

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

September 5, 2014

DESIGN BULLETIN No. 14-11

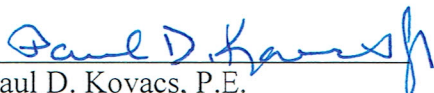
SUBJECT: MOMENT SLAB ON RETAINING WALL DESIGN GUIDES

The Illinois Tollway has modified the design of the TL-5 moment slab for retaining wall to accommodate the I-90 typical 13" PCC mainline pavement section and provide additional protection of the moment slab reinforcement. The attached Figures A and B shall supersede the Figures 22.6.1 and 22.6.2 in the March 2014 Issue of the Tollway Structure Design Manual.


Concrete for the moment slab shall be paid for as High Performance Concrete Moment Slab Structures in accordance with the attached special provision.

Concrete for the barrier shall be paid for as Concrete Superstructure.

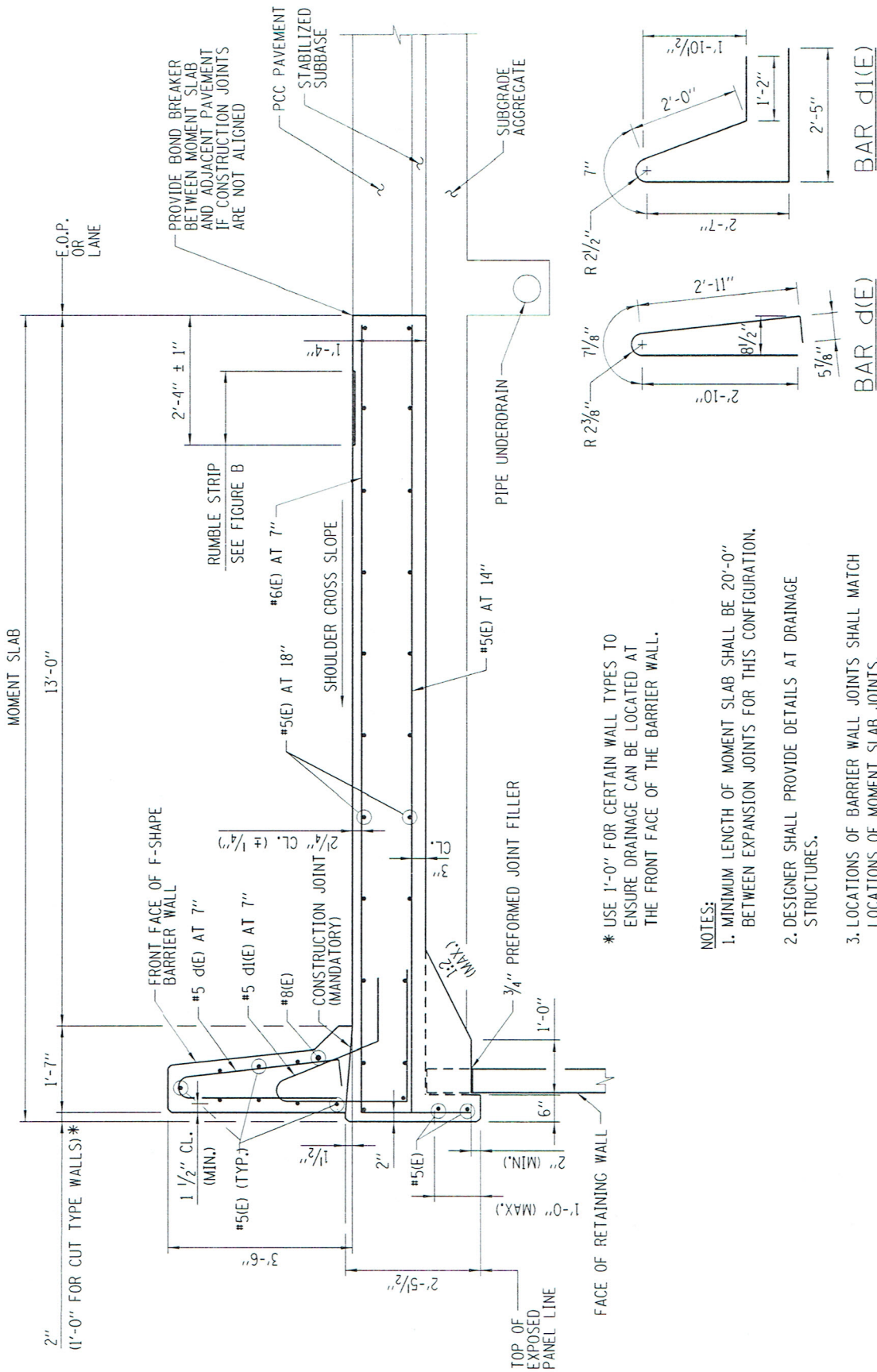
Epoxy coated reinforcement bars in both the moment slab and the barrier shall be paid for as Reinforcement Bars, Epoxy Coated.



Paul D. Kovacs, P.E.
Chief Engineer



Date

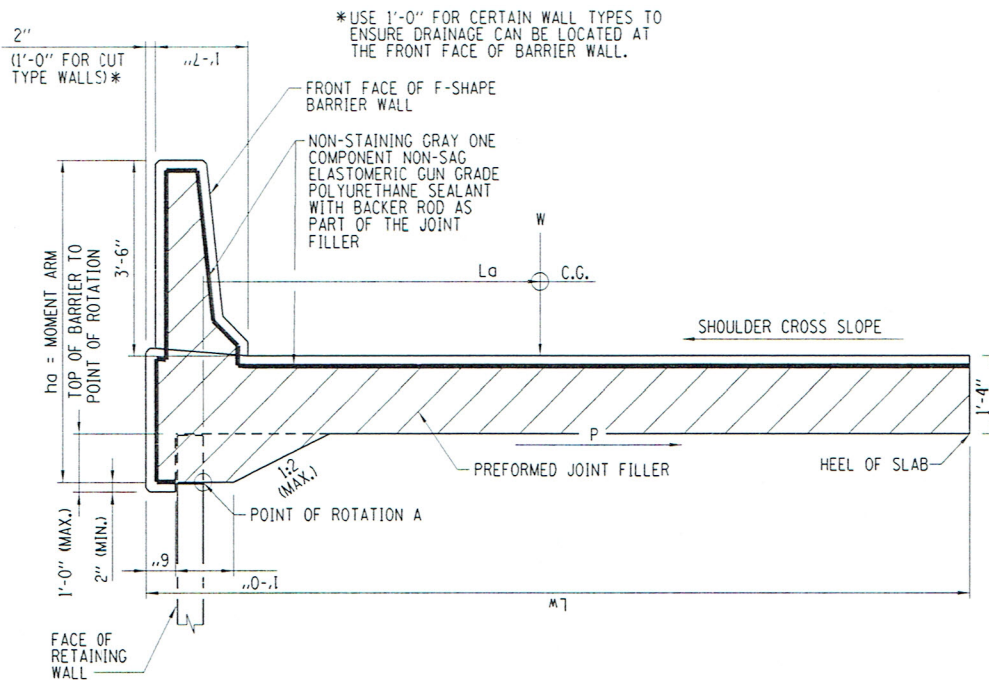


* USE 1'-0" FOR CERTAIN WALL TYPES TO ENSURE DRAINAGE CAN BE LOCATED AT THE FRONT FACE OF THE BARRIER WALL.

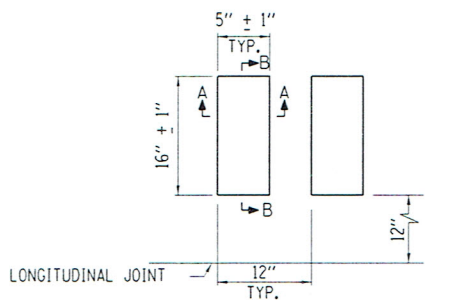
NOTES:

1. MINIMUM LENGTH OF MOMENT SLAB SHALL BE 20'-0" BETWEEN EXPANSION JOINTS FOR THIS CONFIGURATION.
2. DESIGNER SHALL PROVIDE DETAILS AT DRAINAGE STRUCTURES.
3. LOCATIONS OF BARRIER WALL JOINTS SHALL MATCH LOCATIONS OF MOMENT SLAB JOINTS.

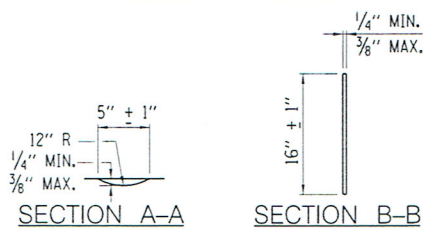
MOMENT SLAB REINFORCEMENT FOR 13" MAINLINE PAVEMENT WITH 3" SUBBASE



MOMENT SLAB REINFORCEMENT AND EXPANSION JOINT
DETAIL FOR 13" MAINLINE PAVEMENT WITH 3" SUBBASE



PLAN DETAIL A



SHOULDER RUMBLE STRIP DETAILS

FIGURE B

HIGH PERFORMANCE CONCRETE MOMENT SLAB STRUCTURES (Tollway)

Effective: August 14, 2014
Revised: September 8, 2014

DESCRIPTION

This special provision shall consist of constructing cast-in-place concrete moment slab structures above retaining walls that shall be constructed in one continuous operation between expansion or construction joints, constructed according to the details shown on the plans, and constructed using high performance concrete. Section 503 of the Standard Specifications shall apply, except as modified herein.

MATERIALS

Replace Article 503.02(a) of the standard specifications the following:

“High Performance Concrete for the moment slabs shall be in accordance with the Tollway special provision PERFORMANCE-RELATED SPECIAL PROVISION FOR HIGH PERFORMANCE CONCRETE MIX DESIGNS FOR CONCRETE SUPERSTRUCTURE.”

CONSTRUCTION REQUIREMENTS

The moment slabs shall be finished in accordance with Article 420.09

METHOD OF MEASUREMENT

This work will be measured in accordance with Article 503.21 of the Standard Specifications.

BASIS OF PAYMENT

This work will be paid in accordance with Article 503.22 of the Standard Specifications except as follows:

Revise the first paragraph of Article 503.22 to read:

“This work will be paid for at the contract unit price per cubic yard for HIGH PERFORMANCE CONCRETE MOMENT SLAB STRUCTURES.

Pay Item Number	Designation	Unit of Measure
J1503020	HIGH PERFORMANCE CONCRETE MOMENT SLAB STRUCTURES	CU YD
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND
42001300	PROTECTIVE COAT	SQ YD