

Polaris Phase II

Building Modifications

The information below is building design and engineering modifications required to meet type “C” catastrophic event criteria for new building structures in the geographic region of Jasper County South Carolina.

Structural Foundation

Structural foundation for the new building required additional structural components and engineering. Additional enlarged foundations, monolithic turndown footings and grade beams.

- Additional column foundations.
- Additional concrete reinforcement.
- Additional concrete compression strength
- Additional concrete materials.
- Additional elevated slab reinforcement and concrete thickness.

Unit Masonry

Exterior masonry facade for the new building required additional structural components and engineering. Additional vertical and horizontal bond beams and masonry anchoring.

- Additional vertical and horizontal wall reinforcement.
- Additional block cavity concrete grouting and fill.
- Additional masonry anchors to the new pre-engineered building structure.

Structural Steel

Structural steel components for the new building required additional components and engineering.

- Additional HSS columns and beams.
- Additional decking mill thickness.
- Additional decking supports.

Cold Formed Metal Wall Framing

Cold form metal wall framing for the new building required increased gauge, intermediate structural bracing and engineering.

- Increase the metal stud gauge thickness.
- Additional track and wall anchoring.
- Additional structural headers.

- Additional lateral and wall bracing.
- Additional components for shear walls.

Doors and Windows

Doors and windows for the new building required increased gauge, glazing and engineering.

- Additional door and window reinforcement.
- Additional door and window hardware.
- Additional glass and glazing reinforcement.

Pre - Engineered Building

Pre - engineered building components required increased gauge, spacing, intermediate structural bracing and engineering.

- Increase the main frame wall thickness.
- Increase the girt and purlin spacing and gauge.
- Additional structural bracing and supports.

Fire Sprinkler System

Fire sprinkler system components required increased bracing and engineering.

- Additional fire department connection required to loop ahead of the new fire pump.
- Additional lateral bracing for all interior sprinkler pipe.
- Additional fire pump for emergency water loss.

Electrical

Electrical components required increased for the ability to use a generator and electrical loop system in the event of a power outage.

- Provide an underground electrical main building feed loop.
- Provide a emergency generator for emergency power.

Improvements Budget

Structural Foundation	\$300,000
Unit Masonry	\$150,000
Structural Steel	\$225,000
Cold Formed Metal Wall Framing	\$580,000
Doors and Windows	\$100,000
Pre-Engineered Building	\$500,000
Fire Sprinkler System	\$65,000
Electrical	<u>\$80,000</u>
	\$2,000,000