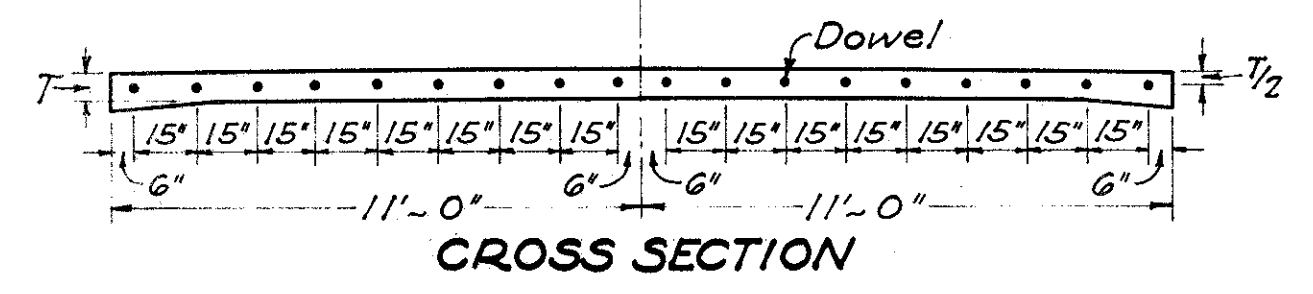
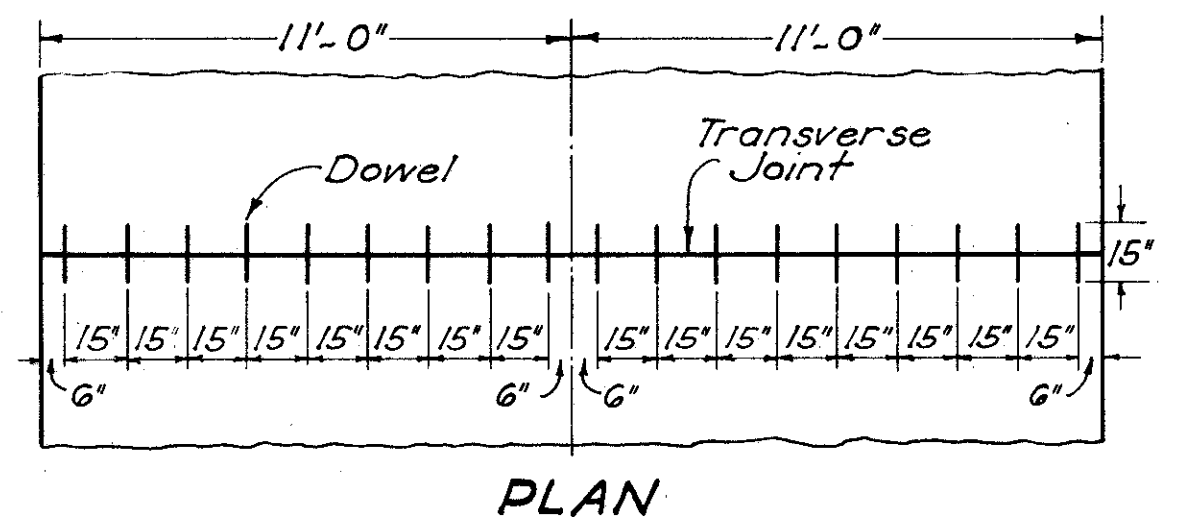


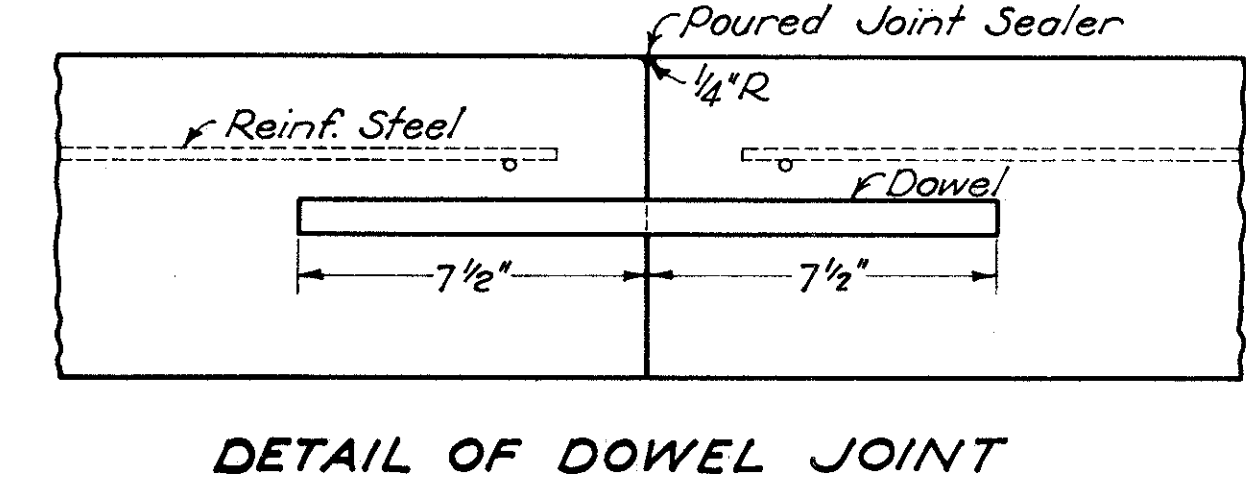
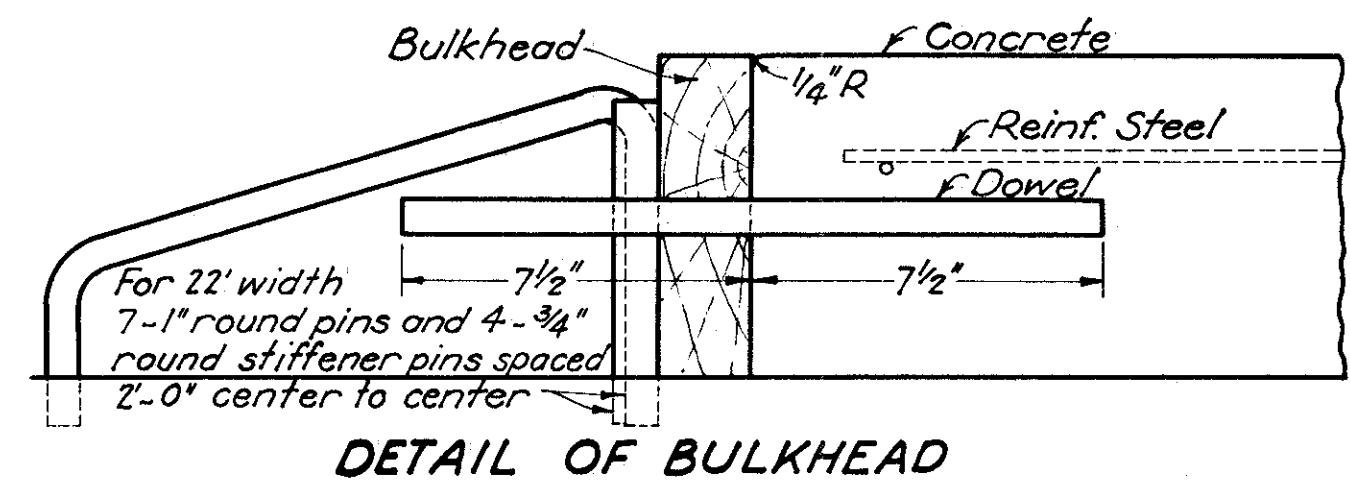
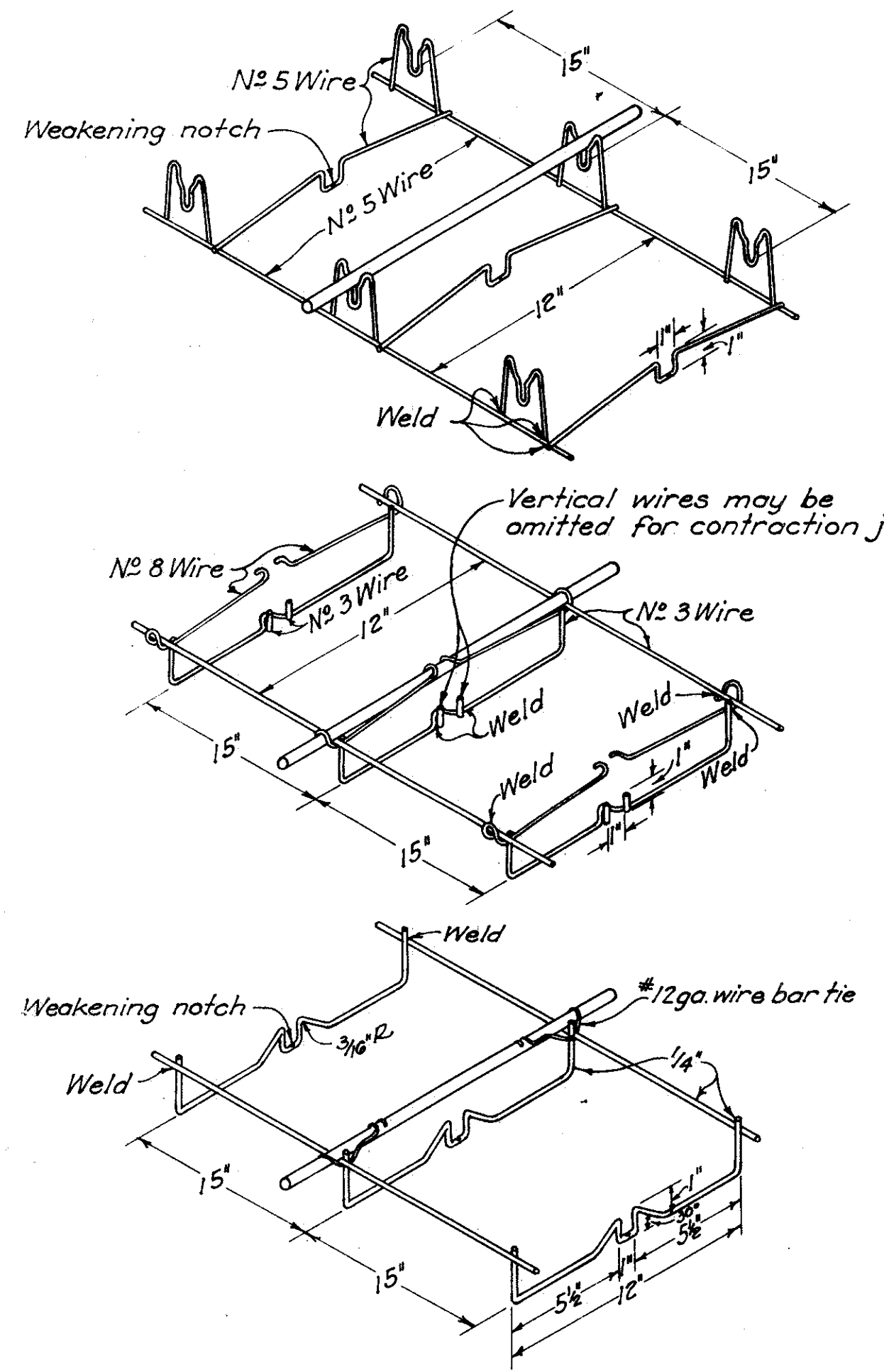
LAKE COUNTY
S.H. 520 SEC. PAINESVILLE (PT.)
GRADE SEPARATION

TRANSVERSE JOINTS CONSTRUCTION JOINT

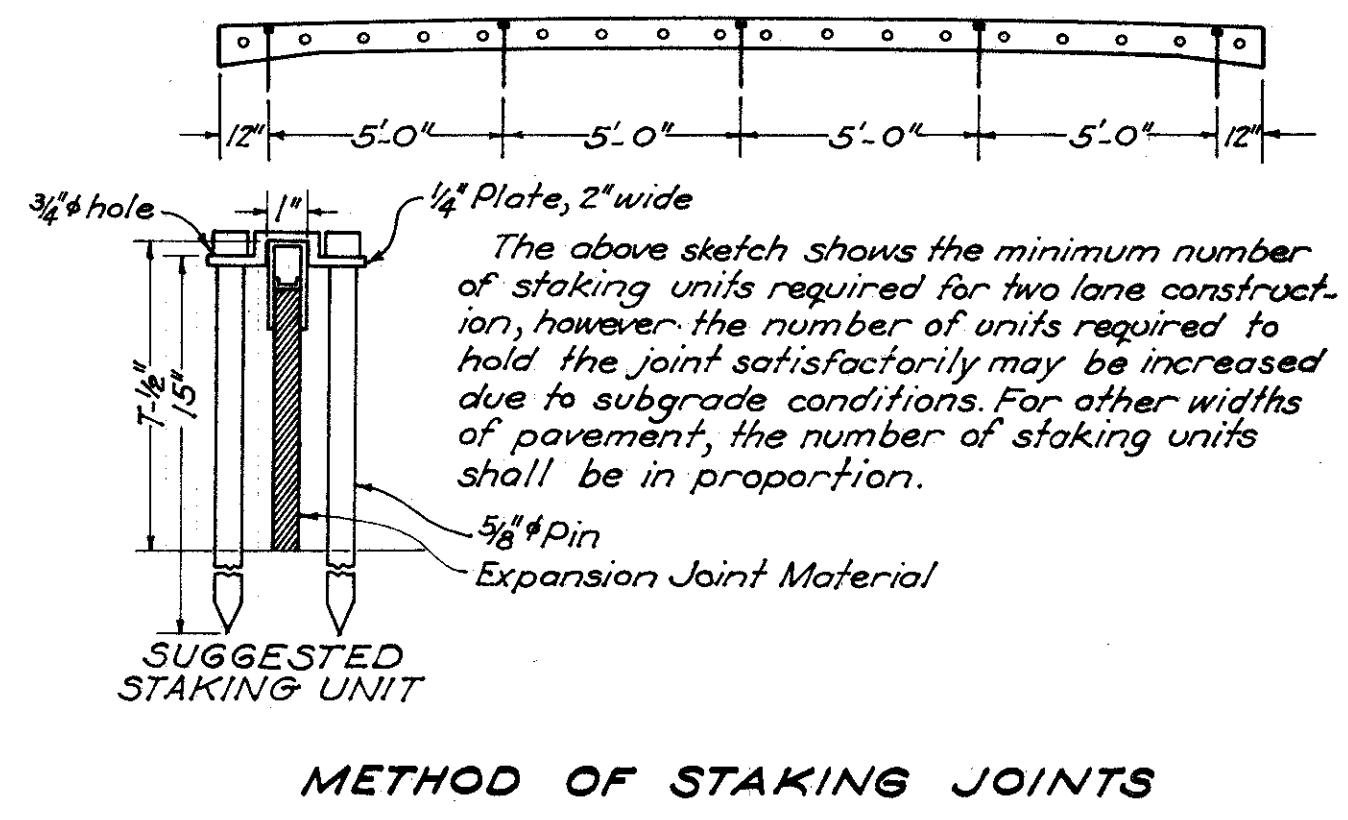
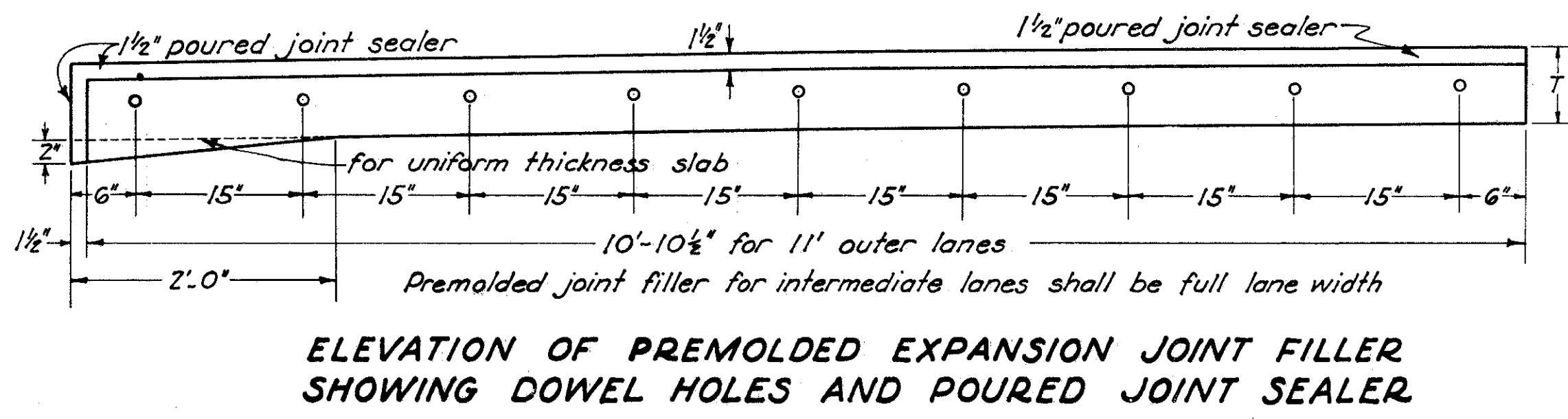
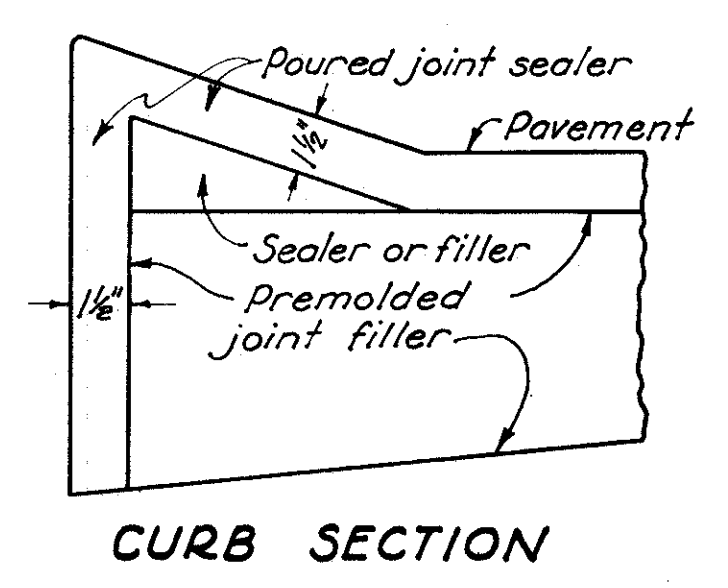
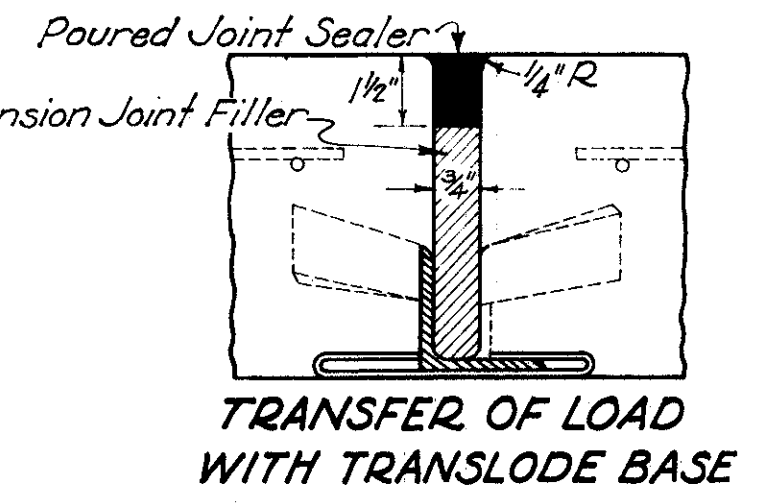
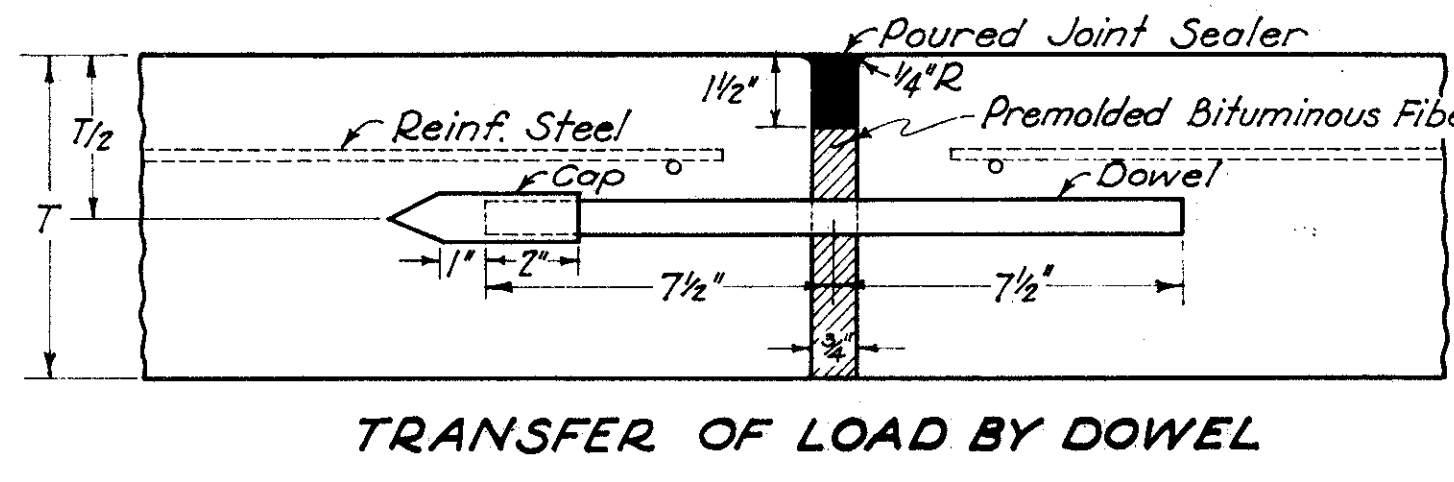
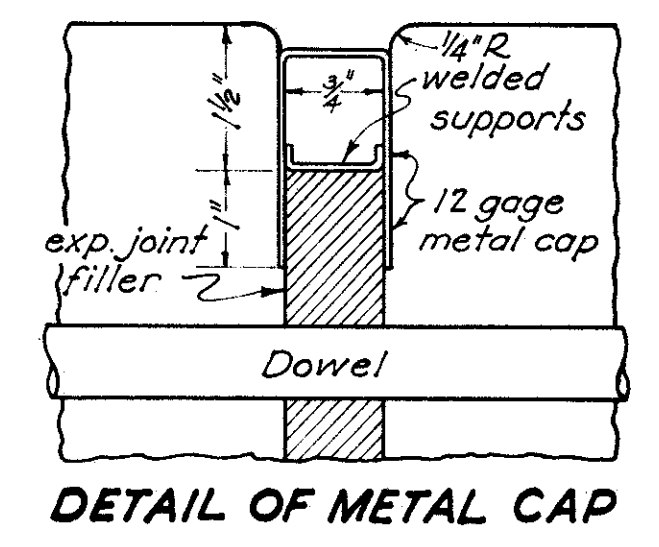
DOWEL SPACING



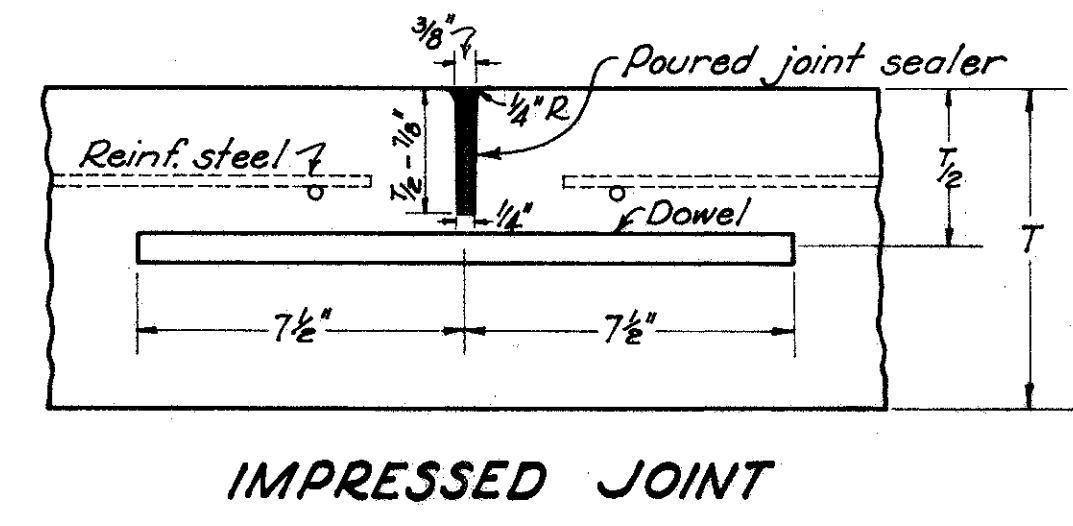
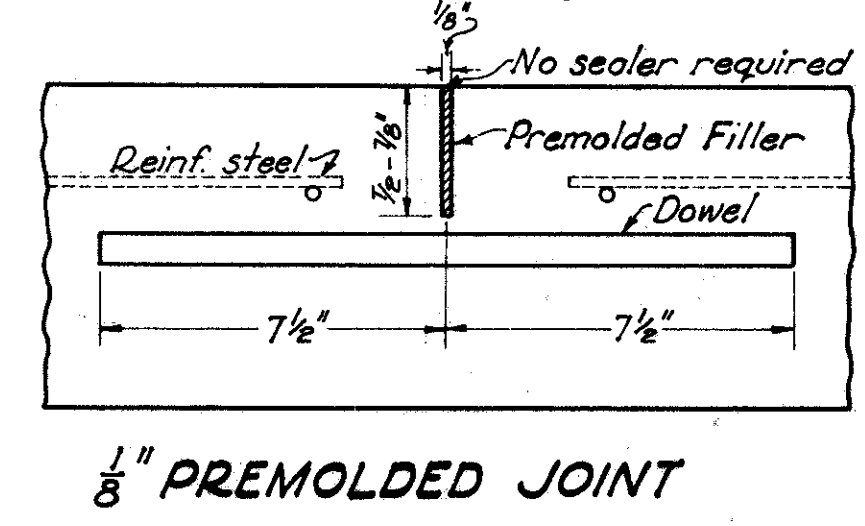
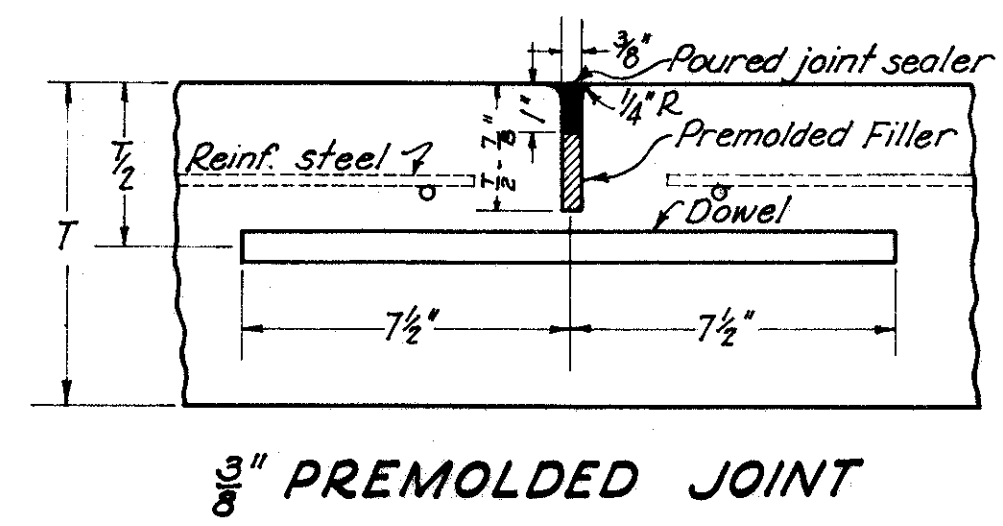
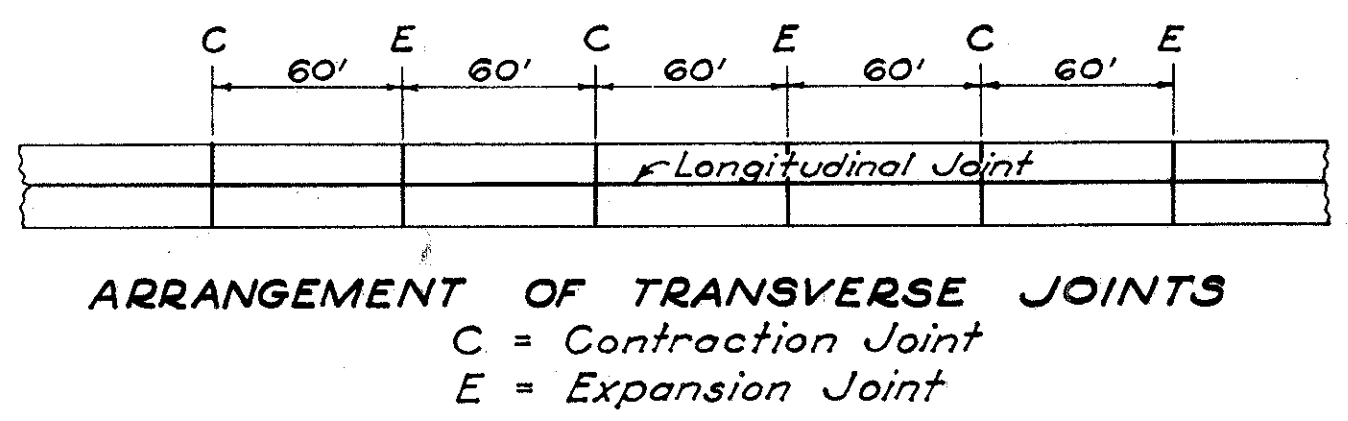
DOWEL SUPPORT UNITS



EXPANSION JOINTS



CONTRACTION JOINTS



GENERAL. Expansion joints shown are to be considered as alternates; the type to be used on any project shall be optional with the contractor. The type of joint selected by the contractor and all operations and materials for assembling and installing the joints shall be approved by the engineers.

DOWELS. All dowels shall be 3/4" inch round, straight, smooth bars, free from burring and flattening at ends. The entire dowel shall be thoroughly coated before placing in the pavement using either Bit. Mat., Sec. M-5.11.2C-2 or heavier, or an oil such as 600W or equal.

Prior to placing, all dowels shall be assembled in a unit which is to remain in place for construction, contraction or expansion joints. The length of unit shall be not less than the distance between longitudinal joints and sufficient support shall be provided to hold the dowels accurately perpendicular to the joint. Expansion joint material shall be forced over the lower cross wires so as to fit snugly on the subgrade. The design of the dowel support unit may be as shown herewith, or may be an approved equal, and it shall be shop assembled. When the lane width varies from 11 feet, the spacing of the dowels shall be 15 inches and the 6" end spaces shall be equally increased or decreased and shall be less than 10 1/2" but not less than 3".

CONSTRUCTION JOINTS. A bulkhead shall be constructed to permit dowels to extend through the joint. Care shall be taken in removing bulkhead and placing adjacent concrete to see that dowels are embedded in the concrete without being bent.

EXPANSION JOINTS. Expansion joints shall be constructed as shown herewith. The spacing of the expansion joints shall not exceed 120 feet. The type and arrangement of expansion joints at intersections shall be as specifically shown on the plan.

Each dowel bar shall be equipped with a neat fitting metal cap on one end. The surface width of expansion joints shall not be greater than the width shown herewith. The material for the poured seal shall meet the requirements of Supplemental Specification No. M-110.23.

The edges of all expansion joint filler shall be shaped to fit the section of the pavement leaving a 1/2" space across the top and down the ends of the joint for poured joint sealer.

The 3/4" x 1/2" vertical space for sealing the ends of the joint at each edge of the pavement shall be provided by removable blocks or forms fastened to the premolded filler.

Joints in monolithic curbs shall be constructed with the same type of filler material as used in the expansion joints and sealed to a depth of 1/2" with poured joint sealer.

PREMOLDED BITUMINOUS FIBER EXPANSION JOINT FILLER. This material shall meet the requirements of Supplemental Specification No. M-110.12 and shall be accurately held in place by means of approved steel holders. Dowel holes shall be 1/16" in diameter.

POURED JOINT SEALER. Material for sealing expansion, construction and 3/8" premolded contraction joints and for filling impressed contraction joints shall meet the requirements of Supplemental Specification No. M-110.23.

EDGING JOINTS. Special care shall be exercised in edging joints so that the width of the opening does not exceed that shown.

TREATMENT OF EXPANSION JTS. AT LONGITUDINAL JTS. A positive method to maintain required alignment shall be used in connecting the expansion joints at longitudinal joints. The expansion material shall meet in a vertical joint. Longitudinal keys and keyways, where used, shall be omitted for the thickness of the expansion joint.

CONTRACTION JOINTS. Contraction joints shown are to be considered as alternates; the type to be used on any project shall be optional with the contractor; and shall be constructed as shown herewith. Contraction joints shall be spaced so that the length of any slab between transverse joints shall not exceed 60 feet. Joint arrangement at intersections shall be as specifically shown on the plans.

3/8" PREMOLDED CONTRACTION JOINT. The filler material shall meet the requirements of Sec. M-10.1 or Supplemental Specification No. M-110.12.

IMPRESSED CONTRACTION JOINT. This joint shall be formed by impressing a device or bar into the newly deposited concrete before initial setting. The device or bar shall be removed as soon as the concrete is in such condition as to preclude of distortion or injury to the concrete. The groove thus formed shall be of dimensions detailed. After the joint is formed it must be protected from dirt and foreign matter until the joint sealer is poured.

1/8" PREMOLDED CONTRACTION JOINT. The filler material shall meet the requirements of Sec. M-10.13.