





## Frank LoDolce

Director of Facility Design and Construction New Brunswick Public Schools (Middlesex County)

For over nine years, Frank LoDolce has served as the director of Facility Design and Construction for <u>New Brunswick Public Schools</u>. In 2018 and 2023, all 14 schools in the New Brunswick Public Schools District achieved Sustainable Jersey for Schools certification. This certification effort was led by Frank, who serves as the sustainability liaison for the district.



Frank explained, "Making school buildings more energy efficient saves taxpayer money, directs dollars to the classroom and reduces the pollution associated with energy use. As a result of the district's commitment and the implementation of sustainability actions, our schools achieved certification with Sustainable Jersey for Schools. We're extremely proud of this achievement and I'm glad to be a member of the team that's implementing the district policy and recertification effort."

Frank oversees the work of the New Brunswick Public Schools Department of Building and Grounds, which includes long-term planning, renovation, construction and repair of all buildings. Leading sustainability efforts from this role has been an effective approach to making progress in all of the schools. The New Brunswick public school district consists of one comprehensive high school (New Brunswick High School), two satellite high school programs (Health Sciences Technology and P-TECH), two middle schools (New Brunswick Middle School and a Pathways Middle School) and nine elementary schools (Blanquita B. Valenti, Lincoln, Livingston, Lord Stirling, McKinley, Redshaw, Roosevelt, Paul Robeson Community School for the Arts and Woodrow Wilson).

New Brunswick Public Schools participates in the P-TECH (Pathways in Technology Early College High School) public-private partnership, which provides select students an opportunity to simultaneously earn both a high school diploma and an associate degree in Engineering or



an Engineering-related field. Frank led a group of students to visit the <u>New Brunswick P-TECH School</u> to expose the future engineers to the site plans for a new school in the district.

Frank said, "<u>Superintendent Dr. Aubrey Johnson</u> and the nine members of the <u>Board of Education</u> have been a driving force in establishing the district sustainability policy. Our sustainability progress could not have been done without the cooperation and contributions of our entire community of staff, students, parents/guardians and community partners. In

addition, Renee McMillan, New Brunswick Public Schools Buildings and Grounds Support Specialist, was instrumental in getting all the actions completed for our certification applications."

**New Brunswick Public Schools Sustainability Policy:** In 2018, the New Brunswick Board of Education approved the <u>New Brunswick Public Schools District Sustainability Policy</u>. The District Sustainability Policy provided the vision and outlined the first steps for Frank to follow to work toward certification. The Board of Education authorized sustainability practices to be put into place within the schools such as access to professional development, and implementation of green

purchasing and Safe Routes to School. Frank explained, "The district's sustainability policy set the goals and established the expectations district wide. It also served as the basis for integrating the policy into the district's teaching, professional development and operating practices." Each New Brunswick school received 10 certification points for completion of the Sustainable Jersey for Schools action: <u>District Sustainability Policy</u>.

Energy Saving Improvement Program: In 2014, the New Brunswick Board of

Education moved forward with a \$17 million Energy Savings Improvement Program (ESIP). Under the ESIP program, New Brunswick installed and replaced energy-saving infrastructure in its buildings. Automation systems, special fans in school gyms, LED lighting, pipe insulation, insulating window film, A/C in classrooms and high efficiency boilers/chillers, and other related HVAC equipment and co-gen plans were installed. The ESIP allowed New Brunswick Public Schools the ability to finance extensive energy efficiency retrofits using the projected savings from the upgrades identified in the Local Government Energy Audit.

The District reduced its energy usage by over 40% and its natural gas usage by approximately 25% in a year. The projected energy savings are over \$18 million for the 17 years term of the ESIP, with about \$22 million worth of upgrades at all schools, not including solar.

Solar panels have also been installed throughout the district. New Brunswick Public Schools has Power Purchase Agreements (PPAs) with two companies that produce electricity through solar panels mounted at school sites throughout the district. Through the PPA, the New Brunswick Public Schools District buys the renewable energy generated by the panels. Seven schools have solar panels, three have solar carports and four schools are adding solar. Each New Brunswick school received 40

certification points for completing the Sustainable Jersey for Schools action: Energy Efficiency for School Facilities.

**Blanquita B. Valenti Community School**: The New Brunswick Public Schools District includes school buildings that are over 100 years old and brand new buildings. Frank oversaw the construction of the Blanquita Valenti Community School that opened in September 2023. The three-story, state-of-the-art school serves approximately 800 students in grades K-8. The school focuses on STEAM and the building contains a hydroponics lab, where plants can be grown without soil, in a science classroom, as well as biology and chemistry labs. The project was completed on time and on budget, and replaced the 60-year-old Lincoln School Annex. The school was named the Blanquita B. Valenti Community School after a former Middlesex County freeholder.

**Integrated Science, Technology, Engineering, Arts & Math (iSTEAM):** iSTEAM is an integration teaching practice that targets the disciplines of Science, Technology, Engineering, Arts and Mathematics to stimulate student inquiry, dialogue and critical thinking. New Brunswick Public Schools prioritized iSTEAM by developing strategic indicators and a professional development plan. As a result of the planning, New Brunswick Public Schools is creating new curriculum, hosting professional development opportunities and engaging with community partners to support the concepts of





STEAM. Staff have introduced relevant learning experiences to the classroom for the students, such as design thinking challenges; coding with drones and virtual reality; eSports and problem-solving; and communication challenges. The district's STEM specialists received a high volume of coaching requests to collaborate with classroom teachers to learn new and engaging technologies. Each New Brunswick school received 45 certification points for completing the Sustainable Jersey for Schools actions: <u>iSTEAM Planning & Implementation</u>; <u>iSTEAM Strategic Plan Indicators/iSTEAM Policy</u>; and <u>iSTEAM Professional Development Plan</u>.

**New Brunswick Public Schools Green Team:** New Brunswick Public Schools has a district green team that is led by Frank. The green team includes a Board of Education member, the Superintendent, principals from each school and curriculum, technology, facilities, union and teacher representatives. The green team works to align the district's teaching, professional development and operating practices with sustainability principles.

Frank is working with each school to create school-based green teams to strengthen the process with the overall goal to move each school from bronze to silver level certification. Frank said, "My advice for schools and districts that are thinking about becoming certified is to not try to do it all on your own. Get buy-in early on and make it a team effort." He added, "At first, I was worried about asking the school administrators and staff to participate because they are already doing so much. But I have found that most people want to participate. The outcomes are valuable and it's important to model this behavior for our students. Also, having more people involved definitely helps on the lift of getting it done." Each New Brunswick school received 15 certification points for completion of the Sustainable Jersey for Schools action: <u>Green Team</u>.

**Education and Career:** Before coming to New Brunswick Public Schools, Frank was the Director for the Office of School Facilities at the New Jersey Department of Education for 14 years. In this position he was responsible for administering the Educational Facilities Construction and Financing Act, and implementing regulations from New Jersey Administrative Code 6A:26 for over 600 school districts, including all former Abbott districts (current Schools Development Authority districts). Frank's private sector experience includes 12 years as a project architect with the Vitetta Group and Grad Associates. Frank received a Bachelor of Architecture from Pratt Institute and has been a Licensed Architect with the State of New Jersey for over 30 years.

**More about Frank:** Frank was born in Brooklyn, New York, and grew up in Summit, New Jersey. He has two grown daughters and lives with his wife, Katie Attwood, in Cream Ridge, New Jersey. Katie is a business administrator with the Hamilton Township Board of Education. Frank's mother was born in Sicily and his father's family is originally from Naples. Following in his father's footsteps, Frank became an architect. However, Frank said he has always loved aeronautics which led him to participate in an unusual form of aviation.

For the past seven years, Frank has been active in paramotoring. Powered paragliding, also known as paramotoring, is a form of ultralight aviation. Frank wears a paramotor on his back which launches his paraglider from the ground. In his spare time, he travels high above New Jersey for hours at a time. Frank said,



"For me paramotoring is a form of meditation. It's peaceful and exhilarating at the same time. I've learned patience and the ability to see the big picture which have been valuable skills to have in my work for the school district." See New Jersey from above by watching one of his flight videos: <u>PPG Upper Freehold NJ</u>.