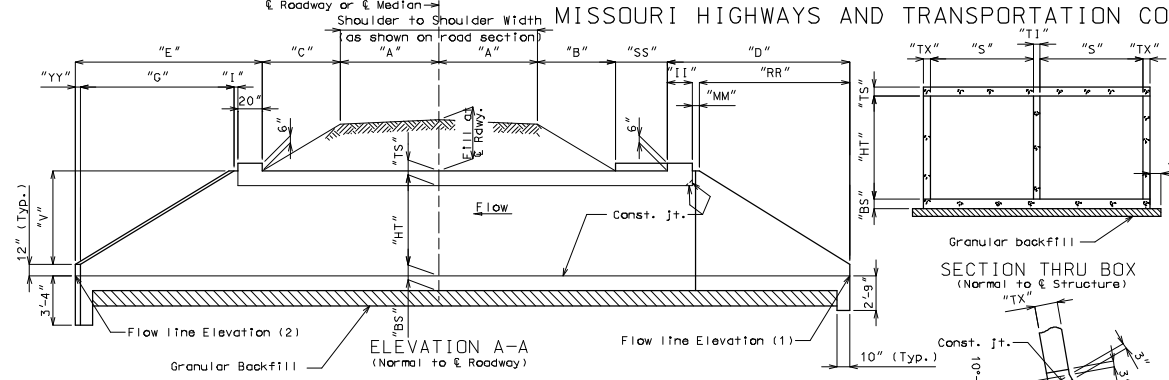


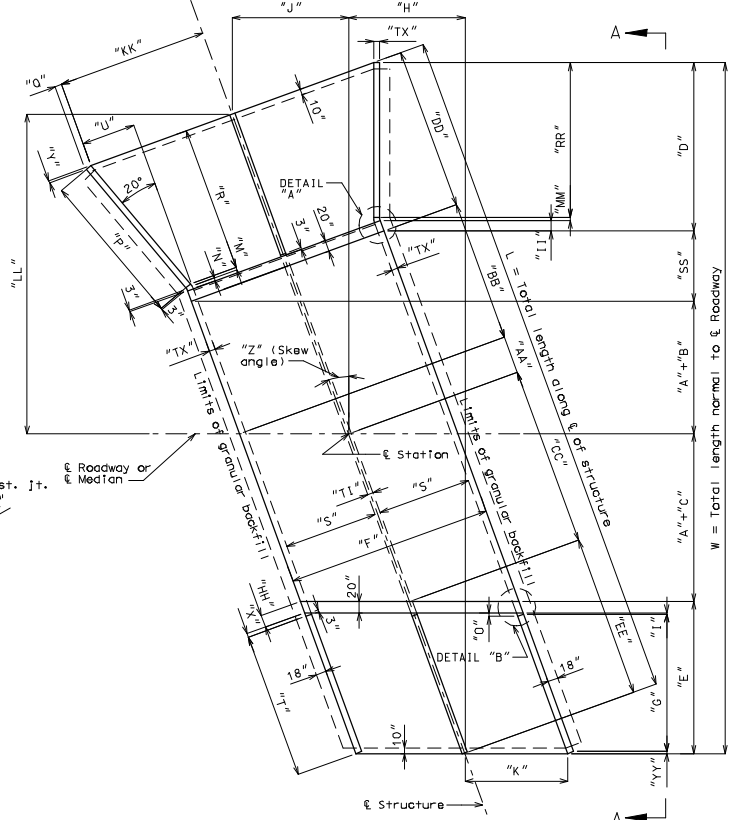
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

ROUTE	STATE	DISTRICT	SHEET NO.
* MO	BR	*	*
JOB NO. *			
CONTRACT ID.			
PROJECT NO.			
COUNTY *			
DATE			
SEC/SUR *	TWP *	RGE *	

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."



SECTION THRU BOX (Normal to E Structure)



PLAN SHOWING LAYOUT DIMENSIONS

GENERAL DATA TABLE			
VARIABLE	EQUATION	DIM.	
"S"	---		
"HT"	---		
"TS"	---		
"BS"	---		
"TX"	---		
"TI"	---		
"A"	---		
"B"	---		
"C"	---		
"D"	---		
"E"	---		
"F"	---		
"G"	---		
"H"	---		
"I"	---		
"J"	---		
"K"	---		
"L"	---		
"M"	---		
"N"	---		
"O"	---		
"P"	---		
"Q"	TX(cos 20°)		
"R"	P(cos 20°)		
"T"	G(sec Z)		
"U"	(R + M)(tan 20°)		
"V"	HT + TS - 12"		
"W"	2A + B + C + D + E + SS		
"X"	3" + TX(tan Z)		
"Y"	TX(sin 20°)		
"Z"	Skew Angle		
"AA"	(F/2)(tan Z)		
"BB"	(A + B)(sec Z)		
"CC"	(A + C)(sec Z)		
"DD"	R + M + N + 20"		
"EE"	E(sec Z)		
"HH"	20"(sec Z)		
"II"	20"(cos Z)		
"KK"	S + TI/2 + U		
"LL"	(AA + BB + DD)(cos Z)		
"MM"	3"[cos Z + cos(Z - 20°)]		
"RR"	P[cos(Z - 20°)]		
"SS"	I + YY		
"YY"	TX(sin Z)		

GENERAL NOTES:
Design Specifications:
 2002 - AASHTO 17th Edition
 Load Factor Design
Design Unit Stresses:
 Class B-1 concrete f'c = 4,000 psi
 Reinforcing steel (Grade 60), fy = 60,000 psi
Design Loading:
 HS20-44 HS20 Modified
 Earth 120 #/ft.³
 Equivalent fluid pressure
 30 #/ft.³ (Min.) - 60 #/ft.³ (Max.)
 All elevations shown are in feet unless otherwise noted.
 The box shown below indicating whether a precast or slip box was used should be checked by MODOT construction personnel:
 Precast Box used
 Cast-in-Place Box used
 When alternate precast box sections are used, the minimum barrel length measured along the shortest wall from the first joint to the outside of the headwall, shall be 3'-2". Reinforcement and dimensions for the wings and headwalls shall be in accordance with Missouri Standard Plans drawing.
 Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.
 "Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.

DETAIL "A"

DETAIL "B"

E Sta. =	Design Fill (*)
Pr. Gr. Elev. at E Sta. =	Elev. (1) feet
Fill at E Rdwy. at E Station =	Elev. (2) feet

* Design fill height is the distance from top of earth fill or roadway to the top of the top slab.

HYDROLOGIC DATA	
Drainage Area =	_____ (sq. mi.)
Design High Water (DHW) Elev. =	_____
Design High Water Frequency =	_____ (year)
Design High Water Discharge =	_____ (cfs)
Backwater/Base Flood Data (100 year)	
High Water Elev. =	_____
Design Discharge =	_____ (cfs)
Estimated Backwater =	_____ (ft)
Outlet Velocity =	_____ (ft/sec)
Roadway Overtopping	
Design Elev. (1' below shoulder) =	_____
Design Discharge =	_____ (cfs)
Design Frequency =	_____ (year)

ESTIMATED QUANTITIES		FINAL QUANTITIES
Class 4 Excavation	cu. yard	
Removal of Bridges	lump sum	
Class B-1 Concrete (Culverts-Bridge)	cu. yard	
Reinforcing Steel (Culverts-Bridge)	pound	

LOCATION SKETCH

B.M.
 BRIDGE
 STATE ROAD
 ABDUT
 STA.

STD.
STD.
STD.
STD.
BOX 6