



# Magrath School Modernization Project

by LAURIE JONES

For many years, school districts in Alberta focused on building new education facilities, but that path has changed and renovations of existing buildings are happening throughout the province. One of the largest projects is the modernization of the 100,000-square-foot Magrath School in the town of Magrath.

“The old school had been a crazy quilt of additions and modifications dating back to 1956,” says Ken Sommerfeldt, superintendent of Westwind School Division #74. “One of the issues that had to be considered at the outset of the project was we were dealing with every K to 12 student in Magrath and absolutely no place to put them. So the town partnered with us to create a modern rendition of the established school. The town benefits by having access to a 240-seat Black Box theatre with state-of-the-art LED lighting, sound system and the sound board. The public library that is moving into the school will also be magnificent.”

Sommerfeldt says as they moved into the second phase, they found the original drawings were less than accurate. “It has been an archaeological dig, and interesting to observe how many different problem-solving techniques have to be accessed to pull this project together. The school has become a modern, 21st-century learning environment with wiring for all the technology that will be needed currently and into the future.”

The new, stand-alone CTS (Career Technology Studies) building was designed to be a decanting point for students as the school was being renovated, and will serve as classrooms for art, technology, woodworking shop and welding booths for metalworking. “Funding for the CTS Building came from collaboration with the Westwind

School Division and the town of Magrath each contributing \$1 million,” says Jesse Potrie, intern architect with FWBA Architects. “Normally a school division, as part of the construction cost, has to rent modular classrooms or find temporary spaces for the kids to attend classes. This time instead of using the three quarters of a million dollars for temporary accommodations, we used the money to build a permanent facility that the kids could attend during the construction and then it could be used for different purposes after the renovations are done.”

Magrath is well known for its basketball team, so the design includes a generous gathering space at the end of the existing gymnasium serving as a crush space for games and events, complete with a servery counter for food produced by students in the culinary program with an industrial kitchen. “All the food can be served directly to people attending functions in either the theatre or the gym,” says Potrie. “The gym also has a glass sliding wall that opens to the gathering space.”

The redesigned school library is set at the original location, but the footprint has more than doubled. “It was once segregated from the main classrooms, but is now accessible and allows students to leave their class for a short time to quickly access books, but still be supervised,” Potrie explains. “All the book stacks were installed on a diagonal, which allows the librarians to monitor activities from their desk at the front of the room, and the computers are located in the same area for security purposes.”

Also incorporated into the library area is an indoor playground, with space from an old classroom. “The playground is located in an area that keeps the sound away from

quiet zones,” says Potrie. “Families who take their older children to school can take advantage of a reading corner for younger children, or use the playground.”

With a project of this magnitude, the balancing act of construction and education can be challenging. “It was interesting working around the student schedules, interacting with the school population – including parents – and the day-to-day activity around the construction site, while mixing in with the staff and students,” says Colin Ward, COO, Ward Bros. Construction Ltd. “Just the same as construction zones in malls or airports, etc., we have to cordon off the areas where we are working for the safety of students and staff. We also have to consider noise factors during the day within the active school.”

With all the additions over the years, much of it masonry, the challenge for Bryden Dyck, engineer with Entuitive, was breaking through the old walls. “Redoing mechanical and electrical systems required a lot of co-ordination between the contractors and the consultants. We also had to deal with reinforcing the walls after we penetrated the section for new openings.” He says because everything had to be done in phases, a huge part of the scheduling required co-ordinating with the school as to when they needed areas such as the gymnasiums, and when those spaces could be handed over.

With the footprint of 100,000 square feet, mechanical systems were required in multiple areas, but the new options offer a reduction in actual plants. “Previously, there were only patches of air-conditioning in the whole school, and the original reno plan kept the existing air handling systems, which left the gym without

air conditioning,” says Chris Saunders, managing principal and engineer for The HiDi Group. “But because basketball is such a huge component of the town of Magrath, the entire town turns out for games and tournaments. One of the big requirements was to improve the gym conditions in the peak summer periods.”

Magrath School now has four mechanical rooms with the main room in the building’s core, one for the mezzanine near the band room, the original small gym, the main gym and another in the elementary class section.

Keeping the electrical systems active during the construction process posed a challenge for the team at SMP Engineering. “We had to ensure fire alarm, safety systems and power were always available, so we needed to be clever with our phasing and create temporary connections to areas,” says Dale Krall, SMP associate. “Because Magrath School will serve multiple purposes, we also had to accommodate after hour access and lockdown procedures for safety.” **A**

**LOCATION**  
41 South Centre Street, Magrath, Alberta

**OWNER**  
Westwind School Division #74

**ARCHITECT**  
FWBA Architects

**GENERAL CONTRACTOR**  
Ward Bros. Construction Ltd.

**STRUCTURAL CONSULTANT**  
Entuitive

**MECHANICAL CONSULTANT**  
The HiDi Group

**ELECTRICAL CONSULTANT**  
SMP Engineering

**TOTAL SIZE**  
100,000 square feet

**TOTAL COST**  
\$19 million