



INDIANA DEPARTMENT OF TRANSPORTATION

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Eric Holcomb, Governor
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CONSTRUCTION MEMORANDUM 20-09 **(REVISED)**

TO: District Deputy Commissioners
District Construction Directors
District Technical Services Directors
District Area Engineers, Project Engineers/Supervisors
District Project Management Directors, Project Management Director
District Traffic Engineers, District Testing Engineers
District LPA Coordinators, Field Engineers, Office of Material Management

FROM: 
Gregory G. Pankow, P.E., Chief Engineer of Construction
Division of Construction Management and District Support

SUBJECT: Precast Footing Closure Pours

It has come to the attention of this office that some reinforced concrete three-sided structures are being installed on precast footings without closure pours. The purpose of this memo is to remind field personnel of the requirement of a closure pour between precast footing units per 723.09 of the INDOT Standard Specifications.

Shop drawings are required for reinforced concrete three-sided structures. The closure pours for the precast footings shall be as detailed in the shop drawings and shall be designed to accommodate the design loads.

The intent of the required closure pours is to provide continuity between precast footing units in order to transfer shear and flexure across the joints. The design moment transferred across the joints shall be based on the Contractor's design but shall not be less than the flexural capacity of the footing based on ASSHTO LRFD Bridge Design Specifications minimum reinforcement requirements. The closure pour dimensions and reinforcing bar details shall be substantiated by design calculations included with the working drawings.

It should be noted that a properly designed closure pour may only involve extending the required amount of reinforcing across the joint and anchoring the reinforcement into the individual footing pieces by either casting the reinforcement into the footing, or use of post installation methods such as epoxy grouting. Gaps between the foundation pieces shall be filled with an acceptable material, such as cast-in-place concrete grout, to complete the design and protect the steel.

Field personnel should notify the contractor of the closure pour requirement immediately if they receive shop drawings showing precast footings without closure pours.

Any questions should be directed to your Construction Management Field Engineer.

GGP/ndp