

Lincoln School



SD- Value Engineering Scenarios

Updated 10/10/2018 (Incorporates 10/3 and 10/10 SBC Voted Items)

SBC Members

	Possibly Added at a Later Date	VE Cost	Accepted VE Items	Designated as a possible VE Item	Notes
<b>I. Sitework</b>					
1	Existing playground structures to remain as is- except playground structure outside 3rd grade wing- <b>Cannot accept with Items 12-14</b>	Y	\$ (186,911)		Dependent on Site Option Selected
2	<del>Existing playground structures to be removed, salvaged and reinstalled (for installation of new code compliant rubber surfacing)- Cannot accept with Item 4</del>		<del>\$(100,000)</del>		
3	Reduce granite curbing based on Site Option 4 Diagram- Cannot accept with Items 12, 14-16	Y	\$ (147,458)	5	
4	<del>Change vertical granite curbing to cape cod berm except along Ballfield Rd main loop- Cannot accept with Item 3</del>		<del>\$(236,800)</del>	5	
5	Delete Sod at playfields, provide seed	Y	\$ (141,836)	\$ 141,836	Accepted 10/3
6	Delete underground power/data duct bank to Lincoln Road, overhead power/data lines remains as is	Y	\$ (551,357)	2	
7	Delete rubber surfacing at playgrounds, provide wood fiber surfacing with rubber surfacing pathways per MAAB- <b>Cannot accept with Items 12, 14-16</b>	Y	\$ (239,884)	1	Dependent on Site Option Selected
8	Substitute bituminous paving for concrete in areas as indicated in Site Option 4 Diagram	Y	\$ (309,301)	8	Dependent on Site Option Selected
9	<del>Reduce granite benches by 50%</del>		<del>\$(96,620)</del>		
10	Remove all granite benches- Cannot accept with Item 9 or Item 12	Y	\$ (193,240)	2	Dependent on Site Option Selected
11	Eliminate all planting (trees, shrubs and groundcover; seeding to remain)- Cannot accept with Items 12, 14	Y	\$ (239,556)	5	
12	Site Diagram 1- site scope is limited to code upgrades and site area impacted by new building design and construction- Cannot accept with Items 14-16	Y	\$ (4,978,666)		
12.1	Site Diagram 1- Substitute bituminous pavement for concrete walkways- Cannot accept with Items 14-16	Y	\$ (114,731)		
12.2	Site Diagram 1- Substitute bituminous curbing for granite curbing- Cannot accept with Items 14-16	Y	\$ (23,954)		
13	Remove half basketball court near Reed Gym- Cannot accept with Item 12	Y	\$ (50,400)	1	
14	Site Diagram 2A- site scope is scope included in Site Diagram 1 plus Brooks parking lot and kitchen receiving drive- Cannot accept with Items 12 and 15-16	Y	\$ (3,522,493)		
14.1	Site Diagram 2A- Substitute bituminous pavement for concrete walkways- Cannot accept with Items 12 and 15-16	Y	\$ (178,486)		
14.2	Site Diagram 2A- Substitute bituminous curbing for granite curbing- Cannot accept with Items 12 and 15-16	Y	\$ (83,764)		
15	Site Diagram 2B- site scope is scope included in Site Diagram 1 plus Smith and Brooks parking lots and kitchen receiving drive- Cannot accept with Items 12, 14, 16	Y	\$ (1,556,869)		
15.1	Site Diagram 2B- Substitute bituminous pavement for concrete walkways- Cannot accept with Items 12, 14, 16	Y	\$ (234,690)		
15.2	Site Diagram 2B- Substitute bituminous curbing for granite curbing- Cannot accept with Items 12, 14, 16	Y	\$ (139,789)		
16	Site Diagram 3- site scope is scope included in Site Diagram 2 plus remainder of Ballfield Road loop road- Cannot accept with Items 12, 14-15	Y	\$ (753,407)		
16.1	Site Diagram 3- Substitute bituminous pavement for concrete walkways- Cannot accept with Items 12, 14-15	Y	\$ (286,706)		
16.2	Site Diagram 3- Substitute bituminous curbing for granite curbing- Cannot accept with Items 12, 14-15	Y	\$ (148,454)		
<b>II. Interior &amp; Exterior Building Components</b>					
1	Eliminate skylights at MS Art Rooms (128 SF)	Y	\$ (23,040)	1	
2	Eliminate operable wall at 3rd grade classrooms, provide drywall partition ( 1 EA @ 284 SF )	N	\$ (39,192)		

3	Eliminate folding glass wall at 4th grade HUB, provide sliding 3' pocket door ( 1 EA @ 275 SF )	N	\$ (49,500)			
4	Eliminate operable wall at 4th grade classrooms, provide drywall partition ( 1 EA @ 284 SF )	N	\$ (39,192)			
5	Eliminate folding glass walls (2) at 5th grade HUB, provide sliding 3' pocket doors (2) ( 1 EA 498 SF )	N	\$ (89,640)			
6	Eliminate operable wall at 5th grade classrooms, provide drywall partition ( 280 SF )	N	\$ (33,600)			
7	Eliminate folding glass walls (2) at 6th grade HUB, provide sliding 3' pocket doors (2) ( 813 SF )	N	\$ (146,340)		1	
8	Eliminate operable wall at 6th grade classrooms, provide drywall partition ( 1 EA @ 284 SF )	N	\$ (39,192)		1	
9	Eliminate folding glass walls (2) at 7th grade HUB, provide sliding 3' pocket doors (2) ( 574 SF )	N	\$ (103,320)		1	
10	Eliminate folding glass wall at 8th grade HUB, provide sliding 3' pocket door (326 SF )	N	\$ (58,680)		1	
11	Eliminate operable wall at 8th grade classrooms, provide drywall partition ( 1 EA 283 SF )	N	\$ (50,940)			
12	Existing open bookshelving along window walls (replaced/installed in 1994) to remain- 446 LF	N	\$ (214,080)	\$ 214,080	7	Accepted 10/10
13	Existing base and upper cabinetry (replaced/installed in 1994) to remain except for new 4' wide ADA base/countertop at sinks	Y	\$ (117,168)	\$ 117,168	8	See Diagram C for 1994 spaces that will maintain casework
14	Existing tall storage cabinets (replaced/installed in 1994) to remain- 110 LF	Y	\$ (66,000)	\$ 66,000	3	Accepted 10/10
15	Eliminate porcelain tile (PT) wainscott at Dining Commons & Learning Commons- Maintain only 4" PT base and abuse	Y	\$ (48,960)		2	
16	Eliminate roof screen at Part D (68 LF)	N	\$ (83,520)		5	
17	Eliminate roof screen at Part E (100 LF)	N	\$ (150,600)		5	
18	Change all proposed linoleum flooring to VCT- at all locations	Y	\$ (381,647)		4	
19	Maintain existing VCT flooring in lieu of new linoleum at existing spaces not reconfigured- Cannot accept with Item 18	Y	\$ (356,490)		1	See Diagram A attached for locations to remain
20	Maintain existing VCT flooring in lieu of new VCT at existing spaces not reconfigured- Can only accept if Item 18 is accepted; Cannot accept with Item 19	Y	\$ (188,306)		1	
21	Change all proposed porcelain tile flooring to VCT at Learning and Dining Commons- Cannot accept with Item 21.1	Y	\$ (230,704)		4	
21.1	Change all proposed porcelain tile flooring to linoleum at Learning and Dining Commons- Cannot accept with Item 21	Y	\$ (190,000)	\$ 190,000		Accepted 10/10
22	Change all ceramic tile flooring to epoxy flooring in all toilet rooms	Y	\$ (49,514)	\$ 49,514	6	Accepted 10/10
23	Change decorative acoustical Metal Works ceiling at Learning Commons to 2x2 ACT	Y	\$ (188,928)		3	
24	Reduce exterior glazing (triple pane fiberglass units) by 5%- revise to brick wall assembly	N	\$ (36,000)			
25	Existing REED gymnasium PVC roof membrane to remain	N	\$ (233,350)		5	
26	Existing wood doors in hollow metal frames at 1994 construction to remain	N	\$ (74,400)	\$ 59,520	4	See Diagram B attached for locations to remain; Accepted 10/10
27	Reuse existing markerboards/tack boards - to remain as is in 1994 renovated spaces	Y	\$ (68,340)	\$ 54,672	4	See Diagram C attached for locations to remain; Accepted 10/10
28	Eliminate exterior doors at classrooms (22 locations)- replace with brick wall assembly	N	\$ (69,300)			
29	Eliminate cubbies/lockers at PK-2 (install just coat hooks)	Y	TBD		1	
30	Eliminate raised loading dock, ramps and railings	N	\$ (54,000)			
31	Reduce allowance for replacement of existing roof decking	N	\$ (78,480)		1	
32	Maintain dormers and bell tower structures at 1994 Link building	N	\$ (80,800)		2	
33	Eliminate sun shade/PV Canopies and trellis at 1st grade classrooms ( 1,420 sf )	N	\$ (122,808)		1	
34	Eliminate sun shade/PV Canopies and trellis at 4th grade classrooms ( 773 sf )	N	\$ (68,245)	\$ 68,245	2	Accepted 10/10
35	Eliminate sun shade/PV Canopies and trellis at 7th grade classrooms ( 925 sf )	N	\$ (80,734)		1	
36	Eliminate sun shade/PV Canopies and trellis at 8th grade classrooms (1,097 sf )	N	\$ (95,746)		1	
37	Eliminate sun shade/PV Canopies and Dining Commons facade (804 sf )	N	\$ (70,172)		1	
38	Eliminate sun shade/PV Canopies at REED corridor ( 1,400 sf )	N	\$ (122,191)		4	
39	Eliminate literacy resource tall bookcases casework	Y	\$ (66,600)		1	
40	Eliminate wood bench A-201/6	N	\$ (135,000)		2	
41	Structural- In lieu of removing existing basement/crawlspace concrete walls in the 1948 portion of the building being demolished, remove only the framed concrete slab at the first floor level. Infill the spaces with compacted fill.	N	\$ (28,800)		1	
<b>III. Infrastructure (MEP)</b>						
<b>Electrical</b>						
1	Reduce the number of security cameras to 20	Y	\$ (73,500)		1	
2	Revise power feeders rated 150 amp or larger to aluminum (phase and neutral conductors and copper ground	N	\$ (36,000)	\$ 36,000	1	Accepted 10/3
3	Reduce emergency generator size to 650kW by decreasing the shelter area	N	\$ (78,000)			

4	Reduce emergency generator size to 650kW- kitchen appliances can be pre-wired to normal power source (instead of standby)- Cannot accept with Item 3	N	\$ (78,000)			
5	Eliminate mass notification system	N	\$ (198,769)		3	
6	Eliminate new street lighting, existing to remain- Cannot accept with Items 12, 14-16	N	\$ (396,436)		9	
7	Add Wireless Microphones in Auditorium	Y	\$ 73,800		4	
8	Add Video Recording/Streaming in Auditorium	Y	\$ 13,200		4	
9	Add Broadcast video in Auditorium	Y	\$ 34,800		4	
10	Add Lecture Hall video in Auditorium	Y	\$ 21,120		4	
<b>Plumbing</b>						
1	Use NIRON or AQUATHERM piping in lieu of copper piping for domestic water piping	N	\$ (126,000)		2	
2	Eliminate piping insulation at cold water piping	N	\$ (28,800)			
3	Eliminate acid waste neutralization system	N	\$ (54,000)	\$ 54,000	2	Accepted 10/3
<b>Mechanical</b>						
1	Omit ceiling fans at Smith and Reed Gymnasiums	Y	\$ (42,000)			
2	Omit sound attenuators in systems installed at higher grade spaces (5-8), Admin and Gyms	N	\$ (78,000)			
3	Use ductless units in spaces currently intended to get ducted FCUs	N	\$ (54,000)			
4	Simplify controls with less interface between the BMS and the VRF control system	N	\$ (180,000)		1	
5	Add VAV and CO2 Demand Control Ventilation	N	\$ 270,000		1	
6	Add- Change to Ducted Heat Pump- Cannot accept with Item 5	N	\$ 600,000			
7	Add- Change to Ducted Heat Pump with VAV and CO2 Demand Control Ventilation- Cannot accept with Item 5 & 6	N	\$ 870,000			
<b>IV. General</b>						
1	Reduce Modulares direct cost to \$2,000,000		\$ (1,680,000)		12	
2	Reduce the Photovoltaic direct cost to \$1,500,000- Cannot accept with Item 3		\$ (1,200,000)		2	
3	Reduce the Photovoltaic direct cost to \$zero		\$ (3,000,000)		9	
4	Add \$250,000 in direct cost to accommodate additional Incentive-based ECM upgrades		\$ 300,000			
5	Add \$500,000 in direct cost to accommodate additional Incentive-based ECM upgrades		\$ 600,000			
6	Move FF&E to non capitol project cost - operational budget over 4 years		FF&E Budget		2	Not a construction cost reduction, reduces Total Project Cost by \$1,056,000
7	Do not utilize CM @ Risk process					
<b>V. Program Changes</b>						
1	<del>Change Learning Commons/Media Center/3rd Grade CR wing to new Design, increase Learning Commons by 1,000-sf</del>		\$ 570,000			
2	Change Learning Commons/Media Center/3rd Grade CR wing to new Design, maintain existing Learning Commons size- Cannot accept with Item 1		\$ 150,000	\$ (150,000)		Accepted 10/3
3	<del>Reduce Learning Commons in current design by 1,000-sf to minimal opening to cafeteria- Cannot accept with Items 1 or 2</del>		\$ (420,000)			
4	Eliminate all Work in the Auditorium except HVAC, Fire Alarm, Code Upgrades and Fire Sprinklers	Y	\$ (1,588,708)		9	
5	Eliminate Media Center Wing, Commons SF to become Media Center (Decrease new Additions by 3,000 SF)	N	\$ (1,260,000)			
6	Eliminate Corridor Link to REED Gym (Decrease new Additions by 2,774 SF)	N	\$ (1,165,080)		1	
7	Eliminate 3rd grade HUB space - make corridor only (Decrease new Additions by 500 SF)	N	\$ (210,000)			
8	Retain Pre-K at Hartwell complex - eliminate SF for CASE classroom and new Smith storage additions (Decrease new Additions by 2,410 SF)	N	\$ (1,012,200)			Assumes district technology offices will be included back into the program, CASE will remain in existing

9	Eliminate Movement Room at REED Gym- Maintain existing locker room configuration as is	N	TBD		1
11	Reduce Central Storeroom at Loading Dock to 1,500 SF (Decrease new Additions by 1,000 SF)	N	\$ (360,000)		3

<b>Total of all Accepted VE</b>	<b>\$ 901,035</b>
<b>Current Fogarty Cost Estimate</b>	<b>\$ 84,978,615</b>
<b>Construction Budget</b>	<b>\$ 76,009,457</b>
<b>Overage</b>	<b>\$ 8,969,158</b>
<b><i>Delta between Overage and Accepted VE</i></b>	<b>\$ (8,068,123)</b>