

INSTRUCTIONS TO DESIGNER FOR COMPLETING JOINT SELECTION TABLES

(SEE TABLE TEMPLATE CELLS FOR NUMBERS THAT CORRESPOND TO INSTRUCTION NUMBERING)

1. THE DESIGNER SHALL DETERMINE WHICH PREQUALIFIED PREFORMED JOINT SEAL PRODUCTS ARE APPROPRIATE FOR EACH PROPOSED BRIDGE JOINT AND INCLUDE ALL APPROPRIATE PREFORMED JOINT SEAL (PJS) PRODUCTS IN THE JOINT SELECTION TABLE USING THE TABLE TEMPLATE PROVIDED IN THE GUIDE SHEETS.
2. THE DESIGNER SHALL INCLUDE A JOINT SELECTION TABLE FOR EVERY BRIDGE JOINT.
3. THE FOLLOWING FIELDS ARE TO BE COMPLETED IN THE JOINT SELECTION TABLE:
 - 3.1 JOINT LOCATION: PROVIDE THE ABUTMENT OR PIER NUMBER.
 - 3.2 EXPANSION OR FIXED: INDICATE "EXPANSION" OR "FIXED" TO DESCRIBE THE NATURE OF THE JOINT.
 - 3.3 DESIGN THERMAL MOVEMENT RANGE: ENTER 0 INCH FOR A FIXED JOINT OR THE CALCULATED MOVEMENT IN INCHES AT THE BRIDGE JOINT BASED ON AN AMBIENT TEMPERATURE RANGE OF 120°(FROM -10°F. TO 110°F.) AND A COEFFICIENT OF THERMAL EXPANSION OF 6.4 X 10-6 IN./IN./°F FOR STEEL GIRDERS AND 6.0 X 10-6 IN./IN./°F FOR CONCRETE GIRDERS.
 - 3.4 SKEW: BELOW THE HEADERS FOR DECK, PARAPET AND SIDEWALK JOINTS INDICATE THE SKEW OF THE JOINT. IN ADDITION, IF THE DECK JOINT RETURNS AT A RIGHT ANGLE TO THE PARAPET, BE SURE TO INDICATE "0°," SINCE MOVEMENT AT THE PARAPET JOINT WOULD BE MEASURED PERPENDICULAR TO THE JOINT. LIKEWISE, IF A SIDEWALK JOINT IS SKEWED, BUT TURNS 90° BEFORE IT ENTERS THE PARAPET, INCLUDE BOTH IN THE TABLE WHEN REPORTING SKEW FOR THE SIDEWALK JOINT. BE SURE TO CONSIDER THERMAL MOVEMENT FOR BOTH SKEWED AND PERPENDICULAR PORTIONS OF THE SIDEWALK JOINT.
 - 3.5 PJS PRODUCT NAME / JOINT TYPE:
 - 3.5.1 IF PREFORMED JOINT SEAL (PJS) ALONE IS SPECIFIED, INDICATE THE MANUFACTURER NAME IN THE FIRST FIELD AND THE PRODUCT NAME IN THE ADJACENT FIELD.
 - 3.5.2 IF AN ASPHALTIC PLUG JOINT (APJ) WITH A PJS BENEATH IT IS TO BE INSTALLED, INDICATE "APJ" NEXT TO THE "DECK JOINT" HEADER. ENTER THE PJS MANUFACTURER NAME IN THE FIRST FIELD AND THE PRODUCT NAME IN THE ADJACENT FIELD. THIS INFORMATION WILL BE USED TO BID AND ORDER THE PJS.
 - 3.5.3 IF THE JOINT TYPE DOES NOT INCLUDE A PREFORMED JOINT SEAL, INDICATE THE JOINT TYPE NEXT TO THE "DECK JOINT" HEADER. ABBREVIATIONS ARE LISTED IN A FOOTNOTE BELOW THE JOINT SELECTION TABLE. IF THERE IS NO OPEN JOINT BELOW THE APJ, (E.G. WHERE THE DECK END MEETS THE ROADWAY APPROACH) THERE WILL BE NO PREFORMED JOINT SEAL. IDENTIFY THE JOINT TYPE AS "APJ" IN THE HEADER AND THE PJS PRODUCT NAME AS "NA".
 - 3.6 NOMINAL MOVEMENT CAPACITY: INDICATE THE NOMINAL MOVEMENT CAPACITY FOR ALL JOINT TYPES.
 - 3.7 BRIDGE DECK GAP, "G" (AT 110°F.): THE DESIGNER SHALL CALCULATE AND SPECIFY THE MINIMUM GAP BETWEEN BRIDGE DECK ENDS AT FULL EXPANSION FOR PROPOSED DECKS OR FULLY RECONSTRUCTED DECK ENDS. FOR DECK ENDS THAT ARE TO REMAIN OR BE PARTIALLY RECONSTRUCTED, THE DESIGNER WILL LIKELY NOT HAVE ACCESS TO MEASURE THE GAP BETWEEN DECK ENDS DIRECTLY, BUT THE GAP MAY BE OBTAINED FROM MEASUREMENTS OF A SIDEWALK, CURB OR PARAPET JOINT GAP IF THE JOINT APPEARS TO EXTEND THROUGH THE DECK. THE AMBIENT TEMPERATURE SHALL BE RECORDED TOGETHER WITH THE GAP MEASUREMENT. THE GAP WIDTH SHALL BE ADJUSTED FOR TEMPERATURE TO REPORT THE CALCULATED MINIMUM GAP AT 110°F. FOR SAFETY REASONS IT MAY NOT BE REASONABLE TO GET CLOSE ENOUGH TO A JOINT TO MEASURE THE GAP. IN SUCH CASES A DESIGNER MAY HAVE TO RESEARCH BRIDGE INSPECTION REPORTS OR POSSIBLY EXISTING PLANS TO OBTAIN JOINT GAP INFORMATION. WHEN GAPS CANNOT BE MEASURED DIRECTLY, BUT MUST BE ASSUMED, INDICATE IN A NOTE BELOW THE TABLE THE SOURCE OF THE ASSUMPTION ALONG WITH A NOTE ASKING THE CONTRACTOR TO MEASURE AND SUBMIT TO THE ENGINEER THE GAP WIDTH AND CORRESPONDING AMBIENT TEMPERATURE BEFORE ORDERING THE JOINT MATERIAL. A REDESIGN OF THE PJS COULD BE REQUIRED BASED ON THE FIELD-MEASURED GAP.
 - 3.8 DECK JOINT GAP, "J", AT INSTALLATION (SINGLE GAP JOINTS ONLY): FOR PREFORMED JOINT SEALS, THE DESIGNER SHALL CALCULATE AND SPECIFY THE DECK JOINT GAP TO BE FORMED BETWEEN ELASTOMERIC CONCRETE HEADERS OR BETWEEN BRIDGE DECK/APPROACH SLAB WHEN THE PJS IS INSTALLED BELOW AN APJ. THE DECK JOINT GAP WIDTH VARIES WITH THE AMBIENT TEMPERATURE DUE TO THERMAL MOVEMENT OF THE BRIDGE DECK AND THE BRIDGE DECK GAP, "G". ELASTOMERIC CONCRETE HEADERS ARE PLACED AT AMBIENT TEMPERATURES BETWEEN 40° AND 80°F., SO THE DESIGNER SHALL CALCULATE THE GAP AT INCREMENTS OF 10°F. WITHIN THIS RANGE AND INCLUDE THESE GAPS IN THE JOINT SELECTION TABLE. THE DECK JOINT GAP AT INSTALLATION SHALL ALSO BE SPECIFIED FOR ASPHALTIC PLUG JOINTS WITH PREFORMED JOINT SEALS BENEATH, STRIP SEAL EXPANSION JOINTS AND FINGER JOINTS. INDICATE "NA" FOR MODULAR AND PLANK TYPE BRIDGE JOINTS AND PROVIDE INSTALLATION DETAILS ELSEWHERE IN THE PLANS.

- 3.9 SHELF: THIS PERTAINS TO THE SHELF FORMED WITHIN ELASTOMERIC CONCRETE HEADERS, OR BETWEEN BRIDGE DECK/APPROACH SLAB WHEN THE PJS IS INSTALLED BELOW AN APJ OR CONCRETE SIDEWALKS AND PARAPETS AT BRIDGE JOINTS. THE PURPOSE OF THE SHELF IS TO PROVIDE A VERTICAL STOP TO FACILITATE PLACEMENT OF A PREFORMED JOINT SEAL AT THE PROPER DEPTH BELOW THE BRIDGE DECK WEARING SURFACE. THE SHELF HELPS CREATE THE PROPER JOINT GAP IN WHICH TO INSTALL A PREFORMED JOINT SEAL OF THE SPECIFIED TYPE AND SIZE TO ACCOMMODATE THE DESIGN OF THE JOINT AND MEET THE MANUFACTURER'S RECOMMENDATIONS. WHEN A PJS IS PROPOSED TO BE INSTALLED BELOW AN APJ A SHELF IN THE DECK, SIDEWALK, AND PARAPET IS ONLY REQUIRED FOR NEW SUPERSTRUCTURES. SHELF IS NOT REQUIRED FOR EXISTING DECKS AND RECONSTRUCTED DECK ENDS.

3.9.1 WIDTH:

- 3.9.1.1 THE MINIMUM SHELF WIDTH SHALL BE 1/4" OR LARGER AS REQUIRED TO CREATE A MINIMUM ROADWAY SURFACE GAP, "W," OF 1" PER AASHTO LRFD 14.5.3.2 - DESIGN MOVEMENTS.

$$W = \frac{(\text{BRIDGE DECK GAP} + 2 \times \text{SHELF WIDTH})}{\cos(\text{SKEW ANGLE})}$$

DESIGNERS ARE CAUTIONED TO CHECK THE MANUFACTURER'S RECOMMENDED MINIMUM GAP AND INCREASE THE SHELF WIDTH OR BRIDGE DECK GAP ACCORDINGLY. INCREASING THE SHELF WIDTH OR BRIDGE DECK GAP CAN LEAD TO "W" LARGER THAN 4" OR EXCEEDANCE OF THE MANUFACTURER'S RECOMMENDED MAXIMUM GAP.

WHERE CONSTRUCTION OF TWO 1/4" WIDE OR WIDER SHELVES WOULD RESULT IN A ROADWAY SURFACE GAP THAT IS WIDER THAN 4" AT 20°F., A PREFORMED JOINT SEAL IS NOT ADVISABLE. THE ALTERNATIVE IS TO CONSTRUCT A MORE COMPLEX TYPE JOINT SUCH AS A MODULAR, PLANK OR FINGER JOINT. THESE JOINT TYPES ARE MORE EXPENSIVE, DISRUPTIVE TO TRAFFIC TO INSTALL AND MORE DIFFICULT TO REPLACE. LARGE OPENINGS WITH A PREFORMED JOINT SEAL CAN POSSIBLY PRODUCE GREATER NOISE UNDER TRAFFIC AND PROVIDE A ROUGHER RIDE ACROSS THE JOINT. IF NOISE AND RIDEABILITY ARE NOT OF GREAT CONCERN FOR THE PROPOSED BRIDGE, AT THE DEPARTMENT'S DISCRETION, IT CAN ALLOW ELIMINATION OF THE SHELVES TO REDUCE "W". SO A PJS CAN BE SPECIFIED IN ORDER TO REDUCE THE ROADWAY SURFACE GAP TO 4" OR LOWER AT 20°F. THE MINIMUM ROADWAY SURFACE GAP, MANUFACTURER RECOMMENDED MINIMUM GAP AND MANUFACTURER RECOMMENDED MINIMUM INSTALLATION GAP SHALL STILL BE MET. IF THE SHELVES ARE ELIMINATED, ENTER "0.00" IN THE JOINT SELECTION TABLE.

IN SOME CASES, THE JOINT SEAL IS TO BE INSTALLED BETWEEN TWO VERTICAL FACES OF AN EXISTING ARMORED JOINT OR VERTICAL FACES OF A PARAPET JOINT. IN CASES WHERE THERE IS NO SHELF, SPECIFY ONLY A FOAM-SUPPORTED SILICONE JOINT SEAL.

- 3.9.1.2 THE DESIGNER SHALL INDICATE A SHELF WIDTH OF "0.00" IF THE PREFORMED JOINT SEAL WILL BE INSTALLED BETWEEN TWO VERTICAL FACES WITH NO SHELF. FOR ALL OTHER JOINT TYPES WHERE NO SHELF IS TO BE CONSTRUCTED, INDICATE "NA" FOR THIS FIELD. FOR EACH PREFORMED JOINT SEAL THAT IS SPECIFIED THE DESIGNER SHALL INDICATE THE DEPTH OF SHELF RECOMMENDED BY THE MANUFACTURER.

- 3.9.2 DEPTH: THIS REFERS TO THE DIMENSION FROM THE TOP OF HEADER TO THE SHELF. THE DESIGNER SHALL ENTER THE DEPTH OF SHELF RECOMMENDED BY THE MANUFACTURER FOR THE SELECTED TYPE AND NOMINAL SIZE JOINT SEAL. THIS INFORMATION IS AVAILABLE IN THE JOINT SELECTION SPREADSHEET THAT IS AVAILABLE WITH GUIDE SHEETS ON THE BRIDGE DESIGN WEB PAGE.

- 3.10 COMBINED MOVEMENT RANGE: ENTER THE CALCULATED FACTORED CONTRACTION OF THE JOINT UNDER THERMAL MOVEMENT AND ROTATION.

JOINT SELECTION TABLE										
JOINT LOCATION: (ABUTMENT OR PIER NO.)		3.1		EXPANSION OR FIXED: 3.2						
DESIGN THERMAL MOVEMENT RANGE:			X INCHES 3.3		COMBINED MOVEMENT RANGE:					X.XXX INCHES 3.10
PJS PRODUCT NAME / JOINT TYPE (APJ)		NOMINAL MOVEMENT CAPACITY (IN)	BRIDGE DECK GAP, "G", AT 110°F. (IN)		DECK JOINT GAP, "J", AT INSTALLATION (IN)					SHELF (IN)
3.5.1, 3.5.3		3.6	3.7		3.8					3.9.1, 3.9.2
					80°F.	70°F.	60°F.	50°F.	40°F.	WIDTH DEPTH
				DECK JOINT SKEW = X°		3.5.2, 3.5.3 3.4				
EMSEAL	BEJS XXXX									
WABO-FS	FS-XXX									
				PARAPET JOINT SKEW = X°		3.4				
EMSEAL	BEJS XXXX									
WABO-FS	FS-XXX									
				SIDEWALK JOINT SKEW = X°		3.4				
EMSEAL	BEJS XXXX									
WABO-FS	FS-XXX									

FOOTNOTES:

1. KEY TO JOINT TYPE ABBREVIATIONS:
APJ (ASPHALTIC PLUG JOINT)
PJS (PREFORMED JOINT SEAL)

NOTE TO DESIGNER (DELETE AFTER READING):

THIS SHEET IS NOT INTENDED TO BE PLACED IN THE CONTRACT PLANS

JOINT SELECTION TABLE									
JOINT LOCATION: (ABUTMENT OR PIER NO.)			EXPANSION OR FIXED:						
DESIGN THERMAL MOVEMENT RANGE:		X.XXX INCHES	COMBINED MOVEMENT RANGE:				X.XXX INCHES		
PJS PRODUCT NAME / JOINT TYPE (APJ)	NOMINAL MOVEMENT CAPACITY (IN)	BRIDGE DECK GAP, "G", AT 110°F. (IN)	DECK JOINT GAP, "J", AT INSTALLATION (IN)					SHELF (IN)	
			80°F.	70°F.	60°F.	50°F.	40°F.	WIDTH	DEPTH
DECK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
PARAPET JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
SIDEWALK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								

FOOTNOTES:

- KEY TO JOINT TYPE ABBREVIATIONS:
APJ (ASPHALTIC PLUG JOINT)
PJS (PERFORMED JOINT SEAL)

NOTES:

THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING JOINT GAPS BEFORE ORDERING BRIDGE JOINT MATERIAL.

JOINT SELECTION TABLE									
JOINT LOCATION: (ABUTMENT OR PIER NO.)			EXPANSION OR FIXED:						
DESIGN THERMAL MOVEMENT RANGE:		X.XXX INCHES	COMBINED MOVEMENT RANGE:				X.XXX INCHES		
PJS PRODUCT NAME / JOINT TYPE (APJ)	NOMINAL MOVEMENT CAPACITY (IN)	BRIDGE DECK GAP, "G", AT 110°F. (IN)	DECK JOINT GAP, "J", AT INSTALLATION (IN)					SHELF (IN)	
			80°F.	70°F.	60°F.	50°F.	40°F.	WIDTH	DEPTH
DECK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
PARAPET JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
SIDEWALK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								

FOOTNOTES:

- KEY TO JOINT TYPE ABBREVIATIONS:
APJ (ASPHALTIC PLUG JOINT)
PJS (PERFORMED JOINT SEAL)

NOTES:

THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING JOINT GAPS BEFORE ORDERING BRIDGE JOINT MATERIAL.

JOINT SELECTION TABLE									
JOINT LOCATION: (ABUTMENT OR PIER NO.)			EXPANSION OR FIXED:						
DESIGN THERMAL MOVEMENT RANGE:		X.XXX INCHES	COMBINED MOVEMENT RANGE:				X.XXX INCHES		
PJS PRODUCT NAME / JOINT TYPE (APJ)	NOMINAL MOVEMENT CAPACITY (IN)	BRIDGE DECK GAP, "G", AT 110°F. (IN)	DECK JOINT GAP, "J", AT INSTALLATION (IN)					SHELF (IN)	
			80°F.	70°F.	60°F.	50°F.	40°F.	WIDTH	DEPTH
DECK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
PARAPET JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
SIDEWALK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								

FOOTNOTES:

- KEY TO JOINT TYPE ABBREVIATIONS:
APJ (ASPHALTIC PLUG JOINT)
PJS (PERFORMED JOINT SEAL)

NOTES:

THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING JOINT GAPS BEFORE ORDERING BRIDGE JOINT MATERIAL.

JOINT SELECTION TABLE									
JOINT LOCATION: (ABUTMENT OR PIER NO.)			EXPANSION OR FIXED:						
DESIGN THERMAL MOVEMENT RANGE:		X.XXX INCHES	COMBINED MOVEMENT RANGE:				X.XXX INCHES		
PJS PRODUCT NAME / JOINT TYPE (APJ)	NOMINAL MOVEMENT CAPACITY (IN)	BRIDGE DECK GAP, "G", AT 110°F. (IN)	DECK JOINT GAP, "J", AT INSTALLATION (IN)					SHELF (IN)	
			80°F.	70°F.	60°F.	50°F.	40°F.	WIDTH	DEPTH
DECK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
PARAPET JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								
SIDEWALK JOINT SKEW = X°									
EMSEAL	BEJS-XXXX								
WABO-FS	FS-XXX								

FOOTNOTES:

- KEY TO JOINT TYPE ABBREVIATIONS:
APJ (ASPHALTIC PLUG JOINT)
PJS (PERFORMED JOINT SEAL)

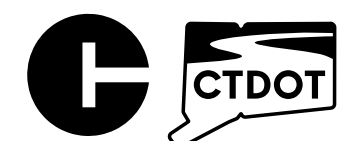
NOTES:

THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING JOINT GAPS BEFORE ORDERING BRIDGE JOINT MATERIAL.

NOTE TO DESIGNER (DELETE AFTER READING):
THE DESIGNER SHALL INCLUDE AS MANY TABLES AS THERE ARE JOINTS ON THE BRIDGE.

REV.	DATE	DESCRIPTION

SIGNATURE BLOCK:	DESIGNER/DRAFTER:	CHECKED BY:



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:	TEST PROJECT
----------------	--------------

TOWN(S):	VARIOUS
----------	---------

DRAWING TITLE:	ASPHALTIC PLUG EXPANSION JOINT - JOINT SELECTION TABLES
----------------	---

PROJECT NO.:	####
DRAWING NO.:	S-XX
SHEET NO.:	

**BITUMINOUS CONCRETE PLACEMENT
AT ASPHALTIC PLUG JOINTS (APJ) NOTES**

- REQUIREMENTS FOR BITUMINOUS CONCRETE OVERLAY AT JOINT REPLACEMENT (SEE DETAIL TITLED "PLACEMENT OF PAVEMENT IN JOINT CUT-OUT"):

TOP LIFT SHALL BE UNIFORM THICKNESS WITHIN THE ALLOWABLE RANGES BELOW:

A. HMA S0.375 - 1 1/2" MIN. TO 2" MAX.

BOTTOM LIFT SHALL BE UNIFORM THICKNESS WITHIN THE ALLOWABLE RANGES BELOW:

FOR BRIDGES WITH WOVEN GLASS FABRIC WATERPROOFING MEMBRANE

A. HMA S0.25 - 3/4" MIN. TO 1" MAX.

FOR BRIDGES WITH SPRAY-APPLIED COLD LIQUID ELASTOMERIC WATERPROOFING MEMBRANE

A. HMA S0.25 - 3/4" MIN. TO 1 1/4" MAX.
B. HMA S0.375 - 1 1/4" MIN. TO 2" MAX.

INTERMEDIATE LIFTS, IF REQUIRED, MAY VARY IN THICKNESS WITHIN THE ALLOWABLE RANGES BELOW:

A. HMA S0.25 - 0.0" MIN. TO 1 1/2" MAX. (PER LIFT)
B. HMA S0.375 - 1/2" MIN. TO 2 1/2" MAX. (PER LIFT)

2 - THE REQUIREMENTS OF SECTION 4.06 SHALL BE MET EXCEPT IN LIEU OF DENSITY TESTING. THE METHODS DESCRIBED BELOW SHALL BE FOLLOWED TO ASSURE PROPER COMPACTION.

3 - REQUIREMENTS FOR PROPER COMPACTION:

a. MINIMUM DELIVERY TEMPERATURE OF MATERIAL

HMA - 265 °F
PMA - 285 °F
WHEN AMBIENT TEMPERATURE IS LESS THAN 50 °F AND AFTER OCTOBER 15 - 300 °F

PLACE AND SPREAD MATERIAL BEFORE IT COOLS TO 260°F. MATERIAL BELOW TEMPERATURE REQUIREMENTS SHALL NOT BE PLACED AND WILL BE REJECTED.

b. COMPACT NON-SURFACE LIFTS WITH VIBRATORY PLATE COMPACTOR MEETING THE FOLLOWING REQUIREMENTS:

- i. DESIGNED TO COMPACT ASPHALT
- ii. EQUIPPED WITH A WATER TANK
- iii. CENTRIFUGAL FORCE 3200 LBS TO 6000 LBS
- iv. WEIGHS MINIMUM 160 LBS (WITHOUT WATER)
- v. MINIMUM 4400 VIBRATIONS PER MINUTE

c. COMPACT TOP LIFT WITH 3 1/2 TO 4 1/2 TON DOUBLE DRUM ROLLER, DESIGNED TO COMPACT BITUMINOUS CONCRETE.

d. PROVIDE NUMBER OF PASSES BASED ON LIFT THICKNESS AS FOLLOWS:

LIFT THICKNESS (INCHES)	NUMBER OF PASSES
0 TO 1 1/2	8
1 1/2 TO 2	10
2 TO 3 1/2	12

e. ADDITIONAL COMPACTING EQUIPMENT MAY BE REQUIRED TO COMPLETE LIFT COMPACTION BEFORE MATERIAL COOLS TO 180°F.

f. AT CORNERS OR OTHER AREAS INACCESSIBLE TO PLATE TAMPER, HAND TAMP 20 TIMES MINIMUM BEFORE MATERIAL COOLS TO 180°F.

4 - ALTERNATE EQUIPMENT MAY BE REQUESTED AS A SUPPLEMENT TO CONTRACTOR'S QC PLAN. THE EQUIPMENT AND PROCEDURES MUST BE APPROVED BY THE ENGINEER PRIOR TO USE.

5 - IF THESE METHODS ARE NOT PERFORMED TO THE SATISFACTION OF THE ENGINEER, DENSITY VERIFICATION MAY BE REQUIRED WHEREIN THE CONTRACTOR SHALL PROVIDE DENSITY TESTING WITH A QC NUCLEAR DENSITY GAUGE OR COLLECT CORE SAMPLES AS SPECIFIED IN SECTION 4.06.

VARIABLE APJ WIDTH BASED ON SKEW

WIDTH OF APJ (INCHES)	SKEW RANGE
20	θ ≤ 35°
16	35 > θ ≤ 45°
14	45 > θ ≤ 55°

ASPHALTIC PLUG EXPANSION JOINT SYSTEM NOTES

1 - A BRIDGING PLATE SHALL BE USED TO SPAN THE GAP BETWEEN TWO DECK ENDS OR THE JOINT BETWEEN A DECK END AND A CONCRETE APPROACH SLAB.

2 - DISCONTINUE THE INSTALLATION OF THE BRIDGING PLATE WHERE THE APPROACH SLAB IS DISCONTINUED (TYPICALLY IN THE ROADWAY SHOULDERS). SEE "ASPHALTIC PLUG EXPANSION JOINT SYSTEM" SPECIFICATION.

3 - BRIDGING PLATES:
JOINT OPENINGS ≤ 3 INCHES, USE 1/4" THICK X 8" WIDE
JOINT OPENINGS > 3 INCHES, USE 3/8" THICK X 12" WIDE

4 - NO BRIDGING PLATE SHALL BE USED AT THE FOLLOWING LOCATIONS:

- A. JOINT BETWEEN A DECK END AND A CONCRETE APPROACH PAVEMENT
- B. WHERE A BRIDGE DECK END MEETS A BITUMINOUS APPROACH PAVEMENT

5 - TEMPORARY CLOSED CELL BACKER ROD SHALL BE 25% LARGER THAN THE JOINT OPENING.

6 - ASPHALTIC PLUG EXPANSION JOINT SYSTEMS SHALL BE INSTALLED ONLY WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE SPECIFICATION "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". REFERENCE THE RANGE OF THERMAL MOVEMENT FOR THE SELECTED JOINT PRODUCT IN THE TABLE FOR "INSTALLATION RESTRICTIONS" IN THE SPECIFICATION.

7 - CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE EXISTING PAVEMENT IS DETERMINED TO BE LESS THAN 2" OR GREATER THAN 6" WITHIN THE BRIDGE LIMITS.

8 - THE DEPTH OF PROPOSED ASPHALTIC PLUG JOINT IS ESTIMATED TO BE XXXX" AVERAGE.

9 - AT LOCATIONS WHERE THE APPROACH SLAB DOES NOT EXTEND THE ENTIRE WIDTH OF THE BRIDGE, TERMINATE THE FOAM SUPPORTED GLAND PER THE DETAILS ON DRAWING S-XX.

10 - THE MAXIMUM INSTALLATION TEMPERATURE FOR THE ASPHALTIC PLUG JOINT SHALL BE XX °F.

NOTE TO DESIGNER (DELETE AFTER READING):

DESIGNER SHALL SPECIFY THE ESTIMATED ASPHALTIC PLUG JOINT DEPTH IN NOTE #8 UNDER THE ASPHALTIC PLUG EXPANSION JOINT SYSTEMS NOTES.

ESTIMATE THE BITUMINOUS CONCRETE OVERLAY FOR JOINT REPLACEMENTS (MATERIAL PLACED WITHIN JOINT CUT-OUTS) UNDER THE FOLLOWING PAY ITEM(S):

- COLD LIQUID ELASTOMERIC
"HMA S0.375" (ASSUME 3" THICK OR MATCH PROPOSED JOINT DEPTH)

- WOVEN GLASS FABRIC
"HMA S0.375" (ASSUME 2" THICK OR MATCH PROPOSED JOINT DEPTH), AND
"HMA S0.25" (ASSUME 1" THICK)

THE ACTUAL BITUMINOUS CONCRETE MIX TYPE(S), TRAFFIC LEVEL(S), AND LIFT THICKNESS(ES) TO BE USED FOR THE WORK SHALL BE DETERMINED FROM THE ALLOWABLE OPTIONS INCLUDED ON THE PLANS/GUIDE SHEET UNDER NOTE 1. "REQUIREMENTS FOR BITUMINOUS CONCRETE OVERLAY AT JOINT REPLACEMENT."

DESIGNER SHALL SPECIFY MAXIMUM INSTALLATION TEMPERATURES FOR ALL ASPHALTIC PLUG JOINT LOCATIONS IN NOTE 10.

JOINT WORK FOR BRIDGES

1 - WHERE EXISTING BRIDGE DECK JOINTS ARE CONCEALED BENEATH BITUMINOUS CONCRETE OVERLAY THE CONTRACTOR SHALL VERIFY THE BRIDGE DECK JOINT LOCATION AND SUBMIT THE LIMITS OF SAW-CUTTING FOR THE ENGINEER'S APPROVAL.

2 - EXPLORATION OF PAVEMENT THICKNESS AND JOINT LOCATION TO BE INCLUDED FOR PAYMENT UNDER THE ITEM "REMOVAL OF EXISTING WEARING SURFACE."

3 - SAW-CUTTING THE BITUMINOUS PAVEMENT TO THE LIMITS SHOWN IN THE DETAIL "JOINT AND PAVEMENT REMOVAL." REMOVAL OF PAVEMENT MATERIAL AND JOINT MATERIAL FULL DEPTH WITHIN THE LIMITS SHOWN SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "REMOVAL OF EXISTING WEARING SURFACE."

4 - ROUGH CONCRETE DECK SURFACES SHALL BE GROUND FLAT OR REPAIRED WITH A CONCRETE LEVELING MATERIAL, INCLUDED FOR PAYMENT UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM."

5 - REPAIR OF DETERIORATED CONCRETE AS DETERMINED BY THE ENGINEER TO BE INCLUDED FOR PAYMENT UNDER THE ITEM "RECONSTRUCT CONCRETE DECK ENDS."

6 - MEMBRANE WATERPROOFING SHALL BE "MEMBRANE WATERPROOFING (XXXXXXXXXX)" AND SHALL BE PLACED PRIOR TO PLACEMENT OF PERMANENT OVERLAY.

7 - TACK COAT SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "NON-TRACKING ASPHALT TACK COAT."

8 - MATERIALS FOR THE BITUMINOUS CONCRETE OVERLAY WITHIN JOINT CUT-OUT SHALL BE HMA S0.25, HMA S0.375, OR AN EQUIVALENT PMA MEETING THE REQUIREMENTS OF SECTIONS 4.06 AND M.04. ALL HMA OR PMA SHALL BE TRAFFIC LEVEL 2 UNLESS INDICATED OTHERWISE ON THE PLANS, OR DIRECTED BY THE ENGINEER.

9 - THE FURNISHING AND PLACING OF BITUMINOUS CONCRETE OVERLAY IN THE JOINT CUT-OUT AS SHOWN IN THE DETAIL "PLACEMENT OF PAVEMENT IN JOINT CUT-OUT" SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEMS "HMA S0.375," "HMA S0.25," OR OTHER BITUMINOUS CONCRETE ITEM(S) USED TO COMPLETE THE SPECIFIED WORK OR AS DIRECTED BY THE ENGINEER.

10 - SAW-CUTTING, REMOVAL AND DISPOSAL OF BITUMINOUS CONCRETE OVERLAY AND TEMPORARY BACKER ROD SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM."

11 - PREFORMED JOINT SEALS ARE ONLY TO BE INSTALLED BELOW THE APJ IN AN OPEN JOINT BETWEEN DECK ENDS OR BETWEEN DECK ENDS AND APPROACH SLAB ENDS AND SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "PREFORMED JOINT SEAL."

12 - HOT-APPLIED ASPHALT CRACK SEALANT PLACED ALONG THE CURB AND AT THE PARAPET JOINT TO SEAL THE ASPHALTIC PLUG JOINT AT THE GUTTER LINE SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "GUTTER LINE SEALING FOR BRIDGES."

13 - PARAPET SEAL: PARAPETS SEALED WITH FOAM SUPPORTED GLAND SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "PREFORMED JOINT SEAL."

14 - SIDEWALK SEAL: SIDEWALK SEALED WITH FOAM SUPPORTED GLAND SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "PREFORMED JOINT SEAL."

NOTE TO DESIGNER (DELETE AFTER READING):

SPECIAL PROVISION FOR ITEM NO. 0406312A - "GUTTER LINE SEALING FOR BRIDGES"

SPECIAL PROVISION FOR ITEM NO. 0406238 - "NON-TRACKING ASPHALT TACK COAT"

CAN BE LOCATED AT PAVEMENT DESIGN'S WEBSITE

NOTE TO DESIGNER (DELETE AFTER READING):

SPECIAL PROVISION FOR ITEM NO. 0520036A - "ASPHALTIC PLUG EXPANSION JOINT SYSTEM"

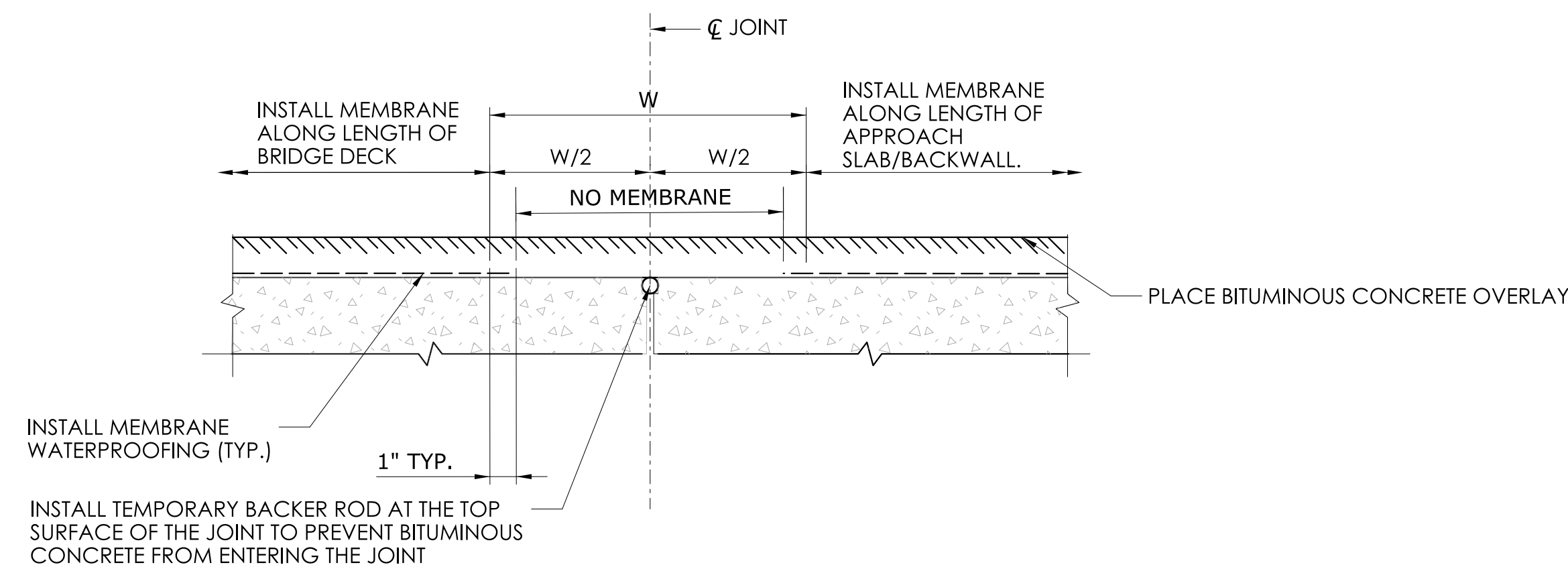
SPECIAL PROVISION FOR ITEM NO. 0520041A - "PREFORMED JOINT SEAL"

CAN BE LOCATED AT CONTRACT DEVELOPMENT WEBSITE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:		 CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE:	TOWN(S):	DRAWING TITLE:	PROJECT NO.:	DRAWING NO.:
DESIGNER/DRAFTER:	CHECKED BY:		TEST PROJECT	VARIOUS	ASPHALTIC PLUG EXPANSION JOINT - NOTES AND DETAILS	####	S-XX
LASTED SAVED BY: ffrimM FILE NAME: C:\Users\ffrimm\OneDrive - State of Connecticut\Working\Drawings\03 APJ - NOTES AND DETAILS.dgn		PLOTTED DATE: 12/9/2025				SHEET NO.:	

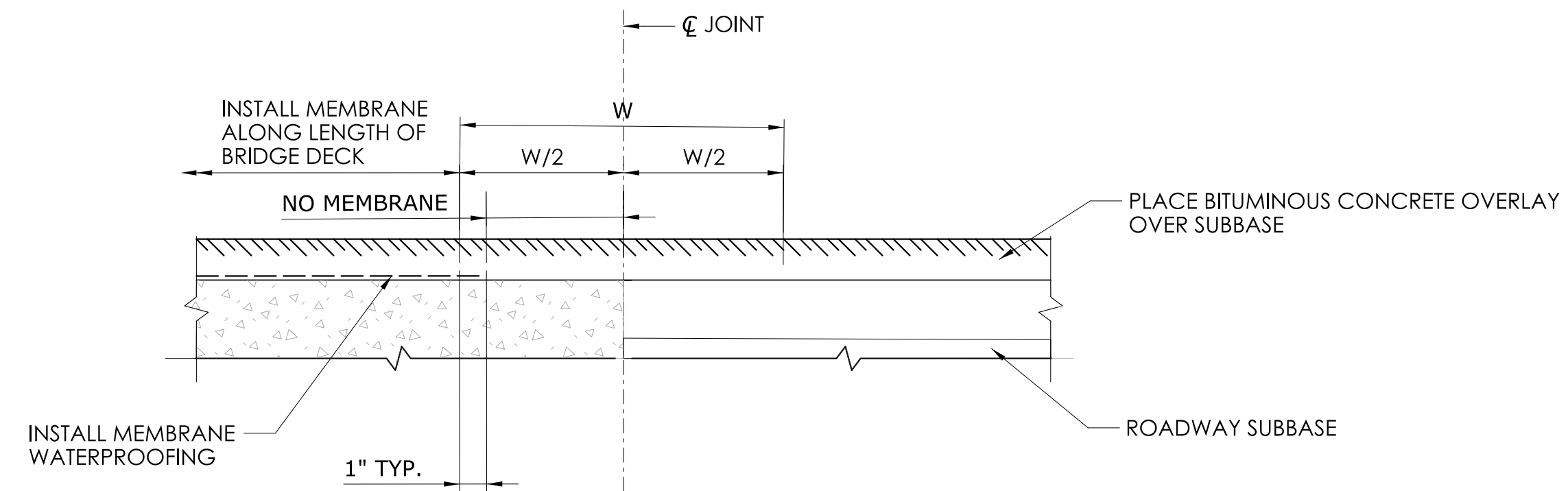
INSTALLATION OF ASPHALTIC PLUG JOINT WITH BRIDGING PLATE



PLACEMENT OF PAVEMENT ALONG THE BRIDGE

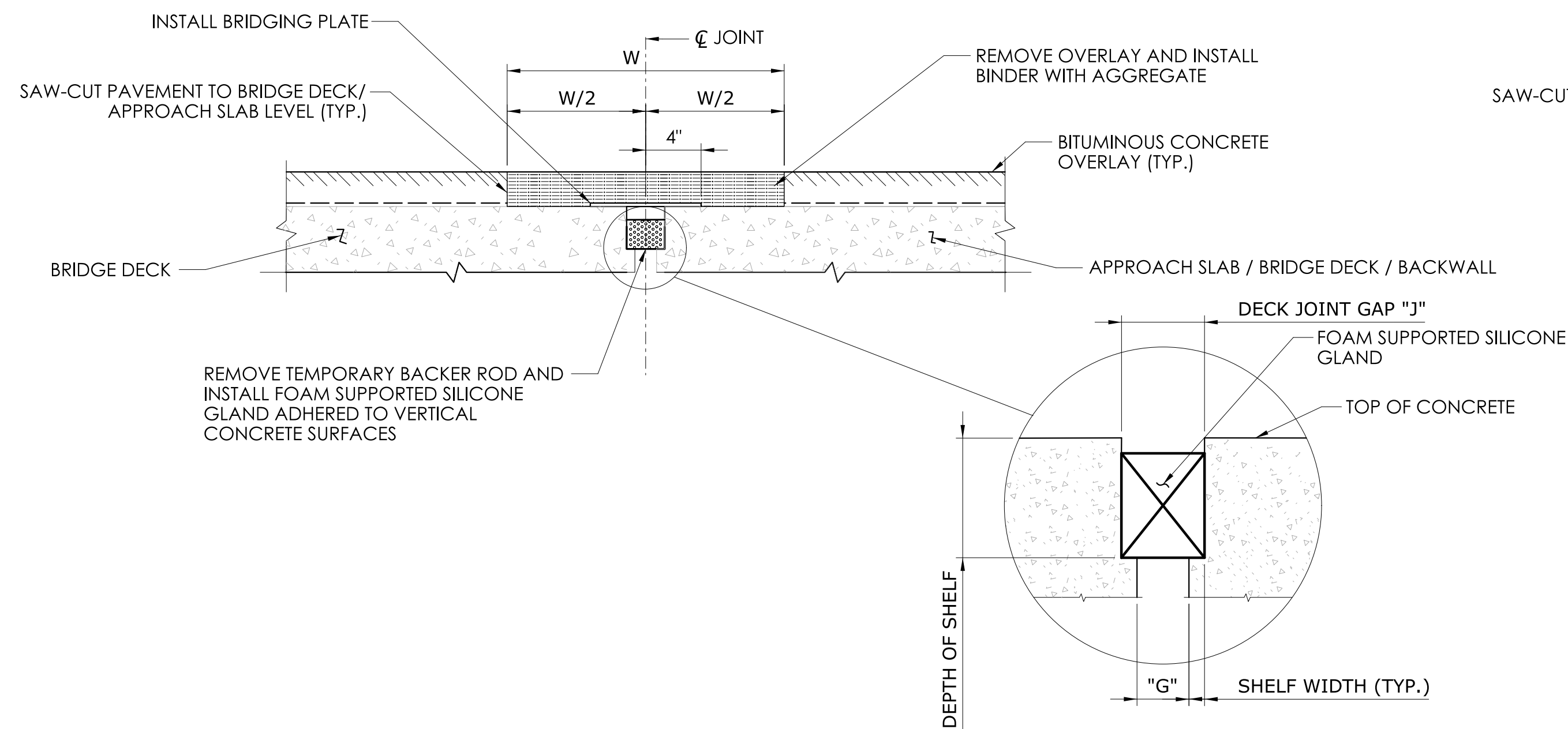
NOT TO SCALE

INSTALLATION OF ASPHALTIC PLUG JOINT WITHOUT BRIDGING PLATE



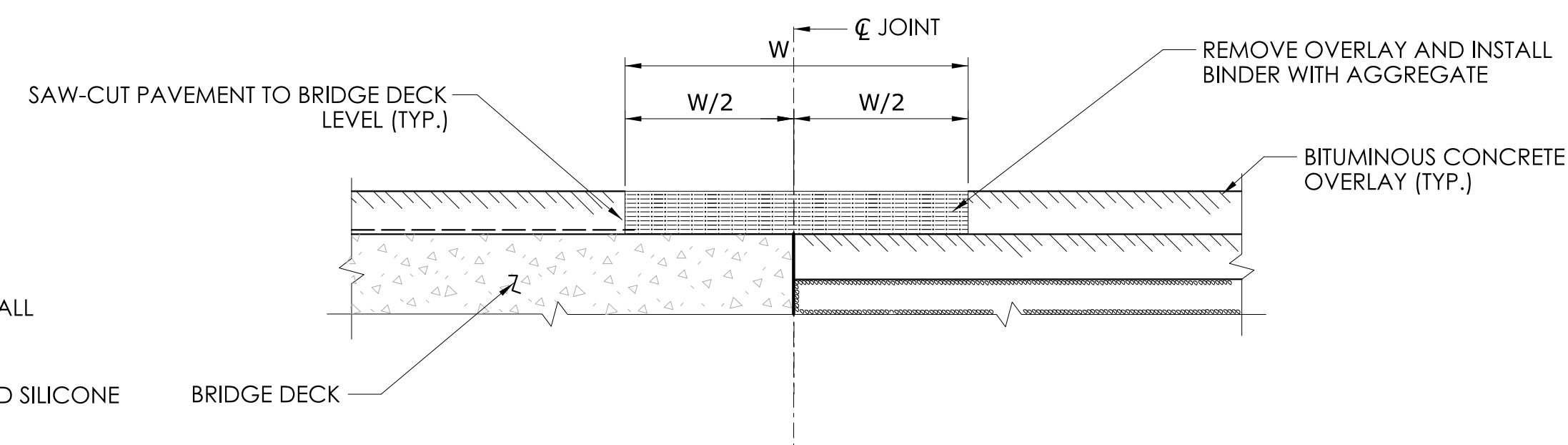
PLACEMENT OF PAVEMENT ALONG THE BRIDGE

NOT TO SCALE



INSTALLATION OF ASPHALTIC PLUG EXPANSION JOINT SYSTEM

NOT TO SCALE



INSTALLATION OF ASPHALTIC PLUG EXPANSION JOINT SYSTEM

NOT TO SCALE

SUGGESTED SEQUENCE OF WORK

STAGE I: MEASURE

- STEP 1. THE CONTRACTOR SHALL MEASURE AND DOCUMENT THE DECK JOINT GAP OPENING, PARAPET GAP OPENING AND TEMPERATURE AT THE TIME OF MEASUREMENT FOR SIZING OF THE FOAM SUPPORTED GLAND. DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW

STAGE II: INSTALL MEMBRANE AND WEARING SURFACE

- STEP 1. INSTALL TEMPORARY BACKER ROD FLUSH WITH THE BRIDGE DECK(S) OR APPROACH SLAB (AS APPLICABLE)
- STEP 2. BLAST CLEAN THE DECK TO PREPARE THE SURFACE FOR INSTALLATION OF MEMBRANE WATERPROOFING
- STEP 3. INSTALL MEMBRANE WATERPROOFING TO THE TOP OF DECK, BACKWALL AND APPROACH SLAB WITHIN THE LIMITS SHOWN
- STEP 4. PLACE BITUMINOUS CONCRETE OVERLAY IN ACCORDANCE WITH THE STRUCTURE PLANS

STAGE III: INSTALL ASPHALTIC PLUG EXPANSION JOINT SYSTEM

- STEP 1. SAW-CUT OVERLAY FULL DEPTH TO DELINEATE LIMITS OF APJ AND REMOVE ALL BITUMINOUS CONCRETE OVERLAY BETWEEN SAW-CUTS INCLUDING THE TEMPORARY BACKER ROD
- STEP 2. INSTALL PROPOSED ASPHALTIC PLUG EXPANSION JOINT SYSTEM WITH FOAM SUPPORTED SILICONE GLAND AND BRIDGING PLATE. LOCATING PINS SHALL NOT BE USED TO SECURE THE BRIDGING PLATE
- STEP 3. PLACE CRACK SEAL AT GUTTER LINE ALONG THE LENGTH OF THE BRIDGE BOTH SIDES

NOTE TO DESIGNER (DELETE AFTER READING)
THIS SHEET SHALL BE USED FOR PROJECTS WITH NEW DECKS

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
DESIGNER/DRAFTER: _____ CHECKED BY: _____

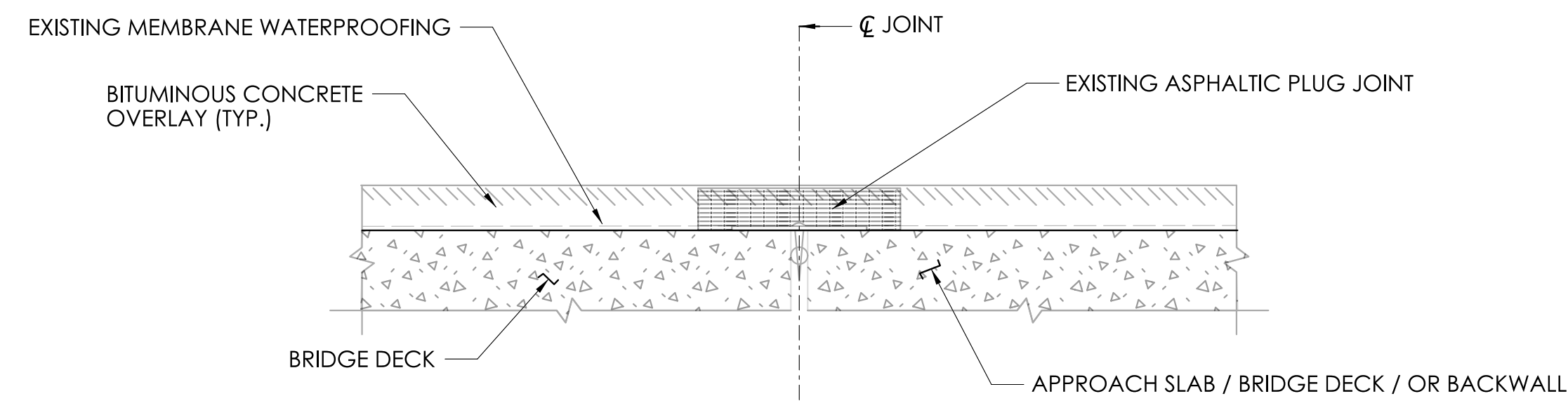


PROJECT TITLE: **TEST PROJECT**

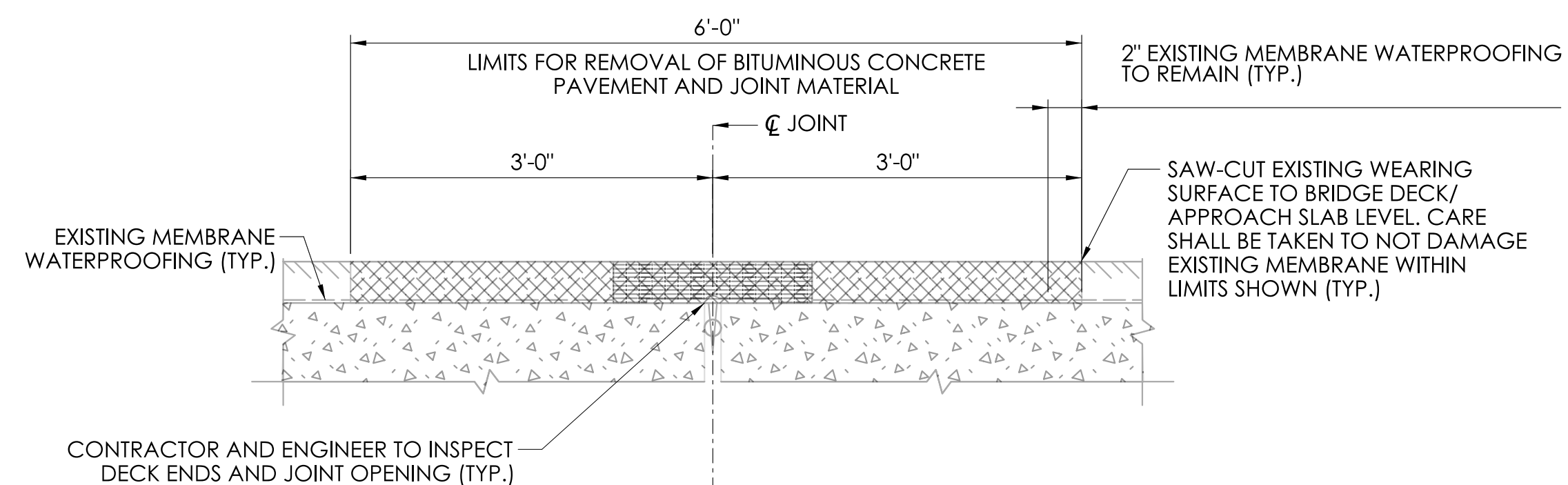
TOWN(S): **VARIOUS**

DRAWING TITLE: **ASPHALTIC PLUG EXPANSION JOINT - SEQUENCE FOR JOINT WITH NEW STRUCTURE**

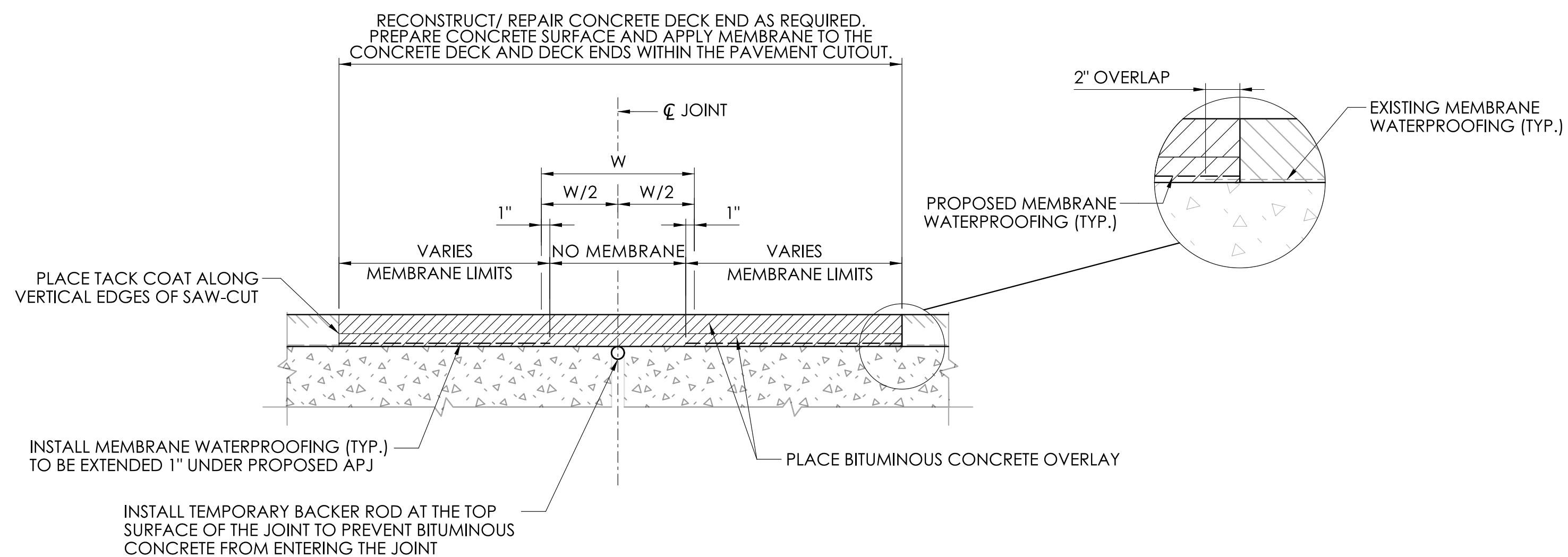
PROJECT NO.: **####**
DRAWING NO.: **S-XX**
SHEET NO.: _____



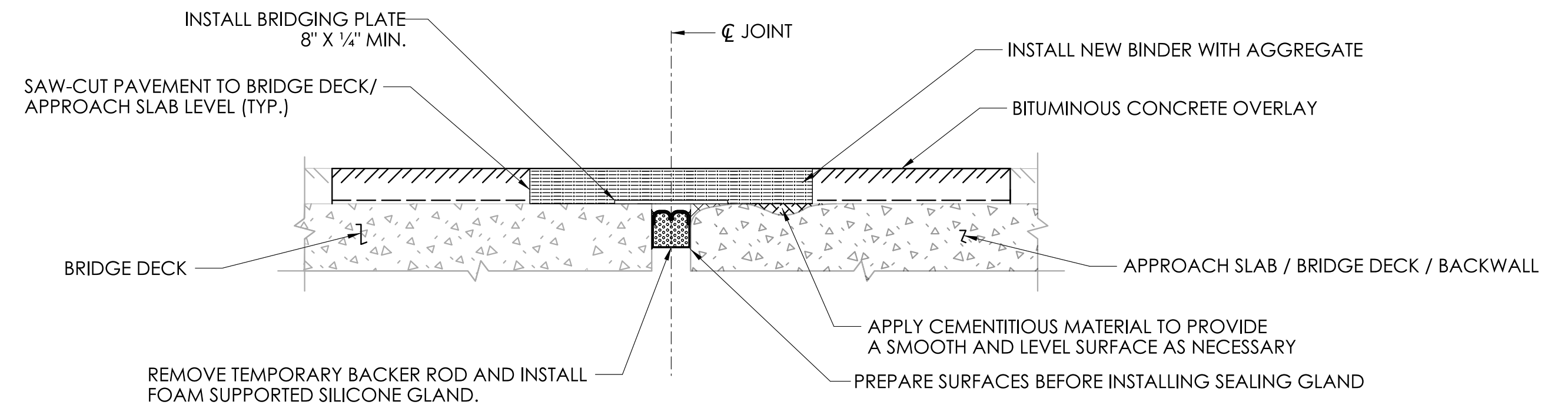
EXISTING CONDITION
NOT TO SCALE



JOINT AND PAVEMENT REMOVAL
NOT TO SCALE



PLACEMENT OF PAVEMENT IN JOINT CUTOUT
NOT TO SCALE



NOTE: CONCRETE SURFACES TO WHICH SEALING GLANDS WILL BE BONDED SHALL BE PREPARED IN ACCORDANCE WITH ICRI CONCRETE SURFACE PROFILE STANDARDS. THE MINIMUM ACCEPTABLE SURFACE PROFILE IS CSP2 (GRINDING), BUT CSP3 (LIGHT ABRASIVE BLAST) IS PREFERRED. THE GLAND SHALL NOT BE INSTALLED UNTIL THE SURFACE IS CLEAN, DRY, AND ACCEPTED BY THE ENGINEER.

INSTALLATION OF ASPHALTIC PLUG EXPANSION JOINT SYSTEM
NOT TO SCALE

SUGGESTED SEQUENCE OF WORK

PRECONSTRUCTION: VERIFY EXISTING CONDITIONS

STEP 1. CONTRACTOR SHALL PERFORM AN EXPLORATION AT THE GUTTERLINE (AT THE FOUR CORNERS OF THE BRIDGE) AND THE CROWN (AT THE BEGINNING AND END OF THE BRIDGE). A MINIMUM OF SIX REPRESENTATIVE DEPTH MEASUREMENTS SHALL BE TAKEN PER BRIDGE AT THESE LOCATIONS TO DETERMINE THE DEPTH OF PAVEMENT AND THE LOCATION OF THE DECK ENDS (CENTERLINE OF PROPOSED JOINT). ADDITIONAL MEASUREMENTS SHALL BE TAKEN IF NEEDED IN ACCORDANCE WITH SPECIFICATION FOR "REMOVAL OF EXISTING WEARING SURFACE"

STAGE I: INSPECT CONCRETE

STEP 1. SAW-CUT THE BITUMINOUS PAVEMENT TO THE LIMITS SHOWN IN DETAIL FOR "JOINT AND PAVEMENT REMOVAL." SAW-CUT SHALL NOT DAMAGE THE BRIDGE DECK OR APPROACH SLAB.
STEP 2. REMOVE THE EXISTING PAVEMENT MATERIAL AND JOINT MATERIAL FULL DEPTH WITHIN THE LIMITS SHOWN. INSPECT DECK WITHIN WORK AREA FOR DETERIORATION
STEP 3. THE CONTRACTOR SHALL MEASURE AND DOCUMENT THE DECK JOINT GAP OPENING, PARAPET GAP OPENING AND TEMPERATURE AT THE TIME OF MEASUREMENT FOR SIZING OF THE FOAM SUPPORTED GLAND. DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW

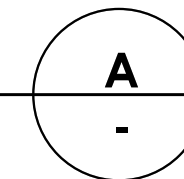
STAGE II: RECONSTRUCT AND PROTECT DECK ENDS (WHERE REQUIRED) AND INSTALL MEMBRANE AND WEARING SURFACE

STEP 1. PROCEED TO STEP 2 IF CONCRETE REPAIRS ARE NOT REQUIRED
REPAIR DETERIORATED CONCRETE AS DETERMINED BY THE ENGINEER
STEP 2. INSTALL TEMPORARY BACKER ROD FLUSH WITH THE BRIDGE DECK(S) OR APPROACH SLAB (AS APPLICABLE)
STEP 3. BLAST CLEAN THE DECK TO PREPARE THE SURFACE FOR INSTALLATION OF MEMBRANE WATERPROOFING
STEP 4. INSTALL MEMBRANE WATERPROOFING TO THE TOP OF THE DECK, BACKWALL, AND APPROACH SLAB WITHIN THE LIMITS SHOWN
STEP 5. PLACE TACK COAT ON VERTICAL EDGES OF PAVEMENT ALONG SAW-CUT LINES AND STAGE CONSTRUCTION SAW-CUT LINES
STEP 6. PLACE BITUMINOUS CONCRETE OVERLAY AS SHOWN IN THE DETAIL "PLACEMENT OF PAVEMENT IN JOINT CUT-OUT". REFER TO THE NOTES ON THE DRAWING TITLED ASPHALTIC PLUG EXPANSION JOINT - NOTES AND DETAILS FOR INFORMATION REGARDING THE BITUMINOUS CONCRETE OVERLAY COMPOSITION

STAGE III: INSTALL ASPHALTIC PLUG EXPANSION JOINT SYSTEM

STEP 1. SAW-CUT OVERLAY FULL DEPTH TO DELINEATE LIMITS OF APJ AND REMOVE ALL BITUMINOUS CONCRETE OVERLAY BETWEEN SAW-CUTS INCLUDING THE TEMPORARY BACKER ROD
STEP 2. INSTALL PROPOSED ASPHALTIC PLUG EXPANSION JOINT SYSTEM WITH FOAM SUPPORTED SILICONE GLAND AND BRIDGING PLATE. LOCATING PINS SHALL NOT BE USED TO SECURE THE BRIDGING PLATE
STEP 3. PLACE CRACK SEAL AT GUTTER LINE ALONG THE LENGTH OF THE BRIDGE, BOTH SIDES

INSTALLATION OF ASPHALTIC PLUG JOINT WITH BRIDGING PLATE



REV.	DATE	REVISION DESCRIPTION

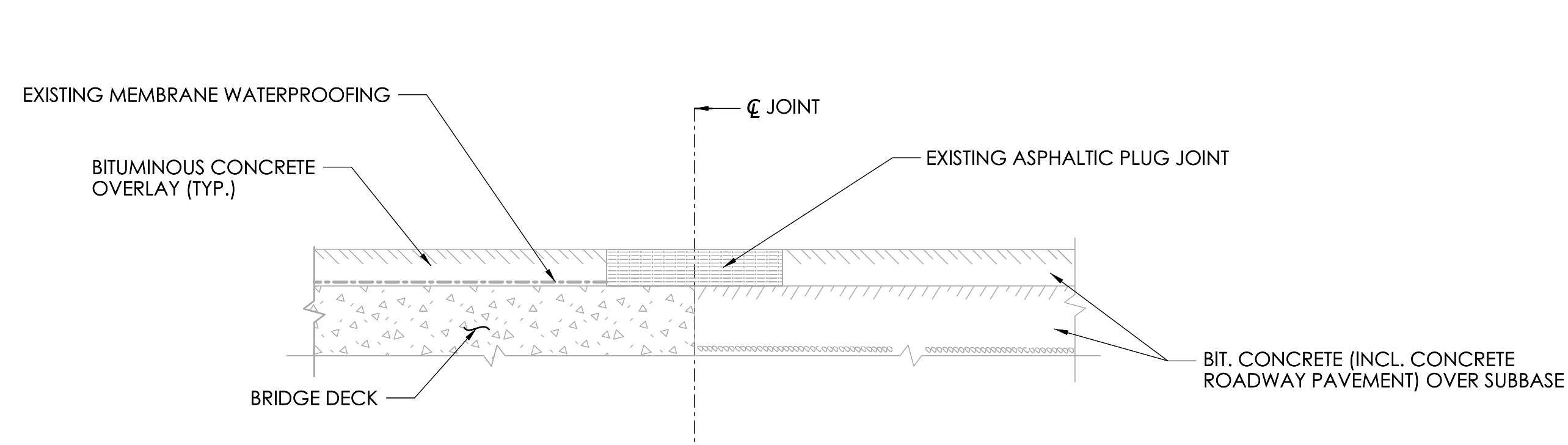
SIGNATURE BLOCK:	
DESIGNER/DRAFTER:	CHECKED BY:



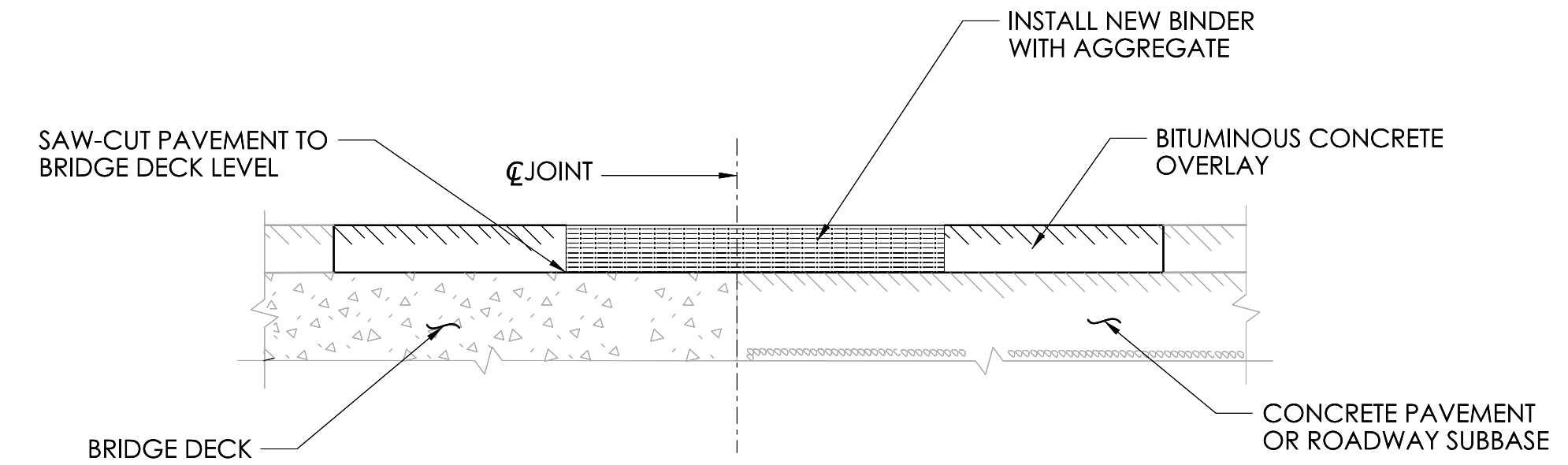
CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:	TEST PROJECT
TOWN(S):	VARIOUS

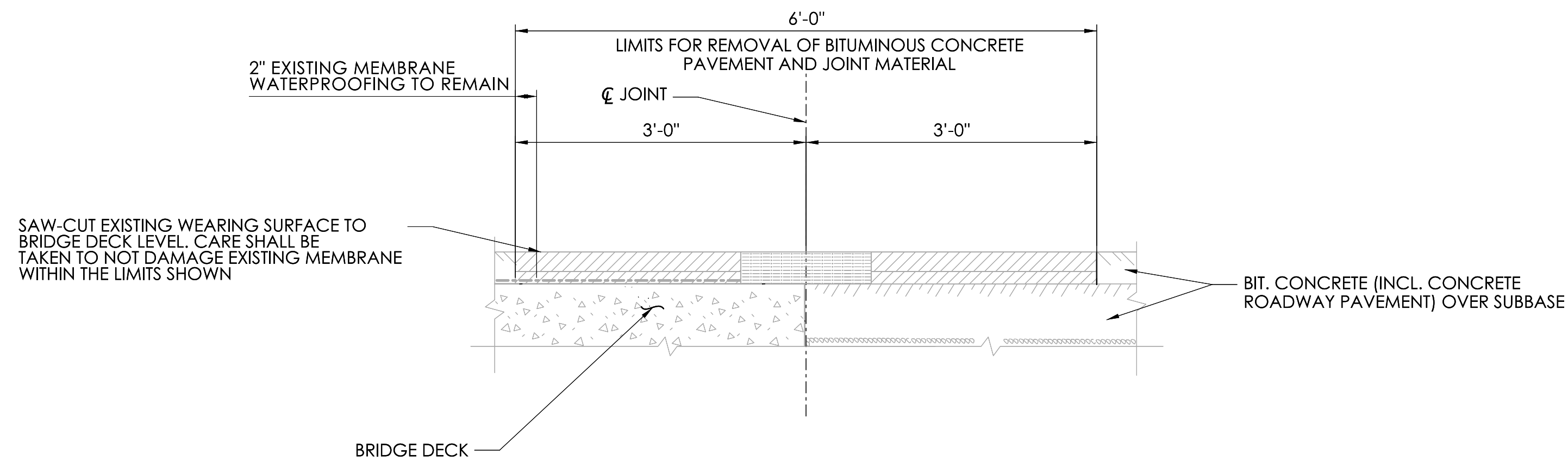
DRAWING TITLE:	ASPHALTIC PLUG EXPANSION JOINT - SEQUENCE FOR JOINT REPLACEMENT
PROJECT NO.:	####
DRAWING NO.:	S-XX
SHEET NO.:	



EXISTING CONDITION
NOT TO SCALE



INSTALLATION OF ASPHALTIC PLUG EXPANSION JOINT SYSTEM
NOT TO SCALE



JOINT AND PAVEMENT REMOVAL
NOT TO SCALE

SUGGESTED SEQUENCE OF WORK

PRECONSTRUCTION: VERIFY EXISTING CONDITIONS

- STEP 1. CONTRACTOR SHALL PERFORM AN EXPLORATION AT THE GUTTERLINE (AT THE FOUR CORNERS OF THE BRIDGE) AND THE CROWN (AT THE BEGINNING AND END OF THE BRIDGE). A MINIMUM OF SIX REPRESENTATIVE DEPTH MEASUREMENTS SHALL BE TAKEN PER BRIDGE AT THESE LOCATIONS TO DETERMINE THE DEPTH OF PAVEMENT AND THE LOCATION OF THE DECK ENDS (CENTERLINE OF PROPOSED JOINT). ADDITIONAL MEASUREMENTS SHALL BE TAKEN IF NEEDED IN ACCORDANCE WITH SPECIFICATION FOR "REMOVAL OF EXISTING WEARING SURFACE"

STAGE I: INSPECT CONCRETE

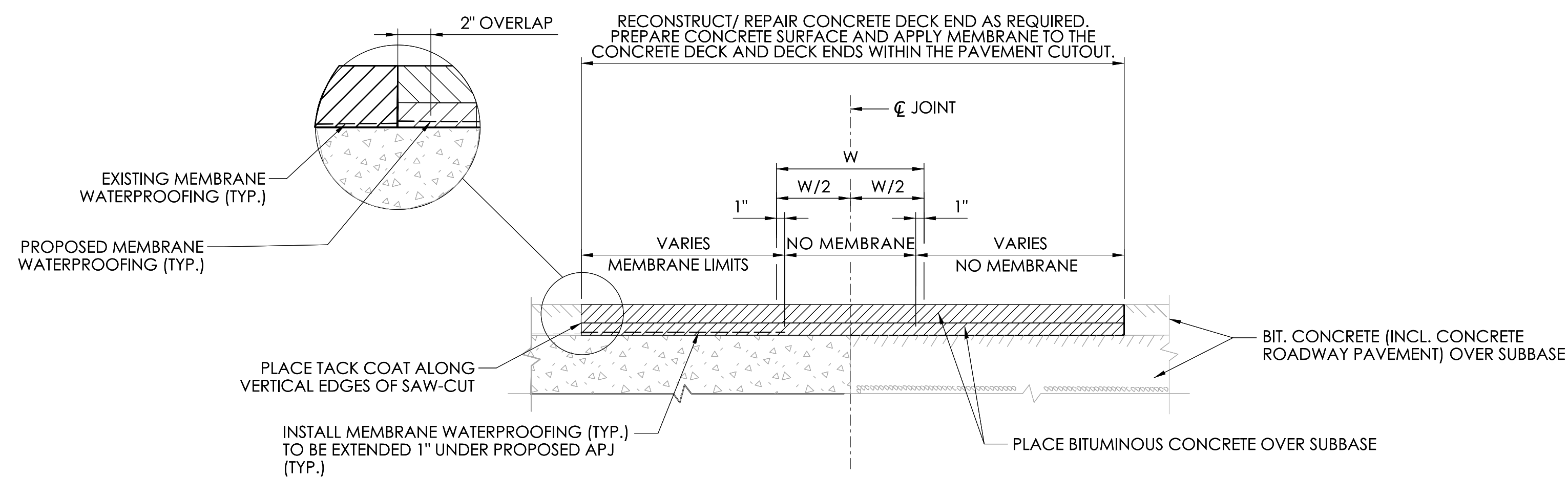
- STEP 1. SAW-CUT THE BITUMINOUS PAVEMENT TO THE LIMITS SHOWN IN DETAIL FOR "JOINT AND PAVEMENT REMOVAL." SAW CUT SHALL NOT DAMAGE THE BRIDGE DECK
- STEP 2. REMOVE THE EXISTING PAVEMENT MATERIAL AND JOINT MATERIAL FULL DEPTH WITHIN THE LIMITS SHOWN. INSPECT DECK WITHIN WORK AREA FOR DETERIORATION
- STEP 3. THE CONTRACTOR SHALL MEASURE AND DOCUMENT THE DECK JOINT GAP OPENING, PARAPET GAP OPENING AND TEMPERATURE AT THE TIME OF MEASUREMENT FOR SIZING OF THE FOAM SUPPORTED GLAND. DOCUMENT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW

STAGE II: RECONSTRUCT AND PROTECT DECK ENDS (WHERE REQUIRED) AND INSTALL MEMBRANE AND WEARING SURFACE

- STEP 1. PROCEED TO STEP 2 IF CONCRETE REPAIRS ARE NOT REQUIRED
REPAIR DETERIORATED CONCRETE AS DETERMINED BY THE ENGINEER
- STEP 2. BLAST CLEAN THE DECK TO PREPARE THE SURFACE FOR INSTALLATION OF MEMBRANE WATERPROOFING
- STEP 3. INSTALL MEMBRANE WATERPROOFING TO THE TOP OF THE DECK AND BACKWALL WITHIN THE LIMITS SHOWN
- STEP 4. PLACE TACK COAT ON VERTICAL EDGES OF PAVEMENT ALONG SAW-CUT LINES AND STAGE CONSTRUCTION SAW-CUT LINES
- STEP 5. PLACE BITUMINOUS CONCRETE OVERLAY AS SHOWN IN THE DETAIL "PLACEMENT OF PAVEMENT IN JOINT CUT-OUT". REFER TO THE NOTES ON THE DRAWING TITLED ASPHALTIC PLUG EXPANSION JOINT - NOTES AND DETAILS FOR INFORMATION REGARDING THE BITUMINOUS CONCRETE OVERLAY COMPOSITION

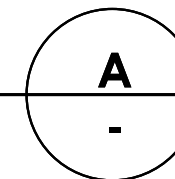
STAGE III: INSTALL ASPHALTIC PLUG EXPANSION JOINT SYSTEM

- STEP 1. SAW-CUT OVERLAY FULL DEPTH TO DELINEATE LIMITS OF APJ AND REMOVE ALL BITUMINOUS CONCRETE OVERLAY BETWEEN SAW-CUTS
- STEP 2. INSTALL PROPOSED ASPHALTIC PLUG EXPANSION JOINT SYSTEM
- STEP 3. PLACE CRACK SEAL AT GUTTER LINE ALONG THE LENGTH OF THE BRIDGE, BOTH SIDES



PLACEMENT OF PAVEMENT IN JOINT CUTOUT
NOT TO SCALE

INSTALLATION OF ASPHALTIC PLUG JOINT WITHOUT BRIDGING PLATE



REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:	
DESIGNER/DRAFTER:	CHECKED BY:

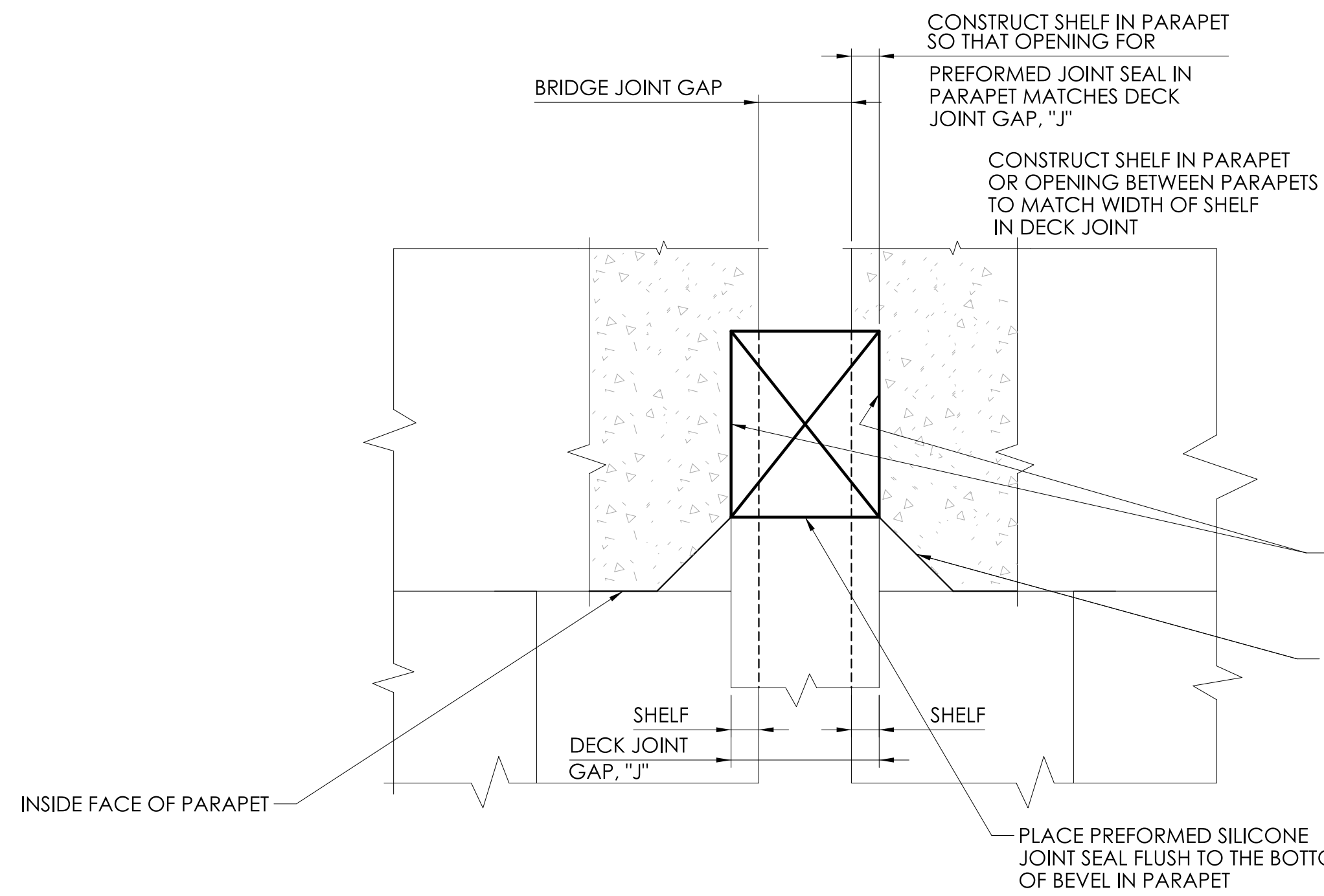


CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:	TEST PROJECT
TOWN(S):	VARIOUS

DRAWING TITLE:	ASPHALTIC PLUG EXPANSION JOINT - SEQUENCE FOR JOINT REPLACEMENT FOR JOINTS BETWEEN BRIDGE DECK AND APPROACH PAVEMENT
PROJECT NO.:	####

DRAWING NO.:	S-XX
SHEET NO.:	



PREFORMED JOINT SEAL SECTION IN PARAPET
SCALE 3" = 1'-0"
3

SELECT AND INSTALL A PREFORMED SILICONE JOINT SEALING SYSTEM FROM THE "JOINT SELECTION TABLE"

DECK JOINT GAP
BITUMINOUS CONCRETE WEARING SURFACE

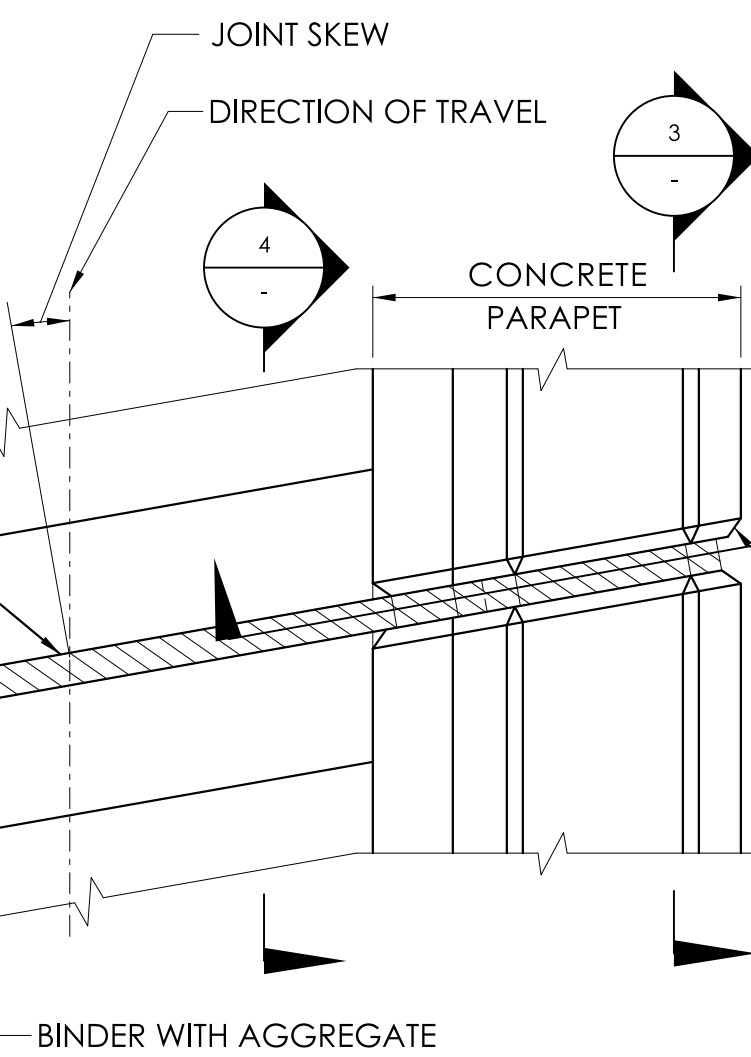
* PREPARE CONCRETE SURFACES TO RECEIVE GLAND
1" X 1" BEVEL ABOVE TOP OF WEARING SURFACE (TYP.)

NOTE: SHELF IN DECKS AND PARAPET ONLY REQUIRED FOR NEW SUPERSTRUCTURES. SHELF NOT REQUIRED FOR EXISTING DECKS AND RECONSTRUCTED DECK ENDS

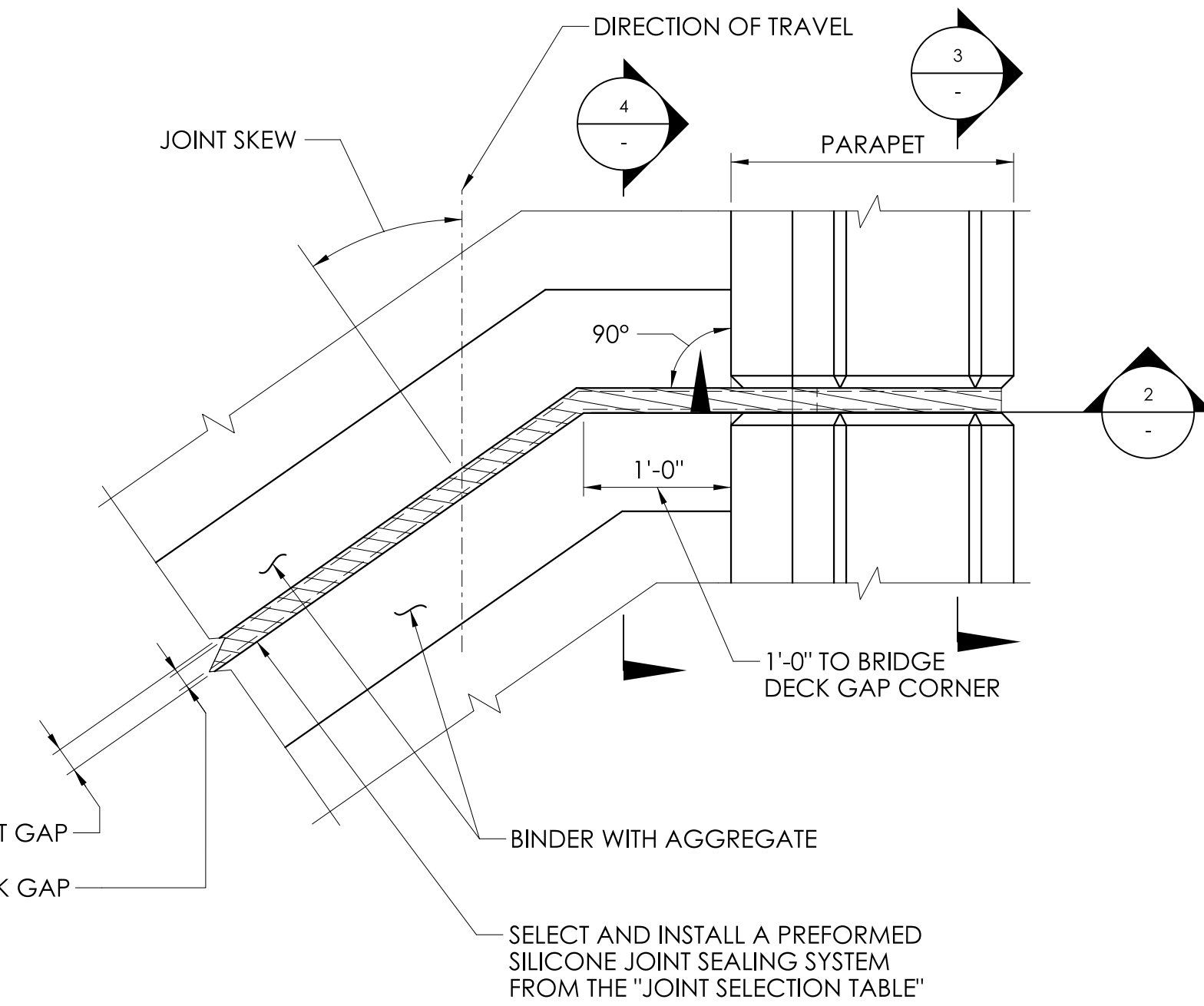
* NOTE: CONCRETE SURFACES TO WHICH SEALING GLANDS WILL BE BONDED SHALL BE PREPARED IN ACCORDANCE WITH ICRI CONCRETE SURFACE PROFILE IS CSP2 (GRINDING), BUT CSP3 (LIGHT ABRASIVE BLAST) IS PREFERRED. THE GLAND SHALL NOT BE INSTALLED UNTIL THE SURFACE IS CLEAN, DRY AND ACCEPTED BY THE ENGINEER.

JOINT SKEW ≤ 20°
SCALE 1" = 1'-0"

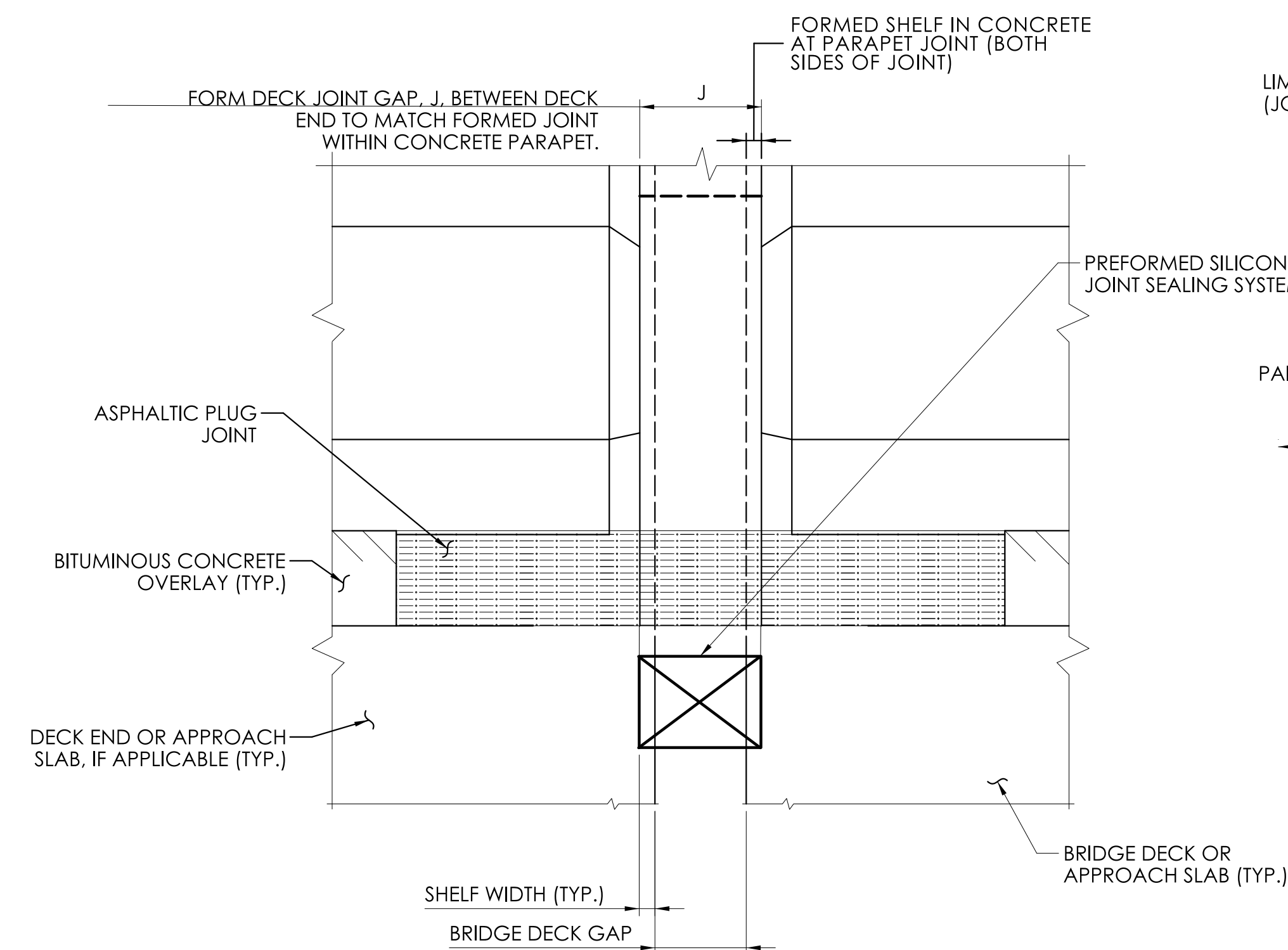
1" X 1" BEVEL



JOINT TREATMENT AT PARAPET FOR VARIOUS SKEWS



JOINT SKEW > 20°
SCALE 1" = 1'-0"



PREFORMED SILICONE JOINT SEALING SYSTEM SECTION AT CURB
SCALE 3" = 1'-0"
4

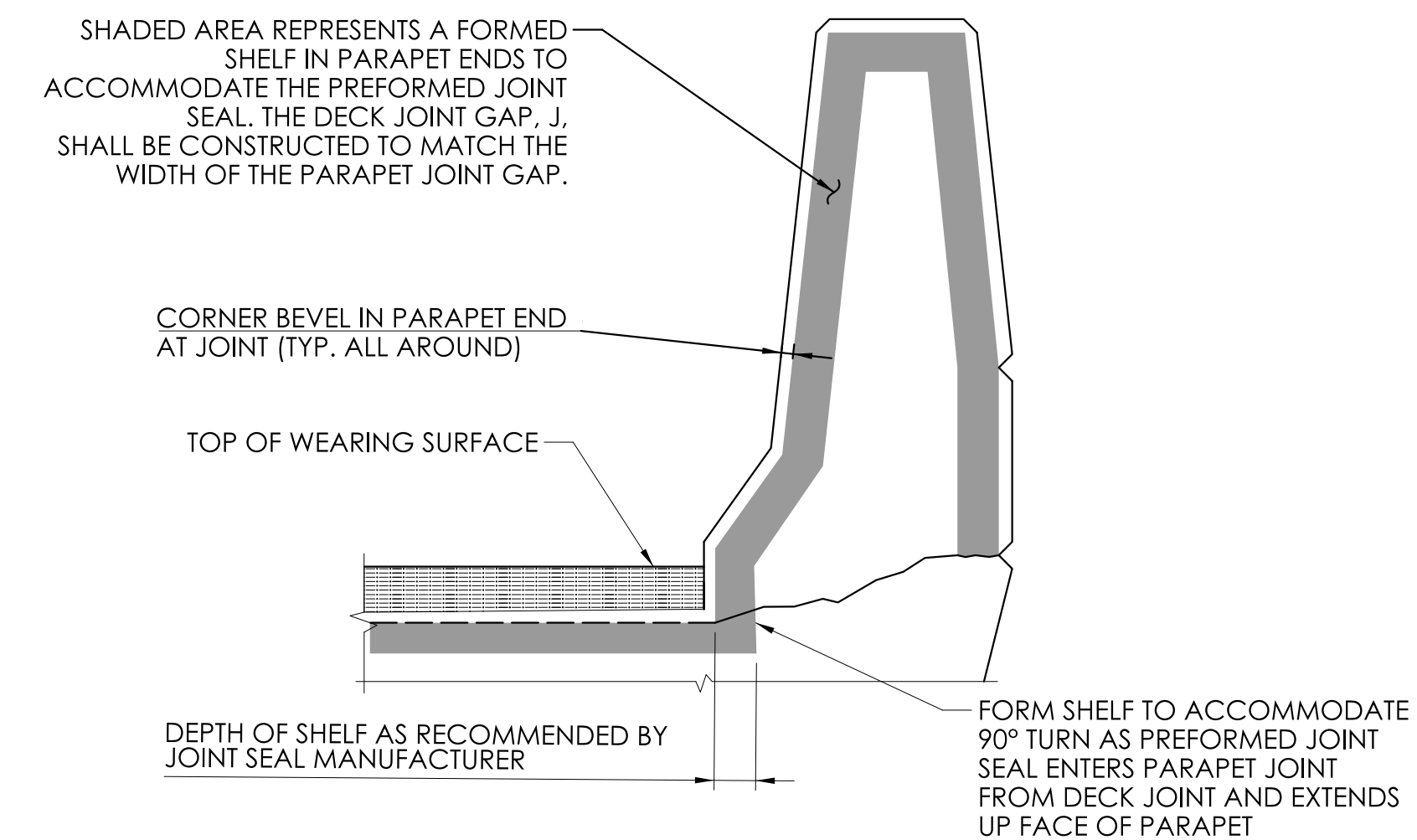
LIMITS OF PREFABRICATED JOINT SEAL ASSEMBLY (JOINT SEAL TO BE CONTINUOUS BETWEEN DECK AND PARAPET)

TOP OF PREFORMED SILICONE JOINT SEALING SYSTEM
TOP OF ASPHALTIC PLUG JOINT
PAINTED LANE LINE
LIMITS OF FIELD-INSTALLED PREFORMED JOINT SEAL
FIELD SPLICE

DECK AND PARAPET GLAND PLACEMENT
2A

AT CURBS, SIDEWALKS, AND RAILINGS, SPLICE AT ANGLE POINTS (CHANGES IN DIRECTION) IN THE FOAM SUPPORTED SILICONE GLAND SHALL BE PREFABRICATED IN THE SHOP OR THE FIELD PRIOR TO THE INSTALLATION OF THE GLAND IN THE OPEN JOINT EXCEPT FOR THE SPLICE AT THE TOP REAR FACE OF A PARAPET THE JOINT SEAL WHICH MAY BE SPLICED DURING FIELD INSTALLATION.

ALLOWING A FIELD SPLICE DURING THE INSTALLATION OF THE GLAND AT THE REAR FACE OF THE PARAPET COULD FACILITATE INSTALLATION, ESPECIALLY IN A REHAB SITUATION.

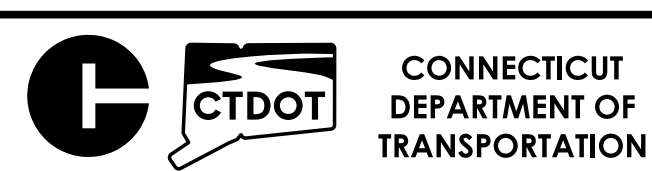


FORMING CONCRETE DECK AND PARAPET AT BRIDGE JOINT
2B

SECTION THROUGH PARAPET
SCALE 1" = 1'-0"
2

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
DESIGNER/DRAFTER: _____ CHECKED BY: _____

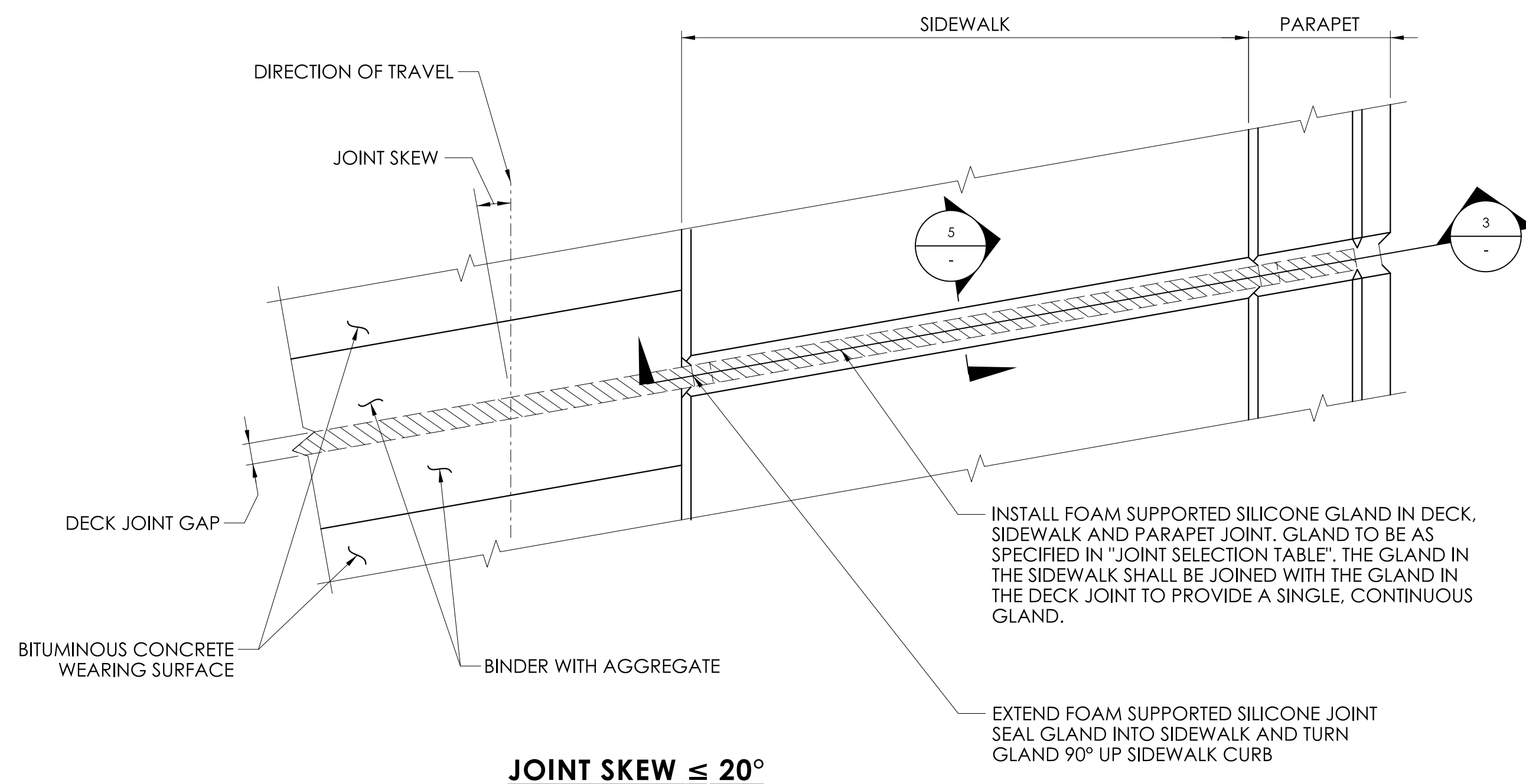


PROJECT TITLE: **TEST PROJECT**

TOWN(S): **VARIOUS**

DRAWING TITLE: **ASPHALTIC PLUG EXPANSION JOINT - PARAPET PLANS, SECTIONS AND DETAILS - NEW CONSTRUCTION**

PROJECT NO.: **####**
DRAWING NO.: **S-XX**
SHEET NO.: _____

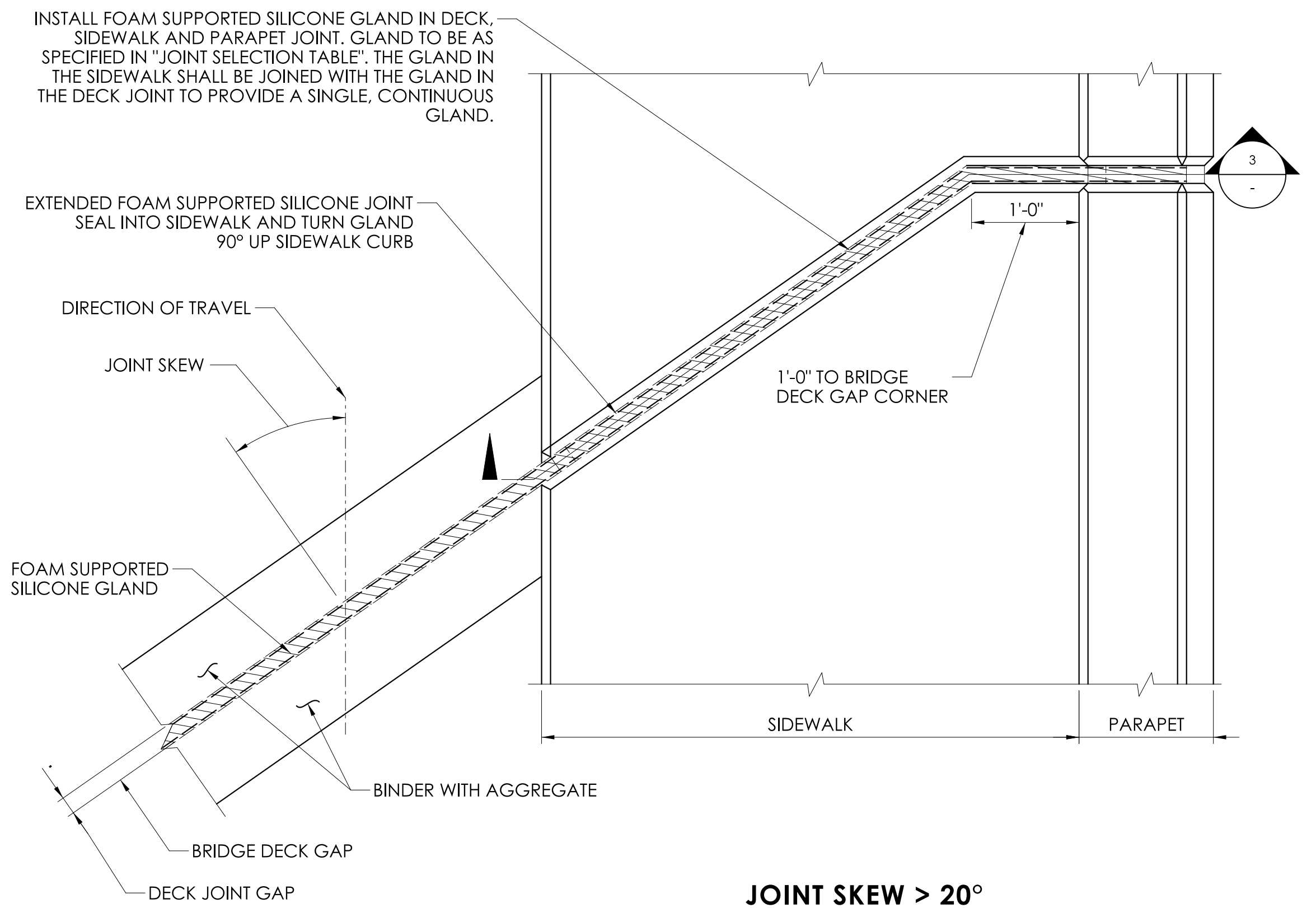


NOTE:
SHELF IN DECKS AND PARAPET ONLY REQUIRED FOR NEW SUPERSTRUCTURES. SHELF NOT REQUIRED FOR EXISTING DECKS AND RECONSTRUCTED DECK ENDS

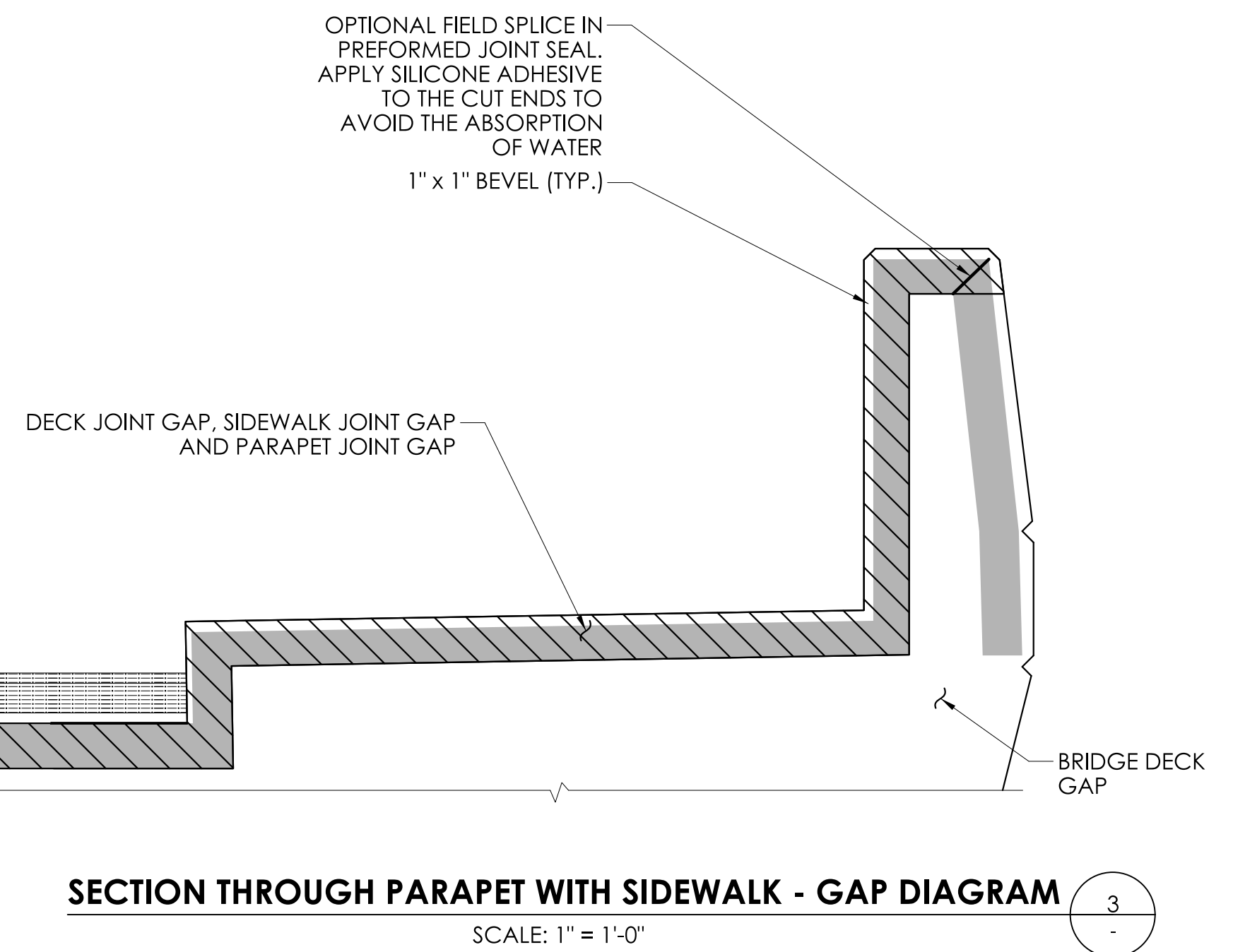
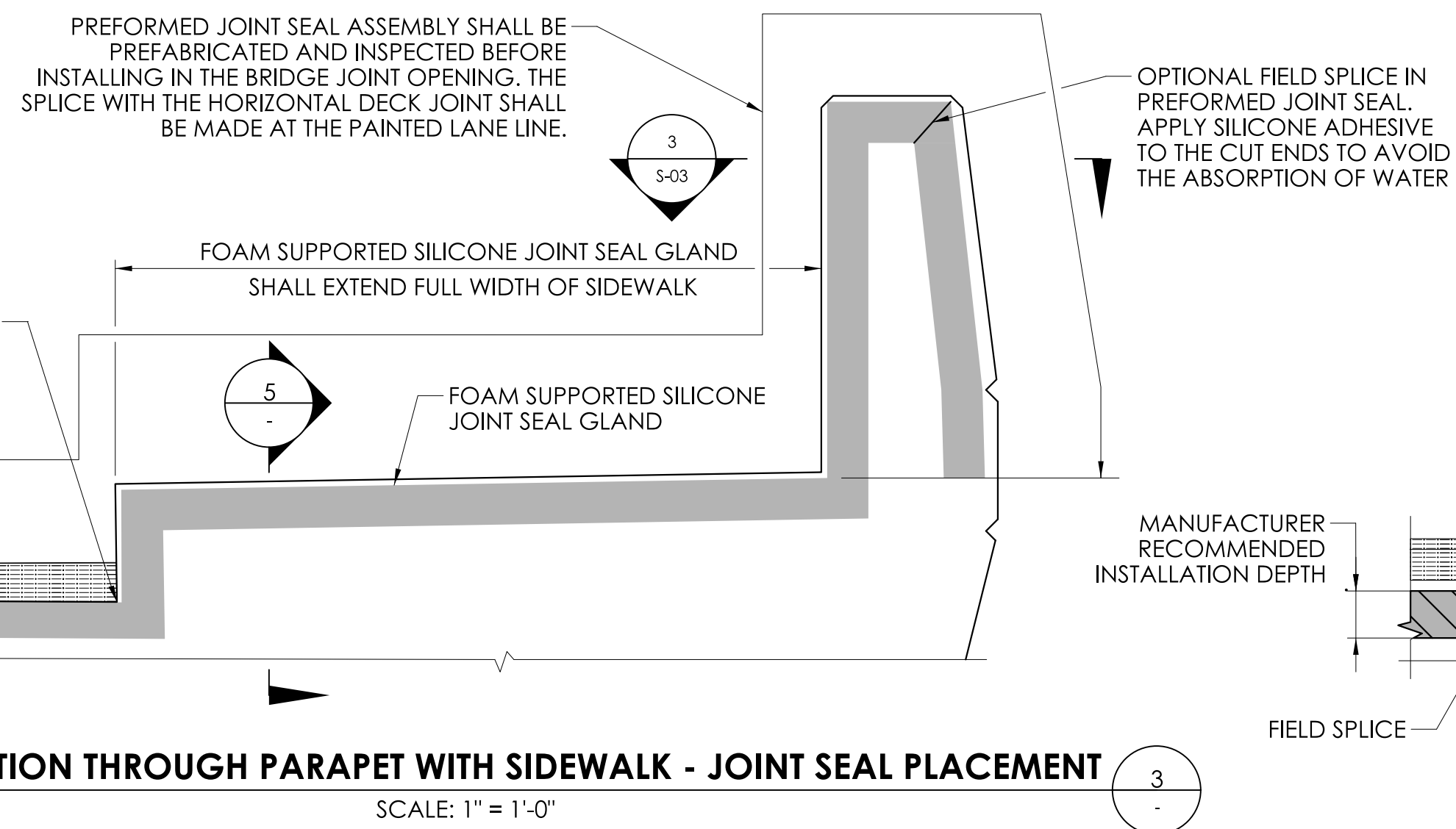
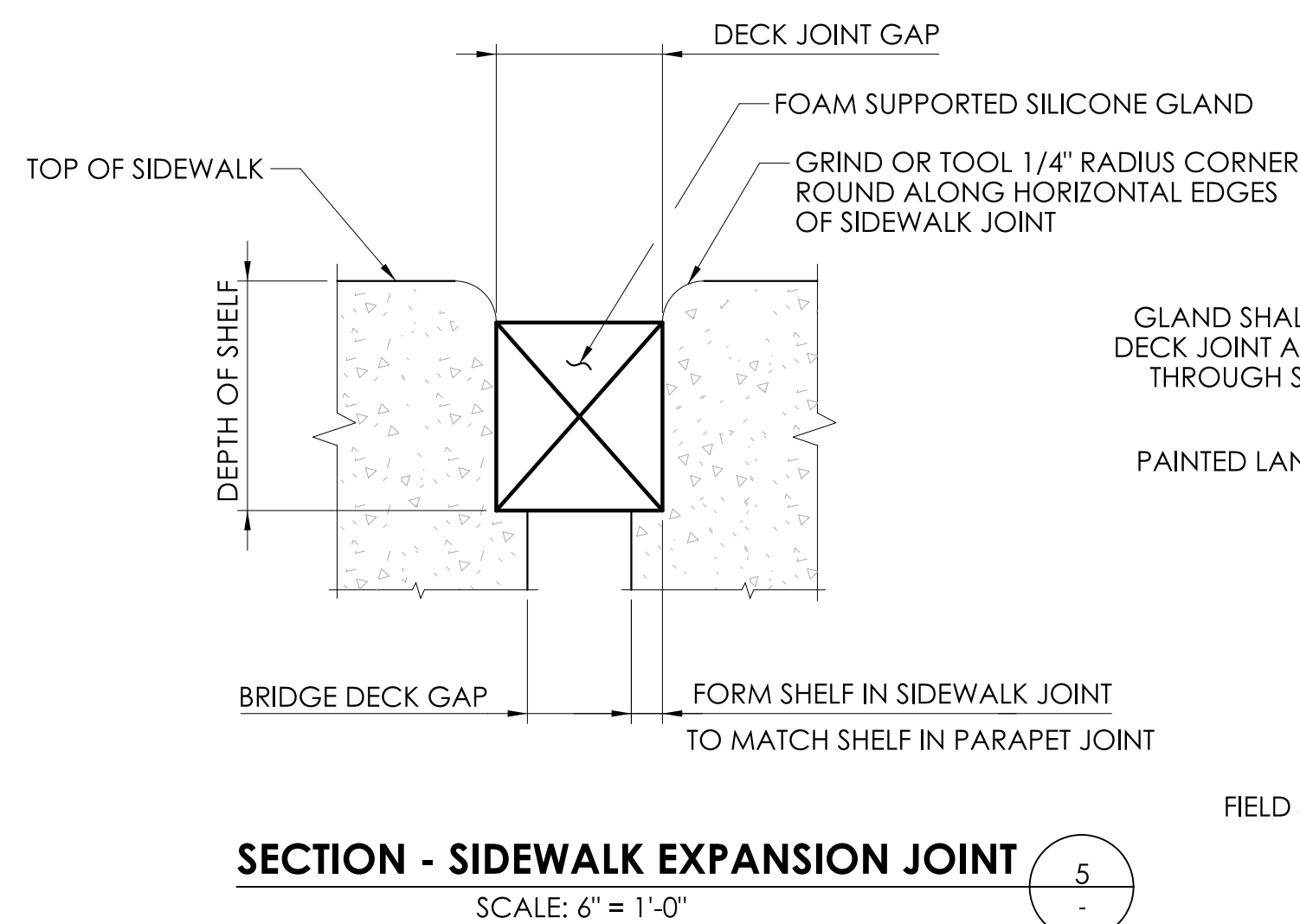
NOTE:
CONCRETE SURFACES TO WHICH SEALING GLANDS WILL BE BONDED SHALL BE PREPARED IN ACCORDANCE WITH ICRI CONCRETE SURFACE PROFILE IS CSP2 (GRINDING), BUT CSP3 (LIGHT ABRASIVE BLAST) IS PREFERRED. THE GLAND SHALL NOT BE INSTALLED UNTIL THE SURFACE IS CLEAN, DRY AND ACCEPTED BY THE ENGINEER.

PLAN - EXPANSION JOINT AT SIDEWALKS

SCALE: 1" = 1'-0"



JOINT SKEW > 20°



NOTE: THE PREFORMED JOINT SEAL IN THE SIDEWALK AND PARAPET SHALL BE PREFABRICATED OUTSIDE OF THE JOINT. THE PREFABRICATED JOINT ASSEMBLY MAY BE INSTALLED AFTER IT HAS BEEN ACCEPTED BY THE DEPARTMENT. THE PREFABRICATED ASSEMBLY SHALL BE FIELD-SPLICED TO THE DECK JOINT AT THE PAINTED LANE LINE.

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
DESIGNER/DRAFTER: _____ CHECKED BY: _____

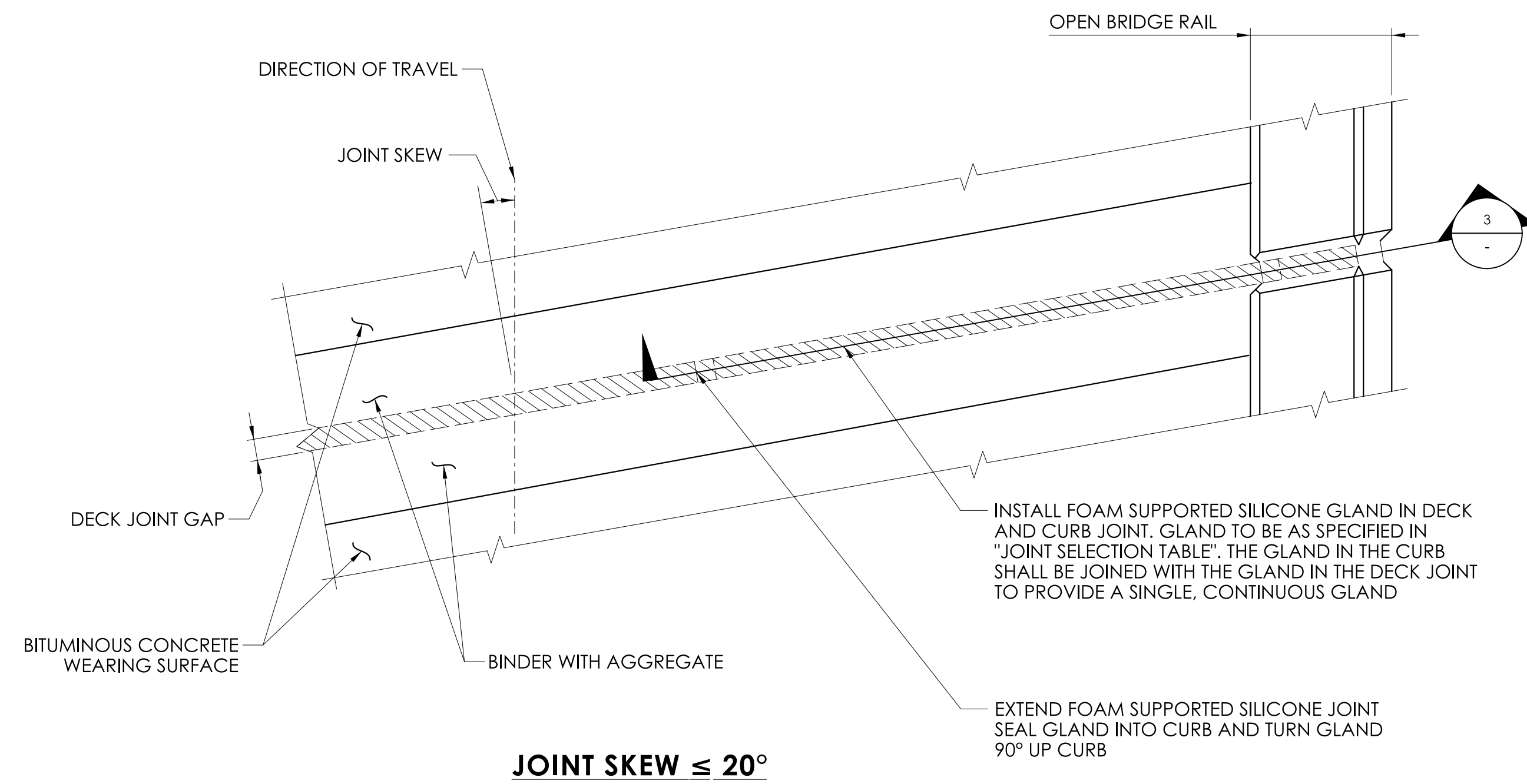


PROJECT TITLE: **TEST PROJECT**

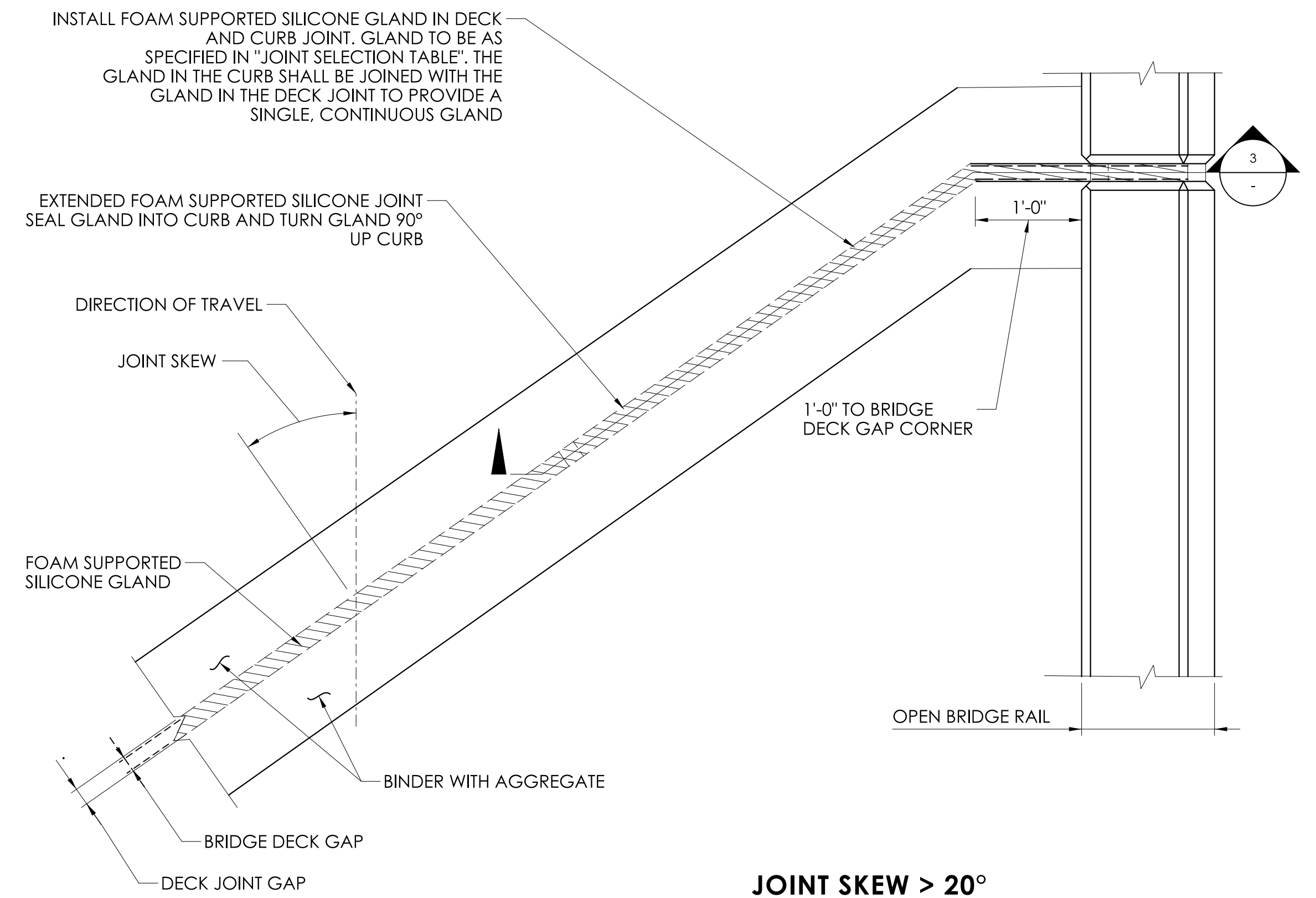
TOWN(S): **VARIOUS**

DRAWING TITLE: **ASPHALTIC PLUG EXPANSION JOINT - SIDEWALK PLANS, SECTIONS AND DETAILS - NEW CONSTRUCTION**

PROJECT NO.: **####**
DRAWING NO.: **S-XX**
SHEET NO.: _____



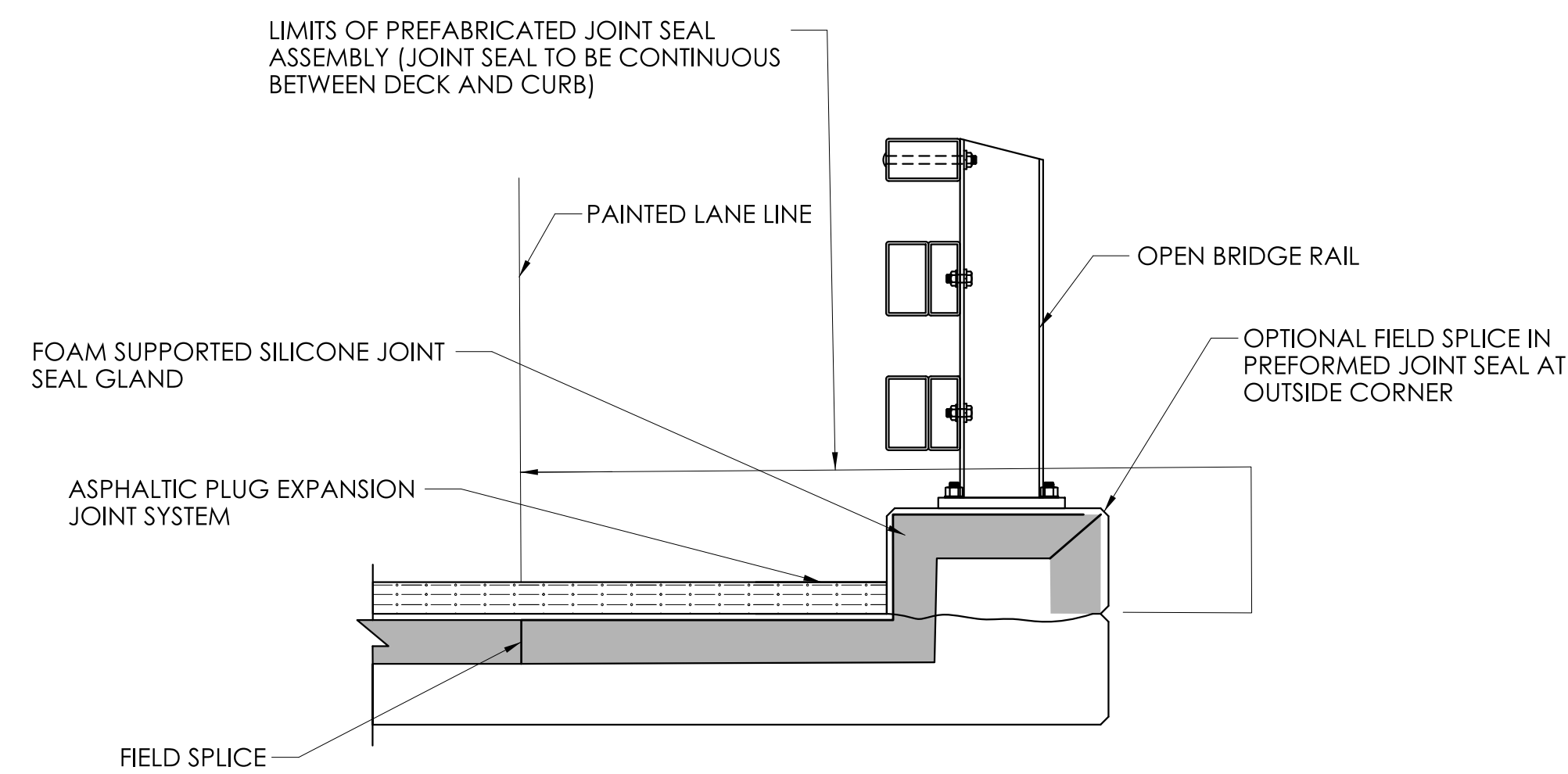
JOINT SKEW ≤ 20°



JOINT SKEW > 20°

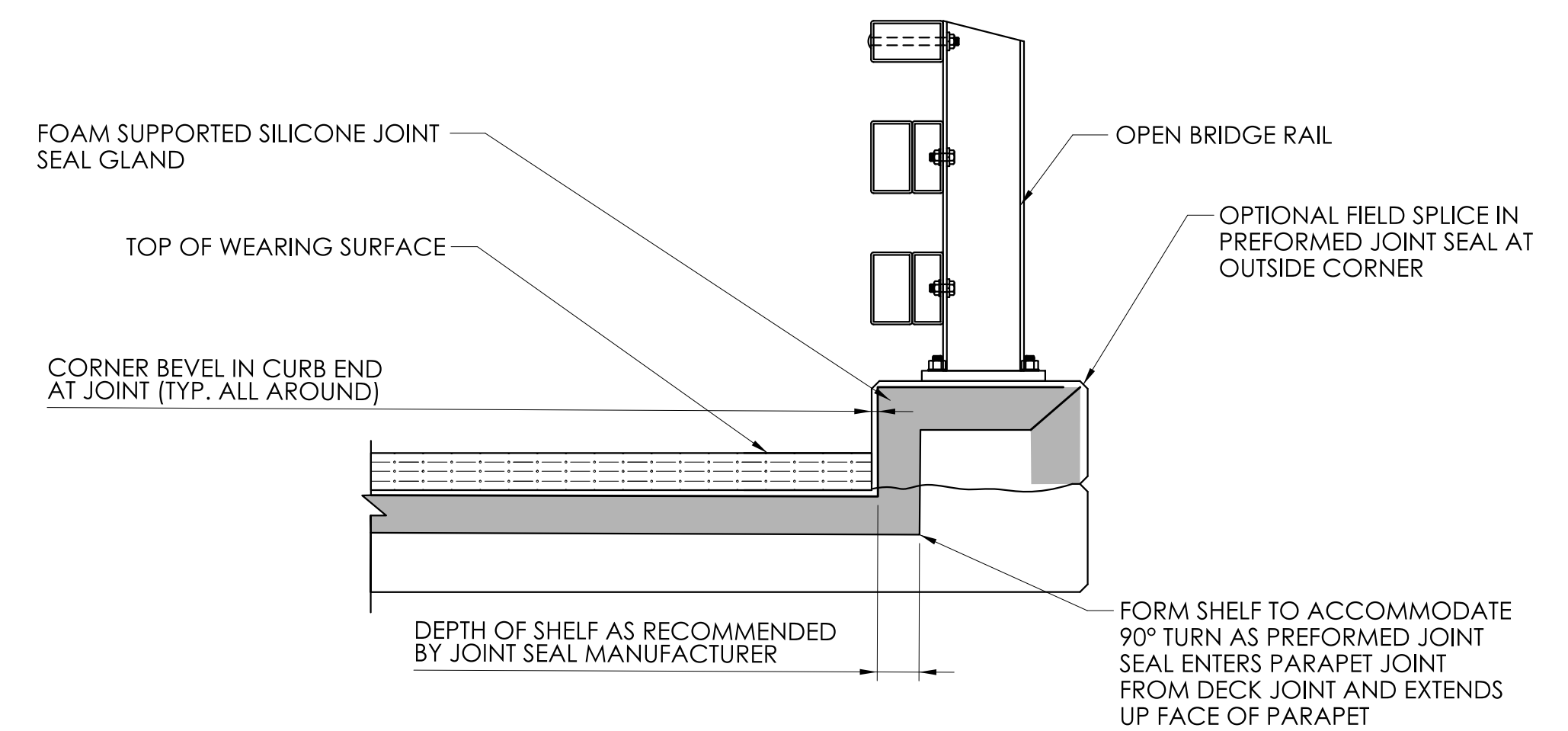
PLAN - EXPANSION JOINT AT SIDEWALKS

SCALE: 1" = 1'-0"



DECK AND CURB GLAND PLACEMENT

NOT TO SCALE



FORMING CONCRETE DECK AND CURB AT BRIDGE JOINT

NOT TO SCALE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
 DESIGNER/DRAFTER: _____ CHECKED BY: _____



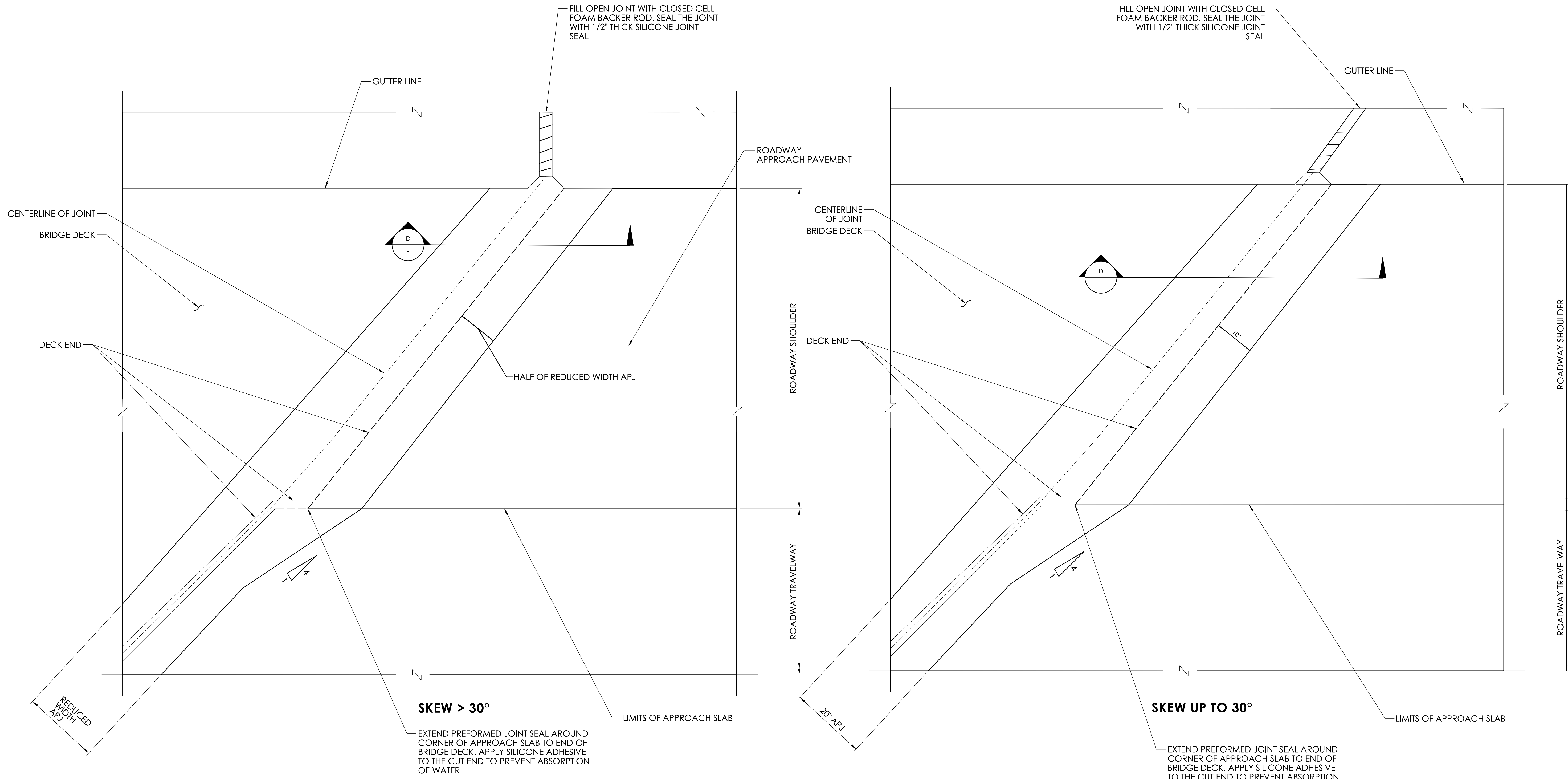
PROJECT TITLE: **TEST PROJECT**

TOWN(S): **VARIOUS**

DRAWING TITLE: **ASPHALTIC PLUG EXPANSION JOINT - OPEN BRIDGE RAIL SYSTEM JOINT PLANS, SECTIONS AND DETAILS - NEW CONSTRUCTION**

PROJECT NO.: **####**

DRAWING NO.: **S-XX**
 SHEET NO.: _____



PLAN- APJ WHEN APPROACH SLAB IS ONLY IN TRAVELWAY
NOT TO SCALE

THESE DETAILS APPLY WHERE ALL OF THE FOLLOWING ARE TRUE:
 THERE IS AN APPROACH SLAB IN THE TRAVEL WAY
 THERE IS NO APPROACH SLAB IN THE SHOULDER
 THE DECK END IN THE TRAVELWAY IS OFFSET FROM THE DECK END IN THE SHOULDER

REV.	DATE	REVISION DESCRIPTION

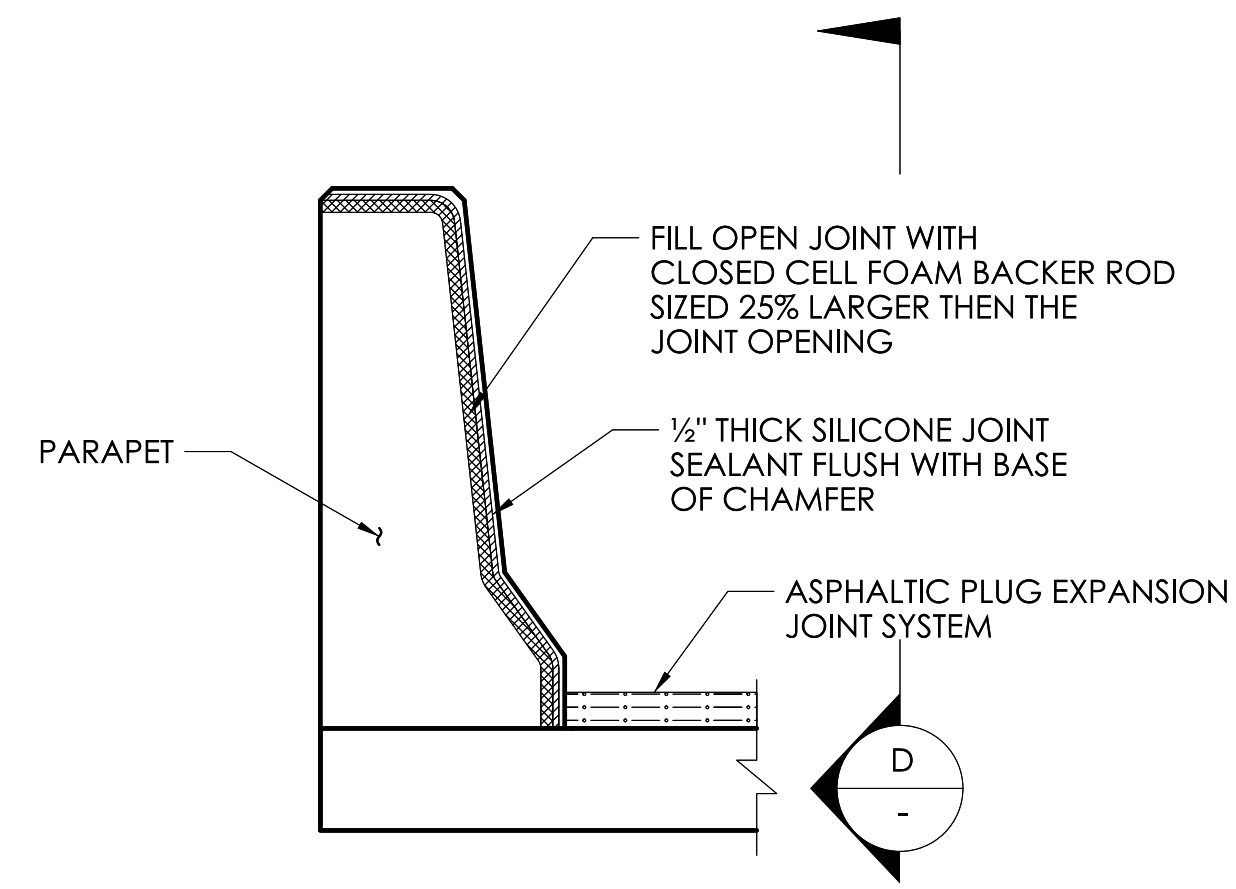
SIGNATURE BLOCK:
 DESIGNER/DRAFTER: _____ CHECKED BY: _____



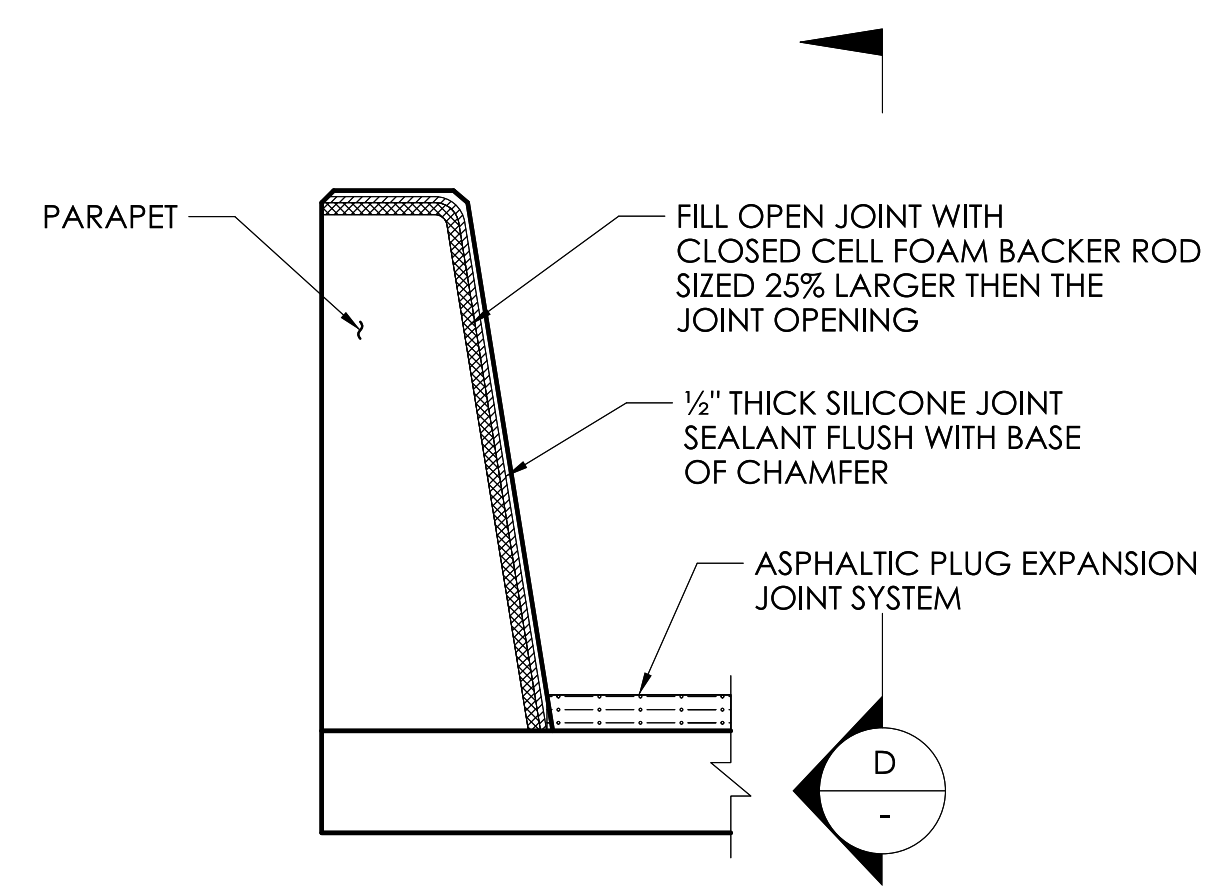
PROJECT TITLE: **TEST PROJECT**
 TOWN(S): **VARIOUS**

DRAWING TITLE: **ASPHALTIC PLUG EXPANSION JOINT -
 DETAILS WHEN APPROACH SLAB IS NOT
 FULL WIDTH**

PROJECT NO.: **####**
 DRAWING NO.: **S-XX**
 SHEET NO.: _____



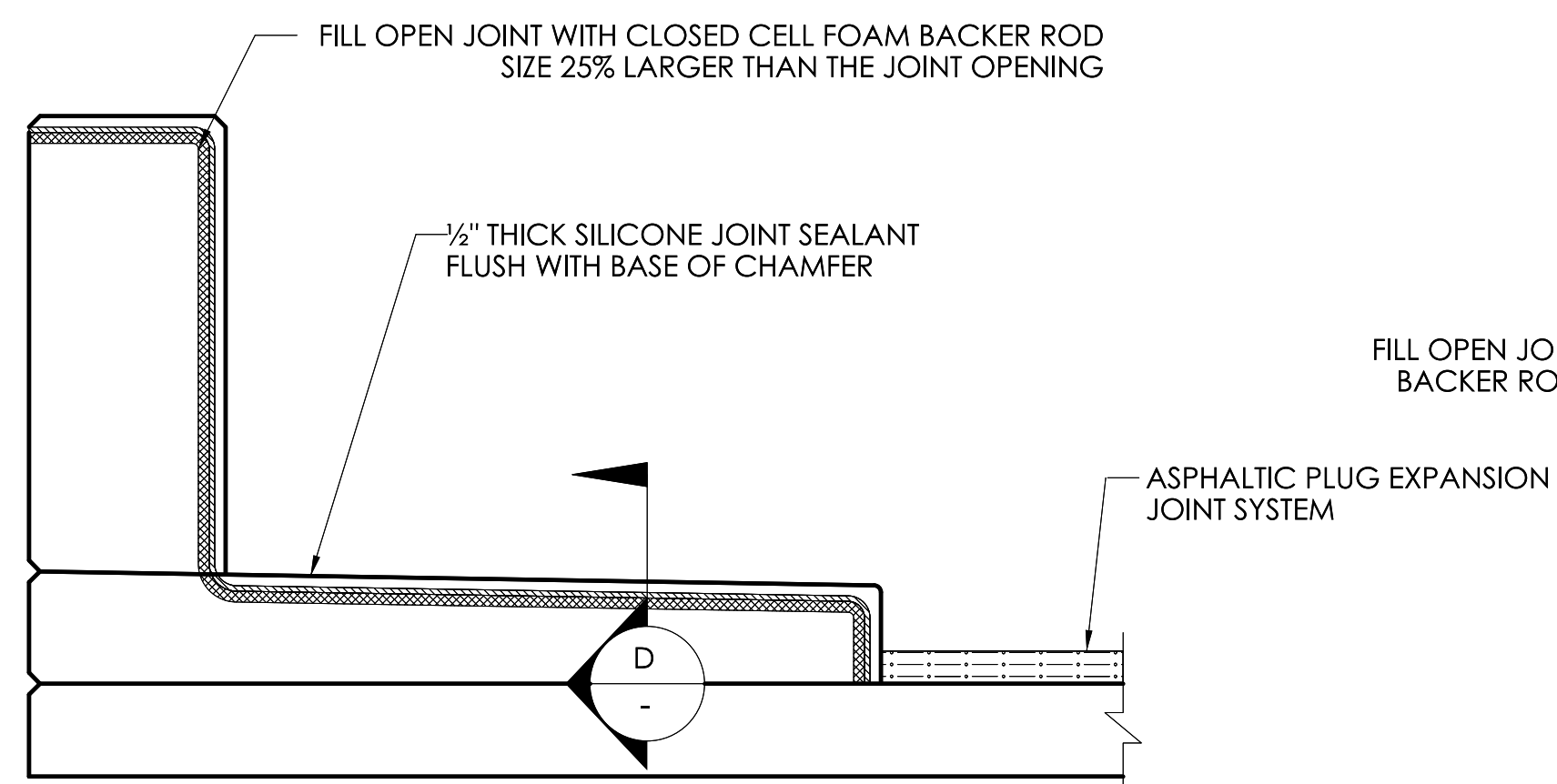
F-SHAPE



SINGLE SLOPE

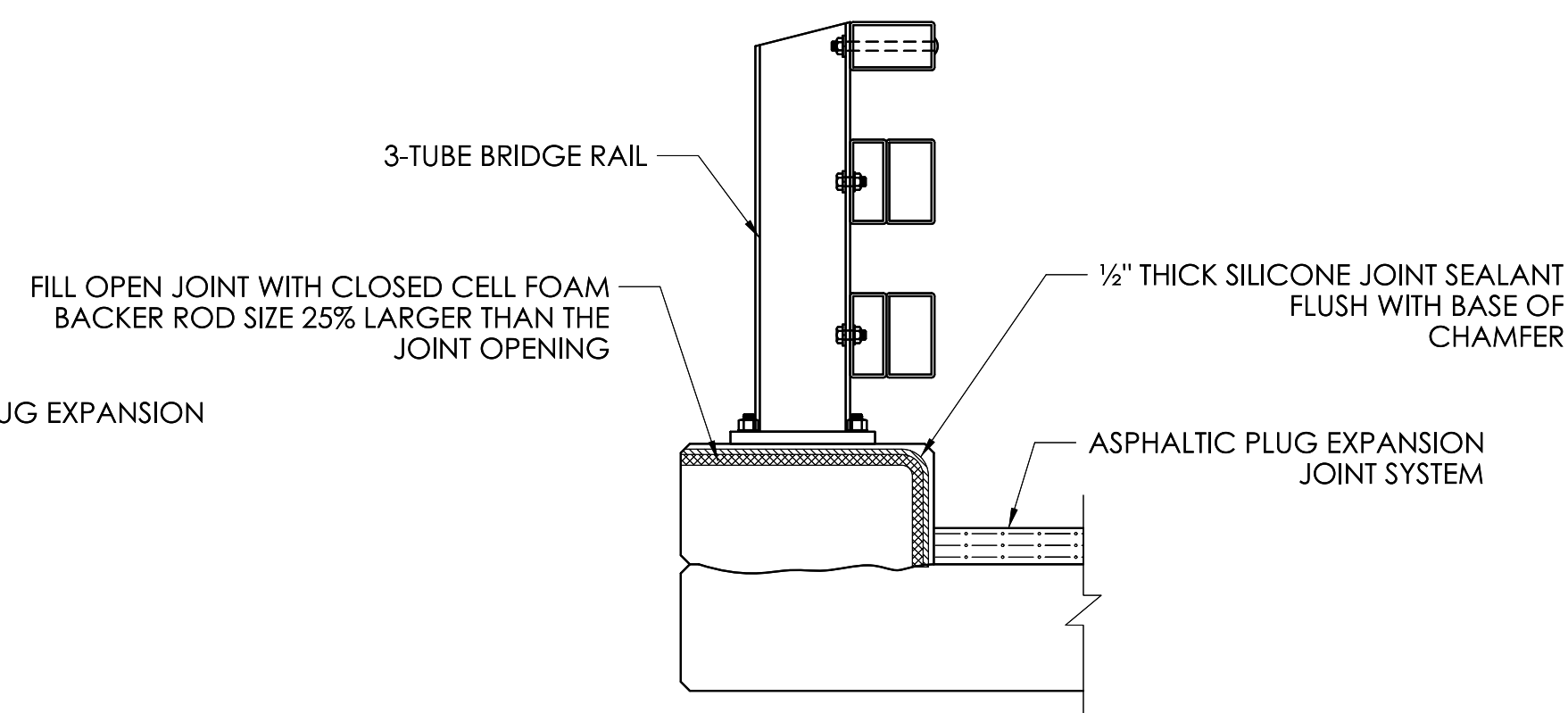
SECTION - PARAPET JOINT AT FILLED WINGWALL JOINT

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



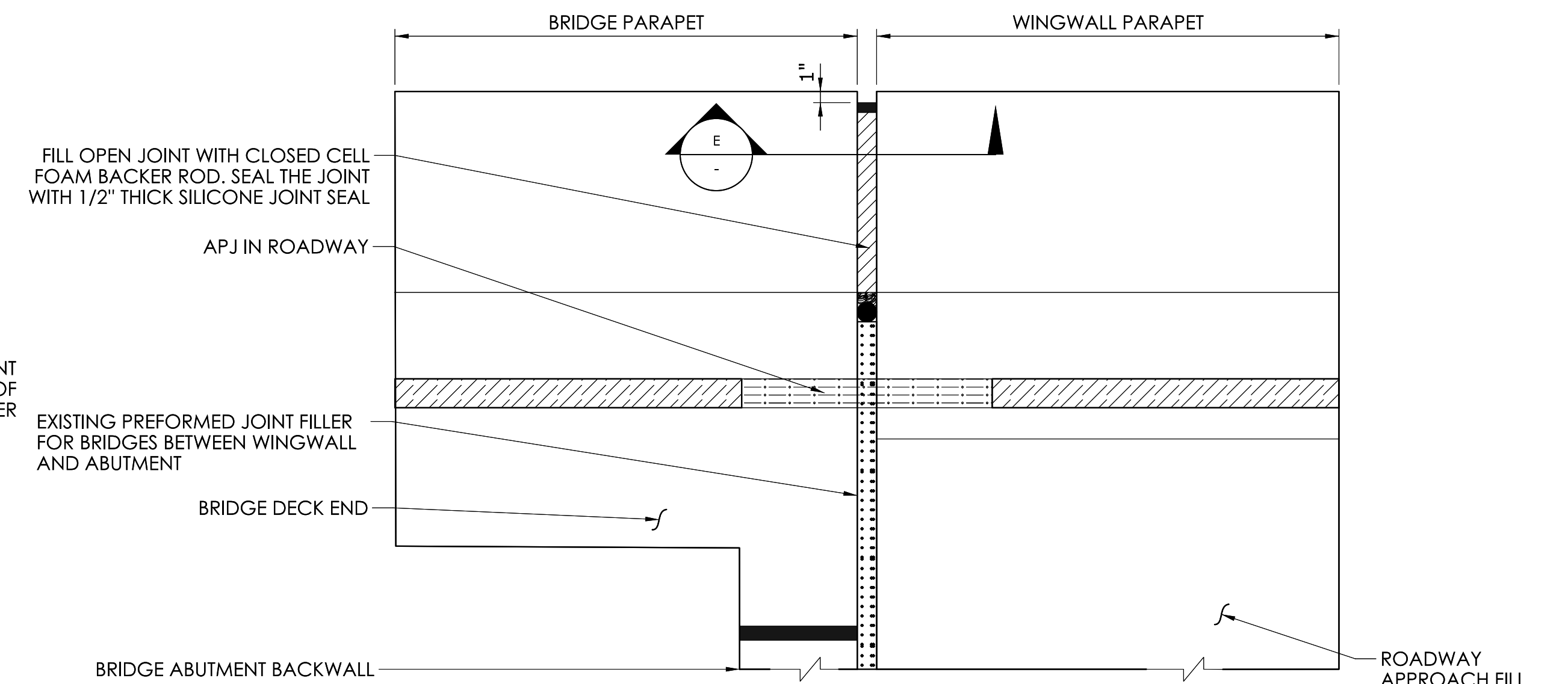
**JOINT TREATMENT AT SIDEWALK
(SIMILAR DETAILS APPLY AT RAISED CONCRETE MEDIANS)**

NOT TO SCALE



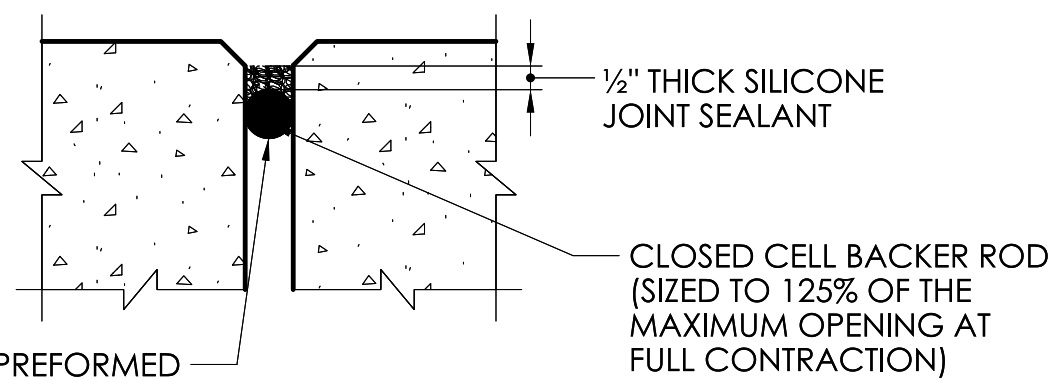
**JOINT TREATMENT AT
3-TUBE BRIDGE RAIL**

NOT TO SCALE



**PARAPET ELEVATION-JOINT
AT DECK END**

NOT TO SCALE



SECTION THROUGH MEDIAN/SHOULDER BARRIER JOINT

NOT TO SCALE

**PARAPET JOINT SEAL:
JOINT TREATMENT AT PARAPET FOR APJ BRIDGES
WITHOUT FOAM SUPPORTED GLAND IN PARAPET**

NOTE:

PRIOR TO INSTALLING THE NEW BACKER ROD AND SILICONE JOINT SEALANT, REMOVE EXISTING JOINT MATERIAL. CLEAN JOINT SIDES BY SANDBLASTING. DUST SHALL BE REMOVED BY THE METHOD APPROVED BY THE ENGINEER. THIS WORK WILL BE PAID FOR UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:	
DESIGNER/DRAFTER:	CHECKED BY:



**CONNECTICUT
DEPARTMENT OF
TRANSPORTATION**

PROJECT TITLE:	TOWN(S):
TEST PROJECT	VARIOUS

DRAWING TITLE:	PROJECT NO.:
ASPHALTIC PLUG EXPANSION JOINT - JOINT TREATMENT AT PARAPET FOR ALL APJ BRIDGES WITHOUT FOAM SUPPORTED GLAND IN PARAPET	####

DRAWING NO.:
S-XX
SHEET NO.: