Overview of Presentation

- Overview of WPS Facilities Inventory
- Review Previous Renovation Projects
- Review 2011 Summer Projects
- Review Upcoming Energy Savings Projects (ESCO)
- Review Environmental Projects
- Review MSBA Statements of Interest
- Long Term Strategy for WPS as Schools of Choice

Facilities Inventory

2000-Present

North High School (2011)
Full completion Summer 2012


Forest Grove Middle School (2001 Renovation of 1950 original construction)

Roosevelt Elementary (2002)

1990-1999

- Norbaek (1999)
- Woodland/Claremont Academies (1999)
- Quinsigamond Elementary (1998)
- Gates Lane (1996)
- Sullivan Middle School (1992)
- City View (1991)
- Jacob Hiatt (Purchase) (1990)
1980-1989
- Canterbury Street (1987)

1970-1979
- South High School (1976)
- McGrath Elementary (1977)
- Chandler Elementary (1977)
- Elm Park Community School (1973)
- Belmont Street Community School (1975)

1960-1969
- Doherty Memorial High School (1966)
- Burncoat High School (1964)
- Wawacuss Road School (1963)
- Caradonio New Citizens Center (1963)
- Mill Swan (Head Start) (1966)
- Worcester Arts Magnet (1961 with 1970 addition)
- West Tatinuck (1961 with 1970 addition)

1950-1959
- Flagg Street School (1953 with 1954 addition)
- Clark Street School (1953)
- Chandler Magnet School (1953)
- Burncoat Middle School (1952)

1940-1949
- No schools constructed during 1940's

1930-1939
- Heard Street School (1932)
- Vernon Hill School (1931)
Joint Meeting Finance & Operations and Education Committee
February 13, 2012
Rehabilitation Projects

- City provides $3 million annual for school rehabilitation projects
- History of projects concentrated on boiler replacement and upgrades
  - All schools upgraded to natural gas except for
    - Union Hill and Worcester Arts Magnet (to be converted through ES3s)
    - New Citizens, Harlow St, & Foley Stadium
- Other projects have included some roof and window replacements, among other investments

Rehabilitation Projects

Examples of Other Work Between 2000 and 2005

- Science labs at South and Burncoat High Schools
- Windows replacement at Vernon Hill & Heard St.
- Convert South High from Electricity to Natural Gas
- HVAC replacement at Doherty, Burncoat High, Goddard, Chandler Magnet, Rice Square, & Heard Street.
- Renovation of Foley Stadium

Rehabilitation Projects

Examples of Other Work Between 2000 and 2005

- Roof replacements at South High, Nelson Place, Wawecus, Chandler Elementary, West Tatnuck, May Street, Union Hill, Creamer Center, Grafton Street, Fanning, McGrath, and Foley Stadium.
- FOG (Fats, Oil, and Grease) Compliance (Phase 1 and 2 complete - 15 schools; remaining Phase 3 pending - 3 schools)
- Underground Storage Tank Removals (17 sites)
- Various chimney repairs

Rehabilitation Projects

- $7.7 million investment to undertake cosmetic repairs at the following schools
  - Doherty High School
  - Union Hill School
  - Burncoat High School
  - South Elementary
  - Rochester East Middle
  - Tilton School
  - Goddard Elementary
- City provided $3 million one-time funds in 2011, combined with $3 million from 2001 and $1.7 million from the 2012 building rehabilitation allocation from City to WPS.

Rehabilitation Projects

- Doherty High: New science labs, restroom renovations, new flooring, locker replacement, painting, re-finished gym floor, and some paving.
- Burncoat High: Restroom renovations, painting, and locker replacement.
- South High: Restroom renovations, Classroom floor restoration (from carpet to polished concrete), and new security system.
- Worcester East Middle: Classrooms refinished, cafeteria floor refinished, painting, parking lot paving, and restroom renovations

Rehabilitation Projects

- Union Hill: Classrooms and hallways refinished, restroom renovations, and painting.
- Chandler Elementary: Classrooms refinished, painting, and restroom renovations.
- Flagg Street: New flooring in classrooms and hallways, painting, and restroom renovations.
- Clark Street: New flooring in classrooms and hallways, new cabinetry in classrooms, locker replacement, restroom renovations, and parking lot paving.

Joint Meeting Finance & Operations and Education Committee
February 13, 2012
Rehabilitation Projects

- Tatnuck Magnet: New flooring in classrooms and hallways, restroom renovations, and painting. (Most of work to be completed in Summer 2012)
- Goddard School: New flooring, painting, and restroom renovations.

Doherty High School

Burncoat High School

Worcester East Middle School

Flagg Street School

Building Renovations Through Energy Savings Company (ESCO)
ESCo Projects:

- City entered into a contract with Honeywell International, Inc. as an Energy Savings Company (ESCo) in June 2011 after competitive qualification process.
- Purpose is to install energy-efficient upgrades and renewable energy technology
- Reduce City and WPS energy costs by $5.4 million per year for next 20 years and reduce CO2 emissions by 6,000 tons annually.
- Funded through 20-year performance contract that guarantees savings.

ESCo Projects:

- Replace Boiler & Chiller Units:
  - Woodland/Claremont
  - Norreback Ave
  - Quinsigamond Elementary
  - Roosevelt Elementary
- Replace Boiler Projects:
  - Union Hill & Worcester Arts Magnet
  - Solar Photovoltaic systems at WTHS and Sullivan Middle; Small wind turbine at WTHS, and new roof at Jacob Hiatt School

ESCo Projects:

- Most schools to receive some/all of the following:
  - Building Controls and Automation
  - Occupancy Sensor
  - Building Infiltration
  - Water Conservation
  - Refrigeration Upgrades
  - Boiler Controls
  - Steam Trap Replacement
  - Attic Insulation
- About $16 million investment into WPS

ESCo Projects:

- These ESCo projects are in addition to
  - Computer Power Management
  - Lighting Upgrades
  - that WPS has already undertaken resulting in more that $300,000 in annual electricity savings.

PCB's in Worcester Schools

- Polychlorinated biphenyls (PCB's) were used in many building materials between 1950 and 1978.
- WPS has 10 schools constructed and 9 schools with major renovations during this time period.
- Engaged Triumvirate Environmental in February 2010 to conduct a comprehensive facilities assessment for all 29 buildings.
- Developed interim and long term steps
- Worked cooperatively with EPA throughout the process
Building Assessments

- Building Assessments consisted of an evaluation of readily observable interior and exterior materials, equipment and surfaces, including:
  - Caulking
  - Window glazing
  - Paint
  - Exterior Grounds
  - Dust accumulation
  - HVAC Systems
  - Light ballasts

Building Assessments

- During initial assessments, 24 light ballasts in the district were determined to be unlabeled and leaking and were immediately removed.
- Remaining observations have been identified and action plan has been submitted to EPA.

PCB's Next Steps

- Unlabeled ballast removal (156 units)
- Interior dust removal, including clearing vent grates (all schools)
- Stained fixture removal (484 units)
- Interior/Exterior Window Glazing and Caulking Seal
- On-going annual re-inspections and exterior assessments as needed.

- Funding Need: $1.3 million

Summary of Actions

- Completed initial assessment
- Removed leaking ballasts
- Developed aggressive $3.3 million interim strategy to remove, encapsulate, and manage likely PCB containing material
- On-going inspection and assessments
- Long term funding plan to renovate schools and replace windows.

Short Term Funding Plan

Recent Electricity
- Reverse-Auction Savings: $975,000

Current Budget for EMS:
- $600,000

Possible Available Funds:
- $1,375,000

School Committee has already authorized Administration to allocate these funds to commence work in Spring/Summer 2012.

Long Term Plan: Window replacement through annual building rehabilitation budget and MSBA Accelerated Repair Funding

Joint Meeting Finance & Operations and Education Committee
February 13, 2012
MSBA

Statement of Interest Requests to Massachusetts School Building Authority:

- Worcester is 80% Reimbursement Rate (not including certain site preparation and environmental abatement work)
- 11 Schools - Replacement or Major Renovation (including Nelson Place)
- 20 Schools - Accelerated Repair Projects (windows, roofs, and boilers)

NELSON PLACE

- Full Building Replacement: sized to meet student enrollment (currently overcrowded)
- Provide modern classrooms, educational space, computer labs and technology infrastructure
- Provide adequate space for gymnasium and cafeteria
- Improve traffic flow for school and neighborhood

DOHERTY HIGH SCHOOL

- Update facility to address full program needs
- Update facility to meet ADA compliance
- Modernize classrooms and library space
- Modernize auditorium and cafeteria
- Update technology infrastructure
- Full Window Replacement
- Provide additional science labs
- Modernize building communications & security system
- Modernize HVAC systems
- Update athletic facilities, including gym and playing fields
- Replace parking area

SOUTH HIGH SCHOOL

- Re-design open classroom concept
- Update facility to address full program needs: CTE and other programs
- Update technology infrastructure
- Provide additional science labs
- Re-design building systems
- Replace communications systems
- Replace windows
- Modernize media center
- Modernize auditorium and cafeteria areas
- Improve community use areas:
  - Gyms, pool, and ball fields
  - Replace parking areas

BURNCOAT HIGH SCHOOL

NEASC Accreditation Status: WARNING

NEASC Report/Findings (2009):
- Inadequate space and overcrowded halls, cafeteria, and classes
- No space for large group meetings, no auditorium
- Shortage of classrooms
- Facility creates less than conducive learning environment
- Lack of adequate library space
- Need for building addition
- Inadequate athletic facilities
- Facility not ADA compliant
- Facility not equipped to address program needs

Additional Items:
- Full window replacement
- Provide additional science labs, additional space for performing arts program
- Modernize building communications & security system, replace roof, and
  Modernize HVAC systems

Worcester East Middle

- Full window replacement
- Full roof replacement
- Replace heating system
- Modernize school auditorium
- Develop new science lab

Joint Meeting Finance & Operations and Education Committee
February 13, 2012
Other Submitted SOI's

- Fenway Academy
- Leominster Magnet
- Northfield Magnet
- St. Peter's
- Fitchburg
- Lunenburg
- Ayer
- Ayer-Shirley
- Gardner
- Gardner
- Athol
- Nashua
- Clinton
- Clinton
- Mont Vernon
- Mont Vernon
- Jaffrey
- Jaffrey-Rindge
- Keene
- Keene
- Laconia
- Laconia

Accelerated Repair SOI's

Windows, Roofs, and/or Boilers only:

**Window Projects**
- Union Hill
- Worc Arts Magnet
- Elm Park
- Grafton Street
- Harlow Street
- Columbia Park
- Belmont Street
- West Tatnuck
- Thordyke Road

- McGraw Elementary
- Lake View
- New Citizens Center
- May Street
- Chandler Magnet

**Roof Projects**
- Worcester Arts Magnet
- Jacob Hatt
- Harlow Street
- Columbia Park
- Belmont Street
- Canterbury Street
- Vernon Hill
- Lake View
- Lincoln Street

- Project scheduled to be completed through ESOC

Accelerated Repair SOI's

Windows, Roofs, and/or Boilers only:

**Boiler Projects**
- Union Hill
- Worcester Arts Magnet
- Roosevelt
- Jacob Hatt
- Elm Park Community
- Grafton Street
- Harlow Street
- Sullivan Middle
- New Citizens Center

- Project scheduled to be completed through ESOC

Surrounding Communities

- Wachusett High School
- Shrewsbury High School
- Auburn High School

Worcester Public Schools

**COMPETING TO BE SCHOOLS OF CHOICE**

Joint Meeting Finance & Operations and Education Committee
February 13, 2012
Surrounding Communities
Grafton Memorial Senior High School
New School Completion: July 2012
Tahanto Regional High School
New School Completion: October 2011
Sherwood Middle School (Shrewsbury):
New School Completion: 2013
West Boylston Jr.-Sr. High School:
Repair (Feasibility Study)
Leicester Middle School:
Repair (Design Development)

School Projects
- Strategic use of various funding sources (local, state, and energy savings) to provide a long term plan to improve the facilities infrastructure of the Worcester Public Schools

Schools of Choice
- The time is now to work together to leverage strategic funding opportunities to repair, replace, and modernize the educational facilities for our current and future students of the Worcester Public Schools.