



2017 Facilities Assessment





Dr. Gary Niehaus
Superintendent
Grosse Pointe Public School System
389 St. Clair Avenue
Grosse Pointe, MI 48230

Dear Dr. Niehaus,

In the spring of 2017, Grosse Pointe Public School System (GPPSS) engaged Plante Moran Cresa (PMC) to perform a facility assessment analysis of the major buildings and sites occupied by the school district and a District enrollment analysis.

The goal of this assessment was to provide GPPSS with a 10-year capital planning template. This template consists of three major components: critical need, deferred maintenance and property enhancements.

The assessment reviewed fifteen instructional buildings, as well as the Administration Building. It included site work, building envelopes, mechanical/electrical systems, interior finishes and other building systems. Significant considerations were given to code compliance issues, which are outlined in the Facility Assessment Comments. In addition, costs associated with code compliance issues are synopsisized on the Summary of Costs.

PMC conducted multiple visits to the facilities, reviewed available drawings/documents, and met with administration, facility and maintenance staff. While the assessment was not exhaustive or deconstructive in nature, the intent is for it to serve as a "road map" for future capital projects. Budget line items are based upon 1st quarter 2017 costs, and those items which occur in the future are adjusted approximately 4% annually to account for future inflation.

The following report summarizes the findings and costs at the different facilities. Please feel free to contact me with any questions or concerns regarding this report.

Sincerely,
PLANTE MORAN CRESA

A handwritten signature in blue ink that reads "Paul R. Wills".

Paul R. Wills
Partner



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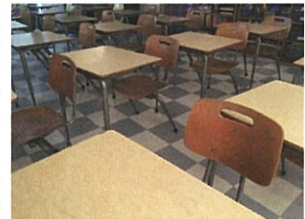
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EXECUTIVE SUMMARY

Background:

Grosse Pointe Public Schools System (District) is a school district in Grosse Pointe, Michigan. The District serves Grosse Pointe Park, Grosse Pointe, Grosse Pointe Farms, Grosse Pointe Shores, Grosse Pointe Woods and a portion of Harper Woods.

Plante Moran Cresa (PMC) was engaged by the District in January 2017 to provide an independent review of the current utilization of the District's PK-12 facilities in relation to enrollment and capacity, as well as enrollment and housing trends. The assessment of fifteen (15) of the District's existing schools and (1) Administration Building including:

- | | |
|------------------------------|-----------------------------|
| ▪ Defer Elementary School | ▪ Trombly Elementary School |
| ▪ Ferry Elementary School | ▪ Brownell Middle School |
| ▪ Kerby Elementary School | ▪ Parcels Middle School |
| ▪ Maire Elementary School | ▪ Pierce Middle School |
| ▪ Mason Elementary School | ▪ North High School |
| ▪ Monteith Elementary School | ▪ South High School |
| ▪ Poupard Elementary School | ▪ Administration Building |
| ▪ Richard Elementary School | |

The purpose of the review is conduct facility tours for each of the facilities with an eye toward

- Summarizing existing utilization
- Determining grade configurations
- Summarizing existing classroom configurations
- Identifying potential building capacity

Demographic and enrollment data was accumulated for use in developing observations and recommendations for specific sites. The focus of the process is on creating opportunities for the future while also optimizing building utilization and reducing the infrastructure burden on the district.

The goal of the process is to summarize high level observations and guiding benchmarks which allows the District administration to consider program changes and building reconfiguration which can adapt to changes in student enrollment over the years.

PMC's Facility Utilization Review Process:

PMC conducted individual facility tours and review current utilization of existing classrooms and support spaces in the fifteen (15) existing GPPSS' school facilities. PMC created a utilization and capacity analysis with corresponding floor plans illustrating current usage and capacities for GPPSS' consideration. Classroom capacity was based on teacher to student ratios of 25 at the Elementary School (ES) grade, 26 students at the Middle School (MS) grade level, and 28 students at the High School (HS) grade level as established by GPPSS. Industry standard goals for K-12 Districts is 85% utilization. This allows flexibility in assigning classrooms due to changing enrollment as well as provide flexibility in programming.

PMC's Demographic / Enrollment / Housing Review Process:

For the demographic review process, PMC utilizes a custom demographic software and database information from Environmental Systems Research Institute (ESRI). PMC also contacted individual municipalities within the District's boundaries to confirm current and projected residential housing developments in the next 5 years. PMC analyzed both district-wide and individual boundaries at the elementary levels for the following;

- Demographic Trends
- Population Trends
- Enrollment Trends
- Housing Trends

This analysis allows PMC to review the above mentioned relative to the current demographic information as well as provide trends through 2021 for the District's consideration.

PMC's Review Preliminary Information:

PMC reviewed the preliminary findings relative to the utilization, enrollment, and other demographic trends prior to finalizing the report. These review meetings provided insight into the District's educational goals and objectives as well as refine information to provide the District various options in the future.

PMC's Findings for Facility Utilization Review

The following are findings from the facility review and analysis for each specific building type;

Elementary School Findings

- All of the District's 9 Elementary Schools utilization percentages fall below 85%. The least occupied building is Poupard ES at 54% utilization and the highest utilized is Maire ES at 84%.
- The average utilization for the elementary school buildings is 68%. Classrooms are classified as instructional teaching spaces and counted towards the room utilization counts excluding dedicated classrooms such as music, art, computer labs, industrial tech, sewing, life skills

type classrooms. The GPPSS District room capacity standard for ES instructional teaching spaces is 25 students.

- The average age for the elementary buildings is 78 years. The oldest building being Defer ES at 93 years and the newest being Ferry ES at 65 years.
- Barnes PK building has capacity for 500 students

Middle School Findings

- All of the District's 3 Middle Schools utilization percentages fall below 85%. The least occupied building is Pierce MS at 72% and the highest utilized building is Parcels MS at 82% followed closely by Brownell at 81%
- The average utilization for the middle school buildings is 78%. Classrooms are classified as instructional teaching spaces and counted towards the room utilization counts excluding dedicated classrooms such as music, art, computer labs, industrial tech, sewing, life skills type classrooms. The GPPSS District room capacity standard for MS instructional teaching spaces is 26 students.
- The average age for the middle buildings is 68 years. The oldest building being Pierce MS at 78 years and the newest being Parcels MS at 66 years.
- All 3 middle school buildings contain swimming pools which require a notable degree of attention.

High School Findings

- Both of the District's 2 High School utilization percentages fall below 85%. The least occupied building is North HS at 57% and South HS is at 78%.
- The average utilization for the high school buildings is 67.5%. Classrooms are classified as instructional teaching spaces and counted towards the room utilization counts excluding dedicated classrooms such as music, art, computer labs, industrial tech, sewing, life skills type classrooms. The GPPSS District room capacity standard for MS instructional teaching spaces is 28 students.
- The average age for the high school buildings is 70.5 years. The oldest building being South HS at 90 years and the newest being North HS at 51 years.

Other District Schools Findings

- The Administration building is the oldest facility in the GPPSS building portfolio. A portion of the build dates back to 1906 (111 years old). The 2 story structure is situated on approximately 1.4 acres surrounded by smaller residential lots and across the street from Beaumont Hospital Grosse Pointe. The building accommodates administration functions for the GPPSS District.
- The District owns Elworthy Field which contains approximately 9.2 acres of land located one block north of the Kercheval Avenue shopping district.

PMC's Findings for Enrollment Review

The following are findings from the enrollment review and analysis for each specific grade level:

Enrollment

- There are approximately 10,400 PK-12 students within the GPPSS Boundary within the following grade categories:
 - PK: 900
 - Grade K: 539
 - Grades 1-4: 2,747
 - Grades 5-8: 2,877
 - Grades 9-12: 3,379
- Of the approximately 10,400 PK-12 students, approximately 30% attend public pre-primary school and 82% attend public school (K-12).
- By comparison, the average PK-12 students attending private school in the State of Michigan is approximately 10%. The average PK-12 students attending private school in Wayne County average is approximately 11%.
- The average PK-12 students attending private schools for GPPSS' peer Districts ranges from 15% to as high as 24%

PMC Recommendations:

Based on the independent review of the facilities, enrollment, and housing trends relative to the District's current PK-12 schools, in PMC's professional opinion, opportunities may exist for expansion of programs, attraction of new students, and reconfiguration of certain areas and/or examination of programming locations to make maximum use of available space. These recommendations are as follows:

1. The District should review the existing student count per classroom relative to capacity to ensure that classrooms and schools are within 85% utilization goals. For those schools that are under 85%, the District should review the possible expansion of programs or consolidation of programs to increase utilization at surrounding schools.
2. The District should consider creating a standard number of support classrooms for each individual school facility. Certain buildings have more support type classrooms than others which may create an opportunity to increase their utilization across the district, or revisit how services are delivered to students.
3. The District should review its current and projected enrollment relative to the school boundaries and current grade configurations at each building.

[END OF EXECUTIVE SUMMARY]



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North High School
342,148 s.f.
1,385 Students
2,408 Capacity
57%



South High School
436,691 s.f.
1,678 Students
2,128 Capacity
78%



Brownell MS
157,493 s.f.
612 Students
754 Capacity
81%



Parcels MS
208,855 s.f.
665 Students
806 Capacity
82%



Pierce MS
122,313 s.f.
527 Students
728 Capacity
72%



Defer ES
60,001 s.f.
315 Students
525 Capacity
60%



Ferry ES
68,016 s.f.
364 Students
625 Capacity
58%



Kerby ES
76,795 s.f.
353 Students
425 Capacity
83%



Maire ES
50,200 s.f.
316 Students
375 Capacity
84%



Mason ES
45,020 s.f.
294 Students
450 Capacity
65%



Monteith ES
63,239 s.f.
444 Students
625 Capacity
71%



Poupard ES
61,973 s.f.
297 Students
550 Capacity
54%



Richard ES
56,099 s.f.
355 Students
475 Capacity
75%



Trombly ES
43,110 s.f.
267 Students
425 Capacity
63%



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North High School
51 years



South High School
90 years



Brownell MS
61 years



Parcels MS
66 years



Pierce MS
78 years



Defer ES
93 years



Ferry ES
64 years



Kerby ES
69 years



Maire ES
81 years



Mason ES
89 years



Monteith ES
66 years



Poupard ES
66 years



Richard ES
87 years



Trombly ES
90 years













Barnes PK
62 years



Administration
111 years



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1906	Administration 111 years	
1925	Defer ES 93 years	
1927	Trombley ES 90 years	
1927	South High School 90 years	
1928	Mason ES 89 years	
1930	Richard ES 87 years	
1935	Maire ES 81 years	
1939	Pierce MS 78 years	
1948	Kerby ES 69 years	
1951	Poupard ES 66 years	Montieth ES 66 years
		



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Summary of Cost Assumptions:

Information provided in the individual building line item costs are based upon the following information and assumptions. These costs are to be used for preliminary budget planning only. All finishes are assumed to be mid-level cost and high durability. No destructive testing/investigation work was performed during building and site assessments. Costs estimates are based on current market conditions.

Roofing:

Roofing areas, age and condition report information provided by J.D. Candler. Roofing assessments were conducted between 2015 and 2017. A roof rating of D, E or F was categorized as a critical need. A roof rating of C was categorized as a deferred need and B or A roof was not considered for replacement within 6 years and should be reassessed after 6 to 7 years. The District will typically replace an existing built-up roofing system with a single ply membrane system (EDPM). Slate roofs will require more investigation beyond a visual inspection due to their age and potential flashing, gutter and trim failure issues.

Paving:

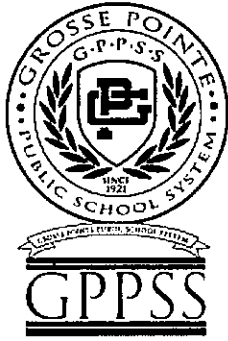
Paving areas were evaluated based on visual inspection and categorized into replacement time frames as needed. It was noted that sub base issues may occur at the Administration Building, Montieth ES and Barnes Pre-K sites.

HVAC:

All of the existing GPPSS buildings have 100% or some degree of steam heating with the exception of the Administration Building (100% hydronic). For purposes of our assessment, the existing steam heating systems will remain with appropriate boiler/valve replacement due to age and life cycle equipment expectancy. The exception to this would be South H.S., Trombly E.S. and Mason E.S. which currently rely on a non-ducted supply tunnel and return air system. It is recommended that these facilities replace their steam heating with a more energy efficient hydronic system. Similar to the age of the plumbing systems, dollar allocations/allowances have been made to address the age of the existing steam and condensate piping.

Allocations have been made for some kitchen hood ventilation replacement. These numbers do not reflect other potential code upgrade triggers (make-up air or ansul system) that could triple the costs associated with the kitchen ventilation replacement.

Air conditioning for a majority of the District classrooms has been with DX wall hung units or small residential sized rooftop condensing units. For rooms not air conditioned within these buildings, individual DX units are being proposed along with electrical upgrades to meet the additional A/C power demands.



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Medysis is the building management software utilized by GPPSS. Usually this system only services only a few devices throughout a facility. Upgrades should be considered for providing 100% building management system coverage.

Plumbing:

As a District-wide protocol, when restrooms were renovated, the rooms were gutted and all plumbing within the walls and accessible floor areas were replaced. Pipes within the crawlspaces, tunnels and behind floor, wall and ceiling finishes are typically original to when the structure was built between 50 to 90 years ago. Because of the inability to access these pipes or the lack of information received during our assessments, further testing/analysis would be necessary for an "order of magnitude" replacement need. Piping replacement costs for supply, sanitary and storm drainage were based on a square footage allocation for each building and categorized as a building enhancement line item.

Electrical:

A majority of the classrooms and corridors have T-12, T-8 or T-5 fluorescent lighting fixtures. Our recommendation is to replace existing light fixture ballast to a more energy efficient LED ballast or replace the entire fixture (most are stem mounted classroom strip fluorescent fixtures) with new LED fixtures in a new lay-in tile ceiling. The payback for re-ballasting or new LED fixtures is relatively short due to the energy saving costs that can be incurred.

Currently, only one school building has an exterior generator backup system (Parcells MS). Each building has a line item cost allocation for a new generator with limited emergency backup power for the facilities they serve.

Pools:

A swimming pool audit was conducted by Counsilman Hunsaker in March, 2008. Most of the pools require significant attention and are considered a critical need item. The line item dollars in the Counsilman Hunsaker audit were escalated to today's dollars utilizing the Consumer Price Index for each year.

Technology & Security:

Technology assessment items were created by the District's consultant, Wright & Hunter, received 6/1/17. This budget report was reviewed by the GPPSS internal IT staff and includes allocations for cabling, fiber, computing devices, network, security, telephones and P/A systems at each building. These costs are classified as a Critical Need items.



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Safety:

It is recommended in several school buildings to replace older emergency lighting and exit signs. Also, it was observed that there currently are only a few buildings that have an existing fire suppression system. There are no cost allocations for upgrading any of the District buildings with a fire suppression system in our report.

Flag Poles:

Most of the flag poles throughout the District have original poles and foundations. Recently in March of this year, a flag pole fell at Brownell MS and is in the process of being replaced with a new 40' pole. An assessment and costs for pole/foundation replacement was conducted by Rocket Enterprises on 5/23/17 and provided in our report.

Furniture:

A majority of the District has classroom and support furniture have exceeded their useful life expectancy and typically do not meet today's ergonomic or classroom flexibility needs. These costs have been classified as a Building Enhancement items.

Abatement:

Since we have not been provided or reviewed a District wide abatement report at the time of assembling our assessment, the extent of the asbestos within a building is not known. A dollar allocation (allowance) has been provided for each building depending on the facility size. This number could be higher or lower depending on the extent of the chosen work scope for each facility.

Room Utilization:

A school room utilization analysis was preformed and verified with District personnel for each academic building. Instructional spaces for determining building capacity are based on 750 s.f. or larger and a non-dedicated space. Dedicated spaces include music, art, computer lab, industrial tech, sewing and life skills classrooms. Floor plans have been provided with instructional spaces indicated in Yellow and dedicated classroom spaces indicated in Blue. Other support spaces or undersized rooms are shown in Tan.

The District provided criteria for determining capacity of a school building is based on the following:

1. 25 students per Elementary School Instructional Room
2. 26 students per Middle School Instructional Room
3. 28 students per High School Instructional Room

Grosse Pointe Public School System

Major Items (excludes soft costs)

Bldg #	Name of School Facility	Cost/s.f.	Paving	Roofing	Plumbing	HVAC	Electrical	Security	Tech	Furniture	Pools
	ELEMENTARY:										
1	Defer Elementary School	\$81.47	\$117,681	\$185,985	\$818,490	\$1,482,003	\$415,169	\$58,240	\$1,007,274	\$688,178	
2	Ferry Elementary School	\$74.39	\$204,932	\$483,221	\$911,595	\$474,036	\$534,516	\$55,120	\$1,045,408	\$602,690	
3	Kerby Elementary School	\$62.15	\$117,681	\$63,542	\$983,449	\$1,943,434	\$422,086	\$52,000	\$970,320	\$380,422	
4	Maire Elementary School	\$93.92	\$187,429	\$212,573	\$732,158	\$1,597,982	\$387,374	\$49,920	\$999,024	\$387,546	
5	Mason Elementary School	\$95.36	\$127,712	\$138,195	\$520,251	\$1,272,757	\$415,594	\$48,880	\$996,944	\$370,448	
6	Monteith Elementary School	\$89.11	\$0	\$217,627	\$844,440	\$1,792,864	\$460,844	\$59,280	\$1,067,456	\$712,400	
7	Poupard Elementary School	\$91.15	\$188,100	\$280,872	\$831,814	\$1,825,643	\$467,785	\$55,120	\$1,133,600	\$514,353	
8	Richard Elementary School	\$67.92	\$86,060	\$232,187	\$773,229	\$614,067	\$366,027	\$49,920	\$1,087,216	\$763,693	
9	Trombly Elementary School	\$97.94	\$97,031	\$183,014	\$501,202	\$1,213,428	\$562,801	\$94,640	\$920,816	\$404,643	
	MIDDLE:										
10	Brownell Middle School	\$52.46	\$319,738	\$763,119	\$1,998,212	\$1,898,630	\$547,296	\$142,480	\$2,268,032	\$547,123	\$301,600
11	Parcells Middle School	\$51.72	\$234,162	\$1,244,978	\$2,562,476	\$1,743,925	\$755,778	\$132,080	\$1,359,696	\$947,492	\$546,000
12	Pierce Middle School	\$51.72	\$195,040	\$772,364	\$1,504,861	\$2,808,601	\$629,051	\$132,080	\$2,165,904	\$511,788	\$509,600
	HIGH:										
13	North High School	\$67.71	\$1,272,678	\$1,949,730	\$4,311,714	\$7,948,654	\$1,926,426	\$350,480	\$350,480	\$0	\$137,280
14	South High School	\$46.29	\$689,520	\$1,082,913	\$5,650,181	\$7,627,540	\$1,608,540	\$410,800	\$1,359,696	\$0	\$22,464
	SUPPORT:										
15	Barnes Early Childhood Center	\$77.53	\$317,886	\$337,832	\$712,065	\$759,056	\$759,056	\$67,600	\$806,416	\$447,387	
16	Administration	\$77.99	\$131,781	\$11,724	\$308,004	\$308,004	\$225,661	\$45,760	\$621,816	\$641,160	
	TOTALS:		\$4,287,431	\$8,159,877	\$23,964,142	\$35,310,624	\$10,484,005	\$1,804,400	\$18,160,098	\$7,919,323	\$1,516,944

Grosse Pointe Public School System

SUMMARY OF COSTS BY PRIORITIZATION

Bldg #	Name of School Facility	Total Costs	Critical Need (1 - 3)	Deferred Maintenance (4 - 6)	Property Enhancement (7 - 10)	Total
ELEMENTARY:						
1	Defer Elementary School	\$ 6,607,006	\$ 4,130,205	\$ 163,108	\$ 2,313,693	\$ 6,607,006
2	Ferry Elementary School	\$ 6,809,747	\$ 4,382,036	\$ 352,022	\$ 2,075,689	\$ 6,809,747
3	Kerby Elementary School	\$ 6,438,846	\$ 4,305,835	\$ 230,023	\$ 1,902,987	\$ 6,438,846
4	Maire Elementary School	\$ 6,750,001	\$ 2,362,889	\$ 2,579,342	\$ 1,807,770	\$ 6,750,001
5	Mason Elementary School	\$ 5,662,216	\$ 3,998,427	\$ 374,927	\$ 1,288,861	\$ 5,662,216
6	Monteith Elementary School	\$ 7,578,888	\$ 5,012,138	\$ 275,602	\$ 2,291,147	\$ 7,578,888
7	Poupard Elementary School	\$ 7,735,550	\$ 4,521,032	\$ 954,534	\$ 2,259,984	\$ 7,735,550
8	Richard Elementary School	\$ 5,234,209	\$ 2,182,283	\$ 923,294	\$ 2,128,633	\$ 5,234,209
9	Trombly Elementary School	\$ 5,628,130	\$ 3,809,629	\$ 361,695	\$ 1,456,807	\$ 5,628,130
MIDDLE:						
10	Brownell Middle School	\$ 11,178,177	\$ 6,532,405	\$ 1,142,857	\$ 3,502,915	\$ 11,178,177
11	Parcells Middle School	\$ 15,382,240	\$ 8,030,653	\$ 1,821,989	\$ 5,529,599	\$ 15,382,240
12	Pierce Middle School	\$ 12,738,252	\$ 8,480,376	\$ 1,439,111	\$ 2,818,766	\$ 12,738,252
HIGH:						
13	North High School	\$ 33,929,210	\$ 11,495,234	\$ 15,379,137	\$ 7,054,839	\$ 33,929,210
14	South High School	\$ 28,292,560	\$ 18,355,378	\$ 1,263,772	\$ 8,673,410	\$ 28,292,560
SUPPORT:						
15	Barnes Early Childhood Center	\$ 5,307,688	\$ 2,782,859	\$ 649,877	\$ 1,874,953	\$ 5,307,688
16	Administration	\$ 2,331,131	\$ 1,156,860	\$ 136,393	\$ 1,037,878	\$ 2,331,131
	TOTAL BUILDINGS BUDGET	\$ 167,603,853	\$ 91,538,240	\$ 28,047,681	\$ 48,017,931	\$ 167,603,853
Escalation Factors						
	Net Present Value (NPV)	\$ 167,603,853	\$ 91,538,240	\$ 22,989,903	\$ 35,049,585	\$ 149,577,728

Definitions:

Critical Need:

Items that are necessary to keep the school buildings safe, warm, dry and operational. Items that are beyond their useful life or in danger of failure in the next 1-3 years. These are items that require more resources than the current maintenance staff can address.

Deferred Maintenance:

Items that are critical in nature, however still have 4-6 years of useful life remaining.

Property Enhancement:

Items that are not essential to keeping the school open that enhance a school program, learning environment or safety. Also items that still have a remaining useful life of 7-10 years.

Escalation Factors:

Due to the variation of when a project may occur, adjustments have been made to reflect yearly inflation (4%/year)

Grosse Pointe Public School System

SUMMARY OF COSTS BY SCOPE OF WORK

Bldg #	Name of School Facility	Total Costs	1.0 Site Work	2.0 Building Envelope	3.0 Interior Renovations	4.0 Plumbing Systems	5.0 HVAC Systems	6.0 Electrical Systems	7.0 Security	8.0 Not Use	9.0 Furniture & Equipment	10.0 Technology	Soft Costs (AE/CM/ Contingency)
ELEMENTARY:													
1	Defer Elementary School	\$ 6,607,006	\$ 377,421	\$ 201,585	\$ 381,784	\$ 818,490	\$ 1,482,003	\$ 415,169	\$ 58,240	##	\$ 688,178	\$ 1,007,274	\$ 1,176,861
2	Ferry Elementary School	\$ 6,809,747	\$ 250,952	\$ 571,621	\$ 1,127,022	\$ 911,595	\$ 474,036	\$ 534,516	\$ 55,120	##	\$ 602,690	\$ 1,045,408	\$ 1,236,787
3	Kerby Elementary School	\$ 6,438,846	\$ 126,880	\$ 63,542	\$ 277,550	\$ 983,449	\$ 1,943,434	\$ 422,086	\$ 52,000	##	\$ 380,422	\$ 970,320	\$ 1,219,165
4	Maire Elementary School	\$ 6,750,001	\$ 245,669	\$ 238,573	\$ 826,620	\$ 732,158	\$ 1,597,982	\$ 387,374	\$ 49,920	##	\$ 387,546	\$ 999,024	\$ 1,285,136
5	Mason Elementary School	\$ 5,662,216	\$ 173,732	\$ 190,195	\$ 644,327	\$ 520,251	\$ 1,272,757	\$ 415,594	\$ 48,880	##	\$ 370,448	\$ 996,944	\$ 1,029,086
6	Monteith Elementary School	\$ 7,578,888	\$ 46,540	\$ 217,627	\$ 987,926	\$ 844,440	\$ 1,792,864	\$ 460,844	\$ 59,280	##	\$ 712,400	\$ 1,067,456	\$ 1,389,511
7	Poupard Elementary School	\$ 7,735,550	\$ 228,920	\$ 479,169	\$ 740,493	\$ 831,814	\$ 1,825,643	\$ 467,785	\$ 55,120	##	\$ 514,353	\$ 1,133,600	\$ 1,458,654
8	Richard Elementary School	\$ 5,234,209	\$ 121,680	\$ 232,187	\$ 415,514	\$ 773,229	\$ 614,067	\$ 366,027	\$ 49,920	##	\$ 763,693	\$ 1,087,216	\$ 810,675
9	Trombly Elementary School	\$ 5,628,130	\$ 142,011	\$ 245,414	\$ 512,208	\$ 501,202	\$ 1,213,428	\$ 562,801	\$ 94,640	##	\$ 404,643	\$ 920,816	\$ 1,030,966
MIDDLE:													
10	Brownell Middle School	\$ 11,178,177	\$ 355,358	\$ 763,119	\$ 352,456	\$ 2,143,812	\$ 2,054,630	\$ 547,296	\$ 142,480	##	\$ 547,123	\$ 2,268,032	\$ 2,003,870
11	Parcells Middle School	\$ 15,382,240	\$ 234,162	\$ 1,408,830	\$ 2,558,876	\$ 2,978,476	\$ 1,873,925	\$ 755,778	\$ 132,080	##	\$ 947,492	\$ 1,359,696	\$ 3,132,924
12	Pierce Middle School	\$ 12,738,252	\$ 239,500	\$ 845,164	\$ 985,244	\$ 1,910,461	\$ 2,912,601	\$ 629,051	\$ 127,920	##	\$ 511,788	\$ 2,165,904	\$ 2,410,619
HIGH:													
13	North High School	\$ 33,929,210	\$ 2,365,198	\$ 4,121,146	\$ 1,697,898	\$ 4,344,994	\$ 8,052,654	\$ 1,926,426	\$ 350,480	##	\$ -	\$ 3,867,240	\$ 7,203,173
14	South High School	\$ 28,292,560	\$ 1,854,996	\$ 1,092,887	\$ 1,185,038	\$ 5,650,181	\$ 7,627,540	\$ 1,608,540	\$ 410,800	##	\$ -	\$ 2,739,880	\$ 6,122,698
SUPPORT:													
15	Barnes Early Childhood Cent	\$ 5,307,688	\$ 358,186	\$ 379,432	\$ 638,625	\$ 712,065	\$ 759,056	\$ 167,567	\$ 67,600	##	\$ 447,387	\$ 806,416	\$ 971,355
16	Administration	\$ 2,331,131	\$ 131,781	\$ 11,724	\$ 89,284	\$ 308,004	\$ -	\$ 225,661	\$ 45,760	##	\$ 641,160	\$ 621,816	\$ 255,942
	TOTAL BUILDINGS BUDGET	\$ 167,603,853	\$ 7,252,986	\$ 11,062,216	\$ 13,420,865	\$ 24,964,622	\$ 35,496,620	\$ 9,892,517	\$ 1,800,240	##	\$ 7,919,323	\$ 23,057,042	\$ 32,737,422



2017 Facilities Assessment



Defer Elementary School K-5

15425 Kercheval, Grosse Pointe Park, Michigan 48230

Building Age: 93 years

Square Footage: 60,001 s.f.

Acres: 6.32

Students: 315

Capacity: 525 (60% Utilization)

Description:

Defer Elementary School is a 3 story brick clad Tudor Revival style building built in 1924 with an addition built in 1928. It was designated a Michigan State Historic Site in 1996 and listed on the National Register of Historic Places in 2001. Students at Defer will attend Pierce Middle School and Grosse Pointe South High School. Defer Elementary is in relatively good condition for its age and requires attention to building components that have exceed their life cycle expectancy.



2017 Facilities Assessment

Site:

The asphalt parking lot has shown signs of wear and cracking and should be replaced within the next 5 years. The playground equipment is newer and appear to be in good shape. There are (4) ballfields with dugouts and a small field house for storage surrounded by a site perimeter fence.

Roofing:

The flat built-up roof areas range in age from 27, 21 and 17 years old and require replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 20 years old and will need replacement or significant reconditioning in the next 5 to 10 years. The entire building is air conditioned with DX cooling systems (Sanyo units and (1) RTU for the library).

Electrical:

It is also recommended to replace the existing stem mounted and lay-in 2'x4' fluorescent light fixtures with more energy efficient LED throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

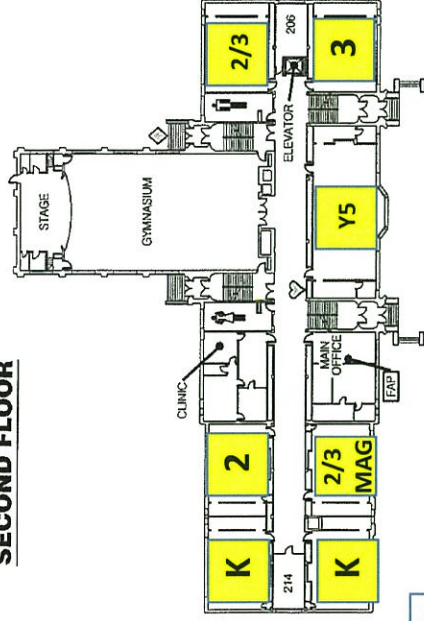
Plumbing:

The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. The existing 93 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping have been replaced on an "as needed" basis.

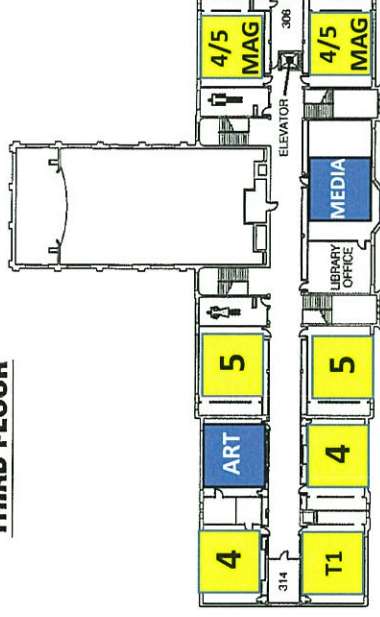
Finishes:

Several rooms and corridors have carpet floor covering and will require replacement due to wear. Some of the classroom casework/cabinets will need replacement throughout the building. Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and lighting. The existing greenhouse requires replacement and the classroom furniture should be replaced due to age and wear.

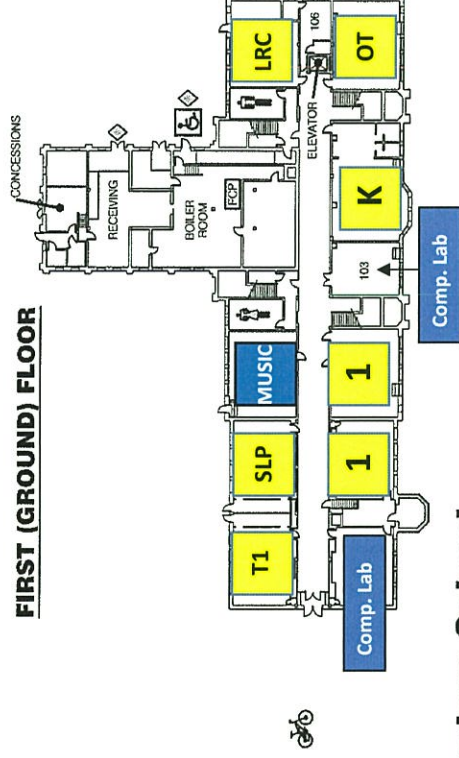
SECOND FLOOR



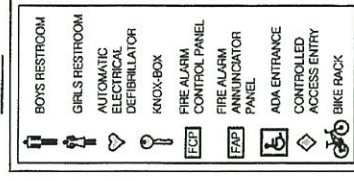
THIRD FLOOR



FIRST (GROUND) FLOOR



LEGEND:



Ehresman Associates, Inc.
architects engineers

DATE: JULY 2010



60,001 s.f.

Total Rooms: 21

Capacity: 525

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):

ES: 25 students /room

MS: 26 students /room

HS: 28 students /room

Defer Elementary School

15425 Kercheval
Grosse Pointe Park, MI 48230
313.432.4000



2017 Facilities Assessment



Defer Front Signage



Corridor Flooring



Kindergarten Classroom



Parking Lot Cracks



2017 Facilities Assessment



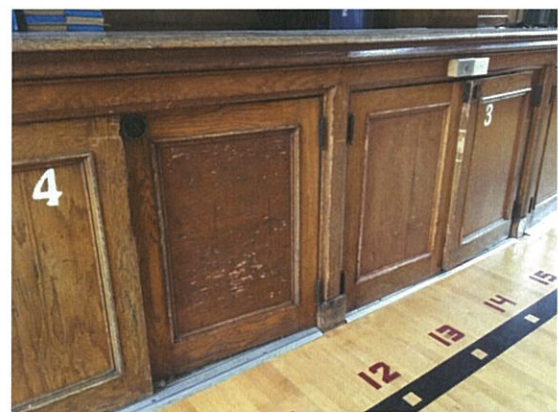
Music Room



Playground and Ball Fields



Classroom Cabinets



Gym Stage Storage Cabinets



2017 Facilities Assessment



Defer Elementary School

**61,001 s.f.
6.32 Acres**



2017 Facilities Assessment



Total Sections: 3
Total Sq/Ft: 19,230

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	4,540	2000	D
2	Section 2-B	9,952	1996	F
3	Section 3-C	4,737	1990	F

Defer Elementary School Roof Information – JD Candler Report dated 10-13-15

Summary of Costs
Defer ES

Defer Elementary School 60,001 s.f. 3-story Building Built: 1925, Addition: 1928								Cost Data				Cost Escalation Factors			
								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities				Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
1	1.0 SITE														
2															
3	Paving														
4	Replace Asphalt Parking Lot (66 spaces)	26,500	1	26,500	\$3.50	\$96,460	1.62%						\$117,681		
5	2000 (17 years old)														
6	Greenhouse replacement	1	1	1	\$150,000.00	\$156,000	2.62%							\$213,720	
7	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$10,000.00	\$10,400	0.17%					\$10,400			
8	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.44%							\$35,620	
9															
10	SITE SUBTOTAL					\$288,860	4.85%					\$10,400	\$117,681	\$249,340	\$0
11															
12	2.0 BUILDING ENVELOPE														
13															
14	Roofing Work - J.D. Candler Report														
15	Replace Roof (BUR, installed 1990, grade F)	4,737	1	4,737	\$8.00	\$39,412	0.66%					\$39,412			
16	Replace Roof (BUR, installed 1996, grade F)	9,952	1	9,952	\$8.00	\$82,801	1.39%					\$82,801			
17	Replace Roof (BUR, installed 2000, grade D)	4,540	1	4,540	\$8.00	\$37,773	0.63%					\$37,773			
18															
19	Patching / Curbs	1	1	1	\$25,000.00	\$26,000	0.44%					\$26,000			
20	Refurbish Exterior Wood Doors	10	1	10	\$1,500.00	\$15,600	0.26%					\$15,600			
21															
22															
23	BUILDING ENVELOPE SUBTOTAL					\$201,585	3.39%					\$201,585	\$0	\$0	\$0
24															
25	3.0 INTERIOR/FINISHES														
26															
27	Abatement (Allowance)	1	1	1	\$100,000.00	\$104,000	1.75%					\$104,000			
28															
29	Flooring - majority of building 12x12 VCT														
30	Classrooms (CPT)	700	3	2,100	\$4.50	\$9,828	0.17%					\$9,828			
31	Library (CPT)	900	1	900	\$4.50	\$4,212	0.07%					\$4,212			
32	Teachers Lounge (CPT)	900	1	900	\$4.50	\$4,212	0.07%					\$4,212			
33	Kindergarten (CPT)	925	1	925	\$4.50	\$4,329	0.07%					\$4,329			
34	Music (CPT)	925	1	925	\$4.50	\$4,329	0.07%					\$4,329			
35	Paint Areas Disturbed by Construction	30,000	1	30,000	\$1.00	\$31,200	0.52%					\$31,200			
36															
37	Window treatment	1	1	1	\$25,000.00	\$26,000	0.44%					\$26,000			
38															
39	Install Ceilings (19 CR's, Office area, Clinic, 2 conf. rms)	700	23	16,100	\$4.00	\$66,976	0.00%					\$66,976			
40															
41	Classroom & Corridor doors and hardware	52	1	52	\$1,750.00	\$94,640	1.59%					\$94,640			
42															
43	Casework														
44	Replace classroom casework (lowers)	60	1	60	\$250.00	\$15,600	0.26%							\$21,372	
45	Refurbish stage storage doors	1	1	1	\$7,500.00	\$7,800	0.13%							\$10,586	
46	INTERIOR/FINISHES SUBTOTAL					\$373,126	6.27%					\$349,726	\$0	\$32,056	\$0
47															
48	4.0 PLUMBING SYSTEMS														
49															
50	Replace hot water heater (1997)	1	1	1	\$5,000.00	\$5,200	0.09%					\$6,344			
51	60 gal.														
52															
53	Horizontal HW/CW Piping Replacement (mains only)	60,001	1	60,001	\$4.00	\$249,604	4.19%							\$341,958	
54	Sanitary & Storm Drain Replacement (mains only)	60,001	1	60,001	\$3.00	\$187,203	3.14%							\$256,468	
55	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	1.75%							\$142,480	
56	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	0.87%							\$71,240	
57															
58	Plumbing Fixtures														
59	Toilet Rooms have been renovated														
60															
61	PLUMBING SYSTEMS SUBTOTAL					\$598,007	10.05%					\$0	\$6,344	\$812,146	\$0
62															
63	5.0 HVAC SYSTEMS														
64															
65	Heating														
66	Steam Boilers (Weil McLain, 1997)	2	1	2	\$125,000.00	\$260,000	4.37%					\$260,000			
67	Assoc. equip., comb. Air, emerg. Gas stops														
68															
69	Replace Steam Heating System Valves (allow)	1	1	1	\$40,000.00	\$41,600	0.70%					\$41,600			
70															
71	Replace Gym Air Handler	1	1	1	\$100,000.00	\$104,000	1.75%					\$104,000			
72	Replace Classroom Air Handlers (2 major units) less gym	56,000	1	56,000	\$15.00	\$873,600	14.68%					\$873,600			
73	Ventilation														
74	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.52%					\$31,200			
75															
76	Air and Water Balance	60,001	1	60,001	\$0.10	\$6,240	0.10%					\$6,240			
77	Commissioning	60,001	1	60,001	\$0.15	\$9,360	0.16%					\$9,360			
78															
79	Temperature Controls	60,001	1	60,001	\$2.50	\$156,003	2.62%					\$156,003			
80	Currently Medysis for AHU only, predom. Pneumatic controls														
81															
82	Air Conditioning (not included in scope)														
83	Sanyo DX units for classrooms/offices installed 1998														
84	RTU for Library														
85	RTU for Gym (10 yrs old)														
86	HVAC SYSTEMS SUBTOTAL					\$1,482,003	24.90%					\$1,482,003	\$0	\$0	\$0

Summary of Costs
Defer ES

Defer Elementary School				Cost Data								
60,001 s.f. 3-story Building				Specification Factor =		1.00 (Medium)						
Built: 1925, Addition: 1928				Geographic Factor =		1.00 (US Median)						
				Cost Escalation Factor =		1.04 Spring 2017		Cost Escalation Factors				
								1.04 1.22 1.37 1.04				
								Ranked Capital Priorities				
Draft 6-28-17		Area	No. of			Effective	As % of	Critical	Deferrable	Property	Other	
No.	Program Area	(in Sq. Ft.)	Rms. / Units	Total Area	Base Unit	Program Area	Total	Needs	Maintenance	Enhancement		
								(1 - 3 years)	(4 - 6 years)	(7 - 10 years)		
87												
88	6.0 ELECTRICAL SYSTEMS											
89												
90	Lighting											
91	Replace Ltg with LED's (23 rooms w/sterm mtd fixt)	23	1	23	\$3,200.00	\$76,544	1.29%	\$76,544				
92	Retrofit Corridor Ltg	4,300	1	4,300	\$2.00	\$8,944	0.15%	\$8,944				
93	Replace exterior building lights	60,001	1	60,001	\$0.25	\$15,600	0.26%	\$15,600				
94	Replace all emergency and exit lights	60,001	1	60,001	\$0.25	\$15,600	0.26%	\$15,600				
	Add Occupancy Sensors	40	1	40	\$500.00	\$20,800	0.35%	\$20,800				
95	Add electrical upgrade for IT (classrooms)	26	1	26	\$5,000.00	\$135,200	2.27%	\$135,200				
96	Add Generator	1	1	1	\$100,000.00	\$104,000	1.75%			\$142,480		
97	ELECTRICAL SYSTEMS SUBTOTAL						\$376,689	6.33%	\$272,689	\$0	\$142,480	\$0
98												
99	7.0 SECURITY (Wright & Hunter)											
100	Door Access System	1	1	1	\$25,000.00	\$26,000	0.44%	\$26,000				
101	Surveillance System	1	1	1	\$31,000.00	\$32,240	0.54%	\$32,240				
102												
103	SECURITY SYSTEMS SUBTOTAL						\$58,240	0.98%	\$58,240	\$0	\$0	\$0
104												
105	8.0 NOT USED											
106												
107	OTHER SUBTOTAL						\$0	0.00%	\$0	\$0	\$0	\$0
108												
109	9.0 FURNITURE & EQUIPMENT											
110	Classroom furniture	39	1	39	\$12,000.00	\$486,720	8.18%			\$666,806		
111	Computer Lab Furniture	1	1	1	\$15,000.00	\$15,600	0.26%			\$21,372		
112												
113	FURNITURE & EQUIPMENT SUBTOTAL						\$502,320	8.44%	\$0	\$0	\$688,178	\$0
114												
115	10.0 TECHNOLOGY (Wright & Hunter)											
117	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$409,133.00	\$425,498	7.15%	\$425,498				
118	Network Cabling	1	1	1	\$200,000.00	\$208,000	3.49%	\$208,000				
119	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	3.84%	\$228,800				
120	Telephone System	1	1	1	\$74,400.00	\$77,376	1.30%	\$77,376				
121	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.44%	\$26,000				
122	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.70%	\$41,600				
123	TECHNOLOGY SUBTOTAL						\$1,007,274	16.92%	\$1,007,274	\$0	\$0	\$0
124												
125	Building Infrastructure Improvement Total:			60,001	\$81.47	\$4,888,104	82.12%	\$3,381,917	\$124,025	\$1,924,202	\$0	
126	Project Contingency:			10.00%	Of Building & Site Budget	\$337,851	5.68%	\$237,464	\$12,403	\$123,602	\$0	
127	Permits, Testing & Printing:			2.50%	Of Building & Site Budget	\$92,909	1.56%	\$65,303	\$3,411	\$33,991	\$0	
128	Construction Manager Fee and Costs:			8.00%	Of Building & Site Budget	\$304,742	5.12%	\$214,193	\$11,187	\$111,489	\$0	
129	Professional Fees & Costs:			8.00%	Of Building & Site Budget & Contingency	\$329,121	5.53%	\$231,328	\$12,082	\$120,409	\$0	
130	PROJECT TOTAL						\$5,952,727	100.00%	\$4,130,205	\$163,108	\$2,313,693	\$8,607,006



2017 Facilities Assessment



Ferry Elementary School K-5

748 Roslyn, Grosse Pointe Woods, Michigan 48236

Building Age: 64 years

Square Footage: 68,016 s.f.

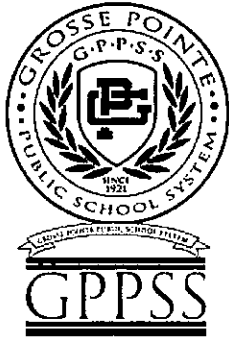
Acres: 8.02

Students: 364

Capacity: 625 (58% Utilization)

Description:

Ferry Elementary School is a 2 story brick clad structure built in 1953 with a classroom wing addition constructed in 1961. It was a former middle school for the GPPS District and contains just over 68,000 s.f. Students attending Ferry will attend Parcels Middle School and North High School.



2017 Facilities Assessment

Site:

The asphalt parking lot shows signs of wear and should be replaced within the next couple of years. There also is a large asphalt play area which also should be replaced. The playground equipment is newer and appears to be in good shape.

Roofing:

The flat built-up roof areas range in age from 27, 23, 21, 19 and 17 years old and require replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 23 years old and will need replacement or significant reconditioning in the near future. There also is (1) RTU servicing the gym that should also be replaced due to its age.

Electrical:

It is also recommended to replace the existing stem mounted and corridor light fixtures with more energy efficient LED throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

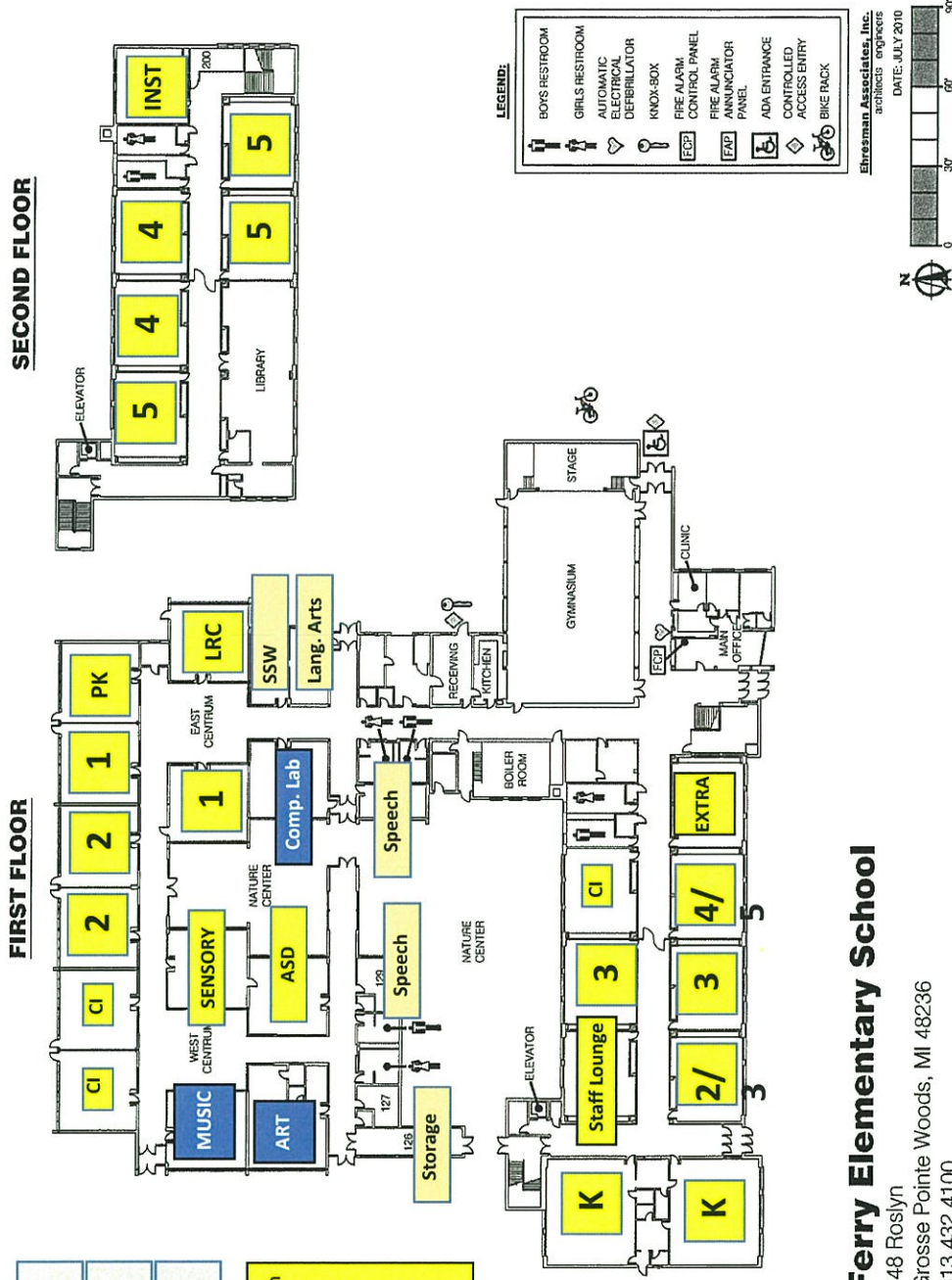
A total of 8 restrooms have not been renovated should be updated. The restroom galvanized piping should be replaced with copper and new sanitary lines replaced where accessible. The existing 64 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping have been replaced on an as needed basis.

Finishes:

Some of the classroom casework/cabinets will need replacement throughout the building. Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and lighting. There are several classrooms and corridors which contain 9x9 asbestos tiles which should be replaced with 12x12 vinyl. Some of the classroom and kitchen casework/cabinets will need replacement as well. Most of the classroom furniture is in need of replacement due to age and wear throughout the building. The 2' wide exterior soffits at the gym roof perimeter show signs of significant wear and age and should be replaced.

68,016 s.f.
Total Rooms: 25
Capacity: 625

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):
 ES: 25 students /room
 MS: 26 students /room
 HS: 28 students /room



Ferry Elementary School

748 Roslyn
 Grosse Pointe Woods, MI 48236
 313.432.4100



2017 Facilities Assessment



Weil-McLain Boilers



Classroom Casework



Computer Lab Electrical



First Level Corridor



2017 Facilities Assessment



Corridor Lighting and Flooring



Boy's Toilet Room



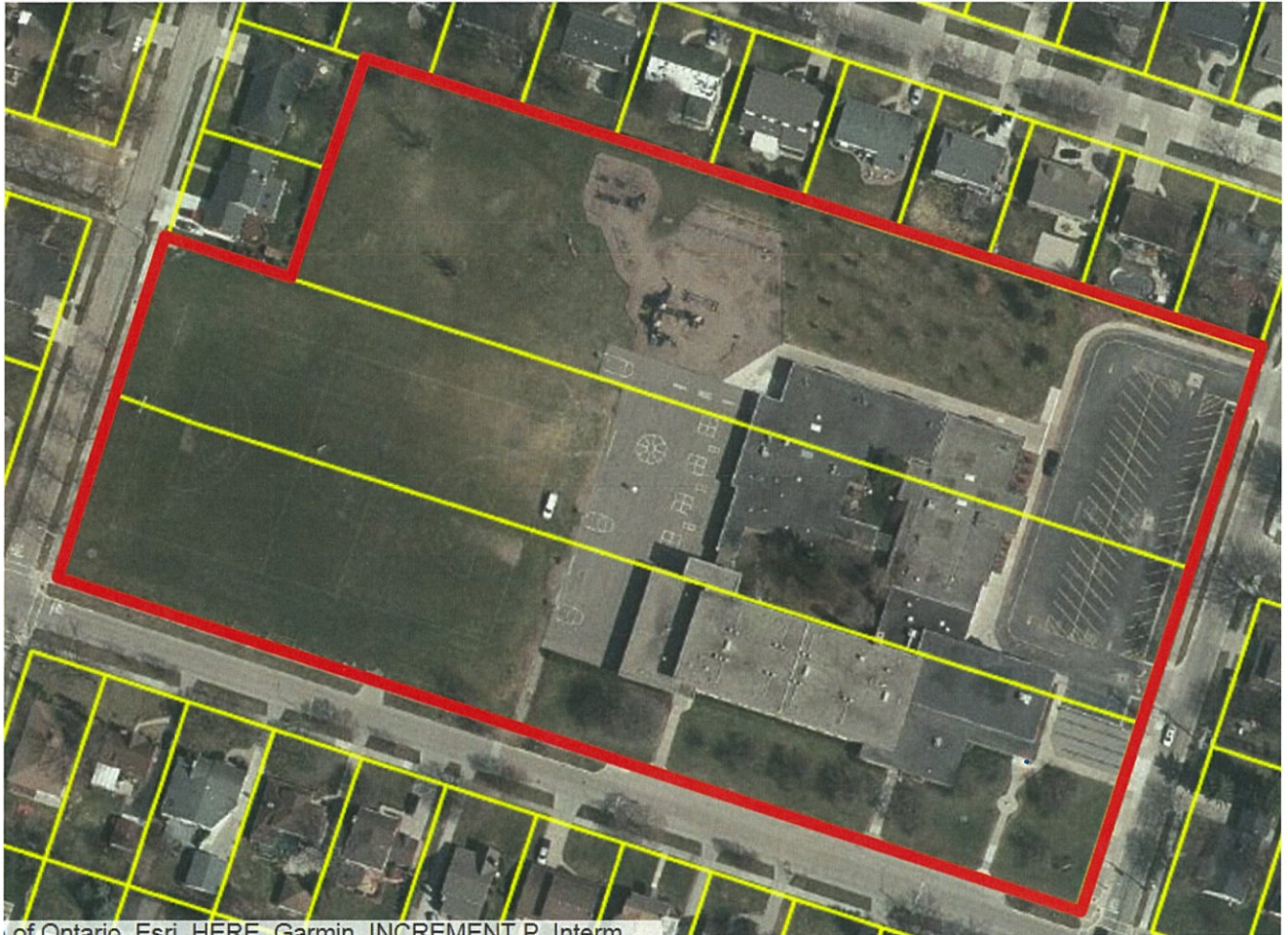
Kindergarten Classroom



Playground Hard Surface -
Cracks



2017 Facilities Assessment



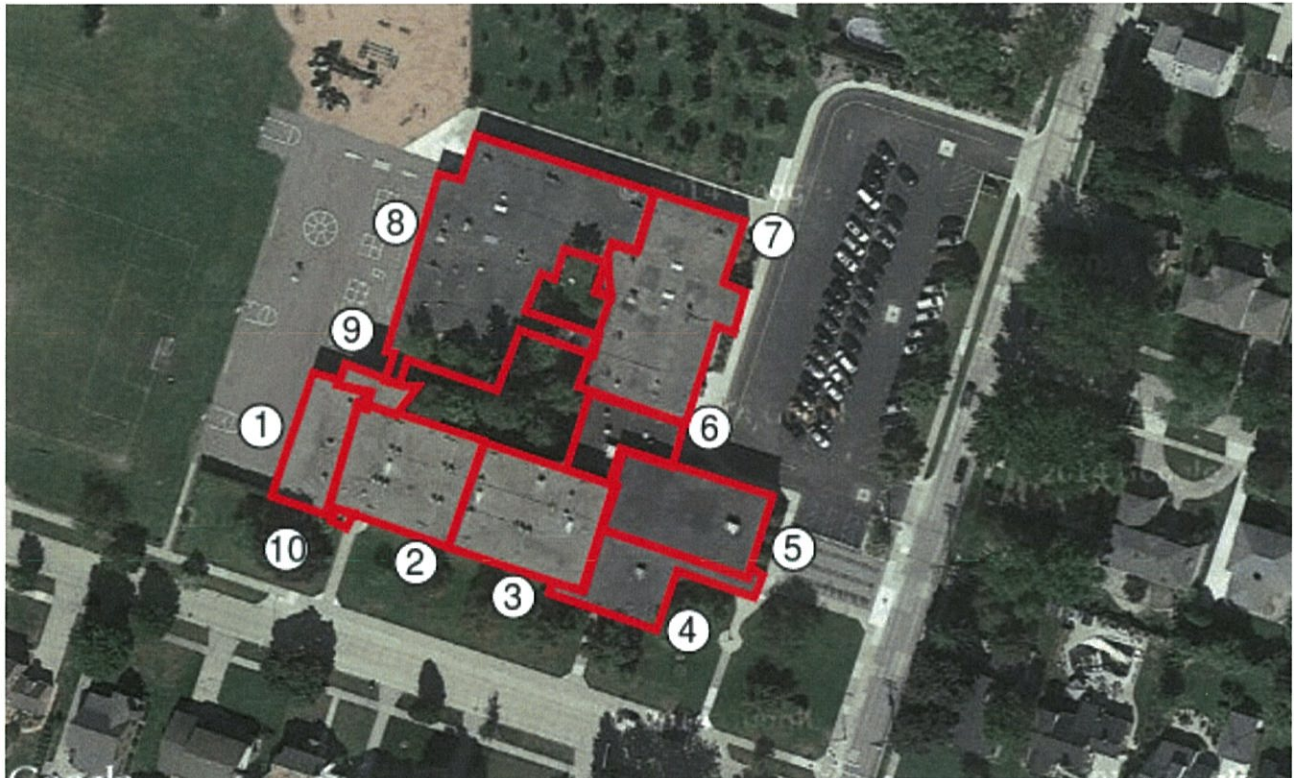
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Ferry Elementary School

**68,016 s.f.
8.02 Acres**



2017 Facilities Assessment



Total Sections: 10
Total Sq/Ft: 55,290

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	3,146	1996	C
2	Section 2-B	6,188	1996	C
3	Section 3-C	6,703	1996	C
4	Section 4-D	3,613	2000	D
5	Section 5-E	5,699	1990	D
6	Section 6-F	2,715	1990	D
7	Section 7-G	10,324	1987	D
8	Section 8-H	16,023	1994	D
9	Section 9-I	764	1998	B
10	Section 10-J	115	1996	C

Summary of Costs
Ferry ES

Ferry Elementary School								Cost Data				Cost Escalation Factors			
68,016 s.f. 2-story Building								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
Built: 1953 Addition: 1961								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
Line No.	Draft 6-28-17	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities				Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
1	1.0 SITE														
2															
3	Paving														
4	Replace Asphalt Parking Lot (54 spaces.) 2005	35,200	1	35,200	\$3.50	\$128,128	2.07%					\$128,128			
5	Replace Asphalt Playground area	21,100	1	21,100	\$3.50	\$76,804	1.24%					\$76,804			
6	Fencing	500	1	500	\$10.00	\$5,200	0.08%					\$5,200			
7	Flag pole Replacement (Rocket Enterprises)	1	1	1	\$5,000.00	\$5,200	0.08%					\$5,200			
8	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.42%							\$35,620	
9															
10	SITE SUBTOTAL					\$241,332	3.90%					\$215,332	\$0	\$35,620	\$0
11															
12	2.0 BUILDING ENVELOPE														
13															
14	Roofing Work - J.D. Candler Report														
15	Replace Roof (BUR, installed 1987, grade D)	10,324	1	10,324	\$8.00	\$85,896	1.39%					\$85,896			
16	Replace Roof (BUR, installed 1990, grade D)	8,414	1	8,414	\$8.00	\$70,004	1.13%					\$70,004			
17	Replace Roof (BUR, installed 1994, grade D)	16,023	1	16,023	\$8.00	\$133,311	2.16%					\$133,311			
18	Replace Roof (BUR, installed 2000, grade D)	3,613	1	3,613	\$8.00	\$30,060	0.49%					\$30,060			
19	Replace Roof (BUR, installed 1996, grade C)	16,152	1	16,152	\$8.00	\$134,385	2.17%						\$163,949		
20	Replace Roof (BUR, installed 1998, grade B)	764	1	764	\$0.00	\$0	0.00%							\$0	
21	Patching / Curbs	1	1	1	\$25,000.00	\$26,000	0.42%					\$26,000			
22															
23	Exterior Soffits - Gym	250	1	250	\$100.00	\$26,000	0.42%					\$26,000			
24	Exterior Door Replacment	14	1	14	\$2,500.00	\$36,400	0.59%					\$36,400			
25															
26	BUILDING ENVELOPE SUBTOTAL					\$542,056	8.76%					\$407,672	\$163,949	\$0	\$0
27															
28	3.0 INTERIOR/FINISHES														
29															
30	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	1.68%					\$104,000			
31															
32	Renovate Existing Toilet Rooms	8	1	8	\$80,000.00	\$665,600	10.76%					\$665,600			
33	(new tile, fixtures, plumbing)														
34															
35	Flooring														
36	Classroom (VCT) currently 9x9	700	7	4,900	\$4.50	\$22,932	0.37%					\$22,932			
37	Corridors (VCT) currently 9x9	2,400	1	2,400	\$4.50	\$11,232	0.18%					\$11,232			
38	Library (CPT)	1,400	1	1,400	\$4.50	\$6,552	0.11%					\$6,552			
39	Classrooms (CPT)	1,800	1	1,800	\$4.50	\$8,424	0.14%					\$8,424			
40	Offices (CPT)	900	1	900	\$4.50	\$4,212	0.07%					\$4,212			
41	Paint Areas Disturbed by Construction	40,000	1	40,000	\$1.00	\$41,600	0.67%					\$41,600			
42	Replace Corridor Doors and Hdw	54	1	54	\$1,750.00	\$98,280	1.59%					\$98,280			
43	Replace Interior Room Doors and Hdw	25	1	25	\$1,750.00	\$45,500	0.74%					\$45,500			
44	Replace Mechanical/Receiving Room Doors	4	1	4	\$2,500.00	\$10,400	0.17%							\$14,248	
45															
46	New Stage Curtains / Rigging	1	1	1	\$25,000.00	\$26,000	0.42%							\$35,620	
47															
48	Window treatment	1	1	1	\$25,000.00	\$26,000	0.42%					\$26,000			
49															
50	Casework														
51	Replace classroom casework (lowers)	75	1	75	\$250.00	\$19,500	0.32%						\$23,790		
52	Kitchen cabinets	30	1	30	\$500.00	\$15,600	0.25%						\$19,032		
53															
54	INTERIOR/FINISHES SUBTOTAL					\$1,105,832	17.88%					\$1,034,332	\$42,822	\$49,868	\$0
55															
56	4.0 PLUMBING SYSTEMS														
57															
58	Hot water heater - 6 years old														
59															
60	Horizontal HW/CW Piping Replacement (mains only)	68,016	1	68,016	\$4.00	\$282,947	4.57%							\$387,637	
61	Sanitary & Storm Drain Replacement (mains only)	68,016	1	68,016	\$3.00	\$212,210	3.43%							\$290,728	
62	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	1.68%							\$142,480	
63	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	0.84%							\$71,240	
64	Plumbing Fixtures														
65	Classroom Sinks	6	1	6	\$1,500.00	\$9,360	0.15%					\$9,360			
66	Replace Drinking Fountains	4	1	4	\$2,000.00	\$8,320	0.13%						\$10,150		
67															
68	PLUMBING SYSTEMS SUBTOTAL					\$668,836	10.81%					\$9,360	\$10,150	\$892,084	\$0

Summary of Costs
Ferry ES

Ferry Elementary School 68,016 s.f. 2-story Building Built: 1953 Addition: 1961					Cost Data Specification Factor = 1.00 (Medium) Geographic Factor = 1.00 (US Median) Cost Escalation Factor = 1.04 Spring 2017			Cost Escalation Factors 1.04 1.22 1.37 1.04			
Draft 6-28-17								Ranked Capital Priorities			
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
69	5.0 HVAC SYSTEMS										
70											
71											
72	Heating										
73	Steam Boilers (Weil McLain 1994)	2	1	2	\$125,000.00	\$260,000	4.20%	\$260,000			
74	Assoc. equip., comb. Air, emerg. Gas stops										
75	Replace Steam Heating System Valves (allow)	1	1	1	\$40,000.00	\$41,600	0.67%	\$41,600			
76											
77											
78	Air Handler at Gym - RTU	1	1	1	\$100,000.00	\$104,000	1.68%	\$104,000			
79											
80	Replace Exhaust Fans (toilet room renovation)	2	1	2	\$20,000.00	\$41,600	0.67%		\$50,752		
81											
82	Air and Water Balance	68,016	1	68,016	\$0.10	\$7,074	0.11%	\$7,074			
83	Commissioning	68,016	1	68,016	\$0.15	\$10,610	0.17%	\$10,610			
84	Temperature Controls (100% Medysis)										
85	100% A/C - Unit Vents, RTU's at Office, Clinic, CR's										
86	121,131,132										
87	HVAC SYSTEMS SUBTOTAL					\$464,884	7.52%	\$423,284	\$50,752	\$0	\$0
88	6.0 ELECTRICAL SYSTEMS										
89											
90											
91	Lighting										
92	Replace Ltg with LED's (35 rooms w/stem mtd fixt)	35	1	35	\$3,200.00	\$116,480	1.88%	\$116,480			
93	Replace Corridor Ltg w/ LED's (New OS, Switching, etc.)	15,600	1	15,600	\$2.00	\$32,448	0.52%	\$32,448			
94	Replace exterior building lights	68,016	1	68,016	\$0.25	\$17,684	0.29%	\$17,684			
95	Replace all emergency and exit lights	68,016	1	68,016	\$0.25	\$17,684	0.29%	\$17,684			
	Add Occupancy Sensors	35	1	35	\$500.00	\$18,200	0.29%	\$18,200			
96	Add electrical upgrade for IT (classrooms)	34	1	34	\$5,000.00	\$176,800	2.86%	\$176,800			
97											
98	New Transformer Curb in Mechanical Room	1	1	1	\$10,000.00	\$12,740	0.23%	\$12,740			
99	Add Generator	1	1	1	\$100,000.00	\$104,000	1.68%			\$142,480	
100	ELECTRICAL SYSTEMS SUBTOTAL					\$496,036	8.02%	\$392,036	\$0	\$142,480	\$0
101	7.0 SECURITY (Wright & Hunter)										
102											
103	Door Access System	1	1	1	\$25,000.00	\$26,000	0.42%	\$26,000			
104	Surveillance System	1	1	1	\$28,000.00	\$29,120	0.47%	\$29,120			
105											
106	SECURITY SYSTEMS SUBTOTAL					\$55,120	0.89%	\$55,120	\$0	\$0	\$0
107	8.0 NOT USED										
108											
109											
110	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
111											
112	9.0 FURNITURE & EQUIPMENT										
113											
114	Classroom furniture	34	1	34	\$12,000.00	\$424,320	6.86%			\$581,318	
115	Computer Lab Furniture	1	1	1	\$15,000.00	\$15,600	0.25%			\$21,372	
116											
117	FURNITURE & EQUIPMENT SUBTOTAL					\$439,920	7.11%	\$0	\$0	\$602,690	\$0
118	10.0 TECHNOLOGY (Wright & Hunter)										
119											
120	Classroom Techonolgy (AV, Desktop, Labtops, Tablets)	1	1	1	\$453,000.00	\$471,120	7.62%	\$471,120			
121	Network Cabling	1	1	1	\$200,000.00	\$208,000	3.36%	\$208,000			
122	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	3.70%	\$228,800			
123	Telephone System	1	1	1	\$67,200.00	\$69,888	1.13%	\$69,888			
124	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.42%	\$26,000			
125	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.67%	\$41,600			
126	TECHNOLOGY SUBTOTAL					\$1,045,408	16.90%	\$1,045,408	\$0	\$0	\$0
127	Building Infrastructure Improvement Total:										
128				68,016	\$74.39	\$5,059,425	81.79%	\$3,582,544	\$267,674	\$1,722,743	\$0
129	Project Contingency:	10.00%	Of Building & Site Budget			\$357,410	5.78%	\$253,714	\$26,767	\$112,005	\$0
130	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$98,288	1.59%	\$69,771	\$7,361	\$30,801	\$0
131	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$322,384	5.21%	\$228,850	\$24,144	\$101,029	\$0
132	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$348,174	5.63%	\$247,158	\$26,076	\$109,111	\$0
133	PROJECT TOTAL					\$6,185,681	100.00%	\$4,382,036	\$352,022	\$2,075,689	\$0
\$6,809,747											



2017 Facilities Assessment



Kerby Elementary School K-5

285 Kerby Road, Grosse Pointe Farms, Michigan, 48236

Building Age: 69 years

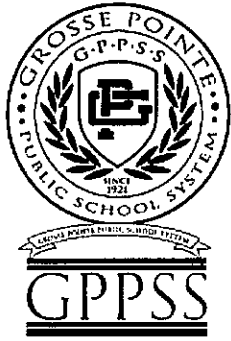
Square Footage: 76,795 s.f.

Acres: 5.01

Students: 353

Capacity: 425 (83% Utilization)

Kerby Elementary School is a single story 76,795 s.f brick clad building which opened in 1948. This brick clad structure currently houses 353 K-5 students and has a utilization of 83%. Located in the center of Grosse Pointe Farms, students will attend Brownell Middle School and South High School.



2017 Facilities Assessment

Site:

The 41 car asphalt parking lot has shown signs of wear and cracking and should be replaced within the next 5 years. The some of the site chain link fencing is in poor condition and will require replacement. The playground equipment is newer and appear to be in good shape.

Roofing:

A majority of the roof is slate in good condition but the flat built-up roof areas range in age from 19 and 14 years old and will require replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 28 years old and will need replacement or significant reconditioning in the next 5 to 10 years. The building currently does not have an air conditioning system or building management system.

Electrical:

It is also recommended to replace the existing corridor 1' strip and classroom lay-in 2'x4' fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

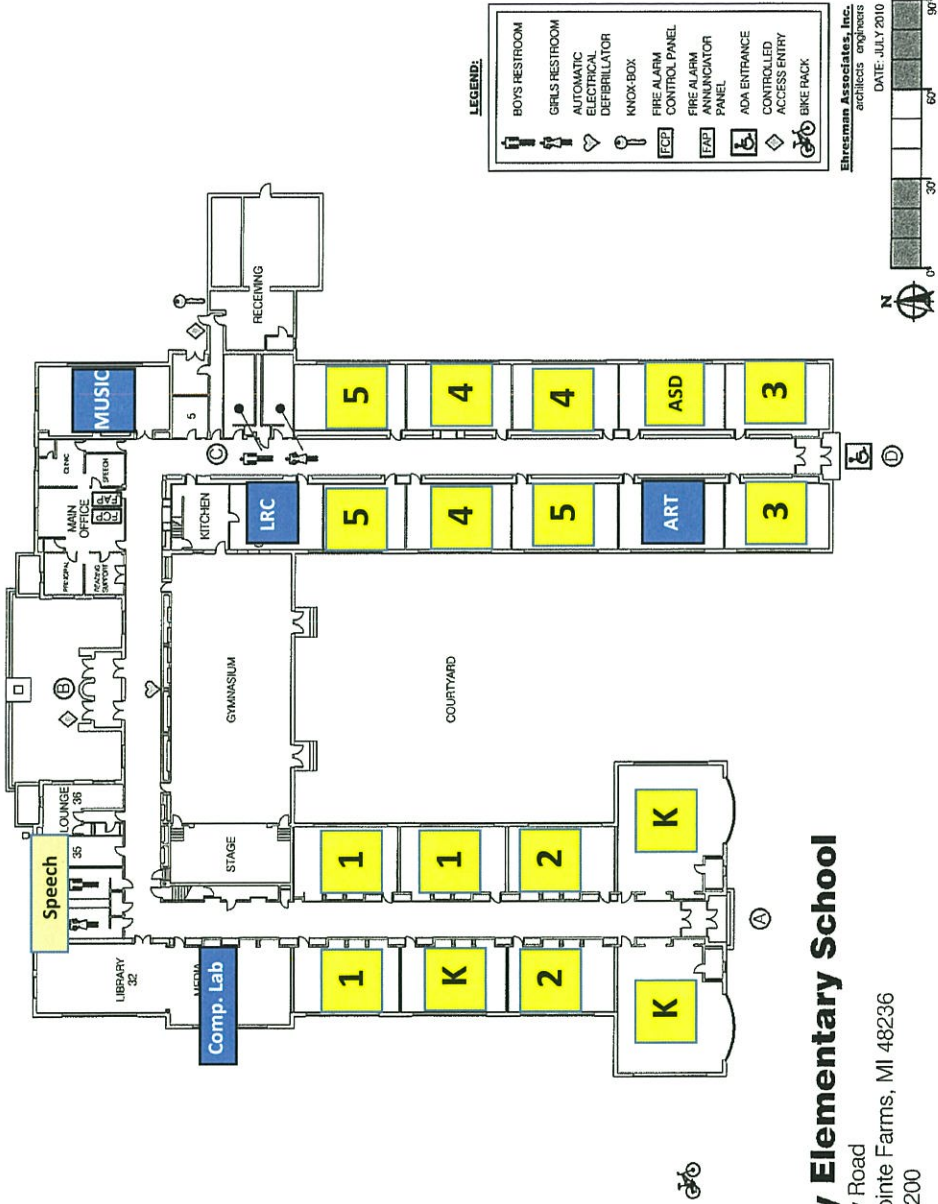
The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. It is recommended to replace the existing 69 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Some of the classroom casework/cabinets will need replacement throughout the building. The furniture should be replaced due to age and wear.

76,795 s.f.
Total Rooms: 17
Capacity: 425

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):
 ES: 25 students /room
 MS: 26 students /room
 HS: 28 students /room



2017 Facilities Assessment



York-Shipley Boilers



First Level Corridor



Second Level Corridor



Older Exit Signage



2017 Facilities Assessment



Parking Lot Cracks



Stained Brick From Water Damage



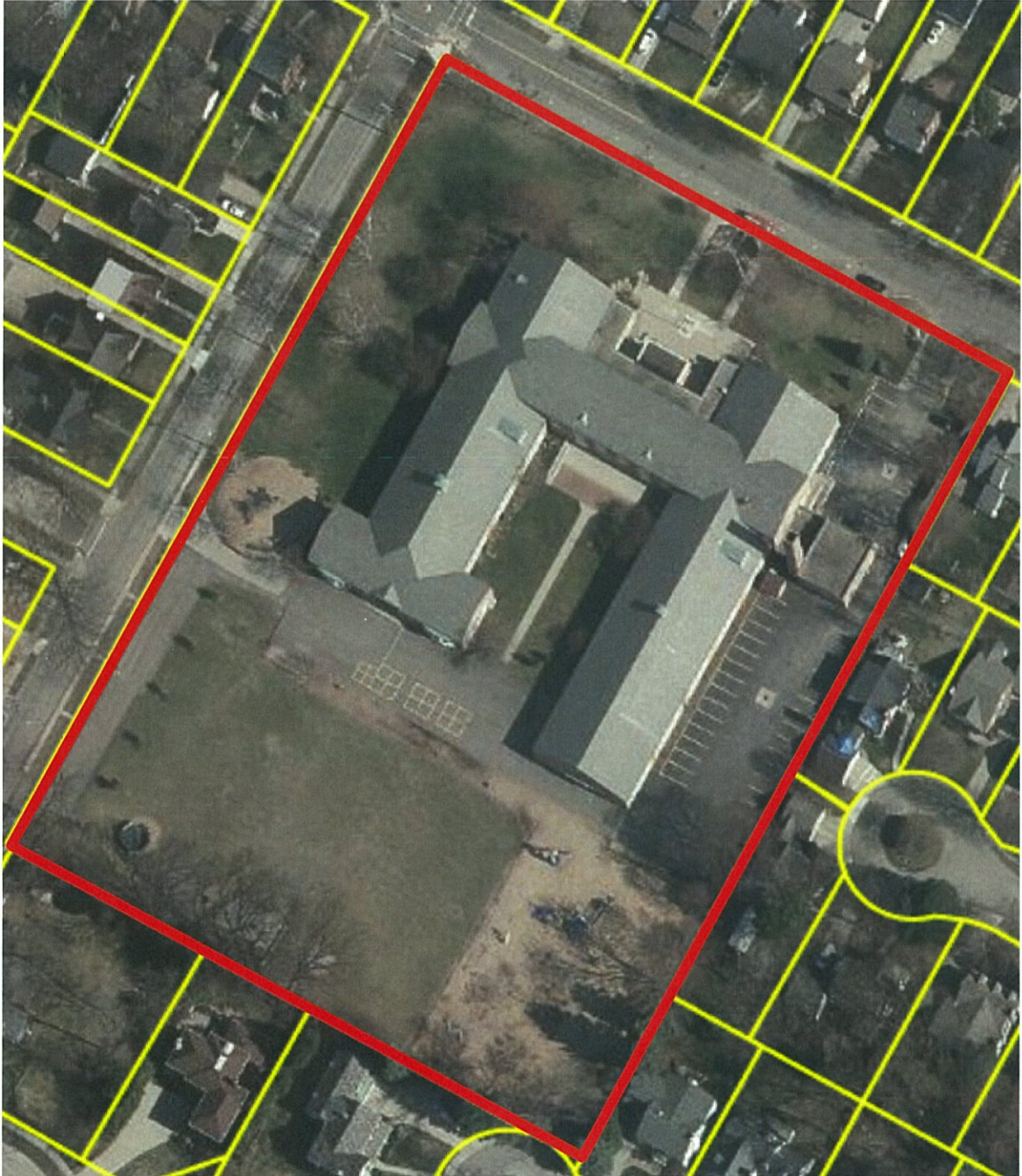
Classroom Cabinets



Classroom



2017 Facilities Assessment

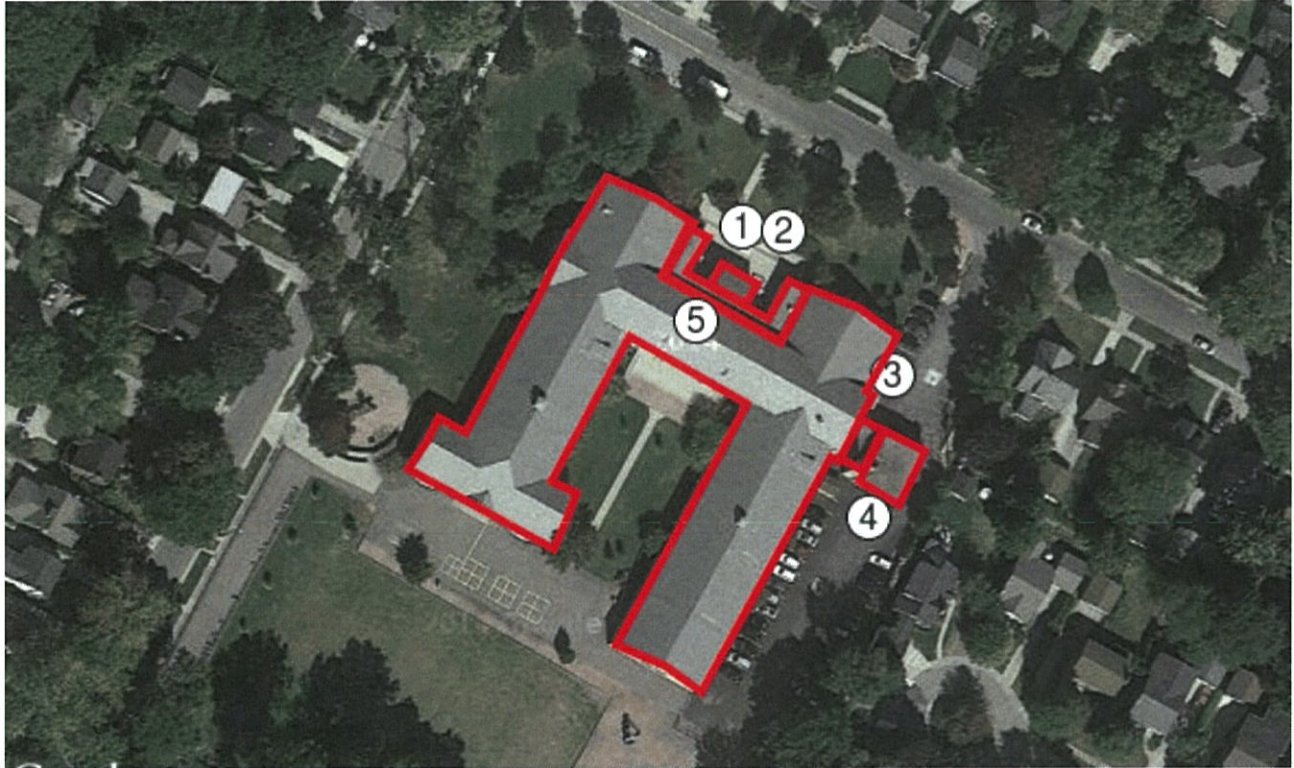


Kerby Elementary School

**76,795 s.f.
5.01 Acres**



2017 Facilities Assessment



Total Sections: 5
Total Sq/Ft: 42,777

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	413	2003	D
2	Section 2-B	1,699	1998	C
3	Section 3-C	493	1998	C
4	Section 4-D	1,168	1998	C
5	Section 5-E	39,004	1990	B

Summary of Costs
Kerby ES

Kerby Elementary School 76,795 s.f. 1-story Building Built: 1948				Cost Data							
				Specification Factor =	1.00	(Medium)					
				Geographic Factor =	1.00	(US Median)					
				Cost Escalation Factor =	1.04	Spring 2017	Cost Escalation Factors 1.04 1.22 1.37 1.04				
Line No.	Draft 6-28-17	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities			
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
1	1.0 SITE										
2											
3	Paving										
4	Replace Asphalt Parking Lot (41 spaces) 16 yrs old	21,500	1	21,500	\$3.50	\$78,260	1.33%	\$78,260			
5	2001 drop off lane only										
6	Replace Exterior Concrete (Sidewalks, etc.)	1	1	1,000	\$6.00	\$6,240	0.11%	\$6,240			
7											
8	Fencing	1	1	650	\$10.00	\$6,760	0.11%	\$6,760			
9											
10	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.44%			\$35,620	
11											
12	SITE SUBTOTAL					\$117,260	1.99%	\$91,260	\$0	\$35,620	\$0
13											
14	2.0 BUILDING ENVELOPE										
15											
16											
17	Roofing Work - J.D. Candler Report										
18	Replace Roof (Slate installed 1990, Grade B)	1	1	39,004	\$0.00	\$0	0.00%			\$0	
19	Replace Roof (BUR installed 1998, Grade C)	1	1	1,168	\$8.00	\$9,718	0.17%		\$11,856		
20	Replace Roof (BUR, installed 1998, Grade C)	1	1	493	\$8.00	\$4,102	0.07%		\$5,004		
21	Replace Roof (BUR, installed 1998, Grade C)	1	1	1,699	\$8.00	\$14,136	0.24%		\$17,246		
22	Replace Roof (BUR, installed 2003, Grade D)	1	1	413	\$8.00	\$3,436	0.06%	\$3,436			
23	Patching / Curbs	1	1	1	\$25,000.00	\$26,000	0.00%	\$26,000			
24											
25	BUILDING ENVELOPE SUBTOTAL					\$57,391	0.98%	\$29,436	\$34,105	\$0	\$0
26											
27	3.0 INTERIOR/FINISHES										
28											
29	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	1.77%	\$104,000			
30	Replace Corridor Doors & HDW	52	1	52	\$1,750.00	\$94,640	1.61%	\$94,640			
31	Replace Interior Room Doors and Hdw	12	1	12	\$1,750.00	\$21,840	0.37%	\$21,840			
32	Flooring - Majority 12x12 VCT										
33	Media center carpet	1	1,500	1,500	\$4.50	\$7,020	0.12%		\$8,564		
34											
35	Install Lay-in Tile Ceilings at Corridor	8,000	1	8,000	\$4.00	\$33,280	0.57%	\$33,280			
36	Casework										
37	Replace Kindergarten Casework	2	1	2	\$6,000.00	\$12,480	0.21%		\$15,226		
38											
39	INTERIOR/FINISHES SUBTOTAL					\$273,260	4.64%	\$253,760	\$23,790	\$0	\$0
40											
41	4.0 PLUMBING SYSTEMS										
42											
43	Horizontal HW/CW Piping Replacement (mains only)	76,795	1	76,795	\$4.00	\$319,467	5.43%			\$437,670	
44	Sanitary & Storm Drain Replacement (mains only)	76,795	1	76,795	\$3.00	\$239,600	4.07%			\$328,253	
45	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	1.77%			\$142,480	
46	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	0.88%			\$71,240	
47	Plumbing Fixtures										
48	Kindergarten Room Sinks	2	1	2	\$1,500.00	\$3,120	0.05%		\$3,806		
49											
50	PLUMBING SYSTEMS SUBTOTAL					\$718,188	12.21%	\$0	\$3,806	\$979,643	\$0
51											
52	5.0 HVAC SYSTEMS										
53											
54	Heating										
55	Steam Boilers (York Shepley 1989)	2	1	2	\$125,000.00	\$260,000	4.42%	\$260,000			
56	Assoc. equip., comb. Air, emerg. Gas stops										
57											
58	Replace Steam Heating System Valves	1	1	1	\$40,000.00	\$41,600	0.71%	\$41,600			
59											
60	Air conditioning - DX	25	1	25	\$7,500.00	\$195,000	3.31%	\$195,000			
61											
62	Replace Classroom Air Handlers (3 major units) less gym	70,000	1	70,000	\$15.00	\$1,092,000	0.00%	\$1,092,000			
63	New Air handlers for Gym	1	1	1	\$100,000.00	\$104,000	1.77%	\$104,000			
64	Ventilation										
65	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.53%	\$31,200			
66											
67	Air and Water Balance	76,795	1	76,795	\$0.10	\$7,987	0.14%	\$7,987			
68	Commissioning	76,795	1	76,795	\$0.15	\$11,980	0.20%	\$11,980			
69	Temperature Controls	76,795	1	76,795	\$2.50	\$199,667	3.39%	\$199,667			
70											
71	HVAC SYSTEMS SUBTOTAL					\$1,943,434	33.03%	\$1,943,434	\$0	\$0	\$0

Summary of Costs
Kerby ES

Kerby Elementary School 76,795 s.f. 1-story Building Built: 1948				Cost Data								
				Specification Factor =	1.00	(Medium)						
				Geographic Factor =	1.00	(US Median)						
				Cost Escalation Factor =	1.04	Spring 2017	Cost Escalation Factors 1.04 1.22 1.37 1.04					
Line No.	Draft 6-28-17 Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities				
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other	
72												
73	6.0 ELECTRICAL SYSTEMS											
74												
75	Power for new DX A/C Units	1	1	1	\$50,000.00	\$52,000	0.88%	\$52,000				
76	Lighting											
77	Replace Lighting Ballast with LED's (21 rooms)	21	1	21	\$1,200.00	\$26,208	0.45%		\$31,974			
78	Replace Corridor Ltg w/ LED's (New OS, Switching, etc.)	65	1	65	\$225.00	\$15,210	0.26%		\$18,556			
79	Replace exterior building lights	76,795	1	76,795	\$0.25	\$19,967	0.34%		\$24,359			
80	Replace all emergency and exit lights	76,795	1	76,795	\$0.25	\$19,967	0.34%		\$24,359			
	Add Occupancy Sensors	22	1	22	\$500.00	\$11,440	0.19%		\$13,957			
81	Add electrical upgrade for IT (classrooms)	22	1	22	\$5,000.00	\$114,400	1.94%	\$114,400				
82	Add Generator	1	1	1	\$100,000.00	\$104,000	1.77%			\$142,480		
83												
84	ELECTRICAL SYSTEMS SUBTOTAL						\$363,191	6.17%	\$166,400	\$113,206	\$142,480	\$0
85												
86	7.0 SECURITY (Wright & Hunter)											
87	Door Access System	1	1	1	\$25,000.00	\$26,000	0.44%	\$26,000				
88	Surveillance System	1	1	1	\$25,000.00	\$26,000	0.44%	\$26,000				
89												
90												
91	SECURITY SYSTEMS SUBTOTAL						\$52,000	0.88%	\$52,000	\$0	\$0	\$0
92												
93	8.0 NOT USED											
94												
95												
96	OTHER SUBTOTAL						\$0	0.00%	\$0	\$0	\$0	\$0
97												
98	9.0 FURNITURE & EQUIPMENT											
99	Classroom furniture	21	1	21	\$12,000.00	\$262,080	4.45%			\$359,050		
100	Computer Lab Furniture	1	1	1	\$15,000.00	\$15,600	0.27%			\$21,372		
101												
102	FURNITURE & EQUIPMENT SUBTOTAL						\$277,680	4.72%	\$0	\$0	\$380,422	\$0
103												
104	10.0 TECHNOLOGY (Wright & Hunter)											
105	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$388,000.00	\$403,520	6.86%	\$403,520				
106	Network Cabling	1	1	1	\$200,000.00	\$208,000	3.54%	\$208,000				
107	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	3.89%	\$228,800				
108	Telephone System	1	1	1	\$60,000.00	\$62,400	1.06%	\$62,400				
109	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.44%	\$26,000				
110	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.71%	\$41,600				
111	TECHNOLOGY SUBTOTAL						\$970,320	16.49%	\$970,320	\$0	\$0	\$0
112												
113	Building Infrastructure Improvement Total:			76,795	\$62.15	\$4,772,724	81.12%	\$3,506,610	\$174,907	\$1,538,164	\$0	
114	Project Contingency:	10.00%	Of Building & Site Budget			\$352,472	5.99%	\$253,629	\$17,491	\$115,774	\$0	
115	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$96,930	1.65%	\$69,748	\$4,810	\$31,838	\$0	
116	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$317,930	5.40%	\$228,773	\$15,777	\$104,428	\$0	
117	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$343,365	5.84%	\$247,075	\$17,039	\$112,783	\$0	
118	PROJECT TOTAL						\$5,883,421	100.00%	\$4,305,835	\$230,023	\$1,902,987	\$0
												\$6,438,846



2017 Facilities Assessment



Maire Elementary School K-5

740 Cadieux, Grosse Pointe, Michigan, 48230

Building Age: 81 years

Square Footage: 50,200 s.f.

Acres: 4.9

Students: 316

Capacity: 375 (84% Utilization)

Maire Elementary School is a 50,200 s.f brick clad 3-story English Gothic style building which opened in its doors in 1936. The building has received registration as a Michigan Historic Site and contains Pewabic tile fireplaces and fish ponds in the kindergarten classrooms. The school is situated on 5 acres of land adjacent to the Kercheval Business District. Students attending Maire will attend Pierce Middle School and South High School.



2017 Facilities Assessment

Site:

The 65 car asphalt parking was resurfaced in 2010 and does not require immediate attention. The playground equipment is newer and appear to be in good shape.

Roofing:

The built-up roof areas range in age from 20, 19, 15 and 11 years old and will require replacement in the near future. A portion of the roof is slate which will require minor repair, not replacement.

HVAC:

The (2) steam boilers servicing the building are 16 years old and will need replacement or significant reconditioning in the next 5 to 10 years. The air handling units are original and should also be replaced due to age. The building does have air conditioning, mostly individual classroom DX wall mounted units.

Electrical:

It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

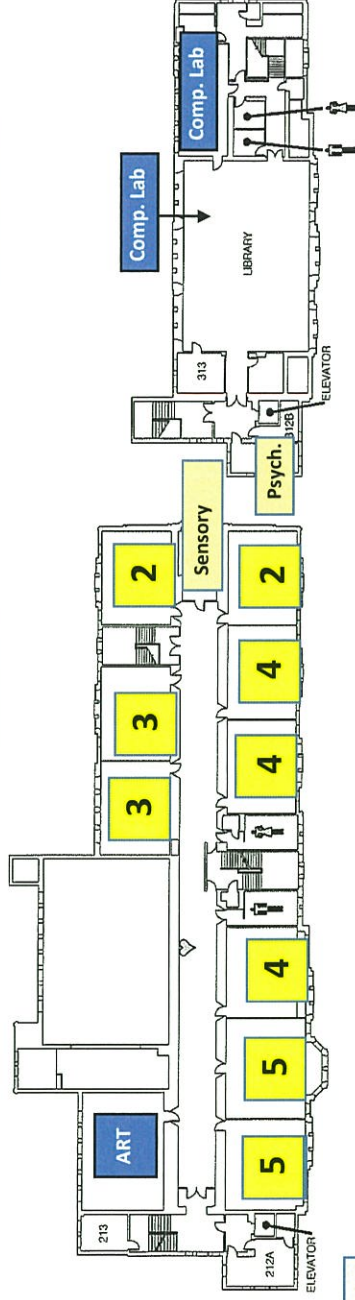
The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. It is recommended to replace the existing 81 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

The art room and kitchen casework/cabinets will need replacement. The furniture should be replaced due to age and wear. Several areas have carpet flooring which should be replaced due to wear.

SECOND FLOOR

THIRD FLOOR

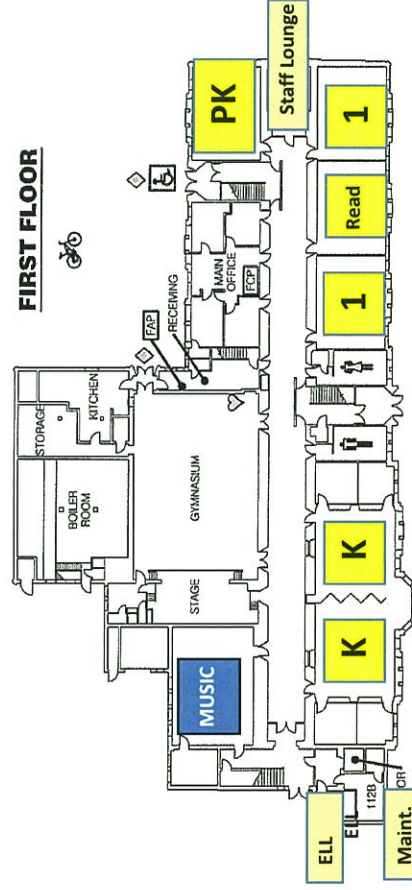


50,200 s.f.
Total Rooms: 15
Capacity: 375

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):

ES: 25 students /room
MS: 26 students /room
HS: 28 students /room

FIRST FLOOR



LEGEND:	
	BOYS RESTROOM
	GIRLS RESTROOM
	AUTOMATIC DEFIBRILLATOR
	KNOX-BOX
	FIRE ALARM CONTROL PANEL
	FIRE ALARM INDICATOR PANEL
	ADA ENTRANCE ACCESS ENTRY
	BIKE RACK

Maire Elementary School

740 Cadieux
Grosse Pointe, MI 48230
313.432.4300



Ehresman Associates, Inc.
architects engineers
DATE: JULY 2010



2017 Facilities Assessment



Smith Boilers



Art Room Cabinet Heater and
Casework



Typical Classroom



First Level Corridor



2017 Facilities Assessment



Corridor Classroom Door



Older Emergency Lighting



Older Exit Signage



Third Floor Media Center



2017 Facilities Assessment

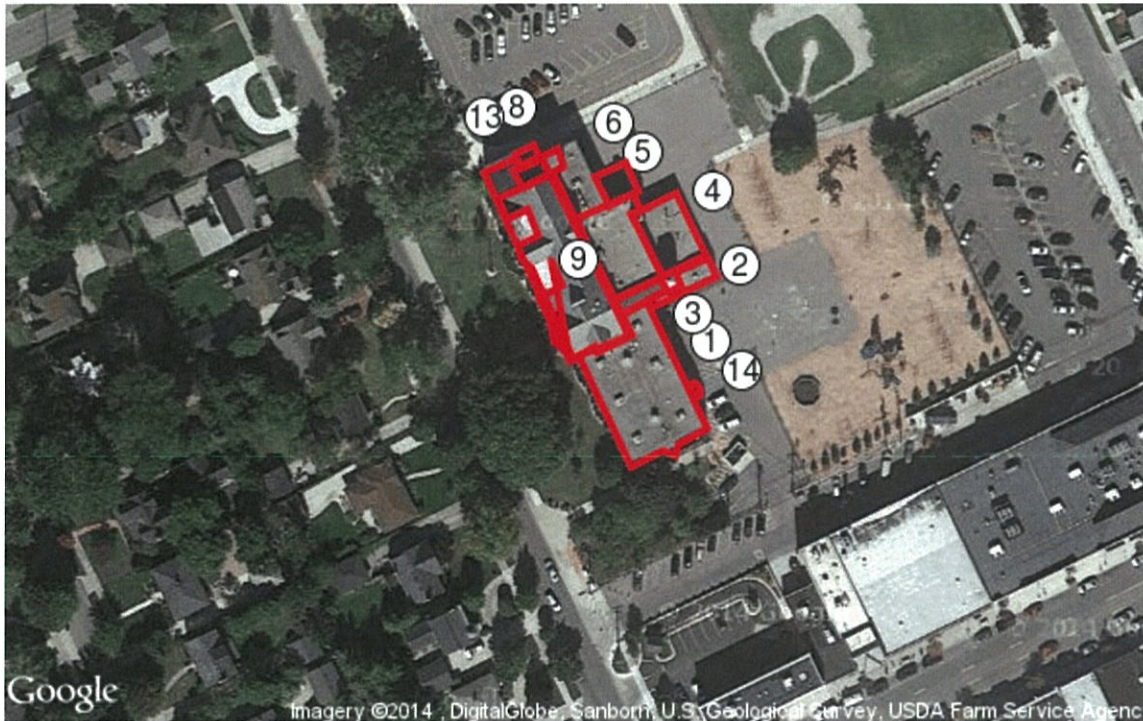


Maire Elementary School

**50,200 s.f.
4.9 Acres**



2017 Facilities Assessment



Total Sections: 11
Total Sq/Ft: 19,932

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	6,026	1997	C
2	Section 2-B	581	2002	C
3	Section 3-C	401	2006	C
4	Section 4-D	1,836	2002	C
5	Section 5-E	2,706	2002	C
6	Section 6-F	591	2002	C
7	Section 7-G	1,367	2002	C
8	Section 8-H	507	2002	D
9	Section 9-I,10-J,11-K,12-L	5,714	1950	C
13	Section 13-M	148	1998	C
14	Section 14-N	54	1980	C

Maire Elementary School Roof Information – JD Candler Report dated 1-20-16

Summary of Costs
Maire ES

Maire Elementary School 50,200 s.f. 3-story Building Built: 1935								Cost Data				Cost Escalation Factors			
								Specification Factor =	1.00	(Medium)					
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
Draft 6-28-17								Ranked Capital Priorities							
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other				
1	1.0 SITE														
2															
3	Paving														
4	Replace Asphalt Parking Lot (65 spaces) 2010	37,585	1	37,585	\$3.50	\$136,809	2.36%				\$187,429				
5	Window Lintel Repairs (61 windows)	61	1	61	\$250.00	\$15,860	0.27%	\$15,860							
6	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$6,500.00	\$6,760	13.00%	\$6,760							
7															
8	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.45%				\$35,620				
9															
10	SITE SUBTOTAL					\$185,429	3.20%	\$22,620	\$0	\$223,049	\$0				
11															
12	2.0 BUILDING ENVELOPE														
13															
14															
15	Roofing Work - J.D. Candler Report														
16	Replace Roof (Slate, installed 1950, grade C) - Repair	5,714	1	5,714	\$3.00	\$17,828	0.31%		\$21,750						
17	Replace Roof (BUR, installed 1997, grade C)	6,026	1	6,026	\$8.00	\$50,136	0.86%		\$61,166						
18	Replace Roof (EPDM, installed 1998, grade C)	148	1	148	\$8.00	\$1,231	0.02%		\$1,502						
19	Replace Roof (BUR, installed 2002, grade C)	581	1	581	\$8.00	\$4,834	0.08%		\$5,897						
20	Replace Roof (BUR, installed 2002, grade C)	1,836	1	1,836	\$8.00	\$15,276	0.26%		\$18,636						
21	Replace Roof (BUR, installed 2002, grade C)	2,706	1	2,706	\$8.00	\$22,514	0.39%		\$27,467						
22	Replace Roof (BUR, installed 2002, grade C)	591	1	591	\$8.00	\$4,917	0.08%		\$5,999						
23	Replace Roof (BUR, installed 2002, grade C)	1,367	1	1,367	\$8.00	\$11,373	0.20%		\$13,876						
24	Replace Roof (BUR, installed 2002, grade D)	507	1	507	\$8.00	\$4,218	0.07%	\$4,218							
25	Replace Roof (? , installed ? , grade ?)	1,603	1	1,603	\$8.00	\$13,337	0.23%		\$16,271						
26	Replace Roof (BUR, installed 2006, grade C)	401	1	401	\$8.00	\$3,336	0.06%		\$4,070						
27															
28	Patching / Curbs for new M/E Work	1	1	1	\$25,000.00	\$26,000	0.45%		\$31,720						
29	Mechanical Room Waterproofing	1	1	1	\$25,000.00	\$26,000	0.45%	\$26,000							
30															
31	BUILDING ENVELOPE SUBTOTAL					\$201,001	3.47%	\$30,218	\$208,355	\$0	\$0				
32															
33	3.0 INTERIOR/FINISHES														
34															
35	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	1.79%	\$104,000							
36	Renovate Existing Toilet Rooms	4	1	4	\$80,000.00	\$332,800	5.74%	\$332,800							
37	Doors & Hardware														
38	Replace Corridor Doors & HDW	52	1	52	\$1,750.00	\$94,640	2.01%	\$94,640							
39	Replace Interior Room Doors and Hdw	30	1	30	\$1,750.00	\$54,600	1.16%	\$54,600							
40															
41	Flooring														
42	Classrooms (CPT)	700	16	11,200	\$4.50	\$52,416	0.90%		\$63,948						
43	Corridor (CPT)	3,000	1	3,000	\$4.50	\$14,040	0.24%		\$17,129						
44	Media Center (CPT)	2,560	1	2,560	\$4.50	\$11,981	0.21%		\$14,617						
45	Art (VCT)	900	1	900	\$4.50	\$4,212	0.07%		\$5,139						
46	Band/Music (CPT)	1,080	1	1,080	\$4.50	\$5,054	0.09%		\$6,166						
47	Offices (CPT)	1,200	1	1,200	\$4.50	\$5,616	0.10%		\$6,852						
48															
49	Install Lay-in Tile Ceilings at Corridor	5,200	1	5,200	\$4.00	\$21,632	0.37%	\$21,632							
50	Install Lay-in Ceilings (7 CR's, Art, Music, Library)	700	12	8,400	\$4.00	\$34,944	0.60%	\$34,944							
51	Paint Areas Disturbed by Construction	25,000	1	25,000	\$1.00	\$26,000	0.45%		\$31,720						
52															
53	Window treatment	1	1	1	\$25,000.00	\$26,000	0.45%	\$26,000							
54															
55	Casework														
56	Replace Kitchen Casework (lowers)	16	1	16	\$300.00	\$4,992	0.09%		\$6,090						
57	Replace Kitchen Casework (uppers)	16	1	16	\$200.00	\$3,328	0.06%		\$4,060						
58	Replace Art Room Casework (lower)	6	1	6	\$300.00	\$1,872	0.03%		\$2,284						
59															
60	INTERIOR/FINISHES SUBTOTAL					\$798,127	13.77%	\$668,616	\$158,004	\$0	\$0				
61															
62	4.0 PLUMBING SYSTEMS														
63															
64	Horizontal HW/CW Piping Replacement (mains only)	50,200	1	50,200	\$4.00	\$208,832	3.60%				\$286,100				
65	Sanitary & Storm Drain Replacement (mains only)	50,200	1	50,200	\$3.00	\$156,624	2.70%				\$214,575				
66	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	1.79%				\$142,480				
67	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	0.90%				\$71,240				
68															
69	Replace hot water heater	1	1	1	\$5,000.00	\$5,200	0.09%		\$6,344						
70	50 gal														
71	Plumbing Fixtures														
72	Art Room Sinks	1	1	1	\$1,000.00	\$1,040	0.02%		\$1,269						
73	Replace Drinking Fountains	4	1	4	\$2,000.00	\$8,320	0.14%		\$10,150						
74															
75	PLUMBING SYSTEMS SUBTOTAL					\$536,016	9.25%	\$0	\$17,763	\$714,395	\$0				

\$6,750,001



2017 Facilities Assessment



Mason Elementary School K-5

1640 Vernier, Grosse Pointe Woods, Michigan

Building Age: 89 years

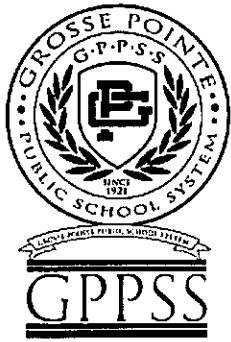
Square Footage: 45,020 s.f.

Acres: 7.3

Students: 294

Capacity: 450 (65% Utilization)

Mason Elementary School is a 45,020 s.f brick clad 3-story English Gothic style building which opened in its doors in 1928. It was named after Steven Thomson Mason, Michigan's first governor in 1835. The building contains Pewabic tile fireplaces and coffered ceilings in the gymnasium. The school is situated on a little over 7 acres of land. Students attending Mason will attend Parcels Middle School and North High School.



2017 Facilities Assessment

Site:

The 72 car asphalt parking lot is 19 years old requires immediate attention. The dumpster should have a concrete pad. The playground equipment is newer and appear to be in good shape. The fire escape serving the upper level should be removed and replaced.

Roofing:

The built-up roof areas range in age from 22, 18, and 18 years old and will require replacement in the near future. A portion of the roof is slate which will require minor repair, not replacement.

HVAC:

The (2) steam boilers servicing the building are 19 years old. The current system should be replaced with a more energy efficient hydronic system due to the current air delivery system being open tunnel and room dampers. The gym air handling unit should also be replaced due to age.

Electrical:

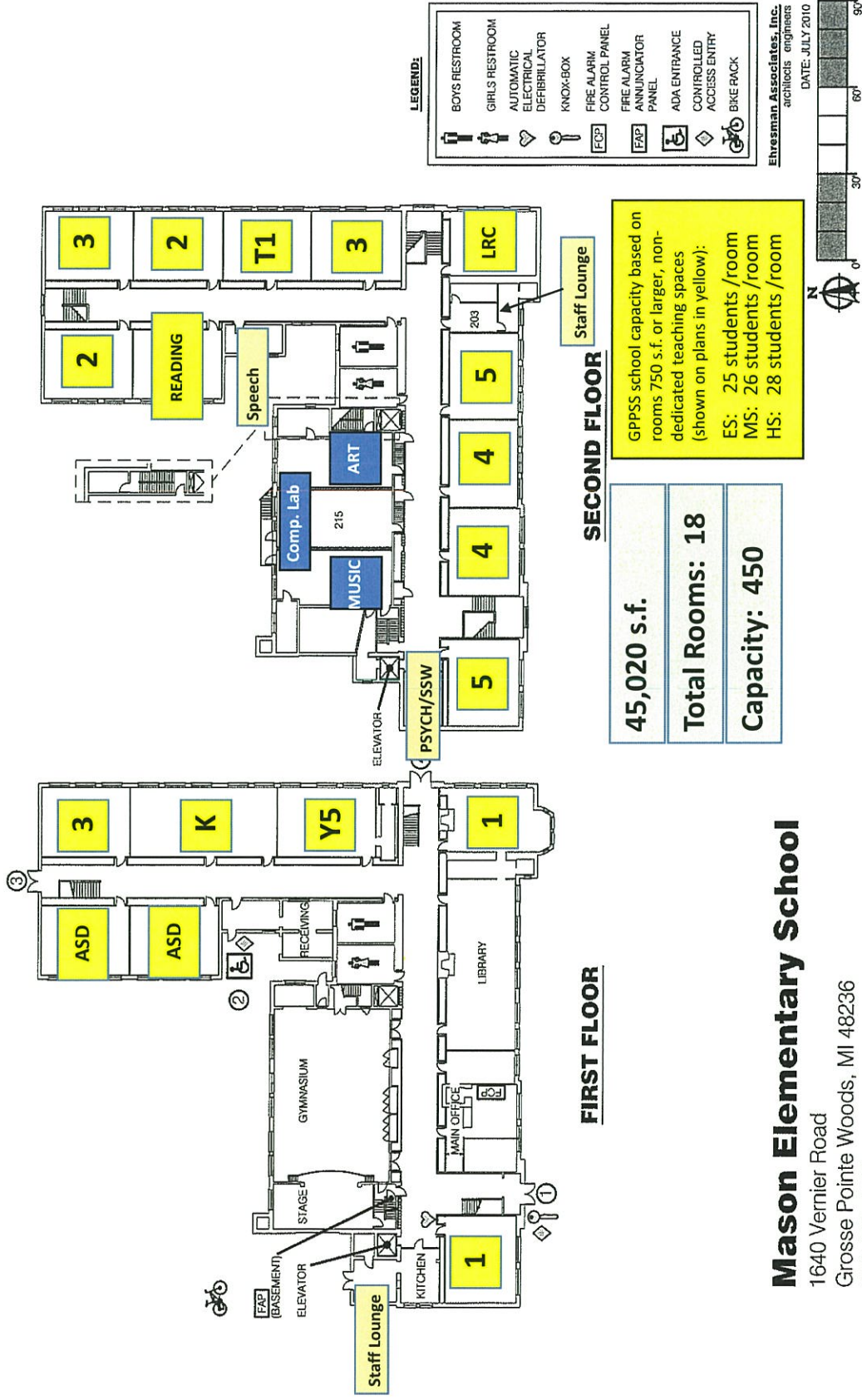
It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. It is recommended to replace the existing 89 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The furniture should be replaced due to age and wear. Several areas have carpet flooring which should be replaced due to wear. The kitchen cabinets should be replaced due to age and wear.



Mason Elementary School

1640 Vernier Road
Grosse Pointe Woods, MI 48236
313.432.4400



2017 Facilities Assessment



Weil-McLain Boilers



Classroom Lighting



First Level Corridor



Second Level Corridor



2017 Facilities Assessment



Staff Lounge – Older Cabinets



Computer Lab Lighting



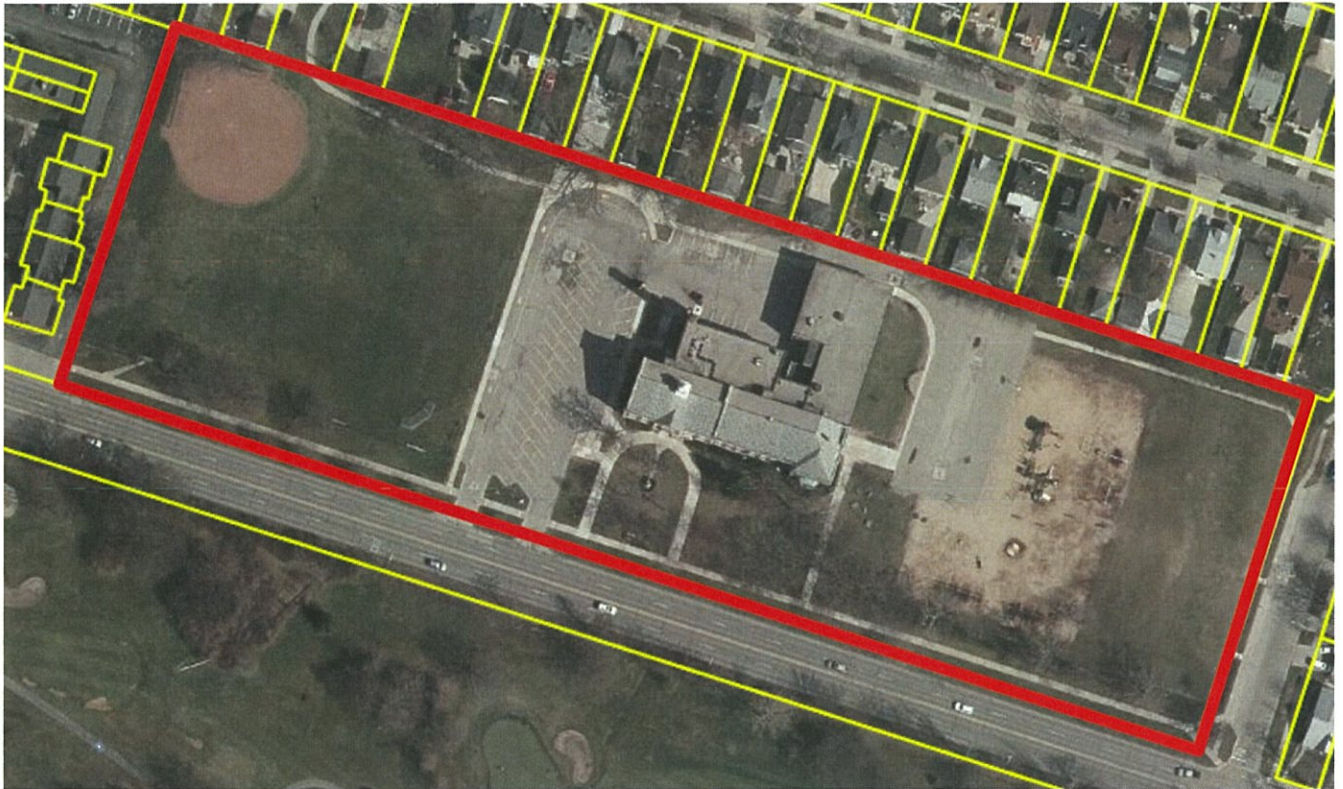
Parking Lot Cracks



Classroom Fireplace



2017 Facilities Assessment

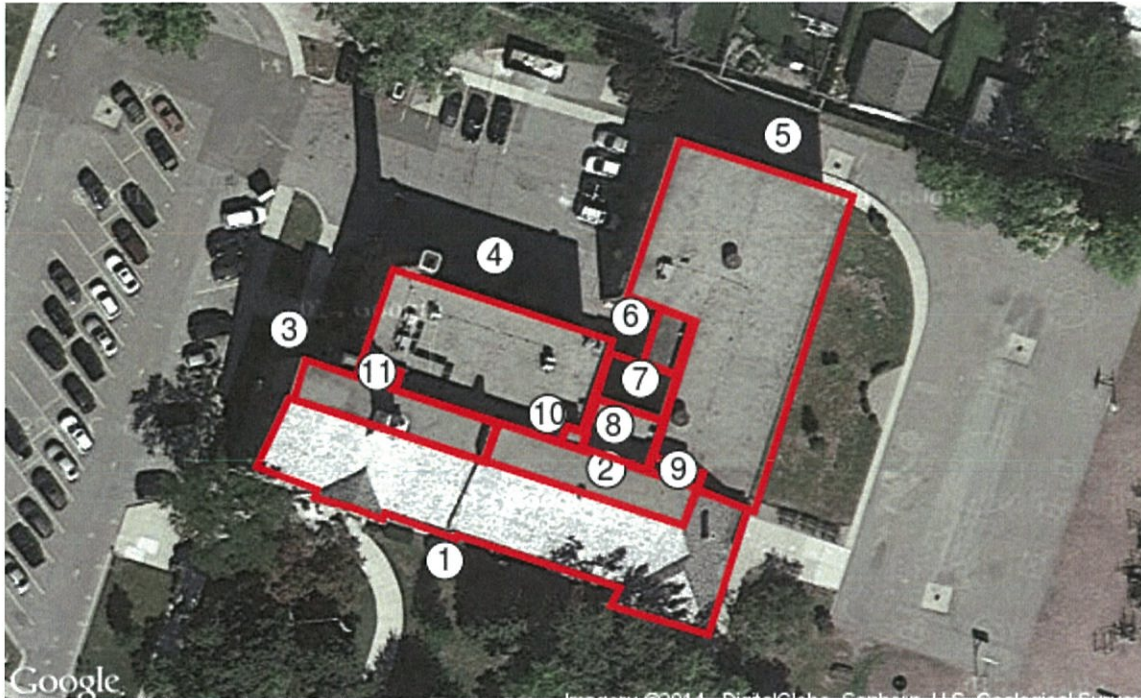


Mason Elementary School

**45,020 s.f.
7.3 Acres**



2017 Facilities Assessment



Total Sections: 11
Total Sq/Ft: 20,167

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	5,994	1950	C
2	Section 2-B	1,185	1999	B
3	Section 3-C	1,173	1999	B
4	Section 4-D	3,573	2006	B
5	Section 5-E	6,748	2006	C
6	Section 6-F	270	1995	C
7	Section 7-G	474	1995	C
8	Section 8-H	494	2006	C
9	Section 9-I	106	2006	C
10	Section 10-J	52	1999	C
11	Section 11-K	98	1999	C

Summary of Costs
Mason ES

Mason Elementary School 45,020 s.f. 2-story Building Built: 1928								Cost Data				Cost Escalation Factors			
								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
								Ranked Capital Priorities							
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other				
1	1.0 SITE														
2															
3	Paving														
4	Replace Asphalt Parking Lot (72 spaces) 1998	34,400	1	34,400	\$3.50	\$125,216	2.39%	\$125,216							
5	19 years old														
6	Concrete dumpster pad	1	1	400	\$6.00	\$2,496	0.05%	\$2,496							
7															
8	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$10,000.00	\$10,400	0.20%	\$10,400							
9	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.50%				\$35,620				
10															
11	SITE SUBTOTAL					\$164,112	3.13%	\$138,112	\$0	\$35,620	\$0				
12															
13	2.0 BUILDING ENVELOPE														
14															
15	Roofing Work - J.D. Candler Report														
16	Replace Roof (Slate, installed 1950, Grade C) -Repair	5,994	1	5,994	\$3.00	\$18,701	0.36%		\$22,816						
17	Replace Roof (BUR, installed 1999, Grade B)	1,184	1	1,184	\$0.00	\$0	0.00%				\$0				
18	Replace Roof (BUR, installed 1999, Grade B)	1,173	1	1,173	\$0.00	\$0	0.00%				\$0				
19	Replace Roof (BUR, installed 1999, Grade C)	52	1	52	\$8.00	\$433	0.01%		\$528						
20	Replace Roof (BUR, installed 1999, Grade C)	98	1	98	\$8.00	\$815	0.02%		\$995						
21	Replace Roof (BUR, installed 1995, Grade C)	474	1	474	\$8.00	\$3,944	0.08%		\$4,811						
22	Replace Roof (BUR, installed 1995, Grade C)	270	1	270	\$8.00	\$2,246	0.04%		\$2,741						
23	Replace Roof (BUR, installed 2006, Grade B)	3,573	1	3,573	\$0.00	\$0	0.00%				\$0				
24	Replace Roof (BUR, installed 2006, Grade C)	6,748	1	6,748	\$8.00	\$56,143	1.07%		\$68,495						
25	Replace Roof (BUR, installed 2006, Grade C)	494	1	494	\$8.00	\$4,110	0.08%		\$5,014						
26	Replace Roof (BUR, installed 2006, Grade C)	106	1	106	\$8.00	\$882	0.02%		\$1,076						
27															
28	Patching / Curbs for new M/E Work	1	1	1	\$25,000.00	\$26,000	0.50%		\$31,720						
29															
30	Fire Escape	1	1	1	\$35,000.00	\$36,400	0.69%	\$36,400							
31															
32	Replace Windows (at stairwells)	2	1	2	\$7,500.00	\$15,600	0.30%	\$15,600							
33	BUILDING ENVELOPE SUBTOTAL					\$165,275	3.15%	\$52,000	\$138,195	\$0	\$0				
34															
35	3.0 INTERIOR/FINISHES														
36															
37	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	1.98%	\$104,000							
38	Replace Corridor Doors & HDW	40	1	40	\$1,750.00	\$72,800	1.39%	\$72,800							
39	Replace Interior Room Doors and Hdw	18	1	18	\$1,750.00	\$32,760	0.62%	\$32,760							
40															
41	Ceilings														
42	Install Lay-in Tile Ceilings at Corridor	5,200	1	5,200	\$4.00	\$21,632	0.41%	\$21,632							
43	Install Lay-in Ceilings (16 CR's)	700	16	11,200	\$4.00	\$46,592	0.89%	\$46,592							
44	Install Lay-in Ceilings Music Room	900	16	14,400	\$4.00	\$59,904	1.14%	\$59,904							
45	Install Lay-in Ceilings Comp. Lab	900	16	14,400	\$4.00	\$59,904	1.14%	\$59,904							
46	Install Lay-in Ceilings Library	1,500	16	24,000	\$4.00	\$99,840	1.90%	\$99,840							
47	Flooring														
48	Classrooms (Carpet)	750	14	10,500	\$4.50	\$49,140	0.94%		\$59,951						
49	Classrooms (VCT)	750	7	5,250	\$4.50	\$24,570	0.47%		\$29,975						
50	Corridors (VCT)	1	1	5,000	\$4.50	\$23,400	0.45%		\$28,548						
51															
52	Paint Areas Disturbed by Construction	20,000	1	20,000	\$1.00	\$20,800	0.40%		\$25,376						
53															
54	Casework														
55	Replace Kitchen cabinets (lowers)	6	1	6	\$250.00	\$1,560	0.03%		\$1,903						
56	Replace Kitchen cabinets (uppers)	6	1	6	\$150.00	\$936	0.02%		\$1,142						
57															
58	INTERIOR/FINISHES SUBTOTAL					\$617,838	11.78%	\$497,432	\$146,895	\$0	\$0				
59	4.0 PLUMBING SYSTEMS														
60	Horizontal HW/CW Piping Replacement (mains only)	45,020	1	45,020	\$4.00	\$187,283	3.57%				\$256,578				
61	Sanitary & Storm Drain Replacement (mains only)	45,020	1	45,020	\$3.00	\$140,462	2.68%				\$192,433				
62							0.00%								
63	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	0.99%				\$71,240				
64															
65	PLUMBING SYSTEMS SUBTOTAL					\$379,746	7.24%	\$0	\$0	\$520,251	\$0				

Summary of Costs

Mason ES

Mason Elementary School 45,020 s.f. 2-story Building Built: 1928							Cost Data						
							Specification Factor =	1.00	(Medium)				
							Geographic Factor =	1.00	(US Median)				
							Cost Escalation Factor =	1.04	Spring 2017				
							1.04	1.22	1.37	1.04			
							Ranked Capital Priorities						
Line	Draft 6-28-17	Area Required	No. of Rms. / Units	Total Area	Base Unit	Effective Program Area	As % of Total	Critical Needs	Deferrable Maintenance	Property Enhancement	Other		
No.	Program Area	(in Sq. Ft.)	Required	(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)			
66													
67	5.0 HVAC SYSTEMS												
68													
69	Heating												
70	Steam Boilers (Age 19 yrs, Weil McLien 1998)	2	1	2	\$125,000.00	\$260,000	4.96%	\$260,000					
71	Assoc. equip., comb. Air, emerg. Gas stops												
72													
73													
74													
75													
76	New Hydronic System	40,000	1	40,000	\$18.00	\$748,800	14.27%	\$748,800					
77	Current - (2) open tunnels, one warm air, one return air												
78	Unit vent at rooms with A/C for 24 rooms												
79	New Air handler at Gym	1	1	1	\$100,000.00	\$104,000	1.98%	\$104,000					
80													
81													
82	Ventilation												
83	Replace Kitchen Exhaust Fan (No ansul or make up air	1	1	1	\$30,000.00	\$31,200	7.21%	\$31,200					
84	or potential other code update requirements)												
85	Air and Water Balance	45,020	1	45,020	\$0.10	\$4,682	0.09%	\$4,682					
86	Commissioning	45,020	1	45,020	\$0.15	\$7,023	0.13%	\$7,023					
87													
88	Temperature Controls	45,020	1	45,020	\$2.50	\$117,052	2.23%	\$117,052					
89													
90	HVAC SYSTEMS SUBTOTAL					\$1,272,757	24.26%	\$1,272,757	\$0	\$0	\$0		
91													
92	6.0 ELECTRICAL SYSTEMS												
93													
94	Power for new HVAC	1	1	1	\$50,000.00	\$52,000	0.99%	\$52,000					
95													
96	Lighting												
97	Replace Corridor Ltg w/ LED's (New OS, Switching, etc.)	5,200	1	5,200	\$2.00	\$10,816	0.21%	\$10,816					
98	Replace Ltg with LED's (16 rooms w/stem mtd fixt)	16	1	16	\$3,200.00	\$53,248	1.01%	\$53,248					
99	Replace Ltg with LED's - Music (stem mtd fixt)	1	1	1	\$4,000.00	\$4,160	0.08%	\$4,160					
100	Replace Ltg with LED's - Art (stem mtd fixt)	1	1	1	\$4,000.00	\$4,160	0.08%	\$4,160					
101	Replace Ltg with LED's - Library (stem mtd fixt)	1	1	1	\$5,000.00	\$5,200	0.10%	\$5,200					
102	Replace exterior building lights	45,020	1	45,020	\$0.25	\$11,705	0.22%	\$11,705					
103	Replace all emergency and exit lights	45,020	1	45,020	\$0.25	\$11,705	0.22%	\$11,705					
104	Add Occupancy Sensors	21	1	21	\$500.00	\$10,920	0.21%	\$10,920					
105	Add electrical upgrade for IT (classrooms)	21	1	21	\$5,000.00	\$109,200	2.08%	\$109,200					
106	Add Generator	1	1	1	\$100,000.00	\$104,000	1.98%	\$104,000		\$142,480			
107	ELECTRICAL SYSTEMS SUBTOTAL					\$377,114	7.19%	\$273,114	\$0	\$142,480	\$0		
108													
109	7.0 SECURITY (Wright & Hunter)												
110	Door Access System	1	1	1	\$25,000.00	\$26,000	8.82%	\$26,000					
111	Surveillance System	1	1	1	\$22,000.00	\$22,880	7.76%	\$22,880					
112													
113	SECURITY SYSTEMS SUBTOTAL					\$48,880	0.93%	\$48,880	\$0	\$0	\$0		
114													
115	8.0 NOT USED												
116	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0		
117													
118	9.0 FURNITURE & EQUIPMENT												
119	Classroom furniture	15	1	15	\$12,000.00	\$187,200	3.57%			\$256,464			
120	Computer Lab Furniture	2	1	2	\$15,000.00	\$31,200	0.59%			\$42,744			
121	Media Center Furniture	1	1	1	\$50,000.00	\$52,000	0.99%			\$71,240			
122													
123	FURNITURE & EQUIPMENT SUBTOTAL					\$270,400	5.15%	\$0	\$0	\$370,448	\$0		
124													
125	10.0 TECHNOLOGY (Wright & Hunter)												
126	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$416,000.00	\$432,640	8.25%	\$432,640					
127	Network Cabling	1	1	1	\$200,000.00	\$208,000	3.96%	\$208,000					
128	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	4.36%	\$228,800					
129	Telephone System	1	1	1	\$57,600.00	\$59,904	1.14%	\$59,904					
130	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.50%	\$26,000					
131	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.79%	\$41,600					
132													
133	TECHNOLOGY SUBTOTAL					\$996,944	19.00%	\$996,944	\$0	\$0	\$0		
134													
135	Building Infrastructure Improvement Total:				45,020	\$95.36	\$4,293,066	81.83%	\$3,279,240	\$285,090	\$1,068,799	\$0	
136	Project Contingency:						\$302,572	5.77%	\$228,230	\$28,509	\$69,835	\$0	
137	Permits, Testing & Printing:						\$83,207	1.59%	\$62,763	\$7,840	\$19,205	\$0	
138	Construction Manager Fee and Costs:						\$272,920	5.20%	\$205,863	\$25,715	\$62,991	\$0	
139	Professional Fees & Costs:						\$294,754	5.62%	\$222,332	\$27,772	\$68,031	\$0	
140	PROJECT TOTAL					\$5,246,519	100.00%	\$3,998,427	\$374,927	\$1,288,861	\$0	\$5,662,216	



2017 Facilities Assessment



Monteith Elementary School K-5

1275 Cook, Grosse Pointe Woods, Michigan

Building Age: 66 years

Square Footage: 63,239 s.f.

Acres: 9.35

Students: 444

Capacity: 625 (71% Utilization)

Montieth Elementary School is a 63,239 s.f brick clad 2-story building which opened in its doors in 1951. The building sits on the largest elementary parcel of land in the GPPSS. Montieth students will attend Brownell Middle School and South High School.



2017 Facilities Assessment

Site:

The 125 car asphalt parking lot is good overall condition (replaced 2014/2015). The playground equipment is newer and appear to be in good shape. There are 3 ball fields and a hard surface play area.

Roofing:

The built-up roof areas range in age from 30 and 12 years old and will require replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 22 years old and will need replacement or significant reconditioning in the next 5 to 10 years. Some rooms are not air conditioned. The existing air handling units are original and should be replaced.

Electrical:

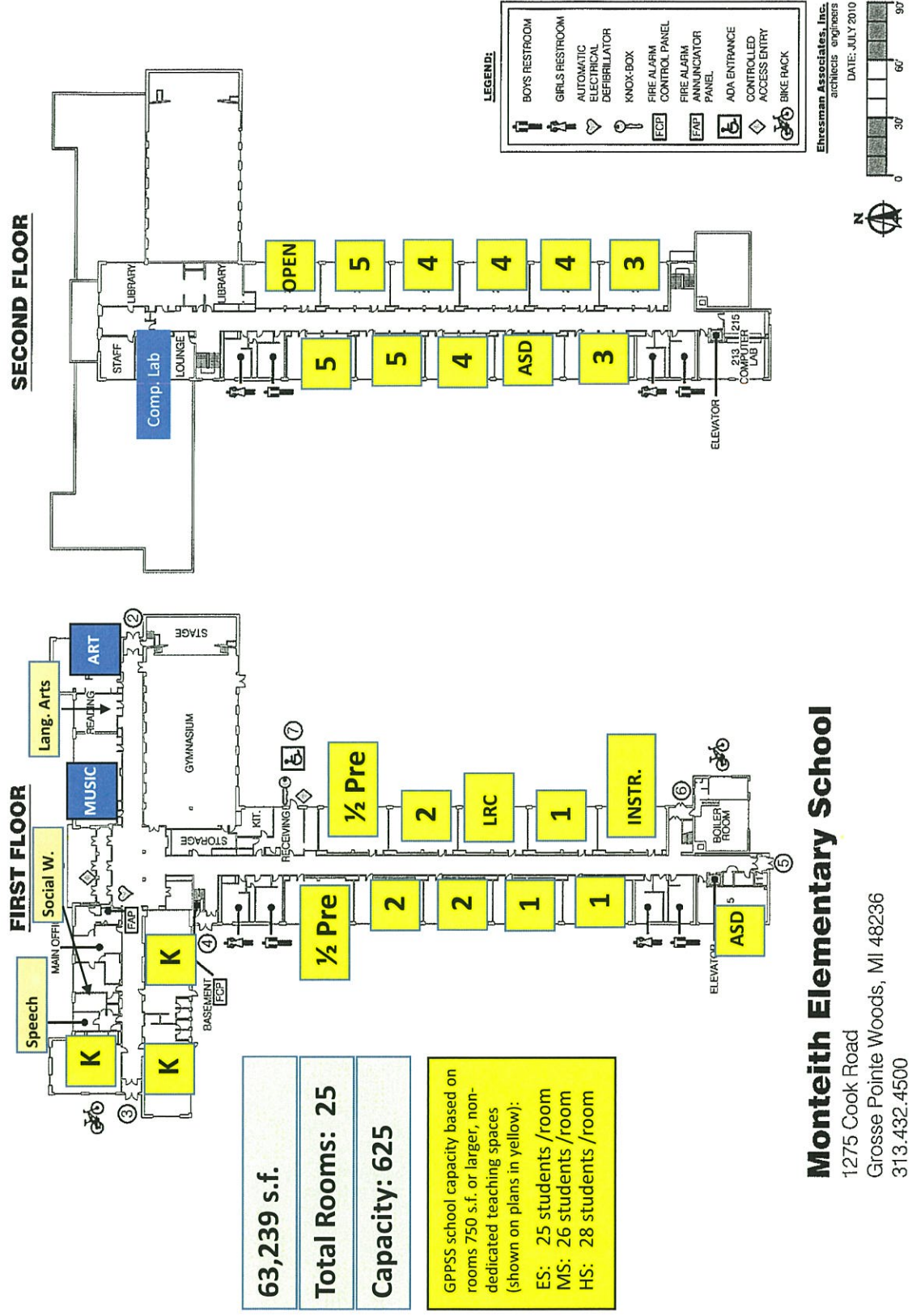
It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. It is recommended to replace the existing 66 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The furniture should be replaced due to age and wear. Several areas have carpet flooring which should be replaced due to wear. The kitchen cabinets should be renovated due to age. A majority of the classrooms have poor cabinetry that should be replaced.

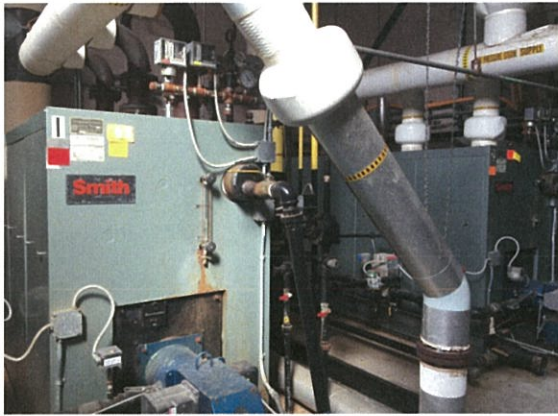


63,239 s.f.
Total Rooms: 25
Capacity: 625
<p>GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):</p> <p>ES: 25 students /room MS: 26 students /room HS: 28 students /room</p>

Monteith Elementary School
1275 Cook Road
Grosse Pointe Woods, MI 48236
313.432.4500



2017 Facilities Assessment



Smith Boilers



Typical Toilet Room



Damaged Classroom Casework



Classroom Sink & Casework



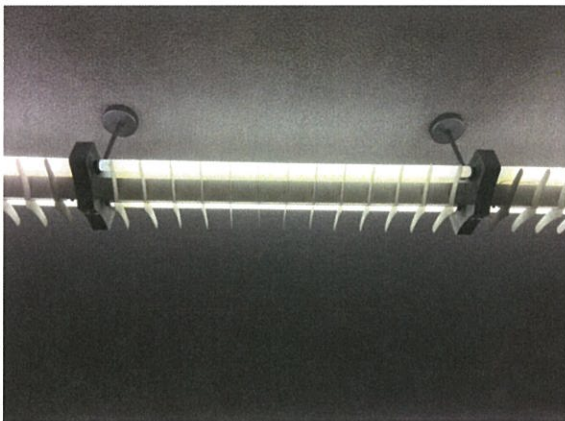
2017 Facilities Assessment



First Level Corridor



Second Level Corridor



Typical Stem Mounted Fluorescent
Lighting Fixtures



Media Center



2017 Facilities Assessment

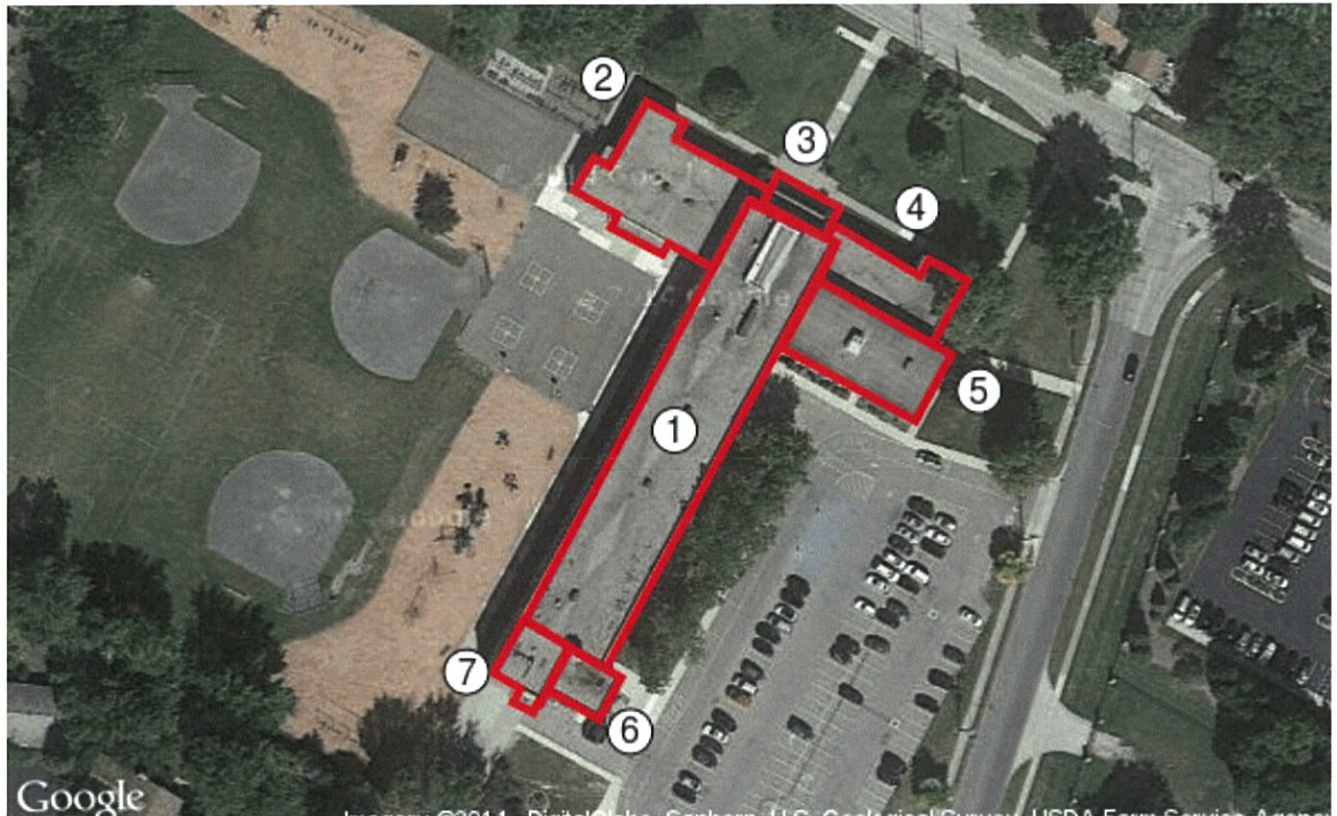


Monteith Elementary School

**63,239 s.f.
9.35 Acres**



2017 Facilities Assessment



Total Sections: 7

Total Sq/Ft: 37,482

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	18,991	2005	B
2	Section 2-B	6,563	2005	C
3	Section 3-C,H,J entrance canopies	970	2005	D
4	Section 4-D	3,395	2005	C
5	Section 5-E	4,825	2005	C
6	Section 6-F	1,192	1987	C
7	Section 7-I	1,546	2005	C

Summary of Costs
Monteith ES

Monteith Elementary School								Cost Data							
63,239 s.f. 2-story Building								Specification Factor = 1.00 (Medium)							
Built: 1951								Geographic Factor = 1.00 (US Median)							
								Cost Escalation Factor = 1.04 Spring 2017			Cost Escalation Factors 1.04 1.22 1.37 1.04				
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities							
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other				
1	1.0 SITE														
2	126 parking spaces - lot in good condition, 2005/2014														
3															
4	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$10,500.00	\$10,920	0.16%	\$10,920							
5	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.38%				\$35,620				
6															
7	SITE SUBTOTAL							\$36,920	0.53%	\$10,920	\$0	\$35,620	\$0		
8															
9	2.0 BUILDING ENVELOPE														
10															
11	Roofing Work - J.D. Candler Report														
12	Replace Roof (BUR, installed 1987, Grade C)	1,192	1	1,192	\$8.00	\$9,917	0.14%			\$12,099					
13	Replace Roof (BUR, installed 2005, Grade B)	18,991	1	18,991	\$0.00	\$0	0.00%					\$0			
14	Replace Roof (BUR, installed 2005, Grade C)	6,563	1	6,563	\$8.00	\$54,604	0.79%			\$66,617					
15	Replace Roof (BUR, installed 2005, Grade D)	969	1	969	\$8.00	\$8,062	0.12%	\$8,062							
16	Replace Roof (BUR, installed 2005, Grade C)	3,395	1	3,395	\$8.00	\$28,246	0.41%			\$34,461					
17	Replace Roof (BUR, installed 2005, Grade C)	4,825	1	4,825	\$8.00	\$40,144	0.58%			\$48,976					
18	Replace Roof (BUR, installed 2005, Grade C)	1,546	1	1,546	\$8.00	\$12,863	0.19%			\$15,693					
19	Patching / Curbs for new M/E Work	1	1	1	\$25,000.00	\$26,000	0.38%			\$31,720					
20															
21	BUILDING ENVELOPE SUBTOTAL							\$179,837	2.60%	\$8,062	\$209,565	\$0	\$0		
22															
23	3.0 INTERIOR/FINISHES														
24	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	1.50%	\$104,000							
25	Replace Corridor Doors & HDW	76	1	76	\$1,750.00	\$138,320	0.00%	\$138,320							
26	Replace Interior Room Doors and Hdw	15	1	15	\$1,750.00	\$27,300	0.00%	\$27,300							
27															
28															
29	Ceilings														
30	Install Lay-in Tile Ceilings at Corridor	8,000	1	8,000	\$4.00	\$33,280	0.00%	\$33,280							
31	Install Lay-in Tile Ceilings at Classrooms	700	1	700	\$4.00	\$2,912	0.00%	\$2,912							
32	Install Lay-in Tile Ceilings at Library	1,200	1	1,200	\$4.00	\$4,992	0.00%	\$4,992							
33															
34															
35	Music Room (Carpet)	1,000	1	1,000	\$4.50	\$4,680	0.07%				\$6,412				
36	Classrooms (VCT)	750	25	18,750	\$4.50	\$87,750	1.27%				\$120,218				
37	Corridors (VCT)	8,000	1	8,000	\$4.50	\$37,440	0.54%				\$51,293				
38															
39	Paint Areas Disturbed by Construction	30,000	1	30,000	\$1.00	\$31,200	0.45%	\$31,200							
40															
41	Casework														
42	Replace Classroom cabinets and cabinet doors	20	1	20	\$20,000.00	\$416,000	6.02%	\$416,000							
43															
44	Kitchen renovation	1	1	1	\$50,000.00	\$52,000	0.75%	\$52,000							
45	INTERIOR/FINISHES SUBTOTAL							\$939,874	13.60%	\$810,004	\$0	\$177,922	\$0		
46	4.0 PLUMBING SYSTEMS														
47	Horizontal HW/CW Piping Replacement (mains only)	63,239	1	63,239	\$4.00	\$263,074	3.81%				\$360,412				
48	Sanitary & Storm Drain Replacement (mains only)	63,239	1	63,239	\$3.00	\$197,306	2.86%				\$270,309				
49	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	1.50%				\$142,480				
50	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	0.75%				\$71,240				
51															
52	PLUMBING SYSTEMS SUBTOTAL							\$616,380	8.92%	\$0	\$0	\$844,440	\$0		
53															
54	5.0 HVAC SYSTEMS														
55	Heating														
56	Steam Boilers (Age 22 yrs, Smith 1995)	2	1	2	\$125,000.00	\$260,000	3.76%	\$260,000							
57	Assoc. equip., comb. Air, emerg. Gas stops														
58	Replace Steam Heating System Valves	1	1	1	\$40,000.00	\$41,600	0.60%	\$41,600							
59															
60	Replace Gym Air Handler	1	1	1	\$100,000.00	\$104,000	1.50%	\$104,000							
61	Replace Classroom Air Handlers (3 major units) less gym	59,000	1	59,000	\$15.00	\$920,400	0.00%	\$920,400							
62	Air conditioning - DX	30	1	30	\$7,500.00	\$234,000	3.39%	\$234,000							
63	Replace Library split system Air conditioning - DX	1	1	1	\$10,000.00	\$10,400	0.15%	\$10,400							
64	Ventilation														
65	Replace Exhaust Fans- Toilet Rooms	1	1	1	\$10,000.00	\$10,400	0.15%	\$10,400							
66	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.45%	\$31,200							
67															
68	Air and Water Balance	63,239	1	63,239	\$0.10	\$6,577	0.10%	\$6,577							
69	Commissioning	63,239	1	63,239	\$0.15	\$9,865	0.14%	\$9,865							
70															
71	Temperature Controls	63,239	1	63,239	\$2.50	\$164,421	2.38%	\$164,421							
72	HVAC SYSTEMS SUBTOTAL							\$1,792,864	25.94%	\$1,792,864	\$0	\$0	\$0		

Summary of Costs
Monteith ES

Monteith Elementary School 63,239 s.f. 2-story Building Built: 1951					Cost Data Specification Factor = 1.00 (Medium) Geographic Factor = 1.00 (US Median) Cost Escalation Factor = 1.04 Spring 2017			Cost Escalation Factors 1.04 1.22 1.37 1.04			
Draft 6-28-17								Ranked Capital Priorities			
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
73											
74	6.0 ELECTRICAL SYSTEMS										
75	Power for new HVAC	1	1	1	\$50,000.00	\$52,000	0.75%	\$52,000			
76	Lighting										
77	Replace Ltg with LED's (16 rooms w/stem mtd fixt)	11	1	11	\$3,200.00	\$36,608	0.53%	\$36,608			
78	Replace Ltg with LED's (Library w/stem mtd fixt)	1	1	1	\$6,500.00	\$6,760	0.10%	\$6,760			
79	Replace Exist Classroom Ltg with LED's	19	1	19	\$1,200.00	\$23,712	0.34%	\$23,712			
80											
81	Replace exterior building lights	63,239	1	63,239	\$0.25	\$16,442	0.24%	\$16,442			
82	Replace all emergency and exit lights	63,239	1	63,239	\$0.25	\$16,442	0.24%	\$16,442			
	Add Occupancy Sensors	40	1	40	\$500.00	\$20,800	0.30%	\$20,800			
83	Add electrical upgrade for IT (classrooms)	28	1	28	\$5,000.00	\$145,600	2.11%	\$145,600			
84	Add Generator	1	1	1	\$100,000.00	\$104,000	1.50%			\$142,480	
85	ELECTRICAL SYSTEMS SUBTOTAL					\$422,364	6.11%	\$318,364	\$0	\$142,480	\$0
86											
87	7.0 SECURITY (Wright & Hunter)										
88	Door Access System	1	1	1	\$25,000.00	\$26,000	0.38%	\$26,000			
89	Surveillance System	1	1	1	\$32,000.00	\$33,280	0.48%	\$33,280			
90											
91	SECURITY SYSTEMS SUBTOTAL					\$59,280	0.86%	\$59,280	\$0	\$0	\$0
92											
93	8.0 NOT USED										
94	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
95											
96	9.0 FURNITURE & EQUIPMENT										
97	Classroom furniture	35	1	35	\$12,000.00	\$436,800	6.32%			\$598,416	
98	Computer Lab Furniture	2	1	2	\$15,000.00	\$31,200	0.45%			\$42,744	
99	Media Center Furniture	1	1	1	\$50,000.00	\$52,000	0.75%			\$71,240	
100	FURNITURE & EQUIPMENT SUBTOTAL					\$520,000	7.52%	\$0	\$0	\$712,400	\$0
101											
102	10.0 TECHNOLOGY (Wright & Hunter)										
103	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$605,000.00	\$629,200	9.11%	\$629,200			
104	Network Cabling	1	1	1	\$50,000.00	\$52,000	0.75%	\$52,000			
105	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	3.31%	\$228,800			
106	Telephone System	1	1	1	\$86,400.00	\$89,856	1.30%	\$89,856			
107	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.38%	\$26,000			
108	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.60%	\$41,600			
109	TECHNOLOGY SUBTOTAL					\$1,067,456	15.45%	\$1,067,456	\$0	\$0	\$0
110											
111	Building Infrastructure Improvement Total:										
112	Project Contingency:	10.00%	Of Building & Site Budget	63,239	\$89.11	\$5,634,975	81.54%	\$4,066,950	\$209,565	\$1,912,862	\$0
113	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$404,752	5.86%	\$299,949	\$20,957	\$120,046	\$0
114	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$111,307	1.61%	\$82,486	\$5,763	\$33,013	\$0
115	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$365,086	5.28%	\$270,554	\$18,903	\$108,282	\$0
116						\$394,293	5.71%	\$292,199	\$20,415	\$116,944	\$0
117	PROJECT TOTAL					\$6,910,412	100.00%	\$5,012,138	\$275,602	\$2,291,147	\$0
\$7,578,888											



2017 Facilities Assessment



Poupard Elementary School K-5

20655 Lennon, Harper Woods, Michigan

Building Age: 66 years

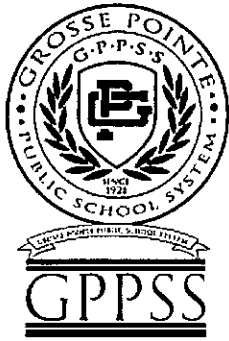
Square Footage: 61,973 s.f.

Acres: 6.48

Students: 297

Capacity: 550 (54% Utilization)

Poupard Elementary School is a 61,973 s.f brick clad 2-story building which opened in its doors in 1951. The building is at the North end of the GPPSS District located in Harper Woods. Poupard students will attend Parcels Middle School and North High School.



2017 Facilities Assessment

Site:

The 62 car asphalt parking lot is in o.k. condition but should be replaced in the next 4 to 6 years. There are 2 playground equipment areas and they appear to be in good shape. There is only one ball field and two hard surface play areas.

Roofing:

The built-up roof areas range in age from 21 and 15 years old and will require replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 20 years old and will need replacement or significant reconditioning in the next 5 to 10 years. A majority of the rooms are not air conditioned. The existing air handling units are original and should be replaced.

Electrical:

It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. It is recommended to replace the existing 66 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The furniture should be replaced due to age and wear. Several areas have carpet flooring which should be replaced due to wear. The kitchen should be renovated due to age. A majority of the classrooms have poor cabinetry that should be replaced.

61,973 s.f.

Total Rooms: 22

Capacity: 550

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):

ES:	25 students /room
MS:	26 students /room
HS:	28 students /room

MS: 26 students / room

HS: 28 students/room



Poupard Elementary School

20655 Lennon
Harper Woods, MI 48225
313.432.4800





2017 Facilities Assessment



1997 Boilers



Damaged Ceiling Tile Due To
Roof Leak



Site Signage



Parking Lot Requiring
Repair/Replacement



2017 Facilities Assessment



Carpeted Main Corridor



Entry Lobby, Older Exit Signage



Media Center – Older Furniture,
Carpet and Lighting



New Computer Lab Ceiling &
Lighting



2017 Facilities Assessment

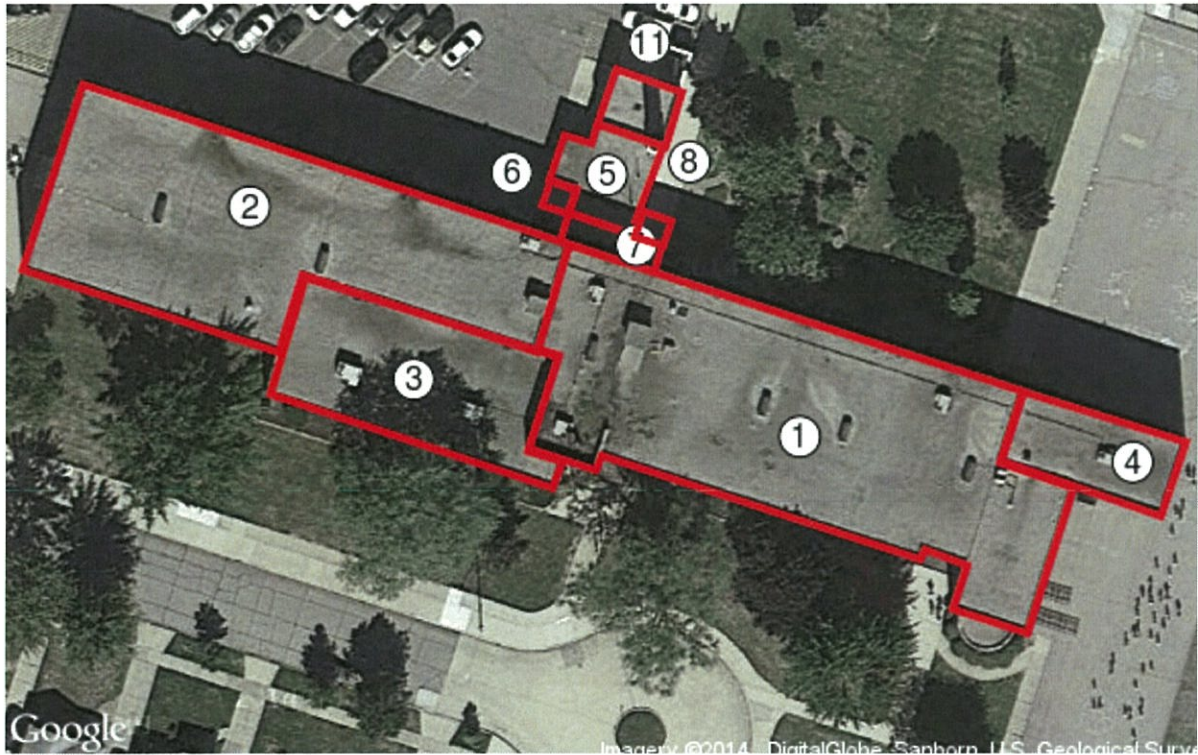


Poupard Elementary School

**61,973 s.f.
6.48 Acres**



2017 Facilities Assessment



Total Sections: 9
Total Sq/Ft: 30,912

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	12,742	1996	C
2	Section 2-B	9,944	1999	C
3	Section 3-C	4,213	1999	C
4	Section 4-D	1,605	1996	C
5	Section 5-E	955	2002	C
6	Section 6-F	89	2002	C
7	Section 7-G	356	2002	D
8	Section 8-H, 9-J, 10-K, 12-M	500	2002	D
11	Section 11-L	508	2006	B

Summary of Costs
Poupard ES

Poupard Elementary School 61,973 s.f. 2-story Building Built: 1951								Cost Data							
								Specification Factor =	1.00	(Medium)					
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
								1.04	1.22	1.37	1.04				
Line No.	Draft 6-28-17 Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities							
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other				
1	1.0 SITE														
2															
3	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$5,000.00	\$5,200	0.07%	\$5,200							
4															
5	Paving														
6	Replace Asphalt Parking Lot (62 spaces) 2010	29,800	1	29,800	\$3.50	\$108,472	1.56%		\$132,336						
7	Catch Basins	2	1	2	\$5,000.00	\$10,400	0.15%		\$12,688						
8	Replace Asphalt East Playground Lot	9,700	1	9,700	\$3.50	\$35,308	0.51%		\$43,076						
9	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.37%				\$35,620				
10															
11	SITE SUBTOTAL					\$185,380	2.67%	\$5,200	\$188,100	\$35,620			\$0		
12															
13	2.0 BUILDING ENVELOPE														
14															
15	Roofing Work - J.D. Candler Report														
16	Replace Roof (BUR, installed 1996, Grade D)	12,742	1	12,742	\$8.00	\$106,013	1.52%	\$106,013							
17	Replace Roof (BUR, installed 1996, Grade D)	1,605	1	1,605	\$8.00	\$13,354	0.19%	\$13,354							
18	Replace Roof (BUR, installed 1999, Grade D)	9,944	1	9,944	\$8.00	\$82,734	1.19%	\$82,734							
19	Replace Roof (BUR, installed 1999, Grade D)	4,213	1	4,213	\$8.00	\$35,052	0.50%	\$35,052							
20	Replace Roof (BUR, installed 2002, Grade C)	955	1	955	\$8.00	\$7,946	0.11%		\$9,694						
21	Replace Roof (BUR, installed 2002, Grade C)	89	1	89	\$8.00	\$740	0.01%		\$903						
22	Replace Roof (BUR, installed 2002, Grade D)	356	1	356	\$8.00	\$2,962	0.04%	\$2,962							
23	Replace Roof (BUR, installed 2002, Grade D)	500	1	500	\$8.00	\$4,160	0.06%	\$4,160							
24	Replace Roof (BUR, installed 2002, Grade B)	508	1	508	\$0.00	\$0	0.00%				\$0				
25															
26	Patching / Curbs for new M/E Work	1	1	1	\$25,000.00	\$26,000	0.37%	\$26,000							
27	Tuck-pointing at windows	86	1	86	\$250.00	\$22,360	0.00%	\$22,360							
28	Replace Windows	2,000	1	2,000	\$55.00	\$114,400	0.00%	\$114,400							
29	Doors														
30	Exterior Hollow Metal Doors / Frames / Hardware	11	1	11	\$2,500.00	\$28,600	0.41%		\$34,892						
31	Exterior Aluminum Doors / Frames / Hardware	6	1	6	\$3,500.00	\$21,840	0.31%		\$26,645						
32															
33	BUILDING ENVELOPE SUBTOTAL					\$466,161	6.70%	\$407,035	\$72,134	\$0			\$0		
34															
35	3.0 INTERIOR/FINISHES														
36															
37	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	1.50%				\$142,480				
38	Replace Corridor Doors & HDW	65	1	65	\$1,750.00	\$118,300	1.70%	\$118,300							
39	Replace Interior Room Doors and HdW	25	1	25	\$1,750.00	\$45,500	0.65%	\$45,500							
40															
41	Kitchen renovation	1	1	1	\$50,000.00	\$52,000	0.75%				\$71,240				
42															
43	Ceilings														
44	Install Ceiling in Media Center (currently 12x12 tiles)	900	1	900	\$4.00	\$3,744	0.05%	\$3,744							
45	Install Ceiling in Classrooms (currently 12x12 tiles)	750	26	19,500	\$4.00	\$81,120	1.17%	\$81,120							
46															
47	Flooring														
48	Classrooms (VCT)	700	26	18,200	\$4.00	\$75,712	1.09%				\$103,725				
49	Corridors (CPT)	2,900	1	2,900	\$4.00	\$12,064	0.17%		\$14,718						
50	Offices (CPT)	750	1	750	\$4.50	\$3,510	0.05%		\$4,282						
51															
52	Paint Areas Disturbed by Construction	61,973	1	61,973	\$1.00	\$64,452	0.93%		\$78,631						
53															
54	Window treatment	1	1	1	\$25,000.00	\$26,000	0.37%	\$26,000							
55															
56	Casework														
57	Replace classroom casework (lowers)	20	8	160	\$250.00	\$41,600	0.60%		\$50,752						
58															
59	INTERIOR/FINISHES SUBTOTAL					\$628,002	9.03%	\$274,664	\$148,384	\$317,445			\$0		
60															
61	4.0 PLUMBING SYSTEMS														
62															
63	Horizontal HW/CW Piping Replacement (mains only)	61,973	1	61,973	\$4.00	\$257,808	3.71%				\$353,197				
64	Sanitary & Storm Drain Replacement (mains only)	61,973	1	61,973	\$3.00	\$193,356	2.78%				\$264,897				
65	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	1.50%				\$142,480				
66	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	13.85%				\$71,240				
67	Hot water tank - 50 gal., 6 years old														
68	PLUMBING SYSTEMS SUBTOTAL					\$607,163	8.73%	\$0	\$0	\$831,814			\$0		

Summary of Costs

Poupard ES

Poupard Elementary School 61,973 s.f. 2-story Building Built: 1951					Cost Data						
					Specification Factor =	1.00	(Medium)				
					Geographic Factor =	1.00	(US Median)				
					Cost Escalation Factor =	1.04	Spring 2017	Cost Escalation Factors			
								1.04	1.22	1.37	1.04
								Ranked Capital Priorities			
Line		Area	No. of			Effective	As % of	Critical	Deferrable	Property	Other
No.	Program Area	(in Sq. Ft.)	Required	Total Area	Base Unit	Program Area	Total	Needs	Maintenance	Enhancement	
				(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)	
69											
70	<u>5.0 HVAC SYSTEMS</u>										
71											
72	Heating										
73	Steam Boilers (1997 Well McLain, age 20 yrs)	2	1	2	\$125,000.00	\$260,000	3.74%		\$317,200		
74	Assoc. equip., comb. Air, emerg. Gas stops										
75	Replace Steam Heating System Valves	1	1	1	\$40,000.00	\$41,600	10.05%	\$41,600			
76											
77											
78	New Air handler - Gym	1	1	1	\$100,000.00	\$104,000	1.50%	\$104,000			
79	Replace Classroom Air Handlers (3 major units) less gym	56,000	1	56,000	\$15.00	\$873,600	3360.00%	\$873,600			
80	Replace RTU's at Library, Staff Lounge, Sci, 207	3	1	3	\$10,000.00	\$31,200	0.45%	\$31,200			
81	Unit Ventilator in Library	1	1	1	\$20,000.00	\$20,800	0.30%	\$20,800			
82	Air conditioning (only 4-6 rooms have A/C)	28	1	28	\$7,500.00	\$218,400	3.14%	\$218,400			
83											
84	Ventilation										
85	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.45%	\$31,200			
86											
87	Transformer Room Ventilation	1	1	1	\$10,000.00	\$10,400	0.15%	\$10,400			
88											
89	Air and Water Balance	61,973	1	61,973	\$0.10	\$6,445	0.09%	\$6,445			
90	Commissioning	61,973	1	61,973	\$0.15	\$9,668	0.14%	\$9,668			
91	Temperature Controls	61,973	1	61,973	\$2.50	\$161,130	2.32%	\$161,130			
92											
93	HVAC SYSTEMS SUBTOTAL					\$1,768,443	25.43%	\$1,508,443	\$317,200	\$0	\$0
94											
95	<u>6.0 ELECTRICAL SYSTEMS</u>										
96											
97	Power for new HVAC	1	1	1	\$50,000.00	\$52,000	0.75%	\$52,000			
98											
99											
100	Lighting										
101	Replace Exist Classroom Ltg with LED's	8	1	8	\$1,200.00	\$9,984	2.66%	\$9,984			
102	Replace Ltg with LED's (21 rooms w/stem mtd fixt)	21	1	21	\$3,200.00	\$69,888	18.61%	\$69,888			
103	Replace Corridor Ltg w/ LED's (currently 2x4 floures)	8,000	1	8,000	\$2.00	\$16,640	4.43%	\$16,640			
104	Replace all emergency and exit lights	61,973	1	61,973	\$0.25	\$16,113	0.23%	\$16,113			
	Add Occupancy Sensors	29	1	29	\$500.00	\$15,080	0.22%	\$15,080			
105	Add electrical upgrade for IT (classrooms)	28	1	28	\$5,000.00	\$145,600	26.27%	\$145,600			
106	Add Generator	1	1	1	\$100,000.00	\$104,000	1.50%			\$142,480	
107	ELECTRICAL SYSTEMS SUBTOTAL					\$429,305	6.17%	\$325,305	\$0	\$142,480	\$0
108											
109	<u>7.0 SECURITY (Wright & Hunter)</u>										
110	Door Access System	1	1	1	\$25,000.00	\$26,000	0.37%	\$26,000			
111	Surveillance System	1	1	1	\$28,000.00	\$29,120	0.42%	\$29,120			
112											
113	SECURITY SYSTEMS SUBTOTAL					\$55,120	0.79%	\$55,120	\$0	\$0	\$0
114											
115	<u>8.0 NOT USED</u>										
116											
117											
118	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
119											
120	<u>9.0 FURNITURE & EQUIPMENT</u>										
121	Classroom furniture	23	1	23	\$12,000.00	\$287,040	4.13%			\$393,245	
122	Computer Lab Furniture	2	1	2	\$15,000.00	\$31,200	0.45%			\$42,744	
123	Commons Area Furniture	1	1	1	\$15,000.00	\$15,600	0.22%			\$21,372	
124	Media Center Furniture	1	1	1	\$20,000.00	\$20,800	0.30%			\$28,496	
125	Food Service Equipment (Allowance)	1	1	1	\$20,000.00	\$20,800	0.30%			\$28,496	
126											
127	FURNITURE & EQUIPMENT SUBTOTAL					\$375,440	5.40%	\$0	\$0	\$514,353	\$0
128											
129	<u>10.0 TECHNOLOGY (Wright & Hunter)</u>										
130	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$533,000.00	\$554,320	7.97%	\$554,320			
131	Network Cabling	1	1	1	\$200,000.00	\$208,000	2.99%	\$208,000			
132	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	3.29%	\$228,800			
133	Telephone System	1	1	1	\$72,000.00	\$74,880	1.08%	\$74,880			
134	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.37%	\$26,000			
135	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.60%	\$41,600			
136	TECHNOLOGY SUBTOTAL					\$1,133,600	16.30%	\$1,133,600	\$0	\$0	\$0
137											
138	Building Infrastructure Improvement Total:			61,973	\$91.15	\$5,648,614	81.24%	\$3,709,367	\$725,817	\$1,841,712	\$0
139	Project Contingency:	10.00%	Of Building & Site Budget			\$413,957	5.95%	\$257,577	\$72,582	\$132,736	\$0
140	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$113,838	1.64%	\$70,834	\$19,960	\$36,502	\$0
141	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$373,390	5.37%	\$232,334	\$65,469	\$119,728	\$0
142	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$403,261	5.80%	\$250,921	\$70,706	\$129,306	\$0
143	PROJECT TOTAL					\$6,953,061	100.00%	\$4,521,032	\$954,534	\$2,259,984	\$0
											\$7,735,550



2017 Facilities Assessment



Richard Elementary School K-5

176 McKinley, Grosse Pointe Farms, Michigan

Building Age: 87 years

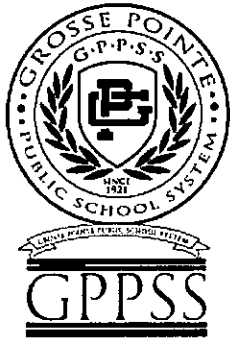
Square Footage: 56,099 s.f.

Acres: 3.63

Students: 355

Capacity: 475 (75% Utilization)

Richard Elementary School is a 56,099 s.f brick clad 2 1/2-story building which opened in its doors in 1930. The school is part of the Beverly Road Historic District, one of the most notable historic neighborhoods in the Grosse Pointes. In 1994, Richard Elementary School was added to the National Registry for Historic Places for its architecture and engineering. The building sits on a parcel of land that contains a municipal parking lot to the South. It is adjacent to the Kercheval Business District. Richard students will attend Pierce Middle School and South High School.



2017 Facilities Assessment

Site:

The 44 car asphalt parking lot is in poor condition and should be replaced in the near future. The playground equipment is newer and appear to be in good shape. Some of the concrete sidewalks surrounding the building are in need of replacement.

Roofing:

The built-up roof areas are 27 years old and will require replacement in the near future. Most of the roof is slate and requires some repair/replacement as well as the gutter system.

HVAC:

The (2) steam boilers servicing the building are 16 years old and will need replacement or significant reconditioning in the next 5 to 10 years. The building is 100% air conditioned.

Electrical:

It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. It is recommended to replace the existing 87 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The furniture should be replaced due to age and wear. Several areas have carpet flooring which should be replaced due to wear. A half dozen of the classrooms have poor cabinetry that should be replaced. The fire escape should be replaced due to age.

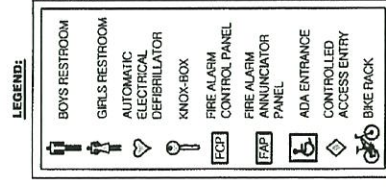
THIRD FLOOR



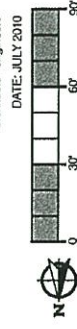
Capacity: 475

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):

ES: 25 students /room
MS: 26 students /room
HS: 28 students /room



Ehresman Associates, Inc.
architects engineers



176 McKinley
Grosse Pointe Farms, MI 48236
313.432.4900



2017 Facilities Assessment



Smith Boilers



Boiler Room Water Damage



First Level Corridor



Classroom Electrical



2017 Facilities Assessment



Old Exit Signs



Water Damaged Ceiling Tiles



Parking Lot Cracks



Sidewalk Cracks



2017 Facilities Assessment



Richard Elementary School

**56,099 s.f.
3.63 Acres**



2017 Facilities Assessment



Total Sections: 10
Total Sq/Ft: 19,478

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	8,142	1995	D
2	Section 2-B	1,881	1950	C
3	Section 3-C	3,138	1950	C
4	Section 4-D	1,881	1950	C
5	Section 5-E	1,306	1950	C
6	Section 6-F	2,034	2010	B
7	Section 7-G	680	1995	C
8	Section 8-H	152	1990	D
9	Section 9-I	100	1990	F
10	Section 10-J	164	1990	D

Richard Elementary School					Cost Data						
56,099 s.f. 3-story Building					Specification Factor = 1.00 (Medium)						
Built: 1930					Geographic Factor = 1.00 (US Median)			Cost Escalation Factors			
					Cost Escalation Factor = 1.04 Spring 2017			1.04	1.22	1.37	1.04
								Ranked Capital Priorities			
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
Draft 6-28-17											
1.0 SITE											
3	Paving - 2013 mill and surface										
4	Replace Asphalt Parking Lot (44 spaces) Partial Lot	20,500	1	20,500	\$3.50	\$74,620	1.66%	\$74,620			
5	Catch Basins	1	1	1	\$5,000.00	\$5,200	0.12%	\$5,200			
6	Concrete sidewalks	1	1	1,000	\$6.00	\$6,240	0.14%	\$6,240			
8	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.58%			\$35,620	
SITE SUBTOTAL						\$112,060	2.49%	\$86,060	\$0	\$35,620	\$0
2.0 BUILDING ENVELOPE											
14	Roofing Work - J.D. Candler Report										
15	Replace Roof (Slate, installed 1950, Grade C) - Repair	1,881	1	1,881	\$8.00	\$15,650	0.35%		\$19,093		
16	Replace Roof (Slate, installed 1950, Grade C) - Repair	3,138	1	3,138	\$4.00	\$13,054	0.29%		\$15,926		
17	Replace Roof (Slate, installed 1950, Grade C) - Repair	1,881	1	1,881	\$4.00	\$7,825	0.17%		\$9,546		
18	Replace Roof (Slate, installed 1950, Grade C) - Repair	1,306	1	1,306	\$7.00	\$9,508	0.21%		\$11,599		
19	Replace Roof (BUR, installed 1990, Grade D)	152	1	152	\$8.00	\$1,265	0.03%	\$1,265			
20	Replace Roof (BUR, installed 1990, Grade F)	100	1	100	\$8.00	\$832	0.02%	\$832			
21	Replace Roof (? , installed 1990, Grade C)	164	1	164	\$8.00	\$1,364	0.03%		\$1,665		
22	Replace Roof (Mod. SBS, installed 1995, Grade D)	8,142	1	8,142	\$8.00	\$67,741	1.51%	\$67,741			
23	Patching / Curbs for new M/E Work	1	1	1	\$25,000.00	\$26,000	0.58%		\$31,720		
24	Replace stair windows	2	1	2	\$7,500.00	\$15,600	0.35%	\$15,600			
25	Fire Escape	1	1	1	\$35,000.00	\$36,400	0.81%	\$36,400			
26	Replace Copper Gutters (allow)	1	1	1	\$20,000.00	\$20,800	0.00%	\$20,800			
BUILDING ENVELOPE SUBTOTAL						\$216,039	4.81%	\$142,638	\$89,549	\$0	\$0
3.0 INTERIOR/FINISHES											
31	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	2.31%	\$104,000			
32	Replace Corridor Doors & HDW	35	1	35	\$1,750.00	\$63,700	0.00%	\$63,700			
33	Replace Interior Room Doors and Hdw	18	1	18	\$1,750.00	\$32,760	0.00%	\$32,760			
36	Classrooms (Carpet)	750	2	1,500	\$4.50	\$7,020	0.16%		\$8,564		
37	Classrooms (VCT)	750	18	13,500	\$4.50	\$63,180	1.41%			\$86,557	
39	Paint Areas Disturbed by Construction	20,000	1	20,000	\$1.00	\$20,800	0.46%		\$25,376		
40	Mechanical room doors	2	1	2	\$3,500.00	\$7,280	0.16%	\$7,280			
41	Waterproof Mechanical Room Walls	1	1	1	\$40,000.00	\$41,600	0.93%	\$41,600			
42	Casework										
43	Replace classroom casework	6	1	6	\$6,000.00	\$37,440	0.83%		\$45,677		
INTERIOR/FINISHES SUBTOTAL						\$377,780	8.41%	\$249,340	\$79,617	\$86,557	\$0
4.0 PLUMBING SYSTEMS											
47	Horizontal HW/CW Piping Replacement (mains only)	56,099	1	56,099	\$4.00	\$233,372	5.19%			\$319,719	
48	Sanitary & Storm Drain Replacement (mains only)	56,099	1	56,099	\$3.00	\$175,029	3.90%			\$239,790	
49	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	2.31%			\$142,480	
50	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	1.16%			\$71,240	
PLUMBING SYSTEMS SUBTOTAL						\$564,401	12.56%	\$0	\$0	\$773,229	\$0
5.0 HVAC SYSTEMS											
56	Heating										
56	Steam Boilers (Age 16 yrs, Weil McLien 2001)	2	1	2	\$190,000.00	\$395,200	8.80%		\$482,144		
57	Assoc. equip., comb. Air, emerg. Gas stops										
58	Replace Steam Heating System Valves	1	1	1	\$40,000.00	\$41,600	0.93%		\$50,752		
60	Unit Vents in Classrooms 8 yrs old										
61	Ventilation										
62	Replace Exhaust Fans - Toilet rms	2	1	2	\$10,000.00	\$20,800	0.46%	\$20,800			
63	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.69%	\$31,200			
65	Air and Water Balance	56,099	1	56,099	\$0.10	\$5,834	0.13%	\$5,834			
66	Commissioning	56,099	1	56,099	\$0.15	\$8,751	0.19%	\$8,751			
68	Temperature Controls (90% Medysis)	56,099	1	56,099	\$0.25	\$14,586	0.32%	\$14,586			
70	100% A/C										
HVAC SYSTEMS SUBTOTAL						\$517,971	11.53%	\$81,171	\$532,896	\$0	\$0

Richard Elementary School					Cost Data						
56,099 s.f. 3-story Building					Specification Factor = 1.00 (Medium)						
Built: 1930					Geographic Factor = 1.00 (US Median)			Cost Escalation Factors			
					Cost Escalation Factor = 1.04 Spring 2017			1.04	1.22	1.37	1.04
								Ranked Capital Priorities			
Line		Area	No. of			Effective	As % of	Critical	Deferrable	Property	Other
No.	Program Area	(in Sq. Ft.)	Required	Total Area	Base Unit	Program Area	Total	Needs	Maintenance	Enhancement	
				(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)	
72	6.0 ELECTRICAL SYSTEMS										
73	Lighting										
74	Replace Ltg ballasts with LED's (29 rooms, 2x4 lay in)	29	1	29	\$1,200.00	\$36,192	0.81%	\$36,192			
75	Install new LED Ltg in corridors (2x4 lay in)	56	1	56	\$225.00	\$13,104	0.29%	\$13,104			
76	Replace exterior building lights	56,099	1	56,099	\$0.25	\$14,586	0.32%	\$14,586			
77	Replace all emergency and exit lights	56,099	1	56,099	\$0.25	\$14,586	0.32%	\$14,586			
	Add Occupancy Sensors	29	1	29	\$500.00	\$15,080	0.34%	\$15,080			
78	Add electrical upgrade for IT (classrooms)	25	1	25	\$5,000.00	\$130,000	2.89%	\$130,000			
79	Add Generator	1	1	1	\$100,000.00	\$104,000	2.31%			\$142,480	
80	ELECTRICAL SYSTEMS SUBTOTAL					\$327,547	7.29%	\$223,547	\$0	\$142,480	\$0
81											
82	7.0 SECURITY (Wright & Hunter)										
83	Door Access System	1	1	1	\$25,000.00	\$26,000	0.58%	\$26,000			
84	Surveillance System	1	1	1	\$23,000.00	\$23,920	0.53%	\$23,920			
85											
86	SECURITY SYSTEMS SUBTOTAL					\$49,920	1.11%	\$49,920	\$0	\$0	\$0
87											
88	8.0 NOT USED										
89	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
90											
91	9.0 FURNITURE & EQUIPMENT										
92	Classroom furniture	38	1	38	\$12,000.00	\$474,240	10.56%			\$649,709	
93	Computer Lab Furniture	2	1	2	\$15,000.00	\$31,200	0.69%			\$42,744	
94	Media Center Furniture	1	1	1	\$50,000.00	\$52,000	1.16%			\$71,240	
95											
96	FURNITURE & EQUIPMENT SUBTOTAL					\$557,440	12.41%	\$0	\$0	\$763,693	\$0
97											
98	10.0 TECHNOLOGY (Wright & Hunter)										
99	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$498,000.00	\$517,920	11.53%	\$517,920			
100	Network Cabling	1	1	1	\$200,000.00	\$208,000	4.63%	\$208,000			
101	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	5.09%	\$228,800			
102	Telephone System	1	1	1	\$62,400.00	\$64,896	1.44%	\$64,896			
103	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.58%	\$26,000			
104	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.93%	\$41,600			
105											
106	TECHNOLOGY SUBTOTAL					\$1,087,216	24.20%	\$1,087,216	\$0	\$0	\$0
107											
108	Building Infrastructure Improvement Total:			56,099	\$67.92	\$3,810,375	84.81%	\$1,919,893	\$702,063	\$1,801,578	\$0
109	Project Contingency:	10.00%	Of Building & Site Budget			\$216,572	4.82%	\$83,268	\$70,206	\$103,789	\$0
110	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$59,557	1.33%	\$22,899	\$19,307	\$28,542	\$0
111	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$195,348	4.35%	\$75,107	\$63,326	\$93,617	\$0
112	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$210,976	4.70%	\$81,116	\$68,392	\$101,107	\$0
113	PROJECT TOTAL					\$4,492,828	100.00%	\$2,182,283	\$923,294	\$2,128,633	\$0
\$5,234,209											



2017 Facilities Assessment



Trombly Elementary School K-5

820 Beaconsfield, Grosse Pointe Park, Michigan

Building Age: 90 years

Square Footage: 43,110 s.f.

Acres: 5.06

Students: 267

Capacity: 425 (63% Utilization)

Trombly Elementary School is a 43,110 s.f brick clad 2 1/2-story building which opened in its doors in 1927. Trombly has the only auditorium in the Grosse Pointe Elementary Schools which is frequently used for student assemblies, concerts and fine arts presentations. Trombly's upstairs playroom became the current library in 1967, and is named the Frank C. Welcenbach Library Center honoring the school's second principal. Trombly students will attend Pierce Middle School and South High School.



2017 Facilities Assessment

Site:

The 49 car asphalt parking lot should be replaced in the next 4 to 6 years. The playground equipment is newer and appear to be in good shape.

Roofing:

The built-up roof areas are 22, 18 and 14 years old and will require replacement in the near future. Some of the roof is slate and requires some repair.

HVAC:

The (2) steam boilers servicing the building should be replaced with a more energy efficient hydronic system. Currently there are two open tunnels for delivering warm conditioned air and one tunnel dedicated to return air. The classrooms use a damper system to control air flow delivery.

Electrical:

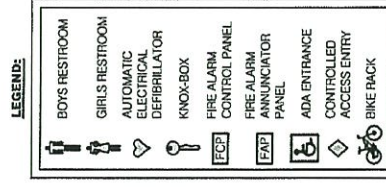
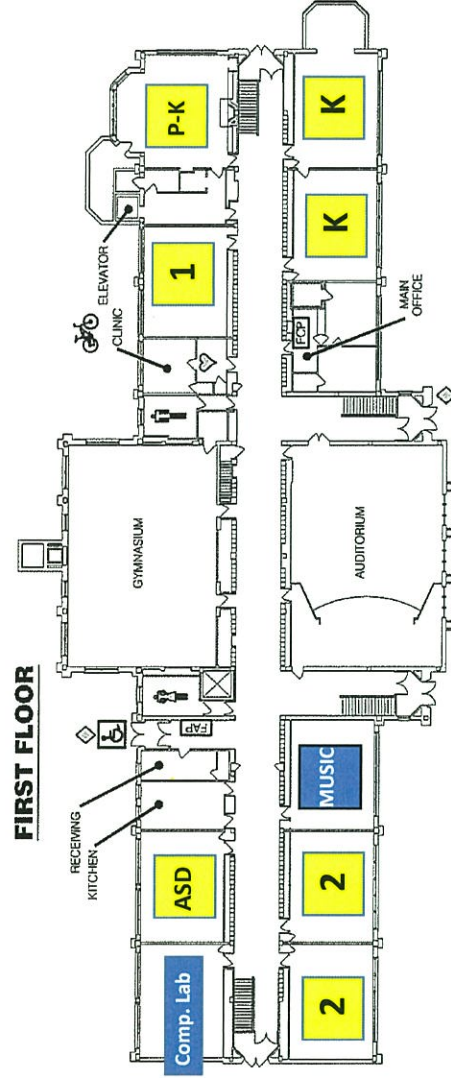
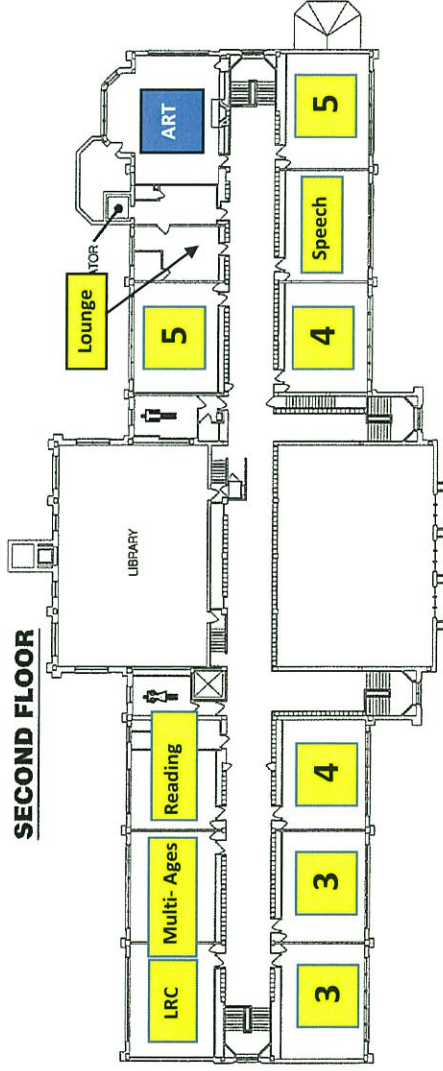
It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. It is recommended to replace the existing 90 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The furniture should be replaced due to age and wear. Several classroom areas have carpet flooring which should be replaced due to wear. A few of the classrooms have poor cabinetry that should be replaced.



Ehresman Associates, Inc.
architects engineers
DATE: JULY 2010



Trombly Elementary School

820 Beaconsfield
Grosse Pointe Park, MI 48236
313.432.5000

43,110 s.f.
Total Rooms: 18
Capacity: 450

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):
ES: 25 students /room
MS: 26 students /room
HS: 28 students /room



2017 Facilities Assessment



Weil-McLain Boilers



Classroom Lighting



First Level Corridor



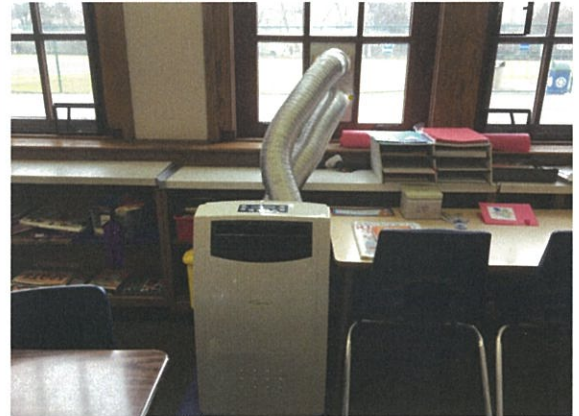
Damaged Staff Lounge
Cabinets



2017 Facilities Assessment



Older Classroom Furniture & Carpet



Classroom Portable Air Conditioning Unit



Damaged Perimeter Fence



Water Damaged Window Trim



2017 Facilities Assessment

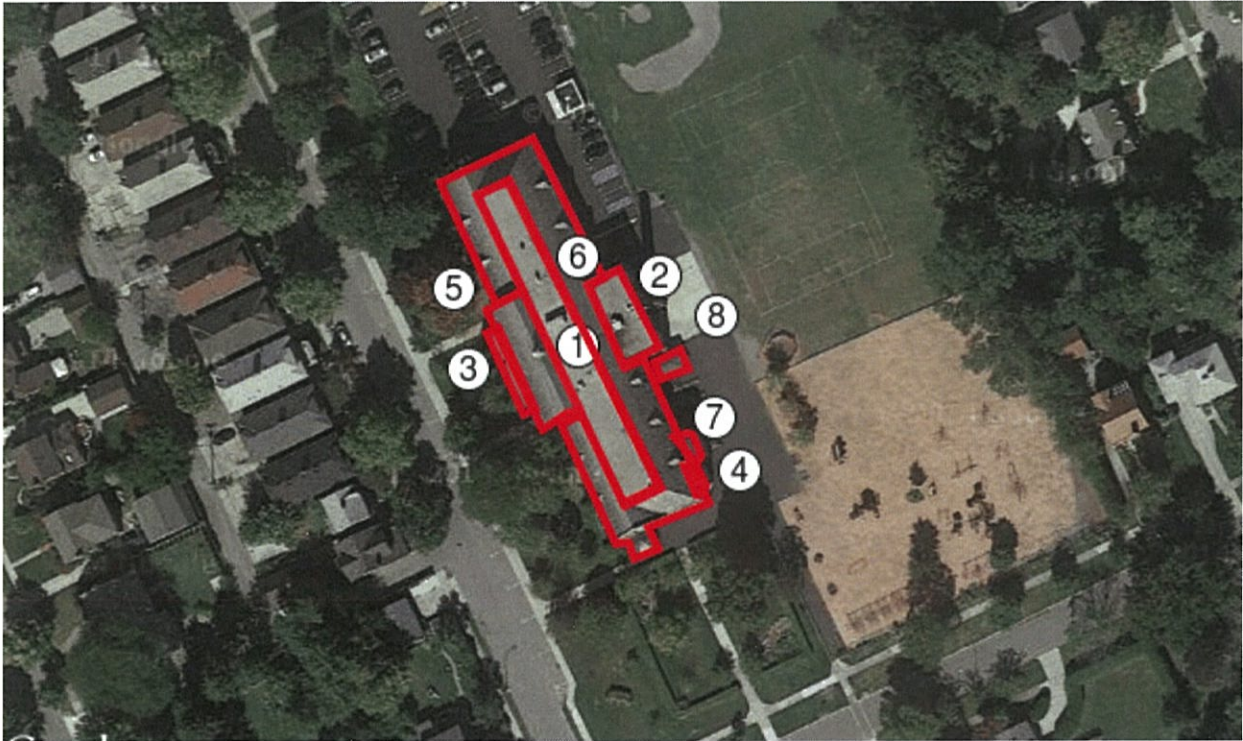


Trombly Elementary School

**43,110 s.f.
5.06 Acres**



2017 Facilities Assessment



Total Sections: 8
Total Sq/Ft: 22,572

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	5,843	2003	C
2	Section 2-B	1,563	2003	C
3	Section 3-C	554	2003	B
4	Section 4-D	161	1999	F
5	Section 5-E	2,568	1989	C
6	Section 6-F	11,442		C
7	Section 7-G	176	1999	F
8	Section 8-H	266	1995	F

Summary of Costs

Trombly ES

Trombly Elementary School 43,110 s.f. 2-story Building Built: 1927					Cost Data Specification Factor = 1.00 (Medium) Geographic Factor = 1.00 (US Median) Cost Escalation Factor = 1.04 Spring 2017			Cost Escalation Factors 1.04 1.22 1.37 1.04					
Line No.	Draft 6-28-17 Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities					
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other		
1	1.0 SITE												
2	Replace Asphalt Parking Lot (49 spaces) 2013 Mill & Surface	21,850	1	21,850	\$3.50	\$79,534	1.54%		\$97,031				
3	Fencing	600	1	600	\$10.00	\$6,240	0.12%	\$6,240					
4	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$3,000.00	\$3,120	0.06%	\$3,120					
5	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.50%			\$35,620			
6	SITE SUBTOTAL							\$9,360	\$97,031	\$35,620	\$0		
8	2.0 BUILDING ENVELOPE												
10	Roofing Work - J.D. Candler Report												
11	Replace Roof (Asphalt, installed 1995, Grade F)	266	1	266	\$8.00	\$2,213	0.04%	\$2,213					
12	Replace Roof (Slate, installed 1989, Grade C) - Repair	2,568	1	2,568	\$4.00	\$10,683	0.21%		\$13,033				
13	Replace Roof (BUR, installed 1999, Grade F)	161	1	161	\$8.00	\$1,340	0.03%	\$1,340					
14	Replace Roof (EPDM, installed 1999, Grade F)	176	1	176	\$8.00	\$1,464	0.03%	\$1,464					
15	Replace Roof (BUR, installed 2003, Grade C)	5,843	1	5,843	\$8.00	\$48,614	0.94%		\$59,309				
16	Replace Roof (BUR, installed 2003, Grade C)	1,563	1	1,563	\$8.00	\$13,004	0.25%		\$15,865				
17	Replace Roof (BUR, installed 2003, Grade B)	554	1	554	\$0.00	\$0	0.00%			\$0			
18	Replace Roof (Slate, installed ?, Grade C) - Repair	11,442	1	11,442	\$4.00	\$47,599	0.92%		\$58,070				
19	Patching / Curbs for new M/E Work	1	1	1	\$25,000.00	\$26,000	0.50%		\$31,720				
20	Paint window frames/trim	1	1	1	\$25,000.00	\$26,000	0.50%	\$26,000					
22	Fire Escape	1	1	1	\$35,000.00	\$36,400	0.70%	\$36,400					
24	BUILDING ENVELOPE SUBTOTAL							\$213,316	4.13%	\$67,417	\$177,997	\$0	\$0
26	3.0 INTERIOR/FINISHES												
28	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	2.01%	\$104,000					
29	Replace Corridor Doors & HDW	53	1	53	\$1,750.00	\$96,460	1.87%	\$96,460					
30	Replace Interior Room Doors and Hdw	20	1	20	\$1,750.00	\$36,400	0.70%	\$36,400					
31	Replace Boiler Room Doors and Hdw	2	1	2	\$2,500.00	\$5,200	0.10%	\$5,200					
33	Install Lay-in Tile Clgs at C.R. (currently 12 x 12)	700	8	5,600	\$4.00	\$23,296	0.45%	\$23,296					
34	Install new Lay-in Tile at Library (currently 2x4)	1,500	1	1,500	\$2.00	\$3,120	0.06%	\$3,120					
35	Classrooms (Carpet)	750	6	4,500	\$4.50	\$21,060	0.41%	\$21,060					
36	Corridors (Carpet)	4,000	1	4,000	\$4.50	\$18,720	0.36%	\$18,720					
37	Classrooms (VCT)	750	18	13,500	\$4.50	\$63,180	1.22%			\$86,557			
38	Kitchen improvements	1	1	1	\$50,000.00	\$52,000	1.01%	\$52,000					
39	Paint Areas Disturbed by Construction	30,000	1	30,000	\$1.00	\$31,200	0.60%	\$31,200					
42	Replace classroom casework	4	1	4	\$6,000.00	\$24,960	0.48%			\$34,195			
44	INTERIOR/FINISHES SUBTOTAL							\$479,596	9.28%	\$391,456	\$0	\$120,752	\$0
46	4.0 PLUMBING SYSTEMS												
46	Horizontal HW/CW Piping Replacement (mains only)	43,110	1	43,110	\$4.00	\$179,338	3.47%			\$245,693			
47	Sanitary & Storm Drain Replacement (mains only)	43,110	1	43,110	\$3.00	\$134,503	2.60%			\$184,269			
49	Replace and add domestic water valves and fittings (allow	1	1	1	\$50,000.00	\$52,000	1.01%			\$71,240			
50	PLUMBING SYSTEMS SUBTOTAL							\$365,841	7.08%	\$0	\$0	\$501,202	\$0
52	5.0 HVAC SYSTEMS												
54	Heating												
55	Steam Boilers (Weil McLain) - switch to hydronic	2	1	2	\$125,000.00	\$260,000	5.03%	\$260,000					
56	Assoc. equip., comb. Air, emerg. Gas stops												
57	New Hydronic System	43,110	1	43,110	\$18.00	\$807,019	15.61%	\$807,019					
58	Current - (2) open tunnels, one warm air, one return air												
59	with room damper control system												
60	New air handlers - Gym	1	1	1	\$100,000.00	\$104,000	2.01%	\$104,000					
62	Replace Kitchen Exhaust Fan (No ansul or make up air	1	1	1	\$30,000.00	\$31,200	0.60%	\$31,200					
63	or potential other code update requirements)												
64	Air and Water Balance	43,110	1	43,110	\$0.10	\$4,483	0.09%	\$4,483					
65	Commissioning	43,110	1	43,110	\$0.15	\$6,725	0.13%	\$6,725					
66	Temperature Controls	43,110	1	43,110	\$2.50	\$112,086	2.17%	\$112,086					
68	HVAC SYSTEMS SUBTOTAL							\$1,213,428	23.47%	\$1,213,428	\$0	\$0	\$0

Trombly Elementary School					Cost Data							
43,110 s.f. 2-story Building					Specification Factor = 1.00 (Medium)							
Built: 1927					Geographic Factor = 1.00 (US Median)			Cost Escalation Factors				
					Cost Escalation Factor = 1.04 Spring 2017			1.04	1.22	1.37	1.04	
								Ranked Capital Priorities				
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other	
70	6.0 ELECTRICAL SYSTEMS											
71												
72	Power for new HVAC (original switch gear)	1	1	1	\$50,000.00	\$52,000	1.01%	\$52,000				
73	Lighting											
74	Install LED's (8 classrooms) currently stem mtd floor.	8	1	8	\$3,200.00	\$26,624	0.52%	\$26,624				
75	Install 2x4 LED's in Corridors	52	1	52	\$3,200.00	\$173,056	3.35%	\$173,056				
76	Install ballast for LED's in Classrooms	13	1	13	\$1,200.00	\$16,224	0.31%	\$16,224				
77	Install ballast for LED's in Library	1	1	1	\$2,500.00	\$2,600	0.05%	\$2,600				
78	Replace exterior building lights	43,110	1	43,110	\$0.25	\$11,209	0.22%	\$11,209				
79	Replace all emergency and exit lights	43,110	1	43,110	\$0.25	\$11,209	0.22%	\$11,209				
	Add Occupancy Sensors	35	1	35	\$500.00	\$18,200	0.35%	\$18,200				
80	Add electrical upgrade for IT (classrooms)	21	1	21	\$5,000.00	\$109,200	2.11%	\$109,200				
81	Add Generator	1	1	1	\$100,000.00	\$104,000	2.01%			\$142,480		
82	ELECTRICAL SYSTEMS SUBTOTAL						\$524,321	10.14%	\$420,321	\$0	\$142,480	\$0
83												
84	7.0 SECURITY (Wright & Hunter)											
85	Door Access System	1	1	1	\$25,000.00	\$26,000	0.50%	\$26,000				
86	Surveillance System	1	1	1	\$66,000.00	\$68,640	1.33%	\$68,640				
87												
88	SECURITY SYSTEMS SUBTOTAL						\$94,640	1.83%	\$94,640	\$0	\$0	\$0
89												
90	8.0 NOT USED											
91	OTHER SUBTOTAL						\$0	0.00%	\$0	\$0	\$0	\$0
92												
93	9.0 FURNITURE & EQUIPMENT											
94	Classroom furniture	17	1	17	\$12,000.00	\$212,160	4.10%			\$290,659		
95	Computer Lab Furniture	2	1	2	\$15,000.00	\$31,200	0.60%			\$42,744		
96	Media Center Furniture	1	1	1	\$50,000.00	\$52,000	1.01%			\$71,240		
97												
98	FURNITURE & EQUIPMENT SUBTOTAL						\$295,360	5.71%	\$0	\$0	\$404,643	\$0
99												
100	10.0 TECHNOLOGY (Wright & Hunter)											
101	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$350,000.00	\$364,000	7.04%	\$364,000				
102	Network Cabling	1	1	1	\$200,000.00	\$208,000	4.02%	\$208,000				
103	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	4.43%	\$228,800				
104	Telephone System	1	1	1	\$50,400.00	\$52,416	1.01%	\$52,416				
105	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.50%	\$26,000				
106	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.80%	\$41,600				
107												
108	TECHNOLOGY SUBTOTAL						\$920,816	17.81%	\$920,816	\$0	\$0	\$0
109												
110	Building Infrastructure Improvement Total:				43,110	\$97.94	\$4,222,212	81.68%	\$3,117,438	\$275,029	\$1,204,697	\$0
111	Project Contingency:	10.00%	Of Building & Site Budget			\$300,604	5.81%	\$219,662	\$27,503	\$80,005	\$0	
112	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$82,666	1.60%	\$60,407	\$7,563	\$22,001	\$0	
113	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$271,144	5.25%	\$198,135	\$24,808	\$72,165	\$0	
114	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$292,836	5.66%	\$213,986	\$26,792	\$77,938	\$0	
115	PROJECT TOTAL						\$5,169,462	100.00%	\$3,809,629	\$361,695	\$1,456,807	\$0
\$5,628,130												



2017 Facilities Assessment



Brownell Middle School 6-8

260 Chalfonte, Grosse Pointe Farms, Michigan

Building Age: 61 years

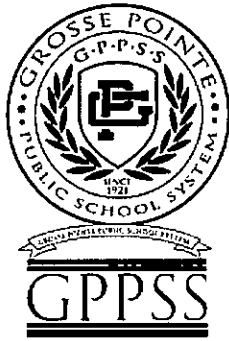
Square Footage: 157,493 s.f.

Acres: 15.2

Students: 612

Capacity: 754 (81% Utilization)

Brownell Middle School is a 157,493 s.f brick clad 2-story building which opened in its doors in 1956. Students who graduate Brownell will attend North High School.



2017 Facilities Assessment

Site:

The 144 car asphalt parking lot was resurfaced in 2010 and may need replacement in the near future. There are a total of 3 ballfields at the southern end of the 15.2 acre site.

Roofing:

The built-up roof areas range in age from 18, 10, 8, 7, and 3 years old. Due to the varying ages of the roofs, only some roof areas will need replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 24 years old and will need replacement or significant reconditioning in the next 5 to 10 years. Several of the room unit ventilators require replacement on the second level. Some of the classrooms do not have air conditioning.

Electrical:

It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

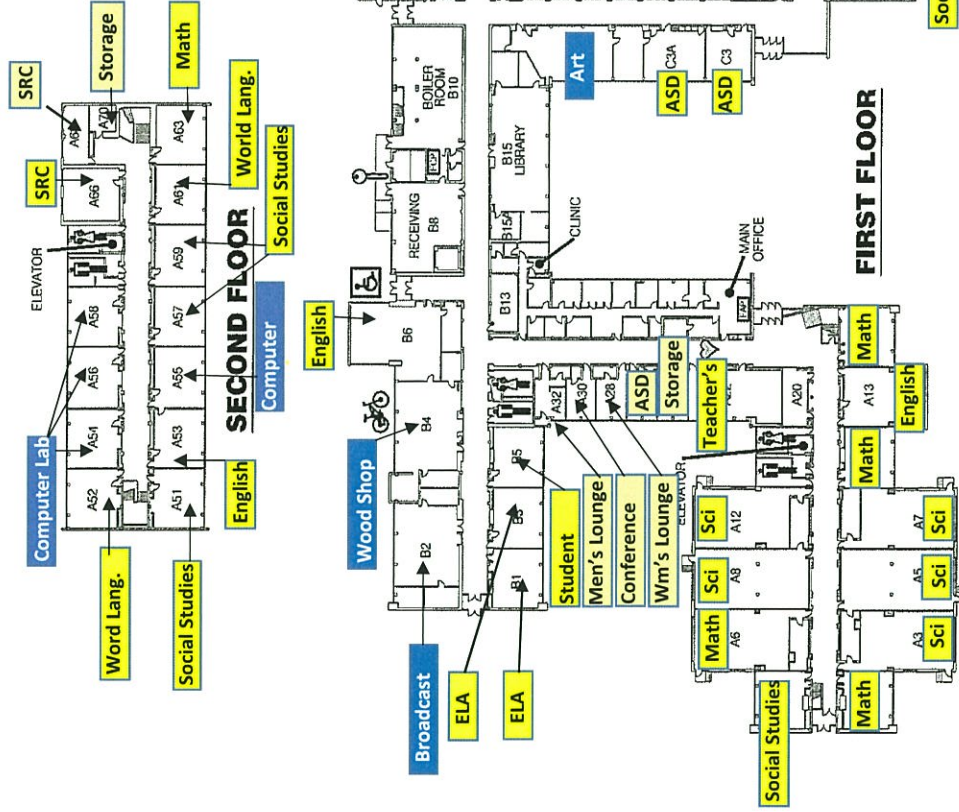
Plumbing:

The pool equipment and boiler require replacement due to condition and age. It is recommended to replace the existing 61 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.










Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. Some of the classroom, office and media center furniture should be replaced due to age and wear.

Capacity: 754

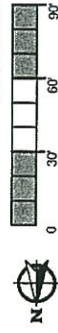


LEGEND:

-  BOY'S RESTROOM
 GIRLS RESTROOM
 AUTOMATIC ELECTRICAL DEFIBRILLATOR
 KNOX-BOX
 FIRE ALARM CONTROL PANEL
 FIRE ALARM ANNUNCIATOR PANEL
 ADA ENTRANCE
 CONTROLLED ACCESS ENTRY
 BIKE RACK

Ehresman Associates, Inc.
architects engineers

DATE: JULY 2010

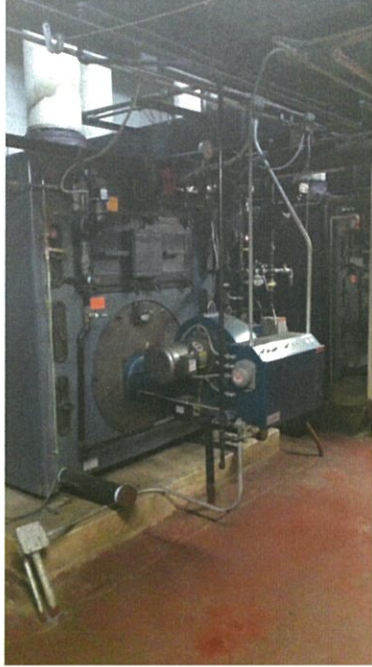


Brownell Middle School

260 Chalfonte
Grosse Pointe Farms MI 48236
313.432.3900



2017 Facilities Assessment



Steam Boilers



Exit Doors and Exit Sign



Classroom A/C Unit



Classroom Lighting



2017 Facilities Assessment



Performing Arts Center



Unit Ventilator



Classroom Furniture



2017 Facilities Assessment

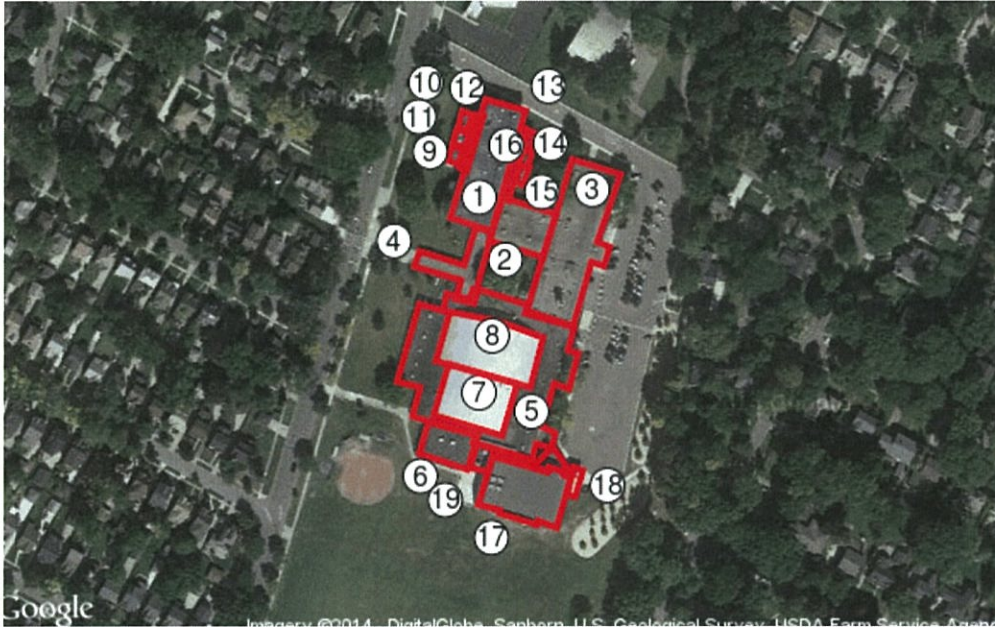


Brownell Middle School

**157,493 s.f.
15.2 Acres**



2017 Facilities Assessment



Total Sections: 19
Total Sq/Ft: 160,836

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	15,035	2009	B
2	Section 2-B	7,208	1999	C
3	Section 3-C	22,674	1999	C
4	Section 4-D	5,617	1999	C
5	Section 5-E	57,797	2014	A
6	Section 6-F	4,906	2014	A
7	Section 7-G	10,922	1999	D
8	Section 8-H	14,780	1999	D
9	Section 9-I	482	2007	B
10	Section 10-J	493	2007	B
11	Section 11-K	549	2007	B
12	Section 12-L	1,283	2007	B
13	Section 13-M	377	2007	B
14	Section 14-N	411	2007	B
15	Section 15-O	423	2007	B
16	Section 16-P	1,371	2007	B
17	Section 17-Q	12,365	2010	C
18	Section 18-R	707	2010	B
19	Section 19-S	3,437	2010	B

Summary of Costs
Brownell MS

Brownell Middle School 157,493 s.f. 2-story Building Built: 1956								Cost Data				Cost Escalation Factors			
								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
								Ranked Capital Priorities							
Line	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other				
1	1.0 SITE														
2															
3	Paving														
4	Replace Asphalt Parking Lot (144 spaces) 2010	72,000	1	72,000	\$3.50	\$262,080	2.61%		\$319,738						
5															
6	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.26%			\$35,620					
7															
8	SITE SUBTOTAL					\$288,080	2.87%	\$0	\$319,738	\$35,620	\$0				
9															
10	2.0 BUILDING ENVELOPE														
11															
12	Roofing Work - J.D. Candler Report														
13	Replace Roof (BUR, installed 1999, grade C)	7,208	1	7,208	\$8.00	\$59,971	0.60%		\$73,164						
14	Replace Roof (BUR, installed 1999, grade C)	22,674	1	22,674	\$8.00	\$188,648	1.88%		\$230,150						
15	Replace Roof (BUR, installed 1999, grade C)	5,617	1	5,617	\$8.00	\$46,733	0.47%		\$57,015						
16	Replace Roof (BUR, installed 1999, grade D)	10,922	1	10,922	\$8.00	\$90,871	0.91%	\$90,871							
17	Replace Roof (BUR, installed 1999, grade D)	14,780	1	14,780	\$8.00	\$122,970	1.23%	\$122,970							
18	Replace Roof BUR, installed 2007, grade B	482	1	482	\$0.00	\$0	0.00%				\$0				
19	Replace Roof BUR, installed 2007, grade B	549	1	549	\$0.00	\$0	0.00%				\$0				
20	Replace Roof BUR, installed 2007, grade B	1,283	1	1,283	\$0.00	\$0	0.00%				\$0				
21	Replace Roof BUR, installed 2007, grade B	377	1	377	\$0.00	\$0	0.00%				\$0				
22	Replace Roof BUR, installed 2007, grade B	411	1	411	\$0.00	\$0	0.00%				\$0				
23	Replace Roof BUR, installed 2007, grade B	423	1	423	\$0.00	\$0	0.00%				\$0				
24	Replace Roof BUR, installed 2007, grade B	1,371	1	1,371	\$0.00	\$0	0.00%				\$0				
25	Replace Roof BUR, installed 2009, grade B	15,035	1	15,035	\$0.00	\$0	0.00%				\$0				
26	Replace Roof (BUR, installed 2010, grade C)	12,365	1	12,365	\$8.00	\$102,877	1.03%		\$125,510						
27	Replace Roof (BUR, installed 2010, grade B)	707	1	707	\$0.00	\$0	0.00%				\$0				
28	Replace Roof (BUR, installed 2010, grade B)	3,437	1	3,437	\$0.00	\$0	0.00%				\$0				
29	Replace Roof (BUR, installed 2014, grade A)	57,797	1	57,797	\$0.00	\$0	0.00%				\$0				
30	Replace Roof (BUR, installed 2014, grade A)	4,906	1	4,906	\$0.00	\$0	0.00%				\$0				
31	Patching / Curbs for new M/E Work	1	1	1	\$50,000.00	\$52,000	0.52%		\$63,440						
32															
33															
34	BUILDING ENVELOPE SUBTOTAL					\$664,069	6.62%	\$213,841	\$549,279	\$0	\$0				
35															
36	3.0 INTERIOR/FINISHES														
37															
38	Abatement (allow)	1	1	1	\$200,000.00	\$208,000	2.07%	\$208,000							
39	Replace door hardware	1	30	30	\$500.00	\$15,600	0.16%	\$15,600							
40	Flooring														
41	Classrooms (VCT)	750	12	9,000	\$4.50	\$42,120	0.42%	\$42,120							
42	Replace Pool Tile, Gutter	1	1	1	\$25,000.00	\$26,000	0.26%	\$26,000							
43	Paint Areas Disturbed by Construction	20,000	1	20,000	\$1.00	\$20,800	0.21%	\$20,800							
44	Ceiling Replacement	800	12	9,600	\$4.00	\$39,936	0.40%	\$39,936							
45															
46	INTERIOR/FINISHES SUBTOTAL					\$352,456	3.52%	\$352,456	\$0	\$0	\$0				
47															
48	4.0 PLUMBING SYSTEMS														
49	Horizontal HW/CW Piping Replacement (mains only)	157,493	1	157,493	\$4.00	\$655,171	6.53%				\$897,584				
50	Sanitary & Storm Drain Replacement (mains only)	157,493	1	157,493	\$3.00	\$491,378	4.90%				\$673,188				
51	Steam & Condensate Piping Replacement (allow)	1	1	1	\$200,000.00	\$208,000	2.07%				\$284,960				
52	Replace and add domestic water valves and fittings (allow)	1	1	1	\$100,000.00	\$104,000	1.04%				\$142,480				
53															
54															
55	Replace Pool pump, motor, filter, flow meter, valves, piping	1	1	1	\$140,000.00	\$145,600	1.45%	\$145,600							
56	gauges, install backwash air gap, chemical pumps, finishes														
57	PLUMBING SYSTEMS SUBTOTAL					\$1,604,149	16.00%	\$145,600	\$0	\$1,998,212	\$0				
58															
59	5.0 HVAC SYSTEMS														
60															
61	Heating														
62	Steam Boilers (1995, 24 years old)	2	1	2	\$180,000.00	\$374,400	3.73%	\$374,400							
63	Replace Steam Heating System Valves	1	1	1	\$80,000.00	\$83,200	0.83%	\$83,200							
64															
65	Replace 2nd Floor Units Vents	14	1	14	\$20,000.00	\$291,200	2.90%	\$291,200							
66	Replace Art Room Units Vent	1	1	1	\$20,000.00	\$20,800	0.21%	\$20,800							
67	Replace Gym AHU's	3	1	3	\$100,000.00	\$312,000	3.11%	\$312,000							
68															
69	Boiler for Domestic Hot Water (Lochinvar, 2001)	1	1	1	\$50,000.00	\$52,000	0.52%	\$52,000							
70															
71	Boiler for Pool (Lochinvar, 2008)	1	1	1	\$50,000.00	\$52,000	0.52%	\$52,000							
72	Pool AHU	1	1	1	\$100,000.00	\$104,000	1.04%	\$104,000							
73															
74															
75	Air Conditioning - Add DX units	31	1	31	\$7,500.00	\$241,800	0.00%	\$241,800							
76															
77	Ventilation														
78	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.31%	\$31,200							
79															
80	Replace Exhaust Fans at Toilet Rooms	4	1	4	\$10,000.00	\$41,600	0.41%	\$41,600							
81	Temperature Controls (Currently on BASS system)	157,493	1	157,493	\$2.50	\$409,482	4.08%	\$409,482							
82	Air and Water Balance	157,493	1	157,493	\$0.10	\$16,379	0.16%	\$16,379							
83	Commissioning	157,493	1	157,493	\$0.15	\$24,569	0.25%	\$24,569							
84															
85															
86	HVAC SYSTEMS SUBTOTAL					\$2,054,630	20.49%	\$2,054,630	\$0	\$0	\$0				

Brownell Middle School 157,493 s.f. 2-story Building Built: 1956				Cost Data Specification Factor = 1.00 (Medium) Geographic Factor = 1.00 (US Median) Cost Escalation Factor = 1.04 Spring 2017			Cost Escalation Factors 1.04 1.22 1.37 1.04					
Draft 6-28-17							Ranked Capital Priorities					
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other	
87												
88	6.0 ELECTRICAL SYSTEMS											
89	Lighting											
90	Replace Lighting with LED's	35	1	35	\$1,200.00	\$43,680	0.44%		\$43,680			
91	Replace exterior building lights	157,493	1	157,493	\$0.25	\$40,948	0.41%		\$40,948			
92	Replace all emergency and exit lights	157,493	1	157,493	\$0.25	\$40,948	0.41%		\$40,948			
93	Add electrical upgrade for IT (classrooms)	40	1	40	\$5,000.00	\$208,000	2.07%					
94	Add Generator	1	1	1	\$150,000.00	\$156,000	1.56%			\$213,720		
95	ELECTRICAL SYSTEMS SUBTOTAL						\$489,576	4.88%	\$333,576	\$0	\$213,720	\$0
96												
97	7.0 SECURITY (Wright & Hunter)											
98	Door Access System	1	1	1	\$50,000.00	\$52,000	0.52%		\$52,000			
99	Surveillance System	1	1	1	\$87,000.00	\$90,480	0.90%		\$90,480			
100												
101	SECURITY SYSTEMS SUBTOTAL						\$142,480	1.42%	\$142,480	\$0	\$0	\$0
102												
103	8.0 NOT USED											
104												
105												
106	OTHER SUBTOTAL						\$0	0.00%	\$0	\$0	\$0	\$0
107												
108	9.0 FURNITURE & EQUIPMENT											
109	Classroom furniture	1	20	20	\$15,000.00	\$312,000	3.11%			\$427,440		
110	Other furniture (Office, lobby, etc.)	1	8	8	\$8,000.00	\$66,560	0.66%			\$91,187		
111	Media Center Furniture	1	1	1	\$20,000.00	\$20,800	0.21%			\$28,496		
112												
113	FURNITURE & EQUIPMENT SUBTOTAL						\$399,360	3.98%	\$0	\$0	\$547,123	\$0
114												
115	10.0 TECHNOLOGY (Wright & Hunter)											
116												
117	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$825,000.00	\$858,000	8.56%		\$858,000			
118	Network Cabling	1	1	1	\$750,000.00	\$780,000	7.78%		\$780,000			
119	Network Wireless and Switches	1	1	1	\$350,000.00	\$364,000	3.63%		\$364,000			
120	Telephone System	1	1	1	\$100,800.00	\$104,832	1.05%		\$104,832			
121	Public Address Systems	1	1	1	\$75,000.00	\$78,000	0.78%		\$78,000			
122	Fiber WAN	1	1	1	\$80,000.00	\$83,200	0.83%		\$83,200			
123	TECHNOLOGY SUBTOTAL						\$2,268,032	22.62%	\$2,268,032	\$0	\$0	\$0
124												
125	Building Infrastructure Improvement Total:			157,493	\$52.46	\$8,262,833	82.41%	\$5,510,615	\$869,016	\$2,794,675	\$0	
126	Project Contingency:		10.00%	Of Building & Site Budget		\$559,544	5.58%	\$324,258	\$86,902	\$224,755	\$0	
127	Permits, Testing & Printing:		2.50%	Of Building & Site Budget		\$153,875	1.53%	\$89,171	\$23,898	\$61,808	\$0	
128	Construction Manager Fee and Costs:		8.00%	Of Building & Site Budget		\$504,709	5.03%	\$292,481	\$78,385	\$202,729	\$0	
129	Professional Fees & Costs:		8.00%	Of Building & Site Budget & Contingency		\$545,085	5.44%	\$315,879	\$84,656	\$218,948	\$0	
130	PROJECT TOTAL					\$10,026,045	100.00%	\$6,532,405	\$1,142,857	\$3,502,915	\$0	



2017 Facilities Assessment

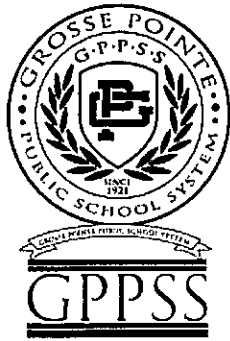


Parcels Middle School 6-8

20600 Mack Ave., Grosse Pointe Woods, Michigan

Building Age:	66 years
Square Footage:	208,855 s.f.
Acres:	14.7
Students:	665
Capacity:	806 (82% Utilization)

Parcels Middle School is a 208,855 s.f brick clad 2-story building which opened in its doors in 1951. The building contains a 885 seat Auditorium and a swimming pool and is connected to the Grosse Pointe Public Library. The main entry is difficult to find and many visitors enter thru the load dock at the east end of the building. Parcels students will attend North High School.



2017 Facilities Assessment

Site:

The East 85 car asphalt parking lot will require replacement in the near future. There are 2 ballfields at the southern end of the 14.7 acre site.

Roofing:

The built-up roof areas range in age from 25, 21, 14, 12, 11, 8 and 4 years old. Due to the varying ages of the roofs, only some roof areas will need replacement in the near future.

HVAC:

The (3) steam boilers servicing the building are 19 years old and will need replacement or significant reconditioning in the next 5 to 10 years. There are 3 condensation pumps that will require replacement due to condition and age. Approximately 27 rooms currently do not have air conditioning.

Electrical:

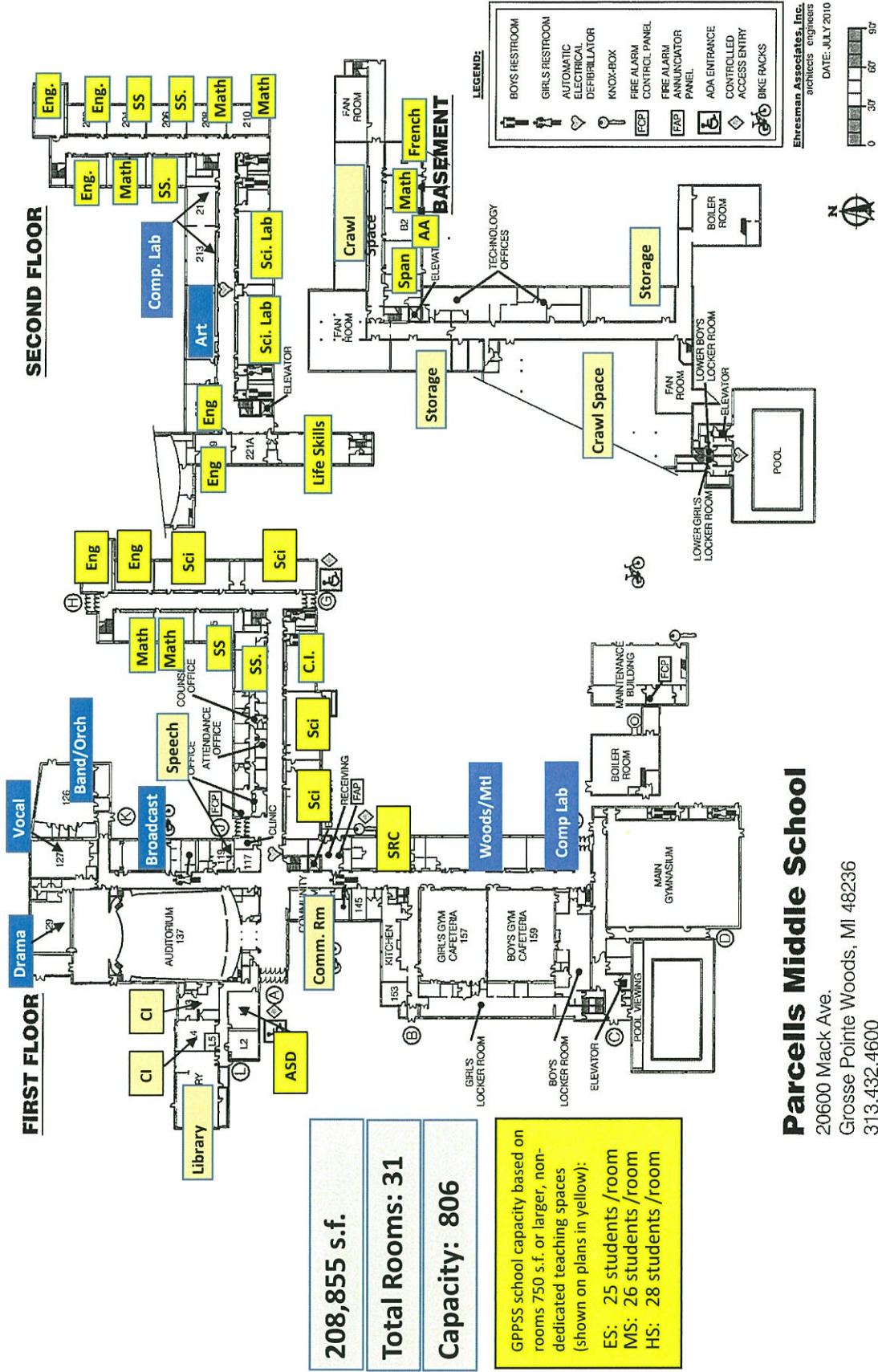
It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

A total of 8 restrooms have not been renovated should be updated. The restroom galvanized piping should be replaced with copper and new sanitary lines replaced where accessible. The pool equipment and pool air handling equipment requires replacement and the pool concrete enclosure requires waterproofing. It is recommended to replace the existing 66 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The furniture should be replaced due to age and wear. The kitchen should be renovated and kitchen walk-in coolers and pass thru refrigeration units replaced.



2017 Facilities Assessment



Original AHU



Rusty Pool Siphon Holding Tank
Requiring Replacement



(3) 1998 Lochinvar Boilers



One of Three Condensate
Pumps Requiring Replacement

2017 Facilities Assessment



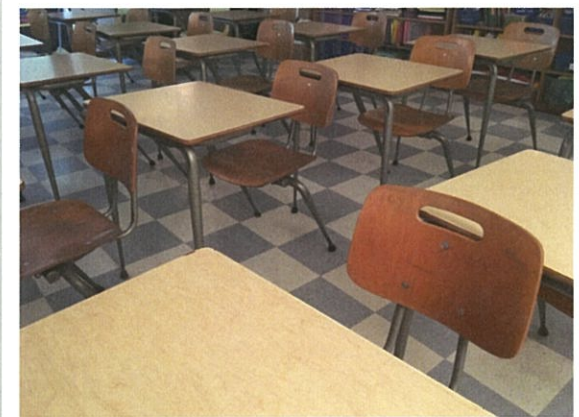
1996 Domestic Hot Water Boiler



Exposed R-Bar at Underside of
Pool Deck



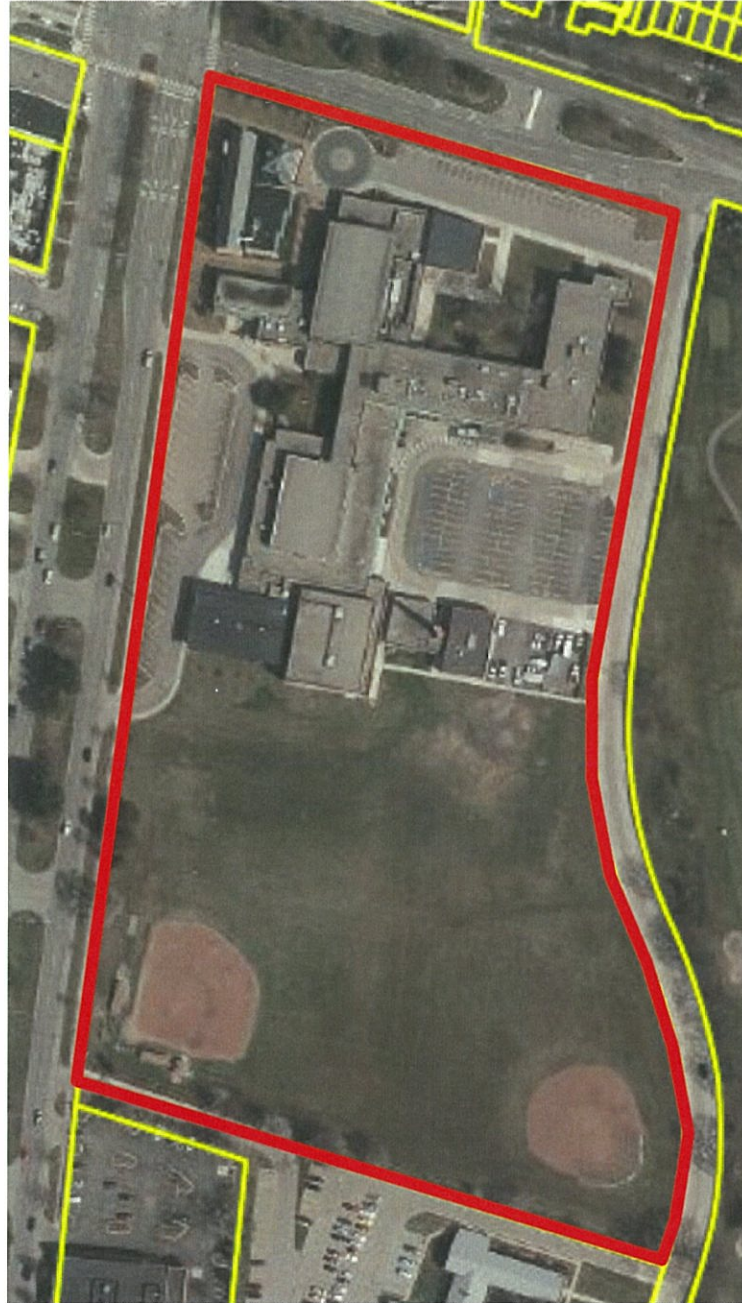
Pool Room AHU



Older Classroom Furniture



2017 Facilities Assessment

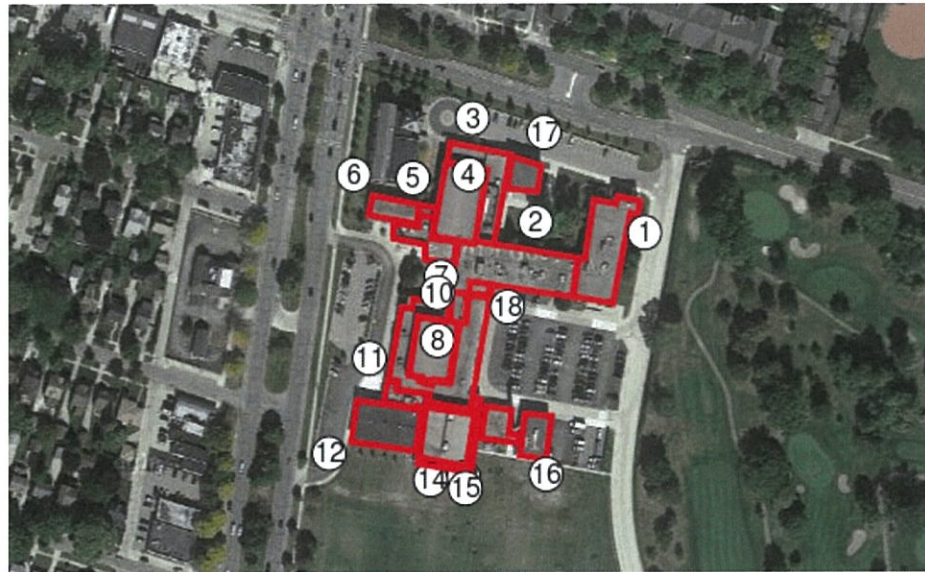


Parcels Middle School

**208,855 s.f.
14.7 Acres**



2017 Facilities Assessment



Total Sections: 18
Total Sq/Ft: 128,334

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	11,907	1992	C
2	Section 2-B	15,541	1992	C
3	Section 3-C	7,680	1992	F
4	Section 4-D	9,236	1992	C
5	Section 5-E	519	1992	C
6	Section 6-F	2,766	2003	C
7	Section 7-G	4,111	1992	C
8	Section 8-H	7,351	1996	C
9	Section 9-I	31,118	1996	C
10	Section 10-J	1,404	1996	C
11	Section 11-K, K.1	2,119	1996	C
12	Section 12-L	7,993	2013	A
13	Section 13-M	2,713	1996	C
14	Section 14-N	7,318	2005	C
15	Section 15-O	9,933	2005	C
16	Section 16-P	3,321	2006	C
17	Section 17-Q	2,556	2009	B
18	Section 18-R	751	2005	C

Summary of Costs
Parcels MS

Parcels Middle School 208,855 s.f. 2-story Building Built: 1951				Cost Data							
				Specification Factor =		1.00	(Medium)				
				Geographic Factor =		1.00	(US Median)				
				Cost Escalation Factor =		1.04	Spring 2017				
						1.04	1.22	1.37	1.04		
								Ranked Capital Priorities			
Line		Area	No. of			Effective	As % of	Critical	Deferrable	Property	Other
No.	Program Area	(In Sq. Ft.)	Required	Total Area	Base Unit	Program Area	Total	Needs	Maintenance	Enhancement	
				(In Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)	
1	1.0 SITE										
2											
3	Paving										
4	Replace Asphalt Parking Lot (85 spaces)	30,850	1	30,850	\$3.50	\$112,294	0.83%	\$112,294			
5	Replace Asphalt Parking Lot -Mack Ave (15 spaces)	10,300	1	10,300	\$3.50	\$37,492	0.28%		\$45,740		
6	Replace Bus loop concrete	12,200	1	12,200	\$6.00	\$76,128	0.56%	\$76,128			
7											
8											
9	SITE SUBTOTAL					\$225,914	1.67%	\$188,422	\$45,740	\$0	\$0
10											
11	2.0 BUILDING ENVELOPE										
12											
13	Roofing Work - J.D. Candler Report										
14	Replace Roof (BUR, installed 1992, grade C)	11,907	1	11,907	\$8.00	\$99,066	0.73%		\$120,861		
15	Replace Roof (BUR, installed 1992, grade C)	15,541	1	15,541	\$8.00	\$129,301	0.95%		\$157,747		
16	Replace Roof (BUR, installed 1992, grade F)	7,680	1	7,680	\$8.00	\$63,898	0.47%	\$63,898			
17	Replace Roof (BUR, installed 1992, grade C)	9,236	1	9,236	\$8.00	\$76,844	0.57%		\$93,749		
18	Replace Roof (BUR, installed 1992, grade C)	519	1	519	\$8.00	\$4,318	0.03%		\$5,268		
19	Replace Roof (BUR, installed 1992, grade C)	4,111	1	4,111	\$8.00	\$34,204	0.25%		\$41,728		
20	Replace Roof (BUR, installed 1996, grade C)	7,351	1	7,351	\$8.00	\$61,160	0.45%		\$74,616		
21	Replace Roof (BUR, installed 1996, grade C)	31,118	1	31,118	\$8.00	\$259,902	1.91%		\$315,860		
22	Replace Roof (BUR, installed 1996, grade C)	1,404	1	1,404	\$8.00	\$11,681	0.09%		\$14,251		
23	Replace Roof (BUR, installed 1996, grade C)	2,119	1	2,119	\$8.00	\$17,630	0.13%		\$21,509		
24	Replace Roof (BUR, installed 1996, grade C)	2,713	1	2,713	\$8.00	\$22,572	0.17%		\$27,538		
25	Replace Roof (BUR, installed 2003, grade C)	2,766	1	2,766	\$8.00	\$23,013	0.17%		\$28,076		
26	Replace Roof (BUR, installed 2005, grade C)	7,318	1	7,318	\$8.00	\$60,886	0.45%		\$74,281		
27	Replace Roof (BUR, installed 2005, grade C)	9,933	1	9,933	\$8.00	\$82,643	0.61%		\$100,824		
28	Replace Roof (BUR, installed 2005, grade C)	751	1	751	\$8.00	\$6,248	0.05%		\$7,623		
29	Replace Roof (BUR, installed 2006, grade C)	3,321	1	3,321	\$8.00	\$27,631	0.20%		\$33,709		
30	Replace Roof (BUR, installed 2009, grade B)	2,556	1	2,556	\$0.00	\$0	0.00%			\$0	
31	Replace Roof (BUR, installed 2013, grade A)	7,993	1	7,993	\$0.00	\$0	0.00%			\$0	
32	Patching / Curbs for new M/E Work	1	1	1	\$50,000.00	\$52,000	0.38%		\$63,440		
33											
34	Doors										
35	Exterior Hollow Metal Doors / Frames / Hardware	4	1	4	\$2,500.00	\$10,400	0.08%			\$14,248	
36	Exterior Aluminum Doors / Frames / Hardware	30	1	30	\$3,500.00	\$109,200	0.81%			\$149,604	
37											
38	BUILDING ENVELOPE SUBTOTAL					\$1,151,596	8.49%	\$63,898	\$1,181,080	\$163,852	\$0
39											
40	3.0 INTERIOR/FINISHES										
41											
42	Abatement (allow)	1	1	1	\$200,000.00	\$208,000	0.00%	\$208,000			
43	Doors & Hardware										
44	Replace all other interior doors with new wood doors	1	175	175	\$1,750.00	\$318,500	2.35%	\$318,500			
45	Replace Mechanical Room Doors	1	12	12	\$2,500.00	\$31,200	0.23%	\$31,200			
46											
47	Ceilings										
48	Replace Corridor Ceilings	38,000	1	38,000	\$4.00	\$158,080	1.17%	\$158,080			
49	Replace Ceiling in Classrooms (currently 12x12)	750	11	8,250	\$4.00	\$34,320	0.25%	\$34,320			
50											
51	Flooring										
52	Hard Tile - Replace entry quarry tile	4,200	1	4,200	\$15.00	\$65,520	0.48%	\$65,520			
53	Classrooms (VCT)	700	38	26,600	\$4.00	\$110,656	0.82%			\$151,599	
54	Corridors (VCT)	38,000	1	38,000	\$4.00	\$158,080	1.17%			\$216,570	
55	Paint Areas Disturbed by Construction	125,000	1	125,000	\$1.00	\$130,000	0.96%		\$158,600		
56											
57	Waterproof pool walls	1	1	1	\$30,000.00	\$31,200	0.23%	\$31,200			
58	Renovate (B) toilet rooms	1	8	8	\$80,000.00	\$665,600	4.91%	\$665,600			
59	Renovate Kitchen	1	1	1	\$100,000.00	\$104,000	0.77%			\$142,480	
60	Renovate walk in coolers	2	1	2	\$50,000.00	\$104,000	0.77%			\$142,480	
61	Renovate pass-thru refrig.	1	1	1	\$30,000.00	\$31,200	0.23%			\$42,744	
62											
63	Window treatment	1	1	1	\$75,000.00	\$78,000	0.58%	\$78,000			
64											
65	Casework										
66	Replace classroom casework (lowers)	200	1	200	\$250.00	\$52,000	0.38%			\$71,240	
67	Additional/new classroom casework (uppers)	200	1	200	\$150.00	\$31,200	0.23%			\$42,744	
68											
69											
70	INTERIOR/FINISHES SUBTOTAL					\$2,311,556	17.05%	\$1,590,420	\$158,600	\$809,856	\$0
71											
72	4.0 PLUMBING SYSTEMS										
73											
74											
75	Replace Pool gutter and assoc. piping and tile	1	1	1	\$130,000.00	\$135,200	1.00%	\$135,200			
76	Replace Pool mechanical room equipment	1	1	1	\$70,000.00	\$72,800	0.54%	\$72,800			
77	Replace Pool Return Piping, Drain Lines	1	1	1	\$30,000.00	\$31,200	0.23%	\$31,200			
78	Replace Pool Surge Tank	1	1	1	\$45,000.00	\$46,800	0.35%	\$46,800			
79	Replace Pool Filter system	1	1	1	\$75,000.00	\$78,000	0.58%	\$78,000			
80	Replace Pool Boiler (1996 Lochinvar)	1	1	1	\$50,000.00	\$52,000	0.38%	\$52,000			
81	Lochinvar 1996 750,000 BTU										
82											
83	Replace Domestic Hot Water Boiler	1	1	1	\$50,000.00	\$52,000	0.38%	\$52,000			
84	Lochinvar 1998 750,000 BTU										
85											
86	Horizontal HW/CW Piping Replacement (mains only)	208,855	1	208,855	\$4.00	\$868,837	6.41%			\$1,190,306	
87	Sanitary & Storm Drain Replacement (mains only)	208,855	1	208,855	\$3.00	\$651,628	4.81%			\$892,730	
88	Steam & Condensate Piping Replacement (allow)	1	1	1	\$200,000.00	\$208,000	1.53%			\$284,960	
89	Replace and add domestic water valves and fittings (allow)	1	1	1	\$100,000.00	\$104,000	0.77%			\$142,480	
90											
91											
92	PLUMBING SYSTEMS SUBTOTAL					\$2,300,464	16.96%	\$468,000	\$0	\$2,510,476	\$0

Summary of Costs
Parcels MS

Parcels Middle School 208,855 s.f. 2-story Building Built: 1951					Cost Data								
					Specification Factor =	1.00	(Medium)						
					Geographic Factor =	1.00	(US Median)						
					Cost Escalation Factor =	1.04	Spring 2017						
					1.04	1.22	1.37	1.04					
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities					
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other		
Draft 6-28-17													
5.0 HVAC SYSTEMS													
93	Heating												
97	Boilers (Lochinvar 1998, 19 yrs)	3	1	3	\$190,000.00	\$592,800	4.37%	\$592,800					
98	Assoc. equip., comb. Air, emerg. Gas stops												
99	Replace Steam Heating System Valves	1	1	1	\$80,000.00	\$83,200	0.61%	\$83,200					
100	Replace Condensation Pumps/piping	3	1	3	\$20,000.00	\$62,400	0.46%	\$62,400					
101													
102													
103													
104	Replace Locker Room AHU	1	1	1	\$100,000.00	\$104,000	0.77%	\$104,000					
105													
106	Pool dehumidification	1	1	1	\$125,000.00	\$130,000	0.96%	\$130,000					
107													
108	Air Conditioning - DX	27	1	27	\$7,500.00	\$210,600	1.55%	\$210,600					
109													
110	Ventilation												
111	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.23%	\$31,200					
112													
113	Replace Toilet Room Fans	1	6	6	\$10,000.00	\$62,400	0.46%	\$62,400					
114	Air and Water Balance	208,855	1	208,855	\$0.10	\$21,721	0.16%	\$21,721					
115	Commissioning	208,855	1	208,855	\$0.15	\$32,581	0.24%	\$32,581					
116													
117	Temperature Controls (Combo Medysis & BASS)	208,855	1	208,855	\$2.50	\$543,023	4.00%	\$543,023					
118													
119	HVAC SYSTEMS SUBTOTAL						\$1,873,925	13.82%	\$1,873,925	\$0	\$0	\$0	
120													
121	6.0 ELECTRICAL SYSTEMS												
122													
123	Power for additional A/C	1	1	1	\$75,000.00	\$78,000	0.58%	\$78,000					
124	Lighting												
125	Replace Lighting with LED's (New OS, Switching, etc.)	208,855	1	208,855	\$1.50	\$325,814	2.40%	\$325,814					
126	Replace exterior building lights	208,855	1	208,855	\$0.25	\$54,302	0.40%	\$54,302					
127	Replace all emergency and ext lights	208,855	1	208,855	\$0.25	\$54,302	0.40%	\$54,302					
128	Add Occupancy Sensors	38	1	38	\$500.00	\$19,760	0.15%	\$19,760					
129	Add electrical upgrade for IT (classrooms)	43	1	43	\$5,000.00	\$223,600	1.65%	\$223,600					
130	Currently has Generator	1	1	1	\$0.00	\$0	0.00%						
131													
132	ELECTRICAL SYSTEMS SUBTOTAL						\$755,778	5.57%	\$755,778	\$0	\$0	\$0	
133													
134	7.0 SECURITY (Wright & Hunter)												
135	Door Access System	1	1	1	\$50,000.00	\$52,000	0.38%	\$52,000					
136	Surveillance System	1	1	1	\$77,000.00	\$80,080	0.59%	\$80,080					
137													
138	SECURITY SYSTEMS SUBTOTAL						\$132,080	0.97%	\$132,080	\$0	\$0	\$0	
139													
140	8.0 NOT USED												
141													
142													
143	OTHER SUBTOTAL						\$0	0.00%	\$0	\$0	\$0	\$0	
144													
145	9.0 FURNITURE & EQUIPMENT												
146	Replace Auditorium Seating	895	1	895	\$200.00	\$186,160	1.37%						
147	Classroom furniture	38	1	38	\$12,000.00	\$474,240	3.50%						
148	Computer Lab Furniture	2	1	2	\$15,000.00	\$31,200	0.23%						
149													
150													
151	FURNITURE & EQUIPMENT SUBTOTAL						\$691,600	5.10%	\$0	\$0	\$947,492	\$0	
152													
153	10.0 TECHNOLOGY (Wright & Hunter)												
154	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$837,000.00	\$870,480	6.42%	\$870,480					
155	Network Cabling	1	1	1	\$50,000.00	\$52,000	0.38%	\$52,000					
156	Network Wireless and Switches	1	1	1	\$160,000.00	\$166,400	1.23%	\$166,400					
157	Telephone System	1	1	1	\$110,400.00	\$114,816	0.85%	\$114,816					
158	Public Address Systems	1	1	1	\$75,000.00	\$78,000	0.58%	\$78,000					
159	Fiber WAN	1	1	1	\$75,000.00	\$78,000	0.58%	\$78,000					
160	TECHNOLOGY SUBTOTAL						\$1,359,696	10.03%	\$1,359,696	\$0	\$0	\$0	
161													
162	Building Infrastructure Improvement Total:					208,855	\$51.72	\$10,802,610	79.66%	\$6,432,219	\$1,385,420	\$4,431,677	\$0
163	Project Contingency:	10.00%	Of Building & Site Budget				\$875,131	6.45%	\$507,252	\$138,542	\$348,418	\$0	
164	Permits, Testing & Printing:	2.50%	Of Building & Site Budget				\$240,661	1.77%	\$139,494	\$38,099	\$95,815	\$0	
165	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget				\$789,369	5.82%	\$457,542	\$124,965	\$314,273	\$0	
166	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency				\$852,518	6.29%	\$494,145	\$134,962	\$339,415	\$0	
167	PROJECT TOTAL							\$13,560,289	100.00%	\$8,030,653	\$1,821,989	\$5,529,599	\$0
									\$15,382,240				



2017 Facilities Assessment



Pierce Middle School 6-8

15439 Kercheval, Grosse Pointe Park, Michigan

Building Age: 78 years

Square Footage: 122,313 s.f.

Acres: 5.41

Students: 527

Capacity: 728 (72% Utilization)

Pierce Middle School is a 122,313 s.f brick clad 2-story building which opened in its doors in 1939. Pierce has the least amount of s.f. of the three middle schools and has the smallest site at 5.41 acres. The building contains an Auditorium and a swimming pool for students. Pierce students will attend South High School.



2017 Facilities Assessment

Site:

The 62 car asphalt parking lot was resurfaced 2003 and the entry/exit drives were milled and replaced in 2013. There is 1 ballfields at the southern end of the 5.41 acre site.

Roofing:

The built-up roof areas range in age from 30, 19, 17, and 12 years old. Due to the varying ages of the roofs, only some roof areas will need replacement in the near future.

HVAC:

The (3) steam boilers servicing the building are 20 years old and will need replacement or significant reconditioning in the next 5 to 10 years. An exhaust system should be installed to exit air from the boiler room which is from the pool room below.

Electrical:

It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

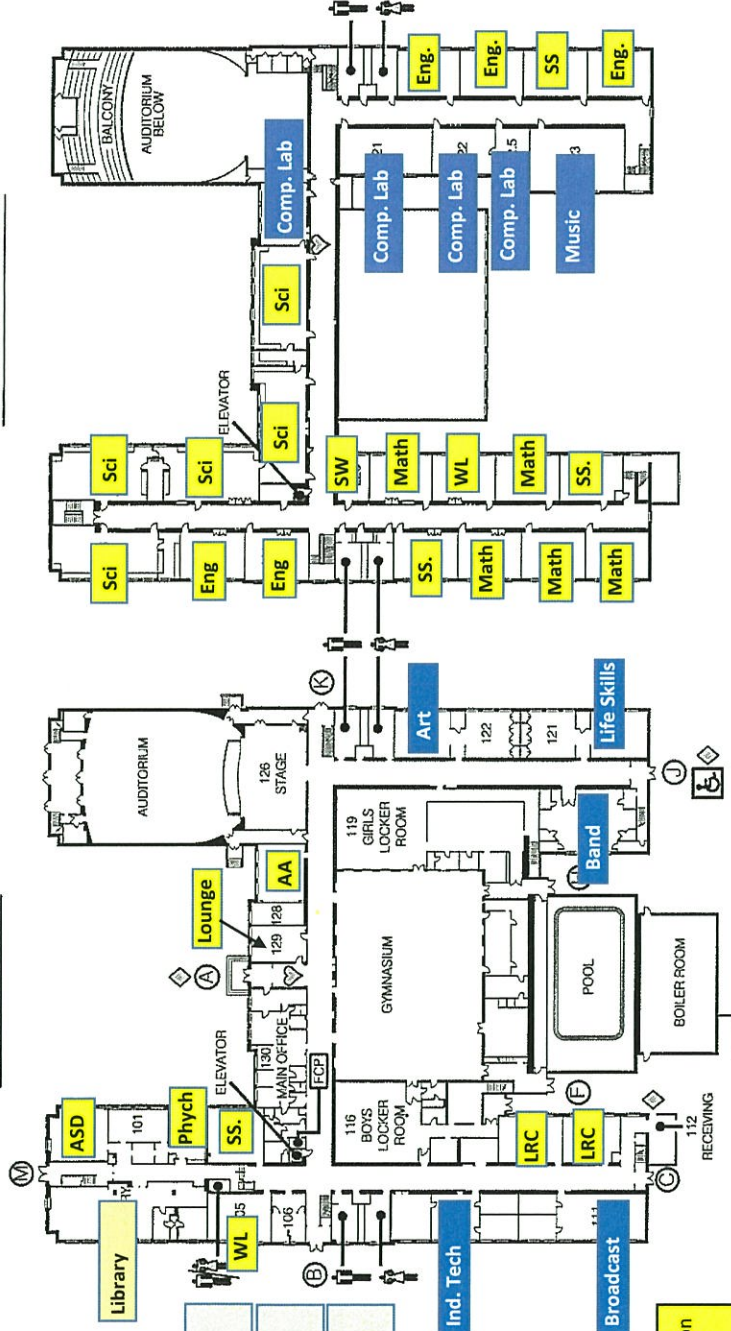
The pool equipment and pool air handling equipment requires replacement. It is recommended to replace the existing 78 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The furniture should be replaced due to age and wear. The kitchen should be renovated and kitchen walk-in coolers and pass thru refrigeration units replaced.

FIRST FLOOR

SECOND FLOOR



Pierce Middle School

15430 Kercheval
Grosse Pointe Park, MI 48230
313.432.4700

122,313 s.f.
Total Rooms: 28
Capacity: 728

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):
ES: 25 students /room
MS: 26 students /room
HS: 28 students /room



2017 Facilities Assessment



Weil McLain Boilers



Art Room Lighting



Older Exit Lighting and Monitor



First Level Corridor



2017 Facilities Assessment



Auditorium



Girl's Locker Room



Updated Science Lab



Pool Room



2017 Facilities Assessment

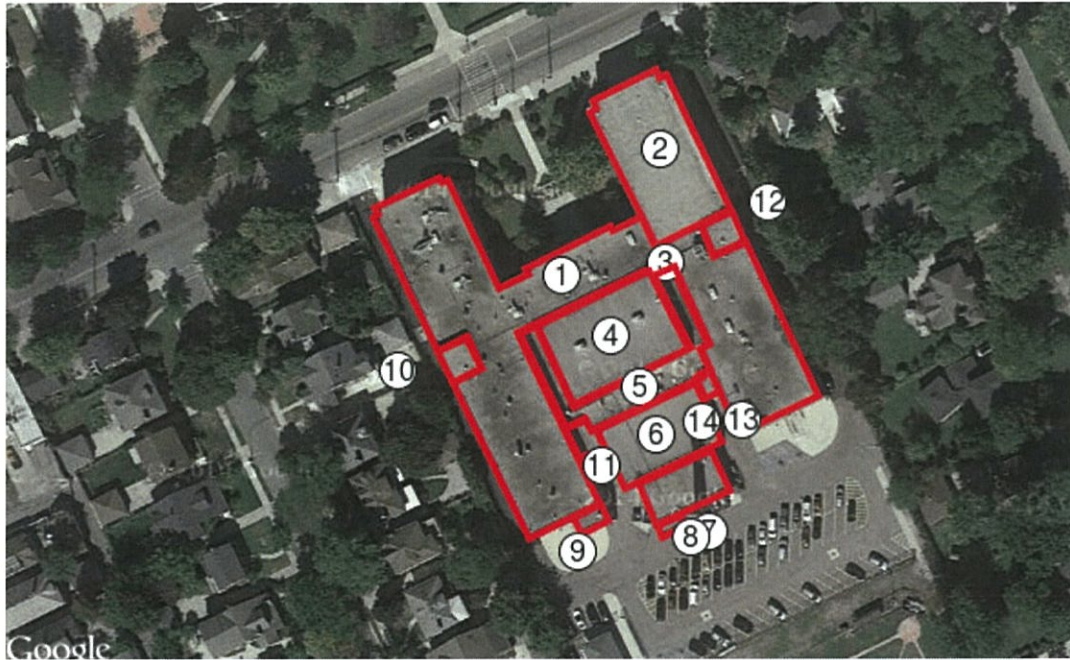


Pierce Middle School

122,313 s.f.
5.41 Acres



2017 Facilities Assessment



Total Sections: 14
Total Sq/Ft: 62,399

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	32,709	1987	C
2	Section 2-B	8,272	2005	C
3	Section 3-C	111	2005	C
4	Section 4-D	6,930	1998	C
5	Section 5-E	4,821	1998	C
6	Section 6-F	4,388	1998	C
7	Section 7-G	2,254	1998	C
8	Section 8-H	185	1998	C
9	Section 9-I	349	1998	C
10	Section 10-J	720	2005	C
11	Section 11-K	522	2005	B
12	Section 12-L	705	2000	B
13	Section 13-M	209	2000	B
14	Section 14-N	226	2000	B

Summary of Costs
Pierce MS

Pierce Middle School 122,313 s.f. 2-story Building Built: 1939								Cost Data				Cost Escalation Factors			
								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities				Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
1	1.0 SITE														
2															
3	Paving														
4	Replace Asphalt Parking Lot (62 spaces) 2003	43,920	1	43,920	\$3.50	\$159,869	1.36%						\$195,040		
5	2013 mill & Replaced entry/exit drives														
6	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$8,500.00	\$8,840	6.91%				\$8,840				
7	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.22%							\$35,620	
8															
9	SITE SUBTOTAL					\$194,709	1.66%	\$8,840	\$195,040	\$35,620	\$0				
10															
11	2.0 BUILDING ENVELOPE														
12															
13	Roofing Work - J.D. Candler Report														
14	Replace Roof (BUR, installed 1987, grade C)	32,709	1	32,709	\$8.00	\$272,139	2.32%						\$332,009		
15	Replace Roof BUR, installed 1998, grade C)	6,930	1	6,930	\$8.00	\$57,658	0.49%						\$70,342		
16	Replace Roof BUR, installed 1998, grade C)	4,821	1	4,821	\$8.00	\$40,111	0.34%						\$48,935		
17	Replace Roof BUR, installed 1998, grade C)	4,388	1	4,388	\$8.00	\$36,508	0.31%						\$44,540		
18	Replace Roof BUR, installed 1998, grade C)	2,254	1	2,254	\$8.00	\$18,753	0.16%						\$22,879		
19	Replace Roof BUR, installed 1998, grade C)	185	1	185	\$8.00	\$1,539	0.01%						\$1,878		
20	Replace Roof BUR, installed 1998, grade C)	349	1	349	\$8.00	\$2,904	0.02%						\$3,542		
21	Replace Roof (BUR, installed 2005, grade C)	9,103	1	9,103	\$8.00	\$75,737	0.65%						\$92,399		
22	Replace Roof (BUR, installed 2000, grade B)	705	1	705	\$0.00	\$0	0.00%							\$0	
23	Replace Roof (BUR, installed 2000, grade B)	209	1	209	\$0.00	\$0	0.00%							\$0	
24	Replace Roof (BUR, installed 2000, grade B)	226	1	226	\$0.00	\$0	0.00%							\$0	
25	Replace Roof (BUR, installed 1998, grade C)	8,272	1	8,272	\$8.00	\$68,823	0.59%						\$83,964		
26	Replace Roof (BUR, installed 2005, grade C)	111	1	111	\$8.00	\$924	0.01%						\$1,127		
27	Replace Roof (BUR, installed 2005, grade C)	720	1	720	\$8.00	\$5,990	0.05%						\$7,308		
28	Replace Roof (BUR, installed 2005, grade B)	522	1	522	\$0.00	\$0	0.00%							\$0	
29	Patching / Curbs for new M/E Work	1	1	1	\$50,000.00	\$52,000	0.44%						\$63,440		
30															
31	Doors														
32	Exterior Hollow Metal Doors / Frames / Hdw	1	28	28	\$2,500.00	\$72,800	0.62%				\$72,800				
33															
34	BUILDING ENVELOPE SUBTOTAL					\$705,885	6.02%	\$72,800	\$772,364	\$0	\$0				
35															
36	3.0 INTERIOR/FINISHES														
37															
38	Abatement (allow)	1	1	1	\$200,000.00	\$208,000	1.78%				\$208,000				
39	Replace Corridor Doors & HDW	87	1	87	\$1,750.00	\$158,340	0.00%				\$158,340				
40	Replace Interior Room Doors and Hdw	42	1	42	\$1,750.00	\$76,440	0.00%				\$76,440				
41	Flooring														
42	Media Center (CPT)	900	1	900	\$4.50	\$4,212	0.04%				\$4,212				
43	Band/Music Suite (CPT)	900	1	900	\$4.50	\$4,212	0.04%				\$4,212				
44	Offices (CPT)	1,800	1	1,800	\$4.50	\$8,424	0.07%				\$8,424				
45	Auditorium (CPT)	3,200	1	3,200	\$4.50	\$14,976	0.13%				\$14,976				
46															
47	Paint Areas Disturbed by Construction	75,000	1	75,000	\$1.00	\$78,000	0.67%				\$78,000				
48	Ceilings														
49	Install new 2x4 Corridor Ceilings	14,000	1	14,000	\$4.00	\$58,240	0.00%				\$58,240				
50	Replace Ceiling in Classrooms (currently 12x12)	750	21	15,750	\$4.00	\$65,520	0.00%				\$65,520				
51	Window treatment	1	1	1	\$30,000.00	\$31,200	0.27%				\$31,200				
52	Kitchen renovation	1	1	1	\$100,000.00	\$104,000	0.89%				\$104,000				
53	Serving line cold wells	2	1	2	\$10,000.00	\$20,800	0.18%				\$20,800				
54	Pass-thru refrig.	1	1	1	\$25,000.00	\$26,000	0.22%				\$26,000				
55															
56															
57															
58	Casework														
59	Replace classroom casework (lowers) 40 CR x 10'	400	1	400	\$250.00	\$104,000	0.89%				\$126,880				
60															
61	INTERIOR/FINISHES SUBTOTAL					\$962,364	8.21%	\$858,364	\$126,880	\$0	\$0				
62															
63	4.0 PLUMBING SYSTEMS														
64															
65	Horizontal HW/CW Piping Replacement (mains only)	122,313	1	122,313	\$4.00	\$508,822	4.34%						\$697,086		
66	Sanitary & Storm Drain Replacement (mains only)	122,313	1	122,313	\$3.00	\$381,617	3.26%						\$522,815		
67	Steam & Condensate Piping Replacement (allow)	1	1	1	\$200,000.00	\$208,000	1.78%						\$284,960		
68															
69	Replace pool equipment, pumps, surge tank, drain system, p	1	1	1	\$390,000.00	\$405,600	3.46%				\$405,600				
70															
71	PLUMBING SYSTEMS SUBTOTAL					\$1,504,039	12.84%	\$405,600	\$0	\$1,504,861	\$0				

Pierce Middle School 122,313 s.f. 2-story Building Built: 1939					Cost Data Specification Factor = 1.00 (Medium) Geographic Factor = 1.00 (US Median) Cost Escalation Factor = 1.04 Spring 2017			Cost Escalation Factors 1.04 1.22 1.37 1.04			
Draft 6-28-17		Area Required	No. of Rms. / Units	Total Area	Base Unit	Effective Program Area	As % of Total	Ranked Capital Priorities			
Line No.	Program Area	(in Sq. Ft.)	Required	(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
72											
73	5.0 HVAC SYSTEMS										
74											
75	Heating - Classroom unit vents were replaced										
76	Steam Boilers (Weil Mclain, age, 20 yrs 1997)	3	1	3	\$190,000.00	\$592,800	5.06%	\$592,800			
77	Replace Steam Heating System Valves	1	1	1	\$80,000.00	\$83,200	0.00%	\$83,200			
78	Assoc. equip., comb. Air, emerg. Gas stops										
79	Replace AHU - Pool	1	1	1	\$100,000.00	\$104,000	0.89%	\$104,000			
80	Replace AHU - Gym	1	1	1	\$100,000.00	\$104,000	0.89%	\$104,000			
81	Replace Air Handlers (less gym & Pool)	110,000	1	110,000	\$15.00	\$1,716,000	228.53%	\$1,716,000			
82											
83											
84	Replace RTU's - second level	6	1	6	\$20,000.00	\$124,800	1.07%	\$124,800			
85	Ventilation										
86	Replace Kitchen Exhaust Fan (No ansul or make up air	1	1	1	\$30,000.00	\$31,200	4.96%	\$31,200			
87	or potential other code update requirements)										
88											
89	Install new Exhaust system for pool room below boiler rm	1	1	1	\$50,000.00	\$52,000	0.44%	\$52,000			
90											
91	Replace Domestic Hot Water Boiler	1	1	1	\$50,000.00	\$52,000	0.44%	\$52,000			
92	Rayback (1995) 750,000 BTU										
93											
94											
95	Temperature Controls (90% Medysis)	1	1	1	\$20,000.00	\$20,800	0.18%	\$20,800			
96	Air and Water Balance	122,313	1	122,313	\$0.10	\$12,721	0.11%	\$12,721			
97	Commissioning	122,313	1	122,313	\$0.15	\$19,081	0.16%	\$19,081			
98											
99											
100	HVAC SYSTEMS SUBTOTAL					\$2,912,601	24.86%	\$2,912,601	\$0	\$0	\$0
101	6.0 ELECTRICAL SYSTEMS										
102	Lighting										
103	Replace Lighting with LED's (change ballast)	20	1	20	\$1,200.00	\$24,960	0.21%	\$24,960			
104	Replace Lighting with LED's fixtures (four stem mtd)	21	1	21	\$3,200.00	\$69,888	0.60%	\$69,888			
105	Replace Lighting with LED's fixtures (corridors)	140	1	140	\$225.00	\$32,760	0.28%	\$32,760			
106	Replace exterior building lights	122,313	1	122,313	\$0.25	\$31,801	0.27%	\$31,801			
107	Replace all emergency and exit lights	122,313	1	122,313	\$0.25	\$31,801	0.27%	\$31,801			
108	Add Occupancy Sensors	41	1	41	\$500.00	\$21,320	0.18%	\$21,320			
109	Add electrical upgrade for IT (classrooms)	39	1	39	\$5,000.00	\$202,800	0.00%	\$202,800			
110	Add Generator	1	1	1	\$150,000.00	\$156,000	1.33%			\$213,720	
111	ELECTRICAL SYSTEMS SUBTOTAL					\$571,331	4.88%	\$415,331	\$0	\$213,720	\$0
112											
113	7.0 SECURITY (Wright & Hunter)										
114	Door Access System	1	1	1	\$50,000.00	\$52,000	0.44%	\$52,000			
115	Surveillance System	1	1	1	\$73,000.00	\$75,920	0.65%	\$75,920			
116											
117	SECURITY SYSTEMS SUBTOTAL					\$127,920	1.09%	\$127,920	\$0	\$0	\$0
118											
119	8.0 NOT USED										
120											
121											
122	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
123											
124	9.0 FURNITURE & EQUIPMENT										
125	Classroom furniture	24	1	24	\$12,000.00	\$299,520	2.56%			\$410,342	
126	Other furniture (Office, lobby, etc.)	2	1	2	\$20,000.00	\$41,600	0.36%			\$56,992	
127	Science Room Lab Tables	1	1	1	\$1,200.00	\$1,248	0.01%			\$1,710	
128	Media Center Furniture	1	1	1	\$30,000.00	\$31,200	0.27%			\$42,744	
129											
130											
131	FURNITURE & EQUIPMENT SUBTOTAL					\$373,568	3.19%	\$0	\$0	\$511,788	\$0
132											
133											
134	10.0 TECHNOLOGY (Wright & Hunter)										
135	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$722,000.00	\$750,880	6.41%	\$750,880			
136	Network Cabling	1	1	1	\$750,000.00	\$780,000	6.66%	\$780,000			
137	Network Wireless and Switches	1	1	1	\$350,000.00	\$364,000	3.11%	\$364,000			
138	Telephone System	1	1	1	\$105,600.00	\$109,824	0.94%	\$109,824			
139	Public Address Systems	1	1	1	\$75,000.00	\$78,000	0.67%	\$78,000			
140	Fiber WAN	1	1	1	\$80,000.00	\$83,200	0.71%	\$83,200			
141	TECHNOLOGY SUBTOTAL					\$2,165,904	18.48%	\$2,165,904	\$0	\$0	\$0
142											
143	Building Infrastructure Improvement Total:			122,313	\$77.82	\$9,518,321	81.23%	\$6,967,360	\$1,094,284	\$2,265,989	\$0
144	Project Contingency:		10.00%	Of Building & Site Budget		\$697,885	5.96%	\$480,146	\$109,428	\$175,420	\$0
145	Permits, Testing & Printing:		2.50%	Of Building & Site Budget		\$191,918	1.64%	\$132,040	\$30,093	\$48,241	\$0
146	Construction Manager Fee and Costs:		8.00%	Of Building & Site Budget		\$629,492	5.37%	\$433,091	\$98,704	\$158,229	\$0
147	Professional Fees & Costs:		8.00%	Of Building & Site Budget & Contingency		\$679,852	5.80%	\$467,739	\$106,601	\$170,887	\$0
148	PROJECT TOTAL					\$11,717,468	100.00%	\$8,480,376	\$1,439,111	\$2,818,766	\$0
											\$12,738,252



2017 Facilities Assessment

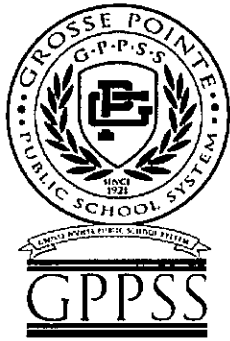


North High School 9-12

707 Vernier, Grosse Pointe Woods, Michigan

Building Age:	51 years
Square Footage:	342,148 s.f.
Acres:	31.3
Students:	1,385
Capacity:	2,408 (57% Utilization)

North High School is a 342,148 s.f brick clad 3-story building which opened in its doors in 1966. It is the High School for Poupard ES, Mason ES, Ferry ES and Parcels MS students.



2017 Facilities Assessment

Site:

The South 179 car asphalt parking lot and the North 356 car student parking lot may need replacement in 4 to 6 years along with several catch basins. The football field turf needs replacement, the running track requires replacement along with the stadium lights.

Roofing:

The built-up roof areas range in age from 37, 22, 21, 18, 16, 14, 12, 7 and 4 years old. Due to the varying ages of the roofs, only some roof areas will need replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 24 years old and will need replacement or significant reconditioning in the next 5 to 10 years. Several of the room unit ventilators require replacement on the second level. Some of the classrooms do not have air conditioning.

Electrical:

It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment. The existing electrical panels and switch gear are original and should be replaced.

Plumbing:

The pool equipment requires replacement due to condition and age. The domestic hot water boiler is 17 years old and requires replacement in the near future. The circulation pumps in the fan rooms should be replaced due to current condition and wear. It is recommended to replace the existing 51 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The third floor ceilings and flooring should be replaced due to their current condition and the lockers should be replaced. The kitchen walk-in freezer and serving lines should be replaced. The exterior metal panels at Area A North Lobby should be replaced due to their current condition and several windows require replacement with more energy efficient units. The Performing Arts Center (PAC) orchestra pit elevator requires repairs or replacement.

707 Vernier
Grosse Pointe Woods, MI 48236
313.432.3200

2017 Facilities Assessment



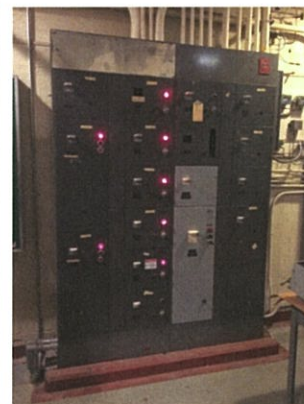
Air Handlers



Aluminum Storefront



Original Building Controls



Original Electrical Switchgear



2017 Facilities Assessment



Damaged Metal Panels



Open Stairwell



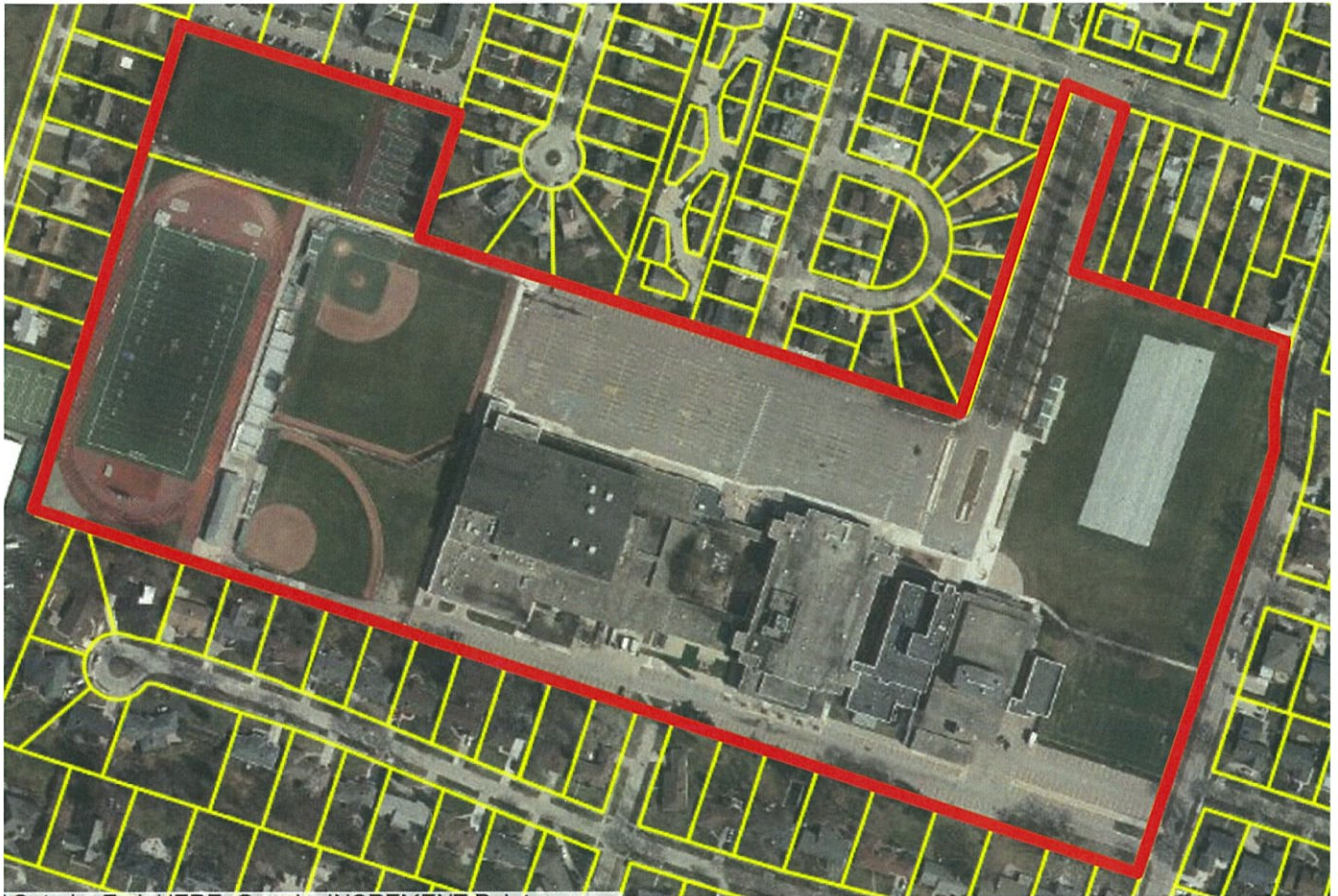
Locker Room



Typical Toilet Room



2017 Facilities Assessment



North High School

342,148 s.f.
31.3 Acres



2017 Facilities Assessment



Total Sections: 28
Total Sq/Ft: 231,641

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	43,303	1999	C
2	Section 2-B	11,769	2003	C
3	Section 3-C	12,116	1995	C
4	Section 4-D	1,696	2005	C
5	Section 5-E	2,483	1995	C
6	Section 6-F	17,054	1995	C
7	Section 7-G	6,112	2001	C
8	Section 8-G.1	2,048	2001	C
9	Section 9-H / 15-R	6,700	1996	D
10	Section 10-I, M, N, O	2,500	2001	C
11	Section 11-J	43,837	1996	D
12	Section 12-K	2,478	2001	B
13	Section 13-L	3,415	2001	C
14	Section 14-P	2,844	2003	B
15	Section 15-R	320	1996	C
16	Section 16-S	4,307	2003	C
17	Section 17-T	11,348	2005	B
18	Section 18-U	4,303	2005	B
19	Section 19 V / W	4,108	2005	B
20	Section 20-X	5,131	2005	C
21	Section 21-Y	1,640	2010	B

Summary of Costs
North HS

North High School 342,148 s.f. 3-story Building Built: 1966								Cost Data				Cost Escalation Factors			
								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
Line No.	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities							
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other				
1	1.0 SITE														
2															
3	Paving (2006 staff lot, 2011 student lot)														
4	South Parking Lot - approx. 179 parking spaces	70,959	1	70,959	\$3.50	\$258,291	0.88%							\$315,115	
5	North Parking Lot - approx. 356 parking spaces	146,200	1	146,200	\$3.50	\$532,168	1.82%							\$649,245	
6	North Parking Lot Entry Drive	38,000	1	38,000	\$3.50	\$138,320	0.47%							\$168,750	
7	Replace Catch Basins North and South Lots	22	1	22	\$5,000.00	\$114,400	0.39%							\$139,568	
8															
9	Athletic Fields														
10	Replace Football Field Turf	1	1	1	\$500,000.00	\$520,000	1.78%							\$634,400	
11	Resurface Running Track (remove asphalt)	1	1	1	\$250,000.00	\$260,000	0.89%	\$260,000							
12	Replace Stadium Lights	1	1	1	\$100,000.00	\$104,000	0.36%							\$126,880	
13															
14															
15															
16	Improve landscaping	1	1	1	\$50,000.00	\$52,000	0.18%							\$71,240	
17															
18	SITE SUBTOTAL					\$1,979,179	6.77%	\$260,000	\$2,033,958	\$71,240	\$0				
19															
20	2.0 BUILDING ENVELOPE														
21															
22															
23	Roofing Work - J.D. Candler Report														
24	Replace Roof (BUR, installed 1990, grade C)	15,898	1	15,898	\$8.00	\$132,271	0.45%							\$161,371	
25	Replace Roof (BUR, installed 1990, grade D)	7,499	1	7,499	\$8.00	\$62,392	0.21%	\$62,392							
26	Replace Roof (BUR, installed 1990, grade D)	5,750	1	5,750	\$8.00	\$47,840	0.16%	\$47,840							
27	Replace Roof (BUR, installed 1995, grade C)	12,116	1	12,116	\$8.00	\$100,805	0.34%							\$122,982	
28	Replace Roof (BUR, installed 1995, grade C)	2,483	1	2,483	\$8.00	\$20,659	0.07%							\$25,203	
29	Replace Roof (BUR, installed 1995, grade C)	17,054	1	17,054	\$8.00	\$141,889	0.49%							\$173,105	
30	Replace Roof (BUR, installed 1996, grade D)	6,700	1	6,700	\$8.00	\$55,744	0.19%	\$55,744							
31	Replace Roof (BUR, installed 1996, grade D)	43,837	1	43,837	\$8.00	\$364,724	1.25%	\$364,724							
32	Replace Roof (BUR, installed 1996, grade C)	320	1	320	\$8.00	\$2,662	0.01%							\$3,248	
33	Replace Roof (BUR, installed 1999, grade C)	43,303	1	43,303	\$8.00	\$360,281	1.23%							\$439,543	
34	Replace Roof (BUR, installed 1999, grade C)	4,694	1	4,694	\$8.00	\$39,054	0.13%							\$47,646	
35	Replace Roof (BUR, installed 2001, grade C)	6,112	1	6,112	\$8.00	\$50,852	0.17%							\$62,039	
36	Replace Roof (BUR, installed 2001, grade C)	2,048	1	2,048	\$8.00	\$17,039	0.06%							\$20,788	
37	Replace Roof (BUR, installed 2001, grade C)	2,500	1	2,500	\$8.00	\$20,800	0.07%							\$25,376	
38	Replace Roof (BUR, installed 2001, grade B)	2,478	1	2,478	\$0.00	\$0	0.00%							\$0	
39	Replace Roof (BUR, installed 2003, grade C)	11,769	1	11,769	\$8.00	\$97,918	0.33%							\$119,460	
40	Replace Roof (BUR, installed 2003, grade B)	2,844	1	2,844	\$0.00	\$0	0.00%							\$0	
41	Replace Roof (BUR, installed 2003, grade C)	4,307	1	4,307	\$8.00	\$35,834	0.12%							\$43,718	
42	Replace Roof (BUR, installed 2005, grade C)	1,696	1	1,696	\$8.00	\$14,111	0.05%							\$17,215	
43	Replace Roof (EDPM, installed 2005, grade B)	11,348	1	11,348	\$0.00	\$0	0.00%							\$0	
44	Replace Roof (EDPM, installed 2005, grade B)	4,303	1	4,303	\$0.00	\$0	0.00%							\$0	
45	Replace Roof (EDPM, installed 2005, grade B)	4,108	1	4,108	\$0.00	\$0	0.00%							\$0	
46	Replace Roof (EDPM, installed 2005, grade C)	5,131	1	5,131	\$8.00	\$42,690	0.15%							\$52,082	
47	Replace Roof (EDPM, installed 2005, grade C)	2,685	1	2,685	\$8.00	\$22,339	0.08%							\$27,254	
48	Replace Roof (EDPM, installed 2010, grade B)	1,640	1	1,640	\$0.00	\$0	0.00%							\$0	
49	Replace Roof (EDPM, installed 2010, grade B)	3,885	1	3,885	\$0.00	\$0	0.00%							\$0	
50	Replace Roof (EDPM, installed 2013, grade A)	1,627													
51															
52	Patching / Curbs for new M/E Work	1	1	1	\$75,000.00	\$78,000	0.27%	\$78,000							
53															
54	Exterior Walls (metal panels at area A North Lobby)	1,800	1	1,800	\$100.00	\$187,200	0.64%	\$187,200							
55															
56	Replace Windows														
57	Coopers square windows	11,200	1	11,200	\$75.00	\$873,600	2.99%	\$873,600							
58	Area A North Lobby storefront window replacement	2,000	1	2,000	\$75.00	\$156,000	0.53%	\$156,000							
59															
60	Doors														
61	Exterior Hollow Metal Doors / Frames / Hardware	1	52	52	\$2,500.00	\$135,200	0.46%							\$185,224	
62	Exterior Aluminum Doors / Frames / HDW at area B stairwe	7,200	1	7,200	\$75.00	\$561,600	1.92%							\$769,392	
63															
64	BUILDING ENVELOPE SUBTOTAL					\$3,621,505	12.38%	\$1,825,500	\$1,341,030	\$954,616	\$0				

Summary of Costs
North HS

North High School 342,148 s.f. 3-story Building Built: 1966								Cost Data				Cost Escalation Factors			
								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
Line	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities				Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
65	Draft 6-28-17														
66	3.0 INTERIOR/FINISHES														
67															
68	Abatement														
69	Remove 3rd floor ACT Tile	30,000	1	30,000	\$3.00	\$93,600	0.32%					\$93,600			
70	Remove 3rd floor ACT Ceiling	30,000	1	30,000	\$3.00	\$93,600	0.32%					\$93,600			
71	Remove Spray on Asbest. At removed lockers	1	1	1	\$20,000.00	\$20,800	0.07%					\$20,800			
72															
73	PAC Elevator	1	1	1	\$250,000.00	\$260,000	0.89%					\$260,000			
74															
75															
76	Doors & Hardware														
77	Replace door hardware (locksets only)	500	1	500	\$500.00	\$260,000	0.89%					\$260,000			
78															
79	Ceilings														
80	Replace Corridor and CR Ceilings (due to new MRP/IT work at 3rd floor)	30,000	1	30,000	\$4.00	\$124,800	0.43%					\$124,800			
81															
82															
83															
84	Flooring														
85	Corridor and Classrooms 3rd floor	30,000	1	30,000	\$4.00	\$124,800	0.43%					\$124,800			
86															
87															
88	Paint Areas Disturbed by Construction	30,000	1	30,000	\$1.00	\$31,200	0.11%						\$38,064		
89															
90															
91	Replace Toilet Partitions (metal or plastic)	1	12	12	\$25,000.00	\$312,000	1.07%						\$380,640		
92	Replace Toilet Accessories (TP, PT, soap, mirror, grab bars, etc.)	1	12	12	\$600.00	\$7,488	0.03%						\$9,135		
93															
94	Lockers														
95	Replace student corridor lockers 3rd Floor	1	300	300	\$175.00	\$54,600	0.19%						\$66,612		
96	Replace athletic lockers	1	80	80	\$175.00	\$14,560	0.05%						\$17,763		
97	Replace gym lockers	1	80	80	\$175.00	\$14,560	0.05%						\$17,763		
98															
99	Replace Walk-in Freezer	1	1	1	\$100,000.00	\$104,000	0.36%						\$126,880		
100	Replace Serving Lines in Cafeteria	1	1	1	\$50,000.00	\$52,000	0.18%						\$63,440		
101															
102															
103															
104	INTERIOR/FINISHES SUBTOTAL					\$1,568,008	5.36%					\$977,600	\$720,298	\$0	\$0
105															
106	4.0 PLUMBING SYSTEMS														
107															
108															
109	Replace circulation pumps in each fan room	14	1	14	\$5,000.00	\$72,800	0.25%					\$72,800			
110	Replace 6" Back Flow Preventer	1	1	1	\$10,000.00	\$10,400	0.04%					\$10,400			
111															
112	Horizontal HW/CW Piping Replacement (mains only)	342,148	1	342,148	\$4.00	\$1,423,336	4.87%							\$1,949,970	
113	Sanitary & Storm Drain Replacement (mains only)	342,148	1	342,148	\$3.00	\$1,067,502	3.65%							\$1,462,477	
114	Steam & Condensate Piping Replacement (allow)	1	1	1	\$400,000.00	\$416,000	1.42%							\$569,920	
115															
116	Hot Water Boiler (2000)	1	1	1	\$50,000.00	\$52,000	0.18%						\$63,440		
117	Replace pool equipment	1	1	1	\$32,000.00	\$33,280	0.11%					\$33,280			
118	Plumbing Fixtures														
119	Replace toilets/urinals/lavatories	1	12	12	\$12,000.00	\$149,760	0.51%						\$182,707		
120															
121															
122	PLUMBING SYSTEMS SUBTOTAL					\$3,225,077	11.03%					\$116,480	\$246,147	\$3,982,367	\$0
123	5.0 HVAC SYSTEMS														
124															
125	Heating														
126	Steam Boilers (2002 Johnson Low Pressure)	2	1	2	\$250,000.00	\$520,000	1.78%						\$634,400		
127	Assoc. equip., comb. Air, emerg. Gas stops														
128	Replace Steam Heating System Valves	1	1	1	\$100,000.00	\$104,000	0.36%						\$126,880		
129															
130															
131	Install new steam traps	50	1	50	\$1,000.00	\$52,000	0.18%					\$52,000			
132	Replace Air Handlers (less Pool)	325,000	1	325,000	\$15.00	\$5,070,000	17.33%						\$6,185,400		
133	AHU Main Office, CR, (1968), Sci Bldg (2005), Heat ex (1968)														
134															
135	AHU Pool (dehumid)	1	1	1	\$100,000.00	\$104,000	0.36%					\$104,000			
136															
137															
138	Air Conditioning -100%														
139	Replace Chiller (McQuay Centrifugal Chiller, 2002)	1	1	1	\$250,000.00	\$260,000	0.89%						\$317,200		
140	Replace Chiller Pumps (1968)	1	1	1	\$20,000.00	\$20,800	0.07%						\$25,376		
141	Cooling Tower (Marlie, 2000)	1	1	1	\$50,000.00	\$52,000	0.18%						\$63,440		
142															
143	Air and Water Balance	342,148	1	342,148	\$0.10	\$35,583	0.12%					\$35,583			
144	Commissioning	342,148	1	342,148	\$0.15	\$53,375	0.18%					\$53,375			
145															
146	Temperature Controls (50% of building Medysis)	175,000	1	175,000	\$2.50	\$455,000	1.56%					\$455,000			
147															
148	HVAC SYSTEMS SUBTOTAL					\$6,726,758	23.00%					\$699,958	\$7,352,696	\$0	\$0

Summary of Costs

North High School 342,148 s.f. 3-story Building Built: 1966					Cost Data Specification Factor = 1.00 (Medium) Geographic Factor = 1.00 (US Median) Cost Escalation Factor = 1.04 Spring 2017			Cost Escalation Factors 1.04 1.22 1.37 1.04			
								Ranked Capital Priorities			
Line	Draft 6-28-17	Area Required	No. of Rms. / Units	Total Area	Base Unit	Effective Program Area	As % of Total	Critical Needs	Deferrable Maintenance	Property Enhancement	Other
No.	Program Area	(in Sq. Ft.)	Required	(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)	
149											
150	6.0 ELECTRICAL SYSTEMS										
151											
152	Power										
153	Original Switch Gear										
154	Replace Existing Panels	1	4	4	\$50,000.00	\$208,000	0.71%	\$208,000			
155											
156	Lighting										
157	Replace Lighting with LED's (New OS, Switching, etc.)	342,148	1	342,148	\$2.00	\$711,668	2.43%	\$711,668			
158	Replace all emergency and exit lights	342,148	1	342,148	\$0.25	\$88,958	0.30%	\$88,958			
	Add electrical upgrade for IT (classrooms)	108	1	108	\$5,000.00	\$561,600	227.85%	\$561,600			
159	Add Generator	1	1	1	\$250,000.00	\$260,000	0.89%			\$356,200	
160											
161	ELECTRICAL SYSTEMS SUBTOTAL					\$1,830,226	6.26%	\$1,570,226	\$0	\$356,200	\$0
162											
163	7.0 SECURITY (Wright & Hunter)										
164	Door Access System	1	1	1	\$100,000.00	\$104,000	0.36%	\$104,000			
165	Surveillance System	1	1	1	\$237,000.00	\$246,480	0.84%	\$246,480			
166											
167	SECURITY SYSTEMS SUBTOTAL					\$350,480	1.20%	\$350,480	\$0	\$0	\$0
168											
169	8.0 NOT USED										
170											
171											
172	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
173											
174	9.0 FURNITURE & EQUIPMENT										
175											
176											
177											
178											
179	FURNITURE & EQUIPMENT SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
180											
181	10.0 TECHNOLOGY (Wright & Hunter)										
182	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$1,852,000.00	\$1,926,080	6.58%	\$1,926,080			
183	Network Cabling	1	1	1	\$900,000.00	\$936,000	3.20%	\$936,000			
184	Network Wireless and Switches	1	1	1	\$500,000.00	\$520,000	1.78%	\$520,000			
185	Telephone System	1	1	1	\$264,000.00	\$274,560	0.94%	\$274,560			
186	Public Address Systems	1	1	1	\$100,000.00	\$104,000	0.36%	\$104,000			
187	Fiber WAN	1	1	1	\$102,500.00	\$106,600	0.36%	\$106,600			
188											
189	TECHNOLOGY SUBTOTAL					\$3,867,240	13.22%	\$3,867,240	\$0	\$0	\$0
190											
191	Building Infrastructure Improvement Total:			342,148	\$67.71	\$23,168,474	79.21%	\$9,667,484	\$11,694,129	\$5,364,423	\$0
192	Project Contingency:	10.00%	Of Building & Site Budget			\$1,930,123	6.60%	\$580,024	\$1,169,413	\$536,442	\$0
193	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$530,784	1.81%	\$159,507	\$321,589	\$147,522	\$0
194	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$1,740,971	5.95%	\$523,182	\$1,054,810	\$483,871	\$0
195	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$1,880,249	6.43%	\$565,037	\$1,139,195	\$522,581	\$0
196	PROJECT TOTAL					\$29,250,601	100.00%	\$11,495,234	\$15,379,137	\$7,054,839	\$0
\$33,929,210											



2017 Facilities Assessment



South High School 9-12

11 Grosse Pointe Blvd., Grosse Pointe Farms, Michigan

Building Age: 90 years

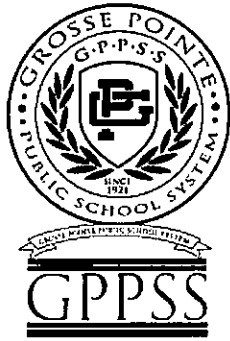
Square Footage: 436,691 s.f.

Acres: 23.7

Students: 1,678

Capacity: 2,128 (78% Utilization)

South High School is a 436,691 s.f brick clad 3-story building which opened in its doors in 1927. It is the High School for Defer ES, Kerby ES, Maire ES, Monteith ES, Richard ES, Pierce MS and Brownell MS students.



2017 Facilities Assessment

Site:

The S, J, T and Staff asphalt parking lots may need replacement in the near future. The press box, track and baseball field requires replacement.

Roofing:

The built-up roof areas range in age from 21, 19, 17 and 9 years old. Due to the varying ages of the roofs, only some roof areas will need replacement in the near future.

HVAC:

The steam boilers servicing the building should be replaced and a new, more energy efficient, hydronic system installed.

Electrical:

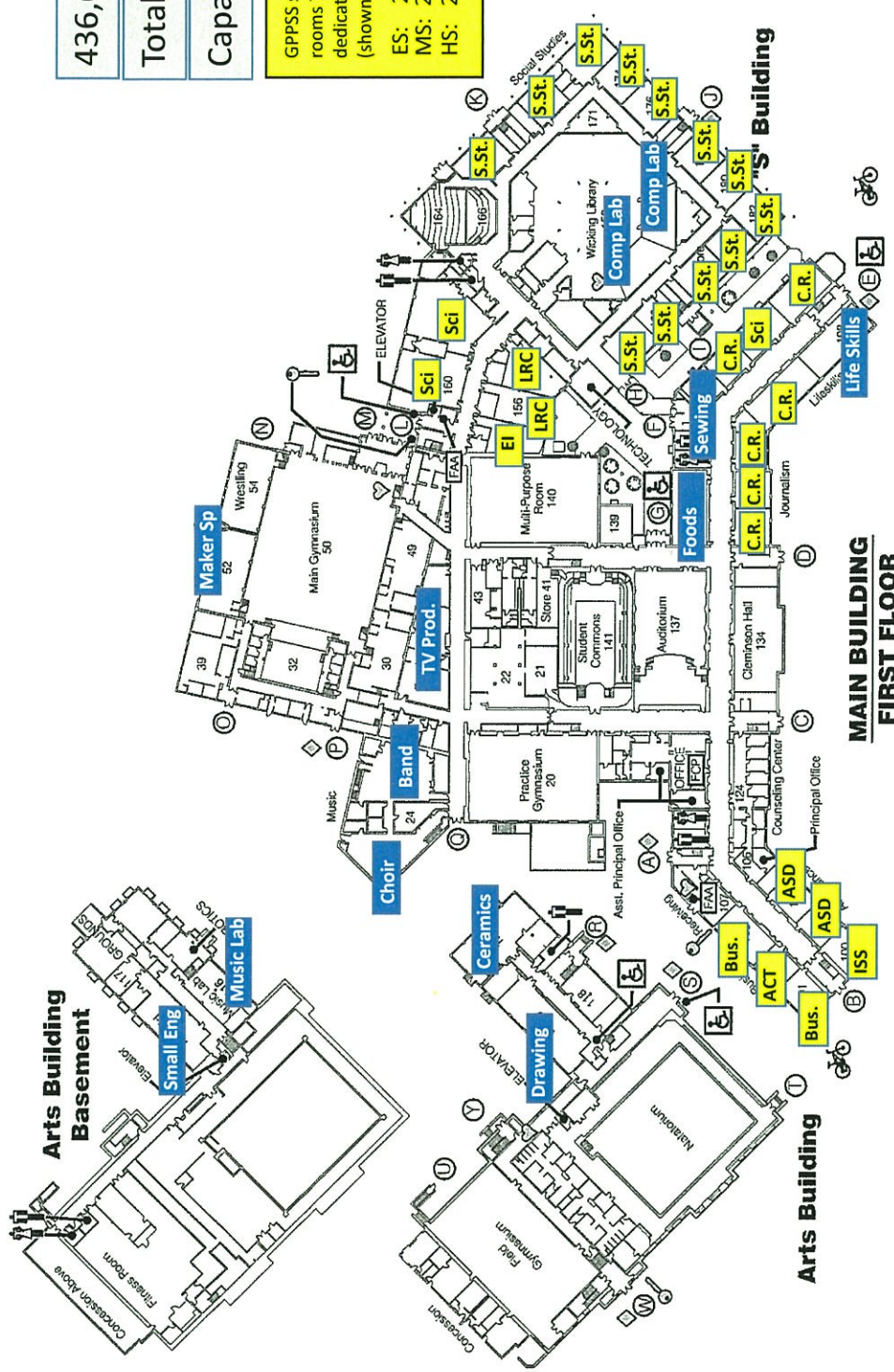
It is also recommended to replace the existing corridor and classroom fluorescent light fixtures with more energy efficient LED fixtures throughout the building. Classrooms will require additional electrical power needs to support new IT equipment. New distribution panels and new outlets throughout the building are recommended.

Plumbing:

The domestic hot water boiler is old and requires replacement in the near future. It is recommended to replace the existing 90 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping. An allowance for replacement is included in the summary of costs.

Finishes:

Where stem mounted fluorescent fixtures are present, it is recommended to install new acoustical tile ceilings and LED lighting. The kitchen walk-in coolers are original and should be replaced. Some of the pool gutter and tile should be replaced. The freight elevator should be refurbished. Several classroom require new marker and tack boards.



436,691 s.f.
Total Rooms: 76
Capacity: 2,128
<p>GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):</p> <p>ES: 25 students /room MS: 26 students /room HS: 28 students /room</p>

LEGEND:

	BOYS RESTROOM		Knock-box
	Girls Restroom		FIRE ALARM CONTROL PANEL
	AUTOMATIC ELEC. DEBRILLATOR		FIRE ALARM ANNUNCIATOR
	ADA ENTRANCE		CONTROLLED ACCESS ENTRY
	BIKE RACK		PANEL

Scale: 0 30' 60' 90'

North Arrow: N

Architect: Ehresman Associates, Inc.
architects engineers

Date: JULY 2010

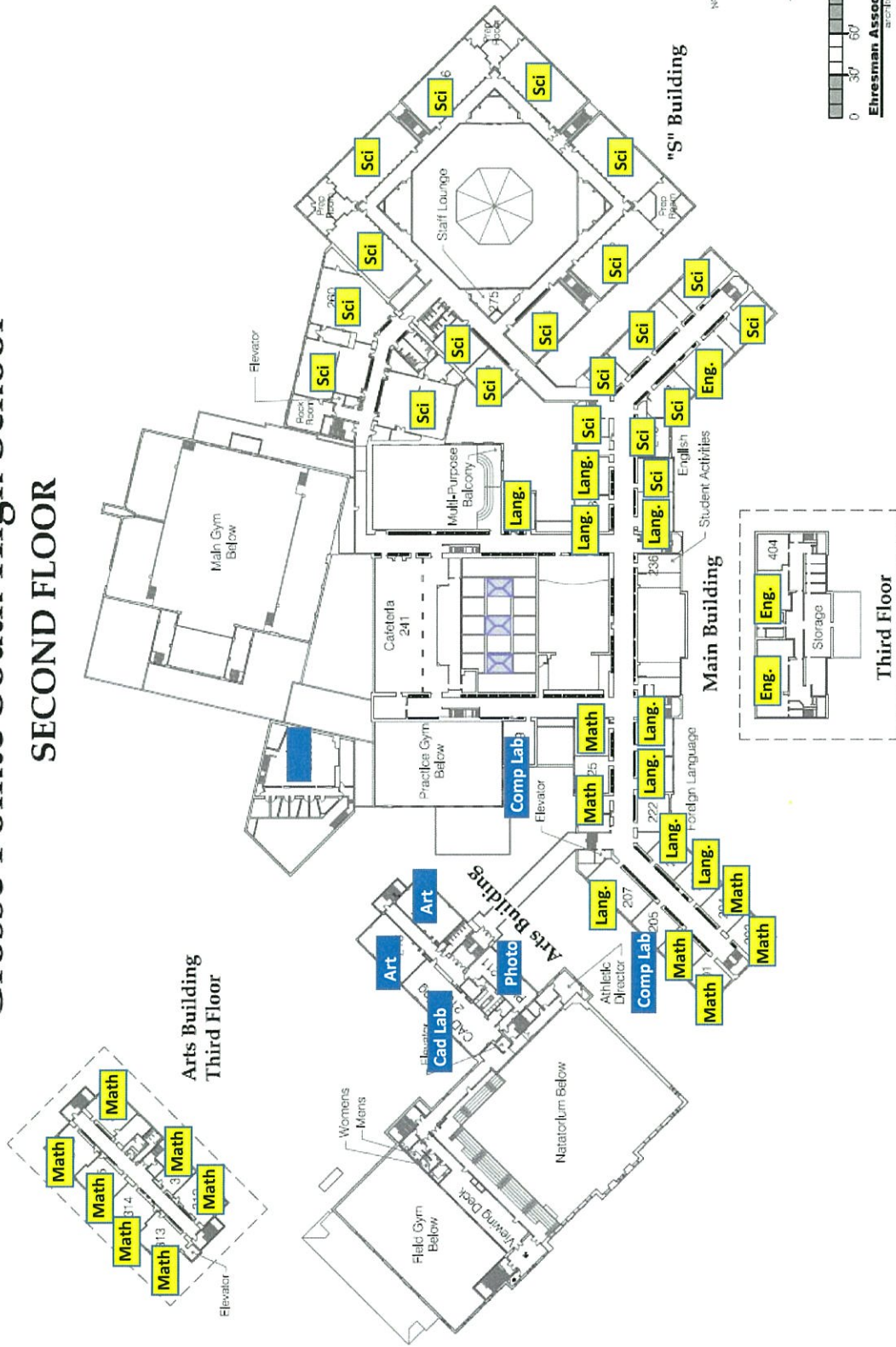
Grosse Pointe South High School
 11 Grosse Pointe Blvd.
 Grosse Pointe Farms, MI 48236
 313.432.3500

Grosse Pointe South High School

SECOND FLOOR

436,691 s.f.
Total Rooms: 76
Capacity: 2,128

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):
 ES: 25 students /room
 MS: 26 students /room
 HS: 28 students /room

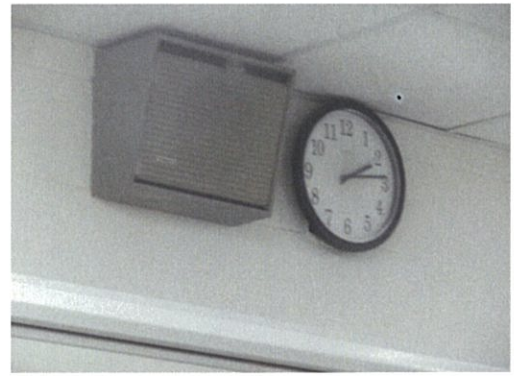




2017 Facilities Assessment



Exit Lighting



P/A and Clock



Classroom Door



Classroom Lighting



2017 Facilities Assessment



Corridor Lighting



Classroom Furniture



Computer Lab



Damaged Ceiling Tiles



2017 Facilities Assessment

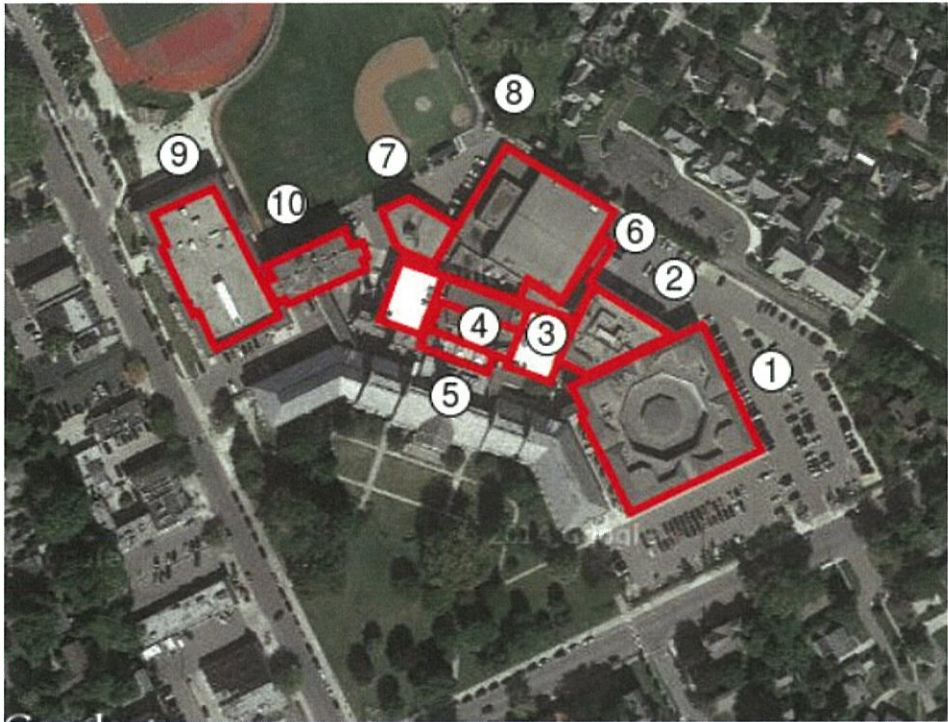


South High School

**436,691 s.f.
23.7 Acres**



2017 Facilities Assessment



Total Sections: 10
Total Sq/Ft: 129,636

Updated 06/06/2017 07:15 AM [Download PDF](#)

Map ▲▼	Name ▲▼	Sq/Ft ▲▼	Estimated Install ▲▼	Grade ▲▼
1	Section 1 / Area S Building	40,426	1996 ✓	C
2	Section 2 / Area Science Bldg.	9,837	2005 ✓	C
3	Section 3 / Area E & H	100	2009 ✓	A
4	Section 4 / Area J	5,199	2000	F
5	Section 5 / 4- I	2,829	2000	D
6	Section 6 / E,F	3,973	1998 ✓	C
7	Section 7 / Q	5,651	1998 ✓	C
8	Section 8 / G,M,N,O,O.1,P,	32,535	1998 ✓	C
9	Section 9 / AA Pool Bldg.	20,710	2008 ✓	B
10	Section 10 / Area W	8,376	2003 ✓	C

Summary of Costs
South HS

South High School 436,691 s.f. 3-story Building Built: 1927					Cost Data						
					Specification Factor =	1.00	(Medium)				
					Geographic Factor =	1.00	(US Median)				
					Cost Escalation Factor =	1.04	Spring 2017				
								1.04	1.22	1.37	1.04
								Ranked Capital Priorities			
Line	Draft 6-28-17	Area	No. of			Effective	As % of	Critical	Deferrable	Property	Other
No.		Required	Rms. /	Total Area	Base Unit	Program	Total	Needs	Maintenance	Enhancement	
	Program Area	(in Sq. Ft.)	Units	(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)	
1	1.0 SITE										
2											
3	Paving										
4	Replace Asphalt Parking Lot "S Lot" (2010)	82,000	1	82,000	\$3.50	\$298,480	1.16%	\$298,480			
5	Replace Asphalt Parking Lot "Staff Lot" (2009)	23,500	1	23,500	\$3.50	\$85,540	0.33%	\$85,540			
6	Replace Asphalt Parking Lot "J Lot" (2003)	23,500	1	23,500	\$3.50	\$85,540	0.33%	\$85,540			
7	Replace Asphalt Parking Lot "T Lot" (2004 + 1" cap 2013)	24,000	1	24,000	\$3.50	\$87,360	0.34%	\$87,360			
8											
9	Replace Exterior Concrete (Sidewalks, etc.)	1	1	20,000	\$6.00	\$124,800	1.64%	\$124,800			
10	Replace Concrete Stairs and Railings	1	1	1	\$7,500.00	\$7,800	0.10%	\$7,800			
11											
12											
13	Athletic Fields										
14	Replace Press box	1	1	1	\$65,000.00	\$67,600	0.26%				\$92,612
15	Replace track	1	1	1	\$280,000.00	\$291,200	1.13%				\$398,944
16	Replace Baseball Field Turf	1	1	1	\$350,000.00	\$364,000	1.42%				\$498,680
17											
18	Flag Pole Replacement (Rocket Enterprises)	1	3	3	\$25,000.00	\$78,000	0.30%	\$78,000			
19	(2) main, (1) athletic field										
20	Improve landscaping	1	1	1	\$50,000.00	\$52,000	0.20%				\$71,240
21	Fence Replacement	1	1	1	\$25,000.00	\$26,000	0.00%	\$26,000			
22											
23	SITE SUBTOTAL					\$1,568,320	6.10%	\$793,520	\$0	\$1,061,476	\$0
24											
25	2.0 BUILDING ENVELOPE										
26											
27											
28	Roofing Work - J.D. Candler Report										
29	Replace Roof (Type BUR/shingles, installed 1996, grade C) S build'	40,426	1	40,426	\$8.00	\$336,344	7.86%		\$410,340		
30	Replace Roof (Type Modified, installed 2000, grade F)	5,199	1	5,199	\$8.00	\$43,256	1.01%	\$43,256			
31	Replace Roof (Type Modified, installed 2000, grade D)	2,829	1	2,829	\$8.00	\$23,537	0.55%	\$23,537			
32	Replace Roof (Type BUR, shingles, installed 2005, grade C)	9,837	1	9,837	\$8.00	\$81,844	1.91%		\$99,849		
33											
34	Replace Roof (Type BUR, installed 1998, grade C)	3,973	1	3,973	\$8.00	\$33,055	0.77%		\$40,328		
35	Replace Roof (Type BUR, installed 1998, grade C)	5,651	1	5,651	\$8.00	\$47,016	1.10%		\$57,360		
36	Replace Roof (Type BUR, installed 1998, grade C)	32,535	1	32,535	\$8.00	\$270,691	6.32%		\$330,243		
37	Replace Roof (Type BUR, installed 2008, grade B) Pool	20,710	1	20,710	\$0.00	\$0	0.00%				\$0
38	Replace Roof (Type BUR, installed 2008, grade B)	8,376	1	8,376	\$0.00	\$0	0.00%				\$0
39	Replace Roof (Type Mech. Attached TPO, installed 2009, grade A)	100	1	100	\$0.00	\$0	0.00%				\$0
40	Patching / Curbs for new M/E Work	1	1	1	\$75,000.00	\$78,000	0.30%	\$78,000			
41											
42	Doors										
43	Exterior Aluminum Doors / Frames / Hardware	2	1	2	\$3,500.00	\$7,280	0.03%				\$9,974
44											
45	BUILDING ENVELOPE SUBTOTAL					\$921,024	3.58%	\$144,793	\$938,120	\$9,974	\$0
46											
47	3.0 INTERIOR/FINISHES										
48											
49	Abatement	1	1	1	\$400,000.00	\$416,000	1.62%	\$416,000			
50											
51	Replace kitchen walk-in coolers (1928)	2	1	2	\$100,000.00	\$208,000	0.81%	\$208,000			
52	Replace reach-thru coolers (1970)	2	1	2	\$50,000.00	\$104,000	0.40%	\$104,000			
53											
54											
55	Doors & Hardware										
56	Replace door/hardware	20	1	20	\$1,750.00	\$36,400	0.14%	\$36,400			
57											
58	Ceilings										
59	Replace Ceiling in Classrooms	40,000	1	40,000	\$4.00	\$166,400	0.65%	\$166,400			
60											
61	Flooring										
62	Pool Deck Gutter work (including deck tile repair)	480	1	480	\$45.00	\$22,464	0.09%	\$22,464			
63											
64	Paint Areas Disturbed by Construction	1	1	1	\$18,000.00	\$18,720	0.07%		\$22,838		
65											
66	Visual Display Boards										
67	Replace marker boards	28	1	28	\$1,500.00	\$43,680	0.17%				\$59,842
68	Replace tack boards	56	1	56	\$500.00	\$29,120	0.11%				\$39,894
69											
70	Gym Equipment										
71	New Scoreboard	1	1	1	\$35,000.00	\$36,400	0.14%	\$36,400			
72	Refurbish elevator (\$50K + \$20K/stop)	1	1	1	\$70,000.00	\$72,800	0.28%	\$72,800			
73	INTERIOR/FINISHES SUBTOTAL					\$1,153,984	4.49%	\$1,062,464	\$22,838	\$99,736	\$0

South High School 436,691 s.f. 3-story Building Built: 1927		Cost Data									
		Specification Factor =		1.00	(Medium)						
		Geographic Factor =		1.00	(US Median)						
		Cost Escalation Factor =		1.04	Spring 2017						
								Cost Escalation Factors			
								1.04	1.22	1.37	1.04
Line No.	Draft 6-28-17 Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities			
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
74											
75	4.0 PLUMBING SYSTEMS										
76	Horizontal HW/CW Piping Replacement (mains only)	436,691	1	436,691	\$4.00	\$1,816,635	7.06%			\$2,488,789	
77	Sanitary & Storm Drain Replacement (mains only)	436,691	1	436,691	\$3.00	\$1,362,476	5.30%			\$1,866,592	
78	Steam, Condensate Piping & Trap Replacement (allow)	1	1	1	\$400,000.00	\$416,000	1.62%			\$569,920	
79	Replace and add domestic water valves and fittings (allow)	1	1	1	\$100,000.00	\$104,000	0.40%			\$142,480	
80	Main building cast iron roof conductor replacement	1	1	1	\$400,000.00	\$416,000	1.62%	\$416,000			
81											
82											
83	Hot water Boiler at Athletic complex - new										
84	Hot water Boiler at Main building (Lochinvar)	2	1	2	\$50,000.00	\$104,000	0.40%	\$104,000			
85	Replace Boiler pumps	2	1	2	\$15,000.00	\$31,200	0.12%	\$31,200			
86	Install separate stack for H2O boiler (shares w/ main boilers)	1	1	1	\$30,000.00	\$31,200	0.12%	\$31,200			
87											
88											
89	PLUMBING SYSTEMS SUBTOTAL					\$4,281,510	16.65%	\$582,400	\$0	\$5,067,781	\$0
90											
91	5.0 HVAC SYSTEMS										
92											
93	Heating										
94	Steam Boilers (age ?) - Replace with Hydronic System	1	1	1	\$500,000.00	\$520,000	2.02%	\$520,000			
95	Currently open tunnels for airways										
96	Gym AHU (1954)										
97	Library AHU (1964)										
98	Varsity Girls/Boys AHU										
99	Music Room AHU (1964)										
100											
101	Install new Hydronic system	325,000	1	325,000	\$20.00	\$6,760,000	0.00%	\$6,760,000			
102	Assoc. equip., comb. Air, emerg. Gas stops, piping										
103											
104											
105	Air and Water Balance	436,691	1	436,691	\$0.10	\$45,416	0.18%	\$45,416			
106	Commissioning	436,691	1	436,691	\$0.15	\$68,124	0.26%	\$68,124			
107											
108	Temperature Controls (80% Medysis)	90,000	1	90,000	\$2.50	\$234,000	0.91%	\$234,000			
109											
110	HVAC SYSTEMS SUBTOTAL					\$7,627,540	29.65%	\$7,627,540	\$0	\$0	\$0
111											
112	6.0 ELECTRICAL SYSTEMS										
113											
114	Power										
115	New MDF, Distribution Panels, Outlets	60,000	1	60,000	\$5.00	\$312,000	1.21%	\$312,000			
116											
117	Lighting										
118	Replace Lighting with LED's (Classrooms & Corridors)	70,000	1	70,000	\$4.50	\$327,600	1.27%	\$327,600			
119	Replace all emergency and exit lights	436,691	1	436,691	\$0.25	\$113,540	0.44%	\$113,540			
120	Add electrical upgrade for IT (classrooms)	96	1	96	\$5,000.00	\$499,200	1.94%	\$499,200			
121	Add Generator	1	1	1	\$250,000.00	\$260,000	1.01%			\$356,200	
122											
123	ELECTRICAL SYSTEMS SUBTOTAL					\$1,512,340	5.88%	\$1,252,340	\$0	\$356,200	\$0
124											
125	7.0 SECURITY (Wright & Hunter)										
126	Door Access System	1	1	1	\$125,000.00	\$130,000	1.70%	\$130,000			
127	Surveillance System	1	1	1	\$270,000.00	\$280,800	3.68%	\$280,800			
128											
129											
130	SECURITY SYSTEMS SUBTOTAL					\$410,800	1.60%	\$410,800	\$0	\$0	\$0
131											
132	8.0 NOT USED										
133											
134											
135	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
136											
137	9.0 FURNITURE & EQUIPMENT										
138											
139											
140	FURNITURE & EQUIPMENT SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
141											
142	10.0 TECHNOLOGY (Wright & Hunter)										
143	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$1,833,000.00	\$1,906,320	24.99%	\$1,906,320			
144	Network Cabling	1	1	1	\$75,000.00	\$78,000	1.02%	\$78,000			
145	Network Wireless and Switches	1	1	1	\$260,000.00	\$270,400	3.55%	\$270,400			
146	Telephone System	1	1	1	\$264,000.00	\$274,560	3.60%	\$274,560			
147	Public Address Systems	1	1	1	\$100,000.00	\$104,000	1.36%	\$104,000			
148	Fiber WAN	1	1	1	\$102,500.00	\$106,600	1.40%	\$106,600			
149											
150	TECHNOLOGY SUBTOTAL					\$2,739,880	10.65%	\$2,739,880	\$0	\$0	\$0
151											
152	Building Infrastructure Improvement Total:			436,691	\$46.29	\$20,215,398	78.59%	\$14,613,736	\$960,959	\$6,595,167	\$0
153	Project Contingency:	10.00%		Of Building & Site Budget		\$1,747,552	6.79%	\$1,187,386	\$96,096	\$659,517	\$0
154	Permits, Testing & Printing:	2.50%		Of Building & Site Budget		\$480,577	1.87%	\$326,531	\$26,426	\$181,367	\$0
155	Construction Manager Fee and Costs:	8.00%		Of Building & Site Budget		\$1,576,292	6.13%	\$1,071,022	\$86,678	\$594,884	\$0
156	Professional Fees & Costs:	8.00%		Of Building & Site Budget & Contingency		\$1,702,395	6.62%	\$1,156,704	\$93,613	\$642,475	\$0
157	PROJECT TOTAL					\$25,722,213	100.00%	\$18,355,378	\$1,263,772	\$8,673,410	\$0
S28.292.560											



2017 Facilities Assessment



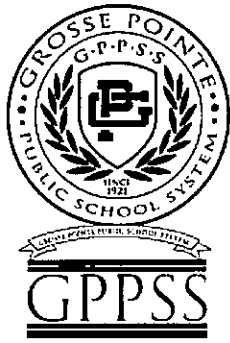
Barnes Pre-K School

20020 Morningside, Grosse Pointe Woods, Michigan 48236

Building Age: 62 years
Square Footage: 49,445 s.f.
Acres: 11.6

Description:

Barnes Pre-K School is a 2 story brick clad structure built in 1955. The first level is occupied by Pre-K students and the second level contains staff and support offices.



2017 Facilities Assessment

Site:

The 79 car asphalt parking lot shows signs of wear and should be replaced within the next couple of years. The playground equipment is newer and appears to be in good shape. There are 2 natural turf fields at the east end of the site.

Roofing:

The flat built-up roof areas range in age from 32, 28, 27 and 19 years old and require replacement in the near future.

HVAC:

The (2) steam boilers servicing the building are 18 years old and will need replacement or significant reconditioning in the near future. There are 12 RTU's providing A/C that are 20 years old and require replacement.

Electrical:

It is also recommended to replace the existing stem mounted and corridor light fixtures with more energy efficient LED throughout the building. Classrooms will require additional electrical power needs to support new IT equipment.

Plumbing:

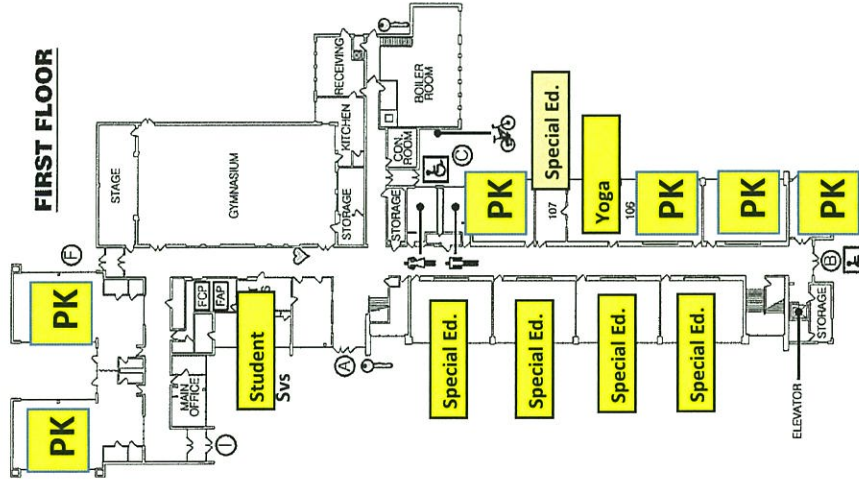
The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. The existing 62 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping have been replaced on an as needed basis.

Finishes:

Some of the classroom casework/cabinets will need replacement. Where older fluorescent fixtures are present, it is recommended to install new energy efficient LED lighting. Most of the classroom furniture is in need of replacement due to age and wear throughout the building.

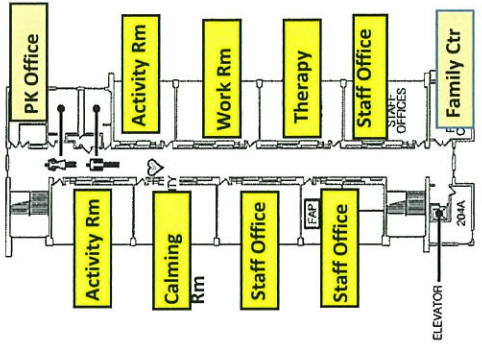
49,455 s.f.
Total Rooms: 20
Capacity: 500

GPPSS school capacity based on rooms 750 s.f. or larger, non-dedicated teaching spaces (shown on plans in yellow):
 ES: 25 students /room
 MS: 26 students /room
 HS: 28 students /room



FIRST FLOOR

SECOND FLOOR



LEGEND:

- BOYS RESTROOM
- GIRLS RESTROOM
- AUTOMATIC ELECTRICAL DEFIBRILLATOR
- KNOX-BOX
- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL
- ADA ENTRANCE
- BIKE RACK

Ehrceman Associates, Inc.
 architects engineers

DATE: JULY 2010



Barnes Early Childhood Center

20020 Morningside
 Grosse Pointe Woods, MI 48236
 313.432.3800



2017 Facilities Assessment



Weil-McLain Boilers



Corridor Emergency Lighting



Older Exit Signage



Parking Lot Cracks



2017 Facilities Assessment



Main Stairwell



First Level Corridor



Typical Classroom



Boy's Toilet Room



2017 Facilities Assessment

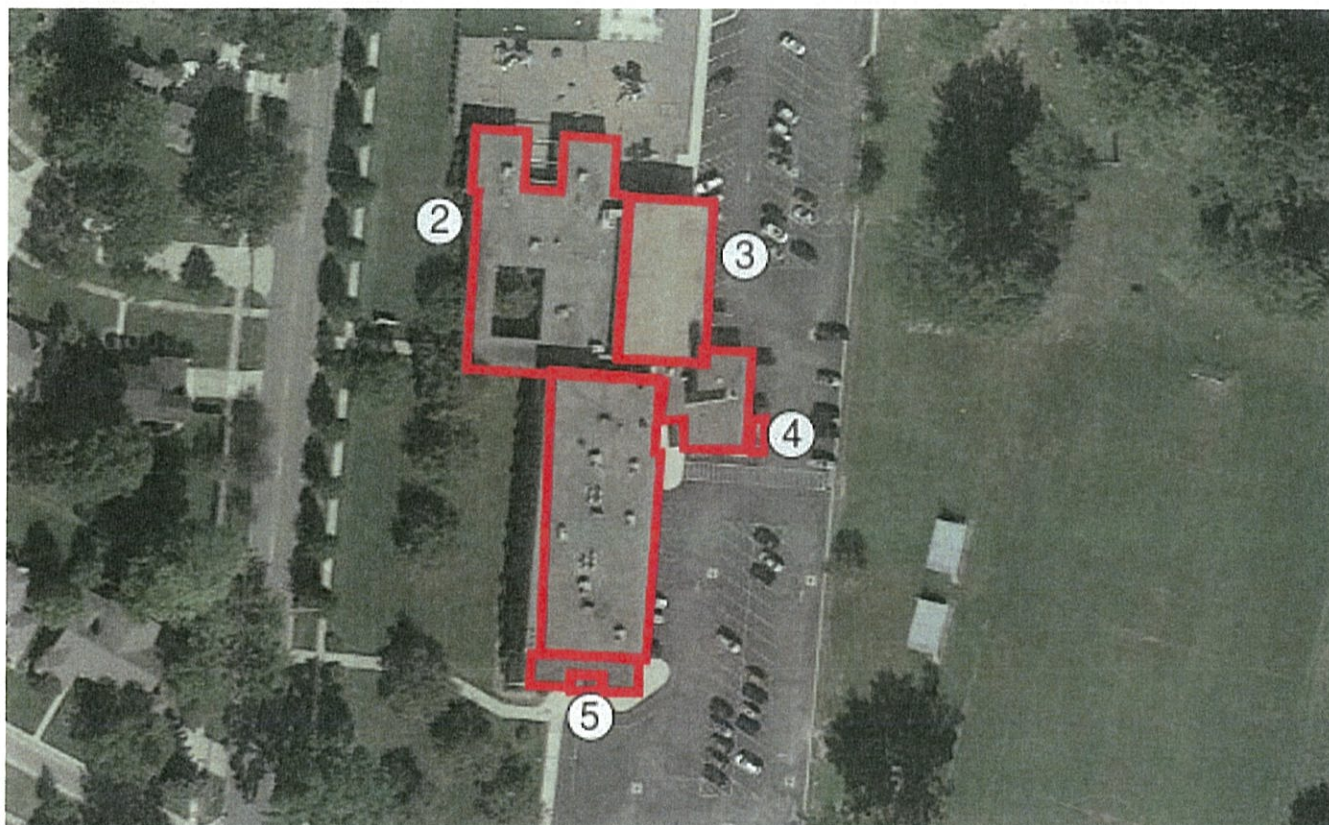


Barnes Pre-K School

**49,455 s.f.
11.6 Acres**



2017 Facilities Assessment



Total Sections: 6

Total Sq/Ft: 33,831

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	11,448	1990	C
2	Section 2-B	15,499	1990	D
3	Section 3-C	5,142	1989	C
4	Section 4-D & 7G	422	1985	F
5	Section 5-E	176	1998	D
6	Section 6-F	1,143	1998	D

Summary of Costs
Barnes Pre-K

Barnes Early Childhood Center								Cost Data				Cost Escalation Factors			
49,445 s.f 2-story Building								Specification Factor =	1.00	(Medium)		1.04	1.22	1.37	1.04
Built: 1955								Geographic Factor =	1.00	(US Median)					
								Cost Escalation Factor =	1.04	Spring 2017					
Draft 6-28-17								Ranked Capital Priorities							
Line	Program Area	Area Required (in Sq. Ft.)	No. of Rms. / Units	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other				
No.															
1	1.0 SITE														
2															
3	Paving														
4	Replace Asphalt Parking Lot (79 spaces)	66,591	1	66,591	\$3.50	\$242,391	5.17%	\$242,391							
5	Under cut sub base due to bad soils	66,591	1	66,591	\$1.00	\$69,255	1.48%	\$69,255							
6															
7	Concrete sidewalks	1	1	1,000	\$6.00	\$6,240	0.13%	\$6,240							
8															
9	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$4,500.00	\$4,680	0.10%	\$4,680							
10	Improve landscaping	1	1	1	\$25,000.00	\$26,000	0.56%				\$35,620				
11															
12	SITE SUBTOTAL					\$348,566	7.44%	\$322,566	\$0	\$35,620	\$0				
13															
14	2.0 BUILDING ENVELOPE														
15															
16	Roofing Work - J.D. Candler Report														
17	Replace Roof (BUR, installed 1985, Grade F)	422	1	422	\$8.00	\$3,511	0.07%	\$3,511							
18	Replace Roof (BUR, installed 1989, Grade C)	5,142	1	5,142	\$8.00	\$42,781	0.91%		\$52,193						
19	Replace Roof (BUR, installed 1990, Grade C)	11,448	1	11,448	\$8.00	\$95,247	2.03%		\$116,202						
20	Replace Roof (BUR, installed 1990, Grade D)	15,499	1	15,499	\$8.00	\$128,952	2.75%	\$128,952							
21	Replace Roof (BUR, installed 1998, Grade D)	176	1	176	\$8.00	\$1,464	0.03%	\$1,464							
22	Replace Roof (BUR, installed 1998, Grade D)	1,143	1	1,143	\$8.00	\$9,510	0.20%	\$9,510							
23	Patching / Curbs for new M/E Work	1	1	1	\$25,000.00	\$26,000	0.56%	\$26,000							
24	Entry Storefront	1	1	1	\$40,000.00	\$41,600	0.89%	\$41,600							
25															
26															
27	BUILDING ENVELOPE SUBTOTAL					\$349,066	7.45%	\$211,037	\$168,395	\$0	\$0				
28															
29	3.0 INTERIOR/FINISHES														
30															
31	Abatement (allow)	1	1	1	\$100,000.00	\$104,000	2.22%	\$104,000							
32	Corridor doors and hardware	52	1	52	\$1,750.00	\$94,640	0.00%	\$94,640							
33	Interior room doors and hardware	16	1	16	\$1,750.00	\$29,120	0.00%	\$29,120							
34	Remodel Main First Floor Offices	1,800	1	1,800	\$100.00	\$187,200	4.00%				\$256,464				
35	Classrooms (Carpet)	750	2	1,500	\$4.50	\$7,020	0.15%		\$8,564						
36	Classrooms (VCT)	750	18	13,500	\$4.50	\$63,180	1.35%				\$86,557				
37															
38	Paint Areas Disturbed by Construction	25,000	1	25,000	\$1.00	\$26,000	0.56%	\$26,000							
39	Casework														
40	Replace classroom casework	4	1	4	\$8,000.00	\$33,280	0.71%	\$33,280							
41															
42	INTERIOR/FINISHES SUBTOTAL					\$544,440	11.62%	\$287,040	\$8,564	\$343,021	\$0				
43	4.0 PLUMBING SYSTEMS														
44	Horizontal HW/CW Piping Replacement (mains only)	49,445	1	49,445	\$4.00	\$205,691	4.39%				\$281,797				
45	Sanitary & Storm Drain Replacement (mains only)	49,445	1	49,445	\$3.00	\$154,268	3.29%				\$211,348				
46	Steam & Condensate Piping Replacement (allow)	1	1	1	\$100,000.00	\$104,000	2.22%				\$142,480				
47	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	1.11%				\$71,240				
48															
49	Replace Domestic Hot Water Tank - 40 gal	1	1	1	\$5,000.00	\$5,200	0.11%	\$5,200							
50	PLUMBING SYSTEMS SUBTOTAL					\$521,160	11.13%	\$5,200	\$0	\$706,865	\$0				
51															
52	5.0 HVAC SYSTEMS														
53															
54	Heating														
55	Steam Boilers (Age 18 yrs, Weil McLien 1999)	2	1	2	\$125,000.00	\$260,000	5.55%		\$317,200						
56	Assoc. equip., comb. Air, emerg. Gas stops														
57	Install New Unit Ventilators on 2nd floor (1st floor are new)	10	1	10	\$20,000.00	\$208,000	4.44%	\$208,000							
58															
59															
60	Air conditioning 100% A/C														
61	Replace RTU's (1997)	12	1	12	\$10,000.00	\$124,800	2.66%	\$124,800							
62															
63	Ventilation														
64	Replace Kitchen Exhaust Fan (No ansul or make up air or potential other code update requirements)	1	1	1	\$30,000.00	\$31,200	0.00%	\$31,200							
65	Air and Water Balance	49,445	1	49,445	\$0.10	\$5,142	0.11%	\$5,142							
66	Commissioning	49,445	1	49,445	\$0.15	\$7,713	0.16%	\$7,713							
67															
68															
69	Temperature Controls (50% of building Medysis)	25,000	1	25,000	\$2.50	\$65,000	1.39%	\$65,000							
70															
71	HVAC SYSTEMS SUBTOTAL					\$701,856	14.98%	\$441,856	\$317,200	\$0	\$0				

Summary of Costs

Barnes Pre-K

Barnes Early Childhood Center					Cost Data						
49,445 s.f 2-story Building					Specification Factor = 1.00 (Medium)						
Built: 1955					Geographic Factor = 1.00 (US Median)			Cost Escalation Factors			
					Cost Escalation Factor = 1.04 Spring 2017			1.04	1.22	1.37	1.04
								Ranked Capital Priorities			
Draft 6-28-17		Area Required	No. of Rms. / Units	Total Area	Base Unit	Effective Program Area	As % of Total	Critical Needs	Deferrable Maintenance	Property Enhancement	Other
No.	Program Area	(in Sq. Ft.)	Required	(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)	
72											
73	6.0 ELECTRICAL SYSTEMS										
74	Lighting										
75	Replace Lighting with LED's (change ballast)	22	1	22	\$1,200.00	\$27,456	0.59%	\$27,456			
76											
77	Replace exterior building lights	49,445	1	49,445	\$0.25	\$12,856	0.27%	\$12,856			
78	Replace all emergency and exit lights	49,445	1	49,445	\$0.25	\$12,856	0.27%	\$12,856			
79	Add Occupancy Sensors	20	1	20	\$500.00	\$10,400	0.22%	\$10,400			
80	Add electrical upgrade for IT (classrooms)	20	1	20	\$5,000.00	\$104,000	2.22%	\$104,000			
81	Add Generator	1	1	1	\$100,000.00	\$104,000	2.22%			\$142,480	
82	ELECTRICAL SYSTEMS SUBTOTAL					\$167,567	3.58%	\$167,567	\$0	\$0	\$0
83											
84	7.0 SECURITY (Wright & Hunter)										
85	Door Access System	1	1	1	\$25,000.00	\$26,000	0.56%	\$26,000			
86	Surveillance System	1	1	1	\$40,000.00	\$41,600	0.89%	\$41,600			
87											
88	SECURITY SYSTEMS SUBTOTAL					\$67,600	1.44%	\$67,600	\$0	\$0	\$0
89											
90	8.0 NOT USED										
91	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
92											
93	9.0 FURNITURE & EQUIPMENT										
94	Classroom furniture	22	1	22	\$12,000.00	\$274,560	5.86%			\$376,147	
95	Media Center Furniture	1	1	1	\$50,000.00	\$52,000	1.11%			\$71,240	
96											
97	FURNITURE & EQUIPMENT SUBTOTAL					\$326,560	6.97%	\$0	\$0	\$447,387	\$0
98											
99	10.0 TECHNOLOGY (Wright & Hunter)										
100	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$252,000.00	\$262,080	5.60%	\$262,080			
101	Network Cabling	1	1	1	\$200,000.00	\$208,000	4.44%	\$208,000			
102	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	4.88%	\$228,800			
103	Telephone System	1	1	1	\$38,400.00	\$39,936	0.85%	\$39,936			
104	Public Address Systems	1	1	1	\$25,000.00	\$26,000	0.56%	\$26,000			
105	Fiber WAN	1	1	1	\$40,000.00	\$41,600	0.89%	\$41,600			
106											
107	TECHNOLOGY SUBTOTAL					\$806,416	17.22%	\$806,416	\$0	\$0	\$0
108											
109	Building Infrastructure Improvement Total:			49,445	\$77.53	\$3,833,230	81.83%	\$2,309,282	\$494,160	\$1,532,892	\$0
110	Project Contingency:	10.00%	Of Building & Site Budget			\$270,025	5.76%	\$150,287	\$49,416	\$108,551	\$0
111	Permits, Testing & Printing:	2.50%	Of Building & Site Budget			\$74,257	1.59%	\$41,329	\$13,589	\$29,851	\$0
112	Construction Manager Fee and Costs:	8.00%	Of Building & Site Budget			\$243,563	5.20%	\$135,558	\$44,573	\$97,913	\$0
113	Professional Fees & Costs:	8.00%	Of Building & Site Budget & Contingency			\$263,048	5.62%	\$146,403	\$48,139	\$105,746	\$0
114	PROJECT TOTAL					\$4,684,123	100.00%	\$2,782,859	\$649,877	\$1,874,953	\$0
											\$5,307,688



2017 Facilities Assessment



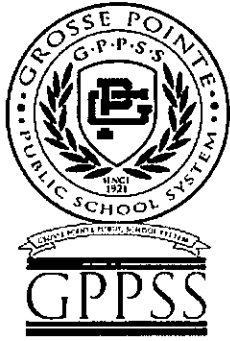
Administration Building

389 St. Clair, Grosse Pointe, Michigan 48230

Building Age: 111 years
Square Footage: 23,103 s.f.
Acres: 1.41

Description:

The GPPSS Administration Building is a 2 story brick clad structure with several additions. The original building dates back to 1915 with an addition in 2006. The basement, first and second levels contain District receiving, storage, HR, accounting, administrative and District support functions. The building is in relatively good condition for its age.



2017 Facilities Assessment

Site:

The 60 car asphalt parking lot shows signs of wear and should be replaced within the next couple of years. The sub base under the existing pavement should be tested by a geo-tech firm prior to replacement. There is a storage building on the northwest portion of the site.

Roofing:

The flat built-up and EPDM areas range in age from 13 to 7 years old and are in relatively good condition.

HVAC:

The building heating plant was converted from steam heat to a hydronic system in 2005.

Electrical:

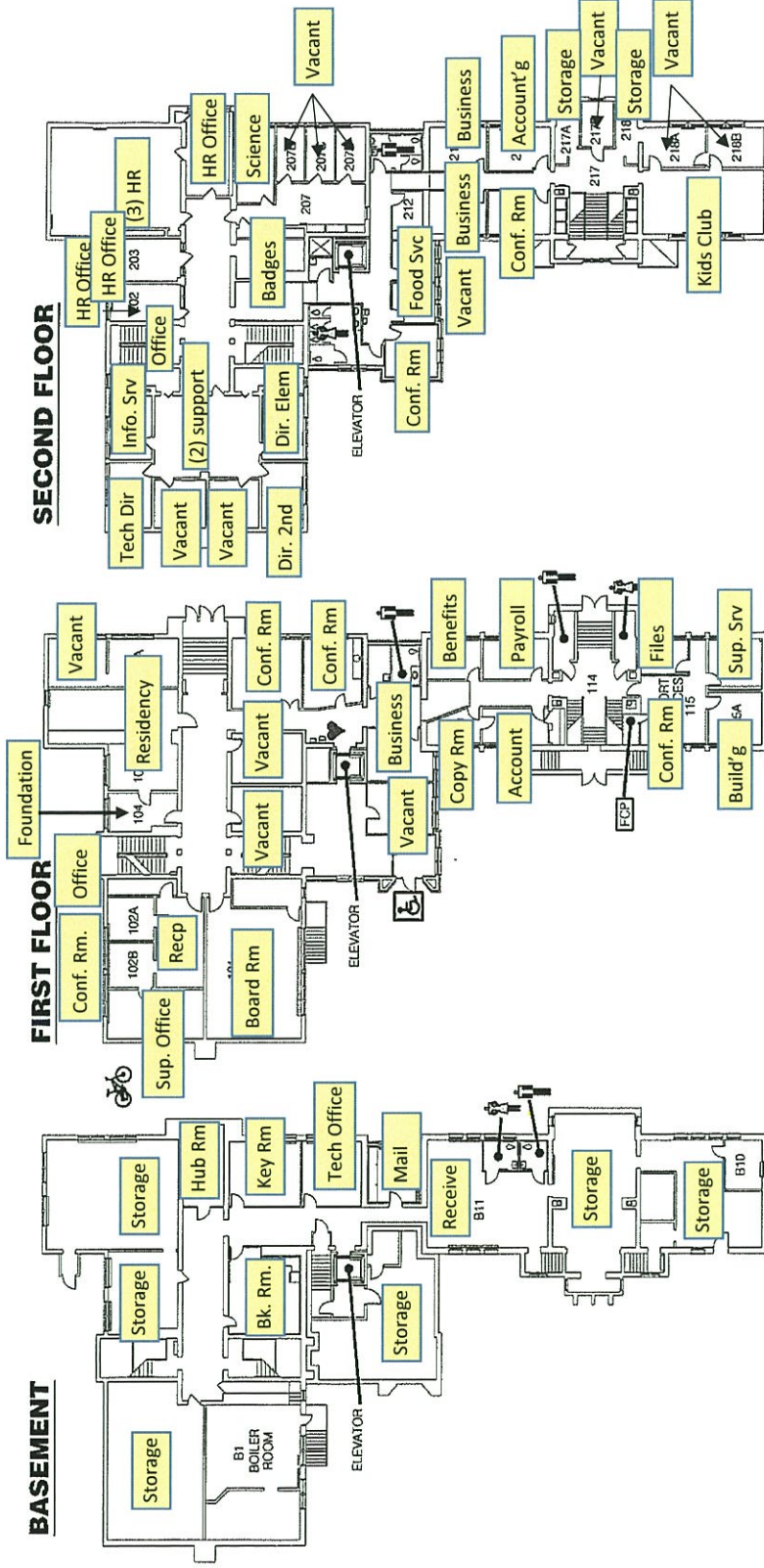
It is also recommended to replace the existing fluorescent room and corridor light fixtures with more energy efficient LED throughout the building. The building will require additional electrical power needs to support new IT equipment.

Plumbing:

The restrooms have been renovated recently and do not require further renovation at this time. When the restrooms were renovated, the galvanized piping was replaced with copper and new sanitary lines installed if they were accessible. The existing 111 year old domestic hot and cold water galvanized piping, sanitary & storm drains and heating system piping have been replaced on an as needed basis.

Finishes:

Some of the carpeting will need replacement throughout the building. Most of the office furniture is in need of replacement due to age and wear throughout the building.



23,103 s.f.

Grosse Pointe Public School System Administration Building

389 St. Clair
Grosse Pointe, MI 48230
313.432.3081

LEGEND:

- MENS RESTROOM
- WOMENS RESTROOM
- AUTOMATIC ELEC. PANEL
- DEEBELLATOR
- KNOW-BOX
- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL
- ADA ENTRANCE
- CONTROLLED ACCESS ENTRY
- BIKE RACK

Ehresman Associates, Inc.
architects engineers

DATE: MARCH 2011

0 30' 60' 90'



2017 Facilities Assessment



Building Exterior - Front



Exterior Sign



Building Exterior - Back



Parking Lot Cracks



2017 Facilities Assessment



Main Level Corridor



Second Level Corridor



Large Conference Room



Basement Storage/Receiving



2017 Facilities Assessment



Administration Building

**23,103 s.f.
1.41 Acres**



2017 Facilities Assessment



Total Sections: 5
Total Sq/Ft: 10,152

Map	Name	Sq/Ft	Est Install	Grade
1	Section 1-A	5,720	2010	B
2	Section 2-B	1,059	2005	C
3	Section 3-C	2,962	2010	B
4	Section 4-D	315	2005	B
5	Section 5-E	96	2004	C

Summary of Costs
Admin

Administration				Cost Data							
23,103 s.f. 2-story Building				Specification Factor = 1.00 (Medium)							
Built: 1906, Additions 1915, 2006				Geographic Factor = 1.00 (US Median)							
				Cost Escalation Factor = 1.04 Spring 2017				Cost Escalation Factors			
								1.04	1.22	1.37	1.04
Line No.	Draft 6-28-17	Area Required (in Sq. Ft.)	No. of Rms. / Units Required	Total Area (in Sq. Ft.)	Base Unit Cost (\$)	Effective Program Area Cost (\$)	As % of Total Cost	Ranked Capital Priorities			
								Critical Needs (1 - 3 years)	Deferrable Maintenance (4 - 6 years)	Property Enhancement (7 - 10 years)	Other
1	1.0 SITE										
2											
3	Paving										
4	Replace Asphalt Parking Lot (60 spaces)	31,975	1	31,975	\$3.50	\$116,389	5.74%	\$116,389			
5	Flag Pole Replacement (Rocket Enterprises)	1	1	1	\$7,000.00	\$7,280	0.00%	\$7,280			
6	Replace Exterior Concrete (Apron at storage bldg)	1,300	1	1,300	\$6.00	\$8,112	0.40%	\$8,112			
7											
8	SITE SUBTOTAL					\$131,781	6.50%	\$131,781	\$0	\$0	\$0
9											
10	2.0 BUILDING ENVELOPE										
11											
12											
13	Roofing Work - J.D. Candler Report										
14	Replace Roof (EDPM, installed 2004, Grade C)	96	1	96	\$8.00	\$799	0.04%		\$974		
15	Replace Roof (BUR, installed 2005, Grade C)	1,059	1	1,059	\$8.00	\$8,811	0.43%		\$10,749		
16	Replace Roof (St Seam Mtl, installed 2005, Grade B)	315	1	315	\$0.00	\$0	0.00%			\$0	
17	Replace Roof (BUR, installed 2010, Grade B)	5,720	1	5,720	\$0.00	\$0	0.00%			\$0	
18	Replace Roof (Shingles, installed 2010, Grade B)	2,962	1	2,962	\$0.00	\$0	0.00%			\$0	
19	Replace Roof (BUR, installed ?, Grade ?)	1,093	1	1,093	\$0.00	\$0	0.00%			\$0	
20											
21											
22	BUILDING ENVELOPE SUBTOTAL					\$9,610	0.47%	\$0	\$11,724	\$0	\$0
23											
24	3.0 INTERIOR/FINISHES										
25											
26	Doors & Hardware										
27	Replace Basement Mech. Rm Doors	2	1	2	\$1,750.00	\$3,640	0.18%	\$3,640			
28											
29	Flooring										
30	Office Carpet	12,500	1	12,500	\$4.00	\$52,000	2.57%		\$63,440		
31											
32	Paint Areas Disturbed by Construction	17,500	1	17,500	\$1.00	\$18,200	0.90%		\$22,204		
33											
34	INTERIOR/FINISHES SUBTOTAL					\$73,840	3.64%	\$3,640	\$85,644	\$0	\$0
35											
36	4.0 PLUMBING SYSTEMS										
37											
38	Replace hot water heater	1	1	1	\$5,000.00	\$5,200	0.26%		\$6,344		
39	Horizontal HW/CW Piping Replacement (mains only)	23,103	1	23,103	\$4.00	\$96,108	4.74%			\$131,669	
40	Sanitary & Storm Drain Replacement (mains only)	23,103	1	23,103	\$3.00	\$72,081	3.56%			\$98,751	
41											
42	Replace and add domestic water valves and fittings (allow)	1	1	1	\$50,000.00	\$52,000	2.57%			\$71,240	
43	PLUMBING SYSTEMS SUBTOTAL					\$225,390	11.12%	\$0	\$6,344	\$301,660	\$0
44											
45	5.0 HVAC SYSTEMS										
46											
47	Heating										
48	Boilers (2005 Hydronic System)										
49											
50	HVAC SYSTEMS SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
51											
52	6.0 ELECTRICAL SYSTEMS										
53											
54	Lighting										
55	Replace Lighting with LED's (New OS, Switching, etc.)	23,103	1	23,103	\$2.00	\$48,054	2.37%	\$48,054			
56	Replace all emergency and exit lights	23,103	1	23,103	\$0.25	\$6,007	0.30%	\$6,007			
57	Add Occupancy Sensors	30	1	30	\$500.00	\$15,600	0.77%	\$15,600			
58	Add electrical upgrade for IT	30	1	30	\$5,000.00	\$156,000	7.70%	\$156,000			
59	ELECTRICAL SYSTEMS SUBTOTAL					\$225,661	11.14%	\$225,661	\$0	\$0	\$0
60											
61	7.0 SECURITY (Wright & Hunter)										
62	Door Access System	1	1	1	\$25,000.00	\$26,000	1.28%	\$26,000			
63	Surveillance System	1	1	1	\$19,000.00	\$19,760	0.98%	\$19,760			
64											
65	SECURITY SYSTEMS SUBTOTAL					\$45,760	2.26%	\$45,760	\$0	\$0	\$0

Summary of Costs

Admin

Administration 23,103 s.f. 2-story Building Built: 1906, Additions 1915, 2006				Cost Data Specification Factor = 1.00 (Medium) Geographic Factor = 1.00 (US Median) Cost Escalation Factor = 1.04 Spring 2017				Cost Escalation Factors 1.04 1.22 1.37 1.04			
								Ranked Capital Priorities			
Line	Draft 6-28-17	Area Required	No. of Rms. / Units	Total Area	Base Unit	Effective Program Area	As % of Total	Critical Needs	Deferrable Maintenance	Property Enhancement	Other
No.	Program Area	(in Sq. Ft.)	Required	(in Sq. Ft.)	Cost (\$)	Cost (\$)	Cost	(1 - 3 years)	(4 - 6 years)	(7 - 10 years)	
66											
67	8.0 NOT USED										
68											
69											
70	OTHER SUBTOTAL					\$0	0.00%	\$0	\$0	\$0	\$0
71											
72	9.0 FURNITURE & EQUIPMENT										
73	Other furniture (Office, lobby, etc.)	45	1	45	\$10,000.00	\$468,000	23.10%			\$641,160	
74											
75	FURNITURE & EQUIPMENT SUBTOTAL					\$468,000	23.10%	\$0	\$0	\$641,160	\$0
76											
77	10.0 TECHNOLOGY (Wright & Hunter)										
78	Classroom Technology (AV, Desktop, Laptops, Tablets)	1	1	1	\$98,500.00	\$102,440	5.06%	\$102,440			
79	Network Cabling	1	1	1	\$200,000.00	\$208,000	10.27%	\$208,000			
80	Network Wireless and Switches	1	1	1	\$220,000.00	\$228,800	11.29%	\$228,800			
81	Telephone System	1	1	1	\$14,400.00	\$14,976	0.74%	\$14,976			
82	Public Address Systems	1	1	1	\$25,000.00	\$26,000	1.28%	\$26,000			
83	Fiber WAN	1	1	1	\$40,000.00	\$41,600	2.05%	\$41,600			
84	TECHNOLOGY SUBTOTAL					\$621,816	30.69%	\$621,816	\$0	\$0	\$0
85											
86	Building Infrastructure Improvement Total:			23,103	\$77.99	\$1,801,857	88.93%	\$1,028,658	\$103,712	\$942,820	\$0
87	Project Contingency:	10.00%		Of Building & Site Budget		\$71,204	3.51%	\$40,684	\$10,371	\$30,166	\$0
88	Permits, Testing & Printing:	2.50%		Of Building & Site Budget		\$19,581	0.97%	\$11,188	\$2,852	\$8,296	\$0
89	Construction Manager Fee and Costs:	8.00%		Of Building & Site Budget		\$64,226	3.17%	\$36,697	\$9,355	\$27,210	\$0
90	Professional Fees & Costs:	8.00%		Of Building & Site Budget & Contingency		\$69,364	3.42%	\$39,633	\$10,103	\$29,387	\$0
91	PROJECT TOTAL					\$2,026,233	100.00%	\$1,156,860	\$136,393	\$1,037,878	\$0
											\$2,331,131



2017 Facilities Assessment



Elworthy Field

9.22 Acres