

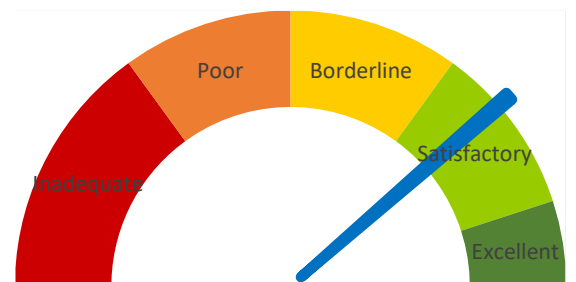
DMPS FACILITY ASSESSMENT |



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REPORT ORGANIZATION

COVER SHEET

REPORT ORGANIZATION

EXECUTIVE SUMMARY

- Building Summary
- Overall Project Priorities
- Building Health Score
- Graphical Representation of Building Health Score

BUILDING DATA RECORD

SCORING REPORTS

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COST METHODOLOGY

RECOMMENDED PROJECTS AND PRIORITIES

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EXECUTIVE BUILDING SUMMARY

Park Ave Elementary's on-site facility conditions assessment was conducted on November 15, 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.

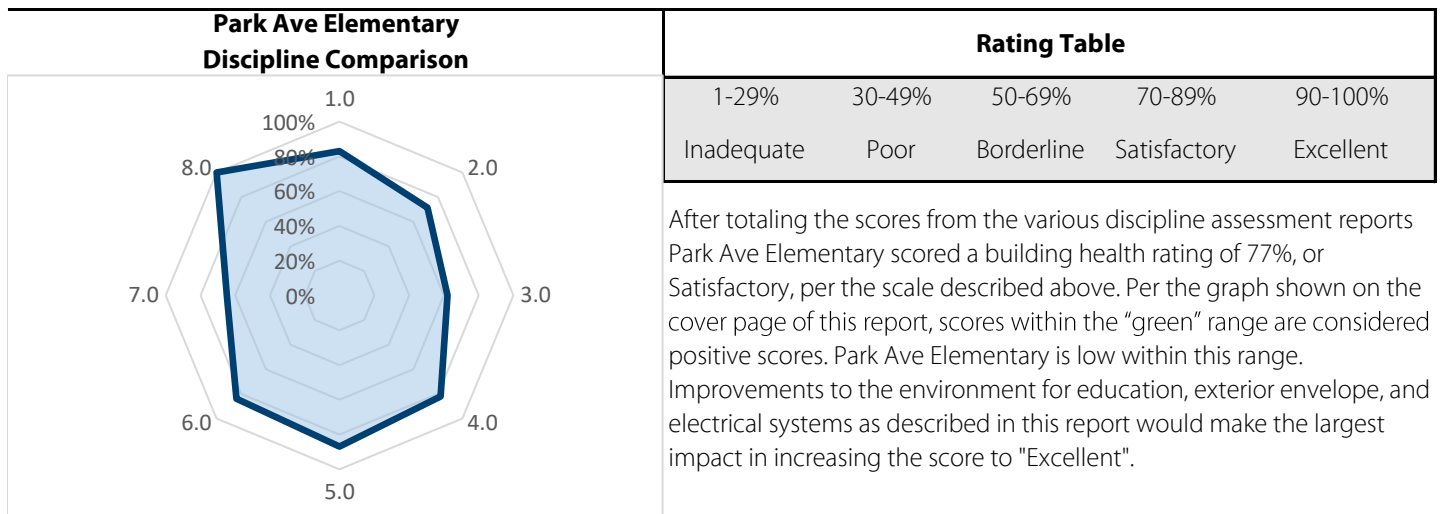
Several maintenance items were identified for Park Ave Elementary. The full list of recommended items is listed later in this report but a few to note: heater repairs in room 110D, roof drain cleaning, and emergency stop installation within boiler room. Park Ave Elementary was originally built in 1909 with several additions and renovations following. The most recent addition, in 2013, while constructed with durable materials and sufficient use of color, is disjointed from the rest of the building in materials, color, and infrastructure. With future projects and studies it is recommended to design with unified character throughout the building to promote inclusive access and experience throughout the entire school. Consistency throughout a building is always recommended for ease of operations and maintenance which in turn leads to a safer and healthier buildings. The exterior of the building is also in need of maintenance and repair. Water infiltration specifically in areas around the chimney and interior portions of level 2 along north portions of the original building is starting to be apparent and if not addressed will cause future issues on the interior.

A summary of the recommended projects for Park Ave Elementary to be completed in the next 1-2 years are as follows:

- Interior Wall Repairs
- Interior Door Modifications
- Sidewalk Replacement
- Lintel Refinishing
- Exterior Fire Stair Replacement
- Roof Access Improvements
- MDF Improvements

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	137	2.00	330	274	83%	Satisfactory
2.0	Environment for Education	375	268	0.60	225	161	71%	Satisfactory
3.0	Exterior Envelope	95	59	3.00	285	177	62%	Borderline
4.0	School Site	95	78	1.50	143	117	82%	Satisfactory
5.0	Structural Conditions	145	126	1.30	189	164	87%	Satisfactory
6.0	Mechanical Systems	685	575	0.80	548	460	84%	Satisfactory
7.0	Electrical Systems	455	295	0.75	341	221	65%	Borderline
8.0	Elevator Conditions	65	65	1.00	65	65	100%	Excellent
Total					2,125	1,639	77%	Satisfactory



Building Data Record

Building Name: Park Ave Elementary

Date: 11.15.2023

Address: 3141 SW 9th St
Des Moines, IA

High School Feeder System: Lincoln High

Building SF: 64,925 SF

Site Acreage: 5.86 Acres

Date(s) of Construction: 1909, 1948, 1971, 2013 (Renovation and Addition)

Date(s) of Roof Replacement: 2013

Current/Scheduled Projects: Exterior restoration
Interior painting
Walking track (PERL)
ADA
HVAC upgrades
Supplemental Boiler
Park Ave Space Utilization Reconfiguration

Existing Building Data:

Egress Plans Original Docs Major Renovations and Additions Minor Projects Maint. Reports

Site Items:

Student Garden Loading Dock Stormwater Detention

Energy Source:

Electric Gas Geothermal Solar

Cooling:

DX RTU or DOAS Chiller VRF Water Source Heat Pump Fluid Cooler

Heating:

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

Structure Fireproofing:

No Yes

Construction:

Load Bearing Masonry Steel Frame Concrete Wood Other

Exterior Facade:

Brick Stucco Metal Wood Other Stone

Floor/Roof Structure:

Wood Joists Steel Joists/Beams Slab on Grade Struct. Slab Other

A | Architectural, Programming

ASSESSOR: Kaela Shoemaker

1.0 Educational Adequacy

General

1.1 Floor materials are appropriate for space type.

Weight Factor	Rating	Points
2	4	8

Comments

Floor materials are generally appropriate for the space. The corridor terrazzo is slippery in many areas.

Elective/Secondary Classroom

1.2 Gymnasium is adequate for providing physical education programming.

2	3	6
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Gym appears to be original to the early construction of the school. The size of the space is adequate for the average class size, but it is smaller than a typical elementary school gym. It is below grade so access requires stairs on either side making accessibility difficult. Accommodations have been made for current technology but it is not integrated into the space.

1.3 Cafeteria has adequate space, furniture, and acoustics for efficient lunch use.

2	4	8
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The use of color and school character fall away in this area. The location is less ideal in the basement with a lack of daylight and views so the presence of design and school spirit should be enhanced.

1.4 Music room is adequate for providing introductory music instruction.

2	3	6
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Needs more acoustic adsorption - large open room. Auditorium appears to be used for orchestra storage, perhaps lessons as well.

1.5 Art room has sufficient accommodations for program.

2	4	8
---	---	---

Generally the space, storage, and daylight is adequate. The kiln is being stored in the open room which may be a safety concern if it is used. The walls surrounding the kiln are also significantly damaged.

1.6 Library/Resource/Media Center provides appropriate and attractive space.

1	1	1
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The projector is on a stand with a screen in the center of the room. The room appears undersized with large tables and chairs taking up the majority of space, and no areas for group breakout. Overall the space is not collaborative or engaging for the age of the students.

Core Classroom

1.7 Classroom space permits arrangements for **small group activity**.

3	5	15
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1.8 Student storage space is adequate.

2	5	10
---	---	----

1.9 Teacher storage space is adequate.

3	5	15
---	---	----

1.10 Classroom acoustical treatment of ceiling, walls, and floors provide effective sound control.

3	5	15
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	Weight Factor	Rating	Points	Comments
1.11 Classroom power and data receptacles are located to support current classroom instruction.	4	4	16	Room 315 and food pantry storage/Office is lacking for current set up.
1.12 Educational technology supports instruction.	4	4	16	Improvements are needed for integrating technology into the Gym and Media Center.
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	
TOTAL			137	

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	Way finding and room numbers are difficult to see and find, especially in the original portions of the building. Corridors do provide plenty of space for proper traffic flow.
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	4	4	Areas outside of the classroom for collaboration and creativity are limited. The classrooms do provide suitable interactive spaces.
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	4	4	Most in good condition, some minor surface chipping and staining.
2.6	Color schemes , building materials, and decor are engaging and unify the school character.	2	3	6	The building is clearly divided into "old" and "new" additions. The materiality and style of the new addition done in 2013 are very different than the work done from 1900-1970's and result in a feeling of 2 different schools attached with a corridor.
2.7	Windows and skylights provide access to adequately controlled daylight for regularly occupied spaces.	3	4	12	The new addition windows are small and several windows are facing adjacent brick walls. The older portions of the building have great large windows providing excellent daylight.
2.8	Windows provide access to quality views (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	3	9	The new addition windows are small and several windows are facing adjacent brick walls. The older portions of the building have great large windows providing excellent views.
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	Only one women's restroom is dedicated as staff.

	Weight Factor	Rating	Points	Comments
2.11 Main office is visually connected to the entry and is welcoming to students, staff, and guests.	2	3	6	The office is welcoming and connected, however the vestibule location is somewhat difficult to see from the reception desk and creates a bit of an odd entry progression.
2.12 Break room is adequately sized and furnished for proper use.	1	5	5	There are 2 break room spaces across the building. The smaller one in room 109 has some minor casework damage, and generally showing age and wear.
2.13 Mother's room is a separate designated space properly furnished.	1	0	0	No designated space, a shared office was in use for a mothers room.
Maintainability				
2.14 Floor surfaces are durable and in good condition.	1	4	4	Historic terrazzo was generally in good condition with a few minor areas of cracking. The newer exposed concrete was in good condition but will need additional maintenance at transition strips between floor materials, particularly at restroom entrances.
2.15 Ceilings throughout the building – including services areas – are easily cleaned and resistant to stain.	1	4	4	ACT tiles are generally in good condition. 12x12 perforated acoustic tiles are in good condition. Exposed plaster ceiling paint is starting to peel and level 3 has a few water stain issues.
2.16 Walls throughout the building – including services areas – are easily cleaned and resistant to stain.	1	3	3	Most walls have been well maintained, but several areas are showing cracking and signs of moisture infiltration. The areas in need of the most repair are the Art Room 206 at the kiln, School Counselor Office 202 at the windows, and Music Room 204 at the tops of the windows.
2.17 Built-in casework is designed and constructed for ease of maintenance.	1	4	4	Casework in the south portion of the building does have surface chipping throughout. This appears to be solid wood and has been well maintained for many many years. All other casework appears to be in great condition.
2.18 Doors are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	4	12	Doors are generally in good condition. The highest use doors in corridors are showing wear and may need refinished. Doors in classrooms 209, 210, 213, 214 all have been modified with different hardware from the rest of the building. The doors have resulting holes in the leaf from these modifications
2.19 Facility doors are keyed to standardized master keying system.	3	4	12	Telecom and mechanical room doors are separately keyed from the building masters.
2.20 Restroom partitions are securely mounted and of durable finish.	2	5	10	Partitions are black core phenolic panels.

	Weight Factor	Rating	Points	Comments
2.21 Adequate electrical outlets are located to permit routine cleaning in corridors and large spaces.	1	3	3	In the original portion of the building the corridors have outlets at drinking fountains but are extremely limited elsewhere. The new portion of the building is adequate.
Occupant Safety				
2.22 Classroom doors are recessed and open outward.	4	4	16	3rd floor and 2nd floor original doors are not recessed.
2.23 Door hardware (into classrooms or any occupied rooms off of corridors) include intruder classroom locksets.	3	2	6	Door hardware is inconsistent from new to old. Original doors have integral door stops at the floor and no closures. New doors use door stop wedges. Door hardware sets are primarily mortise locks that are keyed in interior and exterior. Doors to classrooms 209, 210, 213, 214 have been modified with different cylinders versus mortise.
2.24 Door panels into classrooms and other occupied spaces contain vision lite.	3	2	6	Third floor and 2nd floor doors into classrooms at the south corridor have no vision glass in or around the door. Gym has no vision glass.
2.25 Vision lite in doors is clear and uncovered.	2	4	8	5 vision panels were covered with paper. Only a few others had cloth curtains that could be closed if required.
2.26 Glass is properly located and protected to prevent accidental injury.	2	5	10	Wire glass is present in all areas but the newest addition.
2.27 Flooring is maintained in a non-slip condition	2	3	6	Many areas of original terrazzo appear they could be slick when wet. The slickest areas noted, while dry, were around the stairs. The terrazzo stairs do have textured treads.
2.28 Traffic areas terminate at exit or stairway leading to egress	5	4	20	Level 3 classroom 315 exits onto an exterior metal fire escape that has some potential code and safety concerns.
2.29 Multi-story buildings have at least two stairways from all upper levels for student egress.	5	2	10	Level 3 classroom 315 exits onto an exterior metal fire escape that has code and safety concerns.
2.30 Stairs (interior and exterior) are well maintained and in good condition meeting current safety requirements.	5	2	10	Interior stairs and guardrails in good condition, however the guardrails are shorter than current code at 30" - 31". Exterior railings to the main entrance are showing significant signs of wear and should be stripped and repainted to avoid additional rusting. The exterior fire escape from Classroom 315 has safety concerns including visual contrast at stair nosings and riser heights.

		Weight Factor	Rating	Points	Comments
2.31	At least two independent exits from any point in the building	5	3	15	Third floor exterior fire escape stair is accessed through Classroom 315 rather than from a corridor.
2.32	Emergency lighting is provided throughout the building.	5	5	25	
TOTAL				263	

3.0 Exterior Envelope

Design

3.1 Overall **design is aesthetically pleasing** and appropriate for the age of students.

Weight Factor	Rating	Points
2	4	8

Comments

Main entry only denoted by large sign.

Maintainability

3.2 **Roofs** appear sound, have positive drainage, and are water tight.

3	2	6
---	---	---

40% roofs good condition. Approximately 60% roofs (Roofs A-I) require replacement within 5 years. Roof I (350 SF) is approximately 4' lower than surrounding roof areas and contains only a one roof drain. Recommend raising the roof structure to match adjacent. Domed skylight is in poor condition.

3.3 **Roof access** is safe for all roofs.

3	3	9
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Primary roof access on original building via hatch. Permanent ladder only within attic space No permanent ladder below ceiling. No equipment on this level. Provide OSHA rail around hatch. Provide ladder dock for service access to rooftop equipment and new ladders where missing between roof levels.

3.4 Exterior **window sealant** is fully intact without cracks or gaps.

3	2	6
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Perimeter sealant at generally all windows is crazing and should be replaced.

3.5 **Glazing** is low-e coated, insulated, and overall in good condition.

1	4	4
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Windows contain insulating glass units and appear to have tinted coating.

3.6 **Operable windows** are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.

2	4	8
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No significant issues noted.

3.7 **Exterior doors** are of durable material requiring minimum maintenance.

2	3	6
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(2) entries on west (#8 and 9) contain original wood frames. Window bay south of entry #8 also still wood. Paint is peeling on all.
(3) entries (#4, 6 & 15) have rusting of doors and/or frames.

3.8 **Exterior walls** are of material and finish requiring little maintenance,

1	3	3
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Most of building is brick. The NW addition (approx 60% of building) will require repointing. Walls near chimney showing water damage-efflorescence and discolored mortar. Adjacent steel lintels have significant damage and may need replacement. Paint metal wall panels. Repair concrete canopies.

3.9 **Exterior Doors** open outward and are equipped with **panic hardware**.

1	5	5
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3.10 **Exterior Doors are monitored** or controlled by an access control system.

1	4	4
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(3) Entries have card readers.
(9) Entries have keyed locksets.
(3) Entries have exit-only hardware.
All entries except one (Entry #2) have exterior identification numbers.

TOTAL

59

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	There is an area of drainage towards the building on the north side of the building but it is not near a door.
4.2 Parking areas are in good condition.	5	4	20	The northwest lot parking pavement was new and in good condition. The remaining asphalt isn't terrible but will need replacement down the road.
4.3 Drive areas are in good condition.	3	4	12	The southern drive aisle of the NW parking lot is asphalt and cracking substantially. The remaining drives and accesses are new concrete and holding up.
4.4 Sufficient on-site, solid surface parking is provided for faculty, staff, and community.	1	5	5	There was parking available along the east side of the northwest lot.
4.5 Sidewalks around the facility are in good condition .	1	3	3	There were some stairs without handrails and the sidewalk along the west side was not great. The remaining sidewalk mostly in good condition.
4.6 Sidewalks are located in appropriate areas with adequate building access.	1	5	5	All doors had sidewalk access and no sidewalk was at an unreasonable grade.
4.7 Hard surface playground surfaces are in good condition.	3	5	15	The asphalt was performing exceptionally well with only some cracks around the edges. The playground concrete looked new and was in good condition.
4.8 Fencing around the site is in good condition.	1	5	5	Most of the fence on site looked new and in good condition.
4.9 Trash enclosure is in good condition.	1	N/A	0	No trash enclosure exists on site.
4.10 Utilities are in newly constructed conditions and placed in suitable locations.	1	4	4	An intake along the NW side of the building doesn't appear to capture much water and has damaged walls, there is another intake on the SW side of the site with damaged walls. The remaining utilities appeared to be in good condition.

	Weight Factor	Rating	Points	Comments
4.11 Site has sufficient room for both building and parking expansion.	1	2	2	Any parking expansion on site would require walls. There is some room for building expansion to the south.
4.12 Site has onsite bus and parent pickup up with adequate length, good separation and general good site circulation.	1	3	3	Bus drop off is to the south of the school on Park Ave., parent pickup/drop off is in the northeast lot and backs up onto the street.
TOTAL			78	

5.0 Structural Conditions

Foundations

5.1 Foundations appear to be in good condition with no visible cracks.

Weight Factor	Rating	Points
1	5	5

Comments

5.2 There does not appear to be any **foundation settlement.**

2	5	10
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5.3 Basement walls do not appear to have any cracks.

1	5	5
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5.4 Stoops appear to be in good condition.

1	3	3
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The stoops that are there are in good condition. Some exterior doors don't appear to have stoops.

Slab on Grade

5.5 Slabs on grade do not appear to have any cracks

1	4	4
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There is some random cracking in the polished floor slabs and terrazzo. They appear to be shrinkage cracks, not a settlement issue.

5.6 Slabs on grade do not appear to have any **settlement.**

1	5	5
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Exterior Walls

5.7 Brick masonry appears to be in good condition.

2	4	8
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There is some cracking and spalling out of mortar joints. Nothing of concern.

5.8 Lintels appear in good condition (no visible deflection or rust).

1	4	4
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Most lintels are in good shape. There are a handful showing significant rust that should be addressed.

5.9 CMU is in good condition.

1	5	5
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5.10 Precast is in good condition.

1	N/A	0
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	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	4	12	Minor cracking and spalling on underside of slabs.
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	4	12	Some rusting on beams above the roof access room on the 3rd floor.
Miscellaneous				
5.15 Retaining walls appear to be in good condition.	1	3	3	Some cracking/spalling of concrete. Guardrail is loose in a few spots where the concrete has cracked.
5.16 Canopies appear to be in good condition.	1	4	4	
5.17 Loading dock concrete appears to be in good condition.	2	4	8	
5.18 Mechanical screening appears to be in good condition.	2	5	10	
5.19 Stairs appear to be in good condition.	1	4	4	Exterior fire escape stair likely does not meet modern loading requirements based on observations. Further study or information is required to know if current codes requirements are being met.
5.20 Stair railings appear to be in good condition.	1	4	4	Exterior fire escape stair railings likely do not meet modern loading requirements based on observations. Further study or information is required to know if current codes requirements are being met.

	Weight Factor	Rating	Points	Comments
5.21 Tunnels appear to be in good condition without cracks.	1	N/A	0	
5.22 There is a designated hardened area in the building.	1	N/A	0	
5.23 The hardened area appears consistent with the ICC 2018 code.	1	N/A	0	
TOTAL			121	

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	Generally appears to be true.
6.2	Thermostat location. Thermostats are properly located in the space.	3	5	15	Appears to be true.
6.3	Appropriate amount of ventilation are provided to each space.	5	5	25	Appears to be true.
6.4	Ventilation is provided during occupied hours.	5	5	25	Yes.
6.5	Outdoor air intake locations are appropriate.	4	5	20	Generally appears to be true.
6.6	Appropriate levels of exhaust are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	5	25	True for all observed areas.
6.7	Building pressurization. The design takes into account the balance between ventilation and exhaust air	2	5	10	Appears to be true.
6.8	Major HVAC Equipment appears to be within it's acceptable service life.	5	4	20	Chillers, boiler, pumps, and indoor DOAS AHU all appear to have ten years or more of remaining useful life. Roof-mounted AHU generally appears to be in good condition, but may have less remaining useful life.
6.9	Cooling loads are within equipment operational capacity.	5	3	15	Concerns identified over issues with geothermal bore field and overall capacity after 2013 addition project (no additional capacity added to system at time of addition).
6.10	Heating loads are within equipment operations capacity.	5	4	20	Boiler added to provide heating capacity after addition was constructed.

	Weight Factor	Rating	Points	Comments
6.11 Dehumidification is provided and addressed humidity loads in incoming outside air.	3	4	12	Outdoor air is fully conditioned but space humidity levels are not measured/trended.
Plumbing Design				
6.12 Water Supply Pressure is adequate to allow for operation of plumbing fixtures.	5	5	25	Appears to be adequate (toilet at top of stairs - highest point in building - appears to flush without issue).
6.13 Appropriate backflow preventer is provided at connection to city water supply.	5	5	25	Dual backflow preventers installed in parallel.
6.14 Domestic hot-water systems are within equipment operational capacity.	5	5	25	Appears to be true.
6.15 Domestic hot-water recirculating systems allow for hot-water at fixtures within a reasonable amount of time.	3	4	12	Warm water was observed at lavatories.
6.16 Sanitary sewer systems are sized and sloped to allow for proper drainage.	5	4	20	Staff on site indicated a backup had occurred but it had been cleared and no additional issues have been observed.
6.17 Appropriately sized grease interceptors are provided for facilities with food service.	3	5	15	Appears to be true.
6.18 Roof drainage systems are sized appropriately and overflow drainage systems are installed.	5	4	20	Roof drains with overflow drains or scuppers are generally present. There is at least one location (adjacent to abandoned chimney) where no overflow was observed.
6.19 Restroom fixtures are in good condition and comply with current DMPS standards.	3	5	15	Restrooms equipped with automatic flush valves and faucets.
Maintainability				
6.20 Equipment is provided with adequate service clearance to allow for regular maintenance	3	4	12	Generally true. Roof-mounted DOAS unit has unit-mounted screen limiting access in some areas. All other major equipment appears to have good access.

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with coil pull space .	2	5	10	Appears to be true.
6.22	Filter sizes are standard and filter types are standard.	2	3	6	Many different sizes with varying FCUs of both console and ducted types distributed throughout the building.
6.23	Equipment mounting heights are reasonable.	3	4	12	Generally appears to be true. Some areas with equipment mounted at ceiling height with relatively high ceilings.
6.24	Floor surfaces throughout the mechanical room are non-slip and are dry.	2	5	10	Appears to be true.
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	Appears to be true.
6.26	Appropriate means are provided for airflow and water balancing .	3	5	15	Appears to be true.
6.27	Hose Bibbs located in proximity to outdoor condensers and condensing units . Is cottonwood an issue at this location?	2	N/A	0	N/A.
6.28	Fall protection is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	3	6	Edge of roof-mounted DOAS is approximately 15 feet from edge of roof, but screen is closer. Access path is of more significant concern - must go to highest roof then come down and across multiple levels of roof to access unit. Provides concerns for both safety and reliability of maintenance.
6.29	Building devices are on DDC controls and fully visible through Building Automation System. No pneumatic controls remain.	4	5	20	System controllers have been upgraded.
Occupant Safety 6.30	Backflow prevention is provided at all cross-connections to non-potable water.	5	5	25	Appears to be true.

	Weight Factor	Rating	Points	Comments
6.31 Building is fully sprinklered .	5	5	25	One head observed with construction cover still installed.
6.32 Domestic hot-water temperature at lavatories used by students or staff is provided with a thermostatic mixing valve and adjusted properly.	5	0	0	Mixing valves were not observable. May be within shrouds under multi station wash fountains.
6.33 Emergency eye-washes and tempering valves are located where required.	5	0	0	Eyewash not observed. Recommend evaluation with an occupational safety and health professional to determine if eye irrigation is needed
6.34 Emergency boiler stop switches are located at exits from boiler rooms.	5	3	15	Emergency stop switch at one exit, but not observed at other exit from room.
6.35 Refrigeration evacuation systems are provided in rooms with chillers.	5	5	25	No system is provided, however space is not classified as Refrigeration Machine Room as required volume is 7500 cubic feet for maximum circuit charge (97 pounds of R134a) and space volume is significantly greater than 7500 cubic feet.
6.36 Carbon Monoxide monitoring and alarming is provided for areas with gas-fired equipment.	5	5	25	CO Sensor in mechanical room.
TOTAL			575	

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 QED2 Switchboard manufactured in 2012 (-1 for older than 10 years).
7.5	The MDP is maintainable .	3	5	15	
7.6	The MDP will support future expansion .	4	1	4	MDP allows for 72" of mounting space, and all space is currently being utilized.
7.7	The Distribution Panel environment is safe , has adequate clearances and exiting.	4	4	16	Large amounts of empty 5 gallon buckets are stacked in front of original building MDP.
7.8	The Distribution Panel appears serviceable .	4	1	4	Existing MDP is an antiquated Kinney panelboard utilizing legacy Westinghouse breakers manufactured in mid 1900's are no longer available, and all positions are in use. Panel is showing signs of major wear and age.
7.9	The Distribution Panel is maintainable .	4	0	0	Replacement parts are no longer available for the now defunct Kinney Electric Manufacturing and Westinghouse Electric Corporation. "Refurbished" breakers are available for purchase online but are exorbitantly expensive and of questionable quality.
7.10	The Distribution Panel will support future expansion .	4	1	4	All breaker positions are in use, with no spares or spaces.

		Weight Factor	Rating	Points	Comments
7.11	Electrical panels and disconnect switches observed during assessment are safe, serviceable, and maintainable.	2	3	6	Score is average of all panelboards observed. Majority of panels have good clearances with light janitorial equipment stored in front of panels. Existing panels are not maintainable as their original manufacturers are no longer in business, and the quality of the equipment is in question due to age.
7.12	Building has adequate and appropriately located, safe exterior power to allow for regular maintenance activities.	1	1	1	No convenience receptacles present on building save for single NEMA 14-50R in weatherproof enclosure.
7.13	Building has adequate exterior lighting to promote safety and security of the property.	5	2	10	N side of building by loading dock is very dark. Playground by SE corner also dark. Staff parking to building dark. Stair from auditorium to street very dark (Inoperative street light contributes to this.)
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	2	8	MDF does not have card access, and is currently located within a kindergarten classroom. MDF does not have any associated cooling, and room was uncomfortably warm, which will reduce useful life of equipment. Room was keyed separately from the rest of the building.
7.15	MDF Equipment Racks have adequate space for future growth .	4	5	20	Approximately 50% capacity remaining in 45U data rack.
7.16	MDF is equipped with UPS to back up main switch(es), providing backup power to necessary equipment in the event of a power outage.	5	5	25	
7.17	MDF Power is supplied by 20A circuits and receptacles .	1	5	5	
7.18	MDF Power is supplied from a branch panel located in the room with adequate spare circuit capacity .	1	0	0	Very few receptacles within MDF, and no panelboard is present.
7.19	MDF employs up-to-date network cabling .	2	4	8	Majority of horizontal cabling is CAT5e.
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with fiber optic cabling .	1	3	3	IDF connected with 12-strand OM3 50um multi-mode FO cable (aqua). Orange multi-mode fiber cable was also present to small data rack IDF on Level 3.

		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	Building utilizes Simplex 4010 panel with NAC extenders throughout the existing structure. (-1 for non-conformance with current DMPS standard Simplex 4100 series)
7.23	Building is equipped with an access control system.	5	2	10	Fewer than half of exterior doors contain access control. Card reader to allow access to elevator on Level 3 not consistently operational (did not read/respond to DMPS badge, but did recognize presence of BBS badge when presented). 5/14=36%
7.24	Building is equipped with a CCTV system.	5	1	5	Minimal exterior cameras. Additions would enhance security.
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	
TOTAL				295	

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	5	5	
8.10	Testing is up to date, and all record and logbooks are present and filled out.	1	5	5	
TOTAL				65	

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 oversized 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.

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

Heater Repair	Room 110D has a heater with a broken knob and is not working. The ceiling fan in that area is also not functioning.
Handrail Refinish	Apply fresh coat of paint to handrails on E side of the building
Roof Cleaning	Remove leaves and debris from downspout conductor heads, particularly on roof N.
Sign Post Removal	Take out the old sign post in the parking lot
Boiler Emergency Stop Installation	Add an emergency stop at second exit from boiler room if not present (none was observed - it is possible that it was in a different location than inspected given the egress pathway through an office)
Thermostatic Mixing Valves Confirmation	Verify thermostatic mixing valves are installed at individual fixtures. Could not be observed at multi-station wash fountains.
IDF Cleaning	Due to the shared space of mechanical, telecom, and custodial equipment, a not insignificant amount of dust has accumulated on telecom switches and UPS. Clean equipment.

1 - 2 Year Priority

Project Costs

Interior Repairs	<p>Art Room 206 exterior wall needs to be repaired. The wall behind the kiln should be stripped, brick tuckpointed as required, and new durable finish material applied to prevent further moisture damage to this wall. Finish material should be heat and moisture resistant, pricing here includes cement board with tile. Approximately 300 SF of wall repairs and refinishing. Approximately 15 LF of sealant around the window adjacent to the affected area. Counselor office 202 exterior CMU wall should be patched and tuckpointed at the exterior windows sills. Sills should be stripped of all paint, cleaned, CMU tuckpointed, select blocks replaced (approximately 2 units), re-sealed, and painted. Approximately 25 SF of CMU tuckpointing, approximately 110 SF of re-painting. This project should occur in conjunction with Exterior Masonry Repairs Project, with Exterior Sealant Replacement Project, and with Lintel Refinishing Project listed below.</p>	\$20,000
Music Room Improvements	<p>Music room 204 exterior wall should be, insulated, and gypsum board patched and painted to match the adjacent walls. Approximately 150 SF. Acoustic absorption should be added. The room is approximately 950 SF. Recommended to install approximately 950 SF of carpet and 300 SF of acoustic ceiling baffles.</p>	\$25,000
Vision Panel Installation	<p>Several doors on level 2 and level 3 appear to be original wood doors and do not have any visual access into the corridor. Replace doors 309, 313, and 314 with doors including clear glazing. Additional 3 doors, 111, 161, and 168 should be replaced to include a vision lite to the corridors. These are all standard 3' doors. 6 total doors affected.</p>	\$20,000
Interior Door Repairs	<p>Several wood doors on level 2 have holes and unfinished areas from previous hardware modifications such as a deadbolt removal. Current hardware does not match others in the area. Replace door and frame with new standard wood door, matching hardware, and vision panel. Applies to doors 209, 210, 213, and 214.</p>	\$35,000
Roof Access Improvements	<p>Provide OSHA guard at roof hatch on Roof G. Provide ladder dock for access at Roofs A, C, and K. Provide new ladder between Roofs E and B (6 VLF), F and E (8 VLF), L and N (15 VLF) and L and O (15 VLF). Provide guardrail (15 LF) at west edge of Roof L to improve service access to equipment on that roof level. See appendix for roof identification plans.</p>	\$11,000

Exterior Masonry Repairs	The NW (1948) building addition--including walls above Roof K--requires repointing. In particular the wall directly north of the chimney (east wall Classroom 204) shows signs of significant water infiltration. (Approx. 40% of joints; 3,500 SF brick pointing.) This project should occur in conjunction with Interior Repairs Project above, with Exterior Sealant Replacement Project below and with Lintel Refinishing Project below.	\$65,000
Exterior Sealant Replacement	Remove and replace sealant at perimeter of all windows and doors. (Approx. 3,200 LF.) This project should occur in conjunction with Exterior Masonry Repairs project listed above.	\$40,000
Replace Exterior Fire Escape	Steel fire escape stair does not meet current building code requirements and is a safety concern during descent due to style of construction. Remove and replace fire escape to meet current building code requirements. This stair is part of the required egress path from the third floor, and improvements should be prioritized. Fire escape descending 3 stories, approximately 45 feet and exits directly from a 3rd floor classroom. Connection to the building should be reconstructed. Exiting from the interior should be modified as well to avoid exiting through a classroom. This could be accomplished with an additional wall of approximately 170SF and additional interior door and frame.	\$50,000
Sidewalk and Stoop replacement	Replace portions of damaged sidewalks on the west and north areas of the site (approx 17 see, see civil exhibit). Add stoops outside doors on the east side of the building including doors near rooms 155, 165, and 188.	\$8,000
Lintel Refinishing	There are several rusted lintels that should be scraped, prepped and re-painted. These lintels include windows at rooms 204, 206, 208. Total lintel length = 100 LF. This project should occur in conjunction with the Interior Repairs Project, with Exterior Masonry Repairs Project, with Exterior Sealant Replacement Project, and with Lintel Refinishing Project listed above.	\$7,000
MDF Improvements	Add a 100A 208/120V panel to the MDF to provide separate power for critical communications equipment. In addition this will address current lack of future expansion. Add a card reader for improved access and monitoring. Add cooling to room to increase longevity of equipment.	\$15,000

Total 1-2 Year Project Costs: \$296,000.00

3 - 4 Year Priority

Project Costs

Door Refinish	Refinish high traffic metal doors in corridors and shared spaces. 5 double doors and frames; 4 single doors and frames.	\$15,000
Terrazzo Flooring Refinish	Terrazzo appears in good condition but over time has gotten slick in many corridor areas, especially at the tops of stairs. Terrazzo should be striped of all existing wax and sealant then refinished to maintain non-slip flooring. Approximately 8,000 SF.	\$75,000
Roof Replacement	Replace modified bitumen roofing system at Roofs A-I (20,000 GSF) with new TPO system; Raise structure of Roof I to match adjacent. (350 SF, metal deck on light gage metal framing.) See appendix for roof identification plan.	\$540,000
Exterior Guardrail Replacement	Replace loose guardrails on top of retaining walls near loading dock. 80 LF of guardrail. Cracks in retaining wall should also be sealed. There are approximately 9-10 cracks that should be sealed, around 3 feet in length.	\$40,000
Downspout Installations	Add downspout at overflow scupper on roofs E and F. See roof identification image found in the appendix for roof location designations.	\$6,000
Parking Pavement Replacement	Remove and replace 133 SY of parking pavement. For location, refer to civil site plan exhibit found in the appendix of this report.	\$20,000
Sidewalk Replacement	Restore 218 SY of sidewalk. For location, refer to civil site plan exhibit found in the appendix of this report.	\$40,000
Intake Infill	Take out and fill in NW intake or Replace.	\$20,000
Overflow Drain Installation	Add overflow drain to roof I. Add downspout at overflow scupper on roofs E and F. See roof identification image found in the appendix for roof location designations.	\$13,000

Panelboard Replacement	Similar to other existing panelboards in the original portions of Park Ave, replace the interior bussing of existing panels with new Square D bus and breakers to improve safety and maintainability without rework of existing circuits.	\$25,000
DP Replacement	Replace existing Kinney panelboard with new Square D I-Line distribution panel to remove antiquated gear and increase available distribution capacity.	\$95,000

Total 3-4 Year Project Costs: \$889,000.00

5-10 Year Priority

Project Costs

Skylight Replacement	Square acrylic-domed skylight at Roof M has translucent coating that is starting to craze. Replace skylight, approximately 5'x5'.	\$11,000
Drive Pavement Replacement	Remove and replace 444 SY asphalt drive in parking lot. For location, refer to civil site plan exhibit found in the appendix of this report.	\$80,000
Sidewalk Pavement Replacement	Replace 113 SY of damaged sidewalk pavement. For location, refer to civil site plan exhibit found in the appendix of this report.	\$25,000
Interior Power Installation	Electrical outlets are recommended to be placed at least 50' throughout the building for ease of maintenance. Addition of convenience outlets in the corridors of the oldest parts of the building is recommended for ease of continued maintenance.	\$12,000

Total 5-10 Year Project Costs: \$128,000.00

Projects Requiring Study

Design Services Fee

Media Center Improvements	The media center, while in the newest addition, is very small for apparent typical class sizes. The technology, while present, is difficult to use with the current space arrangements. Other areas of the building may be underutilized or may provide an alternate location for some media center functions. A space study should be completed to determine whether there is space that can be reallocated or if the media center can be renovated where it exists.	\$5,000
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Intake Replacement, Study	Clean out intake to determine if can be removed or needs replaced. \$500 to clean out intake with vac truck. Design Services fee includes study for replacement of intake. This study should be prioritized within the next 1-2 years.	\$500
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
Mechanical Equipment Capacity, Study	Review cooling capacity and bore field capacity concerns identified during review with DMPS personnel by analyzing loads and inspecting bore field installation. This study should be prioritized within the next 1-2 years.	\$10,000
	Anticipated Capital Investment:	\$1,700,000
Electrical Room Relocation, Study	Current MDF is located within a kindergarten classroom and not centrally located. Propose study to select a more centrally located room to convert into dedicated MDF and relocate all communications equipment (IT, Intercom, Master Clock, upgrade FACP). Study should be completed ahead of any equipment replacement or modifications for efficiency and best design decisions for future changes. This study should be prioritized within the next 1-2 years.	\$10,000

Anticipated Capital Investment Costs:	\$1,700,000
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Total Study Design Service Fees:	\$28,000
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APPENDIX

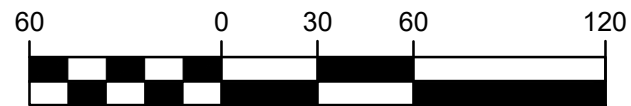


- 5+ YEAR REPLACEMENT
- 3-4 YEAR REPLACEMENT
- 1-2 YEAR REPLACEMENT



NORTH

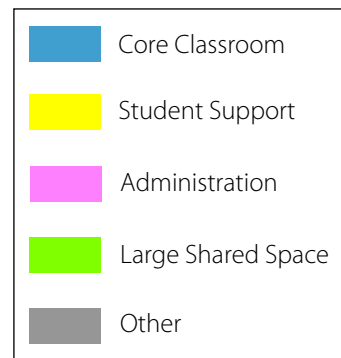
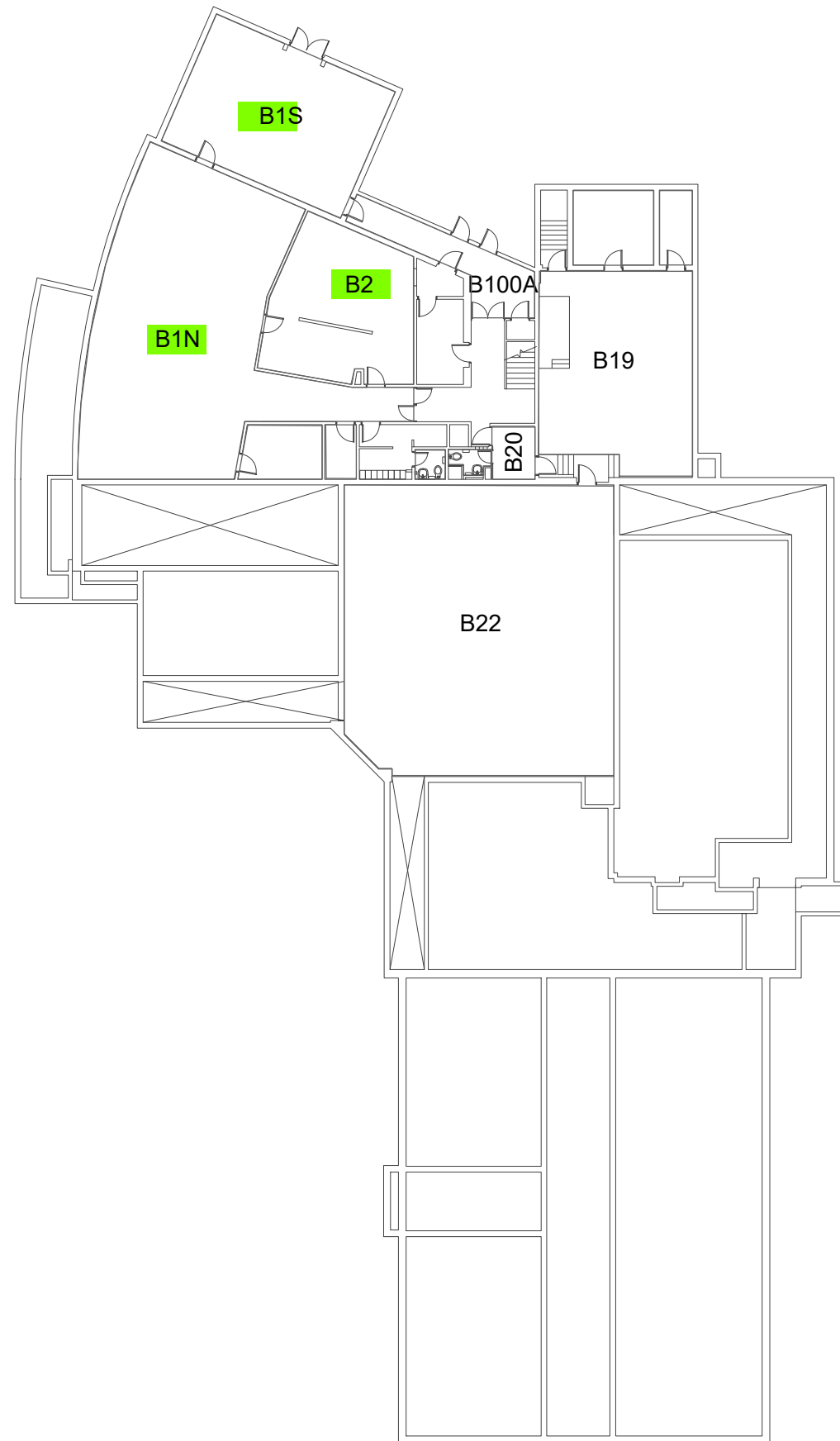
GRAPHIC SCALE



PARK AVENUE ELEMENTARY

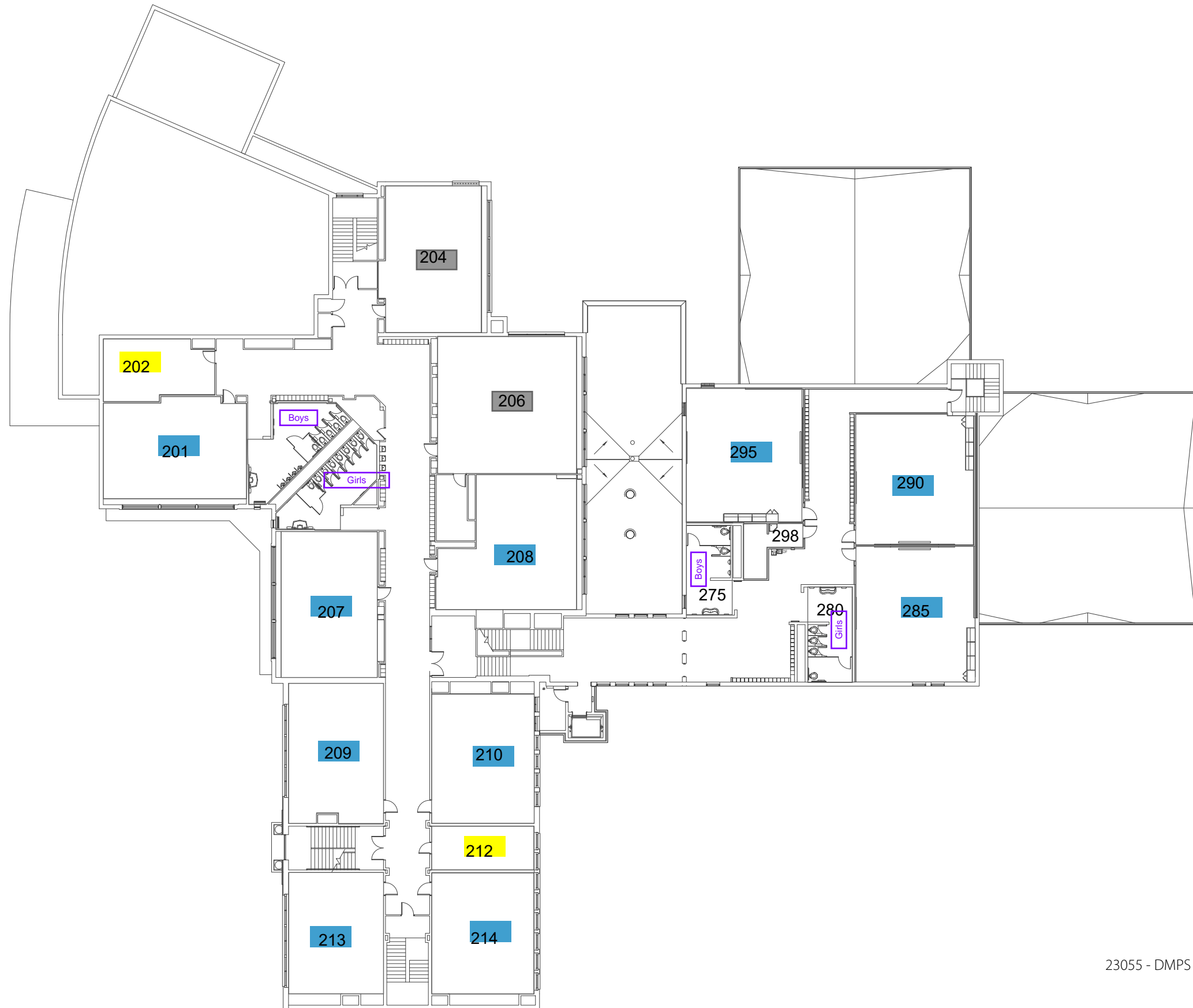
EXHIBIT
 PROJECT # 230286-26
 DATE 10/25/2023







	Core Classroom
	Student Support
	Administration
	Large Shared Space
	Other



■	Core Classroom
■	Student Support
■	Administration
■	Large Shared Space
■	Other

Park Avenue Elementary

Third Floor

3141 SW 9th Street

REVISED: 8/3/2022



Key:		
Security	Technology	Safety/Utility
Security Reader	Wireless Access Point	Fire Sprinkler Main
Card Reader	DMARC	Fire Sprinkler Riser
Automated Door	Radio Repeater	Fire Alarm Panel
Sensor		FAAP Annunciator Panel
Camera-Fixed		Knox Box
Camera-PTZ		FDC
Camera-360°		Keybox
Camera-180°		Gas Meter
Camera-Multi Sensor		Electric Meter
Doorstation		Water Meter
		Boiler Kill Switch

	Core Classroom
	Student Support
	Administration
	Large Shared Space
	Other

