

Building Information - Willoughby-Eastlake City SD (45104) - South High School

Program Type	Expedited Local Partnership Program (ELPP)
Setting	Suburban
Assessment Name	South H_2010_TCI
Assessment Date	2010-03-16
Cost Set:	2010
Building Name	South High School
Building IRN	35089
Building Address	5000 Shankland Rd
Building City	Willoughby
Building Zipcode	44094
Building Phone	440/975-3628
Acreage	47.03
Current Grades	9-12
Teaching Stations	53
Number of Floors	2
Student Capacity	1250
Current Enrollment	1413
Enrollment Date	2010-04-01
Enrollment Date is the date in which the current enrollment was taken.	
Number of Classrooms	50
Historical Register	NO
Building's Principal	Mr. Paul Lombardo
Building Type	High

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North elevation photo:



East elevation photo:



South elevation photo:



West elevation photo:



GENERAL DESCRIPTION

169,172 Total Existing Square Footage

1958,1961,1961,1967 Building Dates

9-12 Grades

1,413 Current Enrollment

53 Teaching Stations

47.03 Site Acreage

South High School, which is not on the National Register of Historic Buildings, and originally constructed in 1958, is a 2 story, 169,172 square foot brick school building located in a suburban residential setting. The existing facility features a conventionally partitioned design, and does not utilize modular buildings. The structure of the overall facility contains masonry bearing and steel framing exterior wall construction with brick veneer, with block wall construction in the interior. The floor system consists of slab on grade and precast concrete. The roof structure is joist and metal deck with some cast in place concrete. The roofing system of the overall facility is built-up asphalt with gravel ballast and metal deck, installed in 1958, 1967, and 1991. The ventilation system of the building is inadequate to meet the needs of the users. The Classrooms are mostly undersized in terms of the current standards established by the State of Ohio. Physical Education and Student Dining spaces consist of 10,049 sf Primary Gymnasium with two SF Auxiliary Gymnasiums at 4,170sf and 5,141 and separate Student Dining. The electrical system for the facility is generally inadequate. The facility is equipped with a non-compliant security system. The building has a non-compliant automatic fire alarm system. The facility is not equipped with an automated fire suppression system. The building is reported to contain asbestos and other hazardous materials. The overall building is not compliant with ADA accessibility requirements. The school is located on a 47.03 acre site shared with Willoughby Middle School as part of a 66.63 acre campus, adjacent to residential properties. The property and athletic facilities are partially fenced for security. Access onto the site is unrestricted. Site circulation is fair. There is no dedicated space for school buses to load and unload on the site. Parking for staff, visitors and community events is inadequate.

The building roof system is in poor condition. The Auxiliary Gymnasium above the Women's locker room has an abundance of wall fissures. The site has some drainage issues. A gate located at the base of one stair tower creates a dead end corridor situation.

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Building Construction Information - Willoughby-Eastlake City SD (45104) - South High School (35089)

Name	Year	Handicapped Access	Floors	Square Feet
1958 Original	1958	no	1	63,954
1961 Addition	1961	no	1	45,041
1961 Auditorium fixed seating	1961	no	1	1,541
1967 Addition	1967	no	2	58,636

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Building Component Information - Willoughby-Eastlake City SD (45104) - South High School (35089)

Addition	Auditorium Fixed Seating	Corridors	Agricultural Education Lab	Primary Gymnasium	Media Center	Vocational Space	Student Dining	Kitchen	Natatorium	Indoor Tracks	Adult Education	Board Offices	Outside Agencies	Auxiliary Gymnasium
1958 Original (1958)		9578												
1961 Addition (1961)		8427		10049				2193						
1961 Auditorium fixed seating (1961)	1541													
1967 Addition (1967)		8019				4226	9507							9311
Master Planning Considerations														

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Existing CT Programs for Assessment

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Program Type	Program Name	Related Space	Square Feet
No Records Found			

Legend:

Not in current design manual

In current design manual but missing from assessment

Building Summary - South High School (35089)

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)																																																																			
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Address: 5000 Shankland Rd Willoughby, OH 44094				Phone: 440/975-3628		Date Prepared: 2010-03-16																																																																			
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FACILITY ASSESSMENT				Rating		Dollar Assessment																																																																			
Cost Set: 2010																																																																									
A. Heating System				3		\$5,498,090.00 -																																																																			
B. Roofing				3		\$1,432,083.74 -																																																																			
C. Ventilation / Air Conditioning				1		\$0.00 -																																																																			
D. Electrical Systems				3		\$2,930,059.04 -																																																																			
E. Plumbing and Fixtures				3		\$1,764,817.00 -																																																																			
F. Windows				3		\$1,015,437.18 -																																																																			
G. Structure: Foundation				2		\$26,070.00 -																																																																			
H. Structure: Walls and Chimneys				2		\$265,719.00 -																																																																			
I. Structure: Floors and Roofs				2		\$42,840.00 -																																																																			
J. General Finishes				3		\$3,322,873.43 -																																																																			
K. Interior Lighting				3		\$845,860.00 -																																																																			
L. Security Systems				3		\$465,223.00 -																																																																			
M. Emergency/Egress Lighting				3		\$169,172.00 -																																																																			
N. Fire Alarm				3		\$253,758.00 -																																																																			
O. Handicapped Access				3		\$680,077.20 -																																																																			
P. Site Condition				3		\$546,824.21 -																																																																			
Q. Sewage System				3		\$56,250.00 -																																																																			
R. Water Supply				3		\$50,000.00 -																																																																			
S. Exterior Doors				3		\$134,000.00 -																																																																			
T. Hazardous Material				3		\$284,639.00 -																																																																			
U. Life Safety				3		\$695,809.00 -																																																																			
V. Loose Furnishings				3		\$502,893.00 -																																																																			
W. Technology				3		\$921,987.40 -																																																																			
- X. Construction Contingency / Non-Construction Cost				-		\$5,351,330.71 -																																																																			
Total						\$27,255,812.91																																																																			

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1958 Original (1958) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: South High School				Contact: Mr. Paul Lombardo			
Address: 5000 Shankland Rd Willoughby, OH 44094				Phone: 440/975-3628			
Bldg. IRN: 35089				Date Prepared: 2010-03-16		By: Karen L Walker	
				Date Revised: 2010-06-23		By: Karen L Walker	
Current Grades		9-12	Acreage:		47.03		
Proposed Grades		N/A	Teaching Stations:		53		
Current Enrollment		1413	Classrooms:		50		
Projected Enrollment		N/A					
1958 Original		1958 no	1		63,954		
<u>1961 Addition</u>		1961 no	1		45,041		
<u>1961 Auditorium fixed seating</u>		1961 no	1		1,541		
<u>1967 Addition</u>		1967 no	2		58,636		
Total					169,172		
*HA =		Handicapped Access					
*Rating =		1 Satisfactory					
		=2 Needs Repair					
		=3 Needs Replacement					
*Const P/S =		Present/Scheduled Construction					
FACILITY ASSESSMENT Cost Set: 2010				Rating	Dollar Assessment		
A. <u>Heating System</u>				3	\$2,078,505.00 -		
B. <u>Roofing</u>				3	\$830,983.80 -		
C. <u>Ventilation / Air Conditioning</u>				1	\$0.00 -		
D. <u>Electrical Systems</u>				3	\$1,107,683.28 -		
E. <u>Plumbing and Fixtures</u>				3	\$836,978.00 -		
F. <u>Windows</u>				3	\$299,501.62 -		
G. Structure: Foundation				2	\$0.00 -		
H. <u>Structure: Walls and Chimneys</u>				2	\$50,135.50 -		
I. <u>Structure: Floors and Roofs</u>				2	\$8,736.00 -		
J. <u>General Finishes</u>				3	\$1,304,289.27 -		
K. <u>Interior Lighting</u>				3	\$319,770.00 -		
L. <u>Security Systems</u>				3	\$175,873.50 -		
M. <u>Emergency/Egress Lighting</u>				3	\$63,954.00 -		
N. <u>Fire Alarm</u>				3	\$95,931.00 -		
O. <u>Handicapped Access</u>				3	\$238,105.40 -		
P. <u>Site Condition</u>				3	\$315,415.07 -		
Q. <u>Sewage System</u>				3	\$22,500.00 -		
R. <u>Water Supply</u>				3	\$20,000.00 -		
S. <u>Exterior Doors</u>				3	\$28,000.00 -		
T. <u>Hazardous Material</u>				3	\$95,846.00 -		
U. <u>Life Safety</u>				3	\$272,850.50 -		
V. <u>Loose Furnishings</u>				3	\$191,862.00 -		
W. <u>Technology</u>				3	\$348,549.30 -		
- X. <u>Construction Contingency / Non-Construction Cost</u>				-	\$2,126,772.25 -		
Total					\$10,832,241.49		
CEFPI Appraisal Summary							
Section		Points Possible		Points Earned		Percentage Rating Category	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100		77		77% Satisfactory	
2.0 <u>Structural and Mechanical Features</u>		200		108		54% Borderline	
3.0 <u>Plant Maintainability</u>		100		51		51% Borderline	
4.0 <u>Building Safety and Security</u>		200		128		64% Borderline	
5.0 <u>Educational Adequacy</u>		200		129		65% Borderline	
6.0 <u>Environment for Education</u>		200		134		67% Borderline	
<u>LEED Observations</u>							
<u>Commentary</u>							
Total		1000		627		63% Borderline	
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
<u>C=Under Contract</u>							
Renovation Cost Factor				104.16%			
Cost to Renovate (Cost Factor applied)				\$11,282,862.74			
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

1961 Addition (1961) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: South High School				Contact: Mr. Paul Lombardo			
Address: 5000 Shankland Rd Willoughby, OH 44094				Phone: 440/975-3628			
Bldg. IRN: 35089				Date Prepared: 2010-03-16		By: Karen L Walker	
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Current Grades		9-12	Acreage:		47.03		
Proposed Grades		N/A	Teaching Stations:		53		
Current Enrollment		1413	Classrooms:		50		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
<u>1958 Original</u>		1958	no	1	63,954		
1961 Addition		1961	no	1	45,041		
<u>1961 Auditorium fixed seating</u>		1961	no	1	1,541		
<u>1967 Addition</u>		1967	no	2	58,636		
Total				169,172			
		*HA	=	Handicapped Access			
		*Rating	=	1 Satisfactory			
			=	2 Needs Repair			
			=	3 Needs Replacement			
		*Const P/S	=	Present/Scheduled Construction			
FACILITY ASSESSMENT Cost Set: 2010				Rating	Dollar Assessment	C	
A. <u>Heating System</u>				3	\$1,463,832.50	-	
B. <u>Roofing</u>				3	\$10,637.50	-	
C. <u>Ventilation / Air Conditioning</u>				1	\$0.00	-	
D. <u>Electrical Systems</u>				3	\$780,110.12	-	
E. <u>Plumbing and Fixtures</u>				3	\$424,287.00	-	
F. <u>Windows</u>				3	\$610,409.82	-	
G. <u>Structure: Foundation</u>				2	\$18,975.00	-	
H. <u>Structure: Walls and Chimneys</u>				2	\$75,125.50	-	
I. <u>Structure: Floors and Roofs</u>				2	\$1,680.00	-	
J. <u>General Finishes</u>				3	\$748,527.73	-	
K. <u>Interior Lighting</u>				3	\$225,205.00	-	
L. <u>Security Systems</u>				3	\$123,862.75	-	
M. <u>Emergency/Egress Lighting</u>				3	\$45,041.00	-	
N. <u>Fire Alarm</u>				3	\$67,561.50	-	
O. <u>Handicapped Access</u>				3	\$101,974.10	-	
P. <u>Site Condition</u>				3	\$113,594.07	-	
Q. <u>Sewage System</u>				3	\$22,500.00	-	
R. <u>Water Supply</u>				3	\$20,000.00	-	
S. <u>Exterior Doors</u>				3	\$54,000.00	-	
T. <u>Hazardous Material</u>				3	\$125,820.00	-	
U. <u>Life Safety</u>				3	\$146,383.25	-	
V. <u>Loose Furnishings</u>				3	\$135,123.00	-	
W. <u>Technology</u>				3	\$245,473.45	-	
- X. <u>Construction Contingency / Non-Construction Cost</u>				-	\$1,358,354.80	-	
Total					\$6,918,478.09		
CEFPI Appraisal Summary							
Section		Points Possible	Points Earned	Percentage	Rating	Category	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100	77	77%		Satisfactory	
2.0 <u>Structural and Mechanical Features</u>		200	108	54%		Borderline	
3.0 <u>Plant Maintainability</u>		100	51	51%		Borderline	
4.0 <u>Building Safety and Security</u>		200	128	64%		Borderline	
5.0 <u>Educational Adequacy</u>		200	129	65%		Borderline	
6.0 <u>Environment for Education</u>		200	134	67%		Borderline	
<u>LEED Observations</u>		<	<	<	<	<	
<u>Commentary</u>		<	<	<	<	<	
Total		1000	627	63%		Borderline	
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
<u>C=Under Contract</u>							
<u>Renovation Cost Factor</u>						104.16%	
<u>Cost to Renovate (Cost Factor applied)</u>						\$7,206,286.78	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

1967 Addition (1967) Summary

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)	
Name: South High School				Contact: Mr. Paul Lombardo			
Address: 5000 Shankland Rd Willoughby, OH 44094				Phone: 440/975-3628			
Bldg. IRN: 35089				Date Prepared: 2010-03-16		By: Karen L Walker	
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Proposed Grades		N/A	Teaching Stations:		53		
Current Enrollment		1413	Classrooms:		50		
Projected Enrollment		N/A					
Addition		Date	HA	Number of Floors	Current Square Feet		
<u>1958 Original</u>		1958	no	1	63,954		
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<u>1961 Auditorium fixed seating</u>		1961	no	1	1,541		
1967 Addition		1967	no	2	58,636		
Total					169,172		
		*HA	=	Handicapped Access			
		*Rating	=	1 Satisfactory			
			=	2 Needs Repair			
			=	3 Needs Replacement			
		*Const P/S	=	Present/Scheduled Construction			
FACILITY ASSESSMENT Cost Set: 2010				Rating	Dollar Assessment	C	
A. <u>Heating System</u>				3	\$1,905,670.00	-	
B. <u>Roofing</u>				3	\$590,462.44	-	
C. <u>Ventilation / Air Conditioning</u>				1	\$0.00	-	
D. <u>Electrical Systems</u>				3	\$1,015,575.52	-	
E. <u>Plumbing and Fixtures</u>				3	\$503,552.00	-	
F. <u>Windows</u>				3	\$105,525.74	-	
G. <u>Structure: Foundation</u>				2	\$7,095.00	-	
H. <u>Structure: Walls and Chimneys</u>				2	\$140,458.00	-	
I. <u>Structure: Floors and Roofs</u>				2	\$32,424.00	-	
J. <u>General Finishes</u>				3	\$1,270,056.43	-	
K. <u>Interior Lighting</u>				3	\$293,180.00	-	
L. <u>Security Systems</u>				3	\$161,249.00	-	
M. <u>Emergency/Egress Lighting</u>				3	\$58,636.00	-	
N. <u>Fire Alarm</u>				3	\$87,954.00	-	
O. <u>Handicapped Access</u>				3	\$339,843.60	-	
P. <u>Site Condition</u>				3	\$117,815.07	-	
Q. <u>Sewage System</u>				3	\$11,250.00	-	
R. <u>Water Supply</u>				3	\$10,000.00	-	
S. <u>Exterior Doors</u>				3	\$52,000.00	-	
T. <u>Hazardous Material</u>				3	\$58,350.00	-	
U. <u>Life Safety</u>				3	\$271,567.00	-	
V. <u>Loose Furnishings</u>				3	\$175,908.00	-	
W. <u>Technology</u>				3	\$319,566.20	-	
- X. <u>Construction Contingency / Non-Construction Cost</u>				-	\$1,839,146.70	-	
Total					\$9,367,284.70		
CEFPI Appraisal Summary							
Section		Points Possible	Points Earned	Percentage	Rating	Category	
<u>Cover Sheet</u>							
1.0 <u>The School Site</u>		100	77	77%		Satisfactory	
2.0 <u>Structural and Mechanical Features</u>		200	108	54%		Borderline	
3.0 <u>Plant Maintainability</u>		100	51	51%		Borderline	
4.0 <u>Building Safety and Security</u>		200	128	64%		Borderline	
5.0 <u>Educational Adequacy</u>		200	129	65%		Borderline	
6.0 <u>Environment for Education</u>		200	134	67%		Borderline	
<u>LEED Observations</u>							
<u>Commentary</u>							
Total		1000	627	63%		Borderline	
<u>Enhanced Environmental Hazards Assessment Cost Estimates</u>							
<u>C=Under Contract</u>							
<u>Renovation Cost Factor</u>						104.16%	
<u>Cost to Renovate (Cost Factor applied)</u>						\$9,756,963.74	
<i>The Replacement Cost Per SF and the Renovate/Replace ratio are only provided when this summary is requested from a Master Plan.</i>							

A. Heating System

Description: The existing heating system for the overall facility is composed of eight major hot water boilers remotely located in the four separate mechanical rooms which five were installed new in 1958 with the others being installed new in 2002, 2006 and 2007. The units are in fair condition. The heating system in the overall facility is part of the Original Construction and newly update with each renovation and is a 2-pipe system supplying hot water. With very limited capacity for simultaneous heating and cooling operation, this system is not compliant with the OSDM requirements for basic system type. The forced draft natural gas boilers, manufactured by Bryan were installed in 1958, and are in fair condition. The remaining Bryan and RBl boilers were installed in 2002, 2006 and 2007 and are in good condition. Heating water is distributed to terminal units consisting of unit ventilators, cabinet heaters and unit heaters. The terminal equipment was installed in 1958 and new with each addition/renovation and is in fair condition. The system does not comply with the 15 CFM per person fresh air requirements of the Ohio Building Code mechanical code and Ohio School Design Manual. The non DDC type system temperature controls were installed in 1958 and are in working condition. The system does feature individual heating temperature controls in all spaces required by the OSDM. The overall system does not feature any central energy recovery systems. The facility is equipped with louvered interior doors to facilitate Corridor utilization as return air plenums while others have a return air systems. The existing system is partially ducted in some areas and others are not, and floor to structural deck heights in majority of the areas will not accommodate the installation of properly sized ductwork for a future Ohio School Design Manual approved system. The overall heating system is evaluated as being not in safe and efficient working order, due to age. The structure is not equipped with central air conditioning. The site does not contain underground fuel tanks that are currently in use.

Rating: 3 Needs Replacement

Recommendations: Provide new overall heating, ventilating, and air conditioning system to achieve compliance with Ohio Building Code and Ohio School Design Manual standards. Convert to ducted system to facilitate efficient exchange of conditioned air.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
HVAC System Replacement:	\$25.00	sq.ft.		63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²	\$4,229,300.00	(includes demo of existing system and reconfiguration of piping layout and new controls, air conditioning)
Convert To Ducted System Replacement	\$7.50	sq.ft.		Required	Required	Required	Required	\$1,268,790.00	(includes cost for vert. & horz. chases, cut openings, soffits, etc. Must be used in addition to HVAC System Replacement if the existing HVAC system is non-ducted)
Sum:			\$5,498,090.00	\$2,078,505.00	\$1,463,832.50	\$50,082.50	\$1,905,670.00		



Gas Fired Hot Water Boilers



Baseboard Heating Panel

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B. Roofing

Description: The roof over the 1958 Original is a built-up roofing system that is presumed to have been installed in 1958 and is in poor condition. The roof over the 1961 Addition is standing seam metal roofing retrofit installed in 1991 and is in fair condition. The roof over the 1967 Addition is standing seam metal roofing retrofit installed in 1991 and is in fair condition, although some areas leak and are in poor condition. Part of the roof over the 1967 Addition to the gymnasium area and over the vocational area is a built-up roof presumed installed in 1967 and is in poor condition. There are District reports of extensive current leaking in the vocational area of 1967 Addition, along the entire east wall of the 1958 Original Construction, near the lobby of the auditorium in the 1961 Addition, near the southeast door of the 1967 Addition, and over the entrance in the 1958 Original Construction near the cafeteria. Signs of past leaking were observed during the physical assessment. Access to the roof was gained by access hatch that is in poor condition, and by an aluminum ladder that is in poor condition. Fall safety protection cages are required. There were observations of standing water on the roof. Metal cap flashings are in poor condition on the built-up areas of the roof, and in fair condition on the standing seam metal areas of the roof. Roof storm drainage is addressed through a system of gutters and downspouts on the standing seam metal areas of the roof which are properly located and are in poor condition, with insufficient downspouts provided. Roof storm drainage is addressed through a system of roof drains which are properly located, and in poor condition. The roof is not equipped with overflow roof drains though they are needed in the built-up areas of roof. Roof penetration conditions were consistent with the condition of the roofing material. There are not any covered walkways attached to this structure.

Rating: 3 Needs Replacement

Recommendations: Replace built-up roof areas to meet Ohio School Design Manual guidelines for age of system and due to condition. Repair part of the standing seam metal roof due to condition. Provide tapered insulation with re-roofing for thermal purposes and positive slope to drain. Replace flashing and coping due to condition. Replace gutters and downspouts due to condition. Replace roof drains and install overflow drains. Replace roof hatch in poor condition and provide access ladder with cage.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
Membrane (all types):	\$8.27	sq.ft. (Qty)		63,954 ft ² 58,440 Required	45,041 ft ²	1,541 ft ²	58,636 ft ² 18,297 Required	\$634,614.99	(unless under 10,000 sq.ft.)
Standing Metal Seam:	\$15.75	sq.ft. (Qty)					17,373 Required	\$273,624.75	
Repair/replace cap flashing and coping:	\$17.50	in.ft.		1,406 Required			1,442 Required	\$49,840.00	
Gutters/Downspouts	\$12.50	in.ft.			851 Required		1,060 Required	\$23,887.50	
Remove/replace existing roof Drains and Sump:	\$1,200.00	each		15 Required			12 Required	\$32,400.00	
Overflow Roof Drains and Piping:	\$2,500.00	each		15 Required			11 Required	\$65,000.00	
Roof Insulation:	\$4.50	sq.ft. (Qty)		58,440 Required			18,297 Required	\$345,316.50	(tapered insulation for limited area use to correct ponding)
Roof Access Hatch:	\$2,000.00	each		1 Required				\$2,000.00	(remove and replace)
Roof Access Ladder with Fall Protection Cage:	\$100.00	in.ft.		26 Required			28 Required	\$5,400.00	(remove and replace)
Sum:			\$1,432,083.74	\$830,983.80	\$10,637.50	\$0.00	\$590,462.44		



Ponding on 1958 Original Construction and roof ladder



Built-up roofing over vocational area in 1967 Addition

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C. Ventilation / Air Conditioning

Description: The overall facility is not equipped with a central air conditioning system. Window units, rooftop units or isolated room systems consisting of an air handler and a remote condensers are provided in miscellaneous locations such as offices, technology closets, library, media center, teachers lounges, music rooms, commons area and a few random classrooms. The ventilation system in the overall facility consists of unit ventilators and ducted air handlers installed initially in 1958 and new with each addition and are in fair condition, providing fresh air to classrooms and other miscellaneous spaces such as Gymnasiums, Student Dining, Media Center, etc. Relief air venting is provided by relief fans and roof vents. The ventilation system does not meet the Ohio Building Code 15 CFM per occupant fresh air requirement. The overall system is not compliant with Ohio Building Code and Ohio School Design Manual requirements. Dust collection systems are provided in the industrial arts and shop areas. The Art program is equipped with a kiln and a kiln ventilation hood, and is in working condition. Exhaust systems for Restrooms, Locker Rooms, Kitchen, Gymnasiums, Storage Rooms, Custodial Closets and specialized areas are adequately placed, and in working condition.

Rating: 1 Satisfactory

Recommendations: Provide an air conditioning system to meet with Ohio Building Code and Ohio School Design Manual requirements. Pricing included in Item A.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Sum:			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		



Roof Top Air Conditioners



Art Kiln And Exhaust Hood

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D. Electrical Systems

Description: The electrical system provided to the overall facility; is based on a four (4) - switch service including two (2) 800 amp 120/240 volt, 1 phase, 3 wire switches, one (1) 800 amp 120/208 volt 3 phase 4 wire switch and one (1) 400 amp 240 volt 3 phase 3 wire switch. The original electrical system from the year 1958 is older but in operating condition. The later electrical systems added under a later building additions in 1961 and 1967 is in fair to poor condition. Power is provided to the school by transformers within a vault room located near the rear of the school. The main distribution panels cannot be expanded to add additional capacity that would be required by the OSDM total air conditioning requirements. The Classrooms are not equipped with adequate electrical outlets in some of the original areas per OSFC recommendations. The typical Classroom contains usually 2 to 3 general purpose outlets with certain classrooms having added outlets used for Classroom computers, and television. There are some spaces that have no electrical outlets such as storage areas and Janitor Closets. Some Corridors are not equipped with adequate electrical outlets for electrical servicing. Adequate GFI protected exterior outlets are not provided around the perimeter of the building. The facility is not equipped with an emergency generator. There is a 100 amp disconnect switch which feeds the Fire Alarm panel. Adequate building lightning protection safeguards are not provided. The overall electrical system does not meet Ohio School Design Manual requirements, and will be inadequate to meet the facility's future needs.

Rating: 3 Needs Replacement

Recommendations: The entire electrical systems requires replacement to meet Ohio School Design Manual guidelines and the Ohio Building Code for overall capacity due to lack of OSDM - required features and to accommodate the addition of air conditioning through-out the entire facility.

Item	Cost	Unit	Whole Building	1958 Original (1958) 63,954 ft ²	1961 Addition (1961) 45,041 ft ²	1961 Auditorium fixed seating (1961) 1,541 ft ²	1967 Addition (1967) 58,636 ft ²	Sum	Comments
System Replacement:	\$17.32	sq.ft.		Required	Required	Required	Required	\$2,930,059.04	(Includes demo of existing system. Includes generator for life safety systems. Does not include telephone or data cable or equipment) (Use items below ONLY when the entire system is NOT being replaced)
Sum:			\$2,930,059.04	\$1,107,683.28	\$780,110.12	\$26,690.12	\$1,015,575.52		



Typical Main Disconnect Switches



Main Distribution Panelboard

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E. Plumbing and Fixtures

Description: The school contains 9 Large Group Restrooms for boys, 9 Large Group Restrooms for girls, and 6 Restrooms for staff. First floor kitchen area contains 1 triple bowl sink, 1 double bowl sink, 1 hand sink and 3 single bowl sinks. Boys' first floor Large Group Restrooms contain 16 non-ADA wall mounted flush valve toilets, 32 non-ADA wall mounted flush valve urinals, 21 non-ADA wall mounted lavatories and 17 shower heads. Girls' first floor Large Group Restrooms contains 24 non-ADA wall mounted flush valve toilets, 18 non-ADA lavatories and 17 shower heads. Boys' second floor Large Group Restrooms contain 1 non-ADA wall mounted flush valve toilet, 1 non-ADA wall mounted flush valve urinal, 1 non-ADA lavatory and 9 shower heads. Girls' second floor Large Group Restrooms contain 2 non-ADA wall mounted flush valve toilets, 1 non-ADA lavatory and 9 shower heads. Staff Restrooms contain 9 non-ADA wall mounted flush valve toilets, 7 non-ADA wall mounted lavatories, 1 shower head and 1 non-ADA urinal. The facility is equipped with 15 non-ADA class room sinks in good condition, 6 electric water coolers, 1 wash fountain, 1 emergency shower, 8 mop sinks and 2 drinking fountains. The school does not meet the OBC requirements for fixtures. ADA requirements are not met for fixtures and drinking fountains see Item O. Custodial Closets are properly located and are adequately provided with required service sinks, which are in fair condition. Adequate exterior wall hydrants are provided.

Rating: 3 Needs Replacement

Recommendations: Provide additional new fixtures to replace existing fixtures because they are not the new low flow type and do not meet ADA requirements. Replace grease interceptor as part of plumbing replacement.

Item	Cost	Unit	Whole Building	1958 Original (1958) 63,954 ft²	1961 Addition (1961) 45,041 ft²	1961 Auditorium fixed seating (1961) 1,541 ft²	1967 Addition (1967) 58,636 ft²	Sum	Comments
Back Flow Preventer:	\$5,000.00	unit		1 Required				\$5,000.00	
Domestic Supply Piping:	\$3.50	sq.ft.		Required	Required		Required	\$586,708.50	(remove / replace)
Sanitary Waste Piping:	\$3.50	sq.ft.		Required	Required		Required	\$586,708.50	(remove / replace)
Domestic Water Heater:	\$5,100.00	per unit		1 Required	1 Required		1 Required	\$15,300.00	(remove / replace)
Toilet:	\$3,800.00	unit		34 Required	6 Required		3 Required	\$163,400.00	(new)
Urinal:	\$3,800.00	unit		20 Required	7 Required		7 Required	\$129,200.00	(new)
Sink:	\$2,500.00	unit		45 Required	14 Required		12 Required	\$177,500.00	(new)
Electric water cooler:	\$3,000.00	unit		4 Required	2 Required		2 Required	\$24,000.00	(double ADA)
Replace faucets and flush valves	\$500.00	per unit		99 Required	27 Required		22 Required	\$74,000.00	(average cost to remove/replace)
Two Station Modular Lavatory	\$3,000.00	unit					1 Required	\$3,000.00	(remove / replace)
Sum:			\$1,764,817.00	\$836,978.00	\$424,287.00	\$0.00	\$503,552.00		



Toilet room fixtures



Toilet room fixtures

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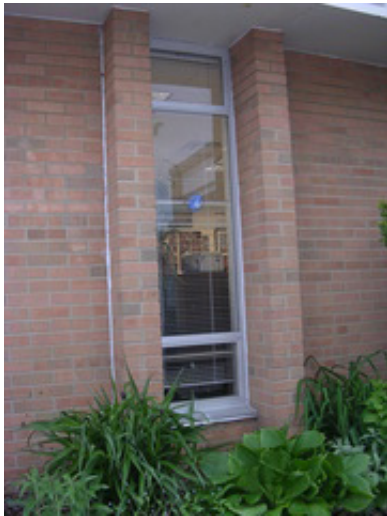
F. Windows

Description: The overall facility is equipped with non-thermally broken aluminum frame windows with single glazed non-insulated glazing type window system, which was installed at the time of construction and are in poor condition. Window system seals are in poor condition, with district reports of air and water infiltration being experienced. Window system hardware is in poor condition. The window system features surface mounted blinds, which are in moderate condition. The window system is not equipped with insect screens on operable windows. Hollow metal frame and aluminum storefront window systems with tempered and non-tempered single glazing, and porcelain and metal panels are found in the overall facility and are in poor condition. This facility does not feature any glass block windows. The school does not contain skylights. Window security grilles are not provided for ground floor windows. There is not a Greenhouse associated with this school.

Rating: 3 Needs Replacement

Recommendations: Provide a new insulated window system with integral blinds to meet with Ohio School Design Manual requirements. Replace storefront window system in the overall facility due to condition to meet with Ohio School Design Manual requirements.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²			
Insulated Glass/Panels:	\$57.10	sq.ft. (Qty)		4,645 Required	19 Required		968 Required	\$321,587.20	(includes blinds)
Curtain Wall/Storefront System:	\$64.18	sq.ft. (Qty)		534 Required	9,494 Required		783 Required	\$693,849.98	(remove and replace)
Sum:			\$1,015,437.18	\$299,501.62	\$610,409.82	\$0.00	\$105,525.74		



Typical aluminum window.



Typical aluminum storefront system.

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G. Structure: Foundation

Description: The 1958 Original Facility and the 1967 Addition are equipped with concrete trench type foundation wall footings. The 1961 addition is equipped with concrete grade beams on concrete piers, which displayed no locations of significant differential settlement, cracking, or leaking, and are in fair condition. The District reports that there has been no past leaking. Grading and site drainage deficiencies were noted around the perimeter of the structure that could contribute to foundation / wall structural deterioration. The perimeter underground rainwater collection tiles on the 1961 and 1967 additions on the north and west sides of the building and courtyard are clogged and backing up on grade. The gutters are also overflowing at these areas.

Rating: 2 Needs Repair

Recommendations: Provide drainage tile system at the 1961 and 1967 additions on the north and west sides of the building and courtyard to facilitate proper drainage. The site requires re-grading to allow for proper drainage.

Item	Cost	Unit	Whole Building	1958 Original (1958) 63,954 ft ²	1961 Addition (1961) 45,041 ft ²	1961 Auditorium fixed seating (1961) 1,541 ft ²	1967 Addition (1967) 58,636 ft ²	Sum	Comments
Drainage Tile Systems / Foundation Drainage:	\$18.00	n.ft.			575 Required		215 Required	\$14,220.00	(include excavation and backfill)
Other: Regrade Site to Provide Positive Drainage	\$15.00	n.ft.			575 Required		215 Required	\$11,850.00	Cut and fill to slope grade away from building.
Sum:			\$26,070.00	\$0.00	\$18,975.00	\$0.00	\$7,095.00		



Poor grading at foundation.



Typical foundation condition.

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H. Structure: Walls and Chimneys

Description: The overall facility has a brick veneer on a masonry bearing wall system and steel frame with brick veneer and curtain wall system which displayed locations of deterioration, and is in fair condition. The exterior masonry appears to have appropriately spaced and adequately caulked control joints in fair to poor condition. Control joints are not provided at lintel locations at doors and windows. The school has sufficient expansion joints, and they are in poor condition in the 1958 Original Construction as evidence of leaking was observed. The exterior masonry has not been cleaned and sealed in recent years, and shows evidence of mortar deterioration throughout the 1961 Addition, along walkways and at the gymnasium area. Interior walls are concrete masonry units and glazed block and are in fair condition. Interior masonry appears to have adequately spaced and caulked control joints in fair condition. Soffits are in poor condition and replacement is recommended in item I. The window sills are an element of the aluminum window system, and are in poor condition. The exterior lintels are steel, and are rusting. Chimneys are in fair condition however mortar deterioration was observed. Canopies over entrances are built-up roof and metal soffit type construction, and are in poor condition.

Rating: 2 Needs Repair

Recommendations: Provide tuckpointing in all areas of mortar deterioration as required through the overall facility. Provide masonry cleaning, sealing & caulking as required through the overall facility. Sawcut and caulk new appropriately spaced control joints in existing masonry in the 1967 Addition. Recaulk existing control joints as required through the overall facility. Replace masonry lintels as required through the overall facility.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Tuckpointing:	\$5.00	sq.ft. (Qty)		2,658 Required	9,208 Required		8,506 Required	\$101,860.00	(wall surface)
Exterior Masonry Cleaning:	\$1.50	sq.ft. (Qty)		9,499 Required	10,600 Required		27,638 Required	\$71,605.50	(wall surface)
Exterior Masonry Sealing:	\$1.00	sq.ft. (Qty)		9,499 Required	10,600 Required		27,638 Required	\$47,737.00	(wall surface)
Exterior Caulking:	\$5.50	ln.ft.		336 Required	61 Required		416 Required	\$4,471.50	(removing and replacing)
Replace Brick Veneer System:	\$35.00	sq.ft. (Qty)					35 Required	\$1,225.00	(total removal and replacement including pinning and shoring)
Lintel Replacement:	\$250.00	ln.ft.		45 Required	9 Required		96 Required	\$37,500.00	(total removal and replacement including pinning and shoring)
Install Control Joints	\$60.00	ln.ft.					22 Required	\$1,320.00	
Sum:			\$265,719.00	\$50,135.50	\$75,125.50	\$0.00	\$140,458.00		



Water-damaged wall area at expansion joint at 1958 Original Construction



Deteriorated lower lintel at 1958 Original Construction

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I. Structure: Floors and Roofs

Description: The floor construction of the base floor of the overall facility is concrete slab on grade type construction, and is in fair condition. There is no crawl space. The floor construction of the second floor and mezzanines of the 1967 Addition is cast-in-place concrete on steel frame construction, and is in fair condition. Ceiling to structural deck spaces are insufficient in all areas to accommodate HVAC, electrical, and plumbing scopes of work in required renovations. The ceilings throughout the overall facility are scheduled for removal for the addition of a sprinkler/fire suppression system per Item U. The roof construction of the overall facility is metal deck on steel joists with areas of cast-in-place concrete on steel frame construction, and is in fair condition. The 1967 addition also features metal deck with lightweight concrete fill on steel joists. Some soffits are in poor condition.

Rating: 2 Needs Repair

Recommendations: Refer to Item J for pricing of reconfiguring ceilings. Replace soffits that are in poor condition as required.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Repair Soffits:	\$24.00	sq.ft. (Qty)		364 Required	70 Required		1,351 Required	\$42,840.00	
Sum:			\$42,840.00	\$8,736.00	\$1,680.00	\$0.00	\$32,424.00		



Roof structure



Roof structure exposed in classrooms

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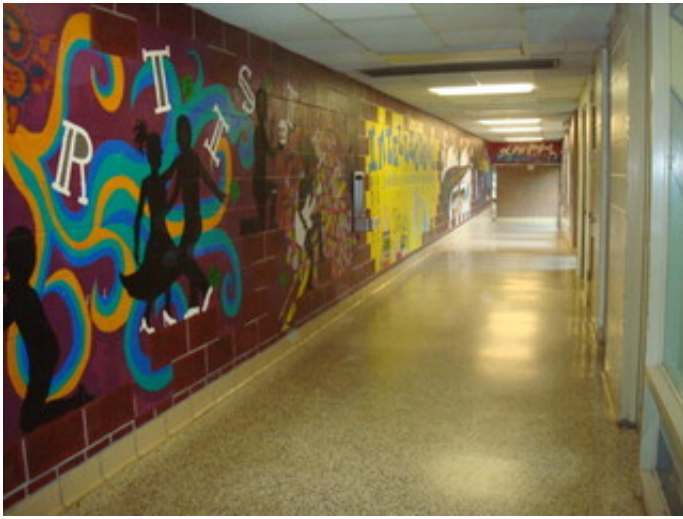
J. General Finishes

Description: The overall facility features conventionally partitioned Classrooms with vinyl tile flooring in poor condition, ceilings of acoustical tile in poor condition or exposed tectum deck in fair condition, as well as painted block wall finishes in fair condition. The overall facility has Corridors with vinyl tile and terrazzo flooring in fair condition, acoustical tile ceilings in poor condition, as well as mural painted and glazed block wall finishes in good condition. The overall facility has Restrooms with terrazzo flooring, acoustical tile or plaster ceilings, as well as glazed block wall finishes, and they are in good condition. Toilet partitions are metal, and are in fair to poor condition. Classroom casework in the overall facility is wood type construction with plastic laminate tops, is inadequately provided, and in fair condition. The typical Classroom contains zero lineal feet of casework, and Classroom casework provided ranges from zero to 132 feet. Science Labs are provided with an average of 82 feet of casework with epoxy resin chemical resistant tops. Classrooms are provided adequate chalkboards, markerboards, and tackboards, which are in fair condition. The lockers, located in the Corridors, are adequately provided, and in fair to poor condition. The Art program is equipped with two kilns in good condition, and existing kiln ventilation is adequate. The facility is equipped with wood louvered interior doors that are flush mounted and partially recessed without proper ADA hardware and clearances, and in poor condition. The Gymnasium spaces have wood flooring in fair condition, tectum deck and joist ceilings in fair condition, as well as painted block wall finishes in poor condition. Gymnasium telescoping stands are wood and plastic construction in poor condition. Gymnasium basketball backboards are fixed and electronically operated type, and are in good condition for the 1958 Original Construction and poor for the 1967 Addition auxillary Gymnasiums. The Media Center, located in the 1958 Original Construction, has vinyl tile flooring, exposed tectum and joist ceilings, as well as painted block wall finishes, and they are in poor condition. Student Dining, located in the 1961 Addition, has terrazzo and vinyl tile flooring, acoustical tile ceilings, as well as painted block and exposed brick wall finishes, and they are in fair condition. OSDM-required fixed equipment for Stage is inadequately provided, and in poor condition. The existing Kitchen is full service, is undersized based on current enrollment, and the existing Kitchen equipment, mostly installed in 1959, is in fair condition. The Kitchen hood is in good condition, and is equipped with the required UL 300 compliant wet chemical fire suppression system. The required 6" overhang on all three exposed sides of the cooking equipment is provided by the hood. Kitchen hood exhaust ductwork is of proper construction / material / insulation / and installed as required by the OSDM and OBMC. Walk-in coolers / freezers are located within the Kitchen spaces, and are in fair condition. The walk-in doors are in poor condition.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of finishes and casework due to design manual inefficiencies and installation of systems outlined in Items A, C, D, E, T, and U. Funding for replacement of interior doors is provided in Item O, including doors here noted as being in poor condition. Replace toilet partitions and accessories. Replace Kitchen stoves, refrigerators, ovens, grill, hot holding cabinet, hot and cold serving units, and dishwasher due to age. Replace Gymnasium floors due to age. Replace bleachers due to condition. Replace lockers in poor condition. Replace demountable partitions in the 1967 Addition.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Complete Replacement of Finishes and Casework (High):	\$16,333	sq.ft.		Required	Required		Required	\$2,737,414.23	(high school, per building area, with removal of existing)
Toilet Partitions:	\$1,000.00	per stall		8 Required	4 Required		9 Required	\$21,000.00	(removing and replacing)
Toilet Accessory Replacement	\$0.20	sq.ft.		Required	Required		Required	\$33,526.20	(per building area)
Resilient Wood/Synthetic Flooring	\$12.85	sq.ft. (Qty)		10,049 Required			9,311 Required	\$248,776.00	(tear-out and replace per area)
Basketball Backboard Replacement	\$3,200.00	each					6 Required	\$19,200.00	(non-electric)
Bleacher Replacement	\$110.00	per seat		1,000 Required				\$110,000.00	(based on current enrollment)
Remove Demountable Partitions / Install New GWB Partitions:	\$9.00	sq.ft. (Qty)					702 Required	\$6,318.00	(includes the demolition of the demountable partition, new partition with 5/8" abuse board, 10' high walls braced to structure above and the use of existing electric and data runs; unit price is based on floor area)
Walk-in Coolers/Freezers:	\$29,818.00	per unit					2 Required	\$59,636.00	
Range	\$2,925.00	unit					1 Required	\$2,925.00	
Hot Serving Unit:	\$8,148.00	per unit					2 Required	\$16,296.00	
Hot Food Cabinet	\$6,150.00	unit					3 Required	\$18,450.00	
Cold Food Cabinet	\$9,900.00	per unit					2 Required	\$19,800.00	
Reach-in Refrigerator/Freezer:	\$6,433.00	per unit					2 Required	\$12,866.00	
Dishwasher:	\$16,666.00	per unit					1 Required	\$16,666.00	
Sum:				\$3,322,873.43	\$1,304,289.27	\$748,527.73	\$0.00	\$1,270,056.43	



Corridor mural



Classroom mural

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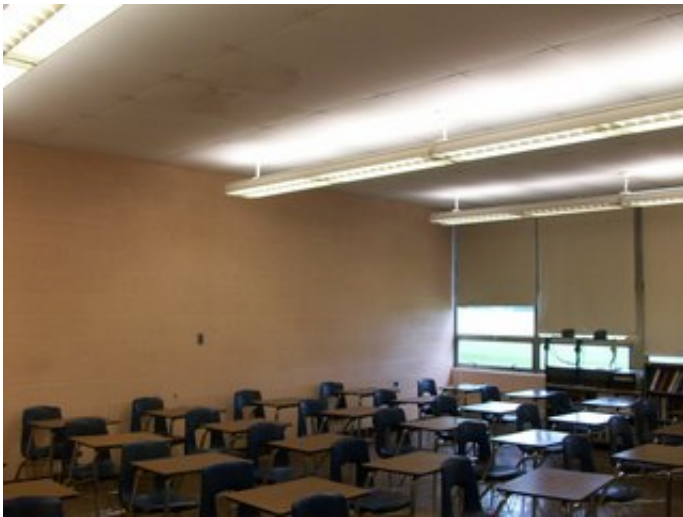
K. Interior Lighting

Description: The typical Classrooms of the original facility are equipped with T-12 1'X4' pendant mounted style fluorescent fixtures with single level switching. Some of the additions to the school have semi-recessed 2' X 4' fluorescent fixtures. Some of these Classrooms provide 60 to 70 footcandles while others only provide 50 to 60 footcandles of light which is adequate for the recommended 50 FC. The typical Corridors in the overall facility are equipped with T-12, 2'X4' recessed mounted fluorescent fixtures with single level switching. Corridor fixtures are in fair condition, providing an average illumination of 20 to 30 FC; complying with the 20 FC recommended by the OSDM. The Multi Purpose / Cafeteria area / Gymnasium is equipped with pendant mounted mercury vapor type lighting in fair condition, providing an average illumination of 50 to 60 FC; complying with the 50 FC recommended by the OSDM. The Library is equipped with T-12, 1'X4' semi-recessed mounted fluorescent type lighting in fair condition, providing an average illumination of 50 to 55 FC; complying with the 50 FC recommended by the OSDM. The Kitchen space is equipped with T-12 1'X4' surface mounted fluorescent type lighting fixtures with single level switching. Kitchen fixtures are in fair condition, providing an average illumination of 55 to 60 FC, which is less than the 75-80 FC recommended by the OSDM. The Service Areas in the overall facility are equipped with pendant or surface mounted T-12 surface mounted fluorescent type lighting and occasionally surface mounted incandescent fixtures in poor condition. The typical Administrative spaces in the overall facility are equipped with 2'X4' semi-recessed fluorescent fixtures and 1'X4' surface mounted T-12 wrap-around fluorescent type lighting in fair condition, providing adequate illumination based on OSDM requirements. The overall lighting systems of the facility are not compliant with Ohio School Design Manual requirements.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of lighting system due to age, of lighting fixtures and installation of a fire protection system.

Item	Cost	Unit	Whole Building	1958 Original (1958) 63,954 ft²	1961 Addition (1961) 45,041 ft²	1961 Auditorium fixed seating (1961) 1,541 ft²	1967 Addition (1967) 58,636 ft²	Sum	Comments
Complete Building Lighting Replacement	\$5.00	sq.ft.		Required	Required	Required	Required	\$845,860.00	Includes demo of existing fixtures
Sum:			\$845,860.00	\$319,770.00	\$225,205.00	\$7,705.00	\$293,180.00		



Typical Classroom Lighting



Hallway Lighting

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L. Security Systems

Description: The overall facility contains a security system including head-end equipment, cameras and security buzzer at main entry. The security system is not adequately provided throughout, and is not fully compliant with Ohio School Design Manual guidelines regarding security lighting throughout the site. The exterior building lighting system is equipped with incandescent semi-recessed mounted lights and mercury vapor floodlights lights; all in fair condition. Parking and bus pick-up / drop off areas are illuminated with pole mounted par 38 floodlight fixtures in fair condition. The exterior site lighting system provides inadequate coverage per the OSDM guidelines.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of security system to meet Ohio School Design Manual guidelines. Provide complete replacement of exterior site lighting system to meet Ohio School Design Manual guidelines.

Item	Cost	Unit	Whole Building	1958 Original (1958) 63,954 ft ²	1961 Addition (1961) 45,041 ft ²	1961 Auditorium fixed seating (1961) 1,541 ft ²	1967 Addition (1967) 58,636 ft ²	Sum	Comments
Security System:	\$1.75	sq.ft.		Required	Required	Required	Required	\$296,051.00	(complete, area of building)
Exterior Site Lighting:	\$1.00	sq.ft.		Required	Required	Required	Required	\$169,172.00	building
Sum:			\$465,223.00	\$175,873.50	\$123,862.75	\$4,237.75	\$161,249.00		



Ceiling Mounted Security Camera



Wall Mounted Security Panel

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M. Emergency/Egress Lighting

Description: The overall facility is equipped with an emergency egress lighting system consisting of exit lighting fed from the emergency panel. There are some stand alone emergency floodlight units in several areas of the entire facility. The exterior egress doors have semi-recessed incandescent type lights or incandescent wall mounted fixtures, but are not provided with emergency lighting heads. Most of the system is in fair condition. The emergency egress lighting units that are provided with appropriate battery backup but, no written battery replacement schedule was available. The system is not adequately provided throughout, and does not meet Ohio School Design Manual and Ohio Building Code requirements in all cases.

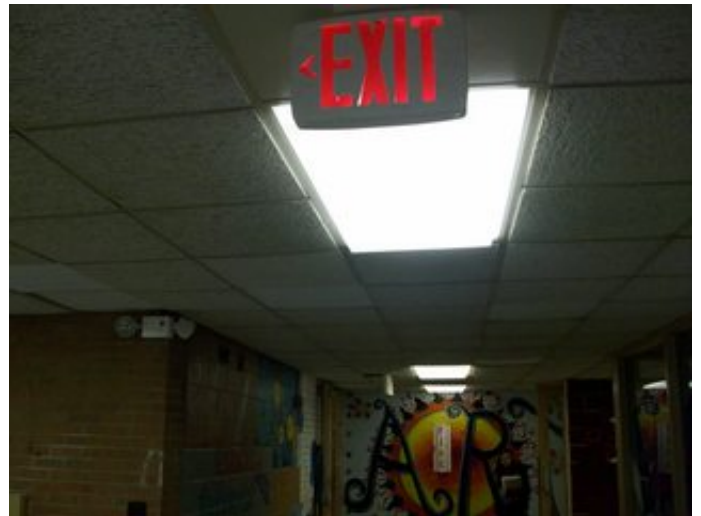
Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of the emergency / egress lighting system throughout to meet the Ohio School Design Manual guidelines.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
Emergency/Egress Lighting:	\$1.00	sq.ft.		63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Sum:			\$169,172.00	\$63,954.00	\$45,041.00	\$1,541.00	\$58,636.00		(complete, area of building)



Wall Mounted Emergency Lighting



Ceiling Mounted Exit Sign

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N. Fire Alarm

Description: The overall facility is equipped with a zoned Fire Alarm system. Due to the age of this system it cannot handle the requirements of the Ohio School Design Manual. Devices are not located in areas that are required by code and the system installed is not an addressable type and therefore will not meet the Ohio School Design Manual and Ohio Building Code requirements.

Rating: 3 Needs Replacement

Recommendations: Recommend providing a complete new Fire Alarm System to meet the Ohio School Design Manual and the Ohio Building Code.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Fire Alarm System:	\$1.50	sq.ft.		Required	Required	Required	Required	\$253,758.00	(complete new system, including removal of existing)
Sum:			\$253,758.00	\$95,931.00	\$67,561.50	\$2,311.50	\$87,954.00		



Fire Alarm Panel



Fire Alarm Pull Station

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O. Handicapped Access

Description: At the site, an accessible route is provided from the public right-of-way, the accessible parking areas, and from the passenger unloading zone to the main entrance of the school. There is an accessible route connecting most areas of the site. The exterior entrances are not ADA accessible due to stoops and hardware. Access from the parking / drop-off area to the building entries is not compromised by steps or steep ramps. Adequate handicap parking is not provided. Exterior doors are not equipped with ADA hardware. The main entry is not equipped with an ADA power assist door. No playground issues were considered due to existing grade configuration. On the interior of the building, space allowances and reach ranges are mostly compliant. An accessible route is provided through most of the building which does not include protruding objects. Ground and floor surfaces are compliant. Ramps and stairs do meet all ADA requirements. Elevation changes within the overall facility are facilitated by 4 stairwells in poor condition, 2 step locations in fair condition, no lifts, 4 ramps in fair condition. Special provisions for floor level changes in this 2 story structure are insufficient due to lack of lifts and elevators. Access to the Stage is not facilitated by a chair lift or ramp and none are required due to main floor access. Most Interior doors are recessed, are provided adequate clearances, and are not provided with ADA-compliant hardware. Eight ADA-compliant toilets are required, and three are currently provided. Eight ADA-compliant lavatories are required, and three are currently provided. Four ADA-compliant urinals are required, and none are currently provided. Two ADA-compliant showers are required, and none are currently provided. Eight ADA-compliant electric water coolers are required, and none are currently provided. Toilet partitions are metal, and some provide appropriate ADA clearances. ADA-compliant accessories are not adequately provided and mounted. Mirrors do not meet ADA requirements for mounting heights. Health Clinic and Special Education restrooms are not compliant with ADA requirements. ADA signage is not provided on both the interior and the exterior of the building.

Rating: 3 Needs Replacement

Recommendations: Provide ADA compliant signage. Provide power assist door opener at main entry. Provide chair lift. Provide elevators to auxiliary Gymnasiums. Provide new toilet partitions and accessories. Replacement of fixtures covered in item D. Parking issues are corrected in Item P. Replace doors in poor condition as noted in Item J. Rework wall openings for narrow doors.

Item	Cost	Unit	Whole Building	1958 Original (1958) 63,954 ft²	1961 Addition (1961) 45,041 ft²	1961 Auditorium fixed seating (1961) 1,541 ft²	1967 Addition (1967) 58,636 ft²	Sum	Comments
Signage:	\$0.10	sq.ft.		Required	Required	Required	Required	\$16,917.20	(per building area)
Lifts:	\$15,000.00	unit		1 Required				\$15,000.00	(complete)
Elevators:	\$50,000.00	each					4 Required	\$200,000.00	(per stop, \$100,000 minimum)
Toilet Partitions:	\$1,000.00	stall		6 Required	2 Required		8 Required	\$16,000.00	(ADA - grab bars, accessories included)
ADA Assist Door & Frame:	\$7,500.00	unit		1 Required				\$7,500.00	(openers, electrical, patching, etc)
Replace Doors:	\$1,100.00	leaf		115 Required	59 Required		57 Required	\$254,100.00	(standard 3070 wood door, HM frame-classroom door/light, includes hardware)
Replace Doors:	\$5,000.00	leaf		6 Required	6 Required			\$60,000.00	(rework narrow opening to provide 3070 wood door, HM frame, door/light, includes hardware)
Replace Doors:	\$5,000.00	leaf		9 Required			11 Required	\$100,000.00	(rework opening and corridor wall to accommodate ADA standards when door opening is set back from edge of corridor and cannot accommodate a wheelchair.)
Remount Restroom Mirrors to Handicapped Height:	\$285.00	per restroom		6 Required	2 Required		8 Required	\$4,560.00	
Provide ADA Shower:	\$3,000.00	each					2 Required	\$6,000.00	(includes fixtures, walls, floor drain, and supply line of an existing locker room)
Sum:			\$680,077.20	\$238,105.40	\$101,974.10	\$154.10	\$339,843.60		



Accessible toilet



Special Education toilet room

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P. Site Condition

Description: The 47.03 acre sloped site is located in a suburban residential setting with generous tree, shrub, and floral type landscaping. The site is shared with Willoughby Middle School as part of a 66.63 acre campus. There are apparent problems with erosion or ponding near the athletic fields. The site is bordered by lightly traveled city streets. Multiple entrances onto the site impede proper separation of bus and other vehicular traffic, and one way bus traffic is provided. There is a curbside bus loading and unloading zone in front of beside the school, which is not separated from other vehicular traffic. Staff, visitor, and student parking is facilitated by a multiple asphalt and gravel parking lots in poor condition, containing 438 parking places, which does not provide adequate parking for staff members, visitors, students and the disabled. The site and parking lot drainage design, consisting of sheet drainage, catch basins, and storm sewers, provides adequate evacuation of storm water, and no problems with parking lot ponding were observed. Concrete curbs in fair condition are appropriately placed. Trash pick-up and service drive pavement is not heavy duty, is not equipped with a concrete pad area for dumpsters, and is in fair condition. The school is not equipped with a loading dock. Concrete sidewalks are properly sloped, are located to provide a logical flow of pedestrian traffic, and are in fair condition. Site fencing surrounding the gas meter house is in poor condition. The athletic facilities are comprised of a football stadium with running track, baseball, softball, and kick ball fields, and are in fair condition. Site features are suitable for outdoor instruction, which is enhanced through the District's provision of benches and landscaping within courtyard spaces.

Rating: 3 Needs Replacement

Recommendations: Provide additional parking spaces to meet OSDM guidelines, including adequate provisions for the disabled. Pave gravel lots. Repair asphalt in poor condition. Replace asphalt sidewalks in poor condition with concrete and repair concrete walks in poor condition.

Item	Cost	Unit	Whole Building	1958 Original (1958) 63,954 ft²	1961 Addition (1961) 45,041 ft²	1961 Auditorium fixed seating (1961) 1,541 ft²	1967 Addition (1967) 58,636 ft²	Sum	Comments
Replace Existing Asphalt Paving (heavy duty):	\$30.00	sq. yard		2,823 Required	2,823 Required		2,823 Required	\$254,070.00	(including drainage / tear out for heavy duty asphalt)
Additional Parking Spaces Required for High	\$420.00	per student		52 Required	52 Required		52 Required	\$65,520.00	(\$1,000 per parking space; 0.42 spaces per high school student. Parking space includes parking lot drive space.)
Concrete Curb:	\$17.87	ln.ft.		261 Required	261 Required		261 Required	\$13,992.21	(new)
Concrete Sidewalk:	\$4.69	sq.ft. (Qty)		900 Required			900 Required	\$8,442.00	(5 inch exterior slab)
Provide Concrete Dumpster Pad:	\$2,400.00	each			1 Required		1 Required	\$4,800.00	(for two dumpsters)
Base Sitework Allowance for Unforeseen Circumstances	\$50,000.00	allowance		Required				\$50,000.00	Include this and one of the next two. (Applies for whole building, so only one addition should have this item)
Sitework Allowance for Unforeseen Circumstances for buildings 100,000 SF or larger	\$150,000.00	allowance		Required				\$150,000.00	Include this one or the previous. (Applies for whole building, so only one addition should have this item)
Sum:			\$546,824.21	\$315,415.07	\$113,594.07	\$0.00	\$117,815.07		



Asphalt



Recycling bins

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Q. Sewage System

Description: The sanitary sewer system is tied in to the city system and is in fair condition. No significant system deficiencies were reported by the school district or noted during the physical assessment.

Rating: 3 Needs Replacement

Recommendations: Replace existing system due to age of pipe.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
Sewage Main:	\$45.00	n.ft.		63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
			500 Required	500 Required			250 Required	\$56,250.00	(include excavation and backfilling)
Sum:			\$56,250.00	\$22,500.00	\$22,500.00	\$0.00	\$11,250.00		



Sanitary piping below sink



Sanitary drainage Piping in chase

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R. Water Supply

Description: The domestic water supply system is tied in to the municipal system. The District was not able to provide water supply flow test data. The existing domestic water service does meet the facility's current needs

Rating: 3 Needs Replacement

Recommendations: The facility is not equipped with an automated fire suppression system, and the existing water supply will not provide adequate support for a future system.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Domestic Water Main	\$40.00	n.ft.		500 Required	500 Required		250 Required	\$50,000.00	(new)
Sum:			\$50,000.00	\$20,000.00	\$20,000.00	\$0.00	\$10,000.00		



Domestic Water Piping



Domestic water piping

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S. Exterior Doors

Description: Typical exterior doors in the Overall Facility are aluminum type construction, installed on aluminum frames, and are in fair to poor condition. Typical exterior doors feature single glazed, non-insulated, tempered and non-tempered glass vision panels. There are hollow metal doors on hollow metal frames that are in poor condition. Hollow metal doors with vision panels feature tempered and non-tempered glazing. There are hollow metal doors on hollow metal frames with and without single glazed non-tempered vision panels in poor condition of the overall facility. Overhead doors are insulated overhead type in fair condition in the 1967 addition.

Rating: 3 Needs Replacement

Recommendations: Replace all exterior doors to comply with Ohio Building Code, ADA, and Ohio School Design Manual guidelines and due to condition. Sidelite replacement included in item F.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Door Leaf/Frame and Hardware:	\$2,000.00	per leaf		14 Required	27 Required		26 Required	\$134,000.00	(includes removal of existing)
Sum:			\$134,000.00	\$28,000.00	\$54,000.00	\$0.00	\$52,000.00		



Typical aluminum entry doors.



Typical hollow metal doors.

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T. Hazardous Material

Description: The School District provided the AHERA three year reinspection reports, prepared by CTG Environmental, LLC, and dated 2006, documenting known and assumed locations of asbestos and other hazardous materials. Vinyl asbestos floor tile and mastic, pipe insulation, fittings, tank insulation, and duct insulation containing hazardous materials are located in the overall facility in fair to poor condition. These materials were described in the report and open to observation and found to be in friable and non-friable condition with significant to light damage. There are no underground fuel oil storage tanks on the site. Due to the construction date, there is little potential for lead based paint.

Rating: 3 Needs Replacement

Recommendations: Remove all hazardous materials, inclusive of asbestos-containing materials in the overall facility, as noted in the attached Environmental Hazards Assessment.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
<i>Environmental Hazards Form</i>				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
				EHA Form	EHA Form	EHA Form	EHA Form		
Tank Insulation Removal	\$8.00	sq.ft. (Qty)		80 Required	50 Required	0 Required	0 Required	\$1,040.00	
Duct Insulation Removal	\$8.00	sq.ft. (Qty)		120 Required	0 Required	0 Required	0 Required	\$960.00	
Pipe Insulation Removal	\$10.00	ln.ft.		700 Required	500 Required	0 Required	200 Required	\$14,000.00	
Pipe Fitting Insulation Removal	\$20.00	each		150 Required	0 Required	0 Required	50 Required	\$4,000.00	
Acoustical Panel/Tile Ceiling Removal	\$3.00	sq.ft. (Qty)		0 Required	16,000 Required	0 Required	0 Required	\$48,000.00	See J
Resilient Flooring Removal, Including Mastic	\$3.00	sq.ft. (Qty)		28,082 Required	24,140 Required	1,541 Required	18,450 Required	\$216,639.00	See J
Sum:			\$284,639.00	\$95,846.00	\$125,820.00	\$4,623.00	\$58,350.00		



9x9 resilient tile



Pipe insulation

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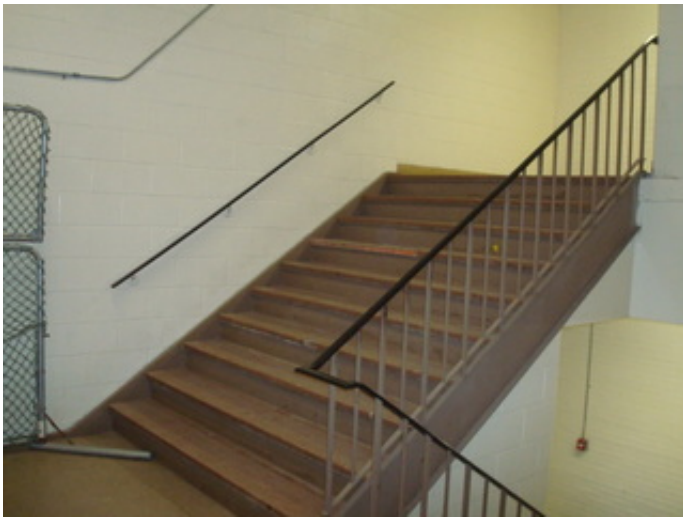
U. Life Safety

Description: The overall facility is not equipped with an automated fire suppression system. Exit corridors are situated such that dead-end corridors are not present. The facility features 4 interior stair towers, which are not protected by a two hour fire enclosure. The facility does not have any exterior stairways from intermediate floors. Guardrails do not meet the 4" ball test, and do not extend past the top and bottom stair risers as required by the Ohio Building Code. Stairs are wider than allowable without intermediat handrail. The Kitchen hood is in good condition, and is equipped with the required UL 300 compliant wet chemical fire suppression system. The required 6" overhang of the cooking equipment is provided by the hood. Kitchen hood exhaust ductwork is of proper construction / material / insulation / and/or installed as required by the OSDM and OBCMC. The cooking equipment is interlocked to shut down in the event of discharge of the fire suppression system. Fire extinguishers are provided in sufficient quantity. Existing fire extinguishers are adequately spaced. The facility is equipped with an emergency generator. The emergency generator is a natural gas fired type unit, is located inside the building. The emergency generator is in good condition, and does not provide adequate capacity for the future needs of the school. The existing water supply is provided by a tie-in to the municipal system, and is insufficient to meet the future fire suppression needs of the school. Some rooms with a capacity greater than 50 occupants are not equipped with adequate egress.

Rating: 3 Needs Replacement

Recommendations: Provide new automated fire suppression system to meet Ohio School Design Manual guidelines. Provide increased water service of a capacity sufficient to support the fire suppression system, funding included in fire suppression funding. Provide new emergency generator, with funding provided via complete replacement of electrical system in Item D. Provide new handrails to meet the requirements of the Ohio Building Code. Provide second means of egress from rooms with capacity greater than 50.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
Sprinkler / Fire Suppression System:	\$3.25	sq.ft. (Qty)		63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
Handrails:	\$5,000.00	level		7 Required			12 Required	\$95,000.00	
Other: Second egress door	\$3,000.00	each		10 Required			7 Required	\$51,000.00	Provide second means of egress from room with more than 50 occupants
Sum:			\$695,809.00	\$272,850.50	\$146,383.25	\$5,008.25	\$271,567.00		



Guard and handrails



Fire extinguisher cabinet

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V. Loose Furnishings

Description: The typical Classroom furniture is generally consistent within rooms and mismatched by wings, and in generally fair to poor condition, consisting of student desks & chairs, teacher desks & chairs, desk height file cabinets, reading tables, computer workstations, bookcases, wastebaskets, and other. The facility's furniture and loose equipment were evaluated in item 6.17 in the CEFPI section of this report, and on a scale of 1 to 10 the overall facility received a rating of 6 due to observed conditions, and due to the fact that it lacks some of the Design Manual required elements.

Rating: 3 Needs Replacement

Recommendations: Provide for replacement of outdated or inadequate furniture.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
CEFPI Rating	6	\$3.00/sq.ft.		Required	Required		Required	\$502,893.00	
Sum:			\$502,893.00	\$191,862.00	\$135,123.00	\$0.00	\$175,908.00		



Classroom furniture



Classroom furniture

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W. Technology

Description: The typical Classroom is equipped with two data ports per outlet and no voice ports to be used with a digitally based phone system to meet Ohio School Design Manual requirements. The typical Classroom is not equipped with the required four technology data ports for teacher and student use and a 2-way PA system that can be initiated by either party to meet Ohio School Design Manual requirements. The facility is equipped with a centralized clock system. The Sound System provides devices for most required spaces but due to the age the infrastructure is inadequately provided for each space of this facility. The facility does contain a media distribution center, and also provides a Computer Lab for use by most students.

Rating: 3 Needs Replacement

Recommendations: Provide complete replacement of technology systems to meet Ohio School Design Manual requirements for this facility.

Item	Cost	Unit	Whole Building	1958 Original (1958)	1961 Addition (1961)	1961 Auditorium fixed seating (1961)	1967 Addition (1967)	Sum	Comments
				63,954 ft ²	45,041 ft ²	1,541 ft ²	58,636 ft ²		
HS portion of building with total SF 133,601 to 200,400	\$5.45	sq.ft. (Qty)		63,954 Required	45,041 Required	1,541 Required	58,636 Required	\$921,987.40	
Sum:			\$921,987.40	\$348,549.30	\$245,473.45	\$8,398.45	\$319,566.20		



Technology Main Frame



Typical Technology / Power Outlets

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X. Construction Contingency / Non-Construction Cost

Renovation Costs (A-W)		\$21,904,482.20
7.00%	Construction Contingency	\$1,533,313.75
Subtotal		\$23,437,795.95
16.29%	Non-Construction Costs	\$3,818,016.96
Total Project		\$27,255,812.91

Construction Contingency	\$1,533,313.75
Non-Construction Costs	\$3,818,016.96
Total for X.	\$5,351,330.71

Non-Construction Costs Breakdown		
Land Survey	0.03%	\$7,031.34
Soil Borings / Phase I Envir. Report	0.10%	\$23,437.80
Agency Approval Fees (Bldg. Code)	0.15%	\$35,156.69
Construction Testing	0.25%	\$58,594.49
Printing - Bid Documents	0.27%	\$63,282.05
Advertising for Bids	0.03%	\$7,031.34
Builder's Risk Insurance	0.11%	\$25,781.58
Design Professional's Compensation	7.50%	\$1,757,834.70
CM Compensation	6.00%	\$1,406,267.76
Commissioning	0.42%	\$98,438.74
Maintenance Plan Advisor	0.11%	\$25,781.58
Non-Construction Contingency (includes partnering and mediation services)	1.32%	\$309,378.91
Total Non-Construction Costs	16.29%	\$3,818,016.96

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School Facility Appraisal

Name of Appraiser Karen L Walker **Date of Appraisal** 2010-03-16
Building Name South High School
Street Address 5000 Shankland Rd
City/Town, State, Zip Code Willoughby, OH 44094
Telephone Number(s) 440/975-3628
School District Willoughby-Eastlake City SD

Setting: Suburban
 Site-Acreage 47.03
 Grades Housed 9-12
 Number of Teaching Stations 53
 Student Enrollment 1413
 Dates of Construction 1958,1961,1961,1967

Building Square Footage 169,172
 Student Capacity 1,250
 Number of Floors 2

Energy Sources: Fuel Oil Gas Electric Solar
Air Conditioning: Roof Top Windows Units Central Room Units
Heating: Central Roof Top Individual Unit Forced Air
 Hot Water Steam

Type of Construction
 Load bearing masonry
 Steel frame
 Concrete frame
 Wood
 Steel Joists

Exterior Surfacing
 Brick
 Stucco
 Metal
 Wood
 Stone

Floor Construction
 Wood Joists
 Steel Joists
 Slab on grade
 Structural slab

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1.0 The School Site

School Facility Appraisal

		Points Allocated	Points
1.1	Site is large enough to meet educational needs as defined by state and local requirements <i>The site is shared with Willoughby Middle School and is large enough to meet educational needs as defined by state and local requirements.</i>	25	23
1.2	Site is easily accessible and conveniently located for the present and future population <i>The site is well located within the community.</i>	20	18
1.3	Location is removed from undesirable business, industry, traffic, and natural hazards <i>The location is in a suburban residential neighborhood.</i>	10	9
1.4	Site is well landscaped and developed to meet educational needs <i>The site is pleasantly landscaped and has the potential for further educational improvements.</i>	10	8
1.5	ES Well equipped playgrounds are separated from streets and parking areas MS Well equipped athletic and intermural areas are separated from streets and parking HS Well equipped athletic areas are adequate with sufficient solid-surface parking <i>The athletic fields are well equipped and the solid surface parking is undersized.</i>	10	6
1.6	Topography is varied enough to provide desirable appearance and without steep inclines <i>The topography is pleasantly sloped though some erosion problems were observed at the border between the two schools.</i>	5	3
1.7	Site has stable, well drained soil free of erosion <i>Some erosion was observed.</i>	5	2
1.8	Site is suitable for special instructional needs , e.g., outdoor learning <i>The site is suitable for outdoor learning though no specialized instruction areas are provided.</i>	5	4
1.9	Pedestrian services include adequate sidewalk with designated crosswalks, curb cuts, and correct slopes <i>Pedestrians have access throughout the site though sidewalks to the site are minimal.</i>	5	2
1.10	ES/MS Sufficient on-site, solid surface parking for faculty and staff is provided HS Sufficient on-site, solid surface parking is provided for faculty, students, staff and community <i>The building has insufficient parking.</i>	5	2
TOTAL - The School Site		100	77

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2.0 Structural and Mechanical Features

School Facility Appraisal

Structural	Points Allocated	Points
2.1 Structure meets all barrier-free requirements both externally and internally <i>The building is not handicap accessible throughout. Continuous procession through the building is inhibited with steps and stair towers.</i>	15	7
2.2 Roofs appear sound, have positive drainage, and are weather tight <i>Roofs are insufficient in slope, drainage and are not weather tight.</i>	15	5
2.3 Foundations are strong and stable with no observable cracks <i>Foundations are strong and stable with no substantial cracks.</i>	10	8
2.4 Exterior and interior walls have sufficient expansion joints and are free of deterioration <i>Exterior and interior walls have expansion joints though they are insufficient in quantity and location. Areas were observed requiring repair.</i>	10	6
2.5 Entrances and exits are located so as to permit efficient student traffic flow <i>Entrances and exits are located so as to permit efficient student traffic flow, though some corridors are undersized for the student population.</i>	10	7
2.6 Building "envelope" generally provides for energy conservation (see criteria) <i>The building "envelope" does not meet current ASHREA standards for energy conservation.</i>	10	4
2.7 Structure is free of friable asbestos and toxic materials <i>The building is reported to contain asbestos and other hazardous materials.</i>	10	4
2.8 Interior walls permit sufficient flexibility for a variety of class sizes <i>Interior walls do not permit sufficient flexibility for a variety of class sizes. Most classrooms are undersized.</i>	10	5

Mechanical/Electrical	Points Allocated	Points
2.9 Adequate light sources are well maintained, and properly placed and are not subject to overheating <i>Most areas are maintained and properly placed while other area lighting needs repair or replaced due to being incandescent type. No lighting was noticed as being subject to overheating</i>	15	6
2.10 Internal water supply is adequate with sufficient pressure to meet health and safety requirements <i>The existing domestic water service does meet the facility's current needs. The system does not provide adequate flow capacity for the future needs of the school.</i>	15	15
2.11 Each teaching/learning area has adequate convenient wall outlets , phone and computer cabling for technology applications <i>Some up-dating has occurred in Technology for the teaching / learning areas. Still more up-dating is needed regarding outlets, phones and computer cabling.</i>	15	6

2.12	Electrical controls are safely protected with disconnect switches easily accessible	10	4
	<i>The electrical controls noticed are safely protected with disconnect switches or over current protection devices and was easily accessible but, due to the age of the equipment it does not meet the requirements of the OSDM.</i>		
2.13	Drinking fountains are adequate in number and placement, and are properly maintained including provisions for the disabled	10	10
	<i>Electric water coolers do not meet ADA requirements.</i>		
2.14	Number and size of restrooms meet requirements	10	5
	<i>The quantity of fixtures on site are sufficient for the population served. However, many restrooms have been taken off line and are not available for use.</i>		
2.15	Drainage systems are properly maintained and meet requirements	10	5
	<i>The waste piping in the original facility is cast iron, was installed in 1958. Replace sanitary waste piping in the overall facility due to the age of drainage piping.</i>		
2.16	Fire alarms, smoke detectors, and sprinkler systems are properly maintained and meet requirements	10	4
	<i>The Fire Alarm system is a zoned system which does not meet the requirements of the Ohio Design Manual. There is not a sprinkler system within this facility.</i>		
2.17	Intercommunication system consists of a central unit that allows dependable two-way communication between the office and instructional areas	10	4
	<i>Intercommunication system consists of a central unit via telephones that allow two-way communication between the Office and certain areas but, also needs replacement per the OSDM requirements.</i>		
2.18	Exterior water supply is sufficient and available for normal usage	5	3
	<i>The facility is not equipped with an automated fire suppression system, and the existing water supply will not provide adequate support for a future system.</i>		
TOTAL - Structural and Mechanical Features		200	108

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3.0 Plant Maintainability

School Facility Appraisal

	Points Allocated	Points
3.1 Windows, doors, and walls are of material and finish requiring minimum maintenance <i>Windows, doors, and walls are of an age that material and finishes are requiring maintenance.</i>	15	8
3.2 Floor surfaces throughout the building require minimum care <i>Floor surfaces throughout the building require continued care.</i>	15	5
3.3 Ceilings and walls throughout the building, including service areas, are easily cleaned and resistant to stain <i>Ceilings and walls are stained and not easily cleaned.</i>	10	5
3.4 Built-in equipment is designed and constructed for ease of maintenance <i>Built-in equipment is not designed and constructed for ease of maintenance.</i>	10	5
3.5 Finishes and hardware , with compatible keying system, are of durable quality <i>Finishes and hardware, with generally compatible with district-wide keying system, are of durable quality.</i>	10	5
3.6 Restroom fixtures are wall mounted and of quality finish <i>Some restroom fixtures are wall mounted and of quality finish, but not water efficient.</i>	10	5
3.7 Adequate custodial storage space with water and drain is accessible throughout the building <i>Adequate custodial storage space with water and drain is accessible throughout the building.</i>	10	8
3.8 Adequate electrical outlets and power , to permit routine cleaning, are available in every area <i>Electrical outlets and power for routine cleaning is not available in most areas due to that fact that very few outlets are provided in such areas as classrooms and none in other areas such as small toilet rooms or storage areas.</i>	10	4
3.9 Outdoor light fixtures, electrical outlets , equipment, and other fixtures are accessible for repair and replacement <i>Outdoor light fixtures are maintained and accessible for repair and / or replacement, but exterior electrical outlets are non-existent in many cases as required by the Ohio School Design Manual.</i>	10	6
<hr/>		
TOTAL - Plant Maintainability	100	51

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4.0 Building Safety and Security

School Facility Appraisal

Site Safety		Points Allocated	Points
4.1	<p>Student loading areas are segregated from other vehicular traffic and pedestrian walkways</p> <p><i>Student loading areas are somewhat separated from other vehicular traffic. Drop off areas mix cars and busses.</i></p>	15	7
4.2	<p>Walkways, both on and offsite, are available for safety of pedestrians</p> <p><i>Walkways, on site, but not offsite, are available for safety of pedestrians</i></p>	10	4
4.3	<p>Access streets have sufficient signals and signs to permit safe entrance to and exit from school area</p> <p><i>Access streets have sufficient signs to permit safe entrance to and exit from school area.</i></p>	5	3
4.4	<p>Vehicular entrances and exits permit safe traffic flow</p> <p><i>Traffic flow to and from the site is adequate.</i></p>	5	3
4.5	<p>ES Playground equipment is free from hazard</p> <p>MS Location and types of intramural equipment are free from hazard</p> <p>HS Athletic field equipment is properly located and is free from hazard</p> <p><i>Athletic field equipment is sufficient. The site is shared with Willoughby Middle School</i></p>	5	4
Building Safety		Points Allocated	Points
4.6	<p>The heating unit(s) is located away from student occupied areas</p> <p><i>Heating units are mostly away from students.</i></p>	20	18
4.7	<p>Multi-story buildings have at least two stairways for student egress</p> <p><i>The building has 4 stair towers for second floor egress.</i></p>	15	12
4.8	<p>Exterior doors open outward and are equipped with panic hardware</p> <p><i>Exterior doors open outward and are equipped with panic hardware though some door hardware is in poor condition.</i></p>	10	5
4.9	<p>Emergency lighting is provided throughout the entire building with exit signs on separate electrical circuits</p> <p><i>Emergency lighting and exit signs are provided throughout the entire building. Exits signs have battery backup but are not on a separate electrical circuit. Some emergency units are not per the Ohio Building Code or the NEC.</i></p>	10	6
4.10	<p>Classroom doors are recessed and open outward</p> <p><i>Some classroom doors are recessed, all open outward, and many are in poor condition.</i></p>	10	5
4.11	<p>Building security systems are provided to assure uninterrupted operation of the educational program</p>	10	4

Building security systems are provided to assure uninterrupted operation of the educational program. The system does not meet all requirements of the OSDM.

4.12	Flooring (including ramps and stairways) is maintained in a non-slip condition <i>The flooring is in a non slip, non trip condition.</i>	5	4
4.13	Stair risers (interior and exterior) do not exceed 6 1/2 inches and range in number from 3 - 16 <i>Stair risers are compliant with OBC requirements.</i>	5	4
4.14	Glass is properly located and protected with wire or safety material to prevent accidental student injury <i>Glass is wired or plate and many are not in good condition.</i>	5	3
4.15	Fixed Projections in the traffic areas do not extend more than eight inches from the corridor wall <i>Fixed Projections in the traffic areas do not extend more than eight inches from the corridor wall.</i>	5	4
4.16	Traffic areas terminate at an exit or a stairway leading to an egress <i>Dead end situation is created by a gate at the bottom of a stair tower.</i>	5	3

Emergency Safety	Points Allocated	Points	
4.17	Adequate fire safety equipment is properly located <i>Adequate fire safety equipment is properly located.</i>	15	13
4.18	There are at least two independent exits from any point in the building <i>There are at least two independent exits from any point in the building, except for a gate at one stair tower.</i>	15	10
4.19	Fire-resistant materials are used throughout the structure <i>Fire-resistant materials are not used throughout the structure.</i>	15	10
4.20	Automatic and manual emergency alarm system with a distinctive sound and flashing light is provided <i>Automatic and manual emergency alarm system with a distinctive sound is provided. Alarms are also equipped with strobe lights. The Fire Alarm System is not per the OSDM requirements.</i>	15	6
TOTAL - Building Safety and Security		200	128

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5.0 Educational Adequacy

School Facility Appraisal

Academic Learning Space		Points Allocated	Points
5.1	Size of academic learning areas meets desirable standards <i>Size of academic learning areas does not meet desirable standards for most classrooms.</i>	25	14
5.2	Classroom space permits arrangements for small group activity <i>Due to being undersized, classroom spaces do not permit arrangements for small group activity.</i>	15	10
5.3	Location of academic learning areas is near related educational activities and away from disruptive noise <i>Location of academic learning areas is near related educational activities and not away from disruptive noise.</i>	10	7
5.4	Personal space in the classroom away from group instruction allows privacy time for individual students <i>Personal space in the classroom away from group instruction does not allow private time for individual students.</i>	10	6
5.5	Storage for student materials is adequate <i>Storage for student materials is not adequate.</i>	10	5
5.6	Storage for teacher materials is adequate <i>Storage for teacher materials is not adequate.</i>	10	5

Special Learning Space		Points Allocated	Points
5.7	Size of special learning area(s) meets standards <i>Size of special learning areas are undersized and do not meet standards.</i>	15	7
5.8	Design of specialized learning area(s) is compatible with instructional need <i>Design of specialized learning areas are too small to be compatible with instructional needs.</i>	10	5
5.9	Library/Resource/Media Center provides appropriate and attractive space <i>Library/Resource/Media Center provides appropriate and attractive space.</i>	10	6
5.10	Gymnasium (or covered P.E. area) adequately serves physical education instruction <i>Gymnasium adequately serves physical education instruction.</i>	5	4
5.11	ES Pre-kindergarten and kindergarten space is appropriate for age of students and nature of instruction MS/HS Science program is provided sufficient space and equipment <i>Science program provides sufficient space and equipment.</i>	10	8

5.12	Music Program is provided adequate sound treated space <i>Music Program is provided adequate sound treated space. Acoustics are poor, but there is isolation between education spaces.</i>	5	3
5.13	Space for art is appropriate for special instruction, supplies, and equipment <i>Space for art is appropriate for special instruction, supplies, and equipment.</i>	5	4

School Facility Appraisal

		Points Allocated	Points
5.14	Space for technology education permits use of state-of-the-art equipment <i>Space for technology education permits use of state-of-the-art equipment.</i>	5	4
5.15	Space for small groups and remedial instruction is provided adjacent to classrooms <i>Space for small groups and remedial instruction is not provided adjacent to classrooms.</i>	5	2
5.16	Storage for student and teacher material is adequate <i>Storage for student and teacher material is not adequate.</i>	5	3

Support Space

		Points Allocated	Points
5.17	Teacher's lounge and work areas reflect teachers as professionals <i>Teacher's lounge and work areas reflect teachers as professionals.</i>	10	7
5.18	Cafeteria/Kitchen is attractive with sufficient space for seating/dining, delivery, storage, and food preparation <i>Cafeteria/Kitchen is attractive with sufficient space for seating/dining, delivery, storage, and food preparation.</i>	10	8
5.19	Administrative offices provided are consistent in appearance and function with the maturity of the students served <i>Administrative offices provided are consistent in appearance and function with the maturity of the students served.</i>	5	4
5.20	Counselor's office insures privacy and sufficient storage <i>Counselor's office insures privacy and sufficient storage</i>	5	4
5.21	Clinic is near administrative offices and is equipped to meet requirements <i>Clinic is near administrative offices and is equipped to meet requirements. Climate control and ventilation are poor.</i>	5	3
5.22	Suitable reception space is available for students, teachers, and visitors <i>Suitable reception space is available for students, teachers, and visitors.</i>	5	5
5.23	Administrative personnel are provided sufficient work space and privacy <i>Administrative personnel are provided sufficient work space and privacy.</i>	5	5

TOTAL - Educational Adequacy

200

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6.0 Environment for Education

School Facility Appraisal

Exterior Environment		Points Allocated	Points
6.1	Overall design is aesthetically pleasing to age of students <i>The overall building aesthetic is softened and enhanced by abundant trees and shrubs.</i>	15	10
6.2	Site and building are well landscaped <i>The site and building are well landscaped.</i>	10	9
6.3	Exterior noise and poor environment do not disrupt learning <i>The site is in a suburban residential neighborhood free from exterior distractions.</i>	10	9
6.4	Entrances and walkways are sheltered from sun and inclement weather <i>Entrances and walkways are sheltered from sun and inclement weather.</i>	10	8
6.5	Building materials provide attractive color and texture <i>The exterior color palette is enhanced by trees and shrubs.</i>	5	4

Interior Environment		Points Allocated	Points
6.6	Color schemes, building materials, and decor provide an impetus to learning <i>The interior color scheme is dark and dated.</i>	20	15
6.7	Year around comfortable temperature and humidity are provided throughout the building <i>The building does not have adequate climate control for year round comfort.</i>	15	10
6.8	Ventilating system provides adequate quiet circulation of clean air and meets 15cfm VBC requirement <i>Ventilation in the building does not provide adequate air exchanges.</i>	15	7
6.9	Lighting system provides proper intensity, diffusion, and distribution of illumination <i>Lighting system does provide proper intensity, diffusion and distribution of illumination. The corridors are adequately illuminated.</i>	15	12
6.10	Drinking fountains and restroom facilities are conveniently located <i>Restrooms are not conveniently located near learning areas due to restrooms being taken out of service.</i>	15	7
6.11	Communication among students is enhanced by commons area(s) for socialization <i>Communication among students is enhanced by commons areas for socialization.</i>	10	7
6.12	Traffic flow is aided by appropriate foyers and corridors	10	7

Traffic flow is aided by appropriate foyers and corridors.

6.13	Areas for students to interact are suitable to the age group <i>Areas for students to interact are suitable to the age group.</i>	10	7
6.14	Large group areas are designed for effective management of students <i>Large group areas are designed for effective management of students.</i>	10	8
6.15	Acoustical treatment of ceilings, walls, and floors provides effective sound control <i>Acoustical treatment of ceilings, walls, and floors provides effective sound control.</i>	10	6
6.16	Window design contributes to a pleasant environment <i>Window design contributes to a pleasant environment.</i>	10	2
6.17	Furniture and equipment provide a pleasing atmosphere <i>The furniture is mismatched and several pieces are in need of repair. Overall, the units are lacking from design manual standards.</i>	10	6
<hr/> TOTAL - Environment for Education		200	134

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LEED Observation Notes

School District: Willoughby-Eastlake City SD
County: Lake
School District IRN: 45104
Building: South High School
Building IRN: 35089

Sustainable Sites

Construction process can have a harmful effect on local ecology, especially when buildings are build on productive agricultural, wildlife or open areas. Several measures can be take however to prevent the impact on undeveloped lands or to improve previously contaminated sites. Appropriate location reduces the need for private transportation and helps to prevent an increase in air pollution. Developing buildings in urban areas and on brownfield sites instead of greenfield locations has economical and environmental benefits. Controlling stormwater runoff and erosion can prevent the worsening of water quality in receiving bodies of water and the impact on aquatic life. Once the building is constructed, it's important to decrease heat island effects and reduce the light pollution on the site.

(source: LEED Reference Guide, 2001:9)

Construction activity pollution prevention can be successfully managed on this site. The site is not known to contain hazardous materials, and the building is known to contain hazardous materials. The site is not known to be prime agricultural farmland, within a flood plain, habitat for an endangered species, within or near a wetland, or near a previously undeveloped body of water. The site is not within a community having a density of more than 60,000 square feet per acre. The site is not located on a previously developed site within 1/2 mile of a residential area with density of more than 10 units per acre. The site is not located within 1/2 mile of 10 basic services. The site has some pedestrian access between the schools and residential areas. The site is not a brownfield. The site is not located within 1/4 mile walking of a bus stop or 1/2 mile walking of a rail station. School busses do not have a dedicated lane on site. The site does not have sufficient bicycle storage or changing facilities. The site does not have sufficient parking capacity for fuel efficient or low emitting vehicles. The site does not meet current OSDM parking requirements. The site does have sufficient area to restore 50% to a natural state. The site has more than 20% vegetative spaces. Storm water management and detention is mitigated through catch basins and swales. The hard surfaces of the site do not meet the high albedo reflectance requirements to mitigate heat island effect. The roof material does not meet the high albedo reflectance requirement to mitigate heat island effect. The site does create light pollution. The site has sufficient area to create a master plan with stormwater management, open space, parking capacity, and heat island non-roof. The property is used by the community during or after hours.

characters remaining in Sustainable Sites.

Water Efficiency

In the US ca. 340 billion gallons of fresh water are withdrawn daily from surface sources, 65% of which is discharged later after use. Water is also withdrawn from underground aquifers The excessive usage of water results in the current water deficit, estimated at 3,700 billion gallons. Water efficiency measures in commercial buildings can reduce water usage by at least 30%. Low-flow fixtures, sensors or using non potable water for landscape irrigation, toilet flushing and building systems are just some of available strategies. Not only do they result in environmental savings, but also bring about financial benefits, related to lower water use fees, lower sewage volumes to treat and energy use reductions.

(source: LEED Reference Guide, 2001:65)

The building plumbing fixtures are not water conserving models. A baseline water consumption report is required for water efficiency LEED credits. The site does not irrigate. See recommendations in items E, R, and Q for more information.

characters remaining in Water Efficiency.

Energy & Atmosphere

Buildings in the US account for more than 30% of the total energy use and for approximately 60% of electricity. 75% of energy is derived from the burning of fossil fuels, which releases CO2 into the Atmosphere and contributes to global warming. Moreover, coal fired electric utilities release nitrogen oxides and sulfur dioxide, where the former contribute to smog and the latter to acid rain. Other types of energy production are not less harmful. Burning of natural gas produces nitrogen oxides and greenhouse gases as well, nuclear power creates nuclear wastes, while hydroelectric generating plants disrupt natural water flows. Luckily there are several practices that can reduce energy consumption and are environmentally and economically beneficial. Not only will they reduce the air pollution and mitigate global warming thanks to being less dependent on power plants, but also they will reduce operational costs and will quickly pay back. In order to make the most of those practices, it's important to adopt a holistic approach to the building's energy load and integrate different energy saving strategies.

(source: LEED Reference Guide, 2001:93)

An energy audit or fundamental commissioning of the system is required for a baseline for any energy optimization measures. The system does contain any equipment with the potential for CFCs and HCFCs. The building does not comply with current ASHRAE envelop standards. The system does not comply with current energy consumption requirements. Renewable energy appliances are not present on the site. The property does have sufficient area for wind turbines. The building does have sufficient roof area for solar panels. The building does not have a measurement and verification plan in place. The building does not purchase green power.

characters remaining in Energy & Atmosphere.

Material & Resources

The steps related to process building materials, such as extraction, processing and transportation are not environmentally natural, as they pollute the air, water and use natural resources. Construction and demolition wastes account for 40% of the solid waste stream in the US. Reusing existing documents is one of the best strategies to reduce solid wastes volumes and prevents them from ending up at landfills. It also reduces habitat disturbance and minimizes the need for the surrounding infrastructure. While using new materials one should take into account different material sources. Salvaged materials provide savings on material costs, recycled content material minimizes waste products and local materials reduce the environmental impact of transportation. Finally, using rapidly renewable materials and certified wood decreases the consumption of natural resources. Recycling and reusing construction waste is another strategy to be taken into consideration in sustainable design.

(source: LEED Reference Guide, 2001:167)

The building does have an area for the collection of recyclables, excluding yard waste. The building shell is viable for renovation. The interior partitions are not viable for renovation. The classrooms do not meet OSDM standards. No comments relating to construction credits for recycled content, regional products, rapidly renewable materials, or certified wood are included.

characters remaining in Material & Resources.

Indoor Environmental Quality

As we spend a big majority of our time indoors, the emphasis should be put on optimal indoor environmental quality strategies while (re)designing a building . Otherwise, a poor IEQ will have adverse effects on occupants' health, productivity and quality of life. IEQ strategies such as ventilation effectiveness and control of contaminants or a building flush-out prior to occupancy can reduce potential liability, increase the market value of the building but can also result in a significantly higher productivity (16%). Other strategies involve automatic sensors and controls, introducing fresh air to the building or providing lots of daylighting views.

(source: LEED Reference Guide, 2001:215)

The building does not meet the ASHRAE standards for indoor air quality. Smoking is not allowed on site. The building does not have adequate acoustical separation of spaces. Outdoor air monitoring is not provided. Fresh air intake is through windows and central air units. The building ventilation is inadequate. Refer to items A and C for additional information. Indoor chemical and pollution is not controlled. Individual controls for thermal comfort and lighting levels are not provided. The building does not meet ASHRAE standards for thermal comfort levels. The building does not have a thermal comfort verification plan in place. The building does not have sufficient daylight to meet the 35 foot candle LEED requirement for most classrooms and other occupied spaces. The building does not have a system in place for mold prevention.

characters remaining in Indoor Environmental Quality.

Innovation & Design Process

This category is aimed at recognizing projects that implemented innovative building features and sustainable building knowledge, and whose strategy or measure results exceeded those which are required by the LEED Rating System. Expertise in sustainable design is the key element of the innovative design and construction process.

(source: LEED Reference Guide, 2001:271)

The school is within the region CGB271 Urban-Rural which capitalizes on credits pertaining to site storm water management quality and quantity, wastewater innovation, renewable energy, construction waste management, and rapidly renewable materials.

characters remaining in Innovation & Design Process.

Justification for Allocation of Points

Building Name and Level: **South High School**

9-12

Building features that clearly exceed criteria:

1. The structure has well maintained and appointed courtyards for outdoor learning.
2. The building interior is artfully decorated with student murals.
3. The building has 3 Gymnasiums.
4. Classrooms have generous daylight.
5. The site has many athletic fields.
6. The property is well landscaped and in a quiet, residential neighborhood.

Building features that are non-existent or very inadequate:

1. The building is reported to contain asbestos.
2. The building is not fully handicap accessible.
3. Several group toilet rooms have been taken out of commission for janitorial storage.
4. Access to roof areas is precarious.
5. The building envelop is not energy efficient.
6. The roof has evidence of ponding and non-draining gutters.

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Environmental Hazards Assessment Cost Estimates

Owner:	Willoughby-Eastlake City SD
Facility:	South High School
Date of Initial Assessment:	Mar 16, 2010
Date of Assessment Update:	Jun 23, 2010
Cost Set:	2010

District IRN:	45104
Building IRN:	35089
Firm:	The Collaborative, Inc.

Scope remains unchanged after cost updates.

Building Addition	Addition Area (sf)	Total of Environmental Hazards Assessment Cost Estimates	
		Renovation	Demolition
1958 1958 Original	63,954	\$95,846.00	\$11,600.00
1961 1961 Addition	45,041	\$125,820.00	\$53,400.00
1961 1961 Auditorium fixed seating	1,541	\$4,623.00	\$0.00
1967 1967 Addition	58,636	\$58,350.00	\$3,000.00
Total	169,172	\$284,639.00	\$68,000.00
Total with Regional Cost Factor (104.16%)		\$296,479.98	\$70,828.80
Regional Total with Soft Costs & Contingency		\$368,910.93	\$88,132.49

Building Summary - South High School (35089)

District: Willoughby-Eastlake City SD				County: Lake		Area: Northeastern Ohio (8)																																																																			
Name: South High School				Contact: Mr. Paul Lombardo																																																																					
Address: 5000 Shankland Rd Willoughby, OH 44094				Phone: 440/975-3628		Date Prepared: 2010-03-16																																																																			
Bldg. IRN: 35089				Date Revised: 2010-06-23		By: Karen L Walker																																																																			
Current Grades: 9-12		Acreage: 47.03		CEFPI Appraisal Summary																																																																					
Proposed Grades: N/A		Teaching Stations: 53																																																																							
Current Enrollment: 1413		Classrooms: 50		<table border="1"> <thead> <tr> <th>Section</th> <th>Points Possible</th> <th>Points Earned</th> <th>Percentage</th> <th>Rating</th> <th>Category</th> </tr> </thead> <tbody> <tr> <td colspan="6">Cover Sheet</td> </tr> <tr> <td>1.0 The School Site</td> <td>100</td> <td>77</td> <td>77%</td> <td>Satisfactory</td> <td></td> </tr> <tr> <td>2.0 Structural and Mechanical Features</td> <td>200</td> <td>108</td> <td>54%</td> <td>Borderline</td> <td></td> </tr> <tr> <td>3.0 Plant Maintainability</td> <td>100</td> <td>51</td> <td>51%</td> <td>Borderline</td> <td></td> </tr> <tr> <td>4.0 Building Safety and Security</td> <td>200</td> <td>128</td> <td>64%</td> <td>Borderline</td> <td></td> </tr> <tr> <td>5.0 Educational Adequacy</td> <td>200</td> <td>129</td> <td>65%</td> <td>Borderline</td> <td></td> </tr> <tr> <td>6.0 Environment for Education</td> <td>200</td> <td>134</td> <td>67%</td> <td>Borderline</td> <td></td> </tr> <tr> <td colspan="6">LEED Observations</td> </tr> <tr> <td colspan="6">Commentary</td> </tr> <tr> <td>Total</td> <td>1000</td> <td>627</td> <td>63%</td> <td>Borderline</td> <td></td> </tr> </tbody> </table>				Section	Points Possible	Points Earned	Percentage	Rating	Category	Cover Sheet						1.0 The School Site	100	77	77%	Satisfactory		2.0 Structural and Mechanical Features	200	108	54%	Borderline		3.0 Plant Maintainability	100	51	51%	Borderline		4.0 Building Safety and Security	200	128	64%	Borderline		5.0 Educational Adequacy	200	129	65%	Borderline		6.0 Environment for Education	200	134	67%	Borderline		LEED Observations						Commentary						Total	1000	627	63%	Borderline	
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FACILITY ASSESSMENT Cost Set: 2010				Rating		Dollar Assessment																																																																			
A. Heating System				3		\$5,498,090.00 -																																																																			
B. Roofing				3		\$1,432,083.74 -																																																																			
C. Ventilation / Air Conditioning				1		\$0.00 -																																																																			
D. Electrical Systems				3		\$2,930,059.04 -																																																																			
E. Plumbing and Fixtures				3		\$1,764,817.00 -																																																																			
F. Windows				3		\$1,015,437.18 -																																																																			
G. Structure: Foundation				2		\$26,070.00 -																																																																			
H. Structure: Walls and Chimneys				2		\$265,719.00 -																																																																			
I. Structure: Floors and Roofs				2		\$42,840.00 -																																																																			
J. General Finishes				3		\$3,322,873.43 -																																																																			
K. Interior Lighting				3		\$845,860.00 -																																																																			
L. Security Systems				3		\$465,223.00 -																																																																			
M. Emergency/Egress Lighting				3		\$169,172.00 -																																																																			
N. Fire Alarm				3		\$253,758.00 -																																																																			
O. Handicapped Access				3		\$680,077.20 -																																																																			
P. Site Condition				3		\$546,824.21 -																																																																			
Q. Sewage System				3		\$56,250.00 -																																																																			
R. Water Supply				3		\$50,000.00 -																																																																			
S. Exterior Doors				3		\$134,000.00 -																																																																			
T. Hazardous Material				3		\$284,639.00 -																																																																			
U. Life Safety				3		\$695,809.00 -																																																																			
V. Loose Furnishings				3		\$502,893.00 -																																																																			
W. Technology				3		\$921,987.40 -																																																																			
- X. Construction Contingency / Non-Construction Cost				-		\$5,351,330.71 -																																																																			
Total						\$27,255,812.91																																																																			

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Environmental Hazards - Willoughby-Eastlake City SD (45104) - South High School (35089) - 1961 Addition

Owner: Willoughby-Eastlake City SD
Facility: South High School
Date:

Bldg. IRN: 35089
BuildingAdd: 1961 Addition
Consultant Name:

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material		
ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1. Boiler/Furnace Insulation Removal	Not Present	0	\$10.00	\$0.00
2. Breeching Insulation Removal	Not Present	0	\$10.00	\$0.00
3. Tank Insulation Removal	Assumed Asbestos-Containing Material	50	\$8.00	\$400.00
4. Duct Insulation Removal	Not Present	0	\$8.00	\$0.00
5. Pipe Insulation Removal	Assumed Asbestos-Containing Material	500	\$10.00	\$5,000.00
6. Pipe Fitting Insulation Removal	Not Present	0	\$20.00	\$0.00
7. Pipe Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$12.00	\$0.00
8. Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$30.00	\$0.00
9. Pipe Insulation Removal (Hidden in Walls/Ceilings)	Not Present	0	\$15.00	\$0.00
10. Dismantling of Boiler/Furnace/Incinerator	Not Present	0	\$2,000.00	\$0.00
11. Flexible Duct Connection Removal	Not Present	0	\$100.00	\$0.00
12. Acoustical Plaster Removal	Not Present	0	\$7.00	\$0.00
13. Fireproofing Removal	Not Present	0	\$15.00	\$0.00
14. Hard Plaster Removal	Not Present	0	\$7.00	\$0.00
15. Gypsum Board Removal	Not Present	0	\$6.00	\$0.00
16. Acoustical Panel/Tile Ceiling Removal	Assumed Asbestos-Containing Material	16000	\$3.00	\$48,000.00
17. Laboratory Table/Counter Top Removal	Not Present	0	\$100.00	\$0.00
18. Cement Board Removal	Not Present	0	\$5.00	\$0.00
19. Electric Cord Insulation Removal	Not Present	0	\$1.00	\$0.00
20. Light (Reflector) Fixture Removal	Not Present	0	\$50.00	\$0.00
21. Sheet Flooring with Friable Backer Removal	Not Present	0	\$4.00	\$0.00
22. Fire Door Removal	Not Present	0	\$100.00	\$0.00
23. Door and Window Panel Removal	Not Present	0	\$100.00	\$0.00
24. Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	\$3.00	\$0.00
25. Soil Removal	Not Present	0	\$150.00	\$0.00
26. Non-ACM Ceiling/Wall Removal (for access)	Not Present	0	\$2.00	\$0.00
27. Window Component (Compound, Tape, or Caulk) - Reno & Demo	Not Present	0	\$300.00	\$0.00
28. Window Component (Compound, Tape, or Caulk) - Reno Only	Not Present	0	\$300.00	\$0.00
29. Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	24140	\$3.00	\$72,420.00
30. Carpet Mastic Removal	Not Present	0	\$2.00	\$0.00
31. Carpet Removal (over RFC)	Not Present	0	\$1.00	\$0.00
32. Acoustical Tile Mastic Removal	Not Present	0	\$3.00	\$0.00
33. Sink Undercoating Removal	Not Present	0	\$100.00	\$0.00
34. Roofing Removal	Not Present	0	\$2.00	\$0.00
35. (Sum of Lines 1-34)	Total Asb. Hazard Abatement Cost for Renovation Work			\$125,820.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$53,400.00

B. Removal Of Underground Storage Tanks <input type="checkbox"/> None Reported					
Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost
1. (Sum of Lines 1-0)	Total Cost For Removal Of Underground Storage Tanks				\$0.00

C. Lead-Based Paint (LBP) - Renovation Only <input type="checkbox"/> Addition Constructed after 1980	
1. Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups	\$0.00
2. Special Engineering Fees for LBP Mock-Ups	\$0.00
3. (Sum of Lines 1-2)	Total Cost for Lead-Based Paint Mock-Ups \$0.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration <input type="checkbox"/> Not Applicable			
Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost
1. 45041	0	\$0.10	\$0.00

E. Other Environmental Hazards/Remarks <input type="checkbox"/> None Reported		
Description	Cost Estimate	
1. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Renovation \$0.00	
2. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Demolition \$0.00	

F. Environmental Hazards Assessment Cost Estimate Summaries		
1. A35, B1, C3, D1, and E1	Total Cost for Env. Hazards Work - Renovation	\$125,820.00
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$53,400.00

* INSPECTION ASSUMPTIONS for Reported/Assumed Asbestos-Free Materials (Rep/Asm AFM):

- a. Unless reported otherwise by the District, materials installed after 1980 are assumed to be asbestos-free.
- b. Unless reported otherwise by the District, small quantities (less than 1,000 square feet) of the following materials are assumed to be asbestos free: hard plaster, acoustical plaster and gypsum board systems; acoustical panels and tiles; fireproofing; 12"x12" floor tile and mastic.
- c. Unless reported otherwise by the District, all roofing materials are assumed to be asbestos-free.

THESE MATERIALS SHOULD BE PROPERLY SAMPLED AND ANALYZED FOR ASBESTOS PRIOR TO DISTURBING THEM.

Environmental Hazards - Willoughby-Eastlake City SD (45104) - South High School (35089) - 1967 Addition

Owner: Willoughby-Eastlake City SD
Facility: South High School
Date:

Bldg. IRN: 35089
BuildingAdd: 1967 Addition
Consultant Name:

A. Asbestos Containing Material (ACM)		AFM=Asbestos Free Material		
ACM Found	Status	Quantity	Unit Cost	Estimated Cost
1. Boiler/Furnace Insulation Removal	Not Present	0	\$10.00	\$0.00
2. Breeching Insulation Removal	Not Present	0	\$10.00	\$0.00
3. Tank Insulation Removal	Not Present	0	\$8.00	\$0.00
4. Duct Insulation Removal	Not Present	0	\$8.00	\$0.00
5. Pipe Insulation Removal	Assumed Asbestos-Containing Material	200	\$10.00	\$2,000.00
6. Pipe Fitting Insulation Removal	Assumed Asbestos-Containing Material	50	\$20.00	\$1,000.00
7. Pipe Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$12.00	\$0.00
8. Pipe Fitting Insulation Removal (Crawlspace/Tunnel)	Not Present	0	\$30.00	\$0.00
9. Pipe Insulation Removal (Hidden in Walls/Ceilings)	Not Present	0	\$15.00	\$0.00
10. Dismantling of Boiler/Furnace/Incinerator	Not Present	0	\$2,000.00	\$0.00
11. Flexible Duct Connection Removal	Not Present	0	\$100.00	\$0.00
12. Acoustical Plaster Removal	Not Present	0	\$7.00	\$0.00
13. Fireproofing Removal	Not Present	0	\$15.00	\$0.00
14. Hard Plaster Removal	Not Present	0	\$7.00	\$0.00
15. Gypsum Board Removal	Not Present	0	\$6.00	\$0.00
16. Acoustical Panel/Tile Ceiling Removal	Not Present	0	\$3.00	\$0.00
17. Laboratory Table/Counter Top Removal	Not Present	0	\$100.00	\$0.00
18. Cement Board Removal	Not Present	0	\$5.00	\$0.00
19. Electric Cord Insulation Removal	Not Present	0	\$1.00	\$0.00
20. Light (Reflector) Fixture Removal	Not Present	0	\$50.00	\$0.00
21. Sheet Flooring with Friable Backer Removal	Not Present	0	\$4.00	\$0.00
22. Fire Door Removal	Not Present	0	\$100.00	\$0.00
23. Door and Window Panel Removal	Not Present	0	\$100.00	\$0.00
24. Decontamination of Crawlspace/Chase/Tunnel	Not Present	0	\$3.00	\$0.00
25. Soil Removal	Not Present	0	\$150.00	\$0.00
26. Non-ACM Ceiling/Wall Removal (for access)	Not Present	0	\$2.00	\$0.00
27. Window Component (Compound, Tape, or Caulk) - Reno & Demo	Not Present	0	\$300.00	\$0.00
28. Window Component (Compound, Tape, or Caulk) - Reno Only	Not Present	0	\$300.00	\$0.00
29. Resilient Flooring Removal, Including Mastic	Reported Asbestos-Containing Material	18450	\$3.00	\$55,350.00
30. Carpet Mastic Removal	Not Present	0	\$2.00	\$0.00
31. Carpet Removal (over RFC)	Not Present	0	\$1.00	\$0.00
32. Acoustical Tile Mastic Removal	Not Present	0	\$3.00	\$0.00
33. Sink Undercoating Removal	Not Present	0	\$100.00	\$0.00
34. Roofing Removal	Not Present	0	\$2.00	\$0.00
35. (Sum of Lines 1-34)	Total Asb. Hazard Abatement Cost for Renovation Work			\$58,350.00
36. (Sum of Lines 1-27)	Total Asb. Hazard Abatement Cost for Demolition Work			\$3,000.00

B. Removal Of Underground Storage Tanks <input type="checkbox"/> None Reported					
Tank No.	Location	Age	Product Stored	Size	Est.Rem.Cost
1. (Sum of Lines 1-0)	Total Cost For Removal Of Underground Storage Tanks				\$0.00

C. Lead-Based Paint (LBP) - Renovation Only <input type="checkbox"/> Addition Constructed after 1980	
1. Estimated Cost For Abatement Contractor to Perform Lead Mock-Ups	\$0.00
2. Special Engineering Fees for LBP Mock-Ups	\$0.00
3. (Sum of Lines 1-2)	Total Cost for Lead-Based Paint Mock-Ups \$0.00

D. Fluorescent Lamps & Ballasts Recycling/Incineration <input type="checkbox"/> Not Applicable			
Area Of Building Addition	Square Feet w/Fluorescent Lamps & Ballasts	Unit Cost	Total Cost
1. 58636	0	\$0.10	\$0.00

E. Other Environmental Hazards/Remarks <input type="checkbox"/> None Reported		
Description	Cost Estimate	
1. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Renovation	\$0.00
2. (Sum of Lines 1-0)	Total Cost for Other Environmental Hazards - Demolition	\$0.00

F. Environmental Hazards Assessment Cost Estimate Summaries		
1. A35, B1, C3, D1, and E1	Total Cost for Env. Hazards Work - Renovation	\$58,350.00
2. A36, B1, D1, and E2	Total Cost for Env. Hazards Work - Demolition	\$3,000.00

* INSPECTION ASSUMPTIONS for Reported/Assumed Asbestos-Free Materials (Rep/Asm AFM):

- a. Unless reported otherwise by the District, materials installed after 1980 are assumed to be asbestos-free.
- b. Unless reported otherwise by the District, small quantities (less than 1,000 square feet) of the following materials are assumed to be asbestos free: hard plaster, acoustical plaster and gypsum board systems; acoustical panels and tiles; fireproofing; 12"x12" floor tile and mastic.
- c. Unless reported otherwise by the District, all roofing materials are assumed to be asbestos-free.

THESE MATERIALS SHOULD BE PROPERLY SAMPLED AND ANALYZED FOR ASBESTOS PRIOR TO DISTURBING THEM.

