

March 12, 2018

I. ROLL CALL AND MEETING CALLED TO ORDER

a. The Joint meeting was called to order by IDA Chairman, Talbert Bolling.

Members in Attendance

b. **School Board:** Susan Mullins, Chairman; Rick Mullins, Vice-Chairman; Rocky Barton; Dr. Lurton Lyle; Shanghai Nickles; Haydee Robinson, Superintendent; Reba McCowan, Clerk

Board of Supervisors: Jason Compton; Shelbie Willis; Ron Peters, Chairman; David Yates; David Moore, County Administrator; Teresa Lyall, Clerk

ABSENT: David Perry

Industrial Development Authority: Danny Lambert; Talbert Bolling, Chairman; Teddy Bailey; Andrew Mullins; Allen Compton; Ginger Senter; Mitzi Sykes, Director; Larry Yates (via phone)

c. Approval of Agenda

Susan Mullins, Chairman called the School Board to order. Following a motion by Shanghai Nickles and second by Rick Mullins the Board Agenda for the Joint Meeting with the Board of Supervisors and Industrial Development Authority was approved.

Vote Results

Aye:	5	Rocky Barton, Dr. Lurton Lyle, Rick Mullins, Susan Mullins, Shanghai Nickles
No:	0	
Abstain:	0	
Not Cast:	0	

- ❖ Board of Supervisors and Industrial Development Authority unanimously approved the agenda.
Board of Supervisors: Motion made by Shelbie Willis and seconded by Jason Compton – All votes aye.
IDA Board: Motion made by Danny Lambert and seconded by Ginger Senter – All votes aye.

II. ITEMS OF BUSINESS

a. Presentation of the OWPR Report for CES and EES: Randy S. Jones, Chief Executive Officer, OWPR, Inc.

Randy Jones presented and reviewed with the Boards the facilities condition assessment report of each school: Clintwood Elementary School and Ervinton Elementary School.

Attachment #1: Clintwood Elementary School – Assessment

Attachment #2: Ervinton Elementary School – Assessment

b. Presentation of Environmental Test Results at CES and EES: Chris Rakes

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Chris Rakes presented and reviewed with the Boards the environmental tests results.

Attachment #3: Radon Survey for Clintwood and Ervinton Elementary Schools

Attachment #4: Mold in Air Testing Results

c. Presentation of the Revised New Elementary School Budget, Corps Budget: Curtis Elswick, CCM, LEED AP, Senior Vice President/Regional Executive

Curtis Elswick presented and reviewed the proposed New Elementary School Project Budget.

Attachment #5: New Elementary School Project Budget

d. Discussion of Expenditure Procedures for the New Elementary School Project: Site Evaluations and Analysis

David Moore provided and reviewed the Corp Project Funds currently on hand; along with the committed expenses for the School Construction project.

Attachment #6: Dickenson County Schools/Corps Funding Status

After discussion among the three Boards the following motions were made:

Continue with Preliminary Title Work & Road Study at 3 Sites:

BOARD OF SUPERVISORS

Shelbie Willis, Board of Supervisors, made a motion to allow the School Board to spend up to \$40,000 and do a 3 site PPEA; to include the preliminary title work at Backbone, road study, and PPEA for all 3 sites. There was no second and the motion died.

Following a motion by David Yates and second by Jason Compton; a budget of \$20,000 was approved to continue with title search at Backbone and road work study to include all three sites: Backbone, Clinchco and Ridgeview.

Vote Results

Aye:	3	Jason Compton, Ron Peters, David Yates
No:	0	
Abstain:	1	Shelbie Willis
Not Cast:	0	

MOTION CARRIED

INDUSTRIAL DEVELOPMENT AUTHORITY

Following a motion by Ginger Senter and second by Danny Lambert; agreed with the Board of Supervisors approval of a budget of \$20,000 to continue; with the right reserved for their representative to review/examine any invoice.

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Vote Results

Aye:	6	Andrew Mullins, Allen Compton, Ginger Senter, Danny Lambert, Talbert Bolling, Teddy Bailey
No:	1	Larry Yates
Abstain:	0	
Not Cast:	0	

MOTION CARRIED

III. ADJOURNMENT: 7:34 p.m.

Upon completion of the agenda the meeting was adjourned.

Susan Mullins

Chairman, Susan Mullins

Approved: March 28, 2018

Reba McCowan

Reba McCowan, Clerk

Clintwood Elementary School Facilities Condition Assessment Report

Dickenson County Public Schools



Prepared by OWPR, Architects and Engineers
200 Country Club Drive
Blacksburg, Virginia

Assessment Team

Civil/Site: Brent Lawrence
Architectural: Randy Jones
Architectural: Jack Frier
Mechanical/Plumbing: Greg Lee
Electrical: Daniel Gibson

Field investigation was performed on February 7, 2018

Methodology

The Assessment Team toured the school facility. Each member of the Team assessed the areas of their individual expertise. They looked at each component with regard to age, manufacturer, availability of parts, remaining useful life, etc. If a component is noted to be at the end of its useful life, we are simply saying it has lasted longer than what the industry expects. It is very possible that components that have been very well maintained will last many years beyond their useful life. The information contained within this assessment is intended to be written in a simple straightforward way that is easily understandable. This assessment is intended to be a tool to help facility owners plan for component replacement and/or complete renovation. The cost estimates are based on the observations of the Assessment Team and limited drawings that were provided by the client. The cost estimates provided are developed using data obtained from various sources, including but not limited to, RS Means, Cost Estimating Consultants and historical data. The cost estimates are based on current conditions and do not factor in cost escalation due to changing market conditions or material demand. The cost estimates provided are a planning tool to budget for component replacement and/or complete renovation.

Clintwood Elementary School Facilities Condition Assessment Report

Civil/Site Narrative

Traffic Circulation

Buses: There is no dedicated bus loop, but the east side of the school has a designated lane for buses to drop off and pick up students. This area contains high volumes of traffic as students and staff enter the school. Buses continue to the service area where they turn around and then exit the site.

Morning: Buses enter the bus lane and drop off students at the east entrance. There is a canopy and wide sidewalk at the entrance. There is enough stacking for approximately six buses to drop off simultaneously. Morning bus drop off was not observed.

Afternoon: Buses enter the bus lane and line up to pick up students. Afternoon pick up was not observed and it's unclear if there is enough space for buses to queue. Staff indicated no issues during bus departure.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Cars: Cars utilize the main parking area on the west side of the school for a drop off / pick up area. There is no dedicated drop off loop, but the flow of the existing parking lot prevents any blockages. There was no indication from staff of car traffic issues.

Morning: Cars enter the parking lot, drop students off at the west entrance and loop back through to exit. Drop off works with little to no backup. Morning parent drop off was not observed.

Afternoon: Same scenario as the morning drop off, but parents also wait in parking spaces if they arrive before dismissal. Afternoon parent pick up was not observed.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Parking: Approximately 164 striped parking spaces are provided with 8 designated ADA spaces. Day to day parking is adequate for faculty / staff / visitors. Service and janitorial staff park along the perimeter of the service area. No indication from staff that event parking is an issue. There is no parking requirement in the jurisdiction's zoning ordinance.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Service: The service area is at the south side of the school and is accessible through the bus lane. Service or delivery vehicles do not block any traffic while unloading. There is no concrete pad or dock for loading/unloading although there is adequate maneuvering area.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Fire Access: There is no paved fire lane around the building, but fire apparatus have adequate access to three of four sides of the building.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Separation: There is sufficient separation of parent/faculty/staff/service vehicles and buses; however, some faculty parking off the dedicated bus lane causes potential issues.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Adjacent Roadways: There are two entrances to the school from the same road, State Route 607. Both entrances are used efficiently and there are no traffic reroutes or problems. State Route 607 is well maintained and there is adequate sight distance at each entrance.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Pedestrian: Generally there are not many pedestrians who access the school. There are no sidewalks adjacent to the school.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

ADA Accessibility

Parking: There are 8 spaces designated as ADA parking, 3 at the west entrance to the school and 5 at the east entrance. None are designated as van accessible and there are no accessible aisles.

- Recommendation (5 year): Restripe all ADA parking spaces to be ADA compliant and provide at least one van accessible parking space for ADA parking spaces at the west entrance and the east entrance.
- Recommendation (10 year): No action

Signage: There is no signage for any ADA parking.

- Recommendation (5 year): Provide ADA compliant signage.
- Recommendation (10 year): No action

Ramps: There are no curb ramps, but flush sidewalks to parking areas are appropriately located and in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Access to all areas: There is ADA access to only one playground on site. However, due to existing topographical site conditions and multiple site features located at different elevations, access to all areas is not feasible.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Parking Areas, Driveways, and Sidewalks

Asphalt Pavement: The asphalt pavement is in relatively fair condition; however, there are some poor sections in both parking lot areas and the service area. These areas contain alligator cracking which is indicative of a deteriorated subgrade.

- Recommendation (5 year): Monitor alligator cracking in both parking lots and service areas and make repairs if required.
- Recommendation (10 year): Mill and overlay asphalt pavement when necessary. Alligator cracked areas should be removed full depth and subgrade repaired.

Asphalt Walks: The asphalt walk to the track is in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Concrete Pavement: There are no concrete pads at the service area for loading/unloading and there is no concrete pad for the dumpsters.

- Recommendation (5 year): Monitor asphalt pavement at the service area for signs of failure and make repairs as required.
- Recommendation (10 year): Provide concrete pad for dumpsters.

Concrete Walks: The concrete walks on site are in fair to good condition with some cracking, spalling and deterioration. There are no substantial cracks or tripping hazards.

- Recommendation (5 year): Monitor concrete walks and remove and replace as necessary.
- Recommendation (10 year): Maintenance

Stairs, Ramps, and Railings: Concrete stairs at the east entrance to the school are in good condition. The adjacent concrete ramp shows some signs of deterioration, but is in fair condition. The ramp railings show signs of rust and a section is broken

- Recommendation (5 year): Repair broken railing on ramp, remove rust and repaint.
- Recommendation (10 year): Maintenance

Concrete Curb and Gutter: The concrete curbs and gutters are old but still in fair condition with some cracking and deterioration.

- Recommendation (5 year): Replace sections as necessary when cracking and deterioration become hazardous.
- Recommendation (10 year): Maintenance

Guardrail, Parking Bumpers, and Miscellaneous: There is no safety barrier for faculty/staff parking at the east side of the school adjacent to the bus lane. Beyond the parking lot, grade falls upwards of 20 feet to the road below.

- Recommendation (5 year): Install guardrail or parking bumpers along parking area to increase safety.
- Recommendation (10 year): No action

Fire Lane: A dedicated fire lane is marked at the east and west entrance to the school. Yellow paint on curbs and asphalt is faded and there are no fire lane signs.

- Recommendation (5 year): Repaint curbs and asphalt at fire lanes. Provide fire lane signs to meet code. Ensure that fire lane signs are turned toward oncoming traffic.
- Recommendation (10 year): No action

Utilities

Fire Lines and Hydrants: There are three fire hydrants on site and coverage is sufficient. No paved fire lane around building, but fire truck access present. No fire department connection, post indicator valve or fire department valve observed.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Domestic Water System: The water system is aged, but still in fair condition. Radio read water meter located along south side of school. No indication of discolored water or pressure issues from staff. With aging pipe, leaks and pipe breaks can become more frequent and water quality can be degraded by older piping.

- Recommendation (5 year): The water inside the building should be tested to see if the quality is acceptable.
- Recommendation (10 year): No action

Sewer System: The sanitary sewer system consists of older manholes and pipe, but are in fair condition and functional. No indication of backups or problems from staff. Older manholes and pipes could cause infiltration issues.

- Recommendation (5 year): The sanitary sewer lines should be flushed clean and videoed to check for necessary repairs.
- Recommendation (10 year): No action

Natural Gas System: There is no natural gas service to the building.

Electric: Electrical service is provided to the site via overhead electric lines and routed underground from a power pole near the service area to an adjacent transformer and into the building. The transformer is old and rusted, but functional and is not protected from traffic. The generator is in good condition, but is not protected from traffic.

- Recommendation (5 year): Provide bollards to protect the transformer and generator from traffic.
- Recommendation (10 year): No action

Site Lighting: There are parking lot lights for all parking areas and site lights for access roads around the building. There are building mounted lights to illuminate all sidewalks around the building and all entrances. Site lighting is sufficient for safety and security.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Grading and Drainage

Storm Water System: Roof gutters drain to downspouts and underground laterals which outlet to adjacent drainage ditches. Majority of site runoff sheet flows to ditches and into collection areas with drop inlets and carried offsite. The asphalt and concrete in multiple collection areas have been eroded by concentrated runoff.

- Recommendation (5 year): Repair eroded areas around drop inlets in collection areas. Provide small grate inlets as necessary to prevent ponding water.
- Recommendation (10 year): No action

Slopes, Ponding, and other Drainage Issues: Sheet flow runoff from the west parking lot ponds before it's conveyed to a collection area. There is significant ponding at the playground on the southwest side of the school adjacent to the service area. Recent site renovations show drainage issues along the north side of the school have been repaired.

Recommendation: See recommendation for "Storm Water System" above.

Site Features

Vegetative Landscaping: There are many mature trees and shrubs around the site. Landscaping is well maintained and in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Lawns: In general, the lawn areas are in relatively good condition with only a few eroded and rutted areas, especially at the playground along the southwest side of the building. There are minor areas in need of repair due to high foot traffic leading to play areas.

- Recommendation (5 year): Repair the rutted or eroded areas and re-seed. Over-seed all grassed areas with high foot traffic as a maintenance item.
- Recommendation (10 year): No action

Fencing and Gates: There is chain link fencing along the south and southwest property line and perimeter chain link fencing around the playground to the northwest next to the school. The fencing is old and rusting, but still in fair condition.

- Recommendation (5 year): Replace with new chain link fencing.
- Recommendation (10 year): No action

Signage: Overall site signage is minimal and in poor condition. There is a school identification signs at only one entrance and there is no additional directional signage. There is no ADA signage. Overall, sign legibility is generally faded and many poles are rusting, leaning, and lack foundations.

- Recommendation (5 year): Repair or replace damaged or leaning signs. Provide directional and ADA compliant signage.
- Recommendation (10 year): No action

Flagpoles: Flagpole and the foundation are in good condition. Flagpole is plumb.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Site Furnishings: There are minimal furnishings on site. A few picnic tables at various locations at the east entrance and at the playgrounds in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Accessory Structures: There is a storage building adjacent to the service area in good condition. The pedestrian bridge to the west of the school which gives access to the playground across the entrance road is old, but in fair condition and does not create a safety hazard. The gazebo in the center of the playground to the northwest next to the school is in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Play Areas and Physical Education

Play / PE Areas (General):

Playgrounds / Stationary Play Equipment: Majority of year PreK-1 equipment is in good condition, but a few playground features are dated and made of metal with sharp edges which could create a safety hazard. Fencing around the perimeter of the playground provides student safety. Play area requires fresh mulch in lieu of gravel. Year 2-5 equipment is in good condition, but shows signs of vinyl coating wearing down. Play areas require fresh mulch in lieu of gravel.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Paved Play Areas: Asphalt paving at the basketball court and at the track is in good condition. Fence along perimeter of the basketball court is adjacent to the entrance road and is not enclosed posing possible safety hazard.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Provide chain link fencing around perimeter of paved play area

Play / PE Fields: Multipurpose games field provided across entrance road is in good condition. Turf condition is fair, but contains a lot of moss. There are a few locations which are muddy as a result of poor drainage.

- Recommendation (5 year): Maintenance

- Recommendation (10 year): Maintenance

Architectural Narrative

Overview

Clintwood Elementary School was constructed around 1976 as an open concept school. The unique architecture of the building has the classroom areas on half levels (half level up and half level down). In addition, there is a lower floor level that houses a large gymnasium area with locker rooms. The building is a brick and masonry wall structure with steel joist floor and roof framing. It has a low slope EPDM single-ply membrane roof. The building has been well maintained and is in very good condition considering its age. The building loosely complies with the accessibility requirements of the time in which the building was constructed; however, some spaces do not comply with current standards. The building is not equipped with an automatic fire suppression system.

Exterior Envelope

Exterior: The exterior wall material is predominantly brick. Brick was observed to be in good condition. At the top of the exterior walls, a pebble aggregate faced panel transitions the brick to the roof edge. These panels are in poor condition and are delaminating.

- Recommendation (5 Year): Replace pebble aggregate faced panels with new pre-finished aluminum panels on furring channels.
- Recommendation (10 year): No action

The existing roof is a ballasted built up roof system with tar and felt. This roof is beyond its useful life.

- Recommendation (5 year): Remove the existing roof down to the existing deck and install new insulation and a 60 mil fully adhered EPDM membrane roof.
- Recommendation (10 year): No action

The windows appear to be in good condition. It is not known if these are original the building or were replaced at some point in the past.

- Recommendation (5 year): Provide windows and storefront in conjunction with other building envelope renovation improvements. This will improve overall energy efficiency.
- Recommendation (10 year): Maintenance

Exterior doors are painted hollow metal and are in fair-to-good condition.

- Recommendation (5 year): Provide new exterior doors and hardware in conjunction with other building envelope improvements.
- Recommendation (10 year): Maintenance

Interior Finishes

Floors (Corridors): The corridor floors are Terrazzo and are in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Floors (Classrooms and Library): The classroom area floors are VCT and are in good condition. The library area floors are VCT and are in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Floors (Cafeteria and Kitchen): The Cafeteria and Kitchen floors are terrazzo and are in good condition. There has been some floor settlement and cracking in the corridor outside the kitchen. This happened not long after the building was constructed and appears to have stopped.

- Recommendation (5 year): Remove the damaged area of terrazzo floor, repair the sub-grade and replace with terrazzo tile.
- Recommendation (10 year): Maintenance

Floors (Restrooms): The boy's and girl's restroom floors are mosaic ceramic tile and are in good condition, however, these areas will likely require significant renovation to make them handicap accessible.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all ceramic tile in restrooms as part of a restroom renovation.

Floors (Gym): The Gym floor is a poured urethane floor and appears to be in good condition. These types of floors typically need to be re-surfaced every 10 years. It is not known what the remaining useful life of this floor is.

- Recommendation (5 year): Re-surface the gym floor.
- Recommendation (10 year): Maintenance

Floors (Locker Rooms): The boy's and girl's locker room floors are sealed concrete. The showers and restroom areas are mosaic ceramic tile and are in good condition. These areas do not appear to be utilized very often.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Walls: The walls throughout the building are painted cmu and appear to be in good condition. The open plan classroom areas have been divided using moveable 2" steel partitions. These are considered temporary walls. If the building is fully renovated, consideration should be given to installing more permanent classroom partitions of metal studs, sound insulation and gypsum wall board (See Cost Estimate for Add for Permanent Partitions)

- Recommendation (5 year): No Action
- .
- Recommendation (10 year): No action

Most areas with finished ceiling are 2'x4' suspended acoustical tile (lay in). These are in fair-to-good condition.

- Recommendation (5 year): maintenance
- Recommendation (10 year): No action

Most interior doors are pre-finished wood veneer doors and are in good condition. Most door hardware is in good condition but does not meet handicap accessibility requirements. Existing door frames are generally hollow metal and are in good condition. Some door frames would be replaced to achieve handicap accessibility.

- Recommendation (5 Year): Maintenance
- Recommendation (10 year): Replace doors and frames that are required to be wider for handicap accessibility. Replace all interior door hardware to be handicap accessible.

Casework (cabinets) are original to the building and are in fair-to-good condition. Most casework is not handicap accessible.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace casework

Accessibility

The main entrance is handicap accessible. There is an elevator between the main floor and lower level. There are 2 handicap ramps that connect to one end of the upper and lower split-level classroom wings. This provides handicap access to each level of classrooms but will not meet accessibility requirements once more permanent classroom partitions are installed. The auditorium stage/platform is not handicap accessible but there does not appear to be a viable solution to address this due to the inherent design of the building.

- Recommendation (5 year): maintenance

- Recommendation (10 year): Within the building, many components are not handicap accessible simply because of the age the building was designed. Restrooms are not handicap accessible and will require substantial renovations to achieve full handicap accessibility. These do not meet ICC A117.1-2009 accessibility standards. New ADA compliant signage should be added throughout the building. It is recommended that 4 vertical chair lifts be installed to serve each of the classroom clusters.

Structural Narrative

There are some structural issues in the building. On the exterior of the building, there are several areas where the brick façade has cracked, and the brick have moved out of alignment. This is likely a combined result of no control joints in the brick and a possible roof/parapet leak that has allowed water to get behind the brick and freeze. There are also some cmu cracks within the building. The floor settlement adjacent to the Kitchen was discussed earlier in the report, along with a recommendation.

- Recommendation (5 year): Repair the brick on the façade and add a control joint in this general location. The roof replacement should address any water getting behind the brick. Monitor the cmu cracks on the inside of the building and if they appear to get larger, a structural engineer should further investigate.
- Recommendation (10 year): Monitor building façade and interior cmu for further cracks.

Mechanical and Plumbing Narrative

Mechanical Overview

Clintwood Elementary Schools HVAC is primarily made up of rooftop units with DX cooling and electric heat. There are some electric wall heaters and suspended electric unit heaters that provide supplemental heat to some spaces of the building. The gym is heated by two large Trane blower unit heaters. They were installed in 1977. The gym does not have air conditioning.

Mechanical

Rooftop Units: Rooftop units are 10 years old and manufactured by Trane. They still have 8 years remaining in their useful life expectancy. It is assumed that the temporary walls in the classroom will be replaced with more permanent walls with doors within 5 years. If this happens, the roof top units should go ahead and be replaced.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Roof top units will be at the end of their useful life, however, with proper maintenance they should last a few years longer.

Terminal Heating Units: The existing electric wall heaters and unit heaters are beyond their useful life (many are original to the building).

- Recommendation (5 year): Remove all existing electric heaters that are no longer in use. Replace unit heaters (mech room & kitchen) and wall heaters/convectors (vestibules/corridors).
- Recommendation (10 year): Maintenance

Exhaust Systems: Exhaust fans are rooftop mounted. Many of them are original to the building. Some fans have had parts changed out. A couple of fans have been replaced due to certain parts no longer being manufactured.

- Recommendation (5 year): Replace all rooftop exhaust systems that are original to building
- Recommendation (10 year): Maintenance.

Outdoor Air Ventilation: Outdoor air is induced into the school thru the rooftop units and the kitchen make-up air unit tied into the kitchen hood. The make-up air unit for the kitchen hood is original and has passed its useful life.

- Recommendation (5 year): Replace make-up air unit for kitchen hood.
- Recommendation (10 year): Maintenance

Kitchen Exhaust: Existing kitchen hood is original to the building along with the associated exhaust fan. All kitchen equipment is electric.

- Recommendation (5 year): Replace kitchen hood and the associated exhaust fan on roof
- Recommendation (10 year): Maintenance

Controls: The existing controls are Direct Digital Controls (DDC).

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Plumbing Overview

Clintwood Elementary School has basic water closets, lavatories, urinals, water coolers, janitor sinks, etc. that are aged. Some fixtures have been replaced in recent years on a need to basis. The kitchen sinks, dishwasher, floor drains, plumbing (both supply and

waste) beyond their useful life. They have a mixture of floor mounted and wall hung water closets while the lavatories are wall mounted.

Plumbing

Water Heater: The electric water heater is in good condition and is manufactured by Durawatt Electric. It was installed in 2002. It has a storage capacity of 750 gallons. The water heater has technically reached the end of its expected useful life, however, it appeared to be in good working condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace with a new water heater.

Water Closets, Urinals and Lavatories: The existing plumbing fixtures are made by American Standard and are original to the building. The faucets and flush valves are in good condition with expected wear and tear.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all plumbing fixtures with new fixtures along with ADA compliant fixtures where required.

Water coolers: Water coolers are manufactured by Elkay and Harvey Taylor. Most have passed their useful life.

- Recommendation (5 year): Replace all water coolers.
- Recommendation (10 year): Maintenance

Plumbing Piping: Sanitary & waste piping are most likely original to the building. Piping is likely copper (domestic water) and cast iron (sanitary waste). Domestic water enters the building in 3-inch line. There is a RPZ backflow preventer. The service line was installed 10 years ago.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Electrical Narrative

Main service: The main electrical service is a 480/ 277V , 3 phase, 4 wire, 2500 Amp service. The switchboard is all Federal Pacific, which is a manufacture that no longer exists creating difficulty finding replacement parts. This service is using a switchboard style service gear which puts the gear right at the end of expected useful life.

- Recommendation (5 year): Replace existing switchboard.

- Recommendation (10 year): No action

Distribution and Branch Circuit Panelboards: Most of the panels are Federal Pacific. All Federal Pacific gear is becoming hard to find replacement parts for. Each of the Federal Pacific panels have exceeded their expected useful life.

- Recommendation (5 year): Replace the existing panelboards. Expand as necessary to accommodate new or modified spaces and locate any new panels in areas to minimize student access and to meet National Electrical Code working clearances.
- Recommendation (10 year): No action

Transformer: The transformer is a 300 kVA federal Pacific transformer and is located in the main electrical room. A branch circuit, 208Y/120 volt distribution panelboard is used to supply 208Y/120 volt loads around the building. The transformer has reached its end of useful life.

- Recommendation (5 year): Replace the existing transformer with a new transformer to back feed existing loads.
- Recommendation (10 year): No action

Cabling: Most of the building wiring appears to have been updated as the various systems were updated. Certain areas have been updated more recently, but overall the cabling still has some useful life remaining. No exposed wiring was witnessed during the facility assessment.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Conduit/Raceway: The conduit and raceway as seen is still in good condition. Surface raceway and conduit has been used throughout the building for new receptacles, data outlets, and switches. Offices and rooms appear to have an appropriate amount of receptacles and data outlets for their intended usages.

- Recommendation (5 year): All surface raceway should be evaluated regularly and securely reattached to the wall if it becomes loose.
- Recommendation (10 year): All surface raceway should be evaluated regularly and securely reattached to the wall if it becomes loose.

Light Fixtures: The light fixtures consist of primarily 2x4 flat lens fixtures with 4' fluorescent T8 lamps. The majority of the lamps were replaced in approximately 2009. The fixtures appear to have been added when the building was built around 1977. The lamps are current technology.

- Recommendation (5 year): Maintenance

- Recommendation (10 year): Maintenance

Lighting Controls: Lighting controls throughout the building consist of toggle switches controlling fixtures within an area. Controls have been updated at the same intervals as the lighting fixtures.

- Recommendation (5 year): No Action.
- Recommendation (10 year): No action

Emergency Lighting: Emergency lighting is provided by the generator. There was no method of testing coverage during our visit. However, the system appears to be operating properly and is well maintained.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation, provide a life safety ATS to provide egress lighting to the building. Reconnect egress lighting to a standby power source.

Security System: The Security system installed throughout the building is newer and consists of electronic locks with keypads, motion sensors, and ceiling mounted security cameras and key fobs. The current system meets the needs of the building and utilizes current technology.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Upgrade, expand, and reconfigure zones of the system as necessary during building renovation.

Data System: The Data system consists of a new server rack, data closet with appropriate air conditioning, new cabling, and new data outlets throughout the building. The building is equipped with wireless internet throughout with Cisco access points in vital locations.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Fire alarm System: The fire alarm system is a Silent Knight system that was upgraded in 2002. The existing system appears to be relatively close to current code with horns and strobes throughout the building and smoke detectors in mechanical rooms. The fire alarm system has useful life and can likely be upgraded to meet any additional modifications stemming from a renovation.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation, reuse fire alarm control panel and replace devices. Lower mounting heights of manual pull stations to meet modern code. Expand existing fire alarm system with audible

and visual notification devices throughout the building. Reconfigure the existing system as necessary for renovations.

Generator: The existing diesel generator is a Cat, Olympian D40P3 generator that was recently moved to this building. The generator has been serviced regularly and appears to be in good operating condition. Generators tend to last longer than their useful life, and can be readily maintained with local service providers.

- Recommendation (5 Year): Maintenance
- Recommendation (10 year): As part of building renovation, a new generator could be considered, sized to provide power for life safety features, including emergency lighting, and other equipment that the building would like to operate.

Site Lighting: The site lighting consists of a few wall packs around the building, canopy lighting at the front door. Lamps are likely changed as lamps burn out. Lights appear to have been updated possibly in 2009 with the interior lighting upgrade.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation, replace existing lighting fixtures around exit doors and areas of egress with LED fixtures. Connect these lights to an emergency circuit. Provide new general site lighting to maximize energy efficiency and minimize light contamination on neighboring properties and to the sky.

Phone system: The phone system is an older Comdial phone system, however, it appears to serve the need and use of the school. The system is operational, has useful life remaining, and meets the current needs of the building.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation it is recommended to replace the existing headend of the system and upgrade any phones as necessary for desired communication system needs of the building.

Public-Address: The Public-Address System consists of a head end located in the main office with speakers and push to talk buttons located in the classrooms. The system was recently upgraded to a Telecor system. Existing speakers were reused, and it is likely the existing wiring was reused.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of renovation, provide new speakers and wiring.

Cost Estimate (5 year)

Civil/Site:

Minor Miscellaneous Repairs and Improvements	\$ 52,000.00
Asphalt Repair	\$ 25,000.00
<hr/>	
Sub-total Civil	\$ 77,000.00

Architectural:

Roof Replacement	\$ 590,000.00
Aluminum Siding	\$ 96,000.00
Window/Storefront Replacement	\$ 60,000.00
Exterior Doors	\$ 64,000.00
Settlement Repairs	\$ 50,000.00
Gym Floor Re-surfacing	\$ 40,000.00
<hr/>	
Sub-total Architectural	\$ 900,000.00

Mechanical and Plumbing:

Make-up Air Unit	\$ 60,000.00
Building Exhaust Fans	\$ 69,000.00
Replace Domestic HW Circulation Pumps	\$ 7,000.00
Replace Water Heater	\$ 12,000.00
Replace Water Coolers	\$ 40,000.00
Sub-total Mechanical and Plumbing	\$ 188,000.00

Electrical:

Panel Replacement and Distribution System	\$ 315,000.00
Main Gear	\$ 55,000.00
<hr/>	
Sub-total Electrical	\$ 370,000.00

Sub-Total Construction: \$1,535,000.00

Fees, Contingency, etc. (18%) \$ 276,000.00

Project Total: \$1,811,000.00

Cost Estimate (10 year)

Civil/Site:

Asphalt Repair and Re-surfacing	\$ 50,000.00
Concrete Pad for Dumpster	\$ 20,000.00
<u>Sub-total Civil</u>	<u>\$ 70,000.00</u>

Architectural:

Casework Replacement	\$ 150,000.00
ADA Upgrades (signage, hardware, etc.)	\$ 90,000.00
ADA Restroom Renovations	\$ 300,000.00
ADA Chairlifts	\$ 120,000.00
<u>Sub-total Architectural</u>	<u>\$ 660,000.00</u>

Mechanical and Plumbing:

<u>Replace Plumbing Fixtures</u>	<u>\$ 120,000.00</u>
Sub-Total Mechanical and Plumbing	\$ 120,000.00

Electrical:

<u>Replace Generator</u>	<u>\$ 42,000.00</u>
Sub-total Electrical	\$ 42,000.00

Sub-total Construction \$892,000.00

Fees, Contingency, etc. (18%) \$161,000.00

Project Total: \$1,053,000.00

Cost Estimate (Permanent Classroom Walls)

Demolition	\$ 100,000.00
Walls/Doors Classroom Areas	\$ 230,000.00
Suspended Acoustical Tile Ceiling Replacement	\$ 198,000.00*
Interior Painting	\$ 220,000.00
Replace/Upgrade HVAC System	\$3,700,000.00*
<u>Lighting Upgrade</u>	<u>\$1,100,000.00*</u>
Sub-total for Permanent Classroom Walls	\$5,548,000.00
Sub-total Construction:	\$5,548,000.00
Fees, Contingency, etc. (18%)	\$ 998,000.00
Project Total:	\$6,546,000.00

*Note: If permanent walls in classrooms are considered, it makes sense to do a full HVAC and Lighting Replacement at this time due to large amount of construction work that will be required in these areas. These costs are for the **entire building**, not just the **classroom areas**.

Site Pictures



Bus Loading Area



Generator



Playground



Storm Water Basin

Exterior Pictures



Damaged façade panels at front of school

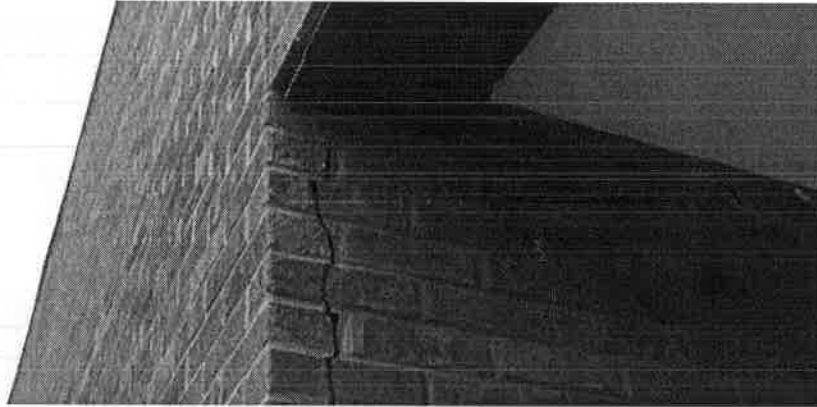


Exposed cmu at damaged façade panels



Damaged brick at roof

Exterior Pictures

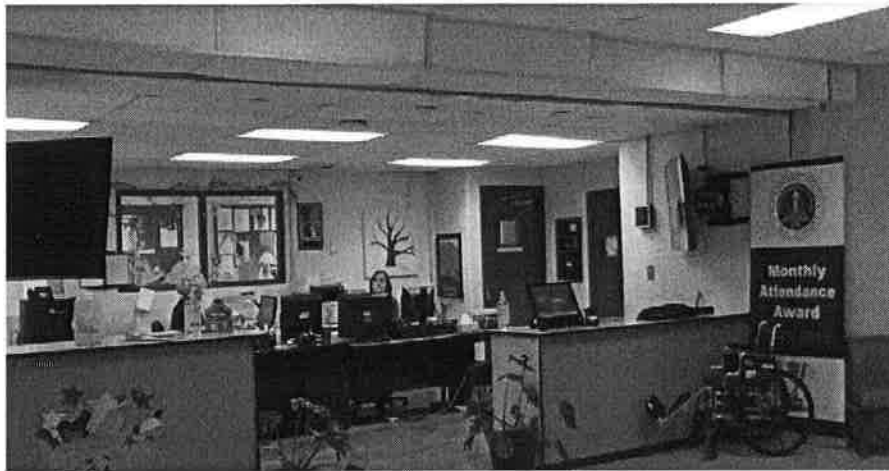


Crack in brick at lintel

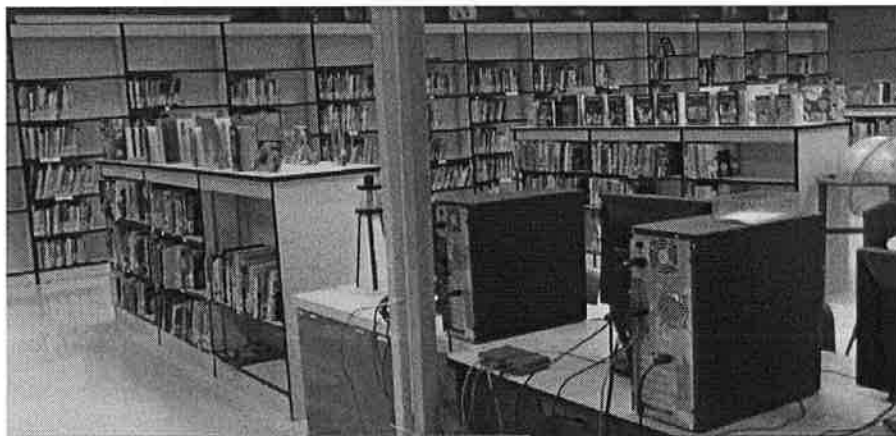


Worn façade panels at entrance

Interior Pictures



Administration area

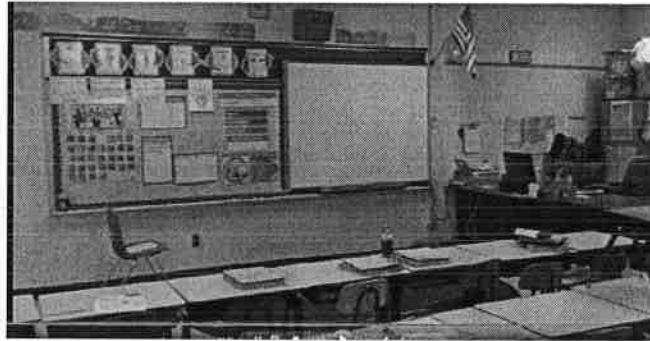


Library



Typical classroom casework

Interior Pictures



Typical front of classroom



Typical casework in classroom

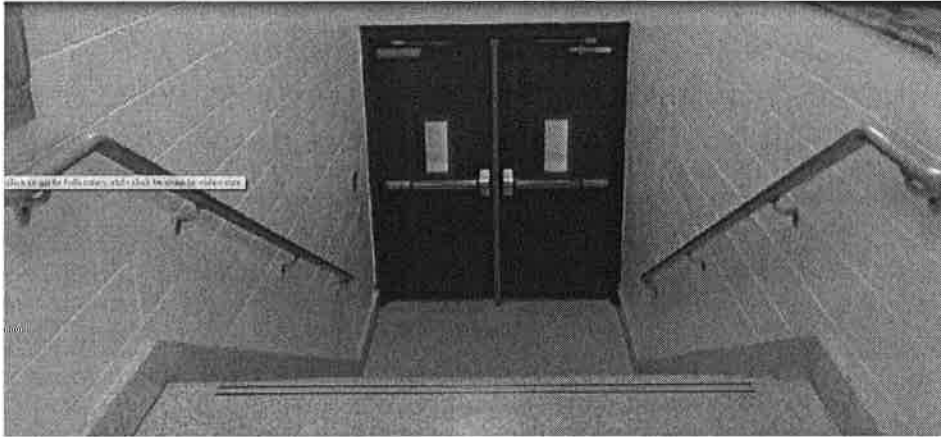


Wood paneled wall at open classroom "corridor"

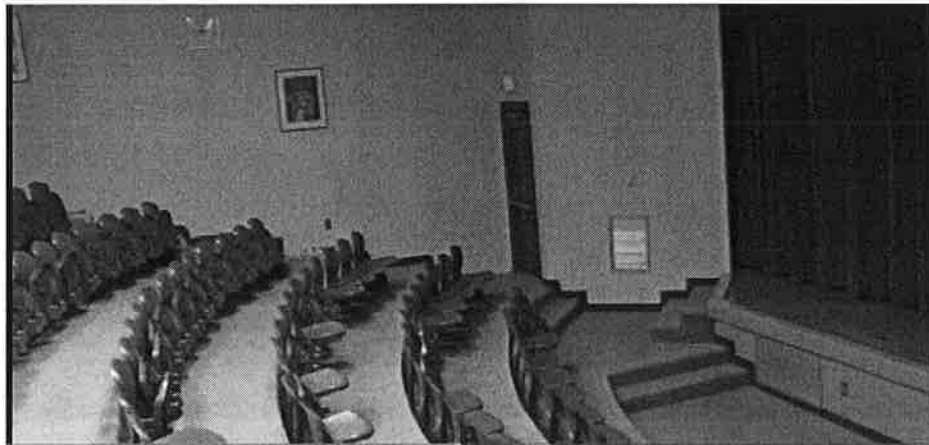


Boys restroom in classroom area

Interior Pictures



Stairs at classroom area entrances



Multi-tiered auditorium not ADA accessible at stage



Restroom adapted for handicap use does not meet current standards

Ervinton Elementary School Facilities Condition Assessment Report

Dickenson County Public Schools



**Prepared by
OWPR, Architects and Engineers
200 Country Club Drive
Blacksburg, Virginia**

Assessment Team

Civil/Site: Brent Lawrence
Architectural: Randy Jones
Architectural: Jack Frier
Mechanical/Plumbing: Greg Lee
Electrical: Daniel Gibson

Field investigation was performed on February 7, 2018

Methodology

The Assessment Team toured the school facility. Each member of the Team assessed the areas of their individual expertise. They looked at each component with regard to age, manufacturer, availability of parts, remaining useful life, etc. If a component is noted to be at the end of its useful life, we are simply saying it has lasted longer than what the industry expects. It is very possible that components that have been very well maintained will last many years beyond their useful life. The information contained within this assessment is intended to be written in a simple straightforward way that is easily understandable. This assessment is intended to be a tool to help facility owners plan for component replacement and/or complete renovation. The cost estimates are based on the observations of the Assessment Team and limited drawings that were provided by the client. The cost estimates provided are developed using data obtained from various sources, including but not limited to, RS Means, Cost Estimating Consultants and historical data. The cost estimates are based on current conditions and do not factor in cost escalation due to changing market conditions or material demand. The cost estimates provided are a planning tool to budget for component replacement and/or complete renovation.

Ervinton Elementary School Facilities Condition Assessment Report

Civil/Site Narrative

Traffic Circulation

Buses: There is no dedicated bus loop or bus lane to drop off and pick up students. Buses use the same entrance and one-way access lane as cars. The one-way lane contains very high volumes of traffic as students and staff enter the school. Stopped buses create major traffic jams because there's not enough space for cars to pass. Buses continue through the one lane road to exit the site.

Morning: Buses enter the one-way access and drop off students at the front of the school. There is a canopy and wide sidewalk at the bottom level entrance to the school. There is enough stacking for approximately two buses to drop off simultaneously. Staff indicated the majority of students arrive very early due to buses serving more than one school in the district. Morning bus drop off was not observed.

Afternoon: Buses enter the bus lane and line up to pick up students. Afternoon pick up was not observed and it's unclear if there is enough space for busses to queue. Queued buses block access to rear parking area. Staff indicates minor traffic issues during bus departure.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. Maintain and repair as needed.
- Recommendation (10 year): Maintain and repair as needed.

Cars: Cars utilize the same one-way access lane as buses and use the same drop off / pick up area at the bottom entrance to the school. Cars continue through the one-way lane to exit the site. Staff indicates minor traffic issues due to buses and cars using same traffic flow path, although majority of students ride the bus.

Morning: Cars enter the one-way lane and drop off students at the front of the school and continue through to exit. Drop off works with occasional backups due to traffic flow. Morning parent drop off was not observed.

Afternoon: Same scenario as the morning drop off, but parents also wait wherever they can find space if they arrive before dismissal. Afternoon parent pick up was not observed.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. Maintain and repair as needed.
- Recommendation (10 year): Maintain and repair as needed.

Parking: Approximately 24 striped parking spaces are provided with 3 designated ADA spaces. Day to day parking is not adequate for faculty / staff / visitors. There are no designated parking lots and faculty / staff / visitors park wherever they find space. Service and janitorial staff park along the north side of the school along the perimeter of the service area. Staff indicates parking is a major issue. During school events, the paved play area becomes overflow parking. There is no parking requirement in the jurisdiction's zoning ordinance.

- Recommendation (5 year): Maximizing on-site parking by expanding existing parking lots and creating new parking areas. Consider replacing the dilapidated janitorial house with additional parking.
- Recommendation (10 year): Maintenance

Service: The service area is at the north side of the school and is accessible from State Route 63. Service or delivery vehicles do not block any traffic while unloading. There is no concrete pad or dock for loading/unloading although there is adequate maneuvering area. Access to the service area is very narrow and difficult to navigate. The dumpsters are not located in the service area due to insufficient space.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. Maintain and repair as needed.
- Recommendation (10 year): Maintain and repair as needed.

Fire Access: There is no paved fire lane around the building; however, fire apparatus have adequate access to most of the building.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Separation: There is not sufficient separation for any on site traffic, except service vehicles. There is too much congestion at the front of the school with the one-way lane.

- Recommendation (5 year): The site is very difficult to due to the terrain. Maintain and improve as needed.
- Recommendation (10 year): Maintain and improve as needed.

Adjacent Roadways: The adjacent roadway, State Route 63, contains a high volume of traffic, especially distribution trucks, traveling at a high rate of speed. To utilize the recreational facilities across the street provides a safety hazard. Buses park in the shoulder along State Route 63 causing sight issues around the curve.

- Recommendation (5 year): Consider additional lit signage and pavement markings to State Route 63 to indicate a school zone and traveling at slower speed.
- Recommendation (10 year): No action

Pedestrian: Generally there are not many pedestrians who access the school. There are no sidewalks adjacent to the school.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

ADA Accessibility

Parking: There are 3 spaces designated as ADA parking at the front of the school. None are designated as van accessible and there are no accessible aisles. ADA parking spaces on site are not compliant.

- Recommendation (5 year): Restripe all ADA parking spaces to be ADA compliant and provide at least one van accessible parking space.
- Recommendation (10 year): No action

Signage: There is signage for ADA parking, but signage is not code compliant.

- Recommendation (5 year): Provide ADA compliant signage.
- Recommendation (10 year): No action

Ramps: There are no curb ramps, but flush sidewalks to parking areas are appropriately located and in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Access to all areas: There is no ADA access to any playground or paved play areas on site. However, due to existing topographical site conditions and multiple site features located at different elevations, access to all areas is not feasible.

Parking Areas, Driveways, and Sidewalks

Asphalt Pavement: The asphalt pavement is in relatively fair condition; however, there are some poor sections at the front of the school and the service area access road. These areas contain alligator cracking which is indicative of a deteriorated subgrade.

- Recommendation (5 year): Maintain and repair as needed.
- Recommendation (10 year): Replace asphalt.

Concrete Walks: The concrete walks on site are in poor to fair condition with cracking, spalling and deterioration. There are a few substantial cracks or tripping hazards.

- Recommendation (5 year): Maintain and repair as needed.
- Recommendation (10 year): Replace all concrete walks.

Stairs, Ramps, and Railings: Concrete stairs at the front entrance to the school are in poor-to-fair condition. The railings are in fair condition. Concrete stairs to the playground and paved play area at the front of the school are in poor condition and deteriorating. The handrails are too low and unstable.

- Recommendation (5 years): Maintain and repair concrete stairs as needed. Replace handrails.
- Recommendation (10 years): No action

Guardrail, Parking Bumpers, and Miscellaneous: There are no guardrails. The parking bumpers along the west perimeter of the one-way access lane are old and deteriorating.

- Recommendation (5 year): Maintain and replace bumpers as needed.
- Recommendation (10year): Provide new guardrails and parking bumpers.

Fire Lane: There is no dedicated fire lane marked in front of the school.

Recommendation: Paint asphalt at front of school for fire lane. Provide fire lane signage to meet code. Ensure that fire lane signs are turned towards oncoming traffic.

Utilities

Fire Lines and Hydrants: Poor fire hydrant coverage with no fire hydrant on site, but access to fire hydrant across the street in bus parking area. No paved fire lane around building, but fire truck access is present. No fire department connection, post indicator valve or fire department valve observed.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. No Action unless required by the local building official.
- Recommendation (10 year): No action

Domestic Water System: The water system is aged and in fair condition, but functional. A water meter is located along front of school adjacent to State Route 63. Staff indicates discolored water after building is not used for extended periods of time. With aging pipe, leaks and pipe breaks can become more frequent and water quality can be degraded by older pipe.

- Recommendation (5 year): See Mechanical and Plumbing Narrative.
- Recommendation (10 year): No action

Sewer System: The sanitary sewer system consists of an on-site sewage plant. Outlet of sewage plant is unknown. Extensive investigation on the sewage plant was not performed, but observations indicate a strong odor. Sewage plant appears old, and there is staff concern it's not functioning properly.

- Recommendation (5 year): The sanitary sewer lines should be flushed clean and videoed to check for necessary repairs. The sewage plant should be inspected by a wastewater engineer to ensure system is functioning properly.
- Recommendation (10 year): Replace sewage plant.

Propane Gas System: There are four propane tanks on the north end of the site which feed the school to a regulator outside the building near existing ADA parking. The propane tanks appear to be in fair condition.

- Recommendation (5 year): Coordinate replacement with Supplier.
- Recommendation (10 year): No action

Electric: Electrical service is provided to the site at the rear of the school via overhead electric lines to pole mounted transformers with overhead service into the building. The pole mounted transformers are in good condition. There is a generator in the service area that is not protected from traffic.

- Recommendation (5 year): Provide bollards to protect generator from traffic.
- Recommendation (10 year): No action

Grading and Drainage

Storm Water System: Roof gutters drain to downspouts and splash blocks. All site runoff sheet flows to the roadside ditch along State Route 63 and under the road to the adjacent stream. An existing ditch behind the school is routed through a culvert under the school towards the creek. A French drain along the back of the building helps to collect runoff from the steep terrain behind the building. Drainage laterals at the rear of the building are exposed.

- Recommendation (5 year): Collect all downspouts at the rear of the building and pipe underground towards the service area and down to the road. Provide small nyloplast grate inlets as necessary to prevent ponding water.
- Recommendation (10 year): None

Slopes, Ponding, and other Drainage Issues: Upstream runoff at the back of the school causes drainage issues. There are multiple locations at the rear of the building with significant ponding. Staff indicates moisture and drainage issues in school basement. There is major ponding at the playground areas.

- Recommendation (5 year): See recommendation above under "Storm Water System".

Site Features

Vegetative Landscaping: There are many mature trees and shrubs at the rear of the site. General maintenance of pruning, raking leaves and mulching required.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Lawns: In general, the lawn areas are in relatively fair condition with only a few eroded and rutted areas. There are areas at the rear of the school in need of repair due to high shade and excess moss.

- Recommendation (5 year): Repair the rutted or eroded areas and re-seed. Over-seed all grassed areas in rear of school as a maintenance item.
- Recommendation (10 year): Maintenance

Fencing and Gates: There is chain link fencing around the perimeter of the paved play area and the playgrounds along the road. The fencing is old and rusting, but still in fair condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace fencing.

Signage: Overall site signage is minimal and in poor condition. There is a school identification sign at the school entrance, but there is no additional directional signage. The ADA signage is non-compliant. Overall, sign legibility is generally faded and many poles are rusting, leaning, and lack foundations.

- Recommendation (5 year): Replace signage to meet ADA compliance.
- Recommendation (10 year): Maintenance

Flagpoles: Flagpole and the foundation are in good condition. Flagpole is plumb.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Accessory Structures: There is a storage building behind the school and a storage building adjacent to the gym in fair condition. The pedestrian bridge to the west of the school which gives access to the playground across the stream is old, rusted and appears to be in poor condition. The old janitorial house is deteriorated and poses a safety issue to anyone who trespasses into the abandoned building.

- Recommendation (5 year): Repair the pedestrian bridge.
- Recommendation (10 year): Maintenance

Play Areas and Physical Education

Playgrounds / Stationary Play Equipment: There is no separation between year PreK-1 equipment and Year 2-5 equipment. Majority of equipment is in good condition. Fencing around the perimeter of the playground provides student safety. Equipment shows signs of vinyl coating wearing down. Wood equipment has aged, but still in fair condition. Play areas require fresh mulch in lieu of gravel. Exercise equipment across the street is in good condition, but rarely used.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Play / PE Fields: Multipurpose games field provided across State Route 63 and the pedestrian bridge over the creek. Staff indicates that play fields across the street are rarely used due to the risk of crossing the road. Turf condition is fair.

- Recommendation (5 year): Discontinue using playfields across State Route 63.
- Recommendation (10 year): N/A

Architectural Narrative

Overview

Ervinton Elementary School was originally built in the 1930's. A Classroom Addition was built in 1967. Subsequent 1986 additions include a Cafeteria Addition and Gym Addition. When these two additions were added, the existing gymnasium was renovated to become 2 story classroom spaces with a Library. The total facility square footage is 49,500 SF. The building has been well maintained and is in very good condition considering its age. Each portion of the building loosely complies with the accessibility requirements of the time in which the work was performed; however, some spaces do not comply with current standards. The building is not equipped with an automatic fire suppression system.

Exterior Envelope

Exterior: The exterior wall material is predominantly brick. Brick was observed to be in good condition with some areas needing repointing of joints. There are pre-cast accents on the building that appear to have been painted. These appear to be in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): Re-point brick as needed

Roof: The roof on the Original Building and Classroom Addition appears to be a built-up tar and felt roof system. The Cafeteria Addition appears to be an EPDM single-ply membrane that appears to have been installed recently as the original roof was a ballasted single-ply membrane. This roof appears to be in good condition. The Gym Building roof is a ballasted single-ply membrane. This roof appears to have reached the end of its useful life.

- Recommendation (5 year): Replace roof on Original Building, Classroom Addition, Cafeteria Addition and Gym Addition with a new 60 mil, fully adhered EPDM single-ply membrane over new insulation.
- Recommendation (10 year): Maintenance

Windows: Windows have been replaced with insulated with an anodized aluminum storefront system with operable window vents. These windows were most likely replaced in the 1982 renovation. These windows are generally in good condition and do not need immediate replacement.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace windows with new energy efficient windows.

Exterior doors are painted hollow metal and are generally in good condition. The main entrance doors and frames are pre-finished aluminum and are in good condition.

Recommendation (5 year): No action
Recommendation (10 year): No action

Interior Finishes

Floors (Original Building): The Interior corridor floors are Terrazzo and in good overall condition. The Administration area has a relatively new laminate floor system and is in good condition. Several classrooms have carpet installed over the existing floor (it is not known what type of floor is under the carpet). The carpet appears to be in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Floors (Rear Classrooms and 1967 Classroom Addition): The 1967 Classroom Addition has Terrazzo floors in the corridors and are in good condition. The classroom floors are VCT with rubber base and are in good condition. The boys and girl's restroom floors are Terrazzo and are in fair condition. Some floor patching has occurred as modifications to these spaces have occurred to make them somewhat handicap accessible. The Faculty restroom floors are ceramic mosaic tile and in fair-good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all ceramic tile in restrooms as part of a restroom renovation.

Floors (Cafeteria Addition): The Cafeteria Addition dining room floor has VCT with rubber based and is in good condition. The Kitchen floor is a painted/epoxy floor over concrete and is in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Floors (Gym): The Gym Building has a poured urethane floor in the main gym area and is in good condition. These types of floors typically need to be re-surfaced every 10 years. It is not known what the remaining useful life of this floor is.

- Recommendation (5 year): Re-surface the gym floor
- Recommendation (10 year): No action

Walls (Original Building and Rear Classrooms): Interior walls in the Original Building are plaster. For their age, these appear to be in fair-to-good condition. It is not known if there are any occurrences where the plaster has become detached from the lath. It would seem reasonable to expect that plaster at the exterior walls has had some moisture penetration and damage (visible or not) that would need to be addressed in an overall building renovation strategy. In the corridors, glazed brick/bloc wainscot has been painted over in some areas and covered over with gypsum wall board in other areas. Interior walls in the Rear Classrooms appear to be gypsum wall board installed when the original gym was converted to classrooms. These walls appear to be in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Repair plaster/paint all walls

Walls (1967 Classroom Addition, Cafeteria and Gym Additions): Interior walls are painted cmu and generally in good condition. There are some areas where cracks in the mortar joints are visible, but these are likely caused by the lack of control joints in the masonry walls. These cracks should be caulked and painted and monitored for additional movement or crack re-occurrence.

- Recommendation (5 year): Repair cracks and paint all walls
- Recommendation (10 year): Maintenance

Ceilings (Original Building): Ceilings were originally plaster on lath but during renovations most of the spaces had 2'x4' suspended acoustical tile (lay-in). These ceilings are in fair-to-good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10year): Replace all ceilings with HVAC replacement

Ceilings (Classroom Addition and Cafeteria Addition): Ceilings are 2'x4' suspended acoustical tile (lay-in). These ceilings are in fair-to-good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all ceiling with HVAC replacement

Interior Doors and Frames: Most interior doors throughout are pre-finished wood veneer doors and are in good condition. Most door hardware is in good condition but does not meet handicap accessibility requirements. Existing door frames are generally painted hollow metal frames, and are mostly original to the buildings. These are in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): All door hardware should be replaced to meet handicap accessibility requirements: Some door and door frames will need to be replaced to achieve handicap accessibility into restrooms and other inaccessible areas.

Casework (cabinets): These are in generally poor-to-fair condition. Most casework is not handicap accessible.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all casework

Accessibility (General Overview)

At several exterior doors, there are steps up into the building, which are not handicap accessible. The main entrance to the building is not handicap accessible and would be very difficult to make accessible due to the large monumental stair leading to the main entrance. Handicap accessibility into the building is achieved through a lower level entrance from the front parking lot. From this entrance, there is an elevator which provides handicap access to all three floors.

The Gymnasium Building is accessed from a covered canopy at the same lower level of the Original Building. The Stage is not handicap accessible.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Within the building, few components are handicap accessible to meet today's code requirements simply because of their age. All restrooms are not handicap accessible and will require substantial renovations to achieve full handicap accessibility. These do not meet ICC A117.1-2009 accessibility standards. New ADA compliant signage should be added

throughout the building. Add a chairlift for the Stage in the Gym Building Addition. Upgrade/replace aging elevator components

Mechanical and Plumbing Narrative

Mechanical Overview

Ervinton Elementary School HVAC system is primarily served by a 2,460 MBH input gas boiler and two 15HP hot water pumps. The pumps distribute hot water to the heating coils in the building. The coils are located in unit ventilators. The unit ventilators have electric cooling. The Cast Iron Gas-Fired Boiler was installed in 2003 and is manufactured by Peerless. The gym is heated by two large hot water unit heaters.

Mechanical

Boilers: The existing gas fired boiler was installed in 2003. The boiler has 15 years remaining of its typical life expectancy of 30 years.

- Recommendation (5 year): Maintenance.
- Recommendation (10 year): Maintenance

Terminal Units: The existing unit ventilators are manufactured by McQuay. The McQuay units were installed in 1988. They have passed their useful life. There are a few hot water cabinet unit heaters that are disconnected but remain in place. Suspended unit heaters located in the mechanical room and in the kitchen have passed their useful life.

- Recommendation (5 year): Remove existing cabinet unit heaters that are disconnected. Replace unit ventilators and unit heaters.
- Recommendation (10 year): Maintenance

Exhaust Systems: Exhaust fans are rooftop mounted. Many of them are original to the building. Some fans have had parts changed out. A couple of fans have been replaced due to certain parts no longer being manufactured. The gym has a sidewall exhaust fan that is beyond its useful life.

- Recommendation (5 year): Replace all rooftop exhaust systems that are original to building. Provide new exhaust fan for the gym.
- Recommendation (10 year): Maintenance

Outdoor Air Ventilation: There are two AAON rooftop units that provide fresh air to the building. They were installed in 2002/03. The rooftop units have 5 years remaining in

their useful life. Fresh air is provided to the kitchen thru make-up air unit tied into the kitchen hood. The kitchen hood make-up air system is original to the building and has passed its useful life expectancy. The gym has intake wall louvers that induce fresh air into the space.

- Recommendation (5 year): Replace the kitchen make-up air unit. Replace intake wall louvers for the gym.
- Recommendation (10 year): Replace the two rooftop units.

Kitchen Exhaust: The kitchen hood and dishwasher hood appear to have been replaced recently. All of the kitchen equipment is electric. The exhaust fans associated with the kitchen hood and dishwasher hood appear to be beyond their useful life.

- Recommendation (5 year): Replace exhaust fans associated with kitchen & dishwasher hoods.
- Recommendation (10 year): Maintenance

Controls: The existing controls are Direct Digital Controls (DDC) by Trane.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Provide new controls with new HVAC equipment

Plumbing Overview

Clintwood Elementary School has basic water closets, lavatories, urinals, water coolers, janitor sinks, etc. that are aged. Some fixtures have been replaced in recent years on a need to basis. The kitchen sinks, floor drains, plumbing (both supply and waste) are beyond their useful life.

Plumbing

Water Heaters: The two electric water heaters are in good condition and are both manufactured by Rheem/Ruud. The water heater located in the mechanical room was installed in 2001 and has passed its useful life of 15 years. The second water heater located in a janitor's closet near the kitchen was installed in 2013 and still has 10 years remaining of its useful life expectancy. Both water heaters have storage capacity of 120 gallons.

- Recommendation (5 year): Replace water heater in the mechanical room and associated domestic hot water piping.
- Recommendation (10 year): Replace water heater in the janitors closet and associated domestic hot water piping.

Water Closets, Urinals and Lavatories: The existing plumbing fixtures are made by American Standard and are aged. The water closets are the floor mounted, flush valve type. The urinals are wall mounted, flush valve type. Lavatories are wall hung with gooseneck type faucet. Faucets and flush valves are in fair-to-good condition with expected wear and tear.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all plumbing fixtures with new fixtures along with ADA compliant fixtures as part of the overall restroom renovations.

Water coolers: Water coolers are manufactured by Elkay. The water coolers are the wall hung type. Most of them are aged beyond their expected useful life.

- Recommendation (5 year): Replace all water coolers (unless recently replaced).
- Recommendation (10 year): Maintenance

Plumbing Piping: The existing plumbing system (domestic cold/hot water, sanitary waste, etc.) are original, aged and pitted. Piping is most likely copper (domestic water) and cast iron (sanitary waste). Domestic water enters the building in a 3 inch line. There is a RPZ backflow preventer.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace entire plumbing system with new domestic water service, new hot water and cold-water lines to all plumbing and kitchen fixtures.

Sprinkler system: The building has limited area sprinkler system.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

ELECTRICAL Narrative

Main Service: The main electrical service consists of 2 High leg delta feeds using service entrance rated panelboards. The first service is a Square D 700 amp service that was installed in 1970's. The second service is a 1200 amp Siemens panel installed in 1988. Both of these services are exceeding their expected useful life and use the high leg delta feed.

- Recommendation (5 year): Replace existing switchboard and expand as necessary. The high leg delta service is an older service that isn't used much in

new construction. It is recommended switching to a 480 volt, 3 phase service or a 208 volt, 3 phase service depending on the final electrical load of the building.

- Recommendation (10 year): Maintenance

Distribution and Branch Circuit Panelboards: Most of the panels are either Square D or Siemens. Each panelboard was installed approximately the same time as the electrical service. Each of the panels have exceeded their expected useful life. Some newer Cutler Hammer panels were installed in 2002. These panels are in good condition and have spaces available; however, because of the nature of a high leg delta system, single phase loads are limited. There is an existing panelboard located in the boiler room. This panel is completely rusted over and should be replaced immediately.

- Recommendation (5 year): Replace the existing panelboards. Expand as necessary to accommodate new or modified spaces and locate any new panels in areas to minimize student access and to meet National Electrical Code working clearances.
- Recommendation (10 year): Maintenance

Cabling: Most of the building wiring appears to have been updated as the various systems were updated. Certain areas have been updated more recently, but overall the cabling still has some useful life remaining. No exposed wiring was witnessed during the facility assessment.

- Recommendation (5 year): No action
- Recommendation (10 year): Replace existing wiring where possible during future renovation or additions. All new devices could be installed using surface raceway or utilizing existing conduits.

Conduit/Raceway: The conduit and raceway as seen is still in good condition. Surface raceway and conduit has been used throughout the building for new receptacles, data outlets, and switches. Offices and rooms appear to have an appropriate amount of receptacles and data outlets for their intended usages.

- Recommendation (5 year): All surface raceway should be inspected regularly and securely reattached to the wall if it becomes loose.
- Recommendation (10 year): All surface raceway should be inspected regularly and securely reattached to the wall if it becomes loose.

Light Fixtures: The light fixtures consist of primarily 2x4 flat lens fixtures with 4' fluorescent T8 lamps. The majority of the lamps were replaced in approximately 2009. The fixtures appear to have been added with a renovation in either the 1970s or 1988. The lamps are current technology, and the light cans will last.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace with LED fixtures during the HVAC replacement.

Lighting Controls: Lighting controls throughout the building consist of toggle switches controlling fixtures within an area. Controls have been updated at the same intervals as the lighting fixtures.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Add automatic lighting controls to each room to comply with building energy codes as part of HVAC replacement.

Emergency Lighting: Emergency lighting is provided by the generator. There was no method of testing coverage during our visit. However, the system appears to be operating properly and is well maintained.

- Recommendation (5 Year): Maintenance
- Recommendation (10year): Provide a life safety ATS to provide egress lighting to the building as part of the HVAC replacement. Reconnect egress lighting to a standby power source.

Security System: The Security system installed throughout the building is newer and consists of electronic locks with keypads, motion sensors, and ceiling mounted security cameras and key fobs. The current system meets the needs of the building and utilizes current technology.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Data System: The Data system consists of a new server rack, data closet with appropriate air conditioning, new cabling, and new data outlets throughout the building. The building is equipped with wireless internet throughout with Cisco access points in vital locations.

- Recommendation (5 year): Maintenance
- Recommendation (5 year): Maintenance

Fire alarm System: The fire alarm system is a Silent Knight system that was upgraded in 2002. The existing system appears to be relatively close to current code with horns and strobes throughout the building and smoke detectors in mechanical rooms. The fire alarm system has useful life and can likely be upgraded to meet any additional modifications stemming from a renovation.

- Recommendation (5 year): Lower mounting heights of manual pull stations to meet current code.
- Recommendation (10 year): Maintenance

Generator: The existing diesel generator is a Cat, Olympian D40P3 generator that was recently moved to this building. The generator has been serviced regularly and appears

to be in good operating condition. Generators tend to last longer than their useful life, and can be readily maintained with local service providers.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Provide a new generator sized to provide power for life safety features, including emergency lighting, and other equipment that the building needs to operate during a power outage.

Site Lighting: The site lighting consists of a few metal halide wall packs around the building, canopy lighting at the front door. Lamps are likely changed as lamps burn out. Lights appear to have been updated possibly in 2009 with the interior lighting upgrade.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace existing lighting fixtures around exit doors and areas of egress with new LED fixtures as part of the HVAC replacement. Connect these lights to an emergency circuit. Provide new general site lighting to maximize energy efficiency and minimize light contamination on neighboring properties and to the sky.

Phone system: The phone system is an older type; however, it appears to serve the need and use of the school. The system is operational, has useful life remaining, and meets the current needs of the building.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace with new system

Public Address: The Public-Address system consists of a head end located in the Main Office with speakers and push to talk buttons located in the classrooms. The system was recently upgraded to a Telecor system. Existing speakers were reused, and it is likely the existing wiring was reused.

- Recommendation (5 year): Maintenance
- Recommendation (10year): Provide new wiring and speakers in all areas.

Cost Estimate (5 year)

Civil/Site:

Demolish Janitors House	\$ 25,000.00
Additional Paved Parking at Janitors House location	\$ 30,000.00
Asphalt Repair	\$ 28,000.00
ADA striping and new Lit Signage	\$ 35,000.00
Storm Water Improvements	\$ 15,000.00
Replace Parking Bumpers	\$ 2,000.00
Concrete Stairs repairs at Entrance, New Handrails	\$ 18,000.00
<u>Repair Pedestrian Bridge</u>	<u>\$ 20,000.00</u>
Sub-total Civil/Site	\$ 173,000.00

Architectural:

Roof Replacement	\$ 360,000.00
<u>Gym Floor Re-surfacing</u>	<u>\$ 25,000.00</u>
Sub-total Architectural	\$ 385,000.00

Mechanical and Plumbing:

Mechanical items	\$ 100,000.00
<u>Plumbing items</u>	<u>\$ 20,000.00</u>
Sub-total Mechanical and Plumbing	\$ 120,000.00

Electrical:

<u>Replace Panelboards and Distribution System</u>	<u>\$ 178,000.00</u>
Sub-total Electrical	\$ 178,000.00

Sub-total Construction: \$ 856,000.00

Fees, Contingency, etc. (18%) \$ 154,000.00

Project Total: \$1,010,000.00

Cost Estimate (10 year)

Civil/Site:

Replace Fencing	\$ 30,000.00
Replace Sewer Plant	\$ 250,000.00
Sub-total Civil/Site	\$ 280,000.00

Architectural:

Re-point Brick	\$ 55,000.00
Replace Windows	\$ 115,000.00
Casework Replacement	\$ 85,000.00
ADA Upgrades (signage and hardware)	\$ 65,000.00
ADA and Restroom Renovations	\$ 150,000.00
Suspended Acoustical Tile Ceiling replacement	\$ 120,000.00
Interior Painting	\$ 110,000.00
Re-furbish Elevator	\$ 50,000.00
Sub-total Architectural	\$ 750,000.00

Mechanical and Plumbing:

HVAC System Replacement	\$2,025,000.00
Plumbing System Replacement	\$ 575,000.00
Sub-total Mechanical and Plumbing	\$2,600,000.00

Electrical:

Main Gear Replacement	\$ 54,000.00
Generator Replacement	\$ 42,000.00
Electrical for HVAC Replacement	\$ 49,500.00
Interior and Exterior Lighting Replacement	\$ 495,000.00
Sub-total Electrical	\$ 640,500.00

Sub-total Construction \$4,270,000.00

Fees, Contingency, etc. (18%) \$ 769,000.00

Total Construction \$5,039,000.00

Site Pictures



Janitors house and gravel drive



Pedestrian bridge



View of school from across road



Playground

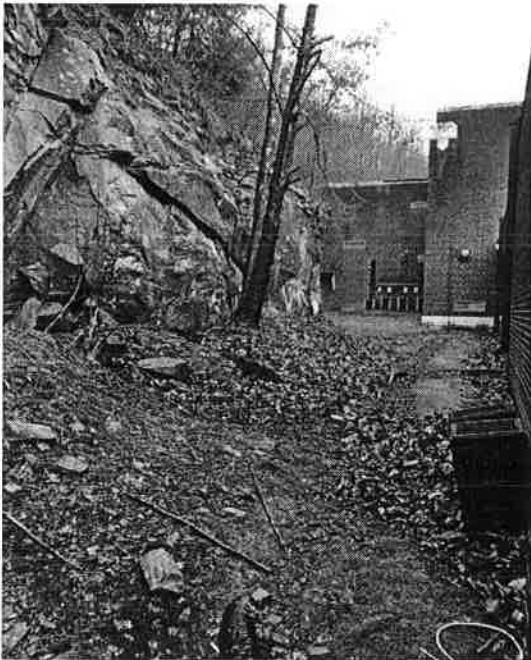
Site Pictures



Main entry stairs and rails



Stairs to playground



Rear of building/downspouts



Wastewater treatment plant

Exterior Pictures



Front of original building and 1967 addition

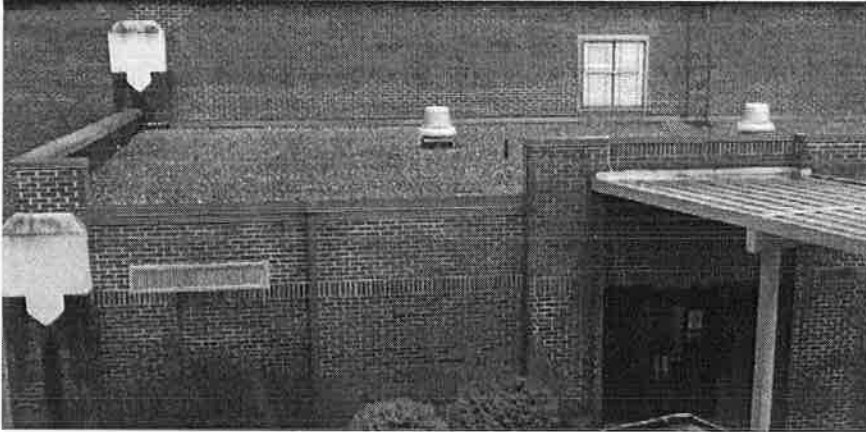


Front of building

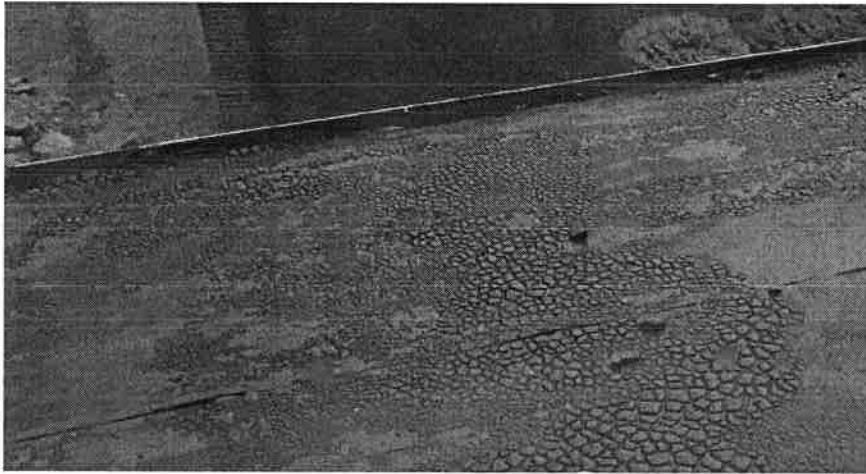


Front of 1967 addition and gym addition

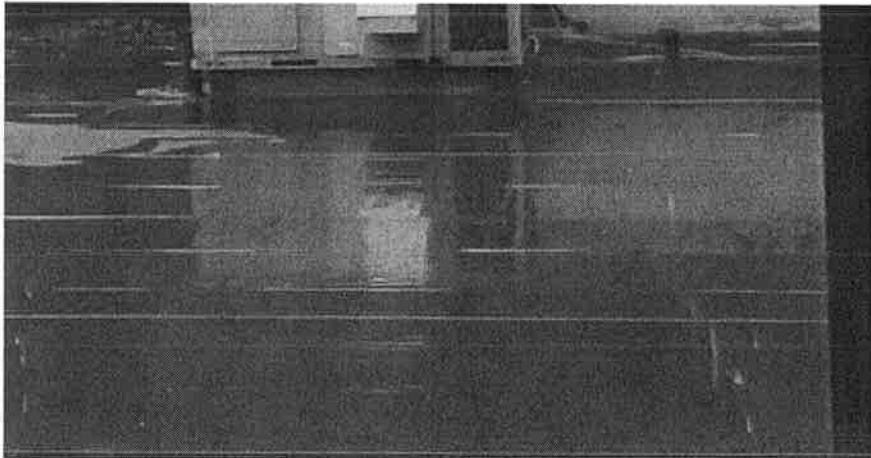
Roof Pictures



Gym building roof



1967 addition roof



Cafeteria roof

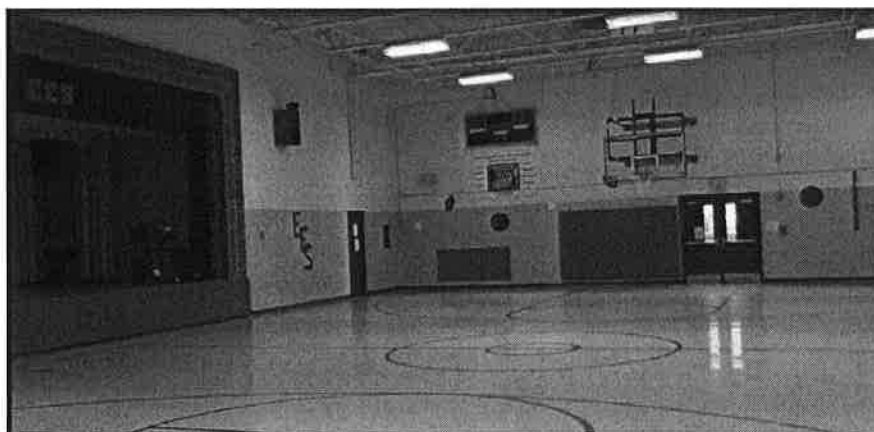
Interior Pictures



Upper floor classroom corridor

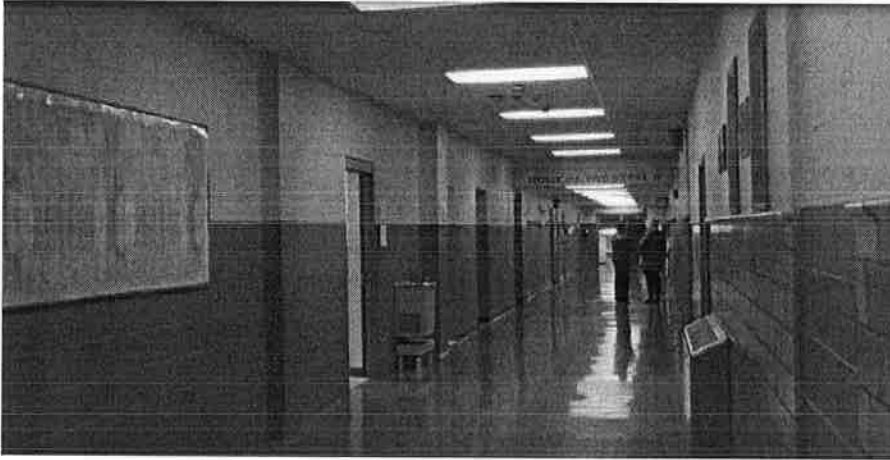


Cafeteria



Gym and stage

Interior Pictures



Main floor corridor



HVAC units in classroom



Typical classroom casework

Attachment #3

RADON SURVEY FOR CLINTWOOD ELEMENTARY SCHOOL

150 ELEMENTARY CIRCLE, CLINTWOOD, VIRGINIA

NON EPA SURVEY

PREPARED BY:

CHRIS RAKES

Dickenson County Building Official

FEBRUARY 27, 2018

EXECUTIVE SUMMARY

On February 16, 2018 short term charcoal Radon test kits from Air Chek Inc. were placed by Chris Rakes and Doug Rose inside Clintwood Elementary School. On February 18, 2018 the test kits were collected. Two duplicate kits were collected along with one field blank to meet compliance with quality assurance.

After Radon Act 51 was passed by Congress the US EPA was tasked with setting practical guidelines and recommendations for the nation. To this end, the US EPA has set an action level of 4 pCi/L. At or above this level of radon, the EPA recommends you take corrective measures to reduce your exposure to radon gas. This does not imply that a level below 4.0 pCi/L is considered acceptable. Simply put any occupied building testing at 4 pCi/L or more needs Radon Mitigation.

All test results were **below 4 pCi/L** please see recommendations for further actions.

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Recommendations

1

Test Results

2

<u>Appendix</u>	<u>Title</u>
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A

Laboratory Analysis Report

B

AARST-NRPP Radon Certifications

SECTION 1
RECOMMENDATIONS

After reviewing the attached Radon Lab results the findings are:

The results confirm previous Radon testing.

No Radon mitigation would be required at this time.

In the event of an earthquake, retesting would be highly recommended.

Retesting for Radon is recommended ever two years.

SECTION 2

TEST RESULTS

Radon Test Serial Number	Start Date	Stop Date	Room	Location	Results	Variance
7202714	02/16/2018	02/18/2018	A	Lowest level	0.8	± 0.3
7202715	02/16/2018	02/18/2018	A	Lowest level	1.7	± 0.4
7202716	02/16/2018	02/18/2018	F	Lowest level	1.7	± 0.4
7202717	02/16/2018	02/18/2018	G	Lowest level	1	± 0.4
7202718	02/16/2018	02/18/2018	L	Lowest level	1.7	± 0.4
7202719	02/16/2018	02/18/2018	X	Upper level	1.2	± 0.4
7202720	02/16/2018	02/18/2018	X	Upper level	0.8	± 0.4
7202721	02/16/2018	02/18/2018	S	Upper level	< 0.3	± 0.4
7202722	02/16/2018	02/18/2018	R	Upper level	< 0.3	± 0.4
7202723	02/16/2018	02/18/2018	M	Upper level	0.7	± 0.4
7202724	02/16/2018	02/18/2018	N	Upper level	0.6	± 0.3
7202725	02/16/2018	02/18/2018	N Blank	Upper level	< 0.3	± 0.5

APPENDIX A

LABORATORY ANALYSIS REPORT

In the lab report Basement equals the lowest level and 1st Floor equals the upper level. Both Clintwood Elementary and Ervinton Elementary Schools are listed in the lab results, Clintwood Elementary is kit numbers 7202714 through 7200225. Kit number 7202738 is the control field blank that stayed with the shipping box.

Attention: I5502 / CHRIS RAKES / DICKENSON COUNTY BOARD OF SUPERVISORS

Kit #: 7202714 Result: 0.8 ± 0.3 pCi/l
Location: Basement

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 5.8% 74°F

Kit #: 7202715 Result: 1.7 ± 0.4 pCi/l
Location: Basement

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 4.3% 74°F

Kit #: 7202716 Result: 1.7 ± 0.4 pCi/l
Location: Basement

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 5.1% 74°F

Kit #: 7202717 Result: 1.0 ± 0.4 pCi/l
Location: Basement

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 5.1% 74°F

Kit #: 7202718 Result: 1.7 ± 0.4 pCi/l
Location: Basement

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 5.1% 74°F

Kit #: 7202719 Result: 1.2 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 5.7% 74°F

Attention: I5502 / CHRIS RAKES / DICKENSON COUNTY BOARD OF SUPERVISORS

Kit #: 7202720 Result: 0.8 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 5.1% 74°F

Kit #: 7202721 Result: < 0.3 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 4.3% 74°F

Kit #: 7202722 Result: < 0.3 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 5.1% 74°F

Kit #: 7202723 Result: 0.7 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 4.3% 74°F

Kit #: 7202724 Result: 0.6 ± 0.3 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 6.6% 74°F

Kit #: 7202725 Result: < 0.3 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 4:00 pm
Ended : 2018-02-18 at 5:00 pm
Hours/MST% : 49 hours 4.4% 74°F

Attention: I5502 / CHRIS RAKES / DICKENSON COUNTY BOARD OF SUPERVISORS

Kit #: 7202726 Result: 2.5 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.1% 75°F

Kit #: 7202727 Result: 2.8 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.1% 75°F

Kit #: 7202728 Result: 2.0 ± 0.5 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 4.3% 75°F

Kit #: 7202729 Result: 3.0 ± 0.5 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 4.3% 75°F

Kit #: 7202730 Result: 3.3 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.9% 75°F

Kit #: 7202731 Result: 1.8 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.1% 75°F

Attention: I5502 / CHRIS RAKES / DICKENSON COUNTY BOARD OF SUPERVISORS

Kit #: 7202732 Result: 2.2 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.1% 75°F

Kit #: 7202733 Result: 1.8 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.1% 75°F

Kit #: 7202734 Result: 1.8 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 4.4% 75°F

Kit #: 7202735 Result: 2.8 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.1% 75°F

Kit #: 7202736 Result: 2.6 ± 0.4 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 5.1% 75°F

Kit #: 7202737 Result: < 0.3 pCi/l
Location: 1st Floor

Analysis Note :
Analyzed : 2018-02-22 at 3:00 pm
Started : 2018-02-16 at 5:00 pm
Ended : 2018-02-18 at 7:00 pm
Hours/MST% : 50 hours 4.4% 75°F

Attention: I5502 / CHRIS RAKES / DICKENSON COUNTY BOARD OF SUPERVISORS

Kit #: 7202738 Result: < 0.3 pCi/l

Location: 1st Floor

Analysis Note :

Analyzed : 2018-02-22 at 3:00 pm

Started : 2018-02-16 at 5:00 pm

Ended : 2018-02-18 at 7:00 pm

Hours/MST% : 50 hours 3.6% 72°F

APPENDIX B

AARST-NRPP Radon Certifications

Chris Rakes

Has satisfactorily fulfilled the requirements set forth by the
National Radon Proficiency Program and is therefore certified as a:

Residential Mitigation Provider

NRPP ID 106311 RMT Expires 09/30/2019



Valid for specific activities or measurement devices, which can be verified with NRPP.
State and local agencies may have additional requirements.

In witness Whereof,
I have subscribed my name as a
Representative of NRPP
Janna Sinclair
Janna M. Sinclair
NRPP Credentialing Coordinator

Chris Rakes

Has satisfactorily fulfilled the requirements set forth by the
National Radon Proficiency Program and is therefore certified as a:

Residential Measurement Provider

NRPP ID 106310 RT Expires 09/30/2019



Valid for specific activities or measurement devices, which can be verified with NRPP.
State and local agencies may have additional requirements.

In witness Whereof,
I have subscribed my name as a
Representative of NRPP

Janna M. Sinclair
NRPP Credentialing Coordinator



DICKENSON COUNTY BUILDING DEPARTMENT

P.O. Box 733
Clintwood, VA 24228



Phone
276-926-1673

Cell
276-635-6336

Fax
276-926-6227

Chris Rakes
Building Official
Erosion & Sediment Control Specialist
crakes@dickensonva.org

Mold in Air Testing Results

On February 16, 2018 air test samples were collected from Clintwood Elementary School by Chris Rakes and Doug Rose. These samples were collected using Air-O-Cell Cassettes, air pumps were set at 15 liters per minute and timed to run for 10 minutes totaling 150 cubic liters of air per sample. Two samples were collected outside to compare the interior results to the exterior results.

I offered to take both air samples and tape samples to test both the airborne particulates and the settled particulates. I was told that the school system did not want tape samples collected. To get a better assessment of HVAC system, I instructed that the fans on the HVAC systems be turned on. All interior samples reflect the HVAC system running.

Currently, there are no federal standards or recommendations, (e.g., OSHA, NIOSH, EPA, VDH) for airborne concentrations of mold or mold spores. Environmental Hazards Services, LLC has provided us with their standards for interpreting mold in air samples. During my four trips through Clintwood Elementary School, I did not observe any visible mold.

Mold Group Spore type	Highest indoor lab result spors/m3	EHS Mold Standards	Above or Below EHS Mold Standards
Stachybotys	6.7	35	Below
Cladosporium	33	250	Below
Aureobasidium	13	250	Below
Chaetomium	0	250	Below
Nigrospora	6.7	250	Below
Pithomyces	6.7	250	Below
Smuts, Periconia, Myxomycetes	33	250	Below
Penicillium / Aspergillus	0	750	Below

The results of this mold in air testing confirms that all samples were below EHS Lab recommended levels.

This report was created by Chris Rakes, Dickenson County Building Official.



Interpreting Environmental Hazards Services, LLC Mold Analysis Summary Reports

AIR SAMPLES

EPA guidelines state that “the kinds and concentrations of mold and mold spores in the building should be similar to those found outside”, and further state that “In cases in which a particularly toxic mold species has been identified or is suspected...a more cautious or conservative approach to remediation is indicated”. In light of this guidance, EHS Labs has adopted the standards below in attempting to make reasonable determinations about air sample results. EHS Labs will report, “unusual mold conditions exist” when:

For total spore counts

- Air samples indicate the total spore count inside the home is over 5000 and significantly higher (125%) than the outside.

For Certain Mycotoxic Spores

- A sample count of *Stachybotrys* spores inside is over 35.
- A sample count of the *Penicillium/Aspergillus* group inside is over 750 and significantly higher (125%) than the outside.
- A sample count of certain other spore types that may produce mycotoxins is over 250 inside and significantly (25%) higher than the outside count.

* *Bipolaris/Dreschlera* sp., *Fusarium*, *Memmoniella*, *Torula* sp., *Trichoderma* sp., *Chaetomium* sp.

For further information you can visit our web site at www.leadlab.com

1 Reference material includes the ACGIH publication: “Bioaerosols: Assessment and Control”, the EPA publication: “Mold remediation in schools and Commercial Buildings”, and the New York City Department of Health publication: “Guidelines on Assessment and Remediation of Fungi in Indoor Environments”.



Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Report Number: 18-02-03397

Received Date: 02/22/2018
Analyzed Date: 02/22/2018, 02/23/2018
Reported Date: 02/23/2018

Client: Dickenson County Board of Supervisors
818 Happy Valley Drive
Clintwood, VA 24228

Project/Test Address: Clintwood Elementary School 150 Elementary Circle;
Clintwood, VA 24228

Fax Number:

Client Number:
201419

Laboratory Results

Lab # :	18-02-03397-001	18-02-03397-002	18-02-03397-003	18-02-03397-004	18-02-03397-005					
Client Sample ID :	1	2	3	4	5					
Date Collected :	02/18/2018	02/18/2018	02/18/2018	02/18/2018	02/18/2018					
Collection Location :	EXT E SIDE	HALL AT LIBRARY	LIBRARY	CLASS P	CLASS U					
Sampling Media :	Air-O-Cell	Air-O-Cell	Air-O-Cell	Air-O-Cell	Air-O-Cell					
Analytical Sensitivity (spores/m3) :	6.7	6.7	6.7	6.7	6.7					
Volume (L) :	150	150	150	150	150					
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	1	6.7	2	13	1	6.7	2	13	4	27
Penicillium/Aspergillus group spores	16	110								
Aureobasidium spores	1	6.7							1	6.7
Stachybotrys spores			1	6.7						
Nigrospora spores	1	6.7							1	6.7
smuts, Periconia, myxomycetes	3	20	1	6.7						
TOTAL SPORES(Spores/m3)	150		27		6.7		13		40	
Analyst:	Felicia Butler		Felicia Butler		Felicia Butler		Felicia Butler		Felicia Butler	



Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Report Number: 18-02-03397

Received Date: 02/22/2018

Analyzed Date: 02/22/2018, 02/23/2018

Reported Date: 02/23/2018

Client: Dickenson County Board of Supervisors
818 Happy Valley Drive
Clintwood, VA 24228

Project/Test Address: Clintwood Elementary School 150 Elementary Circle;
Clintwood, VA 24228

Client Number:
201419

Fax Number:

Laboratory Results

Lab # :	18-02-03397-006	18-02-03397-007	18-02-03397-008							
Client Sample ID :	6	7	8							
Date Collected :	02/18/2018	02/18/2018	02/18/2018							
Collection Location :	EXT N SIDE	CLASS D	CLASS I							
Sampling Media :	Air-O-Cell	Air-O-Cell	Air-O-Cell							
Analytical Sensitivity (spores/m3) :	6.7	6.7	6.7							
Volume (L) :	150	150	150							
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	2	13	3	20	5	33				
Penicillium/Aspergillus group spores	3	20								
Aureobasidium spores	1	6.7	2	13						
Chaetomium spores	1	6.7								
Pithomyces spores			1	6.7						
smuts, Periconia, myxomycetes			5	33	2	13				
TOTAL SPORES(Spores/m3)	47		73		47					

Analyst: Felicia Butler Felicia Butler Felicia Butler

Method: Non-Culturable Spore Trap Examination

Reviewed By Authorized Signatory:

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, volume, etc., was provided by the client. The Client is hereby notified that due to the subjective nature of fungal analysis and the growth process of fungal infestation, laboratory samples can and do change over time relative to the originally sampled material. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.



Air Report Summary

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Project/Test Address: Clintwood Elementary School 150 Elementary Circle; Clintwood, VA 24228
Client Number: 201419
Report Number: 18-02-03397

This summary is based on the results obtained by Environmental Hazards Services for the samples taken at the above Project/Test Address. For details such as mold type and spore counts, please see the Report Number listed above. Environmental Hazards Services is a laboratory only, and this summary in no way constitutes a remediation plan. The test(s) performed is/are designed to give a "picture-in-time"; results and conditions in the property may change in the future. If the testing was performed as a result of the property currently experiencing a water infiltration or moisture problem, the source of the problem should be corrected immediately. The Environmental Protection Agency recommends that any indoor mold growth be addressed and all water or moisture sources be eliminated.

Sample Number	Location	Sample Type	Unusual Mold Condition(s) Exist
18-02-03397-001	EXT E SIDE	Mold Air	No Comparison Available
18-02-03397-002	HALL AT LIBRARY	Mold Air	No Comparison Available
18-02-03397-003	LIBRARY	Mold Air	No Comparison Available
18-02-03397-004	CLASS P	Mold Air	No Comparison Available
18-02-03397-005	CLASS U	Mold Air	No Comparison Available
18-02-03397-006	EXT N SIDE	Mold Air	No Comparison Available
18-02-03397-007	CLASS D	Mold Air	No Comparison Available
18-02-03397-008	CLASS I	Mold Air	No Comparison Available

The recommendations found in this summary are based on accepted industry standards developed by the American Conference of Governmental Industrial Hygienists (ACGIH), the EPA, and the New York City Department of Health.¹

For further information, please visit our website at www.leadlab.com

¹Reference material includes the ACGIH publication: "Bioaerosols: Assessment and Control", the EPA publication: "Mold Remediation in Schools and Commercial Buildings", and the New York Department of Health publication: "Guidelines on Assessment and Remediation of Fungi in Indoor Environments"

Summary reports are generated by Environmental Hazards Services, LLC at the request of, and for the exclusive use of, the person or entity (client) named on this report. Reports or copies of same will not be released by Environmental Hazards Services, LLC to any third party without the prior express written consent from the client named in this report. This report applies only to those samples taken at the time, place and location references by the client. This report was designed by Environmental Hazards Services, LLC following current industry guidelines for the interpretation of microbial sampling and analysis. Interpretation of these parameters is a scientific work in progress and may as such be changed at any time without notice. This report makes no express or implied warranty or guarantee as to the sampling methodology used by the client. The client is solely responsible for the use and interpretation of these test results. Environmental Hazards Services, LLC makes no express or implied warranties as to such use or interpretation.



Mold Spore Descriptions

Environmental Hazards Services, L.L.C.

7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Project/Test Address: Clintwood Elementary School 150 Elementary Circle; Clintwood, VA 24228

Client Number: 201419

Report Number: 18-02-03397

Section 2: The following fungal descriptions are pertinent to the indoor samples collected. General characterization of mold is made with respect to their most common impact to human health. Many genera of molds have species with varying characteristics.

Spore Name	Description
Cladosporium spores	Reported to be allergenic. Most commonly identified spore in outdoor samples. Highly seasonal. Indoor species may differ from outdoor species. Typically found inside supply ducts.
Penicillium/Aspergillus group spores	Reported to be allergenic. Many species have been documented to produce mycotoxins, which may be associated with pulmonary disease in humans and other animals. Research studies have implicated several of these toxins as carcinogens in laboratory animals following inhalation. A wide number of organisms have been grouped into these two genera. Extremely difficult to identify down to species level. Typically identified in soil, cellulose, food, paint, compost piles, carpeting, wallpaper and in the fiberglass insulation used in interior ductwork.
Aureobasidium spores	Reported to be allergenic. Commonly found in high moisture areas such as bathrooms and kitchens. Rarely associated with skin disorders.
Stachybotrys spores	Toxigenic. Also recognized as an allergen. Typically a fungus of dark green/black coloration, it grows readily on building materials with a high cellulose content but low in nitrogen, and is rarely observed in outdoor samples. Certain strains of Stachybotrys may produce the mycotoxin, trichothecene under appropriate conditions which has been documented to cause problems associated with the circulatory, alimentary, skin and nervous systems. Absorption of trichothecene into the tissues of the human lung may cause a condition known as pneumomycosis. Although there have been conflicting studies concerning the toxicity of this fungi, it still appears that extreme caution should be practiced when dealing with this mold.
Chaetomium spores	Reported to be allergenic. Some species may be associated with disease in humans. Commonly found on the paper used as facing on sheetrock.
Pithomyces spores	Reported to be allergenic. Some species may, in rare instances, produce the toxin sporidesmin.
Nigrospora spores	Reported to be allergenic. No additional health data for this genus is available at this time.
smuts, Periconia, myxomycetes	Reported to be allergenic. This class of fungal spores is most often related to agriculture and plant disease and is rarely found indoors.

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EHS
Laboratories

Environmental Hazards Service, LLC
7469 Whitopine Road
Richmond, VA 23237
Telephone: 800.347.4010

Particulates Analysis Report

Client:
enson County Board of Supervisors

Report Number: 18-02-03397

Received Date: 2/22/2018

Analyzed Date: 2/23/2018

Reported Date: 2/23/2018

Project/Test Address: Clintwood Elementary School, 150 Elementary Circle; Clintwood, VA 24228

Collection Date: 2/18/2018

Analyzed By: Felicia Butler

Client Number	1 EXTERIOR	2 HALL AT LIBRARY	3 LIBRARY	4 CLASSROOM P
Lab Sample Number	18-02-03397-001	18-02-03397-002	18-02-03397-003	18-02-03397-004
Total Air Volume	150L	150L	150L	150L
Algae	ND	ND	ND	ND
Cellulose (Plant/Cloth Fibers)	P	P	P	P
Epithelial cells	P	P	P	P
Fiber glass	ND	P	P	ND
Hair	ND	ND	ND	ND
Insect parts	ND	ND	ND	ND
Quartz & Calcite	P	P	P	P
Starch grains	ND	P	ND	ND
Synthetic fibers	P	P	ND	P
Trichomes (plant hairs)	ND	ND	ND	ND
*Small particles	ND	ND	ND	ND

Reviewed By Authorized Signatory:

Felicia Butler
Microbiology Analyst

P = Present ND = Not Detected *Small Particles= translucent to opaque, amorphous, single particles and aggregates.
These may be finely comminuted minerals, cell fragments, or any other particle too minute to resolve.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.



EHS
Laboratories

Environmental Hazards Service, LLC

7469 Whitepine Road

Richmond, VA 23237

Telephone: 800.347.4010

Particulates Analysis Report

Client:
enson County Board of Supervisors

Report Number: 18-02-03397

Received Date: 2/22/2018

Analyzed Date: 2/23/2018

Reported Date: 2/23/2018

Project/Test Address: Clintwood Elementary School, 150 Elementary Circle; Clintwood, VA 24228

Collection Date: 2/18/2018

Analyzed By: Felicia Butler

Client Number	5 CLASSROOM U	EXTERIOR N SIDE	CLASSROOM D	CLASSROOM I
Lab Sample Number	18-02-03397-005	18-02-03397-006	18-02-03397-007	18-02-03397-008
Total Air Volume	150L	150L	150L	150L
Algae	ND	ND	ND	P
Cellulose (Plant/Cloth Fibers)	P	P	P	P
Epithelial cells	P	P	P	ND
Fiber glass	P	ND	P	ND
Hair	ND	ND	ND	ND
Insect parts	ND	ND	ND	ND
Quartz & Calcite	P	P	P	P
Starch grains	ND	P	P	P
Synthetic fibers	P	ND	P	P
Trichomes (plant hairs)	P	ND	ND	P
*Small particles	ND	ND	P	P

Reviewed By Authorized Signatory:

Felicia Butler
Microbiology Analyst

P = Present ND = Not Detected *Small Particles= translucent to opaque, amorphous, single particles and aggregates.
These may be finely comminuted minerals, cell fragments, or any other particle too minute to resolve.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.



EHS Laboratories™
Environmental Hazards Services, LLC

Mold Chain-of-Custody Form

SHIP TO: 7469 Whitepine Rd. Richmond, VA 23237

Phone: (800) 347-4010 FAX: (804) 275-4907

ONLINE CLIENT PORTAL AVAILABLE FOR ANALYSIS RESULTS AT:

www.leadlab.com

Company Name: Dickenson County Board of Supervisors

Account Number: 201419

Address: P.O. Box 1098

City/State/Zip: Clintwood VA, 24228

Phone: 276-365-6336

Email: crakes@dickensonva.org

Fax: 276-926-6227

P.O. #:

Testing Address: Clintwood Elementary School 150 Elementary Circle

City/State (Required): Clintwood, VA 24228

Collection Date: 2 / 18 / 18 Time Collected: 2:58 pm start

AM / PM Collected by: Chris Rakes

Outside Air Temperature: 63 °F Indoor Air Temperature: 72 °F

Was There any Precipitation (Rain, Sleet, or Snow) 2 Hours or Less Before Taking the Samples? Yes No

TURN AROUND TIME: IF NO TAT IS SPECIFIED, SAMPLE(S) WILL BE PROCESSED AND CHARGED AS 3 DAY TAT.

No.	Sample Type	Collection Location	Air Samples		Swab Samples		Qualitative Analysis (Additional \$100 per sample)	Comment Serial #s
			Spore Trap Type	Air Volume (Total Liters)	Surface Type (NP/SP/?)	Area of Mold (in Square Feet - ft²)		
1	B	Exterior East side	Air O Cell	150			✓	2569 4682
2	B	Hall at Library	Air O Cell	150			✓	2569 4680
3	B	Library	Air O Cell	150			✓	2569 4678
4	B	Classroom P	Air O Cell	150			✓	2569 4594
5	B	Classroom U	Air O Cell	150			✓	2569 4759
6	B	Exterior North side	Air O Cell	150			✓	2569 4761
7	B	Classroom D	Air O Cell	150			✓	2569 4675
8	B	Classroom I	Air O Cell	150			✓	2569 4681

Air/Non Viable
Bulk = B
Swab = S
Wall/Check = W
Bio Tape = T

Spore Trap
Air-O-Cell = AOC
Cyclic D = C
Biosis = B
Micros=MS

Swab Sample Surface
Non-Porous = NP
Semi-Porous = SP
Porous = P

Sample Type Codes



18-02-03397

Due Date:
02/23/2018
(Friday)
AE

Released by: Chris Rakes
Signature:

Received by:

Date/Time: 2/22/18 11:48

SKANSKA



Dickenson County Public Schools

New Elementary School Project Budget

March 12, 2018



Attachment #5

**DICKENSON COUNTY PROPOSED NEW ELEMENTARY SCHOOL
PROJECT BUDGET**

	500 STUDENT OPTION (MIN. PER ACOE)	COMMENTS
Size of School Needed	62,500 SF	Based upon average of 125 SF per student for new elementary school per VA DOE data. Note minimum size of school required per ACOE contract is 62,000 SF.
Hard Construction Costs (Building & Site) 2018	\$13,924,313	Based upon average of \$210/SF for new elementary school per VA DOE 2016 data escalated two years to 2018 at 3% escalation factor (today's dollars) equating to \$223/SF today . Additional Recent Benchmark Data: - Enon ES - Chesterfield County PS: \$231.40/SF (April 2017) - Beulah ES - Chesterfield County PS: \$236.64 SF (April 2017) - Riverheads ES - Augusta County PS: \$200/SF (Dec 2015) - Hugh Cassell ES - Augusta County PS: \$196/SF (Dec 2015)
Hard Construction Costs (Building & Site) 2020	\$16,119,132	Escalated at 5% per year to anticipated mid-point of construction in 2020. Assume start of design Summer 2018 and completion of construction Summer 2021.
Anticipated Soft Costs Factor	\$2,901,444	Assume 18% soft costs based upon the following: New Ridgeview HS/MS = 19% New Colonial Beach ES = 19% New Auburn HS = 16% New Blacksburg HS = 20%
Total Anticipated Hard Construction and Soft Costs	\$19,020,576	
Recommended Contingency (10%)	\$1,979,424	
Recommended Project Budget for a New ES	\$21,000,000	
Army Corps Funding (Combined Contracts)	\$24,772,213	
Crediting Applied to New Elementary School	\$210,346	
Balance of Total Funding Available for Elementary School	\$24,561,867	Total funding prior to any expenses incurred to-date.
Additional Contingency/Funding Balance (Balance of Total Funding Available for Elementary School - Recommended Project Budget)	\$3,561,867	Additional contingency to cover undefined scope not included in costs above to include: - Potential VDOT road improvements, land acquisition, mineral rights, additional excavation and utility work, sewer lift station, etc. - Escalation if project schedule slips beyond start of design Summer 2018. Anticipated impact to budget due to escalation is approx. \$630,000 to \$1,050,000 assuming 3% to 5% annual escalation on \$21,000,000 budget.

Notes:

1. Construction cost of an elementary school in 2016-2017 per Virginia DOE cost data ranges from \$185/SF to \$250/SF. Average cost is \$210/SF.
2. Soft costs include design fees, special consultants, furnishings & equipment, testing & inspections, legal, construction project management, and other relevant costs.
3. Total projected enrollment for Pre-K through 5th grade in Dickenson County in 2021 is 822 students.
4. Information above should be considered preliminary in nature and is based upon limited information available as of March 2018.

SKANSKA



Dickenson County Schools

Attachment #6

Corps Funding Status

Remaining Corps Funds

Two Contracts were negotiated with the Army Corps of Engineers (Corps) for the relocation/flood proofing of multiple schools in Dickenson County. Ervinton High School, Sandlick Elementary School, and some buildings near Russell Fork River at Haysi High School were included in a Relocation Contract. Clinchco Elementary School was included in a Flood Proofing contract. The Corps approved an alternate plan presented by the School Board that proposed a consolidated high school/middle school/career technical center and a replacement elementary school for Sandlick.

The Relocation Contract was negotiated in the amount of \$102,471,437 and the Flood Proofing Contract was negotiated for \$8,100,780. Modification No. 001 was negotiated for the Relocation Contract to clarify the lump sum payment provision. The negotiated amount was not altered in this modification.

Attachment "A" from Modification No. 001 (included as Attachment 1) summarizes various project milestones with estimated costs for each of the major components of the relocation contract, namely the high school/middle school, and demolition. As can be seen from Attachment "A", the total value for the high school/middle school in the Relocation Contract is 80,149,617.00. The elementary school and demolition have values of \$21,271,823.00 and \$1,049,997.00, respectively. The total amount for the Relocation Contract is \$102,471,437.00.

Attachment 2 is an excerpt from the Flood Proofing Contract that shows the distribution among the high school/middle school, the elementary school, and demolition. As can be seen on Attachment 2, \$3,500,390.00 is allocated to the high school/middle school, \$3,500,390.00 to the elementary school, and \$1,100,000 to demolition of Clinchco Elementary for a total contract amount of \$8,100,780 on the Flood Proofing Contract.

By combining the amounts of the two Corps contracts the following amounts are determined for the contract components:

High school / middle school	\$83,650,007.00
Elementary school	\$24,772,213.00
Demolition	\$ 2,149,997.00
Total Combined Contracts	\$110,572,217.00

Attachment 3 is an excerpt from an email to Haydee Robinson received from Rebecca Bennett, the Corps Project Manager for Dickenson County. The top table in this excerpt summarizes the monies remaining to be disbursed under the Relocation Contract. The bottom table summarizes the monies remaining to be disbursed under the Flood Proofing Contract. As can be seen from the top table in this email, the total remaining amounts to be disbursed by the Corps under the Relocation Contract are:

High school / middle school	\$389,653.81
Elementary school	\$21,195,760.44
Demolition	\$1,049,997.00
Relocation Contract Remaining	\$22,635,411.25

The bottom table in this email shows \$301,090.30 remaining to be disbursed by the Corps on the high school/middle school and \$3,441,395.50 remaining to be disbursed for the replacement elementary school for a total remaining of \$3,742,485.80 for the Flood Proofing Contract.

The Board of Supervisors has elected to claim \$600,000 in eligible credits for non-school project expenditures on the Route 637 improvements towards future Section 202 projects in the County. Since these credits can only be taken from the contract that benefited, the amounts shown in the top table of the Bennett email will change as a result of the crediting.

The NEPA and Construction Retainage for the high school/middle school will be eliminated entirely and the elementary school available amount will be reduced by \$210,346.19. The amounts available under the Relocation Contract after the credits are applied are:

High school / middle school	\$-0-
Elementary school	\$20,985,414.25
Demolition	\$1,049,997.00

Combining these post crediting numbers (Relocation Contract) with the numbers from the bottom table (Flood Proofing Contract) in the Bennett email yields the following amounts which are the total monies remaining in both the Relocation and Flood Proofing Contracts:

High school / middle school	\$301,090.30
Elementary school	\$24,426,809.75
Demolition	\$1,049,997.00

Funds on Hand

The following paragraphs present the status of funds already received from the Corps. Since the high school/middle school is not completely closed out, it is necessary to project the cost of outstanding items in order to determine where the high school/middle school project is financially.

As of March 6, 2018, there is \$9,456,216.18 in the high school/middle school accounts. A Balance Sheet for this date is included as Attachment 4. The largest single item outstanding is the obligation to repay the \$10 million in QSCB bonds that were secured to provide cash flow in the early project stages. These bonds initially had a 0% interest rate to the County but Sequestration resulted in only 92.5% of the interest being forgiven. Attachment 5 shows the amortization schedule of these bonds. Assuming nothing changes in the future, it is calculated that \$8,200,000 in principal and \$414,375.00 in interest, or a total of \$8,614,375 will be required to retire the QSCB bonds.

The following table lists the known existing commitments that remain to be completed for the high school/middle school and their projected cost:

RD Loan/Grant Expenses	\$ 56,000
Corps Mitigation (Spring Fork)	\$125,000
DEQ Mitigation (Nora sewer)	\$125,000
Mitigation Reporting	\$ 50,000
Indoor Batting Facility	\$ 20,000
Miscellaneous Closeout Items	<u>\$ 30,000</u>
Total	\$406,000

There are also planned capital infrastructure improvements that have not yet been pursued due to budget concerns. Those improvements which have target budgets established are:

Outdoor patio furniture	\$25,000
Visitor's side locker and restrooms	<u>\$250,000</u>
Total	\$275,000

The addition of a tennis shed and additional classroom blinds are also planned improvements but target budgets have not yet been developed for these items. Other items that have not yet been identified may also exist.

As can be seen from the above, the funds on hand can be summarized as follows:

Cash on Hand (as of 2-21-2018)	\$9,456,216.18
QSCB obligation	-\$8,614,375.00
Existing Commitments	-\$406,000.00
Planned Improvements	<u>-\$275,000.00</u>
Remaining Balance	\$160,841.18

Attachment 6 is a summary of the Cash on Hand, commitments, planned expenditures, and remaining amounts in the Corps contracts.

Contract Modification No. 001
Attachment "A"

Summary By Project Element

		Real Estate	NEPA	Design	Construction	Demolition	Line Totals
High School / Middle School	Relocation Contract	\$1,852,195.00	\$621,211.00	\$7,099,170.00	\$88,584,840.00	\$0.00	\$98,349,617.00
Elementary School	Relocation Contract	\$1,744,255.00	\$318,579.00	\$992,534.00	\$18,401,394.00	\$0.00	\$21,271,833.00
Demolition	Relocation Contract			\$10,537.00	\$0.00	\$1,033,460.00	\$1,046,997.00
						Project Cost	\$102,471,437.00

* None of the project milestone values should be construed to obligate the Owner to a particular budget for any aspect of the project but represents a preliminary value assigned by the parties. The parties agree that the original relocation agreement requirements for construction of the project shall remain in full force and effect. The purpose of these values is solely to link the physical completion of work to the interim release(s) of funds.

ATTACHMENT 2

Contract No. W91237-6-10-0017
(Negotiated)

CONTRACT FOR RELOCATION, REARRANGEMENT
OR ALTERATION OF FACILITIES
(LUMP SUM)

OWNER AND ADDRESS: School Board of Dickenson County
309 Volunteer Street, P.O. Box 1127
Clintwood, VA 24228-1127

CONTRACT FOR: Relocation of Clinchco Elementary School Facilities as part of the
Dickenson County Nonstructural Flood Damage Reduction Project

AMOUNT: Lump Sum Contribution for Design and
Construction of the following:

Consolidated Middle School	\$ 3,500,390
Consolidated Elementary School	<u>\$ 3,500,390</u>
	\$ 7,000,780

Lump Sum Contribution for Demolition and
Removal of the following:

Clinchco Elementary School	<u>\$ 1,100,000</u>
----------------------------	---------------------

Total Government Contribution \$ 8,100,780

WORK TO BE PERFORMED BY: School Board of Dickenson County

LOCATION: Dickenson County, Virginia

BILLS WILL BE RENDERED TO: District Engineer
Department of the Army
U.S. Army Engineer District
502 Eighth Street
Huntington, West Virginia 25701
ATTN: CELRH-EC-DC

PAYMENTS WILL BE MADE BY: U.S.A.C.E. Finance Center
CEFC-AO-P Accounts Payable
5722 Integrity Drive
Millington, TN 38054-5005

The facilities and easements to be obtained by this instrument are authorized by, are for the purpose set forth in, and are 95% chargeable to Allotment No. 96X3122, Construction General and are 5% chargeable to Allotment No. 96X8862, Contributed Funds.

ATTACHMENT 3

Haydee,

To clarify the monetary impact to future cash reimbursements, below summarizes the amount to be dispersed on Contract #2 currently vs. if LERRDs crediting were applied:

Contract No. W91237-6-11-0022 (\$102,471,437.00)			
	Work Item	Balance to Finish	Retainage
HS/MS/CT	NEPA	\$289,653.81	
	Construction		\$100,000.00
ES	Real Estate, NEPA, Design & Const	\$21,195,760.44	
	Demolition	\$1,049,997.00	
Total remaining on contract to be dispersed		\$22,635,411.25	

Contract No. W91237-6-11-0022 (\$102,471,437.00)			
	Work Item	Balance to Finish	Retainage
HS/MS/CT	NEPA	\$289,653.81	
	Construction		\$100,000.00
	LERRDs Crediting	-\$1,200,000.00	
ES	Real Estate, NEPA, Design & Const	\$21,195,760.44	
	Demolition	\$1,049,997.00	
Total remaining on contract to be dispersed less LERRDs crediting		\$21,435,411.25	

For additional awareness, the following amount remains on Contract 1:

Contract No. W91237-6-10-0017 (\$8,100,780)			
	Work Item	Balance to Finish	Retainage
HS/MS/CT			
	Construction		\$301,090.30
ES	Design & Const	\$3,441,395.50	
Total remaining on contract to be dispersed		\$3,742,485.80	

If you have any further questions, don't hesitate to call.

V/R,

Rebecca Bennett, P.E.
 Project Manager
 Programs and Project Management Branch
 Huntington District
 Work: 304-399-5711
 Cell: 304-533-4032

Dickenson County School Construction Project

BALANCE SHEET

As of March 10, 2018

	TOTAL
ASSETS	
Current Assets	
Bank Accounts	
11469 General Account	8,889.27
155879 RD Construction Loan Account	1,834,182.96
31632 USACE Reimbursement Account	7,613,143.95
Total Bank Accounts	\$9,456,216.18
Total Current Assets	\$9,456,216.18
TOTAL ASSETS	\$9,456,216.18
LIABILITIES AND EQUITY	
Liabilities	
Current Liabilities	\$0.00
Long-Term Liabilities	
29000 QSCB Payable - Principal	8,200,000.00
29100 QSCB Payable - Interest	414,375.00
Total Long-Term Liabilities	\$8,614,375.00
Total Liabilities	\$8,614,375.00
Equity	\$841,841.18
TOTAL LIABILITIES AND EQUITY	\$9,456,216.18

Net Debt Service
Virginia Public School Authority
Dickenson County
(Direct Payment Qualified School Construction Bonds)
Series 2011-2
Final Sizing 12-1-11 - Local Amortizations

Date	Principal	Interest	Total Debt Service	Federal Tax Credit	Net Debt Service	Annual Net D/S
6/1/2012		195,972.22	195,972.22	(195,972.22)		
12/1/2012	200,000	212,500.00	412,500.00	(212,500.00)	200,000	
6/1/2013		212,500.00	212,500.00	(212,500.00)		
6/30/2013						200,000
12/1/2013	200,000	212,500.00	412,500.00	(212,500.00)	200,000	
6/1/2014		212,500.00	212,500.00	(212,500.00)		
6/30/2014						200,000
12/1/2014	200,000	212,500.00	412,500.00	(212,500.00)	200,000	
6/1/2015		212,500.00	212,500.00	(212,500.00)		
6/30/2015						200,000
12/1/2015	200,000	212,500.00	412,500.00	(212,500.00)	200,000	
6/1/2016		212,500.00	212,500.00	(212,500.00)		
6/30/2016						200,000
12/1/2016	200,000	212,500.00	412,500.00	(212,500.00)	200,000	
6/1/2017		212,500.00	212,500.00	(212,500.00)		
6/30/2017						200,000
12/1/2017	800,000	212,500.00	1,012,500.00	(212,500.00)	800,000	
6/1/2018		212,500.00	212,500.00	(212,500.00)		
6/30/2018						800,000
12/1/2018	800,000	212,500.00	1,012,500.00	(212,500.00)	800,000	
6/1/2019		212,500.00	212,500.00	(212,500.00)		
6/30/2019						800,000
12/1/2019	800,000	212,500.00	1,012,500.00	(212,500.00)	800,000	
6/1/2020		212,500.00	212,500.00	(212,500.00)		
6/30/2020						800,000
12/1/2020	800,000	212,500.00	1,012,500.00	(212,500.00)	800,000	
6/1/2021		212,500.00	212,500.00	(212,500.00)		
6/30/2021						800,000
12/1/2021	800,000	212,500.00	1,012,500.00	(212,500.00)	800,000	
6/1/2022		212,500.00	212,500.00	(212,500.00)		
6/30/2022						800,000
12/1/2022	560,000	212,500.00	772,500.00	(212,500.00)	560,000	
6/1/2023		212,500.00	212,500.00	(212,500.00)		
6/30/2023						560,000
12/1/2023	555,000	212,500.00	767,500.00	(212,500.00)	555,000	
6/1/2024		212,500.00	212,500.00	(212,500.00)		
6/30/2024						555,000
12/1/2024	555,000	212,500.00	767,500.00	(212,500.00)	555,000	
6/1/2025		212,500.00	212,500.00	(212,500.00)		
6/30/2025						555,000
12/1/2025	555,000	212,500.00	767,500.00	(212,500.00)	555,000	
6/1/2026		212,500.00	212,500.00	(212,500.00)		
6/30/2026						555,000
12/1/2026	555,000	212,500.00	767,500.00	(212,500.00)	555,000	
6/1/2027		212,500.00	212,500.00	(212,500.00)		
6/30/2027						555,000
12/1/2027	555,000	212,500.00	767,500.00	(212,500.00)	555,000	

Net Debt Service
Virginia Public School Authority
Dickenson County
(Direct Payment Qualified School Construction Bonds)
Series 2011-2
Final Sizing 12-1-11 - Local Amortizations

Date	Principal	Interest	Total Debt Service	Federal Tax Credit	Net Debt Service	Annual Net D/S
6/1/2028		212,500.00	212,500.00	(212,500.00)		
6/30/2028						555,000
12/1/2028	555,000	212,500.00	767,500.00	(212,500.00)	555,000	
6/1/2029		212,500.00	212,500.00	(212,500.00)		
6/30/2029						555,000
12/1/2029	555,000	212,500.00	767,500.00	(212,500.00)	555,000	
6/1/2030		212,500.00	212,500.00	(212,500.00)		
6/30/2030						555,000
12/1/2030	555,000	212,500.00	767,500.00	(212,500.00)	555,000	
6/30/2031						555,000
	10,000,000	8,058,472.22	18,058,472.22	(8,058,472.22)	10,000,000	10,000,000

ATTACHMENT 6

Corps Project Funds

Drawn Down, On Hand

Current Funds in Bank, 3/6/18	\$9,456,216.18	
QSCB payback - Principal	(8,200,000.00)	
QSCB payback - Interest	(414,375.00)	7.5% unsubsidized portion of remaining QSCB interest due (\$5,525,000)
Non-debt Funds Remaining	841,841.18	

Committed Expenses (estimates):

RD Loan/Grant Expenses	(56,000.00)	
Spring Fork Mitigation	(125,000.00)	
Nora Sewer	(125,000.00)	
LT Mitigation Reporting / 10-yr	(50,000.00)	
Completion of Batting Cage	(20,000.00)	Constr \$0 / Items \$14,026
Misc Ridgeview Closeout	(30,000.00)	Doors \$7500 / Terrazzo ? / Masonry \$2500

Uncommitted Funds Remaining 435,841.18

Previously Planned Ridgeview Capital Items:

Outdoor Patio Furniture	(25,000.00)	
Football Stadium - Visitor Side Building	(250,000.00)	
Tennis Shed	0.00	No budget or cost established
Classroom Blinds	0.00	No budget or cost established

Available Funds Balance 160,841.18

Not Drawn, Available from Corps

Elementary School	\$24,426,809.75
Demolition	\$1,049,997.00
Retainage	\$301,090.30