School District of Onalaska 2013 Facilities Condition Assessment October 10, 2013



Prepared by



2013 Facilities Condition Assessment School District of Onalaska



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FACILITIES CONDITION ASSESSMENT Onalaska School District Onalaska, WI 54650

The intent of the *Facilities Condition Assessment* is to; 1) complete a comprehensive survey audit of current conditions of each of the School District's main and auxiliary buildings, and 2) provide an itemized list of recommended capital improvement repairs, replacements, maintenance and upgrades, 3) cost estimates for each capital improvement item, and 4) assign a 'priority level' to each item to help establish a timeline for the recommended work to be completed.

The *Facilities Condition Assessment* does <u>not</u> involve an analysis of space needs or changes to program requirements. The emphasis of this report is to evaluate current conditions of each facility with recommended capital improvements determined to be necessary to maintain the building quality for each of the various facilities.

The Assessment included a review of the following School District facilities:

Onalaska High School Onalaska Middle School Eagle Bluff Elementary Irving Pertzsch Elementary Northern Hills Elementary Central Kitchen Riders Club Road Site including Activities Building District Office

The survey of these various facilities followed a structured format and involved visual observations along with input from the District's maintenance staff.

Building Envelope

Complete a review of the roofs, exterior walls, doors and window components that comprise the 'envelope' enclosure for the building. Develop list of repairs, replacements or general maintenance to ensure watertightness and thermal efficiency aspects of the building surfaces and fenestration. In addition, the Assessment includes a 'Roofing Summary' that establishes a data base of roof areas, ages of various roofs, roof types, and roof warranties. The intent is to establish a schedule for future roof repairs and replacements based on establishing a level of roofing priorities.

Sitework

Review conditions of site improvements that surround each of the facilities, which includes concrete and asphalt pavement conditions, sidewalks, site drainage and athletic amenities (fields, track surfaces).

Plumbing

Inspect condition of existing plumbing systems and components including fixtures, piping, water heating and water conditioning equipment.

HVAC Systems

Observe condition and review deficiencies of the mechanical systems serving each of the buildings with emphasis on improving efficiencies and controls.

Electrical Systems

Review existing electrical systems that includes panelboards and switchgear, emergency lighting, door lighting fixtures, clock systems, data system infrastructure, building security and access control.

Handicap Accessibility

Each building was evaluated for compliance with the current ADA guidelines starting with accessible parking areas, accessible routes to the building, interior circulation accessibility, toilet room facilities and ADA compliant signage. The conditions review is accompanied with recommended improvements that enhance the handicap accessibility at each of the individual schools, Central Kitchen and District Office buildings.

PRIORITY LEVELS

The schedule of recommended facility improvements includes a column for designated 'Priority Levels' that will be assigned by the District. The intent is to maintain an ongoing list of suggested work items that can be added to on an annual basis. Priority levels are subject to change depending on changing conditions that warrant reassignment. The three Priority Levels are as follows;

- **LEVEL 1** Building upgrades under this priority should receive attention as soon as practical. Further deterioration may affect weather resistance, building operations and/or immediate maintenance costs.
- **LEVEL 2** Remodeling/replacement work under this level could be included within a scheduled timetable or phased in as funding is available. Improvements may be justified by increased energy efficiency.
- **LEVEL 3** Proposed work under this level can be indefinitely deferred or addressed on an 'as-needed' basis. Repair or replacement work may be necessary for general improvements to the interior environments but will not generate any appreciable level of building operational savings.

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Site Plan Cost Items Central Kitchen Facilities Assessment Cost Items District Office Facilities Assessment Site Plan District Office Floor Plan Cost Items Roofing Summary Roof Data Sheets High School Roof Key Plan	RC-8 RC-9 – RC-10 CK-1 – CK-8 CK-9 DO-1 – DO-7 DO-8 DO-9 DO-10 RS-1 – RS 6 RS-7
Site Plan Cost Items Central Kitchen Facilities Assessment Cost Items District Office Facilities Assessment Site Plan District Office Floor Plan Cost Items Roofing Summary Roof Data Sheets High School Roof Key Plan	RC-8 RC-9 – RC-10 CK-1 – CK-8 CK-9 DO-1 – DO-7 DO-8 DO-9 DO-10 RS-1 – RS 6 RS-7 RS-8
Site Plan Cost Items Central Kitchen Facilities Assessment Cost Items District Office Facilities Assessment Site Plan District Office Floor Plan Cost Items Roofing Summary Roof Data Sheets High School Roof Key Plan Middle School Roof Key Plan Fagle Bluff Roof Key Plan	RC-8 RC-9 – RC-10 CK-1 – CK-8 CK-9 DO-1 – DO-7 DO-8 DO-9 DO-10 RS-1 – RS 6 RS-7 RS-8 RS-9
Site Plan Cost Items	RC-8 RC-9 – RC-10 CK-1 – CK-8 CK-9 DO-1 – DO-7 DO-8 DO-9 DO-10 RS-1 – RS 6 RS-7 RS-8 RS-9 RS-10
Site Plan Cost Items	RC-8 RC-9 – RC-10 CK-1 – CK-8 CK-9 DO-1 – DO-7 DO-8 DO-9 DO-10 RS-1 – RS 6 RS-7 RS-8 RS-9 RS-10 RS-11
Site Plan Cost Items	RC-8 RC-9 – RC-10 CK-1 – CK-8 CK-9 DO-1 – DO-7 DO-8 DO-9 DO-10 RS-1 – RS 6 RS-7 RS-8 RS-9 RS-10 RS-11 RS-12
Site Plan Cost Items	RC-8 RC-9 – RC-10 CK-1 – CK-8 CK-9 DO-1 – DO-7 DO-8 DO-9 DO-10 RS-1 – RS 6 RS-7 RS-8 RS-9 RS-10 RS-11 RS-12 RS-13

Onalaska High School 700 Hilltopper Place







750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

FACILITIES CONDITION ASSESSMENT

Facility: Onalaska High School 700 Hilltopper Place Onalaska, WI 54650

Construction Projects/Dates:

1960	Original Construction
1968	Additions & Remodeling
1988	Additions & Remodeling
2006	Roofing Replacement
2010	Window & HVAC Replacement
2012	Tech Ed Dept. HVAC & Boiler Modifications
2013	HVAC Upgrade – Air Handling Equipment Replacement

BUILDING DATA

Building Area	
1960 Original Building	31,020 SF
1968 Addition	57,871 SF
1988 Addition	<u>134,503 SF</u>
	Total
Building Occupancy Classification:	Educational Group E
Construction Type:	Type II-B
Enrollment (2013)	880
Fire Protection	Non-sprinklered.
Site	
Parking	325 Stalls

FACILITIES CONDITIONS ASSESSMENT

1.0 BUILDING ENVELOPE

1.1 EXTERIOR WALLS

The exterior walls were constructed of masonry bearing walls comprised of modular and Norman face brick over concrete block. The original 1960 building and 1968 additions were constructed as solid masonry without any rigid cavity or surface applied insulation. The exterior masonry walls of the 1988 high school addition were constructed as a multi-wythe, 14" thick cavity wall with modular face brick, 2" cavity insulation and a 8" concrete block backer.

Observations

In general, the exterior face brick remains in very good condition with limited areas that should be cleaned of stains. Two locations on the west end of the building exhibit minor cracking that could easily be repaired. Mortar joints also appear to be in good condition and there should not be any immediate need for any re-pointing of the mortar joints. The brick walls below the greenhouse projection off the west end of the building exhibit the most visible staining of face brick. The stain appears to coincide with the greenhouse glazing sill flashing and may warrant inclusion into a maintanence project with higher priority.



The brick walls constructed as part of the 1988 addition utilized a particular plastic tube weep vent at the bottom of the wall, which appear to be partially (if not totally) plugged limiting the moisture weep capabilities. There was no indications that the plugged weep vents are problematic but may warrant a future project to clean out the weep vents. A small number of brick expansion joints should be re-caulked, however the majority of the caulk joints appear to be in satisfactory condition. In a couple of locations, the caulking has been partially 'squeezed' out of the brick head joints likely due to a small degree of brick expansion. These joints should be monitored on an annual basis to ensure that they maintain a waterproof joint.

Metal roof edge fascia, flashings and wall caps also appear to be in relatively good condition and do not warrant any immediate action.

Limited wall areas of the 1988 addition were clad with an exterior acrylic stucco surface. The surface appears to be functioning as a weather barrier but shows some signs of aging, to be expected. A couple of hairline cracks were observed thay may be a result of seasonal expansion and shrinkage cycles.

Recommendations

The District may want to consider re-coating the acrylic stucco with a new flexible elastomeric coating that will reinforce the waethertightness of these wall areas.

1.2 WINDOWS

The high school presently utilizes a combination of aluminum windows and aluminum clad wood windows (1988 addition). It was discussed with the building maintanence that the clad wood windows continue to maintain, for the most part, a waterproof seal. The wood windows are approaching 24 years of service and should continue to function indefinitely, however, the District may wish to schedule a window replacement project sometime within the next five years. The replacement windows should be of a heavy-duty commercial grade aluminum (similar to Eagle Bluff's) with improved thermal characteristics contributing to the thermal performance of the building.

1.3 DOORS

Hollow metal doors and frames are also showing signs of aging, with corrosion and general deterioration. Future maintanence related projects should be considered to include replacement of the exterior hollow metal doors and frames, which would also allow the restoration of any steel lintels above the door (and window openings).

Aluminum entrance doors at the main south side entrance (Entrance 'A') exhibit signicant signs of wear and tear from the heavy usage.



1.4 ROOFING

Roof Structure

1960 Original Building

The roof structure includes multiple framing types. The original 1960 building was constructed with a combination of Tectum decking bearing on a bulb tee system. The original gymnasium was constructed with laminated wood frames and purlins. The original roofing was specified as a built-up roofing, which has since been re-roofed.

1968 Addition

The roof framing for the 1968 additions consisted of steel open web "bar joists" coupled with a poured gypsum deck system that was pitched for drainage to the internal roof drains.

1988 Addition

Roof framing was comprised of steel bar joists with steel decking.

Roofing

The high school roofing is separated by multiple parapets, raised mechanical penthouses, and roofs of different elevations. With exception of a small sloped shingle area on the west end of the school, the individual roof areas are of a ballasted and fully-adhered single-ply rubber roofing over various thicknesses of rigid insulation. In 2006, selected areas were re-roofed with a fully-adhered 60 mil single-ply rubber membrane, including the sloped roof above the auditorium. The balance of the roofing from the 1988 additions are comprised of a ballasted rubber membrane.

Observations

Based on a general 'walk-over' inspection with the District's roofing consultant, Bechtel LLC, it was observed that the existing rubber roofing is in satisfactory condition with an indefinite remaining life-span. There were no recently reported roof leaks at the time of the inspection. The primary areas of focus should be directed at; 1) ballasted roof membrane seams, 2) perimeter roof edge conditions and 3) flashings of the mechanical equipment and skylight curbs.

The typical shrinkage of the single-ply membrane roofing was noted to be expected for a roof approaching 24 years of age. The shrinkage primariliy shows up where the rubber membrane is pulling away ('tenting') from the vertically flashed face of the wall. It was recommended that the perimeter membrane be cut and reflashed with reinforced perimeter strip. Roof curbs for mechanical equipment and skylights should also be reflashed.



Properly maintained, the lifespan of the existing roofs could be extended indefinitely or at least added to the list of deferred maintanence projects. The decision to re-roof areas of the high school may be evaluated on a cost basis that compares the cost to repair the perimeter flashings and seams versus tear-off and replacement of the entire rubber membrane.

2.0 BUILDING INTERIOR

2.1 FLOORING

The High School includes multiple flooring materials including the following:

- vinyl asbestos tile (VAT)
- vinyl composition tile (VCT)
- Fritztile
- carpet
- ceramic tile
- quarry tile
- maple gym flooring

In general, the various floorings are well maintained, including the remaining vinyl asbestos tile from the original construction.

The vinyl compositon tile shows typical minor signs of cracking or telegraphing of imperfections in the concete slab substrate. Various floor expansion joints need to be inspected for potential trip hazards

The Fritztile was used in the main lobby and commons/cafeteria as part of the 1988 addition. Fritztile was described as a terrazzo tile, however, the material is an epoxy based substrate with stone aggregate of various sizes. The tile appears to be well maintained and maintenance staff are satisfied with the performance of the tile in these high traffic areas.

Carpeting is used thoughout classrooms, LMC, computer labs, school offices, band room and auditorium. The carpet appears to be holding up well and is well maintained wth no specific areas requiring replacement.

The maple gymnasium flooring was also installed as part of the 1988 addition and is also in satisfactory condition for the 25 years of use.

2.2 WALLS

The majority of interior walls are of concrete block and are in good condition.

2.3 INTERIOR DOORS & FRAMES

Interior doors are generally solid core oak veneer wood doors in hollow metal frames. Fire rated door assemblies include wire glass lites.

Observations

Wood doors exhibit normal deterioration from the years of service. Latchsets have been changed out to ADA compliant lever handles.

Recommendations

- 1. Wood doors can generally continue to be used and replaced on a case by case basis, however, a select number of wood doors are damaged to the point of requiring replacement.
- 2. Hollow metal door frames should be repaired and repainted.
- 3. Wire glass should be removed and replaced with new fire-rated safety glass.

2.4 TOILET PARTITIONS

Observations

Metal toilet stall partitions show typical damage and deterioration from heavy use and abuse.

Recommendations

Partitions can continue to be used but can be changed out to solid plastic as part of any toilet room remodeling project.

2.5 SCIENCE LAB EQUIPMENT

Observations

The high school science department was included under the 1988 project and consists of six (6) lab/classrooms located in the lower level at the west end. Each of the science labs has wood cabinetry with epoxy resin worksurfaces. The two chemistry labs have demonstration type fume hoods. Both chemistry labs also have emergency eyewash sinks and overhead emergency drench showers. Is is recommended that the eyewash sinks and showers be replumbed to add mixing valves to the water service to temper the water temperature. Chemistry room 119 was updated approximately 5 years ago with new faucets and gas turrets. All other gas turrets and gooseneck faucets are original (1989) and appear to be in good condition with a couple of exceptions.



The instructor's demonstration tables were salvaged at the time of the 1989 construction from the previous school's laboratories. These tables should be changed out with new ADA compliant demonstration tables. All other island and peninsula chemistry workstations appear to be in good condition with minimal signs of damage. Salvaged storage cabinets are also used in the science prep rooms. These cabinets appeared to be well built and should have several years of service left.



The perimeter countertop worksurfaces and student tables in the three biology and physics lab also appear to be in satisfactory condition given their age of 24 years. The student tables were originally movable and positioned in conjunction with floor pedestal type electrical receptacles. The tables were then anchored to the floor and conduit routed to the table aprons with receptacles.

Recommendations

- 1. An annual budgeted allowance should be established for the replacement of any of the original faucets or gas turrets that may begin to wear beyong the ability to make cost effective repairs.
- 2. None of the six science labs offer provisions for handicap accessibility. It is suggested that the District replace the instructor's demonstration tables with new ADA compliant tables and also purchase a movable and adjustable height table and worksurface that could easily be shared and utilized should it be necessary to provide for wheelchair access to the student workstations.



3.0 SUPPORT BUILDINGS

3.1 OUTDOOR FOOTBALL FIELD BLEACHERS & PRESS BOX

The main bleacher facility is located at the west edge of the football outside lane of the running track and was originally constructed without an underneath closure. The framing consists of steel substructure with aluminum bench seating and galvanized steel guardrails.





The underside was closed off with prefinished ribbed metal wall panels to provide secure storage for P.E. equipment and field maintenance equipment. The north end serves as concession sales. A wood framed press box was added in the 1990's and supported by wide flange steel columns. The west wall of the enclosed understructure includes three push-up coiling doors and three similar coiling counter doors at the concessions sales corner. With exception of the press box, the main structure and seating assemblies appear to be in satisfactory condition.

Site Related Issues

Storm water run-off from the perimeter of the bleacher facility has been an ongoing problem. Run-off from all four directions are basically intended to be collected in a single and undersized catch basin out from the west side of the bleachers. Maintenance staff described that the ponding water around the catch basin can reach depths of 18 inches or more. Run-off passing under the bleachers and through the enclosed equipment storage areas will often freeze during cold conditions.

- Run-off from the football field passes unimpeded over the running track and then though the storage rooms under the bleachers collecting at a low point catch basin.



- Water run-off flows around the north end of the bleachers and continues to the catch basin off the west side of the bleachers.



- Run-off from the high school parking lot is also collected at the single catch basin in front of the bleachers.
- The lawn area to the south of the bleachers also drains toward the bleachers and is partially collected in an area drain.

The press box has previously involved replacement of water damaged framing and floors. The existing windows have reached ther life expectancy and should be considered for replacement.

Recommendations

Stormwater run-off management needs to be re-designed to prevent the water from passing through the enclosed under-bleacher storage areas This will involve a comprehensive plan that collects run-off from the football field and running track, routing it to an enlarged storm sewer system. Another consideration would be to create a storm water detention area in the lawn area to the south of the bleachers.

Also included on the list of improvements would be replacement of the push-up coiling garage doors which show signicant wear.



3.2 VEHICLE STORAGE BUILDING

The vehicle garage building located just north of the grandstands was constructed as a simple pole barn structure, wood framed with corrugated metal siding and roofing.



The garage structure shows signs of wear and corrosion but can likely be used indefinitely. Overhead doors and swinging doors can be replaced, however the building in general appears to have deteriorated to the point of total replacement.

Recommendations

Continue usage of the building but schedule future building replacement when funds are Available.

4.0 HANDICAP ACCESSIBILITY

4.1 ACCESSIBLE ROUTES

Existing Conditions

The Wisconsin Commercial Building Code defines an "accessible route" as a continuous, unobstructed path leading to a building entrance from off-site (public streets) and on-site amenities such as staff parking lots and bus loop driveways. The High School site currently provides accessible routes from the north side driveway loop to Entrance 'E'.

Recommended Action

The existing curb ramp at the east end of driveway loop will need to be replaced to eliminate the raised lip.

4.2 ACCESSIBLE PARKING

Where parking is provided, accessible parking spaces shall be provided as follows:

Total Parking	Required Number Of
Spaces Provided	Accessible Spaces
301 to 400	8

Van accessible spaces shall be provided for every eight accessible stalls. The existing parking lot includes a total of 325 spaces. There are currently five designated handicap parking stalls.

Recommendations

Re-stripe handicap accessible parking stalls and access aisles with appropriate signage.

4.3 ACCESSIBLE ENTRANCE

Existing Condition

Entrance 'A' into the south side lobby currently has an automatic door opener device attached to the entrance door on the east end of the entrance. Push plates have been installed on the adjacent wall surfaces on the interior and exterior sides.

Entrance 'E' on the north side also has door operators and push plates.

4.4 ACCESSIBLE INTERIOR CIRCULATION

Existing Conditions

In general, all floor levels of the high school. Lifts are provided at three locations. One lift is located at the east end for access between the main level corridor and the to the Tech Ed Dept. on the lower level. A second lift connects the main level with the kitchen floor level. A third lift is located off the corridor at the NE corner of the fieldhouse and provides access to the basement level locker rooms. The Dance Studio floor level is accessed only by stairs inside the Dance Studio. An elevator is provided to connect the lower level to the main level, and also connects the lobby level.

Recommendations

Handicap access should be considered for the Dance Studio if the room is to function as the one and only room for the dance studio.

4.5 ACCESSIBLE TOILET FACILITIES

Existing Conditions

With the exception of boys and girls toilet rooms off the south and north ends of the locker rooms, all other toilet rooms are not completely compliant with ADA guidelines. Doors have been removed at entrances into the toilet rooms in effort to provide the minimum door clearance.

Locker rooms were designed with one accessible private shower stall in each of the boys' and girls' side, however, toilet rooms do not comply with the ADA guidelines for minimum clearances.

Recommended Action

Providing for handicap accessible toilet facilities in the locker rooms would require signicant structural changes. Remodeling of the P.E Instructor's Offices to create an accessible toilet room may be one approach but would also reduce the available sace of the P.E. Office.

4.6 SIGNAGE

Recommended Action

Install ADA compliant signage at the following locations:

- Classrooms & Offices
- Toilet rooms
- Wheelchair lift
- Elevator
- Stairs



Onalaska High School Site Facility Assessment Comments

The Onalaska High School is a mature facility with much of the site infrastructure approaching the end of its useful life. In general, most of the asphalt pavement should be scheduled for replacement within the next 5 to 8 years. General weathering/disintegration of the pavement and rutting/ridging are the primary concerns. An area in sections C-7&8 is in particularly poor condition and should be reconstructed as soon as possible. Along the south edge of the building in sections C-6&7, sidewalk that is generally in good condition has sagged or heaved out of alignment with the curb and constitutes a critical tripping hazard that should be corrected as soon as possible. Much of the sidewalk could be salvaged by mud jacking into alignment. A similar situation exists at the drop off loop on the west side of the school. However, this appears to be the result of unusual freeze/thaw activity and some general differential settlement that could possibly be the result of a poor subgrade. The solution to this problem is more complex and is likely to involve a broad reconstruct of the entire area to provide a stable subgrade. This area of sidewalk is also in generally in good condition but the misalignment is also a critical tripping hazard that should be corrected as soon as possible. This will also provide an opportunity to correct some drainage issues in this area. Also, the parking area in the general area of section D-8 would be an excellent candidate for porous pavement and this would ameliorate the drainage issues by the stadium bleachers.

The running track surface is also showing signs of significant failure. There are a considerable number of patches already. The basic problem is that the rubberized surface is delaminating from the asphalt base. This allows the surface to move independently resulting in rips in the surface. Small patches of delaminated surface may be serviceable but large areas are not safe. We observed in the area of the west side up to 100 feet of continuously delaminated surface. Although we do not have specific survey data to know for sure what is causing the problem, delamination can be caused by inadequate surface drainage which allows ice to form under the rubber area that ultimately separates the rubber surface from the asphalt base.

Lastly, the site is not in compliance with ADA code for parking. As an older facility, improvements to surfaces such as slope changes are not required however, signing and striping are not "grandfathered" and where signing and striping can be implemented to create current code compliant parking it is required to be done at the time of ANY sealcoat and restripe operation.



HS - 13

ONALASKA, WISCONSIN DATE: 8/17/2013

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Plumbing

The following report is the result of a site visit by Tim Kehoe of Muermann Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

Plumbing Equipment

A. Observations

- Water heating equipment has recently been replaced with gas fired instantaneous water heating equipment. Currently 4 units provide adequate hot water for the building. The units are in good condition and are operating well.
- 2. The building is served by a duplex water softener. The water softener appears to be softening only the hot water and some cold water serving equipment. Water hardness levels in this part of the state typically require both the hot and cold water to be softened.
- The air compressor is an older model however it is operating well. The daily demand on the unit is relatively low. Would expect it to function properly for years to come.

B. Recommendations

- 1. Instantaneous water heating equipment is required to be maintained for scale on a regular basis. Annual maintenance shall be provided on equipment as required.
- 2. Existing water softener may be capable of providing soft water for the entire domestic water demand. Provide soft water for the domestic hot and cold water. Further investigation of the system is required.

C. Expected Remaining Lifespan

 Water heating equipment is expected to last 15 years. Water softening equipment should be viable for another 20 years.









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Plumbing Fixtures

A. Observations

- Plumbing fixtures in the original building are in fair condition. Modifications have been made in some locations to update flush valves and faucets on existing plumbing fixtures.
- 2. Toilet rooms in the lower level team rooms are generally in poor condition and should be scheduled for replacement.
- Toilet rooms in the 1998 addition are in good condition however the fixtures do appear to have some staining in the water closets and urinals which

appear to be the result of hard water.

- 4. Showers in the team rooms are in fair condition.
- 5. Science rooms appear to be in good condition. Lab sinks are cold water only and the faucets do not have code compliant aerators located on the outlet of the spout.
- 6. Natural gas is provided in all science rooms however the gas does not have an emergency shut off accessible within the room.
- Science rooms are provided with either an emergency eyewash or eyewash shower. The fixtures are not provided with an OSHA required mixing valve to regulate the outlet temperature of the fixture.
- 8. Kitchen equipment appears to be in good condition.

B. Recommendations

- 1. Plumbing fixtures located in the original building should be scheduled for replacement. Typically these rooms and fixtures are not ADA compliant.
- 2. Provide continual maintenance on all plumbing fixtures to increase the longevity of the fixtures.
- 3. We recommend that hot and cold water be routed to all emergency fixtures. An OSHA approved mixing valve is also required at these locations.
- 4. Provide emergency shut-off controls located in the classrooms for the natural gas piping and turrets located within the science rooms.
- 5. Replace the remainder of the existing Trane digital control system with Schneider Electric controls to provide a single contiguous control system to the building.











C. Expected Remaining Lifespan

- 1. Original plumbing fixtures should be replaced within the next five years. Fixtures that have been updated with new flush valves or faucets have the potential of being reused if the work is done within that time frame. Opinion of cost \$2,500 per fixture.
- 2. Fixtures located within the new addition should be viable for another 20 years.

Sanitary Piping

A. Observations

- 1. The piping in the 1960 and 1968 building are cast iron and galavenized vent piping.
- 2. The owner indicated that the urinals located near the Field House are very poor draining and require continual maintenance.
- In the 1968 addition it appears a product called Tru-Spun cast iron piping was installed. This product typically does not have the same life expectancy as regular cast iron.
- 4. The acid neutralization basin provided for the science areas likely has not been maintained for some time. This equipment does require annual or bi-annual maintenance.
- 5. An interior grease interceptor has been provided for the kitchen. The interceptor appears to be in good condition and is maintained on a regular basis.

B. Recommendations

1. We recommend that the sanitary sewer in the team room and the Field House toilet rooms be viewed with a camera to determine the condition and integrity of the existing piping.





- 2. Continually monitor the Tru-Spun cast iron piping for problems. This piping may need replacement in the next 10-15 years.
- 3. Maintain the Acid Basin.





Solid planning, superior solutions

C. Expected Remaining Lifespan

1. Replacement of Tru-Spun Cast piping may not be necessary. We recommend replacing the product as required. The estimated budget to replace the Tru-spun piping should this be required is \$70,000.

Storm Piping

A. Observations

- 1. The owner indicated no problems with the storm piping , roof drains or storm drainage for the building.
- 2. Piping materials appear to be holding up well

B. Recommendations

1. Continue to monitor the storm piping system.

Domestic Water Piping

A. Observations

- Original portions of the building are provided with galvanzied domestic water piping. Additions and renovations have been piped using Type "L" copper tube.
- 2. Other than the shop areas, no problems with water pressure or water quality were reported. Further investigation is required to determine problems with the shop areas however it is expected that the old galvanized piping may be failing.
- Water at the start of the school year is always very rusty. This problem occurs with the existing galvanized piping and will always occur until the galvanized water mains are replaced.



4. The building is supplied by a 4" domestic water service with a 4" water meter. A separate water meter and backflow preventer has been provided for irrigation to the athletic fields. The existing water service is not large enough to support a fire protection system for the building should one be desired in the future,

B. Recommendations

- 1. Galvanized domestic water piping should be scheduled for replacement.
- 2. Additions or major renovations to the building may require the building to be provided with a fire protection system. A new 6" domestic water service should be evaluated for the building.

C. Expected Remaining Lifespan

- 1. The galvanized water likely has a 10 life expectancy depending on the water quality. The estimated cost to replace the water piping in the original building is \$130,000. This would include all new water supply mains and branch piping.
- 2. A new water service for the building would likely cost \$30,000. Fire protection for this building would be estimated at \$3.00 per sq.ft.



HVAC

The following report is the result of a site visit by Randy All of Fredericksen Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

Heating, Ventilation and Air Conditioning Systems

A. Existing Data

- 1. The building heating system is a hot water system that consists of two (2) Burnham 100 hp packaged firetube boilers each rated at 3,348,000 btu gross output. The pumping system is a primarysecondary arrangement with constant flow system pumps. A stand-by pump is piped in parallel in both the primary and secondary loops.
- 2. The building cooling system is a central chilled water system that consists of a Multi-Stack watercooled modular chiller. The chiller condenser is cooled with city water that runs straight through the condenser to the city sanitary system. The pumping system is a primary-only arrangement with a constant flow pump. There is no stand-by pump.
- The building is served by constant volume air handling units and air handling units with hot water VAV control. Some air handling units are original to the building from the 1960's while some have been replaced in recent years with newer modular Trane and McQuay equipment.
- 4. The entire building is controlled by direct digital control systems. Currently, this is split between Schneider Electric/Invensys controls and Trane controls.



B. Observations

- 1. The 1960's air handling units have exceeded their expected life span and are in need of replacement.
- 2. The boilers are in good condition and, with a proper maintenance program, should continue to serve the building for another 15 years or more.
- 3. The chilled water pump housing is currently not insulated and produces condensate which runs onto the boiler room floor.
- 4. Room thermostats are a mixture of adjustable and non-adjustable type. The nonadjustable are Schneider Electric and the adjustable are Trane.



- 5. The Owner reported that the gymnasium has difficulty with properly cooling and removing humidity from the air. The heating and cooling coils within the air handling unit are arranged with the heating coil first in the airstream thereby eliminating the ability to dehumidify.
- 6. The Owner reported that the chilled water system has difficulty delivering adequate flow and supply water temperatures when the chiller is operating at maximum capacity.
- 7. Several classrooms that were previously larger and later partitioned into multiple classrooms did not receive revisions to the HVAC system zoning. As a result, multiple rooms are served by a single VAV box and a single room thermostat.
- 8. Both the hot water and chilled water systems contain chemical compound feeders. The chilled water system is also served by an in-line water filter.

C. Recommendations

- The hot water system serving the building is overall in good operating condition. However, the constant flow pumping system serving the hot water system is inefficient from an energy standpoint. Revise the hot water system to a primarysecondary variable flow pumping system by utilizing variable frequency drives and pressure reset control sequences to optimize operation and more closely match the actual building loads.
 - Additional improvements to system efficiency can be achieved by installing a high-efficiency condensing boiler to provide lower hot water temperatures during periods of light load in spring and fall and also for summer reheat. This type of boiler operates at efficiencies as high as 96%.
- Revise the chilled water system to a primary-secondary variable flow system with a similar approach as the hot water system. Also provide a new stand-by pump for the chilled water system. Insulate both chilled water pump housings properly to correct the current condensation problem. Evaluate the existing piping system to provide properly sized system pumps capable of delivering proper flow to all parts of the system.
- 3. Replace the remaining air handling units from the original 1960's building. Provide all units with the chilled water coil first in the airstream to allow for the ability to dehumidify when required.
- 4. Increase the capacity of the existing central chiller plant from the current 250 ton capacity to approximately 350-400 tons by providing additional modules to the existing Multistack modular chiller.
- 5. Provide additional VAV boxes as needed to the classroom spaces that have been partitioned in the past without HVAC revisions.
- 6. Replace the remainder of the existing Trane digital control system with Schneider Electric controls to provide a single contiguous control system to the building.



Page 1 of 9

Electrical System

The following report is the result of a site visit by John Russell of Muermann Engineering, LLC that occurred on August 2, 2013. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report. All construction costs indicated in this report are opinions.

The building was originally constructed in 1960. Additions and remodeling were done in 1968 and 1988.

Main Electrical Service

A. Existing Data

 This school has a 2,000 amp 480Y/277 volt 3-phase 4wire electric service. The service is fed from a utility owned pad mounted transformer. The CT's are integral to the main switchboard. The meter socket is mounted on the switchboard. The main service switchboard consists of a 2,000 amp fused disconnect switch section and a fused disconnect switch distribution section for the branch feeders. This service equipment was installed in 1988. The switchboard is a General Electric. There are 3 spare fused switch sections: one 600 amp, one 100 amp and one 60 amp in the switchboard.

B. Observations

1. The main service switchboard does not have a surge protection device.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the main service switchboard is about 25-30 more years.

D. Recommendations

1. Provide surge protection device on main service. \$3,500







Panelboards

A. Existing Data

1. The panelboards are General Electric and were installed in 1968 or 1988.

B. Observations

- 1. The panelboards are generally full and do not have space for additional circuit breakers.
- 2. The panelboards that were installed in 1968 are at the end of their useful life due to the operating lifespan of circuit breakers.
- 3. The panelboards that were installed in 1988 are in good working order.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the 1968 panelboards is about 5 more years.
- 2. The expected remaining lifespan of the 1988 panelboards is about 25-30 more years.

D. Recommendations

1. Replace the 1968 panelboards and feeder wire with new. New circuit breakers will allow for a safer and more expandable installation. \$7,000/panel

Generator

A. Existing Data

- This building has a 50 KW Kohler natural gas fueled generator. The generator is liquid cooled. It was installed in 1988. The generator is located in the gym mezzanine mechanical room.
- 2. There is one Kohler automatic transfer switch mounted next to the generator.

B. Observations

- The emergency panel fed from the transfer switch contains both life safety and equipment loads.
- 2. The generator is in good working order.







C. Expected Remaining Lifespan

1. The expected remaining lifespan of the generator and automatic transfer switch is about 20 more years.

D. Recommendations

- Provide an additional automatic transfer switch to separate life safety from non-life safety loads on the emergency power distribution system as required by current life safety code. \$25,000
- Provide UL 924 listed emergency bypass relays to the emergency egress lighting circuits powered by the generator to allow the egress lights to automatically come on upon loss of normal power. \$8,000

Lighting Fixtures and Controls

A. Existing Data

- 1. The classrooms have new 2x4 acrylic lens 2-lamp fixtures that are 1 year old. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. Each classroom also has an occupancy sensor and two switches that control two separate banks of lights. The light fixtures are on 8' X 8' centers.
- 2. The corridors have new 2x4 acrylic lens 2-lamp fixtures that are 1 year old. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. The fixtures are controlled by a 3-way switch at each end of the corridor. There are occupancy sensors. There is no night lighting. The fixtures are spaced 14' on center.
- 3. Exterior fixtures are high pressure sodium, metal halide, and LED. The wall pack fixtures are high pressure sodium flood type non-cut off. The area lights serving the front drive way drop off area parking lot are high pressure sodium. The front door decorative lantern fixtures are metal halide, and the flood fixtures that service the north main entry are LED. The exterior lighting is controlled from a timeclock-on, timeclock-off central lighting contactor which controls all fixtures at the same time.

B. Observations

1. The staff indicated the existing interior and exterior light fixtures are in good working order and the light levels are good also.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the interior light fixtures is about 30 more years.

D. Recommendations

1. One option is to provide LED pole mounted area lights for the south parking lot and eliminate the 400W wall mounted high pressure sodium lights mounted on the building. This option would save energy. \$3,000/pole

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Wiring Devices

A. Existing Data

- 1. The receptacles and toggle switches are commercial grade 15A with stainless steel plates.
- 2. There is one receptacle per wall in a typical classroom.

B. Observations

1. Many switches and receptacles have been recently replaced.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the wiring devices is about 15 more years.

D. Recommendations

- 1. Replace any broken switches and receptacles. \$30 EA
- 2. Add additional receptacles to classrooms as required. \$200 EA

Fire Alarm System

A. Existing Data

- The fire alarm is an EST3 addressable system. The system is 10 years old and was installed in 2003. The fire alarm control panel is located in the first floor electrical room near the main office.
- 2. There are pull stations by all exterior doors.
- 3. There are ceiling mounted horn strobe devices in the corridors and classrooms.
- 4. There are smoke detectors in storage rooms. There are heat detectors in mechanical rooms.
- 5. There are duct smoke detectors in the air handling units operating at 2000 CFM or greater.
- 6. All fire alarm cabling is installed in conduit.

B. Observations

- 1. The fire alarm system is in good working order.
- 2. Fire alarm system is compliant with current fire alarm codes.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the fire alarm system is about 30 more years.







Onalaska High School Onalaska, Wisconsin

- D. Recommendations
 - 1. None.

Clock System

A. Existing Data

- 1. There is a Lathem hard wired synchronized clock system. This system is 25 years old. The clock master controller is located in the main office.
- 2. There are Lathem analog clocks in the classrooms, corridors, offices, and other public areas.
- 3. The bell tone is controlled by the master clock controller.

B. Observations

- 1. The clock system is in good working order.
- 2. Additional clocks can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the clock system is about 10-15 more years.

D. Recommendations

 One option is to install a central wireless master clock with GPS receiver. Replace all hard wired synchronized clocks with battery powered GPS clocks. \$500/clock + \$2,500 receiver

Intercom System

A. Existing Data

- 1. There is a Telecor intercom system. This system is 25 years old. The amplifier is located in the main office storage room.
- 2. There are wall mounted intercom phones in the classrooms to allow two way communications with the front office. The intercom is also accessed through the phone system.
- 3. There are surface and recessed wall mounted intercom speakers in the corridors.
- 4. There are flush wall mounted combination clock speaker baffles in the classrooms.
- 5. The bell system is toned through the intercom speakers.









Onalaska High School Onalaska, Wisconsin

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B. Observations

- 1. The intercom system is in good working order.
- 2. Additional intercom speakers can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the intercom system is about 20 more years.

D. Recommendations

1. None.





Phone System

A. Existing Data

- There is a Mitel 3300 PBX analog phone system in Irving Pertzsch Elementary School that serves the High School. This system is 5 years old and was installed in 2008. The phone switch is located in the IT room at Irving Pertzsch.
- The phone cabling is CAT3 and is routed back to wall mounted voice wiring blocks. The voice wiring blocks are located in the first floor electrical room near the main office and in the lower level storage room.

B. Observations

- 1. The phone system is in good working order.
- 2. Additional phones can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the phone system is about 15-20 more years.

D. Recommendations

1. None.







Data System

A. Existing Data

- The MDF data rack is located in first floor electrical room near the main office. There is one floor mounted data rack. There are 4 additional IDF data racks located throughout the building.
- 2. The IDF data racks are connected to the MDF data rack with multi-mode fiber optic cable. The MDF of all the schools in the district are connected together with single-mode fiber optic cable.
- 3. The data cable is CAT6 plenum rated which is routed to patch panels in the data rack.
- 4. The patch panels in the data rack are CAT6 Panduit.
- 5. There is a rack mounted UPS.

B. Observations

- 1. The data system is in good working order.
- 2. Additional horizontal runs of data cable can be added to the existing rack.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the data system is about 20-30 more years.

D. Recommendations

1. None.

CATV System

A. Existing Data

- There is a CATV service to this building. CATV splitters are located in storage closets throughout the building.
- 2. There is a CATV jack in each classroom.
- 3. There is a ceiling mounted projector and/or wall mounted television in each classroom.
- 4. Some classrooms have smartboards.

B. Observations

1. CATV system is in good working order.







2. Additional CATV jacks can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CATV system is about 30-40 more years.

D. Recommendations

1. None.

Security System

A. Existing Data

- 1. There is an Ademco security system. The security control panel is located in the lower level laundry room. This system is 15 years old.
- 2. The security system has motion sensors in the corridors.

B. Observations

- 1. There are no exterior door contact switches.
- 2. Security system is in good working order.
- 3. Additional security devices can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the security system is about 15-20 more years.

D. Recommendations

1. Add exterior door contact switches. \$400 EA

CCTV System

A. Existing Data

- 1. There is an Exacq Vision server based CCTV system used throughout all the buildings in the district. The system is 10 years old and was installed in 2003.
- 2. There are Axis interior and exterior fixed color IP cameras.

B. Observations

- 1. The CCTV system is in good working order.
- 2. Additional cameras can be added.






C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CCTV system is about 10-15 more years.

D Recommendations

- 1. No recommendations at this time.
- 2. CCTV system replacement cost: \$1,500/camera

Access Control System

A. Existing Data

- 1. There is an Identicard System door access control system. The control panel is located in the storage room near the drafting room.
- 2. There is one exterior door with an electric strike and key fob reader.

B. Observations

- 1. The access control system is in good working order.
- 2. Additional doors can be added to this system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the access control system is about 15-20 more years.

D. Recommendations

1. One option is to install electric strikes with key fob readers on additional exterior doors. \$1,000/door







LEGEND

- ORIGINAL BUILDING
- 1968 ADDITION
- 1988 ADDITION









LEGEND

ORIGINAL BUILDING

- 1968 ADDITION
- 1988 ADDITION









ROOM COLOR LEGEND















ROOM COLOR LEGEND





ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

FACILITY Onalaska High School

Updated: October 10, 2013

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
HS-0001	10/10/13	Roofing Repair	Maintenance	Re-flash rubber roof membrane at locations where shrinkage has caused 'tenting' condition.	\$14,000		
HS-0002	10/10/13	Window Replacement	Replacement	Remove and replace balance of clad wood Pella windows with new aluminum windows.	\$35,500		
HS-0003	10/10/13	Aluminum Entrance Replace	Replacement	Replace aluminum entrance doors with new heavy-duty aluminum entrance doors.	\$21,200		
HS-0004	10/10/13	Replace H.M. doors & frame	Replacement	Remove and replace existing H.M. doors and frame at Entrance 'F' with new galvanized H.H. doors, frame and hardware.	\$4,200		
HS-0005	10/10/13	Stairwell Flooring Replace	Replacement	Replace rubber stair treads and flooring at landings.	\$7,900		
HS-0006	10/10/13	Science Lab Upgrades	ADA	Replace instructors demonstration tables with new ADA compliant tables with movable adjustable ht. table.	\$29,600		
HS-0007	10/10/13	Replace Damaged Wood Doors	Replacement	Replace (43) damaged wood interior doors.	\$45,200		
HS-0008	10/10/13	Re-glaze Fire Doors	Safety Upgrade	Replace wire glass in interior fire-rated door assemblies with fire-rated safety glass.	\$68,800		
HS-0009	10/10/13	Remodel Toilet Rooms	Handicap Accessibility	Remodel main toilet rooms on both levels for compliance with ADA guidelines. Cost is per pair of Boys & Girls Restrooms.	\$104,800		
HS-0010	10/10/13	Replace Greenhouse Glazing & Brick Cleaning	Replacement	Remove and replace existing aluminum framed 'greenhouse' at west end lower level Biology Labs. Clean brick surfaces.	\$29,500		
HS-0011	10/10/13	New ADA Signage	Code Compliance	Install new ADA compliant room signage throughout the High School.	\$9,400		



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
HS-0012	10/10/13	New Football Field /Track Storm Water Collection System	Upgrade	Install new area drains between track surface and football field and interconnect with subgrade drainage system.	\$35,000		2
HS-0013	10/10/13	Re-construct Track	Replacement	Re-construct track asphalt over new 24" depth of drainage fill.	\$220,000		2
HS-0015	10/10/13	Track Surfacing	Replacement	Provide Seal-Flex surface over asphalt track.	\$73,000		2
HS-0016	10/10/13	Parking Lot Resurfacing Site Grid Location G9	Re-surface	Some base failure, mostly surface shrinkage.	\$42,000		2
HS-0017	10/10/13	Tree Removal (Spruce) Site Grid Location H8	Maintenance	Remove dying tree.	\$300		1
HS-0018	10/10/13	ADASignage @ Parking Lot Site Grid Location 16	Maintenance	Signs should be 5' above ground level	\$300		1
HS-0019	10/10/13	ADA Ramp Replacement Site Grid Location H6, 15	Code Compliance	No detectable warning field, also adjacent concrete is poor. Replace	\$1,500		1
HS-0020	10/10/13	Concrete Walk Replacement, Site Grid Location H4	Repair	Poor drainage at doors, replace and slope to drain.	\$1,500		2
HS-0021	10/10/13	ADA Parking Stalls Striping	Code Compliance	Site has 6 spaces (5 are not code compliant) 8 compliant spaces required. Re-stripe accessible parking stalls.	\$2,500		1
HS-0022	10/10/13	Parking Lot Resurfacing Site Grid Location C7	Pavement resurfacing	Most asphalt pavement in fair to poor condition. Plan for a Re-surfacing of parking lot.	\$120,000		2
HS-0023	10/10/13	Pavement Resurfacing Site Grid Location C7/8	Pavement resurfacing	120'x40' area with exposed base, ruts & heaving. Reconstruct this area.	\$15,000		1
HS-0024	10/10/13	Adjust Storm Catch Basin Site Grid Location B8	Safety	Casting heaved above surrounding pavement. Regrade and adjust catch basin casting.	\$1,500		2
HS-0025	10/10/13	Sidewalk Replacement Site Grid Location C6-7	Safety	Replace/mudjack sidewalk & address heaving issue	\$2,800		1



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
HS-0026	10/10/13	Replace damaged sidewalk Site Grid Location D5, E5, F5	Safety	Replace sidewalk	\$6,500		1
HS-0027	10/10/13	Pavement-E4/5, D4/5	Safety	Replace pavement, correct unstable base. Correct poor drainage.	\$168,000		2
HS-0028	10/10/13	Parking Lot, D8 & E8	Safety	Inadequate drainage capacity, pavement in poor condition. Replace with new porous pavement	\$135,000		2
HS-0029	10/10/13	Storm Water Utilities @ Football Field Grandstands	Maintenance	Replace storm water drainage catch basin and piping serving site area next to grandstands.	\$67,000		1
HS-0030	10/10/13	Replace coiling doors at football field grandstand storage areas.	Replacement	Replace three overhead coiling doors with new sectional overhead doors at west side of grandstands.	\$3,800		2
HS-0031	10/10/13	New bollards at grandstands	Maintenance	Install new concrete filled steel pipe bollards at garage door openings to storage areas under grandstands.	\$1,200		2
HS-0032	10/10/13	Storm water detention area	Maintenance	Excavate, grade and landscape new storm water detention area at existing lawn area south of grandstand bleachers.	\$26,000		
HS-0033	10/10/13	Press box repairs	Repair	Repair water damaged press box structure, replace windows.	Allowance \$6,000		



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
HS-0034	10/10/13	Replace plumbing fixtures in Team Locker Rooms.	Replacement	Replace water closets, urinals and lavatories with new ADA compliant and water use efficient fixtures.	\$2,500 / fixture		1
HS-0035	10/10/13	Upgrade lab room sink fixtures.	Code Compliance	Add serrated nipple vacuum breakers at all lab worksurface sink faucets.	\$250 / faucet		2
HS-0036	10/10/13	Upgrade natural gas distribution to lab counter turrets.	Safety	Modify existing gas turrets to control with emergency shut-off in appropriate and accessible location within the science lab room.	\$2,000		2
HS-0037	10/10/13	Emergency Shower Modifications	OSHA requirement	Install mixing valve to provide hot and cold water to the existing emergency shower fixture.	\$4,000		2
HS-0038	10/10/13	Replace sanitary piping and urinals in Field House.	Replacement	The sewers in this area are in poor condition and require continual maintenance.	\$15,000		2
HS-0039	10/10/13	Acid Neutralization Basin	Maintenance	Acid Neutralization Basin should be inspected and maintained on an annual basis.	\$750		1
HS-0040	10/10/13	Replace worn Tru-Spun Cast- iron piping.	Replacement	Replace existing tru-spun cast-iron piping with standard cast- iron piping.	\$70,000		2
HS-0041	10/10/13	Replace galvanized water piping.	Replacement	The existing galvanized water piping is near the end of it's life expectancy and will need to be replaced.	\$130,000		2



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
HS-0042	10/10/13	Variable Flow pumping(hot water system	Energy Efficiency/Control	Revise the current constant flow pumping system to variable flow by replacing pump motors with inverter duty motors and installing variable frequency drives with differential pressure control.	\$90,000		2
HS-0043	10/10/13	Variable flow pumping (chilled water system)	Energy Efficiency/Control	Add a stand-by pump and revise the current constant flow pumping system to variable flow by replacing pump motors with inverter duty motors and installing variable frequency drives with differential pressure control	\$95,000		2
HS-0044	10/10/13	New Condensing Boiler	Energy Efficiency/Control	Install a single condensing boiler and connect to the existing hot water piping loop to provide lower hot water temperatures during light load conditions and summer reheat. Boiler efficiency up to 96%	\$50,000		2
HS-0045	10/10/13	Replace AHU's	End of service life replacement.	Replace the remaining air handling units from the 1960s and 1970s construction to provide improved capacity and humidity control	\$110,000 per unit		2
HS-0046	10/10/13	Add VAV boxes	Proper zone control	Provide additional VAV boxes as needed to classroom spaces that have been partitioned in the past without HVAC revisions.	\$5,000 per VAV box		2
HS-0047	10/10/13	Update DDC Controls	Consolidate Controls to single DDC system	Replace the remainder of the existing Trane DDC controls with Schneider Electric controls.	\$3/SF of bldg. area served by Trane		2
HS-0048	10/10/13	Add capacity to chiller plant	Lack of cooling	Add additional chiller modules to the existing Multistack modular chiller to increase capacity from 250 tons to approximately 350-400 tons	\$175,000		2
							2



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
HS-0049	10/10/13	Add surge protection	Equipment Upgrade	Add surge protection device to main service switchboard	\$3,500		3
HS-0050	10/10/13	1968 Panelboard Replacement	Equipment Upgrade	Replace the 1968 panelboards and feeder with new	\$7,000/panel		3
HS-0051	10/10/13	Separate Life Safety Loads	Code Compliance	Provide additional automatic transfer switch to separate life safety loads from non-load safety (equipment) loads on the emergency power distribution system	\$25,000		2
HS-0052	10/10/13	Emergency Lighting Relay Upgrade	Code Compliance	Provide UL 924 listed emergency bypass relays on the emergency generator egress lighting circuits	\$8,000		2
HS-0053	10/10/13	Parking Lot Lighting Upgrade	Energy Conservation	Provide new LED pole mounted area light fixtures in south parking lot	\$3,000/pole		3
HS-0054	10/10/13	Classroom Power upgrade	System Upgrade	Add additional circuits and receptacles to the classrooms as required	\$200/receptacle		3
HS-0055	10/10/13	Door Contact Switches	Security Upgrade	Add exterior door security contact switches	\$400 ea.		3
HS-0056	10/10/13	Door Access Control	Security Upgrade	Add electric door strikes with key fob readers on additional exterior doors	\$1,000/door		3











750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

FACILITIES CONDITION ASSESSMENT

Facility: Onalaska Middle School 711 Quincy Street Onalaska, WI 54650

Building Age:

00	
1978	Original Middle School Construction
1999	Central Kitchen Expansion
2006	Classroom Remodeling

Building Data:

- Construction Type: Type 2B Non-combustible, non-sprinklered
- Building Area 119,036 SF
- Enrollment 638

Site

Parking 79 Stalls

FACILITY CONDITIONS ASSESSMENT

1.0 BUILDING ENVELOPE

1.1 EXTERIOR WALLS

The 1978 construction of the new middle school was comprised of steel framed structure of steel columns, wide flanged beams and open web steel bar joists and steel decking. The exterior walls were constructed of light-gauge steel studs clad with exterior gypsum sheathing and a textured acrylic stucco. A continuous fascia band of ribbed metal panels was applied to the wall area above the stucco surface. The interior side of the walls were covered with a base layer of $\frac{1}{2}$ " gypsum board and covered with a vinyl covered fiberboard. The metal stud wall cavity was insulated with 3-1/2 inch R-11 batt insulation.

Observations

In general, the exterior cladding (stucco and metal panels) remains in satisfactory condition with selected areas requiring repair and patching. Minor cracking of the stucco was observed and should be repaired or recoated. Exterior caulked control joints could also be cut-out and re-caulked.

The stucco surfaces have weathered and could be re-coated to provide a refreshed look. The ribbed metal fascia panels have faded considerably and should also be re-coated to extend the lifespan.

Recommendations

- 1. Clean and re-coat stucco surfaces with a new elastomeric coating that will weatherproof any cracks that have developed.
- 2. The ribbed metal panels could also be cleaned and re-painted to protect against any development of corrosion and extend the lifespan indefinitely.

1.2 ROOFING

The entire building with the exception of the north half of the Central Kitchen was re-roofed in 2006 (\$506,000) which involved replacing the original ballasted single-ply rubber membrane with anew mechanically attached 60-mil rubber membrane over new insulation placed over the existing R-2 perlite insulation. The roof system was specified as to include a 20-year 'full-system warranty'.

The 1999 Central Kitchen Addition consisted of a 60-mil ballasted single-ply rubber membrane over 5 inch EPS insulation.

Observations

No current leaks were reported by maintenance staff. The 2006 re-roofing appears in good condition. The ballasted roof system above the 1999 Central Kitchen addition also appears in satisfactory condition with no significant signs of deterioration. Roof flashings and counterflashings at the clerestory windows could be improved as part of any replacement of the clerestory window frames.



Recommendations

If the decision is made to replace the aluminum framed clerestory windows in the sloped shed roof areas, it is recommended that the sill conditions be raised and re-flashed per current recommendations of the roof membrane manufacturer.

1.3 DOORS & WINDOWS

The original windows from the 1978 construction project are still in place and consist of a shallow depth thermally broken aluminum frame with 1 inch insulated glass.

The main south side entrance is of hollow metal doors and frames. The east side entrance is of standard aluminum entrance doors, fully-glazed.

Service doors are hollow metal.

Observations

The existing aluminum windows are framed within the metal stud exterior walls. The wall area below the windows are clad with the same ribbed metal fascia panels.



Aluminum entrances are showing signs of significant wear from heavy usage.

Hollow metal doors and frames are also showing significant signs of typical wear and abuse.

Recommendations

Remove and replace existing aluminum windows with new thermally improved aluminum windows with high performance insulated glass. Replace wall section below windows with abuse resistant cladding over additional rigid insulation.

Aluminum entrances can likely remain for the present but should be included on the list for future replacement.

In general, hollow metal steel doors and frames can also continue to be used and repair as necessary. Replacement with new galvanized steel doors and frames should be considered for inclusion on any list for future building upgrades.

2.0 BUILDING INTERIOR

2.1 FLOORING

Flooring materials include carpet, vinyl composition tile, ceramic tile, and wood parquet (gymnasium). Corridors are typically carpeted.

Observations

Flooring appears to be well maintained with no apparent immediate need to replace or upgrade. Carpeted corridors show some signs of wear and could be included on a list of future maintenance upgrades.

Recommendations

No immediate attention is necessary.

2.2 CEILINGS

The majority of the rooms have suspended acoustical tile. Locker rooms have plastered ceilings and the LMC is partially finished with stained wood paneled sloped ceilings.

Observations

Ceiling tile and grid in the science labs are stained and corroded.

Recommendations

Replace worn areas of acoustical ceiling tile and vinyl faced ceiling panels (toilet rooms).

2.3 WALLS

Interior partitions bordering corridors consist of metal studs with gypsum board and thincoat plaster. Classroom partitions are of metal stud, gypsum board and vinyl faced fiberboard.

Observations

Wall surfaces are generally in good shape. Some corners are damaged from high circulation traffic and could be protected with cornerguards.

2.4 INTERIOR DOORS & FRAMES

Interior doors are generally solid core oak veneer wood doors in hollow metal frames. Fire rated door assemblies include wire glass lites.

Observations

Wood doors exhibit normal deterioration from the years of service. Hardware on the majority of interior doors do not comply with ADA guidelines.

Recommendations

- 1. Wood doors can continue to be used and replaced on a case by case basis.
- 2. Hollow metal door frames should be repaired and repainted.
- 3. Wire glass should be removed and replaced with new fire-rated safety glass.
- 4. Replace latchset hardware with new lever handled hardware.

2.5 TOILET PARTITIONS

Toilet partitions include both metal and solid plastic.

Observations

Metal toilet stall partitions show typical damage and deterioration from heavy use and abuse.

Recommendations

Partitions can continue to be used but can be changed out to solid plastic as part of any toilet room remodeling project.

2.6 SCIENCE LAB CLASSROOMS

Existing Conditions

The original lab work counters are still in place and consists of epoxy resin countertops on a steel framed support system. The work surfaces are worn and shows the signs of 30+ years of use. Sliding wood panel fronts were added as a means to close off the undercounter space and to conceal storage of boxed science kits.



The epoxy resin counters include a continuous shallow depth drainage trough that slopes to a single drain at the end of the sections of countertops. Gooseneck water faucets are positioned above the drainage trough but splashes water on countertop surfaces outside of the trough (poor design).



The existing deck mounted gas turrets are not used and could be removed. The work surfaces also include pedestal type electrical receptacles, however, the lecture area of the classroom is noticeable short of wall receptacles requiring suspended extension cords. Sound transmission from the adjacent music rooms remains a problematic. The corridor between the science rooms and the band / vocal rooms are used as instrumental practice areas. The science instructors also noted that exhaust ventilation is ineffective and needs to be rebalanced.

Recommendations

- 1. Replace lab work surfaces and steel framed understructure with new wood laboratory cabinets and epoxy resin tops with integral epoxy resin sinks.
- 2. Replace fume hood with new two-sided demonstration hood that would permit student access from the classroom side while allowing the instructor to work from the prep room side.
- 3. Provide in each of the science labs, handicap accessible work surface section with open knee space below to permit access to lab fixtures and sinks for wheelchair bound students.
- 4. Refinish base and wall cabinets in prep room with new cabinet hardware.



2.7 MIDDLE SCHOOL GARAGE

2.1 A 30' x 24' wood framed storage garage is located on the north side of the school and utilized for miscellaneous equipment. The structure consists of a wood stud frames walls on a concrete floor slab, prefabricated wood trusses, vinyl lap siding and asphalt shingled roof. There are three pairs of hollow metal doors on the south side and a single pair on the north wall.



Recommendations

In general, the garage structure appears to be in satisfactory condition with the exception of a small damaged area of vinyl siding. The asphalt shingles should provide several more years before it becomes necessary to replace the shingles.

The hollow metal doors should be scheduled for refinishing with a highperformance paint coating to extend the life of the doors.

3.0 HANDICAP ACCESSIBILITY

3.1 ACCESSIBLE ROUTE

Existing Conditions

The Wisconsin Commercial Building Code defines an "accessible route" as a continuous, unobstructed path leading to a building entrance from off-site (public streets) and on-site amenities such as staff parking lots and bus loop driveways. The Middle School site currently provides accessible routes from the south side bus drop-off area, and main building entrance on the east end.

Recommendations No additional work is required.

3.2 ACCESSIBLE PARKING

Where parking is provided, accessible parking spaces shall be provided as follows:

Total Parking	Required Number Of
Spaces Provided	Accessible Spaces
79	4

3.3 ACCESSIBLE ENTRANCE

Existing Condition Door operators have been provided at southside Entrance 'A', Entrance 'C' on the East end.

Recommendations

No additional work is required.

3.4 ACCESSIBLE INTERIOR CIRCULATION

With the exception of the upper level Boiler Room, all rooms are located on one level. All classrooms, corridors and auxiliary spaces were designed for compliance with ADA guidelines for interior circulation.

Recommendations

No action required.

3.5 ACCESSIBLE TOILET FACILITIES

The 2006 classroom remodeling project included the remodeling of existing boys' and girls' toilet rooms located in the southeast corner of the building. The work involved modifications to toilet compartment, adding grab bars, new handicap accessible lavatory, and adding an accessible height drinking fountain. All other toilet room facilities do not comply with the ADA requirements for accessible toilet facilities, including the toilet rooms located in the locker rooms.

Recommendations

Convert and remodel additional toilet rooms to hdcp accessible.

3.6 ACCESSIBLE LOCKER ROOMS & SHOWER FACILITIES

Existing Conditions

The existing locker rooms and shower facilities do not comply with section 603 of the ADA guidelines. Where bathing facilities are provided, at least one shower complying with the general ADA requirements for shower stalls shall be provided (Section 213.3.6) Where it is technically infeasible to provide rooms in accordance with general requirements (applicable to new construction), one room for each sex shall comply with Section 803 for turning space, door swings, bench seats, coat hooks and shelves.

Recommendations

In Boys Locker Room, remodel P.E. Office and adjoining toilet room/shower stall into an ADA compliant toilet / shower room that could be utilized by students or P.E. staff.

The Girl's Locker Room currently includes a separate shower stall that could serve as a handicap stall. Another option would be to remodel the gang showers into private stalls, in which case one stall would serve as the handicap accessible shower stall.



Onalaska Middle School Site Facility Assessment Comments

The Middle School has had a significant amount of sidewalk correction as well as new asphalt paving on the north side. The remaining sidewalks and paving are in serviceable condition and will not need replacement in the foreseeable future. There were some specific places that are identified in the Assessment that should be addressed in the near future due to code or safety concerns. There is one small area of curb along the drop-off area that is an obvious tripping hazard that should be replaced immediately. The site is not in compliance with ADA code for parking. As an older facility, improvements to surfaces such as slope changes are not required however, signing and striping are not "grandfathered" and where signing and striping can be implemented to create current code compliant parking it is required to be done at the time of ANY sealcoat and restripe operation including signage meeting current ADA standards.





ONALASKA MIDDLE SCHOOL ONALASKA, WISCONSIN DATE: 8/17/2013



MS - 11

PLUMBING

The following report is the result of a site visit by Tim Kehoe of Muermann Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

PLUMBING EQUIPMENT

A. Observations

- Water heating equipment has recently been replaced with gas fired instantaneous water heating equipment. Currently 2 units provide adequate hot water for the building. The units are in good condition and are operating well.
- 2. The building is served by a Simplex Hellenbrand water softener. The water softener appears to be softening only the hot water. Water hardness levels in this part of the state typipcally require both the hot and cold water to be softened.
- 3. A small water softener is located in the kitchen storage room. This softener is designated for the kitchen only.

B. Recommendations

- Instantaneous water heating equipment is required to be maintained for scale on a regular basis. Annual maintenance shall be provided on equipment as required.
- 2. Existing water softener may be capable of providing soft water for the entire domestic water demand. This would allow the district to eliminate the water softener located in the kitchen.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the water heaters is 10 years
- 2. The expected remaining life cycle of the water softener is 20 years.





PLUMBING FIXTURES

A. Observations

- 1. Plumbing fixtures located within the toilet rooms and classrooms are generally in poor condition and should be scheduled for replacement
- 2. Toilet rooms are not ADA compliant per today's standards.
- 3. The kitchen is the central kitchen for the district. The kitchen equipment appears to be in good condition.

B. Recommendations

- 1. Plumbing fixtures should be scheduled for replacement.
- 2. Toilet rooms should be modified to be ADA compliant.









C. Expected Remaining Lifespan

1. The expected remaining lifespan of the Plumbing Fixtures is 10 years. The estimated cost to replace the fixtures and associated piping is \$2,500 per fixture.

SANITARY PIPING

A. Observations

- Sanitary piping is cast-iron. The piping has failed in some areas. Old cast iron piping has been replaced with Schedule 40 PVC piping.
- 2. An interior grease interceptor has been provided for the kitchen. Due to the size of the kitchen, the grease interceptor appears to be grossly undersized for the building demand. The interceptor also does not appear to be connected to all the equipment that is required per the current code requirements.
- 3. Clothes washers discharge into in a makeshift laundry trench. It is recommended that this condition be corrected to extend the life of the sanitary sewer.

B. Recommendations

- 1. The owner indicated problems with the existing cast iron piping. The piping should be scheduled for replacement. We recommend that the interior sanitary be viewed with a camera to determine the integrity of the pipe.
- The grease interceptor should be continually maintained and monitored. Budget for a new grease interceptor that is adequately sized.
- 3. Repair laundry trench drain.

C. Expected Remaining Lifespan

1. The sanitary sewer is showing signs of age in a few different locations in the building. A new laundry trench drain is estimated at \$3,500.00 and a new interior grease interceptor and associated piping to the appropriate equipment is \$12,000.

STORM PIPING

A. Observations

- 1. The owner indicated no problems with the storm piping , roof drains or storm drainage for the building.
- 2. Piping materials appear to be holding up well.

B. Recommendations

1. Continue to monitor the storm piping system.





DOMESTIC WATER PIPING

A. Observations

- Original portions of the building are provided with a galvanzied domestic water piping. Additions and renovations have been piped using Type "L" copper tube.
- 2. In some areas PEX tubing was installed to provide circulation to the domestic hot water system. This system is not performing as expected.
- 3. The building is supplied by a 4" domestic water service with a 4" water meter. A separate water meter and backflow preventer has been provided for irrigation to the athletic fields. The existing water service is not large enough to support a fire protection system for the building should one be desired in the future,



B. Recommendations

- 1. Galvanized domestic water piping should be scheduled for replacement.
- 2. The domestic water piping for this facility should be evaluated and potentially replaced to correct the problems with entire domestic water piping system.
- 3. Additions or major renovations to the building may require the building to be provided with a fire protection system. A new 6" domestic water service should be evaluated for the building.

C. Expected Remaining Lifespan

- 1. Should a new 6" water service be desired in the future the estimated cost is would be \$40,000. Fire protection cost would be estimated at \$3.00 per sq.ft..
- 2. Galvanized water piping replacement for this building is estimated at \$80,000. The remaining life expectancy of the galvanized piping is 10 years.

HVAC

The following report is the result of a site visit by Randy All of Fredericksen Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

HEATING, VENTILATIONS AND AIR CONDITIONING SYSTEMS

A. Existing Data

- The building heating system is a hot water system that consists of two (2) Thermal Solutions sealed combustion boilers rated at 1,760,000 btu output each and one (1) Burnham packaged boiler rated at 1,116,000 btu output which is utilized as a stand-by boiler. The pumping system is a primary-secondary arrangement with constant flow system pumps. Each boiler is served by an inline primary pump while main and stand-by pumps are piped in parallel in the secondary loop.
- 2. The building cooling system is a central chilled water system that consists of a 120 ton Multi-Stack water-cooled modular chiller. The chiller condenser is cooled with city water that runs straight through the condenser to the city sanitary system. The pumping system is a primary-only arrangement with two constant flow pumps piped in parallel.



- 3. The building is served by constant volume air handling units and air handling units with hot water VAV and booster coil reheat control. The air handling units have been replaced in recent years with newer modular Trane equipment, but the distribution ductwork and zoning were not replaced at that time.
- 4. The main data server room is served by a computer room air conditioning unit with standalone control.
- 5. The kitchen is served by two (2) packaged rooftop heating and cooling units with standalone electronic programmable thermostats. One of the four large kitchen exhaust hoods is served by a gas-fired makeup air unit.
- 6. The building is controlled by a Trane direct digital control system.

B. Observations

- 1. The boilers are in good condition and, with a proper maintenance program, should continue to serve the building for another 10-15 years.
- 2. The Owner reported that the gymnasium has had difficulty delivering proper airflow even after having the heating and cooling coils cleaned. Both the gym and commons areas have difficulty reaching setpoint on hot/humid days when the spaces are occupied.
- 3. The Owner also reported that the kitchen experiences pressure issues when the exhaust hoods are in operation. This is likely due to a lack of makeup air.

4. There have been numerous complaints of systems not maintaining proper temperatures throughout the building in both summer and winter. Air distribution and zoning appear to be a significant problem.

C. Recommendations

- 1. The hot water and chilled water systems serving the building are overall in good operating condition. However, the constant flow pumping systems serving the hot water and chilled water systems are inefficient from an energy standpoint. Revise the hot water system to a primary-secondary variable flow pumping system by utilizing variable frequency drives and pressure reset control sequences to optimize operation and more closely match the actual building loads. Revise the chilled water system to a variable primary flow system with a similar approach.
- 2. Revise/replace the existing ductwork distribution and zoning to properly serve the building layout that is now in place since revisions have taken place over the years. Replace all constant volume booster coil reheat systems with hot water VAV systems to improve energy efficiency and zone control.
- 3. Replace the existing air handling systems that are currently serving the gymnasium and the commons with new equipment that is sized to adequately handle the space loads.
- 4. Continue to maintain the existing Trane digital control system. We recommend maintaining the software with the latest updates to keep the system current.

ELECTRICAL SYSTEM

The following report is the result of a site visit by John Russell of Muermann Engineering, LLC that occurred on August 2, 2013. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report. All construction costs indicated in this report are opinions.

The building was originally constructed in 1978. The central kitchen was added in 1999.

MAIN ELECTRICAL SERVICE

A. Existing Data

 This school has a 2,500 amp 480 volt 3-phase 3-wire electric service. The service is fed from a utility owned pad mounted transformer. The CT's cabinet is pad mounted outside next to the utility transformer. The meter socket is mounted inside next to the main switchboard. The main service switchboard consists of two 2,500 amp circuit breaker distribution sections and one 2,500 amp fused switch distribution section. This

switchboard has 6 main disconnects including 4 fused switches and two fused bolted pressure switches. This service equipment was installed in 1978. The switchboard is a Square D. There are 6 spare circuit breaker spaces in the switchboard.

2. The central kitchen has a 600 amp 480Y/277 volt 3-phase 4- wire service. The service is fed from a utility owned pad mounted transformer. The CT's are integral to the main switchboard. The meter socket is mounted inside next to the main switchboard. The switchboard has a 600 amp main circuit breaker. There are no available spaces left in this switchboard for additional circuit breakers.

B. Observations

1. The main service switchboard does not have a surge protection device.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the main service switchboard is about 15-20 more years.

D. Recommendations

1. Provide surge protection device on main service. \$3,500





PANELBOARDS

A. Existing Data

- 1. The panelboards are Square D.
- 2. The panelboards were installed in 1978.

B. Observations

 The panelboards are generally not full and have on average a few spaces for additional circuit breakers.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the panelboards is about 15-20 more years.

D. Recommendations

1. None.



LIGHTING FIXTURES AND CONTROLS

A. Existing Data

- The classrooms have new 2x4 acrylic lens 2-lamp fixtures that are 1 year old. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. Each classroom also has an occupancy sensor and one low voltage momentary contact switch controlling a lighting control relay panel. The light fixtures are on 8' X 8' centers.
- The corridors have new 2x4 acrylic lens 2-lamp fixtures that are one year old. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. The fixtures are controlled by a 3-way switch at each end of the corridor. There are occupancy sensors to control the lights. There are 24/7 night light fixtures. The fixtures are spaced 12' on center.
- 3. Exterior canopy fixtures are recessed metal halide. Some canopy fixtures have been replaced with LED. The wall pack fixtures along the playground are flood type metal halide non-cut off type. The rest of the wall packs have been replaced with cut off type LED fixtures. The area lights serving the parking lot are metal halide decorative pole mounted globes. The exterior canopy lighting is controlled from a timeclock-on, timeclock-off central lighting contactor which controls all fixtures at the same time. The wall pack fixtures are controlled by a photocell in each fixture. The parking lot lights are controlled by a wall switch.
- 4. One hallway has battery powered emergency lights.

B. Observations

- 1. There is no automatic control for the parking lot lighting.
- 2. There is no emergency lighting in the corridors with the exception of one corridor.
- 3. There is no exterior emergency lighting.
- 4. There is minimal security lighting on the exterior.

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C. Expected Remaining Lifespan

1. The expected remaining lifespan of the interior light fixtures is about 30 more years.

D. Recommendations

- 1. Provide timeclock controlled parking lot lighting. \$2,000
- 2. Add emergency ballast to existing light fixtures in corridor to provide code required emergency lighting. \$400/fixture
- Provide battery powered exterior egress fixtures outside all egress exit doors. \$500/door
- 4. Provide additional exterior LED wall pack light fixtures for security. \$400/fixture

WIRING DEVICES

A. Existing Data

1. The receptacles and toggle switches are commercial grade 15A with stainless steel plates.

B. Observations

- 1. Switches and receptacles are in good working order.
- 2. Many receptacle circuits are shared between two classrooms which can lead to the circuit becoming overloaded.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the wiring devices is about 20 more years.

D. Recommendations

- 1. Replace any broken switches and receptacles. \$30 EA
- 2. Add additional receptacles to classrooms as required. \$200 EA

FIRE ALARM SYSTEM

A. Existing Data

- The fire alarm is an EST 3 addressable system. The system was recently upgraded. The fire alarm control panel is located in the east mechanical room.
- 2. There are pull stations by all exterior doors.



There are wall mounted horn strobe devices in the corridors and classrooms. Many of these old devices were reused when the system was upgraded. New EST devices have been added where required by code.

- 4. There are smoke detectors in the corridors and storage rooms. There are heat detectors in mechanical rooms.
- 5. There are duct smoke detectors in the air handling units operating at 2000 CFM or greater.
- 6. All fire alarm cabling is installed in conduit.

B. Observations

- 1. The fire alarm system is in good working order.
- 2. Fire alarm system is compliant with current fire alarm codes.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the fire alarm system is about 30 more years.

D. Recommendations

1. None.

CLOCK SYSTEM

A. Existing Data

- There is a Lathem wireless synchronized clock system. This system is 7 years old and was installed in 2006. The clock master controller is located in the IMC storage room.
- 2. There are Lathem analog battery powered clocks in the classrooms, offices, and other public areas.
- 3. The bell tone is controlled by the master clock controller.

B. Observations

- 1. The clock system is in good working order.
- 2. Additional clocks can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the clock system is about 30 more years

D. Recommendations

1. None.





INTERCOM SYSTEM

Page 5 of 8

A. Existing Data

- 1. There is a Telecor intercom system. This system is 7 years old and was installed in 2006. The amplifier is located in the IMC storage room.
- 2. The intercom is accessed through the phone system and intercom phones in the classrooms.
- 3. There are recessed ceiling mounted intercom speakers in the classrooms and corridors. There are recessed speakers in the exterior soffits near all doors.
- 4. The bell system is toned through the intercom speakers.

B. Observations

- 1. The intercom system is in good working order.
- 2. Additional intercom speakers can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the intercom system is about 30 more years.

D. Recommendations

1. None.





PHONE SYSTEM

A. Existing Data

- 1. There is a Mitel SX-2000 LIGHT PBX analog phone system switch in the east janitor room.
- 2. The phone cabling is CAT3 and is routed back to wall mounted voice wiring blocks. The voice wiring blocks are located in the east janitor room and the laundry room.

B. Observations

- 1. The phone system is in good working order.
- 2. Additional phones can be added to the system.



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C. Expected Remaining Lifespan

- The expected remaining lifespan of the phone system is about 15-20 more years.
- D. Recommendations
 - 1. None.



DATA SYSTEM

A. Existing Data

- The MDF data rack is located in main IT room. There is one floor mounted data rack. There is one additional IDF data rack located in the IMC A/V storage room.
- 2. The IDF data racks are connected to the MDF data rack with multimode fiber optic cable. The MDF of all the schools in the district are connected together with single-mode fiber optic cable.
- 3. The data cable is CAT6 plenum rated which is routed to patch panels in the data rack.
- 4. The patch panels in the data rack are CAT6 Leviton.
- 5. There is a rack mounted UPS.

B. Observations

- 1. The data system is in good working order.
- 2. Additional horizontal runs of data cable can be added to the existing rack.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the data system is about 20-30 more years.

D. Recommendations

1. None.





CATV SYSTEM

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A. Existing Data

- 1. There is a CATV service to this building. CATV splitters are located in the east janitor's closet and the laundry room.
- 2. There is a CATV jack in each classroom.
- 3. There is a ceiling mounted projector in each classroom.
- 4. Some classrooms have smartboards.

B. Observations

- 1. CATV system is in good working order. Many jacks are not active.
- 2. Additional CATV jacks can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CATV system is about 30-40 more years.

D. Recommendations

1. None.

SECURITY SYSTEM

A. Existing Data

- 1. There is an older Ademco security system. The security control panel is located in the main electrical room.
- 2. The security system has motion sensors in the corridors and contact switches on all exterior doors.

B. Observations

- 1. Security system is in good working order.
- 2. Additional security devices can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the security system is about 15-20 more years.

D. Recommendations

- 1. No recommendations at this time.
- 2. Security system replacement cost. \$400/security device




CCTV SYSTEM

A. Existing Data

- There is an Exacq Vision server based CCTV system used throughout all the buildings in the district. The system is 10 years old and was installed in 2003.
- 2. There are Axis interior and exterior fixed color IP cameras.

B. Observations

- 1. The CCTV system is in good working order.
- 2. Additional cameras can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CCTV system is about 10-15 more years.

D. Recommendations

- 1. No recommendations at this time.
- 2. CCTV system replacement cost: \$1,500/camera

ACCESS CONTROL SYSTEM

A. Existing Data

- 1. There is an IDenticard System door access control system. The control panel is located in the main electrical room.
- 2. There are two exterior doors with an electric strike and key fob reader.

B. Observations

- 1. The access control system is in good working order.
- 2. Additional doors can be added to this system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the access control system is about 15-20 more years.

D. Recommendations

 One option is to install electric strikes with key fob readers on additional exterior doors. \$1,000/door











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ORIGINAL CENTRAL KITCHEN

1978 FIRE RECONSTRUCTION

1999 KITCHEN ADDITION





ROOM COLOR LEGEND

$\overline{\ }$	GYM	LMC	
	CLASSROOM	COMP. LAB	
$\overline{\ }$	MM LAB	CUST.	
$\overline{\ }$	ART	CENTRAL KITCHEN	
$\overline{\}$	BAND	STORAGE	
$\overline{\ }$	BOILER ROOM	MULTI-PURPOSE	
$\overline{\ }$	PYSCH	STAFF BREAK ROOM	
	LAUNDRY	TECH ED	
	MUSIC	SCIENCE LAB	
$\overline{\ }$	MECH.	BOYS LOCKER	
$^{\prime}$	PROF STUDY	GIRLS LOCKER ROOM	
\searrow	PARA RESOURCE	FITNESS CENTER	
$\overline{\ }$	CONF. ROOM	READING	
$\overline{\}$	COMMONS	RESOURCE	
$\overline{\ }$		OPOHESTRA	







ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

Updated: October 10, 2013

FACILITY Onalaska Middle School

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
MS-0001	9/19/13	Re-glazing Clerestory Windows	Maintenance	Remove and re-glaze insulated glass in clerestory windows above library.	\$60,000		
MS-0002	9/19/13	Window Replacement	Energy Conversation	Remove and replace existing aluminum slider windows with new thermally efficient aluminum windows and insulated glass.	\$28,000		
MS-0003	9/19/13	Door Hardware Replacement	Security Upgrade	Remove and replace existing door locksets with ADA compliant Schlage 'Everest' Series locksets.	\$55,000		
MS-0004	9/19/13	Acoustical Ceiling Tile Replacement	Scheduled Replacement	Replace selected areas of areas suspended acoustical tile	\$10,800		
MS-0005	9/19/13	Paint existing exterior E.I.F.S. wall surfaces.	Maintenance	Prep all exterior EIFS wall surfaces and spray-apply new elastomeric coating.	\$9,000		
MS-0006	9/19/13	Re-glaze Fire Doors	Code Compliance	Replace wire glass in fire-rated door assemblies with current Code compliant fire-rated safety glass.	\$6,200		
MS-0007	9/19/13	Science Lab Equipment	Equipment Replacement	Replace laboratory island cabinets, work surfaces, fixtures and demonstration fume hood	\$220,000		



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
MS-0008	10/10/13	ADA Parking - Signage	Code Compliance	Raise bottom of signs a to 5' above grade (2). Site Grid Location D7	\$300		1
MS-0009	10/10/13	Tree limb removal.	Safety	Remove dead lower branch at spruce. Site Grid Location E8	\$50		1
MS-0010	10/10/13	Replace Broken sidewalk	Safety	Replace entrance area-replace flatwork where vertical separation is more than ¾". (2 locations) Site Grid Location B5	\$1,200		1
MS-0011	10/10/13	Replace Broken Curb	Safety	Replace 10' section broken curb. Site Grid Location B5	\$800		1
MS-0012	10/10/13	ADA Parking Stalls	Code Compliance	Add hdcp. accessible parking stall and signage.	\$800		1



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
MS-0013	10/10/13	Water Heater Modifications	Maintenance	'New' water heater accommodates entire building demand. Relocate existing water heater next to water meter to eliminate the small water softner in the kitchen.	\$3,000		2
MS-0014	10//10/13	Replace Plumbing Fixtures	Replacement	Replace worn out water closets, urinals and lavatories with new ADA compliant water use efficient fixtures.	\$2,500/fixture		2
MS-0015	10/10/13	Replace Laundry Drain	Code Compliance	The drain for the laundry machines does not comply with plumbing code and needs to be reconfigured and reconnected to the existing sanitary sewer.	\$3,500		1
MS-0016	10/10/13	Water Piping Replacement	Replacement	Replace worn domestic water piping (copper, galvanized, PEX) with new copper tubing or Schedule 80 CPVC.	\$80,000		2



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
MS-0017	10/10/13	Variable flow pumping (hot water system)	Energy Efficiency/Control	Revise the current constant flow pumping system to variable flow by replacing pump motors with inverter duty motors and installing variable frequency drives w/ different pressure control.	\$65,000		2
MS-0018	10/10/13	Variable Flow Pumping (chilled water system)	Energy Efficiency/Control	Revise the current constant flow pumping system to variable flow by replacing pump motors with inverter duty motors and installing variable frequency drives w/ differential pressure control.	\$50,000		2
MS-0019	10/10/13	Remodel Duct Systems	Energy Efficiency/Control	Revise and/or replace the existing ductwork distribution systems to properly zone all areas of the building. Replace all booster coil reheat system with VAV systems.	\$990,000		2
MS-0020	10/10/13	Gym &Commons AHU System Replacement	Capacity and Control	Replace the existing air handling systems serving the gymnasium and commons areas to provide adequate heating and cooling capacity and control	\$200,000		2



ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
MS-0021	10/10/13	Add Surge Protection	Equipment Upgrade	.Add surge protection device to main service switchboard	\$3,500		3
MS-0022	10/10/13	Add Parking Lot Lighting Control	Energy Conservation	Provide timeclock control for existing parking lot lighting	\$2,000		3
MS-0023	10/10/13	Add Corridor Emergency Lighting	Code Compliance	Add Emergency ballast to existing corridor light fixtures	\$400/fixture		2
MS-0024	10/10/13	Add Exterior Emergency Lighting	Code Compliance	Add exterior emergency egress fixtures	\$500/door		2
MS-0025	10/10/13	Add Exterior Security Lighting	Security Upgrade	Add additional exterior LED wall pack fixtures for security	\$400/fixture		2
MS-0026	10/10/13	Classroom Power Upgrade	System Upgrade	Add additional circuits and receptacle	\$200/ receptacle		3
MS-0027	10/10/13	Door Access Control	Security Upgrade	Add electric door strikes with key fob readers on additional Exterior doors	\$1,000/ door		3









750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

FACILITIES CONDITION ASSESSMENT

Facility: Eagle Bluff Elementary

Building Age: 1999 Original Construction

BUILDING DATA

Building Area First Floor Second Floor 1988 Addition Total	68,240 SF <u>50,567 SF</u> 118,807 SF
Building Occupancy Classification:	Educational Group E
Construction Type:	Type II-B
Enrollment (2013) Onalaska Kindergarten Center Grades 1 – 5	255 431
Fire Protection	Non-sprinklered

ROOM SCHEDULE

Area Designation	Qty	Area (NSF)	Notes
Administrative Offices	1	1,930 SF	
Health Office	1	481 SF	
Classrooms - Kindergarten	11	1,200 SF	12 th kindergarten room is currently utilized as 4-K classroom.
Classrooms – 1 st Grade	4	1,003 SF	Excludes shared corridor areas.
Classrooms – 2 nd Grade	4	1,003 SF	Excludes shared corridor areas.
Classrooms – 3 rd Grade	4	1,003 SF	Excludes shared corridor areas.
Classrooms – 4 th Grade	4	1,003 SF	Excludes shared corridor areas.
Classrooms – 5 th Grade	4	1,003 SF	Excludes shared corridor areas.
Early Childhood	1	1,295 SF	
4-K Classroom	1	1,190 SF	
Gymnasium	1	8,676	
Library	1	4,244 SF	Includes work room, office & A/V storage rooms.
Cafeteria	1	3,198 SF	
Computer Lab	1	1,030 DF	
Kitchen	1	1,369 SF	
Staff Room	1	1,141 SF	
Multi-Media Room	1	1,780 SF	
Art Rooms	2	1,174 SF	
Music	2	3,508	Includes area of both music rooms.
CD	1	1,206 SF	
Special Ed. Room	1	952 SF	
Reading	1	400 SF	
G & T	1	442 SF	
Speech & Language	2	214 SF	
EEN	1	922 SF	

CONDITIONS ASSESSMENT

1.0 BUILDING ENVELOPE

1.1 EXTERIOR WALLS

The exterior walls were constructed of masonry bearing walls comprised of utility size face brick over concrete block. The exterior masonry walls were constructed as a multi-wythe, 14" thick cavity wall with modular face brick, 2" cavity insulation and a 8" concrete block backer.Window openings were constructed with precast colored concrete sills.

Observations:

The exterior face brick remains in very good condition with limited areas that should be cleaned of stains. Brick wall surfaces near the main entrance shows small areas of efflorescence that should be removed. Caulked exterior brick expansion joints are also with few exceptions in good condition. The colored precasts concrete sills have faded from exposure to UV.

Recommendations:

Remove and clean brick surfaces where efflorescence occurs or where splattered dirt has collected on brick wall surfaces (limited locations).

The colored precast concrete sills have weathered and faded from exposure to UV and options for either re-sealing of covering with prefinished metal flashing may be considered for sometime in the near future.

1.2 WINDOWS

Windows include a combination of heany-duty aluminum projected type operable windows and fixed glass aluminum storefront framed glazing. All glazing is 1" insulated glass.

Observations:

In general, all windows appear to be in good condition showing only slight aging of the aluminum frame finish. Maintenance staff reported having to replace cracked glass at two clerestory windows in the south wall of the LMC.

1.3 HOLLOW METAL DOORS & FRAMES

Observations

Hollow metal doors and frames are also showing minimal signs of aging and general deterioration. Future maintanence related projects should be considered to include refinishing (painting) of the exterior hollow metal doors, frames, and any steel lintels above the doors.

1.4 ROOFING

Roof Structure: Roof framing was comprised of steel bar joists with steel decking.

<u>Roofing</u>: The roof system is comprised of a combination ballasted single-ply rubber roofing and standing seam metal roofing. The single-ply memnrane roofing was specified with a 10-year warranty, which would have expired in 2009.

Observations

Based on a general 'walk-over' inspection, the ballasted single-ply membrane roofing was observed to be in satisfactory condition with an indefinite remaining life-span. It was also observed at parapet conditions where shrinkage of the single-ply membrane roofing is pulling the rubber membrane away from the wall.

It was reported that a leak above the east wall of the LMC has been somewhat problematic and difficult to locate. The leak appears to be located at the juncture of the brick wall and the sloped standing seam roofing. The maintenance staff has re-caulked all of the metal flashing and continues to search for the source of the leak. There were no other reported roof leaks at the time of the inspection.

Recommendations

It was recommended that the perimeter membrane be cut and reflashed with reinforced perimeter strip. Properly maintained, the lifespan of the existing roofs could be extended indefinitely. The leak above the east wall of the library should continue to be monitored in effort to isolate the source.

2.0 BUILDING INTERIOR

2.1 FLOORING

Flooring materials include a combination of terrazzo (corridors), carpet, resilient flooring, ceramic tile and quarry tile.

Observations

It was generally observed that the various floor coverings are in very good condition and well maintained. The only issue pointed out by Maintenance concerned the seasonal movement of plumbing clean-outs in some of the corridors.

Recommendations

No immediate flooing issues.

2.2 CEILINGS

Ceilings are primarily suspended acoustical tile. The main entrance corridor is of a suspended linear wood.

Observations

With the exception of the suspended ceiling in the kitchen area, all suspended ceilings appear in good condition. It was observed that the suspension grid in the kitchen was showing limited signs of corrosion.

Recommendations Replace ceiling T-grid in kitchen with aluminum T-grid system.

2.3 INTERIOR WOOD DOORS

Interior wood doors consist of White Birch veneer flush solid core doors. Doors at fire rated openings are presently glazed with wire glass.

Observations

The wood doors appear to be in good condition with few signs of damage to the wood veneer.

Recommendations

Remove and replace all wire glass lites in doors or sidelites with fire rated safety glass.

2.4 CABINETS

Plastic laminate cabinets appears to generally be in good condtions.

3.0 HANDICAP ACCESSIBILITY

This Study looks at the entire building to summarize deficiencies with regard to handicap accessibility per current ADA and State of Wisconsin guidelines.

3.1 ACCESSIBLE ROUTES

No additional work is required.

3.2 ACCESSIBLE PARKING

No work required.

3.3 ACCESSIBLE ENTRANCE

Existing Condition

The main entrance on the south side currently has an automatic door opener device attached to the entrance door on the east end of the entrance. Push plates have been installed on the adjacent wall surfaces on the interior and exterior sides.

3.4 ACCESSIBLE INTERIOR CIRCULATION

Existing Conditions All areas are accessible.

Recommendations No work required.

3.5 ACCESSIBLE TOILET ROOMS

Recommended Action No work required.

3.6 SIGNAGE

Recommended Action No work required.



Eagle Bluff Elementary School Site Facility Assessment Comments

Eagle Bluff Elementary school is a relatively new facility and as expected site infrastructure is in generally good condition. Most of the pavement should remain serviceable for the foreseeable future with the exception of an area in I-4 that appears to have suffered some settlement damage and should be scheduled for reconstruction sometime in the next 5 years. The sidewalks are generally in good condition except for some isolated areas of vertical misalignment which should be corrected. Areas of significant misalignment have been identified in the Assessment. Some areas of curb have suffered plow damage but this is cosmetic. The ADA parking in the south lot is missing the required signage and is not located on the shortest accessible route to the building as required by code. Drainage from the north play field could be improved by the addition of a small area drain to eliminate the ponding that occurs in the southwest corner.



ONALASKA, WISCONSIN DATE: 8/17/2013





EAGLE BLUFF SCHOOL ONALASKA, WISCONSIN DATE: 8/17/2013



EB - 8

The following report is the result of a site visit by Tim Kehoe of Muermann engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

PLUMBING EQUIPMENT

A. Observations

- 1. Water heating equipment consists of two gas-fired instantaneous water heaters. The heaters appear to be in very good condition. The water heaters appear to be appropriately sized for the facility.
- 2. A domestic water booster pump has been provided to maintain adequate water pressure within the building. Outlet water pressure on the system is set at 75 psi. The system is in good working condition.
- 3. The building is served by a Simplex Hellenbrand water softener. The water softener appears to be softening only the hot water. Water hardness levels in this part of the state typically require both the hot and

cold water to be softened. The school district indicated that they have numerous problems with the flush valves operating in this building. This could be directly related to hard water.

B. Recommendations

- 1. Provide maintenance on water heaters as required.
- 2. Provide required maintenance on the existing equipment as required
- 3. Existing water softener may be capable of providing soft water for the entire domestic water demand. This would allow the district to eliminate the water softener located in the kitchen. Additional investigation would be required.

C. Expected Remaining Lifespan

1. Plumbing equipment should have a life span of 10 years on the water heating equipment and 20 years on the remaining equipment.



PLUMBING FIXTURES

A. Observations

1.

- 2. Plumbing fixtures located within the toilet rooms and classrooms are generally in very good condition.
- 3. Toilet rooms in this facility are ADA compliant.
- 4. The owner indicated that the flush valves on the water closets and urinals need repair on a regular basis. This could be directly related to the hard water on the cold water.
- 5. The kitchen equipment is in very good condition.
- 6. Art room sinks are provided with plaster traps. Although messy, the sinks and faucets appear to be functioning well.

B. Recommendations

1. Toilet room fixtures in the original building should be scheduled for replacement.









C. Expected Remaining Lifespan

1. Plumbing fixtures should have a life expectancy of 25 years.

SANITARY PIPING

A. Observations

- 1. The existing piping system is primarily schedule 40 PVC piping. The owner expressed no concerns with the sanitary piping system.
- 2. An exterior grease interceptor has been provided for the kitchen. The interceptor is part of the new addition and has been adequately sized for the building demand and is regularly maintained.
- 3. The plaster traps for the arts room appear to be in good condition and are regularly maintained.

B. Recommendations

- 1. Continually maintain the existing grease interceptor.
- 2. Continually maintain the plaster traps.
- C. Expected Remaining Lifespan
 - 1. Sanitary piping should have a life expectancy of 40 years.



STORM PIPING

A. Observations

- 1. The storm piping for this building is schedule 40 PVC piping. The piping is is good condition.
- 2. The school district indicted that the storm sewer is working well.

B. Recommendations

1. Continue to monitor the storm piping system.

C. Expected Remaining Lifespan

1. Storm piping should have a life expectancy of 40 years.

DOMESTIC WATER PIPING

A. Observations

- The building is served by a 3" water service and meter. The existing service appears to be adequately sized for the building. The building is also provided with a separate water meter for irrigation purposes.
- The existing building does not have a fire protection system. We were unable to determine the exact service size of the piping that enters the building. Based on this photo, it appears that a 6" combination service was installed. Should this be the case, a sprinkler system could be installed within the building.



3. All domestic water piping is Type "L" copper tubing and is in very good condition.

B. Recommendations

1. Continually monitor and maintain the piping system and related equipment as required.

D. Expected Remaining Lifespan

2. Water piping should have a life expectancy of 30 years depending on the water quality.

HVAC

The following report is the result of a site visit by Tim Kehoe of Muermann Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

A. Existing Data

- 1. The building heating system is a hot water system that consists of two (2) Hurst 80 hp firebox boilers rated at 2,678,000 btu output each. The pumping system is a primary-only arrangement with variable flow system pumps.
- The building cooling system is a central chilled water system that consists of a 300 ton Multi-Stack water-cooled modular chiller. The chiller condenser is cooled with an outdoor closed-circuit fluid cooler with variable speed fans. The pumping system is a primary-secondary arrangement with a variable flow system pump.
- The building is served by constant volume air handling units and air handling units with hot water VAV control. The air handling units have been updated in recent years with pre-heat coils and coil pumps.
- 4. The building is controlled by a Schneider Electric/T.A.C. direct digital control system.





B. Observations

- The hot water heating system is in good condition and, with a proper maintenance program, should continue to serve the building for another 15-20 years.
- 2. The chilled water system is in good condition and, with a proper maintenance program, should continue to serve the building for another 15-20 years.
- 3. The digital control system contains several Barber-Coleman components from the original 1999 construction.
- 4. Hot water convectors and cabinet heaters are controlled by standalone electric thermostats that are not connected to the central digital control system.

C. Recommendations

- 1. Continue with the current preventative maintenance plan on all mechanical equipment.
- 2. Continue to maintain the existing Schneider Electric digital control system. We recommend maintaining the software with the latest updates to keep the system current. Replace the old Barber-Coleman components as part of the maintenance of the control system.

ELECTRICAL SYSTEM

The following report is the result of a site visit by John Russell of Muermann Engineering, LLC that occurred on August 2, 2013. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report. All construction costs indicated in this report are opinions.

The building was originally constructed in 1999.

MAIN ELECTRICAL SERVICE

A. Existing Data

 This school has a 1,600 amp 480Y/277 volt 3- phase 4wire electric service. The service is fed from a utility owned pad mounted transformer. The CT cabinet is located on the exterior of the building. The meter socket is mounted to the CT cabinet. The main service switchboard consists of a 1,600 amp main circuit breaker section and two circuit breaker distribution sections for the branch feeders. This service equipment was installed in 1999. The switchboard is a Cutler

Hammer. There are 14 spaces available for future circuit breakers. There is an integral surge protection device.



B. Observations

1. The main service switchboard is in good working order.

C. Expected Remaining Lifespan

 The expected remaining lifespan of the main service switchboard is about 35-40 more years.

D. Recommendations

1. None.





PANEL BOARDS

A. Existing Data

1. The panelboards are Cutler Hammer and were installed in 1998.

B. Observations

- 1. The panelboards generally are not full and have space for additional circuit breakers.
- 2. The panelboards are in good working order.

C. Expected Remaining Lifespan

1. A. The expected remaining lifespan of the panelboards is about 35-40 more years.

D. Recommendations

1. None.

MAIN ELECTRICAL SERVICE

A. Existing Data

- This building has a 20 KW Cummins natural gas fueled generator. The generator is liquid cooled. It was installed in 1999. The generator is located outside of the electrical room in the dumpster enclosure.
- 2. There is one 70 amp Cummins automatic transfer switch located in the main electrical room. This transfer switch is used for life safely loads only.

B. Observations

1. The generator and transfer switch are in good working order.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the generator and automatic transfer switch is about 25-30 more years.

D. Recommendations

1. None.







LIGHTING FIXTURES AND CONTROLS

A. Existing Data

- 1. The classrooms have 2x4 acrylic lens 3 or 4-lamp fixtures. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. Each classroom also has an occupancy sensor and two sets of switches that control two separate banks of inboard/outboard lamps in each fixture. The light fixtures are on 8' X 8' centers.
- 2. The corridors have 2x4 acrylic lens and parabolic 2-lamp fixtures. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. The fixtures are controlled by a 3-way switch at each end of the corridor. There are 24/7 night light fixtures. The fixtures are spaced 12' on center.
- 3. The offices have 2x4 parabolic 3-lamp fixtures. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. Each office also has an occupancy sensor and two switches that control dual level inboard/outboard lamps in each fixture.
- 4. The gym has fluorescent T5HO high bay fixtures with occupancy sensors.
- 5. Exterior canopy fixtures are metal halide. The wall pack fixtures are LED full cut off type. The area lights serving the parking lot are high pressure sodium. The parking lot and canopy lighting are controlled by a photocell-on, photocell-off central lighting contactor in the exterior lighting control panel. The wall pack lighting is controlled by a photocell-on, timeclock-off central lighting contactor in the exterior lighting control panel is located in the main electrical room.

B. Observations

1. The staff indicated the existing interior and exterior light fixtures are in good working order and the light levels are good also.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the interior light fixtures is about 15-20 more years.
- D. Recommendations: None.

WIRING DEVICES

A. Existing Data

1. The receptacles and toggle switches are commercial grade 15A with unbreakable nylon plates.

B. Observations

1. The receptacles and toggle switches are in good working order.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the wiring devices is about 35-40 more years.
- D. Recommendations: None.

FIRE ALARM SYSTEM

A. Existing Data

- 1. The fire alarm is an EST2 addressable system. The system is 14 years old and was installed in 1999. The fire alarm control panel is located in the main electrical room.
- 2. There are pull stations by all exterior doors.
- 3. There are wall mounted horn strobe devices in the corridors and classrooms.
- 4. There are smoke detectors in corridors, classrooms, and storage rooms. There are heat detectors in mechanical rooms.
- 5. There are duct smoke detectors in the air handling units operating at 2000 CFM or greater.
- 6. All fire alarm cabling is installed "open air" above the ceilings.

B. Observations

- 1. The fire alarm system is in good working order.
- 2. Fire alarm system is compliant with current fire alarm codes.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the fire alarm system is about 25-30 more years.

D. Recommendations

1. None.





CLOCK SYSTEM

A. Existing Data

 There is a Lathem wireless synchronized clock system. This system is 15 years old. The

clock master controller is located in the second floor data room.

- 2. There are Lathem analog battery clocks in the classrooms, offices, and other public areas.
- 3. The bell tone is controlled by the master clock controller.

B. Observations

- 1. The clock system is in good working order.
- 2. Additional clocks can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the clock system is about 25-30 more years.

D. Recommendations

1. None.

INTERCOM SYSTEM

A. Existing Data

- 1. There is a Telecor intercom system. This system is 14 years old. The amplifier is located in the second floor data room.
- 2. The intercom system is accessed through the phone system.
- 3. There are recessed ceiling mounted intercom speakers in the corridors and classrooms.
- 4. There are flush wall mounted horns on the exterior of the building.
- 5. The bell system is toned through the intercom speakers.

B. Observations

- 1. The intercom system is in good working order.
- 2. Additional intercom speakers can be added.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the intercom system is about 35-40 more years.
- D. Recommendations: None.





PHONE SYSTEM

A. Existing Data

- 1. There is a Mitel SX-2000 LIGHT PBX analog phone system. This system is 14 years old and was installed in 1999. The phone switch is located in the second floor data room.
- 2. The phone cabling is CAT3 and is routed back to wall mounted voice wiring blocks. The voice wiring blocks are located in both second floor data rooms.

B. Observations

- 1. The phone system is in good working order.
- 2. Additional phones can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the phone system is about 15-20 more years.

D. Recommendations

1. None.



DATA SYSTEM

A. Existing Data

- The MDF data rack is located in the second floor data room. There is one floor mounted data rack. There is one additional IDF data rack in the other second floor data room.
- The IDF data racks are connected to the MDF data rack with multi-mode fiber optic cable. The MDF of all the schools in the district are connected together with single-mode fiber optic cable.
- 3. The data cable is CAT5 plenum rated which is routed to patch panels in the data rack.
- 4. The patch panels in the data rack are CAT5 Hubbell.
- 5. There is a UPS.





B. Observations

- 1. The data system is in good working order.
- 2. Additional horizontal runs of data cable can be added to the existing rack.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the data system is about 20-30 more years.

D. Recommendations

1. Replace CAT5 data cable with new CAT6 cable. \$100/data jack.

CATV SYSTEM

A. Existing Data

- 1. There is a CATV service to this building. The CATV distribution rack is located in the IMC work room. There is a CATV jack in each classroom.
- 2. There is a ceiling mounted projector and/or wall mounted television in each classroom.
- 3. Some classrooms have smartboards.

B. Observations

- 1. CATV system is in good working order.
- 2. Additional CATV jacks can be added.

C. Expected Remaining Lifespan

 The expected remaining lifespan of the CATV system is about 30-40 more years.

D. Recommendations

1. None

SECURITY SYSTEM

A. Existing Data

- 1. There is an Ademco security system. The security control panel is located in the main electrical room. This system is 14 years old.
- 2. The security system has motion sensors in the corridors.

B. Observations

1. There are no exterior door contact switches.







Eagle Bluff Elementary

- 2. Security system is in good working order.
- 3. Additional security devices can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the security system is about 25-30 more years.

D. Recommendations

1. Add exterior door contact switches. \$400 EA

CCTV SYSTEM

A. Existing Data

- There is an Exacq Vision server based CCTV system used throughout all the buildings in the district. The system is 10 years old and was installed in 2003.
- 2. There are Axis interior and exterior fixed color IP cameras.

B. Observations

- 1. The CCTV system is in good working order.
- 2. Additional cameras can be added.
- C. Expected Remaining Lifespan
 - 1. The expected remaining lifespan of the CCTV system is about 10-15 more years.

D. Recommendations

- 1. No recommendations at this time.
- 2. CCTV system replacement cost: \$1,500/cam

ACCESS CONTROL SYSTEM

A. Existing Data

- 1. There is an Identicard System door access control system. The control panel is located in the storage room near the cafeteria.
- 2. There is one exterior door with an electric strike and key fob reader.

B. Observations

- 1. The access control system is in good working order.
- 2. Additional doors can be added to this system.







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C. Expected Remaining Lifespan

1. The expected remaining lifespan of the access control system is about 15-20 more years.

D. Recommendations

1. One option is to install electric strikes with key fob readers on additional exterior doors. \$1,000/door.















ROOM COLOR LEGENE









ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

Updated: October 10, 2013

FACILITY Eagle Bluff Elementary School

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
EB-0001	10/10/13	Resilient flooring replacement	Maintenance	Art Rooms Remove existing paint damaged VCT flooring with new spray- applied epoxy seamless flooring.	\$15,000		2
EB-0002	10/10/13	Re-flash rubber membrane flashing at perimeter.	Maintenance	Re-flash rubber membrane at roof perimeter.	\$12,000		2
EB-0003	10/10/13	Door Glass Replacement	Code Compliance	Remove all existing wireglass installed in fire labeled doors and sidelites with new fire-protection rated safety glass.	\$25,500		3
EB-0004	10/10/13	Ceiling Grid Replacement in Kitchen area.	Maintenance	Replace corroded suspended ceiling system grid with aluminum based T-grid.	\$8,700		3
EB-0005	10/10/13	Water Softener Modifications	Operational	Re-plumb water softener equipment to include cold water.	\$5,400		2
EB-0006	10/10/13	Art Room Faucet Replacement	Replacement	Existing faucets in the Art Rooms appear to show significant wear and should be replaced in the near future.	\$4,200		2
EB-0007	10/10/13	Data Cable Replacement	Technology Upgrade	Replace existing CAT5 data cable with new CAT6 data Cable	\$100/jack		3
EB-0008	10/10/13	Door Contact Switches	Security Upgrade	Add Exterior door security contact switches	\$400/ea		3
EB-0009	10/10/13	Door Access Control	Security Upgrade	Add electric door strikes with key fob readers on additional Exterior doors.	\$1,000/ Door		3






750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

FACILITIES CONDITION ASSESSMENT

Facility: Pertzsch Elementary School 524 Main Street Onalaska, WI 54650

Building Age:

1950	Original Construction
1955	West Wing Additions
1966	Additions & Remodeling
2005	Bus/Parent Drop-Off Driveway
2006	Additions & Remodeling
2009	Community Room Enhancements
Enrollment:	365
Building Data:	

Construction Type:	Type 3B – Exterior Masonry
Building Area	82,510 GSF
Fire Protection	Partially sprinklered

Site

Parking 40 stalls

ROOM SCHEDULE

Area Designation	Qty	Area (NSF)	Notes
Administrative Offices	1	2,169 SF	
Health Office	1	372 SF	
Staff / Work Room	1	660 SF	
Psych / Guidance Office	1	200 SF	
Pupil Services	1	3,209 SF	
Speech & Language	1	350 SF	
4K – Classroom	1	984 SF	
Classrooms – 1 ST Grade	4	1,030 SF	
Classooms – 2 nd Grade	3	1,030 SF	
Classrooms – 3 rd Grade	4	1,030 SF	
Classrooms – 4 th Grade	3	1,054 SF	
Classrooms – 5 th Grade	3	1,054 SF	
Computer Labs	2	828 SF	
LMC	1	3,976 SF	
Art Room	1	1,644 SF	Includes Art Storage room.
ELL	1	340 SF	
Gymnasium	1	4,450	
Community Room	1	2,552	
Cafeteria	1	3,765	
Kitchen / Kitchen Storage	1	930 / 548 SF	
Music	1	1,492 SF	
G & T	1	274 SF	
Title Reading	1	858 SF	
Special Ed	2	1,054 & 875 SF	

2.0 CONDITIONS ASSESSMENT

Building Envelope

Exterior Walls

The exterior walls of the original building were constructed of masonry bearing walls comprised of modular face brick over concrete block without any rigid cavity or surface applied insulation. The exterior masonry walls of the 2006 additions were constructed as a multi-wythe, 14" thick cavity wall with modular face brick, 2" cavity insulation and a 8" concrete block backer.

Observations:

- The exterior face brick of on the 2006 addition and 1966 south wing/ gymnasium remains in good condition. Brick mortar joints at the 1966 addition show no signs of any significant deterioration. Expansion joint sealants are in good condition.

- Aluminum windows and entrances are in satisfactory addition (7 years old).
- Hollow metal steel doors and frames in the 1966 gymnasium wing are showing signs of aging and corrosion.

Roofing

1950 Original Building & 1955 West Wing Addition

The roof structure of the original 1950 building and1955 west wing addition consisted of wood roof joists and decking, which was left in place as part of the 2006 additions and remodeling project. The 1966 classroom/gymnasium addition was framed with steel joists and decking.

The 1950 and 1955 wings were roofed with a ballasted single-ply rubber membrane. The 2006 project surrounded the 1950 and 1955 wings with a 60-mil ballasted single-ply roofing over rigid insulation in combination with standing seam metal roofing applied to the raised roofs above the library and east side entrances.

The 1966 classroom / gymnasium wing is roofed with a urethane foam. The foam roof above the gymnasium was re-coated in 2012.

Observations:

In general, the ballasted roof areas appear to be in satisfactory condition and there were no roof leaks reported at the time of this survey (August 30, 2013). Previous leaks above the 1950 original building were previously repaired. It was noted that rain water infiltration continues to occur at the roof exhaust fan serving the art room kiln. Multiple attempts have been made to isolate the leak at exhaust fan. It was observed that the perimeter of the rubber membrane above the 1950 and 1955 areas has shrunk and is pulling away the parapet terminations (similar to conditions at the High School).

The foam roofs above the 1966 classroom/gymnasium wing continue to require frequent inspections for holes thru the foam that will contribute to leakage into the interior. The foamed roof surface is irregular and allows water to pond before finding it's way to the roof drains and scuppers. It was reported by the building maintenance that birds are often the source of creating holes in the foam which can expand over time.



With the exception of the 1966 classroom/gymnasium, all other sheet metal fascia, gutters and downspouts appear in good condition. The original fascia at the 1966 south end addition appears worn and deteriorating. The open face downspouts on the east wall of the gymnasium are functional but need to be replaced.

Recommendations:

For purposes of extending the lifespan of the ballasted single ply rubbed membrane roof, it is recommended that the perimeters be cut out and re-flashed with reinforced perimeter strip. Membrane seams should also be re-stripped on a scheduled basis. The maintenance work should extend the life of the ballasted roofing above the original 1950 and 1955 wings indefinitely.

The urethane foam roofs can continue to be re-coated and repaired indefinitely with the understanding that frequent inspections and repairs will likely be necessary. Total tear-off and replacement with a single-ply membrane (EPDM or PVC) may be considered in conjunction with any future additions to or remodeling of the original 1966 classroom/gymnasium wing.

Building Interior

Observations

In general, the interior surfaces and finishes installed as part of the 2006 project are in good condition. Carpeted floors appear to be well maintained, including in the main corridors. Corridor drywall surfaces that were covered with the Zolatone abuse resistant coating are difficult to patch.

The majority of drywall surfaces in corridors and stairways have also been subject to abuse from student traffic.

Recommendations

- 1. Wall Protection: Additional wall protection to drywall surfaces, primarily in high-abuse areas such as main corridors and stairwells, could be applied using PVC sheet membrane as a supplement to the vinyl cornerguards already in place.
- 2. Classroom Cabinets: Recent directives to limit areas of paper postings in the classrooms may warrant installation of additional upper storage cabinets, which were bid as an 'alternate' under the 2006 building project.
- 3. Extend sprinkler system into 1966 wing.

3.0 HANDICAP ACCESSIBILITY

In general, all occupied areas of the Irving Pertzsch Elementary School were brought into compliance with the ADA guidelines for handicap accessibility as part of the 2006 building project.

3.1 ACCESSIBLE ROUTE

Existing Conditions

The Wisconsin Commercial Building Code defines an "accessible route" as a continuous, unobstructed path leading to a building entrance from off-site (public streets) and on-site amenities such as staff parking lots and bus loop driveways. The Irving Pertzsch Elementary site currently provides accessible routes from 1) the south side bus drop-off area, 2) main building entrance on the east end, and 3) all entrances from the playground side, and 4) Entrance B off from Main Street (day care, Community Room).

Recommended Action: No additional work is required.

3.2 ACCESSIBLE PARKING

Where parking is provided, accessible parking spaces shall be provided as follows:

Total Parking	Required Number Of
Spaces Provided	Accessible Spaces
1 to 25	1
26 to 50	2
51 to 75	3

Van accessible spaces shall be provided for every eight accessible stalls.

The existing east side parking lot includes a total of 40 spaces. There are currently two spaces designated handicap parking stalls.

3.3 ACCESSIBLE ENTRANCE

Existing Condition Door operators have been provided at Entrance A, Entrance B, and Pupil Services on the east end.

Recommended Action: No additional work is required.

3.4 ACCESSIBLE INTERIOR CIRCULATION

Both levels are connected by elevator located near the entrance to the LMC. All classrooms, corridors and auxiliary spaces were designed for compliance with ADA guidelines for interior circulation.

Recommendations: No action required.

3.5 ACCESSIBLE TOILET FACILITIES

Existing Conditions

1966 Building: The toilet rooms in the 1966 addition were unaltered under the 2006 project. Handicap access in the 1966 classroom/gymnasium wing requires use of the new toilet room facilities at either the east end of the school or toilet rooms off from the lower level cafeteria.

2006 Additions & Remodeling: All new toilet rooms as part of the 2006 project were designed in compliance with the ADA guidelines.

Recommended Action: Pending any modifications to, or additions to the gymnasium wing on the south side, new handicap accessible toilet rooms should be considered to serve the south wing of the building and minimize the length of travel.

3.6 SIGNAGE

Existing Conditions ADA compliant signage was provided as part of the 2006 building project.

Recommended Action: No work required.

Irving Pertzsch Elementary School Site Facility Assessment Comments

Irving Pertzsch School has had a completely new site improvement project completed with the recent building remodeling. There were some specific places that are identified in the Assessment that should be addressed in the near future due to code or safety concerns. The site is not in compliance with ADA code for parking. Where signing and striping can be implemented to create current code compliant parking it is required to be done at the time of ANY sealcoat and restripe operation including signage meeting current ADA standards. The main issue is the current signed spaces are too steep. There are spaces that would comply with the slope requirement and those should be switched to achieve compliance.



PERTZSCH SCHOOL ONALASKA, WISCONSIN DATE: 8/17/2013





PERTZSCH SCHOOL ONALASKA, WISCONSIN DATE: 8/17/2013

Plumbing

The following report is the result of a site visit by Tim Kehoe of Muermann Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

Plumbing Equipment

A. Observations

- Water heating equipment consists of two gas-fired AO Smith water heaters. The heaters appear to be in good condition however they appear to be slightly oversized for the current building demand.
- 2. The Holby mixing valve is set at 130 degrees for the public and classroom water temps. The valve should be set to a maximum outlet temp of 115 degrees.
- 3. The building is served by a Simplex Hellenbrand water softener. The water softener appears to be softening only the hot water. Water hardness levels in this part of the state typically require both the hot and cold water to be softened.

B. Recommendations

- 1. Provide maintenance on water heaters as required.
- 2. Repair or reset existing Holby valve.
- 3. Existing water softener may be capable of providing soft water for the entire domestic water demand. This would allow the district to eliminate the water softener located in the kitchen. Additional investigation would be required.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the water heaters is 10 years
- 2. The expected remaining life cycle of the water softener is 20 years.









Plumbing Fixtures

A. Observations

- 1. Plumbing fixtures located within the toilet rooms and classrooms are generally in very good condition.
- 2. The original toilet rooms are old and outdated and should be scheduled for replacement.
- 3. All classrooms are provided with sinks.
- 4. The kitchen equipment is in very good condition.

B. Recommendations

1. Toilet room fixtures in the original building should be scheduled for replacement.

C. Expected Remaining Lifespan

 The expected remaining lifespan of the new plumbing fixtures is 20-25 years. Fixtures located in the original building should be scheduled for replacement. Replacement cost per fixture is \$2,500









Sanitary Piping

A. Observations

1. Sanitary piping in the original builing is cast iron. Sanitary piping in the addition is schedule 40 PVC piping. The owner did not indicate problems with the existing sanitary piping system.





2. An exterior grease interceptor has been provided for the kitchen. The interceptor is part of the new addition and has been adequately sized for the building demand.

B. Recommendations

1. Continually maintain the existing grease interceptor.

C. Expected Remaining Lifespan

1. Original building sewer has a remaining life expectancy of 20 -25-years

Storm Piping

A. Observations

- 1. The majority of the exisitng storm piping drainage discharges directly to grade.
- 2. Piping materials appear to be holding up well

B. Recommendations

1. Continue to monitor the storm piping system.



Domestic Water Piping

A. Observations

- The building is served by a 2" water service and meter. The existing service appears to be adequately sized for the building. The buildiong is also provided with a separate water meter for irrigation purposes.
- 2. The new addition is provided with a 6" water service which is designated for the fire protection system only. Only the new additon is provided with fire protection.
- 3. The Server room is provided with a preaction sprinkler system.







Irving Pertzsch Elementary School Onalaska, Wisconsin

- 4. All new domestic water piping is Type "L" copper tubing and is in very good condition.
- 5. Original piping is galvanized piping

B. Recommendations

- 1. Galvanized domestic water piping should be scheduled for replacement.
- 2. The pre-action sprinkler system must be tested per NFPA and state and local fire codes.
- 3. Original galvanized domestic water piping should be scheduled for replacement.

C. Expected Remaining Lifespan

1. New water supply piping has a life expectancy of 40-50 years provided it is properly maintained. Original galvanized should be scheduled for replacement in the next 10 years. Opinion of \$30,000.



Page 4 of 4



HVAC

The following report is the result of a site visit by Randy All of Fredericksen Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

Heating, Ventilation and Air Conditioning Systems

A. Existing Data

- 1. The building heating system is a hot water system that consists of three (3) Thermal Solutions sealed combustion boilers rated at 1,320,000 btu output each. The pumping system is a primary-secondary arrangement with variable flow system pumps. Each boiler is served by an inline primary pump while main and stand-by pumps are piped in parallel in the secondary loop.
- 2. The building cooling system is a central chilled water system that consists of a 100 ton outdoor air-cooled Trane chiller and a 50 ton indoor Multi-Stack heat recovery chiller. The heat recovery chiller provides cooling during light load and spring/fall conditions while the condenser water loop is connected to the hot water system piping to provide warm water for reheat and areas requiring lighter amounts of heat. If the condenser water heat cannot be rejected to the hot water system, a modulating 3-way valve directs the water to an outdoor fluid cooler. The pumping system is a primary-secondary



arrangement with variable flow system pumps. The heat recovery chiller is served by constant flow pumps on both the evaporator and condenser sides of the unit.

- 3. The building is served by a mixture of constant volume air handling units with booster coil reheat, fan coil units, and unit ventilators. A roof-mounted air-to-air energy recovery unit provides fresh air to the 2006 classroom wing. While the majority of the HVAC equipment was installed new in 2006, some original equipment remains including the outdoor air-cooled chiller and some of the unit ventilators.
- 4. The building is controlled by a Trane direct digital control system.

B. Observations

- 1. The boilers are in good condition and, with a proper maintenance program, should continue to serve the building for another 12-15 years.
- The outdoor air-cooled chiller has been well maintained and is in fair condition but is near the end of its expected service life. Also, the chiller operates on R-22 refrigerant. Production of equipment utilizing R-22 was discontinued at the end of 2005. The production of R-22 itself, for the purpose of re-charging existing equipment, is slated to cease in 2020.



- 3. The indoor heat recovery chiller is in good condition. This chiller operates on R410a refrigerant which is considered a current and environmentally-friendly product.
- 4. The air handling equipment installed in 2006 has been well maintained and is in good condition.
- 5. The unit ventilators that were installed as part of the original building construction are in fair condition but are near the end of their expected service life.
- 6. The Owner has expressed several concerns regarding heating and control of the older building construction, zone control, humidity, and noisy equipment.
- 7. The air handling system serving the gym is old and has poor distribution with the both the supply and return grilles located on the same end of the room. The PE office and locker room are only heated. The rooms are not air conditioned.
- 8. The energy recovery unit serving the 2006 classroom wing is extremely loud. The unit is typically turned off during the day due to the excessive noise.
- 9. The majority of the corridors are unconditioned. The Owner has commented that they are often stuffy and humid.
- 10. The library and adjacent computer lab are currently served as a single zone with the room temperature sensor located within the computer lab. The sensor location results in frequent overcooling of the library.

C. Recommendations

- The hot water and chilled water systems serving the building are overall in good operating condition. However, the outdoor air-cooled chiller is near the end of its expected service life and is energy inefficient when compared to the current higher efficiency units. If an HVAC renovation is planned, the chiller replacement should be part of that renovation project.
- Reduce the fan speed and re-balance the existing energy recovery unit to 50% of the original capacity to reduce unit noise. Add a new energy recovery unit to match the existing unit to serve approximately half of the current outside air system. Revise the existing duct mains as required to separate the current outside air system into two separate systems.
- 3. Replace the existing air handling system that is currently serving the gymnasium with new equipment and improved air distribution.
- 4. Remove the existing booster coil reheat systems with hot water VAV systems to improve energy efficiency and zone control.
- 5. Remove and upgrade the systems currently serving the original building construction to improve capacities and humidity control.
- 6. Continue to maintain the existing Trane digital control system. We recommend maintaining the software with the latest updates to keep the system current.



Electrical System

The following report is the result of a site visit by John Russell of Muermann Engineering, LLC that occurred on August 2, 2013. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report. All construction costs indicated in this report are opinions.

The building was originally constructed in 1960. Additions and remodeling were done in 2006.

Main Electrical Service

A. Existing Data

1. This school has a 2,000 amp 208Y/120 volt 3-phase 4- wire electric service. The service is fed from a utility owned pad mounted transformer. The CT cabinet is mounted to a free standing structure near the utility transformer. The meter socket is mounted next to the CT cabinet on the free standing structure. The main service switchboard consists of a 2,000 amp main circuit breaker section and a circuit breaker distribution section for the branch feeders. This service equipment was installed in

2006. The switchboard is a General Electric. There are 14 spare circuit breaker spaces in the switchboard.

B. Observations

1. The main service switchboard has an integral surge protection device.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the main service switchboard is about 40-45 more years.

D. Recommendations

1. None.







A. Existing Data

- 1. The panelboards are General Electric.
- 2. A majority of the panelboards were installed in 2006. There are a few panelboards from 1960 that are still in use.

B. Observations

- 1. The panelboards are generally not full and do have space for additional circuit breakers.
- 2. The panelboards that were installed in 1960 are at the end of their useful life due to the operating lifespan of circuit breakers.
- 3. The panelboards that were installed in 2006 are in good working order.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the 1960 panelboards is less than 5 more years.
- 2. The expected remaining lifespan of the 2006 panelboards is about 40-45 more years.

D. Recommendations

1. Replace the 1960 panelboards and feeder with new. New circuit breakers will allow for a safer and more expandable installation. \$7,000/panel

Generator

A. Existing Data

- This building has a 100 KW Cummins natural gas fueled generator. The generator is liquid cooled. It was installed in 2006. The generator is located outside near the chiller and utility transformer.
- There is one Cummins automatic transfer switch for the life safety loads and one Cummins automatic transfer switch for the equipment loads.

B. Observations

1. The generator is in good working order.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the generator and automatic transfer switch is about 30-35 more years.









D. Recommendations

1. None.

Lighting Fixtures and Controls

A. Existing Data

- The 2006 classrooms have 2x4 direct/indirect center basket 3-lamp fixtures. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. Each classroom also has an occupancy sensor and two sets of switches that control two banks of inboard/outboard lamps in each fixture. The light fixtures are on 8' X 8' centers.
- 2. The 1960 classrooms have surface wraparound 4-lamp fixtures. The lamps are T8 with a color temperature of 5000K. Each classroom has two switches that control the inboard/outboard lamps in each fixture.
- The corridors have 2x4 acrylic lens 2-lamp fixtures. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. The fixtures are controlled by a 3-way switch at each end of the corridor. There are occupancy sensors. There are 24/7 night light fixtures. The fixtures are spaced 12' on center.
- 4. Exterior canopy fixtures are recessed high pressure sodium. The wall pack fixtures are high pressure sodium full cut off type. The area lights serving the parking lot are high pressure sodium. The wall pack fixtures along the playground are LED full cut off. The exterior lighting is controlled from a photocell-on, timeclock-off central lighting contactor which controls all fixtures at the same time.

B. Observations

1. There are no occupancy sensors in the 1960 classrooms.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the interior light fixtures in the 2006 classrooms is about 25 more years.
- 2. The expected remaining lifespan of the interior light fixtures in the 1960 classrooms is about 10 more years.

D. Recommendations

1. Provide new 2x4 direct/indirect center basket 3-lamp fixtures and occupancy sensors in the 1960 classrooms. \$5.00/SF

Wiring Devices

A. Existing Data

1. The receptacles and toggle switches are commercial grade 20A with unbreakable nylon plates.

B. Observations

1. Switches and receptacles are in good working order.



C. Expected Remaining Lifespan

1. The expected remaining lifespan of the wiring devices is about 40 more years.

D. Recommendations

- 1. Replace any broken switches and receptacles. \$30 EA
- 2. Add additional receptacles to classrooms as required. \$200 EA

Fire Alarm System

A. Existing Data

- 1. The fire alarm is an EST Quick Start addressable system. The system is 7 years old and was installed in 2006. The fire alarm control panel is located in the lower level mechanical room.
- 2. There are pull stations by all exterior doors.
- 3. There are ceiling mounted horn strobe devices in the corridors and classrooms.
- 4. There are smoke detectors in the classrooms, corridors, and storage rooms. There are heat detectors in mechanical rooms.
- 5. There are duct smoke detectors in the air handling units operating at 2000 CFM or greater.
- 6. All fire alarm cabling is installed "open air" above the ceiling.

B. Observations

- 1. The fire alarm system is in good working order.
- 2. Fire alarm system is compliant with current fire alarm codes.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the fire alarm system is about 30 more years.

D. Recommendations

1. None.

Clock System

A. Existing Data

1. There is a Lathem wireless synchronized clock system. This system is 7 years old and was installed in 2006. The clock master controller is located in main IT room.









- 2. There are Lathem analog battery powered clocks in the classrooms, offices, and other public areas.
- 3. The bell tone is controlled by the master clock controller.

B. Observations

- 1. The clock system is in good working order.
- 2. Additional clocks can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the clock system is about 30 more years

D. Recommendations

1. None.

Intercom System

A. Existing Data

- 1. There is a Telecor intercom system. This system is 7 years old and was installed in 2006. The amplifier is located in the main IT room.
- 2. The intercom is accessed through the phone system.
- There are recessed ceiling mounted intercom speakers in the classrooms and corridors. There are horns on the exterior near all doors.
- 4. The bell system is toned through the intercom speakers.

B. Observations

- 1. The intercom system is in good working order.
- 2. Additional intercom speakers can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the intercom system is about 30 more years.

D. Recommendations

1. None.









Phone System

A. Existing Data

- 1. There is a Mitel 3300 PBX analog phone system switch in the main IT room. This system is 5 years old and was installed in 2008.
- 2. The phone cabling is CAT3 and is routed back to wall mounted voice wiring blocks. The voice wiring blocks are located in the main IT room.

B. Observations

- 1. The phone system is in good working order.
- 2. Additional phones can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the phone system is about 15-20 more years.

D. Recommendations

1. None.

Data System

A. Existing Data

- The MDF data rack is located in main IT room. There are three floor mounted data racks. There is one additional IDF data rack located on the east side of the building.
- 2. The IDF data racks are connected to the MDF data rack with multi-mode fiber optic cable. The MDF of all the schools in the district are connected together with single-mode fiber optic cable.
- 3. The data cable is CAT6 plenum rated which is routed to patch panels in the data rack.
- 4. The patch panels in the data rack are CAT6 Panduit.
- 5. There is a rack mounted UPS.

B. Observations

- 1. The data system is in good working order.
- 2. Additional horizontal runs of data cable can be added to the existing rack.



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C. Expected Remaining Lifespan

1. The expected remaining lifespan of the data system is about 20-30 more years.

D. Recommendations

1. None.

CATV System

A. Existing Data

- 1. There is a CATV service to this building. CATV splitters are located in the main IT room.
- 2. There is a CATV jack in each classroom.
- 3. There is a ceiling mounted projector and/or wall mounted television in each classroom.
- 4. Some classrooms have smartboards.

B. Observations

- 1. CATV system is in good working order.
- 2. Additional CATV jacks can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CATV system is about 30-40 more years.

D. Recommendations

1. None.

Security System

A. Existing Data

- 1. There is an Ademco security system. The security control panel is located in the main IT room. This system is 7 years old and was installed in 2006.
- 2. The security system has motion sensors in the corridors.

B. Observations

- 1. There are no exterior door contact switches.
- 2. Security system is in good working order.
- 3. Additional security devices can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the security system is about 25-30 more years.





D. Recommendations

1. Add exterior door contact switches. \$400 EA

CCTV System

A. Existing Data

- 1. There is an Exacq Vision server based CCTV system used throughout all the buildings in the district. The system is 10 years old and was installed in 2003.
- 2. There are Axis interior and exterior fixed color IP cameras.

B. Observations

- 1. The CCTV system is in good working order.
- 2. Additional cameras can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CCTV system is about 10-15 more years.

D. Recommendations

- 1. No recommendations at this time.
- 2. CCTV system replacement cost: \$1,500/camera

Access Control System

A. Existing Data

- There is an Identicard System door access control system. The control panel is located in the main IT room.
- 2. There are two exterior doors with an electric strike and key fob reader.

B. Observations

- 1. The access control system is in good working order.
- 2. Additional doors can be added to this system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the access control system is about 15-20 more years.









D. Recommendations

1. One option is to install electric strikes with key fob readers on additional exterior doors. \$1,000/door







LEGEND









ROOM COLOR LEGENI



ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

FACILITY Irving Pertzsch Elementary School

Updated: October 10, 2013

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
IP-0001	10/10/13	Roofing Repair	Maintenance	Re-flash rubber roof membrane at locations where shrinkage has caused 'tenting' condition.	\$16,000		
IP-0002	10/10/13	Roofing Maintenance	Maintenance	Apply new seal coat over existing urethane roofing above 1966 wing.	\$13,500		
IP-0003	10/10/13	Wall Protection	Maintenance	Install new PVC wall protection wainscoting over drywall surfaces in corridors and stairwells.	\$44,200		
IP-0004	10/10/13	Vestibule Flooring Replacement	Maintenance	Replace walk-off carpet tile in vestibules.	\$6,500		
IP-0005	10/10/13	Classroom Cabinetry	Classroom Upgrade	Install top tier of wall cabinets above existing wall cabinets in classrooms.	\$42,600		

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
IP-0006	10/10/13	ADA Parking Site Grid Location G5	Code Compliance	-Add detectable warning field at curb -Relocate ADA Parking stalls to comply w/ 2% max slope.	\$600		1
IP-0007	10/10/13	Entrance Drive Pavement Site Grid G4	Replacement	Replace first 6' of driveway	\$1,500		2
IP-0008	10/10/13	Sidewalk Replacement Site Grid Location B4	Replacement	Replace (5) broken squares of concrete (B4) Replace (1) broken squares of concrete (B2,C3)	\$4,000		2

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
IP-0009	10/10/13	Water Heaters	Replacement	The District is replacing all sealed combustion storage type water heaters with new gas fired instantaneous heaters.	\$4,000		1
IP-0010	10/10/13	Water Softener Re-piping	Maintenance	Re-pipe water softeners to provide soft water for both hot and cold water.	\$10,000		2
IP-0011	10/10/13	Plumbing Fixture Replacement	Replacement	Replace toilet room fixtures and classroom sinks in 1966 Wing.	\$2,500/Fixture		2
IP-0012	10/10/13	Replace Galvanized Piping	Replacement	Galvanized water piping is near the end of it's life expectancy and should be inspected for scheduled replacement.	\$30,000		2

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
IP-0013	10/10/13	Chiller Replacement	Energy Eff. & Equipment Age	Replace the current outdoor air-cooled chiller with a new high efficiency variable speed chiller.	\$150,000		2
IP-0014	10/10/13	Energy Recovery Unit	Energy Eff. And Noise control	Reduce the fan speed and re-balance the existing roof-mounted energy recovery unit to 50% of current capacity to reduce unit noise. Add a new unit of similar capacity and revise existing ductwork as required to accommodate both units.	\$50,000		2
IP-0015	10/10/13	Gym AHU System	Capacity and Control	Replace the existing air handling system serving the gymnasium to provide adequate heating and cooling capacity and control.	\$75,000		2

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
IP-0016	10/10/13	1960 Panelboard Replacement	Equipment Upgrade	Replace the 1960 panelboards and feeder with new.	\$7,000/panel		3
IP-0017	10/10/13	1960 Classroom Lighting Replacement	Energy Conservation	Replace the existing 1960 classroom light fixtures with new 2x4 direct/indirect center basket 3-lamp fixtures with Occupancy sensors and dual level lighting control.	\$5.00/SF		3
IP-0018	10/10/13	Classroom Power Upgrade	System Upgrade	Add additional circuits and receptacles to the classrooms as required.	\$200/receptacles		3
IP-0019	10/10/13	Door Contact Switches	Security Upgrade	Add exterior door security contact switches	\$400 ea.		3
IP-0020	10/10/13	Door Access Control	Security Upgrade	Add electric door strikes with key fob readers on Additional exterior doors.	\$1,000/door		3







750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

FACILITIES CONDITION ASSESSMENT

Facility: Northern Hills Elementary 511 Spruce Street Onalaska, WI 54650

BUILDING DATA

Building Age	<u>Completed</u>
Original Building Construction	1972
Northside Classroom Wing Addition	1991
Building Area	
1972 Building	47,727 SF
1991 Addition	<u>9,628 SF</u>
Total	57,355 SF
Building Occupancy Classification:	Educational Group E
	1
Construction Type:	Type II-B
Enrollment (2013)	396

Site

Parking

75 Stalls

ROOM SCHEDULE

Area Designation	Qty	Floor Area (NSF)	Notes
Administrative Offices	1	1,015 SF	
Health Office	1	150 SF	Excludes adjoining toilet rooms.
Staff Room	1	695 SF	
Pre-Kindergarten	2	913 SF	
Classrooms – 1 st Grade	4	2 @ 1,564 SF, 1 @ 913 SF 1 @ 1,217 SF	
Classrooms – 2 nd Grade	4	870 SF – 1,060 SF	
Classrooms – 3 rd Grade	3	637 SF – 1,036 SF	
Classrooms – 4 th Grade	3	913 SF	
Classrooms – 5 th Grade	3	913 SF – 1,125 SF	
Multi-Media Center	1	1,512 SF	
LMC	1	4.110 SF	
Computer Labs	2	455 SF & 507 SF	
Reading	2	637 SF & 837 SF	
Speech	1	136 SF	
School Psychologist	1	115 SF	
Special Education	3	567, 609 & 264 SF	
Cafeteria	1	3,340 SF	
Kitchen	1	145 SF	
Music Room	1	1.630 SF	Includes storage room.
Art Room	1	1,905 SF	
Gymnasium	1	4.705 SF	
Custodial	1	350 SF	
CONDITIONS ASSESSMENT

1.0 BUILDING ENVELOPE

1.1 EXTERIOR WALLS

The exterior walls of both the original 1971 building and 1991 classroom wing addition consist of 6" thick aggregate faced precast concrete panels. The current condition of the caulking between vertical butt joints between precast panels were inspected for weathertightness. The caulking in the 1971 building shows signs of splitting and general deterioration from exposure to the weather and UV rays. All joints should be re-caulked to prevent any infiltration of moisture.

The caulk joints in the 1991 addition also appear to have deteriorated but to a lesser degree than the 1971 addition. The sealant is still pliable but should be re-sealed.

1.2 ROOFING

1971 Original Building

Roof framing consisted of open web steel "bar joists" with metal decking. The existing roof system on the 1971 building consisted of asphalt ply and gravel over 1-1/2" fiberglass insulation. The 1971 wing was re-roofed in 2003 by McCabe Roofing (Hokah, MN) with a fully-adhered single-ply rubber membrane over 2" of rigid insulation mechanically attached over the asphalt and gravel roofing. The roofing is pitched to internal roof drains. There are no current leaks that require attention.

Roofing Manufacturer:	Firestone
Membrane Warranty:	10 years (expired August 7, 2013)

1991 Classroom Wing Addition

The roof framing for the 1991 addition also consisted of steel open web "bar joists" with metal decking. The roofing is a ballasted single-ply rubber membrane that drains to three perimeter overflow scuppers. Maintenance staff reported that the 1991 roof developed a couple of leaks a few years ago but all have been repaired and there are no current leakage problems.

Observations

The 1971 roofing appears to be in good condition and should serve the District indefinitely. The internal roof drains area corroded and could be added to the list of roofing maintenance items but don't necessarily require and immediate attention. The metal roof edge was installed at the time of the 2003 re-roofing and also appears to be in satisfactory condition. The 1991 ballasted roof is approaching the age where ongoing maintenance may be required with increased frequency. Relying on perimeter overflow scuppers may leave the roof susceptible to freeze-thaw ice damming conditions.

Recommendations

There appears to be no immediate issues concerning the conditions of the roofing. The roof warranty period from the 2003 re-roofing project has run out, however, the rubber membrane, roof drains, flashings and roof edge remain in good condition. The ballasted roof above the 1991 north side addition also appears to be in satisfactory condition but is more likely to develop periodic leaks based on the typical deterioration of a roofing system of that age (20+ years). Any proposed building additions, especially onto the north side, may provide an opportunity to replace the ballasted roof membrane, add insulation, and change the roof drainage to an internal roof drains.

1.3 WINDOWS

All existing windows in the 1971 building and 1991 addition are of non-operable dark bronze anodized aluminum framing with insulated glass. The windows appear to in satisfactory condition with regard to the frames and thermopane glass, however, maintenance staff has reported some signs of water infiltration. The leakage appears to be linked to the metal wall panels

Recommendations

The metal wall panels below the windows need to be replaced and made weathertight. Future maintenance may require the replacement of the windows on a case by case basis (or all windows) should any of the thermopanes develop leaks. Staff members have complained about cold spots near the windows so ideally it would suggest removing and replacing the windows and wall section below the windows with a thermally improved glazing system.

1.4 ENTRANCES & EXTERIOR DOORS

All existing entrances and classroom exit doors are of prefinished aluminum and appear to show the signs of heavy usage. The south entrance includes a door operator with push plates for handicap accessibility. The 1991 north side addition included aluminum exit doors from the classrooms. The doors are of a wide stile aluminum and subject to less usage that the main building entrances and appear to be in satisfactory condition.

The existing hollow metal doors on the building perimeter are showing significant signs of wear and deterioration. These doors and frames should be included in any building-wide upgrade project.

Recommendations

- 1. Replace aluminum entrances with heavier duty and thermally improved aluminum doors, framing and glazing.
- 2. Replace existing hollow metal doors, frames and hardware with new corrosion resistant galvanized frames and doors. Replace door hardware with new heavy-duty hardware, or re-use hardware that has previously been upgraded by the District.

1.5 METAL FASCIA PANELS

The exterior perimeter of the building includes a prefinished ribbed steel fascia panel over plywood backing mounted to the face of the precast concrete wall panels. The fascia located above the building entrances adjoins the stucco soffits. With the exception of normal color fading, the metal fascia appears to be in good condition. It was observed, however, that signs of corrosion are evident at the outside edges of the stucco soffit areas extended out over the entrances. The corrosion could possibly be traced back to the steel framing used to suspend the stucco soffits. Additional investigation would require cutting into the stucco.

Recommendations

No immediate work is necessary with the metal fascia. The prefinished dark bronze perimeter roof edge was replaced as part of the 2003 re-roofing of the 1972 wing and is in good condition. If a decision is made to leave the ribbed metal fascia in place, the District may wish to consider painting the panels with a new high-performance coating which would help extend the life of the panels indefinitely.

2.0 BUILDING INTERIOR

2.1 CLASSROOM LAYOUT

The current building plan utilizes an "open concept" classroom layout for grade levels 1st through 5th. The individual classroom areas are separated by a combination of full height demountable partitions, fixed casework and low partitions. Individual open classroom spaces in the 1971 original construction (see Occupancy List). The partitioned classrooms in the 1991 addition are 900 S.F. in size.

2.2 FLOOR SLAB

The entire facility is constructed with a concrete slab-on-grade floor system. There has been some concern of voids under the floor slab in the cafeteria indicating the potential of undermining of subsoils directly below the floor slab. It has been suggested that the problems were related to the original underfloor roof water drainage piping. It was also reported that a significant volume of undermining was uncovered during work associated with installation of mechanical equipment in the northeast corner of the 1972 building.

There are no testing procedures that can be expected to accurately map the extent of such voids. Ground penetrating radar testing can detect voids between the underside of the concrete slab and the soil base but are susceptible to false readings due to locations of rebar or slab curling conditions. The radar testing provides information directly under the equipment making it difficult to map a large area of floor slab. Core samples have been taken but revealed little information. 'Sounding' tests can be conducted to attempt to detect changes in conditions below the slab but again are inconclusive.

Observations

It should be noted that there are no evidence of settlement around the building perimeter or visible signs of floor cracking. The sidewalks along the north face of the 1991 addition seem to be pulling away from the building. Sidewalk slabs were observed to be doweled into the building foundation, at least at door threshold locations.

Recommendations

At building interior, conduct 'sounding tests' in attempt to determine the extent of hollow spots under slab.

2.3 INTERIOR FINISHES

Flooring:	Classrooms are typically carpeted. Main circulation corridors, cafeteria, art room, toilet rooms, dishwashing area and east end computer lab consists of a monolithic terrazzo flooring. North end of the main north-south corridor is of vinyl composition tile. The original locker rooms off from the east side of the gym has ceramic tile flooring.
Gym Flooring:	Maple flooring (replaced in 1986)
Walls:	Gypsum drywall

2.4 EQUIPMENT

Lockers: The existing lockers were recently replaced and are located along both sides of the main north-south circulation corridor. The lockers are of a double-pan style hinged locker door with metal slope tops. Qty: 395

Toilet Partitions: Solid Plastic

2.5 A 24' x 24' wood framed storage garage is located of the northeast corner of the school and utilized for miscellaneous equipment. The structure consists of a wood stud frames walls on a concrete floor slab, prefabricated wood trusses, vinyl lap siding and asphalt shingled roof. There are two pairs of hollow metal doors on the south side.



Recommendations

In general, the garage structure appears to be in satisfactory condition. The asphalt shingles should provide several more years before it becomes necessary to replace the shingles.

The hollow metal doors should be scheduled for refinishing with a high-performance paint coating to extend the life of the doors.

3.0 HANDICAP ACCESSIBILITY

This Study looks at the entire building to summarize deficiencies with regard to handicap accessibility per current ADA and State of Wisconsin guidelines.

3.1 ACCESSIBLE ROUTES

Existing Conditions

An "accessible route" is defined as a continuous, unobstructed path leading to a building Entrance from off-site (public streets) and on-site amenities such as staff parking lots and bus loop driveways. As a result of recent utility work under Spruce Street, the bus loop was relocated from the south side of the school with a parent drop-off location on Troy Street to the north of the playground.

Moving the bus loop has provided space for a new 29 stall parking lot with a connecting accessible route to the south side main building entrance. Access from the new student drop-off on Troy Street is by way of a new connecting concrete walkway that connects to Entrance 'C' on the north side.

3.2 ACCESSIBLE PARKING

Where parking is provided, accessible parking spaces shall be provided as follows:

Total Parking	Required Number Of
Spaces Provided	Accessible Spaces
1 to 25	1
26 to 50	2
51 to 75	3

Van accessible spaces shall be provided for every eight accessible stalls.

Existing Conditions

The existing east side parking lots includes a total of 46 spaces. There are currently three designated handicap parking stalls. The new south side parking lot was designed for 29 spaces. There three handicap accessible parking stalls.

Recommended Action

No work required

3.3 ACCESSIBLE ENTRANCE

Existing Condition

The main entrance on the south side currently has an automatic door opener device attached to the entrance door on the east end of the entrance. Push plates have been installed on the adjacent wall surfaces on the interior and exterior sides. The interior vestibule doors at the south entrance do not include a door operator and are typically secured during school hours.

3.4 ACCESSIBLE INTERIOR CIRCULATION

Existing Conditions

With the exception of the Multimedia Room, all classrooms are accessible. The recessed gymnasium floor level is also inaccessible.

Recommendations*

Multimedia Room: Provide ramped access to the lower lecture area. The work would require significant interior remodeling, which could include the construction of a ramped corridor to access the lower lecture level, or installation of a new wheelchair lift.

Gymnasium: Install new wheelchair lift off from cafeteria.

* Assumes maintaining the current floor plan.

3.5 ACCESSIBLE TOILET FACILITIES

Existing Conditions

1971 Building: The toilet rooms in the 1971 building do not comply with the current ADA guidelines. The doorways are too narrow to provide the minimum clear width of 32 inches and do not provide the minimum maneuvering clearances in the girl's toilet rooms. None of the individual water closet stalls comply with the minimum 60 inch width required. In addition, the girl's toilet rooms do not provide adequate clearances for wheelchair turning

space. The individual toilet rooms in the first grade classrooms and school/nurse's office are also too small to provide for wheelchair access.

1991 Addition: The toilet rooms in the 1991 building addition also do not comply with the current code. The uni-sex toilet room adjacent to the LD classroom appears to comply with the minimum clearances.

Recommendations

It is recommended that at least one pair of boy's and girl's toilet rooms be modified or remodeled with ADA compliant fixtures, accessories (grab bars, mirrors, towel & soap dispensers), which would include widening of entrance doorways.

Staff toilet rooms should also be remodeled to comply with the space requirements for individual toilet rooms. The present staff toilet rooms are located adjacent to the staff room, school offices and health room. The remodeling would essentially gut the two existing toilet room to increase the room sizes for the minimum clearance requirements.

3.6 SIGNAGE

Existing Conditions

There is currently no ADA compliant signage provided for accessible parking stalls, accessible building entrance or room signage.

<u>Recommended Action</u> Install ADA compliant signage at all interior rooms.



Northern Hills Elementary School Site Facility Assessment Comments

Northern Hills School has had a completely new site improvement project completed this summer for the southern area of the site. There were some specific places that are identified in the Assessment that should be addressed in the near future due to code or safety concerns. The site is not in compliance with ADA code for parking. Where signing and striping can be implemented to create current code compliant parking it is required to be done at the time of ANY sealcoat and restripe operation including signage meeting current ADA standards. The main issue is the current signed spaces are too steep. There are spaces that would comply with the slope requirement and those should be switched to achieve compliance.



ONALASKA, WISCONSIN DATE: 8/17/2013

Environmental Design & Con CML Bicknesnic, LANSCAPE ARCHIECTURE, 632 COPELAND AVENUE, LA CROSSE, 1 Tel.608.781.3110 Fox.608.781.3197 Paragon



NORTHERN HILLS ONALASKA, WISCONSIN DATE: 8/17/2013



PLUMBING

The following report is the result of a site visit by Tim Kehoe of Muermann Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

PLUMBING EQUIPMENT

- A. Observations
 - The water heater has been recently replaced and is in excellent condition. The unit is a gas fired, high efficiency, sealed combustion unit. The unit appears to be oversized for the facility.
 - 2. A small electric water heater was installed in one of the mechanical rooms to provide hot water to adjacent toilet rooms.
 - 3. The water softener is old and only supports the hot water.





B. Recommendations

- 1. Provide continual maintenance on the water heater.
- 2. Replace the existing water softener with a new unit large enough to handle the hot and cold water demand.

C. Expected Remaining Lifespan

1. A new water softener for this facility is approximately \$8,000. Some piping will need to be reconfigured to support the unit.

PLUMBING FIXTURES

A. Observations

- 1. Plumbing fixtures located within the toilet rooms and classrooms are generally in poor condition and should be scheduled for replacement
- 2. New flush valves have been installed for the urinals and water closets. These items could be reused should the toilet rooms be upgraded.
- 3. The existing wash fountains are nearing the end of their life expectancy and are not ADA compliant.
- 4. Toilet rooms are not ADA compliant per today's standards.
- 5. The kitchen is extremely small and the kitchen sinks are in poor condition.



NH - 12

B. Recommendations

- 1. Plumbing fixtures should be scheduled for replacement.
- 2. Toilet rooms should be modified to be ADA compliant.

C. Expected Remaining Lifespan

1. Plumbing fixtures and associated piping are due for replacement. Estimated cost of plumbing fixture replacement is \$2,500 per fixture.



SANITARY PIPING

A. Observations

- Sanitary piping is cast-iron. The piping has failed in some areas. Old cast iron piping has been replaced with Schedule 40 PVC piping. The owner indicated that in some areas the saniatary piping drains very slow.
- 2. An interior grease interceptor has been provided for the kitchen. The grease interceptor is original to the building and does not appear to be maintained on a regular basis.

B. Recommendations

- The owner indicated problems with the existing cast iron piping. Tthe piping should be scheduled for replacement. We recommend that the interior sewers be investigated with a camera.
- 2. The grease interceptor should be continually maintained and monitored. Budget for a new grease interceptor that is adequately sized.

C. Expected Remaining Lifespan

1. It's unknown if the grease interceptor is operational. A new grease interceptor is budgeted at \$4,000. An exterior grease interceptor, if desired, is estimated at \$15,000.



STORM PIPING

A. Observations

- 1. The owner indicated no problems with the storm piping and roof drainage interior of the building.
- 2. The storm sewer exterior of the building is known to be too small for the building demand and needs to be increased in size

B. Recommendations

1. The storm sewer needs to be adequately sized to promote proper drainage. It is estimated at this time that the sewer replacement cost is approximately \$25,000.

DOMESTIC WATER PIPING

A. Observations

- Original portions of the building are provided with a galvanzied domestic water piping. Additions and renovations have been piped using Type "L" copper tube.
- 2. The building is supplied by a new 6" water service that is primarily for the existing chiller and is provided with its own meter and backflow preventer.
- 3. The building is supported by a 2" water service and 2" water meter which appears to be appropriately sized for the building demand.

B. Recommendations

- 1. Galvanized domestic water piping should be scheduled for replacement.
- The domestic water piping for this facility should be evaluated; potentially replaced to correct the problems with entire domestic water piping system.
- 3. Additions or major renovations to the building may require the building to be provided with a fire protection system. A new 6" domestic water service should be evaluated for the building.

C. Expected Remaining Lifespan

 Galvanized water piping should be scheduled for replacement. The average life expectancy of galvanized water piping is 30 years depending on the water quality. Opinion of cost for new domestic water piping for this facility \$80,000.





HVAC

The following report is the result of a site visit by Randy All of Fredericksen Engineering, Inc. that occurred on August 2, 2013. Site observations and interviews with staff were used in the preparation of this report.

HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

A. Existing Data

- 1. The building heating system consists of two (2) separate hot water boiler plants. The boiler plant that serves the original 1972 building is a hot water system that consists of two (2) Bryan Flexible Tube boilers rated at 980,000 btu output each. The pumping system is a primary-only arrangement with a variable flow system pump. There is no stand-by pump. The boiler plant that serves the 1991 addition consists of two (2) Burnham standard atmospheric boilers rated at approximately 450,000 btu output each. The pumping system is a primary-secondary arrangement with constant flow system pumps. Each boiler is served by an inline primary pump while main and stand-by pumps are piped in parallel in the secondary loop.
- 2. The building cooling is provided by two separate systems. The 1972 building is served by a 100 ton Multi-Stack water-cooled modular chiller that was in installed in 2007 as part of an HVAC renovation project. The chiller condenser is cooled with city water that runs straight through the condenser to the city sanitary system. The pumping system is a primary-only arrangement with two (2) constant flow pumps piped in parallel. The 1991 building is served by a Trane 30 ton air-cooled condensing unit that is original to the 1991 construction.
- 3. The 1972 building is served by a central built-up variable volume air handling unit with hot water VAV boxes. The 1991 building is served by a central constant volume air handling unit with booster coil reheat.
- 4. The 1972 building is controlled by a Trane direct digital control system that was installed as part of the 2007 HVAC renovation. The 1991 building is controlled by a pneumatic control system.

B. Observations

- The boilers and pumps are in marginal to poor condition and are in need of a complete replacement.
- 2. The outdoor air-cooled condensing unit serving the 1991 building is in fair condition but is near the end of its expected service life.
- 3. The indoor modular chiller is in good condition. This chiller operates on R410a refrigerant which is considered a current and environmentally-friendly product.



- 4. The air handling equipment has been well maintained but is only in fair condition.
- 5. The Owner stated that the building frequently experiences pressurization problems.
- 6. The Owner has also stated that the zone control in many areas is poor resulting in numerous occupant complaints

C. Recommendations

- 1. The hot water systems serving the building are in poor condition and are in need of replacement. Remove the existing boiler plants and replace with a single central high efficiency boiler plant with a variable flow pumping system.
- 2. Constant volume reheat systems are energy inefficient and currently only allowed by the building code in specific circumstances. The constant volume air handling unit, outdoor condensing unit, and booster coil system serving the 1991 building should be removed and replaced with a new variable volume air handling unit with hot water and chilled water coils, hot water VAV boxes, and digital control. The existing chilled water system would be expanded by adding another chiller module to the existing chiller to increase total capacity to 150 tons. The systems pumps and VFD's would also be replaced to provide the required additional pumping capacity. Remove the pneumatic control system serving the 1991 building and upgrade the system to digital control to integrate with the 1972 building.
- 3. Revise the existing ductwork distribution and zoning in the 1972 building to properly serve the building layout that is now in place since revisions have taken place over the years.
- 4. Continue to maintain the existing Trane digital control system serving the 1972 building. We recommend maintaining the software with the latest updates to keep the system current.

ELECTRICAL SYSTEM

The following report is the result of a site visit by John Russell of Muermann Engineering, LLC that occurred on August 2, 2013. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report. All construction costs indicated in this report are opinions.

The building was originally constructed in 1971. Additions and remodeling were done in 1991.

MAIN ELECTRICAL SERVICE

A. Existing Data

- This school has an 800 amp 480Y/277 volt 3-phase 4-wire electric service. The service is fed from a utility owned pad mounted transformer. The CT's are integral to the main switchboard. The meter socket is mounted on the exterior wall. The main switchboard is located outside on the west side of the building next to the utility transformer. The main service switchboard consists of an 800 amp circuit breaker distribution section for the branch feeders. This service has two main circuit breaker disconnects. This service equipment was installed in 1971. The switchboard is an ITE. There are no available spare circuit breaker spaces in this main switchboard.
- 2. There is a 400A 480Y/277 volt 3-phase 4-wire bus duct above the ceiling to provide distribution to the branch circuit panelboards.



B. Observations

- 1. The main service switchboard does not have a surge protection device.
- 2. The main service switchboard is approaching the end of its useful life due to the operating lifespan of circuit breakers.
- 3. Bus duct disconnects to access and service above the ceiling.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the main service switchboard is about 10 more years.

D. Recommendations

- 1. Provide surge protection device on main service. \$3,500
- 2. Provide new electric service and switchboard. Remove existing bus duct. \$50,000

PANELBOARDS

A. Existing Data

- 1. The panelboards that are ITE were installed in 1971.
- 2. The panelboards that are General Electric were installed in 1991.

B. Observations

- 1. The older panelboards are generally full and do not have space for additional circuit breakers.
- 2. The panelboards that were installed in 1971 are approaching the end of their useful life due to the operating lifespan of circuit breakers.
- 3. The panelboards that were installed in 1991 are in good working order.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the 1971 panelboards is about 10 more years.
- 2. The expected remaining lifespan of the 1991 panelboards is about 30 more years.

D. Recommendations

1. Replace the 1971 panelboards and feeder wire with new. New circuit breakers will allow for a safer and more expandable installation. \$7,000/panel

GENERATOR

A. Existing Data

- 1. This building has a 12.5 KW United States Motors natural gas fueled generator. The generator is liquid cooled. It was installed in 1971. The generator is located in the mechanical room.
- 2. There is one Zenith automatic transfer switch mounted next to the generator. This transfer switch was installed in 1971.

B. Observations

1. The emergency panel fed from the transfer switch contains both life safety and equipment loads.

C. Expected Remaining Lifespan

 The expected remaining lifespan of the generator and automatic transfer switch is about 5 more years.











Northern Hills Elementary

D. Recommendations

- 1. Provide new natural gas generator. \$40,000
- 2. Provide new automatic transfer switch. \$5,000
- 3. Provide an additional automatic transfer switch to separate life safety from non-life safety loads on the emergency power distribution system as required by current life safety code. \$25,000
- 4. Provide UL 924 listed emergency bypass relays on the emergency egress lighting circuits powered by the generator to allow the egress lights to automatically come on upon loss of normal power. \$8,000



LIGHTING FIXTURES AND CONTROLS

A. Existing Data

- The classrooms have 2x4 acrylic lens 4-lamp fixtures in the center of the room and 1X4 2-lamp fixtures around the perimeter. These fixtures are 40 years old. The lamps are T12 with a color temperature of 5000K. The ballasts are magnetic. Each classroom has one low voltage momentary contact switch that controls all the lights in the room. The light fixtures are on 8' X 12' centers.
- The corridors have 2x2 acrylic lens 2-lamp fixtures and 2x4 parabolic 3-lamp fixtures. These fixtures are 20 years old. The lamps are T8 with a color temperature of 5000K. The ballasts are electronic. The fixtures are controlled by a master low voltage switch station. There is no night lighting. The fixtures are spaced 8'-10' on center.
- 3. Exterior canopy fixtures are metal halide. The wall pack fixtures are LED full cut off type. The area lights serving the parking lot are metal halide. The exterior lighting is controlled from a photocell in each fixture.

B. Observations

- 1. The staff indicated the exterior light levels are not adequate for security.
- 2. There are no occupancy sensors in the classrooms. The light fixtures are not inboard/outboard dual level switched. There is no daylight switch control to turn off the fixtures near the window.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the T12 interior light fixtures is about 5 years or less.
- 2. The expected remaining lifespan of the T8 interior light fixtures is 10-15 more years.

D. Recommendations

- 1. Provide new 2x4 acrylic lens 3-lamp T8 lamp electronic ballast light fixtures in the classrooms with dual technology occupancy sensors, inboard/outboard dual level switching, and daylight switching. \$5.00/SF
- 2. Provide additional exterior LED wall pack light fixtures for security. \$400/fixture

WIRING DEVICES

A. Existing Data

- 1. The receptacles and toggle switches are commercial grade 15A with stainless steel plates.
- 2. The classroom receptacles are mounted inside the modular wall system in the base plate.

B. Observations

1. Most switches and receptacles appear to be in good working order. Some receptacles are cracked.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the wiring devices is about 10 more years.

D. Recommendations

- 1. Replace any broken switches and receptacles. \$30 EA
- 2. Add additional receptacles to classrooms as required. \$200 EA

FIRE ALARM SYSTEM

A. Existing Data

- 1. The fire alarm is an EST FireShield zoned conventional system. The system is 10 years old and was installed in 2003. The fire alarm control panel is located in the north mechanical room.
- 2. There are pull stations by all exterior doors.
- 3. There are wall mounted horn strobe devices in the corridors and most classrooms.
- 4. There are smoke detectors in the corridors, classrooms, and storage rooms. There are heat detectors in mechanical rooms.
- 5. There are duct smoke detectors in the air handling units operating at 2000 CFM or greater.
- 6. All fire alarm cabling is installed "open air" above the ceilings.

B. Observations

- 1. The fire alarm system is in good working order.
- 2. A few classrooms do not have horn strobe devices.





C. Expected Remaining Lifespan

1. The expected remaining lifespan of the fire alarm system is about 30 more years.

D. Recommendations

- 1. Add horn strobe devices to classrooms that currently do not have these devices. \$200/device
- 2. Fire alarm replacement cost for new addressable system. \$1.25/S.F.

CLOCK SYSTEM

A. Existing Data

- 1. There is a Lathem hard wired synchronized clock system. This system is 12 years old. The clock master controller is located in the intercom rack in the library.
- 2. There are Lathem analog clocks in the classrooms, corridors, offices, and other public areas.
- 3. The bell tone is controlled by the master clock controller.

B. Observations

- 1. The clock system is in good working order.
- 2. Additional clocks can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the clock system is about 15-20 more years.

D. Recommendations

 One option is to install a central wireless master clock with GPS receiver. Replace all hard wired synchronized clocks with battery powered GPS clocks. \$500/clock + \$2,500 receiver.



INTERCOM SYSTEM

A. Existing Data

- 1. There is a Telecor intercom system. This system is 7 years old. The amplifier is located in the library.
- 2. There are recessed ceiling mounted intercom speakers in the corridors and classrooms.
- 3. The intercom is accessed through the phone system.
- 4. The bell system is toned through the intercom speakers.

B. Observations

- 1. The intercom system is in good working order.
- 2. Additional intercom speakers can be added.

C. Expected Remaining Lifespan

- 1. The expected remaining lifespan of the intercom system is about 30 more years.
- **D.** Recommendations
 - 1. None.





PHONE SYSTEM

A. Existing Data

- There is a Mitel SX-2000 LIGHT PBX analog phone system. This system is 5 years old and was installed in 2008. The phone switch is located in the IT east hallway.
- 2. The phone cabling is CAT3 and is routed back to wall mounted voice wiring blocks. The voice wiring blocks are located next to the MDF data rack in the IT east hallway and the IDF data rack near the library.

B. Observations

- 1. The phone system is in good working order.
- 2. Additional phones can be added to the system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the phone system is about 15-20 more years.

D. Recommendations

1. None.





DATA SYSTEM

A. Existing Data

- 1. The MDF data rack is located in IT east hallway. There is one floor mounted data rack. There is one additional IDF data rack located in the library work room.
- 2. The IDF data racks are connected to the MDF data rack with multi-mode fiber optic cable. The MDF of all the schools in the district are connected together with single- mode fiber optic cable.
- 3. The data cable is CAT6 plenum rated which is routed to patch panels in the data rack.
- 4. The patch panels in the data rack are CAT6 Panduit.

B. Observations

- 1. The data system is in good working order.
- 2. Additional horizontal runs of data cable can be added to the existing rack.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the data system is about 20-30 more years.

D. Recommendations

1. None.

CATV SYSTEM

A. Existing Data

- 1. There is a CATV service to this building. CATV splitters are located in storage closets across from the main office.
- 2. There is a CATV jack in each classroom.
- 3. There is a ceiling mounted projector and/or wall mounted television in each classroom.
- 4. Some classrooms have smartboards.

B. Observations

- 1. CATV system is in good working order.
- 2. Additional CATV jacks can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CATV system is about 30-40 more years.

D. Recommendations



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1. None.

SECURITY SYSTEM

A. Existing Data

- 1. There is an Ademco security system. The security control panel is located in the mechanical room. This system is 15 years old.
- 2. The security system has motion sensors in the corridors.

B. Observations

- 1. There are no exterior door contact switches.
- 2. Security system is in good working order.
- 3. Additional security devices can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the security system is about 15-20 more years.

D. Recommendations

1. Add exterior door contact switches. \$400 EA

CCTV SYSTEM

A. Existing Data

- There is an Exacq Vision server based CCTV system used throughout all the buildings in the district. The system is 10 years old and was installed in 2003.
- 2. There are Axis interior and exterior fixed color IP cameras.

B. Observations

- 1. The CCTV system is in good working order.
- 2. Additional cameras can be added.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the CCTV system is about 10-15 more years.

D. Recommendations

- 1. No recommendations at this time.
- 2. CCTV system replacement cost: \$1,500/camera





ACCESS CONTROL SYSTEM

A. Existing Data

- 1. There is an Identicard System door access control system. The control panel is located in the mechanical room.
- 2. There is one exterior door with an electric strike and key fob reader.

B. Observations

- 1. The access control system is in good working order.
- 2. Additional doors can be added to this system.

C. Expected Remaining Lifespan

1. The expected remaining lifespan of the access control system is about 15-20 more years.

D. Recommendations

 One option is to install electric strikes with key fob readers on additional exterior doors. \$1,000/door













ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

<u>FACILITY</u> Northern Hills Elementary School

Updated: October 10, 2013

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
NH-0001	10/10/13	Re-roofing 1991 Wing	Replacement	Remove and replace existing ballasted single-ply rubber roofing at 1991 wing with new fully-adhered rubber w/ new insulation.	\$88,600		
NH-0002	10/10/13	Caulking Replacement	Maintenance	Remove and re-caulk precast concrete panel joints around building perimeter.	\$11,400		
NH-0003	10/10/13	Replace O.H. Door	Replacement	Replace overhead door at east end.	\$1,500		
NH-0004	10/10/13	Replace Metal Doors	Replacement	Remove and replace existing worn hollow metal doors and frames at east end.	\$4,300		
NH-0005	10/10/13	Replace Aluminum Entrances	Replacement	Replace aluminum entrances at Entrances 'B' & 'D'.	\$20,300		
NH-0006	10/1013	Replace Aluminum Windows	Replacement	Replace aluminum windows with new thermally improved glass and framing. Remodel wall section below windows.	\$36,500		
NH-0007	10/10/13	Replace Aluminum Entrance	Replacement	Replace aluminum entrance at south side Entrance 'A'.	\$17,600		
NH-0008	10/10/13	Remodel Toilet Rooms	ADA	Remodel (1) Boy's and (1) Girls toilet rooms for ADA accessibility.	\$8,800		
NH-0009	10/10/13	New Wheelchair Lifts	ADA	Installation of new wheelchair lifts to access gymnasium and lower level of Multi-Media Center.	\$68,000		

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
NH-0010	10/10/13	Tree Removal Site Grid Location C2	Safety	Poor condition and poor branching. Remove and replace.	\$400		2
NH-0011	10/10/13	Sidewalk Replacement Site Grid Location D3	Safety	Sidewalk section settled at downspout, replace.	\$600		1
NH-0012	10/10/13	Playscape Maintenance Site Grid Location E3	Safety	Chips compacted. Remove and reinstall or replace.	\$4000		1
NH-0013	10/10/13	Safety Surface Below Swings Site Grid Location E5	Safety	Add safety surface below swing. Rubber surface at E13 seems superior.	\$10,000		1

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
NH-0014	10/10/13	Water Softener Replacement	Equipment Replacement	Water softeners for this building should be replaced and sized appropriately to accommodate the hot and cold water demand for the building.	\$10,000		3
NH-0015	10/10/10\3	Plumbing Fixture Replacement	Equipment Replacement	All toilet rooms and classroom sinks should be scheduled for replacement with new ADA compliant fixtures.	\$2,500 /fixt.		3
NH-0016	10/10/13	Kitchen Equipment Replace	Equipment Replacement	The kitchen sink is in relatively poor condition and should be scheduled for future replacement.	\$8,000		3
NH-0017	10/10/13	Grease Interceptor Replace	Equipment Replacement	The existing interior grease interceptor is in poor condition and should be budgeted for replacement with new interior model.	\$5,000		3
NH-0018	10/10/13	Sanitary Piping Replacement	Piping Replacement	Sewer s are in relatively poor condition. The owner indicated multiple toilet rooms that appear to have drainage problems.	\$25,000		2
NH-0019	10/10/13	Exterior Storm Sewer Replacement	Pour Drainage	Replace existing storm sewer that is adequate sized to handle the storm demand.	\$15,000		3
NH-0020	10/10/13	Galvanized Water Piping Replacement	Life Expectancy	Galvanized water piping is near the end of it'd life expectancy and should be scheduled for replacement.	\$50,000		2

ITEM No.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST.COST	QUOTED COST	PRIORITY LEVEL
NH-0021	10/10/13	New Boiler Plant	Energy Eff and Equipment Age	Remove both of the existing boiler plants and replace with a single central high efficiency boiler plant with variable flow pumping and digital control.	\$175,000		1
NH-0022	10/10/13	New VAV System in 1991 wing.	Energy Eff and Control	Remove the constant volume booster coil system with pneumatic control currently the 1991 area and replace w/ new VAV system and digital control . Increase the capacity of the current chilled water system by adding an additional module, replace the pumps and variable frequency drives, and route new piping to the VAV air handler.	\$395,000		2
NH-0023	10/10/13	Remodel 1972 HVAC	Zone control and Comfort	Revise and/or replace the existing ductwork distribution systems to properly zone all areas of the building. Replace VAV boxes as needed and reuse existing boxes where possible.	\$350,000		2

ITEM No.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST.COST	QUOTED COST	PRIORITY LEVEL
NH-0024	10/10/13	Add Surge Protection	Equipment Upgrade	Add surge protection device to main service switchboard	\$3500		3
NH-0025	10/10/13	New Electric Service	Equipment Upgrade	Provide new electric service switchboard	\$50,000		3
NH-0026	10/10/10	1971 Panelboard Replacement	Equipment Upgrade	Replace the 1971 panelboards and feeder with new panels.	\$7,000/ Panel		3
NH-0027	10/10/13	Generator Replacement	Equipment Replacement	Provide new natural gas generator.	\$40,000		2
NH-0028	10/10/13	Automatic Transfer Switch Replacement	Equipment Upgrade	Provide new automatic transfer switch.	\$5,000		2
NH-0029	10/10/13	Separate Life Safety Loads	Code Compliance	Provide additional automatic transfer switch to separatelLife safety loads from non-life safety (equipment) loads on the emergency power distribution system.	\$25,000		2
NH-0030	10/10/13	Emergency Lighting Relay Upgrade	Code Compliance	Provide UL 924 listed emergency bypass relays on the emergency generator egress lighting circuits	\$8,000		2
NH-0031	10/10/13	Classroom Lighting Replacement	Energy Conservation	Replace the existing classroom light fixtures with new 2x4 acrylic lens 3-lamp fixtures with occupancy sensors and dual level lighting control.	\$5.00/SF		3
NH-0032	10/10/13	Add Exterior Security Lighting	Security Upgrade	Add additional circuits and receptacles to the classrooms as required.	\$200/ Receptacle		3
NH-0033	10/10/13	Classroom Power Upgrade	System Upgrade	Add additional circuits and receptacles to the classrooms as required.	\$200/ Receptacle		3
NH-0034	10/10/13	Add classroom Fire Alarm	Code Compliance	Add horn strobe fire alarm devices to classrooms	\$300/device		2







Riders Club Athletic Fields Site Facility Assessment Comments

The Riders Club Athletic Fields are in good shape except where identified in the Assessment that should be addressed in the near future due to code or safety concerns. The site is not in compliance with ADA code for parking. Where signing and striping can be implemented to create current code compliant parking it is required to be done at the time of any sealcoat and restripe operation including signage meeting current ADA standards. The main issue is the current spaces have no signage. Some reconfiguration of the lines will be needed to maintain function of the access drive to the Omni Center.



750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

FACILITIES CONDITION ASSESSMENT

Facility: Activities Building Riders Club Road Site Onalaska, WI 54650

BUILDING DATA

<u>Building Age</u> Original Building Construction Completed 1999

Building Area

Building Occupancy Classification:

Construction Type:

1,530 SF (enclosed)

A-3 Assembly

Type III

Building Use

The Activities Building was constructed in 1999 as a support facility for the athletic fields located on the Riders Club Road site. The building design includes two separately enclosed 'pods' housing men's and women's toilet rooms in the west pod, and concessions and equipment storage in the east pod. The building is unheated and typically unoccupied. The east pod was planned as a concessions serving room with counter service.



ROOM SCHEDULE

Area Designation	Qty	Floor Area (NSF)	Notes
Men's Toilet Room	1	211 SF	
Women's Toilet Room	1	211 SF	
Mechanical Room	1	140 SF	
Concessions	1	211 SF	
Equipment Storage	1	421 SE	
Men's Toilet Room Women's Toilet Room Mechanical Room Concessions Equipment Storage	1 1 1 1 1 1	211 SF 211 SF 140 SF 211 SF 431 SF	

CONDITIONS ASSESSMENT

1.0 BUILDING ENVELOPE

1.1 EXTERIOR WALLS

The masonry surfaces appear to be in satisfactory condition. The split-faced concrete block is generally in good condition, however, the smooth faced block could be re-coated with an elastomeric coating. The steel X-bracing assemblies between the concrete columns are showing signs of corrosion. The painted concrete columns should be recoated with a high-quality coating.



Recommendations

- 1. The steel X-bracing assemblies should be surface prepped and re-coated with a high performance corrosion resistant paint.
- 2. *Re-coating of the concrete block exterior can be deferred for the present but should be scheduled for maintenance within the coming 5-years.*

1.2 ROOFING

The roof system consists of asphalt shingles over engineered wood joists with plywood sheathing.



Observations

The asphalt shingled roofing is in poor condition and shows signs of wind blow-off of several shingles.

Recommendations

Replace shingle roofing.

1.3 EXTERIOR DOORS

All existing doors are hollow metal and appear to be in satisfactory condition with some amount of surface blemishes that can be repaired. The entrance door to the women's toilet room was damaged but hardware modified to continue operation. The doors have lever handled latchsets for ADA accessibility. The east side pod includes two overhead coiling counter doors with some amount of damage.

Recommendations

1. Refinish hollow metal doors with a high quality paint.

2. Continue use of overhead coiling counter doors but consider installation of protective steel grilles to reduce the potential ongoing damage.

1.4 EXTERIOR METAL ROOF EDGE FASCIA PANELS AND CEILING SOFFITS

The roof edge fascia and exposed exterior ceiling/soffits are of prefinished metal and are in good condition.

Recommendations

No immediate work is necessary.

2.0 BUILDING INTERIOR

2.1 INTERIOR FINISHES

Flooring:	All interior floors are of exposed sealed concrete slab.
Walls:	Painted concrete block
Ceilings:	Wood

Observations

In general, the men's and women's toilet rooms have been well maintained. With the exception of paint peeling of the masonry wall surfaces, the interior surfaces of the toilet rooms are in good condition.

Recommendations

Remove peeling paint and re-paint wall.

2.2 EQUIPMENT – TOILET PARTITIONS

Observations

Given the age of the building and the potential vulnerability, the metal toilet partitions are in good condition and show few signs of damage.

Recommendations

No work required.

2.3 PLUMBING FIXTURES

Observations

The existing toilets, urinals and wall hung lavatories all appear to be in satisfactory condition. The exterior wall hung drinking fountain is showing signs of corrosion but remains functional.



Recommendations No work required. The exterior drinking fountain can continue to be utilized until damaged or worn out.
3.0 HANDICAP ACCESSIBILITY

3.1 ACCESSIBLE ROUTES

An "accessible route" is defined as a continuous, unobstructed path leading to a building entrance from off-site (public streets) and on-site parking lots. The current layout of the Activities Building complies with the requirement.

3.2 ACCESSIBLE PARKING

Where parking is provided, accessible parking spaces shall be provided as follows:

Total Parking	Required Number Of
Spaces Provided	Accessible Spaces
101 - 150	5

Van accessible spaces shall be provided for every eight accessible stalls.

Accessible parking spaces shall be identified with signs including the International Symbol of Accessibility mounted 60 inches above the ground surface.

Existing Conditions

The existing east side parking lots includes a total of 143 spaces. There are currently five (5) designated handicap parking stalls.

Recommended Action

- 1. Restripe one (1) van accessible stall with adjoining access aisle.
- 2. Install post mounted signs at each handicap accessible stall. Provide special designated sign for van accessible space.
- 3.3 ACCESSIBLE ENTRANCE <u>Existing Condition</u> Access to the toilet rooms and multi-purpose room comply with the ADA guidelines.

3.4 ACCESSIBLE TOILET FACILITIES

<u>Existing Conditions</u> The toilet rooms were designed in compliance with ADA guidelines.

Recommendations

No work required.

3.6 SIGNAGE

Existing Conditions

There is currently ADA compliant signage mounted on the doors to the men's and women's toilet rooms.

Recommendations

No work required.





ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

Updated: October 10, 2013

FACILITY Riders Club Road Site Activities Building

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY LEVEL
RC-0001	10/10/13	Re-stripe asphalt parking stall.	ADA	Re-stripe existing asphalt to designate van accessible space.	\$200		1
RC-0002	10/10/13	ADA parking stall signage.	ADA	Install (5) handicap accessible automobile parking stall signs and one (1) 'van accessible' stall.	\$300		I
RC-0003	10/10/13	Baseball fence repairs (Site Location Grid 19)	Safety	Several wire ties are broke and should be replaced.	\$50		I
RC-0004	10/10/13	JV Dugout Repair (Site Location Grid K4, L3)	Maintenance	Rotten roof on dugout, repair with treated wood	\$1,800		2
RC-0005	10/10/13	Re-shingle roof of Activities Building.	Maintenance	Remove and replace original asphalt shingles and underlayment.	\$6,900		2
RC-0006	10/10/13	Repainting Toilet Room Walls	Maintenance	Remove peeling wall paint, prep surface and repaint concrete masonry surfaces.	\$1,640		2
RC-0007	10/10/13	Re-coat exterior masonry wall surfaces.	Maintenance	Re-coat exterior masonry wall surfaces.	\$2,500		2
RC-0008	10/10/13	Re-paint hollow metal doors.	Maintenance	Prep surface and repaint (11) hollow metal doors and frames.	\$1,050		2
RC-0009	10/10/13	Repaint steel X-bracing assemblies.	Maintenance	Surface prep and paint (8) existing steel X-bracing assemblies.	\$4,800		2



Central Kitchen

2013 Facilities Condition Assessment School District of Onalaska



750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

FACILITIES CONDITION ASSESSMENT

FACILITY

Central Kitchen 705 8th Avenue North Onalaska, WI 54650

BUILDING AGE:

	Original Construction
1999	Kitchen Expansion

BUILDING DATA

Building Area	
Original Construction	4,182 SF
1999 Kitchen Expansion	<u>3,264 SF</u>
Total	. 7,446 SF
Building Occupancy Classification:	Educational Group E
Construction Type:	Type II-B Noncombustible
Fire Protection	Non-sprinklered

SITE

Parking

11 stalls

ROOM SCHEDULE

Area Designation	Qty	Area (NSF)	Notes
Food Prep/Dishwashing Areas	1	2,870 SF	
Dry Storage	1	1,217 SF	
Offices	3	454 SF	
Break Room	1	254 SF	
Womens' Toilet Rm	1	115 SF	
Locker Corridor	1	50 SF	
Uni-Sex Toilet Room	1	30 SF	
Custodial Rooms		163 SF	
Coolers & Freezers	2 pr.	566 SF	
Delivery Van Loading Bay	1	502 SF	
Laundry	1	46 SF	

FACILITIES CONDITIONS ASSESSMENT

1.0 BUILDING ENVELOPE

1.1 EXTERIOR WALLS

The 1999 addition to the Central Kitchen was constructed as a steel framed structure of steel columns, wide flanged beams and open web steel bar joists and steel decking. The exterior walls were constructed of light-gauge steel studs clad with exterior gypsum sheathing and a textured stucco. The interior side of the walls are painted gypsum board. The exterior metal stud walls were insulated with 5-1/2 inch R-19 batt insulation. A continuous fascia band of ribbed metal panels was applied to the wall area above the stucco surface to match the adjoining Middle School.



Observations

In general, the exterior cladding (stucco and metal panels) remains in satisfactory condition with selected areas requiring repair and patching. Minor cracking of the stucco was observed and should be repaired or recoated. Exterior caulked control joints could also be cut-out and re-caulked.

The stucco surfaces have weathered and could be re-coated to provide a refreshed look. The ribbed metal fascia panels have faded considerably and should also be re-coated to extend the lifespan.

Recommendations

- 1. Clean and re-coat stucco surfaces with a new elastomeric coating that will weatherproof any cracks that have developed.
- 2. The ribbed metal panels could also be cleaned and re-painted to protect against any development of corrosion and extend the lifespan indefinitely.

1.2 ROOFING

The roof above the original kitchen (south half) was re-roofed in 2006 as part of the Middle School re-roofing project. The work involved removal of the stone aggregate top surface, leaving the the original built-up roofing plys and insulation in place. The new roof system included adding a new layer of insulation and mechanically attached 60-mil rubber membrane. The roof system was specified as to include a 20-year 'full-system warranty'.

The 1999 Central Kitchen Addition was built with a steel decking. The roof system consisted of a 60-mil ballasted single-ply rubber membrane over 5 inch EPS insulation.

Observations

No current leaks were reported by maintenance staff. The 2006 re-roofing appears in good condition. The ballasted roof system above the 1999 Central Kitchen addition also appears in satisfactory condition with no significant signs of deterioration.

Recommendations

No work required.

1.3 DOORS & WINDOWS

The windows in the kitchen consist of a thermally broken aluminum storefront framing with 1 inch insulated glass.

The main south side entrance and other service doors are hollow metal doors and frames.

Observations

With the exception of the main entrance door, all other hollow metal doors and frames are in satisfactory condition. The south entrance door is showing some signs of corrosion and typical wear.

Recommendations

In general, hollow metal steel doors and frames can continue to be used and repaired as necessary. Replacement of the main entrance door and frame with new galvanized steel may be considered for inclusion on any list for future building upgrades. All other doors and frames could be re-painted.

2.0 BUILDING INTERIOR

2.1 FLOORING

Flooring materials include the following:

- Quarry tile in the food prep areas and uni-sex toilet room
- Carpet in offices.
- VCT in break room
- Ceramic tile women's toilet room

Observations

Flooring appears to be well maintained with no apparent immediate need to replace or upgrade.

Recommendations

No immediate attention is necessary.

2.2 CEILINGS

The majority of the rooms have suspended acoustical tile. The prep kitchen area has a suspended 2' x 4' vinyl-face gypsum panel. Break room and offices have standard acoustical tile. The main storage room along the east side of the building has no suspended acoustical tile ceiling.

Observations

Ceiling tile and grid appear to be in satisfactory condition.

Recommendations Monitor T-grid in food prep areas for any signs of corrosion.

2.3 WALLS

Interior partitions are of metal stud and painted gypsum board.

Observations Wall surfaces are generally in good shape.

Recommendations

No work required.

2.4 INTERIOR DOORS & FRAMES

Interior doors are generally hollow metal doors.

Observations

No issues.

2.5 TOILET PARTITIONS

Toilet partitions in the women's toilet room are metal.

Observations

Metal toilet stall partitions show typical signs of years of usage.

Recommendations

Partitions can continue to be used but can be changed out to solid plastic as part of any toilet room remodeling project.

2.6 FOOD SERVICE EQUIPMENT

Equipment in the steam production area is still the original equipment. One of the two 60 gallon jacketed steam kettles was written up by the State inspector will need to be replaced. The steam kettles are approaching 40-years old and both will ultimately need to be replaced. Other old equipment that will need to be considered for replacement includes the 5-door steamer, two ovens, 2-burner stove, mixer and bread slicer.



The Hobart dishwasher (1974) is also beyond the typical lifespan. Parts are very difficult to obtain and maintenance continues to increase.



In general, the kitchen equipment in the 1999 north side addition is in satisfactory condition.

3.0 HANDICAP ACCESSIBILITY

3.1 ACCESSIBLE ROUTE

Existing Conditions

An "accessible route" is a continuous, unobstructed path leading to a building entrance from off-site (public streets) and on-site parking or walkways. The Central Kitchen site currently provides accessible routes from the dedicated staff parking lot on the east side and from the Middle School parking areas to the south of the central kitchen.



Recommended Action: No additional work is required.

3.2 ACCESSIBLE PARKING

Where parking is provided, accessible parking spaces shall be provided as follows:

Total Parking Spaces Provided 1 to 25 Required Number Of Accessible Spaces 1

Van accessible spaces shall be provided for every eight accessible stalls.

Observations

The existing east side parking lot includes a total of 11 spaces. There are currently no spaces designated handicap parking stalls. The Middle School parking lot off the south side of the Central Kitchen includes designated accessible stalls, which could also be used by kitchen staff. An accessible route connects the Middle School parking lot to the main entrance of the Central Kitchen.

Recommended Action

No work.

3.3 ACCESSIBLE ENTRANCE

Existing Condition

The main entrance on the south side serves as the primary accessible entrance but does not include a door operator.

Recommended Action

No additional work is required.

3.4 ACCESSIBLE INTERIOR CIRCULATION

With the exception of the delivery van loading bay, all rooms are located on one level.

Recommendations

No action required.

3.5 ACCESSIBLE TOILET FACILITIES

The women's toilet room includes two (2) toilets and a vanity countertop. One of the toilet compartments is designed in compliance with the ADA guidelines for manuervering and grab bars. The second toilet compartment is of a standard nonaccessible size but projects into the space between the door and vanity counter.

A uni-sex toilet room is located adjacent to the main entrance and includes a single toilet and lavatory. The door into the toilet room is only 32" wide. The interior room dimensions are too tight to qualify the toilet room as handicap accessible under current guidelines.

Recommended Action

The existing toilet facilities were in compliance with the Code at the time of the 1999 kitchen addition and it can be assumed that the present layout is 'grandfathered in'

Under the current ADA guidelines, the Central Kitchen does not provide for handicap accessible toilet rooms for men and women. The typical number of staff ranges from 7-10. The Building Code requires separate facilities for men and women except where the total occupant load of 15 or less. One possible solution would be to enlarge the uni-sex toilet room and designate it as a 'mens' toilet room. Modifications to the womens' toilet room for ADA compliance would require the removal of one toilet to accommodate wheelchait maneuverability. An existing handicap accessible toilet room is, however, locatedjust off the NW corner of the cafeteria.

Remodeling of the two toilet rooms in the Central Kitchen area could be deferred as a future capital improvement project.

ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

Updated: October 10, 2013

FACILITY Central Kitchen

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
CK-0001	10/10/13	Kitchen Equipment Replace Convection Oven	Equipment Replacement	Replace convection oven.	\$16,000		
CK-0002	10/10/13	Kitchen Equipment Dual-Pressure Steamer	Equipment Replacement	New dual-pressure steamer.	\$38,500		
CK-0003	10/10/13	Kitchen Equipment Pressure Steamer	Equipment Replacement	New pressure steamer.	\$29,500		
CK-0004	10/10/13	Kitchen Equipment Replace bread slicer.	Equipment Replacement	New bread slicer.	\$12,500		
CK-0005	10/10/13	Kitchen Equipment Replace mixer	Equipment Replacement	Replace mixer.	\$16,600		
CK-0006	10/10/13	Kitchen Equipment Replace 2-burner range	Equipment Replacement	Replace 2-burner range.	\$2,900		
CK-0007	10/10/13	Kitchen Equipment Replace Hobart Dishwasher	Equipment Replacement	Replace Hobart dishwasher.	\$41,000		
Ck-0008	10/10/13	Equipment Hook-Ups	Installation Costs	Complete installation and hook-up of new equipment.	\$6,500		
CK-0009	10/10/13	Entrance Door Replacement	Maintenance	Replace existing hollow metal door frame and sidelite at main entrance to Central Kitchen.	\$3,200		2
CK-0010	10/10/13	Replace Grease Interceptor	Equipment Replacement	Replace existing undersized grease interceptor and associated piping.	\$25,000		2
CK-0011	10/10/13	Remodel Toilet Rooms	Remodeling for Code issues	Remodel existing toilet rooms to comply with the current ADA quidelines for handicap accessibility.	\$24,200		3

District Office 1821 East Main Street



Facilities Condition Assessment School District of Onalaska





FACILITIES CONDITION ASSESSMENT

FACILITY

District Office 1821 East Main Street Onalaska, WI 54650



BUILDING AGE:

Original Construction 1980's

BUILDING DATA

Building Area Original Construction	3,436 SF
Building Occupancy Classification:	Business Group B
Construction Type:	Type 5-B
Fire Protection	Non-sprinklered

<u>SITE</u>

Parking

750 N. Third Street, Ste. F La Crosse, WI 54601-6298 Phone 608.784.2729 Fax 608.784.2826

13 stalls

ROOM SCHEDULE

Area Designation	Qty	Area (NSF)	Notes
Entrance Vestibule (East Side)	1	31 SF	
Corridor	1	68 SF	East entrance to Receptionist
Receptionist / Waiting	1	193 SF	
Kitchenette	1	58 SF	
Office – Director of Curriculum	1	174 SF	
Office – Director of Finance	1	172 SF	
District Administrator Office	1	192 SF	
Break Room	1	250 SF	
Storage Room	1	38 SF	
Storage Room	1	108 SF	
Administration Assistant	1	211 SF	
Conference Room	1	283 SF	
West Entrance Vestibule	1	45 SF	
Office	1	359 SF	(3) workstations
Office	1	131 SF	
Storage Room	1	55 SF	
Office (Payroll Benefits)	1	152 SF	
Toilet Rooms	2	160 SF	Includes alcove area.
Copy Center	1	379 SF	

FACILITIES CONDITIONS ASSESSMENT

1.0 BUILDING ENVELOPE

1.1 EXTERIOR WALLS

The original construction was of wood framed walls on concrete slab-on-grade with prefabricated wood trusses. The exterior walls are clad in full height face brick.

Observations

With the exception of space shortages the building appears to be in good condition.

Recommendations

No work required.

1.2 ROOFING

The roof includes asphalt shingles over plywood roof sheathing and appear to have several years of service left before any re-roofing project is scheduled.

Observations No current leaks were reported.

Recommendations No immediate work required.

1.3 DOORS & WINDOWS

The windows consist of a residential grade clad wood windows.

Recommendations No immediate work required.

2.0 BUILDING INTERIOR

2.1 FLOORING

Observations

Flooring appears to be well maintained with no apparent immediate need to replace or upgrade.

Recommendations No immediate attention is necessary.

2.2 CEILINGS

The rooms have suspended acoustical tile.

Observations

Ceiling tile and grid appear to be in satisfactory condition.

Recommendations

No immediate attention is necessary.

2.3 WALLS

Interior partitions are of wood stud and painted gypsum board.

Observations Wall surfaces are generally in good shape.

Recommendations

No work required.

2.4 INTERIOR DOORS & FRAMES

Interior doors are wood doors.

Observations

All interior wood doors to offices, copy center, conference room, are 32" wide. The door leading to the office in the SW corner of the building, the door into the mechanical room and the toilet rooms are 36" wide.

3.0 HANDICAP ACCESSIBILITY

3.1 ACCESSIBLE ROUTE

Observations

An "accessible route" is a continuous, unobstructed path leading to a building entrance from off-site (public streets) and on-site parking or walkways. The existing handicap parking stall and access aisle off the northeast corner of the building are undersized. The location of the handicap accessible parking stall suggests that the accessible route connects to the east side entrance, however this entrance vestibule does not comply with the ADA (vestibule area is too tight). In addition, a parking stall is located directly in front of the curb ramp leading to the east entrance. The west side entrance would comply with the space requirements for being considered accessible, but doesn't relate to the location of the accessible parking stall.

Recommended Action

In order to provide for an accessible route between the east side parking lot and the east building entrance, structural modifications to the entrance vestibule would be necessary. In addition, a clear access aisle should be provided in front of the curb ramp leading to the east entrance.

3.2 ACCESSIBLE PARKING

Fotal Parking	Required Number Of
Spaces Provided	Accessible Spaces
13	1

Recommended Action

Re-stripe parking lot to include one accessible automobile parking stall with adjoining access aisle in compliance with ADA Ch. 5, Sect. 502.



3.3 ACCESSIBLE ENTRANCE

Existing Condition

The primary entrance is located off the parking lot to the east of the building. The recessed aluminum entrance door does not comply with the with the ADA guidelines for a frontal approach to an outswinging door. The minimum maneuvering clearance for a front approach, pull side would be 18" under current ADA guidelines.

The east side entrance vestibule, once inside the exterior entrance door measures 5'- 10" deep (in direction of travel) providing less than the ADA guidelines (section 404.2.6) of 48" clearance between two hinged doors in series when measured with the doors in open position.

The west entrance complies with the ADA guidelines for an accessible entrance, however, there is no hard surface connection between the east parking lot and the west entrance.

Recommended Action

Structural modifications to the east entrance would be required to provide accessible entrance to the interior offices and also to the Copy Center.

3.4 ACCESSIBLE INTERIOR CIRCULATION

Observations

Doors to offices, copy center and conference room are 32" wide. The opening clearance is less than the minimum 32" required by ADA guidelines.

Recommendations

All 32" wide doors would be require widening the door openings and replacing the 32" wide doors with 36" wide doors.

3.5 ACCESSIBLE TOILET FACILITIES

The two back to back toilet rooms each includes a single toilet and vanity. Both toilet rooms were designed to provide for a 60" diameter turning area. Clearance adjacent to the toilet fixture is less than the current ADA guidelines for manuervering access to grab bars. Lateral grab bars are provided next to the toilet. The vanity provides knee clearance under the vanity countertop.

Recommendations

No work is required at this time. Significant structural modifications to both toilet rooms would be required to accommodate wheelchair maneuverability per current ADA guidelines. The current toilet room layout was, however, designed per the requirements preceding the ADA guidelines and could be considered as 'grandfathered'. Any future interior remodeling involving the toilet rooms would trigger the need to enlarge the maneuvering clearances at the plumbing fixtures.

4.0 SPACE NEEDS

- 4.1 The main reception area is centrally located with offices around the perimeter of the building. The entrance and receptionist area is extremely tight and inadequate for guest area. Additional space is necessary to accommodate waiting visitors and work areas where visitors can fill out paperwork.
- 4.2 The visual monitoring of office areas is restricted by nature of the room layout and private offices.
- 4.3 The receptionist area should be located in close proximity to the photo copier / fax machine to allow the receptionist to continue monitoring the phone and visitors (waiting or entering). A work area with adequate counter space for general sorting and layout needs to adjacent to the receptionist station.
- 4.4 Background sound (radio) system would be preferred throughout to provide some degree of sound masking between office workstations.
- 4.5 Payroll office needs to be partitioned off to permit privacy when dealing with new staff.
- 4.6. Conference room should be enlarged to accommodate larger groups (20 30) with provisions for movable soundproof partition to divide into smaller conference areas.
- 4.7 Secure storage area for housing confidential files.
- 4.8 Fireproof filing cabinets for insurance / benefits.
- 4.9 Improved layout and location for the administrator's assistant workstation. The current workstation is essentially located in a corridor link to the administration offices and subject to constant disruptive pass-thru traffic circulation.
- 4.10 The staff break room is presently used for some file storage and separated from the kitchenette area. File storage should be pulled out of the break room.
- 4.11 The Copy Center is undersized to accommodate the daily use requirements. Ideally, the Copy Center should continue to be integrated with District Offices based on the continuous interaction. The current copy center includes three large copiers, paper cutters, folders, binders, shredders and file cabinets. Circulation around the equipment is extremely tight and adversely affects work area efficiency. The room has limited paper storage and palette deliveries are typically stored in the garage across the parking lot. An enlarged Copy Center should better accommodate paper / product deliveries, incoming and outgoing print orders. The room should be planned to included palette quantity storage that would eliminate the need to store paper deliveries in the garage.

- 4.11.1 The Copy Center is not presently handicap accessible for general circulation around the copy equipment and workstation areas. An enlarged Copy Center should be planned to accommodate the potential of handicap staffing and visitor interaction.
- 4.12 The District Office parking lot presently includes 13 spaces with one handicap accessible parking stall. Additional parking would be desired to accommodate the numbers of staff and guests that work and visit the District Office building on a daily basis. The asphalt pavement is in need of replacement.
- 4.13 District Office Garage

The existing 450 SF garage located off the east side of the parking lot is wood framed with wood lap siding and asphalt shingled roof. The garage primarily serves as paper storage for the Copy Center. The garage structure appears to be in satisfactory condition. The asphalt shingled roof appears to have several years of service left before any re-roofing project is scheduled. The wood lap siding is showing signs of weathering and should be receive a new weather resistant coating (paint or stain).



4.14 Additional garage space would ideally be provided for van storage space, however, available area on the site for expanding the garage space seems to be restrictive.



NORTH

DISTRICT OFFICE SITE PLAN





ONALASKA SCHOOL DISTRICT FACILITY CONDITION ASSESSMENT

FACILITY District Office

Updated: October 10, 2013

ITEM NO.	DATE ENTERED	KEY DESCRIPTION	REASON	DESCRIPTION	EST. COST	QUOTED COST	PRIORITY
DO-0001	10/10/13	Parking Lot Asphalt Pavement Replacement	Maintenance	Remove and replace existing asphalt paved parking lot.	\$11,200		2
DO-0002	10/10/13	Re-stripe east side parking lot.	ADA	Re-stripe east side parking lot stalls including hdcp accessible stall and access aisle.	\$540		2
DO-0003	10/10/13	HDCP Accessible Parking Stall Signage	ADA	Provide ADA compliant signage at accessible parking stall at east side parking lot.	\$65		2
DO-0004	10/10/13	Sidewalk Joint Grinding	Safety	Grind down raised lip at concrete sidewalk leading to west side entrance.	\$280		1
DO-0005	10/10/13	Remodel East Entrance	ADA	Remodel east vestibule to provide accessible entrance into offices and Copy Center.	\$6,570		2
DO-0006	10/10/13	Remodel door openings.	ADA	Widen existing 32" wide doors to 36" for compliance with ADA guidelines.	\$18,600		2
DO-0007	10/10/13	ADA Room Signage	ADA	Provide new ADA compliant room signage.	\$720		2

Roof Summary

2013 Facilities Condition Assessment School District of Onalaska

BUILDING	ROOF AREA DESIGNATION	ROOF TYPES	MANUFACTURER/ROOFER	ROOF AREA	WARRANTY	AGE	REPLACEMENT PRIORITY LEVEL
High School	Area HS-1	Ballasted EPDM		6,047 SF		1989	
High School	Area HS-2	Fully-Adhered EPDM	Firestone / McCabe Roofing	13,395 SF	20-YR.	2006	
High School	Area HS-3	Ballasted EPDM		5,842 SF			
High School	Area HS-4	Ballasted EPDM		5,916 SF			
High School	Area HS-5	Ballasted EPDM		3,396 SF			
High School	Area HS-6	Ballasted EPDM		1,076 SF		1989	
High School	Area HS-7	Ballasted EPDM		36,713 SF		1989	
High School	Area HS-8	Fully-Adhered EPDM	Firestone / McCabe Roofing	5,240 SF	20-YR.	2006	
High School	Area HS-9	Fully-Adhered EPDM	Firestone / McCabe Roofing	12,421 SF	20-YR.	2006	
High School	Area HS-10	Fully-Adhered EPDM	Firestone / McCabe Roofing	8,770 SF	20-YR.	2006	
High School	Area HS-11	Fully-Adhered EPDM	Firestone / McCabe Roofing	1,085 SF	20-YR.	2006	
High School	Area HS-12	Ballasted EPDM		1,019 SF		1989	
High School	Area HS- 13	Ballasted EPDM		1,455 SF		1989	

BUILDING	ROOF AREA DESIGNATION	ROOF TYPES	MANUFACTURER / ROOFER	ROOF AREA	WARRANTY	AGE	REPLACEMENT PRIORITY LEVEL
High School	Area HS-14	Fully-Adhered EPDM		4,448 SF		1989	
High School	Area HS-15	Ballasted EPDM		7,861 SF		1989	
High School	Area HS-16	Ballasted EPDM		2,196 SF		1989	
High School	Area HS-17	Asphalt Shingles		747 SF		1989	
High School	Area HS-18	Ballasted EPDM		28,698 SF		1989	

BUILDING	ROOF AREA DESIGNATION	ROOF TYPES	MANUFACTURER / ROOFER	AREA	WARRANTY	AGE	REPLACEMENT PRIORITY LEVEL
Middle School	Area MS-1	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	82,889 SF	20-YR.	2006	
Middle School	Area MS-2	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	688 SSF	20-YR.	2006	
Middle School	Area MS-3	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	672 SF	20-YR.	2006	
Middle School	Area MS-4	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	3,784 SF	20-YR.	2006	
Middle School	Area MS-5	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	3,603 SF	20-YR.	2006	
Middle School	Area MS-6	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	8,247 SF	20-YR.	2006	
Middle School	Area MS-7	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	709 SF	20-YR.	2006	
Middle School	Area MS-8	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	318 SF	20-YR.	2006	
Middle School	Area MS-9	Ballasted EPDM	Carlisle / Ledegar Roofing	4,445 SF	20-YR.	2006	
Middle School	Area MS-10	Ballasted EPDM	Carlisle / Ledegar Roofing	8,945 SF	20-YR.	2006	
Middle School	Area MS-11	Ballasted EPDM	Carlisle / Ledegar Roofing	5,311 SF	20-YR.	2006	
Middle School	Area MS-12	Ballasted EPDM	Carlisle / Ledegar Roofing	440 SF	20-YR.	2006	
Central Kitchen	Area CK-13	Mechanically-Attached EPDM	Carlisle / Ledegar Roofing	4,413 SF	20-YR.	2006	
Central Kitchen	Area CK-14	Ballasted EPDM		3,264 SF		1999	

BUILDING	ROOF AREA DESIGNATION	ROOF TYPES	MANUFACTURER / ROOFER	ROOF AREA	WARRANTY	AGE	REPLACEMENT PRIORITY LEVEL
Eagle Bluff Elementary	Area EB-1	Ballasted EPDM	Firestone / Quality Roofing	23,097 SF	10-YR.	1999	
Eagle Bluff Elementary	Area EB-2	Ballasted EPDM	Firestone / Quality Roofing	4,850 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-3	Standing Seam Metal	Una-Clad / Quality Roofing	5,602 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-4	Ballasted EPDM	Firestone / Quality Roofing	9,553 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-5	Ballasted EPDM	Firestone / Quality Roofing	4,101 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-6	Standing Seam Metal	Una-Clad / Quality Roofing	3,061 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-7	Ballasted EPDM	Firestone / Quality Roofing	1,111 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-8	Ballasted EPDM	Firestone / Quality Roofing	10,740 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-9	Ballasted EPDM	Firestone / Quality Roofing	955 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-10	Ballasted EPDM	Firestone / Quality Roofing	955 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-11	Standing Seam Metal	Una-Clad / Quality Roofing	6,546 SF	10-YR	1999	
Eagle Bluff Elementary	Area EB-12	Ballasted EPDM	Firestone / Quality Roofing	3,884 SF	10-YR	1999	

BUILDING	ROOF AREA DESIGNATION	ROOF TYPES	MANUFACTURER / ROOFER	ROOF AREA	WARRANTY	AGE	REPLACEMENT PRIORITY LEVEL
Irving Pertzsch Elementary	Area IP-1	Ballasted EPDM		10,531 SF			
Irving Pertzsch Elementary	Area IP-2	Ballasted EPDM		7,423 SF			
Irving Pertzsch Elementary	Area IP-3	Ballasted EPDM	Firestone / Interstate Roofing	6,023 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-4	Standing Seam Metal	Copper Sales / Interstate Roofing	1,341 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-5	Ballasted EPDM	Firestone / Interstate Roofing	1,879 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-6	Standing Seam Metal	Copper Sales / Interstate Roofing	429 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-7	Standing Seam Metal	Copper Sales / Interstate Roofing	2,293 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-8	Ballasted EPDM	Firestone / Interstate Roofing	7,689 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-9	Ballasted EPDM	Firestone / Interstate Roofing	4,451 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-10	Standing Seam Metal	Copper Sales / Interstate Roofing	979 SF	20-YR	2006	
Irving Pertzsch Elementary	Area IP-11	Foamed Urethane		8,042 SF			
Irving Pertzsch Elementary	Area IP-12	Foamed Urethane		2,030 SF			
Irving Pertzsch Elementary	Area IP-13	Foamed Urethane		4,736 SF			

				1		1	1
BUILDING	ROOF AREA DESIGNATION	ROOF TYPES	MANUFACTURER / ROOFER	ROOF AREA	WARRANTY	AGE	REPLACEMENT PRIORITY LEVEL
Northern Hills Elementary	Area NH-1	Fully-Adhered EPDM	Firestone / McCabe Roofing	47,571 SF	10-YR	2003	
Northern Hills Elementary	Area NH-2	Ballasted EPDM		9,628 SF		1991	
Activities Bldg. Riders Club Rd	Area AB-1	Asphalt Shingles		32.4 Square		1999	











RS - 8

ROOF TYPE LEGEND

BALLASTED STANDING SEAM METAL **FULLY-ADHERED** MECHANICALLY ATTACHED FOAMED URETHANE





ROOF TYPE LEGEND

BALLASTED EPDM
STANDING SEAM METAL
FULLY ADHERED EPDM
MECHANICALLY ATTACHED EPDM
FOAMED URETHANE










RS - 11

ROOF TYPE LEGEND

STANDING SEAM METAL FULLY ADHERED EPDM MECHANICALLY ATTACHED EPDN FOAMED URETHANE











ROOF TYPE LEGEND

B	BALLASTED EPDM
SS	STANDING SEAM METAL
FA	FULLY ADHERED EPDM
MA	MECHANICALLY ATTACHED
FU	FOAMED URETHANE
AS	ASPHALT SHINGLES









Roof Repair Priority Levels

- LEVEL 1 Roof repair requirements under this priority should receive immediate attention to prevent further roof leakage damage or potential roof leakage. Repair work may include patching or flashing of existing roofing, or roof membrane replacement if determined to be necessary to ensure leak protection.
- LEVEL 2 Roof repair or replacement work under this level should be completed within a scheduled timetable as recommended by the District's roofing consultant. Repair work may include patching or flashing of existing roofing, or total replacement of roof insulation and roof membrane.
- LEVEL 3 Proposed work under this level can be indefinitely deferred or addressed on an 'asneeded' basis as conditions change. Repair or replacement work are not considered as urgent but should be monitored annually.