Chapter 11 - Structural Repairs

SECTION 07

ROADWAY JOINT REPAIRS (SR-JT)

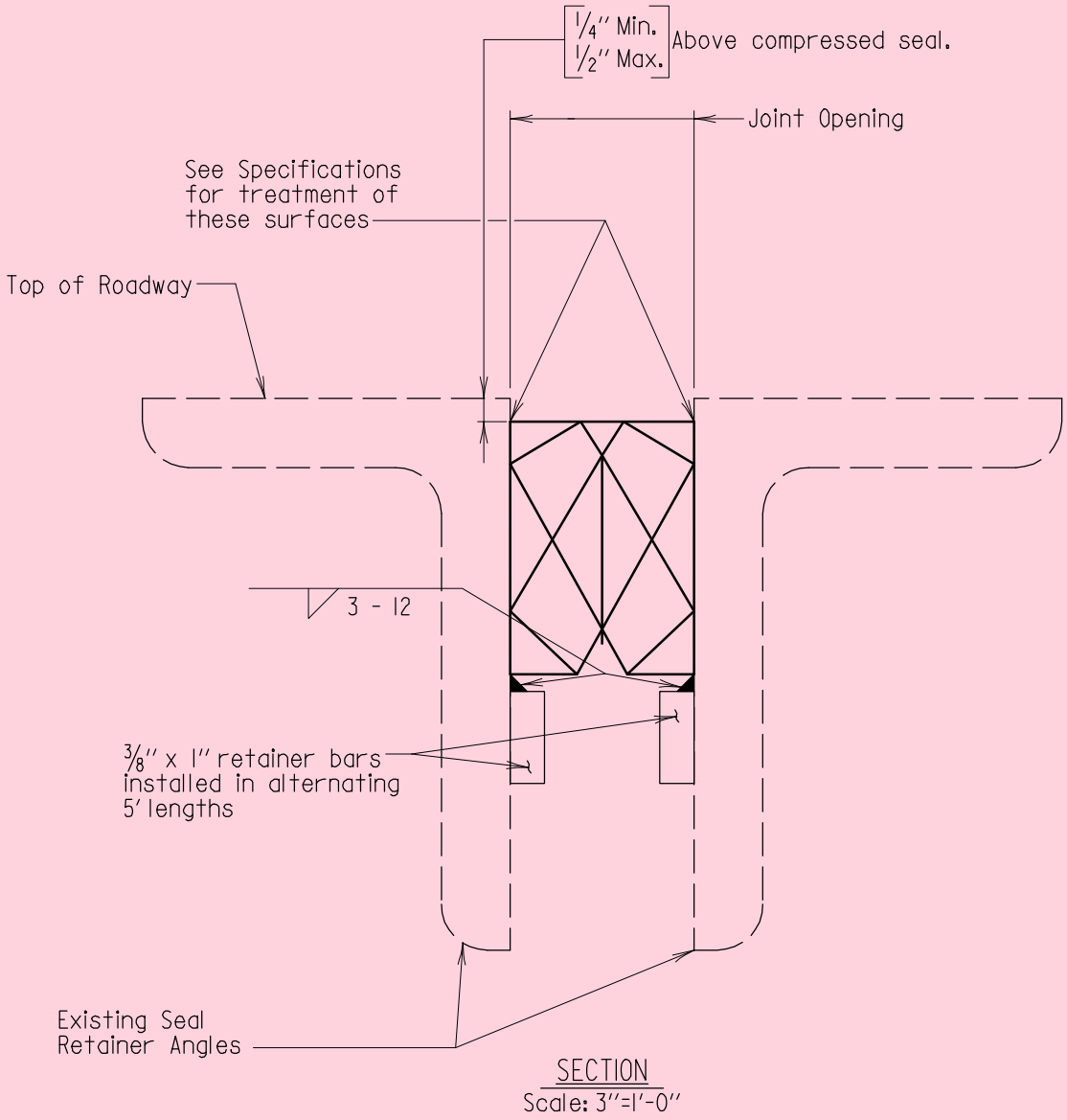
Chapter 11 - Structural Repairs

Section 07 – Roadway Joint Repairs

SUB-SECTION **01**

RETAINER BAR

(SR-JT(RB))



SECTION
Scale: 3"=1'-0"

COMPRESSION SEAL TABLE								
Location	Uncompressed Seal Width	Joint Opening @						Movement Rating
		40°F	50°F	60°F	70°F	80°F	90°F	
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-

"TABLE IS GIVEN FOR REFERENCE PURPOSES ONLY. IF THE OPENING IN THE FIELD IS FOUND TO VARY MORE THAN 1/4" AT ASSOCIATED TEMPERATURE THE ENGINEER SHALL CONTACT THE DESIGN ENGINEER FOR GUIDANCE."

Notes:
1. Seal(s) up to 3" wide, uncompressed, shall be one piece for the full length of seal (no joints).
2. Seal(s) greater than 3" wide may have one splice per joint if the length of the joint exceeds 50'. Splice shall be at least 15' from the gutter line.

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COMPRESSION SEAL GLAND REPLACEMENT ARMORED JOINT

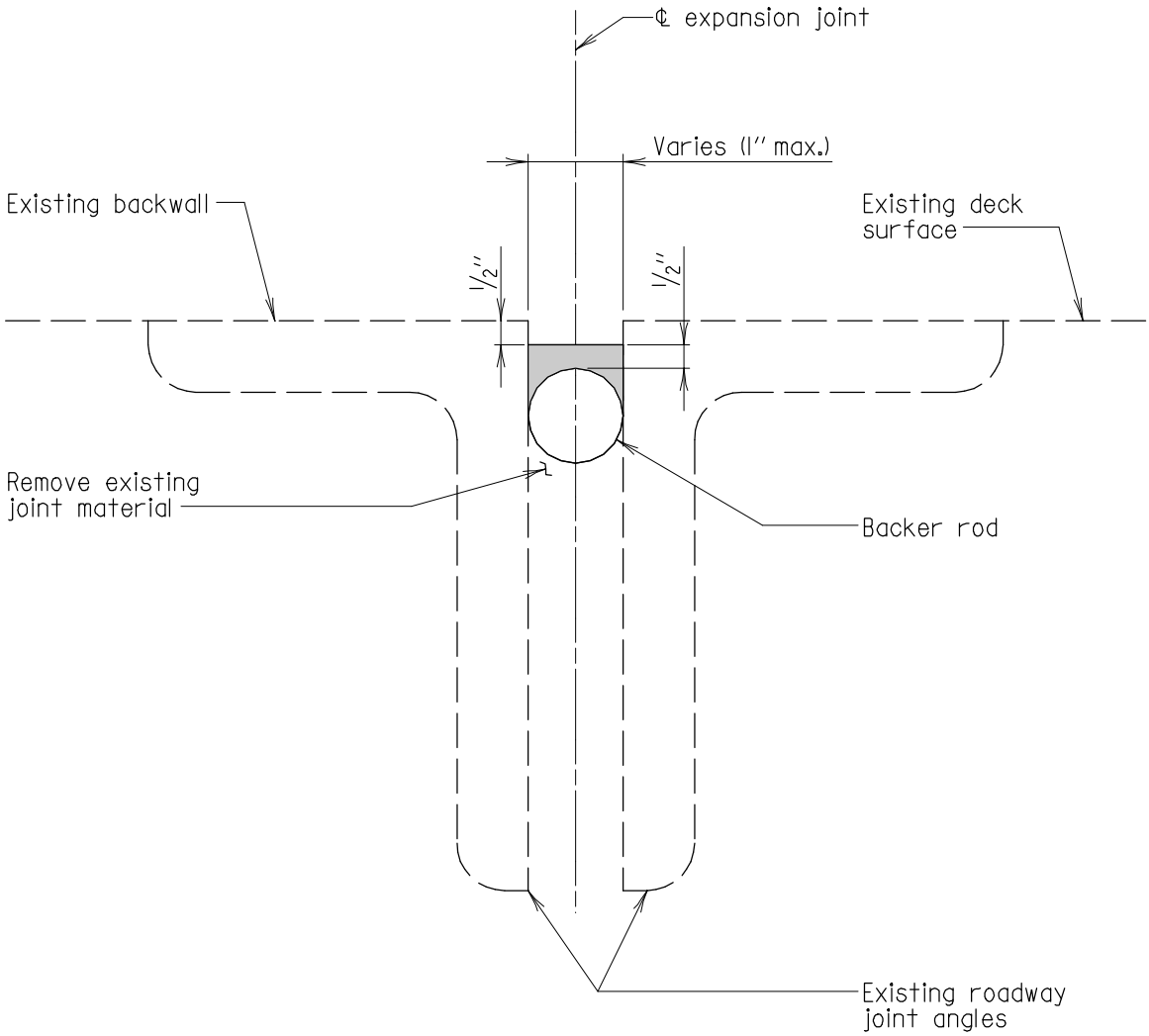
DETAIL NO. SR-JT(RB)-101 SHEET 1 OF 1

Chapter 11 - Structural Repairs

Section 07 – Roadway Joint Repairs

SUB-SECTION **02**

POURABLE SEALS (SR-JT(PS))



SECTION
Scale: 3"=1'-0"

Pourable Joint Construction Notes:

1. Remove existing expansion joint material.
2. Prepare the joint surface by removing all residue (existing sealant or primer) utilizing sandblasting or grinding.
3. Blow all dust and debris from the expansion joint ensuring that the compressor air line has an oil trap.
4. Grind smooth any irregularities in the existing joint surfaces to receive the new silicone rubber sealant. Sand blast to near white metal.
5. Pack the open joint with SOF Rod Backer rod to achieve approximately 25% compression.
6. Prime the expansion joint with PPG Metal Hide One-Pac Inorganic Zinc Rich Primer or approved equal.
7. Seal joint with Dow Corning 902 RCS Self-Leveling Silicone Rubber Sealant or approved equal in accordance with the manufacturer's recommendations.

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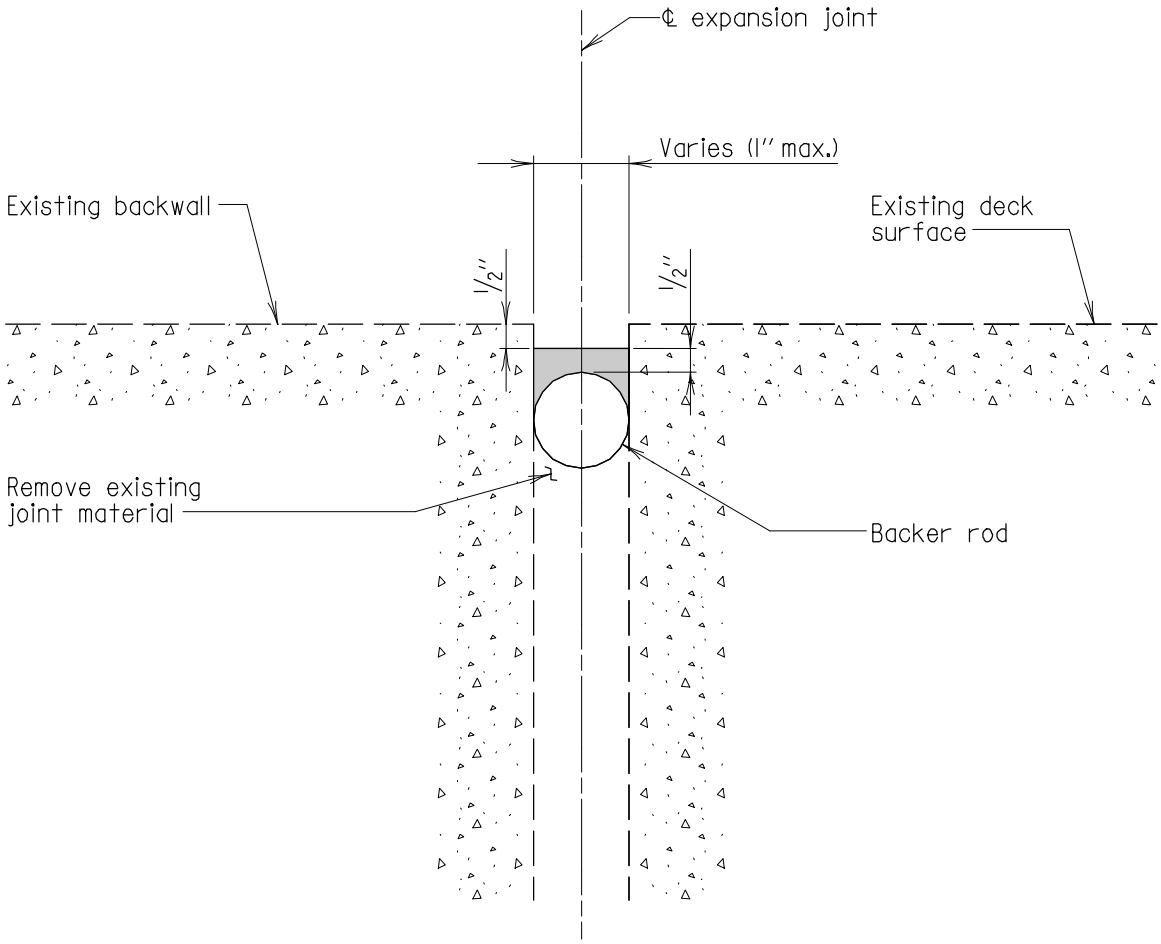
INSTALLING POURABLE JOINT SEALS FOR EXISTING BRIDGE DECKS WITH ARMORED JOINTS

DETAIL NO. SR-JT(PS)-101 SHEET 1 OF 1

STRUCTURAL REPAIRS



SECTION
Scale: 3"=1'-0"

Pourable Joint Construction Notes:

1. Remove existing expansion joint material.
2. Prepare the joint surface by removing all residue (existing sealant or primer) utilizing sandblasting or grinding.
3. Blow all dust and debris from the expansion joint ensuring that the compressor air line has an oil trap.
4. At the engineer's discretion, repair the concrete irregularities that would prevent proper adhesion of the new silicone rubber sealant to the existing joint surfaces. The irregularities shall be repaired with trowel grade mortar as per Section 902.11.
5. Pack the open joint with SOF Rod Backer rod to achieve approximately 25% compression.
6. Prime the expansion joint with Dow Corning P5200 primer or approved equal.
7. Seal joint with Dow Corning 902 RCS Self-Leveling Silicone Rubber Sealant or approved equal in accordance with the manufacturer's recommendations.

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Tom C Dwyer DIRECTOR OFFICE OF STRUCTURES DATE: 06/28/2017	INSTALLING POURABLE JOINT SEALS FOR EXISTING BRIDGE DECKS WITH NON-ARMORED JOINTS
VERSION 1.0	DETAIL NO. SR-JT(PS)-102 SHEET 1 OF 1

STRUCTURAL REPAIRS

Chapter 11 - Structural Repairs

Section 07 – Roadway Joint Repairs

SUB-SECTION **03**

SILICONE JOINT SEALS (SR-JT(SJ))

PREFORMED SILICONE JOINT SEAL
NOTES AND INSTALLATION PROCEDURES FOR ARMORED JOINTS

Preformed Silicone Joint Seal Notes:

1. The minimum allowable installation temperature shall be 40°F and rising ambient air temperature.
2. Refer to manufacturer's specifications on the procedure to cut and splice the preformed silicone joint seal when needed (i.e. traffic barriers, curbs, joint not able to be placed continuously due to traffic, etc.)

Preformed Silicone Joint Seal Installation Procedure:

1. Remove existing expansion joint material.
2. Prepare the joint surface by removing all residue (existing sealant or primer) utilizing sand blasting, wire brushing, or other mechanical methods approved by the manufacturer.
3. Sandblast the inside vertical face of the joint interface. Steel surfaces must be sandblasted to "near white".
4. Blow all dust and debris from the expansion joint ensuring that the compressor air line has an oil trap.
5. Wipe clean both sides of the vertical face of the open joint as well as the proposed length of preformed silicone seal with denatured alcohol.
6. Install foam backer rods perpendicular to the joint, spaced on 12" centers.
7. Apply the primer to the vertical face of the joint interface and allow the proper dry time per the manufacturer's recommendations. Note: Once the primer is applied, the adhesive and seal shall be installed the same day.
8. Install the first $\frac{1}{2}$" diameter bead of silicone adhesive to both sides of the vertical face of the joint interface. This bead of adhesive and seal shall be limited to 5' installation increments to prevent premature adhesive cure. The adhesive shall be placed as defined below the top of the joint elevation.
9. See contract plans for the type and size of preformed silicone seal required. Insert the seal above the first bead to the manufacturer's recommended joint recess depth. Continually check and adjust this depth by hand.
10. Apply the second bead of silicone adhesive per the manufacturer's recommendation to the seal serrations and tool the locking adhesive at least twice with a tongue depressor to ensure complete contact with the joint face.

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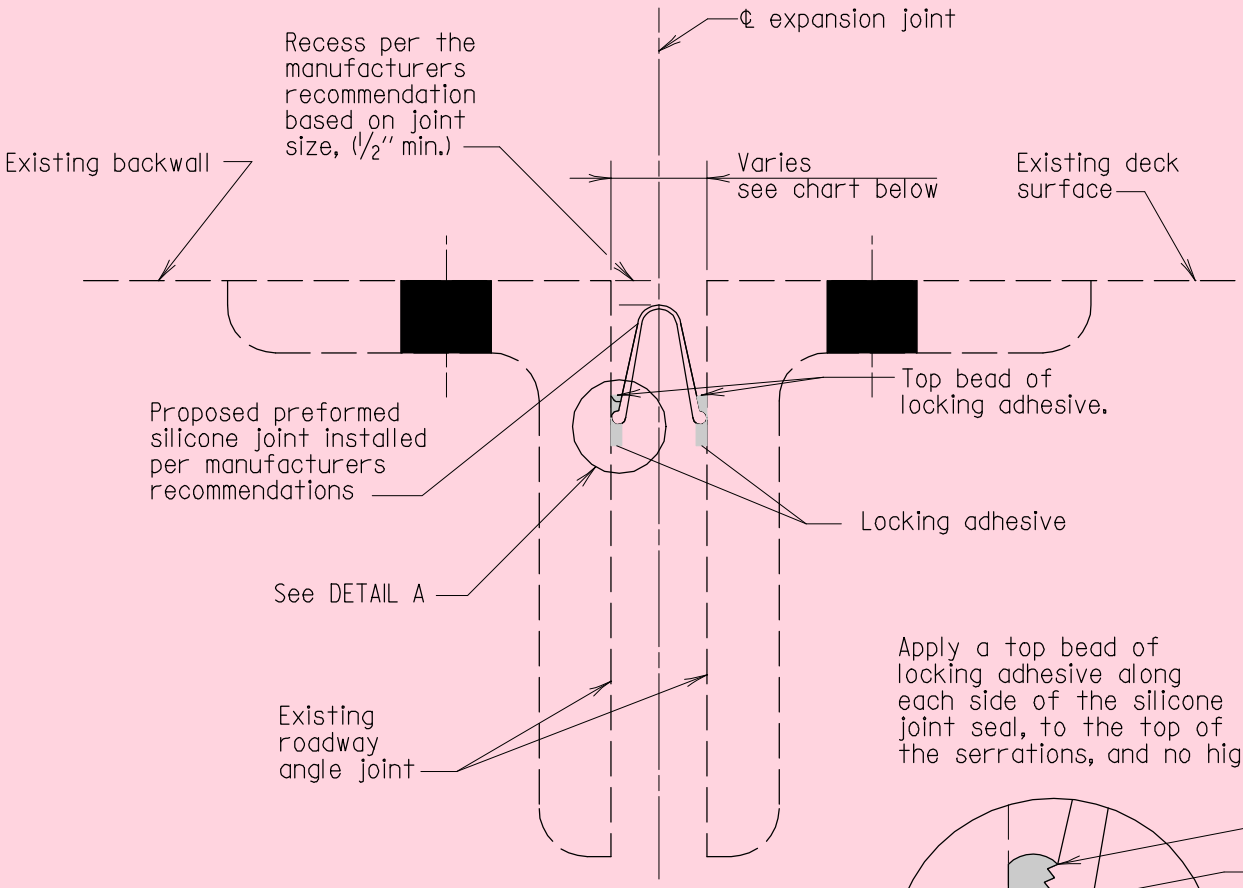
PREFORMED SILICONE JOINT SEALS WITH PRIMER
FOR EXISTING BRIDGE DECKS WITH ARMORED JOINTS
(JOINT OPENING < 4")

DETAIL NO. SR-JT(SJ)-101 SHEET 1 OF 2

STRUCTURAL REPAIRS



SECTION
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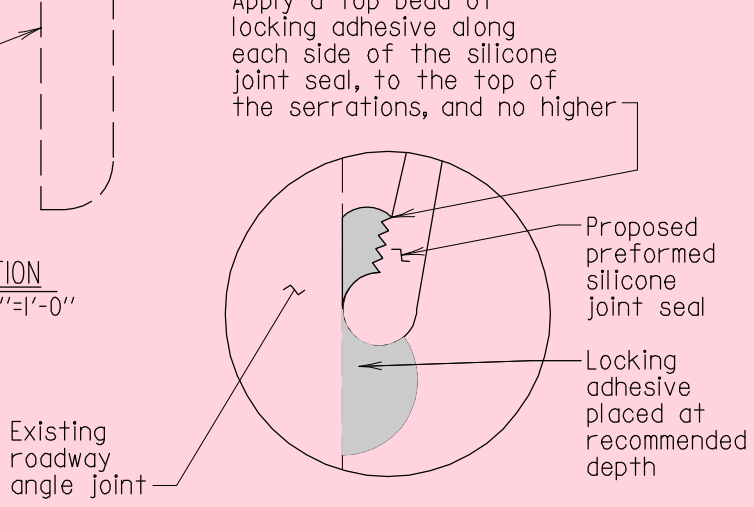

DETAIL A
Scale: None

PREFORMED SILICONE JOINT SEAL									
Location	Joint Opening						Movement Rating	Seal Size	Recess
	40°	50°	60°	70°	80°	90°			

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PREFORMED SILICONE JOINT SEALS WITH PRIMER FOR EXISTING BRIDGE DECKS WITH ARMORED JOINTS (JOINT OPENING < 4")

DETAIL NO. SR-JT(SJ)-101 SHEET 2 OF 2

STRUCTURAL REPAIRS

PREFORMED SILICONE JOINT SEAL
NOTES AND INSTALLATION PROCEDURES - FOR NON-ARMORED JOINTS

Preformed Silicone Joint Seal Notes:

1. The minimum allowable installation temperature shall be 40°F and rising ambient air temperature.
2. Installation of the joint seal must take place the same day as the sandblasting and joint preparation.
3. Refer to manufacturer's specifications on the procedure to cut and splice the preformed silicone joint seal when needed (i.e. traffic barriers, curbs, joint not able to be placed continuously due to traffic, etc.)

Preformed Silicone Joint Seal Installation Procedure:

1. Remove existing expansion joint material.
2. Prepare the joint surface by removing all debris and residue (existing sealant or primer) utilizing wire brushing, or other mechanical methods approved by the manufacturer.
3. Roughen the inside vertical faces of the joint interfaces that will recieve the new preformed silicone joint seal and remove and repair all unsound concrete. Roughening can be done by sand blasting, wire brushing, or other mecahnical methods approved of by the manufacturer.
4. Blow all dust and debris from the expansion joint ensuring that the compressor air line has an oil trap.
5. Wipe clean both sides of the vertical face of the open joint as well as the proposed length of preformed silicone seal with denatured alcohol.
6. Install foam backer rods perpendicular to the joint, spaced on 12" centers.
7. Apply the primer to the vertical face of the joint interface and allow the proper dry time per the manufacturer's recommendations. Note: Once the primer is applied, the adhesive and seal shall be installed the same day.
8. Install the first $\frac{1}{2}$" diameter bead of silicone adhesive to both sides of the vertical face of the joint interface. This bead of adhesive and seal shall be limited to 5' installation increments to prevent premature adhesive cure. The adhesive shall be placed as defined below the top of the joint elevation.
9. See contract plans for the type and size of preformed silicone seal required. Insert the seal above the first bead to the manufacturer's recommended joint recess depth. Continually check and adjust this depth by hand.
10. Apply the second bead of silicone adhesive per the manufacturer's recommendation to the seal serrations and tool the locking adhesive at least twice with a tongue depressor to ensure complete contact with the joint face.

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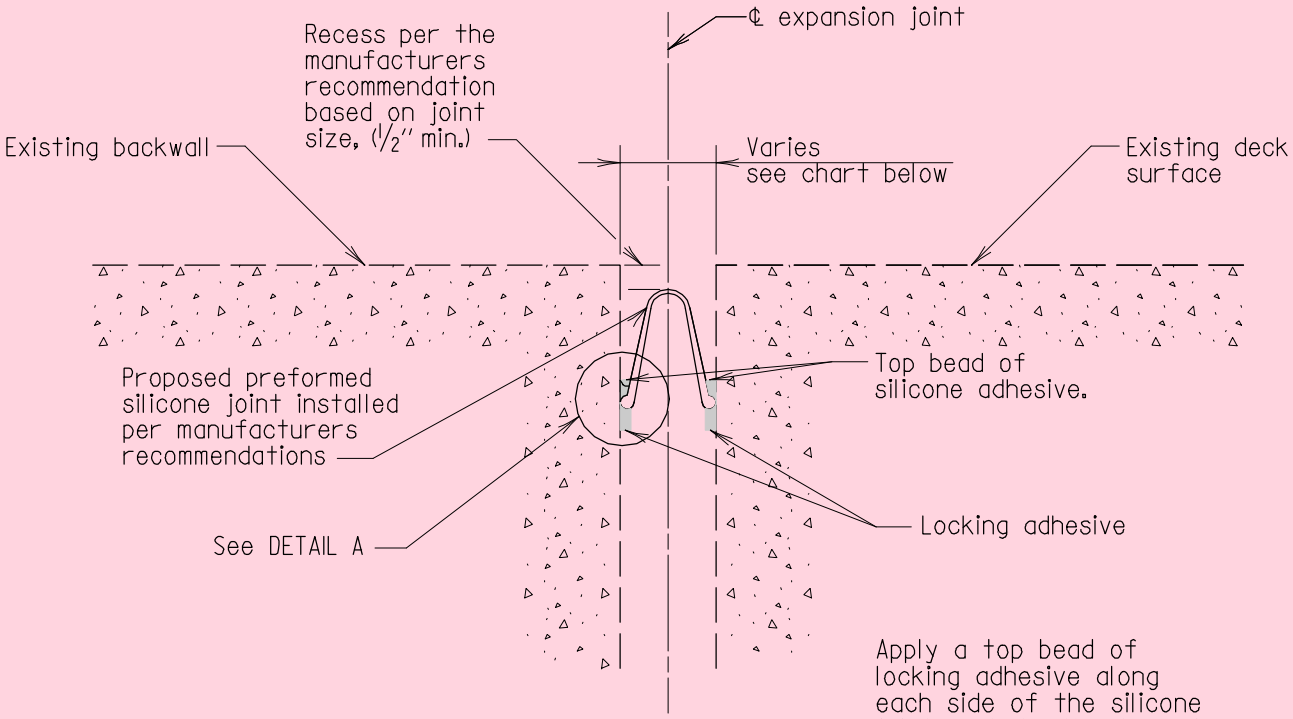
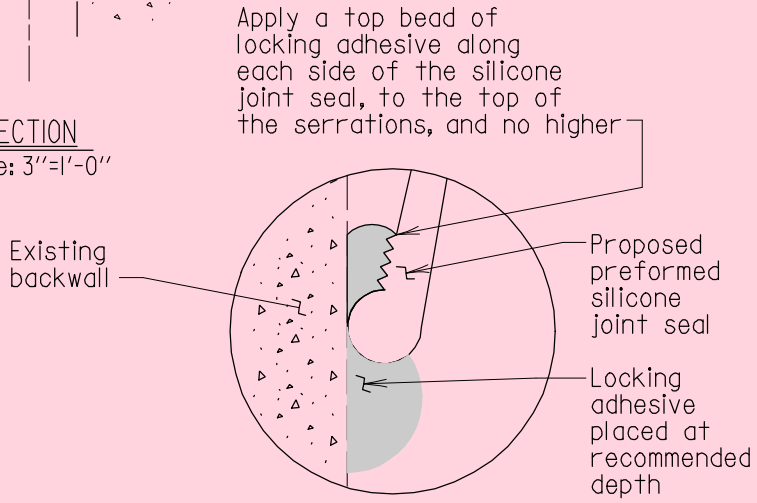
Tom Daugherty DIRECTOR OFFICE OF STRUCTURES DATE: 06/28/2017	PREFORMED SILICONE JOINT SEALS WITH PRIMER FOR EXISTING BRIDGE DECKS WITH NON-ARMORED JOINTS (JOINT OPENING < 4")
VERSION 1.0	DETAIL NO. SR-JT(SJ)-102 SHEET 1 OF 2

STRUCTURAL REPAIRS



SECTION
Scale: 3"=1'-0"



DETAIL A
Scale: None

PREFORMED SILICONE JOINT SEAL									
Location	Joint Opening						Movement Rating	Seal Size	Recess
	40°	50°	60°	70°	80°	90°			

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DATE: 06/28/2017
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PREFORMED SILICONE JOINT SEALS WITH PRIMER FOR EXISTING BRIDGE DECKS WITH NON-ARMORED JOINTS (JOINT OPENING < 4")

DETAIL NO. SR-JT(SJ)-102 SHEET 2 OF 2

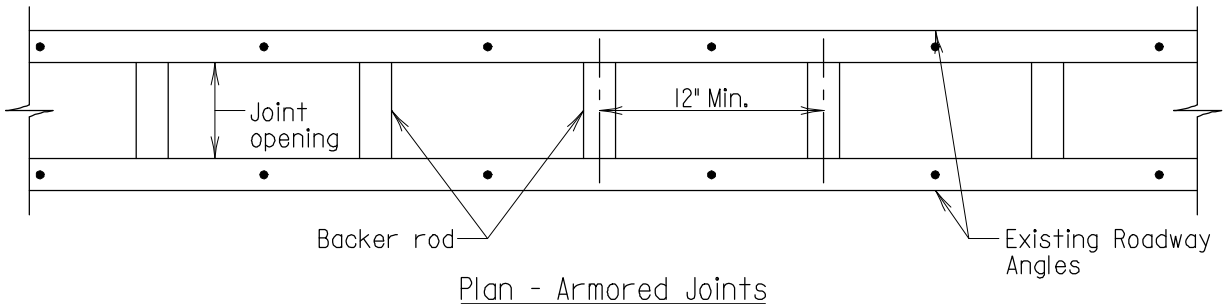
STRUCTURAL REPAIRS

PREFORMED SILICONE JOINT SEAL

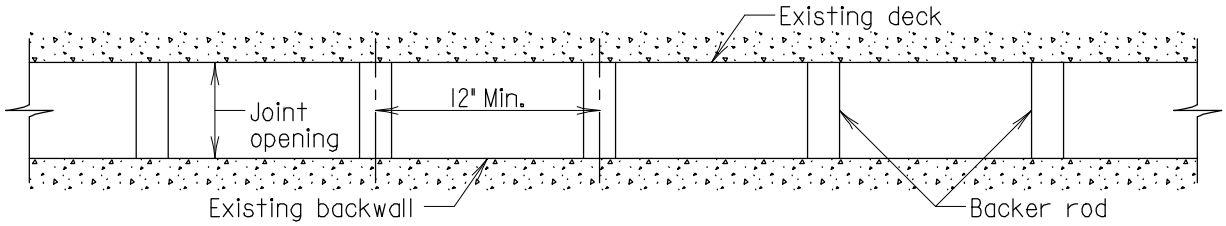
SPECIAL INSTALLATION PROCEDURES FOR JOINTS WITH OPENINGS ≥ 4″

NOTES:

1. Backer rods shall be cut so it fits tightly and provides support to the new seal during installation. The pieces of foam backer rod shall be spaced a minimum of every 12″.
2. For details on the installation of silicone joint seals for armored joints, refer to SR-JT-201.
3. For details on the installation of silicone joint seals for non-armored joints, refer to SR-JT-202.



Plan - Armored Joints
Not to Scale



Plan - Non-Armored Joints
Not to Scale

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Tom C. Vaughan DIRECTOR OFFICE OF STRUCTURES DATE: 06/28/2017	PREFORMED SILICONE JOINT SEAL INSTALLATION (JOINT OPENING ≥ 4″)
VERSION 1.0	DETAIL NO. SR-JT(SJ)-103 SHEET 1 OF 1

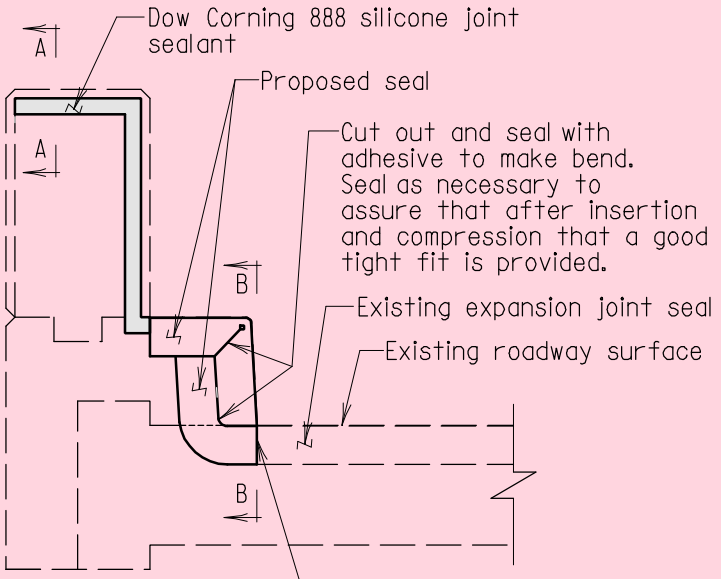
STRUCTURAL REPAIRS

Chapter 11 - Structural Repairs

Section 07 – Roadway Joint Repairs

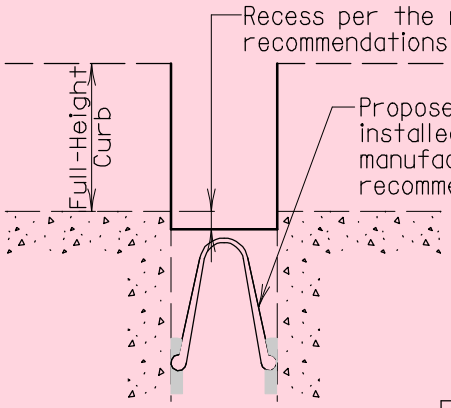
SUB-SECTION **04**

PARAPET CURB SEALS (SR-JT(PCS))



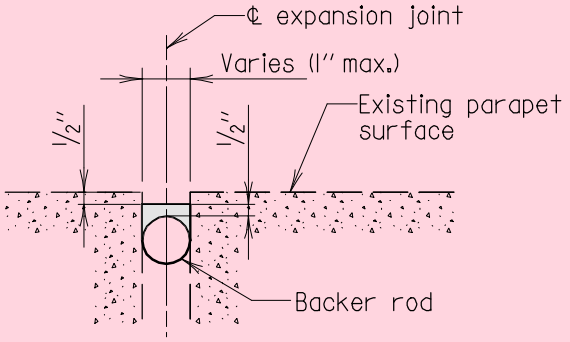
TYPICAL ROADWAY JOINT AT BARRIER

Scale: N.T.S.



SECTION B-B

Scale: 3/16" = 1'-0"



SECTION A-A

Scale: 1/8" = 1'-0"

Pourable Joint Construction Notes:

1. Prepare the joint surface by removing all residue (existing sealant or primer) utilizing sandblasting or grinding.
2. Blow all dust and debris from the expansion joint ensuring that the compressor air line has an oil trap.
3. At the engineer's discretion, repair the concrete irregularities that would prevent proper adhesion of the new silicone rubber sealant to the existing joint surfaces. The irregularities shall be repaired with trowel grade mortar as per Section 902.11.
4. Pack the open joint with SOF Rod Backer rod to achieve approximately 25% compression.
5. Prime the expansion joint with Dow Corning P5200 primer or approved equal.
6. Seal joint with Dow Corning 888 Silicone Joint Sealant or approved equal in accordance with the manufacturer's recommendations.

Note:

Refer to SR-JT(SJ)-101, SR-JT(SJ)-102 and SR-JT(SJ)-103 for installation of preformed silicone joint.

PREFORMED SILICONE JOINT SEAL								
Location	Joint Opening						Movement Rating	Seal Size
	40°	50°	60°	70°	80°	90°		

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INSTALLING PARAPET/CURB JOINT SEALS FOR EXISTING BRIDGE DECKS WITH NON-ARMORED JOINTS

DETAIL NO. SR-JT(PCS)-101 SHEET 1 OF 1

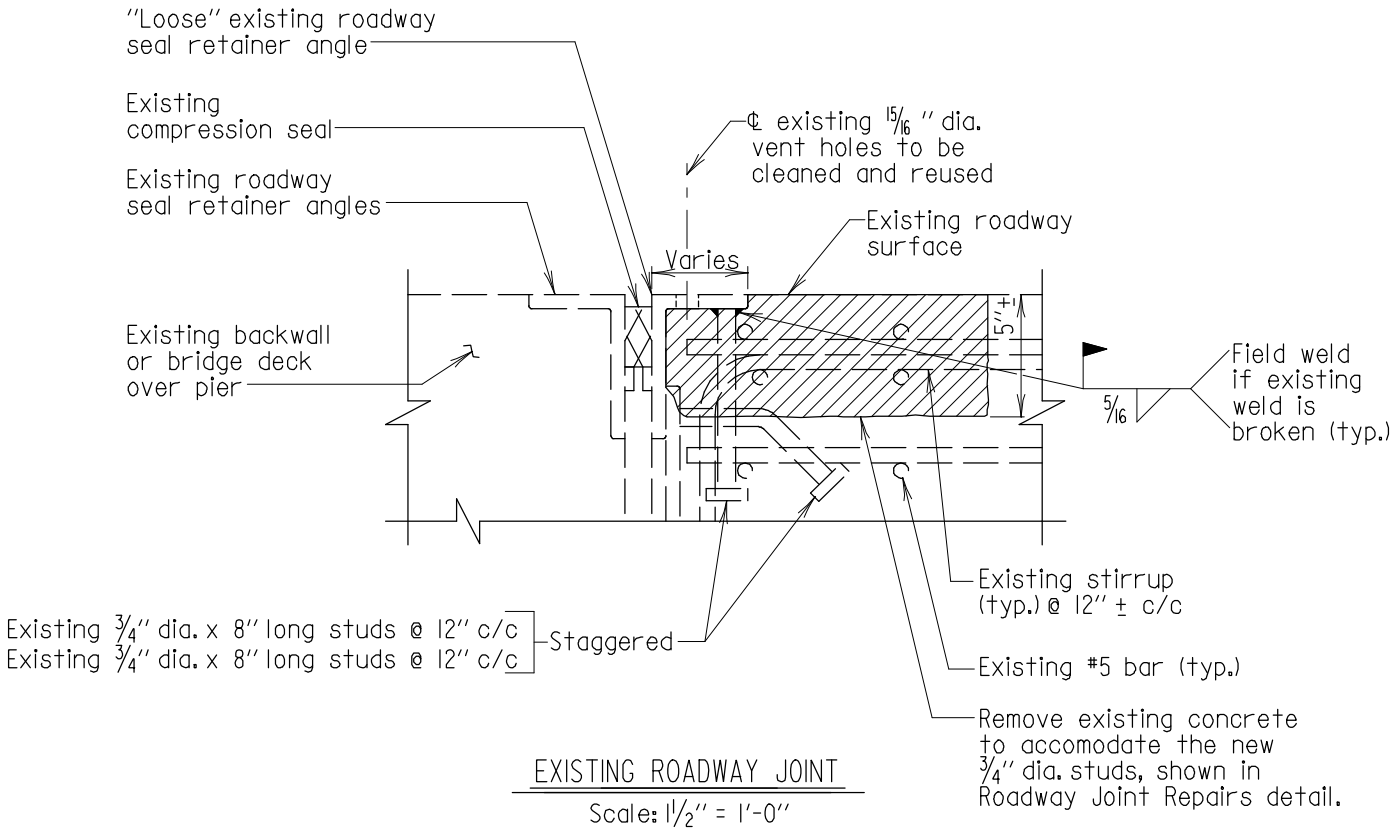
STRUCTURAL REPAIRS

Chapter 11 - Structural Repairs

Section 07 – Roadway Joint Repairs

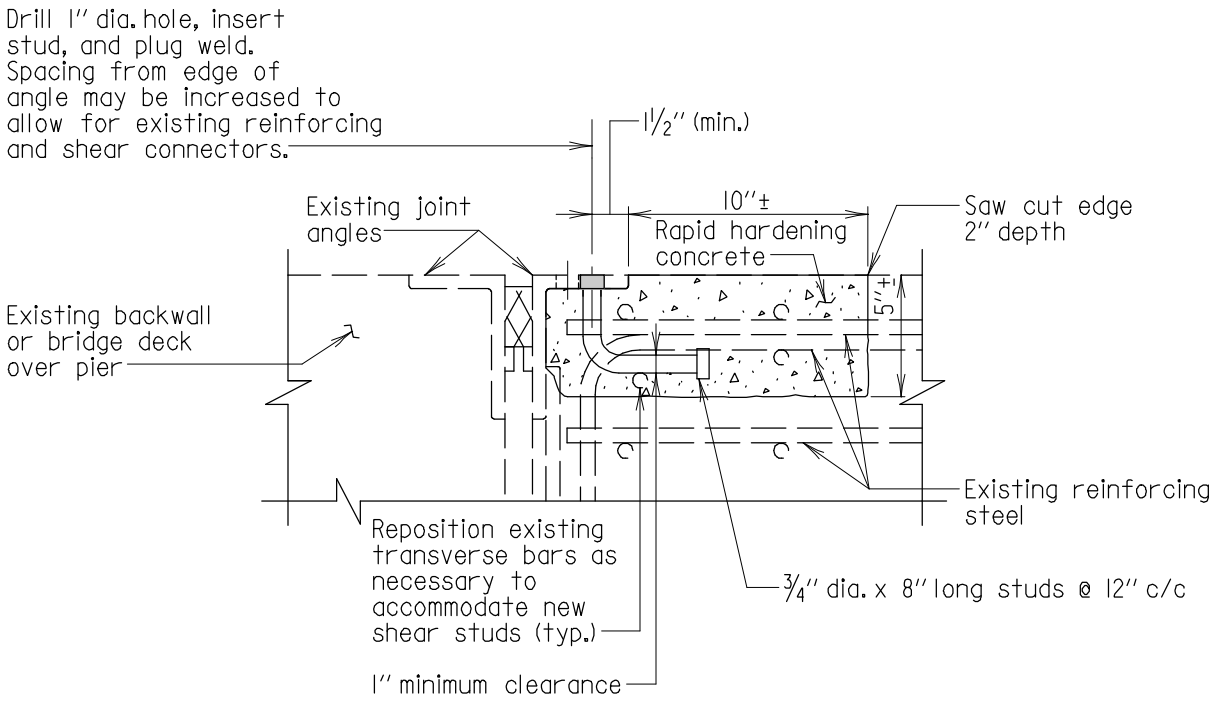
SUB-SECTION **05**

ROADWAY ANGLE (SR-JT(RA))



EXISTING ROADWAY JOINT

Scale: 1 1/2" = 1'-0"



PROPOSED - ROADWAY JOINT REPAIRS

Scale: 1 1/2" = 1'-0"

Notes:
1. Existing studs not shown for clarity in Roadway Joint Repairs detail.
2. For roadway angles to be replaced, use Detail No. SUP-SS(DR)-101 for welding new angle to existing.
3. Concrete shall be in accordance with 902.14.

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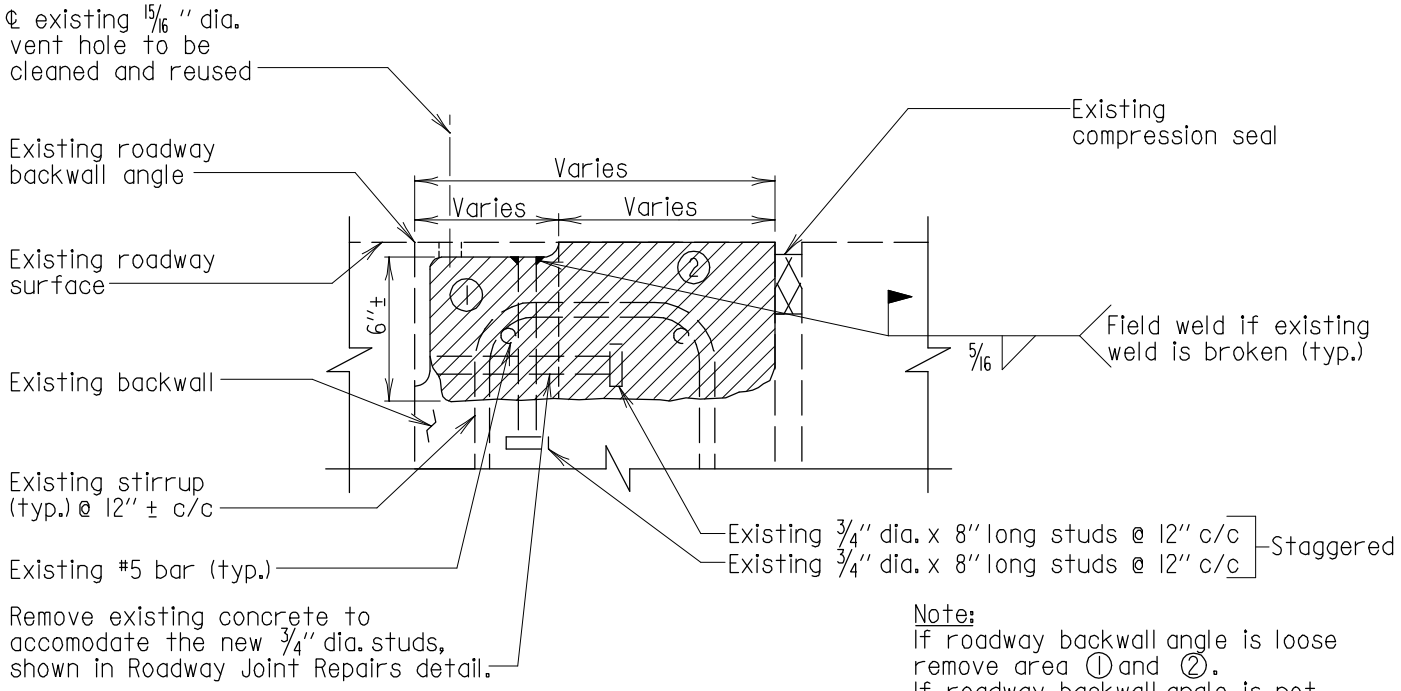
ROADWAY ANGLE REPAIR DETAILS
(DECK - ARMORED JOINT)

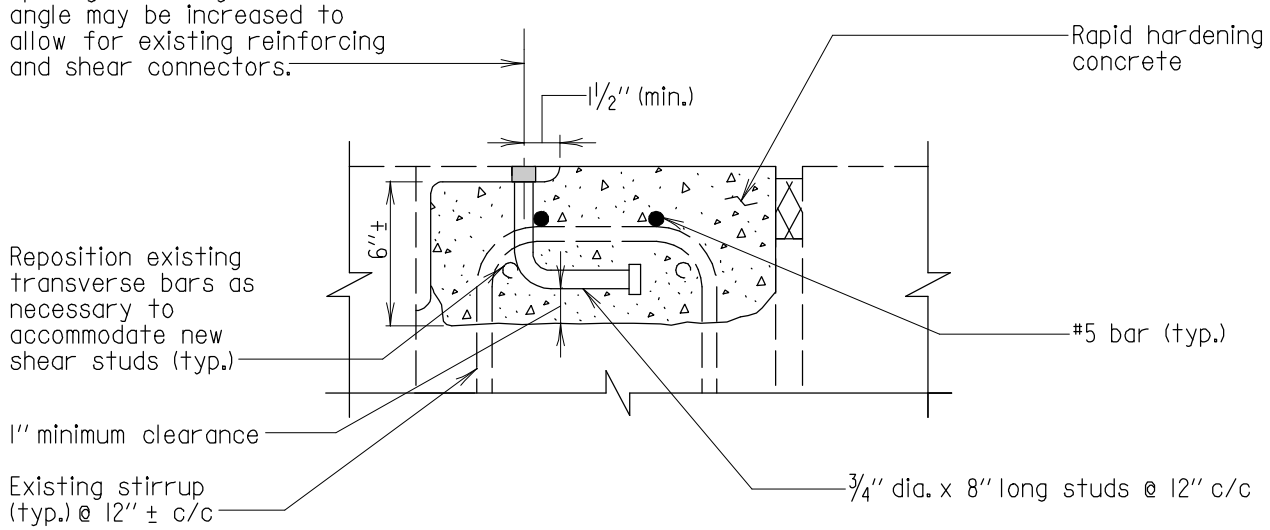
DETAIL NO. SR-JT(RA)-101 SHEET 1 OF 1

STRUCTURAL REPAIRS



EXISTING ROADWAY JOINT

Scale: 1 1/2" = 1'-0"



PROPOSED - ROADWAY JOINT REPAIRS

Scale: 1 1/2" = 1'-0"

Notes:
1. Existing studs not shown for clarity in Roadway Joint Repairs detail.
2. For roadway angles to be replaced, use Detail No. SUP-SS(DR)-101 for welding new angle to existing.
3. Concrete shall be in accordance with 902.14.

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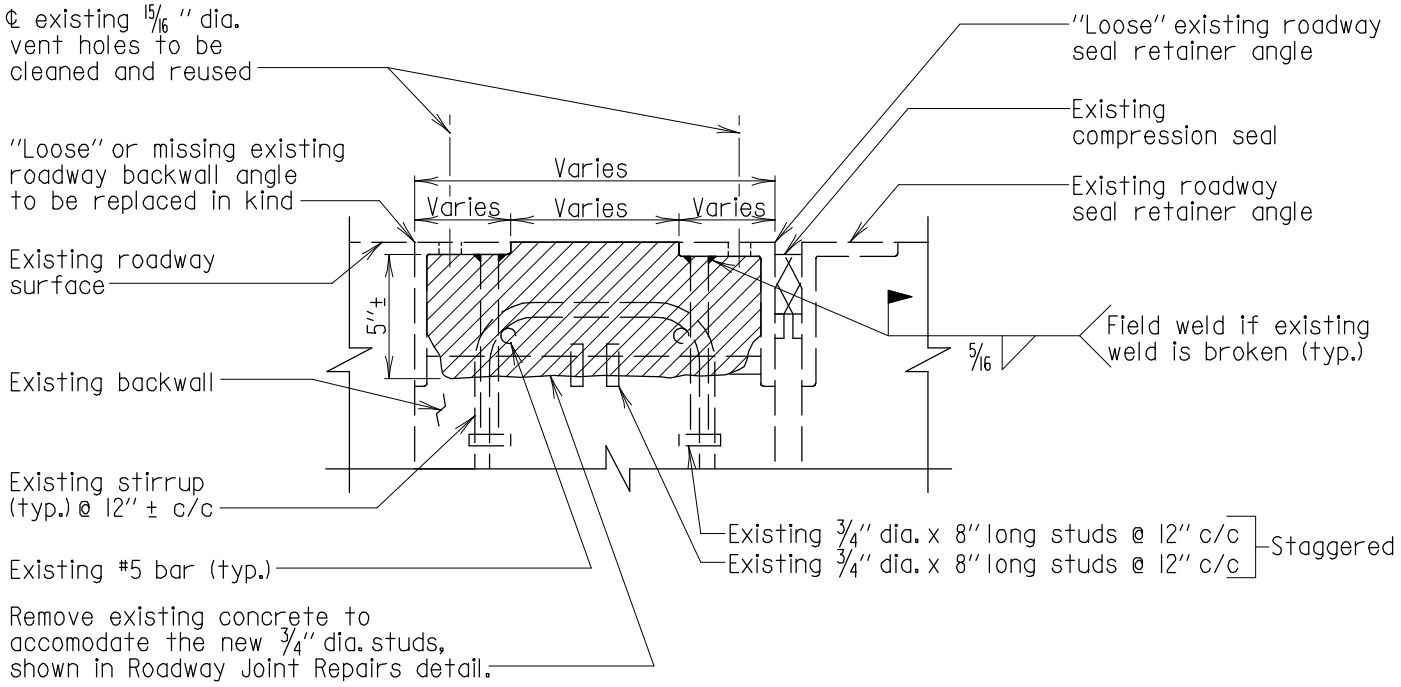
ROADWAY ANGLE REPAIR DETAILS (BACKWALL - NON-ARMORED JOINT)

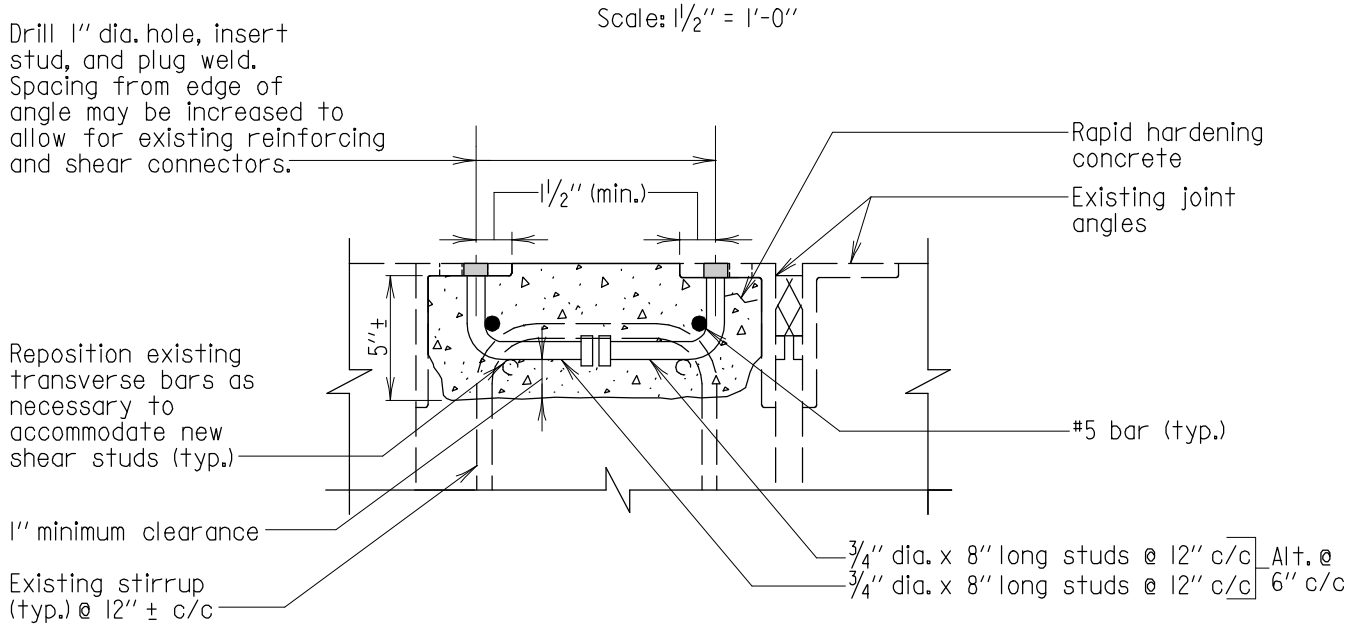
DETAIL NO. SR-JT(RA)-102 SHEET 1 OF 1

STRUCTURAL REPAIRS



EXISTING ROADWAY JOINT

Scale: 1 1/2" = 1'-0"



PROPOSED - ROADWAY JOINT REPAIRS

Scale: 1 1/2" = 1'-0"

Notes:
1. Existing studs not shown for clarity in Roadway Joint Repairs detail.
2. For roadway angles to be replaced, use Detail No. SUP-SS(DR)-101 for welding new angle to existing.
3. Concrete shall be in accordance with 902.14.

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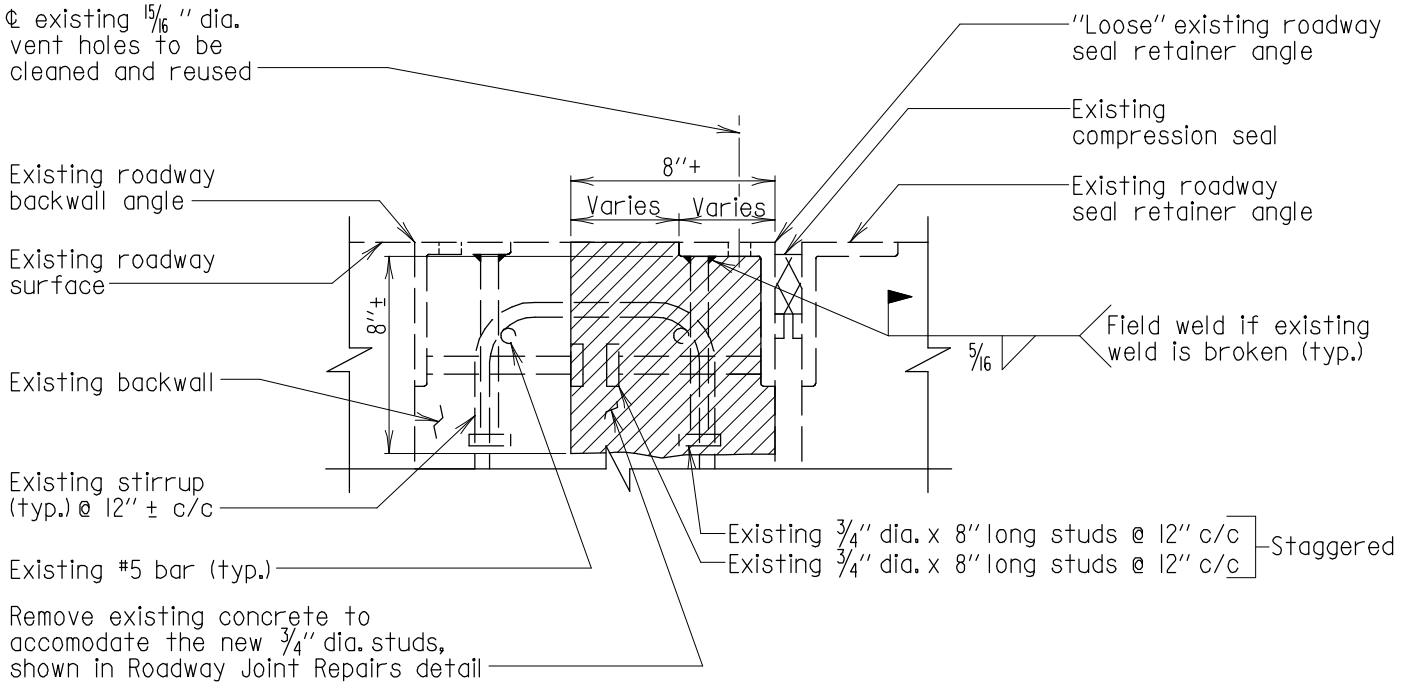
ROADWAY ANGLE REPAIR DETAILS (BACKWALL - ARMORED JOINT)

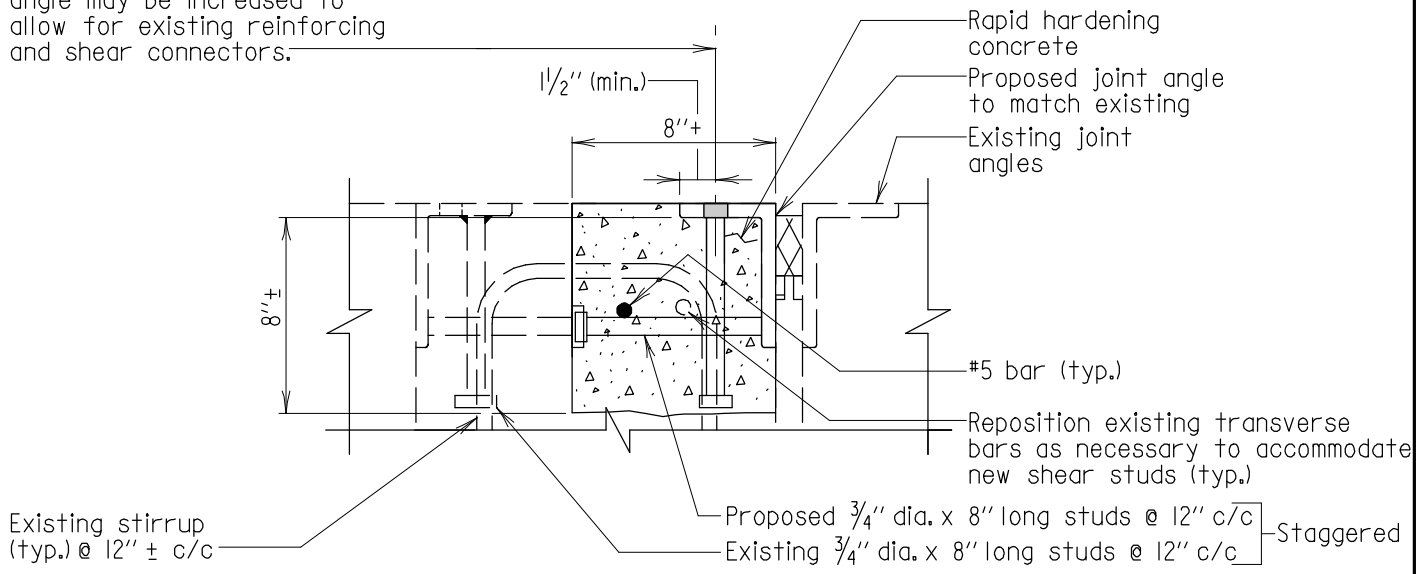
DETAIL NO. SR-JT(RA)-103 SHEET 1 OF 1

STRUCTURAL REPAIRS



EXISTING ROADWAY JOINT

Scale: 1 1/2" = 1'-0"



PROPOSED - ROADWAY JOINT REPAIRS

Scale: 1 1/2" = 1'-0"

Notes:
1. Existing studs not shown for clarity in Roadway Joint Repairs detail.
2. For roadway angles to be replaced, use Detail No. SUP-SS(DR)-101 for welding new angle to existing.
3. Concrete shall be in accordance with 902.14.

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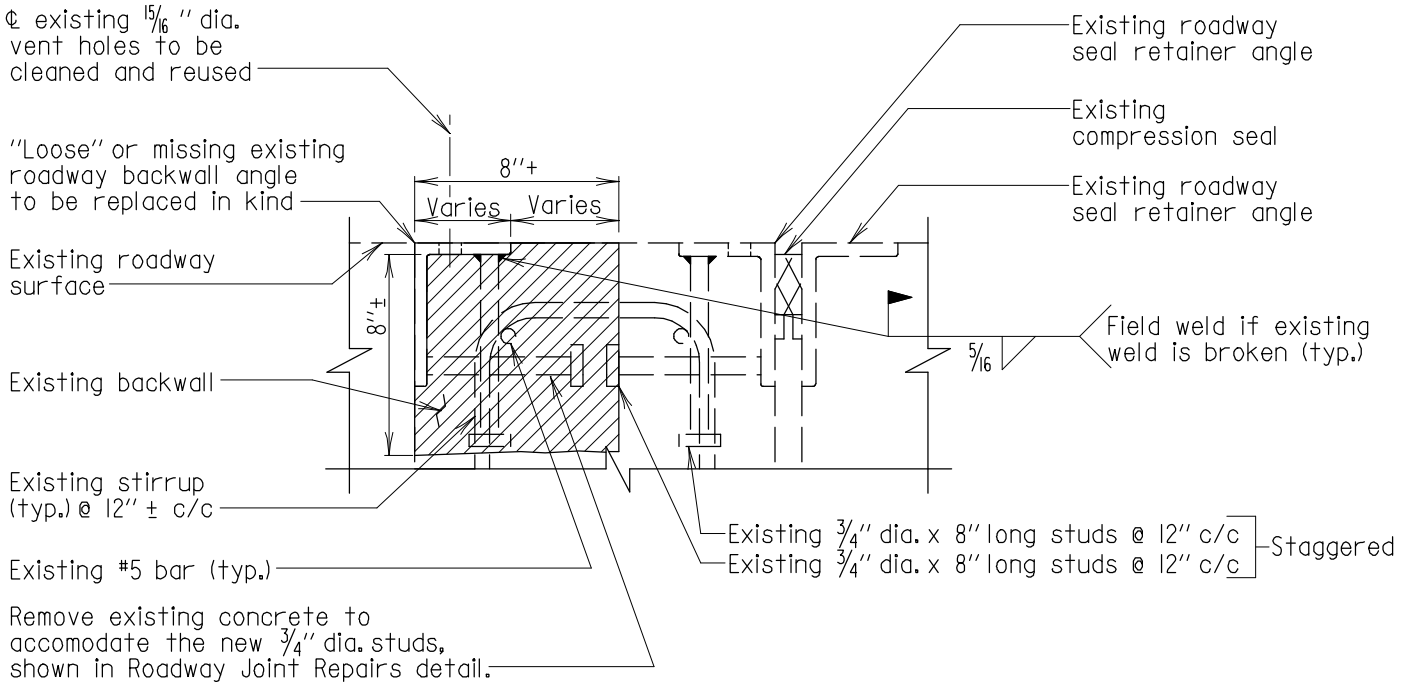
ROADWAY ANGLE REPAIR DETAILS
(BACKWALL - ARMORED JOINT - SEAL SIDE)

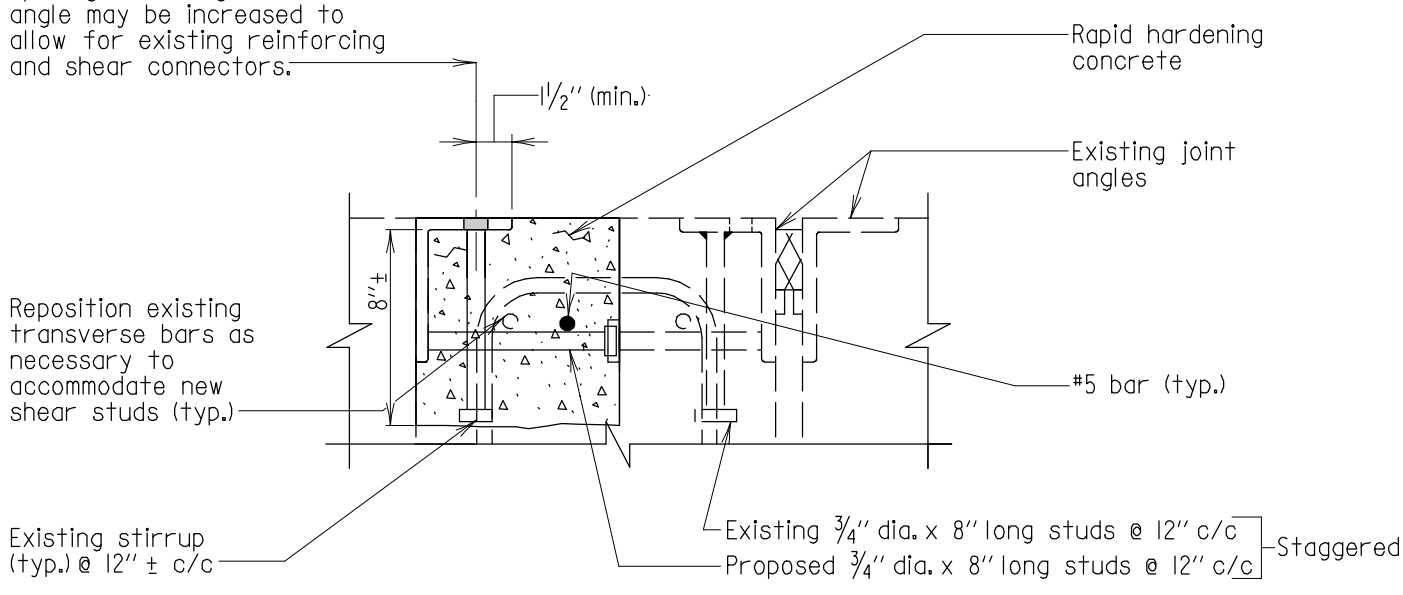
DETAIL NO. SR-JT(RA)-104 SHEET 1 OF 1

STRUCTURAL REPAIRS



EXISTING ROADWAY JOINT

Scale: 1 1/2" = 1'-0"



PROPOSED - ROADWAY JOINT REPAIRS

Scale: 1 1/2" = 1'-0"

Notes:
1. Existing studs not shown for clarity in Roadway Joint Repairs detail.
2. For roadway angles to be replaced, use Detail No. SUP-SS(DR)-101 for welding new angle to existing.
3. Concrete shall be in accordance with 902.14.

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ROADWAY ANGLE REPAIR DETAILS
(BACKWALL - ARMORED JOINT - APPROACH SIDE)

DETAIL NO. SR-JT(RA)-105 SHEET 1 OF 1

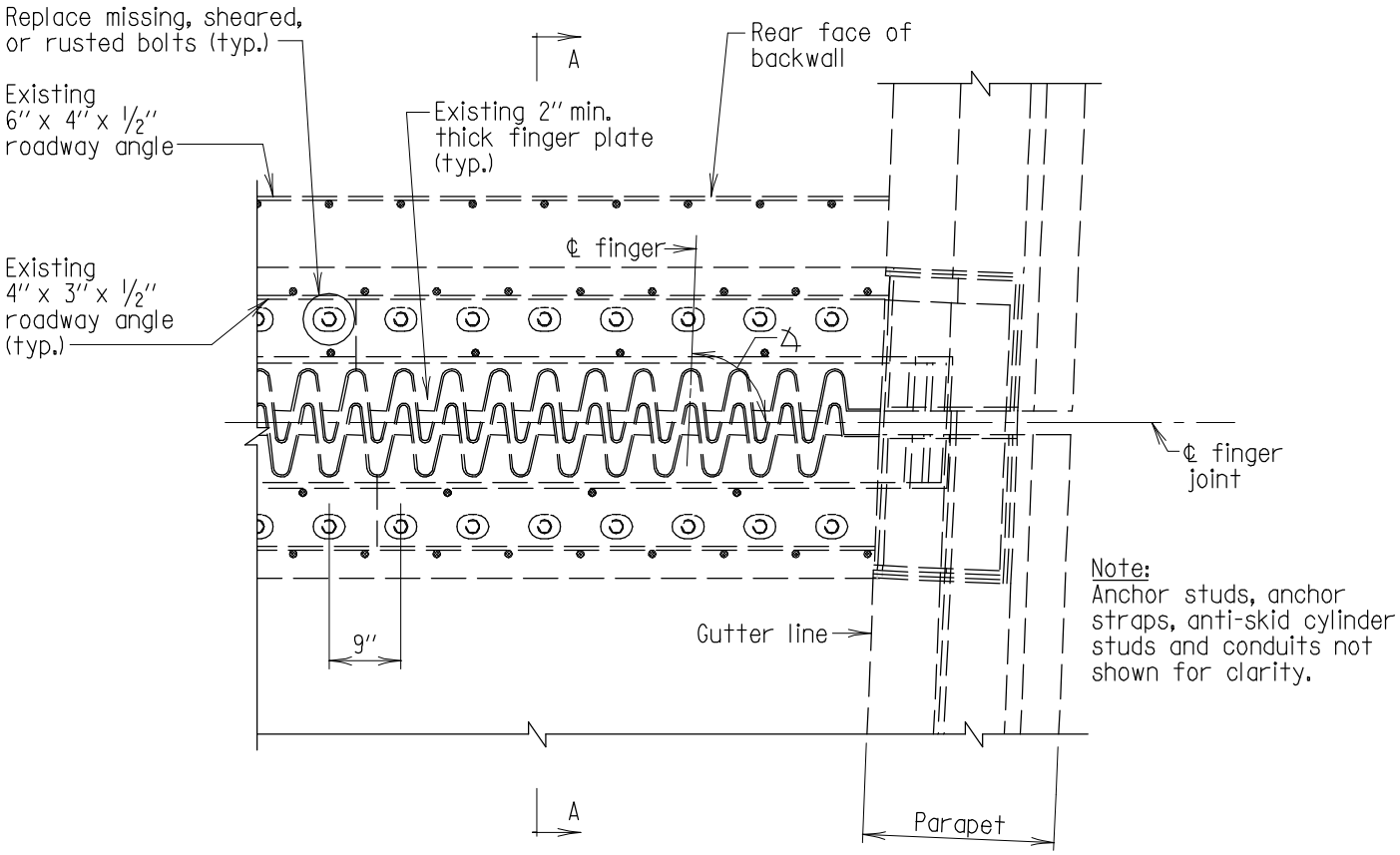
STRUCTURAL REPAIRS

Chapter 11 - Structural Repairs

Section 07 – Roadway Joint Repairs

SUB-SECTION **06**

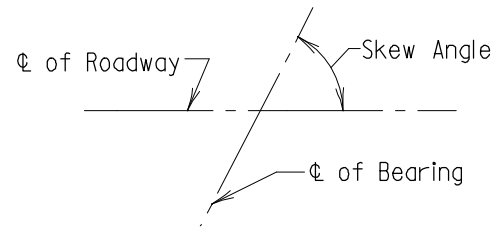
FINGER JOINT REPAIRS (SR-JT(FJ))



TYPICAL SECTION BETWEEN STRINGERS (ABUTMENT-SPAN SHOWN) (SPAN-SPAN SIMILAR)

PLAN AT ROADWAY LEVEL

Scale: 1/2" = 1'-0"



SKEW ANGLE

Scale: None

Notes:
1. For SECTION A-A, see Sheet No. 1 of 2.
2. ℄ finger is parallel to the direction of superstructure movement.

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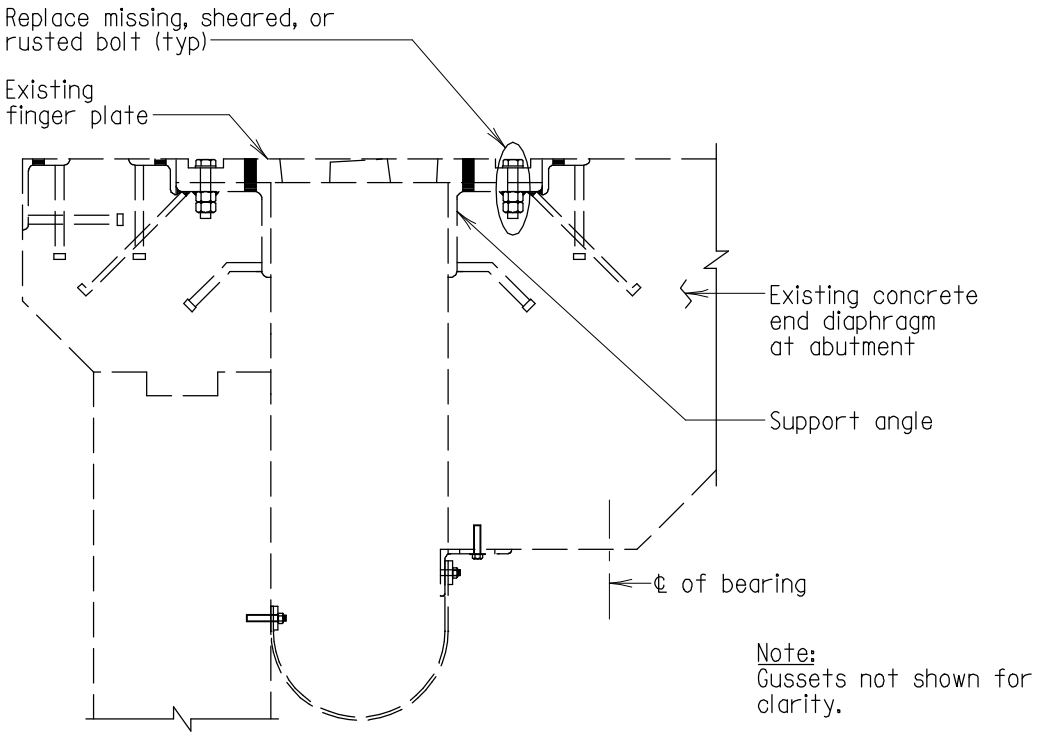
FINGER JOINT DETAILS BOLT REPAIR FOR BRIDGES WITH WITH SKEW ANGLES BETWEEN 50° AND 90°

DETAIL NO. SR-JT(FJ)-101 SHEET 1 OF 2

SUPER-ROADWAY JOINTS



TYPICAL SECTION BETWEEN STRINGERS (ABUTMENT-SPAN SHOWN; SPAN-SPAN SIMILAR)

SECTION A-A

Scale: 3/4" = 1'-0"

INSTALLATION NOTES:

1. Engineer shall determine if the support angle beneath the finger plate shall be sounded for voids. If voids are found, drill through the support angle and inject epoxy into any voids found.

2. Engineer shall determine if the flatness of both finger plates needs modification. If modification is needed, engineer will determine procedure to correct the issue. Refer to plans for details.

After the above items are cleared then:

1. Replace all sheared or rusted off bolts of good condition finger dam roadway joints with new 7/8" dia. A325 bolts galvanized. All galvanized material shall be off-vented a minimum of 24 days before installation.

   A. If existing bolt head is deteriorated, extract the bolt by welding an A325 heavy hex nut onto the existing bolt shaft and use a 1 1/2" commercial impact wrench to remove.

   B. If existing bolts can not be removed, then drill out and tap threads into the finger plate support angle and the welded nut(s) below the support angle so a 1 1/8" dia. A325 bolt galvanized can be installed the length to be determined in the field. Concrete removal shall be limited and repaired with Type II rapid hardening concrete as approved by the engineer.

2. Add galvanized lock washer to new bolt provided the top of the bolt, when installed, will be 1/8" below the top of the finger dam roadway plate. If 1/8" dimension can not be maintained, do not add lock washer.

3. Fill the entire countersunk area around each bolt with silicone sealant.

4. Clean the trough under the finger dam.

Note:
For details of drainage trough, see Detail No. SUP-JT(DT)-201.

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FINGER JOINT DETAILS BOLT REPAIR FOR BRIDGES WITH WITH SKEW ANGLES BETWEEN 50° AND 90°

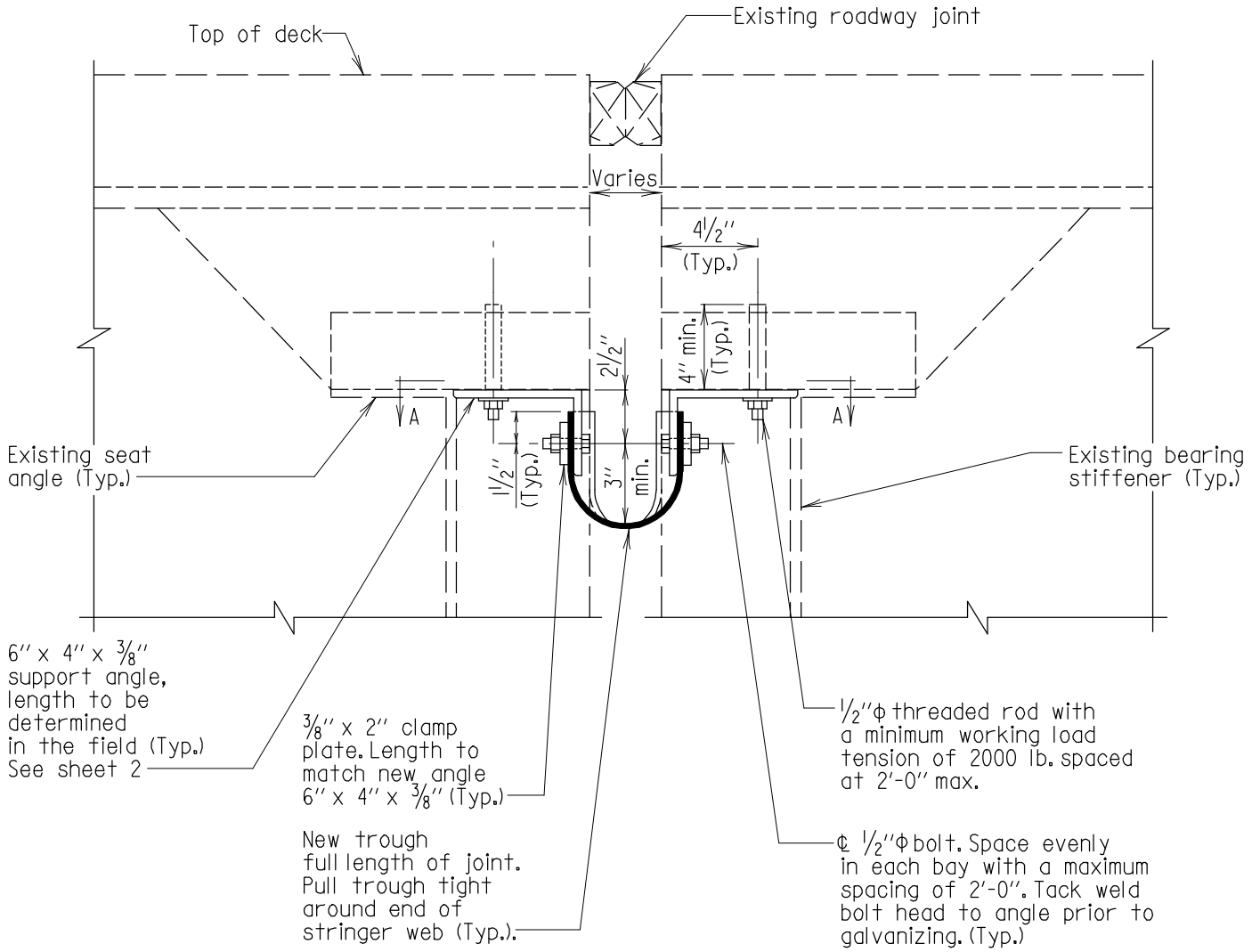
DETAIL NO. SR-JT(FJ)-101 SHEET 2 OF 2

Chapter 11 - Structural Repairs

Section 07 – Roadway Joint Repairs

SUB-SECTION **07**

DRAINAGE TROUGH (SR-JT(DT))



TROUGH DETAIL BETWEEN BEAMS AT PIER

Scale: 1½" = 1'-0"

Notes:

1. All steel shall be galvanized ASTM A 709 Grade 36 or 50.
2. Trough shall conform to 911.11.
3. Trough cross slope shall be a minimum of 1" per foot for finger joints. All other joints shall follow the grade of the end diaphragms or ¼" per foot slope whichever is greater.
4. All hardware shall be stainless steel Type 304.
5. Drilled holes for threaded rods shall be ½" larger.
6. Grout shall conform to 902.11(c).
7. Downspout shall be non-perforated Polyvinyl Chloride (PVC) SCH. 80 pipe conforming to section 905.01.

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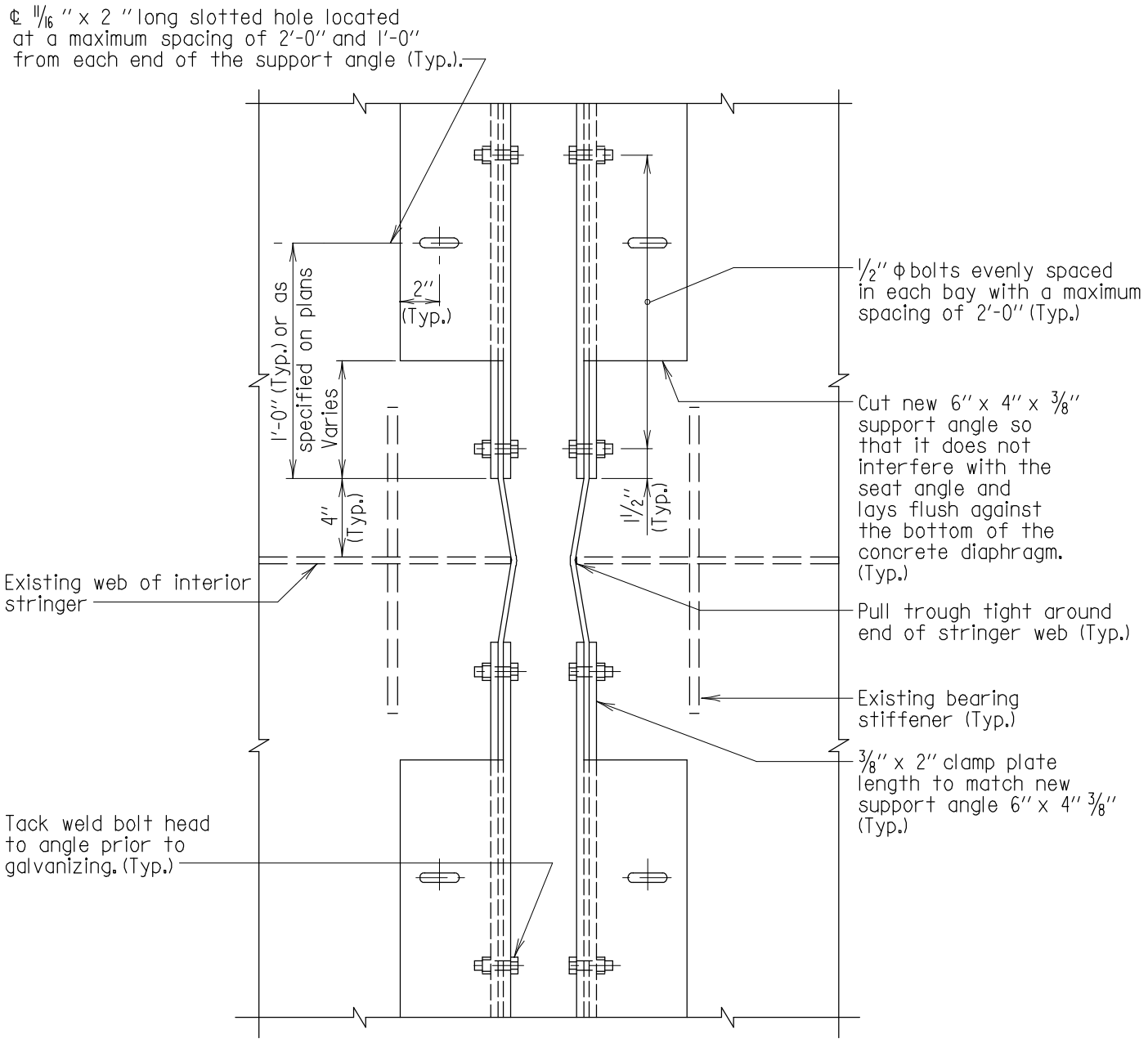
DRAINAGE TROUGH DETAIL AT PIER FOR EXISTING STRUCTURE

DETAIL NO. SR-JT(DT)-101 SHEET 1 OF 8

STRUCTURAL REPAIRS



SECTION A-A

Scale: 1 1/2" = 1'-0"

Note:
Existing seat angle not shown for clarity.

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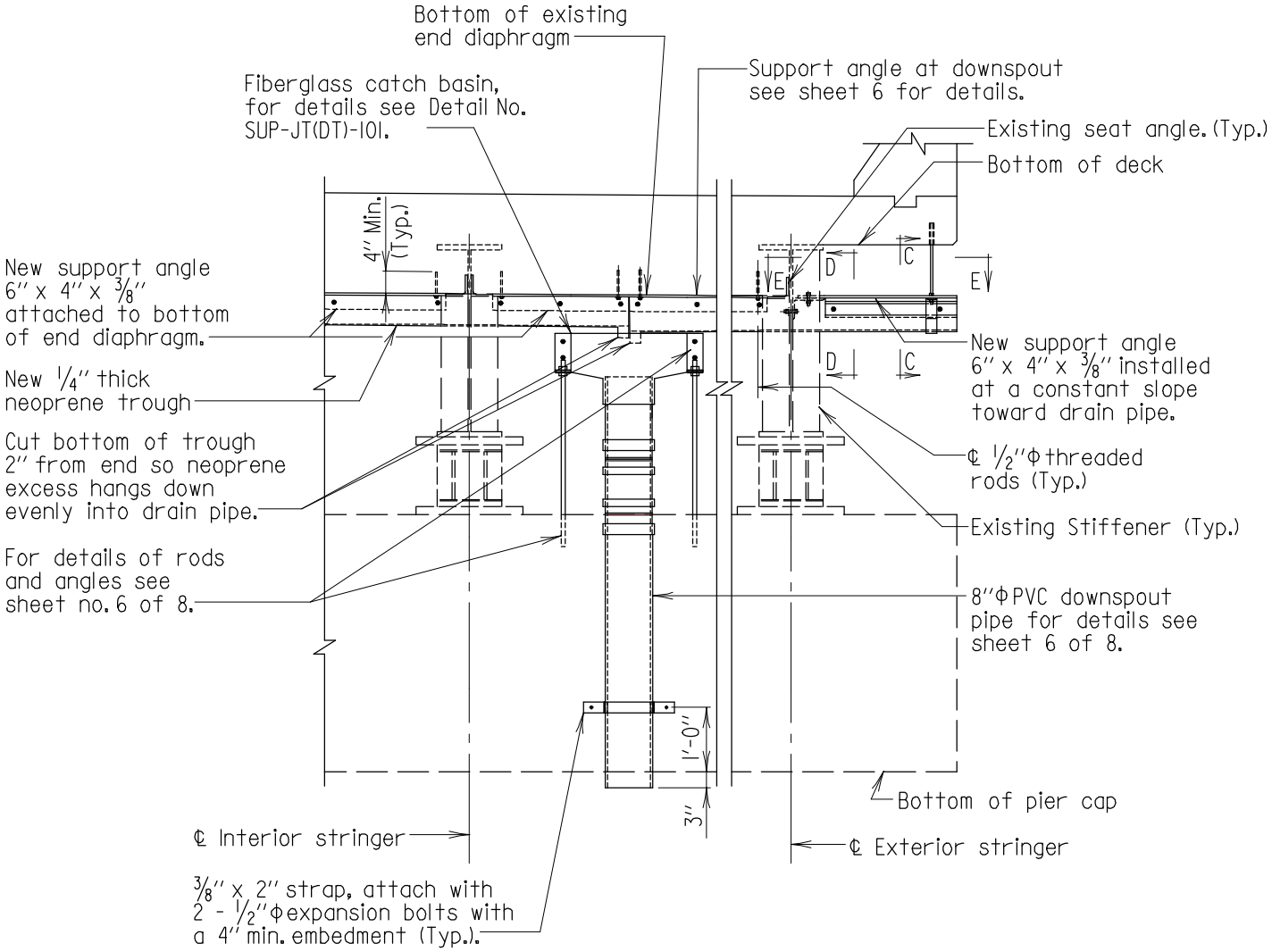
DRAINAGE TROUGH DETAIL AT PIER FOR EXISTING STRUCTURE

DETAIL NO. SR-JT(DT)-101 SHEET 2 OF 8

STRUCTURAL REPAIRS



DOWNSPOUT DETAIL BETWEEN BEAMS AT PIER

Scale: 3/8" = 1'-0"

Note:
1. For location of downspout refer to the General Plan and Elevation.
2. Refer to SUP-SC-401 for splash block requirements.

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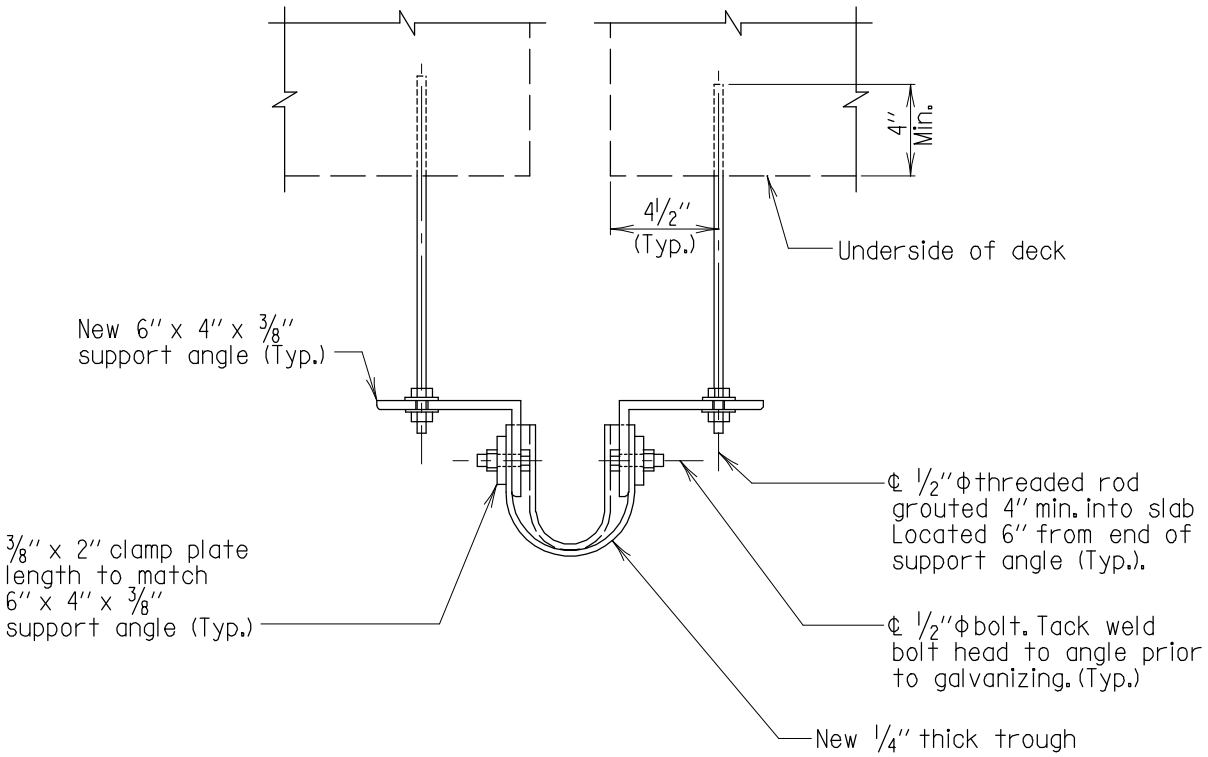
DRAINAGE TROUGH DETAIL AT PIER FOR EXISTING STRUCTURE

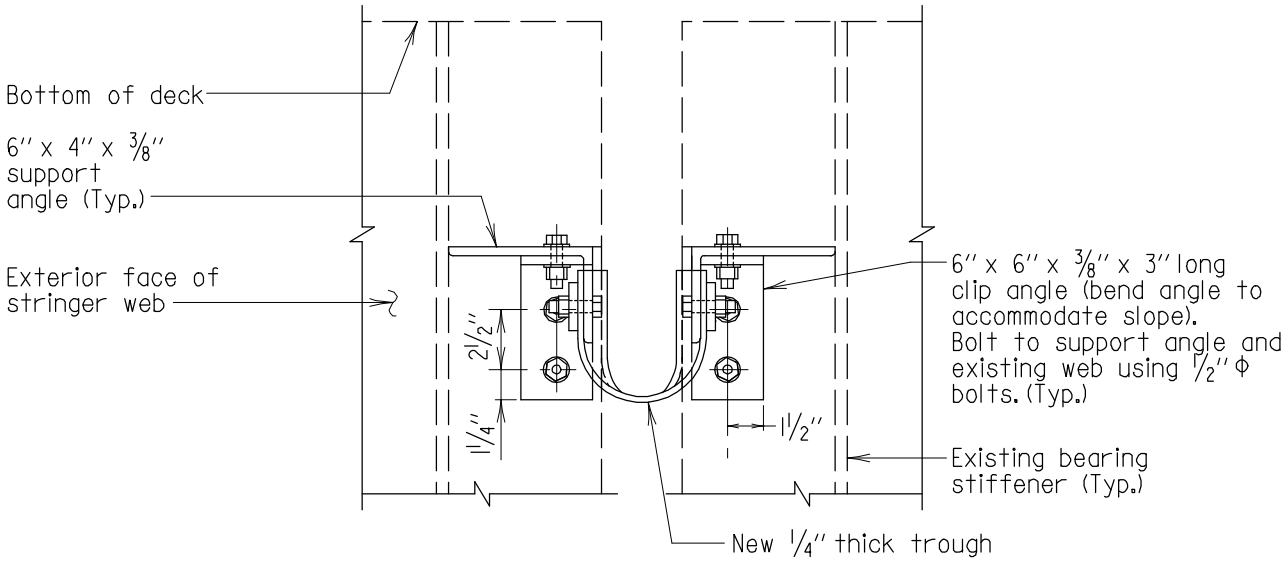
DETAIL NO. SR-JT(DT)-101 SHEET 3 OF 8

STRUCTURAL REPAIRS



SECTION C-C

Scale: 1 1/2'' = 1'-0''



SECTION D-D

Scale: 1 1/2'' = 1'-0''

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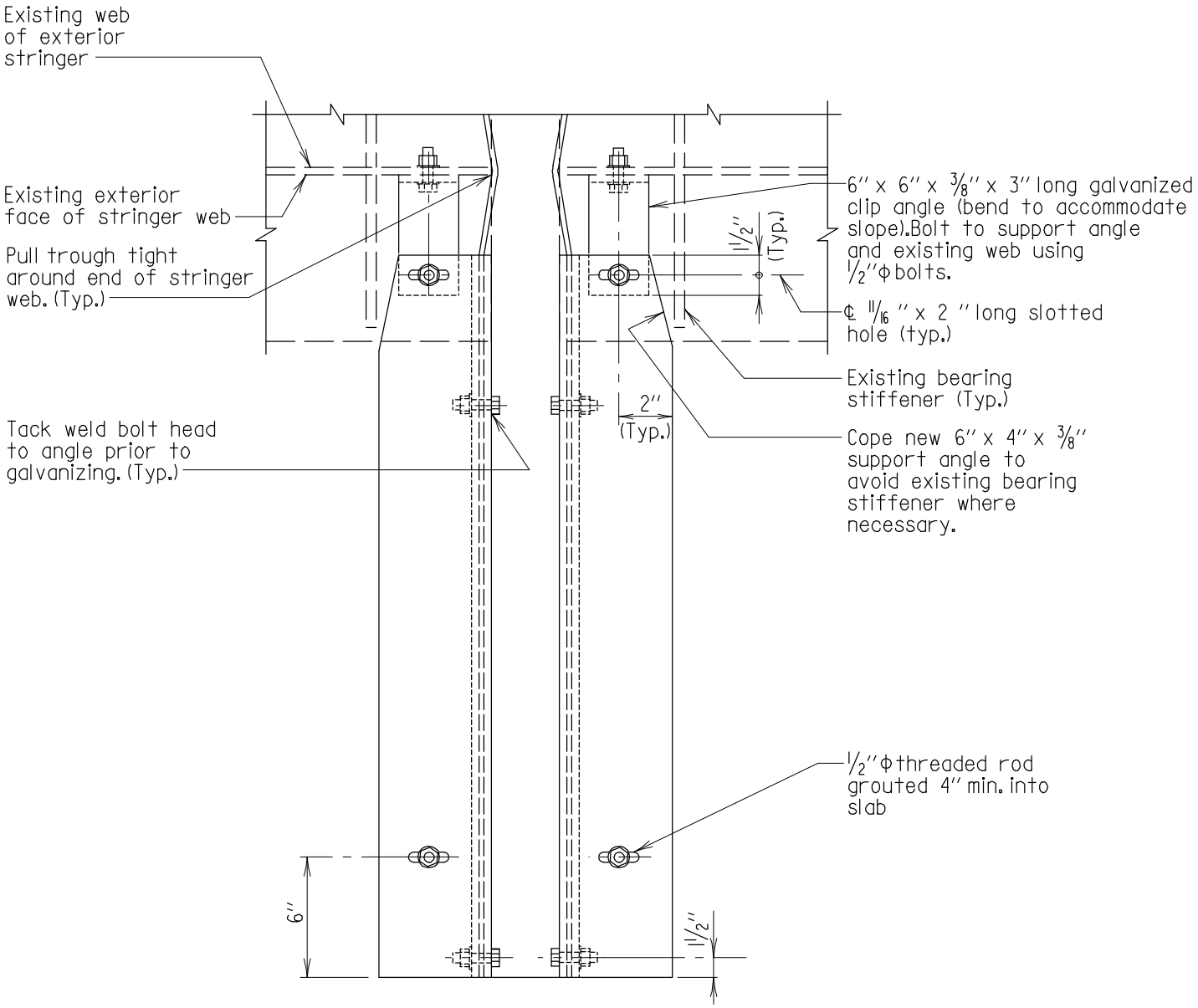
VERSION 1.0	DETAIL NO. SR-JT(DT)-101 SHEET 4 OF 8

STRUCTURAL REPAIRS



SECTION E-E

Scale: 1 1/2" = 1'-0"

Note:
Existing seat angle not shown for clarity.

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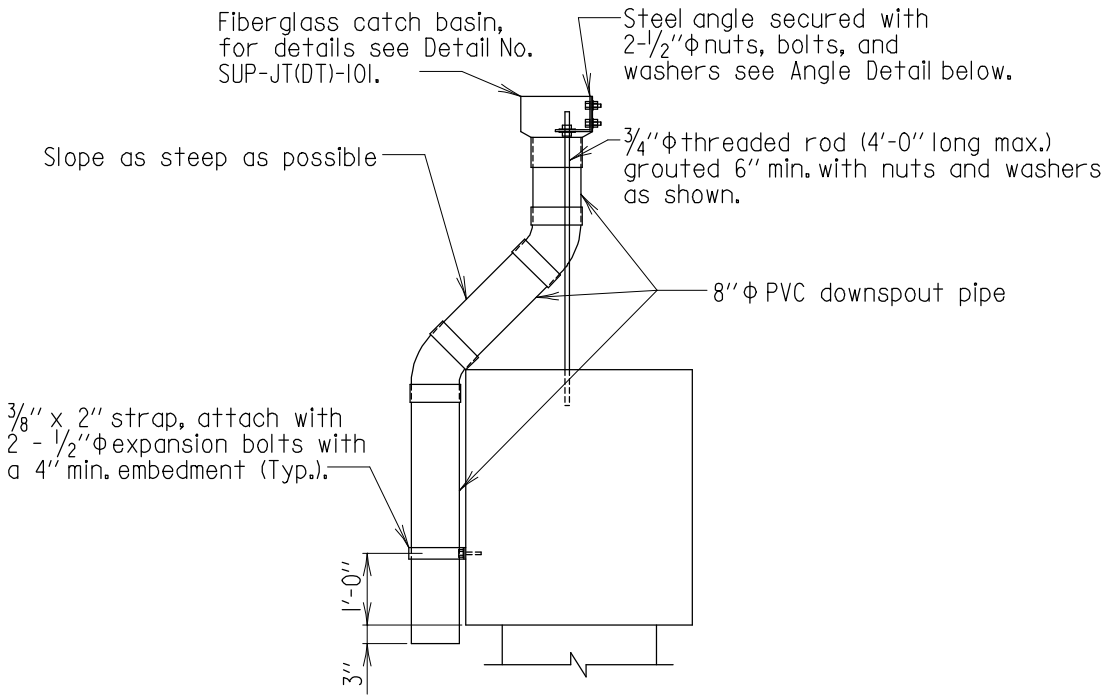
DRAINAGE TROUGH DETAIL AT PIER FOR EXISTING STRUCTURE

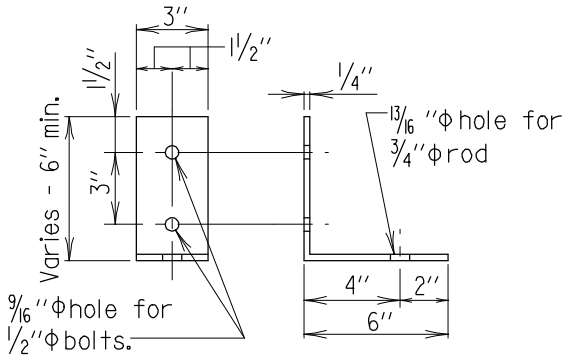
DETAIL NO. SR-JT(DT)-101 SHEET 5 OF 8

STRUCTURAL REPAIRS



DOWNSPOUT DETAIL FOR PIER CAPS

Scale: 3/8" = 1'-0"



ANGLE DETAIL

Scale: 1 1/2" = 1'-0"

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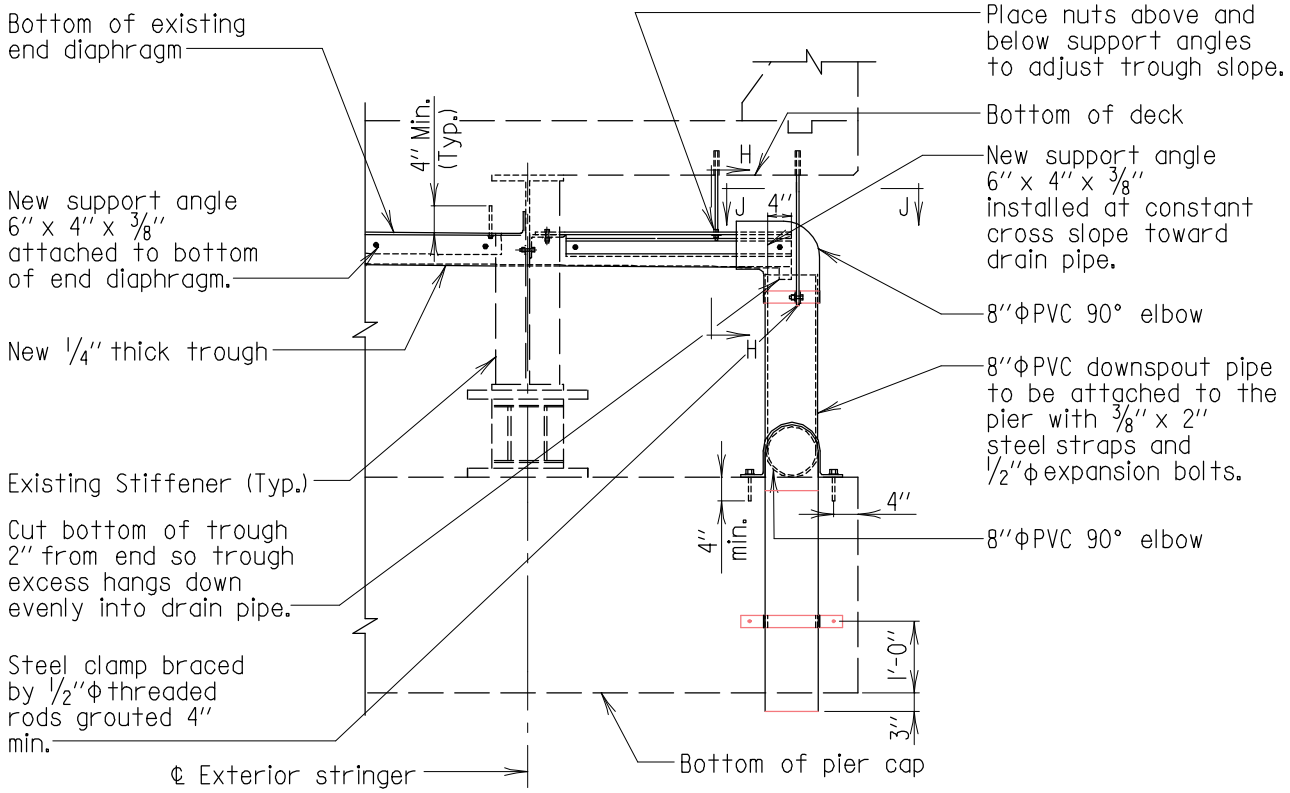
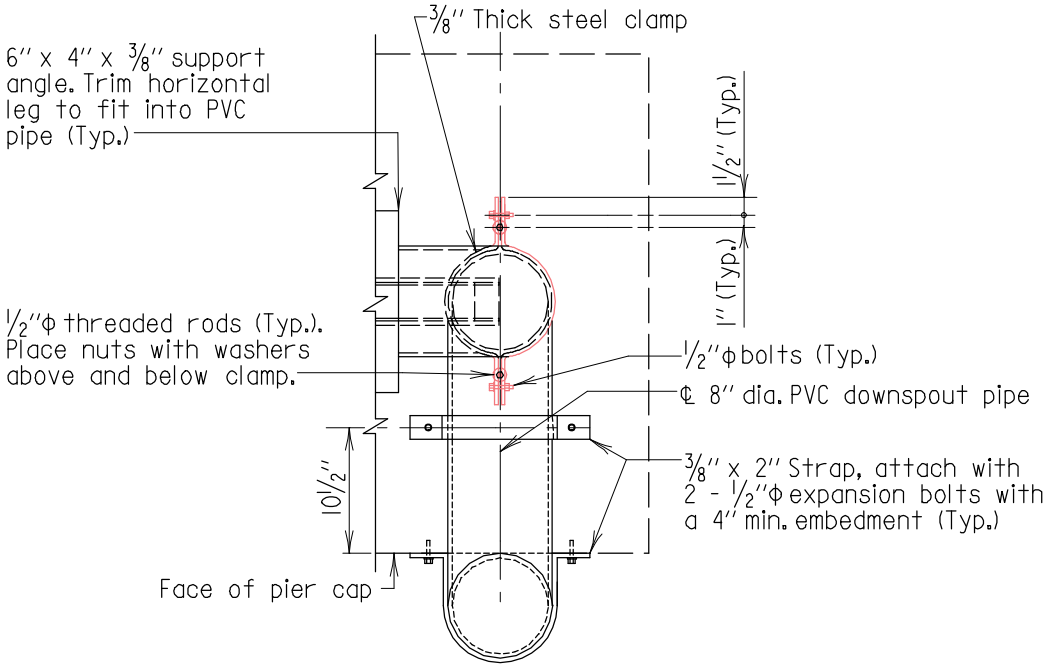
VERSION 1.0	DETAIL NO. SR-JT(DT)-101 SHEET 6 OF 8

STRUCTURAL REPAIRS



ALTERNATE DOWNSPOUT DETAIL AT PIER

Scale: 3/8" = 1'-0"



SECTION J-J

Scale: 3/4" = 1'-0"

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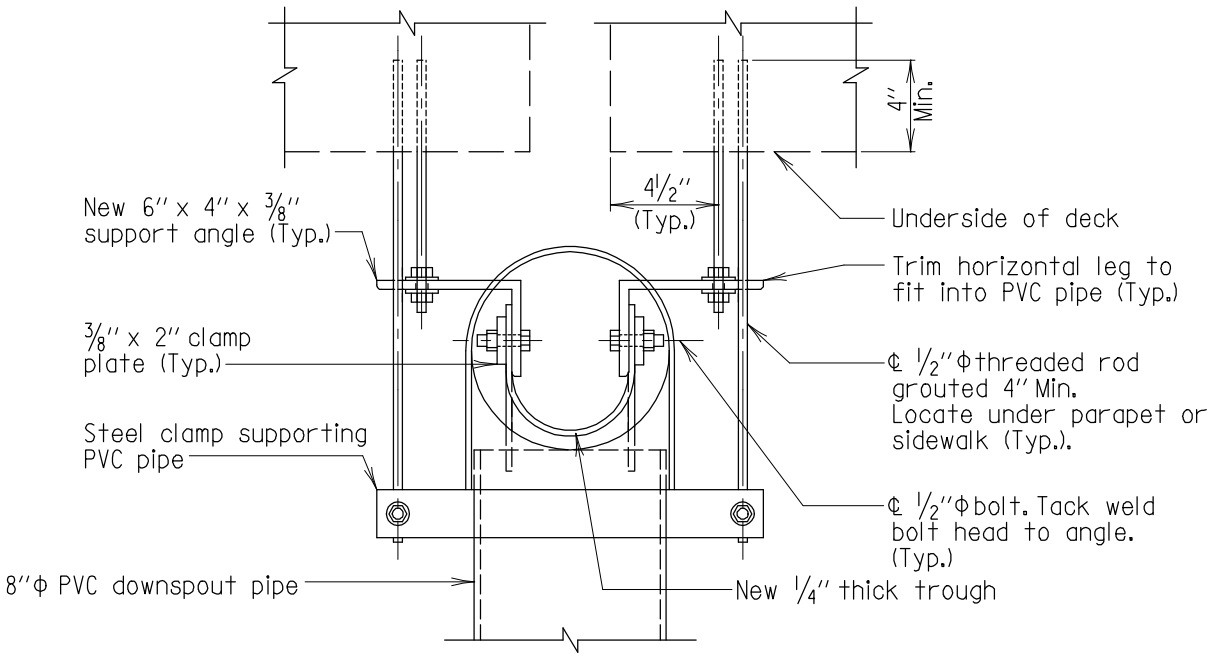
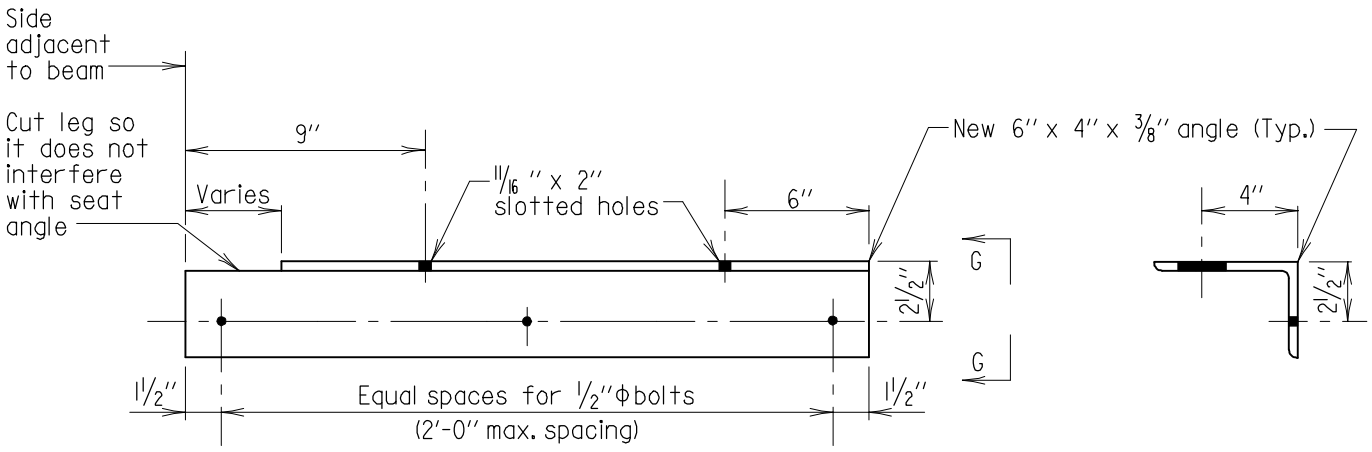
VERSION 1.0	DETAIL NO. SR-JT(DT)-101 SHEET 7 OF 8

STRUCTURAL REPAIRS



SECTION H-H

Scale: 1½" = 1'-0"



SUPPORT ANGLE AT DOWNSPOUT

Scale: 1½" = 1'-0"

VIEW G-G

Scale: 1½" = 1'-0"

Note:
Length of support angle to be determined in the field.

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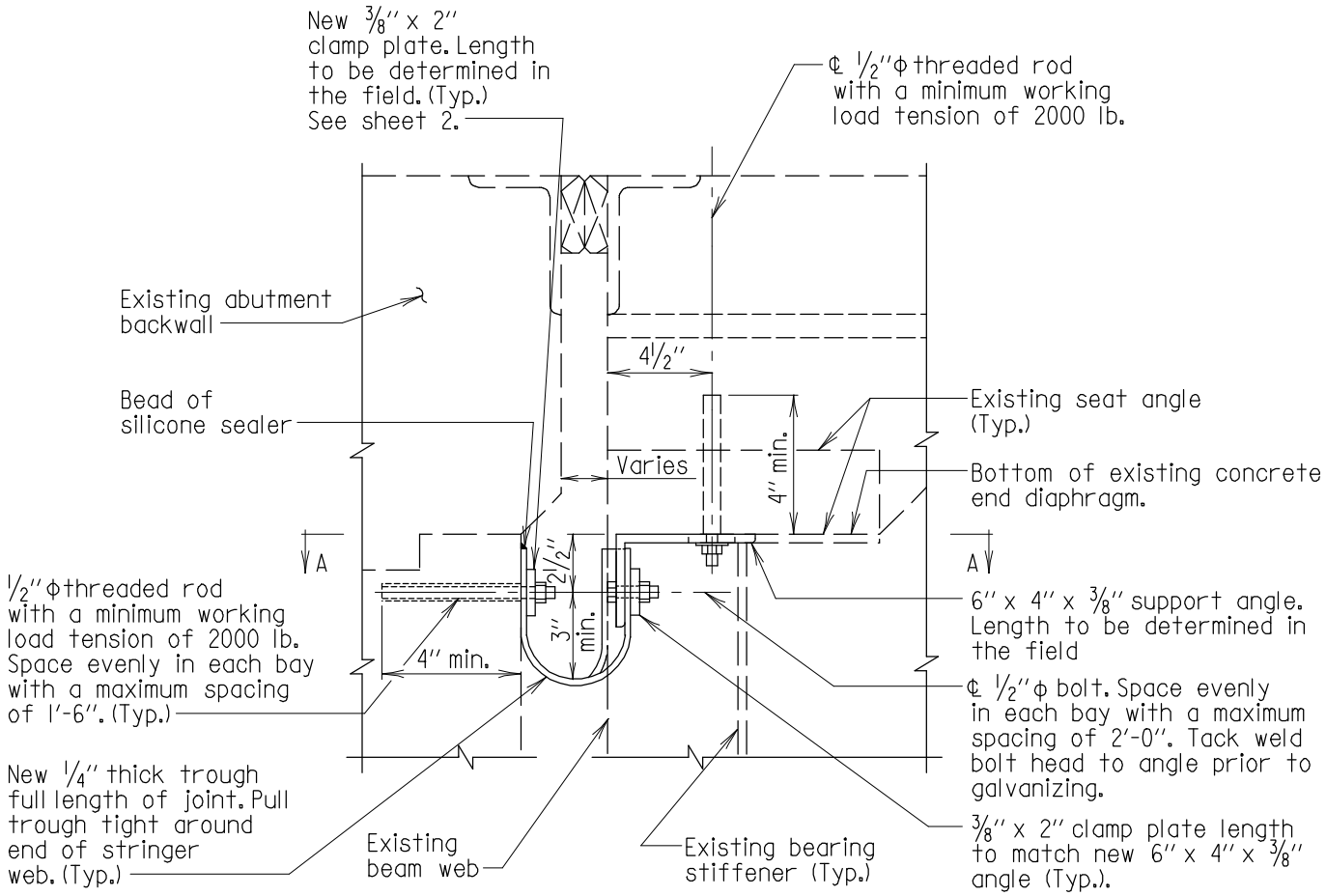
DRAINAGE TROUGH DETAIL AT PIER FOR EXISTING STRUCTURE

DETAIL NO. SR-JT(DT)-101 SHEET 8 OF 8

STRUCTURAL REPAIRS



TROUGH DETAIL BETWEEN BEAMS AT ABUTMENT

Scale: 1 1/2" = 1'-0"

Notes:

1. All steel shall be galvanized ASTM A 709 Grade 36.
2. Trough shall conform to 911.11.
3. Trough cross slope shall be a minimum of 1" per foot for finger joints. All other joints shall follow the grade of the end diaphragms or 1/4" per foot slope whichever is greater.
4. All hardware shall be stainless steel Type 304.
5. Drilled holes for threaded rods shall be 1/2" larger.
6. Grout shall conform to 902.11 (c).
7. Downspout shall be non-perforated Polyvinyl Chloride (PVC) SCH. 80 pipe conforming to 905.01.
8. Silicone sealer shall conform to 911.01.01.

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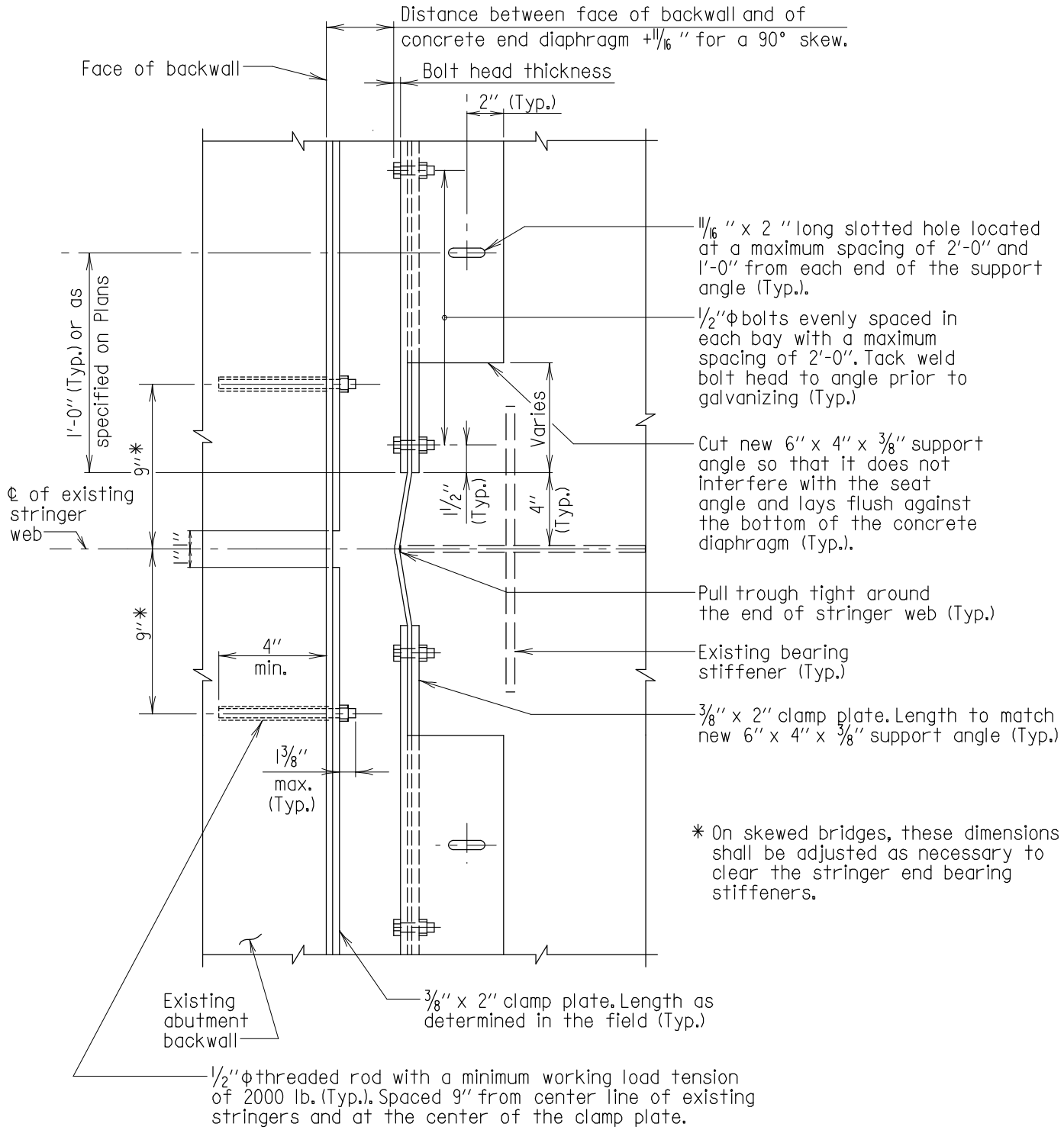
DRAINAGE TROUGH DETAIL AT ABUTMENT FOR EXISTING STRUCTURE

DETAIL NO. SR-JT(DT)-201 SHEET 1 OF 7

STRUCTURAL REPAIRS



SECTION A-A

Scale: 1 1/2" = 1'-0"

Note:
Existing seat angle not shown for clarity.

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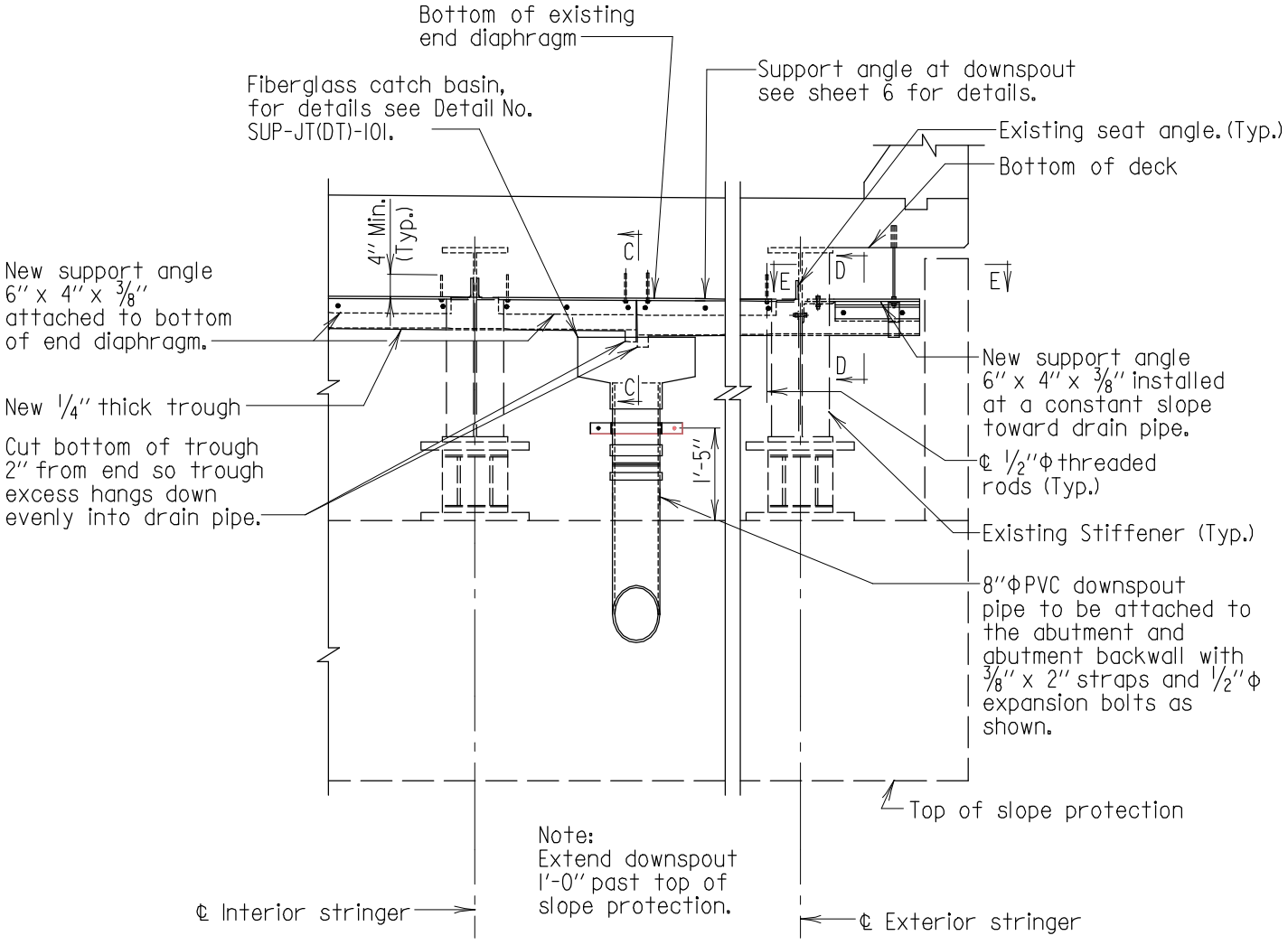
DRAINAGE TROUGH DETAIL AT ABUTMENT FOR EXISTING STRUCTURE

DETAIL NO. SR-JT(DT)-201 SHEET 2 OF 7

STRUCTURAL REPAIRS



DOWNSPOUT DETAIL BETWEEN BEAMS AT ABUTMENT

Scale: 3/8" = 1'-0"

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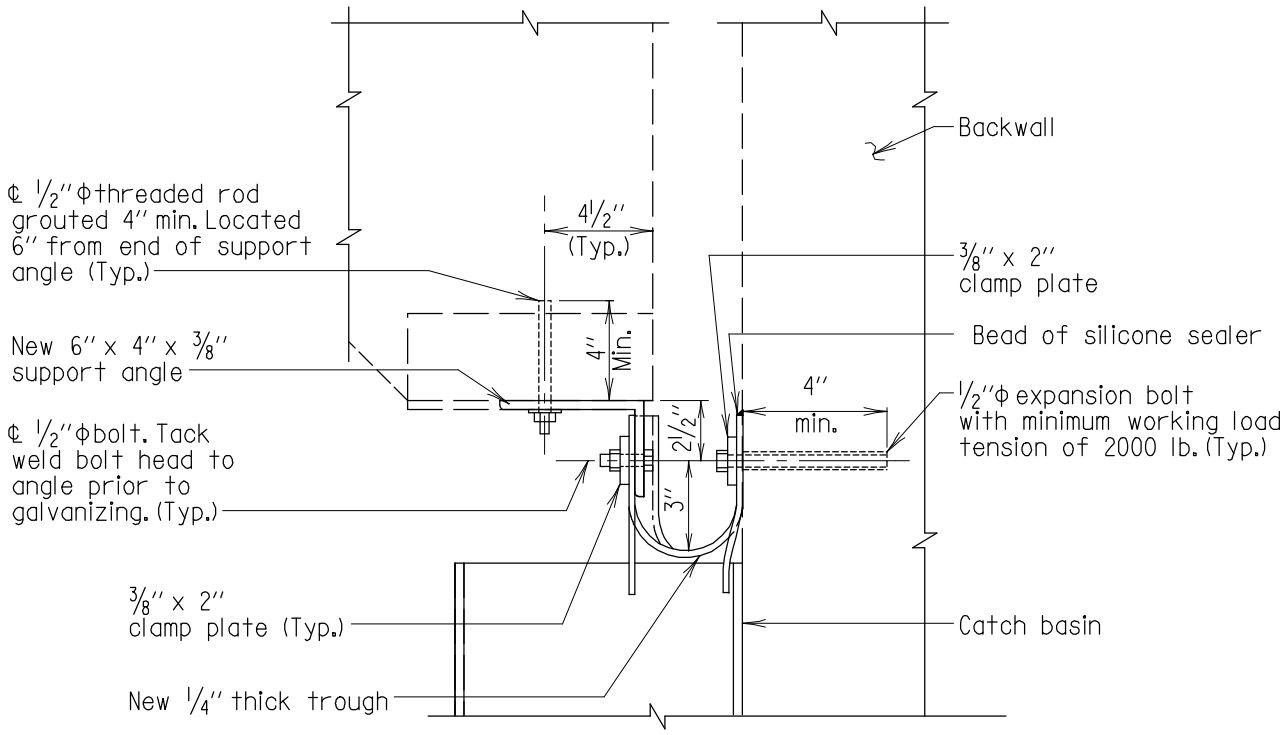
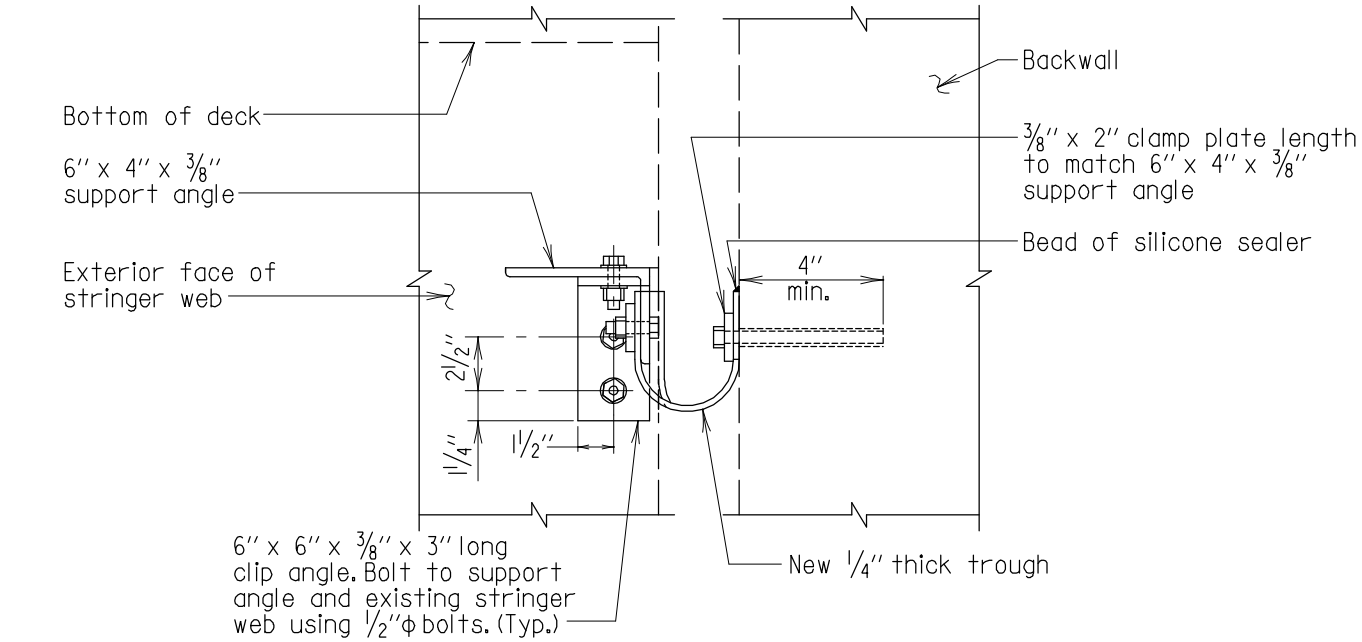
VERSION 1.0	DETAIL NO. SR-JT(DT)-201 SHEET 3 OF 7

STRUCTURAL REPAIRS



SECTION C-C

Scale: 1 1/2" = 1'-0"



SECTION D-D

Scale: 1 1/2" = 1'-0"

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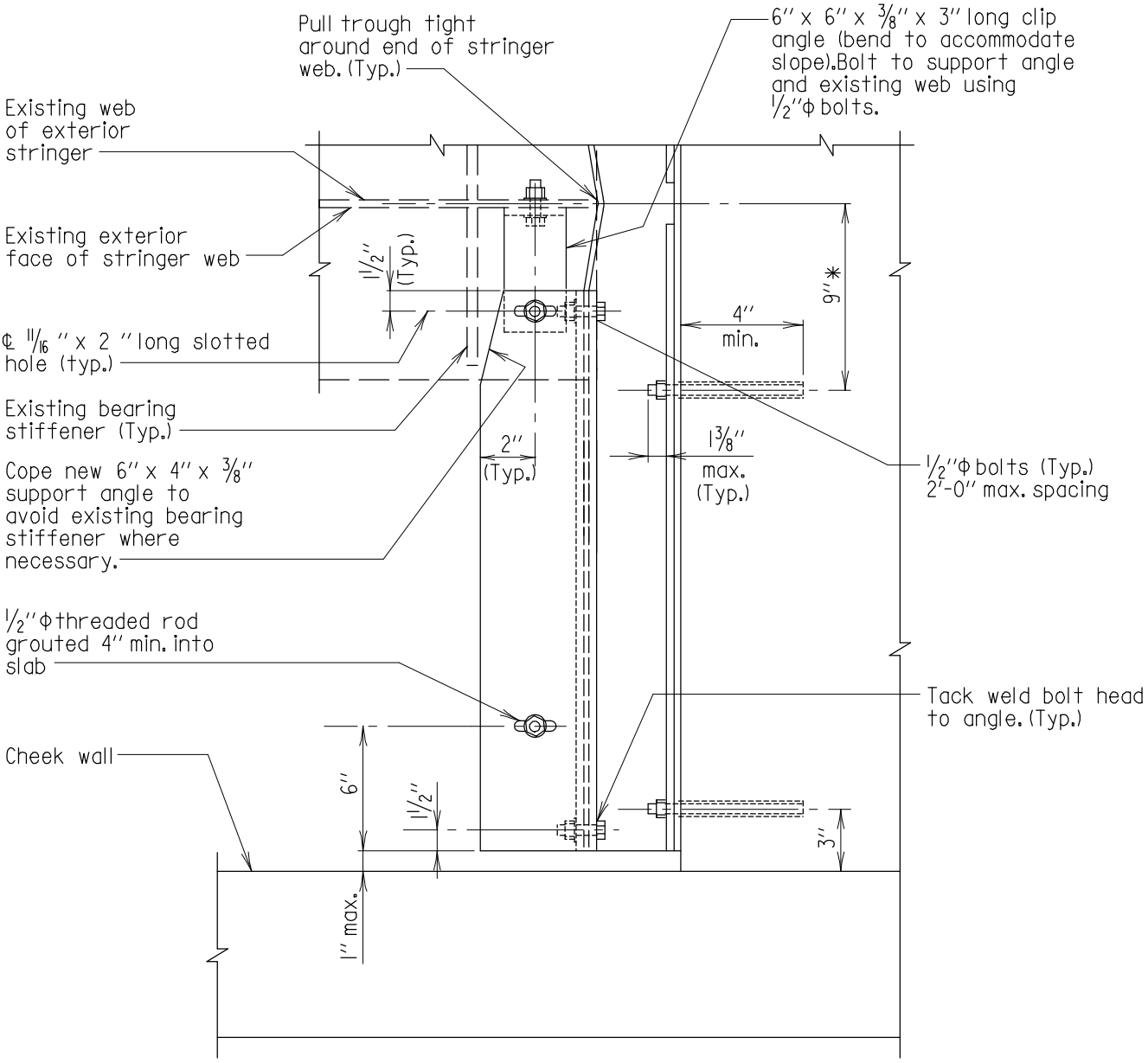
DRAINAGE TROUGH DETAIL AT ABUTMENT FOR EXISTING STRUCTURE

DETAIL NO. SR-JT(DT)-201 SHEET 4 OF 7

STRUCTURAL REPAIRS



SECTION E-E

Scale: 1 1/2" = 1'-0"

* On skewed bridges, these dimensions shall be adjusted as necessary to clear the stringer end bearing stiffeners.

Note:
Existing interior seat angle not shown for clarity.

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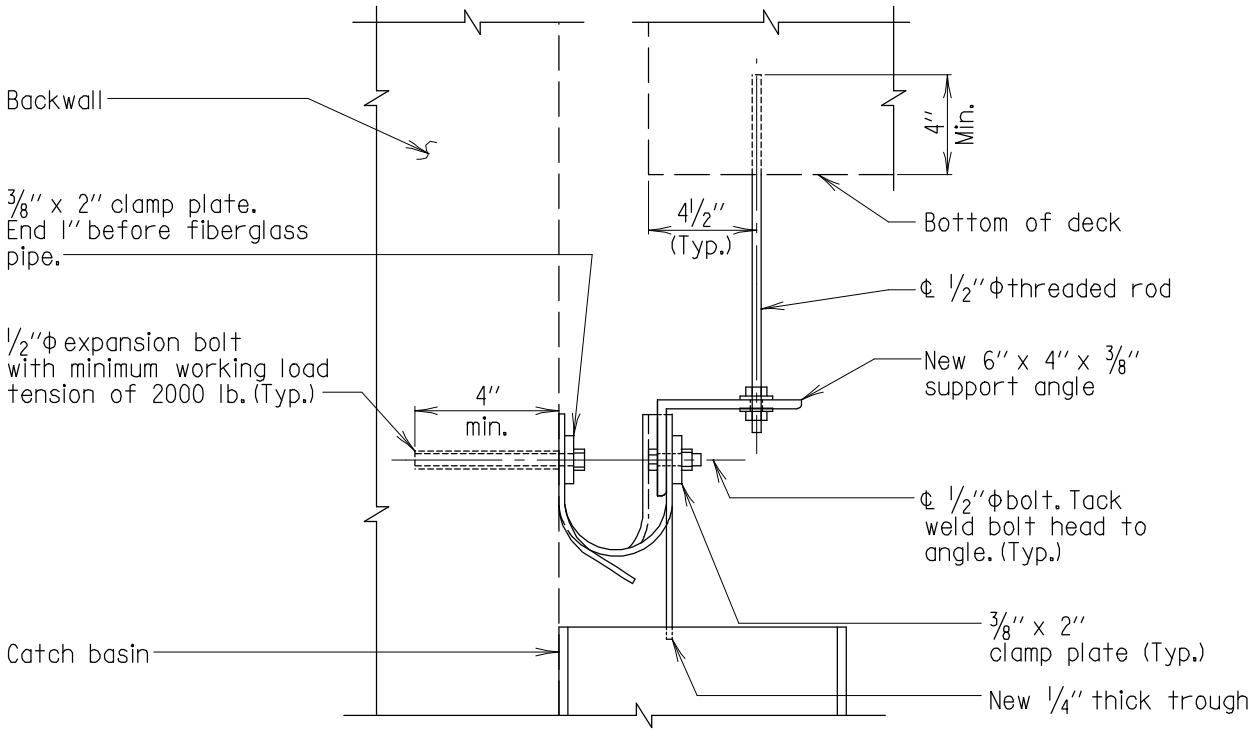
DRAINAGE TROUGH DETAIL AT ABUTMENT FOR EXISTING STRUCTURE

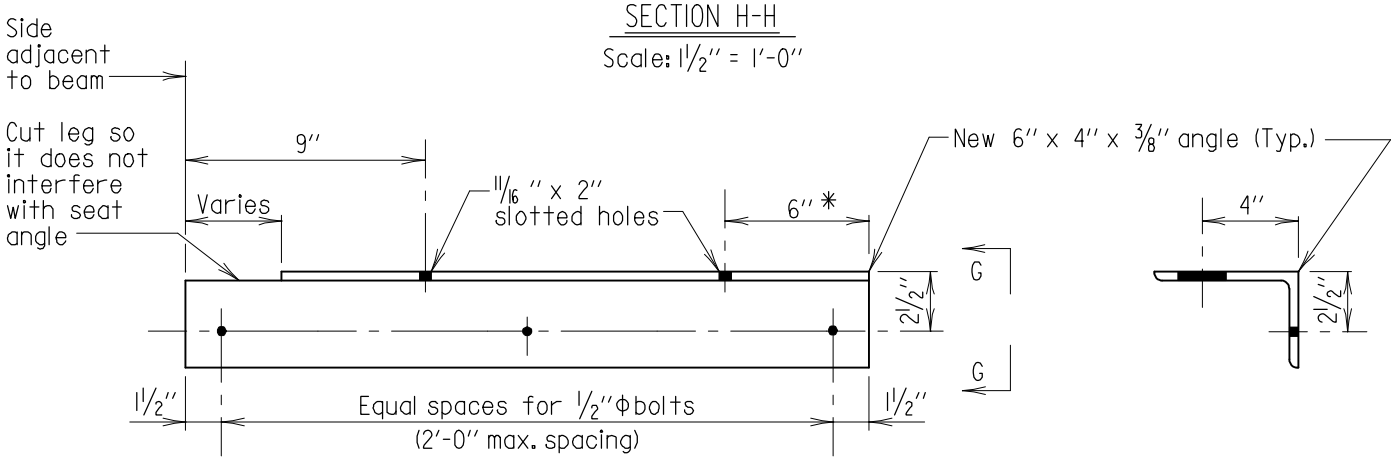
DETAIL NO. SR-JT(DT)-201 SHEET 5 OF 7

STRUCTURAL REPAIRS



SECTION H-H

Scale: 1 1/2" = 1'-0"



SUPPORT ANGLE AT DOWNSPOUT

Scale: 1 1/2" = 1'-0"

VIEW G-G

Scale: 1 1/2" = 1'-0"

* When installed on the exterior, adjust to miss the elbow by 1 1/2".

Note:
Length to be determined in the field.

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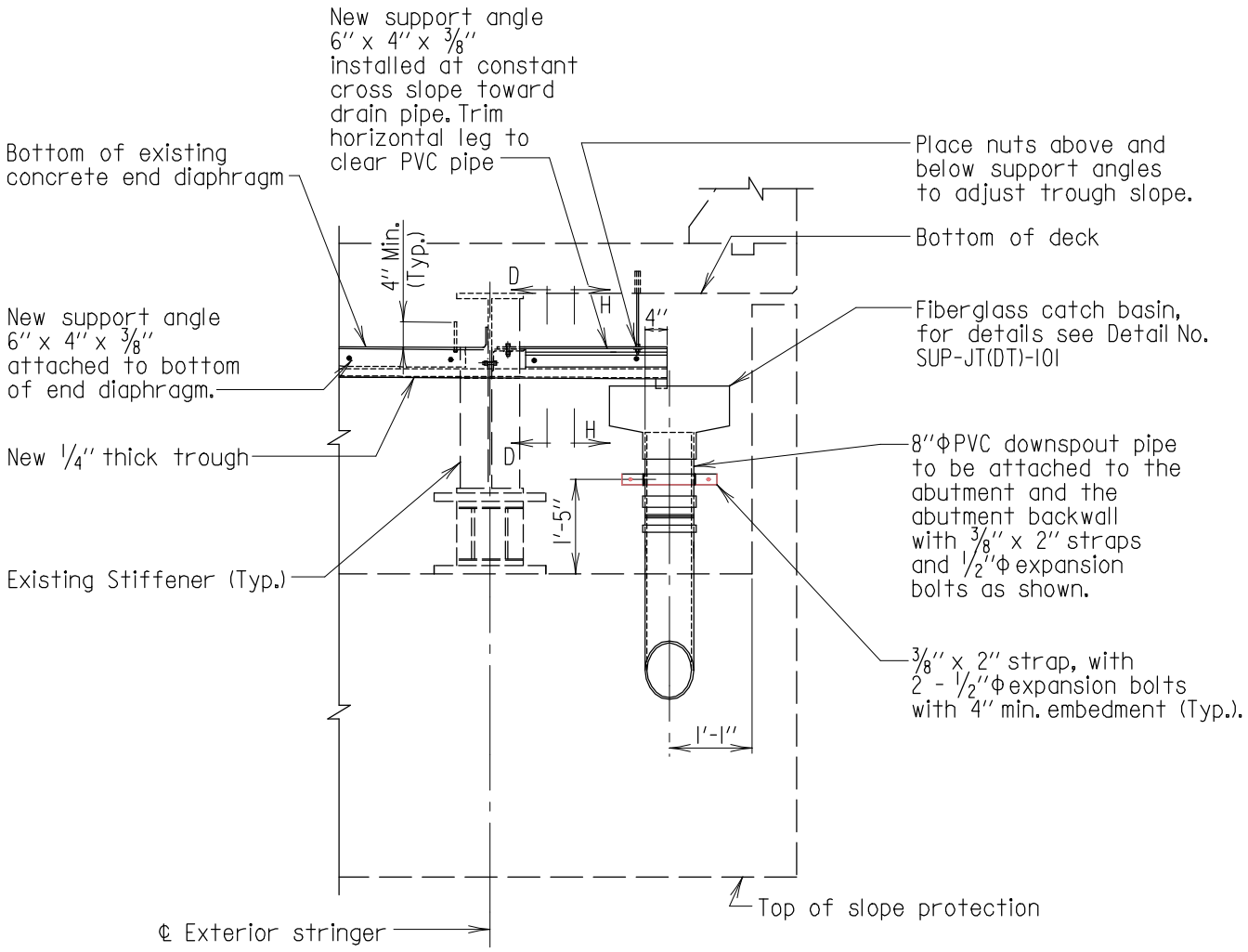
DRAINAGE TROUGH DETAIL AT ABUTMENT FOR EXISTING STRUCTURE

DETAIL NO. SR-JT(DT)-201 SHEET 6 OF 7

STRUCTURAL REPAIRS



DOWNSPOUT DETAIL AT END OF ABUTMENT

Scale: 3/8" = 1'-0"

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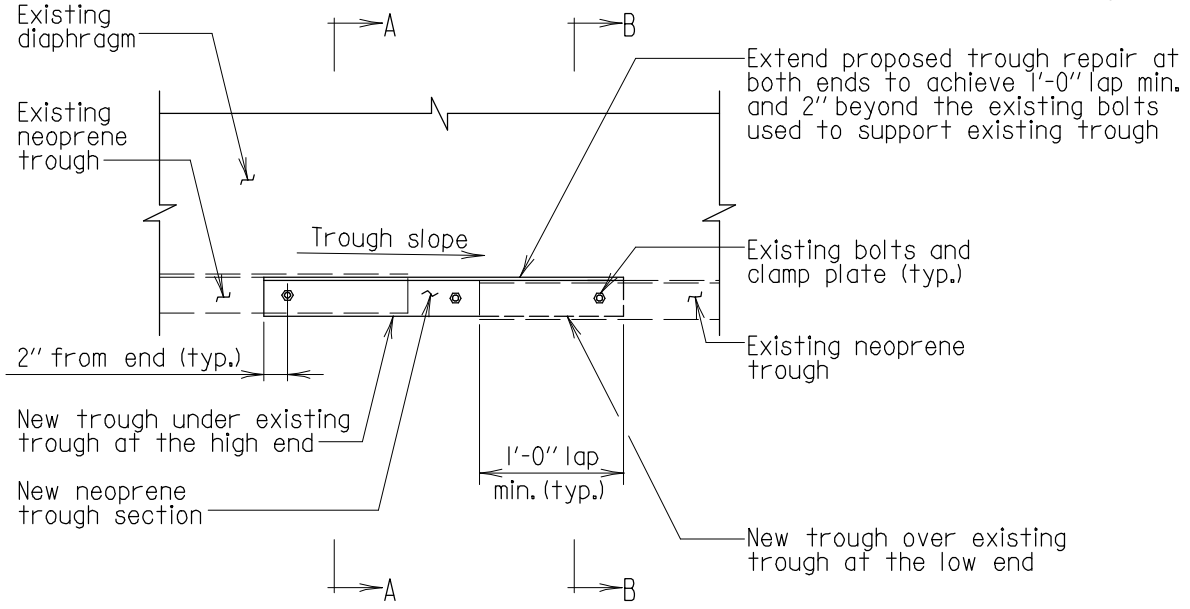
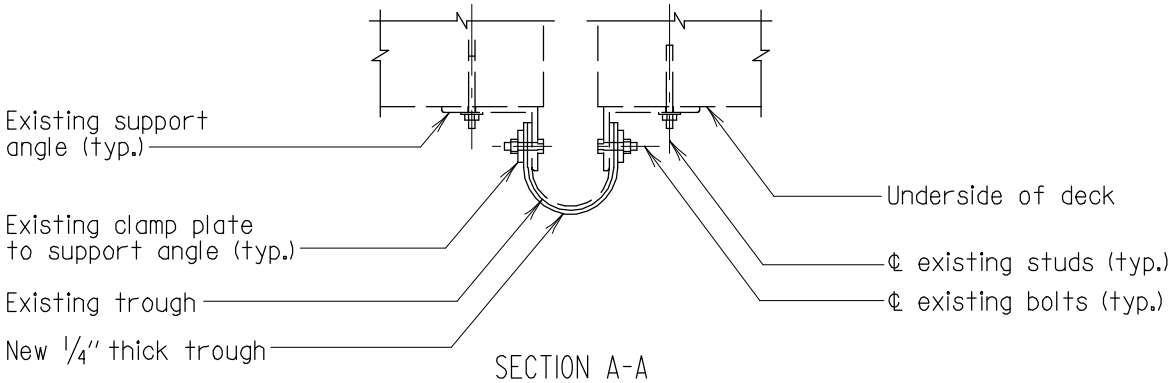
VERSION 1.0	DETAIL NO. SR-JT(DT)-201 SHEET 7 OF 7

STRUCTURAL REPAIRS

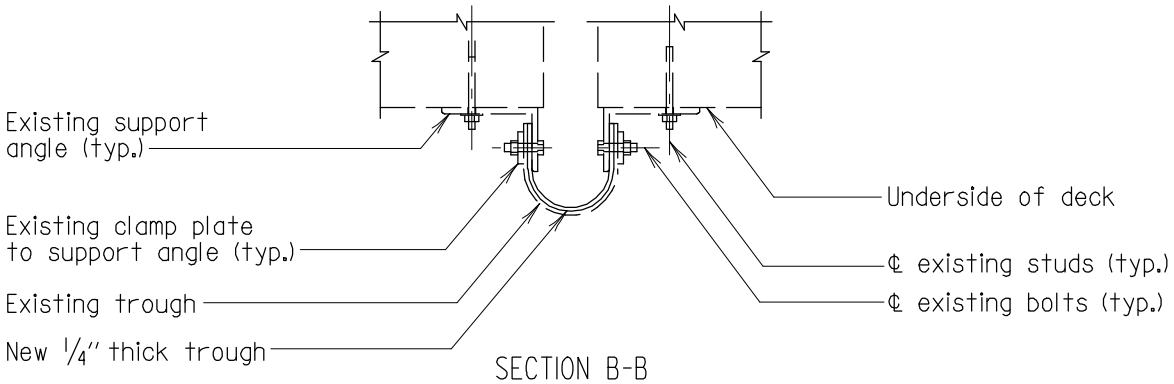
Note:
Existing angle support studs not shown in Plan for clarity.



ELEVATION VIEW
Scale: 3/4" = 1'-0"



SECTION A-A
Scale: 1" = 1'-0"



SECTION B-B
Scale: 1" = 1'-0"

Notes:
1. Apply silicone caulk along overlapped section.
2. The overlaps in the trough shall follow the direction of flow.
3. Reuse existing trough and clamp plate holes for the splice section of trough.

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DETAILS FOR REPLACING SECTIONS OF EXISTING NEOPRENE DRAINAGE TROUGHS

DETAIL NO. SR-JT(DT)-301 SHEET 1 OF 1

STRUCTURAL REPAIRS