Health Life Safety Survey and Master Facilities Plan

Community Presentation

Board Meeting

June 22, 2015
June 22, 2014 Board Presentation

- Overview and Summary of the Health Life Safety Survey and Master Facilities Plan
- Introduction to the Board of the budget categories and project cost information
- Discussion on using report data and information
- Recommendations and next steps
Agenda

– Introduction
– Findings and Budget
– Projects
– Recommendation / Next Steps
For security reasons the floor plans of the school buildings have been removed from this report.
INTRODUCTION

“Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.”

Winston Churchill
Master Facilities Plan

– Plan Components
  • Health Life Safety Survey
  • Building Assessment
  • Educational Planning

– Cost Areas
  • Operation Costs
  • Maintenance and Repair Costs
  • Capital Improvements
The Master Facility Plan

– Presents a map that identifies many possible options to reach a desired end

– Provides data to better understand how your facilities are currently being used

– Contains analysis and information to assist the district in making facility decisions balancing educational and financial needs
Master Facilities Plan Focus

– Health Life Safety Survey

– Infrastructure Assessment
  • Systems approach based on useful life
  • Long-term view of major capital costs
  • Overall building condition

– Capacity and Educational Program
  • Core spaces and capacity
  • Flexibility for future improvements and options
Replacement Costs

– The buildings and sites are a valuable investment made by the community and prior boards

– To replace all of the buildings, site improvements and furniture in today’s dollars would be $277 million

– The HVAC replacement work was a significant step in protecting this investment by upgrading aging infrastructure
FINDINGS AND BUDGET
Infrastructure

– Buildings are structurally sound and safe
– The district will need to continue to replace systems that are past their useful life
Significant Infrastructure Projects

- Student spaces should be moved from the Lower Level of Washington
- Jefferson School is in need of a major renovation
- Based on age and condition Lincoln Middle School should be considered for renovation including:
  - Toilets
  - Locker Rooms
  - Interior Upgrades
Capacity Model / Planning Numbers

- Capacity model is a tool to assess how space is used in each building using identical criteria.
- The Planning Number is a benchmark to compare facilities.
- Exceeding the Planning Number may not require immediate changes:
  - Short-term measures
  - Additional study of enrollment trends
Elementary School Criteria

- Dedicated Art Room of approximately 1,200 square feet including storage and kiln rooms
- Dedicated Music Room of approximately 1,000 square feet
- Primary Art / Music Room for buildings with over 22 sections
- 1 Self-contained Special Education Room per Building
# Elementary Gymnasium / Art / Music

## Square Foot Comparison

<table>
<thead>
<tr>
<th>School</th>
<th>Gymnasium 1</th>
<th>Gymnasium 2</th>
<th>Total Gymnasium Area</th>
<th>Art Room 1</th>
<th>Art Room 2</th>
<th>Music Room 1</th>
<th>Music Room 2</th>
<th>Instrumental Sectionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenter</td>
<td>3,567</td>
<td>2,380</td>
<td>5,947</td>
<td>1,339</td>
<td></td>
<td>833</td>
<td></td>
<td>306 Lower Level</td>
</tr>
<tr>
<td>Field</td>
<td>2,825</td>
<td>3,567</td>
<td>6,392</td>
<td>1,183</td>
<td></td>
<td>Stage</td>
<td>None</td>
<td>Kitchen</td>
</tr>
<tr>
<td>Franklin</td>
<td>5,223</td>
<td>5,223</td>
<td>828</td>
<td></td>
<td></td>
<td>838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roosevelt</td>
<td>2,703</td>
<td>3,572</td>
<td>6,275</td>
<td>1,086</td>
<td>671</td>
<td>671</td>
<td>Stage</td>
<td>Lobby</td>
</tr>
<tr>
<td>Washington</td>
<td>6,332</td>
<td>6,332</td>
<td>1,156</td>
<td></td>
<td></td>
<td>Lower Level</td>
<td>Stage</td>
<td></td>
</tr>
</tbody>
</table>

Report - June 22, 2015
Middle School Capacity Model

– Middle Schools run a hybrid program with core classes and exploratory classes
– Many rooms are used for both core classes and exploratory classes
– Capacity model efficiency is based on the scheduling complexity of the program
– Both Middle Schools have a similar number of teaching stations
## Capacity Model / Planning Numbers

### Elementary Schools

<table>
<thead>
<tr>
<th>School</th>
<th>Calculated Planning Number</th>
<th>Current Enrollment (April 2015)</th>
<th>Planning Number to Enrollment above or (below)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K</td>
<td>Grades 1-5</td>
<td>K</td>
</tr>
<tr>
<td>Carpenter</td>
<td>79</td>
<td>438</td>
<td>71</td>
</tr>
<tr>
<td>Field</td>
<td>79</td>
<td>553</td>
<td>86</td>
</tr>
<tr>
<td>Franklin</td>
<td>79</td>
<td>438</td>
<td>75</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>119</td>
<td>599</td>
<td>104</td>
</tr>
<tr>
<td>Washington</td>
<td>79</td>
<td>484</td>
<td>88</td>
</tr>
</tbody>
</table>

### Middle Schools

<table>
<thead>
<tr>
<th>School</th>
<th>Calculated Planning Number</th>
<th>Current Enrollment (April 2015)</th>
<th>Planning Number to Enrollment above or (below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerson</td>
<td>823</td>
<td>837</td>
<td>(14)</td>
</tr>
<tr>
<td>Lincoln</td>
<td>823</td>
<td>718</td>
<td>105</td>
</tr>
</tbody>
</table>
Capacity and Educational Program

– Program needs exceed available space at Field and Washington
  • 10% less area per student than average
  • Field Elementary
    – Lowest square footage of student support space
    – Smallest average classroom size

– Gymnasium space is over-scheduled at Field, Roosevelt and Washington
  • Required space is 120% of available
Capacity and Educational Program

– All elementary schools lack flexibility for changing educational needs

– Special education and student support spaces throughout the district are inconsistent

– Middle Schools
  • District-wide there is sufficient Middle School capacity
  • Emerson Middle School is overcrowded
Budgets

- **Construction Costs (Hard Costs)**
  - Buildings, Sites, GC, OH&P, Contingency, Environmental, FFE and Escalations

- **Owner’s Cost (Soft Costs)**
  - Consultants, Legal, Surveys, Soil Borings, Testing, Printing, Utility Costs, Moving and Security

- **Other Project Costs (not included)**
  - Technology Equipment, Land Acquisition, Financing, Staff Salaries, Operational Costs, Owner’s Contingencies
Project Budget Categories

- Health Life Safety
- Infrastructure Assessment
- Secured Entrances / Learning Resource Centers / Multipurpose Auditorium Spaces
- Sites
- Capacity Model and Program Spaces
- Other Projects
- Kindergarten / Early Childhood Investigation
PROJECTS
# Health Life Safety Codes

## Buildings

|------|---------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

### Elementary Schools

- 1928 - Eugene Field Elementary School
  - 1930 - Addition
  - 1951 - Addition
  - 1963 - Addition
  - 1967 - Addition

- 1928 - Theodore Roosevelt Elementary School
  - 1930 - Addition
  - 1946 - Addition
  - 1960 - Addition
  - 1986 - Addition
  - 1994 - Addition

- 1951 - George Washington Elementary School
  - 1953 - Addition
  - 1989 - Addition
  - 1993 - Addition

### Middle Schools

- 1928 - Abraham Lincoln Middle School
  - 1933 - Addition
  - 1952 - Addition

### Other Facilities

- 1936 - Hendee Educational Center
  - 1954 - Thomas Jefferson School
  - 1963 - Addition
  - 1967 - Addition

---

## Standards

- **Health/Life Safety Survey**
  - 1965-67 Initial Inspection
  - 1983-85 Resurvey
  - 1993-95 (or every 10 years) Resurvey
  - 2003-05 (or every 10 years) Resurvey

- **Illinois School Building Codes**
  - PART 165
  - Retractive Codes for Existing Buildings
  - Model Code

- **NFPA 101 Life Safety Code**
  - Chapter 7 - Means of Egress
  - 1967 Edition

- **ISBE Retractive Codes**
  - Pre-7/1/96
    - 1003 BOCA FP and PM Codes + Part 165
  - 7/1/96 to 7/6/98
    - 1003 BOCA FP and PM Codes + Part 175

- **Sprinkler Requirements**
  - 1969 Initial Adoption
  - 1983 Amendment
  - 1991, Repealed 2005

- **Illinois Plumbing Code**
  - 1969 Initial Adoption
  - 1991 Revision
  - 1997 Illinois Accessibility Code

- **Accessibility Standards**
  - 1973 Rehabilitation Act of 1973, Section 504
  - 1990 ADA

- **Energy Conservation Code**
  - 1969 Initial Adoption
  - 1983 Amendment
  - 2004 Amendment

---

Firm: FGM Architects

Report - June 22, 2015
Health Life Safety Projects

– No *Urgent* life safety items were identified
– *Required* and *Recommended* items are included in the life safety budget
– Five years to complete HLS projects
– Leverage dollars required to complete HLS work with other projects
Entrances / LRC/ Auditorium Projects

– Secured Entrances
  • Lockable entry – options for level of access
  • Hardened entry vestibule
  • Visual supervision and management from main office

– Additional security related items included in infrastructure list
Entrances / LRC/ Auditorium Projects

– Learning Resource Centers
  • Increased flexibility
  • Collaborative spaces
  • Fit space to learning experiences
  • Improvements would impact all students

– Multi-purpose Auditorium Spaces
  • Currently limited use by students during day
  • Greater flexibility for multi-purpose uses
  • Improvements would impact all students
Long-Term Site Design Considerations

- Off-street bus loading
- Student Drop-off and pick-up
- Visitor and handicapped parking
- Staff Parking
- Playgrounds
- Hard play area
- Drainage and water retention
These studies represent possible future changes to address site needs.

Any work done now should not eliminate the possibility of these future scenarios without thoughtful consideration.
Capacity Model and Program Projects

- Four to Eight elementary classrooms
  - Flexibility across district
  - To accommodate dedicated Art and Music Rooms
- Reconfigure space at each school for more efficient use of small group space, offices and storage
- Future consideration of additional Physical Education space
  - Joint use with Park Districts
Capacity Model and Program Projects

- Lincoln Middle School
  - Modern science facilities
  - Relocate some exploratory program spaces from third floor
  - Most cost effective solutions may also increase capacity

- Emerson Middle School Addition budgeted to explore cost of space at that site
  - Two Sixth Grade Science Laboratories
  - Four Classrooms
Carpenter Elementary Projects

- Fire-rated ceiling patching to separate attic
- Corridor separation door replacement for fire rating
- Room / corridor door replacement and modification for fire rating and ADA
- Room-to-room door replacement at fire rated walls
- Attic access panel replacement
- Attic separation wall patching and portal replacement
- Roofing replacement (flat and pitched area)
- Corridor carpet replacement / asbestos removal
- Rekeying building
- PA system
- Electrical panel boards
- Galvanized water piping
- Energy efficiency, occupancy sensors and exterior lighting
- Toilet room exhaust, floor drains, thermostatic mixing values
- ADA sinks
Field Elementary Projects

- Wood frame and deck construction third floor attic ceiling separation
- Window replacement
- Room / corridor door replacement for fire
- Corridor separation door replacement for fire
- Room to room door replacement for fire
- Rekeying building
- PA system
- Electrical panel board
- Galvanized water piping
- Energy efficiency, occupancy sensors and exterior lighting
- Plumbing fixtures
- Asbestos tile removal / carpet replacement
- Existing office to become classroom
- Room 108 becomes Primary Art/Music
- Reconfigure entry at LRC to capture corridor space
- Reconfigure rooms 134 and adjacent storage into classroom
Franklin Elementary Projects

- Fire-rated door replacement
- Additional fire alarm device installation
- Corridor separation door replacement for fire rating
- Fire alarm device installation
- Roofing replacement (except 1990 addition)
- Rekeying building
- Masonry cleaning
- PA system
- Emergency generator
- Electrical panel boards
- Fire alarm system
- Plumbing fixtures
- Galvanized water piping in walls
- Asbestos floor tile removal (carpet replacement)
Roosevelt Elementary Projects

- Compartmentalize attic space
- Room/Corridor door replacement and modification for fire rating and ADA
- Corridor separation door replacement for fire rating
- Fire alarm device installation
- Fire rated ceiling to separate attic
- Roof replacement
- Asbestos floor tile (first floor classroom completed)
- Rekeying building
- PA system
- Galvanized water piping
- Spalling brick replacement
- Renovate existing office into classroom
- Renovate existing classroom into a second Music Room
Washington Elementary Projects

- Room/Corridor door replacement and modification for fire rating and ADA
- Corridor separation door replacement for fire rating
- Attic access panel replacement
- New flat roof area and repair at pitched area
- Rekeying building
- Flooring/Asbestos floor tile removal
- PA system
- Electrical panel boards
- Energy efficiency, occupancy sensors and exterior lighting
- Galvanized water piping (30%)
Emerson Middle Projects

- Fire alarm device installation
- Roof, flat areas and repairs at pitched areas
- Rekeying building
- Energy efficiency occupancy sensors and exterior lighting
- Carpet replacement
Lincoln Middle Projects

- Room/Corridor door replacement and modification for fire rating and ADA
- Corridor separation door replacement for fire rating
- Fire stopping
- Non-corridor fire rated door installation
- Attic separation and compartmentalization
- Roofing replacement
- Accessible toilets and toilet distribution
- Window replacement
- Rekeying building
- Plaster repair
- PA system
- Electrical panel board
- Galvanized water piping
- Energy efficiency, occupancy sensors and exterior lighting
- Asbestos floor tile removal
Jefferson School Projects

– Projects at Jefferson School need to be completed after consideration of district-wide issues
  • Use of a portion of the facility by a private day-care provider
  • Use of site for expanded program needs
Jefferson School Projects

- Institutional standards for day care use
- Room/Corridor door replacement and modification for fire rating and ADA
- Corridor separation door replacement for fire rating
- Attic access panel replacement
- Fire stopping at tops of demising walls
- Ceiling repair to close openings to attic
- Replacement of non-rated closet ceilings
- Roofing replacement
- Mechanical system
- Galvanized water piping
- Interior finishes and asbestos removal
- Rekeying building
- PA system
- Emergency generator
Other Projects

- Renovate Hendee Educational Service Center
  - Renovate main level for more efficient work space layout
  - Renovate lower level as a meeting space and training center
  - Accessible and quantity of restrooms
  - Rekeying building
  - Identify area for parking for training attendees
- Maintain Technology Office and MDF at Emerson / Jefferson site
- Utilize Lower Level of Washington for district uses
Kindergarten / EC Investigations

- Three alternatives have been explored to provide the district with the information regarding the facility needs
Kindergarten / EC Investigations

– Alternative 1 - $11.8 Million
  • Full day kindergarten at existing elementary schools
  • New or remodeled Kindergarten Rooms at each elementary school

– Alternative 2 - $35.8 Million
  • Centralized full day kindergarten at Emerson / Jefferson site
  • Significant site changes not included
  • No Renovation for 11 classrooms gained at elementary schools

– Alternative 3 - $29.0 Million
  • Centralized half-day kindergarten at Emerson / Jefferson site
  • Significant site changes not included
  • No Renovation for 11 classrooms gained at elementary schools
Project Prioritization

Priority One - Violation of the code or a health / safety concern or significant additional costs if item is not addressed

Priority Two - Necessary to comply with a recommended standard or increase operating efficiency or extend the useful life of the building or a system

Priority Three - Improve the quality of materials or systems or reduce the risk of future failures or the enhance performance of a system

The budget summary includes Priority 1, 2 and 3 projects, the breakdown by priority category will be indicated in the final report.
Budget Ranges

- Budget ranges have been developed based on the six project categories
  - The high range would represent costs if each project were constructed individually and allowing for some unforeseen conditions.
  - The low range would represent costs if multiple projects were constructed at the same time and with no significant unforeseen conditions.

- Some of the listed projects address identified needs in different ways, proceeding with one project would eliminate the need to complete other identified projects.
# Budget Summary

## HLS and Secured Entrance Projects

<table>
<thead>
<tr>
<th>Category</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Life Safety</td>
<td>$9.6 Million</td>
<td>$12.6 Million</td>
</tr>
<tr>
<td>Secured Entrances</td>
<td>$6.1 Million</td>
<td>$6.8 Million</td>
</tr>
</tbody>
</table>
### Budget Summary

**Projects (continued)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>$24.6 Million</td>
<td>$27.6 Million</td>
</tr>
<tr>
<td>Sites</td>
<td>$10.5 Million</td>
<td>$17.0 Million</td>
</tr>
<tr>
<td>Learning Resource Centers</td>
<td>$5.1 Million</td>
<td>$5.7 Million</td>
</tr>
<tr>
<td>Auditoriums</td>
<td>$3.7 Million</td>
<td>$4.9 Million</td>
</tr>
<tr>
<td>Capacity Model and Program Spaces</td>
<td>$24.9 Million</td>
<td>$30.9 Million</td>
</tr>
<tr>
<td>Other Projects</td>
<td>$2.6 Million</td>
<td>$3.1 Million</td>
</tr>
</tbody>
</table>
Recommendations

1. Submit 10-year Health Life Safety Report

2. Investigate options for the Secured Entrances / Learning Resource Centers / Multipurpose Auditorium Spaces

3. Prepare options for implementing the facility needs identified in this report

*The work of the Design Team (District administrators, architects and other consultants) should continue to review the data, information and findings of the HLS / MFP report and to implement these recommendations*
Recommendation One

– Submit 10-year Health Life Safety Report
  • The Report identifies projects to address needs based on the Health Life Safety Code
  • The Board will need to approve submission of this report to the State
  • Start planning to implement HLS items over the next five years in coordination with other work that may done across the district
Recommendation Two

- Investigate options for the Secured Entrances / Learning Resource Centers / Multipurpose Auditorium Spaces
  - The Design Team should start the design process and prepare preliminary concepts for each facility
  - In the fall of 2015 present a recommendation to the Board
  - Bid some or all of the projects at the beginning of 2016 for summer 2016 construction
Recommendation Three

– Prepare options for implementing priority projects identified in this report
  • Solicit Board comments and questions on report
  • Continue to prioritize needs
  • The Design Team will evaluate educational impact of facility projects
  • The Design Team will prepare implementation recommendation for Board consideration of a five-year plan in fall of 2016
Design Process

– The identified projects are not final solutions, they are concepts to establish general scope and budgets

– When and if the Board authorizes a project to proceed into the design phase the following steps would be taken:
  
  • Design Committee including administration and building staff explore options
  • Preliminary design and budget verification for Board approval
  • Final design and bidding documents prepared and issued for public bid
  • Board approval of bids for construction
16 Month Design and Construction Schedule

**Planning & Design**
- Confirm Scope of Work: 2 Weeks
- Preliminary Field Investigation: 6 Weeks
- Preliminary Design: 6 Weeks
- Budget Confirmation: 2 Weeks
- Final Design Approval: 2 Weeks
- Finalize Construction Documents: 13 Weeks

**Bidding**
- Bid Long Lead Items: 5 Weeks
- Bidding: 4 Weeks
- Bid Evaluation: 2 Weeks
- Bid Award: 2 Weeks

**Construction**
- Contract Preparation: 2 Weeks
- Contractor Mobilization: 10 Weeks
- Construction: 9 Weeks
- Move-In: 2 Weeks
- Contract Close-Out: 9 Weeks
Years 6 to 10 (2021 to 2026)

– Some building systems that are not in need of repair today will need repair or replacement in years 6 to 10.

– Anticipated costs for major systems will be included for years 6 to 10
  • Roofs / Windows / Doors
  • HVAC / Electrical / Plumbing
  • Low Voltage
  • Sites
Years 6 to 10 (2021 to 2026)

– Learning and teaching strategies impacting interior layout and design
  • Technology
  • Collaborative work
  • Inquiry and problem based learning
  • Personalized learning

– Interior system
  • Fit and finishes
  • Casework
  • Furnishings
Operations and Maintenance Costs

– Operation Costs
  Reoccurring costs to provide the necessary services to keep the building open and habitable

– Maintenance and Repair Costs
  Expected costs to off-set the normal deterioration of building elements based on age, wear and tear, weather and water
Continual Improvement

Master Facilities Plans are designed to build upon one another and have a long term, cumulative impact on your overall portfolio of buildings and infrastructure. This plan and its eventual outcomes will become a foundation for the next Master Facilities plan, which should be completed five years from now and be the next step in a continual improvement process.
Continual Improvement

- Each student has best facilities
- Better fiscal management of resources
- Adapt school to changing pedagogy
- Offset normal deterioration by catching facility problems early

BUILDING EFFECTIVENESS FOR LEARNING

Original Construction Cost

$$$$$

$20 Year Renovation

$10 Years

20 Years

40 Years

TIME

PARK RIDGE NILES SCHOOL DISTRICT 64

Report - June 22, 2015

FGM ARCHITECTS