DMPS FACILITY ASSESSMENT | PERKINS ELEMENTARY

12.12.2023

ARCHITECTS
ENGINEERS

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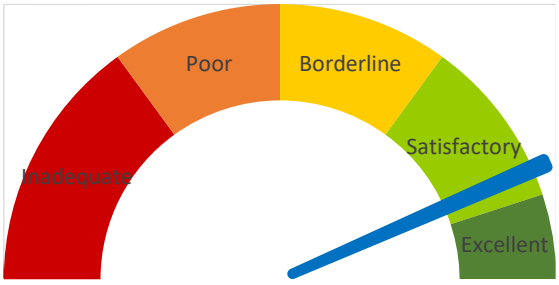


REPORT ORGANIZATION

EXECUTIVE BUILDING SUMMARY

Perkins Elementary's on-site facility conditions assessment was conducted on December 12, 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.

The school building and grounds are in good condition, but there are a significant number of maintenance items requiring attention. These maintenance items include minor interior repairs, roof and drain cleaning, site grading repairs, mechanical room cleaning and maintenance, and MDF room repairs.

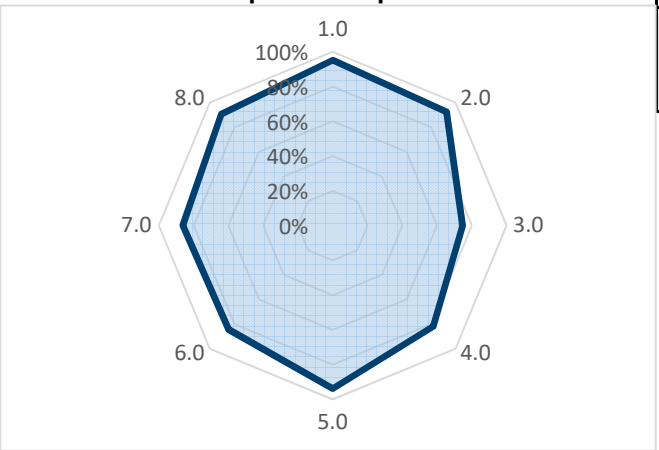
The recommended projects for Perkins Elementary to be completed in the next 1-2 years are as follows:

- Plaster Wall Repairs
- Cafeteria Floor Transition Repair
- Exterior Door Hardware Replacement
- Exterior Sealant Replacement, Tuckpointing, and Wall Cap Installation
- Exterior Soffit Repair and Repainting
- Exterior Glazing Replacement at Room 112
- Sidewalk and Curb Repairs
- Mechanical Equipment Replacements
- Exterior Light Installation
- Elevator Door Operator and Cab Interior Finishes Upgrades

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	157	2.00	330	314	95%	Excellent
2.0	Environment for Education	375	347	0.60	225	208	93%	Excellent
3.0	Exterior Envelope	95	71	3.00	285	213	75%	Satisfactory
4.0	School Site	100	82	1.50	150	123	82%	Satisfactory
5.0	Structural Conditions	145	136	1.30	189	177	94%	Excellent
6.0	Mechanical Systems	610	516	0.80	488	413	85%	Satisfactory
7.0	Electrical Systems	450	388	0.75	338	291	86%	Satisfactory
8.0	Elevator Conditions	65	59	1.00	65	59	91%	Excellent
Total					**2,004**	**1,739**	**87%**	**Satisfactory**

Perkins 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, Perkins Elementary 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. Maintenance and upgrade projects focused on improving the building's exterior envelope and site have the greatest potential to improve the rating of this building from satisfactory to excellent.

Building Data Record

Building Name: **Perkins Elementary**

Date: **December 12, 2023**

Address: **4301 College Avenue**
Des Moines, IA 50311

High School Feeder System: **Roosevelt High School**

Building SF: **65,064 SF**

Site Acreage: **9.26 acres**

Date(s) of Construction: **1918, 1949, 1975, 1986, 2007, 2021**

Date(s) of Roof Replacement: **2008, 2021**

Current/Scheduled Projects:
Technology Fiber Network - 2024
Flooring Renovation Phase 2 - 2024
South Entrance Stairs - 2024
HVAC Upgrades - 2024

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
- [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
- [x] Stucco
- [ ] Metal
- [ ] Wood
- [ ] Other

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	5	10	
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	3	9	Many classrooms have spray-applied acoustic insulation on the ceilings. In nearly all of these rooms this insulation was noted as damaged, stained, or in need of cleaning. Other rooms have adhered ceiling tiles or textured/gypsum plaster ceilings that do not provide ideal acoustic absorption.

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	5	5	
1.14	**Main office** has a check-in and waiting area.	2	4	8	Waiting area is located in the corridor outside of the main office.
	TOTAL			157	

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	4	4	Multiple level changes through various additions to building makes traffic flow less efficient and navigable than if the building had consistent aligned floor levels.
2.2	Communication among students is enhanced by **common areas.**	1	5	5	
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	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	
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	4	4	Conference space is provided, but its location in the middle of a very full storage and work room is not ideal..

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	1	2	Primary entrance on the rear side of the building is not intuitive for visitors and lacks adequate signage. The main office has poor visibility of the main entrance door (via camera only) and inadequate containment / control of visitors once they are buzzed into the building.
2.12	**Break room** is adequately sized and furnished for proper use.	1	3	3	Staff break room is very small for the number of staff in the building. Furnishings are adequate quality, but also undersized for number of staff.
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	5	5	
2.15	**Ceilings** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	3	3	Acoustic ceilings (spray-applied and tiles) are stained or damaged in many rooms. Refer to proposed projects for more information.
2.16	**Walls** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	3	3	Plaster damage, painting required in classrooms and corridors. Refer to proposed projects for more information.
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	5	5	Some historic casework is in need of refinishing but is of good quality.
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	4	8	Vision lites into nearly all classrooms were obstructed by seasonal holiday decorations/banners. This condition is likely temporary, but may still need to be discussed with building faculty.
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	Railings in the oldest part of the building do not meet code for required guardrail height, but are grandfathered as existing. Terrazzo stair treads are cupping/wearing unevenly in heaviest traffic paths. No concerns at this time, but this condition should be monitored to prevent tripping hazards.

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			347	

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	3	6	The vertical scratch finish of the brick is a rough and uninviting texture. Perkins is imposingly tall, alleviated only by the large windows. There are no playful, colorful, or soft elements. The main entrance to the north off the parking lot is not clearly identified or developed to be welcoming.
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	5	15	
3.3	**Roof access** is safe for all roofs.	3	2	6	All roof hatches (3 total) lack guardrails and gates. Primary (west most) hatch is too narrow. Ladder up to hatch is impeded by piping and not secured at the top. Ladder between roof C and F has a loose bolt at top. Ladder between H and I sways under load.
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	4	12	Windows that overlook roofs E and F require sealant replacement.
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	4	4	Low-e coating cannot be determined, but glass is tinted. One window has broken glass at rm 112.
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	5	10	
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	2	2	Brick requires repair and tuckpointing in various locations, as well as a metal cap to protect skyward facing joints on west facade bump out. Window lintels require repainting to preserve longevity. Exterior stair requires repainting.
3.9	**Exterior Doors** open outward and are equipped with **panic hardware.**	1	3	3	Door at rm 145 (kitchen) does not have panic hardware. Exterior guardrail needs to be extended south of rm 116.
3.10	**Exterior Doors are monitored** or controlled by an access control system.	1	3	3	03 - Doors do not latch 07 - Doors with card readers 08 - Doors with locks or no exterior lock 15 - Doors with no signage.
	TOTAL			71	

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 north and east but still walkable. Good drainage on site, one grading repair near the stairs and playground flume
4.2	**Parking areas** are in good condition.	5	4	20	Some asphalt cracking and one location of sagging but good conditions otherwise.
4.3	**Drive areas** are in good condition.	3	3	9	The accesses to the north parking lot need repair, most of remaining drive area pavement in good condition
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	5	5	Multiple spaces available in the north parking lot, adequate for day to day. Good street parking for events.
4.5	**Sidewalks** around the facility are in good **condition.**	1	4	4	There are a couple of tripping hazards on site and the sidewalk along the southern and eastern sides have sections needing replacement.
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	1	5	5	Site was easy to navigate and door had sidewalk access.
4.7	**Hard surface** playground surfaces are in good condition.	3	5	15	Walk track concrete and basketball area asphalt both appeared new and in good condition. There were some cracks in the concrete panels surrounding the playground equipment but nothing seriously deteriorated.
4.8	**Fencing** around the site is in good condition.	1	3	3	The north and northwest sections of fence appeared old and will need replacement.
4.9	**Trash enclosure** is in good condition.	1	5	5	Fence, gate, and pavement all in good condition.
4.10	**Utilities** are in newly constructed conditions and placed in suitable locations.	1	4	4	1 storm cleanout had a construction cone and block covering it and it appeared work was being done at the time of visit, 1 intake was buried in sediment north of the playground area

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	Lots of room to the north but the slope there may necessitate the use of walls for any expansion.
4.12	Site has **onsite bus and parent pickup** up with adequate length, good separation and general good site circulation.	1	4	4	Bus drop off on south side, parents use the north lot, backs up onto street.
	TOTAL			82	

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	5	5	
5.4	**Stoops** appear to be in good condition.	1	5	5	
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	Brick masonry walls at most window jambs in original building need attention.
5.8	**Lintels** appear in good condition (no visible deflection or rust).	1	3	3	Lintels in almost all locations, except the new portion of the building, are showing signs of rusting. I did not see any lintels that appeared to be failing or the steel was rusting to the point that it was scaling. All lintels on the building need to be observed, documented, sand blasted and repainted to add life.
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	5	5	
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	N/A	0	
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 designated hardened area observed.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	N/A	0	
	TOTAL			136	

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	Some small rooms lack temperature control.
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	4	20	Library Music Addition ERV was not operating.
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	The majority of equipment appears to be from 2004 and 2007 with the exception of the 2014 addition and a few heat-pumps. Library/Music ERV appear to have been decommissioned but left on roof.
6.9	**Cooling loads** are within equipment operational capacity.	5	5	25	No reported issues with capacity, but well field was not expanded when the East Addition was built. 12 wells are being added with a 2024 project.
6.10	**Heating loads** are within equipment operations capacity.	5	3	15	This building does not have a back-up boiler. No reported issues with capacity but wells are being added with a 2024 project.

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	2	6	New DOAS unit serving the East addition is the only equipment with dehumidification capacity. Main building ERV and Library Music Addition ERV do not have dehumidification. Heat pumps are single stage.
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	Single backflow prevents is provided in lieu of dual backflow preventers. Dual backflows over redundancy.
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	Some manual flush and faucets in smaller restrooms.
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	4	12	Above ceiling units have limited clearance for service.

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	Gym units are at roof joist level 15 to 18t ft above finished floor.
6.24	**Floor surfaces** throughout the mechanical room are non-slip and are dry.	2	3	6	Some moisture and debris present in the lower level mechanical room on floor and present on the mechanical equipment.
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	There is no good access to a hose bibb for the East Addition DOAS unit.
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: 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	3	15	Outlet of thermostatic mixing valve indicated that 130°F water was being delivered. This should be adjusted to 120°F max unless individual mixing valves are present at all the lavatories
6.33	**Emergency eye-washes and tempering valves** are located where required.	5	1	5	One EEW located in kitchen, but inaccessible due to stacking of kitchen boxes around it. 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	N/A	0	
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			516	

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	Mfr 07/2005 - Eaton/Cutler Hammer 1200A Main - 480Y/277 With surge suppressor
7.5	The MDP is **maintainable.**	3	5	15	
7.6	The MDP will support **future expansion.**	4	1	4	No spare or spaces left.
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	5	20	
7.8	The Distribution Panel appears **serviceable.**	4	4	16	2005 - Cutler Hammer 600A 208Y/120
7.9	The Distribution Panel is **maintainable.**	4	5	20	
7.10	The Distribution Panel will support **future expansion.**	4	4	16	4 of 13 spaces

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	4	4	Limited receptacles on exterior.
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	4	20	Walkways on south side of building are dark and do not support south side cameras.
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	4	16	Conduit entry into room shows evidence of past leaks and should be sealed to protect room from additional moisture issues.
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	5	20	
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	Two 2000VA minuteman UPS units. Only one operational. (Other may be new and not started up yet)
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	5	5	13 of 30 spare With surge suppressor
7.19	MDF employs up-to-date **network cabling.**	2	4	8	Cat 5e
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	N/A	0	

E | Electrical

ASSESSOR: Rob Hedgepeth

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	4	8	Large ground bar, but one conductor serves racks, telephone cable entrance, and CATV entrance.
7.22	Building is equipped with an **addressable fire alarm system.**	5	5	25	Simplex 4100U. Fire alarm breaker not marked or locked.
7.23	Building is equipped with an **access control system.**	5	2	10	5/15=33%
7.24	Building is equipped with a **CCTV system.**	5	5	25	SE corner cameras not supported by exterior lighting.
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			388	

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	4	8	Door operator upgrade required due to obsolescence .
8.8	**Finishes** are adequate and maintainable.	1	3	3	Numerous scratches and scrapes on the interior finishes.
8.9	**Maintenance** is adequate.	1	4	4	Recommend quarterly examinations.
8.10	**Testing** is up to date, and all **record and logbooks** are present and filled out.	1	4	4	Log books are not up to date.
	TOTAL			59	

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

Ceiling Tile Repair	Missing adhered ceiling tile in room 202. Age and type of tile are indicators they may contain asbestos.
Exterior Door Adjustment	Adjust 3 exterior doors so that they latch from any closing position: rooms 112, 138, and 212.
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.
Landscaping	Trim tree back from parapet at west façade.
Regrading	Lower grade around windows at room 118 so that it is below the sill by at least 1", 100 SF at 3" deep.
Grading Repair	Fill in washed out area by playground stairs. For location, refer to civil site plan exhibit found in the appendix of this report.
Mechanical Room Cleaning	Remove debris from Lower Level mechanical room floor (where loop water pumps are located) and clean off mechanical equipment.
Central Thermostatic Mixing Valve Adjustment or Repair	Adjust or rebuild main thermostatic mixing valve. Currently running with 130 degF DHW output.

MDF Conduits Weathersealing	Add fittings and seals at cable entry conduits that show evidence of leaking water into the MDF room.	
MDF Grounding	Add separate conductors for equipment racks to TMGB.	

1 - 2 Year Priority

		Project Costs
Plaster Wall Repairs	Repair and repaint portions of plaster walls with moisture or impact damage in rooms 118, 135, 212, and 305. Total area for all rooms is approximately 175 SF.	$8,000
Cafeteria Floor Transition Repair	Grind concrete floor joint along south wall of cafeteria 135 to remove tripping hazard (1/2 inch height) in traffic pathway (approximately 40 LF).	$6,000
Exterior Door Hardware Replacement	Provide panic hardware at single door for room 145. Replace closers at double doors near room 100 and double doors near 151 with closers that do not have hold opens.	$12,000
Exterior Sealant Replacement	Replace sealant at masonry soft joints at the inside corner between room 141 and 142, 8 LF. Replace perimeter sealant at windows room 151, 65 LF. Replace sealant between window mullions, room 151, 50 LF.	$7,000
Exterior Tuckpointing and Wall Cap Installation	Tuckpoint at the following locations: NW corner of 3rd story (above roof) 8 SF; west façade 20 SF; outside room 122, 4 SF. Install 1' wide wall cap 60 LF; cut into masonry joint and seal.	$8,000
Soffit Repair	Repair cracks in stucco and repaint soffit outside room 107 and 108, 50 SF.	$7,000
Soffit Repaint	Repaint soffit outside room 154, 360 SF.	$7,000
Glazing Replacement	Replace insulated glazing unit in frame at room 112, 6' x 7'.	$10,000

Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 18 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$8,000
Curb Repair	Return damaged curbs to new condition. Approximately 5 LF of 6" curbs. For locations, refer to civil site plan exhibit found in the appendix of this report.	$6,000
Main building ERV Dedhumidification	Add dehumidification to main building ERV located in basement. A rooftop solution may not be possible for this.	$650,000
Library DOAS Unit Replacement	Replace ERV serving Library Music Addition with new DOAS unit with electric heat DX cooling and hot-gas reheat for dehumidification.	$280,000
Roof Hydrant Installation	Install hydrant on roof to perform service and cleaning of DOAS unit on East Addition.	$12,000
Exterior Light Installation	Add exterior lighting along south side of building to support south side camera views after dark.	$9,000
Elevator Door Operator Upgrade	Otis Elevator is no longer supporting the operator installed on the elevator doors. Upgrade with a serviceable model.	$45,000
Elevator Cab Interior Finish Upgrade	Replace worn and scratched finishes inside the elevator cab.	$25,000

Total 1-2 Year Project Costs: $1,100,000.00

3 - 4 Year Priority

		Project Costs
Interior Wall Repainting	Repaint portions of interior walls with paint damage in rooms 105, 124, 127, 135, 141, 142, 202, 212, and corridors outside rooms 212 and 280/284. Total area of repainting is approximately 1,600 SF.	$12,000

Interior Door Repainting	Repaint interior doors and/or frames: - room 135 (two double frames only) - room 141 (single frame only) - room 144 (two doors, double frame) - room 310 (double frame with two sidelights only - room 312 (two doors, frame with one sidelight)	$13,000
Acoustic Ceiling Repairs and Repainting	Repair damaged or discolored spray-applied acoustic ceiling insulation in rooms 116, 205, 209, 210, 212, 213, 300, 302, and 305 (total 4,000 SF).	$65,000
Lintel Repainting	Sandblast rust off of lintels at room 201 overlooking roof area E, 10 LF. Clean all lintels and repaint, approximately 1,500 LF at 8" wide.	$180,000
Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 24 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$10,000
Flume Replacement	Replace the damaged flume by the playground stairs. For location, refer to civil site plan exhibit found in the appendix of this report.	$9,000
Grading and Soil Repairs	Re-grade and sod area eroded from truck traffic. For location, refer to civil site plan exhibit found in the appendix of this report.	$10,000
Heat Pump Replacement	Replace all of the older 2004 and 2006 heat pumps remaining in the building with extended range. Include two stage compressors for dehumidification and 2 way control valve for variable loop flow.	$1,500,000
Faucets and Flush Valves Replacement	Install automatic flush valves and sensor operated faucets in single-user restrooms to match school standard.	$20,000

Total 3-4 Year Project Costs: $1,819,000.00

5 - 10 Year Priority

		Project Costs
Exterior Stair Repaint	Sandblast and repaint exterior stair outside room 212.	$45,000
Roof Replacement	Remove approx 21,800 SF of PVC roofing and insulation over roof areas A - G. Install code compliant insulation and TPO roofing. Approx year 2030.	$700,000
Pavement Replacement	Remove and replace 955 SY of asphalt and 30 SY of PCC. For locations, refer to civil site plan exhibit found in the appendix of this report.	$170,000
Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 134 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$30,000
Fence Replacement	Remove and replace 738 LF of chain link fence. or locations, refer to civil site plan exhibit found in the appendix of this report.	$100,000
Central Thermostatic Mixing Valve Replacement	Replace central thermostatic mixing valve with digital style.	$15,000
Replace Domestic Water Heater	Replace electric domestic water heater with new.	$13,000

Total 5-10 Year Project Costs: $1,073,000.00

Projects Requiring Study

		Design Services Fee
Spray-Applied Acoustic Ceiling Degradation Study	Further investigation is required to determine why the spray-applied acoustic ceilings in many rooms is delaminating from substrate and showing signs of staining/discoloration in many areas. Painting over the acoustic insulation to hide discoloration may reduce the insulation's acoustic absorption and is generally not recommended.	$5,000

Main Entrance and Office Security Study	Study to explore reconfiguration building entrances and the main office to improve security control, visibility from the office to the entrance, and intuitive navigation for visitors.	$10,000
Room 213 Space Study	Room 213 is used as a conference room, storage room, and teacher work room, but the cluttered space does not adequately support any of these uses currently. A space use study would serve to identify and properly plan for staff support functions in this room. This project may benefit from being combine with the Staff Lounge and Mother's Room study projects proposed here.	$10,000
Staff Lounge Space Study	Study to explore opportunities for renovation and/or relocation of the staff lounge to provide a space that is appropriately sized for the number of staff in the building. This project may benefit from being combined with the Room 213 and Mother's Room study projects proposed here.	$5,000
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. This project may benefit from being combined with the Room 213 and Staff Lounge study projects proposed here.	$5,000
Roof Access Study	Explore how to provide clearances at existing roof hatch and ladder. If not possible, find a location for a new hatch with proper clearances.	$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:	**$42,500**

APPENDIX

5+ YEAR REPLACEMENT

3-4 YEAR REPLACEMENT

1-2 YEAR REPLACEMENT

NORTH

GRAPHIC SCALE

80 0 40 80 160

bbs ARCHITECTS ENGINEERS

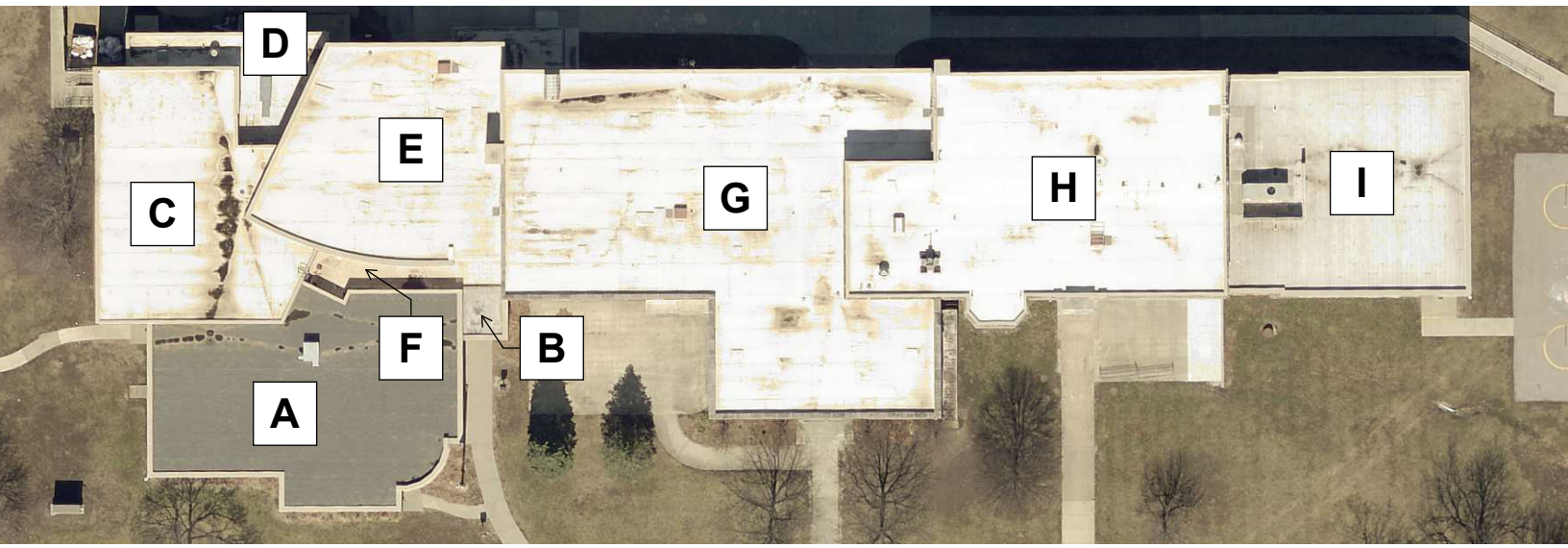
BISHOP ENGINEERING +

PERKINS ELEMENTARY

EXHIBIT

PROJECT # 230286-27

DATE 11/2/2023



N

bbs ARCHITECTS ENGINEERS

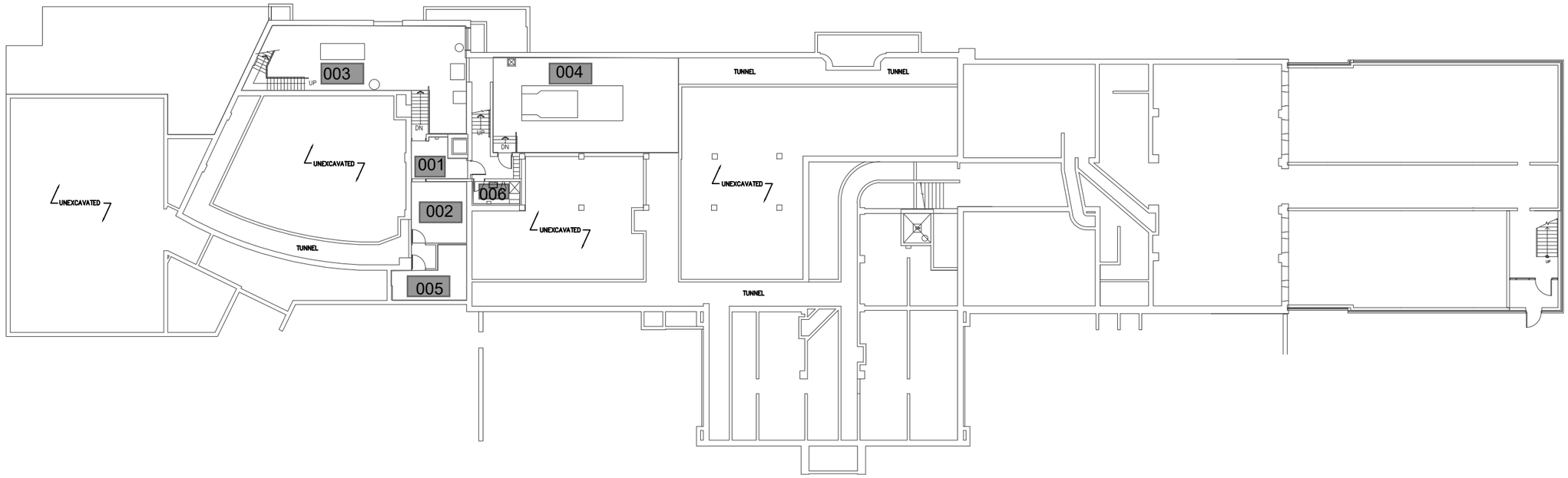
23055 - DMPS Facility Conditions Assessment
Roof Identification Image
Perkins Elementary
December 12, 2023

PERKINS ELEMENTARY SCHOOL

4301 COLLEGE AVENUE
DES MOINES, IOWA 50311

FOUNDATION

NORTH

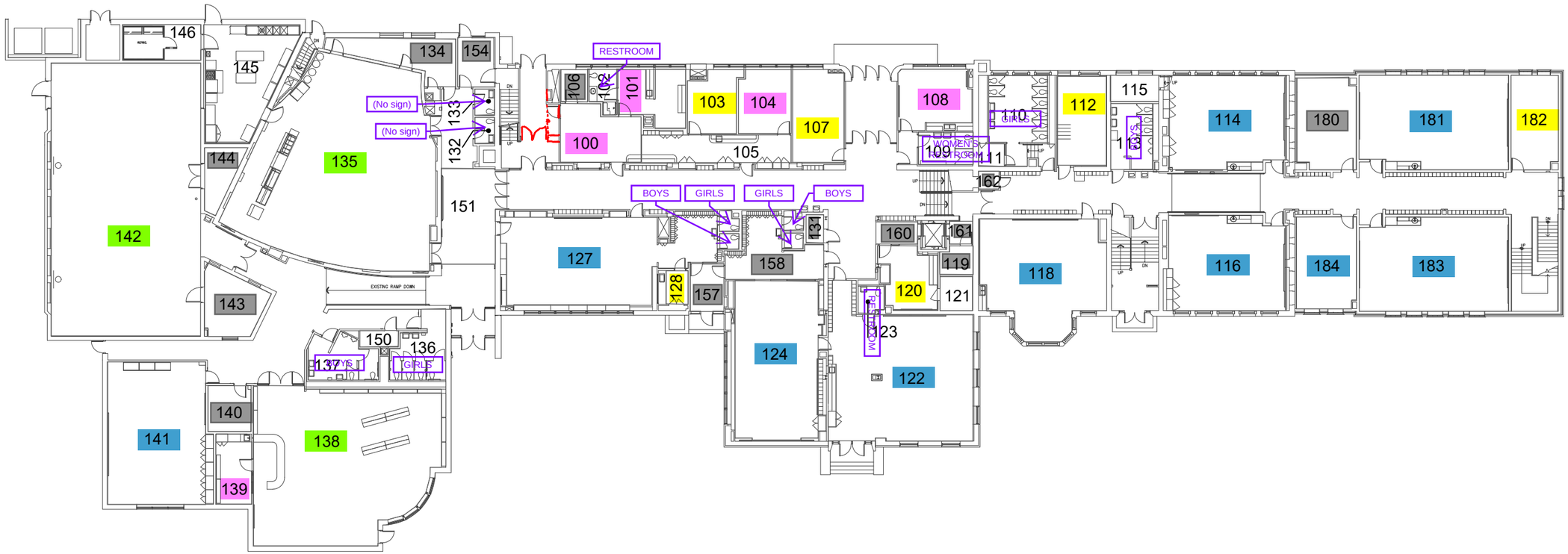


PERKINS ELEMENTARY SCHOOL

4301 COLLEGE AVENUE
DES MOINES, IOWA 50311

FIRST FLOOR

NORTH

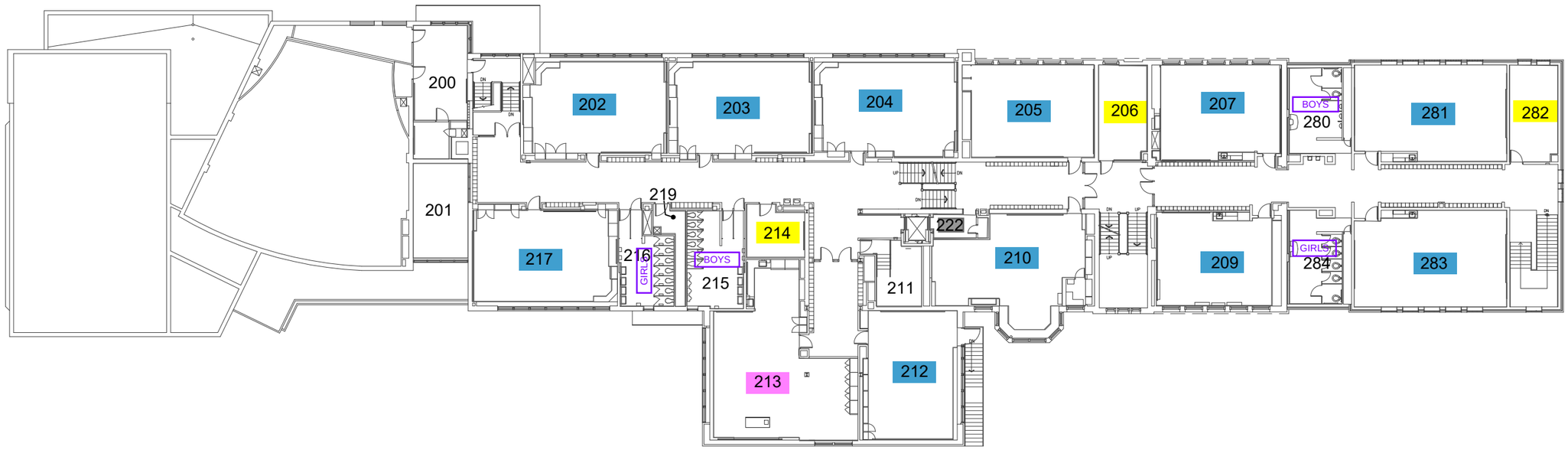


PERKINS ELEMENTARY SCHOOL

4301 COLLEGE AVENUE
DES MOINES, IOWA 50311

SECOND FLOOR

NORTH



PERKINS ELEMENTARY SCHOOL

4301 COLLEGE AVENUE
DES MOINES, IOWA 50311

THIRD FLOOR

NORTH