DMPS FACILITY ASSESSMENT | GOODRELL MIDDLE SCHOOL

02.06.2024

ARCHITECTS
ENGINEERS

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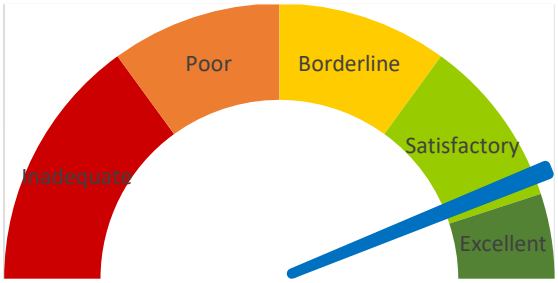


REPORT ORGANIZATION

EXECUTIVE BUILDING SUMMARY

Goodrell Middle School's on-site facility conditions assessment was conducted on February 6, 2024 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 Goodrell Middle School are: art room sink cleaning, secure tunnel access panel, roof drain cover replacement, exterior door adjustments, brick replacement, grading repairs, redundant backflow preventer, power meter troubleshooting, exterior lighting repair, and annual elevator maintenance.

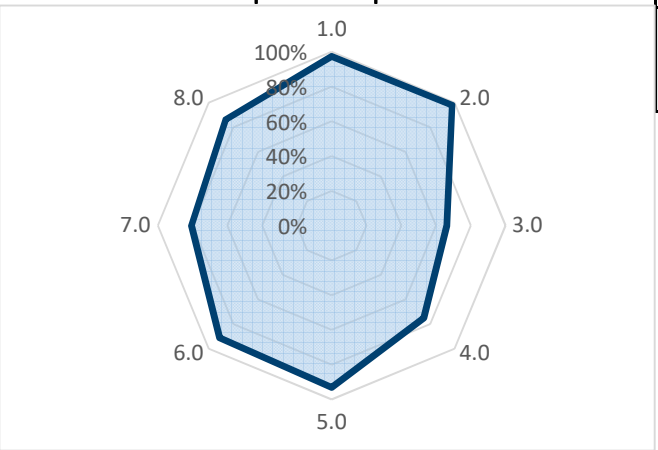
The recommended projects for Goodrell Middle School to be completed in the next 1-2 years are as follows:

- Casework repairs
- Interior wall repairs and wall protection installation
- Exterior sealant replacement
- EIFS repairs
- Pavement and sidewalk replacement
- Plumbing fixture and mixing valve upgrades
- Exterior lighting and security cameras
- Elevator controller replacement

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	190	185	2.00	380	370	97%	Excellent
2.0	Environment for Education	395	387	0.60	237	232	98%	Excellent
3.0	Exterior Envelope	95	63	3.00	285	189	66%	Borderline
4.0	School Site	100	75	1.50	150	113	75%	Satisfactory
5.0	Structural Conditions	145	135	1.30	189	176	93%	Excellent
6.0	Mechanical Systems	645	588	0.80	516	470	91%	Excellent
7.0	Electrical Systems	450	363	0.75	338	272	81%	Satisfactory
8.0	Elevator Conditions	65	56	1.00	65	56	86%	Satisfactory
Total					**2,094**	**1,822**	**87%**	**Satisfactory**

Goodrell Middle School
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 Goodrell Middle School scored a building health rating of 87% 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. Goodrell Middle School is within this positive range. Some significant improvements to the exterior envelope and school site are needed to increase this score towards excellent.

Building Data Record

Building Name: Goodrell Middle School

Date: 2.6.2024

Address: 3300 East 29th Street
Des Moines, IA 50317

High School Feeder System: East High

Building SF: 110,495 square feet

Site Acreage: 18.27 acres

Date(s) of Construction: 1955, 1960, 2007

Date(s) of Roof Replacement: 2000, 2007

Current/Scheduled Projects: Accessibility Improvements - 2024
Gymnasium Acoustic - 2025
Secure Entry Revision - 2025

Existing Building Data:

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

Site Items:

- [x] Student Garden
- [ ] Loading Dock
- [ ] 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
- [x] 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
- [x] Stucco
- [ ] Metal
- [ ] Wood
- [x] Other
  Concrete
  Fiber Cement Panels
  Cast Stone

Floor/Roof Structure:

- [ ] Wood Joists
- [x] Steel Joists/Beams
- [x] Slab on Grade
- [ ] 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.	1	5	5	
Elective/Secondary Classroom					
1.2	**Gymnasium** is adequate for providing physical education programming.	3	5	15	
1.3	Gymnasium is supported by adequate **locker rooms.**	1	N/A	0	
1.4	**Cafeteria** has adequate space, furniture, and acoustics for efficient lunch use.	2	5	10	All lockers have been removed from locker rooms. Boys locker room has been re-purposed as a basketball team room. Girls locker room has been re-purposed as storage.
1.5	**Vocal music room** is adequate for providing music instruction.	2	5	10	
1.6	**Instrumental music room** is adequate for providing music instruction, practice, and lessons.	2	4	8	Band room is crowded with instrument storage in the room.
1.7	**Auditorium** has sufficent arrangement, technology, and acoustics for program.	2	5	10	
1.8	**Art room** has sufficient accommodations for program.	2	5	10	
1.9	**Science classrooms** have sufficent access to water, gas and equipment for program.	2	5	10	
1.10	**Family Consumer Science** classrooms have sufficient accommodations for program.	2	5	10	

A | Architectural, Programming

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
1.11	**Industrial Arts** space has sufficent accomodations for program.	2	N/A	0	
1.12	**Library/Resource/Media Center** provides appropriate and attractive space.	1	5	5	
Core Classroom					
1.13	Classroom space permits arrangements for **small group activity.**	2	5	10	
1.14	**Student storage space** is adequate.	1	5	5	
1.15	**Teacher storage space** is adequate.	2	5	10	
1.16	Classroom **acoustical treatment** of ceiling, walls, and floors provide effective sound control.	3	4	12	
1.17	**Classroom power and data receptacles** are located to support current classroom instruction.	4	5	20	
1.18	Educational **technology** supports instruction.	4	5	20	
Administration					
1.19	**Conference/Private meeting rooms** are adequate for large and small meetings.	1	5	5	
1.20	**Main office** has a check-in and waiting area.	2	5	10	
	TOTAL			185	

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.	2	5	10	
2.2	Communication among students is enhanced by **common areas.**	2	5	10	
2.3	Areas for students to **interact are suitable to the age group.**	2	5	10	
2.4	Large group areas are designed for effective **management of students.**	2	5	10	
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	Flooring installed in main entry, corridors, and restrooms is well designed and creates a unified character through the entire building.
2.7	Windows and skylights provide access to **adequately controlled daylight** for regularly occupied spaces.	3	5	15	
2.8	Windows provide access to **quality views** (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	5	15	
2.9	**Lighting has proper controls** to provide the required light levels for various teaching and learning needs.	2	5	10	
2.10	**Staff dedicated spaces** include conference space, work space, and dedicated restrooms.	1	5	5	

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.	3	5	15	
2.12	**Break room** is adequately sized and furnished for proper use.	1	5	5	
2.13	**Mother's room** is a separate designated space properly furnished.	1	4	4	No sink, but mother's room is otherwise well furnished.
Maintainability					
2.14	**Floor surfaces** are durable and in good condition.	1	5	5	
2.15	**Ceilings** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	5	5	
2.16	**Walls** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	4	4	Gypsum board outside corners at the mechanical closet in nearly all classrooms need corner guards.
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	4	4	Original wood veneer casework in many classrooms shows finish damage from age and impact from chairs and tables.
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	5	10	

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	5	15	
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	5	10	
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	4	20	Guardrails on stairs are lower than required per building code, but this is considered a grandfathered existing 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			387	

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	4	8	Fiber cement panels and wall behind require study and possibly significant replacement (mostly at courtyard).
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	3	9	Overhang at south east doors drains water onto steps below. Reroofing required in 5-10 years.
3.3	**Roof access** is safe for all roofs.	3	3	9	Multiple roofs do not have ladder access and multiple ladders require repainting.
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	3	9	Sealant at window heads, primarily at courtyard, require replacement.
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	4	4	Low-e coating 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 exterior door repainting required.
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	0	0	Exterior sealant replacement, significant at heads of windows. All steel supporting roof top equipment requires repainting. EIFS requires extensive repair. Fiber cement panels and wall behind require study and possibly significant replacement (mostly at courtyard).
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	04 doors do not latch 03 doors have card readers 10 doors have lock sets 04 doors do not have exterior locks 00 doors lack signage; 02 doors at courtyard do not have position sensors
	TOTAL			63	

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	4	4	Site is steeper to the west but still walkable. There are a couple of holes to fill in but no major issues, also good drainage away from building.
4.2	**Parking areas** are in good condition.	5	4	20	ADA pavement in the north parking lot needs replacement, a couple of other sections in the north lot need replacement as well. The south parking lot has an area experiencing subsurface moisture issues and would benefit from a rock base.
4.3	**Drive areas** are in good condition.	3	4	12	The middle section of the drive access to the north parking lot needs replacement, a few panels to replace elsewhere.
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	4	4	There were 15 stalls that were fenced off for basketball hoops. While on site, the parking lot was pretty full, only a few open stalls.
4.5	**Sidewalks** around the facility are in good **condition.**	1	3	3	The sidewalk along the east side of the school has multiple areas needing replacement and the stairs to the west of the school connecting the upper and lower levels of the open space will also need replacement.
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	1	3	3	One door was without sidewalk access and there is no sidewalk access to the west side drop off area.
4.7	**Hard surface** playground surfaces are in good condition.	3	3	9	The asphalt to the west of the building was cracking, and some of the concrete by the basketball hoops will need replacement.
4.8	**Fencing** around the site is in good condition.	1	2	2	The fence around the open space area appeared old but was still holding up well. The fencing on the north and south sides of the site was getting older and will eventually need replacement. The slats in the fence were also needing replaced in several areas.
4.9	**Trash enclosure** is in good condition.	1	5	5	Pavement, gate, and masonry brick all appeared new and in good condition.
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	3	3	There is plenty of room to the west for expansion but the slope there may necessitate the use of retaining walls.
4.12	Site has **onsite bus and parent pickup** up with adequate length, good separation and general good site circulation.	1	5	5	The buses use the street to the east of the school and parents drop off on the east side as well. DMPS states there are no real conflicts between buses and parents.
	TOTAL			75	

S | Structural

ASSESSOR: Erik Raker

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	N/A	0	
5.4	**Stoops** appear to be in good condition.	1	4	4	Entry stoop needs attention. See project description.
Slab on Grade					
5.5	**Slabs on grade** do not appear to have any cracks	1	5	5	
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	4	8	One corner of the exterior wall near the cafeteria / loading dock needs to be repaired. See project description.
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	N/A	0	

S | Structural

ASSESSOR: Erik Raker

		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	N/A	0	
5.16	**Canopies** appear to be in good condition.	1	5	5	
5.17	**Loading dock concrete** appears to be in good condition.	2	5	10	
5.18	**Mechanical screening** appears to be in good condition.	2	4	8	Mechanical screen rail above room 1114 needs to be replaced. See project description.
5.19	**Stairs** appear to be in good condition.	1	5	5	
5.20	**Stair railings** appear to be in good condition.	1	5	5	

S | Structural

ASSESSOR: Erik Raker

		Weight Factor	Rating	Points	Comments
5.21	**Tunnels** appear to be in good condition without cracks.	1	5	5	
5.22	There is a **designated hardened area** in the building.	1	0	0	No visible hardened area was observed.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	N/A	0	
	TOTAL			135	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

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	5	15	
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	5	25	
6.5	**Outdoor air intake locations** are appropriate.	4	5	20	
6.6	Appropriate **levels of exhaust** are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	5	25	
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	Heat pumps and ERVs are 17 years old. One newer DOAS ERV with electric post heat installed.
6.9	**Cooling loads** are within equipment operational capacity.	5	4	20	Higher temps at well-field in summer.
6.10	**Heating loads** are within equipment operations capacity.	5	4	20	Backup boiler may be undersized for required load. East entryway requires additional heat for vestibule.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.11	**Dehumidification** is provided and addressed humidity loads in incoming outside air.	3	5	15	
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 unit. Two parallel units would allow for some redundancy and allow for testing without disrupting domestic water supply to buildings.
6.14	**Domestic hot-water systems** are within equipment operational capacity.	5	5	25	
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	5	15	
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	3	9	Several fixtures have manual controls.
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	5	15	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with **coil pull space.**	2	5	10	
6.22	**Filter** sizes are standard and filter types are standard.	2	4	8	Varies by equipment type.
6.23	**Equipment mounting heights** are reasonable.	3	5	15	
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	3	6	Wall hydrants are located at grade, though most of the buliding is 2-stories. Several pieces of rooftop equipment require cleaning.
6.28	**Fall protection** is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	5	10	
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: Corey Metzger

		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	5	25	
6.33	**Emergency eye-washes and tempering valves** are located where required.	5	1	5	EEW located in kitchen only. Recommend evaluation with an occupational safety and health professional to determine necessity of eye wash(es) for facility mechanical spaces.
6.34	**Emergency boiler stop switches** are located at exits from boiler rooms.	5	5	25	
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	N/A	0	
	TOTAL			588	

E | Electrical

ASSESSOR: Rob Hedgepeth

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	
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	5	15	
7.4	The **MDP** appears serviceable.	4	4	16	Square D 480Y/277 - 2000A 2004 remodel (20 years old) Meter, SPD, and Breaker appear inoperative. Check fuses? Feeder breaker to transformer inappropriately labeled "Main Breaker" Open space requires filler plate.
7.5	The MDP is **maintainable.**	3	5	15	
7.6	The MDP will support **future expansion.**	4	4	16	1 of 6 large breaker spaces available, 5 of 14 smaller breaker spaces available. >125% capacity.
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	5	20	300 kVA step down transformer 208Y/120V 1200A DP
7.8	The Distribution Panel appears **serviceable.**	4	4	16	2004 remodel (20 years old)
7.9	The Distribution Panel is **maintainable.**	4	5	20	
7.10	The Distribution Panel will support **future expansion.**	4	4	16	7spares & spaces/16 breakers in use .125%

E | Electrical

ASSESSOR: Rob Hedgepeth

		Weight Factor	Rating	Points	Comments
7.11	**Electrical panels and disconnect switches** observed during assessment are safe, serviceable, and maintainable.	2	5	10	
7.12	Building has adequate and appropriately located, **safe exterior power** to allow for regular maintenance activities.	1	0	0	None observed.
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	0	0	East side perimeter is darker than the rest of the building. One pole light on north side inoperative. Two other poles on north side have HPS fixtures.
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	CR at top of stairs, but stair locked with Medeco core.
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	4	16	125% capacity can be achieved. Rack has multi-mode fiber panel that could be removed for additional space.
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	4	20	Only intercom connected to UPS
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	Panel serving MDF is on second floor.
7.19	MDF employs up-to-date **network cabling.**	2	4	8	5e/6/6A
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	N/A	0	Two data cabinets, but no IDF.

E | Electrical

ASSESSOR: Rob Hedgepeth

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	5	10	
7.22	Building is equipped with an **addressable fire alarm system.**	5	4	20	Notifier, not district standard Simplex 4100 seried.
7.23	Building is equipped with an **access control system.**	5	1	5	3/18=17%
7.24	Building is equipped with a **CCTV system.**	5	5	25	West side lighting good but cameras render in B&W.
7.25	Building is equipped with an **intercom system.**	4	5	20	
7.26	Building is equipped with a **master clock system.**	4	5	20	Primex
	TOTAL			363	

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	5	5	
8.5	**Safety devices** are in place and operable.	1	5	5	
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	5	5	
8.9	**Maintenance** is adequate.	1	0	0	Maintenance records are incomplete.
8.10	**Testing** is up to date, and all **record and logbooks** are present and filled out.	1	1	1	Annual testing is past due.
	TOTAL			56	

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 for additional information.

Short Term Maintenance

Art Room Sink Cleaning	Clean or replace sink and drain plumbing in art room 1090. The sink is fully clogged with dried, discarded sculpting clay.
Secure Tunnel Access Panel	The floor access panel in the northeast corner of room 1086 is not locked or secured. A teacher noted there have been repeated incidents of students attempting to gain access to the underfloor mechanical tunnels through this panel.
Roof Drain Cover Replacement	Replace 1 missing or mismatched roof drain covers: 1 at roof area A.
Exterior Door Adjustment	Adjust 4 exterior doors so that they latch from any closing position at the following locations: 1 at main entry; 1 at room 1034; 2 at top of stairs N of room 1035.
Brick Replacement	Tooth in bricks at SE corner of room 1039, 2 VLF. Point masonry joint south of room 1023.
Grading Repairs	Add soil around old manhole, fill in a hole in a swale, and backfill behind curb to make ground flush with adjacent pavement and curb. For locations, refer to the civil site plan exhibit found in the appendix of this report.
Power Meter	Troubleshoot existing meter. It appears inoperative.
Breaker Labeling	Remove "Main Breaker" label from inappropriately labeled breaker.

Repair Exterior Lighting	Repair inoperative fixture on pole at North parking lot	
Annual Elevator Testing	Notify contractor to complete the state required testing and records.	

1 - 2 Year Priority

		Project Costs
Casework Repairs	Repair finish damage on approximately 450 SF of wood veneer casework doors in rooms 1021, 1022, 1023, 1024, 1025, 1029, 1033, 2015, 2022, and 2023. Repair 80 LF of PVC edge banding on casework doors/drawers in rooms 2022 and 2025.	$25,000
Floor Transition Installation	Provide 65 LF of 1" wide stainless steel floor transition strip to cover and protect the gap between wood and concrete floors in room 1080.	$7,000
Interior Walls Repaint and Protection	Repaint 350 SF of damaged wall areas in rooms 1029, 1048, 2014, 2016, 2022, 2023, 2025, 2027, and in the corridor outside room 2027. Install 21 corner guards up 48" on outside corners of gypsum board walls in rooms 1018, 1020, 1021, 1022, 1023, 1024, 1175, 2002, 2004, 2005, 2006, 2007, 2008, 2013, 2014, 2018, 2022, 2023, and 2025.	$12,000
Exterior Sealant Replacement	Replace sealant at masonry soft joints at the following locations: 12 LF at E of roof area F; 3 LF at NW corner of roof J; 8 LF E of room 1032; 12 LF S of room 1033; 20 LF S of room 1039; Approx. total: 55 LF. Replace sealant at window head joints, 1" tall, at the following locations: W of rooms 1000-1024 and 2002-2015; S of rooms 1002-1067 and 2016-2018; E of rooms 1032-1048 and 2022-2025; Approx. total: 450 LF.	$14,000
EIFS Repair	Widespread deterioration of the EIFS system above the roof requires repair. Full scrape and refinish approx. 2,700 SF around roof areas M, O, and R.	$60,000
Pavement Replacement	Remove and replace 58 SY of PCC. For location, refer to the civil site plan exhibit found in the appendix of this report.	$12,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 98 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$20,000

Wall Hydrants at Rooftop Equipment	Add wall hydrants at a couple of strategic locations to allow for cleaning of roof mounted equipment.	$15,000
Plumbing Fixture Upgrades	Install automatic flush and hands-free fixtures in restrooms.	$210,000
Mixing Valve Upgrade	Replace existing domestic HW TMV with digital type with actuator and include automatic flow control and pump.	$20,000
Geo-Exchange Loop Flushing	Include professional flushing of geothermal loop to remove dirt and sediment from piping.	$45,000
East Entry Electric Heaters	Main entry on east side needs additional electric cabinet heaters in vestibule.	$15,000
Stoop Replacement	Replace front stoop - approximately 5' x 40', 3 steps	$45,000
Brick Veneer Repair	Repair brick veneer (approximately 5 sf) near cafeteria	$9,000
Replace Railing	Replace railing at exterior wall over room 1114	$14,000
Replace Exterior Lighting	Replace HPS lighting at 3 poles at North Parking Lot.	$30,000
Add Exterior Lighting	Add exterior lighting at East Perimeter and NW corner (inset).	$11,000

Exterior Cameras	Two cameras on West side render in B&W even though lighting appears ok. Replace.	$11,000
Elevator Controller Replacement	The elevator should be considered for a modernization. The existing controller is no longer supported with many parts.	$180,000
	Total 1-2 Year Project Costs:	**$755,000.00**

3 - 4 Year Priority

		Project Costs
Wood Door Finish Repairs	Repair 170 SF of finish damage on 4 single wood veneer doors at rooms 2008, 2016, 2018, and 2022.	$7,000
Window Removal	Remove existing interior hollow metal window and hollow metal door/frame between rooms 1175 and 1083 to improve function of both rooms. Infill openings with CMU block to match adjacent (75 SF total).	$8,000
Roof Access Installation	Provide 4 VLF ladder at the following locations (3 total): from roof area O to R, O to Q, and Q to P. Provide 2 VLF ladder at the following locations (2 total): from roof area A to B and B to C. Provide guardrail around opening in roof at loading dock at roof G, 4'x16'.	$14,000
Exterior Repainting	Metal siding repainting at the roof where it is starting to rust: 20 SF above louvers S of roof area A; 48 SF N of roof area H; 32 SF S of roof area D. Steel supporting rooftop equipment requires repainting, approx. 4,500 SF. Exhaust stack near roof area E requires repainting, approx. 200 SF. Ladders require repainting at the following locations: 12 VLF to roof area D; 10 VLF S of roof area D. Louver S of roof area D requires repainting, approx. 40 SF. Exterior door at room 3001 requires repainting, approx. 21 SF.	$35,000
Pavement Replacement	Remove and replace 169 SY of PCC. For location, refer to the civil site plan exhibit found in the appendix of this report.	$25,000

Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 55 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$13,000
Stair Replacement	Remove and replace deteriorated staircase. For location, refer to the civil site plan exhibit found in the appendix of this report.	$45,000
Heat Pump Replacement	Replace heat pump that are original and consider using two speed heat pump to better match load.	$3,200,000
Bring Natural Gas to Building	Extend natural gas utility service to the building. This is required to support the project related to ERV replacement and boiler replacement. (Note that the majority of this cost is borne by Mid-American with the intention being that they will re-coup this cost as with gas bills.)	$20,000
ERV Replacement	Replace all exisitng DOAS/ERV units with gas heat and DX cooling. Will require gas service to be added to the building site.	$3,100,000
Replace existing boiler with larger unit	Replace existing electric boiler with new gas-fired boiler. Review existing geothermal loop capacity and consider upsizing unit.	$160,000
	Total 3-4 Year Project Costs:	**$6,627,000.00**

5 - 10 Year Priority

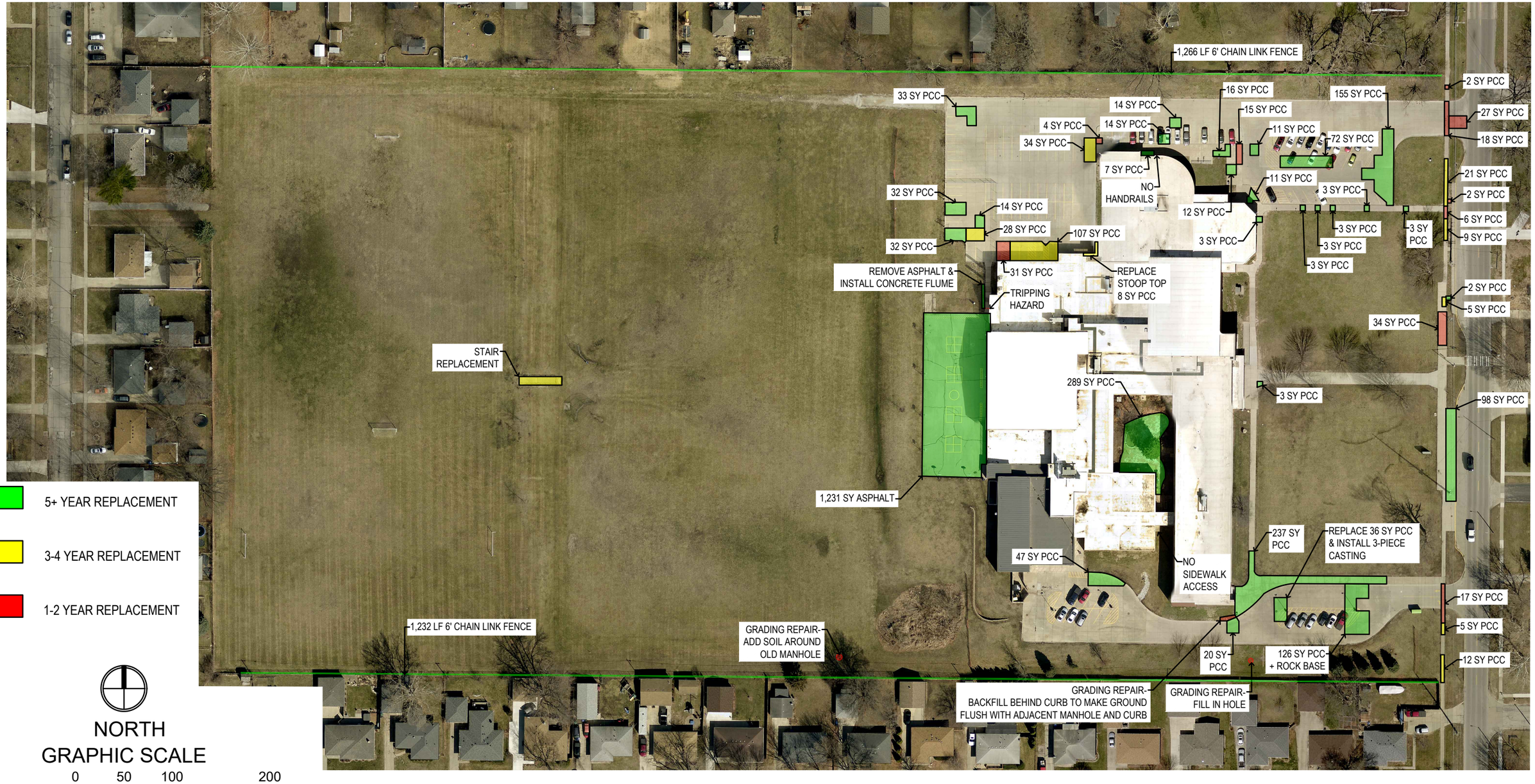
		Project Costs
Roof Replacement	Remove approx. 87,500 SF of PVC roofing and insulation over entire roof. Install code compliant insulation and TPO roofing. Approx. 2031 or 2032.	$2,800,000
Pavement Replacement	Remove and replace 595 SY of PCC and install a rock base under the 126 SY experiencing subsurface moisture issues. For location, refer to the civil site plan exhibit found in the appendix of this report.	$100,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 693 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$160,000

Playground Pavement Replacement	Take out and restore deteriorated playground asphalt. Approximately 1,2313 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$220,000
Fence Replacement	Remove and replace 2,498 LF of 6' chain link fence. For locations, refer to civil site plan exhibit found in the appendix of this report.	$330,000
Manhole Casting Replacement	Replace the existing manhole casting with a 3-piece casting to prevent future pavement damage. For location, refer to civil site plan exhibit found in the appendix of this report.	$11,000
	Total 5-10 Year Project Costs:	**$3,621,000.00**

Projects Requiring Study

		Design Services Fee
Secure Entry Study	Study to create a secure entrance vestibule and direct connection to the main office from the main south entry doors. Consider relocating the main office check-in desk and associated functions to the east end of room 1018 adjacent to the main entry.	$5,000
Exterior Wall Cladding Replacement	Fiber cement panels between windows needs to be replaced at facades facing the courtyard, connector at south of courtyard, west façade south of courtyard. Existing drawings (bcdm, 2006, DMPS NO 03227590) indicate a wall assembly of gypsum board, metal studs with insulation, exterior gypsum sheating, and fiber cement panels. No indication of weather barriers, air gaps, or drainage cavities. Sheathing or whole wall assembly behind panels will likely need to be replaced in some places; scope TBD with investigation. New cladding and scope TBD with design.	$10,000
Canopy Drainage	Overhang at south east doors drains water onto steps below. Determine cause and solution.	$5,000
Designated Hardened Area	No designated hardened area was observed. Study to determine the feasibility of adding a designated hardened area to the building including location within the existing building, schematic design concept if deemed feasible, and preliminary project costs.	$2,500
	Total Study Design Service Fees:	**$22,500**

APPENDIX



bbs ARCHITECTS ENGINEERS

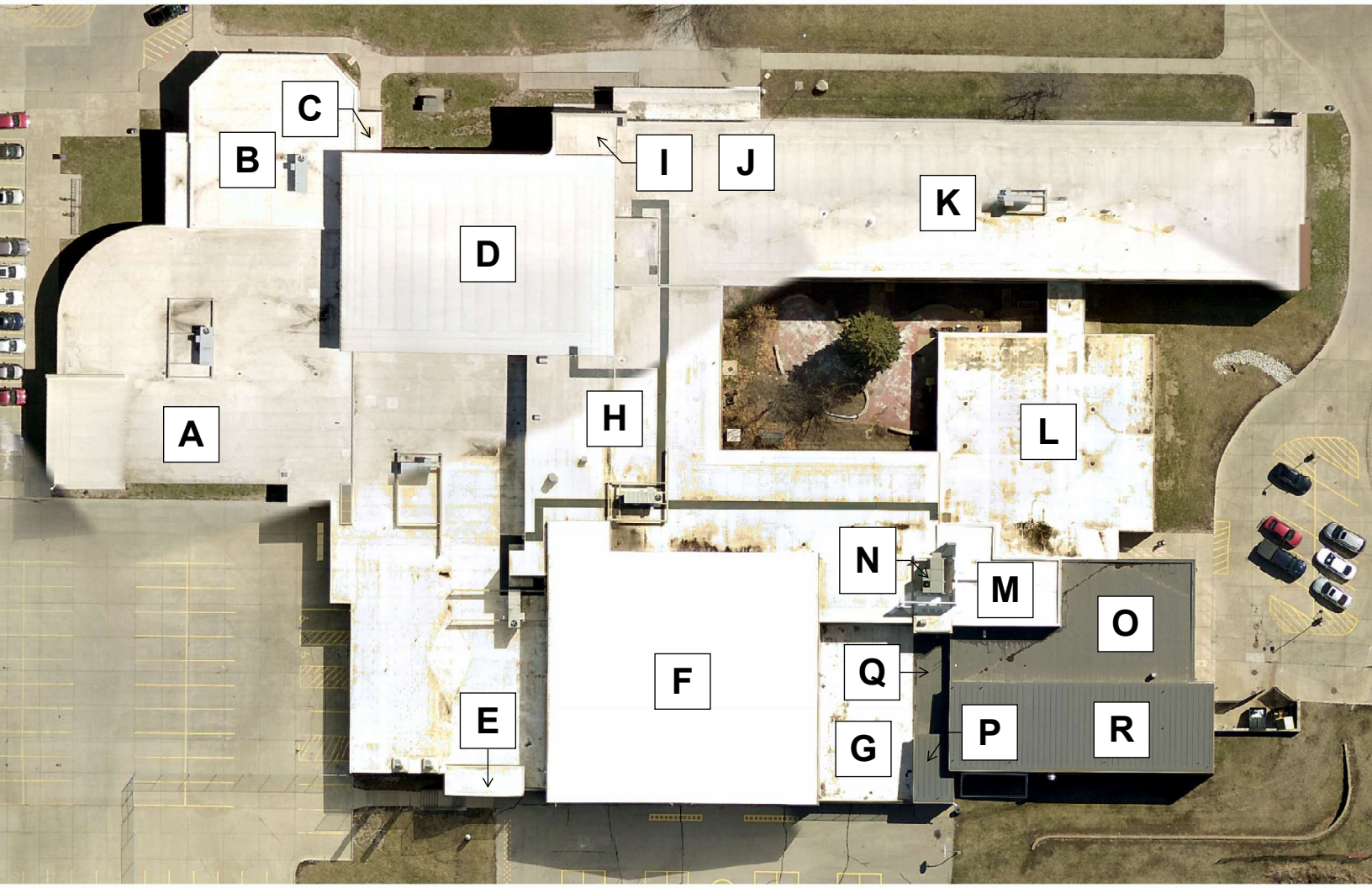
BISHOP ENGINEERING +

GOODRELL MIDDLE SCHOOL

EXHIBIT

PROJECT # 230286-41

DATE 2/9/2024



N

bbs ARCHITECTS ENGINEERS

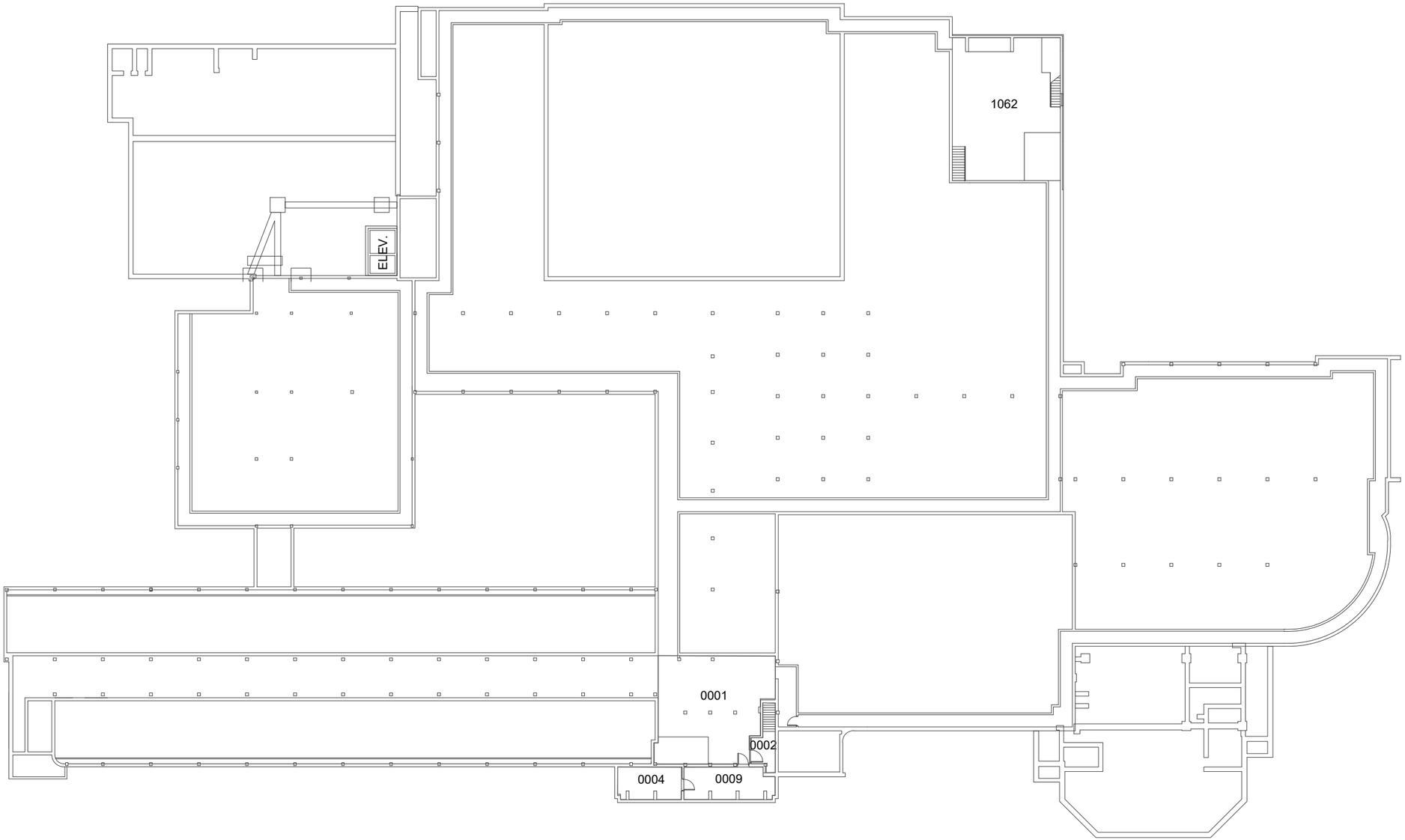
23055 - DMPS Facility Conditions Assessment
Roof Identification Image
Goodrell Middle School
February 6, 2024

GOODRELL MIDDLE SCHOOL

3300 E 29TH STREET
DES MOINES, IOWA 50317

LOWER LEVEL

NORTH



GOODRELL MIDDLE SCHOOL

3300 E 29TH STREET
DES MOINES, IOWA 50317

FIRST FLOOR

NORTH

GOODRELL MIDDLE SCHOOL

3300 E 29TH STREET
DES MOINES, IOWA 50317

SECOND FLOOR

NORTH