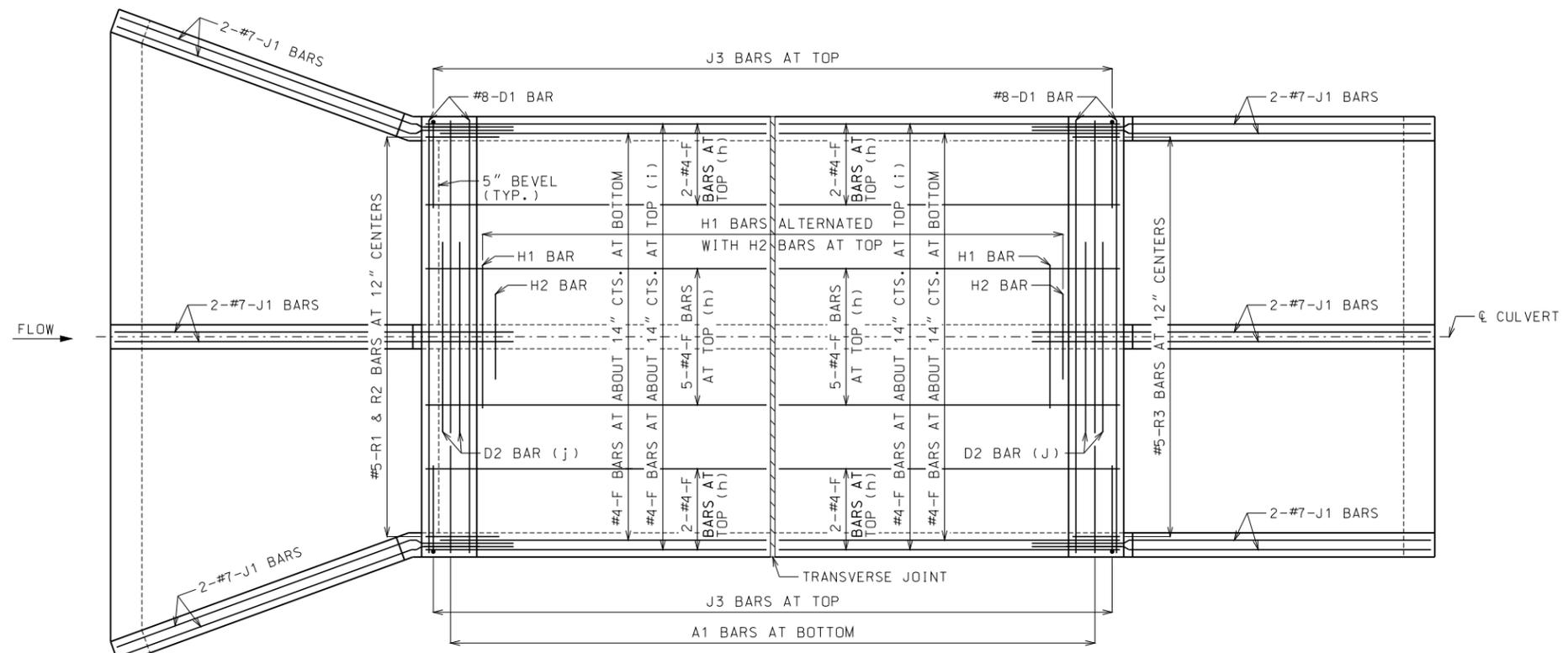
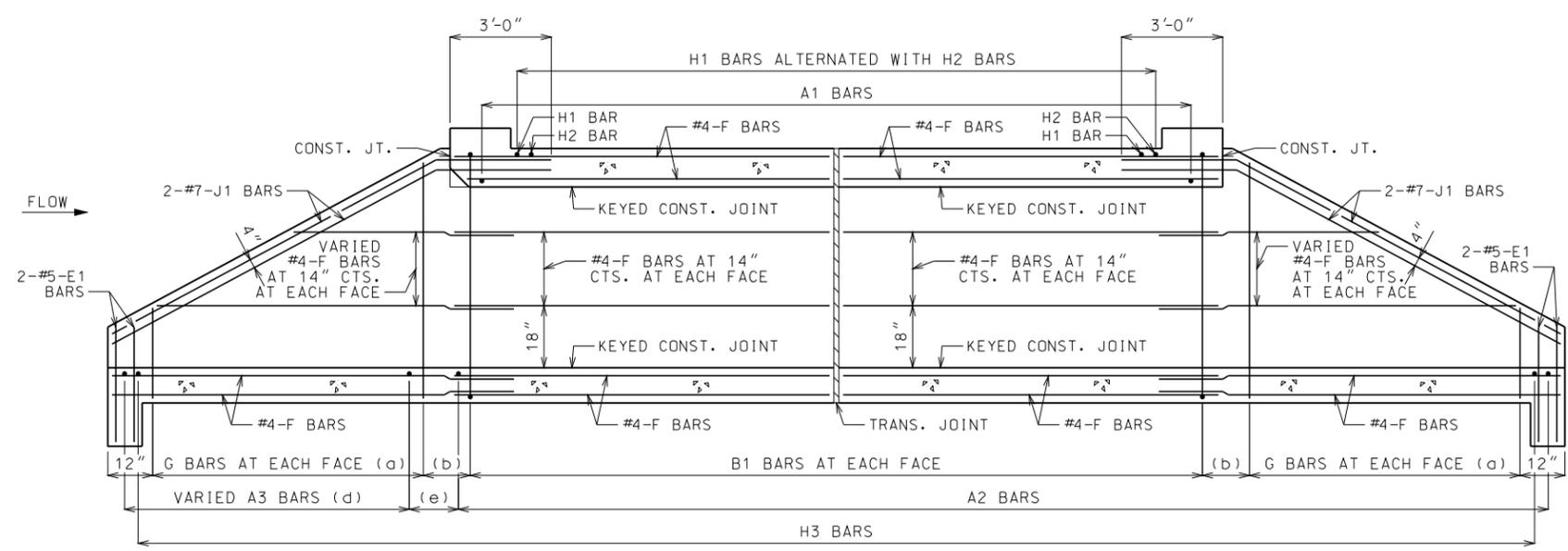


IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



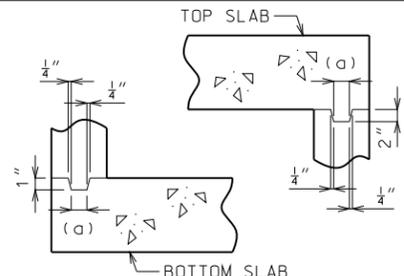
PLAN OF TOP SLAB
 B BARS IN WALLS ARE NOT SHOWN FOR CLARITY.
 FOR PLACEMENT, SEE SHEET 1 OF 3.

GENERAL NOTES:
 FOR SECTIONS THRU BARREL, WINGS AND HEADWALLS, SEE SHEET 3 OF 3. FOR BAR SIZES, SPACING AND DIMENSIONS OF ALL REINFORCEMENT EXCEPT J5 BARS, SEE 703.47. FOR J5 BARS, SEE 703.37.
 CONSTRUCTION JOINT KEY NOT SHOWN FOR CLARITY IN PLAN AND SECTION, SEE SHEET 3 OF 3 FOR DETAILS.
 DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.
 MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1 1/2".
 LAP LONGITUDINAL BARS A MINIMUM OF 23" AT SPLICES.
 BEVELED HEADWALL SHALL BE LOCATED AT UPSTREAM END.
 (a) SAME SIZE AND SPACING AS ADJACENT B BARS
 (b) VARIES, 12" MAXIMUM
 (c) NOT SPECIFIED ON THIS SHEET
 (d) SAME SIZE AND SPACING AS A2 BARS
 (e) A2 BAR SPACING
 (f) NOT SPECIFIED ON THIS SHEET
 (g) NOT SPECIFIED ON THIS SHEET
 (h) FOR DESIGN FILLS OVER 2'-0"
 (i) FOR DESIGN FILLS 2'-0" OR LESS
 (j) NOT REQUIRED FOR CLEAR SPANS ≤ 10'-0"
 #8 FOR CLEAR SPAN > 10'-0"
 #9 FOR CLEAR SPAN > 13'-0"
 IF REQUIRED, THE MINIMUM LENGTH EACH SIDE OF C WALL SHALL BE THE GREATER OF 48 BAR DIAMETERS OR 1/2 CLEAR SPAN.
 THE CLEAR SPAN IS PARALLEL TO LONG DIRECTION OF HEADWALL.

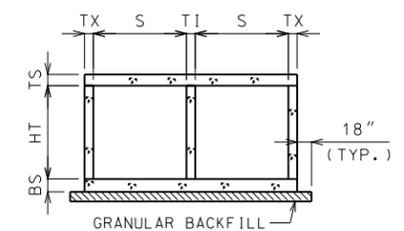


SECTION NEAR INTERIOR WALL
 J1 BARS MAY BE BENT IN FIELD OR SHOP.

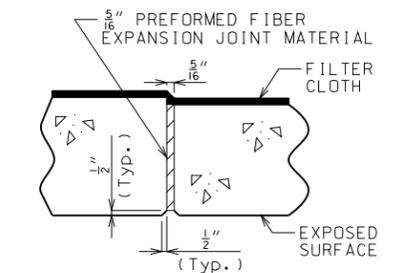
	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	CONCRETE DOUBLE BOX CULVERT	
	SKEW: SQUARE WINGS: FLARED	
REINFORCEMENT		SHEET NO. 703.41H
DATE EFFECTIVE: 10/01/2011 DATE PREPARED: 9/8/2011	2 OF 3	



KEYED CONSTRUCTION JOINT
(a) APPROXIMATELY ONE-THIRD OF WALL THICKNESS



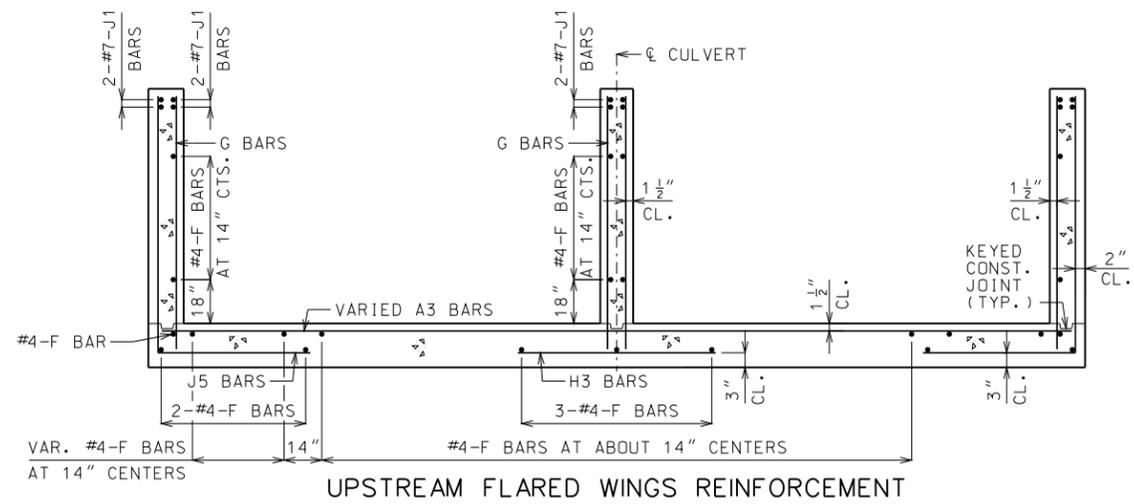
GRANULAR BACKFILL LIMITS AND MEMBER DIMENSIONS



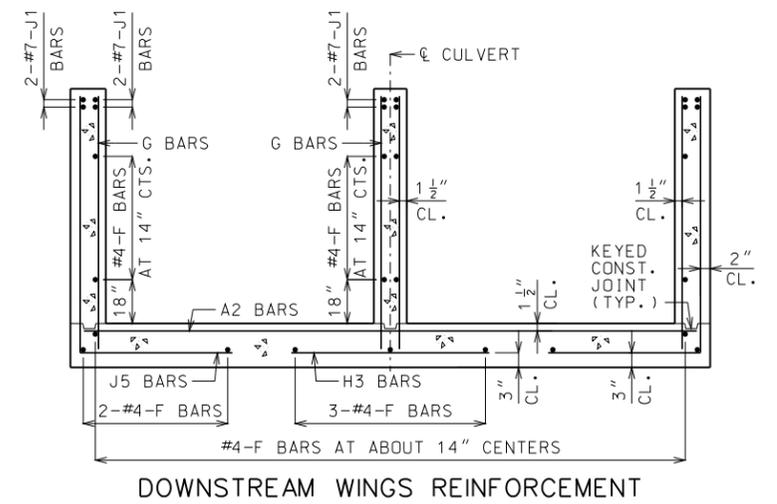
TRANSVERSE JOINT THRU BARREL

PREFORMED FIBER EXPANSION JOINT MATERIAL SHALL BE SECURELY STITCHED TO ONE FACE OF THE CONCRETE WITH NO. 10 GAGE COPPER WIRE OR NO. 12 GAGE SOFT DRAWN GALVANIZED STEEL WIRE.

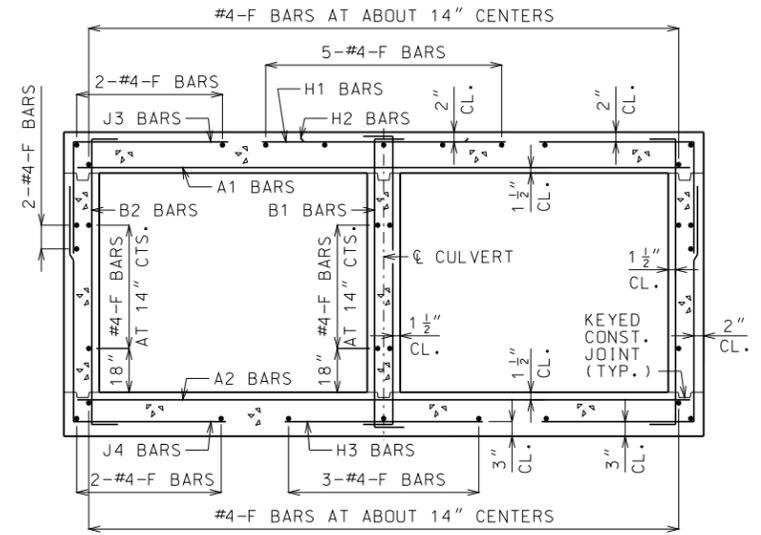
FILTER CLOTH 3 FEET IN WIDTH AND DOUBLE THICKNESS SHALL BE CENTERED ON TRANSVERSE JOINTS IN TOP SLAB AND SIDEWALLS WITH EDGES SEALED WITH MASTIC OR TWO SIDED TAPE. FILTER CLOTH SHALL BE A SUBSURFACE DRAINAGE GEOTEXTILE IN ACCORDANCE WITH SECTION 1011 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. COST OF FURNISHING AND INSTALLING FILTER CLOTH WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR OTHER ITEMS.



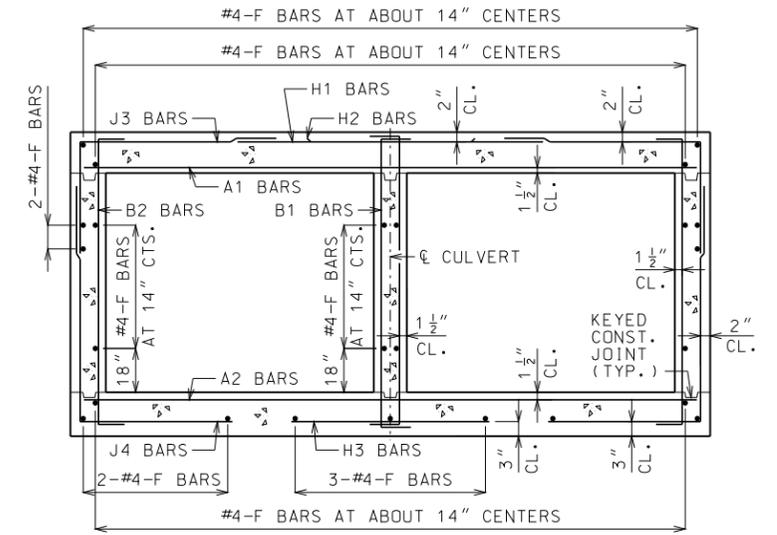
UPSTREAM FLARED WINGS REINFORCEMENT



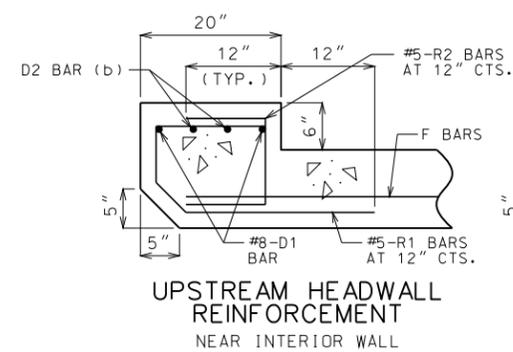
DOWNSTREAM WINGS REINFORCEMENT



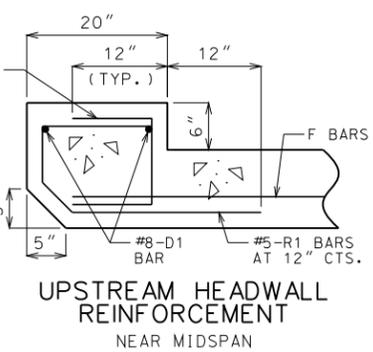
BARREL REINFORCEMENT FOR DESIGN FILLS OVER 2'-0"



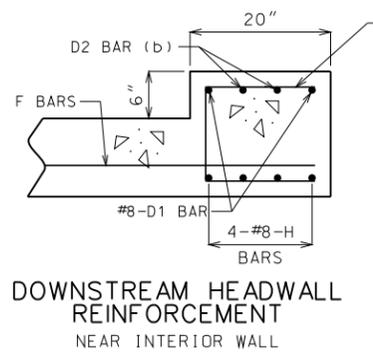
BARREL REINFORCEMENT FOR DESIGN FILLS 2'-0" OR LESS



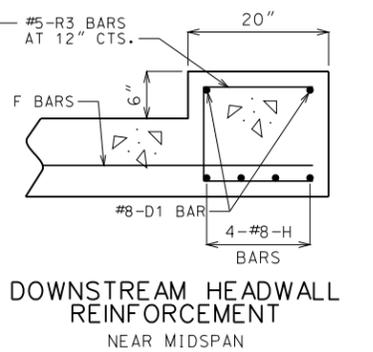
UPSTREAM HEADWALL REINFORCEMENT NEAR INTERIOR WALL



UPSTREAM HEADWALL REINFORCEMENT NEAR MIDSPAN



DOWNSTREAM HEADWALL REINFORCEMENT NEAR INTERIOR WALL



DOWNSTREAM HEADWALL REINFORCEMENT NEAR MIDSPAN

(b) #8 FOR CLEAR SPAN > 10'-0"
#9 FOR CLEAR SPAN > 13'-0"
NOT REQUIRED FOR CLEAR SPANS ≤ 10'-0"

IF D2 BARS ARE REQUIRED, THE MINIMUM LENGTH EACH SIDE OF CULVERT WALL SHALL BE THE GREATER OF 48 BAR DIAMETERS OR 1/4 CLEAR SPAN. THE CLEAR SPAN IS PARALLEL TO LONG DIRECTION OF HEADWALL.

GENERAL NOTES:
FOR MEMBER THICKNESS AND FOR BAR SIZES, SPACING AND DIMENSIONS OF ALL REINFORCEMENT EXCEPT J5 BARS, SEE 703.47. FOR J5 BARS, SEE 703.37.
BARREL AND WINGS SECTIONS ARE SYMMETRICAL ABOUT AND NORMAL TO CULVERT. HEADWALL SECTIONS ARE NORMAL TO LONG DIRECTION OF HEADWALL.
DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.
MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1 1/2".

		MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
		105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		CONCRETE DOUBLE BOX CULVERT SKEW: SQUARE WINGS: FLARED SECTIONS	
DATE EFFECTIVE: 10/01/2011 DATE PREPARED: 9/8/2011		703.41H SHEET NO. 3 OF 3	

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.