	Expansion device		
	1 1 Image: Content of the second of the sec	NUTES 1. Details on Conctractor Temporary	this sheet r's Enginee Bridge De
	Continuous across 2 panels)	2. The Contra placement o designed to resist move	ctor is res and use. U resist be ement.
	Anchor (Typ) (Min 4 per plate)	3. Steel Plates accordance 509, and 62	for the T with Sect 21 Tempor
9/ 24	The second seco	4. Minimum re angle, and p alternative device repo	equirement plates are method to pir area du
	Top of deck or approach slab	5. The Contra work. See information phasing cor	ctor shall f Revision o . Where m hstruction
2 3/23	CUNCEPTUAL ANCHUR DETAIL Image: Steel plate with anchor alternative	by the Eng 6. Prior to fal requirement	neer. prication c ts of Sect
3/2	10'langent 10pr 1'-9'' Min L Typ Limits of concrete removal	7. Temporary replacemen Polyester C	bridge de ts. High ec
	Min Grout pad Temporary asphalt Temporary asphalt Temporary asphalt Temporary asphalt Temporary asphalt Grout pad Temporary asphalt Temporary asphalt Temporary asphalt Temporary asphalt Temporary asphalt Temporary asphalt Temporary asphalt	8. Grout shall I with a minir conclusion	be placed num com of the exp
	Anchors Top of deck or Top of deck o	9. Support and 10. For anti-slip	gle shall be p coating
	DESIGN DATA AASHTD, 7th Edition LRFD (Conceptual) (Contractor's Design may be done per AASHTD Standard Specification)	Bridge Decl 11. Minimum cl slab at exis	:. earance re sting expar
	Design Method: Load and Resistance Factor Design Live Load: 16,000 Lb WheelLoad Impact: 33%; applied per AASHTD Libit: Each archar shallbe designed for a minimum factored uplift CONCEPTUAL TYPICAL SECTION	temporary concrete h Changes re the Contra	pavement. eaders and quired as ctor at no
\square	Braking: per AASHTD	12. Top of Ten shown, with to opening	nporary Br a tolerand
	Span to Deflection Ratio Maximum = 384 Structural Steel: AASHTD M270 (ASTM A709) Grade 36 or Grade 50	13. Temporary equal to 45	asphalt po MPH and
	Anchor Rods: ASTM F1554 Designer/Detailer:	14. The Tempo is allowed o	rary Asph on the ten
	Designer shall determine the depth of temporary asphalt required for the total thicknesses of temporary bridge deck plates, the temporary supports for the expansion device rails, and the nominal clearance needed for deflection of the plate under load. If the total thickness needed is greater than 4" the designer shall determine whether an analysis of the bridge is necessary for the additional temporary load.	S (Ft) = L + 3 H = Minimum (30"; T = f
	It is desirable, if possible, to phase the work so that traffic is kept off of the area long enough for the concrete to reach initial set up so that the rail supports can then be removed before placing the temporary bridge deck plates. This will reduce the thickness needed for the temporary asphalt 0 174" your shall use table at right to determine minimum plate thickness. Plate thickness shown is based on anchor system, shown Contractor may use alternate	plus ¼". (E = Minimum o more. Min	See Note anchor eml imum emt
Decked B	For short bridges, depending on temporary asphalt thickness required, asphalt may meet in the middle. These bridges shall be evaluated for the additional temporary load.	● Minimum dir on anchor p	nension re sullout.
	Print Date: \$DATE\$ File Name: Sheet B-509-3AR.dan Date: Date: Commanda Linit	As Construct	ed
	All seals for this set of drawings are applied to Unit Information Unit Leader Initials	No Revisions:	Desir
	the cover page(s)	Revised:	

Staff Bridge Branch

DESIGN DATE DETAIL DATE QUANTITY DATE

B-509-3AR

are conceptual and provide Min/Max requirements of the system. er shall provide full design per Revision of Section 105, 509, and 621 eck including the lifting concept.

sponsible for the stability of the temporary bridge deck during Jse shall not affect stability of the structure. Steel plates shall be ending and vibrations under traffic loads and anchored securely to

Temporary Bridge Deck System shallbe designed and fabricated in tion 509 of the Standard Specifications, and Revision of Section 105, rary Bridge Deck.

ts shown this sheet for grout pads, anchor bolts and nuts, support for the concept shown on this sheet. Contractor may submit an o the conceptualmethod shown on this sheet, to protect the expansion uring replacement.

furnish a sufficient length of Temporary Bridge Deck to complete the of Section 105, 509, and 621 Temporary Bridge Deck for additional nultiple structures require Temporary Bridge Deck of the same size, is acceptable. The Contractor shall submit a Phasing Plan for approval

of this item three sets of working drawings, which comply with the tion 105, and Revision of Section 105, 509, and 621 Temporary Bridge ted to the Engineer for information only.

eck plates and Concrete (Patching) are required at expansion device arly strength pre-bagged mixes are required [NOTE TO DESIGNER: may be used on a case-by-case basis.]

on sound concrete free of loose material. Grout shall be quick setting pressive strength of 3,000 psi. Grout pads shall be removed at the pansion device work and prior to placement of any overlays.

continuous across a minimum of 2 panels.

information, see Revision of Section 105, 509, and 621 Temporary

equired over existing and new concrete end dam or top of approach nsion device shall be verified by the Contractor prior to installing The clearance shall be controlled by clearing the existing or new nd any required device rail supports by $\frac{1}{4}$ " plus the live load deflection. a result of not meeting this clearance requirement will be performed by additional expense to the project.

ridge Deck shall be flush with the top of temporary pavement as nce of $\frac{1}{4}$ ". Panels that do not meet this requirement shall be reset prior

avement shall be tapered at a rate of 1:200 for speeds less than or 1:300 for speeds greater than 45 MPH. A 10-foot tangent section each side of the temporary bridge deck plate before start of taper.

nalt Pavement tangent section and taper shallbe in place before traffic mporary bridge deck plates at the end of each closure.

Plate thickness $(1\frac{3}{4}'' \text{ Min})$; W = Plate width (6'-0'' Min)

Detai

Initials

Void:

or deflection and expansion device rail support bracket clearance 11)

nbedment, $4^{1}/_{2}$ " absolute minimum. Actual Contractor design may require bedment shall be reached even if reinforcing is encountered.

equired for adjacent anchors and anchors relative to excavation, based

TEMP	ORARY	Project No./Code			
(RAISED	Project Number			
Designer:	XXXXXXXX	Structure	X-XX-XX	Code	
Detailer:	XXXXXXXX	Numbers	X-XX-XX		
Sheet Subset:	BRIDGE	Subset Sheets: BXX of XXX		Sheet Number	