



Conceptual Options

**Dover Regional High School and
Career Technical Center**

Dover, NH

Prepared for:

HMFH Architects, Inc

June 22, 2015



Dover Regional High School and Career Technical Center
Dover, NH

22-Jun-15

Conceptual Options

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
Option 1 - BASE RENOVATION				
PHASE 1; NEW CTC BUILDING; AUTOMOTIVE REPAIR, COLLISION AND ELECTRONICS		20,000	\$213.62	\$4,272,425
PHASE 1; ANIMAL BARN; 2000 GSF RENOVATION, 6,500 GSF ADDITION		8,500	\$130.00	\$1,105,000
PHASE 1; SWING SPACE - TEMPORARY MODULAR CLASSROOMS		16 #	n/a	\$1,800,000
PHASE 2-7; RENOVATE EXISTING SCHOOL		244,750	\$140.71	\$34,439,570
REMOVE HAZARDOUS MATERIALS allowance per Universal Environmental Consultants dated February 10, 2015 ¹				\$1,300,000
SITework				\$2,793,500
SUB-TOTAL	May-16	273,250	\$167.28	\$45,710,495
ESCALATION PH1				INCL
ESCALATION PH2 - 7	6.00%			\$2,311,984
DESIGN AND PRICING CONTINGENCY	12%			\$5,485,259
SUB-TOTAL WITH CONTINGENCY & ESCALATION	May-16	273,250	\$195.82	\$53,507,738
GENERAL CONDITIONS ²				\$5,202,580
GENERAL REQUIREMENTS ²				\$1,690,412
PHASING PREMIUM	2.00%			\$1,070,155
BONDS	0.53%			\$283,591
INSURANCE	0.83%			\$444,114
PERMIT				NIC
GMP CONTINGENCY	3.00%			\$1,605,232
OVERHEAD AND FEE	2.5%			\$1,337,693
TOTAL OF CONSTRUCTION - BASE RENOVATION OPTION	May-16	273,250	\$238.40	\$65,141,515

++ With this option 1# ball field is eliminated



Conceptual Options

Option 2 - RENOVATION/ ADDITION

RENOVATION AND ADDITION TO EXISTING BUILDING		294,500	\$171.03	\$50,368,089
ANIMAL BARN; 2000 GSF RENOVATION, 6,500 GSF ADDITION		8,500		INCL
DEMOLISH PORTION OF EXISTING BUILDING		178,826	\$6.00	\$1,072,956
REMOVE HAZARDOUS MATERIALS allowance per Universal Environmental Consultants dated February 10, 2015 ¹				\$1,300,000
SITework				\$4,611,393
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SUB-TOTAL	May-16	303,000	\$189.28	\$57,352,438
ESCALATION	0.00%			Incl
DESIGN AND PRICING CONTINGENCY	7%			\$4,014,671
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SUB-TOTAL WITH CONTINGENCY & ESCALATION	May-16	303,000	\$202.53	\$61,367,109
GENERAL CONDITIONS ²	38	mths		\$3,826,515
GENERAL REQUIREMENTS ²	3.00%			\$1,005,426
BONDS	0.53%			\$325,246
INSURANCE	0.83%			\$509,347
PERMIT				NIC
GMP CONTINGENCY	3.00%			\$1,841,013
OVERHEAD AND FEE	2.5%			\$1,534,178
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TOTAL OF ALL CONSTRUCTION ADDITION/RENOVATION OPTION	May-16	303,000	\$232.37	\$70,408,834
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Dover Regional High School and Career Technical Center
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OPTION 3 - NEW BUILDING

NEW SCHOOL BUILDING		296,014	\$179.54	\$53,146,668
ANIMAL BARN; 2000 GSF RENOVATION, 6,500 GSF ADDITION		8,500		INCL
DEMOLISH EXISTING SCHOOL		244,650	\$8.00	\$1,957,200
REMOVE HAZARDOUS MATERIALS allowance per Universal Environmental Consultants dated February 10, 2015 ¹				\$1,300,000
SITework				\$4,821,394
SUB-TOTAL	May-16	304,514	\$201.06	\$61,225,262
ESCALATION	0.00%			INCL
DESIGN AND PRICING CONTINGENCY	7%			\$4,285,768
SUB-TOTAL WITH CONTINGENCY & ESCALATION	May-16	304,514	\$215.13	\$65,511,030
GENERAL CONDITIONS ²	36 mths		\$90,000	\$3,240,000
GENERAL REQUIREMENTS ²	3.00%			\$1,965,331
BONDS	0.53%			\$347,208
INSURANCE	0.83%			\$543,742
PERMIT				NIC
GMP CONTINGENCY	3.00%			\$1,965,331
OVERHEAD AND FEE	2.5%			\$1,637,776
TOTAL OF ALL CONSTRUCTION NEW BUILDING OPTION	May-16	304,514	\$246.99	\$75,210,418



Dover Regional High School and Career Technical Center
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Conceptual Options

¹ HazMat removal costs include design, construction monitoring and air sampling services.

² Priced as CM at Risk project.

This Feasibility cost estimate was produced from preliminary drawings, narratives and other documentation prepared by HMFH Architects Inc. and their design team dated April 21, 2015. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, general contractor's overhead and profit and design contingency. Cost escalation assumes start dates indicated above.

We have assumed procurement will utilize a public bid to pre-qualified subcontractors, open specifications for materials and manufactures.

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

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency



Conceptual Options

GFA 20,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

NEW CTC BUILDING

GROSS FLOOR AREA CALCULATION

First Floor 20,000

TOTAL GROSS FLOOR AREA (GFA)					20,000	sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Pile foundations

Excavation	681	cy	10.00	6,810	
Remove off site	681	cy	12.00	8,172	
Backfill with gravel	227	cy	28.00	6,356	
Grade beams - allow 24" x 48"	311	cy	500.00	155,500	
Pile caps - allowance (assume 25' grid)	143	cy	650.00	92,950	
Dampproofing & insulation at grade beams	2,400	sf	5.00	12,000	
SUBTOTAL					281,788

A1020 SPECIAL FOUNDATIONS

Mobilize/ Demobilize	1	ls	30,000.00	30,000	
HP Steel piles, assume 30' deep	1,200	lf	80.00	96,000	
SUBTOTAL					126,000

A1030 LOWEST FLOOR CONSTRUCTION

Gravel fill, 8"	494	cy	35.00	17,290	
Rigid insulation, 4' perimeter	2,400	sf	1.87	4,488	
Vapor barrier	20,000	sf	0.55	11,000	
Structural Slab, 10" thick	20,000	sf	12.00	240,000	
SUBTOTAL					272,778

TOTAL - FOUNDATIONS					\$680,566
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A20 BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION

No Work in this section
SUBTOTAL

A2020 BASEMENT WALLS

No Work in this section
SUBTOTAL

TOTAL - BASEMENT CONSTRUCTION				
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

No Work in this section
SUBTOTAL



Conceptual Options

GFA 20,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

51	B1020 ROOF CONSTRUCTION							
52	<u>Roof Structure - Steel:</u>							
53	Steel Joists; allowance 11 lbs per SF	110	tns	3,100.00	341,000			
54	<u>Roof Deck</u>							
55	1-1/2" Cold formed steel deck	20,000	sf	2.50	50,000			
56	<u>Miscellaneous</u>							
57	Fire proofing			Not required				
58	Fire stopping	1	ls	2,000.00	2,000			
59	Misc. angles	1	ls	20,000.00	20,000			
60	SUBTOTAL					413,000		
61								
62	TOTAL - SUPERSTRUCTURE							\$413,000

B20 EXTERIOR CLOSURE

65	B2010 EXTERIOR WALLS - 70% solid/30% Glazed	12,000	sf					
66	<u>Interior skin</u>							
67	10" CMU walls	8,400	sf	16.00	134,400			
68	Insulation	8,400	sf	2.25	18,900			
69	Air barrier	8,400	sf	4.00	33,600			
70	Air barrier/flashing at windows	1,188	lf	6.50	7,722			
71	Gypsum Sheathing	8,400	sf	2.50	21,000			
72	<u>Exterior skin</u>							
73	Brick veneer	8,400	sf	26.00	218,400			
74	<u>Miscellaneous</u>							
75	Staging to exterior wall	12,000	sf	2.00	24,000			
76	SUBTOTAL					458,022		
77								
78	B2020 WINDOWS	3,600	sf					
79	Windows/Curtainwall/Storefront	3,500	sf	75.00	262,500			
80	Louvers (allowance)	100	sf	50.00	5,000			
81	Backer rod & double sealant	1,188	lf	4.00	4,752			
82	Wood blocking at openings	1,188	lf	2.50	2,970			
83	SUBTOTAL					275,222		
84								
85	B2030 EXTERIOR DOORS							
86	Glazed entrance doors including frame and hardware; double door	3	pr	7,000.00	21,000			
87	HM doors, frames and hardware	4	ea	2,000.00	8,000			
88	Overhead doors at Workshops	3	ea	5,000.00	15,000			
89	Backer rod & double sealant	140	lf	4.00	560			
90	Wood blocking at openings	140	lf	3.00	420			
91	SUBTOTAL					44,980		
92								
93	TOTAL - EXTERIOR CLOSURE							\$778,224

B30 ROOFING

98	B3010 ROOF COVERINGS						
99	<u>Flat roofing</u>						
100	White TPO roofing	20,000	sf	5.00	100,000		
101	Insulation	20,000	sf	4.50	90,000		
102	Reinforced vapor barrier	20,000	sf	0.45	9,000		
103	Rough blocking	2,400	lf	5.00	12,000		
104	Roof coping/ fascia	600	lf	30.00	18,000		
105							
106							



Conceptual Options

GFA 20,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
Option 1 - BASE RENOVATION								
107	SUBTOTAL					229,000		
108								
109	B3020 ROOF OPENINGS							
110	Roof hatch	1	loc	2,000.00	2,000			
111	SUBTOTAL					2,000		
112								
113	TOTAL - ROOFING							\$231,000
114								
115								
116	C10 INTERIOR CONSTRUCTION							
117								
118	C1010 PARTITIONS							
119	New Interior partitions; abuse resistant GWB	20,000	gsf	10.00	200,000			
120	SUBTOTAL					200,000		
121								
122	C1020 INTERIOR DOORS							
123	Interior doors, frames and hardware	20,000	gsf	3.00	60,000			
124	SUBTOTAL					60,000		
125								
126	C1030 SPECIALTIES / MILLWORK							
127	Toilet Partitions and accessories	20,000	gsf	0.80	16,000			
128	Backer panels in electrical closets	1	ls	500.00	500			
129	Marker boards/tackboards	20,000	sf	0.50	10,000			
130	Signage & Directories	20,000	gsf	0.30	6,000			
131	Fire extinguisher cabinets	6	ea	350.00	2,100			
132	Lockers	20,000	sf	1.50	30,000			
133	Miscellaneous metals throughout building	20,000	sf	0.50	10,000			
134	Miscellaneous sealants throughout building	20,000	sf	0.50	10,000			
135	SUBTOTAL					84,600		
136								
137	TOTAL - INTERIOR CONSTRUCTION							\$344,600
138								
139								
140	C20 STAIRCASES							
141								
142	C2010 STAIR CONSTRUCTION							
143	No items in this section							
144	SUBTOTAL							
145								
146	C2020 STAIR FINISHES							
147	No items in this section							
148	SUBTOTAL							
149								
150	TOTAL - STAIRCASES							
151								
152								
153	C30 INTERIOR FINISHES							
154								
155	C3010 WALL FINISHES							
156	Wall finishes allowance for all finishes; CT tile in bathrooms; CT wainscot in corridors; paint to walls	20,000	sf	4.00	80,000			
157	SUBTOTAL					80,000		
158								
159	C3020 FLOOR FINISHES							
160	Concrete sealer in Collision, Auto body and Electronics workshops	14,000	sf	2.00	28,000			
161	Flooring at corridors/lobby/ admin areas; linoleum	5,580	sf	6.50	36,270			
162	Flooring in toilet rooms	420	sf	14.00	5,880			



Conceptual Options

GFA 20,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
Option 1 - BASE RENOVATION								
163	Allowance for bases and miscellaneous floor finishes	20,000	sf	0.50	10,000			
164	Allowance for moisture mitigation	5,580	sf	2.00	11,160			
165	SUBTOTAL					91,310		
167	C3030 CEILING FINISHES							
168	ACT ceilings	6,000	sf	4.00	24,000			
169	Paint exposed decking in workshops	14,000	sf	2.00	28,000			
170	SUBTOTAL					52,000		
172	TOTAL - INTERIOR FINISHES						\$223,310	
175	D10 CONVEYING SYSTEMS							
177	D1010 ELEVATOR							
178	No items in this section							
179	SUBTOTAL							
181	TOTAL - CONVEYING SYSTEMS							
184	D20 PLUMBING							
186	D20 PLUMBING, GENERALLY							
187	Plumbing	20,000	gsf	8.00	160,000			
188	SUBTOTAL					160,000		
190	TOTAL - PLUMBING						\$160,000	
193	D30 HVAC							
195	D30 HVAC, GENERALLY							
196	HVAC system	20,000	gsf	32.00	640,000			
197	SUBTOTAL					640,000		
199	TOTAL - HVAC						\$640,000	
202	D40 FIRE PROTECTION							
204	D40 FIRE PROTECTION, GENERALLY							
205	Fire protection system	20,000	gsf	3.50	70,000			
206	SUBTOTAL					70,000		
208	TOTAL - FIRE PROTECTION						\$70,000	
211	D50 ELECTRICAL							
213	Electrical system, complete	20,000	gsf	28.00	560,000			
214	SUBTOTAL					560,000		
216	TOTAL - ELECTRICAL						\$560,000	
219	E10 EQUIPMENT							
221	E10 EQUIPMENT, GENERALLY							



Conceptual Options

GFA 20,000

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
Option 1 - BASE RENOVATION								
222	Electrically operated projection screens, smart boards, break room appliances	1	loc	20,000.00	20,000			
223	Collision, Auto body and Electronics workshops equipment					FF+E		
224	SUBTOTAL						20,000	
226	TOTAL - EQUIPMENT							\$20,000
229	E20 FURNISHINGS							
231	E2010 FIXED FURNISHINGS							
232	Entry mats & frames	225	sf	45.00	10,125			
233	Window blinds	3,600	sf	6.00	21,600			
234	Admin/Back of house casework- allowance	80	lf	500.00	40,000			
235	Counters, base cabinets, tall storage in Workshops	20,000	gsf	4.00	80,000			
236	SUBTOTAL						151,725	
238	E2020 MOVABLE FURNISHINGS							
239	All movable furnishings to be provided and installed by owner							
240	SUBTOTAL						NIC	
242	TOTAL - FURNISHINGS							\$151,725
245	F10 SPECIAL CONSTRUCTION							
247	F10 SPECIAL CONSTRUCTION							
248	No items in this section							
249	SUBTOTAL							
251	TOTAL - SPECIAL CONSTRUCTION							
254	F20 SELECTIVE BUILDING DEMOLITION							
256	F2010 BUILDING ELEMENTS DEMOLITION							
257	No items in this section							
258	SUBTOTAL							
260	F2020 HAZARDOUS COMPONENTS ABATEMENT							
261	No items in this section							
262	SUBTOTAL							
264	TOTAL - SELECTIVE BUILDING DEMOLITION							
266	TOTAL OPTION 1 NEW CTC BUILDING							\$4,272,425



Conceptual Options

GFA 244,750

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
Option 1 - BASE RENOVATION				
A10 FOUNDATIONS				
A1010 Standard Foundations	\$0			
A1020 Special Foundations	\$440,000			
A1030 Lowest Floor Construction	\$387,000	\$827,000	\$3.38	2.4%
B10 SUPERSTRUCTURE				
B1010 Upper Floor Construction	\$820,825			
B1020 Roof Construction	\$35,000	\$855,825	\$3.50	2.5%
B20 EXTERIOR CLOSURE				
B2010 Exterior Walls	\$460,856			
B2020 Windows/Curtainwall	\$1,776,840			
B2030 Exterior Doors	\$137,510	\$2,375,206	\$9.70	6.9%
B30 ROOFING				
B3010 Roof Coverings	\$230,000			
B3020 Roof Openings	\$20,000	\$250,000	\$1.02	0.7%
C10 INTERIOR CONSTRUCTION				
C1010 Partitions	\$1,223,750			
C1020 Interior Doors	\$734,250			
C1030 Specialties/Millwork	\$2,079,148	\$4,037,148	\$16.49	11.7%
C20 STAIRCASES				
C2010 Stair Construction	\$57,000			
C2020 Stair Finishes	\$20,000	\$77,000	\$0.31	0.2%
C30 INTERIOR FINISHES				
C3010 Wall Finishes	\$979,000			
C3020 Floor Finishes	\$1,989,224			
C3030 Ceiling Finishes	\$1,278,822	\$4,247,046	\$17.35	12.3%
D10 CONVEYING SYSTEMS				
D1010 Elevator	\$122,500	\$122,500	\$0.50	0.4%
D20 PLUMBING				
D20 Plumbing	\$2,325,125	\$2,325,125	\$9.50	6.8%
D30 HVAC				
D30 HVAC	\$7,945,251	\$7,945,251	\$32.46	23.1%
D40 FIRE PROTECTION				
D40 Fire Protection	\$856,625	\$856,625	\$3.50	2.5%



Conceptual Options

GFA 244,750

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
Option 1 - BASE RENOVATION				
D50 ELECTRICAL				
D5010 Electrical Systems	\$6,873,138	\$6,873,138	\$28.08	20.0%
E10 EQUIPMENT				
E10 Equipment	\$960,800	\$960,800	\$3.93	2.8%
E20 FURNISHINGS				
E2010 Fixed Furnishings	\$136,674			
E2020 Movable Furnishings	NIC	\$136,674	\$0.56	0.4%
F10 SPECIAL CONSTRUCTION				
F10 Special Construction	\$425,000	\$425,000	\$1.74	1.2%
F20 SELECTIVE BUILDING DEMOLITION				
F2010 Building Elements Demolition	\$2,125,232			
F2020 Hazardous Components Abatement	\$0	\$2,125,232	\$8.68	6.2%
TOTAL DIRECT COST (Trade Costs)		\$34,439,570	\$140.71	100.0%



Conceptual Options

GFA 244,750

DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

GROSS FLOOR AREA CALCULATION

	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7
Lower Floor	17,000	17,000	11,000	36,000		
First Floor	14,000	12,000	9,000		34,000	
Second Floor	17,000	12,000	9,000			22,000
Corridors - Lower, Main and 2nd floor				8,000	13,750	13,000
TOTAL GROSS FLOOR AREA (GFA)	48,000	41,000	29,000	44,000	47,750	22,000

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

No items in this section

SUBTOTAL

A1020 SPECIAL FOUNDATIONS

Phase 2 Structural work

Allowance to upgrade existing foundations at columns

Allowance for temporary shoring 12 loc 10,000.00 120,000

New grade beams 1 ls 140,000.00 140,000

Demo and removal of existing pile caps and grade beams 12 loc 5,000.00 60,000

Allowance for new Helical augured piles or drilled mini-piles at existing columns including premium for restricted working conditions 12 loc 10,000.00 120,000

SUBTOTAL 440,000

A1030 LOWEST FLOOR CONSTRUCTION

All phases

Remove and replace slabs for new plumbing and service lines etc. 4,050 sf 10.00 40,500

Allowance to patch existing slab @ structural work 2,400 sf 10.00 24,000

Alter slope at auditorium to meet ADA requirements 6,300 sf 25.00 157,500

New equipment pads 1 ls 10,000.00 10,000

Phase 7; New elevator pits 1 ea 25,000.00 25,000

Animal barn foundations 1 ls 130,000.00 130,000

SUBTOTAL 387,000

TOTAL - FOUNDATIONS						\$827,000
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Phase 2 Structural work

Existing HSS columns -

Allowance to expose existing columns for upgrades - remove gypsum fireproofing enclosure and sheet metal outer shell; 12 columns per floor, 3 floors 36 loc 2,000.00 72,000

Allowance for supplemental reinforcement at existing columns for new bracing and augmentation of existing base plates and an/or bolts - new full height plates or channels welded to the existing column 36 loc 3,500.00 126,000



Conceptual Options

GFA

244,750

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

45	3-Story Vertical HSS bracing bays attached to existing columns including minor structural reinforcement of existing floor and roof framing member	8	loc	25,000.00	200,000		
46	Auditorium and Gymnasium wing					No additional lateral supports necessary	
47	All phases						
48	Allowance to patch existing upper floors at new MEP penetrations - All Phases	163,750	sf	1.50	245,625		
49	Allowance for ADA upgrades - new ramps to allow HC access	500	sf	70.00	35,000		
50	Fire stopping floors	1	ls	15,000.00	15,000		
51	Phase 7; Create new openings in structure for elevator	288	sf	25.00	7,200		
51	New penetrations to existing structure	1	ls	20,000.00	20,000		
52	Fire proofing to new steel	1	ls	100,000.00	100,000		
53	SUBTOTAL						820,825

B1020 ROOF CONSTRUCTION

56	All phases						
56	Structural upgrades at roof					Not required	
57	Allowance for penetrations and dunnage at existing roof structure for new MEP systems	1	ls	25,000.00	25,000		
58	Phase 7; New openings in structure for elevator	1	loc	10,000.00	10,000		
59	SUBTOTAL						35,000

TOTAL - SUPERSTRUCTURE

\$855,825

B20 EXTERIOR CLOSURE

66	B2010 EXTERIOR WALLS	62,800	sf				
67	Allowance for minor patching/ repair at existing closure	41,896	sf	7.00	293,272		
68	Insulate existing walls	41,896	sf	4.00	167,584		
68	SUBTOTAL						460,856

B2020 WINDOWS/CURTAINWALL

70	New Kalwal window system at 3 story Classroom wing	20,904	sf				
72	Phase 3	12,384	sf	85.00	1,052,640		
73	Phase 4	8,520	sf	85.00	724,200		
74	SUBTOTAL						1,776,840

B2030 EXTERIOR DOORS

77	<u>Allowance to replace all existing exterior doors</u>						
78	Glazed entrance doors including frame and hardware; per leaf	6	pr	7,000.00	42,000		
79	HM doors, HM frames and hardware (leafs)	30	lvs	1,300.00	39,000		
80	Overhead doors @ Loading and Workshops	10	ea	5,000.00	50,000		
81	Backer rod & double sealant	930	lf	4.00	3,720		
82	Wood blocking at openings	930	lf	3.00	2,790		
83	SUBTOTAL						137,510

TOTAL - EXTERIOR CLOSURE

\$2,375,206

B30 ROOFING



Conceptual Options

GFA

244,750

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

89								
90	B3010 ROOF COVERINGS							
91	Flat roofing							
92	Remove existing membrane roofing	81,000	sf	2.25	ETR			
93	TPO roof membrane fully adhered	81,000	sf	5.00	ETR			
94	Insulation	81,000	sf	4.50	ETR			
95	1/2" protection board	81,000	sf	1.50	ETR			
96	Reinforced vapor barrier	81,000	sf	0.45	ETR			
97	Miscellaneous Roofing							
98	Roof edge detail - fascia	2,000	lf	80.00	ETR			
99	Rough blocking	12,000	lf	4.00	ETR			
100	Allowance for additional roof drains and scuppers	1	ls	15,000.00		15,000		
101	Allowance for new gutters and downspouts	1	ls	10,000.00		10,000		
102	New drop-off canopy allowance	1	ls	200,000.00		200,000		
103	Walk pads	1	ls	5,000.00		5,000		
104	SUBTOTAL						230,000	
105								
106	B3020 ROOF OPENINGS							
107	Allowance for elevator vent, roof hatches, ladders etc	1	ls	20,000.00		20,000		
108	SUBTOTAL						20,000	
109								
110	TOTAL - ROOFING							\$250,000
111								
112								
113	C10 INTERIOR CONSTRUCTION							
114								
115	C1010 PARTITIONS							
116	Minimal patch, repair of existing partitions ; allowance Phases 2 - 7	244,750	sf	2.00	489,500			
117	Allowance for MEP chases, new partitions for ADA requirements; allowance Phases 2 - 7	244,750	sf	3.00	734,250			
118	SUBTOTAL						1,223,750	
119								
120	C1020 INTERIOR DOORS							
121	New interior doors, frames and hardware in existing openings; allowance Phases 2 - 7	244,750	sf	3.00	734,250			
122	SUBTOTAL						734,250	
123								
124	C1030 SPECIALTIES / MILLWORK							
125	Toilet Partitions and accessories	244,750	sf	0.50	122,375			
126	Backer panels in electrical closets	1	ls	2,000.00	2,000			
127	Marker boards/tack boards in classrooms, offices, conference rooms, library and MP rooms (Smart boards in Equipment section)	244,750	sf	0.50	122,375			
128	Shelving in storage rooms	1	ls	10,000.00	10,000			
129	Staff mailboxes/casework	1	ls	10,000.00	10,000			
130	Signage & Directories	244,750	gsf	0.30	73,425			
131	Fire extinguisher cabinets	70	ea	350.00	24,500			
132	Lockers; corridors	1,500	opng	190.00	285,000			
133	Lockers; athletic	100	opng	210.00	21,000			
134	Lockers; team	200	opng	290.00	58,000			
135	Lockers; staff	115	opng	240.00	27,600			



Conceptual Options

GFA 244,750

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

136	Janitors Closet Accessories	12	rms	300.00	3,600			
137	Reception/ Library/ Circulation desks	1	ls	50,000	50,000			
#REF!	Science classroom casework	14	rm	50,000.00	700,000			
#REF!	Counters, base cabinets, tall storage in classrooms/Cart storage	50	rms	2,600.00	130,000			
#REF!	New/repair casework in Specialty classrooms; Home Economics, Kitchen, Cosmetology etc	58,920	sf	3.00	176,760			
138	Library shelving					F,F & E		
139	Display cases	1	ls	30,000	30,000			
140	Miscellaneous metals throughout building	244,750	sf	0.60	146,850			
141	Miscellaneous sealants throughout building	244,750	sf	0.35	85,663			
142	SUBTOTAL						2,079,148	
144	TOTAL - INTERIOR CONSTRUCTION							\$4,037,148

C20 STAIRCASES

C2010 STAIR CONSTRUCTION

150	Add new handrails extensions to existing stairs	10	ft	5,700.00	57,000		
151	Existing stairs	10	ft		ETR		
152	SUBTOTAL						57,000

C2020 STAIR FINISHES

155	New finishes to stairs	10	flts	2,000.00	20,000		
156	SUBTOTAL						20,000

TOTAL - STAIRCASES \$77,000

C30 INTERIOR FINISHES

C3010 WALL FINISHES

164	Wall finishes; painting; wall tile etc. - all Phases	244,750	gsf	4.00	979,000		
165	SUBTOTAL						979,000

C3020 FLOOR FINISHES

168	Prepare existing floors	232,513	sf	2.00	465,026		
169	Flooring at corridors/lobby/classrooms; linoleum	174,093	sf	6.00	1,044,558		
170	Carpet in Library, assoc. areas	7,880	sf	5.00	39,400		
171	Repair/ refinish wood floor in Gymnasium	13,690	sf	8.00	109,520		
172	New stage floor, stairs including repairs to existing substrate	2,150	sf	20.00	43,000		
173	Sealed concrete in Workshops and back of house spaces	16,480	sf	1.50	24,720		
174	Kitchen/ Culinary flooring; tile	9,750	sf	17.00	165,750		
175	Locker room/Weight room floor finish	5,960	sf	10.00	59,600		
176	New tile floors to toilet rooms	2,510	sf	15.00	37,650		
177	SUBTOTAL						1,989,224

C3030 CEILING FINISHES

180	Ceiling finishes; allowance for all ceiling finishes/soffits etc. - all Phases	232,513	sf	5.50	1,278,822		
181	SUBTOTAL						1,278,822



Conceptual Options

GFA

244,750

DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

TOTAL - INTERIOR FINISHES						\$4,247,046
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D10 CONVEYING SYSTEMS						
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D1010 ELEVATORS						
Phase 7; New passenger elevator, 3 stop	1	ea	105,000.00	105,000		
New lift at Stage	1	ls	15,000.00	15,000		
Pit ladder, elevator rails etc	1	ls	2,500.00	2,500		
SUBTOTAL					122,500	

TOTAL - CONVEYING SYSTEMS						\$122,500
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D20 PLUMBING						
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D20 PLUMBING, GENERALLY						
Plumbing; replace fixtures and piping	244,750	gsf	9.50	2,325,125		
SUBTOTAL					2,325,125	

TOTAL - PLUMBING						\$2,325,125
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D30 HVAC						
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D30 HVAC, GENERALLY						
<u>Heating equipment</u>						
Hot water heating plant	12,000	mbh	20.00	240,000		
Hot water heating plant, Auto Technology	990	mbh	35.00	34,650		
Hot water heating plant, Animal Science	990	mbh	35.00	34,650		
Perimeter heating devices	264,750	sf	1.00	264,750		
<u>Cooling Equipment</u>						
Air-cooled chilled water plant	100	ton	1,500.00	150,000		
Terminal cooling equipment	1	ls	50,000.00	50,000		
Chilled beams	1	ls	100,000.00	100,000		
<u>Air distribution</u>						
<u>Air Handling Unit</u>						
Packaged rooftop AC units	372	ton	3,750.00	1,395,000		
Packaged rooftop AC units, modular classrooms	40	ton	3,750.00	150,000		
Air handling units, heating only	37,500	cfm	7.00	262,500		
Make-up air unit	2	ea	6,000.00	12,000		
Miscellaneous air distribution equipment	264,750	sf	1.25	330,938		
<u>Exhaust fan s</u>						
Dishwasher exhaust fan	2	ea	3,500.00	7,000		
Kitchen exhaust fan	2	ea	7,500.00	15,000		
Paint booth exhaust fan	1	ea	25,000.00	25,000		
Dust collection system	2	ea	75,000.00	150,000		
Exhaust fans	1	ls	25,000.00	25,000		
Vehicle exhaust system	1	ls	25,000.00	25,000		
<u>Sheet metal & Accessories</u>						
Ductwork, insulation and accessories	215,000	lbs	8.00	1,720,000		
<u>Piping</u>						
Piping, valves and insulation	264,750	sf	7.00	1,853,250		
<u>Controls (DDC)</u>						



Conceptual Options

GFA

244,750

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

237	Automatic temperature controls	264,750	sf	4.50	1,191,375			
238	<u>Balancing</u>							
239	System testing & balancing	264,750	sf	0.45	119,138			
240	<u>Miscellaneous</u>							
241	Phasing allowance	1	ls	100,000.00	100,000			
242	Demolition	1	ls	75,000.00	75,000			
243	Coordination & management	1	ls	50,000.00	50,000			
244	Commissioning support	1	ls	40,000.00	40,000			
245	Coring, sleeves & fire stopping	1	ls	20,000.00	20,000			
246	Equipment start-up and inspection	1	ls	15,000.00	15,000			
247	Rigging & equipment rental	1	ls	50,000.00	50,000			
248	Deduct for CTC building	(20,000)	sf	28.00	(560,000)			
249	SUBTOTAL					7,945,251		
250								
251	TOTAL - HVAC						\$7,945,251	

D40 FIRE PROTECTION

256	D40 FIRE PROTECTION, GENERALLY							
257	Fire protection system	244,750	gsf	3.50	856,625			
258	SUBTOTAL					856,625		
259								
260	TOTAL - FIRE PROTECTION						\$856,625	

D50 ELECTRICAL

265	D5010 SERVICE & DISTRIBUTION						
266	Gear & Distribution						
267	<u>Normal Power</u>						
268	3000A Gear and distribution allowance	264,750	sf	3.00	794,250		
269	<u>Emergency power</u>						
270	300kW natural gas genset	1	ea	175,000.00	175,000		
271	Gear and distribution allowance	264,750	sf	1.35	357,413		
272	30kW UPS system	2	ea	25,000.00	50,000		
273	<u>Equipment Wiring</u>						
274	Equipment wiring allowance	264,750	sf	2.00	529,500		
275	Kitchen equipment allowance	1	ls	20,000.00	20,000		
276	SUBTOTAL					1,926,163	
277							
278	D5020 LIGHTING & POWER						
279	<u>Lighting & Branch Power</u>						
280	Lighting allowance (LED)	264,750	sf	5.00	1,323,750		
281	<u>Lighting controls</u>						
282	Lighting controls, local, daylight sensing and dimming	264,750	sf	1.00	264,750		
283	<u>Branch devices</u>						
284	Branch devices	264,750	sf	0.40	105,900		
285	<u>Lighting and branch circuitry</u>						
286	Branch & lighting circuitry	264,750	sf	5.00	1,323,750		
287	SUBTOTAL					3,018,150	
288							
289	D5030 COMMUNICATION & SECURITY SYSTEMS						



Conceptual Options

GFA 244,750

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

290	<u>Fire Alarm</u>						
291	Fire alarm system	264,750	sf	1.50	397,125		
292	<u>Security System</u>						
293	Security System	264,750	sf	1.00	264,750		
294	<u>Telephone/Data/CATV</u>						
295	Telecommunications rough in & devices and cabling	264,750	sf	2.50	661,875		
296	<u>Sound Systems</u>						
297	Gymnasium sound system	1	ls	20,000.00	20,000		
298	Cafeteria sound system	1	ls	20,000.00	20,000		
299	Music room sound system	1	ls	10,000.00	10,000		
300	<u>Bi-Directional Amplification System</u>						
301	BDA system	1	ls	50,000.00	50,000		
302	<u>Master Clock & PA System</u>						
303	Master clock and PA system	264,750	sf	0.80	211,800		
304	<u>Speech Amplification System</u>						
305	Speech amplification system	NIC					
306	<u>Audio/Visual</u>						
307	AV rough-in and power (devices and cabling by other)	264,750	sf	0.40	105,900		
308	<u>Theatrical</u>						
309	Stage lighting, dimming and controls	1	ls	200,000.00	200,000		
310	A/V rough-in and power only	1	ls	100,000.00	100,000		
311	<u>Gymnasium</u>						
312	Gym equipment feed and connection (scoreboard carried by other)	1	ls	10,000.00	10,000		
313	SUBTOTAL					2,051,450	

D5040 OTHER ELECTRICAL SYSTEMS

316	<u>Miscellaneous</u>						
317	Temp power and lights	1	ls	100,000.00	100,000		
318	Coordination study and testing	1	ls	20,000.00	20,000		
319	Demo & make safe	264,750	sf	0.50	132,375		
320	Lightning Protection	1	ls	75,000.00	75,000		
321	Phasing	1	ls	30,000.00	30,000		
322	Fees & Permits	1	ls	80,000.00	80,000		
323	SUBTOTAL					437,375	
324							
325	Deduct for CTC building	(20,000)	sf	28.00	(560,000)		
326	SUBTOTAL					(560,000)	

TOTAL - ELECTRICAL

\$6,873,138

E10 EQUIPMENT

E10 EQUIPMENT, GENERALLY

334	<u>Gymnasium</u>						
335	Gym wall pads	1	ls	20,000.00	20,000		
336	Basketball backstops; swing up; electric operated	6	ea	9,800.00	58,800		
337	Gymnasium dividing net; electrically operated	1	loc	25,000.00	25,000		
338	Volleyball net and standards	1	ea	2,000.00	2,000		
339	Telescoping bleachers - allowance	1	ls	30,000.00	30,000		



Conceptual Options

GFA 244,750

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 1 - BASE RENOVATION

340	<u>Auditorium</u>						
341	Theatrical Equipment Stage curtains, rigging and controls - allowance	1	ls	150,000	175,000		
342	New seating - assume	800	ea	250.00	200,000		
343	<u>Cafeteria</u>						
344	Food Service equipment - allowance	1	ls	450,000.00	450,000		
345	Classrooms, Science rooms, Specialty Classrooms						
346	Smart boards	70	loc	3,800.00	FF+E		
#REF!	Science room Equipment				FF+E		
#REF!	SUBTOTAL					960,800	

TOTAL - EQUIPMENT						\$960,800
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E20 FURNISHINGS

E2010 FIXED FURNISHINGS

#REF!	Entry mats & frames	250	sf	45.00	11,250		
#REF!	Window blinds @ replaced windows	20,904	sf	6.00	125,424		
#REF!	SUBTOTAL					136,674	

E2020 MOVABLE FURNISHINGS

#REF!	All movable furnishings to be provided and installed by owner						
#REF!	SUBTOTAL					NIC	

TOTAL - FURNISHINGS						\$136,674
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F10 SPECIAL CONSTRUCTION

F10 SPECIAL CONSTRUCTION

#REF!	Animal barn prefabricated building; complete	8,500	sf	50.00	425,000		
#REF!	Temporary Modular Classrooms			See Main Summary			
#REF!	SUBTOTAL					425,000	

TOTAL - SPECIAL CONSTRUCTION						\$425,000
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F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

#REF!	Phase 2-7						
#REF!	Demo and remove interior finishes; floor finish, ceilings, wall finishes (majority of partitions to remain), doors, millwork/casework and specialties	244,750	sf	7.00	1,713,250		
#REF!	Remove existing interior partitions for reconfiguration of existing spaces, majority ADA reconfigurations	244,750	sf	0.50	122,375		
#REF!	MEP systems - removal of cut and capped systems	244,750	sf	0.50	122,375		
#REF!	Demo and remove existing façade at Classroom wing	20,904	sf	8.00	167,232		
#REF!	Demo and remove existing flat roofing	81,000	sf	included with roofing			
#REF!	SUBTOTAL					2,125,232	

F2020 HAZARDOUS COMPONENTS ABATEMENT



Dover Regional High School and Career Technical Center
Dover, NH

22-Jun-15

Conceptual Options

GFA 244,750

	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>EST'D COST</i>	<i>SUB TOTAL</i>	<i>TOTAL COST</i>
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Option 1 - BASE RENOVATION

#REF! See summary
#REF! SUBTOTAL

#REF!	TOTAL - SELECTIVE BUILDING DEMOLITTON						\$2,125,232
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#REF!



Conceptual Options

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION 1 BASE RENOVATION SITEWORK

G SITEWORK

G10 SITE PREPARATION & DEMOLITION

Site Demolitions and Relocations

Allowance for contractor laydown area/ wheel wash etc 1 ls 20,000.00 20,000

Site construction fence/barricades/gates 1,500 lf 8.00 12,000

Miscellaneous demolition including removal of existing ball field and associated components, parking lot at Animal Science building, existing parking areas being replaced 180,200 sf 0.75 135,150

Allowance for temporary walkways for access to Modular Classrooms 1 ls 10,000.00 10,000

Site Earthwork

Minor regrading/ fine grading at new CTC and Animal Science buildings 1 ls 25,000.00 25,000

Silt fence/erosion control allowance 1 ls 10,000.00 10,000

SUBTOTAL 212,150

G20 SITE IMPROVEMENTS

Allowance to replace 21 spaces disturbed by Animal Science building work 4,200 sf 3.00 12,600

Full depth pavement reconstruction at Lot A,B,C and 1989 Addition 170,000 sf 4.00 680,000

Bituminous concrete curb replacement - replace/ install 5,000 lf 12.00 60,000

Grind and place 1" pavement overlay at Senior lot 59,000 sf 1.50 88,500

Replace asphalt sidewalk along Alumni Drive 6,000 sf 3.00 18,000

Allowance for accessible ramps, stairs, handrails, landings at doorways etc to comply with ADA requirements 1 ls 30,000.00 30,000

Allowance for new walkways at CTC building and Animal Science building 5,000 sf 6.00 30,000

Allowance to minor reconfiguration, patch and repair Alumni Drive roadway 20,000 sf 1.25 25,000

Football Field

Turf football field; complete 1 ls 750,000.00 750,000

Landscaping

Allowance to repair landscaped areas disturbed by new work 1 ls 50,000.00 50,000

Irrigation NIC

SUBTOTAL 1,744,100

G30 CIVIL MECHANICAL UTILITIES

Stormwater

Allowance to remove underdrain at existing ball field 1 ls 20,000.00 20,000

Allowance for storm water reconfiguration/ extension at new building, site areas 1 ls 500,000.00 500,000

Water supply

Allowance to extend water supply to CTC building 1 ls 30,000.00 30,000

Sanitary / Sewer



Conceptual Options

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 1 BASE RENOVATION SITEWORK								
36	Allowance to extend sanitary line to new CTC building	1	ls	20,000.00	20,000			
37	<u>Gas</u>							
38	Allowance to extend gas line to new CTC building	1	ls	5,000.00	5,000			
	<u>Modular Classrooms</u>							
39	Allowance for temporary connections to Modular Classrooms	1	ls	75,000.00	75,000			
40	SUBTOTAL					650,000		
41								
42	G40 ELECTRICAL UTILITIES							
43	<u>Power</u>							
44	Riser pole, connection at existing	1	ea	2,000.00	2,000			
45	Primary ductbank	100	lf	55.00	5,500			
46	Primary cabling						Utility company	
47	Pad mounted transformer	1	ea	50,000.00	50,000			
48	Transformer pad	1	ea	2,000.00	2,000			
49	Secondary ductbank							
50	3000A Secondary ductbank cabling	50	lf	750.00	37,500			
51	Generator ductbank							
52	Generator ductbank	50	lf	250.00	12,500			
53	<u>Communications</u>							
54	Communications ductbank	150	lf	85.00	12,750			
55	<u>Site Lighting</u>							
56	Site lighting allowance	1	ls	40,000.00	40,000			
	<u>Modular Classrooms</u>							
57	Allowance for temporary connections to Modular Classrooms	1	ls	25,000.00	25,000			
57	SUBTOTAL					187,250		
58								
59	TOTAL - SITE DEVELOPMENT							\$2,793,500



Option 2 - RENOVATION/ ADDITION
Dover, NH

22-Jun-15

Conceptual Options

GFA 294,500

CONSTRUCTION COST SUMMARY

BUILDING SYSTEM		SUB-TOTAL	TOTAL	\$/SF	%
Option 2 - RENOVATION/ ADDITION					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$2,218,107			
A1020	Special Foundations	\$231,000			
A1030	Lowest Floor Construction	\$1,692,284	\$4,141,391	\$14.06	8.2%
A20 BASEMENT CONSTRUCTION					
A2010	Basement Excavation	\$0			
A2020	Basement Walls	\$0	\$0	\$0.00	0.0%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$2,569,336			
B1020	Roof Construction	\$3,623,284	\$6,192,620	\$21.03	12.3%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$3,636,348			
B2020	Windows	\$2,372,767			
B2030	Exterior Doors	\$136,963	\$6,146,078	\$20.87	12.2%
B30 ROOFING					
B3010	Roof Coverings	\$1,792,366			
B3020	Roof Openings	\$20,000	\$1,812,366	\$6.15	3.6%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$2,605,880			
C1020	Interior Doors	\$801,750			
C1030	Specialties/Millwork	\$1,945,100	\$5,352,730	\$18.18	10.6%
C20 STAIRCASES					
C2010	Stair Construction	\$162,000			
C2020	Stair Finishes	\$38,500	\$200,500	\$0.68	0.4%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$944,263			
C3020	Floor Finishes	\$2,037,898			
C3030	Ceiling Finishes	\$1,205,112	\$4,187,273	\$14.22	8.3%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$157,600	\$157,600	\$0.54	0.3%
D20 PLUMBING					



Option 2 - RENOVATION/ ADDITION
Dover, NH

22-Jun-15

Conceptual Options

GFA 294,500

CONSTRUCTION COST SUMMARY					
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
Option 2 - RENOVATION/ ADDITION					
D20	Plumbing	\$2,665,902	\$2,665,902	\$9.05	5.3%
D30 HVAC					
D30	HVAC	\$8,135,150	\$8,135,150	\$27.62	16.2%
D40 FIRE PROTECTION					
D40	Fire Protection	\$1,030,750	\$1,030,750	\$3.50	2.0%
D50 ELECTRICAL					
D5010	Electrical	\$8,086,699	\$8,086,699	\$27.46	16.1%
E10 EQUIPMENT					
E10	Equipment	\$950,800	\$950,800	\$3.23	1.9%
E20 FURNISHINGS					
E2010	Fixed Furnishings	\$426,210			
E2020	Movable Furnishings	NIC	\$426,210	\$1.45	0.8%
F10 SPECIAL CONSTRUCTION					
F10	Special Construction	\$425,000	\$425,000	\$1.44	0.8%
F20 HAZMAT REMOVALS					
F2010	Building Elements Demolition	\$457,020			
F2020	Hazardous Components Abatement	\$0	\$457,020	\$1.55	0.9%
TOTAL DIRECT COST (Trade Costs)			\$50,368,089	\$171.03	100.0%



Conceptual Options

GFA 294,500

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 2 - RENOVATION/ ADDITION

GROSS FLOOR AREA CALCULATION

	New	Reno
Ground Floor		12,810
First Floor	150,288	45,524
Third Floor	78,288	7,590
Total GSF	228,576	65,924

TOTAL GROSS FLOOR AREA (GFA)

294,500 sf

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Pile foundations

Excavation	1,355	cy	10.00	13,550
Remove off site	1,355	cy	12.00	16,260
Backfill with gravel	452	cy	28.00	12,656
Grade beams - allow 24" x 48"	684	cy	500.00	342,000
Pile caps - allowance (assume 25' grid)	219	cy	500.00	109,500
Dampproofing & insulation at grade beams	2,400	sf	5.00	12,000

Auger cast pier foundations

Strip footings to new exterior walls

Excavation	3,106	cy	10.00	31,060
Remove off site	3,106	cy	12.00	37,272
Backfill with gravel	2,866	cy	28.00	80,248
Formwork	5,300	sf	8.00	42,400
Re-bar	26,500	lbs	1.00	26,500
Concrete material; 3,000 psi	240	cy	100.00	24,000
Placing concrete	240	cy	45.00	10,800

Foundation walls at exterior

Formwork	21,200	sf	9.00	190,800
Re-bar	53,000	lbs	1.00	53,000
Concrete material; 4,000 psi	549	cy	100.00	54,900
Placing concrete	549	cy	45.00	24,705
Dampproofing foundation wall and footing	15,900	sf	1.00	15,900
Insulation to foundation walls; 2" thick	10,600	sf	1.50	15,900

Isolated column footings

Excavation	1,852	cy	10.00	18,520
Remove off site	1,852	cy	12.00	22,224
Backfill with gravel	1,074	cy	28.00	30,072
Formwork	8,000	sf	8.00	64,000
Re-bar	18,024	lbs	1.00	18,024
Concrete material; 3,000 psi	778	cy	100.00	77,800
Placing concrete	778	cy	45.00	35,010

Aggregate pier system

Aggregate piers, assume 18" diameter, 20' deep, 8' x 8' grid	67,288	sf	12.00	807,456
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Elevator Pits; 2 locations

Excavation	168	cy	15.00	2,520
Remove off site	168	cy	12.00	2,016
Backfill with gravel	8	cy	28.00	224
Elevator pit walls				
formwork	800	sf	10.00	8,000



Option 2 - RENOVATION/ ADDITION
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GFA

294,500

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
Option 2 - RENOVATION/ ADDITION								
52	reinforcement	1,600	lbs	1.00	1,600			
53	concrete material	10	cy	100.00	1,000			
54	placing concrete	10	cy	45.00	450			
55	Slab							
56	formwork	300	sf	10.00	3,000			
57	reinforcement	1,500	lbs	1.00	1,500			
58	concrete material in slab	12	cy	100.00	1,200			
59	placing concrete	12	cy	45.00	540			
60	Bentonite waterstops	1	ls	500.00	500			
61	Cementitious waterproofing to elevator pit	600	sf	15.00	9,000			
62	SUBTOTAL					2,218,107		
63								
64	A1020 SPECIAL FOUNDATIONS							
65	Mobilize/ Demobilize	1	ls	15,000.00	15,000			
66	HP Steel piles, assume 30' deep	2,700	lf	80.00	216,000			
67	SUBTOTAL					231,000		
68								
69	A1030 LOWEST FLOOR CONSTRUCTION							
70	Remove and replace slabs for new plumbing and service lines etc. @ renovation areas	1,190	sf	10.00	11,900			
71	<u>New slab</u>							
72	Gravel fill, 8"	3,713	cy	28.00	103,964			
73	Rigid insulation, 4' perimeter	10,600	sf	1.87	19,822			
74	Vapor barrier	150,288	sf	0.55	82,658			
75	Slab on grade, 4" thick	100,288	sf	5.00	501,440			
76	Structural Slab, 10" thick	50,000	sf	12.00	600,000			
77	Equipment pads	1	ls	25,000.00	25,000			
78	Perimeter drain	1	ls	60,000.00	60,000			
79	Alter slope at auditorium to meet ADA requirements	6,300	sf	25.00	157,500			
80	Animal barn foundations	1	ls	130,000.00	130,000			
81	SUBTOTAL					1,692,284		
82								
83	TOTAL - FOUNDATIONS							\$4,141,391
84								
85								
86	A20 BASEMENT CONSTRUCTION							
87								
88	A2010 BASEMENT EXCAVATION							
89	No Work in this section							
90	SUBTOTAL							
91								
92	A2020 BASEMENT WALLS							
93	No Work in this section							
94	SUBTOTAL							
95								
96	TOTAL - BASEMENT CONSTRUCTION							
97								
98								
99	B10 SUPERSTRUCTURE							
100		12	lbs/sf					
101	B1010 FLOOR CONSTRUCTION	1,336	tns					
102	<u>Floor Structure - Steel:</u>							
103	Steel beams and columns; allow 13 lbs per SF	509	tns	3,100.00	1,577,900			



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
Option 2 - RENOVATION/ ADDITION								
104	Shear studs	19,572	ea	2.50	48,930			
105	<u>Floor Structure</u>							
106	2" Metal floor deck	78,288	sf	3.00	234,864			
107	WWF reinforcement	90,031	sf	0.60	54,019			
108	Concrete Fill to metal deck; 5 1/2" thick; normal weight	1,522	cy	100.00	152,200			
109	Place and finish concrete	78,288	sf	2.00	156,576			
110	Misc. angles	6,400	lf	20.00	128,000			
111	<u>Miscellaneous</u>							
112	Fire proofing to columns and beams	78,288	sf	1.80	140,918			
113	Fire stopping floors	78,288	sf	0.10	7,829			
114	Allowance for expansion joints/ tie existing structure into new	908	lf	75.00	68,100			
115	SUBTOTAL					2,569,336		
116								
117	B1020 ROOF CONSTRUCTION							
118	<u>Roof Structure - Steel:</u>							
119	Steel joist system; allowance 11 lbs per SF	827	tns	3,100.00	2,563,700			
120	<u>Roof Structure</u>							
121	1-1/2" Metal Roof Deck	150,288	sf	2.50	375,720			
122	<u>Miscellaneous</u>							
123	Fire proofing to columns, beams and deck	150,288	sf	3.00	450,864			
124	Entrance canopy framing	1	ls	100,000.00	100,000			
124	Allowance for dunnage/ curbs	1	ls	25,000.00	25,000			
125	Animal barn adjustment	1	ls	108,000.00	108,000			
126	SUBTOTAL					3,623,284		
127								
128	TOTAL - SUPERSTRUCTURE							\$6,192,620
129								
130								
131	B20 EXTERIOR CLOSURE							
132		102,200	sf					
133	B2010 EXTERIOR WALLS - 70% masonry, 30% glazing							
134	<u>Interior skin</u>							
135	6" metal stud backup	71,540	sf	5.50	393,470			
136	Insulation	71,540	sf	2.25	160,965			
137	Air barrier	71,540	sf	4.00	286,160			
138	Air barrier/flashing at windows	10,118	lf	6.50	65,767			
139	Gypsum Sheathing	71,540	sf	2.50	178,850			
140	Drywall lining to interior face of stud backup	71,540	sf	2.40	171,696			
141	<u>Exterior skin</u>							
142	Brick veneer	71,540	sf	26.00	1,860,040			
142	Repoint existing exterior wall	1	ls	90,000.00	90,000			
143	Infill existing wall and insulate	1	ls	225,000.00	225,000			
144	<u>Miscellaneous</u>							
145	Staging to exterior wall	102,200	sf	2.00	204,400			
146	SUBTOTAL					3,636,348		
147								
148	B2020 WINDOWS	30,660	sf					
149	Windows/Curtainwall/Storefront	30,660	sf	75.00	2,299,500			
150	Louvers (allowance)	150	sf	50.00	7,500			
151	Backer rod & double sealant	10,118	lf	4.00	40,472			
152	Wood blocking at openings	10,118	lf	2.50	25,295			



Option 2 - RENOVATION/ ADDITION
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GFA

294,500

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 2 - RENOVATION/ ADDITION

153	SUBTOTAL					2,372,767		
154								
155	B2030 EXTERIOR DOORS							
156	Glazed entrance doors including frame and hardware; double door	12	pr	7,000.00	84,000			
157	HM doors, frames and hardware- double	5	pr	2,500.00	12,500			
158	HM doors, frames and hardware- single	7	ea	1,600.00	11,200			
159	Allowance for overhead doors at Workshops & Loading dock	5	ea	5,000.00	25,000			
160	Backer rod & double sealant	609	lf	4.00	2,436			
161	Wood blocking at openings	609	lf	3.00	1,827			
162	SUBTOTAL					136,963		
163								
164	TOTAL - EXTERIOR CLOSURE							\$6,146,078

B30 ROOFING

167	B3010 ROOF COVERINGS							
168	<u>Flat roofing</u>							
170	White TPO roofing	150,288	sf	5.00	751,440			
171	Insulation	150,288	sf	4.50	676,296			
172	Reinforced vapor barrier	150,288	sf	0.45	67,630			
173	Rough blocking	21,000	lf	4.00	84,000			
174	<u>Miscellaneous Roofing</u>							
175	Allowance for entrance canopy roofing, soffit	2,000	sf	50.00	100,000			
176	Roof coping/ fascia	3,500	lf	30.00	105,000			
177	Roof ladders	1	ls	3,000.00	3,000			
178	Walk pads	1	ls	5,000.00	5,000			
179	SUBTOTAL					1,792,366		
180								
181	B3020 ROOF OPENINGS							
182	Allowance for elevator vents, roof hatches, smoke hatch etc	1	loc	20,000.00	20,000			
183	SUBTOTAL					20,000		
184								
185	TOTAL - ROOFING							\$1,812,366

C10 INTERIOR CONSTRUCTION

186	C1010 PARTITIONS						
187	Corridor partitions; abuse resistant drywall	62,800	sf	10.00	628,000		
188	Typical interior partitions	67,100	sf	8.00	536,800		
189	Premium for elevator and stair shafts	9,880	sf	5.00	49,400		
190	Interior glazing - allowance	2,200	sf	60.00	132,000		
191	Allowance for interior partitions not yet shown in Addition	228,576	sf	5.00	1,142,880		
192	Allowance for infills/repair/ furring at existing closure now interior	14,600	sf	8.00	116,800		
193	SUBTOTAL					2,605,880	
194							
195	C1020 INTERIOR DOORS						
196	Interior doors, frames and hardware; single leaf	220	ea	1,300.00	286,000		
197	Interior doors, frames and hardware; double leaf	30	pr	1,800.00	54,000		
198	Coiling doors at CTE workshops, Cafeteria etc	1	ls	20,000.00	20,000		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
Option 2 - RENOVATION/ ADDITION								
203	Allowance for borrowed lites, vision panels & specialty hardware	294,500	sf	0.25	73,625			
204	Allowance for interior doors not yet shown	294,500	sf	1.25	368,125			
205	SUBTOTAL					801,750		
206								
207	C1030 SPECIALTIES / MILLWORK							
208	Toilet Partitions and accessories	294,500	sf	0.50	147,250			
209	Backer panels in electrical closets	1	ls	3,000.00	3,000			
210	Marker boards/tack boards in classrooms, offices, conference rooms, library and MP rooms (Smart boards in Equipment section)	294,500	sf	0.50	147,250			
211	Shelving in storage rooms	1	ls	10,000.00	10,000			
212	Staff mailboxes/casework	1	ls	10,000.00	10,000			
213	Signage & Directories	294,500	gsf	0.30	88,350			
214	Fire extinguisher cabinets	84	ea	350.00	29,400			
215	Lockers; corridors	1,500	opng	190.00	285,000			
216	Lockers; athletic	100	opng	210.00	21,000			
217	Lockers; team	200	opng	290.00	58,000			
218	Lockers; staff	115	opng	240.00	27,600			
219	Janitors Closet Accessories	12	rms	300.00	3,600			
220	Rail at open to below areas	440	lf	250.00	110,000			
221	Reception/ Library/ Circulation desks	1	ls	50,000	50,000			
222	Library shelving				F,F & E			
223	Display cases	1	ls	30,000.00	30,000			
224	Science classroom casework	13	rm	50,000.00	650,000			
225	Counters, base cabinets, tall storage/Cart storage in classrooms	49	rms	2,600.00	127,400			
226	Miscellaneous metals throughout building	294,500	sf	0.25	73,625			
227	Miscellaneous sealants throughout building	294,500	sf	0.25	73,625			
228	SUBTOTAL					1,945,100		
229								
230	TOTAL - INTERIOR CONSTRUCTION						\$5,352,730	
231								
232								
233	C20 STAIRCASES							
234								
235	C2010 STAIR CONSTRUCTION							
236	Metal pan stair	6	fit	20,000.00	120,000			
237	Concrete fill to stairs	6	fit	2,000.00	12,000			
238	Communicating stairs in Town square area, complete	1	fit	30,000.00	30,000			
239	SUBTOTAL					162,000		
240								
241	C2020 STAIR FINISHES							
242	Paint to stairs including all railings etc.	7	fit	2,500.00	17,500			
243	Rubber tile at stairs	7	lft	3,000.00	21,000			
244	SUBTOTAL					38,500		
245								
246	TOTAL - STAIRCASES						\$200,500	
247								
248								
249	C30 INTERIOR FINISHES							
250								
251	C3010 WALL FINISHES							
252	Paint to interior walls	331,340	sf	0.85	281,639			



Option 2 - RENOVATION/ ADDITION
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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
Option 2 - RENOVATION/ ADDITION								
253	Allowance for paint to existing walls to remain	65,924	gsf	1.00	65,924			
254	CT wainscot to walls in corridors, stairwells and Town hall square; 5' high	27,500	sf	12.00	330,000			
255	CT tile in bathrooms	5,350	sf	12.00	64,200			
256	New acoustic & wood wall panels in Auditorium	4,500	sf	45.00	202,500			
257	SUBTOTAL					944,263		
258								
259	C3020 FLOOR FINISHES							
260	Linoleum tile to classrooms and general spaces	145,881	sf	6.00	875,286			
261	Flooring at corridors/lobby; linoleum tile with pattern	51,335	sf	7.00	359,345			
262	Repair/ refinish wood floor in Gymnasium	13,310	sf	18.00	239,580			
263	New stage floor, stairs including repairs to existing substrate	2,150	sf	20.00	43,000			
264	Sports flooring in Weight, Alt PE area	5,460	sf	11.00	60,060			
265	Carpet in Auditorium aisles, Admin areas	10,000	sf	5.00	50,000			
266	Kitchen, Culinary Kitchen & Restaurant flooring; quarry tile or similar	7,994	sf	17.00	135,898			
267	Locker room floor finish	6,319	sf	10.00	63,190			
268	New tile floors to toilet rooms	3,437	sf	15.00	51,555			
269	Sealed concrete floors in Workshops, storage, equipment areas	22,385	sf	1.50	33,578			
270	Allowance for bases and miscellaneous floor finishes	252,811	sf	0.50	126,406			
271	Lower level areas	12,810	sf	ETR				
272	SUBTOTAL					2,037,898		
273								
274	C3030 CEILING FINISHES							
275	Exposed ceilings in CTC workshops & Town Square	41,241	sf	2.00	82,482			
276	Add reflective wood/ acoustic clouds in Auditorium - allowance	1,880	sf	50.00	94,000			
277	Ceiling finishes; allowance for all ceiling finishes/soffits etc.	205,726	sf	5.00	1,028,630			
278	Gymnasium & Auditorium ceilings	21,725	sf	ETR				
279	Lower level areas	12,810	sf	ETR				
280	SUBTOTAL					1,205,112		
281								
282	TOTAL - INTERIOR FINISHES						\$4,187,273	
283								
284								
285	D10 CONVEYING SYSTEMS							
286								
287	D1010 ELEVATOR							
288	New elevator; 2 stop	2	loc	70,000.00	140,000			
289	New lift at Stage	1	ls	15,000.00	15,000			
290	Pit ladders	2	ea	900.00	1,800			
291	Sill angles	32	lf	25.00	800			
292	SUBTOTAL					157,600		
293								
294	TOTAL - CONVEYING SYSTEMS						\$157,600	
295								
296								
297	D20 PLUMBING							
298								
299	D20 PLUMBING, GENERALLY							
300	Allow for Plumbing - New Construction	228,576	sf	9.50	2,171,472			
301	Allow for Plumbing - Renovation	65,924	sf	7.50	494,430			
302	SUBTOTAL					2,665,902		
303								
304	TOTAL - PLUMBING						\$2,665,902	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 2 - RENOVATION/ ADDITION

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D30 HVAC

D30 HVAC, GENERALLY

Heating equipment

Hot water heating plant	10,800	mbh	20.00	216,000
Perimeter heating devices	294,500	sf	1.00	294,500

Cooling Equipment

Air-cooled chilled water plant	50	ton	1,500.00	75,000
Terminal cooling equipment	1	ls	50,000.00	50,000
Chilled beams	1	ls	100,000.00	100,000

Air distribution

Air Handling Unit

Packaged rooftop AC units	448	ton	3,500.00	1,568,000
Air handling units, heating only	37,500	cfm	8.50	318,750
Make-up air unit	2	ea	6,000.00	12,000
Miscellaneous air distribution equipment	294,500	sf	1.00	294,500

Exhaust fan s

Dishwasher exhaust fan	2	ea	3,500.00	7,000
Kitchen exhaust fan	2	ea	7,500.00	15,000
Paint booth exhaust fan	1	ea	25,000.00	25,000
Dust collection system	2	ea	25,000.00	50,000
Exhaust fans	1	ls	25,000.00	25,000
Vehicle exhaust fans	1	ls	25,000.00	25,000

Sheet metal & Accessories

Ductwork, insulation and accessories	250,000	lbs	8.00	2,000,000
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Piping

Piping, valves and insulation	294,500	sf	4.25	1,251,625
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Controls (DDC)

Automatic temperature controls	294,500	sf	4.50	1,325,250
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Balancing

System testing & balancing	294,500	sf	0.45	132,525
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Miscellaneous

Phasing allowance	1	ls	50,000.00	50,000
Demolition	1	ls	75,000.00	75,000
Coordination & management	1	ls	100,000.00	100,000
Commissioning support	1	ls	40,000.00	40,000
Coring, sleeves & fire stopping	1	ls	20,000.00	20,000
Equipment start-up and inspection	1	ls	15,000.00	15,000
Rigging & equipment rental	1	ls	50,000.00	50,000

SUBTOTAL

8,135,150

TOTAL - HVAC	\$8,135,150
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D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

Fire pump - not included		NIC		
Automatic sprinkler system - Additions	228,576	sf	3.50	800,016
Automatic sprinkler system - Renovation	65,924	sf	3.50	230,734

SUBTOTAL

1,030,750

TOTAL - FIRE PROTECTION	\$1,030,750
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Conceptual Options

GFA

294,500

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 2 - RENOVATION/ ADDITION

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D50 ELECTRICAL

D5010 SERVICE & DISTRIBUTION

Gear & Distribution

Normal Power

4000A Gear and distribution allowance **294,500** sf 3.00 883,500

Emergency power

300kW natural gas genset **1** ea 175,000.00 175,000

Gear and distribution allowance **294,500** sf 1.35 397,575

30kW UPS system **2** ea 25,000.00 50,000

PV System infrastructure

PV System infrastructure **1** LS 7,500.00 7,500

Equipment Wiring

Equipment wiring allowance **294,500** sf 2.00 589,000

Kitchen equipment allowance **1** ls 20,000.00 20,000

SUBTOTAL 2,122,575

D5020 LIGHTING & POWER

Lighting & Branch Power

Lighting allowance (LED) **294,500** sf 5.00 1,472,500

Lighting controls

Lighting controls, local, daylight sensing and dimming **294,500** sf 1.00 294,500

Branch devices

Branch devices **294,500** sf 0.40 117,800

Lighting and branch circuitry

Branch & lighting circuitry **294,500** sf 5.00 1,472,500

SUBTOTAL 3,357,300

D5030 COMMUNICATION & SECURITY SYSTEMS

Fire Alarm

Fire alarm system **294,500** sf 1.50 441,750

Security System

Security System **294,500** sf 1.00 294,500

Telephone/Data/CATV

Telecommunications rough in & devices and cabling **294,500** sf 2.50 736,250

Sound Systems

Gymnasium sound system **1** ls 20,000.00 20,000

Cafeteria sound system **1** ls 20,000.00 20,000

Music room sound system **1** ls 10,000.00 10,000

Bi-Directional Amplification System

BDA system **1** ls 50,000.00 50,000

Master Clock & PA System

Master clock and PA system **294,500** sf 0.80 235,600

Speech Amplification System

Speech amplification system **NIC**

Audio/Visual

AV rough-in and power (devices and cabling by other) **294,500** sf 0.40 117,800

Theatrical

Stage lighting, dimming and controls **1** ls 200,000.00 200,000



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 2 - RENOVATION/ ADDITION

411	A/V rough-in and power only	1	ls	100,000.00	100,000			
412	<u>Gymnasium</u>							
413	Gym equipment feed and connection (scoreboard carried by other)	1	ls	10,000.00	10,000			
414	SUBTOTAL					2,235,900		
415								
416	D5040 OTHER ELECTRICAL SYSTEMS							
417	<u>Miscellaneous</u>							
418	Temp power and lights	1	ls	100,000.00	100,000			
419	Coordination study and testing	1	ls	20,000.00	20,000			
420	Demo & make safe	65,924	sf	1.00	65,924			
421	Lightning Protection	1	ls	75,000.00	75,000			
422	Phasing	1	ls	30,000.00	30,000			
423	Fees & Permits	1	ls	80,000.00	80,000			
424	SUBTOTAL					370,924		
425								
426	TOTAL - ELECTRICAL							\$8,086,699
427								
428								
429	E10 EQUIPMENT							
430								
431	E10 EQUIPMENT, GENERALLY							
432	<u>Gymnasium</u>							
433	Gym wall pads	1	ls	20,000.00	20,000			
434	Basketball backstops; swing up; electric operated	6	ea	9,800.00	58,800			
435	Gymnasium dividing net; electrically operated	1	loc	25,000.00	25,000			
436	Volleyball net and standards	1	ea	2,000.00	2,000			
437	Telescoping bleachers - allowance	1	ls	20,000.00	20,000			
438	<u>Auditorium</u>							
439	Theatrical Equipment Stage curtains, rigging and controls	1	ls	175,000	175,000			
440	New seating - allow	800	ea	250.00	200,000			
441	<u>Cafeteria</u>							
442	Food Service equipment - allowance	1	ls	450,000.00	450,000			
443	<u>Classrooms, Science rooms, Specialty Classrooms</u>							
444	Smart boards	86	loc	3,800.00	FF+E			
445	CTE/ Workshop Equipment				FF+E			
446	SUBTOTAL					950,800		
447								
448	TOTAL - EQUIPMENT							\$950,800
449								
450								
451	E20 FURNISHINGS							
452								
453	E2010 FIXED FURNISHINGS							
454	Entry mats & frames	250	sf	45.00	11,250			
455	New casework in Specialty classrooms; Band etc	77,000	sf	3.00	231,000			
456	Window blinds	30,660	sf	6.00	183,960			
457	SUBTOTAL					426,210		
458								
459	E2020 MOVABLE FURNISHINGS							



Option 2 - RENOVATION/ ADDITION
Dover, NH

22-Jun-15

Conceptual Options

GFA

294,500

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Option 2 - RENOVATION/ ADDITION

460	All movable furnishings to be provided and installed by owner							
461	SUBTOTAL					NIC		
462	TOTAL - FURNISHINGS							\$426,210
463								
464								
465								
466	F10 SPECIAL CONSTRUCTION							
467								
468	F10 SPECIAL CONSTRUCTION							
468	Animal barn prefabricated building; complete	8,500	sf	50.00	425,000			
42	SUBTOTAL					425,000		
43	TOTAL - SPECIAL CONSTRUCTION							\$425,000
44								
45								
46								
47	F20 SELECTIVE BUILDING DEMOLITION							
48								
49	F2010 BUILDING ELEMENTS DEMOLITION							
50	Allowance for demo of existing conditions at renovated spaces	65,924	sf	5.00	329,620			
42	Allowance for demo at existing closure now interior	18,200	sf	7.00	127,400			
51	SUBTOTAL					457,020		
52	F2020 HAZARDOUS COMPONENTS ABATEMENT							
53	See main summary for HazMat allowance						See Summary	
54	SUBTOTAL							
55	TOTAL - SELECTIVE BUILDING DEMOLITION							\$457,020
56								
57								

Conceptual Options

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION 2 ADD/RENOVATION OPTION

G SITEWORK

G10 SITE PREPARATION & DEMOLITION

Affected area = 18 acres

Site Demolitions and Relocations

Allowance for contractor laydown area/ wheel wash etc **1** ls 20,000.00 20,000

Site construction fence/barricades/gates **3,000** lf 8.00 24,000

Demolition of existing roadways, parking lots and associated curbs **200,000** sf 0.75 150,000

Miscellaneous demolition including existing tennis courts, ball field, utilities, site furnishings, walls etc **18** acres 5,000.00 90,000

Site Earthwork

Minor regrading including striping topsoil - allowance **22,222** cy 5.00 111,110

Fine grading **63,346** sy 1.00 63,346

Excavation to reduce levels; use on site **22,000** cy 12.00 264,000

Backfill at demolished wing **25,000** cy 10.00 250,000

Silt fence/erosion control allowance **1** ls 40,000.00 40,000

Hazardous Waste Remediation

No work in this section

SUBTOTAL

1,012,456

G20 SITE IMPROVEMENTS

Roadways and Parking Lots

203,800 sf

Bituminous concrete paving gravel base; 12" thick **7,548** cy 28.00 211,344

bituminous concrete; 4" thick **22,644** sy 22.00 498,168

Bituminous concrete curb **9,860** lf 12.00 118,320

Single solid lines **455** space 25.00 11,375

Wheelchair Parking **9** space 75.00 675

HC curb cuts - allowance **10** loc 350.00 3,500

Other road markings; crosswalks etc **1** ls 10,000.00 10,000

Allowance to reconfigure, patch and repair existing parking lot to remain at Animal Science barn **36,000** sf 1.50 54,000

Allowance to minor reconfiguration, patch and repair Alumni Drive roadway **20,000** sf 1.50 30,000

Pedestrian paving - allowance

Concrete paving

gravel base; 8" thick **298** cy 28.00 8,344

concrete paving; 4" thick **12,000** sf 6.00 72,000

Allowance for accessible ramps, stairs, handrails, landings at doorways etc **1** ls 50,000.00 50,000

Retaining walls w/guardrail (guardrail taken separately) **315** lf 445.00 140,175

Guardrail at retaining wall **315** lf 200.00 63,000

New site signage allowance **1** ls 20,000.00 20,000

Misc. site furnishings, bollards etc **1** ls 30,000.00 30,000

Allowance for paving/ landscape components/ furnishings in new Performing Arts/ Outdoor Classroom Courtyard **1** ls 150,000.00 150,000

Baseball Field

Gravel base - assumed 12" thick **1,593** cy 28.00 44,604

Soil mix; reuse amended soil from on-site spoils (taken **1,593** cy 15.00 23,895

Sports turf mix **35,000** sf 0.25 8,750

Infield mix **8,000** sf 0.30 2,400

Conceptual Options

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 2 ADD/RENOVATION OPTION							
47	Pitching mound; home plate	1	loc	2,750.00	2,750		
48	3 bases	1	loc	700.00	700		
49	Line markings w/ marking pins below grade	1	ls	3,000.00	3,000		
50	Foul poles	2	ea	1,500.00	3,000		
51	Baseball backstops 70 lf of straight backstop	2	ea	10,000.00	20,000		
52	Players benches	2	ea	2,200.00	4,400		
53	Portable bleachers	2	loc	10,000.00	20,000		
54	Scoreboard	1	ea	15,000.00	15,000		
55	<u>Football Field</u>						
56	Turf football field; complete	1	ls	750,000.00	750,000		
57	<u>Tennis Courts</u>	4	ea				
58	Tennis court surface, complete system	12,000	sf	8.00	96,000		
59	Net & post system	4	ea	1,000.00	4,000		
60	Perimeter fencing	500	lf	50.00	25,000		
61	<u>Landscaping</u>						
62	Allowance to spread existing amended topsoil @ seeded areas disturbed by new work	4,766	cy	15.00	71,490		
63	New seeded areas	279,316	sf	0.15	41,897		
64	Planting allowance	1	ls	50,000.00	50,000		
65	Irrigation				NIC		
66	SUBTOTAL					2,657,787	
67							
68	G30 CIVIL MECHANICAL UTILITIES						
69	<u>Water supply</u>						
70	Allowance to extend water supply to building	1	ls	30,000.00	30,000		
71	<u>Sanitary / Sewer</u>						
72	Allowance to extend sanitary line to new building	1	ls	20,000.00	20,000		
73	<u>Gas</u>						
74	Allowance to extend gas line to new building	1	ls	15,000.00	15,000		
75	<u>Stormwater</u>						
76	Remove underdrain at existing ball field	1	ls	10,000.00	10,000		
77	New underdrain system at relocated ball field	1	ls	50,000.00	50,000		
78	Allowance for work to underdrain system at existing lacrosse field disturbed by new work	1	ls	10,000.00	10,000		
79	Closed drainage system at new parking lots including treatment and detention of stormwater	203,800	sf	3.00	611,400		
80	Allowance for additional storm water reconfiguration at new building	1	ls	20,000.00	20,000		
81	SUBTOTAL					766,400	
82							
83	G40 ELECTRICAL UTILITIES						
84	<u>Power</u>						
85	Riser pole, connection at existing	1	ea	2,000.00	2,000		
86	Primary ductbank	100	lf	55.00	5,500		
87	Primary cabling				Utility company		
88	Pad mounted transformer	1	ea	50,000.00	50,000		
89	Transformer pad	1	ea	2,000.00	2,000		
90	Secondary ductbank						
91	4000A Secondary ductbank cabling	50	lf	1,000.00	50,000		
92	Generator ductbank						
93	Generator ductbank	50	lf	250.00	12,500		
94	<u>Communications</u>						
95	Communications ductbank	150	lf	85.00	12,750		
96	<u>Site Lighting</u>						
97	Site lighting allowance	1	ls	40,000.00	40,000		
98	SUBTOTAL					174,750	
99							



Conceptual Options

<i>CSI CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>EST'D COST</i>	<i>SUB TOTAL</i>	<i>TOTAL COST</i>
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OPTION 2 ADD/RENOVATION OPTION

100

TOTAL - SITE DEVELOPMENT NEW BUILDING							\$4,611,393
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CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION 3 - NEW BUILDING				
A10 FOUNDATIONS				
A1010 Standard Foundations	\$2,798,096			
A1020 Special Foundations	\$0			
A1030 Lowest Floor Construction	\$1,264,280	\$4,062,376	\$13.72	7.6%
A20 BASEMENT CONSTRUCTION				
A2010 Basement Excavation	\$0			
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%
B10 SUPERSTRUCTURE				
B1010 Upper Floor Construction	\$3,796,200			
B1020 Roof Construction	\$4,197,862	\$7,994,062	\$27.01	15.0%
B20 EXTERIOR CLOSURE				
B2010 Exterior Walls	\$3,457,843			
B2020 Windows	\$2,469,971			
B2030 Exterior Doors	\$149,383	\$6,077,197	\$20.53	11.4%
B30 ROOFING				
B3010 Roof Coverings	\$2,027,146			
B3020 Roof Openings	\$20,000	\$2,047,146	\$6.92	3.9%
C10 INTERIOR CONSTRUCTION				
C1010 Partitions	\$3,503,210			
C1020 Interior Doors	\$867,922			
C1030 Specialties/Millwork	\$2,177,814	\$6,548,946	\$22.12	12.3%
C20 STAIRCASES				
C2010 Stair Construction	\$154,000			
C2020 Stair Finishes	\$38,500	\$192,500	\$0.65	0.4%
C30 INTERIOR FINISHES				
C3010 Wall Finishes	\$1,035,248			
C3020 Floor Finishes	\$2,133,640			
C3030 Ceiling Finishes	\$1,319,365	\$4,488,253	\$15.16	8.4%
D10 CONVEYING SYSTEMS				
D1010 Elevator	\$192,800	\$192,800	\$0.65	0.4%



Conceptual Options

GFA 296,014

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>	<i>%</i>
OPTION 3 - NEW BUILDING				
D20 PLUMBING				
D20 Plumbing	\$2,812,133	\$2,812,133	\$9.50	5.3%
D30 HVAC				
D30 HVAC	\$8,024,600	\$8,024,600	\$27.11	15.1%
D40 FIRE PROTECTION				
D40 Fire Protection	\$1,036,049	\$1,036,049	\$3.50	1.9%
D50 ELECTRICAL				
D5010 Electrical	\$8,082,036	\$8,082,036	\$27.30	15.2%
E10 EQUIPMENT				
E10 Equipment	\$960,800	\$960,800	\$3.25	1.8%
E20 FURNISHINGS				
E2010 Fixed Furnishings	\$202,770			
E2020 Movable Furnishings	NIC	\$202,770	\$0.69	0.4%
F10 SPECIAL CONSTRUCTION				
F10 Special Construction	\$425,000	\$425,000	\$1.44	0.8%
F20 HAZMAT REMOVALS				
F2010 Building Elements Demolition	\$0			
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%
TOTAL DIRECT COST (Trade Costs)		\$53,146,668	\$179.54	100.0%



Conceptual Options

GFA

296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION 3 - NEW BUILDING

GROSS FLOOR AREA CALCULATION

First Floor	173,884
Second Floor	78,945
Third Floor	43,185

TOTAL GROSS FLOOR AREA (GFA)	296,014 sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Strip footings to new exterior walls

Excavation	3,751	cy	10.00	37,510
Remove off site	3,751	cy	12.00	45,012
Backfill with gravel	3,461	cy	28.00	96,908
Formwork	6,400	sf	8.00	51,200
Re-bar	32,000	lbs	1.00	32,000
Concrete material; 3,000 psi	290	cy	100.00	29,000
Placing concrete	290	cy	45.00	13,050

Foundation walls at exterior

Formwork	25,600	sf	9.00	230,400
Re-bar	64,000	lbs	1.00	64,000
Concrete material; 4,000 psi	664	cy	100.00	66,400
Placing concrete	664	cy	45.00	29,880
Dampproofing foundation wall and footing	19,200	sf	1.00	19,200
Insulation to foundation walls; 2" thick	12,800	sf	1.50	19,200

Isolated column footings

Excavation	2,453	cy	10.00	24,530
Remove off site	2,453	cy	12.00	29,436
Backfill with gravel	2,453	cy	28.00	68,684
Re-bar	29,848	lbs	1.20	35,818
Concrete material; 3,000 psi	1,030	cy	100.00	103,000
Placing concrete	1,030	cy	45.00	46,350

Aggregate pier system

Aggregate piers, assume 18" diameter, 20' deep, 8' x 8' grid	143,884	sf	12.00	1,726,608
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Elevator Pits

Excavation	168	cy	10.00	1,680
Remove off site	168	cy	12.00	2,016
Backfill with gravel	8	cy	28.00	224
Elevator pit walls				
formwork	800	sf	9.00	7,200
reinforcement	1,600	lbs	1.00	1,600
concrete material	10	cy	100.00	1,000
placing concrete	10	cy	45.00	450
Slab				
formwork	300	sf	10.00	3,000
reinforcement	1,500	lbs	1.00	1,500
concrete material in slab	12	cy	100.00	1,200
placing concrete	12	cy	45.00	540
Bentonite waterstops	1	ls	500.00	500
Cementitious waterproofing to elevator pit	600	sf	15.00	9,000



Conceptual Options

GFA

296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 3 - NEW BUILDING								
54	SUBTOTAL					2,798,096		
56	A1020 SPECIAL FOUNDATIONS							
57	No items in this section							
58	SUBTOTAL							
60	A1030 LOWEST FLOOR CONSTRUCTION							
61	Gravel fill, 8"	4,296	cy	28.00	120,288			
62	Rigid insulation, 4' perimeter	12,800	sf	1.87	23,936			
63	Vapor barrier	173,884	sf	0.55	95,636			
64	Slab on grade, 4" thick	173,884	sf	5.00	869,420			
65	Equipment pads	1	ls	25,000.00	25,000			
66	Animal barn foundations	1	ls	130,000.00	130,000			
66	SUBTOTAL					1,264,280		
TOTAL - FOUNDATIONS							\$4,062,376	
A20 BASEMENT CONSTRUCTION								
73	A2010 BASEMENT EXCAVATION							
74	No Work in this section							
75	SUBTOTAL							
77	A2020 BASEMENT WALLS							
78	No Work in this section							
79	SUBTOTAL							
TOTAL - BASEMENT CONSTRUCTION								
B10 SUPERSTRUCTURE								
85		12	lbs/sf					
86	B1010 FLOOR CONSTRUCTION	1,713	tns					
87	<u>Floor Structure - Steel:</u>							
88	Steel beams and columns; allow 13 lbs per SF	794	tns	3,100.00	2,461,400			
89	Shear studs	30,533	ea	2.50	76,333			
90	<u>Floor Structure</u>							
91	2" Metal floor deck	122,130	sf	3.00	366,390			
92	WWF reinforcement	140,450	sf	0.60	84,270			
93	Concrete Fill to metal deck; 5 1/2" thick; normal weight	2,375	cy	100.00	237,500			
94	Place and finish concrete	122,130	sf	2.00	244,260			
95	Misc. angles	4,700	lf	20.00	94,000			
96	<u>Miscellaneous</u>							
97	Fire proofing to columns and beams	122,130	sf	1.80	219,834			
98	Fire stopping floors	122,130	sf	0.10	12,213			
99	SUBTOTAL					3,796,200		
101	B1020 ROOF CONSTRUCTION							
102	<u>Roof Structure - Steel:</u>							
103	Steel joist system; allowance 11 lbs per SF	814	tns	3,100.00	2,523,400			
104	Steel truss system w/ W10 infills in Auditorium	77	tns	3,500.00	269,500			



Conceptual Options

GFA

296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3 - NEW BUILDING							
105	Long span joist system at Gym	105	tns	3,100.00	325,500		
106	<u>Roof Structure</u>						
107	1 1/2" Acoustic deck at gym	14,000	sf	7.00	98,000		
108	1-1/2" Metal Roof Deck	148,084	sf	2.50	370,210		
109	<u>Miscellaneous</u>						
110	Fire proofing to columns, beams and deck	162,084	sf	3.00	486,252		
111	Entrance canopy framing	2,000	sf	50.00	100,000		
112	Allowance for dunnage/ curbs	1	ls	25,000.00	25,000		
113	SUBTOTAL					4,197,862	
TOTAL - SUPERSTRUCTURE						\$7,994,062	

B20 EXTERIOR CLOSURE

118	B20 EXTERIOR CLOSURE							
119								
120	B2010 EXTERIOR WALLS - 70% brick/30% Glazed	106,400	sf					
121	<u>Interior skin</u>							
122	6" metal stud backup	74,480	sf	5.50	409,640			
123	Insulation	74,480	sf	2.25	167,580			
124	Air barrier	74,480	sf	4.00	297,920			
125	Air barrier/flashing at windows	10,534	lf	6.50	68,471			
126	Gypsum Sheathing	74,480	sf	2.50	186,200			
127	Drywall lining to interior face of stud backup	74,480	sf	2.40	178,752			
128	<u>Exterior skin</u>							
129	Brick veneer	74,480	sf	26.00	1,936,480			
130	<u>Miscellaneous</u>							
131	Staging to exterior wall	106,400	sf	2.00	212,800			
132	SUBTOTAL					3,457,843		
133								
134	B2020 WINDOWS	31,920	sf		-			
135	Windows/Curtainwall/Storefront	31,920	sf	75.00	2,394,000			
136	Louvers (allowance)	150	sf	50.00	7,500			
137	Backer rod & double sealant	10,534	lf	4.00	42,136			
138	Wood blocking at openings	10,534	lf	2.50	26,335			
139	SUBTOTAL					2,469,971		
140								
141	B2030 EXTERIOR DOORS							
142	Glazed entrance doors including frame and hardware; double door	13	pr	7,000.00	91,000			
143	HM doors, frames and hardware- double	7	pr	2,500.00	17,500			
144	HM doors, frames and hardware- single	7	ea	1,600.00	11,200			
145	Allowance for overhead doors at Workshops & Loading dock	5	ea	5,000.00	25,000			
146	Backer rod & double sealant	669	lf	4.00	2,676			
147	Wood blocking at openings	669	lf	3.00	2,007			
148	SUBTOTAL					149,383		
149								
150	TOTAL - EXTERIOR CLOSURE						\$6,077,197	

B30 ROOFING

153	B30 ROOFING						
154							
155	B3010 ROOF COVERINGS						
156	<u>Flat roofing</u>						
157	White TPO roofing	173,884	sf	5.00	869,420		



Conceptual Options

GFA

296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 3 - NEW BUILDING								
158	Insulation	173,884	sf	4.50	782,478			
159	Reinforced vapor barrier	173,884	sf	0.45	78,248			
160	Rough blocking	21,000	lf	4.00	84,000			
161	<u>Miscellaneous Roofing</u>							
162	Allowance for entrance canopy roofing, soffit	2,000	sf	50.00	100,000			
163	Roof coping/ fascia	3,500	lf	30.00	105,000			
164	Roof ladders	1	ls	3,000.00	3,000			
165	Walk pads	1	ls	5,000.00	5,000			
166	SUBTOTAL					2,027,146		
167								
168	B3020 ROOF OPENINGS							
169	Allowance for elevator vents, roof hatches, smoke hatch etc	1	loc	20,000.00	20,000			
170	SUBTOTAL					20,000		
171								
172	TOTAL - ROOFING							\$2,047,146
173								
174								
175	C10 INTERIOR CONSTRUCTION							
176								
177	C1010 PARTITIONS							
178	CMU partitions in Gymnasium	9,600	sf	18.00	172,800			
179	Auditorium partition	6,300	sf	15.00	94,500			
180	Corridor partitions; abuse resistant drywall	76,120	sf	10.00	761,200			
181	Typical interior partitions	101,180	sf	8.00	809,440			
182	Premium for elevator and stair shafts	10,640	sf	5.00	53,200			
183	Interior glazing - allowance	2,200	sf	60.00	132,000			
184	Allowance for walls not yet shown	296,014	sf	5.00	1,480,070			
185	SUBTOTAL					3,503,210		
186								
187	C1020 INTERIOR DOORS							
188	Interior doors, frames and hardware; single leaf	265	ea	1,300.00	344,500			
189	Interior doors, frames and hardware; double leaf	33	pr	1,800.00	59,400			
190	Coiling doors at CTE workshops, Cafeteria etc	1	ls	20,000.00	20,000			
191	Allowance for borrowed lites, vision panels & specialty hardware	296,014	sf	0.25	74,004			
192	Allowance for doors not yet shown	296,014	sf	1.25	370,018			
193	SUBTOTAL					867,922		
194								
195	C1030 SPECIALTIES / MILLWORK							
196	Toilet Partitions and accessories	296,014	sf	0.50	148,007			
197	Backer panels in electrical closets	1	ls	3,000.00	3,000			
198	Marker boards/tack boards in classrooms, offices, conference rooms, library and MP rooms (Smart boards in Equipment section)	296,014	sf	0.50	148,007			
199	Shelving in storage rooms	1	ls	10,000.00	10,000			
200	Staff mailboxes/casework	1	ls	10,000.00	10,000			
201	Signage & Directories	296,014	gsf	0.30	88,804			
202	Fire extinguisher cabinets	85	ea	350.00	29,750			
203	Lockers; corridors	1,500	opng	190.00	285,000			
204	Lockers; athletic	100	opng	210.00	21,000			
205	Lockers; team	200	opng	290.00	58,000			
206	Lockers; staff	115	opng	240.00	27,600			



Conceptual Options

GFA

296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3 - NEW BUILDING							
207	Janitors Closet Accessories	12	rms	300.00	3,600		
208	Rail at open to below areas	580	lf	250.00	145,000		
209	Reception/ Library/ Circulation desks	1	ls	50,000	50,000		
210	Science classroom casework	13	rm	50,000.00	650,000		
211	Counters, base cabinets, tall storage/Cart storage in classrooms	48	rms	2,600.00	124,800		
212	Casework in Specialty classrooms; Band etc	65,746	sf	3.00	197,238		
210	Library shelving				F,F & E		
211	Display cases	1	ls	30,000.00	30,000		
212	Miscellaneous metals throughout building	296,014	sf	0.25	74,004		
213	Miscellaneous sealants throughout building	296,014	sf	0.25	74,004		
214	SUBTOTAL					2,177,814	
TOTAL - INTERIOR CONSTRUCTION							\$6,548,946
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
222	Metal pan stair; egress stair	7	flt	20,000.00	140,000		
223	Concrete fill to stairs	7	flt	2,000.00	14,000		
224	SUBTOTAL					154,000	
C2020 STAIR FINISHES							
227	Paint to stairs including all railings etc.	7	flt	2,500.00	17,500		
228	Rubber tile at stairs	7	lft	3,000.00	21,000		
229	SUBTOTAL					38,500	
TOTAL - STAIRCASES							\$192,500
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
237	Paint to interior walls	460,880	sf	0.85	391,748		
238	CT wainscot to walls in corridors, stairwells and Town hall square; 5' high	32,000	sf	12.00	384,000		
239	CT tile in bathrooms	4,750	sf	12.00	57,000		
240	Acoustic & wood wall panels in Auditorium	4,500	sf	45.00	202,500		
241	SUBTOTAL					1,035,248	
C3020 FLOOR FINISHES							
244	Linoleum tile to classrooms and general spaces	143,568	sf	6.00	861,408		
245	Flooring at corridors/lobby; linoleum tile with pattern	54,303	sf	7.00	380,121		
246	Wood floor in Gymnasium	14,000	sf	18.00	252,000		
247	New stage floor	2,625	sf	25.00	65,625		
248	Sports flooring in Weight, Alt PE area	6,000	sf	11.00	66,000		
249	Carpet in Auditorium aisles, Admin areas	10,000	sf	5.00	50,000		
250	Kitchen, Culinary Kitchen & Restaurant flooring; quarry tile or similar	6,237	sf	17.00	106,029		
251	Locker room floor finish	4,800	sf	10.00	48,000		
252	New tile floors to toilet rooms	7,180	sf	15.00	107,700		
253	Sealed concrete floors in Workshops, storage, equipment areas	32,500	sf	1.50	48,750		



Conceptual Options

GFA 296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 3 - NEW BUILDING								
254	Allowance for bases and miscellaneous floor finishes	296,014	sf	0.50	148,007			
255	SUBTOTAL					2,133,640		
256								
257	C3030 CEILING FINISHES							
258	Exposed ceilings in CTE workshops, Town Square, Gymnasium & Auditorium	68,300	sf	2.00	136,600			
259	Reflective wood/ acoustic clouds in Auditorium - allowance	2,364	sf	50.00	118,200			
260	Ceiling finishes; allowance for all ceiling finishes/soffits etc.	212,913	sf	5.00	1,064,565			
261	SUBTOTAL					1,319,365		
262								
263	TOTAL - INTERIOR FINISHES						\$4,488,253	
264								
265								
266	D10 CONVEYING SYSTEMS							
267								
268	D1010 ELEVATOR							
269	New elevator; 3 stop	1	loc	105,000.00	105,000			
270	New elevator; 2 stop	1	loc	70,000.00	70,000			
271	New lift at Stage	1	ls	15,000.00	15,000			
272	Pit ladders	2	ea	900.00	1,800			
273	Sill angles	40	lf	25.00	1,000			
274	SUBTOTAL					192,800		
275								
276	TOTAL - CONVEYING SYSTEMS						\$192,800	
277								
278								
279	D20 PLUMBING							
280								
281	D20 PLUMBING, GENERALLY							
282	Plumbing	296,014	gsf	9.50	2,812,133			
283	SUBTOTAL					2,812,133		
284								
285	TOTAL - PLUMBING						\$2,812,133	
286								
287								
288	D30 HVAC							
289								
290	D30 HVAC, GENERALLY							
291	<u>Heating equipment</u>							
292	Hot water heating plant	10,000	mbh	20.00	200,000			
293	Perimeter heating devices	296,014	sf	1.00	296,014			
294	<u>Cooling Equipment</u>							
295	Air-cooled chilled water plant	50	ton	1,500.00	75,000			
296	Terminal cooling equipment	1	ls	50,000.00	50,000			
297	Chilled beams	1	ls	100,000.00	100,000			
298	<u>Air distribution</u>							
299	<u>Air Handling Unit</u>							
300	Packaged rooftop AC units	471	ton	3,500.00	1,648,500			
301	Air handling units, heating only	37,500	cfm	8.50	318,750			
302	Make-up air unit	2	ea	6,000.00	12,000			
303	Miscellaneous air distribution equipment	296,014	sf	0.50	148,007			
304	<u>Exhaust fan s</u>							
305	Dishwasher exhaust fan	2	ea	3,500.00	7,000			
306	Kitchen exhaust fan	2	ea	7,500.00	15,000			



Conceptual Options

GFA 296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
OPTION 3 - NEW BUILDING								
307	Paint booth exhaust fan	1	ea	25,000.00	25,000			
308	Dust collection system	2	ea	75,000.00	150,000			
309	Exhaust fans	1	ls	25,000.00	25,000			
310	Vehicle exhaust	1	ls	25,000.00	25,000			
311	<u>Sheet metal & Accessories</u>							
312	Ductwork, insulation and accessories	250,000	sf	8.00	2,000,000			
313	<u>Piping</u>							
314	Piping, valves and insulation	296,014	sf	4.25	1,258,060			
315	<u>Controls (DDC)</u>							
316	Automatic temperature controls	296,014	sf	4.50	1,332,063			
317	<u>Balancing</u>							
318	System testing & balancing	296,014	sf	0.45	133,206			
319	<u>Miscellaneous</u>							
320	Demolition	1	ls	25,000.00	25,000			
321	Coordination & management	1	ls	50,000.00	50,000			
322	Commissioning support	1	ls	40,000.00	40,000			
323	Coring, sleeves & fire stopping	1	ls	20,000.00	20,000			
324	Equipment start-up and inspection	1	ls	15,000.00	15,000			
325	Rigging & equipment rental	1	ls	50,000.00	50,000			
326	Vibration & seismic restraints	1	ls	6,000.00	6,000			
327	SUBTOTAL					8,024,600		
328								
329	TOTAL - HVAC						\$8,024,600	
330								
331								
332	D40 FIRE PROTECTION							
333								
334	D40 FIRE PROTECTION, GENERALLY							
335	Fire protection system	296,014	gsf	3.50	1,036,049			
336	SUBTOTAL					1,036,049		
337								
338	TOTAL - FIRE PROTECTION						\$1,036,049	
339								
340								
341	D50 ELECTRICAL							
342								
343	D5010 SERVICE & DISTRIBUTION							
344	Gear & Distribution							
345	<u>Normal Power</u>							
346	4000A Gear and distribution allowance	296,014	sf	3.00	888,042			
347	<u>Emergency power</u>							
348	350kW natural gas genset	1	ea	200,000.00	200,000			
349	Gear and distribution allowance	296,014	sf	1.35	399,619			
350	30kW UPS system	2	ea	25,000.00	50,000			
351	<u>PV System infrastructure</u>							
352	PV System infrastructure	1	ls	7,500.00	7,500			
353	<u>Equipment Wiring</u>							
354	Equipment wiring allowance	296,014	sf	2.00	592,028			
355	Kitchen equipment allowance	1	ls	20,000.00	20,000			
356	SUBTOTAL					2,157,189		
357								
358	D5020 LIGHTING & POWER							
359	<u>Lighting & Branch Power</u>							
360	Lighting allowance (LED)	296,014	sf	5.00	1,480,070			
361	<u>Lighting controls</u>							



Conceptual Options

GFA 296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 3 - NEW BUILDING								
362	Lighting controls, local, daylight sensing and	296,014	sf	1.00	296,014			
363	<u>Branch devices</u>							
364	Branch devices	296,014	sf	0.40	118,406			
365	<u>Lighting and branch circuitry</u>							
366	Branch & lighting circuitry	296,014	sf	5.00	1,480,070			
367	SUBTOTAL					3,374,560		
368								
369	D5030 COMMUNICATION & SECURITY SYSTEMS							
370	<u>Fire Alarm</u>							
371	Fire alarm system	296,014	sf	1.50	444,021			
372	<u>Security System</u>							
373	Security System	296,014	sf	1.00	296,014			
374	<u>Telephone/Data/CATV</u>							
375	Telecommunications rough in & devices and cabling	296,014	sf	2.50	740,035			
376	<u>Sound Systems</u>							
377	Gymnasium sound system	1	ls	20,000.00	20,000			
378	Cafeteria sound system	1	ls	20,000.00	20,000			
379	Music room sound system	1	ls	10,000.00	10,000			
380	<u>Bi-Directional Amplification System</u>							
381	BDA system	1	ls	50,000.00	50,000			
382	<u>Master Clock & PA System</u>							
383	Master clock and PA system	296,014	sf	0.80	236,811			
384	<u>Speech Amplification System</u>							
385	Speech amplification system	NIC						
386	<u>Audio/Visual</u>							
387	AV rough-in and power (devices and cabling by other)	296,014	sf	0.40	118,406			
388	<u>Theatrical</u>							
389	Stage lighting, dimming and controls	1	ls	200,000.00	200,000			
390	A/V rough-in and power only	1	ls	100,000.00	100,000			
391	<u>Gymnasium</u>							
392	Gym equipment feed and connection (scoreboard carried by other)	1	ls	10,000.00	10,000			
393	SUBTOTAL					2,245,287		
394								
395	D5040 OTHER ELECTRICAL SYSTEMS							
396	<u>Miscellaneous</u>							
397	Temp power and lights	1	ls	100,000.00	100,000			
398	Coordination study and testing	1	ls	20,000.00	20,000			
399	Lightning Protection	1	ls	75,000.00	75,000			
400	Phasing	1	ls	30,000.00	30,000			
401	Fees & Permits	1	ls	80,000.00	80,000			
402	SUBTOTAL					305,000		
403								
404	TOTAL - ELECTRICAL						\$8,082,036	
405								
406								
407	E10 EQUIPMENT							
408								
409	E10 EQUIPMENT, GENERALLY							
410	<u>Gymnasium</u>							
411	Gym wall pads	1	ls	20,000.00	20,000			
412	Basketball backstops; swing up; electric operated	6	ea	9,800.00	58,800			
413	Gymnasium dividing net; electrically operated	1	loc	25,000.00	25,000			
414	Volleyball net and standards	1	ea	2,000.00	2,000			
415	Telescoping bleachers - allowance	1	ls	30,000.00	30,000			



Conceptual Options

GFA 296,014

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 3 - NEW BUILDING								
436	<u>Auditorium</u>							
437	Theatrical Equipment Stage curtains, rigging and controls	1	ls	175,000	175,000			
438	New seating - allow	800	ea	250.00	200,000			
439	<u>Cafeteria</u>							
420	Food Service equipment - allowance	1	ls	450,000.00	450,000			
421	<u>Classrooms, Science rooms, Specialty Classrooms</u>							
422	Smart boards	90	loc	3,000.00	FF+E			
423	CTE/ Workshop Equipment				FF+E			
424	SUBTOTAL					960,800		
425								
426	TOTAL - EQUIPMENT						\$960,800	
427								
428								
429	E20 FURNISHINGS							
430								
431	E2010 FIXED FURNISHINGS							
432	Entry mats & frames	250	sf	45.00	11,250			
433	Window blinds	31,920	sf	6.00	191,520			
434	SUBTOTAL					202,770		
435								
436	E2020 MOVABLE FURNISHINGS							
437	All movable furnishings to be provided and installed by owner							
438	SUBTOTAL					NIC		
439								
440	TOTAL - FURNISHINGS						\$202,770	
441								
442								
443	F10 SPECIAL CONSTRUCTION							
444								
445	F10 SPECIAL CONSTRUCTION							
446	Animal barn prefabricated building; complete	8,500	sf	50.00	425,000			
447	SUBTOTAL					425,000		
448								
449	TOTAL - SPECIAL CONSTRUCTION						\$425,000	
450								
451	F20 SELECTIVE BUILDING DEMOLITION							
452								
453	F2010 BUILDING ELEMENTS DEMOLITION							
454	See main summary for demolition of existing buildings							
455	SUBTOTAL							
456								
457	F2020 HAZARDOUS COMPONENTS ABATEMENT							
458	See main summary for HazMat allowance					See Summary		
459	SUBTOTAL							
460								
461	TOTAL - SELECTIVE BUILDING DEMOLITION							
462								

Conceptual Options

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION 3 NEW OPTION

G SITEWORK

G10 SITE PREPARATION & DEMOLITION

Affected area = 18 acres

Site Demolitions and Relocations

Allowance for contractor laydown area/ wheel wash etc **1** ls 20,000.00 20,000

Site construction fence/barricades w one entrance gate **3,000** lf 8.00 24,000

Demolition of existing roadways, parking lots and associated curbs **200,000** sf 0.75 150,000

Miscellaneous demolition including existing tennis courts, ball field, utilities, site furnishings, walls etc **18** acres 5,000.00 90,000

Site Earthwork

Minor regrading including striping topsoil - allowance **22,222** cy 5.00 111,110

Fine grading **63,346** sy 1.00 63,346

Excavation to reduce levels; use on site **22,000** cy 12.00 264,000

Backfill at demolished wing **25,000** cy 10.00 250,000

Silt fence/erosion control allowance **1** ls 40,000.00 40,000

Hazardous Waste Remediation

No work in this section

SUBTOTAL

1,012,456

G20 SITE IMPROVEMENTS

Roadways and Parking Lots

Bituminous concrete paving gravel base; 12" thick **7,833** cy 28.00 219,324

bituminous concrete; 4" thick **23,500** sy 22.00 517,000

Bituminous concrete curb **7,700** lf 12.00 92,400

Single solid lines **455** space 25.00 11,375

Wheelchair Parking **9** space 75.00 675

HC curb cuts - allowance **10** loc 350.00 3,500

Other road markings; crosswalks etc **1** ls 10,000.00 10,000

Allowance to reconfigure, patch and repair existing parking lot to remain at Animal Science barn **36,000** sf 1.50 54,000

Allowance to minor reconfiguration, patch and repair Alumni Drive roadway **20,000** sf 1.50 30,000

Pedestrian paving - allowance

Concrete paving

gravel base; 8" thick **372** cy 28.00 10,416

concrete paving; 4" thick **15,000** sf 6.00 90,000

Allowance for accessible ramps, stairs, handrails, landings at doorways etc **1** ls 50,000.00 50,000

Retaining walls w/guardrail (guardrail taken separately) **405** lf 400.00 162,000

Guardrail at retaining wall **405** lf 200.00 81,000

New site signage allowance **1** ls 20,000.00 20,000

Misc. site furnishings, bollards etc **1** ls 30,000.00 30,000

Football Field

Turf football field; complete **1** ls 750,000.00 750,000

Baseball Field and Soccer Field

Gravel base - assumed 12" thick **3,037** cy 28.00 85,036

Soil mix; reuse amended soil from on-site spoils (taken **3,037** cy 15.00 45,555

Sports turf mix **74,000** sf 0.25 18,500

Infield mix **8,000** sf 0.30 2,400

Pitching mound; home plate **1** loc 2,750.00 2,750



Conceptual Options

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3 NEW OPTION							
49	3 bases	1	loc	700.00	700		
50	Line markings w/ marking pins below grade	1	ls	3,000.00	3,000		
51	Foul poles	2	ea	1,500.00	3,000		
52	Baseball backstops 70 lf of straight backstop	2	ea	10,000.00	20,000		
53	Players benches	2	ea	2,200.00	4,400		
54	Portable bleachers	4	loc	10,000.00	40,000		
55	Scoreboard	1	ea	15,000.00	15,000		
56	Soccer goals (movable)	2	loc	3,500.00	7,000		
57	<u>Tennis Courts</u>	6	ea				
58	Tennis court surface, complete system	18,000	sf	8.00	144,000		
59	Net & post system	6	ea	1,000.00	6,000		
60	Perimeter fencing	600	lf	50.00	30,000		
61	<u>Landscaping</u>						
62	Allowance for paving/ landscape components/ furnishings in new Performing Arts/ Outdoor Classroom Courtyard	1	ls	150,000.00	150,000		
63	Allowance to spread existing amended topsoil @ seeded areas disturbed by new work	4,141	cy	15.00	62,115		
64	New seeded areas	223,616	sf	0.15	33,542		
65	Planting allowance	1	ls	50,000.00	50,000		
66	Irrigation				NIC		
67	SUBTOTAL					2,854,688	
68							
69	G30 CIVIL MECHANICAL UTILITIES						
70	<u>Water supply</u>						
71	Allowance to extend water supply to building	1	ls	30,000.00	30,000		
72	<u>Sanitary / Sewer</u>						
73	Allowance to extend sanitary line to new building	1	ls	20,000.00	20,000		
74	<u>Gas</u>						
75	Allowance to extend gas line to new building	1	ls	5,000.00	5,000		
76	<u>Stormwater</u>						
77	Remove underdrain at existing ball field	1	ls	10,000.00	10,000		
78	New underdrain system at relocated ball field	1	ls	50,000.00	50,000		
79	Allowance for work to underdrain system at existing lacrosse field disturbed by new work	1	ls	10,000.00	10,000		
80	Closed drainage system at new parking lots including treatment and detention of stormwater	211,500	sf	3.00	634,500		
81	Allowance for additional storm water reconfiguration at new building	1	ls	20,000.00	20,000		
82	SUBTOTAL					779,500	
83							
84	G40 ELECTRICAL UTILITIES						
85	<u>Power</u>						
86	Riser pole, connection at existing	1	ea	2,000.00	2,000		
87	Primary ductbank	100	lf	55.00	5,500		
88	Primary cabling				Utility company		
89	Pad mounted transformer	1	ea	50,000.00	50,000		
90	Transformer pad	1	ea	2,000.00	2,000		



Conceptual Options

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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OPTION 3 NEW OPTION

91	Secondary ductbank						
92	4000A Secondary ductbank cabling	50	lf	1,000.00	50,000		
93	Generator ductbank						
94	Generator ductbank	50	lf	250.00	12,500		
95	<u>Communications</u>						
96	Communications ductbank	150	lf	85.00	12,750		
97	<u>Site Lighting</u>						
98	Site lighting allowance	1	ls	40,000.00	40,000		
99	SUBTOTAL					174,750	

TOTAL - SITE DEVELOPMENT NEW BUILDING

\$4,821,394