

DeValles School Building Committee (SBC) Meeting Minutes ¹

Meeting Date: August 8, 2023

Location: Paul Rodrigues Administration Building, 455 County Street, Room 224, New Bedford, MA 02740

Also remote via New Bedford Public Schools website

Reported: Laura K. Neves, Executive Assistant for Finance & Operations, New Bedford Public Schools (NBPS)

Attendees:

Molly Gilfeather Rodriguez, Director of Purchasing, City of New Bedford (City) (remote)

Janet Barbosa, Director of Special Projects & Programs, Designee of Mayor Jonathan Mitchell, City

Bruce Oliveira, School Committee Member/Chair, NBPS

Douglas Brites, Director of Facilities, NBPS

Justine Santos, James B. Congdon Elementary School Principal (remote)

Emily Arpke, Auditor, City (remote)

Rebecca Gay Barnes, Retired University Architect (remote)

Thomas Nickerson, President, New Bedford Educators Assn. (remote)

Kevin Mello, President, AFSCME Union

Barry Rabinovitch, Interim Asst. Supt. of Finance & Operations, NBPS

Shane Burgo, City Council Member, City

Jennifer Carloni, Director of City Planning, City

Jonathan Carvalho, Neighborhood Resident

Jillian Zangao, President, New Bedford Federation of Paraprofessionals

Daniel Pallotta, Owner's Project Manager, P-Three, Inc. (P3)

Peter Turowski, Principal Architect/Owner, Turowski2 Architecture, Inc. (T2)

Elizabeth Turowski, Principal Designer/Owner, T2

Timothy Brennan, Associate Architect, T2

Alison Paiva, Architectural Associate, T2

Brian Fitch, Project Manager, T2

Sara Ross, Chief of Staff, UndauntedK12

Suresh Bhatia, President, Atlantic Construction & Management, Inc. (remote)

Nate Burgess, Senior Associate, Dodson & Flinker

Lee Jennings, Senior Associate, Dodson & Flinker

Marty Vickey, President, C.A. Crowley Engineering

Jonathan Kitchen, Principal, CEC, Inc

Mr. Bruce Oliveira called the meeting to order at 4:03 PM. A roll call of attendance was taken. Mr. Oliveira declared there was a quorum of at least 12 Committee members. Minutes from the June 27, 2023 meeting were reviewed. A roll call vote was taken to approve the minutes. Voted unanimously on a motion by Mr. Douglas Brites and seconded by Mr. Kevin Mello to approve.

Mr. Peter Turowski introduced Ms. Sara Ross, Chief of Staff of UndauntedK12, a nonprofit organization that helps America's K-12 public schools to make an equitable transition to zero carbon emissions while preparing our youth to build a sustainable future in a rapidly changing climate. Ms. Ross presented a PowerPoint presentation and discussed how UndauntedK12 supports school districts in reducing their carbon footprint for healthy, efficient, and resilient school buildings. She explained that "net zero" is used to describe zero energy schools with increased energy efficiency, minimized fuel usage, and on/offsite renewable energy. A recent May 2023 study showed that schools are leading and showcasing affordability and it does not need to cost more if schools are designed as such from the beginning. The benefits include: reduced operating costs, reduced life cycle costs, higher confidence when planning for future energy costs because the school generates its own energy from an energy source with no fuel costs, recognition, as well as, student and teacher benefits including: healthier indoor environment, reduced absenteeism, and improved academic performance, enhanced learning environment, improved teacher retention, and pride in a beautiful and innovative school. Ms. Ross indicated that the evolution to all-electric buildings will eliminate fossil fuel. The November 2022 Massachusetts Commission on Clean Heat report shows that buildings significantly contribute to greenhouse gas emissions, with 35% statewide. Heat pumps are a key technology for heating and cooling, as they are more efficient with no onsite fossil-fuel combustion. The Massachusetts School Building Authority (MSBA) Board presentation from June 21, 2023 showcased all-electric (20) and geothermal (18) Massachusetts schools. New federal funding will support the DeValles School building project through the Inflation Reduction Act which creates a substantial funding opportunity for New Bedford to improve efficiency, reduce costs, support health, reduce greenhouse emissions, and enhance resilience of its school buildings.

Additionally, the new Investment Tax Credit (ITC) can assist in school building strategy. ITC is a noncompetitive, no application, uncapped federal tax credit for solar systems, available until 2033, and can defray up to 60% of all installation costs for clean energy technologies with direct pay cash payment. A case study of the new construction project, Fort River School in Amherst, MA revealed that all-electric systems made the building more efficient and lead to 45.5% in cost savings compared to LEED baseline. Incentives can make "clean" the most affordable choice. The MSBA policy change makes Federal funds more valuable, as when districts receive third-party money, it counts toward the local share of the total project. Some keys to success include:

¹ The Open Meeting Law requires public bodies to create and approve minutes in a timely manner. A "timely manner" is considered to be within the next three public body meetings or 30 days from the date of the meeting, whichever is later, unless the public body can show good cause for further delay.

establishing goals early in the process, assembling an integrated design team, engaging maintenance and operations staff in the planning process, and resourcing efforts to maximize third-party funding. Mr. Oliveira inquired if there was any track record on maintenance cost; Ms. Ross indicated that she would need to refer to her engineering firm. Mr. Marty Vickey indicated that a well system is essentially maintenance-free, however there is a learning curve for the other maintenance systems but it is becoming more commonplace. Mr. Mello inquired about the lowest ambient temperature to which Mr. Vickey replied that the air source heat pumps bottom end is -13 degrees, with electric resistance backup that could be used on significantly cold days. Mr. Oliveira expressed a geothermal site concern in disturbance of soil. Mr. Jonathan Kitchen indicated that he will need to speak with the geothermal contractor as depth will need to be taken into consideration, however, he does not foresee problems with geothermal and contaminants. Mr. Daniel Pallotta added that more testing and discovery is needed for acidity and alkalinity levels.

Dr. Barry Rabinovitch presented and discussed the Report on City Council Actions. He indicated that there is an upcoming Property Committee meeting on August 17, 2023, wherein the request will be made to take the former Goodyear site by eminent domain. The appraisal is currently underway. The title search is complete.

Mr. Kitchen presented and discussed the LSP Report. He indicated that there have been many samples taken and investigations performed. In the 1990's, the former site owner did an investigation and cleanup, and implemented Activity and Use Limitation (AUL) for convenience by which there was no immediate plan, and a deed restriction was put on the property. A decade later, the City did its own investigation for risk assessment purposes to see if it would be appropriate for a school and it was determined that it was appropriate. The next buyer did another LSP risk assessment and investigation which determined that it was appropriate to use for residential use (the highest standard). Mr. Kitchen inspected the work done to date and files of the three risk assessments performed. He also met with the Massachusetts Department of Environmental Protection (DEP) to obtain their view and performed a preliminary risk assessment which found no problems. Mr. Kitchen mapped out regulatory pathways and options and how to move forward. He proposed to perform tests next week to see soil conditions. The regulatory pathways permanent solution statement with conditions is current. He proposes to terminate and revise. A new permanent solution statement, risk assessment, and terminating or revising the AUL with no restriction to the property would allow the district to proceed as it pleases. In the future, a soil management plan is not required but Mr. Kitchen recommends. He indicated that there would be a gardening restriction where raised beds would be required. Mr. Pallotta indicated that Mr. Ralph Teller performed LSP before but another was done for due diligence and has been received by Ms. Michele Paul, Director of Resilience and Environmental Stewardship for the City of New Bedford.

Mr. Turowski presented and discussed the Design Update. Relative to the site and outdoor facilities review, he indicated that Turowski2 Architecture, Inc. developed renderings of two options: with or without pop boxes and worked with the landscape architect to integrate into the site. The rendering of the pop boxes incorporates green color, brick, and simplified style with extra emphasis placed on the trim but saving space internally to save some cost. Mr. Carvalho indicated that the pop boxes fit the neighborhood as the green trim is similar to Congdon School and surrounding buildings. Mr. Oliveira commented that trees are appealing but too many of them could be hard to maintain. Mr. Brites agreed and expounded that too many trees could also be a safety concern if they are placed too close to the playground. Landscape Architect, Senior Associate of Dodson & Flinker Lee Jennings indicated that they are exploring ideas and concepts to organize and unify the school landscape. Ms. Jennings indicated that they are looking into the most adaptive and maintenance-free plants. He indicated that modern energy sources can be incorporated into the outdoor design where power and renewable energy are generated by the sun, water, earth and wind. The site plan includes zone locations based on telegraphic survey with an outdoor fitness area for students and transition levels in the landscape including a ramp, steps, additional exit to main level, and pathways down to the lower playground areas. Also included in the site plan is a small windmill, weather stations, weather vanes, windchimes, physical activities to generate power such as for smoothies, hillside play with boulders/rocks, slides, outdoor classrooms with solar-powered shading, a sundial, an amphitheater separate from playgrounds, ADA access, sensory play, musical instruments, quiet seating, outdoor tables, educational signage, climbing, spinning, swings, beach/playground water-inspired areas for waves and nets, capturing rainwater, and a water table feature. Mr. Turowski indicated that hurricane-resistant glass would be needed. Mr. Mello inquired as to whether the exterior stairwells would have curtainwall system glass. Mr. Turowski responded affirmatively, explaining that there would be rooftop access where equipment would be housed. Mr. Pallotta asked Mr. Brites if the district deals with a lot of broken glass. Mr. Brites replied that there is broken glass at the Irwin M. Jacobs Elementary School about 12 to 16 times a year, however, once the river rock was removed, the window breaking subsided. Mr. Brites indicated that standard glass is easy to obtain. Mr. Pallotta expressed his concern with angled glass, to which Mr. Brennan replied that the gymnasium in the design is 20 feet high. Mr. Brites recommended that the roofline should be built high with

no chimney pipe so that students cannot gain access, as they now do at other schools. Mr. Mello commented that the outdoor water stations should be reconsidered as students could create messes and get wet. Mr. Brites asked if the water would be recycled, to which Mr. Turowski answered that the rainwater could be integrated. Ms. Jennifer Carloni recommended that the educators be inquired about the nature pathway in terms of site layout and how it would be used and suggested that the pathway should be kept simple and age appropriate. Ms. Jillian Zangao indicated that the rock-climbing feature is dangerous for children. Mr. Turowski indicated that there would be 3 access points. Mr. Mello asked if the field at Ashley Park could be considered as additional open space to which Mr. Turowski replied that it is currently used as a multi-purpose space.

Mr. Marty Vickey, President of C.A. Crowley Engineering presented and discussed the HVAC System Review with several different options considering life cycle cost analysis and cost comparisons for maintenance and energy initial costs and consumption costs. Option 1 is fossil fuel with central chilled water and hot water plants with displacement ventilation serving classrooms. Option 1 includes dehumidified air which is not full cooling. Classrooms have no cooling. Indoor air quality removes contaminants but may not be comfortable in the summertime. This option has a low initial cost and low maintenance and energy costs. There is no refrigerant in the building which means no leaks or contaminants. There is a choice to replace them with high efficiency boilers/electric boilers, but it is not the most efficient option. Option 2 is fossil fuel with central chilled water and hot water plants with full cooling for the entire building, with an individual unit for each classroom. However, noise is an issue. There are dedicated air systems exteriorly and no refrigerant in the building. Option 2 carries higher initial and maintenance costs. There is a choice to replace them with high efficiency boilers/electric boilers, but it is not the most efficient option. Option 3 is VRF system, all electric, no fossil fuel. Each classroom would have a unit with cooling capability. Option 3 is more efficient with limited required space inside. There are high initial and maintenance costs. A refrigerant and piping system would be located inside the building which questions if this would cause challenges later. Option 4 is all electric heat and cold for the entire building, including an outside central air source heat pump that extracts heat from the air. Option 4 includes units above each classroom and outdoor equipment would require square footage off of the roof. There is low noise and lower maintenance costs, but a higher initial cost. Option 5 is all-electric and geothermal – central chilled water and hot water plant including water to water heat pump. Option 5 is the most efficient option, with a ground source heat pump that exchanges energy with the ground temperature. It is almost the norm for schools. Although it has the highest initial costs, option 5 has cooling for classrooms, lower noise, lower maintenance, and no refrigerant within the building except for the Mechanical Room. Mr. Vickey compared the costs with incentives and rebates (such as Eversource and the Inflation Reduction Act) and 42.5% is applied to the entire cost, making Option 5 the lowest initial cost of all the systems and the lowest in life cycle costs. To note, IRA funding is usually applied post-construction. As such, funds need to be appropriated.

Mr. Brennan indicated that Michelle Paul of the City's Department of Resilience and Environmental Stewardship recommended that the school building should have air conditioning from a resiliency standpoint, and that that the City's Director of Energy, Scott Durkee agrees, stating that the City has a resiliency, net-zero, no fossil fuel plan. Ms. Darcie Aungst agreed that the new school building should have air conditioning, pointing out that students are in school about 11 months out of the year and that other schools had to close in the summertime due to lack of air conditioning. Mr. Mello also agreed that the entire building should be air-conditioned for medical reasons. Mr. Brites indicated that Option 1 is similar to Abraham Lincoln School's HVAC system which is comfortable in the summer months. Mr. Pallotta suggested that the Committee compares the operating costs as there is a significant difference between options 1 and 5. Mr. Vickey indicated that Special Education classrooms are required to have cooling all year round. Dr. Rabinovitch asked if roof solar panels would help with the energy costs and Mr. Vickey responded affirmatively. Mr. Oliveira asked for the deadline to make a decision on the HVAC system. Mr. Turowski indicated that a meeting with the Working Groups would need to take place first. Mr. Brennan answered that general ideas and a direction that defines the budget would be needed in one month (end of August 2023) in order to provide a package to the estimator. Mr. Vickey recommended that if the preference is non-fossil fuel, option 5 would be the best option as it is the most efficient. Mr. Mello indicated that he does not recommend option 3, as all condensers and lines go through condensation which potentially causes leaks and mold. He also indicated that the less equipment on the roof with exposure to the elements would result in more money saved.

Mr. Brennan presented and discussed the Working Groups update. Mr. Jonathan Carvalho asked to be added to Colors, Materials and Finishes Working Group. Mr. Mello asked to be added to the Building Systems, Security and Safety, Technology, Resiliency and Sustainability Working Group. Mr. Brennan indicated that Turowski will be reaching out to each Working Group to schedule first meetings during the month of August 2023; Initial meetings will be virtual. The Working Groups feedback will be incorporated into the Schematic Design for the cost estimate. Mr. Pallotta indicated that there will be 2 estimates for the Owner's Project Manager and the Designer. The estimates need to reconcile and agree. The project scope and budget

agreement, the 3011, will need to be presented to the City Council, and the package is submitted by the end of August or early September 2023. A line diagram sizing of equipment and electric service size is needed. Mr. Pallotta asked the Committee if the HVAC system decision can be made by the Building Systems, Security and Safety, Technology, Resiliency and Sustainability subcommittee. Ms. Janet Barbosa motioned to authorize the Building Systems, Security and Safety, Technology, Resiliency and Sustainability Working Group to decide on the HVAC system. Voted unanimously and seconded by Mr. Kevin Mello to approve. A roll call vote was taken to approve.

Mr. Brennan presented and discussed the Geotechnical Update. He indicated that a preliminary geotechnical report has been issued which found that the site ground water is lower than the proposed floor elevations, which will be monitored but is not expected to be an issue. The site is urban fill but is manageable. There were no findings to suggest that the site is unsuitable. About 16 feet of soil is anticipated to be removed across the site. The Department of Environmental Protection is aware.

Mr. Brennan presented and discussed Project Delivery in terms of how to bid/buy out the project. The MSBA requires a decision for the Schematic Design early packages. An accelerated schedule such as the one for the DeValles project requires us to pre-order materials and identify costs such as unforeseen conditions and remediation work. The first option is Design-Bid-Build (DBB) under Chapter 149, which is the traditional method. The second option is Construction Manager at Risk (CMR) under Chapter 149A wherein a contractor is selected and he assumes risk. In theory, the potential is for lower costs but in practice, it is less likely the case. Mr. Pallotta recommended DBB, as the DeValles project calls for an early package. It would cost \$30 to \$39 million less as money would be saved on site work. The 39A cost does not get established until the final bids come in. Electric and HVAC pieces need to be identified in order to submit an early package. Mr. Turowski indicated that Turowski2 Architecture, Inc. has never done CMR. He expounded that if the project is for a new building, CMR does not make sense as the responsibility of an early package is under 1 liability under the construction manager and the DBB method is spread across. He also indicated that approval requirements would need to be sought from the Inspector General's Office. Mr. Brennan indicated that a bid package includes civil drawings, procurement of bid materials and signed contract for contractor doing the site work. Mr. Pallotta indicated that 3 major design development items could hold up the schedule: energy recovery units, primary switch gear (a minimum of a year out) and structural steel. Mr. Pallotta indicated that CMR would be more expensive in the long run. Mr. Brites commented that with DBB, the owner owns the package whereas with CMR, the construction manager owns the package. Ms. Carloni asked if 100% of the package is submitted with DBB, to which Mr. Pallotta responded affirmatively. Mr. Pallotta explained that as the percentage increases, the construction manager participates as a third party but cannot give final price until the sub-bids are filed. He indicated that DBB is by the lowest bidder whereas with the CMR, a vote is required for preferred choice. Dr. Rabinovitch indicated that if there is a contractor that does not qualify, they can be disqualified in the pre-qualification process. Mr. Turowski added that only 1 bad reference is needed to disqualify.

Mr. Brennan reviewed the upcoming project schedule as follows:

- August 2023 Working Group Meetings
- October 2, 2023 Estimate Due
- October 17, 2023 SBC Meeting at 4:00PM
 - Final School Department Design Review
 - Cost Estimate Review
 - Vote to Submit to MSBA
- October 26, 2023 School Department Submission to MBSA
- December 13, 2023 MSBA Approval
- January 2024 City Funding Approval
- January 2025 Project Out to Bid
- Spring 2025 Construction Start
- Fall 2026 Construction Complete
- January 2027 School Opens to Students

The Committee decided to hold a September School Building Committee meeting. The date selected is September 19, 2023 at 4:00PM. Dr. Rabinovitch moved to adjourn the meeting at 5:18 PM, seconded by Mr. Mello, and approved unanimously by roll call vote.



Dr. Barry Rabinovitch, Interim Assistant Superintendent of Finance & Operations
