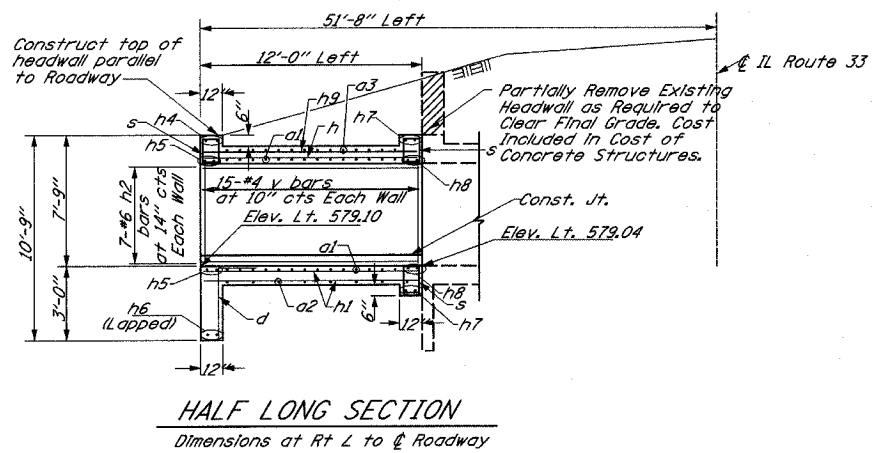


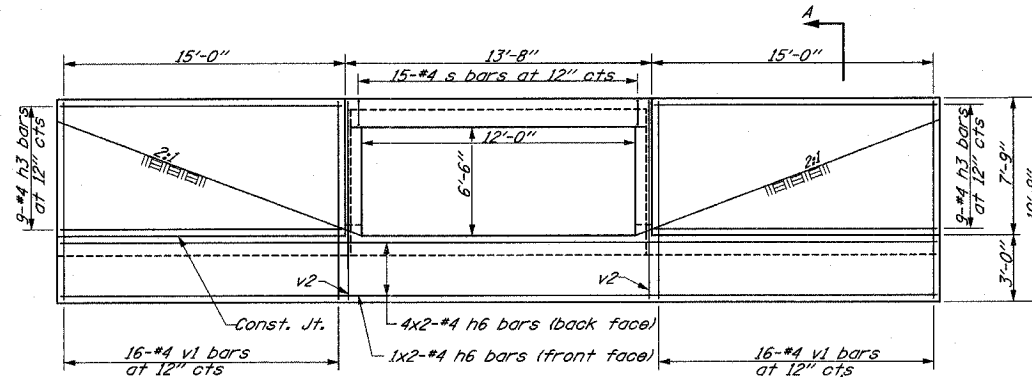
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
95	*	EFFINGHAM	409	147
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

* (6,7)Y, RS-1, 6B-1, 7B-1, 7BR-2
CONTRACT NO. 94356



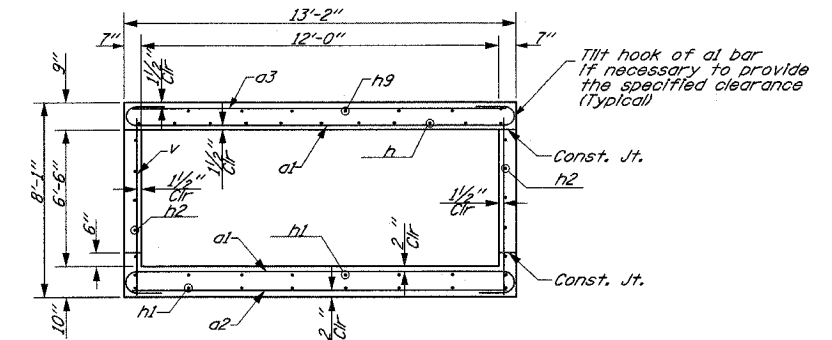
HALF LONG SECTION

Dimensions at Rt L to & of Roadway

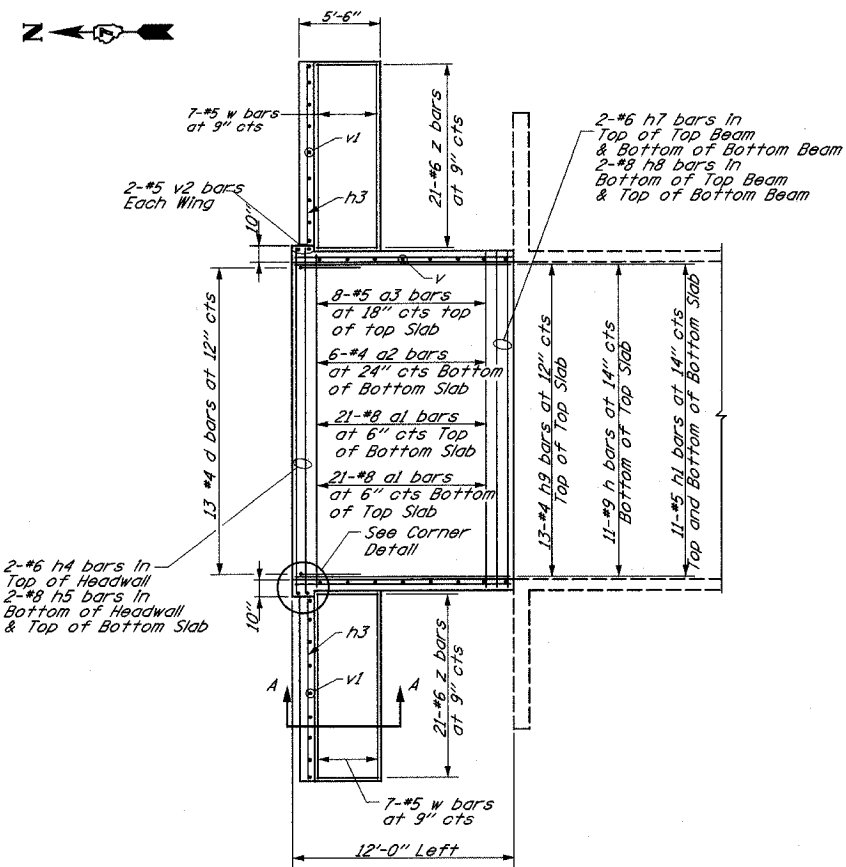


END ELEVATION

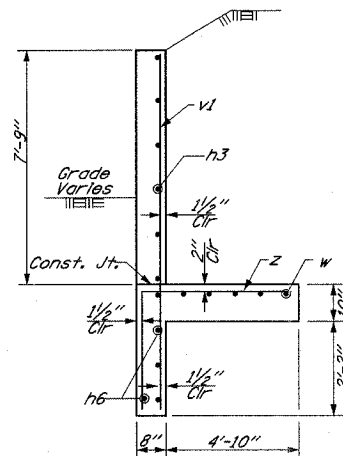
Dimensions Parallel to & of Roadway



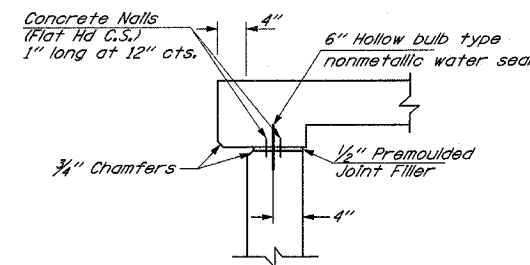
SECTION THRU BARREL



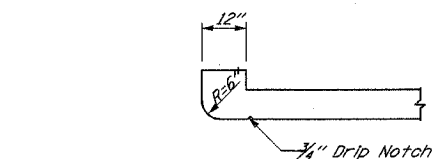
PLAN SHOWING REINFORCEMENT



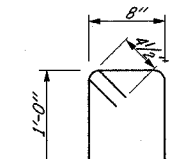
SECTION A-A



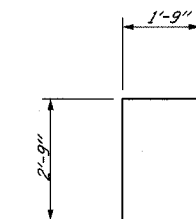
CORNER DETAIL



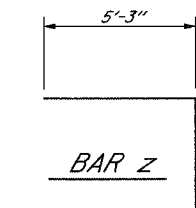
SECTION THRU HEADWALL



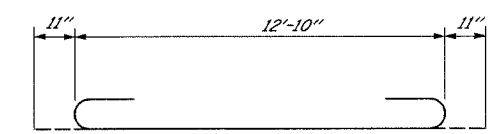
STIRRUP S



BAR d



BAR z



BAR a1

BILL OF MATERIAL

Bar	No.	Size	Length
a1	42	#8	14'-8"
a2	6	#4	12'-3"
a3	8	#5	12'-3"
d	13	#4	4'-6"
h	11	#9	11'-8"
h1	22	#5	11'-8"
h2	14	#6	11'-8"
h3	18	#4	14'-8"
h4	2	#6	13'-4"
h5	4	#8	13'-4"
h6	10	#4	23'-4"
h7	4	#6	12'-10"
h8	4	#8	12'-10"
h9	13	#4	11'-8"
s	43	#4	4'-1"
v	30	#4	7'-9"
v1	32	#4	10'-6"
v2	4	#5	10'-6"
w	14	#5	14'-8"
z	42	#6	7'-11"
Concrete Box Culverts	Cu Yd		28.6
Reinforcement Bars	Pound		4866
Expansion Bolts 3/4"	Each		26

NOTES:

- Bench Mark: Chiseled "C" on Box Culvert Headwall 40' RT, Sta. 315+00.00, Elev. 586.73.
- Design Fill Height <2' Lt.
- Exposed edges shall be chamfered 3/4".
- Class SI Concrete shall be used throughout.
- Reinforcement Bars shall conform to the requirements of AASHTO M31 or M322, Grade 60.
- Bars Indicated thus 12x4-#5 etc. Indicates 12 lines of #5 bars with 4 lengths per line.
- Nonmetallic water seal used in the wingwall joints shall extend from the top of the footing to within 6" of the top of the headwall.
- For Backfilling and Embankment, see Standard Specifications.
- Hooked Expansion Bolts shall consist of self-drilling expansion shields and hooked bolts. Hooked Bolts shall extend a minimum of 9" into new concrete.

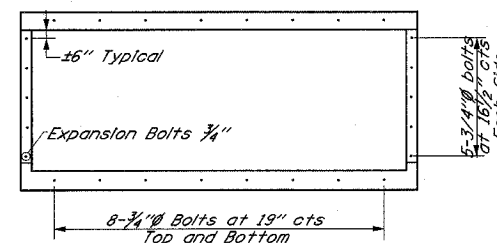
SPECIFICATION

1996 AASHTO with 1997, 1998, 1999, 2000 and 2002 Interims

DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

LOADING HS 20-44



EXPANSION BOLT PLACEMENT DETAIL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CULVERT EXTENSION DETAILS
& STA. 315+00.88 LT.
SHEET 4 OF 5

DATE 9/01

DRAWN BY BDM
CHECKED BY SJK

Rev. 6-4-07