



Town Of Belmont  
 Belmont High School  
 Belmont MA  
 90% CD Reconciled Estimate - Issue 02

November 4, 2019

**Project Cost Summary**

Description	Cost Basis	Total Cost	Cost/SF
Total Building Cost	445,100 sf	\$128,395,893	\$288.47
Total Site Cost		\$17,752,823	\$39.89
3% Deduct Subcontractor Insurance (Excludes EBP's)	\$167,346,927	(\$5,020,408)	\$0.00
1.35% Subcontractor Default Insur. (SDI) / Bonds for Trade Contr.		\$2,143,062.04	\$4.81
<b>Total Direct Cost</b>		<b>\$143,271,370</b>	<b>\$321.89</b>
<u>Contingencies</u>			
3.0% Design/Estimating Contingency (See Contingency Calculator)		\$4,415,006	\$9.92
2.0% Construction Contingency		\$2,926,974	\$6.58
3.59% PH1-3 Escalation Contingency Avg.		\$5,254,639	\$11.81
Total Contingencies:		\$12,596,620	\$28.30
<u>Insurance &amp; Bonds</u>			
Builders Risk Insurance		By Owner	\$0.00
2.70% C.C.I.P.		\$4,640,185	\$10.43
0.73% Skanska Bonding		\$1,323,416	\$2.97
Total Insurance & Bonds:		\$5,963,601	\$13.40
<u>Construction Management Services</u>			
General Conditions		\$10,149,944	\$22.80
General Requirements		\$5,840,782	\$13.12
1.95% Construction Management Fee		\$3,467,535	\$7.79
Total Construction Management Services:		\$19,458,261	\$43.72
<u>Building Permit</u>		By Owner	\$0.00
<b>Estimated Total Project Cost:</b>		<b>\$181,289,853</b>	<b>\$407.30</b>

Early Bid Package Summary (See EBP Backup Doc)	\$56,074,181
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**Grand Total Project Cost: \$237,364,033 \$533**



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November 4, 2019

Direct Cost Summary					
Description	Phase 1 - Renovation & New Construction	Phase 2 - New Construction	Phase 3 - Site Work	Total Cost	Cost/SF
					(445,100)
A10 Foundation	\$41,367	\$12,919		\$54,286	\$0.12
A20 Basements				\$0	\$0.00
B10 Superstructure	\$1,586,758	\$4,492,220		\$6,078,978	\$13.66
B20 Exterior Closure	\$6,942,463	\$3,288,356		\$10,230,819	\$22.99
B30 Roofing	\$2,097,238	\$1,013,259		\$3,110,497	\$6.99
C10 Interior Construction	\$9,667,540	\$5,235,668		\$14,903,208	\$33.48
C20 Stairs	\$474,135	\$586,481		\$1,060,616	\$2.38
C30 Interior Finishes	\$10,428,427	\$3,446,367		\$13,874,794	\$31.17
D10 Conveying	\$0			\$0	\$0.00
D20 Plumbing	\$3,641,783	\$2,272,848		\$5,914,631	\$13.29
D30 H.V.A.C.	\$15,390,242	\$5,026,006		\$20,416,248	\$45.87
D30 Geothermal Wells	\$6,025,000			\$6,025,000	
D40 Fire Protection	\$1,951,064	\$845,948		\$2,797,012	\$6.28
D50 Electrical	\$12,305,736	\$5,262,754		\$17,568,490	\$39.47
E10 Equipment	\$4,396,278	\$633,900		\$5,030,178	\$11.30
E20 Furnishings	\$2,661,939	\$2,877,534		\$5,539,473	\$12.45
F10 Special Construction	\$700,000			\$700,000	\$1.57
F20 Selective Demolition	\$231,046	\$8,086,074	\$54,000	\$8,371,120	\$18.81
Z10 Phasing Temp Work	\$2,337,289	\$1,716,855		\$4,054,144	\$9.11
Z10 GR's with Trades	\$1,286,399	\$1,380,000		\$2,666,399	\$5.99
<b>Total Building Cost</b>	<b>\$82,164,704</b>	<b>\$46,177,190</b>	<b>\$54,000</b>	<b>\$128,395,893</b>	<b>\$288.47</b>
G10 Site Preparation	\$1,218,610	\$1,932,361	\$731,137	\$3,882,108	\$8.72
G20 Site Improvements	\$3,680,375	\$4,167,308	\$1,127,651	\$8,975,334	\$20.16
G30 Site Mechanical Utilities	\$1,525,231	\$1,698,850	\$308,149	\$3,532,230	\$7.94
G40 Site Electrical Utilities	\$943,521	\$367,644	\$51,986	\$1,363,151	\$3.06
<b>Total Site Cost</b>	<b>\$7,367,737</b>	<b>\$8,166,163</b>	<b>\$2,218,923</b>	<b>\$17,752,823</b>	<b>\$39.89</b>
<b>Grand Total Direct Cost</b>	<b>\$89,532,441</b>	<b>\$54,343,352</b>	<b>\$2,272,923</b>	<b>\$146,148,716</b>	<b>\$328</b>



Town Of Belmont  
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 90% CD Recon. Estimate Estimate - Issue 01

October 29, 2019

Summary of Early Bid Package Values		
Early Bid Packages	VE Saving w/ Indirect Cost	90% CD Est. - Carry Values
<b>Above the Line RTA Cost</b>		
Geothermal Target RTA Value		\$6,225,000
<b>Total Above the Line Early Bid Packages Values</b>		<b>\$6,225,000</b>
<b>Below the Line RTA Cost</b>		
Early Bid package #1 (Abatement)	\$444,802	\$444,802
Amendment #3 ( Geo Support + Furniture)	\$56,855	\$56,855
Amendment #4 (Temp Trailers)	\$42,023	\$42,023
Amendment #6 - EBP#2 Earthwork/Demo/Enabling	\$13,402,478	\$12,596,464
Z10.5 EBP2 Reduce Hold Value Allowances	(\$320,190)	
Z10.5 EBP2 Waterline Credit	(\$85,587)	
F20.2B - Reduction to Abatement Contract	(\$400,238)	
G20.30 Soil Disposal From EBP2 (\$200,000)	Incl'd in Base Estimate	
Amendment #7R2 - EBP#3 Piles	\$7,312,802	\$7,013,958
G20.29 Target Pile Reduction (\$339,000)		
G20.29 - Unutilized Pile Allowance return	(\$213,460)	
G20.29 - Delete Pre-auguring from Pile Driving Scope	(\$85,384)	
G20.29 - Reduce Soil Disposal for Per-auguring	Incl'd in Base Estimate	
Amendment #8 – Design Assist CW package	\$16,168,728	\$10,893,080
Design Assist Curtain Wall Savings	(\$5,275,648)	
Amendment #9 – Misc. Authorization Requests		W/ Owners Contingency
Amendment #10R1 – Structural Steel Phase 1	\$10,189,813	\$10,008,865
VE#99A Remove Pond Terrace Canopy	(\$98,902)	
VE#100 Remove Pond Terrace 2nd Floor Balcony	(\$30,510)	
VE#109 Remove Brick Wing Wall Area A	(\$2,448)	
VE#110 Remove Brick Wing Wall Area B	(\$2,074)	
B10.16 Reduce Level 2 Area B Mechanical Space Structure.	(\$9,015)	
B10.3B Revise amount of columns with intumescent paint at columns, Isolatek WB4 Paint at Pool steel & Spray fireproofing at band room. (50% of Target Value)	(\$38,000)	
Structural Steel Phase 1 Includes the Stairs #1 &#2	Incl'd Above	
Amendment #12 – Concrete and GC	\$14,790,961	\$14,384,690
G20.28 - Concrete buyout savings	(\$336,503)	
B10.16 Reduce Level 2 Area B Mech. Space Structure	(\$485)	
VE#100 Remove Pond Terrace 2nd Floor Balcony	(\$13,325)	
VE#089 Revise Roof Terrace (Delete Curb)	(\$430)	
A10.2 - Concrete Removal of 5" slabs	(\$55,528)	
Amendment #13 Elevators	\$633,444	\$633,444
<b>Total Below the Line Early Bid Packages Values</b>	<b>56,074,181</b>	<b>\$56,074,181</b>

NOTE: Schematic / Precon and Amendment #1,9,11 cost are included with Owner's Budget.

## Project Contingency Calculator

ID	Description	Estimated Cost	Design/Est Contingency				Construction Contingency				Escalation Contingency				Total			
			L	S	H	Extended	L	S	H	Extended	L	S	H	Extended				
			1%	2.25%	4.25%	Value	0%	2%	0%	Value	1.5%	2.0%	3.75%	Value				
A10	Foundations	54,286	x			543		x		1,086			x	2,036	3,664			
A20	Basement Construction	0				0				0				0	0			
B10	Superstructure	6,078,978		x		136,777		x		121,580			x	227,962	486,318			
B20	Exterior Enclosure	10,230,819		x		230,193		x		204,616			x	383,656	818,466			
B30	Roofing	3,110,497		x		69,986		x		62,210			x	116,644	248,840			
C10	Interior Construction	14,903,208			x	633,386		x		298,064			x	558,870	1,490,321			
C20	Stairs	1,060,616		x		23,864		x		21,212			x	39,773	84,849			
C30	Interior Finishes	13,874,794			x	589,679		x		277,496			x	520,305	1,387,479			
D10	Conveying	0				0		x		0				0	0			
D20	Plumbing	5,914,631			x	251,372		x		118,293			x	221,799	591,463			
D30	HVAC	20,416,248			x	867,691		x		408,325			x	765,609	2,041,625			
D30	Geothermal Wells EBP	6,225,000				0		x		124,500				0	124,500			
D40	Fire Protection	2,797,012	x			27,970		x		55,940			x	104,888	188,798			
D50	Electrical	17,568,490		x		395,291		x		351,370			x	658,818	1,405,479			
E10	Equipment	5,030,178			x	213,783		x		100,604			x	188,632	503,018			
E20	Furnishings	5,539,473		x		124,638		x		110,789			x	207,730	443,158			
F10	Special Construction	700,000			x	29,750		x		14,000			x	26,250	70,000			
F20	Selective Building Demolition	8,371,120		x		188,350		x		167,422			x	313,917	669,690			
Z10	Phasing Temp Work	4,054,144			x	172,301		x		81,083			x	152,030	405,414			
Z10	GR's with Trades	2,666,399		x		59,994		x		53,328			x	99,990	213,312			
G10	Site Preparation	3,882,108		x		87,347		x		77,642			x	145,579	310,569			
G20	Site Improvements	8,975,334		x		201,945		x		179,507			x	336,575	718,027			
G30	Site Civil/Mechanical Utilities	3,532,230		x		79,475		x		70,645			x	132,459	282,578			
G40	Site Electrical Utilities	1,363,151		x		30,671		x		27,263			x	51,118	109,052			
		146,348,716	Total				4,415,006	Total				2,926,974	Total				5,254,639	12,596,620
							3.02%					2.00%					3.59%	8.61%



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**Direct Cost Summary Comparison**

Description	60% Estimate Reconciled	Accepted VM	Projected 60% Estimate	90% Estimate	Cost/SF	Variance
					(445,100)	
A10 Foundation	\$54,286	\$0	\$54,286	\$54,286	\$0.12	\$0
A20 Basements	\$0	\$0	\$0	\$0	\$0.00	\$0
B10 Superstructure	\$6,470,915	(\$196,841)	\$6,274,074	\$6,078,978	\$13.66	(\$195,096)
B20 Exterior Closure	\$9,411,299	\$680,923	\$10,092,222	\$10,230,819	\$22.99	\$138,597
B30 Roofing	\$3,527,556	(\$324,314)	\$3,203,242	\$3,110,497	\$6.99	(\$92,745)
C10 Interior Construction	\$16,121,361	(\$1,469,531)	\$14,651,830	\$14,903,208	\$33.48	\$251,378
C20 Stairs	\$1,186,758	(\$274,614)	\$912,144	\$1,060,616	\$2.38	\$148,472
C30 Interior Finishes	\$17,239,037	(\$2,923,643)	\$14,315,394	\$13,874,794	\$31.17	(\$440,600)
D10 Conveying	\$0	\$0	\$0	\$0	\$0.00	\$0
D20 Plumbing	\$6,208,918	(\$240,000)	\$5,968,918	\$5,914,631	\$13.29	(\$54,287)
D30 H.V.A.C.	\$25,018,919	(\$133,000)	\$24,885,919	\$26,441,248	\$59.41	\$1,555,329
D40 Fire Protection	\$2,669,289	(\$73,550)	\$2,595,739	\$2,797,012	\$6.28	\$201,273
D50 Electrical	\$19,045,324	(\$1,430,413)	\$17,614,911	\$17,568,490	\$39.47	(\$46,421)
E10 Equipment	\$5,650,932	(\$632,000)	\$5,018,932	\$5,030,178	\$11.30	\$11,246
E20 Furnishings	\$7,002,531	(\$897,972)	\$6,104,559	\$5,539,473	\$12.45	(\$565,086)
F10 Special Construction	\$700,000	\$0	\$700,000	\$700,000	\$1.57	\$0
F20 Selective Demolition	\$9,571,334	(\$1,475,000)	\$8,096,334	\$8,371,120	\$18.81	\$274,786
Z10 Phasing Temp Work	\$4,224,448	(\$728,000)	\$3,496,448	\$4,054,144	\$9.11	\$557,696
Z10 GR's with Trades	\$2,968,971	\$0	\$2,968,971	\$2,666,399	\$5.99	(\$302,572)
<b>Total Building Cost</b>	<b>\$137,071,878</b>	<b>(\$10,117,955)</b>	<b>\$126,953,923</b>	<b>\$128,395,893</b>	<b>\$288.47</b>	<b>\$1,441,970</b>
G10 Site Preparation	\$4,365,084	(\$1,155,660)	\$3,209,424	\$3,882,108	\$8.72	\$672,684
G20 Site Improvements	\$9,237,898	(\$444,340)	\$8,793,558	\$8,975,334	\$20.16	\$181,776
G30 Site Mechanical Utilities	\$3,451,841	\$0	\$3,451,841	\$3,532,230	\$7.94	\$80,389
G40 Site Electrical Utilities	\$1,305,233	\$0	\$1,305,233	\$1,363,151	\$3.06	\$57,918
<b>Total Site Cost</b>	<b>\$18,360,057</b>	<b>(\$1,600,000)</b>	<b>\$16,760,057</b>	<b>\$17,752,823</b>	<b>\$39.89</b>	<b>\$992,766</b>



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**Project Cost Summary Comparison**

Description	Project Area	60% Estimate Reconciled	Accepted VM	Projected 60% Estimate	90% CD Est. Total Cost	Cost/SF	Variance
Total Building Cost	445,100 sf	\$137,071,878	(\$10,117,955)	\$126,953,923	\$128,395,893	\$288	\$1,441,970
Total Site Cost		\$18,360,057	(\$1,600,000)	\$16,760,057	\$17,752,823	\$40	\$992,766
3% Deduct Subcontractor Insurance	\$178,526,403	(\$5,355,792)	\$353,846	(\$5,001,946)	(\$5,020,408)		(\$18,462)
1.35% Subcontractor Default Insur. (SDI) / Bonds for Trade Cont		\$2,329,116	\$367,996	\$2,697,112	\$2,143,062	\$5	(\$554,050)
<b>Total Direct Cost</b>		<b>\$152,405,258</b>	<b>(\$10,996,113)</b>	<b>\$141,409,146</b>	<b>\$143,271,370</b>	<b>\$322</b>	<b>\$1,862,224</b>
<u>Contingencies</u>							
Design Contingency (EBP#3, 4.03, 4.05)		\$285,289		\$285,289	\$0	\$0	(\$285,289)
Design/Estimating Contingency (CSA Trades)		\$2,632,194	(\$436,061)	\$2,196,133	\$2,872,683		\$676,550
Design/Estimating Contingency (MEP)		\$2,507,208	(\$199,172)	\$2,308,036	\$1,542,324		(\$765,712)
Construction Contingency		\$4,095,562	(\$1,182,500)	\$2,913,063	\$2,926,974	\$7	\$13,912
PH1-3 Escalation Contingency Avg.		\$7,574,913	(\$586,184)	\$6,988,729	\$5,254,639	\$12	(\$1,734,090)
<b>Total Contingencies:</b>		<b>\$17,095,166</b>	<b>(\$2,403,917)</b>	<b>\$14,691,250</b>	<b>\$12,596,620</b>	<b>\$28</b>	<b>(\$2,094,629)</b>
<u>Insurance &amp; Bonds</u>							
Builders Risk Insurance		By Owner	\$0	By Owner	By Owner	\$0	By Owner
2.70% C.C.I.P. / GLI		\$6,211,352	(\$482,867)	\$5,728,485	\$4,640,185	\$10	(\$1,088,300)
0.73% Skanska Bonding		\$1,771,525	(\$137,718)	\$1,633,807	\$1,323,416	\$3	(\$310,391)
<b>Total Insurance &amp; Bonds:</b>		<b>\$7,982,877</b>	<b>(\$620,585)</b>	<b>\$7,362,292</b>	<b>\$5,963,601</b>	<b>\$13</b>	<b>(\$1,398,691)</b>
<u>Construction Management Services</u>							
General Conditions		\$11,150,211	Incl'd w/ Amend#12	\$11,150,211	\$10,149,944	\$23	Incl'd w/ Amend#12
General Requirements		\$4,885,031	(\$350,093)	\$4,534,938	\$5,840,782	\$13	\$1,305,844
1.95% Construction Management Fee		\$4,641,643	(\$360,839)	\$4,280,804	\$3,467,535	\$8	(\$813,269)
<b>Total Construction Management Services:</b>		<b>\$20,676,885</b>	<b>(\$710,932)</b>	<b>\$19,965,953</b>	<b>\$19,458,261</b>	<b>\$44</b>	<b>\$492,575</b>
<u>Building Permit</u>							
		By Owner	\$0	By Owner	By Owner	\$0	By Owner
<b>Total Project Cost:</b>		<b>\$198,160,186</b>	<b>(\$14,731,546)</b>	<b>\$183,428,640</b>	<b>\$181,289,853</b>	<b>\$407</b>	<b>(\$2,138,788)</b>



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**Amendment Early Bid Package**

Bid Packages	60% Estimate Reconciled w/ Contingency	Accepted VM	Projected 60% Estimate	90% Estimate	Cost/SF	Variance
Early Bid package #1 (Abatement)	\$444,802		\$444,802	\$444,802	\$1	\$0
Amendment #3 ( Geo Support + Furniture)	\$56,855		\$56,855	\$56,855	\$0	\$0
Amendment #4 (Temp Trailers)	\$42,023		\$42,023	\$42,023	\$0	\$0
Amendment #6 - EBP#2 Earthwork/Demo/Enabling	\$13,018,487	(\$405,777)	\$12,612,710	\$12,596,464	\$28	(\$16,247)
Amendment #7R2 - EBP#3 Piles	\$6,908,081	(\$298,844)	\$6,609,237	\$7,013,958	\$16	\$404,721
Amendment #10R1 – Structural Steel Phase 1	\$9,601,660	(\$180,948)	\$9,420,712	\$10,008,865	\$22	\$588,153
Amendment #8 – Design Assist CW package	\$15,280,050	(\$3,630,680)	\$11,649,370	\$10,893,080	\$24	(\$756,290)
Amendment #9 – Misc. Authorization Requests	\$0		\$0	W/ Owners	\$0	\$0
				Contingency		
Amendment #12 – Concrete and GC	\$12,875,000	(\$336,503)	\$12,538,497	\$14,384,690	\$32	\$1,846,193
Amendment #13 Elevators	\$568,480		\$568,480	\$633,444	\$1	\$64,964
						\$0
<b>Grand Total Project Cost</b>	<b>\$256,955,625</b>	<b>(\$19,584,298)</b>	<b>\$237,371,327</b>	<b>\$237,364,033</b>	<b>\$533</b>	<b>(\$7,293)</b>