Winthrop Harbor School District #1

Master Facilities Plan

2014-15

FANNING HOWEY

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Winthrop Harbor School District #1

Master Facilities Planning Team

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1. Introduction

This introduction provides an overview of Winthrop Harbor School District #1 Master Facilities Plan. It is important to understand what the Master Facilities Plan is and what the goals of the plan are.

The Master Facilities Plan is a "blueprint" for renovation and new construction necessary to enhance alignment of Winthrop Harbor School District educational programs and physical structures. It establishes standards; measures how well the educational facilities meet established standards; identifies where physical improvements and adjustments are needed; provides solutions to address those problems; and determines the potential cost and timeline for implementing the solutions.

The Master Facilities Plan (MFP) addresses three areas of need:

- Physical
- Educational
- Utilization

The physical needs are the "bricks and mortar" requirements of a building. Just like our homes, parts of the school buildings, no matter how well maintained, have a life expectancy. The MFP assessed the current condition of the two school buildings and determined if and when major systems, such as the roof or the heating system, need to be repaired or replaced.

The educational needs include whether there is sufficient space for the number of students or if there is too much space for the number of students housed at a school. Do the spaces in the school provide the right type of environment for what is being taught? Is the technology sufficient?

The utilization needs refer to the number, location, and size of the schools. The utilization considers the student capacity of a school compared to the number of students. The goal is to align the buildings with the number of students so that schools are used efficiently with a high level of utilization.

Further, there are three key elements of the Master Facilities Plan; assessment, utilization, and solutions. The assessment process began with an overview of the District facilities followed by a facilities condition assessment and educational adequacy evaluation of both schools. During this part of the process, the physical and educational opportunities and challenges inherent in each facility are documented.

The second key element of the Plan is analyzing utilization which begins by examining past student enrollment and developing projections that provide guidance for future space needs. The data and methodology used to develop the projected enrollment in Winthrop Harbor School District #1 is detailed in the utilization assessment section of the Master Facilities Plan.

Once the enrollment is determined the next step was to establish the capacity of each school. Then the number of students is divided

by the capacity to determine the utilization percentage for both. The final key element of the Facilities Master Plan is the development of solutions to meet the needs identified by the prior elements.

A. Assessment

The first element, assessment, has three distinct components. The first is a physical assessment of the facilities. This establishes what is needed to keep the facilities "warm, safe and dry". In other words, what maintenance and capital improvement needs are there that are critical to keeping the buildings functioning?

The second component aligns the physical space that currently exists with what is needed to deliver the educational curriculum. This facility curriculum alignment identifies the opportunities and challenges inherent in each facility. The alignment goes beyond simply identifying the number and size of classrooms. While that is a part of the alignment the analysis also considers, among other factors, the spatial position of the spaces; the amenities offered; and, how technology interfaces to provide an outstanding learning environment.

The third component of the assessment is analyzing utilization. This begins by examining past student enrollment and developing projections that provide guidance for future space needs.

The assessment of the physical and curriculum facility alignment also provides information on the potential capacity of each facility. Dividing enrollment by the capacity results in the percent utilization (enrollment / capacity = % utilization). Analysis of the utilization of each school ensures a proper balance between the student capacity for all grade levels and student enrollment. Over-utilization indicates over-crowding and diminished educational opportunities. Under-utilization, while arguably enhancing student-teacher contact, does result in squandered resources as a product of maintaining too much space per student.

B. Stakeholder Input

The second element of the Master Facilities Plan is stakeholder input. This includes the vital perspective provided by the primary facility users, the students and the teachers. However, it is critical that stakeholder input not be limited to those perspectives. The input from administrators and staff bring additional perspectives.

Increasingly, schools are the *centers of the community*. The facilities can and do provide educational, athletic and social opportunities to a variety of community stakeholders. It is vital that the perspective of a broad cross-section of the community be incorporated in the Master Facilities Plan.

Ultimately, Master Facilities Plans that are implemented as opposed to gathering dust on a shelf have a common thread. Implemented plans have broad stakeholder support. If stakeholders are involved in the process they have "buy in" into the plan. That investment yields successful results in terms of implementation.

C. SOLUTIONS FOR ADDRESSING NEEDS

The third and final key element of the Master Facilities Plan is the development of solutions to meet the needs identified by the prior elements. In general, the solutions put forth in the Master Facilities Plan take the form of findings for each facility.

2. Background Information

The Winthrop Harbor School District #1 Board detailed specific goals to be considered in the development of a Master Facilities Plan, including:

- Create future ready learning environments
- Asset management
- Resource management
- Effective building utilization
- Think Big and Imagine

To the greatest extent possible the Board established goals were incorporated in the development of alternative options to address needs.

A Master Facilities Plan needs to be placed in context. Specifically, the goals and objectives of the plan need to be stated. How those goals and objectives are met then becomes a driving factor guiding the development of the plan.

For Winthrop Harbor School District #1 there are two key elements. First, the Master Facilities Planning process began with a visioning session. The elements of this effort formed the basis of the goals and objectives of the Master Facilities Plan.

A. Board of Education Goals

A visioning session with Winthrop Harbor School District #1 Board of Education was held as the "kick-off" to the Master Facilities Plan process. Titled *"Roles, Goals and Controls",* the visioning session was designed to define all three elements. The "roles" of each of the stakeholders were defined. The "controls" portion established that input from stakeholders is a vital part of the process. However, at the end of the process, the approval of the Master Facilities Plan and subsequent implementation is the responsibility of the School Board.

The largest portion of the visioning session was devoted to defining the goals that are important to the Board of Education and need to be incorporated into the Master Facilities Plan.

Goals approved by the Board include:

1. Future ready facilities for student achievement
   - Align educational specifications with curriculum and facilities
   - Review options to increase Pre-K
   - Review relocating 5th graders at WF
   - Age appropriate site activities

2. Asset management
   - Identify physical needs (bricks & mortar)
   - Explore Before/After program
   - Site organization and drainage

3. Resource management

   - Identify operational opportunities such as energy conservation

4. Effective building utilization
   - Space correspondes to projected enrollment
   - Review single campus versus two

5. Think Big and Imagine

In summary, the plan needs to provide for an outstanding, 21st Century learning environment for each student, reflecting a physical atmosphere that supports teaching and learning. This will be accomplished by providing safe and secure schools that incorporate appropriate leading-edge technology while recognizing that those goals have a price tag. The cost of the improvements is always carefully weighed against the benefits accrued, in order to ensure that financial resources are used in the most effective manner.

To the greatest extent possible the Board established goals were incorporated in the development of alternative options to address needs. It should be noted that several of the goals will be more fully addressed during the design of improvements.

Milan Center for Innovative Studies, Milan, MI

3. Physical Assessment

Each of the Winthrop Harbor School District #1 schools was assessed for its physical condition. The summary of the physical assessment for each school is as follows:

- Westfield
  - Cost to replace - $6,570,000
  - Current (1-year) needs - $1,660,000
  - Facility Condition Index – 31%
  - Long term (10 year) needs - $3,590,000
  - Renewal Index – 55%
- North Prairie
  - Cost to replace - $7,650,000
  - Current (1-year) needs - $463,000
  - Facility Condition Index – 13%
  - Long term (10 year) needs - $2,130,000
  - Renewal Index – 29%

The vast majority of the physical needs identified at each school are the result of the "aging" of the buildings. The needs do not represent a failure to maintain the buildings. Throughout each building it was evident to the team conducting the assessment that overall maintenance was excellent. The needs are a result of building components reaching the end of their useful life.

A. Introduction

The physical assessment was a system-specific analysis. Input to this assessment came from an assessment team and represents a "600 foot view" evaluation of the physical condition of the buildings. Data was collected and analyzed using a software system developed by VFA, Inc.

Physically, the buildings are very well maintained. However, as with any building the component systems have a life-span. What immediate needs there are, as well as the longer term needs as building components reach the end of their life-span, are detailed in *Appendix A –Assessment Management Reports*.

B. System Assessment

The system-specific assessment evaluates the building systems of each facility on a detailed basis. The information provided in this section represents the capital and maintenance needs of the physical plant of the District. Maintenance needs are those smaller items

that keep the building functioning. Replacing worn floor tiles in a room or fixing a roof leak are a couple of examples. Capital needs are those items that require a significant investment of resources, both time and money, to address. Replacement of an entire HVAC system that is at the end of its useful life or the installation of a new roof are examples of capital needs.

Together addressing the capital and maintenance needs keep the building "warm, safe and dry". It should be noted that there may be additional capital needs necessary to retrofit a classroom to create a 21st Century learning space or a building addition required to accommodate more students. Items such as those are also capital needs, but are addressed separately. The capital needs included in this section are those major expenditures necessary to maintain the building, thereby making them "warm, safe, and dry".

The physical assessment was conducted using software developed by VFA, Inc. VFA combines facility assessment services and Web-based software products into a comprehensive solution for the complete capital management lifecycle.

The key concept is *"capital management lifecycle".* Traditional facility assessments evaluate a building at a single point in time. An assessment professional walks through a building and notes needs that must be addressed at that particular point in time. He or she might note items such as fixing a roof leak or replacing the window. While those are necessary and important items, they do not provide a complete picture of the physical needs of the building throughout the planning period.

The concept of "capital management lifecycle" is that in addition to immediate needs the building is evaluated based on the lifecycle of the component systems. Perhaps there are no roof leaks in a building, but the roof was installed 18 years ago. Depending on the type of roof, it may have a 20-year life span. Therefore, while there is no immediate need, in two years that roof will reach the end of its useful life. Knowing that, a District can factor the capital improvement cost of a new roof into its facility budget.

By assessing a building not only on its immediate needs, but on potential future needs based on lifecycle, a more comprehensive picture emerges of the true physical needs. The assessment becomes an asset management tool for the District rather than a simple listing of the immediate needs.

Fanning Howey and VFA are partners in providing this system assessment. The Fanning Howey team completed the evaluation of the physical plant using the VFA supplied software. There are two components to the software. VFA Auditor is a tablet-based software program used to collect the data. VFA Facility is a software program that analyzes the collected data. Together, the assessment provided the system specific information included in this section.

The assessment is based on the UniFormat standard for classifying building systems. It is the industry standard in the U.S. and Canada. The elements are major components common to most buildings. The system can be used to provide consistency in the economic evaluation of building projects. It was developed through an industry and

government consensus and has been widely accepted as an ASTM standard.

The UniFormat system is based on a series of levels each providing a greater degree of information. Level 1 contains the following broad categories:

A. SUBSTRUCTURE - *(foundation)*
B. SHELL - *(building structure, walls, windows, doors, roof etc*.)
C. INTERIORS - *(interior walls, windows, floors etc.)*
D. SERVICES - *(HVAC, plumbing, electrical, etc.)*
E. EQUIPMENT AND FURNISHINGS - *(furniture, casework etc.)*
F. SPECIAL CONSTRUCTION AND DEMOLITION
G. BUILDING SITEWORK - *(pavement, sidewalks, drainage, playgrounds, etc.)*

As each system was assessed "*requirements*" were generated. Requirement is the VFA software term for a need. Please note that there are two categories of requirements; renewal and non-renewal. Renewal requirements are those items that have reached the end of their useful life. These needs are automatically identified and generated by the software. If a roof was installed twenty-one years ago and it has a useful life of twenty years that building component has reached the end of its useful life and a renewal requirement is generated.

It should be noted that not every system that has reached the end of its useful life needs to be replaced immediately. An assessor may determine that, in his or her professional opinion, even though the industry standard useful life of a building system has been reached a particular system is still functioning properly. In that case additional years can be added before the system is scheduled to be replaced.

Non-renewal requirements are items noted by the assessment team that need attention. They are comprised of two types of items. The first are items that have already reached the end of their useful life but, based on the assessor's evaluation, can still function for a period of time but there is a specific action that needs to be taken.

An example might be flooring. Standard vinyl composite tile (VCT) has a useful life of twenty (20) years. In the assessor's professional opinion the flooring is in generally good shape and can last another eight years before replacement. He or she would then add eight years of useful life left and an automatic renewal requirement would be generated not for this year but for eight years from now.

However, perhaps there is one area that needs immediate replacement. The assessor can generate a non-renewal requirement that specifies that area be replaced this year not in eight years like the majority of the VCT flooring. That is a non-renewal requirement generated by the assessor.

The second are those items to which the inverse applies. They are items that should still have useful life left, but will need to be addressed before their useful life is reached. Again, the assessor can generate a non-renewal requirement citing that particular need.

All of the building systems in both schools were assessed in this manner. The assessors noted,

in the field, what modifications needed to be made. They added useful life where appropriate and generated non-renewal requirements when necessary.

The database was then reviewed by an "approver" before a report was generated. This "second set of eyes" provides a check of the data before it is committed to the database.

Finally, all of the data were reviewed by the assessment team with the District. This provided another opportunity for making adjustments. Based on the actual experience the facilities staff has had with individual building systems throughout the district some additional modifications were made and agreed to so that the database used in this plan reflects, to the best extent possible, the physical needs of Winthrop Harbor School District #1.

C. RESULTS

The system-specific assessment evaluates the building systems of each facility on a detailed basis. The information provided in this section represents the capital and maintenance needs of the physical plant of the District.

For each school the following information is provided:

- **Cost to replace** – This is the cost to replace the building as it is currently configured. The amount of each building system such as the number of windows, the size of the roof, the number and length of walls, the size and type of the heating system, etc. was entered into the data base. Totalling the value of all of the building systems provided the total cost to build each school today.
- **Current (1-year) needs** – This represents the sum total of the immediate physical needs of the building. Essentially these are the items that need repair or replacement to keep the building functioning in a "warm, safe and dry" condition.
- **Facility Condition Index** – Dividing the current needs by the cost to replace provides the Facility Condition Index or FCI. When the FCI exceeds 66%, or in other words when the cost to repair a building exceeds 2/3rds of the cost of a new building the "rule of thumb" is that it is more cost effective to replace rather than repair a building.
- **Long Term (10 year) Needs** – Apart from the immediate needs this total provides a longer term view of what the physical needs will be over a ten year period. A building may have very few immediate, short term needs but over the next ten years may have significant costs as major building systems reach the end of their useful life.
- **Renewal Index** – The Renewal Index or RI is calculated the same as the FCI except that it uses the long term needs divided by the replacement cost. This is useful since the short term needs may not exceed an FCI value of 66% but the RI may exceed that value. In other words putting money in immediate needs, while useful, may not be the best investment over time.

Westfield

- Cost to replace - $6,570,000
- Current (1-year) needs - $1,660,000
- Facility Condition Index – 31%
- Long term (10 year) needs - $3,590,000
- Renewal Index – 55%

North Prairie

- Cost to replace - $7,650,000
- Current (1-year) needs - $463,000
- Facility Condition Index – 13%
- Long term (10 year) needs - $2,130,000
- Renewal Index – 29%

The major items that need attention either immediately or within the next several years at each school include:

Westfield

- HVAC / Electrical systems - $400,000/$1,000,000
- Bathroom renovations - $350,000
- Parking lots - $ 178,000

North Prairie

- Flooring - $150,000
- Parking lots - $30,000
- Boilers - $70,000
- Roof repairs - $85,300

Again, this only includes maintenance and capital improvement needs and does not address educational adequacy or student capacity issues. As previously stated, these needs are a direct function of the "aging" of the buildings and are not a result of lack of maintenance. Even North Prairie, that is referred to as "the new building" was constructed almost sixteen years ago. Therefore, it is beginning to reach the end of the useful life on some building systems. Obviously Westfield, built in 1958 has more major systems in need of repair or replacement.

D. SUMMARY

Neither Westfield nor North Prairie exceeds the 66% "rule of thumb" threshold for replacement in either the FCI or the RI category. There are some immediate needs at both buildings that should be addressed to keep the buildings functioning in a warm, safe and dry condition. Details of all of the items, both short and long term are presented in *Appendix A – Asset Management Reports*.

In addition to the physical assessment, the planning team reviewed the District's Smart Energy Design Assistance Center (SEDAC) report. The SEDAC report was provided to the District by Illinois Energy Now which is an energy efficiency program through the State of Illinois. The review by the planning team resulted in several recommendations for additional energy savings. That review is presented in *Appendix C- SEDAC Report Review.*

4. Educational Assessment

Winthrop Harbor School District #1 is committed to serving its community by providing exemplary educational facilities focused on whole-child development, collaboration, and fiscal responsibility.

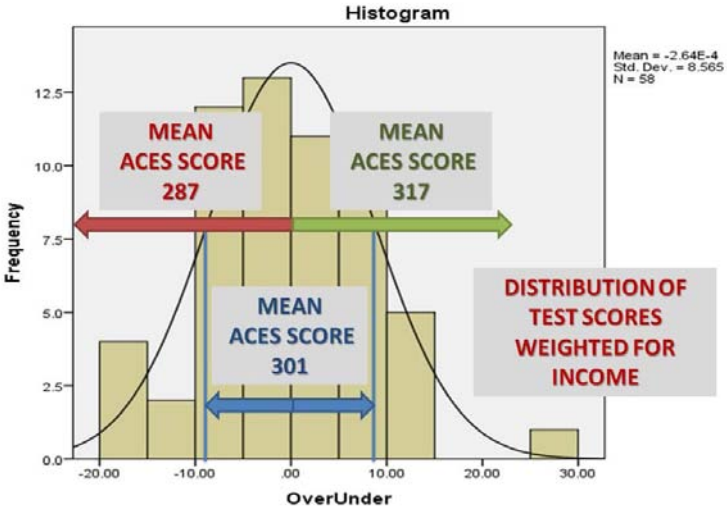
Principles

- Allow for a wide range of teaching and learning opportunities
- Maintain flexibility throughout in all areas of building and design (i.e. technology)
- Expand use of educational technologies
- Focus on whole child development
- Showcase for the community
- Create community use spaces

A. Introduction

Winthrop Harbor School District #1 Board of Education wanted to include curriculum facility alignment as part of the Master Facilities Plan. The goal of the curriculum facility alignment study is to assess how well the facilities provide the learning environment necessary to support and enhance the delivery of educational curriculum. An educational planner was a part of the architectural/engineering/site assessment team performing the physical assessment. Using an educational assessment tool, each building was evaluated based on the educational environment and the physical environment as it affects education. That process provides a subjective assessment of the educational adequacy.

As part of the alignment, a benchmark of where the buildings are must be done. Fanning Howey has developed Academic Commissioning of Educational Spaces or (ACES). ACES is an evaluation tool that benchmarks the impact of school



environments relative to student performance. Initial research demonstrated strong and significant correlations between the ratings of the built environment by the school principals and objective data of student performance relative to test scores and attendance. Fanning Howey utilized this

inclusive evaluation system, which allows all stakeholders at a school to benchmark the impact of the built environment relative to student performance.

Winthrop Harbor #1 ACES Scores 2014 Summary Table	District Overall Average	Westfield Elementary School	North Prairie Middle School
ACES Score	282.26	291.94	276.98
Physical Conditions	47.72	47.27	47.66
Educational Tech	47.59	47.63	47.48
Educational Planning	56.84	53.58	58.11
Community Use	29.31	26.90	29.28
Morale	79.98	95.93	72.96
Ideal Model	20.82	20.63	20.80
Condition Status	Fair	Fair	Fair

ACES Condition Status	ACES Scores	Range Per Question	2013 ISAT Predicted
Unsatisfactory	89-190	1-2	31-42
Poor	191-254	2-3	43-51
Fair	255-317	3	52-58
Good	318-381	3-4	59-65
Outstanding	382-445	4-5	66-73

ACES and ISAT	ACES Score	Predicted ISAT	Actual ISAT 2013	Difference	ACES Condition Status
Westfield Elementary School	291.94	55	60	5	Fair
North Prairie Middle School	276.98	53	59	6	Fair

The table above presents a summary of the ACES survey data collected as part of the Master Facility Plan process. Data were collected on six (6) categories for each facility. Within each category there were a series of questions. The categories and questions are as follows:

PHYSICAL CONDITIONS

- The classrooms are rarely too hot or too cold.
- There are temperature controls in the classrooms that work.
- There is no visible sign of water damage in the classrooms such as stained ceiling tiles or peeling paint.
- There are no unpleasant odors in the classrooms.
- Each classroom has windows to the outside with views.
- The classroom windows can open and close.

- The classrooms are free from glare due to interior lighting or windows.
- Students can clearly see the instructional material being presented.
- The air in the classrooms seems fresh and comfortable, neither stale nor too humid.
- Lighting controls are adequate for adjusting dimming or brightness.
- There are typically no disruptive noises inside classrooms from mechanical equipment or other building systems.
- There are typically no disruptive noises outside the classrooms from traffic noise or adjacent rooms.
- Student chairs and desks are comfortable, mobile, and well maintained.
- The interior finishes including flooring, paint/wall covering, and ceilings are in like-new condition.
- Students are able to clearly hear what is presented in the classrooms.

Educational Technology

- Every teacher has a personal computer and access to the district network.
- Every student has access to a computer and the internet in each classroom.
- Every student has a personal computer.
- Every student has access to a mobile digital hand-held device.
- Every student has a personal mobile digital hand-held device.
- Every classroom has a communications system connected to the main office.
- Every classroom has a large format video display, either a projector or LCD/plasma TV.
- Interactive touch-sensitive technology is provided in every classroom
- A document camera is provided in each classroom.
- Wireless connectivity is available throughout the entire building.
- Interactive student response systems (or "clickers") are available in each classroom.
- Every classroom has technology to support student and teacher collaboration.
- Adequate power and data ports are provided in each classroom.
- Distance learning technology is provided in the school.
- Every classroom has a sound reinforcement system with microphones.

Educational Programming and Facility Alignment

- The school building is well equipped to support team teaching.
- The learning spaces are flexible in supporting various sized groups of students.
- The school has adequate space for instructional storage.
- The school has space to support collaboration between teachers.
- Proper space is provided for individual student storage.
- Student work can be displayed prominently throughout the school.
- The school is well equipped to support project-based instruction.
- There is adequate space to rearrange each room to support different learning styles.
- Teachers often rearrange their classrooms to support various student activities.
- The school is well equipped to teach Language Arts.
- The school is well equipped to teach Social Studies.
- The school is well equipped to teach Math.
- The school is well equipped to teach Science.
- The school is well equipped to teach Art and Music.

- The school is well equipped to teach Special Needs.
- The school is well equipped to teach Physical Education.
- Adequate space is provided for all required educational programs.

COMMUNITY USE

- The school is well-equipped to support community programs.
- The media center is designed to support community use.
- The cafeteria is designed to support community use.
- The gymnasium is designed to support community use.
- There is a parent room or a place for PTO and community meetings.
- The playgrounds and athletic fields are accessible to the community.
- The school is well zoned to provide security for after school programs.
- The community takes pride in this school building.
- This school serves as a social center for the neighborhood.
- This school building is a landmark in the community.

SCHOOL MORALE

- Students enjoy being in school.
- Students work with enthusiasm.
- Students take pride in this school.
- Students value academic achievement.
- Students are cooperative and respectful.
- Students value the education they can receive in this school.
- Students do their best to learn as much as possible.
- The morale of teachers in this school is high.
- Teachers work with enthusiasm.
- Teachers take pride in this school.
- Teachers value academic achievement.
- Student absenteeism is low.
- Disruptions of classes by students is minimal.
- Students skip classes rarely.
- Students have respect for teachers.
- Drug and/or alcohol abuse are not major problems at this school community.
- Intimidation and bullying are rarely problems.
- Students are being encouraged to achieve their full potential.
- Parents are actively involved in the educational process.
- Instruction is individualized to meet each student's needs.
- Teacher absenteeism is low.
- School staff are open to change and innovative pedagogies.
- Relationships between students, parents and teachers are excellent.
- Vandalism and/or graffiti are not problems at this school.

FACILITY INTEGRATION

- Students are able to collect information and conduct experiments through the built environment.
- Our school building is a fully integrated tool for education.
- Our school building is an excellent regional model of what is best in education.
- Our school building is an excellent state-wide model of what is best in education.
- Our school building is an excellent national model of what is best in education.
- Other school districts have visited this facility to learn more about how the building works.
- Other school districts have modeled their school building based upon ours.

- Other school districts have followed our educational model.

The average scores for each question by category are shown in the table above. The District overall ACES average was 282.26 points out of a possible maximum of 445 points.

As shown in the middle of the table a score of 282.26 puts the District in the "Fair" range. Individually both schools also scored in the "Fair" range.

The lower section of the table is the correlation between the ACES score, the predicated ISAT score and the actual 2013 ISAT score. For Westfield Elementary School the predicted score was 55. For North Prairie Middle School the predicted score was 53.

However, both the Elementary and the Middle School actual scores were higher than what was predicted based on the ACES scores. This indicates that the students are *overachieving* despite some limitations from the physical environment. Again, the ACES scores put each facility in the "Fair" range so the limitations are not severe. However, the fact that the students overachieve indicates the District has focused students, quality teachers, a rigorous curriculum and student family support.

The ACES survey results also indicate that "raising the bar" by improving the condition status of the buildings from "Fair" to "Good" would have positive benefits. Student achievement on the standardized tests would, predictably, increase as the quality of the educational environment is improved.

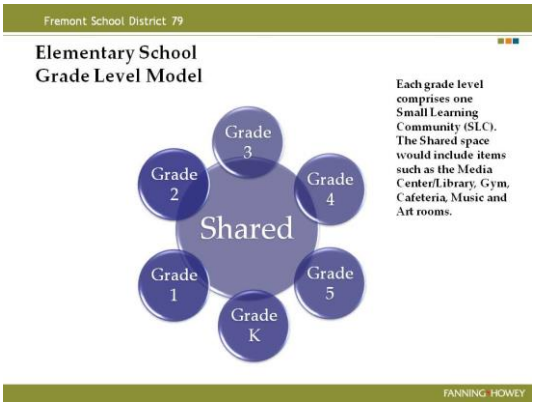
B. Needs Impacting the Educational Environment

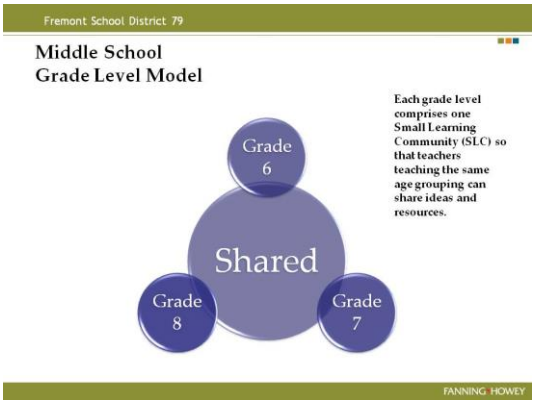
A Facility Planning Committee (FPC) comprised of teachers, parents, students and community members with representation from the Board and administration met several times to define needs and possible options to address those needs. The first workshop focused on the ideal or the **BEST PRACTICES**. Looking at elements of the building and focuses in the delivery of education.

It also discussed the "I Like and I Wonder" about the existing buildings. The group was asked "what aspects of each building do you like?" Conversely, the group was also asked "what aspects of each building do you wonder about?" The list of likes and wonders appear in *Appendix B – Curriculum Facility Alignment*.

The second workshop focused on **CONNECTING THE NEEDS AND WANTS** to specific goals and principles. After this workshop, a survey was given to determine overall preference for planning models and learning landscapes.

The overall preference was for continuing grade level models at both the elementary and middle school level. The workshop participants believe that this model best



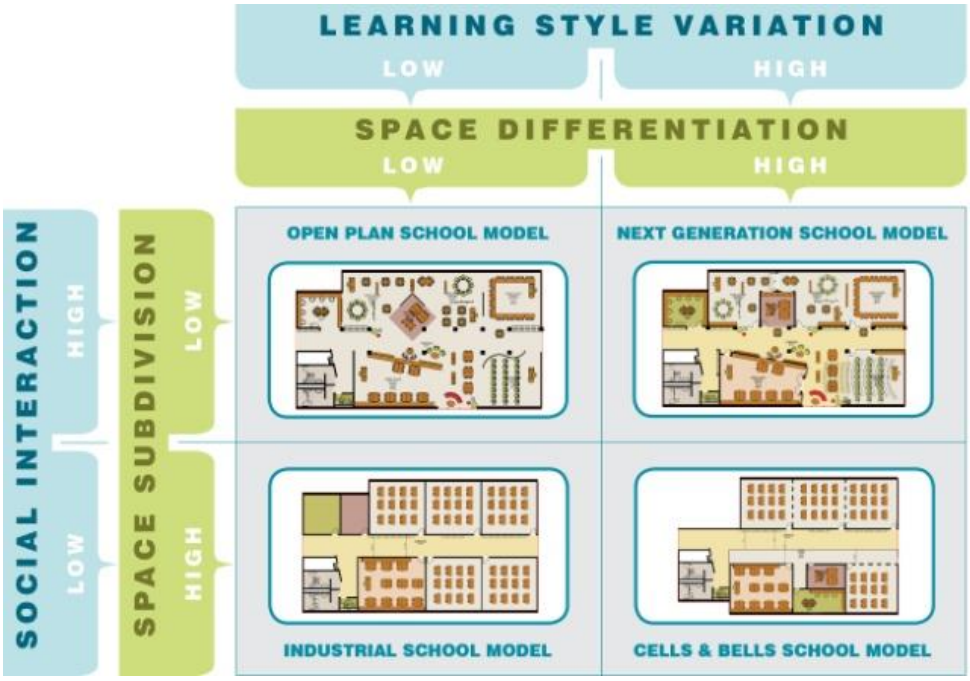


meets the needs of the students by consolidating resources in a single building.

This model allows for future flexibility, maximizing opportunities for student, and the next generation school model, which is based on the learning landscape pictured below.

Each landscape defines the social interaction, the space differentiation, learning style variation, and space subdivision differently. The next generation model has the highest level of space differentiation and the highest level of various learning styles variation, as well as high social and space subdivision.

The final workshop was spent confirming items from previous workshops, as well as outlining the changes or opportunities within the existing plans, to improve the learning environments and educational delivery. Out of these discussions have come the options that are shown later in this report.



C. SUMMARY

The facilities in Winthrop Harbor School District #1 generally provide the type and configuration to meet the previous curriculum. However, as the District has moved to a more rigorous curriculum with emphasis on differentiated learning the traditional "cells & bells" school model constricts the ability to fully deliver the new curriculum.

There is a demonstrated need for collaborative spaces that allow for differentiated education. That is considered in the development of the potential options.

In *Appendix B- Curriculum Facility Alignment* the summary of the Facility Planning Committee workshops as well as the other information generated as part of the MFP process is shown. The information was in a PowerPoint presentation given to the public.

5. Utilization Assessment

Utilization assessment is the comparison of actual and projected student enrollment to the capacity of a school to accommodate those students. The capacity of a school facility is driven by the number of classrooms or other spaces in which children are educated (teaching spaces), multiplied by the preferred number of students per teacher (student/teacher ratio). That capacity at the middle school is adjusted based on the number of spaces needed to support specialty programs.

Dividing the number of students enrolled by the capacity yields the utilization percentage. This is done for the current as well as the projected student enrollment to analyze how utilization is anticipated to change over time.

The goal is to have facilities that are 85% to 90% utilized. A percentage higher than that and the school begins to be “tight” or overcrowded and adversely affects the learning environment. In addition a school that is utilized at greater than 95% has difficulty accommodating the occasional “bubble” class that has higher than normal enrollment.

Under utilization results in resources being spent maintain unneeded space. Those are resources that could better be directed to education of the students rather than maintain space.

A. Introduction

Another factor in the Master Facilities Plan is the utilization of each school. This is done by evaluating the capacity of each facility as compared to enrollment. At the elementary level, where students do not typically change classrooms throughout the day except for some enrichment classes, it is possible to program the use of spaces more efficiently. Most plans do not call for 100% utilization. They allow for some extra capacity to provide space to accommodate those exceptionally large "bubble grades" that, for whatever reason, have more than the usual number of students from year to year. This allows for some internal "swing space" when an exceptionally large number of students in a

particular grade, or grades, is experienced and there needs to be extra 3rd and 5th Grade classrooms for example.

However, allowing for internal "swing space" introduces a significant cost. Additional classrooms that may not be fully-utilized represent a cost that is not a priority given the current economic conditions. Therefore, while having some additional space to accommodate those "bubble grades" is desirable, it is not absolutely necessary. Thus, for the purposes of this Master Facilities Plan, utilization for elementary schools is based on the 100% capacity level.

At the middle level targeting 85% capacity allows for those exceptionally large grades. This is referred to as the "optimal capacity". Also, it is virtually impossible to schedule a building where students change classrooms at a higher level of utilization. Classrooms or other teaching stations, due to the curriculum and class scheduling, will be unused at various times throughout the school day.

Finally, a utilization analysis is a three-step process. It begins with calculating the capacity at each facility. The second step is to gauge student enrollment. And the third step is to actually calculate the utilization percentage by dividing the student enrollment by the capacity.

B. DEMOGRAPHICS

An enrollment projection was prepared as part of the Master Facilities Plan process. Fanning/Howey Associates Inc. uses a modified cohort component (survival) method to develop the district-wide demographic projections. The cohort component method is one of the most common and accepted methods of projecting changes in population and enrollment.

The district population was divided into distinct five-year [5] increment age groups (cohorts). Therefore, the population of the study area was divided into those persons age 0 to 4, 5 to 9, 10 to 14, etc. Due to the small size of the final cohort, persons age 65 and over were considered as one cohort.

Using a combination of the annual fertility and mortality rates for each cohort, the population is “aged” each year throughout the planning period. Typically, this is done for a ten-year period. Longer periods can be used with the understanding that reliability decreases as the length of the planning period is increased.

The fertility and mortality rates are taken from various sources including vital statistics from the State of Illinois and other established sources such as the insurance industry. Illinois provides information on births and deaths by county.

Population changes are also affected by migration into and out the area. Traditionally, this is the most difficult factor to assess. Fanning Howey considers the level of migration in several ways. First, local housing Multiple Listing Service (MLS) data is incorporated into the population projection model. In established areas there is often a demographic shift exhibited as older “empty nesters” relocate to alternative housing. They tend to sell larger homes where they raised their families. Families with young children, or “DINKS” (Dual Income No Kids) who are planning on starting a family, move in thus beginning a “recycling” of the housing stock.

Finally, a macro-level source of data is the Internal Revenue Service. The IRS codes the individual income tax returns by the social security number of the primary filer. The code establishes the location of the home from which the return was filed. The following year the location code of the primary filer is compared to the previous year's location code. Tables of outflows and inflows by county for each state are developed. Again, this represents macro-level data that is useful for spotting general county-wide trends.

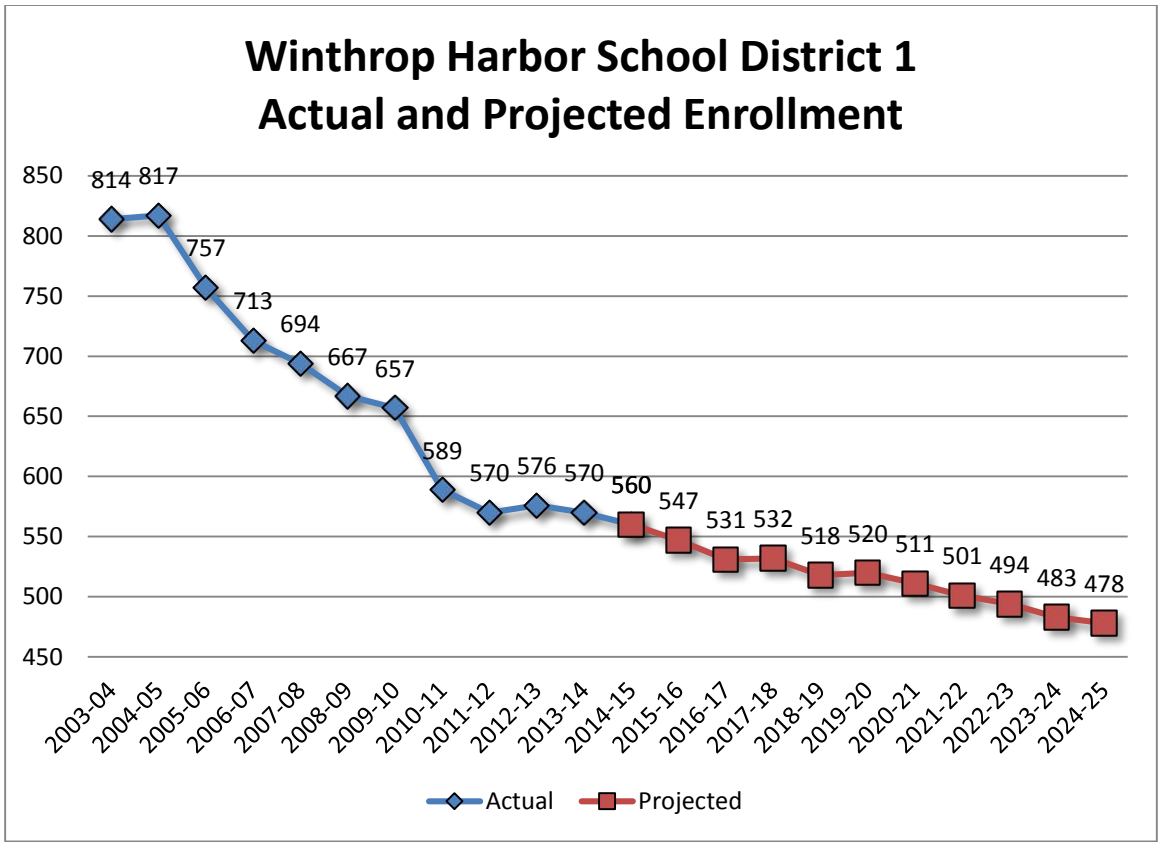
Whenever possible, as much of this information is used to augment the cohort component method. The result is the development of a ten-year demographic projection for the population residing in Winthrop Harbor School District #1. This projection provides needed information, especially about births upon which future kindergarten enrollment relies.

Following completion of the district-wide population projection the next step is to develop a grade-to-grade enrollment projection. This is done by assessing the grade-to-grade survival ratio for the past several years. In a district such as Withrop Harbor School District #1 that has experienced some changes in student enrollment both increases and decreased during the past ten years, grade-to-grade survival ratios by themselves limit accuracy. Under that scenario, an adjustment is made to account for the students that are likely to enroll or leave the district as a result of changes to the in and out migration patterns or changes in the number of births.

Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	59	53	53	52	52	51	50	50	49	48	48
1	59	62	55	55	54	54	53	52	52	51	50
2	63	59	62	55	55	54	54	53	52	52	51
3	61	62	58	61	55	55	54	54	53	52	52
4	52	62	63	59	62	56	56	55	55	54	53
5	69	52	62	63	59	62	56	56	55	55	54
6	54	70	53	63	64	60	63	57	57	56	56
7	73	55	71	54	64	65	61	64	58	58	57
8	70	72	54	70	53	63	64	60	63	57	57
K-8	**560**	**547**	**531**	**532**	**518**	**520**	**511**	**501**	**494**	**483**	**478**

As shown in the table above and in the following chart, enrollment is projected to continue to decline over the next ten year period. The District is projected to have 82 fewer students enrolled in 2024-25 than in the current school year.

It should be remembered that student enrollment is cyclical. While projections past ten years are increasingly subject to unforeseen changes that affect their reliability when the Winthrop Harbor enrollment is projected out twenty years there appears to be a gradual increase in student enrollment.

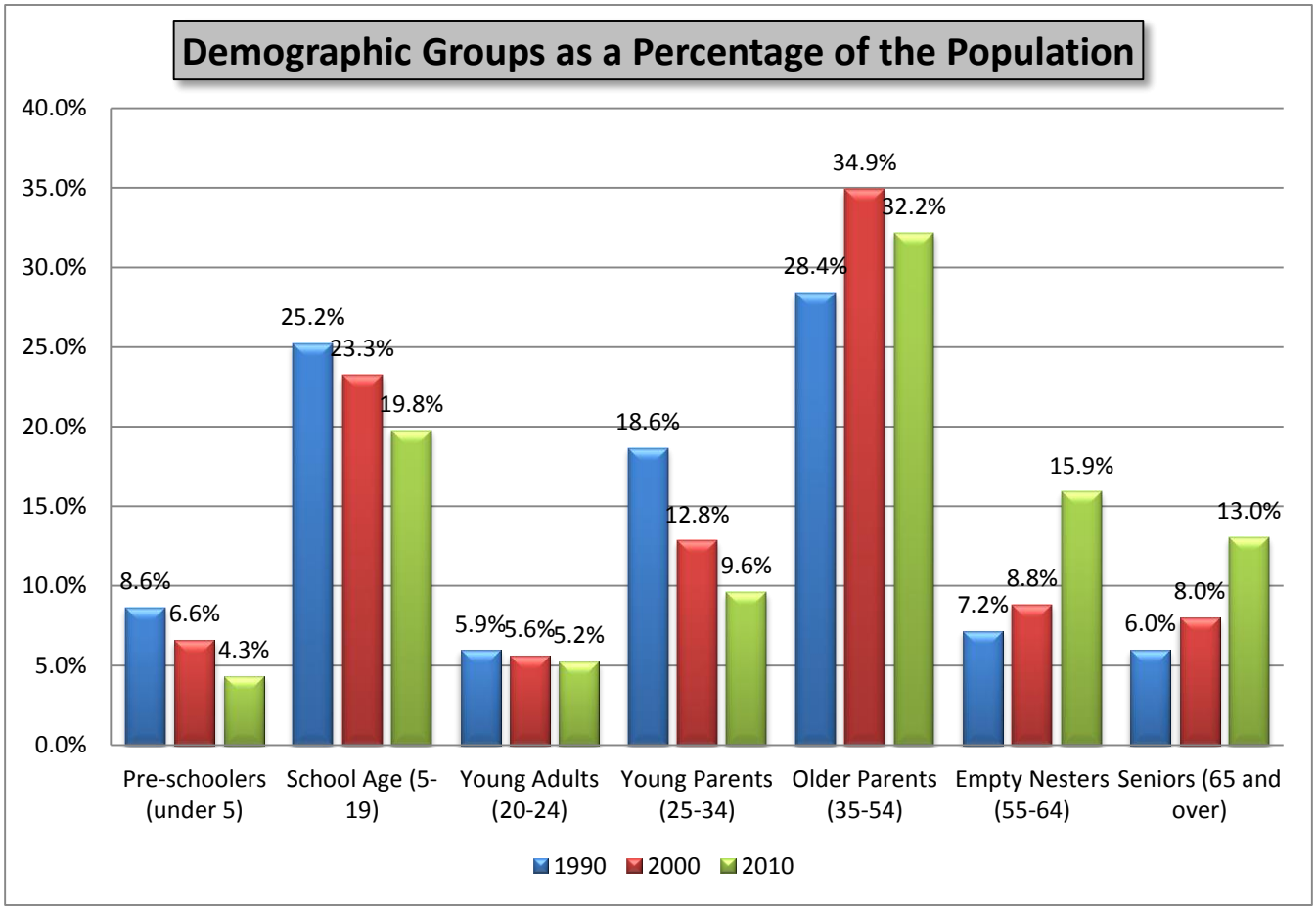


That is not atypical of enrollment within a district. As families with children age and move into "empty nester" status student enrollment falls. Then as the empty nesters move into senior status and begin to relocate to alternative housing younger families begin to move into the district and enrollment increases.

Winthrop Harbor School District #1 is experiencing a downward enrollment trend as the number of families with children has fallen significantly. In the year 2000, of the 2,407 households, 1,020 or 42.3% had children under the age of eighteen. According to the 2010 Census there are 2,529 households in the District. However, only 693 or 27.4% have children under the age of 18.

As shown in the following chart the shift away from younger children to older residents is defined. The chart shows the percentage of the population in each age cohort based on the 1990, 2000 and 2010 Census. Every cohort from children under the age of five to older parents up to the age of 54 has declined as a percentage of the total District population. The empty nesters and the seniors have grown over the past twenty years as a percentage of the population.

Clearly, the long-term projection is for renewed student enrollment. In the short-term, however, enrollment is projected to continue to decline over the next ten years.



C. Capacity Analysis

As stated throughout this report, one of the first tasks in preparing a Master Facilities Plan is to assess the physical and educational condition of each facility. While the results of those assessments are addressed in previous sections of this report, they are mentioned here, since that is where the capacity analysis began. Prior to the assessment teams performing a walk-through at each facility, they met with the principal or other key administrator at each building. As part of that process, the team ”marked up” a floor plan for the building showing the current uses of each space.

A typical definition of "school capacity" is the number of students that can be accommodated in a building considering the physical, operational and programmatic variables. The degree to which the variables are quantified defines the "tightness" of the capacity calculation.

There are several key components to each of the variables. The physical variable component most often assessed is the number and type of teaching stations in the facility. The operational components that typically influence capacity are specialty program offerings. Finally, the components of the programmatic variables that are usually

factored into a capacity calculation are student/teacher ratios and scheduling.

This is not to diminish the fact that the other variables can and do play a role in determining the capacity of a building. Physical variable components such as the size of support facilities, including the kitchen and lunchroom, influence capacity. Policies affecting the operation of a building and educational program offerings are components of the operational and programmatic variables that also affect capacity.

Consideration of these and other capacity variable components require a study with an expanded scope. Such a study is desirable and yields the greatest information. However, time and cost constraints often dictate a more condensed analysis. For this and most capacity studies, the variable components listed: the number and type of teaching stations; the specialty program offerings; the student/teacher ratios; and scheduling, are most often used.

The overall Fanning Howey method of computing capacity is straightforward and is the method most often employed in the preparation of other studies. The capacity of a school facility is driven by the number of classrooms or other spaces in which children are educated (teaching spaces), multiplied by the preferred number of students per teacher (student/teacher ratio). That capacity is adjusted based on the number of spaces needed to support specialty program. These are offerings which are most often self-contained classrooms for students with special needs which operate at a lower student/teacher ratio. The capacity is further adjusted by scheduling considerations such as the school calendar or extra class periods during the school day.

The Winthrop Harbor School District #1 used target student/teacher ratios that are appropriate for each grade level. These ratios were used by Fanning Howey in the preparation of this Master Facilities Plan.

Prairie Trail School, Gurnee, IL

As part of the field assessment of each school, the teams documented which spaces in the building are currently used for student education. Spaces were listed by five categories:

1. **Teaching Spaces** – classrooms that are used in the calculation of the capacity.
2. **Special Education Spaces** – Self-contained special education classrooms with a student/teacher ratio.
3. **Resource Rooms** – Classroom-sized spaces that are used for a variety of programs including, but not limited to ESL, Title 1, remediation, etc. Since these are primarily "pull-out" programs located in the resource rooms, no capacity was assigned.
4. **Resource space non-classroom size** – Other areas where education is provided, but in smaller, non-classroom size rooms. These may or may not be totally appropriate learning environments.
5. **Other classrooms not Included in capacity** – classrooms used for other teaching activities that do not have a class

permanently assigned to it. At the elementary level this would include music, art, and computer lab spaces.

The number of teaching spaces was multiplied by the appropriate student/teacher ratio and their sum is the current use capacity of the building based on a traditional school calendar.

Based on that methodology the capacities of each of the three buildings were established as follows:

- Westfield School – 343
- North Prairie – 366
- District Total - 709

The capacity details are shown in the following table.

Westfield Elementary				
Grade Level	**T.S.**	**Student:Teacher Ratio**	**Capacity**	**Enrollment**
K	3	22	66	59
1	3	22	66	59
2	3	22	66	63
3	3	25	75	61
4	2	25	50	52
SPED	2	10	20	
Total	16		343	
Functional *(100% of total)*	**16**		**343**	**294**
North PrairieJr. High				
Grade Level	**T.S.**	**Student:Teacher Ratio**	**Capacity**	**Enrollment**
5	2	25	50	69
6	2	25	50	54
7	3	25	75	73
8	3	25	75	70
Other				
Gym	2	25	50	
Music	1	25	25	
Science	1	25	25	
Art	1	25	25	
Computer Lab	1	25	25	
SPED	3	10	30	
Total	19		430	
Functional *(85% of total)*	**19**		**366**	**266**
District Total	**35**		**709**	**560**

D. UTILIZATION

Dividing the student enrollment by the capacity provides the utilization percentage of each facility. As shown in the following table the Westfield is currently in the target utilization percentage of between 85% to 90%. North Prairie is slightly underutilized.

By the end of the ten-year planning period both schools will be somewhat underutilized.

School	Capacity	2014-15	2015-16	2016-17	2017-18	2018-19
Westfield (K-4)	343	294	298	291	282	278
Utilization Pct.		85.7%	86.9%	84.8%	82.2%	81.0%
North Prairie (5-8)	366	266	249	240	250	240
Utilization Pct.		72.7%	68.0%	65.6%	68.3%	65.6%
District (K-8)	709	560	547	531	532	518
Utilization Pct.		79.0%	77.2%	74.9%	75.0%	73.1%

School	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Westfield (K-4)	270	267	264	261	257	254
Utilization Pct.	78.7%	77.8%	77.0%	76.1%	74.9%	74.1%
North Prairie (5-8)	250	244	237	233	226	224
Utilization Pct.	68.3%	66.7%	64.8%	63.7%	61.7%	61.2%
District (K-8)	520	511	501	494	483	478
Utilization Pct.	73.3%	72.1%	70.7%	69.7%	68.1%	67.4%

E. SUMMARY

Utilization is a concern now and will be a growing concern during the ten-year planning period. At the end of the ten-year period the District utilization will be 67.4%. That indicates that significant space will need to be maintained that is not necessarily needed for education.

The problem is what to do with the excess space. One alternative is to consolidate buildings. Another alternative is to continue to support the excess space. Both of these alternatives are taken into account in the Options section of the Master Facilities Plan.

6. Options

The setting of priorities is a key element of a Facilities Master Plan. In considering the condition of Winthrop Harbor School District #1 facilities; the utilization; and, the educational alignment, the following priorities were set:

1. Safety and Security
2. Middle Schools
3. Elementary Schools
4. "Should Have" items
5. Other facility needs
6. "Want to Have" items

Based on those priorities, seven (7) options were developed.

A. Introduction

After assessing the physical and educational alignment of the buildings; calculating the capacity of each school; considering the utilization percentages; and, factoring in current and future student enrollment, the final phase of the planning process is to develop and present options. Rather than just providing one solution, the Planning Team developed several options. The relative merits and detriments of each option were evaluated. That analysis is presented in this section.

A recommended course of action is presented in sub-section "d". However, prior to the recommendation a side-by-side comparison of each option is presented for evaluation purposes as well as to build trust in the final recommendation.

B. Criteria

In developing a Master Facilities Plan for Winthrop Harbor School District #1, it was essential that a common evaluation platform be created. The evaluation platform consisted of criteria forming the basis from which decisions were made on school facility

recommendations. Although many categories could be used, four topics were vetted and ultimately decided upon.

1. **Enrollment**
   - Historic/Current/Projected
   - Trends
2. **Capacity**
   - Determination of the student capacity of each school.
3. **Building Utilization**
   - Percentage Utilization (enrollment versus capacity)
     - The number of students enrolled divided by the student capacity of each school.
     - This was done based on the present and future enrollment.
     - Space Utilization
     - The square footage of the building divided by the enrollment.
     - Compared to national standards
4. **Alignment**
   - Physical - Based on the recent facility assessments, what is the current condition of the school building? What physical improvements are needed?
   - Educational - How well does the current facility accommodate the programmatic needs of the curriculum?

C. DEFINITIONS

Routine/Preventative Maintenance: To replace filters and parts as appropriate; adjust equipment, clean, etc.

Minor Renovation: A Minor Renovation may include finish upgrades (such as floor replacement, wall painting, or ceiling replacement/repair), lighting upgrades, and code or safety related items. This level does not include any wall or room use changes.

Moderate Renovation: A Moderate Renovation may include complete room upgrades (finishes for floors, walls, ceilings, and cabinetry replacement) with simple wall or door reconfiguration between adjacent rooms. Change of room use is included at this level, if no water or sewer modification is required to do so. Typically, this would mean addressing an entire wing or area, not just one room, and may involve rearranging a portion of the building to better accommodate the educational program. This may also include any item in a System Renovation or Minor Renovation.

Major Renovation: A Major Renovation is a complete restructuring of the building for program use, including room location changes, complete wall or circulation space alterations, major entry and communal space changes, kitchen upgrades, and/or complete replacement of a facility (i.e., a pool). This may also include any item in a Moderate Renovation.

D. OPTIONS

To address the identified needs of the District, seven (7) options have been developed. It should be noted that for each option

Option #1 – "Status Quo" - This illustrates what would happen if the District were to address maintenance needs only. It shows the results of deferring or not implementing any improvements to address needs beyond keeping the buildings ”warm, safe and dry”.

Option #2 – "New Elementary" – Under this option a new elementary would be constructed replacing Westfield. It would accommodate PK-5 moving the 5th grade back to the elementary school. This was a need identified in the "I Wonder" list of educational needs. Even though Westfield does not exceed the 66% threshold where it would automatically be a candidate for replacement the RI value of 55% suggests that replacement be considered as an option. The significant long term needs as compared to the replacement of the building is the driver for this option. This would obviously eliminate any maintenance needs at the existing Westfield building but would require addressing maintenance and capital improvement needs at North Prairie.

Option #3 – "Improvements to Westfield and North Prairie" - This incorporates the actions deemed to have the most significant impact that emerged from the visioning sessions. That includes making improvements to Westfield and North Prairie; addressing many of the immediate maintenance needs; and, having a significant impact on the educational environment by moving the district to one-to-one computing.

Option #4 – "Change Grade Configuration Scenario" - This option reflects additional emphasis on meeting the capacity needs of the District when enrollment allows action. The FPC during their workshops expressed a strong desire to move the 5th grade back to Westfield. This option allows that only when the enrollment reaches a point that the move can be accomplished without any new construction. Beyond the grade configuration change, this option would address maintenance needs at both schools.

Option #5 - "Total Renovation of Westfield plus the addition of a new gym and entry area" – The would be a major renovation of Westfield taking the interior "down to the studs" and replacing all major systems. With the addition of a new gym and entry this would essentially rebuild Westfield as a K-5

Option #6 - "Expansion at North Prairie and Close Westfield" - This option would expand North Prairie to make it a PK-8 building. Westfield would be sold or demolished. The remodeled North Prairie would be enlarged to accommodate all academic functions as well as all support facilities including a second gym.

Option #7 - "Limited Expansion at North Prairie and Close Westfield" This option would do what Option #6 calls for but on a smaller scale. There would be no additional gym and the cafeteria would not be enlarged. This would significantly reduce the cost.

The table on the following page provides a summary of each option. It lists the project costs as well as the maintenance costs. It also shows the potential pros and cons associated with each option. On the pages following the table are, what the planning team calls, the "monopoly boards". These are graphic and tabular representations of each scenario.

The monopoly boards have columns for this past school year and each of the next 10 school years representing the planning horizon. Rows are divided into sections dedicated to the elementary school, the intermediate school and the middle school.

A key element in analyzing the options is how well each option addresses the goals set at the start of the planning process. The next chart shows the alignment of the options and the goals. The full circles indicate that the goal is completely met. A half circle indicates partial fulfillment of the goal. A blank indicates that the goal was not met.

Only Options #6 fully meets the goals. Option #7 with limited expansion partially meets two of the goals.

However, the overarching issue is that of cost.

E. ACTIONS

Associated with each option are a series of actions. Differing combinations of those actions form the options. The table after the Monopoly Boards details the actions and which options each is associated with.

Option	Description	Goal 1 - FUTURE READY	Goal 2 - ASSET MANAGEMENT	Goal 3 - RESOURCE MANAGEMENT	Goal 4 - EFFECTIVE BUILDING UTILIZATION	Goal 5 - THINK "BIG"	COST
1	"Status Quo" Scenario						$1,155,000
2	New Elementary	●	◖	◖		●	$15,368,782
3	Improvements to Westfield and North Prairie	◖	◖		◖		$5,592,455
4	Change Grade Configuration Scenario			◖			$1,155,000
5	Total Renovation of Westfield plus the addition of a new gym and entry area	●	●	◖		●	$13,515,933
6	Expansion at North Prairie Close Westfield	●	●	●	●	●	$10,245,109
7	Limited Expansion at North Prairie Close Westfield	◖	◖	●	●	●	$7,951,384

Winthrop Harbor SD #1
Potential Options

Option Number	OPTION #1		OPTION #2		OPTION #3	
Option Description	*"Status Quo" Scenario*		***New Elementary***		***Improvements to Westfield***	
Summary	**Year**	**Action**	**Year**	**Action**	**Year**	**Action**
Elementary School		Maintenance Only	*2015-16*		*2015-16*	One-to-one computing implemented
			2016-17		*2016-17*	
			2017-18		*2017-18*	Improvements/additions to Westfield
			2018-19	New elementary school opens K-5	*2018-19*	
			2019-20		*2019-20*	
			2020-21		*2020-21*	
			2021-22		*2021-22*	
			2022-23		*2022-23*	
			2023-24		*2023-24*	
			2024-25		*2024-25*	
Middle School		Maintenance Only	*2015-16*		*2015-16*	One-to-one computing implemented
			2016-17		*2016-17*	
			2017-18		*2017-18*	
			2018-19	Grade configuration changed (6-8)	*2018-19*	
			2019-20		*2019-20*	
			2020-21		*2020-21*	
			2021-22		*2021-22*	
			2022-23		*2022-23*	
			2023-24		*2023-24*	
			2024-25		*2024-25*	
Cost *(over the 10-year period)*						
Total Project Cost				$14,213,782		$4,437,455
Total Maintenance Needs		$10,297,891		$5,420,835		$4,995,908
Operations & Maintenance Budget		$1,155,000		$1,155,000		$1,155,000
Surplus/Deficit (cummulative)		($9,142,891)		($4,265,835)		($3,840,908)
TOTAL COST (Project and O&M)		$1,155,000		$15,368,782		$5,592,455
Pro and Con Impacts						
PRO		Level cost		New elementary can be designed to exactly meet district needs Fully addresses elementary educational needs		Minor improvements to Westfield Cost within budget Moves the District to one-to-one computing
CON		Leaves significant maintenance issues unaddressed Does not improve the learning environment District must maintain all spaces with declining enrollment		High cost requiring large bond issue Leaves significant maintenance issues unaddressed		Does not improve the learning environment District must maintain all spaces with declining enrollment Leaves significant maintenance issues unaddressed

Winthrop Harbor SD #1
Potential Options

Option Number	OPTION #4		OPTION #5		OPTION #6		OPTION #7	
Option Description	*Change Grade Configuration Scenario*		*Total Renovation of Westfield plus the addition of a new gym and entry area*		*Expansion at North Prairie Close Westfield*		*Limited Expansion at North Prairie Close Westfield*	
Summary	**Year**	**Action**	**Year**	**Action**	**Year**	**Action**	**Year**	**Action**
Elementary School	*2015-16*		*2015-16*		*2015-16*		*2015-16*	
	2016-17		*2016-17*		*2016-17*		*2016-17*	
	2017-18		*2017-18*		*2017-18*		*2017-18*	
	2018-19		*2018-19*	Renovated elementary school opens K-5	*2018-19*	Westfield closes	*2018-19*	Westfield closes
	2019-20		*2019-20*		*2019-20*		*2019-20*	
	2020-21	Change grade configuration to K-5	*2020-21*		*2020-21*		*2020-21*	
	2021-22		*2021-22*		*2021-22*		*2021-22*	
	2022-23		*2022-23*		*2022-23*		*2022-23*	
	2023-24		*2023-24*		*2023-24*		*2023-24*	
	2024-25		*2024-25*		*2024-25*		*2024-25*	
Middle School	*2015-16*		*2015-16*		*2015-16*		*2015-16*	
	2016-17		*2016-17*		*2016-17*		*2016-17*	
	2017-18		*2017-18*		*2017-18*		*2018-19*	
	2018-19		*2018-19*	Grade configuration changed (6-8)	*2018-19*	North Prairie expanded to a K-8	*2019-20*	North Prairie expanded to a K-8
	2019-20		*2019-20*		*2019-20*		*2020-21*	
	2020-21	Change grade configuration to 6-8	*2020-21*		*2020-21*		*2021-22*	
	2021-22		*2021-22*		*2021-22*		*2022-23*	
	2022-23		*2022-23*		*2022-23*		*2023-24*	
	2023-24		*2023-24*		*2023-24*		*2024-25*	
	2024-25				*2024-25*		*2024-25*	
Cost *(over the 10-year period)*								
Total Project Cost				$12,360,933		$9,090,109		$6,796,384
Total Maintenance Needs		$10,297,891		$5,420,835		$5,420,835		$5,420,835
Operations & Maintenance Budget		$1,155,000		$1,155,000		$1,155,000		$1,155,000
Surplus/Deficit (cummulative)		($9,142,891)		($4,265,835)		($4,265,835)		($4,265,835)
TOTAL COST (Project and O&M)		$1,155,000		$13,515,933		$10,245,109		$7,951,384
Pro and Con Impacts								
PRO		Brings the 5th grade back to Westfield		Improves elementary learning environment Total renovation will include all maintenance needs at Westfield Brings 5th grade back to the elementary		"Right-sizes" the district and eliminates the oldest building to maintain Possiblity of selling Westfield and having some financial return One campus in-line with original plan at North Prairie Keeping project at $6 million would reduce taxes as that level of funding would not exceed debt ceiling cap		"Right-sizes" the district and eliminates the oldest building to maintain Possibility of achieving budget without increase in tax rate Possiblity of selling Westfield and having some financial return One campus in-line with original plan at North Prairie Project budget allows for classrooms, 2nd gym and cafeteria/media center/office expansion
CON		Does not improve the learning environment District must maintain all spaces with declining enrollment Leaves significant maintenance issues unaddressed		High cost/signficant bond issue		Budget only allows for classroom addition no gym, cafeteria, media center or office expansion Slightly over the $6 million dollar budget cap - needs some additional reduction in scope		Budget achievable only with legislative action to exceed debt limit cap

Winthrop Harbor School District 1
Home of the Cyclones

OPTION #1 — "Status Quo" Scenario

Traditional Calendar

Enrollments by: Fanning Howey (2014)

Elementary School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Grades	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4
100% Utilization Capacity	343	343	343	343	343	343	343	343	343	343	343
Functional Capacity	343	343	343	343	343	343	343	343	343	343	343
Westfield Elementary											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	294	298	291	282	278	270	267	264	261	257	254
FUNCTIONAL — Utilization %	86%	87%	85%	82%	81%	79%	78%	77%	76%	75%	74%
FUNCTIONAL — Over/Under Capacity	49	45	52	61	65	73	76	79	82	86	89
Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Needs	$1,646,455	$312,066	$725,048	$131,989	$93,569	$353,130	$287,273	$2,518	$483,810	$181,316	$659,881
Operations & Maintenance Budget	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169
Surplus/Deficit (cummulative)	($1,599,286)	($1,864,183)	($2,542,062)	($2,626,882)	($2,673,282)	($2,979,243)	($3,219,347)	($3,174,696)	($3,611,337)	($3,745,484)	($4,358,196)
TOTAL COST (Project and O&M)	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169

SUMMARY

Year	Action	
2015-16		$4,877,056
2016-17		$518,860
2017-18		($4,358,196)
2018-19		$518,860
2019-20		
2020-21		
2021-22		
2022-23		
2023-24		
2024-25		
2024-25		

Middle School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Grades	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8
100% Utilization Capacity	430	430	430	430	430	430	430	430	430	430	430
Functional Capacity	366	366	366	366	366	366	366	366	366	366	366
North Prairie Middle											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	266	249	240	250	240	250	244	237	233	226	224
FUNCTIONAL — Utilization %	73%	68%	66%	68%	66%	68%	67%	65%	64%	62%	61%
FUNCTIONAL — Over/Under Capacity	100	117	126	116	126	116	122	129	133	140	142
Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Needs	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308
Operations & Maintenance Budget	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831
Surplus/Deficit (cummulative)	($174,907)	($357,269)	($304,981)	($247,150)	($189,319)	($1,116,581)	($1,345,118)	($1,287,288)	($1,858,226)	($2,442,219)	($4,784,696)
TOTAL COST (Project and O&M)	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831

SUMMARY

Year	Action	
2015-16		$5,420,835
2016-17		$636,140
2017-18		($4,784,696)
2018-19		$636,140
2019-20		
2020-21		
2021-22		
2022-23		
2023-24		
2024-25		

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
Total Enrollment	560	547	531	532	518	520	511	501	494	483	478	
Total Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Maintenance Needs	$1,879,193	$552,259	$730,591	$131,989	$93,569	$1,338,223	$573,641	$2,518	$1,112,579	$823,140	$3,060,189	$10,297,891
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$1,155,000
Surplus/Deficit (cummulative)	-$1,774,193	-$2,221,452	-$2,847,043	-$2,874,032	-$2,862,601	-$4,095,824	-$4,564,465	-$4,461,984	-$5,469,562	-$6,187,703	-$9,142,891	($9,142,891)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$1,155,000

Winthrop Harbor School District 1
Home of the Cyclones

OPTION #2 — New Elementary

Traditional Calendar

Enrollments by: Fanning Howey (2014)

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	SUMMARY
Elementary School	Grades	K-4	K-4	K-4	K-4	K-5	K-5	K-5	K-5	K-5	K-5	K-5	
	100% Utilization Capacity	343	343	343	343	400	400	400	400	400	400	400	Year / Action
	Functional Capacity	343	343	343	343	400	400	400	400	400	400	400	2015-16
	Westfield Elementary												2016-17
													2017-18
	Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)												2018-19: New elementary school opens K-5 2019-20 2020-21 2021-22 2022-23 2023-24 2024-25
	Enrollment	294	298	291	282	337	332	323	320	316	312	308	
	FUNCTIONAL Utilization %	86%	87%	85%	82%	84%	83%	81%	80%	79%	78%	77%	
	FUNCTIONAL Over/Under Capacity	49	45	52	61	63	68	77	80	84	88	92	
	Project Cost	$0	$0	$0	$0	$14,213,782	$0	$0	$0	$0	$0	$0	$14,213,782
	Maintenance Needs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Operations & Maintenance Budget	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Surplus/Deficit (cummulative)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	TOTAL COST (Project and O&M)	$0	$0	$0	$0	$14,213,782	$0	$0	$0	$0	$0	$0	$14,213,782

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	SUMMARY
Middle School	Grades	5-8	5-8	5-8	5-8	6-8	6-8	6-8	6-8	6-8	6-8	6-8	
	100% Utilization Capacity	430	430	430	430	355	355	355	355	355	355	355	Year / Action
	Functional Capacity	366	366	366	366	302	302	302	302	302	302	302	2015-16
	North Prairie Middle												2016-17
													2017-18
	Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)												2018-19: Grade configuration changed (6-8) 2019-20 2020-21 2021-22 2022-23 2023-24 2024-25
	Enrollment	266	249	240	250	181	188	188	181	178	171	170	
	FUNCTIONAL Utilization %	73%	68%	66%	68%	60%	62%	62%	60%	59%	57%	56%	
	FUNCTIONAL Over/Under Capacity	100	117	126	116	121	114	114	121	124	131	132	
	Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
	Maintenance Needs	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308	$5,420,835
	Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$1,155,000
	Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)	($4,265,835)
	TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$6,575,835

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
Total Enrollment	560	547	531	532	518	520	511	501	494	483	478	
Total Project Cost	$0	$0	$0	$0	$14,213,782	$0	$0	$0	$0	$0	$0	$14,213,782
Total Maintenance Needs	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308	$5,420,835
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$1,155,000
Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)	($4,265,835)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$14,318,782	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$15,368,782

Winthrop Harbor School District 1
Home of the Cyclones

OPTION #3 — Improvements to Westfield

Traditional Calendar

Enrollments by: Fanning Howey (2014)

Elementary School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Grades	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4	K-4
100% Utilization Capacity	343	343	343	343	343	343	343	343	343	343	343
Functional Capacity	343	343	343	343	343	343	343	343	343	343	343
Westfield Elementary											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	294	298	291	282	278	270	267	264	261	257	254
FUNCTIONAL — Utilization %	86%	87%	85%	82%	81%	79%	78%	77%	76%	75%	74%
FUNCTIONAL — Over/Under Capacity	49	45	52	61	65	73	76	79	82	86	89
Project Cost	$0	$1,975,219	$1,808,968	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Needs	$0	$0	$0	$0	$0	$0	$0	$0	$483,810	$181,316	$659,881
Operations & Maintenance Budget	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169
Surplus/Deficit (cummulative)	$47,169	$94,338	$141,507	$188,677	$235,846	$283,015	$330,184	$377,353	($59,288)	($193,435)	($806,146)
TOTAL COST (Project and O&M)	$0	$1,975,219	$1,808,968	$0	$0	$0	$0	$0	$483,810	$181,316	$659,881

SUMMARY	
Year	*Action*
2015-16	One-to-one computing implemented
2016-17	Improvements to Westfield
2017-18	
2018-19	
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	

SUMMARY
$3,784,187
$1,325,007
$518,860
($806,146)
$5,109,194

Middle School

	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8	5-8
Grades											
100% Utilization Capacity	430	430	430	430	430	430	430	430	430	430	430
Functional Capacity	366	366	366	366	366	366	366	366	366	366	366
North Prairie Middle											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	266	249	240	250	240	250	244	237	233	226	224
FUNCTIONAL — Utilization %	73%	68%	66%	68%	66%	68%	67%	65%	64%	62%	61%
FUNCTIONAL — Over/Under Capacity	100	117	126	116	126	116	122	129	133	140	142
Project Cost	$0	$421,768	$231,500	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Needs	$0	$0	$0	$0	$0	$0	$0	$0	$628,769	$641,824	$2,400,308
Operations & Maintenance Budget	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831
Surplus/Deficit (cummulative)	$57,831	$115,662	$173,493	$231,323	$289,154	$346,985	$404,816	$462,647	($108,291)	($692,284)	($3,034,761)
TOTAL COST (Project and O&M)	$57,831	$479,599	$289,331	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831

SUMMARY	
Year	*Action*
2015-16	One-to-one computing implemented
2016-17	Improvements to Noth Prairie
2017-18	
2018-19	
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	

SUMMARY
$653,268
$3,670,901
$636,140
($3,034,761)
$1,289,408
$0

Total Enrollment	560	547	531	532	518	520	511	501	494	483	478
Total Project Cost	$0	$2,396,988	$2,040,468	$0	$0	$0	$0	$0	$0	$0	$0
Total Maintenance Needs	$0	$0	$0	$0	$0	$0	$0	$0	$1,112,579	$823,140	$3,060,189
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000
Surplus/Deficit (cummulative)	$105,000	$210,000	$315,000	$420,000	$525,000	$630,000	$735,000	$840,000	($167,579)	($885,719)	($3,840,908)
TOTAL COST (Project and O&M)	$105,000	$2,501,988	$2,145,468	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000

SUMMARY
$4,437,455
$4,995,908
$1,155,000
($3,840,908)
$5,592,455

Winthrop Harbor School District 1
Home of the Cyclones

OPTION #4 — Change Grade Configuration Scenario

Traditional Calendar

Enrollments by: Fanning Howey (2014)

Elementary School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	SUMMARY
Grades	K-4	K-4	K-4	K-4	K-5	K-5	K-5	K-5	K-5	K-5	K-5	
100% Utilization Capacity	343	343	343	343	343	343	343	343	343	343	343	
Functional Capacity	343	343	343	343	343	343	343	343	343	343	343	
Westfield Elementary												
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)												
Enrollment	294	298	291	282	337	332	323	320	316	312	308	
FUNCTIONAL Utilization %	86%	87%	85%	82%	98%	97%	94%	93%	92%	91%	90%	
FUNCTIONAL Over/Under Capacity	49	45	52	61	6	11	20	23	27	31	35	
Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Needs	$1,646,455	$312,066	$725,048	$131,989	$93,569	$353,130	$287,273	$2,518	$483,810	$181,316	$659,881	$4,877,056
Operations & Maintenance Budget	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$47,169	$518,860
Surplus/Deficit (cummulative)	($1,599,286)	($1,864,183)	($2,542,062)	($2,626,882)	($2,673,282)	($2,979,243)	($3,219,347)	($3,174,696)	($3,611,337)	($3,745,484)	($4,358,196)	($4,358,196)
TOTAL COST (Project and O&M)	$1,646,455	$312,066	$725,048	$131,989	$93,569	$353,130	$287,273	$2,518	$483,810	$181,316	$659,881	$4,877,056

Year	Action
2015-16	
2016-17	
2017-18	
2018-19	Change grade configuration to K-5
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	

Middle School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	SUMMARY
Grades	5-8	5-8	5-8	5-8	6-8	6-8	6-8	6-8	6-8	6-8	6-8	
100% Utilization Capacity	430	430	430	430	430	430	430	430	430	430	430	
Functional Capacity	366	366	366	366	366	366	366	366	366	366	366	
North Prairie Middle												
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)												
Enrollment	266	249	240	250	181	188	188	181	178	171	170	
FUNCTIONAL Utilization %	73%	68%	66%	68%	50%	51%	51%	50%	49%	47%	47%	
FUNCTIONAL Over/Under Capacity	100	117	126	116	185	178	178	185	188	195	196	
Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Needs	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308	$5,420,835
Operations & Maintenance Budget	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$636,140
Surplus/Deficit (cummulative)	($174,907)	($357,269)	($304,981)	($247,150)	($189,319)	($1,116,581)	($1,345,118)	($1,287,288)	($1,858,226)	($2,442,219)	($4,784,696)	($4,784,696)
TOTAL COST (Project and O&M)	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$57,831	$636,140

Year	Action
2015-16	
2016-17	
2017-18	
2018-19	Change grade configuration to 6-8
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
Total Enrollment	560	547	531	532	518	520	511	501	494	483	478	
Total Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Maintenance Needs	$1,879,193	$552,259	$730,591	$131,989	$93,569	$1,338,223	$573,641	$2,518	$1,112,579	$823,140	$3,060,189	$10,297,891
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$1,155,000
Surplus/Deficit (cummulative)	($1,774,193)	($2,221,452)	($2,847,043)	($2,874,032)	($2,862,601)	($4,095,824)	($4,564,465)	($4,461,984)	($5,469,562)	($6,187,703)	($9,142,891)	($9,142,891)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$1,155,000

FANNING HOWEY

Winthrop Harbor School District 1
Home of the Cyclones

OPTION #5

Total Renovation of Westfield plus the addition of a new gym and entry area

Traditional Calendar

Enrollments by: Fanning Howey (2014)

Elementary School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Grades	K-4	K-4	K-4	K-4	K-5	K-5	K-5	K-5	K-5	K-5	K-5
100% Utilization Capacity	343	343	343	343	400	400	400	400	400	400	400
Functional Capacity	343	343	343	343	400	400	400	400	400	400	400
Westfield Elementary											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	294	298	291	282	337	332	323	320	316	312	308
FUNCTIONAL Utilization %	86%	87%	85%	82%	84%	83%	81%	80%	79%	78%	77%
FUNCTIONAL Over/Under Capacity	49	45	52	61	63	68	77	80	84	88	92
Project Cost	$0	$0	$0	$0	$12,360,933	$0	$0	$0	$0	$0	$0
Maintenance Needs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations & Maintenance Budget	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Surplus/Deficit (cummulative)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL COST (Project and O&M)	$0	$0	$0	$0	$12,360,933	$0	$0	$0	$0	$0	$0

SUMMARY	
Year	*Action*
2015-16	
2016-17	
2017-18	
2018-19	Renovated Westfield a K-5
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	
	$12,360,933
	$0
	$0
	$0
	$12,360,933

Middle School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Grades	5-8	5-8	5-8	5-8	6-8	6-8	6-8	6-8	6-8	6-8	6-8
100% Utilization Capacity	430	430	430	430	355	355	355	355	355	355	355
Functional Capacity	366	366	366	366	302	302	302	302	302	302	302
North Prairie Middle											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	266	249	240	250	181	188	188	181	178	171	170
FUNCTIONAL Utilization %	73%	68%	66%	68%	60%	62%	62%	60%	59%	57%	56%
FUNCTIONAL Over/Under Capacity	100	117	126	116	121	114	114	121	124	131	132
Project Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Cost	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000
Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000

SUMMARY	
Year	*Action*
2015-16	
2016-17	
2017-18	
2018-19	Grade configuration changed (6-8)
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
	$0
	$5,420,835
	$1,155,000
	($4,265,835)
	$6,575,835

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Total Enrollment	560	547	531	532	518	520	511	501	494	483	478
Total Project Cost	$0	$0	$0	$0	$12,360,933	$0	$0	$0	$0	$0	$0
Total Maintenance Cost	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000
Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$12,465,933	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000

Total Enrollment	
Total Project Cost	$12,360,933
Total Maintenance Cost	$5,420,835
Operations & Maintenance Budget	$1,155,000
Surplus/Deficit (cummulative)	($4,265,835)
TOTAL COST (Project and O&M)	$13,515,933

Winthrop Harbor School District 1
Home of the Cyclones

OPTION #6

Expansion at North Prairie
Close Westfield

Traditional Calendar

Enrollments by: Fanning Howey (2014)

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Elementary School	Grades	K-4	K-4	K-4	K-4							
	100% Utilization Capacity	343	343	343	343							
	Functional Capacity	343	343	343	343							
	Westfield Elementary											
	Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
	Enrollment	294	298	291	282							
	FUNCTIONAL Utilization %	86%	87%	85%	82%							
	FUNCTIONAL Over/Under Capacity	49	45	52	61	0	0	0	0	0	0	0
	Project Cost	$0	$0	$0	$0	$226,148	$2,214	$2,214	$2,214	$2,214	$0	$0
	Maintenance Needs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Operations & Maintenance Budget	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Surplus/Deficit (cummulative)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	TOTAL COST (Project and O&M)	$0	$0	$0	$0	$226,148	$2,214	$2,214	$2,214	$2,214	$0	$0

SUMMARY	
Year	*Action*
2015-16	
2016-17	
2017-18	
2018-19	Westfield closes
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	
$235,002	
$0	
$0	
$0	
$0	

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Middle School	Grades	5-8	5-8	5-8	5-8	K-8	K-8	K-8	K-8	K-8	K-8	K-8
	100% Utilization Capacity	430	430	430	430	696	696	696	696	696	696	696
	Functional Capacity	366	366	366	366	592	592	592	592	592	592	592
	North Prairie Middle											
	Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
	Enrollment	266	249	240	250	518	520	511	501	494	483	478
	FUNCTIONAL Utilization %	73%	68%	66%	68%	88%	88%	86%	85%	84%	82%	81%
	FUNCTIONAL Over/Under Capacity	100	117	126	116	74	72	81	91	98	109	114
	Project Cost	$0	$0	$0	$0	$8,855,107	$0	$0	$0	$0	$0	$0
	Maintenance Cost	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308
	Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000
	Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)
	TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$8,960,107	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000

SUMMARY	
Year	*Action*
2015-16	
2016-17	
2017-18	
2018-19	North Prairie expanded to a K-8
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	
$8,855,107	
$5,420,835	
$1,155,000	
($4,265,835)	
$10,010,107	

Total Enrollment	560	547	531	532	518	520	511	501	494	483	478	
Total Project Cost	$0	$0	$0	$0	$9,081,255	$2,214	$2,214	$2,214	$2,214	$0	$0	$9,090,109
Total Maintenance Cost	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308	$5,420,835
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$1,155,000
Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)	($4,265,835)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$9,186,255	$107,214	$107,214	$107,214	$107,214	$105,000	$105,000	$10,245,109

Winthrop Harbor School District 1
Home of the Cyclones

OPTION #7

Limited Expansion at North Prairie
Close Westfield

Traditional Calendar

Enrollments by: Fanning Howey (2014)

Elementary School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Grades	K-4	K-4	K-4	K-4							
100% Utilization Capacity	343	343	343	343							
Functional Capacity	343	343	343	343							
Westfield Elementary											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	294	298	291	282							
Utilization %	86%	87%	85%	82%							
Over/Under Capacity	49	45	52	61	0	0	0	0	0	0	0
Project Cost	$0	$0	$0	$0	$226,148	$2,214	$2,214	$2,214	$2,214	$0	$0
Maintenance Needs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operations & Maintenance Budget	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Surplus/Deficit (cummulative)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL COST (Project and O&M)	$0	$0	$0	$0	$226,148	$2,214	$2,214	$2,214	$2,214	$0	$0

SUMMARY

Year	Action
2015-16	
2016-17	
2017-18	
2018-19	Westfield closes
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	

Project Cost	$235,002
Maintenance Needs	$0
Operations & Maintenance Budget	$0
Surplus/Deficit (cummulative)	$0
TOTAL COST (Project and O&M)	$235,002

Middle School

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Grades	5-8	5-8	5-8	5-8	K-8	K-8	K-8	K-8	K-8	K-8	K-8
100% Utilization Capacity	430	430	430	430	696	696	696	696	696	696	696
Functional Capacity	366	366	366	366	592	592	592	592	592	592	592
North Prairie Middle											
Existing Facilities (in blue) New Facilities (in red) Additions (red shadow) Reconfiguration (green) Remodel (in yellow) Close (in grey)											
Enrollment	266	249	240	250	518	520	511	501	494	483	478
Utilization %	73%	68%	66%	68%	88%	88%	86%	85%	84%	82%	81%
Over/Under Capacity	100	117	126	116	74	72	81	91	98	109	114
Project Cost	$0	$0	$0	$0	$6,561,382	$0	$0	$0	$0	$0	$0
Maintenance Cost	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000
Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$6,666,382	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000
					$302,053						

SUMMARY

Year	Action
2015-16	
2016-17	
2017-18	
2018-19	North Prairie expanded to a K-8
2019-20	
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	

Total Enrollment	560	547	531	532	518	520	511	501	494	483	478
Total Project Cost	$0	$0	$0	$0	$6,787,530	$2,214	$2,214	$2,214	$2,214	$0	$0
Total Maintenance Cost	$232,738	$240,193	$5,542	$0	$0	$985,093	$286,368	$0	$628,769	$641,824	$2,400,308
Operations & Maintenance Budget	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000	$105,000
Surplus/Deficit (cummulative)	($127,738)	($262,931)	($163,473)	($58,473)	$46,527	($833,567)	($1,014,935)	($909,935)	($1,433,703)	($1,970,527)	($4,265,835)
TOTAL COST (Project and O&M)	$105,000	$105,000	$105,000	$105,000	$6,892,530	$107,214	$107,214	$107,214	$107,214	$105,000	$105,000

Project Cost	$6,796,384
Maintenance Cost	$5,420,835
Operations & Maintenance Budget	$1,155,000
Surplus/Deficit (cummulative)	($4,265,835)
TOTAL COST (Project and O&M)	$7,951,384

F. RECOMMENDED OPTION

Upon reviewing the Option #3 – Improvements to Westfield and North Prairie is the recommended option. This option will allow for the implementation of one-to-one computing at both Westfield and North Prairie. It will also provide for the most important maintenance items at both schools to be completed keeping the schools warm, safe and dry. In summary, Option #3 is the recommended option for several reasons:

- Learning Environment Improvements – while this option does not take advantage of all the possibilities that were developed it does provide the best balance between improvements to the learning environment/cost/timing. Moving the District to one-to-one computing will have a significant impact on the delivery of the educational curriculum. It maximizes the value of the dollars spent to improve the learning environment.
- Maintenance – This option makes significant improvements to the maintenance of the buildings. It ensures that the buildings will continue to function in a warm, safe and dry condition.
- Cost – this option enables the District to move forward by renewing its current debt without the need to raise taxes. It will require a bond resolution vote to renew but will not increase the bond and interest tax levy.
- Immediate Needs – the timing of the actions addresses immediate needs while deferring other actions until a later date.

Asset Funding Needs Report
By Asset Name

Client: Winthrop Harbor School District 1

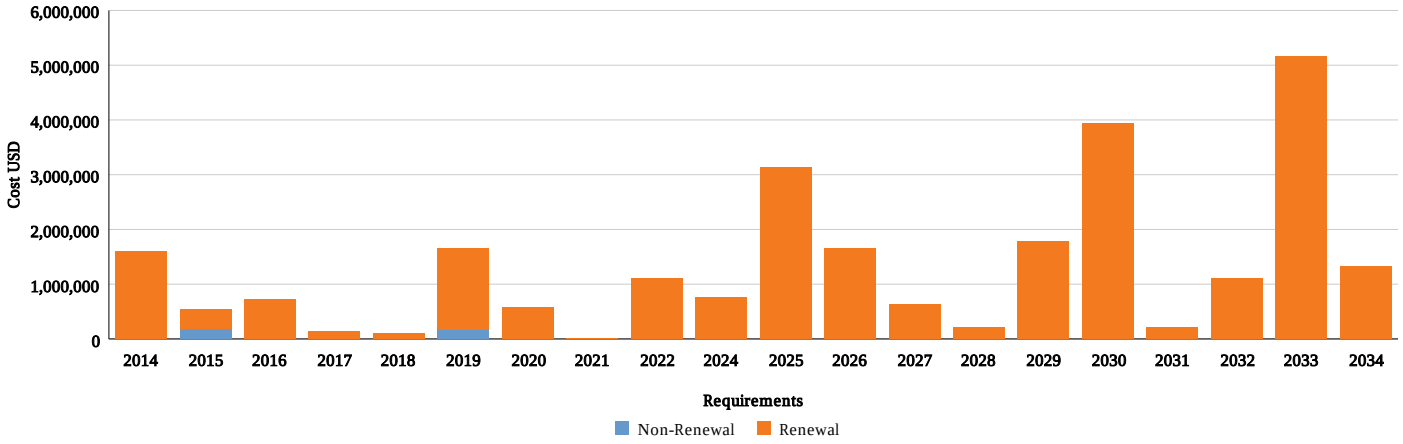
Campus: Elementary Schools, Middle Schools

Asset: North Prairie MS, Westfield ES

Currency: USD **Period**: 20 years **Inflation**: 4.70%

The current year is always the Period start date. If "Include past due Action Dates/Renewals" is selected, the cost of those past due Requirements is included in the current year cost.

Summary of Funding Needed by Requirement Type and Year



Year	Renewal Requirements	Non-Renewal Requirements	Total
2014	1,605,312	6,722	1,612,034
2015	363,118	189,141	552,259
2016	718,564	12,027	730,591
2017	131,989	0	131,989
2018	93,569	0	93,569
2019	1,489,442	160,993	1,650,435
2020	573,641	0	573,641
2021	2,518	0	2,518
2022	1,112,579	0	1,112,579
2024	755,669	0	755,669
2025	3,130,831	0	3,130,831
2026	1,645,848	0	1,645,848
2027	633,833	0	633,833
2028	205,384	0	205,384
2029	1,784,719	0	1,784,719
2030	3,929,165	0	3,929,165
2031	213,386	0	213,386
2032	1,105,333	0	1,105,333
2033	5,163,180	0	5,163,180
2034	1,326,573	0	1,326,573
Total	**25,984,654**	**368,882**	**26,353,536**

Asset Funding Needs Report
By Asset Name

Client: Winthrop Harbor School District 1 **Asset: Westfield ES**

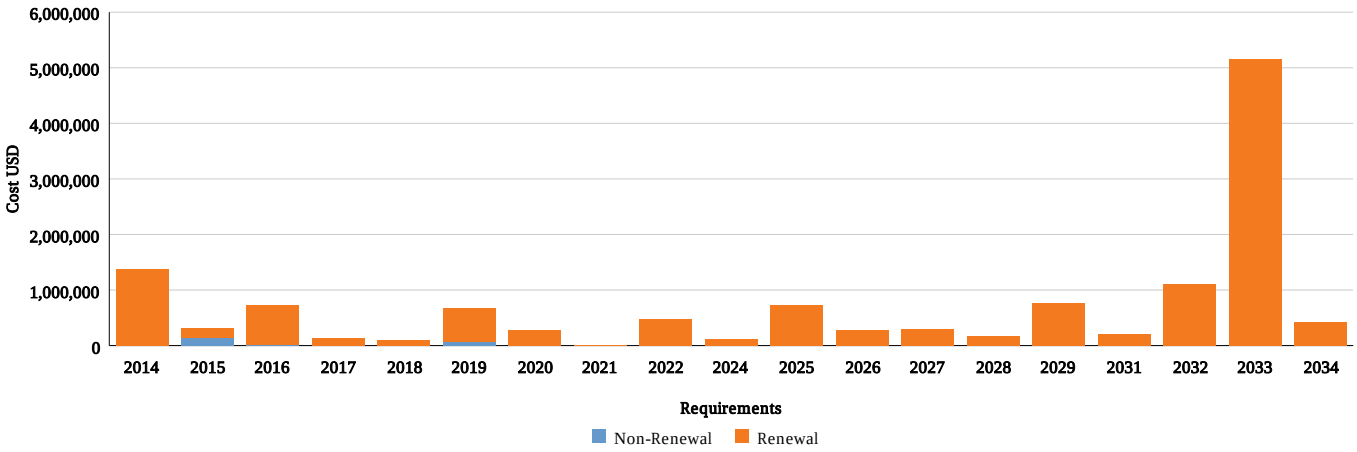
Campus: Elementary Schools **Asset Number: 001**

Report is grouped by Year **Currency: USD**

Address 1	2309 West 9th Street	**Address 2**	-
City	Winthrop Harbor	**State/Province/Region**	IL
Country	-	**ZIP**	60096

Current Replacement Value 6,560,531 **Size** 36,893 SF

Summary of Funding Needed by Requirement Type and Year



Year	Renewal Requirements	Non-Renewal Requirements	Total
2014	1,372,573	6,722	1,379,295
2015	174,238	137,828	312,066
2016	718,564	6,484	725,048
2017	131,989	0	131,989
2018	93,569	0	93,569
2019	600,169	65,172	665,342
2020	287,273	0	287,273
2021	2,518	0	2,518
2022	483,810	0	483,810
2024	113,845	0	113,845
2025	730,523	0	730,523
2026	274,109	0	274,109
2027	297,560	0	297,560
2028	178,915	0	178,915
2029	763,008	0	763,008
2031	213,386	0	213,386

Year	Renewal Requirements	Non-Renewal Requirements	Total
2032	1,105,333	0	1,105,333
2033	5,163,180	0	5,163,180
2034	427,997	0	427,997
Total	**13,132,560**	**216,207**	**13,348,766**

Detail of Funding Needed by Year

Year	System	Requirement Name	Renewal	Non-Renewal	Total
2014	D2010 - Plumbing Fixtures	Custodial/Utility Sinks - SF Renewal	21,203	0	21,203
	D5010 - Electrical Service and Distribution	~Switchgear - Average Duty Renewal	23,615	0	23,615
	D2020 - Domestic Water Distribution	Water Heater- Kindergarten hall way	0	6,722	6,722
	D2020 - Domestic Water Distribution	Water Dist Complete - Average Renewal	141,729	0	141,729
	C3020 - Floor Finishes	VCT - Average Renewal	76,822	0	76,822
	D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) Renewal	91,326	0	91,326
	G2012 - Paving and Surfacing	Roadway Flexible Pavement - Surface Course Renewal	57,722	0	57,722
	D3012 - Gas Supply System	Natural Gas Service to Bldg - 2" Feed Renewal	3,219	0	3,219
	D5010 - Electrical Service and Distribution	Feeder - Average Service Renewal	92,285	0	92,285
	D3040 - Distribution Systems	Perimeter Heat - Electric Baseboard - 2500 SF Renewal	12,208	0	12,208
	G2021 - Bases and Sub-Bases	Parking Lot Flexible Pavement - Intermediate Course Renewal	75,833	0	75,833
	D3060 - Controls and Instrumentation	Electric Controls - Average Renewal	108,836	0	108,836
	D3050 - Terminal and Package Units	Rooftop Unitary Gas Heat - gym area Renewal	83,595	0	83,595
	C3020 - Floor Finishes	Wood Flooring - Average Renewal	18,036	0	18,036
	D2010 - Plumbing Fixtures	Water Coolers - Wall-Mount Dual-Height (SF) Renewal	10,730	0	10,730
	D5020 - Lighting and Branch Wiring	Lighting - Exterior - HID Wall Packs Renewal	18,404	0	18,404
	D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity Renewal	344,897	0	344,897
	D3040 - Distribution Systems	Exhaust System - General Building Renewal	3,163	0	3,163
	D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - Average Density Renewal	148,948	0	148,948
	D3050 - Terminal and Package Units	Window AC Units (SF) Renewal	5,892	0	5,892
	D5010 - Electrical Service and Distribution	Switchgear - Average Duty Renewal	23,615	0	23,615
	C3020 - Floor Finishes	Carpeting - Broadloom - Economy Renewal	10,496	0	10,496
		Subtotal for 2014	**1,372,573**	**6,722**	**1,379,295**
2015	D2010 - Plumbing Fixtures	Restroom Fixtures 7 - Std Density - Avg Qual Renewal	174,238	0	174,238
	C3020 - Floor Finishes	Replace classroom and closet -VCT	0	94,672	94,672
	B2010 - Exterior Walls	Refinish existing louvers	0	524	524
	B2020 - Exterior Windows	Window sealant	0	8,376	8,376
	B2010 - Exterior Walls	Replace damaged Louvers	0	6,282	6,282
	D5021 - Branch Wiring Devices	Install GFCI Receptacles Near Wet Locations. Estimate # of Receptacles to be installed.	0	1,629	1,629
	G2012 - Paving and Surfacing	Grind and overlay	0	26,346	26,346
		Subtotal for 2015	**174,238**	**137,828**	**312,066**
2016	B30 - Roofing	Reinstall strap anchors and reslope gutters	0	1,809	1,809
	B2020 - Exterior Windows	Aluminum Windows Renewal	258,302	0	258,302
	C3020 - Floor Finishes	Ceramic Tile Renewal	14,506	0	14,506
	C1030 - Fittings	Replace Fittings - Average	0	3,974	3,974
	B2010 - Exterior Walls	Replace louver In chimney at roof	0	702	702
	E - Equipment and Furnishings	School Equipment - Economy Renewal	445,757	0	445,757

Year	System	Requirement Name		Renewal	Non-Renewal	Total
			Subtotal for 2016	**718,564**	**6,484**	**725,048**
2017	C3010 - Wall Finishes	~Paint Masonry/Epoxy Finish - Economy Renewal		131,989	0	131,989
			Subtotal for 2017	**131,989**	**0**	**131,989**
2018	C3010 - Wall Finishes	~Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal		1,254	0	1,254
	C3020 - Floor Finishes	VCT - Average Renewal		92,315	0	92,315
			Subtotal for 2018	**93,569**	**0**	**93,569**
2019	B2030 - Exterior Doors	Door Assembly - 6 x 7 HM - Glazed Renewal		41,474	0	41,474
	B30 - Roofing	Modified Bitumen Renewal		1,749	0	1,749
	C3020 - Floor Finishes	Vinyl Sheet Goods Renewal		122,972	0	122,972
	B30 - Roofing	Routine maintenance		0	6,291	6,291
	B2010 - Exterior Walls	Masonry restoration		0	3,774	3,774
	B2030 - Exterior Doors	Door Assembly - 3 x 7 HM Renewal		21,545	0	21,545
	B2030 - Exterior Doors	Routine maintenance		0	11,323	11,323
	B2010 - Exterior Walls	Restore mortar joints in facing brick veneer		0	39,632	39,632
	B2010 - Exterior Walls	Restore masonry chimneys		0	4,152	4,152
	G2031 - Paving and Surfacing	Pedestrian Pavement - Concrete Renewal		49,781	0	49,781
	D5022 - Lighting Equipment	Lighting Fixtures - Average Density Renewal		312,212	0	312,212
	D2010 - Plumbing Fixtures	Kitchenette - Cabinet, Counter and Sink Renewal		36,613	0	36,613
	B2030 - Exterior Doors	Door Assembly - 6 x 7 HM - View Panel Renewal		13,825	0	13,825
			Subtotal for 2019	**600,169**	**65,172**	**665,342**
2020	G4021 - Fixtures and Transformers	Site Lighting - Fixtures & Transformers - Parking Lot/Roadway - 400W HID (2 Fixture) Renewal		3,805	0	3,805
	D3050 - Terminal and Package Units	Furnace - Gas Fired heating only Residential Type Renewal		283,468	0	283,468
			Subtotal for 2020	**287,273**	**0**	**287,273**
2021	B30 - Roofing	Gutters and Downspouts - Aluminum Renewal		2,518	0	2,518
			Subtotal for 2021	**2,518**	**0**	**2,518**
2022	D2020 - Domestic Water Distribution	Water Heater - Gas - Comm (SF) Renewal		54,769	0	54,769
	D2030 - Sanitary Waste	Sanitary Waste - Gravity Disch - High Density Renewal		429,041	0	429,041
			Subtotal for 2022	**483,810**	**0**	**483,810**
2024	B30 - Roofing	Metal Roofing - Economy Renewal		45,816	0	45,816
	D3050 - Terminal and Package Units	Furnace with AC - Gas Fired Residential Type Renewal		39,741	0	39,741
	B2010 - Exterior Walls	Metal Paneled Walls - Economy Renewal		2,348	0	2,348
	C3020 - Floor Finishes	Carpeting - Broadloom - Economy Renewal		16,614	0	16,614
	D3050 - Terminal and Package Units	Window AC Units (SF) Renewal		9,327	0	9,327
			Subtotal for 2024	**113,845**	**0**	**113,845**
2025	C3020 - Floor Finishes	VCT - Average - ACM		48,969	0	48,969
	D5092 - Emergency Light and Power Systems	Exit Signs - Average Density		59,584	0	59,584
	C1010 - Partitions	GWB Walls - Standard (Non-Painted)		1,985	0	1,985
	D5092 - Emergency Light and Power Systems	Emergency Battery Pack Lights		70,642	0	70,642
	G2021 - Bases and Sub-Bases	Parking Lot Flexible Pavement - Base Course		48,892	0	48,892
	D3050 - Terminal and Package Units	Rooftop Unitary AC - Cooling w/Gas Heat < 10 Ton - Office area		43,296	0	43,296
	G2050 - Landscaping	Playground Equipment		180,775	0	180,775
	G2048 - Flagpoles	Site Development - Flagpoles - Aluminum		9,909	0	9,909
	C1020 - Interior Doors	Swinging Doors - 3 x 7 HM - NR		209,917	0	209,917

Year	System	Requirement Name		Renewal	Non-Renewal	Total
2025	C3030 - Ceiling Finishes	GWB Taped and Finished		7,748	0	7,748
	E - Equipment and Furnishings	Theater Curtains - Electrically Operated		48,806	0	48,806
			Subtotal for 2025	**730,523**	**0**	**730,523**
2026	G2054 - Seeding and Sodding	Landscaping - Grass Sodding - Fields - Schools or College		274,109	0	274,109
			Subtotal for 2026	**274,109**	**0**	**274,109**
2027	B30 - Roofing	Single-Ply Membrane - Fully Adhered		152,645	0	152,645
	C1020 - Interior Doors	Swinging Doors - Pair - 6 x 7 HM -Rated		144,914	0	144,914
			Subtotal for 2027	**297,560**	**0**	**297,560**
2028	C3020 - Floor Finishes	VCT - Average Renewal		146,130	0	146,130
	C3010 - Wall Finishes	~Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal		1,985	0	1,985
	C3030 - Ceiling Finishes	ACT System - Standard		4,330	0	4,330
	D3050 - Terminal and Package Units	Server Room Cooling - DX w/Air Cooled Remote Condenser		26,470	0	26,470
			Subtotal for 2028	**178,915**	**0**	**178,915**
2029	D5037 - Fire Alarm Systems	Fire Alarm System - Average Density		414,638	0	414,638
	D3050 - Terminal and Package Units	Unit Heaters - Electric (Each) Renewal		181,883	0	181,883
	D3050 - Terminal and Package Units	Rooftop Unitary Gas Heat - gym area Renewal		166,487	0	166,487
			Subtotal for 2029	**763,008**	**0**	**763,008**
2031	C3020 - Floor Finishes	Vinyl Sheet Goods Renewal		213,386	0	213,386
			Subtotal for 2031	**213,386**	**0**	**213,386**
2032	E - Equipment and Furnishings	Kitchen Equipment - Average		205,738	0	205,738
	C3010 - Wall Finishes	~Paint Masonry/Epoxy Finish - Economy Renewal		262,868	0	262,868
	B30 - Roofing	Asphalt Shingled Roofing		636,726	0	636,726
			Subtotal for 2032	**1,105,333**	**0**	**1,105,333**
2033	B2010 - Exterior Walls	Brick Cavity Walls - CMU Backup		120,217	0	120,217
	A - Substructure	Grade Beams - Average		2,092	0	2,092
	A - Substructure	Structural Slab on Grade - Non-Industrial		39,838	0	39,838
	A - Substructure	Foundation Wall and Footings - No Basement		5,001,032	0	5,001,032
			Subtotal for 2033	**5,163,180**	**0**	**5,163,180**
2034	C3020 - Floor Finishes	Carpeting - Broadloom - Economy Renewal		26,299	0	26,299
	D5020 - Lighting and Branch Wiring	Lighting - Exterior - HID Wall Packs Renewal		46,116	0	46,116
	D3050 - Terminal and Package Units	Window AC Units (SF) Renewal		14,764	0	14,764
	D3060 - Controls and Instrumentation	Electric Controls - Average Renewal		272,712	0	272,712
	C3030 - Ceiling Finishes	ACT System - Deluxe -cleanable		41,219	0	41,219
	D2010 - Plumbing Fixtures	Water Coolers - Wall-Mount Dual-Height (SF) Renewal		26,887	0	26,887
			Subtotal for 2034	**427,997**	**0**	**427,997**
			Total	**13,132,560**	**216,207**	**13,348,766**

Asset Funding Needs Report
By Asset Name

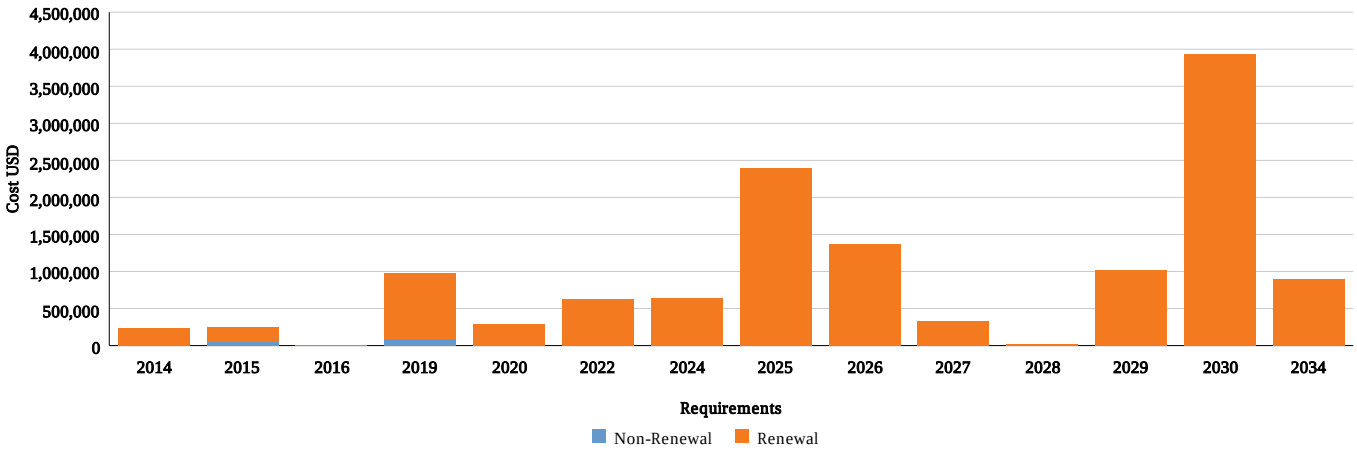
Client: Winthrop Harbor School District 1 **Asset:** North Prairie MS
Campus: Middle Schools **Asset Number:** 002

Report is grouped by Year **Currency:** USD

Address 1	500 North Avenue	**Address 2**	-
City	Winthrop Harbor	**State/Province/Region**	IL
Country	UNITED STATES OF AMERICA	**ZIP**	60096

Current Replacement Value 7,647,856 **Size** 45,232 SF

Summary of Funding Needed by Requirement Type and Year



Year	Renewal Requirements	Non-Renewal Requirements	Total
2014	232,738	0	232,738
2015	188,880	51,312	240,193
2016	0	5,542	5,542
2019	889,272	95,821	985,093
2020	286,368	0	286,368
2022	628,769	0	628,769
2024	641,824	0	641,824
2025	2,400,308	0	2,400,308
2026	1,371,740	0	1,371,740
2027	336,273	0	336,273
2028	26,470	0	26,470
2029	1,021,711	0	1,021,711
2030	3,929,165	0	3,929,165
2034	898,576	0	898,576
Total	**12,852,094**	**152,676**	**13,004,770**

Detail of Funding Needed by Year

Year	System	Requirement Name	Renewal	Non-Renewal	Total
2014	C3020 - Floor Finishes	VCT - Average Renewal	131,188	0	131,188
	D3030 - Cooling Generating Systems	DX Condensing Unit - Greater Than 20 Tons - Accu-3 Renewal	32,383	0	32,383
	D3030 - Cooling Generating Systems	DX Condensing Unit - Less Than 10 Tons - Accu-2 Renewal	20,438	0	20,438
	C3020 - Floor Finishes	Carpeting - Broadloom - Economy Renewal	48,730	0	48,730
		Subtotal for 2014	**232,738**	**0**	**232,738**
2015	B2010 - Exterior Walls	Surface residue	0	4,222	4,222
	D5037 - Fire Alarm Systems	Install Visual Notification Devices. Enter the number of devices to be installed.	0	5,184	5,184
	B30 - Roofing	Shingles	0	524	524
	C1020 - Interior Doors	Refinish Interior 3 x 7 Wood Doors	0	2,758	2,758
	D2020 - Domestic Water Distribution	Water Heater - Gas - Comm (SF) Renewal	97,372	0	97,372
	G2012 - Paving and Surfacing	Surface Seal Roadway	0	29,635	29,635
	D5021 - Branch Wiring Devices	Install GFCI Receptacles Near Wet Locations. Estimate # of Receptacles to be installed.	0	3,257	3,257
	B2010 - Exterior Walls	Surface delamination and damage	0	4,188	4,188
	C1020 - Interior Doors	Refinish Interior 6 x 7 Wood Doors	0	394	394
	B30 - Roofing	Roof hatch cover	0	314	314
	C3010 - Wall Finishes	Paint Masonry/Epoxy Finish - Economy Renewal	91,508	0	91,508
	B30 - Roofing	Roof access	0	838	838
		Subtotal for 2015	**188,880**	**51,312**	**240,193**
2016	B30 - Roofing	Interior of gutters	0	1,096	1,096
	C1020 - Interior Doors	Repair Interior Swinging Doors - 3 x 7 HM - Rated	0	665	665
	B2030 - Exterior Doors	Door hardware- Weather seal	0	163	163
	B3021 - Glazed Roof Openings	Sealant at perimeter of translucent wall panels	0	2,960	2,960
	B30 - Roofing	Roof access ladder	0	658	658
		Subtotal for 2016	**0**	**5,542**	**5,542**
2019	D3020 - Heat Generating Systems	Boiler HW - Gas-Fired w/Redundancy Renewal	70,156	0	70,156
	B2010 - Exterior Walls	Limestone sills	0	3,774	3,774
	C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	26,264	0	26,264
	C3020 - Floor Finishes	Rubber Treads - Stairs Renewal	933	0	933
	E - Equipment and Furnishings	School Equipment - Average Renewal	784,061	0	784,061
	B2010 - Exterior Walls	Surface residue	0	43,784	43,784
	B30 - Roofing	Edge lap seams	0	1,711	1,711
	B2030 - Exterior Doors	Routine maintenance	0	10,065	10,065
	B30 - Roofing	Routine maintenance	0	8,807	8,807
	D3030 - Cooling Generating Systems	DX Condensing Unit - Less Than 6 Tons - Accu-1 Renewal	7,859	0	7,859
	B30 - Roofing	EPDM @ roof edge	0	3,774	3,774
	B2010 - Exterior Walls	Edge sealant	0	8,807	8,807
	B30 - Roofing	Ice dams	0	15,098	15,098
		Subtotal for 2019	**889,272**	**95,821**	**985,093**
2020	G4021 - Fixtures and Transformers	Site Lighting - Fixtures & Transformers - Flood Light - 400W HID (2 Fixture) Renewal	48,200	0	48,200
	D3060 - Controls and Instrumentation	DDC System - Average Renewal	213,924	0	213,924
	D5020 - Lighting and Branch Wiring	Lighting - Exterior - HID Metal Halide Wall Packs Renewal	24,243	0	24,243
		Subtotal for 2020	**286,368**	**0**	**286,368**

Year	System	Requirement Name	Renewal	Non-Renewal	Total
2022	C3020 - Floor Finishes	VCT - Average Renewal	189,438	0	189,438
	D5022 - Lighting Equipment	Lighting Fixtures - Average Density Renewal	439,331	0	439,331
		Subtotal for 2022	**628,769**	**0**	**628,769**
2024	D5092 - Emergency Light and Power Systems	Exit Signs - Average Density Renewal	34,886	0	34,886
	C3020 - Floor Finishes	Carpeting - Broadloom - Economy Renewal	77,137	0	77,137
	E - Equipment and Furnishings	Fixed Casework - Average Renewal	214,695	0	214,695
	G2012 - Paving and Surfacing	Roadway Flexible Pavement - Surface Course Renewal	137,057	0	137,057
	D3050 - Terminal and Package Units	Unit Heaters - Hot Water Renewal	143,163	0	143,163
	D5092 - Emergency Light and Power Systems	~Exit Signs - Average Density Renewal	34,886	0	34,886
		Subtotal for 2024	**641,824**	**0**	**641,824**
2025	D2010 - Plumbing Fixtures	Water Coolers - Wall-Mount Dual-Height (SF)	21,803	0	21,803
	G2054 - Seeding and Sodding	Landscaping - Grass Sodding - Fields - Schools	261,804	0	261,804
	D3040 - Distribution Systems	Central AHU - VAV System w/Distribution Ahu-1 band room	191,734	0	191,734
	D3040 - Distribution Systems	Central AHU - Const Volume w/Distribution Hv-1 cafeteria	213,208	0	213,208
	C1035 - Identifying Devices	Fittings - Signage (Room Numbering and Identification)	54,087	0	54,087
	C1030 - Fittings	Restroom Accessories - Average	2,501	0	2,501
	D3040 - Distribution Systems	Central AHU - Const Volume w/Distribution Hv-2 gym	428,336	0	428,336
	D3040 - Distribution Systems	Central AHU - VAV System w/Distribution Ahu-2 administration area	261,398	0	261,398
	D3040 - Distribution Systems	Central AHU - VAV System w/Distribution Ahu-3 media center area	398,808	0	398,808
	D3040 - Distribution Systems	Exhaust System - General Building	128,523	0	128,523
	C3030 - Ceiling Finishes	ACT System - Standard	319,119	0	319,119
	C3020 - Floor Finishes	Ceramic Tile	70,181	0	70,181
	E - Equipment and Furnishings	Theater Curtains - Electrically Operated	48,806	0	48,806
		Subtotal for 2025	**2,400,308**	**0**	**2,400,308**
2026	E - Equipment and Furnishings	Kitchen Equipment - Average	10,590	0	10,590
	B30 - Roofing	Single-Ply Membrane - Ballasted	248,343	0	248,343
	B3021 - Glazed Roof Openings	Skylights - Dome Types	97,823	0	97,823
	B30 - Roofing	Asphalt Shingled Roofing	342,156	0	342,156
	C1010 - Partitions	Folding Partitions - Deluxe	152,426	0	152,426
	G2011 - Bases and Sub-Bases	Roadway Flexible Pavement - Intermediate Course	217,048	0	217,048
	B30 - Roofing	Single-Ply Membrane - Fully Adhered	36,201	0	36,201
	E - Equipment and Furnishings	Theater And Stage Equipment - Economy	181,604	0	181,604
	C3020 - Floor Finishes	Quarry Tile	17,538	0	17,538
	D5092 - Emergency Light and Power Systems	~Emergency Battery Pack Lights Renewal	68,010	0	68,010
		Subtotal for 2026	**1,371,740**	**0**	**1,371,740**
2027	C3020 - Floor Finishes	Wood Flooring - Average	336,273	0	336,273
		Subtotal for 2027	**336,273**	**0**	**336,273**
2028	D3050 - Terminal and Package Units	Server Room Cooling - DX w/Air Cooled Remote Condenser	26,470	0	26,470
		Subtotal for 2028	**26,470**	**0**	**26,470**
2029	B2030 - Exterior Doors	Door Assembly - 6 x 7 Storefront	118,714	0	118,714
	C3010 - Wall Finishes	Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	41,574	0	41,574
	G2031 - Paving and Surfacing	Pedestrian Pavement - Concrete	105,067	0	105,067
	B2030 - Exterior Doors	Door Assembly - 3 x 7 Storefront	12,329	0	12,329

Year	System	Requirement Name		Renewal	Non-Renewal	Total
2029	E - Equipment and Furnishings	Laboratory Casework - School		2,021	0	2,021
	B2030 - Exterior Doors	Overhead Sectional Doors - Electric Operation		8,844	0	8,844
	D3030 - Cooling Generating Systems	DX Condensing Unit - Less Than 10 Tons - Accu-2 Renewal		40,704	0	40,704
	B2020 - Exterior Windows	Aluminum Windows		493,117	0	493,117
	D3040 - Distribution Systems	Perimeter Heat - Electric Baseboard - 2500 SF		24,313	0	24,313
	D3030 - Cooling Generating Systems	DX Condensing Unit - Greater Than 20 Tons - Accu-3 Renewal		64,493	0	64,493
	B2030 - Exterior Doors	Door Assembly - 3 x 7 HM		11,368	0	11,368
	B2030 - Exterior Doors	Door Assembly - 6 x 7 HM		21,884	0	21,884
	B30 - Roofing	Gutters and Downspouts - Aluminum		41,561	0	41,561
	G2048 - Flagpoles	Site Development - Flagpoles - Aluminum		35,722	0	35,722
			Subtotal for 2029	**1,021,711**	**0**	**1,021,711**
2030	D5010 - Electrical Service and Distribution	Feeder - Average Service		244,499	0	244,499
	D40 - Fire Protection	Fire Extinguishers - Dry Chem w/Cabinet (SF)		3,426	0	3,426
	D5010 - Electrical Service and Distribution	Distribution System - Medium Capacity		1,175,647	0	1,175,647
	D2020 - Domestic Water Distribution	Water Heater - Gas - Comm (SF) Renewal		193,926	0	193,926
	C3030 - Ceiling Finishes	GWB Taped and Finished		19,497	0	19,497
	D5010 - Electrical Service and Distribution	Switchgear - Average Duty		60,372	0	60,372
	D2010 - Plumbing Fixtures	Custodial/Utility Sinks - SF		54,206	0	54,206
	D2020 - Domestic Water Distribution	Water Dist Complete - Average		362,333	0	362,333
	D2010 - Plumbing Fixtures	Kitchenette - Cabinet, Counter and Sink		74,395	0	74,395
	C3010 - Wall Finishes	Paint Masonry/Epoxy Finish - Economy Renewal		182,246	0	182,246
	D2010 - Plumbing Fixtures	Restroom Fixtures 7 - Std Density - Avg Qual		425,447	0	425,447
	D3040 - Distribution Systems	Two Pipe heating only Distribution System w/Pump		752,383	0	752,383
	D5021 - Branch Wiring Devices	Branch Wiring - Equipment & Devices - Average Density		380,788	0	380,788
			Subtotal for 2030	**3,929,165**	**0**	**3,929,165**
2034	D5092 - Emergency Light and Power Systems	Exit Signs - Average Density Renewal		55,223	0	55,223
	D5037 - Fire Alarm Systems	~Fire Alarm System - Average Density Renewal		319,797	0	319,797
	C3020 - Floor Finishes	Rubber Treads - Stairs Renewal		1,857	0	1,857
	C3020 - Floor Finishes	VCT - Average Renewal		328,722	0	328,722
	D5092 - Emergency Light and Power Systems	~Exit Signs - Average Density Renewal		55,223	0	55,223
	C3020 - Floor Finishes	Carpeting - Broadloom - Economy Renewal		122,103	0	122,103
	D3030 - Cooling Generating Systems	DX Condensing Unit - Less Than 6 Tons - Accu-1 Renewal		15,651	0	15,651
			Subtotal for 2034	**898,576**	**0**	**898,576**
			Total	**12,852,094**	**152,676**	**13,004,770**

Community Presentation
Winthrop Harbor School District 1

creating places to *learn*

FANNING HOWEY

Historical Background

- General State aid in 2008 $1,531,992 21% of expenditures were state supported
- General state aid in 2014 $340,560 6% of expenditures were state supported

  resulting in $1,191,432 dollars lost
- North Prairie designed/built 1999 to be expanded to be one facility
- In 2011 closure of Spring Bluff Elementary School due to declining enrollment and operational costs

Historical Background

FYI

- Total expenditures in 2008 - $7,650,813
  - Enrollment 694
  - Operating cost per child **$9,079**

- Total expenditures 2014 - $5,650,740
  - Enrollment 570
  - Operating cost per child **$8,870**

Master Facilities Plan Project Objectives

- Assess the physical condition of the buildings
- Evaluate the learning environment of the schools
- Review energy usage
- Develop options to meet district established goals
- Present needs and options to the community
- Gather public input
- Prepare a district Master Facilities Plan

District Established Goals

- Future ready facilities for student achievement
  - Align educational specifications with curriculum and facilities
  - Review options to increase Pre-K
  - Review relocating 5th graders at WF
  - Age appropriate site activities
- Asset management
  - Identify physical needs (bricks & mortar)
  - Explore Before/After program
  - Site organization and drainage

District Established Goals

- Resource management
  - Identify operational opportunities such as energy conservation
- Effective building utilization
  - Space corresponds to projected enrollment
  - Review single campus verse two
- Think Big and Imagine

Master Facilities Plan Timeline *(December - 2014)*

- Physical Assessment
  - "Bricks and mortar"
  - Maintenance issues
  - Life Safety issues
- Maintenance Plan
- Demographic Projection Review
- Capacity Analysis
- Educational Alignment
  - Educational Plan/Concepts
  - Facility needs
- Options Development
- Implementation Plan

Winthrop Harbor School District 1

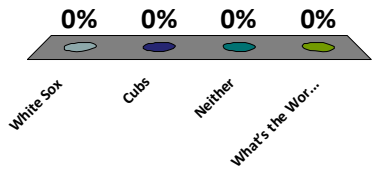
Let's Get Some Feedback From You!

Probably everyone has seen, at least once, the game show *Who Wants to be a Millionaire?* The contestant gets to "poll" the audience. That is what we are going to do!

FANNING HOWEY

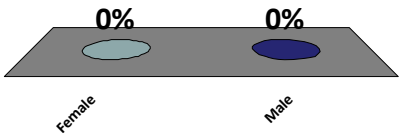
Will the Cubs or the White Sox win the World Series next year?

1. White Sox
2. Cubs
3. Neither
4. What's the World Series?



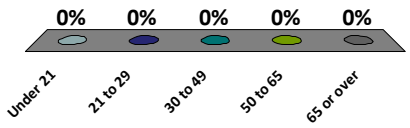
Tell us a little about yourself…gender?

1. Female
2. Male



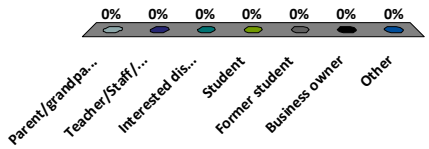
Your age range is?

1. Under 21
2. 21 to 29
3. 30 to 49
4. 50 to 65
5. 65 or over



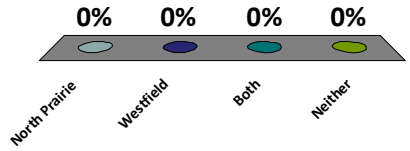
Your primary connection to the school district is?

1. Parent/grandparent or guardian of a student
2. Teacher/Staff/Administrator
3. Interested district resident
4. Student
5. Former student
6. Business owner
7. Other



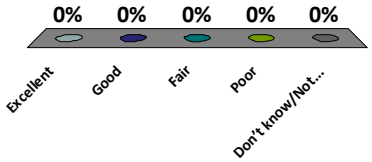
Which building are you most closely affiliated with?

1. North Prairie
2. Westfield
3. Both
4. Neither



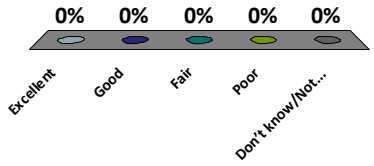
Westfield – How would you rate the *physical* condition of the school?

1. Excellent
2. Good
3. Fair
4. Poor
5. Don't know/Not sure



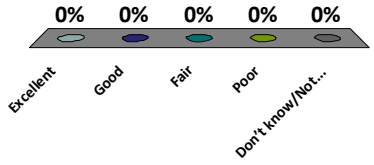
Westfield – How would you rate the *learning environment* of the school?

1. Excellent
2. Good
3. Fair
4. Poor
5. Don't know/Not sure



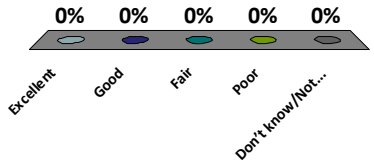
North Prairie – How would you rate the *physical* condition of the school?

1. Excellent
2. Good
3. Fair
4. Poor
5. Don't know/Not sure



North Prairie – How would you rate the *learning environment* of the school?

1. Excellent
2. Good
3. Fair
4. Poor
5. Don't know/Not sure



Asset Numbers

- Westfield
  - Cost to replace - $6,570,000
  - Current (1-year) needs - $1,660,000
  - Facility Condition Index – 31%
  - Long term (10 year) needs - $3,590,000
  - Renewal Index – 55%
- North Prairie
  - Cost to replace - $7,650,000
  - Current (1-year) needs - $463,000
  - Facility Condition Index – 13%
  - Long term (10 year) needs - $2,130,000
  - Renewal Index – 29%

Major items

- Westfield
  - HVAC / Electrical systems - $400,000/$1,000,000
  - Bathroom renovations - $350,000
  - Parking lots - $ 178,000
- North Prairie
  - Flooring - $150,000
  - Parking lots - $30,000
  - Boilers - $70,000
  - Roof repairs - $85,300

Winthrop Harbor School District 1

Learning Environment Evaluation

- Westfield Elementary School
  - Facility/Curriculum Alignment
    - Scores 41%
    - Rated “Poor”
- North Prairie Middle School
  - Facility/Curriculum Alignment
    - Scores 79%
    - Rated “Good”

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Learning Environment Evaluation - ACES

ACES Rating	ACES Scores	Range Per Question	2013 ISAT Predicted
Unsatisfactory	89 - 190	1-2	31-43
Poor	191 - 254	2-3	43-51
Fair	255 - 317	3	51-58
Good	318 - 381	3-4	58-66
Satisfactory	382 - 445	4-5	66-73

Winthrop Harbor School District 1

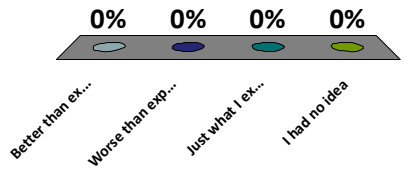
Learning Environment Evaluation - ACES

ACES and ISAT Y=20.550+0.118X R^2=.183, p-value=0.001	ACES Score	Predicted ISAT	Actual ISAT 2013	Difference	ACES Condition Status
Westfield Elem School	291.94	55	60	5	Fair
North Prairie Middle School	276.98	53	59	6	Fair

FANNING HOWEY

What is your reaction to the physical evaluation information?

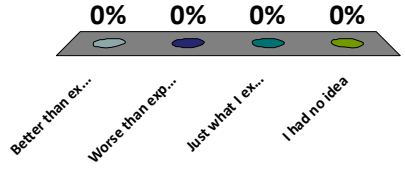
1. Better than expected
2. Worse than expected
3. Just what I expected
4. I had no idea



Winthrop Harbor School District 1

What is your reaction to the academic evaluation information?

1. Better than expected
2. Worse than expected
3. Just what I expected
4. I had no idea



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Westfield School - Likes

- Classroom physical size
- Multiple playgrounds
- Wings for different grade levels
- Classic feel; much history
- In a more isolated neighborhood
- Separate buildings by grade
- Brick, glass construction, single story

WESTFIELD SCHOOLS -wonders

- Cafeteria or multi-purpose room; build new gym
- Updates to gym area; build new gym?
- HVAC system
- Office square footage should be increased
- Separate entrance from office
- Noise can be an issue for areas
- Storage is very limited
- Smaller areas for small group setting
- Better space for BASC
- Bathroom renovation
- Flooring overall
- Explore the "Technology support" referring to wireless load, equipment, man power
- Parking, drop-off system – inefficient
- Increased security system – door security
- 5th grade should be moved
- Security of students
- Classrooms are a little cramped
- Common area would be nice
- Actual ceilings
- Library could be more flexibly used
- Better aesthetics
- Is "green" heating and cooling an economical option?
- What furniture would make a difference for learning?

WESTFIELD SCHOOLS -wonders

- Will wireless capacity support 1 to 1 computing?
- Are computer labs necessary if we are 1 to 1?
- Should all the classrooms be equipped with whiteboard tech?
- How can we share the building with the community?
- What furniture would make a difference for learning?
- How can the building be a part of the learning? Science floors, green energy? Blacktop play?

NORTH PRAIRIE SCHOOLS- likes

- Gym
- Library nice
- Skylights
- Atrium
- Was great when 6, 7, 8 building; good sight lines
- Classroom size seems appropriate
- Office space
- Open space outside
- Chrome books one-to-one
- Technology moving in right direction
- Hallways seem wide enough
- Windows above in hallways add light
- Garage
- Garden
- Cameras in hallways helped
- Neighborhood

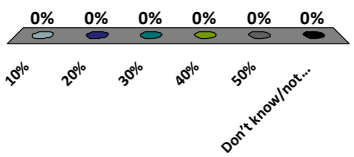
NORTH PRAIRIE SCHOOLS- wonders

- Auditorium/presentation space
- Flip of building to bring all on one campus
- Glass in study room in library
- Rethink library
- Ceiling fans classrooms
- Greenhouse onto science lab
- Woodshop
- Outdoor garden walk; outdoor classroom courtyard
- Open the windows
- More bathrooms
- Hand dryers
- Water fountains with water bottle filler
- Alternate desks and chairs
- Small learning spaces
- Does the wireless capacity support 1 to 1 computing?
- Are computer labs necessary if we are 1 to 1?
- Should all the classrooms be equipped with whiteboard tech?
- How can we share the building with the community?
- What furniture would make a difference for learning?
- How can the building be a part of the learning? Science floors, green energy? Blacktop play?

Winthrop Harbor School District 1

Since 2004 how much has the enrollment in Winthrop Harbor schools decreased?

1. 10%
2. 20%
3. 30%
4. 40%
5. 50%
6. Don't know/not sure



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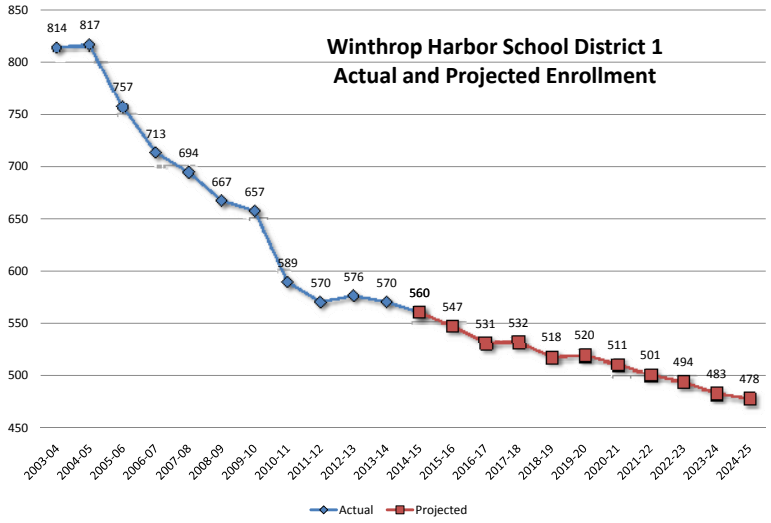
Demographics/ Utilization



Winthrop Harbor School District 1

Demographics/ Utilization

Westfield Elementary

Grade Level	T.S.	Capacity
K	3	66
1	3	66
2	3	66
3	3	75
4	2	50
SPED	2	20
Total	16	343
Functional Capacity *(100% of total)*	16	343
Enrollment		294
Utilization		85.7%

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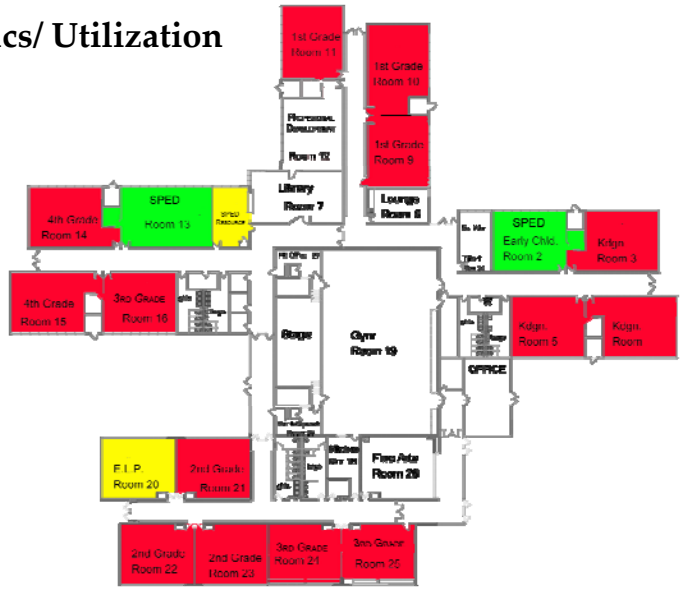
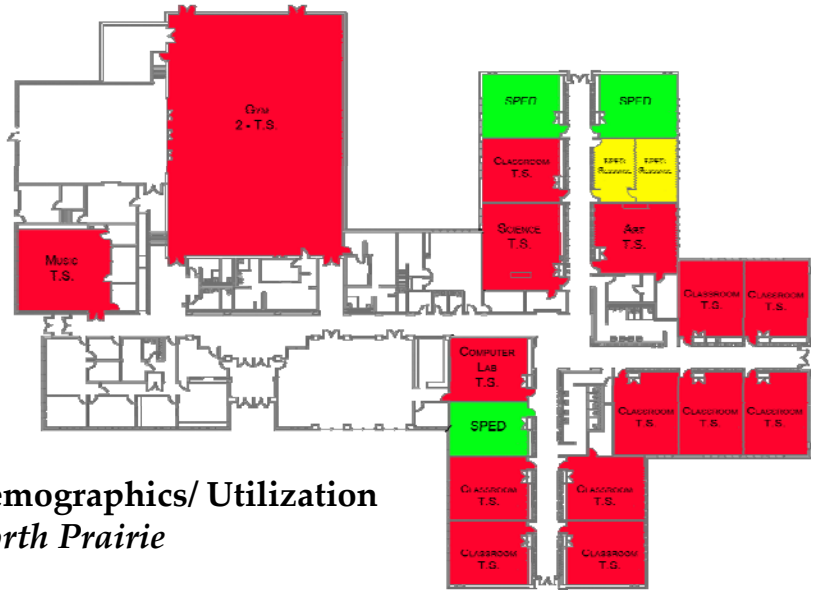
Demographics/ Utilization
Westfield



Demographics/ Utilization

North Prairie Middle

Grade Level	T.S.	Capacity
5	3	75
6	2	50
7	2	50
8	3	75
Other		
Gym	2	50
Music/Art	2	50
Science	1	25
Computer Lab	1	25
SPED	3	30
Total	18	430
Functional *(85% of total)*	18	366
Enrollment		266
Utilization		72.8%



Demographics/ Utilization
North Prairie

Demographics/ Utilization

District Total

Currently

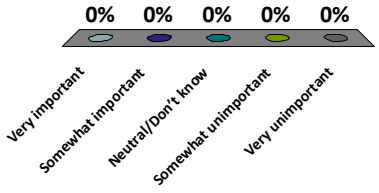
- Capacity 709
- Enrollment 560
- Utilization 79.0%

Projected (10 years)

- Capacity 709
- Enrollment 478
- Utilization 67.4%

In light of declining utilization and considering community values how important is it to have two schools?

1. Very important
2. Somewhat important
3. Neutral/Don't know
4. Somewhat unimportant
5. Very unimportant



Assumptions and Factors

The following were used in developing the options:

- **Level Loading Maintenance**
  - All options are based on a scenario where the annual maintenance budget would be "level loaded" meaning the same amount would be budgeted each year.
  - Amount suggested is $105,000 annually
  - Extra maintenance needs would be addressed on an "as they occur" basis
  - Level loading does control costs each year
  - Defrays expenses until a later date
- **Renovation Levels:** Three (3) levels of renovation are typically used in the options development.
  - "Heavy" renovation essentially takes an area "down to the studs".
  - "Medium" renovation also replaces/updates most building systems but does not fund the reconfiguration of spaces.
  - "Light" renovation is a "clean-up, fix-up, paint-up" level of renovation.

Assumptions and Factors

- **"Mothballing and Removing":** For options where it is suggested that Westfield be closed there is a cost associated with decommissioning the building
  - The cost of emptying a building; shutting down systems; making the building secure, etc. the cost, on average, is $6.13 per square foot.
  - For each year that the building is "mothballed" there is an additional cost of $0.60 per square foot for insurance, limited utilities, and minor maintenance items.
  - For the options where a building is closed, it was assumed that once the building is closed it will remain "mothballed for three (3) years and then removed. For planning purposes "removed" equates to demolish with an associated cost. In actuality, a closed building could be sold and used for another purpose.

Option 1 - "Status Quo" Scenario

Maintenance needs only on a "level loaded" basis. Address other maintenance needs on an "as they arise" basis. - $1,155,000

Pro's

- Level cost

Con's

- Leaves significant maintenance issues unaddressed
- Does not improve the learning environment
- District must maintain all spaces with declining enrollment
- Only plans for limited emergency repairs

Option 2 - New Elementary

Build a new elementary to replace Westfield. Maintenance - $1,150,000 Project - $14,213,782 Total Cost over 10yrs -$15,368,782

Pro's

- New elementary can be designed to exactly meet district needs
- Fully addresses elementary educational needs
- Brings 5th grade students back to Westfield

Con's

- High cost requiring large bond issue
- Leaves significant maintenance issues unaddressed

Option 3 - Improvements to Westfield and One-to-One computing at Both Schools

Improvements to Westfield limited to new gym and entry security improvements. Implement one-to-one computing at both buildings. Maintenance - $1,150,000 Project - ***$4,467,455*** *Total Cost over 10yrs -* ***$5,622,455***

Pro's

- Minor improvements to Westfield
- Cost within budget

Con's

- Does not improve the learning environment
- District must maintain all spaces with declining enrollment
- Leaves significant maintenance issues unaddressed

Option 4 - Change Grade Configuration Scenario

Bring the 5th grade back to Westfield as enrollment permits. - $1,155,000

Pro's

- Brings the 5th grade back to Westfield
- Same cost as Status Quo

Con's

- Does not improve the learning environment
- District must maintain all spaces with declining enrollment
- Leaves significant maintenance issues unaddressed
- Further unbalances utilization at both buildings

Option 5 - Total Renovation of Westfield

Complete "gut" and renovation of Westfield. Would include a new gym and entry improvements. Maintenance - $1,150,000 Project - $12,365,933 Total Cost over 10yrs - $13,515,933

Pro's

- Improves elementary learning environment
- Total renovation will include all maintenance needs at Westfield
- Brings 5th grade back to the elementary
- Addresses long term needs

Con's

- High cost/ significant bond issue

Option 6 - Expansion at North Prairie/Close Westfield

Add elementary "wing" and expand other "core" facilities - Maintenance - $1,150,000 Project - $9,095,109 Total Cost over 10yrs - $10,245,109

Pro's

- "Right-sizes" the district and eliminates the oldest building
- Possibility of selling Westfield and having some financial return
- One campus in-line with original plan at North Prairie
- More fully meets needs

Con's

- Budget achievable only with legislative action to exceed debt limit cap
- Does not address shared activities spaces
- Would be an issue when growth returns.

Winthrop Harbor School District 1

Option 7 – Limited Expansion at North Prairie/Close Westfield

Add elementary "wing" only - Maintenance - $1,150,000 Project - $6,801,384 Total Cost over 10yrs - $7,951,384

Pro's

- "Right-sizes" the district and eliminates the oldest building to maintain
- Possibility of selling Westfield and having some financial return
- One campus in-line with original plan at North Prairie
- Possibility of achieving budget without increase in tax rate

Con's

- Budget only allows for classroom addition no gym, cafeteria, media center or office expansion
- Would need some additional reduction in scope to stay within the borrowing limit
- Would require state legislature approval to exceed borrowing limit

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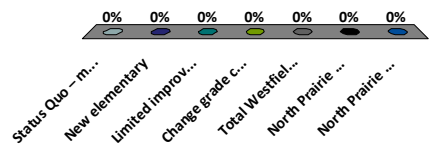
Options Summary

Option	Description	Goal 1 - FUTURE READY	Goal 2 - ASSET MANAGEMENT	Goal 3 - RESOURCE MANAGEMENT	Goal 4 - EFFECTIVE BUILDING UTILIZATION	Goal 5 - THINK "BIG"	COST
1	"Status Quo" Scenario						$1,155,000
2	New Elementary	●	◖	◖		●	$15,368,782
3	Improvements to Westfield	◖	◖		●		$5,622,455
4	Change Grade Configuration Scenario			◖			$1,155,000
5	Total Renovation of Westfield plus the addition of a new gym and entry area	●	●	◖		●	$13,515,933
6	Expansion at North Prairie Close Westfield	●	●	●	●	●	$10,245,109
7	Limited Expansion at North Prairie Close Westfield	◖	◖	●	●	●	$7,951,384

Winthrop Harbor School District 1

In your opinion, which option represents the best alternative for Winthrop Harbor at this time?

1. Status Quo – maintenance only
2. New elementary
3. Limited improvements to Westfield
4. Change grade configuration
5. Total Westfield renovation
6. North Prairie full addition
7. North Prairie limited addition



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Thank You

Winthrop Harbor School District 1 Master Plan

- Review of Winthrop Harbor SEDAC reports

Introduction

Planning for energy efficient operation requires both planning and experienced analysis of the district's properties. An emphasis is placed on improving the asset value of the facilities through renovation and upgrading of heating and cooling systems, lighting systems, control systems, and facility electrical distribution. These improvements are expected to yield improved energy performance to hedge against inflation and to create more planned and predictable usage patterns. The net result being savings in operational expense both short and long term.

What can be overlooked is the impact upon the learning environment as well as the instructional staff. Our staff strives to tailor each efficiency improvements to meet the following criteria: Each improvement will yield improved comfort and usability of each space. Improvements will be as "invisible" as possible, allowing the occupants to focus on their tasks and school on its mission. Improvements will collectively improve the Indoor Environmental Quality through improved light, thermal comfort control, etc. Improvements will not be a burden in maintenance over time but will strive to simplify maintenance management. The combined improvements will yield a net positive payback through the both reduction of energy and compounded by the hedge against inflation.

Why districts plan more efficient operation

Many districts grapple with the challenge of maintaining equipment maintenance budgets for many reasons. Depending upon the level of technology installed, equipment maintenance can be a challenge because the bidding process has left them with a variety of equipment types and complex systems that need diverse expertise to maintain. Often districts choose improvements in order to "streamline" the equipment brands and technology to lower the cost of maintenance and reduce parts inventory. Districts also choose efficiency improvements because their existing equipment in beyond its useful life. Other districts realize that predictable comfort control is needed and currently not being delivered. The bottom line is that a district's largest expense after payroll is often facility energy and maintenance.

Whatever the reasons are, there are fundamental practices that lead to district financial sustainability and reliable and efficient operation of facility infrastructure is a requisite. Without a master plan that details the expected cost and performance goals for long term (10 to 30 years) facility operation a district will suffer financially. Our industry has observed a national trend of significant degradation of facilities and the learning environment because of the lack of a master plan. Working with the EPA Energy Star Program we have found millions of dollars spent on energy that could have been better utilized.

Not to be overlooked is the commitment made by districts to integrating environmental education, conservation of resources, and the use of efficient technology into the curriculum program. Districts have chosen to install power generating equipment for wind and solar in order to both save money and create a more cleaner environment. Without community leadership committing to environmentally sustainable programs we would currently be paying 15% higher energy bills on a national basis. This commitment also crosses the operational barrier over to education and allows many opportunities for positive community engagement, improved science learning, and more. The net benefits are not always visible when a district commits to such projects; however, we have not found a district that has not had their expectations exceeded.

How we have already saved the district money

As part of our master planning process we have recruited public resources that are taxpayer funded to leverage on your behalf. The Illinois Smart Energy Assistance Center was engaged to create an energy audit and benchmark against a national average of similar schools for your school buildings. This energy audit is not the same as our Fanning and Howey Engineering Services audit, yet it covers many items we audit yet can be reviewed at low cost. SEDAC also researched applicable grant from the DCEO organization also at no cost. As the planning continues we can bring other resources to the table that are Illinois or federally funded that can be utilized.

The following information includes a review of the SEDAC reports for North Prairie and Westfield Elementary Schools.

Review of Illinois Smart Energy Design Center Reports

While the SEDAC is an excellent review, there are typically more opportunities that exist for improving the environment for learning quality and extending the life of existing equipment that are mentioned in the report. An Energy Star Certification is achievable for after investment in energy efficiency measures for this school and should be sought after because it communicates to community stakeholders and constituents responsible stewardship.

North Prairie Junior High School

Overall, the school has turned in a slightly below average performance rating for energy use, however, indoor environmental quality and fresh air intakes were not verified for proper operation with this report. Energy improvement projects were recommended for a 27% annual energy expense reduction. Some opportunities may have been overlooked.

While the SEDAC report shows that there is significant room to improve towards greater efficiency, it lacks articulating the benefits of increasing equipment life and reducing maintenance costs due to shorter operational hours and improved accuracy of operation. The SEDAC energy savings items in summary yield grants and rebates of $34,307.00 and an estimated $16,300 in annual utility savings. **It is important to note that there is no estimated cost of work or return on investment calculation as provided by other SEDAC reports.** So although my confidence is high that an annual savings of $16,300 in energy can be achieved, further work is needed to validate and prioritize such projects.

Controls and Commissioning- **RECOMMENDED**

The report states that the air handlers and boiler are operating 24/7 during the time of the November 10th survey and that the scheduling of the equipment is operated by a control system. I recommend that our staff verify time schedules and accurate operating setpoints for all equipment the control system operates as soon as possible. Also, there is no mention of cost or capability of the current system to expand to DCV, or Demand Control Ventilation. This would be and excellent opportunity to survey and get an estimate from the service provider if it is capable. **Historically DCV pays for itself in less than three years and accrues savings after that year upon year.** In addition, the exterior lighting is controlled by photocell and not in conjunction with the school control system. As part of our commissioning process we would verify this and add exterior lights to the control system so they would not operate all night long. Light bulbs of any kind do not need to burn continuously all night and a reduction in outside lighting of 40% to 50% would reduce labor in replacement and

energy consumption. I recommend we review the controls system to leverage its capability to its maximum.

Variable Frequency Drives- **ENGINEERING REVIEW BEFORE GO AHEAD**

The report recommends that variable frequency drives be installed on the cooling air handlers in order to save energy, however, it does not caution the owner that many kinds of refrigeration systems, like yours mentioned in the report, does not adapt well to this scheme of operation. In fact some kinds of rooftop condensing systems can be damaged beyond repair if this type of operation is implemented. A review of the condensing units must be done to review the compressor technology and control capability of these units before payback calculations can be made. In addition, the air handlers must also be inspected to verify that refrigeration heat exchangers are also compatible. We may find that the VFD retrofit is simple or we may find it is not compatible with existing equipment designs.

Variable speed drives are also mentioned to be installed on the heating boiler pumps. It may be practical or it may not. System hydraulic design must be reviewed as well as boiler operational setpoints and control programming. If practical, significant savings can be achieved through these upgrades. It is important to note that classrooms are operated by individual unit ventilators which are the most difficult and costly product to maintain as well as improve for accurate operation and energy savings. Unit ventilator products lead to the highest level of teacher and student thermal comfort dissatisfaction among all classroom heating and cooling products.

Lighting and occupancy sensors- **RECOMMENDED**

The report recommends occupancy sensors be added to classroom and administration areas. I agree and think the district should invest in this technology. Selection of technology and placement is critical and our engineering services group be consulted for further plans. Reduction of wattage through the change to 28 watt fluorescent bulbs is common among schools and has netted very good results and should be done, especially because surveys indicated light levels were very high. It should be noted that de-lamping is also practical in some situation but must be balanced with student and staff needs and curriculum changes such as digital devices for students. The grants for the de-lamping are not practical as they are not offering enough money to cover the cost of fixture replacement. Removing the lamp without changing the fixture is recommended and will yield the quickest payback.

Parking lot lighting retrofit to LED can be very simple and improve both light distribution and energy performance. This should have been undertaken as part of the gymnasium lighting improvements as part of a package to lower installation costs. I recommend we collect estimates and calculate the payback as soon as possible.

Conclusions

This SEDAC report does not answer as many questions as previous reports but does deliver excellent benchmarking information and the discovery of potential improvements that will save the district money is extremely important. Additional work is required to prioritize and select the right upgrades and grant opportunities yet the opportunities to lower long term cost of operation are significant and should be done.

Westfield Elementary School

Overall, the school has turned in a slightly better than average performance rating for energy use, **however, indoor environmental quality and fresh air intakes were not verified for proper sizing, flow or operation with this report.** Energy improvement projects were recommended for an annual energy expense reduction of $5,500.00. Some opportunities may have been overlooked.

The most significant discovery by the SEDAC staff is that residential heating equipment is used for classroom heating and cooling. Because this technology is not built to comply with educational standards of ventilation, it is difficult to validate Indoor Air Quality. SEDAC looks for opportunities to improve energy performance in school buildings but is not an engineering resource. In addition, the SEDAC report does not lay out a path to improve to Energy Star efficiency level. The age and infrastructure of this building make it a challenge to decide on how much investment should be done to improve operational costs. A Facility Condition Index and master plan should be reviewed before significant improvements to windows or HVAC are undertaken.

Demand Control Ventilation- **NOT RECOMMENDED**

DCV is used in conjunction with units that continuously operate and continuously introduce fresh air. Because the classroom units only move or rotate air on a call from the thermostat to cool or heat then this does not apply. Because ventilation only occurs during fan operation the space with the thermostat is at minimum ventilation already. Unfortunately the adjacent classroom with no thermostat is not properly heated and cooled and ventilated. Putting two classrooms on one HVAC unit satisfies a low cost requirement but compromises the learning/working environment. Adapting DCV to this scheme is likely never to perform correctly nor create any energy savings.

Lighting and Occupancy Sensors- **RECOMMENDED**

The report recommends occupancy sensors be added but does not reveal where or how the savings were calculated. We encourage the installation of these and can survey and provide installation specifications. It appears an interior lighting retrofit was done recently for improved energy efficiency.

The retrofit of exterior MH lighting technology to LED is recommended and will yield a less than a 5 year payback with DCEO grant monies.

Vending Energy Management- **RECOMMENDED**

We can provide specifications and information for the owner to implement.

Duct Sealing- **RECOMMENDED**

We recommend the owner perform this work as it should take more or less three days of labor. We recommend low VOC commercial grade duct sealant applied above 45 degrees and preferably during a spring break. We should survey the unit fresh air vents. I am not sure that sealing the outdoor vents is a good idea and will need to look at this.

Conclusions

The majority of savings for this structure was interior lighting technology upgrade and this was accomplished already. The SEDAC team may have been challenged to find improvements because of the basic nature of this structure. Window replacement is a long term cost and should be factored into how long the district plans to keep this school or when it may be renovated. **Decisions to increase insulation in the attic, replace the windows that create a substantial heat loss, and improve the heating and cooling of classrooms are contingent upon the commitment to keep this school in its exact configuration.** This school may meet the minimum requirements for educational space but is far behind current standards. Energy savings can be found and these small SEDAC projects should be completed.

A note about Indoor Air Quality

Indoor air quality or IAQ, has been recognized as the leading issue connected with child comfort and asthma incidents in schools. IAQ standards have been nationally scrutinized by experts and the public (for the benefits of building occupants) for the last 15 years. Modern HVAC system upgrades that include control systems have yielded superior and measurable results in IAQ as well as having their costs offset by energy efficient equipment selections. Unit ventilators and some roof top air handlers do not support the effort for proper IAQ management. When planning building upgrades it is important to evaluate costs in balance with thermal comfort and air quality. Both of these items are leading contributors to staff and student academic success.

A note about Control Systems

The district has an investment in the Andover control system that operates time schedules and basic thermal comfort programming strategies. This system is functional but has a few issues and may be in need of an upgrade. In addition, if new technology in lighting controls or HVAC systems are added to the district requiring integration, the current Andover framework may not support it. Considering that the district has opportunities in cost avoidance in energy efficiency upgrades it is worth considering upgrading the control technology for long term efficient and accurate performance.

A note about Lighting Technology

The SEDAC reports were authored in 2012 and did not visit LED lighting technology, indirect lighting or other upgrade offerings available to schools. Now the district knows that lighting upgrades can yield short term savings, it is worthy to consider integrating ceiling repairs with upgrades and technologies that may outlast fluorescent lighting- such as LED. In addition, window treatments, indirect lighting and fixture placement will become more important as IPAD and compact portable computer devices are introduced into the classroom