Office Building

Sayre, PA

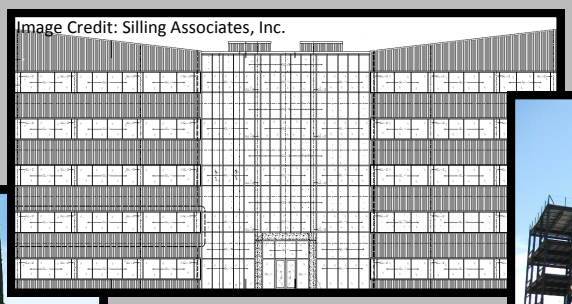
Image Credit: Silling Associates, Inc.

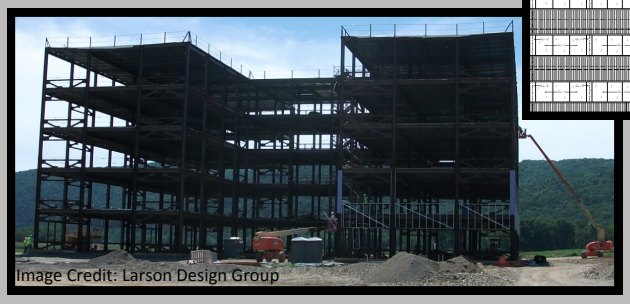
Image Credit: Larson Design Group


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Seth M. Moyer | Structural

General Information

Function:	Business/Office Space
Size:	85,075 SF
Height:	Top of Parapet Elevation = 74’-5”
Dates of Construction:	March 2012 - April 2013
Construction Cost:	$11 Million
Delivery Method:	Design-Bid-Build

Project Team

Owner:	Withheld
General Contractor:	High Construction Company
Architect of Record:	Silling Associates, Inc.
Architectural Partnership:	Elliott + Associates Architects
Structural Engineer:	Larson Design Group
MEP Engineer:	Larson Design Group
Civil Engineer:	Larson Design Group

Architecture

- East and west wings are enclosed with Kingspan insulated metal panels
- Central connecting portion is enclosed with a Kawneer curtain wall glazing system
- 6’ high horizontal glazing strips break up the façade at each story
- Comprised of office and meeting space
- Features a fitness wing and locker rooms on the 2nd floor

Structure

Foundation:

- Spread, combined and strip footings support concrete piers, pier walls, foundation walls and columns directly

Gravity:

- Floor system is 4” thick composite deck slabs on open web steel joists. Loads are transferred to wide flange steel beams and columns.

Lateral:

- 16 “K” braced frames extend up to the roof (8 in each the N-S and E-W directions)

Electrical/Lighting

- 2000 A, 480 V, 3-phase, NEMA 3R fused main dis-connect
- 480/277 V main distribution panel (3-phase, 4-wire)
- 2000 A automatic transfer switch for emergency generator backup
- 112.5 kVA transformers step 480 V down to 208Y/120 V to feed the power panels
- Lights are typically fluorescent and operate at 277 V

Mechanical

- Ten 10-ton condensing units on the roof
- Two 7000 CFM ERVs sit on the rooftop
- Between 31 and 39 AHUs serve each floor and range from 120 - 635 CFM
- Two 25 kW electric duct heaters
- Six 20 gallon and two 120 gallon electric water heaters