Facilities Assessment

FOR THE

Valley View Middle School

50 Valley View Road
Watchung, NJ 07069

Building Data		
Year Constructed: 27,566 sf constructed in 19?? and a 23,562 sf addition constructed in 2002		
Grades Housed: 5-8		
Total SF: 51,128		
Lot/Block: Lot 6/Block 31.01		
Total Acreage: 5.726		
Utilities		
Water – Municipal 2" Service		
Sewer – Municipal Sanitary		
Electric – 277/480/3/60	Amps - 2500	Voltage – 277/480, 3-phase
Fire Service: n/a		
Fuel – Natural Gas 5"		
Communications – Internet Service: Cablevision Fiber Optic	Telephone: Verizon Category 3 Copper	
Systems		
Heating – Gas Fired Hot Water Boilers, Aerco Benchmark 2.0 (3 Qty) and gas-fired packaged rooftop units (see HVAC)		
Boilers – Aerco Benchmark 2.0 condensing hot water boiler - efficiency rating 92%		
Terminal Units – There are a combination of ducted systems with ceiling diffusers and unit ventilators		
AC – There are 11 packaged rooftop units and a main chiller tied into a two-pipe system that feeds AHUs and U/Vs		
Controls – Automated Logic – Building Management System		
Fire Alarm – EST 3 Multi-plexed System		

Site

PAVING SYSTEMS INCLUDING ROADS AND PARKING AREAS: Are in excellent condition.

CONCRETE SIDEWALKS: The sidewalks are in good shape, except the sidewalk on the northeast side of the building. There are large sections of the walkways that appear as if the topcoat of concrete has spalled – and is completely missing; the aggregate is clearly visible. Other sections have noticeable cracks that should be monitored.

ADA REQUIREMENTS: The curb cuts are missing detectable/tactile warning surfaces:

This is an example of a detectable/tactile warning surface:

EXTERIOR SITE LIGHTING: There are wall packs located at exterior doors to provide egress lighting and decorative wall sconces at the main entrance and other prominent areas on the school's perimeter. It is recommended that if the district is interested in providing additional site lighting around the school that full cut-off fixtures be utilized to minimize the amount of light bleed onto adjacent properties.

DRAINAGE: Adequate

PLAYGROUND / PLAYFIELD CONDITIONS: Playing fields are in relatively good condition. The BOE may want to consider artificial turf.

BUILDING ENVELOPE

ROOF CONDITIONS: See the Roof Analysis done by TREMCO Roofing & Building Maintenance, dated 01/20/2017, attached the end of this report.

EXTERIOR WALL CONDITIONS: While the exterior brick is in good condition there is a section of the water table feature on the northeast side of the building (new addition) that is noticeably stained and should be addressed.

WINDOW SYSTEMS: The windows are in good condition.

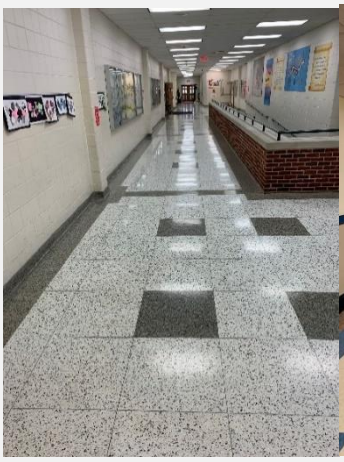
EXTERIOR DOOR CONDITIONS: The exterior doors are in good condition.

BUILDING INTERIORS:

INTERIOR WALL CONDITIONS: The interior walls are in good condition. There is one (1) small area in the corridor outside off the Girl's Locker Room that needs to be scraped and repainted.

INTERIOR DOOR CONDITIONS / BF: While most of the doors and hardware have been replaced/updated, there are still some doors (in the original school building) that have not been replaced – even though their corresponding spaces have been renovated. The doors and hardware should be replaced – as the toilet rooms were renovated to be ADA compliant.

INTERIOR FINISHES FLOORS, VINYL COMPOSITION TILE (VCT) / CEILINGS: Most of the main corridor floors are terrazzo – and are in excellent condition. The other corridor floors are Vinyl Composition Tile (VCT) and are in excellent condition.

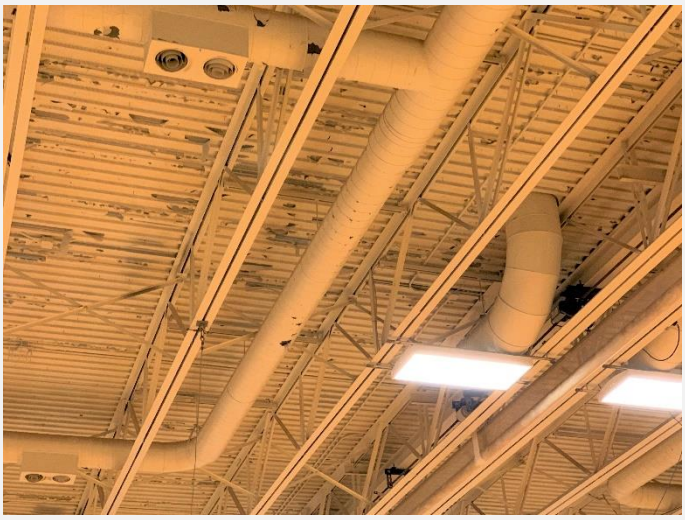


There is one (1) small area near exterior door (outside of the Girl's Locker Room where the terrazzo is damaged (possibly from salt).

There is one (1) other area in the original section of the school building (near the entrance from the parking lot) where an inlaid traffic mat was removed. A smaller mat was placed in the depression – not completely infilling it – with another, larger traffic mat placed over that. This is a tripping hazard.

The rise of the steps down into the Instrumental Music Room are unequal. The typical rise is 7" (top step), but the bottom step is closer to 11". This throws people's rhythm off as they come into the room via the steps.

CEILINGS: The ceiling in the Gymnasium, the exposed roof deck) is peeling badly and needs to be scraped and repainted. Care should be taken to make sure that the correct primer is used.



CASEWORK: The classrooms in the original wings of the school for the most part are furnished with open shelving and metal lockers; some in better condition than others. It would be preferable to replace the existing casework with more up-to-date storage cubbies/lockers along with additional storage units – possibly some that were a combination of doors and file drawers, all lockable.

Although the protective wall pads in the Gymnasium are in fair condition, the edges and seams are showing signs of wear – and should be monitored.

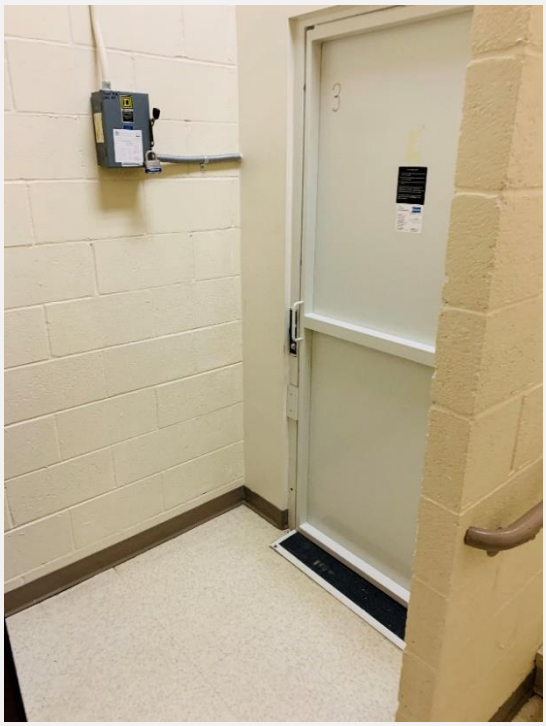
There is a large trophy case (mostly empty) in a corridor of the original wing of the school. It would make more sense to locate it in the main corridor outside of the Gymnasium where there is more than enough room.

The Choral Music Room has acoustic wall treatments while the Instrumental Music Room has none.

ADA: The existing handrails on the stairs are not ADA compliant. See attachments at the end of this report.

The existing drinking fountains could be replaced with combination drinking fountain/bottle fillers.

STAIR LIFT: Is in good condition.



ELEVATOR: Adequate

SECURITY SYSTEM

FRONT ENTRANCE – SECURE VESTIBULE: The main entrance lobby could be reconfigured so that another set of doors were added to create a secure vestibule. A small transaction window and door could be added where there is currently a door into the main office.

Any visitor to the school would have to show ID (could be passed through the transaction slot) and give a reason for being at the school. If they were just dropping something off, depending on the size, could be passed through the transaction slot – or left in the "Secure Vestibule"; they would have no reason to enter the school itself.

A parent picking up a child would not need to enter the main office. If any visitor needed to enter the school (attend a meeting, a parent helping out in class, etc.) the main office personnel could electronically release one of the new door leafs and then into the main office. Once the have their Visitor's Pass they would exit through the other door – back into the main vestibule – but on the school side of the secure vestibule. All traffic would flow this way. This would prevent unnecessary traffic through the Principal's office, which is frequently used as a shortcut by staff and students, which does not allow for much privacy in the Principal's Office.

ACCESS CONTROL – DOORS: See below

ACCESS CONTROL MONITORING: Currently there are only a few exterior doors with access controls at the school (including the main visitor's entrance). The district is currently evaluating proposals to upgrade the security system at the school which may include some additional door access controls. The school has an EST Burglar Alarm system which includes a number of motion sensors located around the building. The district is evaluating proposals to upgrade this system to include make/break contacts on each exterior door.

CCTV – VIDEO MONITORING: The school has a series of exterior building cameras and interior corridor cameras that can be viewed from one location in the main office. The district is currently evaluating proposals to upgrade the security system at the school which will include enhancements to the video surveillance system.

HVAC SYSTEM

BOILERS: The boiler system in the school consists of 4 high efficiency condensing boilers that provide hot water which is circulated throughout the building. The hot water supplies unit ventilators, air handlers, unit heaters and cabinet heaters which heat all of the classrooms, assembly spaces, corridors, toilet rooms and administration areas. The boilers are Aerco Benchmark 2.0 units and are interconnected through a central controller that modulates the boilers to match the building demand. The boilers were installed in 2002 and are reported to be functioning well.

HEATING AND COOLING SYSTEMS - UNIT VENTILATORS: The majority of the classrooms are conditioned via unit ventilators. Each of the unit ventilators has a hot water/chilled water coil which provides both heating and cooling depending on the season. Since the school is outfitted with a two-pipe system the unit ventilators must all provide heat or cooling at any one time. There is no way to provide heating one classroom while providing cooling in another. Individual through wall exhaust fans were installed in a number of classrooms on the exterior walls. Many of these fans were turned off at the unit which adversely affects the ventilation of the classroom. It is assumed that these units were shut off due to the noise of the fan motors. This situation could also contribute to the high humidity in the classrooms during summer months as it limits the ability for outside air to be exhausted from the room. Upgrade of the exhaust fans should be investigated to see if quieter units can be installed.

HEATING AND COOLING SYSTEMS – ROOFTOP UNITS: There are eleven (11) rooftop HVAC units serving various areas of the school. Some of the units provide heating and cooling and some provide heating and ventilation only. Below is a summary of the units and the areas served.
Board Offices – Heating and cooling: 15 tons - Trane M/N: YCD180B
Gymnasium – Heating only: 280MBH - DesChamps M/N: PV-MZP-8707

All Purpose Room – Heating and cooling: 10 tons – Trane M/N: YSC120A (qty 2) and Cooling only: 13 tons – Aaon M/N: RK-13-2 (qty 2)
Music Rooms 1st Floor – Heating and cooling: 15 tons – Trane M/N: YCD180B
Music Rooms 2nd Floor – Heating and Cooling: 10 tons – Trane M/N: YSC120A
Media Center – Heating and cooling: 12.5 tons – Trane M/N: YCD150D
Corridors – Heating and cooling: 15 tons – Trane M/N: YCD180B
Locker Room and Coaches Offices – Heating only: 250MBH – Trane M/N: GRCA25PDM
RTUs NOS. 1, 4 AND 7 WERE REPLACED OVER THE SUMMER OF 2020.

The packaged rooftop units are reaching the end of their useful life. The systematic replacement of these units was started three years ago when units RTU-5 and RTU-6 failed and were replaced under a separate capital project. Unit RTU-9 was replaced in December of 2019. The remainder of the units should be replaced as soon as capital funding is available.

HEATING AND COOLING SYSTEMS - AIR HANDLERS: There is one dual temperature air handling unit that serves the Industrial Arts space. This unit is a Trane M/N: MCCB008 it provides heating and cooling with a cooling capacity of 14 tons.

COOLING SYSTEMS - CHILLERS, COOLING TOWERS, PUMPS: There is one roof mounted air-cooled chiller that supplies chilled water to the entire school. The chiller has a 200-ton capacity and is approximately 12 years old. Chilled water is delivered to the terminal units via a duplex pump system that was recently outfitted with a variable frequency drive which allows the water to be delivered according to the cooling demand.

EXHAUST SYSTEMS – CLASSROOMS: See the Unit Ventilator section above.

EXHAUST SYSTEMS – TOILET ROOMS: There are a number of rooftop downblast exhaust fans which provide the means for exhausting ventilation air from the classrooms, corridors and toilet rooms. These fans are checked as part of the facility staff's periodic maintenance.

EXHAUST SYSTEMS – KITCHEN: There is no dedicated exhaust fan for the Kitchen. There is no range exhaust hood as the space is used only as a warming Kitchen.

ATC SYSTEMS – DDC: The school has a Building Management System (BMS) from Building Controls Technologies. This system is web based and allows monitoring of room temperatures, unit status and system alarms from any remote device. This system should be expanded to include all HVAC equipment in the school for better monitoring and control of the building environment.

ELECTRICAL SYSTEM

INTERIOR LIGHTING: ~~All existing fluorescent fixtures should be replaced with LED fixtures for increased energy efficiency and light quality. Pricing of LED fixtures is now very competitive and the maintenance (bulb, ballast replacement) is greatly reduced. For any existing 2' x 4' lay in fixtures, LED retro fit kits are available.~~ ***THIS WORK WAS DONE OVER THE SUMMER OF 2020.***

The stage lighting should also be replaced with LED fixtures:

TECHNOLOGY: The school is looking into the possibility of replacing any Smart Boards with Promethean Boards, or a more cost effective alternative.

EXIT SIGNS: The school currently has a myriad of illuminated exit signs. These range from incandescent back lit units to new LED edge lit signs. The district should consider a systematic program of replacing the existing signs with a single style of LED combination exit/emergency light. This replacement program could be coupled with an LED light fixture retrofit program. Changing the exit signs to a single style would greatly reduce maintenance time and spare part stock inventory.

EMERGENCY POWER: There is no emergency generator at the school. All pieces of equipment that requires back up power (Fire Alarm, Emergency Lights, Exit Signs, etc.) have on board batteries with charger systems.

ELECTRIC PANELS: The Main Distribution Panel (MDP) is feed from a Main Disconnect Switch located in front of the school outside of the Boiler Room. The main disconnect has a 2500 Amp Main Circuit Breaker and feeds into the MDP in the Boiler Room. The MDP has two distribution sections and is manufactured by Siemens. The secondary sections are fitted with a number of circuit breakers that protect equipment and secondary panels throughout the school. There are several spare breakers and spaces available in the secondary sections. The majority of the secondary panels throughout the school are also Siemens products.

FIRE ALARMS: There is an EST 3 multiplexed fire alarm system installed in the school. This system includes manual pull stations, horn/strobes, smoke detectors, heat detectors and water flow detectors. This point ID type system provides individual point identification for any alarm or trouble condition at the digital display on the control unit. The school did not report any issues with fire alarm system. In 2018 the district installed several Carbon Monoxide detectors throughout the school.

EXTERIOR SPEAKERS: There was one exterior speaker observed high on the rear wall of the school. It is recommended that additional exterior speakers be added to increase the audio coverage.

Plumbing System

LAVATORIES: The lavatories in the gang toilet rooms have automatic sensor type faucets which are ADA compliant. Only the lavatories set at ADA height have the required piping insulation on the supply and drain lines.

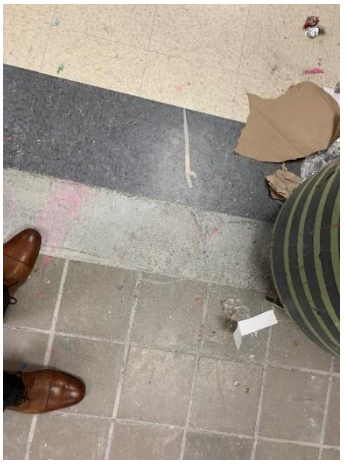
WATER CLOSETS/URINALS: The majority of the water closets in the school have automatic sensor flushometer valves. This is also true for the urinals. There is one ganged toilet room that has four waterless urinals (see below). The Boy's Room (2nd floor of the original building) was renovated during the 2002 renovations but no privacy screen was installed between the urinals (see below).

DOMESTIC HOT WATER HEATER: The district installed a new 100 Gallon gas-fired domestic hot water heater in August of 2019 (Bradford White M/N: LG2100H803N) . This heater serves the hot water demand for the entire school and is reported to be functioning properly. There are sections of the hot water outlet piping that are uninsulated that should be insulated to improve the performance and efficiency of the heater.

Emergent Needs

Art Room: The Art Room was reconfigured as part of the 2002 renovations – with no input from the art teaching staff. Although the overall space is adequate, it is configured somewhat oddly – and with only one (1) window as the only source of natural light. Instead of the sinks being located/distributed all around the room, they are located at the "rear" of the room near the Kiln and Storage Rooms.

The transition between the VCT flooring in the "instructional" section of the room and the quarry tile on the floor in the rear of room (where the sinks are located) is quite noticeable due to a difference in the elevations of the floors. The quarry tile extremely difficult to clean.



The adjacent storage space could have been configured into additional art room space while also providing more natural light into the classroom.

MEDIA CENTER: Like the media Center at Bayberry, the Media Center is a large space that was designed as a "Library" as we knew them 20-years ago. The space is underutilized – much of this due to the location of the circulation desk and the arrangement of the low bookshelves that take up most of the floor space and many of the shelves are empty.

There is also a large "Workroom" adjacent to the main space that is also under-utilized.

Ideally, the tall shelving units around the perimeter of the space would remain, the remaining shelving would be replaced with mobile shelving units – and the furniture would be replaced with modular furniture.

Like Bayberry, this would provide for the flexibility required in a space like this; there is enough space for a dedicated staff area and with the mobile and modular furniture; as well as stools and foam cushions, the layout of the space could be easily modified for the various student activities within the Media Center – or the end users could rearrange the furniture as needed to suit their specific needs. There can be creative areas (some of the new tables could have marker board tops) and quiet reading areas, there could be multiple classes and a variety of events and learning experiencing occurring simultaneously. The "Workroom" could be reconfigured and put to much better use.

A "Teacher's Workroom" (adjacent to the Technology Suite" is being used as a studio for morning announcements. Perhaps this studio could be incorporated into the current Media Center "Workspace".

IT: The Technology Suite has no storage whatsoever for all of the computer/IT equipment. Boxes of equipment and parts are just on the placed on the floor as there is no place else to store them.

FACULTY LOUNGE: Removing the projection screen and painting this room a more neutral color would do wonders for this space.

MAIN ENTRY HALL/CORRIDOR: The space in front of the ramp is wasted; it could possibly be used as an informal meeting area or be used for some other use.

STORAGE: The two (2) existing storage sheds behind the school are NOT adequate for the needs of the school.