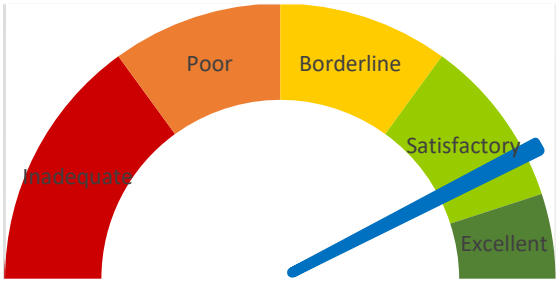
DMPS FACILITY ASSESSMENT | OAK PARK ELEMENTARY

12.19.2023

bbs
ARCHITECTS
ENGINEERS

219 Eighth Street
Suite 100
Des Moines, IA 50309
515.244.7167

www.bbsae.com



REPORT ORGANIZATION

EXECUTIVE BUILDING SUMMARY

Oak Park Elementary's on-site facility conditions assessment was conducted on December 19, 2023 and included visual conditions assessment from professionals covering interior architecture, exterior building envelope, the property's grounds (site), structural condition, mechanical (HVAC/Plumbing) systems, electrical systems (power, exterior lighting, interior lighting, fire alarm, and general IT), and the elevator conditions.

A few of the short term maintenance identified for Oak Park are: walk off mat replacement, roof cleaning, exterior door adjustments, asphalt patching, emergency boiler shutoff switch replacement, and carbon monoxide detectors in the mechanical room. Generally, Oak Park Elementary appears to be in good condition.

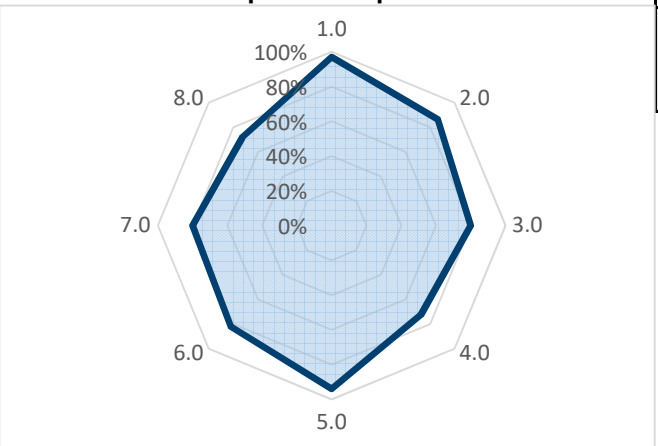
Some of the recommended projects for Oak Park Elementary to be completed in the next 1-2 years include:

- Interior Doors Hardware Upgrade
- Gymnasium Wall Base Installation
- Hollow Metal Doors and Frames Painting
- Exterior Door Hardware Replacement
- Roof Replacement (partial)
- Grading Repairs
- Pavement, Sidewalk, and Curb Replacement and Repairs
- Exterior Stoop and Stair Repairs
- ERV Replacements
- Electrical Panel Replacements

These projects along with all of the recommended potential projects at the 3-4 year and 5-10 year priority levels are further described within this report.

Discipline Comparison				Building Health				
Assessment Category Summary		Max Pnts	Earned Pnts	Bldg Weight Factor	Max Pnts	Earned Pnts	%	Rating
1.0	Educational Adequacy	165	160	2.00	330	320	97%	Excellent
2.0	Environment for Education	375	324	0.60	225	194	86%	Satisfactory
3.0	Exterior Envelope	95	76	3.00	285	228	80%	Satisfactory
4.0	School Site	95	69	1.50	143	104	73%	Satisfactory
5.0	Structural Conditions	130	122	1.30	169	159	94%	Excellent
6.0	Mechanical Systems	660	542	0.80	528	434	82%	Satisfactory
7.0	Electrical Systems	370	296	0.75	278	222	80%	Satisfactory
8.0	Elevator Conditions	65	47	1.00	65	47	72%	Satisfactory
Total					**1,957**	**1,660**	**85%**	**Satisfactory**

Oak Park Elementary
Discipline Comparison



Rating Table				
1-29%	30-49%	50-69%	70-89%	90-100%
Inadequate	Poor	Borderline	Satisfactory	Excellent

After totaling the scores from the various discipline assessment reports Oak Park Elementary scored a building health rating of 85% or "Satisfactory" per the scale described above. Per the graph shown on the cover page of this report, scores within the "green" range are considered positive scores. Oak Park Elementary is within this positive range. Improvements to Elevator Conditions and School Site would make the largest impact in increasing the score to Excellent.

Building Data Record

Building Name: Oak Park Elementary

Date: December 19, 2023

Address: 3928 6th Avenue
Des Moines, Iowa 50313

High School Feeder System: North High School

Building SF: 59,497 square feet

Site Acreage: 3.15 acres

Date(s) of Construction: 1900, 1952, 1976, 1990, 2003

Date(s) of Roof Replacement: 2003, 2004, 2016

Current/Scheduled Projects: Accessibility Improvements - 2024
Flooring Restoration - 2024

Existing Building Data:

- [x] Egress Plans
- [x] Original Docs
- [x] Major Renovations and Additions
- [x] Minor Projects
- [ ] Maint. Reports

Site Items:

- [x] Student Garden
- [ ] Loading Dock
- [x] Stormwater Detention

Energy Source:

- [x] Electric
- [ ] Gas
- [x] Geothermal
- [ ] Solar

Cooling:

- [ ] DX RTU or DOAS
- [ ] Chiller
- [ ] VRF
- [x] Water Source Heat Pump
- [ ] Fluid Cooler

Heating:

- [ ] Gas/Electric RTU or DOAS
- [ ] Boiler
- [ ] Water-to-Water Heat Pump
- [ ] VRF
- [x] Water Source Heat Pump

Structure Fireproofing:

- [x] No
- [ ] Yes

Construction:

- [x] Load Bearing Masonry
- [x] Steel Frame
- [x] Concrete
- [ ] Wood
- [ ] Other

Exterior Facade:

- [x] Brick
- [ ] Stucco
- [ ] Metal
- [ ] Wood
- [x] Other
  Precast concrete
  Precast concrete with embedded brick

Floor/Roof Structure:

- [ ] Wood Joists
- [x] Steel Joists/Beams
- [x] Slab on Grade
- [x] Struct. Slab
- [ ] Other

A | Architectural, Programming

ASSESSOR: Tim Bungert

1.0 Educational Adequacy

		Weight Factor	Rating	Points	Comments
General					
1.1	**Floor materials** are appropriate for space type.	2	5	10	
Elective/Secondary Classroom					
1.2	**Gymnasium** is adequate for providing physical education programming.	2	5	10	
1.3	**Cafeteria** has adequate space, furniture, and acoustics for efficient lunch use.	2	5	10	
1.4	**Music room** is adequate for providing introductory music instruction.	2	3	6	Music room is very small and is in need of improved acoustic absorption and containment. During observation the teacher was using a headset microphone and amplified speaker, which was clearly audible form the corridor and other rooms.
1.5	**Art room** has sufficient accommodations for program.	2	5	10	
1.6	**Library/Resource/Media Center** provides appropriate and attractive space.	1	5	5	
Core Classroom					
1.7	Classroom space permits arrangements for **small group activity.**	3	5	15	
1.8	**Student storage space** is adequate.	2	5	10	
1.9	**Teacher storage space** is adequate.	3	5	15	
1.10	Classroom **acoustical treatment** of ceiling, walls, and floors provide effective sound control.	3	5	15	

A | Architectural, Programming

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
1.11	**Classroom power and data receptacles** are located to support current classroom instruction.	4	5	20	
1.12	Educational **technology** supports instruction.	4	5	20	
Administration					
1.13	**Conference/Private meeting rooms** are adequate for large and small meetings.	1	4	4	Multiple small conference rooms, but no large conference room available.
1.14	**Main office** has a check-in and waiting area.	2	5	10	
	TOTAL			160	

A | Architectural, Interior

ASSESSOR: Tim Bungert

2.0 Environment for Education

Design

		Weight Factor	Rating	Points	Comments
2.1	**Traffic flow** is aided by appropriate foyers and corridors.	1	5	5	
2.2	Communication among students is enhanced by **common areas.**	1	3	3	There are only a few very small breakout / common spaces within the corridors. The area just outside the main office / gymnasium could be improved to include lounge seating or benches.
2.3	Areas for students to **interact are suitable to the age group.**	1	5	5	
2.4	Large group areas are designed for effective **management of students.**	2	4	8	Cafeteria is isolated in the basement which is not ideal for wayfinding or student management.
2.5	**Furniture Systems** are in good or like new condition.	1	5	5	
2.6	**Color schemes**, building materials, and decor are **engaging and unify** the school character.	2	5	10	
2.7	Windows and skylights provide access to **adequately controlled daylight** for regularly occupied spaces.	3	3	9	Windows in classrooms 128A, 128B, and 129B are very small relative to the space sizes. Classroom 129A has no windows or skylights for access to daylight. Cafeteria in the basement level has no access to daylight.
2.8	Windows provide access to **quality views** (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	3	9	Windows in classrooms 128A, 128B, and 129B are very small relative to the space sizes. Classroom 129A has no windows for access to views. Cafeteria in the basement level has no access to views outside.
2.9	**Lighting has proper controls** to provide the required light levels for various teaching and learning needs.	2	4	8	Fabric covers were observed on light fixtures in many classrooms. Consider adding dimming controls to lighting.
2.10	**Staff dedicated spaces** include conference space, work space, and dedicated restrooms.	1	4	4	No staff workroom was observed.

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.11	**Main office** is visually connected to the entry and is welcoming to students, staff, and guests.	2	5	10	
2.12	**Break room** is adequately sized and furnished for proper use.	1	2	2	Break room is well decorated, but is very small. Seating available within the break room is also very limited.
2.13	**Mother's room** is a separate designated space properly furnished.	1	0	0	No mother's room observed.
Maintainability					
2.14	**Floor surfaces** are durable and in good condition.	1	4	4	In the gym (108) there is a roughly 1/2 inch gap between the edge of the floor slab and adjacent walls on all sides. This gap collects dirt and debris, leading to damaged VCT at the edges of the space. Consider installing an L-shaped resilient wall base to cover this gap and protect the flooring.
2.15	**Ceilings** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	4	4	Ceilings in rooms 128A, 128B, 129A, and 129B are 2'x4' acoustic tiles, which varies from the standard 2'x2' tiles throughout the rest of the building. The ceiling tiles in these rooms show significant "pillowing" or sagging.
2.16	**Walls** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	5	5	
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	5	5	Casework is in generally excellent condition. In some classrooms, however, teachers have covered up the very bold-colored countertops with more neutral colored adhesive contact paper.
2.18	**Doors** are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	5	15	
2.19	**Facility doors** are keyed to standardized master keying system.	3	5	15	
2.20	**Restroom partitions** are securely mounted and of durable finish.	2	4	8	In restroom 110, the door to the accessible toilet stall has a broken hinge and does not close properly.

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.21	**Adequate electrical outlets** are located to permit routine cleaning in corridors and large spaces.	1	5	5	
Occupant Safety					
2.22	Classroom doors are **recessed and open outward.**	4	5	20	
2.23	Door hardware (into classrooms or any occupied rooms off of corridors) include **intruder classroom locksets.**	3	3	9	Door at room 111 does not have an intruder classroom lockset and appears to only be lockable from the corridor. Doors at rooms 128A & B do not have intruder classroom locksets and also do not have closers on the doors. Rooms 129A & B are open to the corridor with no classroom doors.
2.24	**Door panels** into classrooms and other occupied spaces contain **vision lite.**	3	5	15	
2.25	**Vision lite** in doors is clear and uncovered.	2	3	6	Vision panels were partially or fully obstructed on 11 classroom doors.
2.26	**Glass** is properly located and protected to prevent accidental injury.	2	5	10	
2.27	**Flooring** is maintained in a **non-slip** condition	2	5	10	
2.28	**Traffic areas terminate at exit or** stairway leading to egress	5	5	25	
2.29	Multi-story buildings have at least **two stairways** from all upper levels for student egress.	5	5	25	
2.30	**Stairs (interior and exterior)** are well maintained and in good condition meeting current safety requirements.	5	3	15	Stair railings do not meet current code requirements for guardrail height, but is considered a grandfathered condition.

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.31	At least **two independent exits** from any point in the building	5	5	25	
2.32	**Emergency lighting** is provided throughout the building.	5	5	25	
	TOTAL			324	

A | Architectural , Exterior

ASSESSOR: Matthew Gaul

3.0 Exterior Envelope

		Weight Factor	Rating	Points	Comments
Design					
3.1	Overall **design is aesthetically pleasing** and appropriate for the age of students.	2	5	10	
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	3	9	Multiple upcoming roof replacement projects.
3.3	**Roof access** is safe for all roofs.	3	3	9	Roof hatches (2) lack guardrails, and multiple roof transitions lack access.
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	5	15	
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	4	4	Low-e glazing cannot be determined, but windows are tinted.
3.6	**Operable windows** are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.	2	5	10	
3.7	**Exterior doors** are of durable material requiring minimum maintenance.	2	4	8	Some repainting required.
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	5	5	
3.9	**Exterior Doors** open outward and are equipped with **panic hardware.**	1	5	5	
3.10	**Exterior Doors are monitored** or controlled by an access control system.	1	1	1	4 doors do not latch. 3 doors lack card readers. 1 door lacks exterior door hardware. 2 pairs of doors have hold opens that should be removed so the exterior doors always close.
	TOTAL		76		

C | Civil

ASSESSOR: Jack Gorman / Joel Jackson

4.0 The School Site

		Weight Factor	Rating	Points	Comments
4.1	**Site topography** and grading drains water away from the building and retaining walls.	1	3	3	The stairs on the north side of the building are being undermined and should have backfilled added before the problem worses and pavement fails. DMPS states the detention pond is currently used as a play area.
4.2	**Parking areas** are in good condition.	5	4	20	A few panels need replacement, mostly good
4.3	**Drive areas** are in good condition.	3	3	9	The east entrance into the drive was in poor condition, a couple of panels through the rest of drive need replacement.
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	2	2	DMPS states it is short for day to day
4.5	**Sidewalks** around the facility are in good **condition.**	1	3	3	Couple areas with significant deterioration, multiple areas with cracks
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	1	5	5	No problem navigating the site and all doors had sidewalk access
4.7	**Hard surface** playground surfaces are in good condition.	3	4	12	The west side asphalt has a crack that should be filled in and a couple of holes to be patched. The east side asphalt was cracking through out but not failing, should be replaced within 10 years
4.8	**Fencing** around the site is in good condition.	1	4	4	One section of fence needs replacement on the south side by the empty lot
4.9	**Trash enclosure** is in good condition.	1	N/A	0	The dumpsters were out in the west side drive. There was a fenced in area but it looked like the turn was too tight for pickup.
4.10	**Utilities** are in newly constructed conditions and placed in suitable locations.	1	5	5	No issues observed.

ASSESSOR: Jack Gorman / Joel Jackson

		Weight Factor	Rating	Points	Comments
4.11	**Site has sufficient room** for both building and parking expansion.	1	4	4	The south lot is fenced in and would be a suitable place for a parking expansion.
4.12	Site has **onsite bus and parent pickup** up with adequate length, good separation and general good site circulation.	1	2	2	DMPS states there is conflict between bus drop off on the west and parents exiting the south drive to the west.
	TOTAL			69	

S | Structural

ASSESSOR: Tyler Scott

5.0 Structural Conditions

		Weight Factor	Rating	Points	Comments
Foundations					
5.1	**Foundations** appear to be in good condition with no visible cracks.	1	5	5	
5.2	There does not appear to be any **foundation settlement.**	2	5	10	
5.3	**Basement walls** do not appear to have any cracks.	1	5	5	
5.4	**Stoops** appear to be in good condition.	1	4	4	Large stoop slab cap outside of entrance 150 is cracked in half. The slab does not need to be replaced, but would benefit from epoxy crack injection repairs. Stair stoops outside of gymnasium have minor spalling of concrete. Repairs to existing concrete recommended only. No replacement required.
Slab on Grade					
5.5	**Slabs on grade** do not appear to have any cracks	1	4	4	Some slab cracks were observed, however, all of them appeared to have already been filled with epoxy crack filler.
5.6	Slabs on grade do not appear to have any **settlement.**	1	5	5	
Exterior Walls					
5.7	**Brick masonry** appears to be in good condition.	2	5	10	
5.8	**Lintels** appear in good condition (no visible deflection or rust).	1	5	5	
5.9	**CMU** is in good condition.	1	5	5	
5.10	**Precast** is in good condition.	1	5	5	

S | Structural

ASSESSOR: Tyler Scott

		Weight Factor	Rating	Points	Comments
Interior Walls					
5.11	**Interior walls** appear to be in good condition.	1	5	5	
Floor Framing (Elevated)					
5.12	**Floor framing** appears to be in good condition.	3	5	15	
5.13	Floor framing appears to meet the **code requirements.**	3	5	15	
Roof Framing					
5.14	**Roof framing** appears to be in good condition.	3	5	15	
Miscellaneous					
5.15	**Retaining walls** appear to be in good condition.	1	5	5	
5.16	**Canopies** appear to be in good condition.	1	N/A	0	
5.17	**Loading dock concrete** appears to be in good condition.	2	N/A	0	
5.18	**Mechanical screening** appears to be in good condition.	2	N/A	0	
5.19	**Stairs** appear to be in good condition.	1	4	4	North entrance pavement stair has bottom tread cracked and separated from main stair. Additionally, the stair is settling with the surrounding grades and the high side of the pavement has been undermined. It is recommended that this concrete stair be replaced when the site gets regraded or reworked.
5.20	**Stair railings** appear to be in good condition.	1	5	5	

S | Structural

ASSESSOR: Tyler Scott

		Weight Factor	Rating	Points	Comments
5.21	**Tunnels** appear to be in good condition without cracks.	1	N/A	0	
5.22	There is a **designated hardened area** in the building.	1	0	0	No designated hardened area observed.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	N/A	0	
	TOTAL			122	

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

6.0 Mechanical Systems

HVAC Design

		Weight Factor	Rating	Points	Comments
6.1	**Zone Control.** Thermostats are provided in each space for individual zone control of space temperatures.	3	4	12	
6.2	**Thermostat location.** Thermostats are properly located in the space.	3	5	15	
6.3	Appropriate **amount of ventilation** are provided to each space.	5	5	25	
6.4	**Ventilation** is provided during occupied hours.	5	3	15	ERVs not operational at time of site assessment visit.
6.5	**Outdoor air intake locations** are appropriate.	4	4	16	Rooftop ERV units with close proximity between OA and EA
6.6	Appropriate **levels of exhaust** are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	3	15	ERVs not operational at time of site assessment visit.
6.7	**Building pressurization.** The design takes into account the balance between ventilation and exhaust air	2	5	10	
6.8	**Major HVAC Equipment** appears to be within it's acceptable **service life.**	5	3	15	All mechanical equipment is 20 years old and beginning to show age. ERVs have limited tempering capacity and cause issues with WSHP performance.
6.9	**Cooling loads** are within equipment operational capacity.	5	5	25	
6.10	**Heating loads** are within equipment operations capacity.	5	5	25	

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

		Weight Factor	Rating	Points	Comments
6.11	**Dehumidification** is provided and addressed humidity loads in incoming outside air.	3	3	9	ERVs do not have capability to dehumidify incoming outdoor air.
Plumbing Design					
6.12	**Water Supply Pressure** is adequate to allow for operation of plumbing fixtures.	5	5	25	
6.13	Appropriate **backflow preventer** is provided at connection to city water supply.	5	4	20	Backflow preventer is a single RPZ. Dual RPZ preferred for redundancy.
6.14	**Domestic hot-water systems** are within equipment operational capacity.	5	4	20	There is only a single domestic hot water heater. No back-up and domestic hot-water heaters are not distributed throughout the building.
6.15	Domestic **hot-water recirculating systems** allow for hot-water at fixtures within a reasonable amount of time.	3	5	15	
6.16	**Sanitary sewer systems** are sized and sloped to allow for proper drainage.	5	5	25	
6.17	Appropriately sized **grease interceptors** are provided for facilities with food service.	3	1	3	A single indoor unit is in place. This unit does not comply with City of DSM WRA requirements.
6.18	**Roof drainage** systems are sized appropriately and overflow drainage systems are installed.	5	5	25	
6.19	**Restroom fixtures** are in good condition and comply with current DMPS standards.	3	5	15	
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	3	9	Several rooms with multiple heat pumps are tight.

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with **coil pull space.**	2	N/A	0	
6.22	**Filter** sizes are standard and filter types are standard.	2	4	8	Varies with equipment type
6.23	**Equipment mounting heights** are reasonable.	3	4	12	Some WSHPs mounted above ceiling
6.24	**Floor surfaces** throughout the mechanical room are non-slip and are dry.	2	5	10	
6.25	**Isolation valves** are located in the plumbing and hydronic systems to allow for isolation of only portions of the system for servicing.	2	5	10	
6.26	Appropriate means are provided for **airflow and water balancing.**	3	5	15	
6.27	**Hose Bibbs** located in proximity to **outdoor condensers and condensing units**. Is cottonwood an issue at this location?	2	5	10	ERVs on roof do not currently have condenser coils. Wall hydrants located on Level 1 if cleaning is required.
6.28	**Fall protection** is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	4	8	Fall protection and ladder w/ cages are recommended for roof
6.29	**Building devices are on DDC controls** and fully visible through Building Automation System. No pneumatic controls remain.	4	5	20	
Occupant Safety					
6.30	**Backflow prevention** is provided at all **cross-connections** to non-potable water.	5	5	25	

MP | Mechanical & Plumbing

ASSESSOR: Chuck Heldenbrand

		Weight Factor	Rating	Points	Comments
6.31	Building is fully **sprinklered.**	5	5	25	
6.32	**Domestic hot-water temperature** at lavatories used by students or staff is provided with a thermostatic mixing valve and adjusted properly.	5	4	20	Central thermostatic mixing valve was installed in 2003 and is nearing end of life, requiring a replacement in the near future.
6.33	**Emergency eye-washes and tempering valves** are located where required.	5	0	0	None observed. Recommend evaluation with an occupational safety and health professional to determine necessity of eye wash(es) for facility spaces.
6.34	**Emergency boiler stop switches** are located at exits from boiler rooms.	5	4	20	Boiler shutoff located inside mech room at one door. Other door appears to be locked or inoperable but may require a boiler shutoff be installed.
6.35	**Refrigeration evacuation systems** are provided in rooms with chillers.	5	N/A	0	
6.36	**Carbon Monoxide monitoring** and alarming is provided for areas with gas-fired equipment.	5	4	20	No CO detector noted in mech room with gas fired hot water heater. Noted draft inducer installed due to issue with water heater properly drafting flue gases.
	TOTAL			542	

E | Electrical

ASSESSOR: David Carlson

7.0 Electrical Systems

Electrical Design

		Weight Factor	Rating	Points	Comments
7.1	**Transformer location** is easily accessible by utility line truck to allow for rapid transformer replacement in the event of an issue.	5	5	25	Service entrance consists of 1000kVA, 480/277V transformer. Transformer sits within fenced enclosure where front of enclosure is hinged at corners to allow for entire front face to swing open, allowing for full clearance and access.
7.2	**Transformer** has adequate clearance from non-combustible building components, paths of egress, etc. 10' clear working area in front of doors.	5	5	25	
7.3	**The MDP environment** is safe, has adequate clearances and exiting.	3	4	12	Ladder storage encroaching upon MDP clear area. -1 point for light storage in service area.
7.4	The **MDP** appears serviceable.	4	4	16	Siemens Type SB switchboard rated at 1600A installed in 2003. -1 point for age greater than 10 years.
7.5	The MDP is **maintainable.**	3	5	15	
7.6	The MDP will support **future expansion.**	4	2	8	24 available positions for breakers, 2 spaces and 1 spare remain for a spare capacity of 12.5%. -3 points for less than 15% spare capacity.
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	N/A	0	No distribution panels present.
7.8	The Distribution Panel appears **serviceable.**	4	N/A	0	No distribution panels present.
7.9	The Distribution Panel is **maintainable.**	4	N/A	0	No distribution panels present.
7.10	The Distribution Panel will support **future expansion.**	4	N/A	0	No distribution panels present.

E | Electrical

ASSESSOR: David Carlson

		Weight Factor	Rating	Points	Comments
7.11	**Electrical panels and disconnect switches** observed during assessment are safe, serviceable, and maintainable.	2	1	2	Panels added in 2003 renovation are generally in good condition. Original panels are still in service in some areas, and are in need of immediate replacement due to quality of manufacturing (Federal Pacific Panel in custodial office). Existing ITE panels are no longer supported.
7.12	Building has adequate and appropriately located, **safe exterior power** to allow for regular maintenance activities.	1	5	5	Exterior receptacles present at main entrance and kitchen entrance. NEMA 14-50 receptacle is present for mobile clinic usage (dentist, optometrist, etc.)
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	4	20	Light on east wall at south corner is inoperative.
Electronic System Design					
7.14	MDF is **neatly organized** and has appropriate clearances and working spaces. Cables are neatly laced or trained. Entry to the room is restricted.	4	5	20	
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	4	16	13 units of 45 rack unit data rack remain, 28% spare capacity. -1 point for less than 50% capacity.
7.16	MDF is equipped with UPS to back up main switch(es), providing **backup power** to necessary equipment in the event of a power outage.	5	5	25	
7.17	MDF Power is supplied by **20A circuits and receptacles.**	1	5	5	
7.18	MDF Power is supplied from a branch panel located in the room with **adequate spare circuit capacity.**	1	0	0	No panelboard present in MDF. Circuits are fed from Panel R1 in adjacent boiler/main electrical room. Recommend a sub-panel from R1 to consolidate circuits and equipment connections.
7.19	MDF employs up-to-date **network cabling.**	2	4	8	Majority of cable present is CAT5e. -1 point for less than CAT6/6A.
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	N/A	0	No IDF present.

E | Electrical

ASSESSOR: David Carlson

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	3	6	Grounding busbar in current lug configuration has 14 available spaces to land grounding connections. 9 hole locations are free for a capacity exceeding 50% (excellent). No connection to MDP ground bus is present, -2 points.
7.22	Building is equipped with an **addressable fire alarm system.**	5	5	25	DMPS standard Simplex 4100 series.
7.23	Building is equipped with an **access control system.**	5	5	25	Access control is present at all main exterior entrances, and doors where control is absent contain no entry door hardware.
7.24	Building is equipped with a **CCTV system.**	5	2	10	5/15=33%
7.25	Building is equipped with an **intercom system.**	4	3	12	DMPS standard Bogen Intercom. Speakers in operation during assessment are loud and distorted. Speakers may need replacement if excessive volume has damaged them. Evaluate output levels at Bogen amplifier. -2 points for maintenance needs.
7.26	Building is equipped with a **master clock system.**	4	4	16	Simplex time clock system present. -1 point for non-conformance to DMPS standard Primex system.
	TOTAL			296	

EV | Elevator

ASSESSOR: Mike Brown - ATIS

8.0 Elevator Conditions

		Weight Factor	Rating	Points	Comments
Design					
8.1	**Size** meets minimum as directed by ADA.	2	5	10	
8.2	**Control protections and signals** meet ADA standards.	2	5	10	
8.3	**Signage** meets code requirements.	1	5	5	
Operation and Safety					
8.4	Elevators have **proper level accuracy and door times.**	1	0	0	Elevator was out of service due to a bad motor. The motor, leads and surrounding wiring needs replaced.
8.5	**Safety devices** are in place and operable.	1	1	1	Recommend an electronic starter to eliminate the risk of another motor failure.
Condition and Maintainability					
8.6	**Equipment is easily accessible** for periodic maintenance.	1	5	5	
8.7	**Equipment** is at an acceptable point in the life cycle, and does not contain obsolete parts.	2	5	10	
8.8	**Finishes** are adequate and maintainable.	1	0	0	Unable to access the interior of the car.
8.9	**Maintenance** is adequate.	1	3	3	Increase maintenance frequency to quarterly.
8.10	**Testing** is up to date, and all **record and logbooks** are present and filled out.	1	3	3	Log books are not complete.
	TOTAL			47	

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

One of the major impetuses for our facility condition assessment work is the need to support strategic fiscal and maintenance planning for their facilities. As such, DMPS requires that recommended projects be assigned a total project cost in order to support the strategic planning needs of the District. A total project cost is a cost that includes the estimated construction cost as well as the various other 'hard' and 'soft' costs of a construction project such as professional design fees, contractor overhead, required contingencies, inflation, direct costs (e.g. permitting costs), etc. The full list of these hard and soft costs are defined later in this section.

Project Descriptions

Every building assessment report includes a section titled Recommended Projects and Priorities. This section is divided into the following subcategories: "Short Term Maintenance", "1-2 Year Project Priorities", "3-4 Year Project Priorities", "5 - 10 Year Project Priorities", and "Projects Requiring a Study". Each of these subcategories includes a list of project recommendations. The projects listed in each subcategory are grouped by discipline and listed in the following order: interior architecture, exterior architecture, civil (site), structural, mechanical, electrical, and elevator projects. The discipline order as described mirrors the order of the discipline Scoring Reports section found earlier in the building assessment report. The projects listed within Short Term Maintenance section do not include a cost. It is assumed that DMPS will perform this work. Additionally, projects which recommend furniture repair or replacement do not include a cost since furniture systems are selected and procured via a separate process. All other projects associated with the remaining subcategories, other than "Projects Requiring a Study" are provided an estimated total project cost.

Projects Requiring a Study

The projects listed within Projects Requiring a Study are provided estimated professional design fees to produce the recommended design study. In the future, once commissioned and completed, these recommended studies will not produce a completed design. Rather, the completed study will provide recommended project descriptions and estimated total project costs similar to the projects listed in this assessment report. For studies that most likely will result in a substantial project with a substantial cost associated, an "anticipated capital investment" cost number has been provided to help assist the District's strategic planning. This anticipated capital investment cost is based on a 5-10 Year Priority completion date and very high level general 'rules of thumb' estimations since it is unknown exactly what conclusions or recommendations will be determined by the study before the study is commissioned and completed.

Cost Estimating

To achieve the total project cost reflected in this building report, the recommended projects incorporate construction costs with added percentages to account for professional design services, design phase contingency, construction contingency, general contractor overhead and profit, other direct costs incurred by the project, and year-over-year inflation dependent on how many years out the recommended project is recommended to be completed. Not included in the total project cost are costs associated with hazardous materials abatement, testing, surveys, or site exploration (geotechnical testing, etc.). Additionally, for projects that are expected to produce a minimal amount of waste that is normally acceptable to City of Des Moines collection, costs for dumpsters have been excluded. To arrive at the final estimated total project cost as described above, the following methodology was used by the assessment team for each recommended project:

Step 1: Determine estimated direct cost of construction in 2024 dollars.

The recommended projects are conceptual in nature; therefore, all cost multipliers are overall systems level and/or unit costs. (These costs are not based on itemized breakdowns.) The cost information used is based on current available information which is in 2024 dollars and is a mixture of recent bids, firm experience, manufacturer provided information, and RS Means costing data.

Step 2: For recommended projects that are smaller in scale, scope, and estimated cost, a "small project fee" additive cost is applied to the estimated direct cost of construction determined in Step 1. This additive cost works to cover outsized mobilization, staffing, and equipment costs that are incurred on a small scale project the same as for a large project with a large economy of scale. These costs are as follows:

For projects with a Step 1 cost of $4,999.99 or less, an additive cost of $5,000.00 has been added.

For projects with a Step 1 cost of $5,000.00 to $14,999.99, a graduated additive cost from $5,000.00 to $0 has been added.

For all other projects (Step 1 cost of $15,000.00 and above) this step is skipped.

Step 3: Add 10% of the estimated direct construction cost for construction contingency.

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

Step 4: Add a percentage of estimated direct construction cost plus construction contingency for inflation.
The projects are grouped based on how many years out it is recommended that the project is started. Projects closer to 2024 are more urgent projects. As project start times move further and further away from 2024, inflation must be added to best estimate how 2024 dollars will translate into the future. 5% year-over-year inflation was chosen as a reasonable assumption for this work.

- For projects assigned the 1-2 Year Priority add 10% of the estimated construction cost.
- For projects assigned the 3-4 Year Priority add 20% of the estimated construction cost.
- For projects assigned the 5-10 Year Priority add 50% of the estimated construction cost.

Step 5: Add 5% of the estimated direct construction cost, construction contingency, plus inflation for general conditions.
This cost covers the incidental costs incurred by the contractor to perform the work that are not directly tied to the specific materials and labor; examples include mobilizing to the site and final cleaning.

Step 6: Add 10% of the estimated direct construction cost, construction contingency, inflation, plus inflation for general contractor overhead and profit; combined, this is the total construction cost.

Step 7: Add 10% of the total construction cost for professional design services.
These services include, when appropriate: architectural design and project management, civil engineering, structural engineering, mechanical engineering, and electrical engineering. These services are for conceptual design through construction phase work.

Step 8: Add 5% of the total construction cost and professional design services for other direct costs.
These costs cover various other costs directly associated with the project such as printing, equipment, required permits, etc.

At the conclusion of Step 8, the total project cost for the recommended project is finalized.

PROJECT RECOMMENDATIONS

Below are recommended maintenance, projects, and studies based on the previous assessment scoring information. Short Term Maintenance items are items requiring DMPS attention in less than a year's time and is less than $5,000. Costs for these items are not estimated. 1-2 year priority projects are projects that require attention within the next 2 years. 3-4 year priority projects are projects that require attention within the next 4 years. 5-10 year priority projects are projects that require attention within the next 10 years. Project quantities are all estimated based on observations. These are not measured or verified quantities. Project costs are listed. Project requiring Study are items where project scope is not able to be defined at this time and further investigation is required. Costs for these items are design service fees, not project costs. See the Cost Methodology description in the appendix for additional information.

Short Term Maintenance

Walk-Off Mat Replacement	Replaced damaged/frayed walk-off mats in gymnasium 108.	DMPS
Restroom Stall Door Repair	Repair broken hinge on the accessible stall in restroom 110.	DMPS
Roof Cleaning	Remove debris from roof low spots, drains, overflows, and other areas where it collects so that the roof membrane remains in good condition and sheds water as intended. Replace missing roof drain cover, roof E.	DMPS
Exterior Door Adjustment	Adjust 4 exterior doors so that they latch from any closing position. Two at main entry. One near room 120. One near room 013.	DMPS
Replace Cleanout Lid	Replace the broken cleanout lid. For location, refer to civil site plan exhibit found in the appendix of this report.	DMPS
Patch Asphalt Holes	Patch the asphalt holes in the playground area. For locations, refer to the civil site plan exhibit found in the appendix of this report.	DMPS
Playground Tripping Hazard Removal	Remove the remains of an old gate in the playground area. For location, refer to the civil site plan exhibit found in the appendix of this report.	DMPS
Emergency boiler Shutoff Replacement	Install emergency boiler shutoff on outside of boiler room and include clear cover.	DMPS

CO Detectors in Mechanical Room	Gas fired equipment in mechanical room requires CO detector.	DMPS
Add Grounding Conductor to TMGB	Add a #2/0AWG connection from the MDP main grounding bus in the adjacent main electrical room to TMGB.	DMPS
Intercom Output Adjustment/Repair	Adjust output level of intercom system to remove distortion. Evaluate if distortion present is due to excessive signal levels from amplifier or if speakers are damaged.	DMPS

1 - 2 Year Priority

		Project Costs
Interior Doors Hardware Upgrade	Install intruder classroom locksets on doors to rooms 111, 128A, and 128B. Install door closers on doors to room 128A and 128B.	$11,000
Gymnasium Wall Base Installation	Install 255 lf of L-shaped "vent cove" wall base around perimeter of gymnasium to cover gap at slab edge and protect VCT flooring edge.	$14,000
Hollow Metal Doors and Frames Painting	At northwest exterior double door from gymnasium 108, removed surface rust from bottom of each hollow metal jamb and center mullion and repaint door frame. At door 100, repaint hollow metal door frame and sidelight frame.	$7,000
Gypsum Board Wall Repairs	Patch damage to gypsum board walls and touch up painting in rooms 001, 100, 106, 109, 111, and outside room 208 (approximately 200 SF total.	$8,000
Restroom Opening Trim Replacement	Remove wood-fiber trim boards at cased openings in restrooms 123 and 127 due to water damage. Install bent-plate steel jamb covers, painted. Four jamb covers: 16"x84" x 16 gauge Approx 100lb steel.	$7,000
Exterior Door Hardware Replacement	Remove hold opens at 2 pairs of doors at gymnasium and replace with simple stops.	$7,000

Roof Replacement	Remove 11,000 SF of modified bitumen roofing and insulation over roof areas D, E, F, G, H, J, and K. Install code compliant insulation and TPO roofing. Approx year 2026.	$270,000
Grading Repair - Correct Undermining Around Stairs	Backfill underneath the stairs to prevent the pavement from failing. For location, refer to the civil site plan exhibit found in the appendix of this report.	$9,000
Pavement Replacement	Remove and replace 94 SY of PCC. For location, refer to the civil site plan exhibit found in the appendix of this report.	$14,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 19 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$9,000
Curb Repair	Return damaged curbs to new condition. Approximately 10 LF of 6" curbs. For locations, refer to civil site plan exhibit found in the appendix of this report.	$6,000
Entrance 150 Stoop Repair	Repair crack through stoop with epoxy crack repair and sealant. Approximately 10 linear feet.	$6,000
Exterior Gymnasium Stair Repairs	Repair spalled concrete at exterior stair cap slabs to north elevation of gymnasium. Remove unsound concrete, drill and epoxy #3 rebar dowels (epoxy coated) into sound concrete and patch with new concrete. Assume 7 corner treads need to be repaired and (3) #3 x 2'-0" bars shall be used at each tread. Approximately 7 CF of repaired concrete.	$11,000
North Entrance Pavement Stair Replacement	The bottom of the concrete stair has settled and cracked, the surrounding grade has settled and is undermining the upper pavement. This area needs to be regraded which will require the stair to be replaced. This work to be completed in coordination with grading work. Assuming the same in place replacement, the stair footprint is 11 ft x 4 ft x 8". A base mat of rebars shall be #4 bars @ 9" o.c. each way (epoxy coated). (10) - #4 nosing bars (epoxy coated) shall also be installed at each tread.	$10,000
ERV Replacements	Replace ERVs with DOAS unit to improve mechanical system ability to heat, cool, and dehumidify.	$640,000

Panel Replacement	Replace antiquated and potentially unsafe panelboards and reterminate all existing circuits on modern circuit breakers and panel interiors. 6 panels identified.	$60,000
MDF Panel Installation	Add a 100A branch panelboard to the MDF to allow for centralized power to all critical systems within the space. Intercept all existing circuits and terminate on new panel.	$15,000
	Total 1-2 Year Project Costs:	**$1,104,000.00**

3 - 4 Year Priority

		Project Costs
Music Room Acoustic Improvements	Install acoustic wall panels in music room (450 SF) to reduce reverberation time and contain sound within the room.	$11,000
Northwest Classrooms Renovation	Renovate classrooms 128A, 128B, 129A, 129B: - 2,800 SF of new metal stud partition walls up to deck with acoustic insulation between all classrooms and corridors to provide appropriate security and sound management. - 4 new wood doors in hollow metal frames with DMPS-standard security hardware (existing doors and frames may be considered for reuse). - Replace two existing 32"x72" windows in room129A with larger 48"x78" aluminum storefront windows to match adjacent rooms and improve access to daylight and views. - Add two ducted skylights to room 129B to provide daylight access. - Replace existing sagging acoustic ceilings with 4,200 SF of 2'x2' acoustic tile and grid to match building standard ceilings. - Install new light fixtures in four classrooms and corridor. Provide dimming controls for lighting in classrooms. - Project cost assumes reuse of existing flooring, casework, and furniture.	$220,000
Roof Access Installation	Provide guardrails at roof hatch. 12 foot ladder to roof G.	$12,000
Roof Replacement	Remove 10,000 SF of PVC roofing and insulation over roof areas M and N. Install code compliant insulation and TPO roofing. Approx year 2028.	$10,000

Exterior Sealant Replacement	Replace sealant at the following locations: 70 LF 1" precast concrete joints above roof N; 3 LF at parapet cap to wall, NW corner roof K	$7,000
Exterior Wood Paneling Repair	Adjust, patch, and repair wood paneling and molding around east octagon projection (five sides total). Panels approx. 30'x2'. Molding 30'x1'. Repaint all.	$11,000
Pavement Replacement	Remove and replace 7 SY of PCC. For location, refer to the civil site plan exhibit found in the appendix of this report.	$6,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 20 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$9,000
Heat Pump Replacement	Existing heat pumsp were installed in 2003. Install new water source heat pumps throughout building. Heat pumps shall be 2-stage to better meet loads and provide dehumidification.	$1,400,000
Geothermal Loop Pump and Boiler Circulation Pump Replacement	Replace existing geothermal loop water pumps and install new VFDs.	
Domestic Hot Water Heater Replacement	Install high efficiency gas water heater	$45,000
Grease Interceptor Installation	Install City of DSM WRA approved exterior grease interceptor.	$530,000
	Total 3-4 Year Project Costs:	**$2,261,000.00**

5 - 10 Year Priority

		Project Costs
Roof Replacement	Remove 6,800 SF of modified bitumen roofing and insulation over roof areas B, C, and I. Install code compliant insulation and TPO roofing. Approx year 2031	$9,000

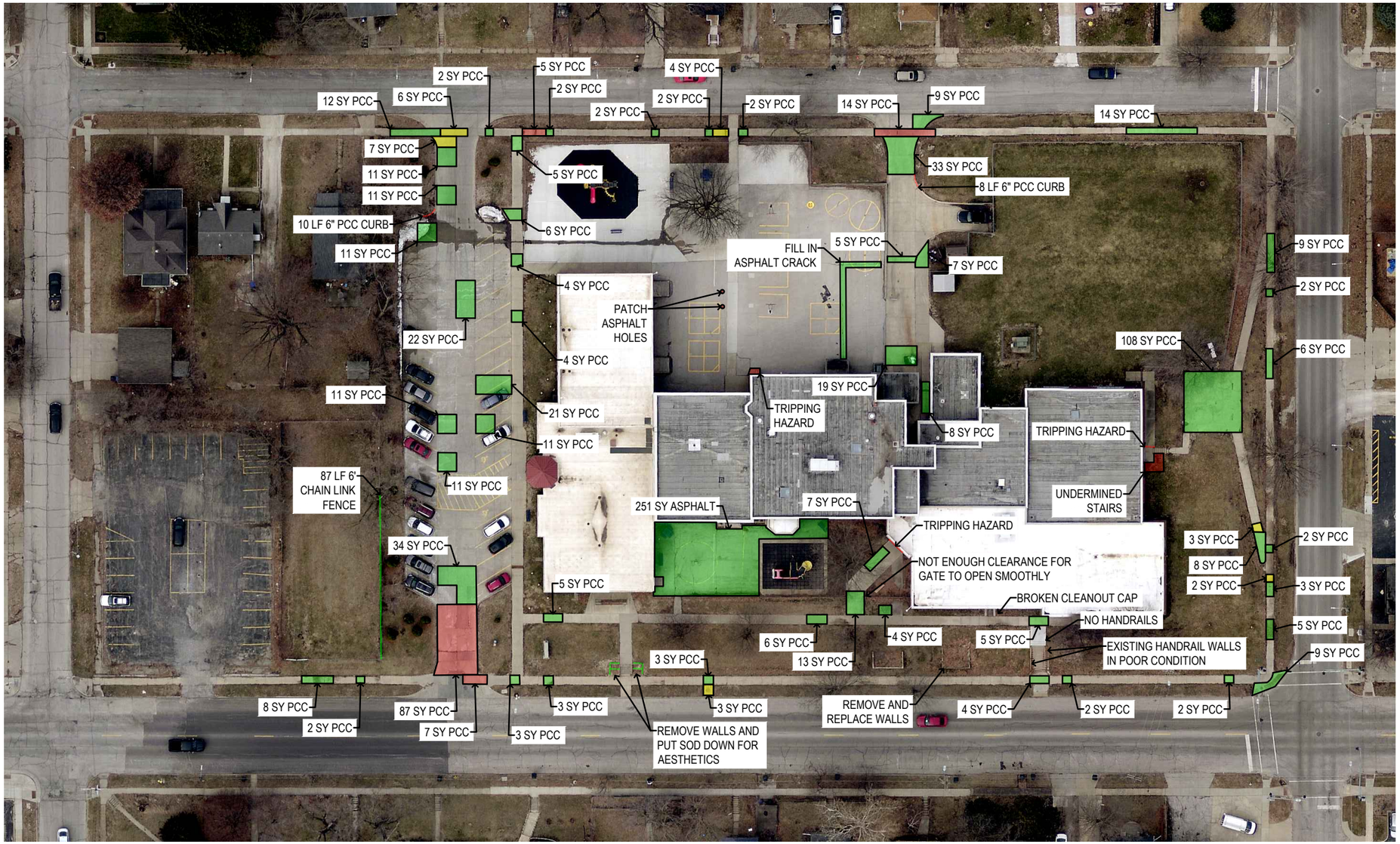
Pavement Replacement	Remove and replace 209 SY of PCC. For location, refer to the civil site plan exhibit found in the appendix of this report.	$40,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 289 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$65,000
Playground Asphalt Replacement	Take out and restore deteriorated playground asphalt. Approximately 251 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$45,000
Fence Replacement	Replace 87 LF of 6' chain link fence. For location, refer to civil site plan exhibit found in the appendix of this report.	$14,000
Wall Replacement	Remove and replace shifted wall. For location, refer to civil site plan exhibit found in the appendix of this report.	$11,000
Wall Removal and Sod Installation	Remove failing existing modular block wall and put down sod for better site aesthetics. For location, refer to civil site plan exhibit found in the appendix of this report.	$10,000
Digital Mixing Valve for Domestic Hot Water	Install digital mixing valve in place of existing thermostatic mixing valve.	$15,000
Add Breaker Capacity to MDP	Add distribution section or equivalently sized branch panelboard to facilitate future electrical needs. Electrical service is currently constrained only by available breaker positions, not amperage of electrical service.	$30,000
	Total 5-10 Year Project Costs:	**$239,000.00**

Projects Requiring Study

		Design Services Fee
Mother's Room Space Study	Study to define a private dedicated space for a Mother's Room that includes at least a sink, side table, chair, and privacy door hardware.	$5,000

Staff Lounge Space Study	Study to evaluate expansion, renovation, and/or relocation of the staff lounge space to provide adequate space and furnishings.	$5,000
Staff Work Room Study	Study to identify potential renovation locations within the existing building for a staff workroom.	$5,000
Parking Expansion	Determine the number of stalls, location, associated utility work, and construction cost of increasing on-site parking.	$2,500
Designated Hardened Area	No designated hardened area was observed. Study to determine the feasibility of adding a designated hardened area, including location, within the existing building, schematic design concept if deemed feasible, and preliminary project costs.	$2,500
Exterior Heat Tape Study	Exterior architecture team noted heat tape running down roof drain. Heat tape is powered locally by an exterior receptacle rather than a heat tape/heat trace controller that monitors exterior temperature. Recommend studying need for full heat tape control system and centralized/automated control. Current configuration is dependent upon DMPS personnel accessing the roof to plug it in. In the event this does not occur, water may back up on roof if frozen.	$5,000
Electrical Equipment Study	Many pieces of equipment remain from prior renovations and are not documented in any existing drawings. Study should be conducted to evaluate condition of existing equipment and determine what equipment is still in service and is need of removal or replacement.	$10,000
	Total Study Design Service Fees:	**$35,000**

APPENDIX



5+ YEAR REPLACEMENT

3-4 YEAR REPLACEMENT

1-2 YEAR REPLACEMENT

NORTH

GRAPHIC SCALE

60 0 30 60 120

bbs ARCHITECTS ENGINEERS

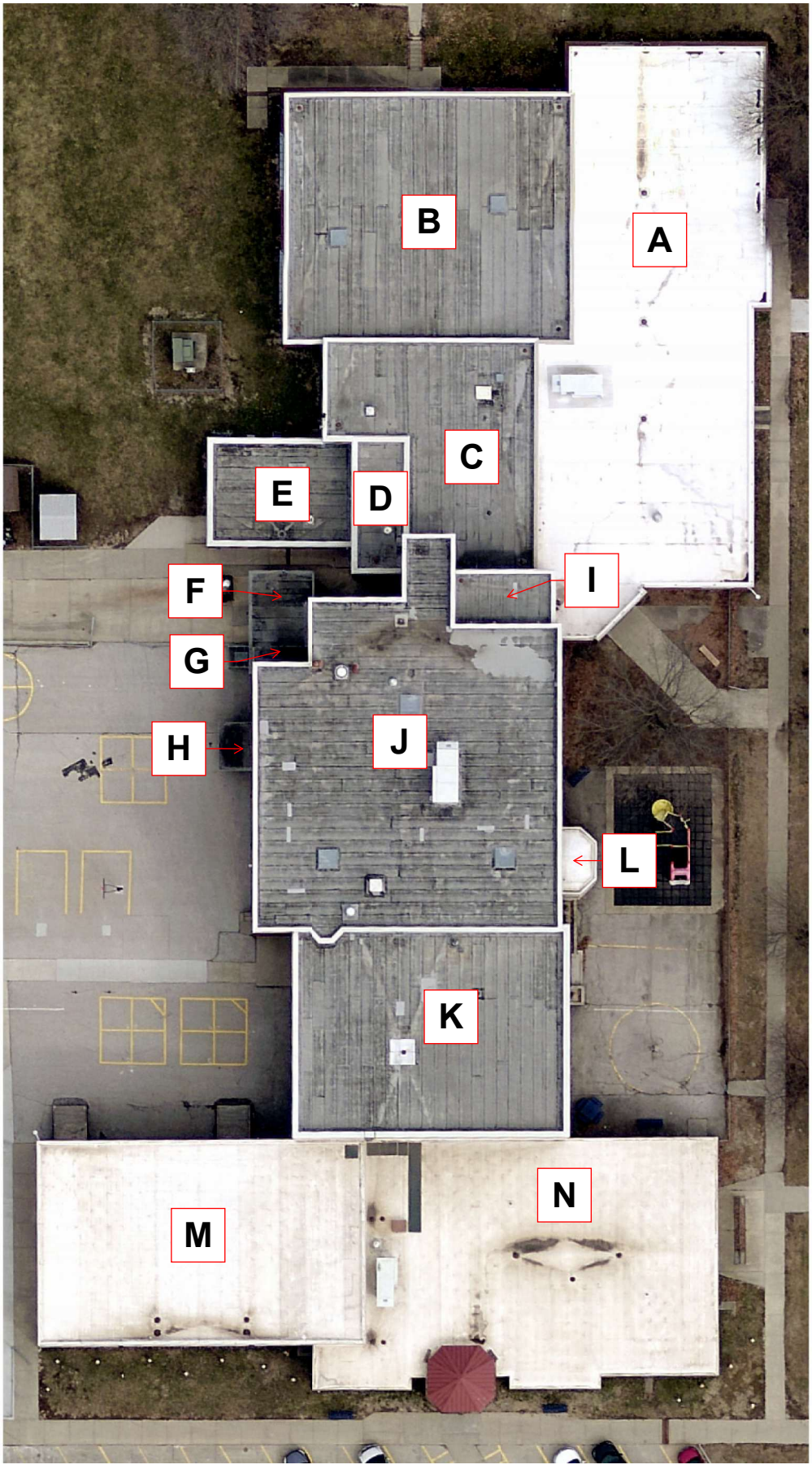
BISHOP ENGINEERING +

OAK PARK ELEMENTARY

EXHIBIT

PROJECT # 230286-25

DATE 11/6/2023



N

bbs ARCHITECTS ENGINEERS

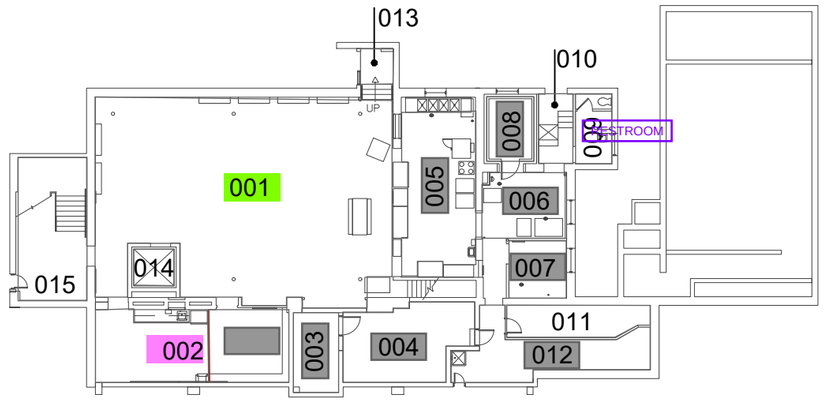
23055 - DMPS Facility Conditions Assessment
Roof Identification Image
Oak Park Elementary
December 19, 2023

OAK PARK ELEMENTARY SCHOOL

3928 6TH AVENUE
DES MOINES, IOWA 50313

FOUNDATION

NORTH



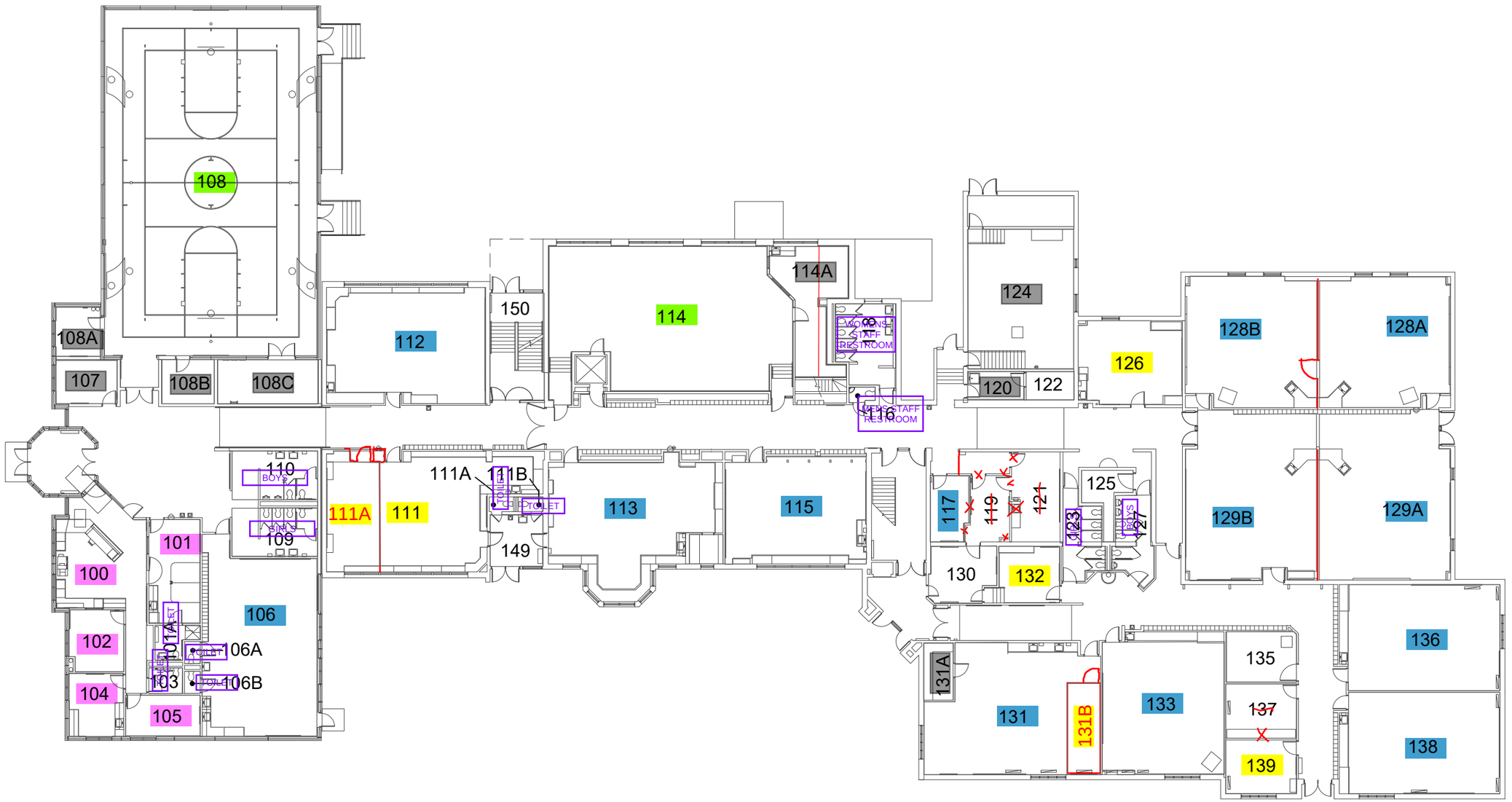
DesMoines PUBLIC SCHOOLS

OAK PARK ELEMENTARY SCHOOL

3928 6TH AVENUE
DES MOINES, IOWA 50313

FIRST FLOOR

NORTH



OAK PARK ELEMENTARY SCHOOL

3928 6TH AVENUE
DES MOINES, IOWA 50313

SECOND FLOOR

NORTH