

PAY CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL	CONSTRUCTION TYPE CODE					
				1000-2A		X071-2A		X081-2A	
				URBAN	RURAL	URBAN	RURAL	URBAN	RURAL
2010010	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	1933	578	1355				
2010020	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	2446	1111	1335				
2020010	EARTH EXCAVATION	CU YD	81610	13095	68515				
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	2185		2185				
20300100	CHANNEL EXCAVATION	CU YD	1425		1425				
20700400	POROUS GRANULAR EMBANKMENT (SPECIAL) ³ ^Δ	CU YD	566			154	412		
20800150	TRENCH BACKFILL	CU YD	345	18	327				
* 2101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	31000	3115	27885				
21400100	GRADING AND SHAPING DITCHES	FOOT	266		266				
* 25000210	SEEDING, CLASS 2A	ACRE	47.25	5.0	42.25				
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	4253	450	3803				
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	4253	450	3803				
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	4253	450	3803				
* 25000700	AGRICULTURAL GROUND LIMESTONE	TON	94.5	10.0	84.5				
* 25100115	MULCH, METHOD 2	ACRE	47.25	5.0	42.25				
* 25100630	EROSION CONTROL BLANKET	SQ YD	1335	470	865				
* 28000200	EARTH EXCAVATION FOR EROSION CONTROL	CU YD	120		120				
* 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	4725	500	4225				
* 28000300	TEMPORARY DITCH CHECKS	EACH	100	46	54				
* 28000400	PERIMETER EROSION BARRIER	FOOT	1110	710	400				
28000500	INLET AND PIPE PROTECTION	EACH	58	11	47				
28100107	STONE RIPRAP, CLASS A4	SQ YD	2937	896	580	1032	429		
28200200	FILTER FABRIC	SQ YD	3581	1299	821	1032	429		
28400100	GABIONS	CU YD	325	202	123				
3101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	8257		8257				
3101900	SUB-BASE GRANULAR MATERIAL, TYPE C	TON	316	114	202				
35101400	AGGREGATE BASE COURSE, TYPE B	TON	882	292	590				
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	2838		2838				
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	10772	754	10018				
35650700	BASE COURSE WIDENING	SQ YD	1615	519	1096				
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	939	262	677				
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1430		1430				
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON	3889		3889				
40300500	COVER COAT AGGREGATE	TON	71		71				
40300600	SEAL COAT AGGREGATE	TON	34		34				
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	37106	2627	34479				

F BRP
 80% FEDERAL
 20% STATE
 CONSTRUCTION TYPE CODE

F.A.P. RTE. 95	SECTION *	COUNTY EFFINGHAM	TOTAL SHEETS 409	SHEET NO. 4
STA. TO STA.		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		
		*(6,7)Y, RS-1, 6B-1, 7B-1 & 7BR-2		
		CONTRACT NO. 94356		
		80% FED. / 20% STATE		

PAY CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL	CONSTRUCTION TYPE CODE					
				1000-2A		X071-2A		X081-2A	
				URBAN	RURAL	URBAN	RURAL	URBAN	RURAL
40600300	AGGREGATE (PRIME COAT)	TON	687	51	636				
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	6556	431	6125				
40600895	CONSTRUCTING TEST STRIP	EACH	1		1				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	513	87	426				
40600990	TEMPORARY RAMP	SQ YD	585	91	494				
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	8019	1213	6806				
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	1113	74	1039				
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	80		80				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	14396	923	13473				
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	505	156	349				
42000300	PORTLAND CEMENT CONCRETE PAVEMENT 8"	SQ YD	999	178	821				
4200165	BRIDGE APPROACH PAVEMENT	SQ YD	548	274	274				
42001200	PAVEMENT FABRIC	SQ YD	999	178	821				
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	108	54	54				
42001500	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ YD	160		160				
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	408	204	204				
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	855		855				
44000100	PAVEMENT REMOVAL	SQ YD	2841	599	2242				
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	1136		1136				
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	151041	9084	141957				
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	1692	104	1588				
44000400	GUTTER REMOVAL	FOOT	4071	2070	2001				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	758	758					
44000910	BITUMINOUS CONCRETE REMOVAL (DECK)	SQ YD	654		654				
44000915	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	654		654				
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	135	108	27				
44002600	GUTTER OUTLET REMOVAL	FOOT	165	93	72				
44002805	ISLAND REMOVAL	SQ FT	115		115				
44004250	PAVED SHOULDER REMOVAL	SQ YD	1615		1615				
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	5426		5426				

URBAN SECTION STA. 142+00.00 TO STA. 180+60.00
 RURAL SECTION STA. 180+60.00 TO STA. 689+81.63
 * DENOTES SPECIALTY ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SUMMARY OF QUANTITIES
 SHEET 1 OF 4
 DRAWN BY ASB
 CHECKED BY SJK
 DATE 6/02

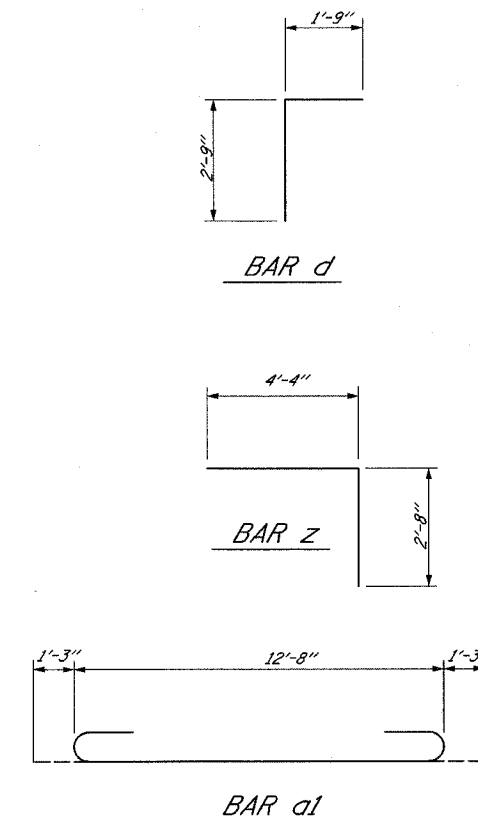
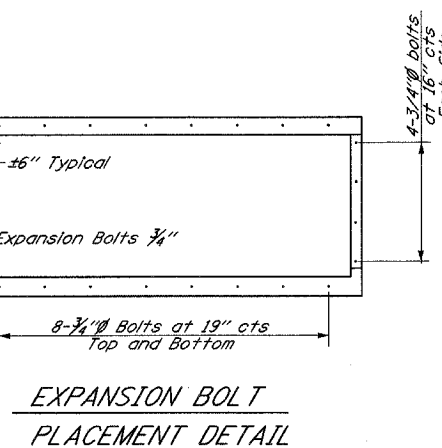
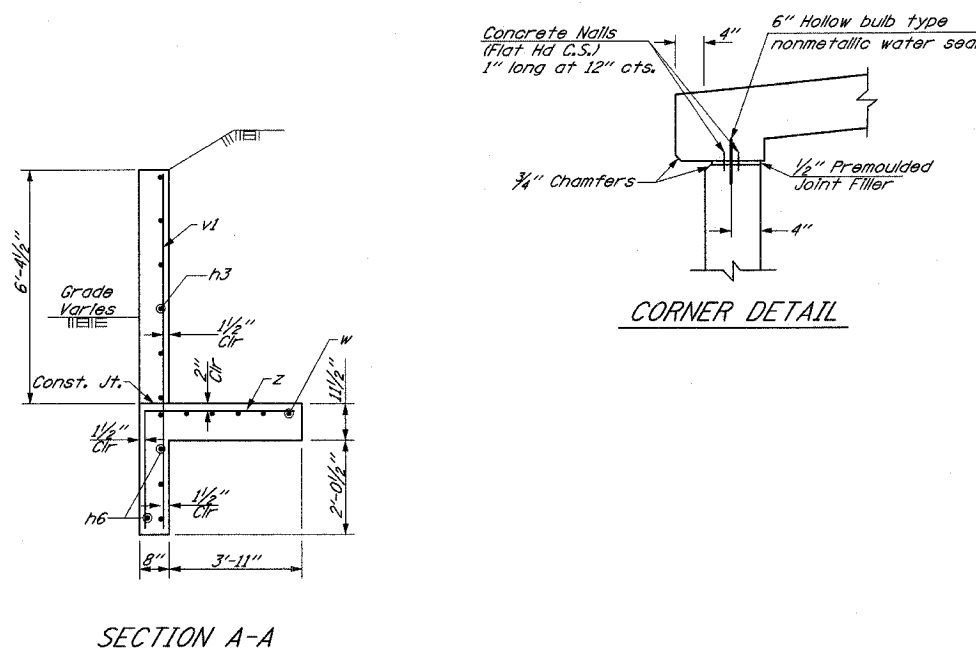
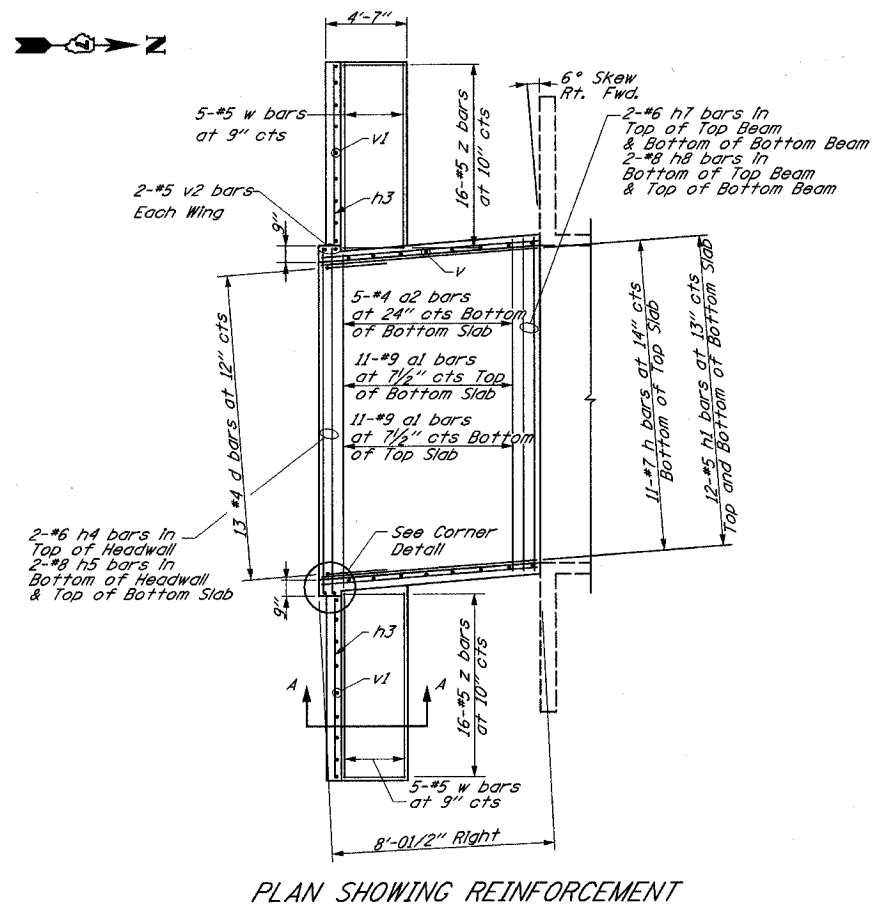
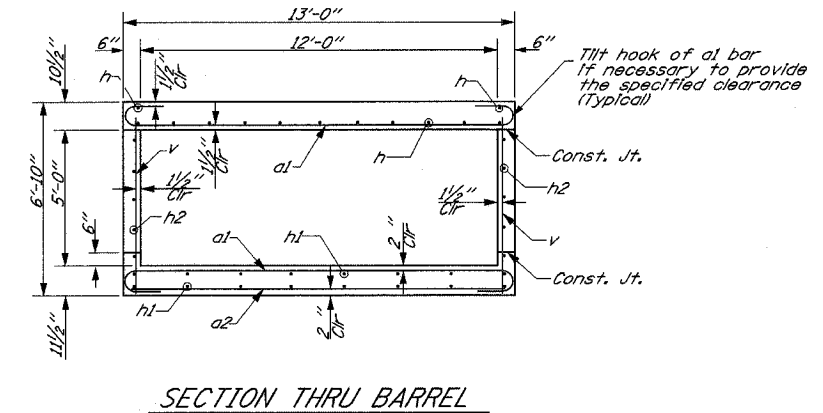
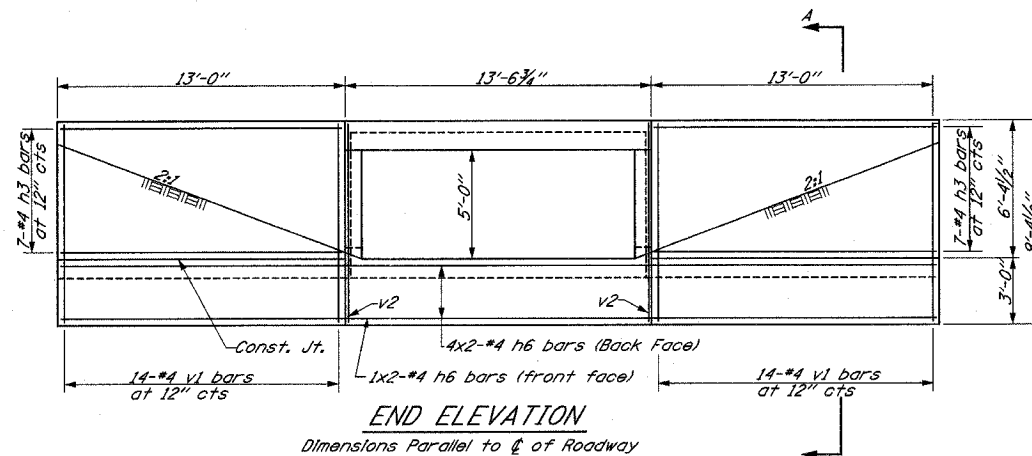
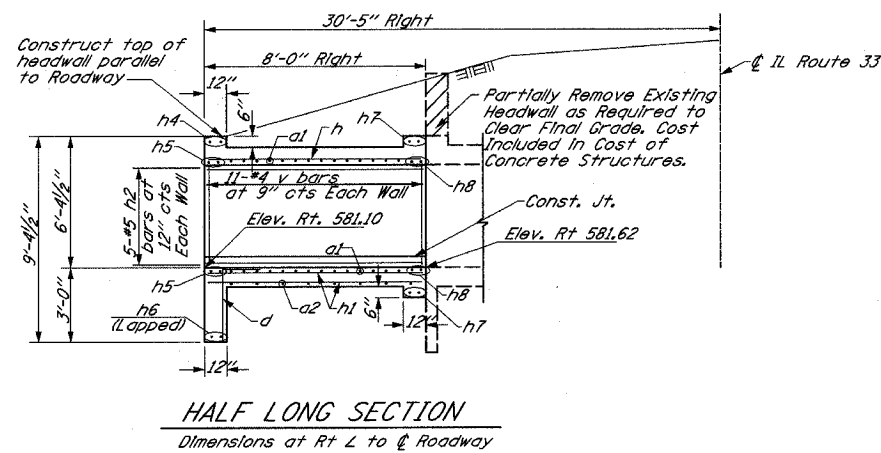
PAY CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL	F		BRF		F	
				80% FEDERAL 20% STATE		CONSTRUCTION TYPE CODE		LITTLE SALT CREEK	
				URBAN	RURAL	URBAN	RURAL	URBAN	RURAL
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQ YD	784		784				
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	1366		1366				
48101200	AGGREGATE SHOULDERS, TYPE B	TON	313		313				
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	43157	3179	39978				
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	368	368					
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	15067	1423	13644				
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1			1			
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1				1		
50102400	CONCRETE REMOVAL	CU YD	31.3						31.3
50104400	CONCRETE HEADWALL REMOVAL	EACH	1		1				
50105200	REMOVE EXISTING CULVERTS	EACH	61	14	47				
50200100	STRUCTURE EXCAVATION	CU YD	428			348	80		
50300100	FLOOR DRAINS	EACH	6				6		
50300225	CONCRETE STRUCTURES	CU YD	162.5			125.6	36.9		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	376.7			249.9	95.6		31.2
50300260	BRIDGE DECK GROOVING	SQ YD	1599			748	228		623
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	318				318		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1				1		
50500505	STUD SHEAR CONNECTORS	EACH	3384			3384			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	100,449	207	1292	72400	22,230		4320
50800105	REINFORCEMENT BARS	POUND	34,201						
50800515	BAR SPLICERS	EACH	1078			760	294		24
51201400	FURNISHING STEEL PILES HPI0X42	FOOT	540				540		
51201500	FURNISHING STEEL PILES HPI0X57	FOOT	416			416			
51201700	FURNISHING STEEL PILES HPI2X74	FOOT	248			248			
51202305	DRIVING PILES	FOOT	956			416	540		
51203400	TEST PILE STEEL HPI0X42	EACH	1				1		
51203500	TEST PILE STEEL HPI0X57	EACH	2			2			
51205200	TEMPORARY SHEET PILING	SQ FT	954		954				
51500100	NAME PLATES	EACH	2			1	1		
52100520	ANCHOR BOLTS, 1"	EACH	48			48			
54001002	BOX CULVERT END SECTION, CULVERT NO.2	EACH	1	1					
54001003	BOX CULVERT END SECTION, CULVERT NO.3	EACH	1	1					
54001004	BOX CULVERT END SECTION, CULVERT NO.4	EACH	2	2					
54001005	BOX CULVERT END SECTION, CULVERT NO.5	EACH	2		2				
54001006	BOX CULVERT END SECTION, CULVERT NO.6	EACH	2		2				
54001007	BOX CULVERT END SECTION, CULVERT NO.7	EACH	2		2				

PAY CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL	80% FEDERAL 20% STATE		CONSTRUCTION TYPE CODE	
				URBAN	RURAL	URBAN	RURAL
				54001008	BOX CULVERT END SECTION, CULVERT NO.8	EACH	2
54001009	BOX CULVERT END SECTION, CULVERT NO.9	EACH	1		1		
54001010	BOX CULVERT END SECTION, CULVERT NO.10	EACH	1		1		
54001011	BOX CULVERT END SECTION, CULVERT NO.11	EACH	2		2		
54001012	BOX CULVERT END SECTION, CULVERT NO.12	EACH	4		4		
54001013	BOX CULVERT END SECTION, CULVERT NO.13	EACH	2		2		
54001014	BOX CULVERT END SECTION, CULVERT NO.14	EACH	2		2		
54001015	BOX CULVERT END SECTION, CULVERT NO.15	EACH	1		1		
54001016	BOX CULVERT END SECTION, CULVERT NO.16	EACH	1		1		
54002020	EXPANSION BOLTS 3/4 INCH	EACH	408	48	360		
54003000	CONCRETE BOX CULVERTS	CU YD	149.5		149.5		
54010202	PRECAST CONCRETE BOX CULVERT 2' X 2'	FOOT	11	62	49		
54010302	PRECAST CONCRETE BOX CULVERT 3' X 2'	FOOT	42		42		
54010303	PRECAST CONCRETE BOX CULVERT 3' X 3'	FOOT	33	33			
54010402	PRECAST CONCRETE BOX CULVERT 4' X 2'	FOOT	23		23		
54010403	PRECAST CONCRETE BOX CULVERT 4' X 3'	FOOT	43		43		
54010603	PRECAST CONCRETE BOX CULVERT 6' X 3'	FOOT	69		69		
54010703	PRECAST CONCRETE BOX CULVERT 7' X 3'	FOOT	140		140		
54010802	PRECAST CONCRETE BOX CULVERT 8' X 2'	FOOT	10		10		
54010806	PRECAST CONCRETE BOX CULVERT 8' X 6'	FOOT	26		26		
542A0220	PIPE CULVERTS, CLASS A, TYPE 115"	FOOT	98	98			
542A0223	PIPE CULVERTS, CLASS A, TYPE 118"	FOOT	5	5			
542A0229	PIPE CULVERTS, CLASS A, TYPE 124"	FOOT	79	2	77		
542A0235	PIPE CULVERTS, CLASS A, TYPE 130"	FOOT	45	31	14		
542A0247	PIPE CULVERTS, CLASS A, TYPE 142"	FOOT	13	13			
542D0217	PIPE CULVERTS, CLASS D, TYPE 112"	FOOT	94		94		
542D0220	PIPE CULVERTS, CLASS D, TYPE 115"	FOOT	1446	403	1043		
542D0223	PIPE CULVERTS, CLASS D, TYPE 118"	FOOT	309		309		
542D0226	PIPE CULVERTS, CLASS D, TYPE 121"	FOOT	194		194		
542D0229	PIPE CULVERTS, CLASS D, TYPE 124"	FOOT	432	45	387		
56200100	WATER SERVICE LINE 12"	FOOT	1500		1300		

URBAN SECTION STA. 142+00.00 TO STA. 180+60.00
RURAL SECTION STA. 180+60.00 TO STA. 689+81.63
* DENOTES SPECIALTY ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
SHEET 2 OF 4
DRAWN BY ASB
CHECKED BY SJK
DATE 6/02



BILL OF MATERIAL

Bar No.	Size	Length	Concrete Box Culverts	CU Yd
a1	#9	15'-2"		
a2	#4	12'-8"		
d	#4	4'-6"		
h	#7	7'-8"		
h1	#5	7'-8"		
h2	#5	7'-8"		
h3	#4	12'-8"		
h4	#6	13'-2"		
h5	#8	13'-2"		
h6	#4	21'-4"		
h7	#6	12'-8"		
h8	#8	12'-8"		
v	#4	6'-6"		
v1	#4	9'-0"		
v2	#5	9'-0"		
w	#5	12'-10"		
z	#4	7'-0"		
			Concrete Box Culverts	CU Yd 19.7
			Reinforcement Bars	Pound 2930
			Expansion Bolts 3/4"	Each 24

NOTES:

- Bench Mark: & IL Route 33 at & Culvert (Sta. 238+44.88), Elev. 589.55.
- Design Fill Height 2' Rt.
- 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

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

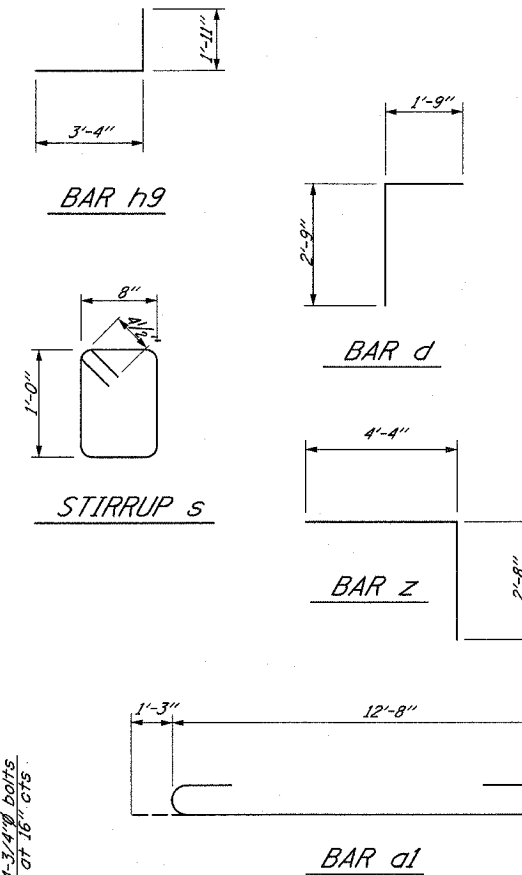
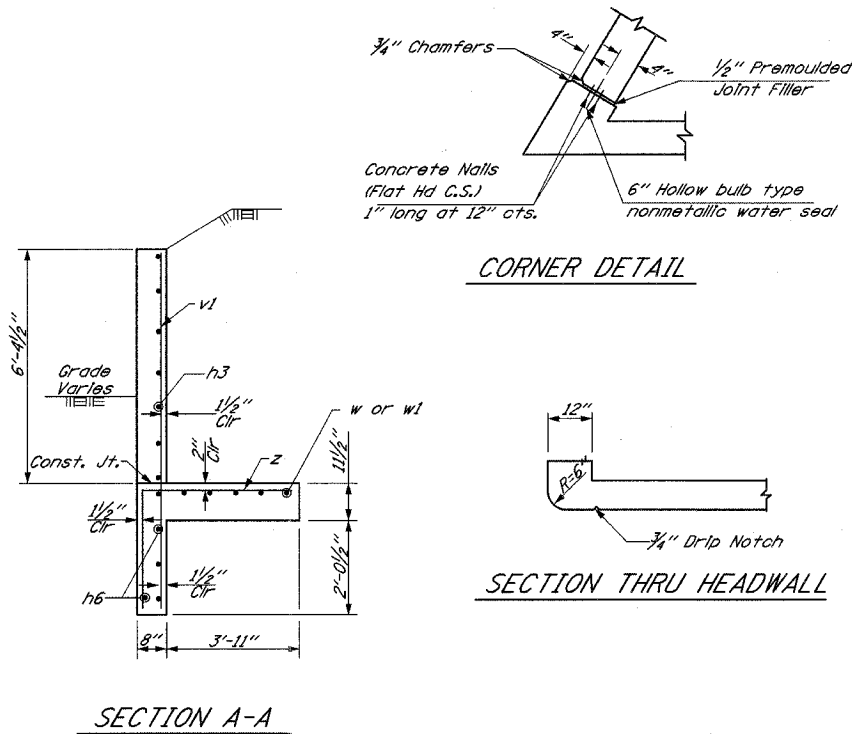
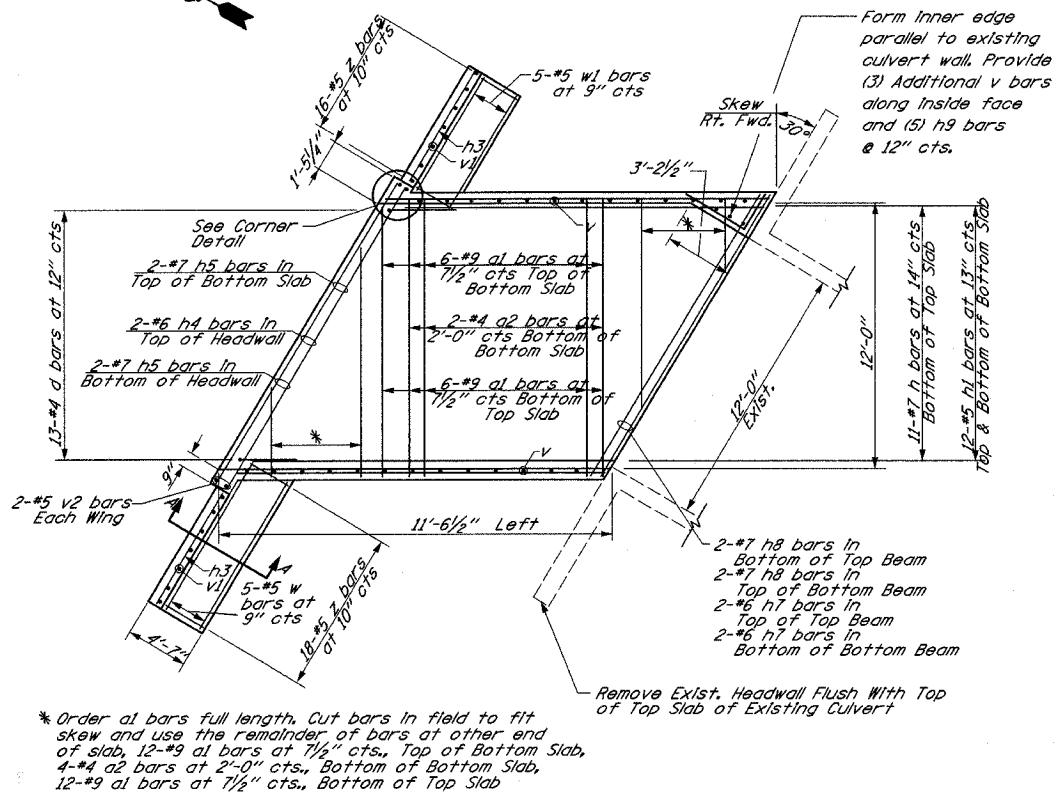
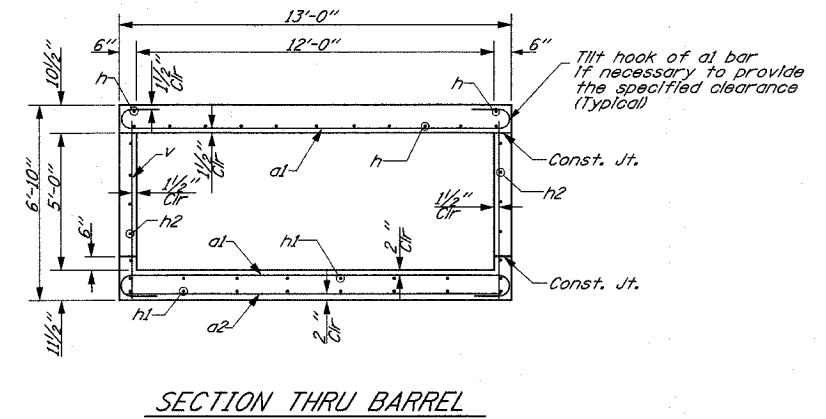
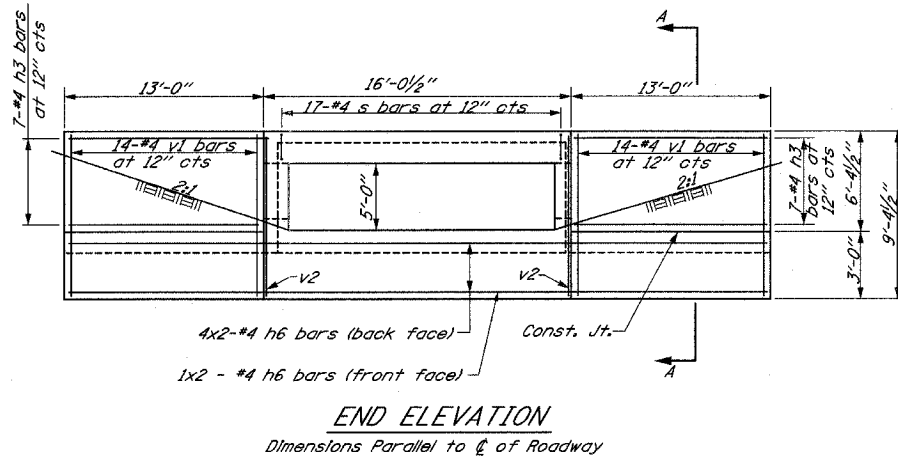
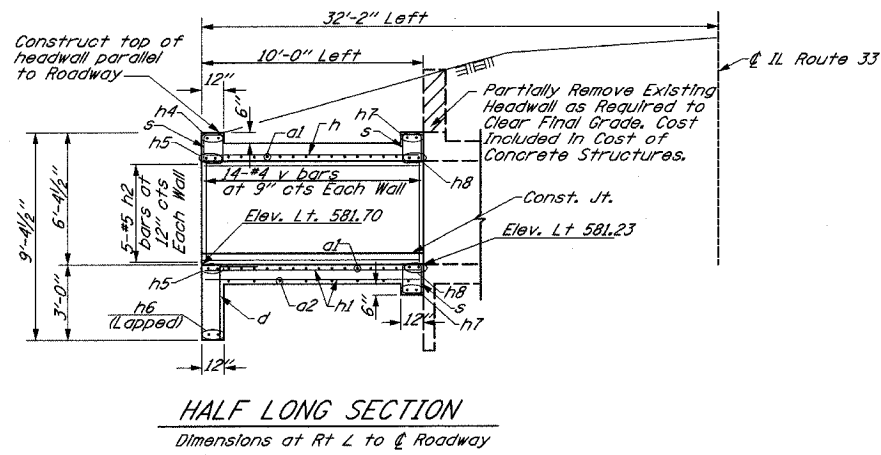
LOADING HS 20-44

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CULVERT EXTENSION DETAILS
& STA. 238+44.88 RT.
SHEET 1 OF 5

DATE 9/01
DRAWN BY BDM
CHECKED BY SJK



BILL OF MATERIAL

Bar	No.	Size	Length
a1	36	#9	15'-2"
a2	6	#4	12'-3"
d	13	#4	4'-6"
h	13	#7	11'-2"
h1	24	#5	11'-2"
h2	10	#5	11'-2"
h3	14	#4	12'-8"
h4	2	#6	15'-8"
h5	4	#7	15'-8"
h6	10	#4	22'-6"
h7	4	#6	14'-8"
h8	4	#7	14'-8"
h9	5	#5	5'-3"
s	49	#4	4'-1"
v	31	#4	6'-6"
v1	28	#4	9'-0"
v2	4	#5	9'-0"
w	5	#5	15'-0"
w1	5	#5	13'-0"
z	28	#4	7'-0"
Concrete Box Culverts		Cu Yd	24.1
Reinforcement Bars		Pound	4067
Expansion Bolts 3/4"		Each	28

* Order a1 bars full length. Cut bars in field to fit skew and use the remainder of bars at other end of slab. 12-#9 a1 bars at 7 1/2" cts., Top of Bottom Slab, 4-#4 a2 bars at 2'-0" cts., Bottom of Bottom Slab, 12-#9 a1 bars at 7 1/2" cts., Bottom of Top Slab

NOTES:

- Bench Mark: Q IL Route 33 at Q Culvert (Sta. 238+44.88), Elev. 589.55.
- Delsgn Fill Height 2' Lt.
- Exposed edges shall be chamfered 3/4".
- Class S1 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.

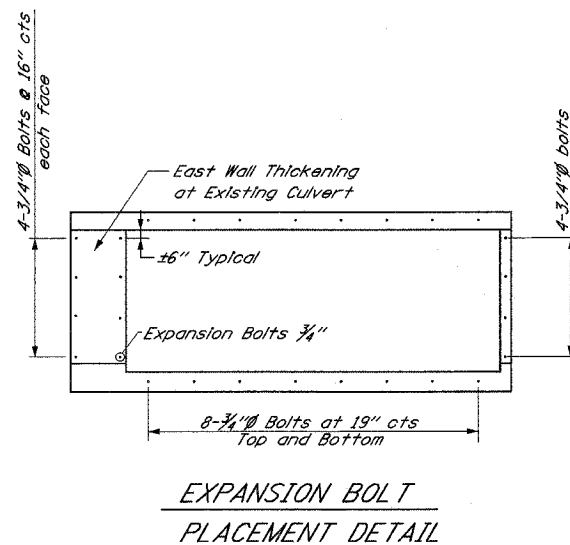
SPECIFICATION

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

DESIGN STRESSES

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

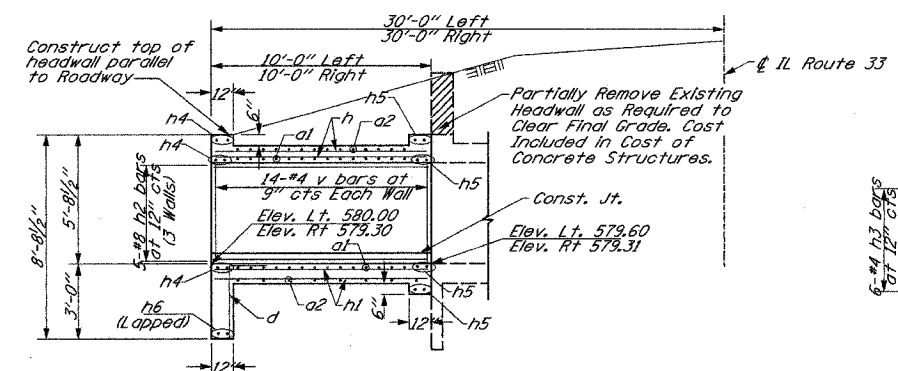
LOADING HS 20-44



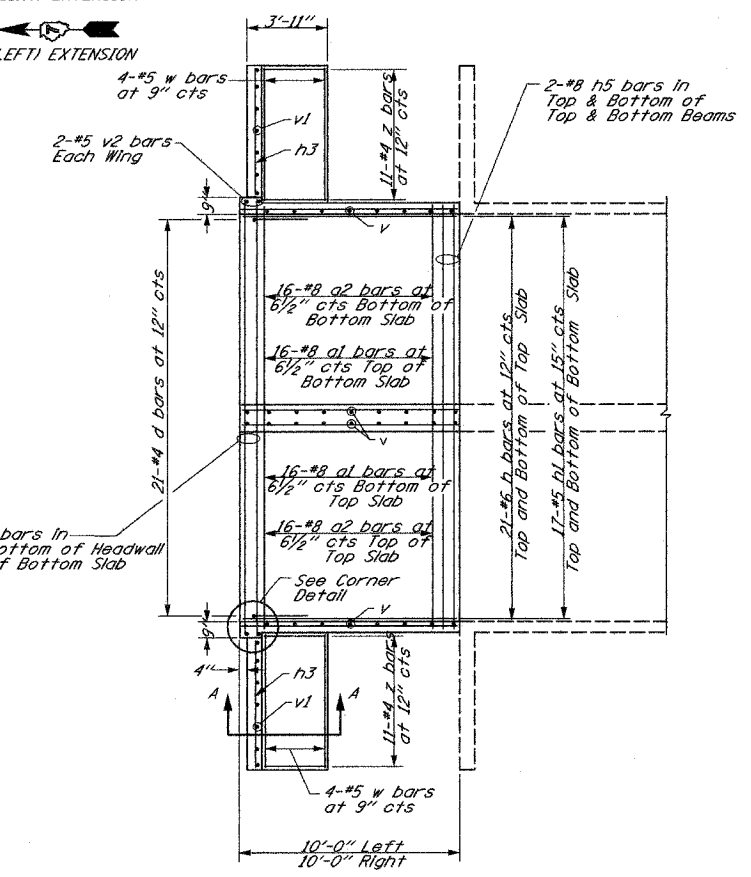
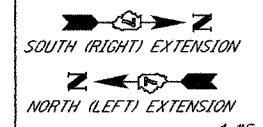
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CULVERT EXTENSION DETAILS
Q STA. 238+44.88 LT.
SHEET 2 OF 5

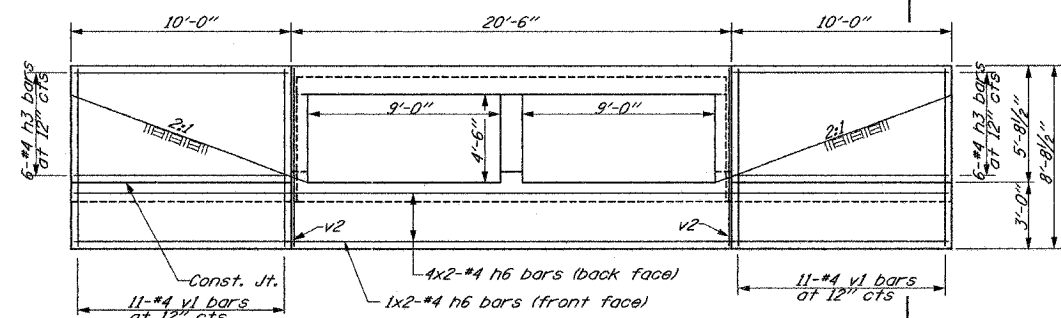
DATE 9/01
DRAWN BY BDM
CHECKED BY SJK



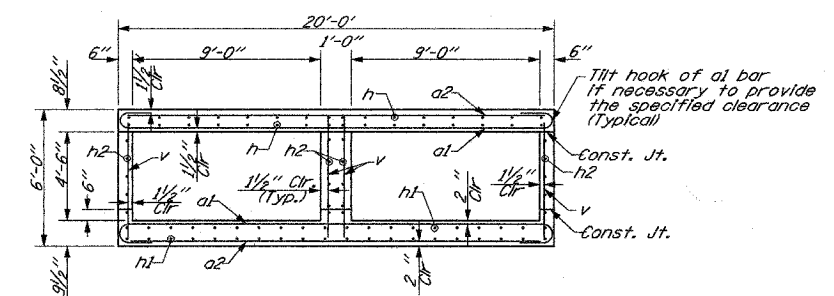
HALF LONG SECTION
Dimensions at Rt L to & Roadway



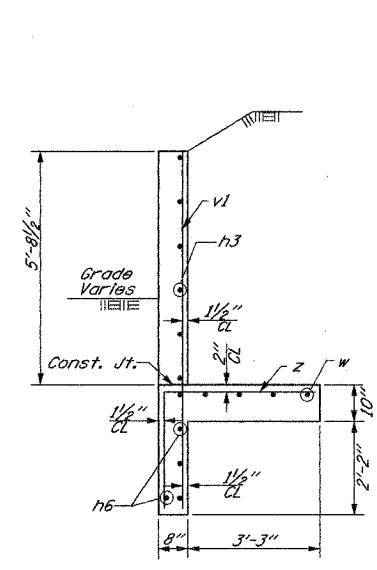
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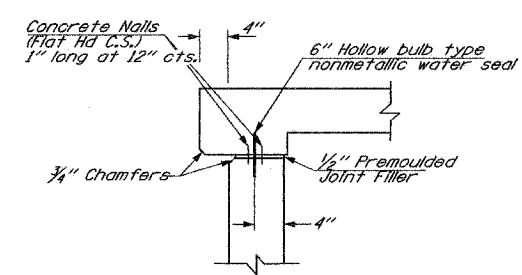
END ELEVATION
Dimensions Parallel to & of Roadway



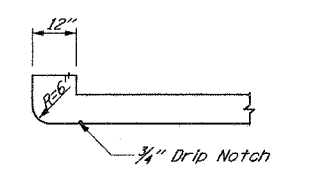
SECTION THRU BARRELS



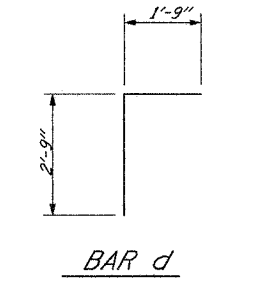
SECTION A-A



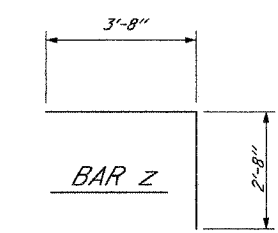
CORNER DETAIL



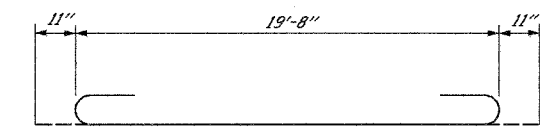
SECTION THRU HEADWALL
(Up Stream End Only)



BAR d



BAR z



BAR a1

BILL OF MATERIAL
(For Two Extensions, 1 Lt. & 1 Rt.)

Bar	No.	Size	Length
a1	64	#8	21'-6"
a2	64	#8	19'-8"
d	42	#4	4'-6"
h	84	#6	9'-8"
h1	68	#5	9'-8"
h2	40	#5	9'-8"
h3	24	#4	9'-8"
h4	12	#8	20'-2"
h5	16	#8	19'-8"
h6	20	#4	21'-6"
v	112	#4	5'-8"
v1	44	#4	8'-5"
v2	8	#5	8'-5"
w	16	#5	9'-11"
z	44	#4	6'-4"
Concrete Box Culverts		Cu Yd	47.3
Reinforcement Bars		Pound	12,500
Expansion Bolts 3/4"		Each	60

NOTES:

- Bench Marks: & IL Route 33 at & Culvert (Sta. 268+85.25), Elev. 586.63.
- Design Fill Height 2' Lt & Rt.
- 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.
- Expansion Bolts shall consist of self-drilling expansion shields and hooked bolts. Hooked Bolts shall extend a minimum of 9" into new concrete.

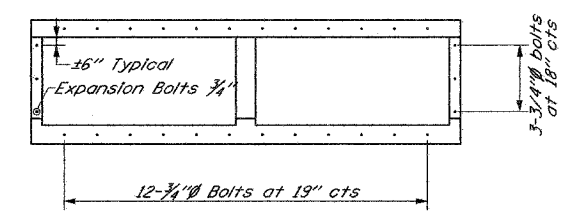
SPECIFICATION

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

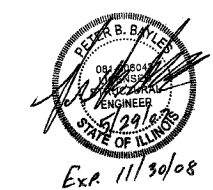
DESIGN STRESSES

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

LOADING HS 20-44



EXPANSION BOLT PLACEMENT DETAIL



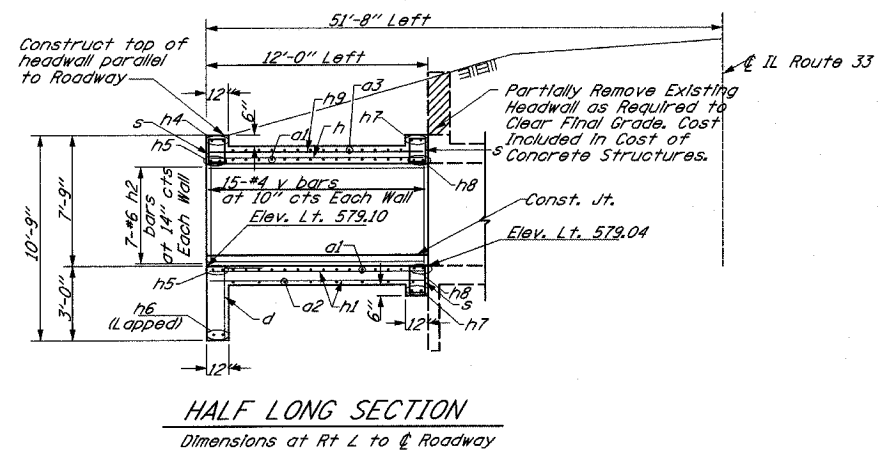
Ex. 11/30/08

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CULVERT EXTENSION DETAILS
& STA. 268+85.25
SHEET 3 OF 5
DATE 9/01
DRAWN BY BDM
CHECKED BY SJK

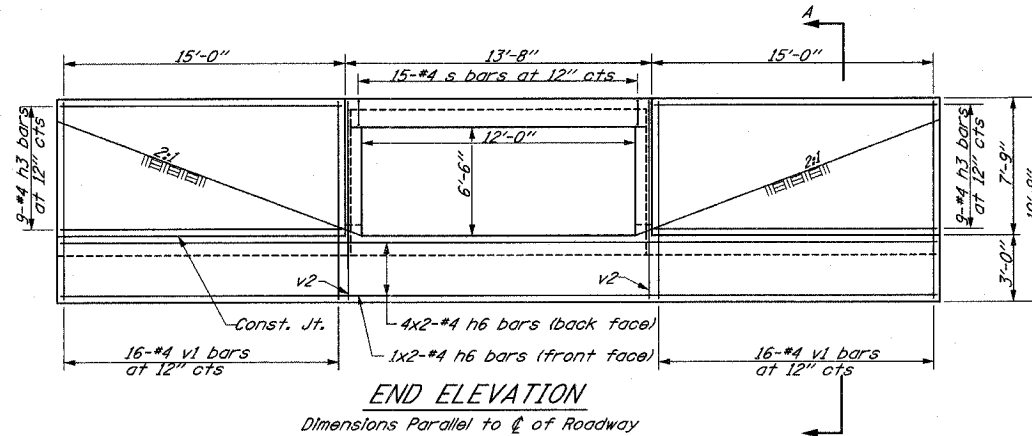
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
95	*	EFFINGHAM	409	147
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

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



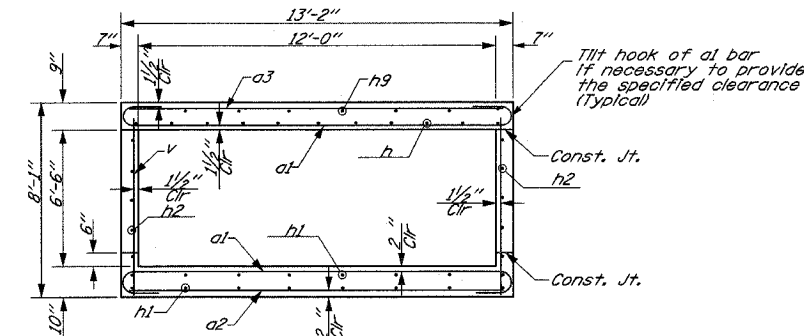
HALF LONG SECTION

Dimensions at Rt L to & of Roadway

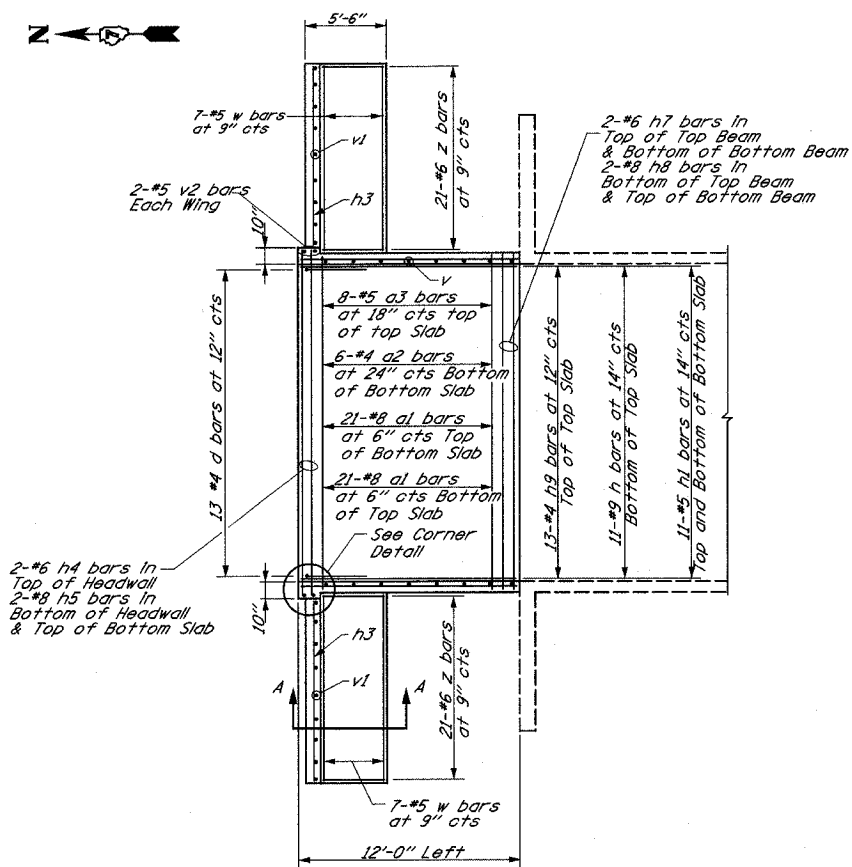


END ELEVATION

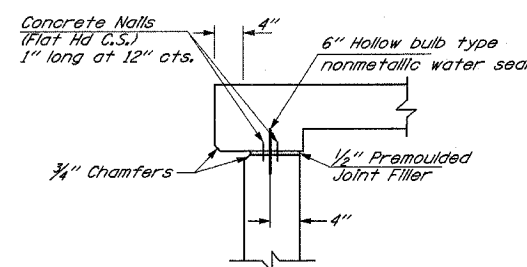
Dimensions Parallel to & of Roadway



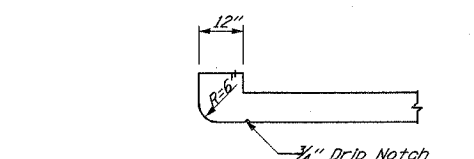
SECTION THRU BARREL



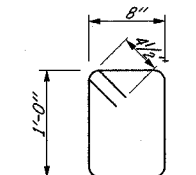
PLAN SHOWING REINFORCEMENT



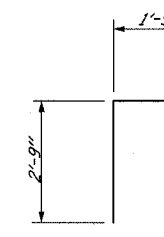
CORNER DETAIL



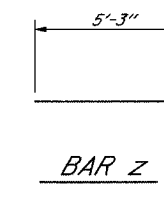
SECTION THRU HEADWALL



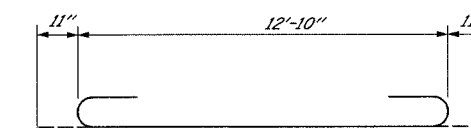
STIRRUP s



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.

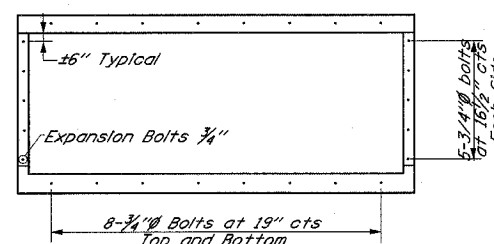
SPECIFICATION

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

DESIGN STRESSES

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