



FACILITY ASSESSMENT - LUDLOW BUILDING

SHAKER HEIGHTS PUBLIC SCHOOL DISTRICT

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GENERAL DESCRIPTION

Description:

The Ludlow Building, originally constructed in 1927, is a two-story, 38,462 SF structure, currently being used by Positive Education Program (PEP), a non-district entity, as Greenview Day Treatment Center.

The building is located on a 3-acre site, and is adjacent to residential properties.



North Elevation



South Elevation



East Elevation



West Elevation

PROBABLE INFLATION COST SUMMARY FOR SUMMER 2022

The building assessment costs in this report are based on OFCC Assessment Cost Guidelines 2021. Based on current market conditions, the following cost projections have been made for Summer 2022 construction. Cost years beyond 2022 have been calculated with a 3.5% inflation rate.

Facility Cost Assessment Adjusted for Inflation through Summer 2022		Estimated 2022 Assessment Cost	Cost/sf.
A	Heating System	\$2,363,567.82	\$61.45
B	Roofing	\$538,670.82	\$14.01
C	Ventilation / Air Conditioning	\$0.00	\$0.00
D	Electrical Systems	\$1,073,064.99	\$27.90
E	Plumbing and Fixtures	\$93,591.47	\$2.43
F	Windows	\$156,901.31	\$4.08
G	Structure: Foundation	\$510,081.04	\$13.26
H	Structure: Walls and Chimneys	\$257,847.76	\$6.70
I	Structure: Floors and Roofs	\$140,201.68	\$3.65
J	General Finishes	\$1,008,723.59	\$26.23
K	Interior Lighting	\$352,373.46	\$9.16
L	Security Systems	\$53,561.12	\$1.39
M	Emergency / Egress Lighting	\$40,340.87	\$1.05
N	Fire Alarm	\$102,965.78	\$2.68
O	Handicapped Access	\$474,292.75	\$12.33
P	Site Condition	\$398,714.00	\$10.37
Q	Sewage Systems	\$184,027.55	\$4.78
R	Water Supply	\$155,767.19	\$4.05
S	Exterior Doors	\$9,240.00	\$0.24
T	Hazardous Material	\$636,566.00	\$16.55
U	Life Safety	\$202,119.09	\$5.26
V	Loose Furnishings	\$255,940.57	\$6.65
W	Technology	\$58,400.00	\$1.52
X	Construction Contingency / Non-Construction Cost	\$2,205,465.07	\$57.34
ESCALATED OFCC GUIDELINE BUDGET (2021) - OME		\$11,272,423.93	\$293.08

OFCC 2021 COST GUIDELINES BUDGET

\$9,682,623.87

VARIANCE

\$1,589,800.06

VARIANCE %

16.42%

UNIT PRICE CONCERNS

Total

\$708,761.09

REV OFCC GUIDELINE UNIT PRICE BUDGET - OME

\$11,981,185.02

\$311.51

OFCC 2021 COST GUIDELINES BUDGET

\$9,682,623.87

VARIANCE

\$2,298,561.15

VARIANCE %

23.74%



LOCALLY FUNDED INITIATIVES

Total		\$0.00
REV OFCC GUIDELINE UNIT PRICE BUDGET - OME	\$11,981,185.02	\$311.51
OFCC 2021 COST GUIDELINES BUDGET	\$9,682,623.87	
VARIANCE	\$2,298,561.15	
VARIANCE %	23.74%	

2022 Costs	\$11,981,185.02
2023 Costs with 3.5% inflation	\$12,400,526.50
2024 Costs with 3.5% inflation	\$12,834,544.92
2025 Costs with 3.5% inflation	\$13,283,754.00
2026 Costs with 3.5% inflation	\$13,748,685.39



PROBABLE COST SUMMARY

FACILITY ASSESSMENT Cost Set: 2021			Rating	Dollar Assessment	C
A	Heating System		3	\$1,998,100.90	-
B	Roofing		3	\$0.00	-
C	Ventilation / Air Conditioning		3	\$0.00	-
D	Electrical Systems		3	\$921,164.90	-
E	Plumbing and Fixtures		3	\$78,100.00	-
F	Windows		3	\$143,350.00	-
G	Structure: Foundation		3	\$496,800.00	-
H	Structure: Walls and Chimneys		3	\$198,500.00	-
I	Structure: Floors and Roofs		2	\$125,001.50	-
J	General Finishes		3	\$911,226.66	-
K	Interior Lighting		3	\$307,696.00	-
L	Security Systems		3	\$48,462.00	-
M	Emergency / Egress Lighting		3	\$38,462.00	-
N	Fire Alarm		3	\$94,231.90	-
O	Handicapped Access		3	\$390,692.40	-
P	Site Condition		3	\$364,704.00	-
Q	Sewage Systems		3	\$173,463.62	-
R	Water Supply		3	\$139,617.00	-
S	Exterior Doors		3	\$7,500.00	-
T	Hazardous Material		3	\$636,566.00	-
U	Life Safety		3	\$164,248.40	-
V	Loose Furnishings		3	\$250,003.00	-
W	Technology		3	\$50,000.00	-
X	Construction Contingency / Non-Construction Cost		N/A	\$1,841,529.21	-
Total				\$9,379,419.49	



A. HEATING SYSTEMS

Description:

- The building heating system consists of two (2) Weil Mclain Steam Boilers, each 1820 MBH. The age is unknown, but they appear to be in good condition.
- The steam Condensate Vacuum system and pump are visibly in poor condition.
- Temperature controls are pneumatic technology.
- All Classrooms have steam radiators except the Computer Lab, which has a unit ventilator.
- The Student Dining/Auditorium space has steam radiators only.
- The Gymnasium has steam radiators and steam cabinet unit heaters.

Rating:

3 Needs Replacement

Recommendations:

- Boilers should be upgraded to condensing type, high efficiency type at the time of future replacement.
- Condensate return piping would need to be replaced if converted to a hot water system.
- Temperature controls should be upgraded to Direct Digital Controls (DDC) at time of equipment replacement.
- Provide a ducted HVAC system that provides mechanical ventilation as required by building codes.
- Eliminate steam radiators if not desired as part of future renovations.

Item	Cost	Unit	Whole Building	Sum	27
HVAC System Replacement	\$32.20	SQ. FT.	38462.00	\$1,238,476.40	28
Convert to Ducted System	\$8.00	SQ. FT.	38462.00	\$307,696.00	29
Heating System	\$8.50	UNIT	38462.00	\$326,927.00	30
Temperature Controls	\$3.25	SQ. FT.	38462.00	\$125,001.50	32
Sum:				\$1,998,100.90	33



Steam Boiler



Tank

35

36

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B. ROOFING

Description:

- Slate roof is in fair to good condition with very few damaged slate.
- Copper gutter liners in the stone coping were not accessible for inspection.
- Ponding was observed on Granulated Modified Bitumen Membrane flat roofs.
- The built up flat roof is showing signs of age with alligatoring.
- Metal coping is fading and has some rust starting.
- There are no overflow drains on the flat roof.
- Gutters and downspouts are in good condition.
- Attic insulation is in poor condition.
- Dormers have flat roofing material, slate siding and wood trim. The wood trim has rotted and is in very poor condition. The roofing material on the dormers was not accessible for inspection.
- Access to the low flat roof is to stand on a ladder and climb through a small double hung clearstory window. Access from the low flat roof to the upper flat roof is by step ladder.
- There is a flat roof over the entrance at the northwest corner of the building. The soffit and adjacent brick are stained indicating past or current leaking.

Rating:

3 Needs Replacement

Recommendations:

- Inspect slate roofing and replace broken or missing slates annually as part of regular maintenance.
- Replace all flat roofs, and provide new tapered insulation that slopes to drains.
- Provide overflow drains.
- Replace batt insulation at sloped roofs with R38 insulation.
- Replace wood trim and missing slate at dormers
- Add access ladder from low to high flat roof.
- Replace one Corridor double hung window with an access window.

Item	Cost	Unit	Whole Building	Sum	35
Replace Broken Slate	\$2,000.00	LUMP SUM	1	\$2,000.00	36
Membrane Roofing	\$15.00	SQ. FT.	7,300	\$109,500.00	37
Roof Tapered Insulation	\$4.70	SQ. FT.	7,300	\$34,310.00	
Replace Coping	\$18.40	LN. FT.	220	\$4,048.00	
Overflow Drains and Piping	\$3,000.00	EACH	6	\$18,000.00	
Attic Batt Insulation	\$4.00	SQ. FT.	11,200	\$44,800.00	
Repair Dormers	\$6,000.00	UNIT	2	\$12,000.00	
Roof Access Ladder	\$1,500.00	EACH	1	\$1,500.00	
Access Window	\$3,000.00	EACH	1	\$3,000.00	
Sum:					



Ponding on Roof



Alligatored Built Up Roofing



C. VENTILATION / AIR CONDITIONING

Description:

- The building does not contain any cooling systems.
- Each classroom has a ceiling fan, but no mechanical ventilation.
- Building ventilation fans were not working at time of site visit, so functionality is unknown. Fans likely do not provide the amount of ventilation air as required by code.
- Toilet rooms appeared to have poor ventilation and exhaust.
- Ventilation in the Warming Kitchen was poor for having refrigeration in the room.
- The kiln is located in the Boiler room and ventilation is sufficient.

Rating:

3 Needs Replacement

Recommendations:

- Install a ducted HVAC system that includes mechanical cooling and hydronic heating.
- Provide ventilation system that introduces the code required amount of air.
- Costs are addressed with Item A.

Item	Cost	Unit	Whole Building	Sum	23
					25
Sum:				\$0.00	27



Ceiling Fans



Toilet Exhaust in plumbing chase



D. ELECTRICAL SYSTEMS

Description:

- The building has two main electrical services: 100A, 240V, 3PH, 3W and 400A, 120/240V, 1PH, 3W. The utility transformers are located in the basement vault.
- The power distribution system throughout the building is in poor condition and is past useful life. There is very little spare capacity.
- The building does not have a backup generator.
- Receptacles are lacking throughout the building.
- The overall electrical system does not meet OSDM requirements in supporting the current needs of the school, and will be inadequate to meet the facility's future needs.
- The lightning protection cables at ground level have been cut off leaving the building unprotected against lightning strikes.

Rating:

3 Needs Replacement

Recommendations:

- Provide replacement of entire electrical system. Remove transformers in vault and provide a pad-mounted utility transformer for a single service. Provide backup generator for critical loads.
- Replace all branch circuit wiring and devices.
- Provide surge protection.
- Repair lightning protection cables and inspect entire system.

Item	Cost	Unit	Whole Building	Sum	25
System Replacement	\$23.95	SQ. FT.	38462.00	\$921,164.90	27
Sum:				\$921,164.90	28



Main Electrical Disconnect



Main Distribution Panels

30
32



E. PLUMBING AND FIXTURES

Description:

- The facility contains (2) Large Group Restrooms for Men, (2) Large Group Restrooms for Women, and (5) Restrooms for Staff. Men's Large Group Restrooms contain (9) non-ADA floor mounted flush valve toilets, (8) ADA wall mounted flush valve urinals, as well as (4) non-ADA wall mounted lavatories. Women's Large Group Restrooms contain (16) non-ADA floor mounted flush valve toilets, as well as (4) non-ADA wall mounted lavatories. Staff Restrooms contain (2) non-ADA floor mounted flush valve toilets, (3) non-ADA floor mounted tank type toilets, (1) wall mounted flush valve urinal, as well as (3) non-ADA countertop lavatories and (2) non-ADA floor mounted lavatories. Condition of fixtures is poor.
- The facility is equipped with (4) non-ADA partially recessed drinking fountains, in poor condition.
- The building does not meet the OBC requirements for fixtures. Relative to sustainability considerations, the building is not equipped with low flow type fixtures. Per OBC requirements this facility should be equipped with (22) toilets, (6) urinals, (23) lavatories, and (11) electric water coolers. Observations revealed that the building is currently equipped with (30) toilets, (9) urinals, (14) lavatories, and (0) electric water coolers. ADA requirements are not met for fixtures and drinking fountains (see item O).
- Plumbing fixtures in the former Gym Locker Rooms were removed and Staff Male and Female Restrooms and a washer/dryer was installed.
- The water has been disconnected from the majority of the drinking fountains.
- There is a Warming Kitchen with a three-compartment sink in good condition.
- A grease trap is installed below the kitchen in the utility tunnel and the cover is rusting.
- The buildings domestic water heater is a gas fired AO smith 120 MBH input, 109 GPH recover. Heater is in good condition (Installed in 2009). The storage tank is functional but appears to be aged.
- Relative to sustainability, faucets and flush valves are not low flow.
- The building has (2) exterior hose bibs.

Rating:

3 Needs Replacement

Recommendations:

- Replace plumbing fixtures at time of renovation and replace with low flow fixtures and sensor operated flush valves and faucets.
- Provide ADA-compliant lavatory-mounted drinking fountains.
- Renovate the Large Group Restrooms to provide ADA-compliant fixtures.
- Convert single-user restrooms into ADA-compliant Restrooms.
- Replace existing domestic hot water storage tank with a smaller tank sized for building loads.
- Domestic Water Heater should have a Master Mixing Valve installed to prevent bio growth.
- Cost for ADA compliance in Item O.

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Item	Cost	Unit	Whole Building	Sum	Comments
Electric Water Cooler	\$3,000.00	UNIT	2.00	\$6,000.00	New Double ADA Fixture
Sink	\$2,500.00	UNIT	9.00	\$22,500.00	New
Sink	\$1,500.00	UNIT	7.00		Remove/Replace
Toilets	\$1,500.00	UNIT	21.00	\$31,500.00	Remove/Replace
Urinal	\$1,500.00	UNIT	1.00	\$1,500.00	Remove/Replace
Replace Faucets, Flush Valves	\$500.00	UNIT	8.00	\$4,000.00	
Mixing Valve for Water Heater	\$7,500.00	UNIT	1.00	\$7,500.00	
Domestic Water Heater	\$5,100.00	UNIT	1.00	\$5,100.00	
Sum:				\$78,100.00	



Typical Restroom Lavatory



Typical Restroom Stall



Non-Functional Drinking Fountain



F. WINDOWS

Description:

- Existing windows are thermally broken aluminum windows in fair condition.
- Gymnasium windows are single-pane wood in poor condition.
- Two (2) small, narrow windows on the easternmost end of the south facade are in poor condition.
- There are no limiters on the operable windows.
- 40 windows have missing insect screens.
- Roller shades are in fair to poor condition.
- Entry doors have insulated glazing and are in good condition.
- Glass block windows at the Boiler Room are in good condition.

Rating:

3 Needs Replacement

Recommendations:

- Replace Gymnasium Windows
- Replace two (2) windows on SW façade.
- Replace damaged and missing insect screens.
- Add Opening Limiters to existing windows

Item	Cost	Unit	Whole Building	Sum	29
Replace Windows	\$125.00	SQ. FT.	350	\$43,750.00	30
Replace Screens	\$900.00	EACH	30	\$27,000.00	32
Add Opening Limiters	\$100.00	EACH	66	\$6,600.00	33
Roller Shades	\$1,000.00	EACH	66	\$66,000.00	34
Sum:				\$143,350.00	35



Gymnasium Windows



Southside Windows



G. STRUCTURE: FOUNDATION

Description:

- The overall facility is equipped with brick and glazed brick foundation walls on spread footings, which displayed deficiencies throughout, including settlement, cracking, and leaking, and are in mostly good to fair condition.
- The Coal Room is no longer in use, and has significant structural deficiencies and water damage. Temporary structural steel bracing has been added to supporting the concrete deck, but it was never painted and is starting to rust.
- The District reports that there has been past leaking in the basement, which is evident in the large areas of interior efflorescence.
- The crawlspace floors are dirt throughout.
- No grading or site drainage deficiencies were noted around the perimeter of the structure that are contributing or could contribute to foundation structural deterioration.

Rating:

3 Needs Replacement

Recommendations:

- Provide foundation waterproofing system around the building perimeter.
- Provide drainage tile system around the basement perimeter.
- Clean basement walls and paint or seal.
- Install vapor barrier and mud slab throughout all crawlspaces.
- Remove Coal Room entirely. Include repairs to existing concrete columns and beams that support the window well above, excavation and resetting the masonry window well wall and infilling louvered openings, replacement of concrete slab and floor drains system in the window well, remove coal room doors and infill openings with cmu, clean and waterproof walls and the elevated concrete slab next to the boiler room, replacement of asphalt, replacement of railings.

Item	Cost	Unit	Whole Building	Sum	25
Spray Applied Waterproofing	\$8.00	SQ. FT.	3000.00	\$24,000.00	27
Drain Tile System	\$23.00	LN. FT.	600.00	\$13,800.00	28
Clean, Paint/Seal Walls	\$5.00	SQ. FT.	1000.00	\$5,000.00	29
Vapor Barrier and Mud Slab	\$12.00	SQ. FT.	17000.00	\$204,000.00	30
Remove Coal Room	\$250,000.00	ALLOWANCE	1.00	\$250,000.00	32
Sum:				\$496,800.00	33

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Concrete Deck in Coal Room



Concrete Deck in Boiler Room Restroom



H. STRUCTURE: WALLS AND CHIMNEYS

Description:

- The facility has a brick veneer on load bearing masonry wall system which displayed locations of significant deterioration, and is in poor condition, particularly the NW Gymnasium wall.
- The exterior masonry appears to have no control joints or expansion joints.
- There is significant outward movement in the brick veneer above the bay windows in single story SE corner of the building.
- Exterior walls in the overall facility are inadequately insulated. Brick veneer masonry walls are not cavity walls.
- The exterior masonry has not been cleaned and sealed in recent years, shows evidence of mortar deterioration throughout, and has locations of efflorescence and mold.
- Architectural exterior accent material consists of stone, which is in mostly fair condition with some pieces in poor condition.
- Interior corridor and demising walls are glazed brick and brick with plaster, project full height from floor to bottom of deck, and are in poor condition.
- Interior masonry appears to have no control joints, and exhibits cracking in some areas.
- The window sills are stone, and are in poor condition.
- The exterior lintels are steel, exhibiting some rusting, and are in fair condition.
- The chimney on the south end of the building appears to be in fair condition, but should be removed if it is longer in use.
- The chimney from the Boiler Room has a 16 foot long by 1/2 inch wide crack running down the south side. It starts at the stone coping at the top of chimney next to the lightning rod. The black marks on the stone coping indicate a lightning strike.
- Exterior soffit at the northwest corner of the building is concrete and is stained indicating current or past leaking in the flat roof above.

Rating:

3 Needs Replacement

Recommendations:

- Provide tuckpointing in all areas of mortar deterioration as required throughout the overall facility.
- Remove and replace displaced brick above bay windows.
- Provide masonry cleaning and sealing as required throughout the overall facility.
- Sawcut and caulk new appropriately spaced control joints in existing masonry throughout the facility.
- Remove and replace brick veneer at the SE corner of the building and at the NW Gymnasium wall.
- Replace steel lintels throughout the facility.
- Repair or replace broken or missing stone accents throughout the overall facility.
- Repoint stone window sills throughout the overall facility.
- Repair Boiler Room chimney. Remove chimney if new HVAC system will not require it.
- Exterior wall insulation deficiencies are addressed in Item J.



Item	Cost	Unit	Whole Building	Sum	Comments
Masonry Tuckpointing	\$7.50	SQ. FT.	6000.00	\$45,000.00	
Remove & Replace Brick Veneer	\$35.00	SQ.FT.	100.00	\$3,500.00	
Masonry Cleaning and Sealing	\$2.50	SQ. FT.	10000.00	\$25,000.00	
Install Control Joints	\$60.00	LN. FT.	400.00	\$24,000.00	
Replace Steel Lintels	\$250.00	LN. FT.	300.00	\$75,000.00	
Repair Stone Accents	\$40.00	SQ. FT.	300.00	\$12,000.00	
Repoint Stone Sills	\$3.00	LN. FT.	500.00	\$1,500.00	
Repair Chimney	\$12,500.00	LUMP SUM	1.00	\$12,500.00	
Sum:				\$198,500.00	



Lightning Strike Damage to Chimney



Damaged Stone and Missing Grout



I. STRUCTURE: FLOORS AND ROOFS

Description:

- The basement floor construction is slab-on-grade concrete type construction, and is in fair condition.
- The floor construction of the ground floor, second floor and roof deck of the overall facility is cast-in-place concrete type construction, and is in fair condition.
- Crawl space is located under much of the facility.
- Ceiling to structural deck spaces are insufficient to accommodate HVAC, electrical, and plumbing scopes of work in required renovation.
- The roof construction of the sloped roof portions of the building is wood deck on wood joist type construction, and is in fair condition.

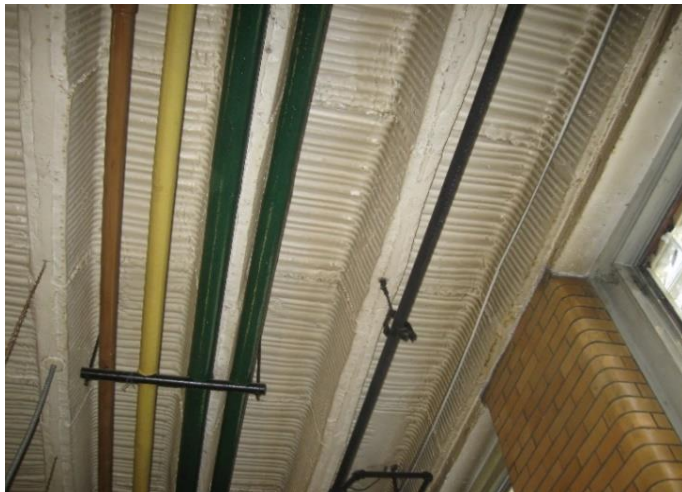
Rating:

2 Needs Repair

Recommendations:

- Provide fire separation assembly for wood roof structure in the sloped roof portions of the building.
- Refer to Item U for pricing of fire separation system for wood structures.
- Refer to Item A for funding of architectural soffits to accommodate HVAC, electrical, and plumbing scopes of work.

Item	Cost	Unit	Whole Building	Sum	22
Fire Separation Assembly	\$3.25	SQ. FT.	38462.00	\$125,001.50	23
Sum:				\$125,001.50	25



Typical Concrete Floor Structure



Typical Wood Structure at Sloped Roofs



J. GENERAL FINISHES

Description:

- The overall facility consists of conventionally partitioned Classrooms with broadloom carpet or wood type flooring, 2x4 acoustical type ceilings, and plaster type wall finishes in poor condition.
- The Administrative spaces consist of carpet type flooring, plaster and 2x4 acoustical type ceilings, as well as painted plaster type wall finishes, and they are in fair condition.
- The overall facility has Corridors with quarry tile type flooring, spline type ceilings, and a combination brick and plaster type wall finishes, and they are in poor condition.
- The overall facility has Group Restrooms with ceramic tile type flooring, gypsum board type ceilings, as well as plaster and marble type wall finishes, and they are in poor condition. Toilet partitions are marble and wood, and are in poor condition.
- The Staff Restrooms consists of ceramic type flooring, plaster type ceilings, as well as plaster and marble type wall finishes, and they are in poor condition.
- There are 2 recently renovated Staff Restrooms, located near the Gymnasium, that consist of VCT and ceramic type flooring, plaster type ceilings, as well as plaster and marble wall finishes, and they are in good condition.
- Classroom casework in the overall facility is wood type construction, is inadequately provided, and in poor condition. The facility is not equipped with employee lockers.
- Most Classrooms provide adequate linear footage of a combination of chalkboards, markerboards, and tackboards, and they are in poor condition.
- The storage cubbies, located within Classrooms are adequately provided, and in poor condition.
- The Art program is equipped with a kiln in the basement within the Mechanical Room. The boiler room ventilation is adequate for the kiln.
- The Art Room consists of VCT type flooring, 2x2 acoustical type ceilings, plaster type wall finishes as well as a operable type wall construction, and they are in poor condition. The Art Room casework is of wood type construction with plastic laminate tops and is in poor condition.
- The facility is equipped with wood louvered and non-louvered interior doors that are a combination of flush mounted and recessed with proper ADA hardware and without proper ADA clearances, and in poor condition.
- The Gymnasium space consists of wood athletic type flooring, 2x2 ACT type ceilings, as well as brick type wall finishes, and they are in poor condition.
- Wood Gymnasium flooring has been well maintained, will accommodate one future sanding and refinishing, and is rated at an advanced stage of its product lifecycle.
- The Gymnasium does not include bleachers. The Basketball backboards are fixed type, and are in poor condition. The basketball hoops have been removed from the backboards.
- The Media Center, located on the second floor has carpet tile type flooring, 2x2 acoustical type ceilings, as well as plaster type wall finishes as well as a operable type wall construction, and they are in poor condition.
- The Stage and Student Dining are in a shared space, located on the first floor, has wood type flooring, spline ceilings, as well as plaster type wall finishes, and they are in poor condition.
- OSDM-required fixed equipment for the Stage is inadequately provided, and in poor condition.
- Existing Gymnasium, Student Dining, Media Center, and Music spaces are inadequately provided with appropriate sound attenuation acoustical surface treatments.



- The existing Kitchen is a Warming Kitchen only, is undersized based on current enrollment, and the existing Kitchen equipment is in poor condition, and is located in separate rooms off Student Dining. Reach-in cooler and freezer are located within the Kitchen spaces, and are in fair condition.

Rating:

3 Needs Replacement

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Recommendations:

- Provide complete replacement of finishes and casework due to poor condition and advanced age as well as obsolete material use.
- Funding for replacement of interior doors is provided in Item O, including doors here noted as being in poor condition.
- Provide for a complete Warming Kitchen replacement due to observed conditions.
- Provide additional wall insulation as noted in Item H.

Item	Cost	Unit	Whole Building		Comments
Complete Replacement of Finishes and Casework	\$20.63	SQ. FT. (of entire building)	38462.00	\$793,471.06	
Total Warming Kitchen Replacement	\$112.50	SQ. FT.	300.00	\$33,750.00	
Tackboard	\$0.30	SQ. FT. (of entire building)	38462.00	\$11,538.60	
Chalkboard/ Markerboard	\$0.30	SQ. FT. (of entire building)	38462.00	\$11,538.60	
Toilet Partitions	\$1,000.00	Per Stall (removing and replacing)	21.00	\$21,000.00	
Toilet Accessory Replacement	\$0.20	SQ. FT. (of entire building)	38462.00	\$7,692.40	
Basketball Backboard Replacement	\$3,200.00	Each (non-electric)	2.00	\$6,400.00	
Additional Wall Insulation	\$6.00	SQ. FT.	4306.00	\$25,836.00	
Sum:				\$911,226.66	



Typical Classroom Finishes



Typical Corridor Flooring



K. INTERIOR LIGHTING

Description:

- The building is provided with fluorescent 1x4 surface mounted wrap around, and 2x4 recessed lensed troffers in most spaces. The majority of luminaires are provided with T8 lamps, but some T12 lamps are still present.
- The Gymnasium is provided with surface mounted metal halide luminaires.
- The Auditorium has both fluorescent luminaires and decorative incandescent chandeliers.
- The lighting systems of the facility do not comply with the current OSDM standards.

Rating:

3 Needs Replacement

Recommendations:

- Provide complete replacement of lighting system with new LED fixtures
- Provide new lighting controls to conform to energy code

Item	Cost	Unit	Whole Building	Sum	20
Building Lighting Replacement	\$8.00	SQ. FT.	38462.00	\$307,696.00	21
Sum:				\$307,696.00	22



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Student Dining



Typical Classroom



L. SECURITY SYSTEMS

Description:

- Building-mounted HID flood lights are provided for building perimeter and egress points.
 - Minimal pole-mounted flood luminaires are provided in parking area.
 - No walkway or sidewalk lighting is provided.
 - The exterior lighting does not meet current OSDM standards.
- Cameras are provided on the entire building exterior. Cameras were not observed inside the building.
- Motion detectors are located throughout the building.

Rating:

3 Needs Replacement

Recommendations:

- Provide new site lighting for walkways, entrances, and parking per current OSDM standards.
- Provide additional cameras inside the building to conform to OSDM standards.

Item	Cost	Unit	Whole Building	Sum	Comments
Exterior Site Lighting	\$1.00	SQ. FT.	38462.00	\$38,462.00	
Security System Expansion	\$10,000.00	LUMP SUM	1.00	\$10,000.00	
Sum:				\$48,462.00	



Security Cameras



Motion Sensor



M. EMERGENCY / EGRESS LIGHTING

Description:

- The facility contains plastic exit signs and emergency lights with internal battery packs. The fixtures are in poor condition and do not provide adequate coverage.
- There is no exterior egress lighting at exit doors.
- The system does not adequately meet the current OSDM standards.

Rating:

3 Needs Replacement

Recommendations:

- Provide new exit signs and emergency lighting.
- Provide emergency egress lighting at exterior doors.

Item	Cost	Unit	Whole Building	Sum	Comments
Emergency Egress Lighting	\$1.00	SQ. FT.	38462.00	\$38,462.00	
Sum:				\$38,462.00	



Exit Sign



Exit Sign



N. FIRE ALARM

Description:

- The building is provided with a Notifier AFP-200 fire alarm control panel that is in poor condition. The system consists of manual pull stations, smoke detectors, and horn/strobe notification devices throughout the building.
- The system appears to be a hard-wired non addressable type system with no capacity for future expansion.
- The system does not provide proper notification coverage for the entire building.
- The system is not compliant with NFPA and OSDM requirements.

Rating:

3 Needs Replacement

Recommendations:

- Provide replacement of entire system with addressable type system.

Item	Cost	Unit	Whole Building	Sum	Comments
Fire Alarm System	\$2.45	SQ. FT.	38462.00	\$94,231.90	
Sum:				\$94,231.90	



Fire Alarm Control Panel



Typical Notification Device



O. HANDICAPPED ACCESS

Description:

- There is an accessible route provided from the public right-of-way, the accessible parking areas, and from the passenger unloading zone to the main side entrance of the school.
- There is an accessible route connecting all or most areas of the site.
- The exterior entrance at the front of the building is not all ADA accessible due to steps. The entrances on the parking lot side are accessible, but there are steps just inside the building. There is an ADA ramp on the outside of the building leading to the Gymnasium which allows access to the 1st floor level.
- Adequate accessible parking is provided.
- On the interior of the building, space allowances and reach ranges are mostly compliant.
- There is an accessible route through the building which does not include protruding objects.
- Ground and floor surfaces are compliant.
- This multistory building does not have a compliant elevator that accesses every floor.
- Access to the stage is not facilitated by a ramp or chair lift.
- Interior doors that are recessed, are not provided with adequate clearances, and are provided with ADA-compliant hardware. Additional doors are not recessed and swing into the corridor.
- The facility does not consist of any ADA compliant restrooms.
- ADA signage is not provided on both the interior and exterior of the building.
- There are no ADA door operators.

Rating:

3 Needs Replacement

Recommendations:

- Provide an elevator.
- Provide a ramp or chair lift for stage access.
- Provide adequate clearances for recessed doors.
- Recess outswing doors and provide proper clearances.
- Provide ADA-compliant restrooms, including toilet accessories
- Provide ADA-compliant signage.
- Provide an ADA door operator at the door to the Gymnasium.

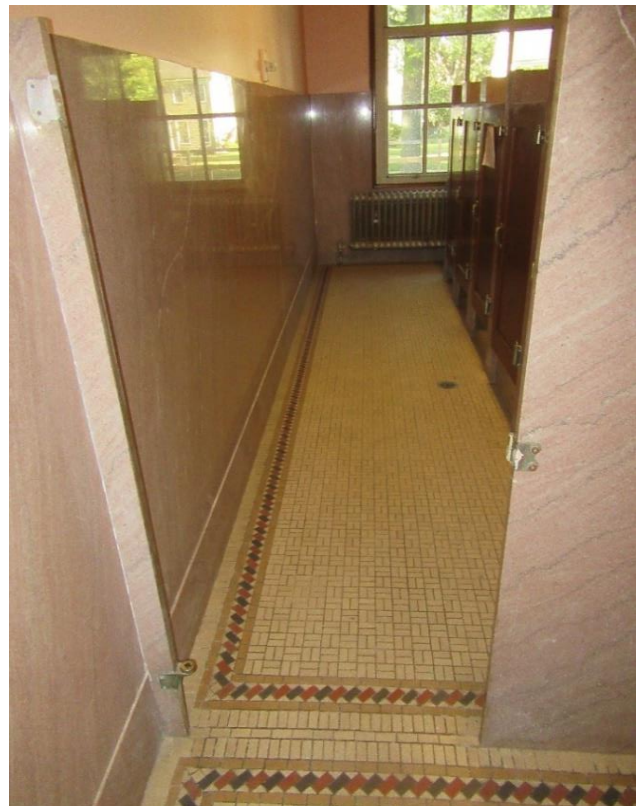
Item	Cost	Unit	Whole Building	Sum	Comments
Signage	\$0.20	SQ. FT.	38462.00	\$7,692.40	per building area
Ramps	\$40.00	SQ. FT.	100.00	\$4,000.00	
Elevator	\$42,000.00	UNIT	2.00	\$84,000.00	per stop
Electric Water Coolers	\$3,000.00	UNIT	4.00	\$12,000.00	New Double ADA
Toilets/Urinals/Sinks	\$1,500.00	UNIT	12.00	\$18,000.00	Replacement ADA
ADA Assist Door & Frame	\$7,500.00	UNIT	1.00	\$7,500.00	
Replace Door	\$5,000.00	LEAF	50.00	\$250,000.00	Rework opening and corridor to meet ADA



Toilet Partitions	\$1,000.00	STALL	4.00		(ADA - grab bars, accessories included)
Provide Toilet Accessories	\$1,000.00	PER RESTROOM	0.00	\$0.00	Cost is included in Section J
ADA Door Operator	\$7,500.00	EACH	1.00	\$7,500.00	
Sum:				\$390,692.40	



Typical Classroom Entry



Typical Restroom



P. SITE CONDITION

Description:

- Most of the site is relatively flat with the exception of the entrance drives which are steeply sloped. It is located in a suburban residential setting with mature tree and shrub type landscaping. There is one outbuilding containing the gas meter and storage. There are no apparent problems with erosion or ponding.
- The site is bordered by lightly traveled city streets. There are two entrances to the parking lot.
- Staff and visitor parking is facilitated by an asphalt parking lot in fair condition containing 34 parking spaces, which does not provide adequate parking for staff members, visitors and the disabled. The site and parking lot drainage design consists of sheet drainage, catch basins and storm sewers, provides adequate evacuation of storm water, and no problems with parking lot drainage were observed.
- Concrete curbs are appropriately placed, and in fair to poor condition. Concrete sidewalks are properly sloped and located to provide a logical flow of pedestrian traffic, and are in good condition. Trash pick up service drive is heavy duty and in fair to poor condition, and is not equipped with a concrete pad area for dumpsters.
- The limited amount of playground equipment is primarily constructed of coated steel and high density plastic, and is in fair condition. Playground equipment is placed to provide compliant fall zones, and on a compliant poured rubber surface and wood fiber mulch.
- Playground consists of poured rubber fall protection in fair condition and wood mulch in fair condition. The playground is not equipped with any tables or benches.
- Window well and stairwell walls are in fair to poor condition.

Rating:

3 Needs Replacement

Recommendations:

- Replace heavy duty asphalt pavement in driveway.
- Replace standard duty asphalt pavement in parking lot.
- Replace broken concrete curbs.
- Provide a heavy duty concrete dumpster pads.
- Provide additional playground equipment and fall protection.
- Due to required waterproofing and excavation, replace stairs, ramps, sidewalks, window wells, and landscaping. Waterproofing is included in Item G costs.
- Provide a bus drop-off area.
- OSDM requires 48 parking spaces, therefore 14 need to be added to the site.

Item	Cost	Unit	Whole Building	Sum	Comments
Replace heavy duty asphalt paving	\$27.80	SQ. YD.	300.00	\$8,340.00	
Replace standard duty asphalt paving	\$25.80	SQ. YD.	1,600.00	\$41,280.00	
Replace Concrete Curbs	\$30.00	LN . FT.	100.00	\$3,000.00	
Provide Concrete Dumpster Pad	\$2,400.00	EACH	2.00	\$4,800.00	
Provide additional playground equipment and fall protection	\$0.50	ALLOWANCE	38,642.00	\$19,321.00	



Replace Stairs, Ramps, Sidewalks, Window Wells and Landscaping	\$36.00	SQ. FT.	3,500.00	\$126,000.00	Includes railings
Bus Drop-Off Elementary	\$110.00	PER STUDENT	300.00	\$33,000.00	Number of students should be rounded up to the nearest 100.
Additional Parking Spaces Required for Elementary	\$1,500.00	PER SPACE	14.00	\$21,000.00	
Base Sitework Allowance for Unforeseen Circumstances	\$50,000.00	ALLOWANCE	1.00	\$50,000.00	
Sitework Allowance for Unforeseen Circumstances for buildings between 0 SF and 100,000 SF	\$1.50	SQ. FT.	38,642.00	\$57,963.00	
Sum:				\$364,704.00	



Broken Concrete Curbs



Asphalt Pavement



Q. SEWAGE SYSTEM

Description:

- The sanitary sewer system is tied in to the city system and is original.
- At the time of assessment, there have been no reported issues or deficiencies with the existing sewer system beneath the building and exterior to the building.
- Water is backing up in large crock in boiler room. Maintenance believes this has been like this for 5 years. He has pumped the crock out but it fills back up but does not flood the boiler room.
- Further investigation to confirm the integrity of the sewers will require an inspection with camera photography.

Rating:

3 Needs Replacement

Recommendations:

- Due to age of sewer pipe system, we recommend a camera inspection of piping from street to building, into the building and under the building.

Item	Cost	Unit	Whole Building	Sum	Comments
Replace sewer system	\$4.51	SQ. FT.	38462.00	\$173,463.62	
Sum:				\$173,463.62	

No photos



R. WATER SUPPLY

Description:

- Domestic piping is a mixture of galvanized steel and copper.
- The 3" water entry does not include a backflow preventer. Entry piping is all galvanized steel.
- The building does not have an automatic sprinkler system, but a Limited Area system was noticed in the Warming Kitchen.

Rating:

3 Needs Replacement

Recommendations:

- Install a reduced pressure backflow preventer.
- Install copper piping throughout the building for domestic hot and cold water.

Item	Cost	Unit	Whole Building	Sum	Comments
Backflow Preventer	\$5,000.00	EACH	1.00	\$5,000.00	
Domestic Piping	\$3.50	EACH	38462.00	\$134,617.00	
Sum:				\$139,617.00	



Domestic Hot Water Heater



Galvanized Pipe Water Entry



S. EXTERIOR DOORS

Description:

- Typical exterior doors are hollow metal type construction, installed on hollow metal frames, and in poor condition. Typical exterior doors feature single glazed or no vision panels, and appropriate hardware.
- Entrance doors are hollow metal type construction, installed on hollow metal frames, and in good condition. Entrance doors feature insulated vision panels and appropriate hardware.

3 Needs Replacement

Recommendations:

- Replace hollow metal doors to basement Mechanical Room and Gymnasium doors.
- Automatic door operator is in item O.

Item	Cost	Unit	Whole Building	Sum	Comments
Replace Exterior Door, Frame, and Hardware	\$2,500.00	EACH	3.00	\$7,500.00	
Sum:				\$7,500.00	



Exterior Door to Boiler Room



Exterior Door to Gymnasium



T. HAZARDOUS MATERIAL

There was no previous OSFC Assessment report or Asbestos Inspection Report provided. However, given the date of original construction and building methods, it is assumed that Asbestos Containing Building Materials (ACBM) were used. A Hazardous Materials Inspection should be performed to accurately determine the presence and condition of any ACBM within the building.

Description:

- Removal and replacement of fluorescent lighting in Item K will require special disposal.
- Removal of fire doors on the Boiler room.

Rating:

3 Needs Replacement

Recommendations:

- Provide for disposal of fluorescent lighting.

Item	Cost	Unit	Whole Building	Sum	Comments
Breeching Insulation Removal	\$10.00	SQ. FT.	300.00	\$3,000.00	
Contractor to Perform Lead Mock-Ups	\$1.00	SQ. FT.	5000.00	\$5,000.00	
Special Engineering Fees for LBP Mock-Ups	\$1.00	SQ. FT.	5000.00	\$5,000.00	
Fluorescent Lamps & Ballasts Recycling/Incineration	\$0.10	SQ. FT.	32160.00	\$3,216.00	
Pipe Insulation Removal	\$10.00	SQ. FT.	750.00	\$7,500.00	
Pipe Insulation Removal (Hidden in Walls and Ceilings)	\$15.00	SQ. FT.	650.00	\$9,750.00	
Dismantling of Boiler/Furnace/Incinerator	\$2,000.00	SQ. FT.	2.00	\$4,000.00	
Hard Plaster Removal	\$7.00	SQ. FT.	81000.00	\$567,000.00	
Acoustical Panel/Tile Ceiling Removal	\$3.00	SQ. FT.	1500.00	\$4,500.00	
Fire Door Removal	\$300.00	EACH	2.00	\$600.00	
Non-ACM Ceiling Wall Removal (for access)	\$2.00	SQ. FT.	12000.00	\$24,000.00	
Other: EHA Other Hazard	\$1.00	SQ. FT.	3000.00	\$3,000.00	
Sum:				\$636,566.00	



Fire Door



Fluorescent Lighting



U. LIFE SAFETY

Description:

- There is a single limited area sprinkler head located in a small warming kitchen off the cafeteria.
- Exit Corridors are situated such that dead-end Corridors are not present.
- The facility features two interior stair towers, which are not protected by compliant two-hour fire enclosures.
- The facility does not have any exterior stairways from intermediate floors. Guardrails are constructed with vertical bars with less than 4" clearance, and do not extend past the top and bottom stair risers as required by the Ohio Building Code.
- Fire extinguishers are not provided in sufficient quantity. Existing fire extinguishers are inadequately spaced.
- Rooms with a capacity greater than 50 occupants are equipped with adequate egress.
- The building is not provided with an emergency generator.

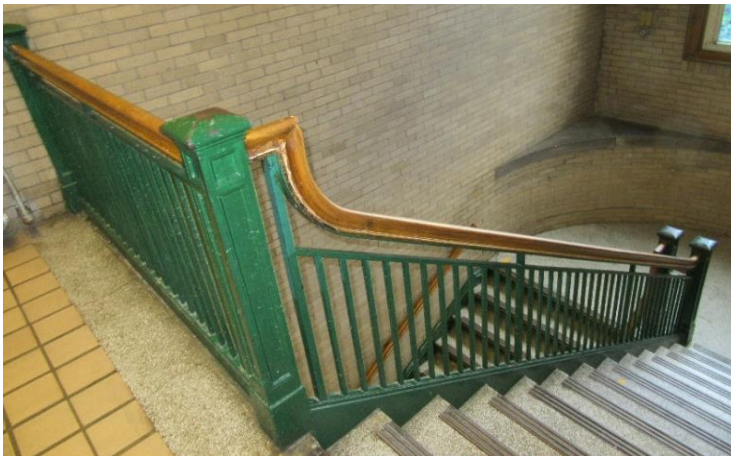
Rating:

3 Needs Replacement

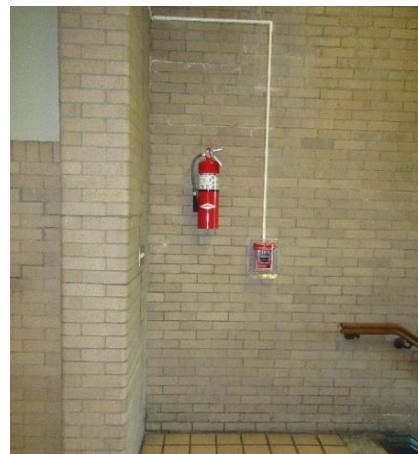
Recommendations:

- Provide new handrails to meet the requirements of the Ohio Building Code.
- Provide fire-rated enclosure around existing stair towers.
- Provide allowance for new fire extinguishers.
- Provide emergency generator as part of the complete replacement of the electrical system.

Item	Cost	Unit	Whole Building	Sum	Comments
Sprinkler/ Fire Suppression System	\$3.20	SF. FT.	38462.00	\$123,078.40	includes increase of service piping, if required
Handrails	\$5,000.00	LEVEL	4.00	\$20,000.00	
New interior stair enclosure	\$5,000.00	LEVEL	4.00	\$20,000.00	
Fire Extinguisher and wall cabinet	\$585.00	UNIT	2.00	\$1,170.00	includes preparation of wall to receive recessed cabinet
Sum:				\$164,248.40	



Typical Staircase Handrails



Typical Fire Extinguisher



V. LOOSE FURNISHINGS

Description:

- The typical Classroom furniture is mismatched, and generally in poor condition, consisting of desks and chairs, file cabinets, reading tables, and wastebaskets.
- The facility's furniture and loose equipment were evaluated on a scale of 1 to 10, and the overall facility received a rating of 2 due to observed conditions.

Rating:

3 Needs Replacement

Recommendations:

- Provide for replacement of outdated or inadequate furnishings.

Item	Cost	Unit	Whole Building	Sum	Comments
Rating of 2	\$6.50	SQ. FT. Of Entire building	38462.00	\$250,003.00	
Sum:				\$250,003.00	



Damaged Furniture



Mismatched Furniture

W. TECHNOLOGY

Description:

- Structured Cabling System is Category 5 supporting 10/100baseT performance.
- Telephone system is functioning.
- Wireless network coverage is minimal.
- A/V systems are minimal. Smartboards are provided in most classrooms.

Rating:

3 Needs Replacement

Recommendations:

- Provide Structured Cabling System in support 1GB to the workstation per OSDM standards.
- Provide dedicated room for telecom equipment.
- Provide telephone system of current manufacture and support.
- Upgrade network electronics to provide 1GB to workstation.
- Upgrade wireless access points to 802.11ac or higher, on Category 6A STP cable.

Item	Cost	Unit	Whole Building	Sum	Comments
Technology Upgrades	\$50,000.00	LUMP SUM	1.00	\$50,000.00	
Sum:				\$50,000.00	



Smartboard



Servers and Patch Panels



X. CONSTRUCTION CONTINGENCY / NON-CONSTRUCTION COST

Renovation Costs (A-W)	\$7,537,890.28
7.00% Construction Contingency	\$527,652.32
Subtotal	\$8,065,542.60
16.29% Non-Construction Costs	\$1,313,876.89
Total Project	\$9,379,419.49

Construction Contingency	\$527,652.32
Non-Construction Costs	\$1,313,876.89
Total for X.	\$1,841,529.21

Non-Construction Costs Breakdown		
Land Survey	0.03%	\$2,419.66
Soil Borings / Phase I Environmental Site Assessment	0.10%	\$8,065.54
Agency Approval Fees (Bldg. Code)	0.25%	\$20,163.86
Construction Testing	0.40%	\$32,262.17
Printing - Bid Documents	0.15%	\$12,098.31
Advertising for Bids	0.02%	\$1,613.11
Builder's Risk Insurance	0.12%	\$9,678.65
Design Professional's Compensation	7.50%	\$604,915.69
CM Compensation	6.00%	\$483,932.56
Commissioning	0.60%	\$48,393.26
Non-Construction Contingency (includes partnering and mediation services)	1.12%	\$90,334.08
Total Non-Construction Costs	16.29%	\$1,313,876.89