

**NOTES:**

The expansion device shall be installed on grade, parallel to the slope and grade of the deck.

The expansion device shall not be set before the deck elevations have been approved by the Engineer. The Contractor shall take shots of the expansion device to achieve the required elevations for smoother rideability on bridge approaches.

After the concrete has attained initial set, the attachments used to hold the expansion device assembly in its proper position shall be removed.

"W" and "E" dimensions are dependent upon the particular expansion device supplied, and shall be shown on the working drawings.

See table for dimensions "A" and "W"; interpolate as needed. Do not install the gland until dimension "A" has opened up to at least 1/2" (2/2" for Silicoflex).

The neoprene gland shall be installed in one piece in accordance with Section 518 of the Standard Specifications.

See Section 518.09 in the Standard Specifications for water tight integrity testing requirements.

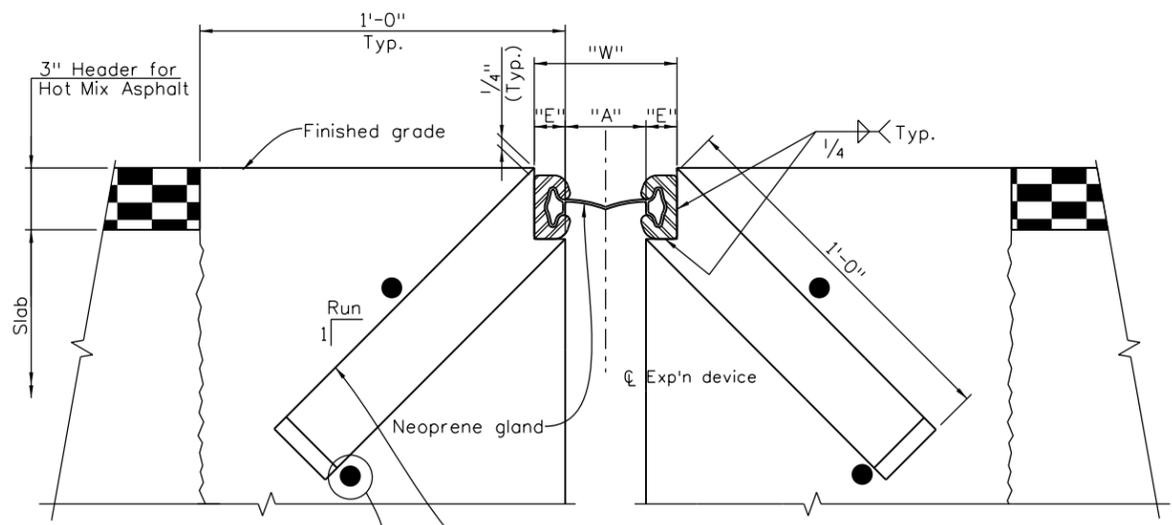
Set elevations at top of header and sleeper stem with the grade projection scheme.

All steel elements (whether grade A36 or A588) of the bridge expansion device, including cover plates, shall be hot dip galvanized after fabrication as per Section 509.11 of the Standard Specifications.

Use a run of 1 or more to accommodate existing conditions and a run of 1 for new construction.

**ACCEPTABLE EXPANSION DEVICE ALTERNATES**

- D.S. Brown A2R400-SSA2
- WABD SE400 Type A
- E-poxy Engineered Materials S400-A Strip Seal
- R. J. Watson Silicoflex SF 400

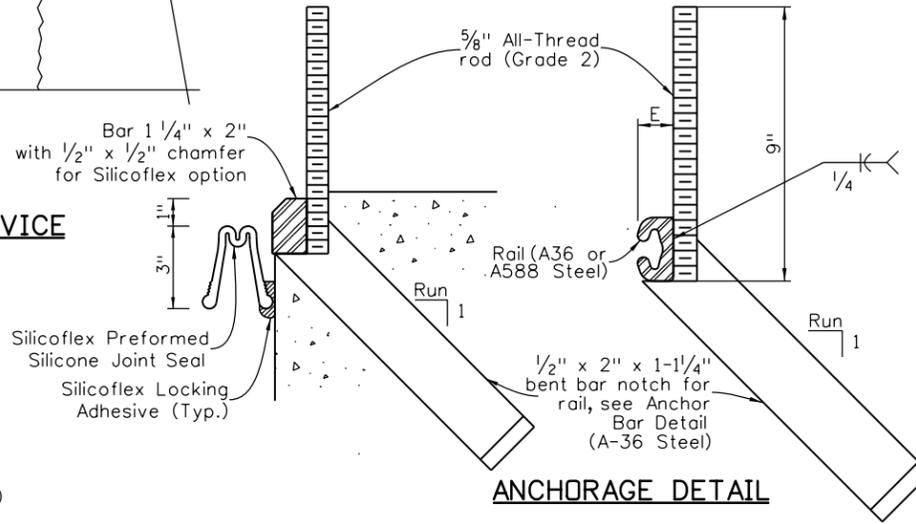


**SECTION THRU STRIP SEAL BRIDGE EXPANSION DEVICE**

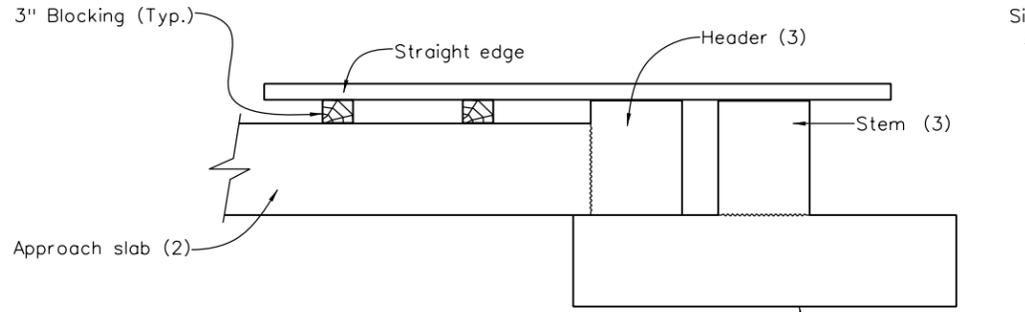
Section taken perpendicular to  $\phi$  exp'n device

Welding not allowed in interior of rail that contacts rubber gland

**RAIL FIELD SPLICE DETAIL**



**ANCHORAGE DETAIL**



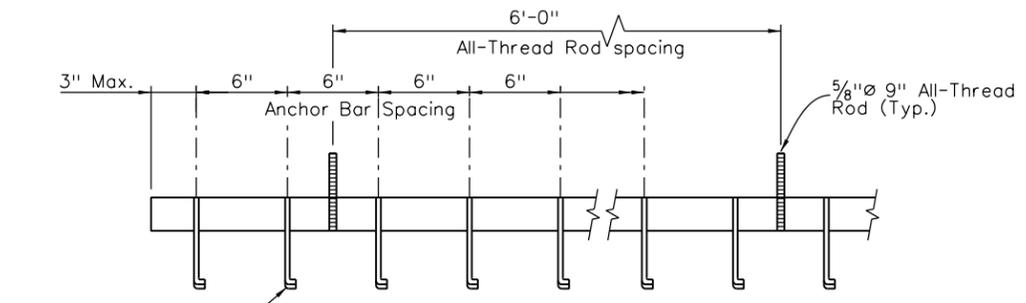
**GRADE PROJECTION SCHEME**

(Numbers in parenthesis refer to first, second and third concrete pours)

AIR TEMP	"A"	"W"*
-30° F		
0° F		
30° F		
60° F		
90° F		
120° F		

\* For E = 1 1/4" (Min.)

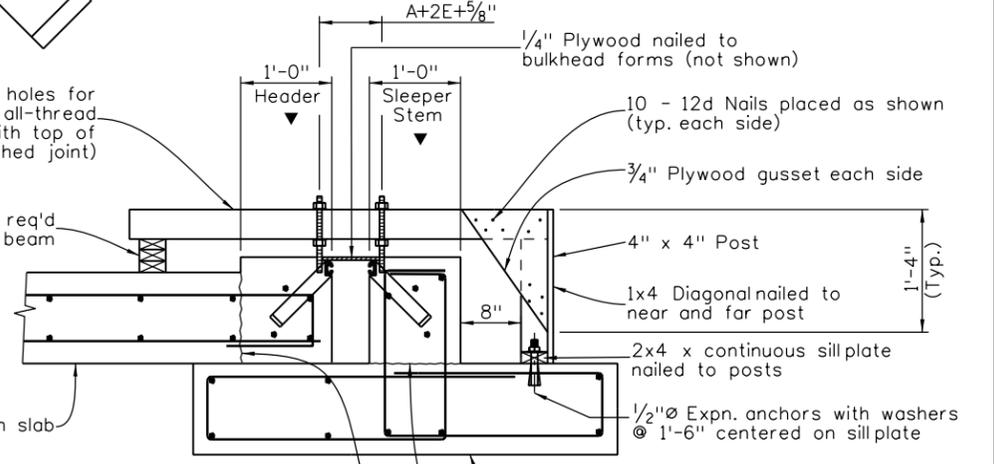
**TYPICAL ANCHOR BAR DETAIL**



**ANCHOR BAR SPACING**

4x4 beam, drill 3/4 inch diameter holes for all-thread rods (Cut all-thread rods flush with top of concrete for finished joint)

Blocking as req'd nailed to beam



**NOTES:**

1. Provide expansion device support as shown at 6'-0" intervals.
2. For reinforcing not shown hereon, see approach slab details.

Concrete shall be placed after expansion device has been adjusted to proper grade and approved by the engineer using the Grade Projection Scheme.

**MINIMUM SUPPORT BRACKET REQUIREMENTS**

Revision Dates	(Preliminary Stage Only)	5/00	5/01	4/02	9/02	6/04	3/07	5/13
11/99								

Design	Detail		Quantities	
	DATE	INITIAL	DATE	INITIAL
Designed By	XXX	MM/YY	Checked By	XXX
Checked By	XXX	MM/YY	Checked By	XXX

Print Date: \$DATE\$
File Name: Sheet_B-518-1.dgn
Horiz. Scale: NTS      Vert. Scale: As Noted
Staff Bridge Branch - Unit 022X    Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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Staff Bridge Branch      Initials

As Constructed
No Revisions:
Revised:
Void:

BRIDGE EXPANSION DEVICE (0 - 4 INCH)			
Designer:	XXXXXXXX	Structure	X-XX-XX
Detailer:	XXXXXXXX	Numbers	X-XX-XX
Sheet Subset:	BRIDGE	Subset Sheets:	BXX of XXX

Project No./Code
Project Number
Code
Sheet Number