

*WELLESLEY FACILITIES MAINTENANCE
DEPARTMENT (FMD)*



***Board of Selectmen & School
Committee Presentation***

September 8, 2014

Presentation Overview

- *Summer Projects*
- *Middle School Study*
- *FMD Central Office Assessment*
- *Town Hall Renovation Project*

SUMMER PROJECTS

CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF

Middle School Tile Work - Before



Middle School Tile Work - After



CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF

Hardy Tile Work - Before



Hardy Tile Work - After



CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF

Middle School



High School



CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF
HARD WOOD FLOOR RESTORATION: MIDDLE SCHOOL - GYM B

Before & Prep



After



CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF
HARD WOOD FLOOR RESTORATION: HIGH SCHOOL - GYM

Before & Prep



Sealing



CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF
HARD WOOD FLOOR RESTORATION: HIGH SCHOOL - GYM

After



CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF
HARD WOOD FLOOR RESTORATION: HIGH SCHOOL – 1938 ROOM

Before



After



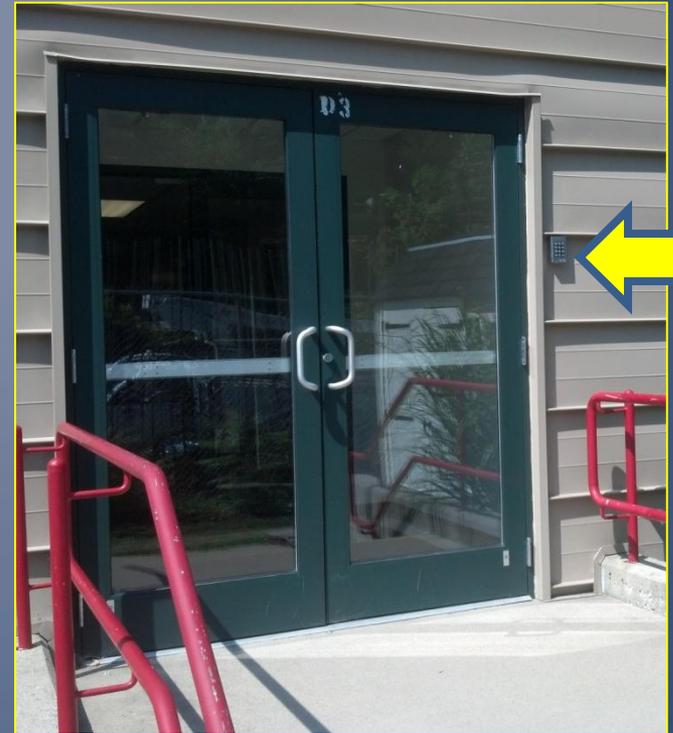
CUSTODIAL WORK

SUMMER CLEANING PROJECTS – FMD CUSTODIAL STAFF
WINDOW WASHING PROJECT: MAIN LIBRARY



PRESCHOOL (PAWS)

Security Upgrades



PRESCHOOL (PAWS)

Main Office Carpet Replacement



September 8th FMD Presentation

BATES SCHOOL

Main Office Renovation – *By FMD Maintenance*



BATES SCHOOL

Kiln and Art Room Modifications – *By FMD Maintenance*



Before Conditions

September 8th FMD Presentation

BATES SCHOOL

Kiln and Art Room Modifications – *By FMD Maintenance*



BATES SCHOOL

Parking Lot Crack Sealing and Pavement Markings



BATES SCHOOL

HVAC Study – Energy Conservation Measures

**WELLESLEY FACILITIES MAINTENANCE DEPARTMENT
REQUEST FOR PROPOSALS #WFMD-RFP-FY15-001
MECHANICAL ENGINEERING SERVICES**

AUTHORITY

Town of Wellesley
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481

PROJECT

Provide *Mechanical Engineering Services* for the purpose of evaluating energy conservation measures (ECMs) at four Town buildings.

Requests for Proposals (RFP)

Available April 16, 2014 at:
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481, or online at:

http://www.wellesleyma.gov/pages/wellesley_ma_facilities/index

Estimated Construction Costs

N/A

Briefing Session and Tours

April 30, 2014 at Town Hall at 1:00 pm

Time Period for Completed Work

See Project Schedule

Specific Designer Services

Mechanical Engineering study and design

Scope of Work

Perform mechanical engineering services at four buildings to recommend HVAC modifications at two buildings and energy conservation measures at all four.

Submissions

Deadline:
May 8, 2014 before 11:00 am

Location:
Town of Wellesley FMD Offices
40 Kingsbury Street
Wellesley, MA 02481

Clearly marked:
"Proposal for FMD Mechanical Engineering Services"

Contact Information

Allen Hebert, Project Manager
Telephone: (781) 446-6210 X5633
Email: ahebert@wellesleyma.gov
Facsimile: (781) 446-6207



FISKE SCHOOL

Parking Lot Pavement Markings



September 8th FMD Presentation

HARDY SCHOOL

Modular Classroom Renovations



Before Conditions

HARDY SCHOOL

Modular Classroom Renovations



HARDY SCHOOL

Main Office and MODS Carpet Replacement



HARDY SCHOOL

Transformer Fence Replacement



HARDY SCHOOL

Security/Safety Upgrades - Grounds



HUNNEWELL SCHOOL

Wood Trim Painting



September 8th FMD Presentation

SPRAGUE SCHOOL

Entry Canopy Painting



Before Conditions

SPRAGUE SCHOOL

Library and Main Office Carpet Replacement



SPRAGUE SCHOOL

HVAC Study – Energy Conservation Measures

**WELLESLEY FACILITIES MAINTENANCE DEPARTMENT
REQUEST FOR PROPOSALS #WFMD-RFP-FY15-001
MECHANICAL ENGINEERING SERVICES**

AUTHORITY

Town of Wellesley
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481

PROJECT

Provide *Mechanical Engineering Services* for the purpose of evaluating energy conservation measures (ECMs) at four Town buildings.

Requests for Proposals (RFP)

Available April 16, 2014 at:
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481, or online at:

http://www.wellesleyma.gov/pages/wellesley_ma_facilities/index

Estimated Construction Costs

N/A

Briefing Session and Tours

April 30, 2014 at Town Hall at 1:00 pm

Time Period for Completed Work

See Project Schedule

Specific Designer Services

Mechanical Engineering study and design

Scope of Work

Perform mechanical engineering services at four buildings to recommend HVAC modifications at two buildings and energy conservation measures at all four.

Submissions

Deadline:
May 8, 2014 before 11:00 am

Location:
Town of Wellesley FMD Offices
40 Kingsbury Street
Wellesley, MA 02481

Contact Information

Allen Hebert, Project Manager
Telephone: (781) 446-6210 X5633
Email: ahebert@wellesleyma.gov
Facsimile: (781) 446-6207

Clearly marked:
"Proposal for FMD Mechanical
Engineering Services"



UPHAM SCHOOL

Modular Classroom Renovations



Before Conditions

UPHAM SCHOOL

Modular Classroom Renovations



UPHAM SCHOOL

Hydration Station – *PTO Funded and FMD Installed*



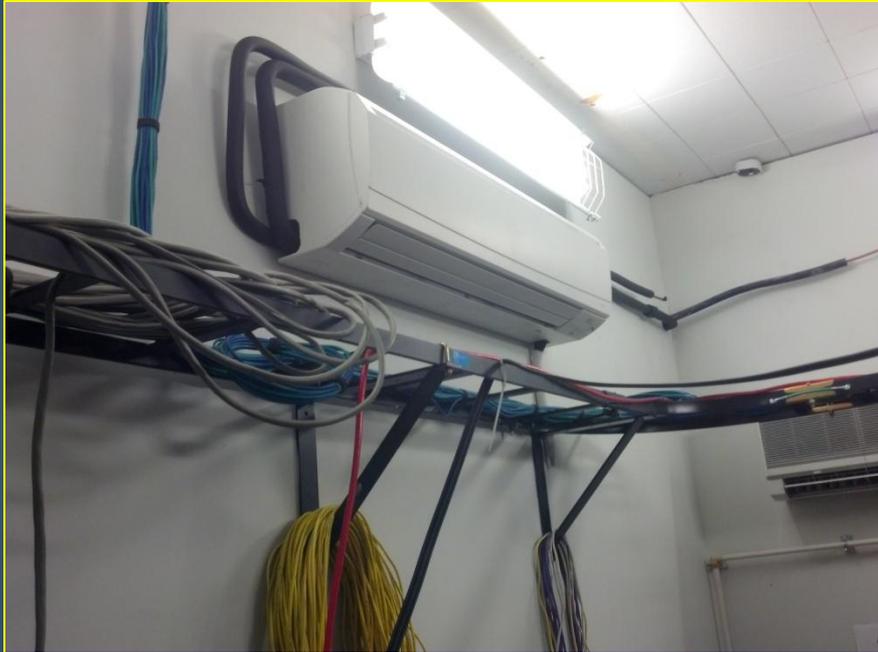
MIDDLE SCHOOL

Band and Chorus Rooms Carpet Replacement



MIDDLE SCHOOL

IT Server Room AC - *By FMD Maintenance*



MIDDLE SCHOOL

Filing Security Upgrades - *By FMD Maint. & Custodians*



HIGH SCHOOL

New Lawn Across from Cafeteria



September 8th FMD Presentation

TOWN HALL

HVAC Study – System Evaluation

WELLESLEY FACILITIES MAINTENANCE DEPARTMENT
REQUEST FOR PROPOSALS #WFMD-RFP-FY15-001
MECHANICAL ENGINEERING SERVICES

AUTHORITY

Town of Wellesley
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481



MacRITCHIE ENGINEERING INCORPORATED

197 Quincy Avenue, Braintree, MA 02184
Tel. (781) 848-4464 Fax (781) 848-2613

Requests for Proposals (RFP)

Available April 16, 2014 at:
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481, or online at:

http://www.wellesleyma.gov/pages/wellesley_facilities/index

Briefing Session and Tours

April 30, 2014 at Town Hall at 1:00 pm

Specific Designer Services

Mechanical Engineering study and des

Submissions

Deadline:
May 8, 2014 before 11:00 am

Location:
Town of Wellesley FMD Offices
40 Kingsbury Street
Wellesley, MA 02481

Clearly marked:
"Proposal for FMD Mechanical
Engineering Services"

Facsimile: (781) 446-6207

November 28, 2012

Mr. Joe Murray
Town of Wellesley
525 Washington Street
Wellesley, MA 02482-5992

Re: Wellesley Town Hall – Temperature Control Issues & Indoor Air Quality

Dear Mr. Murray,

MacRitchie Engineering is please to offer this proposal for the mechanical engineering services associated with the HVAC temperature controls issues as identified in the May 18, 2012 report and the selectman's office Indoor Air Quality issues identified by your office.

POLICE STATION

Interview Room Acoustical Improvements - *By FMD*
Maintenance



FIRE HEADQUARTERS (STATION 2)

Main Entrance ADA Upgrade – Design and DRB Submission



HILLS LIBRARY

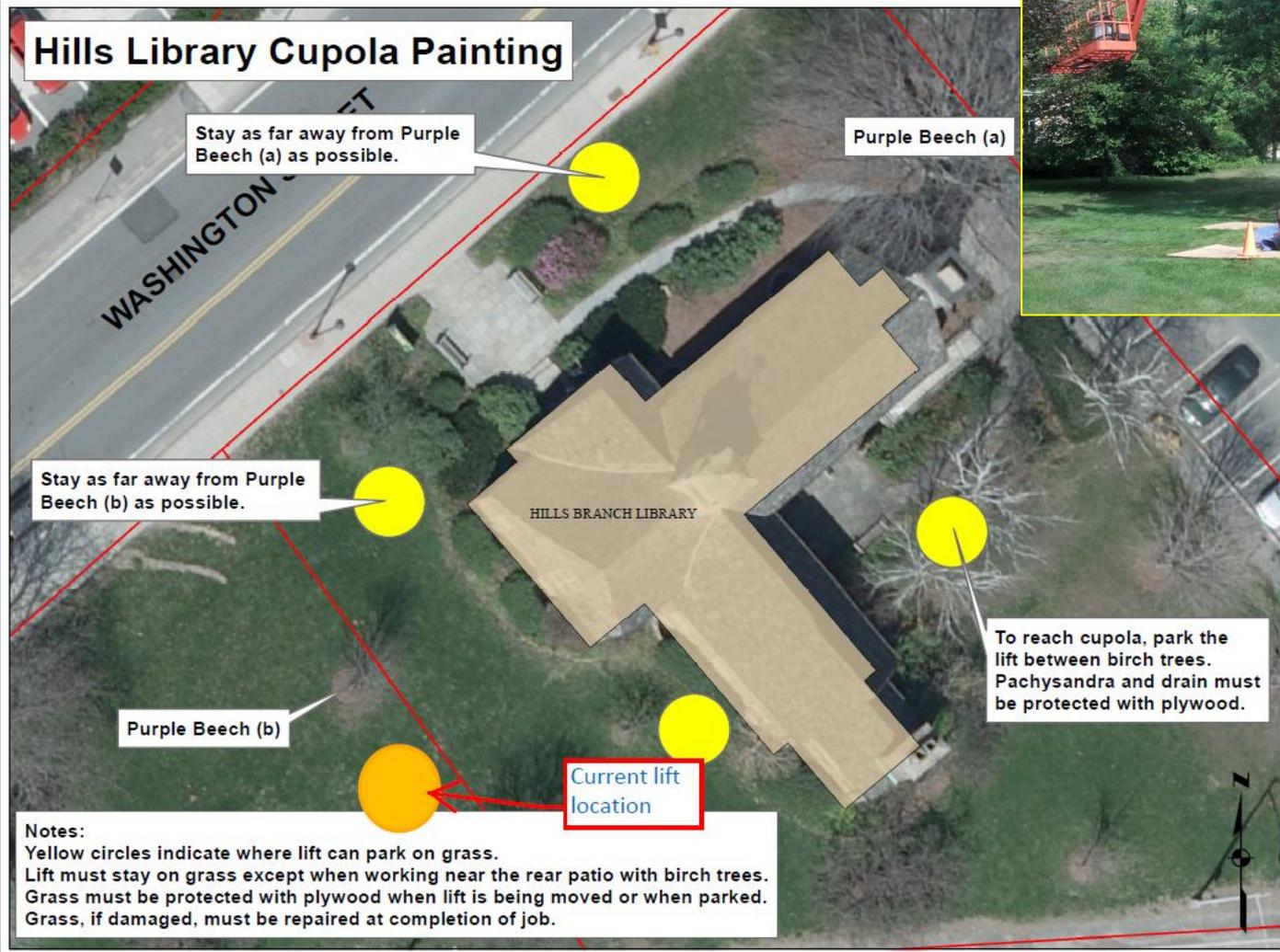
Cupola Painting



September 8th FMD Presentation

HILLS LIBRARY

Cupola Painting



MAIN LIBRARY

Masonry & Sidewalk Repairs



MAIN LIBRARY

Wakelin Room Upgrades – Carpet, Wallpaper & Paint



September 8th FMD Presentation

WARREN BUILDING

HVAC Study – System Evaluation

**WELLESLEY FACILITIES MAINTENANCE DEPARTMENT
REQUEST FOR PROPOSALS #WFMD-RFP-FY15-001
MECHANICAL ENGINEERING SERVICES**

AUTHORITY

Town of Wellesley
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481

PROJECT

Provide *Mechanical Engineering Services* for the purpose of evaluating energy conservation measures (ECMs) at four Town buildings.

Requests for Proposals (RFP)

Available April 16, 2014 at:
Facilities Maintenance Department
40 Kingsbury Street
Wellesley, MA 02481, or online at:

http://www.wellesleyma.gov/pages/wellesley_ma_facilities/index

Estimated Construction Costs

N/A

Briefing Session and Tours

April 30, 2014 at Town Hall at 1:00 pm

Time Period for Completed Work

See Project Schedule

Specific Designer Services

Mechanical Engineering study and design

Scope of Work

Perform mechanical engineering services at four buildings to recommend HVAC modifications at two buildings and energy conservation measures at all four.

Submissions

Deadline:
May 8, 2014 before 11:00 am

Location:
Town of Wellesley FMD Offices
40 Kingsbury Street
Wellesley, MA 02481

Contact Information

Allen Hebert, Project Manager
Telephone: (781) 446-6210 X5633
Email: ahebert@wellesleyma.gov
Facsimile: (781) 446-6207

Clearly marked:
“Proposal for FMD Mechanical
Engineering Services”



CARDBOARD RECYCLING

High School and Middle School – Partnership with RDF



MAJOR CAPITAL PROJECTS

- 8 Projects - \$4.8M
- All Projects Originated in FMD's Capital Plans
- The Process is Working – Projects Being Completed!

SPRAGUE ROOF

SLATE ROOF CONDITION SURVEY REPORT

Sprague Elementary School
401 School Street
Wellesley, MA

January 19, 2012

RBA Project No. 2011112.00

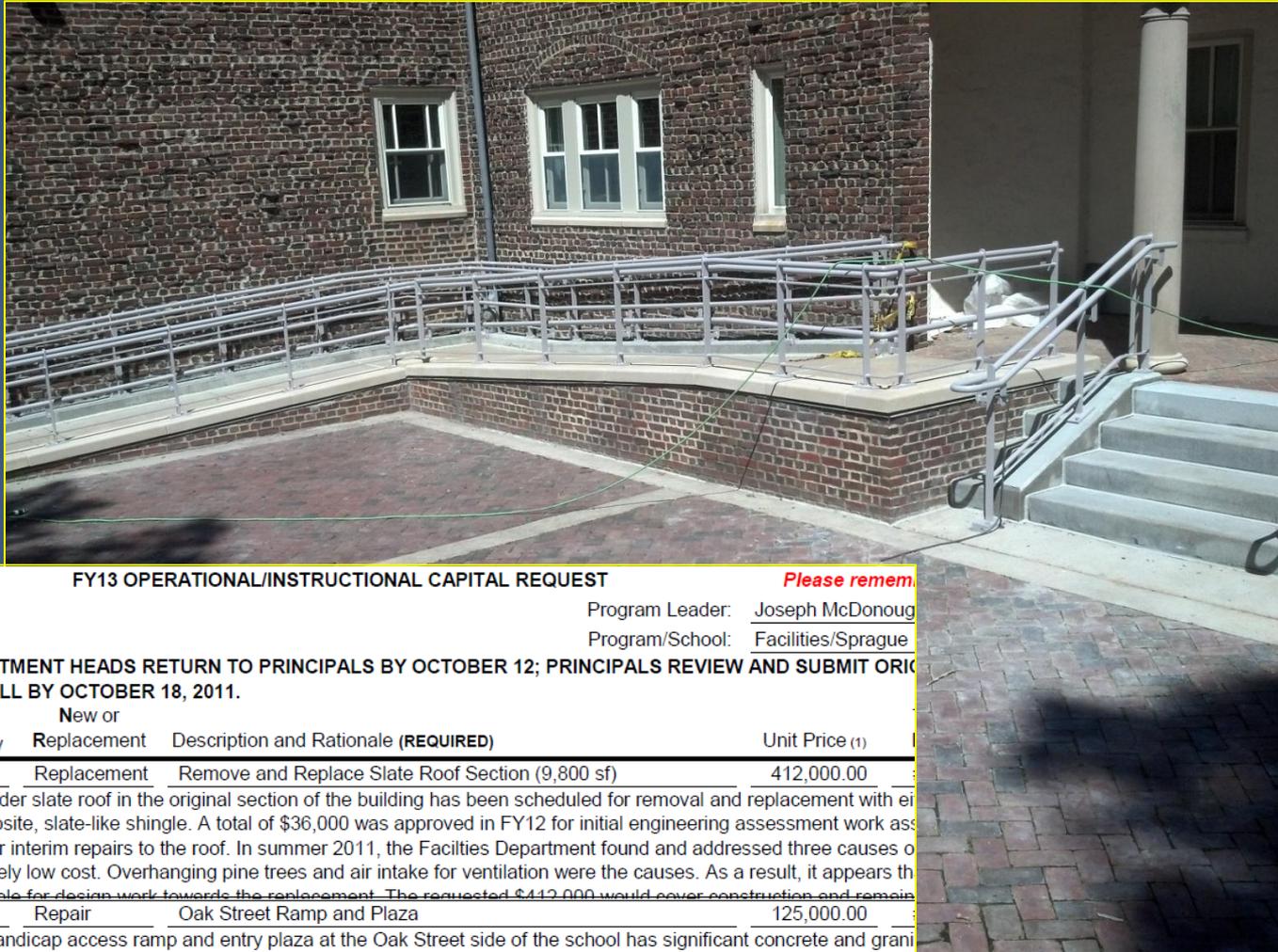
Prepared by:



33 Center Street, 2nd Floor
Burlington, MA
tel: 781-273-1537
fax: 781-273-1695



SPRAGUE OAK STREET PLAZA



FY13 OPERATIONAL/INSTRUCTIONAL CAPITAL REQUEST

Please remember

Program Leader: Joseph McDonough

Program/School: Facilities/Sprague

DEPARTMENT HEADS RETURN TO PRINCIPALS BY OCTOBER 12; PRINCIPALS REVIEW AND SUBMIT ORIGINALS TO SUPERVISOR OF FACILITIES BY OCTOBER 18, 2011.

New or

Quantity	Replacement	Description and Rationale (REQUIRED)	Unit Price (1)
14	Replacement	Remove and Replace Slate Roof Section (9,800 sf)	412,000.00
<p>The older slate roof in the original section of the building has been scheduled for removal and replacement with a composite, slate-like shingle. A total of \$36,000 was approved in FY12 for initial engineering assessment work and for interim repairs to the roof. In summer 2011, the Facilities Department found and addressed three causes of relatively low cost. Overhanging pine trees and air intake for ventilation were the causes. As a result, it appears that the roof is now suitable for design work towards the replacement. The requested \$412,000 would cover construction and remain available for design work towards the replacement.</p>			
1	Repair	Oak Street Ramp and Plaza	125,000.00
<p>The handicap access ramp and entry plaza at the Oak Street side of the school has significant concrete and granite concrete handicap ramp have eroded and spalled. The granite steps have also cracked and broken apart in many places. The design may have contributed to much of the observed damage. The stair and ramp railings have rectangular steel</p>			

HUNNEWELL ROOF REPAIRS

Roof Condition Survey Project

Hunnewell Elementary School
28 Cameron Street
Wellesley, Massachusetts

August 31, 2012

RBA Project No. 2012048.00

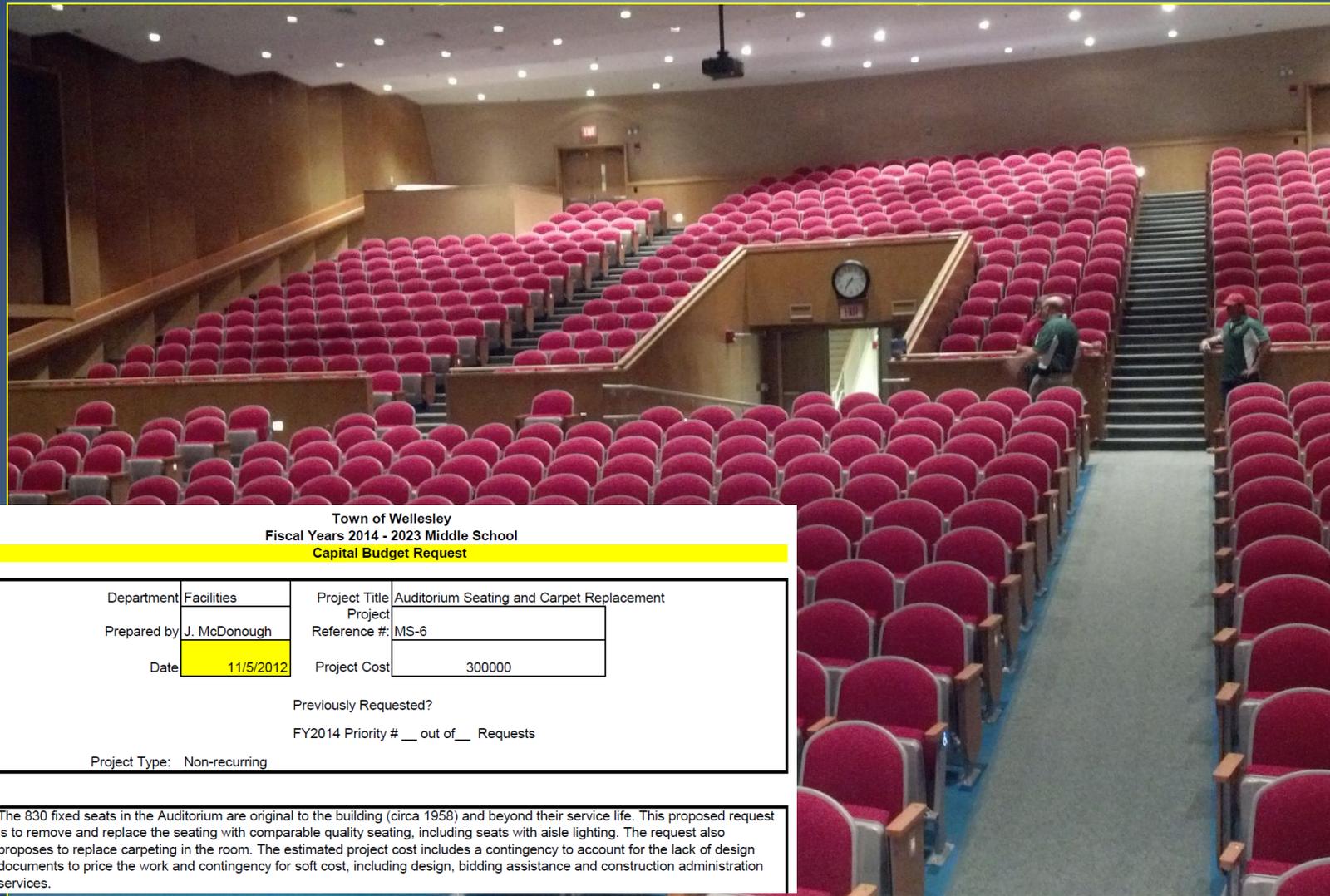
Prepared by:



33 Center Street, 2nd Floor
Burlington, MA
Tel: 781-273-1537
Fax: 781-273-1695



MIDDLE SCHOOL AUDITORIUM



Town of Wellesley
Fiscal Years 2014 - 2023 Middle School
Capital Budget Request

Department	Facilities	Project Title	Auditorium Seating and Carpet Replacement
Prepared by	J. McDonough	Project Reference #:	MS-6
Date	11/5/2012	Project Cost	300000
Previously Requested?			
FY2014 Priority # __ out of __ Requests			
Project Type: Non-recurring			

The 830 fixed seats in the Auditorium are original to the building (circa 1958) and beyond their service life. This proposed request is to remove and replace the seating with comparable quality seating, including seats with aisle lighting. The request also proposes to replace carpeting in the room. The estimated project cost includes a contingency to account for the lack of design documents to price the work and contingency for soft cost, including design, bidding assistance and construction administration services.

MS DONIZETTI ENTRANCE PLAZA

Plaza Waterproofing Investigation Project

Wellesley Middle School
40 Kingsbury Street
Wellesley, Massachusetts

August 31, 2012
Amended November 19, 2012

RBA Project No. 2012046.00

Prepared by:



33 Center Street, 2nd Floor
Burlington, MA
Tel: 781-273-1537
Fax: 781-273-1695



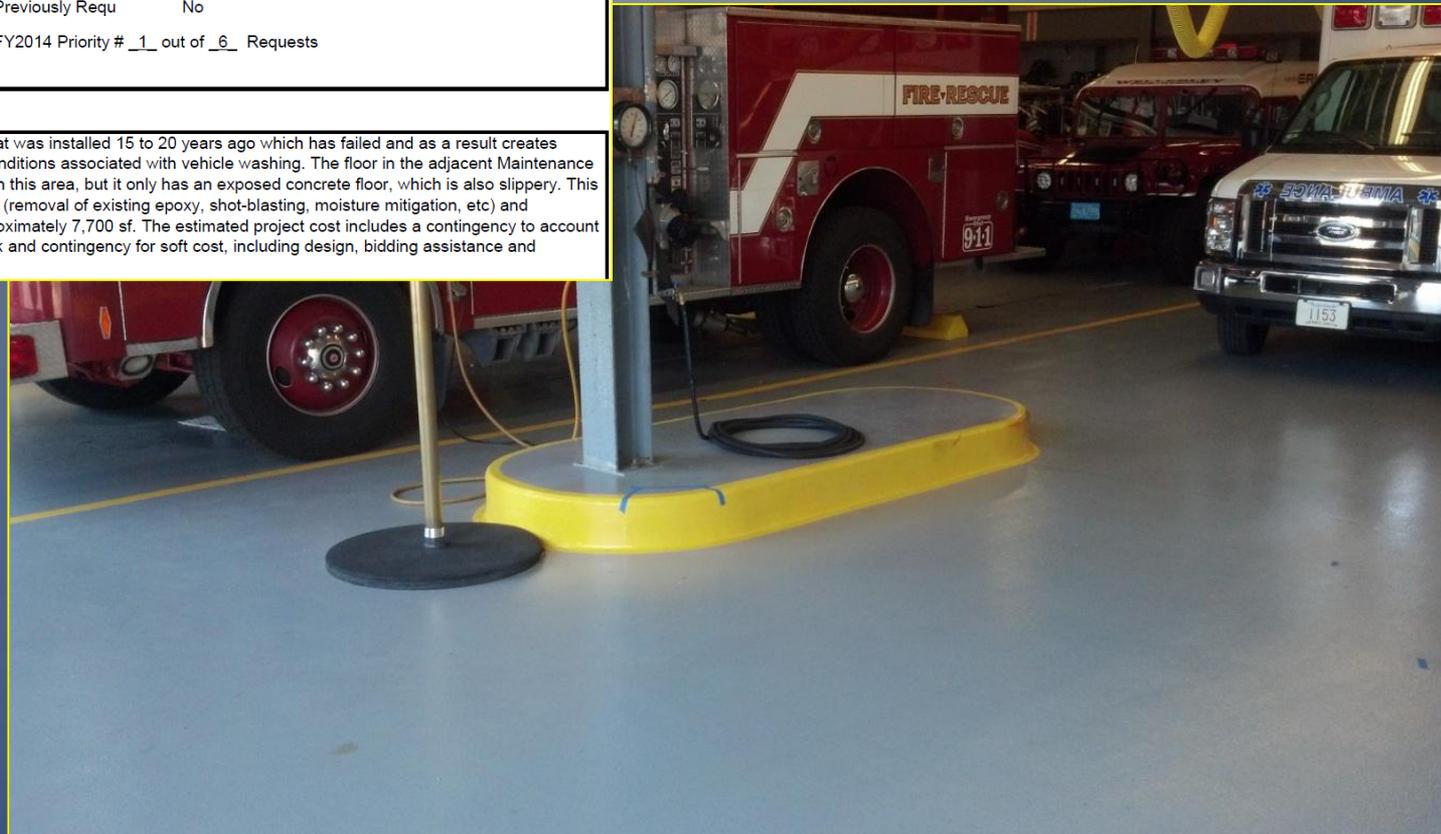
FIRE HQ FLOORING

Town of Wellesley
Fiscal Years 2014 - 2023 FD Main
Capital Budget Request

Department	Facilities	Project Title	Apparatus/Maintenance Bay Flooring Replacement
Prepared by	J. McDonough	Project Reference #:	FDM-1
Date	10/9/2012	Project Cost	178000

Previously Requ No
FY2014 Priority # 1 out of 6 Requests
Project Type: Non-Recurring

The Apparatus Bay floor has an epoxy coating that was installed 15 to 20 years ago which has failed and as a result creates safety issues (slip and fall) because of the wet conditions associated with vehicle washing. The floor in the adjacent Maintenance Bay has similar concerns as trucks are serviced in this area, but it only has an exposed concrete floor, which is also slippery. This request would provide for the surface preparation (removal of existing epoxy, shot-blasting, moisture mitigation, etc) and installation of an epoxy flooring system over approximately 7,700 sf. The estimated project cost includes a contingency to account for the lack of design documents to price the work and contingency for soft cost, including design, bidding assistance and construction administration services.



FIRE HQ HVAC



Fire Department HVAC



*Permanent Building Committee
Presentation, February 28, 2013*

Wellesley Facilities Maintenance Department

September 8th FMD Presentation

POLICE HVAC



MacRITCHIE ENGINEERING INCORPORATED

197 Quincy Avenue, Braintree, MA 02184

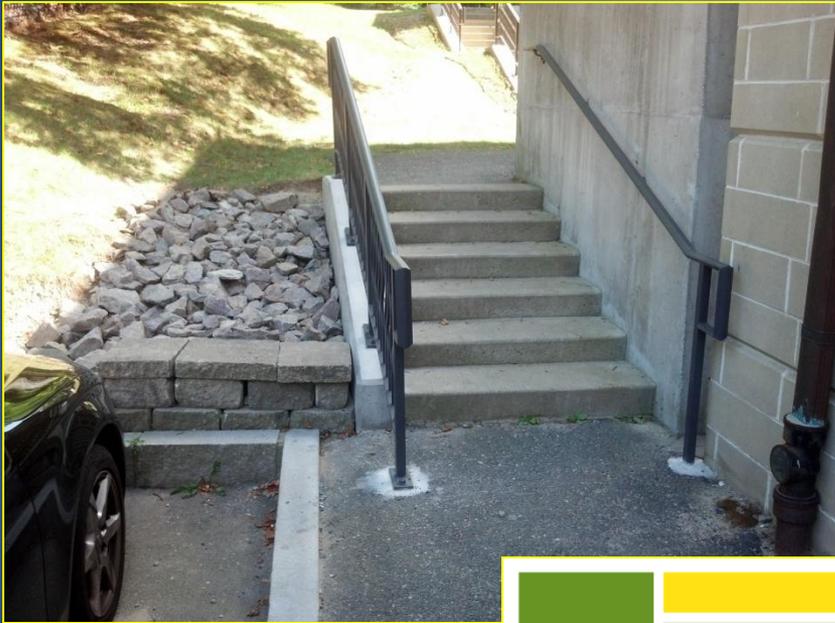
Tel. (781) 848-4464 Fax (781) 848-2613

Wellesley Police Station
HVAC Study
November 14, 2012

Background & Existing Conditions

The Wellesley Police station is a 17 year old building constructed in 1995. The HVAC system for the building consists of a central variable air volume (VAV) air handling unit with a variable speed drive to adjust the fan speed and air flow, gas fired modular boilers which consist of 4 modules for a combined total capacity of 1900 MBH input for heating and a 50 ton air cooled condensing unit for cooling. The air handling unit ductwork distributes the supply air throughout

WARREN BUILDING



PRINCIPALS
CRAIG E. BARNES
MICHAEL S. TELLER
WAYNE R. LAWSON
ALBERT F. PEREZ

ASSOCIATE
ROBERT G. WILKIN

CBI CONSULTING INC.

July 3, 2012

Town of Wellesley
Permanent Building Committee
c/o Selectmen Office, 3rd Floor
525 Washington Street
Wellesley MA, 02482

Tel: 781-431-1019
Fax: 781-239-1043

Subj: Warren Recreation/Health Building
Re: Roof and Façade Existing Condition Report
CBI Job. No.: 12059

Dear Permanent Building Committee:

At your request, CBI Consulting Inc. (CBI) has undertaken an existing condition survey and prepared this assessment report of the VCT flooring, interior & exterior doors, chimney, exterior handrails and boiler room exhaust of the Warren/Recreation/Health Building at 90 Washington Street, Wellesley, MA. CBI performed onsite investigations of the building interior, chimneys, and exterior stairs/railings. Our sub-consultant BLW Engineers, Inc. (BLW) observed the boiler exhaust and condensate returns as well as electrical, mechanical, and plumbing systems. CBI and BLW also reviewed the available plans for additional background information.

QUESTIONS



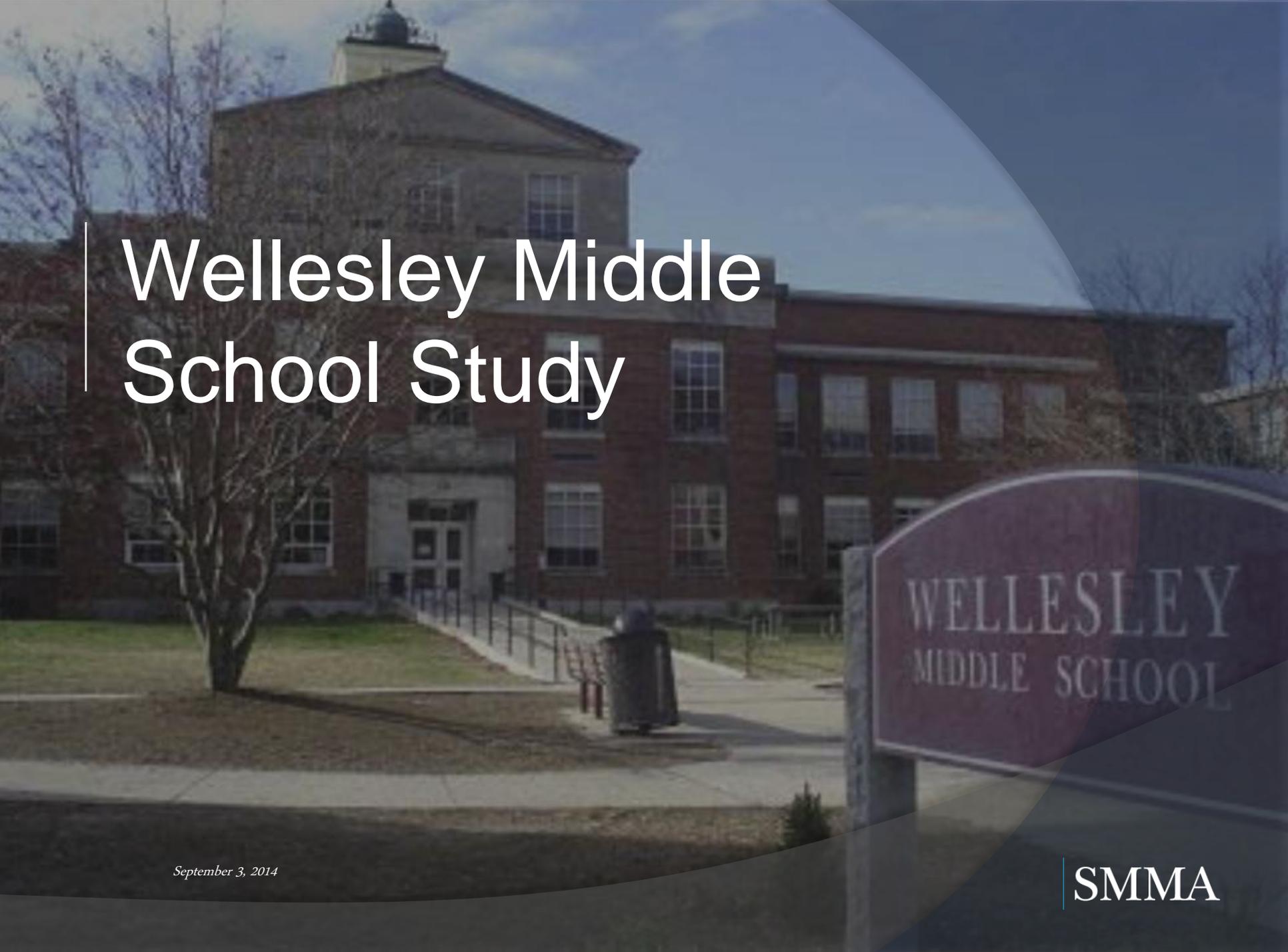
MIDDLE SCHOOL STUDY

SMMA

- *Andrew Oldeman, PE – Project Manager*
- *Daniel Bragg, AIA – Project Architect*

Study Overview

- *2013 STM project - \$75k budget*
- *Scope of work:*
 - *HVAC: Gyms, Auditorium and Kitchen*
 - *Boiler and piping evaluations*
 - *Science lab waste treatment*
 - *Classroom doors and cabinetry*
 - *Façade*
- *Update presented in June at Joint Board Meeting*
- *Costs have been prepared*
- *Incorporate into FMD FY16 capital plans*

A photograph of Wellesley Middle School, a large brick building with a central entrance and a small dome on the roof. A purple sign in the foreground reads "WELLESLEY MIDDLE SCHOOL". The image is overlaid with a dark blue semi-transparent shape in the top right corner.

Wellesley Middle School Study

September 3, 2014

SMMA

| OVERVIEW

Task 1 HVAC Evaluation

Task 2 Secondary Piping Distribution System

Task 3 Science Lab Waste Treatment

Task 4 Boiler Replacement and Conversion

Task 5 Classroom Cabinetry / Door Replacement

Task 6 Exterior Façade Review

TASK 1 - HVAC SYSTEMS IN GYM A & GYM B, AUDITORIUM AND KITCHEN

- 2006 - 2008 Renovation Project only partially addressed the HVAC systems in Gym A, Gym B, the Auditorium and the Kitchen
- Controls eliminated in many areas (i.e. corridors) to reduce costs
- All the ceilings to remain, including lighting, speakers etc.
- Existing ductwork is to remain except where noted otherwise

TASK 1 - FINDINGS & RECOMMENDATIONS



One of Two H&V Units serving Gym A

Gym A:

- Served by two original H&V units (circa 1952)
- Both units beyond useful life and should be budgeted for replacement

RECOMMENDATION

- Provide two (2) new horizontal, ducted H&V units
- Provide VFDs for two existing 5,000 CFM rooftop exhaust fans
- Provide DDC controls for each unit
- Provide two (2) replacement RA grilles

TASK 1 - FINDINGS & RECOMMENDATIONS

Gym B:

- Served by two original 3,000 CFM H&V units (circa 1958)
- Both units beyond useful life and should be budgeted for replacement

RECOMMENDATION

- Provide two (2) new horizontal, ducted H&V units
- Provide VFDs for two existing 1,840 CFM rooftop exhaust fans
- Provide DDC controls for each unit
- Provide two (2) replacement RA grilles
- Provide twelve (12) new 2'x2' supply air diffusers



One of Two H&V Units serving Gym B in upper level fan room

TASK 1 - FINDINGS & RECOMMENDATIONS

Kitchen:



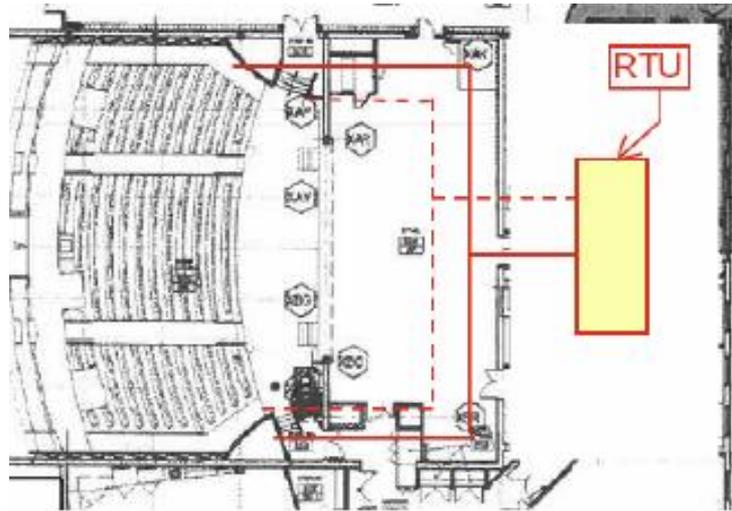
Kitchen H&V Unit - located in storage room behind kitchen

- Make-up air unit located inside storage area, near the loading dock
- Unit is 100% outdoor air horizontal, ducted unit with a steam heating coil
- Unit in operational condition but beyond useful life

RECOMMENDATION

- Provide one (1) new horizontal, ducted H&V unit
- Provide DDC controls

TASK 1 - FINDINGS & RECOMMENDATIONS



Option 2: Rooftop Energy Recovery Unit

Auditorium:

- Served by two H&V units installed in separate, dedicated fan rooms in the upper portion and on either side of the stage
- Units have been repaired to maintain their operation, including required controls modifications

RECOMMENDATION

- Option 1: Demolish existing H&V units and provide two new H&V units
- Option 2: Demolish existing H&V units and provide new Rooftop Energy Recovery Unit
- Option 3: Demolish existing H&V units and provide new split DX AHU in place of H&V units

TASK 1 – CONSTRUCTION AND PROJECT COSTS

BASE WORK (Gym A & Gym B and Kitchen only)

Construction Cost	\$ 372,627
Total Project Cost	\$ 532,324

OPTION 1 Auditorium (Addition over Base Work Cost)

Construction Cost	\$ 220,248
Total Project Cost	\$ 314,640

OPTION 2 Auditorium (Addition over Base Work Cost)

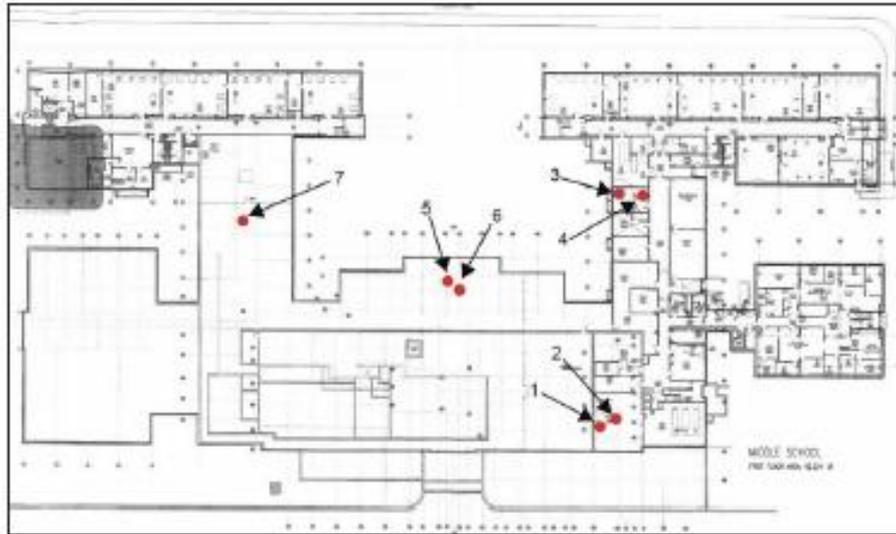
Construction Cost	\$ 471,296
Total Project Cost	\$ 673,280

OPTION 3 Auditorium (Addition over Base Work Cost)

Construction Cost	\$ 344,816
Total Project Cost	\$ 492,594

TASK 2 - HVAC SECONDARY PIPING DISTRIBUTION SYSTEM

- Building heated primarily with steam except north and south wings, which are heated with hot water
- Performed non-destructive ultrasonic testing of the piping to determine the percentage of cross-sectional pipe loss



Plan of locations for non-destructive pipe thickness testing

TASK 2 - FINDINGS & RECOMMENDATIONS



Steam piping in mechanical room, where pipe thickness test was performed

- Existing steam and hot water distribution systems in relatively good condition
- No noteworthy leaks in the systems, outside of the boiler room, that would indicate replacing distribution piping in the near term (within 10 years)
- Existing distribution system may need replacement in the longer term
 - Replace existing 1" and smaller steam and steam condensate runout piping to terminal unit heaters
 - Allowance to replace selected portions of larger distribution piping

TASK 2 - CONSTRUCTION AND PROJECT COSTS

Construction Cost	\$ 524,261
Total Project Cost	\$ 748,944



Typical branch steam supply to H&V unit (serving Gym B)



Secondary Pumps and related Steam-to-Hot-Water Converters

TASK 3 - SCIENCE LAB WASTE TREATMENT SYSTEM IN THE NORTH & SOUTH WINGS

- Acid treatment for science labs in north and south wings consists of 57 5-gallon plastic tanks (chip tanks) charged with limestone, located below each sink
- Primary purpose of system to neutralize acid prior to discharge into sanitary system
- Many classrooms where tanks are located experience related odors (installed 2006-2008 renovation)

TASK 3 - FINDINGS & RECOMMENDATIONS

Modify the existing system to remove/consolidate chip tanks where possible:

- 6th and 7th Grade Student Sinks and 6th Grade teacher's sinks
 - Remove all chip tanks and replace with a simple p-trap. Proper permanent signage will be required at each sink.
- 7th Grade Teacher Sinks in Demonstration Benches
 - Keep chip tanks, verify all tank piping and tank seals, and continue policing what is poured down the sinks.
- 8th Grade Student Sinks
 - Keep chip tanks, verify all tank piping and tank seals, and continue policing what is poured down the sinks.
- 8th Grade Teacher Sinks in Demonstration Benches
 - Remove all chip tanks and replace with a simple p-trap. Proper permanent signage will be required at each sink.

TASK 3 - CONSTRUCTION AND PROJECT COSTS

Construction Cost	\$ 51,567
Total Project Cost	\$ 73,667



Typical chip tank showing (L-R) waste inlet, chip tank, bow vent, waste & vent



Chip tank showing potential seal problem which could be source of odors

TASK 4 - BOILER REPLACEMENT AND CONVERSION TO ALL HOT WATER HEAT

- Three cast-iron, non-condensing, steam boilers installed in 2007
- Evaluate whether or not there's sufficiently short pay-back to justify replacing the boilers with hi-efficiency, condensing boilers, and to convert to all hot-water system

TASK 4- FINDINGS & RECOMMENDATIONS

Demolish the existing steam system and provide in its place a new hot water heating system.

- Demolish existing three cast iron sectional steam boilers, including: feedwater system, vacuum pump, chemical treatment
- Demolish four (4) shell-and-tube heat exchangers supporting existing hot water heating system and three (3) pairs of base mounted pumps and two (2) pairs of inline pumps
- Provide five (5) new 3,000 MBH gas fired condensing boilers with associated combustion air and exhaust venting; three (3) new 20 HP variable speed drive base-mounted centrifugal pumps; associated ancillary hydronic equipment and controls
- Provide new hot water heating distribution piping to replace existing steam distribution (serves ~153,000 SF of school)
- Provide new hot water terminal unit heaters throughout areas to be converted from steam to hot water heat, including new finned tube radiation, cabinet convectors, unit ventilators, cabinet unit heaters and associated controls

TASK 4 - CONSTRUCTION AND PROJECT COSTS

Construction Cost \$ 3,782,095
Total Project Cost \$ 5,402,993

Note: The estimated costs for piping replacement only is as follows:

Construction Cost \$ 1,055,490
Total Project Cost \$ 1,507,843



Existing cast iron sectional steam boilers - the boilers were being repaired at the time of this report, and a cracked section in Boiler #2 was being replaced.



Steam condensate feedwater tank (right) and steam blowdown tank (left); feedwater piping, replaced in 2014

TASK 5 - CLASSROOM CABINETRY AND DOOR REPLACEMENT

- Classroom doors in north & south wings, as well as “old” north and south wings are original
- Built-in cabinetry is original
- Door replacement limited to doors not replaced during 2006 renovations
- Classroom cabinetry location limited to cabinetry on one wall of the classrooms located within the same areas as door work
- Existing cabinetry with sinks are not part of the study

| TASK 5 - FINDINGS & RECOMMENDATIONS

DOORS

- Replace 181 single leaf classrooms, office, toilet, and storage room doors and 21 sets of rated double doors at corridors and stairs
- Provide wall mounted magnetic hold-open devices for corridor and stair doors (1966 north and south addition) and heavy duty continuous hinges
- Change some corridor double door frames to separate single door openings
- Eliminate transoms in the corridor door frames

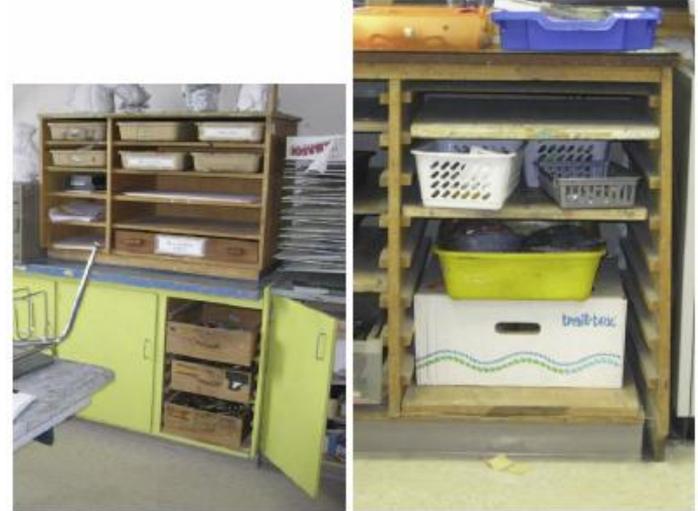
TASK 5 - FINDINGS & RECOMMENDATIONS

CABINETS

- Replace classroom cabinets in the 1966 additions and the 1950's north and south wings
- Replace Art classroom cabinets in the original building
- Clean and Refinish Art classroom casework in the 1966 south addition

TASK 5 - CONSTRUCTION AND PROJECT COSTS

Construction Cost \$ 1,269,588
Total Project Cost \$ 1,813,697



1950's Art Classroom Casework



Repaired Existing Hardware at Egress Doors



1966 Addition Existing Condition Casework

TASK 6 - EXTERIOR BRICK, CAULKING AND CONTROL JOINT ASSESMENT

- Building exterior brick requires re-pointing
- Caulking and control joints require replacement
- For cost estimating purposes, assumed that existing joint sealant is asbestos, containing not PCB containing

TASK 6 - FINDINGS & RECOMMENDATIONS

- Repoint approximately 20% of the building brick façade
- Replace approximately 5,500 LF of sealant
- Repair brickwork at cracked bricks at corners (1966 addition)
- Repoint brickwork, cracks and void spaces at horizontal and vertical mortar joints at window sill and brick joints at eastern side of the 1950's wing
- Replace and repoint cracked bricks and eroded mortar joints at the west side of the walls
- Rebuild entire top of the retaining wall that forms the guardrail at the auditorium entrance

TASK 6 - CONSTRUCTION AND PROJECT COSTS

Construction Cost	\$ 1,062,031
Total Project Cost	\$ 1,517,187



Typical Spalled Brick



Limestone Band



Eroded mortar joints at the Gym and Auditorium high roof

TASK 1	HVAC Systems in Gym A & Gym B, Auditorium and Kitchen	
	BASE WORK (Gym A & Gym B and Kitchen only)	
	• Construction Cost	\$ 372,627
	• Total Project Cost	\$ 532,324
	OPTION 1 Auditorium (Addition over Base Work Cost)	
• Construction Cost	\$ 220,248	
• Total Project Cost	\$ 314,640	
OPTION 2 Auditorium (Addition over Base Work Cost)		
• Construction Cost	\$ 471,296	
• Total Project Cost	\$ 673,280	
OPTION 3 Auditorium (Addition over Base Work Cost)		
• Construction Cost	\$ 344,816	
• Total Project Cost	\$ 492,594	
TASK 2	HVAC Secondary Piping Distribution System	
	• Construction Cost	\$ 524,261
	• Total Project Cost	\$ 748,944
TASK 3	Science Lab Waste Treatment System in North South Wings	
	• Construction Cost	\$ 51,567
	• Total Project Cost	\$ 73,667
TASK 4	Boiler Replacement and Conversion to All Hot Water Heat	
	• Construction Cost	\$3,782,095
	• Total Project Cost	\$5,402,993
TASK 5	Classroom Cabinetry and Door Replacement	
	• Construction Cost	\$1,269,588
	• Total Project Cost	\$1,813,697
TASK 6	Exterior Brick, Caulking and Control Joint Assessment	
	• Construction Cost	\$1,062,031
	• Total Project Cost	\$1,517,187

POSSIBLE BUNDLING/PROCUREMENT OPTIONS

- Task 1, 3, 5 & 6
 - Task 1: HVAC Systems in Gym A & Gym B, Auditorium (Option 3) and Kitchen \$ 1,024,918
 - Task 3: Science Lab Waste Treatment System in North South Wings \$ 73,667
 - Task 5: Classroom Cabinetry and Door Replacement \$ 1,813,697
 - Task 6: Exterior Brick, Caulking and Control Joint Assessment \$ 1,517,187
- TOTAL \$ 4,429,469

Other Significant MS Capital Projects

- *MSBA Window Replacement* \$3.0 to \$3.5M
- *Kitchen Upgrades* \$500,000
- *Pavement Replacement/Repairs* \$325,000
- *Gym A & B Partition Replacements* \$150,000
- *Cafeteria Upgrades (Floor/Acoustics)* \$130,000
- *Lighting Upgrades* TBD

QUESTIONS



***FMD CENTRAL
OFFICE
ASSESSMENT***

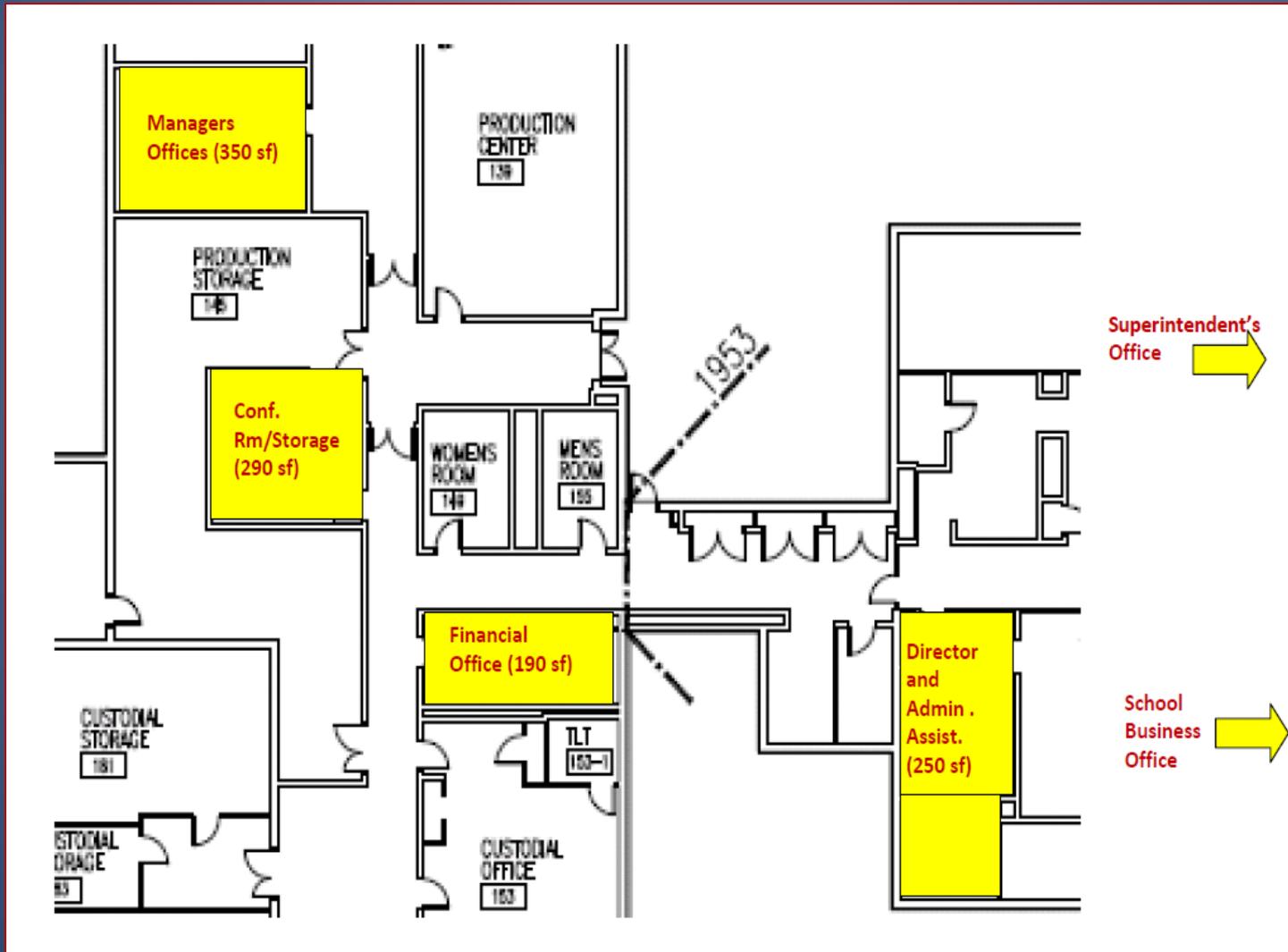
Assessment Overview

- *Background*
- *Existing Office Space*
- *Proposed Interim Office Space*
- *Proposed Permanent Office Space*
- *Timeline*
- *Next Steps*

Background

- *Prior to 7/1/12*
 - *School Facilities Office in Supt's Wing (2 FTE)*
 - *Municipal Facilities Office at TH (1FTE)*
- *After 7/1/12*
 - *7 FTE plus a PT clerk. Space for 8 needed*
- *Existing space is inadequate*
- *MS and District need space*
- *MLP Substation considered too costly and too small*
- *FMD began assessment of space options*

Existing FMD Offices (1,080 sf)



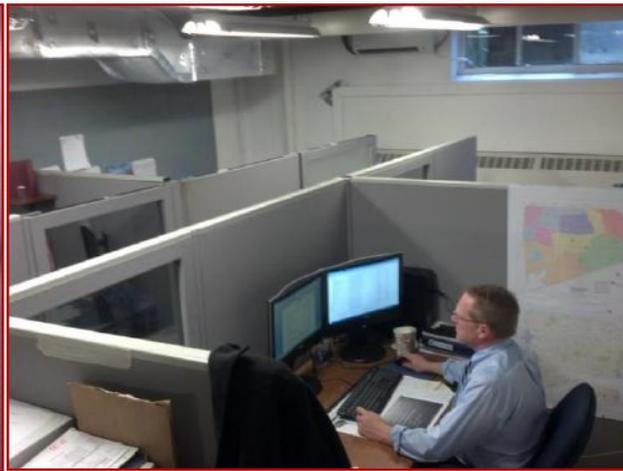
Existing FMD Offices - Deficiencies

- *Insufficient area*
- *Acoustics*
- *HVAC*
- *Natural light*
- *Lack of privacy/confidentiality*
- *Lack of meeting space*
- *Lack of drawing review space*
- *Lack of parking and access during school*
- *Lack of file storage space*

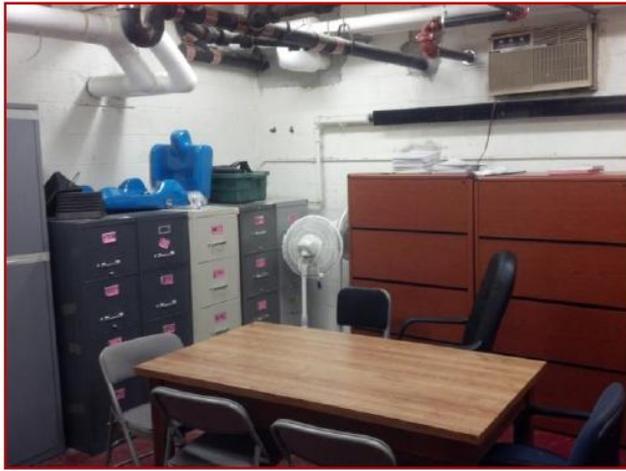
Existing FMD Offices



Director's and Administrative Assistant's (250 sf)



Manager's Offices (350 sf)



Conference Room/File Storage (290 sf)



Financial Office (190 sf)

Proposed Interim Office Space

- *Urgency to relocate*
- *Toured six available office locations*
 - *Evaluate costs and space*
 - *Lower Falls and Natick line*
- *3,000 sf of permanent space*
- *2,300 sf of “rentable space” required*
- *Adequate for 8 FTE, plus PT clerk*
- *Procure space through MGL 30B (Supplies & Services)*
- *Town Meeting funding request*

Proposed Interim Office Space



AVAILABLE LEASED SPACE

Proposed Interim Office Space

Annual 2,300 r.s.f. Lease (Years 1,2, and 3) @\$30/sf	\$69,000, \$72,500, \$76,000
Annual Copier and Mail Machine	\$5,000
Furniture (furnish and one-time install)	\$25,000 to \$50,000
IT/Network	\$20,000

Total Initial Cost (Year One) = \$119,000 to \$144,000

Total Annual Cost Year Two = \$77,500

Total Annual Cost Year Three = \$81,000

Total Cost for Three Years = \$277,500 to \$302,500

Proposed Permanent Office Space

- *Joseph Rizza – Court Street Architects*
- *Introduction/background*
- *Program*
- *Site Plan*
- *Floor Plan*
- *Cost*

Introduction/Background

- Court Street Architects, Inc. (CSA) Specializing in municipal projects - Senior Centers, Town Halls, Historic Restoration/Renovation. They are currently working with the FMD on Fire Station Headquarters HC ramp, TH Study as well as this Feasibility Study.

CSA's Directive from FMD:

- Develop space needs
- Design a one story building less than 3000sf on the Municipal Way site.
- Prepare a Project Cost Estimate

The Program

	Space	Area (sf)	Job Functions	Space Requirements	Actual SF
1	Maintenance Mgr	110	Mgr - Staff of 7	Either closed office or open cubicle layout	78
2	Custodial Mgr	110	Mgr - Staff of 50	Either closed office or open cubicle layout	78
3	Energy Mgr	110	Mgr - no supervision	Either closed office or open cubicle layout	78
4	Project Mgr	110	Mgr - no supervision	Either closed office or open cubicle layout	78
5	Bldg Operational Mgr	110	Mgr - no supervision	Either closed office or open cubicle layout	78
6	Financial Analyst	130	PO's invoices, payroll	Open and adjacent to Admin Assist	120
7	Admin Assist/Office Mgr	150	Office mgr/recept	Open and adjacent to Financial Assist - near entrance	156
8	Director	150		Closed office	163
9	Future CLerk	80	Assist Off Mgr/Fin Assist.	Near Financial Assist & Admin	92
10	Large Conf. Rm.	200	Weekly staff meetings	Suitable for 20 people	323
11	Small Conf. Rm.	80		For 4 people	103
12	Plan Review Area	100	Open area near mgrs	2/ 4x8 tables to layout plans w/flat files for drawings below	46
13	File Storage Area	120	Near Admin/Fin. Assist.		33

Program Cont.

14	Waiting/Vestibule	120		2 seats for visitors	120
15	Copy/Mail/Fax Areas	80			69
16	Mech/Elect/Data Rm.	120		Small condensing boiler, split AC unit	131
17	Mens Rm	80		Assume unisex is not an option	46
18	Womens Rm	80			46
19	Kitchen	100		Sink, fridge, micro, cabinets	107
20	Shower	0			34
21	Admin Stor	0			39
	Subtotal	2140			2020
	15% Circulation	321			1.45
	Total Space Required	2461			2936

Site Plan



Floor Plan



Project Costs

<i>Construction Cost</i>	<i>\$1,012,864</i>
<i>Geo Piers (If needed)</i>	<i>\$100,000</i>
<i>Construction Contingency</i>	<i>\$50,643</i>
<i>Total Hard Costs</i>	<i>\$1,163,507</i>
<i>Soft Costs</i>	<i>\$432,121</i>
<u><i>Total Project Costs</i></u>	<u><i>\$1,595,628</i></u>

Timeline & Next Steps

- **September 8, 2014** - Present interim options and feasibility study results to BOS
- **October 2014** – Request funding for interim lease/move at STM
- **November 2014** – Include permanent office space in FY16 capital plan
- **January 2015** – Begin 3-year lease
- **April 2015** – Request final design funding for permanent office space at ATM
- **April 2016** – Request construction funding for permanent office space at ATM
- **Summer/Fall 2017** – Occupy new space/end lease

QUESTIONS



TOWN HALL RENOVATION PROJECT

TONIGHT'S PRESENTATION

- *Briefly Review Court Street's Study & Previous Presentations*
 - *March 2013 by Court Street*
 - *July 2013 by FMD*
- *Clerk's Office, Treasurer's Office and Building Department*
- *Review Related Projects*
 - *HVAC Study*

COURT STREET STUDY OVERVIEW

- *Two Studies Combined - 3,000 SQ FT*
 - *Clerk's Office*
 - *Treasurer's Office*
 - *Building Department*
- *Met with Department Heads*
- *Developed Preferred Concept*
- *Developed Budgetary Cost Estimate*

PROGRAM GOALS

- *Add Compliant Records Storage Vault*
- *Improve Staff and Records Security*
- *More Efficient Use of Space*
- *Enhance Customer service*
- *Share Space Where Possible*
- *Sensitivity to Historic Building*
- *Minimize Construction Costs*

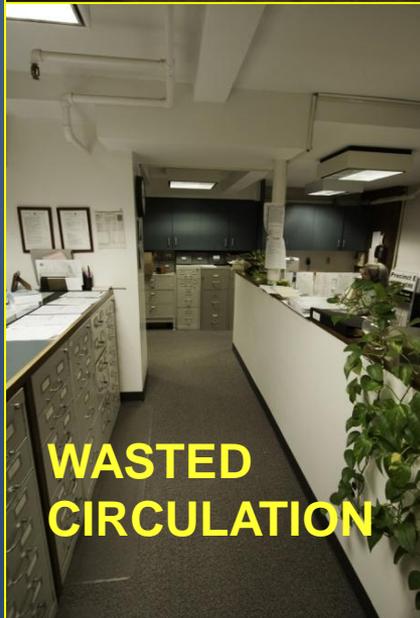
Existing Conditions



**OPEN COUNTER
WITH
COMPROMISED
SECURITY**



**OFFICE
STORAGE
INADEQUATE**



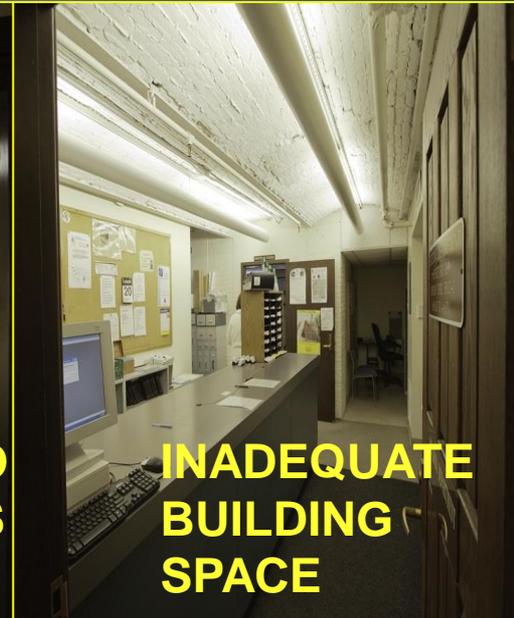
**WASTED
CIRCULATION**



**"VAULT"
STORAGE
DOES NOT MEET
ANY STATE
REQUIREMENTS**

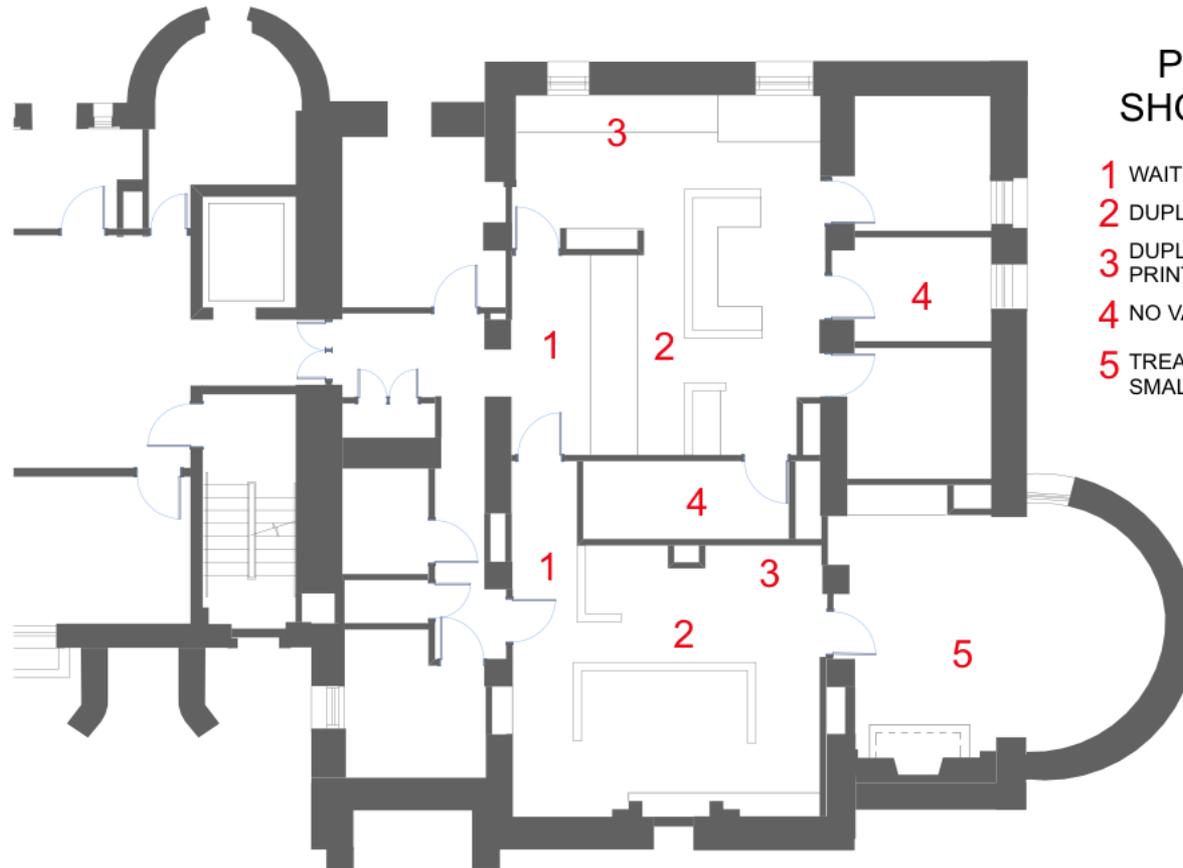


**ENTRANCE TO
TREASURER'S
OFFICE**



**INADEQUATE
BUILDING
SPACE**

Current Layout Shortfalls

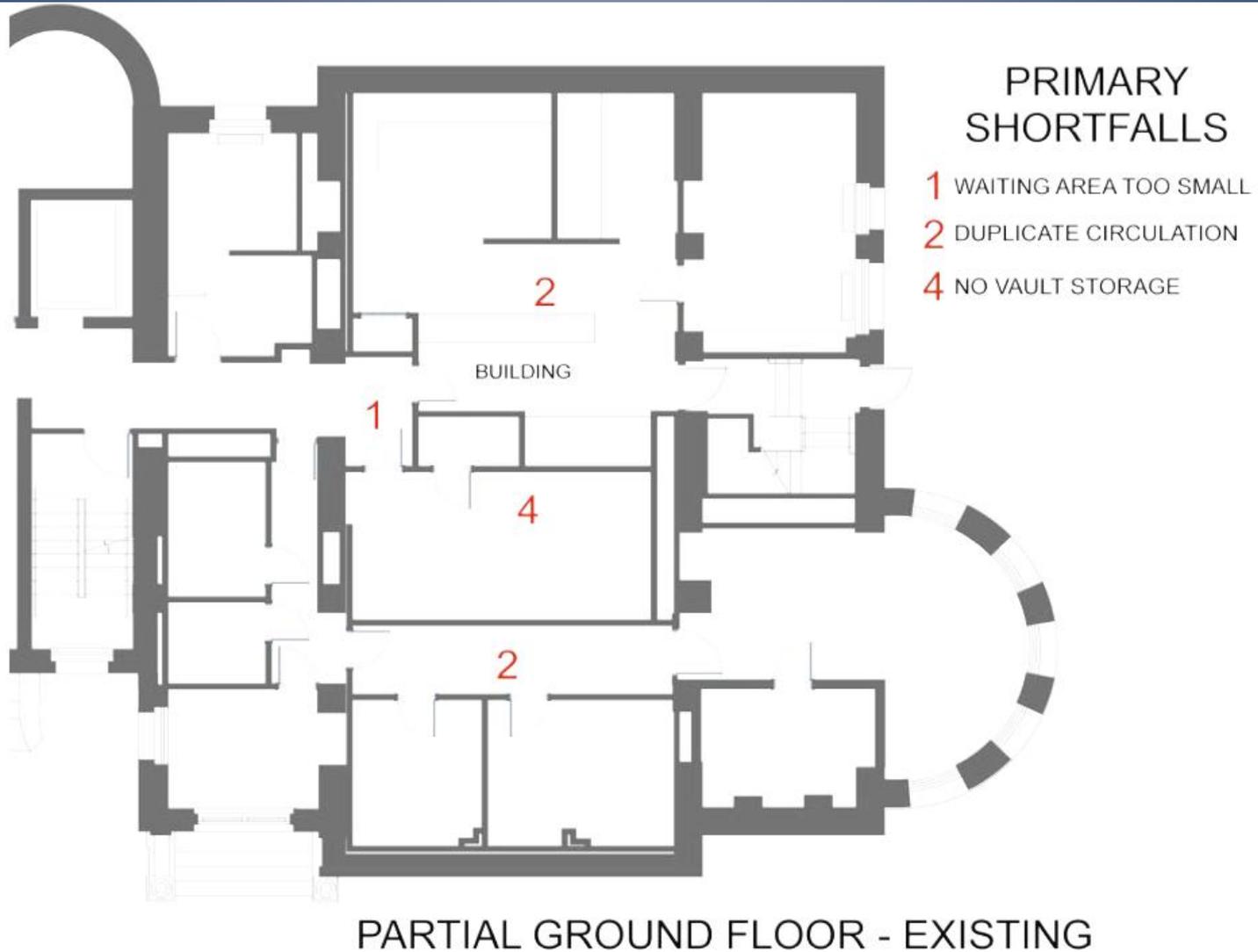


PRIMARY SHORTFALLS

- 1 WAITING AREA TOO SMALL
- 2 DUPLICATE CIRCULATION
- 3 DUPLICATE COPY/PRINT AREAS
- 4 NO VAULT STORAGE
- 5 TREASURER SUGGESTS SMALLER OFFICE

PARTIAL FIRST FLOOR - EXISTING

Current Layout Shortfalls



Preferred Scheme



RELATED PROJECTS

- *HVAC Improvements – FY15 Study Underway*
- *Replace Boiler – FY15 Project Spring 2015*
- *Door Renovations – Make part of renovation scope*

HVAC UPGRADES

- *MacRitchie Engineering Performing Study*
- *Temperature Control & Ventilation Problems (CO2)*
 - *Selectmen's Office*
 - *HR Office*
 - *Retirement Office*
 - *GIS Office*
- *Ductwork and Controls Modifications*
- *Basement Humidity Issues (Bldg Dept)*
- *Bundle with Renovation Project or Not?*

REPAIR MAIN ENTRY DOORS

- *Unique Work – historical specialists*
- *Scope: Remove all 4 doors and transom for off-site renovation (several months). Temporary doors will be required.*



- *Include in renovation project*

CONCEPTUAL PROJECT COSTS

Renovation Related Work (\$937k previously – 10% escalation assumed to 2016)	\$1,030,000
Related Work	
• Limited HVAC Improvements (<i>not entire building</i>)	\$100,000
• Main Entry Door Renovations	\$40,000
Subtotal 1	\$1,170,000
15% Contingency	\$175,500
Subtotal 2	\$1,345,500
A/E Fees (14.5%), OPM (5%) and Escalation 7.5%	\$363,300
Total Budgetary Cost	\$1,708,800

QUESTIONS



EMERGENCY POWER ACCOMMODATIONS

- *Backup Power for NIS Server Room*
- *Some Redundancy Already Exists*
 - *TH has 2 separate electrical services*
 - *MLP needs only 8 hours to change transformer*
- *Scope: Emergency panel, transfer switch and wiring/conduit to MH.*
- *MLP Truck-mounted generator to connect and provide power*