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ARCHITECTURAL ASSESSMENT \ 01

The original Ely Public Library was a fire station located on Dows Street, which is a prominent thoroughfare in the City. The building was converted in 2002 into a library utilizing the fire station building, the car port, and an adjacent park shelter on a 7,000SF site. The overall library building square footage is 5,310 gross square feet.



The library consists of the book stacks with play and seating areas, the service desk and associated office, restroom facilities, and a program /meeting room with attached storage. Angled street parking is available on Dows Street with parallel parking spaces on Walker Street.

The Ely Public Library is in very good shape and will require minimal work to upgrade the building to allow it to function best for the community. With the acquisition of the adjacent property, the space can be enlarged to provide additional functionality and open spaces for all users.



The following is a report of the condition of the current building; estimated costs for corrections needed are included in a spreadsheet at the end of the report.

EXTERIOR

The exterior of the original fire station building, and original infilled car port is primarily constructed of large-format brick and cast stone. The non-public façade is exposed masonry units, some of which are unpainted at former window locations. The park shelter storage space is wood stud infill with lap siding. The main entrance is on-grade along the Dows Street façade and has cast stone columns to give the entrance prominence. The windows located in the former fire station overhead doors are aluminum framed with double pane glass.

There is no visible evidence of brick deterioration nor water in the wall cavity. Installed sealant around the window and door openings is in good condition with little cracking.

The second exit of the library, on Walker Street, contains a raised stoop. Per building code, more than half of the building exits are required to be accessible. This step should be revised to a ramp with railing.

The non-public façade comprised of masonry units, some of which are unpainted at former window locations, should receive paint or a weather barrier to prevent the opportunity for moisture to wick through the masonry. Sealant joints along this wall location are not continuous and are in need of replacement.



The main building has a sloped asphalt shingle roof in a hip configuration. The former car port and park shelter roofs are also asphalt shingles in hip configurations that tie into the library building. The shingles and roof intersections appear to be in good condition and there was no visible evidence of deterioration.

INTERIOR

The existing library is in good condition. Adequate space is a primary issue but there are some items that require attention.

The shelving is densely packed with computer tables and a children's play area integrated into the layout. The service desk is adjacent to the entrance into the library and the office space is behind the desk with aluminum storefront glazing for visibility into the library and into the entry vestibule. The office space serves all the staff needs and is cramped. A mechanical room is accessed from the office, containing the water service entrance, a water heater, a heat pump for the meeting room and a heat pump for the library. Electrical panels are located in the corridor by the bathrooms and in the storage room off the program room.



The meeting / program room has two doors and a full, adjacent storage room. The occupant load of the meeting room exceeds 50 persons. As such, the two doors are required to swing in the direction of travel and have exit device door hardware for ease of exiting in an emergency. The door leading to the bathroom corridor should be revised to swing the other direction. Both doors into the program room should have push pad exit device hardware. The storage room has double doors and ramped access to a lower, concrete floor. The ramp into the storage room does not exceed 6-inches that would require ADA consideration, but it presents a potential trip hazard that could be mitigated.

ADA

A minimum of half of the emergency exits must be fully accessible for wheelchair egress and that is currently not the building configuration.

The existing hardware on interior doors are ADA compliant lever style.

In libraries, the minimum clearance between shelving units is 36" clear with a circle or t-shaped turning space at the end of the aisle. This should be considered for future interior configurations or projects.

All publicly accessed water fountains are required to be installed in pairs at two mounting heights to allow for occupants of different reach ranges to use them. The current drinking fountain is a single low-height unit with bottle filler.

Generally speaking, all doors in use by the public must have 1'-0" of clearance beside the door on the push side and 1'-6" on the pull side with less than an 8-inch recess in the wall. Some doors are significantly recessed in the wall and will require modifications to meet the required clearances.

The toilet room accessories are mostly ADA accessible. A third grab bar is required for ADA compliance in the accessible toilet stall or toilet room. This grab bar would be installed vertically above the 42" bar on the wall parallel to the toilet.

The second building exit will require modification to become ADA compliant (ramped) and will require handrails on both sides at that time. The storage room floor transition is ramped and requires a handrail due to the depth of the ramp.

The main Service Desk is configured with an ADA height countertop section with the proper clearances. The main entrance door has an auto operator and the book drop handle is appropriately placed at 48-inches above the floor maximum.

Signage is provided in most areas and must contain raised characters and braille. The braille does not appear to be provided.



STRUCTURAL

The existing library building in Ely, IA, once the city's fire station, consists of CMU bearing walls with supplemental steel tube columns and beams supporting a steel bar joist framing system. The roof of the main library building is a low slope metal roof deck with a built-up wood gable roof above. Along the building's northeast side, a previous carport for the fire station has been infilled with CMU block walls up to the existing wood framed roof system.

A storage addition has been constructed off the current meeting room, once the fire station's carport. This addition consists of 2x6 wood framed stud walls and a wood roof system. The foundation for the addition is cast-in-place concrete walls, with a concrete slab-on-grade that ramps down from the main building's F.F.E. Concrete ramps are present at the southwest and northeast walls to account for the change in elevation.

The proposed new library expansion location is off the main libraries northwest wall, into a lot that is currently occupied by a residential building. To connect the new addition to the main library, steel or masonry frames will be installed at new wall penetrations in the northwest wall. The addition's structure will be independent of the current building and consist of CMU bearing walls with supplemental steel columns and beams supporting a steel joist roof system and a metal roof deck.

Should the new addition be a two-story building, the second-floor framing will consist of precast plank with topping or composite metal deck and steel beams bearing on CMU walls. The roof structure will remain as a steel joist system and metal roof deck.



New additions to the current library will have shallow cast-in-place concrete spread footings and isolated footings at supplemental column locations. A geotechnical exploration will be required to determine the suitability of the bearing soils in the lot to the northwest and confirm the foundation types for the new addition.

ENGINEERING

The purpose of this assessment is to generally review the existing plumbing, fire, mechanical, and electrical systems for the existing library facility. The Library's infrastructure in plumbing, mechanical and electrical systems are in reasonably good condition. Maintaining the existing equipment in the coming years is important with regular on-going maintenance.

As expansion is considered, an occupant load of 300 is the building code threshold for a fire alarm system; this may be wanted independent of the code requirement.

LOOKING TO THE FUTURE

As designs and expectations are reviewed related to the existing library, there are some considerations to keep in mind. The few items listed in the architectural exterior and interior assessment will need to be addressed in the near future, since they are code-related.

The ADA or accessibility - specific items are related to a law and must be revised or a reasonable accommodation made for patrons with disabilities. Any new space would be designed to meet ADA requirements.

When exploring an expansion, code compliance is a consideration. We are not sure what exceptions were made during the original code review, but we operate on the idea that the building met code requirements upon construction in 2002.

Any current renovation of the existing, single-fire-area building that is less than fifty percent of the floor area, does not require the building to be completely brought up to current code standards. If more than fifty percent of the floor area is renovated, the entire building must be brought up to the current code standards. This would apply to egress, door hardware, occupancies, structural floor loading, lateral design, potential requirements for a sprinkler system due to building size, mechanical equipment and controls, plumbing fixtures and piping, fire alarm systems, electrical service and lighting, and energy efficiency. If the building footprint area exceeds 13,062 SF, a fire sprinkler system will be required. A sprinkler system would be recommended regardless of building size, due to the benefit of having one.

These considerations will play into expansion options and can be reviewed in more specifics at the upcoming Spark Session.

FACILITY IMPROVEMENT MEASURES

02

	Code/ Maintenance Item	Recommendation to Correct	Urgency level	Budget Cost	Photo Reference
ARCHITECTURAL					
INTERIOR					
	Egress Doors Swing in Direction of Travel at Program Room and Corridor; Revise Door Hardware	Rework two doors to swing out from the room and replace door hardware with exit devices	Required	\$4,200	
	Ramp into the storage room presents a trip hazard	Revise ramp slope, widen ramp, or provide more defined edge to ramp	Recommended	TBD	
EXTERIOR					
	Less public side of the building has unfinished masonry	Provide weather barrier or cladding on masonry wall	Urgent	\$100	
	Less public side of the building has cracked and deteriorated sealant	Provide new sealant and backer rod along these joints	Urgent	\$350	
ACCESSIBILITY (ADA)					
	Door Clearances at Program Room	Revise wall to provide clearances	Required	\$800	
	Second Exterior Exit Door Clearances	Revise frame location in exterior wall to provide proper clearances	Required	\$800	
	More than 50% of the exits are required to be accessible per building code	South door should have a ramp with handrails on both sides	Required	\$5,000	
	Third, vertical grab bar is not provided	Provide additional, vertical grab bar at both ADA stalls	Required	\$400	
	Room signage does not have braille	Signs are required to have raised lettering and braille; these should be replaced	Required	\$250	
	Drinking Fountain is not dual height	Provide dual height drinking fountain	Required	Will Not Fit	
Total cost Expectation \$11,900					
				Facility Assessment /	