

REGIONAL SCHOOL DISTRICT 17

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL

BURR DISTRICT ELEMENTARY SCHOOL

HADDAM-KILLINGWORTH INTERMEDIATE / MIDDLE SCHOOL

HADDAM-KILLINGWORTH HIGH SCHOOL

REGIONAL SCHOOL DISTRICT 17 CENTRAL OFFICE

"WHITE HOUSE"

TRANSPORTATION FACILITY (STA)



November 2021

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Tecton
ARCHITECTS

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EXECUTIVE SUMMARY

1

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REGIONAL SCHOOL DISTRICT 17 (RSD 17)

EXECUTIVE SUMMARY

A.1 Objectives

Tecton Architects was commissioned by Regional School District 17 (RSD 17) to perform an educational facilities conditions assessment of four (4) schools and Central Office in Haddam and Killingworth, CT. The goal was to conduct on-site inspections and gather meaningful data about the physical state of the academic buildings and grounds. The assessment reports would then provide insight and aid in the completion of a viability study of alternate land/buildings and a long-term Capital Management Plan that focuses on the district facilities and their mechanical infrastructures. The tasks were organized into the following:

- **Data Collection:** Collect property data from the various departments including existing conditions drawings, utility/energy consumption statistics, existing programmatic data and functional relationships.
- **Site Walkthroughs** - Conduct on site walkthroughs of each property to assess the physical conditions of the space, conduct interviews with appropriate personnel to understand the details of the property and its function, collect data on age, condition, code compliance, and deficiencies for each property.
- **Condition Assessment, Inventory, Report:** Assess the condition of each property based upon current condition, expected useful life, and atypical conditions due to use. Identify trends in building conditions throughout the district. Develop custom database to meet owners needs to easily access inventory information, building statistics, condition of equipment and lifecycle analysis.
- **Order of Magnitude Costs:** Prepare order of magnitude costs estimates for interactive CIP matrix to be utilized as a planning tool for short, medium and long-range maintenance and capital improvement projects. Conduct an overlay analysis to determine priorities, new vs. renovation, maximize value and efficiencies of planned projects.

During the month of August 2021, Tecton Architects, accompanied by its team of licensed professional engineers and escorted by the Director of Facilities, visited Killingworth Elementary School, Burr District Elementary School, Haddam-Killingworth Intermediate/Middle School, and Haddam-Killingworth High School. The schools were surveyed for the conditions of the architecture, mechanical, electrical, plumbing, fire safety and site conditions therein. Among other items assessed were structural, accessibility and energy issues, as well as school safety. The purpose of the visual observations was to quantify and evaluate the current state of the respective A/MEP systems.

A.2 Existing Facilities Conditions

In broad summary, RSD 17 houses its student population in four (4) school buildings in a grade Kindergarten-3, 4-8, and 9-12 model. Students in grades Kindergarten through 3 attend Killingworth Elementary (including pre-kindergarten) and Burr District Elementary; grades 4 through 8 attend Haddam-Killingworth Intermediate/Middle School, and grades 9-12 attend Haddam-Killingworth High School. Additional pre-kindergarten classrooms are located at the

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Central Office on the High School campus. Two buildings on the High School campus house the a) district transportation department (STA) and service garage, and b) the Haddam-Killingworth Recreation and Youth & Family Services Departments (the "White House").

A.2.1 Killingworth Elementary School (KES)

The approximately 63,000 square foot facility was originally constructed circa 1948. Renovations of the existing building took place in late 1950s and included upgrades to the kitchen, adjacent classrooms and multi-purpose space. The first addition in 1963, consisted of an eight-classroom wing that was constructed to the south, opposite the courtyard from the Pre-K wing. A two-story classroom addition was constructed in 1989 off the west corner of the facility. With this addition, came select renovations of portions of the original building. The enrollment is 250 students from pre-kindergarten through 3rd grade.

The building is considered in fair condition with the following identified priorities:

- Replace door hardware to be ADA compliant
- Install window security film on at-grade windows and doors.
- Install fire protection system in the remaining portions of the building
- Upgrade fire alarm system and make code compliant
- Provide new energy efficient HVAC units for ventilation and air conditioning
- Upgrade WiFi for exterior coverage

A.2.2 Burr District Elementary School (BES)

The approximately 51,000 square foot facility was originally constructed circa 1973. Portable classrooms were added off the north and east sides of the building in 1996. The building is one story split-level with the east half of the building lower than the west. The main entrance, gym, auditorium, kitchen and kindergarten classrooms are all at the "lower" level. The west wing, that is a ramp higher, occupies approximately half of the footprint. This level houses the majority of classrooms, music rooms and the library. Access to the portables is via ramps from the west wing. The enrollment is 310 students from kindergarten through 3rd grade.

The building is considered in fair condition with the following identified priorities:

- Add a new raised play structure at kindergarten classrooms
- Replace door hardware to be ADA compliant
- Install window security film on at-grade windows and doors.
- Install fire protection system in the remaining portions of the building
- Upgrade fire alarm system and make code compliant
- Provide new energy efficient HVAC units for ventilation and air conditioning
- Upgrade WiFi for exterior coverage

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REGIONAL SCHOOL DISTRICT 17 (RSD 17)

A.2.3 Haddam-Killingworth Intermediate/Middle School (IMS)

The approximately 208,000 square foot facility was constructed circa 2007. The facility is essentially broken into 3 wings, an athletic wing to the southeast and academic and auditorium wings to the west. The building is predominantly two stories with the central academic wing having three stories. The main entrance, cafeteria, library, and auditorium are all at the main level. A full-size gymnasium, half basketball court, and locker rooms are located on the lowest level. Each wing occupies about one third of the building footprint, with the athletic wing being slightly smaller in size. The enrollment is 650 students from 4th through 8th grade.

The building is considered in good condition with the following identified priorities:

- Address ADA parking and provide access to main entry
- Install window security film on at-grade windows and doors.
- Install new propane tank
- Upgrade WiFi for exterior coverage

A.2.4 Haddam-Killingworth High School (HKHS)

The approximately 288,000 square foot facility consists of the original 1954 Middle School building, which now serves as the Regional School District 17 Central Office, and the high school facility that was constructed in 1974. The 1974 addition that now serves as the high school, is spread across two main buildings. This addition created a small courtyard adjacent to the original 1954 structure. The high school consists of two, two story buildings, bisected by a driveway, and connected via elevated walks. One structure is to the north of the drive, the other to the south. The main entrance, gym, cafeteria, media center and majority of classrooms are all at the "lower" level. The west wing, that is a half-level higher, occupies approximately one third of the footprint. The enrollment is 600 students from 9th through 12th grade.

The property also houses the districts transportation department, Student Transportation Inc., in the southwest corner of the site. A small structure contains the administration offices and bus shelters extend north the shield the vehicles. Also on the property, in what is referred to as the "White House" is the Haddam-Killingworth Recreation Department and Youth & Family Services department.

The building is considered in poor condition with the following identified priorities:

- ADA accessibility and compliance in the high school and Central Office facilities
- Address ground cover and drainage issues in the soccer field
- Install window security film on at-grade windows and doors.
- Replace door hardware to be ADA compliant
- Upgrade/reconfigure main locker rooms and offices (meet Title IX)
- Upgrade/reconfigure pool locker rooms and offices (meet Title IX)
- Add solar cover to pool
- Upgrade fire alarm system and make code compliant

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- Provide new energy efficient HVAC units for ventilation and air conditioning.
- Upgrade/introduce proper humidity control into pool area (HVAC)
- Add lighting to tennis courts
- Add exterior sound systems
- Upgrade WiFi for exterior coverage
- Demolish White House, barn, and transportation facility
- Build new facilities equipment storage
- Build new transportation facility

A.3 Order of Magnitude Budget

An Order of Magnitude Budget (OMB) has been compiled for each facility in RSD 17. Categories of proposed improvements include Code & ADA, Site, Architectural (Exterior & Interior), Fire Protection, Plumbing, Mechanical, and Electrical. Recommended timeframes for implementation are Immediate, 1-3 Years, 5-10 Years, and 10+ Years. These costs are identified according to each facility as follows:

Facility	Recommended Timeframe					TOTAL
	Immediate	1-3 Years	3-5 Years	5-10 Years	10 + Years	
1 Killingworth Elementary School	\$4,963,782.00	\$2,998,472.00	\$977,542.00	\$1,160,525.00		\$10,100,321.00
2 Burr District Elementary School	\$3,927,025.00	\$3,784,395.00	\$445,225.00	\$3,898,554.50		\$12,055,199.50
3 HK Intermediate/Middle School	\$570,883.00	\$9,971,569.00	\$60,257.50	\$1,067,925.00	\$14,698,325.00	\$26,368,959.50
4 HK High School	\$22,405,077.00	\$15,522,673.00	\$7,874,985.00	\$9,477,344.00		\$55,280,079.00
5 Central Office	\$1,348,250.00	\$1,768,120.00	\$3,043,923.00	\$1,643,550.00		\$7,803,843.00
6 "White House"		\$3,755,600.00				\$3,755,600.00
7 Transportation Facility (STA)		\$4,171,125.00				\$4,171,125.00
TOTAL	\$33,215,017.00	\$41,971,954.00	\$12,401,932.50	\$17,247,898.50	\$14,698,325.00	\$119,535,127.00

A.4 Format of Report

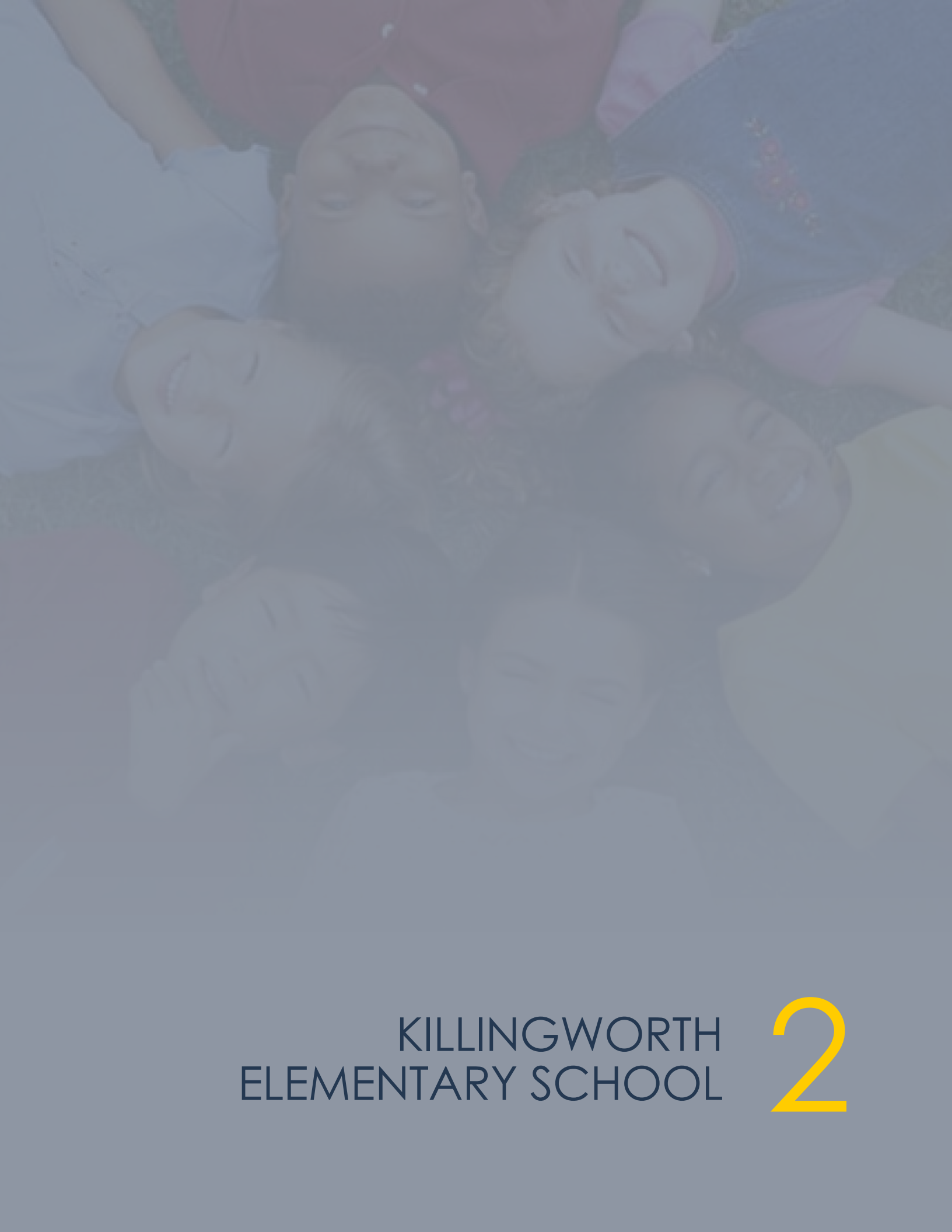
The following pages of this report include a detailed analysis for each facility. The format for each section includes:

- Introduction providing an overview of the investigative process and facility.
- Summary & Analysis consisting of School & Facility Data, Conditions Summary, and Conditions Ranking.
- Existing Conditions Narrative for all building systems.
- Photo Log indicating typical or special conditions of the facility.
- Appendix of plan diagrams.

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Order of Magnitude Budget summaries are provided at the conclusion of the report, separated by each facility, and include the proposed improvement with description and recommended timeframe for implementation.



KILLINGWORTH
ELEMENTARY SCHOOL

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

A. INTRODUCTION

A.1 Objectives

Tecton Architects was commissioned by Regional School District 17 to perform an educational facilities conditions assessment of 4 schools and Central Office in Haddam and Killingworth, CT. The goal was to conduct on-site inspections and gather meaningful data about the physical state of the academic buildings and grounds. The assessment reports would then provide insight and aid in the completion of a viability study of alternate land/buildings and a long-term Capital Management Plan that focuses on the district facilities and their mechanical infrastructures.

During the month of August 2021, Tecton Architects, accompanied by its team of licensed professional engineers and escorted by the Director of Facilities, visited Killingworth Elementary School at 340 CT-81, Killingworth, Connecticut. The school was surveyed for the conditions of the architecture, mechanical, electrical, plumbing, fire safety and site conditions therein. Among other items assessed were structural, accessibility and energy issues, as well as school safety. The purpose of the visual observations was to quantify and evaluate the current state of the respective A/MEP systems. Observations were made in the portions of the building that were accessible at the time of the inspections.

A.2 Facility

This facility functions as an elementary school for PreK through third grade. The approximately 63,000 square foot facility was originally constructed circa 1948. Renovations of the existing building took place in late 1950s and included upgrades to the kitchen, adjacent classrooms and multi-purpose space. The first addition in 1963, consisted of an eight-classroom wing that was constructed to the south, opposite the courtyard from the PreK wing. A two-story classroom addition was constructed in 1989 off the west corner of the facility. With this addition, came select renovations of portions of the original building.

The building is predominantly one story, apart from the most recent addition to the west. The main entrance, cafeteria, media center and majority of classrooms are all at the main level. The west addition, that contains two stories, occupies approximately half of the overall building footprint with the lower level containing the gymnasium and additional classrooms.

In addition to the many academic classrooms, the school boasts a gymnasium, a multi-purpose room with a platform that is utilized as a cafeteria, a kitchen and server, and library. The exterior has a semi-enclosed central courtyard, a paved play area to the south. The facility is no longer equipped with any raised play structures.

Access to the site is from the east off CT-81 (Higganum Road) with the building facing east. Bus drop-off and main parking lot are at the north end of the site, with busses dropping students off at the new 1989 addition. Both buses and vehicles enter the site by way of the north entrance drive. Parent drop-off continues south around a small front parking lot and utilizes the paved play area to the south of the site for temporary parking. ADA access to the main entry is via a

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ramp just north of the entry, through the PreK classroom wing. The building's service entrance is outside the kitchen and accessed by means of the north entrance drive that serves both the bus route and the main parking lot.

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

B. SUMMARY & ANALYSIS

B.1 School & Facility Data

The School:

Type:	Elementary	Additional Programs:	no
Grade Structure:	PreK-3	Meals:	breakfast, lunch
Pre-K:	Yes	Meals prepared on site:	yes, 4 lunch waves
Enrollment (2018):	250	Start time:	8:20 am PreK, 8:40 am K-3
Staff (approx.):	50-60	Dismissal:	11:10 am PreK, 3:25 pm K-3
Location (in town):	central	Buses:	10

The Facility:

		General Condition:	Poor
Total Building Area (SF):	63,251 SF	Original Construction:	1948
Site Area (acres):	24.77 acres	Additions (dates):	1953, 1968, 1989
Stories (above grade):	1 (east), 2 (west)	Construction Type(s):	2B
Building/Framing Materials:	masonry, steel, concrete	Roof Types & Age:	EPDM Architectural shingles Gravel built-up
Split-level / ramps (interior):	no	Heating (types):	hot water
Stairs (interior):	yes	Fuel Types:	Propane and #2 fuel oil
Elevator:	yes	Cooling (centralized):	AC (Library, admin., PreK)
Basement:	no	Ventilation:	Operable windows 800A - 208/120V 3-phase 4-wire
Mezzanine (mechanical)	no	Electrical:	100kW Detroit diesel fired
Crawl Space / Tunnels:	no	Generator:	full
Modulars (classrooms):	no	Fire Alarm:	Septic with leeching field
Auxiliary Buildings:	no	Sewer / Septic:	Well water
Full ADA Compliance:	no	Municipal Water / Well:	Partial (storage, boiler room)
Athletic Fields:	paved parking lot	Sprinklered (full / partial):	

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

B. SUMMARY & ANALYSIS

B.2 Conditions Summary

Building Condition:

- **Fair.**
- Two story, sprawling layout.
- One elevator, main entry not ADA accessible, toilet facilities need upgrade.
- Original construction not as energy efficient – some single-pane, uninsulated windows.
- Classrooms are adequately sized.
- Multipurpose space platform not ADA accessible.
- Roofs in good condition.

Programmatic Findings:

- Site – Bus drop and pick up work well. Paved play area doubles as parent parking for drop off and pick up. Interior courtyard is beneficial but needs to be upgraded. Lacking visitor parking.
- Building – Building is spread out, connecting the building should be considered – limited accessibility from within the building. Sound attenuation between some rooms is often a challenge – primarily the Music room and neighboring classrooms. Administrative office layout is poor and not effective/efficient.

Fire Protection & Fire Alarm:

- Limited Fire Protection System. Less than 5% of Building. Poor Condition.
- Fire Alarm System is not code complaint. The system is in working condition, however should be upgraded.

Plumbing:

- Well Water Service to provide domestic, potable water.
- Three Electric Water Heaters. Installed in 2005. Fair condition.
- Cold and Hot Water piping is copper and steel. Installed in various years. Poor condition.
- Sanitary and Storm piping is cast iron. Installed in various years. Poor condition.
- Manual Flush valve Plumbing Fixtures. Installed in various years. Poor Condition.
- Fuel Oil and Propane gas service. Installed in 1989. Poor condition.

Mechanical:

- Four Fuel Oil Fired Hot Water Boilers. Installed in various years. Poor condition.
- Hot Water piping is steel and copper. Installed in various years. Poor Condition.
- Hot Water Baseboard, Convectors, and Unit Heaters. Installed in various years. Poor Condition.
- Mechanically ventilated with exhaust fans & operable windows. Two Air Handling Units provide limited ventilation. Poor Condition.
- Limited AC. Rooftop Unit and Window AC Units. Poor Condition.
- Pneumatic Controls and Original Thermostats. Poor Condition.

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

Electrical:

- Main Electric service is 208/120V/3-Phase, 800 Amps. This services is past its useful life.
- The generator is a 100kW diesel fired. It provides stand-by power and life safety power. It is past its useful life and should be replaced.
- Electrical distribution throughout the building consists of multiple vintages, from the original equipment installed in 1948, the kitchen addition in 1953, classroom addition 1968 and the gymnasium and classroom addition in 1989. All distribution is past its useful life.
- Lighting was retrofitted to T-5 bulbs. Fixtures were installed throughout the years during multiple renovations and additions. These fixtures are in working condition however not efficient and should be replace with LED fixtures.
- Fire Alarm System is not code complaint. The system is in working condition, however should be upgraded.

Security System:

- Cameras cover the entire perimeter of the building along with the entrances. Good condition.

Site Construction & Features:

- Paved play areas show signs of deterioration
- Repair bituminous walks within courtyard.

Priorities:

- Full depth replacement of curbs and sidewalks.
- Install new ADA and IBC compliant concrete stairs and railings.
- Full depth replacement of parking lots and driveways.
- Upgrade exterior building and site lighting.
- Hazardous material abatement.
- Demolish and replace single-pane, non-insulated windows with double-pane, thermally insulated windows.
- Add security film to ground floor windows and doors.
- Upgrade finishes and address ADA compliance in unisex and gang toilet facilities.
- Remove existing hardware and replace with ADA compliant hardware.
- Replace carpet.
- Replace base and upper cabinets and plastic laminate countertops.
- Replace gymnasium flooring and sports equipment.
- Install new interior and exterior building signage.
- Provide interior solar shades to increase energy efficiency.
- Install fire protection system in the remaining portions of the building.
- Upgrade fire alarm system and make code compliant.
- Replace fire tanks and pumps.
- Prepare for replacement of plumbing piping that are original to the building.
- Prepare for replacement of plumbing fixtures that are original to the building.
- Replace domestic water service.
- Provide new energy efficient HVAC units for ventilation and air conditioning.
- Pneumatic controls to be upgraded to new DDC system with BMS.

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

- Replace existing boilers with new, high efficiency, non- condensing type units.
- Replace electrical wiring.
- Upgrade light fixtures to energy efficient LED fixtures.
- Phone system consolidation and upgrade to VOIP.
- Replace SmartBoard/Projectors.
- Add WiFi estimates for outdoor coverage.
- Replace gym PA system.
- Access controls upgrade.

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.31 RANKINGS SYSTEM DEFINED

Ranking (range '1' to '5')

Via the site inspections and conditions assessments contained in the detailed report, the design team is providing a condition (or ranking) of various, select building physical components. An itemized course of action may be derived from this ranking as well as strategies and prioritization for maintenance of the facilities.

Vintage (year of construction)

Buildings that were constructed or renovated at different time periods (dates) are assigned a Vintage #. Elements of varying ages are evaluated separately. Vintage #'s for each facility are indicated on the vintage diagram & checklist.

Condition (range 'very poor' to 'very good')

Existing exterior and interior conditions of all building and site elements are determined by the following criteria for evaluation:

Ranking:	1 Very Poor [VP]	An element is evaluated as Very Poor [VP] when: <ul style="list-style-type: none">• Requires prompt attention.• May last and may need to be replaced in 0 to 5 years.• The element is no longer performing its intended purpose.• Deterioration or damage affects more than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a severe negative impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	2 Poor [P]	An element is evaluated as Poor [P] when: <ul style="list-style-type: none">• May last and may need to be replaced in 5 to 10 years.• The element may be approaching the end of its useful life.• Deterioration or damage affects less than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a negative impact on the overall efficiency and/or fiscal sustainability of the facility.• May last and may need to be replaced in 5 to 10 years.
Ranking:	3 Fair [F]	An element is evaluated as Fair [F] when: <ul style="list-style-type: none">• May last and may need to be replaced in 10 to 15 years.• The element is functioning as intended and is still within its useful life.• Deterioration or damage affects less than 25% of the element.• There are early signs of wear, failure or deterioration, but the element is structurally sound.• Visible wear and tear is considered typical for a structure of this age and type.• Has a little impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	4 Good [G]	An element is evaluated as Good [G] when: <ul style="list-style-type: none">• May last and may need to be replaced in 15 to 20 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a no impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	5 Very Good [VG]	An element is evaluated as Very Good [VG] when: <ul style="list-style-type: none">• Needs no attention and may last up to 25 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a positive impact on the overall efficiency and/or fiscal sustainability of the facility.

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.3.2 DATES OF CONSTRUCTION (VINTAGE)



Killingworth Elementary School (KES) PreK-3

Vintage:

V1	1948:	Original Construction
V2	1953:	Kitchen and Multipurpose Space Addition
V3	1968:	Classroom Addition
V4	1989:	Gymnasium and Classroom Addition

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	1948: Original
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	1953: Kitchen, Multipurpose Space
	3	Fair [F] May require attention in 10-15 years	date of	V3	1968: Classrooms
	4	Good [G] May require attention in 15-20 years	Construction)	V4	1989: Gymnasium and Classrooms
	5	Very Good [VG] Does not require attention			

Exterior		V4	V3	V2	V1	
Component	Material(s)	Condition				Notes
Roofing	EPDM Membrane			5		Replaced in 2011
	Built-up gravel	4				
	Architectural shingles		4		3	
	Flashing / joints		4		4	
	Aluminum gutters / downspouts		4		2	Gutters to be cleaned of vegetation
	Fascia / trim		4		3	
Walls	Masonry - Brick	5	4	4	3	
	Masonry - CMU	4				
	Joints (building or expansion)	4	4	4	3	
	Wall mounted fixtures	3	3	3	3	
	Foundations – exposed concrete	4	3			
Entrances	Aluminum Doors & Frames	4	4		4	General cleaning and repainting
	Hollow Metal Doors & Frames	3	3	3	3	
	Soffits / Canopy	4	3		4	
Windows	Aluminum, thermal	4			3	Interior screens
	Aluminum, non-thermal		2		2	
	Window Screens	4				
Walkways / site stairs	Concrete walks & curbs at drives & parking	2				
	Concrete walks & curbs at play areas	3				
	Bitum. concrete walks	3				
	Concrete stairs	2			3	
Drives / parking lots	Bitum. pavement - bus loop	2				
	Bitum. pavement - visitor parking	2				
	Bitum. pavement - parent drop off	2				
	Line striping	1				
	Extruded bitum. conc. curbing	3				
Landscaping	Lawn	3				
	Planting	3				
	Mulch beds	3				
Recreation	Paved play surfaces	1				
	Grass fields	3				
Other Structures	Loading area			3		
	Fencing	4				

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	1948: Original
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	1953: Kitchen, Multipurpose Space
	3	Fair [F] May require attention in 10-15 years	date of	V3	1968: Classrooms
	4	Good [G] May require attention in 15-20 years	Construction)	V4	1989: Gymnasium and Classrooms
	5	Very Good [VG] Does not require attention			

Interior		V4	V3	V2	V1	
Component	Material(s)	Condition				Notes
Flooring	VCT Tile	3	3			
	Carpet	3	2	2	2	
	Ceramic Tile	3			3	
	Rubber - sheet / stair treads	3				
Walls Surfaces	Gypsum Wall Board				4	Administrative offices
	Masonry - CMU, Face Brick	4	4	4	4	
	Glazed Block	4	4	4	4	
Ceilings	Acoustical tile ceilings	3			2	
	Gypsum board ceilings / soffits					
	Exposed Ceilings - visual		4	3		
Interior trim	Hollow metal	3	3	3	3	
	Wall Base - Vinyl	4	3	3	3	
Interior doors	Wood doors	3	2		3	Not ADA compliant
	Hollow metal doors	3	3	3	3	
	Hardware	1	1	1	1	
Built-ins	Casework (general)	3	3	3	3	
	Countertops	3	3	3	3	
Toilet Facilities	Fixtures	4	3	3	3	No ADA complaint gang facilities
	Partitions	4	3		3	
	Accessories (dispensers, driers)	4	3	3	3	
Athletics	Gymnasium floor / play surface				3	
	Athletic equipment				4	
	Stadium Seating				3	

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	1948: Original
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	1953: Kitchen, Multipurpose Space
	3	Fair [F] May require attention in 10-15 years	date of	V3	1968: Classrooms
	4	Good [G] May require attention in 15-20 years	Construction)	V4	1989: Gymnasium and Classrooms
	5	Very Good [VG] Does not require attention			

Building Systems		V4	V3	V2	V1	
Component	Material(s)	Condition				Notes
Fire Protection	Alarms & Devices	2	2	2	2	Limited 1989 Fire Protection
	Fire suppression (infrastructure / devices)	2	2	2	2	
Plumbing Systems	Infrastructure (pipes, drains, etc.)	2	2	1	1	Infrastructure in poor condition
	Fixtures	2	2	1	1	Original to the Building
	Overall efficiency	2	2	1	1	Overall Efficiency is Poor
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	2	2	1	1	Infrastructure in poor condition
	Heating systems	2			2	Boilers are very old
	Cooling systems	1	1	1	1	Limited space cooling
	Fixtures & equipment (Interior)	2	2	1	1	Original to the Building
	Fixtures & equipment (Exterior/Roof top)	1	1	1	1	Original to the Building
	Overall efficiency	2	2	1	1	Overall Efficiency is Poor
Electrical (Service)	Infrastructure (panels, wiring, etc.)	2	2	2	2	Original to building
	Service & distribution	2	2	2	2	Original to building
	Generator	2	2	2	2	
	Other					
Electrical Lighting	Infrastructure (panels, wiring, etc.)	2	2	2	2	Original to building
	Fixtures (Interior)	2	2	2	2	Original to building
	Efficiency (incl. natural & artificial light distr.)	2	2	2	2	Original to building
Security	Access Control	3	3	3	3	
	Cameras	3	3	3	3	

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

C. EXISTING CONDITIONS NARRATIVE

C.1 Architectural

Construction:

The building is constructed primarily of non-combustible materials. The exterior walls are constructed of brick veneer. Interior walls vary in construction material. The floors are concrete slab on grade. The structural frame consists of steel columns, and beams. The building is three different vintages; all constructed with the same exterior materials. The roofs are steel framed.

Exterior:

Exterior façade (general): The exterior of the building is in generally in good condition. The east side houses the main entrance. A secondary entry is located on the north, through a covered walkway. Exterior walls are brick clad with concrete block backup. There are some areas with exposed concrete foundation wall as the exterior finish material. A two-story bay on the 1989 addition is clad in concrete block and glazed brick. The roofs are predominantly flat throughout with the exception of the original 1948 structure that has a hipped roof. A large gable roof covers the centrally located multi-purpose space.

Walls: The exterior walls are in good condition, but the brick could benefit from a general cleaning, especially around the window openings. The brick at the original 1948 structure ranges from good to poor condition. Areas of brick on the south side, facing into the central courtyard, are deteriorating and heavily stained below window sills. Vertical building joints are in good condition and did not appear to need raking or replacing. Many building seismic joints were also observed, and all were in good condition.

Windows/Doors/Entrances: The entrance doors are aluminum or steel doors with glass. These doors are in good condition. The glazing is thermally insulated double pane glass. Other doors, which have either a secondary function or function as egress only are painted hollow metal doors. Generally, the hollow metal doors are in fair condition. Windows vary depending on the building vintage. Most are thermally insulated, double pane; however, some are single pane and not insulated. All are in fair condition, but the single pane windows should be replaced. The single pane operable windows do not have exterior screens. The double pane windows in the newest addition have interior screens. Storefront systems are in poor condition and leak where they attach to the adjacent structure. Entry canopies and soffits are in good condition.

Roof: The flat roofs are EPDM and built-up gravel and are in fair condition. Owner-provided documentation indicates the EPDM roof above the kitchen was replaced in 2020. There are no signs of delamination or breaches. Primary drains divert roof water to the ground internally and overflow scuppers serve as a secondary means of diverting water. Expansion joints are all in good condition. The roof surfaces are mostly free of debris but collect water in a few locations. Roof penetrations appear to be in good condition but could benefit from cleaning around

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

drains. The original building and the large gable at the multipurpose space are clad in architectural shingles and are in good condition.

Interior:

Interior spaces (general): The interior of the facility ranges from good to fair condition and is generally clean and well kept. The facility is laid out in a square shape, with the newest addition off the west. The facility is oriented north/south with the gymnasium and multipurpose spaces connecting the east and west wings. The east wing houses the main entry, administrative spaces, PreK classrooms and the kitchen. The central portion of the building contains the multipurpose space, a computer lab and maker space, and second and third grade. A gymnasium, art room and specialty classrooms comprise the main level of the west wing; with library, music rooms, and kindergarten and first grade classrooms on the upper. The floor plan and circulation are relatively simple. Major multi-use spaces are predominantly centralized with classrooms forming the perimeter of the building.

Corridors: Most corridors are single loaded, with the exception of the 1989 vintage that is two stories and is double loaded. Corridors typically have classrooms or major multi-use spaces on a single side. Carpet and acoustical tile are the finishes throughout and are both in good to fair condition. Carpet in the three oldest vintages could benefit from replacement in 3 to 5 years. Ceiling tiles are sagging in some areas. Walls are painted concrete block throughout, apart from the original 1948 building that has brick clad walls. Artificial lighting in the corridors is sufficient.

Classrooms: Classrooms appear to have ample space and are typical of what would be expected in a building of this type and vintage. The teaching walls, with white boards, smart display board with projector, and occasional tack board, were present in most classrooms. The classroom casework is dated but in fair condition. The exterior walls typically have a heating unit under the window. These windows provide good natural daylight for most classrooms. Most ceilings are acoustical tiles, except for the ceilings in the original vintage that are exposed tectum style deck that reveals MEP systems above. Aesthetically, it is in good condition. There is carpet in all classrooms except for the Art room, which has VCT tile. Both carpet and VCT in the three oldest vintages could benefit from replacement in 3 to 5 years. Casework in vintages 1 and 2 are in fair condition but should be upgraded in 5 to 10 years to keep up with the evolving educational curriculum. Each classroom appears to have ample artificial light.

Administration Offices: The administration offices are situated at the main entrance as a means of control and visual acuity. There is a locked vestibule to control visitors. Although a storefront has been added to open the main office, the space still has limited visibility to the adjacent corridors. The lack of administrative square footage in the original building has forced support spaces to be located far from the main office. Carpet and acoustical ceiling tiles are both in poor condition.

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

Major Common Spaces:

Multipurpose Room: The multipurpose room is at the center of the facility and is utilized as an auditorium and cafeteria. It's adjacency to the kitchen and library help support these functions. The space appears to be sized well for the number of students in each lunch wave. The space is double-height and has clerestory windows along the south side, allowing the room to be filled with daylight. The floors are VCT and are in fair condition. The ceiling is a tectum style deck and, aesthetically, is in fair condition. A raised platform flanks the eastern end of the multipurpose space and supports its function as an auditorium. There is no ADA access to the platform.

Gymnasium: The gymnasium is centrally located but can only be accessed from the lower level of the 1989 addition. The ceiling exposes the structure and roof deck and appears to have sufficient height to properly serve the physical education curriculum. In general, the ceiling is in good condition. All walls are painted concrete block and are clad in acoustical tectum panels on the upper third of the wall. The rubber sports flooring throughout is in poor condition and should be replaced. Two tiers of wooden bleachers are located along the west wall and a curtain divider runs east/west to separate the space in two. Both are in fair condition. Artificial lighting is sufficient. The ceiling and wall mounted basketball hoops are reaching the end of their useful life and should be upgraded.

Toilet Facilities: The school has eight main gang toilet facilities, two in each wing for male and female users. Not all are ADA accessible. Although they are dated, these facilities are in good condition. Each gang facility has operable partitions with water closets, lavatories and paper towel dispensers. The floors are ceramic tile, ceilings are acoustical tile and walls are concrete block. All are in good condition. The gang bathrooms nearest the gymnasium serve as locker rooms and are in good condition.

Library: The Library is centrally located on the second floor of the 1989 addition and situated immediately west of the multipurpose space. The space appears to be adequately sized for library functions. Carpet and acoustical ceilings are the finishes throughout, and both are in poor condition. The space receives good natural light from the adjoining corridor to the south and the neighboring courtyard to the north.

Art: The art room is located on the lower level of the 1989 addition, across the corridor from the gymnasium. This space appears to be sufficiently sized to support the curriculum of the school. Large windows face west and provide the space with generous natural light. Being an art classroom, it would be unfair to comment on the cosmetic conditions of the walls, floors or casework. Besides the cleanliness, the painted block walls and acoustical ceiling appear to be in fair condition. Casework is dated but sufficient and is in fair condition.

Code, Safety and Hazardous Materials Abatement:

ADA: The building would not be deemed ADA compliant in reference to toilet facilities, required clearances and access. An elevator serves the multiple levels of the 1989 addition; however, there is no ADA access to the raised platform in the Multipurpose Space. Classrooms do not have ADA workstations and door hardware is not code compliant. No ADA accessible toilet facilities were observed in the building.

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

Safety: The building has a few aspects that may be deemed problematic from a life safety perspective. The building is not fully sprinklered. From a security perspective, the school appears to have sufficient access control at the main entrance, although visibility into the entry corridor could be improved. There are many exterior doors that could be possible points of entry and therefore, difficult to monitor.

Hazardous Materials Abatement: A building of this vintage is expected to be clad with asbestos-containing materials. Owner-supplied Asbestos Inspection and Management Plans identify materials that are assumed to contain asbestos and will eventually require remediation. Building construction materials and finishes to monitor for future abatement include but are not limited to: vinyl floor tile and associated adhesive, carpet and associated adhesive, sink undercoatings, gymnasium flooring and adhesive, pipe fitting insulation, acoustical ceiling tiles and associated adhesive, and cove wall base.

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

C. EXISTING CONDITIONS NARRATIVE

C.2 MEP / Security

C.21 PLUMBING / FIRE PROTECTION

Hot Water Generation:

The buildings existing domestic hot water is generated via three electric water heater storage tanks. Two of the water heater tanks are located in the 1989 boiler room and primarily serve the 1989 addition. These two tanks are manufactured by Bradford White and can hold 80 gallons of water each. The tanks are approximately 10 years old and are in good working condition. The third electric domestic water heater is located in the 1948 mechanical room. This tank can hold 80 gallons of water and is manufactured by Vaughn. It is approximately 4 years old and is in good working condition. The domestic hot water tanks have been replaced recently and are working properly with plenty of years of life left so an upgrade is not recommended for the near future.

Domestic Water Service:

Domestic water for the building is provided through a private well located on site. The well pump feeds an 8,000 gallon underground storage tank, which stores the potable water used by the school. A set of duplex booster pumps manufactured by Grundfos provides water to the school from the storage tank. The pumps are located in the 1948 mechanical room, appear to be approximately 10 years old and in fair working condition. A domestic water pressurized tank manufactured by Well Trol located in the 1989 boiler room serves the 1989 addition. The tank is approximately 10 years old and is in fair working condition.

Domestic Water Piping:

Domestic water piping was observed to be a combination of copper and steel piping. The 1948 piping has been renovated while the 1963 and 1989 addition piping is original to construction. Overall a majority of the piping is at the end of its useful life.

Plumbing Fixtures:

Plumbing fixtures consist of floor mounted water closets with manual flush valves. Lavatory sinks are wall mounted with manual faucets. The plumbing fixtures vary in age from different renovations to various additions. The majority of the plumbing fixtures are approximately 30 to 40 years old and at the end of their useful lives.

Sanitary Service:

The building contains three buried septic tanks throughout the property. The tanks appear to be original to the building and are still in working condition.

Storm Service:

The building consists of both roof drain and a gutter storm system. Both the roof drains and gutters take the storm water underground to a storm water retention system located on site. The

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

roof drains, gutters, and all associated piping are original to construction and nearing the end of their useful lives.

Natural Gas Service:

No natural gas is located on site. There are two 4,000 gallon fuel oil storage tanks buried underground outside of the building. The oil tanks appear to be in good working condition. There is also a 500 gallon propane tank buried outside that appears to be in good working condition.

Fire Protection:

A majority of the building does not contain a fire protection system. There is a fire protection system for the 1989 boiler rooms and the surrounding storage rooms. The system taps off of the domestic water system located in boiler room to serve the space and the adjacent storage rooms. The existing fire protection piping is original to the 1989 construction and at the end of its useful life.

C.22 MECHANICAL

Heating Systems:

There are two boiler plants in the building. The 1948 mechanical room contains one boiler plant consisting of two cast iron fuel oil fired boilers. One boiler is manufactured by H.B. Smith and the other is manufactured by Burnham. The two boilers appear to be roughly 35 years old and are past their useful lives. At the time of visit, contractors were installing two new Taco hot water pumps to serve the boiler system in the 1948 mechanical room. The two pumps were being integrated with a new variable frequency drive system for better control and efficiency. The second boiler plant is located in the 1989 boiler room. This boiler plant consists of two H.B. Smith cast iron fuel oil fired boilers. The boilers appear to be original to the 1989 construction and are past the end of their useful lives. There are two floor mounted hot water pumps serving the boiler system that are approximately 30 years old and past the end of their useful lives.

Hot Water Piping:

The hot water heating systems consist of steel and copper piping. The 1948 piping has been renovated while the 1963 and 1989 addition piping is original to construction. Overall the piping is approximately 20 to 60 years and a majority is at the end of its useful life.

Terminal Units:

The building consists of hot water wall convectors, fin-tube radiation, and unit heaters to provide perimeter heating to various rooms. These pieces of mechanical equipment vary in age but are past their useful life expectancies.

Ventilation Systems:

A majority of the rooms throughout the building have ventilation through the use of operable windows and exhaust fans only. There are many roof mounted exhaust fans serving a majority of the rooms, air handling units are recommended to supply consistent outdoor air to these rooms. There is one air handling unit located in a mechanical closet indoors. The unit serves the 1963

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

addition wing and is manufactured by Trane. It provides heating and ventilation to the various rooms it serves. It appears to be original to the 1963 construction and is past the end of its useful life. There are two heating and ventilation units located up high within the Gymnasium. These units provide heating and outdoor air to the gymnasium only. They appear to be original to construction and are past the end of their useful lives. There is a propane fired makeup air unit that provides outdoor air to the Kitchen. The unit appears to be original to construction and past the end of its useful life.

Cooling Systems:

There is no cooling plant within the building, cooling is provided through various units although a majority of the building does not receive cooling. One air handling unit provides cooling to the library while another air handling unit provides cooling to the main office section of the building at the ground level. Both air handling units are served by air source condensing units, located at the exterior of the building, at grade. Both the air handling units and condensing unit are past the end of their useful lives. The two preschool classrooms contain window mounted AC units that are in operable condition. The office administrative area contains a split system AC unit that provides cooling via a condensing unit located outside. Both units appear to be in fair working condition.

Ductwork:

The ductwork throughout the building varies in age with respect to each addition it was constructed during. The ductwork serves the air handling units as well as all of the exhaust fans. All of the ductwork is approximately 30 to 60 years old.

Controls:

There is no BMS in this building. The building contains pneumatic controls and thermostats that are all original to construction and at the end of their useful lives.

C.23 ELECTRICAL

Main Electric Service:

The main electric service originates from a utility company pole. The service runs from the utility pole to a utility company owned, pad mounted transformer located adjacent to the building. The service then runs underground to the main switchboard located in the basement of the building.

The main electric service to the building is rated 800 Amps, 208/120 volts, 3-phase, 4-wire, and includes a main disconnect switch, utility company metering compartment, and distribution sections. This service and equipment are in working condition, although past their useful life.

Electrical Distribution:

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

The electrical distribution consists of conduit and feeders from the main distribution panels to branch circuit panel boards located throughout the building. The electrical distribution and equipment have been installed over the various years of construction with the main service installed in the 1960's. The equipment and wiring that was installed over the various additions are past their useful life.

Generator:

The building currently served by a 100 kW diesel fired generator. This generator serves an Automatic Transfer Switch (ATS). This generator is a Detroit Diesel 100DSEJC with a bully tank for fuel and has a 350A output circuit breaker. This generator serves a panel located within main electrical room, which serves both stand-by and life safety power. This generator is in working condition, however past its useful life.

Lighting Systems:

The lighting throughout the building consists of 1x4, 2x2 and 2x4 fluorescent troffers, which have been upgrades to T-5 lamps. Although the lighting is functional, lighting is outdated throughout the building and past its useful life.

Emergency lighting for the building is served from emergency branch circuits that are served off the emergency distribution served from the 100 kW generator.

Lighting control consists of wall-mounted toggle switches; key operated toggle switches for local control.

Fire Alarm System:

The fire alarm system in the building consists of a Fire Alarm Control Panel by Notifier; model SFP-10UD, a 10-zone fire alarm system located at the main vestibule. Throughout the building, there are horn/strobe units, strobe only units, smoke detectors and pull stations sporadically located throughout. This system is currently not up to code and is past its useful life.

Communication Services:

Cable TV service is utilized in the building. Service cable enters the building and distributes through multiple amplifiers to distribution hubs throughout.

T1 communication equipment exists at the MDF service backboard.

Fiber service is provided to the building and distributed throughout.

Communication services enter the main telecomm room via multiple 4" conduits brought in from the street.

MDF and IDF rooms are provisioned throughout the building at locations that promote the proper coverage to conform with network cabling distance limitations. Building horizontal cabling is Cat 6 with PoE type network switches installed on two post racks. The rooms are appropriately outfitted with grounding and bonding, basket tray rack and dedicated cooling systems.

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

Wireless access points are provided within the building, however per staff many areas are very spotty.

Clock and program equipment is provided in the building and original to the building, it is past its useful life.

Access Control for security is provided throughout.

Ceiling and wall mounted speakers are provided throughout for general paging, they are original to the building and past their useful life.

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

C. EXISTING CONDITIONS NARRATIVE

C.2 Site

Roadways/Parking: There are two accesses to the site from the main road. The first, north access, operates as a two-way entry and exit drive that divides into the bus loop and parent drop off. Parent drop off loops around to the building's main entrance. The bus loop continues west and drops students off at the secondary entrance on the north side of the building. Buses then exit out the same entry drive onto CT-81; whereas parent drop off exits via the southern drive, through an exit only access. The north drive is also access to the faculty and staff parking lot, located north of the building, accessible by the bus loop.

The overall condition of site pavement is poor with evidence of fine cracking, slight pavement deterioration, and transverse cracking located throughout the drive aisles. Observation of sediment buildup is indicative of puddling along parts of the curb and stormwater infiltration into the base.

The overall condition of curbing throughout the site is in good to fair condition. Several areas show signs of deterioration. Monolithic curb and walk shows evidence of cracking at joints in several areas.

Walkways: Walkways on site consist of bituminous concrete and concrete pavement. Bituminous concrete walkways are in overall fair condition. Signs of cracking is present throughout the site.

Condition of the concrete pavement walkways range from fair to poor. Walkways adjacent to the driveway and parking areas are in poor condition, showing signs of cracking and deterioration. Concrete walkways that service play areas are in fair to poor condition with some signs of cracking.

Stairs and landings lead from the front driveway to the building's main entrance and ADA ramp adjacent to the PreK wing. Additional sets of stairs provide access to the southwest corner of the site and from the visitor parking lot down to the academic classrooms in the newest addition. The landings show signs of deterioration and cracking. Railings appear to be in good condition.

Concrete pavement walkways appear to be in fair condition with a few signs of cracking. Portions of walkways have been replaced. Bituminous walkways within the courtyard are in poor condition and are deteriorating.

Paved Play: Paved play areas are located to the west and south sides of the school and consist of bituminous concrete. The overall condition of the northern and southern paved play areas is very poor with evidence of fine cracking in the pavement throughout the area. The southern play area is utilized as parent parking during drop off and pick up. This has added to its deterioration.

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

Grass Fields: Grass fields are located on the west side of the school, downhill from the school. Grass cover appears to be in fair condition.

Diamond Fields: Diamond fields are not present at this school.

Playgrounds: A raised play structure is located south of the facility, beyond the visitor parking lot. Although dated, it appears to be in fair condition. Its proximity to the road and visitor parking, as well as its distance from the school facility, may prove to be a safety and security issue.

Fencing: A four-foot-high chain link fence encloses the central courtyard and surrounds the window wells behind the original building. Fencing appears to be in good condition.

Landscaping: Overall landscaping is in good to fair condition. Lawn areas adjacent to walkways, parking areas, and building entrance contain some bare spots and could benefit from reseeding.

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.1: Aerial – Context



D.1.2: Years of Construction - Vintage

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.3: Exterior – Main Entrance



D.1.4: Exterior – Secondary Entrance

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.5: Exterior – Courtyard



D.1.6: Exterior – Service Entry

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.7: Exterior – Walls & Windows – Vintage 1



D.1.8: Exterior – Walls & Windows – Vintage 2

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.9: Exterior – Walls & Windows – Vintage 3



D.1.10: Exterior – Walls & Windows – Vintage 4

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.11: Roof – Architectural Shingles – Vintage 1



D.1.12: Roof – EPDM Membrane – Vintage 2

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.13: Roof – EPDM Membrane – Vintage 3



D.1.14: Roof – Gravel Built-Up – Vintage 4

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.14: Interior – Main Entry



D.1.15: Interior – Corridor – Vintage 1

EDUCATIONAL FACILITIES ASSESSMENT

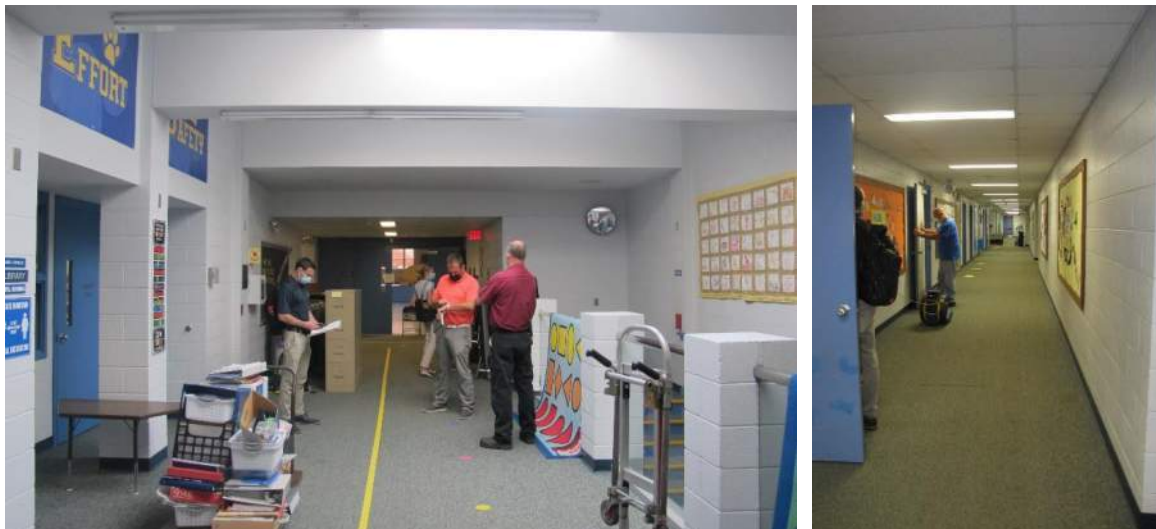
KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.16: Interior – Corridor – Vintage 2



D.1.17: Corridor – Vintage 3

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.18: Interior – Classroom – Vintage 1



D.1.19: Interior – Classroom – Vintage 2

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.20: Interior – Classroom – Vintage 3



D.1.21: Interior – Classroom – Vintage 3

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.22: Interior – Classroom – Vintage 4



D.1.23: Interior – Classroom – Vintage 4

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.24: Interior – Multi-Purpose Room



D.1.25: Interior – Multi-Purpose Room - Platform

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.26: Interior – Gymnasium



D.1.27: Interior – Gymnasium

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.28: Interior – Admin



D.1.29: Interior – Admin

EDUCATIONAL FACILITIES ASSESSMENT

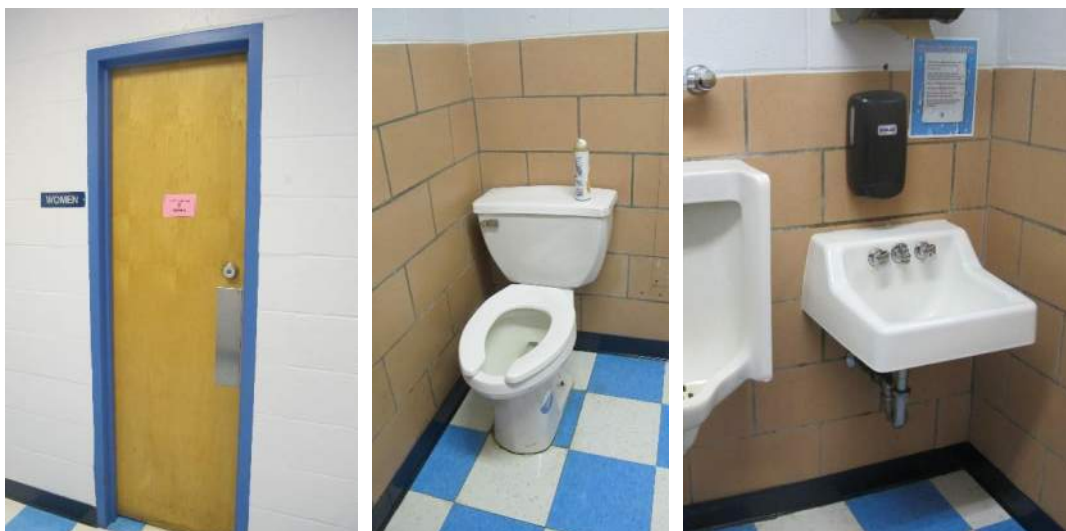
KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.30: Interior - Toilet Facilities – Vintage 1



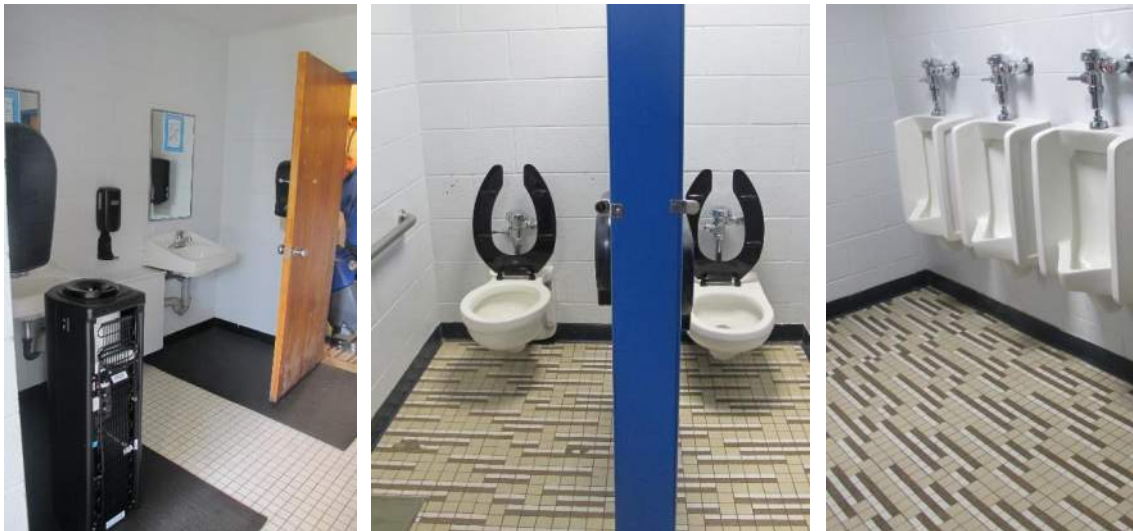
D.1.31: Interior - Toilet Facilities – Vintage 2

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.32: Interior - Toilet Facilities – Vintage 3



D.1.33: Interior – Toilet Facilities – Vintage 4

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.34: Interior – Library



D.1.35: Interior – Library

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.36: Interior – Art Classroom



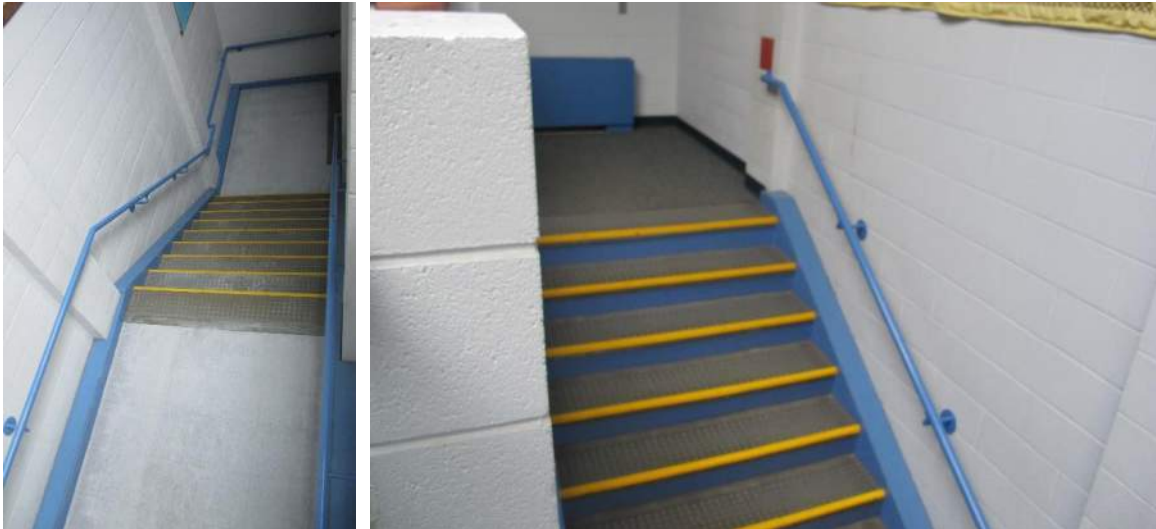
D.1.37: Interior – Music Classroom

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.1 Architectural



D.1.38: Interior – Corridor – Stairs



D.1.39: Interior – Corridor – Elevator

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

D. PHOTO LOG

D.2 MEP / Security



D.2.1: 1989 Boiler Room Domestic Water Heaters



D.2.2: 1948 Mechanical Room Domestic Water Heater

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

D. PHOTO LOG

D.2 MEP / Security



D.2.3: 1989 Boiler Room Hot Water Boilers



D.2.4: 1948 Mechanical Room Hot Water Boiler

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

D. PHOTO LOG

D.2 MEP / Security



D.2.5: 1989 Boiler Room Pneumatic Controller



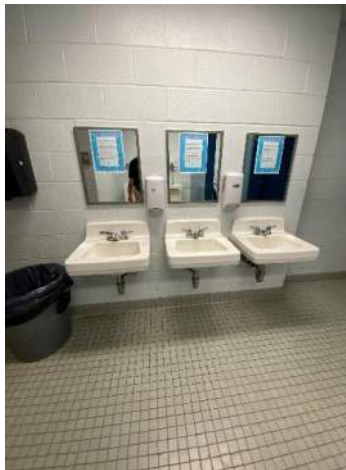
D.2.6: Trane Rooftop Unit Serving the Library

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) K-4

D. PHOTO LOG

D.2 MEP / Security



D.2.7: Manual Sink Plumbing Fixtures



D.2.8: Mechanical and Plumbing Piping

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D. PHOTO LOG

D.2 MEP / Security



EXISTING GENERATOR



EXISTING CLASSROOM LIGHTING

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D. PHOTO LOG

D.2 MEP / Security



EXISTING PANELBOARD



EXISTING PANELBOARD

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D. PHOTO LOG

D.3 Site



D.3.1: Driveway & Parking



D.3.2: Driveway

EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.3 Site



D.3.3: Walkways



D.3.4: Walkways

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.3 Site



D.3.5: Paved Play Areas



D.3.6: Playground

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D. PHOTO LOG

D.3 Site



D.3.7: Site Stairs



D.3.8: Site Stairs

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D. PHOTO LOG

D.3 Site



D.3.9: Site Ramp



D.3.10: Landscaping – Lawn

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KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

D. PHOTO LOG

D.3 Site



D.3.11: Landscaping – Planting



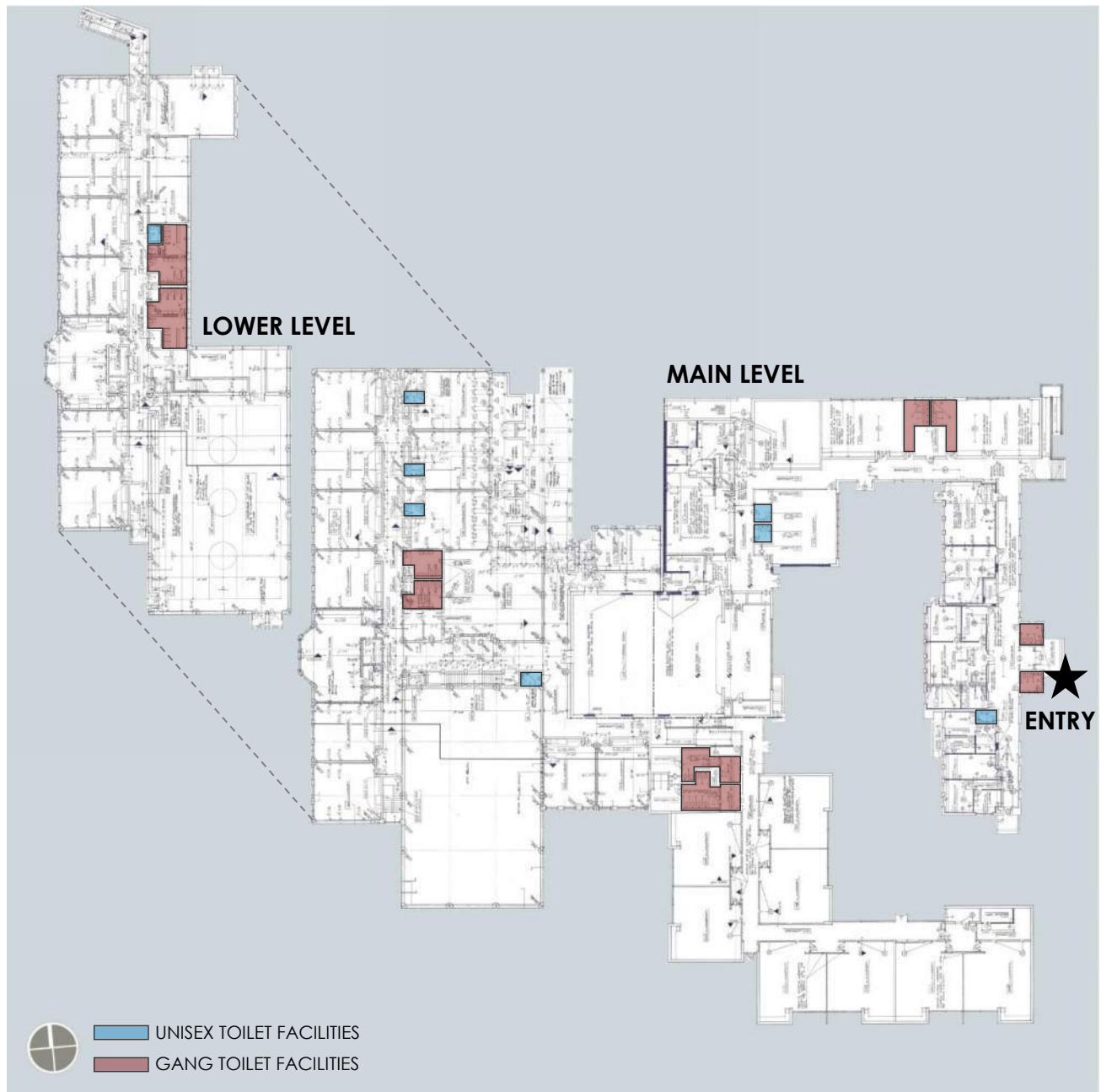
D.3.12: Fencing

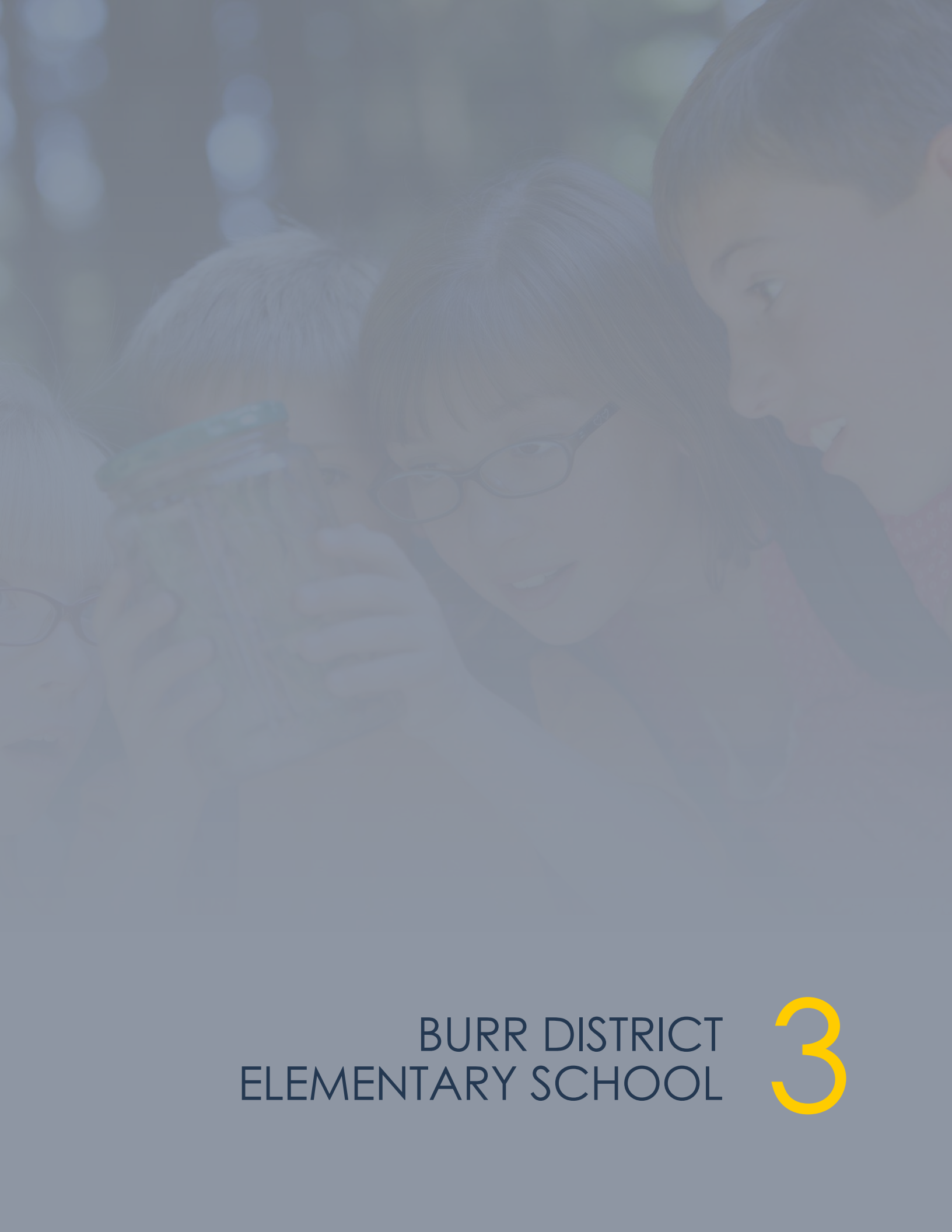
EDUCATIONAL FACILITIES ASSESSMENT

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

E. APPENDIX

E.1 PLAN DIAGRAMS





BURR DISTRICT
ELEMENTARY SCHOOL

3

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

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EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

A. INTRODUCTION

A.1 Objectives

Tecton Architects was commissioned by Regional School District 17 to perform an educational facilities conditions assessment of 4 schools and Central Office in Haddam and Killingworth, CT. The goal was to conduct on-site inspections and gather meaningful data about the physical state of the academic buildings and grounds. The assessment reports would then provide insight and aid in the completion of a viability study of alternate land/buildings and a long-term Capital Management Plan that focuses on the district facilities and their mechanical infrastructures.

During the month of August 2021, Tecton Architects, accompanied by its team of licensed professional engineers and escorted by the Director of Facilities, visited Burr District Elementary School at 792 Killingworth Road, Higganum, Connecticut. The school was surveyed for the conditions of the architecture, mechanical, electrical, plumbing, fire safety and site conditions therein. Among other items assessed were structural, accessibility and energy issues, as well as school safety. The purpose of the visual observations was to quantify and evaluate the current state of the respective A/MEP systems. Observations were made in the portions of the building that were accessible at the time of the inspections.

A.2 Facility

This facility functions as an elementary school for kindergarten through third grade. The approximately 51,000 square foot facility was originally constructed circa 1973. Portable classrooms were added off the north and east sides of the building in 1996.

The building is one story split-level with the east half of the building lower than the west. The main entrance, gym, auditorium, kitchen and kindergarten classrooms are all at the "lower" level. The west wing, that is a ramp higher, occupies approximately half of the footprint. This level houses the majority of classrooms, music rooms and the library. Access to the portables is via ramps from the west wing.

In addition to several academic classrooms, the school boasts an auditorium with a platform, that doubles as the cafeteria due to its size and proximity to the kitchen and server. The exterior has several play structures, a paved playground, baseball field and community garden.

Access to the site is from the west off CT-81 (Higganum Road) with the building's main entry facing south and centrally located between the east and west wings. The bus drop-off and visitor parking are in the front of the school to the south, with the remainder of parking and parent drop-off north of the facility. The building's service entrance is outside the kitchen and accessed by means of the northern driveway that serves the main parking lot.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

B. SUMMARY & ANALYSIS

B.1 School & Facility Data

The School:

Type:	Elementary	Additional Programs:	no
Grade Structure:	K-3	Meals:	lunch
Pre-K:	No	Meals prepared on site:	yes, 4 lunch waves
Enrollment (2018):	310	Start time:	8:40 am
Staff (approx.):	75	Dismissal:	3:25 pm
Location (in town):	southeast	Buses:	15

The Facility:

		General Condition:	Poor
Total Building Area (SF):	50,845 SF	Original Construction:	1973
Site Area (acres):	15.5 acres	Additions (dates):	1996
Stories (above grade):	1	Construction Type(s):	2B
Building/Framing Materials:	masonry, steel, concrete	Roof Types & Age:	EPDM Spray polyurethane foam
Split-level / ramps (interior):	yes, ramps	Heating (types):	hot water
Stairs (interior):	no	Fuel Types:	#2 fuel oil
Elevator:	no	Cooling (centralized):	AC throughout
Basement:	no	Ventilation:	mechanical 1600A – 208/120V 3-phase
Mezzanine (mechanical)	yes	Electrical:	4-wire
Crawl Space / Tunnels:	no	Generator:	no
Modulars (classrooms):	yes	Fire Alarm:	full
Auxiliary Buildings:	no	Sewer / Septic	Septic with leeching field
Full ADA Compliance:	no	Municipal Water / Well	Well water
		Sprinklered (full / partial):	no
Athletic Fields:	baseball 2 play structures		

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

B. SUMMARY & ANALYSIS

B.2 Conditions Summary

Building Condition:

- **Fair**
- Split-level, accessed by interior ramps.
- Modular units in poor condition, over 20 years old, no toilet facilities.
- Original construction not as energy efficient – some single-pane, uninsulated windows.
- Classrooms are adequately sized; storage could be improved.
- Gymnasium too small for curriculum.

Programmatic Findings:

- Site – Bus loop and parent loop work well. Kindergarten playground small for number of students. Lack of visitor parking at the main entrance. Overall paving of driveways, parking lots and walkways is poor.
- Building – Building is compact except for the modular units. Converting the modular units into permanent structures should be considered for security and longevity of spaces. All classrooms are occupied, leaving little room for flex and intervention space. The cafeteria/auditorium layout is inconducive to the program and limits the functionality of the space. Lack of access to staff toilet facilities.

Fire Protection & Fire Alarm:

- No Fire Protection System within Building.
- Fire Alarm Control panel manufactured by Honeywell, not located at main entrance.
- Horn/ strobe units, strobe only units, smoke detectors and pull stations throughout building.
- System is not up to code and is past its useful life. Overall system is in poor condition.

Plumbing:

- Well Water Service for domestic potable water. Booster pumps in good condition.
- One Oil Fired Water Heater. Installed Approx. 5 Years Ago. Good condition.
- Cold and Hot Water piping is copper. Installed in 1962. Poor Condition. Installed in 1996. Fair condition.
- Sanitary and Strom piping is cast iron. Installed in 1962. Poor Condition. Installed in 1996. Fair condition.
- Manual Flush Valve Plumbing Fixtures. Installed in 1962. Poor Condition. Installed in 1996. Fair Condition.
- Fuel oil service. New underground tank installed in 2020. Good condition.

Mechanical:

- Two Oil Fired Hot Water Boilers. Installed 1996. Poor condition.
- Hot Water piping is steel and copper. Installed 1962 and 1996. Poor Condition.
- Hot Water Baseboard, Convectors, Unit Heaters. Installed 1962 and 1996. Poor Condition.
- Mechanically ventilated with unit ventilators and air handling units. Poor Condition.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

- Window mounted AC Units. Indoor and Outdoor air handling units provide AC. Poor Condition.
- DDC Control System. Installed 7-10 years ago. Fair Condition.

Electrical:

- Main Electric service is 208/3-Phase, 1600 Amps. Installed 1962. Poor condition.
- No Generator.
- Electrical distribution was installed in 1962 and 1996. Poor and Good Condition.
- Light Fixtures were installed in 1962 and 1996. Poor and Good condition.

Security System:

- Cameras cover the entire perimeter of the building along with the entrances. Good condition.

Site Construction & Features:

- Mulched playgrounds to be replenished for safety
- Repair bituminous walks surrounding building

Priorities:

- Full depth replacement of curbs and sidewalks.
- Full depth replacement of parking lots and driveways.
- New raised play structure at kindergarten classrooms.
- Create additional visitor parking.
- Upgrade exterior building and site lighting.
- Hazardous building material abatement.
- Replace single-pane, non-insulated windows with double-pane, thermally insulated windows.
- Add security film to ground floor windows and doors.
- Total replacement of modular classrooms.
- Upgrade finishes and address ADA compliance in unisex and gang toilet facilities.
- Remove existing hardware and replace with ADA compliant hardware.
- Replace spline ceiling with suspended acoustical ceiling.
- Replace base and upper cabinets and plastic laminate countertops.
- Replace gymnasium flooring and sports equipment.
- Install new interior and exterior building signage.
- Provide interior solar shades to increase energy efficiency.
- Install fire protection system.
- Upgrade fire alarm system and make code compliant.
- Replace fire tanks and pumps.
- Prepare for replacement of plumbing piping installed in 1962.
- Prepare for replacement of plumbing fixtures installed in 1962.
- Replace domestic water service.
- Provide new energy efficient HVAC units for ventilation and air conditioning.
- Pneumatic controls to be upgraded to new DDC system with BMS.
- Replace existing boilers with new, high efficiency, non- condensing type units.
- Replace electrical wiring.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

- Upgrade light fixtures to energy efficient LED fixtures.
- Phone system consolidation and upgrade to VOIP.
- Replace SmartBoard/Projectors.
- Add WiFi estimates for outdoor coverage.
- Replace gym PA system.
- Access controls upgrade.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.31 RANKINGS SYSTEM DEFINED

Ranking (range '1' to '5')

Via the site inspections and conditions assessments contained in the detailed report, the design team is providing a condition (or ranking) of various, select building physical components. An itemized course of action may be derived from this ranking as well as strategies and prioritization for maintenance of the facilities.

Vintage (year of construction)

Buildings that were constructed or renovated at different time periods (dates) are assigned a Vintage #. Elements of varying ages are evaluated separately. Vintage #'s for each facility are indicated on the vintage diagram & checklist.

Condition (range 'very poor' to 'very good')

Existing exterior and interior conditions of all building and site elements are determined by the following criteria for evaluation:

Ranking:	1 Very Poor [VP]	An element is evaluated as Very Poor [VP] when: <ul style="list-style-type: none">• Requires prompt attention.• May last and may need to be replaced in 0 to 5 years.• The element is no longer performing its intended purpose.• Deterioration or damage affects more than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a severe negative impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	2 Poor [P]	An element is evaluated as Poor [P] when: <ul style="list-style-type: none">• May last and may need to be replaced in 5 to 10 years.• The element may be approaching the end of its useful life.• Deterioration or damage affects less than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a negative impact on the overall efficiency and/or fiscal sustainability of the facility.• May last and may need to be replaced in 5 to 10 years.
Ranking:	3 Fair [F]	An element is evaluated as Fair [F] when: <ul style="list-style-type: none">• May last and may need to be replaced in 10 to 15 years.• The element is functioning as intended and is still within its useful life.• Deterioration or damage affects less than 25% of the element.• There are early signs of wear, failure or deterioration, but the element is structurally sound.• Visible wear and tear is considered typical for a structure of this age and type.• Has a little impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	4 Good [G]	An element is evaluated as Good [G] when: <ul style="list-style-type: none">• May last and may need to be replaced in 15 to 20 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a no impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	5 Very Good [VG]	An element is evaluated as Very Good [VG] when: <ul style="list-style-type: none">• Needs no attention and may last up to 25 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a positive impact on the overall efficiency and/or fiscal sustainability of the facility.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.3.2 DATES OF CONSTRUCTION (VINTAGE)



Burr Elementary School (BES) K-3

Vintage:

V1	1973:	Original Construction
V2	1996:	Modular Classrooms
V3	year:	N/A
V4	year:	N/A

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	1962: Original
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	1996: Modular Classrooms
	3	Fair [F] May require attention in 10-15 years	date of	V3	
	4	Good [G] May require attention in 15-20 years	Construction)	V4	
	5	Very Good [VG] Does not require attention			

Exterior		V4	V3	V2	V1	
Component	Material(s)	Condition		Notes		
Roofing	EPDM Membrane	1				
	Sprayed polyurethane	4				
	Flashing / joints	1				
	Aluminum gutters / downspouts	1				
	Fascia / trim	1				
Walls	Masonry - Brick	4				
	Wood batten	4				
	Joints (building or expansion)	4				
	Wall mounted fixtures	4				
	Concrete	3		Below sills, cornice, general cleaning		
Entrances	Aluminum Doors & Frames	4				
	Hollow Metal Doors & Frames	4				
	Soffits / Canopy	2				
Windows	Aluminum, thermal	4				
	Aluminum, non-thermal	2				
	Window Screens (exterior)	4		n/a		
Walkways / site stairs	Concrete walks & curbs at play areas	3				
	Bitum. concrete walks	2				
Drives / parking lots	Bitum. pavement - bus loop	2				
	Bitum. pavement - visitor parking	2				
	Bitum. pavement - parent drop off	2				
	Line striping	2				
	Extruded bitum. conc. curbing	2				
Landscaping	Lawn	2				
	Planting	3				
	Mulch beds	2				
Recreation	Playscapes / Structures	4				
	Paved play surfaces	3				
	Diamond field	2				
Other Structures	Fencing	5				
	Loading area	3				
	Site lighting (fixtures, poles & bases)	3				

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	1962: Original
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	1996: Modular Classrooms
	3	Fair [F] May require attention in 10-15 years	date of	V3	
	4	Good [G] May require attention in 15-20 years	Construction)	V4	
	5	Very Good [VG] Does not require attention			

Interior		V4	V3	V2	V1	
Component	Material(s)	Condition		Notes		
Flooring	VCT Tile			2		
	Carpet			2	5	Recently replaced in original building
	Ceramic Tile			4		Toilet Rooms, Kindergarten, Kitchen
Walls Surfaces	Gypsum Wall Board			4	4	
	Glazed Block				4	
Ceilings	Acoustical spline ceiling				2	
	Acoustical drop ceiling			3		
	Tectum Ceilings - visual				4	
Interior trim	Hollow metal			3	3	
	Aluminum			4	3	
	Wall Base - Vinyl			2		
Interior doors	Wood doors				4	
	Hollow metal doors			4	4	
	Hardware			4	2	Not ADA compliant in original building
Built-ins	Casework (general)				3	Very poor in Kindergarten Classrooms
	Countertops				3	
Toilet Facilities	Fixtures				4	
	Partitions				4	
	Accessories (dispensers, driers)				4	
Athletics	Gymnasium floor / play surface				3	
	Athletic equipment				2	

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1 Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1 1962: Original
	2 Poor [P] May require attention in 5-10 years	(Approximate	V2 1996: Modular Classrooms
	3 Fair [F] May require attention in 10-15 years	date of	V3
	4 Good [G] May require attention in 15-20 years	Construction)	V4
	5 Very Good [VG] Does not require attention		

Building Systems				V4	V3	V2	V1
Component	Material(s)	Condition		Notes			
Fire Protection	Alarms & Devices			No Fire Protection System			
	Fire suppression (infrastructure / devices)	2	2	Fire Alarm			
Plumbing Systems	Infrastructure (pipes, drains, etc.)	3	1	Water Heater Installed 5 Years Ago			
	Fixtures	3	2	Original to the Building			
	Overall efficiency	2	2	Overall Efficiency is Poor			
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	2	2	Original to the Building			
	Heating systems	2	2	Boilers are in Poor Condition			
	Cooling systems	2	2	Poor Cooling Throughout			
	Fixtures & equipment (Interior)	2	1	Original to the Building			
	Fixtures & equipment (Exterior/Roof top)	2	1	Original to the Building			
	Overall efficiency	2	2	Overall Efficiency is Poor			
Electrical (Service)	Infrastructure (panels, wiring, etc.)	3	2	Original to building			
	Service & distribution	3	2	Original to building			
	Generator	n/a	n/a	No generator serving building			
	Other						
Electrical Lighting	Infrastructure (panels, wiring, etc.)	3	2	Original to building			
	Fixtures (Interior)	3	2	Original to building			
	Efficiency (incl. natural & artificial light distr.)	3	2	Original to building			
Security	Access Control	3	3				
	Cameras	3	3				

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

C. EXISTING CONDITIONS NARRATIVE

C.1 Architectural

Construction:

The building is constructed of non-combustible materials. The exterior walls are constructed of masonry veneer. Interior walls vary in construction material but are predominantly concrete block. The floors are concrete slab on grade. The structural frame consists of steel columns, and beams. The building is two different vintages; both constructed with the same materials. The roofs are steel framed.

Exterior:

Exterior façade (general): The exterior of the building is in generally in good condition. The south side houses the main entrance. Although centrally located and marked with a flagpole, the main entry is somewhat difficult to distinguish. Its setback from the driveway and the over-prominent, secondary drive that wraps to the north of the school, make the main entry not easily identifiable. The exterior walls are brick clad with concrete block backup. Split-face concrete block supports window sills and wraps the building at the cornice. Two modular classroom buildings have wood batten siding. The roofs are either flat or a low-slope gable and are relatively similar in height. A mass that houses the cafeteria/auditorium and gymnasium, projects slightly above the rest of the building.

Walls: The exterior walls are in fair condition, but the masonry could benefit from a general cleaning, especially around the base. Vertical building joints are in good condition and did not appear to need raking or replacing. Many building seismic joints were also observed, and all were in good condition. The wood walls of the modular units were in good condition.

Windows/Doors/Entrances: The entrance doors are aluminum or steel doors with glass. These doors are in good condition. The glazing is thermally insulated double pane glass. Other doors, which have either a secondary function or function as egress only are painted hollow metal doors. Generally, the hollow metal doors are in good condition. Windows vary depending on the building vintage. All in the original building are single pane and are in fair condition. Windows in the modular units are thermally insulated, double pane. Operable windows do not have screens. Entry canopies and soffits are in fair condition and could benefit from cleaning and paint.

Roof: The roof is a combination of EPDM and sprayed urethane. The main facility is entirely sprayed urethane, and the modular units are EPDM. Owner-provided documentation indicates the Art and Gymnasium roofs were replaced; however, leaks still occur. There are signs of patching in the urethane roof, but overall, it is in fair condition. The EPDM roof at the modular units is in very poor condition and should be replaced. Ponding and delamination are causing leaks. Expansion joints appeared to be in good condition. The roof surfaces are mostly free of debris but collect water in a few locations. The flashing at the vertical walls appears to be in good condition. Roof penetrations appear to be in good condition.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

Interior:

Interior spaces (general): The interior of the facility ranges from good to poor condition but is generally clean and well kept. The facility can be described as having an east half and west half and is oriented north/south. The library connects the two building halves. The west wing houses the main entry, administrative spaces, cafeteria/auditorium and gymnasium. With the exception of kindergarten, general classrooms are located in the east wing. The floor plan and circulation are relatively simple. Major multi-use spaces are predominantly centralized and can be accessed via the central corridor.

Corridors: Corridors in the east wing are double loaded and corridors in the west are mainly single loaded. Carpet, spline ceilings and painted concrete block are the finishes throughout the main facility. Carpet was recently replaced and is in good condition. Portions of the ceiling have been patched and are inconsistent with the original color and texture. Finishes in the modular unit corridors are carpet and acoustical ceiling tiles and are in good condition. Artificial lighting in the corridors is sufficient in the modular units, but is lacking in the main building.

Classrooms: Classrooms appear to have ample space and are typical of what would be expected in a building of this type and vintage. The teaching walls, with white boards and tack boards, were present in all classrooms. Projectors and smartboards were present in a few classrooms. The classroom casework was dated and in poor condition and there is a lack of storage space in most classrooms. Classroom windows provide good natural daylight, but not enough as would be desired for the size of the space. The ceilings are acoustical spline ceilings and are in relatively fair condition. Carpet throughout the main building was recently replaced and is very good condition. Carpet in the modular units is in very poor shape and should be replaced. Acoustical ceiling tiles in the modular units are in fair condition. Classrooms appears to have ample artificial light.

Administration Offices: The administration offices are situated at the main entrance as a means of control and visual acuity. There is a locked vestibule to control visitors. The main office has full visibility to the adjacent corridor through full height storefront windows; however, there is no visibility to the entry vestibule. Despite this lack of full visibility, security appears to be well handled. There is a mix of VCT flooring and carpet in this space. They are in good condition. The spline ceiling is in poor condition with patches and loose tiles.

Major Common Spaces:

Cafeteria / Auditorium: The cafeteria and auditorium share a space, directly adjacent to the gymnasium and accessed via the main corridor that connects the east and west halves of the building. The space appears to be sized well for the number of students; however, its shape is not conducive to the functions it serves. A kitchen and servery are north of the space. The floors are VCT and are in poor condition. The ceiling is a spline ceiling and, aesthetically, is in good condition. A raised platform anchors the southwest corner of the space. The platform

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

can be accessed from the corridor in the rear or from stairs within the space. Access to the gym is via the main east/west corridor. Artificial lighting is insufficient for a space of this size.

Gymnasium: The gymnasium is centrally located between the two building wings. The size of the space is insufficient and does not properly serve the physical education curriculum. The double height space has exposed structure and a tectum ceiling. Concrete block walls and rubber sports floor are the finishes throughout. The block walls are in good condition, but the floor is in poor condition and should be replaced. The artificial lighting is adequate; however, there is no natural daylight in the space. The ceiling and wall mounted basketball hoops are reaching the end of their useful life and should be upgraded.

Toilet Facilities: The school has three main gang toilet facilities, two in the east wing and one in the west. Not all are ADA accessible. Although they are dated, these facilities are in good condition. Each gang facility has operable partitions with water closets, lavatories, and paper towel dispensers. The floors are ceramic tile, ceilings are a spline system and walls are concrete block. The ceilings are in poor condition, but floors and walls are in good condition. Single use, unisex facilities are also present near the cafeteria/auditorium, within the administrative offices, and within the kindergarten classrooms in the west wing. Although not all ADA compliant, these facilities are in good condition. The school has no locker room facilities.

Library: The Library is situated between the two wings of the building and can be accessed via the main bisecting corridor or from the neighboring corridors to the north and south. This space appears to be appropriately sized and has office space for the staff. The space is split level and is not ADA accessible. The floor is carpeted, and the ceiling is an acoustical spline system. The carpet is in good condition, but the ceiling is poor. The ceiling shows signs of staining around mechanical vents and has been inconsistently patched in some areas. The walls are painted concrete block. Artificial lighting is sufficient. Although dated, the casework appears to be in good condition and provides enough storage.

Art: The art room is centrally located, across from the library. This space appears to be appropriately sized for typical art class functions. Like the general classrooms, the space has half a wall of windows that provide decent natural light into the space. The painted block walls and VCT floor are in good condition. Areas of patching were observed on the spline ceiling. Casework is dated but remains in good condition. Artificial lighting could benefit from upgrades to LED to improve the light quality in the space.

Music: The music room is located in the west wing and is surrounded by general classrooms. Acoustical concrete block, spline ceiling and carpet are the finishes throughout. All are in good condition. Casework is dated but in fair condition. Tiered flooring is desirable for the music curriculum; however, instrument storage is at the upper tier and therefore, is not ADA accessible.

Code, Safety and Hazardous Materials Abatement:

ADA: The building would not be deemed ADA compliant in reference to toilet facilities, door hardware and universal access to common spaces. The split-level Library and raised platform are not ADA complaint. Few classrooms have ADA workstations. Door hardware is not code compliant. Not all toilet facilities are ADA accessible.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

Safety: The building has a few aspects that may be deemed problematic from a life safety perspective. The building is not fully sprinklered. From a security perspective, access control at the main entrance could be improved. The nurse's office separates the main office from the entry vestibule, making visibility difficult and insufficient. There are many exterior doors that could be possible points of entry and therefore, difficult to monitor. Recessed latches at the main entry doors are failing and pose problematic for safety and security. These should be repaired or replaced.

Hazardous Materials Abatement: A building of this vintage is expected to be clad with asbestos-containing materials. Owner-supplied Asbestos Inspection and Management Plans identify materials that are assumed to contain asbestos and will eventually require remediation. Building construction materials and finishes to monitor for future abatement include but are not limited to: boilers, pipe fitting insulation, vinyl floor tile and associated adhesive, cement countertops and window sills, sink undercoatings, blackboard and tackboard adhesive in classrooms, east wing carpet and associated adhesive, cove wall base, and glazing compound at original and replacement windows.

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

C. EXISTING CONDITIONS NARRATIVE

C.2 MEP / Security

C.21 PLUMBING / FIRE PROTECTION

Hot Water Generation:

Domestic hot water is provided for the building via an A.O Smith oil fired water heater. The water heater is rated at 199 MBH input with 82 gallons of storage capacity. Water heater is roughly 5 years old and is in good condition.

Domestic Water Service:

Domestic water for the building is provided through a private well located on site. The well pump feeds an underground storage tank, which stores the potable water used by the school. A set of duplex booster pumps manufactured by Grundfos provides water to the school from the storage tank at a pressure of roughly 60 PSI. The pumps appear to have been installed in 2018 and are in good condition. The pumps and portion of the tank are located in a lower vault in the main mechanical space. The vault is provided with a duplex sump pump along with a residential grade, cord and plug dehumidifier.

Domestic Water Piping:

It was indicated by the facility personnel that they constantly have issues with leaking pipes due to the age of the plumbing system. Service is difficult due to the inaccessible ceilings throughout the building. Piping is original to the building and should be replaced as leaks occur to prevent further damage in the building.

Plumbing Fixtures:

Plumbing fixtures consist of floor mounted water closets with manual flush valves. Lavatory sinks are wall mounted with manual faucets. Fixtures appear to be in OK condition given that the fixtures appear to be original to the building.

Sanitary Service:

Sanitary for the building is provided by an onsite leaching field. No issues with the leaching field were mentioned during the site visit.

Storm Service:

Roof drains are provided on the roof of the school. No overflow drains were noticed. Some ponding was noticed on the roofs of the building. Storm piping goes below grade to serve an underground storm water retention system located on site.

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

Natural Gas Service/ Fuel Oil Service:

No natural gas is available on site. Fuel for boilers and water heaters is No. 2 oil. Oil is stored in a buried 10,000 gallon tank located on site. The tank was replaced in 2020 and is monitored by a Veeder-Root system.

Fire Protection:

No fire protection is located on site.

C.22 MECHANICAL

Heating Systems:

Heating for the building is provided via (2) HB Smith Cast Iron Boilers. The boilers are oil fired and are rated with an output of roughly 2240 MBH each. The boilers appear to be in original to the building and are operating past their useful life.

Hot Water & Steam Piping:

No steam is provided in the building. Hot water is distributed throughout the building via a pair of base mounted pumps. The pumps appear to be original to the building and are operating past their useful life. Upgrading the pumps to newer, high efficiency pumps with VFD's (variable frequency drives) will provide increased efficiency and a reduction in electricity cost.

Ventilation & Cooling Systems:

The two "portable" classroom wings are served by a packaged roof top unit manufactured by TRANE. The TRANE Precedent units are roughly 21 years old and are in fair condition. The units are approaching the end of their useful life and should be replaced within the next 5-10 years. One of the portable classroom wings is served by a heat pump only unit while the other portable classroom wing is served by a DX packaged unit with electric resistive heat. There are (5) indoor air handling units that provide heating, cooling and ventilation to the larger group areas of the building. These areas are the library, music room, auditorium/ café, gym and admin area. The units are located in 2 separate mechanical penthouses inside the building envelope while the condensers for the units are located on the roof. The units appear to be original to the building and are operating past their useful life. Classroom ventilation is provided through unit vents manufactured by Nesbitt Aire. The units are provided with hot water heating coils and provide heating and ventilation only. The units appear to be original to the building and are operating past their useful life. Cooling is provided in some classrooms via residential style, window AC units.

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

Controls:

The building is controlled by a DDC system that was upgraded roughly 7-10 years ago. The older pneumatic system and piping is still in the building and has been abandoned.

C.23 ELECTRICAL

Main Electric Service:

The main electric service originates from a utility company pole. The service runs from the utility pole to a utility company owned, pad mounted transformer located adjacent to the building. The service then runs underground to the main switchboard located in the basement of the building.

The main electric service to the building is rated 1600 Amps, 208/120 volts, 3-phase, 4-wire, and includes a main disconnect switch, utility company metering compartment, and distribution sections. This service and equipment are original to the building and are past their useful life.

Electrical Distribution:

The electrical distribution consists of conduit and feeders from the main distribution panels to branch circuit panel boards located throughout the building. The electrical distribution and equipment are original to the building with some panel boards being added throughout the years. The equipment and wiring are past their useful life.

Generator:

A generator does not currently serve the building.

Lighting Systems:

The lighting throughout the building consists of 1x4, 2x2 and 2x4 fluorescent troffers. Although the lighting is functional, lighting is outdated throughout the building and past its useful life.

Emergency lighting for the building is served by a combination of light fixtures served by battery cabinets located throughout the building and wall mounted two headed battery fixtures. All emergency lighting is past its useful life.

Lighting control consists of wall-mounted toggle switches; key operated toggle switches for local control.

Fire Alarm System:

The fire alarm system in the building consists of a Fire Alarm Control Panel is a Fire-Lites Alarms by Honeywell addressable system. There is no Fire Alarm panel or Annunciator at main entrance. Throughout the building, there are horn/strobe units, strobe only units, smoke detectors and pull stations sporadically located. This system is currently not up to code and is past its useful life.

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

Communication Services:

Cable TV service is utilized in the building. Service cable enters the building and distributes through multiple amplifiers to distribution hubs throughout.

T1 communication equipment exists at the MDF service backboard.

Fiber service is provided to the building and distributed throughout.

Communication services enter the main telecomm room via multiple 4" conduits brought in from the street.

MDF and IDF rooms are provisioned throughout the building at locations that promote the proper coverage to conform with network cabling distance limitations. Building horizontal cabling is Cat 6 with PoE type network switches installed on two post racks. The rooms are appropriately outfitted with grounding and bonding, basket tray rack and dedicated cooling systems.

Wireless access points are provided within the building, however per staff many areas are very spotty.

Simplex time control center is provided in the building, this system is past it's useful life.

Minimal Access Controls for security is provided for this building via card readers.

Ceiling and wall mounted speakers are provided throughout for general paging are old and past their useful life.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

C. EXISTING CONDITIONS NARRATIVE

C.2 Site

Roadways/Parking: The roadway consists of two accesses to the site, once turning off Killingworth Road. The first is a one-way bus loop that drops students off at the building's main entrance. Visitor lot is also accessible by the bus loop. The second is the parent drop off that extends to the north of the building and provides access to the faculty and staff parking lot.

The overall condition of site pavement is poor with evidence of alligator and fine cracking, slight pavement deterioration, and transverse cracking located throughout the drive aisles. In some areas, the bituminous pavement shows slight separation from the curb. Observation of sediment buildup is indicative of puddling along parts of the curb and stormwater infiltration into the base.

The overall condition of curbing throughout the site is in poor to very poor condition. Several areas of extruded bituminous concrete curb are cracked every 2 to 5 feet and shows signs of deterioration. Monolithic curb and walk shows evidence of cracking at joints in several areas.

There is a lack of convenient visitor parking near the Main Entry. It is suggested that additional parking be added to the south of the site, utilizing the infrequently used grass fields or paved play area.

Walkways: Walkways on site are primarily bituminous concrete. Walkways are in poor to very poor condition. Signs of cracking are present throughout. Joint sealant has been applied around the site and create an undesirable aesthetic.

A concrete landing leads from the bus loop to the building's main entrance. The landing shows signs of deterioration but remains in fair condition.

Paved Play: A paved play area is located south of the site and is fair condition. A second paved play area is located outside of the kindergarten classrooms and is in fair to poor condition.

Grass Fields: Grass fields are not present at this school.

Diamond Fields: A diamond field is located southeast of the school, just north of the paved play area. Ground cover appears to be in very poor condition. A chain link fence surrounds the sidelines and backstop.

Playgrounds: Two mulch play areas are located to the east of the building; one is located on the west. The southernmost area on the east is enclosed with timber curbing in good condition. Play structures are dated but appear in fair condition. The wood fiber mulch is either thin or non-existent. Replenishment of the mulch is recommended to improve playground safety. The playground equipment appears to be in good condition.

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

The second east mulch play area is not enclosed by curbing. This has permitted mulch to spread throughout the nearby area and become thin. The mulch appears to be hard packed beneath play equipment. Playground equipment is new and in very good condition.

The facility used to have a raised play structure outside of the kindergarten classrooms on the west side of the building. It is suggested to reintroduce a new play structure where there is now just a paved play area.

Fencing: A four-foot-high chain link fence abuts the north entry into the building and is in very poor condition. Fencing also surrounds the diamond field and is in poor condition.

Lighting: Site lighting poles and bases appear to be in fair condition.

Landscaping: Overall landscaping is in fair to very poor condition. Lawn areas adjacent to walkways, parking areas, and building entrance should be reseeded to cover bare spots.

EDUCATIONAL FACILITIES ASSESSMENT

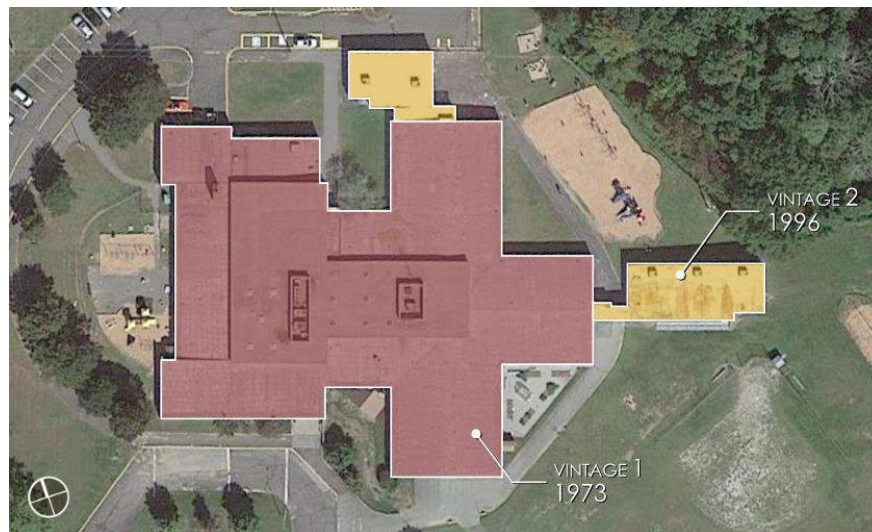
BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.1: Aerial – Context



D.1.2: Years of Construction - Vintage

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.3: Exterior – Main Entrance



D.1.4: Exterior – Rear Entry – Faculty

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.5: Exterior – Modular Units



D.1.6: Exterior – Service Entry

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.7: Exterior – Walls & Windows – Vintage 1



D.1.8: Exterior – Walls & Windows – Vintage 1

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.9: Exterior Walls – Vintage 2 Modular Units



D.1.10: Exterior Walls – Vintage 2 Modular Units

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.11: Roof – Spray Polyurethane – Vintage 1



D.1.12: Roof – EPDM Membrane – Vintage 2 Modular Units

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.13: Interior – Main Entry



D.1.14: Interior – Corridor

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.15: Interior – Corridor – Vintage 1



D.1.16: Interior – Corridor – Vintage 2

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.17: Interior – Classroom – Vintage 1



D.1.18: Interior – Classroom – Vintage 1

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.19: Interior – Classroom – Vintage 1 – Kindergarten



D.1.20: Interior – Classroom – Vintage 1 – Kindergarten

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.21: Interior – Classroom – Vintage 2 Modular Units



D.1.22: Interior – Classroom – Vintage 2 Modular Units

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.23: Interior – Cafeteria / Auditorium



D.1.24: Interior – Cafeteria / Auditorium - Platform

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.25: Interior – Gymnasium



D.1.26: Interior - Toilet Facilities – Vintage 1

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.27: Interior - Toilet Facilities – Vintage 1



D.1.28: Interior – Toilet Facilities – Vintage 1 – Single Use

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.29: Interior – Library



D.1.30: Interior – Library

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.31: Interior – Art Classroom



D.1.32: Interior – Art Classroom

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.33: Interior – Music Classroom



D.1.34: Interior – Music Classroom

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.35: Interior – Administrative Offices



D.1.36: Interior – Administrative Offices

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.1 Architectural



D.1.37: Interior – Corridor – Ramps

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



Domestic Water Heater



Domestic Water Booster Pumps

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



Typical Water Closet



Typical Bathroom Lavatory Sink

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



EXISTING MAIN ELECTRICAL SERVICE



EXISTING EMERGECENY LIGHTING BATTERY UNIT

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



TYPICAL EXISTING PANELBOARD



TYPICAL CLASSROOM LIGHTING

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



Existing Boilers



Hot Water Storage Tank

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



Hydronic Hot Water Pumps



Typical Classroom Unit Ventilator

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



Typical Thermostat/ Sensor



Packaged Roof Top Units

EDUCATIONAL FACILITIES ASSESSMENT

BURR ELEMENTARY SCHOOL (BES) PreK-4

D. PHOTO LOG

D.2 MEP / Security



Indoor Air Handling Units



Associated outdoor condensing unit

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.3 Site



D.3.1: Driveway & Parking



D.3.2: Driveway

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.3 Site



D.3.3: Walkways



D.3.4: Walkways

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.3 Site



D.3.5: Play Areas



D.3.6: Play Areas

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.3 Site



D.3.7: Paved Play Areas



D.3.8: Diamond Field

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.3 Site



D.3.9: Landscaping – Lawn



D.3.10: Landscaping – Lawn

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

D. PHOTO LOG

D.3 Site



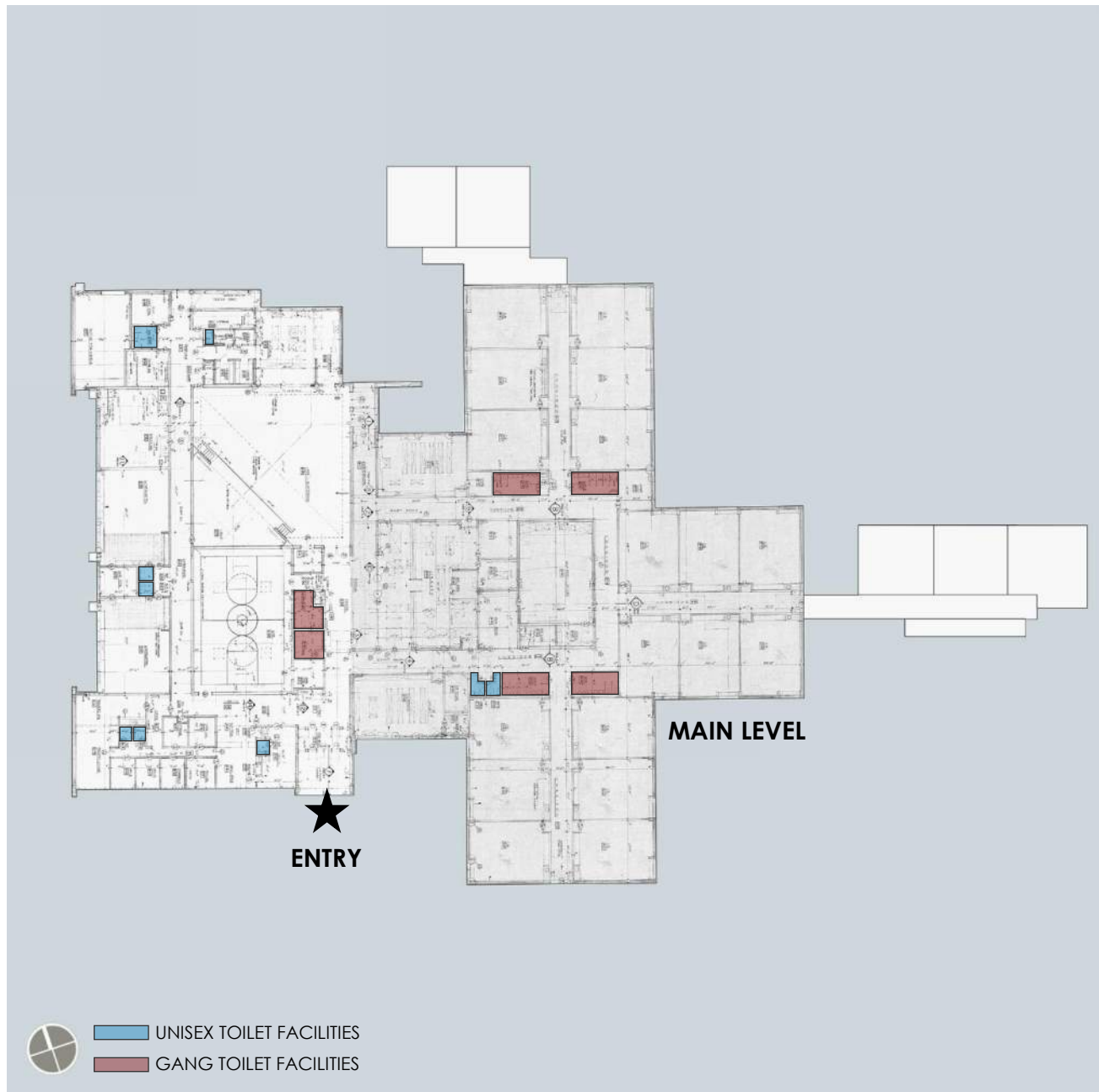
D.3.11: Loading Area

EDUCATIONAL FACILITIES ASSESSMENT

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

E. APPENDIX

E.1 PLAN DIAGRAMS





HK INTERMEDIATE / MIDDLE
SCHOOL

4

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

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E.1 PLAN DIAGRAMS

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

A. INTRODUCTION

A.1 Objectives

Tecton Architects was commissioned by Regional School District 17 to perform an educational facilities conditions assessment of 4 schools and Central Office in Haddam and Killingworth, CT. The goal was to conduct on-site inspections and gather meaningful data about the physical state of the academic buildings and grounds. The assessment reports would then provide insight and aid in the completion of a viability study of alternate land/buildings and a long-term Capital Management Plan that focuses on the district facilities and their mechanical infrastructures.

During the month of August 2021, Tecton Architects, accompanied by its team of licensed professional engineers and escorted by the Director of Facilities, visited HK Intermediate/Middle School at 451 CT-81, Killingworth, Connecticut. The school was surveyed for the conditions of the architecture, mechanical, electrical, plumbing, fire safety and site conditions therein. Among other items assessed were structural, accessibility and energy issues, as well as school safety. The purpose of the visual observations was to quantify and evaluate the current state of the respective A/MEP systems. Observations were made in the portions of the building that were accessible at the time of the inspections.

A.2 Facility

This facility functions as an intermediate school for grades four and five, as well as a middle school for sixth to eighth grade. The approximately 208,000 square foot facility was constructed circa 2007. The facility is essentially broken into 3 wings, an athletic wing to the southeast and academic and auditorium wings to the west.

The building is predominantly two stories with the central academic wing having three stories. The main entrance, cafeteria, library, and auditorium are all at the main level. A full-size gymnasium, half basketball court, and locker rooms are located on the lowest level. Each wing occupies about one third of the building footprint, with the athletic wing being slightly smaller in size.

In addition to the academic classrooms and full-size gym, the facility also has an auditorium for approximately 720 people, a stage, three music rooms and two art studios. The grounds consist of two full-size soccer fields, baseball and softball fields, a multi-purpose field, two half-court basketball courts and several raised play structures.

Access to the site is from the west off CT-81 (Higganum Road) with the building entry facing north. The facility is located far off the main road, with a visitor passing by the athletic fields in order to reach the front of the building. The bus drop-off and main parking lot are located just south of the main entry with parent drop-off and visitor parking to the north of the facility. The main entrance is flanked by the auditorium and the administration wing. The northeast corner houses the main entrance. This entrance is used by fourth and fifth grade Intermediate school students. The Middle School students, grades six through eight, enter around the corner to the

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

south, into the connector that adjoins the north and central wings. The building's service entrance is on the southwest side of the academic building and is accessed by a driveway that wraps around the facility.

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

B. SUMMARY & ANALYSIS

B.1 School & Facility Data

The School:

Type:	Intermediate/Middle	Additional Programs:	FEMA Shelter
Grade Structure:	4-5, 6-8	Meals:	breakfast, lunch
Pre-K:	no	Meals prepared on site:	yes, 4 lunch waves
Enrollment (2018):	250 HKIS / 400 HKMS	Start time:	8:50 am 4-5, 8:05 am 6-8
Staff (approx.):	50 HKIS / 86 HKMS	Dismissal:	3:35 pm 4-5, 2:50 pm 6-8
Location (in town):	central	Buses:	31

The Facility:

		General Condition:	Poor
Total Building Area (SF):	208,000 SF	Original Construction:	2007
Site Area (acres):		Additions (dates):	
Stories (above grade):	2-3	Construction Type(s):	2B
Building/Framing Materials:	masonry, steel, concrete	Roof Types & Age:	Gravel built-up
Split-level / ramps (interior):	no	Heating (types):	hot water
Stairs (interior):	yes	Fuel Types:	Propane and #2 fuel oil
Elevator:	yes	Cooling (centralized):	AC throughout (no Gym)
Basement:	no	Ventilation:	mechanical 3000A – 480/277V 3-phase
Mezzanine (mechanical)	no	Electrical:	4-wire
Crawl Space / Tunnels:	no	Generator:	500kw diesel fired
Modulars (classrooms):	no	Fire Alarm:	full
Auxiliary Buildings:	yes, water treatment facility, storage	Sewer / Septic	Septic with leeching field
Full ADA Compliance:	no	Municipal Water / Well	Well water
Athletic Fields:	2 soccer, softball, baseball 2 basketball (half courts) multi-purpose	Sprinklered (full / partial):	Full

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

B. SUMMARY & ANALYSIS

B.2 Conditions Summary

Building Condition:

- **Good**
- Two-story central wing, one and a half story north and east wings
- Nearly fully accessible with elevator and toilet facilities. Minor compliance issues linger.
- Classrooms are adequately sized for standard class sizes
- Administrative office space is inefficient and lacking
- Underutilized break-out space within classrooms wings

Programmatic Findings:

- Site – Bus loop and parent loop work well. There is no ADA accessible parking or access to the Main Entry. Recessed courtyard is difficult to maintain with snow removal.
- Building – Sprawling layout makes travel difficult to major common spaces. All classrooms are occupied, leaving little room for flex and intervention space. Halls are adequately sized for the student population.

Fire Protection & Fire Alarm:

- Full Fire Protection System within Building. Installed in 2007. Good Condition.
- Fire Alarm System was installed in 2007. The system per maintenance has had issues from day one and they have not been able to get it working correctly.

Plumbing:

- Well Water Service.
- One Fuel Oil Fired Water Heater. One Indirect Water Heater fed from boiler. Installed in 2007. Fair condition.
- Cold and Hot Water piping is copper. Installed in 2007. Good condition.
- Sanitary and Storm piping is cast iron. Installed in 2007. Fair condition.
- Combination Manual and Sensor Fixtures. Installed in 2007. Good Condition.
- Fuel Oil and Propane gas service. Installed 2007. Good condition.

Mechanical:

- Two Fuel Oil Fired Hot Water Boilers. Installed in 2007. Fair condition.
- Hot Water piping is steel and copper. Installed in 2007. Good Condition.
- Hot Water Baseboard, Convectors, and Unit Heaters. Installed 2007. Good Condition.
- Mechanically ventilated through 12 Rooftop Units. Installed in 2007. Fair Condition.
- Cooling provided by 11 Rooftop Units. Installed in 2007. Fair Condition.
- Full BMS Control System. Fair Condition.

Electrical:

- Main Electric service is 480/277V/3-Phase, 3000 Amps. Installed 2007. The switchgear is in good condition.
- The generator is a 500kW diesel fired, is in good working condition.

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

- Electrical distribution was installed in 2007 and is in good condition.
- Lighting was installed in 2007. Fixtures are primarily fluorescent and are in working condition, however these fixtures are not efficient and should be replaced with new LED type.

Security System:

- Cameras cover the entire perimeter of the building along with the entrances. Good condition.

Site Construction & Features:

- Fields are in very good condition but are far from the school facility.
- No ADA access to recessed courtyard
- No ADA access to main entry from bus loop

Priorities:

- Replace concrete stairs and paving in recessed courtyard.
- Add curb cut and ADA access at Main Entry and repair surrounding sidewalk.
- Upgrade exterior building and site lighting.
- Add security film to ground floor windows and doors.
- Full roof replacement.
- Upgrade finishes and address ADA compliance in unisex and gang toilet facilities.
- Replace VCT throughout.
- Replace carpet throughout.
- Replace academic lockers in corridors.
- Install new interior and exterior building signage.
- Provide interior solar shades to increase energy efficiency.
- Fire Alarm system to be corrected to working order.
- Prepare for replacement of plumbing fixtures that are original to the building.
- Replace domestic water service.
- Provide new energy efficient HVAC units for ventilation and air conditioning.
- Install new propane tank.
- Upgrade light fixtures to energy efficient LED fixtures.
- Replace SmartBoard/Projectors.
- Add WiFi estimates for outdoor coverage.
- Access controls upgrade.

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.31 RANKINGS SYSTEM DEFINED

Ranking (range '1' to '5')

Via the site inspections and conditions assessments contained in the detailed report, the design team is providing a condition (or ranking) of various, select building physical components. An itemized course of action may be derived from this ranking as well as strategies and prioritization for maintenance of the facilities.

Vintage (year of construction)

Buildings that were constructed or renovated at different time periods (dates) are assigned a Vintage #. Elements of varying ages are evaluated separately. Vintage #'s for each facility are indicated on the vintage diagram & checklist.

Condition (range 'very poor' to 'very good')

Existing exterior and interior conditions of all building and site elements are determined by the following criteria for evaluation:

Ranking:	1 Very Poor [VP]	An element is evaluated as Very Poor [VP] when: <ul style="list-style-type: none">• Requires prompt attention.• May last and may need to be replaced in 0 to 5 years.• The element is no longer performing its intended purpose.• Deterioration or damage affects more than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a severe negative impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	2 Poor [P]	An element is evaluated as Poor [P] when: <ul style="list-style-type: none">• May last and may need to be replaced in 5 to 10 years.• The element may be approaching the end of its useful life.• Deterioration or damage affects less than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a negative impact on the overall efficiency and/or fiscal sustainability of the facility.• May last and may need to be replaced in 5 to 10 years.
Ranking:	3 Fair [F]	An element is evaluated as Fair [F] when: <ul style="list-style-type: none">• May last and may need to be replaced in 10 to 15 years.• The element is functioning as intended and is still within its useful life.• Deterioration or damage affects less than 25% of the element.• There are early signs of wear, failure or deterioration, but the element is structurally sound.• Visible wear and tear is considered typical for a structure of this age and type.• Has a little impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	4 Good [G]	An element is evaluated as Good [G] when: <ul style="list-style-type: none">• May last and may need to be replaced in 15 to 20 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a no impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	5 Very Good [VG]	An element is evaluated as Very Good [VG] when: <ul style="list-style-type: none">• Needs no attention and may last up to 25 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a positive impact on the overall efficiency and/or fiscal sustainability of the facility.

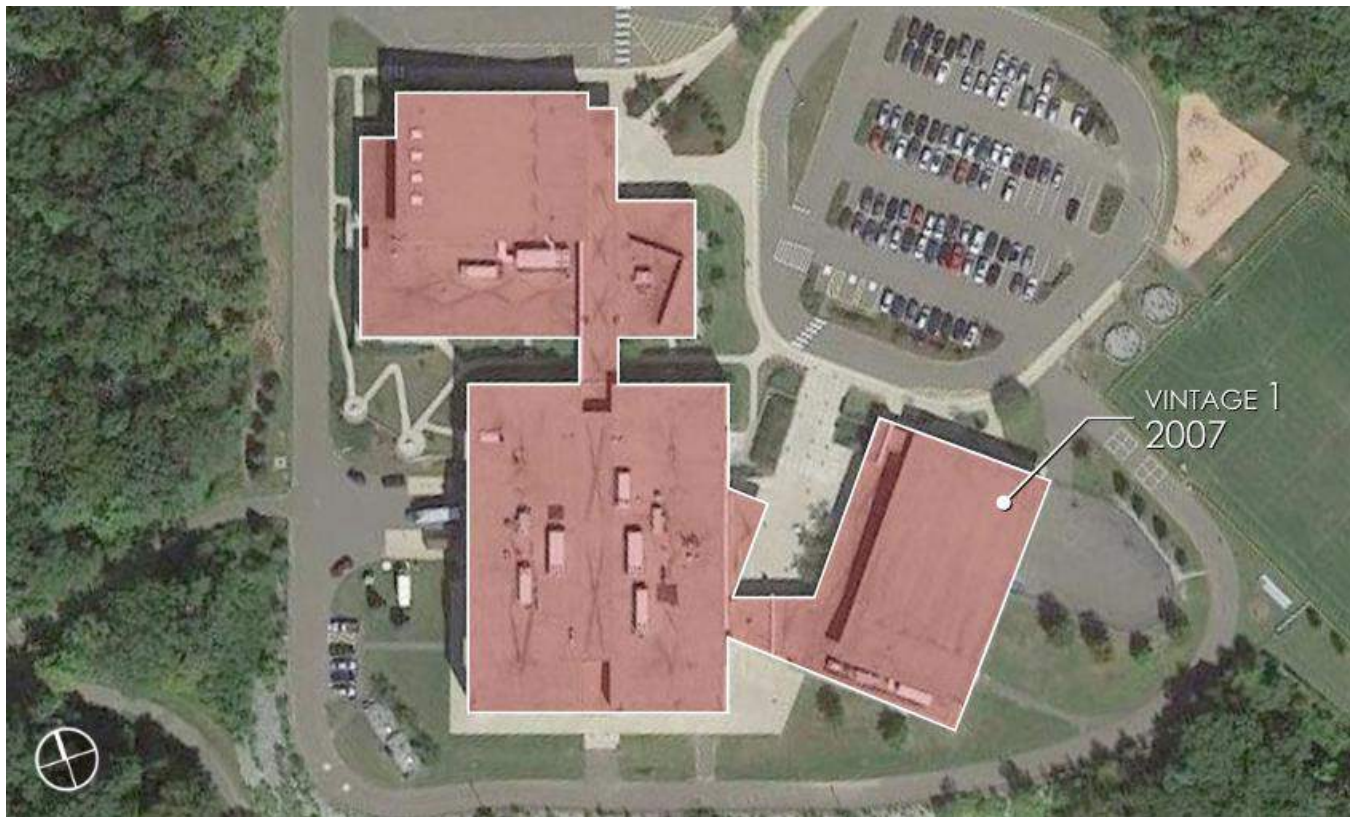
EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.32 DATES OF CONSTRUCTION (VINTAGE)



HK Intermediate/Middle School (IMS) 4-8

Vintage:

V1	2007:	Original Construction
V2	year:	N/A
V3	year:	N/A
V4	year:	N/A

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HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	2007: Entire Facility
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	
	3	Fair [F] May require attention in 10-15 years	date of	V3	
	4	Good [G] May require attention in 15-20 years	Construction)	V4	
	5	Very Good [VG] Does not require attention			

Exterior		V4	V3	V2	V1
Component	Material(s)	Condition			Notes
Roofing	Built-up gravel	3			Ponding in locations, 10-15 years left
	Flashing / joints	4			Poor at mechanical curbs
	Fascia / trim	4			
Walls	Masonry - Brick	4			General cleaning
	Masonry - CMU	4			General cleaning
	Joints (building or expansion)	4			
	Wall mounted fixtures	4			
Entrances	Aluminum Doors & Frames	4			
	Hollow Metal Doors & Frames	3			Service area needs attention
	Soffits / Canopy	4			
Windows	Aluminum, thermal	4			
	Window Screens (exterior)	4			
Walkways / site stairs	Concrete walks & curbs at drives & parking	4			
	Concrete walks at play areas	4			
	Bitum. concrete walks	3			Deterioration from snow management
	Concrete stairs	3			Deterioration from snow management
Drives / parking lots	Bitum. pavement - bus loop	3			
	Bitum. pavement - visitor parking	3			
	Bitum. pavement - parent drop off	3			
	Line striping	3			
	Extruded bitum. conc. curbing	3			
Landscaping	Lawn	4			
	Planting	4			
	Mulch beds	4			
Recreation	Playscapes / Structures	3			
	Paved play surfaces	4			
	Soccer / multipurpose fields	4			
	Diamond fields	4			
Other Structures	Auxiliary Building(s) - storage	3			
	Loading area	2			Paving and hollow metal door repair
	Site lighting (fixtures, poles & bases)	4			
	Fencing	4			Add second gate at softball field

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HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	2007: Entire Facility
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	3	Fair [F] May require attention in 10-15 years	date of	V3	
	4	Good [G] May require attention in 15-20 years	Construction)	V4	
	5	Very Good [VG] Does not require attention			

Interior		V4	V3	V2	V1
Component	Material(s)	Condition		Notes	
Flooring	VCT Tile	3			
	Carpet	3			
	Ceramic Tile	4			
	Rubber - sheet / stair treads	3			
Walls Surfaces	Gypsum Wall Board	4			
	Masonry - CMU, Face Brick	4			
	Glazed Block	4			
Ceilings	Acoustical tile ceilings	4			
	Gypsum board ceilings / soffits	4			
	Exposed Ceilings - visual	4			
Interior trim	Hollow metal	4			
	Wall Base - Vinyl	3		General cleaning	
Interior doors	Wood doors	4			
	Hollow metal doors	4			
	Hardware	4		ADA compliant	
Built-ins	Casework (general)	4			
	Countertops	4			
Toilet Facilities	Fixtures	4			
	Partitions	4			
	Accessories (dispensers, driers)	4			
Athletics	Gymnasium floor / play surface	3			
	Athletic equipment	4			
	Stadium Seating	3			

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HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1 Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1 2007: Entire Facility
	2 Poor [P] May require attention in 5-10 years	(Approximate	V2
	3 Fair [F] May require attention in 10-15 years	date of	V3
	4 Good [G] May require attention in 15-20 years	Construction)	V4
	5 Very Good [VG] Does not require attention		

Building Systems			
Component	Material(s)	Condition	Notes
Fire Protection	Alarms & Devices	4	In Good Condition
	Fire suppression (infrastructure / devices)	4	In Good Condition
Plumbing Systems	Infrastructure (pipes, drains, etc.)	4	Piping in Good Condition
	Fixtures	4	Original to the Building
	Overall efficiency	4	Overall Efficiency is Good
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	4	Piping in Good Condition
	Heating systems	3	Boilers in Fair Condition
	Cooling systems	3	Cooling in Fair Condition
	Fixtures & equipment (Interior)	4	Interior in Good Condition
	Fixtures & equipment (Exterior/Roof top)	3	Exterior Becoming Rusted
Electrical (Service)	Overall efficiency	4	Overall Efficiency is Good
	Infrastructure (panels, wiring, etc.)	4	
	Service & distribution	4	
	Generator	4	
Electrical Lighting	Other		
	Infrastructure (panels, wiring, etc.)	4	
	Fixtures (Interior)	4	
Security	Efficiency (incl. natural & artificial light distr.)	4	
	Access Control	4	
	Cameras	4	

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

C. EXISTING CONDITIONS NARRATIVE

C.1 Architectural

Construction:

The building is constructed primarily of non-combustible materials. The exterior walls are constructed of masonry veneer. Interior walls are predominantly concrete block. The floors are concrete slab on grade and composite elevated deck. The structural frame consists of steel columns, and beams. There is a small basement that houses mechanical equipment. The building is a single vintage. The roofs are steel framed.

Exterior:

Exterior façade (general): The exterior of the building is in generally in good condition. The northeast corner houses the main entrance. This entrance is used by fourth and fifth grade Intermediate school students. The Middle School students, grades six through eight, enter around the corner to the south, into the connector that adjoins the north and central wings. The exterior walls are a combination of ground and split-face concrete block, with some areas of brick cladding. All exterior walls have concrete block backup. The roofs are all flat throughout except for the auditorium roof that slopes in two opposing directions and is slightly taller than the neighboring roofs. A few lower roof canopies cover entries around the building.

Walls: The exterior walls are in good condition, but the masonry could benefit from a general cleaning below overflow roof drains and window sills. Vertical building joints appear to be in good condition. Many building seismic joints were also observed, and all were in good condition. Wall penetrations were properly sealed with a few minor exceptions.

Windows/Doors/Entrances: The entrance doors are aluminum or steel doors with glass. These doors are in good condition. The glazing is thermally insulated double pane glass. Other doors, which have either a secondary function or function as egress only are painted hollow metal doors. Some of these doors are showing signs of wear at the base and could benefit from repainting, particularly at the service area. Windows and storefront are all thermally insulated, double pane and are in good condition. All operable awning windows have screens. Entry canopies and soffits are in good condition.

Roof: The roof is entirely built-up gravel and is in fair to good condition. Primary drains divert roof water to the ground internally and overflow scuppers serve as a secondary means of diverting water. Expansion joints are all in good condition. The roof surfaces are mostly free of debris but collect water in a few locations. The flashing at the vertical walls appears to be in good condition except at rooftop mechanical curbs. There were noticeable areas of ponding and exposed ballast around the rooftop units and in a few locations scattered across the facility. Roof penetrations appear to be in good condition. Although the roof is currently in fair condition, it is approximately 10 to 15 years from the end of its useful life and should be replaced within that timeframe.

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

Interior:

Interior spaces (general): The interior of the facility ranges from good to poor condition but is generally clean and well kept. The facility is laid out in three wings, oriented north/south with a gymnasium wing off to the southeast. The northernmost wing houses the main entry, administrative spaces, and auditorium. The central wing contains the majority of academic classrooms, library and cafeteria and connects the north and east wings. The floor plan of the north and central wings are relatively simple; however, circulation to the gymnasium wing is only permitted through the cafeteria or an external courtyard. The remainder of major multi-use spaces are predominantly centralized and can be easily accessed from the main entry.

Corridors: Corridors are typically centralized and have classrooms or major multi-use spaces on a single side. A combination of VCT and carpet are floor finishes throughout and all ceilings are acoustical tile. All are dated but remain in good to fair condition. Walls are painted concrete block with occasional gypsum wall board soffits. Lockers flank either side of the central wing corridor and are in good condition but will most likely require replacement in 10 to 15 years. Artificial lighting in the corridors is sufficient but has not been upgraded from fluorescent to LED.

Classrooms: Classrooms appear to undersized for the typical class size. The teaching walls, with white boards, smart display board with projector, and occasional tack board, were present in all classrooms. Where casework exists in classrooms, it is generally in good condition and appear to provide sufficient storage for standard educational curriculum. Folding partitions separate pairs of classrooms and are rarely used. Windows provide good natural daylight and artificial lights appears to be ample for classroom size. Ceilings are all acoustical tile and are in good condition. Flooring is VCT and, in many classrooms with an elevated deck, is in poor condition and would benefit from being replaced/repaired.

Administration Offices: The administration offices are situated at the main entrance as a means of control and visual acuity. There is a locked vestibule to control visitors. The main office has full visibility to the adjacent corridors through full height storefront windows. Security appears to be well handled. Carpet and acoustic ceiling tiles are the finishes in these spaces. They are in good to fair condition. Casework is in good condition. It appears as though office space in the administrative department is insufficient and inconsistent. The layout does not effectively accommodate both the Intermediate and Middle School administrative and student services staff.

Major Common Spaces:

Cafeteria: The cafeteria is located on the lower level of the central wing and accessed via the lobby at the base of Stair 4. The cafeteria appears to be sized well for the number of students in each lunch wave. A kitchen and servery are north of the cafeteria. The cafeteria space is situated across the lower courtyard from the gymnasium and permits access to the courtyard from multiple sets of aluminum storefront doors. These storefronts allow the room to be filled with natural daylight. The floors are VCT and are in good condition despite a few minor cracks,

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assumed to be from settling. The ceiling is acoustical ceiling tiles and is in good condition. Walls are either exposed or painted concrete block. Artificial light is sufficient throughout the space.

Gymnasium: The gymnasium is isolated in the easternmost wing along with locker rooms, a fitness room and health classroom. Access to the gym is either through the cafeteria or the exterior courtyard. The ceiling exposes the structure and roof deck. The walls are a combination of painted concrete block and acoustical concrete block on the upper half. Wooden bleachers fill most of the east wall and are in fair condition. Rubber sports flooring is the floor finish and in fair condition. Artificial lighting appears to be insufficient for the size of the space; however, large windows on the northern wall bring in ample natural light. A motorized divider curtain spans east/west and can separate the main basketball court from the adjacent half court to the north.

Toilet Facilities: The school has seven main gang toilet facilities, two in the north and east wings, and five in the central wing. All are ADA accessible. Although slightly dated, these facilities are in good condition. Each gang facility has operable partitions with water closets, lavatories and paper towel dispensers. The floors are ceramic tile, ceilings are acoustical tile and walls are concrete block. All are in good condition. Unisex facilities are also present near the kitchen, adjacent to Teacher Workrooms in the central wing, and at the main entry. These facilities are ADA compliant and in good condition. Locker room facilities are located adjacent to the gymnasium and bear the same finishes and condition as lavatories throughout. The ceramic floor in the Women's Locker Room shows signs of buckling at a structural grid line.

Library: The Library shares a lobby with the Cafeteria. This space appears to be sized appropriately for the function and number of students. The floor is carpeted, and the ceiling is acoustical ceiling. The ceiling is in good condition, but the carpet is poor and could benefit from replacement. The interior walls are gypsum wall board and exterior walls are painted concrete block. Artificial lighting appears to be sufficient and is supplemented by the natural daylight from the south and west. The casework appears to be in good condition and sufficient for storage.

Art Studio / Maker Space: The facility has an Art studio and Maker Space that share an office, kiln room and storage space. The rooms are located along the south wall of the central wing, adjacent to the cafeteria. These spaces appear to be sized appropriately for typical class functions. Like the other spaces on this floor, the studios have storefront windows that allow for ample natural light. The painted block walls, VCT floor and acoustical ceiling are all in good condition. Casework appears to be sufficient and is also in good condition.

Auditorium: The auditorium is located across from the administrative offices and to the right of the main entry. With space for approximately 700 occupants, the seating, concrete block walls and acoustical ceiling clouds are in good condition. The floor is a combination of exposed concrete slab on grade and carpet. The carpet is dated and could benefit from replacement. The concrete has cracks that telegraph across the entire width of the space, running north to south. Ripped projection screen. The raised platform at the west, is in good condition; however, the oversized projection screen has ripped under its own weight and should be replaced.

Music Rooms: The school has three designated music spaces; a choir room, band room and general music room. All spaces are adequately sized for the curriculum and have sufficient storage to support their functions. Wall finishes are a combination of painted concrete block, split face block and acoustical block, all in good condition. Baffled acoustical ceiling tiles are

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also in good condition. The band room is carpeted and, although dated, is in fair condition. VCT is the floor finish in the choir and general music rooms. Both are in good condition.

Code, Safety and Hazardous Materials Abatement:

ADA: The building would be deemed ADA compliant in reference to toilet facilities, required clearances and access. Being multistory with a centrally located elevator, access is provided to all levels of the building. Access to the raised platform in the auditorium is granted via two ramps. Classrooms are lacking ADA workstations. Door hardware is code compliant, and doors have proper push and pull clearances.

Safety: The building is satisfactory from a life safety perspective. The building is fully sprinklered. From a security perspective, the school appears to have sufficient access control at the main entrance. There are many exterior doors that could be possible points of entry and therefore, difficult to monitor.

Hazardous Materials Abatement: A building of this vintage is expected to be clad with asbestos-containing materials. Owner-supplied Asbestos Inspection and Management Plans identify materials that are assumed to contain asbestos and will eventually require remediation. Building construction materials and finishes to monitor for future abatement include but are not limited to: vinyl floor tile and associated adhesive, carpet and associated adhesive, sink undercoatings, gymnasium flooring and adhesive, pipe fitting insulation, acoustical ceiling tiles and associated adhesive, and cove wall base.

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 5-8

C. EXISTING CONDITIONS NARRATIVE

C.2 MEP / Security

C.21 PLUMBING / FIRE PROTECTION

Hot Water Generation:

The buildings existing domestic hot water is generated via two domestic water heater storage tanks located in the mechanical room. One is an oil fired domestic water heater manufactured by Aldrich. The other is a 115 gallon indirect domestic hot water storage tank manufactured by Rheem. This tank gets its hot water from a boiler after it passes through a plate & frame heat exchanger and stores the water for summer use only. The domestic hot water is distributed throughout the building via two Taco pumps located in the mechanical room. The domestic water heaters and pumps are all original to the 2007 construction and nearing the end of their useful lives. Replacing the domestic water tanks with two of the same oil fired or electric storage tanks is recommended. One tank would be used as the primary and the other would be supplemental if needed to provide greater efficiency throughout the system. Upgraded pumps with a higher turn down ratio is also recommended.

Domestic Water Service:

The building utilizes its own well water system and pump house located away from the building to provide potable water to the school. The pump house takes water from the building's three water wells and stores some in a 5,000 gallon hydro-pneumatic tank for domestic water and fire protection use. Three Baldor pumps in the pump house then circulate the water to a 28,000 gallon atmospheric water storage tank buried outside and a 500 gallon water storage tank located in the mechanical room. The domestic water service is original to the 2007 construction and is in fair working condition.

Domestic Water Piping:

The domestic water piping was observed to be copper piping. All of the piping is original to the 2007 construction and appears to be in good condition.

Plumbing Fixtures:

Plumbing fixtures were observed to be a combination of both manual and sensor operated fixtures. Some sensor operated fixtures are not working as well as first installed and regular maintenance is required. Overall all of the fixtures are original to the 2007 construction and are in fair to good working condition.

Sanitary Service:

The building utilizes a small waste water treatment facility on site. Waste water from the building is piped to the waste water treatment facility where it is treated. The facility and all associated equipment are in good working condition.

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Storm Service:

The building consists of a roof drain storm service. The roof drains and all associated piping are in good working condition. The storm piping serves an underground storm water retention system located on site.

Natural Gas Service:

There is no natural gas service on site. There is a large #2 fuel oil tank and 1,000 gallon propane tank buried outside of the building. The oil tank and propane tank are original to construction and in good working condition.

Fire Protection:

The building contains a full fire protection system. The main fire protection piping and associated valves are in the mechanical room. The fire protection system contains two 10,000 gallon fire water tanks fed off of the domestic well water system. The fire pump is located in the pump house away from the main building. The fire pump supplies water to the tanks and the main building through underground piping. The fire protection system is original to the building and in good working condition.

C.22 MECHANICAL

Heating Systems:

The existing boiler plant consists of two fuel oil fired cast iron hot water boilers manufactured by H.B. Smith. The boilers are located in the mechanical room. They are original to the 2007 construction and in fair working condition. For future replacement of the boilers, two fully condensing boilers are recommended for a higher efficiency through the heating system. There are two floor mounted hot water pumps that distribute the hot water throughout the building. The pumps are manufactured by Armstrong, are located in the mechanical room and are in good working condition.

Hot Water Piping:

The hot water heating system consists of a combination of both steel and copper piping. All piping is original to construction and appears to be in good condition. Spot replacements of pipe malfunctions is acceptable, but a complete hot water piping replacement is not recommended for the near future as everything is working properly and contains many years of useful life.

Terminal Units:

The building consists of hot water wall convectors, radiant ceiling panels, and unit heaters to provide perimeter heating to various rooms. The building also contains variable air volume boxes, duct mounted hot water heating coils, and electric unit heaters. All mechanical terminal units are original to construction and in good working condition.

Ventilation Systems:

Ventilation is provided throughout the entire building through 12 rooftop air handling units. The rooftop units appear to be a combination of packaged units and units that have an exterior air

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cooled condensing unit. Eleven rooftop units provide heating, cooling, and ventilation to the areas they serve while the Gymnasium unit only provides heating and ventilation. All units are original to the 2007 construction and are in fair working condition. There are also multiple roof mounted exhaust fans that take exhaust air from certain rooms out of the building and appear to be in fair working condition. For future replacement of all 12 rooftop units it is recommended to include heating, cooling, ventilation, energy recovery, MERV 13 filters and proper dehumidification for each ensuring optimum efficiency while providing air to the building.

Cooling Systems:

There is no central cooling plant within this building. Cooling is accomplished through 11 of the rooftop units. Some provide cooling through their packaged condenser while others provide cooling through an exterior air cooled condensing unit on the roof. All units use R22 refrigerant which has been phased out of use since the construction of this building. All units appear to be in fair working condition. For future replacement the rooftop units will be fitted with code compliant refrigerant and more efficient condensing units.

Ductwork:

The ductwork throughout the building is original to the 2007 construction and appears to be in good working condition. The ductwork serves the 12 rooftop units and all of the roof mounted exhaust fans.

Controls:

The building contains a building management system (BMS) manufactured by Automated Building Systems (ABS). Some of the systems throughout the building seem to be fighting each other for heating or cooling responsibilities. Some rooms become a little warmer than others but overall the BMS system is in fair working condition.

C.23 ELECTRICAL

Main Electric Service:

The main electric service originates from a utility company pole. The service runs from the utility pole to a utility company owned, pad mounted transformer located adjacent to the building. The service then runs underground to the main switchboard located in the basement of the building.

The main electric service to the building is rated 3000 Amps, 480/277 volts, 3-phase, 4-wire, and includes a main disconnect switch, utility company metering compartment, and distribution sections. This service and equipment are in working and good condition.

A second services serves the fire pump located down the road in the fire pump room, that services is rated at 800Amps, 480/277 volts 3-phase, 4-wire.

Electrical Distribution:

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The electrical distribution consists of conduit and feeders from the main distribution panels to branch circuit panel boards located throughout the building in electrical rooms. Each room has 480/277V panels that serve lighting, HVAC loads and transformers that serve 208/120V panels. The electrical distribution, equipment and wiring are all in good and operational condition.

Generator:

The building currently served by a 500 kW diesel fired generator. This generator serves an Automatic Transfer Switch (ATS). This generator is a Kohler model # 500RE0ZVB with a 440 gallon belly tank for fuel. The generator has two output circuit breakers, a 600A output circuit breaker for emergency systems within the building and a 250A output circuit breaker for the fire pump. The 600A circuit breaker serves a panel located within main electrical room, which serves both stand-by and life safety power. The 250A circuit breaker serves the fire pump controller located within the mechanical room. This generator is in good working condition.

Lighting Systems:

The lighting throughout the building consists of downlights, 1x4, 2x2 and 2x4 fluorescent troffers. Although the lighting is functional, lighting is outdated throughout the building and should be replaced with energy efficient LED fixtures.

Emergency lighting for the building is served from emergency branch circuits that are served off the emergency distribution served from the 500 kW generator.

Lighting control consists of wall-mounted toggle switches; key operated toggle switches and ceiling mounted occupancy sensors for local control.

Fire Alarm System:

The fire alarm system in the building consists of a Fire Alarm Control Panel by Siemens addressable voice system. There is an annunciator panel with microphone at the main entrance. Throughout the building, there are speaker/strobe units, strobe only units, smoke detectors and pull stations located in most areas. This system, per maintenance, has had issues since day one.

At each stair landing there is an area of rescue with the main head end unit at the main entrance.

Communication Services:

Cable TV service is utilized in the building. Service cable enters the building and distributes through multiple amplifiers to distribution hubs throughout.

T1 communication equipment exists at the MDF service backboard.

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Fiber service is provided to the building and distributed throughout.

Communication services enter the main telecomm room via multiple 4" conduits brought in from the street.

MDF and IDF rooms are provisioned throughout the building at locations that promote the proper coverage to conform with network cabling distance limitations. Building horizontal cabling is Cat 6 with PoE type network switches installed on two post racks. The rooms are appropriately outfitted with grounding and bonding, basket tray rack and dedicated cooling systems.

Wireless access points are provided within the building, however per staff many areas are very spotty.

Security is provided through card readers at entrances and cameras located on the exterior and interior of the building. The system is in good working condition.

Ceiling and wall mounted speakers are provided throughout for general paging are in good working condition. The exterior speakers, per maintenance are not working at the time of our walk through.

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

C. EXISTING CONDITIONS NARRATIVE

C.2 Site

Roadways/Parking: The roadway consists of two accesses to the site. The first access operates as a one-way parent drop-off loop that drops students off at the building's main entrance. This is also access to the visitor parking lot. The second access is a one-way bus loop that drops students off at the connector between the north and central wings. This loop is also access to the faculty and staff parking lot, located in the northeast corner of the site.

The overall condition of site pavement is fair with evidence of fine cracking and transverse cracking located throughout the drive aisles. In some areas, the bituminous pavement shows slight separation from the curb. Observation of sediment buildup is indicative of puddling along parts of the curb and stormwater infiltration into the base.

The overall condition of curbing throughout the site is in fair condition.

Walkways: Walkways on site consist of concrete pavement. Condition of the walkways is good. Concrete stairs and landings lead from the faculty parking area down to the courtyard between the cafeteria and gymnasium. The concrete landings show signs of deterioration and cracking from snow management.

Paved Play: Paved play areas are located to the east of the site, just outside of the gymnasium. Pavement is in fair condition.

Grass Fields: A soccer field is located a great distance from the school facility and is accessed via the main entry drive. The site has two multipurpose fields, one outside of the gymnasium, and the second further towards the entry to site, adjacent to the baseball field. Grass cover appears to be in good condition.

Diamond Fields: A baseball field is located along the main drive, halfway between the school facility and the main entry. A softball field is situated just off the main road, a great distance from the school. Ground cover and drainage appear to be in good condition.

Playgrounds: A playground with raised structures is located on the east side of the site. Play equipment is dated but appears to still be in fair condition. The gravel ground cover is sufficient but could benefit from surround curbing to contain the material.

Fencing: Four-foot-high chain link fences surrounds the grass and diamond fields. All have safety padding along the top and all are in very good condition. The fence surrounding the softball field does not provide sufficient exit discharge from the field in the event of an emergency. It is suggested that a secondary gate be added to the south side of the field.

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

Lighting: Site lighting appears to be adequate throughout the site. Poles and bases appear to be in good condition.

Landscaping: Overall landscaping is in good to fair condition. Lawn areas adjacent to walkways, parking areas, and building entrance should be reseeded to cover bare spots. Mulching beneath the trees should be replenished.

EDUCATIONAL FACILITIES ASSESSMENT

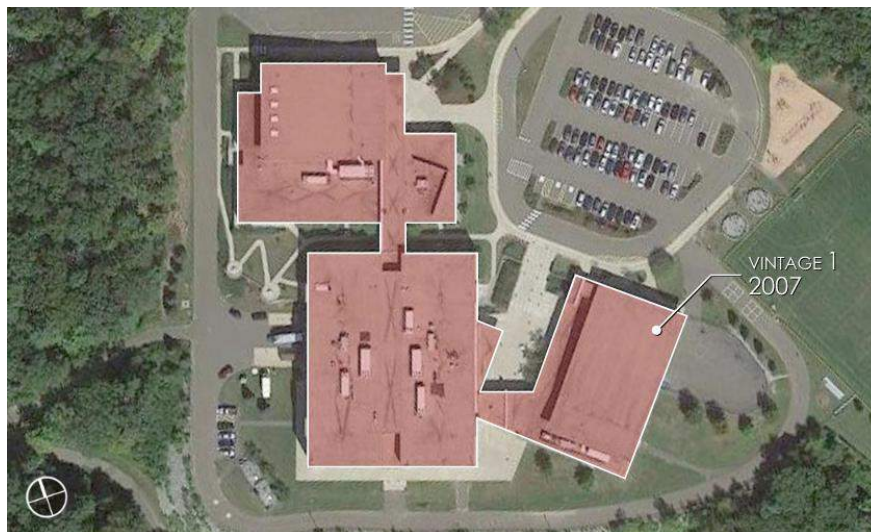
HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.1: Aerial – Context



D.1.2: Years of Construction - Vintage

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.3: Exterior – Approach



D.1.4: Exterior – Main Entry

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.5: Exterior – Recessed Courtyard



D.1.6: Exterior – Service Entry

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.7: Exterior – Walls & Windows



D.1.8: Exterior – Walls & Windows

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.9: Exterior – Roof – Gravel Built-Up – North Wing



D.1.10: Exterior – Roof – Gravel Built-Up – Central Wing

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.11: Interior – Main Entry



D.1.12: Interior – Corridor

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.13: Interior – Academic Corridor



D.1.14: Interior – Academic Corridor

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.15: Interior - Classroom



D.1.16: Interior – Classroom – Science

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.17: Interior - Cafeteria



D.1.18: Interior – Cafeteria

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.19: Interior – Gymnasium



D.1.20: Interior – Gymnasium – Locker Rooms

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.21: Interior - Toilet Facilities – North Wing



D.1.22: Interior – Central Wing

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.23: Interior – Library



D.1.24: Interior – Library

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.25: Interior – Art Studio



D.1.26: Interior – Music Classrooms

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.27: Interior – Auditorium



D.1.28: Interior – Auditorium

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.29: Interior – Admin – Intermediate School



D.1.30: Interior – Admin – Middle School

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.1 Architectural



D.1.31: Interior – Corridor – Stairs



D.1.32: Interior – Corridor – Elevator

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 5-8

D. PHOTO LOG

D.2 MEP / Security



D.2.1: Rheem Domestic Hot Water Storage Tank



D.2.2: Aldrich Oil Fired Domestic Hot Water Tank

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 5-8

D. PHOTO LOG

D.2 MEP / Security



D.2.3: Hot Water Boilers



D.2.4: Main Fire Protection System

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 5-8

D. PHOTO LOG

D.2 MEP / Security



D.2.5: Trane Packaged Rooftop Unit



D.2.6: Trane Rooftop Unit with Air-Cooled Condensing Unit

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 5-8

D. PHOTO LOG

D.2 MEP / Security



D.2.7: Sensor Operated Plumbing Fixtures



D.2.8: Domestic Water Pumps within Pump Vault

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 5-8

D. PHOTO LOG

D.2 MEP / Security



EXISTING ELECTRICAL SERVICE



EXISTING FIRE ALARM CONTROL PANEL

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 5-8

D. PHOTO LOG

D.2 MEP / Security



EXISTING IDF CLOSET

EDUCATIONAL FACILITIES ASSESSMENT

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D. PHOTO LOG

D.3 Site



D.3.1: Driveway & Parking



D.3.2: Driveway

EDUCATIONAL FACILITIES ASSESSMENT

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D. PHOTO LOG

D.3 Site



D.3.3: Parking



D.3.4: Walkways

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.3 Site



D.3.5: ADA Accessible Walkway Ramp



D.3.6: Main Entry – No ADA Accessibility

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.3 Site



D.3.7: Play Structures



D.3.8: Recessed Courtyard

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.3 Site



D.3.9: Landscaping – Grass Fields



D.3.10: Landscaping – Grass Fields

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.3 Site



D.3.11: Diamond Fields



D.3.12: Paved Play Area

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

D. PHOTO LOG

D.3 Site



D.3.13: Loading Area

EDUCATIONAL FACILITIES ASSESSMENT

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

E. APPENDIX

E.1 PLAN DIAGRAMS





HADDAM KILLINGWORTH HIGH SCHOOL

RSD 17 CENTRAL OFFICE | "WHITE HOUSE" | TRANSPORTATION FACILITY (STA)

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EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

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E.1 PLAN DIAGRAMS

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

A. INTRODUCTION

A.1 Objectives

Tecton Architects was commissioned by Regional School District 17 to perform an educational facilities conditions assessment of 4 schools and Central Office in Haddam and Killingworth, CT. The goal was to conduct on-site inspections and gather meaningful data about the physical state of the academic buildings and grounds. The assessment reports would then provide insight and aid in the completion of a viability study of alternate land/buildings and a long-term Capital Management Plan that focuses on the district facilities and their mechanical infrastructures.

During the month of August 2021, Tecton Architects, accompanied by its team of licensed professional engineers and escorted by the Director of Facilities, visited HK High School at 95 Little City Road, Higganum, Connecticut. The school was surveyed for the conditions of the architecture, mechanical, electrical, plumbing, fire safety and site conditions therein. Among other items assessed were structural, accessibility and energy issues, as well as school safety. The purpose of the visual observations was to quantify and evaluate the current state of the respective A/MEP systems. Observations were made in the portions of the building that were accessible at the time of the inspections.

A.2 Facility

This facility functions as a high school for grades nine through twelve. The approximately 288,000 square foot facility consists of the original 1954 Middle School building, which now serves as the Regional School District 17 Central Office, and the high school facility that was constructed in 1974. The 1974 addition that now serves as the high school, is spread across two main buildings. This addition created a small courtyard adjacent to the original 1954 structure.

The high school consists of two, two story buildings, bisected by a driveway, and connected via elevated walks. One structure is to the north of the drive, the other to the south. The main entrance, gym, cafeteria, media center and majority of classrooms are all at the "lower" level. The west wing, that is a half-level higher, occupies approximately one third of the footprint. This level is entirely classrooms.

In addition to academic classrooms, the school boasts a field house, an auditorium that holds approximately 700 people, swimming pool and a three-story library/media center. The grounds consist of a football field surrounded by a full-sized track, a baseball field, two softball fields, a soccer field, a multipurpose field and eight tennis courts. Also on the grounds is the town's Student Transportation facility as well as the town's Youth and Family Services Department.

Access to the site is from the north off Little City Road with the building facing south towards the facility's athletic fields. A two-lane driveway bisects the building and is utilized for bus drop-off and turnaround. The main parking lot occupies the southwest corner of the site and is situated adjacent to the Transportation Facility and field house. Smaller visitor parking lots are located between the two structures and to the northwest of the site. All can be accessed from Little City

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

Road. The main entry into the school is at the southeast end of the southernmost building and is accessed via the driveway bisecting the school.

The property also houses the districts transportation department, Student Transportation Inc., in the southwest corner of the site. A small structure contains the administration offices and bus shelters extend north the shield the vehicles. Also on the property, in what is referred to as the "White House" is the Haddam-Killingworth Recreation Department and Youth & Family Services department.

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

B. SUMMARY & ANALYSIS

B.1 School & Facility Data

The School:

Type:	High School	Additional Programs:	District Offices
Grade Structure:	9-12	Meals:	lunch
Pre-K:	no	Meals prepared on site:	yes, 2 lunch waves
Enrollment (2018):	600	Start time:	7:25 am
Staff (approx.):	100	Dismissal:	2:10 pm
Location (in town):	central	Buses:	27

The Facility:

		General Condition:	Poor
Total Building Area (SF):	288,000 SF	Original Construction:	1954 (Central Office)
Site Area (acres):		Additions (dates):	1974
Stories (above grade):	2	Construction Type(s):	2B, 2C
Building/Framing Materials:	masonry, steel, concrete	Roof Types & Age:	EPDM Spray polyurethane foam
Split-level / ramps (interior):	yes, ramp	Heating (types):	hot water
Stairs (interior):	yes	Fuel Types:	Propane and #2 fuel oil
Elevator:	yes	Cooling:	Air handling units
Basement:	yes	Ventilation:	mechanical 3000A-480/277V 3-phase 4-wire
Mezzanine (mechanical)	yes	Electrical:	150kw diesel fired
Crawl Space / Tunnels:	no	Generator:	full
Modulars (classrooms):	no	Fire Alarm:	Septic with onsite leeching
Auxiliary Buildings:	yes, storage, concessions barn, STA (buses), Youth & Family Services	Sewer / Septic	
Full ADA Compliance:	no	Municipal Water / Well	well water
Athletic Fields:	Soccer, multipurpose Baseball, softball (2), track, football, tennis (8)	Sprinklered (full / partial):	no

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

B. SUMMARY & ANALYSIS

B.2 Conditions Summary

Building Condition:

- **Poor**
- Two story, sprawling layout
- One elevator, main entry not ADA accessible, toilet facilities need upgrade.
- Original construction not as energy efficient – some single-pane, uninsulated windows.
- Classrooms are adequately sized but sound attenuation between spaces is very poor.
- Not all multipurpose spaces ADA accessible.

Programmatic Findings:

- Site – Bus drop and pick up work well. Parking is plentiful around the site. Subbase below soccer field is failing and ponding.
- Building – Building is spread out, inefficient use of space with the linear layout. Lack of individualized instructional space and office space. Limited accessibility to major programmatic spaces.

Fire Protection & Fire Alarm:

- No Fire Protection System within Building.
- Fire Alarm control panel manufactured by Simplex, located in main entrance.
- Horn/ strobe units, strobe only units, smoke detectors and pull stations throughout building.

Plumbing:

- Well Water Service for domestic, potable water.
- Four propane fired Water Heaters. Installed 2018. Good condition.
- Hot Water piping is copper and steel. Installed in 1974. Fair condition.
- Sanitary and Storm piping is cast iron. Installed in 1974. Fair condition.
- Manual Flush valve Plumbing Fixtures. Installed in 1974. Fair condition
- #2 fuel oil and propane gas service. Installed in 1974. Fair condition.

Mechanical:

- Six Dual Fuel Fired Hot Water Boilers. Good condition.
- Hot Water piping is steel and copper. Installed in 1974. Fair Condition.
- Hot Water Baseboard, Convectors, Unit Heaters. Installed in 1974. Poor Condition.
- 32 Total Air Handling Units. Installed in 1974. Poor Condition.
- Cooling provided by 26 of the air handling units. Installed in 1974. Poor condition.
- Pneumatic control and original thermostats. Poor condition.

Electrical:

- Main Electric service is 480/277/3-Phase, 3000 Amps. Installed 1996. Equipment is in working condition, however original to the high school building and past its useful life.
- The generator is a 150kW diesel fired, and is original to the building. It provide stand-by power and life safety power only to the high school. It is past its useful life and should be replaced.

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

- Electrical distribution was installed in the high school in 1996 and in the central office area in 1962. The distribution in the high school is in working condition, however original to the building and past its useful life. The distribution in the central office is original to the building and well past its useful life.
- Lighting was installed in the high school 1996 and in the central office in 1962. Most all lighting within both buildings are fluorescent and some LED down lighting. All lighting is past its useful life.

Security System:

- Cameras cover the entire perimeter of the building along with the entrances. Good condition.

Site Construction & Features:

- Athletic fields in good condition to support athletic department.
- Roadways and drive aisles in poor condition and could benefit from repair.

Central Office:

- Utilization of original classroom spaces, yields oversized offices
- Asbestos containing materials need to be mitigated

"White House":

- Structure is failing
- Finishes are at the end of their useful life
- Not ADA accessible

Transportation Facility (STA)

- Concrete block masonry walls in very poor condition.
- Overhead doors are at the end of their useful life.
- Boiler and hot water pumps are at the end of their useful life.

Priorities:

- Address ground cover and drainage issues at soccer field.
- Full depth replacement of curbs and sidewalks (throughout campus).
- Full depth replacement of parking lots and driveways (throughout campus).
- Upgrade athletic fields to synthetic ground cover material.
- Add press box at football field.
- Add "Away" team bleachers.
- Full replacement of tennis courts.
- Add field irrigation to softball field.
- Upgrade exterior building and site lighting.
- Hazardous material abatement.
- Repair leaking storefront and clerestory windows at Library and in shop/art classrooms.
- Add security film to ground floor windows and doors.
- Add outdoor learning space/"pavilion" outside of cafeteria.
- Upgrade finishes at toilet facilities (throughout campus).

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

- Remove existing hardware and replace with ADA compliant hardware (throughout campus).
- Replace suspended acoustical ceilings (throughout campus).
- Replace VCT flooring (throughout campus).
- Replace partitions in high school administrative offices with stud partition walls.
- Upgrade/reconfigure main locker rooms and offices (meet Title IX).
- Upgrade/reconfigure pool locker rooms and offices (meet Title IX).
- Add solar cover to pool.
- Add ramps in non-ADA accessible classrooms (x4)
- Replace academic lockers in corridors.
- Replace food service equipment.
- Install new interior and exterior building signage (throughout campus).
- Provide interior solar shades to increase energy efficiency (throughout campus).
- Install fire protection system.
- Upgrade fire alarm system and make code compliant.
- Replace fire tanks and pumps.
- Prepare for replacement of plumbing piping that are original to the building.
- Prepare for replacement of plumbing fixtures that are original to the building.
- Replace domestic water service.
- New filtration system at pool.
- Provide new energy efficient HVAC units for ventilation and air conditioning.
- Upgrade/introduce proper humidity control into pool area (HVAC).
- Prepare for replacement of electrical distribution.
- Upgrade remaining fluorescent fixtures to energy efficient LED fixtures.
- Replace electrical wiring.
- Add lighting to tennis courts.
- Add exterior sound systems.
- Phone system consolidation and upgrade to VOIP (throughout campus).
- Replace SmartBoard/Projectors (throughout campus).
- Add WiFi estimates for outdoor coverage (throughout campus).
- Access controls upgrade (throughout campus).
- Replace single-pane windows with double-pane, thermally insulated windows (Central Office).
- Demolish White House, barn, and transportation facility.
- Build new facilities equipment storage.
- Build new transportation facility.

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.31 RANKINGS SYSTEM DEFINED

Ranking (range '1' to '5')

Via the site inspections and conditions assessments contained in the detailed report, the design team is providing a condition (or ranking) of various, select building physical components. An itemized course of action may be derived from this ranking as well as strategies and prioritization for maintenance of the facilities.

Vintage (year of construction)

Buildings that were constructed or renovated at different time periods (dates) are assigned a Vintage #. Elements of varying ages are evaluated separately. Vintage #'s for each facility are indicated on the vintage diagram & checklist.

Condition (range 'very poor' to 'very good')

Existing exterior and interior conditions of all building and site elements are determined by the following criteria for evaluation:

Ranking:	1 Very Poor [VP]	An element is evaluated as Very Poor [VP] when: <ul style="list-style-type: none">• Requires prompt attention.• May last and may need to be replaced in 0 to 5 years.• The element is no longer performing its intended purpose.• Deterioration or damage affects more than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a severe negative impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	2 Poor [P]	An element is evaluated as Poor [P] when: <ul style="list-style-type: none">• May last and may need to be replaced in 5 to 10 years.• The element may be approaching the end of its useful life.• Deterioration or damage affects less than 50% of the element.• May contribute to the failure or degradation of other building elements.• Has a negative impact on the overall efficiency and/or fiscal sustainability of the facility.• May last and may need to be replaced in 5 to 10 years.
Ranking:	3 Fair [F]	An element is evaluated as Fair [F] when: <ul style="list-style-type: none">• May last and may need to be replaced in 10 to 15 years.• The element is functioning as intended and is still within its useful life.• Deterioration or damage affects less than 25% of the element.• There are early signs of wear, failure or deterioration, but the element is structurally sound.• Visible wear and tear is considered typical for a structure of this age and type.• Has a little impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	4 Good [G]	An element is evaluated as Good [G] when: <ul style="list-style-type: none">• May last and may need to be replaced in 15 to 20 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a no impact on the overall efficiency and/or fiscal sustainability of the facility.
Ranking:	5 Very Good [VG]	An element is evaluated as Very Good [VG] when: <ul style="list-style-type: none">• Needs no attention and may last up to 25 years.• The element is intact, sound and is functioning as intended, within its useful life.• There are few or no cosmetic issues or imperfections.• The element needs no repair other than minor / routine maintenance.• Visible appearance is considered typical for a structure of this age and type.• Has a positive impact on the overall efficiency and/or fiscal sustainability of the facility.

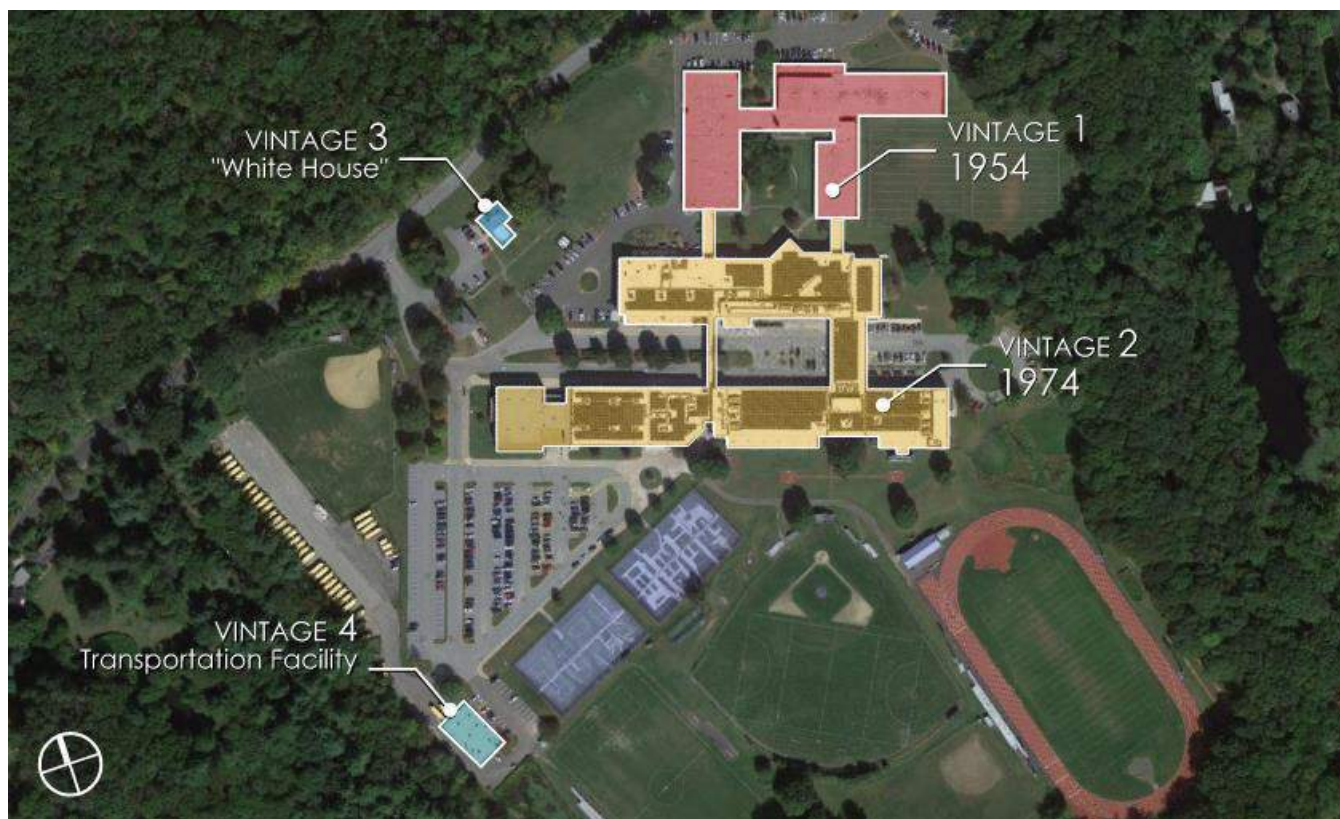
EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.3.2 DATES OF CONSTRUCTION (VINTAGE)



HK High School (HKHS) 9-12

Vintage:

V1	1954:	Original Construction – Central Office
V2	1974:	High School
V3	year:	"White House" – Recreation Department and Youth & Family Services
V4	year:	Transportation Facility (STA)

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	1962:	Original – Central Office
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	1996:	High School
	3	Fair [F] May require attention in 10-15 years	date of	V3		"White House"
	4	Good [G] May require attention in 15-20 years	Construction)	V4		Transportation Facility (STA)
	5	Very Good [VG] Does not require attention				

Exterior						
		V4	V3	V2	V1	
Component	Material(s)	Condition			Notes	
Roofing	EPDM Membrane	3		4		Poor above swimming pool
	Spray polyurethane			2	3	
	Flashing / joints			3	3	
	Fascia / trim			2	2	
	Architectural shingles		3			
Walls	Masonry - Brick			4	3	General cleaning, minor repair at V1
	Masonry - CMU	1		4		
	Joints (building or expansion)	3		4	3	
	Wall mounted fixtures			4	3	
	Foundations – exposed concrete/stone		3		3	
	Vinyl Siding		3			
Entrances	Aluminum Doors & Frames			3	3	Should be repainted
	Hollow Metal Doors & Frames	3		3	3	
	Soffits / Canopy					
	Porticos		3			
Windows	Aluminum, thermal	3	3	3		Poor condition at HKHS Media Center
	Aluminum, non-thermal				2	
	Window Screens (exterior)					
Walkways / site stairs	Concrete walks & curbs at drives & parking			2		
	Bitum. concrete walks		2	2		
Drives / parking lots	Bitum. pavement - bus loop			2		
	Bitum. pavement - visitor parking			2		
	Bitum. pavement - parent drop off			2		
	Line striping		3	2		
	Extruded bitum. conc. curbing		2	2		
Landscaping	Lawn		3	4		
	Planting		3	2		
Recreation	Diamond Fields			4		Soccer field needs attention
	Tennis Courts			5		
	Grass fields			4		
Other Structures	Auxiliary Buildings – storage / concession			3		Poor condition at soccer field Appears to be a lack of site lighting Tennis court fence very good condition
	Auxiliary Buildings – bleachers			3		
	Site lighting (fixtures, poles & bases)			3		
	Fencing			4		

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B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

B.33 CHECKLIST & RANKINGS

Ranking:	1 Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1 1962: Original – Central Office
	2 Poor [P] May require attention in 5-10 years	(Approximate	V2 1996: High School
	3 Fair [F] May require attention in 10-15 years	date of	V3 "White House"
	4 Good [G] May require attention in 15-20 years	Construction)	V4 Transportation Facility (STA)
	5 Very Good [VG] Does not require attention		

Interior		V4	V3	V2	V1	
Component	Material(s)	Condition			Notes	
Flooring	VCT Tile	3	2	1	Encapsulating asbestos flooring in V1	
	Carpet		2	3		
	Ceramic Tile			3		
	Poured epoxy			4		
Walls Surfaces	Gypsum Wall Board		3	3	Administrative offices	
	Masonry - CMU, Face Brick	4		4		
	Glazed Block			4		
Ceilings	Acoustical tile ceilings		1	3		
	Exposed Ceilings - visual		3	4		
	Gyp board	3				
Interior trim	Hollow metal	4		3		
	Wall Base - Vinyl			3		
	Wall Base - Wood		3			
Interior doors	Wood doors		3	2		
	Hollow metal doors	4		3		
	Hardware	3	1	1	Not ADA compliant	
Built-ins	Casework (general)		2	3	Hot countertops in V1 science rooms	
	Countertops		2	3		
Toilet Facilities	Fixtures		2	4		
	Partitions			4		
	Accessories (dispensers, driers)		2	4		
Athletics	Gymnasium floor / play surface			5		
	Athletic equipment			5		
	Stadium Seating			5		

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B. SUMMARY & ANALYSIS

B.3 Conditions Rankings

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Ranking:	1	Very Poor [VP] Requires prompt attention, 0-5 years	Vintage:	V1	1962:	Original – Central Office
	2	Poor [P] May require attention in 5-10 years	(Approximate	V2	1996:	High School
	3	Fair [F] May require attention in 10-15 years	date of	V3		"White House"
	4	Good [G] May require attention in 15-20 years	Construction)	V4		Transportation Facility (STA)
	5	Very Good [VG] Does not require attention				

Building Systems		V4	V3	V2	V1
Component	Material(s)	Condition			Notes
Fire Protection	Alarms & Devices	2	2		
	Fire suppression (infrastructure / devices)				N/A
Plumbing Systems	Infrastructure (pipes, drains, etc.)	4	3		Original to the Building
	Fixtures	3	2		Original to the Building
	Overall efficiency	3	3		Combined Efficiency is Poor
Mechanical / HVAC	Infrastructure (pipes, ducts, etc.)	3	2		Original to the Building
	Heating systems	2	4	4	Boiler Plant was recently upgraded
	Cooling systems	3	2	1	Cooling is original
	Fixtures & equipment (Interior)	2	2	1	Poor Interior Equipment
	Fixtures & equipment (Exterior/Roof top)	3	2	2	Poor Exterior Equipment
	Overall efficiency	3	3		
Electrical (Service)	Infrastructure (panels, wiring, etc.)	1	2		Original to building
	Service & distribution	1	2		Original to building
	Generator	2	2		Both buildings served by same
	Other				
Electrical Lighting	Infrastructure (panels, wiring, etc.)	1	2		Original to building
	Fixtures (Interior)	2	1	2	Original to building
	Efficiency (incl. natural & artificial light distr.)	1	1	2	Original to building
Security	Access Control	2	2		
	Cameras	2	2		

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C. EXISTING CONDITIONS NARRATIVE

C.1 Architectural

Construction:

The complex on Little City Road was once the original Middle School and is now home to the high school and Region 17 Central Administrative Offices. The addition that houses the High School, abuts to the south of the original 1940s structure. Both buildings are constructed of non-combustible materials. Exterior walls are constructed of masonry veneer and interior walls vary in construction material. The floors are concrete slab on grade and elevated composite deck in the high school addition. The structural frames of both buildings consist of steel columns, and beams. Roofs are all steel framed.

Exterior:

Exterior façade (general): The exterior of the 1974 high school building is in generally in good condition. The southeast corner houses the main entrance. The exterior walls are brick clad with concrete block backup. A metal-clad mechanical mezzanine sits atop the northern wing. The roofs are flat throughout and are almost entirely covered with photovoltaic panels. Two elevated walks connect the north and south wings of the facility and are primarily storefront window systems.

Walls: The exterior walls are in good condition, but the brick could benefit from a general cleaning. The field house is clad in a combination of brick, vertical metal siding, concrete block, and glass block. Vertical building joints are in good condition and did not appear to need raking or replacing. Many building seismic joints were also observed, and all were in good condition.

Windows/Doors/Entrances: The entrance doors are steel doors with glass. These doors are in fair condition. Other doors, which have either a secondary function or function as egress only are painted hollow metal doors. Some of these doors are showing signs of wear and could benefit from repainting. Generally, the hollow metal doors are in fair condition. Windows are a combination of storefront glazing systems, clerestory windows and square punched openings. Most are thermally insulated, double pane and are in fair condition, except for the Media Center storefront. This system leaks every year when snow gathers atop and should be repaired or replaced. All windows appear to have a dark tint, limiting visibility to the interior of the facility.

Roof: The roof is almost entirely EPDM, except for the westernmost portion above the pool. Aside from a small portion above the cafeteria, the EPDM roof is in good condition. The pool roof is spray polyurethane foam and is in poor condition. There were signs of bubbling and ponding. Aesthetically, the roof fascia is in fair condition and could benefit from cleaning and repainting. Expansion joints are all in good condition. The roof surfaces are mostly free of debris. The cleanliness is most likely a result of the photovoltaic panels throughout the facility. Roof penetrations appear to be in good condition.

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Interior:

Interior spaces (general): The interior of the facility ranges from good to poor condition but is generally clean and well kept. The facility is laid out in a rectangular shape that spans across the main entry drive. Oriented north/south, the auditorium, Media Center, and cafeteria comprise the north wing, and the field house, tiered seminar room, and the majority of general classrooms, comprise the south. The floor plan and circulation are relatively simple; however, the sprawling layout is very inefficient for a high school curriculum. Major multi-use spaces are predominantly in the northern wing and can only be accessed via the east and west raised walks. Many spaces are unnavigable by ADA compliant standards because they are multi-level with no universal access.

Corridors: The majority of corridors are double loaded, with classrooms or major multi-use spaces on both sides. Corridor floor finishes vary between carpet, VCT and painted concrete. Carpet and VCT are dated but remain in fair condition. The painted concrete is worn and should be repainted. Acoustic ceiling tiles and painted concrete block finish the ceiling and walls throughout all corridors. Walls are in good condition, but the ceiling is in very poor condition. Many tiles are sagging, stained or have been replaced with mismatched tiles. Lockers flank many of the corridors surrounding the general academic classrooms. Aesthetically, the lockers are in poor condition and could benefit from an upgrade. The quality of artificial lighting varies throughout the corridors and ranges from very good to poor. Light sources are either indirect cove lighting above lockers or dated and deficient fluorescent lighting recessed in the acoustical ceiling.

Classrooms: Classrooms appear to have ample space and are typical of what would be expected in a building of this type and vintage. Teaching walls, with white boards, smart display boards and projectors, and tack boards, were present in most classrooms. Casework is not present in all classrooms and, where it is present, is dated and in fair condition. In general, there is a lack of storage space in most classrooms. The majority of classrooms on the upper level are flanked on either side by folding partitions. This creates significant issues with noise levels between spaces. Classrooms on the lower level of the south wing are two-tiered and not ADA compliant. Two of the six classrooms with this configuration are equipped with a ramp to provide access to the lowest tier. It is suggested that the remaining four classrooms incorporate similar ramps so that they too, are accessible. The exterior walls typically have a heating unit along the window. These windows provide good natural daylight for the size of the space. Ceilings are either acoustical tiles or exposed metal deck, depending on the floor and wing of the facility. The acoustical ceilings are in fair condition and the exposed ceilings are, aesthetically, in good condition. Flooring is either VCT or carpet; both in fair condition. Artificial light is dated and insufficient.

Administration Offices: The administration offices are located within the eastern bridge that connects the north and south buildings. There is ample space for administrative functions; however, the sprawling and linear layout is not efficient for the main office, guidance and nurse programs. The administrative offices are not easily accessible due to their location on the upper floor and their lack of ADA complaint door hardware. Security is of concern at the main office.

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Offices are situated at the main entrance but do not have full visibility to the main corridor. Because of this lack of visibility, a security guard is positioned in front of the main office. The floors are predominantly carpet and, although dated, in fair condition. Ceilings are acoustical tiles and are in good condition, despite a few replacement tiles. Walls are a combination of gypsum wall board partitions and demountable glass partition walls. The demountable glass walls were a result of a lack of office space and create significant issues with noise levels between spaces.

Major Common Spaces:

Auditorium: The auditorium is located in the eastern corner of the north wing and was renovated in 2018. Recent updates were implemented to ensure that the space is ADA compliant. A new raised access walk connects the main level with the stage and a wheelchair lift was also provided. The renovation included new seating, flooring, paint, and stage curtains. All are in very good condition. The space can be partitioned into 3 separate seminar rooms by means of full height curtain dividers.

Cafeteria: The cafeteria is located on the second floor of the northern wing and is accessed via the westernmost elevated walk or from the Music classrooms to the east. The cafeteria appears to be sized well for the number of students in each lunch wave and has the ability to be sectioned off by a folding partition. A kitchen and servery are north of the cafeteria. The cafeteria space is double-height and has expansive windows on the south and west walls, allowing the room to be filled with daylight. The floors are VCT and are in very poor condition. Extensive patching has left the floor looking aesthetically displeasing. Areas where the VCT have been worn down or stripped to the extent that the concrete slab is visible beneath. The ceiling is acoustical ceiling tiles and is in fair condition. The concrete block walls are in fair condition and could benefit from cleaning and painting. The food service equipment is nearing the end of its useful life and should be replaced with more efficient equipment that may better serve the facility.

Toilet Facilities: The school has ten main gang toilet facilities scattered across the facility, for male and female users. Select toilet partitions have been modified to include ADA stalls; however, the existence of entry vestibules into toilet facilities, deems them not fully ADA compliant. Although they are dated, these facilities are in fair condition. Each gang facility has operable partitions with water closets, lavatories, and paper towel dispensers. The floors are poured epoxy, ceilings are acoustical tile and walls are concrete block. The ceilings are in poor condition, but floors and walls are in good condition. Unisex facilities are present in the administrative area. Although not ADA compliant, these facilities are in fair condition. Locker room facilities are located on both the first and second floors in the Field House, and on the first floor adjacent to the swimming pool. All locker rooms are in good condition.

Media Center: The Media Center is situated at the eastern end of the north wing, adjacent to the auditorium. This space is generously sized compared to Media Centers throughout the district; however, its two and a half-story layout creates wasted space and restricts ADA accessibility. The landing between the first and second floor programmatic spaces is rarely used. Floors are carpeted and in fair condition. Ceilings are suspended acoustical tile and acoustical spline ceiling, all in fair condition. The walls are gypsum wall board and painted concrete block. Artificial and natural daylighting are sufficient in the space.

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Art: The majority of art rooms are located along the main east/west corridor, on the lower level. These spaces appear to be undersized for high school art class functions. Natural light is provided by a single wall of windows and a row of clerestory windows. Greater natural light is desired for an art classroom. Being an art classroom, it would be unfair to comment on the cosmetic conditions of the walls, floors or casework. Besides the cleanliness, the painted block walls and exposed ceiling appear to be in good condition. Casework is dated and deficient but remains in fair condition. Support spaces such as storage, kiln room and dark room are insufficiently sized for the art curriculum.

Field House / Swimming Pool: The field house comprises approximately one third of the southern wing and was recently renovated. The space is rare for a high school and greatly supports the physical education curriculum. Locker rooms that serve the field house were also recently renovated. All interior finishes are in very good condition. The swimming pool is adjacent to the field house and is also equipped with its own locker rooms. The swimming pool is used by the high school swim team, physical education classes, and Parks and Recreation summer camps. The filter does not function properly; thus, leaving the pool in fair condition. The painted concrete block walls and exposed structural deck are, aesthetically in good condition. Ceramic tile floors are dated and are in poor condition. Compared to the field house locker rooms, the pool locker rooms are dated, small and poorly lit. Both the Field House and Pool locker rooms do not comply with Title IX by gender inequality of programmatic spaces. Male locker rooms are larger in size and contain athletic offices for staff. It is recommended that both sets of locker rooms be reconfigured to comply with Title IX gender equality and equal opportunity standards.

Music: The music rooms are located just east of the cafeteria and consist of two, tiered practice rooms, individual practice rooms, and musical offices. Floors are VCT throughout most spaces and walls are either painted concrete block or corrugated metal. Aesthetically, all are in fair condition. The spaces appear to be adequately sized for the music curriculums.

Code, Safety and Hazardous Materials Abatement:

ADA: The building would not be deemed ADA compliant in reference to toilet facilities, required clearances and access. Being a two-story building with limited access to major common spaces, there are significant issues with ADA accessibility. Access is granted to each floor by a single elevator that is located near the main entry. Most door hardware is not code compliant. Some of these doors do not have the proper push clearances. Not all toilet facilities are ADA complaint due to lack of accessible stalls and entry vestibules into the facilities.

Safety: The building has a few aspects that may be deemed problematic from a life safety perspective. The building is not fully sprinklered. From a security perspective, the school appears to have insufficient access control at the main entrance. Security would improve greatly with increased visibility from the main office to the entry corridor. There are many blind spots throughout the building that are not covered by the facilities security cameras. There are many exterior doors that could be possible points of entry and therefore, difficult to monitor.

Hazardous Materials Abatement: A building of this vintage is expected to be clad with asbestos-containing materials. Owner-supplied Asbestos Inspection and Management Plans identify

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materials that are assumed to contain asbestos and will eventually require remediation. Building construction materials and finishes to monitor for future abatement include but are not limited to: vinyl floor tile and associated adhesive, cement countertops and sinks, pipe fitting insulation, and loose roof debris above ceilings.

C.2 Central Office

The Regional School District 17 Central Offices are housed in what was once the original Middle School. The facility, that dates back to 1954, is accessed from Little City Road and is connected to the High School by two corridors to the south. The Central Office layout consists of double loaded corridors, flanked by administrative offices on either side. Aside from the administrative offices, the facility hosts daycare, gymnasium, and unoccupied rooms that are occasionally utilized by high school studies.

The exterior of the 1962 building is in generally in fair condition. The northeast corner houses the main entrance. Exterior walls are brick clad with concrete block backup. All are in fair condition but could benefit from a general cleaning. but the brick could benefit from a general cleaning. Vertical building joints are in fair condition and some should be replaced. The entrance doors are steel doors with glass. These doors are in fair condition. The main entry doors are aluminum framed with thermally insulated glass. Other doors, which have either a secondary function or function as egress only are painted hollow metal doors. Some of these doors are showing signs of wear and could benefit from repainting. Generally, the hollow metal doors are in fair condition. Windows are a combination of storefront glazing systems and clerestory windows. All windows are single pane and are in fair condition. The roof is entirely spray polyurethane foam and is in good condition, despite a few areas that demonstrated ponding.

Floor finishes throughout consist of VCT tile that is currently encasing asbestos tile flooring beneath. Gym flooring is in very poor condition and should be replaced. Occasional offices encase the asbestos flooring with carpet. Both VCT and carpet are in poor condition. Painted concrete block walls are in good condition but could benefit from a general cleaning and coat of paint. Ceilings are acoustical tiles throughout, with the exception of the gymnasium that has an exposed tectum deck. Acoustical tiles are in poor condition and show signs of staining and sagging in many locations.

Casework throughout the offices is in fair condition. The black cement countertops in the old science classrooms contains asbestos and should be mitigated.

A building of this vintage is expected to be clad with asbestos-containing materials. Owner-supplied Asbestos Inspection and Management Plans identify materials that are assumed to contain asbestos and will eventually require remediation. Building construction materials and finishes to monitor for future abatement include but are not limited to: the boiler, vinyl floor tile and associated adhesive, sheet flooring and associated adhesive, cove wall base, carpet adhesive, cement countertops, and sink undercoatings.

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C.3 "White House"

On the northwest corner of the site is what is referred to as the "White House." This house is currently occupied by the town Recreation Department as well as the Youth and Family Services department. There is no ADA accessible entry into the facility, nor within. This structure is two stories with a basement and does not have an elevator to grant access to all floors.

The exterior is clad in vinyl siding that could benefit from a general cleaning. Decorative woodwork at the cornice and front entry portico should be repainted. Double-hung, 6-over-6 windows appear to be replaced and are double-pane, thermally insulated. An exposed stacked-stone foundation wraps the building and is in fair condition.

Finishes are dated throughout and are in poor condition. Plaster walls and ceilings are in fair condition but could benefit from minor repairs and repainting. Acoustical ceilings are very poor and show signs of staining, ununiform replacement tiles and sagging tiles. VCT and carpet flooring are in poor condition, especially the basement carpet. Flooring should be replaced throughout.

C.4 Transportation Facility (STA)

The District's school bus transportation department, Student Transport of America (STA) is located in the far, southwest corner of the site, just past the high school parking lot. The structure is constructed of concrete block walls, painted at the exterior, and exposed on the interior. The exterior of the walls is, aesthetically, in very poor condition. All facades have chipping paint and staining, particularly at the base of the walls. Exterior hollow metal doors are in fair condition. A pair of overhead doors are on the north side of the structure. These are in poor condition. The roof is white EPDM and appears to be in fair condition.

The office space within the structure is clean and well-kept. Painted concrete block walls and gypsum ceiling are in good condition. The floors are VCT and are in fair condition. Painted hollow metal doors are in good condition. Being a repair shop, it would be unfair to comment on the cosmetic conditions of the walls and floors within the bus bays. Besides the cleanliness, the block walls and exposed metal roof deck appear to be in fair condition.

Northwest of the building is the Transportation Department's bus storage shed. This shed can house and charge approximately 30 buses. The structure is timber framed with a corrugated metal roof and rear enclosure. Structurally, the shed appears to be in good condition. The siding could benefit from repainting.

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C. EXISTING CONDITIONS NARRATIVE

C.2 MEP / Security

C.21 PLUMBING / FIRE PROTECTION

Hot Water Generation:

Domestic hot water for the building is provided by (4) A.O. Smith Cyclone water heaters. The units are gas (propane) fired with an input of 499 MBH input each. The water heaters have a storage capacity of 118 gallons and are roughly 5 years old. The equipment appears to be in good condition and is working properly.

Domestic Water Service:

Domestic water for the building is provided through (2) private wells located on site. The well pump feeds two 10,000 gallon underground storage tanks, which store the potable water used by the school. A set of duplex booster pumps manufactured by Grundfos provides water to the school from the storage tank. The pumps are located in the mechanical room. The domestic water service appears original to the 1974 construction and is in fair working condition.

Domestic Water Piping:

Domestic water piping was observed to be a combination of copper and steel piping. The majority of the piping appears to be original to the building. Due to the piping being close to 50 years old, a complete replacement would be recommended as part of a renovation project.

Plumbing Fixtures:

Plumbing fixtures appear to all have manual flush valves and faucets. The plumbing fixtures are original to construction of the building and are in fair working condition. Upgrading existing fixtures to low flow style fixtures can help reduce water usage.

Sanitary Service:

The building utilizes a septic sanitary service. Multiple sewage ejection pumps are in use both outside and inside the building to pump the sewage into the septic system. Science labs are provided with glass sanitary piping to handle the acid waste from the sinks. The acid waste is fed into an acid neutralization tank located in the floor below the science labs. The sanitary service piping is original to the building and should be replaced during a renovation project.

Storm Service:

The building contains a roof drain system that serves down spouts located at the building exterior. Storm is piped underground to a storm water retention system located on site. No issues were indicated with the current storm water retention system during the site visit.

Natural Gas Service:

No natural gas is available at the site. Equipment uses #2 fuel oil or propane. There are above ground propane tanks located on site. There appeared to be three 1000 gallon propane tanks

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located within a fenced in enclosure. There is one 30,000 gallon fuel oil tank buried underground outside. Both the propane tanks and oil tank appear to be in fair working condition.

Fire Protection:

No fire protection system is provided within the building.

C.22 MECHANICAL

Heating Systems:

Heating hot water is provided throughout the building by six Cleaver Brooks FLX cast iron boilers with a rated capacity of 550 MBH each. The boilers are dual fuel (oil or propane) and are roughly 5 years old. The boilers appear to be in good condition. The boilers are currently being run on oil but can switch to propane if necessary. There are six base mounted hot water pumps that distribute the hot water throughout the building. The pumps are manufactured by Armstrong and were installed within the last 5 years. Each pump is provided with a suction diffuser, triple duty valve and wall mounted VFD (variable frequency drive). All six pumps appear to be in good working condition. The boilers and the hot water pumps are all located in the mechanical room.

Hot Water Piping:

Hot water piping appeared to be a combination of copper and steel piping. The majority of the piping appears to be original to the building and in fair working condition.

Terminal Units:

The building consists of hot water wall convectors, fin-tube radiation, and unit heaters to provide perimeter heating to various rooms. These pieces of mechanical equipment appear to be original to construction and are past their useful life expectancies.

Cooling & Ventilation Systems:

The building contains 32 total air handling units. Twenty-six of the units provide ventilation, heating and cooling while the other six do not provide cooling. A majority of the units are located in the roof penthouse space. These units are TRANE Climate Changers that appear original to the building. They consist of an outside air connection, hot water coil for heating and a direct expansion coil for cooling. The condensers for the air handling units are located on the roof just outside of the penthouse space. Even though a majority of the units are still operating as designed, they are past their useful life. It was indicated by the facility personnel that parts are difficult to find for the air handling units due to age and the cooling refrigerant used is the older R-22 refrigerant which has been phased out for some time. Full replacement of all Trane Climate Changer units and their respective condensing units is recommended. The replacement units would provide heating, cooling, 100% outdoor air, energy recovery, MERV 13 filters and proper dehumidification. The newer units also use a more readily available refrigerant. The six units that only provide ventilation and heating appear to serve the gymnasium and field house. These units are located in a catwalk area and a mechanical alcove above those locations. These units have been renovated recently and appear to be in good working condition. The building also

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contains various roof mounted exhaust fans that relieve certain rooms of the building of exhaust throughout.

Ductwork:

The ductwork throughout the building serves the 32 air handling units and the roof mounted exhaust fans. The ductwork appears to be original to construction.

Controls:

The building does not contain a building management system (BMS). The building contains pneumatic controls and thermostats that are all original to construction and at the end of their useful lives. Incorporating a BMS system is highly recommended in order to track the efficiency of the entire mechanical system and to spot any malfunctions in equipment as soon as they happen.

C.23 ELECTRICAL

Main Electrical Service:

The main electric service originates from a utility company pole. The service runs from the utility pole to a utility company owned, pad mounted transformer located adjacent to the building. The service then runs underground to the main switchboard located in the basement of the building.

The main electric service to the building is rated 3000 Amps, 480/277 volts, 3-phase, 4-wire, and includes a main disconnect switch, utility company metering compartment, and distribution sections. This service and equipment are original to the building and are past their useful life.

Electrical Distribution:

The electrical distribution consists of conduit and feeders from the main distribution panels to branch circuit panelboards located within each section of the building. In each electric room, there is a single unit switchgear with 480/277V panelboard, stepdown transformer and 208/120V panelboard. From this unit other panelboards are served with in the room and in some areas of the building. From these panels all HVAC, lighting, receptacles and all other loads are served. The electrical distribution, equipment and wiring are original to the building and are past their useful life.

Generator:

The building currently served by an Onan 150 kW diesel fired generator. This generator serves a Kohler Automatic Transfer Switch (ATS). The generator output 250A circuit breaker serves both stand-by and life safety power. This generator is original to the building and past its useful life.

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Lighting Systems:

The lighting throughout the building consists of downlights, 1x4, 2x2 and 2x4 fluorescent troffers and some LED fixtures. Although the lighting is functional, lighting is outdated throughout the building and fluorescent fixtures should be replaced with energy efficient LED fixtures.

Emergency lighting for the building is served from emergency branch circuits that are served off the emergency distribution served from the 150 kW generator.

Lighting control consists of wall-mounted toggle switches; key operated toggle switches and ceiling mounted occupancy sensors for local control.

Fire Alarm System:

The fire alarm system in the building consists of a Fire Alarm Control Panel by Simplex. There is a annunciator panel at the main entrance. Throughout the building, there are horn/strobe units, strobe only units, smoke detectors and pull stations located in most areas.

Communication Services:

Cable TV service is utilized in the building. Service cable enters the building and distributes through multiple amplifiers to distribution hubs throughout.

T1 communication equipment exists at the MDF service backboard.

Fiber service is provided to the building and distributed throughout.

Communication services enter the main telecomm room via multiple 4" conduits brought in from the street.

MDF and IDF rooms are provisioned throughout the building at locations that promote the proper coverage to conform with network cabling distance limitations. Building horizontal cabling is Cat 6 with PoE type network switches installed on two post racks. The rooms are appropriately outfitted with grounding and bonding, basket tray rack and dedicated cooling systems.

Wireless access points are provided within the building, however per staff many areas are very spotty.

Security is provided through card readers at entrances and cameras located on the exterior and interior of the building. The system is in good working condition.

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Ceiling and wall mounted speakers are provided throughout for general paging are in good working condition.

C.24 White House

The residential white house located on the property is used by the school system for office space. The property is provided with domestic water from a well located on site. The domestic water system consists of an inline cartridge filter and pressure tank. Hot water is provided through an electric water heater manufactured by Bradford White. Heating is provided by a cast iron boiler, manufactured by H.B. Smith Co. The boiler is oiled fired and serves radiators throughout the house. The boiler appears to be nearing the end of its useful life. Cooling is provided to the building by an air handling unit located in the attic that serves the second floor through ceiling diffusers. The unit appears to be in fair condition. The first floor is cooled through window AC units.

Main Electrical Service:

The main electric service originates from a utility company pole. The service runs from the utility pole overhead to a weather head, down the side of the house to a utility meter.

The main electric service to the building is rated at 100 Amps, 240/120 volts, 1-phase, 3-wire, and includes a 100A main circuit breaker panel located in the basement. This service is original to the building and are past their useful life.

Electrical Distribution:

The electrical distribution consists of romex wire from the panel to HVAC, lighting, receptacles and all other loads served. The electrical distribution, equipment and wiring are original to the building and are past their useful life.

Generator:

No generator serving this building

Lighting Systems:

The lighting throughout the building consists of downlights, 1x4, 2x2 and 2x4 fluorescent troffers. Although the lighting is functional, lighting is outdated throughout the building and past its useful life.

Lighting control consists of wall-mounted toggle switches and ceiling mounted occupancy sensors for local control.

Fire Alarm System:

There is no fire alarm system for this building, although there are local smoke detectors located throughout.

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

C.25 Central Office Building

The central office building located on the property is used as the main administration building and serves as extra classroom space for the high school students. The property is provided with domestic water from two wells located on site. The well water is stored in two 10,000 gallon storage tanks buried underground. Domestic hot water is provided by an oil fired water heater manufactured by Bock that appears to be nearing the end of its useful life. Plumbing fixtures appear to utilize all manual flush valves and faucets and are original to the building. A septic sanitary system and roof drain storm piping system is used throughout the building. There is no natural gas service on site, instead there are two 300 gallon oil tanks located in the mechanical room. There is no fire protection system throughout the building.

Heating is provided off the boiler system located in the high school. Floor mounted hot water pumps in the central office mechanical room help pump the hot water from the high school boilers throughout the central office building. The building consists of hot water wall convectors, fin-tube radiation, and unit heaters to provide perimeter heating to various rooms. Ventilation and heating is accomplished through unit ventilators and every room with an exterior wall. Cooling is also accomplished in these rooms by window mounted AC units. The gymnasium has two heating and ventilation units that appear original to the building. There is one air handling unit located inside a storage room that serves the locker rooms and offices next to the Gymnasium. This unit provides heating and ventilation only and appears original to the building. All of the heating and ventilation units are roughly 45 years old and are operating past their useful life. There are roof mounted exhaust fans that relieve the build of any exhaust air. The building does not contain a BMS, it does contain pneumatic controls and thermostats that appear original to construction. All mechanical equipment appears old and either past the end of their useful lives or nearing it.

C.26 Transportation Building

The transportation building located on the property serves as the office of transportation and garage for all school vehicles. The domestic hot water for the building is provided by an 82 gallon electric hot water storage tank manufactured by Ford and located in the corner of the Garage. The tank appears to be original to the building and is in poor condition. Domestic water is provided to the tank by the well water system located on the High School property. Domestic water piping was observed to be copper, original to the building and in poor condition. The plumbing fixtures appear to all have manual flush valves and faucets, and are in fair working condition. The building utilizes a septic sanitary service and a roof drain storm service that appear original to the building and are in fair working condition. There is no natural gas or fire protection system within the building. The building is served by two 300 gallon #2 fuel oil tanks located in the corner that appear to be in fair working condition.

Heating is provided by a cast iron boiler manufactured by Weil-McLain and located in the corner of the Garage. The boiler is fuel oil fired, appears original to the building and is in poor condition. There are two base-mounted pumps that pump the hot water through the building's heating system. The pumps appear to be original to the building and are in very poor condition. The hot water piping was observed to be copper and steel, appears to be old and run down, and is at the end of its useful life. The building consists of hot water perimeter radiators and unit heaters that provide heat to the office spaces and Garage. These units appear to be old and are at the end of their useful lives. There is no cooling plant

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

within this building. Cooling is provided to the office space by one wall mounted split AC unit that has a condensing unit located outside. Ventilation is provided by operable windows and garage bay doors only. The Garage contains a wall mounted waste oil furnace that provides heating to the Garage by utilizing any waste oil that can burn. The waste oil furnace is manufactured by Energylogic and appears to be in poor condition. The Garage also contains an underfloor exhaust system that exhaust all contaminant air out of the building. There is an exhaust fan that serves the bathroom and is located on the roof. All exhaust fans appear original to the building and are in poor condition. There is very minimal ductwork throughout but all ductwork is at the end of its useful life. The building utilizes standard electric controls and there is no building management system.

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

C. EXISTING CONDITIONS NARRATIVE

C.2 Site

Roadways/Parking: The high school can be accessed from Little City Road, either by the Central Office drive or the western drive adjacent to the Recreational Department ("White House"). Buses use the west entry that splits into the bus loop and student faculty parking. The bus loop continues along the roadway that runs between the two wings of the building. There is visitor parking along this bisecting roadway. Staff parking is located northwest of the building, and the large student parking lot is to the southwest, behind the Field House and adjacent to the tennis courts.

The overall condition of site pavement is poor with evidence of alligator and fine cracking, slight pavement deterioration, and transverse cracking located throughout the drive aisles. In some areas, the bituminous pavement shows slight separation from the curb. Observation of sediment buildup is indicative of puddling along parts of the curb and stormwater infiltration into the base.

The overall condition of curbing throughout the site is poor. Several areas of extruded bituminous concrete curb are cracked and shows signs of deterioration.

Walkways: Walkways on site consist of bituminous concrete and concrete pavement. Bituminous concrete walkways are in overall poor condition. Signs of cracking and erosion are present throughout the site.

Condition of the concrete pavement walkways range from fair to poor. Walkways adjacent to the driveway and parking areas are in worse poor condition, showing signs of cracking and deterioration.

Paved Play: Paved play areas are not present at this school.

Grass Fields: Grass athletic fields are located south of the facility. The athletic fields consist of a soccer field and football field that is surrounded by a 400-meter track. Grass cover at the football field appears to be in good condition; however, the soccer field grass is in poor condition. Subbase below the soccer field is failing and causing ponding. It is suggested that all grass fields upgrade to synthetic ground cover to increase the longevity of the fields and reduce yearly maintenance and upkeep.

Diamond Fields: Diamond fields are present at the west and south of the site. The softball field is located west along Little City Road. The primary baseball field and a practice field are located amongst the other athletic fields, between the soccer fields and track. Ground cover at the fields appears to be in fair condition. It is suggested that all diamond fields upgrade to synthetic ground cover to increase the longevity of the fields and reduce yearly maintenance and upkeep. The addition of a field irrigation system would also aid in reducing field maintenance.

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

Tennis Courts: There are eight tennis courts, two fenced in sets of four. Courts were recently replaced and are in very good condition. Site lighting is not present at the courts and should be added to aid in community-use of the amenity.

Playgrounds: Playgrounds are not present at this school.

Accessory Structures: The press box at the soccer field is in very poor condition and should be replaced. Bleachers on the west side of the football field and track are in good condition but provide insufficient seating for games and events. It is suggested that an additional set of bleachers be added on the east side of the field to supplement the lack of seating.

Fencing: Four-foot-high chain link fencing surrounds the track and football field, baseball field and softball field and is in good condition. Ten-foot-high fencing encloses the tennis courts and was replaced when the courts were refinished. It is in very good condition.

Lighting: Site lighting poles and bases appear to be in fair condition. Coverage seems to be lacking in the rear student parking lot. Athletic lighting surrounds the football field and track, as well as the baseball field. All appear to be in good condition.

Landscaping: Overall landscaping is in good to fair condition. Lawn areas adjacent to walkways, parking areas, and building entrance should be reseeded to cover bare spots.

EDUCATIONAL FACILITIES ASSESSMENT

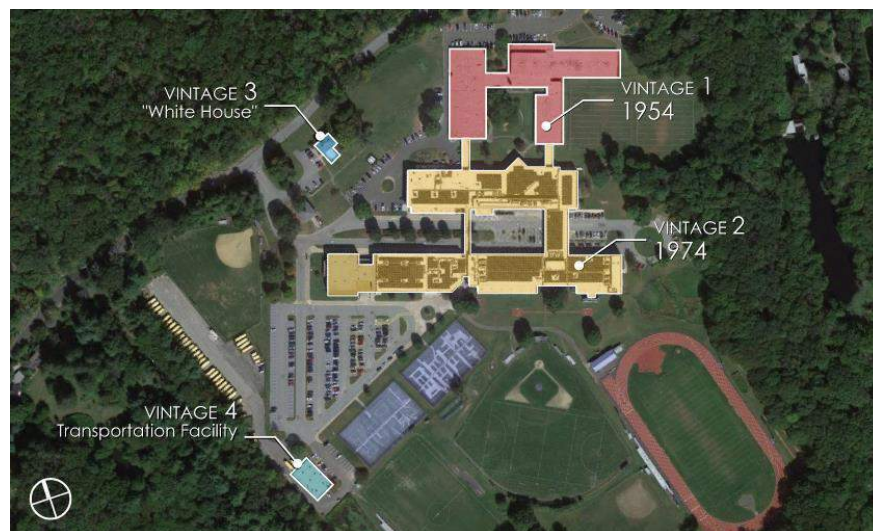
HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.1: Aerial – Context



D.1.2: Years of Construction - Vintage

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.3: HKHS Exterior – Entry Driveway



D.1.4: HKHS Exterior – Main Entrance

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.5: HKHS Exterior – Walls & Windows



D.1.6: HKHS Exterior – Walls & Windows

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.7: HKHS Exterior – Walls & Windows



D.1.8: HKHS Exterior – Swimming Pool

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.9: HKHS Exterior – Field House



D.1.11: HKHS Roof – Spray Polyurethane

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.12: HKHS Roof – EPDM Membrane



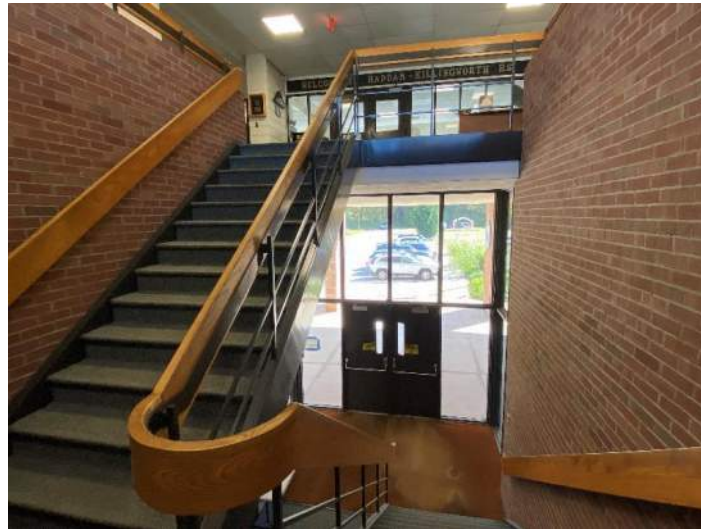
D.1.12: HKHS Roof – Photovoltaic Panels

EDUCATIONAL FACILITIES ASSESSMENT

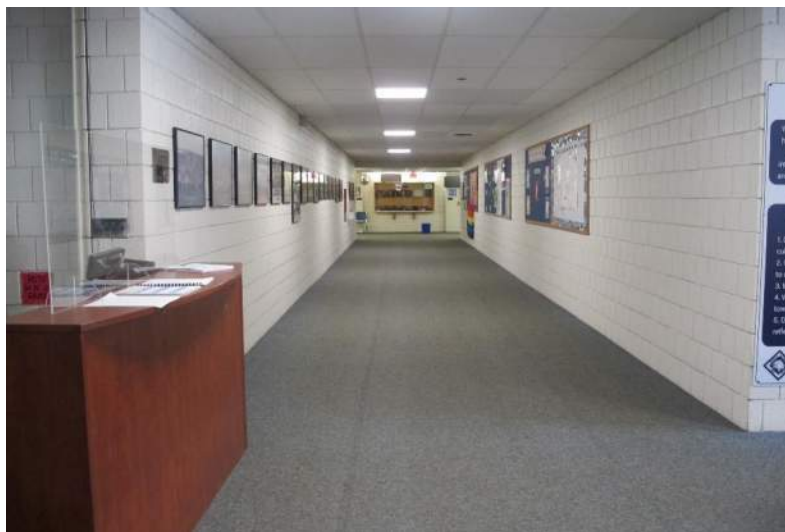
HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.13: HKHS Interior – Main Entry



D.1.14: HKHS Interior – Entry Corridor

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.15: HKHS Interior – Corridors



D.1.16: HKHS Interior – Corridors

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.17: HKHS Interior - Corridors



D.1.18: HKHS Interior – Classrooms

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.19: HKHS Interior – Classrooms



D.1.20: HKHS Interior – Science Classrooms

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.21: HKHS Interior - Cafeteria



D.1.22: Interior – Administrative Offices

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.23: HKHS Interior – Field House



D.1.24: HKHS Interior – Swimming Pool

EDUCATIONAL FACILITIES ASSESSMENT

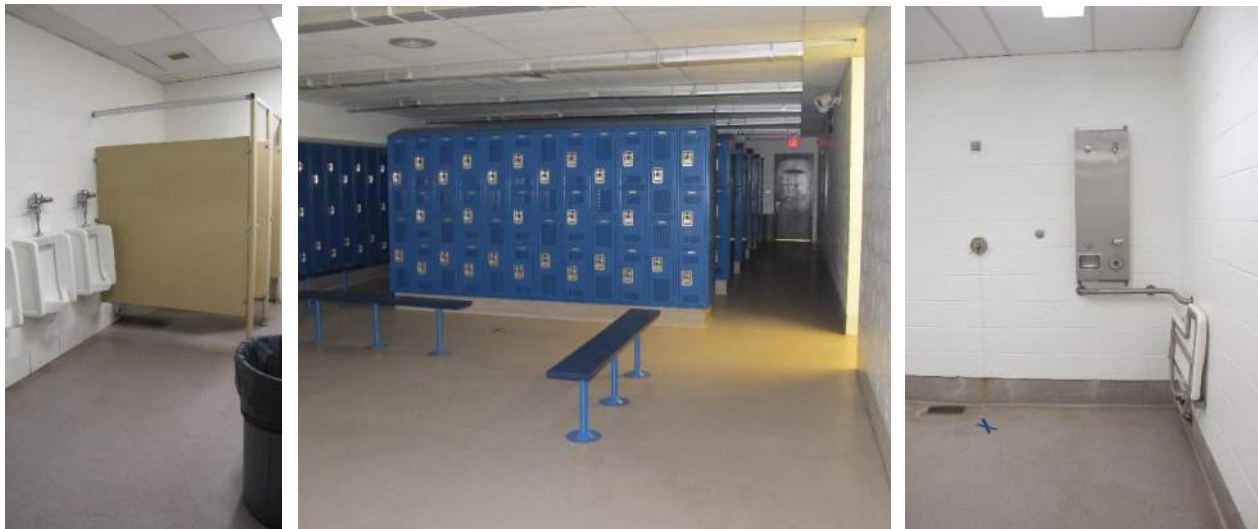
HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.25: HKHS Interior - Toilet Facilities



D.1.26: HKHS Interior – Field House Locker Room

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.27: HKHS Interior – Pool Locker Room



D.1.28: HKHS Interior – Library

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.29: HKHS Interior – Library



D.1.30: HKHS Interior – Library

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.31: HKHS Interior – Library



D.1.32: HKHS Interior – Seminar Room

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.31: HKHS Interior – Autobody Shop



D.1.32: HKHS Interior – Art Room

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.31: HKHS Interior – Music Rooms



D.1.32: HKHS Interior – Music Rooms

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.31: HKHS Interior – Auditorium



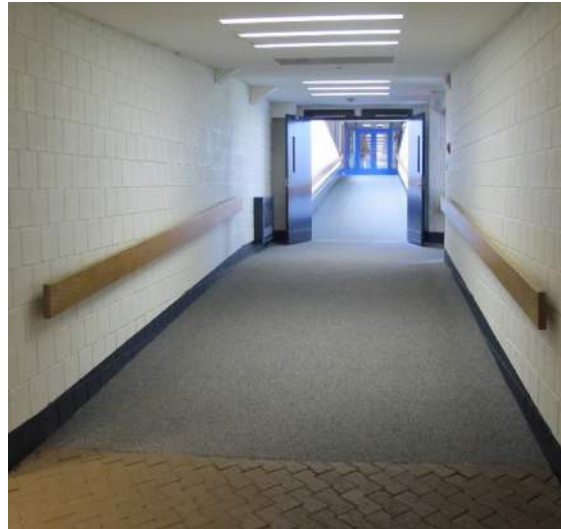
D.1.32: HKHS Interior – Auditorium

EDUCATIONAL FACILITIES ASSESSMENT

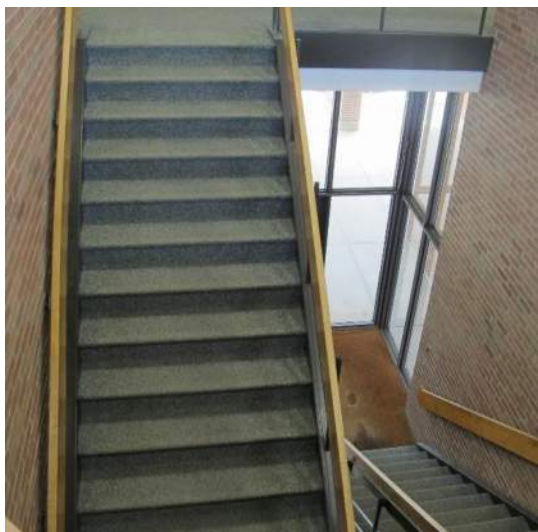
HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.33: HKHS Interior – Ramps



D.1.34: HKHS Interior – Communicating Stairs

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.35: Central Office – Exterior



D.1.36: Central Office – Exterior

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.37: Central Office – Exterior – Playground



D.1.38: Central Office – Exterior

EDUCATIONAL FACILITIES ASSESSMENT

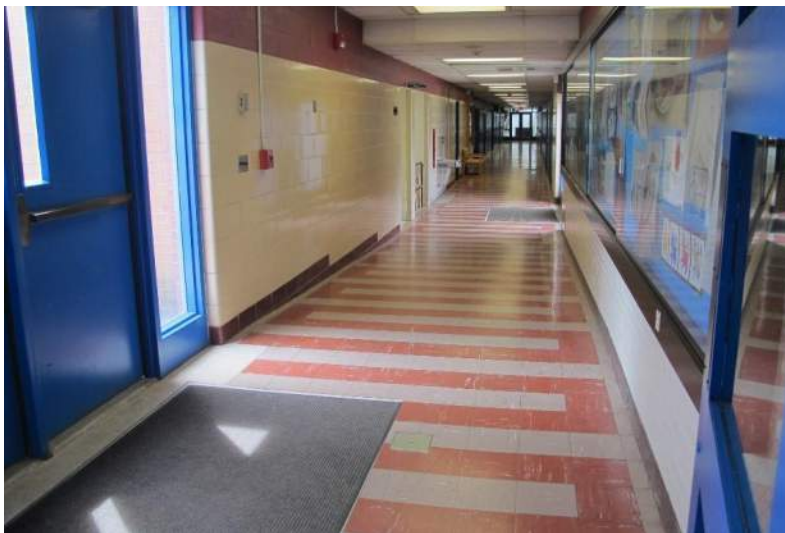
HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.39: Central Office – Roof – Spray Polyurethane



D.1.40: Central Office Interior – Corridors

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.41: Central Office Interior – Corridors



D.1.42: Central Office Interior – Toilet Facilities

EDUCATIONAL FACILITIES ASSESSMENT

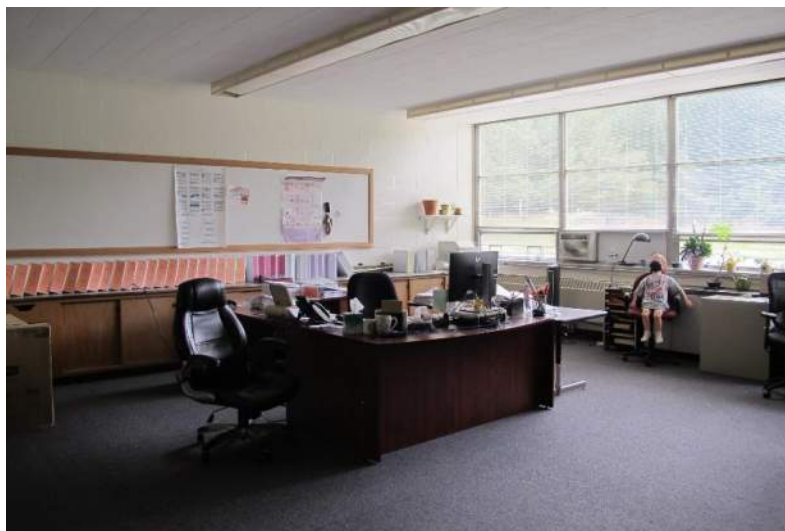
HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.43: Central Office Interior – Toilet Facilities



D.1.44: Central Office Interior – Offices

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.45: Central Office Interior – Offices



D.1.46: Central Office Interior – Offices

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.47: Central Office Interior – Offices/Classrooms



D.1.48: Central Office Interior – Gymnasium

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.49: "White House" – Exterior



D.1.50: "White House" – Exterior

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.51: "White House" – Interior



D.1.52: "White House" – Interior

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.53: "White House" – Interior



D.1.54: "White House" – Interior

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.55: "White House" – Interior – Stairs



D.1.56: "White House" – Interior – Basement

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.57: Transportation Facility – Exterior



D.1.58: Transportation Facility – Exterior

EDUCATIONAL FACILITIES ASSESSMENT

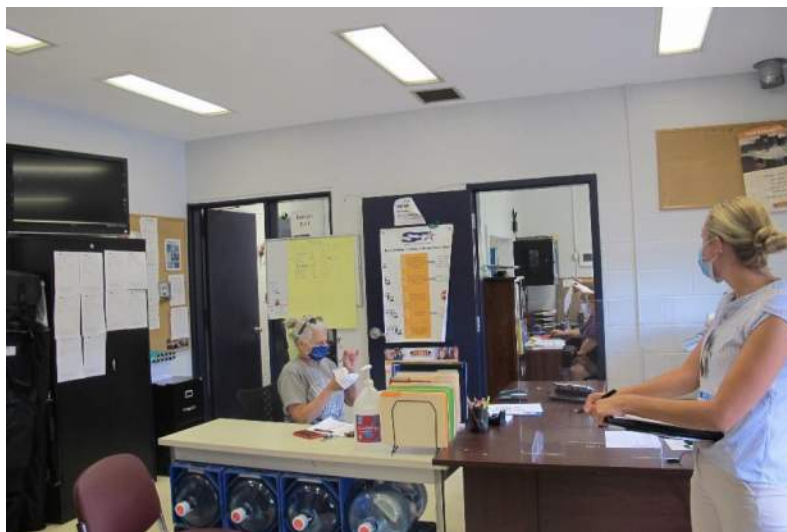
HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.59: Transportation Facility – Exterior



D.1.60: Transportation Facility – Interior

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.61: Transportation Facility – Interior



D.1.62: Transportation Facility – Interior

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.1 Architectural



D.1.63: Transportation Facility – Bus Shed

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

D. PHOTO LOG

D.2 MEP / Security



D.2.1: Four Domestic Water Heaters Serving the High School



D.2.2: Six Hot Water Boilers

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

D. PHOTO LOG

D.2 MEP / Security



D.2.3: Six Hot Water Pumps



D.2.4: Four Hot Water Expansion Tanks

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

D. PHOTO LOG

D.2 MEP / Security



D.2.5: Heating and Ventilation Unit Serving the Field House



D.2.6: Air Handling Unit Serving the Pool Room

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

D. PHOTO LOG

D.2 MEP / Security



D.2.7: Condenser Unit Located Outside on the Roof



D.2.8: Manual Plumbing Fixtures

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

D. PHOTO LOG

D.2 MEP / Security



D.2.9: White House Domestic Hot Water Tank



D.2.10: White House Hot Water Boiler

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

D. PHOTO LOG

D.2 MEP / Security



D.2.11: Central Office Building Domestic Hot Water Heater



D.2.12: Central Office Building Unit Ventilator

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL (HKHS) 9-12

D. PHOTO LOG

D.2 MEP / Security



Typical Unit Ventilator serving gym



Typical hydronic radiator

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.3 Site



D.3.1: Main Entry



D.3.2: Entry Drive

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.3 Site



D.3.3: Parking



D.3.4: Walkways

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.3 Site



D.3.5: Tennis Courts



D.3.6: Track and Football Field

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.3 Site



D.3.7: Soccer Field



D.3.8: Diamond Fields

EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

D. PHOTO LOG

D.3 Site



D.3.9: Diamond Fields



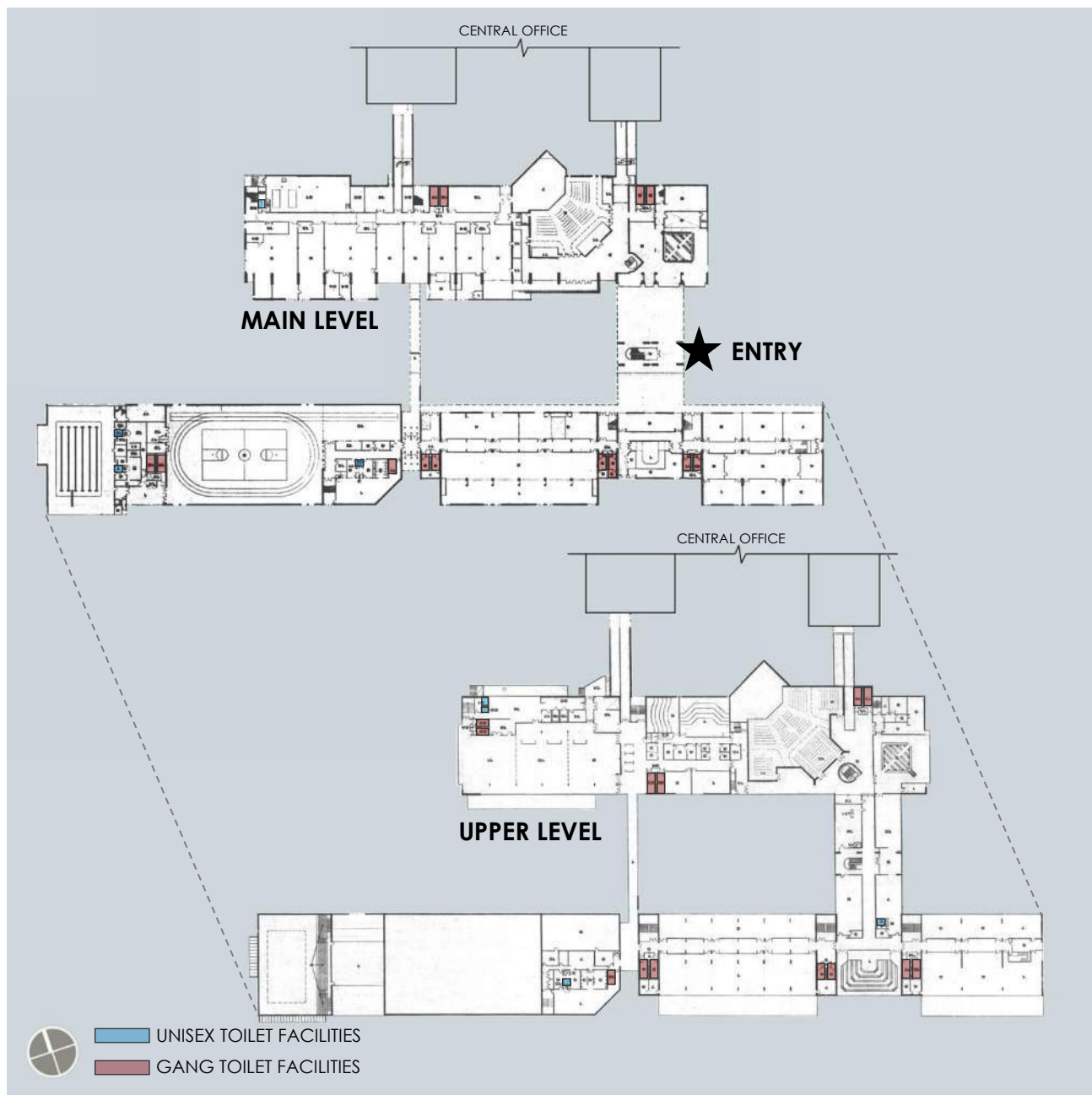
D.3.10: Loading Area

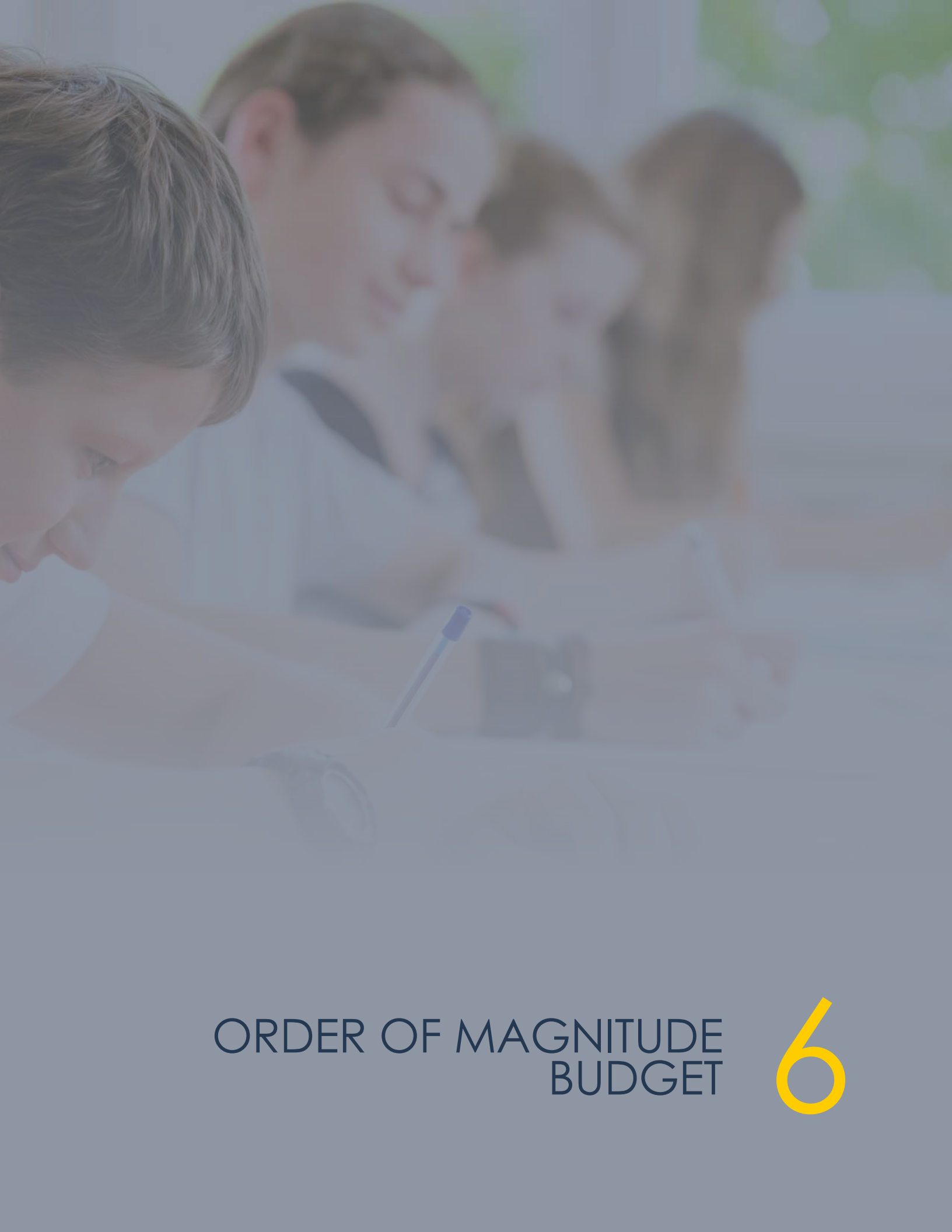
EDUCATIONAL FACILITIES ASSESSMENT

HK HIGH SCHOOL & CAMPUS (HKHS) 9-12

E. APPENDIX

E.1 PLAN DIAGRAMS - HIGH SCHOOL





ORDER OF MAGNITUDE BUDGET



ORDER OF MAGNITUDE BUDGET

KILLINGWORTH ELEMENTARY SCHOOL (KES) PreK-3

Building Square Footage: 63,251 sf

Proposed Improvement		Recommended Timeframe					Comments
		Immediate	1-3 Years	3-5 Years	5-10 Years	10 + Years	
Site Related Improvements							
1	Concrete Curbs and sidewalks				\$112,700.00		Full depth replacement of curbs and sidewalks.
2	Concrete Stairs			\$8,800.00			Install new ADA and IBC compliant concrete stairs and railings.
3	Paved parking and driveways				\$301,500.00		Full depth replacement of parking lots and driveways.
4	Upgrade exterior building and site lighting			\$10,500.00			
Hazardous Materials Abatement							
5	Abatement costs				\$360,000.00		
Architectural Exterior							
6	Replace exterior windows (V1, V2, V3)				\$302,100.00		Demolish and replace single-pane, non-insulated windows with thermally insulated windows
7	Add security film to windows and doors	\$131,100.00					Add security film to ground floor windows and doors
Architectural Interior							
8	Toilet room upgrades - Unisex Facilities			\$40,000.00			Upgrade finishes
9	Toilet room upgrades - Gang Facilities			\$150,000.00			Upgrade to include an ADA compliant stall, upgrade finishes
10	Replace door hardware	\$114,750.00					Remove existing hardware and replace with ADA compliant hardware
11	Replace carpet (V1, V2, V3)			\$130,000.00			
12	Replace casework (V1, V2)				\$84,225.00		Replace base and upper cabinets and plastic laminate countertops
13	Replace gym floors		\$24,885.00				
14	Replace gym sports equipment		\$33,000.00				
15	Signage		\$4,860.00				
16	Window Treatments		\$157,320.00				Solar shades to increase energy efficiency
Division 21 - Fire Protection							
18	Fire Alarm System	\$252,000.00					Upgrade fire alarm system and make code compliant
19	Fire Protection - Sprinklers	\$316,255.00					
20	Fire Protection - Tanks & Pumps		\$700,000.00				
Division 22 - Plumbing							
21	Plumbing Fixtures / Equipment			\$252,000.00			Prepare for replacement of plumbing fixtures that are original to the building
22	Replace Domestic Water Service		\$300,000.00				Tanks, Pumps, Filtration
23	Replace plumbing infrastructure		\$822,263.00				Piping, valves, fixtures
Division 23 - Mechanical							
26	Control Systems			\$347,880.00			Pneumatic controls to be upgraded to new DDC system with BMS.
27	Full HVAC Ventilation and AC	\$4,111,315.00					
Division 26 - Electrical							
28	Rewiring			\$38,362.00			
29	Lighting - General		\$567,000.00				Upgrade light fixtures to energy efficient LED fixtures
Technology Improvements							
30	Phone system consolidation and upgrade to VOIP		\$33,140.00				Direct Quote, Includes: material and labor
31	Replace SmartBoard/Projectors		\$91,000.00				Includes: screen, wall mount, HDMI, USB, wall plate, install
32	Add WiFi estimates for outdoor coverage	\$38,362.00					
33	Replace gym PA system		\$12,000.00				

35	Access controls upgrade		\$253,004.00				
	TOTAL	\$4,963,782.00	\$2,998,472.00	\$977,542.00	\$1,160,525.00	\$0.00	

ORDER OF MAGNITUDE BUDGET

BURR DISTRICT ELEMENTARY SCHOOL (BES) K-3

Building Square Footage: 50,845 sf

Proposed Improvement		Recommended Timeframe					Comments
		Immediate	1-3 Years	3-5 Years	5-10 Years	10 + Years	
Site Related Improvements							
1	Concrete Curbs and sidewalks				\$165,191.00		Full depth replacement of curbs and sidewalks.
2	Paved parking and driveways				\$341,563.50		Full depth replacement of parking lots and driveways.
3	New raised play structure	\$25,000.00					Outside kindergarten classrooms
4	Create additional parking		\$500,000.00				
5	Upgrade exterior building and site lighting			\$10,500.00			
Hazardous Materials Abatement							
6	Abatement costs				\$246,000.00		
Architectural Exterior							
7	Replace exterior windows (V1)				\$262,800.00		Replace single-pane, non-insulated windows with thermally insulated windows
8	Add security film to windows and doors		\$75,000.00				Add security film to ground floor windows and doors
9	Remove modular units				\$2,475,000.00		Total replacement of modular classrooms (V2)
Architectural Interior							
10	Toilet room upgrades - Unisex Facilities			\$45,000.00			Upgrade finishes
11	Toilet room upgrades - Gang Facilities			\$90,000.00			Upgrade to include an ADA compliant stall, upgrade finishes
12	Replace door hardware	\$93,500.00					Remove existing hardware and replace with ADA compliant hardware
13	Replace ceiling (V1)		\$450,000.00				Replace spline ceiling with suspended acoustical ceiling
14	Replace casework (V1)			\$61,200.00			Replace base and upper cabinets and plastic laminate countertops
15	Replace gym floors		\$10,035.00				
16	Replace gym sports equipment		\$11,000.00				
17	Signage		\$3,960.00				
18	Window Treatments		\$90,000.00				Solar shades to increase energy efficiency
Division 21 - Fire Protection							
20	Fire Alarm System	\$204,000.00					Upgrade fire alarm system and make code compliant
21	Fire Protection - Sprinklers	\$255,000.00					
22	Fire Protection - Tanks & Pumps		\$700,000.00				
Division 22 - Plumbing							
23	Plumbing Fixtures / Equipment			\$204,000.00			Prepare for replacement of plumbing fixtures that are original to the building
24	Replace Domestic Water Service		\$300,000.00				Tanks, Pumps, Filtration
25	Replace plumbing infrastructure		\$663,000.00				Piping, valves, fixtures
Division 23 - Mechanical							
26	Full HVAC Ventilation and AC	\$3,315,000.00					
Division 26 - Electrical							

27	Lighting - General		\$459,000.00				Upgrade light fixtures to energy efficient LED fixtures
28	Electrical Distribution				\$408,000.00		Prepare for replacement of electrical distribution
29	Rewiring			\$34,525.00			
Technology Improvements							
30	Phone system consolidation and upgrade to VOIP		\$22,900.00				Direct Quote, Includes: material and labor
31	Replace SmartBoard/Projectors		\$105,000.00				
32	Add WiFi estimates for outdoor coverage	\$34,525.00					
33	Replace gym PA system		\$12,000.00				
34	BMS - Controls upgrade		\$178,500.00				
35	Access controls upgrade		\$204,000.00				
TOTAL		\$3,927,025.00	\$3,784,395.00	\$445,225.00	\$3,898,554.50	\$0.00	

ORDER OF MAGNITUDE BUDGET

HK INTERMEDIATE/MIDDLE SCHOOL (IMS) 4-8

Building Square Footage: 208,000 sf

Proposed Improvement		Recommended Timeframe					Comments
		Immediate	1-3 Years	3-5 Years	5-10 Years	10 + Years	
Site Related Improvements							
1	Concrete pavement			\$60,257.50			Replace concrete stairs and paving in recessed courtyard
2	ADA curb cut and ramp	\$3,275.00					Add curb cut and ADA access at Main Entry. Repair surrounding sidewalk.
3	ADA parking	\$100.00					Repaint north parking lot to include 3 accessible parking spaces (2 car, 1 van).
4	Upgrade exterior building and site lighting				\$21,000.00		
Architectural Exterior							
5	Add security film to windows and doors	\$416,000.00					Add security film to ground floor windows and doors
6	Full roof replacement					\$500,250.00	
Architectural Interior							
7	Toilet room upgrades - Unisex Facilities					\$65,000.00	Upgrade finishes
8	Toilet room upgrades - Gang Facilities					\$255,000.00	Upgrade finishes
9	Replace VCT				\$766,125.00		Replace VCT throughout
10	Replace carpet				\$280,800.00		Replace carpet throughout
11	Replace academic lockers in corridors					\$58,075.00	(505) 12x12 lockers
12	Signage		\$10,800.00				
13	Window Treatments		\$6,240,000.00				Solar shades to increase energy efficiency
Division 21 - Fire Protection							
14	Fire Alarm System		\$832,000.00				Fire Alarm system to be corrected to working order
Division 22 - Plumbing							
15	Replace Domestic Water Service					\$300,000.00	Tanks, Pumps, Filtration - 10+ Years CIP
16	Replace plumbing infrastructure					\$2,704,000.00	Piping, valves, fixtures - 10+ Years CIP
Division 23 - Mechanical							
17	Full HVAC Ventilation and AC					\$10,816,000.00	10+ Years CIP
18	Propane tank install	\$140,000.00					(2) Pricing Options with 10 year agreement
Division 26 - Electrical							
19	Lighting - General		\$1,872,000.00				Upgrade light fixtures to energy efficient LED fixtures
Technology Improvements							
20	Phone system consolidation and upgrade to VOIP		\$51,895.00				Direct Quote, Includes: material and labor
21	Replace SmartBoard/Projectors		\$132,874.00				
22	Add WiFi estimates for outdoor coverage	\$11,508.00					
23	Access controls upgrade		\$832,000.00				
TOTAL		\$570,883.00	\$9,971,569.00	\$60,257.50	\$1,067,925.00	\$14,698,325.00	

ORDER OF MAGNITUDE BUDGET

HK HIGH SCHOOL (HKHS) 9-12

Building Square Footage: 288,000 sf

Proposed Improvement		Recommended Timeframe					Comments
		Immediate	1-3 Years	3-5 Years	5-10 Years	10 + Years	
Site Related Improvements							
1	Soccer field	\$130,000.00					Address ground cover and drainage issues
2	Concrete Curbs and sidewalks				\$550,244.00		Full depth replacement of curbs and sidewalks.
3	Paved parking and driveways				\$1,114,200.00		Full depth replacement of parking lots and driveways.
4	Synthetic material at sports fields				\$4,250,000.00		Material and labor for soccer, baseball, softball, football
5	Press box at football field / track			\$50,000.00			
6	"Away" bleachers at football field		\$15,000.00				
7	Full replacement of tennis courts				\$48,000.00		
8	Add field irrigation at softball field				\$2,650.00		
9	Upgrade exterior building and site lighting			\$465,000.00			
Hazardous Materials Abatement							
10	Abatement costs				\$1,152,000.00		
	Architectural Exterior						
11	Storefront		\$125,000.00				Repair storefront and windows at Library and in shop classrooms
12	Add security film to windows and doors	\$576,000.00					Add security film to ground floor windows and doors
13	Add outdoor learning space/"pavilion"		\$130,000.00				Outside of Cafeteria, 24' x 45' structure
	Architectural Interior						
14	Toilet room upgrades - Unisex Facilities			\$40,000.00			Upgrade finishes
15	Toilet room upgrades - Gang Facilities			\$390,000.00			Upgrade to include an ADA compliant stall, upgrade finishes
16	Replace door hardware	\$340,000.00					Remove existing hardware and replace with ADA compliant hardware
17	Replace ceiling			\$2,060,985.00			Replace suspended acoustical ceiling
18	Replace flooring		\$117,000.00				Replace VCT flooring in cafeteria
19	Partition walls		\$72,800.00				Replace partitions in administrative offices with stud partition walls
20	Upgrade/reconfigure main locker rooms and offices (meet Title IX)	\$2,162,500.00					
21	Upgrade/reconfigure pool locker rooms and offices (meet Title IX)	\$800,000.00					
22	Add solar cover to pool	\$10,000.00					Automatic retractable
23	Ramps		\$9,600.00				Add ramps in non-ADA accessible classrooms, (4) 16'-0" x 3'-8" ramps
24	Replace academic lockers in corridors				\$56,250.00		(750) 6x6 lockers
25	Replace food service equipment			\$450,000.00			
26	Signage		\$14,400.00				
27	Window Treatments		\$8,640,000.00				Solar shades to increase energy efficiency
	Division 21 - Fire Protection						
29	Fire Alarm System	\$1,152,000.00					Upgrade fire alarm system and make code compliant
30	Fire Protection - Sprinklers	\$1,440,000.00					
31	Fire Protection - Tanks & Pumps		\$700,000.00				

Division 22 - Plumbing							
32	Replace Domestic Water Service			\$300,000.00			Tanks, Pumps, Filtration
33	Replace plumbing infrastructure			\$3,744,000.00			Piping, valves, fixtures
34	New filtration system at pool			\$375,000.00			
Division 23 - Mechanical							
37	Full HVAC Ventilation and AC	\$14,976,000.00					
38	Upgrade/introduce proper humidity control into pool area (HVAC)	\$180,000.00					
Division 26 - Electrical							
39	Lighting - General		\$2,592,000.00				Upgrade light fixtures to energy efficient LED fixtures
40	Electrical Distribution				\$2,304,000.00		Prepare for replacement of electrical distribution
41	Rewiring		\$115,200.00				
42	Tennis court lighting upgrades	\$320,000.00					
43	Exterior sound system	\$215,000.00					
Technology Improvements							
44	Phone system consolidation and upgrade to VOIP		\$45,673.00				Direct Quote, Includes: material and labor
45	Replace SmartBoard/Projectors		\$210,000.00				
46	Add WiFi estimates for outdoor coverage	\$103,577.00					No wiring upgrade
47	BMS - Controls upgrade		\$1,584,000.00				
48	Access controls upgrade		\$1,152,000.00				
TOTAL		\$22,405,077.00	\$15,522,673.00	\$7,874,985.00	\$9,477,344.00	\$0.00	

ORDER OF MAGNITUDE BUDGET

CENTRAL OFFICE (CO), WHITE HOUSE (WH), TRANSPORTATION FACILITY (STA)

Proposed Improvement		Recommended Timeframe					Comments
		Immediate	1-3 Years	3-5 Years	5-10 Years	10 + Years	
Central Office (59,070 sf)							
Site Related Improvements							
1	Add field irrigation at practice football field				\$3,050.00		
2	Upgrade exterior building and site lighting			\$12,250.00			
Hazardous Materials Abatement							
3	Abatement costs				\$288,000.00		
Architectural Exterior							
4	Replace exterior windows (V1)				\$1,352,500.00		Replace single-pane windows with double-pane, thermally insulated windows
Architectural Interior							
5	Toilet room upgrades - Unisex Facilities			\$20,000.00			Upgrade finishes
6	Toilet room upgrades - Gang Facilities			\$45,000.00			Upgrade to include an ADA compliant stall, upgrade finishes
7	Replace ceiling			\$1,808,850.00			Replace suspended acoustical ceiling
8	Replace flooring		\$904,425.00				Replace VCT and carpet flooring
9	Replace door hardware	\$72,250.00					Remove existing hardware and replace with ADA compliant hardware
10	Improvements to Board Room		\$50,000.00				
11	Replace gym floors			\$21,285.00			
12	Replace gym sports equipment			\$33,000.00			
13	Signage		\$3,060.00				
14	Window Treatments		\$405,750.00				Solar shades to increase energy efficiency
Division 21 - Fire Protection							
15	Fire Protection - Sprinklers	\$295,350.00					
16	Fire Protection - Tanks & Pumps	\$700,000.00					
Division 22 - Plumbing							
17	Replace Domestic Water Service			\$300,000.00			Tanks, pumps, filtration
18	Replace plumbing infrastructure			\$767,910.00			Piping, valves, fixtures
Division 23 - Mechanical							
19	Full HVAC Ventilation and AC	\$268,650.00					
Division 26 - Electrical							
20	Rewiring			\$23,628.00			
Technology Improvements							
21	Review phone system consolidation and upgrade to VOIP		\$24,000.00				Direct Quote, Includes: material and labor
22	Replace SmartBoard/Projectors		\$56,000.00				
23	Add WiFi estimates for outdoor coverage	\$12,000.00					
24	Replace gym PA system			\$12,000.00			
25	BMS - Controls upgrade		\$324,885.00				
TOTAL		\$1,348,250.00	\$1,768,120.00	\$3,043,923.00	\$1,643,550.00		

White House (15,040 sf) and Barn (2,000 sf)							
1	Demolish White House & Barn		\$255,600.00				
2	Build New Facilities Equipment Storage		\$3,500,000.00				
TOTAL			\$3,755,600.00				
Transportation Facility (8,075 sf)							
1	Demolish		\$121,125.00				
2	Build New Transportation Building		\$4,050,000.00				
TOTAL			\$4,171,125.00				
TOTAL		\$1,348,250.00	\$9,694,845.00				

ORDER OF MAGNITUDE BUDGET

REGIONAL SCHOOL DISTRICT 17

		Recommended Timeframe					
		Immediate	1-3 Years	3-5 Years	5-10 Years	10 + Years	TOTAL
Facility							
1	Killingworth Elementary School	\$4,963,782.00	\$2,998,472.00	\$977,542.00	\$1,160,525.00		\$10,100,321.00
2	Burr District Elementary School	\$3,927,025.00	\$3,784,395.00	\$445,225.00	\$3,898,554.50		\$12,055,199.50
3	HK Intermediate/Middle School	\$570,883.00	\$9,971,569.00	\$60,257.50	\$1,067,925.00	\$14,698,325.00	\$26,368,959.50
4	HK High School	\$22,405,077.00	\$15,522,673.00	\$7,874,985.00	\$9,477,344.00		\$55,280,079.00
5	Central Office	\$1,348,250.00	\$1,768,120.00	\$3,043,923.00	\$1,643,550.00		\$7,803,843.00
6	"White House"		\$3,755,600.00				\$3,755,600.00
7	Transportation Facility (STA)		\$4,171,125.00				\$4,171,125.00
TOTAL		\$33,215,017.00	\$41,971,954.00	\$12,401,932.50	\$17,247,898.50	\$14,698,325.00	\$119,535,127.00

