

DMPS FACILITY ASSESSMENT | WALNUT STREET ELEMENTARY

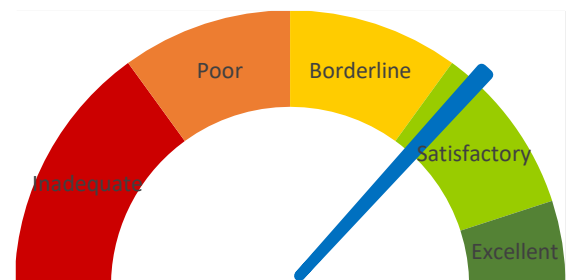
12.20.2023



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REPORT ORGANIZATION

COVER SHEET

REPORT ORGANIZATION

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EXECUTIVE BUILDING SUMMARY

Walnut Street Elementary's on-site facility conditions assessment was conducted on December 20, 2023 and included visual conditions assessment from professionals covering interior architecture, exterior building envelope, the property's grounds (site), structural condition, mechanical (HVAC/Plumbing) systems, electrical systems (power, exterior lighting, interior lighting, fire alarm, and general IT), and the elevator conditions.

A few of the short term maintenance items identified for Walnut Street Elementary are: exit sign removal, door latch repairs, restroom partition repair, light switch repair, and UPS maintenance. Walnut Street Elementary is uniquely housed within a 6 story tall mid-rise former office building in Downtown Des Moines. Way-finding, spatial organization, and a unified presence of school spirit is lacking in this school. Levels 1-5 are all used for students, level 6 is utilized fully for storage.

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

- Space Utilization Studies
- Visibility Installation
- Acoustic Improvements
- Hot Water System Improvements
- HVAC System Study
- Exterior Door Replacements
- Site Improvements
- Hydraulic Power Unit Replacement

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

Discipline Comparison				Building Health				
Assessment Category Summary		Max Pnts	Earned Pnts	Bldg Weight Factor	Max Pnts	Earned Pnts	%	Rating
1.0	Educational Adequacy	165	113	2.00	330	226	68%	Borderline
2.0	Environment for Education	375	279	0.60	225	167	74%	Satisfactory
3.0	Exterior Envelope	85	62	3.00	255	186	73%	Satisfactory
4.0	School Site	95	57	1.50	143	86	60%	Borderline
5.0	Structural Conditions	130	121	1.30	169	157	93%	Excellent
6.0	Mechanical Systems	645	441	0.80	516	353	68%	Borderline
7.0	Electrical Systems	455	354	0.75	341	266	78%	Satisfactory
8.0	Elevator Conditions	65	55	1.00	65	55	85%	Satisfactory
Total					1,979	1,441	73%	Satisfactory

Walnut St 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 Walnut Street Elementary scored a building health rating of 73% 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. Walnut Street Elementary is very low within this positive range. Improvements to the educational adequacy, school site, and mechanical systems as described in this report would make the largest impact in increasing the score.

Building Data Record

Building Name: Walnut Street Elementary

Date: 12.20.2023

Address: 901 Walnut St
Des Moines, IA 50309

High School Feeder System: N/A

Building SF: 116,424 SF

Site Acreage: 0.85 Acres

Date(s) of Construction: 1979, 2008 Renovation

Date(s) of Roof Replacement: 2013

Current/Scheduled Projects: Lobby Doors - 2024

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

Floor/Roof Structure:

Wood Joists Steel Joists/Beams Slab on Grade Struct. Slab Other
Concrete Beam and Joist

1.0 Educational Adequacy

General

1.1 Floor materials are appropriate for space type.

Weight Factor	Rating	Points
2	4	8

Comments

L1 lobby is unclear what the current use is. Areas of the floor appear to be in process of patching. Understanding the use of the space is necessary for determining proper flooring material.

Elective/Secondary Classroom

1.2 Gymnasium is adequate for providing physical education programming.

2	2	4
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Ceilings are damaged metal ceiling tiles due to lack of floor to ceiling space. Lower 2' of the walls are gypsum board and are showing damage and significant markings. There is no projector or screen. Space is smaller than most average gym spaces in the district, but still does provide space for movement and activity.

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

2	3	6
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Cafeteria is directly off of the main office waiting space and is the main "corridor" to access the pre-K classrooms. Traffic flow appears to be functional but not ideal. Colors and finishes could be more engaging and unifying at the center of the school.

1.4 Music room is adequate for providing introductory music instruction.

2	5	10
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Lots of additional storage space and space for small group lessons.

1.5 Art room has sufficient accommodations for program.

2	4	8
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Casework is in poor condition due to high use. Storage and space appears adequate for current uses.

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

1	3	3
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Furniture appears dated and worn, many of the soft seating areas are provided by staff and are in borderline condition. There are green light covers throughout the space to provide additional dimming. Arrangement of the space offers various seating and collaboration opportunities. Furniture that better support this is recommended.

Core Classroom

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

3	3	9
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Several classrooms have large residential type furniture that takes up quite a bit of space making circulation difficult. Varied student furniture also makes classroom arrangements and circulation difficult. Smaller class sizes do allow to alternate furniture to be utilized, however, more efficiency is recommended.

1.8 Student storage space is adequate.

2	4	8
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Kindergarten and Pre-K classroom desks/tables do not have built-in student storage. There are cubbies provided within the classrooms for outerwear and "take-home" work. All other classrooms and corridor lockers are adequate.

1.9 Teacher storage space is adequate.

3	5	15
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1.10 Classroom acoustical treatment of ceiling, walls, and floors provide effective sound control.

3	2	6
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L2 kindergarten and Pre-K room walls stop at the ceiling and provide little to no acoustic privacy. Classrooms on the south of L4 have walls of similar construction providing little to no acoustic separation. Ceilings throughout the building appear to provide acoustics but are in varying conditions.

	Weight Factor	Rating	Points	Comments
1.11 Classroom power and data receptacles are located to support current classroom instruction.	4	4	16	Office space on L3 had several power strips that are minor tripping hazards. Classroom 405 had a power strip at the front of the classroom that could be a minor tripping hazard due to lack of power availability.
1.12 Educational technology supports instruction.	4	4	16	Projector is not present in the Gym. Other areas appears adequate.
Administration				
1.13 Conference/Private meeting rooms are adequate for large and small meetings.	1	2	2	There appears to be several areas to meet as well as community spaces. There is little signage that defines spaces and access appears to be difficult for visitors (parents, subs, community members). During the assessment it was unclear what was meeting spaces vs storage or office space only.
1.14 Main office has a check-in and waiting area.	2	1	2	There is a check in and waiting area however it is undersized and in the middle of a higher traffic area off the elevator lobby. L1 appears to have a reception space but no entrance signage or receptionist. L2 has an entrance off the sky-walk that is labeled and secured. That entrance is more direct into the main office, but in a back corridor versus the L2 Lobby.
TOTAL			113	

2.0 Environment for Education

Design

		Weight Factor	Rating	Points	Comments
2.1	Traffic flow is aided by appropriate foyers and corridors.	1	3	3	Level 3 appears to be arranged in a more typical office layout, space may not have been fully renovated for education. Corridors are 4' which is adequate for emergency exiting purposes, but feels inadequate for student use. Other levels are adequate.
2.2	Communication among students is enhanced by common areas .	1	4	4	Level 5 has a locker area that appears to be used for other gatherings as well. There were folding chairs and speakers present at the time of the assessment. Other levels have smaller common corridor spaces that seem appropriate for the age of students on that level.
2.3	Areas for students to interact are suitable to the age group .	1	3	3	Varied seating arrangements and types throughout, however all of the furniture is mis-matched.
2.4	Large group areas are designed for effective management of students .	2	4	8	Appears adequate. The preschool rooms are all located off of the cafeteria which seems a bit cumbersome. Most all classrooms open to an adjacent classroom. Preschool classrooms have essentially a learning room and play room.
2.5	Furniture Systems are in good or like new condition.	1	2	2	L3 student furniture is peeling, chipping, and bowing and bending in areas. Soft seating throughout the building appears to be teacher/staff provided and is typically in poor condition. Student desks and chairs are typically in good condition, however there is a mixture of new and old desks and seating which make classroom arrangements difficult.
2.6	Color schemes , building materials, and decor are engaging and unify the school character.	2	3	6	Generally true, with unified wall and flooring finishes throughout. Level 3 and level 1 are the exceptions. Casework on level 5 is in good conditions but colors vary in all classrooms.
2.7	Windows and skylights provide access to adequately controlled daylight for regularly occupied spaces.	3	4	12	Blinds are typically cloth vertical blinds that are held back by binder clips or similar. Some classrooms have horizontal blinds instead. Both seem to be operational.
2.8	Windows provide access to quality views (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	5	15	Many small windows on the exterior walls providing visibility to the city.
2.9	Lighting has proper controls to provide the required light levels for various teaching and learning needs.	2	3	6	Lighting control varies widely throughout the building. L1 appears to have a mix of occ. sensors and lighting zones for community spaces. L2 appears to have few to no occ. sensors. Classrooms appear to be zoned. L3 has various light switch placements with no occ sensors making it difficult to navigate. L4 is similar to L2. L5 has full dimming and occ control
2.10	Staff dedicated spaces include conference space, work space, and dedicated restrooms.	1	3	3	Staff spaces are in various conditions throughout the building. Level 1 has community functions and shared break room, L2 is the main office which appears undersized for the need. L3 has several staff dedicated offices and meeting spaces. L4 has a break room as well as storage. L4 and L5 have staff dedicated restrooms.

	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	Main office is on level 2. There is little to no signage or indication of where to enter the building and the large glass fronted L1 lobby is empty of signage or staff. L2 office is very small with seating in the elevator lobby, which acts as a main corridor into the cafeteria and other classrooms.
2.12 Break room is adequately sized and furnished for proper use.	1	4	4	Break rooms are located on level 1 and level 4. There appears to be proper furnishings in both locations, but furniture is showing wear and there appears to be limited seating space.
2.13 Mother's room is a separate designated space properly furnished.	1	0	0	None observed.
Maintainability				
2.14 Floor surfaces are durable and in good condition.	1	3	3	Areas of L1 "lobby" appear to be in the middle of a replacement or flooring repair. Carpet in this space is adequate but aged. L2 and L4 flooring in excellent condition. L5 carpet is good condition but does not match the other floors. L3 carpet is in poor condition, stained and missing in several areas.
2.15 Ceilings throughout the building – including services areas – are easily cleaned and resistant to stain.	1	2	2	L3 ceilings are generally in poor condition with highly textured ACT in most of the area, except the office spaces. L2 has a mix of smooth ACT in good condition and metal ceiling in poor condition. The original core restrooms generally have textured 12x12 ceiling tile that appears in okay condition. L4 and L5 ceilings are in good condition.
2.16 Walls throughout the building – including services areas – are easily cleaned and resistant to stain.	1	3	3	Interior brick is in good condition, tile in "newer restrooms" on L4 and L5 is adequate but needs additional maintenance and cleaning. Original core restrooms are all 2" mosaic tile, in good condition but difficult to keep clean. Gypsum board classroom walls are all showing significant patches, scuffs, and markings on all level. Recommend a painting refresh.
2.17 Built-in casework is designed and constructed for ease of maintenance.	1	3	3	L2 and L3 have a variety of P-lam and wood veneer casework all showing damage and wear. L3 casework condition is poorer of the two levels. L4 and L5 have phenolic and HDPE casework in good condition. L1 casework is primarily P-Lam and located within the breakroom and community spaces. The apparent lower use keeps this in better condition than upper levels.
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	3	9	Offices and classrooms are all master keyed. Service rooms including mechanical, telecom, electrical, and custodial rooms are keyed separately. A unified system for ease of access for maintenance is recommended. Keys often get stuck in door 418 (art room storage) lock.
2.20 Restroom partitions are securely mounted and of durable finish.	2	4	8	Core restrooms have metal partitions and are generally in good condition. L5 Men's RR 547 there is one partition that is falling off the far wall. L4 and L5 student restrooms are HDPE partitions. L4 partitions are showing minor graffiti that should be properly cleaned.

	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	2	6	L3 has many rooms with no locking locksets and several areas that are not intruder style locksets. These appear to be left over from previous building use. Use of this area is by staff and students after school for Metro Kids. L4 and L5 have consistent intruder locksets. L2 hardware differs, but still has locking functions from corridor and classroom sides.
2.24 Door panels into classrooms and other occupied spaces contain vision lite.	3	2	6	L3 does not have any vision panels. Overall visual access throughout level 3 is very limited. L4 - 411 nurse's room has no vision lite. All other L2 - L5 classrooms and staff occupied rooms have proper visual access to corridors.
2.25 Vision lite in doors is clear and uncovered.	2	3	6	Most all have either cloth or paper coverings
2.26 Glass is properly located and protected to prevent accidental injury.	2	5	10	
2.27 Flooring is maintained in a non-slip condition	2	5	10	
2.28 Traffic areas terminate at exit or stairway leading to egress	5	5	25	
2.29 Multi-story buildings have at least two stairways from all upper levels for student egress.	5	5	25	
2.30 Stairs (interior and exterior) are well maintained and in good condition meeting current safety requirements.	5	3	15	Interior railings are approx 30" tall with intermediate rails at approx 8" o.c. Railings are sturdy with no special character. Stairwell is minimally lit, clearly used as emergency function only. Luminescent tape on the treads is peeling off between L5 and L6, tape on other levels is not present.

		Weight Factor	Rating	Points	Comments
2.31	At least two independent exits from any point in the building	5	5	25	Level 1's primary exit is through the "main lobby".
2.32	Emergency lighting is provided throughout the building.	5	3	15	L3 has many exit lights that are not truly exits. It is recommended to remove exit signs that don't directly lead to an egress corridor to avoid confusion or possible danger in exiting during an emergency.
TOTAL				279	

3.0 Exterior Envelope

Design

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

Weight Factor	Rating	Points
2	3	6

Comments

Current main entrance is on the west side of building, on opposite side of the natural entrances to the first floor lobby. Entrance is only minimally marked and difficult to find for building visitors.

Maintainability

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

3	4	12
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Roofs are vented TPO in good condition. There is some evidence of water ponding. Walkway pads in place at both roof levels for equipment service.

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

3	4	12
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Roof access is from penthouse through door. Ladder with rail extensions is in place to Roof A, however, large conduit passing behind ladder about 9' above Roof B interfere with adjacent rung clearance. Guards on penthouse roof should be added at all areas where equipment is within 10' of roof edge.

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

3	4	12
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Window sealant generally in good condition.

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

1	2	2
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All upper floor windows appear to be storefront framing with tinted insulated glazing units. However, floor-to ceiling curtainwall assemblies at 1st Floor Lobby are non-insulated glass.

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

2	N/A	0
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Windows appear to all be fixed units.

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

2	3	6
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All exterior doors are hollow metal or aluminum units. (1) door/frame assembly needs to be replaced due to significant rust deterioration. (8) doors/frames, including (3) on roof, will require minor repair of rust and/or repainting.

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

1	4	4
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Primary exterior building material is brick, which is generally in good condition. Exterior soffits, primarily at SE corner of building, are wood slat assemblies which should be refinished.

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

1	5	5
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No comments.

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

1	3	3
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(2) Doors have full access control.
(4) Doors have keyed lockset.
(2) Doors have no exterior hardware.
Zero doors have identification labels visible on the exterior of the door.

TOTAL

62

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	5	5	Site was flat, no locations of drainage towards the building.
4.2 Parking areas are in good condition.	5	2	10	Asphalt cracking badly in sections, most concrete is in okay condition.
4.3 Drive areas are in good condition.	3	3	9	The west entrance into the parking lot was rough, the alleyway appears to be owned by the city and most of its west side was in poor condition.
4.4 Sufficient on-site, solid surface parking is provided for faculty, staff, and community.	1	2	2	There is very limited space onsite for parking.
4.5 Sidewalks around the facility are in good condition .	1	4	4	The perimeter walks appear to be owned by the city and have sections that are significantly deteriorated, the interior walks between doors/playground/parking were mostly in good condition.
4.6 Sidewalks are located in appropriate areas with adequate building access.	1	5	5	Easy to walk around and all doors have sidewalk access.
4.7 Hard surface playground surfaces are in good condition.	3	3	9	Some portions of asphalt sagging badly, the west side of the playground pavement was in better condition.
4.8 Fencing around the site is in good condition.	1	5	5	All metal and in good condition.
4.9 Trash enclosure is in good condition.	1	N/A	0	Out in parking area by loading dock.
4.10 Utilities are in newly constructed conditions and placed in suitable locations.	1	5	5	The pavement around the intakes in the alleyway was cracking, the utilities on DMPS's property were in good condition.

	Weight Factor	Rating	Points	Comments
4.11 Site has sufficient room for both building and parking expansion.	1	1	1	Nowhere to expand.
4.12 Site has onsite bus and parent pickup up with adequate length, good separation and general good site circulation.	1	2	2	Buses use the street to the south and parents use the east and south streets. DMPS states the area is very busy and problematic.
TOTAL			57	

5.0 Structural Conditions

	Weight Factor	Rating	Points	Comments
Foundations				
5.1 Foundations appear to be in good condition with no visible cracks.	1	5	5	
5.2 There does not appear to be any foundation settlement.	2	5	10	
5.3 Basement walls do not appear to have any cracks.	1	N/A	0	
5.4 Stoops appear to be in good condition.	1	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	5	10	
5.8 Lintels appear in good condition (no visible deflection or rust).	1	4	4	There were repairs done to some of the lintels at some point in the past. It looks like a plate was added underneath the bottom course of brick. It is unclear why this was done on some lintels, but not all.
5.9 CMU is in good condition.	1	N/A	0	
5.10 Precast is in good condition.	1	N/A	0	

	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	4	4	Retaining wall at the ramp on the East side of the building has had a chunk of concrete break off.
5.16 Canopies appear to be in good condition.	1	N/A	0	
5.17 Loading dock concrete appears to be in good condition.	2	2	4	The dock leveler is significantly corroded. This has caused concrete to start breaking up around it.
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	The interior stairs are in good condition. There are some small shrinkage cracks in some of the concrete stair treads and landings, but nothing of concern. The fire escape on the West side of the building has some corrosion at the base of it's columns and along the ledger that attaches it to the building wall.
5.20 Stair railings appear to be in good condition.	1	5	5	

	Weight Factor	Rating	Points	Comments
5.21 Tunnels appear to be in good condition without cracks.	1	N/A	0	The historical drawings show a tunnel under the entrance at the south end of the building. We were not able to find access to it. It's possible it's been sealed off.
5.22 There is a designated hardened area in the building.	1	0	0	None observed.
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	4	12	Appears to be true for most occupied spaces.
6.2	Thermostat location. Thermostats are properly located in the space.	3	4	12	Generally appears true for observed spaces.
6.3	Appropriate amount of ventilation are provided to each space.	5	2	10	Unclear based on available information - likely issues in at least some areas given age and condition of equipment.
6.4	Ventilation is provided during occupied hours.	5	4	20	Appears to generally be true.
6.5	Outdoor air intake locations are appropriate.	4	3	12	Appear to be acceptable for upper level air handling units serving most of building - intake for ground-floor AHU appears to be at alley, approximately 10' above adjacent grade.
6.6	Appropriate levels of exhaust are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	3	15	Appears likely for some areas, but missing from a few observed spaces - airflow values are questionable given condition and age of equipment.
6.7	Building pressurization. The design takes into account the balance between ventilation and exhaust air	2	2	4	Unclear
6.8	Major HVAC Equipment appears to be within it's acceptable service life.	5	1	5	Chillers and associated pumps are in good condition with significant remaining life - all other major equipment observed is well beyond its expected useful life.
6.9	Cooling loads are within equipment operational capacity.	5	3	15	Unclear - chiller capacity appears adequate, but there may be areas that do not have adequate capacity from air-side systems - additional analysis/review is required to verify.
6.10	Heating loads are within equipment operations capacity.	5	2	10	Some areas appear short on capacity during visit on cold day. First floor spaces were low 60s or colder. Maintenance staff reports significant issues with maintaining heat levels. Building was originally fed by steam from Hubbell Bldg. Now supported by electric boilers in building.

	Weight Factor	Rating	Points	Comments
6.11 Dehumidification is provided and addressed humidity loads in incoming outside air.	3	4	12	Should generally be true, though age/condition of air handling equipment does create some potential concerns for reliable humidity control.
Plumbing Design				
6.12 Water Supply Pressure is adequate to allow for operation of plumbing fixtures.	5	4	20	Appears to be true - no issues observed.
6.13 Appropriate backflow preventer is provided at connection to city water supply.	5	5	25	Yes - backflow preventer is installed - it is somewhat difficult to access given location of fire pump control panel.
6.14 Domestic hot-water systems are within equipment operational capacity.	5	5	25	Appears to be true.
6.15 Domestic hot-water reirculating 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	Appears to be true.
6.17 Appropriately sized grease interceptors are provided for facilities with food service.	3	5	15	Appears to be true - 2500 Gallon Capacity.
6.18 Roof drainage systems are sized appropriately and overflow drainage systems are installed.	5	5	25	Overflow scuppers are provided for roof drains.
6.19 Restroom fixtures are in good condition and comply with current DMPS standards.	3	3	9	Fixtures appear to be in acceptable condition, but are a mixture of manual and automatic operation.
Maintainability				
6.20 Equipment is provided with adequate service clearance to allow for regular maintenance	3	4	12	Generally appears to be true. Electric boilers are very tight though. It appears these were installed in a space that previously occupied by a steam-to-water HX as the building used to be fed by steam from Hubbell Building across the street.

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with coil pull space .	2	4	8	Generally appears true, though actual removal may be difficult in a few locations.
6.22	Filter sizes are standard and filter types are standard.	2	5	10	Appears to be true based on observed equipment.
6.23	Equipment mounting heights are reasonable.	3	5	15	Generally appears to be true - most major equipment is floor-mounted or easily accessible.
6.24	Floor surfaces throughout the mechanical room are non-slip and are dry.	2	5	10	Yes
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	3	6	Generally appears true, though age of valves creates concern regarding actual shutoff capabilities.
6.26	Appropriate means are provided for airflow and water balancing .	3	3	9	Not clearly observed, though it is likely that means are installed for major equipment - operational condition of some devices is in question based on age of components.
6.27	Hose Bibbs located in proximity to outdoor condensers and condensing units . Is cottonwood an issue at this location?	2	3	6	Not observed, though roof area was not accessible at time of site visit - would be useful for air-cooled chillers if not installed.
6.28	Fall protection is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	2	4	Several pieces of equipment on high roof (penthouse roof) are much closer than 15 feet to roof edge - fall protection should be added.
6.29	Building devices are on DDC controls and fully visible through Building Automation System. No pneumatic controls remain.	4	3	12	Appears most components have been added to system, but many devices are older, including pneumatic actuators and other.
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	Appears to be true - building includes fire pump on main level.
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 not observed at water heaters or faucets.
6.33 Emergency eye-washes and tempering valves are located where required.	5	0	0	Not observed. Recommend evaluation with an occupational safety and health professional to determine necessity of eye wash(es) for facility spaces.
6.34 Emergency boiler stop switches are located at exits from boiler rooms.	5	5	25	Yes
6.35 Refrigeration evacuation systems are provided in rooms with chillers.	5	N/A	0	No obvious evacuation system was observed, however it appears unlikely that it is required for remote-mounted evaporators of air-cooled chillers given expected charge levels.
6.36 Carbon Monoxide monitoring and alarming is provided for areas with gas-fired equipment.	5	N/A	0	No gas-fired equipment observed.
TOTAL			453	

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	3	15	Transformer is located in a MidAmerican vault inside the building. Access to remove and replace is available, but a replacement transformer may be more difficult to obtain than a regular pad mount.
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	Not observed, but vault OK'd by utility.
7.3	The MDP environment is safe, has adequate clearances and exiting.	3	5	15	
7.4	The MDP appears serviceable.	4	2	8	Kinney Switchgear, 1600A, 480/277VAC est. 1977 (original)
7.5	The MDP is maintainable .	3	3	9	Switchgear uses Westinghouse breakers. Replacements may have to be Eaton/Cutler Hammer breakers and may require retrofit kits to fit the existing buswork.
7.6	The MDP will support future expansion .	4	4	16	Adequate spaces.
7.7	The Distribution Panel environment is safe , has adequate clearances and exiting.	4	4	16	Light-weight, movable equipment stored in front of distribution panels.
7.8	The Distribution Panel appears serviceable .	4	3	12	Panels appear >25years old.
7.9	The Distribution Panel is maintainable .	4	3	12	OEM or aftermarket breakers.
7.10	The Distribution Panel will support future expansion .	4	3	12	115% capacity.

		Weight Factor	Rating	Points	Comments
7.11	Electrical panels and disconnect switches observed during assessment are safe, serviceable, and maintainable.	2	4	8	Light-weight, movable equipment stored in some electrical rooms.
7.12	Building has adequate and appropriately located, safe exterior power to allow for regular maintenance activities.	1	4	4	
7.13	Building has adequate exterior lighting to promote safety and security of the property.	5	5	25	
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	Access good. Storage and "projects" laying about. FM-200 protection
7.15	MDF Equipment Racks have adequate space for future growth .	4	5	20	Main fiber distribution point. One of the district Hubs.
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	1-30kVA Leibert. Feeds panels for IDFs. Backed up by generator. Filters dirty - could use maintenance
7.17	MDF Power is supplied by 20A circuits and receptacles .	1	5	5	1P-20A and 30A twist lock receptacles for data racks and fiber switches.
7.18	MDF Power is supplied from a branch panel located in the room with adequate spare circuit capacity .	1	5	5	With surge suppression
7.19	MDF employs up-to-date network cabling .	2	4	8	Cat 5e, Cat 6A
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with fiber optic cabling .	1	5	5	

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate grounding busbar capacity.	2	4	8	Ground conductors not connected to all racks.
7.22	Building is equipped with an addressable fire alarm system.	5	3	15	Notifier digital voice command addressable fire alarm system. System has acknowledged trouble alarm - open circuit on 4th floor.
7.23	Building is equipped with an access control system.	5	2	10	4/10=40%
7.24	Building is equipped with a CCTV system.	5	5	25	
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				354	

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	3	6	The skywalk hydraulic elevator has an obsolete power unit. Passenger elevators 1 & 2 have hoist machines that are original and will need replaced.
8.8	Finishes are adequate and maintainable.	1	3	3	There are many scratches and dent on the main passenger bank.
8.9	Maintenance is adequate.	1	3	3	Increase maintenance frequency to quarterly.
8.10	Testing is up to date, and all record and logbooks are present and filled out.	1	3	3	Logbooks are no being kept up to date.
TOTAL				55	

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.

- 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

Light Diffuser (cover) Replacement	In rooms 241, 337, 419, and 433 there is at least one light fixture with a missing diffuser, or cover.
Exit Sign Removal	Remove extraneous emergency exit signs from offices. Only provide exit signs on the path of egress, not to be though other offices or classrooms.
Wall Cleaning	Tile in the multi-user restrooms on L4 and L5 is showing significant water staining and dirt collection. Recommended to clean the tile at the wash stations and hand dryers.
Partition Repair	Men's Restroom on L4 has a loose restroom partition. The accessible stall is starting to fall off the wall.
Latch Repair, Interior	Door 134 to the community room doesn't latch well. Hinges appear to be loose and in need of repair. 1st Floor Exit Stair access door (south of Room 126) does NOT fully latch. Adjust or replace the closer. The door has card reader from stairwell side of door, so security is compromised. Further, this negates the fire rating of the entire exit stair enclosure.
Penthouse light switch	Replace defective switch
Liebert UPS	Clean filters and ensure proper maintenance of unit, batteries, capacitors, according to manufacturer suggested schedules.

1 - 2 Year Priority

Project Costs

Visibility Installation	Add vision panel to office 202 for safety and visual access to elevator lobby.	\$8,000
Acoustic Improvements	Classroom walls on Level 2 do not extend above the ceilings, nor appear to have acoustic insulation provided. Damage to the ceiling tiles also is impacting acoustic control. It is recommended to remove one face of gypsum wall board, add acoustic insulation, and extend the walls an additional 2' above the ceiling with gypsum board on either side. Approximately 100 LF of walls with 10' ceilings. Ceilings should be fully replaced in classrooms. Approximately 4,200 SF. This affects all (6) exterior classrooms. L4 classrooms 404 and 405 have a similar wall condition. Wall should be corrected as noted above, approximately 20 LF of wall. Ceilings can remain.	\$85,000
Finishes Replacement	Replace ceilings in Gym with a "Tectum" panel or similar impact resistant ceiling panel. Approximately 2,550 SF. Lower 2'-6" of walls should be protected with additional phenolic panels of similar. Approximately 500 SF or 200 LF.	\$65,000
Exterior Door Replacement	Electrical Vault doors on north side (alley) have deteriorated metal frame, and the ventilation louver in one leaf is damaged and rusting. Primary roof access door pair also has deterioration of frame and of one door leaf. Replace both pairs of doors and frames.	\$35,000
Pavement Replacement	Remove and replace 22 SY of PCC. For location, refer to civil site plan exhibit found in the appendix of this report.	\$8,000
Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 43 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	\$11,000
Thermostatic Mixing Valve	Provide central digital mixing valves to control water temperature at all domestic hot water outlets accessed by students and staff	\$13,000

Penthouse Fall Protection	Provide fall protection systems for penthouse roof to allow for safe maintenance of roof-mounted mechanical equipment	\$120,000
Hydraulic Power Replacement	The Skywalk hydraulic elevator needs a replacement hydraulic power unit. This power unit is obsolete	\$45,000

Total 1-2 Year Project Costs \$390,000

3 - 4 Year Priority

Project Costs

Casework Replacement	Level 2 casework replacement approximately 60 LF of countertops, casework, and 14 sinks.	\$170,000
Furniture Replacement	Classroom furniture with storage for kindergarten and preschools. All other classroom furniture should be replaced or partially replaced for efficiency and unity within the classrooms. Approximately 16 classrooms including desks, chairs, and a small area of soft seating such as a 2 seat couch and ottoman seat.	DMPS
Interior Refinish	Classrooms and shared spaces should be repainted. Recommended to use engaging colors with way-finding intent. Project is recommended based on current conditions of the wall finishes. Approximately 35,000 SF.	\$160,000
Exterior Doors Repair/Repaint	All exterior doors (4) single units and (4) pairs require removal of minor rust on frame/door. This includes the doors at roof level. Repaint all.	\$11,000
Roof Access Improvements	Install new access ladder to penthouse roof (13 VLF) in location where it will not be in conflict with surface-mounted electrical conduit.	\$11,000
Exterior Soffit Refinish	Exterior soffits on south and east sides of building consist of wood slats, some of which have been replaced over time with unstained units. Clean the soffits and re-stain/re-seal the wood, approx. 6,000 SF exterior.	\$300,000
Pavement Replacement	Remove and replace 147 SY of asphalt and 21 SY of PCC. For location, refer to civil site plan exhibit found in the appendix of this report.	\$25,000

Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 30 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	\$11,000
Fire escape repair	The fire escape at the West side of the building has corrosion at the base of the both columns and along the ledger that attached to the building. The corrosion should be sand blasted clean and the steel repainted. Approximately 25 SF of sand blasting and painting.	\$6,000
Ramp retaining wall repair	The retaining wall at the ramp along the East side of the building has a large chunk of concrete that has broken off. It should be patched to protect it from further deterioration. Approx. 4 SF to be patched to a depth of 12 inches. Patch includes approx. (4) #4 X 2'-0" dowels.	\$8,000
Elevator Machine Upgrades	The geared machines are worn and past their serviceable life span in passenger elevators 1 and 2. Replacement is recommended.	\$270,000

Total 3-4 Year Project Costs \$972,000

5-10 Year Priority

Project Costs

Core Restroom Renovation	Core restrooms should be renovated in include new fixtures that allow for accessibility, new partitions, new lighting, and new finishes throughout. Approximately 8 restrooms with 3 fixtures each. Approximately 150 SF each.	\$1,600,000
Pavement Replacement	Remove and replace 579 SY of asphalt and 55 SY of PCC. For location, refer to civil site plan exhibit found in the appendix of this report.	\$120,000
Sidewalk Repair	Repair damaged sidewalks across the site. Approximately 27 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	\$11,000
Playground Asphalt Removal	Take out and restore deteriorated playground asphalt. Approximately 150 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	\$30,000
Dock leveler replacement	The entire loading dock will likely need to be replaced along with the leveler. Dock walls: approx. 40 ft. long, 4ft tall, 8in. Thick, reinforce w/ #5 bars @ 12" o.c. each way. Dock slab: 5" thick slab, 180 SF, reinforce w/ #4 @ 12" o.c. each way. Dock lever: 7ft x 7ft x 2ft deep hydraulic lift.	\$80,000

Lighting Control Upgrade	Update lighting controls and occupancies sensors on level 1, 2, and 4 to match level 5 classrooms. Lighting controls should include dimming and have an occupancy sensor in each space.	\$590,000
Electrical Switchgear and panel replacement	Switchgear and many building panels are approaching 50 years old. Consider replacement.	\$690,000

Total 5-10 Year Project Costs \$3,121,000

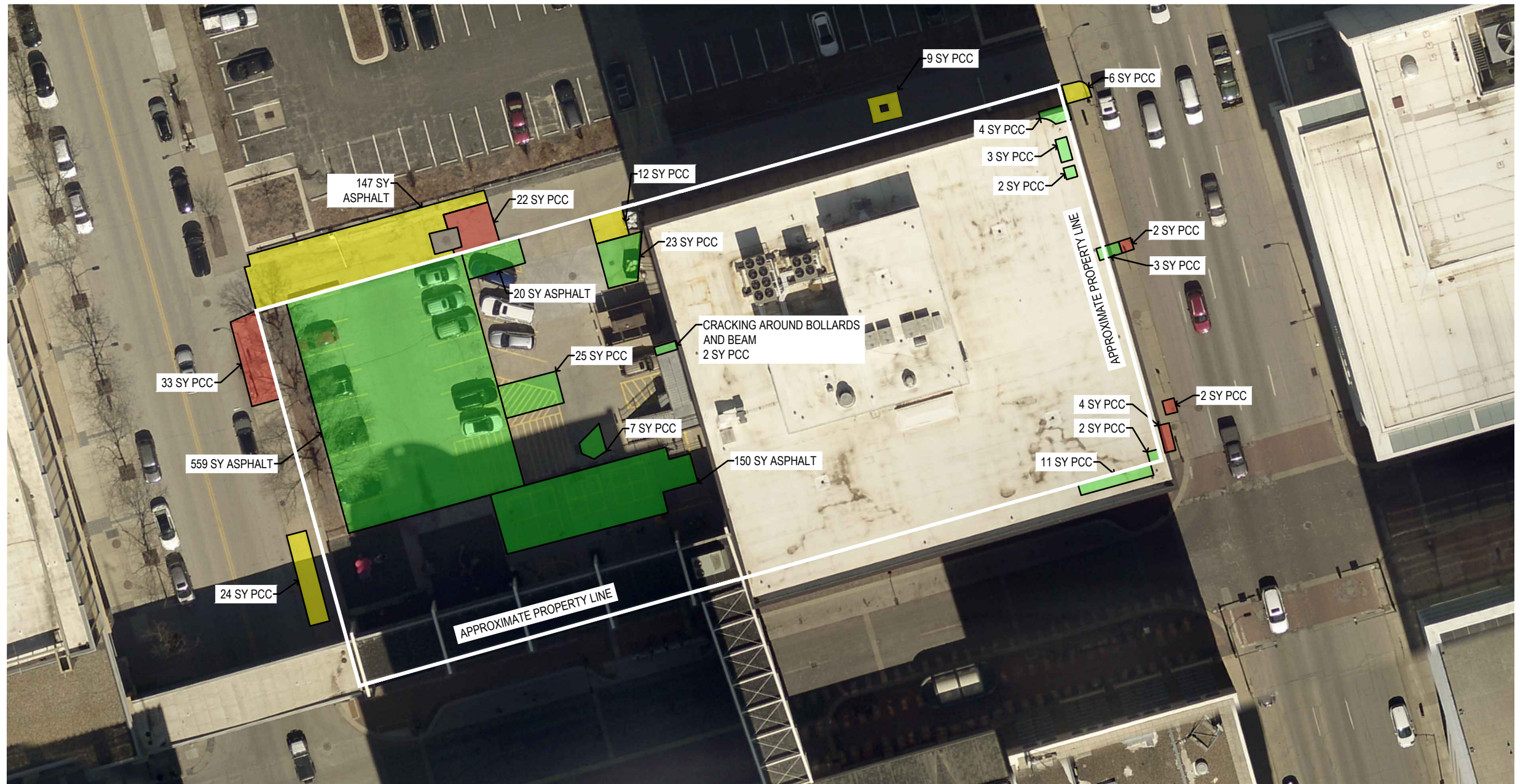
Projects Requiring Study

Design Services Fee

Level 3 Space Study	<p>Level 3 is currently used for administration offices and after school "Metro Kids" activities. Concerns with this level include wayfinding, corridor and exit widths, visibility from classrooms, offices, and play spaces into the main corridors and general condition of finishes. This level has the most apparent concerns to staff and student health and safety according to the observed conditions. It is recommended to conduct a spatial study to determine the best use of space and perhaps location within the building for each of these activities. Full renovation of level 3 is likely, the study would determine best use, location, and needs. This study should be prioritized in the next 1-2 years, and could be combined with the following study for efficiencies.</p> <p>The Anticipated Capital Investment is based on an 19,200 SF renovation.</p> <p style="text-align: right;">Anticipated Capitol Investment: \$4,100,000.00</p>	\$15,000
Space Utilization Study	<p>It is recommended to do a spatial use study of level 1 and level 2. Level 1 appears to include many underutilized areas, including a large lobby with floor to ceiling glazing. Level 2 space concerns include a lack in meeting and waiting areas, mothers room, engaging educational environment, and wayfinding, in particular to the main office location from level 1 entries.</p>	\$15,000
Lobby Glazing Upgrading	<p>Main building entry lobby wall consists of curtain wall with non-insulated glazing from floor to ceiling. Recommend conducting study to assess replacement of glazing with insulated glazing units, and compare associated energy cost savings payback.</p>	\$5,000

Lintel Repair Study	There are signs that many of the lintels over exterior windows have been repaired. Further study is needed to determine why the repairs were done, and if the rest of the lintels need the same repair.	\$5,000
Tunnel Condition Study	We could not find access to the tunnel under the South entrance. The school entrance may be sealed, so it's possible the only access is from the street tunnel system.	\$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
HVAC System Retrofit	Given current system configuration and implications of major system work, suggest a detailed study to determine feasibility and cost of retrofit options - this work is considered a high priority , but cost will be highly variable depending on approach.	\$25,000
	Anticipated Capital Investment:	\$11,000,000
Building Heating Capacity Evaluation	Staff has reported significant issues with maintaining space temperatures during heating season. Original building function was significantly different than it is today. Evaluate current heating water plant size and size of all piping.	\$15,000
	Anticipated Capital Investment:	\$2,200,000
Total Anticipated Capital Investments		\$17,300,000
Total Study Design Services Fees		\$87,500

APPENDIX

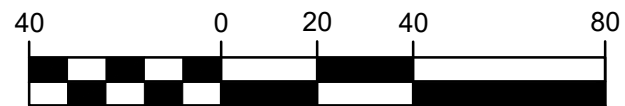


- 5+ YEAR REPLACEMENT
- 3-4 YEAR REPLACEMENT
- 1-2 YEAR REPLACEMENT



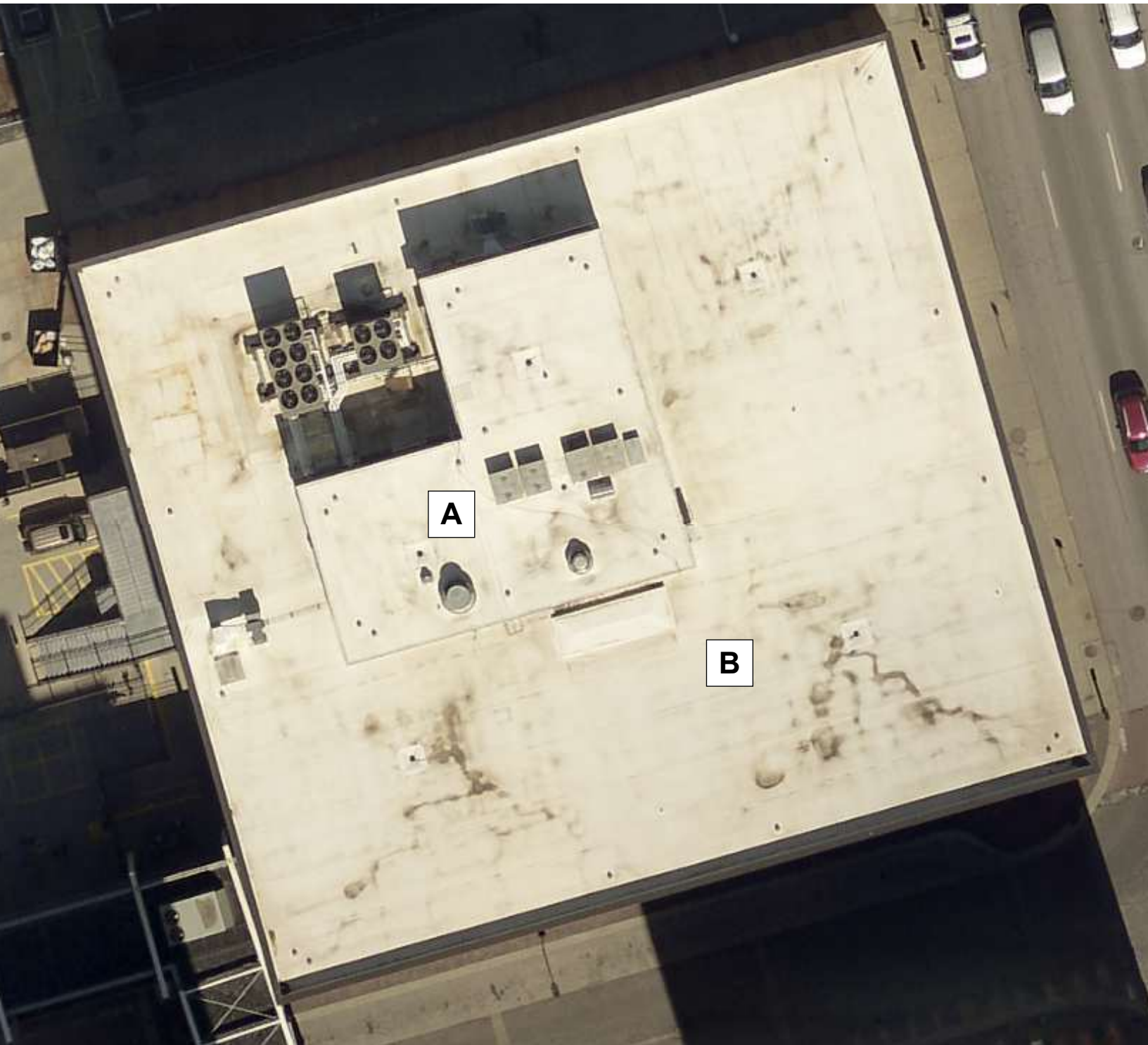
NORTH

GRAPHIC SCALE



WALNUT STREET ELEMENTARY

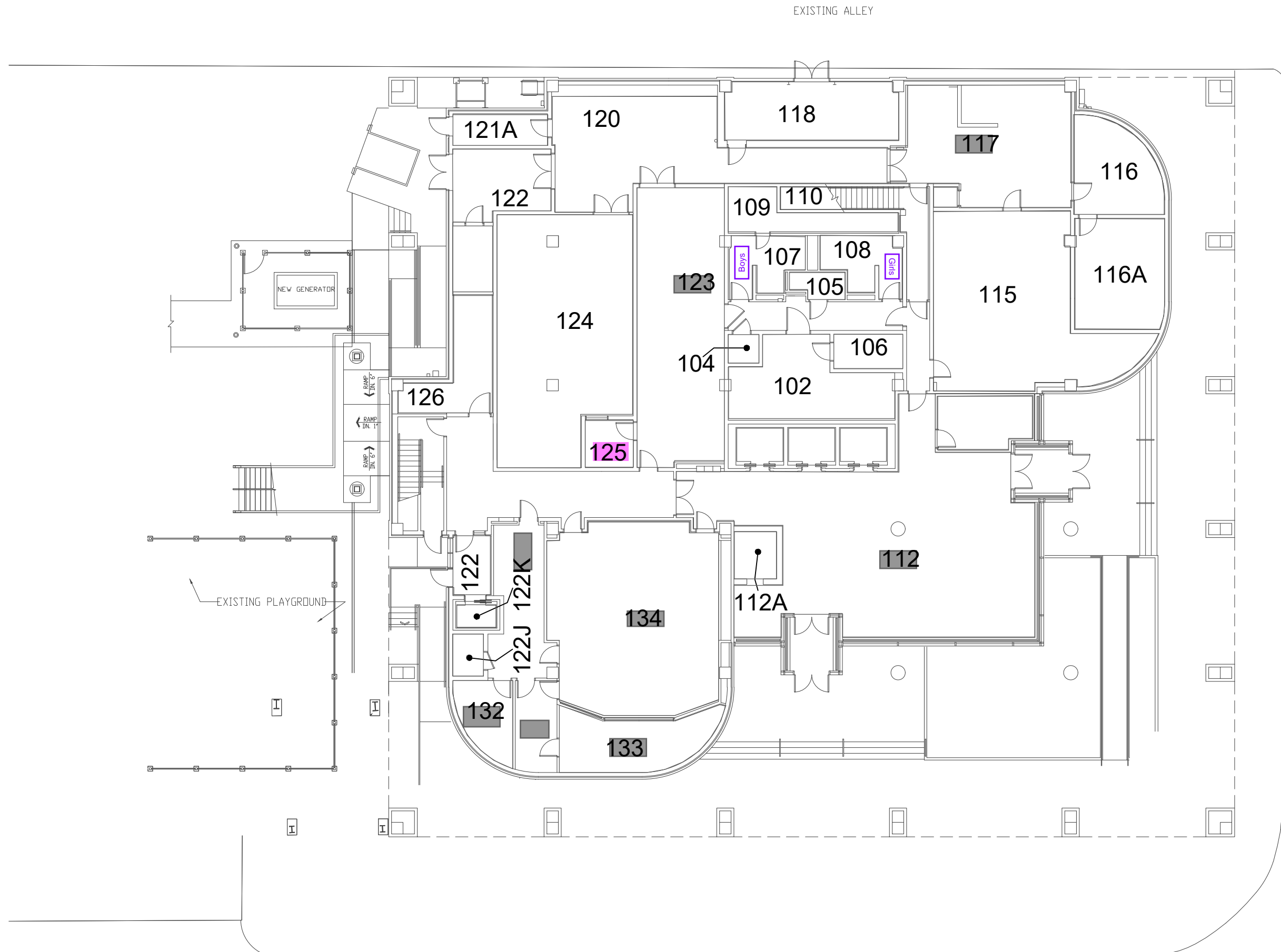
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DATE 11/7/2023

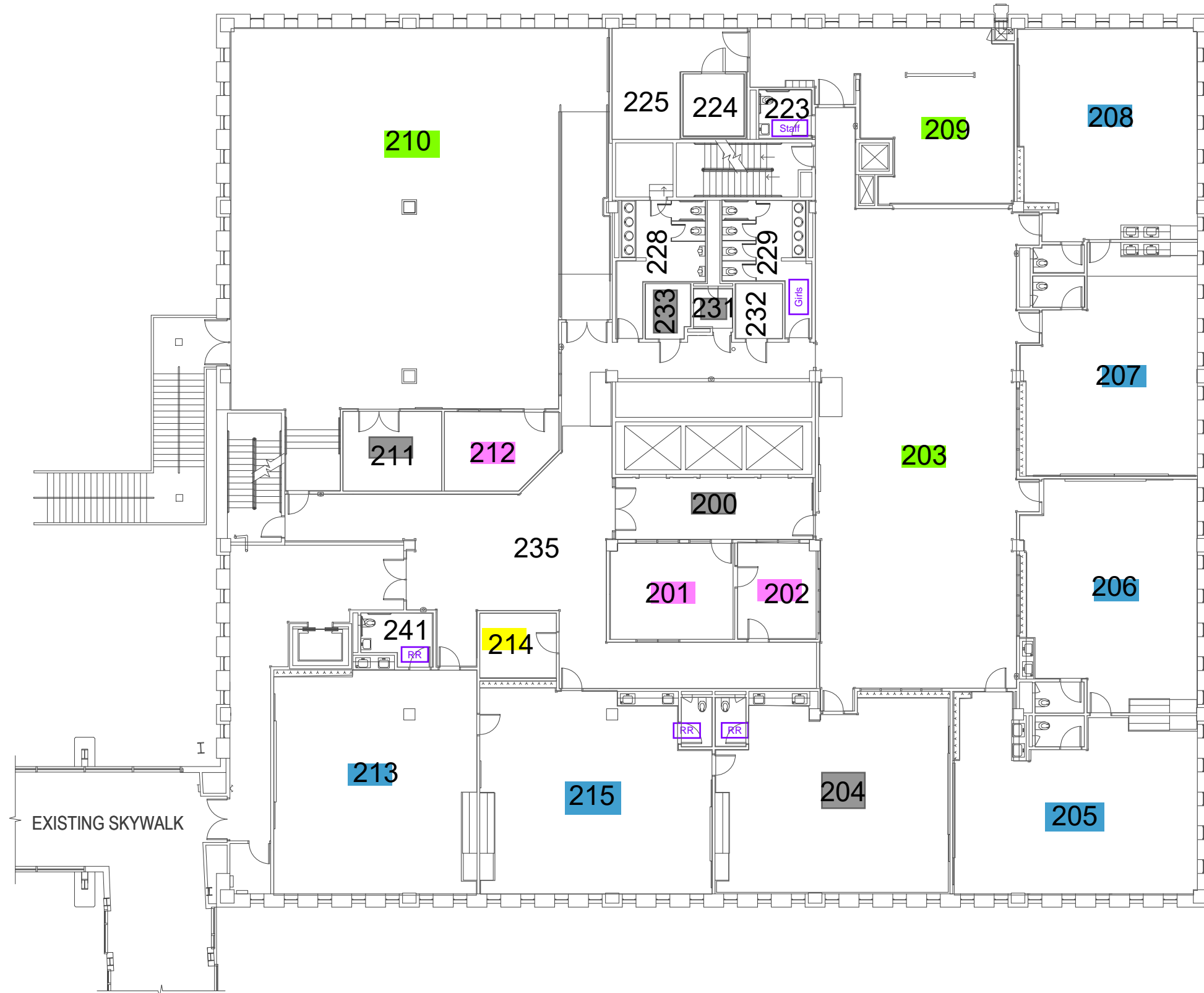


A

B







Full floor metro kids





