Continuous Barrier On Footing
BARRIER HEIGHT = 38'

REINFORCEMENT AT OPEN JOINT SECTION AT CONTINUOUS PIERS ONLY

OPEN JOINT DETAILS AT EXPANSION JOINTS

OPEN JOINT DETAILS AT CONTINUOUS PIERS ONLY

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

DRAWING NO. 01/20

STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION

GROUP MANAGER

STANDARDS ENGINEER

RECOMMENDED FOR APPROVAL

APPROVED

PRIOR DISTRIBUTION DATE

DATE

INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION

ARIZONA DEPARTMENT OF TRANSPORTATION

SD ( )

SD ( )

38" SINGLE SLOPE BRIDGE CONCRETE BARRIER AND TRANSITION

(Typ)
CONTINUOUS BARRIER ON FOOTING
BARRIER HEIGHT = 38"

REINFORCEMENT AT OPEN JOINT SECTION
AT CONTINUOUS PIERS ONLY

OPEN JOINT DETAILS AT EXPANSION JOINTS

OPEN JOINT DETAILS AT CONTINUOUS PIERS ONLY

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
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A. ALZUBI
D. EBERHART
Roughened Tube is not required with fence.

Nuts and washers shall be galvanized in accordance with zinc powder and flux.

All post bolt heads shall be on sidewalk side. All bolts, nuts and washers shall be galvanized after fabrication in accordance with ASTM A153.

See Bridge Plans for rail layout, elevation, joint anchorage bars (over backwall only).

Concrete parapets on continuous superstructures shall have h½” bituminous joint filler in open joints over piers.

Imbed ½”, Bridge Number and Year Built, using ½” x 2” number impressions in concrete, located as shown at the approach end of the outside lane.

Labor and materials for rolling, parapet, dado, and bridge number shall be included in the pay item (Item 123).

NOTE:
For rail splices not at expansion joint, provide 1 inch gap and weld both ends of splice tube.

For fence attachment details, see SD 1.13.

SECTION A-A

TYPICAL PANEL ELEVATION

SECTION B-B

OPEN JOINT SECTION AT CONTINUOUS PIERS ONLY

SECTION C-C

GENERAL NOTES:


This barrier has been evaluated and approved to be of equal strength to barriers with like geometry, which were successfully crash tested to meet MASH Type 4 requirements for Test Level 4.

Design Loads:

Dynamic Load (for barrier design) = 85g

Dynamic Load is based on NCHRP 20-37A.

MASH Equivalency of NCHRP Report 350 = Approved Bridge Railings.

Equivalent Static Load (for footing design) = 28k

Footing design is based on NCHRP Report 663.

All Concrete shall be Class "C" (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 EL 4000 ft.

All bends and hooks shall meet the requirements of ASTM Specification A615. All bend dimensions for reinforcing steel shall be out-to-out of bars.

All placement dimensions for reinforcing steel shall be equal to those of bars.

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

Imbed ½”, Bridge Number and Year Built, using ½” x 2” number impressions in concrete, located as shown at the approach end of the outside lane.

Labor and materials for rolling, parapet, dado, anchorage bars, sidewalk and PEDESTRIAN FENCE are included in the pay item (Item No. 6011132).

Dimensions shall not be scaled from drawings.

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE INTEGRITY & OPERATIONS GUSD BRIDGE GROUP STANDARD DRAWING

STANDARD DRAWING NUMBER

S. EBERHART

Drawing Date 03/09}

PLATE DETAIL

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 and applicability by a licensed professional engineer.


Equivalent Static Load (for footing design) = 28 k

Footing design is based on NCHRP Report 663.

All Concrete shall be Class "C" (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 EL 4000 ft.

Plastic bond breaker. Delete #5 and #5 @ 9". Use ½" tooled radius and round all edges.

In open joints at continuous piers, provide ¾" bolt.

EXP. Jt. (See Bridge Drawings)

** See SD 1.12 for footing details.

Note:
For fence attachment details, see SD 1.13. (Lower rail tube is not required with fence.)
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 and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

**Note to Designer:**

**PRIOR DISTRIBUTION DATE**

**DATE**

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**ARIZONA DEPARTMENT OF TRANSPORTATION**

**DRAWING NO.**

**STANDARDS ENGINEER**

**RECOMMENDED FOR APPROVAL**

**GROUP MANAGER**

**APPROVED**

**STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION**

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**SECTION A-A**

**SECTION C-C**

**SECTION B-B**

See Roadway Standards for reinforcement

**ELEVATION**

**PLAN**

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**ITEMS**

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<td>Linear Feet</td>
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</tbody>
</table>

**SHOULDER**

- **A. ALZUBE**

**ROADWAY**

- **D. EBERHART**

**COLD JOINT**

- **G. DIBRANT**

**CONCRETE**

- **M. WILSON**

**ANCHORAGE**

- **J. B. ALBRECHT**

**BRIDGE GROUP STANDARDS DRAWING**

32" Type F Roadway Barrier Transition To 42" Single Slope Bridge Barrier
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 verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

**ELEVATION**

42" Type F Roadway Barrier Transition to 42" Single Slope Bridge Barrier

- Anchor Slab
- Approach Slab/Barrier Footing
- Barrier Footing/Approach Slab/Anchor Slab
- Cold Joint
- Match Toe
- Taper backside of barrier to match barrier shown in section A-A
- * Adjust transition barrier vertical and anchorage bar reinforcement as needed

**PLAN**

- Match Toe
- Traffic Side
- Approach Slab or Anchor Slab
- Barrier Footing/Approach Slab/Anchor Slab
- Cold Joint
- Roadway Barrier Gutter
- Roadway Barrier Gutter Shown

**SECTION A-A**

See Roadway Standards for reinforcement

**SECTION B-B**

See 30W II of D for reinforcement

**SECTION C-C**

See SD 1.11 (1 of 2) for reinforcement

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**Item 42" Type F Roadway Barrier Transition to 42" Single Slope Bridge Barrier**

- Item No.: 0011.44
- Measurement: Linear Foot