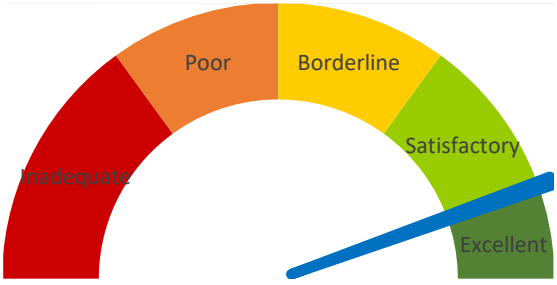
DMPS FACILITY ASSESSMENT | CARVER ELEMENTARY

10.31.2023

bbs
ARCHITECTS
ENGINEERS

219 Eighth Street
Suite 100
Des Moines, IA 50309
515.244.7167

www.bbsae.com



REPORT ORGANIZATION

COVER SHEET

REPORT ORGANIZATION

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BUILDING DATA RECORD

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APPENDIX
- Civil Site Plan
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EXECUTIVE BUILDING SUMMARY

Carver Elementary's on-site facility conditions assessment was conducted on October 31, 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.

One condition of immediate concern was noted at Carver Elementary. Evidence of moisture damage was noted in a number of classrooms with vinyl wallcovering installed on exterior walls. This trapped moisture can damage finishes, often leads to mold growth in the wall, and should be addressed as soon as possible. This project is noted in the 1-2 Year Priority project list later in this report.

Maintenance items flagged for Carver Elementary include:

- Exterior door hardware adjustments
- Repair of main distribution panel power meter
- MDF room grounding

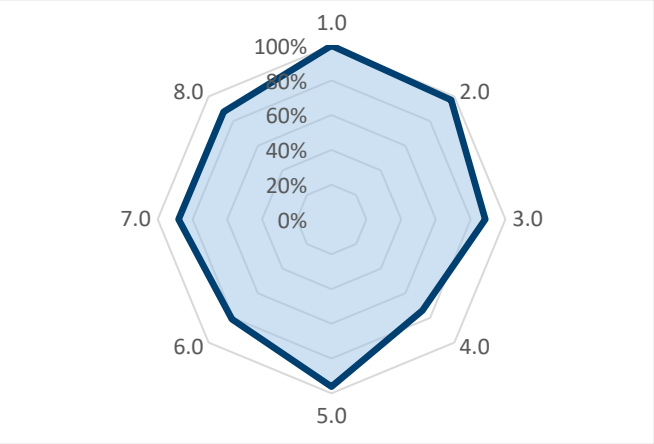
The potential projects for Capitol View recommended for action within the next 1-2 years include:

- Repair of rxterior wall moisture damage
- Casework repairs
- Parking and Sidewalk replacement

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

Discipline Comparison				Building Health				
Assessment Category Summary		Max Pnts	Earned Pnts	Bldg Weight Factor	Max Pnts	Earned Pnts	%	Rating
1.0	Educational Adequacy	165	165	2.00	330	330	100%	Excellent
2.0	Environment for Education	375	365	0.60	225	219	97%	Excellent
3.0	Exterior Envelope	95	84	3.00	285	252	88%	Satisfactory
4.0	School Site	100	74	1.50	150	111	74%	Satisfactory
5.0	Structural Conditions	130	125	1.30	169	163	96%	Excellent
6.0	Mechanical Systems	625	507	0.80	500	406	81%	Satisfactory
7.0	Electrical Systems	450	396	0.75	338	297	88%	Satisfactory
8.0	Elevator Conditions	65	57	1.00	65	57	88%	Satisfactory
Total					**2,062**	**1,834**	**89%**	**Satisfactory**

Carver Elementary
Discipline Comparison



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

After totaling the scores from the various disciplines, Carver Elementary scored a building health rating of 89%, or "Satisfactory", per the scale described within this report. Per the graph shown on the cover page of this report, scores within the "green" range are considered positive scores. Carver Elementary high is within this positive range. Some mechanical improvements and site improvements, as further detailed in the report, would help increase this rating to "Excellent".

Building Data Record

Building Name: Carver Elementary

Date: October 25, 2023

Address: 705 East University Avenue
Des Moines, IA 50316

High School Feeder System: East High School

Building SF: 91,500 square feet

Site Acreage: 8.90 acres

Date(s) of Construction: 2007

Date(s) of Roof Replacement: None - original roof intact.

Current/Scheduled Projects: Public Address System Expansion - 2024
HVAC Upgrades - 2024
Gymnasium Acoustic Improvements - 2025

Existing Building Data:

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

Site Items:

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

Energy Source:

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

Cooling:

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

Heating:

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

Structure Fireproofing:

- [x] No
- [ ] Yes

Construction:

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

Exterior Facade:

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

Floor/Roof Structure:

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

A | Architectural, Programming

ASSESSOR: Tim Bungert

1.0 Educational Adequacy

		Weight Factor	Rating	Points	Comments
General					
1.1	**Floor materials** are appropriate for space type.	2	5	10	
Elective/Secondary Classroom					
1.2	**Gymnasium** is adequate for providing physical education programming.	2	5	10	
1.3	**Cafeteria** has adequate space, furniture, and acoustics for efficient lunch use.	2	5	10	
1.4	**Music room** is adequate for providing introductory music instruction.	2	5	10	
1.5	**Art room** has sufficient accommodations for program.	2	5	10	
1.6	**Library/Resource/Media Center** provides appropriate and attractive space.	1	5	5	The upstairs reading area in the media center is a wonderful space, but appears to be underutilized for students. Currently the space is used to store furniture.
Core Classroom					
1.7	Classroom space permits arrangements for **small group activity.**	3	5	15	
1.8	**Student storage space** is adequate.	2	5	10	
1.9	**Teacher storage space** is adequate.	3	5	15	
1.10	Classroom **acoustical treatment** of ceiling, walls, and floors provide effective sound control.	3	5	15	

A | Architectural, Programming

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
1.11	**Classroom power and data receptacles** are located to support current classroom instruction.	4	5	20	
1.12	Educational **technology** supports instruction.	4	5	20	
Administration					
1.13	**Conference/Private meeting rooms** are adequate for large and small meetings.	1	5	5	
1.14	**Main office** has a check-in and waiting area.	2	5	10	
	TOTAL			165	

A | Architectural, Interior

ASSESSOR: Tim Bungert

2.0 Environment for Education

Design

		Weight Factor	Rating	Points	Comments
2.1	**Traffic flow** is aided by appropriate foyers and corridors.	1	5	5	
2.2	Communication among students is enhanced by **common areas.**	1	5	5	
2.3	Areas for students to **interact are suitable to the age group.**	1	5	5	
2.4	Large group areas are designed for effective **management of students.**	2	5	10	
2.5	**Furniture Systems** are in good or like new condition.	1	5	5	
2.6	**Color schemes**, building materials, and decor are **engaging and unify** the school character.	2	5	10	
2.7	Windows and skylights provide access to **adequately controlled daylight** for regularly occupied spaces.	3	5	15	
2.8	Windows provide access to **quality views** (to exterior, courtyards, artwork etc.) for regularly occupied spaces.	3	5	15	
2.9	**Lighting has proper controls** to provide the required light levels for various teaching and learning needs.	2	4	8	Two-zone controls provided are appropriate. However, in roughly 25% of classrooms staff have added colored fabric covers over light fixtures.
2.10	**Staff dedicated spaces** include conference space, work space, and dedicated restrooms.	1	5	5	

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.11	**Main office** is visually connected to the entry and is welcoming to students, staff, and guests.	2	5	10	
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 mother's room observed.
Maintainability					
2.14	**Floor surfaces** are durable and in good condition.	1	5	5	
2.15	**Ceilings** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	5	5	
2.16	**Walls** throughout the building – including services areas – are easily cleaned and resistant to stain.	1	3	3	Damage to outside corners of gypsum board walls noted in rooms 1040, 1041, 1046, 1063, 1142A, 2005, 2006, 2007, 2014, 2021, 2022, and 2064. Vinyl wall covering and/or window stools on exterior walls shows signs of trapped moisture / possible mold growth in rooms 1065, 1144, 2019, 2021, 2063, 2064.
2.17	**Built-in casework** is designed and constructed for ease of maintenance.	1	4	4	Water damaged requiring repair was noted on plastic laminate countertops and backsplashes in rooms 1059, 1142, 2001, and 2020.
2.18	**Doors** are either solid core wood or hollow metal with a hollow metal frame and well maintained.	3	5	15	
2.19	**Facility doors** are keyed to standardized master keying system.	3	5	15	
2.20	**Restroom partitions** are securely mounted and of durable finish.	2	5	10	

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.21	**Adequate electrical outlets** are located to permit routine cleaning in corridors and large spaces.	1	5	5	
Occupant Safety					
2.22	Classroom doors are **recessed and open outward.**	4	5	20	
2.23	Door hardware (into classrooms or any occupied rooms off of corridors) include **intruder classroom locksets.**	3	5	15	
2.24	**Door panels** into classrooms and other occupied spaces contain **vision lite.**	3	5	15	
2.25	**Vision lite** in doors is clear and uncovered.	2	5	10	
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	During our visit multiple teachers independently noted past issues with students throwing objects or attempting to jump over the half-wall and rail at the top landing of staircases. The stairs and guardrails meet building code safety requirements, but this concern may warrant further investigation.

A | Architectural, Interior

ASSESSOR: Tim Bungert

		Weight Factor	Rating	Points	Comments
2.31	At least **two independent exits** from any point in the building	5	5	25	
2.32	**Emergency lighting** is provided throughout the building.	5	5	25	
	TOTAL			365	

A | Architectural , Exterior

ASSESSOR: Matthew Gaul

3.0 Exterior Envelope

		Weight Factor	Rating	Points	Comments
Design					
3.1	Overall **design is aesthetically pleasing** and appropriate for the age of students.	2	4	8	The paint color of the EIFS is an unattractive beige More pleasing paint could be selected to compliment dark brick.
Maintainability					
3.2	**Roofs** appear sound, have positive drainage, and are water tight.	3	5	15	No comments.
3.3	**Roof access** is safe for all roofs.	3	4	12	Roofs above entry have no ladders.
3.4	Exterior **window sealant** is fully intact without cracks or gaps.	3	5	15	No comments.
3.5	**Glazing** is low-e coated, insulated, and overall in good condition.	1	3	3	Many glazing units are fogging - have broken seals. Low-e glazing cannot be determined. Windows are tinted.
3.6	**Operable windows** are functional and safe. Operable portion of window fully seals when closed without gapping or leaking.	2	5	10	No comments.
3.7	**Exterior doors** are of durable material requiring minimum maintenance.	2	5	10	No comments.
3.8	**Exterior walls** are of material and finish requiring little maintenance,	1	5	5	No comments.
3.9	**Exterior Doors** open outward and are equipped with **panic hardware.**	1	5	5	No comments.
3.10	**Exterior Doors are monitored** or controlled by an access control system.	1	1	1	05 - Doors do not latch 06 - Doors with card readers 10 - Doors with locks or no exterior lock 14 - Doors with no signage.
	TOTAL			84	

C | Civil

ASSESSOR: Jack Gorman

4.0 The School Site

		Weight Factor	Rating	Points	Comments
4.1	**Site topography** and grading drains water away from the building and retaining walls.	1	5	5	Site has positive drainage away from building. Steep slopes are present north of building down to Burke Park but no erosion or washout was observed on them.
4.2	**Parking areas** are in good condition.	5	3	15	The north lot is cracking throughout the lot, but the pavement does not appear to be failing immediately. The south parking lot has sections in need of repair as well, but they are not to the extent of the north parking lot
4.3	**Drive areas** are in good condition.	3	4	12	Parent pick up/drop off lanes on the north side are in fair condition with some cracks.
4.4	**Sufficient on-site, solid surface parking** is provided for faculty, staff, and community.	1	5	5	The north lot has plenty of parking spaces. Some spaces in the NE corner are reserved for Unity Point Health. The south lot was full with staff parking during site visit.
4.5	**Sidewalks** around the facility are in good **condition.**	1	4	4	Sidewalk conditions were adequate on site. The west bus lane sidewalk had a few locations needing repair, as well as the small sections of the perimeter walk along the north, east, and west sides.
4.6	**Sidewalks are located** in appropriate areas with adequate building access.	1	5	5	All building doors had sidewalk to them and no inaccessible areas by sidewalk were observed.
4.7	**Hard surface** playground surfaces are in good condition.	3	4	12	Asphalt around the basketball hoops was cracking but not failing. Concrete walk track was in good condition and concrete around playground equipment was holding up well.
4.8	**Fencing** around the site is in good condition.	1	4	4	The black vinyl fence around the playground area was in acceptable condition with a few holes observed along the east side of the play area walk track.
4.9	**Trash enclosure** is in good condition.	1	3	3	Pavement inside of the enclosure was in need of repair. The fence around the enclosure was in fair condition and the gate was slightly damaged but still functioning properly.
4.10	**Utilities** are in newly constructed conditions and placed in suitable locations.	1	4	4	Roof drains, scuppers, and splash pads all in good condition and appeared to be functioning well. Intakes all in satisfactory condition. The manhole in the drive though lane should be raised to match the road grade.

ASSESSOR: Jack Gorman

		Weight Factor	Rating	Points	Comments
4.11	**Site has sufficient room** for both building and parking expansion.	1	2	2	Burke Park to the north and the Not New shop take up a considerable portion of the site. There is ample room for parking expansion to the east of the north parking lot.
4.12	Site has **onsite bus and parent pickup** up with adequate length, good separation and general good site circulation.	1	3	3	Bus and parent pickup are separated on site. Bus lane is on E 6th St. to the west of the site and parent pickup is to the north of the building. There is a conflict on the west side with the bus lane and some parents using the west side for pickup.
	TOTAL			74	

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	N/A	0	
5.4	**Stoops** appear to be in good condition.	1	5	5	
Slab on Grade					
5.5	**Slabs on grade** do not appear to have any cracks	1	5	5	
5.6	Slabs on grade do not appear to have any **settlement.**	1	5	5	
Exterior Walls					
5.7	**Brick masonry** appears to be in good condition.	2	5	10	
5.8	**Lintels** appear in good condition (no visible deflection or rust).	1	5	5	
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	N/A	0	
5.16	**Canopies** appear to be in good condition.	1	5	5	
5.17	**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	
5.20	**Stair railings** appear to be in good condition.	1	5	5	

S | Structural

ASSESSOR: Trevor Pullen

		Weight Factor	Rating	Points	Comments
5.21	**Tunnels** appear to be in good condition without cracks.	1	N/A	0	
5.22	There is a **designated hardened area** in the building.	1	0	0	No designated hardened area observed.
5.23	The hardened area appears consistent with the **ICC 2018 code.**	1	N/A	0	
	TOTAL			125	

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	Typically appears to be true throughout significant building spaces.
6.2	**Thermostat location.** Thermostats are properly located in the space.	3	5	15	Typically appears to be true of all observed devices
6.3	Appropriate **amount of ventilation** are provided to each space.	5	3	15	Appears to be true for classroom spaces. Several larger spaces appear to be below target levels, including art room, music room, library, and possibly cafeteria or gym.
6.4	**Ventilation** is provided during occupied hours.	5	5	25	
6.5	**Outdoor air intake locations** are appropriate.	4	5	20	
6.6	Appropriate **levels of exhaust** are provided for areas requiring this such as restrooms, janitor's closets and locker rooms.	5	5	25	
6.7	**Building pressurization.** The design takes into account the balance between ventilation and exhaust air	2	2	4	Generally true, however it appears that design relies on transfer air through corridors to make up exhaust for restrooms - this does not appear to be code compliant and may not have been when systems were designed.
6.8	**Major HVAC Equipment** appears to be within it's acceptable **service life.**	5	3	15	Generally appears to be in good condition, but approaching expected useful life.
6.9	**Cooling loads** are within equipment operational capacity.	5	5	25	
6.10	**Heating loads** are within equipment operations capacity.	5	5	25	

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	3	9	May be issues due to lack of cooling on ERVs, but no humidity issues observed on fairly cool humid day of site visit.
Plumbing Design					
6.12	**Water Supply Pressure** is adequate to allow for operation of plumbing fixtures.	5	5	25	
6.13	Appropriate **backflow preventer** is provided at connection to city water supply.	5	5	25	
6.14	**Domestic hot-water systems** are within equipment operational capacity.	5	5	25	
6.15	Domestic **hot-water recirculating systems** allow for hot-water at fixtures within a reasonable amount of time.	3	5	15	
6.16	**Sanitary sewer systems** are sized and sloped to allow for proper drainage.	5	5	25	
6.17	Appropriately sized **grease interceptors** are provided for facilities with food service.	3	3	9	Appears that grease interceptor is smaller than would be required under current DMMWRA requirements.
6.18	**Roof drainage** systems are sized appropriately and overflow drainage systems are installed.	5	4	20	Drainage appears adequate and overflow is provided, however there were multiple locations with ponding on roof where low points were not at drains.
6.19	**Restroom fixtures** comply with DMPS preferences.	3	2	6	Manual flush valves provided.
Maintainability					
6.20	Equipment is provided with **adequate service clearance** to allow for regular maintenance	3	5	15	Many heat pumps in dedicated closets.

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		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	Appear to be reasonably limited number of filter types/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	N/A	0	N/A.
6.28	**Fall protection** is provided for equipment within 15 ft of roof edge.	2	1	2	No. Multiple pieces of equipment are near the edge of the roof, including an ERV at the edge of the gym roof. Most equipment is set back from edge of roof significantly.
6.29	**Building devices are on DDC controls** and fully visible through Building Automation System. No pneumatic controls remain.	4	4	16	Yes. Controls appear to be N2 vintage.
Occupant Safety					
6.30	**Backflow prevention** is provided at all **cross-connections** to non-potable water.	5	5	25	

MP | Mechanical & Plumbing

ASSESSOR: Corey Metzger

		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	5	25	
6.33	**Emergency eye-washes and tempering valves** are located where required.	5	1	5	Eyewash not observed. Recommend evaluation with an occupational safety and health professional to determine if eye irrigation is needed.
6.34	**Emergency boiler stop switches** are located at exits from boiler rooms.	5	1	5	Not observed.
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	N/A	0	N/A.
	TOTAL			517	

E | Electrical

ASSESSOR: Rob Hedgepeth

7.0 Electrical Systems

Electrical Design

		Weight Factor	Rating	Points	Comments
7.1	**Transformer location** is easily accessible by utility line truck to allow for rapid transformer replacement in the event of an issue.	5	5	25	
7.2	**Transformer** has adequate clearance from non-combustible building components, paths of egress, etc. 10' clear working area in front of doors.	5	5	25	
7.3	**The MDP environment** is safe, has adequate clearances and exiting.	3	4	12	Adequate clearance and exiting. Light and movable storage in front of MDP. No labeling to differentiate 480 from 208V panels. 2000A 480V/3 ph main.
7.4	The **MDP** appears serviceable.	4	4	16	Square D. Powerlogic meter appears inoperable.
7.5	The MDP is **maintainable.**	3	5	15	Built in Surge Suppression. Separate Main Ground Bus.
7.6	The MDP will support **future expansion.**	4	4	16	117" mounting space total. 30" spare (6 3p breakers + 2 1pole)
7.7	The Distribution Panel **environment is safe**, has adequate clearances and exiting.	4	4	16	800A 208/3p fed from 225kva xfmr Surge Suppression
7.8	The Distribution Panel appears **serviceable.**	4	4	16	10-25 years old
7.9	The Distribution Panel is **maintainable.**	4	5	20	
7.10	The Distribution Panel will support **future expansion.**	4	5	20	

E | Electrical

ASSESSOR: Rob Hedgepeth

		Weight Factor	Rating	Points	Comments
7.11	**Electrical panels and disconnect switches** are safe, serviceable, and maintainable.	2	4	8	Storage
7.12	Building has adequate and appropriately located, **safe exterior power** to allow for regular maintenance activities.	1	5	5	One ground level rcpt - in use cover. One roof rcpt.
7.13	Building has adequate **exterior lighting** to promote safety and security of the property.	5	4	20	NW corner and SE corner appear darker than the rest of the well-lit building. West side entry has HPS fixture.
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	5	20	Fiber jumper to switches is looped around data cabling. Fed from East High School Multi-mode fiber not in use. Cut and neatly left hanging at rack.
7.15	MDF Equipment Racks have adequate space for **future growth.**	4	4	16	Approx 25% spare capacity.
7.16	MDF is equipped with Liebert UPS to back up main switch(es), providing **backup power** to necessary equipment in the event of a power outage.	5	4	20	ONE 2000VA MINUTEMAN UPS
7.17	MDF Power is supplied by **20A circuits and receptacles.**	1	5	5	
7.18	MDF Power is supplied from a branch panel located in the room with **adequate spare circuit capacity.**	1	5	5	W/ surge suppression FIRE ALARM BREAKER NOT LOCKED.
7.19	MDF employs up-to-date **network cabling.**	2	4	8	CAT 5e and 6A
7.20	MDF is connected to Intermediate Distribution Frame (IDF) closets with **fiber optic cabling.**	1	N/A	0	NA. No IDFs.

E | Electrical

ASSESSOR: Rob Hedgepeth

		Weight Factor	Rating	Points	Comments
7.21	MDF has adequate **grounding busbar capacity.**	2	4	8	TMGB with conductor from outside room. CATV/phone ground to building steel. Two busbars not bonded.
7.22	Building is equipped with an **addressable fire alarm system.**	5	5	25	Simplex 4100U
7.23	Building is equipped with an **access control system.**	5	2	10	4/16=25%
7.24	Building is equipped with a **CCTV system.**	5	5	25	Quality of exterior camera by cafeteria is poor after dark. Placement of entry vestibule camera is affected by glare from parking lot and from car headlights from the entry drive.
7.25	Building is equipped with an **intercom system.**	4	5	20	Bogen; Two zones
7.26	Building is equipped with a **master clock system.**	4	5	20	Primex wireless. Small UPS (not in use).
	TOTAL			396	

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	5	10	
8.8	**Finishes** are adequate and maintainable.	1	3	3	Several scratches and chips in the laminate panels. The leading edge of the car door is bent.
8.9	**Maintenance** is adequate.	1	3	3	The car door gibs are worn allowing the metal bracket to rub on the aluminum sill. This should be replaced soon or permanent damage will occur.
8.10	**Testing** is up to date, and all **record and logbooks** are present and filled out.	1	1	1	The log books are incomplete.
	TOTAL			57	

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

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

Project Descriptions

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

Projects Requiring a Study

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

Cost Estimating

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

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

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

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

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

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

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

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

RECOMMENDED PROJECTS AND COST ESTIMATING METHODOLOGIES

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

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

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

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

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

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

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

PROJECT RECOMMENDATIONS

Below are recommended maintenance, projects, and studies based on the previous assessment scoring information. Short Term Maintenance items are items requiring DMPS attention in less than a year's time and is less than $5,000. Costs for these items are not estimated. 1-2 year priority projects are projects that require attention within the next 2 years. 3-4 year priority projects are projects that require attention within the next 4 years. 5-10 year priority projects are projects that require attention within the next 10 years. Project quantities are all estimated based on observations. These are not measured or verified quantities. Project costs are listed. Project requiring Study are items where project scope is not able to be defined at this time and further investigation is required. Costs for these items are design service fees, not project costs. See the Cost Methodology description for additional information.

Short Term Maintenance

Exterior Door Adjustment	Adjust or repair exterior door latches and closers to properly secure doors. Closing/latching issues were noted at exterior doors in or near rooms 1049, 1065, 1073, 1074, and 1082.
MDF Grounding	TMGB with conductor from outside room (MDP), but CATV/phone is bonded to building steel. Two busbars should be bonded to be at the same potential. Install jumper and remove bond to building steel.
Elevator Maintenance Increase	Increase scheduled maintenance frequency to quarterly.
MDP Power Monitor Repair	The power meter at the main breaker appears inoperable and should be repaired or replaced.

1 - 2 Year Priority

		Project Costs
Countertops Replacement	Replace 35 linear feet of water damaged countertops and backsplashes in four classrooms.	$15,000.00
Corner Guards Installation	Install 48" high corner guards on all outside corners of gypsum board walls in classrooms (estimated 40 locations).	$50,000.00
Wall Moisture Damage Repair	In all rooms with vinyl wallcovering installed on exterior walls: remove 5,600 SF of wallcoverings and gypsum board. Remove 70 LF of plastic laminate/wood window stools. Install same 70 LF new window stools. Install 5,600 SF of new gypsum board with paint finish.	$55,000.00

Roof Access Installation	Provide 25 LF guardrail at mechanical equipment on roof area F.	$14,000.00
Parking Pavement Replacement	Remove and replace 72 SY of asphalt around potholes in north parking lot. For location, refer to civil site plan exhibit found in the appendix of this report.	$13,000.00
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 28 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$10,000.00
Curb Repair	Return damaged curbs to new condition. Approximately 38 LF of 6" curbs. For locations, refer to civil site plan exhibit found in the appendix of this report.	$7,000.00
Exterior Lighting Replacement	Replace high-pressure sodium light fixture near west entry with LED fixture. Add exterior light fixtures at northwest and southeast corners.	$10,000.00
	Total 1-2 Year Project Costs	**$174,000.00**

3 - 4 Year Priority

		Project Costs
Parking Pavement Replacement	Replace asphalt pavement sections with new pavement. See attached civil exhibit.	$55,000.00
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 8 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$7,000.00
Energy Recovery Ventilators Replacement	Replace ERVs. Consider consolidating units due to roof screening requirements. Modify system to provide transfer from classrooms to restrooms without using corridor as pathway. Confirm scope of B9075-Carver-2024 HVAC Upgrades project to make sure replacement of ERV did not occur in this project.	$2,000,000.00

Heat Pumps Replacement	Heat pumps will be 20 year old in 2026. Consider replacement to avoid unexpected failures beyond this point. Confirm scope of B9075-Carver-2024 HVAC Upgrades project to make sure replacement of heat pumps did not occur in this project.	$2,600,000.00
Elevator Car Door Gibs Replacement	Door gibs are worn and will cause permanent damage if left unattended. Replace all door gibs.	$7,000.00
	Total 3-4 Year Project Costs	**$4,669,000.00**

5 - 10 Year Priority

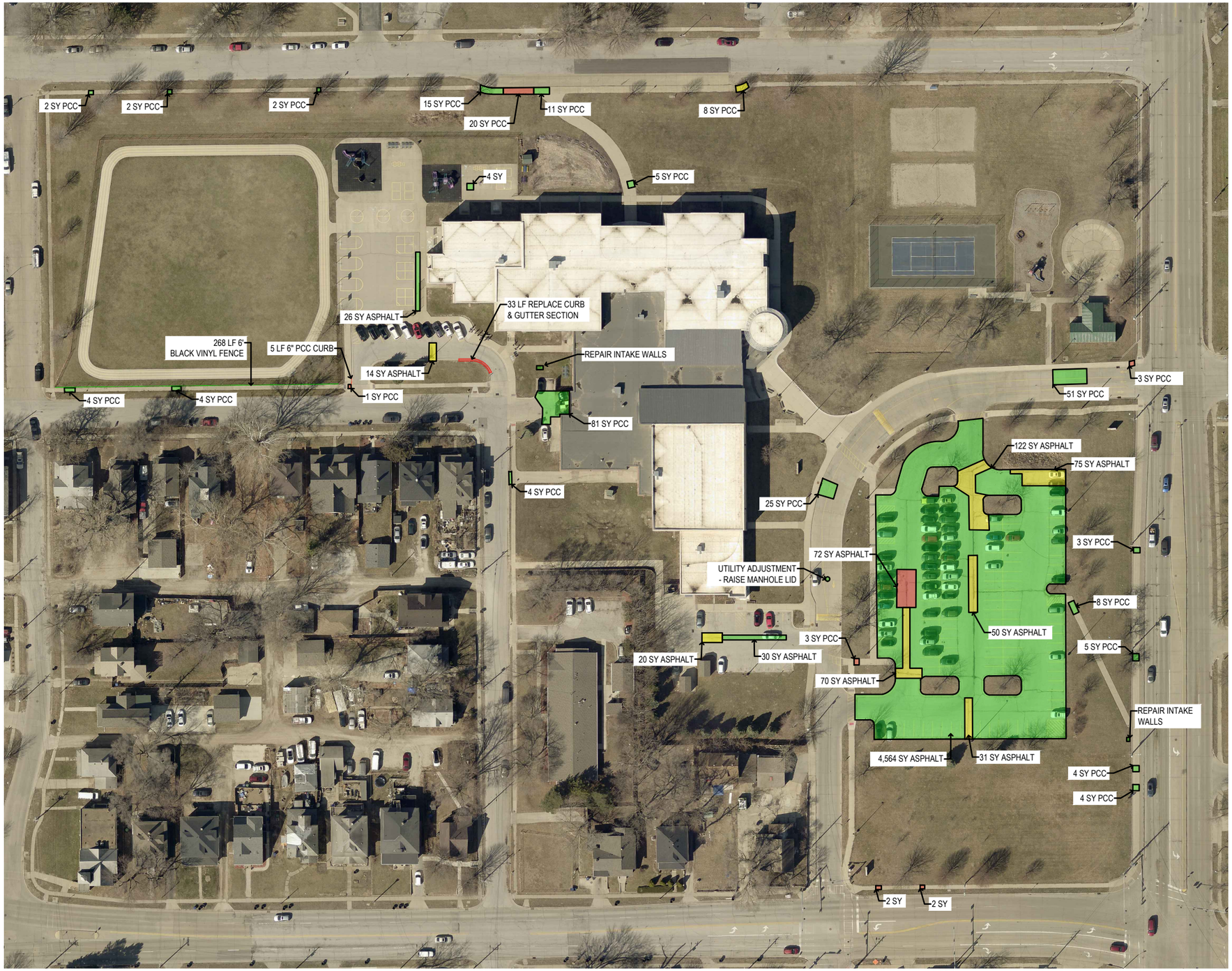
		Project Costs
Exterior Glazing Replacement	Replace 24 insulated glazing units in exterior windows and/or doors with evidence of broken glazing seals (fogging between glass panes). Approximately 24 SF each.	$90,000.00
Parking Pavement Replacement	Remove and replace 4,594 SY of aspahlt and 157 SY of concrete. For locations, refer to civil site plan exhibit found in the appendix of this report.	$840,000.00
Fence Replacement	Remove and replace 268 LF of fencing. For location, refer to civil site plan exhibit found in the appendix of this report.	$40,000.00
Sidewalk Repairs	Repair damaged sidewalks across the site. Approximately 73 SY. For locations, refer to civil site plan exhibit found in the appendix of this report.	$20,000.00
Playground Asphalt Replacement	Take out and restore deteriorated playground asphalt. Approximately 26 SY. For location, refer to civil site plan exhibit found in the appendix of this report.	$10,000.00
Repair Intake	Repair walls of two intakes - one on the north side of the site and the other south of the building. For locations, refer to civil site plan exhibit found in the appendix of this report.	$12,000.00
Manhole Adjustment	Raise manhole lid to match the grade of the road. For location, refer to civil site plan exhibit found in the appendix of this report.	$7,000

Stoop Replacement	Replace one stoop. 30 sq. ft., 5" thick slab w/ #4 @ 9" o.c. each way.8" thick stoop walls, 42" deep, 15 ft. long w/ #4 @ 12" o.c. each way.	$11,000.00
	Total 5-10 Year Project Costs	**$1,030,000.00**

Projects Requiring Study

		Design Service Fees
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.	$5,000.00
Designated Hardened Area	Tornado signs outside of hearing testing room indicates possible designated hardened area.. Study to determine whether this is ICC compliant or if not, then 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.	$2,500.00
	Total Study Design Service Fees	**$7,500.00**

APPENDIX



5+ YEAR REPLACEMENT

3-4 YEAR REPLACEMENT

1-2 YEAR REPLACEMENT

NORTH

GRAPHIC SCALE

100 0 50 100 200

bbs ARCHITECTS ENGINEERS

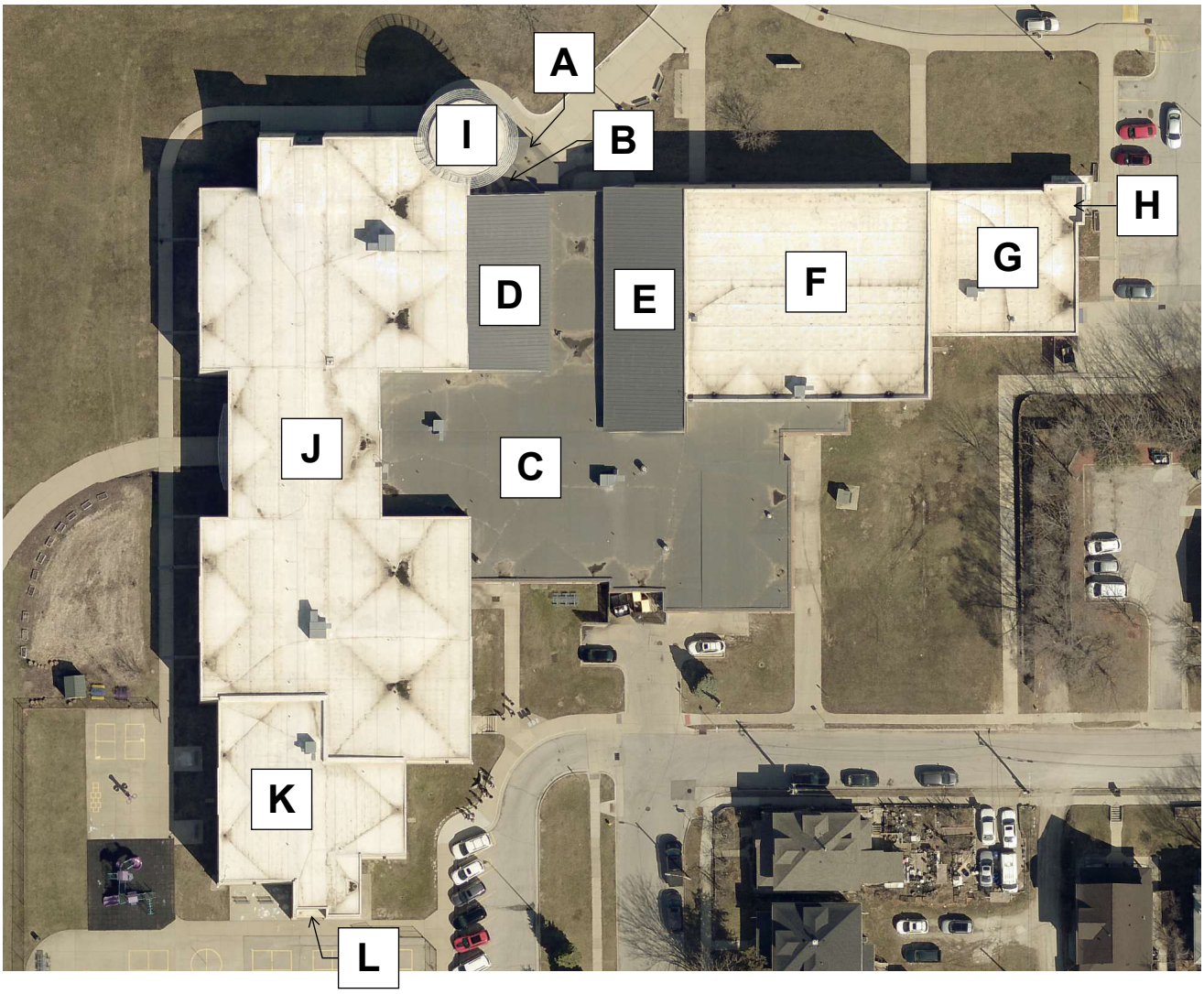
BISHOP ENGINEERING +

CARVER ELEMENTARY

EXHIBIT

PROJECT # 230286-03

DATE 10/10/2023



N

bbs ARCHITECTS ENGINEERS

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

CARVER COMMUNITY SCHOOL

705 E UNIVERSITY AVENUE
DES MOINES, IOWA 50316

FIRST FLOOR

NORTH

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

bbs ARCHITECTS ENGINEERS

CARVER COMMUNITY SCHOOL

705 E UNIVERSITY AVENUE
DES MOINES, IOWA 50316

SECOND FLOOR

NORTH

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

ARCHITECTS ENGINEERS