



*Bethel Public School System*

# Facilities Master Plan



May 17, 2012

## Board of Education Presentation

*“few reach greatness while aspiring to the ordinary”*

A Vision for Bethel Public Schools  
A Living Document

Revised October 2010



# Bethel Public Schools



**Johnson School**  
Grades 4-5



**Rockwell School**  
Grades K-3



**FRANK BERRY SCHOOL**

**BETHEL MIDDLE SCHOOL**

**BETHEL HIGH SCHOOL**

**BETHEL**



*“few reach greatness while aspiring to the ordinary”*

**ROCKWELL SCHOOL**

Grades K-3

**JOHNSON SCHOOL**

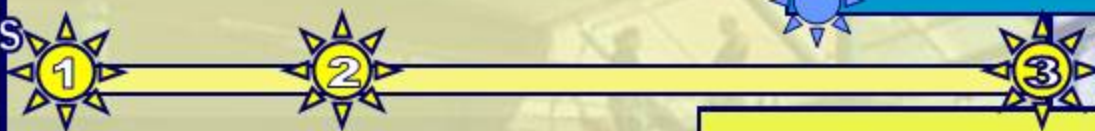
Grades 4-5





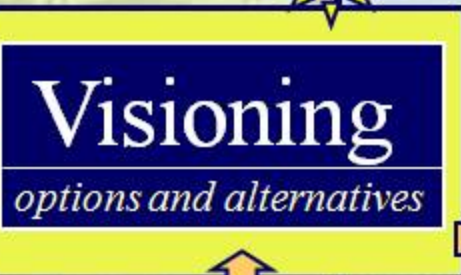
MAY JUN JUL AUG SEP OCT

Workshops



Document  
master plan

... to study completion

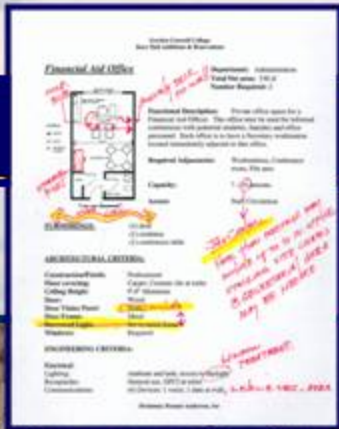


GO!





facilities master plan



# Collecting existing conditions

**purpose** *document & analyze existing conditions*

**action** *review facility history, inspect facilities and infrastructure.*

**outcome**

- define condition of systems and materials
- establish listing of opportunities and constraints





## facilities master plan

# Listening

*collecting information*

### **purpose**

*access current program features and amenities and relate to future needs and development*

### **action**

*programming interviews, interview stakeholders and staff.*

### **outcome**

- define future needs of the program*
- understand Bethel's and BPS's goals.*
- delineate new direction and initiatives*





facilities master plan

	OPTION A Priority 2013-2014	OPTION B Priority 2013-2014	OPTION C Priority 2013-2014	OPTION D Priority 2013-2014	OPTION E Priority 2013-2014	OPTION F Priority 2013-2014	OPTION G Priority 2013-2014
	A	B	C	D1 D2	E	F	G
Administrative	-	-	-	-	-	-	-
Classroom	-	-	-	-	-	-	-
Computer Lab	-	-	-	-	-	-	-
Guidance	1	2	3	3	3	3	3
Library	2	4	4	3	4	3	1
Physical Education	1	2	2	2	2	3	3
Science	1	2	3	2	3	3	3
Special Education	2	3	3	3	3	3	3
Student Activities	2	3	3	3	3	3	3
Transportation	2	3	3	3	3	3	3
Wrestling	2	3	3	3	3	3	3
Health & Safety Program	2	3	3	3	3	3	3
Other	2	3	3	3	3	3	3
Administrative	2	3	3	3	3	3	3
Classroom	2	3	3	3	3	3	3
Computer Lab	2	3	3	3	3	3	3
Guidance	2	3	3	3	3	3	3
Library	2	3	3	3	3	3	3
Physical Education	2	3	3	3	3	3	3
Science	2	3	3	3	3	3	3
Special Education	2	3	3	3	3	3	3
Student Activities	2	3	3	3	3	3	3
Transportation	2	3	3	3	3	3	3
Wrestling	2	3	3	3	3	3	3



# Visioning

*options & alternatives*

- purpose** *community process to assess ideas, goals, & desires for the project*
- action** *workshop interaction*
- outcome**
- define key elements of the program
  - determine project goals
  - define project wish list





# Document master plan

**purpose** *provide master plan documentation to aid in the community's project understanding*

**action** *organize architectural team and consultants team to deliver assessment information, and project cost information of options + alternatives*

**outcome**

- a document capable of public scrutiny
- an adherence to the documented program and space description
- a planning document capable of providing planning guidance for the next 10-15 years.
- a document capable of remaining flexible in its ability to accommodate future change

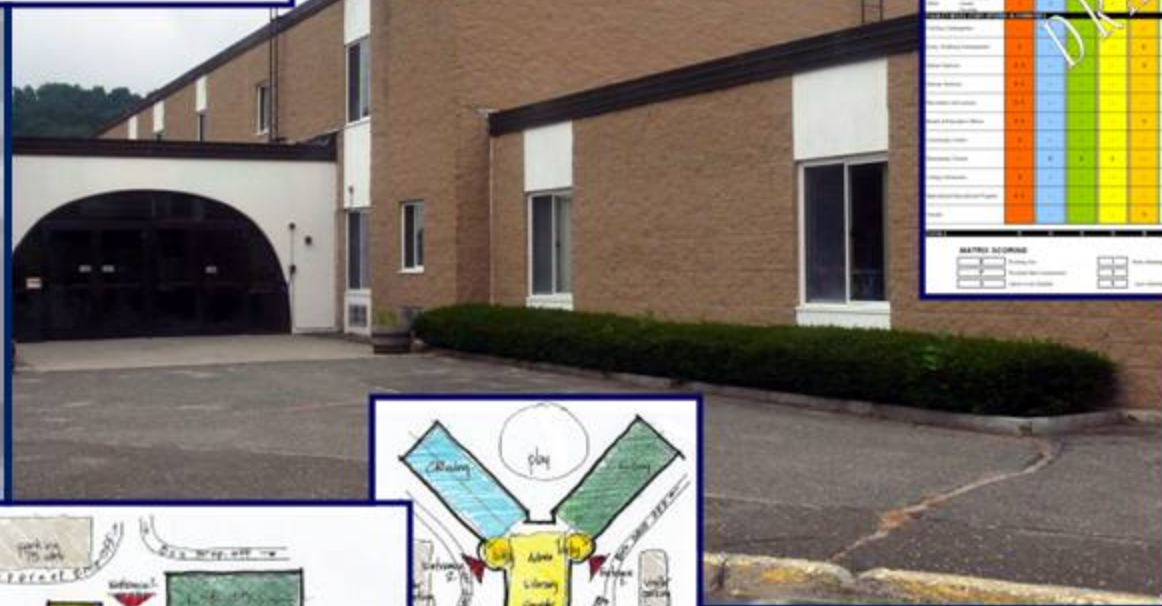
BEDFORD  
SCHOOL &  
MUNICIPAL  
FACILITIES  
SPACE NEEDS  
STUDY



City of Bedford, Massachusetts  
April 10, 1997

D-R-A

*facilities master plan*

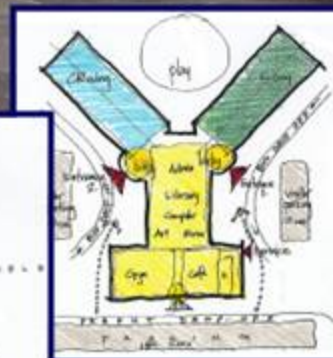


OPTIONS MATRIX

	Option 1	Option 2	Option 3	Option 4	New Building
1. Classroom	✓	✓	✓	✓	✓
2. Library	✓	✓	✓	✓	✓
3. Gymnasium	✓	✓	✓	✓	✓
4. Art Room	✓	✓	✓	✓	✓
5. Music Room	✓	✓	✓	✓	✓
6. Office	✓	✓	✓	✓	✓
7. Storage	✓	✓	✓	✓	✓
8. Restrooms	✓	✓	✓	✓	✓
9. Entry	✓	✓	✓	✓	✓
10. Playground	✓	✓	✓	✓	✓
11. Parking	✓	✓	✓	✓	✓
12. Security	✓	✓	✓	✓	✓
13. Accessibility	✓	✓	✓	✓	✓
14. Energy Efficiency	✓	✓	✓	✓	✓
15. Sustainability	✓	✓	✓	✓	✓

MATRIX SCORES

Option	Score
Option 1	100
Option 2	100
Option 3	100
Option 4	100
New Building	100





# Facilities Assessment

*facilities master plan*



## KEY COMPONENT of ASSESSMENT

- **Access Improvements**  
accessibility, ADA/ MAAB compliance...
- **Building Improvements**  
foundation, structure, roof construction...
- **Building MEP**  
plumbing fixtures, life safety, electrical...
- **Interior Spaces**  
interior finishes, space utilization, fixtures...



D·R·A

... hazardous materials, indoor air quality, site ...

# Existing Conditions



# JOHNSON SCHOOL



# Existing Conditions



**View of main entrance / approach**

# Existing Conditions



Deteriorated masonry at corners

# Existing Conditions



Deteriorated plaster stucco finish below windows

# Existing Conditions



**Hairline step crack at masonry; not a structural problem; waterproofing issue.**

# Existing Conditions



50% of egress doors are required to be accessible to disabled persons

# Existing Conditions



Propane tanks should be fenced



# Existing Conditions



Roof has many leaks

# Existing Conditions



Looks like water; is actually deteriorated granular surface

# Existing Conditions



Granular material from deteriorated roofing

# Existing Conditions



Deteriorated flashings and masonry

# Existing Conditions



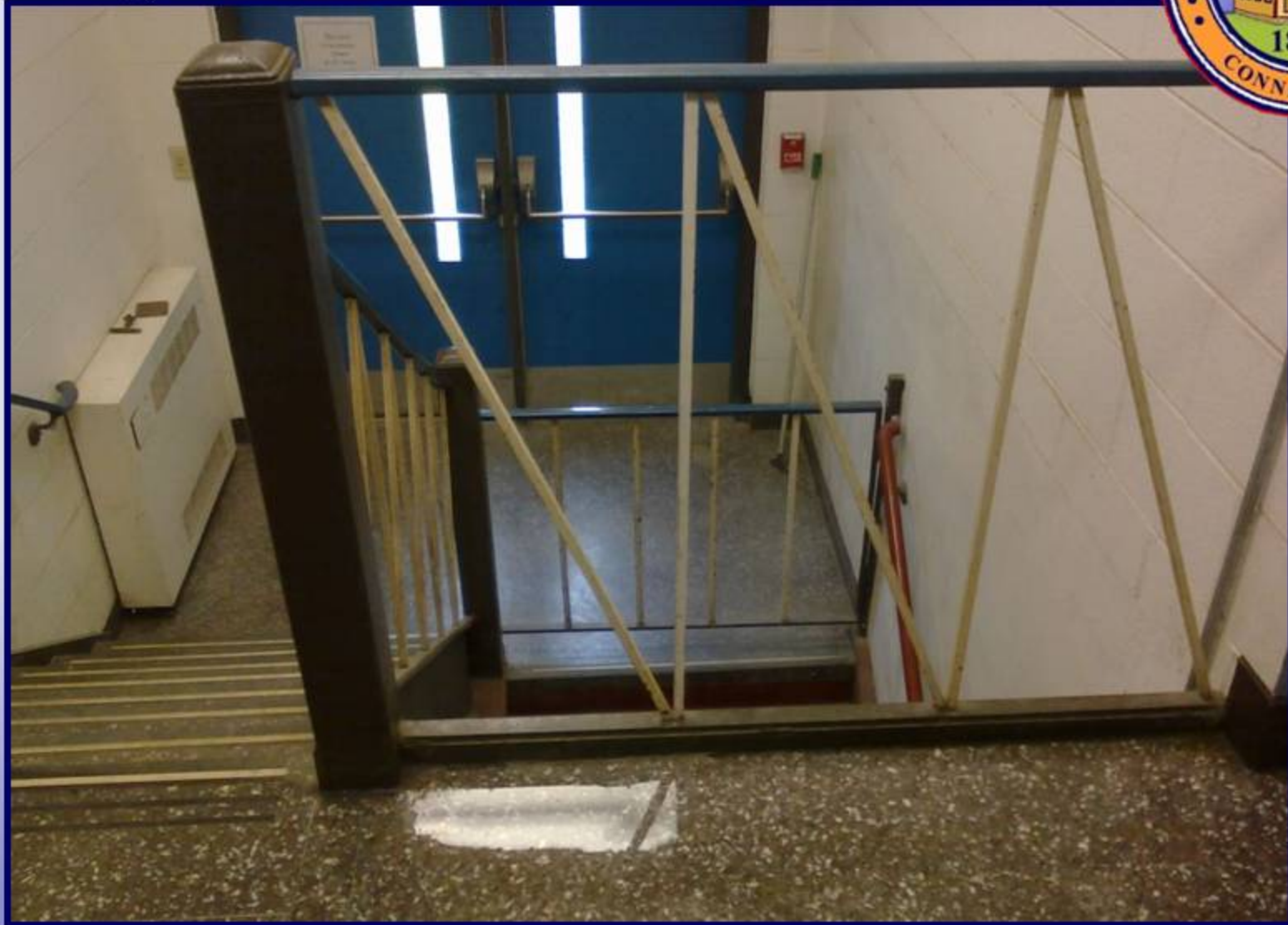
Small areas of deteriorated masonry joints

# Existing Conditions



Good quality terrazzo floors

# Existing Conditions



Guardrail system does not meet current codes

# Existing Conditions



Gym showers being used for storage



# Existing Conditions



No clearance on knob side of door. Accessibility code issue.

# Existing Conditions



**Non-accessible drinking fountain does not meet code.**

# Existing Conditions



Narrow doors do not meet code.

# Existing Conditions



Grab-bar arrangement does not meet current regulations.

# Existing Conditions



**Classroom sinks must be accessible.**

# Existing Conditions



Typical classroom – with non-accessible sink. Ceiling fans.

# Existing Conditions



Non-accessible Stage

# Existing Conditions



# ROCKWELL SCHOOL





# Existing Conditions



Steep, long steps from parent drop-off parking area.

# Existing Conditions



No curb-cut at drop-off zone; non-level pavement at entry doors.

# Existing Conditions



Single-glazed windows loose energy

# Existing Conditions



“Ramp” does not meet access regulations

# Existing Conditions



Rear of building; see scheme 'C' proposed plan

# Existing Conditions



**Grade causes surface water to drain towards rear of building**

# Existing Conditions



Small windows admit minimal daylight into classrooms

# Existing Conditions



Existing roof; multiple patches; multiple leaks



# Existing Conditions



Area of step-cracks in masonry sidewall of Media Center

# Existing Conditions



Deteriorated roofing; patching to prevent leaks

# Existing Conditions



Ponding water on existing roof; poor slope to drains

# Existing Conditions



Good new boilers (in both schools); but controls systems not good.

# Existing Conditions



Non-accessible sink and toilet room in nurses area

# Existing Conditions



Latch-side clearance issue at multiple locations

# Existing Conditions



**No accessible staff toilet room; no fully accessible public toilet room**

# Existing Conditions



**Guardrail system does not meet current codes; protected by plexi-glass.**



# Johnson + Rockwell - Existing Conditions



**ROCKWELL SCHOOL**

Grades K-3

**59 million**

each day 59 million students, teachers, and educational employees spend time in the nation's 120,000 school buildings

national summit on school design  
october 2005

Of these buildings nearly 75% were built before **1970**

**JOHNSON SCHOOL**

Grades 4-5



# Johnson + Rockwell - Existing Conditions





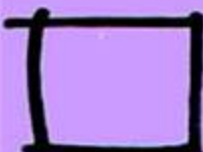


## Observations

- Typical conditions for buildings this age; good maintenance of interior finishes with available funds; building systems have exceeded their useful life
- **Accessibility, traffic and other code issues**  
Very poor accessibility. Very challenging traffic issues at both Schools  
Other code issues including elevators, and haz-mat conditions
- **Building Envelope**  
The roofs of both buildings are in very poor condition. Also windows and masonry concerns.
- **Building M / E / P**  
The ventilation controls systems in both buildings are functioning very poorly due to age.
- **Interior Spaces**  
Interior finishes are durable and well maintained, space utilization can be improved.

# Families of Options



ICON	FAMILY LABEL	DESCRIPTION	
	<b>A</b>	<b>Status Quo</b> (Repairs When Broken)	DO NOTHING means deciding to continue using the school for the same programs with no improvement projects. Upgrades and repairs are undertaken only in reaction to deteriorating conditions, as needed.
	<b>B</b>	<b>Partial Renovation</b> (Planned Repairs)	RENOVATION - AS NEEDED is a planned facility improvement program that prioritizes capital improvement needs, and phases them in over time. Does not address major educational program improvements. Does not fully qualify for BSF reimbursement.
	<b>C</b>	<b>Full Renovation</b> (Renovate "As New")	RENOVATION - BUILD AS NEW is a planned facility improvement meeting BSF's 'Renovate as New' definition. This approach does address major educational program improvements. This approach does qualify for BSF reimbursement.
	<b>D</b>	<b>Renovate With Addition</b>	RENOVATION / ADDITION considers possible expansion of the current facility to address programmatic deficiencies while also addressing facility improvement meeting BSF's 'Renovate as New' definition. This approach does address major educational program improvements. This approach does qualify for BSF reimbursement.
	<b>E</b>	<b>New Construction</b>	NEW CONSTRUCTION considers replacement construction for the existing school facility. This approach does address major educational program improvements. This approach does qualify for BSF reimbursement.

# Johnson Elementary grades 4-5

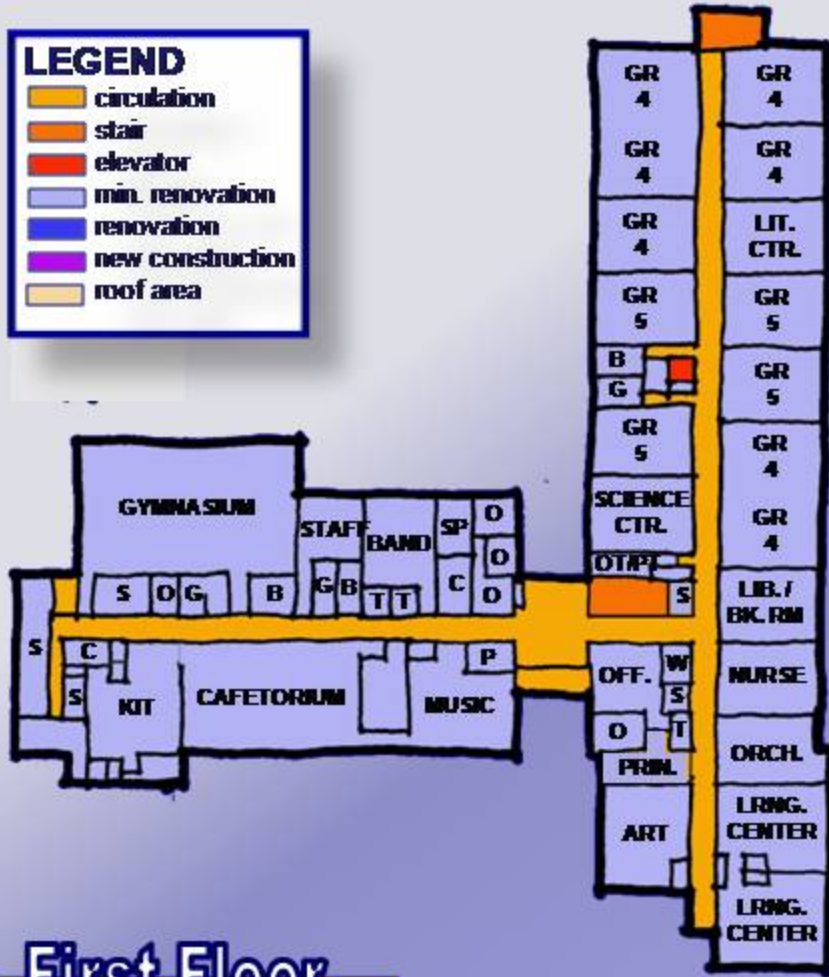
# Existing Plan

(Options A & B)

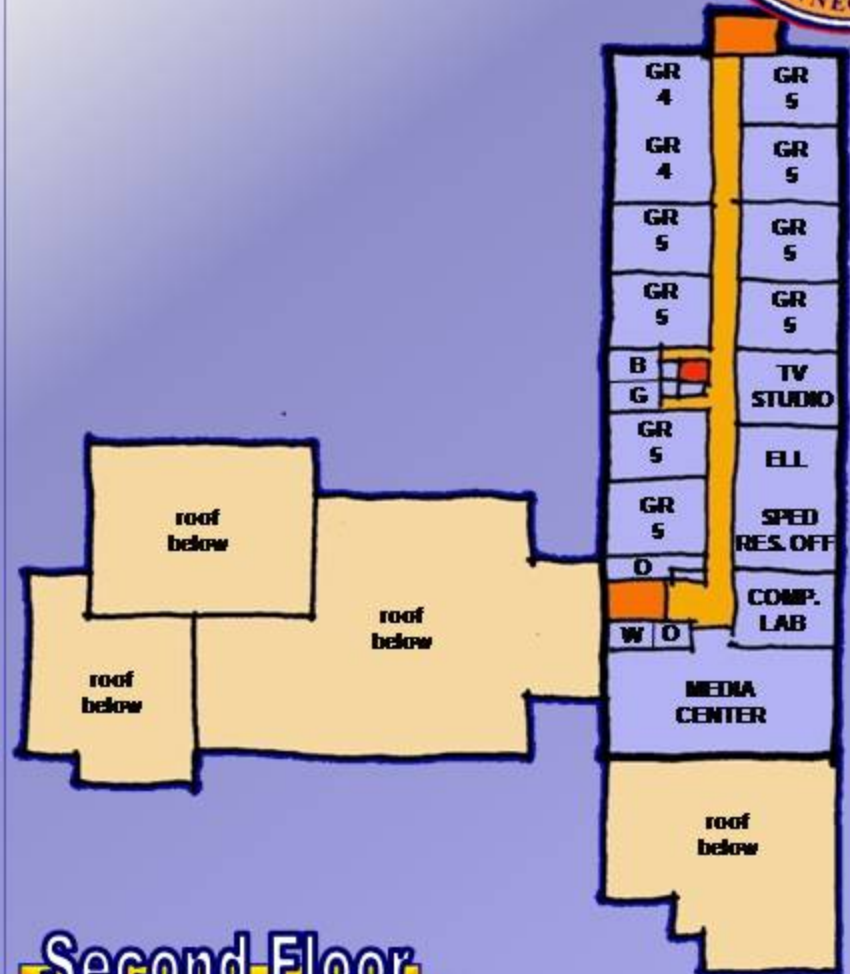


**LEGEND**

- circulation
- stair
- elevator
- min. renovation
- renovation
- new construction
- roof area



**First Floor**



**Second Floor**

# Johnson Elementary grades 4-5

# Existing Plan

(Options A & B)



## WHAT'S IN OPTION B? (Johnson)

- Site:**
- Repaving drives, re-stripping parking.
  - New handrails on steps from lower parking
  - New signage for accessible parking spaces
  - Improve drainage at rear of building
  - Accessible path to play structure
  - New access drive to separate cars from busses
- Interior Finishes:**
- Upgrade door hardware for accessibility regulation compliance
  - New carpet in Media Center
  - New suspended ceilings in most spaces
  - New white marker boards in classrooms
  - Removal of asbestos-containing floor tile, and glue residue behind chalkboards
  - New Elevator (possibly in new elevator shaft)
  - Reconfigure main entrance to improve accessibility
  - Reconfigure some classroom entrances to improve accessibility
  - Modifications to toilet rooms to improve accessibility
- Exterior:**
- Window Replacement
  - Roof Replacement
  - Repair some localized cracks in existing masonry walls
- Mechanical / Electrical / Plumbing**
- Improvements to exterior lighting
  - Replacement of some plumbing fixtures
  - Replacement of some roof-top ventilation fans
  - Replacement of existing unit ventilators
  - Replacement of some air-handling equipment
  - New controls system for existing and replacement mechanical equipment (thermostats)
  - Modifications to electrical system for improved power distribution (more outlets)
  - General updates to lighting, emergency lighting, and fire alarm systems
- What's NOT included?**
- Unknown conditions such as further discovery of hazardous materials, Radon or Mold. (a reasonable contingency value has been used for some of these items)
  - Not 100% accessibility compliance per new construction; improved accommodation and complete program accessibility.
  - Not a complete building renovation; only partial.
  - Not enlarging windows; just replacing them.
  - Not a full replacement of mechanical ventilation systems; only improving what is there.
  - Similarly, not a full replacement of electrical or plumbing equipment.
  - No fire-protection sprinklers
  - No new intercom.
  - No emergency generator

## Project Highlights

### SITE:

- Improved Drainage at Rear of Building
- Accessible Path to Play Structure

### INTERIOR FINISH:

- Removal of Asbestos Containing Floor Tile.

- New Elevator – Accessibility

### EXTERIOR:

- Window / Roof Replacement

### MECHANICAL:

- New Control System for Existing and Replacement Equipment

### NOT INCLUDED:

- No Full Replacement of Systems Only Improving What Is There

# Johnson Elementary grades 4-5

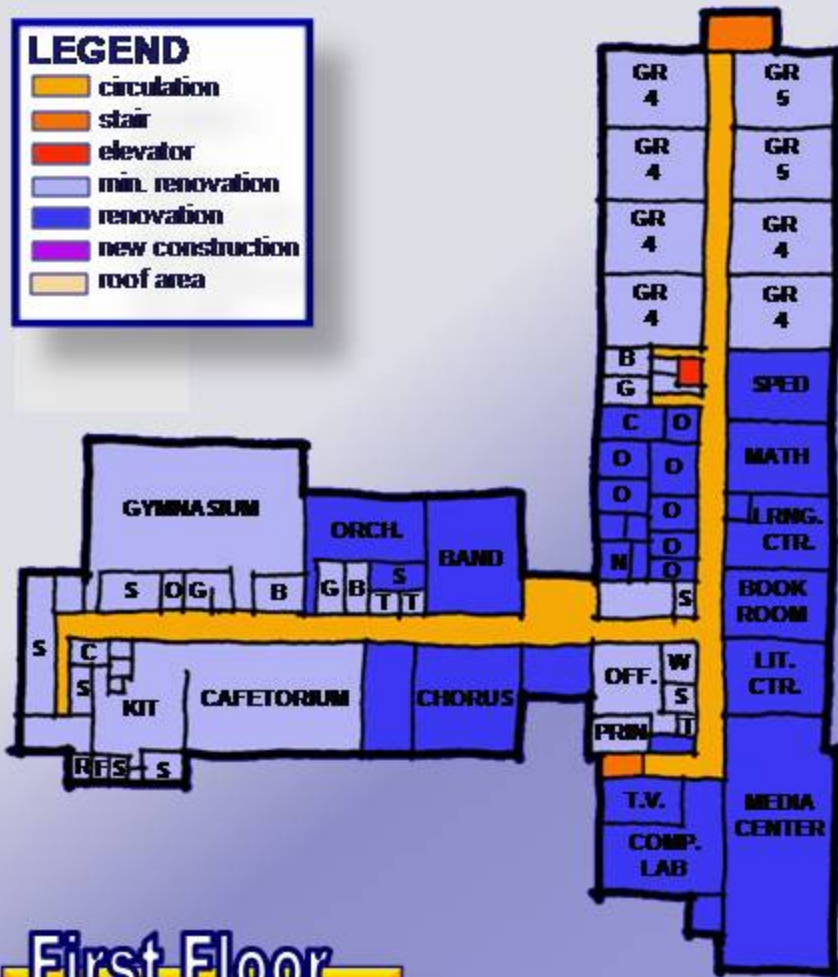
# Option C

No net space increase

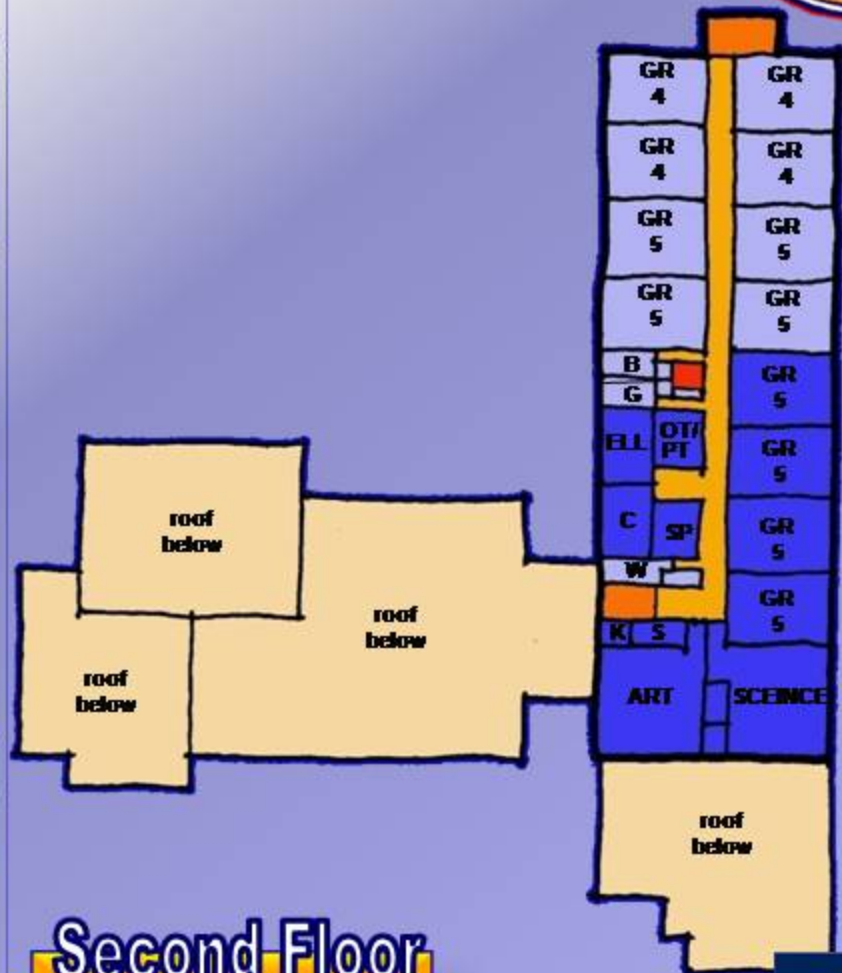


**LEGEND**

- circulation
- stair
- elevator
- min. renovation
- renovation
- new construction
- roof area



**First Floor**



**Second Floor**



# Johnson Elementary grades 4-5

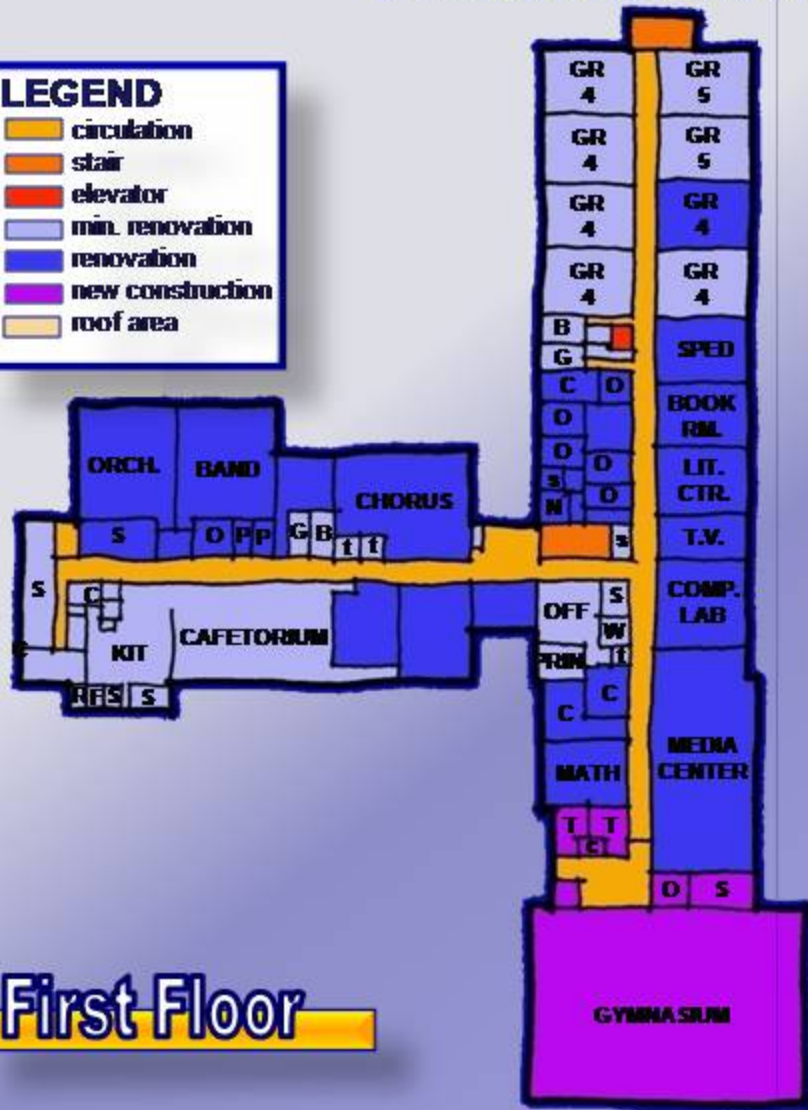
# Option D

## Renovations and Addition with new Media Center

(at old Gym)

**LEGEND**

- circulation
- stair
- elevator
- min. renovation
- renovation
- new construction
- roof area



**First Floor**



**Second Floor**





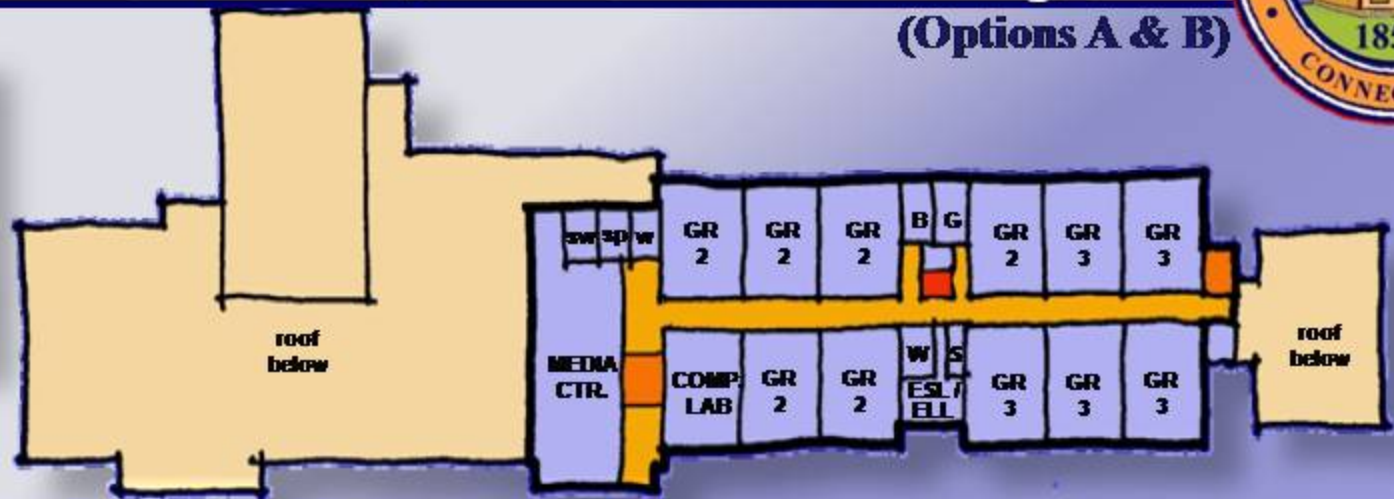
# Rockwell Elementary grades K-3

# Existing Plan

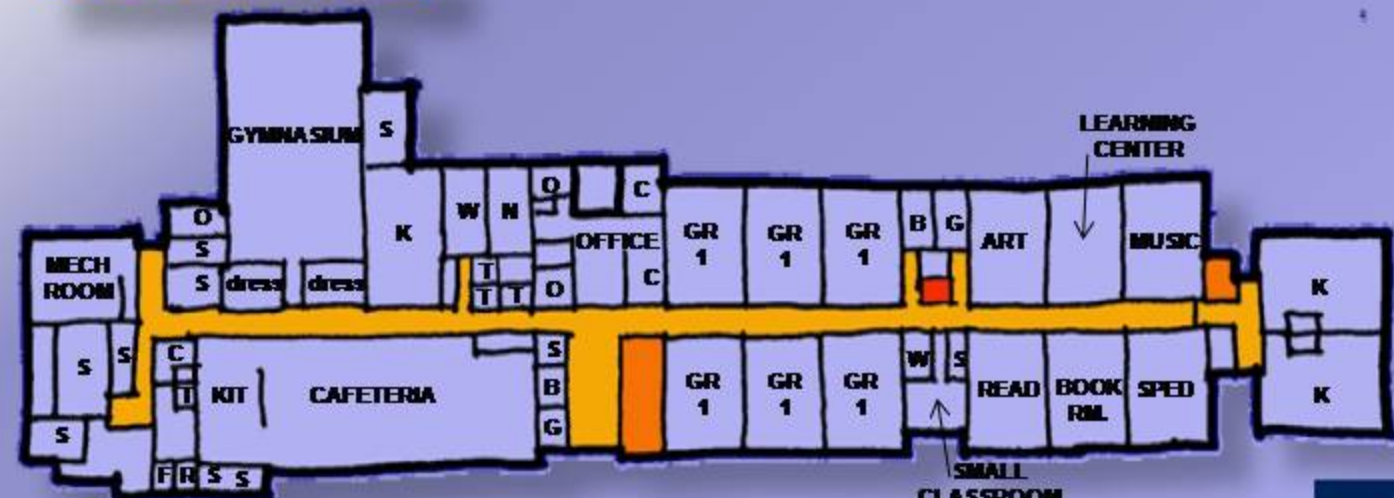
(Options A & B)

**LEGEND**

- circulation
- stair
- elevator
- min. renovation
- renovation
- new construction
- roof area



**Second Floor**



**First Floor**





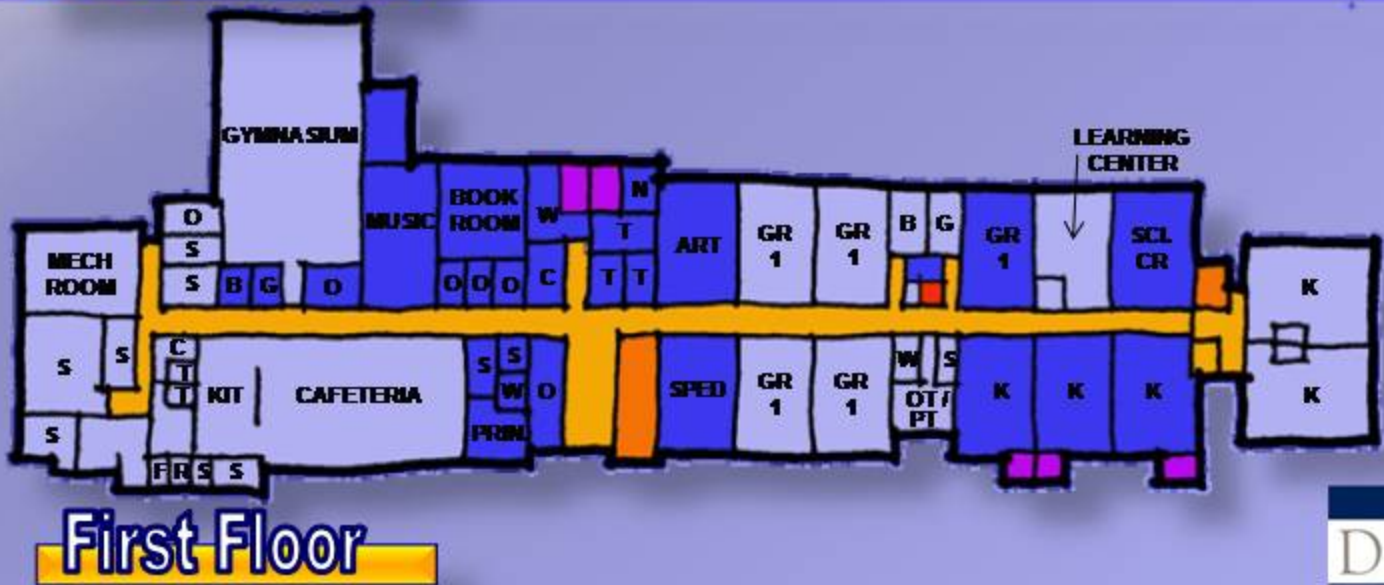
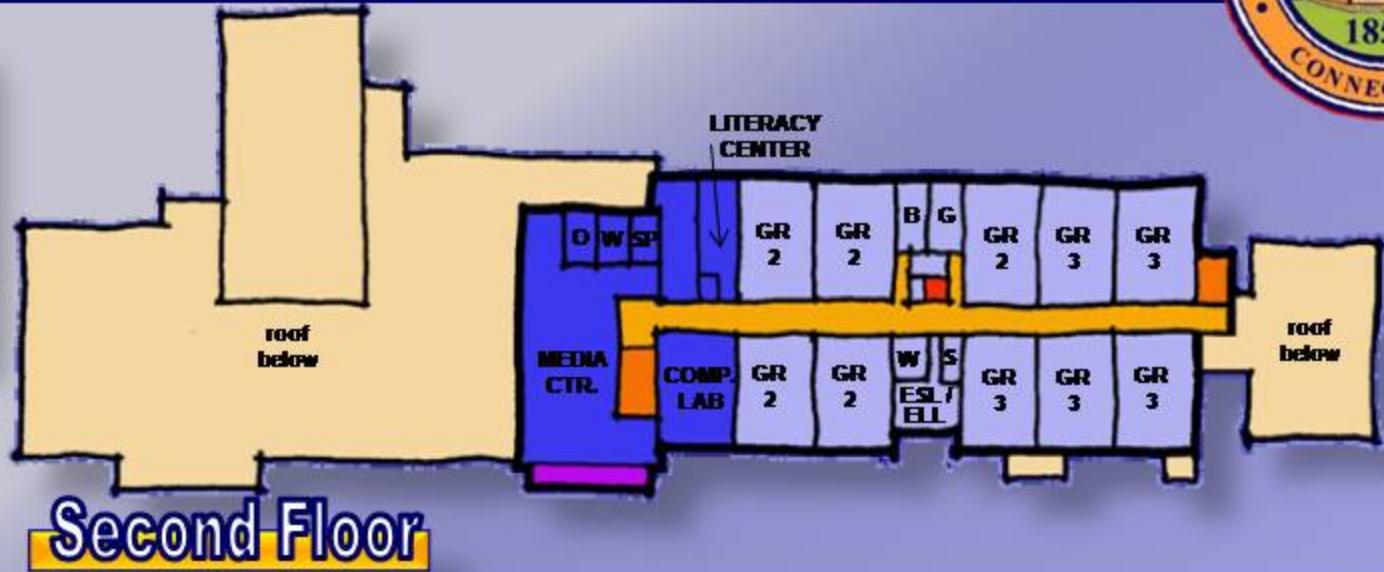


# Rockwell Elementary grades K-3

# Option C

**LEGEND**

- circulation
- stair
- elevator
- min. renovation
- renovation
- new construction
- roof area





# Rockwell Elementary grades K-3

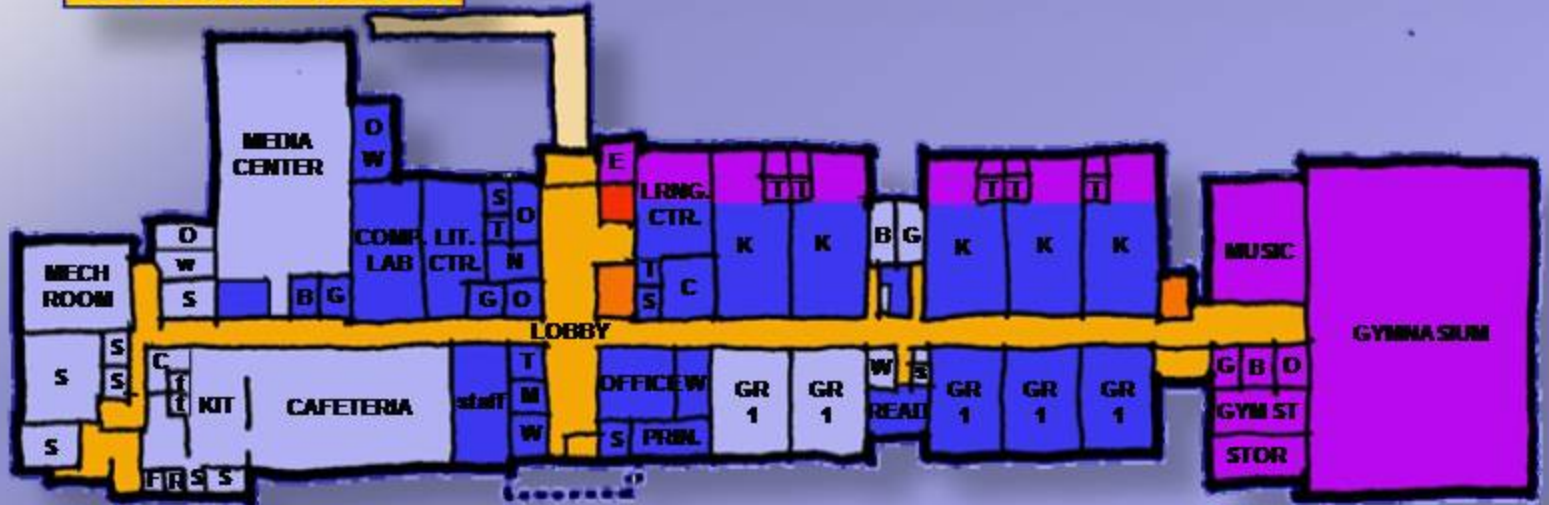
# Option D

**LEGEND**

- circulation
- stair
- elevator
- min. renovation
- renovation
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- roof area



**Second Floor**



**First Floor**

# Families of Options



<i>ICON</i>	<i>FAMILY LABEL</i>	<i>BSF PERCENT PARTICIPATION</i>
A	"Status Quo"	Approx. 15%
B	Partial Renovation	Approx. 21%
C	Full Renovation	41.79%
D	Renovate w/ Addition	Approx. 33%
E	New Construction	41.79%; Smaller



# Budget Values - Johnson

\* budget values presented in 2011 dollars



<b>A</b>	<b>Status Quo</b> (Repairs When Broken)	Local Share: \$7.5 to \$8.3 M; over 10 years BSF Share: Approx. \$1.3 M
<b>B</b>	<b>Partial Renovation</b> (Planned Repairs)	Local Share: \$6.3 to \$7.0 M; 3 – 4 years BSF Share: Approx. \$1.7 M
<b>C</b>	<b>Full Renovation</b> (Renovate "As New")	Local Share: \$13.9 to \$15.4 M; 2 – 3 yrs BSF Share: Approx. \$8.9 M
<b>D</b>	<b>Renovate With Addition</b>	Local Share: \$17.7 to \$19.6 M BSF Share: Approx. \$9.2 M
<b>E</b>	<b>New Construction</b>	Local Share: \$17.3 to \$19.1 M (Smaller) BSF Share: Approx. \$11.4 M

# Budget Values - Rockwell



\* budget values presented in 2011 dollars

<b>A</b>	<b>Status Quo</b> (Repairs When Broken)	Local Share: \$7.0 to \$7.7 M; over 10 yrs. BSF Share: Approx. \$1.3 M
<b>B</b>	<b>Partial Renovation</b> (Planned Repairs)	Local Share: \$5.7 to \$6.3 M BSF Share: Approx. \$1.6 M
<b>C</b>	<b>Full Renovation</b> (Renovate "As New")	Local Share: \$12.6 to \$13.9 M BSF Share: Approx. \$8.1 M
<b>D</b>	<b>Renovate With Addition</b>	Local Share: \$17.5 to \$19.4 M BSF Share: Approx. \$8.1 M
<b>E</b>	<b>New Construction</b>	Local Share: \$16.1 to \$17.8 M (Smaller) BSF Share: Approx. \$10.3 M

*“few reach greatness while aspiring to the ordinary”*

**ROCKWELL SCHOOL**  
Grades K-3

**JOHNSON SCHOOL**  
Grades 4-5





*Bethel Public School System*

# Facilities Master Plan



May 17, 2012

## Board of Education Presentation

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Revised October 2010

