

# FACILITY CONDITION ASSESSMENT

*Prepared for*

Ann Arbor Public Schools  
2555 South State Street  
Ann Arbor, Michigan 48104  
Jim Vibbart



**PREPARED BY:**

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February 2018

**ONSITE DATE:**

February 13-16, 2018

FACILITY CONDITION ASSESSMENT

OF

PIONEER HIGH SCHOOL  
601 WEST STADIUM DRIVE  
ANN ARBOR, MICHIGAN 48105



engineering | environmental | capital planning | project management

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**Immediate Repairs Report**  
**Pioneer High School**  
**7/2/2018**



EMG Renamed Item Number	Location Description	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *
C10	Main lobby	855360	Interior Walls, , Repair	2300	SF	\$30.00	\$69,008	<b>\$69,008</b>
C10	Throughout building	855614	Floor Finishings, , Repair	800	SF	\$28.92	\$23,134	<b>\$23,134</b>
C10	Interior Stairs	855478	Floor Finishings, , Repair	160	SF	\$28.92	\$4,627	<b>\$4,627</b>
C10	Pool	855286	Floor Finishings, Ceramic Tile Floor, Repair	24500	SF	\$28.63	\$701,422	<b>\$701,422</b>
C10	New addition	855548	Interior Floor Finish, Ceramic Tile, Repair	600	SF	\$28.63	\$17,178	<b>\$17,178</b>
C10	Throughout building	855438	Interior Floor Finish, Terrazzo, Repair	3500	SF	\$26.74	\$93,588	<b>\$93,588</b>
D30	Shop class	855498	Air Handler, 2501 - 4000 CFM, Replace	1	EA	\$15,377.20	\$15,377	<b>\$15,377</b>
D30	Shop class	855465	Air Handler, 2501 - 4000 CFM, Replace	1	EA	\$15,377.20	\$15,377	<b>\$15,377</b>
D30	roof	855397	Exhaust Fan, 801 - 1000 CFM, Replace	1	EA	\$2,034.91	\$2,035	<b>\$2,035</b>
D30	Roof	855529	Exhaust Fan, 801 - 1000 CFM, Replace	1	EA	\$2,034.91	\$2,035	<b>\$2,035</b>
D30	Roof	855249	Exhaust Fan, 1001 - 1500 CFM, Replace	1	EA	\$2,217.13	\$2,217	<b>\$2,217</b>
D30	Roof	855277	Exhaust Fan, Centrifugal, 2,001 to 3,500 CFM, Replace	1	EA	\$3,533.69	\$3,534	<b>\$3,534</b>
D30	Roof	855464	Exhaust Fan, 1001 - 1500 CFM, Replace	1	EA	\$2,217.13	\$2,217	<b>\$2,217</b>
D30	Roof	855557	Exhaust Fan, 1001 - 1500 CFM, Replace	1	EA	\$2,217.13	\$2,217	<b>\$2,217</b>
D30	Roof	855566	Exhaust Fan, 401 - 500 CFM, Replace	1	EA	\$1,790.92	\$1,791	<b>\$1,791</b>
D30	Roof	855601	Exhaust Fan, 801 - 1000 CFM, Replace	1	EA	\$2,034.91	\$2,035	<b>\$2,035</b>
D30	Roof	855457	Exhaust Fan, 2001 - 5000 CFM, Replace	1	EA	\$3,177.29	\$3,177	<b>\$3,177</b>
D30	Roof	855233	Exhaust Fan, 801 - 1000 CFM, Replace	1	EA	\$2,034.91	\$2,035	<b>\$2,035</b>
D30	Roof	855408	Exhaust Fan, 1501 - 2000 CFM, Replace	1	EA	\$2,351.89	\$2,352	<b>\$2,352</b>
D30	Roof	855570	Exhaust Fan, 801 - 1000 CFM, Replace	1	EA	\$2,034.91	\$2,035	<b>\$2,035</b>
D30	Roof	855519	Exhaust Fan, 801 - 1000 CFM, Replace	1	EA	\$2,217.13	\$2,217	<b>\$2,217</b>
D30	Roof	855560	Package Unit, 21 - 25 TON, Replace	1	EA	\$51,034.36	\$51,034	<b>\$51,034</b>
	Site	958701	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	247909.98	LS	\$1.15	\$285,096	<b>\$285,096</b>
<b>Immediate Repairs Total</b>								<b>\$1,305,739</b>

\* Location Factor (1.0) included in totals.















EMG Renamed Item Number	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup * Subtotal	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	RRR_Ro					
C10	Classrooms	852788	Residential Appliances, Dishwasher, Replace	10	7	3	1	EA	\$820.94	\$820.94				\$821																						
C10	Library	852766	Residential Appliances, Refrigerator, 14-18 CF, Replace	15	12	3	4	EA	\$956.04	\$1,099.44				\$4,398																						
C10	Classrooms	852789	Residential Appliances, Clothes Washer, Replace	15	12	3	1	EA	\$1,329.98	\$1,529.47				\$1,529																						
E10	Kitchen	855504	Refrigerator, ,	15	8	7	1	EA	\$956.04	\$956.04									\$956																	
C10	Gymnasium	855226	Bleacher, 14 TIER	20	18	2	96	EA	\$551.00	\$633.65			\$60,830																							
C10	Theatre & Auditorium	852768	Bleacher, Telescoping Manual, to 15 Tier, Replace	20	17	3	1263	EA	\$250.00	\$287.50				\$363,113																						
C10	Large Gym	852807	Bleacher, Telescoping Power Operated, to 15 Tier, Replace	20	17	3	672	EA	\$395.00	\$454.25				\$305,256																						
C10	Library	852792	Kitchen Cabinet, Base and Wall Section, Wood, Replace	20	17	3	20	LF	\$467.63	\$537.78				\$10,756																						
	Site	958701	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	1	1	0	247909.98	LS	\$1.00	\$1.15	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096	\$285,096			
D20	Pool pump room	855354	Swimming Pool Pump, 20 HP	10	8	2	1	EA	\$11,667.27	\$13,417.36				\$13,417																						
G20	Pool	855237	Pool, , Replace	20	18	2	1	EA	\$3,332.02	\$3,831.83				\$3,832																						
G20	Pool	855260	Pool, , Replace	20	18	2	10	EA	\$3,332.02	\$3,831.83				\$38,318																						
D20	Lower level	884558	Swimming Pool Plaster, Refinish	15	8	7	13550	SF	\$5.60	\$6.44									\$87,262																	
G20	Mechanical room	855442	Swimming Pool Heater, Gas-Fired, 750 MBH, Replace	15	8	7	1	EA	\$17,224.00	\$19,807.60				\$19,808																						
G20	Parking lot	884518	Parking lot, Asphalt Pavement, Seal & Stripe	5	0	* 5	354900	SF	\$0.38	\$0.44				\$154,887					\$154,887																	
G20	Site	855326	Parking Lot, , Repair	25	23	2	426100	SF	\$3.28	\$3.77				\$1,607,445																						
G20	Site	855391	Pedestrian Pavement, 36000 , Replace	30	28	2	36000	SF	\$9.00	\$10.35				\$372,600																						
G20	Sports fields	881761	Fences & Gates, Chain Link Swing Gate, Large Manual, Replace	20	7	13	2	EA	\$1,569.49	\$1,804.91				\$3,610																						
G20	Site	855356	Fences & Gates, Chain Link, 8' High, Replace	30	15	15	6700	LF	\$53.90	\$61.99				\$415,300																						
G20	Site	855490	Site Signage, , Replace/Install	20	18	2	1	EA	\$8,602.00	\$9,892.30				\$9,892																						
G20	Site	855244	Site Signage, , Replace/Install	20	8	12	1	EA	\$8,602.00	\$9,892.30				\$9,892																						
G20	Small gym	855466	Park Bench, ,	20	13	7	4	EA	\$487.03	\$560.08				\$2,240																						
G20	Site	855403	Picnic Table, ,	20	8	12	13	EA	\$1,391.50	\$1,600.23				\$20,803																						
G20	Site	855314	Scoreboard, ,	20	18	2	1	EA	\$21,106.53	\$24,272.50				\$24,273																						
G20	Site	855606	Bleacher, ,	25	23	2	45	EA	\$197.00	\$226.55				\$10,195																						
G20	Site	855589	Scoreboard, ,	20	18	2	1	EA	\$21,106.53	\$24,272.50				\$24,273																						
C10	Building Exterior	855507	Sports Apparatus, Basketball Backstop, Replace	10	8	2	6	EA	\$9,435.64	\$10,850.98				\$65,106																						
C10	Large Gym	852780	Sports Apparatus, Scoreboard, Replace	20	17	3	2	EA	\$21,106.53	\$24,272.50				\$48,545																						
C10	Site	855243	Basketball Backboard, 6 ,	10	7	3	6	EA	\$9,435.64	\$10,850.98				\$65,106																						
C10	Large Gym	852771	Sports Apparatus, Basketball Backstop, Replace	10	7	3	12	EA	\$9,435.64	\$10,850.98				\$130,212																						
E10	Site	855593	Bleacher, ,	25	22	3	22	EA	\$197.00	\$226.55				\$4,984																						
G20	Site	855613	Scoreboard, 2 ,	20	13	7	2	EA	\$21,106.53	\$24,272.50				\$48,545																						
G20	Playing Fields	945529	Play Surfaces, Artificial Turf, 1/2" Pile, 5/16" Pad, Replace	20	13	7	83000	SF	\$10.01	\$11.51				\$955,455																						
G20	Track	945608	Play Surfaces & Sports Courts, Poured-in-place Rubber, Replace	20	12	8	55000	SF	\$22.00	\$25.30				\$1,391,500					\$1,391,500																	
G20	Site	855411	Bleacher, ,	25	7	18	13	EA	\$197.00	\$226.55				\$2,945																						
G20	Site	855246	Flagpole, 1 ,	20	10	10	1	EA	\$2,530.00	\$2,909.50				\$2,910																						
G40	Football stadium	855458	Pole Light, Exterior, 80 to 100 W LED (Fixture & Bracket Arm Only), Replace	20	4	16	10	EA	\$2,721.00	\$3,129.15				\$31,292																						
G40	Site	855301	Exterior Light Pole, 80 - 100 WATT	20	3	17	14	EA	\$2,721.00	\$3,129.15				\$43,808																						
G20	Site	855539	Exterior Light Pole, 105 - 200 WATT	20	3	17	33	EA	\$3,303.00	\$3,798.45				\$125,349																						

<b>Totals, Unescalated</b>											\$1,305,739	\$586,856	\$10,061,532	\$7,967,272	\$8,156,835	\$361,816	\$361,005	\$3,186,800	\$5,397,687	\$285,096	\$2,876,220	\$331,057	\$2,428,893	\$2,853,607	\$286,543	\$1,314,366	\$587,110	\$1,632,473	\$474,834	\$302,554
<b>Totals, Escalated (3.0% inflation, compounded annually)</b>											\$1,305,739	\$604,461	\$10,674,279	\$8,706,053	\$9,180,590	\$419,444	\$431,059	\$3,919,362	\$6,837,629	\$371,986	\$3,865,399	\$458,261	\$3,463,020	\$4,190,619	\$433,421	\$2,047,739	\$942,139	\$2,698,230	\$808,373	\$530,530

\* Markup/LocationFactor (1.0) has been included in unit costs. Markup includes a and 15% Ann Arbor Premium factors applied to the location adjusted unit cost.

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# 1. Executive Summary

## 1.1. Property Information and General Physical Condition

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information		
Address:	601 West Stadium, Ann Arbor, Washtenaw County, MI 48103	
Year Constructed/Renovated:	1956, Phase I / 1995 Phase II Renovated 2008,2010,2010,2011	
Current Occupants:	Ann Arbor Public Schools	
Percent Utilization:	100 %	
Management Point of Contact:	Bermie Rice, Ann Arbor Public Schools 734.249.1244 phone	
Property Type:	High School	
Site Area:	177 acres	
Building Area:	404176 SF	
Number of Buildings:	1	
Number of Stories:	3	
Parking Type and Number of Spaces:	1014 spaces in open lots	
Building Construction:	Steel frame with concrete-topped metal decks.	
Roof Construction:	Flat roofs with built-up membrane.	
Exterior Finishes:	Brick Veneer	
Heating, Ventilation & Air Conditioning:	Central system with boilers, chillers, air handlers, and cooling tower, hydronic baseboard radiators and cabinets, terminal units. Individual package split-system. Supplemental components: ductless split-systems, suspended gas unit heaters..	
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel, and exit signs.	
ADA :	This building does not have any major ADA issues.	
All 404,176 square feet of the building are occupied by a single occupant, Ann Arbor Public Schools. The spaces are mostly a combination of offices, classrooms, supporting restrooms, mechanical and other utility spaces.		
Key Spaces Not Observed		
Room Number	Area	Access Issues
Elevator Rooms	Elevator rooms	Locked room and no keys
Electrical room	Concession building	Locked room and no keys
A "down unit" or area is a term used to describe a unit or space that cannot be occupied due to poor conditions such as fire damage, water damage, missing equipment, damaged floor, wall or ceiling surfaces, or other significant deficiencies. There are no down units or areas. .		
Assessment Information		
Dates of Visit:	Febuary 13-16	
On-Site Point of Contact (POC):	Mr. Tony of Security department	
Assessment and Report Prepared by:	Lawrence Sirridge	



Property Information	
Reviewed by:	Al Diefert Technical Report Reviewer For Andrew Hupp Program Manager <a href="mailto:ahupp@emgcorp.com">ahupp@emgcorp.com</a> 800.733.0660 x6632

## 1.2. Key Findings

**Site :**  
 The Drive isles and parking lots is in poor condition. The asphalt lots and drive isles have numerous failed areas and should be repaired to prevent further degradation. A cost allowance to repair , replace the failed asphalt is also included in the cost tables

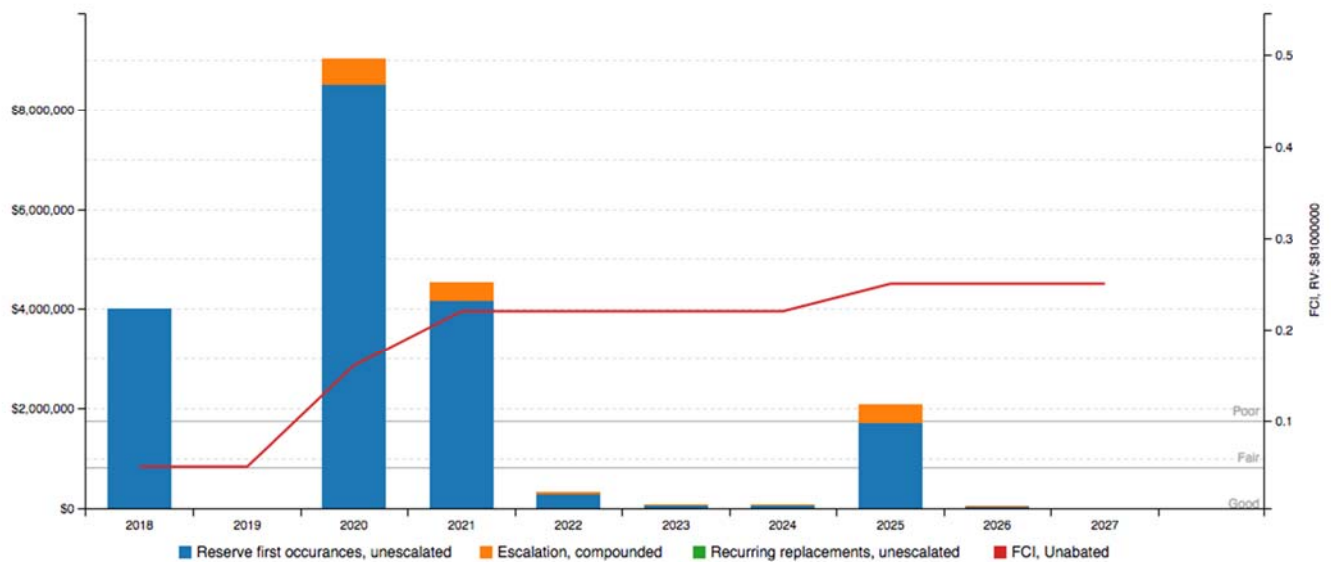
**Architectural :** None

**MEPF :** A number of roof top exhaust fans were observed to be not operating. Repairs, or, replacement is needed.

## 1.3. Facility Condition Index (FCI)

### FCI Analysis: Pioneer High School

Replacement Value: \$ 81,000,000; Inflation rate: 3.0%



One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building’s overall condition. Two FCI ratios are calculated and presented, the Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building’s Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

FCI Condition Rating	Definition	Percentage Value
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0 to .05
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	> than .05 to .10



FCI Condition Rating	Definition	Percentage Value
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	> than .10 to .60
Very Poor	Has reached the end of its useful or serviceable life. Renewal is now necessary.	> than .60

The graphs above and tables below represent summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

KEY FINDING	METRIC
Current Year Facility Condition Index (FCI) FCI = (IR)/(CRV):	4.96%
Current Year FCI Rating:	2018
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV):	24.95%
10-Year FCI Rating	0.25
Current Replacement Value (CRV):	\$81,000,000
Year 0 (Current Year) - Immediate Repairs (IR):	\$4,018,030
Years 1-10 - Replacement Reserves (RR):	\$16,191,063
Total Capital Needs:	\$20,209,093

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables at the beginning of this report.



## 2. Building Structure

### A10 Foundations

Building Foundation		
Item	Description	Condition
Foundation	Concrete foundation walls	Good
Basement and Crawl Space	Concrete slab and concrete walls	Good

**Anticipated Lifecycle Replacements**

- No components of significance

**Actions/Comments:**

- There are no significant signs of settlement, deflection, or movement. The basement walls appear intact and structurally sound. There is no evidence of movement or water infiltration.

### B10 Superstructure

B1010 Floor Construction & B1020 Roof Construction		
Item	Description	Condition
Framing / Load-Bearing Walls	Steel columns and beams	Good
Ground Floor	Concrete topped decking	Good
Upper Floor Framing	Steel beams	Good
Upper Floor Decking	Metal decking with concrete topping	Good
Balcony Framing	--	--
Balcony Decking	--	--
Balcony Deck Toppings	--	--
Balcony Guardrails	--	--
Roof Framing	Steel beams or girders	Good
Roof Decking	Metal decking with concrete topping	Good

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Caulk minor cracking	<input type="checkbox"/>	Monitor cracking for growth	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- No components of significance

**Actions/Comments:**

- The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

B1080 Stairs					
Type	Description	Riser	Handrail	Balusters	Condition
Building Exterior Stairs	Concrete stairs	Closed	Metal	None	Fair
Building Interior Stairs	Concrete stairs	Closed	Metal	Metal	Good

**Anticipated Lifecycle Replacements:**

- No components of significance

**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.

### 3. Building Envelope

#### B20 Exterior Vertical Enclosures

B2010 Exterior Walls		
Type	Location	Condition
Primary Finish	Brick veneer	Fair
Secondary Finish	Masonry band	Fair
Accented with	Metal siding	Fair
Soffits	Not Applicable	--
Building sealants	Between dissimilar materials, at joints, around windows and doors	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Graffiti	<input type="checkbox"/>	Efflorescence	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Brick veneer repointing

**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance, including patching repairs, graffiti removal, and re-caulking, is highly recommended. Future lifecycle replacements of the components listed above will be required.

B2020 Exterior Windows				
Window Framing	Glazing	Location	Window Screen	Condition
Aluminum framed, fixed	Double glaze	Exterior wall	<input type="checkbox"/>	Fair

B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Fully glazed, metal framed	Fair
Secondary Entrance Doors	Metal, insulated	Fair
Service Doors	Metal, insulated	Fair
Overhead Doors	Aluminium	Fair



**Anticipated Lifecycle Replacements:**

- Windows
- Exterior steel doors
- Overhead doors
- Exterior aluminum swinging doors

**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

B3010 Primary Roof			
Location	Main building	Finish	Single-ply membrane
Type / Geometry	Flat	Roof Age	15 Yrs
Flashing	Membrane	Warranties	None
Parapet Copings	None	Roof Drains	Internal drains
Fascia	Metal Panel	Insulation	Rigid Board
Soffits	None	Skylights	Yes
Attics	--	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	--

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Drainage components broken/missing	<input type="checkbox"/>	Vegetation/fungal growth	<input checked="" type="checkbox"/>
Blocked Drains	<input checked="" type="checkbox"/>	Debris	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Evidence of roof leaks	<input type="checkbox"/>	Significant ponding	<input type="checkbox"/>
Excessive patching or repairs	<input type="checkbox"/>	Blistering or ridging	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Single-ply EPDM roof membrane
- Roof flashings (included as part of overall membrane replacement)
- Skylights

**Actions/Comments:**

- The roof finishes appear to be more than 15 years old.. Information regarding roof warranties or bonds was not available. The roofs are maintained by an outside contractor.



- According to the POC, there are no active roof leaks. There is no evidence of active roof leaks.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance and operations program.
- The attics are not accessible and it could not be determined if there is moisture, water intrusion, or excessive daylight in the attics.
- Roof drainage appears to be inadequate. Isolated areas of ponding ,ponding stains are evident ,around mechanical devices. The low spots in the roof must be resloped promote adequate drainage to existing drainage devices. This work can be performed in conjunction with the roof finish replacement work noted elsewhere.

## 4. Interiors

### C10 Interior Construction

C1030 Interior Doors		
Item	Type	Condition
Interior Doors	Solid core wood	Fair
Door Framing	Metal	Fair
Fire Doors	Yes	Fair
Closet Doors	Hollow core	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly adjusted door closures	<input type="checkbox"/>	Damaged/loose door hardware	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

The following table generally describes the locations and typical conditions of the interior finishes within the facility:

#### Interior Finishes - PIONEER HIGH SCHOOL

Location	Finish	Quantity (SF)	Condition	Action	RUL	Est. Cost
Administration office	Floor Carpet Standard-Commercial Medium-Traffic	3600	Fair	Replace	3	26,123
Auditorium	Floor Epoxy Coating	500	Fair	Prep & Paint	3	4,370
Elevator	Floor Vinyl Tile (VCT)	12	Fair	Replace	2	58
Gymnasium	Floor Maple Sports Floor	11500	Fair	Sand & Refinish	2	52,140
Interior Stairs	Floor Quarry Tile	160	Fair	Repair	0	4,023
Large Gym	Floor Maple Sports Floor	1000	Fair	Sand & Refinish	3	4,534
Lobby	Walls Wood Paneling	9520	Fair	Replace	2	225,904
Main lobby	Walls Clay Brick	2300	Fair	Repair	0	60,007
New addition	Floor Ceramic Tile	600	Fair	Repair	0	14,937
Pool	Ceilings Suspended Acoustical Tile (ACT)	9500	Fair	Replace	2	29,555
Pool	Floor Ceramic Tile	24500	Fair	Repair	0	609,932
Theatre	Floor Wood Strip	750	Fair	Sand & Refinish	3	2,758
Throughout building	Ceilings Suspended Acoustical Tile (ACT)	285000	Fair	Replace	10	886,635
Throughout building	Floor Vinyl Tile (VCT)	2600	Fair	Replace	5	12,482
Throughout building	Floor Quarry Tile	800	Fair	Repair	0	20,117
Throughout building	Floor Terrazzo	3500	Fair	Repair	0	81,381
Throughout building	Walls Ceramic Tile	28000	Fair	Replace	15	463,512
Throughout building	Walls Gypsum Board/Plaster/Metal	4500	Fair	Prep & Paint	2	6,404

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Loose carpeting/flooring	<input type="checkbox"/>	Minor areas of stained ceiling tiles	<input type="checkbox"/>
Minor paint touch-up	<input type="checkbox"/>	Areas of damaged/missing baseboard	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Carpet
- Vinyl tile
- Ceramic tile
- Interior paint
- Suspended acoustic ceiling tile
- Hard tile ceilings
- Interior doors
- Toilet partitions
- Overhead doors
- Steel doors
- Bleachers
- Repoint brick veneer walls
- Wood hollow-core doors
- Acoustic tile
- Steel door w/safety glass
- Lockers
- Solid core doorw/safety glass
- Refinish maple sports floor
- Scoreboard
- Clocks
- Quarry Tile

**Actions/Comments:**

- It appears that the interior finishes have not been renovated within the last 10 years..
- There are damaged, deteriorated sections of wall surfaces throughout the building. The damaged, finishes must be repaired. The cost to replace the wall surfaces is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.

## 5. Services (MEPF)

See the Mechanical Equipment List in the Appendices for the quantity, manufacturer's name, model number, capacity and year of manufacturer of the major mechanical equipment, if available.

### D10 Conveying Systems

D1030 Vertical Conveying (Building Elevators)			
Manufacturer	Otis	Machinery Location	Ground floor or basement adjacent to shaft
Safety Stops	Electronic	Emergency Communication Equipment	Yes
Cab Floor Finish	Vinyl-tiled	Cab Wall Finish	Plastic-laminated wood
Cab Finish Condition	Fair	Elevator Cabin Lighting	F42T8
Hydraulic Elevators	None		
Overhead Traction Elevators	Three cars at 2100LB each		
Freight Elevators	None		
Machinery Condition	--	Controls Condition	Fair
Other Conveyances	None	Other Conveyance Condition	--

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Inspection certificate not available	<input type="checkbox"/>	Inspection certificate expired	<input type="checkbox"/>
Service call needed	<input type="checkbox"/>	Minor cab finish repairs	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Elevator controls
- Overhead traction machinery
- Elevator cab finishes

**Actions/Comments:**

- The elevators are serviced by outside contractor on a routine basis. The elevator machinery and controls appear to be more than 10 years old.
- The elevators appear to provide adequate service. The elevators are serviced by outside contractor on a routine basis. The elevator machinery and controls appear to be more than 10 years old. The elevators will require continued periodic maintenance.
- The elevators are inspected on an annual basis by the municipality, and a certificate of inspection is on file in the management office .
- The emergency communication equipment in the elevator cabs appears to be functional. Equipment testing is not within the scope of the work.
- The finishes in the elevator cabs will require replacement. The cost to replace the finishes is relatively insignificant and the work can be performed as part of the property management's operations program.

## D20 Plumbing

D2010 Domestic Water Distribution		
Type	Description	Condition
Water Supply Piping	Galvanized iron	Fair
Water Meter Location	Basement	

Domestic Water Heaters or Boilers	
Components	Boiler , Water Heaters
Fuel	Natural gas
Boiler or Water Heater Condition	Fair
Supplementary Storage Tanks?	Yes
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

D2020 Sanitary Drainage		
Type	Description	Condition
Waste/Sewer Piping	Cast iron	Fair
Vent Piping	Cast iron	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Hot water temperature too hot or cold	<input type="checkbox"/>	Minor or isolated leaks	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Plumbing Systems - PIONEER HIGH SCHOOL**

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
C-134	Water Heater	Electric, Residential, 30 to 52 GAL	1	EA	Fair	Replace	2	1,739
Classrooms	Sink	Pot, Multi-compartment	8	LF	Fair	Replace	12	10,100
Commercial kitchen	Sink	Pot, Multi-compartment	2	LF	Fair	Replace	7	2,525
Concession	Sink	Stainless Steel	9	EA	Fair	Replace	13	9,486
Concession	Sink	Pot, Multi-compartment	2	LF	Fair	Replace	23	2,525
Concessions	Toilet	Flush Tank (Water Closet)	8	EA	Fair	Replace	13	8,441
Concessions	Toilet	Tankless (Water Closet)	8	EA	Fair	Replace	13	6,744
Concessions	Drinking Fountain	Refrigerated	4	EA	Fair	Replace	3	5,030
Concession stand women restroom	Sink	Stainless Steel	6	EA	Fair	Replace	13	6,324
Hallways	Drinking Fountain	Refrigerated	6	EA	Fair	Replace	3	7,545
Hallways	Drinking Fountain	Vitreous China	1	EA	Fair	Replace	3	1,939
Kitchen	Service Sink	Floor	1	EA	Fair	Replace	12	1,600
Kitchen	Service Sink	Floor	1	EA	Fair	Replace	12	1,600
Locker room	Toilet	Tankless (Water Closet)	3	EA	Fair	Replace	3	2,529
Locker room	Urinal	Vitreous China	1	EA	Fair	Replace	3	1,193
Maintenance shop	Toilet	Tankless (Water Closet)	1	EA	Fair	Replace	2	843
Maintenance shop	Urinal	Vitreous China	1	EA	Fair	Replace	2	1,193
Maintenance shop	Sink	Porcelain Enamel, Cast Iron	1	EA	Fair	Replace	2	1,167
Maintenance shop	Drinking Fountain	Refrigerated	1	EA	Fair	Replace	4	1,258
Mechanical room	Water Heater	Electric, Residential, 30 to 52 GAL	1	EA	Fair	Replace	3	1,739
Mechanical room	Water Heater	Gas, Commercial, 60 to 120 GAL	1	EA	Fair	Replace	12	10,699
Mechanical room	Water Heater	Gas, Commercial, 60 to 120 GAL	1	EA	Fair	Replace	7	10,699
Mechanical room	Domestic Boiler	Gas, 801 to 1,400 MBH	1	EA	Fair	Replace	4	42,853
Mechanical room	Water Storage Tank	501 to 1,000 GAL	1	EA	Fair	Replace	4	5,216
Mechanical room	Water Pumps	Domestic Circulator or Booster Pump, 5 to 7.5 HP	1	EA	Good	Replace	19	11,641
Mechanical shop	Toilet	Tankless (Water Closet)	2	EA	Fair	Replace	13	1,686
Office	Sink	Porcelain Enamel, Cast Iron	1	EA	Fair	Replace	13	1,167
Pool	Drinking Fountain	Vitreous China	6	EA	Fair	Replace	2	11,634
Pool women,s locker	Sink	Porcelain Enamel, Cast Iron	2	EA	Fair	Replace	2	2,335
Restrooms	Toilet	Tankless (Water Closet)	43	EA	Fair	Replace	3	36,247
Restrooms	Toilet	Flush Tank (Water Closet)	1	EA	Fair	Replace	13	1,055
Restrooms	Toilet	Tankless (Water Closet)	73	EA	Fair	Replace	4	61,536
Restrooms	Urinal	Vitreous China	19	EA	Fair	Replace	3	22,675
Restrooms	Urinal	Vitreous China	3	EA	Fair	Replace	13	3,580
Restrooms	Urinal	Vitreous China	3	EA	Fair	Replace	13	3,580
Restrooms	Urinal	Vitreous China	42	EA	Fair	Replace	2	50,125
Restrooms	Lavatory	Vitreous China	27	EA	Fair	Replace	3	15,462
Restrooms	Sink	Stainless Steel	7	EA	Fair	Replace	3	7,378
Restrooms	Sink	Enameled Steel	72	EA	Fair	Replace	2	44,354
Science Rooms	Emergency Eye Wash Station	Emergency Eye Wash Station	5	EA	Fair	Replace	3	10,573
Throughout building	Drinking Fountain	Refrigerated	38	EA	Fair	Replace	3	47,785
Tunnel	Domestic Supply & Sanitary	Domestic Supply & Sanitary	2500	SF	Fair	Upgrade	17	97,351
Utility closet	Service Sink	Porcelain Enamel, Cast Iron	1	EA	Fair	Replace	13	1,360

**Anticipated Lifecycle Replacements:**

- Water heaters
- Boiler
- Circulation pumps
- Toilets
- Urinals
- Sinks
- Cabinets
- Drinking fountains

**Actions/Comments:**

- The plumbing systems appear to be well maintained and functioning adequately. The water pressure appears to be sufficient. No significant repair actions or short term replacement costs are required. Routine and periodic maintenance is recommended. Future lifecycle replacements of the components or systems listed above will be required.
- Most of the domestic water lines are galvanized iron original to the 1956 construction. To date there has been no history of chronic leaks or water pressure problems. However, it is quite common for galvanized iron piping to develop problems due to long-term corrosion with thinning walls and/or interior mineral deposit accumulation, especially once it has aged 40 or 50 years. EMG highly encourages some easily accessible pipe sections be examined to more accurately determine the interior pipe wall conditions after nearly 62 years of use. Pending these results, consideration should be given to replacing all the plumbing supply lines with copper. A budgetary cost is included for this replacement.

D30 Building Heating, Ventilating, and Air Conditioning (HVAC)

Building Central Heating System	
Primary Heating System Type	Hot water boilers
Heating Fuel	Natural gas
Location of Major Equipment	Mechanical rooms
Space Served by System	Entire building

Building Central Cooling System	
Primary Cooling System Type	Air-cooled chillers
Refrigerant	R-134A
Cooling Towers	Fiberglass/FRP
Location of Major Equipment	Mechanical rooms & exterior
Space Served by System	Entire building

Distribution System	
HVAC Water Distribution System	Four-pipe
Air Distribution System	Constant
Location of Air Handlers	Rooftop, exterior
Terminal Units	Radiators and/or cabinet units
Quantity and Capacity of Terminal Units	Eight units heaters
Location of Terminal Units	Along ceilings

Packaged, Split & Individual Units	
Primary Components	Package units
Cooling (if separate from above)	performed via components above
Heating Fuel	Natural gas
Location of Equipment	Rooftop
Space Served by System	Entire building ,common areas

Supplemental/Secondary Components	
Supplemental Component #1	Dedicated computer room air conditioners
Location / Space Served by Computer,music room	Computer rooms,music room
Condition	Fair



Controls and Ventilation	
HVAC Control System	BAS, pneumatic controls
HVAC Control System Condition	Fair
Building Ventilation	Roof top exhaust fans
Ventilation System Condition	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Ductwork/grills need cleaned	<input checked="" type="checkbox"/>	Minor control adjustments needed	<input checked="" type="checkbox"/>
Leaking condensate lines	<input type="checkbox"/>	Poor mechanical area access	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Heating, Cooling or Ventilation is not adequate	<input type="checkbox"/>	Major system inefficiencies	<input type="checkbox"/>
HVAC controls pneumatic or antiquated	<input checked="" type="checkbox"/>	Obsolete refrigerants : R11, R12, R22, R123, R502	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Mechanical Systems - PIONEER HIGH SCHOOL**

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
Addition	Radiator	Hydronic Baseboard	400	LF	Fair	Replace	27	53,108
Building exterior	Cooling Tower	26 to 50 Ton	1	EA	Fair	Replace	16	15,917
Classrooms	HVAC System	Hydronic Piping	4000	SF	Fair	Replace	7	52,000
concessions	Unit Heater	Hydronic, 101 to 160 MBH	1	EA	Fair	Replace	12	2,470
concessions	Unit Heater	Natural Gas, 76 to 125 MBH	1	EA	Fair	Replace	13	5,007
Concessions	Unit Heater	Natural Gas, 56 to 75 MBH	4	EA	Fair	Replace	13	17,871
Concessions	Unit Heater	Electric, 10 kW	4	EA	Fair	Replace	13	7,897
Locker room	Unit Heater	Hydronic, 101 to 160 MBH	2	EA	Fair	Replace	2	4,939
Locker room	Unit Heater	Hydronic, 86 to 100 MBH	1	EA	Fair	Replace	2	2,127
Main roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	1,769
Maintenance building	Unit Heater	Natural Gas, 56 to 75 MBH	1	EA	Fair	Replace	2	4,468
maintenance shop	Infrared Heater	40 to 80 MBH	2	EA	Fair	Replace	7	5,790
Maintenance shop	Unit Heater	Natural Gas, 181 to 200 MBH	2	EA	Fair	Replace	2	12,681
Maintenance shop	Packaged Terminal Air Conditioner	15,001 to 24,000 BTUH	1	EA	Fair	Replace	2	3,836
Mechanical room	Boiler	Gas, 2,501 to 4,200 MBH	1	EA	Fair	Replace	17	120,905
Mechanical room	Boiler	Gas, 2,501 to 4,200 MBH	1	EA	Fair	Replace	17	120,905
Mechanical room	Condensate Water	Return Pump, 3 HP	1	EA	Fair	Replace	2	5,273
Mechanical room	Condensate Water Return Pump	Return Pump, 3 HP	1	EA	Fair	Replace	2	5,273
Mechanical room	Chiller	Reciprocal Water-Cooled, 61 to 80 Ton	1	EA	Fair	Replace	7	84,350
Mechanical room	Circulation Pump	Heating Water, 5 HP	1	EA	Fair	Replace	12	5,519
Mechanical room	Circulation Pump	Heating Water, 5 HP	1	EA	Fair	Replace	12	5,519
Mechanical room	Circulation Pump	Heating Water, 5 HP	1	EA	Fair	Replace	2	5,519
Mechanical room	Distribution Pump	Chiller & Condenser Water, 30 to 50 HP	1	EA	Fair	Replace	2	20,176
Mechanical room	Circulation Pump	Chiller & Condenser Water, 30 to 50 HP	1	EA	Fair	Replace	2	20,176
Mechanical room	Circulation Pump	Chiller & Condenser Water, 30 to 50 HP	1	EA	Fair	Replace	2	20,176
Mechanical room	Circulation Pump	Chiller & Condenser Water, 30 to 50 HP	1	EA	Fair	Replace	2	20,176
Mechanical room	Circulation Pump	Chiller & Condenser Water, 30 to 50 HP	1	EA	Fair	Replace	2	20,176
Mechanical room	Unit Heater	Natural Gas, 56 to 75 MBH	1	EA	Fair	Replace	2	4,468
Mechanical room	Building Automation System	HVAC Controls	404176	SF	Fair	Upgrade	2	2,167,394
Pool storage	Unit Heater	Hydronic, 86 to 100 MBH	1	EA	Fair	Replace	2	2,127
Restrooms	Unit Heater	Electric, 20 kW	1	EA	Fair	Replace	13	3,355
Roof	Ductless Split System	Single Zone, 1.5 to 2 Ton	1	EA	Fair	Replace	11	4,473
Roof	Condensing Unit/Heat Pump	Split System, 3 Ton	1	EA	Fair	Replace	2	3,579
Roof	Ductless Split System	Single Zone, 1.5 to 2 Ton	1	EA	Fair	Replace	10	6,577
Roof	Air Handler	Exterior, 8,001 to 10,000 CFM	1	EA	Fair	Replace	10	45,895
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Poor	Replace	0	1,769
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	2	1,928
Roof	Exhaust Fan	Roof Mounted, 401 to 500 CFM	1	EA	Fair	Replace	2	1,557
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Poor	Replace	0	1,928
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	7	1,928
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	3	1,928
Roof	Exhaust Fan	Roof Mounted, 1,501 to 2,000 CFM	1	EA	Fair	Replace	2	2,045
Roof	Exhaust Fan	Roof Mounted, 401 to 500 CFM	1	EA	Fair	Replace	3	1,557
Roof	Exhaust Fan	Roof Mounted, 2,001 to 3,500 CFM	1	EA	Poor	Replace	0	4,672
Roof	Exhaust Fan	Roof Mounted, 401 to 500 CFM	1	EA	Fair	Replace	2	1,557
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	3,073
Roof	Exhaust Fan	Roof Mounted, 1,501 to 2,000 CFM	1	EA	Fair	Replace	2	2,045
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	1,769
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	2	1,928
Roof	Exhaust Fan	Roof Mounted, 501 to 800 CFM	1	EA	Fair	Replace	3	1,750
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	1,769
Roof	Exhaust Fan	Roof Mounted, 2,001 to 5,000 CFM	1	EA	Failed	Replace	0	2,763
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	1,769
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Poor	Replace	0	1,928
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	7	1,928
Roof	Exhaust Fan	Roof Mounted, 501 to 800 CFM	1	EA	Fair	Replace	2	1,750
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Poor	Replace	0	1,928
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	1,769
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Poor	Replace	0	1,769
Roof	Exhaust Fan	Roof Mounted, 5,001 to 8,500 CFM	1	EA	Fair	Replace	3	4,140
Roof	Exhaust Fan	Roof Mounted, 1,501 to 2,000 CFM	1	EA	Poor	Replace	0	2,045
Roof	Exhaust Fan	Roof Mounted, 501 to 800 CFM	1	EA	Fair	Replace	2	1,750
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	2	1,928
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	3	1,769
Roof	Exhaust Fan	Roof Mounted, 2,001 to 5,000 CFM	1	EA	Failed	Replace	0	2,763
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	1,769
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Poor	Replace	0	1,928
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	7	1,928
Roof	Exhaust Fan	Roof Mounted, 501 to 800 CFM	1	EA	Fair	Replace	2	1,750
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Poor	Replace	0	1,928
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	1,769
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Poor	Replace	0	1,769
Roof	Exhaust Fan	Roof Mounted, 5,001 to 8,500 CFM	1	EA	Fair	Replace	3	4,140
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	2	1,928
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	4	1,769
Roof	Exhaust Fan	Roof Mounted, 501 to 800 CFM	1	EA	Fair	Replace	2	1,750
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Failed	Replace	0	1,928
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	4	1,769
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	3	1,769
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Poor	Replace	0	1,769
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Fair	Replace	2	2,664
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	3	1,928
Roof	Exhaust Fan	Roof Mounted, 1,001 to 1,500 CFM	1	EA	Fair	Replace	2	1,928
Roof	Exhaust Fan	Roof Mounted, 801 to 1,000 CFM	1	EA	Poor	Replace	0	1,769



Roof	Package Unit	RTU, 26 to 50 Ton	1 EA	Fair	Replace	2	83,488
Roof	Package Unit	RTU, 13 to 15 Ton	1 EA	Fair	Replace	3	26,846
Roof	Package Unit	RTU, 26 to 50 Ton	1 EA	Fair	Replace	7	83,488
Roof	Heat Pump	Packaged (RTU), 26 to 30 Ton	1 EA	Fair	Replace	6	52,644
Roof	Package Unit	RTU, 8 to 10 Ton	1 EA	Fair	Replace	7	18,554
Roof	Heat Pump	Packaged (RTU), 6 to 10 Ton	1 EA	Good	Replace	11	15,325
Roof	Package Unit	RTU, 5 Ton	1 EA	Good	Replace	11	11,239
Roof	Heat Pump	Packaged (RTU), 3.5 to 5 Ton	1 EA	Fair	Replace	11	8,928
Roof	Package Unit	RTU, 21 to 25 Ton	1 EA	Fair	Replace	2	44,378
Roof	Package Unit	RTU, 6 to 7.5 Ton	1 EA	Fair	Replace	2	14,396
Roof	Package Unit	RTU, 21 to 25 Ton	1 EA	Poor	Replace	0	44,378
Roof	Exhaust Fan	Roof Mounted, 401 to 500 CFM	1 EA	Poor	Replace	0	1,557
Shop class	Air Handler	Interior, 2,501 to 4,000 CFM	1 EA	Poor	Replace	0	13,371
Shop class	Air Handler	Interior, 2,501 to 4,000 CFM	1 EA	Poor	Replace	0	13,371
Shop class	Air Handler	Interior, 2,501 to 4,000 CFM	1 EA	Fair	Replace	2	13,371
Shop roof	Exhaust Fan	Roof Mounted, 2,001 to 5,000 CFM	1 EA	Fair	Replace	2	2,763
Throughout building	Cabinet Heater	Electric	1 EA	Fair	Replace	3	3,180
Throughout building	Unit Heater	Hydronic, 37 to 85 MBH	31 EA	Fair	Replace	2	58,909
Tunnel	Circulation Pump	Heating Water, 30 to 75 HP	1 EA	Fair	Replace	2	31,072
Tunnel	Circulation Pump	Heating Water, 30 to 75 HP	1 EA	Fair	Replace	2	31,072
Tunnel return	Circulation Pump	Heating Water, 30 to 75 HP	1 EA	Fair	Replace	2	31,072

**Anticipated Lifecycle Replacements:**

- Boilers
- Chillers
- Cooling towers
- Air handling units
- Distribution pumps and motors
- Fan coil units
- Package units
- Electric unit heaters
- Air Compressor
- Baseboard heaters
- Rooftop exhaust fans

**Actions/Comments:**

- The HVAC systems are maintained by an outside contractor. Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment at the property have been maintained since the property was first occupied.
- Approximately 60 percent of the HVAC equipment is original. HVAC equipment is replaced on an "as needed" basis.
- The HVAC equipment appears to be functioning adequately overall. No chronic problems were reported and an overall sense of satisfaction with the systems was conveyed. However, due to the inevitable failure of parts and components over time, some of the equipment will require replacement. A budgetary cost for this work is included.
- The facility HVAC is controlled using an outdated pneumatic system supplied by an air compressor. For modernization, reliability, and increased control, full conversion to a web-based direct digital control (DDC) platform is highly recommended.

**D40 Fire Protection**

Item	Description					
Type	Wet pipe					
Sprinkler System	None	<input type="checkbox"/>	Standpipes	<input checked="" type="checkbox"/>	Backflow Preventer	<input checked="" type="checkbox"/>
	Hose Cabinets	<input checked="" type="checkbox"/>	Fire Pumps	<input type="checkbox"/>	Siamese Connections	<input checked="" type="checkbox"/>
Sprinkler System Condition	Fair					
Fire Extinguishers	Last Service Date			Servicing Current?		
	July,2017					



Item	Description		
Type	Wet pipe		
Hydrant Location	Adjacent Street		
Siamese Location	Exterior wall		
Special Systems	Kitchen Suppression System	<input checked="" type="checkbox"/>	Computer Room Suppression System <input type="checkbox"/>

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Extinguisher tag expired	<input type="checkbox"/>	Riser tag expired (5 year)	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Fire extinguishers
- Kitchen Suppression System

**Actions/Comments:**

- The vast majority of the building is not protected by fire suppression; sprinkler heads are currently limited to new wing of building. Due to its construction date, the facility is most likely “grandfathered” by code and the installation of fire sprinklers not required until major renovations are performed. Regardless of when or if installation of facility-wide fire suppression is required by the governing municipality, EMG recommends a retrofit be performed. As part of the major recommended short term renovations, a facility-wide fire suppression retrofit is recommended. A budgetary cost is included.

**D50 Electrical**

Distribution & Lighting			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	2000 Amps	Volts	120/208 Volt, three-phase
Meter & Panel Location	Mechanical Room	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	Yes
Security / Surveillance System?	Yes	Building Intercom System?	Yes
Lighting Fixtures	T-8, T-12, CFL,		
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		
Lighting Condition	Fair		

Building Emergency Systems			
Size	600 kW	Fuel	Diesel
Generator / UPS Serves	Entire buidling.	Tank Location	Below generator
Testing Frequency	Bi-Weekly	Tank Type	Integral ("belly") tank
Generator / UPS Condition	Fair		

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly stored material	<input type="checkbox"/>	Unsecured high voltage area	<input type="checkbox"/>
Loose cables or improper use of conduit	<input type="checkbox"/>	Poor electrical room ventilation	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Circuit breaker panels
- Main switchgear
- Switchboards
- Step-down transformers
- Interior light fixtures
- Variable frequency drives
- Emergency generator
- Motor control centers

**Actions/Comments:**

- The onsite electrical systems up to the meters are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- The panels, switchboards, step-down transformers are mostly original 1956 components. The electrical service appears to be adequate for the facility's needs. However, due to the age of the panels, switchboards, step-down transformers and increasing difficulty of obtaining replacement parts over time, lifecycle replacements are recommended per above.

**D60 Communications**

D6060 Public Address Systems						
Item	Description					
Communication Equipment	Public Address System	<input checked="" type="checkbox"/>	Nurse Call System	<input type="checkbox"/>	Clock	<input checked="" type="checkbox"/>



D70 Electronic Safety and Security

D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Access Control and Intrusion Detection	Exterior Camera	<input checked="" type="checkbox"/>	Interior Camera	<input checked="" type="checkbox"/>	Front Door Camera Only	<input type="checkbox"/>
	Cameras monitored	<input type="checkbox"/>	Security Personnel On-Site	<input type="checkbox"/>	Intercom/Door Buzzer	<input checked="" type="checkbox"/>
Fire Alarm System	Central Alarm Panel	<input checked="" type="checkbox"/>	Battery-Operated Smoke Detectors	<input type="checkbox"/>	Alarm Horns	<input checked="" type="checkbox"/>
	Annunciator Panels	<input checked="" type="checkbox"/>	Hard-Wired Smoke Detectors	<input type="checkbox"/>	Strobe Light Alarms	<input checked="" type="checkbox"/>
	Pull Stations	<input checked="" type="checkbox"/>	Emergency Battery-Pack Lighting	<input checked="" type="checkbox"/>	Illuminated EXIT Signs	<input type="checkbox"/>
Fire Alarm System Condition	Fair					
Central Alarm Panel System	Location of Alarm Panel			Installation Date of Alarm Panel		
	General office			2008		

**Anticipated Lifecycle Replacements:**

- Fire alarm system
- Central alarm panel
- Security surveillance
- Exit signs

**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.



## 6. Equipment & Furnishings

### E10 Equipment

The cafeteria kitchen includes the following major appliances, fixtures, and equipment:

E1030 Commercial Kitchen Equipment		
Appliance	Comment	Condition
Refrigerators	Walk-in , Up-right, Under-counter	Fair
Freezers	Walk-in, Up-right, Under-counter	Fair
Ranges	Gas	Fair
Ovens	Gas	Fair
Griddles / Grills	Gas	Fair
Fryers	Gas	Fair
Hood	Exhaust ducted to exterior	Fair
Dishwasher	Owned	Fair
Microwave	<input type="checkbox"/>	--
Ice Machines	<input checked="" type="checkbox"/>	Fair
Steam Tables	<input checked="" type="checkbox"/>	Fair
Work Tables	<input checked="" type="checkbox"/>	Fair
Shelving	<input checked="" type="checkbox"/>	Fair

E1030 Commercial Laundry		
Equipment	Comment	Condition
Commercial Washing Machines	<input type="checkbox"/>	--
Commercial Dryers	<input type="checkbox"/>	--
Residential Washers	<input type="checkbox"/>	--
Residential Dryers	<input type="checkbox"/>	--

**Anticipated Lifecycle Replacements:**

- Cooking Range
- Convection oven
- Dishwasher
- Walk-in freezer
- Walk-in cooler
- Steam kettle
- Ice maker



**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.



## 7. Sitework

### G20 Site Improvements

G2020 Parking Lots & G2030 Pedestrian Walkways		
Item	Material	Condition
Entrance Driveway Apron	Asphalt	Fair
Parking Lot	Asphalt	Fair
Drive Aisles	Asphalt	Fair
Service Aisles	Asphalt	Fair
Sidewalks	Concrete	Fair
Curbs	Concrete	Fair
Pedestrian Ramps	None	--
Ground Floor Patio or Terrace	None	--

Parking Count				
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure
1014	--	--	--	--
Total Number of ADA Compliant Spaces			19	
Number of ADA Compliant Spaces for Vans			8	
Total Parking Spaces			1014	

Site Stairs			
Location	Material	Handrails	Condition
Back side of property	Concrete stairs	Metal	Fair
Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Pavement oil stains	<input type="checkbox"/>	Vegetation growth in joints	<input type="checkbox"/>
Stair/ramp rails loose	<input type="checkbox"/>	Stair/ramp rail needs scraped and painted	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Potholes/depressions	<input checked="" type="checkbox"/>	Alligator cracking	<input checked="" type="checkbox"/>
Concrete spalling	<input type="checkbox"/>	Trip hazards (settlement/heaving)	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Asphalt seal coating
- Asphalt pavement
- Sidewalks

**Actions/Comments:**

- The asphalt pavement exhibits isolated areas of failure and deterioration, such as alligator cracking. The most severely damaged areas of paving must be cut and patched in order to maintain the integrity of the overall pavement system. Complete milling and overlay of the entire lot is also recommended.

G2060 Site Development	
Property Signage	
Property Signage	Monument
Street Address Displayed?	Yes

Site Fencing		
Type	Location	Condition
Chain link with metal posts	Surrounding sports fields and Tennis courts	Fair
Chain link with metal posts	Concession building	Fair
Tube steel	Auto shop area	Fair

Refuse Disposal				
Refuse Disposal	Common area dumpsters			
Dumpster Locations	Mounting	Enclosure	Contracted?	Condition
Rear building/cafeteria area	Concrete pad	Chain link fence	Yes	Fair

Other Site Amenities			
	Description	Location	Condition
Playground Equipment	None		--
Tennis Courts	Asphalt	Exterior of building	Fair



Other Site Amenities			
	Description	Location	Condition
Basketball Court	None		--
Swimming Pool	Yes	Interior of the building	Fair

The tennis courts ,sports fields are surrounded by a chain link fence. High-intensity light fixtures, mounted on metal poles, are provided for night-time use.

**Anticipated Lifecycle Replacements:**

- Signage
- Site fencing
- Tennis court seal coating
- Pool equipment
- Pool plaster
- Bleachers
- Scoreboard
- Flagpoles
- Park benches

**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.Future lifecycle replacements of the components listed above will be required.

G2080 Landscaping		
Drainage System and Erosion Control		
System	Exists At Site	Condition
Surface Flow	<input type="checkbox"/>	--
Inlets	<input checked="" type="checkbox"/>	Fair
Swales	<input type="checkbox"/>	--
Detention pond	<input type="checkbox"/>	--
Lagoons	<input type="checkbox"/>	--
Ponds	<input type="checkbox"/>	--
Underground Piping	<input checked="" type="checkbox"/>	Fair
Pits	<input type="checkbox"/>	--
Municipal System	<input checked="" type="checkbox"/>	Fair
Dry Well	<input type="checkbox"/>	--

**Anticipated Lifecycle Replacements:**

- No components of significance

**Actions/Comments:**

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

Item	Description						
Site Topography	Generally Flat						
Landscaping	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Landscaping Condition	Fair						
Irrigation	Automatic Underground		Drip		Hand Watering		None
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
Irrigation Condition	--						

Retaining Walls		
Type	Location	Condition
Keystone	Northwest side of property	Fair

**Anticipated Lifecycle Replacements:**

- No components of significance

**Actions/Comments:**

- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are no significant areas of erosion.

**G30 Liquid & Gas Site Utilities**

G3060 Site Fuel Distribution	
Item	Description
Natural Gas	Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located along the exterior walls of the building. The gas distribution piping within the building is malleable steel (black iron).

**Anticipated Lifecycle Replacements:**

- No components of significance

**Actions/Comments:**

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator appear to be functioning adequately and will require routine maintenance.
- Only limited observation of the gas distribution piping can be made due to hidden conditions.



### G40 Electrical Site Improvements

G4050 Site Lighting					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Good				
Building Lighting	None		Wall Mounted	Recessed Soffit	
	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Good				

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Isolated bulb/lamp replacement	<input type="checkbox"/>	Discolored/dirty lens cover	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Anticipated Lifecycle Replacements:**

- Exterior lighting

**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

## 8. Ancillary Structures

Other Ancillary Structures			
Type	Concession, restrooms, training room, offices	Location	Site
Item	Material	Item	Material
Exterior Siding	CMU, Brick	Roof Finishes	Asphalt Singles
Interior Finishes	Floor : Unfinished Concrete, VCT Ceiling : Exposed, Suspended Walls : CMU, Gypsum board	MEPF	See Tables in Section 5
Overall Building Condition			Good

Type	Maintenance/Storage Shed/Garage/Free-standing restroom facility	Location	Site
Item	Material	Item	Material
Exterior Siding	Aluminum, Wood, Vinyl, CMU, Brick	Roof Finishes	Metal
Interior Finishes	Floor : Unfinished Concrete, VCT, Ceiling : Exposed, Suspended ACT, Walls : CMU, Gypsum board	MEPF	See Tables in Section 5
Overall Building Condition			Fair

**Anticipated Lifecycle Replacements:**

- Toilets
- Urinals
- Secondary transformer
- Lavatories
- Unit heaters
- Asphalt shingles

**Actions/Comments:**

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

## 9. Opinions of Probable Costs

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Cost estimates are attached at the front of this report (following the cover page).

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means* and *Marshall & Swift*, EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

### 9.1. Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

### 9.2. Immediate Repairs

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) material building or fire code violations, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

### 9.3. Replacement Reserves

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair Cost Estimate

## 10. Purpose and Scope

### 10.1. Purpose

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

#### CONDITIONS:

The physical condition of building systems and related components are typically defined as being in one of five conditions: Excellent, Good, Fair, Poor, Failed or a combination thereof. For the purposes of this report, the following definitions are used:

Excellent	=	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	=	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	=	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	=	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	=	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	=	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Throughout sections 5 through 9 of this report, each report section will typically contain three subsections organized in the following sequence:

- A descriptive table (and/or narrative), which identifies the components assessed, their condition, and other key data points.
- A simple bulleted list of Anticipated Lifecycle Replacements, which lists components and assets typically in Excellent, Good, or Fair condition at the time of the assessment but that will require replacement or some other attention once aged past their estimated useful life. These listed components are typically included in the associated inventory database with costs identified and budgeted beyond the first several years.
- A bulleted cluster of Actions/Comments, which include more detailed narratives describing deficiencies, recommended repairs, and short term replacements. The assets and components associated with these bullets are/were typically problematic and in Poor or Failed condition at the time of the assessment, with corresponding costs included within the first few years.



**PLAN TYPES:**

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the “why” part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the “best” fit, typically the one with the greatest significance. The following Plan Types are listed in general weighted order of importance:

Safety	=	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity	=	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility	=	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	=	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Modernization/Adaptation	=	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	=	Any component or system in which future repair or replacement is anticipated beyond the next several years and/or is of minimal substantial early-term consequence.

**10.2. Scope**

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a general statement of the subject Property’s compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of fungal growth, conditions conducive to fungal growth, and/or evidence of moisture. EMG will also interview Project personnel regarding the presence of any known or suspected fungal growth, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, in order to gain a clear understanding of the property’s overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report.
- Prepare a mechanical inventory list.

## 11. Accessibility and Property Research

### 11.1. ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “commercial facilities” on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made.

During the FCA, a limited visual observation for ADA accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in *EMG’s Abbreviated Accessibility Checklist* provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG’s undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance.

At a High School property, the areas considered as a public accommodation besides the site itself and parking, are the exterior accessible route, the interior accessible route up to the tenant lease lines and the interior common areas, including the common area restrooms.

The facility generally appears to be accessible as stated within the defined priorities of Title III of the Americans with Disabilities Act.

Accessibility Issues			
Component	Major Issue	Moderate Issue	Minor Issue
Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exterior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A full ADA Compliance Survey may reveal aspects of the property that are not in compliance.

Corrections of these conditions should be addressed from a liability standpoint, but are not necessarily code violations. The Americans with Disabilities Act Accessibility Guidelines concern civil rights issues as they pertain to the disabled and are not a construction code, although many local jurisdictions have adopted the Guidelines as such.

### 11.2. Flood Zone and Seismic Zone

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated April 3, 2012, the property is located in Zone X, defined as an area outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 1, defined as an area of low probability of damaging ground motion.

## 12. Certification

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Ann Arbor Public Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Pioneer High School, Baseball Field House, Grounds, Holloway, Track Building, 601 W. Stadium, Ann Arbor, Michigan, the "Property". It is our understanding that the primary interest of Ann Arbor Public Schools is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in depth studies were performed unless specifically required under Section 2 of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas were observed (See Section 4.2 for areas observed). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the client for the purpose stated within Section 10 of this report. The report, or any excerpt thereof, shall not be used by any party other than the client or for any other purpose than that specifically stated in our agreement or within Section 10 of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at Ann Arbor Public Schools and the recipient's sole risk, without liability to EMG.

**Prepared by:** Lawrence Sirridge,  
Project Manager

**Reviewed by:**



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Al Diefert  
Technical Report Reviewer For  
Andrew Hupp  
Program Manager

## 13. Appendices

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- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Supporting Documentation
- Appendix D: Pre-Survey Questionnaire

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## **Appendix A: Photographic Record**

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#1:	FRONT MAIN ENTRANCE
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#2:	SOUTH ELEVATION
-----	-----------------



#3:	WEST ELEVATION
-----	----------------



#4:	NORTH ELEVATION
-----	-----------------



#5:	EAST ELEVATION
-----	----------------



#6:	MAIN PARKING
-----	--------------





#7:	ASPHALT PARKING LOT
-----	---------------------



#8:	DRIVE LANE
-----	------------



#9:	CONCRETE PAVEMENT
-----	-------------------



#10:	CONCRETE PAVEMENT
------	-------------------



#11:	LANDSCAPING
------	-------------



#12:	LANDSCAPING
------	-------------



#13:	SITE LIGHTING
------	---------------



#14:	MONUMENT SIGN
------	---------------



#15:	STADIUM LIGHTING
------	------------------



#16:	SITE FENCING
------	--------------



#17:	EXTERIOR LED LIGHTING
------	-----------------------



#18:	WROUGHT IRON FENCE
------	--------------------





#19:	EXTERIOR POLE LIGHTING
------	------------------------



#20:	STADIUM MAINTENANCE BUILDING
------	------------------------------



#21:	MAINTENANCE BUILDING
------	----------------------



#22:	FOOTBALL STADIUM BUILDING
------	---------------------------



#23:	HOLLOWAY BUILDING
------	-------------------



#24:	EPDM ROOFING
------	--------------



#25:	EPDM ROOFING
------	--------------



#26:	BRICK VENEER
------	--------------



#27:	EXTERIOR WALL
------	---------------



#28:	QUARRY TILE STAIRS
------	--------------------



#29:	TERRAZZO STAIR
------	----------------



#30:	EXTERIOR DOOR
------	---------------



#31:	EXTERIOR STEEL DOOR
------	---------------------



#32:	EXTERIOR DOOR
------	---------------



#33:	OVERHEAD DOOR, STEEL ROLL-UP
------	------------------------------



#34:	ALUMINUM FIXED WINDOWS
------	------------------------



#35:	WINDOW, STEEL OPERABLE
------	------------------------



#36:	OVERHEAD DOOR, ALUMINUM ROLL-UP
------	---------------------------------





#37:	WINDOWS
------	---------



#38:	ROOF TOP UNIT
------	---------------



#39:	ROOF TOP UNIT
------	---------------



#40:	HYDRONIC HEAT BOILER
------	----------------------



#41:	HEAT/ COOLING MAINTENANCE BUILDING
------	------------------------------------



#42:	HYDRONIC HEAT
------	---------------



#43:	RADIATOR, HYDRONIC BASEBOARD
------	------------------------------



#44:	HVAC SYSTEM HYDRONIC PIPING
------	-----------------------------



#45:	CHILLER
------	---------



#46:	HEAT DISTRIBUTION PUMP
------	------------------------



#47:	PLUMBING SYSTEM, DOMESTIC SUPPLY
------	----------------------------------



#48:	SINK, VITREOUS CHINA
------	----------------------





#49:	TOILET, TANKLESS (WATER CLOSET)
------	---------------------------------



#50:	URINALS, VITREOUS CHINA
------	-------------------------



#51:	REFRIGERATED DRINKING FOUNTAINS
------	---------------------------------



#52:	KITCHEN DOMESTIC WATER HEATER
------	-------------------------------



#53:	DISTRIBUTION PANEL
------	--------------------



#54:	ELECTRICAL SWITCHGEAR
------	-----------------------



#55: 1200 AMP SWITCH GEAR



#56: GENERATOR, DIESEL



#57: ELEVATOR CONTROLS



#58: ELEVATOR CAB



#59: PASSENGER FLOOR FINISH



#60: MANUAL PULL STATION



#61:	FIRE ALARM DEVICE
------	-------------------



#62:	FIRE EXTINGUISHER
------	-------------------



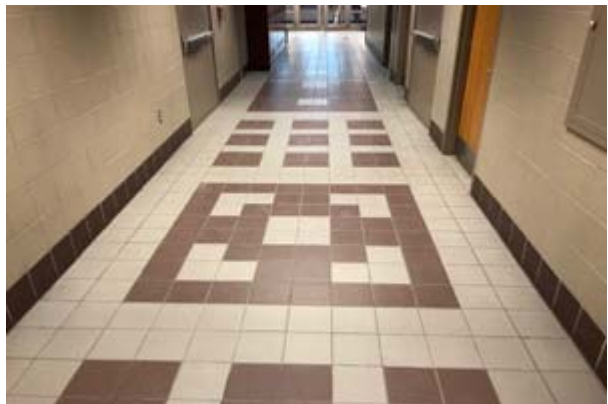
#63:	FIRE SUPPRESSION SYSTEM
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#64:	TYPICAL CLASSROOM
------	-------------------



#65:	BUILDING ADDRESSABLE FIRE ALARM PANEL
------	---------------------------------------



#66:	CERAMIC TILE
------	--------------





#67:	INTERIOR DOOR
------	---------------



#68:	HALLWAY LIGHTING
------	------------------



#69:	INTERIOR WALL FINISH
------	----------------------



#70:	CAFETERIA VCT FLOOR
------	---------------------



#71:	HALLWAY
------	---------



#72:	SUSPENDED ACOUSTICAL TILE (ACT) CEILING
------	---



#73:	QUARRY TILE
------	-------------



#74:	WOOD PANELING
------	---------------



#75:	OFFICE
------	--------



#76:	REFRIGERATOR, 1-DOOR REACH-IN,
------	--------------------------------



#77:	HALLWAY
------	---------



#78:	LOCKERS
------	---------



#79:	BASKETBALL BACKSTOP
------	---------------------



#80:	ICEMAKER
------	----------



#81:	REFRIGERATOR, 2-DOOR REACH-IN
------	-------------------------------



#82:	VARIABLE FREQUENCY DRIVE
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## Appendix B: Site Plan

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# Site Plan



**Project Name:**

Pioneer High School

**Project Number:**

129010.18R000-035.354

**Source:**

Google Earth Pro

**On-Site Date:**

2/13-2/16/2018

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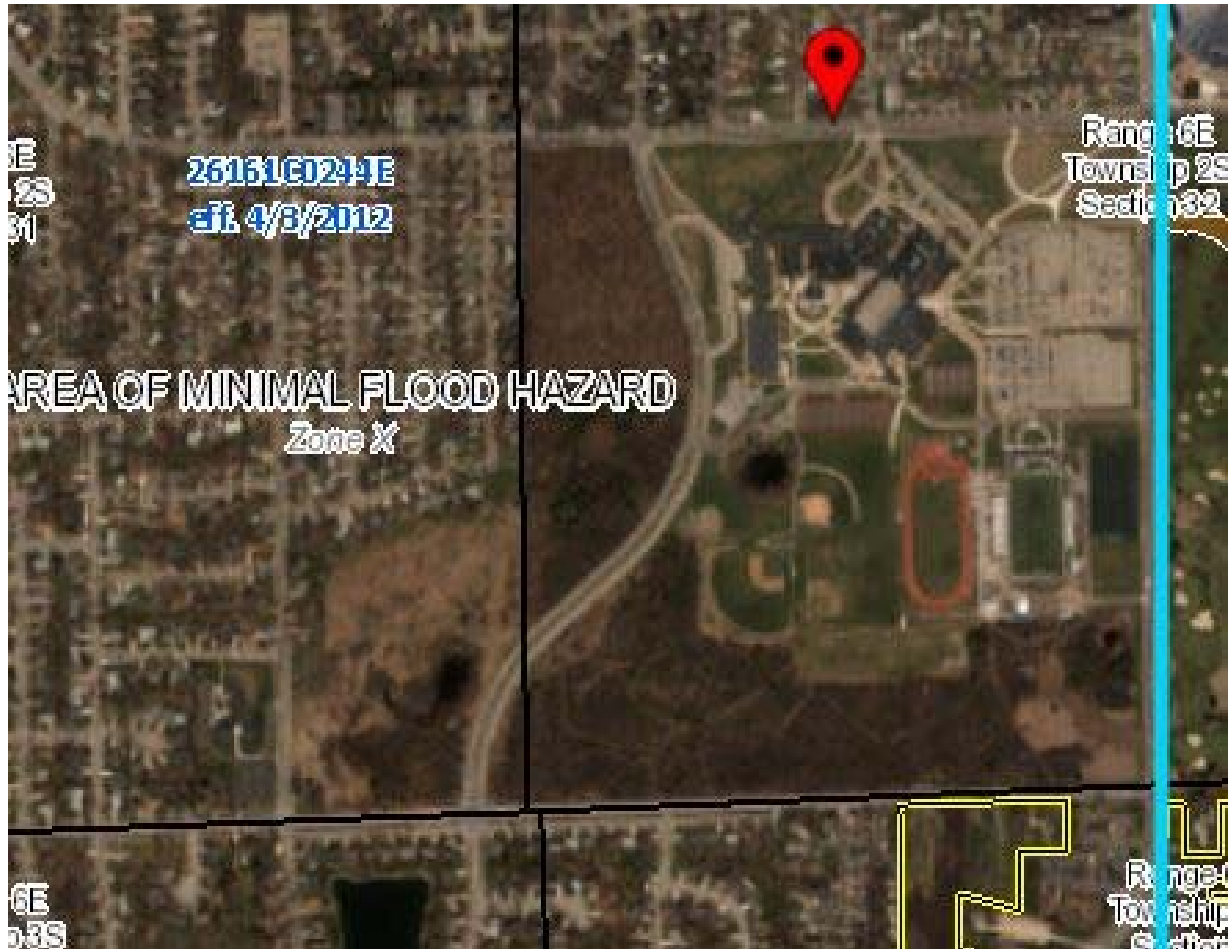
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## **Appendix C: Supporting Documentation**

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Flood Map



	<b>Project Name:</b> Pioneer High School	<b>Project Number:</b> 129010.18R000-035.354
	<b>Source:</b> FEMA Flood Map	<b>On-Site Date:</b> 2/13-2/15/2018

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## **Appendix D: Pre-Survey Questionnaire**

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# PCA: PRE-SURVEY QUESTIONNAIRE



Name of person completing questionnaire: Mr. Brown  
 Association with property: Head of security  
 Length of association with property: 20 years  
 Phone Number: 404.320.3613  
 Property Name: Pioneer High School  
 EMG Project Number: 129010.18R000-035.354

Signature: Larry Sirridge

Date: February 14, 2018

**Directions:** Please answer all questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Additional details necessary to explain any **yes or unknown responses** should be provided in the "Comments" column.

GENERAL PROPERTY INFORMATION			
Year constructed:	1956	Number of units:	One
Number of buildings:	Five	Gross SF:	404176
Number of stories:	Three	Net rentable SF:	█

INSPECTIONS	DATE LAST INSPECTED	LIST ANY OUTSTANDING REPAIRS OR IMPROVEMENTS REQUIRED
Elevators:	April 2017	None
HVAC:	Unknown	Unknown
Electrical:	NA	None
Plumbing:	NA	None
Fire Alarm:	Yearly	None
Fire Sprinklers:	Yearly	None
Roofs:	Unknown	Clean roof drains and check for leaks
ADA / Accessibility:	Unknown	None
Termites / Wood Destroying Insects:	Unknown	None

QUESTION		RESPONSE
1	List any major capital improvement within the last five years.	Electrical panels replaced along with associated wiring
2	Provide date and summary of the most recent renovation.	Unknown
3	List any major capital expenditures planned for the next year.	Unknown
4	What is the age of the roof(s)?	Ten years
5	What building systems (HVAC, roof, finishes, paving, etc.) are the responsibilities of the tenant to maintain and replace?	All
6	Are any of the buildings ground lease pads (building is owned by the tenant)?	No

QUESTION		RESPONSE				COMMENTS
		Y	N	Unk	NA	
7	Are there any unresolved building, fire, or zoning code issues?		x			
8	Are there any unresolved construction defects?		x			
9	Is there any pending litigation concerning the physical condition of the property?			x		
10	Are there any "down" or unusable units?		x			
11	Are there any problems with the utilities, such as inadequate capacities?		x			
12	Are there any plumbing leaks, water pressure problems, or waste line problems?		x			
13	Is polybutylene or galvanized steel water piping used? If so, describe the history of any issues or repairs		x			
14	Is the property served by a private water well, septic system or waste water treatment plant? If so, please describe and provide a copy of permits and operator's information.		x			
15	Are there any leaks or pressure problems with natural gas service?		x			



QUESTION		RESPONSE				COMMENTS
		Y	N	Unk	NA	
16	Do the electrical system branch circuits (between panels and fixtures) use aluminum wiring? If so, how has it been mitigated?		x			
17	Do Residential units have a less than 60-Amp service?				x	
18	Do Commercial units have less than 200-Amp service?		x			
19	Is GFCI circuit protection provided in kitchens and bathrooms or other wet locations?	x				
20	Are there any issues with the circuit breakers or circuit breaker panels?	x				Replacing panel due to age of panels,
21	Are there any problems with inadequate exterior lighting?		x			
22	Do any of the HVAC systems use R-11, 12, or 22 refrigerants?		x			
23	Are there any recalled fire sprinkler heads (such as Star, GEM, Central, Omega)?		x			
24	Are there any problems with erosion, stormwater drainage or areas of paving that do not drain?		x			
25	Are there any problems with the landscape irrigation systems?				x	
26	Are there any problems with foundations or structures?		x			
27	Is there any water infiltration in basements or crawl spaces?		x			
28	Are there any roof leaks?		x			None active at this time
29	Is the roofing covered by a warranty or bond? If so, please provide a copy.			x		
30	For buildings constructed 1955-1989, is Fire Retardant Treated (FRT) plywood used? If so, please describe.		x			
31	Are there any roofs with phenolic foam roof insulation (PFRI)?		x			
32	Are there any areas of the building with inadequate insulation?		x			
33	Is exterior insulation and finish system (EIFS) used? If so, please indicate if there are any issues.					
34	Are there any wall or window leaks?		x			
35	Has any part of the property ever contained visible suspect mold or fungal growth?		x			



QUESTION		RESPONSE				COMMENTS
		Y	N	Unk	NA	
36	Have there been any indoor air quality related complaints from tenants/occupants?			x		
37	Has "Chinese drywall" been identified at the property?			x		
38	For hotel/residential properties, are there currently, or is there a history of, bed bug infestations?				x	
39	If a swimming pool is present, do the drains comply with the Virginia Graeme Baker Act?				x	
40	Has an ADA survey previously been completed for the property?			x		
41	Has building ownership or management received any ADA related complaints or litigation?			x		
42	Have any ADA improvements been made to the property since the original construction?		x			
43	Are there any other significant issues/hazards with the property?		x			

**On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below.**

- Construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work.
- A site plan which depicts the arrangement of buildings, roads, parking stalls, and other site features.
- Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents.
- The names of the local utility companies which serve the property.
- A summary of recent (over the last 5 years) capital improvement work.
- Historical costs for repairs, improvements, and replacements.
- Records of system & material ages (roof, MEP, paving, finishes, and furnishings).
- Brochures or marketing information.
- Mold Operations and Maintenance Program.
- Previous reports pertaining to the physical condition of property.
- ADA survey and status of improvements implemented.
- For commercial properties, a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s).
- For apartment properties, a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet.
- A summary of hotel room types and quantities, including the number and type of ADA rooms.



On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

<p><b>INFORMATION REQUIRED</b></p> <ol style="list-style-type: none"> <li>1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work.</li> <li>2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features.</li> <li>3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s).</li> <li>4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet.</li> <li>5. For hotel or nursing home properties, provide a summary of the room types and room type quantities.</li> <li>6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents.</li> <li>7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.</li> </ol>	<ol style="list-style-type: none"> <li>8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors.</li> <li>9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements.</li> <li>10. Records of system &amp; material ages (roof, MEP, paving, finishes, furnishings).</li> <li>11. Any brochures or marketing information.</li> <li>12. Appraisal, either current or previously prepared.</li> <li>13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties).</li> <li>14. Previous reports pertaining to the physical condition of property.</li> <li>15. ADA survey and status of improvements implemented.</li> <li>16. Current / pending litigation related to property condition.</li> </ol>
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Your timely compliance with this request is greatly appreciated.