



MANCHESTER
SCHOOL DISTRICT

Smyth Road Elementary School

Educational and Facilities
Master Plan

smma



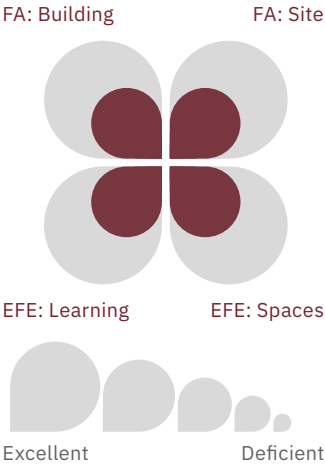
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Summary

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.

At-a-Glance



Address
245 Bruce Road, Manchester, NH 03104



Grades
Pre-K–5th Grade



Hours of Operation
8:25am–2:50pm



2022–2023 Enrollment
438



Gross Square Footage (GSF)
44,647 sf



Site Acreage
11.5



Date of Construction
1956



Date of Addition Construction
1961, 1990

SCHOOL NAME

Smyth Road Elementary School

SITE VISIT

August 2023

Site Plans







Facility Evaluation Criteria

Physical Analysis

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

Roof Membrane (Architectural)			●		
	"Original 1956 and 1961 Additions had new EPDM roofs installed in 2006. Although there is some useful life remaining, there is a significant amount of water ponding throughout. It appears that the original membrane roof in the 1990 addition has not been replaced and the stone ballasting has been removed. Minimal water ponding was observed on this section of roof as well. Roof walkway pads were not installed to and around all HVAC rooftop equipment. All roofs are beyond their useful lifespan and typical warranty period, so replacement is recommended."				
Existing Photovoltaics					○
	"N/A"				
Space for Solar on Roof					○
	"Space on roof is available, exact locations and SF size can be evaluated."				
Façade			●		
	"Masonry veneer generally seems to be in good shape except for the brick base at the original building. Significant areas of efflorescence and brick deterioration were observed at the base of walls directly adjacent to paved surfaces. Restoration and repointing will be required. Plaster surfacing at the exterior CMU walls at the rear of the 1990 addition was noted to have fallen off."				
Windows				●	
	"The original aluminum framed single pane windows and door systems are beyond their useful life expectancy and should be replaced. Window shades have fallen off or have been removed in many spaces. Double pane aluminum windows in the 1990 addition are also nearing the end of their useful life and are not as energy efficient as newer window systems. Window screens are in disrepair or have been removed in many locations. Fiberglass sandwich panels at Multi-Purpose Room show signs of UV degradation."				

Physical Analysis

	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
Boilers (Mechanical)					
	<i>"Boilers appear to be in good working condition with new primary pump. Secondary pumps appear older, but also in good working condition."</i>				
Boilers (Plumbing)					
	<i>"Refer to mechanical report for HVAC boilers. Domestic water heaters - the hot water is heated by a 75-gallon gas fired Bradford White water heater. (76,000 Btu/hr, model number RG275H6N) The water heater was installed in 2020/2021. The piping arrangement (return piping, circ pump, etc) and equipment appears to be from the same time period or older, but appears in good working order."</i>				
Heating Distribution Systems					
	<i>"Piping and insulation appear to be in good condition. Classrooms have fin tube radiation for perimeter heating. The front entrance had radiators for heating which are exposed heating elements. Gym has unit heaters in the space. All equipment appears functional and maintained."</i>				
Building Envelope Thermal Performance					
	<i>"The original 1956 and 1961 portions of the building are mostly brick with CMU backup walls with a 1-1/2" air cavity. Insulation is not provided and does not meet current energy code requirements. When the roof was replaced in these areas in 2003, minimal insulation was added. In the 1990 addition, 2" of insulation exists in the wall cavity, along with 4" of insulation at the roof level. This does not meet current energy code requirements. Original single pane windows are in disrepair and beyond their useful life expectancy. Building entrances and all but one building exit do not have vestibules."</i>				
Interior Finishes					
	<i>"Interior finishes are generally old and could use some upgrades. VCT flooring was replaced in 2003 throughout the original portions of the building; however, there are areas of significant VCT cracking at building expansion joints and at exterior doors. Ceilings in the 1956 and 1961 classrooms are the original spline ceilings. Interior casework is generally old and sinks are not accessible. Toilet room finishes are worn and dated in many locations. Although corridor ceilings were updated to ACP in 2003, there are several water stained areas. There are still several existing interior wood doors that are in need of replacement. Classroom door hardware was recently upgraded."</i>				
Rooftop HVAC Equipment					
	<i>"Central HRUs and RTU for central spaces are reaching the end of useful life. HRUs for classrooms are both heating and cooling providing dehumidification and some cool air to spaces. These units are newly installed."</i>				

Physical Analysis	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
HVAC Controls					
	<i>"Jci metasys controls, district standard. Thermostats are older style."</i>				
Technology Infrastructure					
	<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>				
Technology Systems					
	<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>				
Security Systems					
	<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>				
Kitchen Equipment and Systems (Electrical)					
	<i>"Kitchen electrical equipment was observed to be aged, but in fair-to-good condition. All observed receptacles are GFCI type in compliance with Code."</i>				
Kitchen Equipment and Systems (Plumbing)					
	<i>"The kitchen contains a hand sink, prerinse pot sink, a double pot sink and a Hobart dishwasher. The hot water feed to the dishwasher goes through a point of use electric booster heater to provide the required temperature at the dishwasher. A grease trap was not observed. The equipment is in fair condition. The piping below the equipment is a mix of exposed copper, white painted copper and PVC waste lines. Although PVC is an acceptable material for waste piping in New Hampshire, it is not typically installed in commercial kitchens as there are durability and cleanliness concerns. Chrome plating is recommended for the copper piping."</i>				
Natural Gas Distribution System					
	<i>"The gas main runs from the meter/regulator assembly through the gymnasium (mid height along wall). Gas is fed to boilers, the domestic hot water heater, and 8 mechanical roof top units. The high pressure gas piping is painted yellow. There are some areas of rust on the supplies to the roof top units. But overall, the gas system appears in good working order."</i>				

Physical Analysis	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
Current Fuel Source					
	"The building has a natural gas service fit with a meter and regulator assembly and provides high-pressure gas to the building. A 3-inch line rises and enters the building. The piping and arrangement are rusting and it looks like the elbow at the bottom of the riser has been hit/dented. Although the piping is rusting, no issues with the system were reported. For major renovations, replacing or repainting/coating should be considered."				
Generator					
	"N/A"				
Elevator					
	"N/A"				
Ventilation Distribution Systems					
	"High supply of conditioned air with low returns in classrooms and other spaces. Gym uses fabric ducts high in space along with low returns. Nurses station includes exhaust fan. Ductwork on roof is rusting and uninsulated. Bathrooms are exhausted."				
Electrical Services					
	"Electrical service is provided by PSNH via a pad-mounted transformer. The utility meter is installed on the exterior wall. The transformer appears in good condition. The transformer secondary feeder is extended underground towards the school building and terminates in the Main Switchboard "MDP" located in the Main Electric room 140. The switchboard is manufactured GE, rated 600 Amp 120/208v 3ph 4w, designed/installed around the year 2003. The switchboard appears in good operational condition. Downstream panelboards appear in good operational condition too. Majority of them were also provided in lieu of the "original ones around year 2003, and their power feeders were replaced. Overall, power equipment throughout the building was observed in good operational condition."				
Life Safety: Means of Egress (Architectural)					
	"Quantity, size and locations of egress components appear to be adequate."				
Life Safety: Means of Egress (Electrical)					
	"Self-contained internally lighted LED exit signs and battery units are provided along egress pathways. Emergency lighting throughout is observed in adequate operational condition."				

Physical Analysis

	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
Life Safety: Fire Protection (sprinklers)					
	<i>"The building does not currently have an automatic sprinkler system. Major renovations should include retrofitting the building with sprinklers."</i>				
Life Safety: Fire Alarms					
	<i>"The Fire Alarm system (FA) consists of the FACP, radio master box, smoke and heat detectors, double action pull stations, speaker/strobes and strobe only unit. The Fire Alarm Control Panel (FACP) manufactured by Notifier and radio master box are located in the main entrance lobby. Exterior FA alarm beacon was not observed. The school building doesn't have a fire protection system (sprinklers) and therefore there shall be a "full coverage smoke detection" which is not currently present. The following smoke detection status was observed: In general, corridors have smoke detectors, however, inadequate quantities in some areas - additional detectors shall be added. Smoke detector were observed in the kitchen and only some administration areas. No smoke detectors were observed in classrooms, gym/cafeteria, library, and bathrooms - they shall be provided throughout, to "compensate" for no fire protection system in the building. FA signaling devices (speaker/strobes and strobes) were observed in majority of spaces, however, they are missing in bathrooms - shall be provided accordingly. All additional FA initiating and signaling devices shall be connected to FACP."</i>				
Security: Entry Sequence					
	<i>"Administrative offices have direct visual access to the building's front entrance. Card access and a video intercom are installed at the exterior of the main entrance; however, there is not a secured interior vestibule beyond the exterior door."</i>				
Lighting Quantity / Control					
	<i>"Lighting throughout the building is a mix of "newer" and "older" lights. The new 2'x4' LED recessed "basket reflector" type lights with integral occupancy sensors were observed in corridors, library, classrooms in year 1989 building addition, bathrooms, etc.). The new LED pendant lights with integral occupancy sensors were observed in multi-purpose room. All "newer" lights appear in good operational condition. The "older" linear non-dimmable wraparound fixtures with fluorescent lamps were observed in classrooms in years 1955 and 1961 building areas, in kitchen and utility rooms. Although still in fair operational condition, the "older" lights are recommended for replacement with energy efficient types, and with associated occupancy sensors and dimming controls."</i>				
Toilets and Fixtures					
	<i>"The plumbing fixtures appear to be original (1956, 1961 addition, 1990 addition) with the exception of the water fountains (bottle filler type installed). Bubbler outlets at the classroom sinks have been removed and are no longer in use. Flow rates were not able to be confirmed, but based on the age of the fixtures, it is assumed that they are not low flow fixtures. (Would not meet current sustainability requirements.) The toilet rooms within the classrooms do not meet ADA requirements."</i>				

Physical Analysis

 NONE / MINOR
  MODERATE
  MAJOR
  REPLACE
  N/A

Plumbing Distribution Systems

"Distribution observations were limited to exposed piping within mechanical rooms, exposed within toilet rooms, and under kitchen equipment. The piping near the water heaters looks is a mix of older copper piping and new copper piping. The mixing valve is set at 110 degrees. The piping appears to be in good working order. The 2 1/2-inch water service reduces to 2-inch (2-inch meter and reduced pressure backflow preventer) is located in a corridor closet just inside the main entrance. The age of the copper piping throughout the building varies. Piping greater than 40 years old (lifespan 40-50 years) 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. Exposed sanitary and storm piping where visible appear ok. The condition of the interior of the piping is not known. The expected lifespan of cast iron piping is 50 years. Therefore, original cast iron piping should be scoped/tested to confirm the expectancy left in the piping. The roof has numerous areas of ponding. The roof sloping does not appear adequate as the water is not flowing to the drains."

Accessibility (Architectural)

"Not all building exits are accessible as they do not exit directly at grade without ramps or sloped walkways. Not all toilet rooms are accessible. Where accessible toilet stalls are provided in several areas, those spaces still do not provide the wheelchair turning radius or required door clearances. Door widths leading into classroom toilet rooms do not meet minimum clear width requirements. A chair lift was installed at the Stage in 1990, however, it is located in a Storage Room and not directly accessible from the Multi-Purpose Room. Classroom sinks are not accessible."

Accessibility (Plumbing)

"Fixtures within classroom toilet rooms are not accessible. Listed as major as the door into the rooms are not wide enough to meet ADA requirements. Replacing with assessable door and fixtures will require major rework."

 Structural Systems:
 Signs of Deterioration Observed?

YES NO

Roof

✓

"Roof framing bar joists on some steel framing and some CMU bearing walls as well."

Floor

✓

"Ground floor slab on grade in good condition, little to no cracking visible thru VCT flooring."

Structural Systems: Signs of Deterioration Observed?

	YES	NO	
Walls / Columns		✓	
	<i>"All walls are CMU masonry walls . All walls appear to be in good condition."</i>		
Foundations		✓	
	<i>"Foundation in good condition."</i>		
Façade		✓	
	<i>"In relatively good condition, except for mortar is washing out at base of brick walls and some efflorescence is visible in many areas."</i>		
Is Lateral System Identifiable?	✓		
	<i>"Lateral system appears to be primarily CMU shear walls. It is unknown if these walls have reinforcing steel or not."</i>		

Community

	YES	NO	
Emergency Shelter	✓		
	<i>"Short Term Shelter only."</i>		
Are there Separate Community / Non-School Spaces on Site?		✗	
	<i>"N/A"</i>		



Site Evaluation Criteria

Physical Analysis	NONE / MINOR	MODERATE	MAJOR	REPLACE	N/A
Parking Capacity					
	<i>"Approximately 50 parking spots on-site. 58 staff per district website."</i>				
Parking Quality					
	<i>"Pavement in good condition."</i>				
Ground Cover					
	<i>"Trees around the site, some landscaping at front entrance. Lawn areas in the process of hydroseeding."</i>				
Fields					
	<i>"Multi-purpose athletic field."</i>				
Neighborhood Streets					
	<i>"Access from Bruce Rd, with additional pedestrian access points from church parcel and ski area parking lot. Surrounded by residential streets."</i>				
Drop-off / Pick-up Routes					
	<i>"Staff vehicles only in the school lot. On street drop off/pickup only."</i>				
Walkways / Curbs / Sidewalks					
	<i>"Sidewalk connections from main entrance out to street. Pedestrian access around building utilized shared bituminous fire lane and bituminous play lot. Pedestrian connection to adjacent church parking lot and shared fire/pedestrian connection to ski area parking lot. All pavement flush. Movable concrete barriers may be used to separate pedestrian areas from vehicular traffic. No curbs, except along main driveway entrance from street."</i>				
ADA Accessibility					
	<i>"Developed site is very flat, bituminous parking areas, fire lane, and play lots all flush with building entrances. 2 ADA spaces at main entrance."</i>				

Physical Analysis	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
Site Lighting (Civil)					
	<i>"LED fixtures on wooden poles around site."</i>				
Site Lighting (Electrical)					
	<i>"Building-mounted wall packs are outdated, not energy-efficient type, observed to be in fair condition. Upgrading to energy-efficient LED lights is recommended. Pole-mounted lights appear to be owned by the utility company."</i>				
Fencing					
	<i>"Security fencing around rear of site. Wooden fences delineating boundary between school and church parcels."</i>				
Drainage					
	<i>"Few drainage structures. Mostly sheet flows off of bituminous areas. Rip rap pretreatment along fire access lane and at low point to drainage swale."</i>				
Play Areas					
	<i>"Play area with play structure, multi-purpose athletic field, Expanded bituminous fire lane and lots with basketball hoops and pavement markings for play. Recently repaved and repainted."</i>				
Monuments and Memorials					
	<i>"None observed at this site."</i>				
Walls / Slopes					
	<i>"Grassed slopes down from school around perimeter of developed area, not very steep. Steeper slopes in the undeveloped wooded areas at the rear and perimeter of the site."</i>				

Physical Analysis	YES	NO
Are there any Wetlands on Site?		
	<i>"GIS shows no wetlands on site, but drainage swale through woods at back of site may qualify as wetland/ intermittent stream."</i>	
Are there any Easements on Site?		
	<i>"No easements per GIS. School has pedestrian connection to adjacent church parcel and fire lane connection to adjacent ski area (on Parks and Rec land). Potential shared access easements for either."</i>	

Physical Analysis

	YES	NO	
Are Play Structures Age-Appropriate?	✓		
	"Play structure is age-appropriate."		
Is there an Outdoor-Learning Area?	✓		
	"Outdoor classroom at rear of site with benches and picnic tables. Shaded by adjacent wooded area."		
Should there be a Question on Environmental Justice Populations / Vulnerable Populations?		✗	
	"NH GIS designates site as Medium Social Vulnerability Index, based on census analysis."		
Is the Building Expandable on the Current Site?	✓		
	"Opportunities to expand into large paved areas around site."		
Is the Site Expandable?	✓		
	"Site contains wooded area around the rear of school and multipurpose field, which could be expanded into. Significant topography around the perimeter of site may limit expansion opportunities."		

Community Analysis

	YES	NO	
Historical Commission Status: Inventory of Archaeological Assets (Site Review)		✗	
	"The site is not listed on the National Register of Historic Places (per the National Park Service website) or the New Hampshire State Register of Historic Places (per the New Hampshire Division of Historical Resources website). The site is also not within the Manchester Historic District or listed as a locally-designated historic site, per Manchester GIS."		
Are there School Buses?	✓		
	"2 MTA and 7 SPED buses, per bus counts provided by the district."		
Bikeable?		✗	
	"One small bike rack at the front of school, no bike lanes on adjacent streets."		

Community Analysis

	YES	NO
Walkable?	✓	
"Sidewalks along Smyth and Bruce Rd, pedestrian connections from multiple sides of the property. No sidewalks on some of the smaller neighborhood streets nearby."		

Traffic Analysis		 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
Parking Bruce Rd						
"Confusing signage stating no parking during school hours and during PUDO hours. Unclear if parking is allowed during school hours outside of PUDO hours. Other signs state live parking only during school hours."						
Pedestrian Connections Between School and St. Paul's parking lot						
"Church parking lot striping to keep cars from parking at end of path is faded."						
Sidewalks Bruce Rd						
"East (school) side in fair condition. West side has significant vegetation encroachment across from school parking lot."						
Sidewalks Sagamore St						
"No sidewalks to connect to Bruce Rd sidewalks."						
Standalone Crosswalks School parking lot						
"Excessively long crosswalk through middle of parking lot. Could be shortened by going straight east to west rather than diagonal or by adding median island. Curb ramp on SW end does not align with crosswalk and does not have detectable warning panel. Pedestrian crossing should be evaluated for ADA compliancy."						
Unsignalized Intersections Bruce Rd at Sagamore St						
"No crosswalks or curb ramps, despite sidewalks on both sides of Bruce Rd to north. No pedestrian connection to residential neighborhood to south."						
Unsignalized Intersections Bruce Rd at School parking lot						
"Very faded crosswalk and no detectable warning panels across school driveway. Pedestrian crossing should be evaluated for ADA compliancy."						
Unsignalized Intersections Bruce Rd at Smyth Rd						
"Crosswalk striped but no detectable warning panels across Bruce Rd. Pedestrian crossing should be evaluated for ADA compliancy. Sharp angle in SW corner may be difficult for school buses to navigate."						

SCHOOL NAME

Smyth Road Elementary School

SITE VISIT

August 2023

REPORT TYPE

Site Evaluation

Traffic Analysis

	 NONE / MINOR	 MODERATE	 MAJOR	 REPLACE	 N/A
Unsignalized Intersections Smyth Rd at Church parking lot driveway					
<i>"No crosswalk or detectable warning panels across driveway. Pedestrian crossing should be evaluated for ADA compliancy. No STOP sign on driveway approach, and unconventional small exit only/"do not enter" sign facing Smyth Rd."</i>					
Unsignalized Intersections Smyth Rd at Pickering St					
<i>"Crosswalk on west side with school crossing signs, but no detectable warning panels. Pedestrian crossing should be evaluated for ADA compliancy. Curb ramp on NW corner does not connect to any sidewalk."</i>					



Educational Facility Effectiveness: Learning Environments (EFE: LE)

Grade Levels

Building Originally Designed as:	1st Grade–6th Grade
Which Educational Program are you Assessing?	Pre-K–4th Grade
The Grade Configuration this School is Best Suited to:	1st Grade–4th Grade

Educational Building Analysis

	GOOD	FAIR	POOR	DEFICIENT	FAILING
Acoustical		●			
Adjacencies of Learning Environments		●			
Environment (Inviting / Stimulating / Comfortable)			●		
Finishes	●				
Furniture		●			
Lighting Quality	●				
Natural Daylighting	●				
Outdoor Classrooms					●
"None observed."					
Technology: Power		●			
Technology: Wireless		●			
Ventilation		●			

This Site Includes:

	YES	NO	
Accessible		✗	
Play Fields	✓		
Playgrounds / Areas	✓		

Building Assessment

	YES	NO	
Can the Building Change Typology Easily?		✗	
Can the Building be Transformed Educationally to Serve 21st Century Needs?	✓		
	"Yes, with extensive renovations."		
Can the Building Serve as Swing Space?	✓		
Is the Building between 85%—115% Utilization Rate?	✓		



Educational Facility Effectiveness: Spaces (EFE)

Space Assessment

	QUANTITY	ACTUAL AREA (SF)	MORE INFO
Administration and Guidance (Quantity Varies)	Varies	795	
Art Classroom (Min Area 900 sf or 36 sf / Student)	1	965	
Cafeteria (Min Area 12-15 sf / Student for Max Number of Diners per Lunch Period)	1	3500	LUNCH PERIODS: 3
<i>"Shared with Gymnasium."</i>			
Classroom: General Education (Min Area 900 sf or 36 sf / Student)	15	850, 860, 920, 965	
Faculty Lounge	1	355	
Gymnasium (Min Area 6000 sf)	1	(see Cafeteria)	STAGE: Yes
<i>"Shared with Cafeteria."</i>			
Kindergarten (Min Area 1000 sf or 50 sf / Student)	3	965, 1105	TOILET ROOM: Yes
Media Center (Min Area 1800 sf or 4 sf / Student x Design Capacity)	1	2350	
Music Classroom (Area 1200 sf)	1	965	
Pre-K0/K1 (Min Area 1000 sf or 50 sf / Student)	2		
<i>"See Special Ed Self-Contained."</i>			

Space Assessment

	QUANTITY	ACTUAL AREA (SF)	MORE INFO
Special Education: Resource of Small Group (Area 500 sf)	2	860, 965	
Special Education: Self Contained (Area 950 sf)	4	850, 860, 870	TOILET ROOM: Yes
“(2) PK autism, (1) K-2, (1) 3-5”			
Stage (Area 1000 sf)	1	505	
Teacher Planning	0	0	
“None observed.”			

Adequacy of Rooms

	 GOOD	 FAIR	 POOR	 DEFICIENT	 FAILING
Administration and Guidance					
Art Classroom					
Cafeteria					
Classroom: General Education					
Faculty Lounge					
Gymnasium					
“Floors are VCT and slippery for some sports. Gym is undersized and shared with Cafeteria.”					
Kindergarten (K2)					
“Undersized Kindergarten classrooms.”					
Media Center					
Medical					
Music Classroom					
Pre-K0/K1					
“Austim Pre-K - Undersized classrooms.”					
Special Education: Resource of Small Group					

Adequacy of Rooms	GOOD	FAIR	POOR	DEFICIENT	FAILING
Special Education: Self Contained					
Stage					
	"Not wheelchair accessible from audience."				
Teacher Planning					
	"None observed."				

Special Education Assessment	YES	NO
18+		×
Autism Spectrum	✓	
	"Self-Contained"	
Cognitively Impaired		×
Deaf and Hard of Hearing		×
Emotional Disturbance		×
English Learners	✓	
	"Push-In"	
Intellectual Disability		×
Life Skills		×
Medically Fragile		×
PT/OT/Speech	✓	
Reset Program		×
Social Emotional		×
Title 1		×

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.

