PCI MIDWEST
A Chapter of Precast/Prestressed Concrete Institute

PRECAST FOCUS

PRECAST CONCRETE STRUCTURES ARE RESILIENT

Precast, prestressed concrete contributes to sustainable designs in many ways. It is a versatile, efficient, resilient, and durable building material produced in PCI-Certified plants by highly trained personnel with virtually no waste, under stringent quality control measures. Precast concrete products can be quickly erected on the jobsite with minimal disruption to the site and precast's thermal mass can save energy and increase comfort.

ATTRIBUTES AND BENEFITS

- Precast concrete contributes to safe, secure, and sustainable building environments
- Inherent passive fire resistance, concrete is noncombustible and can contain a fire
- Low maintenance with durable 5,000 psi and low water-cement ratio concrete mixes
- Precast concrete does not rust, rot, or degrade when exposed to water
- Precast wall panels have negligible air infiltration
- Load-bearing envelopes add design economy
- Minimal job site disturbance with off-site production and just-in-time deliveries
- Accelerated construction reduces project schedules
- Thermally efficient insulated sandwich wall panels are available
- Low life-cycle costs due to reduced maintenance and operational considerations
- Long service life of 100 years or more
- Barrier wall, face-sealed system offers continuous insulation, air and vapor barrier
- Storm resistance against high winds, floods and wild-fires
- Earthquake and blast resistance
- Precast concrete is inorganic and will not generate mold, mildew or VOCs improving indoor air quality
- Energy efficiency with continuous insulation and thermal mass inertia reduces peak heating and cooling loads
- UV and pest resistant
- Vibration control due to precast concrete mass
- Concrete is made from predominantly abundant local sand, stone, and water
- Precast concrete reflective surfaces minimize urban heat-island effect
- Precast panels can be easily relocated to accommodate future building expansion
- Highly durable interior concrete finish that does not require painting
- Interior concrete finishes on insulated sandwich wall panels are ready for painting with no furring, insulating and drywalling required reducing labor and material costs
- Precast concrete designs allow year-round construction resulting in shorter project schedules
- Precast concrete meets FEMA 361 standards for safe rooms and storm shelters

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