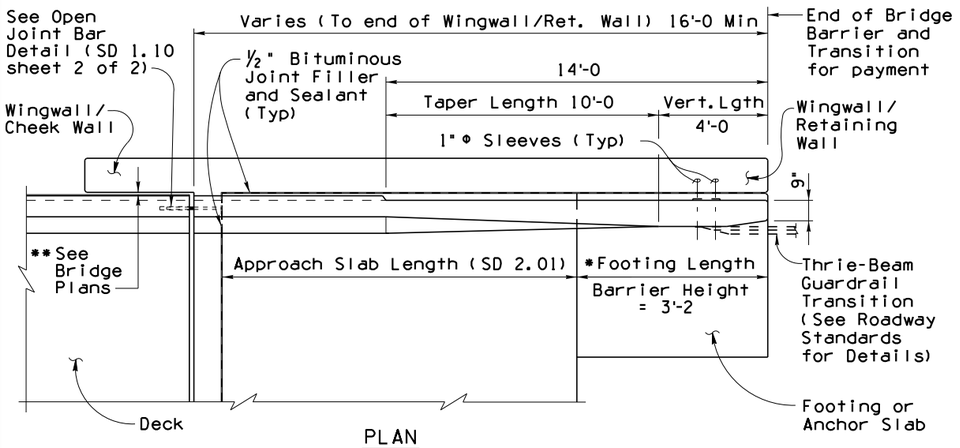
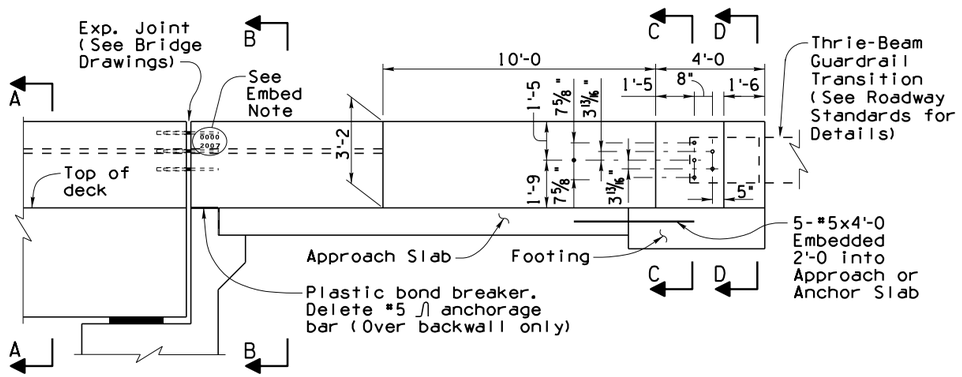
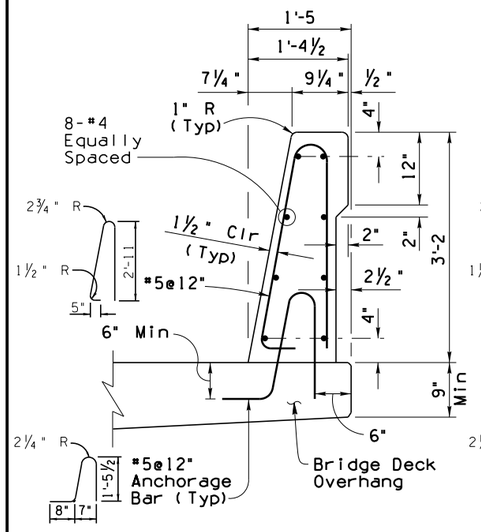


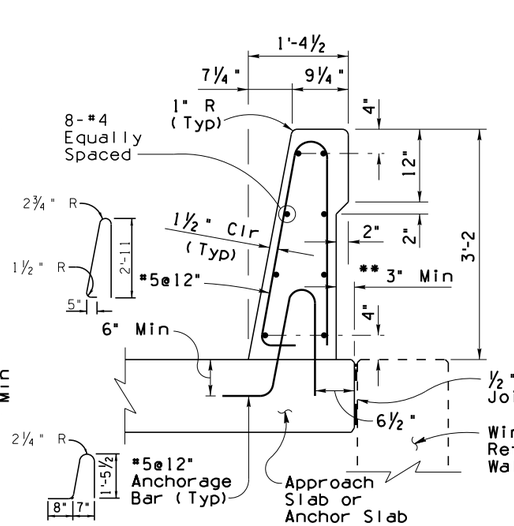
PLAN



ELEVATION



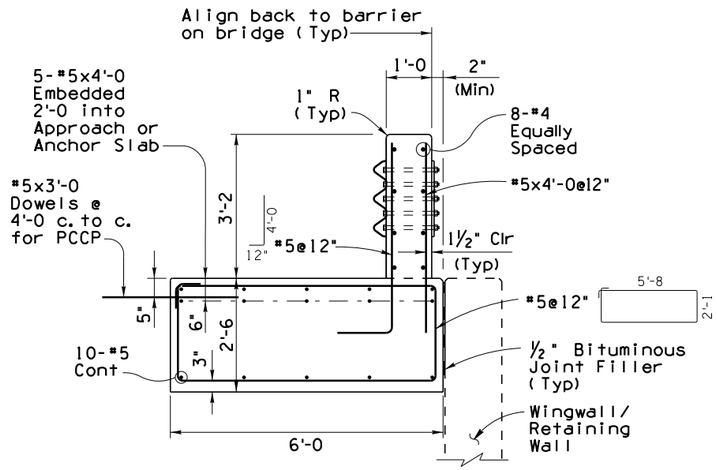
SECTION A-A



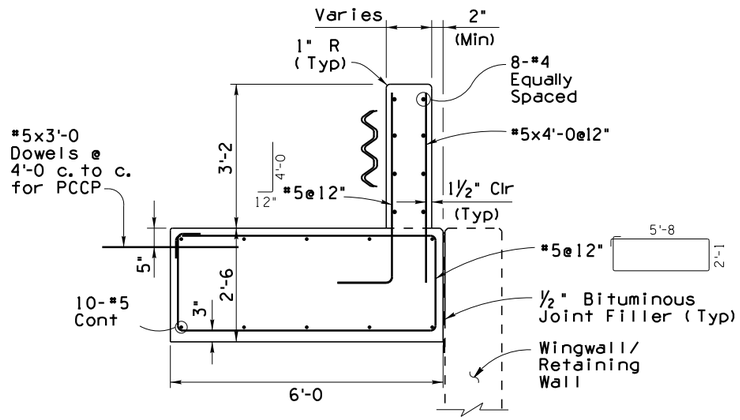
SECTION B-B

* When using barrier on footing beyond the approach slab, the minimum Length of the barrier footing shall be 5'-0.

* When concrete barrier on footing is being used for other applications, the minimum length of barrier on footing shall be 20'-0.



SECTION C-C



SECTION D-D

** A 1" bituminous joint filler thickness is assumed at the cheek wall. Verify the thickness from the bridge plans.

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.

Design Specifications - AASHTO LRFD Bridge Design Specifications, 8th Edition 2017.

This barrier has been successfully evaluated by full-scale crash test to meet MASH 16 requirements for Test Level 4.

Design Loads:

Dynamic Load (For barrier Design) = 80^{K}

Dynamic load is based on NCHRP 20-07(395) MASH Equivalency of NCHRP Report 350 - Approved Bridge Railings.

Equivalent Static Load (For footing design) = 28^{K}

Footing design is based on NCHRP Report 663.

All Concrete shall be Class "S" (f'c = 4000 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60. All reinforcing shall be epoxy coated at locations above an elevation of 4000 feet.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

Concrete barriers on continuous superstructures shall have ½" bituminous joint filler in open joints over piers.

Embed ½", Bridge Number and Year Built, using 1½" w x 2" h number impressions in concrete, located as shown at the approach end of the outside lane.

Anchorage bars are included in the pay item for the barrier (Item No. 6011150).

Omit bridge barrier transition when concrete barrier is continuous beyond the bridge.

Dimensions shall not be scaled from drawings.

AC OVERLAY NOTE:

This barrier was designed to allow for the concrete deck to receive an AC overlay with a thickness not exceeding 2 inches.

Item	38" Single Slope Bridge Concrete Barrier and Transition
Item No.	6011150
Measurement	Linear Foot

STANDARDS ENGINEER
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APPROVED
STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION 01/20 DATE

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
BRIDGE GROUP STANDARD DRAWING

38" SINGLE SLOPE BRIDGE CONCRETE BARRIER AND TRANSITION

DRAWING NO. SD 1.10 (1 of 2)

PRIOR DISTRIBUTION DATE 12/17

Note to Designer:
The information presented in this Standard Drawing has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability by a licensed professional engineer. Contents within the inner border line shall not be altered.