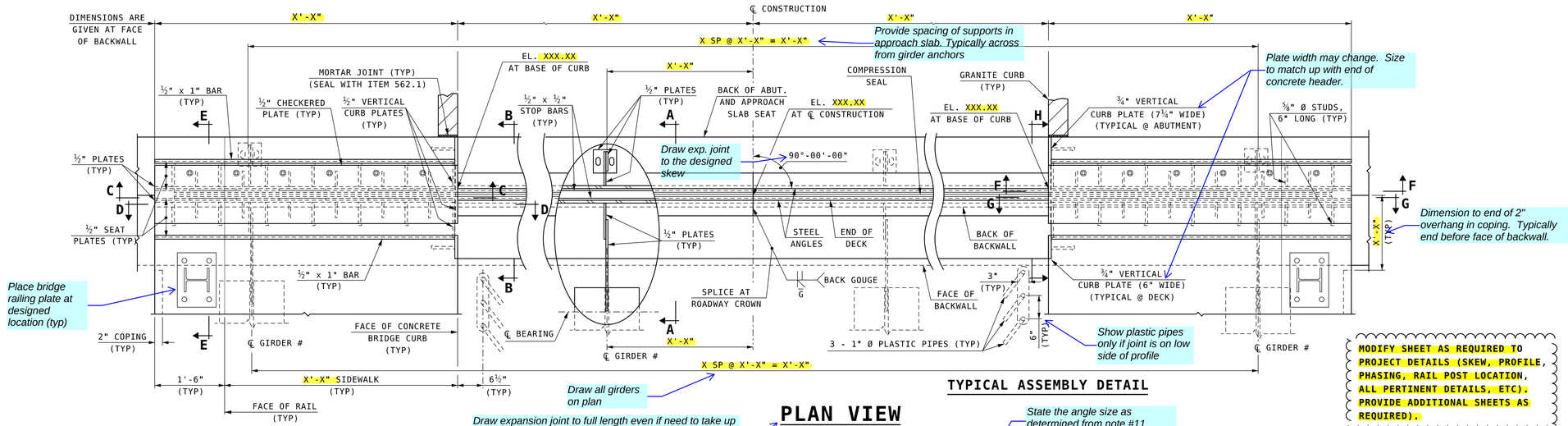


TYPICAL ASSEMBLY DETAIL

PLAN VIEW

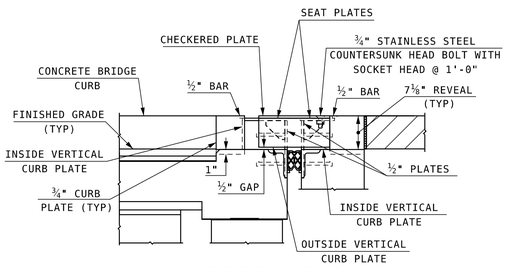
SCALE: ¾" = 1'-0"

Draw expansion joint to full length even if need to take up the full sheet and can place notes and other details on 2nd sheet. Break Plan View if scale becomes to small showing the full length. Show phasing if phased construction. See Sample Plans for examples.

State the angle size as determined from note #11

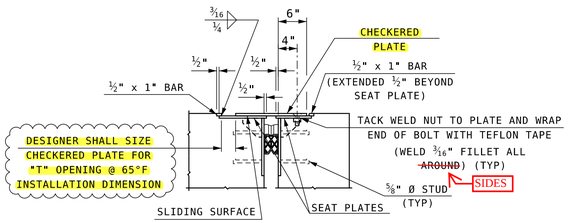
MODIFY SHEET AS REQUIRED TO PROJECT DETAILS (SKEW, PROFILE, PHASING, RAIL POST LOCATION, ALL PERTINENT DETAILS, ETC). PROVIDE ADDITIONAL SHEETS AS REQUIRED).

See Bridge Expansion Joint Details on Bridge Details web page for Section A-A drawn on a profile and other details



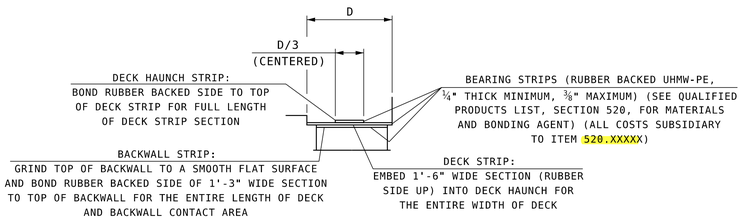
SECTION B-B

SCALE: ¾" = 1'-0"



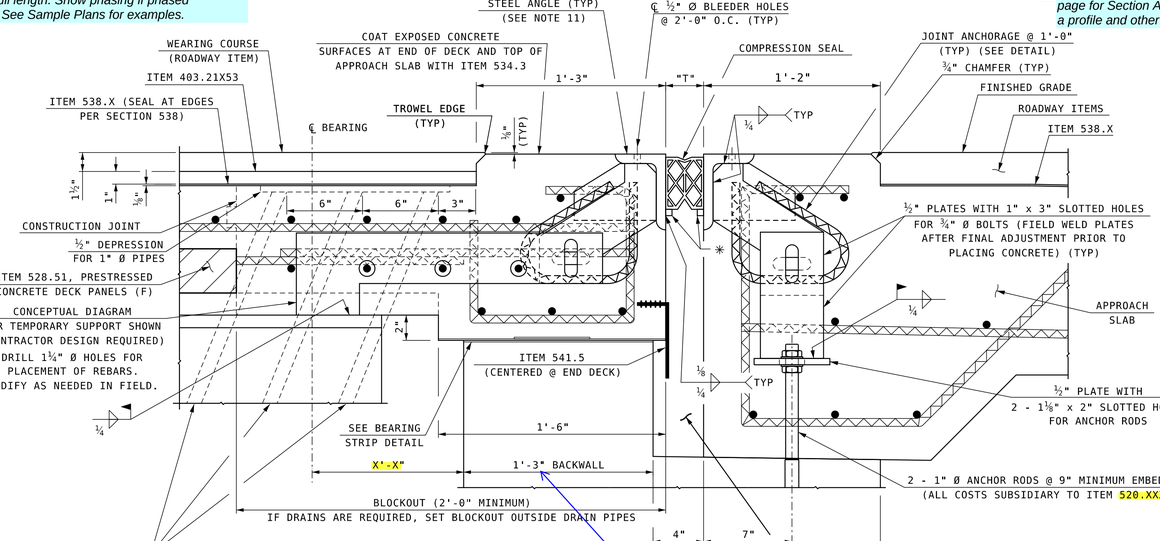
SECTION E-E

SCALE: ¾" = 1'-0"



BEARING STRIP DETAIL

NOT TO SCALE

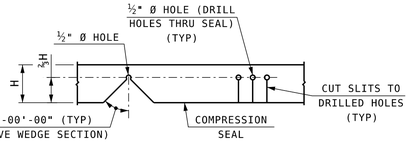


SECTION A-A

SCALE: 2" = 1'-0"

See Bridge Preservation and Bridge Rehabilitation Sample Plans on Sample Plans web page for how to draw Section A-A for rehabs/preservation projects

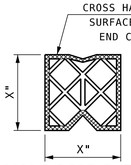
ALL MATERIAL USED TO FORM JOINT OPENING SHALL BE REMOVED



DOWN TURN CUT UP TURN CUT

RELIEF CUT DETAILS

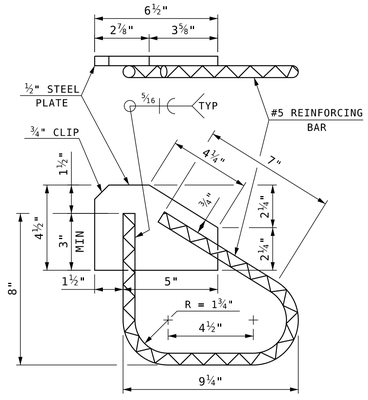
NOT TO SCALE



UNCOMPRESSED SEAL

NOT TO SCALE

TEMPERATURE ADJUSTMENT TABLE	
TEMPERATURE	"T"
20°F	X
35°F	X
50°F	X
65°F	X
80°F	X
95°F	X



ANCHOR DETAIL (90° CROSSING)

SCALE: 3" = 1'-0"

TEMPERATURE ADJUSTMENT NOTES

1. "T" DIMENSIONS ARE PERPENDICULAR TO FACE OF BACKWALL.
2. MINIMUM "T" WIDTH FOR SEAL INSTALLATION = X" (APPROXIMATELY 65°F OR LESS).
3. VALUES IN THE TEMPERATURE ADJUSTMENT TABLE ARE FOR SETTING THE EXPANSION JOINT ASSEMBLY IMMEDIATELY PRIOR TO POURING THE DECK BLOCKOUT.

If joint is on a skew, show both the 90 degree and the skewed anchor detail

EXPANSION JOINT NOTES

(1) ALL EXPANSION JOINT STEEL, INCLUDING ANCHORS, SHALL BE GALVANIZED. STEEL ANGLES SHALL BE ASTM A572 GRADE 50. MINOR STEEL PLATES MAY CONFORM TO ASTM A36. THE ENTIRE ASSEMBLY, INCLUDING COMPRESSION SEAL, SHALL BE PAID FOR AS ITEM 560.1001, PREFABRICATED COMPRESSION SEAL EXPANSION JOINT (F).

(2) SPLICES FOR STEEL ANGLES SHALL DEVELOP FULL STRENGTH.

(3) EXPANSION JOINT OPENING SHALL BE ADJUSTED TO TEMPERATURE ANTICIPATED JUST PRIOR TO POURING CONCRETE. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE CONTRACT ADMINISTRATOR. SEE TEMPERATURE ADJUSTMENT TABLE & NOTES.

(4) THE COMPRESSION SEAL SHALL BE FURNISHED IN ONE CONTINUOUS LENGTH. NO SPLICES WILL BE ALLOWED. SEAL SHALL BE INSTALLED IN THE FIELD BY THE CONTRACTOR, IN ACCORDANCE WITH THE MANUFACTURER OF THE SEAL, USING AN APPROVED TOOL THAT WILL NOT DAMAGE THE SEAL.

(5) JOINT SUPPORT PLATES AND CURB PLATES SHALL BE SHOP WELDED TO EXPANSION JOINT STEEL AND SHALL BE NORMAL TO GRADE AFTER JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE. STEEL ANGLES SHALL BE ASSEMBLED WITH A CONSTANT JOINT OPENING TO ENSURE PROPER PERFORMANCE AND WATER TIGHTNESS.

(6) THE EXPANSION JOINT ASSEMBLY SHALL BE INSTALLED ONLY AFTER BOTH ABUTMENTS HAVE BEEN BACKFILLED TO WITHIN 3'-0" OF FINISHED GRADE.

(7) IMMEDIATELY AFTER THE JOINT HAS BEEN SECURED, REMOVE SHIPPING DEVICES AND GRIND SMOOTH ANY WELDS ON EXPOSED SURFACES. REPAIR ANY DAMAGE TO GALVANIZED SURFACES IN ACCORDANCE WITH SECTION 550.2.

(8) PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.

(9) THE COMPRESSION SEAL HAS BEEN DESIGNED FOR A TOTAL FACTORED MOVEMENT OF XX INCHES. DESIGN INCLUDES MOVEMENT DUE TO TEMPERATURE, SKEW, SHRINKAGE AND MINIMUM INSTALLATION WIDTH. THE CONTRACTOR SHALL USE A WA-XX SEAL BY WATSON BOWMAN OR CV-XXXX BY D.S. BROWN (SHOWN), AS NOTED IN THE QPL.

(10) ELEVATIONS SHOWN AT TOP OF ANGLES ARE ⅛" LOWER THAN PROPOSED FINISHED ROADWAY GRADE.

(11) ANGLES 6" x 4" x ¾" SHALL BE UTILIZED FOR SEALS LESS THAN 5" (HEIGHT). FOR SEALS GREATER THAN OR EQUAL TO 5" (HEIGHT) STEEL ANGLES SHALL BE 8" x 4" x ¾".

(12) PRIOR TO INSTALLING THE SEAL, ALL TEMPORARY FORM WORK SHALL BE REMOVED. STEEL ANGLES AND STOP BARS SHALL BE MAINTAINED FREE FROM DIRT, WATER AND ANY OTHER LOOSE DEBRIS, WITH THE USE OF COMPRESSED AIR, TO ENSURE PROPER FIT OF THE SEAL. CARE SHALL BE TAKEN NOT TO DAMAGE GALVANIZED SURFACES.

(13) A TEMPORARY SEAL(S) SHALL BE INSTALLED PRIOR TO THE START OF THE WINTER MAINTENANCE PERIOD FOR ALL JOINT ASSEMBLIES OR PORTIONS THEREOF THAT WILL BE IN PLACE THROUGHOUT THE WINTER. ALL TEMPORARY SEALS SHALL BE REMOVED AND JOINT OPENINGS AND SUBSTRUCTURE SHALL BE CLEANED PRIOR TO INSTALLING THE FINAL SEAL. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 560.1001.

NHDOT Bridge Design
12/15/23

SAMPLE PLAN
Details and notes may not be current. Closely review before using details.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN	BRIDGE NO.	STATE PROJECT
LOCATION		

COMPRESSION SEAL EXP. JOINT (1 OF 2)

BRIDGE SHEET OF

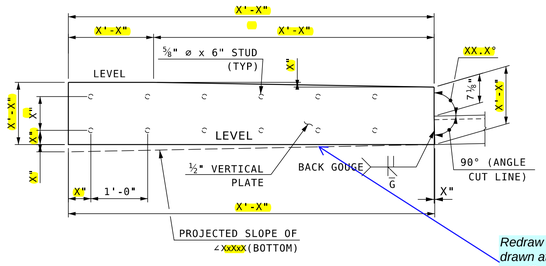
FILE NUMBER

REVISIONS AFTER PROPOSAL	BY	DATE

	BY	DATE		BY	DATE
DESIGNED	NHDOT	9/87	CHECKED	NHDOT	9/87
DRAWN	PJP	4/13	CHECKED	ABH	4/13
QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX

ISSUE DATE	9/87	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE	7/31/23			

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
EXPANSION JOINTS	COMP-SEAL-SW	AS NOTED

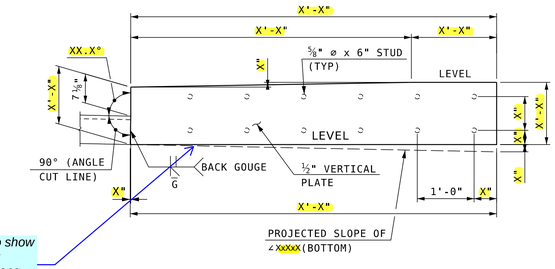


SECTION C-C PLATE

(ABUTMENT SIDE)

SCALE: ¾" = 1'-0"

Redraw detail to show drawn at project specific slope along expansion joint.



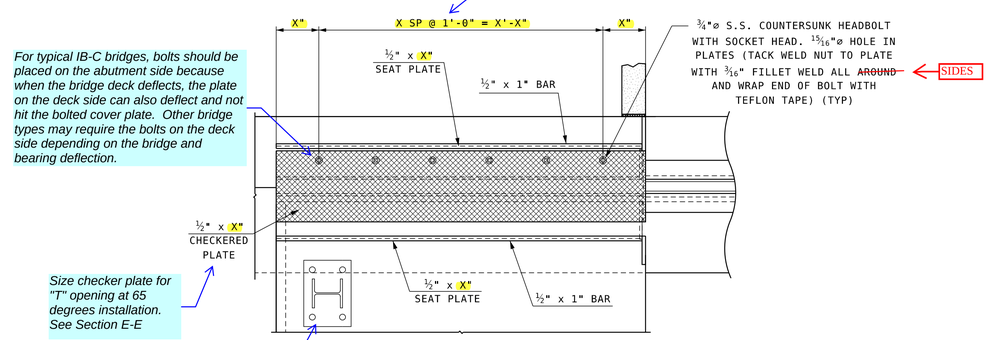
SECTION D-D PLATE

(DECK SIDE)

SCALE: ¾" = 1'-0"

Space to avoid stiffeners and joint anchorage

For typical IB-C bridges, bolts should be placed on the abutment side because when the bridge deck deflects, the plate on the deck side can also deflect and not hit the bolted cover plate. Other bridge types may require the bolts on the deck side depending on the bridge and bearing deflection.

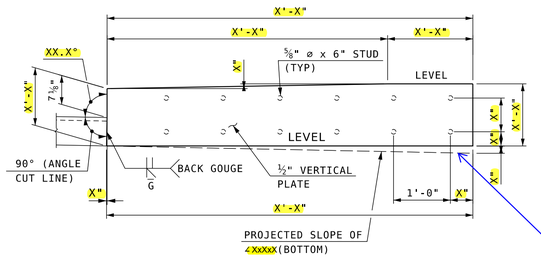


Size checker plate for "T" opening at 65 degrees installation. See Section E-E

Draw anchor plate at project specific location

SIDEWALK UPPER ASSEMBLY

SCALE: ¾" = 1'-0"

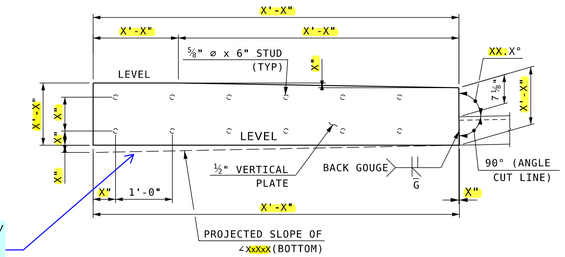


SECTION F-F PLATE

(ABUTMENT SIDE)

SCALE: ¾" = 1'-0"

Redraw detail to show drawn at project specific slope along expansion joint.



SECTION G-G PLATE

(DECK SIDE)

SCALE: ¾" = 1'-0"

If bridge is on a skew, need to also show opposite side since since it will be different

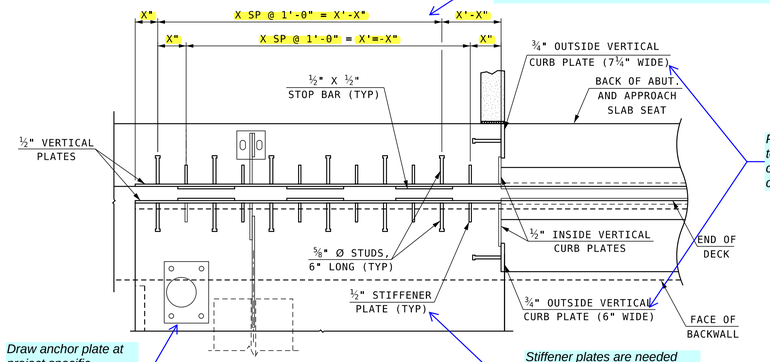


Plate width may change. Size to match up with end of concrete header. Skew will change the size.

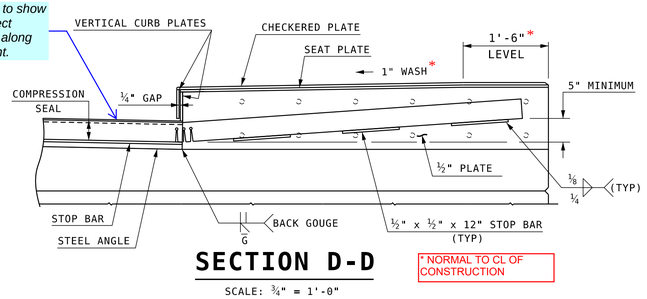
Draw anchor plate at project specific location

Stiffener plates are needed when skews cause the plates to be long and flexible

SIDEWALK LOWER ASSEMBLY

SCALE: ¾" = 1'-0"

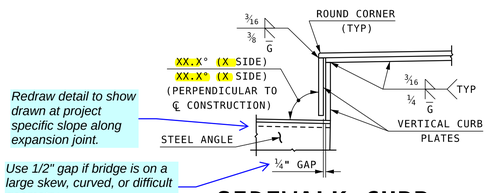
Redraw detail to show drawn at project specific slope along expansion joint.



SECTION D-D

SCALE: ¾" = 1'-0"

* NORMAL TO CL OF CONSTRUCTION



Redraw detail to show drawn at project specific slope along expansion joint.

Use 1/2" gap if bridge is on a large skew, curved, or difficult geometry.

SIDEWALK CURB

NOT TO SCALE

Redraw all details to project specific skew, dimensions, and slope. Not intended to just fill in X" dimensions.

FOR LOCATION OF SECTION C-C THROUGH G-G, SEE BR. SHEET XX.

NHDOT Bridge Design
12/15/23

SAMPLE PLAN
Details and notes may not be current.
Closely review before using details.

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
EXPANSION JOINTS	COMP-SEAL-SW	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN | BRIDGE NO. | STATE PROJECT

LOCATION

COMPRESSION SEAL EXP. JOINT (2 OF 2)

BRIDGE SHEET OF FILE NUMBER

REVISIONS AFTER PROPOSAL			BY	DATE		BY	DATE
		DESIGNED	NHDOT	9/87	CHECKED	NHDOT	9/87
		DRAWN	PJP	4/13	CHECKED	ABH	4/13
		QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX
		ISSUE DATE	9/87	FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
		REV. DATE	1/10/23				