

The Planning Process

Summary

The purpose of this feasibility study is to create a tool to inform short term and long range strategic planning decisions through documentation of educational, financial and community goals. Representing the needs of Seneca Valley School District and the communities the District serves, this tool will offer creative and responsive solutions to those needs. The process analyzed existing facility conditions, building capacity, curricular goals, learning environment best practice, community understanding and expectation, sustainability, and cost to answer the three fundamental questions:

Where are you now?

Where do you want to be
in 10 years?

What is needed to get there?

The study was broken down into five phases: definition of goals, collection of data, analysis of findings, development of options and testing of concepts.

Definition of Goals

An initial “Planning to Plan” kick-off meeting was held with district administration to outline the goals and guiding principles that would define the success of the project, as well as to establish the “who, what, why and when”. Collectively, these define the foundation upon which the study is built. At this initial meeting, it was established that the study would holistically represent the wants and needs of a variety of district stakeholders including parents, students, teachers, district administration, school board of directors, building and grounds staff, business leaders, municipal leaders and local police. Each of these user groups was engaged in face to face meetings and workshops, often with district administration present. Findings from these meetings are outlined in the Data Collection section of Executive Summary. Stated study goals are as follows in no particular order:

- Confirm and where necessary supplement the items noted in the district’s Long Range Facilities Plan.
- Enact change within the realities of funding.
- Enact evolutionary change vs. revolutionary change (advance current programmatic success).
- Change should encourage, mentor, and nourish creative and innovative thinking among students and faculty.
- Plan for enhanced student to student, teacher to teacher and student to teacher collaboration.
- Provide students with opportunity and choice.
- Provide spaces that support 21st century learning

and skills.

- Confirm current and projected enrollment.

Data Collection

Stantec reviewed documentation provided by the District, assessed facilities and their associated sites, generated demographic information and enrollment projections and collected classroom utilization data in order to create a holistic picture of where the district currently stands. This data formed the basis for the various options and their associated estimates of probable cost.

Analysis

The analysis phase of the study reviewed all information gathered during the Data Collection phase in context of the stated study goals. This analysis identified key questions whose answers would inform the current building options. Those questions were:

- What is the condition of our facilities?
- Can our facilities support 21st century teaching and learning?
- How do our facilities support our communities?
- How energy efficient are our facilities?
- How much growth can we expect and where will it be?
- Can our infrastructure accommodate growth plus ideal class sizes?



- Can we accommodate full day K?
- How will our facilities support blended learning (Academy of Choice)?

Rating System

Each building, their systems and site were reviewed within the context of key rating metrics. Metrics were condition of architectural systems, building sites/ campuses, MEP systems, energy efficiency and responsiveness to 21st century teaching and learning. Each of these systems has been rated as excellent, good, fair, or poor. An overall rating was then generated for each building and its site. These ratings are displayed graphically similar to the example shown here. Building ratings were utilized to make recommendations for specific building options.



Options and Cost Estimates

After analyzing the key issues facing the Seneca Valley School District, a number of options were developed to address those issues. Each option has been fleshed out to look at its impact on each of the existing facilities, overall district enrollment and personnel needs, cost and implementation schedule.

District Goals

Well in advance of any option development, an extensive effort was taken to identify and engage the various stakeholder groups within the district. This was a critical effort of data gathering as the options to be developed must be done so with respect to the district vision; and the vision must be inclusive. As such, a combination of one on one and stakeholder workshops were conducted with parents, students, teachers, district administration, school board of directors, building and grounds staff, business leaders, municipal leaders and local police. The intent of these meetings was to define what constituents thought of district programs and facilities, define what was working, what could be improved, and where should the district be headed to meet the challenges of the next 10 – 20 years. Overall, the themes that emerged for each stakeholder group are as follows:

District Administration

- We must be connected
- Students should have access to opportunity
- Students should have access to choice
- Collaboration is very important
- Facilities should be open and inviting
- Our buildings and programs should celebrate the arts
- We must teach to the whole child
- We must have a culture of mentorship
- We must be connected to our community
- We should move beyond silos / Departments
- Career pathways support choice
- Our schools should embrace the maker movement
- Full day K is an important consideration
- Our programs must continue to evolve
- Traffic at the high school must be addressed
- Students should be critical thinkers

Elementary School Administration

- Collaboration is key
- Specials should be more integrated
- Blended learning is key
- Embrace the maker movement
- Teachers should be mentors
- Our buildings should be bright and inviting, not institutional
- Sensory play should be accommodated
- Sites should be a teaching tool
- Specials should be at the core of curriculum not outside of it.
- Critical thinking is key, not memorization

Middle School Administration

- We need a strong identity
- Community is important

- Collaboration is important
- A variety (of space) is needed
- Teaming is important
- Students should have opportunity
- Networking is important for learning
- Buildings should be inspiring
- Site Safety needs to be addressed
- Exploration is important to curriculum and learning
- Integrate the specials
- Maker movement is important to learning
- Synchronous Learning is learning

High School Administration

- We should function more as an open campus
- Silos / Departments should be broken down
- Blended Learning is critical
- We function as one campus
- Un-assigned classrooms should be explored
- Choice is critical to offer students
- Social Spaces are lacking and needed
- We should foster a culture of development
- The building should be inspiring
- Students should be problem solvers
- Main campus traffic needs to be addressed
- The site should be used as a teaching tool
- We need a stronger identity
- Critical thinking is key, not memorization

Students

- Learning happens anywhere
- Teaming builds connections
- Smaller groups/ class sizes means more indepth learning



- Need more outdoor learning spaces
- Middle school library and furnishings are limited and dated
- Libraries should be a space for teacher support
- Want access to more advanced technology
- Hands on learning is better

Parents

- The student / teacher relationship is very important
- Learning happens outside of the classroom
- Campuses are not being used as learning environments
- Differentiated learning is important
- STEM is important – campuses don't adequately support STEM
- Evans City Elementary lacks spaces to support STEM
- Smaller is better
- Teaming is good
- Classrooms are old but functional
- Evans City is old
- All schools should be air conditioned
- Libraries should be converted to media centers
- Athletic facilities are not great
- Future schools will be more on-line and more distance learning

School Board

- Seneca Valley should be a model for teaching and learning
- Size (big) offers opportunity
- Limited access to the main campus should be addressed

- Sites/ campuses should be used as learning environments
- Student safety is important
- The main campus should be master planned
- Foreign language should be a priority at the elementary level
- Facilities should be on par with programs and curriculum
- Buildings should meet the needs of 21st century learning
- Curb appeal is important
- Need more collaborative learning spaces
- Buildings should be emotionally responsive
- Additional and better performing sports venues are needed
- Buildings and sites should connect students to nature
- The district should offer a holistic education
- Now kids physiologically learn different
- Future will be more virtual and focused more on facilitation
- Our facilities should be community resources
- Wellness is equally important as athletics
- Can schools partner with other community leaders
- Sustainable schools are important

District Facilities

- Consider maintainability of systems in new construction
- Consider safety in new construction
- Consider location of systems for serviceability (safety)
- Replace custodial space taken for educational needs
- Consider landscape plans that facilitate maintenance
- Consider accessibility of systems for ease of maintenance
- The IHS is old and difficult to work on
- Problems at Evans City are chronic and systemic
- A fabrication shop is needed on the main campus
- Standardize materials and systems as much as possible
- Move away from classroom unit ventilators
- Do not provide carpet in classrooms

Municipal Leaders

- Partnership with the District is important
- Quality of life is key to healthy and sustainable communities
- Focus on revitalization of communities
- Great schools create great communities
- The District has a positive community feel
- Curb appeal of schools matters
- Taxes are important

Business Leaders

- Prospective residents are savvy-they research schools
- Students should have access to global opportunities and skills
- How students make decisions is important
- Looking for team work and leaders
- Communication skills are important
- Curb appeal is important
- Problem solving is important
- Foreign language is important
- Students should be given the opportunity to explore their career
- The arts are important
- Presentation skills are important
- The school district plays a part in regional growth
- Embrace diversity

Police Leaders

- Traffic access to main campus needs to be resolved
- Traffic access to Haine can be an issue at times
- Traffic and trains on Rt. 68 make access to Evans City a challenge
- Buildings and campuses are safe with recent upgrades
- School locations are good for response times
- Officers in buildings is positive

"21st century learning is problem solving and people working together. It's about applying knowledge in a real world setting, with technology as a tool – not memorization." Lauri Pendred, Principal Evans City Elementary School.



A Recommendations

Options recommendations are based upon information gathered in the data collection phase, including enrollment projections, facility assessments and stakeholder meetings. Options are presented by school and in many instances are independent of one another.

Option 1 for a given school consists of required improvements to keep the building “warm, safe and dry” and any replacement of systems or equipment that are beyond their useful life. By in large these improvements are consistent with the District’s Long Range Facilities Plan.

Option 2 for a given school consists of full renovations/ replacement including interior and exterior systems and site upgrades. Also included in this option is requested strategic building additions generally consisting of additional required support space like music classrooms, learning support spaces, etc. Specific to the elementary schools, this options shows additions required to provide the ideal number of students per classroom; which is a stated “Must-Do” goal by District Administration. Those ideals are 18 students per classroom for graded K-2, 21 students per classroom for grades 3-4 and 23 students per classroom for grades 5-6. A targeted, future goal for District Administration for each elementary is to provide full day Kindergarten and collaborative break out spaces for students and teachers. Each of these will require building additions which are not included in Option 2. Option 2 for a given school consists of full renovations/ replacement including interior and exterior systems and site upgrades. Also included in

this option is requested strategic building additions generally consisting of additional required support space like music classrooms, learning support spaces, etc. Specific to the elementary schools, this options shows additions required to provide the ideal number of students per classroom; which is a stated “Must-Do” goal by District Administration. Those ideals are 18 students per classroom for graded K-2, 21 students per classroom for grades 3-4 and 23 students per classroom for grades 5-6. A targeted, future goal for District Administration for each elementary is to provide full day Kindergarten and collaborative break out spaces for students and teachers. Each of these will require building additions which are not included in Option 2.

Options 3 – 4 for a given school consist of new construction. Recommendations for new construction are limited to Evans City Elementary/ Middle School and the Intermediate High School.

Elementary Schools

Of the four elementary schools within the district, Evans City is in the greatest state of disrepair. The remaining elementary schools are serviceable but each can be expected to reach varying disrepair within the next 5-10 years. Many of the elementary schools consist of an older portion and a “newer” portion. In general, the older portions will reach disrepair sooner as they generally have not been renovated within the last 15 – 20 years. Further, each of these schools is not currently designed to meet 21st century teaching and learning. Additional challenges present at CVE

and Rowan are limited site area for building additions. Because the schools have limited area for additions, it is recommended to “land bank” site area for full day K and student collaboration space, rather than additions required for decreased students per class and enrollment growth.

Through workshops, a decision was made to plan for ideal class sizes at the elementary level (sizes are noted above). This decision is based upon research indicating smaller class sizes support better student performance. Reducing the number of students effectively decreases the capacity of the school. Further, the enrollment projections for some schools indicate growth to varying degrees over the next 5 – 10 years. The most significant growth is indicated at Connoquenessing Valley Elementary School (CVE). The combined growth and reduced student per classroom indicates a seat deficiency of 347 students at CVE. CVE has limited opportunity for additions due to site limitations. As such, it is recommended to send growth at the CVE catchment area to either a new Evans City School at the Ehrman Road property or back fill the vacated 5-6 wing of Hain Middle School (refer to Evans City Options 4 and 4A).

Given the state of disrepair for Evans City and the capacity requirements of CVE and Rowan, it is recommended to combine students from Evans City,

CVE and Rowan into one new facility at the Ehrman Road property (Evans City Option 4). Should a combined 5-6 center be a top priority for the District Evans City Option 4A and 4B should be considered.

Middle and High Schools

Due to its teaming arrangement the Seneca Valley Middle School is the one building that approaches the needs for 21st Century learning. Further this building was renovated in the recent past. As such, this study recommends minimal upgrades to the middle school for the next 5-10 years.

Similar to the middle school, the senior high school is in relatively good physical condition, but it is challenged to meet the needs of 21st Century learning and the District's cyber program. It should be anticipated that the Senior High School will require more extensive renovations in the next 5-10 years.

Similar to Evans City Elementary/ Middle School the Intermediate High School (IHS) is in a severe state of disrepair and it does not respond well to the needs of 21st Century learning. As such two extensive construction options are presented for the IHS. Option 2 provides for extensive renovations to the existing structure, while Option 3 provides for extensive renovations to the common core of the structure (auditorium, gym, cafeteria, natatorium) and a new academic wing, with demolition of the existing academic wing. Given the extensive phasing required to fully renovate the existing structure, Option 3 is recommended for the IHS.

Main Campus

Based on stakeholder input and administrative staff working sessions, a holistic concept emerged for the Main Campus that will enhance the student experience, organize circulation, allow for athletic field expansion, and support proposed building improvements. The ultimate vision is of a pedestrian central core with a vehicular ring road around the perimeter of campus. Further, the vision is to capitalize on the many ecologies that exist on the campus and transform the main campus into a varied and rich learning environment that extends beyond the buildings. The pedestrian core would include interior and exterior spaces for individual and group educational, social, and recreational activities. The intent is to create a setting for self-directed student activity, similar to higher education campuses that is integrated with the environment. Highlights of the pedestrian core include outdoor classrooms, nature trails, a stadium plaza, a revamped walkway between the Middle and Intermediate Schools, and new spaces behind the Intermediate High School, all with attractive landscaping, paving and street furniture.

The vehicular ring road would build on the existing road system, extend south of the stadium, and connect to Seneca School Road east of the existing intersections. The loop road would create a road hierarchy, allow for more efficient and coherent circulation, and keep new parking away from the core. (The ring road would also improve campus access while the district considers the feasibility of a connection to Evergreen Mill Road.) Access into the campus from the ring road would be provided through short dead end spurs that would greatly reduce pedestrian and vehicular crossings. Other road improvements include a connection between the upper and lower portions of the eastern campus to support extensive athletic field expansion.



A Existing Facilities Statistics

IDEAL CAPACITY (ASPIRATIONAL)

	ELEMENTARY SCHOOLS K-4					MIDDLE SCHOOLS 7-8	IHS 9-10	SHS 11-12	DISTRICT TOTALS (ACADEMIC)
	Evans City ES MS	Haine ES MS	Rowan	CVE	SUBTOTAL ELEM	SV MS	INTERMEDIATE	SHS	
Year Constructed	1939	1968	1951	1958		1972	1964	1994	
Renovations / Additions	46, '59, '64, '89	85, '90, '96	59, '90	91, '03		02, '03	91, '96, '03	02, '07	
Acreage	18.13	25	11	18.78	72.91			136	209
Gross Area (SF)	138,318	177,986	76,359	103,902	496,565	229,211	229,351	247,277	1,202,404
Design capacity	1002	1329	498	654	3483	1,426	1,592	1,609	8,110
Functional capacity (target utilization 95% Elem, 85% MS & HS)	952	1263	473	621	3309	1,355	1,353	1,368	7,384
Current enrollment	1016	1358	463	698	3535	1,175	1,182	1,173	7,065
Current utilization based on design capacity	101%	102%	93%	107%	101%	82%	74%	73%	87%
Area / student based on design capacity. Benchmarks: ES=151, MS=174, HS=183	138	134	153	159	143	161	144	154	601
Projected enrollment	1,163	1,418	523	968	4,072	1,228	1,300	1,298	7,898
Cyber students	0	0	0	0	0	0	0	0	0
seat surplus / deficit	211	155	50	347	763	127	53	70	

Notes:

Grades K,1,2 18 students per CR

Grades 3-4 21 students per CR

Grades 5-6 23 students per CR

* Design capacities reflect the District's stated ideal number of students per classroom.

Connoquenessing Valley Elementary School

Fast Facts

Constructed — 1958
Renovations / Additions — 1991, 2003
Acreage — 19.75 acres
Gross Square Feet — 103,902 gsf
Capacity (95%) — 621*
Current Enrollment — 698
Utilization — 107%
Area per Student — 159 sf
Projected Enrollment — 968



FAIR
OVERALL
BUILDING
RATING

KEY BUILDING CONDITIONS



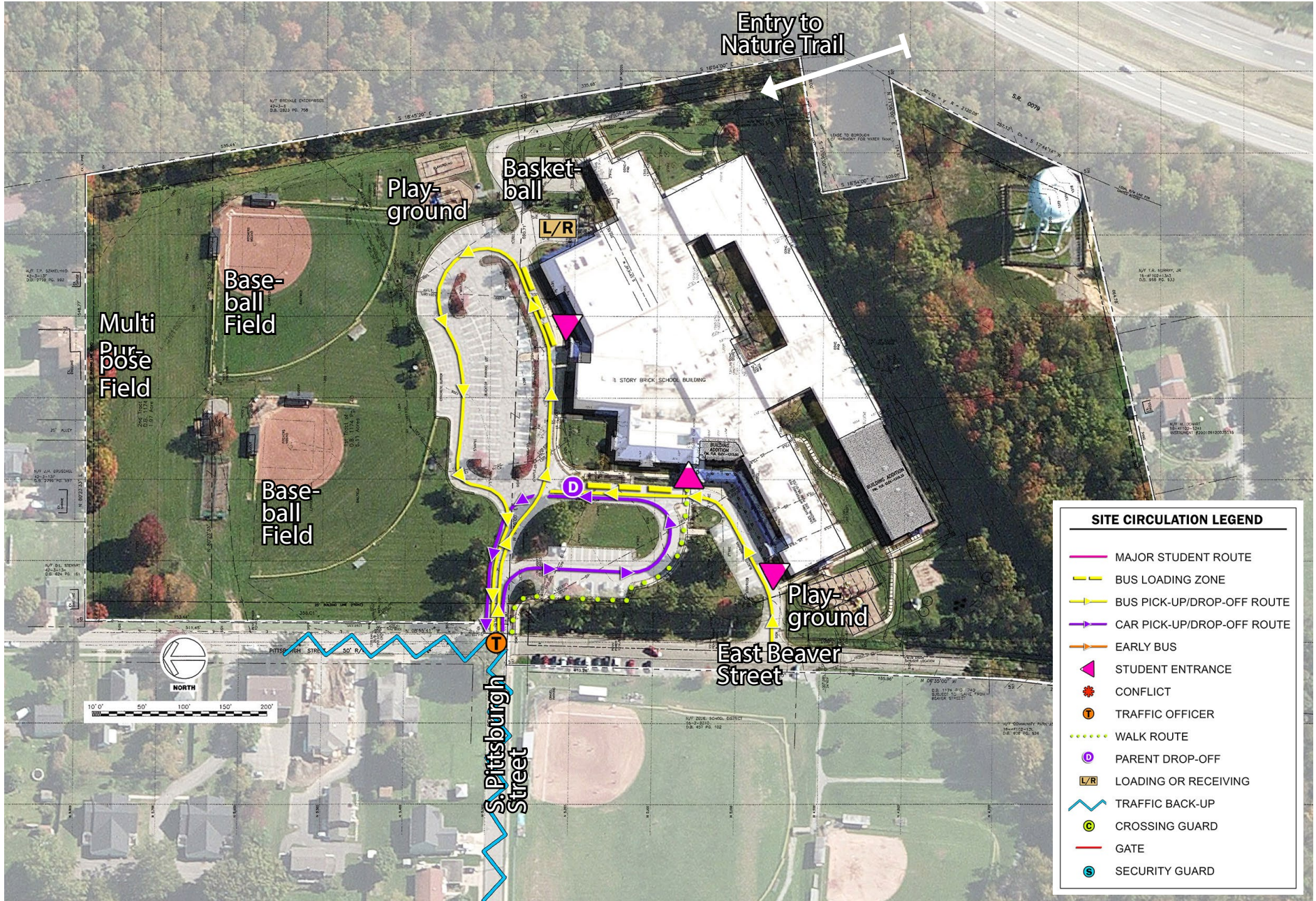
EXCELLENT
OVERALL SITE
RATING

KEY SITE CONDITIONS

* Based upon ideal class sizes



Existing Conditions Connoquenessing Valley Elementary School





SITE PLAN LEGEND

C1

CONSIDER COMPLETE SEPARATION OF BUS AND CAR DROP -OFF LOOPS.

F1

CONSIDER A REDESIGN OF THE SCHOOL ENTRANCE..

F2

CONSIDER LOCATION OF A DEMONSTRATION RAIN GARDEN BETWEEN BUILDING WINGS.

S1

RECOMMEND TRIMMING HEDGES.



12 Capacity Calculations for Connoquenessing Valley Elementary School

	ID Color	Classrooms	Max Capacity	Total	Max Capacity	Total
K classrooms		3	50	150	36	108
1-2 classrooms		14	25	350	18	252
3-4 Classrooms		14	25	350	21	294
5-6 Classrooms		0	25	0	23	0
Total		31		850		654

Other Spaces	ID Color/#	Quantity	Space	ID Color/#	Quantity
Library	1	1	Cafeteria	11	1
SGI/ LS/ SS/ IIS/ Title 1/ OT-PT/ ESL/ Gifted	2	14	Faculty Dining	12	1
LGI	3	1	Faculty Planning	13	1
Computer	4	4	Nurse	14	1
Art	5	1	Admin	15	1
Music	6	2	Guidance	16	1
Music Practice	7	0	Conference	17	1
Gym	8	1	Special Education	18	0
Stage	9	2	Pre-K	19	2
Kitchen	10	1			

First Floor Plan Connoquenessing Valley Elementary School



SITE

Connoquenessing Valley Elementary School, CVE, is located in Jackson Township. Access to the school is via US19/SR 68 to Beaver Street and Pittsburgh Streets, both of which essentially dead end at the school. The school is nestled among a walkable residential neighborhood, community park, and steep, wooded hillside which rises up to I79. The idyllic setting provides the backdrop for a charming neighborhood school.

1. VEHICULAR & PEDESTRIAN CIRCULATION

- Vehicular access and traffic flow
 - » Cars and busses access the site at the east Beaver Street/ Pittsburgh Street intersection, which is controlled by a traffic officer from the District. Some traffic backs-up on Pittsburgh and East Beaver Streets. Neither street is a through road, so this is not a significant problem. Morning arrival begins at 8:10 AM afternoon departure is 3:00 PM to 3:35 PM.
- Bus drop-off
 - » There are two one-way bus loops, east and north of the school. Each loop has a stacking and drop-off location near a school entrance east is the Main Entrance and the second is the North Entrance. Special needs students access through the North Entrance. Five transfer busses transport students between CVE and middle schools at Evans City School (four busses) and St. Gregory School (one bus).
- Car drop-off
 - » CVE has a significant amount of students arriving by car. In the morning, cars park and caretakers walk the students into

school. In the afternoon, cars either park or stack informally in the eastern bus loop, the caretaker goes to the cafeteria and signs a release form, and picks up student. The Stepping Stones entrance is at the far east corner of the school. Walkers exit the east school doorway.

- Parking
 - » The quantity of parking on campus and along South Pittsburgh Street is adequate for normal school needs.
- Sidewalks
 - » There is an extensive sidewalk system around the school linking its several entrances, play areas, outdoor spaces, and the public sidewalk system. CVE has about 60-75 walkers who are released from the Main Entrance 5 minutes before busses arrive, and caretakers wait at benches and landscape areas.
- Loading & service
 - » There is a loading dock and trash area at the west side of the school which is in poor condition.
- Pavement and curbs condition
 - » The main parking lot is in excellent condition, and other miscellaneous lots are very good. There is some pavement cracking around storm inlets, some of which are clogged with debris. Concrete walks and plazas are in very good condition with some limited heaving, curb deterioration, and missing joint fillers allowing weed growth. Note that curbs and sidewalks were actively being repaired during the pavement assessment.
- Signage





- » The school entry sign is well located, but traffic sign disrupts the view. Directional and traffic control signage is adequate, but uncoordinated in style and location.

- ATHLETICS & PLAY

- Fields
 - » There are two fenced baseball fields on campus with batters cages, dugouts, concessions, bleachers and restrooms and one multi-purpose field. The fields are all in excellent condition.
- Playgrounds
 - » Two well-equipped playgrounds allow for a variety of activities.
- Hard surface games
 - » A full basketball court adjacent to one playground and the ball fields creates a cluster of recreational activities.
- Trails
 - » A lovely nature trail with interpretive signage begins at the eastern side of the school and winds through the adjacent wooded hillside ending at Pittsburgh Street.

2. AMENITIES & FACILITIES

- Social spaces
 - » CVE has many social spaces suited to a variety of activities. Near one playground is a charming gazebo. In front of the school is a seating plaza where caregivers wait for walkers. Benches and picnic tables are scattered around the campus.
- Landscaping
 - » CVE has the most diverse landscaping of all the schools with perennial and shrub

foundation planting, seating areas. Lawns surround the school and mature shade trees are throughout the parking areas.

- Learning environments
 - » Three outdoor classrooms exist. One classroom is near the entrance to the nature trail, and a second is located along the nature trail in the wooded area. A third outdoor classroom is located between building wings and covered by a trellis. The variety of classrooms and outdoor spaces, all in good condition, provide excellent opportunities environment literacy.
- Environmental management
 - » Along the eastern side of the school is a grassed area with yard drains. This is an ideal situation for rain gardens to manage stormwater and expand learning opportunities.

3. SAFETY & SECURITY

- First responder access
 - » Access and circulation around a majority of the site is open and easy. The rear of the building is not accessible by vehicle and is visually limited.
- Egress capacity
 - » With multiple roads and sidewalks connecting to the school site, egress can be easily accommodated.
- Pedestrian safety
 - » The comprehensive sidewalk system provides a clear, direct, and safe circulation for students. One exception is that students cross the bus drop-off loop when entering and exiting school. The

crosswalks are wide and well-marked, but this is not an ideal situation.

- Sight lines
 - » The tall hedge along the building should be trimmed to 24-30" height to improve sight lines, eliminate hidden areas, and allow light into the building.

4. CODE

- Zoning district and permitted use
 - » R-Residential District; a school is a conditional use.
- Parking requirement
 - » As determined by parking study. Should school expansion be undertaken, a parking study is required.
- Minimum lot area
 - » 20,000 square feet; the school is in compliance.
- Minimum lot frontage
 - » 100 feet; the school is in compliance.
- Minimum front setback
 - » 40 feet; the school is in compliance.
- Minimum side setback
 - » 20 feet; the school is in compliance.
- Minimum rear setback
 - » 40 feet; the school is in compliance.
- Maximum impervious coverage
 - » 50%; the school is in compliance.

5. RECOMMENDATIONS

- The following recommendations were developed with the Seneca Valley administrative and facilities staff, board members, principals, teachers, students,

parents, elected officials, police and fire chiefs, and business leaders.

- Vehicular & Pedestrian Circulation
 - » C1 Consider complete separation of bus and car drop-off loops to minimize car/pedestrian conflicts.
 - Recommend undertaking an ADA audit and preparing a plan to address any non-compliant items.
 - Recommend preparation of a signage study to coordinate signage message, style, and location.
 - Consider locations for additional event parking, possibly stabilized turf that can remain greenspace when not used for parking.
 - Recommend continuation of annual maintenance and repair of curbs and parking, also include annual inspection and cleaning of storm inlets.
- Athletics & Play
 - » Consider improving play areas to be more educational and interactive and include sensory play for special needs children..
- Amenities & Facilities
 - » F1 Consider a redesign of the school entrance to increase curb appeal including signage, landscaping and art installations.
 - » F2 Consider location of a demonstration rain garden between building wings.
 - Consider continuing to build on outdoor learning environments with additional programming and activities that are integrated with the curriculum.
 - Recommend that new landscaping be native plant species. Explore





opportunities to support habitat through undisturbed woodlands, rain gardens and plant collections—all to be tied back to the curriculum.

- Consider additional seating areas, gardens, and trail expansion for students, staff and the community. Possible addition of a wellness garden for general relaxation and special needs students.
- Safety & Security
 - » S1 Recommend trimming hedges near school to 24" – 30" maximum height.
 - Consider options partnering with the community to make the school more of a community asset and/or possibly a shelter in an emergency situation.

ARCHITECTURAL

1. EXTERIOR RATING: FAIR

- The building was initially constructed in 1958 and was subsequently added onto and/or renovated in 1991 and 2003. The façade is comprised of brick with thermally broken aluminum storefront windows. The majority of the existing masonry walls are in good condition, although some locations are in poor condition. Evidence of cracking and leaking was observed at several locations, including each gable extrusion, canopy columns, loading dock area and various areas of the original portion of the building. The masonry outside of the cafeteria above the access ramp should be replaced. It is likely lintels at deteriorated masonry will need to be replaced, but this should be confirmed

as part of any restoration project. It is recommended that a more detailed masonry assessment be conducted in the future.

- Gable extrusions do not appear to be counter flashed where masonry meets roofing. Further, no flashing exists below the cast stone gable caps which is allowing water to enter the interior cavity. As a result, each gable extrusion is allowing water to penetrate the interior of the building. The caps and rear brick have been water proofed but this should be considered a temporary solution. Each cap should be properly flashed and counter flashed where gables meet roof systems. Damaged brick and mortar should be replaced.
- Exterior doors and frames are in fair to poor condition and should be replaced on an as needed basis or in their entirety as part of any larger renovation projects.
- Exterior windows are aluminum, double-paned with operable bottom sashes. Windows are overall in good condition.
- It is unclear if the original 1958 building envelope was insulated as part of subsequent renovations. If not, this portion of the building should be insulated as part of any extensive renovations.
- Exterior canopy brick and lintels are significantly deteriorated and should be replaced. The roof leaks causing brick and lintel replacement should be addressed.
- Metal railings in the interior courtyard are rusting and should be replaced if proper prep and painting is not possible.
- The loading dock is very deteriorated and should be renovated including the gutter above this area.



- Several downspouts daylight at grade near the building. Ideally, these should be tied into the underground drainage system.
- Lintels above clerestory gym windows appear to be rusting and should be further reviewed for possible replacement. Some evidence of efflorescence at the gym parapet wall exists which suggests some level of water intrusion which should be further investigated.
- Interior courtyard masonry walls exhibit some evidence of efflorescence which suggests some level of water intrusion which should be further investigated.

2. ROOF RATING: FAIR

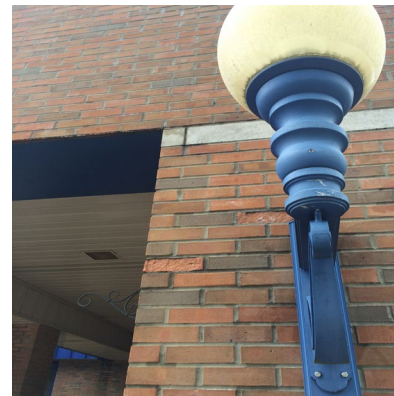
- The roof system is predominantly a Duro-Last single ply membrane roof installed in 2005 with areas of built-up roof installed in 2003. The Duro-Last roof has a 15 year warranty and the built-up roof has a 20 year warranty. Copings are metal with metal fascia. Leaks may be associated with the standing seam mansard roof. These areas should be further investigated to determine the extent of roof leaks.
- On the interior side of the main entry cupola, evidence of water leaks exists. This condition should be further investigated to determine the cause and appropriate repair.
- Destructive testing was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate. While the majority of the roof appears to be in a relatively good condition, there are several areas of ponding on the roof. While

these areas do not constitute a leak, standing water can prematurely age the roof.

3. INTERIORS RATING: FAIR

- Corridors
Corridors are double-loaded approximately 8'-0" - 10'-0" wide. Floors are typically 12"x12" vinyl composite tile (VCT), which is in fair to good condition depending upon location. Some limited areas are poor and should be replaced. Fritz tile exists in some main entry areas which is in fair condition. Some evidence of floor slab movement exists which has damaged floor tile in the area. This may be normal movement at a concrete control joint and a corresponding control joint may be required in the floor tile to prevent similar damage in the future. Recessed rubber entry mats are provided at most entries and should be considered for replacement as well as the flooring material surrounding them. Some entries contain recessed slatted fabric mats which are in good condition.

- » Ceilings are predominantly 2x4 acoustical ceiling tile (ACT). The tiles are aged, dated, and sagging. The grid appears to be in fair condition. Evidence of water leaks exists in multiple locations, particularly near the main entry. The cause should be determined and the appropriate corrective measure enacted.
- » Walls are ceramic glazed CMU wainscoting in good condition, but dated/ institutional.
- » Classroom doors in the older portion of the building do not have required ADA clearances or door hardware.





- Stairs

The building is single story and does not contain egress stairs. Level change stairs exist between the common area and classroom area. Material is rubber treads in fair condition.
- Toilet Rooms

Toilet room finishes consist of ceramic tile floors, glazed CMU walls, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Restrooms finish colors are bland and institutional but in good condition.
- Instruction Spaces
 - » Classrooms - Typical classrooms vary in size ranging from 770 – 915 square feet. Kindergarten classrooms are slightly larger at approximately 1,000 square feet.
 - The casework is in fair condition but dated. Casework quantity in each classroom appears to be adequate.
 - Classroom ceilings are 2'x4' acoustical ceiling tile (ACT) that is in fair condition. The tile is showing signs of age, and should be considered for replacement. The grid is in fair condition and should be replaced with the tiles.
 - Classroom floors are VCT in fair to good condition. The tile has been well maintained, but in some areas will soon be approaching the end of its useful life.
 - The classroom walls vary between furred gypsum board and plaster over existing CMU and painted CMU. Most walls are in fair to good condition.
 - Furnishings are dated, uniform and institutional. Furnishings should be evaluated with student comfort, ergonomics and flexibility.
 - Each classroom is equipped with a smart board. Classrooms are WiFi enabled.
 - The general classroom design is very traditional and does not respond well to 21st century teaching and learning. A plan reconfiguration would be required to meet the goals of 21st century teaching and learning.
- » Art – Finishes consist of 2' x 4' acoustic ceiling tile, VCT flooring, and painted CMU walls. Walls are in good condition but floors and ceilings are wearing and dated. There appears to be adequate storage within the space but it too is dated.
- » Music/ Band/ Chorus – Music is held in a traditional flat floor classroom. Finishes consist of carpet flooring, 2' x 4' acoustic tile ceilings and painted CMU partitions with acoustic wall panels. Flooring is in fair/ good condition. Finishes in general are dated. Storage is dated but volume appears to be adequate. Furnishings are institutional.
- » Computer Labs – A total of three computer labs exists in the building, including the SMALL lab, which is a highly interactive media space. Finishes consist of 2' x 4' acoustic ceiling tile, carpet flooring, and painted CMU walls (except the SMALL Lab). Walls are in good condition but floors and ceilings are wearing and dated (except the SMALL Lab). The requirement of specific computer instruction rooms should be a



detailed point of conversation with any significant building renovation due to continued technology changes and District programs and curricula.

- Building Administration

- » Suite finishes are carpet flooring, 2' x 4' acoustic ceiling tile, gypsum board bulkheads and plaster and brick walls. The flooring and ceilings are dated and worn. The building contains one main office suite. There is not sufficient conference space in the administration suite outside of the principal's office. The visiting psychologist has a temporary workstation located in the main reception area. The nurse's suite is not configured to function properly, including ease of monitoring ill students.

- Cafeteria

- » The finishes in the cafeteria are 12" x 12" Fritz Tile floors, 2 x 4 acoustic tile ceilings, acoustic wall panels and painted CMU walls. Some of the acoustic wall panels are stained and should be replaced. All finishes are dated and worn. The cafeteria has access to a performance stage which is used for school functions. The cafeteria contains large exterior windows that provide adequate daylighting, however the principal has expressed a greater desire to connect the cafeteria to the outdoors. The building principal has expressed the cafeteria is not conveniently located to be used outside of lunch periods. The cafeteria is in a good location for after-hours functions.
- » The stage is in fair condition and is currently being utilized for storage and performances. The rubber tread stair risers

and treads are worn and dated and should be replaced.

- Kitchen

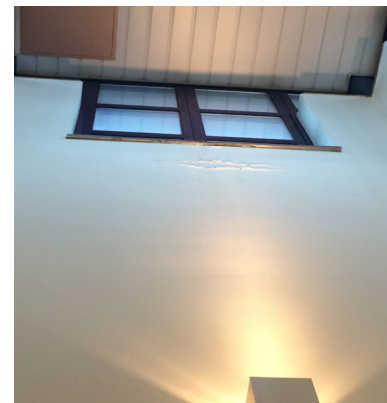
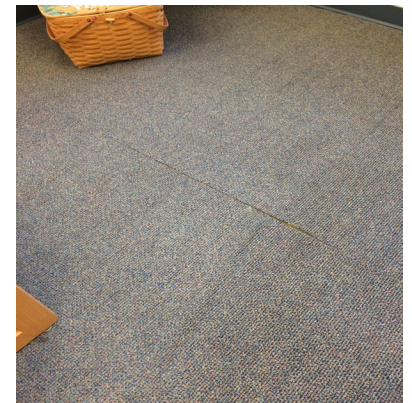
- » The kitchen is accessed by a traditional food serving line. The kitchen is full-service to provide student breakfasts and lunches. Sheet vinyl floors appear to be in fair condition except near the serving line. Glazed ceramic CMU block walls appear to be in good condition. The ceiling within the kitchen is a 2' x 2' acoustic tile that appears to be scrubbable. The tiles are showing signs of wear and age.

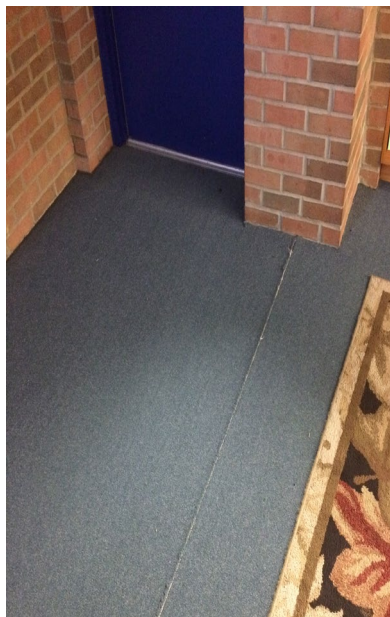
- Gymnasium

- » Gym finishes consist of a wood floor, painted CMU walls, acoustic wall panels and exposed, painted roof decking. The gym is equipped with wall pads, a climbing wall, a climbing net, an overhead curtain divider and 4 fixed and 2 operable basketball back stops. All finishes and equipment appear to be in fair condition. The gym has an adequate number of egress doors. The gym is in a good location for after-hours functions.

- Library (iHub)

- » The Library is a traditional design with a focus on print media. There are two in-library computer areas; one in the library itself and one in a room immediately adjacent. The soft seating area provides some variety of seating but is not overly compelling to today's learners. The finishes consist of carpet, 2' x 4' acoustic ceiling tiles and painted CMU walls, all of which are dated and worn. In general, the library is not consistent with a media center focused on supporting 21st century teaching and





learning. A building renovation should deeply explore these needs to ensure a media center that responds to the District's future programs and curricula.

- Large Group Instruction (LGI)
 - » One large group instruction room exists which is used for staff development and student indoor recreation in the winter months. The associated stage is used as a sensory room for special needs students. The stage is difficult to access for ADA without going through an adjacent room. The stage is separated from the LGI by curtain, which does not provide for acoustic separation or proper fall protection. Both spaces cannot be used simultaneously. The finishes in the space are dated and worn and should be replaced. The stage is not an ideal location for a sensory room, but space does not exist in the school otherwise.
- Storage
 - » The school requires additional storage space as existing storage space is consistently converted to needed educational support programs.

4. CODE COMPLIANCE/ ACCESSIBILITY RATING: FAIR / GOOD

- No 18" side clearance for ADA entry in classrooms in the 1958 construction.
- The First floor has one level change between the 1958 and newer wings which are addressed by interior ramps and one stair. These ramps appear to meet the ADA requirement of 1:12 slopes and proper handrails exist at each ramp.

- ADA restrooms could be found on each level. Should the building be renovated, a detailed fixture count analysis should be conducted in concert with the active code at that time.
- The building construction type is assumed to be Type IIB, noncombustible. The occupancy classification is E – Education.

5. BUILDING SAFETY AND SECURITY RATING: GOOD

- In general, building safety is good. The main entry is a captured entry requiring visitors to access the administration office before gaining access to the school. The door between the administration office and corridor is on electrified magnetic locks.
- Student access to playgrounds is good as students do not cross roads to access play areas.
- Room numbers are prominently posted on exterior windows and interior corridors for easy identification by first responders.
- The principal has expressed a desire for more exterior cameras.

6. EDUCATIONAL RESPONSIVENESS TO MEET 21ST CENTURY LEARNING RATING: POOR / FAIR

- The number of classrooms is adequate for the current enrollment. However the building is deficient in the number, size and quality of learning support spaces. The number, size and quality of learning support spaces continue to be challenged. Example is the sensory room currently housed on the stage.



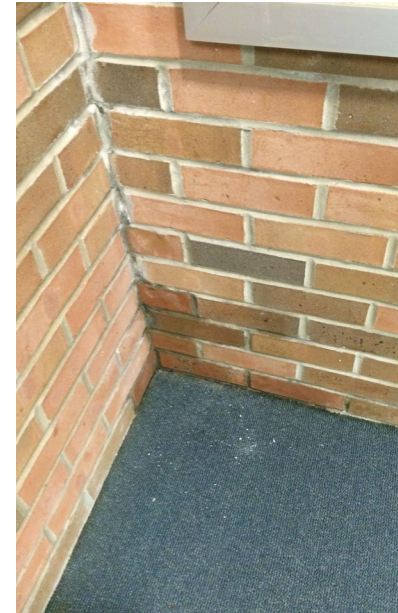
- As programs continue to be added, space is limited to adequately accommodate specials. Examples are strings and world language.
- Classrooms and furnishings are traditional and institutional which limits flexibility and collaboration. Classroom wings are all uniform double loaded corridors which limit flexibility and collaboration.
- Classrooms are visually closed from one another which limits student and faculty collaboration.
- The building is not air conditioned which hinders student focus and learning.
- The building is not well connected to the exterior environment which can / should be used as educational space.
- Classrooms are equipped with newer model interactive Smart Boards. A limited number of computers are in each classroom. The BYOT initiative and wireless capabilities may reduce or eliminate the need for hardwired computers in each classroom.

7. RECOMMENDATIONS

- CVE enjoys the benefits of a neighborhood school. It is well received by the community and contains a supportive learning environment. In general, the building is in fair/ good condition. Exterior building renovations should be planned for the near future to address water intrusion issues, masonry restoration and exterior door replacement in addition to those items outlined on the District's Long Range Capital Improvement Plan. Windows should be monitored and repaired/ replaced as needed, or fully replaced with any extensive renovations. The Duro-last roof is 5 years

from the warranted period and the built-up roof is 8 years from the warranted period so these should be serviceable for the near future.

- Interior building renovations should be considered in the near future to address dated, worn and institutional finishes. Proposed designs should provide a bright, welcoming and inspiring interior environment, including more access to daylight. ADA deficiencies should be addressed.
- A significant shortage of classroom space should be anticipated given enrollment projections. In general, the building lacks the appropriate quantity and quality of learning support spaces, faculty collaboration spaces and storage.
- Aspirational Goals
 - » The interior learning environment should be renovated to encourage teacher and student collaboration to meet the needs of District programs and curriculum.
 - » Plan reconfigurations can provide better size, quantity and location of learning support spaces.
 - » The media center should be renovated to meet the needs of 21st century learning.
 - » The under utilized main entry lobby should be programed as a collaborative learning environment.
 - » The administration suite should be reconfigured to provide adequate office and meeting space for administrators.
 - » The nurse's suite should be reconfigured to provide a more efficient layout for treating and monitoring sick students.





- » Furnishings should be replaced with more flexible, durable, comfortable and functional options.
- » The LGI should be renovated to update finishes and provide a more responsive environment for large group meetings.
- » Adequate quantity, size and location of learning support rooms should be provided.
- » Adequate space for world language should be provided.
- » Interior renovations should be provided to provide more inviting and inspiring learning environments, including access to daylight, natural ventilation, and "less institutional" finishes.
- » The building should be air conditioned to support student focus and learning.

Mechanical

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at Connoquenessing Valley Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM

- This report will evaluate the following HVAC systems
 - » Central heating plant equipment
 - » Hot water pumps and distribution piping
 - » Air distribution systems
 - » Building temperature controls

3. CENTRAL HEATING PLANT

- The building is served by two gas fired HB Smith 350 Mills cast iron sectional hot water boilers. The boilers were installed in 1991 appear to be in fair condition. Combustion air is brought in through louvers in the outside wall and these appear to be in poor condition..

4. HOT WATER PUMPS AND DISTRIBUTION PIPING

- The hot water pumps and distribution piping were installed in 1991 and appear to be in poor condition. The hot water distribution piping within the boiler room appears to be in poor condition.

5. AIR DISTRIBUTION SYSTEMS

- Classrooms
 - » The rooms are heated and ventilated by floor mounted unit ventilators with along the perimeter wall. The unit ventilators are aged and in fair condition. The unit ventilators are heating and ventilating only, there are some areas that have cooling.
- Corridors
 - » Hot water cabinet unit heaters and convectors provide heat, these units appear to be in poor condition.
- Toilet Rooms
 - » Radiant heating panels provide heat in the toilet rooms, the panels appear to be in fair condition.
- Cafeteria
 - » Two horizontal central station air handling units with hot water heating coil for heating and ventilating the Cafeteria. These



units are located above the Instrument storage rooms. These units appear to be in poor condition.

- Gymnasium
 - » Two Horizontal heating and ventilating air handling units located in the Gymnasium ceiling and the units appear to be in poor condition. The ductwork air distribution system appears to be in poor condition.
- Administration
 - » This area is served by a variable refrigerant system of fan coil units and condensing unit on the roof. These units appear to be in good condition.
- Library
 - » One roof top horizontal air handling unit with hotw water heating and dx cooling coil, this unit appears to be in good condition.
- Kitchen
 - » The kitchen is served by a gas fired combination make-up air and exhaust air fan on the roof. These units are in poor condition. The space is heated and ventilated by ceiling mounted cabinet heaters and these units appear to be in poor condition.

6. BUILDING TEMPERATURE CONTROLS

- The main control panel is a pneumatic system control panel by Johnson Controls. The building pneumatic control system is in poor condition

PLUMBING

1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems at Connoquenessing Valley Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems
 - » Domestic water heating equipment
 - » Domestic water service
 - » Natural Gas Service
 - » Piping systems
 - » Plumbing Fixtures
 - » Kitchen Equipment
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

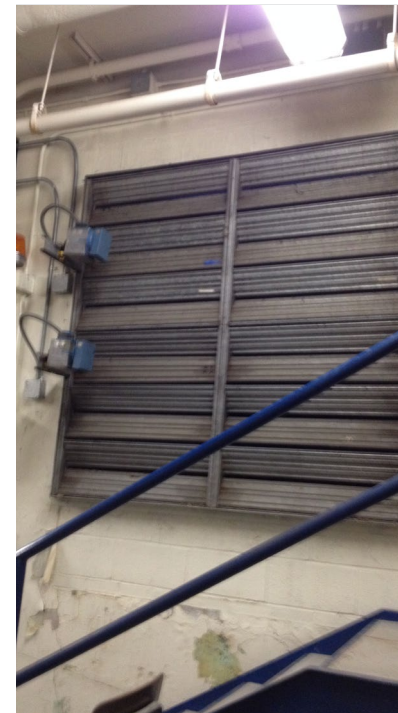
- The building is currently having a new gas fired high efficiency water heater installed.

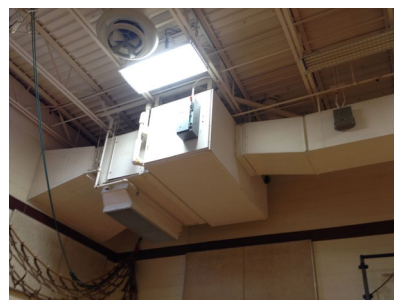
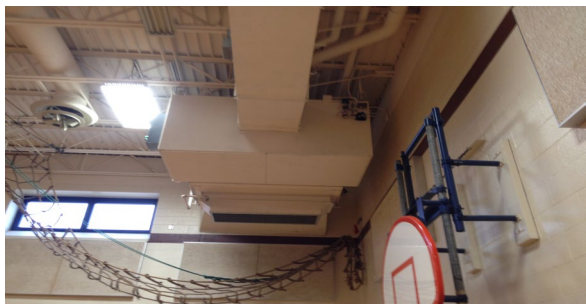
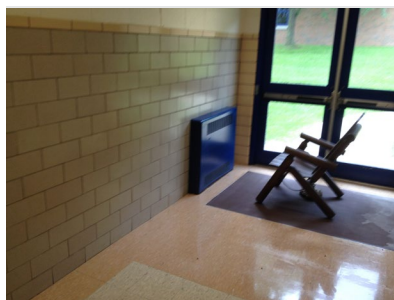
4. DOMESTIC WATER SERVICE

- The building is provided with a domestic water pressure booster system and this system appears to be in good condition. The service from Harmony water has been upgraded to provide aa higher water pressure into the building (90 psi) which should provide the water pressure and flow necessary to supply the building without the water pressure booster system. Further investigation is recommended.

5. NATURAL GAS SERVICE

- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.





6. PIPING SYSTEMS

- The building piping systems are original. Domestic water system consists of copper piping. Sanitary and storm are cast iron. Natural gas is black steel pipe. The existing valves are in poor condition and do not hold water off when the valves are in the closed position, this happens throughout the facility.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush valve type and are in poor condition. Lavatories are wall hung vitreous china and are in poor condition. Electric water coolers are wall hung double units and are in poor condition. Some ADA fixtures are provided. Stainless steel sinks are provided in the classrooms and workrooms. Service sinks and mop basins are provided and appear to be in good condition.

8. KITCHEN EQUIPMENT

- The kitchen equipment is not in the scope of the plumbing, however, the associated grease trap, water distribution, sanitary and vent systems and natural gas supply are. The grease trap is located inside the building and should be replaced. The space is heated by ceiling mounted cabinet heaters, these units appear to be in poor condition.

FIRE PROTECTION

- The building is provided with a fire pump for automatic fire protection, this system is in good condition. The Harmony water authority has up graded its' service to the building with a static pressure of 90 PSI, an analyses should

be conducted to determine the need for a fire pump for this building.

- The building is provided with a complete sprinkler fire protection system.

ELECTRICAL

RATING: FAIR

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT:

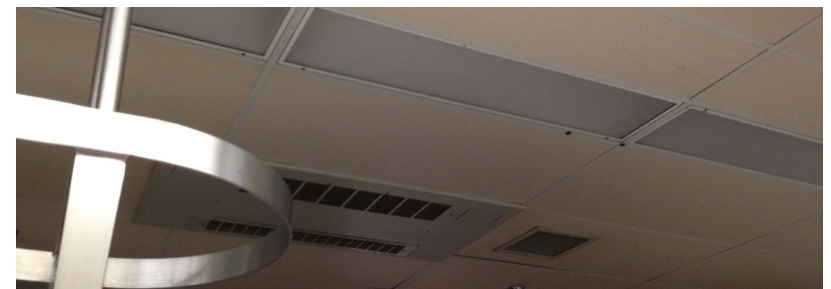
- Electrical Service
 - » Westinghouse 120/208 volt, 3 phase, 4 wire fusible switchboard with one (1) 2000A, one (1) 1200A and one (1) 800A main fused switches and circuit breaker distribution section.
- Distribution Equipment
 - » Westinghouse circuit breaker distribution and branch circuit panels.
- Switchboard, panels and electrical distribution feeders and branch circuits replaced as a part of a building 1991 renovation and addition project.

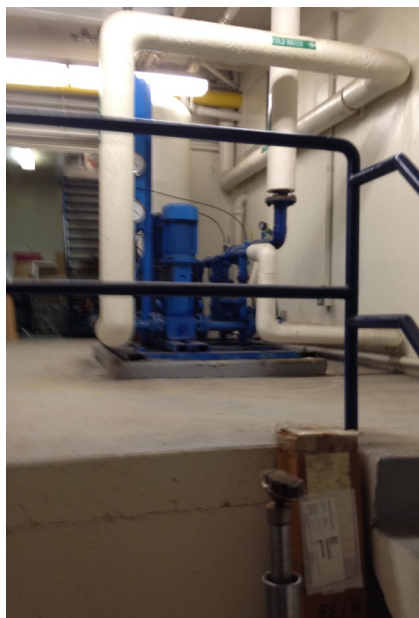
2. EMERGENCY POWER SYSTEM EQUIPMENT

- Generator
 - » Kohler 55 kW/69 kVA, 120/208 volt, 3 phase, 4 wire natural gas fueled interior generator unit.
- Automatic Transfer Switch
 - » 225 ampere Kohler transfer switch with area protection monitor panels.
- Emergency Power Distribution
 - » Normal/Emergency and Emergency only circuit breaker panels.
- Emergency Egress Lighting
 - » Emergency egress lighting provided in corridors, stairways, gymnasium, cafetorium, library, large group instruction room and exits.

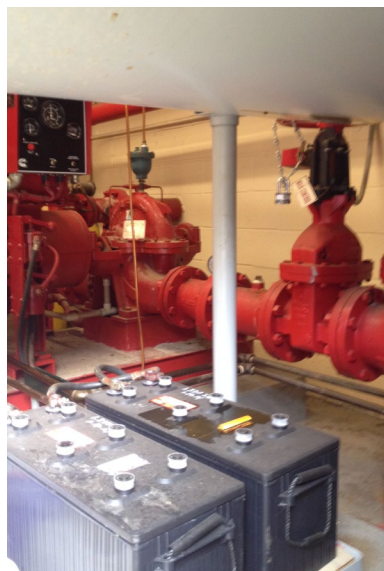
3. LIGHTING SYSTEMS:

- Corridors and Stairways
 - » Recessed mounted fluorescent fixtures with acrylic lens.
- Classrooms, Computer rooms, Library and Offices
 - » Recessed mounted fluorescent fixtures with parabolic lens controlled by multiple switches to provide multiple levels of room illumination.
- Cafetorium, kitchen, storage and miscellaneous spaces
 - » Recessed fluorescent fixtures with acrylic lens
- Mechanical and Electrical Equipment Rooms
 - » Surface or suspended fluorescent fixtures.
- Cafetorium and Stage
 - » Dimmable incandescent or quartz house and performance theatrical lighting systems controlled by zoned slider type dimmer panels.
- Exterior Security Lighting
 - » Wall mounted HID fixtures on time clock or photocell controlled circuit.
- Exterior Parking Area Lighting
 - » Pole and post mounted HID fixtures on time clock or photocell controlled circuit.
- Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.
- Lighting Controls









- » Time clock and photocell control of exterior lighting.

4. FIRE ALARM SYSTEM:

- Fire Alarm Panels
 - » Simplex 4002 fire alarm control panel and alarm annunciator panel at main entrance. Fire alarm system is a hard wired zoned system.
- Alarm Initiating Devices
 - » Manual pull station at all code required building exits
 - » Automatic smoke detectors in ductwork of large air handlers.
- Alarm Signal Devices
 - » Audible horns with visual alarm strobes in the corridors, cafeteria, library, Gymnasium and music room areas only.
- Fire alarm system as indicated on available drawings appears to meet current code requirements except as follows
 - » Visual alarm signals required in all rest rooms, classrooms and spaces of common use.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

1. SECURITY SYSTEMS

- Building Entrances
 - » Audio/video/intercom system for supervised access at the elementary school entrance.
 - » Raptor driver's license security screening system is used to identify unwanted visitors.

- Intrusion Detection
 - » None.
- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to all the school district buildings.
 - » Proximity type card readers control access to selected building entrances and areas within the building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in main entries, corridors, administrative offices and other selected areas as required.
 - » CCTV security system consists of analog cameras with converters for use with IP Video Insight System networked video viewing and storage equipment.

2. PUBLIC ADDRESS AND CLOCK SYSTEMS

- Paging System
 - » Dukane school paging system with speakers and call-in switches in all classroom, educational spaces and miscellaneous selected spaces.
- Clock System
 - » Dukane master clock system with digital or analog clocks in all classroom, corridors, educational spaces and assembly spaces.

3. SOUND REINFORCEMENT SYSTEMS

- Cafetorium
 - » Local sound reinforcement systems for stage performances with amplifiers as required for distributed speakers required to cover the cafetorium.



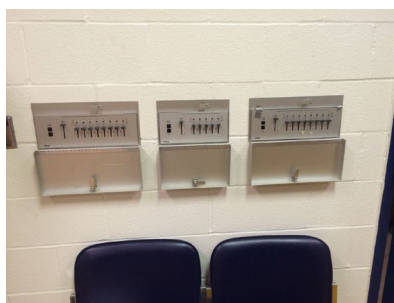
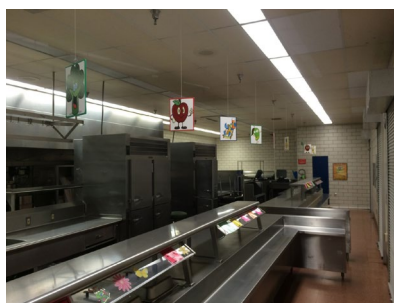
- » Microphone outlets provided at stage and selected locations in room for access to system.

4. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure
 - » School provided with Category 5 and 6 horizontal copper cabling to room telephone and data network outlets. Original building Category 3 cabling is no longer used and has been abandoned in place. Multimode 62.5 fiber optic backbone network cabling provided for network connections between telecommunication equipment cabinets and rooms. The Category 5 or 6 cabling has been each year to support required additional network outlets or wireless access nodes throughout the building. Wireless access points have been installed throughout building in corridors and in selected classrooms or spaces. Telecommunications equipment rooms consists of free-standing equipment racks or wall mounted cabinets with networking equipment and horizontal cabling patch panels as required.
- CATV RF Broadband Coaxial Cabling System
 - » A broadband building CATV cabling system with sub-channel return consisting of coaxial cabling, signal amplifiers, splitters, modulators and multi-taps to distribute programming channels to outlets in all classrooms, instructional education rooms, assembly spaces, offices and other selected areas as required. Programming can be originated at any system outlet in the building over the cabling system sub-channel return equipment.

- » Selected digital CATV utility channels are converted to modulated analog channels and distributed over the cabling system to room outlets on standard CATV channels up to 30.
- » The school programming channel originating in this school and the programming channels originating in each of the other district schools are encoded and transmitted over the district fiber optic data network. The digital school channels are converted locally at each school to analog signals and distributed over the coaxial cabling system to room outlets on standard CATV channels above channel 30.
- Telephone System
 - » Cisco IP telephone system and telephones installed throughout this building and the school district.
- Typical Classrooms
 - » Classrooms provided with instructor and three (3) student stations with data networking wired outlet connections or access to wireless network connections.
 - » Wall mounted video display, video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to connections at the instructor's desk. Instructional programming from the instructor's computer can be routed through a VGA video matrix switch to the wall mounted video display or the video projector. The interactive white board is connected through the USB cabling connection.
 - » School paging/intercom system speaker in ceiling for announcements and a





local call-in switch to initiate a call to the administrative offices.

- » Analog wall clock on master clock system.
- » Ceiling mounted wireless network point in selected classrooms.
- Computer Labs
 - » Mobile wireless cart laptop computer labs are available for use in addition to the fixed classroom student computer workstations

BUILDING SYSTEMS RATINGS & CODE COMPLIANCE

1. BUILDING SYSTEMS RATING

- Electrical lighting, power distribution and, normal/ emergency power systems are original to the 1991 renovations and building additions project and are in fair condition.
- The electronic and technology systems were installed during the 1991 building renovations and additions project and are in fair condition. These systems have been supplemented with new as required to maintain the systems and to meet the changing educational requirements.

2. CODE COMPLIANCE:

- Visual fire alarm signal strobes are required by current codes in all classrooms, rest rooms, and spaces of common use. Because of the age of the existing fire alarm system equipment, replacement and upgrading of the existing system equipment should also be considered if not required to provide the additional visual alarms.

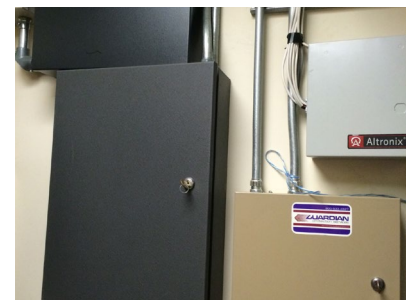
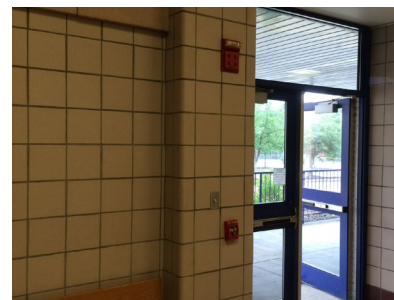
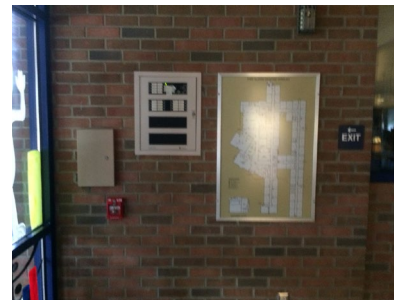
3. RECOMMENDATIONS:

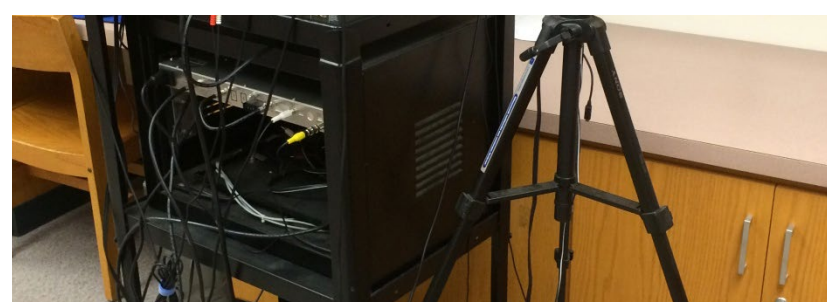
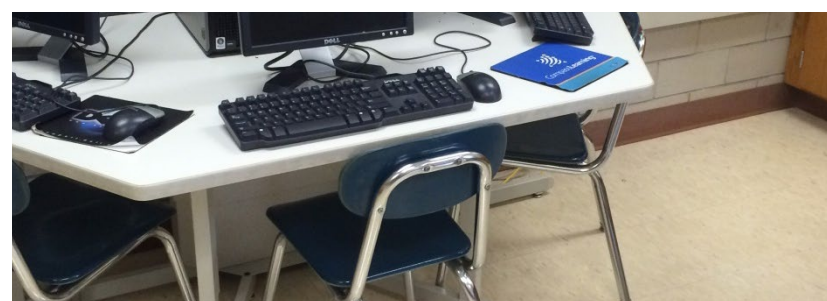
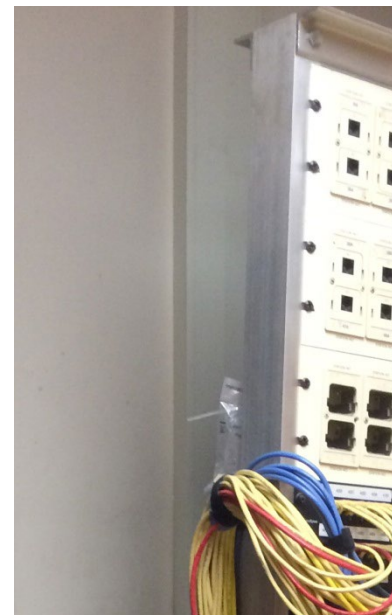
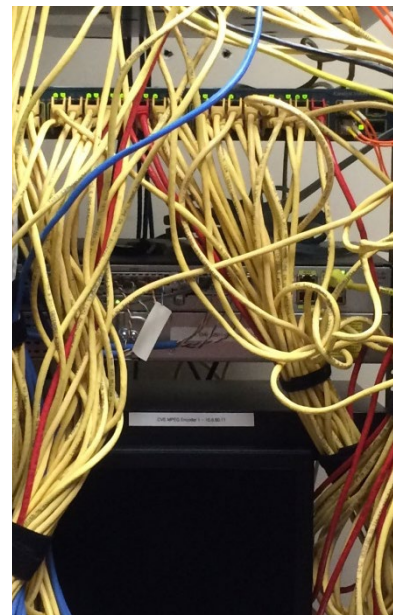
- Electrical lighting, power distribution and, normal/ emergency power and fire alarm systems should be evaluated for cost effective or necessary upgrades if renovations of this facility are proposed.
- Energy saving upgrades to LED type lighting fixtures and installation of occupancy/ vacancy sensor controls should continually be evaluated and considered.
- Except for yearly selected upgrades, the electronic equipment and technology systems in this building were last updated during the 1990 building renovations. Any proposed renovations of the facility should include replacement of these systems. Replacement of these systems with the latest equipment technologies would result in systems that can easily be maintained and that are able to meet the current and future requirements of the facility.
- The following recommendations should be included in any future upgrades of the existing electronic and technology systems
 - » Dedicated telecommunications rooms with proper ventilation or cooling should be provided to maximize the life of the telecommunication equipment.
 - » Additional 802.11a/b/g/n/ac wireless access points with duplex telecommunication outlets should be provided throughout the building.
 - » Cable trays should be provided throughout the corridors to facilitate adds, moves and changes in technology.
 - » DAS systems for amplification of cellular telephone signals should be added as



required to aid in First Responders signal coverage in the building.

- » Audio amplification systems should be added for use in conjunction with the Classroom audio/video presentation systems.
- » Upgrades or replacement of the existing master clock system.





Evans City Elementary/Middle School

35

Fast Facts

Constructed — 1939
Renovations / Additions — 1946, 1959, 1964, 1989
Acreage — 20 acres
Gross Square Feet — 138,318 gsf
Capacity (95%) — 952*
Current Enrollment — 1016
Utilization — 101%
Area per Student — 138 sf
Projected Enrollment — 1,163



POOR
ARCHITECTURAL



FAIR/POOR
MECHANICAL



POOR
PLUMBING



FAIR/POOR
FIRE PROTECTION



FAIR
ELECTRICAL



FAIR
DATA



FAIR/POOR
ENERGY CONSUMPTION



FAIR
CODE COMPLIANCE



FAIR/GOOD
SAFETY AND SECURITY



POOR
21ST CENTURY LEARNING

POOR
OVERALL
BUILDING
RATING

KEY BUILDING CONDITIONS



FAIR
ACCESS, CIRCULATION, AND PARKING



GOOD
ATHLETICS AND PLAY



FAIR
AMENITIES AND SUPPORT FACILITIES



FAIR
SAFETY AND SECURITY



EXCELLENT
CODE COMPLIANCE

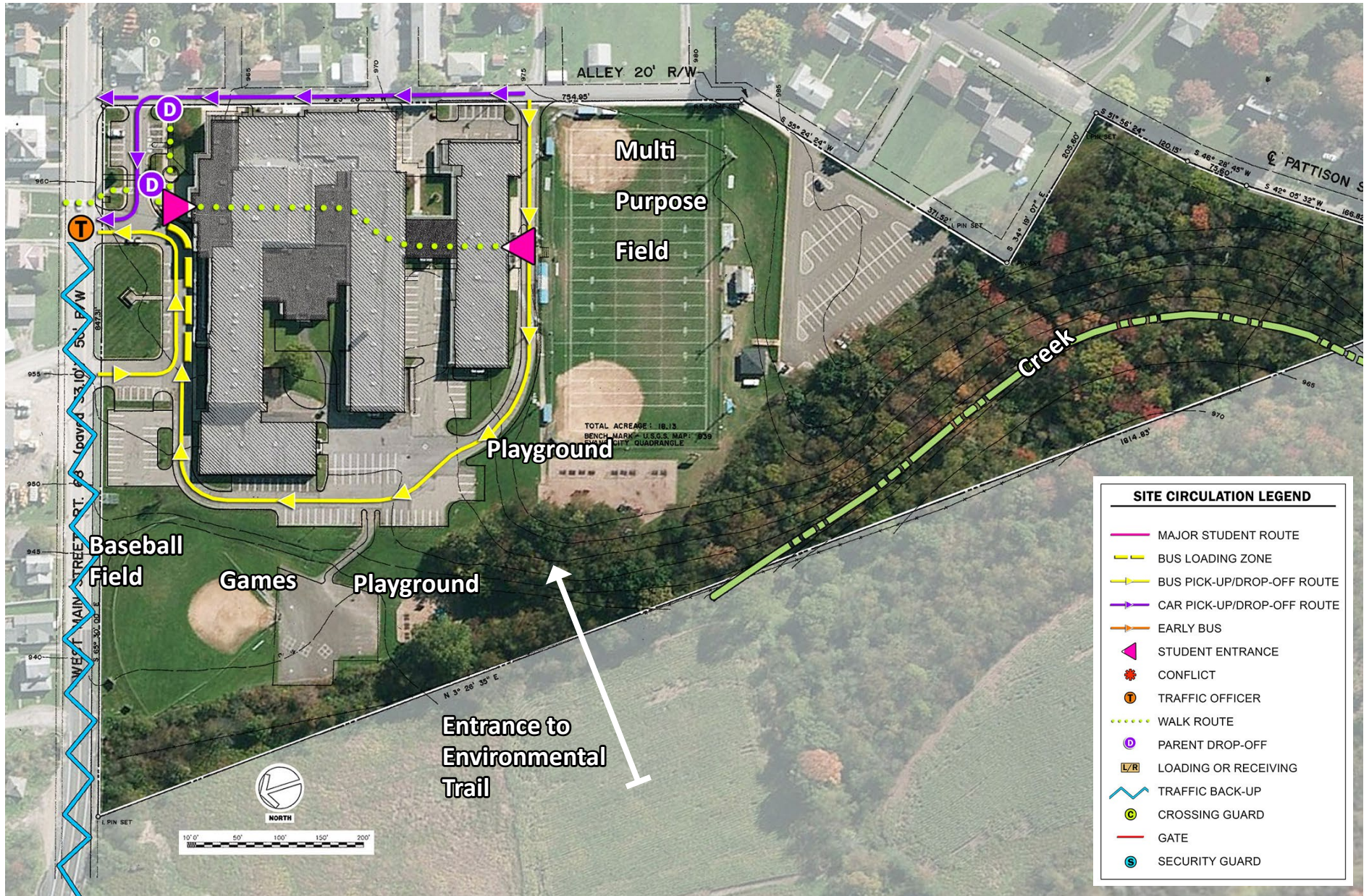
FAIR
OVERALL SITE
RATING

KEY SITE CONDITIONS

* Based upon ideal class sizes

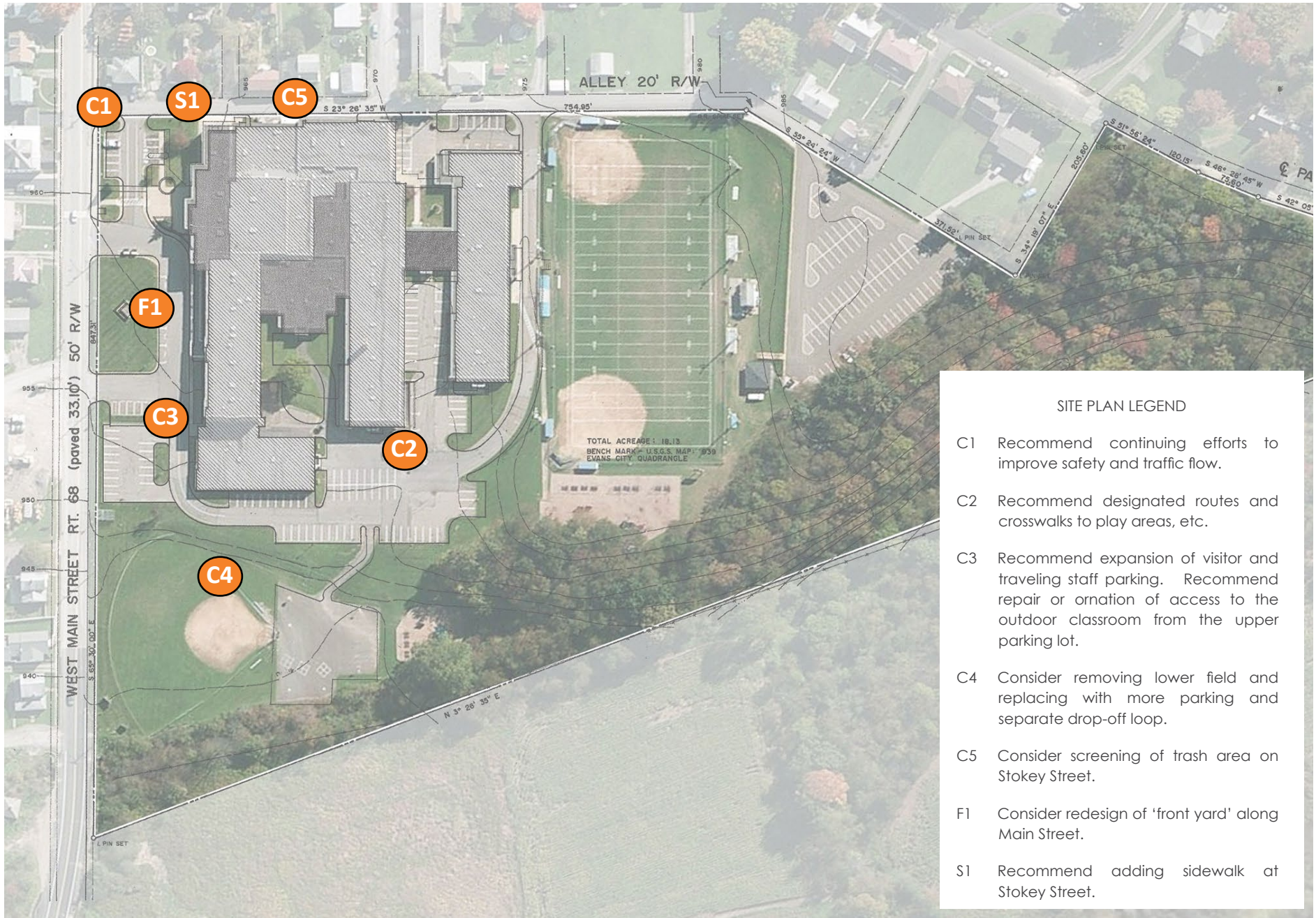


36 Existing Conditions Evans City Elementary/Middle School



Recommendations Evans City Elementary/Middle School

37



Capacity Calculations Evans City Elementary/Middle School

Capacity Calculation	ID Color	Classrooms	PDE / Capacity		District Ideal	
			Capacity	Total	Capacity	Total
K classrooms		3	50	150	36	108
1-2 classrooms		10	25	250	18	180
3-4 Classrooms		11	25	275	21	231
5-6 Classrooms		21	25	525	23	483
Total		45	1200		1002	
			1/2 day K PDE capacities		1/2 day K ideal capacities	

Other Spaces	ID Color/#	Quantity			Space	ID Color/#	Quantity
Library	1	1			Cafeteria	11	2
SGI/ LS/ SS/ IIS/ Title 1/ OT-PT	2	18			Faculty Dining	12	1
LGI	3	0			Faculty Planning	13	
Computer	4	3			Nurse	14	1
Art	5	2			Admin	15	1
Music (includes stage)	6	4			Guidance	16	1
Music Practice	7	0			Conference	17	
Gym	8	1			Special ed/ LS		5
Stage	9	0			Intermediate unit		
Kitchen	10	1					

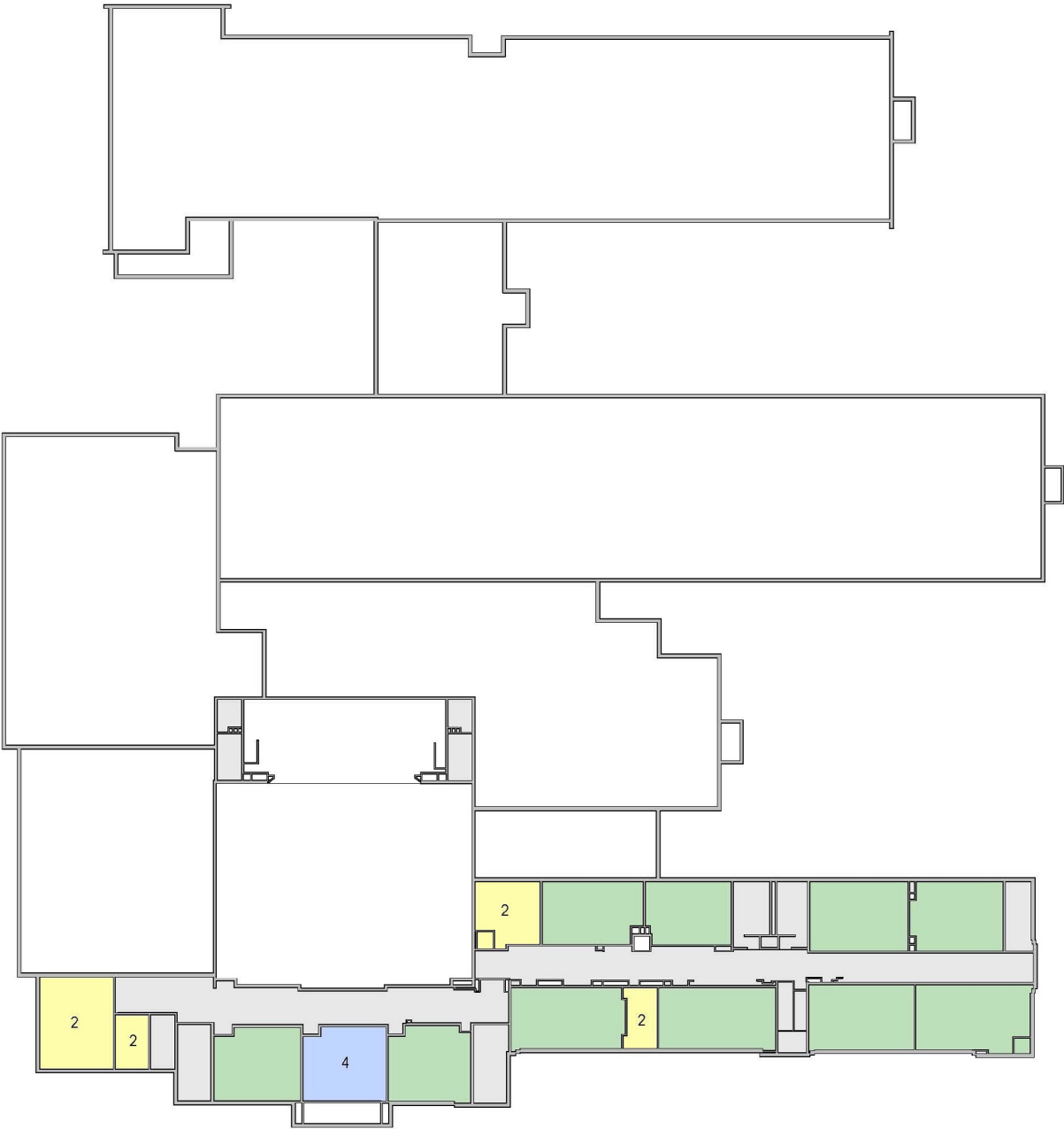
Lower Level Plan Evans City Elementary/Middle School



40 First Floor Plan Evans City Elementary/Middle School



Second Floor Plan Evans City Elementary/Middle School



SITE

- The Evans City Elementary School is located in the Borough of Evans City. The site is situated between a mixed use residential and commercial neighborhood, farmland, and undeveloped land. SR 68, Main Street, which borders the property, is a regional arterial roadway. The school and adjacent neighborhood have a small town, historic character.
1. VEHICULAR AND PEDESTRIAN CIRCULATION
 - Vehicular access and traffic flow
 - » SR 68 is very busy during morning arrival. Off-site congestion is exacerbated by 3 traffic lights and a railroad crossing within 0.5 miles of the school. The Evans City Police Department provides an officer to direct traffic. Once students' drop-off is complete, congestion on SR 68 quickly dispenses.
 - Bus drop-off
 - » After buses complete drop-off at the HS, IHS, MS Campus, they disburse to elementary school routes. Evans City has a relatively high number of buses which have a one-way bus loop. As children disembark, buses exit individually. Morning drop-off is from about 8:15 AM to 8:40AM and afternoon pick up is from 3:15 PM to 3:35 PM. Evans City has one transfer bus to St. Gregory.
 - Car drop-off
 - » The car drop-off sequence is largely separate from the bus route and works smoothly without a long queue or delay. Some students exit cars on Stokey Street where no sidewalk exists, so that caretakers can exit directly onto SR 68. Two staff greeters meet and shepherd the students into the school. These greeters report that parents feel their children are safe and are happy with the personal contact. For Stepping Stones, caregivers park, walk students to school, ring the bell, and staff comes to receive the students.
 - Parking
 - » There are several parking areas disbursed around the school and near the athletic fields. Parking is considered to be adequate although the distance from the upper lot to the school can be inconvenient. While a detailed ADA compliance review was not undertaken as part of this study, several issues were readily apparent: missing tactile warning strips, narrow or missing access aisles, excessive cross-slope on HC parking spaces, and upper lot HC spaces did not connect to an accessible route.
 - Sidewalks
 - » Dedicated sidewalk circulation within the school property is limited. There are public sidewalks on Main Street that connect to the school circulation system. Walkers must access the school via a well-marked crosswalk through the car drop-off route.





Although a thorough ADA review was not conducted, it appears that the paved access route to the lower play ground is not ADA accessible.

- Loading and service
 - » There is no dedicated loading area. Deliveries enter the school through the main entrance. An unscreened trash area is located on Stokey Street, and recycling dumpsters are located remotely in a parking lot.
 - » Pavement and curbs condition: Curbs in front of the school have some minor cracking, sidewalk heaving, missing joint filler, but overall are in generally good condition. The bus loop at back of school and the trash area have recently been re-paved and are in excellent condition. The side parking lots and upper lot are in excellent condition. Note that curbs and sidewalks were actively being repaired during the pavement assessment.
 - » Signage: The Evans City School sign is very visible from Main Street and in good condition. Directional and traffic control signage is adequate, but uncoordinated in style and location.

2. ATHLETICS AND PLAY

- Fields
 - » The Evans City School property has a large, fenced, lighted, multi-purpose field that accommodates two baseball fields or a soccer/football field. The multi-purpose field has numerous amenities: batters cages, dugout, bleachers, a press box, score board,

concession stand, and rest rooms. A third fenced baseball field is located near Main Street. The fields are maintained by community groups and are in fair condition.

- Playgrounds
 - » There are two large playgrounds on the school site. These have multiple activities and are in good condition, but some wear was observed under the swing sets.
- Hard surface games
 - » There are formal and informal basketball areas on the campus and a paved game area, all in good condition.

3. AMENITIES AND FACILITIES

- Social spaces
 - » The garden courtyard is very nice and could accommodate additional seating. The courtyard by the library seems underutilized and could be activated through additional amenities or programming.
- Landscaping
 - » Landscaping is generally limited to trees and lawn, both in good to excellent condition.
- Learning environments
 - » The school has an environmental trail to the creek and an outdoor classroom. These are generally in fair condition, but an access point to the trail from the upper parking lot is in a dangerous state of disrepair. Additional programming and amenities along



the trail could be provided such as interpretive signage, plant labeling, etc.

4. SAFETY AND SECURITY

- First responder access
 - » The school has excellent first responder access.
- Egress capacity
 - » Multiple access points allow for excellent egress capacity.
- Pedestrian safety
 - » There are some safety concerns due to student / vehicle conflicts, but these seem to be mitigated through careful staff monitoring.
- Sight lines
 - » Sight lines around the school are open and allow for good visibility.

5. CODE

- Zoning district and permitted use
 - » R-2 Residential, Public Schools are a permitted use. The school is in compliance.
- Parking requirement
 - » 1 per each employee and each faculty member. Compliance with the amount of parking provided is unknown. Should school expansion be undertaken, a parking analysis will be required.
- Minimum lot area
 - » 6,000 square feet; the school is in compliance.
- Minimum lot frontage

- » 60 feet; the school is in compliance.
- Minimum front setback
 - » 15 feet; the school is in compliance.
- Minimum side setback
 - » 10 feet; the school is in compliance.
- Minimum rear setback
 - » 20 feet; the school is in compliance.
- Maximum height
 - » 35 feet; the school is in compliance.
- Maximum impervious coverage
 - » 45%; the school is in compliance.

6. RECOMMENDATIONS

- The following recommendations were developed with the Seneca Valley administrative and facilities staff, board members, principals, teachers, students, parents, elected officials, police and fire chiefs, and business leaders.
- Vehicular and Pedestrian Circulation
 - » C1 Recommend continuing efforts with Southwestern PA Commission to improve safety and traffic flow on SR 68 by adding a traffic signal and crosswalk at Pattison Street and coordination of signal with SR 528 signal.
 - » C2 Recommend designated routes and crosswalks to play areas, fields, and nature trail and increased enforcement, particularly during the recess/kindergarten conflicts.
 - » C3 Recommend expansion of visitor and traveling staff parking.





- » Recommend repair or elimination of access to the outdoor classroom from the upper parking lot.
- » C4 Consider removing lower field and replacing with more parking and separate drop-off loop.
- » C5 Consider screening of trash area on Stokey Street.
 - Recommend undertaking an ADA audit and preparing a plan to address any non-compliant items.
 - Recommend preparation of a signage study to coordinate signage message, style, and location.
 - Consider locations for additional event parking, possibly stabilized turf that can remain greenspace when not used for parking.
 - Recommend continuation of annual maintenance and repair of curbs and parking, also include annual inspection and cleaning of storm inlets
- Athletics and Play
 - » Consider improving play areas to be more educational and interactive and include sensory play for special needs students.
 - » Consider forming a partnership with the community and athletic association to improve the athletic field conditions.
- Amenities and Facilities
 - » F1 Consider a redesign of the school 'front yard' along Main Street to increase curb appeal including signage, landscaping and art installations.
 - Recommend that new landscaping be native plant species. Explore opportunities to support habitat through undisturbed woodlands, rain gardens and plant collections—all to be tied back to the curriculum.
 - Consider additional seating areas, gardens, and trail expansion for students, staff and the community. Possible addition of wellness garden for general relaxation and special needs students.
 - Consider additional landscaping, primarily trees, that is high impact and low maintenance.
- Safety Security
 - » S1 Recommend adding sidewalk between parent drop-off at Stokey Street.
 - Recommend additional cameras around the school for more complete view of campus.
 - Consider options partnering with the community to make the school more of a community asset and/or possibly a shelter in an emergency situation.

ARCHITECTURAL

1. EXTERIOR:
RATING: POOR

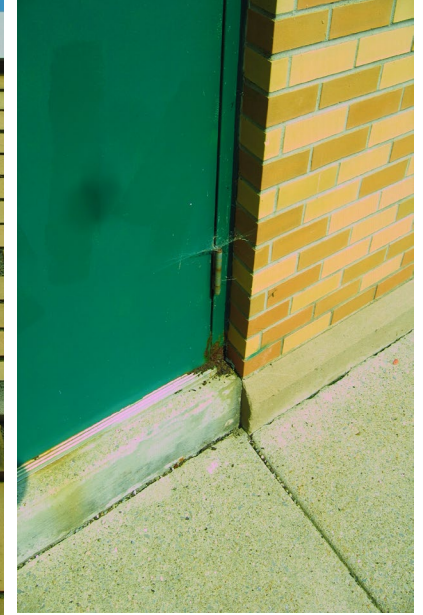


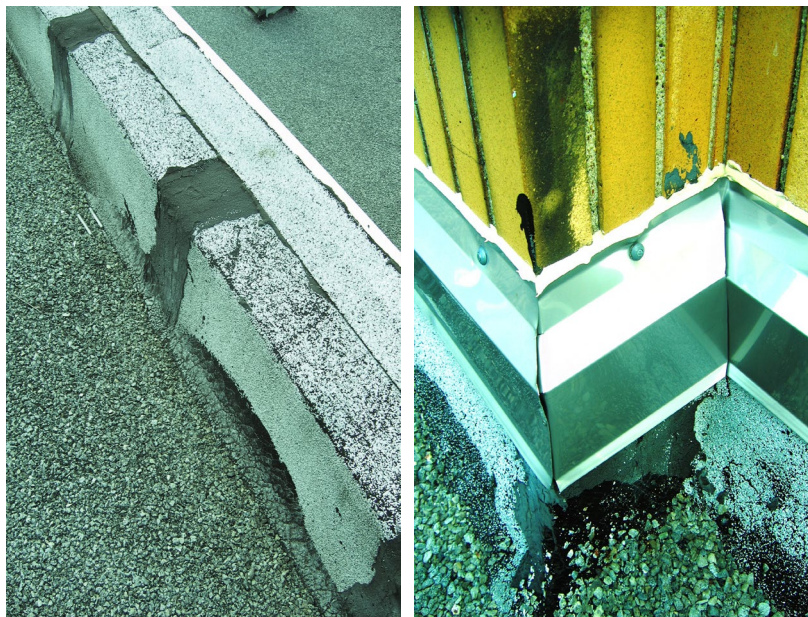
- The building was initially constructed in 1939 as a high school and was subsequently added onto and/ or renovated in 1946, 1959, 1964, and 1989. The façade is comprised of brick with thermally broken aluminum storefront windows installed as part of the 1989 renovation. The majority of the existing masonry walls are in fair to poor condition, with some significant cracking observed at several locations, particularly in the chimney, canopy columns, and facades around the upper gym. In many locations evidence exists of lintel “jacking” caused by rusting and expanding steel. The masonry cracks and lintel jacking cracks have been filled with caulk which is failing due to age. Caulking at lintels is accelerating lintel rust and failure. Further, some evidence of past, minor building settlement has caused cracking in the exterior masonry. Finally, due to the building’s age, there are an inadequate number and location of masonry control joints, which has contributed to some of the exterior cracking. Cast stone accents/ window sills are stained in many locations and will require cleaning.
- Exterior doors are painted hollow metal doors and frames. Many of the doors and frames are rusting and in poor condition. Some are currently being replaced on a one by one basis.
- Exterior windows are aluminum, double-paned with operable bottom sashes. Windows were installed in 1989 and overall appear to be in working condition.

- The building envelope was insulated from the interior with 2” insulation board as part of the 1989 building renovation.
- All exterior canopies are significantly deteriorated, especially lintels and brick.

2. ROOF RATING: FAIR

- The roof system is a ballasted built-up roof installed in 2003. Based upon the 1989 construction documents, the roof is insulated with rigid roof insulation, presumed to be installed in 1989. Flashing is stainless steel counter flashing installed in 2003. Some of the counter flashing caulking is starting to fail and should be replaced. Copings are built-up roofing with an aluminum fascia. The lap joints on the built up roofing coping should be recoated with roofing tar. In many roof drain locations, the connection between the roof drain and rain leader is leaking and being repaired with Furnco fittings.
- Destructive testing was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate. While the majority of the roof appears to be in a relatively good condition, it is difficult to know the true condition beneath the roof membrane.





3. INTERIORS RATING: POOR

- Corridors

Corridors are double-loaded approximately 8'-0" - 10'-0" wide. Some corridors contain ramps which are ADA compliant as indicated on the 1989 construction documents.

- » Floors are typically 12"x12" vinyl composite tile (VCT), which is in fair to poor condition depending upon location.
- » Ceilings are predominantly 2x4 acoustical ceiling tile (ACT). The tiles are aged, dated, and sagging. The grid appears to be in fair condition.
- » Walls vary between painted CMU with a ceramic glazed CMU wainscoting, insulated steel partitions, and wood paneling depending upon the classroom wing. Walls are generally in fair condition, but dated and institutional.

- » Lockers are in good condition and appear to be in good working order.
- » Classroom doors in the "C" wing are not recessed and when open, significantly reduce the egress width of the corridor. Any future renovations should recess these doors to maintain corridor width.

- Stairs

Egress stairs exit directly to the outside or into a vestibule. Stairs are located where required by code and appear to be of adequate width. Stairs and rails are constructed of painted steel. Treads

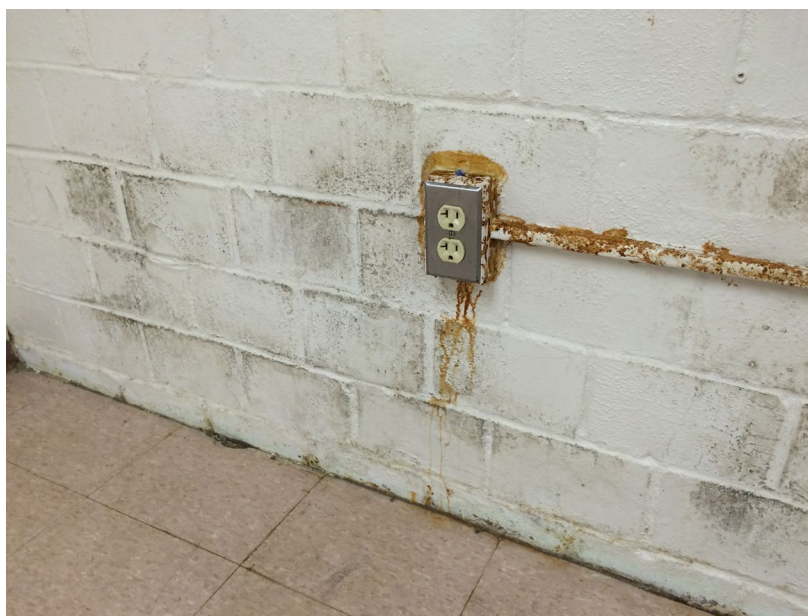
vary between terrazzo treads and rubber treads. Rubber treads are extremely worn. Railings do not meet the code defined guard rail requirements.

- Toilet Rooms

Toilet room finishes consist of a mixture of ceramic tile floors, VCT floors, rubber floor base, glazed CMU walls, ceramic tile walls, gypsum board ceilings, and solid plastic floor mounted toilet partitions, and both floor and wall mounted toilets. Some entries to group restrooms contain ceramic tile walls and the tile is cracked or chipped and should be replaced. VCT floors with rubber bases are not hygienic and should be removed from all restrooms and replaced with porcelain or ceramic tile floors and bases. Restrooms finish colors are bland and same color for both boys and girls.

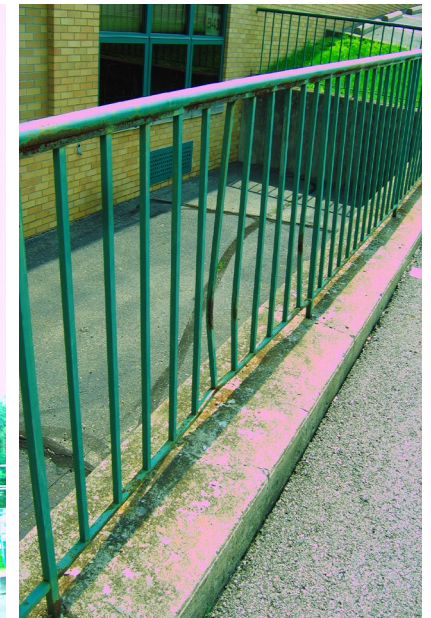
- Instruction Spaces

- » Classrooms - Typical classrooms vary in size ranging from 720 - 800 square feet. Kindergarten classrooms are slightly larger at approximately 1,000 square feet.
 - The casework is in fair condition but dated. Casework quantity in each classroom appears to be adequate.
 - Classroom ceilings are 2'x4' acoustical ceiling tile (ACT) that is in fair condition. The tile is showing signs of age, and should be considered for replacement. The



grid is in fair condition and should be replaced with the tiles.

- Classroom floors are VCT in fair to poor condition. The tile has been well maintained, but it is at the end of its useful life and should be replaced as part of a building renovation.
- The classroom walls vary between furred gypsum board and plaster over existing glazed CMU, to metal studs and gypsum board, to existing steel wall panels. Most walls are in fair to good condition. Steel wall panels should be removed and replaced with gypsum board on insulated metal studs with a minimum STC rating of 50 between classrooms.
- Furnishings are dated, uniform and institutional. Furnishings should be evaluated with student comfort, ergonomics and flexibility.
- Each classroom is equipped with varying quantities of student computers, one teacher computer, and a smart board. Classrooms are WiFi enabled.
- The general classroom design is very traditional and does not respond to 21st century teaching and learning. A plan reconfiguration is required to meet the goals of 21st century teaching and learning.
- » Art - size of space is good. There appears to be adequate storage within the space, in the form of a large storage room on the north side of the wall, and built in casework along the east, south, and west walls. A kiln room has also been provided and is being utilized. Finishes are in poor condition.
- » Music/ Band/ Chorus – A strings program is being added for the 2015/2016 school year and is housed in the small cafeteria, which is an inappropriate space. The cafeteria does not contain the appropriate acoustic treatments, infrastructure and furnishings for a proper strings instruction and learning space. Appropriate space does not exist without an addition
- » Music and Band spaces are generally sized appropriately, but finishes are in poor condition. Any growth in these programs will require additional space
- » Computer Labs – A total of four computer labs exist in the building, including the library cyber lab. At the time of review, the computer stations were not set up, but it is assumed the rooms function adequately as computer instruction rooms. The requirement of specific computer instruction rooms should be a detailed point of conversation with any significant building renovation due to continued technology changes and District programs and curricula. Finishes are in poor condition.
- Building Administration
 - » The building contains two main office suites – one for elementary and one





for middle school. These suites are generally located on opposite ends of the building. Both suites contain current security measures including captured entries. Finishes in both suites are worn and dated.

- The elementary office suite does not contain a formal conference room, instead the principal's office is used for this function – this poses a possible security concern. Ideally, copy/print/fax stations would be located in a separate room adjacent to the main entry work area to maintain good indoor air quality. The parent waiting area has a seating capacity of 2, which is undersized. Additional parent waiting exists in the hall which is a security concern. The assistant principal's office is near the administration suite, but not directly connected to it. Student records are stored in the main office area. Ideally, student records should be stored in lockable file cabinets within a lockable storage room.
- The principal's office serves as the In-school suspension room, general administration/ staff conference room and visiting Psychologist's office which is not ideal.
- The middle school office suite is separated by the main entry lobby which is not ideal for staff collaboration.

- The nurse's suite is located adjacent to the library which is deep in the building interior. This location is not ideal because it poses a security concern for parents picking up children, is far from the entries for first responders, and does not allow for office administration to monitor sick students in the advent the nurse is not available.

• Cafeteria

- » The building has two cafeterias, one for grades 1 – 4 and one for grades 5 and 6. The finishes in the cafeteria are 12" x 12" VCT floors, hard plaster, acoustic tile and acoustic panel ceilings, and painted brick and metal stud walls. These finishes are very dated and worn. The 5-6 cafeteria contains two operable accordion partitions which are functional but dated and non-acoustic. The route to the cafeteria from the classroom wings is very long especially considering the "B" and "C" wings must use a flight of stairs to access the cafeteria entry (a ramp does not exist in this location). The cafeteria contains large exterior windows that provide adequate daylighting, however the exterior views are not interesting.
- » The elementary cafeteria is large which allows for simultaneous exit and entry of lunch groups. The 5/6 lunch room is slightly undersized.
- » The stage is in fair condition and is currently being utilized for storage and performances. The stage is dated.

- Kitchen

- » The kitchen is accessed by a traditional food serving line, with registers located in the cafeteria. The kitchen is full-service to provide student breakfasts and lunches. The overall condition of the equipment appears to be in fair condition. Quarry tile floors appear to be in fair condition. Painted CMU block walls appear to be in fair condition. The ceiling within the kitchen is a 2' x 2' acoustic tile that appears to be scrubbable in fair condition. The tiles are showing signs of wear and age. Walk-in freezers and coolers are stand-alone exterior units due to a lack of interior space.

- Gymnasium

- » The gym is approximately 6,000 square feet which is slightly undersized for the project student enrollment. Gym finishes consist of a wood floor, painted CMU walls, and 2' x 4' acoustic ceiling tiles. The gym is equipped with wall pads, a climbing wall, a climbing net, an overhead curtain divider, 4 fixed and 2 operable basketball back stops and retractable bleachers. All finishes and equipment appear to be in fair to poor condition. The gym has an adequate number of egress doors.

- Library (iHub)

- » The Library is a traditional design with a focus on print media. There are two in-library classroom areas and one soft seating area for students. The soft seating area provides some variety of seating but is not overly compelling to

today's learners. The finishes consist of carpet, 2' x 4' acoustic ceiling tiles and painted CMU walls, all of which are in poor condition. The District has plans to remove some of the stacks to make room for a "Maker Space" which will consist of light robotics and circuitry. In general, the library is not consistent with a media center focused on supporting 21st century teaching and learning. A building renovation should deeply explore these needs to ensure a media center that responds to the District's future programs and curricula.

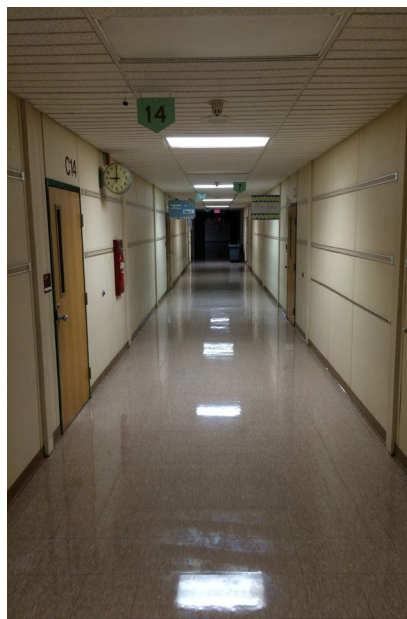
- Storage

- » The school requires additional storage space as existing storage space is consistently converted to needed educational support programs.

4. CODE COMPLIANCE/ ACCESSIBILITY RATING: FAIR

- No 18" side clearance for ADA entry in classrooms in the first floor "B" wing, some lower level "B" wing, and first floor common areas.
- The First floor has many level changes between the "A" and "C" wings which are addressed by interior ramps. These ramps appear to meet the ADA requirement of 1:12 slopes and proper handrails exist at each ramp.
- Stairs exist in the "B" wing to access the cafeteria, but no ramp is associated with these stairs. This may present an ADA issue given the route a wheel chair





would need to travel between the “A” wing and the cafeteria.

- ADA restrooms could be found on each level. Some restrooms would require minor upgrades to meet ADA clearances. Should the building be renovated, a detailed fixture count analysis should be conducted in concert with the active code at that time.
- Because the building is not sprinklered under current code, Areas of Refuge are required in each stair. These areas are not currently provided.
- The lower level of the building is inaccessible from the interior as it has no elevator access. Occupants with physical disabilities are required to walk outside to access the building’s lower level.
- “Knob” type door hardware should be replaced with “lever” type hardware.
- The building is not sprinklered. Sprinklers will be required for any Level 2 or greater renovations.
- The building construction type is assumed to be Type IIB, noncombustible. The occupancy classification is E – Education.

5. BUILDING SAFETY AND SECURITY RATING: FAIR/ GOOD

- In general, building safety is good. The main elementary and middle school entries are captured entries requiring visitors to access the respective administration offices. The door between the admin office and corridor is on electrified magnetic locks. Exterior

vestibule at the middle school entry is only visible via camera from the middle school office – this is not an ideal condition.

- Student access to playgrounds is poor as students must cross the perimeter ring road around the school.
- Room numbers are prominently posted on exterior windows and interior corridors for easy identification by first responders.
- The building plan/ layout is sprawling/ multi-level and confusing which can lead to delayed first responder times.

6. EDUCATIONAL RESPONSIVENESS TO MEET 21ST CENTURY LEARNING RATING: POOR

- The number of classrooms is adequate for the current enrollment. Number of students per classroom is higher than desired by the district. The lower level A wing contains rooms that were originally constructed for building support and storage. Currently these rooms are being used for instruction support and faculty support but are not conducive to these uses. The building is deficient in the number, size and quality of educational support spaces. Example, a paraprofessional room is located in the interior basement level of B wing; this room was formerly utilized for storage.
- Classrooms and furnishings are traditional and institutional which limits flexibility and collaboration. Classroom wings are all uniform double loaded



corridors which limit flexibility and collaboration.

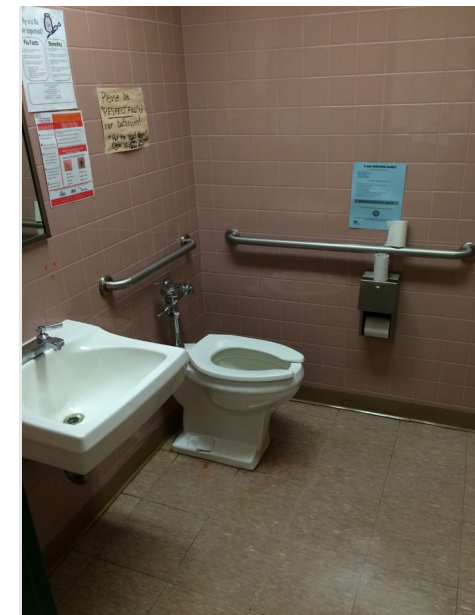
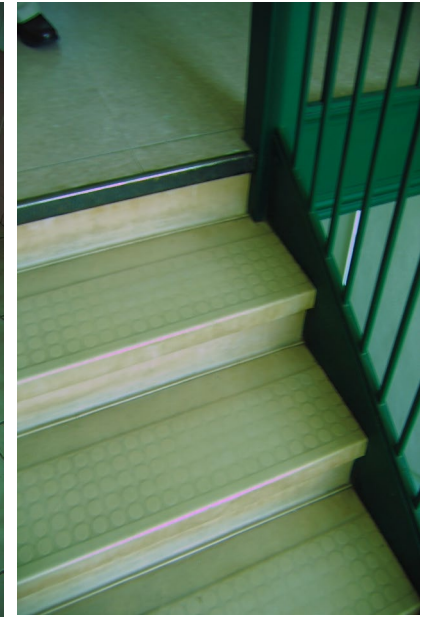
- Currently there are not enough classrooms in a given wing on a given floor to accommodate all grades in one area. This means some grades have classrooms located in different wings or on different floors. This hinders grade level collaboration.
- The building is not air conditioned which hinders student focus and learning.
- Classrooms are equipped with newer model interactive Smart Boards. A limited number of computers are in each classroom. The BYOT initiative and wireless capabilities may reduce or eliminate the need for hardwired computers in each classroom.
- Computer rooms can be phased out if a District 1:1 technology initiative is enacted.
- No faculty team rooms exist.

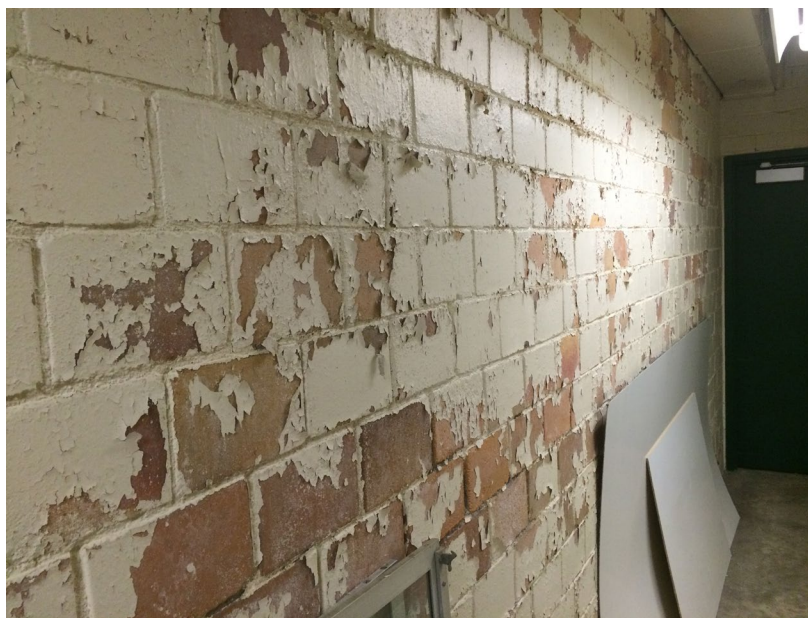
7. RECOMMENDATIONS

- The building exterior and interior is in poor condition and requires extensive renovations. Additionally, a full interior and exterior renovation is recommended/ required. Overall, the building infrastructure is in poor condition, dated, and institutional.
- The lower level "A" wing shows signs of water intrusion from the exterior. Many of these spaces were originally constructed for building support and storage but are currently being used for instruction and instruction support. These spaces should be returned

to their original function which will require building additions. Based upon conversations with educators, the interior layout is not conducive to meeting the planned curriculum and programs which require enhanced collaboration. The building is very institutional and uninspiring to students and teachers.

- Building administration functions are fragmented and not strategically co-located. No teacher collaboration spaces exist outside of faculty lunch rooms. The building does not contain easily accessible breakout spaces for students. The Library is not strategically located near building entries for community use (safety and security concern).
- A shortage of classroom space should be anticipated given enrollment projections and current use of spaces that are not conducive to proper learning environments. In general, the building lacks the appropriate quantity and quality of learning support spaces, faculty collaboration spaces and storage. Further, learning support spaces are not in locations conducive to their effective use.
- A full renovation is required at a minimum, but even with an extensive renovation, challenges will exist to meeting planned programs and 21st century learning.
- Aspirational Goals
 - » Classrooms should be provided with more flexibility to meet planned curriculum and programs. Furnishings





- » should be provided to allow for flexibility and student comfort.
- » The library/ media center should be renovated to meet the needs of 21st Century learning.
- » Considerations should be given to modifying classroom wings to allow for enhanced collaboration.
- » Consideration should be given to allow for all required grade level classrooms to be collocated in the same wing.
- » Adequate quantity, size and location of learning support rooms should be provided.
- » Lower level A wing education and education support spaces should be relocated to a more suitable location in the building.
- » Stings are located in the 5/6 cafeteria – a more appropriate space should be provided. In general, more space is required for music programs. An operable acoustic partition should be provided between the stage and gym if band continues to be held on stage. A proper band room should be provided.
- » The 5/6 cafeteria is too small for the student population which leads to multiple lunch periods.
- » Adequate space for world language should be provided.
- » Specials are not located to facilitate cross subject learning.
- » Distinct K-4 and 5-6 libraries should be provided.

- » More space is required for music programs.
- » A variety of furnishings should be provided to meet the demands of comfort, durability and flexibility.
- » Proper administration space types, sizes and locations should be provided. Co-location of the elementary and middle school administration spaces is desired.
- » Interior renovations should be provided for more inviting and inspiring learning environments, including access to daylight, natural ventilation, and “less institutional” finishes.
- » The building should be air conditioned to support student focus and learning.

MECHANICAL

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at Evans City Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems
 - » Central heating plant equipment
 - » Hot water pumps and distribution piping
 - » Air distribution systems

- » Building temperature controls

3. CENTRAL HEATING PLANT

- The building is served by two gas fired HB Smith 450 Mills cast iron sectional hot water boilers. The boilers were installed in 1989 and appear to be in fair condition.

4. HOT WATER PUMPS AND DISTRIBUTION PIPING

- The hot water pumps and distribution piping were installed in 1989 and appear to be in poor condition. The hot water distribution piping within the boiler room appears to be in poor condition.

5. AIR DISTRIBUTION SYSTEMS

- Classrooms
 - » The rooms are heated and ventilated by floor mounted unit ventilators along the perimeter wall. The unit ventilators are aged and in poor condition. The unit ventilators are heating and ventilating only, there are some areas that have cooling.
- Corridors
 - » Hot water cabinet unit heaters and convectors provide heat, these units appear to be in poor condition.
- Toilet Rooms
 - » Radiant heating panels provide heat in the toilet rooms, the panels appear to be in good condition.
- Cafeteria
 - » Two horizontal central station air handling units with hot water heating

coil for heating and ventilating the Cafeteria. These units are located above the corridor ceiling.

- Gymnasium
 - » Horizontal heating and ventilating air handling units located above the corridor ceiling. The ductwork air distribution system appears to be in good condition.
 - Administration
 - » This area is served by a variable refrigerant flow system and appears to be in good condition.
 - Library
 - » Two horizontal air handling units with split system condensing units on the roof provide heating, ventilating, and cooling of this space. This equipment is in good condition.
 - Locker rooms
 - » Recessed cabinet heaters provide heating and ventilating for the rooms, the units are in poor condition.
- ### 6. BUILDING TEMPERATURE CONTROLS
- The main control panel was replaced with a Johnson electronic control panel with the building control system being a pneumatic system. The building pneumatic control system is in poor condition.

PLUMBING

1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems





at Evans City Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems
 - » Domestic water heating equipment
 - » Domestic water service
 - » Natural gas Service
 - » Piping systems
 - » Plumbing fixtures
 - » Kitchen equipment
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- The building is served by two gas fired water heaters, one new A.O. Smith and one existing A.O. Smith model and hot water recirculation pumps. The existing water quality is an issue and caused the replacement of one water heater, the existing water heater appears to be in fair condition.

4. DOMESTIC WATER SERVICE

- The building is provided with metered water service from Evans City Borough Water Authority.

5. NATURAL GAS SERVICE

- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.

6. PIPING SYSTEMS

- The building piping systems are original. Domestic water system consists of copper piping. Sanitary and storm are cast iron. Natural gas is black steel pipe. The domestic water piping system is in poor condition and portions have to be replaced periodically due to leaks from poor water quality. The existing valves are in poor condition and do not hold water off when the valves are in the closed position, this happens throughout the facility.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush valve type. Lavatories are wall hung vitreous china and there are waterless urinals in some locations due to water piping being inaccessible. Electric water coolers are wall hung single units. Shower units in the locker rooms are gang type with floor drains in the center. The floor drainage in the showers does not meet code. There are some ADA plumbing fixtures. Stainless steel sinks are provided in the classrooms and workrooms. Service sinks are provided.

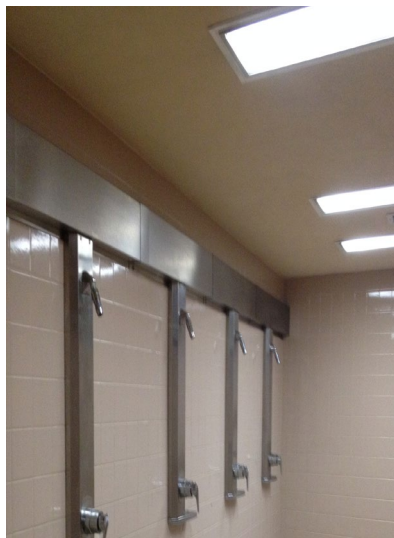
FIRE PROTECTION

- The building is not provided with an automatic sprinkler system, but there are standpipes in the stairwells.
- The building should be provided with an automatic sprinkler fire protection



system to meet current fire protection and building codes.





ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT:

- Electrical Service
 - » Square D 3000 ampere, 120/208 volt, 3 phase, 4 wire fusible switch main with circuit breaker distribution section switchboard.
- Distribution Equipment
 - » General Electric and Square D circuit breaker distribution and branch circuit panels.
- Switchboard, panels and electrical distribution feeders and branch circuits replaced as a part of a 1989 building renovation and addition project.

2. EMERGENCY POWER SYSTEM EQUIPMENT

- Generator
 - » Kohler 60 kW/75 kVA, 120/208 volt, 3 phase, 4 wire natural gas fueled interior generator unit.
- Automatic Transfer Switch
 - » 225 ampere Kohler transfer switch with area protection monitor panels.
- Emergency Power Distribution
 - » Normal/Emergency and Emergency only circuit breaker panels.
- Emergency Egress Lighting
 - » Emergency egress lighting provided in corridors, stairways, gymnasium, cafeteria and exits.
- Emergency lighting system as indicated on available drawings appears to meet code requirements.

3. LIGHTING SYSTEMS:

- Corridors and Stairways
 - » Recessed or surface mounted fluorescent fixtures with acrylic lens.
- Classrooms, Computer rooms, Media Center and Offices
 - » Recessed fluorescent fixtures with parabolic lens controlled by multiple switches to provide multiple levels of room illumination.
- Gymnasium
 - » Recessed T5 fluorescent fixtures.
- Cafeteria, kitchen, storage and miscellaneous spaces
 - » Recessed fluorescent fixtures with acrylic lens.
- Mechanical and Electrical Equipment Rooms
 - » Surface or suspended fluorescent fixtures.
- Gymnasium and Cafeteria Stages
 - » Dimmable incandescent or quartz house and performance theatrical lighting systems controlled by zoned slider type dimmer panels.
- Exterior Security Lighting
 - » Wall mounted HID fixtures on time clock or photocell controlled circuit.
- Exterior Parking Area Lighting
 - » Pole mounted HID fixtures on time clock or photocell controlled circuit.
- Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.
- Lighting Controls



- » Time clock and photocell control of exterior lighting.

4. FIRE ALARM SYSTEM:

- Fire Alarm Panels
 - » Simplex 4100 fire alarm control panel and alarm annunciator panel at main entrance. Fire alarm system is a hard wired zoned system.
- Alarm Initiating Devices
 - » Manual pull station at all code required building exits
 - » Automatic smoke detectors in corridors, cafeteria, kitchen and storage rooms.
 - » Automatic heat detectors in mechanical rooms.
- Alarm Signal Devices
 - » Audible only horns in corridors, rest rooms cafeteria, dining, kitchen, music, administrative and gymnasium spaces.
- Fire alarm system as indicated on available drawings appears to meet current code requirements except as follows:
 - » Visual alarm signals required in all corridors, rest rooms, classrooms and spaces of common use.

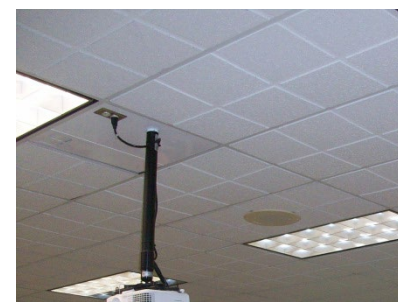
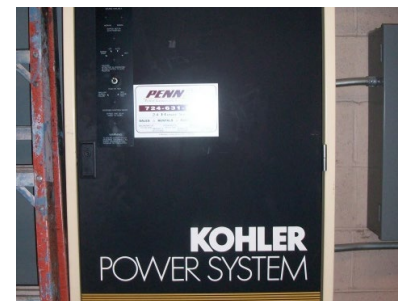
ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

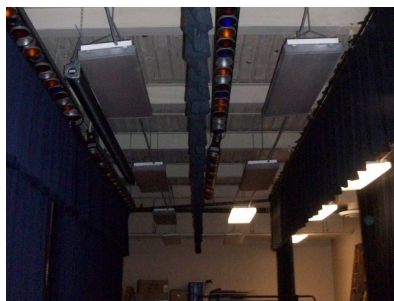
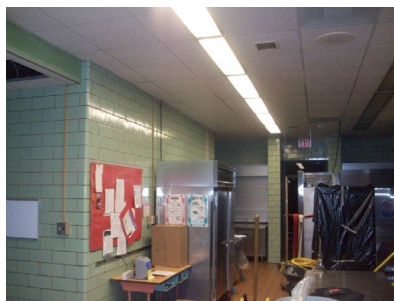
1. SECURITY SYSTEMS

- Building Entrances
 - » Audio/video/intercom system for supervised access at the elementary and middle school entrances.
 - » Raptor driver's license security screening system is used to identify unwanted visitors.
- Intrusion Detection
 - » None
- Building Access Control
 - » Networked Synergistics/ Millenium access control system equipment provides authorized/ unauthorized access to all the school district buildings.
 - » Proximity type card readers control access to selected building entrances and areas within the building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in main entries, corridors, stairways, administrative offices and other selected areas as required.
 - » CCTV security system consists of analog cameras with converters for use with IP Video Insight System networked video viewing and storage equipment.

2. PUBLIC ADDRESS AND CLOCK SYSTEMS

- Paging System





- » Dukane school paging system with speakers and call-in switches in all classroom, educational spaces and miscellaneous selected spaces.

- Clock System

- » Dukane master clock system with analog clocks in all classroom, corridors, educational spaces and assembly spaces.

3. SOUND REINFORCEMENT SYSTEMS

- Gymnasium and Cafeteria

- » Local sound reinforcement systems for stage performances with amplifiers as required for distributed or suspended full range speakers required to cover room seating areas.
- » Microphone outlets provided at stage and selected locations in room for access to system.

4. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure

- » School provided with Category 5 and 6 horizontal copper cabling to room telephone and data network outlets. Original building Category 3 cabling is no longer used and has been abandoned in place. Multimode 62.5 fiber optic backbone network cabling provided for network connections between telecommunication equipment cabinets and rooms. The Category 5 cabling was installed with the 1989 building renovations and has been supplemented with new Category 6 cabling each year to

support required additional network outlets or wireless access nodes throughout the building. Wireless access points have been installed throughout building in corridors and in selected classrooms or spaces. Telecommunications equipment rooms consists of free-standing equipment racks or wall mounted cabinets with networking equipment and horizontal cabling patch panels as required.

- CATV RF Broadband Coaxial Cabling System

- » A broadband building CATV cabling system with sub-channel return consisting of coaxial cabling, signal amplifiers, splitters, modulators and multi-taps to distribute programming channels to outlets in all classrooms, instructional education rooms, assembly spaces, offices and other selected areas as required. Programming can be originated at any system outlet in the building over the cabling system sub-channel return equipment.
- » Selected digital CATV utility channels are converted to modulated analog channels and distributed over the cabling system to room outlets on standard CATV channels up to 30.
- » The school programming channel originating in this school and the programming channels originating in each of the other district schools are encoded and transmitted over the district fiber optic data network.



The digital school channels are converted locally at each school to analog signals and distributed over the coaxial cabling system to room outlets on standard CATV channels above channel 30.

- Telephone System
 - » Cisco IP telephone system and telephones installed throughout this building and the school district.
- Typical Classrooms
 - » Classrooms provided with instructor and three (3) student stations with data networking wired outlet connections or access to wireless network connections.
 - » Wall mounted video display, video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to connections at the instructor's desk. Instructional programming from the instructor's computer can be routed through a VGA video matrix switch to the wall mounted video display or the video projector. The interactive white board is connected through the USB cabling connection.
 - » School paging/intercom system speaker in ceiling for announcements and a local call-in switch to initiate a call to the administrative offices.
 - » Analog wall clock on master clock system.
 - » Ceiling mounted wireless network point in selected classrooms.
- Computer Labs

- » Mobile wireless cart laptop computer labs are available for use in addition to the fixed classroom student computer workstations

BUILDING SYSTEMS RATINGS AND CODE COMPLIANCE

1. BUILDING SYSTEMS RATING

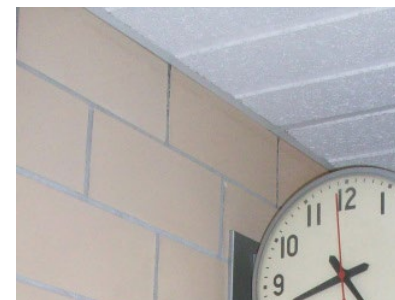
- Electrical lighting, power distribution and, normal/ emergency power systems are original to the 1989 renovations and building additions project and are in fair condition.
- The electronic and technology systems were installed during the 1989 building renovations and additions project and are in fair condition. These systems have been supplemented with new as required to maintain the systems and to meet the changing educational requirements.

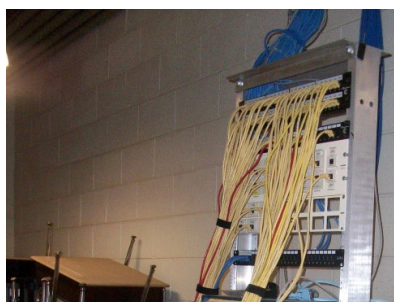
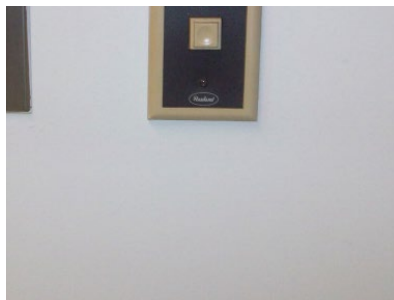
2. CODE COMPLIANCE:

- Visual fire alarm signal strobes are required by current codes in all corridors, classrooms, rest rooms, and spaces of common use. Because of the age of the existing fire alarm system equipment, replacement and upgrading of the existing system equipment should also be considered if not required to provide the additional visual alarms.

3. RECOMMENDATIONS:

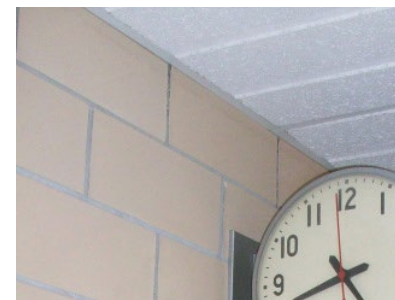
- Electrical lighting, power distribution and, normal/ emergency power and fire alarm systems should be evaluated for

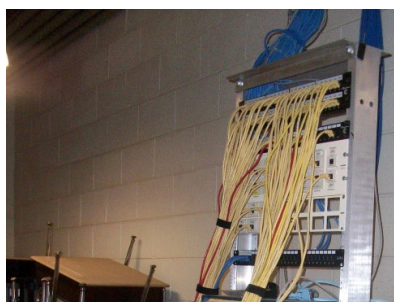
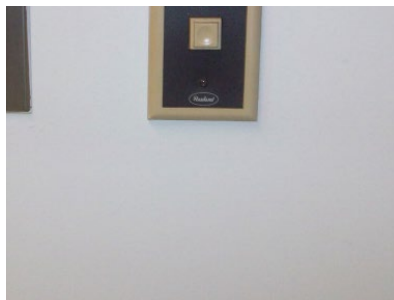




cost effective or necessary upgrades if renovations of this facility are proposed.

- Energy saving upgrades to LED type lighting fixtures and installation of occupancy/vacancy sensor controls should continually be evaluated and considered.
- Except for yearly selected upgrades, the electronic equipment and technology systems in this building were last updated during the 1989 building renovations. Any proposed renovations of the facility should include replacement of these systems. Replacement of these systems with the latest equipment technologies would result in systems that can easily be maintained and that are able to meet the current and future requirements of the facility.
- The following recommendations should be included in any future upgrades of the existing electronic and technology systems:
 - » DAS systems for amplification of cellular telephone signals should be added as required to aid in First Responders signal coverage.
 - » Audio amplification systems should be added for use in conjunction with the Classroom audio/video presentation systems.
- Dedicated telecommunications rooms with proper ventilation or cooling should be provided to maximize the life of the telecommunication equipment.
- Additional 802.11a/b/g/n/ac wireless access points with duplex telecommunication outlets should be provided throughout the building.
- Cable tray should be provided throughout the corridors to facilitate adds, moves and changes in technology.





Haine Elementary / Middle School

65

Fast Facts

Constructed — 1968
Renovations / Additions — 1985, 1990, 1996
Acreage — 25.68 acres
Gross Square Feet — 177,986 gsf
Capacity (95%) — 1263*
Current Enrollment — 1358
Utilization — 102%
Area per Student — 134 sf
Projected Enrollment — 1,418



 FAIR
ARCHITECTURAL

 FAIR
MECHANICAL

 FAIR
PLUMBING

 FAIR
FIRE PROTECTION

 FAIR
21ST CENTURY
EDUCATIONAL

 FAIR
DATA

 FAIR/POOR
ENERGY CONSUMPTION

 GOOD
CODE COMPLIANCE

 GOOD
SAFETY AND SECURITY

 FAIR/POOR
21ST CENTURY LEARNING

FAIR
OVERALL
BUILDING
RATING

 GOOD
ACCESS, CIRCULATION, AND PARKING

 GOOD
ATHLETICS AND PLAY

 GOOD
AMENITIES AND SUPPORT FACILITIES

 GOOD
SAFETY AND SECURITY

 EXCELLENT
CODE COMPLIANCE

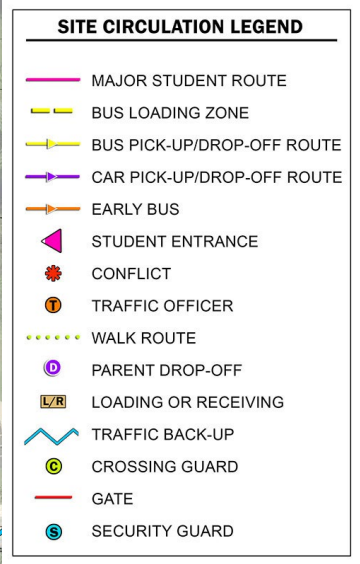
GOOD
OVERALL SITE
RATING

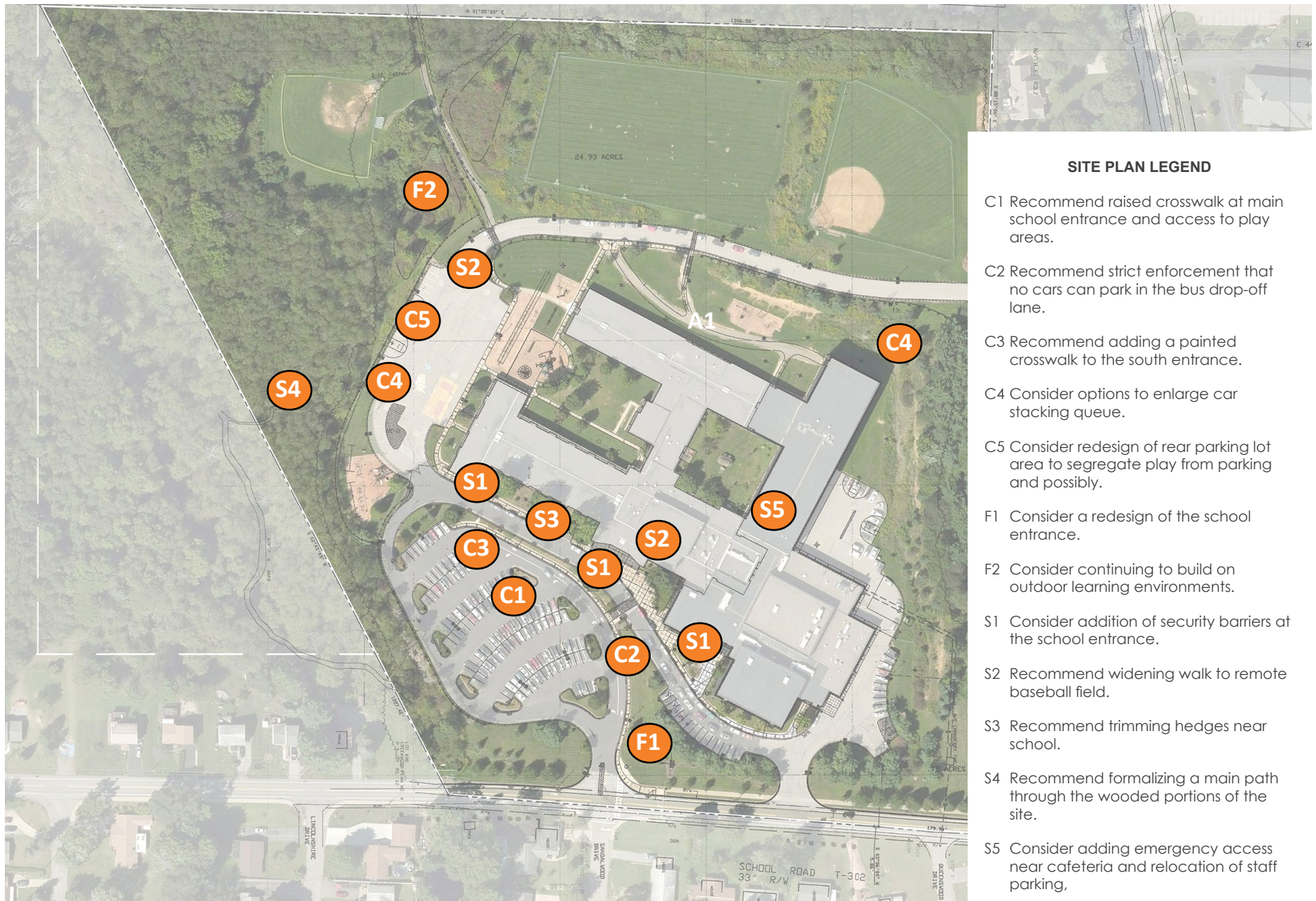
KEY BUILDING CONDITIONS

KEY SITE CONDITIONS

* Based upon ideal class sizes



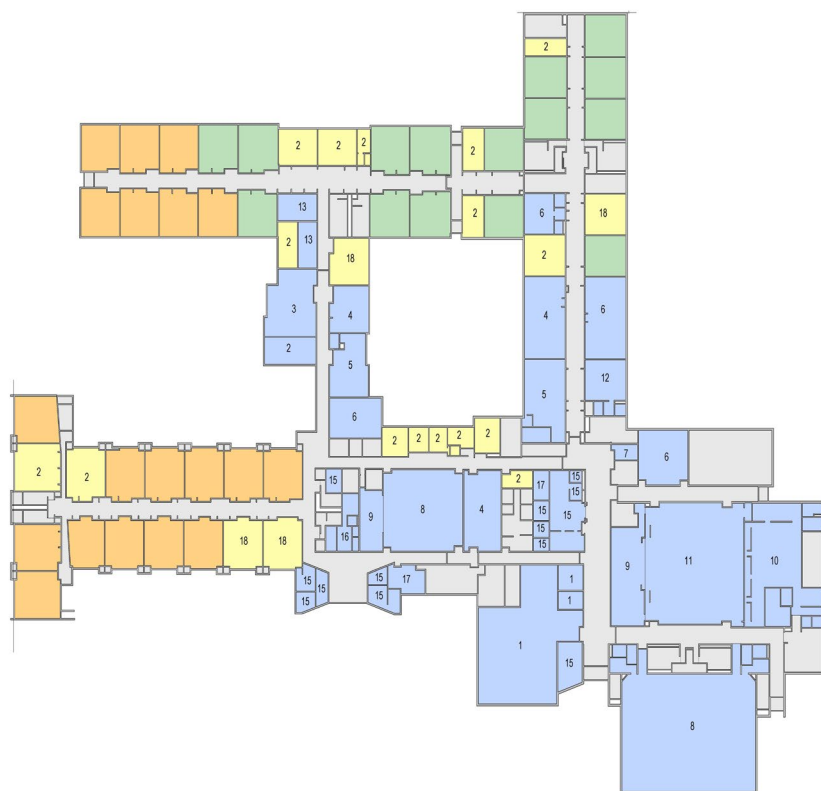




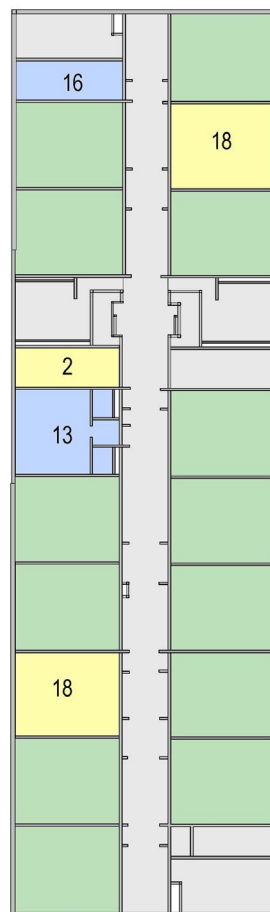
Capacity Calculation			PDE / Capacity		District Ideal	
	ID Color	Classrooms	Max Capacity	Total	Max Capacity	Total
K classrooms		4	50	200	36	144
1-2 classrooms		15	25	375	18	270
3-4 Classrooms		14	25	350	21	294
5-6 Classrooms		27	25	675	23	621
Total		60		1600		1329

Other Spaces	ID Color/#	Quantity	Space	ID Color/#	Quantity
Library	1		Cafeteria	11	
SGL	2		Faculty Dining	12	
LGI	3		Faculty Planning	13	
Computer	4		Nurse	14	1
Art	5		Admin	15	1
Music	6		Guidance	16	1
Music Practice	7		Conference	17	1
Gym	8		Special ed		
Stage	9		Intermediate unit		
Kitchen	10				

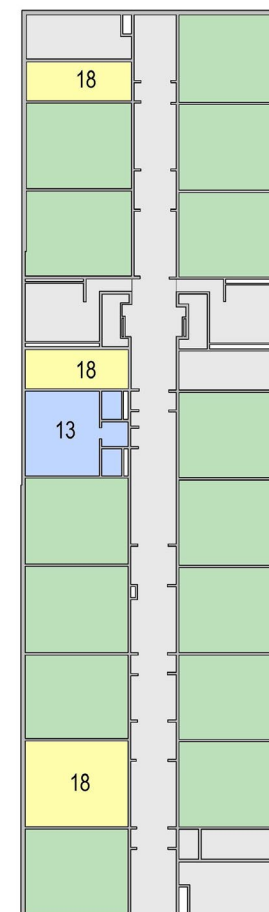
First Floor
Plan



Second Floor
Plan



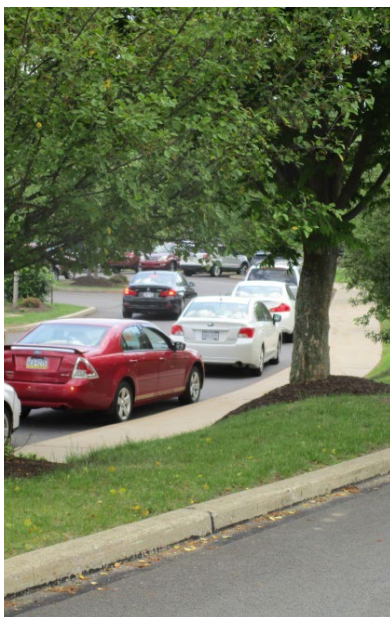
Third Floor
Plan



SITE

- Haine Elementary School is located in Cranberry Township on a spacious campus surrounded by wooded areas and residential neighborhoods. The school is near, but not directly accessed from I-79. The expansive lawns, surrounding woodlands, and curvilinear roads give the Haine School setting a peaceful, park-like character.
1. VEHICULAR AND PEDESTRIAN CIRCULATION
 - Vehicular access and traffic flow
 - » Haine Elementary School is accessed by lower volume collector roads, and traffic may back-up on Haine School Road to Rochester Road. Cranberry Township provides a traffic officer during morning and afternoon arrival and departure which regulate traffic flow.
 - Bus drop-off
 - » Buses enter school property through a secondary entrance on Haine School Road and into a one-way loop, restricted for busses only during arrival and departure. (With the exception of special needs drop-off) This loop splits beyond the school entrances with one route intersecting the parent loop and out the main entrance. The second route goes through the rear parking lot and out a one way road to Rochester Road. There are 6 busses dedicated to middle school only; in the morning these busses drop-off in the front of school, and in the evening pick-up in the back.
 - Car drop-off and walkers
 - » Cars access the school site through the main entrance on Haine School Road into the primary parking lot. On the school site, the cars move efficiently, but Haine School Road can back up to Rochester Road. A significant number of students are dropped-off and picked up by cars. Cars either park or stack in a one-way loop around the lot. In the afternoon, walkers and students being picked up by cars are escorted by a district crossing guard through bus loading zone. The Stepping Stones entry is behind the school at the cafeteria. Students must cross buses to enter the school which is not ideal.
 - Parking
 - » General parking is concentrated in one main lot with smaller areas for visitors, service and staff, and overflow. Parking is reported to be at capacity in the afternoon.
 - Sidewalks
 - » The main pedestrian access to the middle and elementary school entrances is provided by a wide crosswalk connecting the bulk of the parking to the school with the front sidewalk and entry plazas. A second 'informal' pedestrian access to the school is to the south. While there is no marked cross-walk, a path of walking stones is provided to the parking lot. There is an extensive





system of sidewalks that surround the school connecting various entrances, activities and the public side walk system. While a comprehensive ADA analysis was not performed, it was observed that tactile warning strips are missing on some ramps.

- Loading and service
 - » The large service area, including a loading dock, is in very good condition. Multiple dumpsters are provided in the service area.
 - » Pavement and curbs condition
- Roads, parking, curbs and concrete plaza at the front of the school are in good to excellent condition. The asphalt multi-use area in the back of the school is in fair condition with some cracking. The walkways to the playing fields are too narrow for the foot traffic as evidenced by bare ground along the sides.
- Signage
 - » The school sign is highly visible and well located. Other signage is adequate, but uncoordinated.

2. ATHLETICS AND PLAY

- Fields
 - » A large area with soccer and baseball fields, both in fair to good condition, is located adjacent to the school across the main site circulation road. A second ball field is located away from the main portion of the site which is in poor to fair condition.
- Playgrounds

- » Three playgrounds are distributed across the site, all in good repair. Adjacent flat grassy areas provide opportunities for active play. In general, playgrounds are not well suited for special needs students.

- Hard surface games
 - » An asphalt area is located to the south of the school and includes basketball courts and other games, while also being striped for parking. The expanse of pavement is extensive and stark.
- Trails
 - » Trails abound through the adjacent woods which also connect to residential areas.

3. AMENITIES AND FACILITIES

- Social spaces
 - » The entry plazas to the school are large and provide an area for student congregation. In the rear of the school is a wonderful park-like open space and seating area adjacent to the playground. There are numerous benches, picnic tables, and shady spots throughout the site, and, in conjunction with the play areas, provide a wide range of social spaces. An interior courtyard provides a visual connection to nature, but does not seem to be actively used.
- Landscaping
 - » The landscaping at Haine is beautiful and park-like with lawns, shade trees, shrub and perennial beds, and naturalized and wooded hillsides. In



general, the landscaping is in excellent condition.

- Learning environments
 - » Wetlands flank the entrance to the second ball field. The habitat created by the wetlands provides an excellent opportunity for environmental study, but is not being capitalized on.

4. SAFETY AND SECURITY

- First responder access
 - » The Haine School site has connections with two collector roads, and a clear circulation system that allows for excellent first responder access. One concern is the remote ball field which is removed from the developed area of the site. The paved connection to the field does not appear to have adequate width for an emergency vehicle.
- Egress capacity
 - » The connected road system and sidewalk connections should have capacity for quick egress from the site.
- Pedestrian safety
 - » The extensive and connected sidewalk system appears to be generally safe, with the exception of the crosswalks from the main parking area to the school which cross the bus loop. The main crosswalk is well marked and supported by staff, but is awkward due to a grade change and flight of stairs. A secondary 'informal' does not have a marked crosswalk. The maze of paths through the wooded

area is also of concern because of its isolation provides an opportunity for undesirable activities. One play area is located across the interior circulation road.

- Sight lines
 - » Around the school are several rows of shrubs which do not allow for clear sight lines and create secluded pockets. These hedges should be critically examined to determine if pruning or removal is needed to create a safe environment.

5. CODE

- Zoning district and permitted use
 - » R-2, Single Family Residential Zoning District; Public Educational Institution is a Use by Right.
- Parking requirement
 - » Three per room used for administrative offices or class instruction, or one for each four seats in places of assembly or facilities available to the public, whichever is greater. Compliance with the amount of parking provided is unknown. Should school expansion be undertaken, a parking analysis will be required.
- Minimum lot area
 - » 0.75 acre; the school is in compliance.
- Minimum lot frontage
 - » 85'; the school is in compliance.
- Minimum front setback
 - » 40'; the school is in compliance.
- Minimum side setback





- » 10'; the school is in compliance.
- Minimum rear setback
 - » 20'; the school is in compliance.
- Maximum height
 - » 35'; the school is in compliance.
- Maximum impervious coverage
 - » 15%; the existing site likely has more than 15% impervious coverage. Should school expansion be undertaken, an analysis of impervious coverage is required.

6. RECOMMENDATIONS

- The following recommendations were developed with the Seneca Valley administrative and facilities staff, board members, principals, teachers, students, parents, elected officials, police and fire chiefs, and business leaders.
- Vehicular and Pedestrian Circulation
 - » C1 Recommend installation of a raised crosswalk to replace the existing painted crosswalk at main school entrance and access to play areas.
 - » C2 Recommend strict enforcement that no cars can park in the bus drop-off lane.
 - » C3 Recommend adding a painted crosswalk to the south entrance.
 - » C4 Consider options to enlarge car stacking queue on-site such as designating the school road that connects with Rochester Road for car drop-off, redesigning the parking area to add additional queuing, or adding a turning lane on Haine School Road.
- Athletics and Play
 - » A1 Consider redesign of playground for grades 5-6 to be more age appropriate, possibly more of a maker space.
 - Consider improving play areas to be more educational and interactive and include sensory play for special needs children.
 - Consider forming a partnership with the community and athletic association to improve the athletic field conditions.
- Amenities and Facilities
 - » F1 Consider a redesign of the school entrance to increase curb appeal including signage, landscaping and art installations.



- » F2 Consider continuing to build on outdoor learning environments with additional programming and activities that are integrated with the curriculum. One excellent opportunity is the detention pond/wetland areas flanking the walk to the remote ball field.
 - Recommend that new landscaping be native plant species. Explore opportunities to support habitat through undisturbed woodlands, rain gardens and plant collections—all to be tied back to the curriculum.
 - Consider additional seating areas, gardens, and trail expansion for students, staff and the community. Possible addition of a wellness garden for general relaxation and special needs students.
- Safety and Security
 - » S1 Consider addition of security barriers, such as bollards and planters, at the school entrance as protection from vehicular breach.
 - » S2 Recommend widening walk to remote baseball field to accommodate an ambulance/emergency vehicle.
 - » S3 Recommend trimming hedges near school to 24" – 30" maximum height.
 - » S4 Recommend formalizing a main path through the wooded portions of the site to encourage use, discourage undesirable activities, and provide for emergency access.
- » S5 Consider adding emergency access near cafeteria and relocation of staff parking,
 - Consider options partnering with the community to make the school more of a community asset and/or possibly a shelter in an emergency situation.
 - Consider addition of security cameras at fields to help control undesirable activities.

ARCHITECTURAL

1. EXTERIOR RATING: POOR / GOOD

- The building was initially constructed in 1968 and was subsequently added onto and/or renovated in 1985, 1990 and 1996. The façade is comprised of brick. The 1996 addition existing masonry walls are in good condition, however the original 1968 masonry walls are in fair condition – some areas need to be repointed. Masonry should be cleaned as part of a larger renovation. Brick areas near grade and concrete should be repointed.
- Exterior lintels in the 1968 portion, including the interior courtyard do not appear to be galvanized and are rusting. These lintels should be anticipated for replacement in the near future. Lintels and soffits in the 1968 portion are in poor condition and should be replaced.
- Exterior caulking is in fair to poor condition and should be replaced at all masonry.





- Exterior doors and frames in the 1968 portion are painted hollow metal in poor condition and should be replaced. Exterior doors and frames in the 1996 portion are aluminum and are generally in good condition. Middle School main entry doors are in fair condition and should be considered for replacement in the near future.
- Exterior windows are aluminum, double-paned with operable bottom sashes. Windows in the 1968 portion are rusting, in poor condition and should be replaced. Windows in the 1996 portion are aluminum in good condition.
- It is unclear if the original 1968 building envelope was insulated as part of subsequent renovations, but it appears not to have been. If not, this portion of the building should be insulated as part of any extensive renovations.
- The 1996 addition exterior canopy brick and lintels are visibly in good condition.

2. ROOF RATING: FAIR

- The 1996 addition roof system is a combination of ballasted and fully adhered EPDM installed in 1997. In 2000, the 1968 portion of the building was re-roofed with a built-up roof system. Leaks in this roof were reported in rooms 5, 8, and 13. The EPDM roof has a 15 year warranty and the built-up roof has a 20 year warranty. The EPDM roof is outside of the warranty period and should be scheduled for replacement as performance issues arise. The built-

up roof is approaching its warranty period and should be monitored for replacement. It is presumed the roof is insulated with rigid insulation. Destructive testing was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate. Copings at the EPDM roofs are EPDM wrapped coping with aluminum fascia. Built up roof copings are metal. In general, metal fascia and copings are fading and dated.

3. INTERIORS RATING: FAIR

- Corridors
Corridors are double-loaded approximately 8'-0" in the elementary school and 10'-0" wide in the middle school. Floors in the 1996 addition are 12"x12" vinyl composite tile (VCT) in fair to good condition. VCT color is beige and monolithic with little to no pattern or design. Floors in the 1968 portion are 12 x 12 fritz tile, terrazzo tile and terrazzo. Fritz tile is in fair to poor condition and should be considered for replacement. Corridor finishes are dark, dated and institutional.
- » Ceilings are 2x4 acoustical ceiling tile (ACT) in the 1996 addition. The tiles are aged, dated, and sagging. The grid appears to be in fair condition. Ceilings in the 1968 portion are a



combination 2x4 ACT, wood, and exposed wood beams. Wood beams and ceilings are dated and dark.

- » Walls in the 1968 portion are brown brick and plaster. The 1996 addition walls are a combination of glazed CMU and painted CMU. Wall finishes are in fair condition, but dated and institutional. Brown brick in the 1968 portion leads to very dark corridors.
- » 1968 doors do not have required ADA door hardware. Door hardware should be replaced. Doors in the 1968 portion are wood and in poor condition.
- » Entry vestibule recessed rubber walk off mats are aged and should be considered for replacement.
- » Lockers in the 1996 addition are in good condition.
- Stairs

Stairs are located in the 1996 addition only. Stairs are code compliant including required hand and guard rails. Risers are painted metal, treads are rubber, and landings are VCT. Risers should be repainted and treads/ landings are in fair condition and should be considered for replacement.
- Toilet Rooms

Toilet room finishes in the 1996 addition consist of ceramic tile floors, base and, walls, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Fixtures are in good condition. The restrooms finish colors are bland and dated.
- Toilet room finishes in the 1968 portion consist of VCT floors, rubber base, ceramic tile walls, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Fixtures are in good condition. The restrooms finish colors are bland, dated, in fair condition and should be replaced.
- Instruction Spaces
 - » Classrooms - Typical classrooms vary in size ranging from 750 square feet in the 1996 addition to 900 square feet for 1968 kindergarten classrooms.
 - The 1996 addition casework is plastic laminate in fair condition but dated. Casework quantity in each classroom appears to be adequate.
 - The 1968 casework is wood and is in poor condition. Casework should be replaced.
 - Classroom ceilings in the 1968 portion are wood and wood beams which are dark. The 1996 addition ceilings are 2x4 acoustical ceiling tile (ACT) that is in fair condition. The tile is showing signs of age, and should be considered for replacement in the future. Wood ceilings in classrooms should be replaced with a lighter/ brighter acoustic system.
 - Classroom floors are 12 x 12 VCT in fair condition. Some spaces contain 9"x9" asbestos tile which should be remediated.





- The classroom walls vary between plaster (1968) and painted CMU (1996). Most walls are in fair to good condition.
- Furnishings are dated, uniform and institutional. Furnishings should be evaluated with student comfort, ergonomics and flexibility and should be replaced with furnishing systems that support 21st century teaching.
- Each classroom is equipped with a smart board. Classrooms are WiFi enabled.
- The general classroom design is very traditional and does not respond well to 21st century teaching and learning. A plan for reconfiguration would be required to meet the goals of 21st century teaching and learning.



- » Art - Ceilings are 2 x 4 ACT in fair condition. Flooring is 12 x 12 VCT in fair condition. Walls are painted CMU. The size of the room does not allow for district desired, STEAM inspired art. Storage is plastic laminate in good condition and there appears to be adequate quantity. Opportunity exists to renovate the room into a more inspiring art space, with access to the exterior courtyard. Student chairs are newer and more consistent with 21st century art spaces.
- » Music/ Band/ Chorus – Music rooms are carpeted with in-room plastic laminate casework. Ceilings are 2 x 4 ACT. Walls are painted CMU. Acoustic

wall panels are needed in the music room. Rooms are equipped with Smart Boards. Finishes, including carpet, are worn and dated and should be replaced. The room footprint is long and narrow which is not ideal for music instruction.

- » Computer Labs – A total of 2 computer labs exist in the building; one elementary school and one middle school. The room is a traditional set up and appears to function adequately. Finishes are dated and worn and should be scheduled for replacement. The requirement of specific computer instruction rooms should be a detailed point of conversation with any significant building renovation due to continued technology changes and District programs and curricula.

• Building Administration

- » The building contains two main office suites – one for elementary and one for middle school. These suites are generally located on opposite ends of the building. Both suites contain current security measures including captured entries.
 - The elementary office suite does contain a formal conference room and the principal's office is also used for this function. Ideally, copy/print/fax stations would be located in a separate room adjacent to the main entry work area to maintain good indoor air quality. The parent waiting area is undersized. Student records



are stored in the main office area. Ideally, student records should be stored in lockable file cabinets within a lockable storage room. In general, the administration suite is fragmented and does not support required adjacencies. A building renovation should resolve this issue. In general, finishes are dated and worn and should be replaced.

- The middle school office suite is separated by the library which is not ideal for staff collaboration. Middle school administrators are located down the hall from the front office which can pose a security concern. In general, finishes are dated and worn and should be replaced.
- The nurse's suite is not located adjacent to administration areas. This is not ideal because it poses a security concern for parents picking up children, is far from the entries for first responders, and does not allow for office administration to monitor sick students in the event the nurse is not available.
- Cafeteria
 - » The finishes in the cafeteria are 12" x 12" VCT floors, 2 x 4 acoustic tile ceilings, acoustic wall panels and painted CMU/glazed CMU walls. These finishes are in fair condition and becoming dated and worn. The cafeteria has access to a performance stage which is used for school functions. The cafeteria contains clerestory exterior windows

that provide some daylighting but no views to the exterior.

- » The stage is in fair condition and is currently being utilized for performances. The stage has minimal infrastructure for performances (curtains, backdrop and minimal stage lighting). The stage is accessible. The stage is being considered for future music programs which will require a large operable acoustic partition.

- Kitchen

- » The kitchen is accessed by a traditional food serving line. The kitchen is full-service to provide student breakfasts and lunches. The overall condition of the equipment appears to be in good condition. Quarry tile floors appear to be in good/ fair condition. Glazed CMU block walls appear to be in good condition. The ceiling within the kitchen is a 2' x 4' acoustic tile that appears to be scrubbable. The tiles are in fair condition.

- Gymnasium

- » The large gym finishes consist of a wood floor, painted CMU walls, and painted exposed roof deck and structure. The gym is equipped with wall pads, an operable curtain divider, and 6 operable basketball back stops. All finishes and equipment appear to be in fair condition. The gym has an adequate number of egress doors. The gym has wood bleachers which should be reviewed for code compliance. Gym finishes and systems required minimal upgrade/ renovation. The





smaller gym has finishes that are more worn and dated. This gym does not have access to daylight. This gym can be considered for renovation.

- Library (iHub)

- » The Library is a traditional design with a focus on print media. There is one library computer room connected to the library and an in-library classroom. No soft seating area exists to provide a variety of seating / learning areas for today's learners. The finishes consist of carpet, 2' x 4' acoustic ceiling tiles and painted plaster walls, all of which are dated and worn. The library has access to natural daylight and the exterior. In general, the library is not consistent with a media center focused on supporting 21st century teaching and learning. A building renovation should deeply explore these needs to ensure a media center that responds to the District's future programs and curricula.

- Large Group Instruction (LGI)

- » One large group instruction room exists which is used for staff development and supplemental instruction. The room is divided by an operable partition which appears to be in working condition but it is non-acoustic and old. The space has exposed wood ceilings and roof structure which provides for a dark space. Flooring is carpet which is worn, dated and should be replaced. In general, the space is an adequate size for LGI use but requires finishes

and equipment updates. A portion of the LGI is being used as a sensory room which is only accessed through the LGI. This is a non-ideal relationship that should be resolved.

- Storage

- » The school requires additional storage space as existing storage space is consistently converted to needed educational support programs.

4. CODE COMPLIANCE/ ACCESSIBILITY RATING: GOOD

- The 1968 portion requires ADA door hardware upgrades.
- Stairs are compliant and multiple floors are accessible via elevator.
- ADA restrooms could be found on each level. Should the building be renovated, a detailed fixture count analysis should be conducted in concert with the active code at that time.
- The building construction type is assumed to be mixed between Type IIB (1996) and Type IIIB (1968). The occupancy classification is E – Education.

5. BUILDING SAFETY AND SECURITY RATING: GOOD

- In general, building safety is good. Each main entry is a captured entry requiring visitors to access the school through the administration office. The door between the vestibule and corridor is on electrified magnetic locks. Ideally, the middle school administration offices

would be co-located with the front office. A building renovation should address the current design.

- Middle school public spaces (libraries, gym and cafeteria) are conveniently located to the building entry for after-hours functions.
- Student access to playgrounds requires students cross a loop road.
- Room numbers are prominently posted on exterior windows and interior corridors for easy identification by first responders.

6. EDUCATIONAL RESPONSIVENESS TO MEET 21ST CENTURY LEARNING RATING: POOR

- The number of classrooms is adequate for the current enrollment. However the building is deficient in the number, size and quality of educational support spaces.
- Classrooms and furnishings are traditional and institutional which limits flexibility and collaboration. Classroom wings are all uniform double loaded corridors which limit flexibility and collaboration.
- 4th grade classrooms are currently not co-located which further limits collaboration.
- The building is not air conditioned which hinders student focus and learning.
- Classrooms are equipped with newer model interactive Smart Boards. There appeared to be small computer centers in each classroom. The BYOT initiative

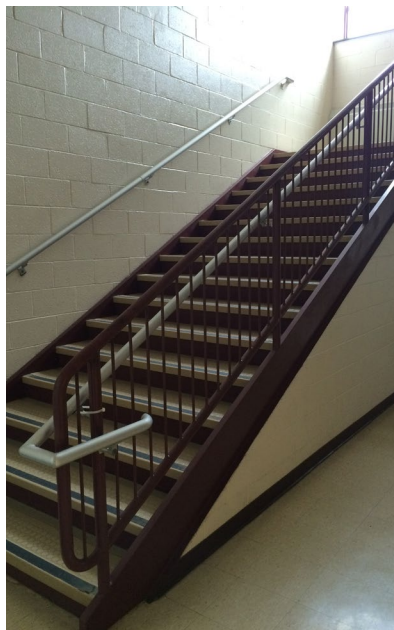
and wireless capabilities may reduce or eliminate the need for hard wired computers in each classroom.

- Expressed needs are faculty collaboration areas, classrooms that support the 4 "C's" (collaboration, creativity, communication, critical thinking), conversion of library to iHub/ maker space, faculty conference room(s), professional development space, adequate administration space and adjacencies.
- The library is not conveniently located for many of the elementary grades.
- Elementary art is not large enough to allow for desired STEAM related activities.
- A larger space for the strings program is needed. The stage should be converted to a rehearsal/ practice room.
- Expressed desire for the building to better support collaboration; building design currently limits this. Require more spaces that support team / group work.
- Expressed desire for more open spaces, more daylighting and brighter more inviting environments.
- Courtyards are under utilized as learning environments.
- The middle school main entry corridor is under-utilized and could be used for student group and collaboration space..

7. RECOMMENDATIONS

- Haine enjoys the benefits of a neighborhood school. It is well received





by the community and provides a supportive learning environment. In general, the building exterior is in fair to good physical condition depending on age of structure. Exterior building renovations should be planned to address the items noted above, specifically masonry restoration, window replacement and exterior door replacement in addition to those items outlined on the District's Long Range Capital Improvement Plan. The EPDM roof is beyond the warranted period and the built-up roof is 5 years from the warranted period so these should be monitored for performance moving forward.

- Although many interior building finishes are in fair condition, they are becoming worn, dated and institutional. A finishes renovation should be considered to provide a more inspiring learning environment that is less institutional. Replacement designs should provide for a bright and inviting learning environment that utilizes natural daylighting and allows the building to become a teaching tool.
- Code and accessibility deficiencies noted should be addressed independent of any building renovations.
- Aspirational goals
 - » The interior learning environment should be renovated to encourage teacher and student collaboration to meet the needs of District programs and curriculum.
 - » Plan reconfigurations can provide better size, quantity and location of learning support spaces.
 - » The media center should be renovated to meet the needs of 21st century learning. Separate age appropriate media centers should be provided for elementary and middle school students.
 - » A K-6 cyber center should be provided.
 - » The administration suite should be reconfigured to provide adequate office and meeting space for administrators.
 - » The nurse's suite should be relocated for better treating and monitoring of sick students.
 - » Furnishings should be replaced with more flexible, durable, comfortable and functional options.
 - » The building should be air conditioned to support student focus and learning.
 - » Elementary art can be enlarged to allow for desired STEAM related activities.
 - » More space is required for the expanding music program.
 - » Space for world languages is required.
 - » More open spaces, more daylighting, and brighter more inviting environments should be provided.
 - » Courtyards should be designed as learning environments.
 - » The middle school main entry corridor should be used for student group and collaboration space.



MECHANICAL

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at Haine Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems
 - » Central heating plant equipment
 - » Central cooling plant
 - » Hot water pumps and distribution piping
 - » Chilled water pumps and distribution
 - » Air distribution systems
 - » Building temperature controls

3. CENTRAL HEATING PLANT

- The building is served by two gas fired HB Smith 450 Mills cast iron sectional hot water boilers. The boilers were installed in 1996 appear to be in fair condition. Combustion air is brought in through louvers in the outside wall, they appear in poor condition.

4. CENTRAL COOLING PLANT

- The building is cooled by two roof mounted air cooled chillers. The chillers were installed in 1996 and appear to be in fair condition.

5. HOT WATER PUMPS AND DISTRIBUTION

PIPING

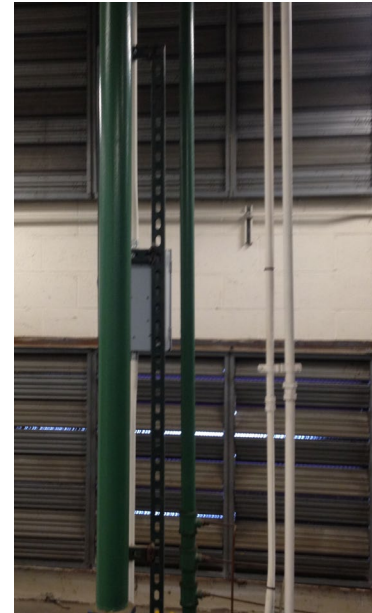
- The hot water pumps and distribution piping were installed in 1996 and appear to be in poor condition. The hot water distribution piping within the boiler room appears to be in poor condition.

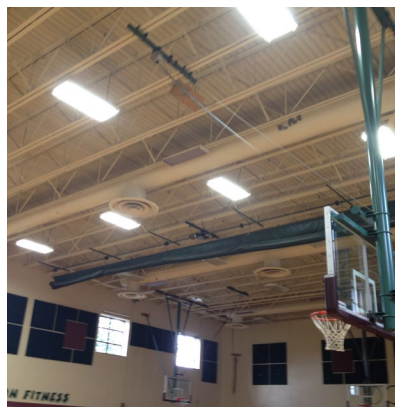
6. CHILLED WATER PUMPS AND DISTRIBUTION

- The chilled water pumps and distribution piping were installed in 1996 and appear to be in poor condition. The chilled water distribution piping within the boiler room appears to be in poor condition.

7. AIR DISTRIBUTION SYSTEMS

- Classrooms
 - » The rooms are heated, cooled, and ventilated by a combination of floor mounted unit ventilators along the perimeter wall and horizontal unit ventilators with ducted air distribution systems. The unit ventilators are aged and in fair condition.
- Corridors
 - » Hot water cabinet unit heaters and horizontal ducted unit ventilators provide heat for Corridors, Lobbies, and Entry ways, these units appear to be in fair condition.
- Toilet Rooms
 - » Radiant heating panels provide heat in the toilet rooms, the panels appear to be in good condition.
- Cafeteria





» Two rooftop horizontal central station air handling units with hot water heating coil for heating, chilled water coil for cooling, and a ducted air distribution system for ventilating the Cafeteria. These units are located above the corridor ceiling.

- Gymnasium

» Two rooftop horizontal heating, cooling, and ventilating air handling units located on the roof. The ductwork air distribution system appears to be in good condition.

- Administration

» This area is served by a variable refrigerant flow system and appears to be in good condition.

- Library

» One rooftop horizontal air handling unit with hot water coil for heating and chilled water coil for cooling provide heating, ventilating, and cooling of this space. This equipment is in good condition.

- Locker rooms

» Recessed cabinet heaters provide heating and ventilating for the rooms, the units are in poor condition.

- Kitchen

» Recessed cabinet heaters provide heating and ventilating for the rooms, the units are in poor condition.

8. BUILDING TEMPERATURE CONTROLS

- The main control panel was replaced with a Johnson electronic control panel with the building control system being

a pneumatic system. The building pneumatic control system is in poor condition.

PLUMBING

1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems at Haine Middle School/Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems
 - » Domestic water heating equipment
 - » Domestic water service
 - » Natural Gas Service
 - » Piping systems
 - » Plumbing Fixtures
 - » Kitchen Equipment
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- The building is served by two AO Smith gas fired water heaters and hot water recirculation pumps. The water heaters appear to be in good condition.

4. DOMESTIC WATER SERVICE

- The building is provided with metered water service.

5. NATURAL GAS SERVICE

- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.

6. PIPING SYSTEMS

- The building piping systems are original. Domestic water system consists of copper piping. Sanitary and storm are cast iron. Natural gas is black steel pipe. The domestic water piping system is in poor condition. The existing valves are in poor condition and do not hold water off when the valves are in the closed position, this happens throughout the facility. In general the piping systems are in good condition.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush valve type. Lavatories are wall hung vitreous china. Electric water coolers are wall hung single units. There are some ADA plumbing fixtures. Stainless steel sinks are provided in the classrooms and workrooms. Service sinks are provided.

8. KITCHEN EQUIPMENT

- The kitchen equipment is not in the scope of the plumbing, however, the associated grease trap, water distribution, sanitary and vent systems and natural gas supply are. The grease trap is located outside the building.

9. FIRE PROTECTION

- The Elementary building is not provided with an automatic sprinkler system, but there are standpipes in the stairwells. The Middle School is fully sprinklered.
- The Elementary School building should be provided with a complete sprinkler fire protection system to meet current fire protection and building codes.

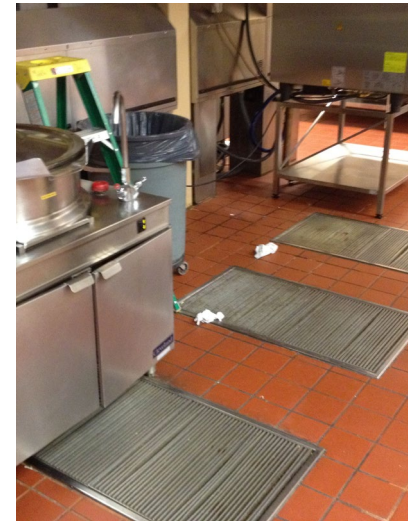
ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT

- Electrical Service
 - » General Electric 3000 ampere, 120/208 volt, 3 phase, 4 wire fusible switch main with circuit breaker distribution section switchboard.
- Distribution Equipment
 - » The majority of the building circuit breaker distribution and branch circuit panels are 1996 General Electric panels. Partial renovated original sections of the building have older General Electric or Federal Pacific Electric panels that were not replaced during the 1996 building renovations.
 - » Switchboard, panels and electrical distribution feeders and branch circuits were almost entirely replaced as a part of a building 1996 renovation and addition project.

2. EMERGENCY POWER SYSTEM EQUIPMENT

- Generator





- » Onan 150 kW/188 kVA, 120/208 volt, 3 phase, 4 wire diesel fueled interior generator unit with double wall sub-base fuel storage tank.
- Automatic Transfer Switch
 - » 400 ampere Onan transfer switch with area protection monitor panels.
- Emergency Power Distribution
 - » Normal/Emergency and Emergency only circuit breaker panels.
- Emergency Egress Lighting
 - » Emergency egress lighting provided in corridors, stairways, rest rooms, gymnasium, cafeteria, mechanical rooms and at building exits.
 - » Emergency lighting system as indicated on available drawings appears to meet code requirements.

3. LIGHTING SYSTEMS

- Corridors and Stairways
 - » Recessed or surface mounted fluorescent fixtures with acrylic lens.
- Classrooms, Computer rooms, and Offices
 - » Recessed fluorescent fixtures with parabolic lens controlled by multiple switches to provide multiple levels of room illumination provided in the additions to the building. Original only partial renovated areas of the building have surface mounted fluorescent fixtures with acrylic lenses switched by rows.
- Media Center
 - » Pendant mounted linear fluorescent fixtures with parabolic lens switched by rows to provide multiple levels of room illumination.
- Gymnasium
 - » Chain hung T5 fluorescent fixtures.
- Cafeteria, kitchen, storage and miscellaneous spaces
 - » Recessed fluorescent fixtures with acrylic lens.
- Mechanical and Electrical Equipment Rooms
 - » Surface or suspended fluorescent fixtures.
- Cafeteria Stages
 - » Dimmable incandescent or quartz house and performance theatrical lighting systems controlled by zoned slider type dimmer panels.
- Exterior Security Lighting
 - » Wall mounted HID fixtures on time clock or photocell controlled circuit.
- Exterior Parking Area Lighting
 - » Pole mounted HID fixtures on time clock or photocell controlled circuit.
 - » Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.
- Lighting Controls
 - » Time clock and photocell control of exterior lighting.

4. FIRE ALARM SYSTEM

- Fire Alarm Panels
 - » Gamewell fire alarm control panel and alarm annunciator panel at main entrance. Fire alarm system is a 24 volt system with addressable alarm initiating devices.
- Alarm Initiating Devices
 - » Manual pull station at all code required building exits.
 - » Automatic smoke detectors in original building corridors and mechanical rooms where sprinklers were not installed.
 - » Automatic smoke detectors in ductwork of large building air handlers.
- Alarm Signal Devices
 - » Audible and visual alarms installed throughout building in corridors, rest rooms, classrooms cafeteria, dining, kitchen, music, administrative and gymnasium spaces.
- Fire alarm system as indicated on available drawings appears to meet current code requirements.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

1. SECURITY SYSTEMS

- Building Entrances
 - » Audio/video/intercom system for supervised access at the elementary and middle school entrances.

- » Raptor driver's license security screening system is used to identify unwanted visitors.
- Intrusion Detection
 - » Motion detectors in the building corridors, computer rooms and administrative offices provide intrusion detection.
 - » Intrusion detection system is armed at keypads provided at selected building entrances.
- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to all the school district buildings.
 - » Proximity type card readers control access to selected building entrances and areas within the building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in main entries, corridors, stairways, administrative offices and other selected areas as required.
 - » CCTV security system consists of analog cameras with converters for use with IP Video Insight System networked video viewing and storage equipment.

2. PUBLIC ADDRESS AND CLOCK SYSTEMS

- Paging System
 - » Telecor school paging system with speakers and call-in switches in all classroom, educational spaces and miscellaneous selected spaces.





- Clock System
 - » Telecor master clock system with digital clocks in all classroom, corridors, educational spaces and assembly spaces in the building additions. Analog type clocks remain in the original partially renovated areas of the building.

3. SOUND REINFORCEMENT SYSTEMS

- Cafeteria and Multi-Purpose Rooms
 - » Local sound reinforcement systems for stage performances with amplifiers as required for distributed or suspended full range speakers required to cover room seating areas.
 - » Microphone outlets provided at stage and selected locations in room for access to system.

4. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure
 - » School provided with Category 3 horizontal copper cabling to telephone outlets and Category 5 type cabling to data network outlets. Multimode 62.5 fiber optic backbone network cabling provided for network connections between telecommunication equipment cabinets and rooms. The Category 3 and 5 cabling was installed with the 1996 building renovations and has been supplemented with new Category 6 cabling each year to support required additional network outlets or wireless access nodes throughout the building. Wireless

access points have been installed throughout building in corridors and in selected classrooms or spaces. Telecommunications equipment rooms consists of free-standing equipment racks or wall mounted cabinets with networking equipment and horizontal cabling patch panels as required.

• CATV RF Broadband Coaxial Cabling System

- » A broadband building CATV cabling system with sub-channel return consisting of coaxial cabling, signal amplifiers, splitters, modulators and multi-taps to distribute programming channels to outlets in all classrooms, instructional education rooms, assembly spaces, offices and other selected areas as required. Programming can be originated at any system outlet in the building over the cabling system sub-channel return equipment.
- » Selected digital CATV utility channels are converted to modulated analog channels and distributed over the cabling system to room outlets on standard CATV channels up to 30.
- » The school programming channel originating in this school and the programming channels originating in each of the other district schools are encoded and transmitted over the district fiber optic data network. The digital school channels are converted locally at each school to analog signals and distributed over the



coaxial cabling system to room outlets on standard CATV channels above channel 30.

- Telephone System
 - » Cisco IP telephone system and telephones installed throughout this building and the school district.
- Typical Classrooms
 - » Classrooms provided with instructor and three (3) student stations with data networking wired outlet connections or access to wireless network connections.
 - » Wall mounted video display, video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to connections at the instructor's desk. Instructional programming from the instructor's computer can be routed through a VGA video matrix switch to the wall mounted video display or the video projector. The interactive white board is connected through the USB cabling connection.
 - » School paging/intercom system speaker in ceiling for announcements and a local call-in switch to initiate a call to the administrative offices.
 - » Digital or Analog wall clock on master clock system.
 - » Ceiling mounted wireless network point in selected classrooms.
- Computer Labs
 - » Mobile wireless cart laptop computer labs are available for use in addition to

the fixed classroom student computer workstations

BUILDING SYSTEMS RATINGS AND CODE COMPLIANCE

1. BUILDING SYSTEMS RATING

- Electrical lighting, power distribution and, normal/ emergency power systems are original to the 1996 renovations and building additions project and are in fair condition.
- The electronic and technology systems were installed during the 1996 building renovations and additions project and are in fair condition. These systems have been supplemented with new as required to maintain the systems and to meet the changing educational requirements.

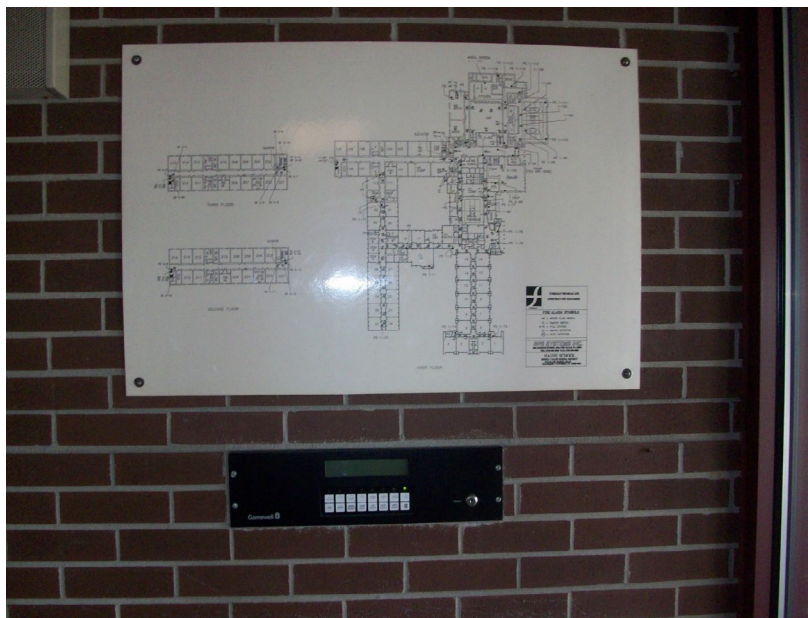
2. CODE COMPLIANCE

- Compliant with current electrical system code requirements.

3. RECOMMENDATIONS

- Electrical lighting, power distribution and, normal/ emergency power and fire alarm systems should be evaluated for cost effective or necessary upgrades if renovations of this facility are proposed.
- Energy saving upgrades to LED type lighting fixtures and installation of occupancy/vacancy sensor controls should continually be evaluated and considered.
- Except for yearly selected upgrades, the electronic equipment and





technology systems in this building were last updated during the 1996 building renovations. Any proposed renovations of the facility should include replacement of these systems. Replacement of these systems with the latest equipment technologies would result in systems that can easily be maintained and that are able to meet the current and future requirements of the facility.

- The following recommendations should be included in any future upgrades of the existing electronic and technology systems
 - » Dedicated telecommunications rooms with proper ventilation or cooling should be provided to maximize the life of the telecommunication equipment.
 - » Additional 802.11a/b/g/n/ac wireless access points with duplex telecommunication outlets should be provided throughout the building.
 - » Cable tray should be provided throughout the corridors to facilitate adds, moves and changes in technology.
 - » DAS systems for amplification of cellular telephone signals should be added as required to aid in First Responders signal coverage.
 - » Audio amplification systems should be added for use in conjunction with the Classroom audio/video presentation systems.

- » Upgrades or replacement of the existing paging/intercom system.

Rowan Elementary School

Fast Facts

Constructed — 1951
Renovations / Additions — 1958, 1990
Acreage — 16.05 acres
Gross Square Feet — 76,359 gsf
Capacity (95%) — 473*
Current Enrollment — 463
Utilization — 93%
Area per Student — 153f
Projected Enrollment — 523



FAIR
OVERALL
BUILDING
RATING

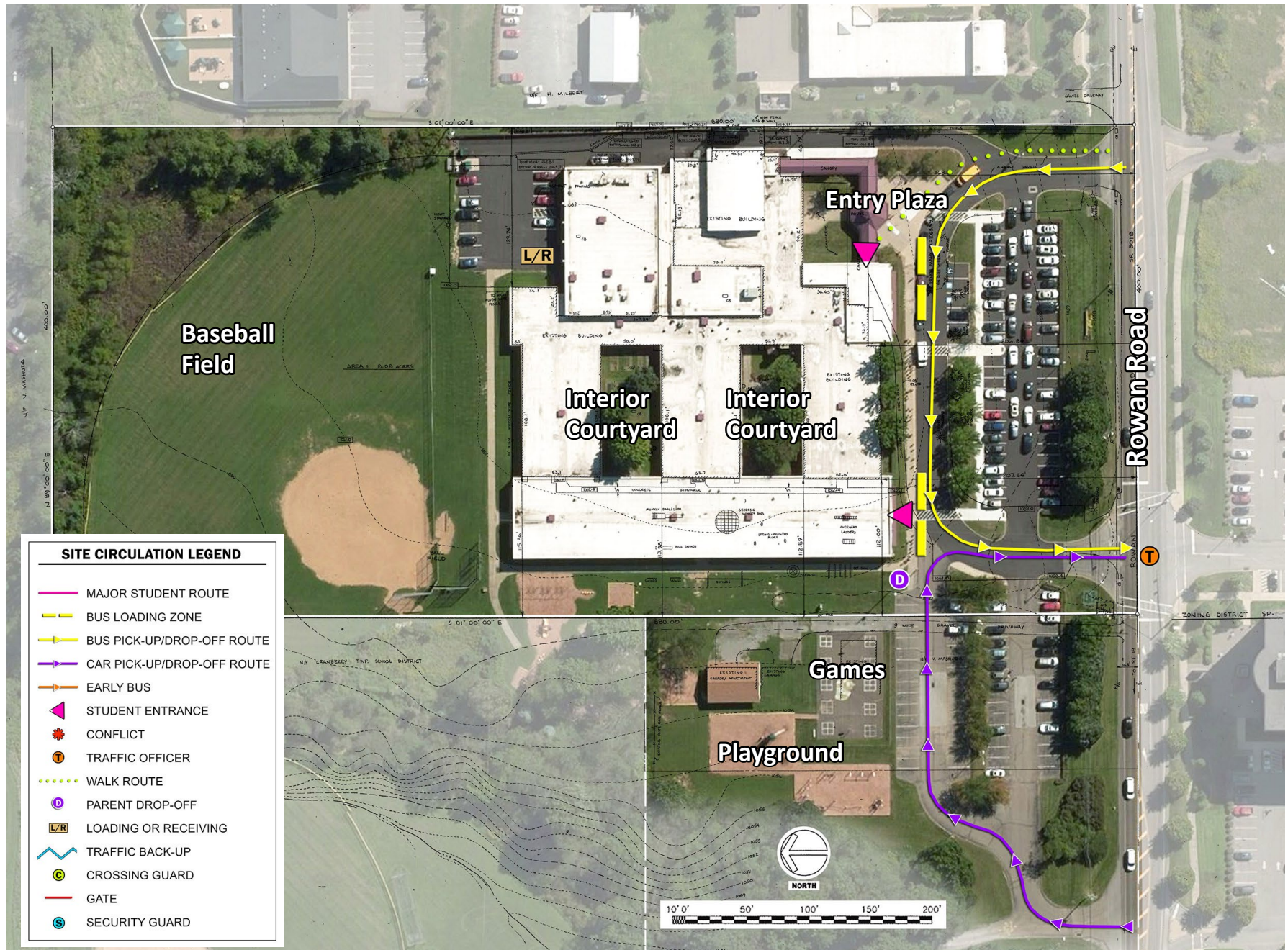
KEY BUILDING CONDITIONS



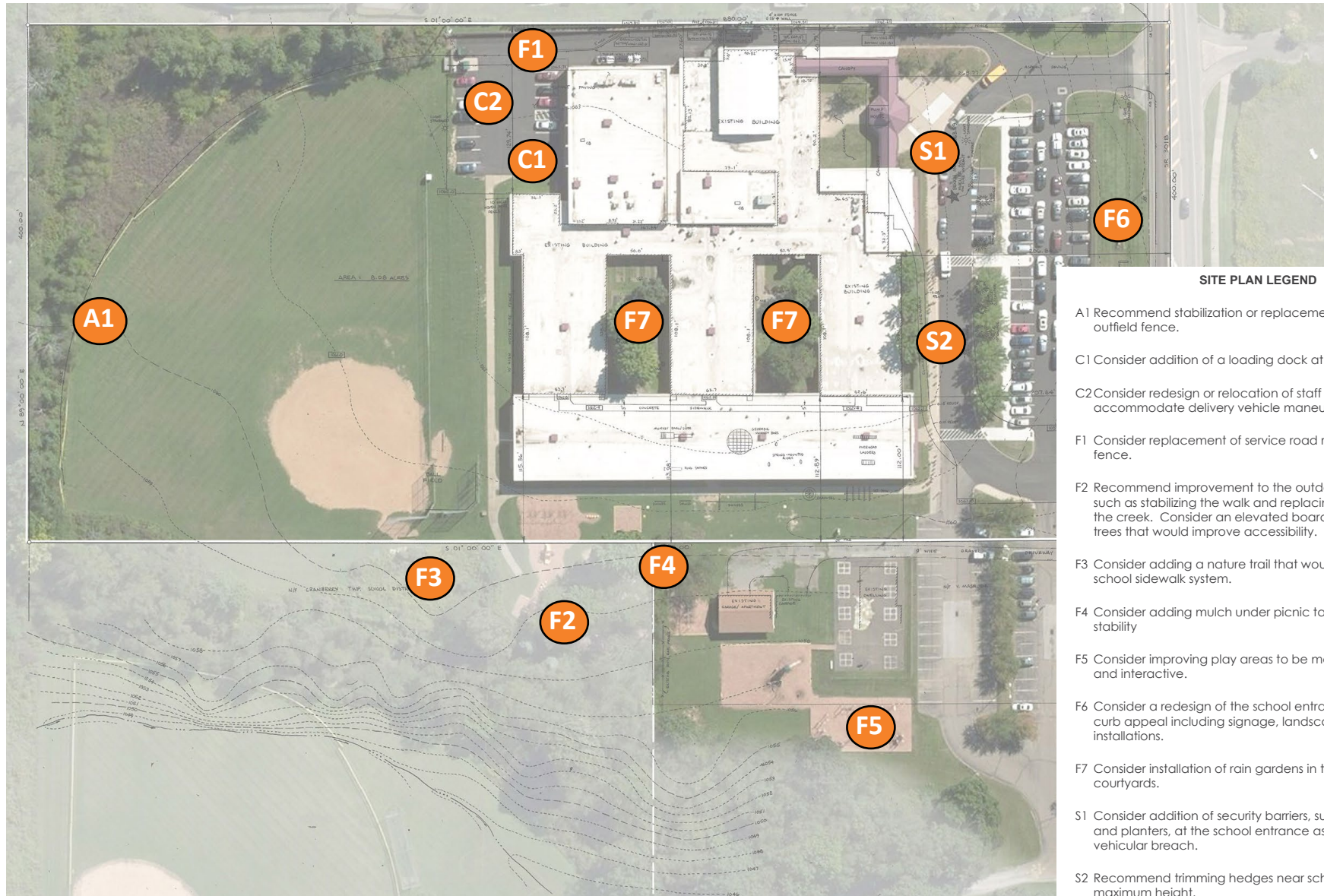
KEY SITE CONDITIONS

* Based upon ideal class sizes

94 Existing Conditions Rowan Elementary School



Recommendations Rowan Elementary School



SITE PLAN LEGEND

- A1 Recommend stabilization or replacement of baseball field outfield fence.
- C1 Consider addition of a loading dock at the receiving area.
- C2 Consider redesign or relocation of staff parking to better accommodate delivery vehicle maneuvering.
- F1 Consider replacement of service road retaining wall and fence.
- F2 Recommend improvement to the outdoor classroom area such as stabilizing the walk and replacing the deck near the creek. Consider an elevated boardwalk through the trees that would improve accessibility.
- F3 Consider adding a nature trail that would connect into the school sidewalk system.
- F4 Consider adding mulch under picnic tables for greater stability
- F5 Consider improving play areas to be more educational and interactive.
- F6 Consider a redesign of the school entrance to increase curb appeal including signage, landscaping and art installations.
- F7 Consider installation of rain gardens in the interior courtyards.
- S1 Consider addition of security barriers, such as bollards and planters, at the school entrance as protection from vehicular breach.
- S2 Recommend trimming hedges near school to 24" – 30" maximum height.

96 Capacity Calculations Rowan Elementary School

Rowan Elementary School			PDE / Capacity		District Ideal	
	ID Color	Classrooms	Max Capacity	Total	Max Capacity	Total
K classrooms		3	50	150	36	108
1-2 classrooms		10	25	250	18	180
3-4 Classrooms		10	25	250	21	210
5-6 Classrooms		0	25	0	23	0
Total		23		650		498

Other Spaces	ID Color/#	Quantity	Space	ID Color/#	Quantity
Library	1	1	Cafeteria	11	1
SGI/ LS/ SS/ IIS/ Title 1/ OT-PT/ ESL/ Gifted	2	8	Faculty Dining	12	1
LGI	3	1	Faculty Planning	13	2
Computer	4	1	Nurse	14	1
Art	5	1	Admin	15	1
Music	6	2	Guidance	16	1
Music Practice	7	0	Conference	17	0
Gym	8	1	Special Education	18	0
Stage	9	1	Pre-K	19	2
Kitchen	10	1			

97



SITE

- Rowan Elementary School is located in Cranberry Township, with convenient, but not direct, access to I-79. Adjacent land uses are a blend of housing, commercial, and light industrial. Numerous mature trees provide a verdant setting for the school.
1. VEHICULAR AND PEDESTRIAN CIRCULATION
 - Vehicular access and traffic flow
 - » Rowan Road has the capacity to accommodate morning and afternoon school traffic without significant congestion. There is an east-bound left turning lane at the school's eastern-most entrance, but no turning lane at the bus entrance. This is not currently causing traffic back-up. On-site circulation generally works well; bus and parent drop-off mostly separate from each other; no students (except walkers) cross a road to get to school.
 - Bus drop-off
 - » Buses arrive gradually and load and unload singly or in groups of two or three. Buses are designated to stop at one of two entrances for loading and unloading. In the afternoon, bus numbers are called, and children come out to the bus. Rowan has the fewest number of buses.
 - Car drop-off and walkers
 - » There are a relatively high number of morning car drop-offs and fewer afternoon pick-ups. In the morning, students are dropped off at the side lot one at a time. Two para-professionals walk the children from the car to the school entrance. In the afternoon, parents come to the office, give the child's name and children are called to the office and delivered to the parents.
 - Parking
 - » There is more than adequate parking. Two western lots not used during a typical day, one lot is gated and used for play.
 - Sidewalks
 - » There are a few walkers at Rowan, they enter in the eastern front door.
 - Loading and service
 - » There is no loading dock at Rowan, only a receiving area; staff reports a dock is needed. In addition to receiving, the service area also has the dumpsters making this area very tight for truck maneuvering. The service road is in good condition but the adjacent wall is leaning and the fence rusting.
 - Pavement and curbs condition
 - » The front concrete plaza and sidewalk is in good to excellent condition with some minor heaving and joint popping. The front parking lot and drop-off area pavement is in excellent condition. Other lots are in fair to good condition. Note that curbs and sidewalks were actively being repaired during the pavement assessment.





- Signage
 - » The school entry sign is in good condition but difficult to see because it is parallel to the road and somewhat set back. Directional and traffic control signage is adequate, but uncoordinated in style and location.

2. ATHLETICS AND PLAY

- Fields
 - » Students use the fields informally during gym class. In the evenings and on weekends, sports fields are used by outside groups such as the Cranberry Athletic Association, church leagues, etc. The fields are maintained and scheduled for private groups by the District. On the day of this assessment, the clay infield and far outfield were holding water. The batter's cage and fence, which is partially collapsing, are in poor condition.
- Playgrounds
 - » The large playground is in good condition. Some areas near the building appear to have vestiges of previous play areas and should be turned into lawn. Based on the District provided site plans, some play equipment and seating is located off of the property. A remote parking lot has a gate that allows it to be closed and used as an additional play area.
- Hard surface games
 - » There is a large paved area dedicated to games and the receiving area is also marked for games. The large asphalt play surface has a few major cracks

that could be tripping hazards and should be repaired. The school also has a fenced basketball court.

- Trails
 - » Trails abound through the adjacent woods which also connect to residential areas. None are apparently used for outdoor learning.

3. AMENITIES AND FACILITIES

- Social spaces
 - » The eastern large covered entry plaza is a wonderful space, adequately sized for students, teachers, and caregivers during drop-off and pick-up. The space provides some measure of enclosure for monitoring students. There is a wonderful shady spot hosting several picnic tables.
- Landscaping
 - » The school has wide, spacious lawn areas with mature trees that provide a lovely setting. Long rows of trees soften parking lots. In general, the condition of the landscaping is good to excellent; however, the tall hedge along the building should be trimmed to 24-30" height.
- Learning environments
 - » The two interior courtyards have wonderful landscaping, but there is a dying maple tree that should be removed. The active edible garden is a great learning opportunity; its productive season could be expanded with a cold frame. The outdoor classroom located in the adjacent



wooded area is in poor condition and the deck is unstable and dangerous.

- Environmental management
 - » Both interior courtyards have the potential to divert water into depressed rain gardens. This provides an excellent opportunity for students to experience the water cycle and associated flora and fauna.

4. SAFETY AND SECURITY

- First responder access
 - » The school has good access for first responders.
- Egress capacity
 - » Three road exits from the school property provides adequate opportunities for emergency egress.
- Pedestrian safety
 - » The pedestrian access to the parking lot crosses the bus loop. The crosswalk is well marked, but this is not an ideal arrangement.
- Sight lines
 - » The tall hedge along building obstructs sight lines, creates hidden areas, and limits light into the building.

5. CODE

- Zoning district and permitted use
 - » SP-1, Special Growth Zoning District; Public Educational Institution is a Use by Right.
- Parking requirement
 - » 3 per room used for administrative offices or class instruction, or 1 for

each 4 seats in places of assembly or facilities available to the public, whichever is greater. Compliance with the amount of parking provided is unknown. Should school expansion be undertaken, a parking analysis is required.

- Minimum lot area
 - » 1 acre; the school is in compliance.
- Minimum lot frontage
 - » 80'; the school is in compliance.
- Minimum front setback
 - » 25'; the school is in compliance
- Minimum side setback
 - » 20'; the school is in compliance.
- Minimum rear setback
 - » 20'; the school is in compliance.
- Maximum height
 - » 50'; unless every setback is increased by 1' for each 2' of height increase over 50'.
- Maximum impervious coverage
 - » 70%; the school is in compliance.

6. RECOMMENDATIONS

- Recommendations
 - » The following recommendations were developed with the Seneca Valley administrative and facilities staff, board members, principals, teachers, students, parents, elected officials, police and fire chiefs, and business leaders.
- Vehicular and Pedestrian Circulation





- » C1 Consider addition of a loading dock at the receiving area.
- » C2 Consider redesign or relocation of staff parking to better accommodate delivery vehicle maneuvering.
 - Recommend undertaking an ADA audit and preparing a plan to address any non-compliant items.
 - Recommend preparation of a signage study to coordinate signage message, style, and location.
 - Consider widening sidewalks where needed to accommodate the volume of foot traffic.
 - Recommend continuation of annual maintenance and repair of curbs and parking, also include annual inspection and cleaning of storm inlets

- Athletics and Play

- » A1 Recommend stabilization or replacement of baseball field outfield fence.
 - Consider forming a partnership with the community and athletic association to improve the athletic field maintenance.
 - Consider improving play areas to be more educational and interactive and include sensory play for special needs children.

- Amenities and Facilities

- » F1 Consider replacement of service road retaining wall and fence.

- » F2 Recommend improvement to the outdoor classroom area such as stabilizing the walk and replacing the deck near the creek. Consider an elevated boardwalk through the trees that would improve accessibility.
- » F3 Consider adding a nature trail that would connect into the school sidewalk system.
- » F4 Consider adding mulch under picnic tables for greater stability
- » F5 Consider improving play areas to be more educational and interactive.
- » F6 Consider a redesign of the school entrance to increase curb appeal including signage, landscaping and art installations.
- » F7 Consider installation of rain gardens in the interior courtyards.
 - Consider continuing to build on outdoor learning environments with additional programming and activities that are integrated with the curriculum.
 - Recommend that new landscaping be native plant species. Explore opportunities to support habitat through undisturbed woodlands, rain gardens and plant collections—all to be tied back to the curriculum.
 - Consider additional seating areas, gardens, and trail expansion for students, staff and the community. Possible addition of wellness garden for general relaxation and special needs students.



- Consider additional landscaping, primarily trees, that is high impact and low maintenance.
- Safety and Security
 - » S1 Consider addition of security barriers, such as bollards and planters, at the school entrance as protection from vehicular breach.
 - » S2 Recommend trimming hedges near school to 24" – 30" maximum height.
 - Consider options partnering with the community to make the school more of a community asset and/or possibly a shelter in an emergency situation.
 - Consider addition of security cameras at fields to help control undesirable activities.

ARCHITECTURAL

1. EXTERIOR RATING: FAIR

- The building was initially constructed in 1951 and was subsequently added onto and/or renovated in 1958 and 1990. The façade is comprised of brick with thermally broken aluminum storefront windows installed as part of the 1990 renovation. The majority of the existing masonry walls are in good condition, although some locations are in fair / poor condition. Evidence of cracking was observed at several locations, particularly at the main canopy columns.
- Exterior lintels do not appear to be galvanized and are rusting. These lintels

should be anticipated for replacement in the near future.

- Exterior caulking is in poor condition and should be replaced.
- Exterior doors and frames are in poor condition and should be replaced.
- Exterior windows are aluminum, double-paned with operable bottom sashes. Windows were installed in 1990 and appear to be in working condition. Windows should be considered for replacement in the near future.
- It is unclear if the original 1958 building envelope was insulated as part of subsequent renovations, but it appears not to have been. If not, this portion of the building should be insulated as part of any extensive renovation.
- Exterior canopy brick and lintels are significantly deteriorated and should be replaced. The roof leaks causing brick deterioration and lintel rust should be addressed.
- Exterior masonry should be cleaned as part of a larger renovation.
- The rear building metal awning has been damaged by balls from the adjacent baseball field. Although unsightly due to damage, the metal roof appears to still be water tight.

2. ROOF RATING: FAIR

- The roof system is a Duro-Last single-ply roof installed in 2005. The roof has a 15 year warranty. It should be anticipated for replacement after





warranty expiration. It is presumed the roof is insulated with rigid insulation. Destructive testing was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate. Copings are metal with metal fascia. Metal roof and roof accents are fading and dated.

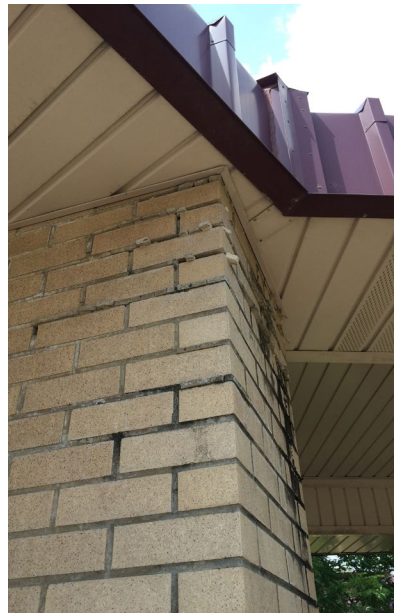
- The interior side of the main entry cupola is rusting. This condition should be further investigated to determine the cause and appropriate repair should be enacted.
- The main entry metal roof box gutter should be cleaned and examined for water-tightness.

3. INTERIORS RATING: FAIR/POOR

- Corridors
Corridors are double-loaded approximately 8'-0" wide. Floors are new 12"x12" vinyl composite tile (VCT) installed in 2015, which is in good condition.
 - » Ceilings are predominantly 2x4 acoustical ceiling tile (ACT). The tiles are aged, dated, and sagging. The grid appears to be in fair condition.
 - » Walls vary between plaster board with ceramic tile wainscot and painted CMU. The older portion of the building has a mix of painted plaster walls, pink ceramic tile wainscot, wood classroom entries, and exposed buff colored brick. Wall finishes are materially

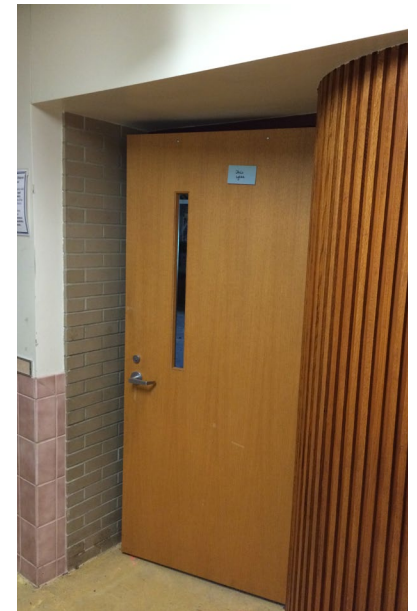
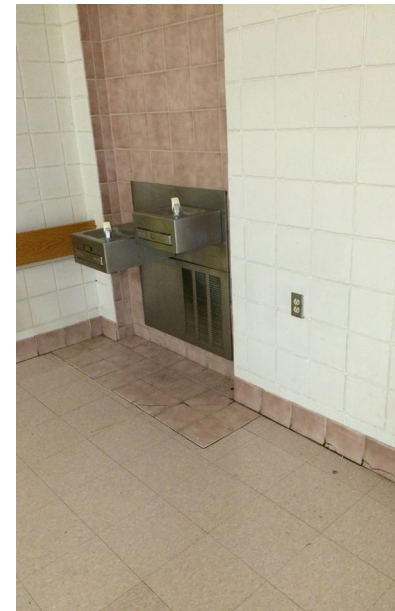
inconsistent, in fair condition and dated/ institutional.

- » Classroom doors in the older portion of the building do not have required ADA clearances or door hardware.
- » Entry vestibule recessed rubber walk off mats are aged and should be considered for replacement.
- Stairs
 - » The building is single story and does not contain egress stairs.
- Toilet Rooms
 - » Toilet room finishes consist of ceramic tile floors, ceramic tile base, ceramic tile walls, gypsum board ceilings, and solid plastic floor mounted toilet partitions, and both floor and wall mounted toilets. Restrooms finish colors are dated and worn and should be considered for replacement.
- Instruction Spaces
 - » Classrooms - Typical classrooms vary in size ranging from 815 – 930 square feet. Kindergarten classrooms are approximately 930 square feet.
 - The casework is in fair condition but dated. Casework quantity in each classroom appears to be adequate.
 - Classroom ceilings in the original construction are direct adhered 1' x 1' acoustical ceiling tile (ACT) that is in fair condition. The tile is showing signs of age, and should be considered for replacement. Exposed wood roof structure exists in each of these classrooms.



Additional classroom ceilings are 2 x 4 acoustic tile which is dated and becoming worn.

- Classroom floors are new 12 x 12 VCT installed in 2015 and in excellent condition.
- The classroom walls vary between furred gypsum board and plaster, exposed brick, and painted CMU. Most walls are in fair to good condition.
- Furnishings are dated, uniform and institutional. Furnishings should be evaluated with student comfort, ergonomics and flexibility.
- Each classroom is equipped with a smart board. Classrooms are WiFi enabled.
- The general classroom design is very traditional and does not respond well to 21st century teaching and learning. A plan reconfiguration would be required to meet the goals of 21st century teaching and learning.
- » Art – Ceilings are 2 x 4 ACT which are worn and dated. Flooring is new 12 x 12 VCT installed in 2015 and in good condition. Walls are painted CMU. The size of the room does not allow for flexibility of art programs. There appears to be adequate storage within the space. Opportunity exists to renovate the room into a more inspiring art space, with access to the exterior courtyard.
- » Music/ Band/ Chorus – Music rooms have newly carpeted tiered risers with in-room wood casework. Ceilings are 2 x 4 ACT. Walls are painted CMU with acoustic wall panel. Both rooms provides access to the stage. Rooms are equipped with Smart Boards. Finishes (except for flooring) are worn and dated.
- » Computer Labs – A total of 2 computer labs exist in the building. Each is a traditional set up and appears to function adequately as computer instruction rooms. The requirement of specific computer instruction rooms should be a detailed point of conversation with any significant building renovation due to continued technology changes and District programs and curricula.
- Building Administration
 - » The building contains one main office suite. There is not sufficient conference space in the administration suite outside of the principal's office. Further, additional office space is desired for co-location and space for each admin staff. The suite floor finish was in the process of being replaced during building review. Ideally, the nurse's suite would be located adjacent to the main administration suite, but the suite appears to function well.
- Cafeteria
 - » The finishes in the cafeteria are new 12" x 12" VCT floors installed in 2015, 2 x 4 acoustic tile ceilings, acoustic wall





panels and painted CMU walls. These finishes (except for flooring) are dated and worn. The ceramic tile floor base is in poor condition. The cafeteria has access to a performance stage which is used for school functions. The cafeteria contains clerestory exterior windows that provide some daylighting but no views to the exterior.

- » The stage is in fair condition and is currently being utilized for performances. The stage has minimal infrastructure for performances (curtains, backdrop and minimal stage lighting).

- Kitchen

- » The kitchen is accessed by a traditional food serving line, with registers located in the cafeteria. The kitchen is full-service to provide student breakfasts and lunches. The overall condition of the equipment appears to be in good condition. Quarry tile floors appear to be in fair condition. Painted CMU block walls appear to be in fair condition. The ceiling within the kitchen is a 2' x 2' acoustic tile that appears to be scrubbable. The tiles are showing signs of wear and age.

- Gymnasium

- » The gym is very small for the student population. Gym finishes consist of a wood floor, painted CMU / exposed brick walls, exposed wood structure and 1 x 1 acoustic ceiling tile. The gym is equipped with wall pads, 4 fixed and 2 operable basketball back

stops and climbing wall. All finishes and equipment appear to be in fair condition. The gym has an adequate number of egress doors. The gym is not in a good location for afterhours functions unless secondary entry doors are used.

- Library (iHub)

- » The Library is a traditional design with a focus on print media. There is one library computer room connected to the library and an in-library classroom. No soft seating area exists to provide a variety of seating / learning areas for today's learners. The finishes consist of carpet, 2' x 4' acoustic ceiling tiles and painted plaster walls, all of which are dated. The library has no access to natural daylight. In general, the library is not consistent with a media center focused on supporting 21st century teaching and learning. A building renovation should deeply explore these needs to ensure a media center that responds to the District's future programs and curricula.

- Large Group Instruction (LGI)

- » One large group instruction room exists which is used for staff development and supplemental instruction. The room is divided by an operable partition which appears to be in working condition but non-acoustic. The space has new 12 x 12 VCT flooring installed in 2015. The space has exposed wood roof structure and adequate height. The space is equipped with two Smart Boards, one



at either end. In general, the space is nice but finishes (except for flooring) are worn and dated. This space is currently being converted into a Green E Academy (elementary robotics initiative by CMU).

- Storage

- » The school requires additional storage space as existing storage space is consistently converted to needed educational support programs.

4. CODE COMPLIANCE/ ACCESSIBILITY RATING: FAIR / GOOD

- No 18" side clearance for ADA entry in classrooms in the 1951 construction.
- Most restrooms are ADA compliant. Some restrooms may require minor upgrades to meet ADA clearances. Should the building be renovated, a detailed fixture count analysis should be conducted in concert with the active code at that time.
- The building construction type is assumed to be Type IIB, noncombustible. The occupancy classification is E – Education.

5. BUILDING SAFETY AND SECURITY RATING: GOOD

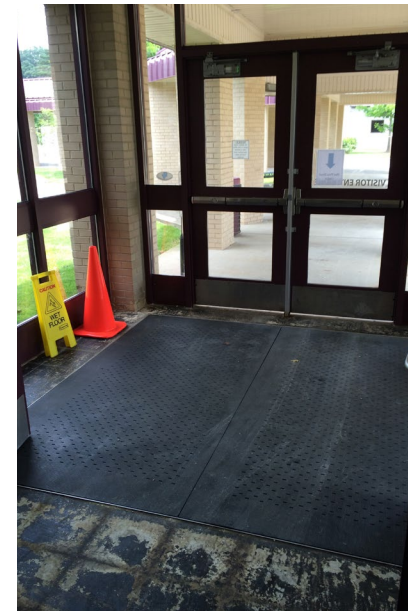
- In general, building safety is good. The main entry is a captured entry requiring visitors to access an entry lobby prior to entry into the administration office. The door between the entry lobby and corridor is on electrified magnetic locks. Ideally, visitors would enter

directly from the entry vestibule into the administration offices. A building renovation should revise the current design.

- Shared public spaces (libraries, gym and cafeteria) are interior to the building and in acceptable locations for after-hours functions. Overhead rolling gates separate the classroom wings from the shared public spaces.
- Student access to playgrounds is good as students do not cross roads to access play areas.
- Room numbers are prominently posted on exterior windows and interior corridors for easy identification by first responders.

6. EDUCATIONAL RESPONSIVENESS TO MEET 21ST CENTURY LEARNING RATING: POOR / FAIR

- The number of classrooms is adequate for the current enrollment. However the building is deficient in the number, size and quality of educational support spaces.
- Classrooms and furnishings are traditional and institutional which limits flexibility and collaboration. Classroom wings are all uniform double loaded corridors which limit flexibility and collaboration.
- The building is not air conditioned which hinders student focus and learning.
- Classrooms are equipped with newer model interactive Smart Boards. There appeared to be small computer centers





in each classroom. The BYOT initiative and wireless capabilities may reduce or eliminate the need for hardwired computers in each classroom.

- Expressed needs are faculty collaboration areas, classrooms that support the 4 “C’s” (collaboration, creativity, communication, critical thinking), conversion of library to iHub, faculty conference room(s), foreign language classroom, professional development space, adequate school counselor space, adequate fitness/ gym space.
- Expressed desire for the building to better support collaboration; building design currently limits this. Require more spaces that support team / group work.
- Expressed desire for more open spaces and more daylighting.
- Courtyards are underutilized as learning environments.

7. RECOMMENDATIONS

- Rowan enjoys the benefits of a neighborhood school. It is well received by the community and contains a supportive learning environment. In general, the building is in fair condition. Exterior building renovations should be planned for the near future to address water intrusion issues (main entry canopy), masonry restoration and exterior door replacement in addition to those items outlined on the District’s Long Range Capital Improvement Plan. Areas of brick efflorescence should be

further investigated to determine the cause. Exterior caulking should be replaced. Windows should be monitored and repaired/ replaced as needed, or fully replaced with any extensive renovations. The Duro-Last roof is 5 years from the warrantied period and should be serviceable for the near future.

- Interior building renovations should be considered in the near future to address dated, worn and institutional finishes. Proposed designs should provide a bright, welcoming and inspiring interior environment, including more access to daylight. ADA deficiencies should be addressed.
- A shortage of classroom space should be anticipated given enrollment projections. In general, the building lacks the appropriate quantity and quality of learning support spaces, faculty collaboration spaces and storage.
- Aspirational Goals
 - » The interior learning environment should be renovated to encourage teacher and student collaboration to meet the needs of District programs and curriculum.
 - » Plan reconfigurations can provide better size, quantity and location of learning support spaces.
 - » The media center should be renovated to meet the needs of 21st century learning.
 - » The administration suite should be reconfigured to provide adequate



office and meeting space for administrators.

- » Furnishings should be replaced with more flexible, durable, comfortable and functional options.
- » The gym should be doubled in size to allow for adequate gym space.
- » The art room should be enlarged to eliminate limitations on art programs and instruction.
- » Space should be added for world language.
- » A proper sensory room is desired.
- » Interior renovations should be provided to provide more inviting and inspiring learning environments, including access to daylight, natural ventilation, and “less institutional” finishes.



MECHANICAL

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at Rowan Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems
 - » Central heating plant equipment
 - » Hot water pumps and distribution piping
 - » Air distribution systems





» Building temperature controls

3. CENTRAL HEATING PLANT

- The building is served by two gas fired HB Smith 350 Mills cast iron sectional hot water boilers. The boilers were installed in 1989 appear to be in fair condition.

4. HOT WATER PUMPS AND DISTRIBUTION PIPING

- The hot water pumps and distribution piping were installed in 1989 and appear to be in poor condition. The hot water distribution piping within the boiler room appears to be in poor condition.

5. AIR DISTRIBUTION SYSTEMS

- Classrooms
 - » The rooms are heated and ventilated by floor mounted unit ventilators with along the perimeter wall. The unit ventilators are aged and in poor condition. The unit ventilators are heating and ventilating only, there are some areas that have cooling.
- Corridors
 - » Hot water cabinet unit heaters and convectors provide heat, these units appear to be in poor condition.
- Toilet Rooms
 - » Radiant heating panels provide heat in the toilet rooms, the panels appear to be in good condition.
- Cafeteria
 - » Two horizontal central station air handling units with hot water heating coil for heating, DX cooling coil for

cooling, and ventilating the Cafeteria. These units are located above the Instrument storage rooms. The condensing units are located on the roof above, all this equipment appears to be in poor condition.

• Gymnasium

- » Horizontal heating and ventilating air handling units located in the Gymnasium ceiling and appears to be in poor condition. The ductwork air distribution system appears to be in poor condition.

• Administration

- » This area is served a horizontal above the ceiling air handling unit with hot water coil for heating and DX cooling coil for cooling the offices.

• Library

- » Two horizontal air handling units with split system condensing units on the roof provide heating, ventilating, and cooling of this space. This equipment is in fair condition.

• Kitchen

- » The kitchen is served by two gas fired combination make-up air and exhaust air fans on the roof. These units are in poor condition.

6. BUILDING TEMPERATURE CONTROLS

- The main control panel is a pneumatic system control panel by Johnson Controls. The building pneumatic control system is in poor condition.

PLUMBING



1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems at Rowan Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems
 - » Domestic water heating equipment
 - » Domestic water service
 - » Natural Gas Service
 - » Piping systems
 - » Plumbing Fixtures
 - » Kitchen Equipment
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- The building is currently having a new gas fired high efficiency water heater installed.

4. DOMESTIC WATER SERVICE

- The building is provided with metered water service.

5. NATURAL GAS SERVICE

- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.

6. PIPING SYSTEMS

- The building piping systems are original. Domestic water system consists of copper piping. Sanitary and storm are cast iron. Natural gas is black steel pipe. The existing valves are in poor condition and do not hold water off when the valves are in the closed position, this happens throughout the facility.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush valve type. Lavatories are wall hung vitreous china. Electric water coolers are wall hung double and single units. There are some ADA plumbing fixtures. Stainless steel sinks are provided in the classrooms and workrooms. Service sinks are provided.

8. KITCHEN EQUIPMENT

- The kitchen equipment is not in the scope of the plumbing, however, the associated grease trap, water distribution, sanitary and vent systems and natural gas supply are. The grease trap is located outside the building and should be replaced.

9. FIRE PROTECTION

- The building is partially provided with an automatic sprinkler system.
- The building should be provided with a complete sprinkler fire protection system to meet current fire protection and building codes.





ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT

- Electrical Service
 - » Westinghouse 3000 ampere, 120/208 volt, 3 phase, 4 wire fusible switchboard with one (1) 1600A and two (2) 800A main fused switches and circuit breaker distribution section.
- Distribution Equipment
 - » Westinghouse circuit breaker distribution and branch circuit panels.
 - » Switchboard, panels and electrical distribution feeders and branch circuits replaced as a part of a building 1990 renovation and addition project.

2. EMERGENCY POWER SYSTEM EQUIPMENT

- Generator
 - » Onan 30 kW/45 kVA, 120/208 volt, 3 phase, 4 wire natural gas fueled interior generator unit.
- Automatic Transfer Switch
 - » 225 ampere Kohler transfer switch with area protection monitor panels.
- Emergency Power Distribution
 - » Normal/Emergency and Emergency only circuit breaker panels.
- Emergency Egress Lighting
 - » Emergency egress lighting provided in corridors, stairways, gymnasium, cafeteria and exits.
 - » Emergency lighting system as indicated on available drawings appears to meet code requirements.

3. LIGHTING SYSTEMS

- Corridors and Stairways
 - » Recessed mounted fluorescent fixtures with acrylic lens.
- Classrooms, Computer Rooms, Media Center and Offices
 - » Recessed or surface mounted fluorescent fixtures with parabolic lens controlled by multiple switches to provide multiple levels of room illumination.
- Gymnasium
 - » Suspended T5 fluorescent fixtures.
- Cafetorium, kitchen, storage and miscellaneous spaces
 - » Recessed fluorescent fixtures with acrylic lens.
- Mechanical and Electrical Equipment Rooms
 - » Surface or suspended fluorescent fixtures.
- Cafetorium and Stage
 - » Dimmable incandescent or quartz house and performance theatrical lighting systems controlled by zoned slider type dimmer panels.
- Exterior Security Lighting
 - » Wall mounted HID fixtures on time clock or photocell controlled circuit.
- Exterior Parking Area Lighting
 - » Pole mounted HID fixtures on time clock or photocell controlled circuit.
 - » Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.

- Lighting Controls
 - » Time clock and photocell control of exterior lighting.
- 4. FIRE ALARM SYSTEM
 - Fire Alarm Panels
 - » Simplex 4002 fire alarm control panel and alarm annunciator panel at main entrance. Fire alarm system is a hard wired zoned system.
 - Alarm Initiating Devices
 - » Manual pull station at all code required building exits.
 - » Automatic smoke detectors in the corridors of the building without sprinklers.
 - » Automatic heat detectors in the kitchen.
 - Alarm Signal Devices
 - » Audible horns with visual alarm strobes in the corridors, cafetorium, multi-purpose and music room areas only.
 - Fire alarm system as indicated on available drawings appears to meet current code requirements except as follows:
 - » Visual alarm signals required in all rest rooms, classrooms and spaces of common use.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

1. SECURITY SYSTEMS

- Building Entrances

- » Audio/video/intercom system for supervised access at the elementary school entrance.
- » Raptor driver's license security screening system is used to identify unwanted visitors.
- Intrusion Detection
 - » None.
- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to all the school district buildings.
 - » Proximity type card readers control access to selected building entrances and areas within the building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in main entries, corridors, stairways, administrative offices and other selected areas as required.
 - » CCTV security system consists of analog cameras with converters for use with IP Video Insight System networked video viewing and storage equipment.

2. PUBLIC ADDRESS AND CLOCK SYSTEMS

- Paging System
 - » Dukane school paging system with speakers and call-in switches in all classroom, educational spaces and miscellaneous selected spaces.
- Clock System
 - » Dukane master clock system with analog clocks in all classroom,





corridors, educational spaces and assembly spaces.

3. SOUND REINFORCEMENT SYSTEMS

- Cafetorium
 - » Local sound reinforcement systems for stage performances with amplifiers as required for distributed speakers required to cover the cafetorium.
 - » Microphone outlets provided at stage and selected locations in room for access to system.

4. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure
 - » School provided with Category 5 and 6 horizontal copper cabling to room telephone and data network outlets. Original building Category 3 cabling is no longer used and has been abandoned in place. Multimode 62.5 fiber optic backbone network cabling provided for network connections between telecommunication equipment cabinets and rooms. The Category 5 or 6 cabling has been each year to support required additional network outlets or wireless access nodes throughout the building. Wireless access points have been installed throughout building in corridors and in selected classrooms or spaces. Telecommunications equipment rooms consists of free-standing equipment racks or wall mounted cabinets with networking equipment and horizontal cabling patch panels as required.
- CATV RF Broadband Coaxial Cabling System
 - » A broadband building CATV cabling system with sub-channel return consisting of coaxial cabling, signal amplifiers, splitters, modulators and multi-taps to distribute programming channels to outlets in all classrooms, instructional education rooms, assembly spaces, offices and other selected areas as required. Programming can be originated at any system outlet in the building over the cabling system sub-channel return equipment.
 - » Selected digital CATV utility channels are converted to modulated analog channels and distributed over the cabling system to room outlets on standard CATV channels up to 30.
 - » The school programming channel originating in this school and the programming channels originating in each of the other district schools are encoded and transmitted over the district fiber optic data network. The digital school channels are converted locally at each school to analog signals and distributed over the coaxial cabling system to room outlets on standard CATV channels above channel 30.
- Telephone System
 - » Cisco IP telephone system and telephones installed throughout this building and the school district.



- Typical Classrooms

- » Classrooms provided with instructor and three (3) student stations with data networking wired outlet connections or access to wireless network connections.
 - » Wall mounted video display, video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to connections at the instructor's desk. Instructional programming from the instructor's computer can be routed through a VGA video matrix switch to the wall mounted video display or the video projector. The interactive white board is connected through the USB cabling connection.
 - » School paging/intercom system speaker in ceiling for announcements and a local call-in switch to initiate a call to the administrative offices.
 - » Analog wall clock on master clock system.
 - » Ceiling mounted wireless network point in selected classrooms.
- Computer Labs
 - » Mobile wireless cart laptop computer labs are available for use in addition to the fixed

classroom student computer workstations.

BUILDING SYSTEMS RATINGS AND CODE COMPLIANCE

1. BUILDING SYSTEMS RATING

- Electrical lighting, power distribution and, normal/emergency power systems are original to the 1990 renovations and building additions project and are in fair condition.
- The electronic and technology systems were installed during the 1990 building renovations and additions project and are in fair condition. These systems have been supplemented with new as required to maintain the systems and to meet the changing educational requirements.

2. CODE COMPLIANCE

- Visual fire alarm signal strobes are required by current codes in all classrooms, rest rooms, and spaces of common use. Because of the age of the existing fire alarm system equipment, replacement and upgrading of the existing system equipment should also be considered if not required to provide the additional visual alarms.

3. RECOMMENDATIONS

- Electrical lighting, power distribution and, normal/





emergency power and fire alarm systems should be evaluated for cost effective or necessary upgrades if renovations of this facility are proposed.

- Energy saving upgrades to LED type lighting fixtures and installation of occupancy/vacancy sensor controls should continually be evaluated and considered.
- Except for yearly selected upgrades, the electronic equipment and technology systems in this building were last updated during the 1990 building renovations. Any proposed renovations of the facility should include replacement of these systems. Replacement of these systems with the latest equipment technologies would result in systems that can easily be maintained and that are able to meet the current and future requirements of the facility.
- The following recommendations should be included in any future upgrades of the existing electronic and technology systems:
 - » Dedicated telecommunications rooms with proper ventilation or cooling should be provided to maximize the life of the telecommunication equipment.
 - » Additional 802.11a/b/g/n/ac wireless access points with duplex telecommunication outlets should be provided throughout the building.
 - » Cable trays should be provided throughout the corridors to facilitate

adds, moves and changes in technology.

- » DAS systems for amplification of cellular telephone signals should be added as required to aid in First Responders signal coverage in the building.
- » Audio amplification systems should be added for use in conjunction with the Classroom audio/video presentation systems





Seneca Valley Middle School

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Fast Facts

Constructed — 1972
Renovations / Additions — 2002, 2007
Acreage — 209 acres / Main Campus
Gross Square Feet — 229,211 gsf
Capacity (95%) — 1,355*
Current Enrollment — 1,175
Utilization — 82%
Area per Student — 161 sf
Projected Enrollment — 1,228



 FAIR ARCHITECTURAL	 FAIR DATA
 GOOD?FAIR MECHANICAL	 FAIR/POOR ENERGY CONSUMPTION
 GOOD/FAIR PLUMBING	 GOOD CODE COMPLIANCE
 FAIR FIRE PROTECTION	 GOOD SAFETY AND SECURITY
 FAIR ELECTRICAL	 FAIR/GOOD 21ST CENTURY LEARNING

FAIR
OVERALL BUILDING
RATING

KEY BUILDING CONDITIONS

* Based upon ideal class sizes

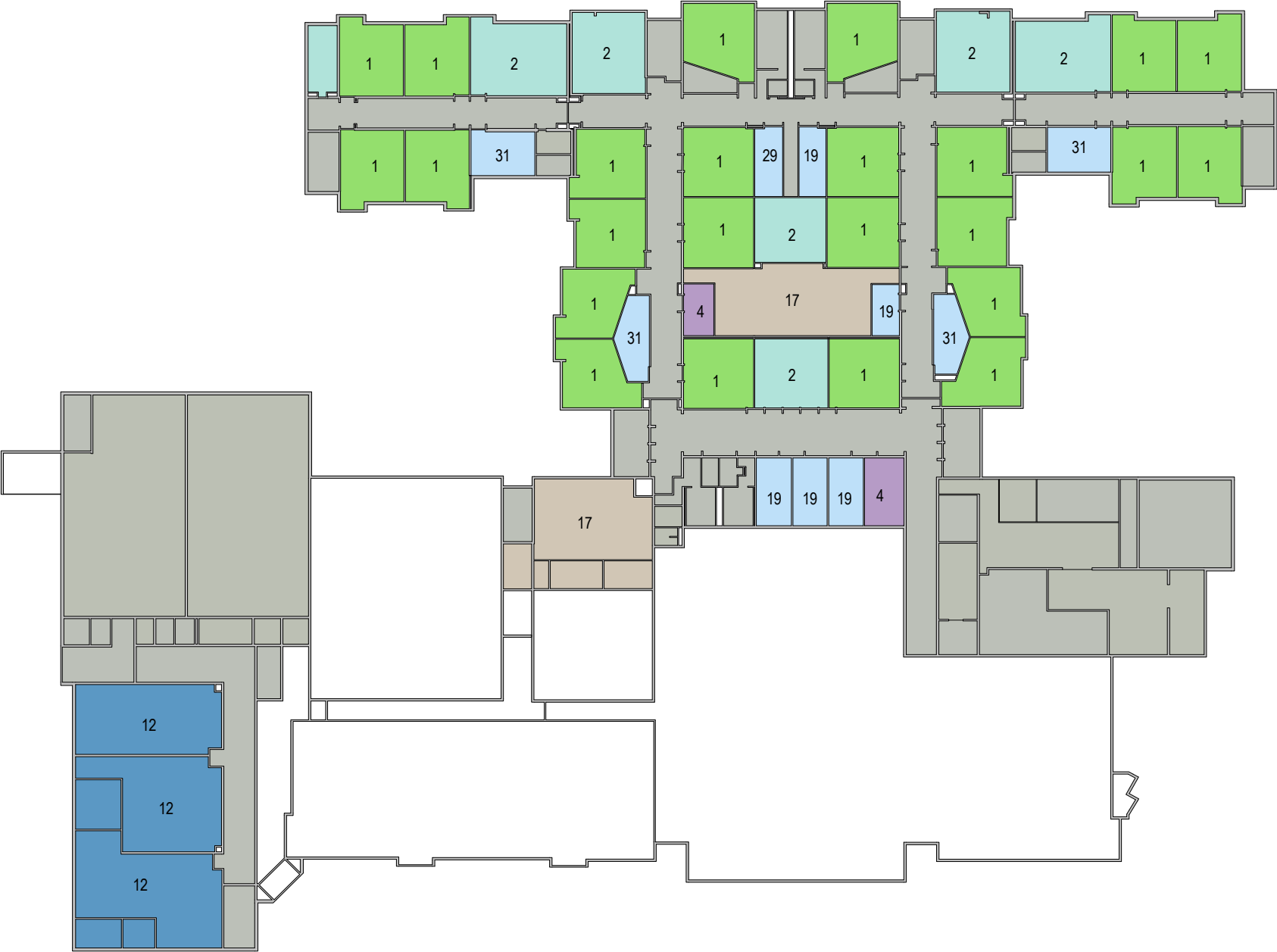


120 Capacity Calculations Seneca Valley Middle School

Seneca Valley Middle School				
	ID Color	Classrooms	Capacity	Total
Classrooms	1	49	25	1225
Science CR	2	0	25	0
Science Labs	2	10	20	200
Business Lab	3	0	20	0
Computer Lab	4	6	0	0
TV Lab	5	0	20	0
Art	6	3	0	0
Band	7	2	0	0
Dance space	8	1	0	0
Orchestra	9	0	25	0
Choral	10	1	0	0
FCS	11	2	0	0
Tech Ed	12	3	0	0
Driver's ed	13	0	20	0
Gym	14	2	0	0
Natatorium	15	0	31	0
Aux Gym	16	0	33	0
Fitness	17	1	0	0
Total		80		1425

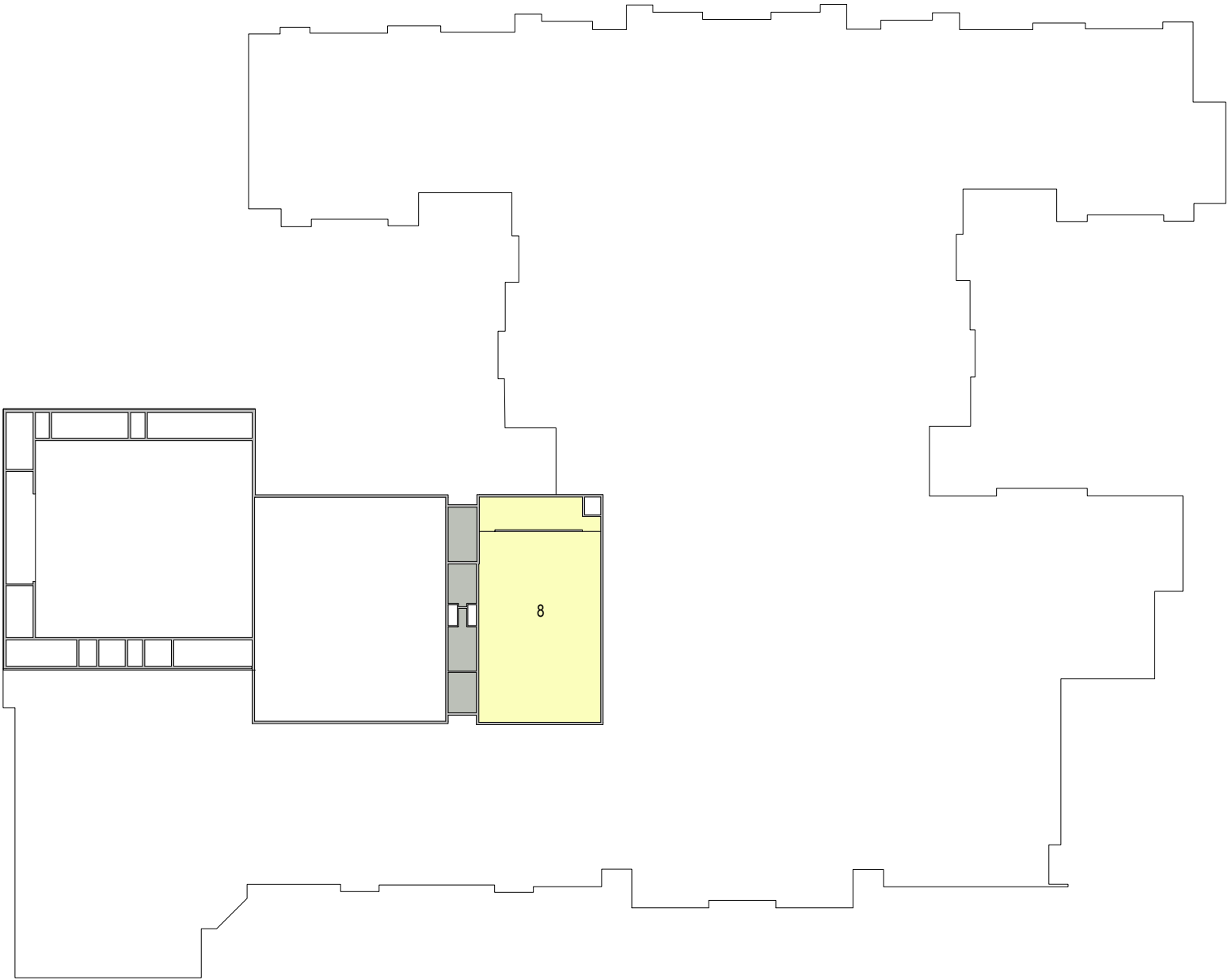
Other Spaces	ID Color/ #	Quantity	Space	ID Color/ #	Quantity
Library	18	1	Faculty Dining	26	1
SGI/ LS/ ESL/ Gifted	19	6	Faculty Planning	27	0
LGI	20	1	Nurse	28	1
Auditorium	21	0	Admin	29	1
Stage	22	1	Guidance	30	1
Locker room	23	2	Special Education	31	10
Kitchen	24	1	Conference	32	1
Cafeteria	25	1			

Lower Level Floor Plan Seneca Valley Middle School





Upper Level Floor Plan Seneca Valley Middle School



ARCHITECTURAL

1. EXTERIOR:

RATING: FAIR

- The building was initially constructed in 1972 and was subsequently added onto and/or renovated in 2002 and 2003. The façade is comprised of brick. The 2002/3 addition existing masonry walls are in good condition; however there are locations where restoration and water intrusion should be addressed, principally at the west facing window projections. The original 1972 masonry walls are in fair condition – some areas need to be repointed. Masonry should be cleaned as part of a larger renovation. Brick areas near grade and concrete should be repointed.
- A small area of EIFS exists at the district storage which is in poor condition.
- In general, the exterior lintels do not appear to be galvanized and are rusting. These lintels should be anticipated for replacement in the near future. This is of particular concern at the west facing window projections, the west/ southwest facing greenhouses, and canopies.
- The mortar below the lower level greenhouse shows signs of saturation and is starting to fail. This mortar joint appears to correspond with a steel lintel below the lower greenhouse floor. This suggests the greenhouse floor may not be properly water proofed and water from the interior of the greenhouse may be migrating to the building exterior.

The root cause of this should be found and addressed in the near future.

- Exterior caulking is in fair to poor condition and should be replaced at all masonry.
- Exterior doors and frames are painted hollow metal in poor condition and should be replaced.
- Exterior windows are aluminum, double-paned with operable sashes. Windows should be monitored for replacement in the future.
- The original 1972 exterior walls are uninsulated, but the 2002 addition exterior walls are insulated. Uninsulated exterior walls are energy inefficient. Insulation of exterior walls should be performed with any larger renovations.

2. ROOF

RATING: FAIR/GOOD

- The roof system is a built-up roof installed in 2003. The built-up roof has a 20 year warranty. The built-up roof has less than half its warranty life and should be monitored for replacement as the warranty expiration date approaches. Destructive testing on the roof membrane and insulation was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate.





Copings and flashings are painted aluminum in good condition.

3. INTERIORS

RATING: FAIR/GOOD

- Corridors

Corridors are double-loaded approximately 12'-0" – 13'-0" wide. Floors are quarry tile and bases are quarry tile and rubber; all in fair condition.

- » Ceilings are 2x2 acoustical ceiling tile (ACT). The tiles are aging and in fair condition. The grid appears to be in fair condition.
- » Walls range from red brick at the main entry to predominantly painted CMU in fair/ good condition.
- » Doors are both solid core wood and hollow metal depending on location. Both door types are in painted hollow metal door frames. Door hardware is ADA compliant. Doors, frames and hardware are generally in good condition.
- » Lockers are in good condition.
- » Corridors contain skylights that are in fair condition. The acrylic is showing signs of age and minor leaks were noted in some areas. With any skylight, units should be monitored for continued performance.

- Stairs

Stairs, hand and guard rails are code compliant. Risers are painted metal, treads are rubber in some locations and quarry tile in others. Landings are quarry

tile. Risers and treads/ landings are in fair/ good condition".

- Toilet Rooms

- » Toilet room finishes consist of ceramic tile floors, base and walls, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Fixtures and finishes are in good condition. Interior stair partitions are wire glass. These partitions will likely need to be replaced with approved rated construction if extensive building renovations are undertaken.
- » Toilet room finishes in the 1968 portion consist of VCT floors, rubber base, ceramic tile walls, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Fixtures are in good condition. Restrooms finish colors are bland, dated, in fair condition and should be replaced.

- Instruction Spaces

- » Classrooms - Typical classrooms are approximately 850 square feet.
- » The casework is wood and in fair condition. Casework quantity in each classroom appears to be adequate. Classroom ceilings are 2x2 acoustical ceiling tile (ACT) that is in fair condition. The tile is showing signs of age, and should be monitored for replacement in the future. Classroom floors are 12 x 12 VCT in fair condition. Classroom walls are painted CMU. Most walls are in fair to good



condition. Furnishings are uniform and institutional. Furnishings should be evaluated with student comfort, ergonomics and flexibility and should be replaced with furnishing systems that support 21st century teaching. Each classroom is equipped with a smart board. Classrooms are WiFi enabled. Although the middle school in general is organized around a team concept, the general classroom design is very traditional and does not respond well to 21st century teaching and learning. A plan reconfiguration would be required to meet the goals of 21st century teaching and learning.

- » Art – Ceilings are 2 x 2 ACT in fair condition. Flooring is 12 x 12 VCT in fair/ good condition. Walls are painted CMU. Art storage rooms are slightly undersized for the number of art rooms. Opportunity exists to renovate the room into a more inspiring art space. Physical and visual access to the adjacent corridor should be considered to put the arts on display.
- » Music/ Band/ Chorus –Music room floors are VCT with carpeted risers. Riser risers are rubber in fair/ poor condition. The VCT is in fair condition and the carpet is in poor condition. In-room storage is plastic laminate and wood, both built in and wall mounted. Storage volume and type appear to be inadequate. Ceilings are 2 x 2 ACT in fair condition. Walls are painted CMU. Acoustic wall panels are provided, but likely inadequate. Furnishings are institutional.
- » Computer Labs –Finishes are 12x12 VCT floors, painted CMU walls and 2x2 ACT ceilings, all in fair/ good condition. The requirement of specific computer instruction rooms should be a detailed point of conversation with any significant building renovation due to continued technology changes and District programs and curricula.
- » Science Labs – Finishes are 12x12 VCT floors, painted CMU walls and 2x2 ACT ceilings, all in fair/ good condition. Casework and tables are wood with solid epoxy resin tops. Casework and tables are in fair condition, dated and institutional. Sinks are provided in fixed center aisle free standing units. Fixed center units limit room flexibility. Furnishings are non-adjustable and institutional.
- » Family Consumer Science – Finishes are 12x12 VCT floors, painted CMU walls and 2x2 ACT ceilings, all in fair/ good condition. Casework is wood with plastic laminate tops. Tables are semi-mobile with plastic laminate tops. Casework and tables are in fair condition, dated and institutional. Appliances are newer. Room design is traditional for family consumer science program.
- » Tech Ed – Finishes are 12x12 VCT floors, painted CMU walls and 2x2 ACT ceilings, all in good condition. Casework is wood with laminate tops in fair/ good condition. Electricity is provided at work benches via overhead service reels. Rooms appear





to adequately sized to accommodate the tech ed program. If desired, the space can be renovated to reflect a "maker" function which is consistent with modern tech ed programs.

- » Green House - Finishes are quarry tile floors, exposed brick walls and aluminum storefront walls and ceiling/ roof, all in good condition. Evidence of glazing leaks did not exist at the time of review. Tables are slotted and consistent with green house use. Orientation is proper at south/ southwest. The first floor greenhouse is slightly less function due to reduced daylighting in comparison to the second floor greenhouse.
- Building Administration
 - » The building contains one main administration office suite. Required administration functions are adequately co-located and the appropriate amount of space is provided as indicated by school administration. Finishes consist of carpet floors, 2 x 2 acoustic tile/ gypsum board ceilings, and painted CMU walls. Generally, finishes are in fair condition, with the exception of the carpet which is in fair/ poor condition. Carpet should be scheduled for replacement in the near future.
- Cafeteria
 - » The finishes in the cafeteria are quarry tile floors, 2 x 2 acoustic tile ceilings and ceramic tile walls. These finishes are in fair condition and becoming
- dated and worn. The quarry tile floor is in poor condition and has consistent problems adhering to the concrete slab. It is recommended to remove the entire floor finish, resolve the adhesion problem and reinstall a floor finish fit for purpose. The cafeteria contains exterior windows that provide daylighting and views to the exterior. Doors are solid wood in fair condition. Furnishings are functional but institutional.
- Kitchen
 - » The kitchen is accessed by a traditional food serving line. The kitchen is full-service. The equipment appears to be in good condition. Quarry tile floors appear to be in fair condition. Glazed ceramic tile walls appear to be in good condition. The ceiling within the kitchen is a 2' x 2' acoustic tile that appears to be scrubbable. The tiles are in fair condition.
- Gymnasium
 - » The school has 1 large gymnasium, 1 multipurpose room and one converted gym being used as a dance studio. The gym finishes consist of a wood floor, painted CMU walls, and painted exposed roof deck and structure. The gym is equipped with wall pads, molded plastic bleachers, acoustic wall panels, an operable curtain divider, and six operable basketball back stops. All finishes and equipment appear to be in fair condition. Bleachers are in good condition. The gym has an adequate number of egress doors.

The multipurpose room has similar finishes with the exception of the floor with is a pour polyurethane floor system. Finishes are in fair condition. Bleachers are in good condition. The multipurpose room has a linked small “stage” which is not adequate for performances. The gym and multipurpose rooms do not have access to daylight. The dance studio finishes are mat flooring, painted CMU and gypsum board walls and exposed painted metal decking. Walls contain mirrors. The finishes are in good condition. Proper changing rooms adjacent to the dance studio should be provided. The costume storage area adjacent to the dance studio requires sprinklers.

- Library

- » The Library is a traditional design with a focus on print media. There are two library computer rooms connected to the library in addition to offices and work rooms. No soft seating area exists to provide a variety of seating / learning areas for collaboration and teaming. The finishes consist of carpet, 2' x 2' acoustic ceiling tiles and painted CMU walls, all of which are dated and worn. The library has no access to natural daylight or the exterior. In general, the library is not consistent with a media center focused on supporting 21st century teaching and learning. A building renovation should deeply explore these needs to ensure a media center that responds

to the District's future programs and curricula.

- Large Group Instruction (LGI)
 - » One large group instruction room exists which is used for staff development and supplemental instruction. The room is divided by an operable partition which appears to be in working condition. The space has 2x2 acoustic tile ceilings, carpet flooring, and painted CMU walls. Carpet is in poor condition. In general, the space is an adequate size for LGI use but requires finishes and equipment updates.
- Storage
 - » The school appears to have adequate storage space given the size of the district storage room on the lower level.

4. CODE COMPLIANCE/ ACCESSIBILITY

RATING: FAIR / GOOD

- Door hardware is accessible.
- Stairs are generally compliant and multiple floors are accessible via elevator.
- ADA restrooms could be found on each level. Should the building be renovated, a detailed fixture count analysis should be conducted in concert with the active code at that time.





- The building construction type is assumed to be Type IIB. The occupancy classification is E – Education.

5. BUILDING SAFETY AND SECURITY

RATING: GOOD

- In general, building safety is good. The main entry is a captured entry with a security booth in the entry vestibule. The door between the vestibule and corridor is on electrified magnetic locks. Visitors exiting the entry vestibule have direct access to the school without entering the main administration office, which is not ideal. A building renovation should address the current design.
- Security cameras exist throughout the building.

6. EDUCATIONAL RESPONSIVENESS TO MEET 21ST CENTURY LEARNING

RATING: FAIR / GOOD

- The building is currently organized to group students into 10 teams. This allows for enhanced collaboration within each team. Each team has access to four general classrooms and one science lab. The teaming concept has yielded great results for the district, but collaboration is still inhibited by a lack of group teaming areas and interior glazing. Classrooms and furnishings are traditional and institutional which limits flexibility and collaboration. Classrooms are equipped with newer model interactive Smart Boards. Expressed needs are faculty collaboration



areas, classrooms that support the 4 “C’s” (collaboration, creativity, communication, critical thinking) and conversion of library to iHub/ maker space. Tech Ed is an advanced program but not ideally located near the teams or highly visible areas. This is a missed opportunity to show case an advanced 21st century program. The site is not currently used as a learning environment which is a missed opportunity.

7. RECOMMENDATIONS

- The middle school is organized around a teaming concept which starts to enact some of the concepts behind 21st century teaching and learning, more so than most schools within the district. In general, the building exterior is in fair to good physical condition and requires minimal renovation. Exterior building renovations should be planned to address the items noted above, specifically masonry restoration, lintel replacement and exterior door replacement in addition to those items outlined on the District’s Long Range Capital Improvement Plan. The built-up roof is 7 years from the warranted period so it should be monitored for performance moving forward.
- Although many interior building finishes are in fair to good condition, they are becoming worn, dated and institutional. Although, minimal interior renovations are recommended at this time due to the good condition of many of the interior materials, a finishes renovation can be considered to provide a more inspiring



interior learning environment that is less institutional, including more compelling finishes, colors, interior glazing and access to exterior views and daylight. Further, an interior renovation can be considered to provide more identity to each team.

- The school administration has expressed the desire to work toward the following aspirational goals to further enhance program offerings, collaboration and student's learning experience.
- Aspirational goals
 - » The interior learning environment should be renovated to encourage teacher and student collaboration to meet the needs of District programs and curriculum. This includes one open to corridor student collaboration space per team, as well as more interior glazing between classrooms and corridors.
 - » The library and adjacent computer, work, etc. rooms should be transformed into a 21st century Media / Maker space. This will require relocating the tech ed labs from the lower level to the first floor media space. Vacated lower level tech ed spaces can be back filled with health classrooms. Under this option, linking/ co-locating the arts to the new media space should be explored.
 - » 300 seat performing arts theater.
 - » Furnishings should be replaced with more flexible, durable, comfortable and functional options.

- » More open spaces, more daylighting, and brighter more inviting environments should be provided.
- » With the addition of interior glazing between classrooms and corridors, the corridors can be utilized for small group/ collaboration space.
- » A special education planning center should be provided.

MECHANICAL SYSTEMS

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at Seneca Valley Middle School, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems
 - » Central heating plant equipment
 - » Central chilled water plant
 - » Hot water/chilled water pumps and distribution piping
 - » Air distribution systems
 - » Building temperature controls

3. CENTRAL HEATING PLANT

- The building is served by two gas fired HB Smith 350 Mills cast iron sectional hot





water boilers. The boilers were installed in 2001 appear to be in good condition.

4. CENTRAL CHILLED WATER PLANT

- The building is served by two air cooled chillers mounted outside on grade, these units appear to be in fair condition.

5. HOT WATER PUMPS AND DISTRIBUTION PIPING

- The hot water pumps and distribution piping were installed in 2001 and appear to be in good condition. The hot water/ chilled water distribution piping within the boiler room appears to be in good condition.

6. CHILLED WATER PUMPS AND DISTRIBUTION PIPING

- The chilled water pumps and distribution piping were installed in 2001 and appear to be in good condition. The chilled water distribution piping within the boiler room appears to be in good condition.

7. AIR DISTRIBUTION SYSTEMS

- Classrooms
 - » The rooms are heated, cooled and ventilated by a combination of vertical floor mounted unit ventilators along the perimeter wall and horizontal ducted unit ventilators. This equipment appears to be in fair condition.
- Corridors
 - » Hot water cabinet unit heaters and convectors provide heat, these units appear to be in fair condition.
- Toilet Rooms
 - » Radiant heating panels provide heat in the toilet rooms, the panels appear to be in fair condition.
- Cafeteria
 - » Two horizontal central station air handling units with hot water heating coil for heating, chilled water coil for cooling, and ventilating the Cafeteria. These units appear to be in fair condition.
- Gymnasium
 - » Two Horizontal roof top heating, cooling and ventilating air handling units. These units appear to be in fair condition. The ductwork air distribution system appears to be in good condition.
- Multi-Purpose Room
 - » Two horizontal central station air handling units with hot water heating coil for heating, chilled water coil for cooling, and ventilating the Cafeteria. These units appear to be in fair condition.
- Administration
 - » This area is served by packaged terminal air conditioning units with a hydronic heating coil and a dx coil for cooling. This equipment appears to be in good condition.



- Library
 - » One roof top horizontal hot water heating, dx cooling, and ventilating air handling unit serves the space. The unit appears to be in fair condition.
- Kitchen
 - » The kitchen hoods are served by one gas fired make-up air unit; this unit appears to be in fair condition. Grease hood exhaust fans appear to be in fair condition. The kitchen is heated and cooled by one horizontal roof top central system air handling unit. This unit appears to be in fair condition.
- Locker Rooms
 - » The rooms are heated and ventilated by ceiling mounted cabinet heaters these units appear to be in fair condition.
- Shops
 - » Ceiling mounted unit ventilators provide heat, cooling, and ventilation to the shops, these units appear to be in fair condition.
- Science rooms
 - » The rooms are heated, cooled and ventilated by a combination of vertical floor mounted unit ventilators along the perimeter wall and horizontal ducted unit ventilators. This equipment appears to be in fair condition.

8. BUILDING TEMPERATURE CONTROLS

- The main control panel is an electronic control panel by Johnson Controls. The building is controlled by a pneumatic

control system which is in poor condition.

PLUMBING SYSTEMS

1. SUMMARY

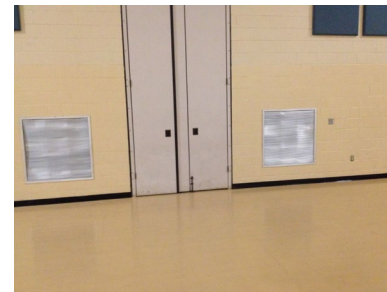
- The purpose of this feasibility study is to evaluate the plumbing systems at the Middle School, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems
 - » Domestic water heating equipment
 - » Domestic water service
 - » Natural Gas Service
 - » Piping systems
 - » Plumbing Fixtures
 - » Kitchen Equipment
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- The building is currently having two new gas fired high efficiency water heaters installed. One existing hot water storage





tank was installed in 2001 and appears to be in good condition.

4. DOMESTIC WATER SERVICE

- The building is provided with metered water service.

5. NATURAL GAS SERVICE

- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.

6. PIPING SYSTEMS

- The building piping systems are original. Domestic water system consists of copper piping. Sanitary and storm are cast iron. Natural gas is black steel pipe. The existing valves are in poor condition and do not shut off when the valves are in the closed position, this happens throughout the facility.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush valve type. Lavatories are wall hung vitreous china. Electric water coolers are wall hung single and double units. There are some ADA plumbing fixtures. Stainless steel sinks are provided in the classrooms and workrooms. Service sinks are provided. Locker rooms are

provided with individual shower units which are in good condition.

8. KITCHEN EQUIPMENT

- The kitchen equipment is not in the scope of the plumbing, however, the associated grease trap, water distribution, sanitary and vent systems and natural gas supply are. The grease trap is located inside the building and should be replaced.

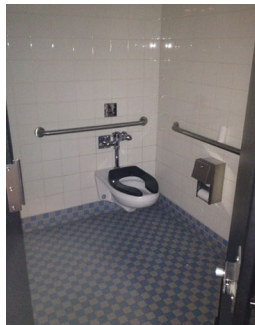
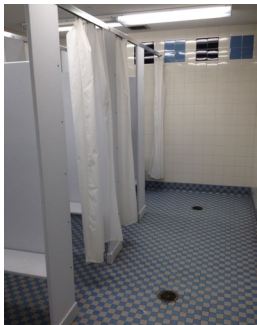
FIRE PROTECTION

- The building is provided with a fire pump.
- There are parts of the building that have an automatic sprinkler system.
- The building should be provided with a complete sprinkler fire protection system to meet current fire protection and building codes.

ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT

- Electrical Service
 - » General Electric 277/480 volt, 3 phase, 4 wire electrical service with exterior and interior switchboards with multiple main fusible switches and circuit breaker distribution sections installed during the 2002 building additions and renovations project.
- Distribution Equipment
 - » Dry type 480V to 120/208 volt, 3 phase, 4 wire transformers, circuit breaker



distribution and branch circuit type panels also installed during the 2002 building addition and renovation project.

2. EMERGENCY POWER SYSTEM EQUIPMENT

- Generator
 - » Onan 120/208 volt, 3 phase, 4 wire diesel fueled exterior generator in weatherproof enclosure with double wall sub-base fuel storage tank.
- Automatic Transfer Switch
 - » 70 ampere life safety and 225 ampere standby power Onan transfer switches with area protection monitor panels.
- Emergency Power Distribution
 - » Normal/Emergency and Emergency only circuit breaker panels.
- Emergency Egress Lighting
 - » Emergency egress lighting provided in corridors, stairways, rest rooms, gymnasium, cafeteria, mechanical rooms and at building exits
- Emergency lighting system as indicated on available drawings appears to meet code requirements.

3. LIGHTING SYSTEMS

- Corridors and Stairways
 - » Recessed or surface mounted fluorescent fixtures with acrylic lens.
- Classrooms, Computer Rooms, and Offices
 - » Recessed, surface mounted or pendant linear fluorescent fixtures with parabolic lens controlled by

multiple switches to provide multiple levels of room illumination provided in the additions to the building.

- Media Center
 - » Pendant mounted linear fluorescent fixtures with parabolic lens switched by rows to provide multiple levels of room illumination.
- Gymnasium
 - » Chain hung T5 fluorescent fixtures.
- Multi-Purpose Room
 - » Pendant mounted metal halide fixtures.
- Cafeteria, kitchen, storage and miscellaneous spaces
 - » Recessed or surface mounted fluorescent fixtures with acrylic lens.
- Mechanical and Electrical Equipment Rooms
 - » Surface or suspended fluorescent fixtures.
- Exterior Security Lighting
 - » Wall mounted HID fixtures on time clock or photocell controlled circuit.
- Exterior Parking Area Lighting
 - » Pole mounted HID fixtures on time clock or photocell controlled circuit.
- Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.





- Lighting Controls
 - » Time clock and photocell control of exterior lighting.
- 4. FIRE ALARM SYSTEM
 - » Fire Alarm Panels: Siemens fire alarm control panel and alarm annunciator panel at main entrance. Fire alarm system is a 24 volt system with addressable alarm initiating devices.
 - Alarm Initiating Devices
 - » Manual pull station at all code required building exits
 - » Automatic smoke detectors in original building corridors and mechanical rooms where sprinklers were not installed.
 - » Automatic smoke detectors in ductwork of large building air handlers.
 - Alarm Signal Devices
 - » Audible and visual alarms installed throughout building in corridors, rest rooms, classrooms cafeteria, dining, kitchen, music, administrative and gymnasium spaces.
 - Fire alarm system as indicated on available drawings appears to meet current code requirements.
 - » Visual alarm signals required in all corridors, rest rooms, classrooms and spaces of common use.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK

AND TECHNOLOGY SYSTEMS

1. SECURITY SYSTEMS

- Building Entrances
 - » Audio/video/intercom system for supervised access at the elementary and middle school entrances.
 - » Raptor driver's license security screening system is used to identify unwanted visitors.
- Intrusion Detection
 - » Motion detectors in the building corridors, computer rooms and administrative offices provide intrusion detection.
 - » Intrusion detection system is armed at keypads provided at selected building entrances.
- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to all the school district buildings.
 - » Proximity type card readers control access to selected building entrances and areas within the building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in main entries, corridors, stairways, administrative offices and other selected areas as required.
 - » CCTV security system consists of analog cameras with converters for use with IP Video Insight System

networked video viewing and storage equipment.

2. PUBLIC ADDRESS AND CLOCK SYSTEMS

- Paging System
 - » Telcor school paging system with speakers and call-in switches in all classroom, educational spaces and miscellaneous selected spaces.
- Clock System
 - » Telcor master clock system with digital clocks in all classroom, corridors, educational spaces and assembly spaces in the building additions.

3. SOUND REINFORCEMENT SYSTEMS

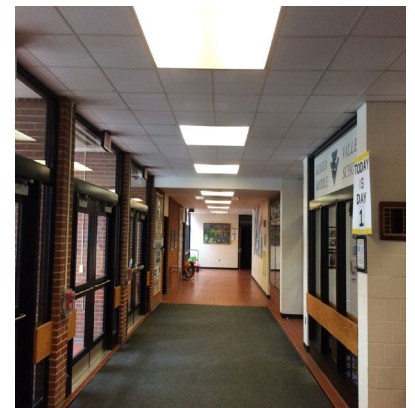
- Cafeteria, Gymnasium and Multi-Purpose Room
 - » Local sound reinforcement systems for public address or stage performances with amplifiers as required for distributed or suspended full range speakers required to cover room seating areas.
 - » Microphone outlets provided at stage and selected locations in room for access to system.

4. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure
 - » School provided with Category 3 horizontal copper cabling to telephone outlets and Category 5 type cabling to data network outlets. Multimode 62.5 fiber optic backbone network cabling

provided for network connections between telecommunication equipment cabinets and rooms. The Category 3 and 5 cabling was installed with the 2002 building additions and renovations and has been supplemented with new Category 6 cabling each year to support required additional network outlets or wireless access nodes throughout the building. Wireless access points have been installed throughout building in corridors and in selected classrooms or spaces. Telecommunications equipment rooms consists of free-standing equipment racks or wall mounted cabinets with networking equipment and horizontal cabling patch panels as required.

- CATV RF Broadband Coaxial Cabling System
 - » A broadband building CATV cabling system with sub-channel return consisting of coaxial cabling, signal amplifiers, splitters, modulators and multi-taps to distribute programming channels to outlets in all classrooms, instructional education rooms, assembly spaces, offices and other selected areas as required. Programming can be originated at any system outlet in the building over the cabling system sub-channel return equipment.
 - » Selected digital CATV utility channels are converted to modulated analog channels and distributed over the





cabling system to room outlets on standard CATV channels up to 30.

- » The school programming channel originating in this school and the programming channels originating in each of the other district schools are encoded and transmitted over the district fiber optic data network. The digital school channels are converted locally at each school to analog signals and distributed over the coaxial cabling system to room outlets on standard CATV channels above channel 30.

- Telephone System

- » Cisco IP telephone system and telephones installed throughout this building and the school district.

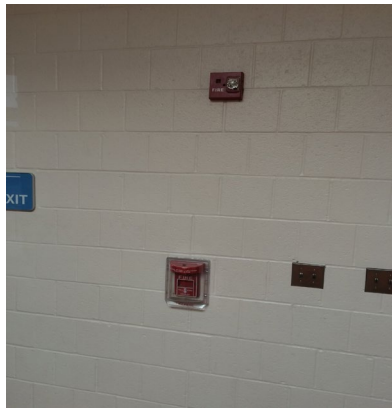
- Typical Classrooms

- » Classrooms provided with instructor and three (3) student stations with data networking wired outlet connections or access to wireless network connections.

- » Wall mounted video display, video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to connections at the instructor's desk. Instructional programming from the instructor's computer can be routed through a VGA video matrix switch to the wall mounted video display or the video projector. The interactive white board is connected through the USB cabling connection.

- » School paging/intercom system speaker in ceiling for announcements and a local call-in switch to initiate a call to the administrative offices.
- » Digital wall clock on master clock system.
- » Ceiling mounted wireless network point in selected classrooms.





- Computer Labs
 - » Mobile wireless cart laptop computer labs are available for use in addition to the fixed classroom student computer workstations.

BUILDING SYSTEMS RATINGS AND CODE COMPLIANCE

1. BUILDING SYSTEMS RATING

- Electrical lighting, power distribution and, normal/ emergency power systems are original to the 2002 building additions and renovations project and are in fair condition.
- The electronic and technology systems were installed during the 2002 building additions and renovations and are in fair condition. These systems have been supplemented with new as required to maintain the systems and to meet the changing educational requirements.

2. CODE COMPLIANCE

- Compliant with current electrical system code requirements.

3. RECOMMENDATIONS

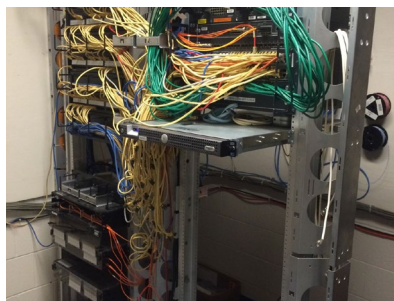
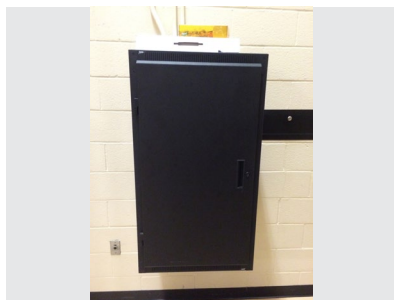
- Electrical lighting, power distribution and, normal/ emergency power and fire alarm systems should be evaluated for cost effective or necessary upgrades if renovations of this facility are proposed.
- Energy saving upgrades to LED type lighting fixtures and installation of occupancy/vacancy sensor controls

should continually be evaluated and considered.

- Except for yearly selected upgrades, the electronic equipment and technology systems in this building were last updated during the 2002 building renovations. Any proposed renovations of the facility should include replacement of these systems. Replacement of these systems with the latest equipment technologies would result in systems that can easily be maintained and that are able to meet the current and future requirements of the facility.
- The following recommendations should be included in any future upgrades of the existing electronic and technology systems
 - » Dedicated telecom rooms with proper ventilation or cooling should be provided to maximize the life of the telecommunication equipment.
 - » Additional 802.11a/b/g/n/ac wireless access points with duplex telecommunication outlets should be provided throughout the building.
 - » Cable tray should be provided throughout the corridors to facilitate adds, moves and changes in technology.
 - » DAS systems for amplification of cellular telephone signals should be added as required to aid in First Responders signal coverage.
 - » Audio amplification systems should be added for use in conjunction with the

Classroom audio/video presentation systems.





Intermediate High School

Fast Facts

Constructed — 1964
Renovations / Additions — 1991, 1996, 2003
Gross Square Feet — 229,351
Capacity (85%) — 1,353*
Current Enrollment — 1,182
Utilization — 74%
Area per Student — 114 sf
Projected Enrollment — 1300



 POOR ARCHITECTURAL	 FAIR DATA
 POOR MECHANICAL	 FAIR/POOR ENERGY CONSUMPTION
 FAIR/ POOR PLUMBING	 FAIR CODE COMPLIANCE
 FAIR FIRE PROTECTION	 FAIR SAFETY AND SECURITY
 FAIR ELECTRICAL	 POOR 21ST CENTURY LEARNING

POOR
OVERALL
BUILDING
RATING

KEY BUILDING CONDITIONS

* Based upon ideal class sizes



Capacity Calculations for Intermediate High School

HS Capacity Calculations		PDE		
	ID Color	Classroom		Total
Classrooms		37	25	925
Science CR		0	25	0
Science Labs		11	20	220
Business Lab		0	20	0
Computer Lab		5	20	100
TV Lab		0	20	0
Art		2	20	40
Band		1	25	25
Orchestra		0	25	0
Choral		1	25	25
FCS		2	20	40
Tech Ed		6	20	120
Driver's ed		0	20	0
Gym		1	66	66
Natatorium		1	31	31
Aux Gym		0	33	0
Fitness		1		0
Wrestling		0		0
Total		68		1592

includes CR 121

Other Spaces	ID Color #	Quantity	Space	ID Color #	Quantity
Library			Faculty Dining		
SGI			Faculty Planning		
LGI			Nurse		
Auditorium			Admin		
Stage			Guidance		
Locker room			Special ed		
Kitchen			Conference		
Cafeteria					

Lower Level Floor Plan Intermediate High School



146 Upper Level Floor Plan Intermediate High School



Second Floor Plan Intermediate High School



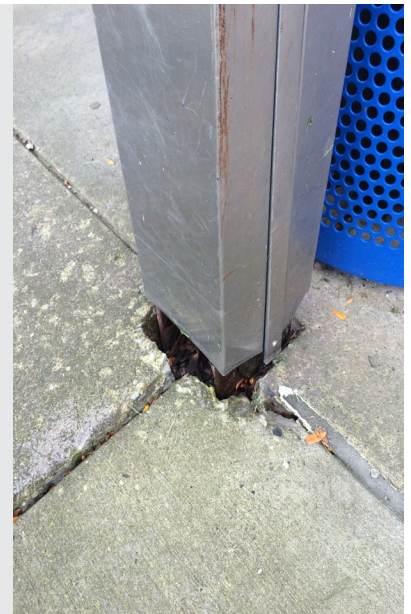
ARCHITECTURAL

1. EXTERIOR RATING: POOR

- The building was initially constructed in 1964 with additions and renovations in 1991, 1996, and 2003. The exterior façade is comprised of brick panel and curtainwall, with some granite panel accents. The 2003 addition existing masonry walls are in good condition. The original 1964 masonry walls are in poor condition – Areas of longer expanses of brick (auditorium, cafeteria, gym, natatorium) are cracking due to an inadequate number and location of brick control joints and/or foundation settlement. These areas need to be repaired. Brick areas near grade/ concrete and areas of cast stone (sills, etc.) should be repointed. A moderate level of exterior renovation should be anticipated, including crack repair, repointing and full exterior caulking replacement.
- Exterior windows/ curtain wall systems were replaced in 1996. These systems are a constant source of water intrusion and should be replaced in their entirety.
- Exterior doors and frames are rusting and should be replaced in their entirety.
- The main exterior canopy is a steel frame structure with stainless steel column wraps, painted metal decking and built-up roof system. The canopy is in poor condition and should be replaced in its entirety. Steel column bases are significantly rusting.

2. ROOF RATING: FAIR

- In general, the exterior plaster soffits are failing and should be replaced. This is particularly true outside of the cafeteria.
- Exterior caulking is in poor condition and should be replaced.
- The 1964 building is uninsulated resulting in an energy inefficient building skin.
- The loading dock is in poor condition and should be replaced/ reconstructed.
- The roof system is a combination built-up roof installed in 2003 and single ply Duro-Last roof installed in 2009. The built-up roof has a 20 year warranty. The Duro-Last roof has a 15 year warranty. The built-up roof has less than half its warranty life and should be monitored for replacement as the warranty expiration date approaches. Destructive testing on the roof membrane and insulation was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate. Copings and flashings are painted aluminum in fair to good condition depending on location.





3. INTERIORS

RATING: FAIR

- Corridors

Corridors are double-loaded approximately 10'-0" wide. Floors and bases are poured terrazzo in fair/ poor condition. Some rubber base in fair condition exists in certain locations.

- » Ceilings are 2x2 acoustical ceiling tile (ACT). The tiles and grid are aging in fair/ poor condition.

- » Walls in the original building are ceramic tile. Walls in the new addition are painted CMU. Ceramic tile is in fair condition; painted CMU is in good condition. Corridor walls in the original building contain clerestory anodized aluminum windows at each classroom. Clerestory windows are in poor condition.

- » Doors in the original building are solid core wood in poor condition. Frames are hollow metal in poor condition and should be repainted at a minimum. Door hardware is not ADA compliant. Doors in the new addition are wood in good condition. Frames are hollow metal in good condition. New addition door hardware is ADA compliant.

- » Original building lockers are in fair/ good condition. New addition lockers are in good condition.

- » Interior signage and wayfinding is poor.

- Stairs

- » Original building stair finishes consist of terrazzo landings and treads, painted steel risers and ceramic tile walls. Landings and treads are in fair to poor condition. Hand/ guardrails are anodized aluminum and are not code compliant. New addition stair finishes are a combination terrazzo and rubber landings, rubber treads and risers, painted CMU walls and painted metal guard/ handrails. New building stairs are generally in good condition and code compliant. Some of the rubber landings are in poor condition.

- Toilet Rooms

- » Toilet room finishes consist of terrazzo floors and base, ceramic tile walls, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Fixtures are in fair condition. Finishes are in fair/ poor condition.

- Instruction Spaces

- » Classrooms - Typical classrooms are approximately 800 square feet. Original building classroom finishes generally consist of 12"x12" VCT floors, ceramic tile and painted plaster walls, and 2x2 acoustical ceiling tile (ACT). Finishes are in poor condition. Some rooms have 9"x9" asbestos floor tile in stable condition. It is recommended that all asbestos floor tile be removed. New addition classroom finishes generally consist of 12"x12" VCT floors, painted CMU walls, and 2x2 acoustical ceiling tile (ACT). Finishes are in fair condition. Furnishings are uniform



and institutional. Furnishings should be evaluated with student comfort, ergonomics and flexibility and should be replaced with furnishing systems that support 21st century teaching. Each classroom is equipped with a smart board. Classrooms are WiFi enabled. The original building casework is wood in poor condition.

- » Art – Ceilings are exposed, painted metal decking in good condition. Flooring is sealed concrete in fair/ good condition. Walls are painted CMU. Art storage, both in class and separate rooms appears to be adequate. A large translucent skylight provides ample daylight into the space. The art room is in good condition and requires minimal renovation. The art room should have more interior glazing at the corridor so the program is more visually accessible to the school.
- » Music/ Band/ Chorus –The new addition band/ chorus finishes consist carpet floors with carpeted risers, painted CMU walls, fabric wrapped acoustic wall panels and 2x4 acoustic tile ceilings. All finishes are in fair/ good condition. This space is well proportioned for music/ chorus. The original band/ chorus finishes consist VCT floors and risers, painted plaster walls, fabric wrapped acoustic wall panels and 2x2 acoustic tile ceilings. All finishes are in fair condition. This space is not well proportioned for music/ chorus.
- » Computer Labs –Finishes are 12x12 VCT floors, painted plaster walls and 2x2 ACT ceilings, all in fair/ poor condition. The requirement of specific computer instruction rooms should be a detailed point of conversation with any significant building renovation due to continued technology changes and District programs and curricula.
- » Science Labs – Many labs are original to the building and dated. Finishes are 12x12 VCT floors (9x9 asbestos tile in some labs), painted plaster and ceramic tile walls and 2x2 ACT ceilings, all in poor condition. Casework and tables are wood with solid epoxy resin tops. Casework and tables are in poor condition, dated and institutional. Furnishings are non-adjustable and institutional. Labs are traditional configurations that do not provide options for flexibility. Renovated labs exist and are in good condition. These labs provide separate lecture and practice areas, however some of the labs are too small to allow of flexible seating arrangements. Some labs lack adequate storage and countertop areas for long term projects. Fume hoods and other fixed equipment are dated. Lab prep rooms are adequate to small. Casework quantity is adequate and in fair to poor condition. Labs E214, 215, 218 and 219 are undersized for their current use.
- » Family Consumer Science – Finishes are 12 x 12 VCT floors, painted CMU walls and 2 x 2 ACT ceilings, all in fair/ good condition. Casework is wood





with plastic laminate tops. Tables are semi-mobile with plastic laminate tops. Casework and tables are in fair condition, dated and institutional. Appliances are newer. Room design is traditional for family consumer science program.

- » Tech Ed – Tech Ed consists of classrooms and labs/ workshops. Classroom finishes are 12x12 VCT floors, painted CMU walls and 2x2 ACT ceilings, all in fair condition. Classroom casework is wood laminate in fair condition. Lab/ workshop finishes are sealed concrete floors, painted CMU walls and painted ceilings, all in fair/ poor condition. The majority of equipment is becoming dated and in fair/ poor condition. In general, workshops are not meeting the needs of 21st century in terms of function, equipment and flexibility. Rooms appear to adequately sized to accommodate the tech ed program. If desired, the space can be renovated to reflect a more innovative and “maker” aesthetic which is consistent with modern tech ed programs.
- Building Administration
 - » The building contains one main administration office suite. Required administration functions are not co-located. Addition administration space is needed. Finishes consist of carpet floors, 2 x 2 acoustic tile/ gypsum board ceilings, and painted CMU walls. Generally, finishes are dated and in poor condition.

- Cafeteria

- » The finishes in the cafeteria are terrazzo floors, 2 x 2 acoustic tile ceilings and ceramic tile and plaster walls. These finishes are in fair/ poor condition and dated. The terrazzo floor is cracked in a few locations. The cafeteria volume is nice and appropriate for a high school. The cafeteria contains exterior windows that provide ample daylighting and views to the exterior. Generous amounts of interior glazing exists which creates a bright and energized environment, which should be maintained. Interior glazing systems however are in poor condition. Furnishings are functional but institutional. The cafeteria has the infrastructure to be a very compelling space with renovations. A food court is recommended with a variety of seating types and styles.

- Kitchen

- » The kitchen is accessed by a traditional food serving line. The kitchen is full-service. The equipment appears to be in fair condition. Floors, walls and ceilings are all in fair to poor condition. A food court is recommended.

- Gymnasium

- » The gym finishes consist of a wood floor, painted CMU walls, and painted exposed roof deck and structure. The gym is equipped with wall pads, an operable partition, a ceiling mounted net batting cage and 6 operable basketball back stops. All finishes

and equipment appear to be in fair condition. The floor was recently refinished and is in good condition. The operable partitions are functional and in fair condition. The gym has operable molded plastic bleachers in good condition. The decking is delaminating in some areas and needs to be reattached at a minimum. The decking should be further investigated to determine if replacement is needed. The gym has an adequate number of egress doors. One of the egress doors to the exterior does not have weather stripping which should be corrected for energy efficiency. Adjacent locker rooms and lower level weight and team rooms are in poor condition and require significant renovation.

- Library

- » The Library is a traditional design with a focus on print media. Currently, there are two stack areas separated by a recently renovated collaborative learning environment. The library has nice daylighting from 2 sides and ample interior glazing which leads to a bright and inviting environment. The interior glazing system however is in poor condition. One half of the library recently received a minor finishes renovation (paint and carpet). No soft seating area exists to provide a variety of seating / learning areas for collaboration and teaming. The finishes consist of carpet, direct adhered acoustic ceiling tiles and painted CMU/ wood veneer walls. Ceilings are dated and

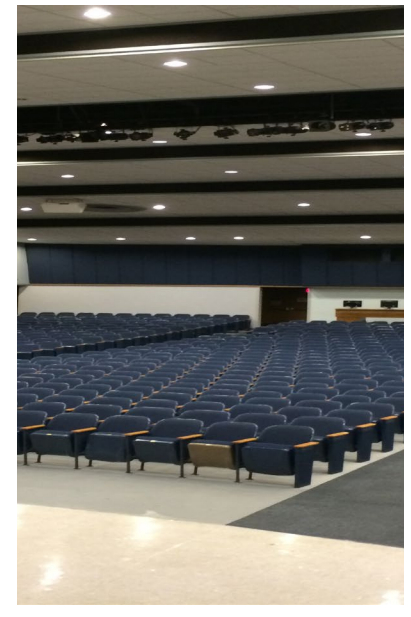
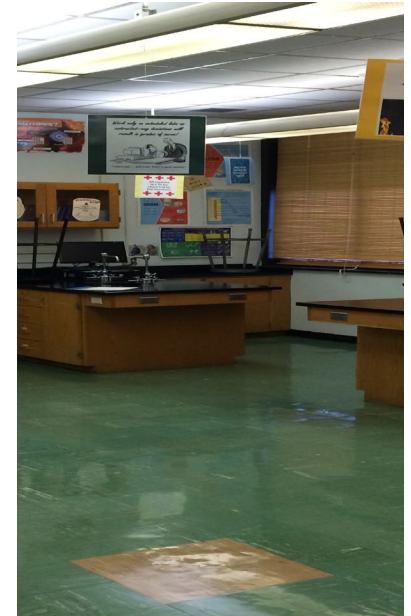
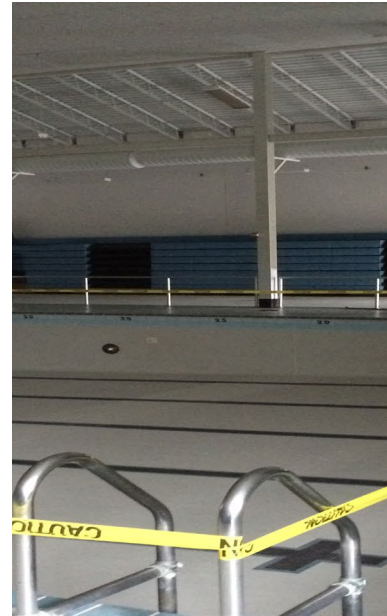
in poor condition. The fundamental layout of the library and access to natural daylight make it a bright space. Recent finishes upgrades provide a more modern environment. However, the space still does not fully meet the needs of a 21st century media center.

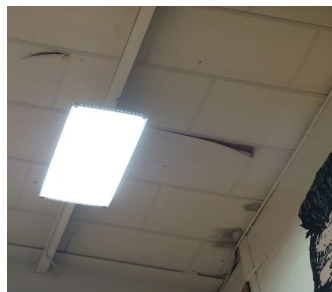
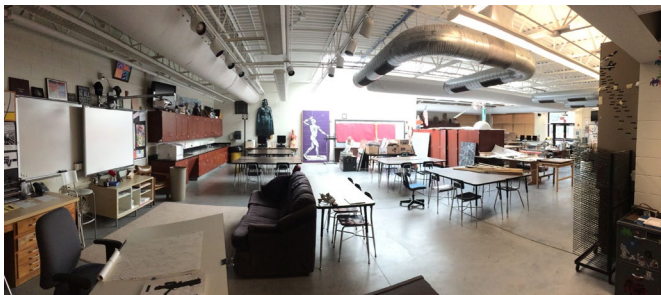
- Auditorium

- » The finishes consist of carpet aisles and painted concrete / VCT floors, exposed brick walls, acoustic wall treatment and 2x2 acoustic tile ceilings. All finishes are in fair condition. The seating is individual folding seating with fabric seats and backs. In general seating is in fair condition. Current seating capacity is 1,100 which is too small to house some of the programs as well as a whole school assembly. The stage has a painted wood floor. Stage rigging appears to be fairly new. Stage curtains and valences are generally in fair condition. The stage does not contain a full fly space which can limit certain productions. Side stage areas are generally adequate/ small. It is recommended the auditorium and stage be fully renovated and possibly expanded to meet the needs of current and future programs. Renovations should address finishes, equipment, seating capacity, lighting, sound, and layout to meet future use.

- Natatorium

- » The natatorium houses a 5 lane, 25 meter pool with diving well. Finishes generally consist of ceramic tile and painted CMU walls, ceramic tile





deck and well, 1x1 acoustic tile direct adhered ceiling. Finishes are in poor condition. The pool deck and well tile has been patched numerous times and patching is becoming more frequent. The pool has increasing instances of leaking. The pool is undersized for a school of this size. Two seating areas are provided via a raised deck in the natatorium and a side seating area with operable bleachers. Hand and guard rails at raised spectator seating is not code compliant. Bleachers are in good condition. In general, pool equipment is serviceable, but dated and should be replaced.

- Planetarium

- » A planetarium is provided on the second floor. Finishes are carpet flooring, painted CMU walls and exposed, painted metal roof deck. Finishes are in fair/ poor condition. The planetarium includes a domed projection screen. In general, finishes and furnishings are dated and aging and should be considered for replacement. If the space is renovated the program should be reviewed for any required state of the art planetarium equipment as well as a more flexible and collaborative space configuration.

4. CODE COMPLIANCE/ ACCESSIBILITY RATING: FAIR

- Door hardware is not accessible.

- Stair guard and handrails are not compliant. The second floor is accessible via an elevator in the 2003 addition.
- Most restrooms are generally ADA compliant but some require revisions. Should the building be renovated, a detailed fixture count analysis should be conducted in concert with the active code at that time.
- The second floor does not have a faculty restroom. Although technically not a code violation, a faculty specific restroom should be provided on each floor and generally in each major area of each floor.
- Classroom doors in the original building do not allow for proper ADA push/ pull clearance on the latch side. Various other instances of inadequate ADA push/ pull clearances exist throughout the building.
- The building construction type is assumed to be Type IIB. The occupancy classification is E – Education.
- Locker rooms do not contain ADA shower stalls.
- Fire stairs in the original building are open to adjacent vestibules. Vestibule walls and ceilings area required to be rated under the current IBC 2009 building code. Current design is not permissible by code and would need to be revised with any Level 2 or higher building renovation.

5. BUILDING SAFETY AND SECURITY RATING: GOOD

- In general, building safety is good. The main entry is a captured entry with a security booth in the entry vestibule. The door between the vestibule and corridor is on electrified magnetic locks. Visitors exiting the entry vestibule have direct access to the school without entering the main administration office, which is not ideal. A building renovation should address the current design.
- Security cameras exist throughout the building

6. EDUCATIONAL RESPONSIVENESS TO MEET 21ST CENTURY LEARNING
RATING: POOR

- The building is currently organized generally in departments. Organic growth over the years has led to some departmental fragmentation (ex. Sciences). This hinders departmental collaboration. Further, specific departments like Tech Ed, Science, and Art are in different areas of the building which further hinders cross discipline collaboration. Classrooms are not designed for collaboration or connection to other adjacent classrooms. The District has expressed a desire to provide collaborative spaces for students and teachers; opportunities for cross discipline collaboration; increased cyber offerings/ blended learning; and a ninth grade academy. Currently the building is not configured to address any of these programmatic requirements. Meeting these requirements will require a significant plan renovation. Classrooms

and furnishings are traditional and institutional which limits flexibility and collaboration. The building is not air conditioned which hinders student focus and learning. Classrooms are equipped with newer model interactive Smart Boards. Expressed needs are faculty collaboration areas, classrooms that support the 4 "C's" (collaboration, creativity, communication, critical thinking) and conversion of library to iHub/ maker space. Tech Ed is an advanced program but not ideally located near the teams or highly visible areas. This is a missed opportunity to show case an advanced 21st century program. Currently, the site is not used as a learning environment which is a missed opportunity.

7. RECOMMENDATIONS

- The building has received minimal renovations since its construction in 1964. As a result the infrastructure/ systems/ finishes are dated and well beyond their useful life. The Intermediate High School is currently configured as a departmental grade 9 and 10 Building. Programs and curricula increasingly require more student to student and teacher to teacher collaboration. Further, programs are requiring more blended / on-line learning. The building layout and infrastructure do not support any of the stated programmatic goals. Finally, a 9th grade academy to support a positive academic and social transition from middle school to high school is desired.





The building will require significant renovations to achieve all of the above.

- In general, the building exterior is in poor physical condition and requires significant renovation. Exterior building renovations should be planned to address the items noted above, specifically masonry restoration, envelop insulation, window replacement, lintel replacement and exterior door replacement in addition to those items outlined on the District's Long Range Capital Improvement Plan. Both roof systems should be monitored for performance moving forward, but are within the warranty period.
- Interior building finishes are in poor condition; being worn, dated and institutional. Any interior renovations should address needed programs and their requirements while providing a more inspiring interior learning environment that is less institutional, including more compelling finishes, colors, interior glazing and access to exterior views and daylight. A full furnishings and equipment replacement is recommended. Many learning support spaces are too small and adequate sized rooms need to be provided. Four science labs are too small and additional space is required to meet the current programmatic needs.
- The school administration has expressed the desire to work toward the following aspirational goals to further enhance program offerings, collaboration and student's learning experience.
 - Aspirational goals
 - » Generally, the size of special education and learning support rooms are too small and need to be increased in size. This is particularly true for life skills.
 - » Provide informal student collaboration spaces throughout the building that are open to the corridor and readily accessible to adjacent classrooms.
 - » Provide faculty specific collaboration/ team rooms.
 - » Combine the current IHS and SHS visual arts programs in the current IHS art suite. This will require renovations and additions.
 - » Combine the current IHS and SHS performing arts programs in the current IHS music suite. This will require renovations and additions.
 - » Construct a new 8 lane 25M pool/ natatorium and renovate the existing natatorium into a full court practice gym.
 - » Combine Tech Ed in the current SHS Tech Ed suite. This will require renovations to the SHS.
 - » Provide a specific 9th grade academy within the building.
 - » Provide a 1,600 seat auditorium to accommodate larger productions and whole school assemblies.
 - » If not provided at the SHS, provide one additional cooking lab at the IHS.

MECHANICAL



1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at Seneca Valley Intermediate High School, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems
 - » Central heating plant equipment
 - » Central chilled water plant
 - » Hot water/chilled water pumps and distribution piping
 - » Air distribution systems
 - » Building temperature controls

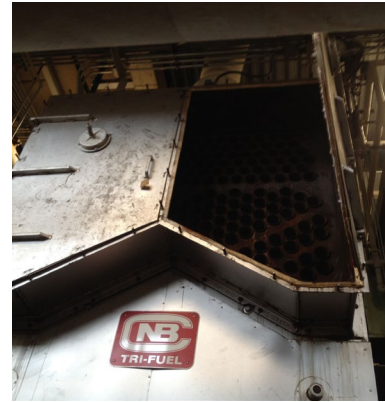
3. CENTRAL HEATING PLANT

- a. The building is served by the Tri-fuel gas fired steam boilers that are installed at the Intermediate HS, steam is converted to hot water and pumped to the high school mechanical room. We recommend replacing the boilers with new high efficiency boilers to serve only the Intermediate high school. Efficiency can be gained by providing a separate heating system for the senior high school with high efficiency boilers. The district can also save costs from special inspections by the EPA if the boilers are downsized by separating the two buildings. Part of the building is still provided with steam and part of the building is provided with hot water for heating, decreased maintenance

cost and efficiency can be gained by converting the system to hot water. Combustion air for the boilers is brought in through louvers in the outside wall, the louvers and controls appear to be in poor condition.

4. CENTRAL CHILLED WATER PLANT

- The building is served by a 200 ton air cooled chiller mounted on the roof and installed in 1996, this unit appears to be in fair condition.



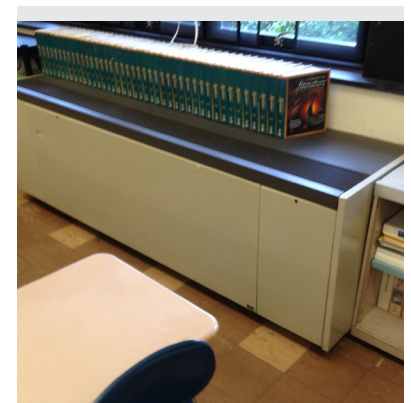
5. HOT WATER/CHILLED WATER PUMPS AND DISTRIBUTION PIPING

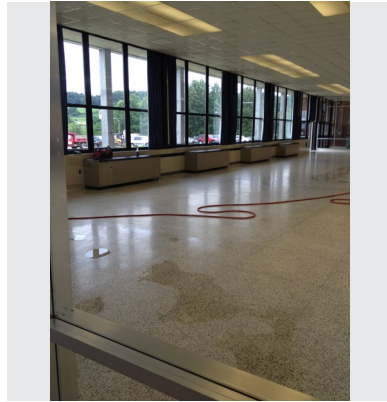
- The hot water/chilled water pumps and distribution piping were installed in 1996 and appear to be in poor condition. The hot water/chilled water distribution piping within the boiler room appears to be in poor condition. The system is a two pipe change over system. The steam to hot water convertors currently allow chilled water to run through the convertor tubes causing sweating and corrosion of the convertors.



6. AIR DISTRIBUTION SYSTEMS

- Classrooms
 - » The rooms are heated, cooled and ventilated by floor mounted unit ventilators along the perimeter wall. This equipment appears to be in fair condition.
- Corridors
 - » Hot water cabinet unit heaters and convectors provide heat; these units appear to be in poor condition.





- Toilet Rooms
 - » Semi-recessed convectors provide heat in the toilet rooms, the panels appear to be in fair condition.

- Cafeteria
 - » Floor mounted unit ventilators with hot water heating coil for heating, chilled water coil for cooling, and ventilating the Cafeteria. These units appear to be in poor condition.

- Gymnasium
 - » Four Horizontal heating and ventilating air handling units (no air conditioning) located below the roof hanging in the Gym and appear to be in poor condition. The air handlers and the ductwork air distribution system appears to be in poor condition. The Gym gets too warm during events and in the swing seasons of the year.

- Natatorium
 - » The space temperature and dehumidification is maintained by two pool dehumidification units, these units were installed in 1996 and appear to be in fair condition.

- Administration
 - » This area is served by a roof top horizontal air handling unit with a gas fired heating section and a dx coil for cooling. This equipment appears to be in poor condition.

- Library
 - » One roof top horizontal gas fired heating, dx cooling, and ventilating

air handling unit serves the space. The unit appears to be in poor condition.

- Auditorium
 - » One roof top horizontal gas fired heating, dx cooling, and ventilating air handling unit serves the space. The unit appears to be in poor condition.
- Kitchen
 - » The kitchen is served by two gas fired combination make-up air and exhaust air fans on the roof. These units were recently replaced and are in fair condition. Exhaust fans appear to be in poor condition. The space is heated by horizontal directed cabinet heaters. These units appear to be fair condition.

- Locker Rooms
 - » The rooms are heated and ventilated by ceiling mounted cabinet heaters these units appear to be in fair condition.

- Shops
 - » Ceiling mounted unit ventilators provide heat, cooling, and ventilation to the shops, these units appear to be in poor condition. A dust collection system is provided for the wood shop and appears to be in fair condition.

- Science rooms/Home Economics
 - » Two horizontal roof top air handling units provide ventilation and heating to these spaces. These units appear to be in poor condition.

7. BUILDING TEMPERATURE CONTROLS

- The main control panel is an electronic control panel by Johnson Controls. The







building is controlled by a pneumatic control system which is in poor condition.

PLUMBING

1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems at Intermediate High School, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems:
 - » Domestic water heating equipment
 - » Domestic water service
 - » Natural Gas Service
 - » Piping systems
 - » Plumbing Fixtures
 - » Kitchen Equipment
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- The building is currently having two new gas fired high efficiency water heaters installed. Two existing hot water storage tanks were installed in 2001 and appear to be in fair condition. The kitchen hot water is provided by a separate gas fired water heater.

4. DOMESTIC WATER SERVICE

- The building is provided with a domestic water pressure booster system. This system appears to be in good condition.

5. NATURAL GAS SERVICE

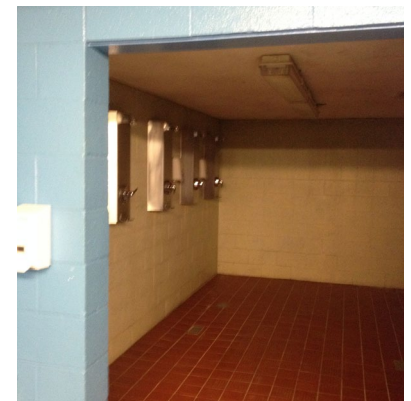
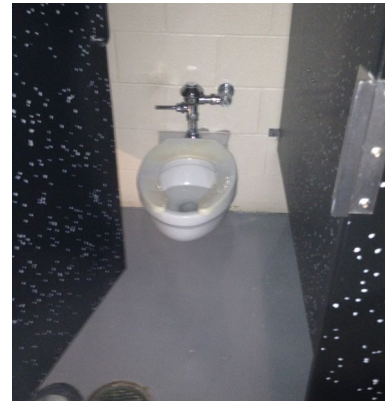
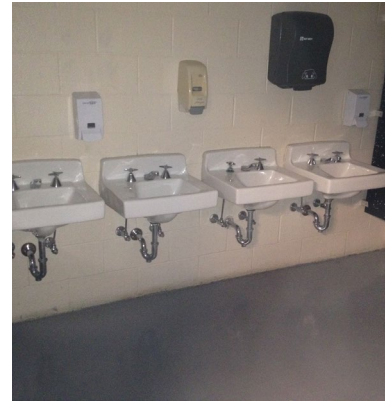
- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.

6. PIPING SYSTEMS

- The building piping systems are original. Domestic water system consists of copper piping. Sanitary and storm are cast iron. Natural gas is black steel pipe. The existing valves are in poor condition and do not shut off when the valves are in the closed position, this happens throughout the facility.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted and some floor mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush valve type. Lavatories are wall hung vitreous china. Electric water coolers are wall hung double units. There are some ADA plumbing fixtures. Stainless steel sinks are provided in the classrooms and workrooms. Service sinks are provided. Locker rooms are provided with gang showers with drains that do not meet current code requirements..





8. KITCHEN EQUIPMENT

- The kitchen equipment is not in the scope of the plumbing, however, the associated grease trap, water distribution, sanitary and vent systems and natural gas supply are. The grease trap is located inside the building and should be replaced.

9. FIRE PROTECTION

- There are parts of the building that have an automatic sprinkler system.
- The building should be provided with a complete sprinkler fire protection system to meet current fire protection and building codes.

ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT

- Electrical Service
 - » Cutler Hammer (Eaton) 3000 ampere, 277/480 volt, 3 phase, 4 wire fusible switch switchboard.
- Distribution Equipment
 - » Dry type 480V to 120/208 volt, 3 phase, 4 wire transformers and Cutler Hammer (Eaton) fusible switch and circuit breaker panels for receptacle and general power branch circuits.
- Switchboard, panels and electrical distribution feeders and branch circuits replaced as a part of a building 1999 renovation and addition project.

2. EMERGENCY POWER SYSTEM EQUIPMENT

- Generator
 - » Kohler 150 kW/187 kVA, 277/480 volt, 3 phase, 4 wire diesel fueled interior generator unit with sub-base fuel tank.
- Automatic Transfer Switch
 - » 225 ampere, 3 phase Kohler transfer switch.
- Emergency Power Distribution
 - » Normal/Emergency and Emergency only circuit breaker panels.
- Emergency Egress Lighting
 - » Emergency egress lighting provided in corridors, stairways, gymnasium, cafeteria, exits and all code required locations.

3. LIGHTING SYSTEMS

- Corridors and Stairways
 - » Recessed fluorescent fixtures with acrylic lens.
- Classrooms, Media Center and Cafeteria
 - » Fluorescent pendant mounted fixtures with acrylic lens
- Computer Room
 - » Pendant mounted indirect fluorescent fixtures.
- Administrative Offices and Spaces
 - » Fluorescent fixtures with parabolic louvers.
- Gymnasium
 - » T5 fluorescent pendant fixtures
- Gymnasium Stage Performance Lighting
 - » Dimmable incandescent fixtures

- Exterior Security Lighting
 - » Wall mounted LED fixtures on time clock or photocell controlled circuit.
- Exterior Parking Area Lighting
 - » Pole mounted LED fixtures on time clock or photocell controlled circuit.
- Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.
- Lighting Controls
 - » Occupancy sensors in classrooms and selected rooms.
 - » Lighting control system for low voltage switching and programmed time schedule control of lighting systems.

4. FIRE ALARM SYSTEM

- Fire Alarm Panels
 - » Simplex 4100 Addressable main fire alarm control panel and system alarm annunciator panel at main entrance.
- Alarm Initiating Devices
 - » Manual pull station mounted at 40" at all code required building exits
 - » Automatic smoke detectors in corridors, cafeteria, kitchen and storage rooms.
 - » Automatic heat detectors in mechanical rooms.
 - » Duct smoke detectors in large HVAC air handlers for unit shut-down.
- Alarm Signal Devices
 - » Audible and visual horns in corridors, rest rooms cafeteria, dining, kitchen,

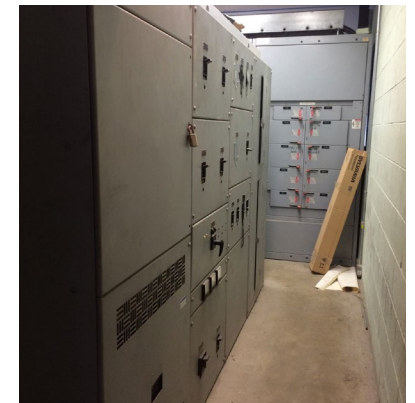
music, administrative and gymnasium spaces.

- » Audible/visual alarm horns in all classrooms.

- Fire alarm system as indicated on available drawings appears to meet current code requirements.

5. SECURITY SYSTEMS

- Building Entrance
 - » Audio/video/intercom system for supervised building access.
- Access Control
 - » Software House access control system with card readers at selected building entrances.
 - » Access control systems installed in all district buildings in 2013.
- Intrusion Detection
 - » Motion detectors in corridors with keypad arming.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance at main entries, corridors, stairway, administrative offices and other selected areas of security concerns.
 - » CCTV security systems have been installed in all district buildings between 2013 and 2015. Systems utilize IP based cameras with centralized storage of video over the school district data network at the high school data center.





6. PUBLIC ADDRESS AND MASTER CLOCK SYSTEMS

- Paging System
 - » Bogen paging amplifiers with speakers in all classroom, educational spaces and miscellaneous selected spaces.
- Gymnasium Sound Reinforcement System
 - » Amplifiers and wall mounted full range speakers with manual mixer control for wireless microphones. System also equipped with an assistive listening system for the hearing impaired.
- Clock System
 - » Master clock system with analog clocks in all classroom, educational spaces and selected spaces.

7. TECHNOLOGY SYSTEM

- Data Network Infrastructure
 - » School provided with a Siemens Category 5e horizontal and 62.5 multimode fiber optic backbone data cabling infrastructure installed in 1991. Infrastructure consists of rack or wall cabinet mounted networking equipment and horizontal cabling patch panels as required for data networking connections required in administrative and educational building rooms.
- CATV RF Broadband Coaxial Cabling System
 - » Television programming system distributes selected cable utility company programming channels and

school district channels with recorded or live broadcast programming.

- » RF broadband amplifiers, channel modulators and signal splitters to provide programming over coaxial cabling drops to television outlets in all required rooms.
- Telephone System
 - » IP telephone system installed throughout the school district in 2013.
- Typical Classrooms
 - » Classrooms provided with instructor and multiple student station data networking connections.
 - » Network supported IP telephone provided for instructor.
 - » Video projectors with cabling to instructor's desk provided for instructional presentations.
 - » Wall mounted television for viewing of CATV system programming channels.
 - » School paging system speaker.
 - » Analog wall clock on master clock system.

8. BUILDING SYSTEMS RATINGS AND CODE COMPLIANCE

- Building Systems Rating
 - » Electrical lighting, power distribution and, normal/ emergency power systems replaced as a part of a 1993 renovation and building addition project and are in good condition.
 - » Electronic electrical and technology systems which were installed in the 1990's are in fair condition.

- Code Compliance
 - » None.
- Recommendations
 - » Electrical lighting, power distribution and, normal/ emergency power systems should be evaluated for cost effective or necessary upgrades if renovations of this facility are proposed.
 - » Lighting system energy saving upgrades to LED lighting fixtures or installation of occupancy sensor controls should continually be evaluated and considered.
 - » Since the last renovations of electronic electrical and technology system in this building occurred in the 1990's, any proposed renovations of the facility should include upgrades of the security, paging, clock, data network and CATV systems.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

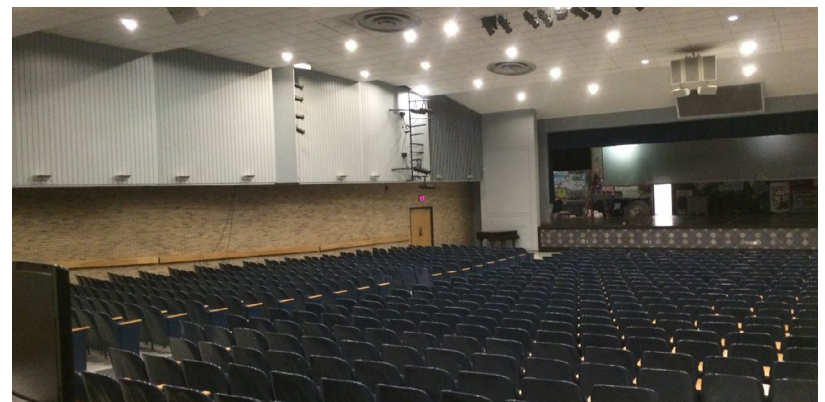
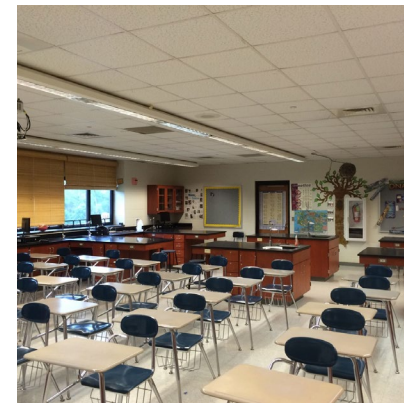
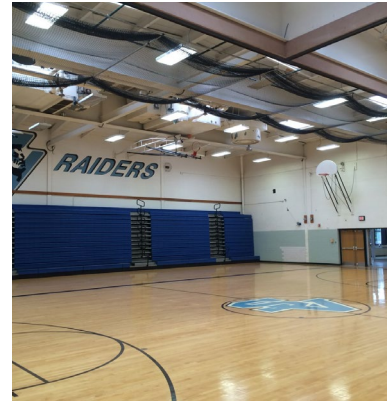
1. SECURITY SYSTEMS

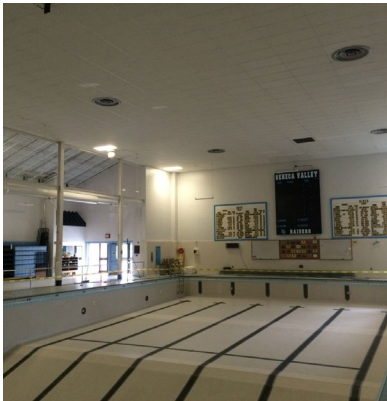
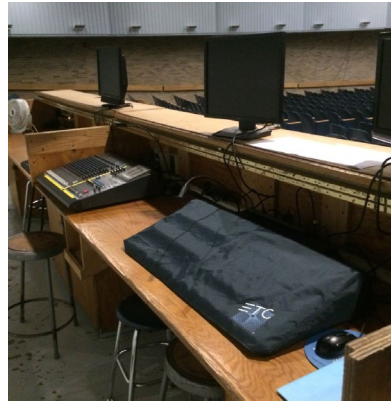
- Building Entrance
 - » Audio/video/intercom system for supervised access at the elementary and middle school entrances.
 - » Raptor driver's license security screening system is used to identify unwanted visitors.

- Intrusion Detection
 - » Motion detectors in the building corridors, computer rooms and administrative offices provide intrusion detection.
 - » Intrusion detection system is armed at keypads provided at selected building entrances.
- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to all the school district buildings.
 - » Proximity type card readers control access to selected building entrances and areas within the building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in main entries, corridors, stairways, administrative offices and other selected areas as required.
 - » CCTV security system consists of analog cameras with converters for use with IP Video Insight System networked video viewing and storage equipment.

2. PUBLIC ADDRESS AND CLOCK SYSTEMS

- Paging System
 - » Class Connection school paging system with speakers and call-in switches in all classroom, educational spaces and miscellaneous selected spaces.





- Clock System

- » Sapling master clock system with digital clocks in all classroom, corridors, educational spaces and assembly spaces in the building additions and renovated areas. Analog type clocks remain in the original partially renovated areas of the building

3. SOUND REINFORCEMENT SYSTEMS

- Auditorium, Cafeteria and Gymnasium

- » Local sound reinforcement systems for stage performances with amplifiers as required for distributed or suspended full range speakers required to cover room seating areas.
- » Microphone outlets provided at stage and selected locations in room for access to system.

4. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure

- » School provided with Category 3 horizontal copper cabling to telephone outlets and Category 5 type cabling to data network outlets. Multimode 62.5 fiber optic backbone network cabling provided for network connections between telecommunication equipment cabinets and rooms. The Category 3 and 5 cabling was installed with the 1996 building renovations and has been supplemented with new Category 6 cabling each year to support required additional network outlets or wireless access nodes

throughout the building. Wireless access points have been installed throughout building in corridors and in selected classrooms or spaces. Telecommunications equipment rooms consists of free-standing equipment racks or wall mounted cabinets with networking equipment and horizontal cabling patch panels as required.

- CATV RF Broadband Coaxial Cabling System

- » A broadband building CATV cabling system with sub-channel return consisting of coaxial cabling, signal amplifiers, splitters, modulators and multi-taps to distribute programming channels to outlets in all classrooms, instructional education rooms, assembly spaces, offices and other selected areas as required. Programming can be originated at any system outlet in the building over the cabling system sub-channel return equipment.
- » Selected digital CATV utility channels are converted to modulated analog channels and distributed over the cabling system to room outlets on standard CATV channels up to 30.
- » The school programming channel originating in this school and the programming channels originating in each of the other district schools are encoded and transmitted over the district fiber optic data network. The digital school channels are converted locally at each school to

analog signals and distributed over the coaxial cabling system to room outlets on standard CATV channels above channel 30.

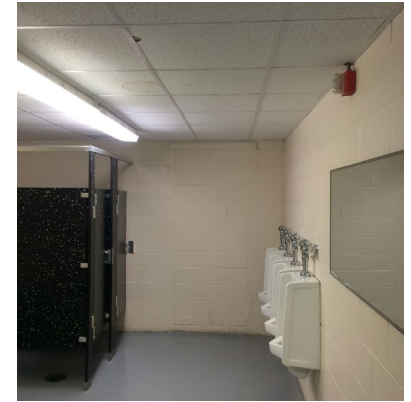
- Telephone System

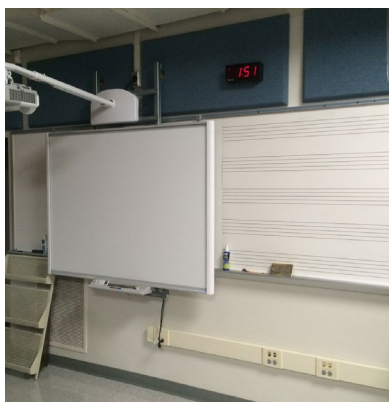
- » Cisco IP telephone system and telephones installed throughout this building and the school district.

- Typical Classrooms

- » Classrooms provided with instructor and three (3) student stations with data networking wired outlet connections or access to wireless network connections.
 - » Wall mounted video display, video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to connections at the instructor's desk. Instructional programming from the instructor's computer can be routed through a VGA video matrix switch to the wall mounted video display or the video projector. The interactive white board is connected through the USB cabling connection.
 - » School paging/intercom system speaker in ceiling for announcements and a local call-in switch to initiate a call to the administrative offices.
 - » Digital or Analog wall clock on master clock system.
 - » Ceiling mounted wireless network point in selected classrooms.
- Computer Labs
- » Mobile wireless cart laptop computer labs are available for use in addition to

the fixed classroom student computer workstations.

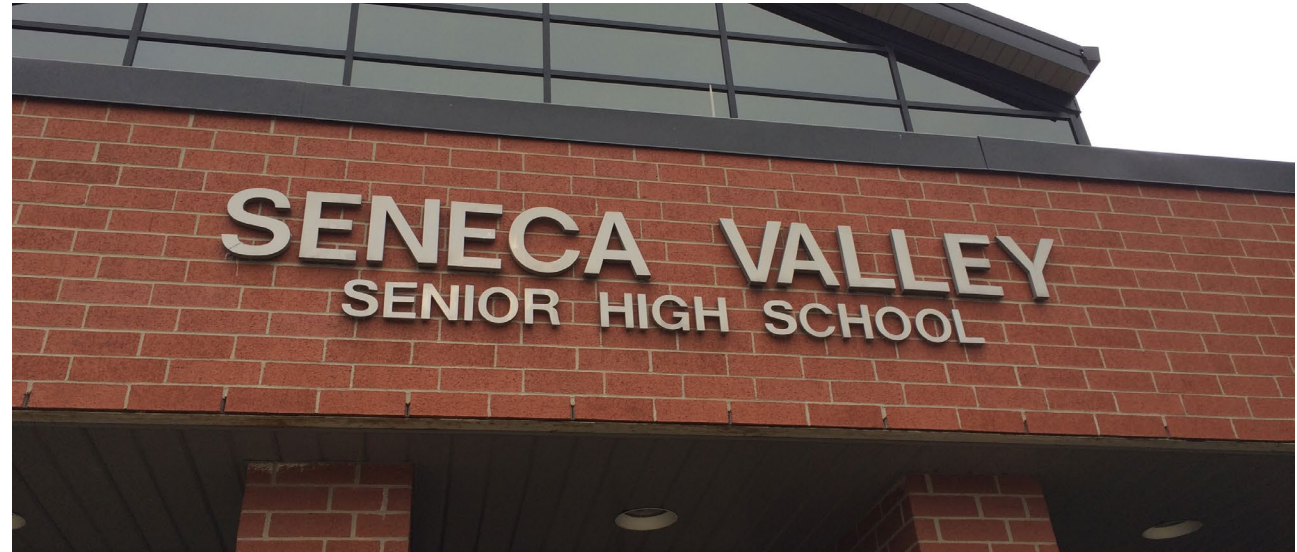




Senior High School

Fast Facts

Constructed — 1994
Renovations / Additions — 2002, 2007
Acreage — 18.13 acres
Gross Square Feet — 138,318 gsf
Capacity (85%) — 1368*
Current Enrollment — 1,173
Utilization — 73%
Area per Student — 154 sf
Projected Enrollment — 1,298



KEY BUILDING CONDITIONS

* Based upon ideal class sizes

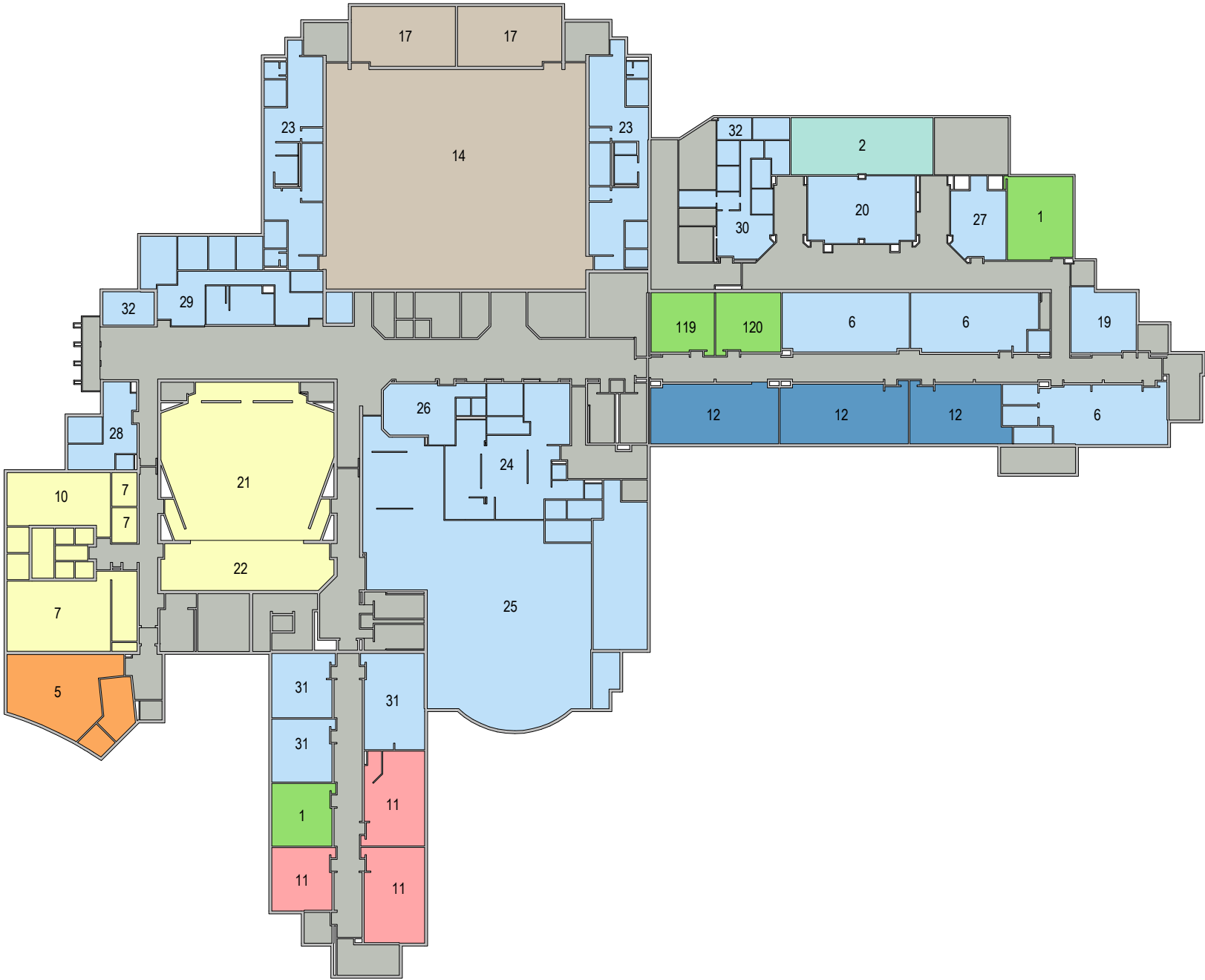


170 Capacity Calculations Senior High School

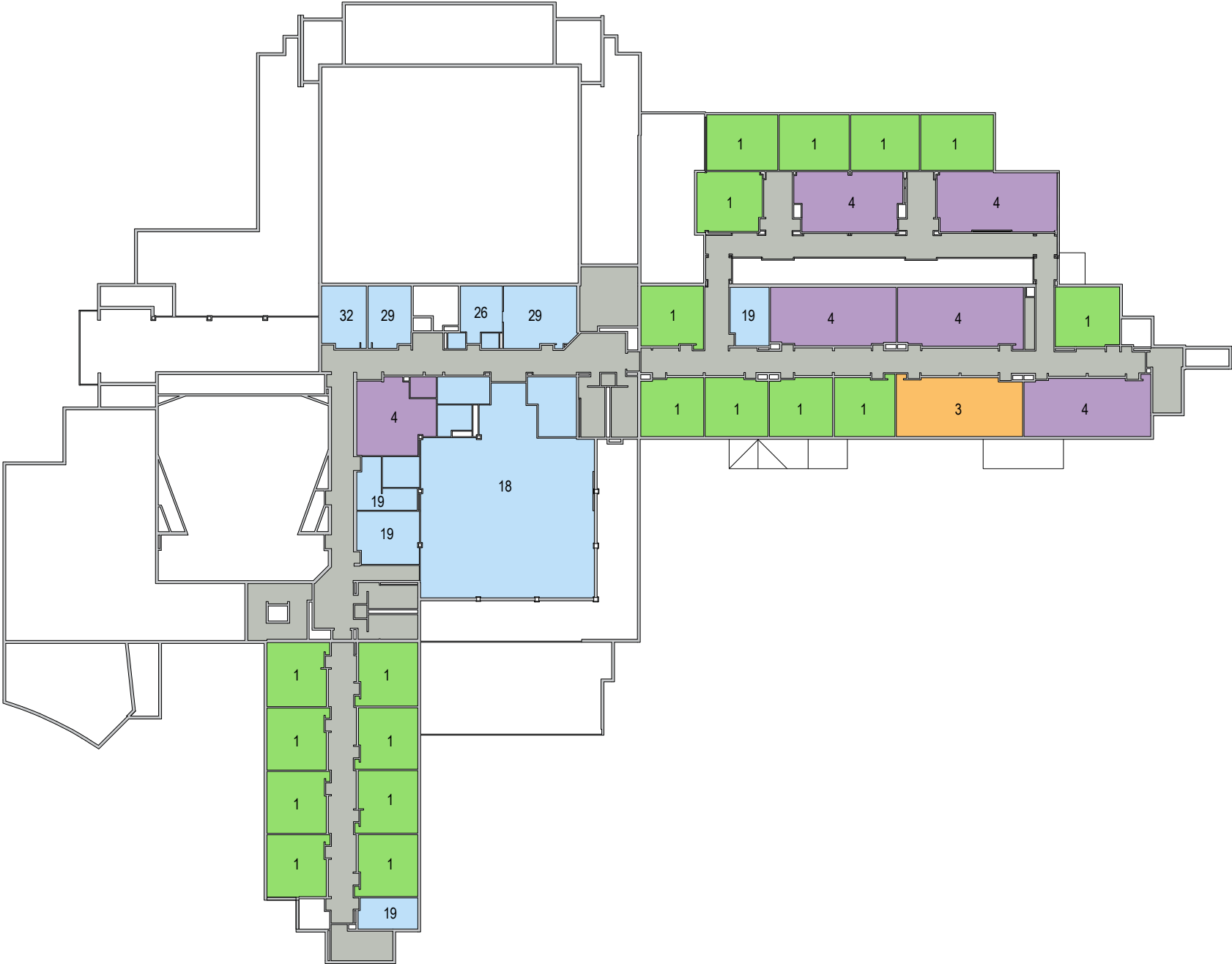
Senior High School			PDE	
	ID Color	Classrooms	Capacity	Total
Classrooms	1	36	25	900
Science CR	2	0	25	0
Science Labs	2	9	20	180
Business Lab	3	0	25	0
Computer Lab	4	1	20	20
TV Lab	5	6	20	120
Art	6	2	20	40
Band	7	3	20	60
Dance space	8	1	25	25
Orchestra	9	0	25	0
Choral	10	1	25	25
FCS	11	2	20	40
Tech Ed	12	5	20	100
Driver's ed	13	0	20	0
Gym	14	1	66	66
Natatorium	15	0	31	0
Aux Gym	16	1	33	33
Fitness	17	2		0
Total		70		1609

Other Spaces	ID Color/ #	Quantity	Space	ID Color/ #	Quantity
Library	18	1	Faculty Dining	26	3
SGI/ LS/ ESL/ Gifted	19	5	Faculty Planning	27	2
LGI	20	1	Nurse	28	1
Auditorium	21	1	Admin	29	1
Stage	22	1	Guidance	30	1
Locker room	23	2	Special Education	31	7
Kitchen	24	1	Conference	32	3
Cafeteria	25	1			

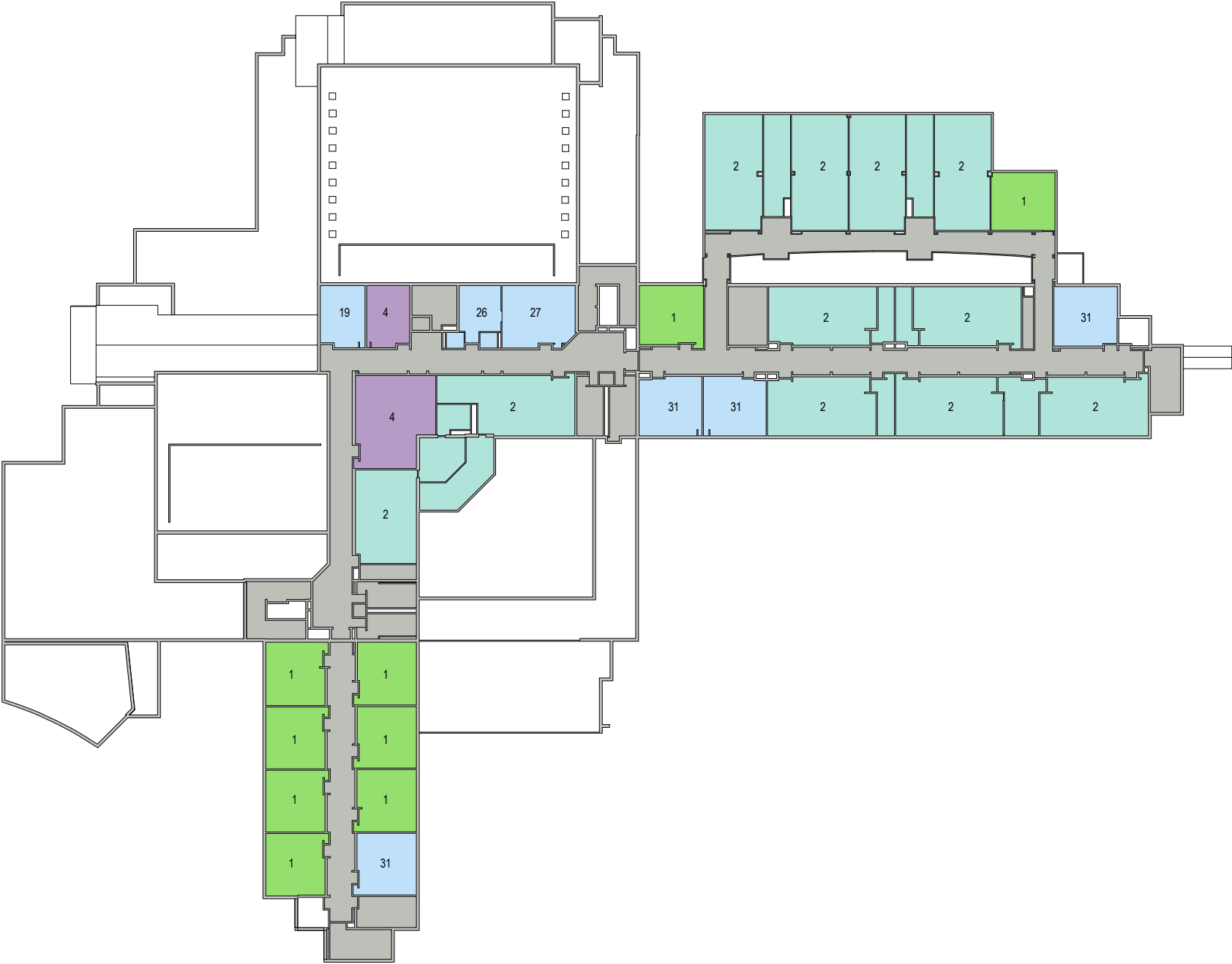
First Floor Plan Senior High School



172 Second Floor Plan Senior High School



Third Floor Plan Senior High School



ARCHITECTURAL

1. EXTERIOR: RATING: GOOD

- The building was initially constructed in 1994 with additions and renovations in 2002 and 2007. The exterior façade is comprised of jumbo brick and aluminum storefront and curtainwall, with cast stone sill accents at punched openings. The existing masonry walls are in good condition. Cast stone sills are stained and can be cleaned. Staining is not affecting performance. There are minor instances of chipped brick near grade likely caused by maintenance equipment. Some exterior steel lintels are rusting and should be repainted. Copings and/ or flashings above lintels should be inspected for performance. The 2007 classroom addition shows minor signs of masonry efflorescence which may be an indication of leaking copings; copings should be inspected for water tightness. A minimal level of exterior renovation should be anticipated in the near future.
- Exterior windows/ curtain wall systems generally perform well and are in good condition.
- Some exterior doors and frames are rusting and should be replaced. In general, exterior doors and frames are in fair to good condition.
- In general, the exterior soffits were in fair to good condition.

- Exterior caulking is in fair/ good condition. Caulking should be replaced as needed on an on-going basis.
 - The building is insulated resulting in an energy efficient building skin.
- ### 2. ROOF RATING: GOOD
- The roof system is a combination TPO roof installed in 2007 (classroom addition), a single ply Duro-Last roof installed in 2013, and limited standing seam metal roofing, installed in 1994. The TPO roof has a 10 year warranty. The Duro-Last roof has a 15 year warranty. The TPO roof is nearing its warranty and should be monitored for replacement as the warranty expiration date approaches. The Duro-Last roof should be serviceable for the foreseeable future. The standing seam metal roof appears to be in good condition with no reported leaks. A Kalwall roof is located at the 2007 addition. No leaks have been reported at this roof. Destructive testing on the roof membrane and insulation was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate. Copings and flashings are painted aluminum in fair to good condition depending on location. Some dents in copings were observed at the rear and side of the building. Gutters and downspouts at main entry metal roof show signs of leaking which should be addressed.





3. INTERIORS RATING: FAIR

- Corridors

Corridors are double-loaded approximately 10'-0" wide. Floors and bases vary between poured terrazzo, sheet vinyl (2007 addition), and 12"x12" fritz tile. Terrazzo is in good condition, fritz tile is in fair/ poor condition and sheet vinyl is in fair/ poor condition. The District has indicated the sheet vinyl poses continued performance issues. Walk-off mats in vestibules are generally in fair to poor condition and should be considered for replacement in the near future

- » Ceilings are 2x4 acoustic tile (ACT). The tiles are aging, sagging, stained and in fair/ poor condition. Tile design and condition contributes to an institutional environment. Tiles should be considered for replacement in the near future.
- » Walls vary between exposed jumbo brick with plaster bulkheads and painted gypsum board with ceramic tile wainscot (2007 addition). Ceramic tile and brick are in good condition.
- » Doors and frames are painted hollow metal in good condition. Door hardware is ADA compliant.
- » Original building lockers are in fair/ good condition. New addition lockers are in good condition.

- » In general, signage and wayfinding is poor.

- Stairs

Stair finishes consist of rubber or fritz tile landings, risers and treads, painted stringers and painted CMU walls. Landing and tread finishes are in poor condition. Hand/ guardrails are anodized aluminum and are code compliant.

- Toilet Rooms

Toilet room finishes consist of terrazzo floors and base, painted CMU walls, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Fixtures are in fair condition. Finishes are in fair condition. Restrooms can be renovated as part of a scheduled larger building renovation.

- Instruction Spaces

- » Classrooms - Typical classrooms are approximately 800 square feet. Original building classroom finishes generally consist of 12"x12" VCT floors, painted CMU walls, and 2x4 acoustical ceiling tile (ACT). Flooring and walls are generally in fair condition. VCT flooring has been replaced in some spaces and continues to be scheduled for replacement in the near future. Ceiling tiles are becoming dated and are sagging which contributes to an institutional feel. Furnishings are uniform and institutional. Furnishings should be evaluated with student comfort, ergonomics and flexibility



and should be replaced with furnishing systems that support 21st century teaching. Each classroom is equipped with a smart board and chalkboard. Chalkboard use should be evaluated with indoor air quality. Classrooms are WiFi enabled. The building casework is wood in fair/ good condition.

- » Art – Ceilings are 2x4 acoustic tile in fair condition. Flooring in painting/ drawing/ sculpting rooms is sealed concrete in fair/ poor condition. Floors should be scheduled for refinish/ recoating in the near future. Floor drains are clogged and should be cleared. Flooring in graphic arts is new VCT in excellent condition. Painting/ drawing/ sculpting Art rooms and storage are slightly undersized for their intended use. The kiln room should be provided with better ventilation to adequately dissipate heat. Walls are painted CMU in fair condition. The art rooms should have more interior glazing at the corridor so the program is more visually accessible to the school.
- » Music/ Band/ Chorus –The band/ chorus finishes consist carpet floors with carpeted risers, painted CMU walls, fabric wrapped acoustic wall panels and 2x4 acoustic tile ceilings. Wall finishes are in fair condition. Floors and ceilings are in fair/ poor condition and should be scheduled for replacement in the near future. These spaces are very small and ceiling heights are low for music/ chorus. Six

additional small practice rooms are desired.

- » Computer Labs –Finishes are carpet floors, painted CMU walls and 2x4 acoustic tile ceilings, all in fair/ poor condition. Similar to classrooms furnishings are uniform and institutional. Tables are in fair to poor condition. The requirement of specific computer instruction rooms should be a detailed point of conversation with any significant building renovation due to continued technology changes and District programs and curricula.
- » Science Labs – Science labs consist of those constructed in the original 1994 building and the 2007 addition. Finishes in the 1994 building are new 12x12 VCT floors, painted CMU walls and 2x4 ACT ceilings. Replaced floors are in excellent condition. Ceilings are in fair/ poor condition. Casework and tables are wood with solid epoxy resin tops. Casework and tables are in fair condition, but dated and institutional. Furnishings are non-adjustable and institutional. Labs are configured for benches and desks. Lab equipment appears to be generally serviceable but dated and in fair condition. The second floor biology labs (311 and 313) have poor exterior views to rooftop mounted HVAC equipment. Finishes in the 2007 addition are new sheet vinyl floors, painted gypsum board walls and exposed/painted ceilings. Finishes are all in good condition. Casework and tables are wood with solid epoxy resin tops all in good condition.





Furnishings are non-adjustable and institutional. Labs are configured for benches and desks. Casework quantity is adequate and in good condition.

- » Family Consumer Science – Finishes are 12x12 VCT floors, painted CMU walls and 2x4 ACT ceilings, all in fair condition. Casework is wood with plastic laminate tops. Tables are semi-mobile with plastic laminate tops. Casework is in poor condition and tables are in fair condition, dated and institutional. Appliances are in fair condition. Room design is traditional for a family consumer science program. The room design, finishes, layout and function should be reviewed with planned program. The current layout is consistent with older, more traditional FCS programs that do not integrate science. Further, layouts are more consistent with past residential kitchen layouts.
- » Tech Ed – Tech Ed consists of labs/ workshops. Finishes are wood block floors, painted CMU walls and 2x4 ACT ceilings, all in poor condition. Classroom casework is wood in poor condition. The majority of equipment is dated and in fair condition. An adjacent storage room provides ample storage but requires additional fire protection. In general, workshops do not meet the needs of 21st century in terms of function, equipment and flexibility. Rooms appear to be slightly undersized to accommodate the tech ed program. If desired, the space can be renovated to reflect a

more innovative and “maker” aesthetic which is consistent with modern tech ed programs.

- Building Administration

- » The building contains one main administration office suite. Required administration functions are generally located in the admin suite. Finishes consist of carpet floors, 2 x 2 acoustic tile/ gypsum board ceilings, and painted CMU/ gypsum board walls. Generally, finishes are becoming worn and in fair/ poor condition.

- Cafeteria

- » The finishes in the cafeteria are terrazzo floors, 2 x 4 acoustic tile and gypsum board bulkhead ceilings and exposed jumbo brick walls. Finishes are in fair/ good condition. The cafeteria volume/ ceiling height is low for a high school cafeteria of this size. The cafeteria contains exterior windows that provide daylighting and views to the exterior. Interior glazing systems are minimal and the cafeteria is visually isolated from the surrounding public corridors. Furnishings are functional but institutional. A food court is recommended with a variety of seating types and styles.

- Kitchen

- » The kitchen is accessed by a traditional food serving line. The kitchen is full-service. The equipment appears to be in fair condition. Floors, walls and ceilings are all in fair condition. A food court is recommended.



- Gymnasium

- » The gym finishes consist of a wood floor, painted CMU walls, and painted exposed roof deck and structure. The roof deck is non-acoustic which provides for a very loud space. Additional sound attenuation is recommended. The gym is equipped with wall pads, operable ceiling mounted curtain dividers, 6 operable basketball back stops and a climbing wall. All finishes and equipment appear to be in fair/ good condition. The floor was recently refinished and is in good condition. The gym has operable molded plastic bleachers in good condition. The gym has an adequate number of egress doors. Adjacent locker rooms are in fair condition. Gym storage is limited. The gym is not air conditioned. Adjacent to the gym are separate cardio and weight rooms. Finishes are painted CMU walls, 2x4 ceilings and rubber flooring in the weight room and carpet in the cardio room. Finishes are generally in fair condition. Flooring in the cardio room should be revised to rubber or similar to address sanitary concerns. Exterior glazing can be extended to floor level to provide for better daylighting and views.

- Library (iHub)

- » The Library is a traditional design with a focus on print media. Currently, the library is supported by a librarian's office and two conference rooms. Adjacent to the library are gifted

support and the cyber learning lab. The finishes consist of carpet, 2x4 acoustic ceiling tiles and painted gypsum board walls. Ceilings and carpet are dated and in poor condition. The library has clerestory windows but daylighting and views are minimal. Further, the ceiling height is low for the size of space. Finally, minimal interior glazing exists between the library and corridor which disconnects the space from the remainder of the school. Furnishings are generally uniform tables and chairs with some soft seating. A variety of seating / learning areas and areas for collaboration and teaming are limited. The library should be renovated to allow for updated finishes and furnishings, ample daylighting, views, connection to the school and generally meet the needs and program for a 21st century media center.

- Auditorium

- » The auditorium seats approximately 500 which is undersized for the high school. Finishes consist of carpet aisles, exposed concrete rows, exposed brick walls, acoustic wall treatment and acoustic tile ceilings. Most finishes are in fair condition. Carpet and ceiling tile should be replaced and concrete should be resealed in the near future. The seating is individual folding seating with fabric seats and backs. In general seating is in fair condition; some minor seating repairs are needed. The stage has a sealed wood floor which is in good condition. Stage





rigging appears to be serviceable. Stage curtains and valences are generally in fair/ good condition. The stage does not contain a full fly space which can limit certain productions. Side stage areas are generally adequate but small. A mezzanine control room is located at the rear of the auditorium. The control room is open to the main auditorium. Ceiling tile in the control room are stained and sagging and should be replaced. Given the size of the auditorium, its use outside of performances should be further evaluated to increase its utilization.

- SVTV Production Studio

- » The production studio is a large open format space containing filming equipment and news desk with a green screen backdrop. The space also includes a small area with computers for video editing. Adjacent to the space is a control room and office. An associated TV/ Media lab is located on the second floor of the high school, which is not a desired location. In general, the production studio is well equipped however the studio should be isolated from any computer areas for privacy. Currently, these activities cannot happen jointly because they are open to one another. Finishes consist of a painted, open grid ceiling, painted concrete floors and painted CMU walls. In general, finishes are in good condition, with the exception of the floor which should be repainted in the near future. Filming equipment

and support structures appear to be in good condition. In general, the space appears to function well for the intended use, but support spaces should be co-located with the production studio for better integration.

- LGI

- » Two LGI's exist on the first floor new classroom wing addition. One of the LGI spaces is being used by the engineering department. Each LGI contains an operable acoustic partition, each of which is in good condition.
- » The engineering LGI is a large space that is able to house group and individual work, but lacks the required infrastructure for a highly responsive engineering lab / maker space. Finishes consist of prefinished acoustic decking, sheet vinyl flooring and painted CMU walls. Finishes are in good condition, although the sheet vinyl flooring is showing signs of failure at the seams. Should the space be converted to a long-term engineering/ maker space, a floor sealer or high performance coating should be provided. Casework is wood with plastic laminate tops. Fixed casework limits room flexibility. Furnishings are uniform and do not fully support flexibility or the needs of a maker space.
- » The formal LGI can support a variety of functions and is well suited for this use. The space contains ample storage



which is in good condition. Finishes consist of painted gypsum board walls, pre-finished acoustic deck and carpet, all of which are in good condition. The room is well supported by technology, but could be considered for sound reinforcement, video capture and tele conferencing.

- Greenhouse

- » Greenhouse finishes consist of quarry tile floor, ceramic tile walls and aluminum windows/ greenhouse glazing system. All finishes are in good condition. The greenhouse glazing is equipped with an operable shading system which appears to be in working condition. The greenhouse may be limited in size if intended to be used to support programs other than biology.

4. CODE COMPLIANCE/ ACCESSIBILITY RATING: GOOD

- Some door hardware is not accessible and should be replaced.
- Stair guard and handrails are compliant. The upper floors are accessible via an elevator in the 1994 structure.
- Most restrooms are generally ADA compliant but some may require minor revisions. Should the building be renovated, a detailed fixture count analysis should be conducted in concert with the active code at that time.
- The building construction type is assumed to be Type IIB. The occupancy classification is E – Education.
- Locker rooms do not contain ADA shower stalls.

- Fire stairs appear to be adequately sized and located.

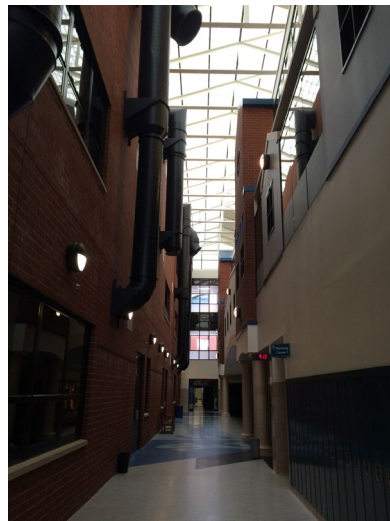
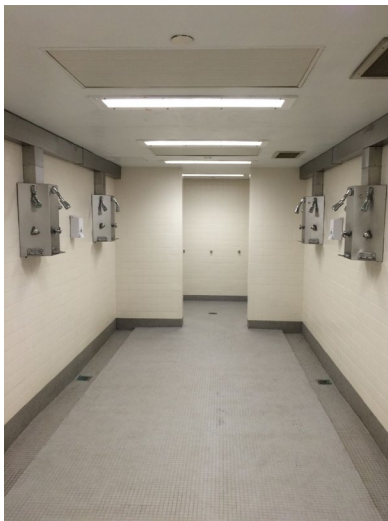
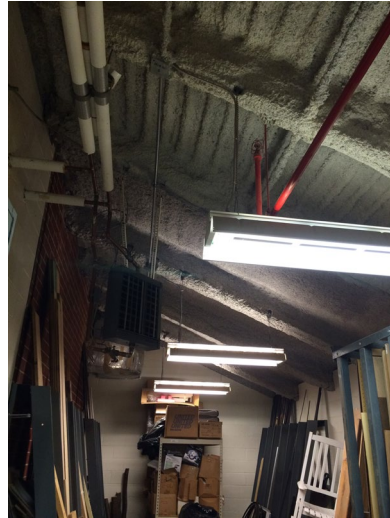
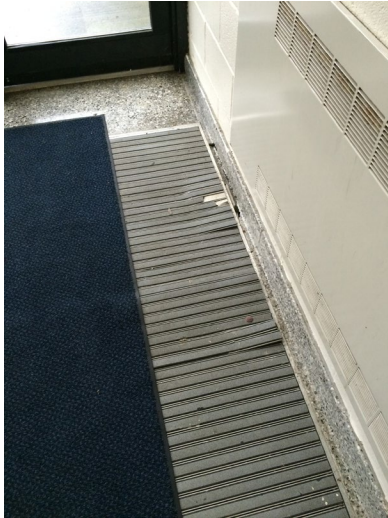
5. BUILDING SAFETY AND SECURITY RATING: GOOD

- In general, building safety is good. The main entry is a captured entry with a security booth attached to the entry vestibule. The door between the vestibule and atrium/lobby is on electrified magnetic locks. Visitors exiting the entry vestibule have direct access to the school without entering the main administration office, which is not ideal. A building renovation should address the current design.
- Security cameras exist throughout the building.

6. EDUCATIONAL RESPONSIVENESS TO MEET 21ST CENTURY LEARNING RATING: FAIR

- The building is currently organized in departments. Organic growth over the years has led to some departmental fragmentation (ex. Sciences, ROTC, Math). Further, classrooms and labs are closed with no internal transparency. This hinders desired departmental and interdepartmental collaboration and contributes to a closed, institutional learning environment. Further, specific departments like Tech Ed, Science, and Art are in different areas of the building which further hinders cross discipline collaboration. Classrooms are not designed for collaboration or connection to other adjacent classrooms. The District has expressed a desire





to provide collaborative spaces for students and teachers; opportunities for cross discipline collaboration; and increased cyber offerings/ blended learning. Currently the building is not configured to fully address these programmatic requirements. Meeting these requirements will require a significant plan renovation. Classrooms and furnishings are traditional and institutional which limits flexibility and collaboration. Classrooms are equipped with newer model interactive Smart Boards. Expressed needs are faculty collaboration areas, classrooms that support the 4 "C's" (collaboration, creativity, communication, critical thinking) and conversion of library to iHub/ maker space. The library has the opportunity to be a hub for cross discipline collaboration. Tech Ed is an advanced program but fragmented between the intermediate and senior high schools. Further it is not located in a highly visible area. This is a missed opportunity to show case an advanced 21st century program. The atrium separating art and the LGI should be viewed as a collaborative and interactive learning environment. The main entry lobby/ atrium is another opportunity to show-case cross discipline collaboration as well as increase utilization of this currently low-utilized space. Currently, the site is not used as a learning environment which is a missed opportunity.

7. RECOMMENDATIONS

- In general, building finishes are in fair condition, with some finishes in excellent condition (ex. newly replaced floors) and others in poor condition (ex. many of the existing acoustic tile ceilings). Finishes can continue to be replaced on an as needed basis. Building user groups have expressed a desire for a more open, vibrant and less institutional learning environment. In order to achieve this, a more significant finishes renovation will be required, in addition to plan renovations, including more interior glazing between classrooms and corridors and between classrooms themselves. Signage and wayfinding can also be addressed as part of this renovation. The building was designed around a departmental model when little emphasis or need for collaborative and cross-discipline learning existed. As the District moves to more cross-discipline collaborative programs and curriculum and a strong emphasis on cyber learning, the current building design will present increasing challenges to these programmatic goals.
- In general, the building exterior is in good physical condition and requires minimal renovation. Exterior building renovations should be planned to address those items outlined on the District's Long Range Capital Improvement Plan. Roof systems should be monitored for performance moving forward, but are within the warranty period. Once exterior windows systems are no longer serviceable



it is recommended to replace them with units that will allow for natural ventilation as well as controlled natural daylighting.

- Offered as aspirational recommendations, many specialized interior spaces can be made more responsive and integrated through strategic renovations. The engineering LGI should be provided with the proper infrastructure to support 21st century engineering initiatives. The art rooms can be made more open and flexible to accommodate a greater expansion of project types. Arts should further permeate throughout the building and main campus. The cafeteria can be renovated to a higher utilized social hub, with access to a food court style setting that is open throughout the day. The cafeteria can be more strongly linked to the sciences, family consumer sciences and the greenhouse to capitalize on cross disciplinary synergies. The library should be renovated away from print media and more to a collaborative maker/ space that serves to support the increasing cyber program and need for more age appropriate social spaces. More interior and exterior glazing should be provided at the fitness rooms for enhanced wellness. Furnishings and equipment should be replaced with a variety of types to support the many collaborative and size needs of students.
- The school administration has expressed the desire to work toward the following aspirational goals to further enhance

program offerings, collaboration and student's learning experience.

- Aspirational Goals:
 - » Interior renovations to provide brighter, more inspiring and less institutional learning environments.
 - » Provide additional square footage for the life skills, autistic support and gifted support programs.
 - » Provide one additional cooking lab as part of the intermediate or senior high school.
 - » Provide additional music practice rooms.
 - » Renovate the library into an interactive and highly collaborative social hub for the entire SHS.
 - » Provide more informal learning spaces to support the needs of the growing cyber program.
 - » Provide informal student collaboration spaces throughout the building that are open to the corridor and readily accessible to adjacent classrooms.
 - » Provide faculty specific collaboration/ team rooms.
 - » Evaluate current computer labs for possible renovation into more responsive and collaborative spaces to meet the needs of future planned programs.
 - » Combine Tech Ed in the current SHS Tech Ed suite. Relocated IHS Tech Ed program will be located in the vacated visual arts space.





- » Provide a physical link between the SHS and IHS. Ideally, this link will contain program space.
- » Create stronger more integrated exterior learning environments

MECHANICAL

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at Seneca Valley High School, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems:
 - » Central heating plant equipment
 - » Central chilled water plant
 - » Hot water pumps and distribution piping
 - » Air distribution systems
 - » Building temperature controls

3. CENTRAL HEATING PLANT

- The building is served by the Tri-fuel gas fired steam boilers that are installed at the Intermediate HS, steam is converted to hot water and pumped to the high school mechanical room. Efficiency can be gained by providing a separate heating system for the high with high efficiency boilers.



4. CENTRAL CHILLED WATER PLANT

- The building is served by three air cooled chillers, two were installed in 2013 and one was installed in 2008, all appear to be in good condition.

5. HOT WATER PUMPS AND DISTRIBUTION PIPING

- The hot water pumps and distribution piping were installed in 1996 and appear to be in poor condition. The hot water distribution piping within the boiler room appears to be in poor condition.

6. CHILLED WATER PUMPS AND DISTRIBUTION PIPING

- The chilled water pumps and distribution piping were installed in 1996 and appear to be in poor condition. The chilled water distribution piping appears to be in poor condition.

7. AIR DISTRIBUTION SYSTEMS

- Classrooms: The rooms are heated, cooled and ventilated by horizontal ceiling mounted unit ventilators with a ducted air distribution systems and fan powered terminal units with central station air handlers. This equipment appears to be in good condition.
- Corridors: Hot water cabinet unit heaters and convectors provide heat, these units appear to be in poor condition.
- Toilet Rooms: Radiant heating panels provide heat in the toilet rooms, the panels appear to be in fair condition.
- Cafeteria: Two roof mounted central station air handling units with hot water

heating coil for heating, chilled water coil for cooling, and ventilating the Cafeteria. These units appear to be in poor condition.

- **Gymnasiums:** Three Horizontal heating and ventilating air handling units (no air conditioning) located on the roof and appear to be in poor condition. The ductwork air distribution system appears to be in good condition. The Gym gets too warm during events and in the swing seasons of the year.
- **Administration:** This area is served a horizontal above the ceiling air handling unit with hot water coil for heating and chilled water for cooling, the unit is not equipped to run in economizer mode for free cooling so a chiller has to run in the winter months. This equipment appears to be in poor condition.
- **Library:** Two horizontal roof top air handling units provide heating, ventilating, and cooling of this space. This equipment appears to be in fair condition.
- **Auditorium:** Two roof top horizontal heating, cooling, and ventilating units serve the space. These units appear to be in fair condition.
- **Kitchen:** The kitchen is served by two gas fired combination make-up air and exhaust air fans on the roof. These units were recently replaced and are in good condition. Exhaust fans appear to be in poor condition.
- **Fitness Area:** Two ceiling mounted horizontal ducted unit ventilators provide heat, cooling and ventilating of

the space, these units appear to be in fair condition.

- **Locker Rooms:** The rooms are heated and ventilated by ceiling mounted cabinet heaters, these units appear to be in fair condition.
- **Shops:** Ceiling mounted unit ventilators provide heat, cooling, and ventilation to the shops, these units appear to be in poor condition. Exhaust systems for painting and welding areas appear to be in poor condition.
- **Main Server Room:** Two Liebert computer room units provide room temperature and humidity control, these units are in good condition.

8. BUILDING TEMPERATURE CONTROLS

- The main control panel is a pneumatic system control panel by Johnson Controls. The building pneumatic control system is in poor condition.

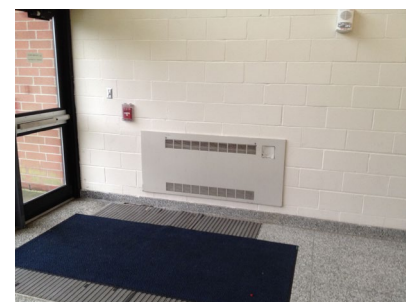
PLUMBING SYSTEMS

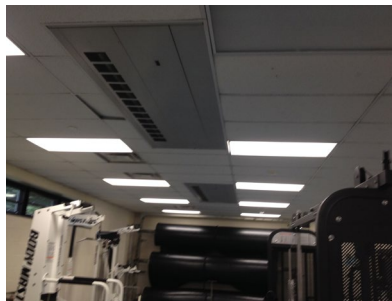
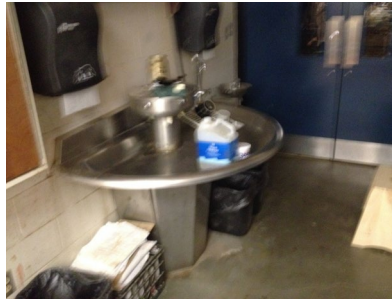
1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems at Rowan Elementary School, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems:
 - » Domestic water heating equipment





- » Domestic water service
- » Natural Gas Service
- » Piping systems
- » Plumbing Fixtures
- » Kitchen Equipment
- » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- The building is currently having two new gas fired high efficiency water heaters installed.

4. DOMESTIC WATER SERVICE

- The building is provided with a domestic water pressure booster system. This system appears to be in good condition.

5. NATURAL GAS SERVICE

- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.

6. PIPING SYSTEMS

- The building piping systems are original. Domestic water system consists of copper piping. Sanitary and storm are cast iron. Natural gas is black steel pipe. The existing valves are in poor condition and do not hold water off when the valves are in the closed position, this happens throughout the facility.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush

valve type. Lavatories are wall hung vitreous china. Electric water coolers are wall hung double and single units. There are some ADA plumbing fixtures. Stainless steel sinks are provided in the classrooms and workrooms. Service sinks are provided. Locker rooms are provided with gang showers.

8. KITCHEN EQUIPMENT

- The kitchen equipment is not in the scope of the plumbing, however, the associated grease trap, water distribution, sanitary and vent systems and natural gas supply are. The grease trap is located inside the building and should be replaced.

FIRE PROTECTION

1. SUMMARY

- The building is provided with a fire pump.
- There are parts of the building that have an automatic sprinkler system.
- The building should be provided with a complete sprinkler fire protection system to meet current fire protection and building codes.

ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT:

- Electrical Service: Electrical Service: Westinghouse 4000 ampere, 277/480 volt, 3 phase, 4 wire electrical service with exterior and interior switchboards with multiple main fusible switches



and circuit breaker distribution sections installed during the 1994 original building construction project.

- Distribution Equipment: Dry type 480V to 120/208 volt, 3 phase, 4 wire transformers and circuit breaker distribution and branch circuit type panels also installed during the 1994 building addition and renovation project.
- The main electrical service has transient voltage surge suppression equipment on the main building electric service and the entire building is protected by a roof mounted lightning protection system.
- Additional electrical distribution equipment added to serve the 2002 and 2005 building additions. The equipment for the additions is served from the original building electrical service.

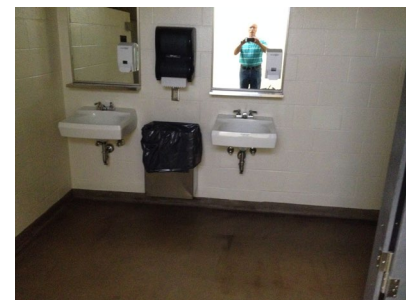
2. EMERGENCY POWER SYSTEM EQUIPMENT

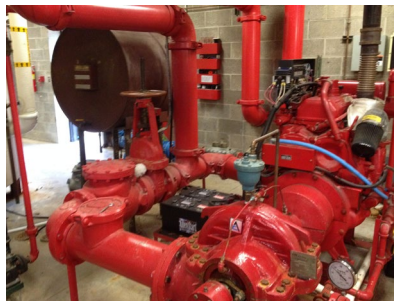
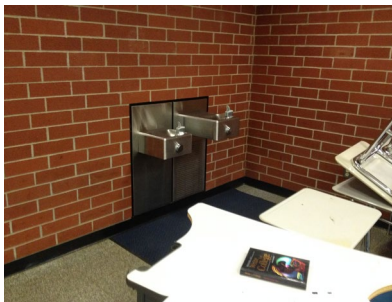
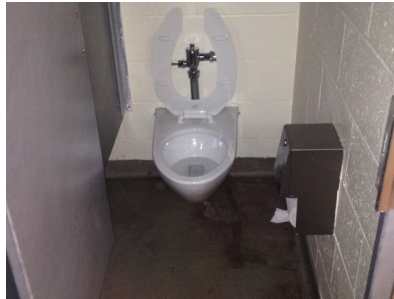
- Generator: Generator: Kohler 150 kW/188 kVA, 120/208 volt, 3 phase, 4 wire diesel fueled interior generator unit a double wall sub-base fuel storage tank.
- Automatic Transfer Switch: 400 ampere Kohler transfer switch with area protection monitor panels.
- Emergency Power Distribution: Normal/ Emergency and Emergency only circuit breaker panels.
- Emergency Egress Lighting: Emergency egress lighting provided in corridors, stairways, rest rooms, gymnasium, cafeteria, mechanical rooms and at building exits

- Emergency lighting system as indicated on available drawings appears to meet code requirements.

3. LIGHTING SYSTEMS:

- Corridors and Stairways: Recessed or surface mounted fluorescent fixtures with acrylic lens.
- Classrooms, Computer Rooms, and Offices: Recessed or surface mounted fluorescent fixtures with parabolic lens controlled by multiple switches to provide multiple levels of room illumination provided in the additions to the building. Classroom and science labs in the building additions have pendant mounted linear fluorescent fixtures with louver lenses switched by rows.
- Media Center: Pendant mounted indirect fluorescent fixtures switched by rows to provide multiple levels of room illumination.
- Gymnasium: Chain hung T5 fluorescent fixtures.
- Cafeteria: Pendant mounted linear fluorescent fixtures with acrylic lens.
- Kitchen, storage and miscellaneous spaces: Recessed or surface mounted fluorescent fixtures with acrylic lens.
- Mechanical and Electrical Equipment Rooms: Surface or suspended fluorescent fixtures.
- Auditorium: Dimmable compact fluorescent or quartz house and performance theatrical lighting systems controlled by a theatrical lighting control board.





- Exterior Security Lighting: Wall mounted HID fixtures on time clock or photocell controlled circuit.
- Exterior Parking Area Lighting: Pole mounted HID fixtures on time clock or photocell controlled circuit.
- Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.
- Lighting Controls:
 - » Time clock and photocell control of exterior lighting.
 - » Rooms in building additions have occupancy sensor lighting controls.

4. FIRE ALARM SYSTEM:

- Fire Alarm Panels: Simplex 4100U fire alarm control panel and alarm annunciator panel at main entrance. Fire alarm system is a 24 volt system with addressable alarm initiating devices.
- Alarm Initiating Devices:
 - » Manual pull station at all code required building exits
 - » Automatic smoke detectors in original building corridors and mechanical rooms where sprinklers were not installed.
 - » Automatic smoke detectors in ductwork of large building air handlers.
- Alarm Signal Devices:
 - » Audible and visual alarms installed throughout building in corridors, rest rooms, classrooms cafeteria, dining,

kitchen, music, administrative and gymnasium spaces.

- Fire alarm system as indicated on available drawings appears to meet current code requirements.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

1. SECURITY SYSTEMS

- Building Entrances
 - » Audio/video/intercom system for supervised access at the elementary and middle school entrances.
 - » Raptor driver's license security screening system is used to identify unwanted visitors.
- Intrusion Detection
 - » Motion detectors in the building corridors, computer rooms and administrative offices provide intrusion detection.
 - » Intrusion detection system is armed at keypads provided at selected building entrances.
- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to all the school district buildings.
 - » Proximity type card readers control access to selected building entrances and areas within the building.
- Video Surveillance Cameras

- » Security cameras provide for video surveillance in main entries, corridors, stairways, administrative offices and other selected areas as required.
- » CCTV security system consists of analog cameras with converters for use with IP Video Insight System networked video viewing and storage equipment.

2. PUBLIC ADDRESS AND CLOCK SYSTEMS

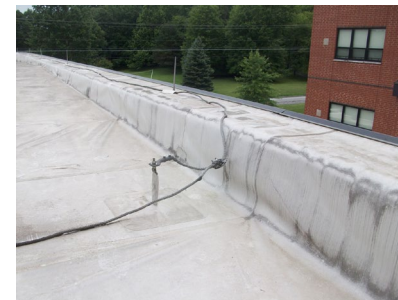
- Paging System
 - » Dukane school paging system with speakers and call-in switches in all classroom, educational spaces and miscellaneous selected spaces.
- Clock System
 - » Dukane master clock system with digital clocks in all classroom, educational spaces and assembly spaces in the building additions and renovated areas. Clocks in corridors are analog type in the original building and digital in the building additions.

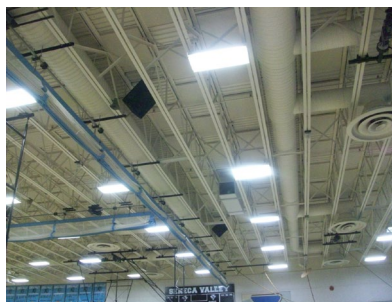
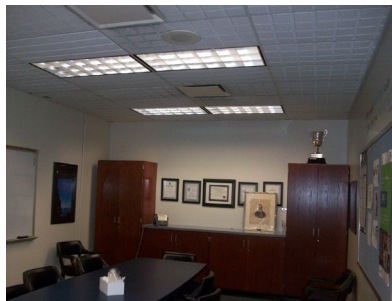
3. SOUND REINFORCEMENT SYSTEMS

- Auditorium, Gymnasium and Cafeteria
 - » Local sound reinforcement systems for stage performances with amplifiers as required for distributed or suspended full range speakers required to cover room seating areas.
 - » Microphone outlets provided at stage and selected locations in room for access to system.

4. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure
 - » School provided with Category 3 horizontal copper cabling to telephone outlets and Category 5 type cabling to data network outlets. Multimode 62.5 fiber optic backbone network cabling provided for network connections between telecommunication equipment cabinets and rooms. The Category 3 and 5 cabling was installed with the 1994 building construction and has been supplemented with new Category 6 cabling each year to support required additional network outlets or wireless access nodes throughout the original building. Category 6 cabling was provided in the building additions. Wireless access points have been installed throughout building in corridors and in selected classrooms or spaces. Telecommunications equipment rooms consists of free-standing equipment racks or wall mounted cabinets with networking equipment and horizontal cabling patch panels as required.
- CATV RF Broadband Coaxial Cabling System
 - » A broadband building CATV cabling system with sub-channel return consisting of coaxial cabling, signal amplifiers, splitters, modulators and multi-taps to distribute programming channels to outlets in all classrooms, instructional education





rooms, assembly spaces, offices and other selected areas as required. Programming can be originated at any system outlet in the building over the cabling system sub-channel return equipment.

- » Selected digital CATV utility channels are converted to modulated analog channels and distributed over the cabling system to room outlets on standard CATV channels up to 30.
- » The school programming channel originating in this school and the programming channels originating in each of the other district schools are encoded and transmitted over the district fiber optic data network. The digital school channels are converted locally at each school to analog signals and distributed over the coaxial cabling system to room outlets on standard CATV channels above channel 30.

- Telephone System

- » Cisco IP telephone system and telephones installed throughout this building and the school district.

- Typical Classrooms

- » Classrooms provided with instructor and three (3) student stations with data networking wired outlet connections or access to wireless network connections.
- » Wall mounted video display, video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to

connections at the instructor's desk. Instructional programming from the instructor's computer can be routed through a VGA video matrix switch to the wall mounted video display or the video projector. The interactive white board is connected through the USB cabling connection.

- » School paging/intercom system speaker in ceiling for announcements and a local call-in switch to initiate a call to the administrative offices.
- » Digital or Analog wall clock on master clock system.
- » Ceiling mounted wireless network point in selected classrooms.

- Computer Labs

- » Mobile wireless cart laptop computer labs are available for use in addition to the fixed classroom student computer workstations

BUILDING SYSTEMS RATINGS & CODE COMPLIANCE

1. BUILDING SYSTEMS RATING

- Electrical lighting, power distribution and, normal/ emergency power systems are original to the 1994 building construction project and are in fair condition.
- The electronic and technology systems were installed during the 1994 building construction project and are in fair condition. These systems have been supplemented with new as required to maintain the systems and to meet the changing educational requirements



in the original building and as required to serve the building additions.

2. CODE COMPLIANCE:

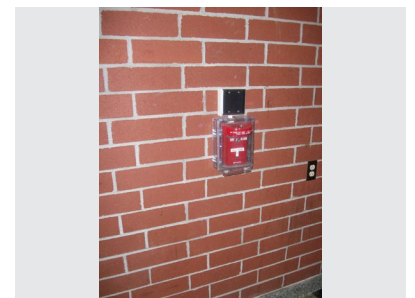
- Compliant with current electrical system code requirements.

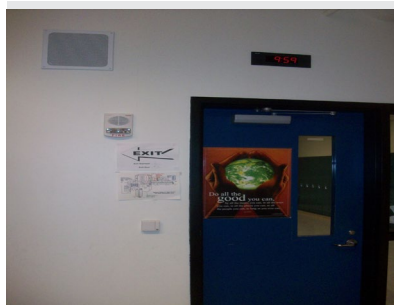
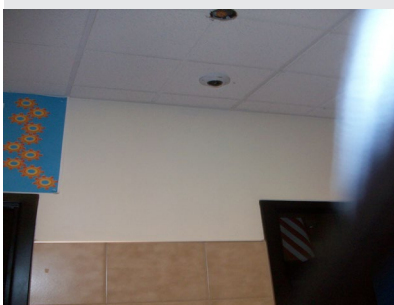
3. RECOMMENDATIONS:

- Electrical lighting, power distribution and, normal/emergency power and fire alarm systems should be evaluated for cost effective or necessary upgrades if renovations of this facility are proposed.
- Energy saving upgrades to LED type lighting fixtures and installation of occupancy/vacancy sensor controls should continually be evaluated and considered.
- Except for yearly selected upgrades, the electronic equipment and technology systems in this building were last updated during the 1994 building construction. Any proposed renovations of the facility should include replacement of these systems. Replacement of these systems with the latest equipment technologies would result in systems that can easily be maintained and that are able to meet the current and future requirements of the facility.
- The following recommendations should be included in any future

upgrades of the existing electronic and technology systems:

- » Dedicated telecom rooms with proper ventilation or cooling should be provided to maximize the life of the telecommunication equipment.
- » Additional 802.11a/b/g/n/ac wireless access points with duplex telecommunication outlets should be provided throughout the building.
- » Cable tray should be provided throughout the corridors to facilitate adds, moves and changes in technology.
- » DAS systems for amplification of cellular telephone signals should be added as required to aid in First Responders signal coverage.
- » Audio amplification systems should be added for use in conjunction with the Classroom audio/video presentation systems.







District Administration Office

193

Fast Facts

Constructed — 1993

Gross Square Feet — 18,036 gsf



 GOOD
ARCHITECTURAL

 FAIR
MECHANICAL

 GOOD
PLUMBING

 N/A
FIRE PROTECTION

 GOOD
ELECTRICAL

 FAIR
DATA

 FAIR/POOR
ENERGY CONSUMPTION

 GOOD
CODE COMPLIANCE

 GOOD
SAFETY AND SECURITY

 N/A
21ST CENTURY LEARNING

GOOD
OVERALL
BUILDING RATING

KEY BUILDING CONDITIONS



ARCHITECTURAL

1. EXTERIOR: RATING: GOOD

- A portion of district administration is housed in the existing intermediate high school and a portion is housed in a building addition constructed in 1993. The new addition exterior façade is comprised of jumbo brick and aluminum storefront and curtainwall, with cast stone window sill accents at punched openings. The new addition masonry walls are in good condition. The IHS brick walls are in fair condition and require some restoration. Cast stone sills are stained and can be cleaned. Staining is not affecting performance.
- New addition exterior windows/storefront systems generally perform well and are in good condition. The existing IHS windows are weathered and the metal infill panels are starting to deteriorate. These windows should be monitored for performance and may need to be replaced in the near future.
- Some exterior doors and frames are rusting and should be monitored for continued performance. In general, exterior doors and frames are in fair to good condition.
- In general, the exterior soffits are in fair to good condition.
- Exterior caulking is in fair condition. Caulking should be replaced as needed on an on-going basis.
- The new addition is insulated resulting in an energy efficient building skin

2. ROOF RATING: GOOD

- The roof membrane is a single ply Duro-Last roof installed in 2009. The Duro-Last roof has a 15 year warranty. The Duro-Last roof should be serviceable for the foreseeable future. Destructive testing on the roof membrane and insulation was not performed at the time of the visit. However, this type of testing would provide a more detailed understanding of insulation type, thickness, and the condition of the existing substrate. Copings and flashings are painted aluminum in fair to good condition.

3. INTERIORS RATING: GOOD

- Interior spaces consist of lobbies, offices, workrooms, conference rooms, restrooms, breakrooms/ kitchenette, open office areas and storage/ file rooms. The main entry lobby contains exposed brick walls, gypsum board ceilings and VCT tile floors. All finishes are in good condition with the exception of the VCT flooring which is in fair condition. Some tile is broken in the vestibule and should be replaced. The majority of interior finishes consist of acoustic tile ceilings, carpet flooring and painted gypsum board walls. Ceilings are new and in good condition. The carpet is in fair condition and is showing signs of wearing. Carpet should be considered for replacement in the near future. Doors are a combination of painted hollow metal and wood. Doors are in good





condition. Casework is plastic laminate in good condition.

- **Toilet Rooms**
Toilet room finishes consist of VCT floors, ceramic tile walls and base, gypsum board ceilings, solid plastic floor mounted toilet partitions, and wall mounted toilets. Finishes and fixtures are in good condition. VCT flooring in restrooms should be considered for replacement to provide for a more sanitary flooring material.

4. CODE COMPLIANCE/ ACCESSIBILITY RATING: GOOD

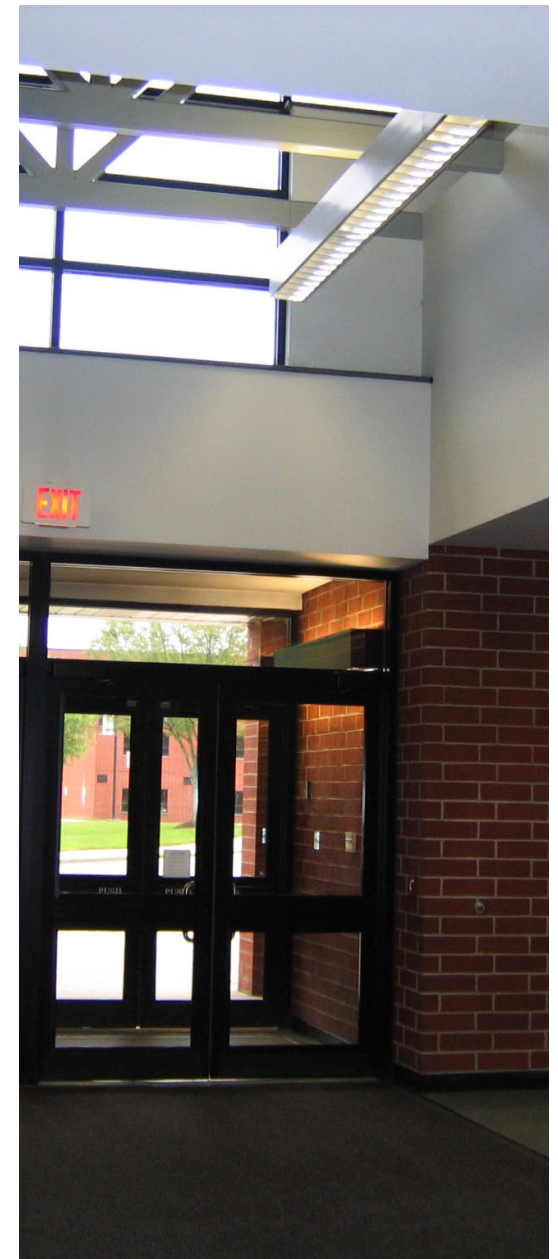
- Door hardware is accessible.
- A stair and chair lift provide access to the IHS portion of the admin offices.
- Restrooms are ADA compliant.
- The building construction type is assumed to be Type IIB. The occupancy classification is E – Education (Accessory use).

5. BUILDING SAFETY AND SECURITY RATING: GOOD

- In general, building safety is good. The main entry is a captured entry with a security camera and buzzer entry vestibule. Visitors exiting the entry vestibule have direct access to the school without entering the main administration office, which is not ideal. A building renovation should address the current design.
- Security cameras exist throughout the building.

6. RECOMMENDATIONS

- In general, building finishes are in good condition. There appears to be adequate space for administration functions and needs. The district administration offices should require minimal renovations for the foreseeable future.





MECHANICAL

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at the District Administration Offices and note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems
 - » Central heating plant equipment
 - » Air distribution systems

3. CENTRAL HEATING PLANT

- The DAO get there heating from the existing steam system at the Intermediate High School building. Steam piping is routed from the Intermediate High School to three air handlers that serve the offices.

4. AIR DISTRIBUTION SYSTEMS

- The spaces are heated, cooled and ventilated by horizontal central station air handling units with steam heating coils and dx cooling coils. The area has zone bypass dampers for temperature control in the spaces. These units are aged and should be replaced with a new energy efficient variable air volume system. These air handlers appear to be in fair condition. Corridor and entry ways are heated with ceiling mounted cabinet heaters.

PLUMBING

1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems at the District Administration Offices, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems
 - » Domestic water heating equipment
 - » Piping systems
 - » Plumbing Fixtures
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- The domestic water is heated by an electric water heater and this heater appears to be in fair condition.

4. DOMESTIC WATER SERVICE

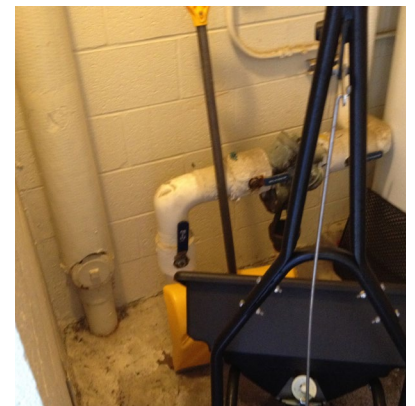
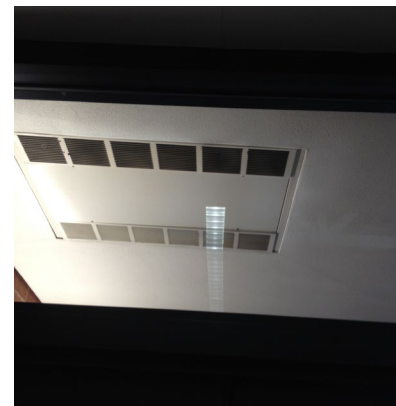
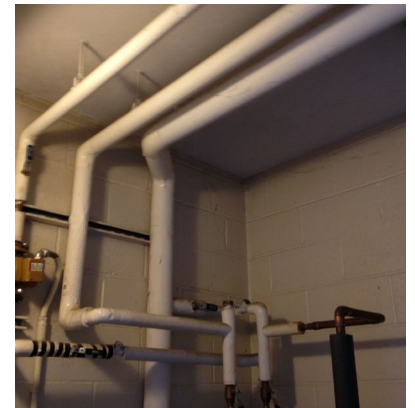
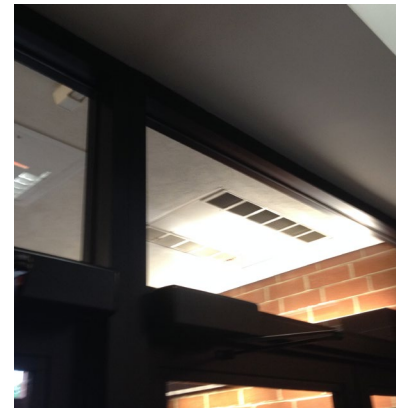
- The building is provided with domestic water from the Intermediate High School water service.

5. NATURAL GAS SERVICE

- The building is provided with natural gas service. The system is provided with a shut-off valve before entering the building.

6. PIPING SYSTEMS

- The piping systems were installed in 1992. Domestic water system consists





of copper piping. Sanitary and storm are cast iron. The existing valves are in poor condition and do not shut water off when the valves are in the closed position.

7. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall mounted vitreous china flush valve type and are in good condition. Lavatories are wall hung vitreous china and are in good condition. Electric water coolers are wall hung single units and are in good condition. ADA fixtures are provided. Stainless steel sinks are provided in the workrooms.



8. FIRE PROTECTION

- The DAO is not provided with a complete sprinkler fire protection system.
- The intermediate High School fire pump is located in this building. The fire pump appears to be in poor condition.



ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT:

- Electrical Service
 - » Westinghouse 800 ampere, 120/208 volt, 3 phase, 4 wire distribution panel served from the main electric service for the Intermediate High School which is attached to the district administration building.
- Distribution Equipment
 - » Westinghouse branch circuit breaker panels provided throughout building as required for power to lighting, general power receptacles and HVAC equipment.
- Switchboard, panels and electrical distribution feeders and branch circuits were almost entirely replaced as a part of a building 1996 renovation and addition project.

2. EMERGENCY POWER SYSTEM EQUIPMENT

- Building emergency egress exit lighting is provided by wall mounted battery units with directional lighting fixture heads.
- Emergency lighting as indicated on available drawings appears to meet code requirements.

3. LIGHTING SYSTEMS:

- Corridors and Stairways
 - » Recessed fluorescent fixtures with parabolic lens.
- Offices

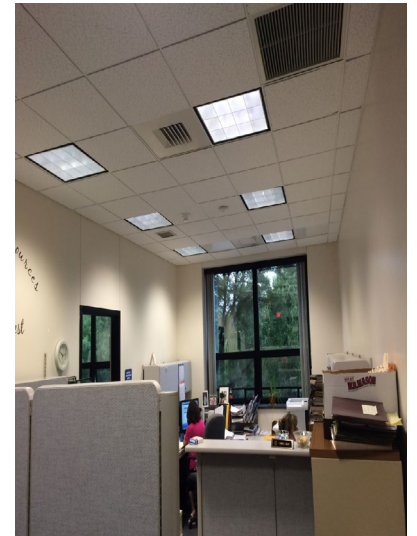
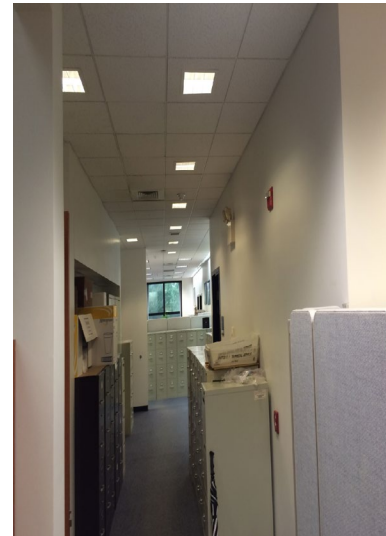
- » Recessed fluorescent fixtures with parabolic lenses controlled by multiple switches to provide multiple levels of room illumination provided in the additions to the building.

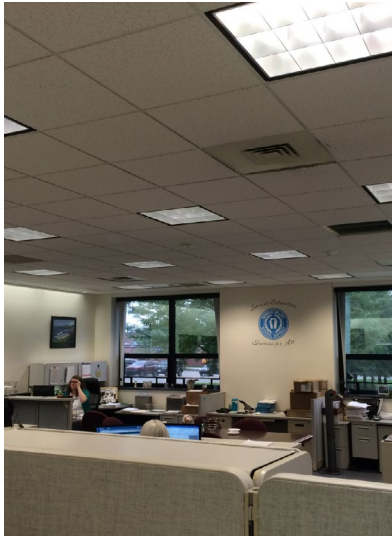
- Lobby and Conference Room
 - » Pendant mounted linear fluorescent fixtures with parabolic lens. Conference room provided with dimmable downlight fixtures for audio/video presentations.
- Storage Room
 - » Surface mounted fluorescent fixtures.
- Exterior Parking Areas
 - » Pole mounted HID fixtures.
- Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.
- Lighting Controls
 - » Time clock and photocell control of exterior lighting.
 - » Occupancy sensors for control of lighting in rooms.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

1. SECURITY SYSTEMS

- Building Entrance
 - » Audio/video/intercom system for supervised access to the district administration offices.
 - » Raptor driver's license security screening system is used to identify





- unwanted visitors.
- Intrusion Detection
 - » Motion detectors in all perimeter building rooms.
 - » Intrusion detection system is armed at keypads provided at building entrance.
- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to the district administration offices and all the school district buildings.
 - » Proximity type card readers control access to building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in selected areas as required.
 - » CCTV security system consists of analog cameras with converters for use with IP Video Insight System school district networked video viewing and storage equipment.

2. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure
 - » Category 3 horizontal copper cabling to telephone outlets and Category 5 type cabling to data network outlets. Multimode 62.5 fiber optic backbone network cabling provided for network connections between telecommunication equipment room and attached Intermediate High School network. The Category

3 and 5 cabling was installed with the 1993 construction of the building and has been supplemented with new Category 6 cabling each year to support required additional network outlets or wireless access nodes throughout the building. The telecommunications equipment room consists of a free-standing equipment racks with networking equipment and horizontal cabling patch panels as required.

- CATV RF Broadband Coaxial Cabling System
 - » A broadband building CATV cabling system with coaxial cabling and multi-taps to distribute programming channels from the Intermediate High School system to outlets in selected offices and areas as required.
- Telephone System
 - » Cisco IP telephone system and telephones installed throughout this building and the school district.
- Conference Room
 - » Wall mounted video projector and interactive white board manufactured by SmartBoard with audio/video and USB cabling to connections to a computer workstation for presentations.

BUILDING SYSTEMS RATINGS & CODE COMPLIANCE

1. BUILDING SYSTEMS RATING

- Electrical lighting, power distribution and, normal/ emergency power systems



are original to the 1993 renovations and building additions project and are in good condition.

- The electronic and technology systems were installed during the 1996 building renovations and additions project and are in fair condition. These systems have been supplemented with new as required to maintain the systems and to meet the changing educational requirements

2. CODE COMPLIANCE:

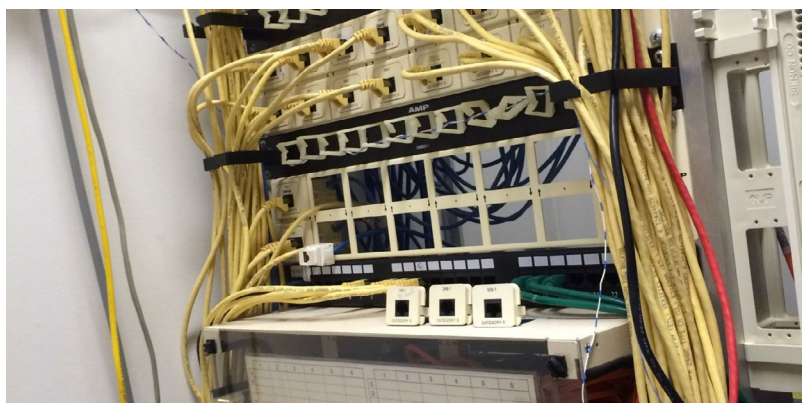
- Compliant with current electrical system code requirements.

3. RECOMMENDATIONS:

- Energy saving upgrades to LED type lighting fixtures should continually be evaluated and considered.
- Except for yearly selected upgrades, the electronic equipment and technology systems in this building were last updated during the 1992 building renovations. Any proposed renovations of the facility should include replacement of these systems. Replacement of these systems with the latest equipment technologies would result in systems that can easily be maintained and that are able to meet the current and future requirements of the facility.
- The following recommendations should be included in any future upgrades of the existing electronic and technology systems
 - » Additional 802.11a/b/g/n/ac

wireless access points with duplex telecommunication outlets should be provided as required in the building.





Main Campus - Site and Outbuildings

205



GOOD
ACCESS, CIRCULATION, AND PARKING



GOOD
ATHLETICS AND PLAY



FAIR
AMENITIES AND SUPPORT FACILITIES



FAIR
SAFETY AND SECURITY



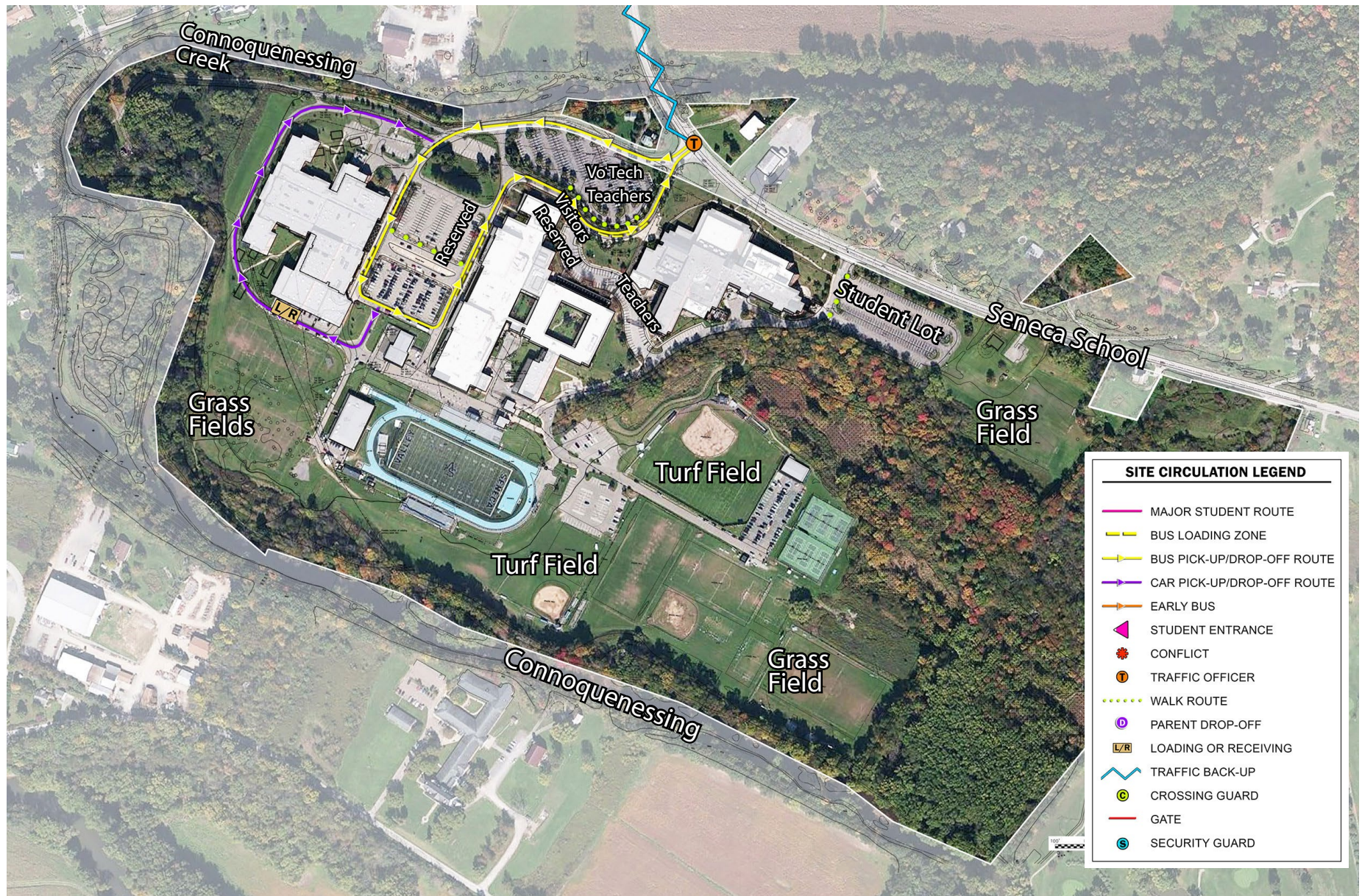
EXCELLENT
CODE COMPLIANCE

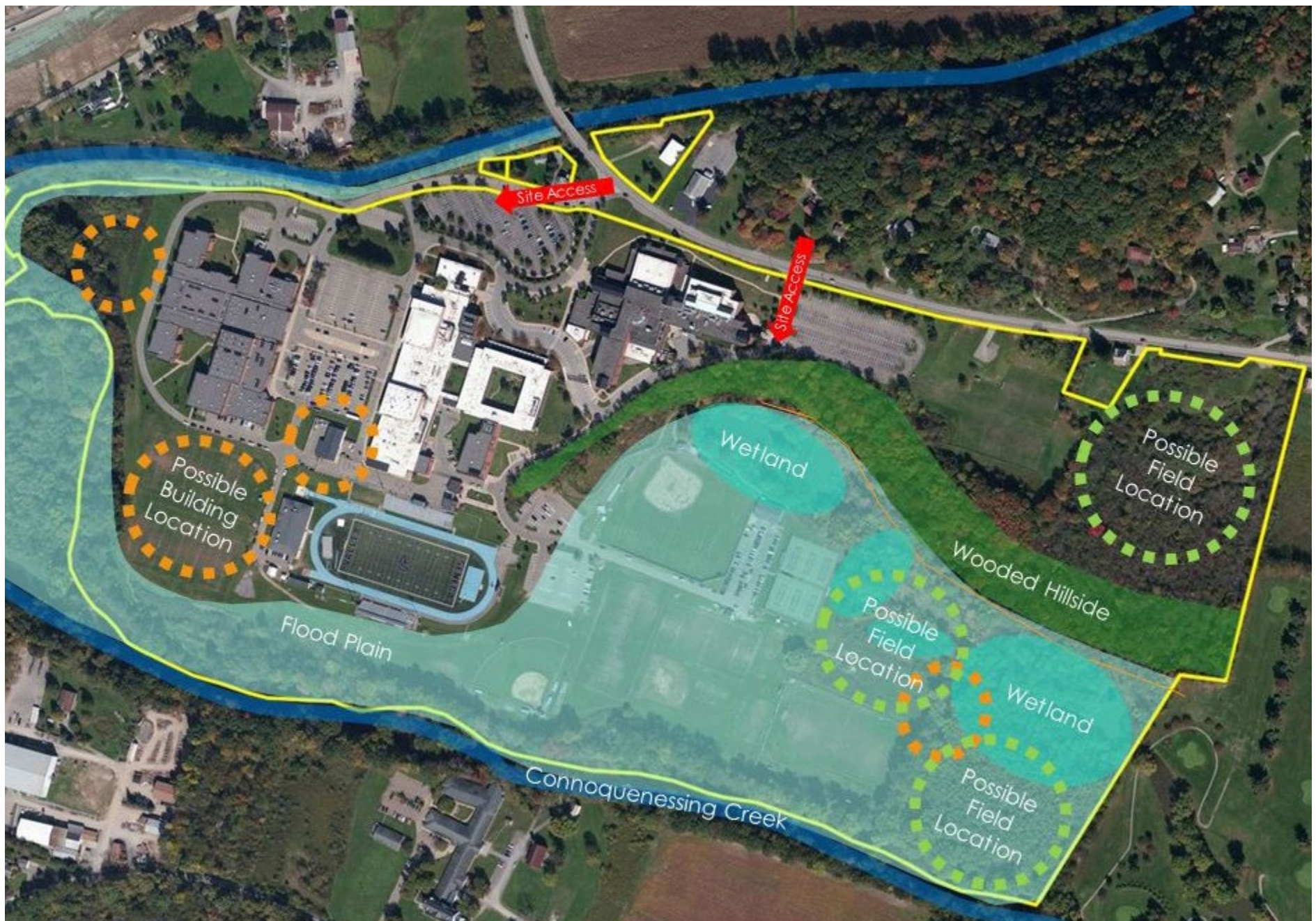
GOOD
OVERALL SITE
RATING

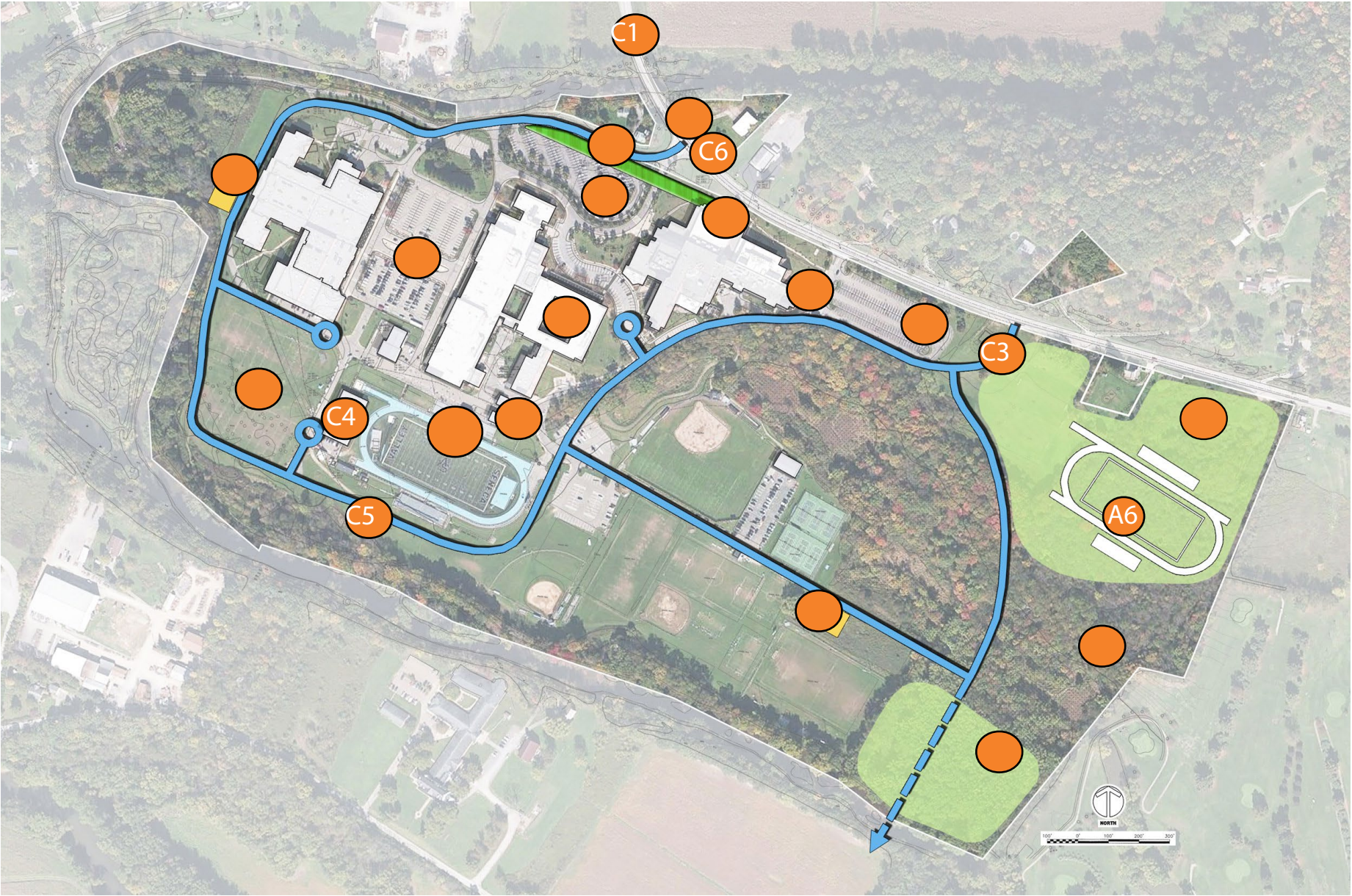


KEY SITE CONDITIONS









SITE

- The Seneca Valley High School, Intermediate High School, and Middle School are located at the District's main campus in Jackson Township. I-79 provides excellent regional vehicular access to the campus. The Campus site is bordered by Little Connoquenessing Creek on three sides, and Hartmann's Deep Valley Golf Course to the east, making the property land locked. In addition to the developed area, the property includes floodplain, wetlands and wooded slopes that provide a verdant and spacious setting.
1. VEHICULAR & PEDESTRIAN CIRCULATION
 - Vehicular access and traffic flow
 - » The primary access to the campus is from Seneca School Road to Sahli Road and into the school property. A secondary access from Seneca School Road is located about 600' east of the main access, making these intersections relatively close. Circulation during morning arrivals, afternoon departures, large events, and emergency situations would benefit from an additional access to another collector road. Provision of the third access point is challenging given obstacles such as Connoquenessing Creek, challenging topography, and the land locked site.
 - There are multiple destinations within the campus
 - » Three school buildings, the District offices, several sports venues and numerous parking lots. With a relatively complicated road system that lacks a main connector road, it is often difficult for drivers to efficiently get to their destination.
 - Teachers, staff, busses and cars arrive in the morning at the same general time resulting in heavy congestion that routinely backs up on to I-79. While there has not been a traffic study to analyze the situation and make specific recommendations, some initial thoughts to improve flow would include adjusting traffic signal timing and/or adding lanes. Currently, PennDOT is replacing the bridge on Seneca School Road, and will add a turning lane up to the school entrance. This should help, but may not completely alleviate the congestion.
 - A trained district staff member directs traffic at the campus entry to expedite the student arrival and departure process. Morning arrival is 6:50 AM - 7:25 AM. The large campus, multiple schools, and significant number of students results in a complex, but functional arrival and departure sequence.
 - Bus drop-off
 - » There are 110 busses transporting students to campus. Each bus carries a blend of HS, IHS, and MS students. Busses traverse the campus and drop-off students at three locations, one for each school. For afternoon pick-up, all the busses arrive at a similar time and park in designated spaces. The busses double stack on many roads which could block emergency access. Students are released from all three schools at the same time and walk to their buses. It seems that more students take the bus in the afternoon.
 - Car drop-off
 - » For drop-off and pick up, parents park at multiple locations around the campus. There is no designated car route.





- Parking
 - » School representatives report that on a daily basis, the amount of parking is adequate. Parking is distributed over several widely disbursed parking lots providing convenient locations adjacent to each school and recreational facilities. Event overflow parking occurs on multi-purpose fields adjacent to the Middle School, baseball and softball fields.
- Sidewalks
 - » As students circulate to and from busses, they move freely around the campus not necessarily using the crosswalks. The volume of students is beyond the sidewalk capacity, and they often walk on the road. Sidewalks are typically either 5' or 8' in width. In some higher use areas, the 5' walks should be increased to 8', and the 8' walks should be increased to 10'. At perpendicular walk intersections, there are worn landscape areas in corners. This could be alleviated with corners filled in concrete at 45D angles. A detailed ADA compliance review was not conducted as part of this study, however, it appeared that ADA access ramps seemed to be adequate, but some of the new ramps have a curb reveal that appears to be higher than allowed by code.
- There is a wide raised sidewalk and strong visual access connecting the Intermediate High School and the Middle School. This sidewalk area has great potential as an outdoor student space with the addition of landscaping and street furniture.
- Loading & service
 - » Each school has at least one loading dock and trash area. These all appeared to be functioning well and in good condition. The maintenance facility is centrally located and adequately screened with fencing.
- Pavement & curbs condition
 - » The condition of road and parking pavement and curbs at the High School parking lot, the large eastern lot along Seneca Road, and the bus loop behind the Middle School is excellent. The two lots between the baseball and football fields and parking between the Intermediate and Middle School are in fair to good condition. The lot near the tennis courts is in poor to fair condition, and the easternmost access and small parking area along Seneca School Road is in poor condition. In general, concrete curbs and sidewalks are in good condition with some limited areas of deterioration. Note that curbs and sidewalks were actively being repaired during the pavement assessment.
- Signage and Identity
 - » The main entrance school sign is in fair condition, but nondescript and not highly visible from Seneca School Road. The curb appeal of the campus main entrance could be improved with relocated and more attractive signage, landscaping, and public art.
- The informational and traffic directional signage has been added piecemeal over time, resulting in uncoordinated appearance and occasionally too much information to be absorbed by drivers. The combination of uncoordinated signage and a relatively



complex road system makes it difficult for new visitors to easily find their destination.

2. ATHLETICS

• Stadium

» The fenced stadium area includes a turf football field, 6-lane track, grandstands, press box, rest rooms, and a concession stand. The field surface and support facilities appear to be in good condition, but standing water was noted near the track entry from the grandstand.

• The stadium entry gate, ticket booth, and restroom structure provides an impressive entrance to the facility. At game times, the pedestrian access from the parking areas to and beyond the entry structure is controlled by a series of roadway gates. Since the entry structure is located to east of the stadium, those parking to the west (near the Intermediate High School) need to walk past the stadium to access the entry structure. At non-game times, the area beyond the entry structure is part of the maintenance vehicular circulation. Currently this area looks utilitarian and uninviting, but has the potential to become a comfortable and attractive pedestrian space through circulation reorganization and hardscape and landscape improvements.

• Fields

» There are numerous fields on campus. The western most multi-purpose field is in very good condition. The softball, baseball and eastern soccer fields all have drainage issues, but are scheduled to have artificial turf installed in the near future. The baseball field includes full fencing,

dugouts, and batter' cage. Fencing to the north of the field is leaning and may not be stable. Drainage and grass coverage at the multi-purpose field east of the softball stadium are unsatisfactory. Soccer fields along Seneca School Road are in good condition.

• The athletic director reports that, with 17 teams and 1,000 student athletes, the athletic facilities are highly utilized, more field time is needed, and the planned artificial turf improvements are critical. Suggestions for near-term improvements include a field house for girls, press box improvements, and a support building providing shelter, restrooms and concessions for fields and tennis courts to the east. Longer term opportunities include another stadium with 8 track lanes and additional fields to the east and indoor athletic fields and support facilities near the Middle School.

• Tennis courts

» The six regulation tennis courts are in excellent condition.

• Trails

» Several trails, some paved, are evident on the site with trailheads near the baseball field and at the back of the Middle School. These trails are part of a large trail network used for cross country running and provide access to the natural portions of the site including wetlands and wooded areas.

3. AMENITIES AND FACILITIES

• Social spaces

» The High School has several plazas around its perimeter; those at the front entrance and outside the café are in regular use.





At the IHS, there is a seating plaza at the front entrance, and two interior courtyards. Other plazas do not appear to be highly used, particularly the one at the western end of the school which is adjacent to a sunken landscape area which is poorly drained and in disrepair. This western plaza has great potential for a social, exhibit or study space due to its privacy, enclosure and proximity to the student parking.

- Landscaping

- » The campus has a beautiful natural setting, but limited landscaping around the school and in the parking lots. Landscaping primarily consists of lawn and trees, which are generally in good condition. Some specific issues include bare patches in the lawn where sidewalks are too narrow, declining maple trees in the High School parking lot, a dead hedge along the High School northern face, and pine tree branches hanging low over the eastern parking lot. Numerous steep slopes around campus appear weedy and unkempt. In less prominent areas, a more naturalized planting may be an option to reduce maintenance and increase environmental benefits. Several stakeholder groups have expressed a desire for more landscaping.

- Learning environments

- » The existing trails, environmental center and outdoor classroom provide a wonderful opportunity to be in contact with nature and the wealth of habitats on site including the creek, floodplain, wetlands and wooded slopes. These provide the basis for expanded learning

opportunities such as interpretive signage on the nature trail, field classrooms for experiments, wildlife observation and tracking, native and invasive plant species study, and storm water management and quality analysis.

- Environmental management

- » In parking lots and paved areas, drainage appears to be working well and storm inlets are generally clean and functioning. The campus has numerous opportunities for passive storm water management through rain gardens, for example, in the area adjacent to IHS northern canopy. Low areas of the site, primarily at the fields, have miscellaneous areas that are not draining properly and water is ponding. Some examples include the western-most stair landing at the home grandstand, the baseball dugout, the western multi-purpose field and the softball infield.

4. SAFETY AND SECURITY

- First responder access

- » The afternoon queuing of busses double stacks in roadways and somewhat restricts access, although this was not considered a significant problem by police and emergency service providers. In addition to a traffic officer at the school entrance, there are two security guards on campus. These guards remain 10 minutes beyond morning arrival.

- Egress capacity

- » There are two points of road egress from the campus, the main entrance and a secondary entrance on Seneca School Road. This is functionally constrained



and the campus could benefit by another access point or improvement to the minor connection.

- Pedestrian Safety

- » Pedestrian safety is compromised during afternoon pick-up by the volume of students circulating around busses and cars. Operationally, pedestrian safety could be improved through better enforcement of car drop-off locations and use of crosswalks. Wider sidewalks and elevated crosswalks could be considered to improve pedestrian safety.

1. CODE

- Zoning district and permitted use
 - » R-Residential Zoning District, a School is a Conditional Use; the school is in compliance.
- Parking requirement
 - » As determined as per Parking Study. Should school expansion be undertaken, a parking study is required.
- Minimum lot area
 - » 10 acres; the school is in compliance.
- Minimum lot frontage
 - » 100'; the school is in compliance.
- Minimum front setback
 - » 20' (or 75' from a residential lot); the school is in compliance.
- Minimum side setback
 - » 40' (or 75' from a residential lot); the school is in compliance.
- Minimum rear setback
 - » 40' (or 75' from a residential lot); the school is in compliance.

- Maximum impervious coverage
 - » 50%; the school is in compliance.

2. RECOMMENDATIONS

- The following recommendations were developed with the Seneca Valley administrative and facilities staff, board members, principals, teachers, students, parents, elected officials, police and fire chiefs, and business leader.
- Vehicular & Pedestrian Circulation
 - Adopt an overall approach to vehicular and pedestrian circulation and parking to include the following.
 - » C1 Recommend preparing a Traffic Study to evaluate options for improving off-site congestion such as adding turning lanes, signal timing, real time message signage on I-70, and making Seneca School and Little Creek Roads 4-lanes in the school vicinity.
 - » C2 Recommend developing a conceptual design, including a bridge over Connoquenessing Creek, and cost estimate for road access to Evergreen Mill Road to assist in prioritization of possible improvements.
 - » C3 Recommend adding a road connection to Seneca School Road at easternmost soccer field parking lot.
 - » C4 Recommend adding a place for cars to pull up and drop off near the stadium and other fields.
 - » C5 Consider redesign of vehicular circulation around a campus perimeter ring road. Incorporate pedestrian safety strategies such as raised crossings, traffic calming, and strategic closures.





- » C6 Redesign and relocation of campus entry sign.
- » Increase bus stacking to allow for emergency access.
- » Undertake an ADA audit and prepare a plan to address any non-compliant items.
- » Prepare a signage study to coordinate signage message, style, and location.
- » Develop a program to widen sidewalks over time to accommodate student foot traffic volume.
- » Continue annual maintenance and repair of curbs and parking, also include annual inspection and cleaning of storm inlets.
- Athletics
 - Adopt a holistic approach to field and facility development to include the following.
 - » A1 Recommend construction of a structure east with shelter, concessions & restrooms.
 - » A2 Recommend construction of a girl's locker room.
 - » A3 Recommend development of a new press box.
 - » A4 Recommend expansion field areas to the southeast and northeast along with road access and parking areas.
 - » A5 Consider construction of a new stadium with 8-lane track in the northeast portion of the site.
 - » A6 Consider development of indoor fields on the existing fields to the west.
 - » A7 Consider the design and careful relocation of the cross country in conjunction with any new development.
- Amenities & Facilities: Consider a master plan for student oriented outdoor campus that addresses the following improvements:
 - » Refocus the campus to incorporate a central, walkable core with a variety of outdoor spaces to support learning, collaboration, socialization, and relaxation.
 - » Create a nexus of outdoor spaces, stadium activities, and pedestrian circulation at the area adjacent to the stadium, a new 'Seneca Way' that is iconic, attractive, and functional.
 - » Improve and program the east courtyard, possibly to include art and exhibition space.
 - » Continue to build on outdoor learning environments including expanding the walking trail/interpretive signage in undeveloped parts of the campus, adding another more accessible outdoor classroom, developing a pavilion and/or field stations tied to science programs with additional programming and activities that are integrated with the curriculum.
 - » Develop a program to widen sidewalks over time to accommodate student foot traffic volume.
 - » Make the east/west sidewalk connection between the Intermediate High School and Middle School more pedestrian friendly with additional landscaping and site furniture.
 - » Add more seating and socialization areas.
 - » Consider installation of an edible garden and/or meditation garden.
 - » Require that new landscaping be native plant species. Explore opportunities to



support habitat through undisturbed woodlands, rain gardens and plant collections—all to be tied back to the curriculum.

- » Partner with the community to make the school more of a community asset and/or possibly a shelter in an emergency situation.
- Recommend a holistic approach to athletic field and facility development including:
 - » A1 Recommend construction of a structure east with shelter, concessions & restrooms.
 - » A2 Recommend construction of a girl's locker room.
 - » A3 Recommend development of a new press box.
 - » A4 Recommend expansion field areas to the southeast and northeast along with road access and parking areas.
 - » A5 Consider construction of a new stadium with 8-lane track in the northeast portion of the site.
 - » A6 Consider development of indoor fields on the existing fields to the west.
 - » A7 Consider the design and careful relocation of the cross county in conjunction with any new development.
- Amenities & Facilities
Consider a master plan for student oriented outdoor campus that addresses the following improvements.
 - » F1 Refocus the campus to incorporate a central, walkable core with a variety of outdoor spaces to support learning, collaboration, socialization, and relaxation.
 - » F2 Relocate maintenance building and create a nexus of outdoor spaces, stadium activities, and pedestrian circulation at the area adjacent to the stadium, a new 'Seneca Way' that is iconic, attractive, and functional.
 - » F3 Make the east/west sidewalk connection between the Intermediate High School and Middle School more pedestrian friendly with additional landscaping and site furniture.
 - » F4 Redesign of the school entrance to increase curb appeal including signage, landscaping and art installations.
 - » F5 Recommend landscape maintenance items including: evaluate health of maple trees in main High School parking lot and prepare a replacement plan, if necessary; trim overhanging evergreen branches in student parking lot; replace dead hedge along High School near Seneca School Road; remove and replace dead tree and plants at the east High School entrance.
 - » F6 Improve and program the east courtyard, possibly to include art and exhibition space.
 - » Continue to build on outdoor learning environments including expanding the walking trail/interpretive signage in undeveloped parts of the campus, adding another more accessible outdoor classroom, developing a pavilion and/or field stations tied to science programs with additional programming and activities that are integrated with the curriculum. Expanding outdoor education should be considered in conjunction with class timing.





- » Consider pavilions for dual duty as both classrooms and as support for athletic facilities.
- » Add more seating and socialization areas.
- » Consider installation of an edible garden and/or wellness garden.
- » Require that new landscaping be native plant species. Explore opportunities to support habitat through undisturbed woodlands, rain gardens and plant collections—all to be tied back to the curriculum.
- Safety & Security
 - » S1 Addition of security at entrance such as a guard shack.
 - » Partner with the community to make the school more of a community asset and/or possibly a shelter in an emergency situation.

OUTBUILDINGS

FIELDHOUSE

1. FIELDHOUSE RATING: FAIR

- The field house contains boy's team locker rooms, equipment storage, weight room and a wrestling room. The building is constructed of painted, uninsulated CMU. The CMU appears to be structurally sound in good condition, but the walls are stained and dirty and should be cleaned and repainted. A lack of exterior insulation makes this an energy inefficient building.
- Windows and doors are coated aluminum in good condition.

2. ROOF

RATING: GOOD

- The roof is sloped with dimensional asphalt shingles installed in 2015. The roof is in good condition. Copings and flashings are painted aluminum presumed to be replaced with the shingles and in good condition. Gutters and downspouts are painted aluminum in good condition. One section of downspout is missing at the south east corner of the building.

3. INTERIORS

RATING: FAIR

- Interior finishes consist of painted gypsum board ceilings, painted concrete floors, sealed concrete floors and painted CMU walls. Adult changing rooms have wood lockers and carpet tile flooring – both in good condition. Showers have rubber tile flooring in fair condition. All general building finishes are in fair to poor condition. Floors are scuffed and paint is chipped and peeling in many locations. Ceilings are showing cracks at board seams and paint is peeling particularly around HVAC diffusers. Doors are of painted hollow metal in good condition. Athlete lockers are wood in fair condition.

4. CODE COMPLIANCE/ACCESSIBILITY RATING: GOOD

- Door hardware is accessible.
- Restrooms will require fixture height adjustments to be fully ADA compliant. Shower controls may not be any higher than 48" above the shower floor.
- The building is presumed to be code compliant pursuant to the code it was constructed under. Should a Level 2 or



greater renovation be conducted the building may require code upgrades pursuant to current building codes.

- The upper mezzanine should not have an occupant load greater than 49, otherwise two means of egress are required.

5. BUILDING SAFETY AND SECURITY
RATING: FAIR

- The building contains a number of entry / exit points that are unmonitored. The entries are key access and FOB access. This building is fairly accessible from a security perspective given number, location and lack of visual monitoring of each entry/ exit.
- The building does not contain security cameras.

6. BUILDING SAFETY AND SECURITY
RATING: FAIR

- The building contains a number of entry / exit points that are unmonitored. The entries are key access and FOB access. This building is fairly accessible from a security perspective given number, location and lack of visual monitoring of each entry/ exit.
- The building does not contain security cameras.

7. RECOMMENDATIONS

- The building exterior should be cleaned and repainted to better support school brand. Interior finishes should be upgraded. Laminate film and localized audible alarms should be considered for exterior door security.

PRESS BOX

1. EXTERIOR
RATING: FAIR

- The press box is a two story structure containing press box functions on both levels. The building is a timber frame construction supported on exposed concrete masonry units with painted T-111 wood siding and an asphalt shingle roof. The upper level is accessible via treated lumber stairs located on opposite ends of the press box. The exterior siding is in poor condition with numerous instances of peeling paint and rotting/ deteriorated siding.
- Windows and doors are metal in poor condition. Doors have openings where previous door hardware was removed. Current door hardware is non-ADA.

2. ROOF
RATING: GOOD

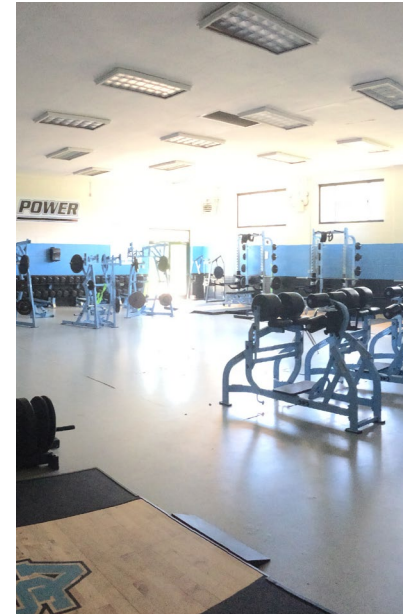
- The roof is sloped with dimensional asphalt shingles. The roof was not observable. Gutters and downspouts are painted aluminum in fair condition.

3. INTERIOR
RATING: FAIR

- Interior finishes consist of a finished gypsum board ceiling, wood grain T-111 siding interior partitions and carpet flooring. All interior finishes are in poor condition.

4. CODE COMPLIANCE/ACCESSIBILITY
RATING: COMPLIANT GRANDFATHERED

- Door hardware is not accessible.
- Should a new press box be constructed it must be a minimum of 12'-0" above grade and less than 500 square feet to avoid the need to be on an accessible route.





5. BUILDING SAFETY AND SECURITY
RATING: POOR

- No exterior or interior surveillance cameras were observable. The building is locked by a lockable handle set.

6. ROOF
RATING: RECOMMENDATIONS

- The building exterior and interior are in poor condition. The building should be reconstructed with a more substantial structural and architectural system. Security cameras should be provided, if not currently provided off of the existing IHS.

CONCESSIONS/RESTROOMS

1. EXTERIOR
RATING: GOOD

- The building is a concrete masonry unit construction with jumbo brick veneer and an asphalt shingle roof. The exterior brick is in good condition.
- Man-doors and frames are painted metal in fair condition. Overhead coiling doors (at concessions) are stainless steel in fair condition (coil shrouds are dented and in poor condition).

2. ROOF
RATING: GOOD

- The roof is sloped with dimensional asphalt shingles. The roof is in good condition

3. INTERIOR
RATING: FAIR

- Interior finishes consist of painted sheet plywood ceilings, painted CMU walls and sealed concrete floors. All interior finishes



are in good condition. Restroom fixtures and partitions are in good condition. The quantity of restrooms should be reviewed with current code, should these be renovated.

4. CODE COMPLIANT/ACCESSIBILITY
RATING: COMPLIANT GRANDFATHERED

- Door hardware is not accessible.
- Restrooms are compliant.

5. BUILDING SAFETY AND SECURITY
RATING: GOOD

- b. No exterior or interior surveillance cameras were observable. The building is locked by a lockable handle set.

6. RECOMMENDATIONS

- The building exterior and interior are in good condition. The building should not need significant renovations for the foreseeable future. Interior painting could be provided to enhance the interior condition. Security cameras should be provided, if not currently provided off of the existing IHS.

7. MISCELLANEOUS STRUCTURES

- Miscellaneous site structures exist to support the campus and stadium. These structures consist mainly of district maintenance facilities and site/ field storage facilities. The district maintenance facility is a painted concrete masonry unit structure with an asphalt shingle sloped roof. This structure is in fair condition for its use. It is not in an ideal location to support an integrated and student/ pedestrian oriented campus. Other site structures consist of pre-manufactured storage sheds to support fields / athletics. These structures are in fair to poor condition



and do not support an integrated campus environment.

MECHANICAL

1. SUMMARY

- The purpose of this feasibility study is to evaluate the HVAC, plumbing and fire protection systems at the Field House, note current conditions and deficiencies and provide solutions or recommended improvements to these systems.

2. EXISTING HVAC SYSTEM DESCRIPTION

- This report will evaluate the following HVAC systems
 - » Air distribution systems

3. AIR DISTRIBUTION SYSTEMS

- The spaces are heated, cooled, and ventilated by four rooftop central station air handling units with electric heating coils and dx cooling coils. These units were installed in 2014 and are in good condition. The Wrestling room should be evaluated to determine if additional heat is required. Corridors are heated by electric fin-tube radiation which appears to be in poor condition. Electric unit heaters are provided for heating restrooms and appear to be in good condition.
- Kitchen
 - » Recessed cabinet heaters provide heating and ventilating for the rooms, the units are in poor condition.

PLUMBING

1. SUMMARY

- The purpose of this feasibility study is to evaluate the plumbing systems at the Field House, note current conditions and deficiencies and provide solutions or recommended improvements to the plumbing systems.

2. EXISTING PLUMBING SYSTEM DESCRIPTION

- This report will evaluate the following plumbing systems
 - » Domestic water heating equipment
 - » Piping systems
 - » Plumbing Fixtures
 - » Fire protection systems

3. DOMESTIC WATER HEATING EQUIPMENT

- a. The domestic water is heated by an electric water heater and this heater appears to be in fair condition. .

4. DOMESTIC WATER SERVICE

- The building is provided with domestic water from the Intermediate High School water service.

5. PIPING SYSTEMS

- a. The piping systems were installed in 1992. Domestic water system consists of copper piping. Sanitary and storm are cast iron. The existing valves are in poor condition and do not shut water off when the valves are in the closed position.

6. PLUMBING FIXTURES

- The building plumbing fixtures are original. Water closets are wall mounted vitreous china flush valve type. Urinals are wall





mounted vitreous china flush valve type and are in good condition. Lavatories are wall hung vitreous china and are in fair condition. Electric water coolers are wall hung single units and are in good condition. Locker rooms are provided with gang type showers with drains that do not meet current code requirements..

7. KITCHEN EQUIPMENT

- The kitchen equipment is not in the scope of the plumbing, however, the associated grease trap, water distribution, sanitary and vent systems and natural gas supply are. The grease trap is located outside the building.

8. FIRE PROTECTION

- The Field House is not provided with a complete sprinkler fire protection system.
- An automatic fire protection system should be provided to comply with current code requirements.



ELECTRICAL

1. ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT

- Electrical Service
 - » 225 ampere, 277/480 volt, 3 phase, 4 wire electric service from the common electric service in the building which also provide power for the adjoining maintenance building, storage building and stadium lighting, pressbox, concession stands and rest rooms.
- Distribution Equipment
 - » General Electric service disconnect switches, 480V to 120/208V transformers and branch circuit breaker panels as required for power to lighting, general power receptacles, HVAC equipment and services to other buildings and the stadium.

2. EMERGENCY POWER SYSTEM EQUIPMENT

- Building emergency egress exit lighting is provided by wall mounted battery units with directional lighting fixture heads and battery powered exit signage.
- Emergency lighting as indicated on available drawings appears to meet code requirements.

3. LIGHTING SYSTEMS

- Corridors
 - » Surface mounted fluorescent strip fixtures.
- Offices and Locker Room
 - » Surface mounted fluorescent fixtures with wrap-around acrylic lens.
- Wrestling Room



- » Surface mounted fluorescent strip fixtures with wire guards.
- Fitness Room
 - » Surface mounted fluorescent fixtures with louvered lens.
- Exterior Lighting
 - » Building mounted HID wall packs.
- Fluorescent fixtures have been upgraded with energy efficient T8 lamps and electronic ballasts.
- Lighting Controls
 - » Time clock and photocell control of exterior lighting.
- Fire Alarm System
 - » Not required.

ELECTRONIC SECURITY, ACCESS CONTROL, PAGING, SOUND, CLOCK AND TECHNOLOGY SYSTEMS

1. SECURITY SYSTEMS

- Building Access Control
 - » Networked Synergistics/Millennium access control system equipment provides authorized/unauthorized access to the fieldhouse and all the school district buildings.
 - » Proximity type card readers control access to building.
- Video Surveillance Cameras
 - » Security cameras provide for video surveillance in selected areas as required.

2. TECHNOLOGY SYSTEM

- Telecommunications Network Infrastructure
 - » Category 5 type cabling to data network outlets and multimode 62.5 fiber optic backbone network cabling to school district network in the Intermediate High School network nearby. The telecommunications equipment room consists of a wall mounted equipment racks with networking equipment and horizontal cabling patch panels as required.
 - » Wireless access points installed to provide access to the network throughout the building.
- Telephone System
 - » Cisco IP telephone system and telephones installed throughout this building and the school district.

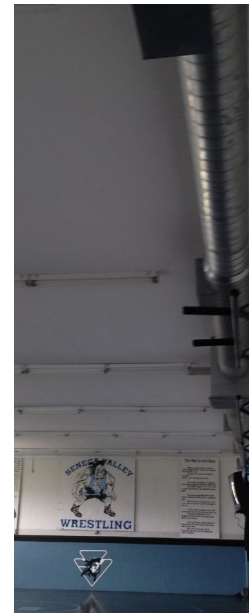
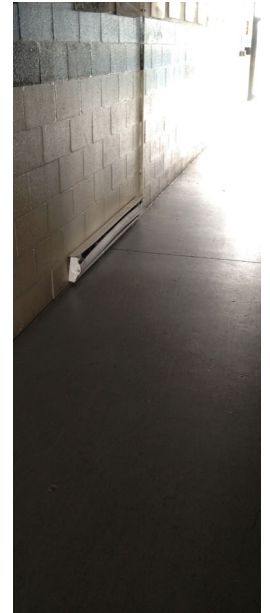
BUILDING SYSTEMS RATINGS & CODE COMPLIANCE

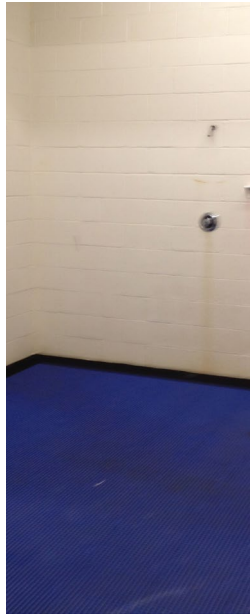
1. BUILDING SYSTEMS RATING

- Electrical lighting and power distribution are original to the building construction and are in fair condition.
- The electronic and technology systems have been installed over multiple years and are in fair condition. These systems should be continually evaluated and updated to provide for the building technology and security requirements.

2. CODE COMPLIANCE

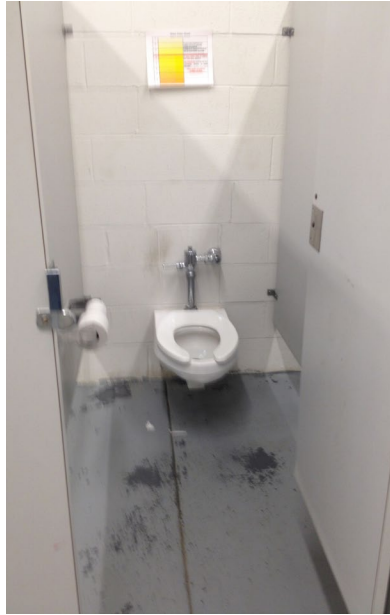
- Compliant with current electrical system code requirement.

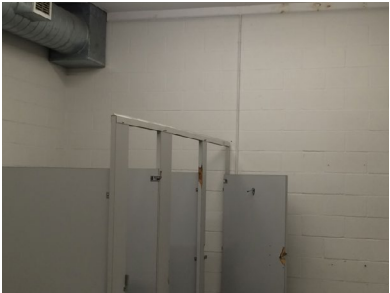
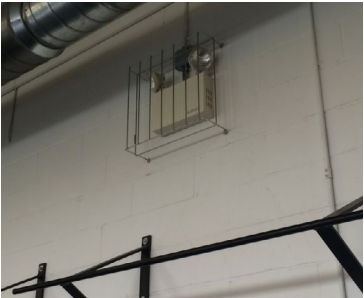
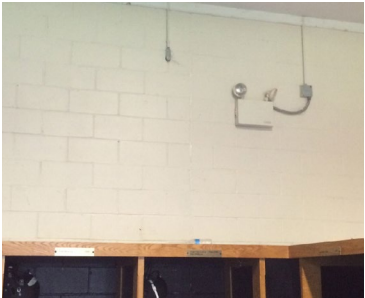




3. RECOMMENDATIONS

- Energy saving upgrades to LED type lighting fixtures should continually be evaluated and considered..







Ehrman Road Site

227

Fast Facts

Acreage — 150.61 acres

Location North — Jackson Township

Jackson Township Zoning District -
Residential with a Transitional Overlay

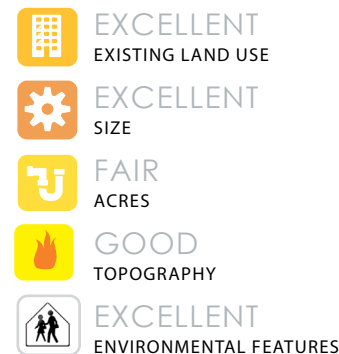
Residential District — School is a
Conditional Use

Location South — Cranberry Township

Cranberry Township Zoning District —
Industrial Light

Industrial Light Zoning District — School is
a Conditional Use

Portable Classrooms — N/A



GOOD
OVERALL SITE
RATING

KEY SITE CONDITIONS



Existing Conditions Ehrman Road Site

229



Site

1. EHRMAN ROAD SITE:

- The Ehrman Road site is an undeveloped property owned by Seneca Valley School District. Access to the property is via SR19. Traveling eastbound from SR19, Ehrman Road passes under I-79 before coming to the property. A boundary and topographic survey is not available for the property, and the site assessment was largely gathered from general on-line sources
- Location
 - » The Ehrman Road site is centrally located within the Seneca Valley School District and is in both Jackson and Cranberry Townships.
- Existing and Adjacent Land Use
 - » The property is undeveloped and mostly wooded with some disturbance to the south, possibly from off-road vehicles. I-79 borders the property to the east. To the west is a brick company and yard. Farther out are undeveloped properties and residential developments.
- Size
 - » The approximate size of the property is 150 acres with about 90 acres in Jackson Township and 60 acres in Cranberry Township.
- Access
 - » The property is long and narrow, with Ehrman Road along its southern boundary. The probable location for an access road into the property is across from the multi-family housing complex to the south. This would result in a 4-way intersection with good sight distance along Ehrman Road. Other opportunities for access into the site from Ehrman Road may exist, but these would be relatively close and not ideal for efficient traffic movement.
- Topography
 - » The topography of the site consists of relatively flat hill tops and somewhat steep valleys. Locating large-footprint development such as school buildings, parking lots, and athletic fields on the flatter parts of the site would likely be more cost effective. The southern portion of the property is flatter, with a developable area of about 50 acres. The topography in the northern part of the property is more variable resulting in limited level areas.
- Environmental Features
 - » A review of the National Wetland Inventory did not identify wetlands on the property. The Pennsylvania Natural Diversity Index does not show threatened or endangered plant or animal species on the site.
- Code
 - » Since the property is in two municipalities, the land development ordinances in both Jackson Township and Cranberry Township would apply.
 - » Jackson Township: The Jackson Township portion of the property is in the R, Residential District and the TO,





Transitional Overlay Zoning District. The purpose of the TO District is to provide nonresidential and mixed use options within and adjoining neighborhoods. In the R and TO District, a school is a Conditional Use. North of the property, the TO District continues, to the east is the R, Residential District.

- » Cranberry Township: Cranberry Township's Comprehensive Plan, which identifies the vision of the community, targets the I-79 corridor for mixed-use, traditional neighborhood development, and smart growth. In its Zoning Ordinance, the property is designated I-L, Industrial Light Zoning District, in which a public school is a Conditional Use. Immediately adjacent property to the east is also I-L, beyond that are residential districts: R-1, Rural Residential; R-2, Single Family Residential; and R-3, Multi-family Residential.
- **Recommendations:** The following recommendations were developed with the Seneca Valley administrative and facilities staff, board members, principals, teachers, students, parents, elected officials, police and fire chiefs, and business leaders.
 - » Consider opening discussions with community leaders regarding partnering on an athletic facility.
 - » Consider commissioning a land and topographic survey of the site.
 - » Consider evaluation of utility and traffic impacts that may influence site

use and capacity.



Options



Evans City Option 1

Estimated Total Project Cost

\$341,000

Description:

This option consists of minimal renovations to the existing facility and site. Renovations will be limited to those items outlined in the District's current Long Range Facilities Plan and any additional building assessment recommendations to keep the facility "warm, safe and dry". This option assumes an increase in class size to eliminate the need for building additions due to enrollment growth.

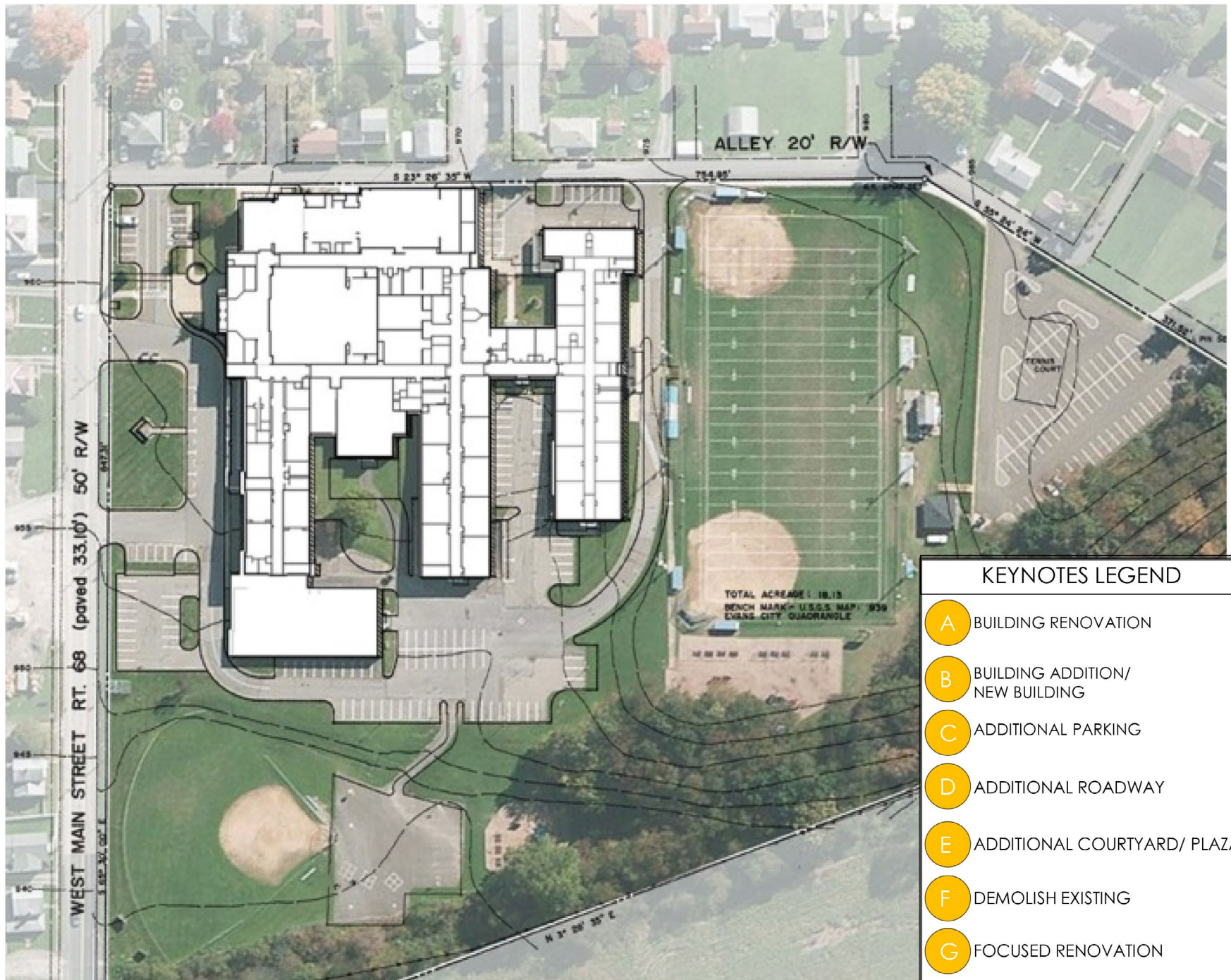
School Population: 1,163

Pros:

- Least Costly Option

Cons:

- Maintains existing conditions.
- Does not address space needs for ideal class sizes.
- Does not address space requirements for 21st Century learning.
- Does not address additional learning support and special education space needs and ideal locations.
- Does not address additional programmatic space needs.
- Does not address stated aspirational goals.
- Does not address improved interior environment.
- Does not address enhanced use of site.
- Does not provide for increased energy efficiency.
- Does not address site/ vehicular concerns/ recommendations.
- Does not address fragmented grade houses.
- Does not address accessibility concerns at the lower level.
- Does not assist CVE with reducing required enrollment growth additions.



Evans City Option 2

Estimated Total Project Cost

\$42,247,001

Description:

Given the age and condition of the facility, this option consists of extensive interior and exterior renovations and additions, including:

- Items outlined in the District's current Long Range Facilities Plan.
- Renovations to address recommendations from the building assessment.
- A full building renovation to replace MEP systems and provide a more inspiring learning environment .
- Enhanced energy efficiency.
- New furnishings and equipment.
- Additions for requested learning support spaces and programs.
- Additions for ideal class sizes.
- Additions for enrollment growth.

Aspirational goals for this option include:

- Future additions for full day K.
- Future additions for student and faculty collaboration areas.

School Population: 1,163

Pros:

- Addresses space needs for ideal class sizes.
- Provides spaces for 21st Century learning.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Address enhanced use of site.
- Provides for increased energy efficiency.

Cons:

- Costly
- Requires redesign and possible reduction of site play fields and areas.
- Limited improvement of interior and exterior.
- Phased construction.
- Does not address site/ vehicular concerns/ recommendations.
- Does not provide for ideal 21st century learning environments.
- Does not assist CVE with reducing required enrollment growth additions.
- Does allow for a combined 5-6 center onto one site.
- Does not allow fully accessible lower levels.

Evans City Option 3

Estimated Total Project Cost

\$52,408,838

Description:

This option consists of a new K-6 elementary / middle school on the existing Evans City site. The new facility would be designed to meet the stated aspirational goals, projected enrollment growth for Evans City Elementary and Middle School and ideal class sizes. This option will maintain the existing Evans City catchment area.

School Population: 1,163

Pros:

- Addresses space needs for ideal class sizes.
- Provides ideal spaces for 21st Century learning.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Provides for optimized energy efficiency.

Cons:

- Costly
- Requires temporary elimination of play fields and areas.
- Possible variance request required for building height.
- Does not assist CVE with reducing required enrollment growth additions.
- Does not address site/ vehicular concerns/ recommendations.
- Extensive site work.
- Does allow for a combined 5-6 center onto one site.

Evans City Option 4

Estimated Total Project Cost

\$67,902,000

Description:

This option consists of a new K-6 elementary / middle school on the Ehrman Road site. The new facility would be sized to accommodate the projected enrollment growth for the Evans City Elementary and Middle School,, Connoquenessing Valley and Rowan catchment areas. This option would maintain separate grades 5-6 centers at Ehrman Road and Haine.

School Population: 1,560

Pros:

- Addresses space needs for ideal class sizes.
- Provides ideal spaces for 21st Century learning.
- Allows for optimized site/ vehicular circulation.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Provides for optimized energy efficiency.
- Eliminates required enrollment growth additions to CVE – maintains neighborhood school size.
- Eliminates phasing requirements at Evans City.
- All existing fields are maintained.
- Smaller 5-6 at Ehrman.
- Minimizes additions to CVE.
- The site will be a ecological learning tool.

Cons:

- Costly
- Extensive site work.
- Larger K-4
- Does allow for a combined 5-6 center onto one site.
- Requires redistricting



Evans City Option 4A

Estimated Total Project Cost

\$51,762,800

Description:

This option consists of a new 5-6 middle school on the Ehrman Road site. The new facility would be sized to accommodate the projected enrollment growth for grades 5 and 6 in the Evans City and Haine catchment areas. The vacated 5-6 wing of Haine Middle School would eventually be filled with the project enrollment growth from the Connoquenessing Valley and Rowan catchment areas.

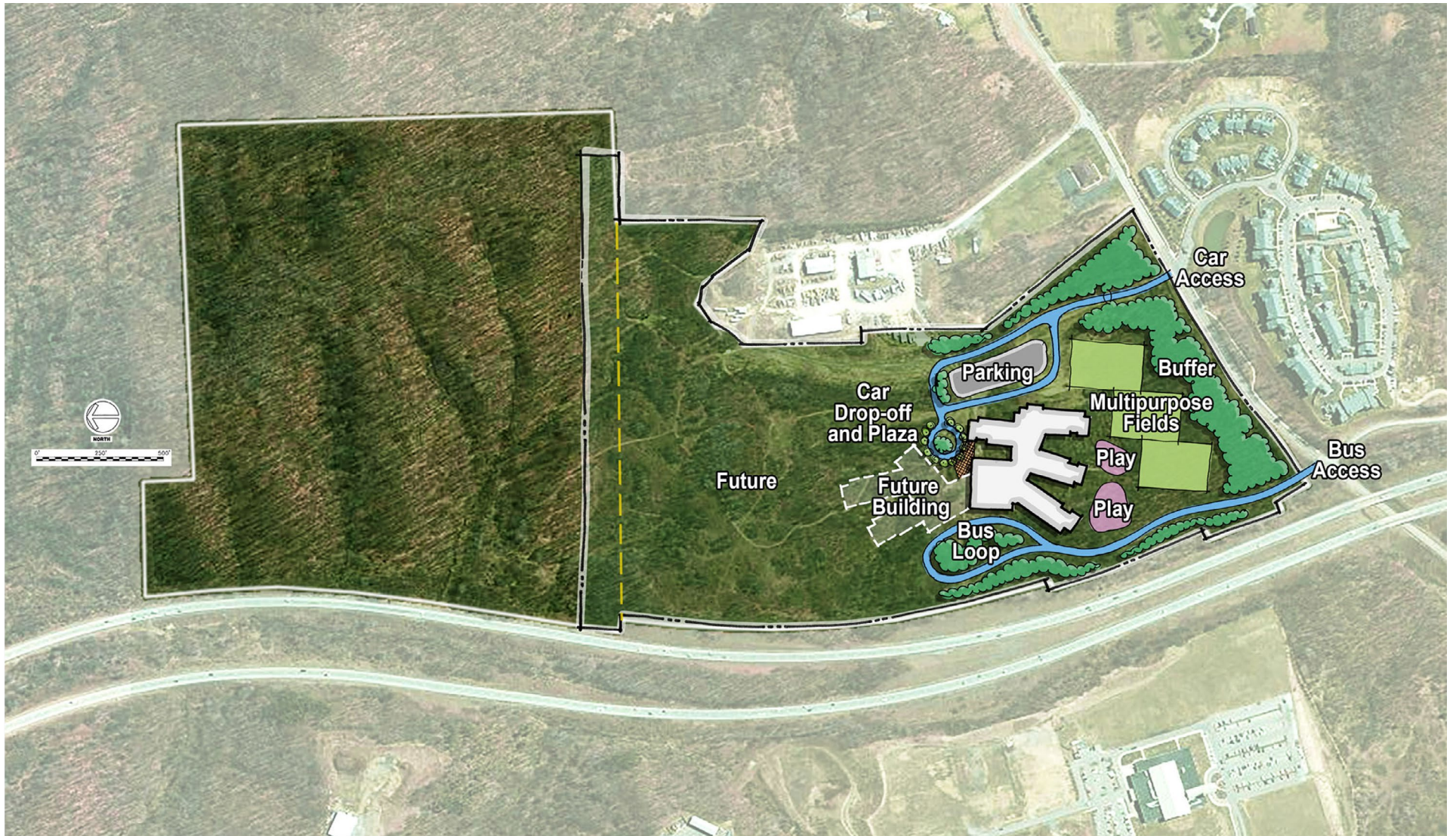
School Population: 1,183

Pros New Construction:

- Provides for a combined 5-6 center for the entire district. Provides ideal spaces for 21st Century learning.
- Allows for optimized site/ vehicular circulation.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Provides for optimized energy efficiency.
- Eliminates required enrollment growth additions to CVE – maintains neighborhood school size.
- Eliminates phasing requirements at Evans City.
- All existing fields at Evans City are maintained.
- Allows a smaller K4 at Ehrman Road.
- The site will be a ecological learning tool.

Cons:

- Costly.
- Requires redistricting.
- Vacant space at Haine.



Evans City Option 4B

Estimated Total Project Cost

\$24,960,200

Description:

This option consists of a new K-4 elementary school addition on the Ehrman Road site. The new facility would be sized to accommodate the projected enrollment growth for the Evans City Elementary catchment area. The vacated Evans City Elementary would be slated for sale, repurpose or demolition.

School Population: 565 (1,748 Total)

Pros New Construction:

- Addresses space needs for ideal class sizes.
- Provides ideal spaces for 21st Century learning.
- Allows for optimized site/ vehicular circulation.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Provides for optimized energy efficiency.
- Eliminates required enrollment growth additions to CVE.
- Eliminates phasing requirements at Evans City.
- All existing fields at Evans City are maintained.
- The site will be a ecological learning tool.

Cons:

- Costly.
- Larger K-4 at Haine.
- Requires redistricting



Haine Option 1

Estimated Total Project Cost

\$7,934,100

Description:

This option consists of minimal renovations to the existing facility and site. Renovations will be limited to those items outlined in the District's current Long Range Facilities Plan and any additional building assessment recommendations to keep the facility "warm, safe and dry". This option assumes an increase in class size to eliminate the need for building additions due to enrollment growth.

School Population: 1,418

Pros:

- Least costly option
- Maintains existing conditions.

Cons:

- Does not address space needs for ideal class sizes.
- Does not address space requirements for 21st Century learning.
- Does not address additional learning support and special education space needs and ideal locations.
- Does not address additional programmatic space needs.
- Does not address stated aspirational goals.
- Does not address improved interior environment.
- Does not address enhanced use of site.
- Does not provide for increased energy efficiency.
- Does not address site concerns/ recommendations.



Haine Option 2

Estimated Total Project Cost

\$40,523,977

Description:

This option consists of renovations and additions to the existing facility and site, including:

- Items outlined in the District's current Long Range Facilities Plan
- Consolidation of the elementary administration suite
- Conversion of the LGI into a K-2 literacy center
- Conversion of the elementary computer lab into a K-6 cyber center
- Conversion of the library and adjacent entry lobby into a maker space.
- A full building renovation to provide MEP systems upgrades, a more inspiring learning environment and address recommendations made in the facility assessment, including site recommendations
- Enhanced energy efficiency
- New furnishings and equipment
- Additions for requested learning support spaces and programs
- Additions for ideal class sizes
- Additions for enrollment growth

Aspirational goals for this option include:

- Additions for full day K.
- Additions for student and faculty collaboration areas

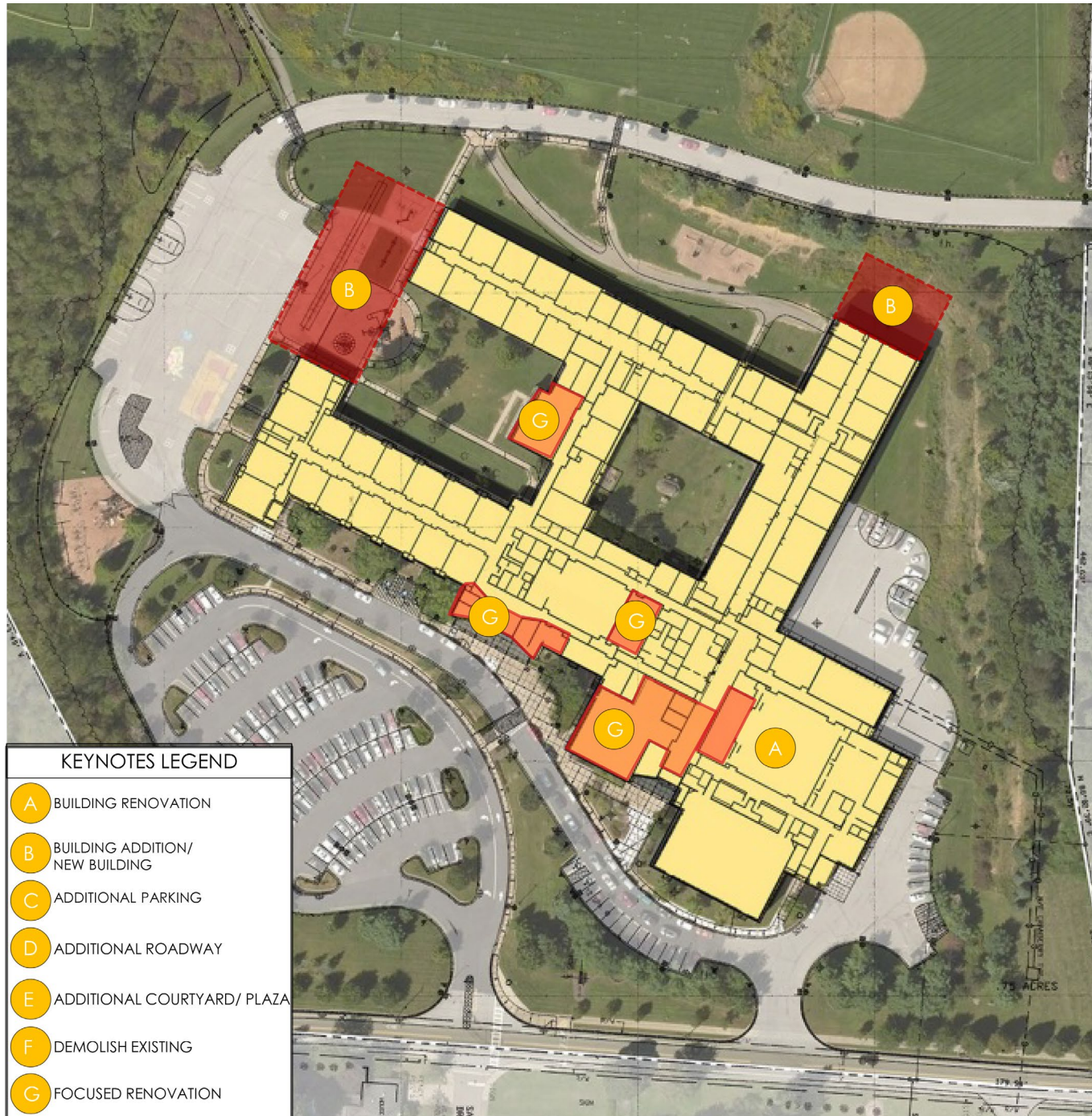
School Population: 1,418

Pros:

- Addresses space needs for ideal class sizes.
- Provides limited 21st Century learning spaces.
- Addresses additional learning support and special education space needs.
- Addresses stated aspirational goals.
- Addresses improved interior environment.
- Addresses enhanced use of site.
- Provides for increased energy efficiency.
- Visibly improved interior and exterior environments.

Cons:

- Costly
- Phased construction.
- Does not assist CVE with reducing required enrollment growth additions.



Haine Option 3

Estimated Total Project Cost

\$36,446,439

Description:

This option assumes the vacated 5-6 wings of Haine would be filled with the project enrollment growth from the Connoquenessing Valley and Rowan catchment areas.

This option consists of renovations and additions to the existing facility and site, including:

- Items outlined in the District's current Long Range Facilities Plan
- Consolidation of the elementary administration suite.
- Conversion of the LGI into a K-2 literacy center.
- Conversion of the elementary computer lab into a K-6 cyber center.
- Conversion of the library and adjacent entry lobby into a maker space.
- A full building renovation to provide a more inspiring learning environment and address recommendations made in the facility assessment, including site recommendations.
- New furnishings and equipment.

Aspirational goals for this option include:

- Additions for full day K..

School Population: 1,223

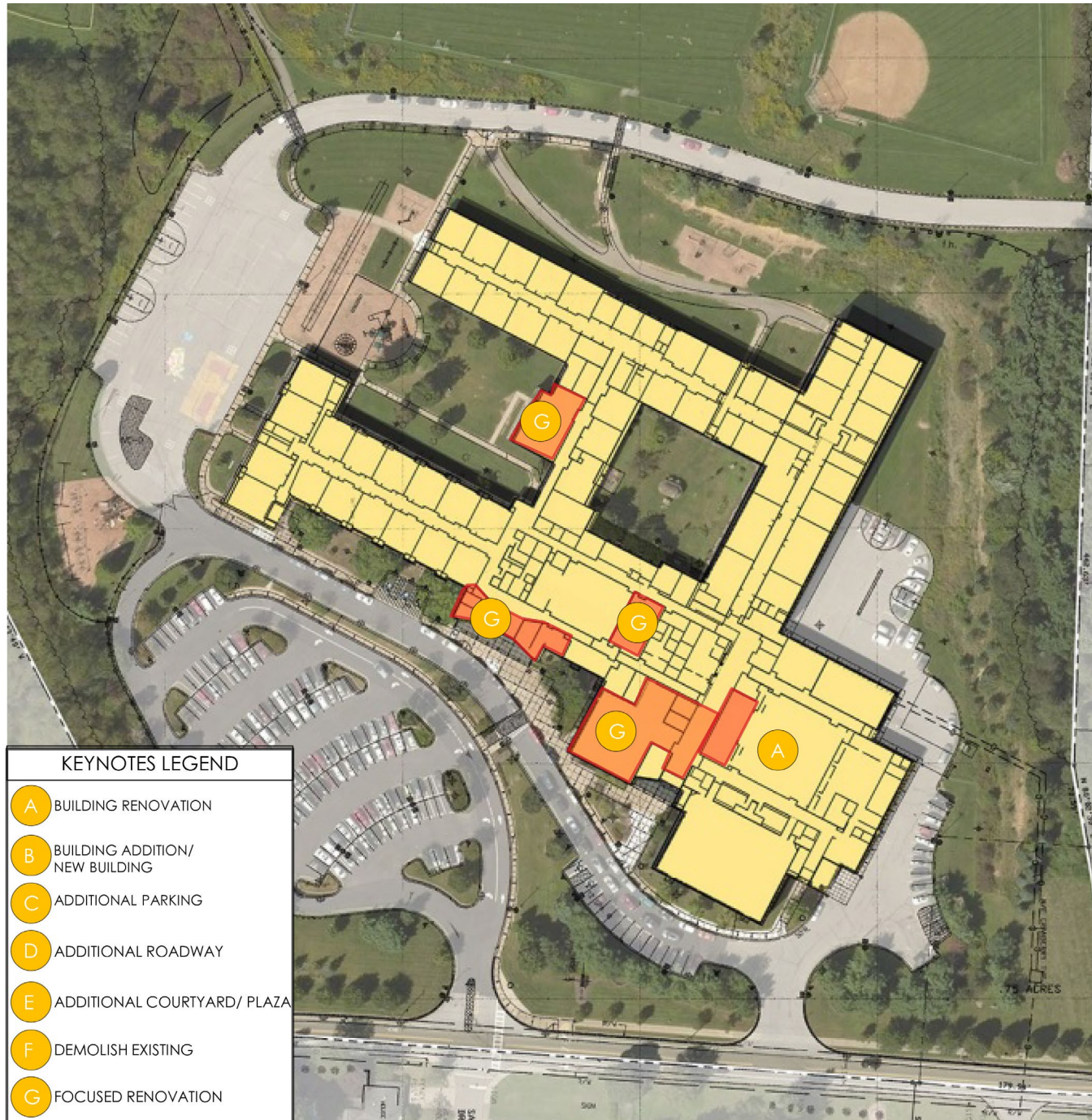
Pros:

- Addresses space needs for ideal class sizes.
- Provides space for 21st Century learning.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Address enhanced use of site.
- Provides for increased energy efficiency.
- Visibly improved interior and exterior environments.
- Minimizes additions to CVE.
- Minimizes additions to Haine.

Cons:

- Costly
- Phased construction.
- K-4 population size
- Requires redistricting

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Rowan Option 1

Estimated Total Project Cost

\$3,633,100

Description:

This option consists of minimal renovations to the existing facility and site. Renovations will be limited to those items outlined in the District's current Long Range Facilities Plan and any additional building assessment recommendations to keep the facility "warm, safe and dry". This option assumes an increase in class size to eliminate the need for building additions due to enrollment growth.

School Population: 523

Pros:

- Least costly option
- Maintains existing conditions.

Cons:

- Does not address space needs for ideal class sizes.
- Does not address space requirements for 21st Century learning.
- Does not address undersized gym.
- Does not address additional learning support and special education space needs and ideal locations.
- Does not address additional programmatic space needs.
- Does not address stated aspirational goals.
- Does not address improved interior environment.
- Does not address enhanced use of site.
- Does not provide for increased energy efficiency.
- Limited visible improvement.
- Does not address site concerns/ recommendations



Rowan Option 2

Estimated Total Project Cost

\$17,609,689

Description:

This option consists of renovations and additions to the existing facility and site, including:

- Items outlined in the District's current Long Range Facilities Plan
- Consolidation of the administration suite
- Conversion of the library into a maker space/ media center.
- Expansion of the gym
- A full building renovation to provide MEP systems upgrades, a more inspiring learning environment and address recommendations made in the facility assessment, including site recommendations
- Enhanced energy efficiency
- New furnishings and equipment
- Additions for requested learning support spaces and programs
- Addition for maintenance/ loading dock

Aspirational goals for this option include:

- Additions for full day K.
- Additions for student and faculty collaboration areas.

Enrollment growth will be send to either a new facility on Ehrman Road (Evans City Option 4 or 4A) or to Haine Elementary School (Haine Option 3). This option assumes the number of students per classroom will be based upon District ideal. assumes the number of students per classroom will be based upon District ideal

School Population: 498

Pros:

- Addresses space needs for ideal class sizes.
- Provides limited 21st Century learning spaces.
- Addresses undersized gym.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Address enhanced use of site.
- Provides for increased energy efficiency.
- Visibly improved interior and exterior environments.

Cons:

- Costly
- Requires redesign and possible reduction of site play fields and areas.
- Limited areas for expansion.
- Phased construction.
- Redistricting



CVE Option 1

Estimated Total Project Cost

\$4,433,000

Description:

This option consists of minimal renovations to the existing facility and site. Renovations will be limited to those items outlined in the District's current Long Range Facilities Plan and any additional building assessment recommendations to keep the facility "warm, safe and dry". Due to the extent of enrollment growth for this school, this option requires the addition of 7 classrooms to the existing building, based upon 25 students per classroom.

School Population: 968

Pros:

- Least costly option
- Maintains existing conditions.

Cons:

- Does not address space needs for ideal class sizes.
- Does not address space requirements for 21st Century learning.
- Does not address additional learning support and special education space needs and ideal locations.
- Does not address additional programmatic space needs.
- Does not address stated aspirational goals.
- Does not address improved interior environment.
- Does not address enhanced use of site.
- Does not provide for increased energy efficiency.
- Limited visible improvement.
- Does not address site concerns/ recommendations

CVE Option 2

Estimated Total Project Cost

\$22,681,016

Description:

This option consists of renovations and additions to the existing facility and site, including:

- Items outlined in the District's current Long Range Facilities Plan
- Redesign of the administration and nursing suite.
- Conversion of the library and adjacent entry lobby into a maker space/ media center.
- Renovation of the LGI and conversion of the stage to a sensory room.
- A full building renovation to provide MEP systems upgrades, a more inspiring learning environment and address recommendations made in the facility assessment, including site recommendations.
- Enhanced energy efficiency
- New furnishings and equipment.
- Additions for requested learning support spaces and programs.

Aspirational goals for this option include:

- Additions for full day K.
- Additions for student and faculty collaboration areas

Due to limited site area, enrollment growth will be sent to either a new facility on Ehrman Road (Evans City Option 4 or 4A) or to Haine Elementary School (Haine Option 3) in order to allow area to provide new additions for full day K and student collaboration areas. This option assumes the number of students per classroom will be based upon District ideal.

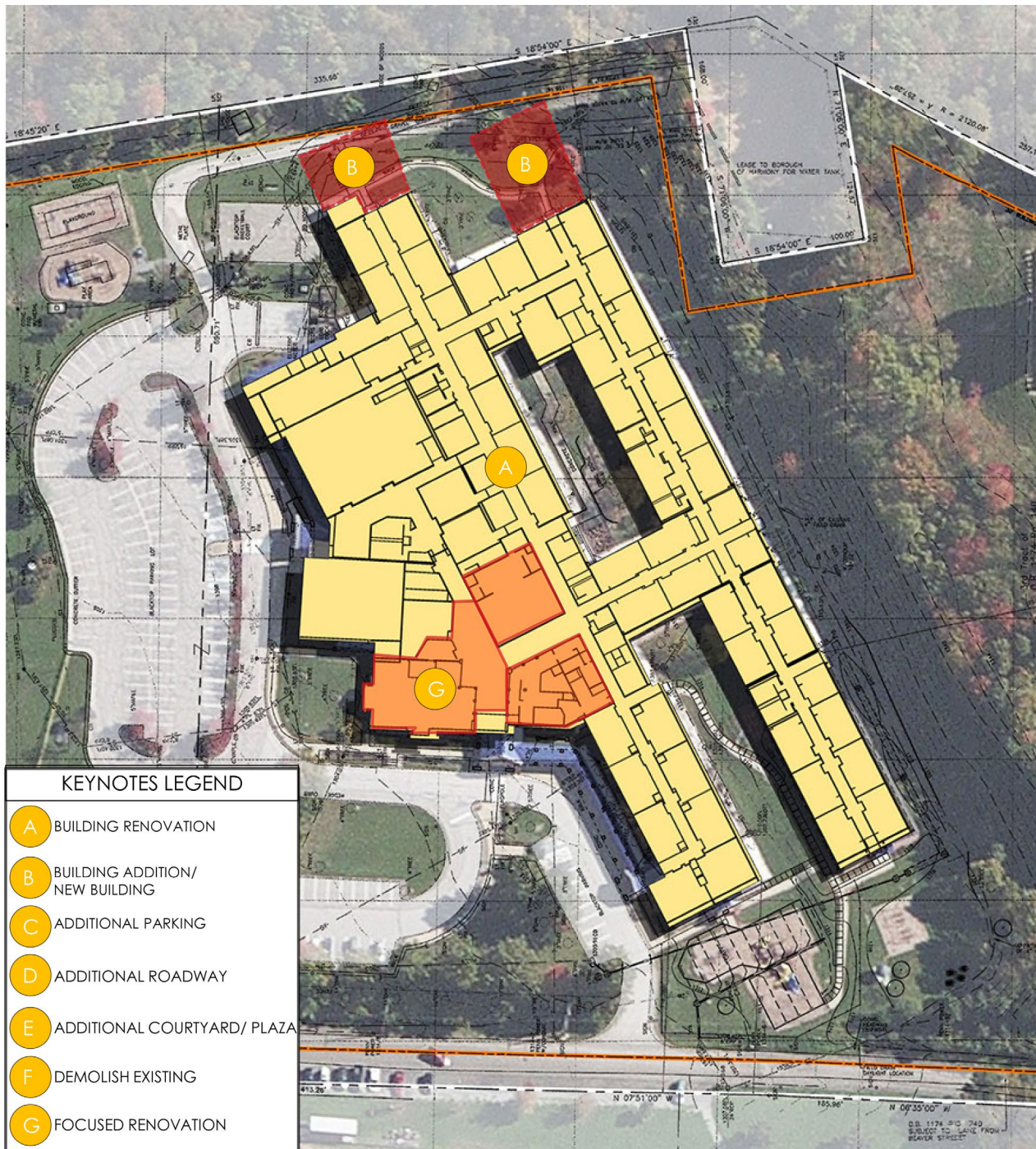
School Population: 654

Pros:

- Addresses space needs for ideal class sizes.
- Provides limited 21st Century learning spaces.
- Addresses additional learning support and special education space needs.
- Address stated aspirational goals.
- Address improved interior environment.
- Address enhanced use of site.
- Provides for increased energy efficiency.
- Visibly improved interior and exterior environments.
- Allows for space option for full day K.

Cons:

- Costly
- Requires redesign and possible reduction of site play fields and areas.
- Limited areas for expansion.
- Phased construction.
- Requires redistricting



SVMS Option 1

Estimated Total Project Cost

\$5,977,330

Description:

This option consists of minimal renovations to the existing facility and site. Renovations will be limited to those items outlined in the District's current Long Range Facilities Plan and any additional building assessment recommendations to keep the facility "warm, safe and dry". Additions are not anticipated based upon building capacity and project enrollment. Additions for this option include:

- Conversion of the library and adjacent support rooms into a maker space/ media center.
- Addition for a 300 seat performing arts auditorium.
- Additions for requested learning support spaces and programs.

Aspirational goals for this option include:

- Additions for student and faculty collaboration areas.

School Population: 1,228

Pros:

- Maintains existing conditions.
- Provides for a 21st Century maker / media space.
- Provides for additional program area.
- Provides for a middle school specific performing arts theater.

Cons:

- Does not address space requirements for 21st Century learning in classroom wings.
- Does not address improved interior environment.
- Does not address enhanced use of site.
- Does not provide for increased energy efficiency.



IHS Option 1

Estimated Total Project Cost

\$370,750

Description:

This option consists of minimal renovations to the existing facility and site. Renovations will be limited to those items outlined in the District's current Long Range Facilities Plan and any additional building assessment recommendations to keep the facility "warm, safe and dry". Additions are not anticipated based upon building capacity and project enrollment.

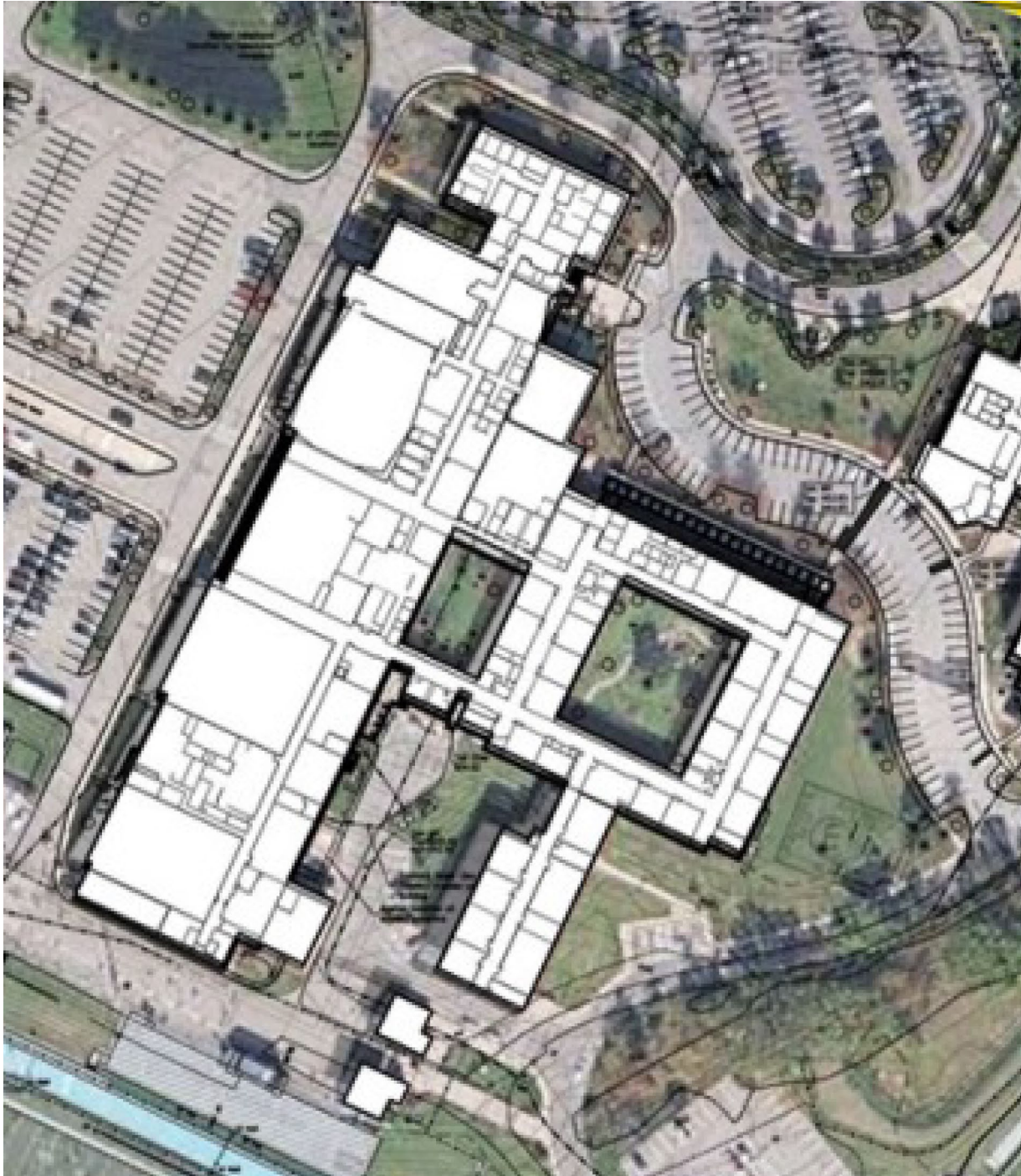
School Population: 1,300

Pros:

- Least costly option

Cons:

- Maintains existing conditions.
- Does not address space requirements for 21st Century learning.
- Does not address requested enlarged auditorium.
- Does not address improved interior environment.
- Does not address enhanced use of site.
- Does not provide for increased energy efficiency.



IHS Option 2

Estimated Total Project Cost

\$68,264,059

Description:

This option consists of renovations and additions to the existing facility and site, including

- Items outlined in the District's current Long Range Facilities Plan
- Conversion of the existing auditorium to seat 1,600.
- Addition for a 8 lane, 25M natatorium.
- Addition for an enclosed connector to the SHS.
- Additions to consolidate visual and performing arts at the IHS.
- Relocation of Tech Ed to the SHS.
- Enhanced energy efficiency
- A full building renovation to provide MEP systems upgrades, a more inspiring learning environment and address recommendations made in the facility assessment, including site recommendations.
- New furnishings and equipment.
- Additions for requested learning support spaces and programs..

Aspirational goals for this option include:

- Additions for student and faculty collaboration areas.

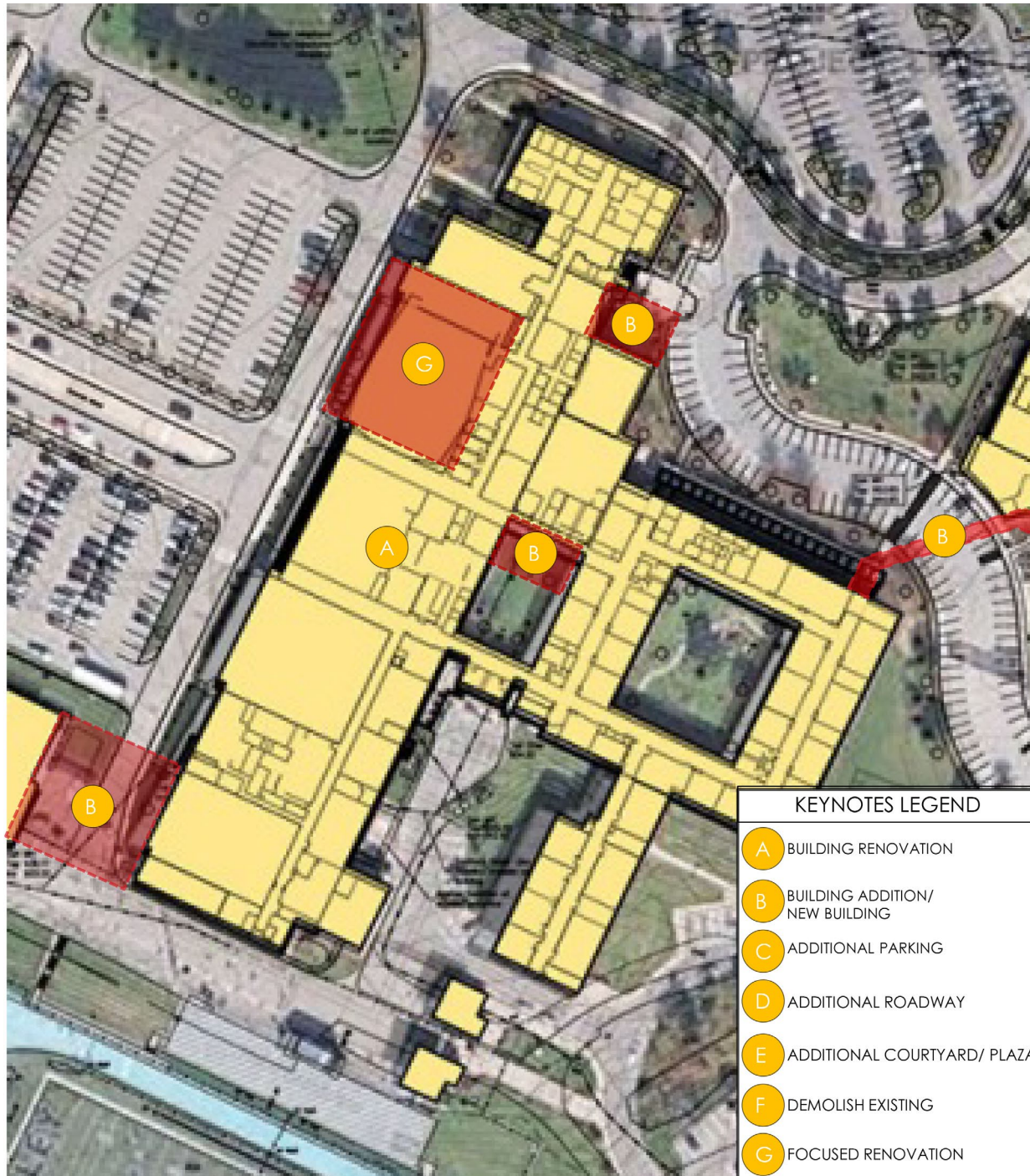
School Population: 1,300

Pros:

- Provides s space for 21st Century learning.
- Addresses stated aspirational goals.
- Co-location of shared programs between IHS and SHS.
- Addresses improved interior environment.
- Addresses enhanced use of site.
- Provides for increased energy efficiency.
- Improved interior and exterior environments.
- Provides for enlarged auditorium.
- Provides for new natatorium and additional gym space.

Cons:

- Costly
- Phased construction
- Reconfiguration of administration parking lot
- Requires renovations at SHS.



IHS Option 3

Estimated Total Project Cost

\$74,435,626

Description:

This option consists of renovations and additions to the existing facility and site, including:

- Conversion of the existing auditorium to seat 1,600.
- Addition for a 8 lane, 25M natatorium.
- Additions to consolidate visual and performing arts at the IHS.
- Relocation of Tech Ed to the SHS.
- A full building renovation to the auditorium, gym, cafeteria, kitchen, performing arts areas.
- New furnishings and equipment.
- Demolition of the existing IHS classroom building.
- New classroom addition to address blended learning.

School Population: 1,300

Pros:

- Provides space for 21st Century learning.
- Addresses stated aspirational goals.
- Co-location of shared programs between IHS and SHS.
- Addresses improved interior environment.
- Addresses enhanced use of site.
- Provides for increased energy efficiency.
- Ideally designed interior and exterior environments.
- Provides for enlarged auditorium.
- Provides for new natatorium and additional gym space.

Cons:

- Costly
- Site logistics during construction.

SHS Option 1

Estimated Total Project Cost

\$2,691,000

Description:

This option consists of minimal renovations to the existing facility and site. Renovations will be limited to those items outlined in the District's current Long Range Facilities Plan and any additional building assessment recommendations to keep the facility "warm, safe and dry". Additions are not anticipated based upon building capacity and project enrollment.

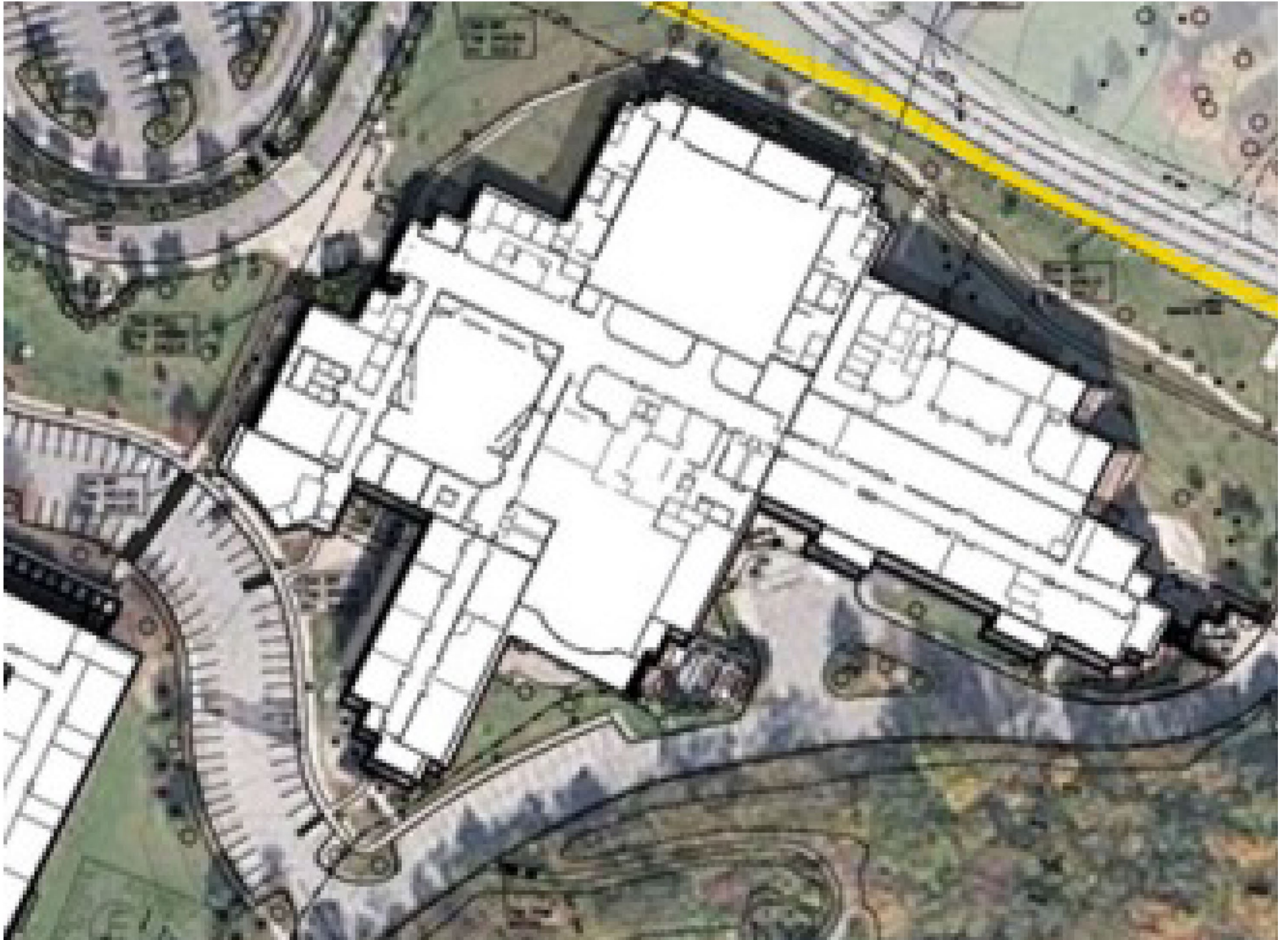
School Population: 1,298

Pros:

- Least costly option

Cons:

- Maintains existing conditions.
- Does not address space requirements for 21st Century learning.
- Does not address improved interior environment.
- Does not address enhanced use of site.
- Does not provide for increased energy efficiency.



SHS Option 2

Estimated Total Project Cost

\$50,233,182

Description:

This option consists of renovations and additions to the existing facility and site, including:

- Items outlined in the District's current Long Range Facilities Plan
- Renovations to accommodate a consolidated Tech Ed suite including the new addition atrium.
- Renovations to accommodate relocation of performing arts to the IHS.
- Renovations to the library for conversion to a blended learning commons.
- A full building renovation to provide MEP systems upgrades, a more inspiring learning environment and address recommendations made in the facility assessment, including site recommendations.
- Enhanced energy efficiency
- New furnishings and equipment.
- Renovations to address student and faculty collaboration areas.

Aspirational goals for this option include:

- Additions for student and faculty collaboration areas

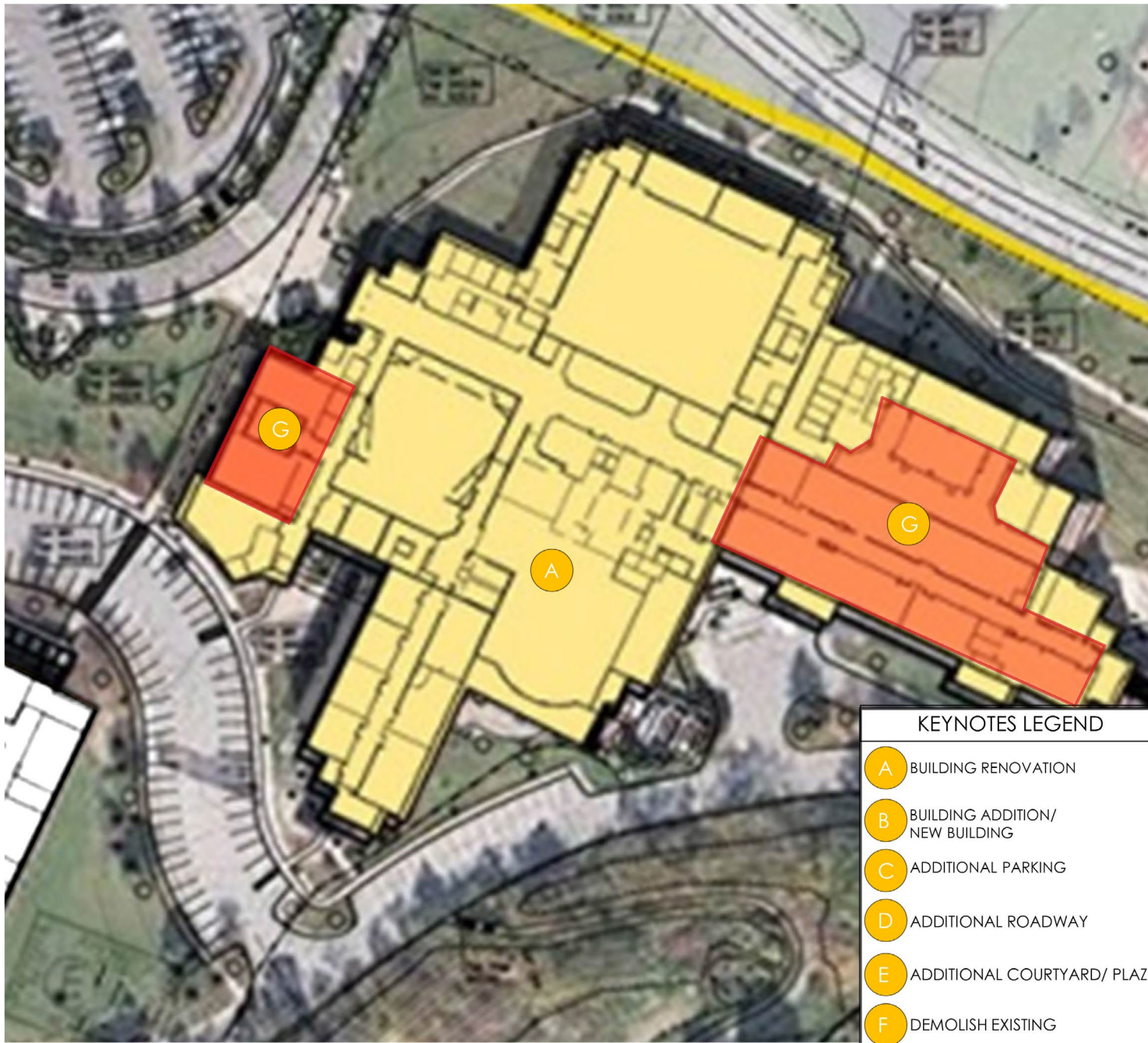
School Population: 1,298

Pros:

- Provides limited 21st Century learning spaces..
- Addresses stated aspirational goals.
- Co-location of shared programs between IHS and SHS.
- Addresses improved interior environment.
- Addresses enhanced use of site.
- Provides for increased energy efficiency.
- Improved interior and exterior environments.

Cons:

- Costly
- Phased construction
- Requires renovations at IHS.



KEYNOTES LEGEND

- A BUILDING RENOVATION
- B BUILDING ADDITION/
NEW BUILDING
- C ADDITIONAL PARKING
- D ADDITIONAL ROADWAY
- E ADDITIONAL COURTYARD/ PLAZA
- F DEMOLISH EXISTING
- G FOCUSED RENOVATION

Statements of Probable Cost

Summary of cost estimates

Elementary Schools		Total Project Costs					
		Option 1	Option 2 (up to)	Option 3	Option 4	Option 4A	Option 4B
	Evans City Elementary/ Middle School	\$ 341,000	\$ 42,247,001	\$ 52,408,838	\$ 67,902,000	\$ 51,762,800	\$ 24,960,200
	Haine Elementary/ Middle School	\$ 7,934,100	\$ 40,523,977	\$ 36,446,439			
	Rowan Elementary School	\$ 3,633,100	\$ 17,609,689				
	Connoquenessing Valley Elementary School	\$ 4,433,000	\$ 22,681,016				
MS		Option 1					
	Seneca Valley Middle School	\$ 5,977,330					
IHS		Option 1	Option 2	Option 3			
	Seneca Valley Intermediate High School	\$ 370,750	\$ 68,264,059	\$ 74,435,626			
HS		Option 1	Option 2				
	Seneca Valley Senior High School	\$ 2,691,000	\$ 50,233,182				
MAIN CAMPUS		Option 1					
	Seneca Valley Main Campus	\$ 28,912,000					

Statements of Probable Cost

Hard Costs	OPTION 1 - EVANS CITY ELEMENTARY/ MIDDLE SCHOOL			
	Quantity	Unit	Cost/Unit	Total
Facilities Improvement Plan		L.S.		\$50,000
Renovation - Exterior Masonry*		L.S.		\$250,000
Building Demolition		L.S.		\$0
New Construction		L.S.		\$0
Site	0%			\$0
TOTAL CONSTRUCTION COST				\$300,000

Soft Costs	Hazardous material abatement		L.S.		\$0
	Furnishing & Equipment	0%			\$0
	Architect's Fee		L.S.		\$8,000
	Construction Services	0%			\$0
	Building Permit				\$0
	Testing/ Survey/ geotech/ Fees				\$0
	Design Contingency	6%			\$18,000
	Construction Contingency	5%			\$15,000
TOTAL SOFT COST					\$41,000
TOTAL PROJECT COST					\$341,000

*an extensive masonry assessment is recommended

Hard Costs	OPTION 2 - EVANS CITY ELEMENTARY/ MIDDLE SCHOOL			
	Quantity	Unit	Cost/Unit	Total
Renovation*	138,318	s.f. x	\$165	\$22,822,470
Building Demolition	138,318	s.f. x	\$5	\$691,590
New Construction - Support Space**	8,550	s.f. x	\$210	\$1,795,500
New Construction - Ideal Class Sizes***	13,500	s.f. x	\$210	\$2,835,000
New Construction - Student Collaboration Spaces	9,500	s.f. x	\$210	\$1,995,000
Phasing Premium	5%	-	-	\$1,506,978
Site	6%			\$1,808,374
TOTAL CONSTRUCTION COST				\$33,454,912

Soft Costs	Hazardous material abatement		L.S.		\$100,000
	Furnishings	5%			\$1,472,399
	Architect's Fee	7%			\$2,341,844
	Construction Services	3%			\$1,003,647
	Building Permit				\$69,159
	Testing/ Survey/ geotech/ Fees				\$125,000
	Design Contingency	6%			\$2,007,295
	Construction Contingency	5%			\$1,672,746
TOTAL SOFT COST					\$8,792,089
TOTAL PROJECT COST					\$42,247,001

Aspirational				
	Quantity	Unit	Cost/Unit	Total
New Construction - Full Day K	4,050	s.f. x	\$210	\$1,063,125

- * Includes full renovation of interior and exterior systems as recommended in facility assessment.
- ** Includes additional learning support space, world language classrooms, music practice rooms, chorus room, enlarged band+music rooms, instrument storage.
- *** Includes enrollment growth
Site excludes road improvements to Rt. 68.
Furnishings excludes equipment, technologies, etc.



Statements of Probable Cost

Hard Costs		OPTION 3 - EVANS CITY ELEMENTARY/ MIDDLE SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation	0	s.f. x	\$165	\$0
	Building Demolition	138,318	s.f. x	\$8	\$1,106,544
	New Construction*	176,000	s.f. x	\$210	\$36,960,000
	Phasing Premium	0%	-	-	\$0
	Site	10%			\$3,806,654
	TOTAL CONSTRUCTION COST				\$41,873,198

Soft Costs	Hazardous material abatement		L.S.		\$100,000
	Furnishing & Equipment	5%			\$1,848,000
	Architect's Fee	6%			\$2,512,392
	Construction Services	3%			\$1,256,196
	Building Permit				\$88,000
	Testing/ Survey/ geotech/ Fees				\$125,000
	Design Contingency	6%			\$2,512,392
	Construction Contingency	5%			\$2,093,660
	TOTAL SOFT COST				\$10,535,640

TOTAL PROJECT COST				\$52,408,838
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* New construction assumes ideal class sizes, increased enrollment and student and faculty collaboration spaces. School population is 1,163

Furnishings excludes equipment, technologies, etc.

Hard Costs		OPTION 4 - EVANS CITY ELEMENTARY/ MIDDLE SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation	0	s.f. x	\$165	\$0
	Building Demolition	0	s.f. x	\$5	\$0
	New Construction*	235,000	s.f. x	\$210	\$49,350,000
	Site	10%			\$4,935,000
	TOTAL CONSTRUCTION COST				\$54,285,000

Soft Costs	Hazardous material abatement				\$0
	Furnishing & Equipment	5%			\$2,467,500
	Architect's Fee	6%			\$3,257,100
	Construction Services	3%			\$1,628,550
	Building Permit				\$117,500
	Testing/ Survey/ geotech/ Fees				\$175,000
	Design Contingency	6%			\$3,257,100
	Construction Contingency	5%			\$2,714,250
	TOTAL SOFT COST				\$13,617,000

TOTAL PROJECT COST				\$67,902,000
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* New construction assumes ideal class sizes, increased enrollment and student and faculty collaboration spaces. School population is 1,560.

Furnishings excludes equipment, technologies, etc.

Statements of Probable Cost

Hard Costs		OPTION 4A - EVANS CITY ELEMENTARY/ MIDDLE SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation	0	s.f. x	\$165	\$0
	Building Demolition	0	s.f. x	\$5	\$0
	New Construction*	179,000	s.f. x	\$210	\$37,590,000
	Site	10%			\$3,759,000
	TOTAL CONSTRUCTION COST				\$41,349,000

Soft Costs	Hazardous material abatement				\$0
	Furnishing & Equipment	5%			\$1,879,500
	Architect's Fee	6%			\$2,480,940
	Construction Services	3%			\$1,240,470
	Building Permit				\$89,500
	Testing/ Survey/ geotech/ Fees				\$175,000
	Design Contingency	6%			\$2,480,940
	Construction Contingency	5%			\$2,067,450
TOTAL SOFT COST					\$10,413,800

TOTAL PROJECT COST				\$51,762,800
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* Construction of a new 5-6 Center. New construction assumes ideal class sizes, increased enrollment and student and faculty collaboration spaces. School population is 1,183.

Furnishings excludes equipment, technologies, etc.

	OPTION 4B - EVANS CITY ELEMENTARY/ MIDDLE SCHOOL			
	Quantity	Unit	Cost/Unit	Total
Renovation	0	s.f. x	\$165	\$0
Building Demolition	0	s.f. x	\$5	\$0
New Construction*	86,000	s.f. x	\$210	\$18,060,000
Site	10%			\$1,806,000
TOTAL CONSTRUCTION COST				\$19,866,000

Hazardous material abatement				\$0
Furnishing & Equipment	5%			\$903,000
Architect's Fee	6%			\$1,191,960
Construction Services	3%			\$595,980
Building Permit				\$43,000
Testing/ Survey/ geotech/ Fees				\$175,000
Design Contingency	6%			\$1,191,960
Construction Contingency	5%			\$993,300
TOTAL SOFT COST				\$5,094,200

TOTAL PROJECT COST				\$24,960,200
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ew Addition for Evans City population grades K-4. New nstruction assumes ideal class sizes, increased rollment and student and faculty collaboration aces. School population is 565.

rnishings excludes equipment, technologies, etc.



Statements of Probable Cost

Hard Costs	OPTION 1 - HAINE ELEMENTARY/ MIDDLE SCHOOL			
	Quantity	Unit	Cost/Unit	Total
	Facilities Improvement Plan	L.S.		\$7,620,000
	Renovation - Exterior Masonry*	L.S.		\$75,000
	Building Demolition	L.S.		\$0
	New Construction	L.S.		\$0
	Site	0%		\$0
	TOTAL CONSTRUCTION COST			\$7,695,000

Soft Costs	Hazardous material abatement		L.S.	\$0
	Furnishing & Equipment	0%		\$0
	Architect's Fee	3%		\$230,850
	Construction Services	0%		\$0
	Building Permit			\$0
	Testing/ Survey/ geotech/ Fees			\$0
	Design Contingency	6%		\$4,500
	Construction Contingency	5%		\$3,750
	TOTAL SOFT COST			\$239,100

TOTAL PROJECT COST				\$7,934,100
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*an extensive masonry assessment is recommended

Hard Costs		OPTION 2 - HAINE ELEMENTARY/ MIDDLE SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation*	177,986	s.f. x	\$150	\$26,697,900
	Building Demolition	0	s.f. x	\$5	\$0
	New Construction - Ideal Class Sizes**	9,500	s.f. x	\$210	\$1,995,000
	New Construction - Learning Support Spaces***	4,700	s.f. x	\$210	\$987,000
	New Construction - Enrollment Increase	0	s.f. x	\$210	\$0
	Phasing Premium	5%	-	-	\$1,483,995.00
	Site	5%			\$1,483,995
	TOTAL CONSTRUCTION COST				\$32,647,890

Soft Costs	Hazardous material abatement		L.S.	\$50,000
	Furnishing & Equipment	5%		\$1,483,995
	Architect's Fee	6%		\$1,958,873
	Construction Services	3%		\$979,437
	Building Permit			\$88,993
	Testing/ Survey/ geotech/ Fees			\$50,000
	Design Contingency	6%		\$1,780,794
	Construction Contingency	5%		\$1,483,995
	TOTAL SOFT COST			\$7,876,087

TOTAL PROJECT COST				\$40,523,977
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Aspirational	New Construction - Full Day K	8,100	s.f. x	\$210	\$2,126,250
	New Construction - Student Collaboration Spaces	10,800	s.f. x	\$210	\$2,835,000

* Includes full renovation of interior and exterior systems as recommended in facility assessment.

** Includes enrollment growth

Includes additional learning support space, world language classrooms, music practice rooms, chorus room, enlarged band+music rooms, instrument storage. Furnishings excludes equipment, technologies, etc.

Statements of Probable Cost

Hard Costs		OPTION 3 - HAINE ELEMENTARY/ MIDDLE SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation*	177,986	s.f. x	\$150	\$26,697,900
	Building Demolition	0	s.f. x	\$5	\$0
	New Construction	0	s.f. x	\$210	\$0
	Phasing Premium	5%	-	-	\$1,334,895.00
	Site	5%			\$1,334,895
	TOTAL CONSTRUCTION COST				\$29,367,690

Soft Costs	Hazardous material abatement		L.S.		\$50,000
	Furnishing & Equipment	5%			\$1,334,895
	Architect's Fee	6%			\$1,762,061
	Construction Services	3%			\$881,031
	Building Permit				\$88,993
	Testing/ Survey/ geotech/ Fees				\$25,000
	Design Contingency	6%			\$1,601,874
	Construction Contingency	5%			\$1,334,895
	TOTAL SOFT COST				\$7,078,749

TOTAL PROJECT COST				\$36,446,439
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Aspirational	New Construction - Full Day K	8,100	s.f. x	\$210	\$2,126,250
	New Construction - Student Collaboration Spaces	10,800	s.f. x	\$210	\$2,835,000

* Includes full renovation of interior and exterior systems as recommended in facility assessment.
Furnishings excludes equipment, technologies, etc.



Statements of Probable Cost

Hard Costs	OPTION 1 - ROWAN ELEMENTARY SCHOOL			
	Quantity	Unit	Cost/Unit	Total
	Facilities Improvement Plan	L.S.		\$3,090,000
	Renovation - Exterior Masonry*	L.S.		\$75,000
	Building Demolition	L.S.		\$0
	New Construction	L.S.		\$0
	Site	0%		\$0
	TOTAL CONSTRUCTION COST			\$3,165,000

Soft Costs	Hazardous material abatement	L.S.		\$0
	Furnishing & Equipment	0%		\$0
	Architect's Fee	3%		\$94,950
	Construction Services	0%		\$0
	Building Permit			\$10,000
	Testing/ Survey/ geotech/ Fees			\$15,000
	Design Contingency	6%		\$189,900
	Construction Contingency	5%		\$158,250
	TOTAL SOFT COST			\$468,100

TOTAL PROJECT COST				\$3,633,100
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*an extensive masonry assessment is recommended

Hard Costs		OPTION 2 - ROWAN ELEMENTARY SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation*	71,656	s.f. x	\$150	\$10,748,400
	Renovation - Enlarged Gym	4,700	s.f. x	\$210	\$987,000
	Building Demolition	0	s.f. x	\$5	\$0
	New Construction - Learning Support Spaces**	4,800	s.f. x	\$195	\$936,000
	Phasing Premium	5%	-	-	\$633,570
	Site	5%			\$633,570
	TOTAL CONSTRUCTION COST				\$13,938,540

Soft Costs	Hazardous material abatement	L.S.		\$50,000
	Furnishing & Equipment	7%		\$886,998
	Architect's Fee	6%		\$836,312
	Construction Services	3%		\$418,156
	Building Permit			\$35,828
	Testing/ Survey/ geotech/ Fees			\$50,000
	Design Contingency	6%		\$760,284
	Construction Contingency	5%		\$633,570
	TOTAL SOFT COST			\$3,671,149

TOTAL PROJECT COST				\$17,609,689
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Aspirational	New Construction - Full Day K	6,750	s.f. x	\$210	\$1,771,875
	New Construction - Student Collaboration Spaces	6,750	s.f. x	\$210	\$1,771,875

* Includes full renovation of interior and exterior systems as recommended in facility assessment.

** Includes additional world language classroom, sensory room, admin space.

Furnishings excludes equipment, technologies, etc.

Statements of Probable Cost

Hard Costs	OPTION 1 - CONNOQUEENESSING VALLEY ELEMENTARY SCHOOL			
	Quantity	Unit	Cost/Unit	Total
	Facilities Improvement Plan	L.S.		\$3,700,000
	Renovation - Exterior Masonry*	L.S.		\$100,000
	Building Demolition	L.S.		\$0
	New Construction	L.S.		\$0
	Site	0%		\$0
	TOTAL CONSTRUCTION COST			\$3,800,000

Soft Costs	Hazardous material abatement	L.S.		\$0
	Furnishing & Equipment	0%		\$0
	Architect's Fee	5%		\$190,000
	Construction Services	0%		\$0
	Building Permit			\$25,000
	Testing/ Survey/ geotech/ Fees			\$0
	Design Contingency	6%		\$228,000
	Construction Contingency	5%		\$190,000
	TOTAL SOFT COST			\$633,000

TOTAL PROJECT COST				\$4,433,000
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*an extensive masonry assessment is recommended

Hard Costs	OPTION 2 - CONNOQUEENESSING VALLEY ELEMENTARY SCHOOL			
	Quantity	Unit	Cost/Unit	Total
	Renovation*	103,902	s.f. x	\$150
	Building Demolition	0	s.f. x	\$5
	New Construction - Learning Support Spaces**	2,100	s.f. x	\$210
	Phasing Premium	8%	-	-
	Site	5%		\$801,315
	TOTAL CONSTRUCTION COST			\$18,109,719

Soft Costs	Hazardous material abatement	L.S.		\$75,000
	Furnishing & Equipment	6%		\$961,578
	Architect's Fee	6%		\$1,086,583
	Construction Services	3%		\$543,292
	Building Permit			\$51,951
	Testing/ Survey/ geotech/ Fees			\$90,000
	Design Contingency	6%		\$961,578
	Construction Contingency	5%		\$801,315
	TOTAL SOFT COST			\$4,571,297

TOTAL PROJECT COST				\$22,681,016
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Aspirational				
	Quantity	Unit	Cost/Unit	Total
	New Construction - Full Day K	9,450	s.f. x	\$210
	New Construction - Student Collaboration Spaces	6,750	s.f. x	\$210

* Includes full renovation of interior and exterior systems as recommended in facility assessment.

** Includes additional world language classrooms and misc. administration offices.

Furnishings excludes equipment, technologies, etc.



Statements of Probable Cost

	Main Campus			
	Quantity	Unit	Cost/Unit	Total
C1. Traffic Study - Seneca School Road Area				\$25,000
C2. Road-Connection to Evergreen Mill Road including bridge over Connoquenessing Creek	1	lump sum x	\$7,000,000	\$7,000,000
C.3 Road connection to Seneca School Road	900	l.f. x	\$350	\$315,000
C4 & C5. Perimeter campus road	3,000	l.f. x	\$350	\$1,050,000
C6. Campus entry signage and landscape improvements	1	lump sum x	\$100,000	\$100,000
A1. East rest room and concessions structure	1	lump sum x	\$300,000	\$300,000
A2. Girls locker room	1	lump sum x	\$300,000	\$300,000
A3. Press box	1	lump sum x	\$300,000	\$300,000
A4. Field expansion, access road and parking	1	lump sum x	\$1,000,000	\$1,000,000
A5. New stadium and support facilities	1	lump sum x	\$4,500,000	\$4,500,000
A6. Indoor fields	140,000	s.f. x	\$100	\$14,000,000
A7. Relocate cross country trail	1	lump sum x	\$25,000	\$25,000
F1. Pedestrian core	150,000	s.f. x	\$15	\$2,250,000
F2. Seneca Way hardscape and landscape improvements	25,000	s.f. x	\$40	\$1,000,000
F3. Middle School/High School sidewalk connection hardscape & landscape improvements	5,000	s.f. x	\$25	\$125,000
East courtyard improvements	2,500	s.f. x	\$40	\$100,000
F4. General landscape improvement	1	lump sum x	\$100,000	\$100,000
F5. Landscape maintenance	1	lump sum x	\$20,000	\$20,000
S1. Main entry guard booth	1	lump sum x	\$40,000	\$40,000
TOTAL CONSTRUCTION COST				\$23,760,000
Soft Costs	Architect's Fee	6%		\$1,425,600
	Construction Services	3%		\$712,800
	Land Development Permits			\$200,000
	Testing/ Survey/ Geotech/ Fees			\$200,000
	Design Contingency	6%		\$1,425,600
	Construction Contingency	5%		\$1,188,000
	TOTAL SOFT COST			\$5,152,000
*TOTAL PROJECT COST				\$28,912,000

*Total project costs do not include site work associated with specific school buildings on the main campus. Refer to building options for site costs associated with specific main campus school buildings.

	OPTION 1 - SENECA VALLEY MIDDLE SCHOOL			
	Quantity	Unit	Cost/Unit	Total
Facilities Improvement Plan		L.S.		\$2,002,000
New Construction - 300 Seat Performing Arts Theater	8,000	s.f. x	\$300	\$2,400,000
New Construction - Special Education Planning Center	750	s.f. x	\$210	\$157,500
Renovation of library into media/maker space	4,000	s.f. x	\$150	\$600,000
Renovation - Exterior Masonry*		L.S.		\$75,000
Building Demolition		L.S.		\$0
New Construction		L.S.		\$0
Site	0%			\$0
TOTAL CONSTRUCTION COST				\$5,234,500

Soft Costs	Hazardous material abatement		L.S.	\$0
	Furnishing & Equipment	0%		\$0
	Architect's Fee	3%		\$157,035
	Construction Services	0%		\$0
	Building Permit			\$10,000
	Testing/ Survey/ geotech/ Fees			\$0
	Design Contingency	6%		\$314,070
	Construction Contingency	5%		\$261,725
	TOTAL SOFT COST			\$742,830

TOTAL PROJECT COST				\$5,977,330
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*an extensive masonry assessment is recommended

Statements of Probable Cost

	OPTION 1 - INTERMEDIATE HIGH SCHOOL			
	Quantity	Unit	Cost/Unit	Total
Hard Costs				
Facilities Improvement Plan		L.S.		\$75,000
Renovation - Exterior Masonry*		L.S.		\$250,000
Building Demolition		L.S.		\$0
New Construction		L.S.		\$0
Site	0%			\$0
TOTAL CONSTRUCTION COST				\$325,000

Soft Costs	Hazardous material abatement		L.S.		\$0
	Furnishing & Equipment	0%			\$0
	Architect's Fee		L.S.		\$10,000
	Construction Services	0%			\$0
	Building Permit				\$0
	Testing/ Survey/ geotech/ Fees				\$0
	Design Contingency	6%			\$19,500
	Construction Contingency	5%			\$16,250
	TOTAL SOFT COST				\$45,750

TOTAL PROJECT COST				\$370,750
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*an extensive masonry assessment is recommended

	OPTION 2 - INTERMEDIATE HIGH SCHOOL			
	Quantity	Unit	Cost/Unit	Total
Hard Costs				
Renovation*	216,850	s.f. x	\$165	\$35,780,250
Selective Demolition**	12,500	s.f. x	\$10	\$125,000
New Construction - Support Space***	2,000	s.f. x	\$210	\$420,000
New Construction - 1,600 Seat Auditorium	18,000	s.f. x	\$300	\$5,400,000
New Construction - Natatorium	15,500	s.f. x	\$325	\$5,037,500
New Construction - Enclosed SHS Connector	3,000	s.f. x	\$200	\$600,000
New Construction - Visual Arts	6,600	s.f. x	\$210	\$1,386,000
Phasing Premium	5%	-	-	\$2,437,438
Site	6%			\$2,924,925
TOTAL CONSTRUCTION COST				\$54,111,113

Soft Costs	Hazardous material abatement		L.S.		\$125,000
	Furnishing & Equipment	5%			\$2,431,188
	Architect's Fee	7%			\$3,787,778
	Construction Services	3%			\$1,623,333
	Building Permit				\$108,425
	Testing/ Survey/ geotech/ Fees				\$125,000
	Design Contingency	6%			\$3,246,667
	Construction Contingency	5%			\$2,705,556
	TOTAL SOFT COST				\$14,152,946

TOTAL PROJECT COST				\$68,264,059
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New Construction - Student Collaboration Spaces	5,400	s.f. x	\$210	\$1,174,500
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* Includes full renovation of interior and exterior systems as recommended in facility assessment.

** Demolition of existing auditorium

*** Includes increased size of learning support classroom and kitchen, gifted office/ classroom, pull-out math/ reading, and special education resource.

Furnishings excludes equipment, technologies, etc.



Statements of Probable Cost

Hard Costs		OPTION 2 - INTERMEDIATE HIGH SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation*	216,850	s.f. x	\$165	\$35,780,250
	Selective Demolition**	12,500	s.f. x	\$10	\$125,000
	New Construction - Support Space***	2,000	s.f. x	\$210	\$420,000
	New Construction - 1,600 Seat Auditorium	18,000	s.f. x	\$300	\$5,400,000
	New Construction - Natatorium	15,500	s.f. x	\$325	\$5,037,500
	New Construction - Enclosed SHS Connector	3,000	s.f. x	\$200	\$600,000
	New Construction - Visual Arts	6,600	s.f. x	\$210	\$1,386,000
	Phasing Premium	5%	-	-	\$2,437,438
	Site	6%			\$2,924,925
	TOTAL CONSTRUCTION COST				\$54,111,113

Soft Costs	Hazardous material abatement		L.S.		\$125,000
	Furnishing & Equipment	5%			\$2,431,188
	Architect's Fee	7%			\$3,787,778
	Construction Services	3%			\$1,623,333
	Building Permit				\$108,425
	Testing/ Survey/ geotech/ Fees				\$125,000
	Design Contingency	6%			\$3,246,667
	Construction Contingency	5%			\$2,705,556
	TOTAL SOFT COST				\$14,152,946

TOTAL PROJECT COST				\$68,264,059
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New Construction - Student Collaboration Spaces	5,400	s.f. x	\$210	\$1,417,500
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- * Includes full renovation of interior and exterior systems as recommended in facility assessment.
- ** Demolition of existing auditorium
- *** Includes increased size of learning support classroom and kitchen, gifted office/ classroom, pull-out math/ reading, and special education resource.

Furnishings excludes equipment, technologies, etc.

Hard Costs		OPTION 3 - INTERMEDIATE HIGH SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation*	111,250	s.f. x	\$165	\$18,356,250
	Building Demolition**	118,100	s.f. x	\$8	\$944,800
	New Construction - Academic Addition	105,600	s.f. x	\$210	\$22,176,000
	New Construction - Support Space***	2,000	s.f. x	\$210	\$420,000
	New Construction - 1,600 Seat Auditorium	18,000	s.f. x	\$300	\$5,400,000
	New Construction - Natatorium	15,500	s.f. x	\$300	\$4,650,000
	New Construction - Visual Arts	6,600	s.f. x	\$210	\$1,386,000
	Phasing Premium	5%	-	-	\$2,597,353
	Site	8%			\$4,155,764
	TOTAL CONSTRUCTION COST				\$60,086,167

Soft Costs	Hazardous material abatement		L.S.		\$120,000
	Furnishing & Equipment	5%			\$2,598,413
	Architect's Fee	5%			\$3,004,308
	Construction Services	3%			\$1,802,585
	Building Permit				\$114,675
	Testing/ Survey/ geotech/ Fees				\$100,000
	Design Contingency	6%			\$3,605,169.99
	Construction Contingency	5%			\$3,004,308.33
TOTAL SOFT COST					\$14,349,459

TOTAL PROJECT COST				\$74,435,626
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- * Includes full renovation of interior and exterior systems for auditorium, gym, cafeteria, kitchen, visual and performing arts, natatorium.
- ** Demolition of academic "donut" and 2003 addition
- *** Includes increased size of learning support classroom and kitchen, gifted office/ classroom, pull-out math/ reading, and special education resource.

Furnishings excludes equipment, technologies, etc.

Statements of Probable Cost

Hard Costs	OPTION 1 - SENIOR HIGH SCHOOL			
	Quantity	Unit	Cost/Unit	Total
	Facilities Improvement Plan	L.S.		\$2,340,000
	Renovation	L.S.		\$0
	Building Demolition	L.S.		\$0
	New Construction	L.S.		\$0
	Site	0%		\$0
TOTAL CONSTRUCTION COST				\$2,340,000

Soft Costs	Hazardous material abatement		L.S.		\$0
	Furnishing & Equipment	0%			\$0
	Architect's Fee	4%			\$93,600
	Construction Services	0%			\$0
	Building Permit				\$0
	Testing/ Survey/ geotech/ Fees				\$0
	Design Contingency	6%			\$140,400
	Construction Contingency	5%			\$117,000
	TOTAL SOFT COST				\$351,000

TOTAL PROJECT COST				\$2,691,000
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Hard Costs		OPTION 2 - SENIOR HIGH SCHOOL			
		Quantity	Unit	Cost/Unit	Total
	Renovation*	247,277	s.f. x	\$150	\$37,091,550
	Building Demolition	0	s.f. x	\$5	\$0
	New Construction - Support Space**	3,450	s.f. x	\$210	\$724,500
	Phasing Premium	5%	-	-	\$1,890,803
	Site	1%			\$378,161
	TOTAL CONSTRUCTION COST				\$40,085,013

Soft Costs	Hazardous material abatement		L.S.		\$65,000
	Furnishing & Equipment	5%			\$1,890,803
	Architect's Fee	6%			\$2,405,101
	Construction Services	3%			\$1,202,550
	Building Permit				\$125,364
	Testing/ Survey/ geotech/ Fees				\$50,000
	Design Contingency	6%			\$2,405,101
	Construction Contingency	5%			\$2,004,251
TOTAL SOFT COST					\$10,148,169

TOTAL PROJECT COST				\$50,233,182
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New Construction - Student Collaboration Spaces	2,700	s.f. x	\$210	\$708,750
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* Includes full renovation of interior and exterior systems as recommended in facility assessment.

** Includes increased size of learning support classroom and kitchen, gifted office/ classroom, pull-out math/ reading, and special education resource.

