and grub	10,300	sf	0.50	5,150			
Misc. demolition	1	ls	5,000.00	5,000			
SUBTOTAL						16,900	

SITE IMPROVEMENTS							
North Side Bike Ramp	3,700	sf					
gravel base; 6" thick	137	cy	40.00	5,480			
asphalt; 3" thick	411	sy	35.00	14,385			
Guardrail only	614	lf	300.00	184,200			
Concrete wall - 5' avg.	50	lf					
E&B for retaining wall	37	cy	100.00	3,700			
Formwork	423	sf	25.00	10,575			
Re-bar	2,647	lbs	1.45	3,838			
Concrete material; 4,000 psi	26	cy	128.00	3,328			
Placing concrete	26	cy	150.00	3,900			
Concrete wall - 3' avg.	213	lf					
E&B for retaining wall	158	cy	100.00	15,800			
Formwork	1,491	sf	25.00	37,275			
Re-bar	11,144	lbs	1.45	16,159			
Concrete material; 4,000 psi	101	cy	128.00	12,928			
Placing concrete	101	cy	150.00	15,150			
Concrete wall - 4' avg.	120	lf					
E&B for retaining wall	89	cy	100.00	8,900			
Formwork	944	sf	25.00	23,600			
Re-bar	6,410	lbs	1.45	9,295			
Concrete material; 4,000 psi	61	cy	128.00	7,808			
Placing concrete	61	cy	150.00	9,150			
Concrete wall - 1'6" avg.	230	lf					
E&B for retaining wall	170	cy	100.00	17,000			
Formwork	1,265	sf	25.00	31,625			
Re-bar	11,344	lbs	1.45	16,449			
Concrete material; 4,000 psi	97	cy	128.00	12,416			
Placing concrete	97	cy	150.00	14,550			
North Side Walkways	3,100	sf					
gravel base; 6" thick	115	cy	40.00	4,600			
asphalt; 3" thick	344	sy	35.00	12,040			
Concrete segmental block wall- walkway at baseball	114	lf					
Large block wall- avg. 2' Ht.	285	sf	45.00	12,825			
Excavate and prepare wall base	25	cy	100.00	2,500			
Backfill wall - crushed stone	8	cy	65.00	520			
Sports netting 16'	580	lf	180.00	104,400			
SUBTOTAL						614,396	
MARKUPS	15%		631,296.00	94,694		94,694	

TOTAL - SITE ALTERNATE 2						\$725,990
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60% Construction Document Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
ALTERNATES							
SITE ALTERNATE 3 - MILL STREET TRAFFIC LIGHT							
	Traffic light at Mill Street	1	ls	350,000.00	350,000		
	SUBTOTAL					350,000	
	MARKUPS	15%		350,000.00	52,500		52,500
TOTAL - SITE ALTERNATE 3							\$402,500
SITE ALTERNATE 4 - BULLPENS							
	Bulpen - fortified infield mix	2	loc	10,000.00	20,000		
	Vinyl CL 8' fence	36	lf	85.00	3,060		
	Vinyl CL 51" fence - single gate	2	loc	850.00	1,700		
	SUBTOTAL					24,760	
	MARKUPS	15%		24,760.00	3,714		3,714
TOTAL - SITE ALTERNATE 4							\$28,474
SITE ALTERNATE 5 - BATTING CAGES							
	Batting cages	2	loc	31,625.00	63,250		
	Fortified infield mix	2	loc	10,000.00	20,000		
	SUBTOTAL					83,250	
	MARKUPS	15%		83,250.00	12,488		12,488
TOTAL - SITE ALTERNATE 5							\$95,738
SITE ALTERNATE 6 - MAROON MONSTER							
	Windscreen graphics 10x100 - includes upsize on posts and foundations	100	lf	500.00	50,000		
	SUBTOTAL					50,000	
	MARKUPS	15%		50,000.00	7,500		7,500
TOTAL - SITE ALTERNATE 6							\$57,500
INTERIOR ALTERNATE 1 - TERRAZZO							
	Terrazzo ILO Polished Concrete at second floor	11,385	sf	28.00	318,780		
	SUBTOTAL					318,780	
	MARKUPS	15%		318,780.00	47,817		47,817
TOTAL - INTERIOR ALTERNATE 1							\$366,597
INTERIOR ALTERNATE 2 - FOLDING WALL							
	Change portion of fixed glass wall to folding wall	122	sf	140.00	17,080		
	SUBTOTAL					17,080	
	MARKUPS	15%		17,080.00	2,562		2,562
TOTAL - INTERIOR ALTERNATE 2							\$19,642
SUSTAINABILITY ALTERNATE 1 - PV INFRASTRUCTURE							
	Empty conduit from Building to North Bleacher area. 2-2" conduit - length supplied by engineer	600	lf	15.00	9,000		
	Handhole	5	ea	1,500.00	7,500		
	SUBTOTAL					16,500	
	MARKUPS	15%		16,500.00	2,475		2,475
TOTAL - INFRASTRUCTURE ALTERNATE 1							\$18,975