



**MANCHESTER**  
SCHOOL DISTRICT

# **Northwest Elementary School**

Educational and Facilities  
Master Plan

**smma**



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## Summary

Included in this report are assets that were collected during the long term facility planning process. Each school's report package contains an At-A-Glance summary report, Facility Evaluation Criteria sheets, and site plan(s). Site plans are included to illustrate the context of the building in relationship to the city, neighborhood, and other adjacent amenities and parcels. The At-A-Glance summary sheets include general information about each school building including school data, such as population and grade structure, etc., site and building data, tax assessor's information, community uses, State of NH Code of Administrative Rules, Operational Data, and Cost model information for repairs and renovations. The Facility Evaluation Criteria sheets are the facility assessment team's findings at each Tier 1 school building including building physical assets, sites, and educational facility effectiveness. On April 24, 2023, the assessment team visited all the Tier 1 school buildings.

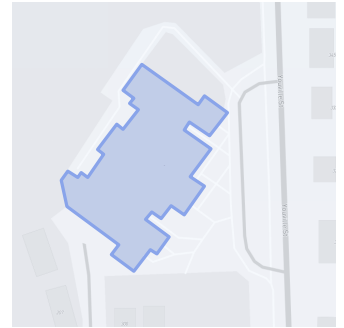
SCHOOL NAME

Northwest Elementary School

SITE VISIT

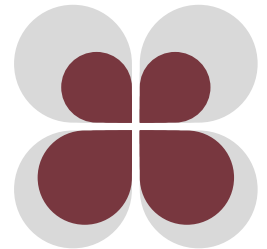
August 2023

# At-a-Glance



FA: Building

FA: Site



EFE: Learning

EFE: Spaces



Excellent

Deficient



### Address

300 Youville Street, Manchester, NH 03102



### Gross Square Footage (GSF)

51,475 sf



### Grades

Kindergarten–4th Grade



### Site Acreage

4.56



### Hours of Operation

8:25am–2:50pm



### Date of Construction

1987



### 2022–2023 Enrollment

489



### Date of Addition Construction

SCHOOL NAME

Northwest Elementary School

SITE VISIT

August 2023

# Site Plans



SCHOOL NAME

**Northwest Elementary School**

SITE VISIT

**August 2023**





# Facility Evaluation Criteria

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Roof Membrane (Architectural)</b>					
	"Existing flat roof systems were replaced in 2004 with EPDM membrane. Several areas of ponding were observed on all flat roofs. Sloped shingles roofs were not replaced at that time and appear to be in need of replacement. Stepped flashing for shingle roofs at brick wall transitions appeared to be delaminating. All roofs are beyond their useful lifespan and typical warranty period, so replacement is recommended."				
<b>Existing Photovoltaics</b>					
	"N/A"				
<b>Space for Solar on Roof</b>					
	"Space on roof is available, exact locations and SF size can be evaluated."				
<b>Façade</b>					
	"Brick masonry (1986) appears to be generally in good condition. There are several areas where extended moisture exposure has caused staining and deterioration of grout joints. Brick chimney at roof level has significant spalling. There is severe rusting and deterioration of most of the exterior hollow metal doors and frames at the base. Exterior door finishes are also worn and need to be repainted. Paint at the exposed steel lintels and columns is wearing and chipping."				
<b>Windows</b>					
	"Windows are original (1986) and nearing the end of their useful life expectancy. There are several locations where seals have failed at the insulated units (at the greenhouse in particular)."				
<b>Boilers (Mechanical)</b>					
	"Boilers are older (not condensing type) but appear to be well maintained. It appears that one burner has been replaced more recently."				

**Physical Analysis**

● NONE / MINOR    
 ● MODERATE    
 ● MAJOR    
 ● REPLACE    
 ○ N/A

	●	●	●	●	○
<b>Boilers (Plumbing)</b>	●				
<i>"Refer to mechanical report for HVAC boilers (2 gas fired units) The domestic hot water is generated through a Bock oil fired water heater. (68 gallon model 72E) The unit was manufactured in 2016."</i>					
<b>Heating Distribution Systems</b>		●			
<i>"Piping and insulation appear to be in good condition. There is a cabinet unit heater at entrance and ceiling unit heaters in other back of house spaces. Classrooms and offices have fin tube radiation for perimeter heating (various types of enclosures)."</i>					
<b>Building Envelope Thermal Performance</b>		●			
<i>"Original building (1986) only has minimal building insulation at walls, roof and slab."</i>					
<b>Interior Finishes</b>			●		
<i>"Most all finishes in the building are original (1986). The ACT ceilings and VCT are in fair condition throughout. Casework is metal and in disrepair and rusting in many locations. Chalkboards are still installed in classrooms. Toilet rooms compartments and finishes are dated and in disrepair in several locations."</i>					
<b>Rooftop HVAC Equipment</b>				●	
<i>"New units with cooling have been added to the building that are still being installed. The exhaust fans are older and the condensing unit on grade is also older. The Gym unit seems to be 40 years old and would be at the end of useful life."</i>					
<b>HVAC Controls</b>			●		
<i>"The school uses JCI Metasys system (district standard) for controls. There are various thermostats in use, some of which need to be replaced."</i>					
<b>Technology Infrastructure</b>				●	
<i>"Bandwidth of fiber optic and copper network cabling is inadequate for School Communications. Telecom Rooms are not adequately secured allowing staff to use them for storage."</i>					
<b>Technology Systems</b>				●	
<i>"Telephone and WiFi systems are at the end of useful life. Network switches have been recently replaced. Not all Telecom Rooms are air conditioned, leaving equipment vulnerable to overheating."</i>					

SCHOOL NAME

Northwest Elementary School

SITE VISIT

August 2023

REPORT TYPE

Facility Evaluation

**Physical Analysis**

 NONE / MINOR    
  MODERATE    
  MAJOR    
  REPLACE    
  N/A

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Security Systems</b>					
<p><i>"The City is working with a Security Systems Vendor to deploy 500 CCTV cameras throughout the District's Schools. Adequate bandwidth is a concern for transmitting video. Notification and Lock Down systems are not present. Indoor cellular signal booster system is desired."</i></p>					
<b>Kitchen Equipment and Systems (Electrical)</b>					
<p><i>"A few kitchen receptacles were observed to be non-GFCI type. All kitchen receptacles shall have GFCI protection to comply with the Code."</i></p>					
<b>Kitchen Equipment and Systems (Plumbing)</b>					
<p><i>"The kitchen plumbing fixtures include a 3 pot sink, a prerinse pot sink (not operational), and a hand washing sink. Waste piping below the 3 pot sink is PVC while the water piping is exposed copper. Although PVC is an acceptable material for waste piping per the NH plumbing code, it is not typically installed in commercial kitchens as there are durability and cleanliness concerns. Recommend replacement of PVC piping and chrome coating exposed copper piping."</i></p>					
<b>Natural Gas Distribution System</b>					
<p><i>"Natural gas piping observations were limited to within the mechanical room. The gas feeds two mechanical boilers and appears to be in good working order."</i></p>					
<b>Current Fuel Source</b>					
<p><i>"The building has a natural gas service. The arrangement consists of a 4-inch service, reducer to a 3-inch meter. The installation looks to be very recent as the piping is in very good working order."</i></p>					
<b>Generator</b>					
<p><i>"N/A"</i></p>					
<b>Elevator</b>					
<p><i>"Due to age of elevator, controls replacement may be required and cab finishes need to be updated."</i></p>					
<b>Ventilation Distribution Systems</b>					
<p><i>"Gym has high supply and wall mounted high return. Additionally gym has ventilation units coming through the envelope up high. Boiler room has combustion intake makeup ducted low and boiler venting. Kitchen has exhaust in the ceiling. Nurses office has additional ceiling exhaust fan. Some spaces had vent covers on grilles, but should have been for HVAC work that was in progress. New ductwork was being installed throughout the building."</i></p>					

**Physical Analysis**

 NONE / MINOR    
  MODERATE    
  MAJOR    
  REPLACE    
  N/A

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<p><b>Electrical Services</b></p>	●				
<p><b>Life Safety: Means of Egress (Architectural)</b></p>		●			
<p><b>Life Safety: Means of Egress (Electrical)</b></p>	●				
<p><b>Life Safety: Fire Protection (sprinklers)</b></p>		●			
<p><b>Life Safety: Fire Alarms</b></p>	●				

"Exterior pad-mounted utility transformer by PSNH is located adjacent to the school building. The transformer appears in good condition. The utility transformer's secondary feeder extends underground and terminates in the Main Distribution panel MDP located in the Mechanical room 124. The MDP is rated 600 Amp 277/480v 3ph 4w, manufactured by Square D. I was installed during a renovation project around the year 2003. It appears in good operational condition. The MDP feeds downstream panels, located throughout the building. Panels appear in good operational condition."

"Quantity, size and locations of egress components appear to be adequate. Stair railings and guard rails are not code compliant. Several exits at stairs are not accessible as they exit and landing levels."

"Self-contained internally lighted LED exit signs and battery units with remote lights heads are provided along egress pathways. Emergency lighting throughout is observed in adequate operational condition."

"The building is currently protected by a combination automatic sprinkler and standpipe system. An 8-inch service enters the building and reduces to a 6-inch main shut off and 6-inch double check valve assembly. The domestic water service tees off from the fire service (see plumbing distribution section). The discharge side of the double check has a 6-inch alarm check valve with a 4-inch fire department connection feed. Standpipes with fire department valves are installed within the egress stairs. The city water supply can accommodate the sprinkler system demands (Pump not required). The system includes a post indicator valve on the service and a Siamese style fire department connection. Ceiling were down at the 3rd level for ongoing work. Sprinklers are being provided with flexible connections. Original standard response sprinklers are 36 years old and do not require testing/replacement until 50 years. Quick response sprinklers require replacement or representative testing at 20 years."

"The Fire Alarm (FA) system is manufactured by Notifier. It consists of addressable smoke and heat detectors, double action pull stations, speaker/strobes and strobe only unit, and connections to fire protection equipment. The Fire Alarm Control Panel (FACP) and radio master box are in the main entrance vestibule 100. All classrooms and similar educational spaces, corridors, bathrooms, gym/cafeteria, library, etc. are equipped with FA signaling devices - ceiling- and wall-mounted types. The FA equipment was observed in good operational condition."

**Physical Analysis**

● NONE / MINOR     
 ● MODERATE     
 ● MAJOR     
 ● REPLACE     
 ○ N/A

<b>Security: Entry Sequence</b>	<span style="color: yellow;">●</span>				
<p><i>"The main entrance has controlled card access and an intercom system. There is limited direct visual access to the exterior from the main office. The entrance to the main office is beyond the main entry vestibule."</i></p>					
<b>Lighting Quantity / Control</b>	<span style="color: green;">●</span>				
<p><i>"Overall, lighting appears in good operational condition throughout the building. Classrooms with suspended ceilings and corridors have 2'x4' and 2'x2' LED recessed "basket reflector" design lights with integral occupancy sensors. Storage rooms and bathrooms have linear wraparound and recessed LED lights, all with integral occupancy sensors. Kitchen has a mix of 2'x4' and 2'x2' LED recessed "basket reflector" design lights and linear wraparound LED lights, all with integral occupancy sensors. The Gym/Cafeteria has LED pendant lights with integral occupancy sensors. Library and a few classrooms with open ceilings have 2'x4' surface-mounted fluorescent lights. No occupancy sensors were observed in spaces with fluorescent lights, and these areas are recommended to be upgraded with occupancy controls. Overall, the illumination levels throughout the building were observed to be adequate."</i></p>					
<b>Toilets and Fixtures</b>			<span style="color: orange;">●</span>		
<p><i>"With the exception of the drinking fountains being replaced with the bottle filler type, the plumbing fixtures are old, dated, and some are inoperable. Flow rates could not be confirmed. Recommend replacement of fixtures with low flow fixtures (sustainability requirements)"</i></p>					
<b>Plumbing Distribution Systems</b>		<span style="color: yellow;">●</span>			
<p><i>"Distribution piping observations was limited to areas of exposed piping (mechanical rooms and similar spaces. The domestic cold water is provided through a 2 1/2-inch tee off of the 8-inch fire service. The service then splits above the floor into two parallel 1 1/2-inch lines that each have a 1 1/2-inch meter and reduced pressure backflow preventer. The branches tie together to a 2 1/2-inch to feed the building. A 2 1/2 inch pressure regulator is also installed. The domestic water piping above the ceilings is estimated to be 36 years old. (Areas of renovation could have included replacement of some of the piping. Piping greater than 40 years old should be evaluated (sample destructive testing, water quality testing) to determine the condition and help estimate the longevity left in the piping. Original valves and pipe solder pre-date current lead free regulations and requirements. Observation of sanitary and vent, storm water piping was limited to exposed areas. Above ceiling observations were not performed. The cast iron piping is within the expected lifespan of 50 years. There is some small areas of ponding on the roof, but overall the vents through roof and roof drains appear adequate with no immediate concerns."</i></p>					
<b>Accessibility (Architectural)</b>		<span style="color: yellow;">●</span>			
<p><i>"Most entrances are accessible, but several exits at stairs are not accessible as they exit and landing levels. Classroom sinks are not accessible. Most classroom and single user toilet rooms are not accessible. Ganged toilet rooms appear to be compliant."</i></p>					

**Physical Analysis**

● NONE / MINOR
● MODERATE
● MAJOR
● REPLACE
○ N/A

Accessibility (Plumbing)	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
			●		
<p><i>"Many of the fixtures do not meet ADA requirements. There are a few locations where the stall door conflicts with clearances and one of the doors hits the toilet when it is opened. Sinks do not have the traps insulated in line with current ADA requirements."</i></p>					

**Structural Systems:  
Signs of Deterioration Observed?**

	YES	NO	
<b>Roof</b>		✓	
<p><i>"Long span roof joists at gym bearing on CMU walls. Wood trusses at sloped roofs. Bar joist roof framing at flat roofs resting on CMU bearing walls in parts and steel girders and columns in other areas."</i></p>			
<b>Floor</b>		✓	
<p><i>"Bar joist and form deck on steel girders and columns and some CMU bearing walls."</i></p>			
<b>Walls / Columns</b>		✓	
<p><i>"Walls are all CMU walls. Most are bearing walls."</i></p>			
<b>Foundations</b>		✓	
<p><i>"Concrete foundation in good condition for the most part. Many corners have some cracking and or spalling."</i></p>			
<b>Façade</b>		✓	
<p><i>"All masonry in good condition. Metal panels appear in good shape as well."</i></p>			
<b>Is Lateral System Identifiable?</b>	✓		
<p><i>"CMU shearwalls and bearing walls throughout the building."</i></p>			

**Community**

	YES	NO	
<b>Emergency Shelter</b>	✓		
<p><i>"Short Term Shelter only."</i></p>			

SCHOOL NAME

**Northwest Elementary School**

SITE VISIT

**August 2023**

REPORT TYPE

**Facility Evaluation**

### **Community**

YES

NO

**Are there Separate Community / Non-School Spaces on Site?**

✓

*The site is within Rock Rimmon Park, which contains trails, a splash pad, and athletic facilities that are used by the community. The park area may share parking facilities and a maintenance access drive with the school.*



# Site Evaluation Criteria

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Parking Capacity</b>					
	<i>"19 parking spaces for staff and visitors by front entrance. 64 staff, per school district website. Parking on site not adequate for staff. Staff might also use the parking lots at adjacent Cullerot Park or Rock Rimmon Park."</i>				
<b>Parking Quality</b>					
	<i>"Parking lot pavement in good condition."</i>				
<b>Ground Cover</b>					
	<i>"Landscaped area at front of building. Planter beds used for outdoor learning. Some trees along street. Trees and landscaped areas in good condition. Wooded parkland behind school."</i>				
<b>Fields</b>					
	<i>"No fields on site. Baseball fields, soccer fields and tennis courts at two adjacent parks. Not directly connected to school site, but accessible via sidewalks along site perimeter/adjacent roadways."</i>				
<b>Neighborhood Streets</b>					
	<i>"School abuts parkland to west and north, neighborhood streets to east and south. Sidewalks and crosswalks connect site to surrounding neighborhoods."</i>				
<b>Drop-off / Pick-up Routes</b>					
	<i>"Bus drop off only in main parking lot loop at front entrance off of Youville St. Additional loading/ unloading loop off of Mason St to the south."</i>				
<b>Walkways / Curbs / Sidewalks</b>					
	<i>"Stamped asphalt walkways and plaza and front entrance. Bituminous walkways with vertical granite curb along street in decent condition."</i>				

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>ADA Accessibility</b>					
<i>"Some steeper sloped walkways due to site topography, but accessible entrances on all sides of the building. 2 ADA spaces at front entrance. Curb ramp from parking/drop off area to front plaza in good condition."</i>					
<b>Site Lighting (Civil)</b>					
<i>"Typical LED light fixtures on metal poles around site in good condition."</i>					
<b>Site Lighting (Electrical)</b>					
<i>"The exterior lighting consists of pole-mounted LED lights at parking lot areas and various types of building-mounted lights. The building-mounted lights are a mix of the "older" under-canopy recessed downlights and the "newer" LED wall packs along the building perimeter walls. All LED lights are in good operational condition. The "older" under-canopy downlights are suggested for replacement with energy-efficient LED models."</i>					
<b>Fencing</b>					
<i>"A lot of fencing around site for safety around steep slopes. Typical chain link fencing around play areas."</i>					
<b>Drainage</b>					
<i>"Site slopes down significantly from back of site to front, so most of the runoff drains into the street below. Catch basin network throughout site."</i>					
<b>Play Areas</b>					
<i>"Two play structures, both surrounded by bituminous play lots. Additional recreational areas/facilities on adjacent parkland, not directly connected to the school."</i>					
<b>Monuments and Memorials</b>					
<i>"None observed at this site."</i>					
<b>Walls / Slopes</b>					
<i>"Significant site topography with vegetated slopes and retaining walls. Slopes and retaining walls in good condition. Exposed rock face in park area above/behind school. Some missing blocks and damaged sections of cheek walls around landscape areas at front of building."</i>					

Physical Analysis	YES	NO
<b>Are there any Wetlands on Site?</b>		
<i>"No wetlands per GIS. No evidence of potential wetlands from site assessment."</i>		

SCHOOL NAME

Northwest Elementary School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

### Physical Analysis

	YES	NO
<b>Are there any Easements on Site?</b>		X
<i>"No easements per GIS. Possible shared access easement with adjacent parks/ Dupont Pool."</i>		
<b>Are Play Structures Age-Appropriate?</b>	✓	
<i>"Two play structures, of varying size for different age ranges. Both appropriate for elementary school age."</i>		
<b>Is there an Outdoor-Learning Area?</b>	✓	
<i>"Some picnic tables at front of site. Planter beds designated as school project/ for outdoor learning."</i>		
<b>Should there be a Question on Environmental Justice Populations / Vulnerable Populations?</b>	✓	
<i>"NH GIS designates the site as "Medium High" Social Vulnerability Index, based on census analysis."</i>		
<b>Is the Building Expandable on the Current Site?</b>		X
<i>"Site topography would present significant challenges for site or building expansion. May be able to add more modular classrooms in paved area."</i>		
<b>Is the Site Expandable?</b>		X
<i>"Site topography would present significant challenges for site or building expansion."</i>		

### Community Analysis

	YES	NO
<b>Historical Commission Status: Inventory of Archaeological Assets (Site Review)</b>		X
<i>"The site is not listed on the National Register of Historic Places or the New Hampshire State Register of Historic Places. The school itself is also not listed as a locally-designated historic site, per Manchester GIS. However, the adjacent Rock Rimmon Rec. Building is a locally-designated historic site. The Rec. Building is on the same parcel and shares a common driveway with the school."</i>		

SCHOOL NAME

**Northwest Elementary School**

SITE VISIT

**August 2023**

REPORT TYPE

**Site Evaluation**

### Community Analysis

	YES	NO
<b>Are there School Buses?</b>	✓	
<i>"Designated bus drop off loop. 2 MTA buses and 3 SPED buses, per bus counts provided by the district."</i>		
<b>Bikeable?</b>		✗
<i>"No bike lanes on adjacent streets."</i>		
<b>Walkable?</b>	✓	
<i>"Sidewalks and crosswalks connecting to adjacent parks and neighborhood areas."</i>		

Traffic Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
<b>Parking</b> Driveway opposite Alsace St	●				
<i>"Some cars parked on grass and along sides of driveway despite "do not enter during school hours" sign. Driveway can otherwise be used to access accessible entrance and trash disposal."</i>					
<b>Parking</b> Mason St	●				
<i>"Perpendicular parking on north side. Two sets of two accessible parking spaces with curb ramp in between leading to Rock Rimmon Park pedestrian paths. Set of accessible spaces near skatepark has a curb ramp with a detectable warning panel, while the set of accessible spaces near splash pad has a curb ramp without a detectable warning panel. The curb ramps should be evaluated for ADA compliancy."</i>					
<b>Parking</b> Parking lot	●				
<i>"Striping is very faded. Two accessible parking spaces with access to front entrance via curb ramp with no detectable warning panel."</i>					
<b>Sidewalks</b> Mason St between Alsace St and Laval St	●				
<i>"Sidewalk in poor to fair condition on south side."</i>					
<b>Sidewalks</b> Mason St between Youville St and Alsace St		●			
<i>"Sidewalk only on south side (opposite school) in fair condition. Additional school loading/unloading lane on north side separated by raised median could be used by pedestrians, but not an ideal connection."</i>					
<b>Sidewalks</b> Mason St west of Laval St		●			
<i>"Sidewalk on north side in poor condition with significant vegetation encroachment."</i>					
<b>Signalized Intersections</b>					
<i>No comments.</i>					
<b>Signalized Intersections</b>					
<i>No comments.</i>					

<b>Traffic Analysis</b>	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
<b>Unsignalized Intersections</b> Mason St at Alsace St E Back					
<i>"No crosswalk or detectable warning panels across Alsace St East Back. Pedestrian crossing should be evaluated for ADA compliancy. No STOP sign on Alsace St East Back approach."</i>					
<b>Unsignalized Intersections</b> Mason St at Alsace St/driveway					
<i>"Crosswalks on east, south, and west sides. No detectable warning panels on the curb ramps and pedestrian crossings should be evaluated for ADA compliancy. No curb ramp on NW corner despite connecting to sidewalk. Nothing to guide pedestrians around walkout stairs from below-grade Dupont Pool entrance extending into sidewalk. STOP sign on Alsace St NB but not on SB driveway."</i>					
<b>Unsignalized Intersections</b> Mason St at Joliette St					
<i>"Crosswalk on east side across Mason St, but not across Joliette St. No detectable warning panels on the curb ramps and pedestrian crossings should be evaluated for ADA compliancy. Crosswalk across Mason St does not go all the way to sidewalk and ends in between two parking spaces, in a ditch prone to puddling."</i>					
<b>Unsignalized Intersections</b> Mason St at Joliette St E Back					
<i>"No crosswalk or detectable warning panels across Joliette St East Back. Pedestrian crossing should be evaluated for ADA compliancy. No STOP sign on Joliette St East Back approach."</i>					
<b>Unsignalized Intersections</b> Mason St at Laval St					
<i>"No crosswalk across Laval St, although curb ramps appear to be ADA-compliant as they were installed in 2023. No STOP sign on Laval St approach."</i>					
<b>Unsignalized Intersections</b> Mason St at Laval St E Back					
<i>"No crosswalk or detectable warning panels across Laval St East Back. Pedestrian crossing should be evaluated for ADA compliancy. No STOP sign on Laval St East Back approach."</i>					
<b>Unsignalized Intersections</b> Youville St at Parking lot north driveway					
<i>"No crosswalk or detectable warning panels across driveway. Curb ramps not flush with pavement. Pedestrian crossing should be evaluated for ADA compliancy. No signage or pavement markings to indicate that driveway is entrance only, despite south driveway being exit only."</i>					

SCHOOL NAME

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SITE VISIT

**August 2023**

REPORT TYPE

**Site Evaluation**

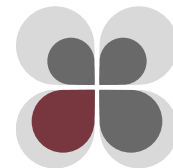
### Traffic Analysis

NONE / MINOR    
  MODERATE    
  MAJOR    
  REPLACE    
  N/A

#### Unsignalized Intersections

**Youville St at Parking lot south driveway**

	<span style="display: inline-block; width: 15px; height: 15px; background-color: #90EE90; border-radius: 50%;"></span>			
<i>"No crosswalk or detectable warning panels across driveway. Pedestrian crossing should be evaluated for ADA compliancy. Exit only."</i>				



# Educational Facility Effectiveness: Learning Environments (EFE: LE)

## Grade Levels

<b>Building Originally Designed as:</b>	Kindergarten–5th Grade
<b>Which Educational Program are you Assessing?</b>	Kindergarten–4th Grade
<b>The Grade Configuration this School is Best Suited to:</b>	Pre-K–4th Grade

## Educational Building Analysis

● GOOD     
 ● FAIR     
 ● POOR     
 ● DEFICIENT     
 ● FAILING

	GOOD	FAIR	POOR	DEFICIENT	FAILING
<b>Acoustical</b>			●		
<i>"Acoustics in classrooms above the gym/cafeteria are poor. PreK and Kindergarten rooms have poor operable partitions, allowing significant noise transfer to occur."</i>					
<b>Adjacencies of Learning Environments</b>		●			
<b>Environment (Inviting / Stimulating / Comfortable)</b>					●
<i>"Finishes are dated. Enter opposite blank wall."</i>					
<b>Finishes</b>		●			
<b>Furniture</b>			●		
<b>Lighting Quality</b>		●			

SCHOOL NAME

**Northwest Elementary School**

SITE VISIT

**August 2023**

REPORT TYPE

**EFE: LE Evaluation**

**Educational Building Analysis**

GOOD FAIR POOR DEFICIENT FAILING

	GOOD	FAIR	POOR	DEFICIENT	FAILING
<b>Outdoor Classrooms</b>					
<i>"None observed."</i>					
<b>Natural Daylighting</b>					
<b>Technology: Power</b>					
<i>"Not enough outlets and not in ideal spots."</i>					
<b>Technology: Wireless</b>					
<b>Ventilation</b>					

**This Site Includes:**

YES NO

	YES	NO
<b>Accessible</b>		
<b>Play Fields</b>		
<b>Playgrounds / Areas</b>		

**Building Assessment**

YES NO

	YES	NO
<b>Can the Building Change Typology Easily?</b>		
<b>Can the Building be Transformed Educationally to Serve 21st Century Needs?</b>		
<i>"Yes, with significant renovations."</i>		
<b>Can the Building Serve as Swing Space?</b>		
<b>Is the Building between 85%—115% Utilization Rate?</b>		











# Educational Facility Effectiveness: Spaces (EFE)

Space Assessment	QUANTITY	ACTUAL AREA (SF)	MORE INFO
<b>Administration and Guidance</b> (Quantity Varies)	Varies	1490	
			<i>"No visual connection to entry vestibule."</i>
<b>Art Classroom</b> (Min Area 900 sf or 36 sf / Student)	0	0	
			<i>"On a cart."</i>
<b>Cafeteria</b> (Min Area 12-15 sf / Student for Max Number of Diners per Lunch Period)	1	4685	LUNCH PERIODS: 3
			<i>"Shared with Gymnasium."</i>
<b>Classroom: General Education</b> (Min Area 900 sf or 36 sf / Student)	20	855, 875, 900, 910, 920	
			<i>"First floor classrooms have toilet rooms. Two grades are capped."</i>
<b>Faculty Lounge</b>	0	0	
			<i>"None observed."</i>
<b>Gymnasium</b> (Min Area 6000 sf)	1	(see Cafeteria)	STAGE: Yes
			<i>"Shared with Cafeteria."</i>
<b>Kindergarten</b> (Min Area 1000 sf or 50 sf / Student)	5	900, 915, 1040, 1070	TOILET ROOM: Yes
			<i>"Integrated"</i>

**Space Assessment**

	QUANTITY	ACTUAL AREA (SF)	MORE INFO
<b>Media Center</b> (Min Area 1800 sf or 4 sf / Student x Design Capacity)	1	2510	
<b>Music Classroom</b> (Area 1200 sf)	1	1205	
<b>Pre-K0/K1</b> (Min Area 1000 sf or 50 sf / Student)	2	Portable	
<i>"Head Start PK"</i>			
<b>Special Education: Resource of Small Group</b> (Area 500 sf)	4	175, 300, 365	
<b>Special Education: Self Contained</b> (Area 950 sf)	0	0	TOILET ROOM: No
<b>Stage</b> (Area 1000 sf)	1	420	
<b>Teacher Planning</b>	1	305	

**Adequacy of Rooms**

	 GOOD	 FAIR	 POOR	 DEFICIENT	 FAILING
<b>Administration and Guidance</b>					
<b>Art Classroom</b>					
<i>"On a cart."</i>					
<b>Cafeteria</b>					
<i>"Significant noise transfer to classrooms above."</i>					
<b>Classroom: General Education</b>					
<i>"Significant acoustical issues in classrooms above the gym/cafeteria, and in PreK and K rooms."</i>					
<b>Faculty Lounge</b>					
<i>"None observed."</i>					
<b>Gymnasium</b>					
<i>"Noise transfer to classrooms above is significant."</i>					

**Adequacy of Rooms**

GOOD FAIR POOR DEFICIENT FAILING

	GOOD	FAIR	POOR	DEFICIENT	FAILING
Kindergarten (K2)			●		
<i>"Significant noise transfer through operable partitions in poor condition."</i>					
Media Center		●			
Medical			●		
Music Classroom		●			
Pre-K0/K1			●		
<i>"Significant noise transfer through operable partitions in poor condition."</i>					
Special Education: Resource of Small Group			●		
Stage			●		
<i>"Not wheelchair accessible from audience."</i>					
Teacher Planning			●		
<i>"Small"</i>					

**Special Education Assessment**

YES NO

	YES	NO
18+		✗
Autism Spectrum		✗
<i>"Not yet but coming."</i>		
Cognitively Impaired		✗
Deaf and Hard of Hearing		✗
Emotional Disturbance		✗
English Learners	✓	
<i>"Integrated, Pull-Out"</i>		

SCHOOL NAME

**Northwest Elementary School**

SITE VISIT

**August 2023**

REPORT TYPE

**EFE: Space Evaluation**

**Special Education Assessment**

	YES	NO	
<b>Intellectual Disability</b>		X	
<b>Life Skills</b>		X	
<b>Medically Fragile</b>		X	
<b>PT/OT/Speech</b>	✓		
<i>"Speech and Physical Therapy"</i>			
<b>Reset Program</b>		X	
<b>Social Emotional</b>		X	
<b>Title 1</b>	✓		

# Assessment Team Scoring Rubric

## Educational and Facilities Assessment Approach

### Assessment Criteria

Educational and Facilities Assessment (E+FA) Approach - Led by architects, engineers, and educational planners from SMMA and its consultants, and in partnership with each school principal, the team conducted both a facility assessment (to take inventory of the building layout and condition) and an educational assessment (to determine the adequacy of spaces for the educational programs offered) in each building. The following report outlines the team organization, methodology and approach taken to assess the Manchester Public School portfolio over the Spring and Summer of 2023.

### Overall Assessment

Categories and criteria were strategically selected for assessment based on stated objectives, past experience, and nature of the Manchester School District portfolio of buildings. Ultimately, the E+FA team created a customized “Manchester School District methodology” which encompassed approximately 75 areas of criteria, organized either facility or site categories that examined physical components, as well as community components.

# Facility Assessment Criteria

## Facility Assessment: Building Evaluation

Facilities varying in terms of age, design, construction methods, and materials were reviewed to determine the condition of the district's portfolio. Building assessments were performed to determine existing components and/or systems' conditions at a specific point in time. The resulting information was then used to guide recommendations regarding maintenance, renovation, and/or replacement. The assessment team conducted visual inspections to observe signs of deterioration. No exploratory demolition, removing finishes, or viewing above ceilings was conducted. Areas that were hard to reach, off limits, or obscured by other systems that prohibited view of the some building components were not assessed. Systems and categories that were assessed included:

- » Building Envelope
  - › Roof Membrane
  - › Facade
  - › Windows
  - › Thermal Performance
- » Boilers
- » Heating Distribution
- » Interior Finishes
- » Rooftop HVAC Equipment
- » HVAC Controls
- » Kitchen Equipment and Systems
- » Natural Gas Distribution
- » Generator
- » Elevator
- » Ventilation Distribution Systems
- » Electrical Service
- » Life Safety:
  - › Means of Egress
  - › Fire Alarm
  - › Fire Protection: Sprinklers
- » Security: Entry Sequence
- » Lighting Quantity/ Control
- » Toilets and Fixtures
- » Plumbing Distribution Systems
- » ADA/Accessibility
- » Structural Systems (consisting of the following components):
  - › Roof framing: This is the horizontal framing consisting of decking, slabs, joists, beams, trusses, etc.
  - › Floor framing: This is the horizontal framing consisting of decking, slabs, joists, beams, trusses, etc.
  - › Walls and columns: These are the vertical elements that hold up the floors and roof structures.
  - › Foundations: Foundations occur at the base of the building and transfer the weight of the building onto the underlying soils.
  - › Facades: These are the outside walls of the building including many non-structural elements (doors, windows, insulation, vapor barriers, etc.) that are part of the weather enclosure for the building.
- » Lateral System: The lateral system in a building is the structural system that keeps the building from falling over when it is subjected to horizontal loads such as wind and earthquake forces.

## Building Evaluation: Criteria Rating Hierarchy

The facility assessment building evaluations used a quintile classification hierarchy as defined below:

- None / Minor: System or element functioning reliably; routine maintenance and repair is needed.
- Moderate: System or element functioning minimally. Repair or replacement of some components is needed.
- Major: System or element is barely functioning. Repair or replacement of most components is needed.
- Replace: System or element is non-functioning, not functioning as designed, or is unreliable. Total replacement all components is needed.
- Not Present: System or element is non-existent, non-functioning, not functioning as designed, or is unreliable. Replacement is needed.

## Building Evaluation: Physical Analysis Definitions

### **Roof**

Roof Membrane: Apparent condition status noted for the roofing material and flashings. Note any obvious deterioration.

### **Existing Photovoltaics**

Yes / No: Criteria noted. However, presence or absence of photovoltaic did not impact overall building condition.

### **Space for Solar**

Yes / No: Comments, if applicable. Evaluation of whether roof space exists for solar (if there are relatively flat areas for possible future solar panels). Note that the roof structure was not evaluated for structural capacity of future PV panels. Criteria noted; however, presence or absence of photovoltaic panels did not impact overall building condition.

### **Façade**

Description of apparent condition and materials of the exterior walls. Observations of any spalling or disintegration of brick or concrete masonry unit (CMU) walls and the condition of the mortar. Notes if there is any obvious movement or structural cracking, and if there is failure, the percentage of failure. With prefabricated panel system facades, notes the types and apparent conditions of attachment systems, panel material, and whether there is deterioration of the surface or caulking or movement in the panels.

### **Windows**

Description of types and apparent conditions of exterior windows. Considers whether most windows appear to be in good working condition, if windows are transparent or translucent, and if they are single or double-paned.

### **Boilers (Mechanical)**

Review of fuel sources and apparent conditions of boilers.

### **Boilers (Plumbing)**

Observation of heating media (e.g. water or steam) of boilers.

### **Heating Distribution Systems**

Evaluation of type and apparent conditions of piping, type, and apparent corrosion.

***Building Envelope Thermal Performance***

Review of the existing drawings of envelope elements (exterior walls, roof, foundations and slabs). Notes presence of vestibules at building entrances for temperature control.

***Interior Finishes***

Evaluation of types and conditions of interior wall, flooring, and ceiling finishes.

***Rooftop HVAC Equipment***

Review of type and apparent condition of roof top units (RTUs), exhaust fans, and air conditioning equipment, if present.

***HVAC Controls***

Review of types of thermostats and type and apparent condition of Building Management System (BMS) if present.

***Kitchen Equipment and Systems (Architectural)***

Evaluation of adequacy and apparent condition of kitchen equipment.

***Kitchen Equipment and Systems (Electrical)***

Observation of electrical kitchen appliances.

***Kitchen Equipment and Systems (Plumbing)***

Observation of gas kitchen appliances. Observation of apparent condition of kitchen plumbing fixtures, and whether there are separate sinks for handwashing and dishwashing, per health and plumbing codes. Notes if proper fire suppression system exists where required.

***Natural Gas Distribution System***

Review of apparent condition of the natural gas system, how it enters the building and is distributed, and of shut-off valves.

***Generator***

Review of type of generator, type of fuel source, and apparent condition if one is present.

***Elevator***

Evaluation of apparent condition of elevator if present.

***Ventilation Distribution Systems***

Review of locations and apparent condition of fans, ductwork, duct grilles, and other ventilation components.

***Electrical Services***

Apparent condition status noted. Review of available capacity, location and appearance of electrical service and meter age.

### ***Life Safety***

- » Means of Egress:
  - › (Architectural): Evaluation of apparent existence of proper smoke and/or fire doors, and if mechanical hold-open devices appear in good working condition. Notes if egress paths are direct and unencumbered, and whether there are enough exits relative to the facility population.
  - › (Electrical): Review of illuminated exit signs and whether they are in the proper locations and appear to be in good condition.
- » Fire Protection (Sprinklers): Observation of type and age of system and components. Review of maintenance records and certifications, if available.
- » Fire Alarms: Observation of type, age, and appearance of systems. Review of available testing records.

### ***Security***

Entry Sequence: Observes if schools have only a camera/buzzer system at their main entrance or whether the main building entrance is adjacent or near the main office. (Adjacency/proximity of main office to main entrance allows for direct observation of the entire person, as well as control of their movements)

### ***Lighting Quality/Control***

Observed (not measured) light levels at the working surface, type of light fixtures and whether they provide an even dispersion and control of light for general academic tasks as well as for use of technology. Apparent condition, locations, and lighting uniformity are noted.

### ***Toilets and Fixtures***

Review of locations and apparent conditions of fixtures. Notes the maintenance and cleanliness of fixtures and flow of fixtures.

### ***Plumbing Distribution Systems***

Review of piping type, apparent corrosion, and equipment, including presence or absence of water heater & back-flow preventer.

### ***ADA / Accessibility***

- » (Architecture): Observes whether the facility is compliant with the Americans with Disabilities Act (ADA) of 1990 standards. Evaluates adequacy and conditions of ramps, lifts, and elevators and whether every occupiable space in the facility can be accessed by anyone with a disability. Other considerations include compliancy of building elements such as clearances and door hardware.
- » (Plumbing): Evaluation of whether toilet facilities and plumbing fixtures are ADA-compliant.

### ***Structural Systems***

The assessment team conducted visual inspections to observe signs of deterioration. No exploratory demolition, removing finishes, or viewing above ceilings was conducted. Areas that were hard to reach, off limits, or obscured by other systems that prohibited view of the structure were not assessed. Each of the criteria listed below is considered as it relates to the structural elements of the building.

A “Yes” comment in the assessment indicates that we observed signs of deterioration. A “Not Observed” comment in the assessment indicates that we either did not observe any distress in the structural element or were not able to observe the element due to the aforementioned limitations, and this does preclude an unobserved area from distress.

- » Roof structural framing: As the framing is covered by roofing, observations are usually made from below. Water leaks are a common cause of damage to roof framing and part of the visual assessment is to look for signs of water damage. In wood framed structures, visual signs include mold or rotting wood. In structures with metal deck, visual signs include rusting of the deck and in concrete structures it can be cracks with rust stains or spalled concrete, indicated where a section of concrete has broken off (typically caused by water penetrating concrete through small cracks causing the steel reinforcing to rust and expand putting outward pressure on the concrete and causing it to break off).
- » Floor structural framing: Common signs of deterioration in floors can be cracks in floors finishes (such as terrazzo), cracks in the bottom of concrete slabs or beams, water damage like that in roofs and longitudinal cracks (or checks) in wood framing. Cracks in floor finishes while cosmetically objectionable is not necessarily an indication of a structural failure. There are several causes for cracks in wood framing members (joists or beams) which does not necessarily mean the member is structurally inadequate.
- » Walls/columns: Walls are typically framed with masonry, concrete, or wood or light gage metal studs with varying finishes. Columns typically consist of steel, concrete, or wood posts and can also be masonry piers. Common signs of deterioration in concrete and masonry walls are cracks in the walls. Cracks typically run vertically (bottom to top), although in masonry walls the cracks often follow the mortar joints. Cracks in walls can be caused by many factors: shrinkage in the wall due to changes moisture or temperature, movement of the supporting structure, or stresses in the wall caused by other loads. Concrete columns can have spalled concrete, wood posts can have longitudinal cracks (similar to floor members), and masonry piers can have cracks similar to walls.
- » Foundations: Notes the type of foundation. Some types include shallow spread footings (concrete pads) and deep foundations such as caissons and piles that extend deep into the ground. Foundations generally include concrete components and are located below ground – making the system difficult to observe without performing some excavation. Some common signs of deterioration are cracks in foundation walls and areas where there has been vertical movement, indicating some settlement of the structure over time, which can be common. The causes of the cracks are like those described for walls.
- » Facades: The structural components of the façade are typically the wall structure (see “Walls” above) but can also include the structural framing for overhangs or other horizontal elements that are part of the walls. Like in roof framing, moisture is a common cause for distress in facades. Common signs of distress are spalled concrete, cracks in concrete or masonry walls, and rusting steel members such as angle lintels over window and door openings in masonry walls. Note that some of these signs of deterioration do not necessarily indicate a structural deficiency and may only require maintenance.
- » Identifiable Lateral System: Notes the presence and type of lateral load-resisting system, such as steel braced frames or shear walls consisting of concrete or masonry walls. Often, steel braced frames are imbedded within walls, making them difficult to identify. With masonry walls, it can be difficult to determine if a wall is a shear wall or just a partition wall. It is not possible to determine the structural adequacy of shear walls or braced frames without an in-depth investigation and it should be noted that many masonry walls in older buildings have little or no reinforcing. Common signs of distress in concrete and masonry shear walls are like those described for walls above.

# Community Assessment: Building Evaluation

The Community – Building assessment included several categories including historical value, emergency shelter status, and use of community and school within/without the buildings. Historical value reviewed the historic inventory and register status of the building. Because schools are often the largest structure in a neighborhood, the City has designated certain facilities as emergency shelters. Additionally, several schools are directly connected to community centers or utilize adjacent neighborhood facilities for athletics and enrichment. Whether the community utilized the building after hours or on weekends was also considered.

## ***New Hampshire Division of Historical Resources (DHR) Status***

Yes/No; Comment, if applicable. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

## ***Inventory of Historic Assets***

Yes/No; Comment, if applicable. Notes whether the building is listed on any inventory of historic assets. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

## ***State Register of Historic Places***

Yes/No; Comment, if applicable. Notes whether the building is listed on a state Register of Historic Places. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

## ***Locally Designated Historic District***

Yes/No; Comment, if applicable. Notes whether the building is within a local historic district. Criteria will inform opportunities and constraints for modifying the existing building to meet changing physical demands for a 21st century learning environment.

## ***Emergency Shelter***

Yes/No; Comment, if applicable. Criteria noted and considered as part of the overall community building score. A designation by the city does not certify compliance for all state and federal requirements for the designation.

## ***Community-Use Spaces***

Yes/No; Comment, if applicable. These were determined after speaking with school administration during site visits. Community spaces attached to schools were also considered. Criteria noted and considered as part of the overall community building score.

## ***Building Suitability for School Use***

Yes/No; Comment, if applicable. Considered any major life-safety concerns for suitability. Criteria will inform opportunities and constraints for modifying the existing building.

## ***Overall Community Building Rating***

This is a judgment on the part of the reviewer(s) that considers all aforementioned factors, as well as amenities located in proximity to school sites and access to public transportation.

# Facility Assessment: Site Evaluation

The site assessment team performed evaluations at each school facility in the district’s portfolio. These evaluations considered the quality, condition, and capacity of the various exterior spaces of the facility. These spaces included: landscaped, educational, recreational, vehicular and pedestrian areas. This field effort was complimented by a study and research of the sites from web-based resources. The resulting information was then used to guide recommendations regarding maintenance, renovation, and/or replacement.

The diverse scope of site elements for schools varies in their relative impact to education and school operations. Priorities include elements that have large impacts to education and/or incur substantial impact to improve or repair.

- » ADA Accessibility
- » Walkways/Curbs/Sidewalks
- » Play Areas
- » Drainage
- » Parking Quality
- » Drop-Off/Pick-Up Routes
- » Walls & Slopes
- » Site Lighting
- » Fencing
- » Neighborhood Streets
- » Evaluation Criteria

## Site Evaluation: Criteria Rating Hierarchy

The site evaluations were judged on a scale as defined below:

- None / Minor: Element is functioning reliably and requires a little repair and routine maintenance.
- Moderate: Element is functioning minimally and requires some repair by a specialist.
- Major: Element is barely functioning and requires substantial repair by a specialist.
- Replace: Element is not functioning correctly and requires total replacement.
- Not Present: Element does not exist or completely failed. This element should be replaced and/or provided. In some instances (parking, walls/slopes and fencing) this element is not required.

## Site Evaluation: Physical Analysis Definitions

### ***Parking & Vehicular Circulation***

Quality of vehicular area paving and quantity of parking spaces considered. This element may not be required if “Not Present”.

### ***Ground Cover***

Presence and condition of landscaping, lawn areas, and any other non-hardscape areas. Ground cover evaluated for aesthetic value, shading, and functionality for outdoor gathering

**Fields**

Presence and apparent condition of athletic or play fields on the property.

**Neighborhood Streets**

Connectivity to residential areas surrounding the site. Condition of adjacent/ off-site roadways, sidewalks, and accessible elements considered.

**Drop-Off/Pick-Up Routes**

Segregation of buses, private vehicles, parking, and neighborhood traffic considered. Both on-site and off-site routes considered. This element may not be required if “Not Present”.

**On-Site Walkways/Curbs/Sidewalks**

Quality of all pedestrian spaces considered.

**ADA Accessibility**

Availability, location, and condition of accessible routes considered. The accessible routes connect building entrances, handicap parking, public streets, and site facilities. Accessibility is considered “Not Present” if there is no accessible building entrance.

**Site Lighting**

Condition, location, and quantity of lighting considered.

**Fencing**

Condition of fencing and gates of various types considered. This element may not be required if “Not Present”.

**Drainage**

Surface ponding, water quality structures, and condition of visible infrastructure considered.

**Play Structures**

Evaluation of apparent condition of play structures and if they are appropriate for range of ages of students at a school, if present.

**Walls and slopes**

Condition of retaining walls and stabilized slopes considered. This element may not be required if “Not Present”.

**Wetlands on site**

Yes/no; proximity of wetlands or natural resources to the site, which – if present – may add restrictions or regulatory challenges to site renovations or expansion.

**Play Areas**

Presence, suitability, and physical condition of casual recreation and play for students. Play structures, surfacing, and courts considered. This element may not be required if “Not Present”.

**Outdoor Classrooms**

Evaluation of apparent condition of outdoor classrooms or learning areas if present.

### ***Environmental Justice Populations***

Review of designation of site and adjacent neighborhoods on the Social Vulnerability Index, per state GIS.

### ***Feasibility of Building Expansion on the Current Site***

Evaluation of whether building is capable of appropriately expanding on its current site. Expansion can be horizontal, vertical, or infill, depending on the building's configuration. Feasibility of expansion based on size of property, existing coverage, regulatory restrictions, and physical constraints such as topography and proximity to natural resources.

### ***Feasibility of Site Expansion***

Evaluation of whether site expansion is possible, based on adjacent properties, and physical constraints, such as roads, proximity to protected lands, and easements.

## **Community Assessment: Site Evaluation**

The Community – Site assessment included the broad categories of transportation access and neighborhood elements. Transportation access considered the condition of the adjacent streets, the ability of students and adults to bicycle and walk to the school, and the accessibility of public transportation. Neighborhood elements considered the school's proximity to community, civic, educational, commercial, and athletic facilities.

### ***New Hampshire Division of Historical Resources (DHR) Status Inventory of Archeological Assets (Site Review)***

Comment, if applicable. Criteria will inform opportunities and constraints for modifying the existing building. In some cases, data may not be available.

### ***School Buses***

Review of types and numbers of school buses and bus queuing.

### ***Accessible to Transit***

Building is located within 2 blocks (1000 feet) of at least 2 stops on bus lines of regular frequency (at least every 10 minutes, during rush hour and mid-afternoon). Criteria noted and considered as part of the overall community building score.

### ***Bikeable***

Facility is considered bikeable if within 2 miles of multiple residential neighborhoods, without riding on busy streets that lack dedicated bike areas. Criteria noted and considered as part of the overall community building score.

- » Wide sidewalks and/or low-traffic streets
- » Adjacent to or within a residential neighborhood, without crossing busy & wide (4+ lanes) streets
- » Not located on a steep street
- » Bike racks are present at the school and are safely accessed from site entry points

**Walkable**

Facility is considered walkable if within 1.4 miles of residential neighborhoods, with consistent sidewalks, and walking route does not require students to cross busy or dangerous streets (per district eligibility criteria).

- » Consistent, accessible sidewalks with crosswalks
- » Adjacent to or within a residential neighborhood, without crossing wide (4+ lanes) streets

**Site suitability for school use?**

Yes/No, Comment if applicable. Considers overall site conditions, overall community rating, and size of site.

**Overall Building – Community Condition:**

This is the professional judgment on the part of the reviewer(s), considering all aforementioned factors and with consideration of nearby neighborhood, community, educational, and athletic facilities. Criteria noted and considered as part of the overall community building score.

# Educational Assessment Criteria

## Educational Facility Effectiveness Evaluation

### Educational Facility Effectiveness of Learning Environments (EFE-LE)

The quality of physical environments has direct impacts on educational outcomes. The EFE analysis considers both inherent building characteristics of physical appearance and condition, and introduced equipment (e.g., furniture and technology). These qualitative factors have a large impact on overall student performance, as they influence students' comfort and ability to concentrate on tasks; teacher and student health and wellness; as well as absenteeism and retention.

Building environments also affect the overall educational effectiveness rating. Fixed elements, such as walls and windows, are components that are not easily remedied and may require extensive or invasive renovation. Other elements, such as furniture or finishes, can be more easily updated, replaced, or supplemented.

Fixed Building Elements include:

- » Ventilation
- » Natural Daylighting
- » Lighting Quality
- » Acoustical
- » Environment (Inviting/Stimulating/Comfortable)
- » Power and Technology Infrastructure
- » Access to water for student projects
- » Access to toilet facilities

Repairing these fixed elements may require buildings to be unencumbered of students (i.e., vacant) for the duration of the work, depending on the upgrades required.

- » Adaptable elements
- » Technology: ubiquitous wireless access for teachers and students and classroom technology
- » Furniture: light weight, ergonomic and supportive of collaboration
- » Finishes
- » Adjacencies of Learning Environments
- » Access to outdoor learning (classrooms or other)

These considerations often consist of singular systems and can be repaired or replaced independent of other systems. They may change frequently with the evolving landscape of educational pedagogy and should support a building that can adapt flexibly at relatively low costs. These upgrades can be executed internally, by facilities personnel or with arranged contracts.

## Educational Facility Effectiveness Evaluation: Criteria Rating Hierarchy

The EFE-LE uses the following classification system:

- Excellent: Elements meet needs for 21st century (Next Generation) teaching and learning
- Good: Elements contribute to teaching and learning
- Fair: Elements somewhat interfere with teaching and learning
- Poor: Elements detract from or interfere with teaching and learning
- Deficient: Non-existent or inoperable systems or elements

## Educational Facility Effectiveness Evaluation: Analysis Definitions

### ***Evaluation Criteria***

**Building Originally Designed As:** Over time, a school building may have modified the range of grades served. Knowing their original use quickly provides some insight into space types and building appointments.

### ***Best Grade Configuration for this School Building***

A school building may be best suited for a different range of grades or use depending on the types, quantities, and sizes of spaces, as well as the existing site attributes, including:

- » Heights of casework, markerboards and other elements the students use
- » Configuration and heights of toilet room fixtures

### ***Ventilation***

Fresh air is a critical component for health, wellness, and overall student performance. An even distribution of ventilated air is also important. Different ventilation systems (unit ventilators, central air ventilation, no mechanical ventilation) provide varying levels of outdoor air percentages and filtration. Observe whether mechanical ventilation is provided and what the apparent quality of the ventilation system is. Qualitative measurements are not taken, however visual, olfactory, and thermal observations are made.

### ***Natural Daylighting***

Considered to be a better quality of light than artificial lighting. Evaluates the general quantity/quality of the natural light and note if most spaces have access to daylight.

### ***Artificial Lighting Quality***

Observed (not measured) light level at the working surface. Type of light fixture and whether it provides an even dispersion of light for general academic tasks, and whether the fixture is dimmable, to accommodate use of technology.

**Acoustical**

The proper balance between voice reinforcement and sound absorption impacts “speech intelligibility.” This includes both sound performance within the space, as well as sound coming from outside the space. Observe whether the space appears to have appropriate acoustical properties for teaching and learning.

**Technology (Power):**

There are enough electrical outlets to support a future technology-rich classroom/school and they are properly distributed throughout the space.

**Technology (Wireless):**

There are sufficient access points throughout the school to support a 1:1 technology environment and fiber optic wiring exists within the building. The main distribution room (server room) is air-conditioned, to ensure system reliability.

**Technology (Interactive):**

Classrooms and other teaching spaces have working interactive technology, such as interactive marker boards and document cameras.

**Furniture**

Different educational-delivery models can be reinforced by furniture type and flexibility. Ideal furniture is light and mobile enough to be easily re-arranged in multiple configurations. Furniture is ergonomic, comfortable, in good condition and promotes student collaboration.

**Finishes**

Materials and conditions of the walls, floors and ceilings. Both physical and aesthetic conditions are considered.

**Environment (Inviting/Stimulating/Comfortable)**

Evaluates whether building is aesthetically pleasing and if it is a place where students and teachers feel comfortable and want to spend time in each day.

**Adjacencies of Learning Environments**

Classrooms and other learning environments have a relationship to each other which promotes collaboration, communication, and other aspects of 21st century teaching and learning. Spaces promote interdisciplinary learning.

**Outdoor Classrooms**

Students have access to outdoor classrooms or other outdoor learning opportunities to learn in different ways, sometimes involving nature and hands-on activities.

## **Site Components**

### ***Playgrounds/Play Areas***

Description of play surface materials (hard or soft). Evaluates condition of on-site play structures and whether structures are age-appropriate to the school's student population.

### ***Accessibility***

Evaluates conditions of play areas, including the ground surface/material, and whether areas are accessible to children of various disabilities.

### ***Play Fields***

Describes conditions of play fields, if present, and whether fields natural grass or synthetic turf.

### ***Flexibility in Building Typology***

Evaluates whether the building can serve alternative grade levels or support a special needs-focused curriculum.

### ***Educational Transformation to Support 21st Century Needs***

Evaluates if the building's construction easily allows for renovations that may change room sizes, replace or upgrade mechanical and electrical systems, and accommodate alternative educational-delivery methods (e.g., project-based learning [PBL]). This can often be the largest difference between a modern steel-frame building and interior masonry-bearing wall construction.

### ***Building as Swing Space***

Assuming the building is otherwise unoccupied, the ability to use the building for educational purposes for the temporary relocation of a school population during a period of renovation or construction.

### ***Utilization Rate***

Description of the utilization rate and if it is 85% or higher. For high schools, classroom utilization of 85% are considered at capacity. Rates higher than 85% show levels of overcapacity and overcrowding. Middle schools generally work to a utilization of 90% and elementary schools at near 100%.

# Educational Facility Spaces Effectiveness Evaluation

The Educational Facility Effectiveness – Spaces (EFE-S) metric compares the sizes of educational spaces to the New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines for 21st century teaching and learning in new capital projects. This quantitative analysis is important for establishing the level of adequacy of the existing spaces for educational delivery. It also indicates whether a facility is deficient/missing dedicated educational spaces normally found in buildings of its grade level and typology.

Primary considerations often affect core curriculum and include:

- » Classrooms (Depending on typology, these may include Pre-K and Kindergarten)
- » Teacher Planning
- » Small Group
- » Science
- » Art
- » Music
- » Vocations and Technology
- » Media Center
- » Cafeteria

Secondary considerations may allow for district flexibility in programming and community resources outside the traditional building environment, and include:

- » Gymnasium (This program space is sometimes served by local community spaces)
- » Gymnasium Options
- » Auditorium
- » Stage
- » Medical
- » Administration & Guidance
- » Air Conditioned Technology Network Room
- » Other considerations
- » Special Education: Self-Contained
- » Special Education: Resource or Small Group

Note: If a school has a special education program, its quantity of spaces will vary. Also, some substantially separate programs do not require full-size classrooms to be effective. For this reason, special education was considered differently than typical classroom spaces.

## Educational Facility Spaces Effectiveness Evaluation: Criteria Rating Hierarchy

The educational facility effectiveness assessment for spaces used a quintile classification hierarchy as defined below:

- Excellent: Exceeds New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines (+10% or greater)
- Good: School facilities are appropriate to house current enrollment and educational program. NSF meets New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines (-10% to +10%)
- Fair: School facilities appear to be adequately sized for current enrollment and educational program. NSF somewhat less than New Hampshire Code of Administrative Rules, Section Ed. 321 (-10% to -20%)
- Poor: School facilities may not be adequately sized for current enrollment and educational program. Net square footage (NSF) at least 20% less than New Hampshire Code of Administrative Rules, Section Ed. 321 guidelines
- Deficient: Dedicated space does not exist.

## Educational Facility Spaces Effectiveness Evaluation: Analysis Definitions

### ***Narratives***

The team considered the long-term goals relative to each building's capability of supporting Manchester School District's educational vision for 21st century (next generation) learning and teaching.

### ***Engaged Learning***

Engaging with the curriculum, applying it to an authentic context. Making connections between content areas and values/curiosity and interest. Finding connections to the community and making a difference. Public and tangible products. There is selective and intentional engagement, and agency in how one keeps focused and takes breaks.

- » The following were criteria used for evaluating the levels of Engaged Learning at each school:
- » The building (is/is not) comfortable to learn in.
- » The building (has/lacks) appropriate temperature control and ventilation.
- » The building (has/lacks) a space that can be used as a flexible learning commons for collaborative learning and presentations.
- » The building (makes use/does not make use) of public space for teaching and learning.
- » The building (provides/lacks) display space for student work to reinforce student accomplishments.
- » The building (provides/lacks) space for teacher collaboration and planning.

### ***Differentiated Learning***

Acknowledging different learning styles. Encouraging how to understand one's self (self-knowledge). Flexibility that occurs within instruction, which also promotes flexibility in how students demonstrate learning. The following were criteria used for evaluating the levels of Differentiated Learning at each school:

- » Classrooms (are/are not) large enough to support Universal Design for Learning (UDL), including the ability to create learning zones.
- » The building (has/lacks) breakout spaces for differentiated/personalized learning and special education.
- » The furniture in the building (can be/has difficulty being) flexibly arranged.

### ***Cognitively Demanding Tasks/Programs***

- » The classroom environment (is/is not) sufficiently flexible to allow for different teaching and learning styles.
- » Building (supports/lacks) learning environments that support music.
- » Building (supports/lacks) learning environments that support art.
- » Building (supports/lacks) learning environments that support physical activity/education.
- » The building environment (supports/does not support) STEM adequately.
- » The building (provides/lacks) space to experiment, create and collaborate.
- » The building (has/lacks) performance/presentation space.
- » Based on location and proximity to community resources and public transportation, teachers and students (can/have difficulty) access(ing) the City as a learning tool.

## **Overall EFE Rating**

NH Code of Administrative Rules, Section Ed. 321 areas are based on current enrollment within school. Actual areas were determined by measuring CADD plans provided by Manchester School District. SMMA did not field-measure the buildings but verified general conformity with existing conditions by measuring spot values to determine the rough accuracy of CADD drawings. The design team reviewed the 2018 CMK Long-Range Facilities Plan, which informed some of the educational effectiveness ratings.

The following outlines the rating system used for evaluating the Overall Educational Facility Effectiveness:

- Excellent: Elements meet needs for current AND future teaching and learning.
- Good: Elements contribute to teaching and learning.
- Fair: Elements somewhat interfere with teaching and learning.
- Poor: Elements detract from or interfere with teaching and learning.
- Deficient: Non-existent or inoperable systems or elements.

