

FACILITIES EXISTING CONDITIONS STUDY & MASTER PLAN

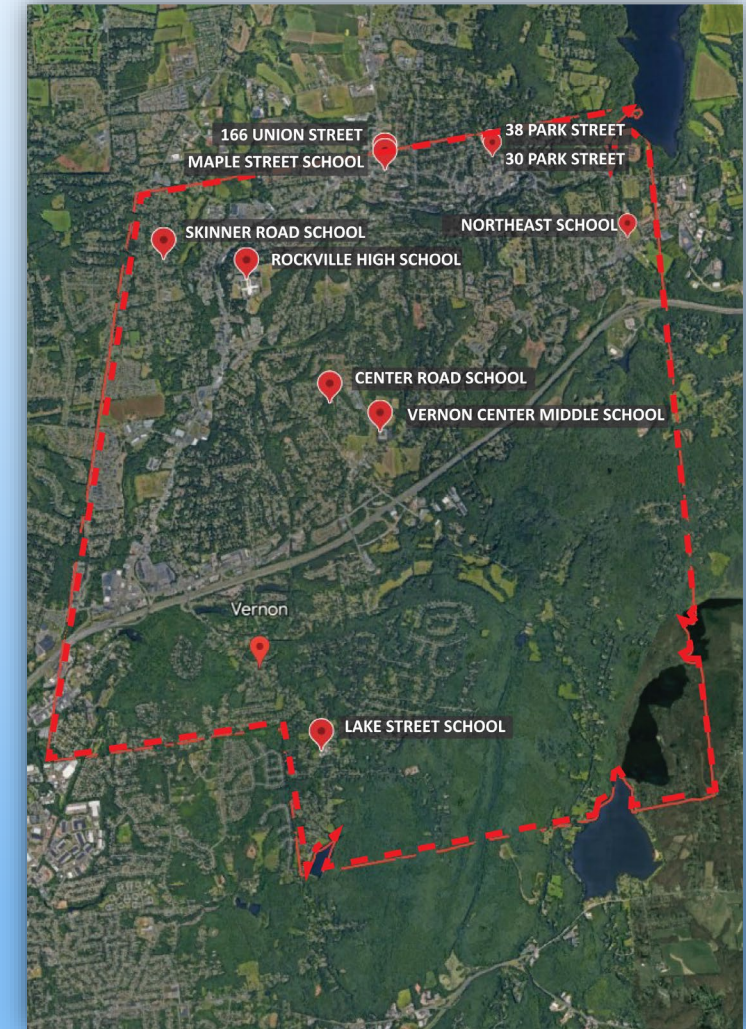
VERNON PUBLIC SCHOOLS



BACKGROUND

The study was designed to answer three essential questions:

- 1. Identify major facilities projects** that will be required in the next 10 years. For this analysis, the threshold for a major project was set at \$150,000.
- 2. Assess the current condition of buildings** to plan for any major school construction and renovation projects to ensure they will meet the future needs of Vernon's projected student population. This includes a comprehensive determination of all schools' infrastructure and capacity.

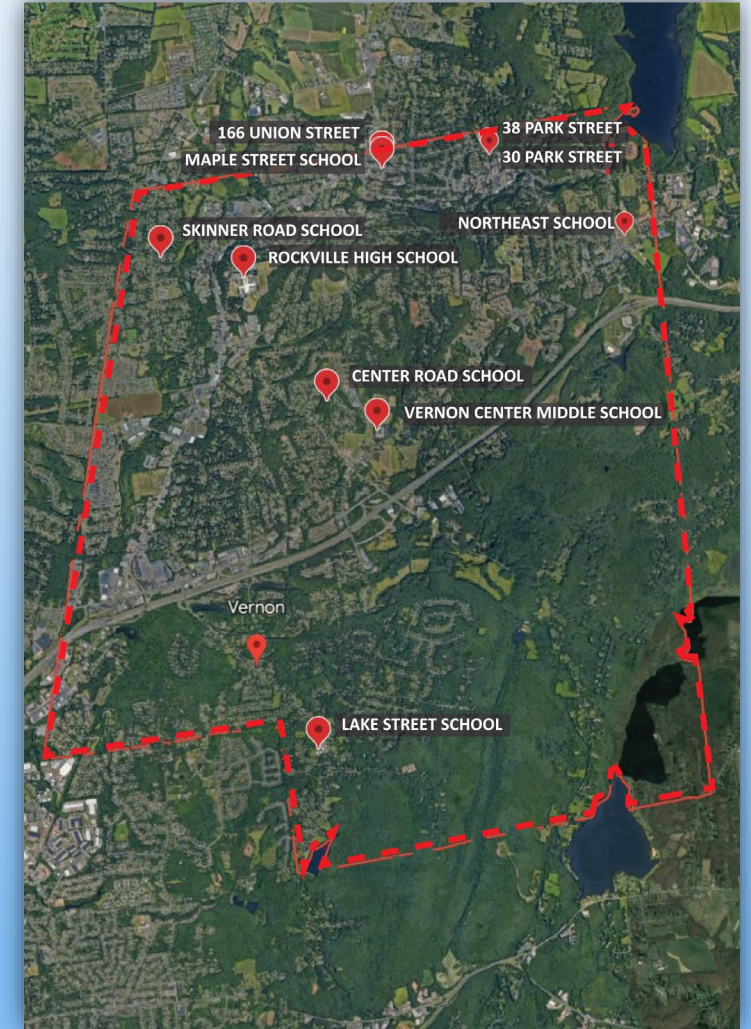


BACKGROUND

3. **Provide an initial plan** to move forward and prioritize projects based on this assessment and findings.

The information gathered can be used to guide decisions on school development and ensure the school facilities promote:

- Efficiencies of facility maintenance and energy savings
- Effectiveness of resources to ensure no school disruptions
- Targeting school populations to maximize State reimbursement of renovations.



ASSUMPTIONS

The study used the following data and assumptions to provide the conclusions and recommendations:

- A minimum 20-year useful life of the buildings and all systems based on State guidelines
- Compliance with applicable Building Codes based upon the proposed work
- Prowda Enrollment study dated January 2022
- NESDEC School Year 2023-24 Enrollment Projection Report
- Current (FY2024) construction cost reimbursement formula from the State of Connecticut Office of Grants Administration.

HIGHLIGHT OF KEY FINDINGS AND RECOMMENDATION

1. The **newest school** in the Town of Vernon, Center Road School, was **constructed in 1969**. Many of the buildings will require considerable renovations and updates in the next ten years due to the age and condition of the structure and many of the original systems.
2. Many of the **mechanical systems will require replacement** in the next ten years as they are original to the buildings and do not meet current industry standards for ventilation.

HIGHLIGHT OF KEY FINDINGS AND RECOMMENDATION

3. Based on the enrollment studies and analysis of existing space, the District's **enrollment and space needs are trending flat**. There are no major increases or decreases projected for the next ten years. However, additional classroom space may be required if the District chooses to expand Pre-Kindergarten or other programs.

HIGHLIGHT OF KEY FINDINGS AND RECOMMENDATION

4. **Maple Street School is approaching the end of its useful life.** The building is not compliant with current Building Codes and it would be cost prohibitive to upgrade the building to meet Code. The school is also not compliant with the Americans with Disabilities Act (ADA) and lacks an elevator allowing access between the floors. The site lacks adequate parking, and adjacent land is not available for expansion or further development. Additionally, due to the age and condition of the building, there are extensive mechanical and structural concerns that would need to be remediated. Maple Street School is currently ineligible for additional school construction funding from the State due to its lack of compliance.

HIGHLIGHT OF KEY FINDINGS AND RECOMMENDATION

5. Consideration should be given to the **consolidation of two elementary schools**. The efficiencies of larger school buildings include reduced expenditures in the areas of staffing, transportation, maintenance, and energy as well as providing greater flexibility with enrollment variations between grade levels from year-to-year. Northeast School has the most space available for a potential addition to a current site.

OPINIONS OF PROBABLE COSTS

Based on the findings and recommendations of the study, initial estimates were generated for planning purposes. The projected Project Costs to undertake the collective recommendations for **building improvements over the next 10 years amount to approximately \$120M** in 2023 dollars, without escalation factored in.

In conjunction with the facility directors, the recommendations at each building were analyzed to identify individual **Capital Projects of +\$150,000 over the next 5-10 years**. The projected Project Costs for these individual improvement projects amount to **approximately \$108M** in 2023 dollars, without escalation.

OPINIONS OF PROBABLE COSTS

Each building's report includes a comparison of the cost for the recommended work to that of industry standards for \$/sf repairs at a building of similar construction and size.

Also provided is a comparison with the cost to replace the existing building with a new facility of similar construction and size, excluding site costs.

FACILITY ASSESSMENTS



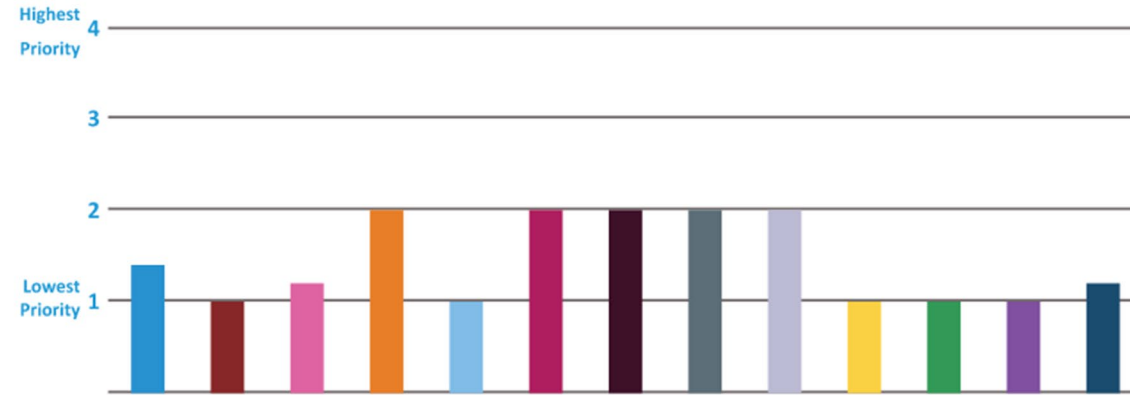
**FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS**



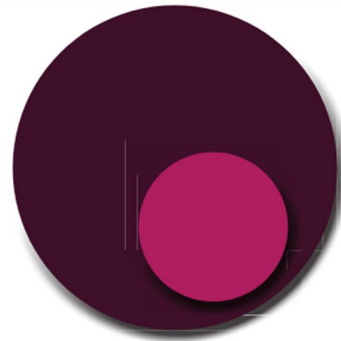
ROCKVILLE HIGH SCHOOL

- Enclosure
- Interior
- Structural
- Mechanical
- Electrical
- Plumbing
- Fire Protection
- Lighting
- Fire Alarm
- Telecommunications
- Security
- Low Voltage
- Site

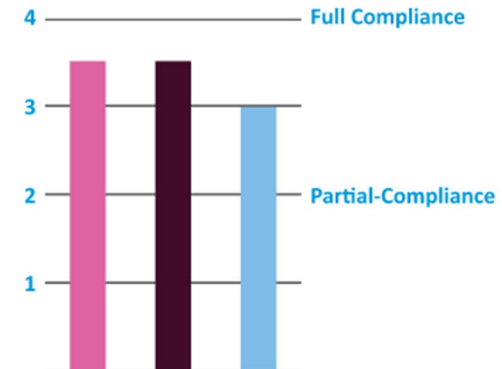
Prioritization of Required Work



Code Compliance Evaluation



Survey Estimate \$53,071,177
Replacement Estimate \$218,197,488



IBC
NFPA
ADA

FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS



ROCKVILLE HIGH SCHOOL

Recommended Capital Projects + \$150,000 next 5 – 10 years

- **ARCHITECTURAL** – Replace rusted lintels, exterior doors and frames, damaged windows and screens, sealant at windows, damaged gaskets and weatherstripping at doors. Replace damaged overhead doors and frames. Reroof and address failing parapets.
- **ELECTRICAL**- New Generator, New A/C at 2nd floor Science wing.
- **MECHANICAL**- Recommend replacement of all controls with updated digital control system integrated to centralized BMS; replace existing exhaust fans. Recommend retrofitting non-A/C classrooms with VRF or chilled water fan coil unit.
 - Replace the following AHUs: Large gymnasium and large cafeteria.
 - Recommend replacing small cafeteria unit ventilators with RTU.
 - Remove existing underground storage tank and above ground tank.

ROCKVILLE HIGH SCHOOL

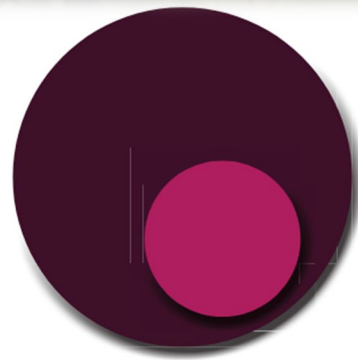
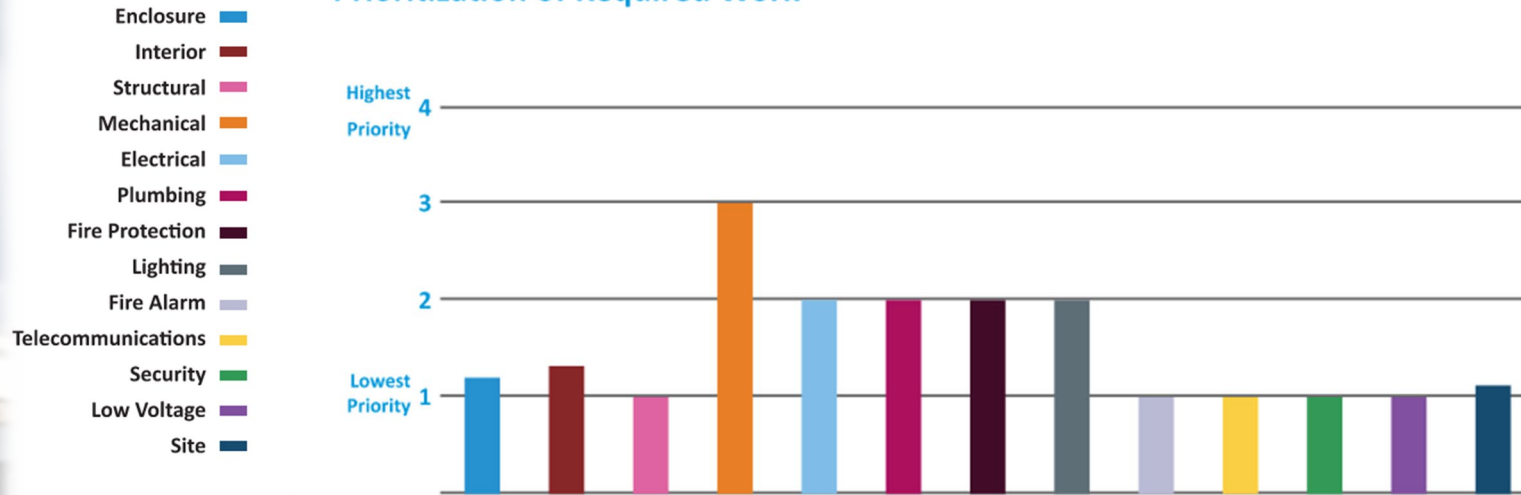
Recommended Capital Projects + \$150,000 next 5 – 10 years

- Replace the following RTUs: Auditorium dressing room, Auditorium lobby, Auditorium, stage, Administration Office area, House B second floor guidance area, House A first floor Adult Education area, RTU's 11-15 serving Area 5 labs, Practice Rooms, Culinary classrooms and Science classrooms.
- Media Center & Small Gymnasium air handling units are past their useful life and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- **PLUMBING** - Recommend investigation and replacement of original services and equipment: Domestic water service, domestic water heater, sanitary system, natural gas service, and storm water system (above and below grade).
- **FIRE PROTECTION** – Replace fire pump, fire service and associated piping.

ESTIMATED PROJECT COSTS WITHOUT ESCALATION - \$52,641,177

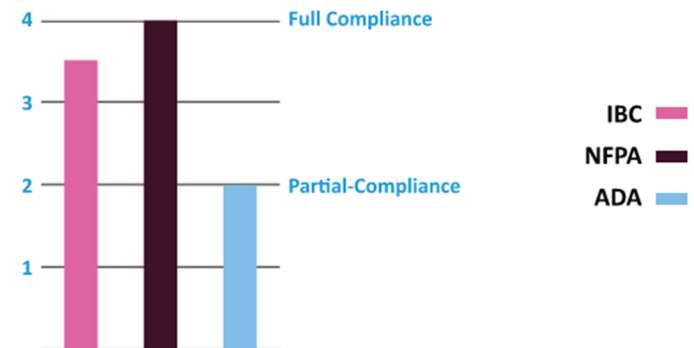
VERNON CENTER MIDDLE SCHOOL

Prioritization of Required Work



Survey Estimate \$24,208,802
Replacement Estimate \$147,918,000

Code Compliance Evaluation



FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS



VERNON CENTER MIDDLE SCHOOL

Recommended Capital Projects + \$150,000 next 5 – 10 years

- **MECHANICAL-** provide an energy efficient, code compliant ventilation system w/AC; Recommend replacement of hot water pumps and Kitchen exhaust fan. Recommend replacement of condenser units and rebuild of air handling units, replacement of all controls with updated digital control system integrated to centralized BMS. Provide AHU w/heating, cooling , energy recovery wheel, and mechanical ventilation for classrooms if window free area does not meet code requirements for natural ventilation.
 - Replace the following RTUs: Library, Cafeteria, Auditorium, Administration Office area.
 - Replace the following AHUs: Small Gymnasium, Large Gymnasium.

VERNON CENTER MIDDLE SCHOOL

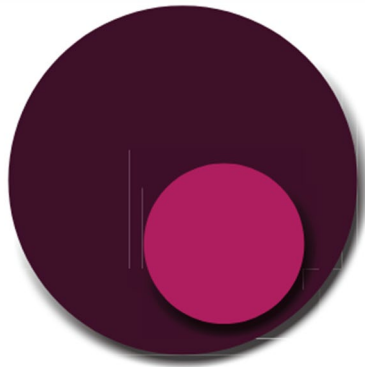
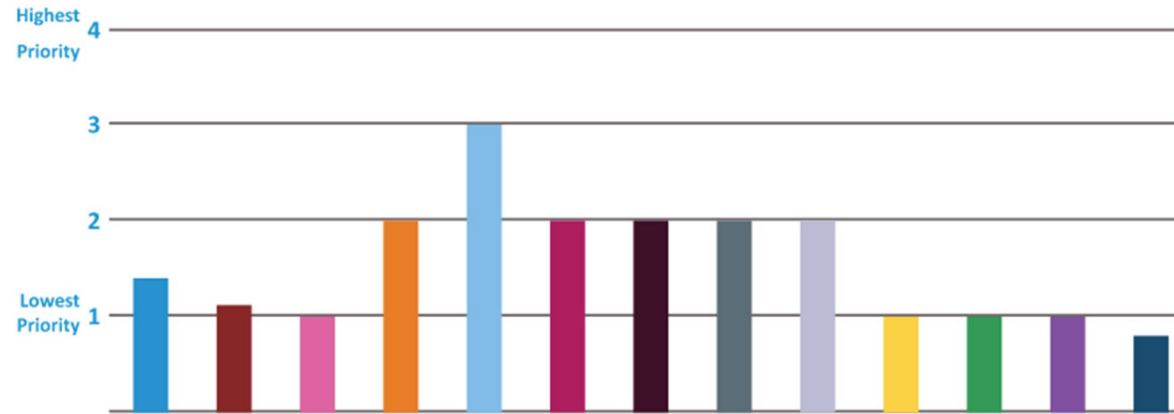
Recommended Capital Projects + \$150,000 next 5 – 10 years

- **PLUMBING** - Recommend investigation and replacement of original services and equipment: Domestic water service, domestic water heater, sanitary system, natural gas service, and storm water system (above and below grade).
- **ELECTRICAL**– New generator.
- **FIRE PROTECTION** – Replace fire service and associated piping .

ESTIMATED PROJECT COSTS WITHOUT ESCALATION - \$23,326,802

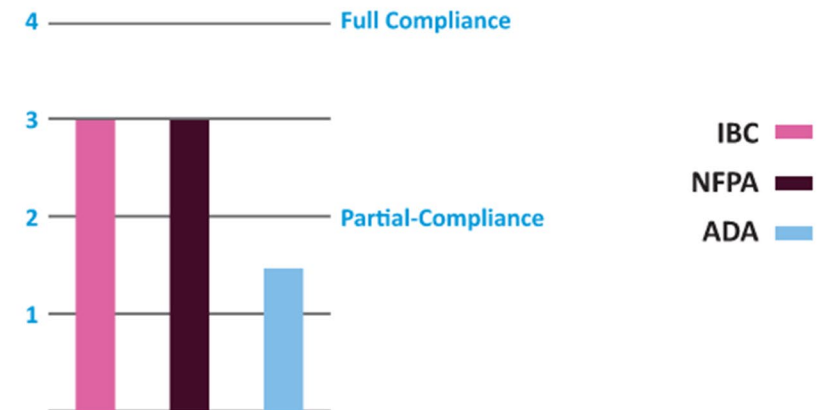
CENTER ROAD SCHOOL

Prioritization of Required Work



Survey Estimate \$4,501,806
Replacement Estimate \$61,392,960

Code Compliance Evaluation



FACILITIES MASTER PLAN VERNON PUBLIC SCHOOLS



CENTER ROAD SCHOOL

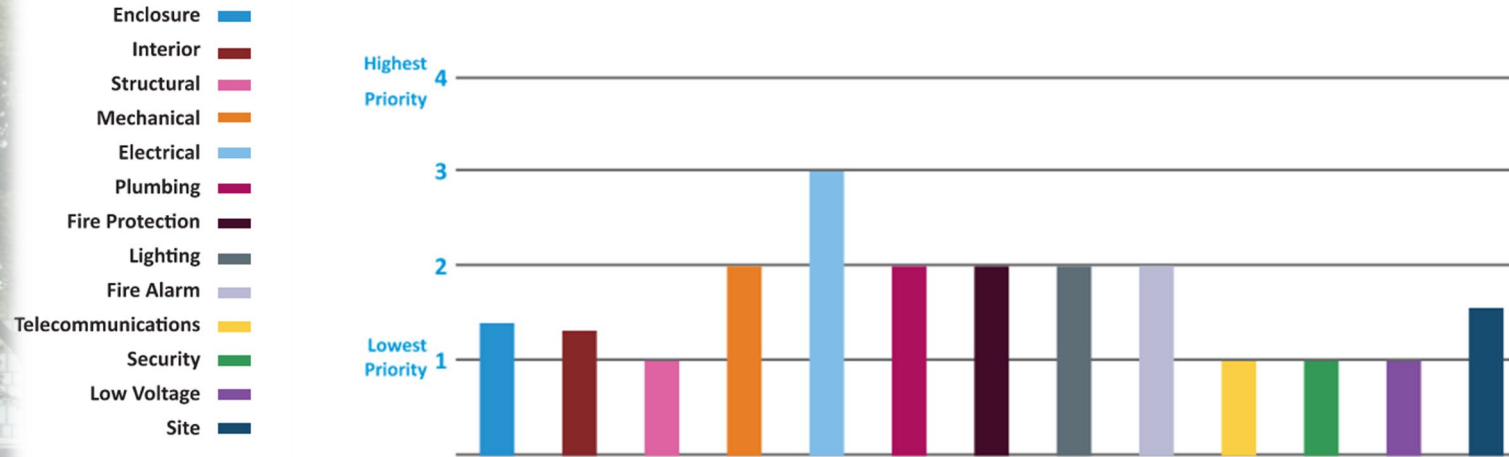
Recommended Capital Projects + \$150,000 next 5 – 10 years

- **MECHANICAL**- Replace existing chilled water pumps, (2) Gymnasium air handling units, Library unit ventilator, and Administration Area roof top unit.
- **PLUMBING** – Recommend investigation and replacement of original service and equipment: domestic water service, domestic water heater, sanitary system, natural gas service and storm water system (above and below grade).
- **ELECTRICAL**– Replace main switchboard, older branch panelboards, and the distribution transformer and equipment. New generator.
- **FIRE PROTECTION** – Replace fire service and associated piping.

ESTIMATED PROJECT COSTS WITHOUT ESCALATION - \$3,736,806

LAKE STREET SCHOOL

Prioritization of Required Work



Survey Estimate \$11,547,256
Replacement Estimate \$34,960,000

Code Compliance Evaluation



FACILITIES MASTER PLAN VERNON PUBLIC SCHOOLS



LAKE STREET SCHOOL

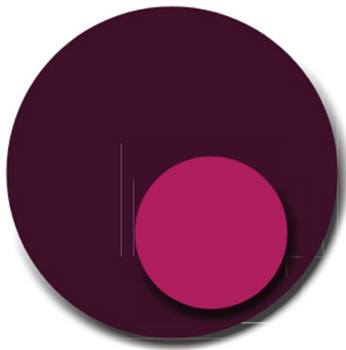
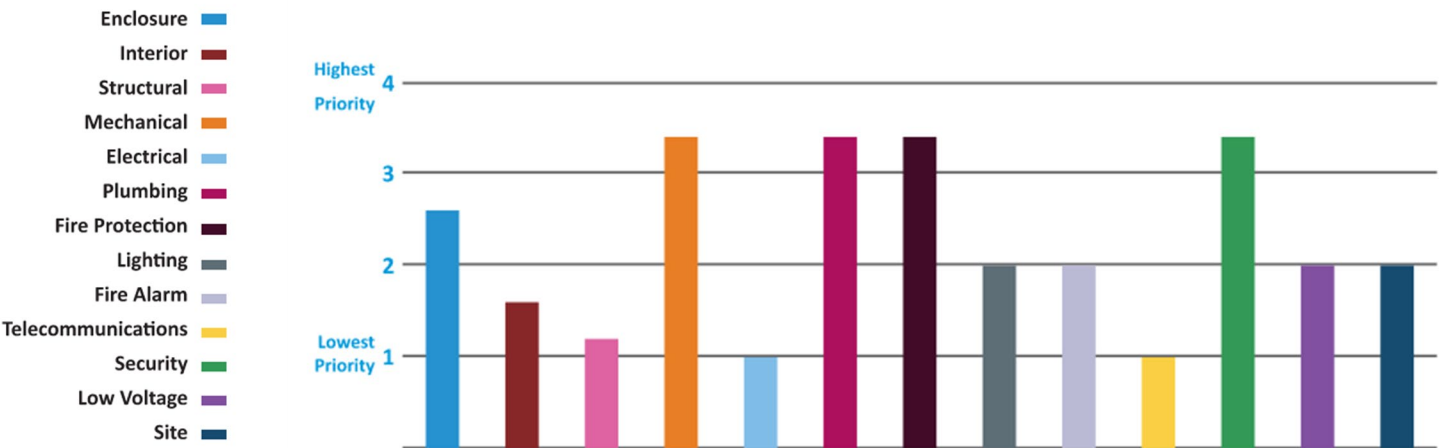
Recommended Capital Projects + \$150,000 next 5 – 10 years

- **ARCHITECTURAL** – Repair/ refinish / replace rusted window lintels, replace glass block windows, delaminating casework. New roof.
- **MECHANICAL**- Provide an energy efficient, code compliant ventilation system with A/C, replace existing hot water boilers and pumps with high efficiency condensing boilers, hot water pumps, all classroom gravity relief ventilators with down blast roof top exhaust fans, new digital controls integrated to centralized BMS, Gymnasium and Cafeteria RTUs.
- **PLUMBING** – recommend investigation and replacement of original service and equipment: domestic water service, domestic water heater, sanitary system, natural gas service and storm water system (above and below grade).
- **ELECTRICAL** – Replace switchgear and distribution equipment that is original to the building. New generator.

ESTIMATED PROJECT COSTS WITHOUT ESCALATION - \$10,865,256

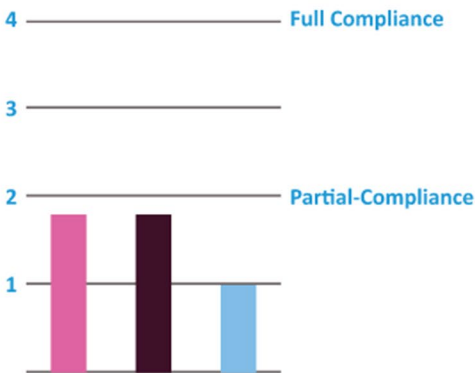
MAPLE STREET SCHOOL

Prioritization of Required Work



Survey Estimate \$9,048,715
Replacement Estimate \$40,742,400

Code Compliance Evaluation



IBC
NFPA
ADA

FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS



MAPLE STREET SCHOOL

Recommended Capital Projects+ \$150,000 next 5 – 10 years

- **ARCHITECTURAL** – Repair/ refinish / replace rusted lintels, exterior doors and frames, damaged windows and screens, sealants at windows, damaged gaskets and weatherstripping at doors. Scrape and repaint wood window frames. Replace rotted frames to match existing. New roof.
- **MECHANICAL**- Provide a new exhaust system, replacement of window ac units with VRF system for heating and cooling in all classrooms areas; replacement of all controls with updated digital controls integrated to centralized BMS, Cafeteria and Administration area RTUs.
- **PLUMBING** – recommend investigation and replacement of original service and equipment: domestic water service, domestic water heater, sanitary system, natural gas service and storm water system (above and below grade).

MAPLE STREET SCHOOL

Recommended Capital Projects+ \$150,000 next 5 – 10 years

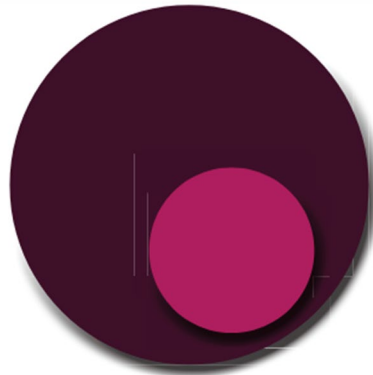
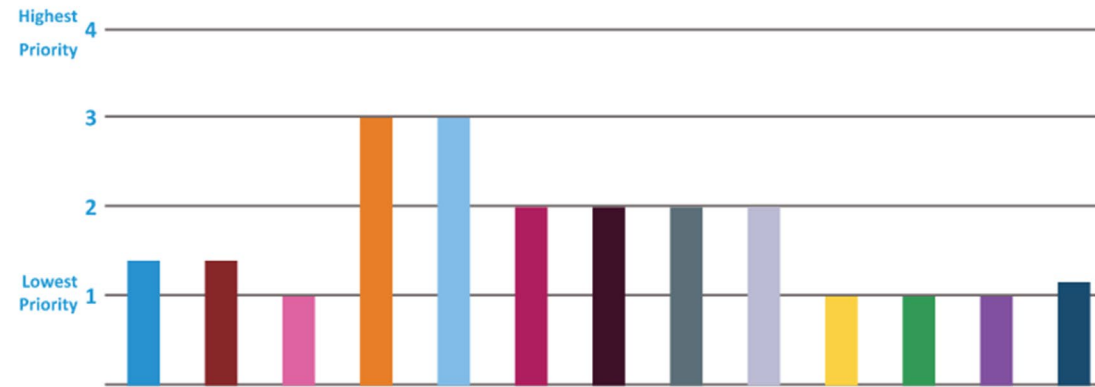
- **ELECTRICAL**– Upgrade service to serve mechanical and ADA upgrades, new generator and bus.
- **ADA COMPLIANCE** – Provide elevator and lifts to accessible route to both the cafeteria and lower & upper educational wings; provide an accessible exterior route complete with signage, van accessible space, bus drop off, and a loading zone.
 - The main entrance for this building is not accessible.
 - Modify existing door locations to ensure that proper clear distance is given along all accessible routes.
 - Update all toilet rooms currently not on an accessible level.

ESTIMATED PROJECT COSTS WITHOUT ESCALATION - \$5,170,694

NORTHEAST SCHOOL

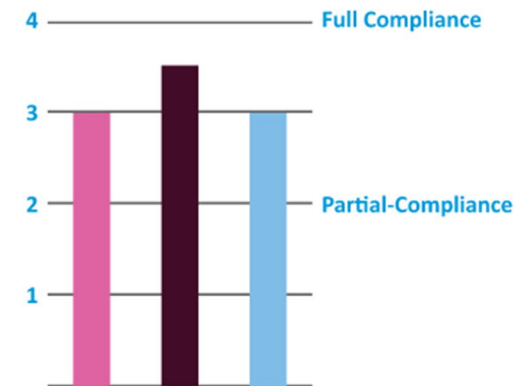
- Enclosure
- Interior
- Structural
- Mechanical
- Electrical
- Plumbing
- Fire Protection
- Lighting
- Fire Alarm
- Telecommunications
- Security
- Low Voltage
- Site

Prioritization of Required Work



Survey Estimate \$11,037,158
Replacement Estimate \$37,080,000

Code Compliance Evaluation



IBC
NFPA
ADA

FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS



NORTHEAST SCHOOL

Recommended Capital Projects + \$150,000 next 5 – 10 years

- **ARCHITECTURAL** – Refinish or replace all hollow metal doors and frames; replace missing or damaged flashing at windows; replace deteriorated metal panel systems and refinish vestibule soffits. New accessible lift for Gymnasium.
- **MECHANICAL**- Provide an energy efficient, code compliant ventilation system with A/C; replace (9) roof exhaust fans original to building not currently working. Recommend addition of VRF system for heating and cooling in all classrooms areas; replace all controls with updated digital control system integrated to centralized BMS; replace Gymnasium and Cafeteria unit ventilators and exhaust system, Administration Office area RTU.

NORTHEAST SCHOOL

Recommended Capital Projects + \$150,000 next 5 – 10 years

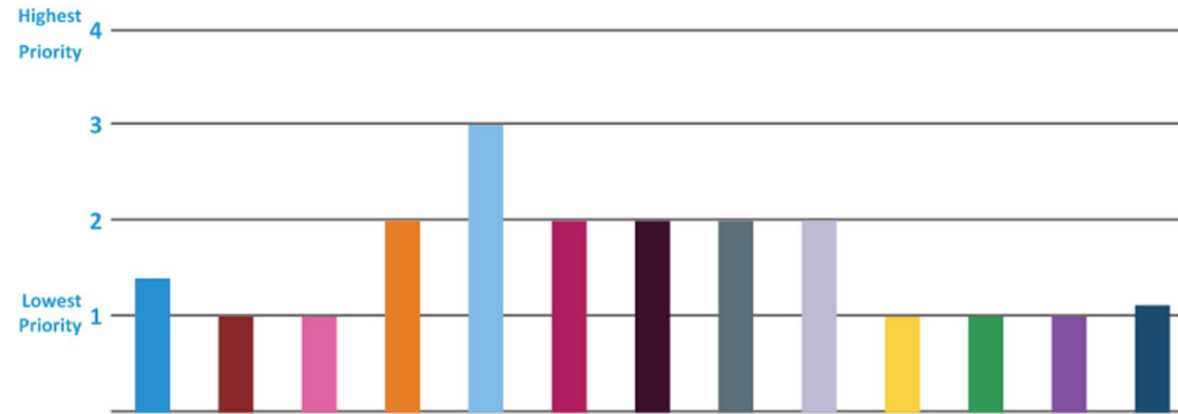
- **PLUMBING** – Recommend investigation and replacement of original service and equipment: domestic water service, domestic water heater, sanitary system, natural gas service and storm water system (above and below grade).
- **FIRE PROTECTION** – Replace fire service and associated piping.
- **ELECTRICAL**– Replace switchgear and distribution equipment that is original to the building. New generator.

ESTIMATED PROJECT COSTS WITHOUT ESCALATION - \$7,559,698

SKINNER ROAD SCHOOL

- Enclosure
- Interior
- Structural
- Mechanical
- Electrical
- Plumbing
- Fire Protection
- Lighting
- Fire Alarm
- Telecommunications
- Security
- Low Voltage
- Site

Prioritization of Required Work



Survey Estimate \$3,153,336
Replacement Estimate \$39,852,000

Code Compliance Evaluation



FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS



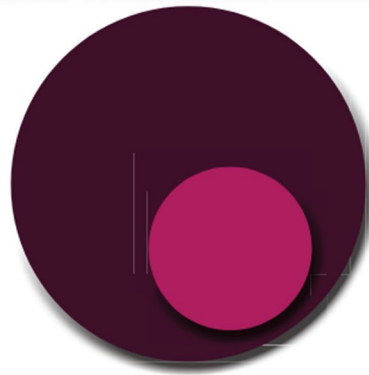
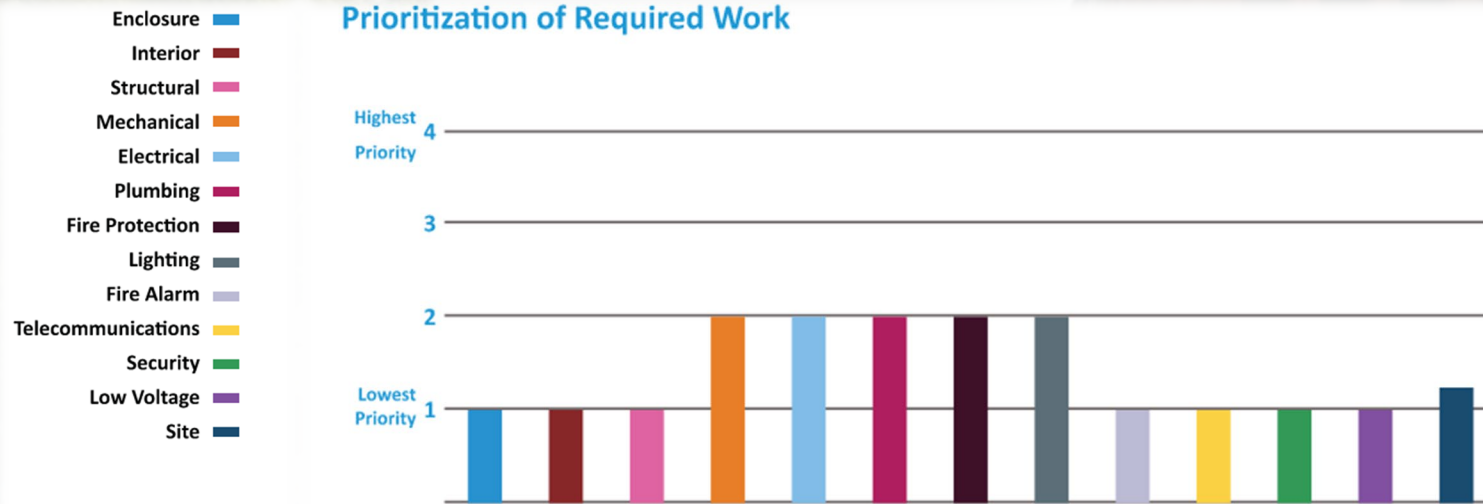
SKINNER ROAD SCHOOL

Recommended Capital Projects + \$150,000 next 5 – 10 years

- **MECHANICAL**- Recommend replacement of all controls with updated digital control system integrated to centralized BMS; replace the following RTUs: Gymnasium/Cafeteria, Library, Administration Office area, and Conference Room/ Psychology Office area.
- **PLUMBING** – Recommend investigation and replacement of original service and equipment: domestic water service, domestic water heater; sanitary system, natural gas service and storm water system (above and below grade).
- **FIRE PROTECTION** – Replace fire service and associated piping.
- **ELECTRICAL**– Replace switchgear and distribution equipment original to the building. New generator.

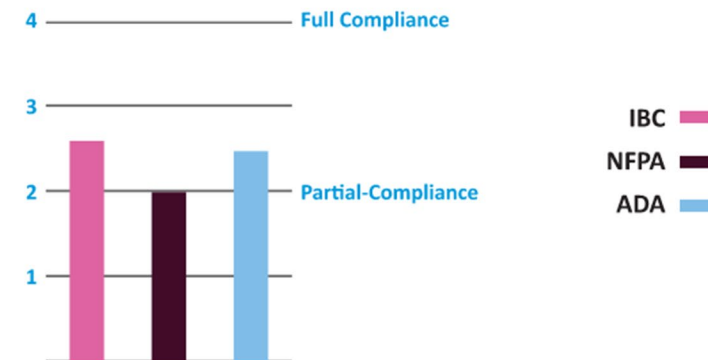
ESTIMATED PROJECT COST WITHOUT ESCALATION - \$2,724,336

VERNON PUBLIC SCHOOLS CENTRAL OFFICE



Survey Estimate \$4,095,442
Replacement Estimate \$23,393,280

Code Compliance Evaluation



FACILITIES MASTER PLAN VERNON PUBLIC SCHOOLS



VERNON PUBLIC SCHOOLS CENTRAL OFFICE

Recommended Capital Projects + \$150,000 next 5 – 10 years

- **ARCHITECTURAL** - Partial roof replacements; ADA renovations: exterior ramp and interior stairs renovations
- **PLUMBING** – recommend investigation and replacement of original service and equipment: domestic water service, domestic water heater, sanitary system, natural gas service and storm water system (above and below grade)
- **FIRE PROTECTION** – System upgrades
- **ELECTRICAL**– Replace main switchgear, current transformer, older branch panelboards, and distribution equipment. New generator.

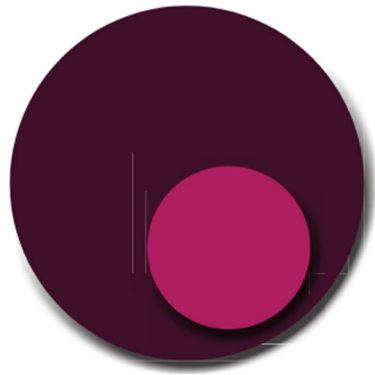
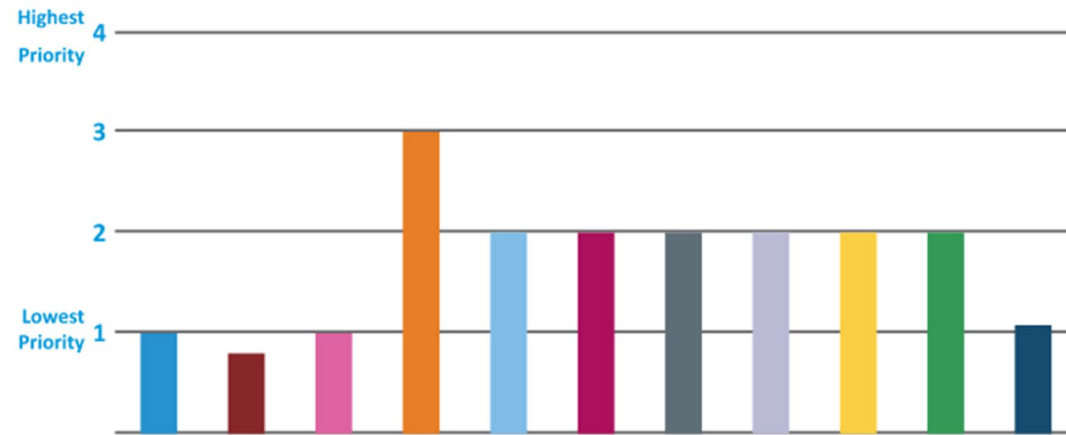
ESTIMATED PROJECT COSTS WITHOUT ESCALATION - \$2,014,219*

*includes Next Step Building costs

NEXT STEP BUILDING

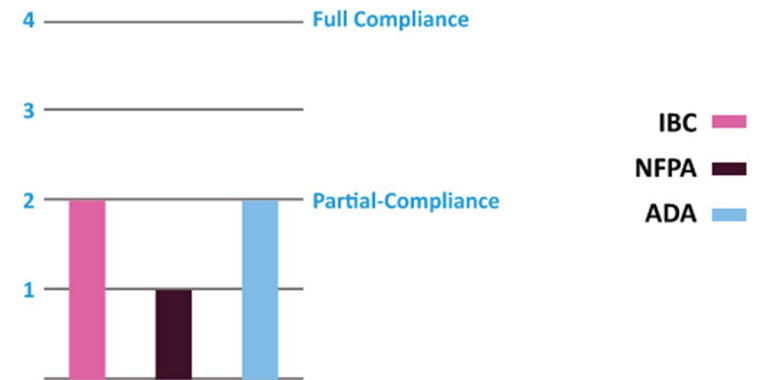
Prioritization of Required Work

- Enclosure
- Interior
- Structural
- Mechanical
- Electrical
- Plumbing
- Lighting
- Fire Alarm
- Telecommunications
- Security
- Site



Survey Estimate \$303,600
Replacement Estimate \$11,195,520

Code Compliance Evaluation



FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS



NEXT STEP BUILDING

Recommended Capital Projects + \$150,000 next 5 – 10 years

- Roof replacement and fire alarm upgrades.

ESTIMATED PROJECT COSTS WITHOUT ESCALATION: Included with Central Office costs

PARK STREET
LEARNING CENTER

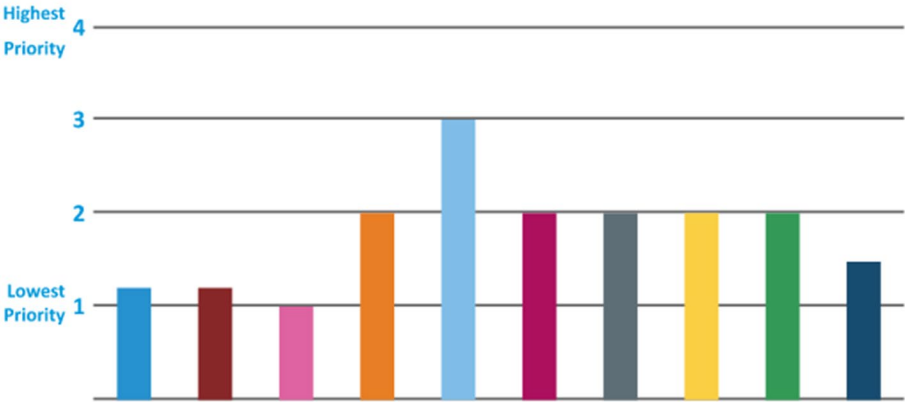
FACILITIES MASTER PLAN
VERNON PUBLIC SCHOOLS



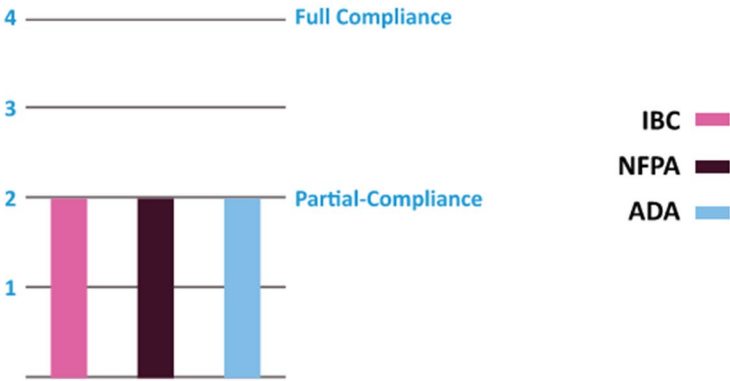
166 UNION STREET

- Enclosure
- Interior
- Structural
- Mechanical
- Electrical
- Plumbing
- Lighting
- Telecommunications
- Security
- Site

Prioritization of Required Work



Code Compliance Evaluation



SUMMARY AND NEXT STEPS

There will be **extensive needs for renovation, construction, and repairs at the subject properties over the next ten years.** Included in the facility report for each building are a detailed assessment, initial cost estimates, and recommendations for prioritization of work.

Implementation of the Master Plan will require further strategy formation and timeline planning with the District to **define the recommended projects and align proposed capital expenditures** with yearly budgets over a 5-10 year timeline. This would include development of the individual project budgets to incorporate projected escalation costs and forecast potential State Reimbursement.

QUESTIONS & ANSWERS

