Manitoba middle school relies on GeoVoid® compressible fill material for soil stabilization

With 17 schools in the rural area south east of Winnipeg, Hanover School Division is the largest rural school division in Manitoba. When overcrowding at the district’s Steinbach Middle School forced teachers and students into portable classrooms, they began planning a new 92,000 sq. ft. middle school to meet the district’s growing student population.

The new Clearspring Middle School was designed by Stantec to meet the prestigious LEED Gold green building standard. But before even the foundation could be constructed, the design and construction team needed to address soil stability issues on the building site. Certain types of clay minerals can significantly expand with exposure to moisture and cause structural damage to concrete slabs.

General contractor Penn-Co Construction proposed using GeoVoid compressible fill material to protect the school from forces of soil expansion. GeoVoid acts as a compressible medium between the expansive soil and the structure to reduce long-term stresses transferred to the structure.

“This is a typical specification that many architectural firms detail,” said Joe Strain, Project Manager for Penn-Co Construction. “Various void forming methods can be used, but in our climate we often see either corrugated paper void form or GeoVoid.”

Made from expanded polystyrene (EPS), GeoVoid compressible fill material is light, easy to handle, and is not subject to deterioration like corrugated paper void form products. And unlike corrugated paper products, GeoVoid does not need to be covered with polyethylene for moisture protection, saving crews a step during installation.

“My preference is to use the GeoVoid product,” said Strain. “It’s more user friendly and if you get a big rainfall the night before a concrete pour you are more likely to continue with the pour and not worry about water leaking in and around the corrugated void form wrapped in polyethylene, which may lead to extra labour and material cost to replace the product.”

“In this case, GeoVoid compressible fill material was able to help our customer save time and have more predictable jobsite scheduling, which is important on a big project,” said Plasti-Fab sales representative Corey Bourne.