BETHEL PARK

CASE STUDY

SAND + SALT APPLICATIONS

When updated Pennsylvania regulations required road salt to be kept in a permanent structure to protect groundwater, the municipality of Bethel Park began looking for a new building solution to store approximately 4,000 tons of reserve salt. The salt was previously stored under tarps, a system which can pollute groundwater and cause other environmental damage.

The new facility needed to withstand decades of use, including constant exposure to corrosive salt. The available site required a long, narrow building – a requirement that many pre-engineered building solutions were not able to meet. Site topography and a narrow access road were additional challenges the new builder would need to overcome.

BUILDING NAME
Bethel Park

OWNER
Municipality of Bethel Park

LOCATION
Bethel Park, PA

MARKET SECTOR
Bulk Storage

APPLICATION
Salt Storage

SIZE
46' x 260' / 11,960 SF

SPECIAL FEATURES
CIP concrete walls

INSTALLATION
Legacy in-house crews

LEGACY BUILDING SOLUTIONS

EXCLUSIVE ExxoTec™ PVC FABRIC

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"The building needed to be as salt resistant as possible," said Mark Edelmann, an architect engaged by the city. "Legacy had a solid steel frame as opposed to tubular steel – it seemed to be the perfect solution."

The final building measures 45 feet wide by 260 feet long atop 10-foot concrete walls, a size engineered to meet the needed storage capacity and clearances for salt loading and unloading operations within the available building footprint. All steel components are hot dip galvanized for corrosion protection, while the fabric has natural non-corrosive properties. Gutters and icebreakers along the eaves of the building manage precipitation around the structures.

Building installation was completed alongside another building project at the same site, which was under the jurisdiction of another contractor. "There was just a flurry of activity. Legacy was able to work with four other prime contractors to make sure people were not in each other's way," said Arbaugh.

In addition to complying with state regulations, the new building will allow Bethel Park to proactively plan for snowy winters and make one cost-effective bulk salt purchase in the fall. The 4,000 tons of salt to be stored in the building will be used late in winter, when the primary salt storage facility has been emptied for the year.