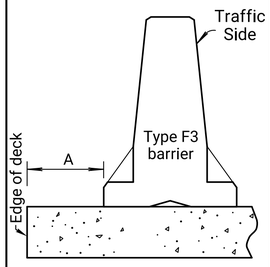
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0	0	

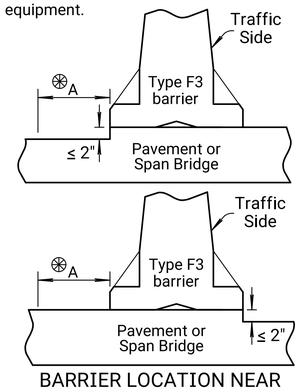
GENERAL NOTES:
INSTALLATION: Holes into the pavement to anchor the concrete safety barrier may be drilled after positioning barrier. When anchoring with 3 bolts on traffic side, install barrier with through anchor bolt where possible, use grouted anchor bolts where through bolt can't be used. Do not drill into or otherwise damage support beams, girders, or expansion joints. All work & materials required for the installation of the anchors are subsidiary to the bid item "Concrete Safety Barrier".
UTILITIES & STRUCTURES (Stakes): Verify buried utilities & structures within stake depth. If conflicts between stake & buried elements exist, up to 2 stakes maximum in a single barrier may be omitted if adjacent barriers have 3 stakes each.

ANCHORAGE: Use galvanized grouted anchor bolts, through anchor bolts, nuts & washers that meet standard specifications. Install 3 anchor bolts or asphalt pins per barrier on the traffic side except on transition barrier as shown.
BARRIER REMOVAL: Completely remove all anchor systems. Remove grouted or drop-in anchor system by drilling the anchor with a core barrel 2x the diameter of the insert. Core to a depth equal to the installed depth & remove the core, prepare the hole by removing dust & debris. Fill hole with material that meets KDOT Pre-qualified "Non-shrink grouts for grouting anchor bolts & reinforcing into previously poured concrete". Follow the manufacturer's procedures for mixing, hole preparation & curing. To fill through bolt anchor or screw-in anchor system, remove & completely fill the hole using instructions for drop-in anchors except no coring is required.
For removed or relocated barrier on flexible pavement, fill stake holes completely with hot or cold asphalt patch material. Work & materials required to remove & patch anchor holes are subsidiary to the bid item "Concrete Safety Barrier".
TEMPORARY BARRIERS: Temporary Barriers shown in the details of this drawing are not allowed for permanent installations.
See KDOT Standard Drawing "Temporary Concrete Safety Barrier Type F3 Transition Layouts" for transition details between anchored & free-standing barriers. See KDOT Standard Drawing "Temporary Concrete Safety Barrier Type F3" for details & quantities not shown on this sheet.
SIGNING: For sign spacing, traffic control device details & reference notes, see Index of Sheets.

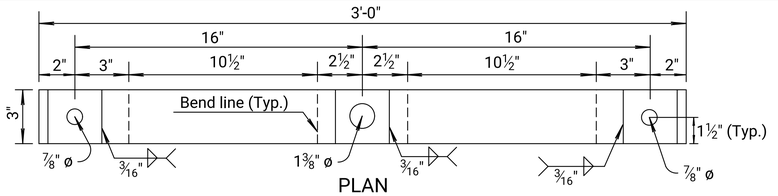
NO ANCHORAGE REQUIRED unless shown on plans		
"A" DISTANCE	A ≥ 4'	A ≥ 2'
LOCATION	Span Bridge	⊛ Box Culverts Roadways - Flexible or Rigid Pvmnt.



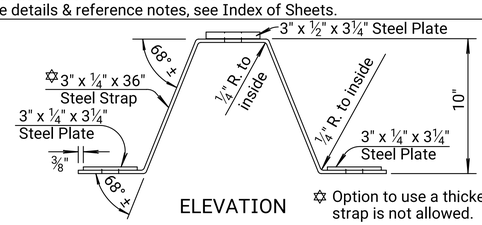
⊛Applies on span bridges when the action creates a height differential of ≤ 2". Measured from the toe of the barrier, the "A" distance should be free of obstacles and equipment.



BARRIER LOCATION NEAR HEIGHT DIFFERENTIAL



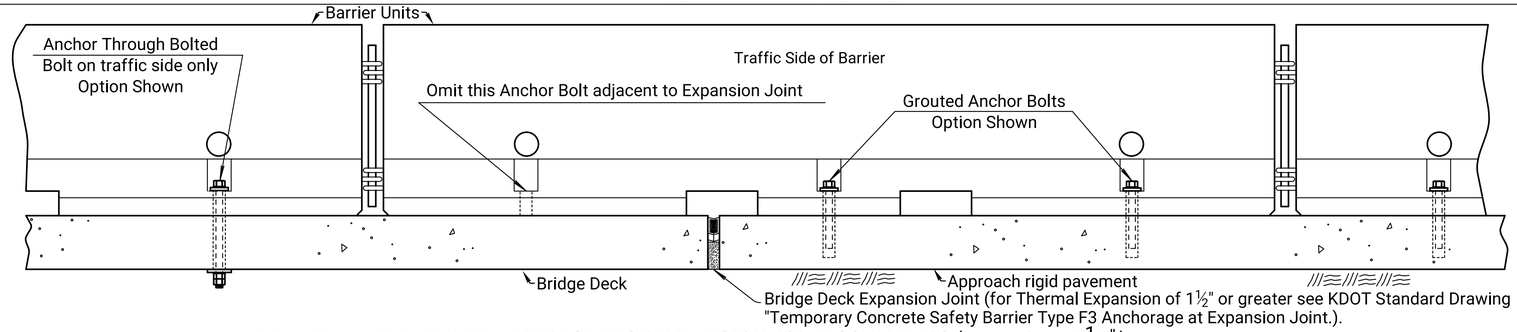
PLAN



ELEVATION

✡ Option to use a thicker steel strap is not allowed.

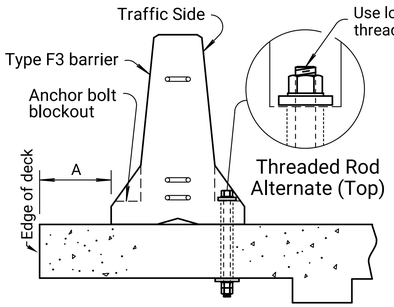
TIE-DOWN STRAP DETAILS

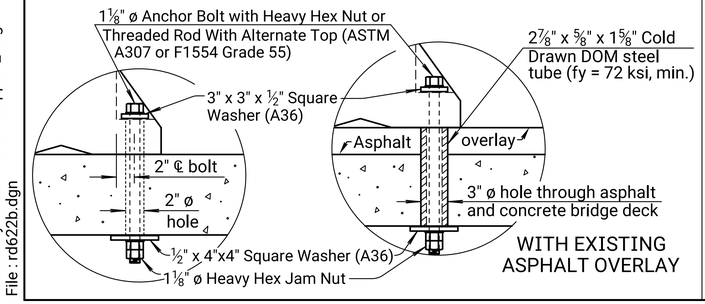


ELEVATION - TREATMENT AT BRIDGE DECK EXPANSION JOINT SCHEMATIC (Expansion < 1½")

ANCHORAGE	ANCHOR BARRIER with 3 BOLTS ON TRAFFIC SIDE	ANCHOR BARRIER with 3 BOLTS ON TRAFFIC SIDE		ANCHOR BARRIER with TIE-DOWN STRAP		ANCHOR BARRIER with STAKES
"A" DISTANCE	0' ≤ A < 2'	0' ≤ A < 2'		△ 2' ≤ A < 4'	6" ≤ A < 2'	6" ≤ A < 2'
LOCATION	Span Bridge	Span Bridge	Box Culverts Roadways - RIGID Pavement	Span Bridge	Box Culverts Roadways - RIGID Pavement	Box Culverts (ceiling below stake depth) Roadways - FLEXIBLE Pavement

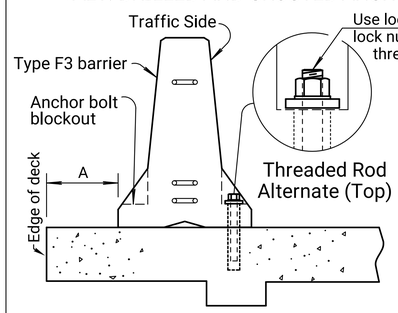
THROUGH BOLT (Preferred)



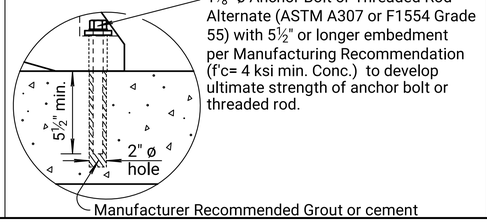


WITH EXISTING ASPHALT OVERLAY

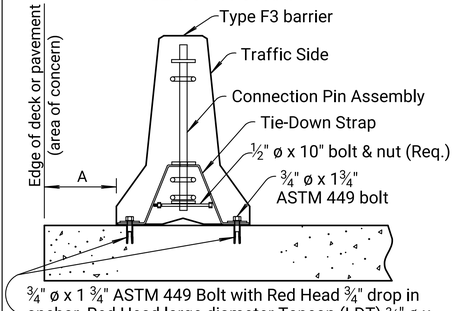
✧ALT. DRILLED AND GROUTED ANCHOR



✧Note: Alternate Drilled and Grouted Anchor installation avoids damage to the support beams, girders or expansion joint. The State Bridge Office shall approve the use of the Alternate Drilled and Grouted Anchor installation for bridge applications.

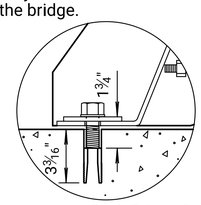


TIE-DOWN STRAP



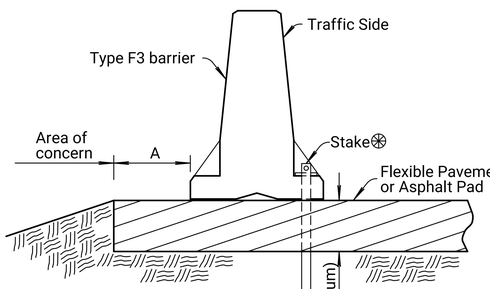
¾" ø x 1 ¾" ASTM 449 Bolt with Red Head ¾" drop in anchor, Red Head large diameter Tapcon (LDT) ¾" ø x 4 ½" long, or Simpson Titen HD ¾" ø x 5" long

△"A" distance may be reduced to 6" if traffic does not travel under the bridge.

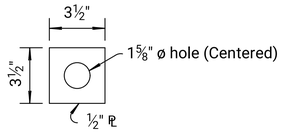


With prior approval from the State Bridge Office, anchoring the barrier with 3 bolts (Through Bolt OR Drilled & Grouted Anchor oprtions) on the traffic side may be used in lieu of tie-down straps.

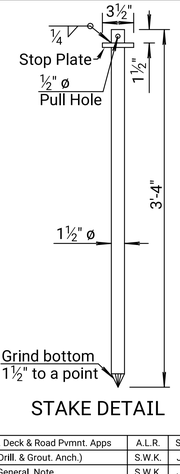
STAKED DOWN



⊛ Predrill 1½" ø holes in flexible pavement prior to installing stakes.



STOP PLATE DETAIL



STAKE DETAIL

NO.	DATE	REVISIONS	BY	APP'D
07	04-21-21	Revised Layouts for Br. Deck & Road Pvmnt. Apps	A.L.R.	S.W.K.
06	12-31-13	Rev. Note (Alt. Drill. & Grout. Anch.)	S.W.K.	J.O.B.
05	06-27-11	Revised General Note	S.W.K.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE SAFETY BARRIER TYPE F3 ANCHORAGE

RD622B

FHWA APPROVAL		04-21-21	APP'D.	Scott W. King
DESIGNED	DETAILED		QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.		QUAN.CK.	TRACE CK.

KDOT Graphics Certified 05-13-2022 Sh. No. 0

KDOT Graphics Certified

Note to Designer: For use on Haunched slab bridges, the Road Designer shall coordinate with the Bridge Designer for "corridor in the reinforcing steel layout to accommodate barrier anchoring."
Road Designer shall coordinate barrier layout with Bridge Designer to accomodate for expansion during construction.

Plotted by : KDOT#CADD.Support_ks.gov 18-JUN-2022 00:09
File : rd622b.dgn