

04 - STRUCTURES INDEX OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE
S-001	INDEX OF DRAWINGS
S-002	BRIDGE DETAILS AND INFORMATION TABLE
S-003	ASPHALTIC PLUG JOINT DETAILS
S-004	PARAPET JOINT DETAILS

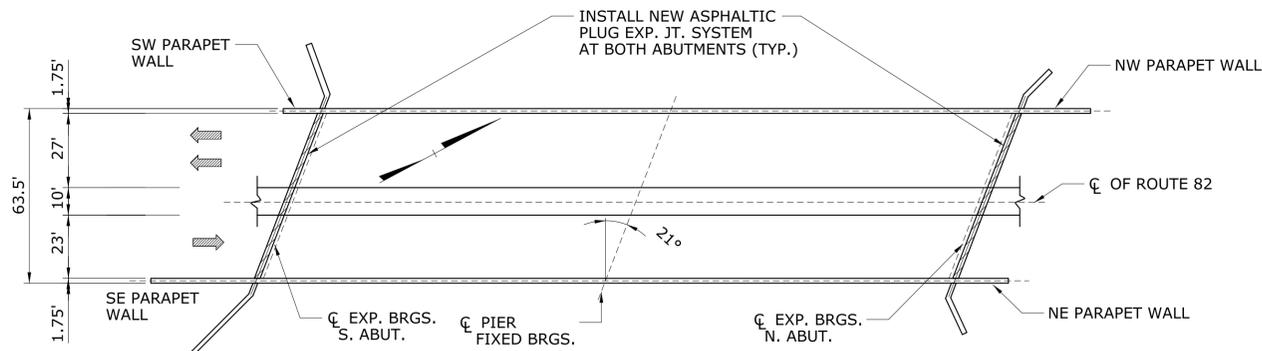
BRIDGE NO.	CROSSING	TOWN
01682	ROUTE 82 OVER ROUTE 9	CHESTER
01683	ROUTE 82 OVER RUTH HILL ROAD & ROARING BROOK	HADDAM

NOTE : FOR BRIDGE LOCATIONS, SEE HIGHWAY PLANS.

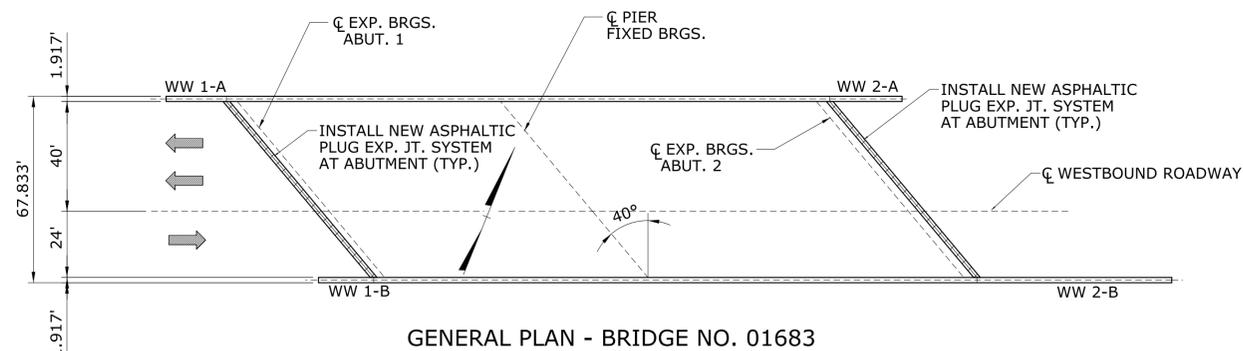
THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

TRANSPORTATION PRINCIPAL ENGINEER

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 5/19/2014	DESIGNER/DRAFTER: SAB/JWP CHECKED BY: SAB/KVB SCALE AS NOTED	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION <small>Filename: ...00260125_SB_S-02.dgn</small>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: PAVEMENT PRESERVATION ON ROUTE 82	TOWN: CHESTER & HADDAM DRAWING TITLE: STRUCTURES INDEX OF DRAWINGS	PROJECT NO. 26-125 DRAWING NO. S-01 SHEET NO. 04.01
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GENERAL PLAN - BRIDGE NO. 01682
(ROUTE 82 OVER ROUTE 9)
NOT TO SCALE



GENERAL PLAN - BRIDGE NO. 01683
(ROUTE 82 OVER RUTH HILL ROAD & ROARING BROOK)
NOT TO SCALE

BRIDGE INFORMATION FOR REPLACEMENT OF EXISTING EXPANSION JOINTS					
		BRIDGE NO.			
		01682		01683	
BRIDGE INFORMATION AND GEOMETRY	MILE POINT	0.42		2.17	
	NO. OF TRAVEL LANES	WB	EB	WB	EB
		2	1	2	1
	CURB-TO-CURB WIDTH	50'		64'	
	SKEW (DEG)	21°		40°	
	THERMAL MOVEMENT RANGE (IN.)	1 1/5"		1 1/8"	
JOINT REPLACEMENT DETAIL	ABUTMENT NO. 1	DETAIL A		DETAIL A	
	ABUTMENT NO. 2	DETAIL A		DETAIL A	
	PARAPET	WB	EB	WB	EB
		DETAIL B	DETAIL B	DETAIL B	DETAIL B
	MEDIAN	DETAIL B		N/A	
ASSOCIATED WORK	MEMBRANE ONE SIDE OR BOTH SIDES OF APJ	ONE		ONE	
	FINE MILLING DEPTH	1.5"		1.5"	
	HMA S0.5 DEPTH	1.5"		1.5"	

DETAIL A IS ON DRAWING NO. S-3
DETAIL B IS ON DRAWING NO. S-4

ASPHALTIC PLUG EXPANSION JOINT SYSTEM NOTES

- NO BRIDGING PLATE SHALL BE USED AT THE FOLLOWING LOCATIONS:
 - JOINT BETWEEN A DECK END AND A CONCRETE APPROACH PAVEMENT
 - WHERE A BRIDGE DECK END MEETS A BITUMINOUS APPROACH PAVEMENT
- SAW-CUTS MADE 3' EACH SIDE OF CENTERLINE OF JOINT WILL BE PAID AS "CUT BITUMINOUS CONCRETE PAVEMENT".
- THE REMOVAL OF ALL EXISTING JOINT SYSTEMS AND BITUMINOUS CONCRETE WITHIN THE LIMITS SHOWN TO BE INCLUDED FOR PAYMENT UNDER THE ITEM "REMOVAL OF HMA WEARING SURFACE".
- INSTALLATION OF MEMBRANE WITHIN THE LIMITS SHOWN TO BE PAID UNDER THE ITEM, "MEMBRANE WATERPROOFING (SHEET) (TORCH APPLIED)".
- CRACK SEALANT PLACED ALONG VERTICAL FACES OF THE SAW-CUT PAVEMENT TO BE PAID UNDER THE ITEM, "JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT".
- THE FURNISHING AND PLACING OF HMA S0.5 TO BE INCLUDED FOR PAYMENT UNDER THE ITEM "HMA S0.5".
- SAW-CUTTING AND REMOVAL OF PAVEMENT FOR JOINT INSTALLATION TO BE INCLUDED FOR PAYMENT UNDER THE ITEM, "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
- CLOSED CELL BACKER ROD DIAMETER SHALL BE DETERMINED AFTER MEASURING THE JOINT OPENING. THE ROD SHALL BE 25% LARGER THAN THE JOINT OPENING.
- ASPHALTIC PLUG EXPANSION JOINT SYSTEMS MAY BE INSTALLED ONLY WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE SPECIAL PROVISION "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". REFERENCE TABLE D FOR "BRIDGE SUPERSTRUCTURE SURFACE TEMPERATURE" RANGE IN THE SPECIAL PROVISION
- EXPLORATION OF PAVEMENT THICKNESS AND JOINT LOCATION TO BE INCLUDED IN THE GENERAL COST OF THE ITEM "REMOVAL OF HMA WEARING SURFACE".
- LOAD RESTRICTIONS: SEE "NOTICE TO CONTRACTOR - CONSTRUCTION VEHICLE RESTRICTIONS"

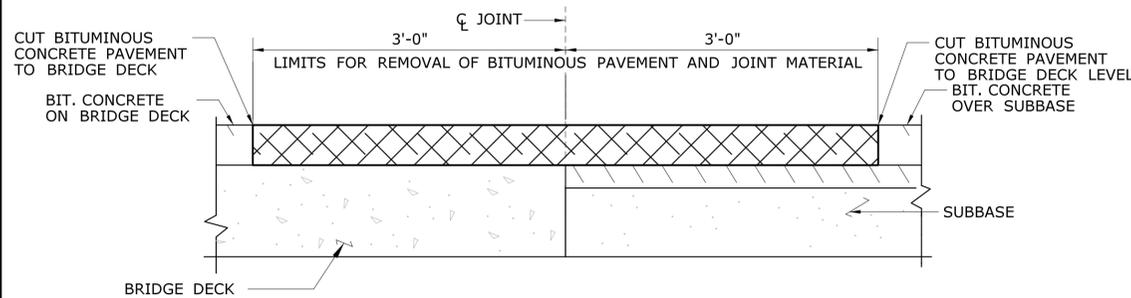
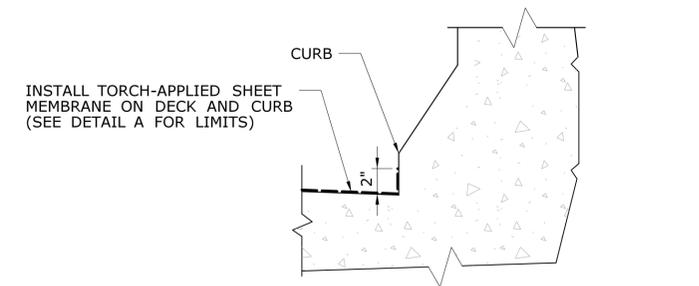
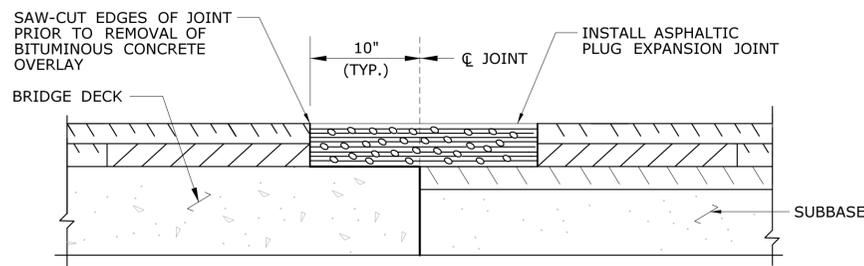
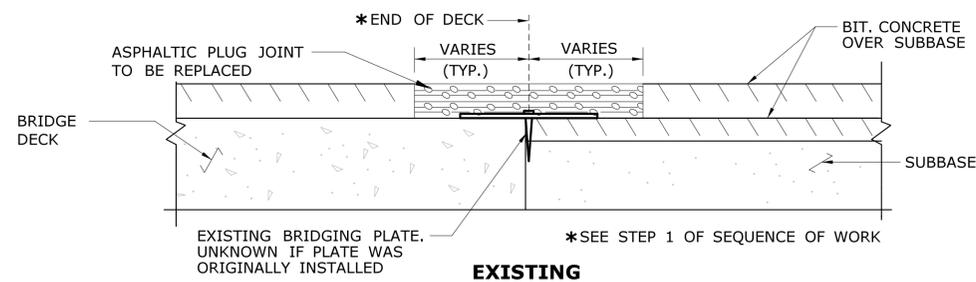
QUANTITIES		
ITEM	UNIT	AMOUNT
ASPHALTIC PLUG EXPANSION JOINT SYSTEM	C.F.	207
REMOVAL OF HMA WEARING SURFACE	S.Y.	153
CUT BITUMINOUS CONCRETE PAVEMENT	L.F.	240
MEMBRANE WATERPROOFING (SHEET) (TORCH-APPLIED)	S.Y.	57
JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT	L.F.	228
HMA S0.5	TON	28

PAVEMENT REPLACEMENT AT ASPHALTIC PLUG JOINTS (APJ):

- THE REQUIREMENTS OF SPECIAL PROVISION SECTION 4.06 SHALL BE MET EXCEPT IN LIEU OF DENSITY TESTING, THE METHODS DESCRIBED BELOW SHALL BE FOLLOWED TO ASSURE PROPER COMPACTION.
- TOP LIFT MUST BE UNIFORM THICKNESS; INTERMEDIATE LIFTS CAN BE PLACED AT 1 1/4" TO 2 1/2" COMPACTED.
- REQUIREMENTS FOR PROPER COMPACTION:
 - MINIMUM 265°F DELIVERY TEMPERATURE OF MATERIAL. PLACE AND SPREAD MATERIAL BEFORE IT COOLS TO 260° F. MATERIAL NOT PLACED BEFORE FALLING BELOW TEMPERATURE REQUIREMENT WILL BE REJECTED.
 - COMPACT NON-SURFACE LIFTS WITH VIBRATORY PLATE COMPACTOR MEETING THE FOLLOWING REQUIREMENTS:
 - SHALL BE DESIGNED TO COMPACT BITUMINOUS CONCRETE
 - SHALL BE EQUIPPED WITH A WATER TANK
 - MINIMUM CENTRIFUGAL FORCE OF 3200 LBS
 - MAXIMUM CENTRIFUGAL FORCE OF 6000 LBS
 - WEIGH A MINIMUM OF 160 LBS (WITHOUT WATER)
 - MINIMUM 4400 VIBRATIONS PER MINUTE
 - COMPACT TOP LIFT WITH 3 1/2 TO 4 1/2 TON DOUBLE DRUM ROLLER, DESIGNED TO COMPACT BITUMINOUS CONCRETE.
 - PROVIDE NUMBER OF PASSES BASED ON LIFT THICKNESS AS FOLLOW:

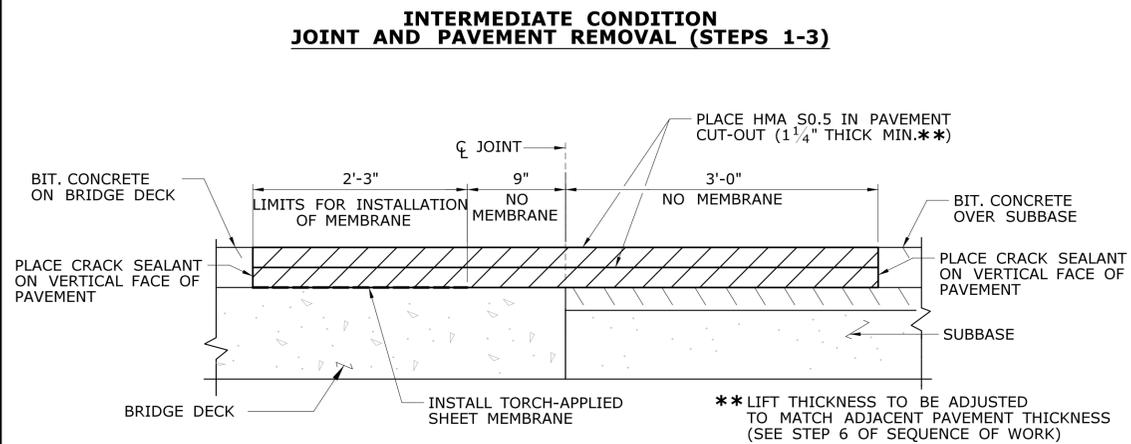
LIFT THICKNESS (INCHES)	NUMBER OF PASSES
1 1/4 TO 1 1/2	8
1 1/2 TO 2	10
2 TO 2 1/2	12
- THE CONTRACTOR SHALL USE THE NUMBER OF COMPACTION EQUIPMENT NECESSARY TO COMPLETE THE PROCEDURE AS REQUIRED.
- CORNERS OR OTHER AREAS INACCESSIBLE TO PLATE TAMPER SHALL BE COMPACTED WITH A HAND TAMPER (APPROVED FOR USE BY THE ENGINEER) A MINIMUM OF 20 TIMES BEFORE MATERIAL COOLS TO 180°F.
- THE CONTRACTOR MAY REQUEST TO USE ALTERNATE EQUIPMENT BY SUBMITTING A SUPPLEMENT TO THEIR QC PLAN. THE EQUIPMENT AND PROCEDURES MUST BE APPROVED BY THE ENGINEER PRIOR TO USE.
- IF THESE METHODS ARE NOT PERFORMED TO THE SATISFACTION OF THE ENGINEER, DENSITY VERIFICATION WILL BE REQUIRED BY EITHER THE USE OF A CALIBRATED QUALITY CONTROL NUCLEAR DENSITY GAUGE SUPPLIED BY THE CONTRACTOR AND OPERATED BY A QUALIFIED TECHNICIAN OR BY CORE SAMPLES TAKEN AS SPECIFIED IN SECTION 4.06, AT THE OPTION OF THE ENGINEER.

DESIGNER/DRAFTER: SAB/JWP	CHECKED BY: SAB	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY:	PROJECT TITLE: PAVEMENT PRESERVATION ON ROUTE 82	TOWN: CHESTER & HADDAM DRAWING TITLE: BRIDGE DETAILS AND INFORMATION TABLE	PROJECT NO. 26-125 DRAWING NO. S-02 SHEET NO. 04.02
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		SCALE AS NOTED	Filename: ...100260125_SB_S-02.dgn			
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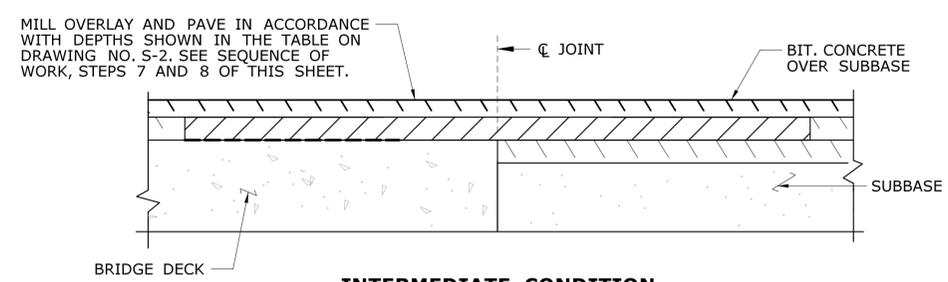
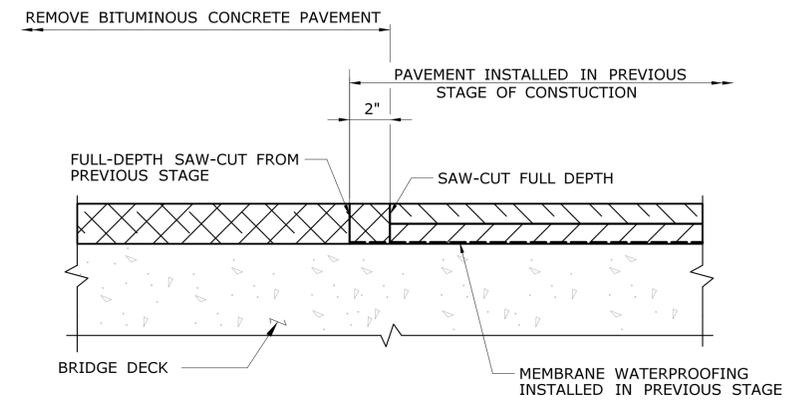
FINAL CONDITION (STEPS 9 & 10)

SECTION AT GUTTERLINE AT PAVEMENT CUT OUT

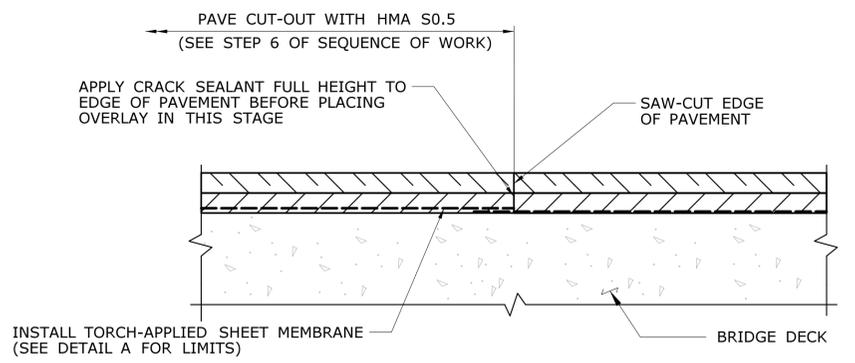


SEQUENCE OF WORK

- STEP 1: CONTRACTOR SHALL PERFORM AN EXPLORATION AT THE ROADWAY CENTERLINE TO DETERMINE THE DEPTH OF PAVEMENT AND THE LOCATION OF THE DECK END (CENTERLINE OF PROPOSED JOINT) BEFORE PROCEEDING TO STEP 2.
- STEP 2: SAW-CUT BITUMINOUS PAVEMENT ON BOTH SIDES OF EXISTING JOINT FOR PAVEMENT CUT-OUT. EACH SAW CUT LINE SHALL BE 3' FROM THE CENTERLINE OF THE EXISTING JOINT. SAW-CUT SHALL NOT DAMAGE EXISTING DECK.
- STEP 3: REMOVE EXISTING PAVEMENT MATERIAL AND JOINT MATERIAL WITHIN THE LIMITS SHOWN.
- STEP 4: INSTALL MEMBRANE TO THE TOP OF DECK WITHIN THE LIMITS SHOWN.
- STEP 5: PLACE CRACK SEALANT ON VERTICAL EDGE OF PAVEMENT ALONG SAW-CUT LINES.
- STEP 6: PLACE HMA S0.5 IN THE JOINT CUTOUT. REFER TO SHEET S-02 FOR THE REQUIREMENTS OF PAVEMENT REPLACEMENT AT ASPHALTIC PLUG JOINTS (APJ)
- STEP 7: MILL ROADWAY AND BRIDGE PAVEMENT TO SPECIFIED DEPTHS.
- STEP 8: PAVE TOP COURSE ON ROADWAY AND BRIDGE.
- STEP 9: CUT PAVEMENT FULL DEPTH, 10" EACH SIDE OF CENTER OF JOINT, AND REMOVE ALL PAVEMENT MATERIAL BETWEEN SAW-CUTS.
- STEP 10: INSTALL PROPOSED ASPHALTIC PLUG EXPANSION SYSTEM.



SECTION - INITIAL LONGITUDINAL STAGE CONSTRUCTION JOINT IN PAVEMENT CUTOUT

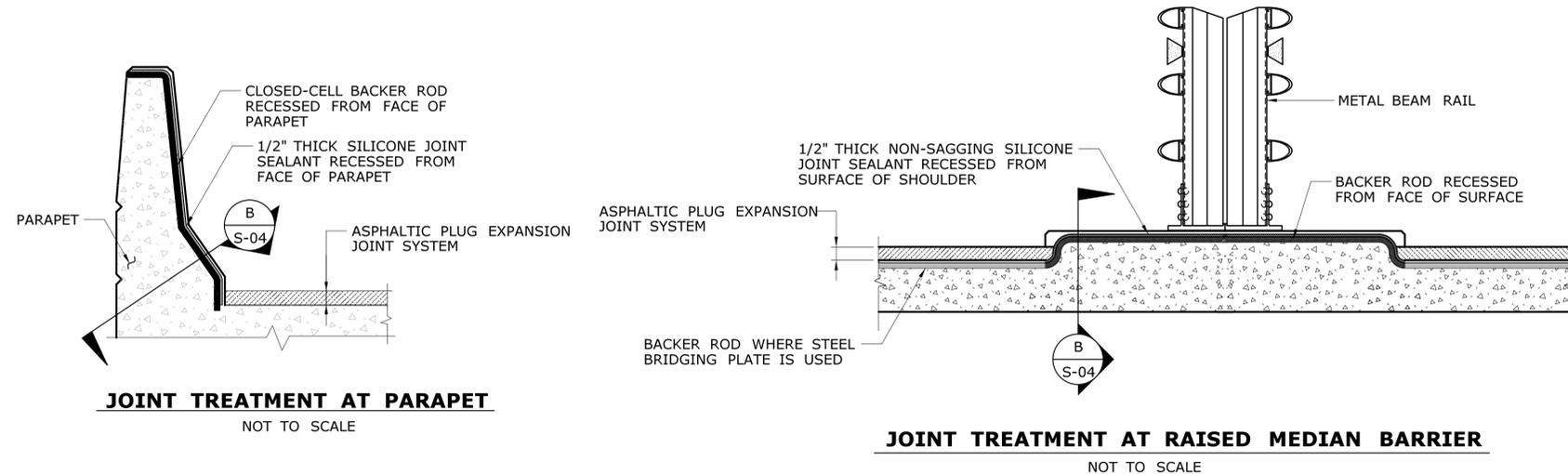


SECTION - FINAL LONGITUDINAL STAGE CONSTRUCTION JOINT IN PAVEMENT CUTOUT

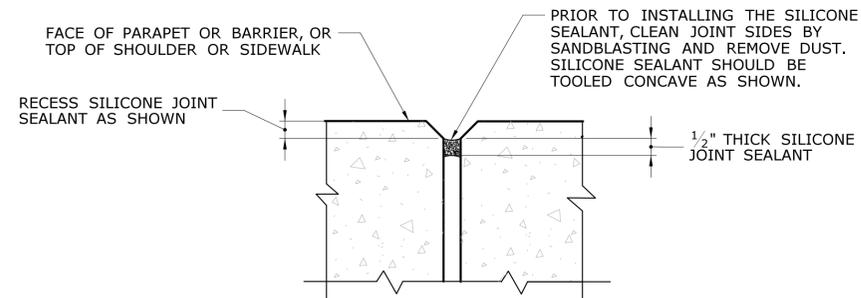
DETAIL A - PROPOSED ASPHALTIC PLUG JOINT WITHOUT BRIDGING PLATE

N.T.S.

DESIGNER/DRAFTER: SAB/JWP	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: PAVEMENT PRESERVATION ON ROUTE 82	TOWN: CHESTER & HADDAM	PROJECT NO. 26-125
CHECKED BY: SAB		APPROVED BY: 	DRAWING TITLE: ASPHALTIC PLUG JOINT DETAILS	DRAWING NO. S-03	SHEET NO. 04.03
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 5/19/2014	SCALE AS NOTED	Filename: ...00260125_SB_S-02.dgn



SILICONE JOINT SEALANT AND BACKER ROD DETAILS



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".

SECTION THROUGH PARAPET OR MEDIAN BARRIER JOINT **B S-04**
 NOT TO SCALE

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CHECKED BY: SAB	SCALE AS NOTED	APPROVED BY: 		DRAWING TITLE: PARAPET JOINT DETAILS		DRAWING NO. S-04	
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