SCHOOL BOARD ACTION REPORT

DATE: August 15, 2020
FROM: Denise Juneau, Superintendent
LEAD STAFF: Fred Podesta, Chief Operations Officer
206-252-0636, fhpodesta@seattleschools.org

For Introduction: August 26, 2020
For Action: September 9, 2020

1. TITLE

BEX V: Approval of the Value Engineering Report for the Kimball Elementary School Replacement project

2. PURPOSE

The purpose of this action helps to secure approximately $1,855,166 in state funding assistance for the Kimball Elementary School Replacement project. The Office of Superintendent of Public Instruction (OSPI) Form D-7 Application requires Board acceptance of the Value Engineering Report and the Architect's Response and Recommendation Matrix.

3. RECOMMENDED MOTION

I move that the School Board approve the Value Engineering Report dated May 12, 2020, and the Architect's Response and Recommendation Matrix for the Kimball Elementary School project.

4. BACKGROUND INFORMATION

a. Background

In May 2020, Meng Analysis performed an independent value engineering study of the schematic design drawings for the Kimball Elementary School Replacement project, as designed by NAC Architecture.

The study was undertaken by a team of professional architects, engineers, and cost estimators who analyzed the design and developed suggestions for adding value to the project. Value Engineering is defined by the Washington Administrative Code (WAC) 392-343-080 as a cost control technique which is based on the use of a systematic, creative analysis of the functions of the facility with the objective of identifying unnecessary high costs or functions and/or identifying cost savings that may result in high maintenance and operation costs.

The value analysis suggestions were accepted if they added value and/or reduced costs without negatively affecting the educational program and goals or the long-term operation of the building. The study provided the design team and district with information and strategies necessary to keep construction costs within budget.

The Value Engineering consultant made 95 different value recommendations, of which 45 were accepted or partially accepted and had potential cost savings, and 50 were rejected for various reasons, including not meeting district educational and program goals, district maintenance goals, or district sustainability goals. The total anticipated cost savings from the suggested proposals that the design team and district accepted is approximately $153,303.

To date, the following key actions related to this project have been approved by the Board:

- Architecture and Engineering contract to NAC Architecture, approved December 11, 2019

b. **Alternatives**

Deny Motion. If motion is denied, it would delay the issuance of the form D-8 form which allows the district to open bids and could impact the district's ability to receive state funding assistance. Not having the ability to open bids could potentially have a negative impact on the Kimball Elementary School project.

c. **Research**

Per (WAC) 392-343-080, the state requires the Board to accept or reject the proposals as outlined in the value engineering report, for all projects larger than 50,000 square feet. According to the American Institute of Architects (AIA) and Building Excellence (BEX) standards, value analysis is an industry best practice for large construction projects, regardless of state funding assistance requirements.

5. FISCAL IMPACT/REVENUE SOURCE

This action does not represent a specific expenditure.

This action helps to secure up to $1,855,166 in state funding assistance for the project.

The revenue source for this project is from BEX V capital levy fund. This project is budgeted at $84,563,883.

Expenditure: ☐ One-time ☐ Annual ☐ Multi-Year ☒ N/A

Revenue: ☒ One-time ☐ Annual ☐ Multi-Year ☐ N/A

6. COMMUNITY ENGAGEMENT

With guidance from the District's Community Engagement tool, this action was determined to merit the following tier of community engagement:

☐ Not applicable

☐ Tier 1: Inform

☒ Tier 2: Consult/Involve

☐ Tier 3: Collaborate

The selection of projects in the BEX V levy program went through an extensive community vetting process and ultimately received 73% approval on February 2019.

7. EQUITY ANALYSIS

The district's Racial Equity Analysis toolkit was utilized to guide the planning process for the BEX V Capital Levy, influencing community engagement methods, preparation of the 2018 update to the Facilities Master Plan, and ultimately the final proposed levy package. The Board's guiding principles stated that racial and educational equity should be an overarching principle for the BEX V Capital Levy planning in accordance with Board Policy 0030, Ensuring Educational and Racial Equity. Projects identified for inclusion in the BEX V levy will ultimately improve conditions for all students in the affected schools. Improved building conditions create a better environment for learning and can provide facilities to better position students for academic success.

8. STUDENT BENEFIT

The project design will incorporate guidelines and requirements provided in the SPS Educational Specifications and the School Design Advisory Team process. It is the goal of the district to continue the process of implementing the BTA and BEX Capital Levy programs and provide students with safe and secure school buildings.

9. WHY BOARD ACTION IS NECESSARY

☐ Amount of contract initial value or contract amendment exceeds $250,000 (Policy No. 6220)

☐ Amount of grant exceeds $250,000 in a single fiscal year (Policy No. 6114)

☐ Adopting, amending, or repealing a Board policy

☐ Formally accepting the completion of a public works project and closing out the contract

☐ Legal requirement for the School Board to take action on this matter

☐ Board Policy No. _____, [TITLE], provides the Board shall approve this item

☒ Other: Requirement of the OSPI D-Form application process

10. POLICY IMPLICATION

School Board Policy No. 6100, Revenues from Local, State, and Federal Sources, states in part: "It is the policy of the Seattle School Board to pursue systematically those funding opportunities that are consistent with district priorities from federal, state, and other governmental units, as well as from private and foundation sources." In addition, the

policy states: “The Board agrees to comply with all federal and state requirements that may be a condition for the receipt of federal or state funds.”

11. BOARD COMMITTEE RECOMMENDATION

This motion was discussed at the Operations Committee meeting on August 13, 2020. The Committee moved the item forward with a recommendation for approval by the full board.

12. TIMELINE FOR IMPLEMENTATION

Upon approval of this motion, the architect can continue with the design.

13. ATTACHMENTS

- Summary of Value Improvement Matrix (for review) (full report is for approval and is available from the Capital Projects and Planning department)

Value Improvement Matrix

Kimball Elementary School

Seattle Public Schools is committed to making its online information accessible and usable to all people, regardless of ability or technology. Meeting web accessibility guidelines and standards is an ongoing process that we are consistently working to improve.

While Seattle Public Schools endeavors to only post documents optimized for accessibility, due to the nature and complexity of some documents, an accessible version of the document may not be available. In these limited circumstances, the District will provide equally effective alternate access.

For questions and more information about this document, please contact the following:

Capital Projects
ziyang@seattleschools.org

Summary of Value Improvement Matrix for Kimball Elementary School

NAC
ARCHITECTURE

May 06, 2020

Mr. Paul Wight
Project Manager
Seattle Public Schools
2445 Third Avenue South
Seattle, WA 98134

Mailing Address:
Mail Stop 22-334
PO Box 34165
Seattle, WA 98124-1165

RE: Kimball Elementary
VA Implementation

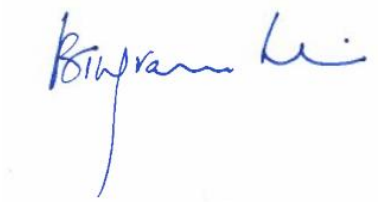
Dear Paul;

NAC Architecture, with input from the consultants, has completed the Value Analysis Implementation Form. Attached is a copy for your record.

Items that are marked as "accept" will be incorporated into the design during the design development. Items that are marked as "modify" will be further studied before being incorporated into the design. Proposed modifications and clarifications are provided in the comment column. Some values are being studied and will be determined when the project is further developed.

I hope that this meets with your approval. If there are any questions, do not hesitate to call.

Sincerely,
NAC ARCHITECTURE



Bingram Lai, AIA
Project Manager

CC Mike Skutack

CLIENT:	Seattle Public Schools						
PROJEC	Kimball Elementary School						
DATE:	April 13, 2020						

Prop. #	COMPONENTS AND SYSTEMS	PROJECTED COST REVISION (Rough Order of Magnitude)	ACCEPT	REJECT	MODIFY	ACCEPTED VALUE OF PROPOSAL	COMMENTS / DISCUSSION
L1	Nature Play	(86,000)		X		0	The design team will study how to best make the hill accessible for informal play. The jurisdiction will not allow us to create play spaces on the hill without providing equal access which is difficult given the significant slope. This will be refined in DD.
S1	Structural Framing	261,000		X		0	In the design team's experience, use of CLT increases project costs by about $9/SF rather than creating savings. Additionally, the design team has a concern that the use of CLT will increase bid risk and potentially lead to construction schedule issues. Given this is a design/bid/build project, and that it is bidding during a competitive construction market we are going to keep the structural system conventional.
S2	Building Volume	512,000			X	99,000	The design team will eliminate overhangs in the Gym/Commons building and reduce the height of the Commons by 6'. The design team will maintain the current 14' floor to floor dimension.
S3	Building Geometry	1,432,000			X	300,000	The design team will update the design to reduce the amount of curved exterior surfaces so that they are primarily used to accent the arrival point and façade along the grove. Additionally, the updates will reduce the complexity of the structural grids. The design team plans to still have the structural columns set back from the face of the overhang so that the structural columns are not expressed along the curves.
S4	Structural System	1,023,000		X		0	The design team and SPS have a concern that the use of proprietary steel/concrete structural systems will increase bid risk and potentially lead to construction schedule issues. Given that this is a design/bid/build project and that is is bidding during a competitive construction market we are going to keep the structural system conventional.
AE1	Roof Program	(70,000)			X	0	SPS has a concern that providing outdoor play area on the roof will set a precendent for future school projects. However, the School Design Advisory Team wanted the design team to explore option to provide amentity on the roof due to a constrained site. This will be further studied in DD.
AI1	Classroom Function	567,000			X	0	This will be refined in DD. The design team will study the options for connecting classrooms and work with the district and educators to make a value driven decision.
P1	Program Location	1,566,000		X		0	The design team studied options similar to this and decided, with the agreement of the School Design Advisory Team and the district, that the appropriate location for the Main Entry is facing toward the most prominent intersection (23rd Ave / Hanford St) and the appropriate location for the play area is near a secondary intersection where there is more shelter for students.

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M1	Integrated Design	112,000			X	-128,000	The design team studied options to improve selected aspects of the thermal envelope including reducing air infiltration and improving energy performance of windows. After the studies the design team recommends the use of spray foam in lieu of R-25 batt insulation in wall cavities (a cost increase as shown). Providing insulation above code requirements has diminishing returns and does not impact system sizing. It sometimes impacts system utilization on an annual basis. Ventilation would not be affected. Fin tube could be effective, but savings are modest. Consider testing through ELCCA as "improved envelope" option.
M2	HVAC System - Active Beam	(200,000)		X		0	Active chilled beam system was discussed with the district during the BEX IV mechanical system M&V and basis of design discussions prior to start of BEX V projects. The current basis of design system was selected by SPS and again reconfirmed as the desire system in Kimball project design approach meeting with SPS. Basis of design system does have some cooling capacity through displacement ventilation (25-30% capacity) and has the ability to more effectively utilize economizer during cooling hours. Cost review: SPS would likely still want ceiling fans with the chilled beam system considering it would still be a change over type, allowing for improved thermal comfort. We agree with other line items costs.
M3	Geothermal System	6,000			X	-6000	Final well field layout will be completed considering property lines, steep slopes and tree clearances. Current layout is an estimated quantity with maximized spacing at 25 feet OC. If needed, spacing can be decreased to accommodate all bores. Optimal quantity and spacing of wells will be determined once an FTC report is completed, building simulations completed and input into well field simulation software. Option to utilize the parking area will be pursued if necessary at that time. The current design is a "hybrid" with the backup electric boiler included to allow a 50 year operation of the system and based on previous elementary school designs completed and installed. SPS is in the process of not allowing any natural gas mechanical equipment to be used on new buildings and will likely not entertain using an air to water heat pump due to recent experience with questionable operation of this type of equipment at low ambient conditions. Cost review: We agree that there would be a small premium, $6,000 is appropriate when distributing the well field to different zones around the site.

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M4	Domestic Hot Water	11,000		X		0	The design team has a concern with additional maintenance due to redundant equipment distributed around the building. Central plant makes sense due to potential for large and asynchronous demand across the facility. A distributed system will take up more floor space and the projected cost only accounts for equipment/piping savings. Equipment above occupied space can leak and cause building damage to spaces below an can lead to challenges with equipment replacement. Our understanding is that heat pump water heaters will not be required for commercial buildings in the 2018 SEC. A centralized water to water domestic plant is a viable option, but would need approval from SPS due to the inherent complexity of this option. Also need to consider operation of the central plant pumps for domestic water operation. Cost review: We feel the estimated cost are low for this option. Both options will still have a comparable total length of piping. Distributed electrical costs will be higher for the two options. We estimate the cost premium for a central water to water heat pump vs. equivalent capacity electric resistance water heater (not decentralized as priced in the proposal) to be closer to $30,000.
E1	Electrical Distribution	25,000		X		0	Electrical and telecom rooms are feeding classroom wings and stacking rooms defeats this approach. Also, stacking rooms may reduce feeder costs but increases the branch circuit wiring, adding cost.
E2	Site Distribution	3,000			X	0	The design team will work with utilities to determine the best pole to use for routing building services. This will be refined in DD.
E3	Data Distribution	57,000		X		0	Proposal would reduce distributed data outlets in classrooms. 4 data outlets eliminated. 3 remain at teacher desk, 1 at projector, 2 at WAP. This proposal was rejected by SPS as it goes against the SPS Ed Spec.
T3	Code considerations				X	0	Confirm design approach with egress at the central stair. Update occupant load and egress at the Music/Stage classroom. This will be refined in DD.
R1	Central lighting inverter in lieu of distributed emergency batteries	186,000		X		0	SPS has a preference of using bugeyes with battery backup in general light fixtures in lieu of lighting inverter. Cost review: This proposal may be an added cost.
R2	Recessed lay-in lighting in lieu of pendant mount fixtures	61,417		X		0	Pendant fixtures are preferable to recessed lay in fixtures because they create more even lighting within classrooms, reducing student eye strain.
R3	Surge protection devices on distribution panels only	8,880		X		0	The approach does not protect the facitlity and SPS property properly.
R4	Lighting control via building management system	(10,000)		X		0	SPS has standards on lighting control systems. A BMS system is not an approved option.

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R5	Tunable lighting at kindergarten, Pre-K, and special education	8,880			X	0	SPS and teachers are to be consulted and advise if this has value. This will be refined in DD.
R6	Aluminum feeders in lieu of copper	12,900		X			SPS standard is for copper only.
R7	MC cable at end of line devices	100,000			X	0	SPS is fine with the proposal as long as the cables are no more than 20 feet and not under windows. A robust specification will be needed to ensure the system is installed correctly. This will be refined in DD.
R8	Digital antenna system (DAS) as bid alternate; subject to test	153,542			X	0	DAS could be an alternate, accepted, and then tested during construction to see if the entire system has to go in or if just the rough-in. If this approach is selected, savings could not be counted now.
R9	Integrated communication system at classrooms	(150,000)		X		0	This is not district standard and would be an added cost to change.
R10	Integrate intrusion detection with occupancy sensor	(2,000)		X		0	This is adding complication to the lighting control system and intrusion system; other attempts at this have reported many false alarms. Power backup would need to be added to the lighting control system as well, adding cost.
R11	Wireless lighting controls	10,236		X		0	SPS has standards on lighting control systems. A wireless system is not an approved option.
R12	Energy use metering display	(2,000)			X	0	This could be an alternate. Design team is to study further with SPS during DD phase. Anticipated cost is closer to $25,000.
R13	Learning stair on grade in lieu of precast	10,000		X		0	The design intent is to do a structured stair rather than a stair on grade. The cost savings identified is modest and the design team has significant experience with structured stairs for "stadium seating" on multiple projects.
R14	CMU at gym and commons in lieu of steel-framed walls	40,000			X	-200,000	We cannot achieve the daylighting and passive solar heat gain goals design for the commons and gym using a load bearing CMU structure. Historically, the design team has seen that structural CMU slows down the rate of construction on a project. The gym and commons will have good access from the play area for a crane to pick steel. For maintence purpose SPS and the design team will consider using durable materials on the interior walls of the gym and commons (e.g. CMU veneer; wainsot and padding materials) with additional costs.
R15	Not used						

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R16	Reuse existing water meter	25,000			X	0	Potentially an option pending SPU's permission and further detail of the mechanical design to determine building needs. This will be refined in DD.
R17	Point-of-use in lieu of exterior grease interceptor	25,000		X		0	This proposal would appear to require significantly more grease interceptors within the building footprint to serve the various kitchen fixtures required to be connected to a grease interceptor and likely not have any savings. Maintaining them inside of the building is a maintenance issue.
R18	Remove bio-retention (not required function)	20,850		X		0	Bio-retention is a learning opportunity and visible commitment of SPS to sustainability/stormwater management/climate/region. Size of bio-retention area could potentially be reduced in coordination with Civil as it is only treating runoff from the small visitor parking lot to the west.
R19	Reduce sanitary from 8" to 6" where possible	2,000		X		0	SPS deems the saving too insignificant to justify the change.
R20	Reduce cleanouts on footing drains	3,850		X		0	There isn't much value here, and there may be concerns about long term maintainability with reduced cleanouts.
R21	Add electric vehicle charging stations	(12,000)			X	0	SPS is interested in providing rough-in for future use and having 3-party vendor provide the charging stations. This will be refined in DD.
R22	Provide backup area drain in west courtyard	(3,500)	X			-3500	The drainage design for the West Courtyard will provide redundant drainage to prevent water infiltration into building due to a single point failure.
R23	Play equipment as a bid alternate	150,000		X		0	Play equipment required by Ed Spec. SPS has directed replacement of existing play equipment.
R24	Soaker hose for plant establishment in lieu of temporary irrigation	49,800		X		0	Soaker hose strategy can ONLY be used if planting is installed in the fall and the contractor provides a 3 year+ plant establishment service with hand watering.
R25	Add rubberized play surface in lieu of all asphalt play	(7,500)			X	0	Life cycle cost needs to be analyzed- rubber will need replacement in 10-15 years - asphalt needs patching at far greater time frame. Unclear how much rubberized play surface is being proposed and where. The design team will work with SPS to propose alternative and hazard-free (non-carcinogenic) surfaces to asphalt to provide variety in surface and activity. This will be refined in DD.
R26	Add small green house	(12,500)		X		0	Not a requirement of the Ed Spec.
R27	Reuse existing mosaic sign	(2,200)	X			-5000	As valued features of the existing building, the design team will work with the school to remove and reuse these two mosaics. Cost of removal, remounting and repair is likely higher.

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R28	Add restrooms accessible to play area	(22,500)	X			0	Restrooms for the gym and commons will be relocated to the South side of the stage and down to the level of the commons where they are more accessible. This puts these relocated bathrooms in a location where they can be used by students at play and overseen by staff monitoring the play area. This isn't a net add, just a relocation so we're not assigning cost.
R29	Seattle Parks cooperative for community play area to share cost	15,000		X		0	Currently there is no cost-sharing arrangement with Seattle Parks cooperative.
R30	Reduce concrete paving by 10%	17,900		X		0	Recommend maintaining pedestrian concrete. It is necessary for providing site circulation from the Right of Way to the building entries as well as from the main egress points away from the building. There is concern that changing surfaces around the grove from concrete to crushed rock or similar surfacing could cause added maintenance for the district.
R31	Reduce glazing by 25%	343,000			X	39000	The design team will reduce the amount of glazing by 25% compared to the current design. This will bring the percent glazing into line with typical district projects. It does not appear that the VE team considered that reducing glazing requires adding in wall. The savings are substantially less than proposed (only $12/SF)
R32	Modular skylights in lieu of engineered skylights	24,000			X	0	From our research, engineered skylights using thermally broken materials such as Kalwall have superior thermal performance compared to commodity modular skylights. Further discussion needed with envelope consultant during DD.
R33	Rigid insulation in lieu of mineral wool	84,500		X		0	Mineral wool was selected over a foamed plastic rigid insulation because mineral wool has superior fire resistance and because it is more stable for Long-Term Thermal Resistance (LTTR).
R34	Fiberglass windows in lieu of curtain wall	160,044			X	0	Consider storefront in lieu of curtain wall rather than fiberglass window in lieu of curtain wall. For large extents of glazing, storefront is more economical because there's less labor in framing and flashing multiple openings. Saving is to be determined after elevation design is finalized during DD phase.
R35	Membrane roof in lieu of torch down (comply with SPS Technical Standards)	(309,000)		X		0	The project will have a 3-ply torch down SBS fiberglass mat membrane roof assembly. This is district standard to provide a roof surface that is resistant to potential vandalism

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R36	Sloped structure in lieu of sloped insulation	35,000	X			0	Intent is to slope the structure as the design develops. The estimate didn't consider tapered insulation (cricket) over the entire roof. It was based on a constant roof section over everything. SPS is considering adding more insulation as a passive strategy and testing through ELCCA.
R37	Add sunshades to south face	(4,900)			X	0	All south facing glazing in the classrooms will receive horizontal sunshades per the drawings and estimate. The design team is exploring passive ventilation and passive solar heat gain strategies (e.g. heat wall) in the Commons. We may add sunshades as the project develops.
R38	Add vestibules at all student entries	(25,000)			X	-25000	The design team will add a vestibule at the exit from the building to the playground, at the exit from the Commons to the playground, and at the entry to the Pre-K suite. Keycards and aid phones are to be added where needed with added costs.
R39	Eliminate internal roof drains	15,000	X			0	SPS prefers the use of downspouts due to maintenance concerns of internal drains. This will be refined in DD.
R40	Add solar tubes for lower level daylight	(21,000)		X		0	Windows with views to trees and shrubs has been shown to be more effective daylighting strategy in regards to impacts to student learning. SPS wants to minimize roof penetration.
R41	Exterior studs at 24" on center	6,500	X			6500	The design team will use exterior studs at 24" OC.
R42	Kalwall or translucent panel in lieu of glazing at gym	(19,500)		X		2500	The design team will reduce glazing in the gym to reduce potential for glare, but we will keep the wall glazing transparent to preserve views. Skylights will be translucent to best diffuse light.
R43	Balloon framing in lieu of platform framing, exposed steel frame	49,000		X		0	Balloon framing will require exterior columns to be moved inboard of the exterior wall framing. Our partitions between classroom spaces don't stack from level to level because classroom sizes change. Moving columns inboard will expose columns inside the building or create a need for additional framing to encapsulate structure, reducing usable square footage. The design team thinks that the planned continuous exterior insulation is sufficient to reduce thermal bridging. Platform framing also performs better in fire protection.
R44	No vapor retarder on the inside of exterior walls	32,000			X	0	The design team will consider eliminating the vapor retarder in conjunction with adding spray foam insulation in lieu of batt insulation (see item M1). Consult with envelope consultant during DD phase.

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R45	Add sectional doors from commons to outdoor area	(23,000)			X	0	The design team will consider using a sectional door, accordion folding door, or other large opening operable door to provide better indoor/outdoor connections. Energy performance should be considered in product selection. This will be refined in DD.
R46	Covered play extension of gym roof in lieu of freestanding	12,000		X		0	The building height of the Commons/Gym has been lowered. The covered play needs to be freestanding to achieve sufficient height for basketball play.
R47	More writable surface in lieu of tackable surface	(3,500)	X			0	The design team will work with the district's Teaching and Learning group as well as the school to determine what surfaces will be the best fit for the educational practices of the school. It appears there will be room in the budget for an ample amount of both, hence, we're not assigning cost savings to this proposal.
R48	Hollow metal relite in lieu of interior storefront	62,400			X	19,000	The design team will consider using hollow metal relites instead of interior storefront. The selection will be made based on acoustic performance. Cost review: The calculated cost savings of changing from storefront ($85 psf) to hollow metal relites ($60 psf) only yields about $19,000 in savings based on take-off (not including storefront at entry) of 1,250 sf.
R49	Resilient floor in lieu of wood in gym	8,606		X		0	The district standard is to have a wood sports floor in the gymnasium. This feature supports after hours use, community use and continues an equitable standard across academic facilities in other neighborhoods.
R50	Hollow metal frame/wood doors in lieu of total door for security	17,500		X		0	While this is an option, the design team prefers total doors for the complete integration of door, hardware, hold opens, fire alarm and lockdown systems. The finish, maintenance, and warranty coverage merits the added cost.
R51	Add lift for ADA access at stage	(27,500)		X		0	The district has expressed concern over adding a lift between levels in the Commons due to the cost of maintenance and re-certification. If the district determines they would like a lift at a later point, there is the option to purchase the lift as a piece of mobile equipment.
R52	Stained concrete in lieu of polished concrete	6,591		X		0	District standard is polished concrete.
R53	Open to structure in high bay areas	95,000	X			95000	Currently, high bay spaces are shown as ceiling type "C-4" which is "exposed structure, painted". It appears we are already doing what is suggested in the proposal.

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R54	High impact gypsum wall board for corridor walls in lieu of wainscot	24,799			X	0	District standard is to have a wainscot because it is easier to remove and replace a wall panel than it is to refinish a gypsum board panel. As the floor plan has been redesigned, there are fewer curved walls. We will be able to use a less expensive materials like veneer plywood instead of FRL now that interior walls won't have tight radiuses.
R55	Reduce wall tile height to 4'	77,220		X		0	It is district standard to have wall from floor to ceiling in all restrooms to support the Kaivak cleaning system.
R56	3rd floor atrium 1 hour rating	(52,000)		X		0	This is to be studied further during DD.
R57	MDF wainscot in lieu of FRL	18,528			X	18,528	See item R54.
R58	90% heat recovery in lieu of 75%	(20,000)		X		0	Cost premium is closer to $125,000 for 15% gain in efficiency. Also, such system requires more mechanical space. Option can be pursued but based on recent studies, the extra dollars are better spent on PV.
R59	Standalone HVAC for child care	(10,000)	X			-10000	The design team will incorporate stand alone air to air heat pumps for the Child care suite.
R60	Ceiling fans at high-bay spaces	(45,000)			X	-30000	The design team will consider adding ceiling fans at the Commons and Library. Based on the spaces and number of fans, the costs have been adjusted.
R61	Standalone HVAC at gym	(15,000)		X		0	Proposal rejected by SPS due to additional cost and that the Gym is not used often after school.
R62	Packaged DOAS rooftop units in lieu of penthouse	400,000		X		0	The district standard is enclosed rooms for mechanical equipment. Although the district has expressed an interest in custom built mechanical penthouses, this option would increase bid risk on a Design/Bid/Build project delivery.
R63	Consolidate classroom DOAS units (2 in lieu of 4)	80,000		X		0	The current design with 4 DOAS units allows for better zoning. The current design has a North and a South unit within each mechanical penthouse so the units can respond better to the different temperatures in these zones due to differing solar exposure. The proposed cost savings are appropriate.
R64	Waterfall in lieu of floor displacement ventilation	37,500		X		0	We have typically only used this approach in remodel/modernization projects where a traditional displacement grille is not an option. May be an option where a traditional grille cannot be located due to program or other architectural constraints.

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PROJEC	Kimball Elementary School						
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Prop. #	COMPONENTS AND SYSTEMS	PROJECTED COST REVISION (Rough Order of Magnitude)	ACCEPT	REJECT	MODIFY	ACCEPTED VALUE OF PROPOSAL	COMMENTS / DISCUSSION
R65	MERV 15 in lieu of 13	(10,000)		X		0	The design team is familiar with the district's maintenance program. The system could be designed for MERV 15 filters, but that's only practical if the correct filter utilized by SPS after turn over and district operation. SPS facility/maintenance standard is MERV 8. Because this would be the only facility out of the entire district to use these special filters, it seems unlikely to yield long term benefits. Additionally, there will be minimal recirculated air in the facility (100% outside air DOAS) so the benefit only be additional filtration of the outside air.
R66	Add ultraviolet treatment of circulated air	(25,000)		X		0	It is atypical and of limited value to install a system like this at an elementary facility. Would suggest reviewing increasing the MERV efficiency level of their standard filters with SPS to a MERV 13 before pursuing this.
R67	Evaluate and eliminate grease exhaust	10,000		X		0	SPS prefers a Type I hood to be installed as it will allow for future flexibility to do scratch cooking.
R68	Centralize mechanical spaces	75,000		X		0	This may reduce first costs for building materials, but it creates challenges for installation and energy use. Currently, the penthouses sit directly above the duct chases so there aren't large ducts routing within a ceiling space from the penthouse. Additionally, the mechanical equipment wants to be as close to their zones as possible to reduce fan energy during operation and is likely a requirement to pass energy code compliance.
R69	Open plenum return air in lieu of fully ducted	153,000		X		0	This is not district standard. There are concerns about air quality due to air circulation through spaces that are typically more dusty than a ducted return would be. The project will lose a WSSP point if plenum return is used as well.
R70	Premium efficiency plumbing fixtures	(13,500)			X	-2500	Current SPS stand is a 0.5 gpf urinal flush valve. An option is to use a high efficiency 0.125 gpf urinal valve, and will need to reviewed and approved by SPS plumbing/facilities group. We see very little cost premium to change the urinal flush valve gpf.
R71	Premium efficiency appliances	(5,000)	X			0	All of the residential appliances at kitchenettes that can be, will be Energy Star certified. We feel confident that the SD estimate allowance for residential equipment covers this cost already.
R72	Infrared controlled fixture controls	(16,000)		X		0	These controls are not a district standard. There are concerns with added maintenance.
R73	Rough-in for sinks in all classrooms	(8,500)	X			0	All classrooms will have sinks standard. No additional rough-in is required.
R74	Add kitchenette in family room	(2,500)		X		0	The district determined previously that for elementary schools, the Community Kitchenette should remain adjacent to the Commons and not the Family Room.
R75	Add kitchenette in staff lounge	(2,500)	X			0	The basis of design for the project is to include a kitchenette at the staff lounge. These fixtures and equipment were included in the SD estimate.

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R76	Hydration stations in lieu of drinking fountains	(900)	X			0	The basis of design for the project is to use hydration stations (drinking fountain bottle filler combo). These fixtures were included in the SD estimate.
R77	Lavatory handwash at commons	(2,000)	X			-8000	The design team will add a bank of lavatories (a min of 3) along the circulation path from the play area to the kitchen serving line. This will support hygiene for the district's current operation where recess takes place prior to dining. Given the number of fixtures and infrastructure, we think the added cost will be greater than proposed.
R78	Stack toilet rooms	12,000	X			12,000	The design team will relocate single stall toilets within the classroom wing to allow for better stacking.
R79	Add 2 unisex bathrooms (1 at family room; 1 at top floor)	(20,225)			X	-20225	The design team will designate three bathrooms to be unisex and for student use. One will be located adjacent to the Commons, the second will be located with the classrooms on the second floor and the third will be located with the classrooms on the third floor. SPS is fine that family room users will use the bathroom at the admin area.
R80	Reduce circulation area by 6% (and associated floor area)	367,200			X	0	The design will reduce square footage for circulation where feasible. The circulation factor on the project is high in part due to the constraints of the site (extra hallway, ramping and stairs) and in part to allow for future flexibility at district request. Other square footage assigned to circulation is adjacent to the Learning Commons where there is academic value to keeping this circulation space so that student movement doesn't impact educational activities.
	GRAND TOTAL ALL PROPOSALS					153303	

The owner has reviewed each of the Value Analysis proposals and recommends the responses contained herein.	GENERAL COMMENTS REGARDING THIS VALUE ANALYSIS STUDY:
by	
title	
date	