PCI MIDWEST
A Chapter of Precast/Prestressed Concrete Institute

PRECAST FOCUS

PRECAST CONCRETE FLOORS AND ROOFS

Floors are the key element when it comes to architectural freedom and design. Their loadbearing capacity has a direct influence on the need for partition walls and other structural elements of a building. Double tees, hollowcore, and solid slabs are prestressed floor elements. The excellent loadbearing capacity and structural efficiency allows you to build large areas with fewer partition walls. This means greater freedom in design and savings in material costs.

DOUBLE TEES

Named for its shape, double tees are used primarily as floor and roof deck components for any type of structure, including parking structures and all types of buildings.

Form side will mainly be "as cast," resulting in a smooth, hard finish. This generally remains as is and is not painted, although it can be if desired. The top-of-flange side will be smoothed for roof construction, left rough if it will receive a field topping or broomed (either transversely or longitudinally), or circular swirl-finished if it will be used as the wearing surface in a parking structure.

HOLLOWCORE

Hollowcore slabs are used predominantly for floor and roof deck components for various structures such as residential, hotel, office buildings, schools, and prisons.

SOLID SLABS

Solid slabs are used as structural deck components similar to hollowcore slabs. They can be made in a long-line pre-tensioning plant and reinforced with prestressing strand or cast in individual forms with prestressing strand or conventional reinforcing bars. They are typically cast in the same position as used in the structure. Sizes can vary to satisfy the structural requirements.

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