



Our involvement with community based K-12 planning includes more than 60 studies performed for school districts since 1987.

## This map for the Elizabethtown Area School District shows actual existing elementary students with a direct line to the schools they attend.

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## Study Philosophy

The goal of the completed study will be to provide the board with a detailed analysis of the condition of existing facilities (Part I), a series of options to address issues raised in the study (Part II), and the probable costs and reimbursement associated with the selected options (Part III).

The study is intended to serve several purposes:

serve as a decision making tool for the board by documenting existing conditions and exploring possible options

provide cost estimates for various options to be considered by the board

document the need for actions to be taken by the board

provide estimates of state reimbursement for various options while complying with the requirements of the Department of Education

## PHILOSOPHY

It is important to remember that a good Facilities Study should be as tailored to meet the needs and goals of the individual school system as possible. A successful study process should be:

## **Sensitive to Community Concerns**

Schools are more than places to learn, they are important focal points to community life. Our process involves community members in school planning, and carefully examines how the issues and concerns of the public impact your schools.

## Driven by the Educational Program

A central component to the study process is an in-depth look at how a school system's educational program can be better supported by its facilities. Consideration is given not only to today's curriculum, but also to how changing educational programs, technology and teaching styles will impact the facility in the future. Plans created today must be flexible enough to meet the educational goals that might be developed tomorrow.

## **Cost Effective**

Careful long term planning can save school systems millions of dollars often lost because of shortsighted decisions. Our planning process thoroughly examines the cost and economic impact of all of the options developed for your facilities so that board members and administrators have the tools they need to create cost effective plans for the future.

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### **Consensus Building**

No long-term facilities plan can be successful without the support of board members, administrators, teachers, students and the community. Our planning process is designed to bring together all of these groups, keep them informed and give them a voice in the process so that everyone has the opportunity to feel a part of the decisions being made.

### STUDY METHODOLOGY

#### **Demographics and District Overview**

The study begins with an overview of the school district, including such factors as geography, population and wealth. It also discusses any distinguishing characteristics that will have an impact on facilities, such as geographically separate population centers. In order to plan properly for anticipated capacity needs, enrollment projections are analyzed for five and ten year "horizons". The projections will be reviewed to determine if they are reasonable and reliable. Projections will be prepared utilizing information provided by the PA Department of Education, local and state resources and the school district. These projections are intended to provide a basis for planning future facility needs.

## **Facility Evaluation**

The study provides a survey of each school building in order to determine architectural, mechanical, plumbing, electrical and technological needs. It notes deficiencies including operational, environment or coderelated items. The study provides an analysis of each building's physical condition including the condition and projected useful life of each building's major components (heating, HVAC, plumbing, etc.), code violations, the building's accessibility, structural stability, and energy efficiency. Cost estimates to upgrade each building to current standards will be provided as the first option in the *Options Generation* section.

### **Educational Program**

The study reviews the school district's educational program and highlights any special facility needs, such as any instructional practices or planned curriculums that will require special design features. The present curriculum, methods of instruction and proposed changes and additions are outlined in order to determine facility needs. In conjunction with enrollment projections, the curriculum analysis can provide the evaluative criteria needed to determine the type and quality of educational spaces required to meet the District's future needs.

The primary goal of the Feasibility Study is to help the school district understand what it has in terms of school facilities and what is needed to satisfy anticipated changes in capacity needs and educational programs. This exploration is defined by a series of steps, the conclusions of which are summarized herein.



## **Anticipated Community Input**

McKissick Associates assumes that some community input will be desired during the process and that we will be working with a community group of volunteers and/or appointed leaders assembled by the district. We assume that regular meetings with such a community group will be required as a basic part of our services. It is also expected that some options will be developed based on specific requests for investigation by the assembled group.

## **Enrollment & Building Capacity Data**

Building capacities will be calculated with reference to current Department of Education procedures. The capacity of each building will also be calculated on current use of educational spaces in accordance with district class size policies. The study will note any peculiarities in those procedures that may not be readily apparent.

Enrollment forecasts will be calculated by several different means in order to assure a reasonable basis for the projections. Information will be obtained from a variety of sources including the Department of Education, the school systems in-house enrollment records and local municipality (borough and county) planning data. Primary reliance shall be on the districts historical trends and in-house projection data.

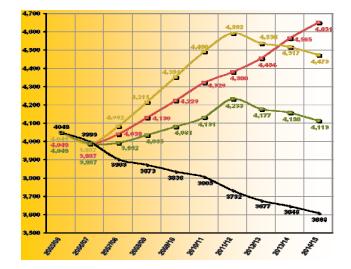
When GIS analysis is performed, enrollment projections will be calculated within three ranges: "most likely" based on the inclusion of developments with current planning and construction permits, "mid-range" optimistic view of growth within the next 5 years, and "maximumbuildout" which will illustrate the maximum possible population expansion possible under current zoning regulations and availability of land.

## Access to District Representatives & District Data

McKissick Associates will expect the district to assign a representative as a point contact for us as we collect data and schedule site visits. This representative will be kept apprised of ongoing study process and the schedule of on-site visitations for each facility.

McKissick Associates will expect to be provided with any prior studies conducted by the district as well as current data such as building plans, enrollment records (historical data and future projections) and site or utility plans. In the case of GIS studies, we will also require age and address information for each enrolled student. Data will be kept confidential and individual student names will not be associated or published with any of our data.





This set of enrollment projections was completed for Elizabethtown Area School District. The black line on the bottom is what the state projects through 2014. The top projections reflect the results of our research under 3 possible growth scenarios with varying levels of optimism applied to our baseline minimum growth (the green line).

## M C K I S S I C K A S S O C I A T E S

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### Access to Facilities and Personnel

McKissick Associates and our consultants will require access to all the facilities to be included in the study and will coordinate any site visits with each building's principal administrator. It is expected our team will benefit the most from the initial site visits when accompanied by each facility's manager or head of building and grounds.

It is often very helpful to obtain input from upper and middle level staff at each facility to review how well the school's curriculum is served by the current facility. Building surveys will be prepared and distributed to administration and staff affected by

each facility. It may be additionally helpful to conduct actual interviews with staff members and administrators, in which case, these would be coordinated through each facility's principal administrator.

## Identification of Hazardous Materials

McKissick Associates will not assume responsibility of identifying all possible hazardous materials on facility sites, although any observed materials (such as asbestos, mold, etc.) will be indicated in our facility evaluation. Some hazardous materials and conditions may not be observable (such as asbestos content in concrete or adhesives) and will be the district's responsibility to identify.

#### **Options Generation**

The next part of the study is to develop facility options based on data developed in the first three steps. Options will consider the following:

- Projected enrollment versus building capacity
- Existing spaces versus those needed to fulfill the program
- Physical condition of existing buildings versus conditions needed to assure a safe, functional, energy-efficient, code-compliant facility.

## The Next Step (the M.A.P.)

The final part of the study provides a description of the proposed plan. This M.A.P. or "Master Action Plan" summarizes proposed changes and provides detailed costs estimates. Estimated state reimbursement is also discussed. The school district is provided with a summary of additional steps to be taken should the board elect to proceed with the recommended plan or any of the proposed alternatives.

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#### THE STUDY PROCESS

The study team, consisting of representatives from the architect's office, McKissick Associates, as well as representatives from other members of our consulting team will visit the facilities in the upcoming months.

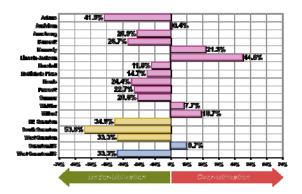
All district school buildings will be documented and photographed. Information will be gathered pertaining to materials, finishes, structural and building systems. This information will then be used to develop recommendations for any changes that may be needed to keep these educational facilities viable well into the future. This information will be presented in both printed hardcopy as well as electronic format in order to allow for easy annual revisions regarding work not yet implemented.

#### Phase I: Data Collection

The intent of Part I is to establish the overall condition of the architectural, mechanical (HVAC and plumbing) and electrical (including fire alarm, clock, communication and telephone) systems of each district school building. This study includes a survey of the buildings and existing design drawings, as well as, discussions with the maintenance staff. The report outlines major equipment items and building systems which need to be repaired or replaced because of condition, age and/or changes in current code requirements (such as Labor & Industry or the ADA) and it suggests items where energy conservation or energy cost reductions may be achieved. This study assumes that existing buildings are expected to remain in service for at least another 20 years. This is a practical consideration given the time, effort, and expense involved in a new project, as well as, the length of long-term financing of building renovations or additions. It also takes into consideration the potential reimbursement for any PlanCon qualified project, which would not be available again until 20 years from the date of receipt of construction bids. Therefore, equipment upgrades are generally suggested for items or systems that will most likely need to be replaced within the next 5 to 10 years to avoid on-going maintenance during a debt-service period.

The first phase of the study focuses on gathering the information needed to effectively evaluate the building program. All school system facilities are thoroughly reviewed to determine instructional capacities and the physical condition of major building systems. Educational goals and community needs are also assessed, with particular attention paid to determining the space and design requirements of current and future instructional practices. An analysis of community demographics and enrollment projections is conducted during Phase I to examine their impact on the building program.

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The Scranton School District asked McKissick Associates to evaluate all 18 schools in the District. The chart above visually indicates each schools utilization. After being unable to make a decision for the last 20 years, the information provided by the McKissick Study guided the District to an action plan.

The District has since moved forward with building closures, grade realignments and consoldations with a building plan created from the Master Action Plan.



- Forecast the student population using local and state supplied demographic information. Provide estimates beyond 15 years as required.
- Determine the capacity of both facilities and compare with current and projected enrollment.
- Establish existing conditions of the physical plant and all its systems at each District school building.
- Assess each District facility regarding their appropriateness and suitability in the context of current and potential future educational program services.

## Phase II: Option Generation

In Part II, various options to address issues raised in Part I will be proposed by McKissick Associates and District representatives. The options will be developed and refined further by the architect. At the conclusion of Part II, the Board will be provided with a statement of probable cost for the proposed options.

Once the data from Phase I is collected, a "Study Team" is formed. In addition to architects and educational planners, the Study Team generally includes administration and community representatives chosen by the school system. This team is charged with generating options for meeting the short and long-term facility needs of the school system. Together these individuals examine design alternatives, gather additional information, develop cost estimates and refine their ideas. The result is a series of facility options that are presented to the school board and community.

List strategic options for accommodating projected student enrollment as well as new and existing programs in the District's facilities.

## Phase III: Development of a Master Action Plan

Part III will provide the Board with a narrative description of the proposed plan with estimates of costs and reimbursement. It will also outline the next steps to be taken by the Board should it elect to proceed with any of the proposed options.

After options are reviewed, they are ranked according to the preference of the school system and selected options are developed in greater detail. Options are weighed based upon their ability to achieve educational, financial and community goals. Thorough exploration of facility options will result in the formation of a Master Action Plan. The M.A.P. establishes a strategic plan and timetable for implementing the selected options.

## How will your firm keep the project team and school board informed?

We believe that there is no substitute for face-to-face communications. We are in constant contact with the district throughout the study process. Reporting takes the form of exhaustive meeting minutes distributed in paper form, e-mail, and posting on our private password protected client Intranet site (as will the re-sults of our study). We also include meetings with the Board or Board subcom-mittees as required.

## What statistical method do you use in enrollment projections, five year and ten year?

We will initially develop an enrollment model based upon the cohort survival method (similar to that used by the Pennsylvania Department of Education) in order to verify the results of the PDE evaluation. Then using the live birth data as well as historical enrollment data for the District we will utilize a series of alter-native methodologies including the utilize a mixture of methodologies such as Least Squares, 4 year Rolling Averages, 4 Year Average, 1 Year Retention, etc. From our experience PDE enrollment projections tend to fail based upon the assumptions made in terms of future live births. As such, we will likewise review the birth projections in a similar manner.

We will also compare actual enrollments reported by the District on its October 4035 report against past projections, including PDE, district, as well as PEL. This review may yield unexpected trends that we have found in the past to in-clude private schools, local treatment centers utilizing district schools, out migra-tion at middle school age from adjacent city school systems; as well as the impact of generational shifts in the purchasing of existing housing stock.

## What Multiplier do you use in determining the number of school age chil-dren generated from different housing types?

While there are a number of nationally accepted multipliers for determining dwelling yield values (the number of pupils generated by each new and existing housing start); we feel it is important to review these against the local census results to account for the varieties of the local housing market. Projections for new housing units can typically be made with accuracy; the greater challenge lies with the impact of changing ownership in aging housing developments con-structed in the 1960's and 1970's. We had experienced such situations in land-locked school systems at the Pottstown, and Williamsport School Districts where the conventional wisdom was that there was no new room for housing construc-



tion - but the school age populations suddenly soared due to young families taking advantage of inexpensive "starter" homes in the form of older housing stock.

## How will you go about collecting data and what data will you collect to de-termine community growth patterns?

McKissick Associates anticipates that the data sets to be collected will include but not be limited to the following:

- US 2000/2010 Census Data
- Intermediate Unit pupil residence locations electronic data set.
- Obtained selected data sets from county GIS data for preparation of graphic mapping depictions of current and proposed housing growth - (including proposed sanitary system extensions, agricultural easements, roadway con-struction, etc)
- District provided information including:
- Historic enrollment by building (including vocational)
- Copies of existing studies (Feasibility Studies completed since 1990, PlanCon Part F from recent building projects).
- Transportation pattern printouts & electronic data from bussing studies and analysis.
- Interview building administrators to review current building use and identified problem areas.
- Building mini-plans with current usage delineated
- Special Educational Director to review programs.
- McKissick Associates researchers will contact and meet with the local plan-ning groups including the county planning commission and various local township zoning officials to obtain current and proposed zoning mapping.
- Contact Penn Dot to determine status of roadway planning issues.
- McKissick Associates will meet with key developers & property owners with land identified.

## How will you determine facility needs? What different options will you consider?

There are two key facets that must be considered in determining facility needs; those are the sizes/shapes of instruction spaces, and the current/projected cur-riculum program to be carried on in those spaces. In our evaluation we will use national planning standards such as those prepared by the Council for Educa-tional Facilities Planners International as well as those of various states, as well as our experience in completing projects for over 60 Pennsylvania school districts. We will take a holistic approach to building capacity - looking at items such as site size and core facilities.

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Often overlooked in the counting of classroom spaces, McKissick Associates will pay particular attention to the capabili-ties of the existing "core" support areas such as Kitchens, Cafeterias, Multipur-pose rooms, Library/Media Centers to accommodate increased use. In con-junction with enrollment projections, the curriculum analysis can provide the evaluative criteria needed to determine the type and quality of educational spaces required to meet the District's future needs.

## What will you consider in developing recommendations for enrollment boundaries (redistricting)?

The core of McKissick Associates' evaluation effort will be the development of a computer based GIS (Geographic Information System) simulation that can be used to perform a series of interactive what-if scenarios. This student demo-graphic and planning system frees our planners from the time consuming man-ual procedures of analyzing planning alternatives and searching through data. Instead we can focus on devising creative, optimum strategies for dealing with future changes - growth or decline. The GIS system does not by itself solve the problem being analyzed; but is a powerful tool for performing the evaluation and presenting the results in a non-tabular graphically understandable manner.

- Existing Building Capacities including capacities of "Core Facilities" beyond pure classroom capacity will be calculated based upon the "real" capacity, as well as the "hypothetical" PDE PlanCon Capacity.
- Enrollment projections.
- External factors such as opening or closing of a nonpublic or charter school.
- Past District practice.
- District class size policy.
- Special Education program enrollment/program locations.
- Amount of pupil seat miles & total travel time.
- Pedestrian pupil travel routes crossing hazards.
- Highway (local collectors and arterial road) as well as school site congestion.
- Proposed improvements to the highway system
- Potential Housing Developments (based upon approved and pending and development plans, permits)
- Townships adopted and proposed zoning regulations, Official Maps, Act 537 Wastewater Plans, and other necessary ordinances and plans
- Existing historical connections between school buildings and neighborhoods.
- Ability of existing school sites to accommodate increased vehicular activity, as well as local zoning requirements (lot area coverage, storm water, etc).

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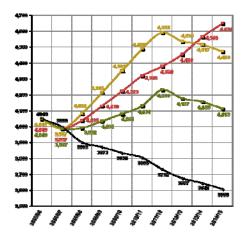
Under a best, worst, and likeliest scenario for population growth in each attendance area, what are the options that may be worthy of consideration if reviews show a need for additional capacity?

- Adjusting existing space assignments within buildings.
- Expansion of existing building capacities.
- New Construction including identification of potential future locations of new school facilities (based upon future housing development patterns using our GIS mapping system).
- Closing and consolidation of existing schools with expanded or new facilities.
- Short-term temporary classroom units (Modular Classrooms).
- Adjustments in grade level configurations.
- Reassignment of pupils between attendance areas.
- Changes in District class size policy.

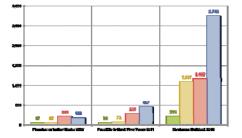


#### WHAT IS GIS?

GIS stands for Geographic Information Systems and it's basically an enormous collection of electronic demographic data associated with maps. Information represented by "GIS" includes:



This set of enrollment projections was completed for Elizabethtown Area School District. The black line on the bottom is what PDE projects through 2014. The top projections reflect the results of our research under three possible growth scenarios with varying levels of optimism applied to our baseline minimum growth (the green line).



Projected student growth by municipality under three different growth scenarios done for the Elizabethtown Area School District.



Census data collected very specifically by geographic areas or tracts paints a specific picture about individual neighborhoods. Economic status and children's ages tell us about the kind of neighborhood in a general way, while information like the age of adults tells us about the likelihood that households will have more children or perhaps no children at all in the course of the next several years.

Municipal zoning records not only give us the obvious information about what kinds of development can happen in which areas, but also tell us about the types of units in residential areas. Households in multi-unit apartment buildings tend to average a different number of children per household than those in developments of single-family homes on more than  $\frac{1}{2}$  an acre. These averages are important when looking at the longer-term picture: How many children might possibly be in the district if the area were to be completely developed over time?

Utility infrastructure data added to the underlying neighborhood and zoning data gives us a better picture of the possibilities for future development. Developments form from more saturated areas outward, generally clustered around available good water sources, access to public sanitation and transportation networks.

Student data is added to this collection from district records and other sources. We can use this model to show every existing child in the district and which schools they currently attend. This also refines our picture of the region specifically so we can take a more educated guess about how many children neighborhoods will maintain and how that number might change with different scenarios.

GIS modeling is the process of taking all of this data and developing a set of hypothetical futures based on factors such as likely development over time, the effects of new infrastructure or availability of new jobs and housing created by specific "what if" circumstances. Our "hypothetical future" map will project individuals using assumptions about growth, household types and what we know about the region. We can envision how the different future scenarios will affect school capacity requirements, attendance boundaries, potential travel-time impact of reallocations, the effects of grade re-structuring and other facility development options that the district may wish to consider.

## WHAT WILL A GIS STUDY TELL ME THAT A FACILITIES STUDY ALONE WON'T?

Typically, a GIS study will provide a great deal of in-depth information about an area. It is as much of an art as a scientific process involving

This map for the Elizabethtown Area School District shows actual existing elementary students with a direct line to the schools they attend.

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prediction of future variables, which is always a risky endeavor. The accuracy of the predictions will only be as good as the

combination of the architect's foresight and the openness of communication and level of optimism or pessimism of municipal officials, developers and the school administration.

Our goal as your architect will be focused on assisting your district to develop a long-term master plan. With the GIS component of a study, we hope to help you answer several key questions in addition to basic study information:

What is the potential student growth for this area?

How will the overall economic status of the residents change? Do current enrollments reflect PDE's predictions and how will they differ? What are the real foreseeable enrollment projections?

What kind of additional space does the district need if there is **moderate student growth?** What about significant student growth? What adjustments can be made if enrollment declines after a period of growth? Can the district solve problems through grade re-structuring?

What is the enrollment impact on special programs? Based on projected growth, what kind of space will be required for special needs children and where should services be located? How will changes to  $\frac{1}{2}$  day or full day kindergarten be affected in future scenarios? Will support areas such as sports fields be sufficient to support student growth?

Where will the primary growth be? What areas will be likely to have the majority of the student population? How do attendance boundaries shift if a school is closed or a new facility is built on one of a number of different sites?

While sometimes the answers to these questions are surprising, often they confirm what district administrators may have suspected. In either case, our best quantitative, objective projection will give the statistical backup for the difficult decisions that administrators face and provide visually descriptive materials to illustrate complicated information when communicating with the community about all the future plans of the district.

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#### WHAT DO WE GET FOR OUR INVESTMENT?

The study process has several milestones where the district receives a great deal of paper. At the end of the process, the district will have many copies of a monumental, bound document as well as several very large display boards to represent most of the mapping data. The content includes the information listed in the "Basic Document Outline".

We consider a study to be a consensus building process where the right solution is reached by the administration, the community and the design team arriving at a conclusion together at the end of a journey. We can help guide you and your community along the road and get you safely and confidently to your goals.

#### **BASIC DOCUMENT OUTLINE**

#### I. PHASE I: DATA COLLECTION

#### A. Analysis of district-wide conditions

- 1. basic demographics component based on available information from district and Department of Education findings
- 2. overall educational planning assessment
- 3. curriculum development assessment and program comparison

## B. Demographic analysis of district (Specific to GIS Inclusive Study)

- discussion and compilation with all involved municipalities, government agencies and economic development organizations to map current and future development potential for residential and commercial growth
- 2. analysis of student population growth over previous years

## C.Student demographics and locations (Specific to GIS Inclusive Study)

- detailed current picture of students by age and actual street address of each student (by age & school) mapped against district facilities
- 2. developments and neighborhoods assessed by general adult age populations and potential for future student residency

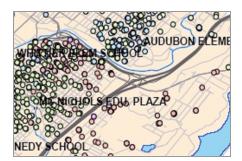
#### D. Analysis of each district facility including:

- 1. PlanCon evaluation of capacities
- 2. architectural condition and brief code analysis
- 3. site conditions and issues
- 4. mechanical and engineering conditions and recommendations
- 5. educational program and curriculum appropriateness

## II. PHASE II: OPTION GENERATION

#### A. Multiple options for solutions including:

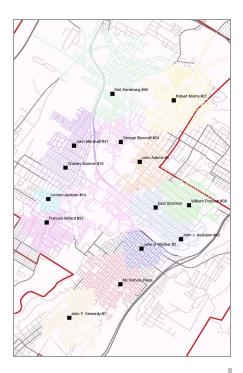
1. schematic designs for building renovations or construction



This image represents about 30 blocks of an area of the Scranton School District. Each dot represents a specific elementary school student and is colorcoded by the school they attend.

This type of information is part of what is generated during phase I of a GIS study.

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This model for Scranton School District shows our computed attendance boundaries for our baseline option to retain all existing buildings in their current configuration with renovations as necessary only to meet minimum safety codes.

We find this baseline to be a useful comparison tool when evaluating construction costs and 40-year life cycle costs of other options.

Our attendance boundary computation takes into account preferences for walking distances, bus travel time and avoidance of crossing extremely busy roads among other factors.



- 2. PlanCon evaluation for each building as modified under each option
- 3. cost estimates for development
- 4. rough long-term life cycle cost comparison

## B. Future growth projection (Specific to GIS Inclusive Study)

- multiple scenarios of projected student residency within the district including likely development as well as maximum possible growth buildout limited by zoning and available land
- detailed mapping of potential students by age and predicted street address of each student mapped against current and potential district facilities

### III. PHASE III: MASTER ACTION PLAN

### A. Detailed option development (option selected by district)

- 1. all materials required to meet PlanCon Part A requirements
- 2. detailed long-term life cycle cost projection

### WHAT A LOT OF DATA ... SO HOW BIG IS IT?

The printed study will be a very large document. Even a study without a GIS component is quite large. Depending on the number of schools being evaluated, we present our initial draft of Phase One of the study in a 3-inch 3-ring binder. We issue remaining phases, revisions and new information in 3-ring punched format to be added to the original binder so that the study remains a "living document". As new student and enrollment data comes in throughout the study process, we include that information and revise many of the charts and projections.

## **BEYOND THE DOCUMENT**

McKissick Associates gives you much more than just paper. We present our study findings at each phase in an open discussion forum. We will present all or part of the study data as often as required for the district to have a complete understanding of the information collected to date as each phase progresses.

We will also present our study findings in public open meetings so that taxpayers will have the opportunity to ask questions about the process as well as the results. It's important for the district and community to have these discussions periodically so that ideas and information that come from these open forums can be included in any projections that arise as the study progresses.

#### THE BOTTOM LINE

We believe that the success of any projects for your district stemming from this study will be the direct result of comprehensive initial planning. Setting goals and priorities for a district-wide strategy of development will help focus the creative process between the design team and the district staff in the most effective manner possible.

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School District of the City of Erie Pennsylvania 148 West 21st Street Erie, PA 16502

#### **CONTACT INFORMATION**

Mr. Jay D. Badams Superintendent tel: (814) 874-6001

Michael W. Liapple Program Management Consultant LP Ciminelli (Buffalo, NY) tel: (716) 855-1200

#### **STUDY STATISTICS**

Date of Study	2011 ongoing
Number of Buildings	
Number of Pupils	
Building Area	2,234,000 SF



**Strong Vincent High School** 



**Roosevelt Middle School** 



PROBLEM

Like many school districts with increasing urban issues, expanded programming mandated (but unfunded) by the state, and decreasing revenue from state government, Erie City has been addressing facilities problems as they arise. Each building



Erie, Pennsylvania Waterfront View

repair or improvement has been tackled as a band-aid solution to an immediate problem. McKissick Associates is looking at the district holistically to develop a long-range plan to determine the best expenditure of funds in order to decrease the district's overall expenses without negatively impacting programs. McKissick Associates' role will be as educational planner, urban planner and facilities consultant. This GIS study will address walkability, transportation, historic structures issues and environmental investigation.

#### PROCESS

McKissick Associates is working not only with the local school district, but also with nationally respected program management consultant LPCiminelli, the Erie Foundation, the Erie Business Community, Erie's state senate representative and other local organizations. This McKissick-lead task force's objective will be to realistically determine the community's needs and to develop methods for creatively financing and maintaining programs and facilities over the next 20 years. McKissick Associates will provide guidance outlining legislative changes, fostering public/private partnerships and maximizing state funding.

#### School District of Erie, Pennsylvania



#### Mifflin County School District Lewistown, PA

#### **CONTACT INFORMATION**

#### Jim Estep Superintendent

#### **STUDY STATISTICS**

Date of Study	2010-Ongoing
Number of Buildings Total Building Area	1,168,064 SF
Pupils	5,700
Compensation	\$38,000

The Mifflin County School District is located in central Pennsylvania and encompasses over 412 square miles. With a population of 46,500, the district is composed of the Boroughs of Lewistown, Burnham, Juniata Terrace, and Yeagertown as well as nine townships. Formed from the jointure of four schools districts in the 1970's the district operates two 9-12 high schools, three 6-8 middle schools, and seven K-5 elementary facilities. Its geography consists of the three valleys separated by long ridges.

#### PROBLEM

Most of the district's physical plant is original to the date of construction between 1950 and 1962. In an attempt to address the inequities between its two high schools in 2008, the district began construction of a new high school to replace the oldest school. Located in an economically depressed steel town, the district has lost over 800 pupils between

> 2005 and 2010. This has placed extreme stress on the district's budget forcing program and staffing cuts over each of the past two school years. In response, the district has asked McKissick Associates to review potential options for reconfigurations including the potential consolidation of the two high schools.

In addition, the study evaluates the potential alternatives available to the district with regard to its standalone vocational school. Owned jointly with the neighboring Juniata County School District, the facility has a capacity of over 800 pupils, but an enrollment of just less than 350.

#### PROCESS

McKissick Associates is providing a GIS based analysis to determine to potential impact of over 15 options. Given the district's widely varying incomes levels, the analysis will not only generate possible attendance areas, but will also evaluate and balance socio-economic ratios of those revised attendance areas. Travel time and bussing expenses are also being evaluated as part of this study.

#### **SOLUTION**

The study focuses upon the evaluation of both direct and indirect costs resulting from potential realignments. Ultimately, it is hoped that facility upgrades, improved energy performance, and program maintenance can be achieved through a well conceived reconfiguration of educational delivery locations.

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## Groton Public Schools (Connecticut)

#### **ADDRESS**

Groton Public Schools Mystic, CT

tel: (860) 572-2100

#### **CONTACT INFORMATION**

Mr. Paul Kadri Superintendent

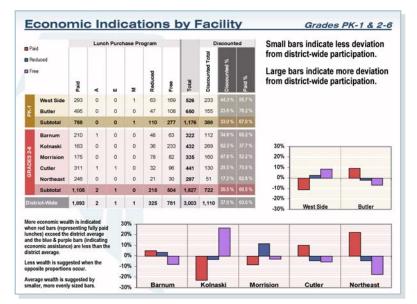
Mr. Wes Greenleaf Facilities Manager

#### STUDY STATISTICS

Date of Study	Spring 2010
Number of Buildings	12 Buildings
Number of Pupils	6,200 pupils
Compensation	\$60,000

#### **DESIGN SERVICES**

A district-wide feasibility study was undertaken - encompassing all of the current facilities in order to develop a plan to meet the District's declining enrollment and increasing operating expenses. Major focus on redistricting and school consolidation



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#### PROBLEM

Groton Public Schools currently operate a twelve facilities including three small Middle Schools with a total combined area of 890,000 square feet. Enrollment, at just over 5,000 pupils, has been consistently decreasing by nearly 800 students (-14%) since 1998. Conversely, operating costs have continued to increase while current economic conditions have strained taxing ability. Although geographically small, the district encompasses diverse neighborhoods as well as a military base contributing to a variety of complex economic and diversity issues.

#### PROCESS

McKissick Associates developed an educational space program to support Groton Public Schools' projected curriculum. The analysis reviewed the impact of district-wide full day kindergarten and K-4 programming on the district's space needs. The actual cost of implementing a bond program was then determined. The cost model permitted the board and town to convey the true financial impact of the proposed debt in light of projected savings to offset that debt.

McKissick Associates developed a GIS planning database using preexisting district and Town of Groton-provided data. As part of this study, McKissick Associates expanded upon the study scope, also implementing a full Geographic Information Systems approach to overlay student

> residential information on the master planning effort. Having this database allowed near real-time analysis of multiple demographic factors (income, ethnicity, age, etc.). The expanded study, of necessity, projected new attendance areas and grade level structure for the district (especially focusing upon a resolution for the middle level grades).

> More importantly, the actual cost of implementing a bond program must be determined. This cost model will permit the board and town to convey the true financial impact of the proposed debt in light of pro-

jected savings to offset that debt. In general, the items to be reviewed would include the following: support staff adjustments, professional staff requirements, co-curricular savings, maintenance savings, custodial savings, operational costs (energy, utilities, insurance, etc.) and bussing impact.

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#### Williamsport Area School District Williamsport, PA

#### **CONTACT INFORMATION**

Dr. Kathleen Kelley Superintendent tel: (570) 327-5500

#### STUDY STATISTICS

Date of Study	2008-2010
Number of Buildings Total Building Area	
Number of Pupils	5,600

#### **DESIGN SERVICES**

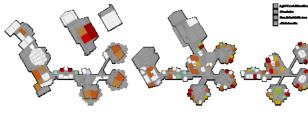
The study was initiated as a followup to this 7,500-pupil school district's long-range facilities strategic plan adopted in the late 1980's. That plan lead to a series of renovations and additions to four of the district's schools and culminated in the construction of a new replacement elementary school of which Mr. McKissick was project manager and architect. The study involved nearly 1,100,000 SF of instructional and support space located in 13 buildings in five municipalities. The Williamsport School District is located in north central Pennsylvania and encompasses the City of Williamsport as well as five adjacent suburban and rural townships with a total area of over 312 square miles. This district operates six K-5 elementary schools, three 6-8 middle schools. one 9-12 high school and a vocational career center.

#### <u>PROBLEM</u>

The district has experienced a continuing decline in enrollment. From a high of over 13,000 pupils in the mid 1970's, by 2010 it had declined to just under 5,600. Concurrently, the district's financial situation had deteriorated with the decline of local manufacturing concerns. In addition, the district has been undergoing a demographic shift from 5% minority students in 1990 to over 27% in 2010. This changing population presented new needs that the Districts existing buildings were not configured to support. Over \$126,000,000 in maintenance and educational upgrades were identified n the first phase of its study analysis. Of particular concern was the district's 506,000 SF high school which has had few upgrades since its construction in 1972. With over \$65,000,000 in upgrades identified, the district needed to look to operational savings to offset construction costs.

#### PROCESS

McKissick Associates undertook a district-wide master planning study in 2008. The three-phase planning process concluded with a series of three public presentations. Following extensive community discussion, the board adopted an option for further study in late 2009. In the spring of 2010, working with district educators, McKissick Associates developed a master educational specification. In August 2010, after review-



Κ S S M C C K S С Т Е Ο I A R С HITE С Т S ing all direct and indirect financial parameters, the district elected to renovate and expand its Roosevelt Middle School at a net savings of \$7,000,000.

#### **SOLUTION**

The final solution provides for a restructuring of the District to a K-3, 4-6, 7-8, and 9-12. The district's three middle schools would be closed with the Roosevelt Middle School being renovated and expanded to accommodate all middle level pupils while the Curtin and Lycoming Valley Middle Schools are being renovated to accommodate their reuse as intermediate elementary schools. Upon completion two of the Districts elementary schools would be closed. The \$52,000,000 building program has been determined to be revenue neutral after the impact of staff & operational savings are achieved.

## Neshaminy School District

#### **ADDRESS**

Neshaminy School District Langhorne, PA

#### **CONTACT INFORMATION**

Mr. Joe Paradise Business Manager tel: 215-752-6300

#### **STUDY STATISTICS**

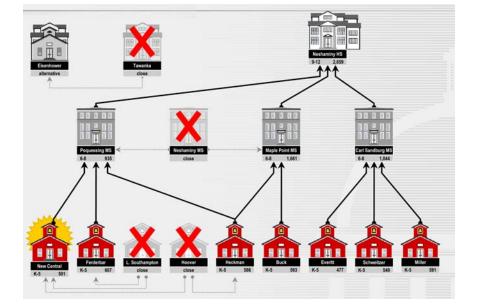
Date of Study	2008-2009
Number of Buildings	16
Number of Pupils	
Compensation	\$54.000

#### **DESIGN SERVICES**

McKissick Associates provided a facility study of an urban district with extensive properties including a detailed GIS analysis of the district by student grades and neighborhood location. Major focus on school consolidation and closures to reduce long term operating costs. Neshaminy School District serves the municipalities of Middletown Township, Langhorne, Langhorne Manor, Penndel, Hulmeville, and Lower Southampton Township in Bucks County, Pennsylvania. Students from the Middletown divisions of Levittown also attend these schools. Approximately 9,800 students attend public schools, more than 1,000 students attend private elementary schools, not including day care centers, and an additional 1,500 students attend private high schools in various other areas, but all students are bused by Neshaminy School District. Enrollment across the board is slowly decreasing due to an aging population in the area. In 2006 the District embarked on a major \$80 million rehabilitation of its High School building, now attention has turned to possible realignments and building closures that could occur once the 9th grade is relocated to the High School upon completion of the upgrade project.

The District is comprised of a number of neighborhoods within the 1950s "Levittown" development. With the aging of the population, a large number of underutilized and previously closed elementary schools exist in the district as a result.

In addition to full building and curriculum assessment, a GIS based analysis was used to evaluate a wide variety of options that may result in building closures, grade realignments and consolidations.



Κ M C C K S Т Е Ο А R С Н Т E С Т S

Scranton School District 425 N. Washington Avenue Scranton, PA 18503

## **CONTACT INFORMATION**

Mr. Michael M. Sheridan Superintendent

Mr. Gregg L. Sunday Business Manager

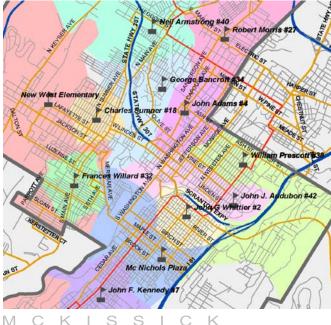
#### STUDY STATISTICS

Date of Study...... May 2005 – Dec 2006 Number of Buildings.....approx. 22 Number of Pupils.....approx. 9,600

### **DESIGN SERVICES**

McKissick Associates provided a facility study of an urban district with extensive properties.

Also included was a detailed GIS analysis of the district by student grades and neighborhood location. Major focus on curriculum optimization, school consolidation and relocation to "best site" optimum locations.



A S S O C I A T E S A R C H I T E C T S

## PROBLEM

The Scranton School District has over 20 buildings in a variety of different conditions and with greatly varying usage demands. Most of their facilities pre-date the 1940s and many pre-date the turn of the century. Throughout the last 8 or 9 decades, much of the make-up of Scranton has changed such that these "neighborhood schools" have been stranded in areas with changing demographics or have lost their neighborhood entirely. Student population has also shifted leaving many of the elementary schools greatly over-utilized and many of the intermediate and middle schools under-utilized. The aging buildings are also taking a toll on the District's operational costs as most of the buildings have not been renovated or upgraded in well over 20 years. Many are on the original city steam heating system.

#### PROCESS

McKissick Associates evaluated each building in the district to determine its potential for re-use based on condition, cost, construction-type and neighborhood location. We also utilized Iron Compass mapping to assist with a GIS analysis of neighborhood make-up, looking specifically at actual students (ages and allocated school) and neighborhood residents' ages to better predict areas where school students are and might be located through the next several decades. We prepared 8 options with various changes in grade configuration, possible school closures,

> renovation potential and in some cases with replacement facilities. Where new or expanded schools were proposed, GIS analysis provided justification for which locations were most suitable for development. Option development included rough costs with estimated state reimbursement.

#### **SOLUTION**

McKissick Associates worked with the district to limit the options and provide further specific analysis including detailed cost estimates, proposed solutions for facilities that might be closed and 40-year life-cycle operational costs for district facilities. We worked with not only the district, but community groups as well so that the option selected had the input of the affected residents as many of these schools had sentimental

histories. The district is currently implementing the selected McKissick Associates option.

Hazleton Area School District Hazleton, PA

#### **CONTACT INFORMATION**

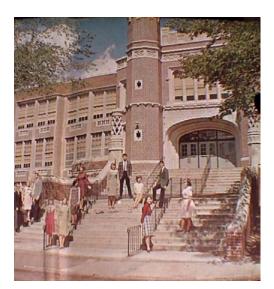
Mr. Frank Victor Superintendent

#### STUDY STATISTICS

Date of Study	Fall 2003
Number of Buildings & Site	s 13
Number of Pupils	9,400 pupils
Compensation	\$12,500

#### **DESIGN SERVICES**

A district-wide study was undertaken – encompassing all of the current facilities as well as the former Hazleton High "Castle" in order to develop a plan to meet the District's rapidly growing enrollment and to prepare a feasibility analysis acceptable to the PA Department of Education



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#### **PROBLEM**

Hazleton is an area with rapidly expanding enrollment. 10 years ago a new high school was constructed but is currently under capacity by over 1500 students. Elementary schools in the area can no longer accept additional enrollments without further expansion. Recent expansion of many of the district facilities makes state funding challenging as the Dept. of Education's 20- year limit has not yet been reached. In addition to the increasing enrollment issues are the emotional ties to the historic 1920's "Castle" (the former Hazleton High School) which has been closed and vacant for many years, but which many community members hope to be able to reopen.

#### PROCESS

A team consisting of the architect, educational planner, structural engineer, and mechanical engineer visited the district on 13 separate occasions. The team visited all areas of each of the district buildings and prepared a comprehensive report on not only the conditions at each facility, but potential expansion capacity and PA Dept. of Education implications for a project at each site.

The study team reviewed PlanCon Parts F and G as submitted to the Department of Education for all projects undertaken in the past 10 years. Building plans were obtained and building areas verified. On the

ground staff interviews were also employed in data gathering. In addition to the central administration, the team was assisted by a variety of members of the district including the directors of special education, technology, maintenance and facilities staff in conducting the evaluation of existing conditions. The high school principal and vocational director assisted with operational issues related to grade 9-12 instruction. Representatives of the Hazleton Historical Society were instrumental in providing historical records and insights related to possible restoration of the "Castle". Various options incorporating possibilities for facilities improvements, grade restructuring, curriculum alterations and reimbursement estimates were presented to the board throughout the study process.

#### SOLUTION

The district chose to restore its historic "Castle", including the demolition of newer sections and construction of two small additions to less prominent elevations. The "Castle" (restoration completed in 2007) now houses grades 3-8 to alleviate over-enrollment in the surrounding elementary-middle schools.

# Depth of Educational Study Experience



Our architectural staff includes educational planners certified by the Council for Educational Facility Planners International (CEFPI REFP)



Hazleton Area School District - "Castle"



Saint Joseph's Hospital in Reading, PA

- Athens Area School District (Athens, PA) Energy Retrofit Study Feasibility Study
- Bedford Area School
   District (Bedford, PA)
   Feasibility Study
- Big Spring School District (Newville, PA) Feasibility Studies 1997, 2003, 2005 & 2008
- BLaST Intermediate Unit #17 (Granville Summit, PA) Facility Study
- Blue Ridge School
   District
   (New Milford, PA)
   Feasibility Study
- Cambria Heights School District (Patton, PA) Feasibility Study
- Canton Area School District (Canton, PA) Energy Retrofit Study
- Carbon County Vocational Technical School (Jim Thorpe, PA) Feasibility Study
- Central Cambria School District (Ebensburg, PA) Feasibility Study
- Chautauqua Central School District (Chautauqua, NY) Feasibility Study
- Clymer Central School District (Clymer, NY) Feasibility Studies 1992 & 1996
- Corry School District (Corry, PA) Feasibility Study
- Cumberland Perry Area Vo-Tech (Mechanicsburg, PA) Feasibility Study 2001
- Donegal Area School District (Mount Joy, PA) Energy Retrofit Study
- East Lycoming School District (Hugesville, PA) Feasibility Study 2008

- Elizabethtown School District (Elizabethtown, PA)
   Feasibility Studies 1998-1999 & 2003-2004
- Erie City School District (Erie, PA) Feasibility Study 2011
- Groton Public Schools (Mystic, CT) Feasibility Study 2010, 2011
- Hazleton Area School
   District (Hazleton, PA)
   Feasibility Study 2003
- Jersey Shore Area School District (Jersey Shore, PA) Feasibility Study 1999
- Jim Thorpe Area School District (Jim Thorpe, PA) Feasibility Study
- Midd-West School District (Middleburg, PA) Facility Energy Retrofit Study
- Mifflin County School District (Lewistown, PA) Feasibility Study 2010
- Milton Area School District (Milton, PA) Feasibility Studies 1998, 2007 & 2009
- Montgomery Area School District (Montgomery, PA) Feasibility Study
- Montoursville Area School District (Montoursville, PA) Feasibility Studies 2004-05 & 2007
- Mount Union Area School District (Mount Union, PA) Feasibility Studies 2004-05 & 2007
- Neshaminy School District (Langhorne, PA) Feasibility Studies 2007 & 2009
- Northern Tioga School District (Elkland, PA) Feasibility Studies 1990 & 1995

McKissick Associates

Wellsboro School District

Wellsboro Recreation Commission Long Range Athletic Facilities Development

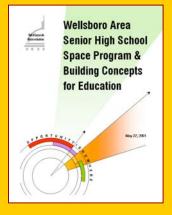
Improvement Study



PRELIMINARY DRAFT

Presented December 9 1992

Our involvement with community based K-12 planning includes nearly 50 studies performed for school districts since 1984.



- Otto Eldred School District (Eldred, PA) Feasibility Study
- 즤 Owen J. Roberts School District (Pottstown, PA) Feasibility Study
- Penn Cambria School District (Cresson, PA) Facilities Energy Retrofit Study Feasibility Study
- Port Allegheny School District (Port Allegheny, PA) Feasibility Study
- Pottstown School District (Pottstown, PA) Feasibility Study 1997
- Rappahannock County Schools (Washington, VA) Feasibility Study
- Reading School District (Reading, PA) Feasibility Study 2004
- Red Lion School District (Red Lion, PA) Feasibility Study
- School District of Haverford Township (Havertown, PA) Feasibility Studies for Manoa Elementary School
- Scranton Area School District (Scranton, PA) Feasibility Study
- Selinsgrove Area School District (Selinsgrove, PA) Feasibility Study
- Shikellamy School District (Sunbury, PA) Feasibility Study
- Southern Huntingdon Area School District (Three Springs, PA) Feasibility Study
- 즤 Southern Tioga School District (Blossburg, PA) Energy Retrofit Study Facility Feasibility Study
- Spring Cove School District (Spring Cove, PA) Facilities Study

- 🗅 St. Stephen's Episcopal School (Harrisburg, PA) Master Plan
- Sto-Rox School District (McKees Rocks, PA) Feasibility Study
- Trov Area School District (Troy, PA) Feasibility Study Energy Retrofit Study
- Tussey Mountain School District (Saxton, PA) Energy Retrofit Study
- Warren County School District (Warren, PA) Feasibility Study
- Wellsboro Area School District (Wellsboro, PA) Educational Specification 2002 Feasibility Studies 1998 & 2001
- Williamsport Area School District (Williamsport, PA) Feasibility Studies, 1989, 1997, 2003, 2006, 2008 & 2009
- Winston-Salem/Forsyth County Schools – NC Various Feasibility Studies 2008-2009



Hepburn-Lycoming and Lycoming Valley Schools

