

City of Dover, New Hampshire
Dover High School & Career Technical Center
DOVER SCHOOL DISTRICT

June 23, 2015



CONSTRUCTION

Schematic Design Estimate



CONSTRUCTION

AT PC WE GO ABOVE AND BEYOND ON EVERY JOB, PERIOD.

June 23, 2015

Dr. Elaine M. Arbour, Ed.D., Superintendent of Schools
The Dover School District – School Administrative Unit #11
McConnell Center
61 Locust Street, Suite 409
Dover, New Hampshire 03820-4132

Re: Dover School District – Dover High School & Career Technical Center
PC Project #15027

Dear Dr. Arbour:

On behalf of the entire PC Construction team, thank you for the opportunity to provide preconstruction services to support your project. We have developed Schematic Design estimates for three program options as follows:

	<u>Core Project Cost Elements</u>	<u>Selected Project Cost Drivers *</u>	<u>Total Construction Cost</u>
Option 1: Complete Renovation -	\$57,185,564	\$7,232,436	\$64,418,000
Option 2: Partial Renovation with Addition -	\$61,305,794	\$6,144,206	\$67,450,000
Option 3: All New Construction -	\$64,292,001	\$7,300,999	\$71,593,000

*Selected Project Cost Drivers include aggregate piers with associated slab-on-grade, asbestos abatement, turf football field, kitchen equipment, modular classroom rental, baseball field work, stage lighting, linoleum (in lieu of VCT) and courtyard landscaping.

The enclosed estimates are based on information provided by your team and the designs from HMFH Architects. Pricing is outlined in the List of Documents and further defined in the Scope of Work/Clarifications.

It has been a pleasure working with you and your team during the development of these estimates. We are available at your convenience to review our estimates and answer any questions you may have. We look forward to working with the Dover School District and your entire team on this exciting project.

Sincerely,

Joseph Picoraro
Vice President

cc: Scott Eastman
Jay Fayette

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OPTION 1 - Complete Renovation

ESTIMATE SUMMARY

Project #: 15027
Building GSF: 268,330

		Totals
Direct Cost	%	\$ 49,932,184
Material Sales Tax (N/A)	0.00%	\$ -
Labor & Material Escalation (Years 3 through 6)	3.00%	\$ 6,266,929
Gross Cost		\$ 56,199,113
Building Permit - by Owner	0.00%	\$ -
Builder's Risk insurance	0.07%	\$ 43,993
Liability Insurance	0.75%	\$ 483,135
Construction Manager's Contingency	10.00%	\$ 5,619,911
P & P Bond (\$7.77 per \$1,000)		\$ 500,528
Sub Total		\$ 62,846,680
CM Fee	2.50%	\$ 1,571,167
Total		\$ 64,418,000
Total Cost per square foot		\$ 240

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Recap - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
Option 1 - Complete Renovation					
A10	FOUNDATIONS				1,725,883
B10	SUPERSTRUCTURE				846,199
B20	EXTERIOR CLOSURE				3,424,367
B30	ROOFING				361,327
C10	INTERIOR CONSTRUCTION				3,999,625
C20	STAIRCASES				123,729
C30	INTERIOR FINISHES				3,971,902
D10	CONVEYING SYSTEMS				199,423
D20	PLUMBING				2,359,536
D30	HVAC				8,870,778
D40	FIRE PROTECTION				970,299
D50	ELECTRICAL				7,157,151
E10	EQUIPMENT				509,818
E20	FURNISHINGS				211,477
F10	SPECIAL CONSTRUCTION				16,574
F20	SELECTIVE BUILDING DEMOLITION				2,123,957
G10	SITE PREPARATION				99,328
G20	SITE IMPROVEMENTS				788,722
G30	SITE UTILITIES				228,929
Z10	GENERAL				7,492,992
Z20	MAJOR CUSTOM PROGRAM ELEMEN				4,450,166
* Total Option 1 - Complete Renovation					49,932,184
Total Gross Cost					49,932,184

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
Option 1 - Complete Renovation					
A10 - FOUNDATIONS					
A1010 - STANDARD FOUNDATIONS					
2210.205	Structure Excavation (AT, AC, BT)	900.00	CY	12.13	10,915
2210.205	Structure Excavation (Barn Addition)	300.00	CY	12.13	3,638
2220.335	BF Frost Wall w/ Crushed Stone (AT, AC, BT)	600.00	CY	42.51	25,506
2220.335	BF Frost Wall w/ Crushed Stone (Barn Addition)	180.00	CY	42.51	7,652
2220.340	BF Frost Wall w/ On Site Matl (AT, AC, BT)	300.00	CY	17.51	5,253
2220.340	BF Frost Wall w/ On Site Matl (Barn Addition)	180.00	CY	17.51	3,152
3300.010	8" x 16" Continuous Footing (Barn Addition)	294.00	LF	38.00	11,172
3300.012	1' x 2' Continuous Footing (AT, AC, BT)	852.00	LF	45.00	38,340
3300.020	1' x 3' Grade Beam	3,100.00	LF	52.00	161,200
3300.028	1' x 3' Grade Beam - At H Piles	2,578.00	LF	52.00	134,056
3300.040	8" x 5' Frost Wall (Barn Addition)	294.00	LF	124.00	36,456
3300.042	12" x 5' Frost Wall (AT, AC, BT)	852.00	LF	151.00	128,652
3300.152	18" x 4' Concrete Pier with 2' x 2' x 1' Footing (50' Dia Riding Ring)	14.00	EA	321.92	4,507
7110.100	Damproof Frost Wall (AT, AC, BT)	2,862.00	SF	1.50	4,293
7110.100	Damproof Frost Wall (Barn Addition)	1,323.00	SF	1.50	1,985
7200.105	Rigid Insulation - 2" Frost Wall (AT, AC, BT)	3,160.00	SF	2.08	6,585
7200.105	Rigid Insulation - 2" Frost Wall (Barn Addition)	1,323.00	SF	2.08	2,757
*** Total A1010 - STANDARD FOUNDATIONS					586,118
A1020 - SPECIAL FOUNDATIONS					
2080.500	Temp Shoring of 1967 Wing Structure to replace pile caps & grade beams	10,800.00	SF	11.00	118,800
2490.105	HP10 Steel Piles - 30' Grid, 3 per location: 84 @ 30' Deep (AT, AC, BT)	2,520.00	LF	60.00	151,200
2490.110	Drilled Micro Piles - 30' Grid, 4 per location: 210 @ 30' Deep (1967 Wing)	1,440.00	LF	85.00	122,400
*** Total A1020 - SPECIAL FOUNDATIONS					392,400
A1030 - LOWEST FLOOR CONSTRUCTION					
2220.332	Crushed Stone Under Slab - 8" (AT, AC, BT)	700.00	CY	42.51	29,757
2220.332	Crushed Stone Under Slab - 8" (Barn Addition)	200.00	CY	42.51	8,502
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams	46,000.00	SF	0.71	32,793
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams (AT, AC, BT)	22,650.00	SF	0.71	16,147
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams (Barn Addition)	6,710.00	SF	0.71	4,784
3300.008	10" SOG - (AT, AC, BT)	21,574.00	SF	14.00	302,049
3300.008	10" SOG - (Drilled Micro Pile Areas)	10,800.00	SF	14.00	151,206
3300.008	5" SOG - (Barn Addition)	6,100.00	SF	8.71	53,133
3300.012	Alter Auditorium Floor for ADA compliance	15,500.00	SF	8.71	135,011
7200.108	Rigid Insulation - 2" Underslab (Barn Addition)	6,710.00	SF	2.08	13,982
*** Total A1030 - LOWEST FLOOR CONSTRU					747,366
** Total A10 - FOUNDATIONS					1,725,883
B10 - SUPERSTRUCTURE					
B1010 - FLOOR CONSTRUCTION					
5010.000	Reinforce existing structural steel (1967 Wing, 10,800 SF/Flr totalling 32,400 SF) 4 lbs/sf	65.00	TON	8,000.00	520,000
7850.001	Spray Fireproofing - Structural Steel		SF	2.50	
7850.010	Spray Fireproofing - at new bracing only	1.00	LS	50,000.00	50,000
*** Total B1010 - FLOOR CONSTRUCTION					570,000
B1020 - ROOF CONSTRUCTION					
5200.100	Steel Joists (2 lbs/ SF) (AT, AC, BT)	23.00	TON	1,800.00	41,400

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

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 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
5300.205	1-1/2"X20ga Galv Mtl Deck (AT, AC, BT)	23,731.00	SF	1.70	40,343
6000.500	Roof Trusses w/ sheathing (Barn Addition)	6,100.00	SF	8.00	48,800
6000.510	Pavilion Framing (50' Dia Riding Ring)	3,300.00	SF	18.38	60,657
7530.004	Entrance Canopy	1.00	EA	45,000.00	45,000
7530.004	Entrance Canopy - Premium	1.00	EA	40,000.00	40,000
*** Total B1020 - ROOF CONSTRUCTION					276,199
** Total B10 - SUPERSTRUCTURE					846,199
B20 - EXTERIOR CLOSURE					
B2010 - EXTERIOR WALLS					
4000.205	Brick Veneer (AT, AC, BT)	12,720.00	SF	24.00	305,280
4020.205	10" CMU Partitions - 20' Ht (AT, AC, BT)	17,040.00	SF	12.00	204,480
4020.460	Repair/Repoint existing masonry veneer (Locations unknown)	15,000.00	SF	18.00	270,000
6100.612	2x6 Partitions w/ 1/2" OSB Sheathing - 12' Ht (Barn Addition)	3,880.00	SF	4.60	17,836
6200.512	T&G Siding - Red Cedar (6" Exposure) (Barn Addition)	3,880.00	SF	8.00	31,036
7210.806	3" Spray Foam Insulation (R-21) (Existing Building)	46,000.00	SF	3.00	138,000
7210.809	3" Spray Foam Insulation (R-21) (AT, AC, BT)	12,720.00	SF	3.00	38,160
7260.120	Air Infiltration Barrier - Spray-On / Roll-On (AT, AC, BT)	12,720.00	SF	3.00	38,160
9280.031	3-5/8 LGS w/ abuse resistant GWB Back-up (AT, AC, BT)	13,992.00	SF	8.11	113,510
*** Total B2010 - EXTERIOR WALLS					1,156,462
B2020 - WINDOWS					
8800.800	Curtainwall	28,000.00	SF	75.00	2,100,000
8800.820	4x8 Storefront Windows (AT, AC, BT)	12.00	EA	1,760.00	21,120
8800.840	Barn Windows (Barn Addition)	10.00	EA	600.00	6,000
*** Total B2020 - WINDOWS					2,127,120
B2030 - EXTERIOR DOORS					
6200.300	Sliding Barn Door (Barn Addition)	3.00	EA	1,788.76	5,366
8010.010	3070 Exterior Door	16.00	EA	1,404.76	22,476
8010.010	3070 HM Door (Barn Additon)	8.00	EA	1,104.76	8,838
8010.010	3070 HM Door Frame (AT, AC, BT)	12.00	EA	1,104.76	13,257
8010.020	6070 Exterior Door	13.00	EA	2,065.16	26,847
8300.100	Overhead Door (AT, AC, BT)	6.00	EA	8,000.00	48,000
8300.100	Overhead Door (Loading Dock & Woodshop)	2.00	EA	8,000.00	16,000
*** Total B2030 - EXTERIOR DOORS					140,785
** Total B20 - EXTERIOR CLOSURE					3,424,367
B30 - ROOFING					
B3010 - ROOF COVERINGS					
7200.015	12" Batt Insulation (R38) (Barn Addition)	8,020.00	SF	1.15	9,217
7310.015	Asphalt Single Roof (50' Dia Riding Ring)	3,300.00	SF	5.79	19,119
7310.015	Asphalt Single Roof (Barn Addition)	8,020.00	SF	5.79	46,465
7530.026	Thermoplastic Membrane Roof		SF	10.00	
7530.026	Thermoplastic Membrane Roof (AT, AC, BT)	21,574.00	SF	0.50	10,787
7530.026	Thermoplastic Membrane Roof (AT, AC, BT)	21,574.00	SF	10.00	215,740
7530.028	Roof Canopy	1.00	LS	60,000.00	60,000
*** Total B3010 - ROOF COVERINGS					361,327
** Total B30 - ROOFING					361,327
C10 - INTERIOR CONSTRUCTION					
C1010 - PARTITIONS					
6010.000	In Wall Blocking	1.00	LS	50,000.00	50,000
6010.000	In Wall Blocking	1.00	LS	24,437.84	24,438
8800.000	Glazed Partitions	2,200.00	SF	60.00	132,000

Schematic Design Estimate Option 1: Complete Renovation



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9270.001	Tape Gypsum Walls - Level 4 (String coat, 2 finish coats, sanding)	326,145.00	SF	0.75	244,609
9280.030	Classroom Fit Up (AT,AC,BT) 3 - 20'x20' classrooms	1,200.00	SF	30.00	36,000
9280.030	Classroom Fit Up (Barn Addition) 2 - Classrooms	450.00	SF	30.00	13,500
9285.005	LGS Partitions (50% of existing building)	59,000.00	SF	8.61	508,055
9285.013	LGS Furred Partition - Interior	9,500.00	SF	5.09	48,391
9285.023	Fire Stopping	1.00	LS	18,000.00	18,000
9285.023	Fire Stopping	1.00	LS	48,000.00	48,000
9288.039	Misc Drywall Work	1.00	LS	35,000.00	35,000
9288.039	Misc Drywall Work	1.00	LS	9,000.00	9,000
*** Total C1010 - PARTITIONS					1,166,993
C1020 - INTERIOR DOORS					
8012.010	3070 Interior Door	379.00	EA	1,204.76	456,604
8012.020	6070 Interior Door	64.00	EA	1,765.16	112,970
8014.000	Corridor Lock Down Hardware	1.00	LS	50,000.00	50,000
8014.020	Interior Borrowed Lites	45.00	EA	609.52	27,428
9900.205	Misc Painting - Door Frames, Misc Metals	1.00	LS	10,000.00	10,000
9900.205	Misc Painting - Door Frames, Misc Metals	1.00	LS	40,000.00	40,000
*** Total C1020 - INTERIOR DOORS					697,003
C1030 - SPECIALTIES / MILLWORK					
6400.000	6'-0" Laminated Maple Bench	20.00	EA	992.58	19,852
6400.004	Base Cabinets (Classrooms)	760.00	LF	266.10	202,239
6400.052	Full Height Cabinets (Classrooms)	335.00	LF	306.10	102,545
6400.052	Wall Cabinets (Classrooms)	559.00	LF	191.10	106,827
6400.054	Full Height Cabinets (Mail Room)	24.00	LF	306.10	7,346
6400.102	Restroom Wood Apron at Solid Surface	132.00	LF	159.92	21,109
6400.300	Solid Surface Restroom Counter w/ integral sink	132.00	LF	221.90	29,291
6400.308	Countertops-Solid Surface (Classrooms)	760.00	LF	191.10	145,239
6400.308	Wall Mount Solid Surface Counter (Mail/Work Room)	71.00	LF	216.10	15,343
6400.315	Countertops - Epoxy Resin	468.00	LF	161.64	75,646
6400.348	Solid Surface Window Sill and Apron (New Const Only)	1,785.00	LF	64.26	114,700
6401.052	Wall Cabinets - Solid Surface (Science Labs)	351.00	LF	161.65	56,738
6401.054	Full Height Cabinets - Solid Surface (Science Labs)	351.00	LF	255.73	89,760
6405.006	Wood Cubbies - Mail Room	24.00	LF	251.10	6,026
6405.008	Casework Allowance (Misc)	1.00	LS	231,000.00	231,000
6405.010	Closet Shelving	1.00	LS	10,000.00	10,000
6408.000	*** DESK MILLWORK***				
6408.080	Admin/Guidance Front Desk	31.00	LF	441.10	13,674
6408.100	Library Desk	78.00	LF	491.10	38,306
6510.919	FRP Panels 10' ht - Kitchen	3,518.00	SF	7.14	25,133
6510.919	FRP Panels 8' ht - at Janitorial sinks only	1,510.22	SF	7.14	10,789
6510.921	FRP Panels - Art Rooms	80.00	SF	7.14	572
10180.102	Toilet Partitions W/ Door - Phenolic	34.00	EA	430.52	14,638
10180.103	Urinal Screen - Phenolic	8.00	EA	305.52	2,444
10180.204	Shower Door	18.00	EA	277.76	5,000
10180.206	Locker Room Bench	80.00	LF	80.28	6,422
10191.100	Privacy Curtain: Track W/Supports (No Curtain) - Nurse	64.00	LF	22.50	1,440
10195.101	Display & Trophy Case Allowance	1.00	LS	40,000.00	40,000
10410.150	Sigange	1.00	LS	10,000.00	10,000
10410.150	Sigange	1.00	LS	78,000.00	78,000

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Kitchen	15.00	EA	227.76	3,416
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Staff	100.00	EA	227.76	22,776
10500.004	Lockers - Double Tier (6' X 18" X 18") - Student	1,500.00	EA	317.76	476,640
10500.006	Lockers - Double Tier - Locker Rooms (100 per Room)	200.00	EA	317.76	63,552
10500.006	Lockers - Double Tier - Student Athletic	50.00	EA	317.76	15,888
10520.000	Fire Extinguishers	80.00	EA	125.46	10,037
10520.050	Fire Ext Cabinets	80.00	EA	302.76	24,221
10649.102	Operable Wall Partition (57' L x 28' HT)		SF	99.95	
10800.106	Grab Bar	30.00	EA	101.38	3,041
10800.151	Surface Mtd Double Roll Tph	30.00	EA	197.38	5,921
10800.174	Surface Mounted SND	16.00	EA	377.38	6,038
10800.202	Surf Mtd Waste Receptacle	18.00	EA	282.38	5,083
10800.400	Liquid Soap Dispenser	18.00	EA	177.38	3,193
10800.602	Folding Shower Seat	18.00	EA	301.38	5,425
10800.610	Electric Hand Dryer	16.00	EA	301.38	4,822
10810.100	30"x30" Framed Mirror	26.00	EA	211.38	5,496
*** Total C1030 - SPECIALTIES / MILLWORK					2,135,630
** Total C10 - INTERIOR CONSTRUCTION					3,999,625
C20 - STAIRCASES					
C2010 - STAIR CONSTRUCTION					
5520.050	Hand Rail - Standard Metal Picket	650.00	LF	119.42	77,624
5520.072	Steel Wallrail - Primed	650.00	LF	70.93	46,105
*** Total C2010 - STAIR CONSTRUCTION					123,729
** Total C20 - STAIRCASES					123,729
C30 - INTERIOR FINISHES					
C3010 - WALL FINISHES					
6200.040	Wood Wall Finish - Auditorium	11,520.00	SF	25.00	288,000
9300.200	Tile Wainscot - 4' AFF (Corridors)	15,000.00	SF	10.00	150,000
9300.202	Tile Wainscot - 4' AFF (Town Square)	2,700.00	SF	10.00	27,000
9300.204	Tile Wainscot - 4' AFF (Toilet Rooms)	4,100.00	SF	10.00	41,000
9300.204	Tile Wainscot - Premium for 5' AFF everywhere including stairwells	5,450.00	SF	10.00	54,500
9900.100	Paint Interior Walls (AT, AC, BT)	21,360.00	SF	0.82	17,515
9900.100	Paint Interior Walls (Barn Addition)	3,528.00	SF	0.82	2,893
9900.100	Paint Walls	345,330.00	SF	0.85	293,531
*** Total C3010 - WALL FINISHES					874,439
C3020 - FLOOR FINISHES					
9300.105	Tile Base	871.00	LF	10.00	8,710
9330.000	Quarry Tile Floors - Culinary	3,315.00	SF	15.00	49,725
9330.000	Quarry Tile Floors - Kitchen	4,527.00	SF	15.00	67,905
9330.005	Quarry Tile Base	760.00	LF	12.00	9,120
9400.005	Mosaic Tile - Bath, Locker Rooms	5,175.00	SF	12.00	62,100
9550.100	Wood Floor - Gym	13,710.00	SF	18.00	246,780
9550.120	Wood Floor - Stage	2,620.00	SF	16.00	41,920
9650.010	Linoleum	163,752.00	SF	6.00	982,512
9650.025	Rubber Base	35,167.00	LF	1.85	65,059
9650.032	Replace Stone Treads (40% of existing)	2,328.00	SF	40.00	93,120
9680.000	Carpet - Auditorium	1,722.00	SY	45.00	77,490
9690.000	Carpet Tile	1,100.00	SY	35.00	38,500
9760.011	Rubber Sports Flooring	4,158.00	SF	12.45	51,756
9760.126	Moisture Mitigation		SF	8.00	
9900.400	Sealed Concrete	31,306.00	SF	1.50	46,959
9900.400	Sealed Concrete (AT, AC, BT)	21,574.00	SF	1.50	32,361

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
9900.400	Sealed Concrete (Barn Addition)	6,100.00	SF	1.50	9,150
9900.506	Paint Gym Floor Logo	1.00	LS	3,000.00	3,000
12671.103	Walk-Off Foot Grilles (Alum Grid W/ Frame & Pan)	400.00	SF	72.08	28,831
*** Total C3020 - FLOOR FINISHES					1,914,998
C3030 - CEILING FINISHES					
9285.037	Gypsum Ceiling: Suspended drywall grid 5/8" type X GWB (1 layer), taped (lvl 4)	16,056.00	SF	5.31	85,211
9285.039	Misc Drywall Soffits	1.00	LS	95,000.00	95,000
9285.039	Misc Drywall Soffits	1.00	LS	35,000.00	35,000
9500.100	ACT - Auditorium		SF	5.00	
9500.102	ACT	162,350.00	SF	4.00	649,400
9500.104	ACT(Cleanable) - Kitchen	7,215.00	SF	8.00	57,720
9500.200	24x24x5/8 Lay-In (AT, AC, BT)	1,200.00	SF	3.00	3,600
9500.200	24x24x5/8 Lay-In (Barn Addition)	450.00	SF	3.00	1,350
9500.390	Acoustical Wood Clouds - Auditorium	1.00	LS	40,000.00	40,000
9500.612	Tectum Ceiling Panels - 2"	6,870.00	SF	8.00	54,960
9900.110	Paint Ceilings	9,520.00	SF	0.85	8,092
9900.120	Paint Exposed Ceiling Structure	53,550.00	SF	1.75	93,713
9900.625	Paint exposed ceiling - Gym	13,710.00	SF	2.00	27,420
9900.628	Paint exposed ceiling - Auditorium	15,500.00	SF	2.00	31,000
*** Total C3030 - CEILING FINISHES					1,182,465
** Total C30 - INTERIOR FINISHES					3,971,902
D10 - CONVEYING SYSTEMS					
D1010 - ELEVATOR					
3300.008	12" Base Slab	128.00	SF	14.42	1,846
3300.025	12" x 5' Foundation Wall	72.00	LF	128.35	9,241
5530.122	Elevator Pit Misc Metals	2.00	EA	1,813.09	3,626
9400.000	Drywall Partition	2,640.00	SF	9.36	24,710
14200.115	Hydraulic Passenger Elevator (1 Ea)	4.00	STOP	40,000.00	160,000
*** Total D1010 - ELEVATOR					199,423
** Total D10 - CONVEYING SYSTEMS					199,423
D20 - PLUMBING					
D20 - PLUMBING					
15400.000	Domestic Water - Temporary Service - Modulares	1.00	LS	5,000.00	5,000
15400.001	Natural Gas - Temporary Service - Modulares	1.00	LS	3,500.00	3,500
15401.320	Domestic Water Heater, Residential Gas-Fired (NG/P) Atmospheric, Foam Lined Tank, Vent Not Included, 100 Gal.	2.00	EA	1,863.51	3,727
15401.338	Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, Vent Not Included, 250 MBH Input, 245 GPH	2.00	EA	20,205.11	40,410
15401.554	Potable Water Storage Tank, Indoor, Glass-Lined PE, 605 Gal., 48" OD, 87" Long	1.00	EA	14,272.02	14,272
15401.556	Round, Stainless Steel, 26 ga., 8" OD - Water Heater Vent	160.00	LF	28.50	4,560
15410.208	Comm. Water Closet, Floor Mounted VC, Flush Valve, Bowl only, incl. Seat, w/Floor Outlet 1.28 gpf ADA	37.00	EA	760.73	28,147
15410.210	Rough-In, Supply, Waste and Vent for Comm. Floor Mounted WC	37.00	EA	697.37	25,803
15410.404	Urinal, Wall Hung VC w/ Hanger and Valve, Water Saving 0.5 gpf	6.00	EA	857.02	5,142
15410.406	Rough-In, Supply, Waste and Vent for Wall Hung Urinal	6.00	EA	858.39	5,150

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15410.640	Rough-In, Supply, Waste and Vent for Res. Vanity Top Lavatories	44.00	EA	769.85	33,873
15410.640	Rough-In, Supply, Waste and Vent for Salon Lavatories (no fixture)	10.00	EA	769.85	7,699
15410.698	Sink w/Faucet and Drain, SS Self Rimming, 43"x22" Double Bowl	14.00	EA	1,295.00	18,130
15410.702	Rough-In, Supply, Waste and Vent for Sinks	14.00	EA	841.37	11,779
15410.826	Laboratory Sink, Corrosion Resistant, 12"x12"x8" Sink, 14.5"x14.5" OD	38.00	EA	482.03	18,317
15410.832	Rough-In, Supply, Waste and Vent for Laboratory Sinks	38.00	EA	623.02	23,675
15410.834	Laboratory Faucet, Gooseneck Spout, Wrist Handles	38.00	EA	238.01	9,044
15410.840	Service Sink, Floor (Corner), PE, 28"x28" w/Rim Guard	10.00	EA	1,242.96	12,430
15410.844	Rough-In, Supply, Waste and Vent for Floor Service Sink	10.00	EA	1,972.62	19,726
15411.101	Hose Bibb, Exterior Freeze-Proof, Lockable	20.00	EA	106.10	2,122
15411.314	Stall Shower, One-Piece Fiberglass w/Three Walls, Drain Only, 32" Square	18.00	EA	653.38	11,761
15411.326	Thermostatic Valve for Shower	18.00	EA	585.00	10,530
15411.328	Rough-In, Supply, Waste and Vent for Shower	18.00	EA	938.10	16,886
15411.901	Emergency Shower, Single Head, Drench, Ball Valve, Pull Style, Freestanding, No Rough-In	8.00	EA	584.03	4,672
15411.908	Emergency Eyewash Fountain, SS Bowl, Pedestal Mount, No Rough-In	8.00	EA	544.03	4,352
15412.222	Electric Water Cooler, Wall Mounted, Full Recessed, SS, Bi-Level	10.00	EA	1,883.15	18,832
15412.236	Rough-In, Supply, Waste and Vent for Electric Water Cooler	10.00	EA	564.12	5,641
15412.434	Floor Drain, Heavy Ducty, Galvanized w/Sediment Bucket, 12" OD Grate, 2"-6" Pipe Size	23.00	EA	1,135.69	26,121
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size	70.00	EA	1,081.02	75,671
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size - Emergency	70.00	EA	1,081.02	75,671
15414.126	Water Meter, Bronze, Comm./Dom., Flanged, 4" OD, 320 GPM	2.00	EA	5,394.09	10,788
15420.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	13,100.00	LF	10.93	143,127
15420.108	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	8,750.00	LF	14.34	125,479
15420.114	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2" OD	3,900.00	LF	32.45	126,555
15420.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	1,200.00	LF	77.68	93,213
15420.122	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 4" OD	400.00	LF	127.33	50,932
15421.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	13,100.00	LF	4.12	53,977
15421.106	Fiberglass 1" Insulation With All Service Jacket 1" Pipe	8,750.00	LF	4.33	37,848
15421.204	Fiberglass 1-1/2" Insulation With All Service Jacket 2" Pipe	3,900.00	LF	6.06	23,636
15421.208	Fiberglass 1-1/2" Insulation With All Service Jacket 3" Pipe	1,200.00	LF	6.79	8,149
15421.212	Fiberglass 1-1/2" Insulation With All Service Jacket 4" Pipe	400.00	LF	8.04	3,216

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15421.500	Valves and Accessories	1.00	LS	25,000.00	25,000
15421.500	Valves and Accessories	1.00	LS	150,000.00	150,000
15440.028	UG Hub & Spigot, CI, No Hangers, 6" Pipe	250.00	LF	53.47	13,368
15440.052	Casty Iron SW&V, Hangers 5' OC, 1-1/2" Pipe	5,750.00	LF	18.61	107,019
15440.054	Casty Iron SW&V, Hangers 5' OC, 2" Pipe	3,000.00	LF	22.45	67,350
15440.058	Casty Iron SW&V, Hangers 5' OC, 4" Pipe	1,650.00	LF	31.69	52,290
15440.382	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 2" OD - GW	2,500.00	LF	25.61	64,024
15440.386	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 4" OD - GW	1,300.00	LF	46.16	60,006
15440.500	Limestone Chip Acid Neutralizer - 200 Gallon	2.00	EA	17,500.00	35,000
15450.410	Sch40 PVC W/Couplings and Hangers, 10ft OC, 4" OD	500.00	LF	25.34	12,668
15450.412	Sch40 PVC W/Couplings and Hangers, 10ft OC, 6" OD	500.00	LF	38.16	19,081
15460.100	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 2" OD - NG	5,600.00	LF	21.70	121,529
15460.102	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 1-1/4" OD - NG	5,600.00	LF	14.93	83,615
15460.200	Valves and Accessories	1.00	LS	10,000.00	10,000
15460.200	Valves and Accessories	1.00	LS	50,000.00	50,000
15470.100	Air Compressor, Reciprocating, Air-Cooled, Tank Mounted, Two Stage, 3 Phase, 105 CFM @ 125 PSI, 25 HP, 250 Gal. Tank	1.00	EA	14,100.00	14,100
15470.100	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD - CA	1,000.00	LF	10.93	10,926
15470.102	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	500.00	LF	14.34	7,170
15470.212	Compressed Air Outlet, Recessed Wall, Single	50.00	EA	126.51	6,325
15495.004	Commissioning Support	1.00	LS	7,000.00	7,000
15495.004	Commissioning Support	1.00	LS	60,000.00	60,000
15495.006	Coordination & Management	1.00	LS	10,000.00	10,000
15495.006	Coordination & Management	1.00	LS	75,000.00	75,000
15495.008	Coring & Patching & Firestopping	1.00	LS	2,500.00	2,500
15495.008	Coring & Patching & Firestopping	1.00	LS	25,000.00	25,000
15495.010	Flushing & Sanitizing	1.00	LS	2,000.00	2,000
15495.010	Flushing & Sanitizing	1.00	LS	20,000.00	20,000
15495.018	Fees & Permits	1.00	LS	4,000.00	4,000
15495.018	Fees & Permits	1.00	LS	25,000.00	25,000
*** Total D20 - PLUMBING					2,359,536
** Total D20 - PLUMBING					2,359,536
D30 - HVAC					
D30 - HVAC					
15620.000	Custom, 20" High, Insulated Roof Curb	37.00	EA	1,200.00	44,400
15620.206	AHU-21, 22, Indoor, Central Station AHU, HC, CC, Filters, Mixing, Single Zone, CV, 6500 CFM	2.00	EA	1,034.00	2,068
15620.323	Outdoor, MAU, Indirect Gas-Fired (NG), Gravity Vent, SS Exchanger, 70degF Rise, 550 MBH Input	3.00	EA	18,107.34	54,322
15620.421	RTU 1-20, Stnd Controls, Curb, Econ., Multi- Zone, Gas Heat, 12 Ton Dx Cooling, 180 MBH Heating, Heat Wheel, 4000 CFM	20.00	EA	3,061.13	61,223

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
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 Detail - With Taxes and Insurance

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15620.422	RTU 23, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 7.5 Ton Dx Cooling, 130 MBH Heating, 2500 CFM	1.00	EA	3,061.13	3,061
15620.423	RTU 24, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 6.5 Ton Dx Cooling, 120 MBH Heating, 2000 CFM	1.00	EA	3,061.13	3,061
15620.423	RTU 34, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 200 MBH Heating, Heat Wheel, 3500 CFM	1.00	EA	31,061.13	31,061
15620.424	RTU 25, 26, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 200 MBH Heating, 3200 CFM	2.00	EA	3,061.13	6,122
15620.424	RTU 35, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 400 MBH Heating, Heat Wheel, 8000 CFM	1.00	EA	67,061.13	67,061
15620.425	RTU 27, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 35 Ton Dx Cooling, 480 MBH Heating, 10000 CFM	1.00	EA	3,061.13	3,061
15620.425	RTU 36, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	51,061.13	51,061
15620.426	RTU 28, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 180 MBH Heating, 4000 CFM	1.00	EA	3,061.13	3,061
15620.426	RTU 37, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6200 CFM	1.00	EA	52,661.13	52,661
15620.427	RTU 29, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 15 Ton Dx Cooling, 200 MBH Heating, 3500 CFM	1.00	EA	3,061.13	3,061
15620.428	RTU 30, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 32 Ton Dx Cooling, 450 MBH Heating, 10500 CFM	1.00	EA	3,061.13	3,061
15620.429	RTU 31, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 150 MBH Heating, 2500 CFM	1.00	EA	3,061.13	3,061
15620.430	RTU 32, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	51,061.13	51,061
15620.431	RTU 33, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	51,061.13	51,061
15620.500	Daikin Rebel / Maverick II RTU's - VFD's, Extended Warranties	1.00	LS	1,090,000.00	1,090,000
15624.003	Split System, Ductless, Cooling Only, Wall Mount, Single Zone, 1-1/2 Ton	8.00	EA	6,040.07	48,321
15630.220	Single Bathroom Exhaust Fan, 100 CFM	10.00	EA	406.01	4,060
15630.226	Bathroom Exhaust Fan, 1000 CFM	6.00	EA	1,683.76	10,103
15630.226	Exhaust Fan, 1500 CFM	2.00	EA	2,183.76	4,368
15630.416	Kitchen Exhaust Fan, Centrifugal, 4000 CFM	2.00	EA	4,226.70	8,453
15640.114	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 3000 MBH Output	4.00	EA	62,995.14	251,981
15640.114	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 330 MBH Output	6.00	EA	10,270.14	61,621
15640.200	Salvage Existing Boilers	1.00	LS	-25,000.00	-25,000
15650.002	Glycol Treatment System	1.00	LS	10,000.00	10,000
15651.005	Chiller, Air Cooled, High Efficiency, 100 Ton	1.00	EA	70,660.58	70,661
15660.000	Fume Hood, Fan, Ductwork	2.00	EA	5,500.00	11,000

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15660.002	Vehicle Exhaust System, 2000 CFM	1.00	LS	15,000.00	15,000
15660.004	Vehicle Exhaust System, 5000 CFM	1.00	LS	25,000.00	25,000
15660.006	Paint Booth Exhaust System, 12000 CFM	1.00	LS	25,000.00	25,000
15660.008	Dust Collection System, 4000 CFM	1.00	LS	65,000.00	65,000
15660.010	Duct Collection System, 6000 CFM	1.00	LS	87,000.00	87,000
15660.202	Chilled Water Pump, Centrifugal, Base Mounted, End Suction, 210 gpm w/VFD	2.00	EA	5,627.77	11,256
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 100 gpm w/VFD	4.00	EA	4,046.80	16,187
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 800 gpm w/VFD	2.00	EA	21,046.80	42,094
15680.040	Displacement Ventilation System (per Classroom)	65.00	EA	1,250.00	81,250
15680.042	Sound Attenuator Device / Double Wall Ductwork (per RTU)	37.00	EA	2,500.00	92,500
15680.112	Galvanized Ductwork, > 5000 LB	215,000.00	LB	10.34	2,222,197
15684.102	Duct Insulation, Blanket Type, Fiberglass, FSK, 1.0Lb Density, 1-1/2" Thick	195,000.00	SF	2.65	516,809
15688.014	Gas Vent, Double Wall, Galvanized Steel, UL Listed, 12" Dia.	1,000.00	LF	49.25	49,252
15690.102	Fin Tube Radiation, Wall Hung, 14" Slope Top, 1-1/4" Cu Tube, 4-1/4" Aluminum Fin	2,500.00	LF	65.24	163,099
15691.004	Cabinet Unit Heater, Horizontal, Floor Mount, 60 MBH	35.00	EA	1,623.44	56,821
15691.312	Unit Heater, Hot Water, Horizontal, 47 MBH	14.00	EA	723.44	10,128
15692.210	Variable Air Volume Box, Pl, w/Damper, Actuator, T-Stat, 1000 CFM	156.00	EA	895.01	139,622
15699.000	Chilled Beam	280.00	LF	100.00	28,000
15700.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	11,000.00	LF	10.93	120,183
15700.112	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/2" OD	5,500.00	LF	22.82	125,516
15700.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	1,250.00	LF	63.09	78,860
15700.122	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 4" OD	200.00	LF	106.41	21,283
15704.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	11,000.00	LF	4.12	45,324
15704.202	Fiberglass 1-1/2" Insulation With All Service Jacket 1-1/2" Pipe	5,500.00	LF	5.67	31,187
15704.308	Fiberglass 2" Insulation With All Service Jacket 3" Pipe	1,250.00	LF	8.32	10,401
15704.312	Fiberglass 2" Insulation With All Service Jacket 4" Pipe	200.00	LF	9.99	1,997
15705.004	Air Separator w/Strainer, 2-1/2" Dia.	3.00	EA	1,447.82	4,343
15705.008	Air Separator w/Strainer, 4" Dia.	1.00	EA	3,113.04	3,113
15706.206	Expansion Tank, Steel, ASME, Rubber Diaphragm, 61 Gal. Accep. Vol.	3.00	EA	3,794.04	11,382
15706.214	Expansion Tank, Steel, ASME, Rubber Diaphragm, 211 Gal. Accep. Vol.	1.00	EA	6,586.85	6,587
15708.106	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 5/8"	800.00	LF	7.26	5,808
15708.112	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 1-1/8"	800.00	LF	11.05	8,840
15708.500	Valves & Accessories	1.00	LS	15,000.00	15,000
15708.500	Valves & Accessories	1.00	LS	120,000.00	120,000
15780.000	DDC Controls	268,330.00	SF	7.50	2,012,475
15780.010	CO2 Sensor	153.00	EA	85.00	13,005
15792.001	Air & Water Balance	268,330.00	SF	0.50	134,165
15801.501	Coordination & Management	1.00	LS	20,000.00	20,000

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15801.501	Coordination & Management	1.00	LS	175,000.00	175,000
15801.502	Commissioning Support	1.00	LS	5,000.00	5,000
15801.502	Commissioning Support	1.00	LS	50,000.00	50,000
15801.503	Coring, Patching & Firestopping	1.00	LS	1,000.00	1,000
15801.503	Coring, Patching & Firestopping	1.00	LS	25,000.00	25,000
15801.504	Seismic Restraint	1.00	LS	15,000.00	15,000
15801.504	Seismic Restraint	1.00	LS	65,000.00	65,000
15801.505	Fees & Permits	1.00	LS	10,000.00	10,000
15801.505	Fees & Permits	1.00	LS	50,000.00	50,000
*** Total D30 - HVAC					8,870,778
** Total D30 - HVAC					8,870,778
D40 - FIRE PROTECTION					
D40 - FIRE PROTECTION					
15500.000	Fire Protection - Temporary FP Service - Modulars	1.00	LS	5,000.00	5,000
15500.030	Interface w/Existing Sprinkler System - Daily	1.00	LS	50,000.00	50,000
15502.002	Fire Service Main - 6" Ductile Iron, Mech. Joint	150.00	LF	29.65	4,447
15502.024	6" Double Check Backflow Preventer W/OS&Y Valves, 4 Test Cocks	2.00	EA	5,868.66	11,737
15502.110	FDC - Two Way Siamese - 3x3x6	2.00	EA	1,561.99	3,124
15502.116	4" Zone Flow Control Valve W/Trim And Gauges	13.00	EA	6,038.56	78,501
15502.128	Tamper Switch	25.00	EA	156.50	3,912
15502.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.	7,820.00	LF	40.66	317,939
15502.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C.	15,650.00	LF	12.94	202,588
15502.226	Sprinkler Branch Sch 40 BS - 1-1/2" Threaded W/ Hangers 10 Ft O.C.	7,725.00	LF	16.90	130,551
15502.300	Temporary Water Line to Pre-Plumbed Modular Classrooms	1.00	LS	10,000.00	10,000
15502.400	Sprinkler Heads - Standard Pendant, 1/2" NPT, 1/2" Orifice	2,350.00	EA	37.85	88,946
15505.006	2" Dry Pipe Valve With Trim And Gauges - RR	1.00	EA	2,548.98	2,549
15505.012	30 Gal., 1 HP Comp Air Sys For Fire Protection - RR	1.00	EA	1,110.76	1,111
15505.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C. - RR	115.00	LF	40.66	4,676
15505.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C. - RR	190.00	LF	12.94	2,460
15505.400	Sprinkler Heads - Standard Upright, 1/2" NPT, 1/2" Orifice - RR	20.00	EA	37.85	757
15535.002	Coordination & Management	1.00	LS	5,000.00	5,000
15535.002	Coordination & Management	1.00	LS	12,000.00	12,000
15535.010	Hydraulic Calculations	1.00	LS	2,000.00	2,000
15535.010	Hydraulic Calculations	1.00	LS	8,000.00	8,000
15535.016	Coring & Patching & Firestopping	1.00	LS	4,000.00	4,000
15535.016	Coring & Patching & Firestopping	1.00	LS	11,000.00	11,000
15535.024	Fees & Permits	1.00	LS	2,000.00	2,000
15535.024	Fees & Permits	1.00	LS	8,000.00	8,000
*** Total D40 - FIRE PROTECTION					970,299
** Total D40 - FIRE PROTECTION					970,299
D50 - ELECTRICAL					
D50 - ELECTRICAL					
16000.100	Temporary Electrical - Modulars	1.00	LS	10,000.00	10,000
16020.210	300 kW NG Emergency Generator w/Sound Attenuated Enclosure	1.00	EA	154,364.83	154,365
16020.212	Emergency Power Equipment and Distribution	240,130.00	SF	1.50	360,195

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
16020.214	Emergency Generator - Testing	1.00	LS	5,000.00	5,000
16030.000	3000 Amp Switchgear, 480/277V	1.00	EA	75,000.00	75,000
16030.004	Transformer / Primary / Conduit ** ALLOWANCE **	1.00	LS	50,000.00	50,000
16040.006	Panel Feeders	68.00	EA	2,500.00	170,000
16040.008	Primary Conduit Only - (1) 4"	800.00	LF	4.40	3,520
16040.010	Secondary Feeder - (8) 4" Conduits	800.00	LF	4.40	3,520
16040.011	Secondary Feeder - #600 MCM Conductor	3,200.00	LF	34.35	109,920
16040.060	Grounding/Bonding	1.00	LS	3,500.00	3,500
16040.060	Grounding/Bonding	1.00	LS	10,000.00	10,000
16040.200	20 KW UPS	2.00	EA	20,000.00	40,000
16040.218	Panel 277/480V 100A - Lighting	17.00	EA	1,688.95	28,712
16040.218	Panel 277/480V 100A - Mechanical	17.00	EA	1,688.95	28,712
16040.224	Panel 277/480V 400A - Distribution	17.00	EA	3,361.74	57,150
16040.228	Triple Tub Panel 120/208V 250 Amp	17.00	EA	9,850.14	167,452
16040.300	Transformer Dry Type, Three Phase, 30kVA	17.00	EA	4,977.90	84,624
16040.302	Transformer Dry Type, Three Phase, 75kVA	17.00	EA	7,257.30	123,374
16050.100	Branch Devices	268,330.00	SF	1.00	268,330
16050.102	Power and Branch Circuitry	28,200.00	SF	3.00	84,600
16050.102	Power and Branch Circuitry	240,130.00	SF	4.00	960,520
16060.414	RTU Feeder	38.00	EA	2,730.06	103,742
16060.416	Boiler Feeder	10.00	EA	1,415.03	14,150
16060.418	Pump Feeder	9.00	EA	1,985.05	17,865
16060.420	Chiller Feeder	1.00	EA	8,380.11	8,380
16080.008	2x4 Flourescent - MER	50.00	EA	345.01	17,251
16080.010	Recessed LED's - Classrooms/Offices	1,426.00	EA	295.01	420,687
16080.012	Direct LED's - Gymnasium	20.00	EA	1,090.02	21,800
16080.014	Linear Indirect LED's - Corridor	305.00	EA	445.01	135,729
16080.016	Pendant Mount / Indirect Flourescent - Cafeteria	58.00	EA	735.02	42,631
16080.018	2x2 LED Panels - Kitchen/Servery	45.00	EA	610.02	27,451
16080.020	Direct Recessed LED's - Library	36.00	EA	295.01	10,620
16080.022	Dimmable Flourescent - Auditorium	60.00	EA	345.01	20,701
16080.024	Exterior Wall Mount - LED	32.00	EA	635.02	20,321
16080.026	Exterior Pole Fixture - Custom LED	27.00	EA	5,000.00	135,000
16080.030	Exterior Pendant - LED - RR	15.00	EA	635.02	9,525
16081.100	Lighting Circuitry	268,330.00	SF	2.25	603,743
16081.102	Lighting Controls	268,330.00	SF	1.25	335,413
16081.104	Lighting Controls & Panels - Testing	1.00	LS	5,000.00	5,000
16081.104	Lighting Controls & Panels - Testing	1.00	LS	15,000.00	15,000
16081.150	Stage Lights / Sound System / Dimmer Rack ** ALLOWANCE **	1.00	LS	375,000.00	375,000
16100.000	Sound System - Cafeteria ??	1.00	LS	20,000.00	20,000
16100.001	Sound System - Gymnasium	1.00	LS	20,000.00	20,000
16100.002	Sound System - Music Room	1.00	LS	10,000.00	10,000
16110.020	Bi-Directional Antennae	1.00	LS	50,000.00	50,000
16110.100	Tel/ Data/ CATV	28,200.00	SF	1.25	35,250
16110.100	Tel/ Data/ CATV	240,130.00	SF	2.50	600,325
16170.100	Card Reader System - Head End Equipment	1.00	EA	9,000.00	9,000
16170.101	Card Readers - Swipes/Wires	40.00	EA	1,700.00	68,000
16180.000	Master Clock	268,330.00	SF	0.35	93,916
16180.001	Intercom	268,330.00	SF	0.60	160,998
16180.100	Communications - Testing	1.00	LS	5,000.00	5,000
16180.100	Communications - Testing	1.00	LS	15,000.00	15,000
16200.000	Security System - Head End Equipment	1.00	LS	35,000.00	35,000
16200.002	Fixed Interior CCTV Cameras	35.00	EA	3,000.00	105,000
16200.004	Pan-Tilt-Zoom Exterior CCTV Cameras	18.00	EA	5,000.00	90,000
16300.102	Fire Alarm	268,330.00	SF	2.00	536,660
16300.104	Fire Alarm Testing	1.00	LS	3,500.00	3,500
16300.104	Fire Alarm Testing	1.00	LS	5,000.00	5,000

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
16400.002	Lightning Protection	1.00	LS	5,000.00	5,000
16400.100	Commissioning	1.00	LS	15,000.00	15,000
16400.100	Commissioning	1.00	LS	50,000.00	50,000
16400.102	Firestopping	1.00	LS	7,000.00	7,000
16400.102	Firestopping	1.00	LS	15,000.00	15,000
16400.104	Identification	1.00	LS	2,000.00	2,000
16400.104	Identification	1.00	LS	5,000.00	5,000
16400.106	Seismic Restraint	1.00	LS	2,000.00	2,000
16400.106	Seismic Restraint	1.00	LS	10,000.00	10,000
16400.108	Fees & Permits	1.00	LS	5,000.00	5,000
16400.108	Fees & Permits	1.00	LS	40,000.00	40,000
*** Total D50 - ELECTRICAL					7,157,151
** Total D50 - ELECTRICAL					7,157,151
E10 - EQUIPMENT					
E10 - EQUIPMENT, GENERALLY					
11160.034	12" Dock Seal - OH Doors	1.00	EA	1,585.04	1,585
11160.043	Rubber Dock Bumper 4 1/2"x14"x12"	2.00	EA	166.38	333
11480.006	OUTDOOR SCOREBOARDS - NOT INCLUDED				
11480.008	Gym Bleachers (One Side Only)	1.00	LS	25,000.00	25,000
11480.014	Gym Divider Curtain	1.00	LS	25,000.00	25,000
11480.014	Gym Divider Curtain - Existing to remain		LF	160.00	
11480.020	Basketball Hoop	6.00	EA	5,333.33	32,000
11480.020	Basketball Hoop - Existing to remain		EA	5,333.33	
11480.030	Volley Ball Net w/ Floor Inserts	1.00	EA	1,900.00	1,900
11480.040	Score Board - Existing to remain		EA	8,500.00	
11480.060	Upgrade Motorized Retraction System for Existing Bleachers		LS	20,000.00	
11480.062	Plastic Telescoping Stands - Hussey Maxam 26 Motorized Bleachers		EA	110.00	
11480.065	Gym Wall Padding - 6' Ht	470.00	LF	100.00	47,000
11480.080	Temporarily Relocate Existing Bleachers for Floor Replacement	1.00	LS	-18,000.00	-18,000
11480.080	Temporarily Relocate Existing Bleachers for Floor Replacement	1.00	LS	20,000.00	20,000
11650.000	Stage Set Fastening Equipment - In Line set Allowance				
11651.000	Lecture Hall Tables - 18" X 5'		EA	1,085.15	
11653.000	Auditorium Seating - Quattro By Hussey Seating	800.00	EA	250.00	200,000
11654.000	Line Sets & Shell Allowance - Auditorium	1.00	LS	175,000.00	175,000
*** Total E10 - EQUIPMENT, GENERALLY					509,818
** Total E10 - EQUIPMENT					509,818
E20 - FURNISHINGS					
E2010 - FIXED FURNISHINGS					
10000.020	Smart Boards - N/A per HMFH		EA	2,677.73	
10100.004	Marker Board W/ Alum Trim - Classrooms & Labs	2,400.00	SF	15.63	37,518
10100.006	Tack Board W/O Trim	2,400.00	SF	8.32	19,959
12500.010	Hunter Douglas Roller Shades (50% of glazing)	14,000.00	SF	11.00	154,000
*** Total E2010 - FIXED FURNISHINGS					211,477
** Total E20 - FURNISHINGS					211,477
F10 - SPECIAL CONSTRUCTION					
F10 - SPECIAL CONSTRUCTION					
2100.022	50' Riding Ring w/ Fence (Roof in B10)	1.00	LS	10,000.00	10,000
2220.330	Crushed Stone Under Slab - Kennel	20.00	CY	42.51	850

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
2220.332	4" SOG - Kennel	400.00	SF	7.71	3,084
2720.115	Chain Link Fence - Vinyl Coated 6' H - Kennel (10' x 10')	120.00	LF	22.00	2,640
*** Total F10 - SPECIAL CONSTRUCTION					16,574
** Total F10 - SPECIAL CONSTRUCTION					16,574
F20 - SELECTIVE BUILDING DEMOLITION					
F2010 - BUILDING ELEMENTS DEMOLITION					
2020.110	Demo grade beams & pile caps	250.00	CY	103.95	25,988
2032.000	Interior Demolition - Strip Walls & Clg GWB, Flooring, Casework, MEP	238,130.00	SF	8.00	1,905,040
2032.100	Remove gypsum fireproofing from exist columns for structural upgrades	70.00	EA	138.31	9,681
2032.550	Roof Penetrations - Roof Top Units	37.00	EA	838.08	31,009
2032.570	Remove Membrane	111,649.00	SF	0.84	93,573
2032.750	Remove Curtain Wall	28,000.00	SF	2.10	58,666
*** Total F2010 - BUILDING ELEMENTS DEMO					2,123,957
** Total F20 - SELECTIVE BUILDING DEMOLIT					2,123,957
G10 - SITE PREPARATION					
G1020 - SITE DEMOLITION					
2013.240	Demo Bit Conc Pvmt - Large Area	230,562.00	SF	0.16	37,927
2013.240	Demo Bit Conc Pvmt - Large Area (For Animal Barn)	6,000.00	SF	0.16	987
2013.280	Demo Conc Walk	11,800.00	SF	0.63	7,414
*** Total G1020 - SITE DEMOLITION					46,328
G1030 - EARTHWORK					
2110.290	Misc Erosion Control	1.00	LS	20,000.00	20,000
2110.306	Site Access/Laydown	1.00	LS	25,000.00	25,000
2300.155	Dewatering	1.00	LS	8,000.00	8,000
*** Total G1030 - EARTHWORK					53,000
** Total G10 - SITE PREPARATION					99,328
G20 - SITE IMPROVEMENTS					
G2010 - SITE PAVING					
2600.050	Compact Road Subgrade	22,535.22	SY	0.23	5,219
2600.060	Fine Grade Road Subgrade	22,535.22	SY	1.04	23,482
2600.200	Added 2" for Heavy Duty Paving - Lot C (33,106 SF)	408.00	TONS	110.00	44,880
2600.200	Bituminous Concrete P3.96g (4")	4,961.72	TON	110.00	545,789
2600.201	22535.22	1.00	EACH		
2600.210	**Paved Area**	22,535.22	SY		
2610.002	Grading For Curbs	5,000.00	LF	2.68	13,400
2610.050	Bituminous Curbs	5,000.00	LF	2.25	11,250
2610.150	Bituminous Sidewalk	203.87	TON	110.00	22,425
2610.151	**Bituminous Sidewalk Area**	11,001.00	SF		
*** Total G2010 - SITE PAVING					666,444
G2050 - LANDSCAPING					
2710.200	Landscaping	1.00	LS	120,000.00	120,000
10000.010	Flag Pole	1.00	EA	2,277.73	2,278
*** Total G2050 - LANDSCAPING					122,278
** Total G20 - SITE IMPROVEMENTS					788,722
G30 - SITE UTILITIES					
G3010 - SITE UTILITIES					
2540.110	Water Line	800.00	LF	54.08	43,264
2540.114	Sanitary Sewer	800.00	LF	52.08	41,664
2540.118	Prim/Sec Electrical/Telcom Trenching	900.00	LF	32.08	28,872

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
2540.120	Reconfigure Natural Gas (Assumes existing size is adequate)		LS	15,000.00	
2540.122	Reconfigure Storm Drainage	1.00	LS	30,000.00	30,000
2540.124	Alter Underdrain at existing ball field for CTC building	1.00	LS	10,000.00	10,000
2580.110	Elec Trench-Direct Burial (Site Lighting)	3,600.00	LF	8.04	28,944
2580.120	Elec Trench-Duct Bank (Secondary/Primary Under Roads)	140.00	LF	12.32	1,725
2580.130	Elec Ductbank Forms	560.00	SF	4.42	2,473
2580.140	Elec Ductbank Concrete	48.53	CY	121.08	5,876
2580.300	Grease Interceptor, Steel, 50 GPM, 100 LB Fat Capacity	1.00	EA	9,983.05	9,983
2580.302	Grease Interceptor, Steel, 250 GPM, 500 LB Fat Capacity	1.00	EA	26,127.79	26,128
*** Total G3010 - SITE UTILITIES					228,929
** Total G30 - SITE UTILITIES					228,929
Z10 - GENERAL					
Z1010 - GENERAL CONDITIONS					
0080.100	***DESIGN & ENGINEERING FEES BY CITY OF DOVER***				
0100.000	Mobilize / Demobilize	1.00	LS	28,000.00	28,000
0100.020	Office Supplies	334.00	WK	150.00	50,100
0100.030	Office Furniture / Systems	1.00	LS	48,000.00	48,000
0100.040	Engineer's Furniture / Equipment - N/A		LS		
0100.041	Engineer's Computer / Software - N/A		LS		
0100.045	Project Kiosk 30" - Purchase	4.00	EA	5,000.00	20,000
0100.060	Janitorial Services	334.00	WK	80.00	26,720
0100.064	Temporary Wiring	1.00	LS	3,000.00	3,000
0100.065	Electrical Energy Costs	76.00	MO	450.00	34,200
0100.066	Water Usage Costs	76.00	MO	200.00	15,200
0100.100	Telephone / Communication	76.00	MO	1,000.00	76,000
0100.110	Sanitary / Facilities	76.00	MO	1,500.00	114,000
0110.080	Security / Watchman		WK		
0110.120	Photographs		MO		
0110.160	Documents & Reproductions	1.00	LS	15,000.00	15,000
0120.002	Estimating - GMP	1.00	LS	50,000.00	50,000
0120.003	Officer in Charge		MW	7,000.00	
0120.005	Construction Executive	17.00	MW	5,400.00	91,800
0120.008	Senior Project Manager	68.00	MW	4,720.00	320,960
0120.010	Project Manager	200.00	MW	3,800.00	760,000
0120.018	Senior Project Engineer		MW	2,880.00	
0120.020	Project Engineer (Full Time)	334.00	MW	2,400.00	801,600
0120.022	Office Engineer		MW	1,920.00	
0120.024	Senior Superintendent	334.00	MW	4,720.00	1,576,480
0120.025	Project Superintendent	84.00	MW	3,720.00	312,480
0120.034	Construction Coordination - SCP		MW	2,400.00	
0120.050	Scheduling Engineer		MW	2,280.00	
0120.058	Safety Manager		MW	3,720.00	
0120.060	Safety Engineer (1 Days/Week)	67.00	MW	2,280.00	152,760
0120.220	Administration	200.00	MW	1,720.00	344,000
0130.000	Living Allowance - Management	501.00	MWK	400.00	200,400
0130.005	Living Allowance - Foremen		MWK	125.00	
0130.020	Travel and Expenses	76.00	MO	600.00	45,600
0140.000	Scheduling	1.00	WK	2,280.00	2,280
0140.200	Permit's & Fee's		LS		
0140.205	Building Permit - Excluded		LS		
0140.300	Design (Means & Methods)		LS		
0140.800	Professional Services		LS		
0150.200	Equipment Trucking		WK		

Schematic Design Estimate Option 1: Complete Renovation



CONSTRUCTION

Job #: 15027
 Project Size: 268,330 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
0150.250	Off - Site Parking		WK		
0150.500	Personnel Elevator		MO		
0150.520	Field Office	76.00	TM	1,200.00	91,200
0150.540	Engineer / Architect Office		TM	400.00	
0150.560	Storage Trailers (2 Trailers)	152.00	TM	150.00	22,800
0160.300	Sub Bonds (Include w/ Subs)		LS		
0180.010	Gross Receipts Tax		LS		
0180.020	Sales Tax		LS		
*** Total Z1010 - GENERAL CONDITIONS					5,202,580
Z1020 - GENERAL REQUIREMENTS					
0200.010	Materials Testing		LS		
0200.040	Snow Removal	1.00	LS	40,000.00	40,000
0200.110	Field Engineering	4.00	WK	5,000.00	20,000
0200.140	Temporary GWB Partitions	48,300.00	SF	7.80	376,740
0200.160	ICRA / ILSM - N/A		LS		
0200.180	Scaffolding - In COW		LS		
0200.200	OSHA / First Aid	334.00	WK	771.89	257,812
0200.300	Material Handling	334.00	WK	940.00	313,960
0200.310	Cranes - In COW		CM		
0200.320	Progress Cleanup (Labor & Dumpster)	334.00	WK	707.04	236,151
0200.360	Final Cleanup	268,330.00	SF	0.45	120,749
0200.400	Temporary Heat	1.00	LS	175,000.00	175,000
0200.410	Temporary Enclosure	1.00	LS	150,000.00	150,000
0200.970	Support Equipment		LS		
0200.972	Sub Mobilization Costs	1.00	LS	600,000.00	600,000
*** Total Z1020 - GENERAL REQUIREMENTS					2,290,412
** Total Z10 - GENERAL					7,492,992
Z20 - MAJOR CUSTOM PROGRAM ELEMENTS					
Z2010 - MAJOR CUSTOM PROGRAM ELEMENTS					
0060.002	Precon Services - N/A (Included under separate contract)		LS	96,000.00	
2032.500	Asbestos Abatement Contract	1.00	LS	1,300,000.00	1,300,000
2032.505	Asbestos Abatement - 5% Increase per year	1.00	LS	359,166.00	359,166
2762.100	Replace existing football field with turf	1.00	LS	750,000.00	750,000
11400.001	Kitchen Equipment	1,820.00	SF	150.00	273,000
13120.000	Modular Classroom Rental - 16 EA for 78 Months (ModSpace)	78.00	Mo	12,000.00	936,000
13120.020	Modular Classroom Delivery/Install (ModSpace)	16.00	EA	36,000.00	576,000
13120.040	Modular Classroom Tear Down (ModSpace)	16.00	EA	16,000.00	256,000
*** Total Z2010 - MAJOR CUSTOM PROGRAM					4,450,166
** Total Z20 - MAJOR CUSTOM PROGRAM EL					4,450,166
* Total Option 1 - Complete Renovation					49,932,184
Total Gross Cost					49,932,184



Dover High School - Option #1 - Full Renovation - Estimate Comparison

		PC	PM&C	Cost Variance
High School Total		\$64,417,847	\$65,141,515	\$723,668
A1010	Standard Foundations	\$586,118	\$281,788	-\$304,330
A1020	Special Foundations	\$392,400	\$566,000	\$173,600
A1030	Lowest Floor Construction	\$747,366	\$659,778	-\$87,588
B1010	Floor Construction	\$570,000	\$820,825	\$250,825
B1020	Roof Construction	\$276,199	\$448,000	\$171,801
B2010	Exterior Walls	\$1,156,462	\$918,878	-\$237,584
B2020	Windows	\$2,127,120	\$2,052,062	-\$75,058
B2030	Exterior Doors	\$140,785	\$182,490	\$41,705
B3010/3020	Roof Coverings & Openings	\$361,327	\$481,000	\$119,673
C1010	Partitions	\$1,166,993	\$1,423,750	\$256,757
C1020	Interior Doors	\$697,003	\$794,250	\$97,247
C1030	Specialties / Millwork	\$2,135,630	\$2,163,748	\$28,118
C2010	Stair Construction	\$123,729	\$77,000	-\$46,729
C3010	Wall Finishes	\$874,439	\$1,059,000	\$184,561
C3020	Floor Finishes	\$1,914,998	\$2,080,534	\$165,536
C3030	Ceiling Finishes	\$1,182,465	\$1,330,822	\$148,357
D1010	Elevator	\$199,423	\$122,500	-\$76,923
D2010	Plumbing	\$2,359,536	\$2,485,125	\$125,589
D3010	HVAC	\$8,870,778	\$8,585,251	-\$285,527
D4010	Fire Protection	\$970,299	\$926,625	-\$43,674
D5010	Electrical	\$7,157,151	\$7,433,138	\$275,987
E1010	Equipment, Generally	\$509,818	\$980,800	\$470,982
E2010	Fixed Furnishings	\$211,477	\$288,399	\$76,922
F10	Special Construction	\$16,574	\$425,000	\$408,426
F2010	Building Elements Demolition	\$2,123,957	\$2,125,232	\$1,275
G1020/1030	Site Demolition & Earthwork	\$99,328	\$2,793,500	\$2,694,172
G2010	Site Paving	\$666,444		-\$666,444
G2050	Landscaping	\$122,278		-\$122,278
G3010	Site Utilities	\$228,929		-\$228,929
Z1010	General Conditions	\$5,202,580	\$5,202,580	\$0
Z1020	General Requirements	\$2,290,412	\$1,690,412	-\$600,000
Z2010	Major Custom Program Elements	\$4,450,166	\$4,205,000	-\$245,166
Option #1 Total Direct Cost		\$49,932,184	\$52,603,487	\$2,671,303



Dover High School - Option #1 - Full Renovation - Estimate Comparison

Labor and Material Escalation	\$6,266,929	\$3,382,139	-\$2,884,790
Builders Risk Insurance	\$43,993		-\$43,993
Liability Insurance	\$483,135	\$444,114	-\$39,021
Construction Manager's Contingency (PC @ 10%)	\$5,619,911	\$7,090,491	\$1,470,580
P & P Bond	\$500,528	\$283,591	-\$216,937
CM Fee (2.5%)	\$1,571,167	\$1,337,693	-\$233,474
Option #1 Total Indirect Cost	\$14,485,663	\$12,538,028	-\$1,947,635
Option #1 Total Gross Cost	\$64,417,847	\$65,141,515	\$723,668

OPTION 2 - Partial Renovation with Addition

ESTIMATE SUMMARY

Project #: 15027
Building GSF: 303,000

		Totals
Direct Cost	%	\$ 60,606,764
Material Sales Tax (N/A)	0.00%	\$ -
Labor & Material Escalation	0.00%	\$ -
Gross Cost		\$ 60,606,764
Building Permit - by Owner	0.00%	\$ -
Builder's Risk insurance	0.07%	\$ 46,064
Liability Insurance	0.75%	\$ 505,875
Construction Manager's Contingency	7.00%	\$ 4,242,473
P & P Bond (\$5.99 per \$1,000)		\$ 404,026
Sub Total		\$ 65,805,202
CM Fee	2.50%	\$ 1,645,130
Total		\$ 67,450,000
Total Cost per square foot		\$ 223

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Recap - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Unifomat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
Option 2 - Partial Renovation with Addition					
A10	FOUNDATIONS				4,339,527
B10	SUPERSTRUCTURE				6,288,028
B20	EXTERIOR CLOSURE				6,167,022
B30	ROOFING				1,793,174
C10	INTERIOR CONSTRUCTION				5,803,467
C20	STAIRCASES				331,790
C30	INTERIOR FINISHES				4,159,973
D10	CONVEYING SYSTEMS				199,423
D20	PLUMBING				2,659,492
D30	HVAC				8,104,390
D40	FIRE PROTECTION				974,143
D50	ELECTRICAL				6,867,084
E10	EQUIPMENT				511,736
E20	FURNISHINGS				246,257
F10	SPECIAL CONSTRUCTION				326,474
F20	SELECTIVE BUILDING DEMOLITION				1,465,023
G10	SITE PREPARATION				692,468
G20	SITE IMPROVEMENTS				1,576,630
G30	SITE UTILITIES				484,555
Z10	GENERAL				4,831,941
Z20	MAJOR CUSTOM PROGRAM ELEMEN				2,784,166
* Total Option 2 - Partial Renovation with Add					60,606,764
Total Gross Cost					60,606,764

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
Option 2 - Partial Renovation with Addition					
A10 - FOUNDATIONS					
A1010 - STANDARD FOUNDATIONS					
2210.205	Structure Excavation	4,000.00	CY	12.13	48,510
2210.205	Structure Excavation (Barn Addition)	300.00	CY	12.13	3,638
2210.205	Structure Excavation (Site Retaining Wall)	1,200.00	CY	12.13	14,553
2220.335	BF Foundation Wall w/ Crushed Stone (Site Retaining Wall)	1,600.00	CY	37.51	60,016
2220.335	BF Frost Wall w/ Crushed Stone	2,600.00	CY	37.51	97,526
2220.335	BF Frost Wall w/ Crushed Stone (Barn Addition)	180.00	CY	37.51	6,752
2220.340	BF Frost Wall w/ On Site Matl	2,200.00	CY	17.51	38,522
2220.340	BF Frost Wall w/ On Site Matl (Barn Addition)	180.00	CY	17.51	3,152
2500.110	4" PVC Footing Drains (Addition only)	4,300.00	LF	14.00	60,200
3300.010	8" x 16" Continuous Footing (Barn Addition)	294.00	LF	32.30	9,496
3300.014	1' x 3' Continuous Footing	3,325.00	LF	44.20	146,965
3300.016	1' x 5' Continuous Footing (Site Retaining Wall)	3,325.00	LF	55.25	183,706
3300.018	3' x 3' x 1' Isolated Footing	69.00	EA	242.25	16,715
3300.028	1' x 3' Grade Beam - At H Piles	2,578.00	LF	44.20	113,948
3300.032	2' x 2' x 1'-6" Pile Cap Concrete	48.00	EA	182.75	8,772
3300.040	8" x 5' Frost Wall (Barn Addition)	294.00	LF	105.40	30,988
3300.045	12" x 5' Frost Wall	3,017.00	LF	128.35	387,232
3300.128	12" x 8' Foundation Wall	290.00	LF	191.25	55,463
3300.148	12" x 13' Site Retaining Wall	315.00	LF	350.20	110,313
3300.152	18" x 4' Concrete Pier with 2' x 2' x 1' Footing (50' Dia Riding Ring)	14.00	EA	273.63	3,831
3300.156	1' x 1' - 5' Pilaster	79.00	EA	178.50	14,102
7110.100	Damproof Frost Wall	17,405.00	SF	1.50	26,108
7110.100	Damproof Frost Wall (Barn Addition)	1,323.00	SF	1.50	1,985
7200.105	Rigid Insulation - 2" Frost Wall	17,405.00	SF	2.08	36,269
7200.105	Rigid Insulation - 2" Frost Wall (Barn Addition)	1,323.00	SF	2.08	2,757
*** Total A1010 - STANDARD FOUNDATIONS					1,481,516
A1020 - SPECIAL FOUNDATIONS					
2490.105	HP10 Steel Piles - 30' Grid, 3 piles per location: 144 @ 30' Deep (Adjacent to Gym/Auditorium)	4,320.00	LF	60.00	259,200
2492.105	Aggregate Piers - 8' Grid: 418 @ 20' Deep (Northeast corner of Addition)	8,360.00	LF	97.01	811,000
*** Total A1020 - SPECIAL FOUNDATIONS					1,070,200
A1030 - LOWEST FLOOR CONSTRUCTION					
2220.332	Crushed Stone Under Slab - 8"	4,800.00	CY	37.51	180,048
2220.332	Crushed Stone Under Slab - 8" (Barn Addition)	200.00	CY	37.51	7,502
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams	64,000.00	SF	0.71	45,626
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams (Barn Addition)	6,710.00	SF	0.71	4,784
3300.006	4" SOG (Non pile/pier areas)	75,867.00	SF	6.55	497,217
3300.008	10" SOG - (Agg Pier Areas)	26,106.00	SF	11.90	310,674
3300.008	10" SOG - (H Pile Areas)	46,032.00	SF	11.90	547,804
3300.008	5" SOG - (Barn Addition)	6,100.00	SF	7.40	45,163
3300.012	Alter Auditorium Floor for ADA compliance	15,500.00	SF	8.71	135,011
7200.108	Rigid Insulation - 2" Underslab (Barn Addition)	6,710.00	SF	2.08	13,982
*** Total A1030 - LOWEST FLOOR CONSTRU					1,787,811
** Total A10 - FOUNDATIONS					4,339,527
B10 - SUPERSTRUCTURE					
B1010 - FLOOR CONSTRUCTION					

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniforamt 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
3000.015	Trowel Finish (SOD)	78,210.00	SF	0.56	43,571
3000.200	Protect & Cure	78,210.00	SF	0.10	7,571
3200.052	Re-Steel @ Slabs On Metal Deck	31,066.75	LB	0.79	24,543
3200.315	6x6 4/4 Wwf	86,031.00	SF	0.78	67,104
3200.350	Wire Mesh Accessories	78,210.00	SF		
3300.033	Slab On Metal Deck Concrete	1,242.67	CY	36.57	45,446
3300.115	3000 Psi Concrete	1,242.67	CY	98.00	121,782
3300.200	Concrete Pumping	1,242.67	CY	8.00	9,941
5010.050	Structural Steel at Addition - 12 lbs/ sf	1,361.00	TON	3,100.00	4,219,100
5300.605	2"X20ga Painted Mtl Deck	86,031.00	SF	1.95	167,760
7850.001	Spray Fireproofing - Roof Deck (New Only)	148,005.00	SF	1.50	222,008
7850.001	Spray Fireproofing - Structural Steel (New Only)	226,925.00	SF	2.50	567,313
*** Total B1010 - FLOOR CONSTRUCTION					5,496,138
B1020 - ROOF CONSTRUCTION					
5200.100	Steel Joists (2 lbs/ SF)	123.00	TON	1,800.00	221,400
5200.100	Steel Joists (2 lbs/ SF) CTC	28.00	TON	1,800.00	50,400
5300.205	1-1/2"X20ga Galv Mtl Deck	141,302.00	SF	1.70	240,213
5300.205	1-1/2"X20ga Galv Mtl Deck CTC	32,600.00	SF	1.70	55,420
5500.000	Miscellaneous Metals (Angle at Roof Curb)	1.00	LS	15,000.00	15,000
6000.500	Roof Trusses w/ sheathing (Barn Addition)	6,100.00	SF	8.00	48,800
6000.510	Pavilion Framing (50' Dia Riding Ring)	3,300.00	SF	18.38	60,657
7530.004	Entrance Canopy	2.00	EA	50,000.00	100,000
*** Total B1020 - ROOF CONSTRUCTION					791,890
** Total B10 - SUPERSTRUCTURE					6,288,028
B20 - EXTERIOR CLOSURE					
B2010 - EXTERIOR WALLS					
4020.460	Repair/Repoint existing masonry veneer (Locations unknown)	5,000.00	SF	18.00	90,000
4070.200	Brick Veneer (70% Envelope)	73,580.00	SF	24.00	1,765,920
6100.612	2x6 Partitions w/ 1/2" OSB Sheathing - 12' Ht (Barn Addition)	3,880.00	SF	4.60	17,836
6200.512	T&G Siding - Red Cedar (6" Exposure) (Barn Addition)	3,880.00	SF	8.00	31,036
7210.806	3" Spray Foam Insulation (R-21)	73,564.72	SF	3.00	220,694
7210.806	3" Spray Foam Insulation (R-21) - East Wall Infill	18,200.00	SF	3.00	54,600
7260.120	Air Infiltration Barrier - Fluid Applied	73,580.00	SF	2.50	183,950
7260.120	Air Infiltration Barrier - Fluid Applied - East Wall Infill	18,200.00	SF	2.50	45,500
9280.051	6" LGS Stud w/ 5/8" GWB and 5/8" Densglass - Ext Partitions	73,580.00	SF	12.42	913,621
9280.051	6" LGS Stud w/ 5/8" GWB and 5/8" Densglass - Ext Partitions - East Wall Infill	18,200.00	SF	12.42	225,984
10000.010	Roof, Ext Wall Expansion Joints	500.00	LF	157.08	78,539
*** Total B2010 - EXTERIOR WALLS					3,627,680
B2020 - WINDOWS					
8800.800	Curtainwall (30% Envelope)	31,920.00	SF	75.00	2,394,000
8800.840	Barn Windows (Barn Addition)	10.00	EA	600.00	6,000
*** Total B2020 - WINDOWS					2,400,000
B2030 - EXTERIOR DOORS					
6200.300	Sliding Barn Door (Barn Addition)	3.00	EA	1,788.76	5,366
8010.010	3070 Exterior Door	20.00	EA	1,404.76	28,095
8010.010	3070 HM Door (Barn Additon)	8.00	EA	1,104.76	8,838
8010.020	6070 Exterior Door	16.00	EA	2,065.16	33,043
8300.100	Overhead Door	2.00	EA	8,000.00	16,000
8300.100	Overhead Door (AT, AC, BT)	6.00	EA	8,000.00	48,000
*** Total B2030 - EXTERIOR DOORS					139,342

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Unifomat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
** Total B20 - EXTERIOR CLOSURE					6,167,022
B30 - ROOFING					
B3010 - ROOF COVERINGS					
6000.000	Roof edge blocking	7,200.00	LF	7.78	55,981
7200.015	12" Batt Insulation (R38) (Barn Addition)	8,020.00	SF	1.15	9,217
7310.015	Asphalt Single Roof (50' Dia Riding Ring)	3,300.00	SF	5.79	19,119
7310.015	Asphalt Single Roof (Barn Addition)	8,020.00	SF	5.79	46,465
7530.026	Thermoplastic Membrane Roof	151,209.00	SF	10.50	1,587,695
7530.030	Entrance Canopy Roof	2.00	EA	30,000.00	60,000
*** Total B3010 - ROOF COVERINGS					1,778,475
B3020 - ROOF OPENINGS					
5550.162	4' Sq Hatch Cover - Stainless Steel	2.00	EA	7,349.20	14,698
*** Total B3020 - ROOF OPENINGS					14,698
** Total B30 - ROOFING					1,793,174
C10 - INTERIOR CONSTRUCTION					
C1010 - PARTITIONS					
5500.000	Miscellaneous Metals (Angle at CMU Partitions)	1.00	LS	15,000.00	15,000
6010.000	In Wall Blocking	1.00	LS	74,437.84	74,438
8800.000	Glazed Partitions	2,200.00	SF	60.00	132,000
9270.001	Tape Gypsum Walls - Level 4 (String coat, 2 finish coats, sanding)	461,605.00	SF	0.75	346,204
9280.030	Classroom Fit Up (Barn Addition) 2 - Classrooms	450.00	SF	30.00	13,500
9285.005	LGS Partitions w/ 5/8" GWB, Sound Batt - Interior	230,803.00	SF	8.61	1,987,468
9285.013	LGS Furred Partition - Interior	13,440.00	SF	5.09	68,461
9285.023	Fire Stopping	1.00	LS	20,000.00	20,000
9285.023	Fire Stopping	1.00	LS	55,000.00	55,000
9288.039	Misc Drywall Work	1.00	LS	40,000.00	40,000
9288.039	Misc Drywall Work	1.00	LS	10,000.00	10,000
*** Total C1010 - PARTITIONS					2,762,070
C1020 - INTERIOR DOORS					
8012.010	3070 Interior Door	466.00	EA	1,204.76	561,418
8012.020	6070 Interior Door	79.00	EA	1,765.16	139,448
8014.000	Corridor Lock Down Hardware	1.00	LS	50,000.00	50,000
8014.020	Interior Borrowed Lites	55.00	EA	609.52	33,524
9900.205	Misc Painting - Door Frames, Misc Metals	1.00	LS	10,000.00	10,000
9900.205	Misc Painting - Door Frames, Misc Metals	1.00	LS	40,000.00	40,000
*** Total C1020 - INTERIOR DOORS					834,390
C1030 - SPECIALTIES / MILLWORK					
6400.000	6'-0" Laminated Maple Bench	20.00	EA	992.58	19,852
6400.004	Base Cabinets (Classrooms)	844.00	LF	266.10	224,592
6400.052	Full Height Cabinets (Classrooms)	372.00	LF	306.10	113,871
6400.052	Wall Cabinets (Classrooms)	620.00	LF	191.10	118,484
6400.054	Full Height Cabinets (Mail Room)	24.00	LF	306.10	7,346
6400.102	Restroom Wood Apron at Solid Surface	216.00	LF	159.92	34,543
6400.300	Solid Surface Restroom Counter w/ integral sink	216.00	LF	221.90	47,931
6400.308	Countertops-Solid Surface (Classrooms)	844.00	LF	191.10	161,292
6400.308	Wall Mount Solid Surface Counter (Mail/Work Room)	71.00	LF	216.10	15,343
6400.315	Countertops - Epoxy Resin	520.00	LF	161.64	84,051
6400.348	Solid Surface Window Sill and Apron (New Const Only)	2,100.00	LF	64.26	134,941
6401.052	Wall Cabinets - Solid Surface (Science Labs)	390.00	LF	161.65	63,042

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniforamt 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
6401.054	Full Height Cabinets - Solid Surface (Science Labs)	390.00	LF	255.73	99,734
6405.006	Wood Cubbies - Mail Room	24.00	LF	251.10	6,026
6405.008	Casework Allowance (Misc)	1.00	LS	231,000.00	231,000
6405.010	Closet Shelving	1.00	LS	10,000.00	10,000
6408.000	*** DESK MILLWORK***				
6408.080	Admin/Guidance Front Desk	31.00	LF	441.10	13,674
6408.100	Library Desk	78.00	LF	491.10	38,306
6510.919	FRP Panels 10' ht - Kitchen	3,518.00	SF	7.14	25,133
6510.919	FRP Panels 8' ht - at Janitorial sinks only	1,510.22	SF	7.14	10,789
6510.921	FRP Panels - Art Rooms	80.00	SF	7.14	572
10180.102	Toilet Partitions W/ Door - Phenolic	43.00	EA	430.52	18,512
10180.103	Urinal Screen - Phenolic	10.00	EA	305.52	3,055
10180.204	Shower Door	18.00	EA	277.76	5,000
10180.206	Locker Room Bench	120.00	LF	80.28	9,633
10191.100	Privacy Curtain: Track W/Supports (No Curtain) - Nurse	64.00	LF	22.50	1,440
10195.101	Display & Trophy Case Allowance	1.00	LS	40,000.00	40,000
10410.150	Sigange	1.00	LS	10,000.00	10,000
10410.150	Sigange	1.00	LS	78,000.00	78,000
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Kitchen	15.00	EA	180.55	2,708
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Staff	100.00	EA	180.55	18,055
10500.004	Lockers - Double Tier (6' X 18" X 18") - Student	1,500.00	EA	270.55	405,819
10500.006	Lockers - Double Tier - Locker Rooms (100 per Room)	200.00	EA	270.55	54,109
10500.006	Lockers - Double Tier - Student Athletic	50.00	EA	270.55	13,527
10520.000	Fire Extinguishers	98.00	EA	125.46	12,295
10520.050	Fire Ext Cabinets	98.00	EA	302.76	29,670
10649.102	Operable Wall Partition (57' L x 28' HT)		SF	99.95	
10800.106	Grab Bar	36.00	EA	101.38	3,650
10800.151	Surface Mtd Double Roll Tph	26.00	EA	197.38	5,132
10800.174	Surface Mounted SND	20.00	EA	377.38	7,548
10800.202	Surf Mtd Waste Receptacle	22.00	EA	282.38	6,212
10800.400	Liquid Soap Dispenser	22.00	EA	177.38	3,902
10800.602	Folding Shower Seat	18.00	EA	301.38	5,425
10800.610	Electric Hand Dryer	20.00	EA	301.38	6,028
10810.100	30"x30" Framed Mirror	32.00	EA	211.38	6,764
*** Total C1030 - SPECIALTIES / MILLWORK					2,207,007
** Total C10 - INTERIOR CONSTRUCTION					5,803,467
C20 - STAIRCASES					
C2010 - STAIR CONSTRUCTION					
5510.000	****Metal Stairs****		****		
5510.050	Metal Pan Stair - Standard	192.00	TRD	433.27	83,187
5510.050	Metal Pan Stair - Town Center	40.00	TRD	433.27	17,331
5510.052	Metal Pan Stair Landing - Standard	236.00	SF	71.60	16,897
5510.052	Metal Pan Stair Landing - Town Center	236.00	SF	71.60	16,897
5520.000	*** Handrails & Railings ***		****		
5520.050	Hand Rail - Standard Metal Picket	270.00	LF	119.42	32,244
5520.050	Hand Rail - Town Center	140.00	LF	229.42	32,119
5520.072	Steel Wallrail - Standard	270.00	LF	65.93	17,801
9420.205	Drywall Partition	12,320.00	SF	9.36	115,315
*** Total C2010 - STAIR CONSTRUCTION					331,790
** Total C20 - STAIRCASES					331,790
C30 - INTERIOR FINISHES					
C3010 - WALL FINISHES					

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
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Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
6200.040	Wood Wall Finish - Auditorium	11,520.00	SF	25.00	288,000
9300.200	Tile Wainscot - 4' AFF (Corridors)	17,000.00	SF	10.00	170,000
9300.202	Tile Wainscot - 4' AFF (Town Square)	2,800.00	SF	10.00	28,000
9300.204	Tile Wainscot - 4' AFF (Toilet Rooms)	4,550.00	SF	10.00	45,500
9300.204	Tile Wainscot - Premium for 5' AFF everywhere including stairwells	6,088.00	SF	10.00	60,880
9900.100	Paint Interior Walls (Barn Addition)	3,528.00	SF	0.82	2,893
9900.100	Paint Walls	383,700.00	SF	0.85	326,145
10000.020	Interior Expansion Joint Covers	80.00	LF	107.08	8,566
*** Total C3010 - WALL FINISHES					929,984
C3020 - FLOOR FINISHES					
9300.105	Tile Base	783.00	LF	10.00	7,830
9330.000	Quarry Tile Floors - Culinary	3,900.00	SF	15.00	58,500
9330.000	Quarry Tile Floors - Kitchen	5,030.00	SF	15.00	75,450
9330.005	Quarry Tile Base	682.00	LF	12.00	8,184
9400.005	Mosaic Tile - Bath, Locker Rooms	5,750.00	SF	12.00	69,000
9550.100	Wood Floor - Gym	13,710.00	SF	18.00	246,780
9550.120	Wood Floor - Stage	2,620.00	SF	16.00	41,920
9650.010	Linoleum	192,650.00	SF	6.00	1,155,900
9650.025	Rubber Base	38,389.00	LF	1.85	71,020
9650.032	Rubber Treads & Risers	5,820.00	SF	14.00	81,480
9680.000	Carpet - Auditorium	1,722.00	SY	35.00	60,270
9690.000	Carpet Tile	1,260.00	SY	35.00	44,100
9760.011	Rubber Sports Flooring	4,620.00	SF	12.45	57,507
9760.126	Moisture Mitigation - N/A per HMFH		SF	4.00	
9900.400	Sealed Concrete	36,830.00	SF	1.50	55,245
9900.400	Sealed Concrete (Barn Addition)	6,100.00	SF	1.50	9,150
9900.506	Paint Gym Floor Logo	1.00	LS	3,000.00	3,000
12671.103	Walk-Off Foot Grilles (Alum Grid W/ Frame & Pan)	110.00	SF	72.08	7,929
*** Total C3020 - FLOOR FINISHES					2,053,264
C3030 - CEILING FINISHES					
9285.037	Gypsum Ceiling: Suspended drywall grid 5/8" type X GWB (1 layer), taped (lvl 4)	18,890.00	SF	5.31	100,251
9285.039	Misc Drywall Soffits	1.00	LS	110,000.00	110,000
9285.039	Misc Drywall Soffits	1.00	LS	40,000.00	40,000
9500.100	ACT - Auditorium	15,500.00	SF	5.00	77,500
9500.100	ACT - Auditorium (N/A per HMFH)	-15,500.00	SF	5.00	-77,500
9500.102	ACT	191,000.00	SF	3.00	573,000
9500.104	ACT(Cleanable) - Kitchen	8,930.00	SF	8.00	71,440
9500.200	24x24x5/8 Lay-In (Barn Addition)	450.00	SF	3.00	1,350
9500.390	Acoustical Wood Clouds - Auditorium	1.00	LS	40,000.00	40,000
9500.612	Tectum Ceiling Panels - 2"	6,870.00	SF	8.00	54,960
9900.110	Paint Ceilings	18,890.00	SF	0.85	16,057
9900.120	Paint Exposed Ceiling Structure	63,570.00	SF	1.75	111,248
9900.625	Paint exposed ceiling - Gym	13,710.00	SF	2.00	27,420
9900.628	Paint exposed ceiling - Auditorium	15,500.00	SF	2.00	31,000
*** Total C3030 - CEILING FINISHES					1,176,725
** Total C30 - INTERIOR FINISHES					4,159,973
D10 - CONVEYING SYSTEMS					
D1010 - ELEVATOR					
3300.008	12" Base Slab	128.00	SF	14.42	1,846
3300.025	12" x 5' Foundation Wall	72.00	LF	128.35	9,241
5530.122	Elevator Pit Misc Metals	2.00	EA	1,813.09	3,626
9400.000	Drywall Partition	2,640.00	SF	9.36	24,710
14200.115	Hydraulic Passenger Elevator (1 Ea)	4.00	STOP	40,000.00	160,000
*** Total D1010 - ELEVATOR					199,423
** Total D10 - CONVEYING SYSTEMS					199,423

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
D20 - PLUMBING					
D20 - PLUMBING					
15401.320	Domestic Water Heater, Residential Gas-Fired (NG/P) Atmospheric, Foam Lined Tank, Vent Not Included, 100 Gal.	2.00	EA	1,846.55	3,693
15401.338	Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, Vent Not Included, 250 MBH Input, 245 GPH	2.00	EA	20,161.00	40,322
15401.554	Potable Water Storage Tank, Indoor, Glass-Lined PE, 605 Gal., 48" OD, 87" Long	1.00	EA	14,258.38	14,258
15401.556	Round, Stainless Steel, 26 ga., 8" OD - Water Heater Vent	120.00	LF	28.30	3,396
15402.452	Sump Pump, Wet-Pit Mounted, Vertical, Single Stage, 25 GPM, 1 HP, 1-1/2" Disch.	2.00	EA	4,055.67	8,111
15410.208	Comm. Water Closet, Floor Mounted VC, Flush Valve, Bowl only, incl. Seat, w/Floor Outlet 1.28 gpf ADA	60.00	EA	753.67	45,220
15410.210	Rough-In, Supply, Waste and Vent for Comm. Floor Mounted WC	60.00	EA	562.00	33,720
15410.404	Urinal, Wall Hung VC w/ Hanger and Valve, Water Saving 0.5 gpf	13.00	EA	843.38	10,964
15410.406	Rough-In, Supply, Waste and Vent for Wall Hung Urinal	13.00	EA	705.00	9,165
15410.640	Rough-In, Supply, Waste and Vent for Res. Vanity Top Lavatories	72.00	EA	547.00	39,384
15410.640	Rough-In, Supply, Waste and Vent for Salon Lavatories (no fixture)	10.00	EA	547.00	5,470
15410.698	Sink w/Faucet and Drain, SS Self Rimming, 43"x22" Double Bowl	28.00	EA	1,286.48	36,022
15410.702	Rough-In, Supply, Waste and Vent for Sinks	28.00	EA	702.00	19,656
15410.826	Laboratory Sink, Corrosion Resistant, 12"x12"x8" Sink, 14.5"x14.5" OD	44.00	EA	471.80	20,759
15410.832	Rough-In, Supply, Waste and Vent for Laboratory Sinks	44.00	EA	461.00	20,284
15410.834	Laboratory Faucet, Gooseneck Spout, Wrist Handles	44.00	EA	235.80	10,375
15410.840	Service Sink, Floor (Corner), PE, 28"x28" w/Rim Guard	14.00	EA	1,233.66	17,271
15410.844	Rough-In, Supply, Waste and Vent for Floor Service Sink	14.00	EA	1,827.00	25,578
15411.101	Hose Bibb, Exterior Freeze-Proof, Lockable	24.00	EA	105.40	2,529
15411.314	Stall Shower, One-Piece Fiberglass w/Three Walls, Drain Only, 32" Square	18.00	EA	645.94	11,627
15411.326	Thermostatic Valve for Shower	18.00	EA	585.00	10,530
15411.328	Rough-In, Supply, Waste and Vent for Shower	18.00	EA	818.00	14,724
15411.901	Emergency Shower, Single Head, Drench, Ball Valve, Pull Style, Freestanding, No Rough-In	8.00	EA	573.80	4,590
15411.908	Emergency Eyewash Fountain, SS Bowl, Pedestal Mount, No Rough-In	8.00	EA	533.80	4,270
15412.222	Electric Water Cooler, Wall Mounted, Full Recessed, SS, Bi-Level	21.00	EA	1,871.46	39,301
15412.236	Rough-In, Supply, Waste and Vent for Electric Water Cooler	21.00	EA	504.00	10,584
15412.434	Floor Drain, Heavy Ducty, Galvanized w/Sediment Bucket, 12" OD Grate, 2"-6" Pipe Size	24.00	EA	1,131.14	27,147
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size	87.00	EA	1,074.20	93,455

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Unifomat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size - Emergency	87.00	EA	1,074.20	93,455
15414.104	Water Meter, UL/FM Approved, 4" Main x 2" By-Pass, 700 GPM	2.00	EA	7,535.08	15,070
15414.126	Water Meter, Bronze, Comm./Dom., Flanged, 4" OD, 320 GPM	3.00	EA	5,366.82	16,100
15420.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	11,000.00	LF	10.64	116,999
15420.108	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	8,500.00	LF	14.02	119,129
15420.114	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2" OD	4,000.00	LF	31.93	127,706
15420.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	1,000.00	LF	76.22	76,215
15420.122	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 4" OD	250.00	LF	125.23	31,308
15421.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	11,000.00	LF	3.96	43,588
15421.106	Fiberglass 1" Insulation With All Service Jacket 1" Pipe	8,500.00	LF	4.16	35,367
15421.204	Fiberglass 1-1/2" Insulation With All Service Jacket 2" Pipe	4,000.00	LF	5.87	23,484
15421.208	Fiberglass 1-1/2" Insulation With All Service Jacket 3" Pipe	1,000.00	LF	6.58	6,579
15421.212	Fiberglass 1-1/2" Insulation With All Service Jacket 4" Pipe	250.00	LF	7.78	1,946
15421.500	Valves and Accessories	1.00	LS	25,000.00	25,000
15421.500	Valves and Accessories	1.00	LS	125,000.00	125,000
15440.028	UG Hub & Spigot, CI, No Hangers, 6" Pipe	1,000.00	LF	52.21	52,214
15440.052	Casty Iron SW&V, Hangers 5' OC, 1-1/2" Pipe	11,000.00	LF	18.61	204,732
15440.054	Casty Iron SW&V, Hangers 5' OC, 2" Pipe	6,500.00	LF	22.45	145,925
15440.058	Casty Iron SW&V, Hangers 5' OC, 4" Pipe	2,750.00	LF	31.69	87,150
15440.382	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 2" OD - GW	2,000.00	LF	24.95	49,900
15440.386	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 4" OD - GW	1,000.00	LF	45.25	45,248
15440.500	Limestone Chip Acid Neutralizer - 200 Gallon	1.00	EA	17,500.00	17,500
15450.410	Sch40 PVC W/Couplings and Hangers, 10ft OC, 4" OD	2,000.00	LF	24.48	48,968
15450.412	Sch40 PVC W/Couplings and Hangers, 10ft OC, 6" OD	500.00	LF	37.11	18,557
15460.100	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 2" OD - NG	5,500.00	LF	21.06	115,844
15460.102	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 1-1/4" OD - NG	6,000.00	LF	14.47	86,826
15460.200	Valves and Accessories	1.00	LS	10,000.00	10,000
15460.200	Valves and Accessories	1.00	LS	50,000.00	50,000
15470.100	Air Compressor, Reciprocating, Air-Cooled, Tank Mounted, Two Stage, 3 Phase, 105 CFM @ 125 PSI, 25 HP, 250 Gal. Tank	2.00	EA	14,100.00	28,200
15470.100	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD - CA	1,200.00	LF	10.64	12,764
15470.102	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	600.00	LF	14.02	8,409
15470.212	Compressed Air Outlet, Recessed Wall, Single	80.00	EA	123.75	9,900

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15495.000	Kitchen Rough-In	2.00	LS	15,000.00	30,000
15495.004	Commissioning Support	1.00	LS	8,000.00	8,000
15495.004	Commissioning Support	1.00	LS	50,000.00	50,000
15495.006	Coordination & Management	1.00	LS	8,500.00	8,500
15495.006	Coordination & Management	1.00	LS	65,000.00	65,000
15495.008	Coring & Patching & Firestopping	1.00	LS	2,000.00	2,000
15495.008	Coring & Patching & Firestopping	1.00	LS	20,000.00	20,000
15495.010	Flushing & Sanitizing	1.00	LS	1,500.00	1,500
15495.010	Flushing & Sanitizing	1.00	LS	15,000.00	15,000
15495.018	Fees & Permits	1.00	LS	3,000.00	3,000
15495.018	Fees & Permits	1.00	LS	25,000.00	25,000
*** Total D20 - PLUMBING					2,659,492
** Total D20 - PLUMBING					2,659,492
D30 - HVAC					
D30 - HVAC					
15620.000	Custom, 20" High, Insulated Roof Curb	25.00	EA	1,200.00	30,000
15620.323	Outdoor, MAU, Indirect Gas-Fired (NG), Gravity Vent, SS Exchanger, 70degF Rise, 550 MBH Input	2.00	EA	18,086.92	36,174
15620.421	RTU 1-4, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 42 Ton Dx Cooling, 530 MBH Heating, Heat Wheel, 12000 CFM	4.00	EA	2,907.71	11,631
15620.422	RTU 5, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 42 Ton Dx Cooling, 530 MBH Heating, Heat Wheel, 12500 CFM	1.00	EA	2,907.71	2,908
15620.423	RTU 6, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 20 Ton Dx Cooling, 200 MBH Heating, Heat Wheel, 5500 CFM	1.00	EA	2,907.71	2,908
15620.424	RTU 7, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 15 Ton Dx Cooling, 200 MBH Heating, Heat Wheel, 3500 CFM	1.00	EA	2,907.71	2,908
15620.425	RTU 8, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 27 Ton Dx Cooling, 350 MBH Heating, Heat Wheel, 7200 CFM	1.00	EA	2,907.71	2,908
15620.426	RTU 11, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 7.5 Ton Dx Cooling, 130 MBH Heating, 2500 CFM	1.00	EA	2,907.71	2,908
15620.426	RTU 9, 10, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 22 Ton Dx Cooling, 320 MBH Heating, 6500 CFM	2.00	EA	54,907.71	109,815
15620.427	RTU 12, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 6.5 Ton Dx Cooling, 120 MBH Heating, 2000 CFM	1.00	EA	2,907.71	2,908
15620.427	RTU 15, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 35 Ton Dx Cooling, 480 MBH Heating, 10000 CFM	1.00	EA	82,907.71	82,908
15620.428	RTU 13, 14, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, Heat Wheel, 200 MBH Heating, 3200 CFM	2.00	EA	2,907.71	5,815
15620.428	RTU 16, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 180 MBH Heating, 4000 CFM	1.00	EA	34,907.71	34,908
15620.429	RTU 17, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 15 Ton Dx Cooling, 200 MBH Heating, Heat Wheel, 3500 CFM	1.00	EA	2,907.71	2,908
15620.430	RTU 18, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 32 Ton Dx Cooling, 450 MBH Heating, Heat Wheel, 10500 CFM	1.00	EA	2,907.71	2,908

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15620.431	RTU 19, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 150 MBH Heating, Heat Wheel, 2500 CFM	1.00	EA	2,907.71	2,908
15620.432	RTU 20, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	2,907.71	2,908
15620.433	RTU 21, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	2,907.71	2,908
15620.434	RTU 22, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 200 MBH Heating, Heat Wheel, 3500 CFM	1.00	EA	2,907.71	2,908
15620.435	RTU 23, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 400 MBH Heating, Heat Wheel, 8000 CFM	1.00	EA	2,907.71	2,908
15620.436	RTU 24, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	2,907.71	2,908
15620.437	RTU 25, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6200 CFM	1.00	EA	2,907.71	2,908
15620.500	Daikin Rebel / Maverick II RTU's - VFD's, Extended Warranties	1.00	LS	878,500.00	878,500
15624.003	Split System, Ductless, Cooling Only, Wall Mount, Single Zone, 1-1/2 Ton	5.00	EA	6,013.00	30,065
15630.220	Single Bathroom Exhaust Fan, 100 CFM	9.00	EA	403.45	3,631
15630.226	Bathroom Exhaust Fan, 1000 CFM	4.00	EA	1,680.56	6,722
15630.228	Exhaust Fan, 1500 CFM	2.00	EA	2,180.56	4,361
15630.416	Kitchen Exhaust Fan, Centrifugal, 4000 CFM	2.00	EA	4,215.33	8,431
15640.112	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 330 MBH Output	3.00	EA	10,214.00	30,642
15640.114	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 2700 MBH Output	4.00	EA	59,364.00	237,456
15650.002	Glycol Treatment System	1.00	LS	8,000.00	8,000
15651.005	Chiller, Air Cooled, High Efficiency, 50 Ton	1.00	EA	42,927.00	42,927
15660.000	Fume Hood, Fan, Ductwork	2.00	EA	5,500.00	11,000
15660.002	Vehicle Exhaust System, 2000 CFM	1.00	LS	15,000.00	15,000
15660.004	Vehicle Exhaust System, 5000 CFM	1.00	LS	25,000.00	25,000
15660.006	Paint Booth Exhaust System, 12000 CFM	1.00	LS	25,000.00	25,000
15660.008	Dust Collection System, 4000 CFM	1.00	LS	65,000.00	65,000
15660.010	Duct Collection System, 6000 CFM	1.00	LS	87,000.00	87,000
15660.202	Chilled Water Pump, Centrifugal, Base Mounted, End Suction, 105 gpm w/VFD	2.00	EA	4,096.31	8,193
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 100 gpm w/VFD	2.00	EA	3,994.33	7,989
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 720 gpm w/VFD	2.00	EA	18,994.33	37,989
15680.040	Displacement Ventilation System (per Classroom)	71.00	EA	1,250.00	88,750
15680.042	Sound Attenuator Device / Double Wall Ductwork (per RTU)	25.00	EA	2,500.00	62,500
15680.112	Galvanized Ductwork, > 5000 LB	250,000.00	LB	7.50	1,874,975
15684.102	Duct Insulation, Blanket Type, Fiberglass, FSK, 1.0Lb Density, 1-1/2" Thick	215,000.00	SF	2.53	544,595
15688.014	Gas Vent, Double Wall, Galvanized Steel, UL Listed, 12" Dia.	700.00	LF	48.66	34,064
15690.102	Fin Tube Radiation, Wall Hung, 14" Slope Top, 1-1/4" Cu Tube, 4-1/4" Aluminum Fin	3,650.00	LF	64.10	233,965

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Unifomat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15691.004	Cabinet Unit Heater, Horizontal, Floor Mount, 60 MBH	26.00	EA	1,617.26	42,049
15691.312	Unit Heater, Hot Water, Horizontal, 47 MBH	15.00	EA	717.26	10,759
15692.210	Variable Air Volume Box, Pl, w/Damper, Actuator, T-Stat, 1000 CFM	100.00	EA	890.00	89,000
15699.000	Chilled Beam	830.00	LF	100.00	83,000
15700.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	20,400.00	LF	10.64	216,981
15700.112	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/2" OD	10,200.00	LF	22.40	228,444
15700.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	2,000.00	LF	62.36	124,713
15700.316	Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 4" OD	400.00	LF	45.02	18,010
15704.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	20,400.00	LF	3.96	80,835
15704.202	Fiberglass 1-1/2" Insulation With All Service Jacket 1-1/2" Pipe	10,200.00	LF	5.49	55,998
15704.308	Fiberglass 2" Insulation With All Service Jacket 3" Pipe	2,000.00	LF	8.10	16,190
15704.312	Fiberglass 2" Insulation With All Service Jacket 4" Pipe	400.00	LF	9.71	3,883
15705.004	Air Separator w/Strainer, 2-1/2" Dia.	1.00	EA	1,439.16	1,439
15705.008	Air Separator w/Strainer, 4" Dia.	1.00	EA	3,098.60	3,099
15706.206	Expansion Tank, Steel, ASME, Rubber Diaphragm, 61 Gal. Accep. Vol.	1.00	EA	3,786.82	3,787
15706.214	Expansion Tank, Steel, ASME, Rubber Diaphragm, 211 Gal. Accep. Vol.	1.00	EA	6,573.73	6,574
15708.106	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 5/8"	1,000.00	LF	7.11	7,110
15708.112	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 1-1/8"	1,000.00	LF	10.84	10,840
15708.500	Valves & Accessories	1.00	LS	1,500.00	1,500
15708.500	Valves & Accessories	1.00	LS	200,000.00	200,000
15780.000	DDC Controls	302,324.00	SF	5.50	1,662,782
15780.010	CO2 Sensor	119.00	EA	85.00	10,115
15792.001	Air & Water Balance	302,324.00	SF	0.50	151,162
15801.501	Coordination & Management	1.00	LS	10,000.00	10,000
15801.501	Coordination & Management	1.00	LS	175,000.00	175,000
15801.502	Commissioning Support	1.00	LS	2,500.00	2,500
15801.502	Commissioning Support	1.00	LS	50,000.00	50,000
15801.503	Coring, Patching & Firestopping	1.00	LS	2,000.00	2,000
15801.503	Coring, Patching & Firestopping	1.00	LS	25,000.00	25,000
15801.504	Seismic Restraint	1.00	LS	5,000.00	5,000
15801.504	Seismic Restraint	1.00	LS	25,000.00	25,000
15801.505	Fees & Permits	1.00	LS	5,000.00	5,000
15801.505	Fees & Permits	1.00	LS	50,000.00	50,000
*** Total D30 - HVAC					8,104,390
** Total D30 - HVAC					8,104,390
D40 - FIRE PROTECTION					
D40 - FIRE PROTECTION					
15502.002	Fire Service Main - 6" Ductile Iron, Mech. Joint	75.00	LF	29.06	2,179
15502.024	6" Double Check Backflow Preventer W/OS&Y Valves, 4 Test Cocks	2.00	EA	5,847.73	11,695
15502.110	FDC - Two Way Siamese - 3x3x6	2.00	EA	1,541.40	3,083
15502.116	4" Zone Flow Control Valve W/Trim And Gauges	10.00	EA	6,009.14	60,091
15502.128	Tamper Switch	10.00	EA	153.65	1,537

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniforamt 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15502.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.	8,800.00	LF	39.75	349,796
15502.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C.	17,700.00	LF	12.53	221,777
15502.226	Sprinkler Branch Sch 40 BS - 1-1/2" Threaded W/ Hangers 10 Ft O.C.	8,750.00	LF	16.39	143,413
15502.400	Sprinkler Heads - Standard Pendant, 1/2" NPT, 1/2" Orifice	2,650.00	EA	36.43	96,526
15505.006	2" Dry Pipe Valve With Trim And Gauges	1.00	EA	2,507.80	2,508
15505.012	30 Gal., 1 HP Comp Air Sys For Fire Protection	1.00	EA	1,093.23	1,093
15505.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C. - RR	115.00	LF	39.75	4,571
15505.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C. - RR	190.00	LF	12.53	2,381
15505.400	Sprinkler Heads - Standard Upright, 1/2" NPT, 1/2" Orifice - RR	20.00	EA	36.43	729
15525.004	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.	240.00	LF	39.75	9,540
15525.102	Fd Standpipe Angle Valve, 2-1/2", Brass, W/Wheel, Handle Chain And Cap	6.00	EA	287.34	1,724
15535.002	Coordination & Management	1.00	LS	20,000.00	20,000
15535.010	Hydraulic Calculations	1.00	LS	12,000.00	12,000
15535.016	Coring & Patching & Firestopping	1.00	LS	17,500.00	17,500
15535.024	Fees & Permits	1.00	LS	12,000.00	12,000
*** Total D40 - FIRE PROTECTION					974,143
** Total D40 - FIRE PROTECTION					974,143
D50 - ELECTRICAL					
D50 - ELECTRICAL					
16020.210	300 kW NG Emergency Generator w/Sound Attenuated Enclosure	1.00	EA	154,146.07	154,146
16020.212	Emergency Power Equipment and Distribution	234,400.00	SF	1.50	351,600
16020.214	Emergency Generator - Testing	1.00	LS	5,000.00	5,000
16030.000	4000 Amp Switchgear, 480/277V	1.00	EA	90,000.00	90,000
16030.004	Transformer / Primary / Conduit ** ALLOWANCE **	1.00	LS	50,000.00	50,000
16040.006	Panel Feeders	52.00	EA	2,500.00	130,000
16040.008	Primary Conduit Only - (1) 4"	800.00	LF	4.40	3,520
16040.010	Secondary Feeder - (8) 4" Conduits	800.00	LF	4.40	3,520
16040.011	Secondary Feeder - #600 MCM Conductor	3,200.00	LF	34.35	109,920
16040.060	Grounding/Bonding	1.00	LS	10,000.00	10,000
16040.200	20 KW UPS	2.00	EA	20,000.00	40,000
16040.218	Panel 277/480V 100A - Lighting	13.00	EA	1,664.44	21,638
16040.218	Panel 277/480V 100A - Mechanical	13.00	EA	1,664.44	21,638
16040.224	Panel 277/480V 400A - Distribution	13.00	EA	3,328.57	43,271
16040.228	Triple Tub Panel 120/208V 250 Amp	13.00	EA	9,795.00	127,335
16040.300	Transformer Dry Type, Three Phase, 30kVA	13.00	EA	4,928.89	64,076
16040.302	Transformer Dry Type, Three Phase, 75kVA	13.00	EA	7,194.29	93,526
16050.100	Branch Devices	302,324.00	SF	1.00	302,324
16050.102	Power and Branch Circuitry	67,924.00	SF	2.50	169,810
16050.102	Power and Branch Circuitry	234,400.00	SF	3.50	820,400
16060.414	RTU Feeder	25.00	EA	2,706.00	67,650
16060.416	Boiler Feeder	4.00	EA	1,401.75	5,607
16060.418	Pump Feeder	7.00	EA	1,965.75	13,760
16060.420	Chiller Feeder	1.00	EA	8,336.00	8,336
16080.008	2x4 Flourescent - MER	30.00	EA	340.25	10,208
16080.010	Recessed LED's - Classrooms/Offices	1,340.00	EA	290.25	388,935
16080.012	Direct LED's - Gymnasium	56.00	EA	1,080.50	60,508
16080.014	Linear Indirect LED's - Corridor	445.00	EA	440.25	195,911

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
16080.016	Pendant Mount / Indirect Fluorescent - Cafeteria	58.00	EA	728.25	42,239
16080.018	2x2 LED Panels - Kitchen/Servery	50.00	EA	603.25	30,162
16080.020	Direct Recessed LED's - Library	36.00	EA	290.25	10,449
16080.022	Dimmable Fluorescent - Auditorium	60.00	EA	2,090.25	125,415
16080.024	Exterior Wall Mount - LED	42.00	EA	628.25	26,387
16080.026	Exterior Pole Fixture - Custom LED	35.00	EA	4,000.00	140,000
16080.030	Exterior Pendant - LED - RR	15.00	EA	628.25	9,424
16081.100	Lighting Circuitry	67,924.00	SF	1.25	84,905
16081.100	Lighting Circuitry	234,400.00	SF	2.00	468,800
16081.102	Lighting Controls	302,324.00	SF	1.25	377,905
16081.104	Lighting Controls & Panels - Testing	1.00	LS	5,000.00	5,000
16081.104	Lighting Controls & Panels - Testing	1.00	LS	15,000.00	15,000
16081.150	Stage Lights / Sound System / Dimmer Rack ** ALLOWANCE **	1.00	LS	375,000.00	375,000
16100.000	Sound System - Cafeteria	1.00	LS	20,000.00	20,000
16100.001	Sound System - Gymnasium	1.00	LS	20,000.00	20,000
16100.002	Sound System - Music Room	1.00	LS	10,000.00	10,000
16110.020	Bi-Directional Antennae	1.00	LS	50,000.00	50,000
16110.100	Tel/ Data/ CATV	302,324.00	SF	1.75	529,067
16170.100	Card Reader System - Head End Equipment	1.00	EA	9,000.00	9,000
16170.101	Card Readers - Swipes/Wires	25.00	EA	1,700.00	42,500
16180.000	Master Clock	302,324.00	SF	0.35	105,813
16180.001	Intercom	302,324.00	SF	0.60	181,394
16180.100	Communications - Testing	1.00	LS	5,000.00	5,000
16180.100	Communications - Testing	1.00	LS	15,000.00	15,000
16200.000	Security System - Head End Equipment	1.00	LS	35,000.00	35,000
16200.002	Fixed Interior CCTV Cameras	25.00	EA	3,000.00	75,000
16200.004	Pan-Tilt-Zoom Exterior CCTV Cameras	10.00	EA	5,000.00	50,000
16300.102	Fire Alarm	302,324.00	SF	1.50	453,486
16300.104	Fire Alarm Testing	1.00	LS	2,000.00	2,000
16300.104	Fire Alarm Testing	1.00	LS	5,000.00	5,000
16400.002	Lightning Protection	1.00	LS	5,000.00	5,000
16400.002	Lightning Protection	1.00	LS	25,000.00	25,000
16400.100	Commissioning	1.00	LS	10,000.00	10,000
16400.100	Commissioning	1.00	LS	50,000.00	50,000
16400.102	Firestopping	1.00	LS	5,000.00	5,000
16400.102	Firestopping	1.00	LS	15,000.00	15,000
16400.104	Identification	1.00	LS	2,000.00	2,000
16400.104	Identification	1.00	LS	5,000.00	5,000
16400.106	Seismic Restraint	1.00	LS	3,500.00	3,500
16400.106	Seismic Restraint	1.00	LS	10,000.00	10,000
16400.108	Fees & Permits	1.00	LS	15,000.00	15,000
16400.108	Fees & Permits	1.00	LS	40,000.00	40,000
*** Total D50 - ELECTRICAL					6,867,084
** Total D50 - ELECTRICAL					6,867,084
E10 - EQUIPMENT					
E10 - EQUIPMENT, GENERALLY					
11160.034	12" Dock Seal - OH Doors	2.00	EA	1,585.04	3,170
11160.043	Rubber Dock Bumper 4 1/2"x14"x12"	4.00	EA	166.38	666
11480.006	OUTDOOR SCOREBOARDS - NOT INCLUDED				
11480.008	Gym Bleachers (One Side Only)	1.00	LS	25,000.00	25,000
11480.014	Gym Divider Curtain	1.00	LS	25,000.00	25,000
11480.020	Basketball Hoop	6.00	EA	5,333.33	32,000
11480.030	Volley Ball Net w/ Floor Inserts	1.00	EA	1,900.00	1,900
11480.040	Score Board - Existing to remain		EA	8,500.00	
11480.060	Upgrade Motorized Retraction System for Existing Bleachers		LS	20,000.00	

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
11480.062	Plastic Telescoping Stands - Hussey Maxam 26 Motorized Bleachers		EA	110.00	
11480.065	Gym Wall Padding - 6' Ht	470.00	LF	100.00	47,000
11480.080	Temporarily Relocate Existing Bleachers for Floor Replacement	1.00	LS	2,000.00	2,000
11650.000	Stage Set Fastening Equipment - In Line set Allowance				
11651.000	Lecture Hall Tables - 18" X 5'		EA	1,085.15	
11653.000	Auditorium Seating - Quattro By Hussey Seating	800.00	EA	250.00	200,000
11654.000	Line Sets & Shell Allowance - Auditorium	1.00	LS	175,000.00	175,000
*** Total E10 - EQUIPMENT, GENERALLY					511,736
** Total E10 - EQUIPMENT					511,736
E20 - FURNISHINGS					
E2010 - FIXED FURNISHINGS					
10000.020	Smart Boards - N/A per HMFH		EA	2,677.73	
10100.004	Marker Board W/ Alum Trim - Classrooms & Labs	2,952.00	SF	15.63	46,147
10100.006	Tack Board W/O Trim	2,952.00	SF	8.32	24,550
12500.010	Hunter Douglas Roller Shades (50% of glazing)	15,960.00	SF	11.00	175,560
*** Total E2010 - FIXED FURNISHINGS					246,257
** Total E20 - FURNISHINGS					246,257
F10 - SPECIAL CONSTRUCTION					
F10 - SPECIAL CONSTRUCTION					
2100.022	50' Riding Ring w/ Fence (Roof in B10)	1.00	LS	10,000.00	10,000
2220.330	Crushed Stone Under Slab - Kennel	20.00	CY	37.51	750
2220.332	4" SOG - Kennel	400.00	SF	7.71	3,084
2720.115	Chain Link Fence - Vinyl Coated 6' H - Kennel (10' x 10')	120.00	LF	22.00	2,640
2760.100	Tennis Court	4.00	EA	40,000.00	160,000
2762.110	Baseball Field (Includes new drainage system)	1.00	EA	150,000.00	150,000
*** Total F10 - SPECIAL CONSTRUCTION					326,474
** Total F10 - SPECIAL CONSTRUCTION					326,474
F20 - SELECTIVE BUILDING DEMOLITION					
F2010 - BUILDING ELEMENTS DEMOLITION					
2022.100	Mass Demolition - High School	61,802.00	SF	5.00	309,010
2022.100	Mass Demolition - High School	116,198.00	SF	6.00	697,188
2032.000	Gym Floor Demo	13,027.00	SF	1.21	15,765
2032.000	Interior Demolition - Strip Walls & Clg GWB, Flooring, Casework, MEP	52,027.00	SF	8.00	416,216
2032.110	Remove Face Brick at West Wall of 1966 Wing	18,200.00	SF	1.30	23,715
2032.310	Demo Entrance Canopy	4,600.00	SF	0.68	3,129
*** Total F2010 - BUILDING ELEMENTS DEMO					1,465,023
** Total F20 - SELECTIVE BUILDING DEMOLIT					1,465,023
G10 - SITE PREPARATION					
G1020 - SITE DEMOLITION					
2012.010	Remove underdrain system at existing baseball field	1.00	LS	10,000.00	10,000
2013.240	Demo Bit Conc Pvmt - Large Area	230,562.00	SF	0.16	37,927
2013.240	Demo Bit Conc Pvmt - Large Area (For Animal Barn)	6,000.00	SF	0.16	987
2013.280	Demo Conc Walk	11,800.00	SF	0.63	7,414
*** Total G1020 - SITE DEMOLITION					56,328
G1030 - EARTHWORK					
2110.290	Misc Erosion Control	1.00	LS	50,000.00	50,000

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
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Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
2110.306	Site Access/Laydown	1.00	LS	35,000.00	35,000
2200.130	Site Excavation	15,000.00	CY	12.13	181,913
2200.160	Site Fill From Borrow (Demolished Wing)	25,000.00	CY	3.17	79,228
2200.905	Granular Fill (M) (Demolished Wing)	25,000.00	CY	10.00	250,000
2300.155	Dewatering	1.00	LS	40,000.00	40,000
*** Total G1030 - EARTHWORK					636,140
** Total G10 - SITE PREPARATION					692,468
G20 - SITE IMPROVEMENTS					
G2010 - SITE PAVING					
2600.050	Compact Road Subgrade	28,875.89	SY	0.23	6,688
2600.060	Fine Grade Road Subgrade	28,875.89	SY	1.04	30,089
2600.075	Stabilization Fabric-Medium	33,207.27	SY	1.31	43,402
2600.130	Install Road Base (L)	20,213.12	CY	3.96	80,070
2600.136	Base - Crushed Gravel (M)	20,213.12	CY	16.00	323,410
2600.200	Added 2" for Heavy Duty Paving - Lot C (35,052 SF)	432.00	TONS	110.00	47,520
2600.200	Bituminous Concrete P3.96g (4")	6,357.78	TON	95.00	603,989
2600.201	28875.89	1.00	EACH		
2600.210	**Paved Area**	28,875.89	SY		
2610.002	Grading For Curbs	6,000.00	LF	2.68	16,079
2610.060	Concrete Curbs 6" X 18"	6,000.00	LF	12.00	72,000
2610.175	4" Concrete Sidewalk	11,000.00	SF	3.00	33,000
3200.055	CIP Stairs at Retaining Wall	140.00	SF	55.00	7,700
*** Total G2010 - SITE PAVING					1,263,947
G2050 - LANDSCAPING					
2710.200	Landscaping	1.00	LS	140,000.00	140,000
2710.250	Landscaping - Courtyard	1.00	LS	150,000.00	150,000
5520.060	Steel Handrail - Site Retaining Wall	328.00	LF	62.21	20,405
10000.010	Flag Pole	1.00	EA	2,277.73	2,278
*** Total G2050 - LANDSCAPING					312,683
** Total G20 - SITE IMPROVEMENTS					1,576,630
G30 - SITE UTILITIES					
G3010 - SITE UTILITIES					
2500.790	Storm Drainage Line	4,200.00	LF	44.08	185,136
2510.507	4' Dia PC Catch Basin	40.00	EA	3,469.33	138,773
2540.110	Water Line	300.00	LF	54.08	16,224
2540.114	Sanitary Sewer	300.00	LF	52.08	15,624
2540.118	Prim/Sec Electrical/Telcom Trenching	300.00	LF	32.08	9,624
2540.122	Natural Gas Trenching	300.00	LF	32.08	9,624
2540.128	Alter Underdrain at existing ball field for new addition	1.00	LS	10,000.00	10,000
2540.130	Alter Underdrain at existing lacrosse field at kitchen loading dock due to const access	1.00	LS	10,000.00	10,000
2580.110	Elec Trench-Direct Burial (Site Lighting)	5,400.00	LF	8.04	43,416
2580.120	Elec Trench-Duct Bank (Secondary/Primary Under Roads)	140.00	LF	12.32	1,725
2580.130	Elec Ductbank Forms	560.00	SF	4.42	2,473
2580.140	Elec Ductbank Concrete	48.53	CY	121.08	5,876
2580.300	Grease Interceptor, Steel, 50 GPM, 100 LB Fat Capacity	1.00	EA	9,962.60	9,963
2580.302	Grease Interceptor, Steel, 250 GPM, 500 LB Fat Capacity	1.00	EA	26,096.32	26,096
*** Total G3010 - SITE UTILITIES					484,555
** Total G30 - SITE UTILITIES					484,555
Z10 - GENERAL					
Z1010 - GENERAL CONDITIONS					

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
0080.100	***DESIGN & ENGINEERING FEES BY CITY OF DOVER***				
0100.000	Mobilize / Demobilize	1.00	LS	28,000.00	28,000
0100.020	Office Supplies	165.00	WK	275.00	45,375
0100.030	Office Furniture / Systems	1.00	LS	48,000.00	48,000
0100.040	Engineer's Furniture / Equipment - N/A		LS		
0100.041	Engineer's Computer / Software - N/A		LS		
0100.045	Project Kiosk 30" - Purchase	4.00	EA	5,000.00	20,000
0100.060	Janitorial Services	168.00	WK	150.00	25,200
0100.064	Temporary Wiring	1.00	LS	3,000.00	3,000
0100.065	Electrical Energy Costs	38.00	MO	350.00	13,300
0100.066	Water Usage Costs	38.00	MO	200.00	7,600
0100.100	Telephone / Communication	38.00	MO	1,000.00	38,000
0100.110	Sanitary / Facilities	38.00	MO	1,500.00	57,000
0110.080	Security / Watchman		WK		
0110.120	Photographs		MO		
0110.160	Documents & Reproductions	1.00	LS	15,000.00	15,000
0120.002	Estimating - GMP	1.00	LS	50,000.00	50,000
0120.003	Officer in Charge		MW	7,000.00	
0120.005	Construction Executive	16.00	MW	5,400.00	86,400
0120.008	Senior Project Manager	59.00	MW	4,720.00	278,480
0120.010	Project Manager	135.00	MW	3,800.00	513,000
0120.018	Senior Project Engineer		MW	2,880.00	
0120.020	Project Engineer (Full Time)	168.00	MW	2,400.00	403,200
0120.022	Office Engineer	115.00	MW	1,920.00	220,800
0120.024	Senior Superintendent	150.00	MW	4,720.00	708,000
0120.025	Project Superintendent	162.00	MW	3,720.00	602,640
0120.034	Construction Coordination - SCP (2 Days/Week)	37.00	MW	2,400.00	88,800
0120.050	Scheduling Engineer		MW	2,280.00	
0120.058	Safety Manager		MW	3,720.00	
0120.060	Safety Engineer (2 Days/Week)	67.00	MW	2,280.00	152,760
0120.220	Administration	139.00	MW	1,720.00	239,080
0130.000	Living Allowance - Management	336.00	MWK	300.00	100,800
0130.005	Living Allowance - Foremen		MWK	125.00	
0130.020	Travel and Expenses	38.00	MO	600.00	22,800
0140.000	Scheduling	1.00	WK	2,280.00	2,280
0140.200	Permit's & Fee's		LS		
0140.205	Building Permit		LS		
0140.300	Design (Means & Methods)		LS		
0140.800	Professional Services		LS		
0150.200	Equipment Trucking		WK		
0150.250	Off - Site Parking		WK		
0150.500	Personnel Elevator		MO		
0150.520	Field Office	38.00	TM	1,200.00	45,600
0150.540	Engineer / Architect Office		TM	400.00	
0150.560	Storage Trailers (2 Trailers)	76.00	TM	150.00	11,400
0160.300	Sub Bonds (Include w/ Subs)		LS		
0180.010	Gross Receipts Tax		LS		
0180.020	Sales Tax		LS		
*** Total Z1010 - GENERAL CONDITIONS					3,826,515
Z1020 - GENERAL REQUIREMENTS					
0200.010	Materials Testing		LS		
0200.040	Snow Removal	1.00	LS	40,000.00	40,000
0200.110	Field Engineering	4.00	WK	5,000.00	20,000
0200.140	Temporary GWB Partitions	10,000.00	SF	7.80	78,000
0200.160	ICRA / ILSM - N/A		LS		
0200.180	Scaffolding - In COW		LS		
0200.200	OSHA / First Aid	168.00	WK	771.89	129,678

Schematic Design Estimate Option 2: Partial Reno w/ Addition



CONSTRUCTION

Job #: 15027
 Project Size: 303,000 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
0200.300	Material Handling	168.00	WK	940.00	157,920
0200.310	Cranes - In COW		CM		
0200.320	Progress Cleanup (Labor & Dumpster)	168.00	WK	707.04	118,783
0200.360	Final Cleanup	302,324.00	SF	0.45	136,046
0200.400	Temporary Heat	1.00	LS	175,000.00	175,000
0200.410	Temporary Enclosure	1.00	LS	150,000.00	150,000
0200.970	Support Equipment		LS		
*** Total Z1020 - GENERAL REQUIREMENTS					1,005,426
** Total Z10 - GENERAL					4,831,941
Z20 - MAJOR CUSTOM PROGRAM ELEMENTS					
Z2010 - MAJOR CUSTOM PROGRAM ELEMENTS					
0060.002	Precon Services - N/A (Included under separate contract)		LS	96,000.00	
2032.500	Asbestos Abatement Contract	1.00	LS	1,300,000.00	1,300,000
2032.505	Asbestos Abatement - 5% Increase per year	1.00	LS	359,166.00	359,166
2762.100	Replace existing football field with turf	1.00	LS	750,000.00	750,000
11400.001	Kitchen Equipment	2,500.00	SF	150.00	375,000
*** Total Z2010 - MAJOR CUSTOM PROGRAM					2,784,166
** Total Z20 - MAJOR CUSTOM PROGRAM EL					2,784,166
* Total Option 2 - Partial Renovation with Add					60,606,764
Total Gross Cost					60,606,764



Dover High School - Option #2 - Partial Renovation - Estimate Comparison

		PC	PM&C	Cost Variance
High School Total		\$67,450,331	\$70,408,834	\$2,958,503
A1010	Standard Foundations	\$1,481,516	\$2,218,107	\$736,591
A1020	Special Foundations	\$1,070,200	\$231,000	-\$839,200
A1030	Lowest Floor Construction	\$1,787,811	\$1,692,284	-\$95,527
B1010	Floor Construction	\$5,496,138	\$2,569,336	-\$2,926,802
B1020	Roof Construction	\$791,890	\$3,623,284	\$2,831,394
B2010	Exterior Walls	\$3,627,680	\$3,636,348	\$8,668
B2020	Windows	\$2,400,000	\$2,372,767	-\$27,233
B2030	Exterior Doors	\$139,342	\$136,963	-\$2,379
B3010/3020	Roof Coverings & Openings	\$1,793,174	\$1,812,366	\$19,192
C1010	Partitions	\$2,762,070	\$2,605,880	-\$156,190
C1020	Interior Doors	\$834,390	\$801,750	-\$32,640
C1030	Specialties / Millwork	\$2,207,007	\$1,945,100	-\$261,907
C2010	Stair Construction	\$331,790	\$200,500	-\$131,290
C3010	Wall Finishes	\$929,984	\$944,263	\$14,279
C3020	Floor Finishes	\$2,053,264	\$2,037,898	-\$15,366
C3030	Ceiling Finishes	\$1,176,725	\$1,205,112	\$28,387
D1010	Elevator	\$199,423	\$157,600	-\$41,823
D2010	Plumbing	\$2,659,492	\$2,665,902	\$6,410
D3010	HVAC	\$8,104,390	\$8,135,150	\$30,760
D4010	Fire Protection	\$974,143	\$1,030,750	\$56,607
D5010	Electrical	\$6,867,084	\$8,086,699	\$1,219,615
E1010	Equipment, Generally	\$511,736	\$950,800	\$439,064
E2010	Fixed Furnishings	\$246,257	\$426,210	\$179,953
F10	Special Construction	\$326,474	\$425,000	\$98,526
F2010	Building Elements Demolition	\$1,465,023	\$457,020	-\$1,008,003
G1020/1030	Site Demolition & Earthwork	\$692,468	\$5,684,349	\$4,991,881
G2010	Site Paving	\$1,263,947		-\$1,263,947
G2050	Landscaping	\$312,683		-\$312,683
G3010	Site Utilities	\$484,555		-\$484,555
Z1010	General Conditions	\$3,826,515	\$3,826,515	\$0
Z1020	General Requirements	\$1,005,426	\$1,005,426	\$0
Z2010	Major Custom Program Elements	\$2,784,166	\$1,300,000	-\$1,484,166
Option #2 Total Direct Cost		\$60,606,763	\$62,184,379	\$1,577,616



Dover High School - Option #2 - Partial Renovation - Estimate Comparison

Labor and Material Escalation	\$0	\$0	\$0
Builders Risk Insurance	\$46,064		-\$46,064
Liability Insurance	\$505,875	\$509,347	\$3,472
Construction Manager's Contingency (PC @ 7%)	\$4,242,473	\$5,855,684	\$1,613,211
P & P Bond	\$404,026	\$325,246	-\$78,780
CM Fee (2.5%)	\$1,645,130	\$1,534,178	-\$110,952
Option #2 Total Indirect Cost	\$6,843,568	\$8,224,455	\$1,380,887
Option #2 Total Gross Cost	\$67,450,331	\$70,408,834	\$2,958,503

OPTION 3 - All New Construction

ESTIMATE SUMMARY

Project #: 15027
Building GSF: 304,514

		Totals
Direct Cost	%	\$ 65,565,715
Material Sales Tax (N/A)	0.00%	\$ -
Labor & Material Escalation	0.00%	\$ -
Gross Cost		\$ 65,565,715
Building Permit - by Owner	0.00%	\$ -
Builder's Risk insurance	0.07%	\$ 48,893
Liability Insurance	0.75%	\$ 536,948
Construction Manager's Contingency	5.00%	\$ 3,278,286
P & P Bond (\$5.83 per \$1,000)		\$ 417,387
Sub Total		\$ 69,847,228
CM Fee	2.50%	\$ 1,746,181
Total		\$ 71,593,000
Total Cost per square foot		\$ 235

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Recap - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Unifomat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
Option 3 - All New Construction					
A10	FOUNDATIONS				4,701,798
B10	SUPERSTRUCTURE				8,364,713
B20	EXTERIOR CLOSURE				7,774,394
B30	ROOFING				1,886,518
C10	INTERIOR CONSTRUCTION				5,378,566
C20	STAIRCASES				362,660
C30	INTERIOR FINISHES				4,469,534
D10	CONVEYING SYSTEMS				253,253
D20	PLUMBING				2,728,183
D30	HVAC				8,281,029
D40	FIRE PROTECTION				971,111
D50	ELECTRICAL				7,230,576
E10	EQUIPMENT				468,918
E20	FURNISHINGS				308,132
F10	SPECIAL CONSTRUCTION				606,474
F20	SELECTIVE BUILDING DEMOLITION				1,623,129
G10	SITE PREPARATION				687,260
G20	SITE IMPROVEMENTS				1,576,859
G30	SITE UTILITIES				474,931
Z10	GENERAL				4,500,611
Z20	MAJOR CUSTOM PROGRAM ELEMEN				2,917,066
* Total Option 3 - All New Construction					65,565,715
Total Gross Cost					65,565,715

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Unifomat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
Option 3 - All New Construction					
A10 - FOUNDATIONS					
A1010 - STANDARD FOUNDATIONS					
2210.205	Structure Excavation	6,500.00	CY	12.13	78,829
2210.205	Structure Excavation (Barn Addition)	300.00	CY	12.13	3,638
2220.335	BF Foundation Wall w/ Crushed Stone (Site Retaining Wall)	2,100.00	CY	37.51	78,771
2220.335	BF Frost Wall w/ Crushed Stone	4,300.00	CY	37.51	161,293
2220.335	BF Frost Wall w/ Crushed Stone (Barn Addition)	180.00	CY	37.51	6,752
2220.340	BF Frost Wall w/ On Site Matl	3,600.00	CY	17.51	63,036
2220.340	BF Frost Wall w/ On Site Matl (Barn Addition)	180.00	CY	17.51	3,152
2500.110	4" PVC Footing Drains	6,800.00	LF	14.00	95,200
3300.010	8" x 16" Continuous Footing (Barn Addition)	294.00	LF	32.30	9,496
3300.014	1' x 3' Continuous Footing	3,113.00	LF	44.20	137,595
3300.016	1' x 3' Continuous Footing (Auditorium)	450.00	LF	44.20	19,890
3300.016	1' x 5' Continuous Footing (Auditorium)	450.00	LF	55.25	24,862
3300.016	1' x 5' Continuous Footing (Site Retaining Wall)	405.00	LF	55.25	22,376
3300.018	3' x 3' x 1' Isolated Footing	52.00	EA	242.25	12,597
3300.040	8" x 5' Frost Wall (Barn Addition)	294.00	LF	105.40	30,988
3300.045	12" x 5' Frost Wall	1,441.00	LF	128.35	184,952
3300.128	12" x 8' Foundation Wall	1,624.00	LF	191.25	310,590
3300.148	12" x 13' Site Retaining Wall	405.00	LF	350.20	141,831
3300.152	18" x 4' Concrete Pier with 2' x 2' x 1' Footing (50" Dia Riding Ring)	14.00	EA	273.63	3,831
3300.156	1' x 1' - 5' Pilaster	66.00	EA	178.50	11,781
7110.100	Damproof Frost Wall	20,197.00	SF	1.50	30,295
7110.100	Damproof Frost Wall (Barn Addition)	1,323.00	SF	1.50	1,985
7200.105	Rigid Insulation - 2" Frost Wall	20,197.00	SF	2.08	42,087
7200.105	Rigid Insulation - 2" Frost Wall (Barn Addition)	1,323.00	SF	2.08	2,757
*** Total A1010 - STANDARD FOUNDATIONS					1,478,583
A1020 - SPECIAL FOUNDATIONS					
2492.105	Aggregate Piers - 8' Grid: 836 @ 20' Deep	16,720.00	LF	17.01	284,407
2492.105	Aggregate Piers - 8' Grid: 836 @ 20' Deep	16,720.00	LF	80.00	1,337,600
*** Total A1020 - SPECIAL FOUNDATIONS					1,622,007
A1030 - LOWEST FLOOR CONSTRUCTION					
2220.332	Crushed Stone Under Slab - 8"	5,600.00	CY	37.51	210,056
2220.332	Crushed Stone Under Slab - 8" (Barn Addition)	200.00	CY	37.51	7,502
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams	199,167.00	SF	0.71	141,986
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams (Barn Addition)	6,710.00	SF	0.71	4,784
3300.006	4" SOG (Non pile/pier areas)	122,967.00	SF	6.55	805,901
3300.008	5" SOG - (Agg Pier Areas)	50,222.00	SF	7.40	371,834
3300.008	5" SOG - (Barn Addition)	6,100.00	SF	7.40	45,163
7200.108	Rigid Insulation - 2" Underslab (Barn Addition)	6,710.00	SF	2.08	13,982
*** Total A1030 - LOWEST FLOOR CONSTRU					1,601,208
** Total A10 - FOUNDATIONS					4,701,798
B10 - SUPERSTRUCTURE					
B1010 - FLOOR CONSTRUCTION					
3000.015	Trowel Finish	124,281.00	SF	0.56	69,237
3000.200	Protect & Cure	124,281.00	SF	0.10	12,030
3200.052	Re-Steel @ Slabs On Metal Deck	49,367.18	LB	0.79	39,000
3200.315	6x6 4/4 Wwf	136,709.10	SF	0.78	106,633
3200.350	Wire Mesh Accessories	124,281.00	SF		
3300.033	Slab On Metal Deck Concrete	1,974.69	CY	36.57	72,217

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
3300.115	3000 Psi Concrete	1,974.69	CY	98.00	193,519
3300.200	Concrete Pumping	1,974.69	CY	8.00	15,797
5010.050	Structural Steel at Addition - 12 lbs/ sf	1,783.00	TON	3,100.00	5,527,300
5300.605	2"X20ga Painted Mtl Deck	136,709.10	SF	1.95	266,583
7850.001	Spray Fireproofing - Roof Deck	172,967.00	SF	1.50	259,451
7850.001	Spray Fireproofing - Structural Steel	316,091.00	SF	2.50	790,228
*** Total B1010 - FLOOR CONSTRUCTION					7,351,995
B1020 - ROOF CONSTRUCTION					
5200.100	Steel Joists (2 lbs/ SF)	161.00	TON	1,800.00	289,800
5200.100	Steel Joists (2 lbs/ SF) CTC		TON	1,800.00	
5300.205	1-1/2"X20ga Galv Mtl Deck	198,912.00	SF	1.70	338,150
5300.205	1-1/2"X20ga Galv Mtl Deck CTC		SF	1.70	
5500.000	Miscellaneous Metals (Angle at Roof Curb)	1.00	LS	20,000.00	20,000
6000.000	Roof edge blocking	8,400.00	LF	7.78	65,311
6000.500	Roof Trusses w/ sheathing (Barn Addition)	6,100.00	SF	8.00	48,800
6000.510	Pavilion Framing (50' Dia Riding Ring)	3,300.00	SF	18.38	60,657
7530.004	Entrance Canopy	2.00	EA	45,000.00	90,000
7530.004	Entrance Canopy	2.00	EA	50,000.00	100,000
*** Total B1020 - ROOF CONSTRUCTION					1,012,718
** Total B10 - SUPERSTRUCTURE					8,364,713
B20 - EXTERIOR CLOSURE					
B2010 - EXTERIOR WALLS					
4070.200	Brick Veneer (70% Envelope)	104,260.00	SF	24.00	2,502,240
6100.612	2x6 Partitions w/ 1/2" OSB Sheathing - 12' Ht (Barn Addition)	3,880.00	SF	4.60	17,836
6200.512	T&G Siding - Red Cedar (6" Exposure) (Barn Addition)	3,880.00	SF	8.00	31,036
7210.806	3" Spray Foam Insulation (R-21)	104,260.00	SF	3.00	312,780
7260.120	Air Infiltration Barrier - Fluid Applied	104,260.00	SF	2.50	260,650
9280.051	6" LGS Stud w/ 5/8" GWB and 5/8" Densglass - Ext Partitions	104,260.00	SF	12.42	1,294,565
*** Total B2010 - EXTERIOR WALLS					4,419,107
B2020 - WINDOWS					
8800.800	Curtainwall (30% Envelope)	42,753.00	SF	5.00	213,765
8800.800	Curtainwall (30% Envelope)	42,753.00	SF	70.00	2,992,710
8800.840	Barn Windows (Barn Addition)	10.00	EA	600.00	6,000
*** Total B2020 - WINDOWS					3,212,475
B2030 - EXTERIOR DOORS					
6200.300	Sliding Barn Door (Barn Addition)	3.00	EA	1,788.76	5,366
8010.010	3070 Exterior Door	21.00	EA	1,404.76	29,500
8010.010	3070 HM Door (Barn Additon)	8.00	EA	1,104.76	8,838
8010.020	6070 Exterior Door	17.00	EA	2,065.16	35,108
8300.100	Overhead Door	2.00	EA	8,000.00	16,000
8300.100	Overhead Door (AT, AC, BT)	6.00	EA	8,000.00	48,000
*** Total B2030 - EXTERIOR DOORS					142,812
** Total B20 - EXTERIOR CLOSURE					7,774,394
B30 - ROOFING					
B3010 - ROOF COVERINGS					
7200.015	12" Batt Insulation (R38) (Barn Addition)	8,020.00	SF	1.15	9,217
7310.015	Asphalt Single Roof (50' Dia Riding Ring)	3,300.00	SF	5.79	19,119
7310.015	Asphalt Single Roof (Barn Addition)	8,020.00	SF	5.79	46,465
7530.026	Thermoplastic Membrane Roof	172,967.00	SF	10.00	1,729,670
7530.030	Entrance Canopy Roof	2.00	EA	30,000.00	60,000
*** Total B3010 - ROOF COVERINGS					1,864,470
B3020 - ROOF OPENINGS					

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
5550.162	4' Sq Hatch Cover - Stainless Steel	3.00	EA	7,349.20	22,048
*** Total B3020 - ROOF OPENINGS					22,048
** Total B30 - ROOFING					1,886,518
C10 - INTERIOR CONSTRUCTION					
C1010 - PARTITIONS					
4020.205	8" CMU Partitions - 14' Ht (Gym)	6,720.00	SF	10.00	67,200
5500.000	Miscellaneous Metals (Angle at CMU Partitions)	1.00	LS	18,000.00	18,000
6010.000	In Wall Blocking	1.00	LS	50,000.00	50,000
6010.000	In Wall Blocking	1.00	LS	24,437.84	24,438
8800.000	Glazed Partitions	2,200.00	SF	60.00	132,000
9270.001	Tape Gypsum Walls - Level 4 (String coat, 2 finish coats, sanding)	484,380.00	SF	0.75	363,285
9280.030	Classroom Fit Up (Barn Addition) 2 - Classrooms	450.00	SF	30.00	13,500
9285.005	LGS Partitions w/ 5/8" GWB, Sound Batt - Interior	160,400.00	SF	8.61	1,381,220
9285.013	LGS Furred Partition - Interior	21,100.00	SF	5.09	107,479
9285.023	Fire Stopping	1.00	LS	15,000.00	15,000
9285.023	Fire Stopping	1.00	LS	60,000.00	60,000
9288.039	Misc Drywall Work	1.00	LS	40,000.00	40,000
9288.039	Misc Drywall Work	1.00	LS	10,000.00	10,000
*** Total C1010 - PARTITIONS					2,282,122
C1020 - INTERIOR DOORS					
8012.010	3070 Interior Door	482.00	EA	1,204.76	580,694
8012.020	6070 Interior Door	82.00	EA	1,765.16	144,743
8014.000	Corridor Lock Down Hardware	1.00	LS	50,000.00	50,000
8014.020	Interior Borrowed Lites	57.00	EA	609.52	34,743
*** Total C1020 - INTERIOR DOORS					810,180
C1030 - SPECIALTIES / MILLWORK					
6400.000	6'-0" Laminated Maple Bench	20.00	EA	992.58	19,852
6400.004	Base Cabinets (Classrooms)	886.00	LF	266.10	235,768
6400.052	Full Height Cabinets (Classrooms)	391.00	LF	306.10	119,687
6400.052	Wall Cabinets (Classrooms)	651.00	LF	191.10	124,409
6400.054	Full Height Cabinets (Mail Room)	24.00	LF	306.10	7,346
6400.102	Restroom Wood Apron at Solid Surface	288.00	LF	159.92	46,057
6400.300	Solid Surface Restroom Counter w/ integral sink	288.00	LF	221.90	63,908
6400.308	Countertops-Solid Surface (Classrooms)	886.00	LF	191.10	169,318
6400.308	Wall Mount Solid Surface Counter (Mail/Work Room)	71.00	LF	216.10	15,343
6400.315	Countertops - Epoxy Resin	546.00	LF	161.64	88,254
6400.348	Solid Surface Window Sill and Apron (New Const Only)	2,205.00	LF	64.26	141,688
6401.052	Wall Cabinets - Solid Surface (Science Labs)	410.00	LF	161.65	66,275
6401.054	Full Height Cabinets - Solid Surface (Science Labs)	410.00	LF	255.73	104,848
6405.006	Wood Cubbies - Mail Room	24.00	LF	251.10	6,026
6405.008	Casework Allowance (Misc)	1.00	LS	231,000.00	231,000
6405.010	Closet Shelving	1.00	LS	10,000.00	10,000
6408.000	*** DESK MILLWORK***				
6408.080	Admin/Guidance Front Desk	31.00	LF	441.10	13,674
6408.100	Library Desk	78.00	LF	491.10	38,306
6510.919	FRP Panels 10' ht - Kitchen	3,518.00	SF	7.14	25,133
6510.919	FRP Panels 8' ht - at Janitorial sinks only	1,510.22	SF	7.14	10,789
6510.921	FRP Panels - Art Rooms	80.00	SF	7.14	572
10180.102	Toilet Partitions W/ Door - Phenolic	42.00	EA	430.52	18,082
10180.103	Urinal Screen - Phenolic	10.00	EA	305.52	3,055

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
10180.204	Shower Door	18.00	EA	277.76	5,000
10180.206	Locker Room Bench	80.00	LF	80.28	6,422
10191.100	Privacy Curtain: Track W/Supports (No Curtain) - Nurse	64.00	LF	22.50	1,440
10195.101	Display & Trophy Case Allowance	1.00	LS	40,000.00	40,000
10410.150	Sigange	1.00	LS	10,000.00	10,000
10410.150	Sigange	1.00	LS	78,000.00	78,000
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Kitchen	15.00	EA	180.55	2,708
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Staff	100.00	EA	180.55	18,055
10500.004	Lockers - Double Tier (6' X 18" X 18") - Student	1,500.00	EA	270.55	405,819
10500.006	Lockers - Double Tier - Locker Rooms (100 per Room)	200.00	EA	270.55	54,109
10500.006	Lockers - Double Tier - Student Athletic	50.00	EA	270.55	13,527
10520.000	Fire Extinguishers	102.00	EA	125.46	12,797
10520.050	Fire Ext Cabinets	102.00	EA	302.76	30,882
10649.102	Operable Wall Partition (57' L x 28' HT)		SF	99.95	
10800.106	Grab Bar	38.00	EA	101.38	3,852
10800.151	Surface Mtd Double Roll Tph	38.00	EA	197.38	7,500
10800.174	Surface Mounted SND	20.00	EA	377.38	7,548
10800.202	Surf Mtd Waste Receptacle	23.00	EA	282.38	6,495
10800.400	Liquid Soap Dispenser	23.00	EA	177.38	4,080
10800.602	Folding Shower Seat	18.00	EA	301.38	5,425
10800.610	Electric Hand Dryer	20.00	EA	301.38	6,028
10810.100	30"x30" Framed Mirror	34.00	EA	211.38	7,187
*** Total C1030 - SPECIALTIES / MILLWORK					2,286,264
** Total C10 - INTERIOR CONSTRUCTION					5,378,566
C20 - STAIRCASES					
C2010 - STAIR CONSTRUCTION					
4020.205	8" CMU Partitions - 14' Ht (Stair Shafts)	15,344.00	SF	10.00	153,440
5510.000	****Metal Stairs****		****		
5510.050	Metal Pan Stair - Standard	240.00	TRD	433.27	103,984
5510.052	Metal Pan Stair Landing - Standard	600.00	SF	71.60	42,958
5520.000	*** Handrails & Railings ***		****		
5520.050	Hand Rail - Standard Metal Picket	336.00	LF	119.42	40,126
5520.072	Steel Wallrail - Standard	336.00	LF	65.93	22,153
*** Total C2010 - STAIR CONSTRUCTION					362,660
** Total C20 - STAIRCASES					362,660
C30 - INTERIOR FINISHES					
C3010 - WALL FINISHES					
6200.040	Wood Wall Finish - Auditorium	11,200.00	SF	25.00	280,000
9300.200	Tile Wainscot - 4' AFF (Corridors)	23,840.00	SF	10.00	238,400
9300.202	Tile Wainscot - 4' AFF (Town Square)	7,680.00	SF	10.00	76,800
9300.204	Tile Wainscot - 4' AFF (Toilet Rooms)	5,830.00	SF	10.00	58,300
9300.204	Tile Wainscot - Premium for 5' AFF everywhere including stairwells	9,338.00	SF	10.00	93,380
9900.100	Paint Interior Walls (Barn Addition)	3,528.00	SF	0.82	2,893
9900.100	Paint Walls	484,380.00	SF	0.85	411,723
9900.205	Misc Painting - Door Frames, Misc Metals	1.00	LS	10,000.00	10,000
9900.205	Misc Painting - Door Frames, Misc Metals	1.00	LS	40,000.00	40,000
*** Total C3010 - WALL FINISHES					1,211,496
C3020 - FLOOR FINISHES					
9300.105	Tile Base	871.00	LF	10.00	8,710
9330.000	Quarry Tile Floors - Culinary	2,000.00	SF	15.00	30,000
9330.000	Quarry Tile Floors - Kitchen	3,300.00	SF	15.00	49,500

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
9330.005	Quarry Tile Base	760.00	LF	12.00	9,120
9332.000	Porecelain Tile Floor - Culinary	950.00	SF	15.00	14,250
9400.005	Mosaic Tile - Bath, Locker Rooms	12,230.00	SF	12.00	146,760
9550.100	Wood Floor - Gym	13,740.00	SF	18.00	247,320
9550.120	Wood Floor - Stage	2,620.00	SF	16.00	41,920
9650.010	Linoleum	185,040.00	SF	6.00	1,110,240
9650.025	Rubber Base	35,167.00	LF	1.85	65,059
9650.032	Rubber Treads & Risers	5,760.00	SF	14.00	80,640
9680.000	Carpet - Auditorium	820.00	SY	35.00	28,700
9690.000	Carpet Tile	1,200.00	SY	35.00	42,000
9760.011	Rubber Sports Flooring	4,934.00	SF	12.45	61,415
9760.126	Moisture Mitigation	4,934.00	SF	4.00	19,736
9760.126	Moisture Mitigation	-4,934.00	SF	8.00	-39,472
9900.400	Sealed Concrete	44,180.00	SF	1.50	66,270
9900.400	Sealed Concrete (Barn Addition)	12,200.00	SF	1.50	18,300
9900.506	Paint Gym Floor Logo	1.00	LS	3,000.00	3,000
12671.103	Walk-Off Foot Grilles (Alum Grid W/ Frame & Pan)	570.00	SF	72.08	41,085
*** Total C3020 - FLOOR FINISHES					2,044,553
C3030 - CEILING FINISHES					
9285.037	Gypsum Ceiling: Suspended drywall grid 5/8" type X GWB (1 layer), taped (lvl 4)	17,990.00	SF	5.31	95,475
9285.039	Misc Drywall Soffits	1.00	LS	119,999.73	120,000
9285.039	Misc Drywall Soffits	1.00	LS	29,999.96	30,000
9500.100	ACT - Restaurant	7,380.00	SF	8.00	59,040
9500.102	ACT	196,410.00	SF	3.00	589,230
9500.104	ACT(Cleanable) - Kitchen	5,330.00	SF	8.00	42,640
9500.200	24x24x5/8 Lay-In (Barn Addition)	900.00	SF	3.00	2,700
9500.390	Acoustical Wood Clouds - Auditorium	2.00	LS	40,000.00	80,000
9500.612	Tectum Ceiling Panels - 2"	6,870.00	SF	8.00	54,960
9900.110	Paint Ceilings	29,190.00	SF	0.85	24,812
9900.120	Paint Exposed Ceiling Structure	49,800.00	SF	1.75	87,150
9900.625	Paint exposed ceiling - Gym	13,740.00	SF	2.00	27,480
*** Total C3030 - CEILING FINISHES					1,213,486
** Total C30 - INTERIOR FINISHES					4,469,534
D10 - CONVEYING SYSTEMS					
D1010 - ELEVATOR					
3300.008	12" Base Slab	128.00	SF	14.42	1,846
3300.025	12" x 5' Foundation Wall	72.00	LF	128.35	9,241
4020.205	Drywall Partitions - 14' Ht (Elevator)	3,854.00	SF	10.00	38,540
5530.122	Elevator Pit Misc Metals	2.00	EA	1,813.09	3,626
14200.115	Hydraulic Passenger Elevator (1 Ea)	5.00	STOP	40,000.00	200,000
*** Total D1010 - ELEVATOR					253,253
** Total D10 - CONVEYING SYSTEMS					253,253
D20 - PLUMBING					
D20 - PLUMBING					
15401.320	Domestic Water Heater, Residential Gas-Fired (NG/P) Atmospheric, Foam Lined Tank, Vent Not Included, 100 Gal.	2.00	EA	1,846.55	3,693
15401.338	Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, Vent Not Included, 250 MBH Input, 245 GPH	2.00	EA	20,161.00	40,322
15401.554	Potable Water Storage Tank, Indoor, Glass-Lined PE, 605 Gal., 48" OD, 87" Long	1.00	EA	14,258.38	14,258
15401.556	Round, Stainless Steel, 26 ga., 8" OD - Water Heater Vent	120.00	LF	28.30	3,396

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15402.452	Sump Pump, Wet-Pit Mounted, Vertical, Single Stage, 25 GPM, 1 HP, 1-1/2" Disch.	2.00	EA	4,055.67	8,111
15410.208	Comm. Water Closet, Floor Mounted VC, Flush Valve, Bowl only, incl. Seat, w/Floor Outlet 1.28 gpf ADA	80.00	EA	753.67	60,294
15410.210	Rough-In, Supply, Waste and Vent for Comm. Floor Mounted WC	80.00	EA	562.00	44,960
15410.404	Urinal, Wall Hung VC w/ Hanger and Valve, Water Saving 0.5 gpf	16.00	EA	843.38	13,494
15410.406	Rough-In, Supply, Waste and Vent for Wall Hung Urinal	16.00	EA	705.00	11,280
15410.640	Rough-In, Supply, Waste and Vent for Res. Vanity Top Lavatories	96.00	EA	547.00	52,512
15410.640	Rough-In, Supply, Waste and Vent for Salon Lavatories (no fixture)	10.00	EA	547.00	5,470
15410.698	Sink w/Faucet and Drain, SS Self Rimming, 43"x22" Double Bowl	30.00	EA	1,286.48	38,595
15410.702	Rough-In, Supply, Waste and Vent for Sinks	30.00	EA	702.00	21,060
15410.826	Laboratory Sink, Corrosion Resistant, 12"x12"x8" Sink, 14.5"x14.5" OD	44.00	EA	471.80	20,759
15410.832	Rough-In, Supply, Waste and Vent for Laboratory Sinks	44.00	EA	461.00	20,284
15410.834	Laboratory Faucet, Gooseneck Spout, Wrist Handles	44.00	EA	235.80	10,375
15410.840	Service Sink, Floor (Corner), PE, 28"x28" w/Rim Guard	15.00	EA	1,233.66	18,505
15410.844	Rough-In, Supply, Waste and Vent for Floor Service Sink	15.00	EA	1,827.00	27,405
15411.101	Hose Bibb, Exterior Freeze-Proof, Lockable	29.00	EA	105.40	3,056
15411.314	Stall Shower, One-Piece Fiberglass w/Three Walls, Drain Only, 32" Square	18.00	EA	645.94	11,627
15411.326	Thermostatic Valve for Shower	18.00	EA	585.00	10,530
15411.328	Rough-In, Supply, Waste and Vent for Shower	18.00	EA	818.00	14,724
15411.901	Emergency Shower, Single Head, Drench, Ball Valve, Pull Style, Freestanding, No Rough-In	8.00	EA	573.80	4,590
15411.908	Emergency Eyewash Fountain, SS Bowl, Pedestal Mount, No Rough-In	8.00	EA	533.80	4,270
15412.222	Electric Water Cooler, Wall Mounted, Full Recessed, SS, Bi-Level	27.00	EA	1,871.46	50,530
15412.236	Rough-In, Supply, Waste and Vent for Electric Water Cooler	27.00	EA	504.00	13,608
15412.434	Floor Drain, Heavy Ducty, Galvanized w/Sediment Bucket, 12" OD Grate, 2"-6" Pipe Size	22.00	EA	1,131.14	24,885
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size	87.00	EA	1,074.20	93,455
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size - Emergency	87.00	EA	1,074.20	93,455
15414.104	Water Meter, UL/FM Approved, 4" Main x 2" By-Pass, 700 GPM	1.00	EA	7,535.08	7,535
15414.126	Water Meter, Bronze, Comm./Dom., Flanged, 4" OD, 320 GPM	2.00	EA	5,366.82	10,734
15420.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	11,075.00	LF	10.64	117,797
15420.108	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	8,525.00	LF	14.02	119,480
15420.114	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2" OD	5,000.00	LF	31.93	159,632

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15420.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	1,200.00	LF	76.22	91,458
15420.122	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 4" OD	300.00	LF	125.23	37,570
15421.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	11,075.00	LF	3.96	43,885
15421.106	Fiberglass 1" Insulation With All Service Jacket 1" Pipe	8,525.00	LF	4.16	35,471
15421.204	Fiberglass 1-1/2" Insulation With All Service Jacket 2" Pipe	5,000.00	LF	5.87	29,355
15421.208	Fiberglass 1-1/2" Insulation With All Service Jacket 3" Pipe	1,200.00	LF	6.58	7,894
15421.212	Fiberglass 1-1/2" Insulation With All Service Jacket 4" Pipe	300.00	LF	7.78	2,335
15421.500	Valves and Accessories	1.00	LS	500.00	500
15421.500	Valves and Accessories	1.00	LS	145,000.00	145,000
15440.028	UG Hub & Spigot, CI, No Hangers, 6" Pipe	1,500.00	LF	52.21	78,321
15440.052	Casty Iron SW&V, Hangers 5' OC, 1-1/2" Pipe	8,075.00	LF	18.61	150,292
15440.054	Casty Iron SW&V, Hangers 5' OC, 2" Pipe	5,050.00	LF	22.45	113,373
15440.058	Casty Iron SW&V, Hangers 5' OC, 4" Pipe	2,040.00	LF	31.69	64,650
15440.382	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 2" OD - GW	2,000.00	LF	24.95	49,900
15440.386	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 4" OD - GW	1,000.00	LF	45.25	45,248
15440.500	Limestone Chip Acid Neutralizer - 200 Gallon	2.00	EA	17,500.00	35,000
15450.410	Sch40 PVC W/Couplings and Hangers, 10ft OC, 4" OD	2,000.00	LF	24.48	48,968
15450.412	Sch40 PVC W/Couplings and Hangers, 10ft OC, 6" OD	500.00	LF	37.11	18,557
15460.100	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 2" OD - NG	6,000.00	LF	21.06	126,375
15460.102	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 1-1/4" OD - NG	6,000.00	LF	14.47	86,826
15460.200	Valves and Accessories	1.00	LS	55,000.00	55,000
15470.100	Air Compressor, Reciprocating, Air-Cooled, Tank Mounted, Two Stage, 3 Phase, 105 CFM @ 125 PSI, 25 HP, 250 Gal. Tank	2.00	EA	14,100.00	28,200
15470.100	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD - CA	1,200.00	LF	10.64	12,764
15470.102	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	600.00	LF	14.02	8,409
15470.212	Compressed Air Outlet, Recessed Wall, Single	80.00	EA	123.75	9,900
15495.000	Kitchen Rough-In	2.00	LS	15,000.00	30,000
15495.004	Commissioning Support	1.00	LS	1,000.00	1,000
15495.004	Commissioning Support	1.00	LS	60,000.00	60,000
15495.006	Coordination & Management	1.00	LS	1,000.00	1,000
15495.006	Coordination & Management	1.00	LS	75,000.00	75,000
15495.008	Coring & Patching & Firestopping	1.00	LS	500.00	500
15495.008	Coring & Patching & Firestopping	1.00	LS	30,000.00	30,000
15495.010	Flushing & Sanitizing	1.00	LS	250.00	250
15495.010	Flushing & Sanitizing	1.00	LS	20,000.00	20,000
15495.018	Fees & Permits	1.00	LS	500.00	500
15495.018	Fees & Permits	1.00	LS	30,000.00	30,000
*** Total D20 - PLUMBING					2,728,183
** Total D20 - PLUMBING					2,728,183
D30 - HVAC					

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
D30 - HVAC					
15620.000	Custom, 20" High, Insulated Roof Curb	24.00	EA	1,200.00	28,800
15620.323	Outdoor, MAU, Indirect Gas-Fired (NG), Gravity Vent, SS Exchanger, 70degF Rise, 550 MBH Input	2.00	EA	18,086.92	36,174
15620.421	RTU 1-6, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 42.5 Ton Dx Cooling, 530 MBH Heating, Heat Wheel, 12000 CFM	6.00	EA	2,907.71	17,446
15620.422	RTU 7, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 17.5 Ton Dx Cooling, 200 MBH Heating, Heat Wheel, 4500 CFM	1.00	EA	2,907.71	2,908
15620.423	RTU 8, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 30 Ton Dx Cooling, 350 MBH Heating, Heat Wheel, 8000 CFM	1.00	EA	2,907.71	2,908
15620.424	RTU 9, 10, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 22 Ton Dx Cooling, 320 MBH Heating, 6500 CFM	2.00	EA	2,907.71	5,815
15620.425	RTU 11, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 7.5 Ton Dx Cooling, 130 MBH Heating, 2500 CFM	1.00	EA	2,907.71	2,908
15620.426	RTU 12, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 6.5 Ton Dx Cooling, 120 MBH Heating, 2000 CFM	1.00	EA	2,907.71	2,908
15620.427	RTU 13, 14, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 200 MBH Heating, 3200 CFM	2.00	EA	2,907.71	5,815
15620.428	RTU 15, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 35 Ton Dx Cooling, 480 MBH Heating, 10000 CFM	1.00	EA	2,907.71	2,908
15620.429	RTU 16, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 180 MBH Heating, 4000 CFM	1.00	EA	2,907.71	2,908
15620.430	RTU 17, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 15 Ton Dx Cooling, 200 MBH Heating, 3500 CFM	1.00	EA	2,907.71	2,908
15620.431	RTU 18, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 35 Ton Dx Cooling, 550 MBH Heating, Heat Wheel, 12500 CFM	1.00	EA	2,907.71	2,908
15620.432	RTU 19, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	2,907.71	2,908
15620.433	RTU 20, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	2,907.71	2,908
15620.434	RTU 21, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 200 MBH Heating, Heat Wheel, 3500 CFM	1.00	EA	2,907.71	2,908
15620.435	RTU 22, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 400 MBH Heating, Heat Wheel, 8000 CFM	1.00	EA	2,907.71	2,908
15620.436	RTU 23, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1.00	EA	2,907.71	2,908
15620.437	RTU 24, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6200 CFM	1.00	EA	2,907.71	2,908
15620.500	Daikin Rebel / Maverick II RTU's - VFD's, Extended Warranties	1.00	LS	1,100,000.00	1,100,000

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
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Estimator: KN, JS, JB, MT, MP
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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15624.003	Split System, Ductless, Cooling Only, Wall Mount, Single Zone, 1-1/2 Ton	5.00	EA	6,013.00	30,065
15630.220	Single Bathroom Exhaust Fan, 100 CFM	7.00	EA	403.45	2,824
15630.226	Bathroom Exhaust Fan, 1000 CFM	10.00	EA	1,680.56	16,806
15630.228	Exhaust Fan, 1500 CFM	3.00	EA	2,180.56	6,542
15630.416	Kitchen Exhaust Fan, Centrifugal, 4000 CFM	2.00	EA	4,215.33	8,431
15640.112	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 330 MBH Output	3.00	EA	10,214.00	30,642
15640.114	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 2500 MBH Output	4.00	EA	47,814.00	191,256
15650.002	Glycol Treatment System	1.00	LS	8,000.00	8,000
15651.005	Chiller, Air Cooled, High Efficiency, 50 Ton	1.00	EA	42,927.00	42,927
15660.000	Fume Hood, Fan, Ductwork	2.00	EA	5,500.00	11,000
15660.002	Vehicle Exhaust System, 2000 CFM	1.00	LS	15,000.00	15,000
15660.004	Vehicle Exhaust System, 5000 CFM	1.00	LS	25,000.00	25,000
15660.006	Paint Booth Exhaust System, 12000 CFM	1.00	LS	25,000.00	25,000
15660.008	Dust Collection System, 4000 CFM	1.00	LS	65,000.00	65,000
15660.010	Duct Collection System, 6000 CFM	1.00	LS	87,000.00	87,000
15660.202	Chilled Water Pump, Centrifugal, Base Mounted, End Suction, 105 gpm w/VFD	2.00	EA	4,096.31	8,193
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 100 gpm w/VFD	2.00	EA	3,994.33	7,989
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 680 gpm w/VFD	2.00	EA	17,994.33	35,989
15680.040	Displacement Ventilation System (per Classroom)	95.00	EA	1,250.00	118,750
15680.042	Sound Attenuator Device / Double Wall Ductwork (per RTU)	24.00	EA	2,500.00	60,000
15680.112	Galvanized Ductwork, > 5000 LB	252,000.00	LB	7.50	1,889,975
15684.102	Duct Insulation, Blanket Type, Fiberglass, FSK, 1.0Lb Density, 1-1/2" Thick	217,000.00	SF	2.53	549,661
15688.014	Gas Vent, Double Wall, Galvanized Steel, UL Listed, 12" Dia.	700.00	LF	48.66	34,064
15690.102	Fin Tube Radiation, Wall Hung, 14" Slope Top, 1-1/4" Cu Tube, 4-1/4" Aluminum Fin	3,630.00	LF	64.10	232,683
15691.004	Cabinet Unit Heater, Horizontal, Floor Mount, 60 MBH	32.00	EA	1,617.26	51,752
15691.312	Unit Heater, Hot Water, Horizontal, 47 MBH	17.00	EA	717.26	12,193
15692.210	Variable Air Volume Box, Pl, w/Damper, Actuator, T-Stat, 1000 CFM	125.00	EA	890.00	111,250
15699.000	Chilled Beam	640.00	LF	100.00	64,000
15700.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	22,000.00	LF	10.64	233,999
15700.112	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/2" OD	11,000.00	LF	22.40	246,362
15700.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	2,400.00	LF	62.36	149,656
15700.316	Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 4" OD	400.00	LF	45.02	18,010
15704.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	22,000.00	LF	3.96	87,175
15704.202	Fiberglass 1-1/2" Insulation With All Service Jacket 1-1/2" Pipe	11,000.00	LF	5.49	60,390
15704.308	Fiberglass 2" Insulation With All Service Jacket 3" Pipe	2,400.00	LF	8.10	19,428
15704.312	Fiberglass 2" Insulation With All Service Jacket 4" Pipe	400.00	LF	9.71	3,883
15705.004	Air Separator w/Strainer, 2-1/2" Dia.	1.00	EA	1,439.16	1,439

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15705.008	Air Separator w/Strainer, 4" Dia.	1.00	EA	3,098.60	3,099
15706.206	Expansion Tank, Steel, ASME, Rubber Diaphragm, 61 Gal. Accep. Vol.	1.00	EA	3,786.82	3,787
15706.214	Expansion Tank, Steel, ASME, Rubber Diaphragm, 211 Gal. Accep. Vol.	1.00	EA	6,573.73	6,574
15708.106	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 5/8"	1,000.00	LF	7.11	7,110
15708.112	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 1-1/8"	1,000.00	LF	10.84	10,840
15708.500	Valves & Accessories	1.00	LS	200,000.00	200,000
15780.000	DDC Controls	302,514.00	SF	5.50	1,663,827
15780.000	DDC Controls	2,000.00	SF	7.50	15,000
15780.010	CO2 Sensor	167.00	EA	85.00	14,195
15792.001	Air & Water Balance	304,514.00	SF	0.50	152,257
15801.501	Coordination & Management	1.00	LS	1,000.00	1,000
15801.501	Coordination & Management	1.00	LS	200,000.00	200,000
15801.502	Commissioning Support	1.00	LS	500.00	500
15801.502	Commissioning Support	1.00	LS	65,000.00	65,000
15801.503	Coring, Patching & Firestopping	1.00	LS	250.00	250
15801.503	Coring, Patching & Firestopping	1.00	LS	40,000.00	40,000
15801.504	Seismic Restraint	1.00	LS	500.00	500
15801.504	Seismic Restraint	1.00	LS	25,000.00	25,000
15801.505	Fees & Permits	1.00	LS	75,000.00	75,000
*** Total D30 - HVAC					8,281,029
** Total D30 - HVAC					8,281,029
D40 - FIRE PROTECTION					
D40 - FIRE PROTECTION					
15502.002	Fire Service Main - 6" Ductile Iron, Mech. Joint	150.00	LF	29.06	4,358
15502.024	6" Double Check Backflow Preventer W/OS&Y Valves, 4 Test Cocks	2.00	EA	5,847.73	11,695
15502.110	FDC - Two Way Siamese - 3x3x6	2.00	EA	1,541.40	3,083
15502.116	4" Zone Flow Control Valve W/Trim And Gauges	8.00	EA	6,009.14	48,073
15502.128	Tamper Switch	8.00	EA	153.65	1,229
15502.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.	8,860.00	LF	39.75	352,181
15502.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C.	17,770.00	LF	12.53	222,655
15502.226	Sprinkler Branch Sch 40 BS - 1-1/2" Threaded W/ Hangers 10 Ft O.C.	8,760.00	LF	16.39	143,576
15502.400	Sprinkler Heads - Standard Pendant, 1/2" NPT, 1/2" Orifice	2,670.00	EA	36.43	97,255
15505.006	2" Dry Pipe Valve With Trim And Gauges	1.00	EA	2,507.80	2,508
15505.012	30 Gal., 1 HP Comp Air Sys For Fire Protection	1.00	EA	1,093.23	1,093
15505.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C. - RR	115.00	LF	39.75	4,571
15505.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C. - RR	190.00	LF	12.53	2,381
15505.400	Sprinkler Heads - Standard Upright, 1/2" NPT, 1/2" Orifice - RR	20.00	EA	36.43	729
15525.004	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.	300.00	LF	39.75	11,925
15525.102	Fd Standpipe Angle Valve, 2-1/2", Brass, W/Wheel, Handle Chain And Cap	8.00	EA	287.34	2,299
15535.002	Coordination & Management	1.00	LS	20,000.00	20,000
15535.010	Hydraulic Calculations	1.00	LS	12,000.00	12,000
15535.016	Coring & Patching & Firestopping	1.00	LS	17,500.00	17,500
15535.024	Fees & Permits	1.00	LS	12,000.00	12,000
*** Total D40 - FIRE PROTECTION					971,111

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Unifomat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
** Total D40 - FIRE PROTECTION					971,111
D50 - ELECTRICAL					
D50 - ELECTRICAL					
16020.210	350 kW NG Emergency Generator w/Sound Attenuated Enclosure	1.00	EA	169,146.07	169,146
16020.212	Emergency Power Equipment and Distribution	302,514.00	SF	1.50	453,771
16020.010	Emergency Generator - Testing	1.00	LS	5,000.00	5,000
16030.000	4000 Amp Switchgear, 480/277V	1.00	EA	90,000.00	90,000
16030.004	Transformer / Primary / Conduit ** ALLOWANCE **	1.00	LS	50,000.00	50,000
16040.006	Panel Feeders	64.00	EA	2,500.00	160,000
16040.008	Primary Conduit Only - (1) 4"	800.00	LF	4.40	3,520
16040.010	Secondary Feeder - (8) 4" Conduits	800.00	LF	4.40	3,520
16040.011	Secondary Feeder - #600 MCM Conductor	3,200.00	LF	34.35	109,920
16040.060	Grounding/Bonding	1.00	LS	10,000.00	10,000
16040.200	20 KW UPS	2.00	EA	20,000.00	40,000
16040.218	Panel 277/480V 100A - Lighting	16.00	EA	1,664.44	26,631
16040.218	Panel 277/480V 100A - Mechanical	16.00	EA	1,664.44	26,631
16040.224	Panel 277/480V 400A - Distribution	16.00	EA	3,328.57	53,257
16040.228	Triple Tub Panel 120/208V 250 Amp	16.00	EA	9,795.00	156,720
16040.300	Transformer Dry Type, Three Phase, 30kVA	16.00	EA	4,928.89	78,862
16040.302	Transformer Dry Type, Three Phase, 75kVA	16.00	EA	7,194.29	115,109
16050.100	Branch Devices	304,514.00	SF	1.00	304,514
16050.102	Power and Branch Circuitry	302,514.00	SF	3.50	1,058,799
16060.414	RTU Feeder	24.00	EA	2,706.00	64,944
16060.416	Boiler Feeder	7.00	EA	1,401.75	9,812
16060.418	Pump Feeder	7.00	EA	1,965.75	13,760
16060.420	Chiller Feeder	1.00	EA	8,336.00	8,336
16080.008	2x4 Fluorescent - MER	30.00	EA	340.25	10,208
16080.010	Recessed LED's - Classrooms/Offices	1,316.00	EA	290.25	381,969
16080.012	Direct LED's - Gymnasium	20.00	EA	1,080.50	21,610
16080.014	Linear Indirect LED's - Corridor	500.00	EA	440.25	220,125
16080.016	Pendant Mount / Indirect Fluorescent - Cafeteria	58.00	EA	728.25	42,239
16080.018	2x2 LED Panels - Kitchen/Servery	36.00	EA	603.25	21,717
16080.020	Direct Recessed LED's - Library	36.00	EA	290.25	10,449
16080.022	Dimmable Fluorescent - Auditorium	70.00	EA	2,090.25	146,317
16080.024	Exterior Wall Mount - LED	42.00	EA	628.25	26,387
16080.026	Exterior Pole Fixture - Custom LED	35.00	EA	4,000.00	140,000
16080.030	Exterior Pendant - LED - RR	15.00	EA	628.25	9,424
16081.100	Lighting Circuitry	2,000.00	SF	1.25	2,500
16081.100	Lighting Circuitry	302,514.00	SF	2.00	605,028
16081.102	Lighting Controls	304,514.00	SF	1.25	380,642
16081.104	Lighting Controls & Panels - Testing	1.00	LS	1,000.00	1,000
16081.104	Lighting Controls & Panels - Testing	1.00	LS	25,000.00	25,000
16081.150	Stage Lights / Sound System / Dimmer Rack ** ALLOWANCE **	1.00	LS	375,000.00	375,000
16100.000	Sound System - Cafeteria	1.00	LS	20,000.00	20,000
16100.001	Sound System - Gymnasium	1.00	LS	20,000.00	20,000
16100.002	Sound System - Music Room	1.00	LS	10,000.00	10,000
16110.020	Bi-Directional Antennae	1.00	LS	50,000.00	50,000
16110.100	Tel/ Data/ CATV	304,514.00	SF	1.75	532,899
16170.100	Card Reader System - Head End Equipment	1.00	EA	9,000.00	9,000
16170.101	Card Readers - Swipes/Wires	25.00	EA	1,700.00	42,500
16180.000	Master Clock	304,514.00	SF	0.35	106,580
16180.001	Intercom	304,514.00	SF	0.60	182,708
16180.100	Communications - Testing	1.00	LS	20,000.00	20,000
16200.000	Security System - Head End Equipment	1.00	LS	35,000.00	35,000
16200.002	Fixed Interior CCTV Cameras	25.00	EA	3,000.00	75,000

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniforamt 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
16200.004	Pan-Tilt-Zoom Exterior CCTV Cameras	10.00	EA	5,000.00	50,000
16300.102	Fire Alarm	304,514.00	SF	1.50	456,771
16300.104	Fire Alarm Testing	1.00	LS	750.00	750
16300.104	Fire Alarm Testing	1.00	LS	7,500.00	7,500
16400.002	Lightning Protection	1.00	LS	30,000.00	30,000
16400.100	Commissioning	1.00	LS	60,000.00	60,000
16400.102	Firestopping	1.00	LS	20,000.00	20,000
16400.104	Identification	1.00	LS	7,500.00	7,500
16400.106	Seismic Restraint	1.00	LS	12,500.00	12,500
16400.108	Fees & Permits	1.00	LS	50,000.00	50,000
*** Total D50 - ELECTRICAL					7,230,576
** Total D50 - ELECTRICAL					7,230,576
E10 - EQUIPMENT					
E10 - EQUIPMENT, GENERALLY					
11160.034	12" Dock Seal - OH Doors	1.00	EA	1,585.04	1,585
11160.043	Rubber Dock Bumper 4 1/2"x14"x12"	2.00	EA	166.38	333
11480.006	OUTDOOR SCOREBOARDS - NOT INCLUDED				
11480.008	Gym Bleachers (One Side Only)	1.00	LS	25,000.00	25,000
11480.014	Gym Divider Curtain - Existing to remain		LF	160.00	
11480.020	Basketball Hoop - Existing to remain		EA	5,333.33	
11480.030	Volley Ball Net w/ Floor Inserts		EA	1,900.00	
11480.040	Score Board - Existing to remain		EA	8,500.00	
11480.060	Upgrade Motorized Retraction System for Existing Bleachers		LS	20,000.00	
11480.062	Plastic Telescoping Stands - Hussey Maxam 26 Motorized Bleachers		EA	110.00	
11480.065	Gym Wall Padding - 6' Ht	470.00	LF	100.00	47,000
11480.080	Temporarily Relocate Existing Bleachers for Floor Replacement	1.00	LS	20,000.00	20,000
11650.000	Stage Set Fastening Equipment - In Line set Allowance				
11651.000	Lecture Hall Tables - 18" X 5'		EA	1,085.15	
11653.000	Auditorium Seating - Quattro By Hussey Seating	800.00	EA	250.00	200,000
11654.000	Line Sets & Shell Allowance - Auditorium	1.00	LS	175,000.00	175,000
*** Total E10 - EQUIPMENT, GENERALLY					468,918
** Total E10 - EQUIPMENT					468,918
E20 - FURNISHINGS					
E2010 - FIXED FURNISHINGS					
10000.020	Smart Boards - N/A per HMFH		EA	2,677.73	
10100.004	Marker Board W/ Alum Trim - Classrooms & Labs	3,048.00	SF	15.63	47,648
10100.006	Tack Board W/O Trim	3,048.00	SF	8.32	25,348
12500.010	Hunter Douglas Roller Shades (50% of glazing)	21,376.00	SF	11.00	235,136
*** Total E2010 - FIXED FURNISHINGS					308,132
** Total E20 - FURNISHINGS					308,132
F10 - SPECIAL CONSTRUCTION					
F10 - SPECIAL CONSTRUCTION					
2100.022	50' Riding Ring w/ Fence (Roof in B10)	1.00	LS	10,000.00	10,000
2220.330	Crushed Stone Under Slab - Kennel	20.00	CY	37.51	750
2220.332	4" SOG - Kennel	400.00	SF	7.71	3,084
2720.115	Chain Link Fence - Vinyl Coated 6' H - Kennel (10' x 10')	120.00	LF	22.00	2,640
2760.100	Tennis Court	6.00	EA	40,000.00	240,000
2762.110	Baseball Field (Includes new drainage system)	1.00	EA	150,000.00	150,000

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
2762.115	Soccer Field Overlapping Baseball Field (Includes new drainage system)	1.00	EA	200,000.00	200,000
*** Total F10 - SPECIAL CONSTRUCTION					606,474
** Total F10 - SPECIAL CONSTRUCTION					606,474
F20 - SELECTIVE BUILDING DEMOLITION					
F2010 - BUILDING ELEMENTS DEMOLITION					
2022.100	Mass Demolition - High School	270,000.00	SF	6.00	1,620,000
2032.310	Demo Entrance Canopy	4,600.00	SF	0.68	3,129
*** Total F2010 - BUILDING ELEMENTS DEMO					1,623,129
** Total F20 - SELECTIVE BUILDING DEMOLIT					1,623,129
G10 - SITE PREPARATION					
G1020 - SITE DEMOLITION					
2013.240	Demo Bit Conc Pvmt - Large Area	230,562.00	SF	0.16	37,927
2013.240	Demo Bit Conc Pvmt - Large Area (For Animal Barn)	6,000.00	SF	0.16	987
2013.280	Demo Conc Walk	11,800.00	SF	0.63	7,414
*** Total G1020 - SITE DEMOLITION					46,328
G1030 - EARTHWORK					
2110.290	Misc Erosion Control	1.00	LS	60,000.00	60,000
2110.306	Site Access/Laydown	1.00	LS	35,000.00	35,000
2200.130	Site Excavation	20,000.00	CY	12.13	242,550
2200.160	Site Fill From Borrow (Demolished Wing) - FFE to be lowered to further balance site	20,000.00	CY	3.17	63,382
2200.905	Granular Fill (M) (Demolished Wing)	20,000.00	CY	10.00	200,000
2300.155	Dewatering	1.00	LS	40,000.00	40,000
*** Total G1030 - EARTHWORK					640,932
** Total G10 - SITE PREPARATION					687,260
G20 - SITE IMPROVEMENTS					
G2010 - SITE PAVING					
2600.050	Compact Road Subgrade	29,319.22	SY	0.23	6,790
2600.060	Fine Grade Road Subgrade	29,319.22	SY	1.04	30,551
2600.075	Stabilization Fabric-Medium	33,717.11	SY	1.31	44,068
2600.130	Install Road Base (L)	20,523.46	CY	3.96	81,300
2600.136	Base - Crushed Gravel (M)	20,523.46	CY	16.00	328,375
2600.200	Added 2" for Heavy Duty Paving - Lot C (33,891 SF)	418.00	TONS	110.00	45,980
2600.200	Bituminous Concrete P3.96g (4")	6,455.39	TON	95.00	613,262
2600.201	29319.22	1.00	EACH		
2600.210	**Paved Area**	58,195.11	SY		
2610.002	Grading For Curbs	4,500.00	LF	2.68	12,060
2610.060	Concrete Curbs 6" X 18"	4,500.00	LF	12.00	54,000
2610.175	4" Concrete Sidewalk	11,000.00	SF	3.00	33,000
*** Total G2010 - SITE PAVING					1,249,386
G2050 - LANDSCAPING					
2710.200	Landscaping	1.00	LS	150,000.00	150,000
2710.250	Landscaping - Courtyard	1.00	LS	150,000.00	150,000
5520.060	Steel Handrail - Site Retaining Wall	405.00	LF	62.21	25,195
10000.010	Flag Pole	1.00	EA	2,277.73	2,278
*** Total G2050 - LANDSCAPING					327,473
** Total G20 - SITE IMPROVEMENTS					1,576,859
G30 - SITE UTILITIES					
G3010 - SITE UTILITIES					
2500.790	Storm Drainage Line	4,000.00	LF	44.08	176,320
2510.507	4' Dia PC Catch Basin	40.00	EA	3,469.33	138,773
2540.110	Water Line	300.00	LF	54.08	16,224

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
2540.114	Sanitary Sewer	300.00	LF	52.08	15,624
2540.118	Prim/Sec Electrical/Telcom Trenching	300.00	LF	32.08	9,624
2540.122	Natural Gas Trenching	350.00	LF	32.08	11,228
2540.128	Alter Underdrain at existing ball field for new addition	1.00	LS	10,000.00	10,000
2540.130	Alter Underdrain at existing lacrosse field at north side of building due to const access	1.00	LS	10,000.00	10,000
2580.110	Elec Trench-Direct Burial (Site Lighting)	5,100.00	LF	8.04	41,004
2580.120	Elec Trench-Duct Bank (Secondary/Primary Under Roads)	140.00	LF	12.32	1,725
2580.130	Elec Ductbank Forms	560.00	SF	4.42	2,473
2580.140	Elec Ductbank Concrete	48.53	CY	121.08	5,876
2580.300	Grease Interceptor, Steel, 50 GPM, 100 LB Fat Capacity	1.00	EA	9,962.60	9,963
2580.302	Grease Interceptor, Steel, 250 GPM, 500 LB Fat Capacity	1.00	EA	26,096.32	26,096
*** Total G3010 - SITE UTILITIES					474,931
** Total G30 - SITE UTILITIES					474,931
Z10 - GENERAL					
Z1010 - GENERAL CONDITIONS					
0080.100	***DESIGN & ENGINEERING FEES BY CITY OF DOVER***				
0100.000	Mobilize / Demobilize	1.00	LS	28,000.00	28,000
0100.020	Office Supplies	155.00	WK	275.00	42,625
0100.030	Office Furniture / Systems	1.00	LS	48,000.00	48,000
0100.040	Engineer's Furniture / Equipment - N/A		LS		
0100.041	Engineer's Computer / Software - N/A		LS		
0100.045	Project Kiosk 30" - Purchase	4.00	EA	5,000.00	20,000
0100.060	Janitorial Services	155.00	WK	150.00	23,250
0100.064	Temporary Wiring	1.00	LS	3,000.00	3,000
0100.065	Electrical Energy Costs	35.00	MO	350.00	12,250
0100.066	Water Usage Costs	35.00	MO	200.00	7,000
0100.100	Telephone / Communication	35.00	MO	1,000.00	35,000
0100.110	Sanitary / Facilities	35.00	MO	1,500.00	52,500
0110.080	Security / Watchman		WK		
0110.120	Photographs		MO		
0110.160	Documents & Reproductions	1.00	LS	15,000.00	15,000
0120.002	Estimating - GMP	1.00	LS	50,000.00	50,000
0120.003	Officer in Charge		MW	7,000.00	
0120.005	Construction Executive	15.00	MW	5,400.00	81,000
0120.008	Senior Project Manager	56.00	MW	4,720.00	264,320
0120.010	Project Manager	128.00	MW	3,800.00	486,400
0120.018	Senior Project Engineer		MW	2,880.00	
0120.020	Project Engineer	155.00	MW	2,400.00	372,000
0120.022	Office Engineer	115.00	MW	1,920.00	220,800
0120.024	Senior Superintendent	137.00	MW	4,720.00	646,640
0120.025	Project Superintendent	149.00	MW	3,720.00	554,280
0120.034	Construction Coordination - SCP	37.00	MW	2,400.00	88,800
0120.050	Scheduling Engineer		MW	2,280.00	
0120.058	Safety Manager		MW	3,720.00	
0120.060	Safety Engineer (2 Days/Week)	62.00	MW	2,280.00	141,360
0120.220	Administration	132.00	MW	1,720.00	227,040
0130.000	Living Allowance - Management	310.00	MWK	300.00	93,000
0130.005	Living Allowance - Foremen		MWK	125.00	
0130.020	Travel and Expenses	35.00	MO	600.00	21,000
0140.000	Scheduling	1.00	WK	2,280.00	2,280
0140.200	Permit's & Fee's		LS		
0140.205	Building Permit		LS		
0140.300	Design (Means & Methods)		LS		

Schematic Design Estimate Option 3: All New Construction



CONSTRUCTION

Job #: 15027
 Project Size: 304,514 SF
 Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
 Group 1: School Options
 Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
0140.800	Professional Services		LS		
0150.200	Equipment Trucking		WK		
0150.250	Off - Site Parking		WK		
0150.500	Personnel Elevator		MO		
0150.520	Field Office	35.00	TM	1,200.00	42,000
0150.540	Engineer / Architect Office		TM	400.00	
0150.560	Storage Trailers (2 Trailers)	70.00	TM	150.00	10,500
0160.300	Sub Bonds (Include w/ Subs)		LS		
0180.010	Gross Receipts Tax		LS		
0180.020	Sales Tax		LS		
*** Total Z1010 - GENERAL CONDITIONS					3,588,045
Z1020 - GENERAL REQUIREMENTS					
0200.010	Materials Testing		LS		
0200.040	Snow Removal	1.00	LS	40,000.00	40,000
0200.110	Field Engineering	4.00	WK	5,000.00	20,000
0200.140	Temporary GWB Partitions	2,000.00	SF	7.80	15,600
0200.160	ICRA / ILSM - N/A		LS		
0200.180	Scaffolding - In COW		LS		
0200.200	OSHA / First Aid	155.00	WK	771.89	119,643
0200.300	Material Handling	155.00	WK	940.00	145,700
0200.310	Cranes - In COW		CM		
0200.320	Progress Cleanup (Labor & Dumpster)	155.00	WK	707.04	109,591
0200.360	Final Cleanup	304,514.00	SF	0.45	137,031
0200.400	Temporary Heat	1.00	LS	175,000.00	175,000
0200.410	Temporary Enclosure	1.00	LS	150,000.00	150,000
0200.970	Support Equipment		LS		
*** Total Z1020 - GENERAL REQUIREMENTS					912,566
** Total Z10 - GENERAL					4,500,611
Z20 - MAJOR CUSTOM PROGRAM ELEMENTS					
Z2010 - MAJOR CUSTOM PROGRAM ELEMENTS					
0060.002	Precon Services - N/A (Included under separate contract)		LS	96,000.00	
2032.500	Asbestos Abatement Contract	1.00	LS	1,300,000.00	1,300,000
2032.505	Asbestos Abatement - 5% Increase per year	1.00	LS	359,166.00	359,166
2762.100	Replace existing football field with turf	1.00	LS	750,000.00	750,000
11400.001	Kitchen Equipment	3,386.00	SF	150.00	507,900
*** Total Z2010 - MAJOR CUSTOM PROGRAM					2,917,066
** Total Z20 - MAJOR CUSTOM PROGRAM EL					2,917,066
* Total Option 3 - All New Construction					65,565,715
Total Gross Cost					65,565,715



Dover High School - Option #3 - New Construction - Estimate Comparison

		PC	PM&C	Cost Variance
High School Total		\$71,593,411	\$75,210,418	\$3,617,007
A1010	Standard Foundations	\$1,478,583	\$2,798,096	\$1,319,513
A1020	Special Foundations	\$1,622,007		-\$1,622,007
A1030	Lowest Floor Construction	\$1,601,208	\$1,264,280	-\$336,928
B1010	Floor Construction	\$7,351,995	\$3,796,200	-\$3,555,795
B1020	Roof Construction	\$1,012,718	\$4,197,862	\$3,185,144
B2010	Exterior Walls	\$4,419,107	\$3,457,843	-\$961,264
B2020	Windows	\$3,212,475	\$2,469,971	-\$742,504
B2030	Exterior Doors	\$142,812	\$149,383	\$6,571
B3010/3020	Roof Coverings & Openings	\$1,886,518	\$2,047,146	\$160,628
C1010	Partitions	\$2,282,122	\$3,503,210	\$1,221,088
C1020	Interior Doors	\$810,180	\$867,922	\$57,742
C1030	Specialties / Millwork	\$2,286,264	\$2,177,814	-\$108,450
C2010	Stair Construction	\$362,660	\$192,500	-\$170,160
C3010	Wall Finishes	\$1,211,496	\$1,035,248	-\$176,248
C3020	Floor Finishes	\$2,044,553	\$2,133,640	\$89,087
C3030	Ceiling Finishes	\$1,213,486	\$1,319,365	\$105,879
D1010	Elevator	\$253,253	\$192,800	-\$60,453
D2010	Plumbing	\$2,728,183	\$2,812,133	\$83,950
D3010	HVAC	\$8,281,029	\$8,024,600	-\$256,429
D4010	Fire Protection	\$971,111	\$1,036,049	\$64,938
D5010	Electrical	\$7,230,576	\$8,082,036	\$851,460
E1010	Equipment, Generally	\$468,918	\$960,800	\$491,882
E2010	Fixed Furnishings	\$308,132	\$202,770	-\$105,362
F10	Special Construction	\$606,474	\$425,000	-\$181,474
F2010	Building Elements Demolition	\$1,623,129		-\$1,623,129
G1020/1030	Site Demolition & Earthwork	\$687,260	\$6,778,594	\$6,091,334
G2010	Site Paving	\$1,249,386		-\$1,249,386
G2050	Landscaping	\$327,473		-\$327,473
G3010	Site Utilities	\$474,931		-\$474,931
Z1010	General Conditions	\$3,588,045	\$3,240,000	-\$348,045
Z1020	General Requirements	\$912,566	\$1,965,331	\$1,052,765
Z2010	Major Custom Program Elements	\$2,917,066	\$1,300,000	-\$1,617,066
Option #3 Total Direct Cost		\$65,565,716	\$66,430,593	\$864,877



Dover High School - Option #3 - New Construction - Estimate Comparison

Labor and Material Escalation	\$0	\$0	\$0
Builders Risk Insurance	\$48,893		-\$48,893
Liability Insurance	\$536,948	\$543,742	\$6,794
Construction Manager's Contingency (PC @ 5%)	\$3,278,286	\$6,251,099	\$2,972,813
P & P Bond	\$417,387	\$347,208	-\$70,179
CM Fee (2.5%)	\$1,746,181	\$1,637,776	-\$108,405
Option #3 Total Indirect Cost	\$6,027,695	\$8,779,825	\$2,752,130
Option #3 Total Gross Cost	\$71,593,411	\$75,210,418	\$3,617,007

SCOPE OF WORK CLARIFICATIONS

A10 - FOUNDATIONS

A1010.00 - Standard Foundations

- Includes:
 - A. 8" x 16" continuous concrete footing with an 8" x 5'-0" high frost wall at barn addition.
 - B. 1'-0" x 2'-0" continuous concrete footings, 1'-0" x 5'-0" high frost walls with 1'-0" x 3'-0" grade beams at CTC building.
 - C. 1'-0" x 3'-0" grade beams in the 1967 wing where new micro piles are to be installed.
 - D. 18" x 4'-0" concrete piers with 2'-0" x 2'-0" x 1'-0" footings at new riding ring.
 - E. Concrete to be 3,000 PSI.
 - F. Pumping as necessary for all cast-in-place concrete work.
 - G. Excavation for the foundation work mentioned above includes backfilling with borrowed crushed stone on inner side of frost walls and on-site material for outer side of wall.
 - H. Damp-proofing and 2" rigid insulation at all frost walls.
- Excludes:
 - A. Foundation work at existing high school.

A1020.00 - Special Foundations

- Includes:
 - A. H-piles at the new CTC building.
 - B. Drilled micro piles at the existing 1967 wing to support 12 existing columns that are to be structurally reinforced along with shoring of the structure above.

A1030.00 - Lowest Floor Construction

- Includes:
 - A. 5" slab-on-grade, 2" rigid insulation, 15 mil stego wrap and 8" subbase at barn addition.
 - B. 10" slab-on-grade, 15 mil stego wrap and 8" subbase at new CTC building.
 - C. A 10" slab-on-grade in the 1967 wing at location of micro piles.
 - D. Existing auditorium floor slab to be modified for ADA compliance.

B10 - SUPERSTRUCTURE

B1010.00 - Floor Construction

- Includes:
 - A. 1967 wing to receive steel structure reinforcing at 12 existing columns for 3 stories.
 - B. Existing structural steel members and roof deck to receive spray fireproofing.
- Excludes:
 - A. Intumescent paint.

B. Fireproofing at CTC building, barn and riding ring.

B1020.00 - Roof Construction

- Includes:
 - A. Steel joists with 1-1/2" metal deck at the CTC building.
 - B. The barn addition roof structure is to include 6:12 pitch wood trusses with 5/8" OSB roof sheathing.
 - C. A wood-framed pavilion canopy at the riding ring.
 - D. One new entrance canopy at the high school.
- Excludes:
 - A. Reconfiguration of existing high school roof structure.

B20 – EXTERIOR CLOSURE

B2010.00 – Exterior Walls

- Includes:
 - A. 10" CMU, metal stud backup, air infiltration barrier, 3" spray foam and a brick veneer at new CTC building. The inner side of partition is abuse-resistant drywall.
 - B. Wood stud framing with T&G red cedar siding at barn addition.
 - C. Existing high school building exterior partitions are to remain and will receive 3" spray foam insulation.
 - D. 15,000 SF of repointing/repairing of existing masonry veneer.
 - E. 5/8" taped drywall and poly vapor barrier to be applied to existing exterior wall framing.

B2020.00 - Windows

- Includes:
 - A. Replace curtain wall and punched windows at high school.
 - B. 4'-0" x 8'-0" storefront windows at the CTC building.
 - C. Aluminum/vinyl clad windows at the barn addition.

B2030.00 – Exterior Doors

- Includes:
 - A. Wood sliding barn doors and 3070 HM doors at barn addition.
 - B. Coiling overhead doors and 3070 HM doors at CTC building.
 - C. New exterior doors at existing high school along with coiling overhead doors at loading dock and woodshop area.

B30 – ROOFING

B3010.00 – Roof Coverings

- Includes:
 - A. Asphalt shingle roof with 12" batt insulation at barn addition.
 - B. Thermoplastic membrane roof with break metal coping at CTC building.
 - C. Existing high school to receive a new thermoplastic membrane roof with break metal coping.

C10 – INTERIOR CONSTRUCTION

C1010.00 – Partitions

- Includes:
 - A. Due to the overall layout of the high school corridors and classrooms being unchanged, 50% of existing partitions are to be replaced with new metal stud interior partition framing with 5/8" gypsum wallboard.
 - B. Fiberglass sound attenuation batt and acoustical caulking at interior partitions.
 - C. Level 4 drywall finish at visible surfaces; level 1 finish at non-visible surfaces.
 - D. Gypsum-based tile backer at wall surfaces to receive tile finish.
 - E. Fire & smoke-rated partitions as required.
- Excludes:
 - A. Partitions at future classroom space.

C1020.00 - Doors

- Includes:
 - A. Replace existing interior doors.
 - B. Hollow metal doors and frames at storage and mechanical areas.
 - C. Solid-core wood veneer doors with hollow metal frames at all other locations.
 - D. Interior borrowed sidelights at classrooms and laboratories.
 - E. Panic hardware as required.

C1030.00 – Specialties/Millwork

- Includes:
 - A. 6'-0" full-height cabinets, 8'-0" of base cabinets with solid surface top and 8'-0" of wall cabinets at classrooms.
 - B. Solid surface cabinets with epoxy resin counter tops at science labs.
 - C. Wood cubbies at mailroom.
 - D. Library front desk.
 - E. Admin/Guidance front desks.
 - F. Wall-mounted solid surface countertops at all restrooms.
 - G. Locker room benches.
 - H. FRP wall panels at kitchen and janitorial areas.
 - I. Phenolic toilet compartments and urinal screens.
 - J. Toilet room grab bars and mirrors.

- K. Toilet paper dispensers, surface-mount waste receptacle, soap dispenser and hand dryers at restrooms.
- L. Fire extinguishers and cabinets.
- M. Glass shower door and folding shower seat.
- N. An allowance of \$40,000 for trophy and display cases.
- O. Custodial and student lockers to be painted metal.

C20 – STAIRCASES

C2010.00 – Stair Construction

- Includes:
 - A. Existing stairs to receive new wall and hand railings to meet code.
 - B. Existing stair framing to remain as is.

C30 – INTERIOR FINISHES

C3010.00 – Wall Finishes

- Includes:
 - A. Ceramic tile wainscoting to 5'-0" AFF in toilet rooms.
 - B. Ceramic tile wainscoting to 5'-0" AFF at corridors.
 - C. Ceramic tile wainscoting to 5'-0" AFF at stairwells.
 - D. Wood wall paneling in auditorium.
 - E. Painted gypsum board in remainder of areas (except future classroom space).

C3020.00 – Floor Finishes

- Includes:
 - A. Carpet tile with rubber base at administrative offices.
 - B. Wood floor with wood base at gym and stage.
 - C. Linoleum and rubber base at classrooms and corridors.
 - D. Quarry tile and base at main kitchen and CTC kitchen.
 - E. Carpeted aisles and sealed concrete at auditorium.
 - F. Carpet tile walk-off mats and rubber base at vestibules.
 - G. Porcelain tile and base at CTC restaurant.
 - H. Ceramic mosaic tile with tile base at toilet rooms and locker rooms.
 - I. Sealed concrete and rubber base at CTC Automotive & Building Technology classrooms, mechanical rooms and custodial rooms.
 - J. Rubber-covered treads, risers and landings at metal pan stairs.

C3030.00 – Ceiling Finishes

- Includes:

- A. Acoustical ceiling tile and grid at classrooms, corridors and administrative offices.
- B. Acoustical ceiling tile and grid appropriate for food production at kitchens.
- C. 2" Tectum panels at gym (included at half of total square footage).
- D. Wood acoustical clouds suspended at auditorium.
- E. Suspended gypsum ceilings, painted at toilet and locker rooms.
- F. Painted finish at exposed structure – stage, CTC Automotive & Building Technology.
- Excludes:
 - A. Ceilings/finish in mechanical, electrical and custodial rooms.
 - B. Ceilings/finish in future classroom space.

D10 – CONVEYING SYSTEMS

D1010.00 – Elevators

- Includes:
 - A. Installation of new concrete elevator pit within existing structure.
 - B. New two-story hydraulic elevator.
 - C. Existing elevators are to remain as is.

D20 – PLUMBING SYSTEMS

C2010.00 – Plumbing

- Includes:
 - A. New water service (4") with backflow protection to Animal Science and Building Technology.
 - B. Domestic hot and cold water distributed to all plumbing fixtures.
 - C. New storm drain piping and roof drains on new roofs only.
 - D. Air compressor for Technology building.
 - E. Gas distribution piping.
 - F. Rough-in for 10 salon sinks.
 - G. 38 small laboratory sinks.
 - H. 50 quick-connect compressed air outlets.
 - I. Plumbing rough-in and connections.
 - J. Cleaning, testing and adjusting of plumbing systems.
 - K. Seismic restraints at piping to meet codes.
 - L. Firestopping at pipe penetrations.
- Excludes:
 - A. Specialized plumbing equipment.
 - B. Bathroom lavatories (assumed to be solid surface integral sinks – carried in Division 6).
 - C. New roof drains on renovation work.
 - D. Kitchen equipment and/or fixtures.

- E. Salon fixtures.
- F. New underground sanitary waste in the existing high school.
- G. New water service to existing high school.
- H. New natural gas service, meter or regulator.

D30 – HVAC SYSTEMS

D3010.00 – HVAC

- Includes:
 - A. (1) 100-ton, air-cooled chiller.
 - B. (33) Rooftop HVAC units.
 - C. (2) Indoor AHUs.
 - D. 100% make-up air units and kitchen hood exhaust fans for Kitchen/Culinary.
 - E. (8) Ductless mini-splits.
 - F. (2) Kitchen exhaust fans.
 - G. (4) 3000 MBH condensing NG boilers.
 - H. (6) 330 MBH NG boilers.
 - I. Hot and chilled water pumps.
 - J. (2) Fume hoods with exhaust fans.
 - K. (2) Vehicle exhaust systems.
 - L. (2) Dust collection systems.
 - M. (1) Paint booth exhaust system.
 - N. Final cleaning of ductwork systems.
 - O. Direct digital controls (DDC) to monitor building temperature.
 - P. Testing, adjusting and balancing with documentation of all HVAC systems.
 - Q. Seismic restraints at piping and ductwork systems to meet codes.
 - R. Firestopping at pipe and ductwork penetrations.
- Excludes:
 - A. RTUs for modular classrooms (assume they come equipped).
 - B. Specialty kitchen equipment.
 - C. Kitchen exhaust hood(s).

D40 – FIRE PROTECTION SYSTEMS

D4010.00 – Fire Protection

- Includes:
 - A. New water service entrances (6") for Animal Science building and new Technical Center (Building Technology, Auto Collision and Auto Technology), including backflow prevention devices.

- B. Existing main water service entrance to be reused for main high school. Existing backflow preventer to be reused.
- C. Main piping is Schedule 40 grooved, steel pipe. Branch piping is Schedule 40 threaded, steel pipe.
- D. Dry pendant sprinkler heads at small exterior canopies, extended from the wet-based distribution system.
- E. Fire Department connections for new buildings (2). Existing FDC(s) at main high school to remain.
- F. Temporary water service to modular classrooms to connect to pre-plumbed sprinkler distribution system.
- G. Dry sprinkler system to 50-foot diameter horse-riding ring.
- H. Seismic restraints at piping to meet codes.
- I. Firestopping at pipe penetrations.
- Excludes:
 - A. Fire pump(s)
 - B. Ansul or specialty systems for protection of kitchen equipment.
 - C. Sprinkler piping/heads for modular classrooms(s).

D50 – ELECTRICAL

D5010.00 – Electrical

- Includes:
 - A. An allowance for electrical primary conductors and transformers.
 - B. 800 linear feet for primary length.
 - C. 100 linear feet for secondary service, 4'-0" x 2'-0" duct bank w/(4) sets of #600 MCM conductors in each.
 - D. Temporary electrical service to modular classrooms – assume a single connection point.
 - E. Security system.
 - F. Site lighting pole fixtures for every 7500 sf of new parking lot/roadways.
 - G. Interior lighting as described.
 - H. Lighting controls.
 - I. (2) 20kw UPS systems.
 - J. A lighting/sound/dimmer system allowance for Auditorium lighting.
 - K. A sound system for the cafeteria and gymnasium.
 - L. Tel/com system with cabling, devices and equipment.
 - M. Fire alarm system.
 - N. 300 kW NG generator with a sound-attenuated exterior enclosure.
 - O. Security card reader system.
 - P. Sealing and firestopping.
 - Q. Lightning protection.
 - R. Master clock/PA system.

- Excludes:
 - A. Nurse call system.
 - B. Lighting fixtures, power receptacles for modular classrooms.

E10 – EQUIPMENT

E1010.00 – Equipment

- Includes:
 - A. Loading dock bumpers and seals.
 - B. Newer gym bleachers on one side of gym are to be salvaged and the other side is to receive new bleachers.
 - C. 6'-0" high wall padding in gym.
 - D. Auditorium seating is to be replaced with 800 new seats.
 - E. An allowance of \$175,000 for new line sets & shell in the auditorium.

E20 – FURNISHINGS

E2010.00 – Fixed Furnishings

- Includes:
 - A. Marker boards and tack boards as noted in estimate.
 - B. Manual roller shades at 50% of glass openings.

F10 – SPECIAL CONSTRUCTION

F1010.00 – Special Construction

- Includes:
 - A. Round 50'-0" riding ring with a wood canopy and asphalt shingles.
 - B. (4) 10'-0"x 10'-0" kennels with chain link fence over a 4" slab-on-grade.

F20 – SELECTIVE BUILDING DEMOLITION

F2010.00 – Building Elements Demolition

- Includes:
 - A. Demolishing existing grade beams, pile caps and slab-on-grade to support micro pile scope of work.
 - B. Stripping existing building of finishes, non-load bearing partitions and MEP systems.
 - C. Removing roof membrane and curtain wall.

G10 – SITE PREPARATION

G1020.00- Site Demolition

- Includes:
 - A. Removing all existing asphalt paving and walkways.

G1030.00- Earthwork

- Includes:
 - A. Clearing and grubbing.
 - B. Stockpiling of topsoil for reuse on site as required, if suitable.
 - C. Removing excess topsoil and/or reuse on site as site fill material.
 - D. Stockpiling and seeding of excess topsoil on site for the Owner's use.
 - E. Installation, maintenance and removal of erosion control.
 - F. Installation, maintenance and removal of temporary access road(s).
 - G. Inlet protection.

G2010.00- Site Paving

- Includes:
 - A. New asphalt paving at parking lots and road along Alumni Drive.
 - B. Heavy-duty paving at Lot C.
 - C. Pavement striping within interior and exterior parking areas.
 - D. Roadway and parking signage as described in the estimate.
 - E. Concrete walkways consisting of 4" cast-in-place concrete over 8" of crushed gravel base on a compacted subgrade.
 - F. Temporary asphalt walkways.

G2050.00- Landscaping

- Includes:
 - A. \$120,000 landscaping allowance.

G30 – SITE UTILITIES

G3010.00- Site Utilities

- Includes:
 - A. Water, sanitary and secondary power utilities to service CTC building and modular classrooms.
 - B. Minor storm catch basin modifications for new site paving.
 - C. Concrete duct bank at secondary electrical trenching.
 - D. New site lighting throughout.
 - E. Two grease interceptors to serve high school kitchen and CTC kitchen.
 - F. Existing utilities to high school are assumed to be sized adequately and to remain as is.

Z10 – GENERAL

Z1010.00- General Conditions

This estimate is based on a 76-month construction schedule.

- A. Builder's Risk insurance is included; loss of use is excluded.
- B. A Performance and Payment Bond has been included.
- C. Consumption costs for steam, electrical energy and water are to be provided by Owner.
- D. Our Schematic Design, Design Development and Construction Document Estimates include a Construction Manager estimating contingency. As the design progresses and the project approaches construction, the contingency will be reduced accordingly.
- E. The following items are excluded:
 - a. Sales tax.
 - b. Third-party commissioning for MEP systems, automation controls, building and building envelope.
 - c. Owner's Protective insurance.
 - d. Impact fees at the Federal, State or local level.
 - e. All permits apart from trade-specific permits.
 - f. Design fees.
 - g. All fixtures, furniture and equipment.
 - h. Owner's contingency.
 - i. Design contingency.
 - j. Residential appliances.

SCOPE OF WORK CLARIFICATIONS

A10 - FOUNDATIONS

A1010.00 - Standard Foundations

- Includes:
 - A. 1'-0" x 5'-0" Continuous concrete footing with 1'-0" x 13'-0" high site retaining wall.
 - B. 1'-0" x 3'-0" Continuous concrete footing with 1'-0" x 5'-0" high stepped frost wall at addition.
 - C. 3'-0" x 3'-0" x 1'-0" Isolated footings on a 30'-0" grid spacing at addition.
 - D. 1'-0" x 3'-0" Grade beams at H piles.
 - E. 8" x 16" Continuous concrete footing with an 8" x 5'-0" high frost wall at barn addition.
 - B. 18" x 4'-0" Concrete piers with 2'-0" x 2'-0" x 1'-0" footings at new riding ring.
 - C. Installing two new elevator pits in the existing high school.
 - D. Concrete to be 3,000 PSI.
 - E. Pumping as necessary for all cast-in-place concrete work.
 - F. Excavation for the foundation work mentioned above includes backfilling with borrowed crushed stone on inner side of frost walls and on-site material for outer side of wall.
 - G. Damp-proofing and 2" rigid insulation at all frost walls.

A1020.00 - Special Foundations

- Includes:
 - A. H-piles at the location adjacent to the gym/auditorium under the new addition.
 - B. Aggregate piers located at the northeast corner of the addition.

A1030.00 - Lowest Floor Construction

- Includes:
 - A. 5" slab-on-grade, 2" rigid insulation, 15 mil stego wrap and 8" subbase at barn addition.
 - B. A 10" slab on grade at areas receiving H piles or aggregate piers; all other areas are 4".
 - C. Modifying existing auditorium floor slab for ADA compliance.

B10 - SUPERSTRUCTURE

B1010.00 - Floor Construction

- Includes:
 - A. 5-1/2" Concrete slab over 2" painted steel deck at new addition.
 - B. Structural steel tonnage calculated based on 12 lbs/sf.
 - C. Spray fireproofing for all new structural steel members and roof deck.
- Excludes:
 - A. Fireproofing of the existing structure.

- B. Intumescent paint.
- C. Fireproofing at the barn and riding ring.

B1020.00 - Roof Construction

- Includes:
 - A. Steel joists with 1-1/2" metal deck at the CTC garage areas, gym and auditorium.
 - B. The barn addition roof structure is to include 6:12 pitch wood trusses with 5/8" OSB roof sheathing.
 - C. Wood-framed pavilion canopy at riding ring.
 - D. Two new entrance canopies at the high school.
 - E. Pitched, steel roof framing at new addition.
- Excludes:
 - A. Modifications to existing high school roof.

B20 – EXTERIOR CLOSURE

B2010.00 – Exterior Walls

- Includes:
 - A. Wood stud framing with T&G red cedar siding at barn addition.
 - B. Existing high school building exterior partitions are to remain and will receive 3" spray foam insulation.
 - C. 5,000 sf of repointing/repairing of existing masonry veneer.
 - D. 5/8" Taped drywall and poly vapor barrier to be applied to existing exterior wall framing.
 - E. Addition and existing building exterior walls to receive 6" light-gauge steel studs with 5/8" densglass, 3" spray foam, fluid-applied air barrier and 5/8" drywall.
 - F. Addition to receive brick veneer at 70% of envelope; precast elements have not been included.

B2020.00 - Windows

- Includes:
 - A. Replacing curtain wall and punched windows at high school.
 - B. Aluminum/vinyl clad windows at the barn addition.
 - C. 30% of addition exterior wall will be curtain wall.

B2030.00 – Exterior Doors

- Includes:
 - A. Wood sliding barn doors and 3070 HM doors at barn addition.
 - B. Coiling overhead doors and 3070 HM doors at CTC areas.
 - C. All new exterior doors at existing high school along with coiling overhead doors at loading dock and woodshop area.

- D. New addition to receive hollow metal door/ frames at storage and mechanical areas. Main entry to be storefront.

B30 – ROOFING

B3010.00 – Roof Coverings

- Includes:
 - A. Asphalt shingle roof with 12" batt insulation at barn addition.
 - B. Thermoplastic membrane roof with break metal coping at new additions.
 - C. Existing high school to remain as is.
 - D. Two entrance canopies.

C10 – INTERIOR CONSTRUCTION

C1010.00 – Partitions

- Includes:
 - A. Due to the overall layout of the high school corridors, gym and auditorium being unchanged, 50% of existing partitions are to be replaced with new metal stud interior partition framing with 5/8" gypsum wallboard.
 - B. Fiberglass sound attenuation batt and acoustical caulking at interior partitions.
 - C. Level 4 drywall finish at visible surfaces; level 1 finish at non-visible surfaces.
 - D. Gypsum-based tile backer at wall surfaces to receive tile finish.
 - E. Fire & smoke rated partitions as required.
- Excludes:
 - A. Partitions at future classroom space.

C1020.00 - Doors

- Includes:
 - A. Replacing existing interior doors.
 - B. Hollow metal doors and frames at storage and mechanical areas.
 - C. Solid-core wood veneer doors with hollow metal frames at all other locations.
 - D. Interior borrowed sidelights at classrooms and laboratories.
 - E. Panic hardware as required, including electronic lockdown hardware in corridors.

C1030.00 – Specialties/Millwork

- Includes:
 - A. 6' Full height cabinets, 8' of base cabinets with solid surface top and 8' of wall cabinets at all classrooms.
 - B. Solid surface cabinets with epoxy resin counter tops at science labs.
 - C. Wood cubbies at mailroom.

- D. Library front desk.
- E. Admin/Guidance front desks.
- F. Wall-mounted solid surface countertops at all restrooms.
- G. Locker room benches.
- H. FRP wall panels at kitchen and janitorial areas.
- I. Phenolic toilet compartments and urinal screens.
- J. Toilet room grab bars and mirrors.
- K. Toilet paper dispensers, surface-mount waste receptacle, soap dispenser and hand dryers at restrooms.
- L. Fire extinguishers and cabinets.
- M. Glass shower door and folding shower seat.
- N. \$40,000 allowance for trophy and display cases.
- O. Custodial and student lockers to be painted metal.

C20 – STAIRCASES

C2010.00 – Stair Construction

- Includes:
 - A. Existing stairs to receive new wall and hand railings to meet code.
 - B. Existing stair framing to remain as is.
 - C. New addition stairs to be rubber treads/risers.
 - D. Stair shafts to be drywall.

C30 – INTERIOR FINISHES

C3010.00 – Wall Finishes

- Includes:
 - A. Ceramic tile wainscoting to 5'-0" AFF in toilet rooms.
 - B. Ceramic tile wainscoting to 5'-0" AFF at corridors.
 - C. Ceramic tile wainscoting to 5'-0" AFF at stairwells.
 - D. Wood wall paneling in auditorium.
 - E. Painted gypsum board in remainder of areas (except future classroom space).

C3020.00 – Floor Finishes

- Includes:
 - A. Carpet tile with rubber base at administrative offices.
 - B. Wood floor with wood base at gym and stage.
 - C. Linoleum and rubber base at classrooms and corridors.
 - D. Quarry tile and base at main kitchen and CTC kitchen.
 - E. Carpeted aisles and sealed concrete at auditorium.

- F. Carpet tile walk-off mats and rubber base at vestibules.
- G. Porcelain tile and base at CTC restaurant.
- H. Ceramic mosaic tile with tile base at toilet rooms and locker rooms.
- I. Sealed concrete and rubber base at CTC automotive & building technology classrooms, mechanical rooms and custodial rooms.
- J. Rubber-covered treads, risers and landings at metal pan stairs.

C3030.00 – Ceiling Finishes

- Includes:
 - A. Acoustical ceiling tile and grid at classrooms, corridors and administrative offices.
 - B. Acoustical ceiling tile and grid appropriate for food production at kitchens.
 - C. 2" Tectum panels at gym (included at half of total square footage).
 - D. Wood acoustical clouds suspended at auditorium.
 - E. Suspended gypsum ceilings, painted at toilet and locker rooms.
 - F. Painted finish at exposed structure – stage, CTC automotive & building technology.
- Excludes:
 - A. Ceilings/finish in mechanical, electrical and custodial rooms.
 - B. Ceilings/finish in future classroom space.

D10 – CONVEYING SYSTEMS

D1010.00 – Elevators

- Includes:
 - A. Two new concrete elevator pits within existing structure.
 - B. Two new 2-story hydraulic elevators.
 - C. Existing elevators are to remain as is.

D20 – PLUMBING SYSTEMS

C2010.00 – Plumbing

- Includes:
 - A. New water service (4" / 6") with backflow protection to Animal Science and high school addition.
 - B. Domestic hot and cold water distributed to all plumbing fixtures.
 - C. New storm drain piping and roof drains on new roofs only.
 - D. Air compressor for vocational areas.
 - E. Gas distribution piping.
 - F. Rough-in for kitchen services.
 - G. Rough-in for 10 salon sinks.
 - H. 44 small laboratory sinks.

- I. 50 quick-connect compressed air outlets.
- J. Plumbing rough-in and connections.
- K. Cleaning, testing and adjusting of plumbing systems.
- L. Seismic restraints at piping to meet codes.
- M. Firestopping at pipe penetrations.
- Excludes:
 - A. Specialized plumbing equipment.
 - B. Bathroom lavatories (assumed to be solid surface integral sinks – carried in Division 6).
 - C. New roof drains on renovation work.
 - D. Kitchen equipment and/or fixtures.
 - E. Salon fixtures.
 - F. New underground sanitary waste in the existing-to-remain high school areas.
 - G. New natural gas service, meter or regulator.

D30 – HVAC SYSTEMS

D3010.00 – HVAC

- Includes:
 - A. (1) 50-ton, air-cooled chiller.
 - B. (25) Rooftop HVAC units.
 - C. 100% make-up air units and kitchen hood exhaust fans for Kitchen/Culinary.
 - D. (5) Ductless mini-splits.
 - E. (2) Kitchen exhaust fans.
 - F. (4) 2700 MBH condensing NG boilers.
 - G. (3) 330 MBH NG boilers.
 - H. Hot and chilled water pumps.
 - I. (2) Fume hoods with exhaust fans.
 - J. (2) Vehicle exhaust systems.
 - K. (2) Dust collection systems.
 - L. (1) Paint booth exhaust system.
 - M. Final cleaning of ductwork systems.
 - N. Direct digital controls (DDC) to monitor building temperature.
 - O. Testing, adjusting and balancing with documentation of all HVAC systems.
 - P. Seismic restraints at piping and ductwork systems to meet codes.
 - Q. Firestopping at pipe and ductwork penetrations.
- Excludes
 - A. Specialty kitchen equipment.
 - B. Kitchen exhaust hood(s).

D40 – FIRE PROTECTION SYSTEMS

D4010.00 – Fire Protection

- Includes:
 - C. New water service entrances (6") for Animal Science building and new addition to the high school, including backflow prevention devices.
 - D. Main piping is Schedule 40 grooved, steel pipe. Branch piping is Schedule 40 threaded, steel pipe.
 - E. Dry pendant sprinkler heads at small exterior canopies, extended from the wet-based distribution system.
 - F. (2) Fire Department connections for new buildings.
 - G. Dry sprinkler system to 50-foot diameter horse-riding ring.
 - H. Seismic restraints at piping to meet codes.
 - I. Firestopping at pipe penetrations.
- Excludes:
 - A. Fire pump(s).
 - B. Dedicated dry-sprinkler system.
 - C. Ansul or specialty systems for protection of kitchen equipment.

D50 – ELECTRICAL

D5010.00 – Electrical

- Includes:
 - A. Allowance for electrical primary conductors and transformers.
 - B. 800 linear feet for primary length.
 - C. 100 linear feet for secondary service, 4'-0" x 2'-0" duct bank with (4) sets of #600 MCM conductors in each.
 - D. Security system.
 - E. Site lighting pole fixtures for every 7500 sf of new parking lot/roadways.
 - F. Interior lighting as described.
 - G. Lighting controls.
 - H. (2) 30kw UPS systems.
 - I. A lighting/sound/dimmer system allowance for auditorium lighting.
 - J. A sound system for the cafeteria and gymnasium.
 - K. Tel/com system with cabling, devices and equipment.
 - L. Fire alarm system.
 - M. 300 kW NG generator with a sound-attenuated exterior enclosure.
 - N. Security card reader system.
 - O. Sealing and firestopping.
 - P. Lightning protection.
 - Q. Master clock / PA system.

- Excludes:
 - A. Nurse call system.
 - B. Lighting fixtures, power receptacles for modular classrooms.

E10 – EQUIPMENT

E1010.00 – Equipment

- Includes:
 - C. Loading dock bumpers and seals.
 - D. Newer gym bleachers on one side of gym are to be salvaged and the other side is to receive new bleachers.
 - E. 6'-0" High wall padding in gym.
 - F. Gym divider curtain.
 - G. Six new basketball hoops.
 - H. One volleyball net with floor inserts.
 - I. Auditorium seating is to be replaced with 800 new seats.
 - J. \$175,000 allowance for new line sets & shell in the auditorium.

E20 – FURNISHINGS

E2010.00 – Fixed Furnishings

- Includes:
 - A. Marker boards and tack boards as noted in estimate.
 - B. Manual roller shades at 50% of glass openings.
- Excludes:
 - C. Smart boards.

F10 – SPECIAL CONSTRUCTION

F1010.00 – Special Construction

- Includes:
 - A. Round 50'-0" riding ring with a wood canopy and asphalt shingles.
 - B. Four 10'-0" x 10'-0" kennels with chain link fence over a 4" slab-on-grade.
 - C. Four new tennis courts.
 - D. New baseball field with drainage system.

F20 – SELECTIVE BUILDING DEMOLITION

F2010.00 – Building Elements Demolition

- Includes:
 - A. Mass demolition of existing 3-story classroom addition.
 - B. Stripping existing building of all finishes, non-load bearing partitions and MEP systems.
 - C. Removing existing curtain wall.
 - D. Removing existing entrance canopy.
 - E. Removing face brick at addition side of structure as necessary.

G10 – SITE PREPARATION

G1020.00- Site Demolition

- Includes:
 - A. Removing all existing asphalt paving and walkways.

G1030.00- Earthwork

- Includes:
 - A. Clearing and grubbing.
 - B. Site excavation at addition and infill at existing classroom structure after demolition.
 - C. Stockpiling of topsoil for reuse on site as required, if suitable.
 - D. Removal of excess topsoil and/or reuse on site as site fill material.
 - E. Stockpiling and seeding of excess topsoil on site for the Owner's use.
 - F. Installation, maintenance and removal of erosion control.
 - G. Installation, maintenance and removal of temporary access road(s).
 - H. Inlet protection.

G2010.00- Site Paving

- Includes:
 - A. New asphalt paving at parking lots and road along Alumni Drive.
 - B. Heavy-duty paving at Lot C.
 - C. Pavement striping within interior and exterior parking areas.
 - D. Roadway and parking signage as described in the estimate.
 - E. Concrete walkways consisting of 4" cast-in-place concrete over 8" of crushed gravel base on a compacted subgrade.
 - F. Temporary asphalt walkways.

G2050.00- Landscaping

- Includes:
 - A. \$140,000 allowance for general landscaping outside of the courtyard.
 - B. \$150,000 allowance for courtyard site finishes.

G30 – SITE UTILITIES

G3010.00- Site Utilities

- Includes:
 - A. Water, sanitary and secondary power utilities to service modular classrooms.
 - B. All new storm catch basins with HDPE drainage pipe for new site paving.
 - C. Concrete ductbank at secondary electrical trenching.
 - D. New site lighting throughout.
 - E. Two grease interceptors to serve high school kitchen and CTC kitchen.
 - F. Existing utilities to high school are assumed to be sized adequately and to remain as is.

Z10 – GENERAL

Z1010.00- General Conditions

- A. This estimate is based on a 39-month construction schedule.
- B. Builder's Risk insurance is included; loss of use is excluded.
- C. A Performance and Payment Bond has been included.
- D. Consumption costs for steam, electrical energy and water are to be provided by Owner.
- E. Our Schematic Design, Design Development and Construction Document Estimates include a Construction Manager estimating contingency. As the design progresses and the project approaches construction, the contingency will be reduced accordingly.
- F. The following items are excluded:
 - a. Sales tax.
 - b. Third-party commissioning for MEP systems, automation controls, building and building envelope.
 - c. Owner's Protective insurance.
 - d. Impact fees at the Federal, State or local level.
 - e. All permits apart from trade-specific permits.
 - f. Design fees.
 - g. All fixtures, furniture and equipment.
 - h. Owner's contingency.
 - i. Design contingency.
 - j. Residential appliances.

SCOPE OF WORK CLARIFICATIONS

A10 - FOUNDATIONS

A1010.00 - Standard Foundations

- Includes:
 - A. 1'-0" x 5'-0" Continuous concrete footing with 1'-0" x 13' high site retaining wall.
 - B. 1'-0" x 3'-0" Continuous concrete footing with 12" x 5'-0" high stepped frost wall at addition.
 - C. 3'-0" x 3'-0" x 1'-0" Isolated footings on a 30'-0" grid spacing at addition.
 - D. 8" x 16" Continuous concrete footing with an 8" x 5'-0" high frost wall at barn addition.
 - B. 18" x 4'-0" Concrete piers with 2'-0" x 2'-0" x 1'-0" footings at new riding ring.
 - C. Concrete to be 3,000 PSI.
 - D. Pumping as necessary for cast-in-place concrete work.
 - E. Excavation for the foundation work mentioned above includes backfilling with borrowed crushed stone on inner side of frost walls and on-site material for outer side of wall.
 - F. Damp-proofing and 2" rigid insulation at all frost walls.

A1020.00 - Special Foundations

- Includes:
 - A. Aggregate piers are to be located at the northeast corner of the addition.

A1030.00 - Lowest Floor Construction

- Includes:
 - A. 5" slab-on-grade, 2" rigid insulation, 15 mil stego wrap and 8" subbase at barn addition.
 - B. 5" slab-on-grade at areas receiving aggregate piers; other areas are 4".

B10 - SUPERSTRUCTURE

B1010.00 - Floor Construction

- Includes:
 - A. 5-1/2" Concrete slab over 2" painted steel deck at new addition.
 - B. Structural steel tonnage calculated based on 12 lbs/sf.
 - C. All new structural steel members and roof deck to receive spray fireproofing.
- Includes:
 - A. Intumescent paint.
 - B. Fireproofing at the barn and riding ring.

B1020.00 - Roof Construction

- Includes:
 - A. Steel joists with 1-1/2" metal deck at the CTC garage areas, gym and auditorium.
 - B. The barn addition roof structure is to include 6:12 pitch wood trusses with 5/8" OSB roof sheathing.
 - C. Wood-framed pavilion canopy at riding ring.
 - D. Two new entrance canopies at the high school.
 - E. Steel roof framing to be pitched at new addition.

B20 – EXTERIOR CLOSURE

B2010.00 – Exterior Walls

- Includes:
 - A. Wood-stud framing with T&G red cedar siding at barn addition.
 - B. Exterior walls to receive 6" light-gauge steel studs with 5/8" densglass, 3" spray foam, fluid applied air barrier and 5/8" drywall.
 - C. Building to receive brick veneer at 70% of envelope; precast elements have not been included.

B2020.00 - Windows

- Includes:
 - A. Aluminum/vinyl clad windows at the barn addition.
 - B. 30% of building exterior wall will be curtain wall.

B2030.00 – Exterior Doors

- Includes:
 - A. Wood sliding barn doors and 3070 HM doors at barn addition.
 - B. Coiling overhead doors and 3070 HM doors at CTC areas.
 - C. Building to receive hollow metal doors/frames at storage and mechanical areas. Main entry to be storefront.

B30 – ROOFING

B3010.00 – Roof Coverings

- Includes:
 - A. Asphalt shingle roof with 12" batt insulation at barn addition.
 - B. Thermoplastic membrane roof with break metal coping.
 - C. Two entrance canopies.

C10 – INTERIOR CONSTRUCTION

C1010.00 – Partitions

- Includes:
 - A. Light-gauge steel, 5/8" drywall on both sides, fiberglass sound attenuation batt and acoustical caulking at interior partitions.
 - B. Level 4 drywall finish at visible surfaces; level 1 finish at non-visible surfaces.
 - C. Gypsum-based tile backer at wall surfaces to receive tile finish.
 - D. Fire & smoke-rated partitions as required.
- Excludes:
 - A. Partitions at future classroom space.

C1020.00 - Doors

- Includes:
 - A. Hollow metal doors and frames at storage and mechanical areas.
 - B. Solid-core wood veneer doors with hollow metal frames at all other locations.
 - C. Interior borrowed sidelights at classrooms and laboratories.
 - D. Panic hardware as required, including electronic lockdown hardware in corridors.

C1030.00 – Specialties/Millwork

- Includes:
 - A. 6' Full-height cabinets, 8' of base cabinets with solid surface top and 8' of wall cabinets at all classrooms.
 - B. Solid surface cabinets with epoxy resin countertops at science labs.
 - C. Wood cubbies at mailroom.
 - D. Library front desk.
 - E. Admin/Guidance front desks.
 - F. Wall-mounted solid surface countertops at all restrooms.
 - G. Locker room benches.
 - H. FRP wall panels at kitchen and janitorial areas.
 - I. Phenolic toilet compartments and urinal screens.
 - J. Toilet room grab bars and mirrors.
 - K. Toilet paper dispensers, surface mount waste receptacle, soap dispenser and hand dryers at restrooms.
 - L. Fire extinguishers and cabinets.
 - M. Glass shower door and folding shower seat.
 - N. \$40,000 allowance for trophy and display cases.
 - O. Custodial and student lockers to be painted metal.

C20 – STAIRCASES

C2010.00 – Stair Construction

- Includes:
 - A. New addition stairs to be rubber treads/risers.
 - B. Stair shafts to be drywall.

C30 – INTERIOR FINISHES

C3010.00 – Wall Finishes

- Includes:
 - A. Ceramic tile wainscoting to 5'-0" AFF in toilet rooms.
 - B. Ceramic tile wainscoting to 5'-0" AFF at corridors.
 - C. Ceramic tile wainscoting to 5'-0" AFF at stair wells.
 - D. Wood wall paneling in auditorium.
 - E. Painted gypsum board in remainder of areas (except future classroom space).

C3020.00 – Floor Finishes

- Includes:
 - A. Carpet tile with rubber base at administrative offices.
 - B. Wood floor with wood base at gym and stage.
 - C. Linoleum and rubber base at classrooms and corridors.
 - D. Quarry tile and base at main kitchen and CTC kitchen.
 - E. Carpeted aisles and sealed concrete at auditorium.
 - F. Carpet tile walk-off mats and rubber base at vestibules.
 - G. Porcelain tile and base at CTC restaurant.
 - H. Ceramic mosaic tile with tile base at toilet rooms and locker rooms.
 - I. Sealed concrete and rubber base at CTC automotive & building technology classrooms, mechanical rooms and custodial rooms.
 - J. Rubber-covered treads, risers and landings at metal pan stairs.

C3030.00 – Ceiling Finishes

- Includes:
 - A. Acoustical ceiling tile and grid at classrooms, corridors and administrative offices.
 - B. Acoustical ceiling tile and grid appropriate for food production at kitchens.
 - C. 2" Tectum panels at gym (included at half of total square footage).
 - D. Wood acoustical clouds suspended at auditorium.
 - E. Suspended gypsum ceilings, painted at toilet and locker rooms.
 - F. Painted finish at exposed structure – stage, CTC automotive & building technology.
- Excludes:
 - A. Ceilings/finish in mechanical, electrical and custodial rooms.

- B. Ceilings/finish in future classroom space.

D10 – CONVEYING SYSTEMS

D1010.00 – Elevators

- Includes:
 - A. Two hydraulic elevators.

D20 – PLUMBING SYSTEMS

C2010.00 – Plumbing

- Includes:
 - A. New water service (4"/6") with backflow protection to new Animal Science and high school.
 - B. Domestic hot and cold water distributed to all plumbing fixtures.
 - C. New storm drain piping and roof drains on new roofs only.
 - D. Air compressors for vocational areas.
 - E. Gas distribution piping.
 - F. Rough-in for kitchen services.
 - G. Rough-in for 10 salon sinks.
 - H. 44 small laboratory sinks.
 - I. 50 quick-connect compressed air outlets.
 - J. Plumbing rough-in and connections.
 - K. Cleaning, testing and adjusting of plumbing systems.
 - L. Seismic restraints at piping to meet codes.
 - M. Firestopping at pipe penetrations.
- Excludes:
 - A. Specialized plumbing equipment.
 - B. Bathroom lavatories (assumed to be solid surface integral sinks – carried in Division 6).
 - C. New roof drains on renovation work.
 - D. Kitchen equipment and/or fixtures.
 - E. Salon fixtures.
 - F. New natural gas service, meter or regulator.

D30 – HVAC SYSTEMS

D3010.00 – HVAC

- Includes:
 - A. (1) 50-ton, air-cooled chiller.

- B. (24) Rooftop HVAC units.
- C. 100% make-up air units and kitchen hood exhaust fans for Kitchen/Culinary.
- D. (5) Ductless mini-splits.
- E. (2) Kitchen exhaust fans.
- F. (4) 2500 MBH condensing NG boilers.
- G. (3) 330 MBH NG boilers.
- H. Hot and chilled water pumps.
- I. (2) Fume hoods with exhaust fans.
- J. (2) Vehicle exhaust systems.
- K. (2) Dust collection systems.
- L. (1) Paint booth exhaust system.
- M. Final cleaning of ductwork systems.
- N. Direct digital controls (DDC) to monitor building temperature.
- O. Testing, adjusting and balancing with documentation of all HVAC systems.
- P. Seismic restraints at piping and ductwork systems to meet codes.
- Q. Firestopping at pipe and ductwork penetrations.
- Excludes:
 - A. Specialty kitchen equipment.
 - B. Kitchen exhaust hood(s).

D40 – FIRE PROTECTION SYSTEMS

D4010.00 – Fire Protection

- Includes:
 - A. New water service entrances (6") for Animal Science building and new addition to the high school, including backflow prevention devices.
 - B. Main piping is Schedule 40 grooved, steel pipe. Branch piping is Schedule 40 threaded, steel pipe.
 - C. Dry pendant sprinkler heads at small exterior canopies, extended from the wet-based distribution system.
 - D. Fire Department connections for new buildings (2).
 - E. Dry sprinkler system to 50-foot diameter horse-riding ring.
 - F. Seismic restraints at piping to meet codes.
 - G. Firestopping at pipe penetrations.
- Excludes:
 - A. Fire pump(s).
 - B. Dedicated dry-sprinkler system.
 - C. Ansul or specialty systems for protection of kitchen equipment.

D50 – ELECTRICAL

D5010.00 – Electrical

- Includes:
 - A. An allowance for electrical primary conductors and transformers.
 - B. 800 linear feet for primary length.
 - C. 100 linear feet for secondary service, 4'-0" x 2'-0" duct bank w/(4) sets of #600 MCM conductors in each.
 - D. Security system.
 - E. Site lighting pole fixtures for every 7,500 sf of new parking lot/roadways.
 - F. Interior lighting as described.
 - G. Lighting controls.
 - H. (2) 30kw UPS systems.
 - I. A lighting/sound/dimmer system allowance for auditorium lighting.
 - J. A sound system for the cafeteria and gymnasium.
 - K. Tel/com system with cabling, devices and equipment.
 - L. Fire alarm system.
 - M. 350 kW NG generator with a sound attenuated exterior enclosure.
 - N. Security card reader system.
 - O. Sealing and firestopping.
 - P. Lightning protection.
 - Q. Master clock/PA system.
- Excludes:
 - A. Nurse call system.

E10 – EQUIPMENT

E1010.00 – Equipment

- Includes:
 - A. Loading dock bumpers and seals.
 - B. Newer gym bleachers on one side of gym are to be salvaged and the other side is to receive new bleachers.
 - C. 6'-0" High wall padding in gym.
 - D. Gym divider curtain.
 - E. Six new basketball hoops.
 - F. One volleyball net with floor inserts.
 - G. Auditorium seating is to be replaced with 800 new seats.
 - H. \$175,000 allowance for new line sets & shell in the auditorium.

E20 – FURNISHINGS

E2010.00 – Fixed Furnishings

- Includes:
 - A. Marker boards and tack boards as noted in estimate.
 - B. Manual roller shades at 50% of glass openings.
- Excludes:
 - C. Smart boards.

F10 – SPECIAL CONSTRUCTION

F1010.00 – Special Construction

- Includes:
 - A. Round 50'-0" riding ring with a wood canopy and asphalt shingles.
 - B. Four 10'-0" x 10'-0" kennels with chain link fence over a 4" slab on grade.
 - C. Six new tennis courts.
 - D. New baseball field with drainage system.
 - E. New soccer field with drainage system.

F20 – SELECTIVE BUILDING DEMOLITION

F2010.00 – Building Elements Demolition

- Includes:
 - A. Mass demolition of existing high school.
 - B. Removal of existing entrance canopy.

G10 – SITE PREPARATION

G1020.00- Site Demolition

- Includes:
 - A. Removal of all existing asphalt paving and walkways.

G1030.00- Earthwork

- Includes:
 - A. Clearing and grubbing.
 - B. This estimate assumes a lower proposed finish floor elevation to further balance the site due to the infill required at existing high school footprint.
 - C. Site excavation at addition and infill at existing classroom structure after demolition is included.
 - D. Stockpiling of topsoil for reuse on site as required, if suitable.

- E. Removal of excess topsoil and/or reuse on site as site fill material.
- F. Stockpiling and seeding of excess topsoil on site for the Owner's use.
- G. Installation, maintenance and removal of erosion control.
- H. Installation, maintenance and removal of temporary access road(s).
- I. Inlet protection.

G2010.00- Site Paving

- Includes:
 - A. New asphalt paving at parking lots and road along Alumni Drive.
 - B. Heavy duty paving at Lot C.
 - C. Pavement striping within interior and exterior parking areas.
 - D. Roadway and parking signage as described in the estimate.
 - E. Concrete walkways consisting of 4" cast-in-place concrete over 8" of crushed gravel base on a compacted subgrade.
 - F. Temporary asphalt walkways.

G2050.00- Landscaping

- Includes:
 - A. \$150,000 allowance for general landscaping outside of the courtyard.
 - B. \$150,000 allowance for courtyard site finishes.

G30 – SITE UTILITIES

G3010.00- Site Utilities

- Includes:
 - A. Water, sanitary and secondary power utilities to service modular classrooms.
 - B. All new storm catch basins with HDPE drainage pipe for new site paving.
 - C. Concrete duct bank at secondary electrical trenching.
 - D. New site lighting throughout.
 - E. Two grease interceptors to serve high school kitchen and CTC kitchen.
 - F. Existing utilities to high school are assumed to be sized adequately and to remain as is.

Z10 – GENERAL

Z1010.00- General Conditions

- A. This estimate is based on a 39-month construction schedule.
- B. Builder's Risk insurance is included; loss of use is excluded.
- C. A Performance and Payment Bond has been included.
- D. Consumption costs for steam, electrical energy and water are to be provided by Owner.

- E. Our Schematic Design, Design Development and Construction Document Estimates include a Construction Manager estimating contingency. As the design progresses and the project approaches construction, the contingency will be reduced accordingly.
- F. The following items are excluded:
 - a. Sales tax.
 - b. Third-party commissioning for MEP systems, automation controls, building and building envelope.
 - c. Owner's Protective insurance.
 - d. Impact fees at the Federal, State or local level.
 - e. All permits apart from trade-specific permits.
 - f. Design fees.
 - g. All fixtures, furniture and equipment.
 - h. Owner's contingency.
 - i. Design contingency.
 - j. Residential appliances.

LIST OF DOCUMENTS

Drawing List

Option 1:

- Full Rehabilitation – Phase 1 through 7, Years 1 through 7, Dover HS/CTC, Dover, NH, Updated 04/07/2015; HMFH Architects.

Option 2:

- Renovation Add Option – 2b, Dover HS/CTC, Dover, NH, Updated 05/06/2015; HMFH Architects.
- Sheet C-1, Concept 2 Renovation/Addition, Dover High School, March 2015; Nobis

Option 3:

- New Construction – Option 3a, Dover HS/CTC, Dover, NH, Updated 05/06/2015; HMFH Architects.
- Sheet C-1, Concept 3 New Construction, Dover High School, March 2015; Nobis

Narratives

Option 1:

- Dover Regional High School and Career Technical Center – Architectural Narrative
- Dover Regional High School and Career Technical Center – Structural Narrative
- Base Rehabilitation Option – Site Work Narrative
- Dover High School and Career Technical Center - Option 1, Fire Protection, Plumbing, HVAC & Electrical Systems Narrative; Garcia-Galuska-DeSousa, May 15, 2015

Option 2:

- Dover Regional High School and Career Technical Center – Architectural Narrative
- Dover Regional High School and Career Technical Center – Structural Narrative
- Renovation Add Option 2b – Site Work Narrative
- Dover High School and Career Technical Center - Option 2b, Fire Protection, Plumbing, HVAC & Electrical Systems Narrative; Garcia-Galuska-DeSousa, May 15, 2015

Option 3:

- Dover Regional High School and Career Technical Center – Architectural Narrative
- Dover Regional High School and Career Technical Center – Structural Narrative
- New Construction Option 3 – Site Work Narrative
- Dover High School and Career Technical Center - Option 3b & 3d, Fire Protection, Plumbing, HVAC & Electrical Systems Narrative; Garcia-Galuska-DeSousa, May 15, 2015



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