

Horace Mann Elementary School

Schematic Design Phase

DRC Meeting

January 10, 2024





Agenda

- Proposed DRC/SBC Meeting Schedule Agenda
- Site Design Updates
 - Linwood Ave Access Drive & Parking
 - Accessible Entrances
 - Updated Renderings
- Building Design
 - Structural Systems & Geotech
 - Building Envelope & Sustainability



Horace Mann Elementary School

Proposed Agenda

SD

Project Introduction, Site Plan, Floor Plans, Elevations & Renderings

Site Plan, Floor Plans, Elevations, Building Systems & Materials, Energy Model

Building Systems & Materials, Energy Model, Sustainability, Building Envelope (Roof, Wall, Windows, etc.)

Building Envelope and Final SD Approval

Site Plan Approval

DD

Proposed DRC/SBC Meeting Schedule

2023												2024											
Nov				Dec				Jan				Feb				Mar							
8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	6	13	20	27			

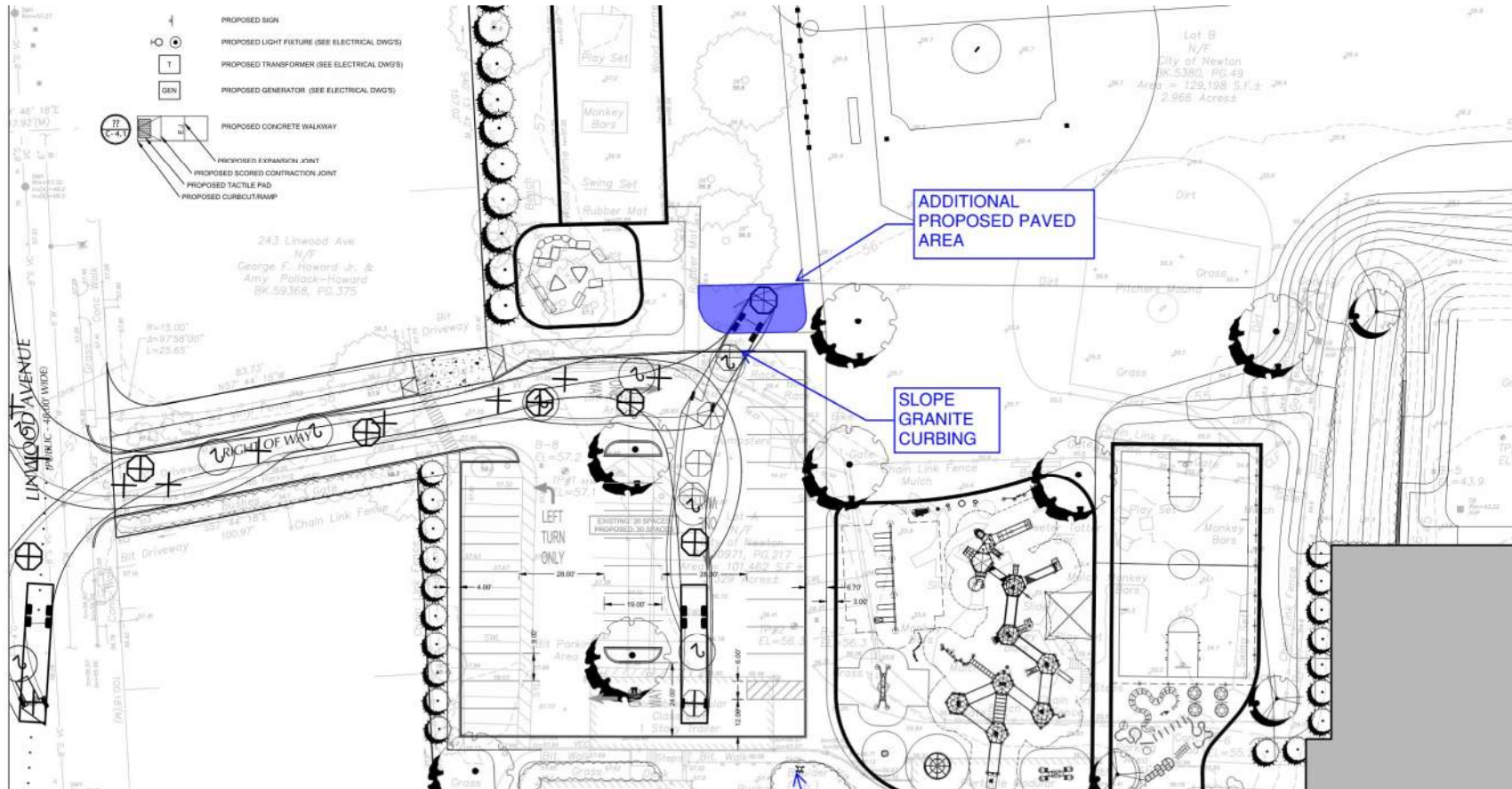


Site Design

Linwood Ave Access
New Accessible Entrances

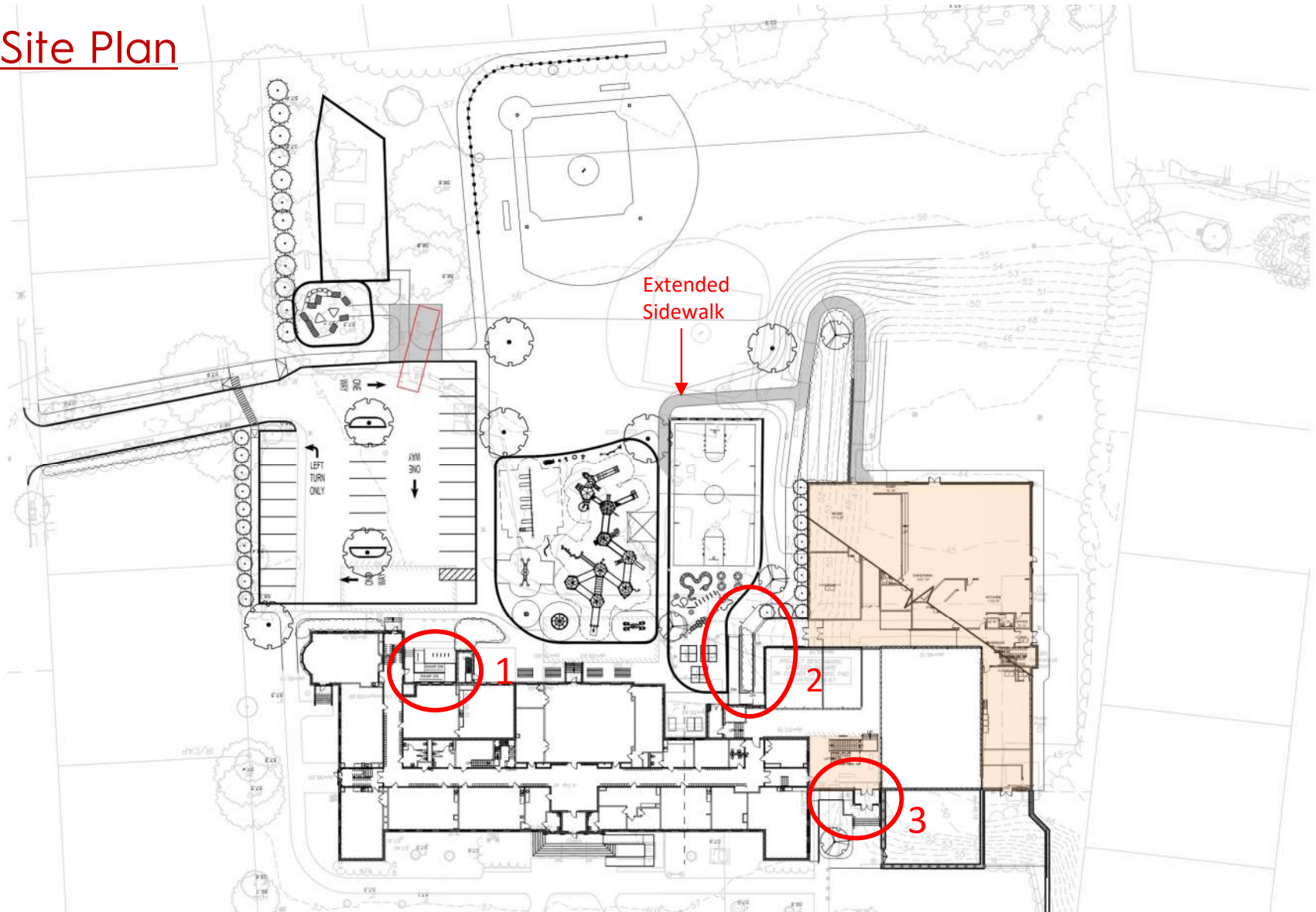
Proposed Site Plan

- Emergency Access



Proposed Site Plan

- Accessible Routes
- Accessible Entrances



Rear Accessible Entrance to Addition
(without exterior stair)



Rear Accessible Entrance to Addition
(half covered ramp)



Rear Accessible Entrance to Addition
(fully covered ramp)



Front Accessible Entrance to Stair Addition



Stair Addition

*New Entrance
Vestibule*

*Existing
Gymnasium*

Addition at Receiving

Perspective from above Nevada Street



Building Design

Structural Systems
Building Envelope & Sustainability Goals

STRUCTURAL SYSTEMS

Renovation Area:

- Code Implications
- Level II Alterations



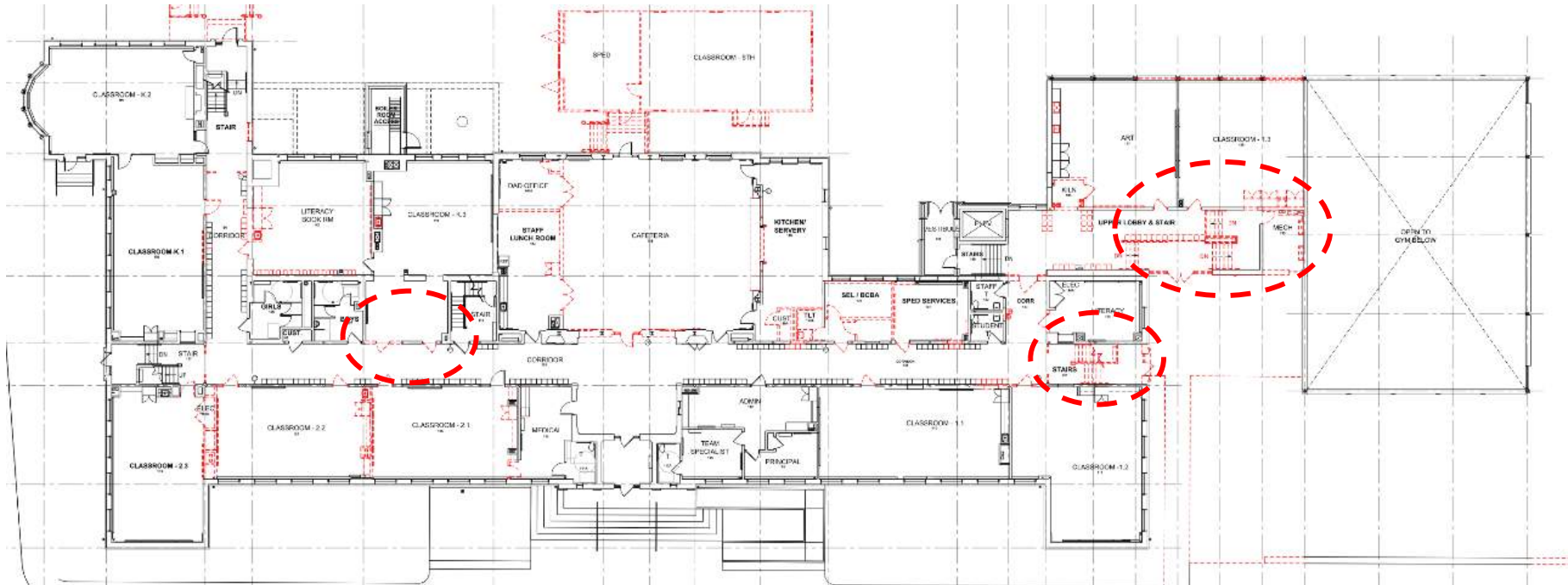
Modify Existing Openings



Stair Demo & Infill



Stair Demo & Infill

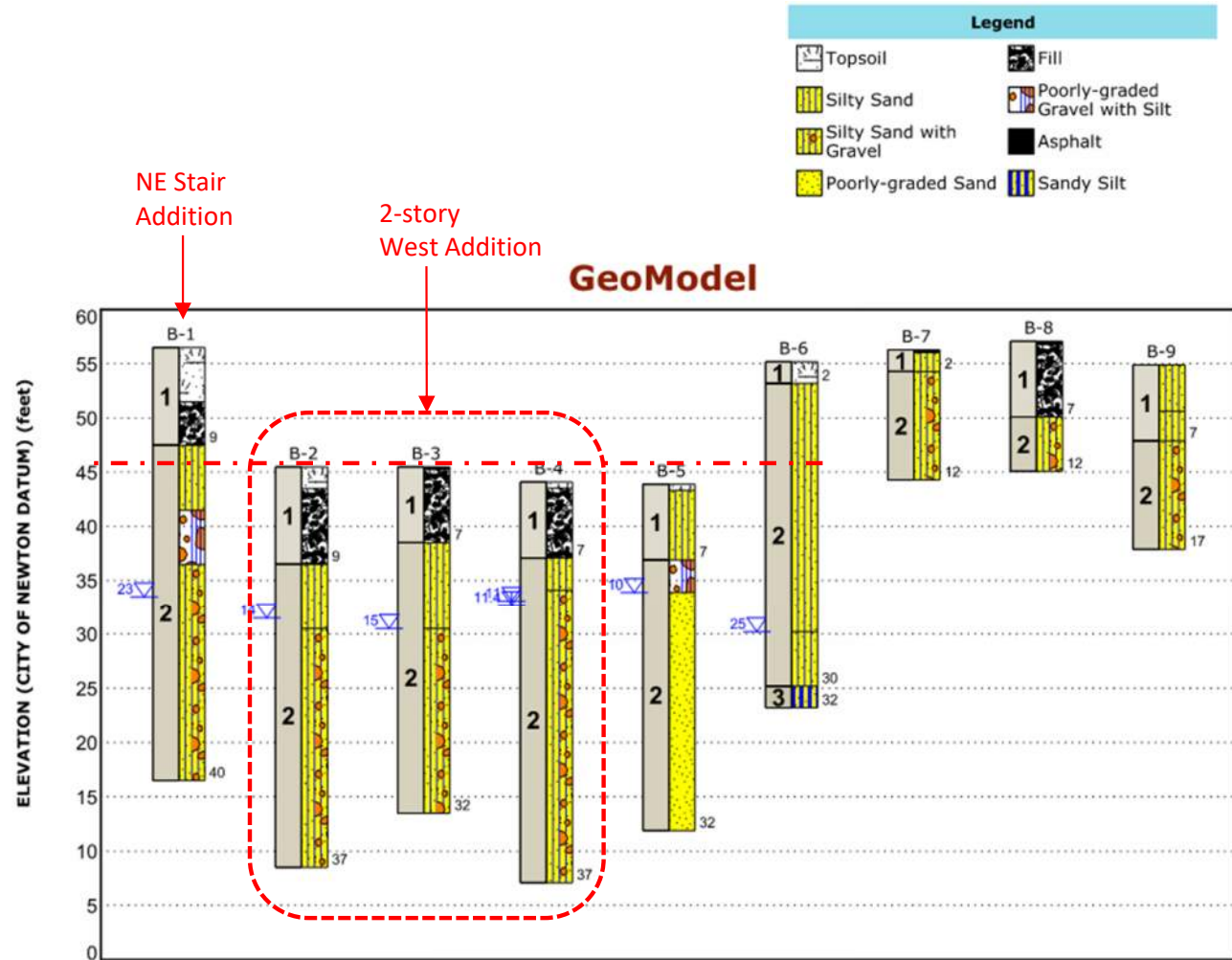
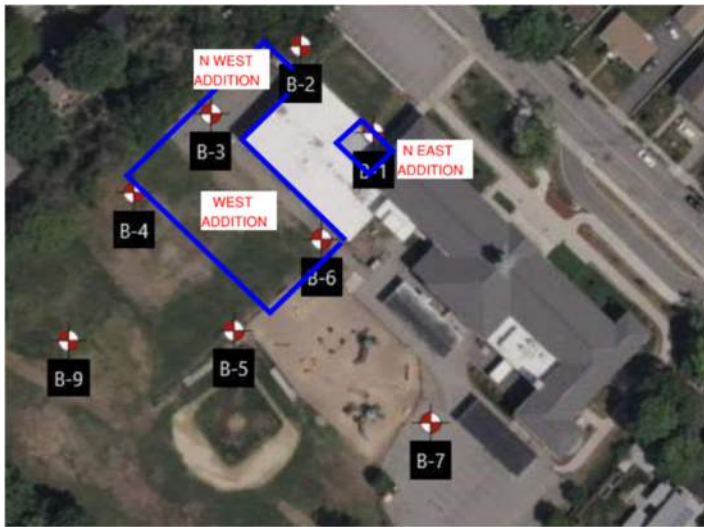


First Floor Demo Plan

STRUCTURAL SYSTEMS

New Work / Additions:

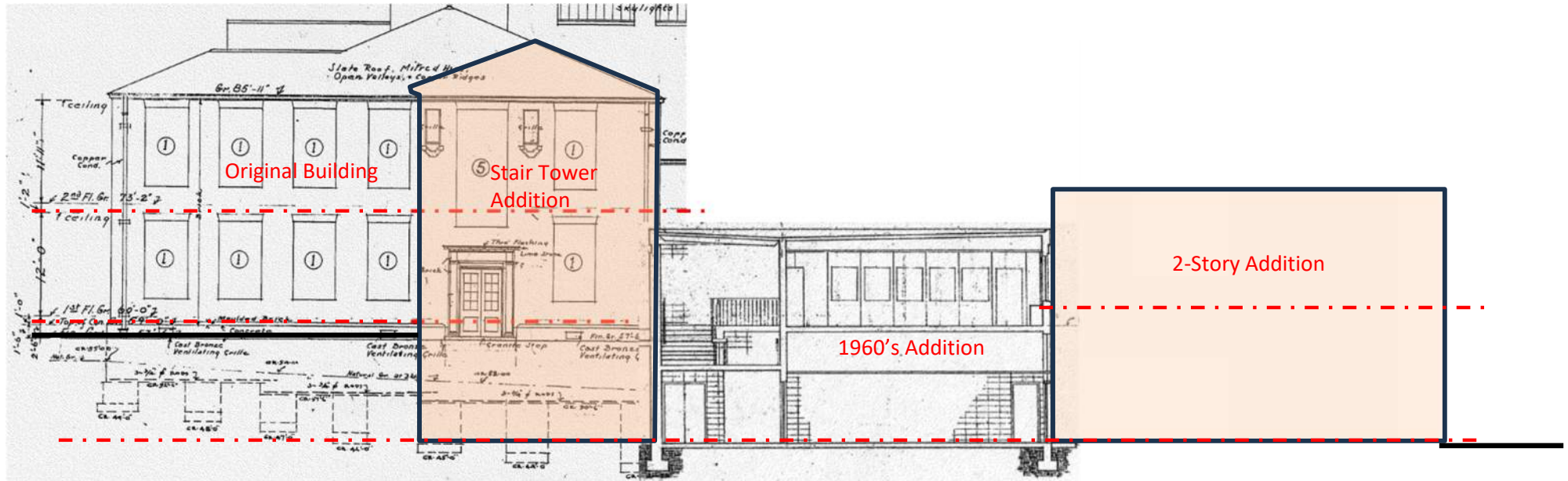
- Geotechnical Findings



STRUCTURAL SYSTEMS

New Work / Additions:

- Sustainability
- Foundations / Underpinning
- Floor Framing

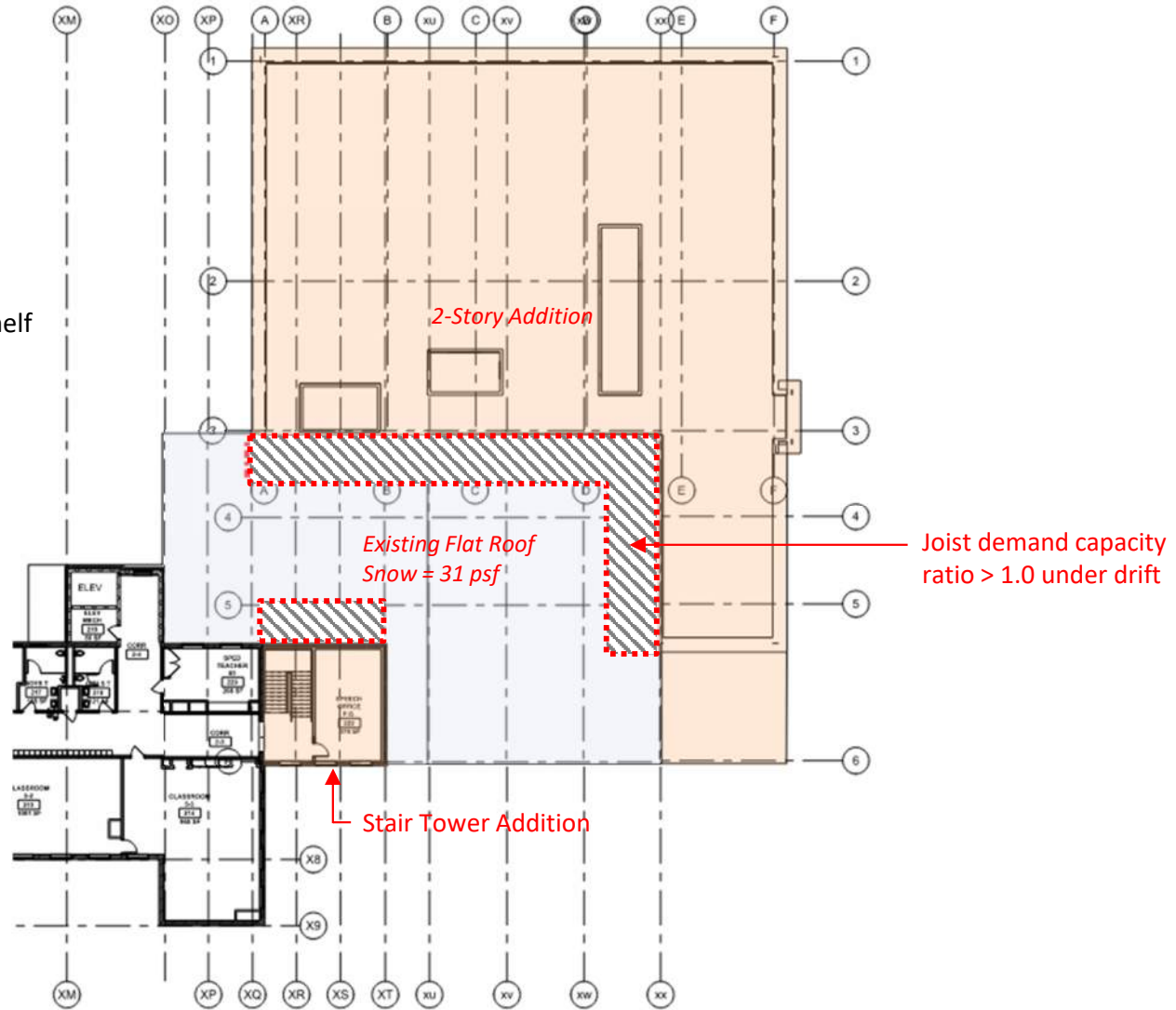


Building Section

STRUCTURAL SYSTEMS

New Work / Additions:

- Roof Framing
- Snowdrift
Proposed Cantilevered Shelf



Snow Drift Analysis

Sustainability Goals & Requirements

1. Massachusetts Stretch Code and Specialized Code Community
2. Newton's Approach to Sustainable School and Municipal Buildings
3. LEED for Schools



Specialized Code

Municipalities must vote to opt in to the Specialized Code. The code takes effect 6-11 months after adoption.

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IECC 2021
+ MA amendments
+ Stretch Code amendments
+ Specialized Code appendices

Thornton Tomasetti

MA Energy Stretch and Specialized Code

1. New Construction Addition: Stretch Code and Specialized Code

- Targeted Performance Compliance pathway or Passive House certification
 - \approx R-50 roof, \approx R-25 wall, minimize thermal bridging, triple glazing, low air leakage, \approx 80% effective air-to-air energy recovery
- Code minimum envelope via “Component Performance Alternative”
- C406 Additional Efficiency Requirements – 15 credits
- Specialized Code 3 pathways:
 - Zero Energy
 - All-Electric
 - Mixed Fuel

2. Existing Building Renovation: Stretch Code only

- Code minimum prescriptive requirements for altered portions only

Questions & Comments

