STRESCORE INC.
P.O. BOX 270 24445 STATE ROAD 23 SOUTH BEND, INDIANA 46614

TELEPHONE: (574) 233-1117
FAX (574) 288-0050
www.strescore.com

Producers of COREFLOOR HOLLOW-CORE SLAB
PRESTRESSED CONCRETE SLAB SYSTEMS

PREPARATION FOR TOPPING

Typically, composite topping slabs are placed over the grouted hollow-core precast slabs. The ACI 1996 Standard provides guidelines on pages 302.1R-22 through 302.1R-24, Sections 7.10 and 7.7.2 for such work. Below is a brief summary of the ACI standard. This information should only be used as a guideline for the associated topping work in conjunction with a precast plank structure. Please consult the aforementioned section of the ACI standard for a complete description of this work.

ACI Section 1996, Part 2, Chapter 7 – Consolidation and finishing, p. 302.1R-18

Recommendations for bonded Portland cement concrete topping

i) Precast must be thoroughly cleaned of all debris that would prevent bonding. This includes sawdust, trash, dirt, masonry material, etc.
ii) A suitable bonding agent or procedure is recommended. This may include treatment of slab surface with a cement slurry mixture, an epoxy bonding agent, or applying a broom finish at the plant to roughen to top surface of the hollow-core precast slabs.

PCI Manual for the Design of Hollowcore Slabs, Section 2.5 Composite Design

From a detailing standpoint, the primary consideration is that the hollow-core slabs will have camber. If the topping is finished as a level surface, the camber will reduce the topping thickness in the midspan region which will affect the load capacity of the slabs.

i) Provide the minimum topping thickness at the midspan, or
ii) Follow the camber of the slabs with a uniform thickness of topping

At a minimum, the slab surface must be clean and damp at the time of topping installation. It is recommended that the surface be fully saturated prior to the topping placement, but all standing water removed.

If a slurry mixture or bonding agent be used, it is imperative that either does not reach the initial set prior to placement. These may act as a bond breaker if they are allowed to set prior to topping placement.

Locate control joints in the topping slab over the joints in the precast.

PCI CERTIFIED PLANT