DMPS FACILITY ASSESSMENT | CALLANAN MIDDLE SCHOOL

2.21.2024

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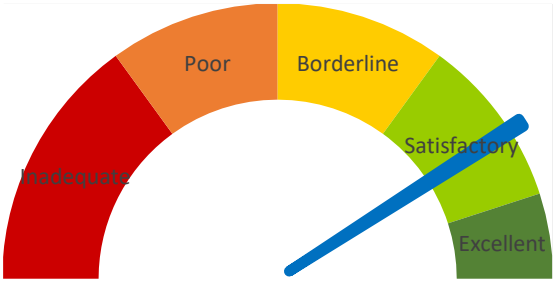


REPORT ORGANIZATION

EXECUTIVE BUILDING SUMMARY

Callanan Middle School's on-site facility conditions assessment was conducted on February 21, 2024 and included visual conditions assessment from professionals covering interior architecture, exterior building envelope, the property's grounds (site), structural condition, mechanical (HVAC/Plumbing) systems, electrical systems (power, exterior lighting, interior lighting, fire alarm, and general IT), and the elevator conditions.

A summary of the short term maintenance items identified for Callanan Middle School are: vision panel repair at 208, wall patch at room 005, vision light clearing, door hardware adjustments, roof cleaning, security maintenance, exterior stair repairs, grading repairs, boiler flue acceptability, MDP power monitor repair. MDF grounding, ceiling installation for fire rating. These several, minor maintenance items along with several of the 1-2 year projects are recommended to be completed as part of preventative maintenance for long term savings in larger replacement projects.

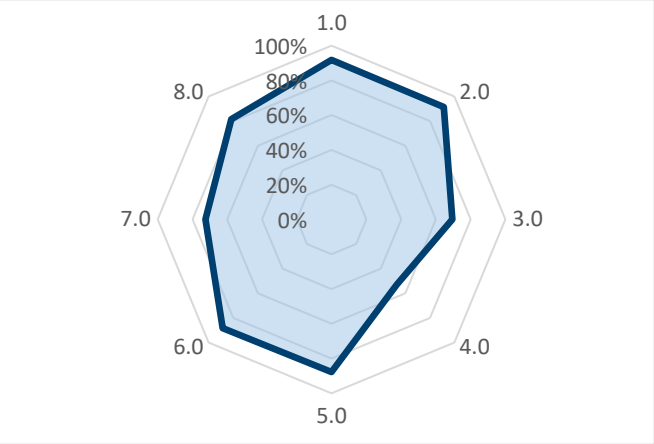
A summary of the recommended projects for Callanan Middle School to be completed in the next 1-2 years are as follows:

- Interior Wall Repairs
- EIFS Refinish
- Exterior Sealant and refinish
- Site Improvements
- Hose Bibb Installation
- Electrical Panel Replacement
- Exterior Lighting Improvements
- Lightning Protection System Repairs
- Elevator Upgrades

Additional 1-2 year project detail 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	195	179	2.00	390	358	92%	Excellent
2.0	Environment for Education	395	361	0.60	237	217	91%	Excellent
3.0	Exterior Envelope	95	66	3.00	285	198	69%	Borderline
4.0	School Site	100	53	1.50	150	80	53%	Borderline
5.0	Structural Conditions	155	136	1.30	202	177	88%	Satisfactory
6.0	Mechanical Systems	670	593	0.80	536	474	89%	Satisfactory
7.0	Electrical Systems	455	330	0.75	341	248	73%	Satisfactory
8.0	Elevator Conditions	65	53	1.00	65	53	82%	Satisfactory
Total					**2,206**	**1,804**	**82%**	**Satisfactory**

Callanan Middle School
Discipline Comparison



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

After totaling the scores from the various discipline assessment reports Callanan Middle School scored a building health rating of 82% 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. Callanan Middle School is within this positive range. Improvements to the exterior envelope and school site, as described in this report, would make the largest impact in increasing the score to "Excellent".

Building Data Record

Building Name: Callanan Middle

Date: 2.21.2024

Address: 3010 Center St
Des Moines, IA 50312

High School Feeder System: Roosevelt High

Building SF: 116,037 SF

Site Acreage: 18.33 Acres

Date(s) of Construction: 1927

Date(s) of Roof Replacement: 1991, 2012, 2017, 2021

Current/Scheduled Projects: East Parking Lot - East Parking Lot Intake Repair (2024)

Existing Building Data:

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

Site Items:

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

Energy Source:

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

Cooling:

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

Heating:

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

Structure Fireproofing:

- [x] No
- [ ] Yes

Construction:

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

Exterior Facade:

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

Floor/Roof Structure:

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

A | Architectural, Programming

ASSESSOR: Kaela Shoemaker

1.0 Educational Adequacy

		Weight Factor	Rating	Points	Comments
General					
1.1	**Floor materials** are appropriate for space type.	1	5	5	
Elective/Secondary Classroom					
1.2	**Gymnasium** is adequate for providing physical education programming.	3	4	12	Acoustic material would improve the overall quality of the space.
1.3	Gymnasium is supported by adequate **locker rooms.**	1	5	5	Appears limited use but in very good condition. Shower rooms are locked storage.
1.4	**Cafeteria** has adequate space, furniture, and acoustics for efficient lunch use.	2	5	10	
1.5	**Vocal music room** is adequate for providing music instruction.	2	4	8	Floors are hard surfaces, but acoustics appear to be adequate for the space.
1.6	**Instrumental music room** is adequate for providing music instruction, practice, and lessons.	2	4	8	Orchestra and Band group and individual lessons are held in the auditorium. Staff offices are set apart from the auditorium and the space is shared with inefficient instrument storage. All spaces are in good condition, but without access to daylight.
1.7	**Auditorium** has sufficient arrangement, technology, and acoustics for program.	2	5	10	
1.8	**Art room** has sufficient accommodations for program.	2	4	8	Storage is a combination of furniture panel dividers and cabinet storage.
1.9	**Science classrooms** have sufficient access to water, gas and equipment for program.	2	5	10	
1.10	**Family Consumer Science** classrooms have sufficient accommodations for program.	2	5	0	

A | Architectural, Programming

ASSESSOR: Kaela Shoemaker

		Weight Factor	Rating	Points	Comments
1.11	**Industrial Arts** space has sufficient accommodations for program.	2	N/A	0	
1.12	**Library/Resource/Media Center** provides appropriate and attractive space.	1	5	5	
Core Classroom					
1.13	Classroom space permits arrangements for **small group activity.**	2	5	10	
1.14	**Student storage space** is adequate.	1	5	5	
1.15	**Teacher storage space** is adequate.	2	5	10	
1.16	Classroom **acoustical treatment** of ceiling, walls, and floors provide effective sound control.	3	5	15	
1.17	**Classroom power and data receptacles** are located to support current classroom instruction.	4	4	16	Power strips were observed in several classrooms up against the wall or on a counter, but no tripping hazards were observed during the assessment.
1.18	Educational **technology** supports instruction.	4	5	20	
Administration					
1.19	**Conference/Private meeting rooms** are adequate for large and small meetings.	1	4	4	There is a single large conference room that seats approximately 10 - 15 people and other administration offices with a space for private meetings.
1.20	**Main office** has a check-in and waiting area.	2	4	8	Waiting area is a bit small, with 2 chairs and limited other space. The rest of the office appears sufficient.
	TOTAL			169	

A | Architectural, Interior

ASSESSOR: Kaela Shoemaker

2.0 Environment for Education

Design

		Weight Factor	Rating	Points	Comments
2.1	**Traffic flow** is aided by appropriate foyers and corridors.	2	5	10	
2.2	Communication among students is enhanced by **common areas.**	2	5	10	There is a nice student focused space adjacent to the cafeteria.
2.3	Areas for students to **interact are suitable to the age group.**	2	5	10	Appears to be a variety of seating styles and postures throughout the school.
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	2 classrooms have tables that are starting to show minor damage.
2.6	**Color schemes**, building materials, and decor are **engaging and unify** the school character.	2	4	8	Colors and finishes are unified throughout the building, however, there is a lack of school spirit "pride" throughout. Additional graphics in the office and corridors or signage adjustments would help improve this.
2.7	Windows and skylights provide access to **adequately controlled daylight** for regularly occupied spaces.	3	4	12	There are a few interior basement classrooms that do not have access to daylight.
2.8	Windows provide access to **quality views** (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	4	12	There are a few interior basement classrooms that do not have access to exterior views.
2.9	**Lighting has proper controls** to provide the required light levels for various teaching and learning needs.	2	4	8	Most classrooms have 2 level dimming switches which appears adequate for most classrooms. Offices or student support therapy and counseling rooms appear to primarily use lamps or string lighting.
2.10	**Staff dedicated spaces** include conference space, work space, and dedicated restrooms.	1	5	5	

A | Architectural, Interior

ASSESSOR: Kaela Shoemaker

		Weight Factor	Rating	Points	Comments
2.11	**Main office** is visually connected to the entry and is welcoming to students, staff, and guests.	3	4	12	Main office is connected and obvious from the exterior, however could be more open and welcoming. From the corridor the paper wayfinding signage could be improved to incorporate school colors and clearer lettering.
2.12	**Break room** is adequately sized and furnished for proper use.	1	5	5	
2.13	**Mother's room** is a separate designated space properly furnished.	1	0	0	None observed.
Maintainability					
2.14	**Floor surfaces** are durable and in good condition.	1	4	4	VCT has many hairline cracks within the administration suites. It appears to be well kept and in acceptable condition.
2.15	**Ceilings** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	4	4	There appears to be a minor water issue within the ceilings. Many level 2 classrooms and a few level 1 classrooms have at least 1 ceiling tile with minor water staining. None appear to be active, or large in size.
2.16	**Walls** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	2	2	Many of the exterior walls are plaster and have significant water infiltration issues. According to staff issues have been present and increasing for around 10 or more years. The west wing appears to have the most issues.
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	5	5	
2.18	**Doors** are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	4	12	Bottom of the wood veneer is starting to splinter in many cases. Doors may need to be replaced or repaired in the future.
2.19	**Facility doors** are keyed to standardized master keying system.	3	5	15	Door hardware on door 119 is loose and should be repaired / tightened.
2.20	**Restroom partitions** are securely mounted and of durable finish.	2	5	10	

A | Architectural, Interior

ASSESSOR: Kaela Shoemaker

		Weight Factor	Rating	Points	Comments
2.21	**Adequate electrical outlets** are located to permit routine cleaning in corridors and large spaces.	1	5	5	
Occupant Safety					
2.22	Classroom doors are **recessed and open outward.**	4	5	20	
2.23	Door hardware (into classrooms or any occupied rooms off of corridors) include **intruder classroom locksets.**	3	5	15	
2.24	**Door panels** into classrooms and other occupied spaces contain **vision lite.**	3	4	12	Vision panels in these doors are typically a 9 grid of translucent glass and a single clear glass lite. Door to room 208 has cracked glass.
2.25	**Vision lite** in doors is clear and uncovered.	2	3	6	Most all of the level 1 and level 2 clear glass panel was covered with paper.
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	5	25	

A | Architectural, Interior

ASSESSOR: Kaela Shoemaker

		Weight Factor	Rating	Points	Comments
2.31	At least **two independent exits** from any point in the building	5	5	25	
2.32	**Emergency lighting** is provided throughout the building.	5	5	25	
	TOTAL			361	

A | Architectural , Exterior

ASSESSOR: David Unick

3.0 Exterior Envelope

		Weight Factor	Rating	Points	Comments
Design					
3.1	Overall **design is aesthetically pleasing** and appropriate for the age of students.	2	4	8	Main building entry is elegant, but only recognizable by sign above door.
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	4	12	Roofs over entire building--except Gymnasium--have been replaced within past 5 years. Metal cap flashing is in place on all parapets, except at center bay of west wall where original stone caps remain. Barrel-vaulted gymnasium roof nearing end of service life.
3.3	**Roof access** is safe for all roofs.	3	4	12	Roof access available through storage closet 222, which is accessed through Classroom 211. Roof ladder to upper Roof D and window access to lower Roof E. Provide safety rail at roof hatches. All roof levels, except Gymnasium barrel-vault roof, are accessible via ladders.
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	2	6	Window sealant is crazing and/or pulling from perimeter throughout the building. Replacement should be included as part of larger moisture mitigation study scope.
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	4	4	One entry transom (Door 14) is original single pane glass in wood frame. Other glazing appears to be insulated units with tinting.
3.6	**Operable windows** are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.	2	4	8	No significant concerns.
3.7	**Exterior doors** are of durable material requiring minimum maintenance.	2	3	6	Exterior doors and frames are all steel, with exception of south exit from Level 1 (stairwell) where original wood frame and arch transom remains in place. All entries/frames require replacement of perimeter sealant and repainting.
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	1	1	Exterior walls are primarily brick with limestone or precast concrete accents. Upper portion of gymnasium and adjacent storage are EIFS, which is showing signs of deterioration. There is ongoing moisture infiltration in multiple classrooms on all building levels which must be addressed.
3.9	**Exterior Doors** open outward and are equipped with **panic hardware.**	1	5	5	No concerns.
3.10	**Exterior Doors are monitored** or controlled by an access control system.	1	4	4	(5) Doors have card readers. (5) Doors have keyed locksets. (5) Doors have exit-only hardware. All exterior doors have identification signage.
	TOTAL			66	

C | Civil

ASSESSOR: Jack Gorman Joel Jackson

4.0 The School Site

		Weight Factor	Rating	Points	Comments
4.1	**Site topography** and grading drains water away from the building and retaining walls.	1	4	4	Good drainage away from building, there was a set of stairs being undermined that could be corrected with the addition of soil and sod.
4.2	**Parking areas** are in good condition.	5	1	5	The asphalt parking lots were cracking throughout and will need replacement in the future.
4.3	**Drive areas** are in good condition.	3	4	12	The drive access on the west side of the site have deteriorated and need replacement. The east drive has a section experiencing subsurface moisture issues and would benefit from the installation of a rock base. Some panels of the circle drive also need replacement.
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	5	5	DMPS states that staff parking is okay and that event parking is good with the available spaces at Smouse and Ruby Van Meter.
4.5	**Sidewalks** around the facility are in good **condition.**	1	2	2	The sidewalk along the circle drive has settled below the curb and created a tripping hazard. There are a few other tripping hazards across site and isolated sections needing replacement.
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	1	4	4	One door was without sidewalk access, site was easy to navigate.
4.7	**Hard surface** playground surfaces are in good condition.	3	2	6	The playground/ basketball hoops are in fair condition but anticipate replacement of pavement will be necessary within the next 10 years.
4.8	**Fencing** around the site is in good condition.	1	4	4	A section of the fence fabric needs replacement and the SE corner of the site has sections of fencing that also need replacement.
4.9	**Trash enclosure** is in good condition.	1	3	3	The pavement in front and inside of the trash enclosure is cracking and should be replaced with reinforced PCC.
4.10	**Utilities** are in newly constructed conditions and placed in suitable locations.	1	5	5	No utility issues observed.

ASSESSOR: Jack Gorman Joel Jackson

		Weight Factor	Rating	Points	Comments
4.11	**Site has sufficient room** for both building and parking expansion.	1	2	2	There is some limited space available onsite for parking or building expansion without impacting recreation areas. Some minimal parking could be added on the NW corner of the site.
4.12	Site has **onsite bus and parent pickup** up with adequate length, good separation and general good site circulation.	1	1	1	Buses use the NW circle drive and parents use both the circle drive and drive to the east. DMPS states buses do not have enough space to stack up properly and that drop off is very congested.
	TOTAL			53	

S | Structural

ASSESSOR: Trevor Pullen

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	4	4	Basement walls have a few minor shrinkage cracks.
5.4	**Stoops** appear to be in good condition.	1	3	3	The exist near room 043 doesn't have a stoop.
Slab on Grade					
5.5	**Slabs on grade** do not appear to have any cracks	1	4	4	There is some minor shrinkage cracking.
5.6	Slabs on grade do not appear to have any **settlement.**	1	5	5	
Exterior Walls					
5.7	**Brick masonry** appears to be in good condition.	2	4	8	There is some weathering on the exterior brick, but nothing significant.
5.8	**Lintels** appear in good condition (no visible deflection or rust).	1	3	3	Most of the lintels around the building have some corrosion.
5.9	**CMU** is in good condition.	1	5	5	
5.10	**Precast** is in good condition.	1	N/A	0	

S | Structural

ASSESSOR: Trevor Pullen

		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	Short retaining walls outside of room 020 have some cracks. Nothing that needs to be repaired though.
5.16	**Canopies** appear to be in good condition.	1	4	4	Canopies near room 060 have some corrosion visible on the structural steel.
5.17	**Loading dock concrete** appears to be in good condition.	2	4	8	There is one spot where a chunk of concrete has spalled off.
5.18	**Mechanical screening** appears to be in good condition.	2	5	10	
5.19	**Stairs** appear to be in good condition.	1	5	5	
5.20	**Stair railings** appear to be in good condition.	1	3	3	There are 3 guardrails that are loose/wobbly in rooms 020, 158, and 183.

S | Structural

ASSESSOR: Trevor Pullen

		Weight Factor	Rating	Points	Comments
5.21	**Tunnels** appear to be in good condition without cracks.	1	5	5	
5.22	There is a **designated hardened area** in the building.	1	0	0	None observed.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	N/A	0	
	TOTAL			136	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

6.0 Mechanical Systems

HVAC Design

		Weight Factor	Rating	Points	Comments
6.1	**Zone Control.** Thermostats are provided in each space for individual zone control of space temperatures.	3	5	15	Generally appears to be true.
6.2	**Thermostat location.** Thermostats are properly located in the space.	3	5	15	Generally appears to be true.
6.3	Appropriate **amount of ventilation** are provided to each space.	5	5	25	Generally appears to be true.
6.4	**Ventilation** is provided during occupied hours.	5	5	25	Generally appears to be true.
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	Generally appears to be true.
6.7	**Building pressurization.** The design takes into account the balance between ventilation and exhaust air	2	5	10	Generally appears to be true.
6.8	**Major HVAC Equipment** appears to be within it's acceptable **service life.**	5	3	15	Several components are over 20 years old - smaller equipment appears to have been replaced.
6.9	**Cooling loads** are within equipment operational capacity.	5	5	25	Generally appears to be true.
6.10	**Heating loads** are within equipment operations capacity.	5	5	25	Generally appears to be true.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.11	**Dehumidification** is provided and addressed humidity loads in incoming outside air.	3	5	15	Generally appears to be true.
Plumbing Design					
6.12	**Water Supply Pressure** is adequate to allow for operation of plumbing fixtures.	5	5	25	Generally appears to be true.
6.13	Appropriate **backflow preventer** is provided at connection to city water supply.	5	4	20	Located in tunnel - not directly observed. Access is challenging.
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	Appears to be true. Approximately 30 seconds to get warm water at outlets.
6.16	**Sanitary sewer systems** are sized and sloped to allow for proper drainage.	5	4	20	No observed issues. Maintenance has noted some issues in building.
6.17	Appropriately sized **grease interceptors** are provided for facilities with food service.	3	3	9	2,000 gallon grease interceptor appears as though it may be undersized for the facility.
6.18	**Roof drainage** systems are sized appropriately and overflow drainage systems are installed.	5	5	25	Generally appears to be true. Scuppers typically provided for overflow.
6.19	**Restroom fixtures** are in good condition and comply with current DMPS standards.	3	4	12	Automatic valves appear to be in good condition. No metered faucets.
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	5	15	Generally appears to be true.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with **coil pull space.**	2	5	10	True.
6.22	**Filter** sizes are standard and filter types are standard.	2	4	8	Appears to be reasonable mix of filter sizes and types.
6.23	**Equipment mounting heights** are reasonable.	3	3	9	Some valves and other components are quite high above adjacent floors and will be difficult to access. Major equipment typically is mounted at accessible heights.
6.24	**Floor surfaces** throughout the mechanical room are non-slip and are dry.	2	5	10	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	4	8	Generally appears to be true. Some are quite difficult to access.
6.26	Appropriate means are provided for **airflow and water balancing.**	3	5	15	Generally 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	1	2	Wall hydrants located at grade, but building is 2-story. Mature trees in area and several roof-mounted condensers.
6.28	**Fall protection** is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	4	8	A few smaller exhaust fans appear to be within 15 feet of roof edges. Remainder of equipment is set back from roof edge and fall protection likely isn't necessary.
6.29	**Building devices are on DDC controls** and fully visible through Building Automation System. No pneumatic controls remain.	4	5	20	Appears to be true.
Occupant Safety					
6.30	**Backflow prevention** is provided at all **cross-connections** to non-potable water.	5	5	25	Appears to be true.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		Weight Factor	Rating	Points	Comments
6.31	Building is fully **sprinklered.**	5	5	25	True.
6.32	**Domestic hot-water temperature** at lavatories used by students or staff is provided with a thermostatic mixing valve and adjusted properly.	5	5	25	True.
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	True.
6.35	**Refrigeration evacuation systems** are provided in rooms with chillers.	5	N/A	0	N/A.
6.36	**Carbon Monoxide monitoring** and alarming is provided for areas with gas-fired equipment.	5	5	25	True.
	TOTAL			593	

E | Electrical

ASSESSOR: David Carlson/Abe Contreras

7.0 Electrical Systems

Electrical Design

		Weight Factor	Rating	Points	Comments
7.1	**Transformer location** is easily accessible by utility line truck to allow for rapid transformer replacement in the event of an issue.	5	5	25	Service entrance consists of1000kVA, 480/277V transformer.
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	Main distribution panel MSB is Cutler-Hammer Pow-R-Line C switchboard rated at 2000A, with 2000A main circuit breaker.
7.4	The **MDP** appears serviceable.	4	4	16	MSB manufactured in 2002 (-1 point for age greater than 10 years). Power monitor in MSB is broken, recommend replacement of LCD screen and further troubleshooting.
7.5	The MDP is **maintainable.**	3	5	15	
7.6	The MDP will support **future expansion.**	4	5	20	MSB has capacity for 52 breakers, of which 24 are spaces and 1 is spare.
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	3	12	Distribution panel is the previous MDP installed in 1990. Shelving in room is located in clear area and should be relocated. Will refer to distribution panel as DP-1 for clarity. DP-1 is GE AV-Line switchboard rated at 1600A 208/120V. Main breaker for DP-1 located in same exterior vault with MSB.
7.8	The Distribution Panel appears **serviceable.**	4	3	12	DP-1 is in good condition for its age. Manufactured in 1990 (-2 points for age greater than 25 years).
7.9	The Distribution Panel is **maintainable.**	4	5	20	
7.10	The Distribution Panel will support **future expansion.**	4	4	16	DP-1 has 30 positions, 8 of which are spaces and 4 of which are spares for 40% spare capacity. (-1 point for less than 50% capacity)

E | Electrical

ASSESSOR: David Carlson/Abe Contreras

		Weight Factor	Rating	Points	Comments
7.11	**Electrical panels and disconnect switches** observed during assessment are safe, serviceable, and maintainable.	2	4	8	All panels added in the 2002 renovation are in good condition. Panels added in 1991 are of General Electric make and are still in fair condition. However, individual predecessors to those projects of Frank Adam make are in poor condition and in need of replacement. Three such panels were identified.
7.12	Building has adequate and appropriately located, **safe exterior power** to allow for regular maintenance activities.	1	3	3	Two receptacles are located on the exterior of the gym, both of which require replacement weatherproof covers. Lightning protection system downlead is disconnected outside Room 033.
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	0	0	Building has dark areas a the Front wings (NW side), and in back (SE side). Cameras on the corners of the gym render in B&W. Conduit on roof serving exterior lighting does not have fittings at joints, leaving conductors exposed to the elements. Replace feeder with new and elevate conduit on stands.
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	MDF is cramped due to storage within the room. Cabling in the rack is messy due to ongoing switchover from Cisco to Aruba.
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	1	4	Rack has less than 10% capacity remaining (4 rack units). Some space will be reclaimed once Cisco/Aruba switchover is complete, but unless many of the patch panels and switches are condensed the amount reclaimed will not be significant. No additional rack recommended due to space constraints in MDF.
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	MDF circuits fed from panels M1 and R1 in adjacent Fan Room. No project recommendation at this time due to space constraints in MDF. See Discipline Report for MDF Expansion Study.
7.19	MDF employs up-to-date **network cabling.**	2	4	8	Majority of cabling present is CAT5e.
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	3	3	IDF connected with 6-strand 50µm MM cable, plenum rated.

E | Electrical

ASSESSOR: David Carlson/Abe Contreras

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	3	6	Capacity of grounding busbar is adequate, but connection to equipment rack is absent.
7.22	Building is equipped with an **addressable fire alarm system.**	5	5	25	
7.23	Building is equipped with an **access control system.**	5	2	10	Of 13 exterior doors, 5 have card reader access. 38%
7.24	Building is equipped with a **CCTV system.**	5	1	5	Minimal cameras at front exterior of building. Consider adding. Cameras observing parking and SE side of building render poorly due to minimal exterior lighting.
7.25	Building is equipped with an **intercom system.**	4	5	20	
7.26	Building is equipped with a **master clock system.**	4	4	16	Simplex Time Clock located in conference room in main offices. Consider relocation to central telecom space. (-1 point for deviation from current DMPS standard Primex Wireless system.)
	TOTAL			330	

EV | Elevator

ASSESSOR: Mike Brown - ATIS

8.0 Elevator Conditions

		Weight Factor	Rating	Points	Comments
Design					
8.1	**Size** meets minimum as directed by ADA.	2	5	10	
8.2	**Control protections and signals** meet ADA standards.	2	5	10	
8.3	**Signage** meets code requirements.	1	5	5	
Operation and Safety					
8.4	Elevators have **proper level accuracy and door times.**	1	5	5	
8.5	**Safety devices** are in place and operable.	1	5	5	
Condition and Maintainability					
8.6	**Equipment is easily accessible** for periodic maintenance.	1	5	5	
8.7	**Equipment** is at an acceptable point in the life cycle, and does not contain obsolete parts.	2	1	2	The control system is not supported by the OEM.
8.8	**Finishes** are adequate and maintainable.	1	3	3	The car door and front return panel are scraped and scarred. The hoistway door frames are scratched and need painted.
8.9	**Maintenance** is adequate.	1	3	3	There are missing drop ceiling tiles in the machine room. This prevents smoke capture and recall operations.
8.10	**Testing** is up to date, and all **record and logbooks** are present and filled out.	1	5	5	
	TOTAL			53	

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

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

Project Descriptions

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

Projects Requiring a Study

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

Cost Estimating

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

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

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

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

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

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

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

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

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

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

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

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

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

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

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

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

PROJECT RECOMMENDATIONS

Below are recommended maintenance, projects, and studies based on the previous assessment scoring information. Short Term Maintenance items are items requiring DMPS attention in less than a year's time and is less than approximately $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 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

Vision Panel Repair	Replace cracked vision panel at room 208.
Light Cover Replacement	Replace missing light diffuser in room 114.
Hardware Repairs	Tighten door hardware in room 119.
Grate Installation	Reinstall missing grate in room 200S.
Wall patch	Remove and fully patch opening in wall where kiln exhaust used to exist. Room 005. Fuel smells fill the room when adjacent maintenance equipment is used, likely from this open exhaust.
Vision Light Clearing	It is recommended paper coverings be removed from the lite and cloth is either removed or tied back to allow visual access between the corridor and classrooms. This is recommended for staff and student safety.
Door Hardware Adjustments	Install closer on Door 11 (exterior door from Classroom 007.)

Window Screen Repair	Repair or replace damaged window screens, various locations on entire building.
Roof Cleaning	Remove vegetative debris from multiple areas of roof, and remove any buildup at roof drains.
Security Maintenance	Secure roof hatches above Storage 222 and above cafeteria from building interior.
Stair Repair	Patch bottom step of staircase to improve stair safety. For location, refer to civil site plan exhibit found in the appendix of this report.
Fence Fabric Replacement	Replace 20 LF of 6' chain link fence fabric. For location, refer to civil site plan exhibit found in the appendix of this report.
Grading Repair	Add soil and sod around the undermined stairs to prevent further erosion. For location, refer to civil site plan exhibit found in the appendix of this report.
Boiler Flues	Confirm suitability of PVC boiler flue material for operating conditions and replace if determined not to be acceptable.
Repair MDP Power Monitor	Investigate replacement of power monitor in main distribution panel MSB. Appears LCD screen is inoperable rather than the meter itself.
Shelving in DP Clear Area	Coordinate with custodial staff to relocate a wooden shelving unit in room 032 to maintain 3'-0" clearance in front of Distribution Panel.
MDF Grounding	Install #6 grounding conductor from TMGB to equipment rack.

Machine Room Ceiling Installation	Install missing panels in the elevator machine room to meet fire code.	

1 - 2 Year Priority

		Project Costs
Reglazing	Replace glass in window in room 211 where a bullet hole and cracking has occurred. Gazing should be an insulated unit with low-e coating, to match the adjacent windows. Approximately 12 SF of reglazing.	$7,000
Interior Wall Repairs	Many exterior walls of the school's interior are showing significant plaster damage due to water infiltration. Mold is currently present in room 215 and has been covered with a cork board. Staff indicated this has been an issue for around 12+ years. Custodial staff reported that issues are continuing to worsen each year. Plaster and all mold effected areas should be mediated and removed. New plaster gypsum board installed and painted with breathable paint, so as not to trap any future moisture. Approximately 10 classrooms, 6,300 sf total.	$65,000
EIFS Refinish	Replace damaged EIFS panels on upper walls of Gymnasium 011 (25 panels, approx. 300 SF), and remove/replace the EIFS on the NW end wall of gymnasium above low roof. (1,200 SF) Remove EIFS finish from top and rear face of parapet of one-story Storage 043 (South side of gym) and replace with membrane roof flashing and metal coping/fascia. (100 SF wall surface and 50 LF radius fascia flashing.) Reseal all EIFS joints within field and at perimeter on Gymnasium, Storage 043 and at east wall of Locker 057. (6 locations, approximately 75 LF)	$40,000
Repoint, Reseal, and Refinish Exterior Walls	Repoint mortar joints in architectural precast concrete wall panels at Entry 5 (Gymnasium), 375 LF. Paint exposed CMU wall--rear face of wall above roof at north side Roof K, 200 SF. Remove broken grout joint between precast concrete end wall return and exposed CMU at north side Roof K. Replace with sealant, 12 LF. Replace sealant in joints of precast concrete wall caps and underside of caps at planter box and landscape wall north of gymnasium (27 joints, 250 LF)	$13,000

Exterior Refinish	Remove and replace sealant at perimeter of all steel door frames (14 pairs, and 4 single units plus 15'x10' window; 440 LF total). Repaint all doors and frames ((3) single doors, (1) single door w/ 3' transom, (8) double doors, and (5) double doors w/ 2' sidelight.) Repaint handrails south of Entry 4 ((2) @ 14 LF each.) Paint (3) steel roof ladders (14 VLF, each) and underside of steel canopies at Entries 4 and 5 (350 SF, total.)	$30,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 255 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$45,000
Curb Repairs	Return damaged curbs to new condition. Approximately 20 LF of 6" curbs. For locations, refer to civil site plan exhibit found in the appendix of this report.	$6,000
Fence Replacement	Remove and replace 47 LF of 12' chain link fence. For location, refer to civil site plan exhibit found in the appendix of this report.	$10,000
Roof Hose Bibb(s) Installation	Add hose bibb(s) at roof to allow for better maintenance of roof-mounted condenser coils and other equipment.	$12,000
Panel Replacement	Replace antiquated Frank Adam electrical panels with new in same location. Estimate accounts for (3) 208/120V, 42 position, 200A main lug only panelboards. More panels in this condition may be present elsewhere in the building.	$50,000
Exterior Lighting Conduit Replacement	Replace approximately 100' of wire and conduit feeding exterior lights across the roof. Elevate conduit on stands to prevent damage to roof membrane.	$8,000
Lightning Protection System Repair	Reconnect or replace lightning protection down lead at SW corner of the building.	$9,000
Exterior Lighting Installation	Add lighting for exterior at NW and SE sides of building.	$12,000

Exterior Camera Installation	Add cameras to observe the building front/circle drive, dock area, and parking lots to the east and south.	$13,000
Elevator Upgrade	Plan for an upgrade of the elevator to ensure maintainability. Recommended due to an obsolete control system.	$230,000
	Total 1-2 Year Project Costs:	**$550,000**

3 - 4 Year Priority

		Project Costs
Acoustic Installation	Gymnasium acoustic material installation recommended. Approximately 2,000SF of material needed for the gymnasium space of approximately 5,600 SF.	$80,000
Ceiling Replacement	Replace water stained or damaged ceiling tiles to match existing 2x4 ACT. Approximately 800 SF of regular tile replacement. Kitchen ceiling tile should be replaced with cleanable health-care grade 2x2 tiles, approximately 1600 SF.	$45,000
Door Panel Repairs	Refinish door panels and install mop plate on interior and exterior faces of classroom doors. (14) single wood doors. If this work isn't completed doors will likely need replacement in 5-10 years. Replacement costs may be approximately $400,000 - $500,000.	$14,000
Roof Replacement	Replace adhered EPDM membrane roofing on barrel-vaulted Gymnasium Roof M (9,700 SF). New roofing system shall be adhered TPO. See appendix for roof identification plan.	$250,000
Pavement Replacement	Remove 220 SY of PCC and replace with reinforced PCC. Remove 552 SY of pavement and install a rock base under the 339 SY of pavement experiencing subsurface moisture issues. For locations, refer to civil site plan exhibit found in the appendix of this report.	$140,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 40 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$12,000
Replace Water Heaters	Replace (2) gas fired water heaters..	$85,000

Replace Geothermal Loop Water Pumps	Replace geothermal loop water pumps.	$140,000
Lighting Replacement, Partial	Restroom lighting is insufficient under partitions. Install linear fixtures, or similar, above partitions and replace surface mounted fixtures in the circulation space in all multi-user restrooms for more even lighting distribution. Approximately 250 LF of lighting replacement.	$90,000
	Total 3-4 Year Project Costs:	**$856,000.00**

5 - 10 Year Priority

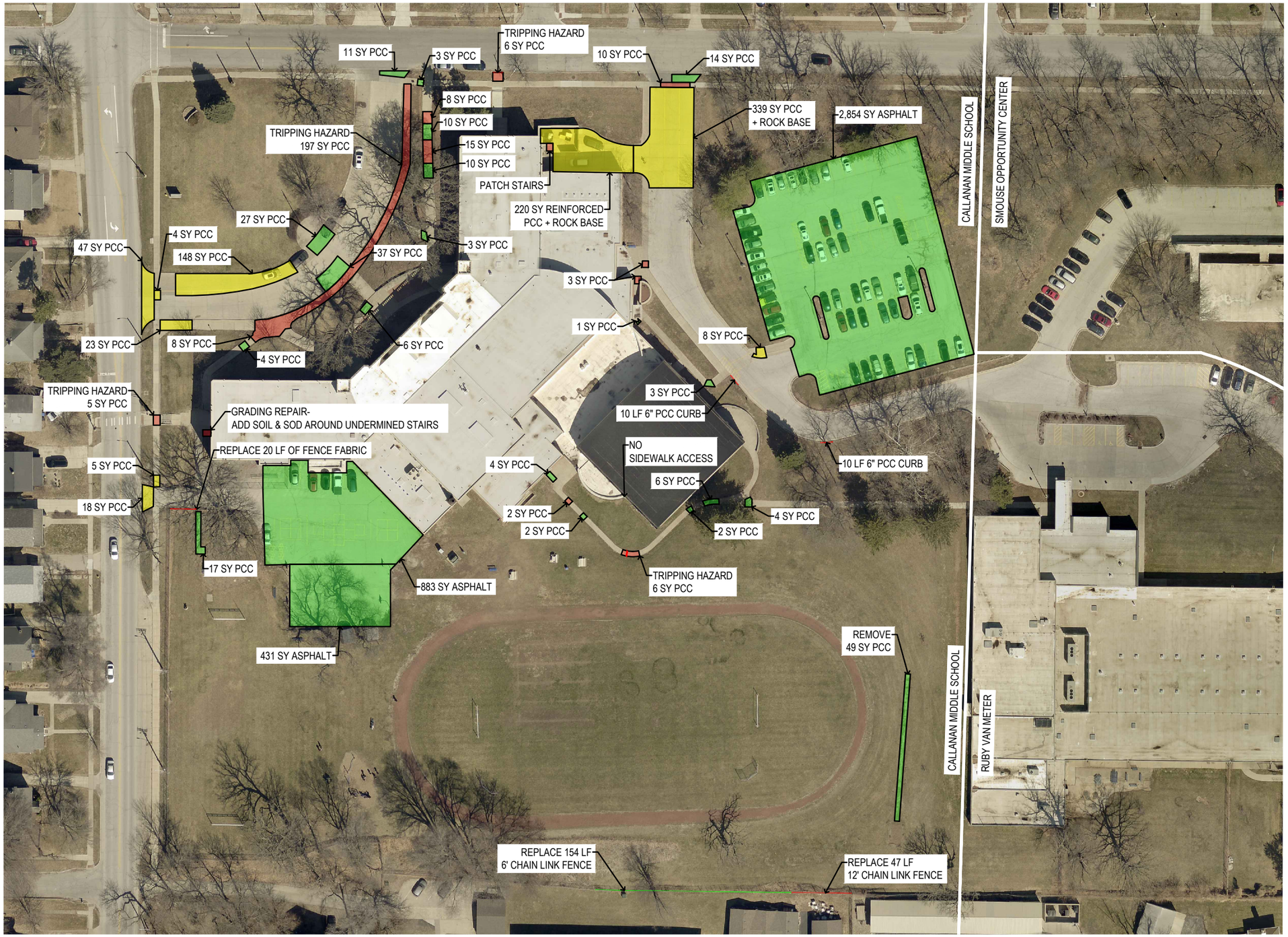
		Project Costs
Improve Roof Access/Safety	Provide guards at each of (2) roof access hatches.	$12,000
Pavement Replacement	Remove and replace 3737 SY of asphalt and 89 SY of PCC. For locations, refer to civil site plan exhibit found in the appendix of this report.	$680,000
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 121 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$30,000
Fence Replacement	Remove and replace 154 LF of 6' chain link fence. For location\s, refer to civil site plan exhibit found in the appendix of this report.	$25,000
Playground Pavement Replacement	Take out and restore deteriorated playground asphalt. Approximately 431 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$80,000
	Total 5-10 Year Project Costs:	**$827,000.00**

Projects Requiring Study

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

Moisture Infiltration Study	Many areas are experiencing moisture infiltration. The recent reroofing project has NOT eliminated the issues. There is no single readily-apparent cause, although probable exterior repair scope may include the repointing of masonry (particularly at decorative rotated-brick and projecting brick courses), the replacement of joint sealant in and application of elastomeric coating on top of stone coping (west side of original building), and the replacement of joint sealant at windows and in masonry soft joints throughout the building. Scope may also include replacement of Gymnasium roofing and repairs to the EIFS finish on the Gymnasium upper walls, although those are listed as separate projects in this report. Interior wall repairs are also listed as a separate project. **This study is recommended as a high priority before any exterior or interior repairs are made.**	$15,000
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
MDF Expansion	Study feasibility of expansion of MDF to allow for future growth and better communications distribution. Expansion of MDF would improve telecom capacity and increase security of telecom and critical building equipment.	$5,000
	Total Study Design Service Fees:	**$27,500**

APPENDIX



5+ YEAR REPLACEMENT

3-4 YEAR REPLACEMENT

1-2 YEAR REPLACEMENT

NORTH

GRAPHIC SCALE

80 0 40 80 160

bbs ARCHITECTS ENGINEERS

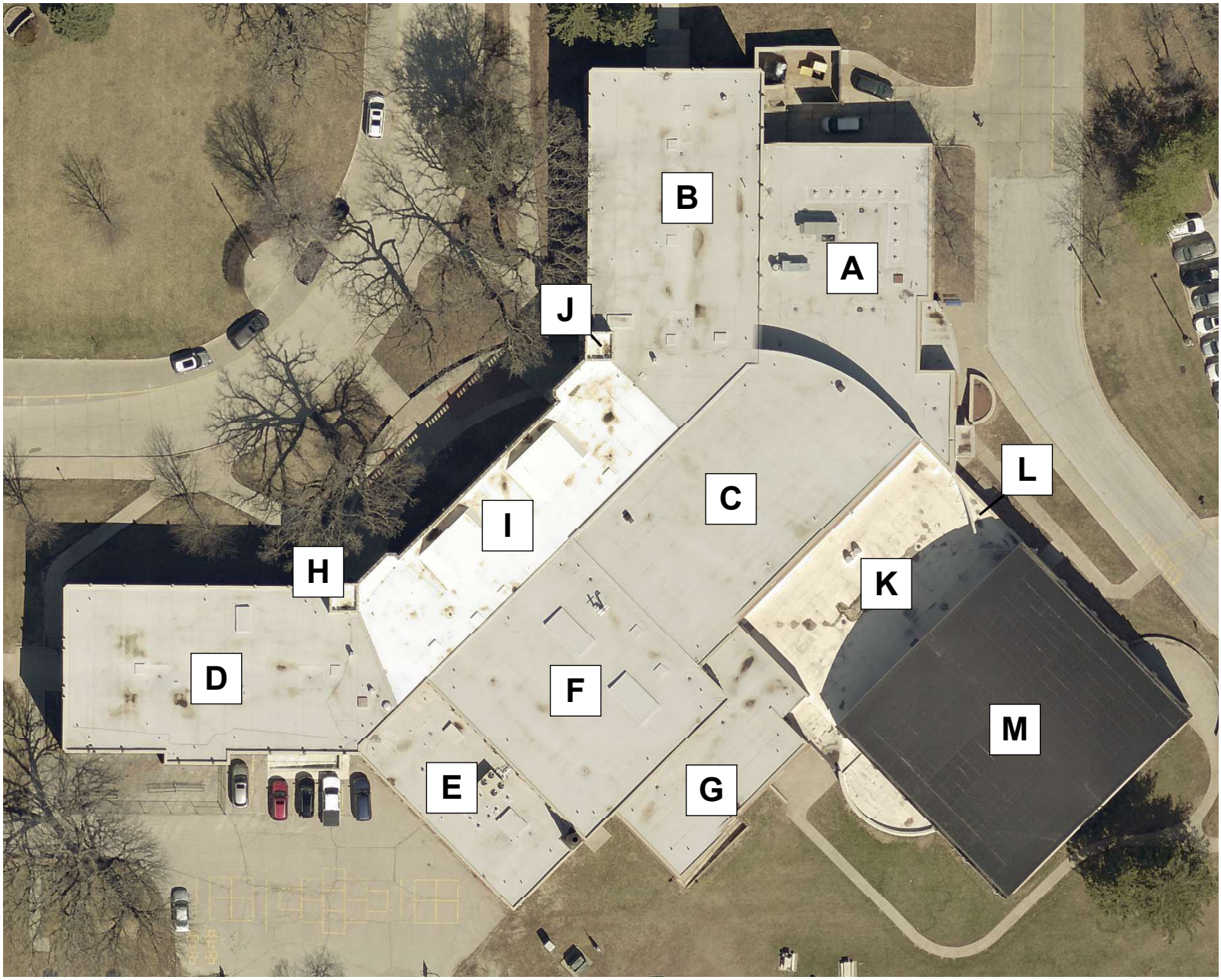
BISHOP ENGINEERING +

CALLANAN MIDDLE SCHOOL

EXHIBIT

PROJECT # 230286-40

DATE 2/23/2024



N

bbs ARCHITECTS ENGINEERS

23055 - DMPS Facility Conditions Assessment
Roof Identification Image
Callanan Middle
2.21.2024

CALLANAN MIDDLE SCHOOL

3010 CENTER STREET
DES MOINES, IOWA 50312

LOWER LEVEL

NORTH

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

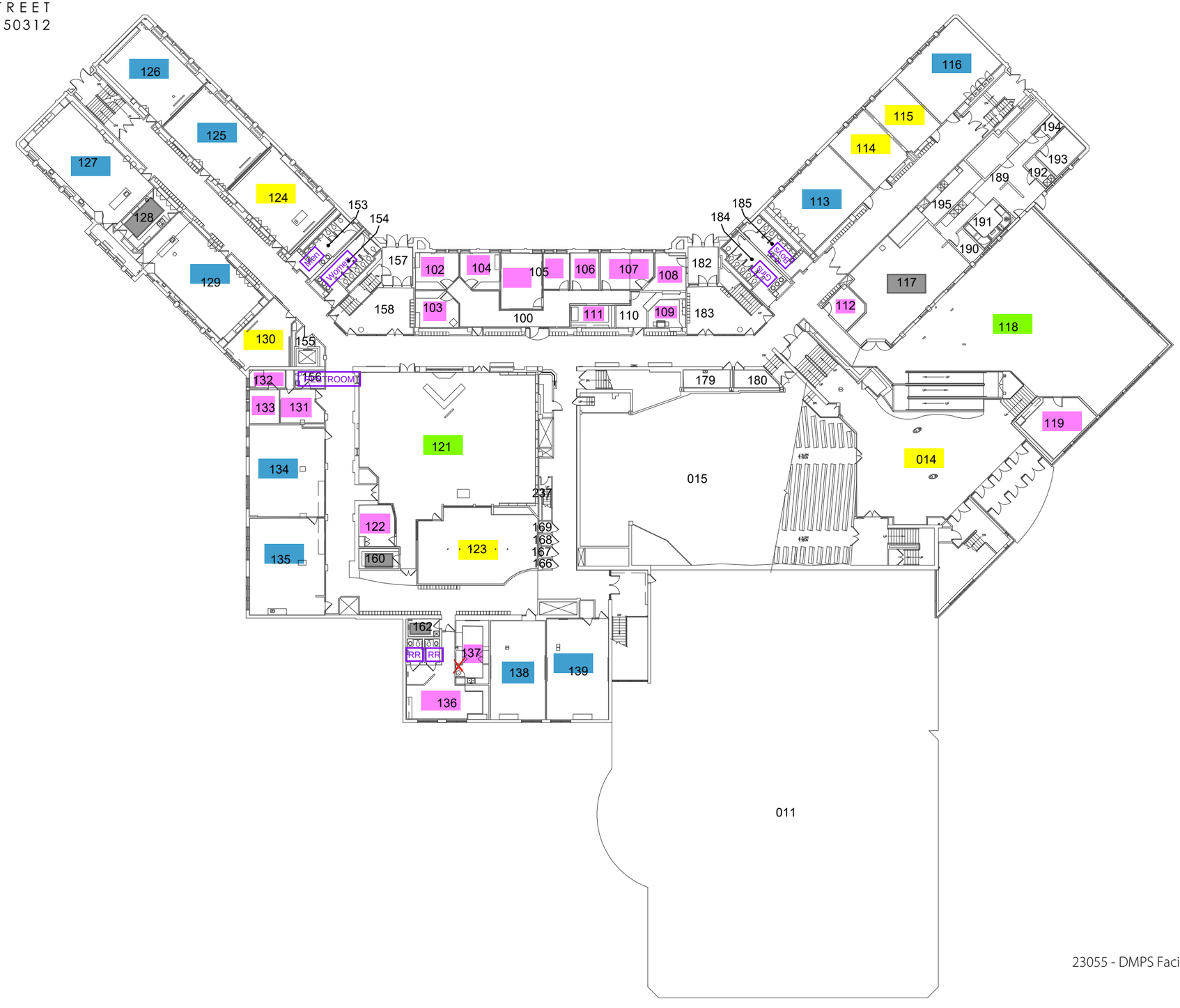
bbs ARCHITECTS ENGINEERS

CALLANAN MIDDLE SCHOOL

3010 CENTER STREET
DES MOINES, IOWA 50312

FIRST FLOOR

NORTH



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

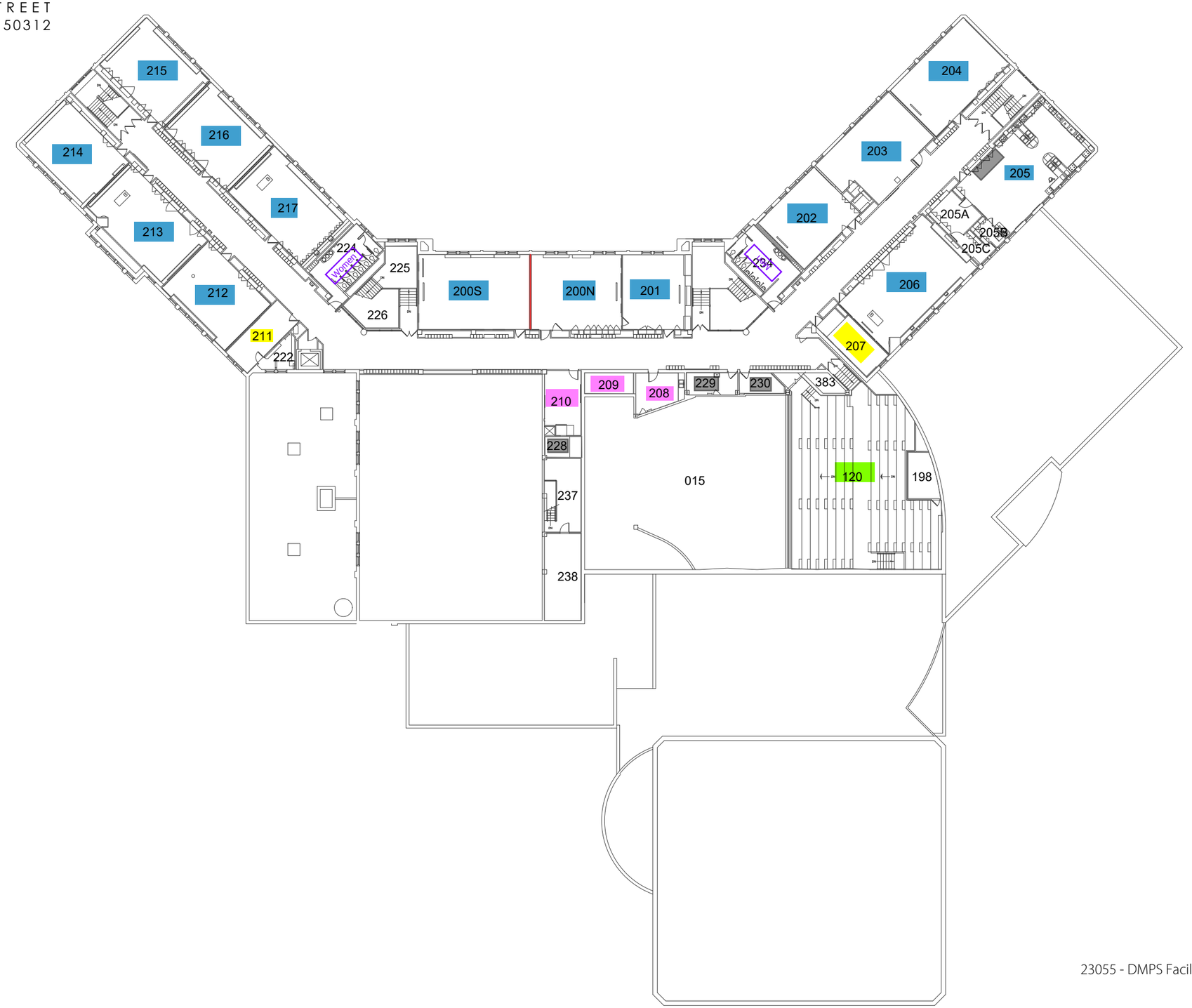
bbs ARCHITECTS ENGINEERS

CALLANAN MIDDLE SCHOOL

3010 CENTER STREET
DES MOINES, IOWA 50312

SECOND FLOOR

NORTH



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

bbs ARCHITECTS ENGINEERS