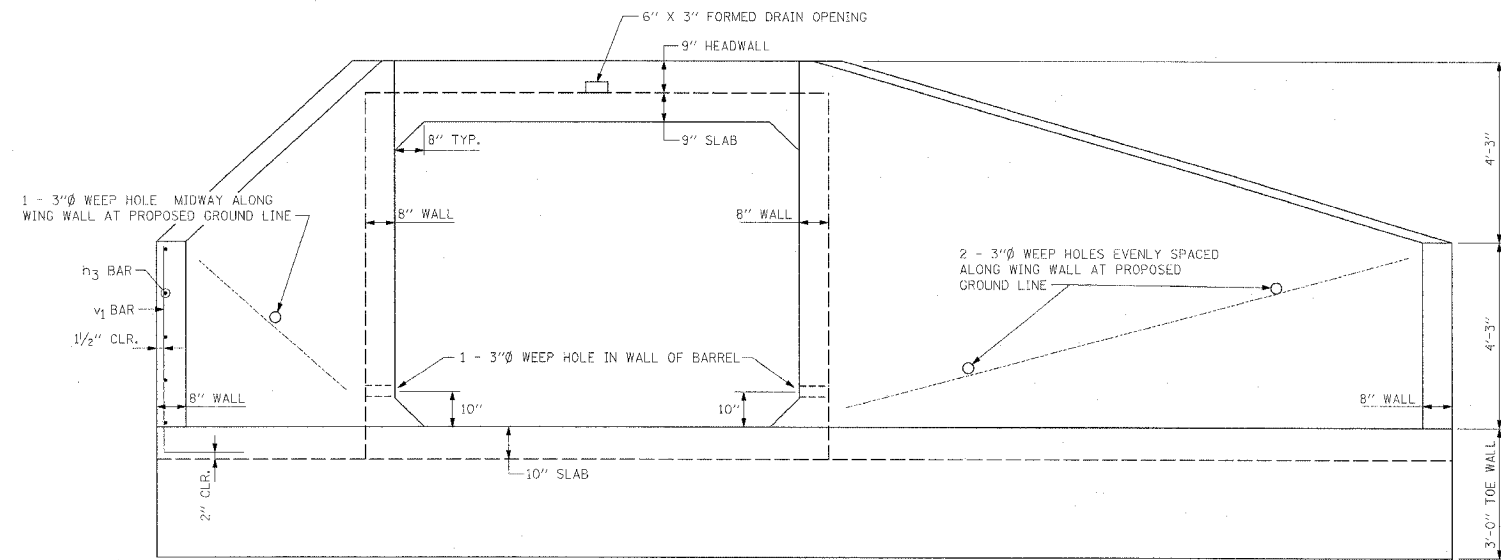
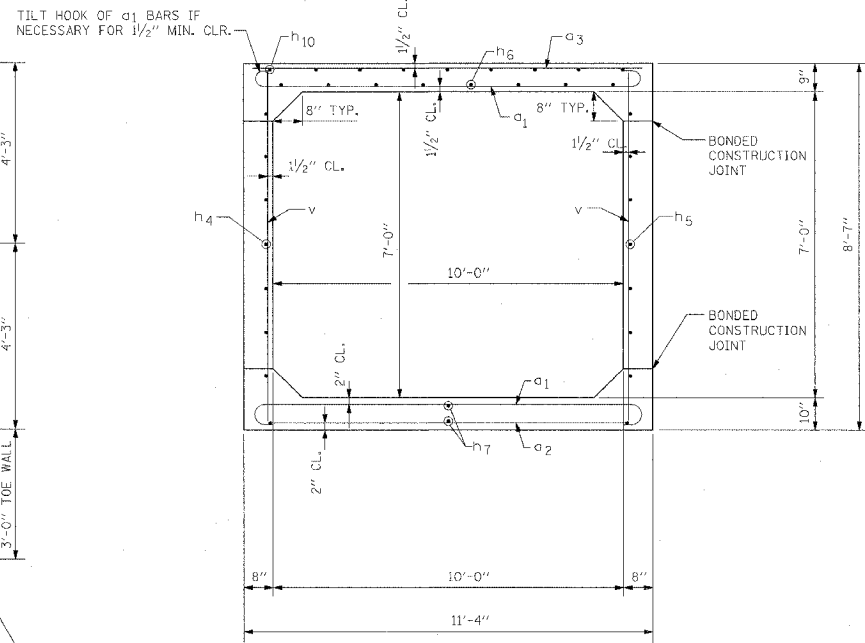


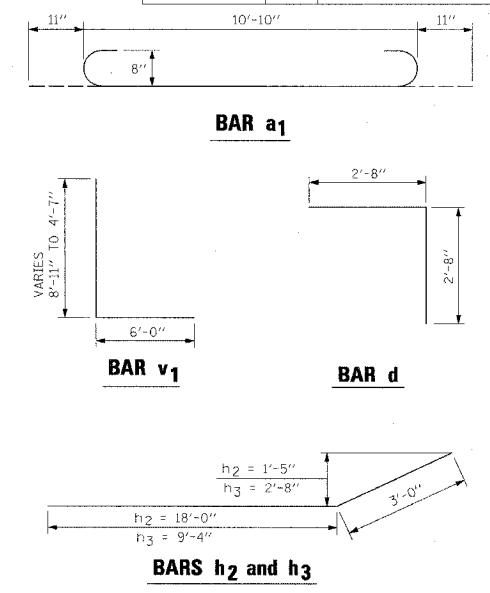
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	55-2	McDONOUGH	1025	600
STA.	TO STA.			
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				



END ELEVATION

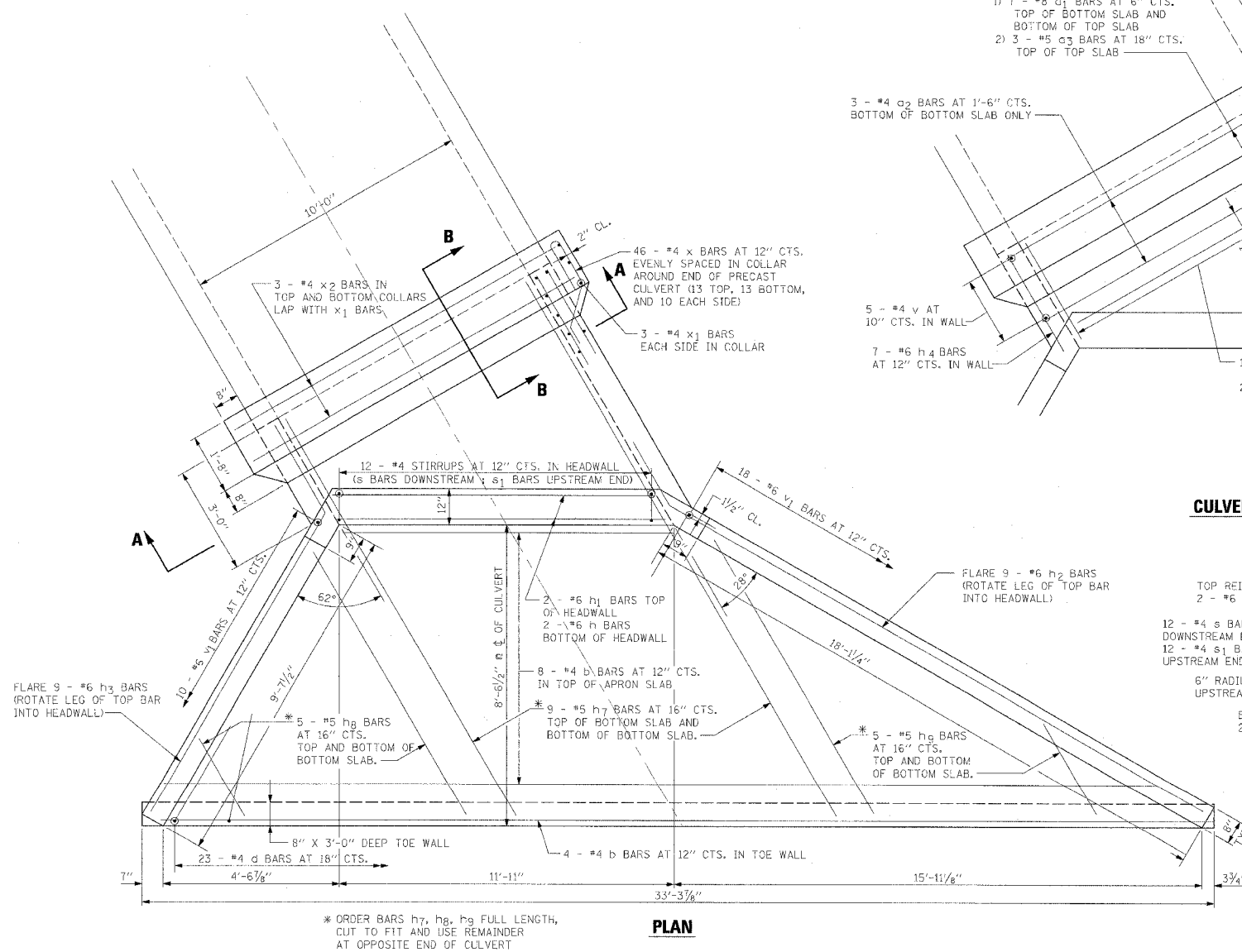


SECTION A-A



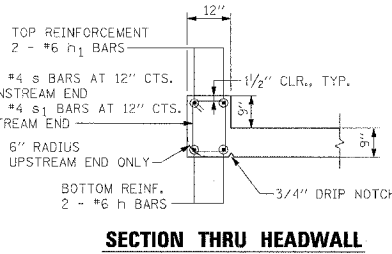
BILL OF MATERIAL
(For Two End Sections)

Bar	No.	Size	Length	Shape
* a ₁	50	#8	12'-8"	
a ₂	6	#4	11'-0"	
* a ₃	9	#5	11'-0"	
* b	24	#4	14'-0" TO 32'-9"	
d	46	#4	5'-4"	
h	4	#6	13'-1"	
h ₁	4	#6	11'-8"	
h ₂	18	#6	21'-0"	
h ₃	18	#6	12'-4"	
h ₄	14	#6	3'-0"	
h ₅	14	#6	9'-4"	
* h ₆	12	#6	12'-9"	
* h ₇	18	#5	32'-6"	
* h ₈	10	#5	10'-5"	
* h ₉	10	#5	11'-0"	
* h ₁₀	12	#4	12'-9"	
s	12	#4	4'-7"	
s ₁	12	#4	4'-5"	
v	34	#4	8'-3"	
* v ₁	56	#6	14'-11" TO 10'-7"	
x	92	#4	6'-2"	
x ₁	12	#4	9'-6"	
x ₂	12	#4	16'-4"	
* MAY FIELD BEND AND/OR FIELD CUT				
Box Culvert End Section, Culvert No. 4			Each	2

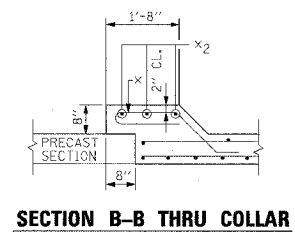


PLAN

CULVERT SLAB PLAN



SECTION THRU HEADWALL



SECTION B-B THRU COLLAR

DESIGN STRESSES

f_y = 60,000 psi
f'_c = 3,500 psi

LOADING HS 20-44

NOTES

1. THE BARREL SHALL BE POURED MONOLITHICALLY WITH THE WINGWALLS.
2. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 OR M-322, GRADE 60.
3. CHAMFER EXPOSED EDGES 3/4".
4. ALL CONSTRUCTION JOINTS SHALL BE BONDED.
5. THE PRICE FOR BOX CULVERT END SECTION, CULVERT NO. 4, SHALL BE PAYMENT IN FULL FOR ALL LABOR AND MATERIALS NECESSARY TO CONSTRUCT THE END SECTION AS SHOWN ON THE PLANS INCLUDING CONCRETE COLLARS, REINFORCEMENT BARS, CONCRETE, CAST-IN-PLACE SECTIONS OF THE BARREL AND ALL OTHER COLLATERAL WORK.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BOX CULVERT END SECTION, CULVERT NO. 4
DETAILS
CENTERLINE STA. 253+09.43
IL. ROUTE 336
DRAWN BY JSD
CHECKED BY WDL
DATE 1/05/06