DMPS FACILITY ASSESSMENT





A R C H I T E C T S E N G I N E E R S

219 Eighth Street Suite 100 Des Moines, IA 50309 515.244.7167

www.bbsae.com

Poor Borderline Nadequate Excellen

Draft

REPORT ORGANIZATION

Draft

COVER SHEET

REPORT ORGANIZATION

EXECUTIVE SUMMARY

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

BUILDING DATA RECORD

SCORING REPORTS

Educational Adequacy
 Environment for Education
 Exterior Envelope
 School Site
 Structural Conditions
 Mechanical Systems
 Electrical Systems
 Elevator Conditions

RECOMMENDED PROJECTS AND PRIORITIES

Short Term Maintenance 1-2 Year Project Priorities 3-4 Year Project Priorities 5+ Year Project Priorities Projects Requiring a Study

APPENDIX

Civil Site Plan Roof Identification Image

Draft

EXECUTIVE BUILDING SUMMARY

Stowe Elementary's on-site facility conditions assessment was conducted on October 25, 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.

There were a few maintenance items noted for Stowe Elementary that are recommended to be addressed in the near future. These include fence reinstallation, counselor office intercom installation, exterior door and stoop repairs, roof hatch latch repairs, and addressing the guardrails at the interior stairs. During the assessment it was noted that particle board has been used to extend the stair guardrails at the interior stairs. This was unclear if this was a temporary or permanent solution, but the guardrail extensions should be addressed to ensure building code requirements are met. General maintenance appears to be adequate through the original and newer portions of the building. Consistent material and equipment choices throughout the building in the future will help the efficiency of building repairs and maintenance schedules and will help provide for the overall unity of the building character.

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

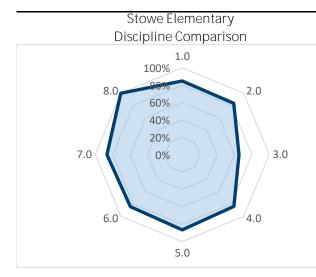
- Pavement Repairs
- Vestibule Flooring Replacement
- Retaining Wall Replacement
- Emergency Eyewash Installation
 Hot Water Mixing Value Benlacer
- MDP Breaker Replacement
- MDF Dedicated Panel Installation
- Hot Water Mixing Valve Replacement

Exterior Receptacles Installation

Ventilation Improvements

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

	Discipline Comp	arison		Building Health						
Assessme	nt Category Summary	Max Pnts	Earned Pnts	Bldg Weight Factor	Max Pnts	Earned Pnts	%	Rating		
1.0	Educational Adequacy	165	140	2.00	330	280	85%	Satisfactory		
2.0	Environment for Education	370	310	0.60	222	186	84%	Satisfactory		
3.0	Exterior Envelope	95	62	3.00	285	186	65%	Borderline		
4.0	School Site	100	84	1.50	150	126	84%	Satisfactory		
5.0	Structural Conditions	140	121	1.30	182	157	86%	Satisfactory		
6.0	Mechanical Systems	635	536	0.80	508	429	84%	Satisfactory		
7.0	Electrical Systems	450	390	0.75	338	293	87%	Satisfactory		
8.0	Elevator Conditions	65	65	1.00	65	65	100%	Excellent		
Total					2,080	1,722	83%	Satisfactory		



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 Stowe Elementary scored a building health rating of 83%, 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. Stowe Elementary is within this positive range. Overall the building has been renovated and well cared for over the past 108 years. Exterior maintenance and repairs as described in this report will help the most to increase this rating to Excellent.

Building Data Record



Building Name: Stowe Elem	entary Date: 10.25.2023
Address: 1411 E 33rd St Des Moines, IA 503	317
High School Feeder System:	East High
Building SF:	56,957 SF
Site Acreage:	10.65 Acres
Date(s) of Construction:	1915, 1924, 1945, 1959, 2007 (renovation and addition)
Date(s) of Roof Replacement:	1950, 2000, 2008
Current/Scheduled Projects:	Flooring Renovation, Phase 1 - 2024



DES MOINES PUBLIC SCHOOLS - STOWE ELEMENTARY

A | Architectural, Programming



1.0 Educati	onal Adequacy	Weight			
General		Factor	Rating	Points	Comments
1.1	Floor materials are appropriate for space type.	2	5	10	
Elective/Se	condary Classroom				
1.2	Gymnasium is adequate for providing physical education programming.	2	3	6	Needs acoustic treatment to minimize the excessive echoing. There is no projector, but a tv on a portable stand with sound is present. There is plenty of space and storage for physical education activities.
1.3	Cafeteria has adequate space, furniture, and acoustics for efficient lunch use.	2	5	10	
1.4	Music room is adequate for providing introductory music instruction.	2	2	4	Main music room is adequate. Band and orchestra have lessons in the stairwell. Instruments are stored in the main music room or in classrooms. Stairwells do not provide the acoustics or privacy required for individual or small group lessons.
1.5	Art room has sufficient				Finishes and arrangement of storage do not appear adequate for current
	accommodations for program.	2	3	6	art room work.
16	Library/Pasaursa/Madia Contar				
1.6	Library/Resource/Media Center provides appropriate and attractive space.	1	4	4	Space is arranged for classroom, reading, books, and breakout space. Furniture is oversized, wooden tables and chairs.
Core Classr	oom				
1.7	Classroom space permits arrangements for small group activity.	3	5	15	
1.8	Student storage space is adequate.	2	5	10	
1.9	Teacher storage space is adequate.	3	4	12	Teacher storage is always in high demand. Most classrooms appear organized with an adequate amount of storage. What is lacking in many classrooms, according to staff, is closed storage. Built-ins are provided with built shelving that limits storage flexibility. Many teachers use curtains to cover open storage.
1.10	Classroom acoustical treatment				Elegring varies in classroom spaces, some wood, legring to compete compete
	of ceiling, walls, and floors provide effective sound control.	3	4	12	Flooring varies in classroom spaces, some wood, laminate, carpet. Carpet is in the best condition and does provide slightly better acoustic control than the laminate. Wood flooring needs some maintenance but is in good condition. Laminate is showing wear in higher traffic areas. Flooring project scheduled for 2024.

A | Architectural, Programming



		Weight Factor	Rating	Points	Comments
1.11	Classroom power and data receptacles are located to support current classroom instruction.	4	4	16	Minor tripping hazard in one classroom. Upper grades have more power extension cords in space.
1.12	Educational technology supports instruction.	4	5	20	
Admin 1.13	istration Conference/Private meeting rooms are adequate for large and small meetings.	1	5	5	Meeting spaces are in the admin office as well as on each level.
1.14	Main office has a check-in and waiting area.	2	5	10	
	TOTAL			140	



2.0 Enviror	nment for Education	Weight			
Design		Factor	Rating	Points	Comments
2.1	Traffic flow is aided by appropriate foyers and corridors.	1	5	5	
2.2	Communication among students is enhanced by common areas.	1	4	4	Table and chair or bench breakout spaces are scattered throughout. Furniture is limited in collaboration outside of core classroom.
2.3	Areas for students to interact are suitable to the age group.	1	4	4	Benches and chairs are wooden and more fitting for adult use. Classroom furniture is typically varied and provides for some varied postures.
2.4	Large group areas are designed for effective management of students.	2	5	10	
2.5	Furniture Systems are in good or like new condition.	1	4	4	Most all in good condition. About 40% of the furniture is showing signs of wear and cosmetic damage.
2.6	Color schemes , building materials, and decor are engaging and unify the school character.	2	4	8	Different additions use different materials lending to a somewhat partitioned feel of the spaces. Way-finding and colors are constant throughout, however.
2.7	Windows and skylights provide access to adequately controlled daylight for regularly occupied spaces.	3	5	15	About 3 classrooms have damaged blinds.
2.8	Windows provide access to quality views (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	5	15	
2.9	Lighting has proper controls to provide the required light levels for various teaching and learning needs.	2	3	6	Room 225 has occupancy sensor only and only at one entrance. Counselor, intervention, or special education spaces would benefit from added dimming controls. Teachers had lamps or covered lights.
2.10	Staff dedicated spaces include conference space, work space, and dedicated restrooms.	1	4	4	No specifically dedicated staff restroom.



		Weight Factor	Rating	Points	Comments
2.11	Main office is visually connected to the entry and is welcoming to students, staff, and guests.	2	2	4	Visually the main office can see the entry, however one has to enter into the main school corridor before entering the office.
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	No designated Mother's Room.
Maintainab 2.14	ility Floor surfaces are durable and in good condition.	1	3	3	Many classrooms with laminate flooring are showing wear. 2 classes have wood flooring showing wear. The art room flooring and terrazzo flooring at the stairs are showing damage.
2.15	Ceilings throughout the building – including services areas – are easily cleaned and resistant to stain.	1	4	4	Service areas are in ok shape, areas of peeling paint or other minor staining.
2.16	Walls throughout the building – including services areas – are easily cleaned and resistant to stain.	1	3	3	Corridor walls, especially in level 2 are showing significant wear and damage. Corridor walls in general are showing wear with minor paint damage.
2.17	Built-in casework is designed and constructed for ease of maintenance.	1	2	2	Wooden and plastic laminate casework are all showing cosmetic damage and age through color. Built in storage is seemingly inadequate or inefficient.
2.18	Doors are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	4	12	Minor cosmetic damage on older doors in the older portions of the building.
2.19	Facility doors are keyed to standardized master keying system.	3	4	12	Mechanical and electrical rooms are not keyed on the same facility master key.
2.20	Restroom partitions are securely mounted and of durable finish.	2	4	8	Partitions are in good condition. HDPE showing some signs of cleaned graffiti. Phenolic panel partitions are on ground level and level 1, but they are in excellent condition.



		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 S					
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	4	12	Classrooms have a keyed interior lockset, versus a thumb turn or other intruder style. Closures seem to be operable and no door stops were being used at the time of the assessment.
2.24	Door panels into classrooms and other occupied spaces contain vision lite.	3	5	15	
2.25	Vision lite in doors is clear and uncovered.	2	4	8	Only a few classrooms were covered. Several had a partial covering or a curtain that was open but could be closed. Note some wire glass is present.
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	3	6	Vestibule carpet/flooring very worn. There was a musty smell at the time of the assessment. Potential replacement of walk-off mats may be necessary to prevent moisture concerns.
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	2	10	Wall base and treads showing some wear. Guardrail appears to have been too short and a partial-board wall has been screwed to the existing rail. Appears secure, but unengineered.



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

TOTAL

314



3.0 Exterio	or Envelope	Weight			
Design		Factor	Rating	Points	Comments
3.1	Overall design is aesthetically pleasing and appropriate for the age of students.	2	2	4	Main building entry feels more like a secondary entry. Would benefit from canopy or other entry structure.
Maintaina	bility				
3.2	Roofs appear sound, have positive drainage, and are water tight.	3	3	9	PVC roofs will require maintenance and are nearing end of service life.
3.3	Roof access is safe for all roofs.	3	3	9	Roof access acceptable. Roof hatch is difficult to latch; Safety gate at hatch needs repair.
					Access ladders in place between all roof levels except one.
3.4	Exterior window sealant is fully intact without cracks or gaps.	3	3	9	Window perimeter sealant generally in good condition, except cracking/gapping starting to occur on south 100-level window sills.
3.5	Clasing is law a cost of insulated and				
3.5	Glazing is low-e coated, insulated, and overall in good condition.	1	4	4	Windows appear to be tinted, and are insulated units.
3.6	Operable windows are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.	2	4	8	Aluminum windows appear to be well sealed.
3.7	Exterior doors are of durable material				All exterior doors are metal. One set requires replacement (West end of
	requiring minimum maintenance.	2	3	6	original building) and several sets should be re-painted.
3.8	Exterior walls are of material and finish				
5.0	requiring little maintenance,	1	4	4	Most of building is brick, and is in generally good condition. Some portions of upper level are EIFS, which is also in good condition.
					Some portions of upper lever are cirs, which is also in good condition.
3.9	Exterior Doors open outward and are equipped with panic hardware.	1	5	5	
3.10	Exterior Doors are monitored or controlled by an access control system.	1	4	4	All entries are locked. Some entries have access control.
]	
	TOTAL			62	

C | Civil



4.0 Stowe	Elementary	Weight Factor	Rating	Points	Comments
4.1	Site topography and grading drains water away from the building and retaining walls.	1	3	3	Drainage away from building is adequate. Eastern portion of site is rather steep with some erosion observed during visit, minor grading work may be necessary around retaining walls.
4.2	Parking areas are in good condition.	5	5	25	East lot looks to be in new condition with a few chips along the curb. The west parking lot in good condition with small portions of the curb needing replacement.
4.3	Drive areas are in good condition.	3	4	12	Drive through and drop off lanes were both in good condition. A couple of panels in the west lot drive area and bus lane will need replacement in 5+ years.
4.4	Sufficient on-site, solid surface parking is provided for faculty, staff, and community.	1	4	4	About 10 spaces open in west lot, east lot was full with employee parking at the time of visit.
4.5	Sidewalks around the facility are in good condition.	1	4	4	A few panels in the bus lane need replacement. The sidewalk in the northwest corner of the site had a few tripping hazards, but overall good sidewalk conditions on site.
4.6	Sidewalks are located in appropriate areas with adequate building access.	1	4	4	No sidewalk access from playground to outdoor classroom but all important locations available by sidewalk.
4.7	Hard surface playground surfaces are in good condition.	3	3	9	Cracks were throughout asphalt pavement with sealer on most of them. Although the asphalt was cracking, it was still in decent shape and didn't appear to be at risk of failing. Asphalt on the lower lever to the south was in good condition.
4.8	Fencing around the site is in good condition.	1	4	4	Fence above north retaining walls in good condition. Fence along east and southeast sides of site overgrown with trees but still in good condition. There is a portion of the fence in the northeast corner completely missing.
4.9	Trash enclosure is in good condition.	1	4	4	The pavement inside the trash enclosure and bollards are holding up well. The gate was slightly damaged. The masonry brick around the enclosure appeared to be in adequate condition.
4.10	Utilities are in newly constructed conditions and placed in suitable locations.	1	5	5	Detention pond outlet and inlets in good condition and appropriately placed. The intakes in the parking lots were in good condition.

Draft

Weight Factor Rating Points Comments Site has sufficient room for both There is sufficient room for parking expansion to the east of the east 4 4 1 parking lot, the building could be expanded to the east as well with some restrictions due to the steepness of the site. building and parking expansion. Site has **onsite bus and parent** Dedicated bus lane on southwest corner of site. Drop off/pick up lane on **pickup** up with adequate length, 4 1 4 site and separated from bus lane. Some stacking backed up into street at time of visit. good separation and general good site

82

TOTAL

circulation.

4.11

4.12

S | Structural



5.0 Structu	al Conditions	Weight			
Foundation	S	Factor	Rating	Points	Comments
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 mechanical areas are very old and have clearly been modified multiple times under minimal engineering direction. That being said the basement walls appear to be in relatively good shape and there were no notable signs (or smells) of water issues at the time of the review
5.4	Stoops appear to be in good condition.	1	4	4	Generally stoops are in good condition with just a few minor cracks. Nothing of concern.
Slab on Gra 5.5	de Slabs on grade do not appear to have any cracks	1	4	4	There appear to be some minor cracking in the terrazzo floor, but they appear rounded and worn which indicates they have been there for some time. This issue does not appear to be cause for concern.
5.6	Slabs on grade do not appear to have any settlement.	1	4	4	There appear to be some minor cracking in the terrazzo floor, but they appear rounded and worn which indicates they have been there for some time. This issue does not appear to be cause for concern.
Exterior Wa	lls				
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	5	5	
5.9	CMU is in good condition.	1	4	4	Overall the exterior walls appear in good condition for the age and grade changes around this building. There are a few minor indications of movement but nothing of concern, or ongoing issues.
5.10	Precast is in good condition.	1	N/A	0	

S | Structural



Interior Wa	ll c	Weight Factor	Rating	Points	Comments
5.11	Interior walls appear to be in good condition.	1	5	5	No visible cracks in walls above grade.
Floor Frami 5.12	ing (Elevated) Floor framing appears to be in good condition.	3	4	12	Floors appeared in very good shape for a structure of this age.
5.13	Floor framing appears to meet the code requirements.	3	5	15	
Roof Frami 5.14	ng Roof framing appears to be in good condition.	3	5	15	Gym roof in very good condition. No visible signs of water damage on 3rd floor ceiling tiles.
Miscellaned 5.15	ous Retaining walls appear to be in good condition.	1	4	4	Retaining wall to the east in the playground is in excellent shape. No sign of movement of north garage wall retaining. South side of the site has a very old unengineered retaining wall that looks like it's on the property line and is in poor condition.
5.1 6	Canopies appear to be in good condition.	1	N/A	0	
5.1 7	Loading dock concrete appears to be in good condition.	2	N/A	0	
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	Stairs are in very good shape for a building of this age.
5.2 0	Stair railings appear to be in good condition.	1	2	2	Both stair railings have been extended by a wood particle board. Looks unengineered.

S | Structural



		Weight Factor Rating	Points	Comments
5.2 1	Tunnels appear to be in good condition without cracks.	1 3	3	Basement mechanical space has clearly been modified over time. Mixture of materials. No signs of water or cracking.
5.2 2	There is a designated hardened area in the building.	1 0	0	Does not appear to exist.
5.2 3	The hardened area appears consistent with the ICC 2018 code.	1 N/A	0	
	TOTAL	1	116	



6.0 Mechan	ical Systems	Weight			
HVAC Desig 6.1	n Zone Control. Thermostats are provided in each space for individual zone control of space temperatures.	Factor	Rating	Points	Comments Few rooms are combined on a single thermostat.
6.2	Thermostat location. Thermostats are properly located in the space.	3	5	15	
6.3	Appropriate amount of ventilation are provided to each space.	5	1	5	Classroom ventilation short. At 240 CFM per classroom this is not sufficient for occupancy. Cafeteria and gym are acceptable.
6.4	Ventilation is provided during occupied hours.	5	5	25	DOAS Units operational.
6.5	Outdoor air intake locations are appropriate.	4	3	12	DOAS equipment has limited separation.
6.6	Appropriate levels of exhaust are provided for areas requiring this such as restrooms, janitor's closets and locker	5	5	25	Exhaust through DOAS is sufficient for all area in the building.
6.7	rooms. Building pressurization. The design takes into account the balance between ventilation and exhaust air	2	5	10	Outdoor air and exhaust air offsets are present at DOAS for building pressurization.
6.8	Major HVAC Equipment appears to be within it's acceptable service life.	5	5	25	All equipment appears to be in good condition overall and is approximately 15 years old. Some heat pumps replaced. ERVs, three total, appear to be newer equipment.
6.9	Cooling loads are within equipment operational capacity.	5	5	25	No notable issues with cooling the building.
6.10	Heating loads are within equipment operations capacity.	5	5	25	No notable issues with heating the building.



		Weight Factor	Rating	Points	Comments
6.11	Dehumidification is provided and addressed humidity loads in incoming outside air.	3	5	15	DOAS equipment includes Hot Gas Reheat for dehumidification capacity.
	ing Design				
6.12	Water Supply Pressure is adequate to allow for operation of plumbing fixtures.	5	5	25	No notable pressure issues.
6.13	Appropriate backflow preventer is provided at connection to city water supply.	5	5	25	Dual RPZ setup and accessible
6.14	Domestic hot-water systems are within equipment operational capacity.	5	3	15	Domestic hot water mixing valves need rebuilt to maintain temperature consistently. Temperature at discharge exceeds setpoint temperature. Recommend use of electronic valve mixing valve.
6.15	Domestic hot-water recirculating systems allow for hot-water at fixtures within a reasonable amount of time.	3	5	15	No known issues
6.16	Sanitary sewer systems are sized and sloped to allow for proper drainage.	5	5	25	No known issues
6.17	Appropriately sized grease interceptors are provided for facilities	3	5	15	External underground grease interceptor installed per City of DSM.
	with food service.				
6.18	Roof drainage systems are sized appropriately and overflow drainage systems are installed.	5	4	20	Roof scuppers or gutters used along perimeter areas with overflow drains in centrally located areas.
6.19	Restroom fixtures are in good condition and comply with current DMPS standards.	3	3	9	No automatic flush valves installed in restrooms. Wash stations are installed at restrooms exit and hallway.
ntainal 6.20	bility Equipment is provided with adequate service clearance to allow for regular maintenance	3	5	15	Heat pump locations are accessible . Mechanical room size sufficient.



		Weight Factor	Rating	Points	Comments
6.21	AHUs and chiller are provided with coil pull space.	2	N/A	0	N/A
6.22	Filter sizes are standard and filter types are standard.	2	3	6	All classroom units have the same filter and accessible from floor. Console units have limited filter capacity for higher efficiency type. Other equipment have varying filter sizes.
6.23	Equipment mounting heights are reasonable.	3	5	15	
6.24	Floor surfaces throughout the mechanical room are non-slip and are dry.	2	5	10	
6.25	Isolation valves are located in the plumbing and hydronic systems to allow for isolation of only portions of the system for servicing.	2	5	10	
6.26	Appropriate means are provided for airflow and water balancing.	3	5	15	
6.27	Hose Bibbs located in proximity to outdoor condensers and condensing units. Is cottonwood an issue at this location?	2	3	6	No roof hydrant for rooftop equipment.
6.28	Fall protection is provided for equipment within 15 ft of roof edge as per OSHA standard 1910.28(b).	2	3	6	No fall protection for single power roof vent.
6.29	Building devices are on DDC controls and fully visible through Building Automation System. No pneumatic controls remain.	4	5	20	Recent DDC controls upgrade.
Occupant S 6.30	afety Backflow prevention is provided at all cross-connections to non-potable water.	5	5	25	



		Weight Factor	Rating	Points	Comments
6.31	Building is fully sprinklered.	5	5	25	
6.32	Domestic hot-water temperature at lavatories used by students or staff is provided with a thermostatic mixing valve and adjusted properly.	5	0	0	Domestic hot water mixing valves need rebuilt to maintain temperature consistently. Temperature at discharge exceeds setpoint temperature. Recommend use of electronic valve mixing valve.
6.33	Emergency eye-washes and tempering valves are located where required.	5	3	15	Single eyewash located in kitchen. No eyewash in boiler room. No thermostatic mixing valve. Recommend evaluation with an occupational safety and health professional to determine if additional eye irrigation is needed.
6.34	Emergency boiler stop switches are located at exits from boiler rooms.	5	5	25	
6.35	Refrigeration evacuation systems are provided in rooms with chillers.	5	N/A	0	
6.36	Carbon Monoxide monitoring and alarming is provided for areas with gas-fired equipment.	5	N/A	0	No gas fired equipment in building.
	TOTAL			536	L

ASSESSOR: Calison

E | Electrical

7.0 Electric	al Systems	Weight	Deting	D - 104-	- ·
Electrical D	esign	Factor	Rating	Points	Comments
7.1	Transformer location is easily accessible by utility line truck to allow for rapid transformer replacement in the event of an issue.	5	5	25	
7.2	Transformer has adequate clearance from non-combustible building components, paths of egress, etc. 10' clear working area in front of doors.	5	5	25	
7.3	The MDP environment is safe, has adequate clearances and exiting.	3	3	9	MDP is both serviceable and maintainable, but does not meet clearance requirements due to room being utilized for storage. Semi-permanent shelving has been erected in front of panel clear area.
7.4	The MDP appears serviceable.	4	2	8	Electrical renovation replaced MDP in 2008. Several breakers show signs damage from excessive heat or exposure to moisture.
7.5	The MDP is maintainable.	3	5	15	
7.6	The MDP will support future expansion.	4	4	16	Four empty spaces remaining of nineteen in main distribution panel.
7.7	The Distribution Panel environment is safe , has adequate clearances and exiting.	4	4	16	Clearances are adequate save for incidental light items stored in electrical room.
7.8	The Distribution Panel appears serviceable.	4	4	16	
7.9	The Distribution Panel is maintainable.	4	5	20	
7.10	The Distribution Panel will support future expansion.	4	5	20	

E | Electrical



		Weight Factor	Rating	Points	Comments
7.11	Electrical panels and disconnect switches observed during assessment are safe, serviceable, and maintainable.	2	3	6	Panels observed are both serviceable and maintainable, but do not meet clearance requirements due to rooms being utilized for storage. In several instances, semi-permanent shelving has been erected in front of panel clear area.
7.12	Building has adequate and appropriately located, safe exterior power to allow for regular maintenance activities.	1	0	0	No exterior receptacles present save for integral within rooftop units.
7.13	Building has adequate exterior lighting to promote safety and security of the property.	5	4	20	Light above door at NW corner inoperative. SW corner appears dark. Area by building at lower playground appears dark.
Electronic 7.14	System Design MDF is neatly organized and has appropriate clearances and working spaces. Cables are neatly laced or trained. Entry to the room is restricted.	4	5	20	
7.15	MDF Equipment Racks have adequate space for future growth.	4	4	16	Rack is utilizing all but five usable spaces within the 45 unit rack. Removing un-utilized multi-mode fiber patch panel would improve available space for growth.
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	MDF Utilizes Minuteman Power Technologies 2kVA unit for single branch circuit battery backup.
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	No panel present within the MDF, receptacles fed from generic branch panelboard in adjacent room.
7.19	MDF employs up-to-date network cabling.	2	4	8	Majority of cabling is category 5e.
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with fiber optic cabling.	1	N/A	0	Fiber optic cable present is 62.5 µm multi mode. However, no IDF is present.

E | Electrical



		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate grounding busbar capacity.	2	5	10	
7.22	Building is equipped with an addressable fire alarm system.	5	4	20	Building utilizes Edwards EST3 fire alarm panel.
7.23	Building is equipped with an access control system.	5	5	25	
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	
	TOTAL			390	L]

EV | Elevator

8.0 Elevato	r Conditions	Weight			
Design		Weight Factor	Rating	Points	Comments
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 a 8.4	and Safety Elevators have proper level accuracy and door times.	1	5	5	
8.5	Safety devices are in place and operable.	1	5	5	
Condition a 8.6	and Maintainability Equipment is easily accessible for periodic maintenance.	1	5	5	
8.7	Equipment is at an acceptable point in the life cycle, and does not contain obsolete parts.	2	5	10	
8.8	Finishes are adequate and maintainable.	1	5	5	
8.9	Maintenance is adequate.	1	5	5	
8.10	Testing is up to date, and all record and logbooks are present and filled out.	1	5	5	
	TOTAL			65	



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 an years 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+ 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 in the appendix for additional information.

Short Term Maintenance

Roof Hatch Latch repair	The roof hatch is difficult to operate. Repair the latch mechanism and replace broken hatch guard gate.
Fence Reinstallation	Restore fence on NE corner of site. There is a missing portion that needs to be replaced.
Intercom Installation	The counselor's office, room 208A, is an added office that was previously part of the larger room 208. An intercom should be installed in this office to match the rest of the building.
Light Repair	Repair exterior light fixture above door at NW corner
Storage Relocation	Remove and relocate storage from around the MDP. MDP is required to have a 3'-0" clear area in front for regular and emergency access and maintenance.

1 - 2 Year Priority

Project Costs

Vestibule Flooring Replacement	Carpet at each vestibule, other than the main entry, is significantly worn and has a musty smell. This should be replaced with maintainable non-slip flooring such as walk- off carpet, rubber flooring, or include walk off mats.
Exterior Door Replacement	Southwest exterior exiting door is rusting due to poor slopping at the stoop and ponding water. Replace the exterior door and frame, including sidelights. Approximately 6'-0" x 7'-0" double door with 1'-0" sidelights each side. Glazing is approximately 3-6" x 10" each side. Metal infill panel below.

Pavement Repairs	Replace pavement panels and fix tripping hazards by entryways. For locations, refer to civil site plan exhibit found in the appendix of this report.
Stoop Replacement	The stoop outside of the southwest exterior exiting door should be replaced and sloped away from the building. Approximately 20SF of stoop replacement.
Hot Water Mixing Valve Replacement	Replace mixing valves with electronic mixing valve and connect to DDC for monitoring.
Ventilation and Exhaust System Improvements	Modify newly installed ventilation system to demand based ventilation provide additional CFMs of outdoor air to classrooms. Current system is only 50 to 60% of recommended CFMs.
Heat Pump Replacement, Classrooms	Replace remaining heat-pumps that are over 15 years in age. Corridors, conference and commons. Consider a two-speed style heat-pump to reduce demand on wellfield.
Boiler Installation	Add gas fired supplemental hot water boiler 500MBH for supplemental heat and existing elec boiler (500 MBH) for backup and peak heating.
MDP Breaker Replacement	Several breakers show signs of heat damage (yellowing, deformation of plastic) and should be replaced.
MDF Dedicated Panel Installation	Isolate electrical service to MDF with new panelboard located within the room.
Exterior Receptacles Installation	Install exterior GFCI receptacles with lockable weatherproof in-use covers for exterior maintenance activities.
Exterior Lighting Installation	Add exterior lighting at SW corner and near building at lower playground.

Draft

Project Costs

3 - 4 Year Priority

Casework Replacement	Replace plastic laminate casework throughout the classrooms with priority at wet locations. Solid Surface or HDPE countertops are recommended. Approximately 120 LF and includes 25 sinks.
Corridor Wall Refinish	Repair walls and wall base as necessary and paint all corridor walls. Approximately 40LF of terrazzo base repair. Approximately 10,000 SF of wall refinish. Approximately 500 SF of wall repair.
Stair Guardrail Replacement	Replace particle guardrail extensions with a code compliant fully engineered system. Recommendations based on expected life of particle board extension, unknown current structural performance to meet safety codes, and aesthetics.
Roof Repairs	Roof sealant, termination bar, and counterflashing replacement.
Roof Access Installation	Install roof access ladder between roofs "A" and "B". See Roof Identification Image attached in the appendix for these designated locations.
Drainage Repair	Repair the wash out by the middle retaining walls. For location, refer to civil site plan exhibit found in the appendix of this report.
Pavement Replacement	Install reinforced PCC in front of trash enclosure. For location, refer to civil site plan exhibit found in the appendix of this report.
Retaining Wall Replacement	Retaining wall to the south of the site should be replaced. Civil and structural concerns with existing conditions. Approximately 500 LF for replacement. See civil exhibit for location.
Mixing Valve Installation	Install digital mixing valve in place of existing and include DDC for monitoring. Re-balance hot water recirc and include auto flow valves.

Wash Station Replacement	Replace push button type wash station faucets with preferred hands free faucet. Recommended project based on meeting DMPS 2023/2024 standards and 2023/2024 condition.	ft
Flush Valve Replacement	Replace flush valves and include preferred autoflush type. Recommended project based on meeting DMPS 2023/2024 standards.	
5+ Year Priority		Project Costs
Roof Replacement	Full roof replacement recommended. Approximately 23,200 SF.	
Exterior Wall Repair	Remove and replace sealant in exterior masonry joints. Clean exterior walls, window sills, and roof parapets to remove any stains, mildew, or other biological growth.	
Playground Pavement Replacement	Restore playground asphalt pavement. For location, refer to civil site plan exhibit found in the appendix of this report.	
Parking Pavement Replacement	Remove and replace degenerated sections of parking pavement. For location, refer to civil site plan exhibit found in the appendix of this report.	
Circulator Pump Replacement	Install new circulator pumps and motors. Including circulation pump on backup boiler.	
Hot Water Heater Replacement	Replace hot water heater, older than 10 years, with hybrid air to air heat-pump type with electric backup.	
Air Cooled Refrigeration Condenser Replacement	Install coaxial heat exchanger for refrigeration equipment to preheat domestic hot water or use geoexchange.	

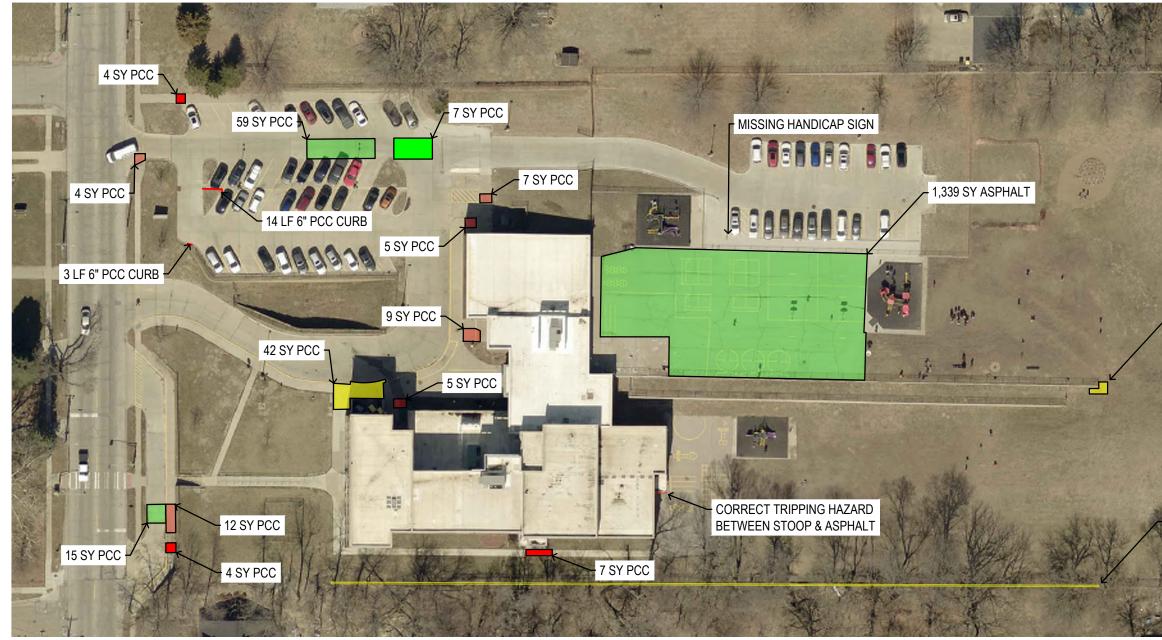
Projects Requiring Study



Mother's Room Space	Study to define a private, dedicated, space for a Mother's Room that includes at least a sink, side table, chair, and privacy door hardware.
Band Room Space	A study should be conducted to determine where a dedicated band room for lessons and instrument storage could be located.
Main Office and Entry Improvement	A study should be conducted to look at redesign or relocation of the front office and main entry sequence. This study should include main office relocation or addition as well as an addition or modification to the main entrance exterior to increase way finding. For safety
Designated Hardened Area	There appears to be a designated hardened space in the building as there is a tornado sign outside of the hearing testing booth room. It is unclear if this meets the ICC code from existing structural drawings. A further study would be required to determine this.

APPENDIX

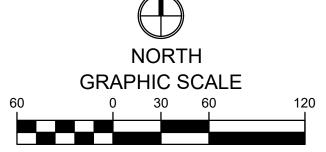
Draft





5+ YEAR REPLACEMENT

3-4 YEAR REPLACEMENT



1-2 YEAR REPLACEMENT





Draft



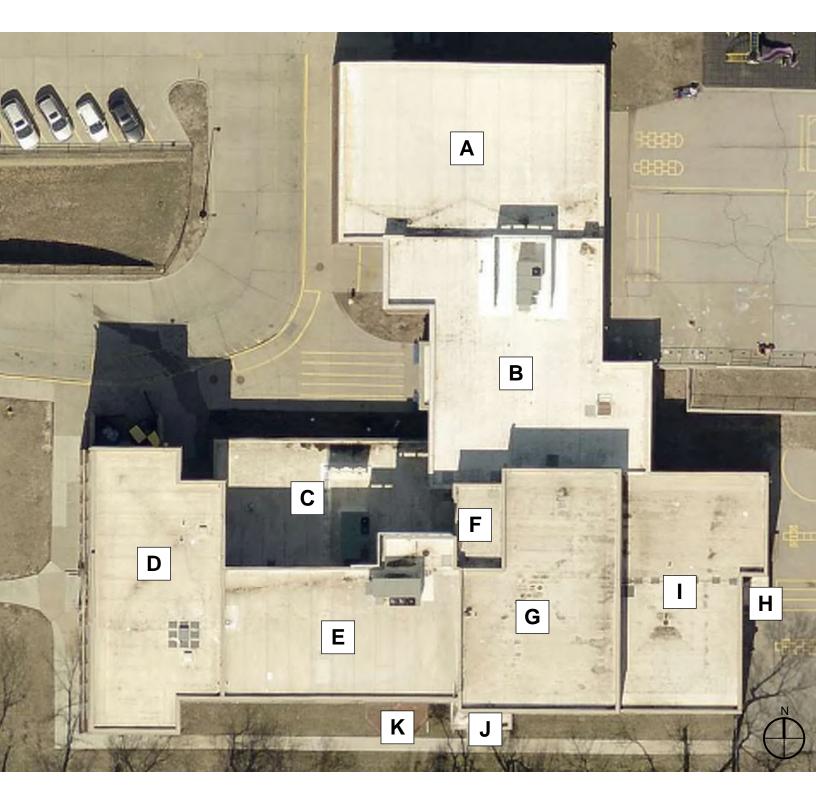
NO SIDEWALK ACCESS

GRADING REPAIR -CORRECT EROSION WASH OUT

DETERIORATED RETAINING WALL SECTION



Draft



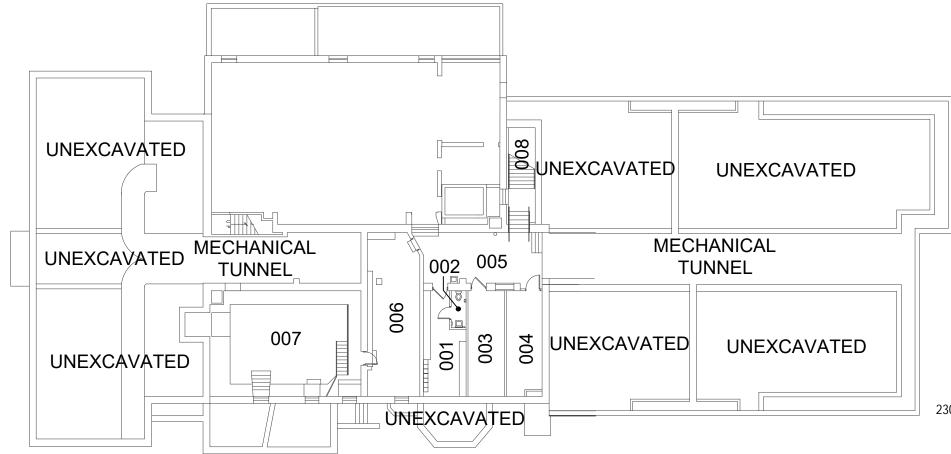


23055 - DMPS Facility Conditions Assessment Roof Identification Image Stowe Elementary 10.25.2023

EQUIPMENT TAG	MANUFACTURER		SERIAL NO.	AGE	CONDITION	EXPECTED USEFUL LIFE
B-1	LATTNER	154LW	53526	17	GOOD	2
^p -1&2	Bell and Gossett	1510 BF	C053578-01K70	17	GOOD	2
D_3	Bell and Gossett			5	GOOD	1
D_4	Bell and Gossett			17	GOOD	1
SP-1						2
ERU-1	VALENT	VXE		3	GOOD	1
ERU-2	VALENT	VXE	18787885	3	GOOD	1
ERU-3	VALENT	VXE		3	GOOD	1
VFD-1	JOHNSON CONTROLS			17	GOOD	1
VFD-2	ABB			3	GOOD	1
HP-1	CLIMATE MASTER			17	GOOD	1
HP-2 THRU 8	CLIMATE MASTER			17	FAIR	1
EF-1&2				17	GOOD	2
EWH1 THRU 3	AOSMITH			17	GOOD	1



1411 E 33RD STREET DES MOINES, IOWA 50317





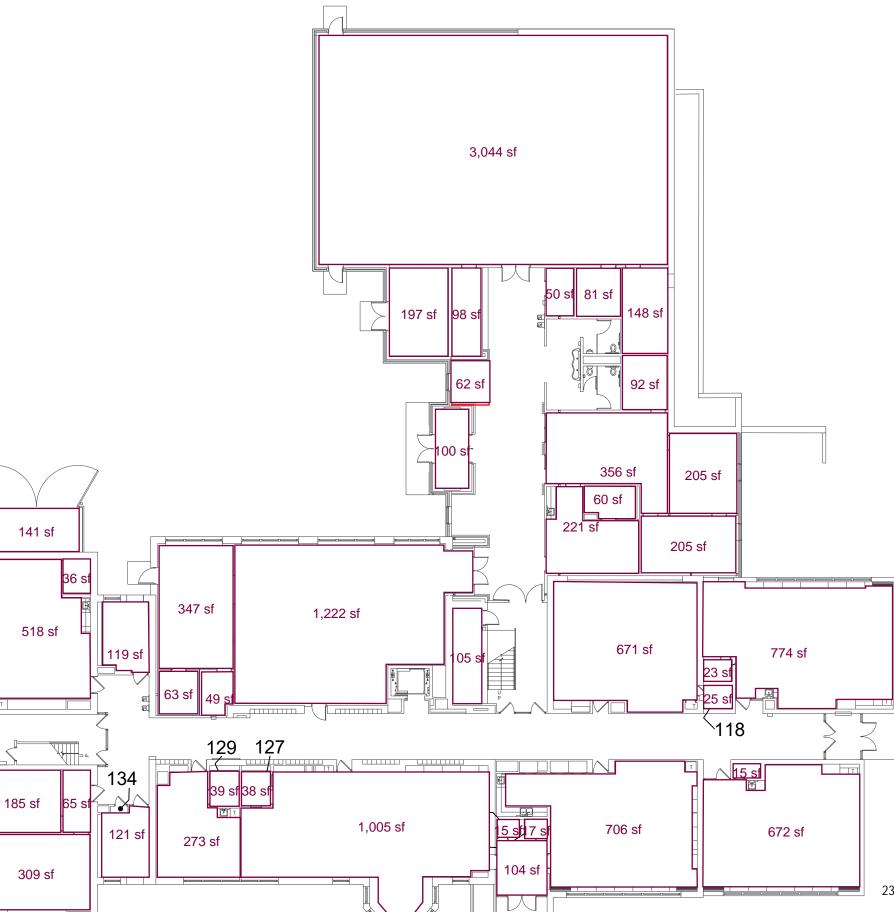


FOUNDATION Draft

23055 - DMPS Facility Conditions Assessment



1411 E 33RD STREET DES MOINES, IOWA 50317







FIRST FLOOR Draft

23055 - DMPS Facility Conditions Assessment



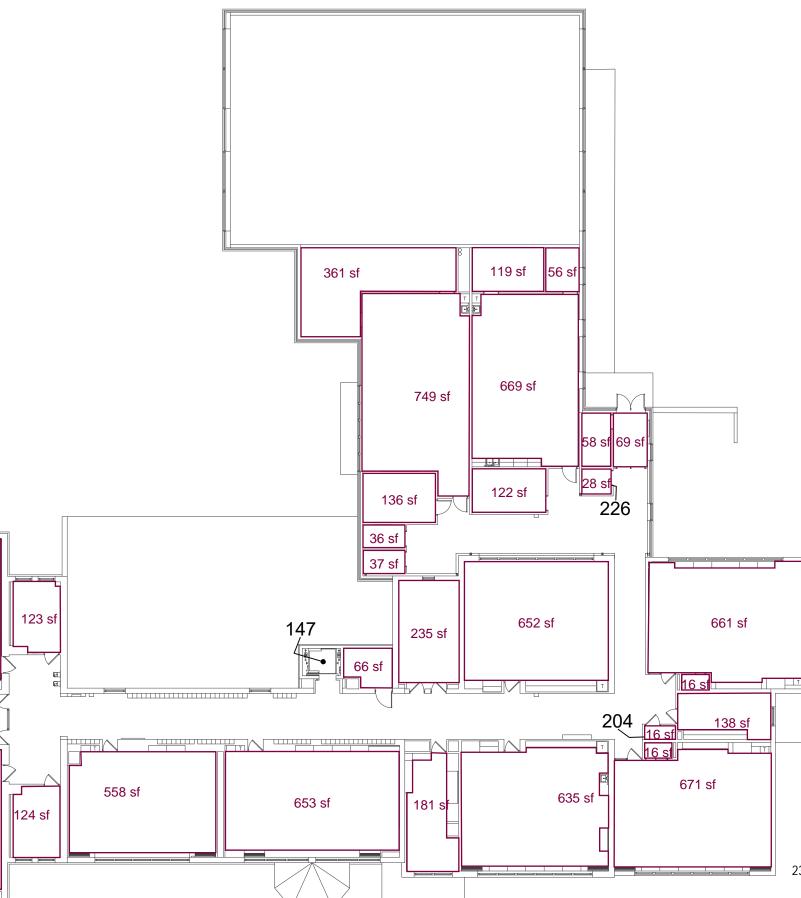
575 sf

573 sf

Т

Т

1411 E 33RD STREET DES MOINES, IOWA 50317



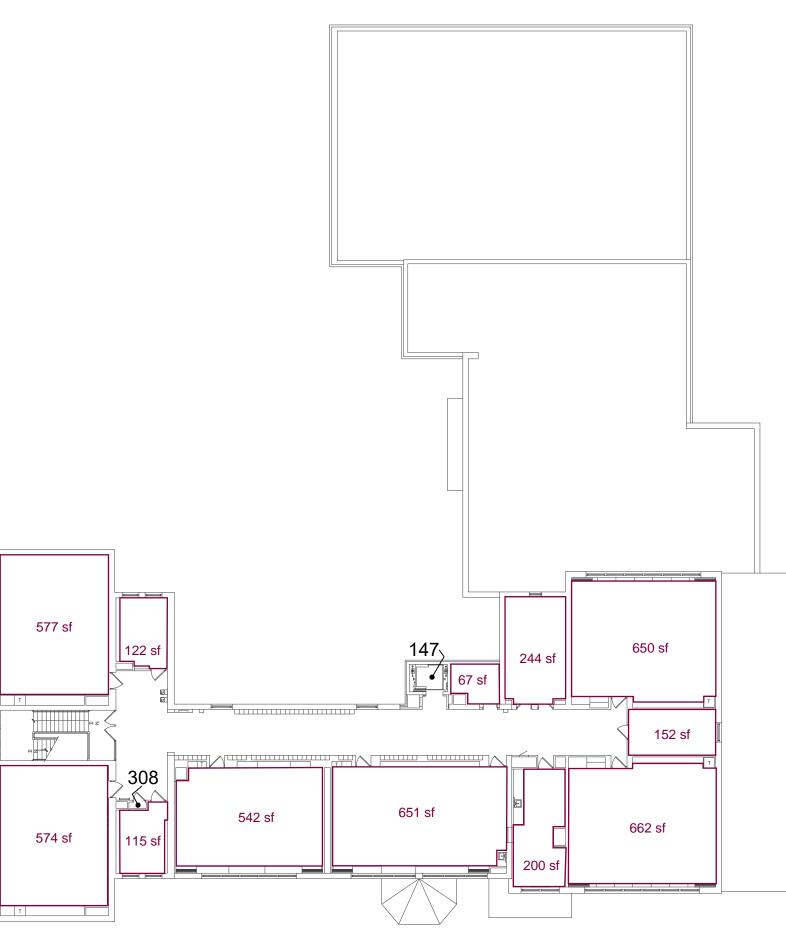




23055 - DMPS Facility Conditions Assessment



1411 E 33RD STREET DES MOINES, IOWA 50317





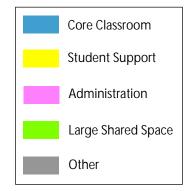


THIRD FLOOR Draft

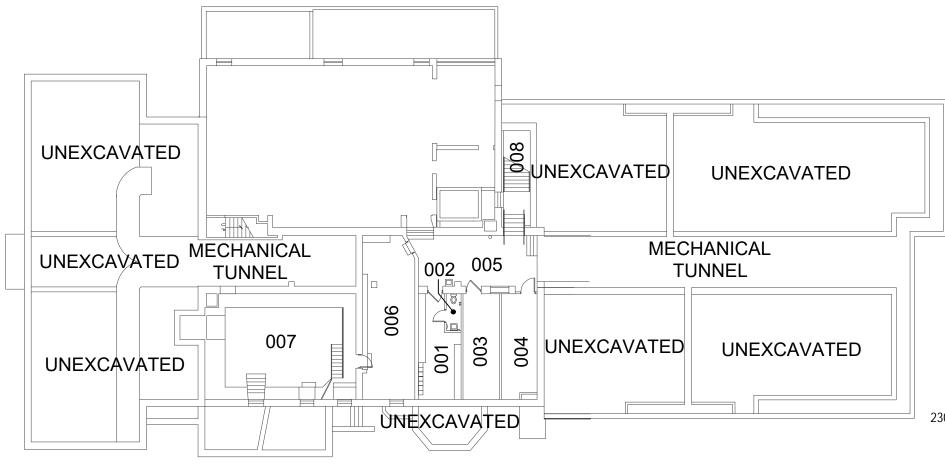
23055 - DMPS Facility Conditions Assessment



1411 E 33RD STREET DES MOINES, IOWA 50317







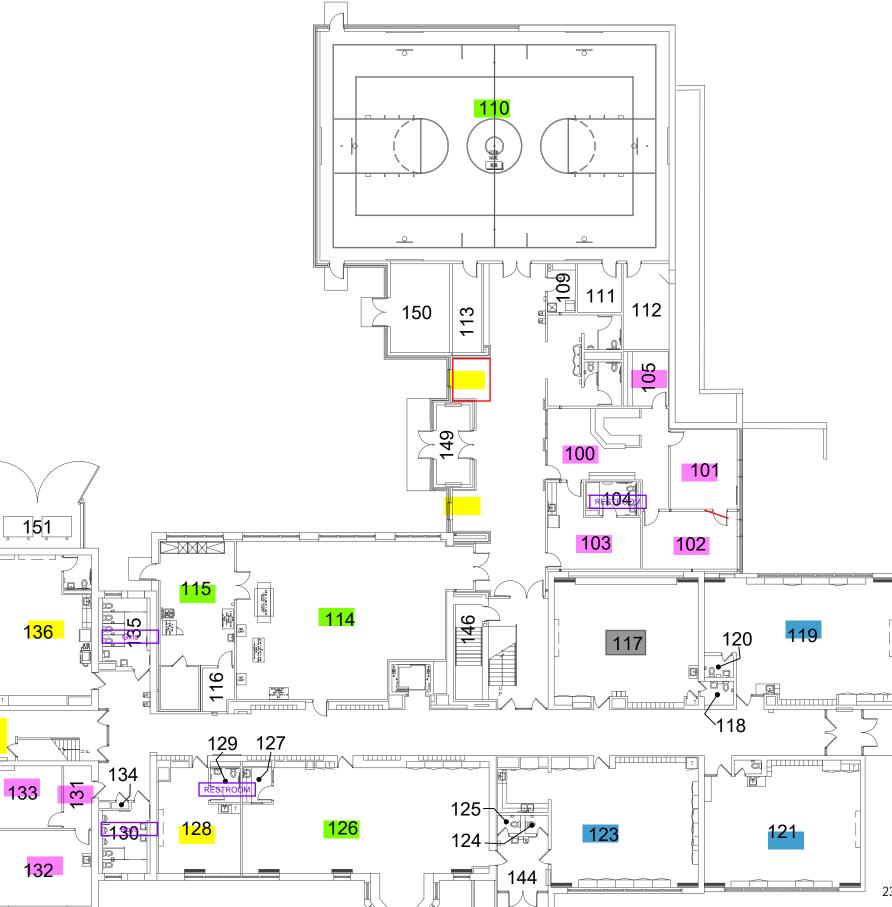


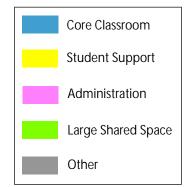
23055 - DMPS Facility Conditions Assessment



T

1411 E 33RD STREET DES MOINES, IOWA 50317









23055 - DMPS Facility Conditions Assessment

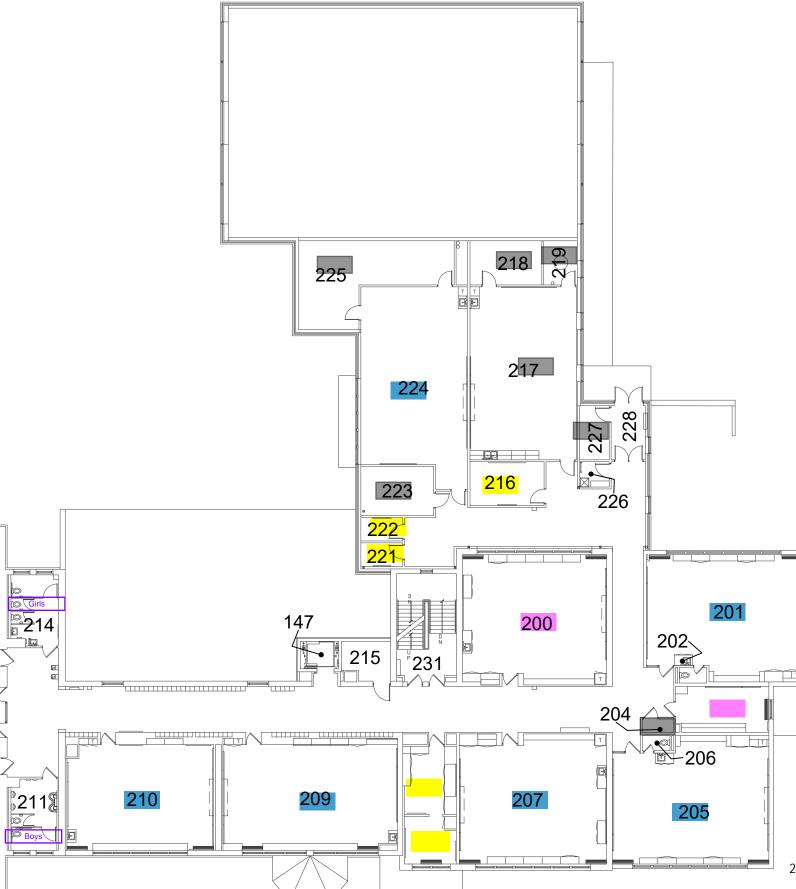


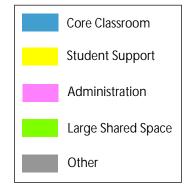
213

212

Т

1411 E 33RD STREET DES MOINES, IOWA 50317





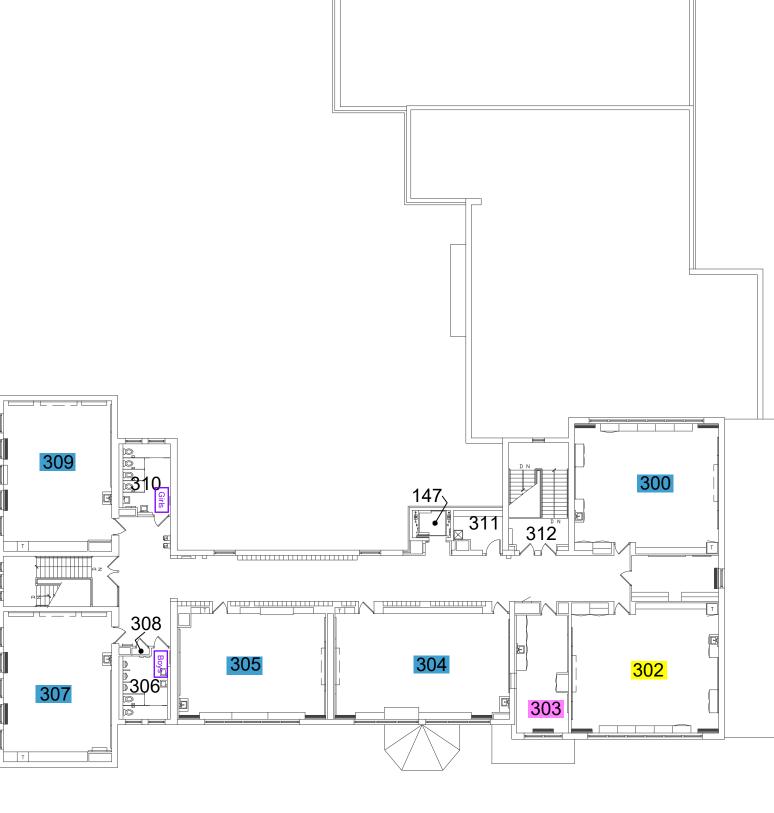


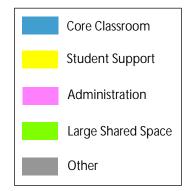
SECOND FLOOR

23055 - DMPS Facility Conditions Assessment



1411 E 33RD STREET DES MOINES, IOWA 50317









THIRD FLOOR Draft

23055 - DMPS Facility Conditions Assessment