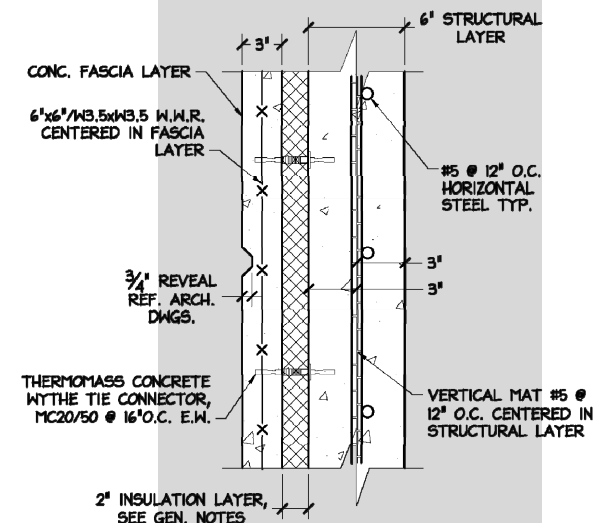




Free Lance Star Tilt Wall Panels

Print Innovators, a division of Free Lance Star daily newspaper, opened this new facility as the first in the United States to install a Goss® flexible printing press. The tallest part of the building (52' high) is an automated storage and retrieval system 54' wide by 172' long. The exterior enclosures of this part are supported by the racks themselves; the remainder of the building has tilt-up concrete wall panels and aluminum storefront windows.

Structural Concepts, Inc. was responsible for the design of concrete tilt-up wall panels. This project used insulated panels, constructed with inner and outer layers of concrete separated by foam and special connectors. A typical cross section is shown at right. This type of construction improves the thermal performance of the building while still providing the many advantages of site-cast concrete wall panels. Green roofs were also specified by the architect for this project.



Free Lance Star

Location: Fredericksburg, VA

Architect: FORUM Architects

Completion Date:
February 2010

Area: 83,000 ft² ground floor
plus 9,000 ft² second floor

Construction Cost: \$16.8 M

Wall System: tilt-up concrete

Floor System: concrete slab
on grade

Roof System: steel joists on
wide flange steel beams

Lateral System: tilt-up walls
function as shear walls