



School Building
Committee Meeting
& Community Forum

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

MSBA Process

Module 3 Activities - Feasibility Study:

Submit Preliminary Design Program (PDP)

- Educational program and Space Summary
- Existing conditions report
- Establish design parameters
- Develop and evaluate alternates

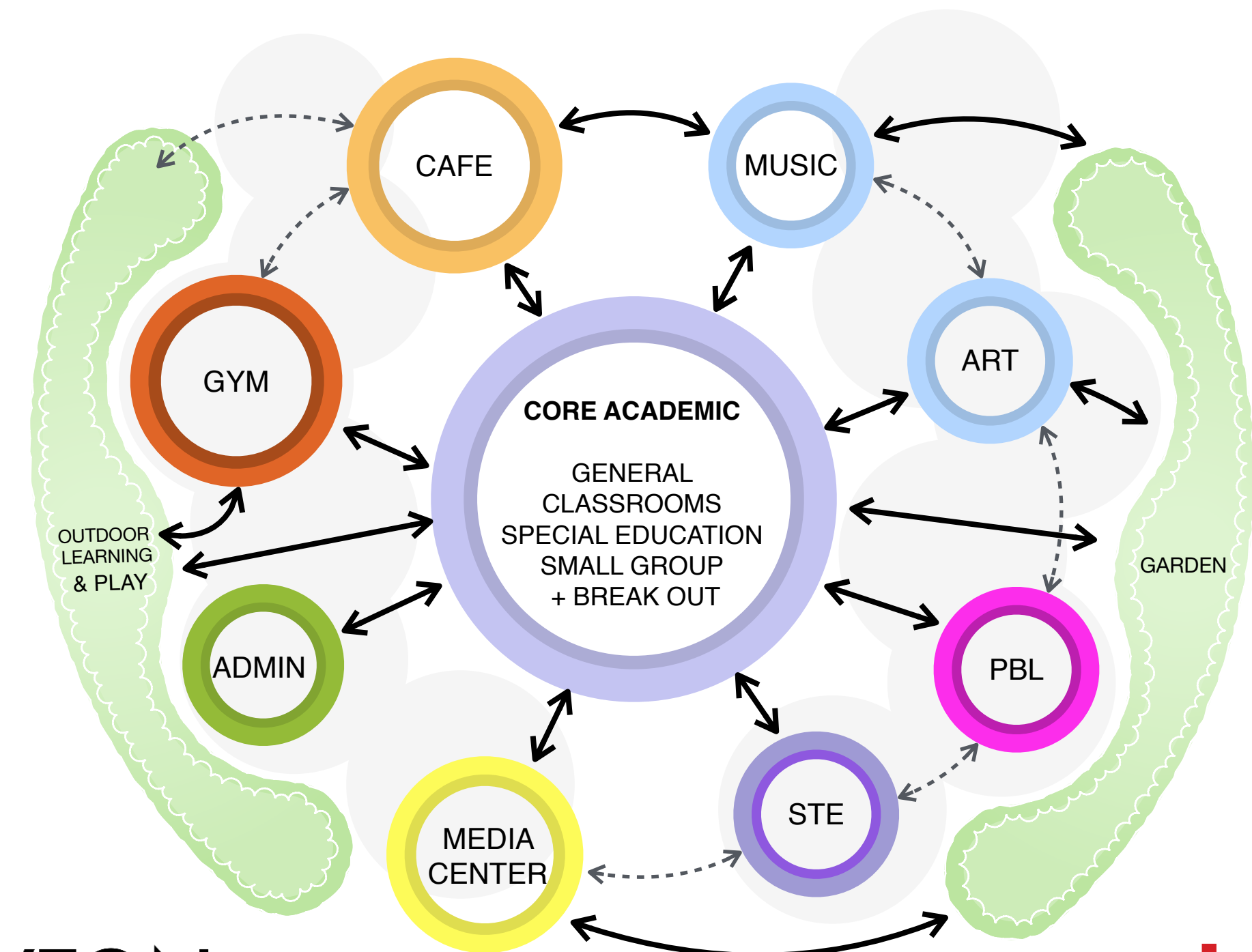
Preferred Schematic Report (PSR)

- Summarize the process and conclusions of the Preliminary and Final Evaluation of Alternatives
- Cost comparison table
- Document District's selection and recommendation of the most cost effective and educationally appropriate preferred solution to the MSBA
- Submit Preferred Schematic Report (PSR)



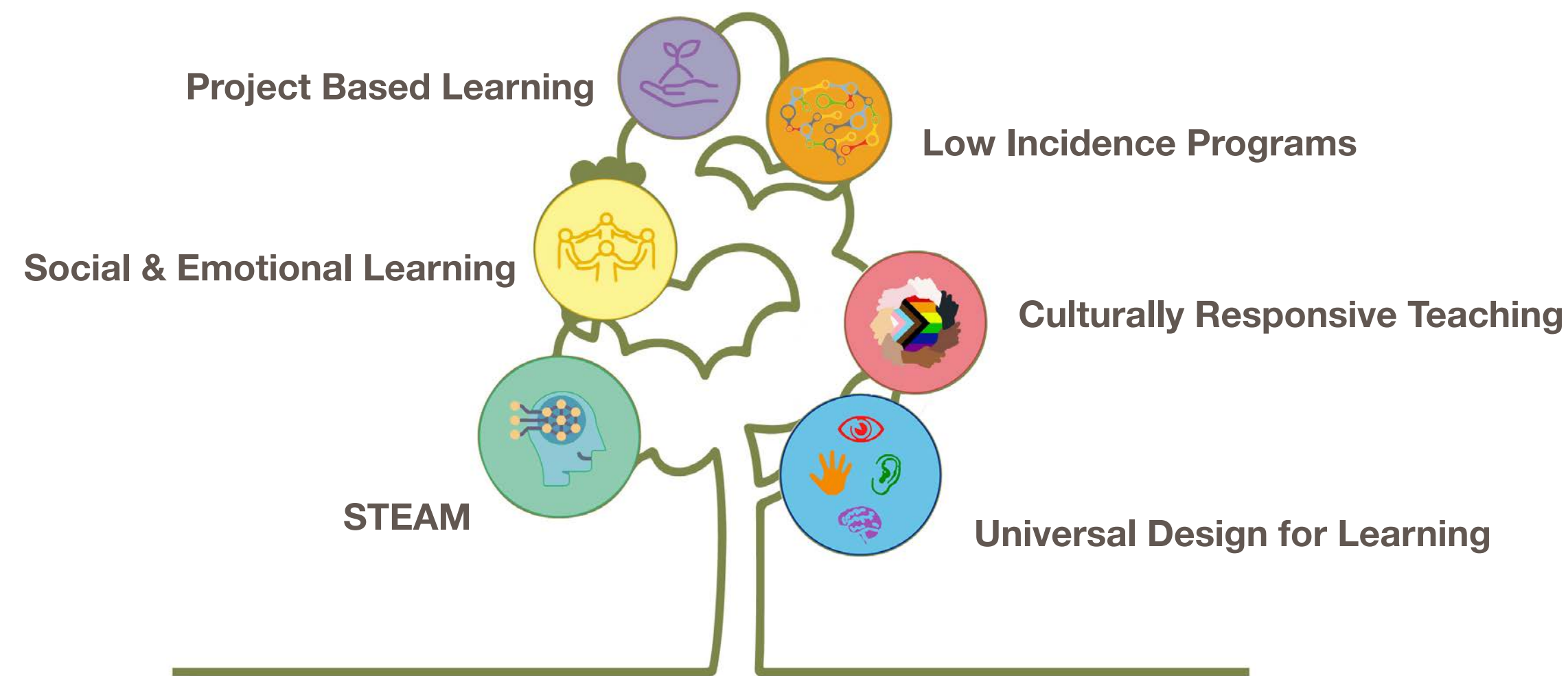
MSBA Process | Educational Program

- Identifies special education programs offered district-wide
- Identifies programs to be offered within the “new” Countryside School
- Identifies programmatic spatial relationships and adjacencies
- The program defines the space needs and total square footage for the project



Visioning Sessions | Educational Goals

- Student Centered Learning
- Personalized Learning and Support
- Inclusive and Differentiated Instruction
- Tiered Approach to Intervention
- Special Education Support
- Responsive Classroom Approach
- Multi-Sensory Approach
- Social-Emotional Learning
- Project-Based Learning
- Outdoor Learning and Connections
- Movement and Play
- Building School Community

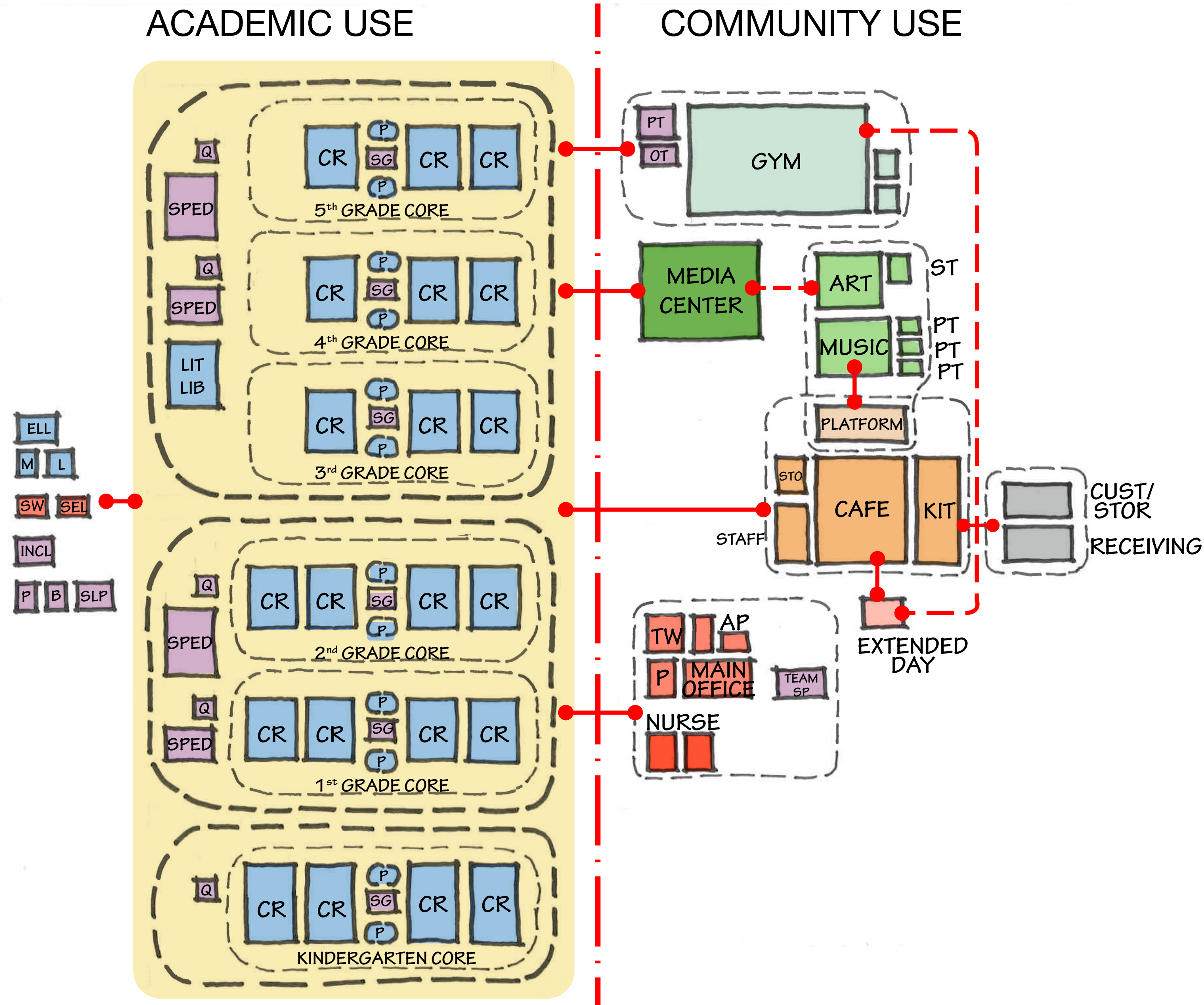


Visioning Sessions | Architectural Goals

- Warmth and Welcome
- Comfort, Flexibility and Safety
- Acoustics
- Wayfinding and Streetscapes
- Display and Exhibition
- Practicality and Durability
- Thoughtful Grade Level Configuration
- Classroom Neighborhoods
- Agile Classrooms
- Special Educational Spaces
- Enrichment Spaces
- Collaborative and Gathering Spaces
- Breakout and Quiet Spaces
- Connectivity
- Professional Work Areas
- Meeting and Small Group Spaces
- Outdoor Learning Spaces
- Sustainability



Spatial Relationships & Adjacencies



1st floor

- Administration
- Cafetorium
- Gym
- Music Room
- Kindergarten Classrooms
- Receiving

2nd floor:

- Library
- Art Room
- 1st & 2nd Grades

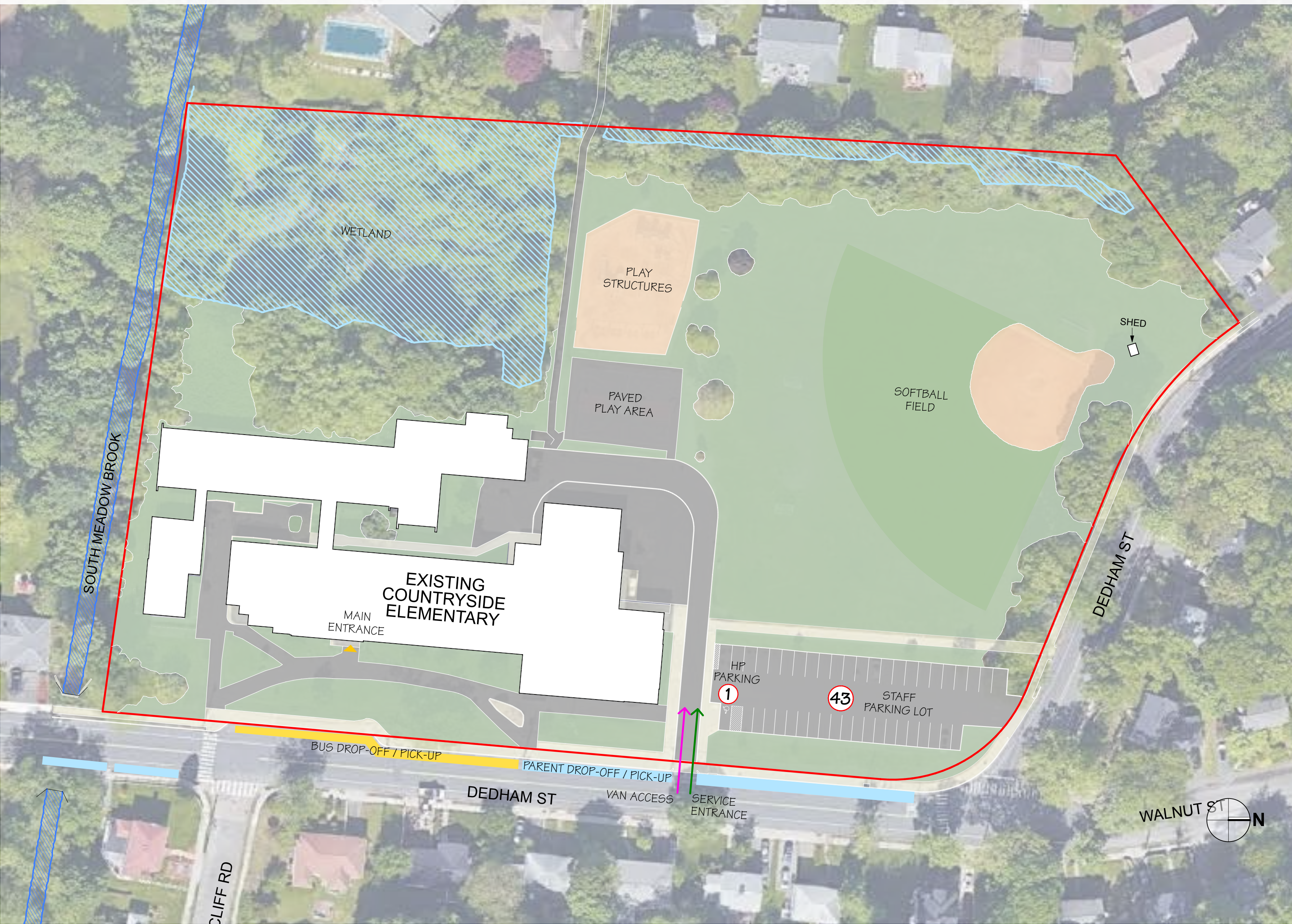
3rd floor:

- 3rd, 4th, & 5th Grades

Site Priorities

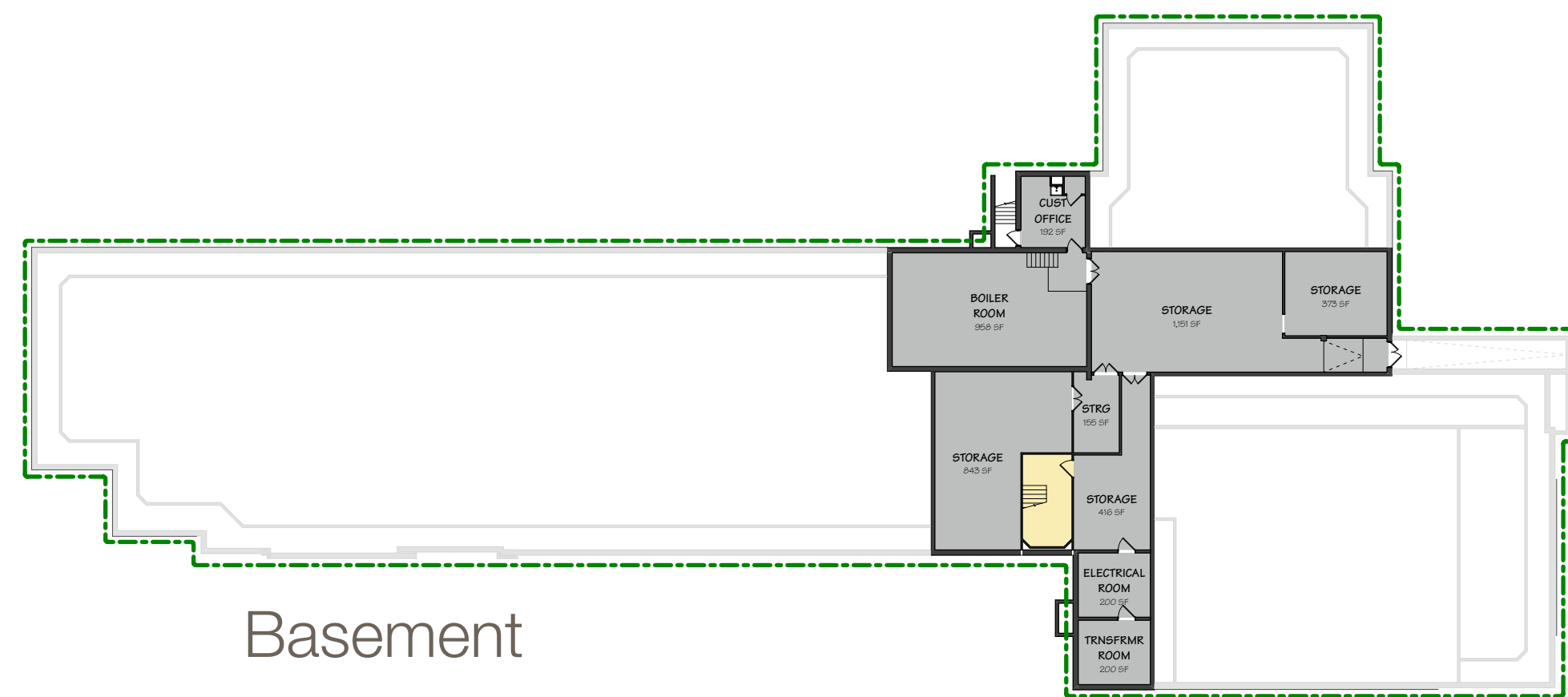
- Main entry at drop off area
- Separate bus and parent drop off areas
- Cafetorium connected to play area
- Receiving area in proximity to kitchen
- Gym with access to fields

Existing Conditions | Existing Countryside Elementary School



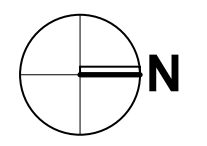
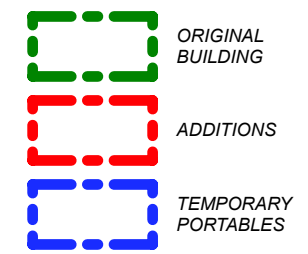
- Original building constructed 1953
- Additions constructed 1958 and 1986
- Modular portable classrooms constructed 1991-2000
- 56,150 SF including portables + basement
- 372 Students
- 7.39 Acre Site

Existing Conditions | Existing Countryside Elementary School



LEGEND

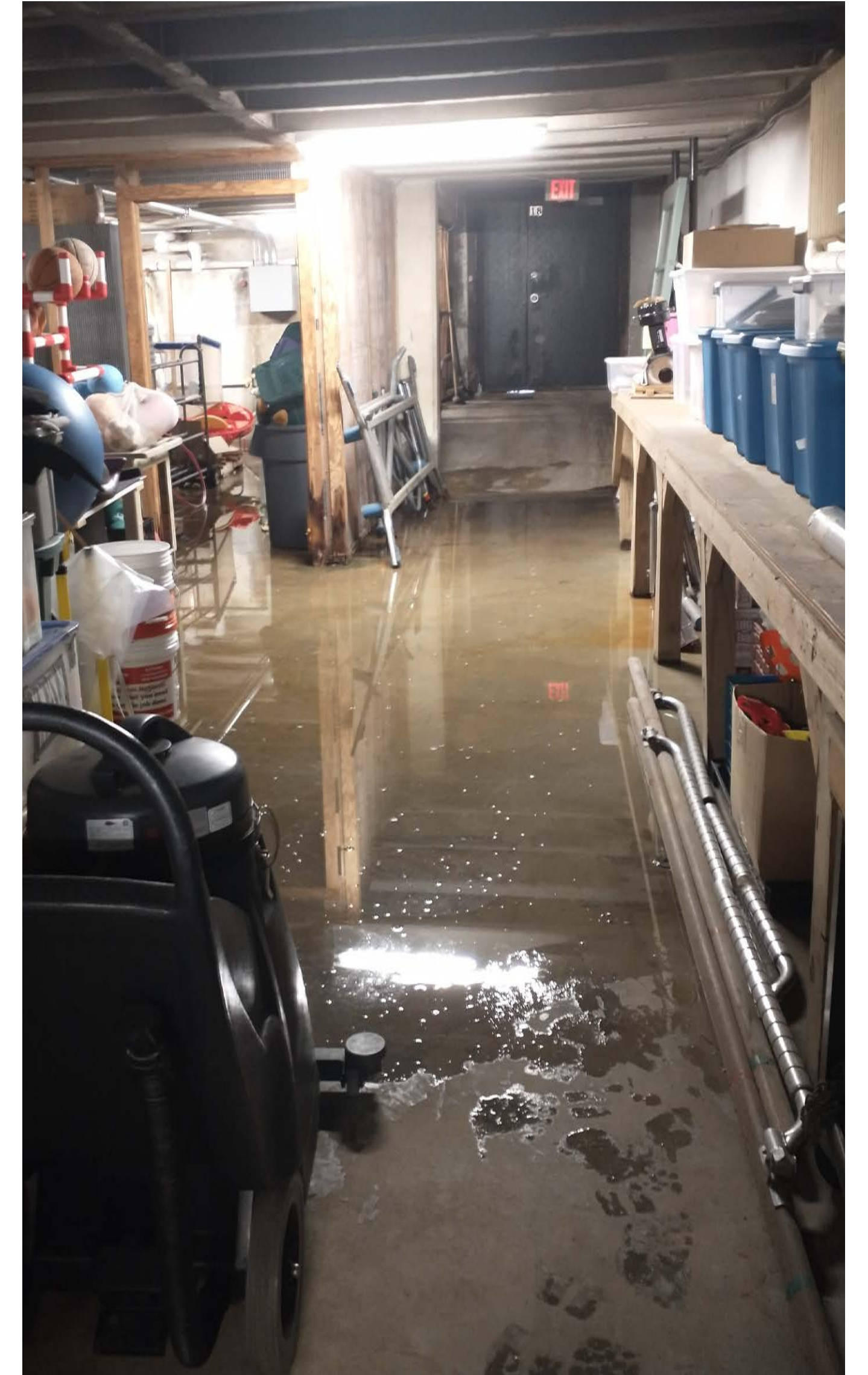
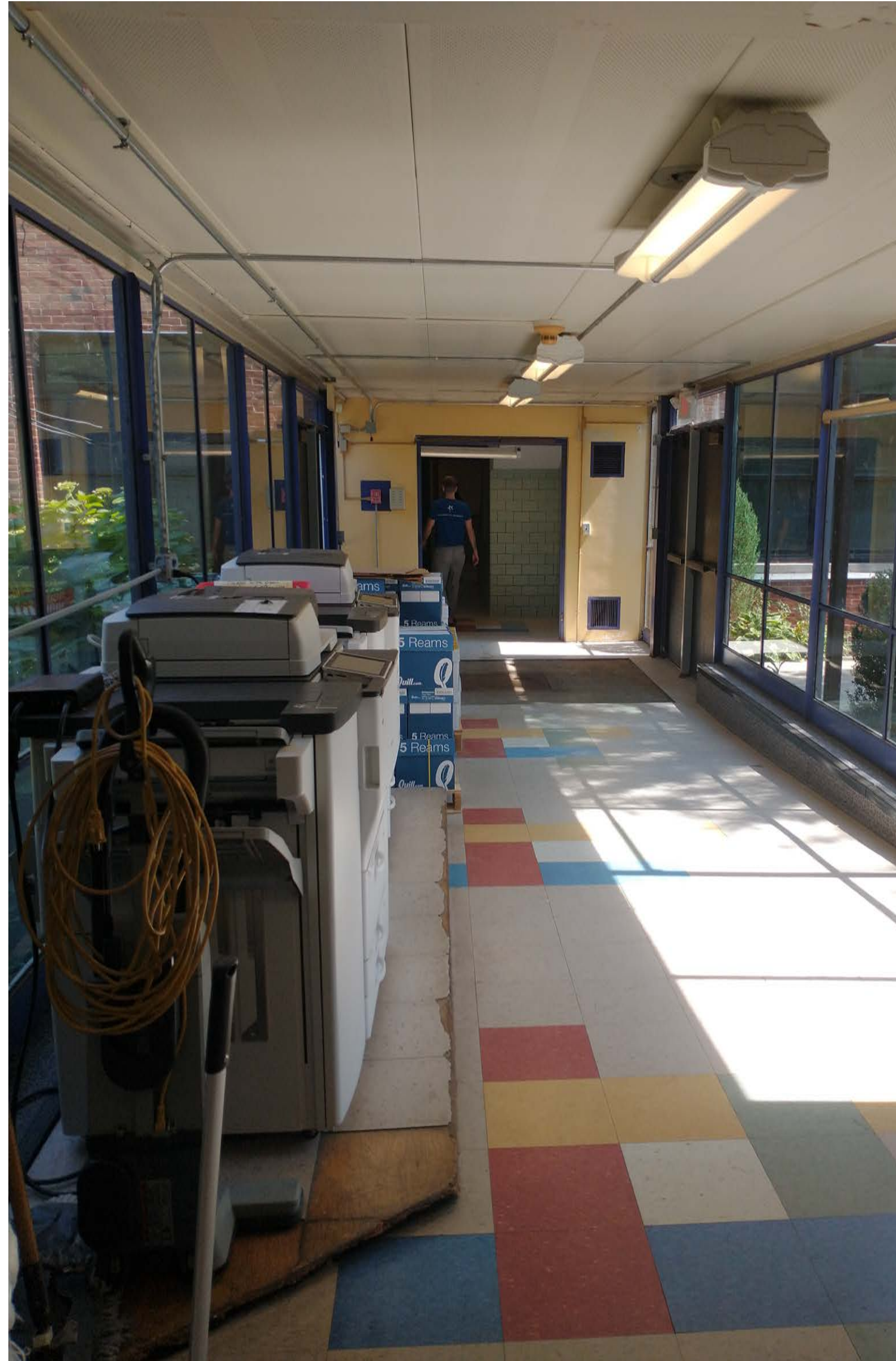
- CORE ACADEMIC SPACES
- SPECIAL EDUCATION
- ART & MUSIC
- HEALTH & PHYS ED
- MEDIA CENTER
- DINING & FOOD SERVICE
- PLATFORM
- MEDICAL
- ADMIN & GUIDANCE
- OTHER / EXTENDED DAY
- CUST, MAINT, & TOILETS
- CIRCULATION



Existing Conditions | Building Exterior



Existing Conditions | Building Interiors

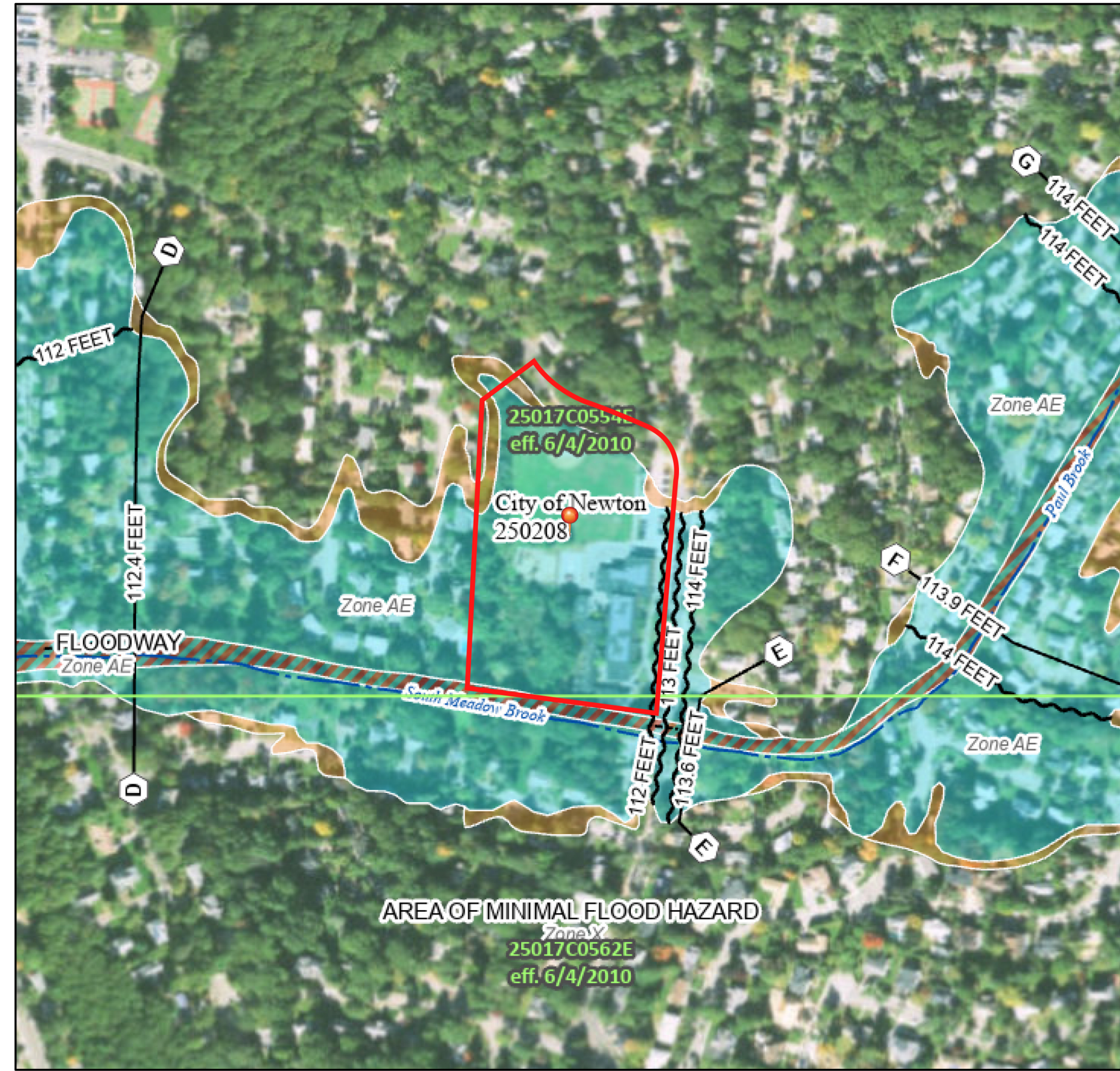


Existing Conditions | FEMA Flood Insurance Rate Map

National Flood Hazard Layer FIRMette



71°12'29"W 42°19'2"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

71°11'52"W 42°18'36"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

| | | |
|----------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE) Zone A, V, A99 |
| | | With BFE or Depth Zone AE, AO, AH, VE, AR |
| | | Regulatory Floodway |

| | | |
|-----------------------------|--|---|
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
| | | Future Conditions 1% Annual Chance Flood Hazard Zone X |
| | | Area with Reduced Flood Risk due to Levee. See Notes. Zone X |
| | | Area with Flood Risk due to Levee Zone D |

| | | |
|-------------|--|---|
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard Zone X |
| | | Effective LOMRs |
| | | Area of Undetermined Flood Hazard Zone D |

| | | |
|--------------------|--|----------------------------------|
| GENERAL STRUCTURES | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |

| | | |
|----------------|--|---|
| OTHER FEATURES | | 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation |
| | | 17.5 Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |

| | | |
|------------|--|---------------------------|
| MAP PANELS | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |



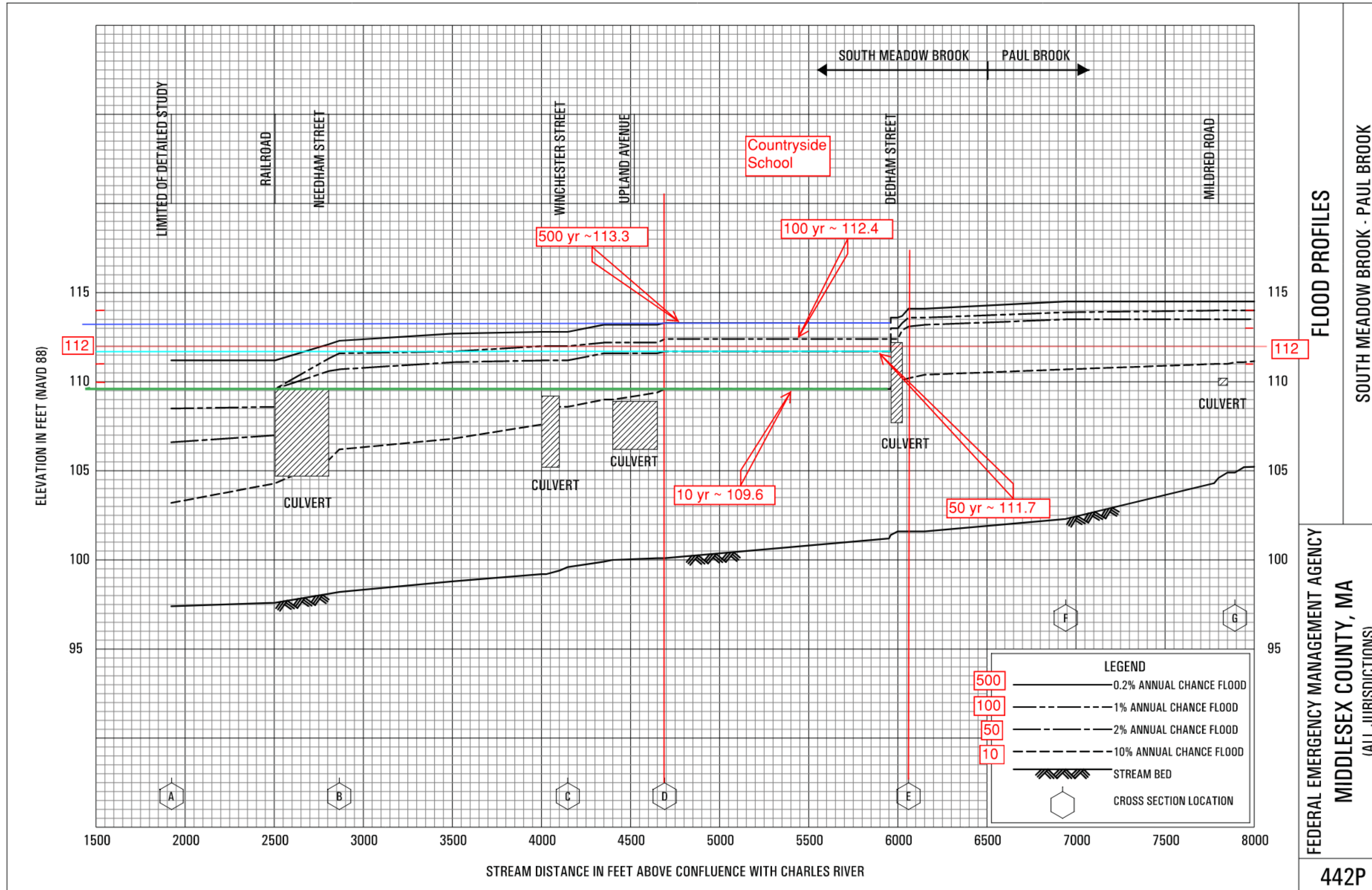
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

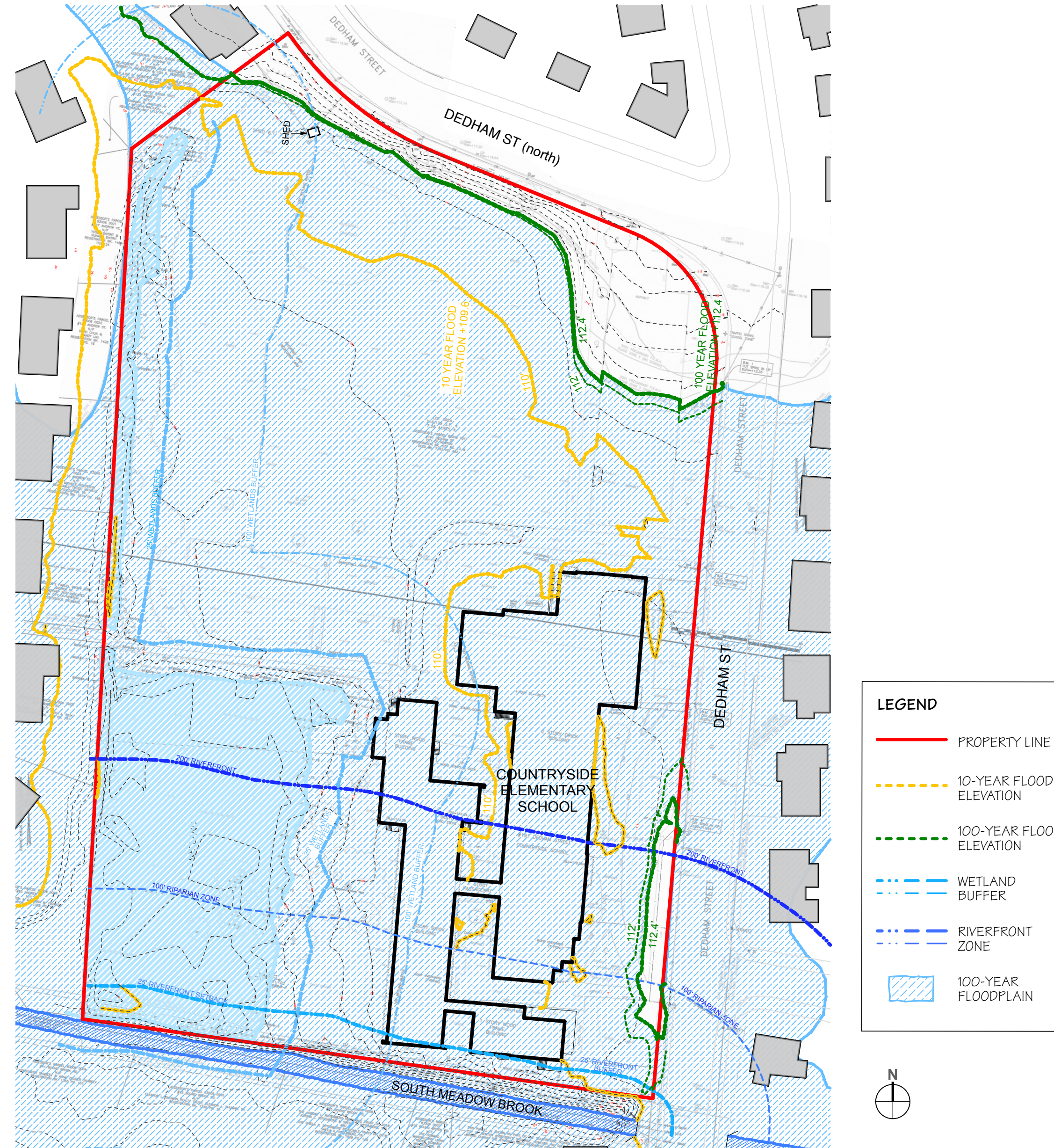
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/25/2022 at 2:36 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

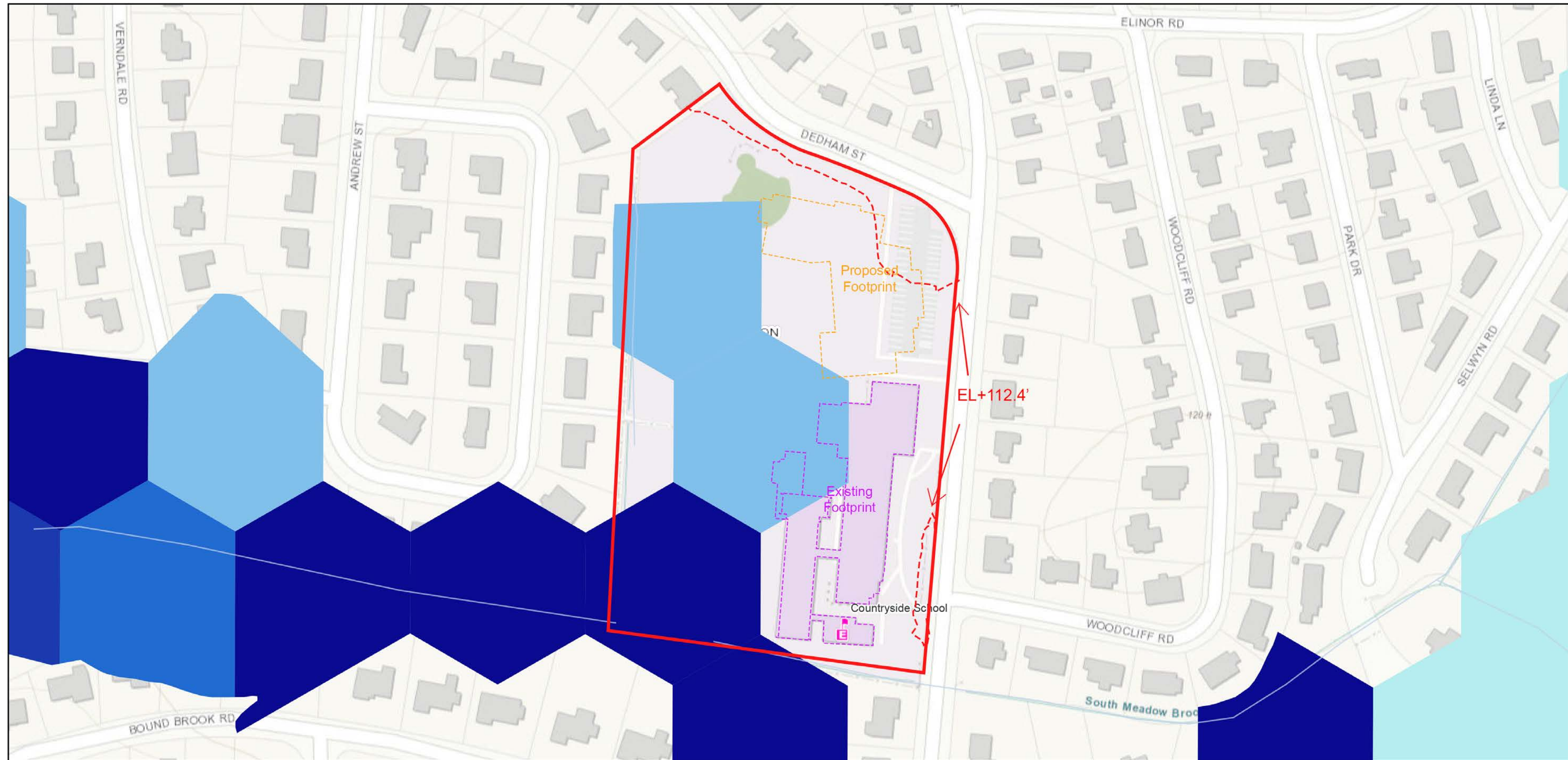
Existing Conditions | FEMA Flood Profiles



Existing Conditions | Existing Site Wetlands and Flood Plain



Site Considerations | CRWA Model for 100-yr Storm (24 hr period) - Present



2/23/2023, 2:01:50 PM

Schools

Public Elementary

Watershed

Subbasins

Hydrologic Connection

100-yr (1% AEP) 24-hour storm - Present

No Flood

>0' - 0.5'

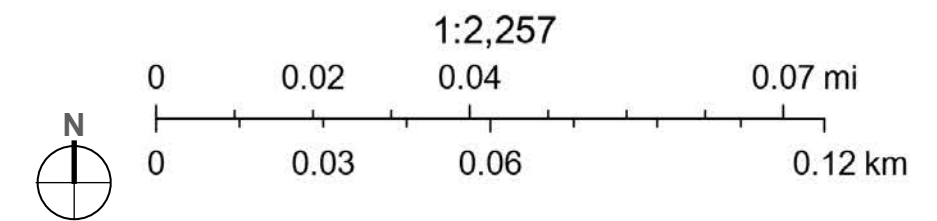
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>1.0' - 2.0'

>2.0' - 3.0'

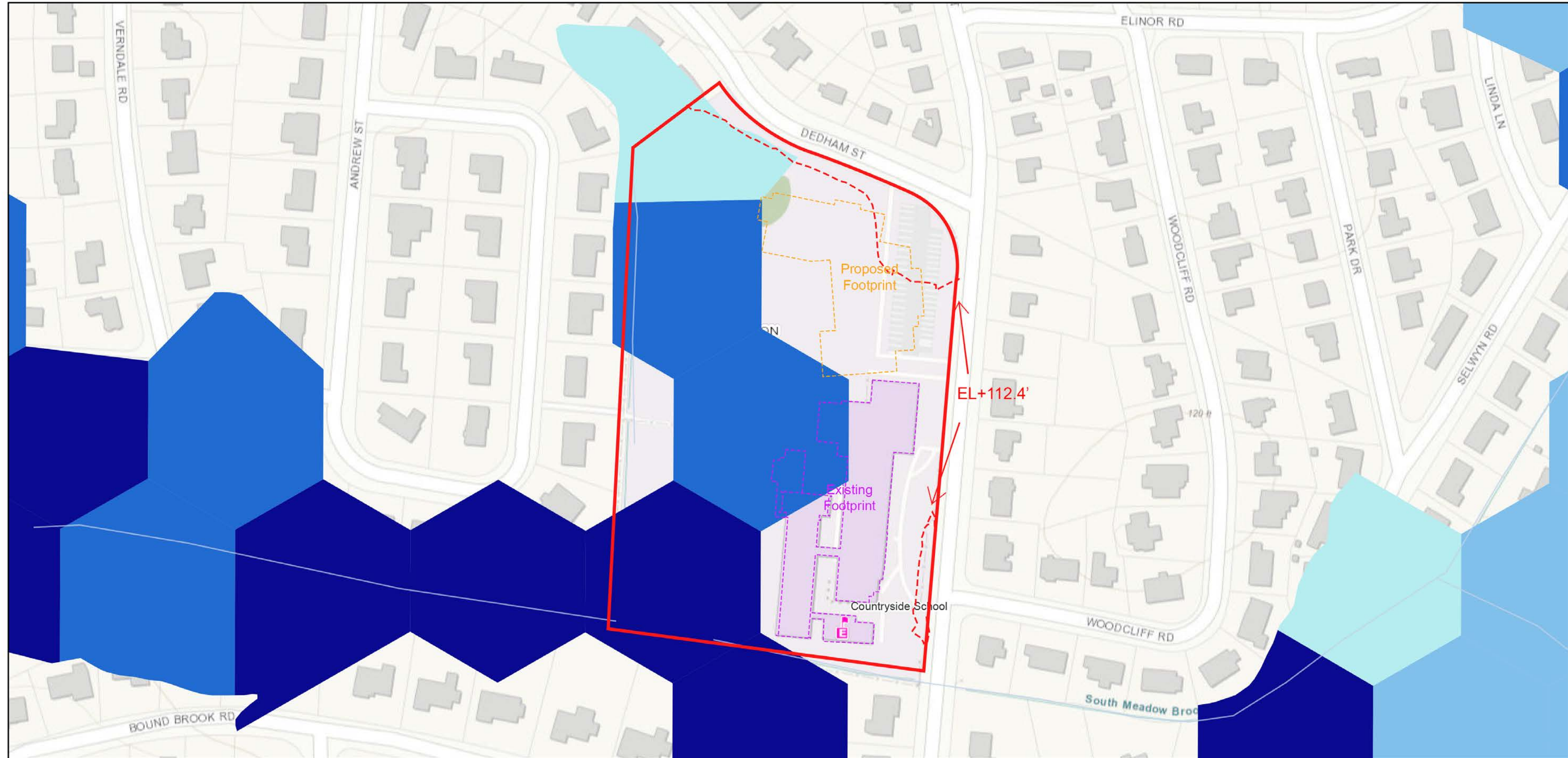
>3.0'

Massachusetts Municipalities



City of Newton, MassGIS, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Site Considerations | CRWA Model for 100-yr Storm (24 hr period) - 2030



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Schools

Public Elementary

Watershed

Subbasins

Hydrologic Connection

100-yr (1% AEP) 24-hour storm - 2030

No Flood

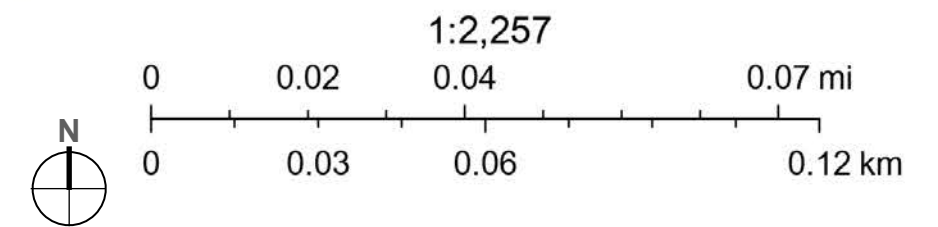
>0' - 0.5'

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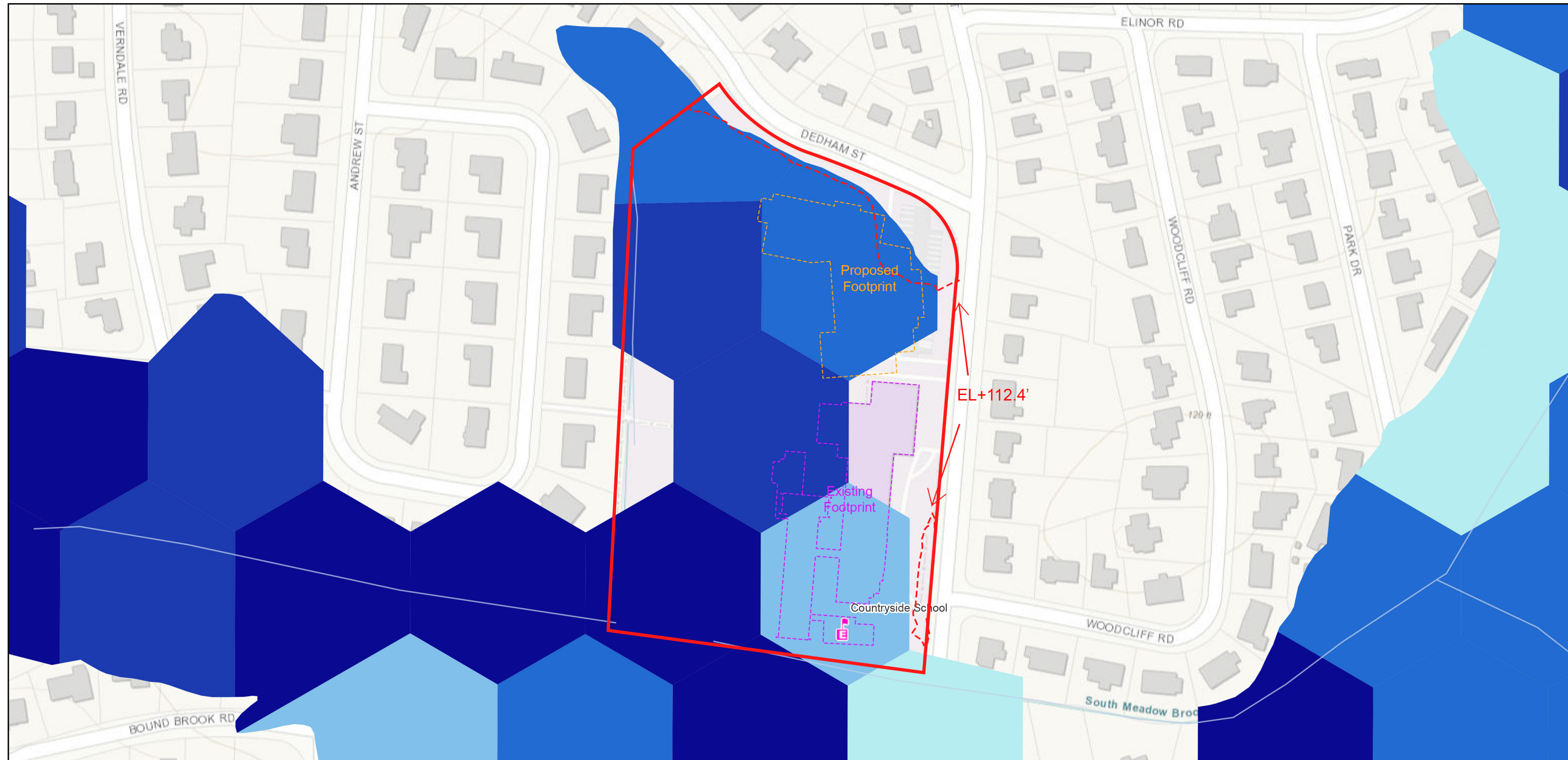
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Massachusetts Municipalities



City of Newton, MassGIS, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Site Considerations | CRWA Model for 100-yr Storm (24 hr period) - 2070



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Schools

Public Elementary

Watershed

Subbasins

Hydrologic Connection

100-yr (1% AEP) 24-hour storm - 2070

No Flood

>0' - 0.5'

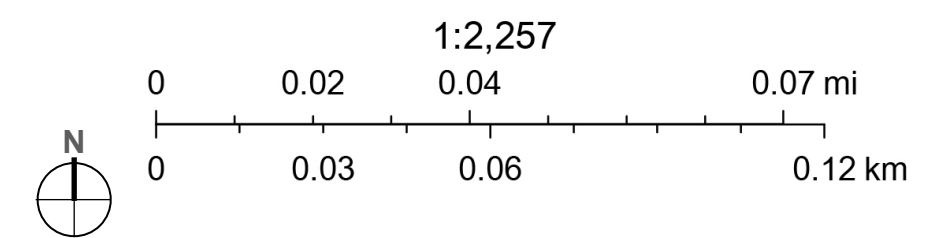
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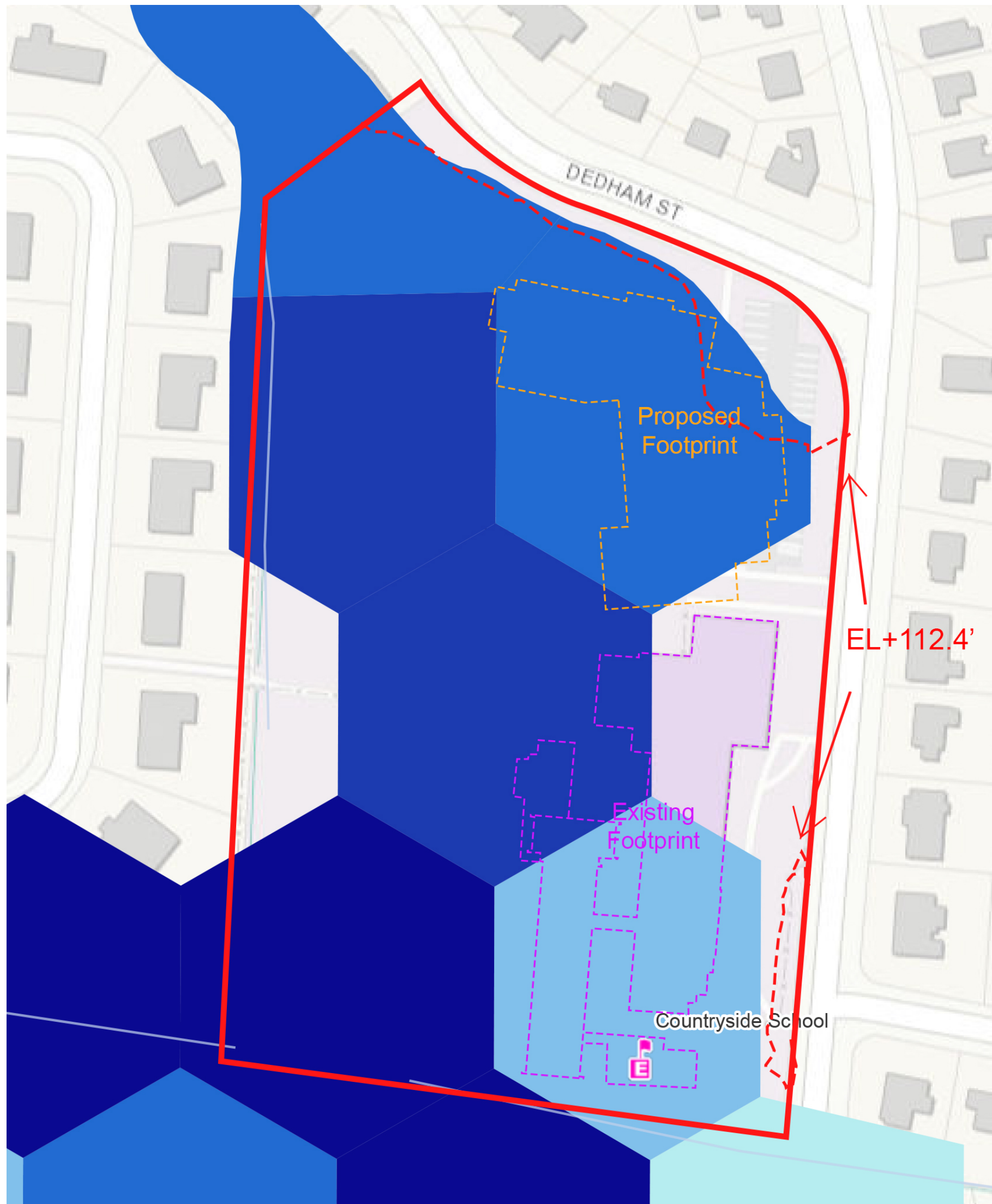
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Massachusetts Municipalities

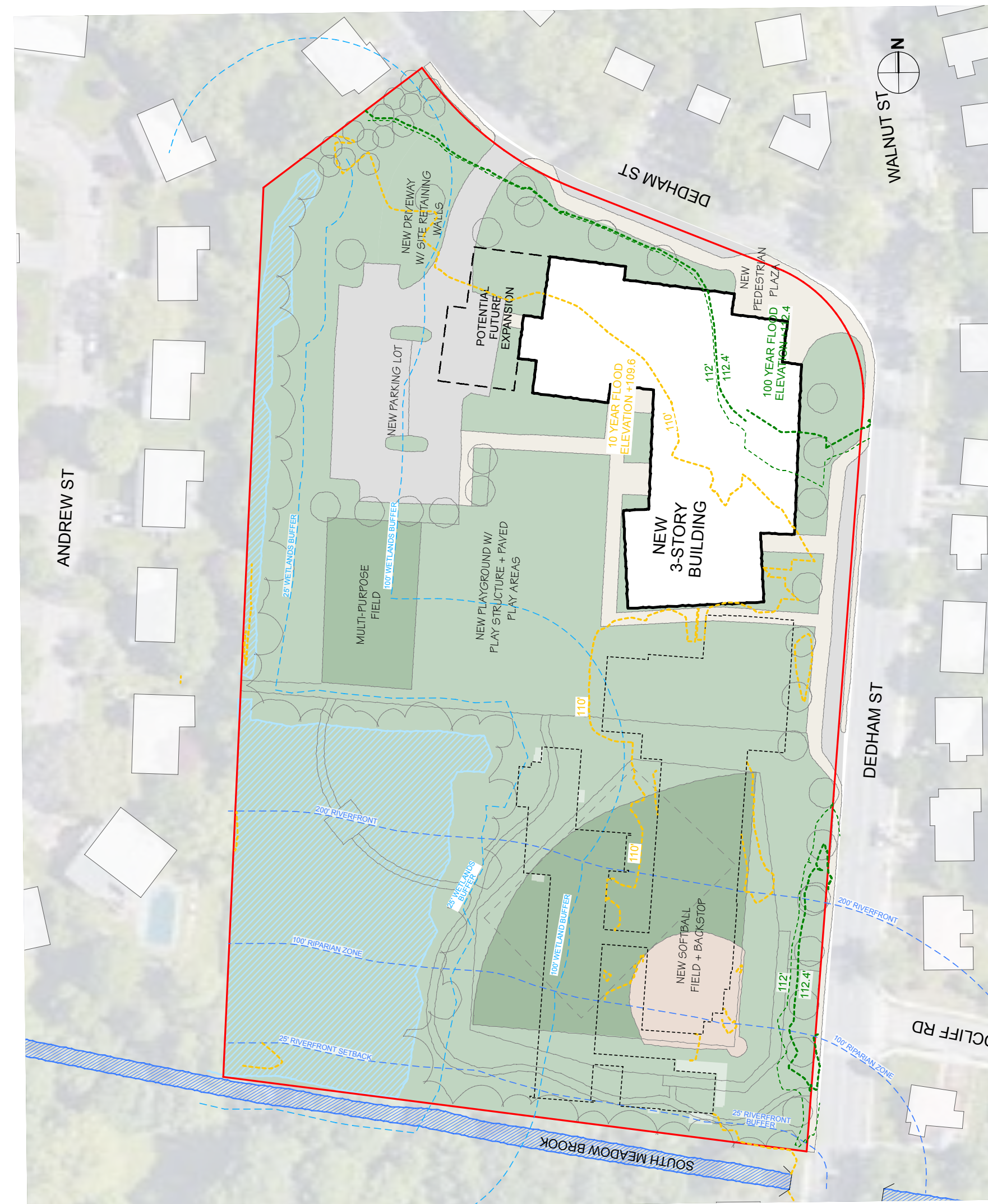


City of Newton, MassGIS, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Site Considerations | CRWA Model + Approach 6 Site Layout



100-yr Storm (24 hr period) - 2070



Site Layout - Approach 6

Approach 6 | 465 Students | New Construction | 75,500 SF



- Matches building volume within floodplain; may require partial construction on piers
- Building outside 100-ft wetland buffer
- Separate drop off for cars, buses, vans and service
- Site improvements include new playground, fields and parking
- Provides opportunity for occupied site during construction
- Future expansion can only occur on upper floors on piers due to floodplain restrictions
- Meets enrollment projections

Preferred Approach to further study

Approach 6A | Preliminary Location Options



- Entrance to main lobby centrally located between Dedham Street north & south
- First floor same level as main entrance (two entryways)
- Takes advantage of higher ground above 100-yr flood elevation for entry plaza
- Service and loading area access from Dedham Street east - does not require additional fill and retaining walls
- Gym location - direct access to fields and playground
- Construction of new building is approximately 10 feet away from existing building
- Classroom wing has north-south orientation

Approach 6A | 465 Students | New Construction | 75,500 SF

LEGEND

- CORE ACADEMIC SPACES
- SPECIAL EDUCATION
- ART & MUSIC
- HEALTH & PHYS ED
- MEDIA CENTER
- DINING & FOOD SERVICE
- PLATFORM
- MEDICAL
- ADMIN & GUIDANCE
- OTHER / EXTENDED DAY
- CUST, MAINT, & TOILETS
- CIRCULATION

0 16 32

- Meets MSBA Space Guidelines
- Ideal spatial relationships and adjacencies
- Gymnasium on first floor
- Kindergarten on first floor
- North / South solar orientation classrooms



Approach 6B | Preliminary Location Options

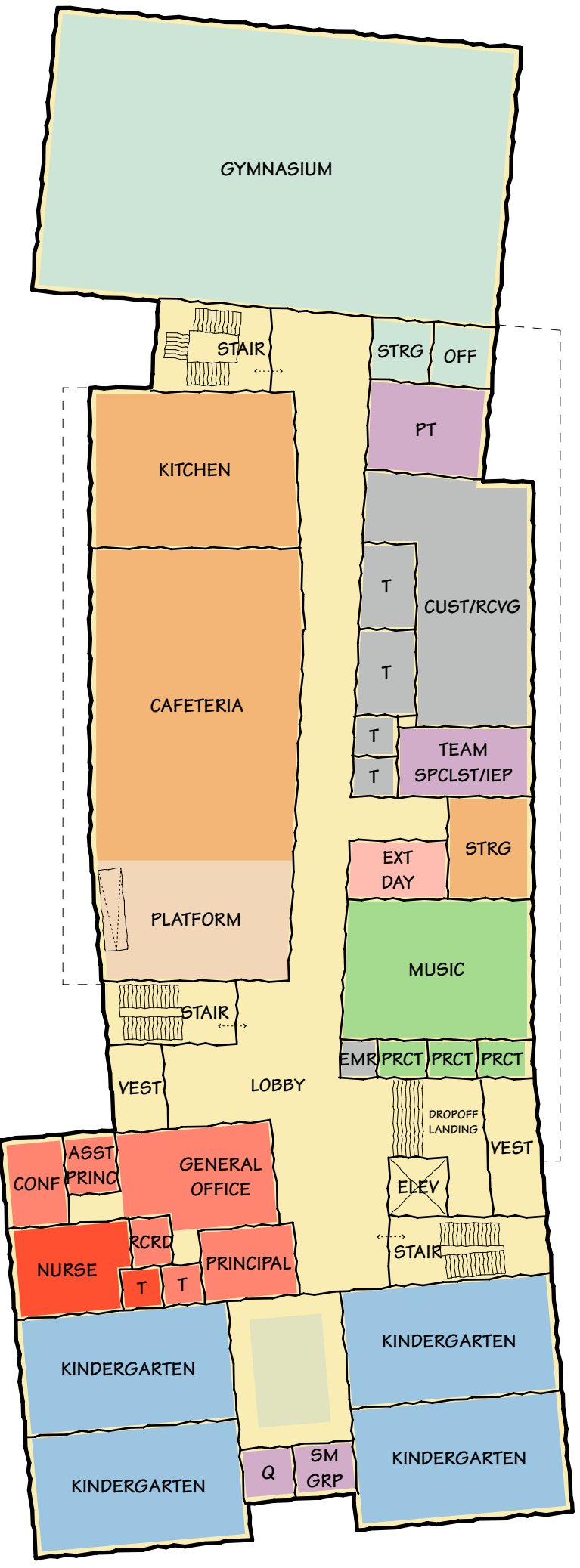
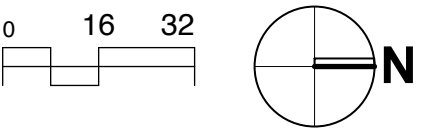


- Entry to main lobby at Dedham Street north and at playground
- First floor split level from main entrance at Dedham Street north (two entryways)
- Entry plaza will require fill within 100-yr flood elevation
- Service and loading area access from Dedham Street north - will require fill and retaining walls
- Gym location - direct access to fields and playground
- Construction of new building is approximately 100 feet away from existing building
- Classroom wing has north-south orientation

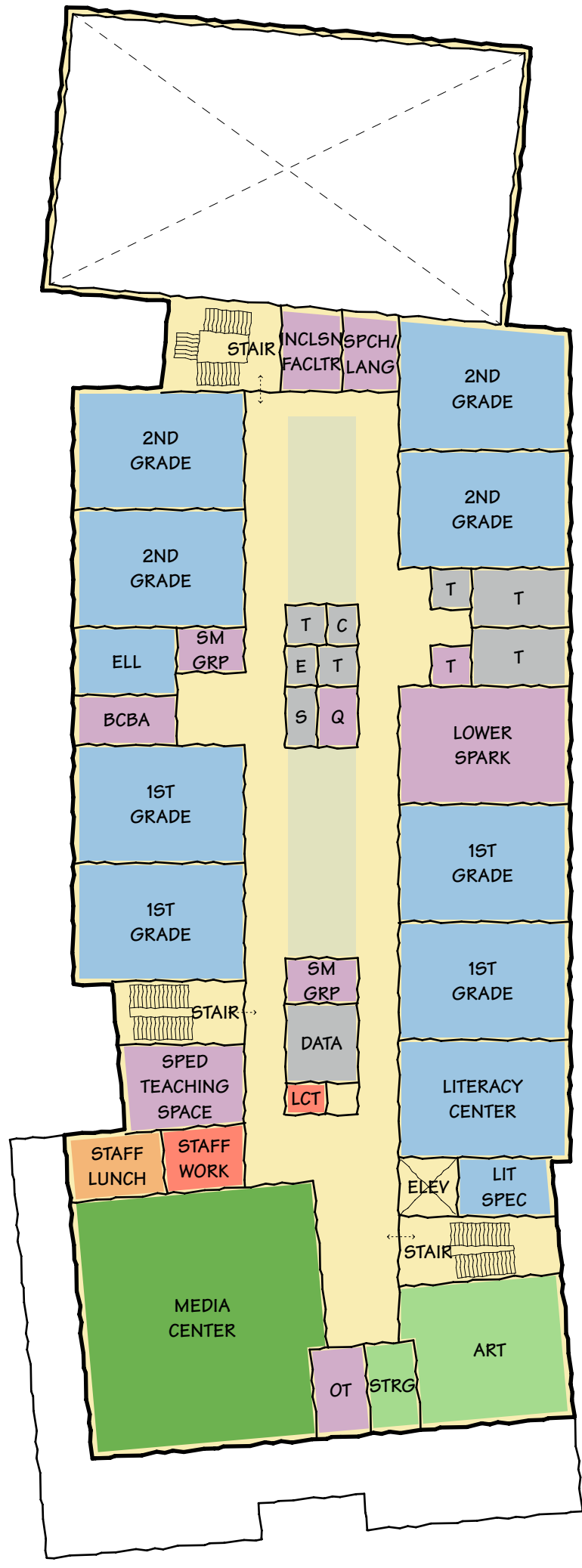
Approach 6B | 465 Students | New Construction | 75,500 SF

LEGEND

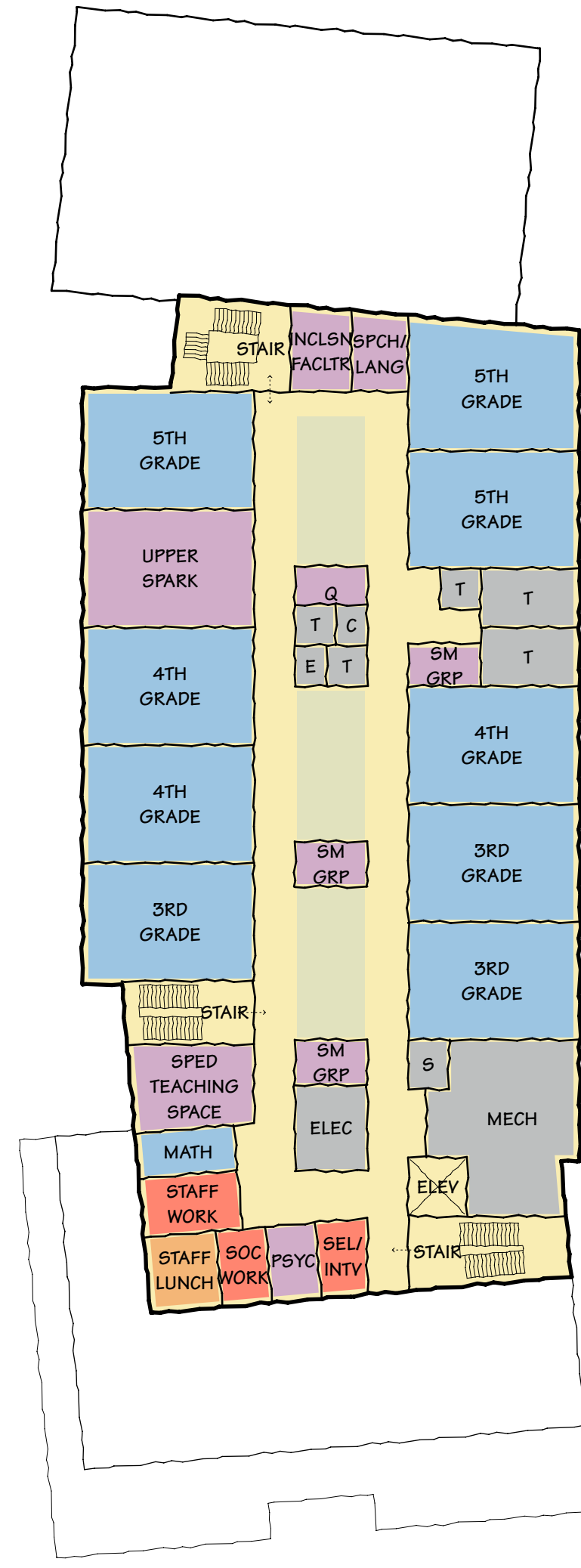
- CORE ACADEMIC SPACES
- SPECIAL EDUCATION
- ART & MUSIC
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- DINING & FOOD SERVICE
- PLATFORM
- MEDICAL
- ADMIN & GUIDANCE
- OTHER / EXTENDED DAY
- CUST, MAINT, & TOILETS
- CIRCULATION



First Floor



Second Floor



Third Floor

- Meets MSBA Space Guidelines
- Ideal spatial relationships and adjacencies
- Gymnasium on first floor
- Kindergarten on first floor
- North / South solar orientation classrooms

Approach 6C | Preliminary Location Options








- Entry to main lobby accessed from interior of site - bus and parent drop-off/pick up is not directly adjacent to the school entrance
- First floor same level as main entrance (one entry way)
- Entire building and entry plaza within 100-yr flood elevation
- Service and loading area access from Dedham Street north - will require fill and retaining walls
- Gym location - direct access to fields and playground
- Construction of new building is over 100 feet away from existing building
- Classroom wing has north-south orientation

Approach 6D | Preliminary Location Options








- Entry to main lobby accessed from interior of site - bus and parent drop-off/pick up is not directly adjacent to the school entrance
- First floor same level as main entrance (one entry way)
- Entire building and entry plaza within 100-yr flood elevation
- Service and loading area access from Dedham Street north - will require fill and retaining walls
- Gym location - not adjacent to playground and field, but building can be mirrored for gym adjacent to playground
- Construction of new building is over 100 feet away from existing building
- Classroom wing has east-west orientation

Preliminary Criteria Matrix

| COUNTRYSIDE ELEMENTARY SCHOOL – 191 Dedham Street, Newton, MA | | Criteria Matrix | | | | | |
|---|--|---|---|---|---|---|------|
| | | ● Favorable | ⊙ Neutral | ○ Unfavorable | | | |
| | | 465 STUDENT ENROLLMENT | | | | | |
| | | EX | 6A | 6B | 6C | 6D | |
| | | Existing School at Existing Location | L-SHAPE Northeast Corner | BAR SHAPE North Perimeter | L-SHAPE Northwest Corner | BAR SHAPE Western Perimeter | |
| BUILDING LOCATION EVALUATION CRITERIA MATRIX | |  |  |  |  |  | |
| | Building and Site Facts | | | | | | |
| | 1 | Student enrollment population | 372 | 465 | 465 | 465 | 465 |
| | 2 | Size of site (acres) | 7.39 | 7.39 | 7.39 | 7.39 | 7.39 |
| | 3 | Site Environmental (wetlands, etc.) | 2.02 | 2.02 | 2.02 | 2.02 | 2.02 |
| 4 | Meets MA Flood Regulations (prereq.) | NO | YES | YES | YES | YES | |
| 5 | Site usable (acres) | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | |
| 6 | Building gross square feet (GSF) | 56,150 | 75,500 | 75,500 | 75,500 | 75,500 | |
| 7 | Building Footprint gross square feet (GSF) | 39,940 (including modulares) | 33,000 | 33,650 | 32,000 | 32,700 | |
| 8 | Building volume within 100-year Flood Elevation (cubic feet) (Assumes standard foundation w/ slab on grade - for comparison purposes, no construction on piers) | 84,097 | 73,600± | 78,750± | 99,100± | 117,300± | |
| 9 | Site improvements/developed area (SF) | 193,060 | 200,000 | 199,350 | 201,000 | 200,300 | |
| 10 | Distance from wetland - 25 ft "No Disturb" zone (closest part of bldg in feet) | 0 | 175 | 15 | 25 | 20 | |
| 11 | Building inside 100' wetland buffer | YES | NO | YES | YES | YES | |
| 12 | Staff Parking Spaces | 43 | 46 | 43 | 43 | 44 | |
| 13 | HP Parking Spaces | 1 | 2 | 2 | 2 | 2 | |
| 14 | Van Parking Spaces | 3 | 5 | 5 | 5 | 5 | |
| 15 | Bus Drop-off/Pick-up zone number of buses accommodated | 2 + 2 onstreet | 4 | 4 | 4 | 4 | |
| Cost and Schedule | | | | | | | |
| 1 | Project Cost, \$million | | | | | | |
| 2 | Allows students to move in to new school Fall 2027 | | ● | ● | ● | ● | |
| 3 | Requires swing space | | ● | ● | ● | ● | |
| 4 | Maintains standard site plan approval schedule | | ● | ● | ● | ● | |

Preliminary Criteria Matrix

| BUILDING LOCATION EVALUATION CRITERIA MATRIX | | 465 STUDENT ENROLLMENT | | | | |
|--|--|---|---|---|---|---|
| | | EX | 6A | 6B | 6C | 6D |
| | | Existing School at Existing Location | L-SHAPE Northeast Corner | BAR SHAPE North Perimeter | L-SHAPE Northwest Corner | BAR SHAPE Western Perimeter |
| | |  |  |  |  |  |
| Educational | | | | | | |
| 1 | Provides flexibility for future growth (construction on piers) | | ● | ● | ● | ⊙ |
| 2 | Provides flexibility for educational innovations / pedagogy | | ● | ● | ● | ● |
| 3 | Optimizes configuration and adjacency of teaching spaces | | ● | ● | ● | ● |
| 4 | Provides outdoor learning opportunities | | ● | ● | ● | ● |
| 5 | Allows for efficient program design layout | | ● | ● | ● | ● |
| 6 | Minimizes existing school disruption | | ⊙ | ● | ● | ● |
| Safety & Security | | | | | | |
| 1 | Optimizes safety and efficiency of on-site bus and van drop off | | ● | ● | ● | ● |
| 2 | Separates safe circulation of bus, vehicle, pedestrian and bike access | | ● | ● | ● | ● |
| 3 | Improves off site traffic impact | | ● | ● | ● | ● |
| 4 | Optimizes site for safe pedestrian and bike access | | ● | ● | ⊙ | ⊙ |
| 5 | Optimizes safe building access | | ● | ● | ○ | ○ |
| Community | | | | | | |
| 1 | Provides accessibility to community used spaces (interior) | | ● | ⊙ | ○ | ● |
| 2 | Accommodates community program needs / extended day program | | ● | ● | ● | ● |
| 3 | Enhances community connections | | ● | ● | ● | ● |
| 4 | Enhances community green/open space and playground | | ● | ● | ● | ● |
| 5 | Construction Impact on abutters | | ● | ⊙ | ⊙ | ○ |
| Building | | | | | | |
| 1 | Meets current building codes (prereq.) | | ● | ● | ● | ● |
| 2 | Meets MAAB/ADA requirements (prereq.) | | ● | ● | ● | ● |
| 3 | Meets healthy building environment (prereq.) | | ● | ● | ● | ● |
| 4 | Requires less building construction on piers | | ● | ● | ○ | ○ |
| 5 | Meets hazardous material remedial requirements (prereq.) | | ● | ● | ● | ● |
| 6 | Allows for a contextually sensitive design | | ● | ● | ● | ● |
| 7 | Optimizes use of natural light and daylighting | | ● | ● | ● | ⊙ |
| 8 | Optimizes connection of outdoor/indoor space, integration with site | | ● | ● | ○ | ○ |
| 9 | Allows efficient attainment of Green School/Stretch Code requirements | | ● | ● | ● | ● |

Preliminary Criteria Matrix

| | | 465 STUDENT ENROLLMENT | | | | |
|---|--|---|---|---|---|---|
| | | EX | 6A | 6B | 6C | 6D |
| | | Existing School at Existing Location | L-SHAPE Northeast Corner | BAR SHAPE North Perimeter | L-SHAPE Northwest Corner | BAR SHAPE Western Perimeter |
| BUILDING LOCATION EVALUATION CRITERIA MATRIX | |  |  |  |  |  |
| Site | | | | | | |
| 1 | Meets MAAB/ADA requirements (prereq.) | | ● | ● | ● | ● |
| 2 | Meets environmental remedial requirements (prereq.) | | ● | ● | ● | ● |
| 3 | Maximizes efficient utilization of site | | ● | ● | ⊙ | ⊙ |
| 4 | Optimizes outdoor program space and green space | | ● | ⊙ | ⊙ | ⊙ |
| 5 | Optimizes safety and efficiency of on-site bus and van drop off | | ● | ● | ⊙ | ⊙ |
| 6 | Separates safe circulation of bus, vehicle, pedestrian and bike access | | ● | ● | ● | ● |
| 7 | Provides sufficient parking for teachers, staff + visitors | | ⊙ | ⊙ | ⊙ | ⊙ |
| 8 | Improves off site traffic impact | | ● | ● | ● | ● |
| 9 | Optimizes site for safe pedestrian and bike access | | ● | ● | ⊙ | ⊙ |
| 10 | Allows for future expansion | | ● | ● | ● | ○ |
| Sustainability | | | | | | |
| 1 | Achieves City goal for fossil free building HVAC systems | | ● | ● | ● | ● |
| 2 | Optimizes building orientation | | ● | ● | ● | ○ |
| 3 | Optimizes solar (PV) opportunities | | ● | ● | ● | ● |
| 4 | Allows efficient attainment of Green School/Stretch Code requirements | | ● | ● | ● | ● |
| 5 | Optimizes building envelope thermal performance | | ● | ● | ● | ● |
| Gross Scoring | | | 41 | 39 | 28 | 23 |

Preliminary Site Plan | Approach 6A



Preliminary Massing Studies | Approach 6A



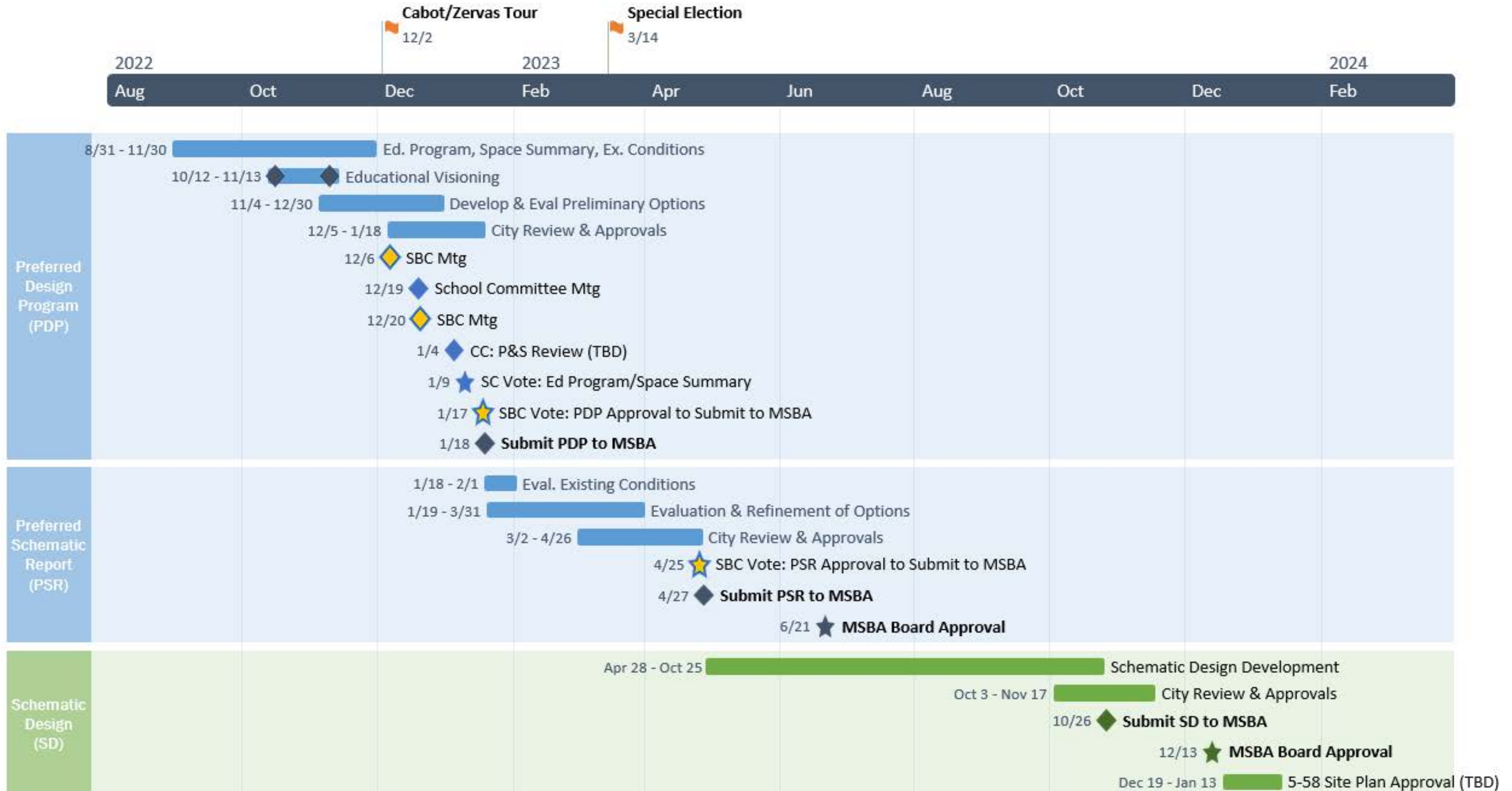
Preliminary Massing Studies | Approach 6A



Preliminary Massing Studies | Approach 6A



Project Timeline/Schedule





School Building
Committee Meeting
& Community Forum

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA