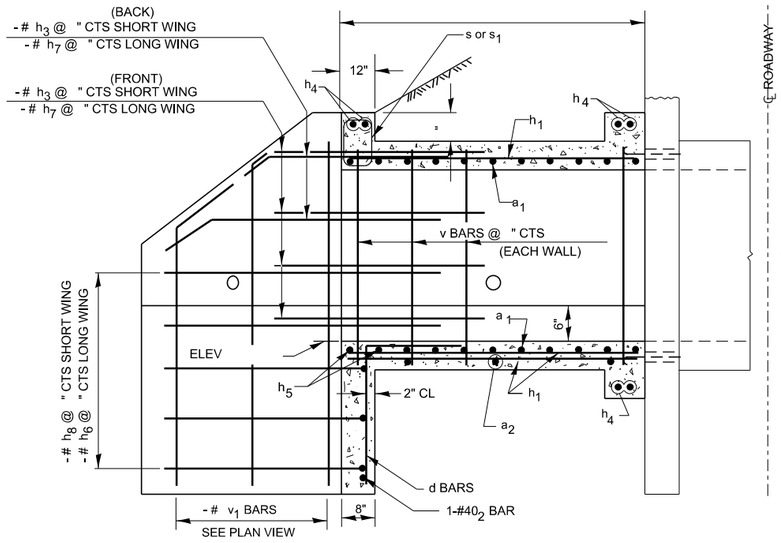
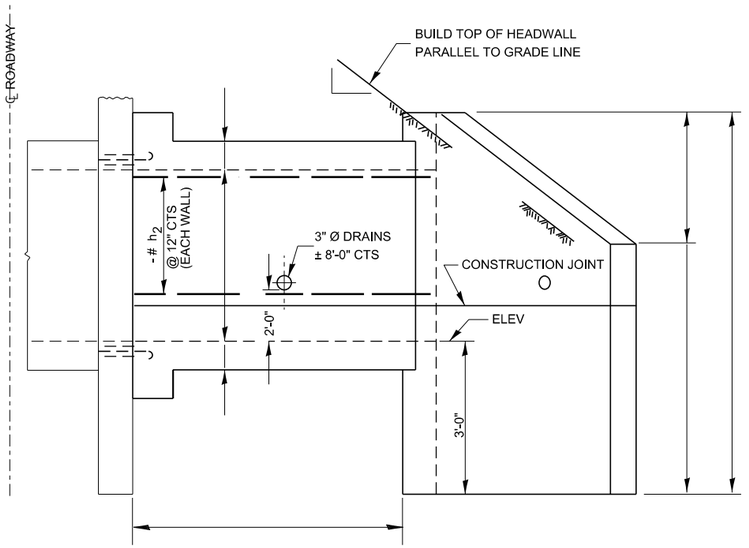
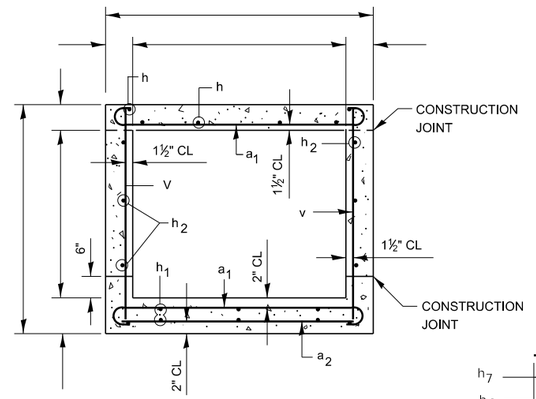


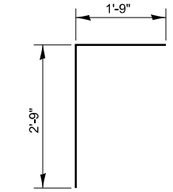
HALF LONG SECTION



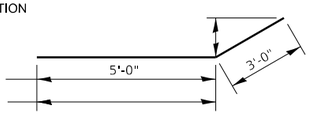
HALF ELEVATION



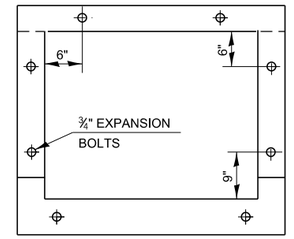
SECTION THRU BARREL



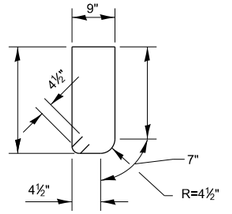
BAR d



BARS h_6 & h_7



SIDEWALLS @ " CTS
TOP & BOTTOM @ " CTS



BAR s

(UPSTREAM)

EXPANSION BOLT LOCATION

NOTE: EXPANSION BOLTS SHALL CONSIST OF SELF DRILL EXPANSION SHIELDS AND ¾" DIAMETER HOOKED BOLTS. HOOKED BOLTS SHALL EXTEND A MINIMUM OF 9" INTO NEW CONCRETE.
MINIMUM CERTIFIED PROOF LOAD = 4,080 LBS.

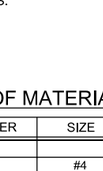
SECTION THRU HEADWALL

(UP STREAM END ONLY)

SHOWING REINFORCEMENT

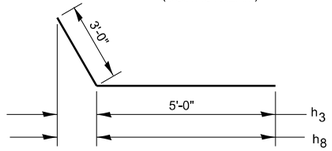
PLAN

SHOWING OUTLINES



BAR s_1

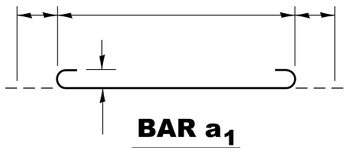
(DOWNSTREAM)



BARS h_3 & h_8

GENERAL NOTES

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
AT LEAST SIX FEET OF BARREL SHALL BE POURED MONOLITHICALLY WITH WINGWALLS.
EXPOSED EDGES SHALL BE BEVELED ¾".
FOR BACKFILING AND EMBANKMENTS SEE STANDARD SPECIFICATIONS.
TILT HOOK OF a_1 BARS, IF NECESSARY, TO OBTAIN 1½" MINIMUM CLEARANCE AT THE TOP OF HOOK.
REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53, GRADE 60.



BAR a_1

DESIGN STRESSES
fy= 60,000 PSI
fc'= 3,500 PSI

LOADING HS 20-44 & ALT

BILL OF MATERIALS

BAR	NUMBER	SIZE	LENGTH
a_1			
a_2		#4	
d			
h			
h_1			
h_2			
h_3			
h_4		#6	
h_5			
h_6			
h_7			
h_8			
V			
V_1			
s		#4	
s_1		#4	
CONC BOX CULV		CU YDS	
REINFORCEMENT BARS		LBS	
EXPANSION BOLTS		EACH	

540-4

USER NAME = ronald.pohar	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = 100.000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/15/2024	DATE -	REVISED -	

BOX CULVERT EXTENSION STATION

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: dist 3 details
FILE NAME: pw:\\dot-pw.bentley.com:PWDOT\Documents\IDOT Offices\District 3\Standards - District 3\DETAILS\DISTRICT 3 STANDARD DETAILS DGN\502-599 STRUCTURES.dgn