

Improving the Way You Manage Facilities

**Report of
Facility Needs Assessment and
Master Plan**

Garrett County Public Schools



**FEA Project #R01.2013.007735
October 29, 2013**

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October 29, 2013

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**SUBJECT: Garrett County Public Schools Consulting Services
Facility Needs Assessment & Master Plan
Garrett County, Maryland
FEA Project No. R01.2013.007735**

Mr. Swift,

Facility Engineering Associates, P.C. (FEA) appreciates the opportunity to provide this master plan report to the Garrett County Public School District.

The report includes analysis of data provided by Garrett County, a facility conditions and needs assessment, educational adequacy appraisal, and an enrollment versus capacity analysis. It provides an objective evaluation of the overall facility outlook for the eight elementary schools within Garrett County Public Schools and potential solutions to meet the school system's needs within demographic and financial constraints.

If you have any questions, need additional information, or require clarification on any matter, please contact us.

Respectfully,

FACILITY ENGINEERING ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read "J. P. Whittaker".

James P. Whittaker, P.E., CFM, FRICS
President

A handwritten signature in blue ink, appearing to read "Paul G. Swanson".

Paul G. Swanson, P.E.
Principal



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EXECUTIVE SUMMARY

The condition assessments of the eight elementary schools in Garret County indicated that the schools are generally well-maintained. The schools with the highest condition indices (higher values indicate more deferred maintenance) were Friendsville Elementary and Accident Elementary. Both schools have a relatively high level of deferred maintenance identified in the near term (within the next three years). Most of the near-term maintenance identified across all the schools was related to interior finishes. Crellin Elementary was the only school noted to have near-term maintenance issues involving the building envelope. The assessment also identified significant potential maintenance costs within the next seven years for most of the schools. Friendsville Elementary and Broad Ford Elementary have the highest levels of potential maintenance cost within that time frame.

The educational assessment indicated that all the elementary school facilities are within an acceptable range of educational suitability. The assessment focused on building and site features including classroom sizes, room configurations, storage space, and space for instructional support and administrative services. The facilities at Broad Ford and Yough Glades scored highest among all the elementary schools evaluated. All of the facilities in the northern section of the county (Friendsville, Grantsville, Accident, and Route 40) were considered similar in educational suitability. The facilities at Swan Meadow and Crellin scored lowest among the group, generally due to their small size and configurations.

The issue of declining enrollments in Garrett County is well known. All of the elementary schools in the County have calculated capacities that exceed the projected 10-year enrollments. In the northern portion of the County, Friendsville Elementary is the most underutilized facility, currently operating at close to 50% of capacity. The average utilization among the four elementary schools in northern Garrett County is approximately 75%. In the southern portion of Garrett County, there are two schools (Broad Ford and Yough Glades) that currently have enrollments significantly in excess of the state-rated capacity for the school. This is due in part to the recent closing of three elementary schools in the southern portion of the County and a re-distribution of the student enrollment.

Coupled with the declining enrollments, Garrett County is also faced with decreased funding for the schools. There is a \$2.2 million shortfall in funding projected for the FY 2015 budget. The Board of Education is seeking alternatives for reducing costs. The focus of this facility needs study was to evaluate the eight elementary schools with regard to current condition and future needs and recommend cost saving measures based on an objective evaluation that would best maintain the current high standards of education.



Included in this study are four options to be considered. Option 1 addresses the overcrowding issue in the southern school districts. We recommend adjusting the school district boundaries to reduce enrollment at Broad Ford and Yough Glades and transfer students to the northern schools. This eliminates the overcrowding issues in the south and increases utilization in the north. Ride times for some students will be increased. The expense of new construction, temporary classrooms (portable construction), or building modifications to accommodate the overcrowding is considerably higher than adjusting the district boundaries; therefore, these alternatives have not been recommended. Our opinion of the added annual cost for implementing Option 1 is \$50,000.

Options 2 through 4 address cost reductions that could be implemented to reduce the projected budget shortfall. The most direct way of achieving significant cost reduction is to consolidate enrollment through a reduction in operating facilities. Option 2 includes closing one school in the north, and adjusting district boundaries to consolidate enrollment in the north and alleviate overcrowding in the south. Under this option, all of the overcrowding in the south cannot be eliminated by transferring students to the north. To eliminate the overcrowding, we have recommended students transfer to an existing affordable facility. In our opinion, the annual cost savings for implementing Option 2 will satisfy approximately 27 percent of the budget gap.

Option 3 includes the closure of two elementary schools in the north and the transfer of the 5th grade students to the northern middle school. The remaining two elementary schools would support K through 4th grade enrollment. Similar to Option 2, all of the overcrowding in the south cannot be eliminated by transferring students to the north. To eliminate the overcrowding, we have recommended students transfer to an existing affordable facility. In our opinion, the annual cost savings for implementing Option 3 will satisfy approximately 52 percent of the budget gap.

Option 4 includes the closure of two elementary schools in the north and one elementary school in the south, the transfer of the 4th and 5th grade students to the northern middle school, and transfer of the 8th grade students to the northern high school. The remaining two elementary schools in the north would support K through 3rd grade enrollment. All of the overcrowding in the south would be eliminated by transferring students to the north. This option would require a significant re-configuration of the current bus transportation routing. In our opinion, the annual cost savings for implementing Option 4 will satisfy approximately 84 percent of the budget gap.

1.0 INTRODUCTION

1.1 Background

Garrett County is the westernmost county in the Maryland panhandle. Garrett County is bordered to the north by the Mason-Dixon Line with Pennsylvania, to the south by the Potomac River and West Virginia, to the west by a land border with West Virginia, and to the east by a land border with Allegany County, Maryland. The county contains over 76,000 acres (647 square miles) of parks, lakes, and publicly accessible forestland. It is drained by two river systems, the Potomac and the Youghiogheny. As of the census of 2012, there were reported to be 29,854 people, 11,476 households, and 8,354 families residing in the county.

The public school system currently includes a total of 12 schools, including 8 elementary schools, two middle schools and two high schools:

- Accident Elementary School
- Broad Ford Elementary School
- Crellin Elementary School
- Friendsville Elementary School
- Grantsville Elementary School
- Route 40 Elementary School
- Swan Meadow Elementary School
- Yough Glades Elementary School
- Northern Middle School
- Southern Middle School
- Northern Garrett High School
- Southern Garrett High School

We understand that two elementary schools, Dennett Road E.S. and Kitzmiller E.S., were closed after the 2011-2012 school year, and that Bloomington E.S. was closed the year prior. The total area of the current eight elementary schools is about 264,000 gsf. A summary of recent historical and projected enrollment is presented in Figure 1.

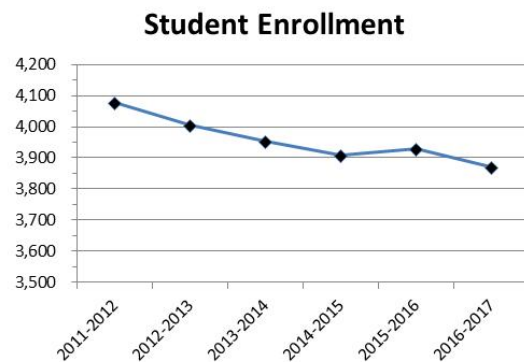


Figure 1: Projected enrollment figures provided by Garrett County



1.2 Purpose

Garrett County Public Schools have experienced declining student enrollment over the past few years. In addition, reduced capital and operational budgets have furthered burdened the school system. In recent years, Garrett County has closed a number of schools based on the decreased student population and lack of operational funding. Continued financial stress and projected reductions in enrollment figures have precipitated the need to conduct a comprehensive study of the conditions of existing schools to develop options for school facility use. A facility needs assessment and master plan is required to present and justify the best options to cost-effectively meet the needs of the students of Garrett County.

The Garrett County Board of Education is committed to providing the best educational experience for all students enrolled in the Garrett County public schools. To ensure this commitment, the School Board recognizes that it must provide the right schools in the right locations and that the schools need to be operated and maintained in a manner that provides educational environments conducive to teaching and learning. It is also recognized that high levels of efficiency need to be maintained with the declining enrollments and budget reductions.

1.3 Scope and Methodology

FEA conducted facility condition/needs assessments in order to provide a facility master plan for the public schools. The focus of these assessments was on the eight elementary schools. This facility study was more than a simple evaluation of the building conditions. It also included an evaluation of school enrollments and capacities, space utilization, educational suitability and desired educational framework, transportation and community considerations, and financial constraints. Our scope included the assessment of elements required by the Code of Maryland Regulations (COMAR).

The Annotated Code of Maryland 13A.02.09.01 includes Adoption of Procedures to Govern School Closings. It is required that each local board of education establish procedures to be used in making decisions on school closings.

The procedures must, at a minimum consider the impact of the proposed closing on the following factors:

- (1) Student enrollment trends;
- (2) Age or condition of school buildings;
- (3) Transportation;
- (4) Educational programs;
- (5) Racial composition of student body;



- (6) Financial considerations;
- (7) Student relocation;
- (8) Impact on community in geographic attendance areas.

Our scope of services for the elementary school facilities planning process followed a phased approach and included: 1) review of existing facilities and enrollment data, 2) facility condition and needs assessments, 3) educational adequacy appraisals and enrollment vs. capacity analyses, 4) development of options and preparation of a facilities master plan, 5) report of our findings and recommendations) and 6) community dialogue (i.e., stakeholder and public meetings).

School Facilities Data Review – Enrollment Projections

FEA worked with Garrett County to compile existing data relevant to the facilities study. FEA reviewed demographic data, historical and projected enrollments by school, educational planning and design standards (e.g., Educational Specifications – Ed Specs), and school capacity data.

Once all the data was compiled, FEA analyzed it for data gaps and presented to Garrett County on July 24, 2013 a plan for conducting the facility condition assessments and the educational needs assessments. During this discussion, the team (FEA and the School System) came to understand the available data, discussed its application to the project, and agreed on how the data would be incorporated into the overall assessment and data analysis.

Table 1 – Educational Programs

School	Pre-Kindergarten	Kindergarten	Grades 1 – 5	Grades 6 – 8	Head Start
Accident	√	√	√		
Friendsville	√	√	√		
Grantsville		√	√		√
Route 40	√	√	√		
Crellin		√	√		
Yough Glades	√	√	√		
Broad Ford		√	√		
Swan Meadow			√	√	

The educational programs vary depending on the location. Head Start is a program managed separately from the Board of Education, although where the program is housed within the school, maintenance and operation of the facility is the responsibility of the school. The Swan Meadow facility primarily serves the Amish Community. Table 1 is a summary of the program availability at each of the schools.



There are several educational resource programs supported at different levels across the County. Table 2 is a summary of the resource programs which have dedicated space in the facilities. Some programs are supported on an itinerant basis without a dedicated classroom space.

Table 2 – Resource Programs

School	Media Center	Computer Laboratory	Art	Music	Special Education
Accident	√		√	√	√
Friendsville	√	√	√		√
Grantsville	√		√		√
Route 40	√	√	√	√	
Crellin	√				
Yough Glades	√	√			√
Broad Ford	√	√			
Swan Meadow	√				

Condition Assessment

FEA conducted the facility assessments using the Backlog of Maintenance and Repair (BMAR) method which was developed initially by NASA for assessment of their facilities. The BMAR approach is a comprehensive building system-based physical assessment. The assessment begins with a visual inspection of nearly 50 building systems at each facility. The assessor conducts the visual inspection and rates each of the building systems, based on CSI Unifomat Classification for Building Elements, from five (Excellent condition – Only routine maintenance required) to one (Failure/Crisis – Systems not operational, or unsafe). The assessor rates each system in accordance with specific guidelines that incorporate age, expected useful life, maintenance history, and operating condition. The major system categories consisted of:

Substructure

- Foundation
- Slab-on-grade
- Basement

Structure and Shell

- Superstructure (building frame and floors)
- Exterior Enclosure (exterior walls, windows, doors)
- Roofing

Interiors

- Interior construction
- Stairs
- Interior finishes

Services



Conveying systems
Plumbing
HVAC
Fire protection
Equipment and Furnishings
Special Construction and Demolition

Once all the systems are evaluated, the scores are incorporated into a mathematical algorithm that assigns a percentage to the system score that reflects the degree of deferred maintenance observed. The following figure demonstrates the assessment algorithm used. The cost of replacing each major system in a building is a percentage of the current replacement value (CRV) of the building. The major system replacement percentage (MS%) is based on R.S. Means Square Foot Assembly Cost Data categorized by Unifomat classification. Repair cost percentages (RC%) is estimated based on experience and historical data for repairing and replacing systems based on condition (the assessment score for each system). The BMAR deferred maintenance cost estimate is equal to the product of the MS%, the RC%, and the CRV for each building.

When the assessments are complete, the ratings are entered into a spreadsheet where the parametric model converts the assessed condition ratings to a set of key metrics. The key metrics include: Deferred Maintenance (DM) costs, System Condition Index (SCI), and the Facility Condition Index (FCI). A sample of the assessment guidelines used by the assessor to score the various systems is included in Appendix A.

MS%

Based on Unifomat and
R.S. Means Data.
Modified based on actual
conditions.

System	MS%	System	MS%
A Substructure	11%	E Equipment	5%
B Structure and Shell	18%	F Specialty Construction	5%
C Interiors	26%	G Site Work	N/A
D Services	35%	H Accessibility Issues	N/A

RC%

Based on Generalized
Condition Level

Rating	Condition	Repair Cost
5	Excellent	2% of CRV
4	Good	10% of CRV
3	Fair	33% of CRV
2	Poor	75% of CRV
1	Failure/Crisis	100% of CRV

$$\text{BMAR} = [\text{Sum (MS%)} * (\text{RC%})] \text{ CRV}$$

- MS% = major system percentage of CRV
- RC% = repair cost percentage of CRV
- CRV = current replacement value of the building

Figure 2: Calculation of BMAR Deferred Maintenance Costs

Field Measurements

The project team reviewed lighting standards used in the educational environment throughout the nation. Standards published by the Illuminating Engineering Society North America (IESNA) and the National Fire Protection Association (NFPA) were used to develop the standards for measurement at the assessed facilities. A list of the light levels standard used for the various space categories is included as Appendix B.

A standard measurement protocol was used by the field assessors. Light levels were measured in every room of the facility including closets and mechanical spaces. The assessors entered the room, turned on all available lights and placed or held the light meter at desk level as close to the center of the room as possible. The measurement was recorded in foot-candles and then compared to the standard value for the space. If the recorded measurement was not greater than or equal to the standard value, three additional distributed measurements were obtained. Light measurements were used as part of the educational suitability assessment.

No systemic lighting issues were identified in the educational areas. No systemic issues were identified in the life safety egress areas. Low light levels were encountered in some mechanical spaces and in some of the gymnasium and multi-purpose rooms.

Space measurement and categorization were performed at all of the assessed facilities. Procedures used for obtaining the measurements are included in Appendix C to this report. Measurements were taken at every room in the facility sufficient to create a single-line floor plan drawing of each level. It was not the purpose of the space measurement effort to create “as-built” drawings of the facility as might be required at the completion of construction. The purpose of the space measurement plan drawings was to provide sufficient detail to accurately depict the floor plans of the facility and calculate square footage of the space by use category. The use categories depicted on the floor plan are summarized in Figure 3.

The use categorization of the rooms was based on available information. Spaces were given a type and use classification based upon what was observed within the space at the time of the survey. If an escort was present and the type and use was unclear, the team would ask for input from that individual.

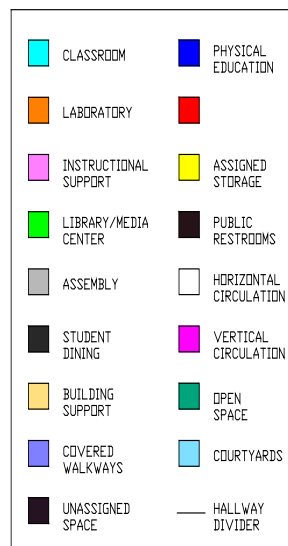


Figure 3 – Space Measurement Categorization

The space measurement information was used in several areas of the educational adequacy appraisal. The information was also used to develop capacity calculations relative to gross square footage of the buildings and square footage of the classroom areas. Individual plan drawings of the eight elementary schools evaluated are included in Appendix D. A summary of the calculated building gross square footage is shown in Table 3.



Table 3 – Summary of Elementary School Gross Square Footage

Elementary School	Building Gross Square Footage (GSF)
Accident	33,603
Broad Ford	58,493
Crellin	13,320
Friendsville	33,228
Grantsville	51,831
Route 40	27,986
Swan Meadow	7,382
Yough Glades	37,765

Educational Adequacy Appraisal

FEA evaluated the educational adequacy of each elementary school. The educational adequacy appraisal involved assessing how well each school building and site supported the instructional programs. Our appraisals were based on standards and best practices published by The School Facilities Maintenance Task Force of the National Forum on Education Statistics and the Association of School Business Officials International (ASBO) guidelines for planning and conducting facility audits. In addition we have adopted key portions of The Council of Educational Facilities Planners International (CEFPI) guidelines for auditing school facilities (CEFPI, 1998). We analyzed in the field and worked with Garrett County staff to review educational adequacy information in the following categories:

1. **Technology Readiness** – Ability of the school to meet administrative and instructional technology needs.
2. **Educational Site Requirements** – Ability of the school property to provide instructional and athletic outdoor amenities and provide a safe and secure learning environment.
3. **Educational Functionality** – Ability to meet overall space requirements by area type, adjacency, and function.

Technology readiness was evaluated as part of the facility condition assessment. The assessment considered two basic issues; the connection of the facility to the internet and the electrical capability of the facility to support technology. The issue of connecting to the internet involves three basic elements: service availability within the community compared to the level of service used at the facility; service distribution throughout the facility; and the ability of the users to connect. The issue of electrical capability involves sufficiency of power to the facility and to the switchgear, sufficiency of power distribution to the classrooms (circuits), power distribution in the classrooms, and the ability of classrooms to control lighting levels.



An evaluation was made relative to the size, location, adjacencies, accessibility and flexibility of instructional and non-instructional spaces (including classrooms, laboratories, libraries, media, gymnasiums, cafeterias, auditoriums, multi-purpose rooms, administration, guidance, clinics, teacher workrooms, and interior common spaces). FEA used scoring guidelines for each of the categories listed previously. Each scoring guideline was specific to the category under evaluation.

As an example, the assessment of the educational site requirements includes subcategories of size, parking, the presence of environmental hazards, site access and sidewalks, fencing, playgrounds, and ball fields. Each subcategory was evaluated based on a percentage of the CEFPI assigned scale for that subcategory. For the subcategory of site size, the guideline for elementary schools is a minimum site of 10 acres plus 1 acre for every hundred students in attendance. The scoring was based on the maximum score of “25” if the site met or exceeded 90% of the minimum requirement, “20” if the site was between 80% and 90% of the minimum, “15” if the site size was between 70% and 80% of the minimum, and “10” if the site was less than 70% of the minimum requirement.

An overall educational environment and program adequacy score was derived from the summation of all the subcategories. The total was compared to the total possible score for all categories evaluated.

Capacity Analysis

School capacity can be derived in several ways. Two of the most common methodologies are to estimate the capacity of a school based on size of the building (gross square footage) or from the square footage of the classroom area with respect to the grade level supported by the space. FEA was provided with State-Rated Capacity estimates as part of the background information for this study. The State-Rated Capacity (SRC) was derived in accordance with COMAR 23.03.02.04B. The methodology uses square footage from classrooms and other instructional spaces for the calculation of capacity. Some areas are discounted based on size and use. The basic size of a classroom (K through 6th grade) is assumed to be 900 sf. The approved class size is 22 students for kindergarten classes and 23 students for grades 1 through 5.

There are difficulties estimating capacity from the gross square footage of the building. Facilities such as Grantsville support a Head Start Program within the building. In the case of Grantsville, a substantial addition was constructed in 2008 to support the Head Start Program. Although the attendance in the Head Start Program and attendance in the County-sponsored Pre-K program are considered differently, the use, operation, and maintenance of the facility that house the programs are school responsibilities. Capacity estimates based on the building gross square footage include space shared by both programs. For the purpose of this study, we have used a capacity calculation



based on the square footage of the instructional classrooms similar to that used for calculating the SRC.

Garrett County has a stated goal of maintaining approximately 25 students per teaching station in the regular classrooms (K-12). The square footage used as a guideline for new construction of a typical kindergarten classroom commonly ranges from 1,000 sf to 1,200 sf. For our capacity estimates related to kindergarten classrooms, we have used 50 sf per student to estimate capacity for that grade level. Similarly, the guideline square footage commonly used for new construction of a classroom supporting grades 1 through 5 is 900 sf. For our capacity estimates related to grades 1 through 5, we have used 36 sf per student.

Bus Transportation Analysis

Facility Engineering Associates, P.C. engaged School Bus Consultants, LLC (SBC) to conduct a Transportation Impact Analysis for a series of four potential school building and grade realignments options currently being considered by the Garrett County Public Schools (GCPS). SBC's assessment included the likely cost and service quality implications for each of the options evaluated.

The SBC analysis incorporated specific assumptions and modeling constraints. The overarching objective in modeling each option was to seek solutions that minimized the impact of the facility and grade realignment on overall transportation costs and student ride times. Specifically, the analysis was based on:

- Minimizing cost impacts (i.e., an increase in average student ride times on existing bus routes was assumed preferable to adding route buses to the transportation network).
- All of the current route buses would be available in all options (i.e., the closing of a school did not presume any reduction in buses available).
- The number of students who change schools should be minimized.
- In no instance were new bus routes developed; Time and distance estimates assumed reasonable changes to existing routes would be preferred.
- Driver salary costs were assumed to start at the first live bus stop (i.e., the first stop where students board the bus).
- School bell times were held constant.
- Sufficient existing capacity was assumed to exist on current bus routes; SBC limited the number of students that would be added to any existing route, but this assumption is significant given the absence of data on current capacity utilization.

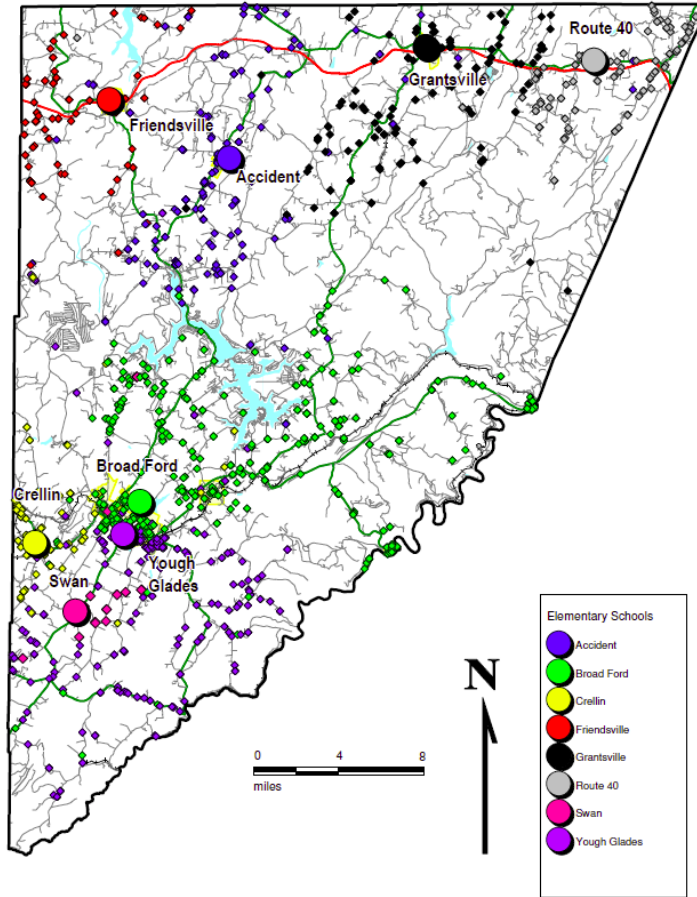


Figure 4 – Existing bus stops across Garrett County

Figure 4 demonstrates that based on proximity the students currently attending Broad Ford presents the best opportunity for transfer. There is a limited population of Yough Glades students that could also move, but that number is very limited.

2.0 SUMMARY OF FINDINGS

2.1 Facility Condition Assessment

The results of the condition assessment indicate that all of the schools evaluated have been well-maintained. There are a number of methodologies used to judge the “health” of a building. One such method is to quantifiably measure the estimated cost of observed deferred maintenance to the replacement cost of the facility (the facility condition index or FCI). The BMAR approach used for this study provides an estimate of deferred maintenance and therefore, an estimate of FCI as explained in Section 1.3. Table 4 is a summary of FCI and deferred maintenance for each of the



elementary schools. Score sheets for the eight elementary schools evaluated are included in Appendix E.

Table 4 – Summary of FCI and Observed Deferred Maintenance

Elementary School	FCI	Near-term (0-3 years) Deferred Maintenance	Long-term (4-7 years) Deferred Maintenance
Accident	0.218	\$263,000	\$380,000
Broad Ford	0.176	\$122,000	\$699,000
Crellin	0.195	\$52,000	\$178,000
Friendsville	0.231	\$207,000	\$597,000
Grantsville	0.094	\$0	\$167,000
Route 40	0.053	\$0	\$5,000
Swan Meadow	0.075	\$0	\$16,000
Yough Glades	0.140	\$0	\$402,000

As an indicator, low FCI values indicate better observed conditions at the facility. Facilities with FCI values less than 0.15 generally indicate that all or nearly all of the systems were in good to excellent condition which, within the assessment protocol established, can be characterized as systems with less than 10% deficiencies. The expectation is that facilities that qualify for this category can be maintained within what would be considered routine maintenance and repair with replacement of system components as warranted by condition and service life. Four of the schools evaluated (Grantsville, Route 40, Swan Meadow, and Yough Glades) were determined to be in this category.

Facilities with FCI scores equal to or above 0.15 but less than 0.25 are still considered to be within the “maintain” category. These are facilities that may have systems with up to 25% deficiencies when approaching an FCI of 0.25. The overall condition of the systems would be considered average and within its respective service life. The remainder of the schools evaluated (Accident, Broad Ford, Crellin, and Friendsville) were determined to be in this category.

Facilities that score a FCI equal to or above 0.25 are often considered to be in a “plan to renovate/remodel” category. These are facilities that generally have systems with 25% or more deficiencies and are in the second half or last third of the expected service life. None of the schools evaluated were determined to be in this category.

Also included in Table 4 are the estimates of deferred maintenance. The deferred maintenance (DM) identified has been divided into two general categories; a near-term DM which is anticipated to be acted upon in the next three years, and a long-term DM that may be addressed in the next 4 to 7 years. In general, the short-term DM identified consists primarily of replacement of interior finishes. The noted exception is the short-term DM at Crellin Elementary which involves

replacement of exterior window systems. No short-term deferred maintenance was identified in four of the schools (Grantsville, Route 40, Swan Meadow, and Yough Glades).

The estimated long-term DM generally consists of deferred maintenance identified across many of the systems. Relatively large amounts of DM were identified at Broad Ford and Yough Glades in the southern portion of the County. In the north, Friendsville and Accident were determined to have relatively high DM in both the long term and short term.

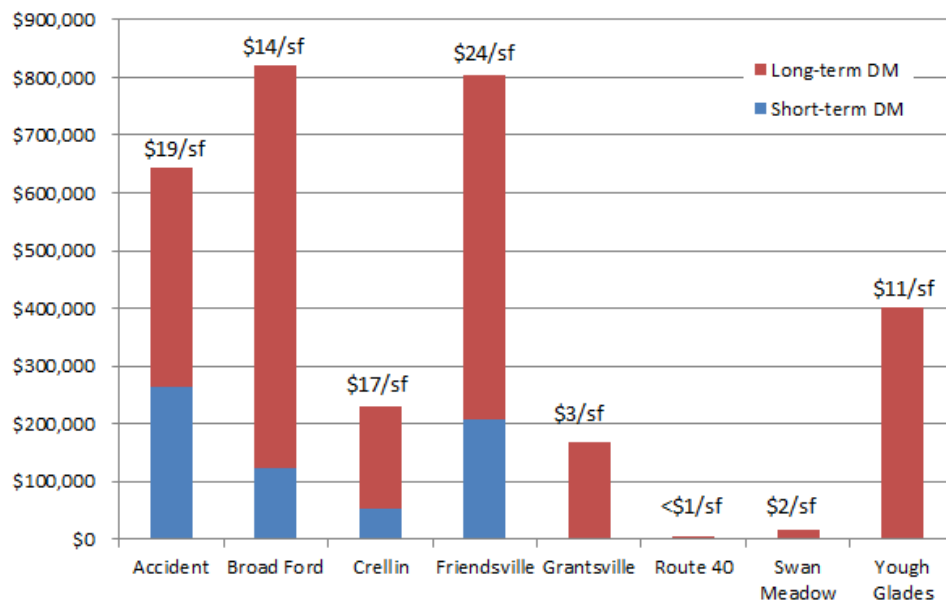


Figure 5 – Summary of Short and Long-term Deferred Maintenance

Figure 5 is a summary of the short-term and long-term DM identified across the schools. When evaluated on a gross square foot basis, the highest cost DM was identified at Friendsville Elementary.

2.2 Educational Suitability Assessment

The educational suitability assessment was conducted using applicable portions of The Council of Educational Facility Planners, International (CEFPI) “Guide for School Facility Appraisal”. Specifically, the assessment focused on the school site, educational adequacy, and the environment for education. Other sections of the CEFPI Appraisal Guide were addressed in the Facility Condition Assessment portion of the study. The score sheets for the eight school appraisals are included in Appendix F.

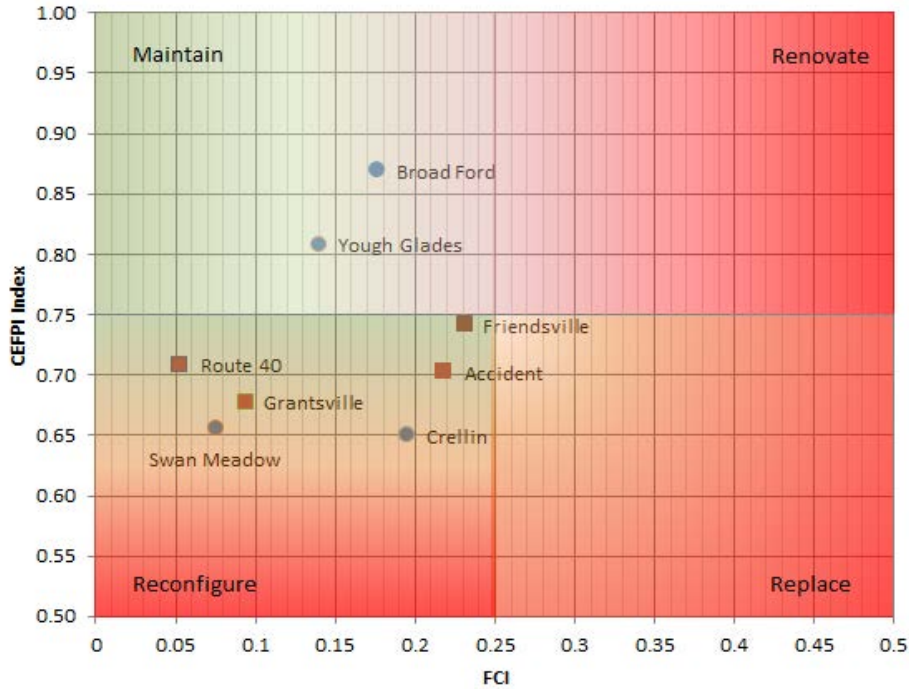


Figure – 6 Summary Plot of CEFPI index and FCI

The results of the suitability assessments are summarized in Figure 6 along with the results of the FCI values from the condition assessment. The CEFPI index is calculated from the individual score sheet total for the school evaluated relative to the total number of points possible if the schools were to meet or exceed the minimum criteria in each category evaluated. Scores below 50% are considered unacceptable and require improvement.

In general, all of the schools scored within an acceptable range. The schools in the northern portion of the County scored within a relatively close range of one another. Broad Ford and Yough Glades scored the highest among all the schools. The scores for Swan Meadow and Crellin were low generally because of the small size and configuration of the facilities. It should be noted, however, that the student clinic arrangement at Broad Ford is unacceptable. There is no dedicated or adjacent restroom facility for students visiting the clinic. The storage space for the clinic is shared with other departments, causing disruptions of service and the potential to transmit conditions to high use areas outside of the clinic. Based on our observations, there did not appear to be a dedicated space for a student clinic at Crellin Elementary.

Friendsville, Broad Ford, and Grantsville schools were constructed as “open plan” schools. These schools have, over time and with varying success, modified the floor plan to better provide individualized classroom and specialized instructional space. Since mechanical systems were

configured to accommodate the open environment, walls separating classrooms are constructed to partial height, which allows for significant noise transmission across the instructional areas.

2.3 Enrollment vs. Capacity Analysis

The classroom square footage (CRSF) capacities presented in this report are calculated excluding the instructional space allocated for Pre-K. Similarly, the enrollment numbers do not reflect Pre-K enrollment. Four elementary schools offer Pre-K programs: Accident, Friendsville, Route 40, and Yough Glades. In addition, Grantsville houses a Head Start program. The decision to exclude the Pre-K programs from our capacity analysis is based on the observed configurations. There appeared to be wide variations in space allocated to the Pre-K and Head Start programs across the schools. Often the space for these programs is configured such that there is limited interaction with the rest of the school. The number of Pre-K students enrolled in the programs represents less than 5% of the total K through 5th grade enrollment.

Table 5 is a summary of the calculated capacities using the CRSF methodology for the eight elementary schools studied. The State-Rated Capacities (SRC) are also included for comparison. In general, the CRSF capacities are similar to the SRC estimates. Broad Ford and Yough Glades have current enrollments that exceed capacity. This is due to the recent closing of Dennett Road and Kitzmiller Elementary schools. Crellin Elementary is approximately at capacity.

In the northern portion of the County, all of the schools are underutilized with a combined enrollment of approximately 75%. Friendsville Elementary has the lowest utilization at close to 50% of capacity.

Table 5 – Summary of Capacity vs. Enrollment

Elementary School	Capacity based on Classroom Square Footage (CRSF)	State-Rated Capacity	Enrollment (2013)	Utilization (based on CRSF)
Accident	303	314	228	75%
Broad Ford	541	499	621	115%
Crellin	115	114	117	102%
Friendsville	208	226	110	53%
Grantsville	294	274	238	81%
Route 40	139	167	110	79%
Swan Meadow	75	69	44	59%
Yough Glades	298	340	342	115%

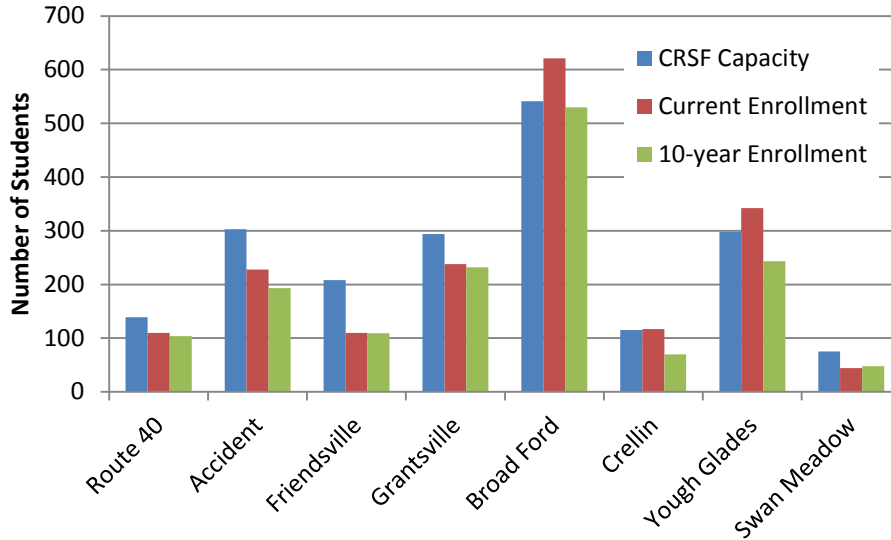


Figure 7 – Summary of Capacity and Current and Projected Enrollment

Enrollment projections indicate that all of the elementary schools will experience a reduction in enrollment over the next 10 years (reference Figure 8). Based on the projections, the enrollment at Broad Ford and Yough Glades would not lower to the level of the estimated capacity for at least 5 years. The remaining two schools, Crellin and Swan Meadow, do not have sufficient excess capacity now or in the near future to significantly relieve overcrowding at Broad Ford and Yough Glades. The SRC of the southern middle school is approximately 70% with a potential excess capacity sufficient to accommodate all of the overcrowding at the two elementary schools by transferring 5th grade students to the southern middle school.

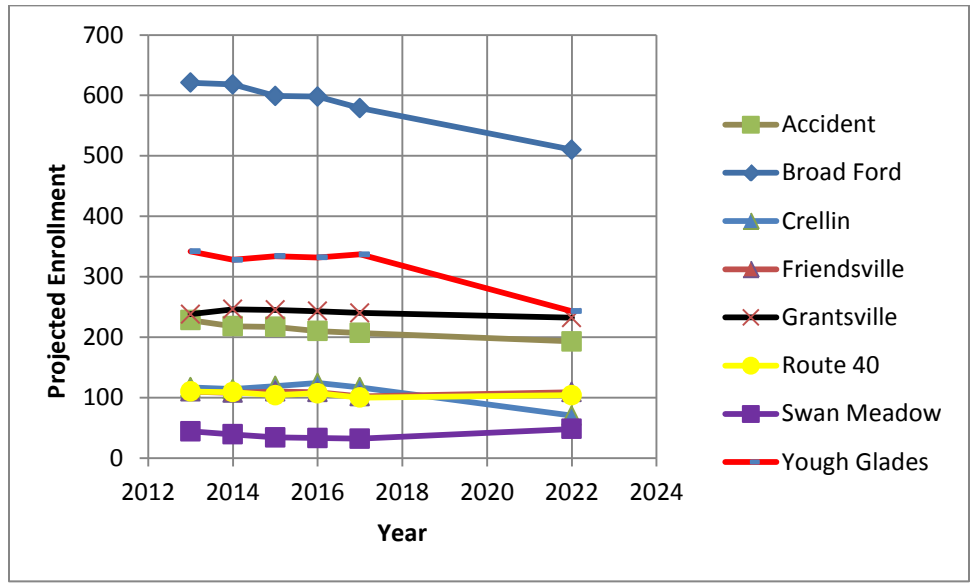


Figure 8 – Enrollment Predictions for Northern and Southern Elementary Schools

In the northern portion of the County, the total current enrollment could be accommodated by Grantsville and Accident Elementary schools and one of the other remaining elementary schools. The utilization of the northern middle school based on the SRC is approximately 63% with an available capacity of over 200 students.



3.0 OPTIONS FOR INCREASING EFFICIENCY AND REDUCING COSTS

3.1 Southern Garrett County

The primary issue in southern Garrett County is the overcrowding of Broad Ford Elementary and Yough Glades Elementary. Based on both the State-Rated Capacity estimates and FEA estimates based on classroom square footage, there is not sufficient excess capacity at either Crellin or Swan Meadow Elementary schools to accommodate the overcrowding situation. Based on enrollment projections, the decline in overall enrollment will not compensate for the overcrowding for at least five years.

There is significant difference between the calculated capacities of both Broad Ford and Yough Glades using the two methodologies. The SRC estimate for Yough Glades indicates that the school is at capacity for the 2013 enrollment. Using the capacity estimate based on classroom square footage, Yough Glades appears to be over capacity by 44 students (reference Table 5). More than half of the excess is attributed to the kindergarten enrollment. At Broad Ford, the SRC estimate indicates an excess of 142 students; whereas, the excess is calculated as 73 students by classroom square footage. By either method, the current total excess student population between the two schools exceeds 100 students.

One alternative to the overcrowding situation would be to transfer the 5th grades at both Broad Ford and Yough Glades to the southern middle school. Based on the SRC estimate, the southern middle school has an excess capacity of over 200 students, more than enough to accommodate the 5th grade students from both elementary schools.

FEA did not perform a formal condition assessment and educational evaluation of the southern middle school; however, FEA did visit the school, met with administrative personnel and was given a tour of the facility to develop a cursory understanding of the facility's ability to accommodate 5th grade students. The southern middle school is located adjacent to Broad Ford Elementary. The schools share a vehicular parking lot. The middle school provides chilled and heated water to Broad Ford for their HVAC system. From a transportation standpoint, there is no significant impact imposed by transferring students from Broad Ford to the middle school. If 5th grade students were transferred from Yough Glades to the middle school, there would be impact to the current transportation schedules; however, since the schools are located relatively close to one another, the impact appears to be minimal.

The southern middle school was constructed in 1977 using an open floor plan design. There has been no major renovation of the school since that time. As a result of the design, many of the school activities and classrooms are not separated by grade. The students travel common corridors to classrooms together; however, student lockers are grouped by grade. There are instances where



students pass through classrooms to access other classrooms. The Board of Education has engaged an architect to recommend appropriate building modifications should the transfer of 5th grade students be adopted.

Another solution would be to accommodate the overcrowding by locating temporary classrooms, modular construction, on the Broad Ford and Yough Glades sites in place of renovating space within the southern middle school. This alternative offers the advantage of minimal disturbance to the student population, no modification of the transportation schedule, and the least disruptive construction to both the site and student population at both the elementary schools and the middle school. This alternative would involve additional facility and operational costs; however, these costs would be in place for only as long as the modular classrooms were necessary.

Alternatively, another affordable facility could be used as classroom space. If the facility was already active and maintained, the additional operational and maintenance costs are minimized. Additionally, if the facility was close to Broad Ford, transportation costs and ride times would not be significantly affected. For this case, transferring Pre-K and K classes to this facility would alleviate the overcrowding issue and not subject the 5th grade students to potential grade separation issues at the middle school. It is anticipated that some facility modifications would be required to accommodate the younger students.

Each of the previous alternatives adds significant costs to the projected budget deficit. Our opinion of operational, construction, and staffing costs for the three alternatives ranges from \$270,000 to \$300,000.

Option 1

Adjust the Broad Ford and Yough Glades district boundaries to transfer students to the northern school districts to alleviate overcrowding in the south and increase enrollment in the north.

Currently, Broad Ford elementary and Yough Glades elementary are overcrowded. The collective predicted enrollment at these two schools in 2015 (excluding the pre-K program) is 933 students. The capacity of Broad Ford and Yough Glades is approximately 839 students. The overcrowding is approximately 94 students (K through 5). To alleviate the overcrowding issue, both the Yough Glades and the Broad Ford district boundaries would be adjusted such that the requisite number of students transfers to the northern school districts. The northern schools have sufficient excess capacity to accommodate the overcrowding (reference Figure 9).

For the purpose of this analysis, it was assumed that current bus routes originating the furthest south in the County would be extended to transfer the requisite number of students north. This would have the effect of increasing maximum ride times to 90 minutes for some students. Several bus routes would need to be re-configured. The redistricting of the school boundaries to accommodate the overcrowding condition at Broad Ford and Yough Glades adds approximately

\$50,000 to the overall transportation budget. The result is the utilization of Broad Ford and Yough Glades drops to 100% while the combined utilization of the northern elementary schools increases to 82%.

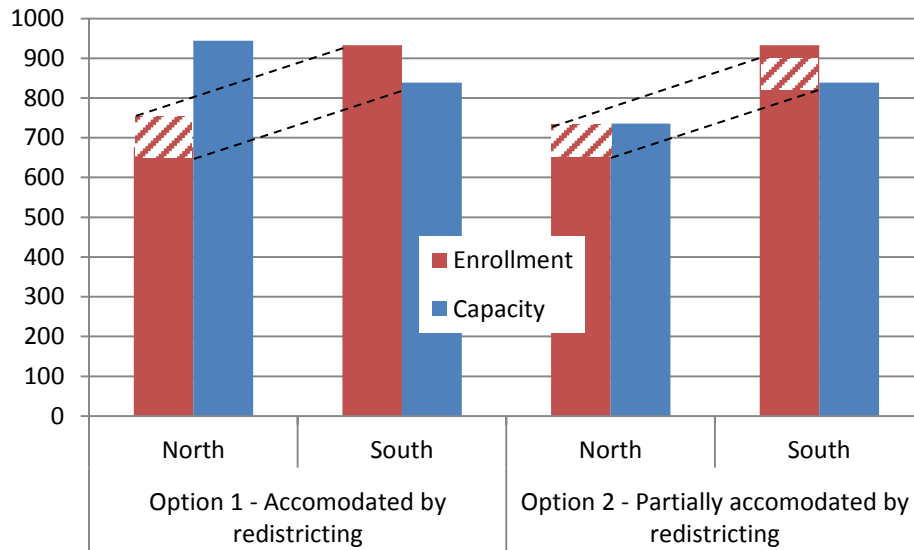


Figure 9 – Accommodation of Overcrowding with Redistricting

3.2 Northern Garrett County

Option 2

Close one elementary school in the northern school district; adjust the Yough Glades and Broad Ford district boundaries to alleviate overcrowding in the south and increase enrollment in the north, and transfer students to an affordable facility to satisfy the remaining overcrowding issue in the south.

The most significant problem in northern Garrett County is the underutilization of the schools. The combined elementary school enrollment is approximately 75% of capacity with a declining enrollment. The most direct way of achieving significant cost reduction among the northern county elementary schools is to consolidate the existing enrollment across three schools. The option under consideration is the closing of Friendsville Elementary school. Friendsville Elementary has a low enrollment (110 students, K through 5th grade). The facility is currently operating at about 50% of capacity with a projected stable or slight decline in enrollment over the next 10 years. Maintenance expenditures within that time frame are expected to be the highest among the eight elementary schools evaluated. The enrollment, both current and future, could be accommodated by the remaining three northern elementary schools without significant modification to the facilities.



Friendsville is the westernmost elementary school in the northern portion of the County. Transportation of students currently collected within the remaining school districts will increase; however, the increase is tempered by the fact that the two schools closest to Friendsville (Accident and Grantsville) can accommodate approximately 75% of the students with the remainder transferred to Route 40 Elementary. The cost impact to the transportation budget is \$46,000. The extended ride times would be similar to that determined for Option 1. The detailed analysis of the transportation analysis is included in Appendix G. The cost avoidance realized would include the removal of deferred maintenance costs, reduced or eliminated operational costs consisting of maintenance of building and grounds, utilities, and custodial (dependent on the disposition of the facility), and reduced staffing costs.

Closure of either Accident or Grantsville offers no clear advantage over closure of Friendsville. Both schools have enrollments more than twice that of Friendsville; therefore, the impact to the general student population would be greater. There is not sufficient excess capacity in three remaining schools to accommodate a closure of either Accident or Grantsville without creating an overcrowding condition.

If the decision was to pursue closure of either Accident or Grantsville instead of Friendsville, transfer of the 5th grade (115 students) to the Northern Middle School would be necessary. With the transfer of the 5th grade, there is sufficient excess capacity in the remaining three schools to accommodate the closure of either Accident or Grantsville. This option has the disadvantage of disrupting a large student population. The cost avoidance relative to deferred maintenance for a closure of either Accident or Grantsville are reduced from that realized by closing Friendsville. The operational cost avoidance would be similar or slightly higher for the closing of Grantsville, depending on the disposition of the building.

Although the northern middle school was not part of the formal condition assessment and educational evaluation, FEA did visit the school to develop a cursory understanding of the facility's ability to accommodate 5th grade students. The northern middle school underwent an extensive renovation in 2008. The facility is capable and has capacity to accommodate 5th grade students. By design, the facility configuration allows for separation of student age groups and activities. The principal of the school has developed interior circulation patterns such that students traverse hallways in accordance with schedules that maintain a degree of grade separation throughout the day.

Option 3

Close two elementary schools in the northern school district, transfer 5th grade students to the northern middle school, adjust the Yough Glades and Broad Ford district boundaries to alleviate overcrowding in the south and increase enrollment in the north, and transfer students to an affordable facility to satisfy the remaining overcrowding issue in the south.

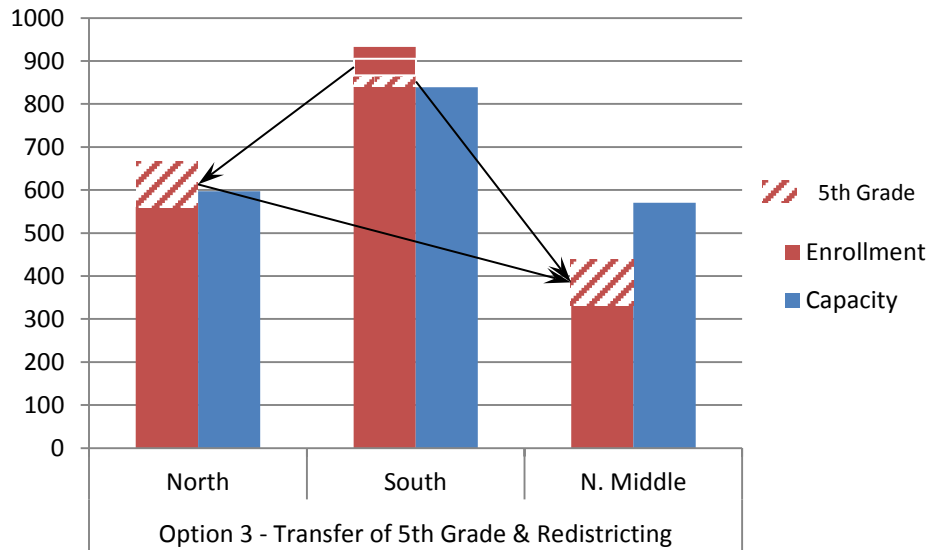


Figure 10 – Re-configuration of Northern Elementary and Middle Schools

If the elementary schools in the northern portion of the county were re-organized to teach K through 4th grade (561 students) and the 5th grade students (115 students) were transferred to the northern middle school, the entire K through 4th grade enrollment in the northern portion of the County could be accommodated at the Accident and Grantsville schools and the Friendsville and Route 40 Elementary schools could be closed. Under this option, a redistricting of the northern district boundaries for Broad Ford and Yough Glades has been included to transfer sufficient students (36 students) to achieve at-capacity enrollment in the two remaining northern elementary schools and alleviate some of the overcrowding at Broad Ford and Yough Glades.

The cost impact of this option to the transportation budget is approximately \$110,000. Ride times for students attending Friendsville and Route 40 elementary schools will increase significantly and may exceed 90 minutes in some cases. Grade 5 transfers can occur within the existing routing scheme. The details of the transportation analysis for this option are shown in Appendix G. The option would generate an operational and maintenance cost avoidance with the closing of two schools and achieve increased efficiency in the northern elementary and middle schools.

Option 4

Close two elementary schools in the northern school district and one in the southern school district, reconfigure all grades in the northern schools, and adjust the district boundaries to alleviate overcrowding in the south and increase enrollment in the north.

Further cost avoidance could be achieved if all the grades in the northern portion of the County were reconfigured. The reorganization would include grades K through 3 at two elementary

schools, intermediate grades 4 through 7 at the middle school, and grades 8 through 12 at the northern high school. In this scenario, Friendsville and Route 40 elementary schools in the north and Crellin elementary school in the south would be closed. The district school boundaries would be revised to redistribute students such that Accident and Grantsville elementary schools would be at or near capacity, the northern middle school utilization would increase to 85%, and the overcrowding at Broad Ford and Yough Glades would be eliminated.

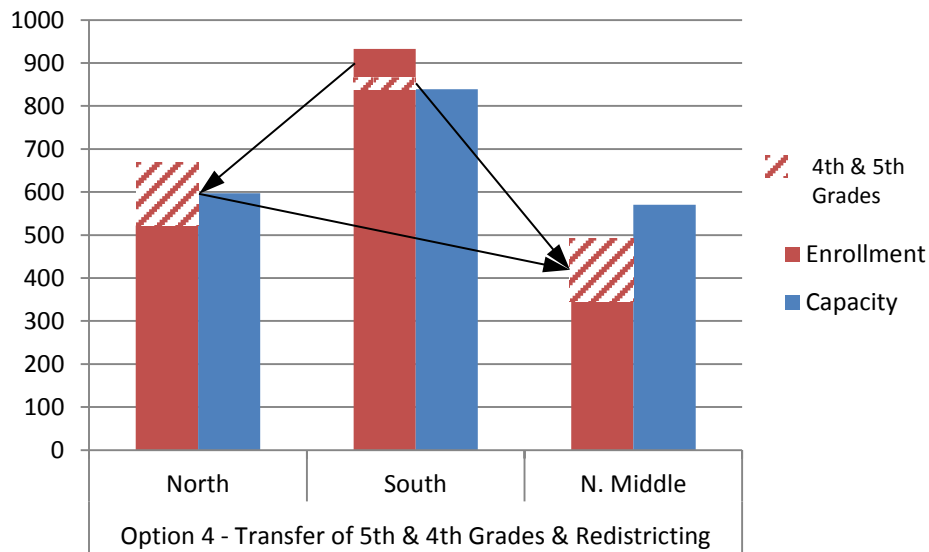


Figure 11 – Reconfiguration of Enrollments in the Northern Schools

The cost impact to the transportation budget under this option is approximately \$138,000. This option would require a redesign of the bus route network in the north and revisions in the south to accommodate the closing of Crellin Elementary. It should be noted that due to the extensive re-configuration of the current transportation routing under this option, the cost avoidance estimates should be considered very approximate. The details of the transportation analysis for this option are included in Appendix G. The County would realize an operational cost savings and maintenance cost savings with the closing of three schools and achieve increased efficiency in the northern elementary, middle, and high schools. The overcrowding situation at Broad Ford and Yough Glades would be eliminated by the adjustment of the district boundaries.



4.0 RECOMMENDATIONS

Garrett County School System is faced with a \$2,200,000 budget shortfall in fiscal year 2015 provided that local support will remain at or above existing funding levels. In addition, the County is experiencing a long-term decline in student enrollment which negatively affects school funding. The County also has an overcrowding issue in two of the southern schools. The purpose of this study was to evaluate options available to the Board of Education that could potentially close the budget gap and maintain the most effective and affordable learning environment.

The overarching factor affecting the deposition of schools in the County is the need to eliminate the impending budget deficit. In an effort to provide GCPS with objective, factual information for all the elementary schools, each school was evaluated in terms of their physical condition and educational suitability. In addition, consideration was given to current and future enrollment, transportation issues associated with any change in district boundaries, and impact the communities involved.

All of the elementary schools were determined to be within acceptable standards for condition and educational suitability. The two largest schools in the southern portion of the County, Yough Glades and Broad Ford, were determined to be in a “maintain” category which indicates the facilities are in good condition and scored high in educational suitability. All of the other schools were considered to be candidates for “reconfiguration” which generally indicates that the facilities were in good condition but scored lower in educational suitability.

The most common option used to alleviate overcrowding is to adjust school district boundaries or increase facility capacity. The impact of modifying school boundaries is most significant to the affected students. New surroundings and teachers and often longer bus rides have to be tolerated by the students and their families. The goal of any district boundary adjustment is to consolidate enrollments and level student populations to efficiently utilize facility capacity. Another option is to utilize alternate facilities to increase capacity. For Garrett County, we have considered alternate sites, locating temporary facilities (portable classrooms) on site, and adjusting district boundaries. Table 6 is a summary of the various options considered. Given the information known to FEA at this time, the most cost-effective option available to the County for alleviating the overcrowding issue is to adjust the Yough Glades and Broad Ford district boundaries to transfer students to the northern school districts.

If an option to relocate students to an adjacent facility is selected, we suggest consideration be given to relocating the K and Pre-K classes to maintain consistency of student ages within a given facility as much as possible.



Based on our observations, we do not recommend assimilating the 5th grade students into the southern middle school. The current space distribution would not easily provide a reasonably isolated environment for 5th grade students. Significant remodeling would be necessary to provide an appropriate environment for the younger grades.

Table 6 – Option 1 Alternatives

Alternative	Advantages	Disadvantages
Adjustment of District Boundaries/Relocation of Students to Northern Schools	<ul style="list-style-type: none"> Increased Utilization in North No Construction Costs No Additional Operation or Maintenance Costs 	<ul style="list-style-type: none"> Transportation Time Increase Added Transportation Cost
Transfer of 5 th Grade to Southern Middle School	<ul style="list-style-type: none"> Minimal Transportation Changes No Additional Operation or maintenance Costs 	<ul style="list-style-type: none"> Modification Costs to Facility Grade Separation Issues Additional staffing costs
Installation of Portable Classrooms	<ul style="list-style-type: none"> No Transportation Changes Minimal Construction Costs 	<ul style="list-style-type: none"> Added Facility Costs Added O & M Cost Additional staffing costs
Relocation to Adjacent Facility	<ul style="list-style-type: none"> Minimal Transportation Changes Minimal Additional Operation or maintenance Costs Minimal Construction Costs 	<ul style="list-style-type: none"> Added O & M Cost Additional staffing costs

The most direct way of achieving significant cost reduction and address the 2015 budget shortfall is to consolidate enrollment among the county elementary schools to match the existing facility capacities. A number of options have been evaluated to achieve cost avoidance. Each option has incorporated an element adjusting district boundaries to alleviate overcrowding in the southern portion of the County and consolidating enrollment in the north. Unfortunately, to attain the required level of cost avoidance involves closing more than one facility. The choice of which facility to close is based on balancing many factors; projected enrollment, facility condition, transportation costs, operation and maintenance cost, staffing costs, etc. There are also factors beyond the scope of this report that may be considered. Table 7 is a summary of the various options that have been evaluated.

Table 7 – Summary of Options



Option	Description	Potential Cost Avoidance
1	<i>Adjust the Broad Ford and Yough Glades district boundaries to transfer students to the northern school districts to alleviate overcrowding in the south and increase utilization in the north.</i>	-\$50,000/year*
2	<i>Close Friendsville school, and adjust the Yough Glades and Broad Ford district boundaries to alleviate overcrowding in the south and increase utilization in the north, and transfer students to an affordable facility to satisfy the remaining overcrowding issue in the south.</i>	27% of project budget deficit
3	<i>Close Friendsville and Route 40 schools and reconfigure Accident and Grantsville schools to K through 4th grade, transfer 5th grade students to the northern middle school, adjust the Yough Glades and Broad Ford district boundaries to alleviate overcrowding in the south and increase utilization in the north, and transfer students to an affordable facility to satisfy the remaining overcrowding issue in the south.</i>	52% of project budget deficit
4	<i>Close Friendsville and Route 40 schools and reconfigure Accident and Grantsville schools to K through 3rd grade, transfer 4th and 5th grade students to the northern middle school, transfer 8th grade students to the northern high school. Close Crellin Elementary School and adjust the district boundaries to alleviate overcrowding in the south and increase enrollment in the north.</i>	84% of project budget deficit

*Added transportation costs

It is possible to bridge the majority of the budget gap through realignment of facilities and grades; however, significant changes would be required. Fortunately, Garrett County has facilities that can accommodate these changes. The decision of how extensive the changes should be is a community decision based in part on available funding and also on the ability of the system to deliver a quality education. It is our opinion that each of the options described in this report can be implemented to provide a desired spending level and still deliver a quality education to the students.

Appendix A

Sample Assessment Guidelines

B30 - ROOFING
B3010 ROOF COVERINGS

Roof coverings included the waterproofing materials that are placed above the structural roof deck. This includes downspouts and gutter systems, and roof drains with drain lines that pass vertically through a soffit without entering the occupied building (similar to a thru-wall scupper).

RATING

- 5 EXCELLENT:** Roof deficiencies are limited to 0-5% of the roof area. Waterproofing materials are intact and drainage appears adequate. Protection materials such as coatings and ballast are in place and evenly distributed and have not significantly deteriorated. Only routine maintenance is currently required.
- 4 GOOD:** Roof deficiencies (such as patched and replacement areas) are evident over 5-10% of the roof area. Roof leaks are minor, isolated and infrequent. Membrane, coatings, and base flashing are generally in good condition. No significant ponding areas observed on roof.
- 3 FAIR:** Roof surfacing is generally in good condition but may show minor effects of aging. Roof deficiencies may exist on 10-25% of total roof area. Roof leaks are not a significant problem but have been repaired with some frequency.
- 2 POOR:** Roof surfacing is generally showing effects of aging or patching on 25-50% of area, but still generally sheds water. Roof leaks are chronic, frequent, and repairable. Significant membrane and base flashing defects are evident.
- 1 FAILURE/CRISES:** Roof surfacing shows major aging related defects over 50% or greater of roof area and multiple roof leaks are reported after almost every rain. Roof has major membrane and base flashing defects and leaks that cannot be repaired effectively

CONDITION RATING	5	4	3	2	1
TYPE OF ROOF SYSTEM	AVERAGE EFFECTIVE REMAINING LIFE, YEARS				
COMPOSITION-SHINGLES	15		5		0
ROLL ROOFING	15		5		0
STEEP-METAL	35		12		0
STEEP-CEMENTITIOUS PANELS	50		17		0
CLAY TILE	50		17		0
CONCRETE TILE	50		17		0
BUR ASPHALT	25		9		0
BUR-COAL TAR	30		10		0
SINGLE PLY - SHEET	15		5		0
DECK COATING	10		3		0
POLYURETHANE FOAM ROOFS	15		5		0

Appendix B

Light Level Standards

Light Measurement Standard Research Comparison Table

ROOM TYPE CLASSIFICATION	FEA suggested Evaluation Standard
ADMINISTRATIVE	
Offices/Receptionist	40
Storage Rooms	25
Restrooms	25
Conference/Resource Rooms	40
Health Clinic	40
Teacher Prep/Workroom	40
EDUCATIONAL	
CLASSROOMS	
CLASSROOMS-GENERAL	40
Art Rooms/Kiln	40
Modular Technology Labs	40
CADD Labs	30
Industrial Tech/Production Labs	50
Computer Labs	40
Graphics Labs	40
Life Skills Labs	40
Science Labs	40
Music Rooms	40
Large Group Instruction Rooms	40
Corridors / Common / Circulation	10
Cafeteria	40
MEDIA CENTER	
Active Areas	40
Inactive Areas	25
SUPPORT AREAS	
Laundry Rooms	25
Kitchen-Cafeteria	50
ATHLETIC AREAS	
Gymnasium - Elementary School	65
Gymnasium - Middle School	65
Gymnasium - High School	80
Multi-use P.E. Rooms	40
Locker Rooms	25
STUDENT DINING	
Assembly	40
Stage/Work Lights	20
Make-up/Dressing Rooms	40
Theatrical Control Room	20

FEA proposed Lighting Standards for Existing Facilities (RLSEF) are based on research of recommended Design Guidelines and the IESNA Lighting Handbook. Both references apply to new construction and not an existing facility in operation with no upgrade or refurbishment planned. Actual categories will need to be expanded to reflect category, type and use in each room.

Appendix C

Space Measurement Procedures

Space Measurement Procedures - Summary

General Site Visit Procedures

To fulfill the space measurement portion of this project, FEA will send a team of two individuals to measure each facility and the spaces that made up the facility. Length measurements will be taken using the Leica DISTO™ laser distance meter, 25-foot tape measure, and a 100-foot tape measure. The measurements will be obtained at interior spaces and around the full perimeter of the facilities. Interior and exterior wall thicknesses will also be documented throughout the facility where they can be readily obtained. The team will obtain sufficient measurements at each facility so that the facility could be drawn in AutoCAD using only the field notes as the guide. Measurements are recorded on floor plans of the facility.

While gathering the space measurement data, the team will also classify the room types based on available information and, when possible, input from the local personnel. Prior to entering, each space will be given a room number, to identify that specific space. If the facility does not already have a numbering system in place or that is apparent to our team, the team will follow a numbering guideline established by FEA.

The team will be equipped with a touch-screen tablet loaded with a spreadsheet of predetermined room types and uses. The field team will record the room number associated with the space and select the type and use from the drop down menu that best represents the space. Additionally, the team will obtain light level readings using a hand held light meter.

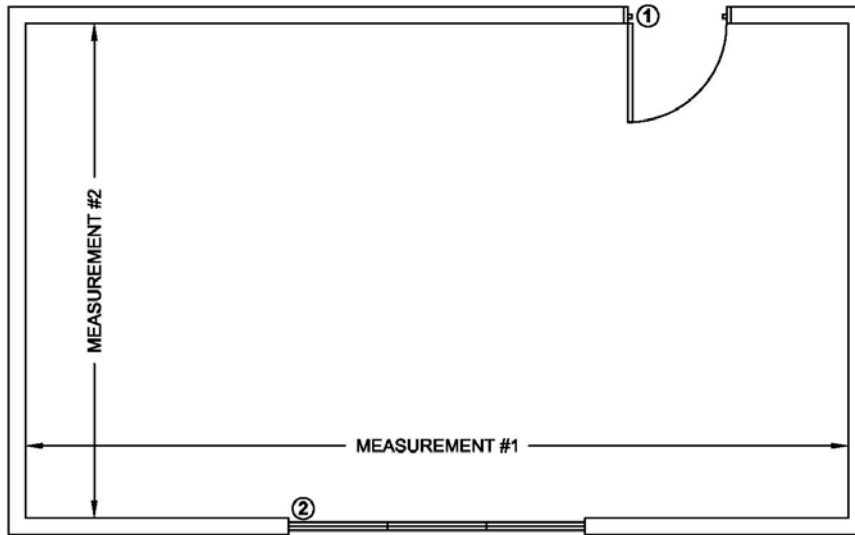
Included in the remainder of this document are detailed descriptions, examples, and illustrations of various components included within the field effort. The intent of these sections is to clarify or explain our measurement and classification methods.

Typical Room Measurement

The laser distance meter (Disto) will be placed with the back end of the Disto flat against one wall or surface and measure across to the opposite surface where the laser appears. All room measurements will be obtained from the interior surface of each wall and rounded to the nearest inch. In square or rectangular rooms, the length and width measurement will be the only measurement taken. For rooms that are not square or rectangular, the length of each wall will be recorded, as well as interior angles and cross room distances that allow the room to be drawn using basic geometry. Examples of these cases can be found below in Figure 1 and Figure 2.

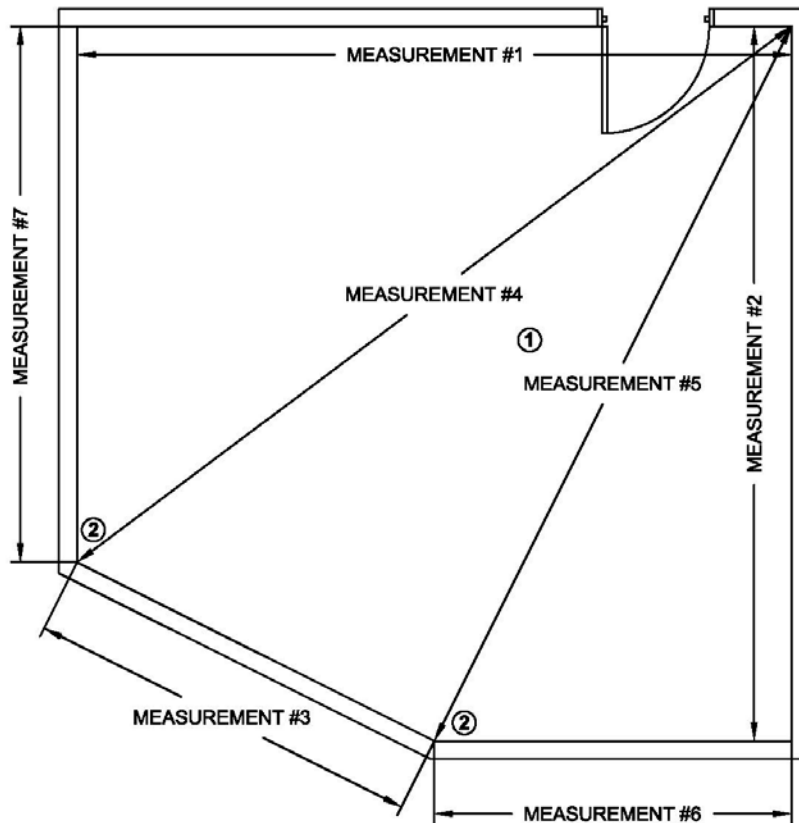
While measuring each room, interior column bump-outs and non accessible mechanical chases are not removed from the overall square footage of the space. Additionally, storage closets or built-in cabinets used by only that space are not removed from the overall square footage of the space. However, built-in bathrooms or storage not used for the main space are classified separately. Built-in lockers in hallways will be measured, classified separately from the hallway, and assigned their own room or space designation. Examples of these cases are illustrated in Figure 3 thru Figure 6.

Figure 1: Rectangular Classroom



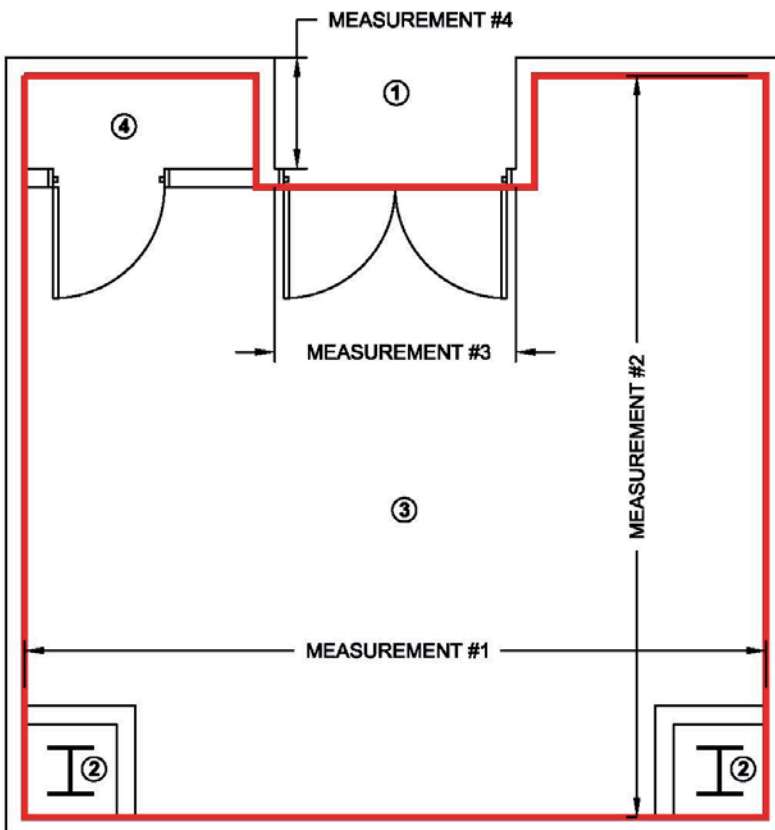
1. Width of interior walls typically measured at doorways.
2. Width of exterior walls can be measured at windows or doorways.

Figure 2: Non-rectangular Classroom



1. Measure diagonal segments such that the room can be drawn using basic geometry.
2. If possible, measure interior angles for confirmation.

Figure 3: Classroom with Column Bump-out and Space-Specific Closet

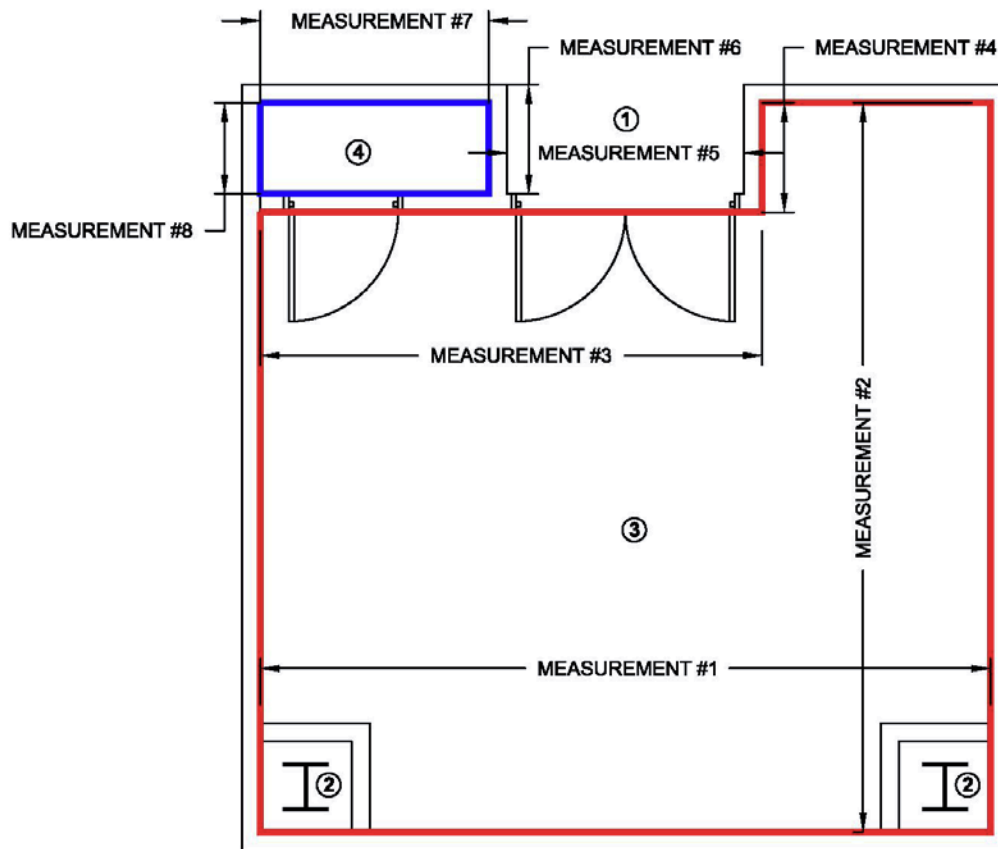


1. The area in front of a recessed doorway is measured and counted as part of the area outside (typically a hallway) of the space.
2. Column bump-outs were not measured or removed from the overall square footage of the space.
3. The main space is measured as a rectangle.
4. This space is included in the main space if the closet is used specifically for the main space.

The total square footage of this space is shown by the area outlined in red.

Note that the walls will only be reflected in the gross square footage.

Figure 4: Classroom with Column Bump-out and Non-Space-Specific Closet

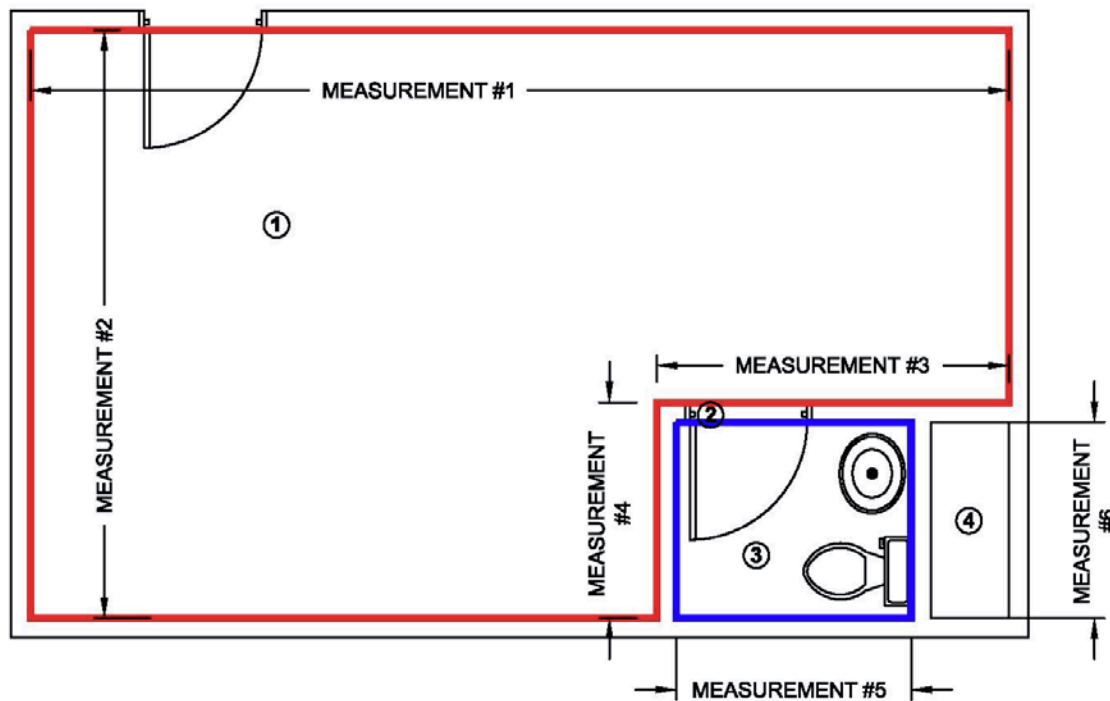


1. The area in front of a recessed doorway is measured and counted as part of the area outside (typically a hallway) of the space.
2. Column bump-outs were not measured or removed from the overall square footage of the space.
3. The main space is measured as a rectangle.
4. If this space is not used by the main space (example: IT closet in a general classroom) then it is counted as its own space with its own square footage

The total square footage of the main space is shown by the red outline and the total square footage of the non-space-specific closet space is shown by the blue outline.

Note that the walls will only be reflected in the gross square footage.

Figure 5: Classroom with Bathroom and Mechanical Chase

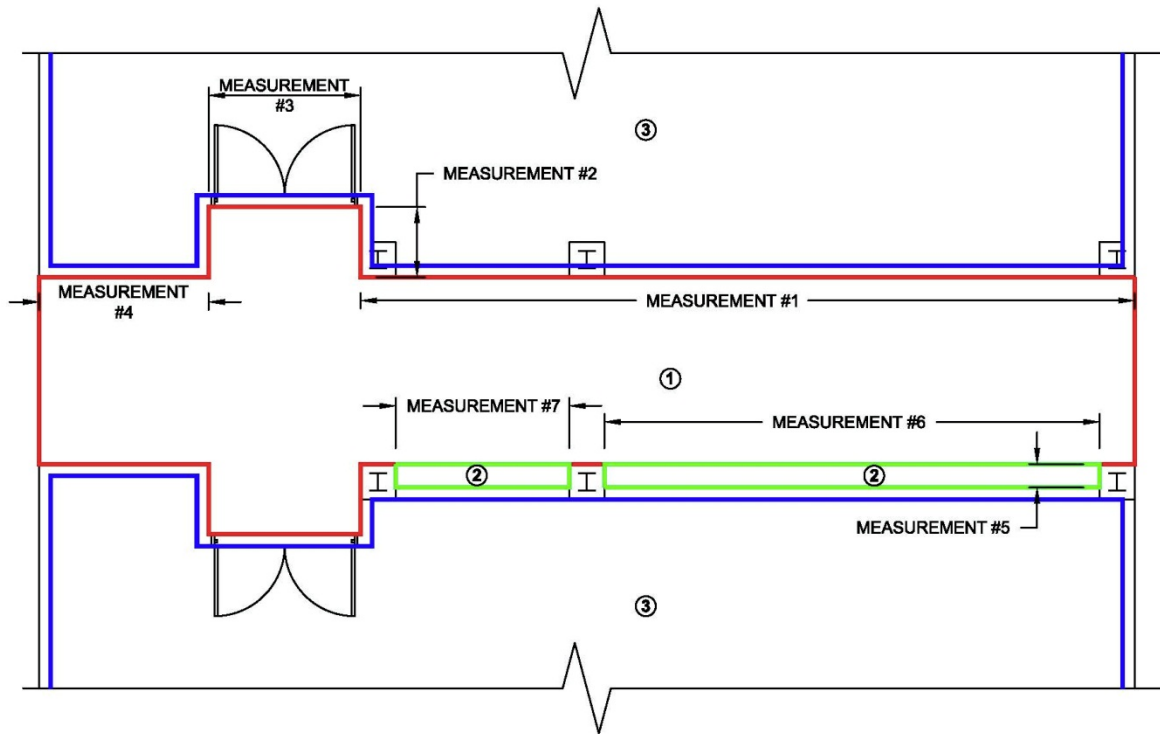


1. Measure and classify the main space.
2. Obtain wall thickness at the doorway as usual.
3. Measure the restroom and classify it as a separate space.
4. The plumbing/mechanical chase is not accessible and not measured or included in the overall square footage of either the main space or the restroom. This area is included in the building gross square footage.

The total square footage of the main space is shown by the red outline and the total square footage of the bathroom is shown by the blue outline.

Note that the walls and the plumbing/mechanical chase will only be reflected in the gross square footage.

Figure 6: Hallway with Built-In Lockers



1. The overall hallway measured and classified as horizontal circulation (outlined in red).
2. The built-in lockers measured separately from the hallway space and classified as assigned storage (outlined in green). Their square footage is not included within the hallway total.
3. The rooms are still measured from the interior face and are not affected by the built-in lockers (outlined in blue).

Wall Measurement

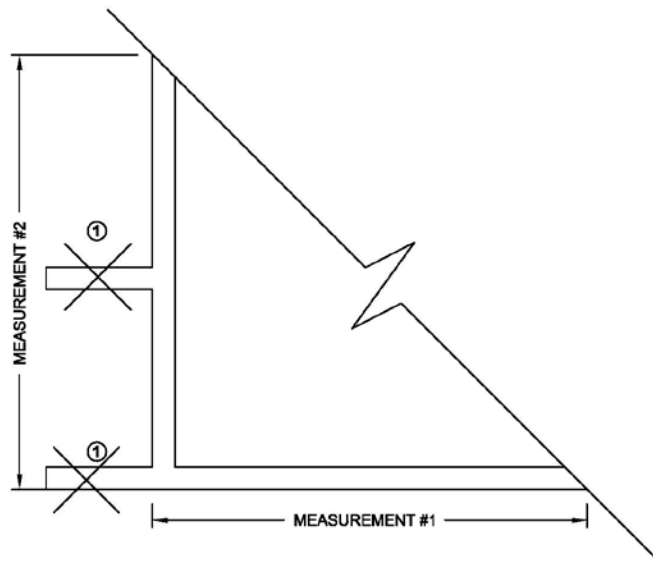
Wall thicknesses are typically measured using the 25-foot tape measure at door jambs or windows where a partial section view of the wall can be obtained. These measurements are recorded and rounded to the nearest 1/2-inch. If the width cannot be measured using one of the measuring devices, the following typical wall thicknesses should be considered:

- Exposed, single-wythe masonry walls
 - Concrete masonry unit (CMU) block is 8-inches thick
 - Typical fascia brick is 4-inches thick
 - If framing and drywall are present on the interior add 2.5-inches
- Exposed, double-wythe masonry walls
 - Concrete masonry unit (CMU) block is 18-inches thick
 - Typical fascia brick is 10-inches thick
 - If framing and drywall are present on the interior add 2.5-inches
- Framed wall with drywall on the interior and siding, stucco, or EIFS on the exterior are 6 to 8 inches thick.
- Framed wall with drywall on both sides are typically 5.5-inches thick.

Perimeter Measurement

The perimeter of the facility is typically measured using the 100-foot tape measure and/or Disto. The team works their way around the building measuring the overall length of each of the perimeter walls. Wing walls or architectural bump-outs that do not contain any interior space that can be occupied are not measured (Refer to Figure 7 for clarification).

Figure 7: Exterior Perimeter Wing Wall



1. Exterior wing walls were not measured or shown on drawings.

Basement Measurement

The guideline followed for basement levels is if the assessor can enter the space and stand up fully and safely (typically greater than 5-feet high), the space will be measured. This includes mechanical tunnels and full-height crawlspaces. Spaces that require the assessor to crawl into are not measured as part of this survey and are not included in the overall square footage total. If spaces are labeled or appear as “Confined Access” or “Asbestos Containing” they are not entered or measured.

Type and Use Classifications

Spaces are given a type and use classification based upon what is observed within the space at the time of the survey. If an escort is present and the type and use is unclear, the team will ask for input from that individual. Each space will be assigned a type and use from the predetermined list stored in the field spreadsheet.

Illumination Level Measurement

The light meter is placed on a flat surface (generally at desk level) as close to the center of the room as possible taking care to make sure there is nothing around the meter that will reflect or dim the light. The measurement is recorded in foot-candles and then compared to the standard value for the space that is stored in the field spreadsheet. If the recorded measurement is not greater than the standard value, three additional measurements will be obtained; two at the front of the room and one at the back.

Appendix D

Facility Assessment Score Sheets

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	1: ACCIDENT ELEMENTARY	# of Levels	1	Element not present		n/a			
BuildingCode	1	Average Building Height FT	15	0 to 5%		5			
SiteCode		Perimeter LF	1,127	5 to 10%		4			
Agency	Garrett County Board of Education	Length LF	341	10 to 25%		3			
AgencyCode		Width LF	166	25 to 50%		2			
Location	534 Accident Bittinger Road, Accident, MD 551xx	Footprint SF	33,603	>50%		1			
Zip, First3	551	Building Gross SF	33,603						
County	Garrett								
Year Built	1982								
Date Surveyed	Tuesday, August 06, 2013								
Surveyor	PAUL SWANSON								
Cost Model Category	Single-story Educational Facility								
		M23	KEY BUILDING MODEL CHARACTERISTICS						
			Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.						
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	33,603	Building Footprint SF	5	No problems reported or observed.
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	33,603	Building Footprint SF	5	Only minor cracking observed.
A20	Basement								
A2020	Basement Wall Structures	No	Basement Walls: Standard Model - Option 01		Not Expected	-	n/a	n/a	A2020 Notes:
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	No	Floor Construction: Standard Model - Option 01		Not Expected	-	n/a	n/a	B1010 Notes:
B1020	Roof Structural Systems	Yes	Roof Construction: Option 02	M23-B1020-02	Steel framed structure on LB walls with columns	33,603	Building Footprint SF	5	No distress observed and no settlement or movement reported.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	33,603	Building Gross SF	5	Mortar and brick in good condition. Some EFIS, cracking minor.
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	33,603	Building Gross SF	3	Aluminum swing units, double glazed, original, seals at glass panels cracked, no leakage. Score based on age.
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	33,603	Building Gross SF	3	Painted metal door, faded paint on exterior, some minor scratches and corrosion, functionality good, hardware good, score based on
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Option 02	M23-B3010-02	Built-up roof	33,603	Building Footprint SF	4	Roof replaced in 2003. Good condition, no leakage reported except during freeze events. Drainage directed to perimeter. New
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Option 02	M23-C1010-02	Drywall over studs	33,603	Finished Area SF	5	Metal stud walls predominate. No problems observed or reported.
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	33,603	Finished Area SF	3	Solid wood in metal frames. Generally good condition. Score based on age.
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	33,603	Finished Area SF	5	Score controlled by toilet partitions and rails in toilet rooms. Partitions replaced in 2011.
C20	Stairs/Fire Escapes								
C2010	Stair Construction	No	Stair Construction: Standard Model - Option 01		Not Expected	-	n/a	n/a	C2010 Notes:
C30	Interior Finishes								
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	33,603	Finished Area SF	3	Predominantly vinyl wall covering in rooms (2, 75%). Corridors are new ceramic tile with paint above 6 feet (5, 20%). Ceramic tile in toilet rooms (5, 5%).
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	33,603	Finished Area SF	4	Carpet replaced 2001, stained and worn in classrooms (2, 15%), VFT assumed 20 years old (4, 80%), ceramic tile (4, 5%)
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	33,603	Finished Area SF	2	Ceiling are finished in the original ACT. Sagging noted throughout.
D. Services									
D10	Conveying Systems								
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	No	Elevators: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.100 Notes:

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
D1010.200	Elevators and Lifts	No	Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.200 Notes:
D20 Plumbing									
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option 01	M23-D2010-01	Plumbing System and Fixtures	33,603	Area Served SF	4	Generally original fixtures (3, 20%). Replacements made over the years as necessary. No problems noted or observed. Supply
D2020	Domestic Hot Water	Yes	Domestic Hot Water : Standard Model - Option 01	M23-D2020-01	Domestic water heater	33,603	Area Served SF	3	Two 250 gallon electric DHWH, original. No problems.
D2040	Rain Water Drainage	No	Rain Water Drainage: Standard Model - Option 01		Internal roof drains	-	n/a	n/a	PVC downspouts through soffit.
D30 HVAC									
D3010	Energy Supply	Yes	Energy Supply: Standard Model - Option 01	M23-D3010-01	Natural gas supply	33,603	Building Gross SF		Only above-ground propane tank to emergency generator. All other energy is electric.
D3010.700	Energy Supply	No	Solar Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	No	Central Plant Heating: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020 Notes:
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	No	Central Plant Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3030 Notes:
D3040	Distribution Systems								
D3040.100	Distribution Systems	No	Disribution Systems, Heat: Standard Model - Option 01		Not expected	-	n/a	n/a	D3040.100 Notes:
D3040.200	Distribution Systems	No	Disribution Systems, Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3040.200 Notes:
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	Yes	Terminal and Packaged Units: Standard Model - Option 01	M23-D3050.100-01	Rooftop package units	31,038	Area Served SF	3	All AHUs have electric heat coils. gynasium and adjacent area are original(score 3 based on age). One York Heat pump RTU for office area 10 years old however, two compressors have been replaced. (3). Perimeter electric heat to unit ventilators score 3 based on age.
D3050.200	Terminal and Packaged Units	Yes	Terminal and Packaged Units, Cooling Condenser Added	M23-D3050.200-02	DX cooling added to ahus	2,565	Area Served SF	4	Office area has AC installed 2003
D3060	Controls	Yes	Controls: Standard Model - Option 01	M23-D3060-01	HVAC controls - Packaged system	33,603	Area Served SF	3	Pneumatic controls throughout. No problems reported or observed. Score based on age.
D40 Fire Protection									
D4010	Sprinklers	Yes	Sprinklers: Standard Model - Option 01	M23-D4010-01	Sprinkler System	1,374	Area Served SF	4	Area served is just storage closets. Score based on age.
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50 Electrical									
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Option 01	M23-D5010-01	Main electrical system and switchgear	33,603	Building Gross SF	4	Original switchgear and control panels. No problems reported. Wiring (4, 75%). Switchgear (3, 25%)
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01	M23-D5020-01	Distribution wiring plus "fixtures"	33,603	Building Gross SF	4	No problems reported. Score based on age. Wiring (4, 75%), Appliances (3, 25%)
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - Option 01	M23-D5030-01	Communication, alarm, telephone, and wiring	33,603	Building Gross SF	5	Fire alarm upgrade 2008 (5). Security cameras 3 years old(5). PA 11 years old (4). Internet CAT 6.
D5090	Emergency Power	Yes	Emergency Power: Standard Model - Option 01	M23-D5090-01	Back-up generator	33,603	Area Served SF	3	Original equipment. Propane fuel.
E. Equipment and Furnishings									
E10 Equipment									
E1010	Commercial Equipment	Yes	Commercial Equipment: Option 02	M23-E1010-02	Built in Vault - armory style	60	Area Served SF	4	Built-in vault in office area.
E1020	Institutional Equipment	Yes	Institutional Equipment: Option 02	M23-E1020-02	Kiln	831	Area Served SF	3	Hard-wired kiln in art room, original equipment. Area served is art room.
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:
E1090	Other Equipment								
E1090.300	Other Equipment	Yes	Food Service Equipment: Option 02	M23-E1090.300-02	Full production kitchen	33,603	Area Served SF	3	Currently used infrequently as production kitchen; however, all equipment is present.
E1090.400	Other Equipment	No	Residential Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.400 Notes:
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:
E1090.900	Other Equipment								
E1090.	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.901 Notes:
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.902 Notes:
E20 Furnishings									
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	378	Per L.F.	2	Mainly consists of two items, shelving units associated with unit ventilators (2, 82%) and casework with sinks and water fountains

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
E2010.300	Fixed Furnishings	No	Seating: Standard Model - Option 01		Not Expected	-	n/a	n/a	E2010.300 Notes:
F. Special Construction and Demolition									
F10	Special Construction								
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Opti			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard	M23-F1020.101-01	Gym/Multi-purpose room	2,914	Area Served SF	3	Gymnasium and used as stage with lights. Some damage to floor and walls. Age of lighting.
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard M			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	No	Cold Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.300 Notes:
F1020.400	Integrated Construction	No	HazMat Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.400 Notes:
F1040	Special Facilities								
F1040.100	Special Facilities	No	Aquatic Facilities: Standard Model - Option 01			-	n/a	n/a	F1040.100 Notes:
F1040.300	Special Facilities	No	Ice Rinks: Standard Model - Option 01			-	n/a	n/a	F1040.300 Notes:

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	2: BROAD FORD ELEMENTARY	# of Levels	1	Element not present		n/a			
BuildingCode	2	Average Building Height FT	15	0 to 5%		5			
SiteCode		Perimeter LF	1,210	5 to 10%		4			
Agency	Garrett County Board of Education	Length LF	359	10 to 25%		3			
AgencyCode		Width LF	193	25 to 50%		2			
Location	607 Harvey Winters Road, Oakland, MD 551xx	Footprint SF	55,290	>50%		1			
Zip, First3	551	Building Gross SF	58,493						
County	Garrett								
Year Built	1976								
Date Surveyed	Wednesday, August 14, 2013								
Surveyor	PAUL SWANSON								
Cost Model Category	Single-story Educational Facility								
		KEY BUILDING MODEL CHARACTERISTICS							
		Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.							
		M23							
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	55,290	Building Footprint SF	5	No evidence of settlement observed. Interview stated that a foundation study was performed in the past. Report of study or purpose was not available.
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	55,290	Building Footprint SF	5	Some isolated cracking was observed in the terrazo and vinyl finishes. Most observed was around the expansion joint areas.
A20	Basement								
A2020	Basement Wall Structures	No	Basement Walls: Standard Model - Option 01		Not Expected	-	n/a	n/a	A2020 Notes:
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	Yes	Floor Construction: Option 02	M23-B1010-02	Steel framed with concrete and metal deck	3,203	Elevated Floor SF	5	The two mechanical penthouses have elevated slabs. No problems were observed or reported.
B1020	Roof Structural Systems	Yes	Roof Construction: Option 02	M23-B1020-02	Steel framed structure on LB walls with columns	55,290	Building Footprint SF	5	No problems observed or reported.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	58,493	Building Gross SF	4	Brick masonry walls are in good condition; however, some cracking was observed particularly at window lintels. The cementitious panels above the windows and below the roof are stained and minor cracking was observed.
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	58,493	Building Gross SF	4	Windows are single pane aluminum frame (2'X6') with three lites, one fixed. No leakage reported, one lexane panel. No color loss. Score based on observed condition.
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	58,493	Building Gross SF	4	Exterior doors generally in good condition. Some exposed door exhibit minor corrosion at the base of the doors, frames, and hinges. Some replacements reported.
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Option 02	M23-B3010-02	Built-up roof	55,290	Building Footprint SF	4	Age of the roofing unknown. Gravel surfaced BUR. No problems reported or observed.
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Standard Model - Option 01	M23-C1010-01	Concrete block (CMU) partitions	55,290	Finished Area SF	5	The CMU partitions walls are in good condition (80%, 5). Studded partitions between classes, age (20%, 3).
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	55,290	Finished Area SF	2	Predominantly solid wood door in metal frames. Significant damage on both door and the frames.
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	55,290	Finished Area SF	4	Partitions in the restrooms control the score. Generally in good condition.
C20	Stairs/Fire Escapes								
C2010	Stair Construction	Yes	Stair Construction: Option 02	M23-C2010-02	Metal stairs with concrete filled pans	58,493	Building Gross SF	5	Metal stairs to mechanical pntehouses. Consists of painted steel frames. Good condition.
C30	Interior Finishes								
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	55,290	Finished Area SF	4	Predominantly paint on CMU (5, 65%). Tile in halls and restrooms (4, 15%). Stud partitions and half walls (3, 20%).
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	55,290	Finished Area SF	4	Carpet (40%, 3), Vinyl floor tile (40%, 5), Terrazo (15%, 4), Ceramic tile (5%, 4).
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	55,290	Finished Area SF	3	Predominantly ACT, original, stained and sagged in many areas.
D. Services									
D10	Conveying Systems								

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	No	Elevators: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.100 Notes:
D1010.200	Elevators and Lifts	No	Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.200 Notes:
D20	Plumbing								
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option	M23-D2010-01	Plumbing System and Fixtures	55,290	Area Served SF	3	No problems reported or observed. Score based on age. Piping predominates
D2020	Domestic Hot Water	Yes	Domestic Hot Water : Standard Model - Option 01	M23-D2020-01	Domestic water heater	55,290	Area Served SF	5	Two 120-gallon DHWH installed 2008 and 2007. No problems. Score based on age.
D2040	Rain Water Drainage	Yes	Rain Water Drainage: Standard Model - Option 01	M23-D2040-01	Internal roof drains	55,290	Building Footprint SF	4	No problems observed or reported. Score based on age.
D30	HVAC								
D3010	Energy Supply	Yes	Energy Supply: Option 02	M23-D3010-02	Hot water and chilled water supplied by off site plant	55,290	Building Gross SF	3	No problems observed or reported. Score based on age.
D3010.700	Energy Supply	No	Solar Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - O		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	No	Central Plant Heating: Standard Model - Option 01		Not expected	-	n/a	n/a	
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	No	Central Plant Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3030 Notes:
D3040	Distribution Systems								
D3040.100	Distribution Systems	Yes	Disribution Systems, Heat: Option 02	M23-D3040.100-02	Hot water piping and individual terminal AHUS	55,290	Area Served SF	3	Hot water supplied from middle school. Two-pipe system. Coils in six AHUs. Score based on age of equipment.
D3040.200	Distribution Systems	Yes	Disribution Systems, Cooling: Option 04	M23-D3040.200-04	chiller water piping and individual terminal AHUS	52,249	Area Served SF	3	All equipment shared with heat distribution system.
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	No	Terminal and Packaged Units: Standard Model - Option 01		Rooftop package units	-	n/a	n/a	D3050.100 Notes:
D3050.200	Terminal and Packaged Units	Yes	Terminal and Packaged Units, Cooling Condenser Added	M23-D3050.200-02	DX cooling added to ahus	3,041	Area Served SF	3	One AHU is set up to cool the office area only with DX coils. When CW was later added to the entire building, this system was to be re-configured to use the CW. This has not happened yet.
D3060	Controls	Yes	Controls: Option 02	M23-D3060-02	HVAC Controls - 2 Pipe with DX System	55,290	Area Served SF	4	The original pneumatic actuators are still functional. The system has been overlaid with a digital control system. Pod areas have individual controls. Classrooms share controls.
D40	Fire Protection								
D4010	Sprinklers	No	Sprinklers: Standard Model - Option 01		Sprinkler System	-	n/a	n/a	D4010 Notes:
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50	Electrical								
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Opt	M23-D5010-01	Main electrical system and switchgear	58,493	Building Gross SF	3	ITE switchgear. 1200 amps. Reported to be adequate capacity.
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01	M23-D5020-01	Distribution wiring plus "fixtures"	58,493	Building Gross SF	4	All equipment is original. Wiring (75%, 4), Fixtures (25%, 3)
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - O	M23-D5030-01	Communication, alarm, telephone, and wiring	58,493	Building Gross SF	4	fire alarm is original (60%, 3). Security system was installed 2013 consisting of cameras and electronic locks (20%, 5). Internet is
D5090	Emergency Power	No	Emergency Power: Standard Model - Option 01		Back-up generator	-	n/a	n/a	D5090 Notes:
E. Equipment and Furnishings									
E10	Equipment								
E1010	Commercial Equipment	No	Commercial Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1010 Notes:
E1020	Institutional Equipment	No	Institutional Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1020 Notes:
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:
E1090	Other Equipment								
E1090.300	Other Equipment	Yes	Food Service Equipment: Option 02	M23-E1090.300-02	Full production kitchen	55,290	Area Served SF	3	Most equipment was aged. The walk-in refrigerator was not functional at the time of the assessment.
E1090.400	Other Equipment	No	Residential Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.400 Notes:
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:
E1090.900	Other Equipment								
E1090.	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.901 Notes:
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Optio		Not Expected	-	n/a	n/a	E1090.902 Notes:
E20	Furnishings								

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	528	Per L.F.	4	Cabinets were scored based on observed condition.
E2010.300	Fixed Furnishings	No	Seating: Standard Model - Option 01		Not Expected	-	n/a	n/a	E2010.300 Notes:
F. Special Construction and Demolition									
F10	Special Construction								
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Opti			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard	M23-F1020.101-01	Gym/Multi-purpose room	5,064	Area Served SF	4	The multi-purpose is the cafeteria and stage. There is an auxiliary gym that is used solely for PE. The gym does not have a scoreboard or locker rooms and should be considered as general space.
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard M			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	Yes	Cold Storage Rooms: Option 02	M23-F1020.300-02	Prefabricated cold storage	50	Area Served SF	4	Functional. Score based on age.
F1020.400	Integrated Construction	No	HazMat Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.400 Notes:
F1040	Special Facilities								
F1040.100	Special Facilities		Aquatic Facilities: Standard Model - Option 01			-	Area Served SF		F1040.100 Notes:
F1040.300	Special Facilities		Ice Rinks: Standard Model - Option 01			-	Area Served SF		F1040.300 Notes:

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	3: CRELLIN ELEMENTARY	# of Levels	1	Element not present	n/a				
BuildingCode	3	Average Building Height FT	15	0 to 5%	5				
SiteCode		Perimeter LF	845	5 to 10%	4				
Agency	Garrett County Board of Education	Length LF	237	10 to 25%	3				
AgencyCode		Width LF	138	25 to 50%	2				
Location	115 Kendall Drive, Oakland, MD 551xx	Footprint SF	13,320	>50%	1				
Zip, First3	551	Building Gross SF	13,320						
County	Garrett								
Year Built	1962								
Date Surveyed	Monday, August 12, 2013								
Surveyor	PAUL.SWANSON								
Cost Model Category	Single-story Educational Facility								
		KEY BUILDING MODEL CHARACTERISTICS							
		Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.							
		M23							
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	13,320	Building Footprint SF	5	No evidence of settlement. No problems reported.
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	8,036	Building Footprint SF	5	Slab-on-grade occurs beneath the original building. Former head s
A20	Basement								
A2020	Basement Wall Structures	No	Basement Walls: Standard Model - Option 01		Not Expected	-	n/a	n/a	A2020 Notes:
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	Yes	Floor Construction: Option 02	M23-B1010-02	Steel framed with concrete and metal deck	5,284	Elevated Floor SF	5	Steel frame and concrete floor assumed at portable area. Former f
B1020	Roof Structural Systems	Yes	Roof Construction: Option 02	M23-B1020-02	Steel framed structure on LB walls with columns	13,320	Building Footprint SF	5	Assumed in original area. Portable is assumed to be steel framed.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	13,320	Building Gross SF	4	Brick masonry construction in original area (35%, 5). Former head
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	13,320	Building Gross SF	2	Exterior windows in original section consist of metal spandrel panel
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	13,320	Building Gross SF	3	Exposed exterior doors are faded and exhib corrosion.
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Option 02	M23-B3010-02	Built-up roof	13,320	Building Footprint SF	4	Original area BUR gravel surface, good condition 4. Head Start are
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Standard Model - Option 01	M23-C1010-01	Concrete block (CMU) partitions	13,320	Finished Area SF	5	Original CMU predominantly, portable and head start areas have st
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	13,320	Finished Area SF	3	Original area has solid core wood doors in metal frames, aged and
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	13,320	Finished Area SF	5	No lockers. Rails in halls and in rest rooms, (50%, 5). Toilet parti
C20	Stairs/Fire Escapes								
C2010	Stair Construction	No	Stair Construction: Standard Model - Option 01		Not Expected	-	n/a	n/a	C2010 Notes:
C30	Interior Finishes								
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	13,320	Finished Area SF	3	Original area predominantly glazed block under painted CMU (35%
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	13,320	Finished Area SF	4	Predominantly vinyl tile (65%, 4). Carpet (35%, 3).
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	13,320	Finished Area SF	3	Predominantly ACT in original and pportable, (65%,3). Painted dry
D. Services									
D10	Conveying Systems								
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	No	Elevators: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.100 Notes:
D1010.200	Elevators and Lifts	No	Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.200 Notes:

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
D20 Plumbing									
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option	M23-D2010-01	Plumbing System and Fixtures	13,320	Area Served SF	4	No problems reported. Some fixtures aged. Original section (50%.
D2020	Domestic Hot Water	Yes	Domestic Hot Water : Standard Model - Option 01	M23-D2020-01	Domestic water heater	13,320	Area Served SF	4	DHWH in Head Start mechanical room is 1996. DHWH in original e
D2040	Rain Water Drainage	No	Rain Water Drainage: Standard Model - Option 01		Internal roof drains	-	n/a	n/a	D2040 Notes:
D30 HVAC									
D3010	Energy Supply	Yes	Energy Supply: Standard Model - Option 01	M23-D3010-01	Natural gas supply	13,320	Building Gross SF	3	Underground propane tank, no problems, no age given.
D3010.700	Energy Supply	No	Solar Energy Supply: Option 02	M23-D3010.700-02	Solar Energy Supply	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - O		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	Yes	Central Plant Heating: Option 02	M23-D3020-02	Boiler	2,734	Area Served SF	4	Hydronic heat system in Head Start area only. Remainder of facilit
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	No	Central Plant Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3030 Notes:
D3040	Distribution Systems								
D3040.100	Distribution Systems	Yes	Disribution Systems, Heat: Option 02	M23-D3040.100-02	Hot water piping and individual terminal AHUS	2,734	Area Served SF	5	There are no AHUs in Head Start area. Perimeter heat and electric
D3040.200	Distribution Systems	No	Disribution Systems, Cooling: Standard Model - Option 0		Not expected	-	n/a	n/a	D3040.200 Notes:
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	Yes	Terminal and Packaged Units: Standard Model - Option 0	M23-D3050.100-01	Rooftop package units	10,586	Area Served SF	3	The original section and the portable area are all electric. One AHU
D3050.200	Terminal and Packaged Units	No	Terminal and Packaged Units, Cooling Condenser Added to AHU: Standard M		Not expected	-	n/a	n/a	D3050.200 Notes:
D3060	Controls	Yes	Controls: Standard Model - Option 01	M23-D3060-01	HVAC controls - Packaged system	13,320	Area Served SF	3	The original section and the portable area have puematic controls. :
D40 Fire Protection									
D4010	Sprinklers	Yes	Sprinklers: Standard Model - Option 01	M23-D4010-01	Sprinkler System	99	Area Served SF	5	Three storage closets in the former Heade Start area only. No pum
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50 Electrical									
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Option 01		Main electrical system and switchgear	13,320	Building Gross SF	4	The main switchgear is in the original section and appeared to be 6
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01		Distribution wiring plus "fixtures"	13,320	Building Gross SF	4	No problems reported. Fixtures aged. (65%, 3) (35%, 5)
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - Option 01		Communication, alarm, telephone, and wiring	13,320	Building Gross SF	3	No problems reported or observed. Score based on age. Fire alarm
D5090	Emergency Power	No	Emergency Power: Standard Model - Option 01		Back-up generator	-	n/a	n/a	D5090 Notes:
E. Equipment and Furnishings									
E10 Equipment									
E1010	Commercial Equipment	No	Commercial Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1010 Notes:
E1020	Institutional Equipment	No	Institutional Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1020 Notes:
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:
E1090	Other Equipment								
E1090.300	Other Equipment	Yes	Food Service Equipment: Option 02	M23-E1090.300-02	Full production kitchen	13,320	Area Served SF	3	Age of equipment unknown. Score based on observed condition ar
E1090.400	Other Equipment	No	Residential Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.400 Notes:
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:
E1090.900	Other Equipment								
E1090.	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	The school is preparing to maintain some farm animals. Facilities i
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Optio		Not Expected	-	n/a	n/a	The school does hatch fish with assistance from DNR for education
E20 Furnishings									
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	88	Per L.F.	4	Condition of cabinets (70', 4 and 18', 2)
E2010.300	Fixed Furnishings	Yes	Seating: Standard Model - Option 01		Not Expected	80	# of Seats	5	The school has an amphitheater near the wilderness trail. Seating i
F. Special Construction and Demolition									
F10 Special Construction									

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Opti			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard	M23-F1020.101-01	Gym/Multi-purpose room	1,841	Area Served SF	3	Room has a stage and lighting that is aged. Cafeteria area. Finish
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard M			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	Yes	Cold Storage Rooms: Option 02	M23-F1020.300-02	Prefabricated cold storage	50	Area Served SF	5	Age of equipment reported as installed in 2011.
F1020.400	Integrated Construction	Yes	HazMat Storage Rooms: Standard Model - Option 01			13,320	Area Served SF	3	Small storage shed on property to store paints, gas, and other supp
F1040	Special Facilities								
F1040.100	Special Facilities	No	Aquatic Facilities: Standard Model - Option 01			-	n/a	n/a	F1040.100 Notes:
F1040.300	Special Facilities	No	Ice Rinks: Standard Model - Option 01			-	n/a	n/a	F1040.300 Notes:

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	4: FRIENDSVILLE ELEMENTARY	# of Levels	2	Element not present	n/a				
BuildingCode	4	Average Building Height FT	15	0 to 5%	5				
SiteCode		Perimeter LF	1,130	5 to 10%	4				
Agency	Garrett County Board of Education	Length LF	276	10 to 25%	3				
AgencyCode		Width LF	119	25 to 50%	2				
Location	841 First Avenue, Friendsville, MD 551xx	Footprint SF	28,598	>50%	1				
Zip, First3	551	Building Gross SF	33,228						
County	Garrett								
Year Built	1976								
Date Surveyed	Wednesday, August 07, 2013								
Surveyor	PAUL SWANSON								
Cost Model Category	Single-story Educational Facility								
	M23	KEY BUILDING MODEL CHARACTERISTICS							
		Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.							
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	28,598	Building Footprint SF	5	No problems with settlement. One minor step crack observed on exterior wall.
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	28,598	Building Footprint SF	5	No significant cracking observed. Significant portion of footprint placed on fill.
A20	Basement								
A2020	Basement Wall Structures	Yes	Basement Walls: Option 02	M23-A2020-02	Concrete basement walls	2,083	Basement SF	5	A small portion of the building perimeter supports compacted fill within the footprint. Back wall of central plant and one third back wall of building is a CIP retaining wall. Minor cracking noted. No leakage.
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	Yes	Floor Construction: Option 03	M23-B1010-03	Concrete framed floor supported by LB walls	4,630	Elevated Floor SF	5	Small portion of footprint from rear wall of central plant to stairs next to gymnasium. Also two penthouse mechanical spaces for AHUs. No significant cracking noted.
B1020	Roof Structural Systems	Yes	Roof Construction: Option 02	M23-B1020-02	Steel framed structure on LB walls with columns	28,598	Building Footprint SF	5	Open steel joist system. No issues noted.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	33,228	Building Gross SF	5	Brick work and mortar sound. Some minor corrosion of window lintels noted.
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	33,228	Building Gross SF	3	Windows are bronze anodized aluminum swing single glaze windows with fixed side and overhead lites. No leakage. Score based on age.
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	33,228	Building Gross SF	3	Original metal doors. Painted and well maintained. Hardware aged. Fully functional. Score based on age of system.
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Option 02	M23-B3010-02	Built-up roof	28,598	Building Footprint SF	4	The roof is sloped and drainage is to the perimeter to aluminum downspouts. The downspouts drain into below-grade drainage lines. No leakage reported. Roof replaced in 2001.
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Standard Model - Option 01	M23-C1010-01	Concrete block (CMU) partitions	32,695	Finished Area SF	5	Started as an open plan school. Some partial height and full height stud wall partitions were constructed to separate classrooms (25% 3). CMU predominant partition type (75% 5)
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	32,695	Finished Area SF	3	Original doors are solid core wood in metal frames. The added doors are hollow core in wood frames. Both are aged and scratched to about 10%. The hardware on the original doors is new.
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	32,695	Finished Area SF	4	No lockers. Boys restrooms have been replaced recently (30% 5). Girls restrooms are older with some damage (30% 3). The rails at the toilets are in good condition (20% 5). The wood rails near the media center are worn and aged (20% 3).
C20	Stairs/Fire Escapes								
C2010	Stair Construction	Yes	Stair Construction: Option 02	M23-C2010-02	Metal stairs with concrete filled pans	33,228	Building Gross SF	5	One set of stairs to area over covered play area and two sets of stairs to the mechanical penthouses. No structural issues.
C30	Interior Finishes								
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	32,695	Finished Area SF	4	Generally consists of paint on CMU or paint on drywall. Good condition. Age unknown.
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	32,695	Finished Area SF	3	The predominant floor finishes are VFT, most done in 2000 and two classrooms done in 2011 (65% 4). Carpet 2000 (30% 2). Ceramic tile (5% 3).

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	32,695	Finished Area SF	2	Predominantly original AC1. Many sections sagging, stained and chipped. Majority of open space ceiling incorporates air supply delivery in the grid of the system.
D. Services									
D10	Conveying Systems								
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	No	Elevators: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.100 Notes:
D1010.200	Elevators and Lifts	Yes	Elevators and Lifts: Option 02	M23-D1010.200-02	Elevator	1	Each	3	One lift that transports up and down stairs over covered play area. The install date is 1988. Score based on age.
D20	Plumbing								
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option 01	M23-D2010-01	Plumbing System and Fixtures	33,228	Area Served SF	3	No piping problems or leaks reported. (80%, 3), fixtures (20%, 4).
D2020	Domestic Hot Water	Yes	Domestic Hot Water : Standard Model - Option 01	M23-D2020-01	Domestic water heater	33,228	Area Served SF	4	Large heated water tank in central plant, original, some corrosion noted (65%, 3). Two DHWH 2009. & 2007 (35%, 5).
D2040	Rain Water Drainage	No	Rain Water Drainage: Standard Model - Option 01		Internal roof drains	-	n/a	n/a	D2040 Notes:
D30	HVAC								
D3010	Energy Supply	Yes	Energy Supply: Standard Model - Option 01	M23-D3010-01	Natural gas supply	33,228	Building Gross SF	4	Propane tank for emergency generator. All other equipment are electric.
D3010.700	Energy Supply	No	Solar Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	No	Central Plant Heating: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020 Notes:
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	Yes	Central Plant Cooling: Option 04	M23-D3030-04	Chiller system	20,252	Area Served SF	3	Two original chillers, no reported issues, score based on age. (50%, 3). Cooling tower, refurbished in 2004 (40%, 4). Piping and pumps (10%, 3).
D3040	Distribution Systems								
D3040.100	Distribution Systems	No	Disribution Systems, Heat: Standard Model - Option 01		Not expected	-	n/a	n/a	D3040.100 Notes:
D3040.200	Distribution Systems	Yes	Disribution Systems, Cooling: Option 04	M23-D3040.200-04	chiller water piping and individual terminal AHUS	20,252	Area Served SF	3	No problems associated with distribution piping, score based on age. 3. Air handling equipment and ductwork, original, maintained. score based on age. 3.
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	Yes	Terminal and Packaged Units: Standard Model - Option 01	M23-D3050.100-01	Rooftop package units	33,228	Area Served SF	3	Electric heat in air handlers and electric perimeter heating. Most equipment original.
D3050.200	Terminal and Packaged Units	No	Terminal and Packaged Units, Cooling Condenser Added to AHU: Standard Model - Option 01		Not expected	-	n/a	n/a	D3050.200 Notes:
D3060	Controls	Yes	Controls: Option 04	M23-D3060-04	HVAC controls - 4 Pipe system	33,228	Area Served SF	3	No problems noted, score based on age.
D40	Fire Protection								
D4010	Sprinklers	No	Sprinklers: Standard Model - Option 01		Sprinkler System	-	n/a	n/a	D4010 Notes:
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50	Electrical								
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Option 01	M23-D5010-01	Main electrical system and switchgear	33,228	Building Gross SF	4	Original square D equipment, wiring (50%,4), 2000 amp switchgear (50%, 3).
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01	M23-D5020-01	Distribution wiring plus "fixtures"	33,228	Building Gross SF	4	Fixtures are original, lenses are aged, (25%,2). Wiring (75%, 4).
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - Option 01	M23-D5030-01	Communication, alarm, telephone, and wiring	33,228	Building Gross SF	5	Security cameras and PA system replaced 2009. Magnetic locks installed but not activated. Fire alarm upgrade in 2008.
D5090	Emergency Power	Yes	Emergency Power: Standard Model - Option 01	M23-D5090-01	Back-up generator	33,228	Area Served SF	3	Small propane unit for emergency lights only. No problems. Age unknown.
E. Equipment and Furnishings									
E10	Equipment								
E1010	Commercial Equipment	No	Commercial Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1010 Notes:
E1020	Institutional Equipment	No	Institutional Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	Have plug-in kiln in art area. No ventilation.
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:
E1090	Other Equipment								
E1090.300	Other Equipment	Yes	Food Service Equipment: Option 02	M23-E1090.300-02	Full production kitchen	33,228	Area Served SF	3	School has equipment for a production kitchen; however, are being used for serving kitchen.
E1090.400	Other Equipment	No	Residential Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.400 Notes:
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:
E1090.900	Other Equipment								

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
E1090.	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.901 Notes:
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Optio		Not Expected	-	n/a	n/a	E1090.902 Notes:
E20	Furnishings								
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	171	Per L.F.	2	Casework in classrooms noted to be in poor condition (100', 2). Other cabinets noted to be similar in age but better condition (71', 3).
E2010.300	Fixed Furnishings	No	Seating: Standard Model - Option 01		Not Expected	-	n/a	n/a	E2010.300 Notes:
F. Special Construction and Demolition									
F10	Special Construction								
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Opti			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard Model - Option 01		Gym/Multi-purpose room	2,331	Area Served SF	3	The cafeteria is used as an auditorium with a stage and stage lighting. The condition of the equipment and finishes is good but aged. There is also an auxiliary gymnasium that should be score similar and included in the area.
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard M			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	Yes	Cold Storage Rooms: Option 02	M23-F1020.300-02	Prefabricated cold storage	50	Area Served SF	5	Appeared to be in good condition. No problems reported. Installed in 2009.
F1020.400	Integrated Construction	No	HazMat Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.400 Notes:
F1040	Special Facilities								
F1040.100	Special Facilities	No	Aquatic Facilities: Standard Model - Option 01			-	n/a	n/a	F1040.100 Notes:
F1040.300	Special Facilities	No	Ice Rinks: Standard Model - Option 01			-	n/a	n/a	F1040.300 Notes:

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	5: GRANTSVILLE ELEMENTARY	# of Levels	1	Element not present		n/a			
BuildingCode	5	Average Building Height FT	15	0 to 5%		5			
SiteCode		Perimeter LF	1,115	5 to 10%		4			
Agency	Garrett County Board of Education	Length LF	237	10 to 25%		3			
AgencyCode		Width LF	201	25 to 50%		2			
Location	120 Grant Street, Grantsville, MD 551xx	Footprint SF	48,788	>50%		1			
Zip, First3	551	Building Gross SF	51,831						
County	Garrett								
Year Built	1980								
Date Surveyed	Monday, August 05, 2013								
Surveyor	PAUL.SWANSON								
Cost Model Category	Single-story Educational Facility								
		KEY BUILDING MODEL CHARACTERISTICS							
		Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.							
		M23							
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	48,788	Building Footprint SF	5	No evidence of settlement or movement. No history of problems
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	48,788	Building Footprint SF	5	No significant cracking observed. No history of problems
A20	Basement								
A2020	Basement Wall Structures	No	Basement Walls: Standard Model - Option 01		Not Expected	-	n/a	n/a	A2020 Notes:
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	Yes	Floor Construction: Option 03	M23-B1010-03	Concrete framed floor supported by LB walls	3,043	Elevated Floor SF	5	Two elevated mechanical penthouses in original section, one penthouse in addition. No problems noted or observed.
B1020	Roof Structural Systems	Yes	Roof Construction: Option 02	M23-B1020-02	Steel framed structure on LB walls with columns	48,788	Building Footprint SF	5	The old section has a Tectum deck. The addition is a metal deck.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	51,831	Building Gross SF	5	Brick and mortar are in good condition. Metal soffits over two entries are corroded. Metal lintels over windows in old section are corroded.
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	51,831	Building Gross SF	3	Windows in old section are aluminum frame tilt windows with translucent plexiglass panels significantly damaged (2, 70%). Windows in addition are double-hung insulated glass panels (5, 30%).
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	51,831	Building Gross SF	4	Metal doors in old section scored on age (3, 50%). Metal doors and storefront entries 2009 (5, 50%).
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Standard Model - Option 01	M23-B3010-01	Single ply roof	48,788	Building Footprint SF	4	Old section has single-ply ballasted 1998, may be recovery system, minor leaks (3, 70%). New section sloped shingled, may have condensate issue (5, 30%). Poor drainage detail at original slope roof causes ponding and overflow.
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Standard Model - Option 01	M23-C1010-01	Concrete block (CMU) partitions	48,788	Finished Area SF	5	Mostly painted CMU without issues, some wood covered partitions in pod areas.
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	48,788	Finished Area SF	4	Solid wood in metal frames. Old section, score based on age (3, 70%). Additional section (5).
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	48,788	Finished Area SF	4	Boys restroom partitions replaced (5). Girls partitions older (3).
C20	Stairs/Fire Escapes								
C2010	Stair Construction	Yes	Stair Construction: Option 02	M23-C2010-02	Metal stairs with concrete filled pans	51,831	Building Gross SF	5	painted metal stairs to each mechanical penthouse.
C30	Interior Finishes								
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	48,788	Finished Area SF	4	Old section has some marks on painted finish (4, 70%). New section (5, 30%).
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	48,788	Finished Area SF	4	Old section both carpet and VFT appear good, scored on age (3, 60%). New section carpet and tile very good condition (5, 40%).
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	48,788	Finished Area SF	4	Old section has painted Tectum except office area that has ACT (3, 60%). New section is mostly ACT (5, 40%).
D. Services									
D10	Conveying Systems								

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	No	Elevators: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.100 Notes:
D1010.200	Elevators and Lifts	No	Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.200 Notes:
D20	Plumbing								
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option 01	M23-D2010-01	Plumbing System and Fixtures	51,831	Area Served SF	4	No problems reported. Score based on age of system (3, 60%). New section (5, 40%).
D2020	Domestic Hot Water	Yes	Domestic Hot Water : Standard Model - Option 01	M23-D2020-01	Domestic water heater	51,831	Area Served SF	3	Two DHWH 1997, gas and two DHWH 2001, electric. No problems reported. Score based on age of system.
D2040	Rain Water Drainage	Yes	Rain Water Drainage: Standard Model - Option 01	M23-D2040-01	Internal roof drains	48,788	Building Footprint SF	5	Internal drains present at the junction of the original building and the addition (2009). No problems noted or reported. Area served is one half of building FP.
D30	HVAC								
D3010	Energy Supply	Yes	Energy Supply: Standard Model - Option 01	M23-D3010-01	Natural gas supply	51,831	Building Gross SF	3	Fuel oil, tank original to building. No problems noted. Score based on age.
D3010.700	Energy Supply	No	Solar Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	Yes	Central Plant Heating: Option 02	M23-D3020-02	Boiler	51,831	Area Served SF	3	Two original boilers. No problems reported. Score based on age.
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	No	Central Plant Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3030 Notes:
D3040	Distribution Systems								
D3040.100	Distribution Systems	Yes	Disribution Systems, Heat: Option 02	M23-D3040.100-02	Hot water piping and individual terminal AHUS	51,831	Area Served SF	4	Old section piping and 7 AHUS (3, 70%) and 2 AHUS and piping in new section (5, 30%).
D3040.200	Distribution Systems	No	Disribution Systems, Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	Yes	Terminal and Packaged Units: Standard Model - Option 01	M23-D3050.100-01	Rooftop package units	8,730	Area Served SF	5	Two air-cooled DX units on roof serve addition 30%, Small office area in old section served by heat pump (2001).
D3050.200	Terminal and Packaged Units	No	Terminal and Packaged Units, Cooling Condenser Added to AHU: Standard Model - Option 01		Not expected	-	n/a	n/a	D3050.200 Notes:
D3060	Controls	Yes	Controls: Standard Model - Option 01	M23-D3060-01	HVAC controls - Packaged system	51,831	Area Served SF	3	DDC in addition area (5, 30%). Pneumatic is original section, compressor running frequently, age (2, 70%)
D40	Fire Protection								
D4010	Sprinklers	Yes	Sprinklers: Standard Model - Option 01	M23-D4010-01	Sprinkler System	51,831	Area Served SF	4	100% of facility Covered. No problems. Score based on age. (3, 70% and 5, 30%)
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50	Electrical								
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Option 01	M23-D5010-01	Main electrical system and switchgear	51,831	Building Gross SF	3	Westinghouse in original section. Score based on age.
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01	M23-D5020-01	Distribution wiring plus "fixtures"	51,831	Building Gross SF	4	Distribution is a blend (3, 70% and 5, 30%)
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - Option 01	M23-D5030-01	Communication, alarm, telephone, and wiring	51,831	Building Gross SF	5	System updated for addition, 2009
D5090	Emergency Power	Yes	Emergency Power: Standard Model - Option 01	M23-D5090-01	Back-up generator	51,831	Area Served SF	3	Serves emergency lighting and heat throughout building. Score based on age.
E. Equipment and Furnishings									
E10	Equipment								
E1010	Commercial Equipment	No	Commercial Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1010 Notes:
E1020	Institutional Equipment	No	Institutional Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1020 Notes:
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:
E1090	Other Equipment								
E1090.300	Other Equipment	Yes	Food Service Equipment: Option 02	M23-E1090.300-02	Full production kitchen	48,788	Area Served SF	3	Full kitchen in old section. Heat start has a small kitchen (stove & dishwasher).
E1090.400	Other Equipment	No	Residential Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.400 Notes:
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:
E1090.900	Other Equipment								
E1090.	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.901 Notes:
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.902 Notes:
E20	Furnishings								
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	425	Per L.F.	4	Old section chipped and stained (3, 220'); New section (5, 205')

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
E2010.300	Fixed Furnishings	No	Seating: Standard Model - Option 01		Not Expected	-	n/a	n/a	E2010.300 Notes:
F. Special Construction and Demolition									
F10	Special Construction								
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Opti			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard	M23-F1020.101-01	Gym/Multi-purpose room	2,890	Area Served SF	4	This includes gymnasium area (3) and commons area (4)
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard M			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	Yes	Cold Storage Rooms: Option 02	M23-F1020.300-02	Prefabricated cold storage	50	Area Served SF	3	Outside freezer for kitchen. Fiberglass exterior shows age.
F1020.400	Integrated Construction	No	HazMat Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.400 Notes:
F1040	Special Facilities								
F1040.100	Special Facilities	No	Aquatic Facilities: Standard Model - Option 01			-	n/a	n/a	F1040.100 Notes:
F1040.300	Special Facilities	No	Ice Rinks: Standard Model - Option 01			-	n/a	n/a	F1040.300 Notes:

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	6: ROUTE 40 ELEMENTARY	# of Levels	2	Element not present	n/a				
BuildingCode	6	Average Building Height FT	20	0 to 5%	5				
SiteCode		Perimeter LF	751	5 to 10%	4				
Agency	Garrett County Board of Education	Length LF	227	10 to 25%	3				
AgencyCode		Width LF	139	25 to 50%	2				
Location	17764 National Pike, Frostburg, MD 551xx	Footprint SF	16,647	>50%	1				
Zip, First3	551	Building Gross SF	27,986						
County	Garrett								
Year Built	1957								
Date Surveyed	Thursday, August 08, 2013								
Surveyor	PAUL SWANSON								
Cost Model Category	Single-story Educational Facility								
		KEY BUILDING MODEL CHARACTERISTICS							
		Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.							
		M23							
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	16,647	Building Footprint SF	5	No problems reported or observed.
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	16,647	Building Footprint SF	5	No problems reported or observed. Footprint of building less area of crawl space.
A20	Basement								
A2020	Basement Wall Structures	Yes	Basement Walls: Option 02	M23-A2020-02	Concrete basement walls	1,136	Basement SF	4	Two sections of block walls: one area at the northeast corner near the elevator, and a second area at the southwest corner along the sprinkler room and tech room. CMU walls with some evidence of moisture penetration from standing water at loading dock.
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	Yes	Floor Construction: Option 03	M23-B1010-03	Concrete framed floor supported by LB walls	11,339	Elevated Floor SF	4	Concrete precast planks in original section. Additions used CIP with metal deck. Some reflective cracking noted in vinyl floor tile in three classrooms and multi-purpose room.
B1020	Roof Structural Systems	Yes	Roof Construction: Option 02	M23-B1020-02	Steel framed structure on LB walls with columns	16,647	Building Footprint SF	5	No problems noted or observed.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	27,986	Building Gross SF	5	Brick and mortar in good condition. Steel lintels over window units and vents starting to corrode. South wing wall at loading dock exhibits cracked and dislodged mortar joint.
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	27,986	Building Gross SF	5	Painted metal clad, double-hung, insulated glazing and wood interior. No leaks reported.
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	27,986	Building Gross SF	4	Doors are fully functional, have experienced paint fading on exterior, no corrosion noted.
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Option 04	M23-B3010-04	Standing seam metal roof	16,647	Building Footprint SF	5	Most of the roof in standing seam metal (80%, 5) with a center BUR section and another BUR section (20%, 4) at the main entry. The county is concerned about some corrosion spots on the panels. There is one active leak area at the northeast building corner over the computer room. Difficult flashing detail in this area. Maintenance of sealant joints in this area required.
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Standard Model - Option 01	M23-C1010-01	Concrete block (CMU) partitions	27,521	Finished Area SF	5	No problems reported. CMU wall in multi-purpose room has a minor step crack on south wall. CMU wall in computer room has vertical crack (1/16th inch) at doorway.
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	27,521	Finished Area SF	5	Solid wood doors in metal frames. No significant damage. Score based on age.
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	27,521	Finished Area SF	5	Predominantly toilet partitions in restrooms. Composite type, good condition. Score based on age.
C20	Stairs/Fire Escapes								
C2010	Stair Construction	Yes	Stair Construction: Option 02	M23-C2010-02	Metal stairs with concrete filled pans	27,986	Building Gross SF	5	Metal stairs with vinyl covering. No problems observed.
C30	Interior Finishes								
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	27,521	Finished Area SF	5	Hallway finish is ceramic tile to 10 feet and painted surface above. Classrooms are painted block or drwall.
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	26,234	Finished Area SF	4	Predominantly vinyl floor tile. Three classrooms have cracked tile due to movement of substrate. Several areas of open seams from poor installation. Carpet present in office areas. Ceramic tile present at and around main entry.

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	26,234	Finished Area SF	4	Predominantly ACT throughout. Some architectural features at main entry and media area. Generally in good condition.
D. Services									
D10 Conveying Systems									
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	Yes	Elevators and Lifts: Option 02	M23-D1010.100-02	Elevator	1	Each	4	Elevator installed in 1997. Some hydraulic unit serviced by vendor. No problems reported. Light use. Score based on age of systems.
D1010.200	Elevators and Lifts	No	Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.200 Notes:
D20 Plumbing									
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option 01	M23-D2010-01	Plumbing System and Fixtures	16,647	Area Served SF	5	A leak in the main domestic service line (solder joint) was fixed during the assessment. No other problems noted or reported. Score based on age.
D2020	Domestic Hot Water	Yes	Domestic Hot Water : Standard Model - Option 01	M23-D2020-01	Domestic water heater	16,647	Area Served SF	3	Two large DHWH in boiler room. Fuel-fired. Installed 2003. No problems noted or reported. Score based on age.
D2040	Rain Water Drainage	Yes	Rain Water Drainage: Standard Model - Option 01	M23-D2040-01	Internal roof drains	16,647	Building Footprint SF	5	Limited to one internal drain in center BUR roof. No problems noted or reported. Score based on age.
D30 HVAC									
D3010	Energy Supply	Yes	Energy Supply: Standard Model - Option 01	M23-D3010-01	Natural gas supply	27,986	Building Gross SF	5	Boilers, emergency generator, and domestic hot water use no. 2 fuel oil for energy source.
D3010.700	Energy Supply	No	Solar Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	Yes	Central Plant Heating: Option 02	M23-D3020-02	Boiler	27,986	Area Served SF	4	Two boilers installed 2003 provide HW to AHUs over 100% of the facility. No water treatment provided to boilers.
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	No	Central Plant Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3030 Notes:
D3040	Distribution Systems								
D3040.100	Distribution Systems	Yes	Disribution Systems, Heat: Option 02	M23-D3040.100-02	Hot water piping and individual terminal AHUS	27,986	Area Served SF	5	HW circulation to 3 AHUs. HW loop also supports perimeter radiant heat and radiant heat ceiling panels in the classrooms. No problem. System score based on age.
D3040.200	Distribution Systems	No	Disribution Systems, Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3040.200 Notes:
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	Yes	Terminal and Packaged Units: Standard Model - Option 01	M23-D3050.100-01	Rooftop package units	4,367	Area Served SF	4	Single AHU in mechanical penthouse over first floor has two DX compressor units on the roof outside mechanical penthouse. Score based on age.
D3050.200	Terminal and Packaged Units	No	Terminal and Packaged Units, Cooling Condenser Added to AHU: Standard Model - Option 01		Not expected	-	n/a	n/a	D3050.200 Notes:
D3060	Controls	Yes	Controls: Option 02	M23-D3060-02	HVAC Controls - 2 Pipe with DX System	27,986	Area Served SF	4	Controls are pneumatic. No problems reported or observed. Thermostat to each room. Score based on age of system.
D40 Fire Protection									
D4010	Sprinklers	Yes	Sprinklers: Standard Model - Option 01	M23-D4010-01	Sprinkler System	27,986	Area Served SF	5	No problems reported or observed.
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50 Electrical									
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Option 01	M23-D5010-01	Main electrical system and switchgear	27,986	Building Gross SF	5	Westinghouse switchgear installed 2003. No problems observed or reported.
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01	M23-D5020-01	Distribution wiring plus "fixtures"	27,986	Building Gross SF	5	System score based on age.
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - Option 01	M23-D5030-01	Communication, alarm, telephone, and wiring	27,986	Building Gross SF	4	PA and intercom installed 2003. Wireless system and CAT6 cable installed 2003. Security alarm installed 2003. Security cameras installed 2011. No problems reported. Score based on age. (Alarm 60%, 4) Cameras (20%, 5) Wiring (20%, 5)
D5090	Emergency Power	Yes	Emergency Power: Standard Model - Option 01	M23-D5090-01	Back-up generator	27,986	Area Served SF	5	Large generator runs much of the building systems. Score based on age.
E. Equipment and Furnishings									
E10 Equipment									
E1010	Commercial Equipment	No	Commercial Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1010 Notes:
E1020	Institutional Equipment	No	Institutional Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	Plug-in kiln in art room. Standard vent.
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:
E1090	Other Equipment								
E1090.300	Other Equipment	Yes	Food Service Equipment: Option 02	M23-E1090.300-02	Full production kitchen	27,986	Area Served SF	4	School has equipment in place for full production kitchen. Currently used as serving kitchen. Score based on age.
E1090.400	Other Equipment	No	Residential Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.400 Notes:
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
E1090.900	Other Equipment								
E1090.	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.901 Notes:
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.902 Notes:
E20	Furnishings								
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	420	Per L.F.	5	Cabinets in good condition. Score based on age.
E2010.300	Fixed Furnishings	No	Seating: Standard Model - Option 01		Not Expected	-	n/a	n/a	E2010.300 Notes:
E. Special Construction and Demolition									
F10	Special Construction								
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Option 01			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard Model - Option 01	M23-F1020.101-01	Gym/Multi-purpose room	2,154	Area Served SF	4	Multi-purpose room functions as gym, cafeteria, and auditorium with lighting. Finished in good condition. No scoreboard. Vinyl reflects crack in substrate across the floor.
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard Model - Option 01			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	No	Cold Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.300 Notes:
F1020.400	Integrated Construction	No	HazMat Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.400 Notes:
F1040	Special Facilities								
F1040.100	Special Facilities	No	Aquatic Facilities: Standard Model - Option 01			-	n/a	n/a	F1040.100 Notes:
F1040.300	Special Facilities	No	Ice Rinks: Standard Model - Option 01			-	n/a	n/a	F1040.300 Notes:

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	7: SWAN MEADOW	# of Levels	2	Element not present		n/a			
BuildingCode	7	Average Building Height FT	15	0 to 5%		5			
SiteCode		Perimeter LF	364	5 to 10%		4			
Agency	Garrett County Board of Education	Length LF	97	10 to 25%		3			
AgencyCode		Width LF	75	25 to 50%		2			
Location	6709 Garrett Highway, Oakland, MD 551xx	Footprint SF	5,659	>50%		1			
Zip, First3	551	Building Gross SF	7,382						
County	Garrett								
Year Built	1958								
Date Surveyed	Thursday, August 15, 2013								
Surveyor	PAUL SWANSON								
Cost Model Category	Single-story Educational Facility								
	M23	KEY BUILDING MODEL CHARACTERISTICS							
		Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.							
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	5,659	Building Footprint SF	5	Minor step cracks were observed on the CMU above the footings. No significant movement or distress that may be caused by movement was observed.
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	5,659	Building Footprint SF	5	There is a gravel surfaced crawl space beneath the structure outside of the original school building. No settlement or cracking problems noted with the slab-on-grade in the basement area.
A20	Basement								
A2020	Basement Wall Structures	Yes	Basement Walls: Option 02	M23-A2020-02	Concrete basement walls	1,500	Basement SF	4	The basement walls consist of CMU. No significant cracking was observed. No water leakage was reported. There is a dampness issue in the basement requiring fans to circulate air.
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	Yes	Floor Construction: Option 02	M23-B1010-02	Steel framed with concrete and metal deck	5,659	Elevated Floor SF	5	The elevated floors consist of wood frame construction supported by perimeter masonry load-bearing walls and CMU piers on the interior. Suggested cost code is M01-B1010-01. Floors are in good condition. No distress observed.
B1020	Roof Structural Systems	Yes	Roof Construction: Option 03	M23-B1020-03	Wood frame roofing system on LB walls	5,659	Building Footprint SF	5	Wood frame construction. No distress noted.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	7,382	Building Gross SF	5	Brick masonry construction present at original facility (5). The 1999 addition facade is painted aluminum lap siding (4). Windows in addition are double-hung double-glazed wood windows with metal clade exterior (4). Windows in the original section were replaced in 2003 with aluminum single-hung double-glazed (5).
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	7,382	Building Gross SF	5	Windows in addition are double-hung double-glazed wood windows with metal clade exterior (4). Windows in the original section were replaced in 2003 with aluminum single-hung double-glazed (5).
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	7,382	Building Gross SF	4	The exterior doors are metal in metal frames replaced in 1997. The doors are functional with some age evident in finishes.
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Option 03	M23-B3010-03	Shingle roof	5,659	Building Footprint SF	3	No leaks reported. All roofs were shingled in 1997. Some mold staining is evident in shaded areas of the roof. Score based on age.
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Option 02	M23-C1010-02	Drywall over studs	7,382	Finished Area SF	4	There are some CMU partition walls where exterior walls have been enclosed. Drywall over stud framing and vinyl surfaced panels over stud framing are present over remainder of the facility. Partitions are in good condition. Score reflects age of stud framing.
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	7,382	Finished Area SF	3	Interior doors in original section consist of solid wood doors and wood frames. Interior doors in the remainder of the facility are metal doors in metal frames. Both systems has deficiencies in the surface finish. Score based on appearance and age.
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	7,382	Finished Area SF	4	There are toilet partitions in both the girls and boys restrooms. Some water closets have stainless steel rails. Condition of the partitions controls score.
C20	Stairs/Fire Escapes								
C2010	Stair Construction	Yes	Stair Construction: Option 03	M23-C2010-03	Wood stairs	7,382	Building Gross SF	4	There are stairs on both sides of the basement. The stairs are part wood and cast-in-place concrete. The score reflects the age of the wood portion of the stairs.
C30	Interior Finishes								

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	7,050	Finished Area SF	4	Generally paint over drywall or CMU. Good condition.
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	7,050	Finished Area SF	4	Most of the flooring is VCT and is in good condition with some cracking noted in the office area of the original section (4). The flooring is paint over concrete in the basement area; however, this area is the multi-purpose room and is scored with that element.
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	7,050	Finished Area SF	4	The ceiling finishes are ACT throughout (4) with the exception of the basement which is painted metal ribbed panels score with the multi-purpose room.
D. Services									
D10	Conveying Systems								
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	No	Elevators: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.100 Notes:
D1010.200	Elevators and Lifts	No	Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.200 Notes:
D20	Plumbing								
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option 01	M23-D2010-01	Plumbing System and Fixtures	7,382	Area Served SF	4	Most of the plumbing systems and piping were replaced in 1997 with the addition. The well and pump was replaced in 1999. Piping (40%, 5), Sanitary (40%, 4), and Fixtures (20%, 4). No problems reported or observed.
D2020	Domestic Hot Water	Yes	Domestic Hot Water: Standard Model - Option 01	M23-D2020-01	Domestic water heater	7,382	Area Served SF	3	The 50-gallon DHWH was installed in 1999. No problems reported. Score based on age.
D2040	Rain Water Drainage	No	Rain Water Drainage: Standard Model - Option 01		Internal roof drains	-	n/a	n/a	D2040 Notes:
D30	HVAC								
D3010	Energy Supply	Yes	Energy Supply: Standard Model - Option 01	M23-D3010-01	Natural gas supply	7,382	Building Gross SF	5	The energy supply is fuel oil. The oil is stored in an above-ground tank adjacent to the facility. The tank is about 10 years old.
D3010.700	Energy Supply	No	Solar Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	Yes	Central Plant Heating: Option 02	M23-D3020-02	Boiler	7,382	Area Served SF	4	One HW boiler installed 1998. Provides HW perimeter heat and hot water to single AHU in attic. No problems reported. Score based on age.
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	No	Central Plant Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3030 Notes:
D3040	Distribution Systems								
D3040.100	Distribution Systems	Yes	Distribution Systems, Heat: Option 02	M23-D3040.100-02	Hot water piping and individual terminal AHUS	7,382	Area Served SF	5	Perimeter radiant heaters (20%, 4) and one AHU in attic (25%, 4) and distribution piping (55%, 5).
D3040.200	Distribution Systems	No	Distribution Systems, Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3040.200 Notes:
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	No	Terminal and Packaged Units: Standard Model - Option 01		Rooftop package units	-	n/a	n/a	D3050.100 Notes:
D3050.200	Terminal and Packaged Units	No	Terminal and Packaged Units, Cooling Condenser Added to AHU: Standard Model - Option 01		Not expected	-	n/a	n/a	D3050.200 Notes:
D3060	Controls	Yes	Controls: Standard Model - Option 01	M23-D3060-01	HVAC controls - Packaged system	7,382	Area Served SF	3	Electronic controls from thermostats in the various zones. No pneumatics. Score based on age.
D40	Fire Protection								
D4010	Sprinklers	No	Sprinklers: Standard Model - Option 01		Sprinkler System	-	n/a	n/a	D4010 Notes:
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50	Electrical								
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Option 01	M23-D5010-01	Main electrical system and switchgear	7,382	Building Gross SF	5	Appeared that the service had been upgraded with the 1998 addition. New panel box (main) at entrance. Older switches in boiler room.
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01	M23-D5020-01	Distribution wiring plus "fixtures"	7,382	Building Gross SF	4	Some 1950s age wiring noted in basement storage area 75% (15%, 2 & 85%, 5), Fixtures (25%, 4).
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - Option 01	M23-D5030-01	Communication, alarm, telephone, and wiring	7,382	Building Gross SF	5	Security alarm, locks, and cameras in process of installation (20%, 5). There is no fire alarm system. (60%, 0) and internet wired CAT 5 and wireless (20%, 4)
D5090	Emergency Power	No	Emergency Power: Standard Model - Option 01		Back-up generator	-	n/a	n/a	D5090 Notes:
E. Equipment and Furnishings									
E10	Equipment								
E1010	Commercial Equipment	No	Commercial Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1010 Notes:
E1020	Institutional Equipment	No	Institutional Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1020 Notes:
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
E1090	Other Equipment								
E1090.300	Other Equipment	No	Food Service Equipment: Standard Model - Option 01		Serving kitchen	-	n/a	n/a	E1090.300 Notes:
E1090.400	Other Equipment	Yes	Residential Equipment: Option 02	M23-E1090.400-02	Residential teaching kitchen	7,382	Area Served SF	5	The cost model should be appropriate. They used a residential kitchen setup to serve lunches that are brought to the facility.
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:
E1090.900	Other Equipment								
E1090.	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.901 Notes:
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.902 Notes:
E20	Furnishings								
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	30	Per L.F.	5	New cabinets in the office area. The cabinets associated with the kitchen (16 feet) were not included in this element and scored with the residential kitchen element.
E2010.300	Fixed Furnishings	No	Seating: Standard Model - Option 01		Not Expected	-	n/a	n/a	E2010.300 Notes:
F. Special Construction and Demolition									
F10	Special Construction								
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Option 01			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard Model - Option 01	M23-F1020.101-01	Gym/Multi-purpose room	1,500	Area Served SF	4	Painted concrete floor, painted walls, factory finish light-gauge metal siding for ceiling treatment. Also used as cafeteria. Score based on observed condition of finishes. Allowance for dampness issue scored with basement walls.
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard Model - Option 01			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	No	Cold Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.300 Notes:
F1020.400	Integrated Construction	No	HazMat Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.400 Notes:
F1040	Special Facilities								
F1040.100	Special Facilities	No	Aquatic Facilities: Standard Model - Option 01			-	n/a	n/a	F1040.100 Notes:
F1040.300	Special Facilities	No	Ice Rinks: Standard Model - Option 01			-	n/a	n/a	F1040.300 Notes:

General Inform: USER ENTER HERE		Building Information (USER ENTER HERE)		Deficiency Range		Condition Rating			
Facility Name	8: YOUGH GLADES ELEMENTARY	# of Levels	1	Element not present	n/a				
BuildingCode	8	Average Building Height FT	15	0 to 5%	5				
SiteCode		Perimeter LF	1,192	5 to 10%	4				
Agency	Garrett County Board of Education	Length LF	346	10 to 25%	3				
AgencyCode		Width LF	238	25 to 50%	2				
Location	70 Wolf Acres Drive, Oakland, MD 551xx	Footprint SF	35,943	>50%	1				
Zip, First3	551	Building Gross SF	37,765						
County	Garrett								
Year Built	1998								
Date Surveyed	Tuesday, August 13, 2013								
Surveyor	PAUL.SWANSON								
Cost Model Category	Single-story Educational Facility								
	M23	KEY BUILDING MODEL CHARACTERISTICS							
		Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.							
WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
A. Substructure									
A10	Foundations								
A1010	Standard Foundations	Yes	Standard Foundations: Standard Model - Option 01	M23-A1010-01	Strip and spread footings	35,943	Building Footprint SF	5	No evidence of movement. Checked design drawings. Dropped slab in bearing areas. No problems reported.
A1020	Special Foundations	No	Special Foundations: Standard Model - Option 01		Not expected	-	n/a	n/a	A1020 Notes:
A1030	Slab-on-Grade	Yes	Slab-on-Grade: Standard Model - Option 01	M23-A1030-01	Slab on grade	35,943	Building Footprint SF	4	Some cracking of the SOG noted in the hallways and around doorways at multi-purpose room. Cracks reflected to vinyl flooring. SOG under entire building footprint.
A20	Basement								
A2020	Basement Wall Structures	No	Basement Walls: Standard Model - Option 01		Not Expected	-	n/a	n/a	A2020 Notes:
B. Structure and Shell									
B10	Superstructure								
B1010	Elevated Floor Structures	Yes	Floor Construction: Option 02	M23-B1010-02	Steel framed with concrete and metal deck	1,822	Elevated Floor SF	5	Mechanical penthouse areas. Slab in good condition. Minor shrinkage cracks noted.
B1020	Roof Structural Systems	Yes	Roof Construction: Option 02	M23-B1020-02	Steel framed structure on LB walls with columns	35,943	Building Footprint SF	5	Steel roof framing. No distress observed or reported.
B20	Exterior Enclosure								
B2010	Exterior Walls	Yes	Exterior Walls: Standard Model - Option 01	M23-B2010-01	Brick masonry wall construction	37,765	Building Gross SF	5	Brick masonry wall construction through first floor level. Above first floor used EFIS. Some minor cracking of the EFIS was noted. Score based on condition of masonry.
B2020	Exterior Windows	Yes	Exterior Windows: Standard Model - Option 01	M23-B2020-01	Exterior Windows	37,765	Building Gross SF	5	Annodized aluminum framed window with overhead lite and two operable swingout side lites. Double glazed. No leakage reported. One window pane observed broken.
B2030	Exterior Doors	Yes	Exterior Doors: Standard Model - Option 01	M23-B2030-01	Exterior Doors	37,765	Building Gross SF	4	Metal doors in metal frames. No corrosion. Some paint fading.
B30	Roofing								
B3010	Roof Coverings	Yes	Roof Coverings: Option 04	M23-B3010-04	Standing seam metal roof	35,943	Building Footprint SF	4	Leak in valley on south side repaired previous year. Active leak in valley over office. Evidence of past leakage at expansion joint. Gutter on north side and east side has been damaged by snow and ice.
C. Interiors									
C10	Interior Construction								
C1010	Partitions	Yes	Partitions: Option 02	M23-C1010-02	Drywall over studs	37,765	Finished Area SF	5	Steel frame interior. Stud walls along halls and between rooms.
C1020	Interior Doors	Yes	Interior Doors: Standard Model - Option 01	M23-C1020-01	Interior Doors	37,765	Finished Area SF	4	Metal doors in metal frames. Doors exhibit paint deficiencies predominantly at the bottom and edges of the doors. Hardware in good condition.
C1030	Fittings	Yes	Fittings: Standard Model - Option 01	M23-C1030-01	Partitions and lockers	37,765	Finished Area SF	5	Generally toilet partitions and rails in restrooms. One common use set of restrooms the partitions were observed to score 3. The remainder of partitions and rails score 5.
C20	Stairs/Fire Escapes								
C2010	Stair Construction	No	Stair Construction: Standard Model - Option 01		Not Expected	-	n/a	n/a	C2010 Notes:
C30	Interior Finishes								
C3010	Walls	Yes	Wall Finishes: Standard Model - Option 01	M23-C3010-01	Standard Wall Finishes	37,765	Finished Area SF	3	Hallways have vinyl wall covering below wood chair rail at 3 feet. Seams of wall covering delaminated. Painted drywall in class rooms generally have scuffs and damage below 3 feet.
C3020	Floors	Yes	Floor Finishes: Standard Model - Option 01	M23-C3020-01	Standard Floor Finishes	37,765	Finished Area SF	3	Predominance of V/FT. Poor seam application. Some reflective cracking noted (65%, 4). Carpet in good condition in office area. Carpet in classrooms worn and badly stained (35%, 2).
C3030	Ceilings	Yes	Ceiling Finishes: Standard Model - Option 01	M23-C3030-01	Standard Ceiling Finishes	37,765	Finished Area SF	4	Generally ACT. Classroom 113 and 114 have heavily soiled ACT (possibly from dust from AHUs). Remainder of school has ACT consistent with age.

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
D. Services									
D10	Conveying Systems								
D1010	Elevators and Lifts								
D1010.100	Elevators and Lifts	No	Elevators: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.100 Notes:
D1010.200	Elevators and Lifts	No	Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	D1010.200 Notes:
D20	Plumbing								
D2010	Plumbing System and Fixtures	Yes	Plumbing System and Fixtures: Standard Model - Option 01	M23-D2010-01	Plumbing System and Fixtures	37,765	Area Served SF	4	CU supply piping (40%, 5), PVC sanitary piping (40%, 4), fixtures (20%, 4).
D2020	Domestic Hot Water	Yes	Domestic Hot Water : Standard Model - Option 01	M23-D2020-01	Domestic water heater	37,765	Area Served SF	4	School has a domestic hot water boiler and storage tank. Original equipment. No problems reported. Score based on age of system.
D2040	Rain Water Drainage	No	Rain Water Drainage: Standard Model - Option 01		Internal roof drains	-	n/a	n/a	Subsurface drain system, PVC.
D30	HVAC								
D3010	Energy Supply	Yes	Energy Supply: Standard Model - Option 01	M23-D3010-01	Natural gas supply	37,765	Building Gross SF	5	Original equipment. No problems reported. Score based on age.
D3010.700	Energy Supply	No	Solar Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.700 Notes:
D3010.800	Energy Supply	No	Wind Energy Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.800 Notes:
D3010.900	Energy Supply	No	Geothermal Heating/Cooling Supply: Standard Model - Option 01		Not expected	-	n/a	n/a	D3010.900 Notes:
D3020	Central Plant Heating	Yes	Central Plant Heating: Option 02	M23-D3020-02	Boiler	37,765	Area Served SF	4	Two HW boilers. Original equipment. No problems reported. Score based on age of system.
D3020.300	Central Plant Heating	No	Fireplaces: Standard Model - Option 01		Not expected	-	n/a	n/a	D3020.300 Notes:
D3030	Central Plant Cooling	No	Central Plant Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3030 Notes:
D3040	Distribution Systems								
D3040.100	Distribution Systems	Yes	Disribution Systems, Heat: Option 02	M23-D3040.100-02	Hot water piping and individual terminal AHUS	37,765	Area Served SF	4	In addition, the HW is circulated to radiant heat panels in ceiling. Score based on age.
D3040.200	Distribution Systems	No	Disribution Systems, Cooling: Standard Model - Option 01		Not expected	-	n/a	n/a	D3040.200 Notes:
D3050	Terminal and Packaged Units								
D3050.100	Terminal and Packaged Units	Yes	Terminal and Packaged Units: Standard Model - Option 01	M23-D3050.100-01	Rooftop package units	37,765	Area Served SF	3	Consists of electric furnace heat at doorways.
D3050.200	Terminal and Packaged Units	Yes	Terminal and Packaged Units, Cooling Condenser Added	M23-D3050.200-02	DX cooling added to ahus	3,219	Area Served SF	5	One AHU has been retrofitted with cooling coils from two DX units on ground. Area served is library and main office area. Unit installed 2013.
D3060	Controls	Yes	Controls: Option 02	M23-D3060-02	HVAC Controls - 2 Pipe with DX System	37,765	Area Served SF	4	All controls are digital. Predominantly original equipment. No problems reported. Score based on age of system.
D40	Fire Protection								
D4010	Sprinklers	Yes	Sprinklers: Standard Model - Option 01	M23-D4010-01	Sprinkler System	37,765	Area Served SF	5	Original equipment. No problems reported. 100% of building covered.
D4020	Standpipes	No	Standpipes: Standard Model - Option 01		Not Expected	-	n/a	n/a	D4020 Notes:
D50	Electrical								
D5010	Electrical Service and Distribution	Yes	Electrical Service and Distribution: Standard Model - Option 01	M23-D5010-01	Main electrical system and switchgear	37,765	Building Gross SF	5	Predominantly original equipment. Switchgear is 1600 amp. Score based on age of system.
D5020	Lighting and Branch Wiring	Yes	Lighting and Branch Wiring: Standard Model - Option 01	M23-D5020-01	Distribution wiring plus "fixtures"	37,765	Building Gross SF	5	No problems reported. Score based on age.
D5030	Communication/Security/Fire Alarm	Yes	Communication/Security/Fire Alarm: Standard Model - Option 01	M23-D5030-01	Communication, alarm, telephone, and wiring	37,765	Building Gross SF	4	Fire alarm original equipment (60%, 3), Security system installed 2013 (20%, 5), Internet equipment CAT 5 and PA original and Fiber Optic 2013 (20%, 4).
D5090	Emergency Power	Yes	Emergency Power: Standard Model - Option 01	M23-D5090-01	Back-up generator	37,765	Area Served SF	4	Generator handles emergency lights and boilers. Original equipment. Score based on age.
E. Equipment and Furnishings									
E10	Equipment								
E1010	Commercial Equipment	No	Commercial Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1010 Notes:
E1020	Institutional Equipment	No	Institutional Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1020 Notes:
E1030	Vehicular Equipment								
E1030.100	Vehicular Equipment	No	Overhead Cranes: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.100 Notes:
E1030.200	Vehicular Equipment	No	Truck Weight Scales: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.200 Notes:
E1030.300	Vehicular Equipment	No	Boat Lifts: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.300 Notes:
E1030.400	Vehicular Equipment	No	Garage Access Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1030.400 Notes:
E1090	Other Equipment								
E1090.300	Other Equipment	Yes	Food Service Equipment: Option 02	M23-E1090.300-02	Full production kitchen	35,943	Area Served SF	3	Predominantly original equipment. Score based on age.
E1090.400	Other Equipment	No	Residential Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.400 Notes:
E1090.700	Other Equipment	No	Athletic Equipment: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.700 Notes:
E1090.900	Other Equipment								
E1090	Other Equipment	No	Animal Storage/Cages: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.901 Notes:

WBS Code	Level 3 Title	Present Yes/No	Level 4 / 5 Title	Cost ID	Description	Quantity or Area Served	Unit of Measure	Condition Rating	Notes
E1090.	Other Equipment	No	Fish Hatchery/Concrete Troughs: Standard Model - Option 01		Not Expected	-	n/a	n/a	E1090.902 Notes:
E20									
Furnishings									
E2010	Fixed Furnishings								
E2010.200	Fixed Furnishings	Yes	Casework: Standard Model - Option 01	M23-E2010.200-01	Cabinetry	194	Per L.F.	4	Score based on observed conditions.
E2010.300	Fixed Furnishings	No	Seating: Standard Model - Option 01		Not Expected	-	n/a	n/a	E2010.300 Notes:
F. Special Construction and Demolition									
F10									
Special Construction									
F1010	Special Structures								
F1010.100	Pre-Engineered Structure - Tower	No	Pre-Engineered Structure - Tower: Standard Model - Option 01			-	n/a	n/a	F1010.100 Notes:
F1010.330	Silos	No	Silos: Standard Model - Option 01			-	n/a	n/a	F1010.330 Notes:
F1010.400	Pre-Fabricated Vault Toilet	No	Pre-Fabricated Vault Toilets: Standard Model - Option 01			-	n/a	n/a	F1010.400 Notes:
F1010.700	Fabric Structure	No	Fabric Structure: Standard Model - Option 01			-	n/a	n/a	F1010.700 Notes:
F1020	Integrated Construction								
F1020.101	Integrated Construction	Yes	Elementary School Gym/Multi-purpose Room: Standard Model - Option 01	M23-F1020.101-01	Gym/Multi-purpose room	3,876	Area Served SF	4	Some cracking of vinyl floor at door thresholds. Replacement tiles, scuffs on walls, aged light fixtures.
F1020.102	Integrated Construction	No	High School Level - Competition Gymnasium: Standard Model - Option 01			-	n/a	n/a	F1020.102 Notes:
F1020.200	Integrated Construction	No	Auditorium: Standard Model - Option 01			-	n/a	n/a	F1020.200 Notes:
F1020.300	Integrated Construction	Yes	Cold Storage Rooms: Option 02	M23-F1020.300-02	Prefabricated cold storage	50	Area Served SF	5	Standalone refrigeration unit. Age unknown. Assume 2009 based on serial number.
F1020.400	Integrated Construction	No	HazMat Storage Rooms: Standard Model - Option 01			-	n/a	n/a	F1020.400 Notes:
F1040	Special Facilities								
F1040.100	Special Facilities	No	Aquatic Facilities: Standard Model - Option 01			-	n/a	n/a	F1040.100 Notes:
F1040.300	Special Facilities	No	Ice Rinks: Standard Model - Option 01			-	n/a	n/a	F1040.300 Notes:

Appendix E

Education Appraisal Score Sheets

CEFPI Evaluation

General Information	USER ENTER HERE
Facility Name	1: ACCIDENT ELEMENTARY
BuildingCode	1
SiteCode	
Agency	Garrett County Board of Education
AgencyCode	
Location	534 Accident Bittering Road, Accident, MD
Zip_First3	215
County	Garrett
Year Built	1982
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0	Site				
1.1	Site Size	y	25	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 12 acres, mostly usable. Students 228
1.2	Site accessibility	y	10	1 mile walking, 30 minutes riding	Used average bus trip (58 min.)
1.3	Location	y	10	Removed from traffic & undesirable business	Very quiet environment, 0.5 miles from town, rural farm land
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	8	Equipment factors; away from traffic, fencing, age appropriate, field play	Two playgrounds, no fence separation, basketball, and field with backstop
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	4	Usable percentage of site	Approximately 15% of site has some drainage issues.
1.8	Site outdoor learning	y	5	Space for physical education	Site contains ball fields and picnic area
1.9	Pedestrian access	y	4	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	No sidewalks off site.
1.10	Surface Parking	y	4	Parking considerations; sufficient parking for staff, pavement in good condition	Pavement in poor condition
2.0 - 4.0	Building FCA				
5.0	Educational Adequacy				
5.1	Size of Academic Learning Areas	y	20	Comparison of current SF to CEFPI standard of E=900sf and PK&K=1200sf	Total classroom SF = 10,590; Kindergarten = 1,622
5.2	Classroom space	y	0	Percentage of Classroom SF with alcoves or adjacent instructional space	All classrooms are rectangular with no alcoves
5.3	Location of Learning Areas	y	10	Percentage of classrooms removed from noise or high traffic areas	Classrooms are removed from noise and high traffic areas
5.4	Personal space	y	10	Percentage of space for personal instruction relative to classroom space	Assigned space rooms 111b, 122, 122a, 123, 124, 125, 126 = 2,611 sf
5.5	Student storage space	y	5	Storage space for student articles	Coat hooks provided
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	15	Special learning area assessed as library space; 30 sf times 15% of enrollment	Assigned space rooms 104, 104a, 104b = 1,949 sf
5.8	Configuration of specialized learning areas	y	8	Percentage of instructional areas poorly shaped	Discounted shape of rooms 122 and 126
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	5	Percentage of MP room compared to CEFPI standard 3750 sf with stage	Assigned space rooms 132 and 127 = 4,398 sf
5.11	Pre-K / Kindergarten space	y	4	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	Average K classroom 811 sf
5.12	Music Room	y	2	Music room & storage compared to Charleston, SC standard 1200sf	Assigned space room 126a = 377
5.13	Art Room / area	y	5	Art room SF compared to CEFPI standard 900 sf	Assigned space rooms 128 and 128a = 945 sf
5.14	Compute laboratory	y		Comparison of SF to Charleston, SC standard of 990 sf	None provided
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	5	Comparison of SF to Charleston, SC standard of 300 sf	Assigned space rooms 105a, 106a, 120b, 120c, 122b, 124a, 126c = 286 sf
5.17	Teacher's lounge	y	4	Comparison of SF to Charleston, SC standard of 400 sf	Assigned space room 132a = 153 sf
5.18	Cafeteria space	y	4	Comparison of SF to Charleston, SC standard of 5450 sf	Assigned space rooms 132, 131, 131b = 2,400 sf
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	2	Comparison of SF to CEFPI standard of 420 sf	Assigned space room 103 = 188 sf
5.21	Clinic Area	y	2	Comparison of SF to CEFPI standard of 500 sf	Assigned space rooms 102, 102a, 102b = 208 sf
5.22	Reception Area	y	5	Comparison of SF to CEFPI standard of 200 sf	Assigned space room 101 = 261 sf
5.23	Administration office areas	y	5	Comparison of SF to CEFPI standard of 325 sf	Assigned space room 101a & 101b = 350 sf
6.0	Educational Environment				
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	6	Presence and condition of trees, foundation plantings, and lawn	Trees at distance, no foundation plantings, turf well kept
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	5	Presence of sheltered entrance and/or sheltered sidewalks	Sheltered entrance present
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	6	Percentage of the building with both heating and cooling	Only the office are has AC (less than 10% total area served)
6.8	Ventilation system	y	9	Percentage of the building with forced ventilation	Forced ventilation in rooms, hallways are excluded (3,718 sf)
6.9	Lighting	y	15	Percentage of area measured below standard	Area measured below standard = 2,911 sf
6.10	Drinking fountains	y	9	Based on score and fixture portion of the plumbing score from FCA	Fixture portion of plumbing score = 3
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	7	Corridor width (min. 8 feet) to encourage traffic flow	Corridor width 6'8"
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y	10	Configuration of gym, multi-purpose rm, library, music rm	Rooms generally rectangular in shape without alcoves
6.15	Acoustical treatment	y	5	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	Majority of classrooms have ACT, VFT, and blinds for windows
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
	Total		253		

CEFPI Evaluation

General Information USER ENTER HERE	
Facility Name	1: BROAD FORD ELEMENTARY
BuildingCode	1
SiteCode	
Agency	Garrett County Board of Education
AgencyCode	
Location	607 Harvey Winters Road, Oakland, MD
Zip_First3	215
County	Garrett
Year Built	1976
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0 Site					
1.1	Site Size	y	25	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 35 acres, partially shared with southern middle school.
1.2	Site accessibility	y	15	1 mile walking, 30 minutes riding	Used average bus trip (45 min.)
1.3	Location	y	10	Removed from traffic & undesirable business	Very quiet environment, 0.5 miles from town, rural farm land
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	8	Equipment factors; away from traffic, fencing, age appropriate, field play	Several playgrounds, no fence separation, basketball, and field with backstop
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	5	Usable percentage of site	No drainage issues noted.
1.8	Site outdoor learning	y	5	Space for physical education	Site contains ball fields and picnic area
1.9	Pedestrian access	y	4	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	Portion of available parking shared with middle school, congested area
1.1	Surface Parking	y	3	Parking considerations; sufficient parking for staff, pavement in good condition	Pavement in poor condition
2.0 - 4.0 Building FCA					
5.0 Educational Adequacy					
5.1	Size of Academic Learning Areas	y	25	Comparison of current SF to CEFPI standard of E=900sf and PK&K=1200sf	Total classroom SF = 21,654; Kindergarten = 4,554; Pre-K = 875
5.2	Classroom space	y	15	Percentage of Classroom SF with alcoves or adjacent instructional space	Small instructional space associated with most classrooms
5.3	Location of Learning Areas	y	8	Percentage of classrooms removed from noise or high traffic areas	Some classrooms located near gymnasium and high traffic zones
5.4	Personal space	y	10	Percentage of space for personal instruction relative to classroom space	Assigned space rooms 101c, 102c, 103c, 104c, 115, 142, 145, 105c, 106c, 178,
5.5	Student storage space	y	5	Storage space for student articles	Coat hooks provided
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	10	Special learning area assessed as library space; 30 sf times 15% of enrollment	CEFPI criteria 2,885. Assigned space room 139 = 2,495 sf
5.8	Configuration of specialized learning areas	y	10	Percentage of instructional areas poorly shaped	Special instruction area generally uniform
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	5	Percentage of MP room compared to CEFPI standard 3750 sf with stage	Assigned space rooms 168 and 175 = 4,198 sf
5.11	Pre-K / Kindergarten space	y	10	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	Average K & P-K room size = 1,086 sf
5.12	Music Room	y	5	Music room & storage compared to Charleston, SC standard 1200sf	Assigned space room 169 = 1,131 sf
5.13	Art Room / area	y	2	Art room SF compared to CEFPI standard 900 sf	Storage only room 179 = 206 sf
5.14	Computer laboratory	y	2	Comparison of SF to Charleston, SC standard of 990 sf	Assigned space room 141 = 553 sf
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	5	Comparison of SF to Charleston, SC standard of 300 sf	Assigned space room 111b = 292 sf
5.17	Teacher's lounge	y	10	Comparison of SF to Charleston, SC standard of 400 sf	Assigned space rooms 157, 156, and 150 = 541 sf
5.18	Cafeteria space	y	10	Comparison of SF to Charleston, SC standard of 5450 sf	Assigned space rooms 168, 170, 171, 173, 165 = 5,018 sf
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	5	Comparison of SF to CEFPI standard of 420 sf	Assigned space rooms 147, 148, 152 = 604 sf
5.21	Clinic Area	y	2	Comparison of SF to CEFPI standard of 500 sf	Assigned space room 143 = 270 sf; no restroom facility
5.22	Reception Area	y	5	Comparison of SF to CEFPI standard of 200 sf	Assigned space room 155 = 295 sf
5.23	Administration office areas	y	5	Comparison of SF to CEFPI standard of 325 sf	Assigned space room 158 and 159 = 389 sf
6.0 Educational Environment					
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	6	Presence and condition of trees, foundation plantings, and lawn	Presence of trees and turf. Concrete walks next to building walls
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	5	Presence of sheltered entrance and/or sheltered sidewalks	Sidewalks not sheltered. Sheltered entry
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	15	Percentage of the building with both heating and cooling	Building has heating and cooling to 100% through 2-pipe system
6.8	Ventilation system	y	15	Percentage of the building with forced ventilation	All ventilation is through AHUs in mechanical penthouses
6.9	Lighting	y	12	Percentage of area measured below standard	11 areas out of 98 measured below standard
6.10	Drinking fountains	y	9	Based on score and fixture portion of the plumbing score from FCA	Fixtures are generally aged; scored 3 in FCA
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	10	Corridor width (min. 8 feet) to encourage traffic flow	Average corridor width greater than 8 feet
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y	10	Configuration of gym, multi-purpose rm, library, music rm	Library configuration has separated area
6.15	Acoustical treatment	y	7	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	Majority of classrooms have carpet and ACT
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
		Total	313		

CEFPI Evaluation

General Information	USER ENTER HERE
Facility Name	1: CRELLIN ELEMENTARY
BuildingCode	1
SiteCode	
Agency	Garrett County Board of Education
AgencyCode	
Location	115 Kendall Drive
Zip_First3	215
County	Garrett
Year Built	1962
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0 Site					
1.1	Site Size	y	25	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 11 acres, with nature walk area adjacent. Students 117
1.2	Site accessibility	y	15	1 mile walking, 30 minutes riding	Used an average bus trip (31 min.)
1.3	Location	y	10	Removed from traffic & undesirable business	Very quiet environment, 0.5 miles from town, rural farm land
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	10	Equipment factors; away from traffic, fencing, age appropriate, field play	Two playgrounds with fence separation, field and outdoor amphitheater and
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	5	Usable percentage of site	No drainage issues noted.
1.8	Site outdoor learning	y	5	Space for physical education	Site contains ball fields and amphitheater
1.9	Pedestrian access	y	4	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	No sidewalks off site.
1.1	Surface Parking	y	5	Parking considerations; sufficient parking for staff, pavement in good condition	
2.0 - 4.0 Building FCA					
5.0 Educational Adequacy					
5.1	Size of Academic Learning Areas	y	20	Comparison of current SF to CEFPI standard of E=900sf and PK&K=1200sf	Total classroom SF = 4,980; Kindergarten = 828
5.2	Classroom space	y	0	Percentage of Classroom SF with alcoves or adjacent instructional space	Classrooms are rectangular with no alcoves
5.3	Location of Learning Areas	y	8	Percentage of classrooms removed from noise or high traffic areas	Three classrooms located across from MP room
5.4	Personal space	y	8	Percentage of space for personal instruction relative to classroom space	Assigned space includes rooms 105 & 106 = 339 sf
5.5	Student storage space	y	5	Storage space for student articles	Coat hooks provided
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	10	Special learning area assessed as library space; 30 sf times 15% of enrollment	Assigned space room 107 = 460 sf
5.8	Configuration of specialized learning areas	y	10	Percentage of instructional areas poorly shaped	Instructional spaces are rectangular in shape
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	2	Percentage of MP room compared to CEFPI standard 3750 sf with stage	Assigned space rooms 127 & 128 = 1,842 sf
5.11	Pre-K / Kindergarten space	y	4	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	Assigned space room 101 = 828 sf
5.12	Music Room	y	2	Music room & storage compared to Charleston, SC standard 1200sf	Storage only
5.13	Art Room / area	y	0	Art room SF compared to CEFPI standard 900 sf	None provided
5.14	Compute laboratory	y	0	Comparison of SF to Charleston, SC standard of 990 sf	None provided
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	5	Comparison of SF to Charleston, SC standard of 300 sf	Assigned space rooms 123, 124, 122, 120, 118, 101a, 101b = 417 sf
5.17	Teacher's lounge	y	4	Comparison of SF to Charleston, SC standard of 400 sf	Assigned space room 102 = 108 sf
5.18	Cafeteria space	y	4	Comparison of SF to Charleston, SC standard of 5450 sf	Assigned space rooms 128, 129, and 130 = 1,909 sf
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	2	Comparison of SF to CEFPI standard of 420 sf	Assigned space room = 84 sf
5.21	Clinic Area	y	0	Comparison of SF to CEFPI standard of 500 sf	None provided
5.22	Reception Area	y	0	Comparison of SF to CEFPI standard of 200 sf	None provided
5.23	Administration office areas	y	2	Comparison of SF to CEFPI standard of 325 sf	Assigned space rooms 111, 110, & 112 = 238
6.0 Educational Environment					
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	6	Presence and condition of trees, foundation plantings, and lawn	Trees and turf present
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	5	Presence of sheltered entrance and/or sheltered sidewalks	Entrance is sheltered
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	6	Percentage of the building with both heating and cooling	No AC in building
6.8	Ventilation system	y		Percentage of the building with forced ventilation	Only one air handler in stage area
6.9	Lighting	y	12	Percentage of area measured below standard	Four areas out of 32 measured below standard
6.10	Drinking fountains	y	15	Based on score and fixture portion of the plumbing score from FCA	Mixture of ages between the three sections; score 4 in FCA
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	10	Corridor width (min. 8 feet) to encourage traffic flow	Corridor widths vary, average 10 feet
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y	10	Configuration of gym, multi-purpose rm, library, music rm	Room configurations are rectangular
6.15	Acoustical treatment	y	5	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	HS area has VFT, DW ceilings, blinds at windows, old section has carpet
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
		Total	234		

CEFPI Evaluation

General Information	
Facility Name	1: FRIENDSVILLE ELEMENTARY
BuildingCode	1
SiteCode	
Agency	Garrett County Board of Education
AgencyCode	
Location	841 First Avenue, Friendsville, MD
Zip_First3	215
County	Garrett
Year Built	1976
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0 Site					
1.1	Site Size	y	10	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 6.3 acres, mostly usable. Students 110
1.2	Site accessibility	y	10	1 mile walking, 30 minutes riding	Used average bus trip (52 min.)
1.3	Location	y	5	Removed from traffic & undesirable business	Site is within 1/2 mile from downtown area. Residential area. No offensive businesses near site. River adjacent to property
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	10	Equipment factors; away from traffic, fencing, age appropriate, field play	Two playgrounds, one fenced for Pre-K. Upper ages have swings, basketball, slides and climbing equipment. Equipment is good condition.
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	5	Usable percentage of site	Effective all of the site is well-drained. Large ballfield is present with backstop
1.8	Site outdoor learning	y	3	Space for physical education	There is space available for outdoor physical ed. No nature walk
1.9	Pedestrian access	y	5	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	
1.1	Surface Parking	y	5	Parking considerations; sufficient parking for staff, pavement in good condition	
2.0 - 4.0 Building FCA					
5.0 Educational Adequacy					
5.1	Size of Academic Learning Areas	y	25	Comparison of current SF to CEFPI standard of E= 900sf and PK&K=1200sf	Total classroom SF = 9,684; Kindergarten = 4,478; Pre-K = 935
5.2	Classroom space	y	5	Percentage of Classroom SF with alcoves or adjacent instructional space	Three of seven classrooms have alcoves
5.3	Location of Learning Areas	y	10	Percentage of classrooms removed from noise or high traffic areas	Classrooms and academic centers on upper level
5.4	Personal space	y	5	Percentage of space for personal instruction relative to classroom space	Assigned space room 210 = 197 sf
5.5	Student storage space	y	5	Storage space for student articles	Coat hooks provided
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	15	Special learning area assessed as library space; 30 sf times 15% of enrollment	Assigned space rooms 207 & aa25 = 1387 sf
5.8	Configuration of specialized learning areas	y	10	Percentage of instructional areas poorly shaped	Small portion of library
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	2	Percentage of MP room compared to CEFPI standard 3750 sf with stage	Assigned space rooms aa6, aa33, aa6a = 2141 sf
5.11	Pre-K / Kindergarten space	y	10	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	Average assigned area = 1353
5.12	Music Room	y	2	Music room & storage compared to Charleston, SC standard 1200sf	
5.13	Art Room / area	y	5	Art room SF compared to CEFPI standard 900 sf	Assigned space room aa20 = 871
5.14	Compute laboratory	y	0	Comparison of SF to Charleston, SC standard of 990 sf	
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	5	Comparison of SF to Charleston, SC standard of 300 sf	Assigned space rooms aa21a, aa21b, 209, aa35 = 357
5.17	Teacher's lounge	y	10	Comparison of SF to Charleston, SC standard of 400 sf	Assigned space room xaa30 = 369
5.18	Cafeteria space	y	4	Comparison of SF to Charleston, SC standard of 5450 sf	Assigned space with kitchen and storage = 3,290 sf
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	2	Comparison of SF to CEFPI standard of 420 sf	Assigned space room aa22 = 245
5.21	Clinic Area	y	2	Comparison of SF to CEFPI standard of 500 sf	Assigned space rooms aa15, aa16, aa17, aa18 = 384
5.22	Reception Area	y	5	Comparison of SF to CEFPI standard of 200 sf	Assigned space room aa13 = 509
5.23	Administration office areas	y	5	Comparison of SF to CEFPI standard of 325 sf	Assigned space rooms aa19, aa14 = 306
6.0 Educational Environment					
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	6	Presence and condition of trees, foundation plantings, and lawn	Presence of lawn and trees. No foundation plantings.
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	5	Presence of sheltered entrance and/or sheltered sidewalks	Small sheltered area at main entrance. Covered play area
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	6	Percentage of the building with both heating and cooling	Approximately 60% of building has AC
6.8	Ventilation system	y	15	Percentage of the building with forced ventilation	100% of building has mechanical ventilation
6.9	Lighting	y	15	Percentage of area measured below standard	Five areas out of 57 measured below standard
6.10	Drinking fountains	y	15	Based on score and fixture portion of the plumbing score from FCA	Fixtures scored 4 in FCA
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	10	Corridor width (min. 8 feet) to encourage traffic flow	Average corridor = 9 feet
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y	10	Configuration of gym, multi-purpose rm, library, music rm	Library has alcove area
6.15	Acoustical treatment	y	5	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	Generally classrooms have ACT, VFT, blinds at windows
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
		Total	267		

CEFPI Evaluation

General Information	USER ENTER HERE
Facility Name	1: GRANTSVILLE ELEMENTARY
BuildingCode	1
SiteCode	
Agency	Garrett County Board of Education
AgencyCode	
Location	120 Grant Street, Grantsville MD
Zip_First3	215
County	Garrett
Year Built	1980
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0 Site					
1.1	Site Size	y	10	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 3.3 acres, mostly usable. Students 238
1.2	Site accessibility	y	10	1 mile walking, 30 minutes riding	Used an average bus trip (55 min.)
1.3	Location	y	10	Removed from traffic & undesirable business	
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	10	Equipment factors; away from traffic, fencing, age appropriate, field play	
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	5	Usable percentage of site	
1.8	Site outdoor learning	y	3	Space for physical education	No nature walk
1.9	Pedestrian access	y	4	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	Front access driveway used as cutoff by neighborhood traffic
1.1	Surface Parking	y	5	Parking considerations; sufficient parking for staff, pavement in good condition	
2.0 - 4.0 Building FCA					
5.0 Educational Adequacy					
5.1	Size of Academic Learning Areas	y	15	Comparison of current SF to CEFPI standard of E= 900sf and PK&K=1200sf	Total PK and K = 5,554; Total E = 8,498
5.2	Classroom space	y	5	Percentage of Classroom SF with alcoves or adjacent instructional space	Special classrooms 147, 147a, and 131 and classrooms a113c, b114, b115
5.3	Location of Learning Areas	y	10	Percentage of classrooms removed from noise or high traffic areas	Classrooms removed from dining and PE areas
5.4	Personal space	y	8	Percentage of space for personal instruction relative to classroom space	Special classrooms 147, 147a, and 131
5.5	Student storage space	y	5	Storage space for student articles	Generally coat hooks provided
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	15	Special learning area assessed as library space; 30 sf times 15% of enrollment	CEFPI standard = 1,071 sf; Assigned space = 2,561
5.8	Configuration of specialized learning areas	y	10	Percentage of instructional areas poorly shaped	Computer lab shared with library
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	5	Percentage of MP room compared to CEFPI standard 3750 sf with stage	MP Room with stage = 2,391 plus gymnasium = 2890
5.11	Pre-K / Kindergarten space	y	4	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	Average Pre-K and K classroom = 694 sf
5.12	Music Room	y	2	Music room & storage compared to Charleston, SC standard 1200sf	Music room shared with art room and storage = 1/2 of 1,331
5.13	Art Room / area	y	2	Art room SF compared to CEFPI standard 900 sf	Assigned space with storage 666 sf
5.14	Compute laboratory	y	2	Comparison of SF to Charleston, SC standard of 990 sf	Assigned space share with library approximately 500 sf
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	5	Comparison of SF to Charleston, SC standard of 300 sf	Assigned space in 8 rooms throughout school = 1,480 sf
5.17	Teacher's lounge	y	10	Comparison of SF to Charleston, SC standard of 400 sf	Assigned space in two rooms = 786 sf
5.18	Cafeteria space	y	4	Comparison of SF to Charleston, SC standard of 5450 sf	Assigned space = 2391 plus kitchen and serving = 1,799
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	2	Comparison of SF to CEFPI standard of 420 sf	Assigned space rooms b107 & b108 = 298
5.21	Clinic Area	y	2	Comparison of SF to CEFPI standard of 500 sf	Assigned space rooms a100 and a101 = 239 sf
5.22	Reception Area	y	2	Comparison of SF to CEFPI standard of 200 sf	Assigned space is a102 = 98 sf
5.23	Administration office areas	y	5	Comparison of SF to CEFPI standard of 325 sf	Assigned space rooms a104, a106, and a112 = 615 sf
6.0 Educational Environment					
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	6	Presence and condition of trees, foundation plantings, and lawn	Presence of lawn and some foundation plantings
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	5	Presence of sheltered entrance and/or sheltered sidewalks	Sheltered entrance
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	6	Percentage of the building with both heating and cooling	Approximately 17% of school has AC
6.8	Ventilation system	y	15	Percentage of the building with forced ventilation	Mechanical ventilation throughout
6.9	Lighting	y	15	Percentage of area measured below standard	Two areas out of 77 measured below standard
6.10	Drinking fountains	y	15	Based on score and fixture portion of the plumbing score from FCA	Fixtures scored 4 in FCA
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	7	Corridor width (min. 8 feet) to encourage traffic flow	Average corridor width is 7.7 feet
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y		Configuration of gym, multi-purpose rm, library, music rm	Room configurations are generally without alcoves
6.15	Acoustical treatment	y	5	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	Open plan, poor acoustics, carpet present in many classrooms
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
		Total	244		

CEFPI Evaluation

General Information USER ENTER HERE	
Facility Name	1: Route 40 ELEMENTARY
BuildingCode	1
SiteCode	
Agency	Garrett County Board of Education
AgencyCode	
Location	17764 National Pike
Zip_First3	215
County	Garrett
Year Built	1957
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0 Site					
1.1	Site Size	y	15	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 8.1 acres, mostly usable. Students 110
1.2	Site accessibility	y	5	1 mile walking, 30 minutes riding	Used an average bus trip (63 min.)
1.3	Location	y	5	Removed from traffic & undesirable business	Significant traffic noise from US Route 68
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	8	Equipment factors; away from traffic, fencing, age appropriate, field play	No segregation of playground areas with fencing
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	5	Usable percentage of site	
1.8	Site outdoor learning	y	3	Space for physical education	No nature walk area
1.9	Pedestrian access	y	4	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	No sidewalks off site
1.1	Surface Parking	y	5	Parking considerations; sufficient parking for staff, pavement in good condition	
2.0 - 4.0 Building FCA					
5.0 Educational Adequacy					
5.1	Size of Academic Learning Areas	y	20	Comparison of current SF to CEFPI standard of E=900sf and PK&K=1200sf	Total classroom SF = 6,729; Kindergarten = 854; Pre-K = 1,560
5.2	Classroom space	y	5	Percentage of Classroom SF with alcoves or adjacent instructional space	Three of eight classrooms have alcoves
5.3	Location of Learning Areas	y	10	Percentage of classrooms removed from noise or high traffic areas	Seven of eight classrooms removed from noise and high traffic areas
5.4	Personal space	y	0	Percentage of space for personal instruction relative to classroom space	None provided
5.5	Student storage space	y	10	Storage space for student articles	Coat racks and cuboards provided in classrooms
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	15	Special learning area assessed as library space; 30 sf times 15% of enrollment	Library and storage assigned 928 sf, compared to 495 sf CEFPI
5.8	Configuration of specialized learning areas	y	10	Percentage of instructional areas poorly shaped	All of the specialized learning areas are well designed
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	2	Percentage of MP room compared to CEFPI standard 3750 sf with stage	Assigned SF = 2,154
5.11	Pre-K / Kindergarten space	y	4	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	Average SF of rooms 125, 126, and 105 = 805
5.12	Music Room	y	2	Music room & storage compared to Charleston, SC standard 1200sf	Music room SF = 911
5.13	Art Room / area	y	5	Art room SF compared to CEFPI standard 900 sf	Assigned SF including storage = 988
5.14	Computer laboratory	y	2	Comparison of SF to Charleston, SC standard of 990 sf	Computer laboratory SF = 474
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	5	Comparison of SF to Charleston, SC standard of 300 sf	Assign storage SF = 326
5.17	Teacher's lounge	y	10	Comparison of SF to Charleston, SC standard of 400 sf	Rooms 188 and 122 assigned SF = 520
5.18	Cafeteria space	y	4	Comparison of SF to Charleston, SC standard of 5450 sf	Assigned space for cafeteria, kitchen, & storage = 2,954
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	2	Comparison of SF to CEFPI standard of 420 sf	Assigned space room 106 SF = 142
5.21	Clinic Area	y	2	Comparison of SF to CEFPI standard of 500 sf	Assigned space room 101b = 145
5.22	Reception Area	y	5	Comparison of SF to CEFPI standard of 200 sf	Assigned space room 101 = 390
5.23	Administration office areas	y	5	Comparison of SF to CEFPI standard of 325 sf	Assigned space rooms 207 & 197 = 404
6.0 Educational Environment					
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	6	Presence and condition of trees, foundation plantings, and lawn	Limited tree presence. Lawn is extensive
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	5	Presence of sheltered entrance and/or sheltered sidewalks	Presence of sheltered entrance
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	6	Percentage of the building with both heating and cooling	16% of building has AC
6.8	Ventilation system	y	15	Percentage of the building with forced ventilation	Building has mechanical ventilation throughout
6.9	Lighting	y	15	Percentage of area measured below standard	Three areas out of 60 measured below standard
6.10	Drinking fountains	y	15	Based on score and fixture portion of the plumbing score from FCA	Fixture score = 4 in FCA
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	10	Corridor width (min. 8 feet) to encourage traffic flow	Average corridor width = 8 feet
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y	10	Configuration of gym, multi-purpose rm, library, music rm	Library has alcove area
6.15	Acoustical treatment	y	5	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	Acoustical ceiling tiles in most classrooms
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
		Total	255		

CEFPI Evaluation

General Information	
Facility Name	1: SWAN MEADOW ELEMENTARY
Building Code	1
Site Code	
Agency	Garrett County Board of Education
Agency Code	
Location	6709 Garrett Highway Oakland, MD
Zip, First3	215
County	Garrett
Year Built	1958
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0 Site					
1.1	Site Size	y	10	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 3.6 acres, mostly usable. Students 44
1.2	Site accessibility	y	15	1 mile walking, 30 minutes riding	Used average bus trip (40 min.)
1.3	Location	y	5	Removed from traffic & undesirable business	Quiet environment, significant traffic close by
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	8	Equipment factors; away from traffic, fencing, age appropriate, field play	Playground, no fence separation, basketball, and field with backstop
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	5	Usable percentage of site	No drainage issues noted.
1.8	Site outdoor learning	y	5	Space for physical education	Site contains ball fields and picnic area
1.9	Pedestrian access	y	4	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	No sidewalks off site.
1.1	Surface Parking	y	3	Parking considerations; sufficient parking for staff, pavement in good condition	Parking is limited to front in area of dropoff loop
2.0 - 4.0 Building FCA					
5.0 Educational Adequacy					
5.1	Size of Academic Learning Areas	y	25	Comparison of current SF to CEFPI standard of E= 900sf and PK&K=1200sf	Total classroom SF = 2,708; Kindergarten-2 = 1,412
5.2	Classroom space	y	0	Percentage of Classroom SF with alcoves or adjacent instructional space	No alcove areas in classrooms
5.3	Location of Learning Areas	y	10	Percentage of classrooms removed from noise or high traffic areas	Multi-purpose room on lower level
5.4	Personal space	y	0	Percentage of space for personal instruction relative to classroom space	No separated or adjoining area for personal instruction
5.5	Student storage space	y	10	Storage space for student articles	Coat hanging area in MP room; basket/tubs provided in classroom
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	15	Special learning area assessed as library space (15% x enrollment x 30sf)	Assigned space 1,201 sf
5.8	Configuration of specialized learning areas	y	10	Percentage of instructional areas poorly shaped	Computer lab narrow approximately 8% of total instructional area
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	2	Percentage of MP room compared to CEFPI standard 3750 sf with stage	
5.11	Pre-K / Kindergarten space	y	10	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	No pre-k offered. Room 110 k-2, 1512 sf
5.12	Music Room	y	2	Music room & storage compared to Charleston, SC standard 1200sf	No specific music room assigned
5.13	Art Room / area	y	0	Art room SF compared to CEFPI standard 900 sf	No specific art room assigned
5.14	Compute laboratory	y	2	Comparison of SF to Charleston, SC standard of 990 sf	Portion of library resource room assigned, 211 sf
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	2	Comparison of SF to Charleston, SC standard of 300 sf	Rooms 111 and 105 assigned, 128 sf
5.17	Teacher's lounge	y	4	Comparison of SF to Charleston, SC standard of 400 sf	Portion of administrative space, 200 sf
5.18	Cafeteria space	y	4	Comparison of SF to Charleston, SC standard of 5450 sf	MP room and portion of Room 115, 1,442 sf
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	0	Comparison of SF to CEFPI standard of 420 sf	No counseling area provided
5.21	Clinic Area	y	0	Comparison of SF to CEFPI standard of 500 sf	No clinic area provided
5.22	Reception Area	y	5	Comparison of SF to CEFPI standard of 200 sf	Room 113 and portion of 115, 329 sf
5.23	Administration office areas	y	2	Comparison of SF to CEFPI standard of 325 sf	Rooms 112 and 116, 228 sf
6.0 Educational Environment					
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	10	Presence and condition of trees, foundation plantings, and lawn	Extensive lawn, mature trees are present, foundation plantings at entrance
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	0	Presence of sheltered entrance and/or sheltered sidewalks	No sheltered entry or sheltered sidewalks present
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	6	Percentage of the building with both heating and cooling	No air conditioning provided to facility
6.8	Ventilation system	y	15	Percentage of the building with forced ventilation	AHU with HW reheat in attic serves entire building
6.9	Lighting	y	12	Percentage of area measured below standard	Three areas out of 18 measured below standard
6.10	Drinking fountains	y	15	Based on score and fixture portion of the plumbing score from FCA	Fixture score in FCA = 4
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	5	Corridor width (min. 8 feet) to encourage traffic flow	Limited hallways in facility, main hallway < 5 feet
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y	10	Configuration of gym, multi-purpose rm, library, music rm	Library area has alcove utilized as computer room
6.15	Acoustical treatment	y	5	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	Rooms generally ACT, VFT, and blinds at windows
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
		Total	236		

CEFPI Evaluation

General Information USER ENTER HERE	
Facility Name	1: YOUGH GLADES ELEMENTARY
BuildingCode	1
SiteCode	
Agency	Garrett County Board of Education
AgencyCode	
Location	70 Wolf Acres Drive
Zip_First3	215
County	Garrett
Year Built	1998
Date Surveyed	
Surveyor	PAULSWANSON
Cost Model Category	Single-story Educational Facility

M23 Single-story facility with common corridor serving larger rooms on one or both sides of corridors. Expected to have lighter frame construction and/or load bearing wall construction.

CEFPI Section	Section Description	Included yes/no	Score	Evaluation	Notes
1.0 Site					
1.1	Site Size	y	25	Relative to 10 ac. Plus 1 ac. Per 100 students	Overall site acreage is 22 acres, Approximately 8 ac currently used. Students
1.2	Site accessibility	y	10	1 mile walking, 30 minutes riding	Used an average bus trip (53 min.)
1.3	Location	y	5	Removed from traffic & undesirable business	School is adjacent to DOT facility with considerable truck traffic
1.4	Site Landscaping	n		Aesthetics of plantings	
1.5	Playground	y	10	Equipment factors; away from traffic, fencing, age appropriate, field play	Two playgrounds with fence separation, basketball, and field
1.6	Topography	n		Covered under section 1.7	
1.7	Site Stability & Drainage	y	5	Usable percentage of site	No drainage issues noted.
1.8	Site outdoor learning	y	4	Space for physical education	Site contains ball fields and picnic area
1.9	Pedestrian access	y	5	Pedestrian and vehicular safety; sidewalks on and off site, no through traffic	
1.1	Surface Parking	y	5	Parking considerations; sufficient parking for staff, pavement in good condition	
2.0 - 4.0 Building FCA					
5.0 Educational Adequacy					
5.1	Size of Academic Learning Areas	y	20	Comparison of current SF to CEFPI standard of E=900sf and PK&K=1200sf	Total classroom SF = 13,041; Kindergarten = 1,796; Pre-K = 1,796
5.2	Classroom space	y	15	Percentage of Classroom SF with alcoves or adjacent instructional space	Nearly all classrooms have shared special instructional space
5.3	Location of Learning Areas	y	10	Percentage of classrooms removed from noise or high traffic areas	Classrooms are separated into two academic wings
5.4	Personal space	y	8	Percentage of space for personal instruction relative to classroom space	Special instructional space approximately 6% of classroom space.
5.5	Student storage space	y	5	Storage space for student articles	Generally coat racks supplied
5.6	Storage for teacher materials	n		Condition covered under section 5.16	
5.7	Specialized learning areas	y	15	Special learning area assessed as library space	Library SF = 2,050; requirement due to enrollment = 1,539
5.8	Configuration of specialized learning areas	y	10	Percentage of instructional areas poorly shaped	Approximately 8% of instructional area odd shaped
5.9	Library/ Media Center	n		Condition covered under section 5.7	
5.10	Gymnasium / Multi-purpose	y	5	Percentage of MP room compared to CEFPI standard 3750 sf with stage	Total SF = 3876; Above CEFPI standard
5.11	Pre-K / Kindergarten space	y	4	Percentage of average Pre-K, K space to CEFPI standard = 1200sf	Room size for Pre-K & K approximately 75% of standard
5.12	Music Room	y	2	Music room & storage compared to Charleston, SC standard 1200sf	No dedicated room, storage only
5.13	Art Room / area	y	0	Art room SF compared to CEFPI standard 900 sf	No art room provided
5.14	Computer laboratory	y	2	Comparison of SF to Charleston, SC standard of 990 sf	Computer lab 712 sf; approximately 72% of Standard
5.15	Small group instruction area	n			
5.16	Storage space for materials	y	2	Comparison of SF to Charleston, SC standard of 300 sf	Assigned storage space for academic purposes is 95 sf
5.17	Teacher's lounge	y	10	Comparison of SF to Charleston, SC standard of 400 sf	Assigned SF = 414
5.18	Cafeteria space	y	6	Comparison of SF to Charleston, SC standard of 5450 sf	Assigned SF to student dining = 4,555
5.19	Administration office areas	n		The evaluation of this factor is subject to current trends	
5.20	Counselor's and specialized areas	y	5	Comparison of SF to CEFPI standard of 420 sf	Assigned SF = 411
5.21	Clinic Area	y	2	Comparison of SF to CEFPI standard of 500 sf	Assigned SF = 289
5.22	Reception Area	y	5	Comparison of SF to CEFPI standard of 200 sf	Assigned SF = 657
5.23	Administration office areas	y	5	Comparison of SF to CEFPI standard of 325 sf	Assigned SF = 356
6.0 Educational Environment					
6.1	Aesthetics of Design	n		The evaluation of this factor is subject to current trends	
6.2	Site & Buildings Landscape	y	6	Presence and condition of trees, foundation plantings, and lawn	No foundation planting. Extensive lawn. Young trees present
6.3	Exterior noise	n		Covered under section 1.3	
6.4	Entrances and walkways	y	10	Presence of sheltered entrance and/or sheltered sidewalks	Covered entry. Covered sidewalk adjacent to entry
6.5	Aesthetics of Building Materials	n		The evaluation of this factor is subject to current trends	
6.6	Aesthetics of Building Interiors	n		The evaluation of this factor is subject to current trends	
6.7	Temperature & Humidity	y	6	Percentage of the building with both heating and cooling	Library and office area only served with AC
6.8	Ventilation system	y	15	Percentage of the building with forced ventilation	100% of facility served with mechanical ventilation
6.9	Lighting	y	12	Percentage of area measured below standard	12 areas out of 75 measured below standard
6.10	Drinking fountains	y	15	Based on score and fixture portion of the plumbing score from FCA	Fixture portion of plumbing in FCA score = 4
6.11	Common areas	n		Covered as part of the multi-purpose room	
6.12	Interior flow of traffic	y	10	Corridor width (min. 8 feet) to encourage traffic flow	Corridor width = 8 feet
6.13	Small group communication areas	n		Not evaluated for elementary age students	
6.14	Large group management	y	10	Configuration of gym, multi-purpose rm, library, music rm	Configuration of library creates separated instructional areas
6.15	Acoustical treatment	y	7	Inclusion of carpeting, acoustical ceiling tiles, window fabrics for classrooms	Inclusion of ACT and carpet in most classrooms
6.16	Windows	n		Covered under FCA effort	
6.17	Furniture & Equipment	n		The evaluation of this factor is subject to current trends and school policy	
		Total	291		

Appendix F

School Floor Plans

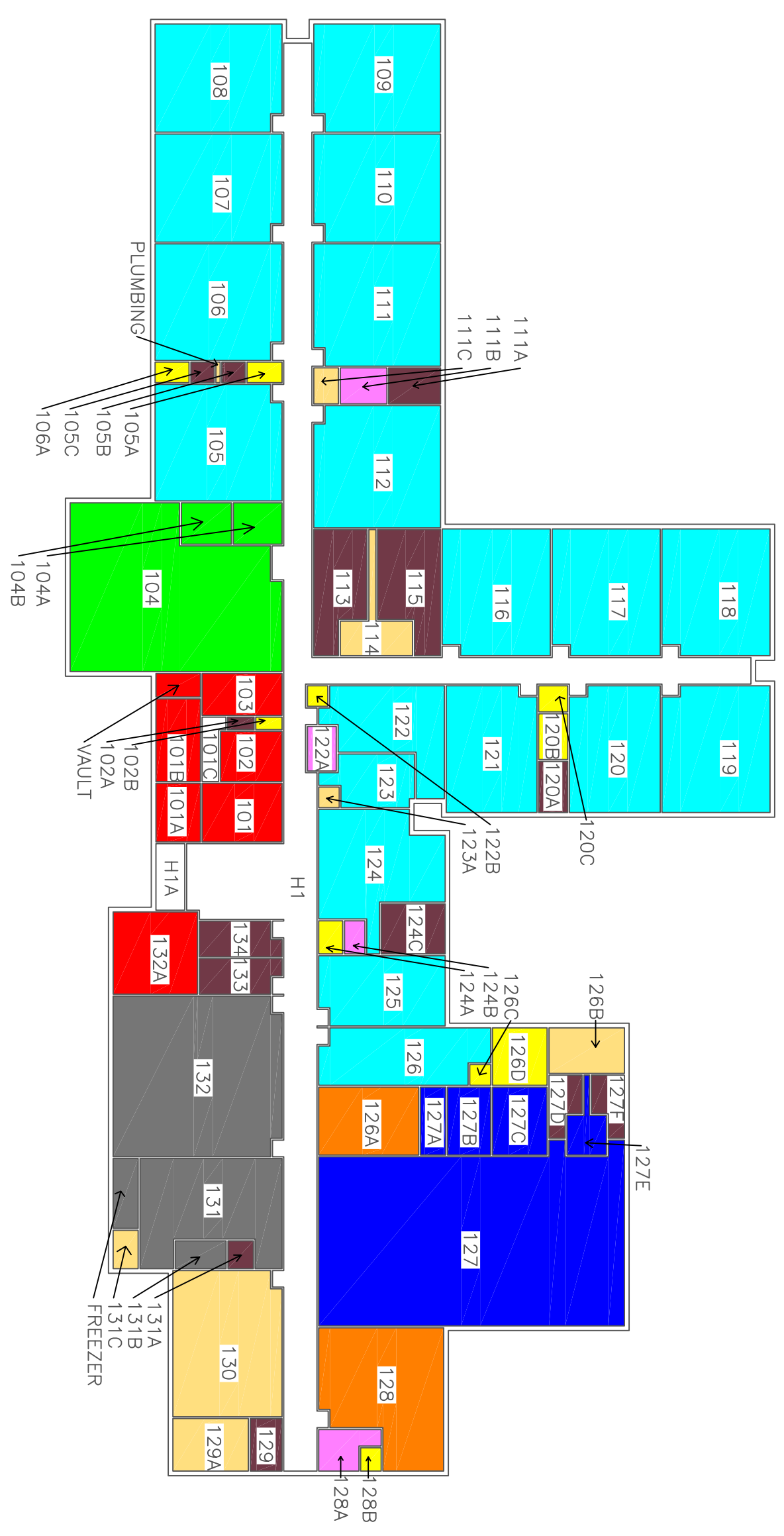
PROFESSIONAL SEAL	
NO.	DATE

**ACCIDENT ELEMENTARY
LEVEL 1**

CLIENT	PROJECT
GARRETT COUNTY PUBLIC SCHOOLS	NEEDS ASSESSMENT
40 SOUTH SECOND STREET	ACCIDENT ELEMENTARY
OAKLAND, MD 21550	OAKLAND, MARYLAND

DESIGNED	DATE
GCB	9/15/13
DRAWN	SCALE
GCB	1:30
CHECKED	PROJECTING
PS	R01.2013.007735
APPROVED	CADD FILE
PS	ACCIDENT

WRITTEN DIMENSIONS, WHERE PROVIDED, GOVERN OVER ALL OTHER DIMENSIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL DIMENSIONS AND SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF ANY NEW MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND DISCOVERIES. DISCREPANCIES.



LEGEND

CLASSROOM	PHYSICAL EDUCATION
LABORATORY	ADMINISTRATION
INSTRUCTIONAL SUPPORT	ASSIGNED STORAGE
LIBRARY/MEDIA CENTER	PUBLIC RESTROOMS
ASSEMBLY	HORIZONTAL CIRCULATION
STUDENT DINING	VERTICAL CIRCULATION
BUILDING SUPPORT	OPEN SPACE
COVERED WALKWAYS	COURTYARDS
UNASSIGNED SPACE	HALLWAY DIVIDER

PROFESSIONAL SEAL	
NO.	DATE

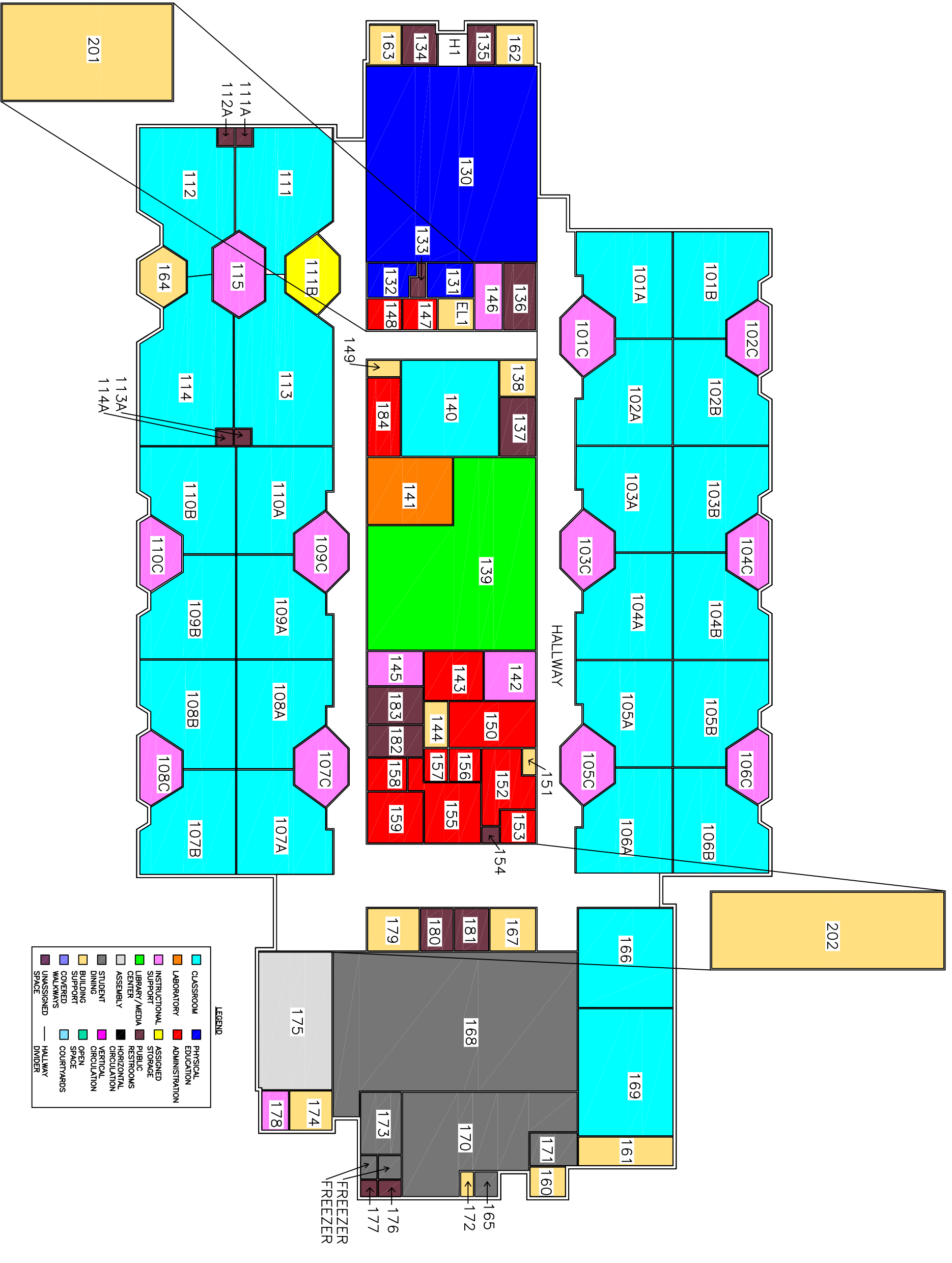
**BROAD FORD ELEMENTARY
LEVEL 1**

PROJECT: GARRETT COUNTY PUBLIC SCHOOLS NEEDS ASSESSMENT
 40 SOUTH SECOND STREET BROAD FORD ELEMENTARY
 OAKLAND, MD 21550 OAKLAND, MARYLAND

CLIENT: GARRETT COUNTY PUBLIC SCHOOLS

DESIGNED	DATE	9/15/13
DRAWN	SCALE	1:30
CHECKED	PROJECT NO.	R012013007735
APPROVED	CADD FILE	BROAD FORD

WRITTEN DIMENSIONS, WHERE PROVIDED, GOVERN OVER ALL OTHER DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS OF ANY NEW MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS OF ANY NEW MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS OF ANY NEW MATERIALS.



PROFESSIONAL SEAL	
NO.	DATE

**CRELLIN ELEMENTARY
LEVEL 1**

<p>CLIENT GARRETT COUNTY PUBLIC SCHOOLS 40 SOUTH SECOND STREET OAKLAND, MD 21550</p>	<p>PROJECT NEEDS ASSESSMENT CRELLIN ELEMENTARY OAKLAND, MARYLAND</p>
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DESIGNED	DATE
DRAWN	SCALE
CHECKED	PROJECT NO.
APPROVED	SABO FILE
PS	CRELLIN

WRITTEN DIMENSIONS, WHERE PROVIDED, GOVERN OVER ALL OTHER DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS OF ANY NEW MATERIALS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES.

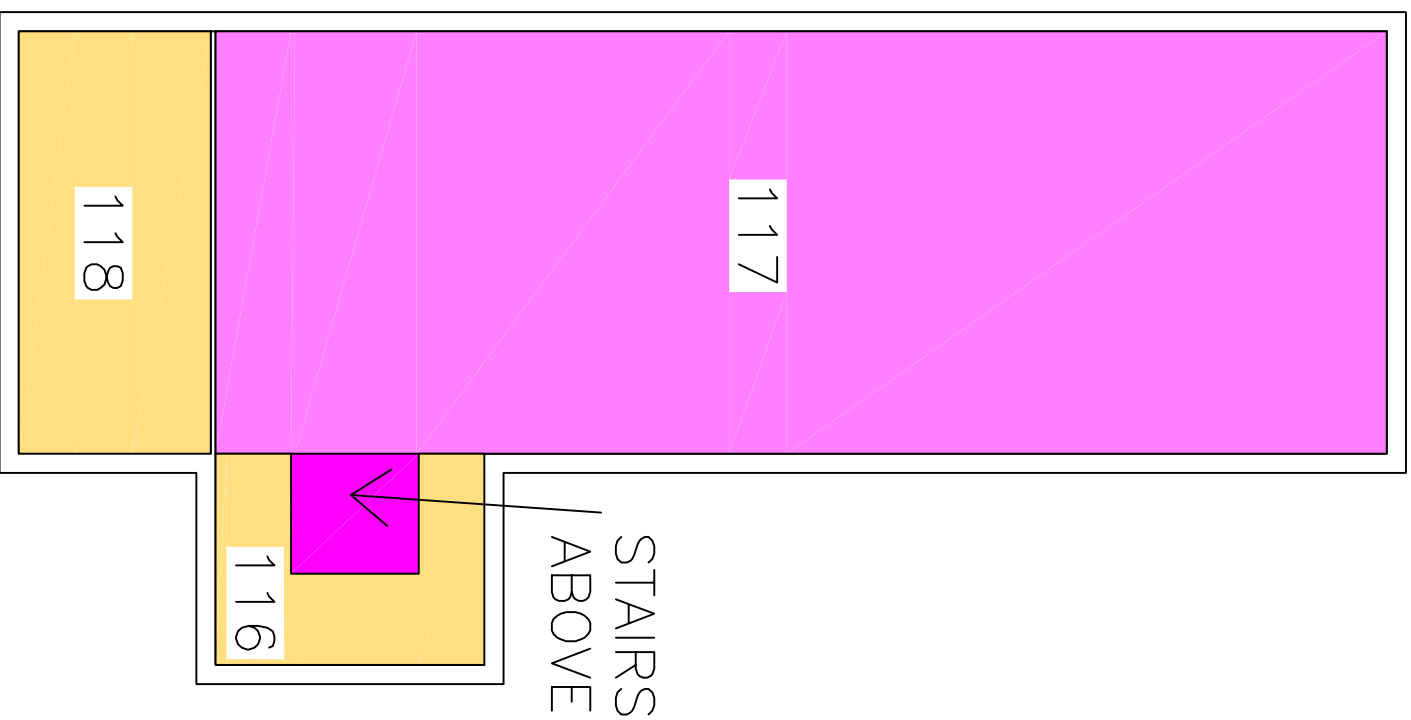


LEGEND

CLASSROOM	PHYSICAL EDUCATION
LABORATORY	ADMINISTRATION
INSTRUCTIONAL SUPPORT	ASSIGNED STORAGE
LIBRARY/MEDIA CENTER	PUBLIC RESTROOMS
ASSEMBLY	HORIZONTAL CIRCULATION
STUDENT DINING	VERTICAL CIRCULATION
BUILDING SUPPORT	COURTYARDS
COVERED WALKWAYS	HALLWAY DIVIDER
UNASSIGNED SPACE	

LEGEND

	CLASSROOM		PHYSICAL EDUCATION
	LABORATORY		ADMINISTRATION
	INSTRUCTIONAL SUPPORT		ASSIGNED STORAGE
	LIBRARY/MEDIA CENTER		PUBLIC RESTROOMS
	ASSEMBLY		HORIZONTAL CIRCULATION
	STUDENT DINING		VERTICAL CIRCULATION
	BUILDING SUPPORT		OPEN SPACE
	COVERED WALKWAYS		COURTYARDS
	UNASSIGNED SPACE		HALLWAY DIVIDER



SWAN MEADOW ELEMENTARY
 LOWER LEVEL

CLIENT: GARRETT COUNTY PUBLIC SCHOOLS NEEDS ASSESSMENT
 40 SOUTH SECOND STREET SWAN MEADOW ELEMENTARY
 OAKLAND, MD 21550 OAKLAND, MARYLAND

PROFESSIONAL SEAL	
NO.	DATE

DESIGNED	DATE	9/15/13	
DRAWN	KMW	SCALE	1:10
CHECKED	PS	PROJECT NO.	R012013007735
APPROVED	PS	SHEET FILE	SWAN MEADOW

WRITTEN DIMENSIONS, WHERE PROVIDED, GOVERN OVER ALL OTHER DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL DIMENSIONS AND SHALL BE RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF ALL DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF ALL DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF ALL DIMENSIONS.

Appendix G

Transportation Study



**School Bus
Consultants**

TRANSPORTATION IMPACT ANALYSIS

Garrett County Public Schools

October 28, 2013



October 28, 2013

Mr. Paul G. Swanson, P.E.
Principal
Facility Engineering Associates, P.C.
12701 Fair Lakes Circle, Suite 101
Fairfax, VA 22030

Dear Mr. Swanson:

The enclosed report duplicates and expands upon the content of the presentation materials provided to you on October 27, 2013. It is designed to provide a more comprehensive overview of the work SBC completed in analyzing the transportation cost and service implications for the four school facility and grade realignments being considered by the Garrett County Public Schools. While we believe the assessment is complete and accurate given the data and timelines available for the analysis, we recommend caution in overreliance on these results. Rather, we believe they should be considered as a preliminary assessment. Further analysis should be conducted to better understand the likely impacts of any actual realignment decision being considered by the GCPS.

I, and the entire team at School Bus Consultants, LLC appreciate the opportunity of working with you on this important project and look forward to a mutually beneficial and reciprocal relationship in the future. Please do not hesitate to contact me with any questions you may have regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Ammon', with a stylized flourish above the first name.

Tim Ammon
Vice President of Business Development



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Scenario 4 Transportation Impact Assessment	18



Introduction

Facility Engineering Associates, P.C. engaged School Bus Consultants, LLC (SBC) to conduct a Transportation Impact Analysis for a series of four potential school building and grade realignments currently being considered by the Garrett County Public Schools (GCPS). The report that follows documents the results of the analysis, and SBC's assessment of the likely cost and service quality implications were each of the four scenarios to be implemented. We begin with a description of our analytical approach and the assumptions and constraints built into the analysis. This is followed by an overview of the current GCPS student transportation network, which provides necessary context for the analysis and understanding of each scenario, a sequential description of which follows the system overview.

Analytical Approach

The primary tools utilized in the analysis were a baseline understanding of the current cost and service quality of the GCPS transportation system and GIS based mapping of students, bus stops, and school buildings. These tools facilitated SBC's ability to make educated judgments as to which group of students would be impacted by each scenario and, by association, the likely impact the movement of each group from one school location to another would have on the existing transportation network. This approach whereby the changes prompted by each scenario were considered in the context of holding the remaining transportation system constant is prevalent throughout our construction of each scenario. The cost inputs were gleaned from existing expenditures and transportation contract terms, while expected changes to bus routes were determined through examination of existing bus stop locations, the likely placement of new bus stops, and the additional miles and time that would be added to existing bus routes when servicing the student groups impacted in each scenario.

Analytical Assumptions & Constraints

The specific assumptions and modeling constraints SBC built into the analysis are summarized below. The overarching objective in modeling each scenario was to seek solutions that minimize the impact of the facility and grade realignment on overall transportation costs and student ride times. In this context, student ride times were utilized as a primary measure of, and surrogate for other measures of service quality. Specifically, the assumptions and constraints used in each scenario are:

- Minimizing cost impacts was the predominant factor; an increase in average student ride times on existing bus routes was assumed preferable to adding route buses to the transportation network.
- All of the current route buses would be available in all scenarios (i.e., the closing of a school did not presume any reduction in buses available).
- The number of students who change schools should be minimized.
- In no instance were new bus routes developed; Time and distance estimates assumed reasonable changes to existing routes would be preferred.
- Driver salary costs were assumed to start at the first live bus stop (i.e., the first stop where students board the bus).



- School bell times were held constant.
- Sufficient existing capacity was assumed to exist on current bus routes; SBC limited the number of students that would be added to any existing route, but this assumption is significant given the absence of data on current capacity utilization.

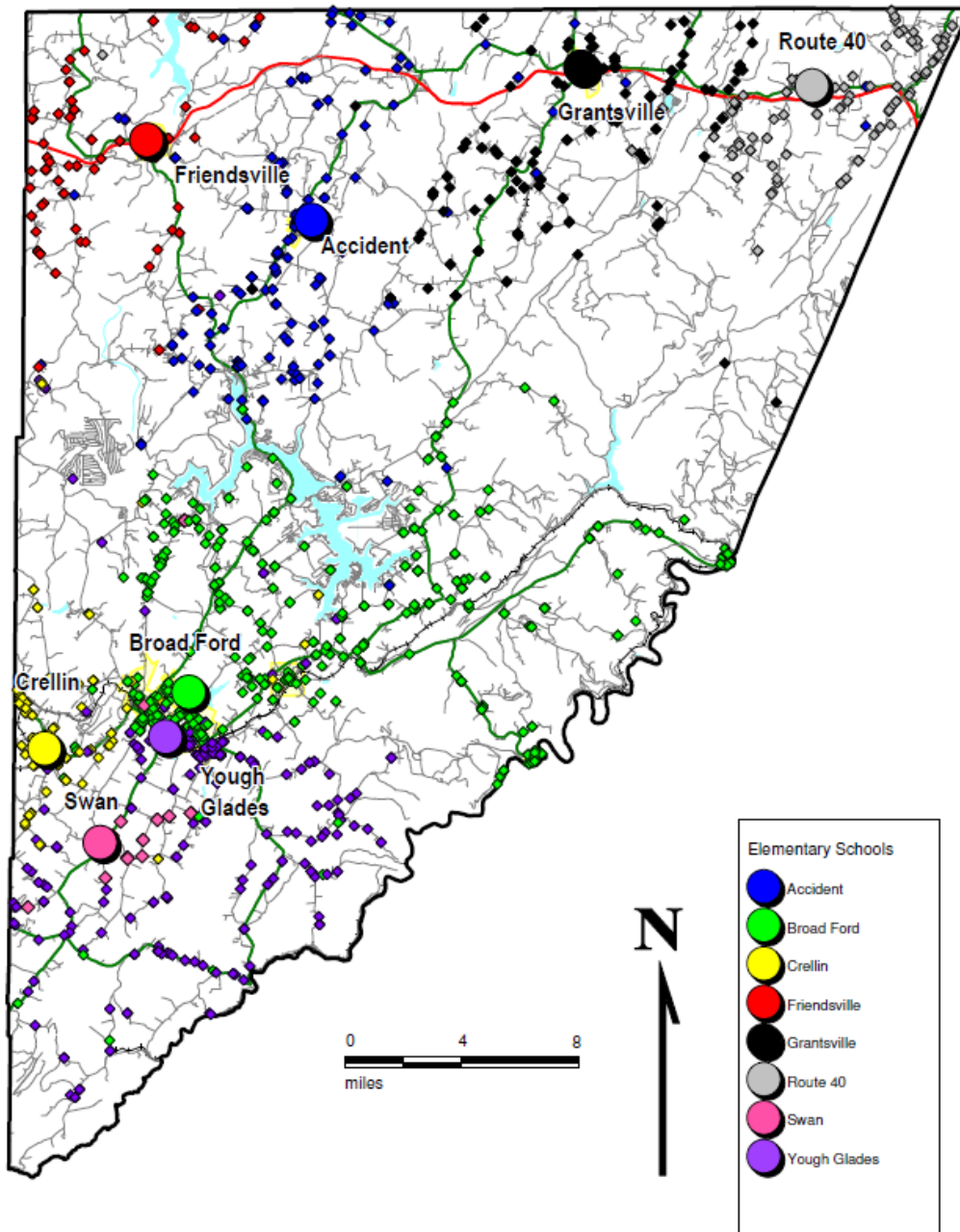
System Overview

A general overview of the transportation system as it currently exists provides important context for the SBC analysis and the reader's understanding of each scenario for change. Figure 1 on the following page begins this by providing a visual representation of the students currently assigned to each of the existing elementary schools. An examination of the spatial relationship between student residence location and school of assignment yields important clues as to the feasibility of realigning or changing these relationships.

What becomes apparent from a close examination of the image is that based on proximity the students currently attending Broad Ford present the best opportunity, and are therefore the most likely to be impacted by any transition of students currently attending schools in the south to those in the north end of the county. There is a limited population of Yough Glades students (the purple dots in Figure 1) that could also move, but that number is very limited.

The primary constraint recognized in this overall finding is that ride times for other students would be too negatively impacted. The distance travelled would result in many students experiencing one-way ride times well in excess of 90 minutes, which was assumed to be unacceptable. Also of note in this overview map is that any movement of students from south to north will have to contend with natural boundaries such as the Deep Creek Lake and mountain roads that are major natural features of the area, and not adequately apparent from this two-dimensional presentation. While not a constraint theoretically, they are a constraint in fact as all estimates of time and cost in the analysis are predicated on normal operating conditions. Winter driving and other conditions will exacerbate those estimates.

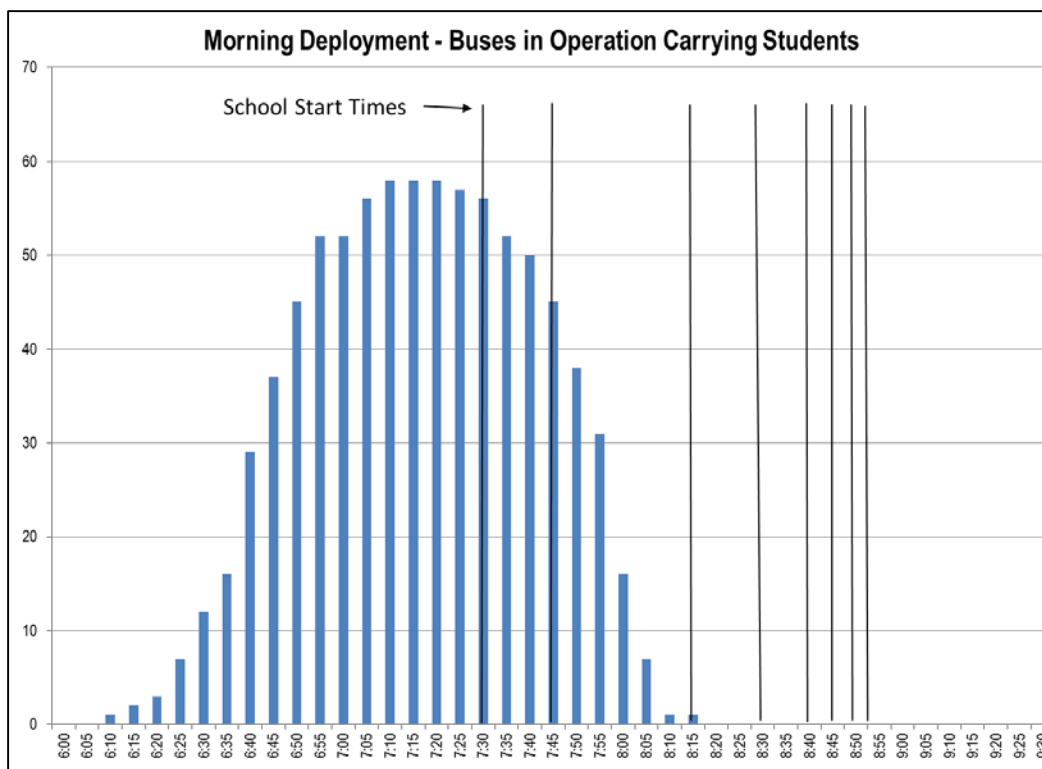
Figure 1 – Current System Overview; Students and Schools



To better appreciate the impact of any school closures or student movements on transportation operations it is also necessary to understand the current deployment of the bus fleet, and the resulting cost effectiveness of the current system. Figure 2 below provides an illustration of the live time (time when students are actually on board the bus) to all schools in the morning panel. The chart demonstrates how, in the morning, the

predominance of all bus routes are both collecting students from multiple schools and arriving at school sites early, in some instances very early. A consideration of the chart indicates to SBC that, based on our experience, because buses are already serving multiple schools the addition of students from the southern portion of the county to the northern portion of the County can generally be accomplished by extending existing bus routes and not by adding new buses. This is an important implication in that the primary cost increases will therefore be incremental “rolling costs” (e.g., fuel, wear and tear on the buses, incremental driver wages) and not the fixed costs associated with the addition of new bus contracts.

Figure 2



Analysis of the deployment of the fleet in the afternoon provides a similar picture as the morning. However, existing variability in the length of the instructional school day at various schools allows for some routes to be tiered. Instead of combining students from multiple schools on a single bus route, tiering is when a bus collects students from a single school, drops them all off, and then proceeds to another school to collect a second group of students. Here the primary concern is that transferring students from the north to the south or across greater distances east/west in the county will upset this tier balance. The impact of upsetting that balance is unclear without further analysis but may result in the need for additional buses in the afternoon panel, or a decrease in service quality as student wait time at school for buses to arrive is increased.

Figure 3

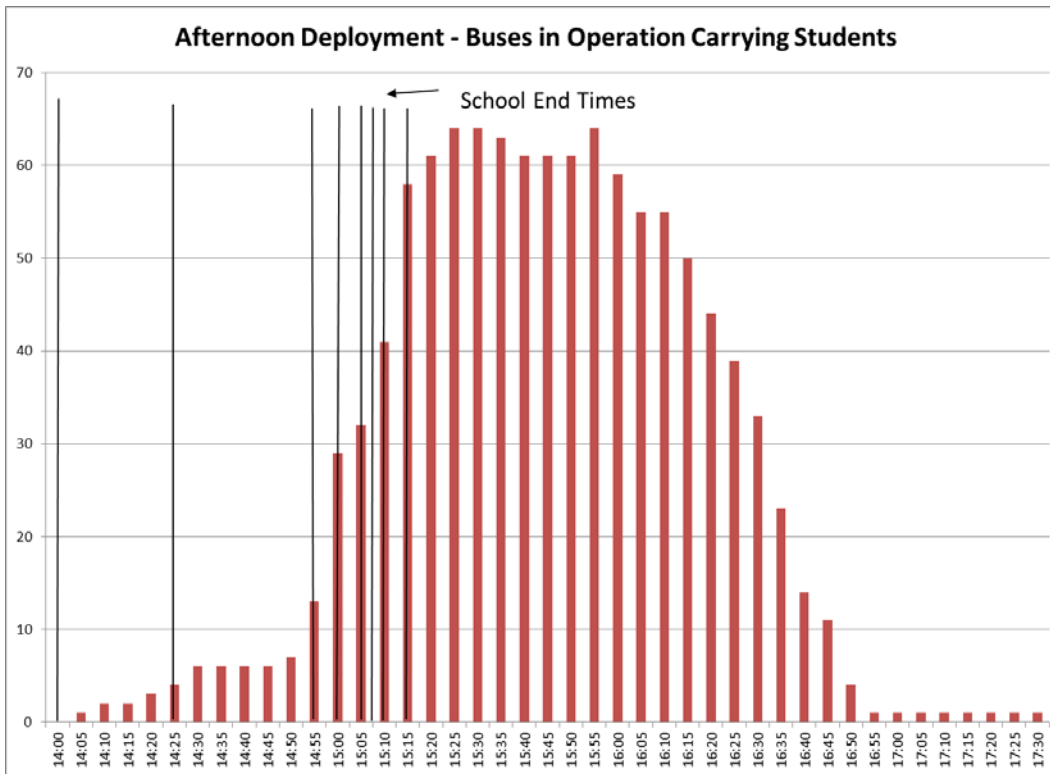
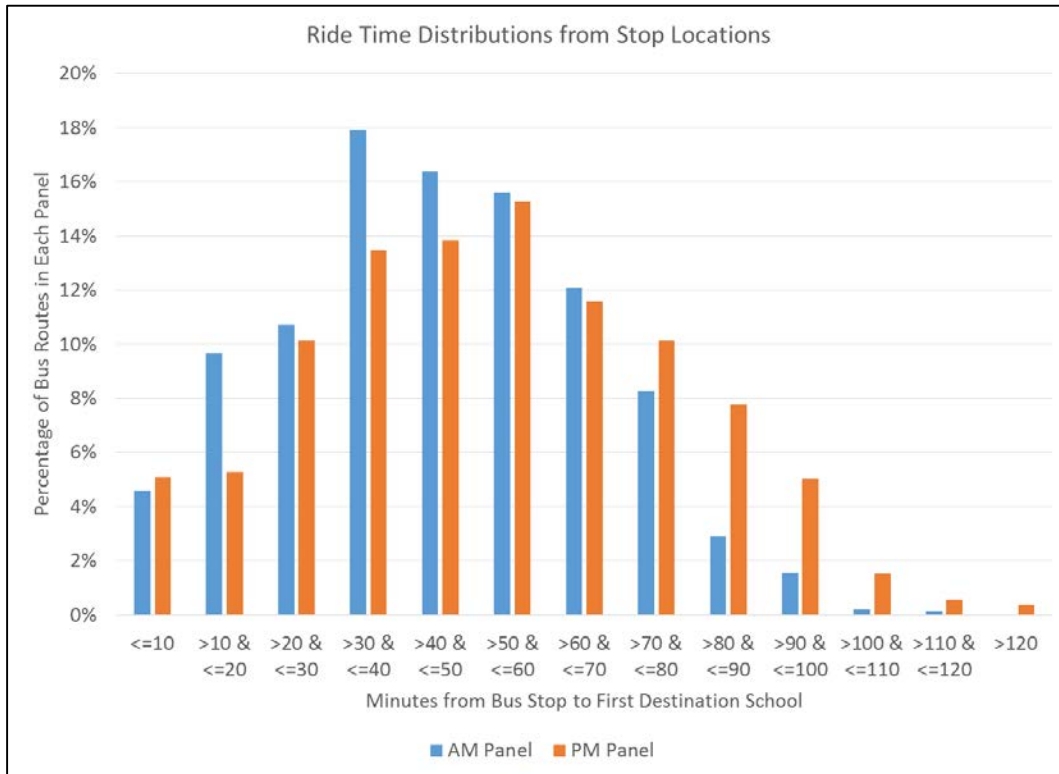


Figure 4 on the following page provides a final view of the current system that is critical to understanding the impact of the scenarios under consideration. The distribution of current bus ride times for students is illustrated in 10 minute increments. These ride times are calculated from current stop locations across the county. Data to calculate actual student ride times was not available for this analysis. The limitation imposed is that the load at each stop is not known. Therefore the actual distribution may be different than displayed here.

Currently, the longest bus route time is over two (2) hours and the average ride time from existing bus stops to the destination school is approximately 39 minutes. It is these values, a primary measure of service quality, against which the four scenarios are assessed. Figure 4 also demonstrates that ride times are generally shorter in the morning than they are in the afternoon.

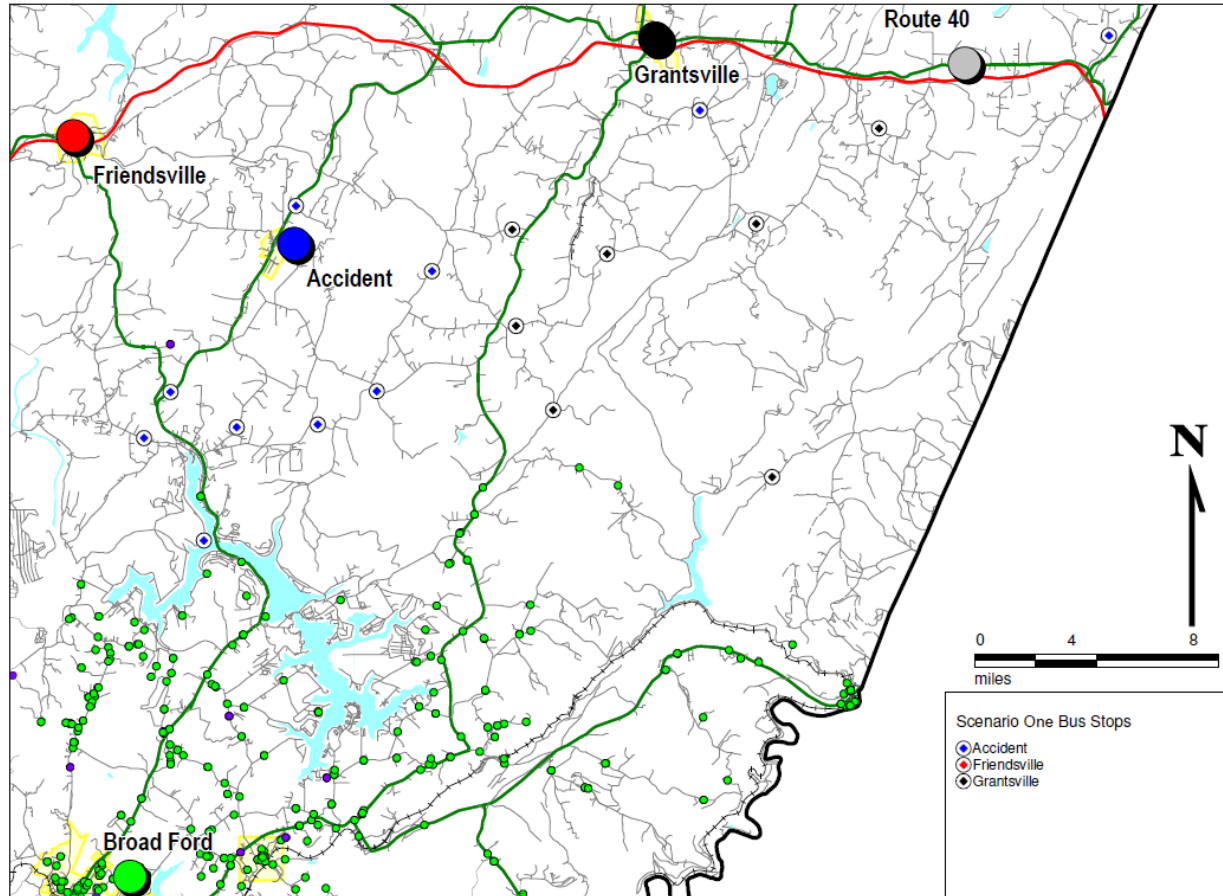
Figure 4



Scenario 1 Analysis

This first scenario involves no school closures and the transfer of students from Broad Run and Yough Glades to the northern elementary schools. Figure 5 below displays a map where the green dots represent Broad Ford students in all grades and the purple dots represent Yough Glades students in all grades. Each of the dots with a circle around it represents the current first bus stop on an existing bus route that has the associated school (by color) as the first student drop off location. These routes were selected because in instances where buses are serving multiple schools, those routes generally have the longest current ride times. Therefore by focusing on this subset of routes for consideration in the analysis SBC is attempting to minimize the negative impact on average ride times to the greatest extent possible, as these are the only routes that would be lengthened and, as a group, have the shortest current overall length as measured by time.

Figure 5 – Scenario 1 Analysis



An examination of Figure 5 offers the following insights:

- Broad Run students are the most feasible to move as their current locations extend furthest up to the north.
- Accident and Grantsville represent the most feasible target schools as they are the most accessible given the existing route structure.
- At least six (6) bus routes would have to be extended to accommodate moving approximately 94 students; more may be required depending on how many students are actually riding each bus (these data were not available for the analysis).

SBC applied the analytical techniques described in the introduction and, using these findings, believes that this is likely to increase average student ride time for the affected students to nearly 75 minutes from the current 60 minutes. This applies to students placed on current bus routes where Accident Elementary is the first stop, and as a result of the students formerly at Broad Ford coming north to attend the two target schools. SBC also concludes that this scenario would increase the maximum ride time for any one student to approximately 90 minutes, assuming attendance at



Accident. Existing Grantsville bus routes are already very long, and this change would increase average ride times to greater than 90 minutes were these students reassigned to Grantsville instead of Accident.

SBC calculated that, on average, an additional 50 miles of travel time would be required by the affected bus routes to collect the Broad Run/Yough Glades students. We assume an road speed of 18 miles per hour. This is a common starting assumption for school bus routing on most roadways that accounts for actual travel speed plus stopping for student pickups and drop offs. Actual travel speed in the GCPS may vary. Using these calculations and assumptions, we calculate that this would equate to an aggregated 146 additional minutes or approximately 2.5 hours of time in the morning and the same in the afternoon for each school day. Assuming 180 school days, that would then equate to an additional 18,000 miles per year (50 miles * 2 times per day (AM&PM) * 180 days). Using the existing contract rate of \$1.5954 per mile, we calculate the resulting cost impact at \$28,717 per year in mileage charges alone. There would also be additional driver labor charges aggregated at approximately 5 hours per day for 180 days times the contract rate of \$17.82 per hour for a labor cost increase of \$16,816. This assumes drivers are paid from the first student picked up to the end of the run. Any additional deadhead time or miles would further increase the cost impact. Overall, this analysis indicates an estimated cost increase of \$44,755 per year for this option.

Of note, additional incremental changes to transfer student from Yough Glades to Broad Ford in order to balance school overcrowding would have a limited transportation impact as there are currently combination routes serving both schools that would be easily redesigned to accommodate this change.

Scenario 1 Transportation Impact Assessment

Financial impact:

- Cost increase of \$43,000 to \$50,000 per year

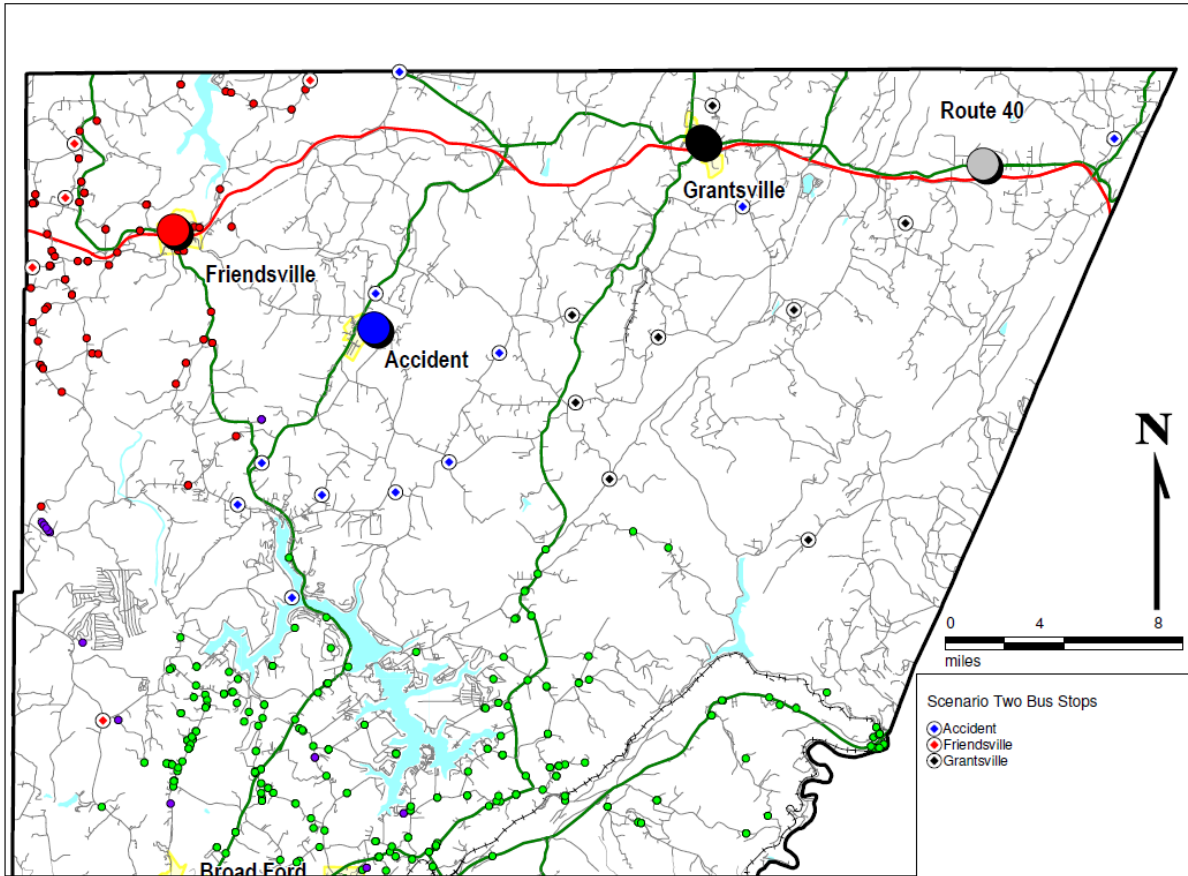
Operational impact:

- Students coming from Broad Ford and Yough Glades will experience significant ride time increases.
- Maximum ride times will increase to approximately 90 minutes.
- The scenario will require reconfiguration of several bus routes.
- Consideration should be given to any winter driving impacts with routes moving south to north.

Scenario 2 Analysis

This scenario includes the closing of Friendsville School and an effort to alleviate overcrowding at Broad Ford and Yough Glades by transferring students north. On Figure 6 below, the red dots represent Friendsville students, the green dots represent Broad Ford students in all grades, and the purple dots represent Yough Glades students in all grades. As with the Scenario 1 analysis, each of the dots with a circle around it represent the first bus stop for a bus run that has the associated school (by color) as the first point of drop off (e.g., red dots with circles are bus routes currently serving Friendsville). These routes were again selected because in instances where bus runs are serving multiple schools, those routes already had the longest ride times. Therefore by selecting this subset of routes we are attempting to minimize the negative impact of ride times to the greatest extent possible.

Figure 6 – Scenario 2 Analysis



Analytical considerations and findings in this scenario, in addition to the timing and costing assumptions and constraints considered in scenario 1, included the following:

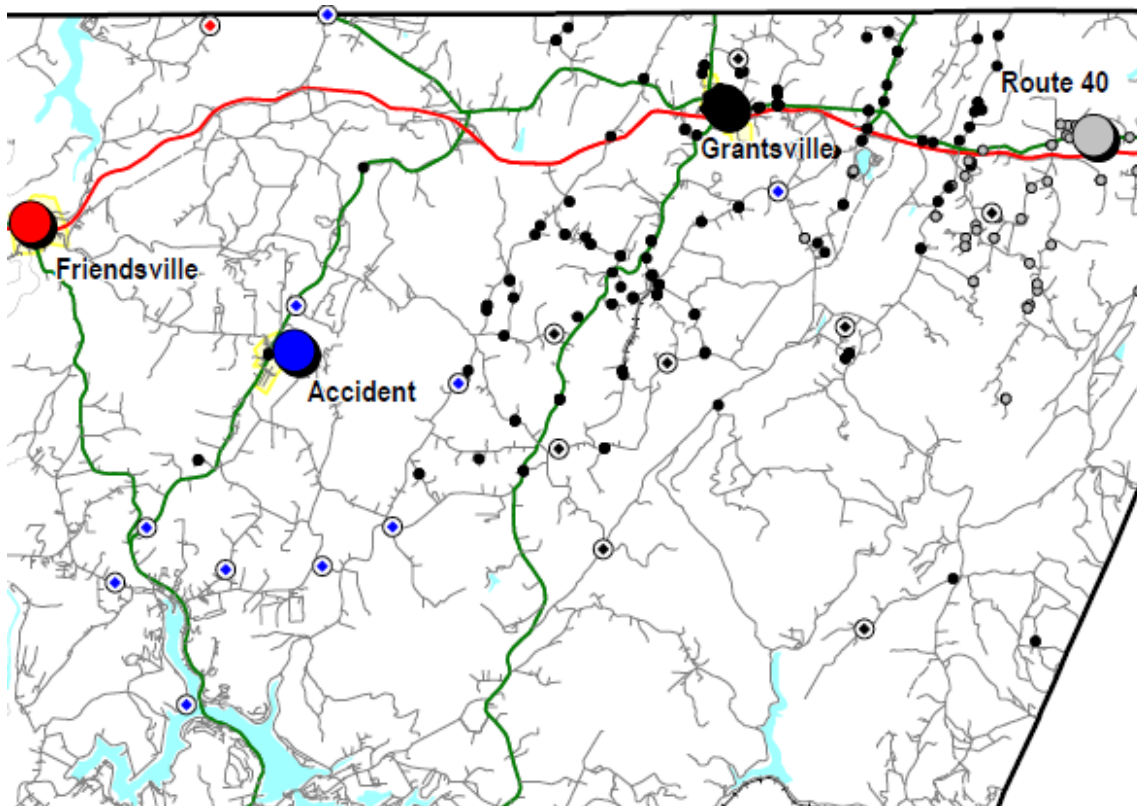
- Buses previously dedicated to Friendsville will be used to serve both Accident and Grantsville Elementary.
- The use of the Friendsville buses will allow buses serving Accident and Grantsville to be diverted south from their traditional route in a way that less negatively impacts ride times than in Scenario 1.
- Broad Run students are again the most feasible to move as they extend furthest up to the north.
- Accident and Grantsville again represent the most feasible target schools as they are most accessible given the existing route structure and have the most available room.
- We see Route 40 School as an option only if the desire is to also shift some students from Grantsville to Route 40 to make room for additional Broad Run students. Our perception is that this solution is fraught with potential problems.
- At least four (4) bus routes would have to be extended to accommodate moving the approximately 60 students.

Our assessment is that this scenario is likely to increase average student ride time somewhat less than in Scenario 1 due to the availability of the current Friendsville routes to alleviate some of the burden on existing Accident and Grantsville routes. However, we still believe that average ride times will increase to between 60 and 75 minutes for each of the schools with some rides exceeding 90 minutes for students moving from south to north.

Following the same calculation logic as in Scenario 1, an additional 45 miles of travel time to collect the Broad Run/Yough Glades students at a travel time of 18 miles per hour. That would equate to approximate 145 additional minutes or approximately 2.5 hours of time in the morning and the same in the afternoon for each school day. Assuming 180 school days, that would equate to an additional 16,200 miles per year (45 miles * 2 times per day (AM&PM) * 180 days). Using the existing contract rate of \$1.5954 that would result in \$25,846 per year in mileage charges. There would be also be additional labor of approximately 5 hours per day for 180 days times the contract rate of \$17.82 per hour for a labor cost increase of \$16,038. This would result in an estimated cost increase of \$41,884 per year for this option.

In order to create the required bus capacity for Scenario 2 while minimizing ride time impacts, SBC believes it is likely that some students would also have to be shifted from Grantsville to Route 40 elementary. Existing bus stops and routes serving Route 40 exist within the vicinity of some Grantsville students, so the overall transportation impact on those students is likely to be limited. This is illustrated in Figure 7 below.

Figure 7 – Route 40 Students and Routes





Scenario 2 Transportation Impact Assessment

Financial impact:

- Cost increase ranging from approximately \$39,800 to \$46,000

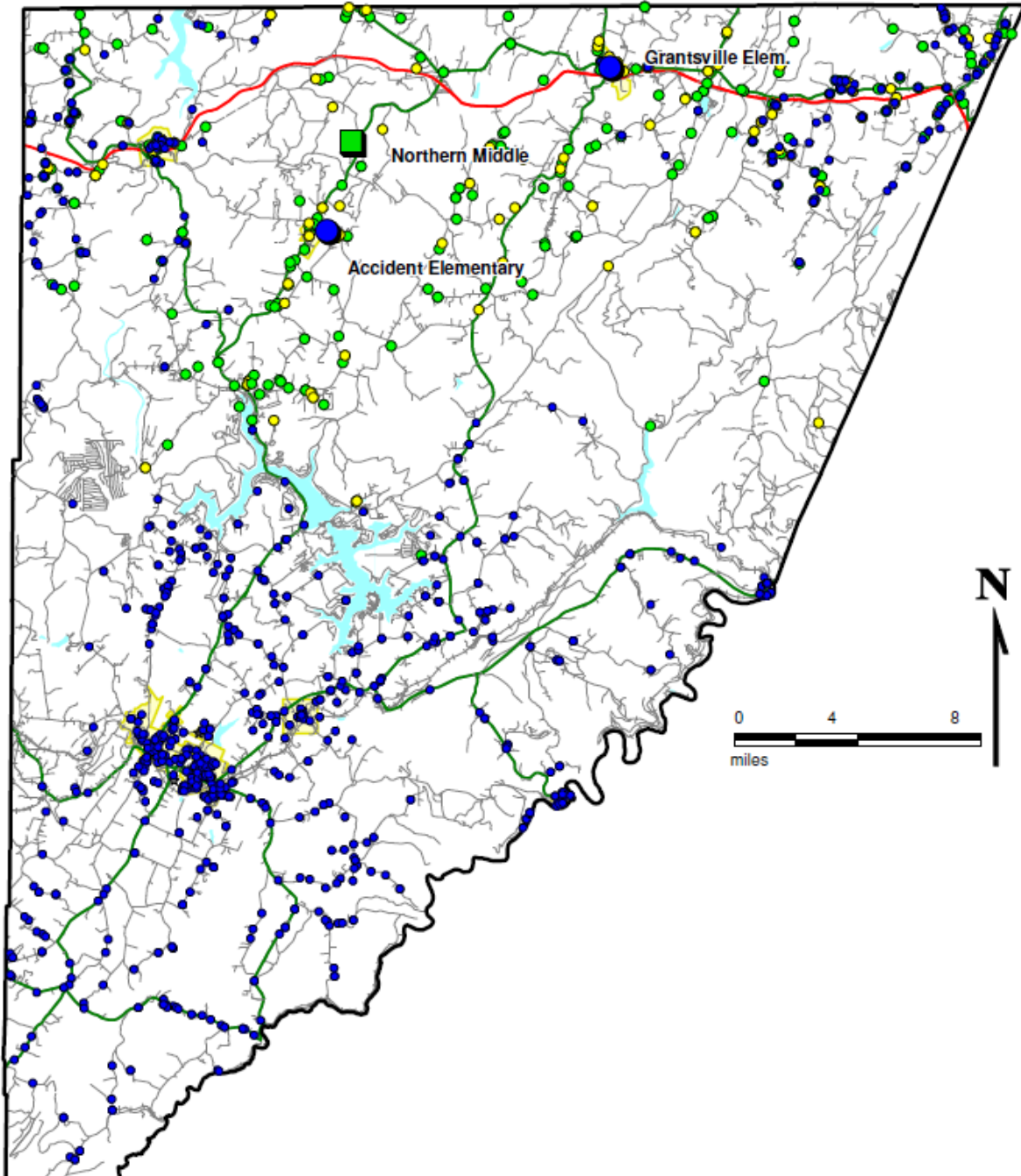
Operational impact:

- Maximum ride times will increase to approximately 90 minutes.
- Domino effect will likely require movement of students from Friendsville, Accident, Grantsville, Broad Run and Yough Glades.
- Route redesign will be more significant here than in Option 1.

Scenario 3 Analysis

This option includes the closing of Friendsville Elementary and Route 40 Elementary schools, the transfer of Grade 5 students to Northern Middle School, and the use of existing capacity in northern elementary schools to alleviate limited overcrowding at Broad Ford and Yough Glades. In Figure 8 on the following page, the blue dots represent students from Friendsville, Route 40, Broad Ford, and Yough Glades elementary schools as these are the students that would require or potentially require (in the case of Broad Run) transportation to a different school. In addition, the green dots represent students currently attending Northern Middle School and the yellow dots represent 5th grade students that would attend Northern Middle in this option.

Figure 8 – Scenario 3 Analysis



The SBC analysis for this scenario indicates that the buses currently serving Friendsville and Route 40 would be used to transport students to all schools up north. This would require the development of new school combinations on bus



routes as there are currently no routes that serve this combination of schools (the current combination routes are elementary/middle/high combinations). This represents a significantly more intense effort from a transportation perspective and also requires us to be more conservative in our estimates as the changes required are likely to be systemic and not just incremental on existing routes.

The distribution of green and yellow dots indicates that inclusion of 5th grade students at middle school is unlikely to have a significant impact as there are existing bus routes serving students that are proximal to nearly every student that would be transferred. We do not believe that this change, in isolation, would have any significant impact on either ride time or cost.

There are nine (9) routes serving Friendsville and Route 40 and 18 routes serving Accident and Grantsville. These 27 buses would be used to serve all students at the two remaining elementary schools and the middle and high schools.

The distribution of students currently attending Friendsville and Route 40 elementary (especially those students in the extreme Northeast and Northwest) will result in selected bus routes that are at approximately 75 to 90 minutes in length. The current averages for the runs serving these two (2) schools are both approximately 60 minutes with a range of 43 minutes to 86 minutes. The need to combine students formerly on these buses plus students attending Accident and Grantsville will result in ride time increases. Until the system is rerouted it is not possible to fully assess the impact on the students currently attending Accident and Grantsville but it is likely to increase both overall average ride length across all students and increase current maximum ride times.

The total additional cost for this option must be broken out by each school served within the option, as follows:

- *Assuming all students from Friendsville are still picked up on Friendsville buses.* The only change would be for the three (3) buses to now service Accident and two (2) to Grantsville instead. The distance from Friendsville to Accident would result in total additional miles for these three (3) buses of per day of 42. Total additional annual miles would be 7,560. Total additional mileage cost would be \$12,061. Total additional driver time per day would be 2.3 hours and time per annum 414 for total additional labor costs of \$7,377. The total annual cost impact for this change would therefore be \$19,438.
- *For the two (2) buses going to Grantsville* the distance from Friendsville to Grantsville is 16 miles. The total additional miles per day would therefore be 64, and the annual miles 11,520. Total additional mileage cost would be \$18,379. Total additional driver time per day would be 3.3 hours, and 594 annually. Total additional labor costs would be \$10,585 and the total cost impact \$28,964.
- *Assuming all students from Route 40 are still picked up on Route 40 buses.* The only change is for these students to now attend Grantsville instead. The distance from Route 40 to Grantsville is eight (8) miles. Total buses serving Route 40 is four (4). The total additional miles per year would be 11,520 and with daily driver time of 3.5 hours the total cost impact would be \$29,607.
- *Using bussing to alleviate overcrowding in the south,* though a more limited student count in this instance, would again most effectively be accommodated by the transfer of Broad Ford students. The smaller student count would likely require only two (2) buses to accommodate the transfer. The total additional miles to accommodate the transfer would be approximately 25. Based on our calculation methodology, this would result in a total cost impact of \$22,699.



Aggregating the total cost from each element above results in a calculated total cost for this option of \$100,708.

Scenario 3 Transportation Impact Assessment

Financial impact:

- Annual cost increase would range from \$95,000 to \$110,000

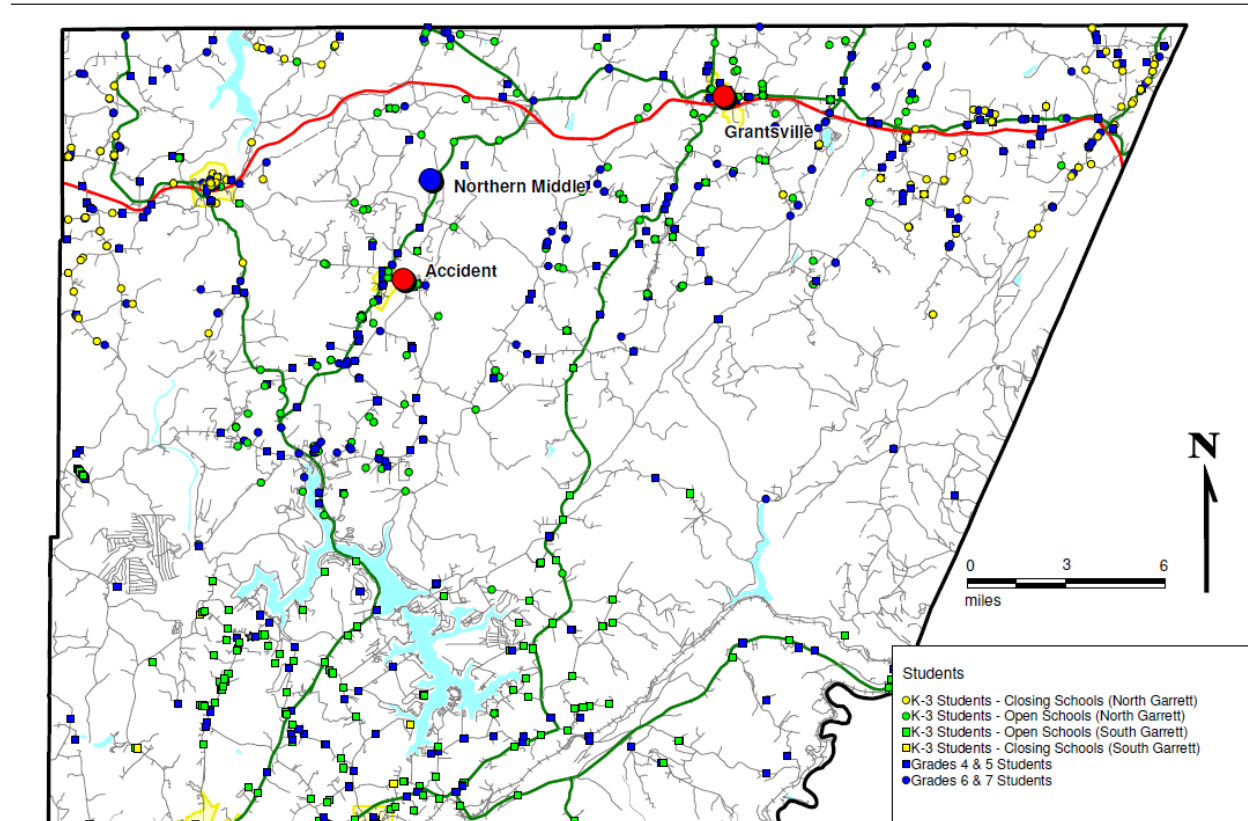
Operational impact:

- Substantial reconfiguration of the routing network would be required.
- Accident Elementary and Grantsville Elementary realignment would be a significant effort to encourage efficiency.
- Grade 5 transfers to Northern Middle can be addressed within existing routing scheme.
- Maximum ride times for students previously attending Friendsville and Route 40 elementary will increase to more than 90 minutes.
- Broad Ford and Yough Glades students will also experience increase in ride time.

Scenario 4 Analysis

This final scenario includes closing Friendsville, Route 40 and Crellin. All northern elementary schools would become K-3, with grades 4 through 7 attending the middle school, and 8 through 12 the high school. Broad and Yough students would transfer north (approximately 100) to Accident, Grantsville and Northern Middle. Figure 9 on the following page illustrates this scenario.

Figure 9 Scenario 4 Analysis



This scenario presents many analytical challenges given our time and data limitations. Given its complexity, it is extremely difficult to estimate the transportation impact of this scenario without significant additional analysis because there is very little of the current transportation system structure that could remain in place. Thus, our analytical methodology of holding the majority of the current system as a constant begins to break down under this scenario.

Despite these limitations, SBC is able to draw some broad conclusions and develop some rough estimates of the likely impacts. The impact on ride times is likely to be similar to scenarios 2 and 3 where the students formerly attending Friendsville and Route 40 will now be attending Accident & Grantsville, resulting in some K to 3 and 4 & 5 students having ride times greater than 90 minutes. Grade 4 & 5 students from Route 40 will be the most affected given the need to move to Northern Middle.

Cost increase generally will be greater than scenario 3 due to 4 & 5 and 8th grade transfers. We believe that transfers of grades 4 & 5 students would add approximately 9,000 additional miles per year (50 miles per day) as students from the outer northwest and northeast regions formerly attending Friendsville and Route 40, respectively, now require additional transportation to Northern Middle. Based on the current mileage rate of \$1.5954 that would total approximately \$15,000 in cost. When added to the initial \$100,000 cost estimate in Option 3 the resulting net cost increase would be \$115,000.

Overall, this scenario likely becomes more viable with bell time changes, but this also introduces significant variability into the analysis. Further illustrations of this scenario are illustrated in Figure 10, showing the distribution of current HS students and incoming 8th grade students, and in Figure 11 showing the distribution of Crellin students and the location of the first bus stop for each existing elementary school in the south.

Figure 10 – Current HS and Grade 8 Students

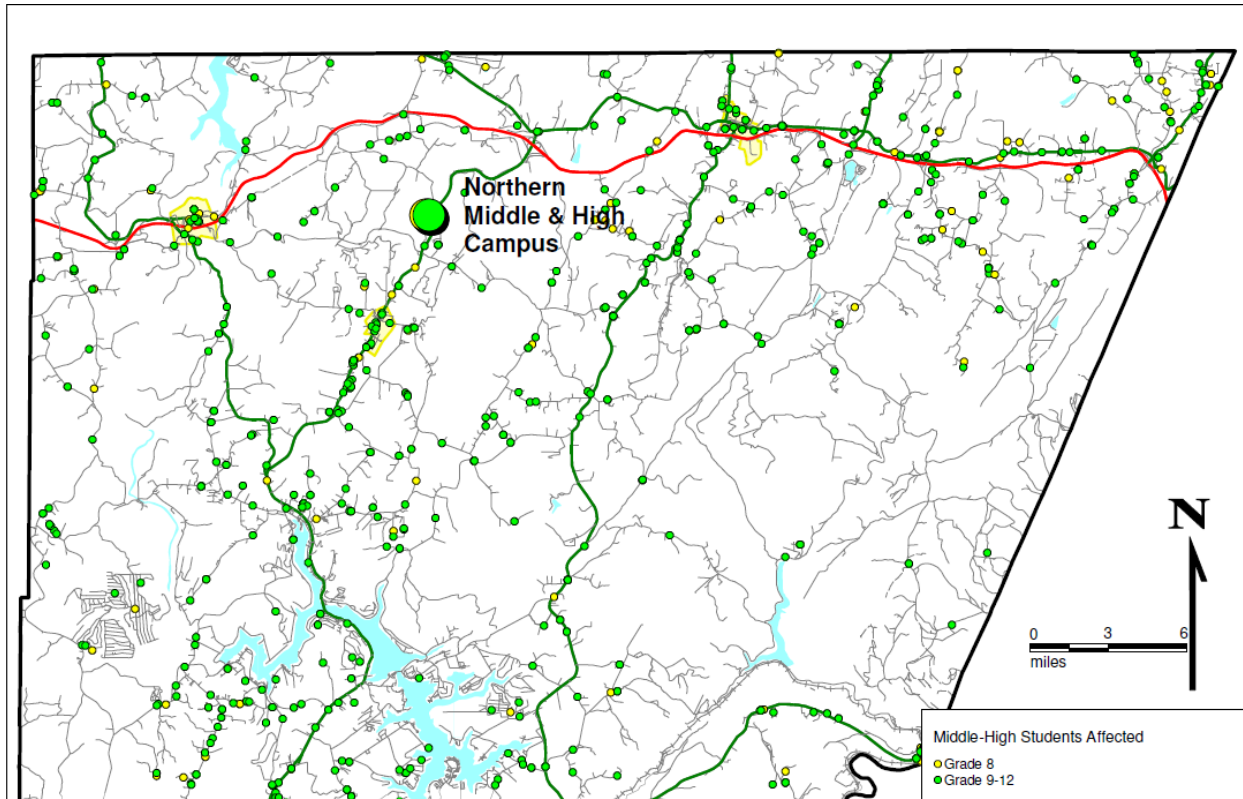
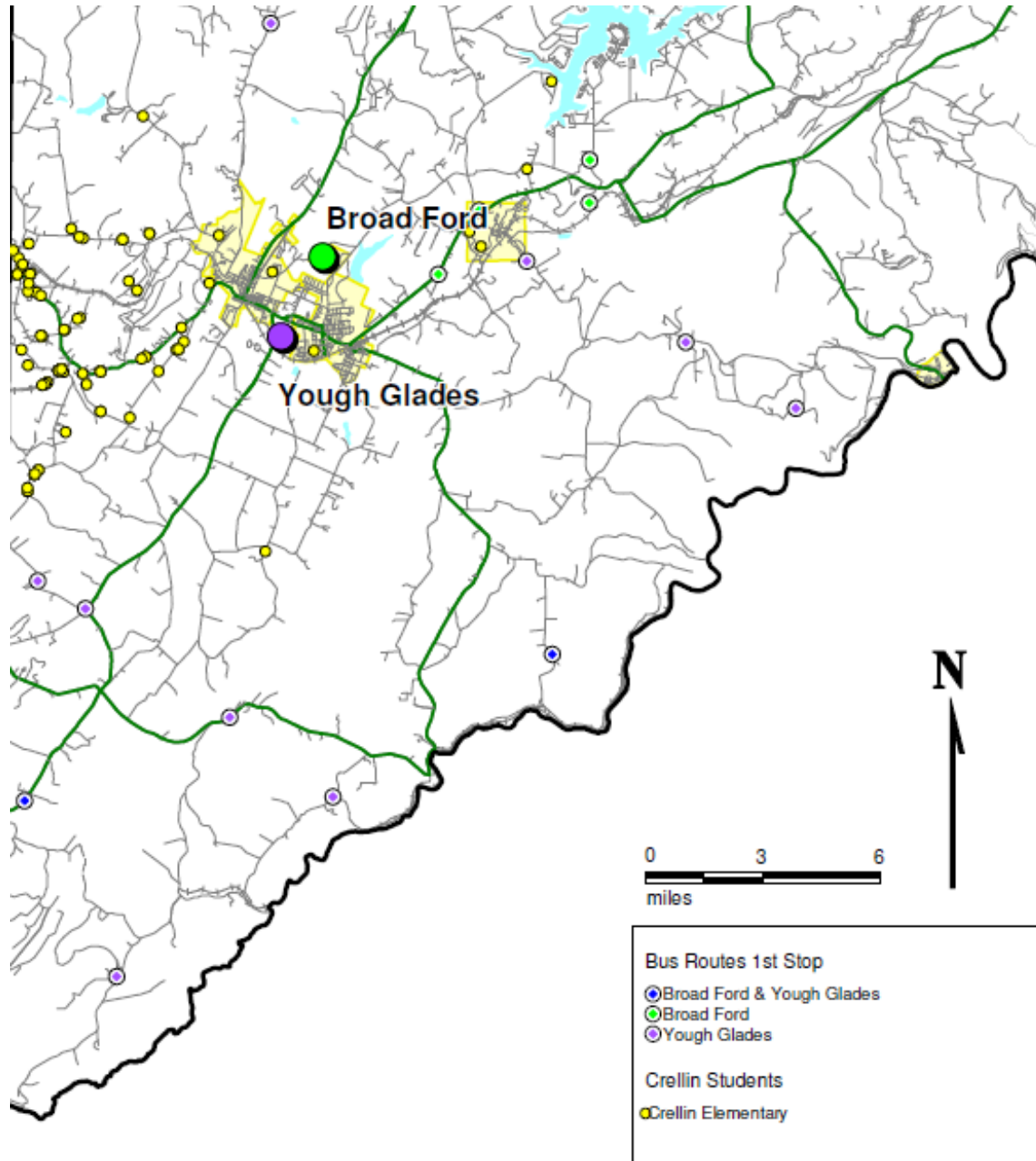


Figure 11 – Crellin Closing



Scenario 4 Transportation Impact Assessment

Financial impact:

- The most difficult cost estimate to determine so estimated within high range.
- Total cost increases of approximately \$110,000 to \$138,000.



Operational impact:

- Would require a total redesign of route network in the north; limited revisions in the south to accommodate Crellin Elementary closing.
- Absent bell time changes, existing combination runs would require reconfiguration.
- Some students from Friendsville, Route 40 and Broad Run/Yough Glades would experience significant ride time increases.