

**South Portland High School
Renovation & Addition Plan
November 2, 2010 – Referendum Vote**

Building Structure & Systems Deficiencies

The physical condition of the building is poor due to age and inadequate design of certain sections of the building.



Figure 1 - Single pane window wall - leaks & energy inefficient

- Weak building envelope – infiltration of water and heat escape make it extremely energy inefficient – very costly to operate – little, if any, insulation in existing window walls.
- Building lacks a ventilation system.
- The heating system has long outlived its' expected life.
- Beal gym operating systems are outdated, especially the locker room plumbing.

- Substandard mechanical and electrical systems exist.
- Building has a structural frame that does not meet current design standards – no lateral structural supports in foundation of Annex.
- Structural deterioration to parts of the existing building is evident in several locations.
- The electrical system does not support the current needs; classrooms lack the required number of outlets; electrical circuits are at capacity.



Figure 2 - Elevator opens into classroom

- The many level changes in the North Annex create barriers for people with physical handicaps making day-to-day use challenging for students, staff, and community members.



Figure 3 - Congested Serving Line

- Congestion within insufficient serving spaces causes crowded lunch conditions.
- In general, the existing building systems are well past their normal life spans, and need to be replaced in full.
- Delivery truck access currently causes air and noise pollution into classrooms. These classrooms are located adjacent to and above the delivery route for food to the cafeteria, and paper goods / materials from central receiving.
- The existing bathrooms do not meet ADA (Americans w/ Disabilities Act) criteria; the plumbing lines are corroded and leak frequently.