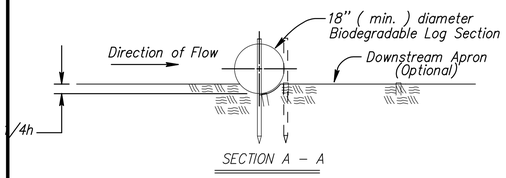
Biodegradable Log or Filter Sock Slope Interruptions

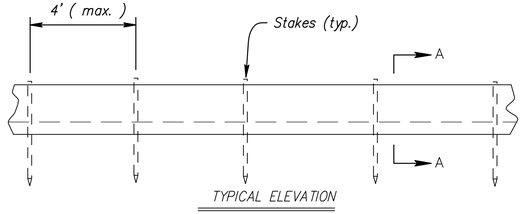
Slope Gradient	PRODUCT: 9" Sediment Log or 8" Filter Sock (ft)	12" Sediment Log or 12" Filter Sock (ft)	20" Sediment Log or 18" Filter Sock (ft)
≤4H:1V	40	60	80
3H:1V	30	45	60

Deviations should be approved by the Field Engineer.

BIODEGRADABLE LOG MATERIAL	LOW FLOW	HIGH FLOW
9"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber
12"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber
18"–20"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber



ALT. DETAIL
OPTIONAL

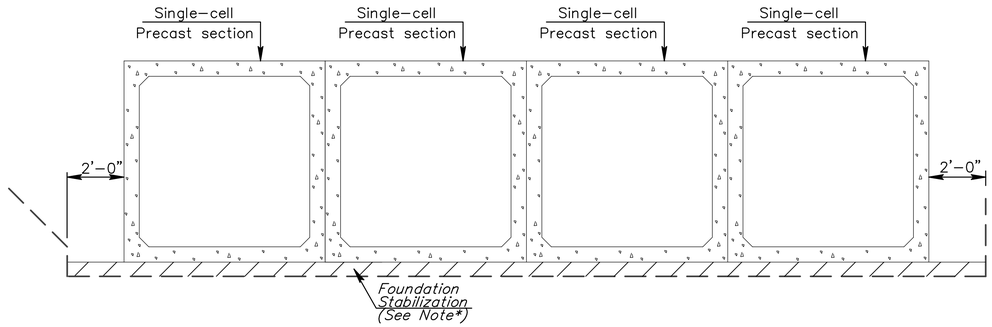


TYPICAL ELEVATION

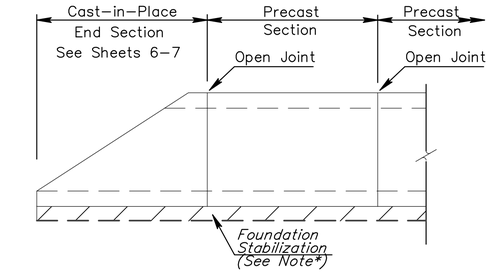
BIODEGRADABLE LOG SLOPE INTERRUPTIONS
OR Filter Sock

BIODEGRADABLE LOG OR FILTER SOCK

1. Place biodegradable logs or filter sock tightly together minimum overlap of 18".
2. Wood stakes shall be 2" x 2" (nom.).
3. Refer to plan sheets to estimate length of biodegradable log and filter sock required.
4. Each log or sock (except compost filter socks) should be keyed into the ground at a minimum of 25% of its height. Compost filter socks should be placed on smooth prepared ground with no gaps between the sock and soil.
5. Length of stakes should be 2 times the height of the log at a minimum with minimum ground embedment equal to the height of the log / sock.



TYPICAL INSTALLATION DETAILS



ELEVATION AT PRECAST END SECTION

(Precast End Sections are permitted where straight wings are shown in the plans or at the downstream end for single cell RCB with a rise of six feet or less.)

NOTE: Foundation stabilization shall be ASTM C–67 (Dolese Stone) compacted to a thickness of 6" min.

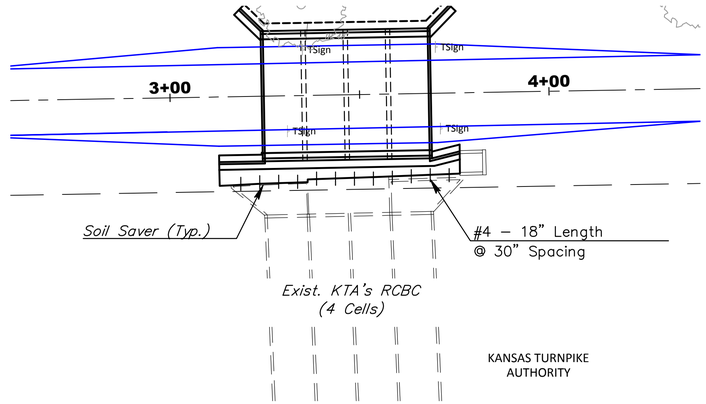
NOTE: Minimum length of precast section shall be 4'–0".

PRECAST BOX CULVERTS: If precast boxes are specified, construct them at the locations shown in the plans and according to the requirement shown on this sheet. When approved by the Engineer, precast box culverts may be used in lieu of cast–in–place box culverts. If the Contractor chooses the precast option, use the cast–in–place quantities as the cost basis. This cost includes all labor equipment, material and incidentals necessary to complete the installation.
Unless otherwise approved by the Engineer, use cast–in–place collars at horizontal and vertical changes in RCB alignment. Use cast–in–place end sections and wingwalls except as noted on this sheet. The Engineer may require cast–in–place sections at junctions of drainage structures.

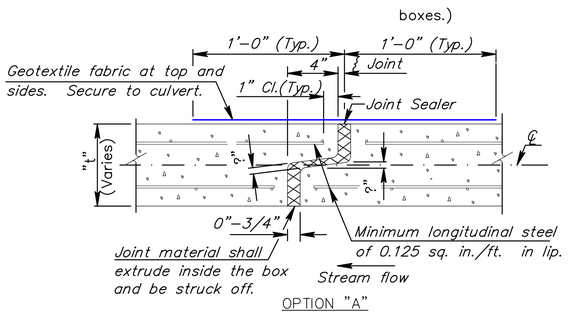
Cast–in–place concrete work shall conform to the requirements of the KDOT Specifications and KDOT's "Guidelines for Structural Design and Detail of Reinforced Concrete Box Culverts'. Use Grade 4.0 concrete and Grade 60 reinforcing steel conforming to ASTM A615 for cast–in–place construction.

Cast–in–place box sections shall have member thicknesses and reinforcement not less than the RCB Standard from the original design. Connections between the cast–in–place and precast members shall be drilled and grouted according to details shown on this sheet. When the wall thicknesses differ between the cast–in–place and precast, transition at a 4:1 without reducing the box opening size. See KDOT Specifications for further requirements.

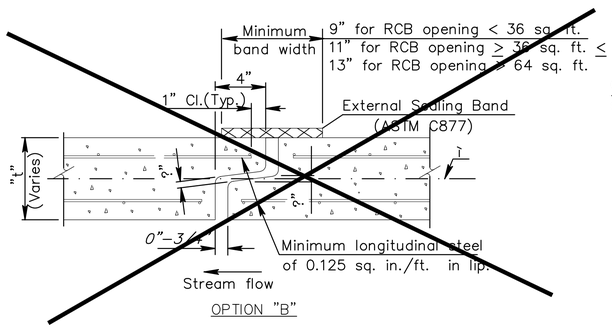
SPECIFICATIONS: Single–cell Precast Concrete Box Culverts shall conform to the requirements of the following specifications except as noted in the KDOT Specifications. Design multiple–cell precast boxes in accordance with the criteria used to develop the single–cell precast boxes. (See Appendix of ASTM Specification C 1577–08, Table 2 and the latest AASHTO LRFD Specifications.)



TYPICAL TIE BAR DETAIL
Not to Scale

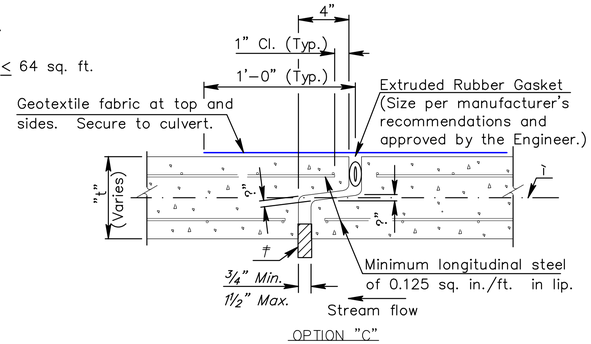


OPTION "A"



OPTION "B"

OPEN JOINT DETAIL



OPTION "C"

† Insert temporary, 3/4"–1" wide, hardwood wedges to prevent over–compressing gasket.

BAUGHMAN COMPANY
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BaughmanCo.com

GILBERT STREET DRAINAGE IMPROVEMENTS

PRECAST CONCRETE BOX CULVERT DETAILS

CAPITOL IMPROVEMENTS PROJECT

PROJECT NUMBER: 458-2022-085509

DESIGN: NBW DRAWN: JSB

DATE: August 16, 2022

SHEET 5 OF 8

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