Outside Face of Barrier (Typ.)
End of Wing & Barrier (Typ.)
Part of Bridge End Bent

SECTION THROUGH JOINT BETWEEN WING SLAB & APPROACH SLAB
1/2" Tie Rod (Typ.) 3/4" Joint Filler
1" X 5" Full Slab Thickness

Sleeper Slab
Exterior Beam

Pay for furnishing all materials, labor and excavation.

AP08_precast1 Effective: Feb. 2024 Supersedes: July 2020

Silicone Joint
Resin Anchor System

Concrete for the sleeper slab shall be in accordance with Sec 506 if f'c = 4,000 psi.

Reinforcing steel in the sleeper slab shall be epoxy coated Grade 60 with ty = 60,000 psi.

Tie rod plates shall be ASTM A509 Grade 36.

Sleeves, nuts and 1 inch diameter tie rods shall be A307.

All tie rods, plates, sleeves, and nuts shall be galvanized in accordance with ASTM A709 (A353), Class C.

Minimum clearance to reinforcing steel shall be 1/2 inch, unless otherwise shown.

Holes and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures. Stirrup and Tie Dimensions.

All joint filler shall be in accordance with Sec 1057 for prestressed fiber expansion joint, except as noted.

Drain pipe may be either 4 inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4 inch diameter corrugated polyethylene (PE) drain pipe.

Resin Anchor System: An epoxy coated #6 Grade 60 reinforcing bar placed in each end anchor hole (Typ.) with 1 1/8" washer plate.

When moving precast beam, beam shall be supported under full width of beam face as soon as possible.

Use non-shrink grout for filling the keyways.

Part of Bridge End Bent

Placement and Partial Width Posttensioning Instructions:

Top of aggregate base shall be made flush with top of bridge approach hilt and top of sleeper slab, and uniformly graded at all points in between.

Place first exterior beam.

Place partial width tie rods through both beams and connect to hex sleeve, following same sequence as in the next adjacent beam and partial width tie rod.

Place first exterior beam.

2" Anchor Nuts in beam (Typ.) with non-shrink grout after tie rod installation (in bent).

Place partial width tie rod over tie rod opening.

Top of aggregate base shall be made flush with top of bridge approach hilt and top of sleeper slab, and uniformly graded at all points in between.

Grout outside tie rod openings.

PART PLAN OF POSTTENSIONED BRIDGE APPROACH SLAB

El 0'-0" 3'-0" x 18"

SECTION THRU POSTTENSIONED APPROACH SLAB

There shall be no direct payment for investigating voids found in precast joint expansion joints.

Prior to acceptance of the work, all underseal access holes shall be covered by the contract unit price for Prestressed Bridge Approach Slab per square yard.

General Notes (Posttensioned Slab):

Contractor shall verify all dimensions in field before finalizing the shop drawings.

Concrete for the sleeper slab shall be in accordance with Sec 506 if f'c = 4,000 psi.

Reinforcing steel in the sleeper slab shall be epoxy coated Grade 60 with ty = 60,000 psi.

Tie rod plates shall be ASTM A509 Grade 36.

Sleeves, nuts and 1 inch diameter tie rods shall be A307.

All tie rods, plates, sleeves, and nuts shall be galvanized in accordance with ASTM A709 (A353), Class C.

Minimum clearance to reinforcing steel shall be 1/2 inch, unless otherwise shown.

Holes and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures. Stirrup and Tie Dimensions.

All joint filler shall be in accordance with Sec 1057 for prestressed fiber expansion joint, except as noted.

Drain pipe may be either 4 inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4 inch diameter corrugated polyethylene (PE) drain pipe.

Resin Anchor System: An epoxy coated #6 Grade 60 reinforcing bar placed in each end anchor hole (Typ.) with 1 1/8" washer plate.

When moving precast beam, beam shall be supported under full width of beam face as soon as possible.

Use non-shrink grout for filling the keyways.

For approach pavement details, see roadway plans.

Payment for furnishing all materials, labor and excavation necessary to construct the posttensioned approach slab, including posttensioning equipment, resin anchor system, preformed fiber expansion joint filler and all other appurtenances and incidental work as shown on the plans, complete in place, work shall be paid for at the contract unit price for Prestressed Bridge Approach Slab per square yard.

Contractor may adjust dimensions based on actual field measurements with approval of the engineer.
Standard Drawing Guidance (do not show on plans):

Turn off Bridge-Guidance level to hide all guidance.

Prestressed bridge approach slab is to be used for approach slab replacement only.

Roadway drainage should be addressed by the core team and the consensus noted on the Bridge Memorandum and the Standard Drawing. For roadway drainage options for Prestressed Bridge Approach Slab, see EPG 503 Bridge Approach Slab.

1. Replace "Skew" with actual skew angle.
2. Top of approach notch must be flat or uniformly sloped (no crown) and sleeper slab must be parallel in elevation to top of approach notch.
3. Identify asphalt overlay and thickness. Coordinate with district if better to make a roadway item and then note accordingly and revise pay item note.
4. Waterproof membrane is required when slab is overlaid with asphalt. Omit "Special Provisions" as needed.
5. Timber Header will not normally be needed, since prestressed beams will be used for replacements only. Use only if requested by District RE to protect ends of beams during construction.
6. Request field measurements between wings at end of slab and end of wings before dimensioning width of approach slab and determining beam widths to be used.
7. The 22 1/2" slab dimension can be changed to 25'-0", the title can then be changed from (20 FEET) to (25 FEET).
8. Modify or remove based on actual conditions of the job.
9. Fill with asphalt or seal.
10. Number of tie rods. Ideally, install 3 tie rods at midpoint and quarter points; one will have to go through wing wall; drill hole in wing, install, grout and seal. Realistically, install 2 tie rods as shown. (Only 2 tie rods were used successfully with favorable results in the correlated research.)
11. For "Placement and Full Width Posttensioning Instructions" see Development Section. Partial width posttensioning is preferred.
11a Tie rods shall be placed along skew since shifting the beams longitudinally relative to one another during the tightening operation is prevented due to the anchorage of the beams to the end bent and the development of friction at the beam-aggregate interface.
12. Unlike conventional bridge approach slabs, prestressed concrete bridge approach slabs still require formed access holes for required investigation as specified prior to 2018 Standard Specifications.