

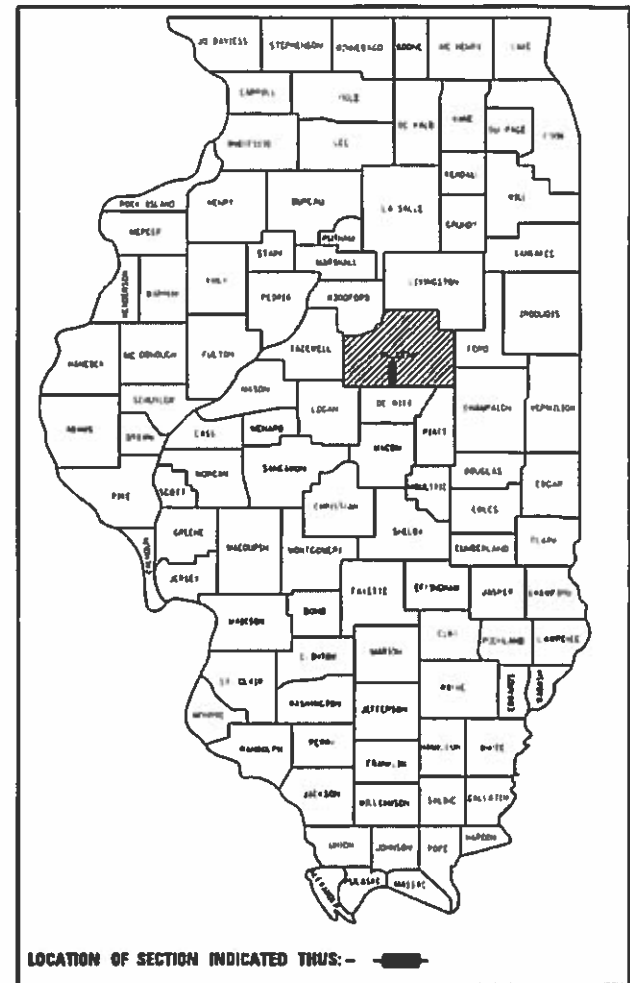
021

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS

F.A.S. ROUTE 1476 (OLD RTE. 51)
SECTION (55, 55A)CR
PROJECT STP - AJOU(266)
CULVERT REPLACEMENT / RIPRAP
MCLEAN COUNTY
0.4 MILES OF US 136 TO 3 MINS OF HEYWORTH
C-95-009-09

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	55, 55A)CR	MCLEAN	130	1
ILLINOIS CONTRACT NO. 70752				

C-95-009-09



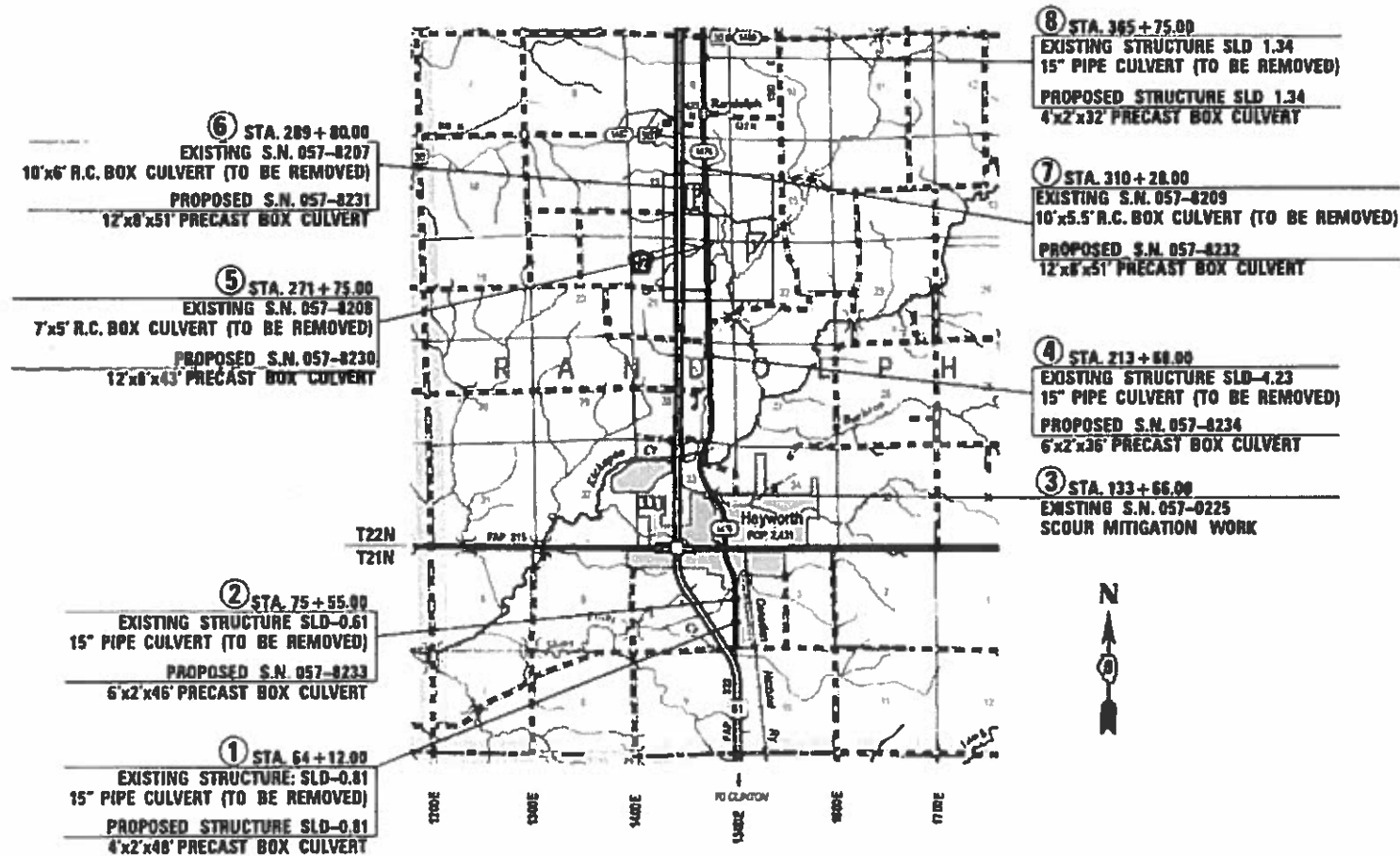
FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-10

CURRENT ADT	
MAJOR COLLECTOR	
FAS 1476 (OLD RTE 51)	
LEG "A" ADT = 800 (2015) SU=6.9% MU=5.3%	
LEG "B" ADT = 1,150 (2015) SU=6.9% MU=2.6%	
LEG "C" ADT = 1,400 (2015) SU=7.7% MU=2.9%	
LOCAL ROAD	
SBI 2 (OLD RTE 51)	
LEG "D" ADT = 1,050 (2015) SU=10.2% MU=4.1%	
LEG "E" ADT = 500 (2015) SU=6.4% MU=12.9%	
TRAFFIC DATA LOCATIONS	
LEG "A" = COUNTRY ACRES (800N) TO TR493 (525N)	
LEG "B" = TR493 (525N) TO RANDOLPH ST	
LEG "C" = RANDOLPH ST TO US 136	
LEG "D" = US 136 TO BUCHANAN ST	
LEG "E" = BUCHANAN ST TO TR579 (100N)	



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123 TOWNSHIPS: RANDOLPH
 OR 811



R2E
 MAP NOT TO SCALE
 GROSS LENGTH = 250.00 FT. = 0.047 MI
 NET LENGTH = 250.00 FT. = 0.047 MI

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED 08-02-2018
Kennel A. Hermet
 REGIONAL ENGINEER

Oct 5 2018
Paul P. Ch...
 ENGINEER OF DESIGN AND ENVIRONMENT

Oct 9 2018
Paul P. Ch...
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

PROJECT ENGINEER: NANCY FASIG
 (217) 465-4216
 CONTRACT NO. 70752

INDEX OF SHEETS

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LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
442101-08	CLASS B PATCHES
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401-03	METAL FLARED END SECTION FOR PIPE CULVERTS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602306-03	INLET - TYPE B
602601-05	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
604001-04	FRAME AND LIDS TYPE 1
630001-12	STEEL PLATE BEAM GUARDRAIL
630101-10	STRONG POST GUARDRAIL ATTACHED TO CULVERT
630301-08	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
666001-01	RIGHT OF WAY MARKERS
667101-02	PERMANENT SURVEY MARKERS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-07	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

SUMMARY OF QUANTITIES

LOCATION OF WORK: FAS 1476 (OLD US 51)
 RURAL TWO-LANE
 MAJOR COLLECTOR/LOCAL ROAD
 MCLEAN COUNTY
 FUNDING BREAKOUT: 80% FED / 20% STATE
 CONSTRUCTION TYPE CODE: 0004

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.75
20200100	EARTH EXCAVATION	CU YD	720.0
* 20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	84.0
20300100	CHANNEL EXCAVATION	CU YD	260.0
20400800	FURNISHED EXCAVATION	CU YD	250.0
20700220	POROUS GRANULAR EMBANKMENT	CU YD	720.0
21301072	EXPLORATION TRENCH 72" DEPTH	FOOT	550.0
25000210	SEEDING, CLASS 2A	ACRE	1.0
25000350	SEEDING, CLASS 7	ACRE	3.0
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	75.0
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	75.0
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	75.0
25100125	MULCH, METHOD 3	ACRE	0.75
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	520.0
* DENOTES SPECIALTY ITEM			

SUMMARY OF QUANTITIES

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 MAJOR COLLECTOR/LOCAL ROAD
 MCLEAN COUNTY
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 CONSTRUCTION TYPE CODE: 0004

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	225.0
28000305	TEMPORARY DITCH CHECKS	FOOT	880.0
28000400	PERIMETER EROSION BARRIER	FOOT	2,330.0
28000500	INLET AND PIPE PROTECTION	EACH	11.0
28100107	STONE RIPRAP, CLASS A4	SQ YD	1,550.0
28100109	STONE RIPRAP, CLASS A5	SQ YD	680.0
28100201	STONE RIPRAP, CLASS A1	TON	31.0
28200200	FILTER FABRIC	SQ YD	2,220.0
40200900	AGGREGATE SURFACE COURSE, TYPE B	CU YD	17.0
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	4.0
42000060	WELDED WIRE REINFORCEMENT	SQ YD	510.0
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	35.0
44200944	CLASS B PATCHES, TYPE IV, 8 INCH	SQ YD	510.0
44213200	SAW CUTS	FOOT	960.0
* DENOTES SPECIALTY ITEM			

SUMMARY OF QUANTITIES

LOCATION OF WORK: FAS 1476 (OLD US 51)
 RURAL TWO-LANE
 MAJOR COLLECTOR/LOCAL ROAD
 MCLEAN COUNTY
 FUNDING BREAKOUT: 80% FED / 20% STATE
 CONSTRUCTION TYPE CODE: 0004

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
54001004	BOX CULVERT END SECTIONS, CULVERT NO. 4	EACH	2.0
54001005	BOX CULVERT END SECTIONS, CULVERT NO. 5	EACH	2.0
54001006	BOX CULVERT END SECTIONS, CULVERT NO. 6	EACH	2.0
54001007	BOX CULVERT END SECTIONS, CULVERT NO. 7	EACH	2.0
54001008	BOX CULVERT END SECTIONS, CULVERT NO. 8	EACH	2.0
54010402	PRECAST CONCRETE BOX CULVERTS 4' X 2'	FOOT	80.0
54010602	PRECAST CONCRETE BOX CULVERTS 6' X 2'	FOOT	82.0
54011208	PRECAST CONCRETE BOX CULVERTS 12' X 8'	FOOT	136.0
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1.0
54262715	METAL FLARED END SECTIONS 15"	EACH	2.0
54262718	METAL FLARED END SECTIONS 18"	EACH	2.0
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	27.0
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	28.0
550B0050	STORM SEWERS, CLASS B, TYPE 1 12"	FOOT	40.0
* DENOTES SPECIALTY ITEM			

SUMMARY OF QUANTITIES

LOCATION OF WORK: FAS 1476 (OLD US 51)
 RURAL TWO-LANE
 MAJOR COLLECTOR/LOCAL ROAD
 MCLEAN COUNTY
 FUNDING BREAKOUT: 80% FED / 20% STATE
 CONSTRUCTION TYPE CODE: 0004

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	1.0
60240215	INLETS, TYPE B, TYPE 1 FRAME, CLOSED LID	EACH	1.0
60400105	FRAMES, TYPE 1	EACH	6.0
60403800	LIDS, TYPE 1, CLOSED LID	EACH	6.0
60500050	REMOVING CATCH BASINS	EACH	2.0
61101009	STORM SEWERS PROTECTED, CLASS A, 8"	FOOT	180.0
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	6.0
61140000	STORM SEWERS (SPECIAL), 8"	FOOT	120.0
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	175.0
* 63000007	STEEL PLATE BEAM GUARDRAIL, TYPE B, 6 FOOT POSTS	FOOT	287.5
* 63000030	STRONG POST GUARDRAIL ATTACHED TO CULVERT	FOOT	150.0
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	12.0
63100168	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	0.0
63200310	GUARDRAIL REMOVAL	FOOT	1,270.0
* DENOTES SPECIALTY ITEM			

SUMMARY OF QUANTITIES

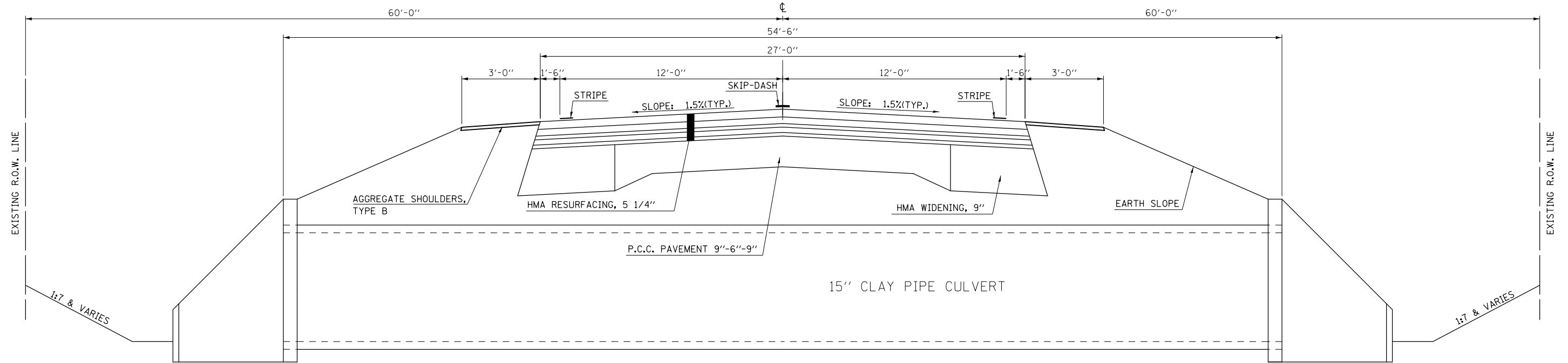
LOCATION OF WORK: FAS 1476 (OLD US 51)
 RURAL TWO-LANE
 MAJOR COLLECTOR/LOCAL ROAD
 MCLEAN COUNTY
 FUNDING BREAKOUT: 80% FED / 20% STATE
 CONSTRUCTION TYPE CODE: 0004

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
*	66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	42.0
	67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6.0
	67100100	MOBILIZATION	L. SUM	1.0
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L. SUM	1.0
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	12.0
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	630.0
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	7.0
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	24.0
	X0322936	REMOVE EXISTING FLARED END SECTION	EACH	1.0
	X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	400.0
	X5429311	TRAVERSABLE PIPE GRATE, SPECIAL	FOOT	60.0
	X6660410	REMOVE RIGHT-OF-WAY MARKERS	EACH	1.0
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L. SUM	1.0
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0
* DENOTES SPECIALTY ITEM				

EXISTING CULVERT TYPICAL CROSS SECTION

LOCATION-1

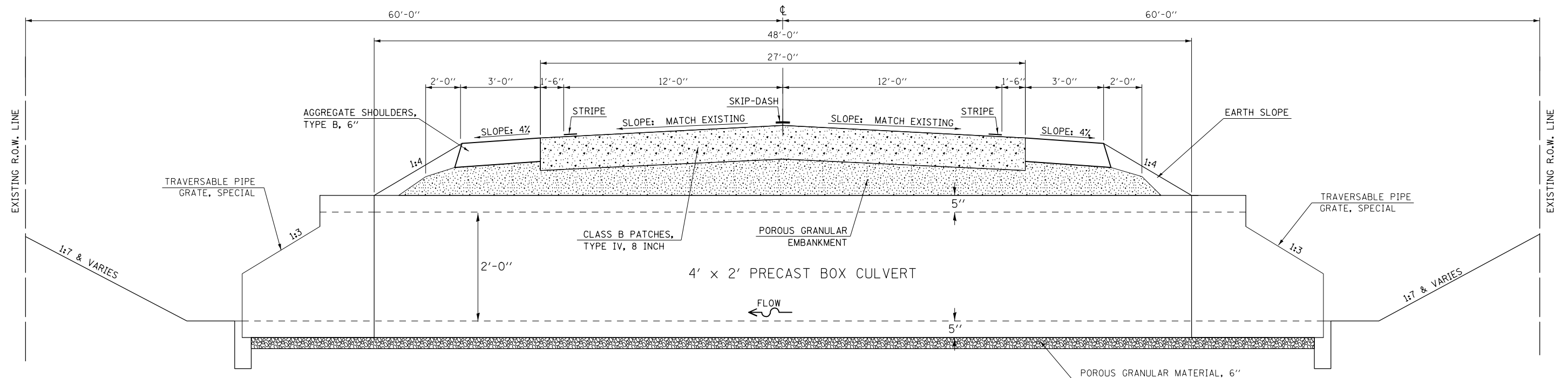
S. L. D. 0. 81 Ⓞ STA. 64+12.00



PROPOSED BOX CULVERT TYPICAL CROSS SECTION

LOCATION-1

S. L. D. 0. 81 Ⓞ STA. 64+12.00



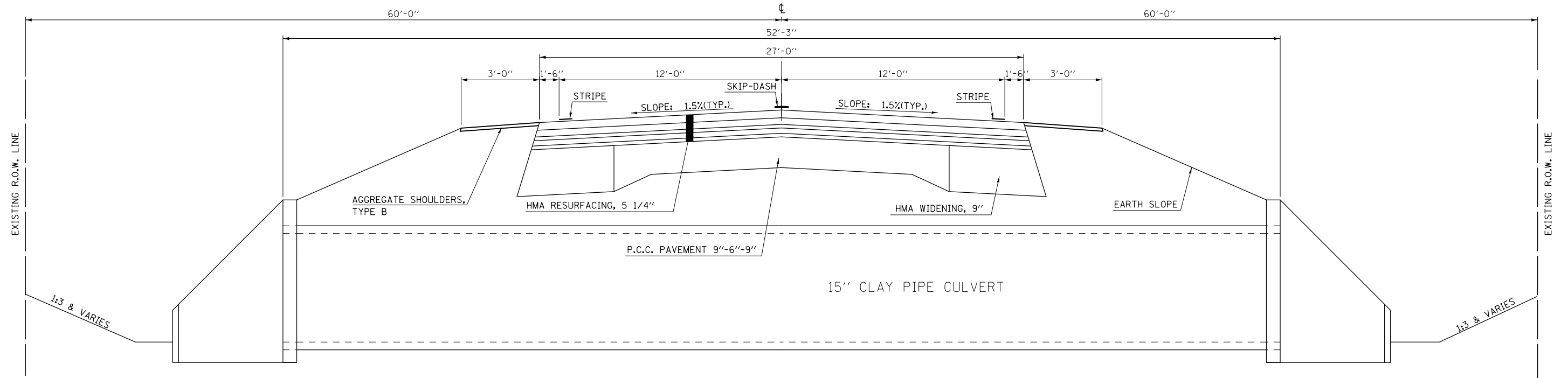
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		CHECKED -	REVISED -											
#MODELNAME#	PLOT DATE = 8/7/2018	DATE -	REVISED -											

ILLINOIS FED. AID PROJECT CONTRACT NO. 70752

EXISTING CULVERT TYPICAL CROSS SECTION

LOCATION-2

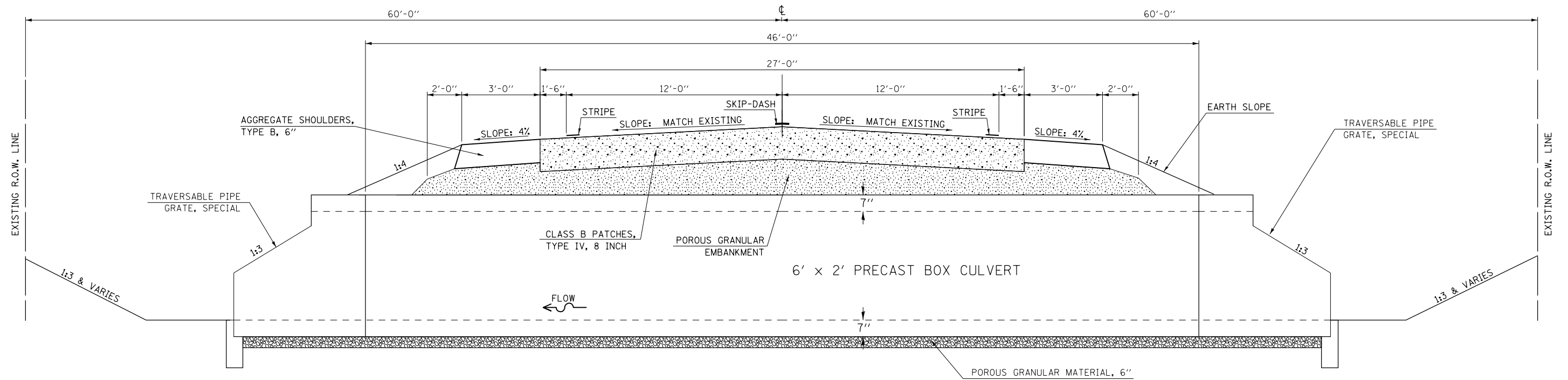
S. L. D. 0.61 Ⓞ STA. 75+55.11



PROPOSED BOX CULVERT TYPICAL CROSS SECTION

LOCATION-2

S. N. 057-8233 Ⓞ STA. 75+55.00

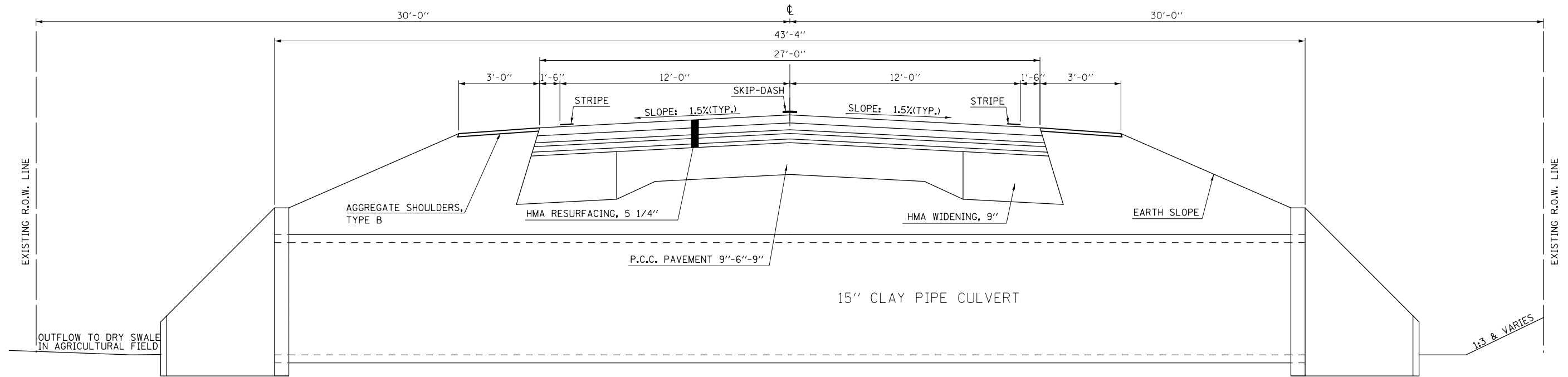


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PLOT SCALE = 40.0000' / in.	DATE -	REVIS	REVIS			CONTRACT NO. 70752			ILLINOIS FED. AID PROJECT	
#MODELNAME#	PLOT DATE = 8/7/2018	DATE -	REVIS			SCALE:	SHEET 2 OF 7 SHEETS	STA. 75+55.00 TO STA. 75+55.00		

EXISTING CULVERT TYPICAL CROSS SECTION

LOCATION-4

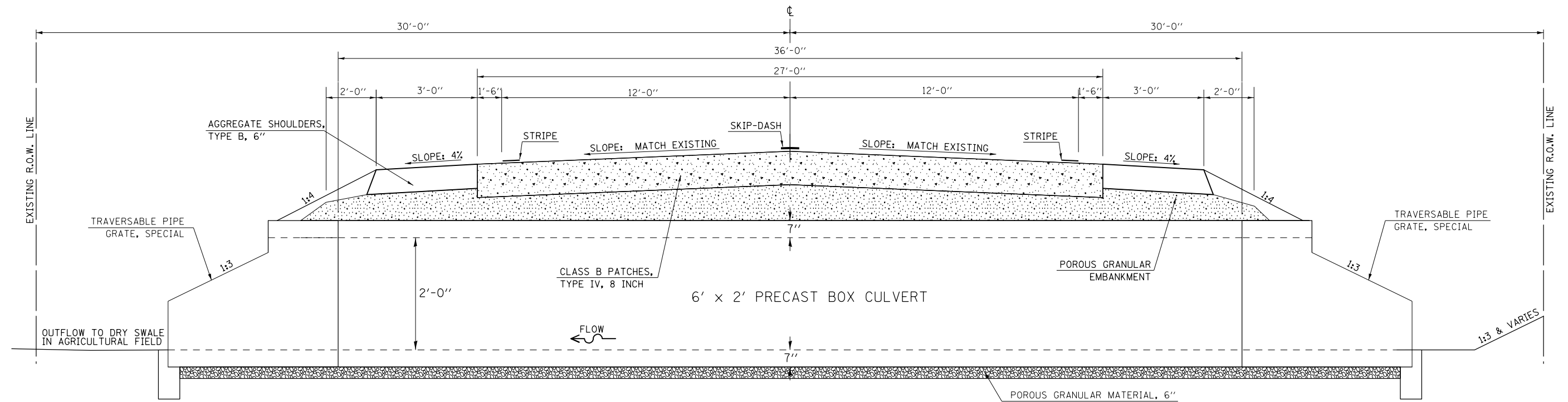
S. L. D. 4.23 STA. 213+68.02



PROPOSED BOX CULVERT TYPICAL CROSS SECTION

LOCATION-4

S. N. 057-8234 STA. 213+68.00

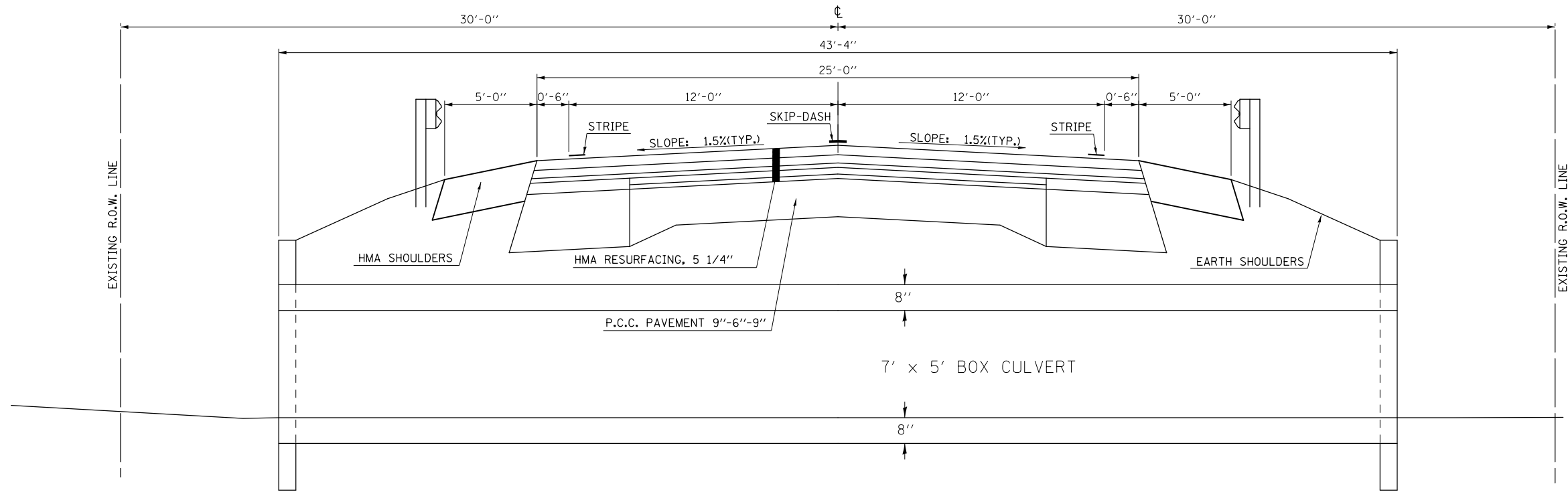


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EXISTING BOX CULVERT TYPICAL CROSS SECTION

S. N. 057-8208 STA. 271+77.22

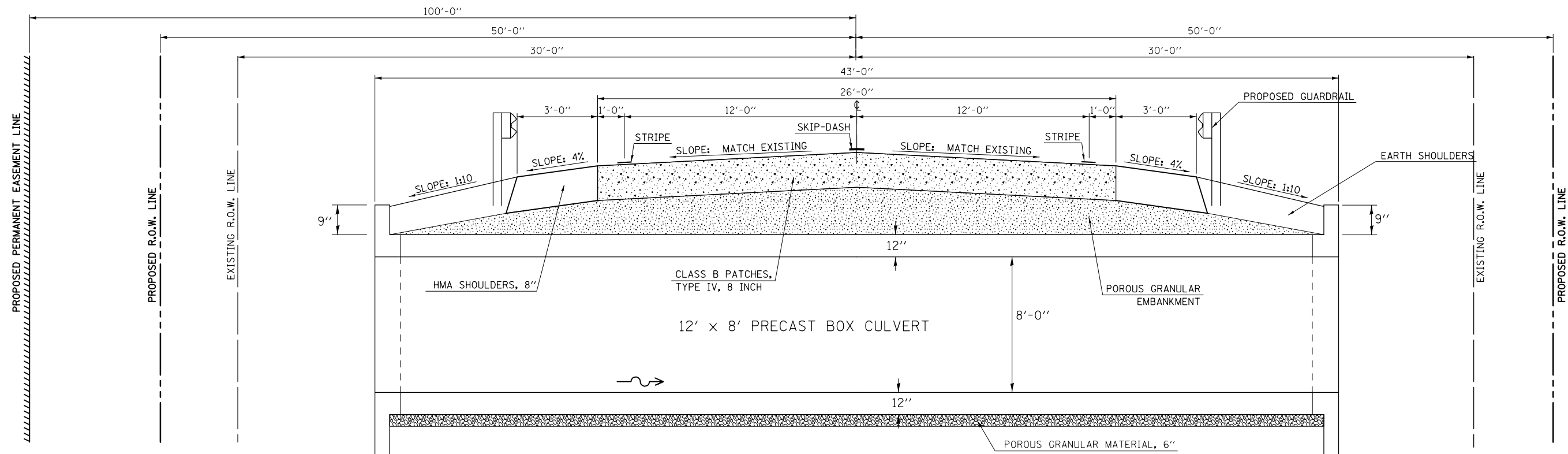
LOCATION-5



PROPOSED BOX CULVERT TYPICAL CROSS SECTION

S. N. 057-8230 STA. 271+75.00

LOCATION-5



*45° SHEET PILE WINGWALLS AND UPSTREAM DROP BOX OMITTED FOR DRAWING CLARITY

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS
LOCATION 5 - S.N. 057-8230

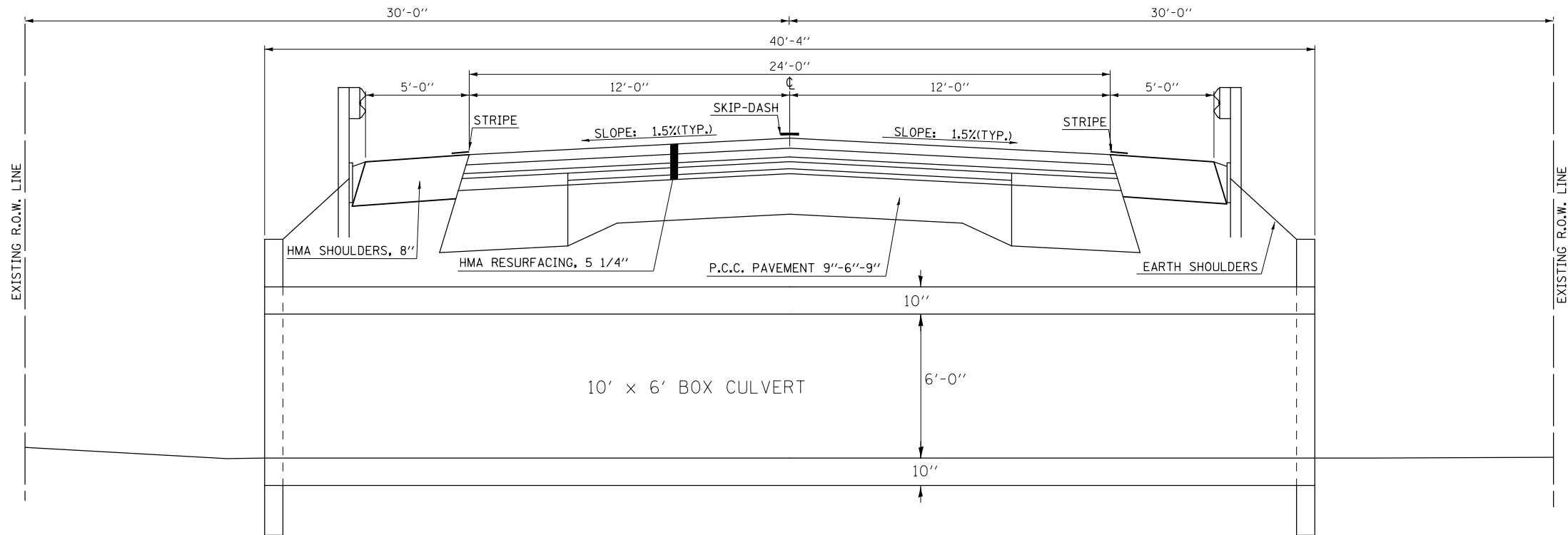
SCALE: SHEET 4 OF 7 SHEETS STA. 271+75.00 TO STA. 271+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	14
CONTRACT NO. 70752			ILLINOIS FED. AID PROJECT	

EXISTING BOX CULVERT TYPICAL CROSS SECTION

S. N. 057-8207 STA. 289+80.00

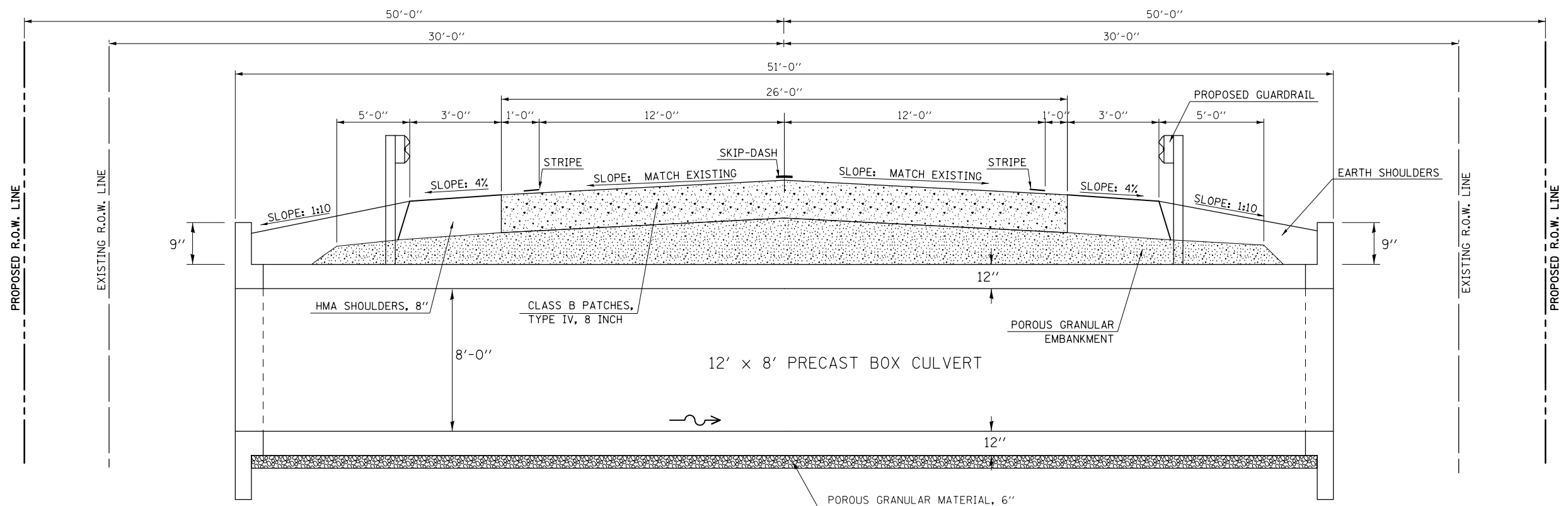
LOCATION-6



PROPOSED BOX CULVERT TYPICAL CROSS SECTION

S. N. 057-8231 STA. 289+80.00

LOCATION-6



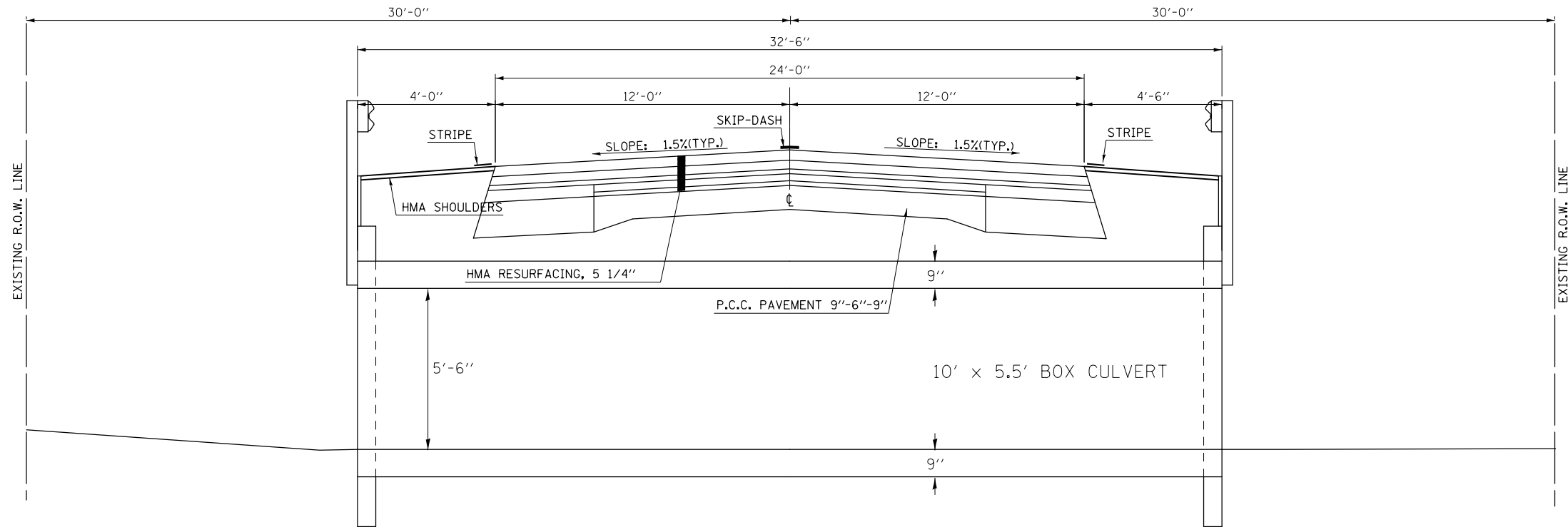
*45° SHEET PILE WINGWALLS OMITTED FOR DRAWING CLARITY

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		CHECKED -	REVISED -		STA. 289+80.00	TO STA. 289+80.00		CONTRACT NO. 70752		ILLINOIS FED. AID PROJECT			
#MODELNAME#	PLOT DATE = 8/7/2018	DATE -	REVISED -										

EXISTING BOX CULVERT TYPICAL CROSS SECTION

S. N. 057-8209 STA. 310+26.00

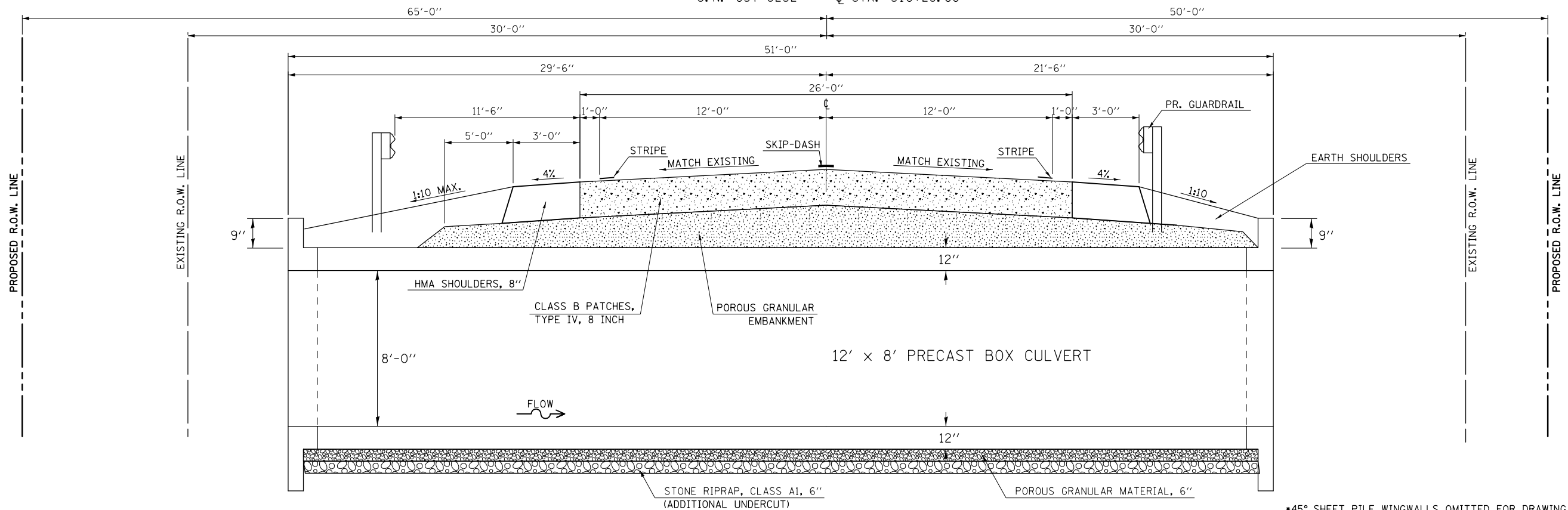
LOCATION-7



PROPOSED BOX CULVERT TYPICAL CROSS SECTION

S. N. 057-8232 STA. 310+28.00

LOCATION-7



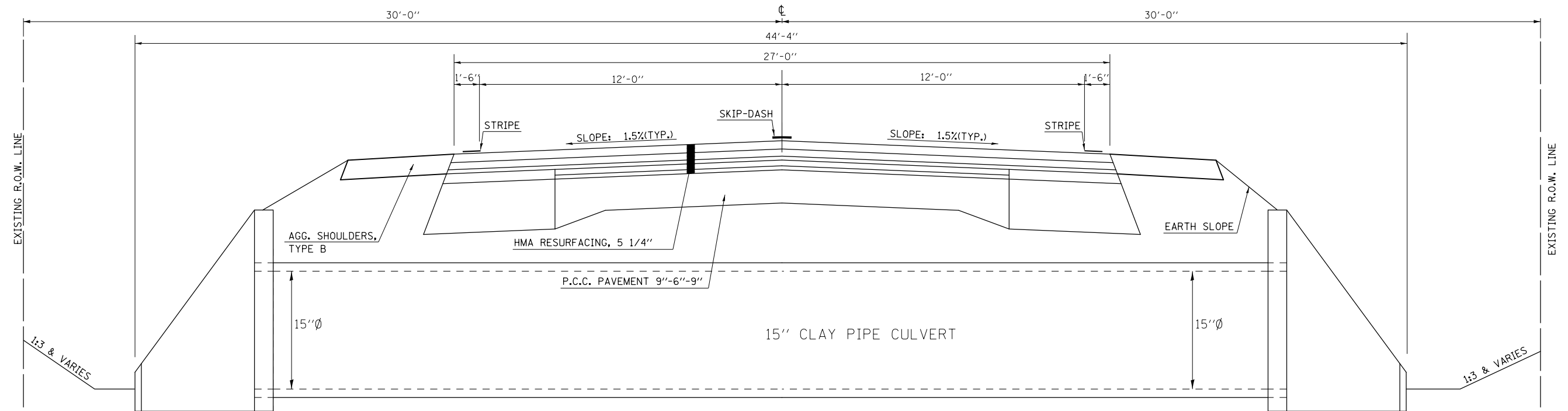
*45° SHEET PILE WINGWALLS OMITTED FOR DRAWING CLARITY

FILE NAME =	USER NAME = ppersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL CROSS SECTIONS LOCATION 7 - S.N. 057-8232			F.A. RTES.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
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		CHECKED -	REVISED -								CONTRACT NO. 70752				
MODELNAME		DATE -	REVISED -												

EXISTING BOX CULVERT TYPICAL CROSS SECTION

LOCATION-8

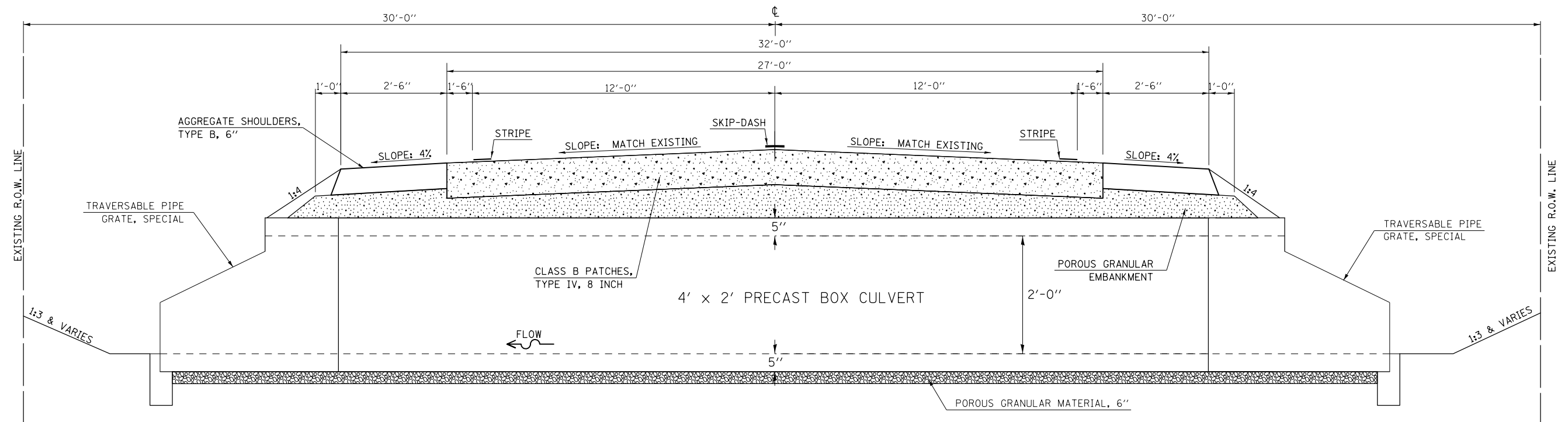
S. L. D. 1.34 STA. 365+75.00



PROPOSED BOX CULVERT TYPICAL CROSS SECTION

LOCATION-8

S. L. D. 1.34 STA. 365+75.00



FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL CROSS SECTIONS LOCATION 8 - S.L.D. 1.34			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\0577\0752-shr-typical.dwg	DRAWN	CHECKED	REVISED					1476	(55, 55A)CR	McLEAN	130	17
PLOT SCALE = 40.0000' / in.	DATE	DATE	DATE		SCALE: SHEET 7 OF 7 SHEETS STA. 365+75.00 TO STA. 365+75.00			CONTRACT NO. 70752				
#MODELNAME#	PLOT DATE = 8/7/2018	DATE	DATE		ILLINOIS FED. AID PROJECT							

SCHEDULE OF QUANTITIES

EARTHWORK SCHEDULE						
CULVERT LOCATION	STRUCTURE	20200100		20400800		
		EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE, WASTE (+) OR SHORTAGE (-)	FURNISHED EXCAVATION
		CU YD	(CU YD)	(CU YD)	(CU YD)	CU YD
LOC-1 LT	SLD-0.81	1.9	1.4	0.4	1.0	-1.0
LOC-1 RT	SLD-0.81	5.1	3.8	0.1	3.7	-3.7
LOC-2 LT	SN 057-8233	2.0	1.5	1.0	0.5	-0.5
LOC-2 RT	SN 057-8233	6.0	4.5	0.5	4.0	-4.0
LOC-4 LT	SN 057-8234	0.7	0.5	20.4	-19.9	19.9
LOC-4 RT	SN 057-8234	2.3	1.7	7.2	-5.5	5.5
LOC-5 LT	SN 057-8230	210.5	157.9	138.5	19.4	-19.4
LOC-5 RT	SN 057-8230	59.9	44.9	61.0	-16.1	16.1
LOC-6 LT	SN 057-8231	134.6	101.0	170.7	-69.8	69.8
LOC-6 RT	SN 057-8231	45.2	33.9	116.9	-83.0	83.0
LOC-7 LT	SN 057-8232	200.0	150.0	170.9	-20.9	20.9
LOC-7 RT	SN 057-8232	36.1	27.1	90.4	-63.3	63.3
LOC-8 LT	SLD-1.34	5.5	4.1	1.1	3.0	-3.0
LOC-8 RT	SLD-1.34	5.0	3.8	0.8	3.0	-3.0
TOTAL FAS 1476		714.8	536.1	779.9	-243.8	243.8
ROUNDED FAS 1476		720.0				250.0

NOTES:

- SHRINKAGE FACTOR USED IS 25%.
- SHRINKAGE, EMBANKMENT, AND BALANCE IS FOR INFORMATION ONLY.
- NO PAYMENT WILL BE ALLOWED FOR OVERHAUL.

SEEDING SCHEDULE									
CULVERT LOCATION	STRUCTURE	25000210	25000350	25000400	25000500	25000600	25100125	25100635	28000250
		SEEDING CLASS 2A	SEEDING CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 3	HEAVY DUTY EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING
		(ACRE)	(ACRE)	(POUND)	(POUND)	(POUND)	(ACRE)	(SQ YD)	(POUND)
LOC-1	SLD-0.81	0.01	0.03	0.8	0.8	0.8	0.01		0.9
LOC-2	057-8233	0.01	0.04	1.3	1.3	1.3	0.01		1.4
LOC-4	057-8234	0.06	0.17	5.1	5.1	5.1	0.06		5.6
LOC-5	057-8230	0.24	0.73	22.0	22.0	22.0	0.22	124.4	73.2
LOC-6	057-8231	0.27	0.81	24.4	24.4	24.4	0.22	238.4	81.3
LOC-7	057-8232	0.20	0.61	18.3	18.3	18.3	0.17	148.3	60.9
LOC-8	SLD-1.34	0.01	0.04	1.2	1.2	1.2	0.01		1.3
TOTALS FAS 1476		0.81	2.44	73.1	73.1	73.1	0.71	511.1	224.6
ROUNDED		1.0	3.0	75.0	75.0	75.0	0.75	520.0	225.0

POROUS GRANULAR EMBANKMENT			
CULVERT LOCATION	STRUCTURE	STATION	20700220
			POROUS GRANULAR EMBANKMENT CU YD
LOC-1	SLD 0.81	64+12.0	43.0
LOC-2	S.N. 057-8233	75+55.0	47.9
LOC-4	S.N. 057-8234	213+68.0	29.6
LOC-5	S.N. 057-8230	271+75.0	184.9
LOC-6	S.N. 057-8231	289+80.0	200.3
LOC-7	S.N. 057-8232	310+28.0	191.3
LOC-8	SLD 1.34	365+75.0	20.4
TOTAL FAS 1476			717.4
ROUNDED			720.0

CHANNEL EXCAVATION SCHEDULE			
LOCATION	STRUCTURE	OFFSET FROM CL	20300100
			CHANNEL EXCAVATION CU YD
LOC-3	057-0225	55' LT-30' LT	29.9
LOC-3	057-0225	30' LT-18' LT	28.5
LOC-3	057-0225	18' LT-18' RT	84.8
LOC-3	057-0225	18' RT-30' RT	23.8
LOC-3	057-0225	30' RT-55' RT	20.3
LOCATION 3 (SN 057-0225) TOTAL			187.3
*LOC-5	057-8230	50' LT	29.1
*LOC-5	057-8230	65' LT	25.1
*LOC-5	057-8230	80' LT	14.1
*LOC-5	057-8230	100' LT	0.0
LOCATION 5 (SN 057-8230)TOTAL			68.3
TOTAL FAS 1476			255.6
ROUNDED			260.0

*CHANNEL EX. IS CALCULATED FROM 50'LT TO 100' LT (AREA FROM LT EOP TO 50' LT IS CALCULATED AS EARTH EX.)

RIP RAP SCHEDULE												
CULVERT LOCATION	DESCRIPTION	FROM STATION	TO STATION	OFFSET LT/RT	AREA (SQ FT)	28100107	28100109	28100201	28200200	STONE	STONE	BEDDING
						STONE RIPRAP, CLASS A4 SQ YD	STONE RIPRAP, CLASS A5 SQ YD	STONE RIPRAP, CLASS A1 TON	FILTER FABRIC SQ YD	RIPRAP, CLASS A4 (TONS)	RIPRAP, CLASS A5 (TONS)	STONE (TONS)
LOC-3	S.N. 057-0225	133+30.0	134+05.0	LT	3,820.1		424.5		424.5		389.1	169.8
LOC-3	S.N. 057-0225	133+27.0	134+00.0	RT	2,248.7		249.9		249.9		229.0	99.9
LOC-5	S.N. 057-8208	271+25.0	273+00.0	LT	6,373.9	708.2			708.2	472.1		212.5
LOC-5	S.N. 057-8208	271+46.0	272+50.0	RT	2,290.4	254.5			254.5	169.7		76.3
LOC-6	S.N. 057-8207	289+50.0	290+25.0	LT	1,187.4	131.9			131.9	88.0		39.6
LOC-6	S.N. 057-8207	289+50.0	290+10.0	RT	1,023.5	113.7			113.7	75.8		34.1
LOC-7	S.N. 057-8209	309+66.0	310+06.0	LT	630.0							
**LOC-7	S.N. 057-8209	310+19.0	310+37.0	CTR	**			30.6				
LOC-7	S.N. 057-8209	310+00.0	310+70.0	LT	1,843.4	204.8			204.8	136.5		61.4
LOC-7	S.N. 057-8209	310+00.0	310+58.0	RT	1,170.4	130.0			130.0	86.7		39.0
TOTAL FAS 1476						1,543.2	674.3	30.6	2,217.5	1,028.8	618.1	732.7
ROUNDED						1,550.0	680.0	31.0	2,220.0	1,029.0	618.0	733.0

**EXTRA UNDERCUT (6") UNDER PR BOX CULVERT S.N. 057-8232 (LOC-7)
(51'L x 18'W x 0.5'D = 459 CF/27= 17.0 CY x 1.8 tons/CY= 30.6 Tons)

NOTES:

- STONE RIPRAP AND BEDDING STONE TONNAGE QUANTITIES ARE ESTIMATES AND SHOWN FOR INFORMATION ONLY.
- STONE RIPRAP CLASS A4 and A5 TONNAGE IS ESTIMATED USING 1.5 TONS/CU YD.
- STONE RIPRAP, CLASS A1, AND BEDDING STONE TONNAGE IS ESTIMATED USING 1.8 TONS/CU YD.

TREE REMOVAL SCHEDULE						
LOCATION	STRUCTURE	STATION	AREA - LT (SQ FT)	AREA - RT (SQ FT)	LOCATION TOTAL (SQ FT)	20100500
						TREE REMOVAL ACRE
LOC-3	S.N. 057-0225	133+66.0	3,300.0	1,400.0	4,700.0	0.108
LOC-5	S.N. 057-8230	271+75.0	10,000.0	5,200.0	15,200.0	0.349
LOC-6	S.N. 057-8231	289+80.0	2,500.0	400.0	2,900.0	0.067
LOC-7	S.N. 057-8232	310+28.0	1,600.0	300.0	1,900.0	0.044
TOTAL FAS 1476						0.567
ROUNDED						0.75

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL						
LOCATION	STRUCTURE	FROM STATION	TO STATION	OFFSET	DEPTH (FT)	20201200
						REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL CU YD
LOC-7	SN 057-8232	310+10.0	310+60.0	20-50' LT	1.5	83.3
TOTAL FAS 1476						83.3
ROUNDED						84.0

EXPLORATION TRENCH SCHEDULE					
CULVERT LOCATION	STRUCTURE	LT/RT	FROM STATION	TO STATION	21301072
					EXPLORATION TRENCH 72" DEPTH FOOT
LOC-1	SLD 0.81	LT	64+00.0	64+24.0	24.0
LOC-1	SLD 0.81	RT	64+00.0	64+24.0	24.0
LOC-2	SN 057-2833	LT	75+41.0	75+69.0	28.0
LOC-2	SN 057-2833	RT	75+41.0	75+69.0	28.0
LOC-4	SN 057-2834	LT	213+54.0	213+82.0	28.0
LOC-4	SN 057-2834	RT	213+54.0	213+82.0	28.0
LOC-5	SN 057-2830	LT	271+47.0	272+03.0	56.0
LOC-5	SN 057-2830	RT	271+47.0	272+03.0	56.0
LOC-6	SN 057-2831	LT	289+52.0	290+08.0	56.0
LOC-6	SN 057-2831	RT	289+52.0	290+08.0	56.0
LOC-7	SN 057-2832	LT	310+00.0	310+56.0	56.0
LOC-7	SN 057-2832	RT	310+00.0	310+56.0	56.0
LOC-8	SLD 1.34	LT	365+62.0	365+88.0	26.0
LOC-8	SLD 1.34	RT	365+62.0	365+88.0	26.0
TOTAL FAS 1476					548.0
ROUNDED					550.0

SCHEDULE OF QUANTITIES

TEMPORARY DITCH CHECKS					
CULVERT LOCATION	STRUCTURE	STATION	OFFSET (FT)	LT/RT	28000305
					TEMPORARY DITCH CHECKS FOOT
LOC-1	SLD 0.81	63+95.00	35.0	LT	20.0
LOC-1	SLD 0.81	64+30.00	33.0	LT	20.0
LOC-1	SLD 0.81	63+95.00	36.0	RT	20.0
LOC-1	SLD 0.81	64+30.00	35.0	RT	20.0
LOC-2	SN 057-2833	75+35.00	25.0	LT	25.0
LOC-2	SN 057-2833	75+75.00	25.0	LT	25.0
LOC-2	SN 057-2833	75+35.00	25.0	RT	25.0
LOC-2	SN 057-2833	75+75.00	25.0	RT	25.0
LOC-3	SN 057-0225	133+28.00	31.0	LT	16.0
LOC-3	SN 057-0225	134+03.00	30.0	RT	16.0
LOC-4	SN 057-2834	213+52.00	26.0	RT	10.0
LOC-4	SN 057-2834	213+85.00	26.0	RT	10.0
LOC-4	SN 057-2834	213+67.00	30.0	LT	15.0
LOC-5	SN 057-2830	270+00.00	26.0	LT	12.0
LOC-5	SN 057-2830	270+25.00	27.0	LT	12.0
LOC-5	SN 057-2830	270+50.00	28.0	LT	15.0
LOC-5	SN 057-2830	270+75.00	28.0	LT	15.0
LOC-5	SN 057-2830	271+00.00	34.0	LT	15.0
LOC-5	SN 057-2830	271+25.00	34.0	LT	20.0
LOC-5	SN 057-2830	272+25.00	33.0	LT	14.0
LOC-5	SN 057-2830	272+75.00	32.0	LT	12.0
LOC-5	SN 057-2830	273+25.00	30.0	LT	12.0
LOC-5	SN 057-2830	271+50.00	40.0	RT	20.0
LOC-5	SN 057-2830	272+00.00	34.0	RT	15.0
LOC-5	SN 057-2830	272+40.00	33.0	RT	12.0
LOC-5	SN 057-2830	272+80.00	30.0	RT	12.0
LOC-5	SN 057-2830	273+20.00	26.0	RT	12.0
LOC-6	SN 057-2831	288+25.00	26.0	LT	14.0
LOC-6	SN 057-2831	288+50.00	26.0	LT	14.0
LOC-6	SN 057-2831	288+75.00	30.0	LT	12.0
LOC-6	SN 057-2831	289+00.00	32.0	LT	12.0
LOC-6	SN 057-2831	289+25.00	36.0	LT	12.0
LOC-6	SN 057-2831	289+50.00	38.0	LT	12.0
LOC-6	SN 057-2831	291+00.00	26.0	LT	8.0
LOC-6	SN 057-2831	288+41.00	30.0	RT	8.0
LOC-6	SN 057-2831	288+83.00	32.0	RT	8.0
LOC-6	SN 057-2831	289+25.00	33.0	RT	8.0
LOC-6	SN 057-2831	290+00.00	39.0	RT	14.0
LOC-6	SN 057-2831	290+20.00	35.0	RT	14.0
LOC-6	SN 057-2831	290+40.00	33.0	RT	12.0
LOC-6	SN 057-2831	290+60.00	32.0	RT	12.0
LOC-6	SN 057-2831	290+80.00	29.0	RT	12.0
LOC-7	SN 057-2832	309+75.00	34.0	LT	16.0
LOC-7	SN 057-2832	310+00.00	40.0	LT	16.0
LOC-7	SN 057-2832	310+60.00	44.0	LT	16.0
LOC-7	SN 057-2832	310+85.00	38.0	LT	16.0
LOC-7	SN 057-2832	311+10.00	35.0	LT	20.0
LOC-7	SN 057-2832	311+35.00	32.0	LT	12.0
LOC-7	SN 057-2832	308+80.00	25.0	RT	8.0
LOC-7	SN 057-2832	309+00.00	29.0	RT	8.0
LOC-7	SN 057-2832	309+20.00	32.0	RT	16.0
LOC-7	SN 057-2832	309+40.00	32.0	RT	10.0
LOC-7	SN 057-2832	309+60.00	33.0	RT	10.0
LOC-7	SN 057-2832	309+80.00	33.0	RT	8.0
LOC-7	SN 057-2832	310+50.00	35.0	RT	14.0
LOC-7	SN 057-2832	310+75.00	34.0	RT	12.0
LOC-7	SN 057-2832	311+00.00	30.0	RT	8.0
LOC-7	SN 057-2832	311+25.00	29.0	RT	8.0
LOC-8	SLD 1.34	365+55.00	21.0	LT	15.0
LOC-8	SLD 1.34	365+90.00	22.0	LT	15.0
LOC-8	SLD 1.34	365+55.00	21.0	RT	15.0
LOC-8	SLD 1.34	365+90.00	22.0	RT	15.0
TOTAL FAS 1476					875.0
ROUNDED					880.0

PERIMETER EROSION BARRIER					
LOCATION	STRUCTURE	FROM STATION	TO STATION	OFFSET	28000400
					PERIMETER EROSION BARRIER FOOT
LOC-1	SLD 0.81	63+45.0	64+80.0	59' LT	135.0
LOC-2	SN 057-8233	74+85.0	76+25.0	59' LT	140.0
LOC-3	SN 057-0225	132+40.0	133+60.0	VARIES-LT	125.0
LOC-3	SN 057-0225	134+00.0	134+32.0	VARIES-LT	50.0
LOC-3	SN 057-0225	132+30.0	133+45.0	VARIES-RT	120.0
LOC-3	SN 057-0225	133+65.0	134+60.0	VARIES-RT	95.0
LOC-4	SN 057-8234	212+80.0	215+20.0	30' LT	240.0
LOC-4	SN 057-8234	213+05.0	214+30.0	30' RT	125.0
LOC-5	SN 057-8230	270+50.0	271+75.0	VARIES-LT	175.0
LOC-5	SN 057-8230	272+10.0	273+50.0	VARIES-LT	195.0
LOC-5	SN 057-8230	270+35.0	271+60.0	VARIES-RT	130.0
LOC-5	SN 057-8230	271+85.0	273+50.0	VARIES-RT	170.0
LOC-6	SN 057-8231	290+30.0	291+55.0	49-27' LT	127.0
LOC-6	SN 057-8231	288+25.0	289+60.0	38-48' RT	138.0
LOC-7	SN 057-8232	308+00.0	310+15.0	30-50' RT	220.0
LOC-7	SN 057-8232	310+55.0	312+00.0	50-30' RT	145.0
TOTAL FAS 1476					2,330.0
ROUNDED					2,330.0

PIPE CULVERT REMOVAL						
LOCATION	STRUCTURE	FROM STATION	TO STATION	OFFSET (FT)	LT/RT	50105220
						PIPE CULVERT REMOVAL (FOOT)
LOC-5	SN 057-8230	273+52.0	273+69.0	21.0	LT	17.0
LOC-5	SN 057-8230	270+07.0	270+33.5	22.0	RT	27.0
LOCATION 5 TOTAL						44.0
LOC-7	SN 057-8232	309+55.0	309+72.0	30.0	LT	19.0
LOC-7	SN 057-8232	310+35.0	310+50.0	50.0	LT	8.0
LOC-7	SN 057-8232	310+35.0	310+50.0	50.0	LT	8.0
LOC-7	SN 057-8232	310+35.0	310+50.0	50.0	LT	8.0
LOCATION 7 TOTAL						43.0
TOTAL FAS 1476						87.0
ROUNDED						90.0

INLET AND PIPE PROTECTION					
LOCATION	STRUCTURE	FROM STATION	OFFSET	INLET AND PIPE PROTECTION EACH	28000500
					INLET AND PIPE PROTECTION EACH
LOC-1	SLD 0.81	63+53.0	56' RT	1.0	1.0
LOC-1	SLD 0.81	64+16.0	56' RT	1.0	1.0
LOC-1	SLD 0.81	64+16.0	32' LT	1.0	1.0
LOC-1	SLD 0.81	64+48.0	32' LT	1.0	1.0
LOC-1	SLD 0.81	64+49.0	38' LT	1.0	1.0
LOC-2	SN 057-8233	75+49.0	31' LT	1.0	1.0
LOC-2	SN 057-8233	75+49.0	56' RT	1.0	1.0
LOC-2	SN 057-8233	75+58.0	40' LT	1.0	1.0
LOC-5	SN 057-8230	270+03.0	21' RT	1.0	1.0
LOC-5	SN 057-8230	273+76.0	25' LT	1.0	1.0
LOC-7	SN 057-8232	309+56.0	35' LT	1.0	1.0
TOTAL FAS 1476					11.0
ROUNDED					11.0

CATCH BASIN REMOVAL					
LOCATION	STRUCTURE	STATION	OFFSET	REMOVING CATCH BASINS EACH	60500050
					REMOVING CATCH BASINS EACH
LOC-1	SLD 0.81	6448.0	32' LT	1.0	1.0
LOC-2	SN 057-8233	7553	35' LT	1.0	1.0
TOTAL FAS 1476					2.0

REMOVE EXISTING FLARED END SECTION					
LOCATION	STRUCTURE	STATION	OFFSET	REMOVE EXISTING FLARED END SECTION EACH	X0322936
					REMOVE EXISTING FLARED END SECTION EACH
LOC-7	SN 057-8232	310+73	29' LT	1.0	1.0
TOTAL FAS 1476					1.0

DRIVEWAY PAVEMENT REMOVAL						
LOCATION	STRUCTURE	LT/RT	STATION	AREA SQ FT	AREA SQ YD	44000200
						DRIVEWAY PAVEMENT REMOVAL SQ YD
LOC-5	SN 057-8230	RT	270+20.0	310	34.4	34.4
TOTAL FAS 1476						34.4
ROUNDED						35.0

REMOVE ROW MARKERS					
LOCATION	STRUCTURE	STATION	OFFSET	REMOVE ROW MARKERS EACH	X6660410
					REMOVE ROW MARKERS EACH
LOC-3	SN 057-0225	133+99.2	30' LT	1.0	1.0
TOTAL FAS 1476					1.0

INCIDENTAL HOT-MIX ASPHALT SURFACING							
LOCATION	STRUCTURE	LT/RT	STATION	AREA (SQ FT)	AREA (SQ YD)	THICKNESS (INCHES)	40800050
							INCIDENTAL HOT-MIX ASPHALT SURFACING TON
LOC-5	SN 057-8230	RT	270+20.0	310	34.4	2.0	3.9
TOTAL FAS 1476							3.9
ROUNDED							4.0

SCHEDULE OF QUANTITIES

STRUCTURE REMOVAL SCHEDULE									
LOCATION	STRUCTURE	STATION	50100300	50100400	50100600	50100700	50100800	50100900	50101000
			REMOVAL OF EXISTING STRUCTURES NO. 1	REMOVAL OF EXISTING STRUCTURES NO. 2	REMOVAL OF EXISTING STRUCTURES NO. 4	REMOVAL OF EXISTING STRUCTURES NO. 5	REMOVAL OF EXISTING STRUCTURES NO. 6	REMOVAL OF EXISTING STRUCTURES NO. 7	REMOVAL OF EXISTING STRUCTURES NO. 8
			EACH	EACH	EACH	EACH	EACH	EACH	EACH
LOC-1	SLD-0.81	64+12.0	1.0						
LOC-2	SN 057-8233	75+55.0		1.0					
LOC-4	SN 057-8234	213+68.0			1.0				
LOC-5	SN 057-8230	271+75.0				1.0			
LOC-6	SN 057-8231	289+80.0					1.0		
LOC-7	SN 057-8232	310+28.0						1.0	
LOC-8	SLD-1.34	365+75.0							1.0
TOTAL FAS 1476			1.0	1.0	1.0	1.0	1.0	1.0	1.0

AGGREGATE SHOULDERS SCHEDULE							
LOCATION	STRUCTURE	LT / RT	FROM STATION	TO STATION	LENGTH (FT)	WIDTH (FT)	48101500
							AGGREGATE SHOULDERS, TYPE B, 6"
							SQ YD
LOC-1	SLD 0.81	LT	64+06.0	64+19.0	13.0	3.0	4.3
LOC-1	SLD 0.81	RT	64+06.0	64+19.0	13.0	3.0	4.3
LOC-2	SN 057-8233	LT	75+46.0	75+63.0	17.0	3.0	5.7
LOC-2	SN 057-8233	RT	75+46.0	75+63.0	17.0	3.0	5.7
LOC-4	SN 057-8234	LT	213+60.0	213+76.0	16.0	3.0	5.3
LOC-4	SN 057-8234	RT	213+60.0	213+76.0	16.0	3.0	5.3
LOC-8	SLD 1.34	LT	365+68.0	365+82.0	14.0	2.5	3.9
LOC-8	SLD 1.34	RT	365+68.0	365+82.0	14.0	2.5	3.9
TOTAL FAS 1476							38.4
ROUNDED							40.0

BOX CULVERT END SECTION SCHEDULE									
CULVERT LOCATION	STRUTURE	STATION	54001001	54001002	54001004	54001005	54001006	54001007	54001008
			BOX CULVERT END SECTIONS CULVERT NO. 1	BOX CULVERT END SECTIONS CULVERT NO. 2	BOX CULVERT END SECTIONS CULVERT NO. 4	BOX CULVERT END SECTIONS CULVERT NO. 5	BOX CULVERT END SECTIONS CULVERT NO. 6	BOX CULVERT END SECTIONS CULVERT NO. 7	BOX CULVERT END SECTIONS CULVERT NO. 8
			EACH	EACH	EACH	EACH	EACH	EACH	EACH
LOC-1	SLD-0.81	64+12.0	2.0						
LOC-2	SN 057-8233	75+55.0		2.0					
LOC-4	SN 057-8234	213+68.0			2.0				
LOC-5	SN 057-8230	271+75.0				2.0			
LOC-6	SN 057-8231	289+80.0					2.0		
LOC-7	SN 057-8232	310+28.0						2.0	
LOC-8	SLD-1.34	365+75.0							2.0
TOTAL FAS 1476			2.0	2.0	2.0	2.0	2.0	2.0	2.0

HMA SHOULDERS SCHEDULE							
LOCATION	STRUCTURE	LT/RT	FROM STATION	TO STATION	LENGTH (FT)	WIDTH (FT)	48203029
							HOT-MIX ASPHALT SHOULDERS, 8"
							SQ YD
LOC-5	SN 057-8230	LT	271+56.5	271+93.5	37.0	3.0	12.3
LOC-5	SN 057-8230	RT	271+56.5	271+93.5	37.0	3.0	12.3
LOC-6	SN 057-8231	LT	289+61.5	289+98.5	37.0	3.0	12.3
LOC-6	SN 057-8231	RT	289+61.5	289+98.5	37.0	3.0	12.3
LOC-7	SN 057-8232	LT	310+09.0	310+47.0	38.0	3.0	12.7
LOC-7	SN 057-8232	RT	310+09.0	310+47.0	38.0	3.0	12.7
TOTAL FAS 1476							74.7
ROUNDED							80.0

PRECAST CONCRETE BOX CULVERT SCHEDULE							
LOCATION	STRUCTURE	STATION	OFFSET LT (FT)	OFFSET RT (FT)	54010402	54010602	54011208
					PRECAST CONCRETE BOX CULVERTS 4' X 2' FOOT	PRECAST CONCRETE BOX CULVERTS 6' X 2' FOOT	PRECAST CONCRETE BOX CULVERTS 12' X 8' FOOT
LOC-1	SLD-0.81	64+12.0	24.0	24.0	48.0		
LOC-2	SN 057-8233	75+55.0	23.0	23.0		46.0	
LOC-4	SN 057-8234	213+68.0	18.0	18.0		36.0	
LOC-5	SN 057-8230	271+75.0	20.0	20.0			40.0
LOC-6	SN 057-8231	289+80.0	24.0	24.0			48.0
LOC-7	SN 057-8232	310+28.0	28.0	20.0			48.0
LOC-8	SLD-1.34	365+75.0	16.0	16.0	32.0		
TOTAL FAS 1476					80.0	82.0	136.0

NAME PLATES				
LOCATION	STRUCTURE	STATION	51500100	NAME PLATES
				EACH
LOC-2	SN 057-8233	75+55.00	1.0	1.0
LOC-4	SN 057-8234	213+68.00	1.0	1.0
LOC-5	SN 057-8230	271+75.00	1.0	1.0
LOC-6	SN 057-8231	289+80.00	1.0	1.0
LOC-7	SN 057-8232	310+28.00	1.0	1.0
TOTAL FAS 1476				5.0

TRAVERSABLE PIPE GRATE, SPECIAL							
LOCATION	STRUCTURE	BOX SIZE	LT/RT	STATION	PIPE LENGTH (FT)	PIPE QTY	X5429311
							TRAVERSABLE PIPE GRATE, SPECIAL
							FOOT
LOC-1	SLD 0.81	4x2	LT	64+12.0	2.69	2.0	5.4
LOC-1	SLD 0.81	4x2	RT	64+12.0	2.69	2.0	5.4
LOC-2	SN 057-8233	6x2	LT	75+55.0	2.69	3.0	8.1
LOC-2	SN 057-8233	6x2	RT	75+55.0	2.69	3.0	8.1
LOC-4	SN 057-8234	6x2	LT	213+68.0	2.69	3.0	8.1
LOC-4	SN 057-8234	6x2	RT	213+68.0	2.69	3.0	8.1
LOC-8	SLD 1.34	4x2	LT	365+75.0	2.69	2.0	5.4
LOC-8	SLD 1.34	4x2	RT	365+75.0	2.69	2.0	5.4
TOTAL FAS 1476							53.8
ROUNDED							60.0

AGGREGATE SURFACE COURSE, TYPE B							
LOCATION	STRUCTURE	LT/RT	STATION	AREA (SQ FT)	DEPTH (FT)	VOLUME (CU FT)	40200900
							AGGREGATE SURFACE COURSE, TYPE B
							CU YD
LOC-5	SN 057-8230	RT	270+20	310.0	0.5	155.0	5.7
LOC-5	SN 057-8230	LT	273+60	557.0	0.5	278.5	10.3
TOTAL FAS 1476							16.1
ROUNDED							17.0

SCHEDULE OF QUANTITIES

PIPE CULVERT SCHEDULE							
LOCATION	STRUCTURE	FROM STATION	TO STATION	OFFSET (FT)	LENGTH	542D0220	542D0223
						PIPE CULVERTS CLASS D, TYPE 1 15"	PIPE CULVERTS CLASS D, TYPE 1 18"
						FOOT	FOOT
LOC-5	SN 057-8230	270+07.0	270+33.5	21.5-26.5' RT	27.0		
LOC-5	SN 057-8230	273+46.0	273+74.0	29.4-25.0' LT	28.0		28.0
TOTAL FAS 1476						27.0	28.0

STORM SEWER SCHEDULE								
LOCATION	STRUCTURE	FROM STATION	OFFSET	TO STATION	OFFSET	550B0050	61101009	61140000
						STORM SEWERS, CLASS B, TYPE 1 12"	STORM SEWERS PROTECTED, CLASS A, 8"	STORM SEWERS (SPECIAL), 8"
						FOOT	FOOT	FOOT
LOC-1	SLD 0.81	63+54.0	56' RT	64+15.0	56' RT			63.0
LOC-1	SLD 0.81	64+16.0	55' RT	64+16.0	31' LT		87.0	
LOC-1	SLD 0.81	64+17.0	32' LT	64+47.0	32' LT			31.0
LOC-1	SLD 0.81	64+48.0	33' LT	64+48.0	37' LT			6.0
LOC-2	057-8233	75+49.0	55' RT	75+49.0	30' LT		86.0	
LOC-2	057-8233	75+50.0	31' LT	75+57.0	40' LT			12.0
LOC-7	057-8232	309+57.0	35' LT	309+96.0	47' LT	40.0		
TOTAL FAS 1476						40.0	173.0	112.0
ROUNDED						40.0	180.0	120.0

PIPE END SECTION SCHEDULE						
LOCATION	STRUCTURE	STATION	OFFSET	54213657	54262715	54262718
				PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" EACH	METAL FLARED END SECTIONS 15" EACH	METAL FLARED END SECTIONS 18" EACH
LOC-5	SN 057-8230	270+07.0	21.5' RT		1.0	
LOC-5	SN 057-8230	270+33.5	25.5' RT		1.0	
LOC-5	SN 057-8230	273+50.0	29.4' LT			1.0
LOC-5	SN 057-8230	273+70.0	26.0' LT			1.0
LOC-7	SN 057-8232	310+02.0	48.7' LT	1.0		
TOTAL FAS 1476				1.0	2.0	2.0

JUNCTION VAULT SCHEDULE							
LOCATION	STRUCTURE	STATION	OFFSET	60400105	60403800	61133100	
				FRAMES, TYPE 1 EACH	LIDS, TYPE 1, CLOSED LID EACH	FIELD TILE JUNCTION VAULTS, 2' DIA. EACH	
LOC-1	SLD 0.81	63+53.0	56' RT	1.0	1.0	1.0	
LOC-1	SLD 0.81	64+16.0	56' RT	1.0	1.0	1.0	
LOC-1	SLD 0.81	64+16.0	32' LT	1.0	1.0	1.0	
LOC-1	SLD 0.81	64+48.0	32' LT	1.0	1.0	1.0	
LOC-2	SN 057-8233	75+49.0	56' RT	1.0	1.0	1.0	
LOC-2	SN 057-8233	75+49.0	31' LT	1.0	1.0	1.0	
TOTAL FAS 1476				6.0	6.0	6.0	

CONCRETE HEADWALLS				
LOCATION	STRUCTURE	STATION	OFFSET	60100060
				CONCRETE HEADWALLS FOR PIPE DRAINS EACH
LOC-6	SN 057-8231	289+88.0	37' LT	1.0
TOTAL FAS 1476				1.0

INLET SCHEDULE				
LOCATION	STRUCTURE	STATION	OFFSET	60240215
				* INLETS, TYPE B, TYPE 1 FRAME, CLOSED LID EACH
LOC-7	SN 057-8232	309+56.0	35.1' LT	1.0
TOTAL FAS 1476				1.0

* USES PRECAST REINFORCED CONCRETE FLAT SLAB TOP

CLASS B PATCHING SCHEDULE									
CULVERT LOCATION	STRUCTURE	FROM STATION	TO STATION	LENGTH (FT)	WIDTH (FT)	42000060	44200944	44213200	44213204
						WELDED WIRE REINFORCEMENT SQ YD	CLASS B PATCHES, TYPE IV, 8 INCH SQ YD	SAW CUTS FOOT	TIE BARS 3/4" EACH
LOC-1	SLD-0.81	64+06.0	64+19.0	13.0	27.0	39.0	39.0	94.0	
LOC-2	SN 057-8233	75+46.0	75+63.0	17.0	27.0	51.0	51.0	98.0	
LOC-4	SN 057-8234	213+60.0	213+76.0	16.0	27.0	48.0	48.0	97.0	
LOC-5	SN 057-8230	271+56.5	271+93.5	37.0	26.0	106.9	106.9	189.0	19.0
LOC-6	SN 057-8231	289+61.5	289+98.5	37.0	26.0	106.9	106.9	189.0	19.0
LOC-7	SN 057-8232	310+09.0	310+47.0	38.0	26.0	109.8	109.8	192.0	19.0
LOC-8	SLD-1.34	365+68.0	365+82.0	14.0	27.0	42.0	42.0	95.0	
TOTALS FAS 1476						503.6	503.6	954.0	57.0
ROUNDED						510.0	510.0	960.0	60.0

-TRANSVERSE JOINTS BETWEEN EX. PAVEMENT STRUCTURE AND PROPOSED PATCH SHALL NOT RECEIVE DOWEL BARS DUE TO PAVEMENT STRUCTURE VARIATIONS

SCHEDULE OF QUANTITIES

GUARDRAIL SCHEDULE										
LOCATION	STRUCTURE	LT/RT	STATION	STATION	63000001	63000007	63000030	63100167	72501000	78200005
					STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (FOOT)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 6 FOOT POSTS (FOOT)	STRONG POST GUARDRAIL ATTACHED TO CULVERT (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT (EACH)	TERMINAL MARKER - DIRECT APPLIED (EACH)	GUARDRAIL REFLECTORS, TYPE A (EACH)
LOC-5	SN 057-8230	LT	270+87.5	271+37.5				1.0	1.0	
LOC-5	SN 057-8230	LT	271+37.5	271+62.5		25.0				
LOC-5	SN 057-8230	LT	271+62.5	271+87.5			25.0			
LOC-5	SN 057-8230	LT	271+87.5	272+12.5		25.0				4.0
LOC-5	SN 057-8230	LT	272+12.5	272+62.5	50.0					
LOC-5	SN 057-8230	LT	272+62.5	273+12.5				1.0	1.0	
LOC-5	SN 057-8230	RT	270+62.5	271+12.5				1.0	1.0	
LOC-5	SN 057-8230	RT	271+12.5	271+37.5	25.0					
LOC-5	SN 057-8230	RT	271+37.5	271+62.5		25.0				
LOC-5	SN 057-8230	RT	271+62.5	271+87.5			25.0			4.0
LOC-5	SN 057-8230	RT	271+87.5	272+12.5		25.0				
LOC-5	SN 057-8230	RT	272+12.5	272+62.5				1.0	1.0	
LOCATION 5 TOTALS					75.0	100.0	50.0	4.0	4.0	8.0
LOC-6	SN 057-8231	LT	288+92.5	289+42.5				1.0	1.0	
LOC-6	SN 057-8231	LT	289+42.5	289+67.5		25.0				
LOC-6	SN 057-8231	LT	289+67.5	289+92.5			25.0			4.0
LOC-6	SN 057-8231	LT	289+92.5	290+17.5		25.0				
LOC-6	SN 057-8231	LT	290+17.5	290+42.5	25.0					
LOC-6	SN 057-8231	LT	290+42.5	290+92.5				1.0	1.0	
LOC-6	SN 057-8231	RT	288+67.5	289+17.5				1.0	1.0	
LOC-6	SN 057-8231	RT	289+17.5	289+42.5	25.0					
LOC-6	SN 057-8231	RT	289+42.5	289+67.5		25.0				
LOC-6	SN 057-8231	RT	289+67.5	289+92.5			25.0			4.0
LOC-6	SN 057-8231	RT	289+92.5	290+17.5		25.0				
LOC-6	SN 057-8231	RT	290+17.5	290+67.5				1.0	1.0	
LOCATION 6 TOTALS					50.0	100.0	50.0	4.0	4.0	8.0
LOC-7	SN 057-8232	LT	309+56.5	310+06.5				1.0	1.0	
LOC-7	SN 057-8232	LT	310+06.5	310+19.0		12.5				
LOC-7	SN 057-8232	LT	310+19.0	310+44.0			25.0			4.0
LOC-7	SN 057-8232	LT	310+44.0	310+69.0		25.0				
LOC-7	SN 057-8232	LT	310+69.0	311+19.0				1.0	1.0	
LOC-7	SN 057-8232	RT	308+90.5	309+40.5				1.0	1.0	
LOC-7	SN 057-8232	RT	309+40.5	309+90.5	50.0					
LOC-7	SN 057-8232	RT	309+90.5	310+15.5		25.0				4.0
LOC-7	SN 057-8232	RT	310+15.5	310+40.5			25.0			
LOC-7	SN 057-8232	RT	310+40.5	310+65.5						
LOC-7	SN 057-8232	RT	310+65.5	311+15.5				1.0	1.0	
LOCATION 7 TOTALS					50.0	87.5	50.0	4.0	4.0	8.0
TOTALS FAS 1476					175.0	287.5	150.0	12.0	12.0	24.0

FURNISHING AND ERECTING RIGHT OF WAY MARKERS					
CULVERT LOCATION	STRUCTURE	STATION	OFFSET (FT)	LT/RT	66600105
					FURNISHING AND ERECTING RIGHT OF WAY MARKERS EACH
LOC-3	SN 057-0225	132+20.00	30.00	RT	1.0
LOC-3	SN 057-0225	133+10.00	55.00	RT	1.0
LOC-3	SN 057-0225	133+74.32	55.00	RT	1.0
LOC-3	SN 057-0225	134+59.31	35.00	RT	1.0
LOC-3	SN 057-0225	132+40.00	30.00	LT	1.0
LOC-3	SN 057-0225	133+30.00	55.00	LT	1.0
LOC-3	SN 057-0225	134+32.00	55.00	LT	1.0
LOC-3	SN 057-0225	134+32.00	31.91	LT	1.0
LOC-5	SN 057-8230	269+50.00	30.00	LT	1.0
LOC-5	SN 057-8230	270+00.00	40.00	LT	1.0
LOC-5	SN 057-8230	270+50.00	40.00	LT	1.0
LOC-5	SN 057-8230	271+00.00	50.00	LT	1.0
LOC-5	SN 057-8230	272+50.00	50.00	LT	1.0
LOC-5	SN 057-8230	272+94.83	40.00	LT	1.0
LOC-5	SN 057-8230	273+75.00	40.00	LT	1.0
LOC-5	SN 057-8230	274+25.00	30.00	LT	1.0
LOC-5	SN 057-8230	269+97.74	40.00	RT	1.0
LOC-5	SN 057-8230	270+50.00	40.00	RT	1.0
LOC-5	SN 057-8230	271+00.00	50.00	RT	1.0
LOC-5	SN 057-8230	272+50.00	50.00	RT	1.0
LOC-5	SN 057-8230	272+94.83	40.00	RT	1.0
LOC-5	SN 057-8230	273+50.00	40.00	RT	1.0
LOC-5	SN 057-8230	273+50.00	32.63	RT	1.0
LOC-6	SN 057-8231	288+28.29	40.00	LT	1.0
LOC-6	SN 057-8231	288+50.00	40.00	LT	1.0
LOC-6	SN 057-8231	288+75.00	50.00	LT	1.0
LOC-6	SN 057-8231	290+50.00	50.00	LT	1.0
LOC-6	SN 057-8231	291+50.00	30.00	LT	1.0
LOC-6	SN 057-8231	288+18.21	40.00	RT	1.0
LOC-6	SN 057-8231	289+00.00	40.00	RT	1.0
LOC-6	SN 057-8231	289+50.00	50.00	RT	1.0
LOC-6	SN 057-8231	290+10.00	50.00	RT	1.0
LOC-6	SN 057-8231	290+50.00	40.00	RT	1.0
LOC-6	SN 057-8231	291+00.00	40.00	RT	1.0
LOC-6	SN 057-8231	291+50.00	30.00	RT	1.0
LOC-7	SN 057-8232	308+75.00	30.00	RT	1.0
LOC-7	SN 057-8232	309+75.00	50.00	RT	1.0
LOC-7	SN 057-8232	310+75.00	50.00	RT	1.0
LOC-7	SN 057-8232	311+75.00	30.00	RT	1.0
LOC-7	SN 057-8232	309+50.17	65.00	LT	1.0
LOC-7	SN 057-8232	310+75.00	65.00	LT	1.0
LOC-7	SN 057-8232	311+30.00	39.62	LT	1.0
TOTAL FAS 1476					42.0

GUARDRAIL REMOVAL SCHEDULE						
LOCATION	STRUCTURE	LT/RT	FROM STATION	TO STATION	63200310	GUARDRAIL REMOVAL (FOOT)
					LENGTH (FT)	
LOC-5	SN 057-8230	LT	270+65.0	272+90.0	225.0	
LOC-5	SN 057-8230	RT	270+65.0	272+91.0	226.0	
LOCATION 5 TOTAL						451.0
LOC-6	SN 057-8231	LT	288+73.0	290+86.0	213.0	
LOC-6	SN 057-8231	RT	288+73.0	290+86.0	213.0	
LOCATION 6 TOTAL						426.0
LOC-7	SN 057-8232	LT	309+57.0	311+33.0	176.0	
LOC-7	SN 057-8232	RT	309+19.0	311+32.0	213.0	
LOCATION 7 TOTAL						389.0
TOTAL FAS 1476						1,266.0
ROUNDED						1,270.0

SCHEDULE OF QUANTITIES

PAINT PAVEMENT MARKING SCHEDULE									
LT/ RT/ CTR	FROM STATION	TO STATION	NO. OF WHITE STRIPE	NO. OF YELLOW STRIPE	LENGTH	WIDTH	NOTE	78001110 PAINT PAVEMENT MARKING - LINE 4" FOOT	
								WHITE	YELLOW
LOCATION 1: SLD 0.81									
LT	64+06.0	64+19.0	1.00	0.00	13.00	0.33	SOLID-WHT	13.00	
RT	64+06.0	64+19.0	1.00	0.00	13.00	0.33	SOLID-WHT	13.00	
*CTR	64+06.0	64+19.0	0.00	0.25	13.00	0.33	SKIP-DASH YLW		10.00
TOTALS								26.00	10.00
TOTAL LOCATION 1								36.00	
LOCATION 2: SN 057-8233									
LT	75+46.0	75+63.0	1.00	0.00	17.00	0.33	SOLID-WHT	17.00	
RT	75+46.0	75+63.0	1.00	0.00	17.00	0.33	SOLID-WHT	17.00	
*CTR	75+46.0	75+63.0	0.00	0.25	17.00	0.33	SKIP-DASH YLW		10.00
CTR	75+46.0	75+63.0	0.00	1.00	17.00	0.33	SOLID-YLW		17.00
TOTALS								34.00	27.00
TOTAL LOCATION 2								61.00	
LOCATION 4: SN 057-8234									
LT	213+60.0	213+76.0	1.00	0.00	16.00	0.33	SOLID-WHT	16.00	
RT	213+60.0	213+76.0	1.00	0.00	16.00	0.33	SOLID-WHT	16.00	
*CTR	213+60.0	213+76.0	0.00	0.25	16.00	0.33	SKIP-DASH YLW		10.00
TOTALS								32.00	10.00
TOTAL LOCATION 4								42.00	
LOCATION 5: SN 057-8230									
LT	271+56.5	271+93.5	1.00	0.00	37.00	0.33	SOLID-WHT	37.00	
RT	271+56.5	271+93.5	1.00	0.00	37.00	0.33	SOLID-WHT	37.00	
CTR	271+56.5	271+93.5	0.00	2.00	37.00	0.33	DBL SOLID-YLW		74.00
TOTALS								74.00	74.00
TOTAL LOCATION 5								148.00	
LOCATION 6: SN 057-8231									
LT	289+61.5	289+98.5	1.00	0.00	37.00	0.33	SOLID-WHT	37.00	
RT	289+61.5	289+98.5	1.00	0.00	37.00	0.33	SOLID-WHT	37.00	
CTR	289+61.5	289+98.5	0.00	2.00	37.00	0.33	DBL SOLID-YLW		74.00
TOTALS								74.00	74.00
TOTAL LOCATION 6								148.00	
LOCATION 7: SN 057-8232									
LT	310+09.0	310+47.0	1.00	0.00	38.00	0.33	SOLID-WHT	38.00	
RT	310+09.0	310+47.0	1.00	0.00	38.00	0.33	SOLID-WHT	38.00	
CTR	310+09.0	310+47.0	0.00	2.00	38.00	0.33	DBL SOLID-YLW		76.00
TOTALS								76.00	76.00
TOTAL LOCATION 7								152.00	
LOCATION 8: SLD 1.34									
LT	365+68.0	365+82.0	1.00	0.00	14.00	0.33	SOLID-WHT	14.00	
RT	365+68.0	365+82.0	1.00	0.00	14.00	0.33	SOLID-WHT	14.00	
*CTR	365+68.0	365+82.0	0.00	0.25	14.00	0.33	SKIP-DASH YLW		10.00
TOTALS								28.00	10.00
TOTAL LOCATION 8								38.00	
TOTAL FAS 1476								625.00	
ROUNDED								630.00	

*ASSUMING 1 FULL 10' LONG SKIP-DASH CENTERLINE FALLS ON PATCH

PAVEMENT MARKER SCHEDULE					
LOCATION	STRUCTURE	FROM STATION	TO STATION	LENGTH FOOT	78100100 RAISED REFLECTIVE PAVEMENT MARKERS
					EACH
LOC-1	SLD 0.81	64+06.0	64+19.0	13.0	1.0
LOC-2	SN 057-8233	75+46.0	75+63.0	17.0	1.0
LOC-4	SN 057-8234	213+60.0	213+76.0	16.0	1.0
LOC-5	SN 057-8230	271+56.5	271+93.5	37.0	1.0
LOC-6	SN 057-8231	289+61.5	289+98.5	37.0	1.0
LOC-7	SN 057-8232	310+09.0	310+47.0	38.0	1.0
LOC-8	SLD 1.34	365+68.0	365+82.0	14.0	1.0
TOTAL FAS 1476					7.0

*ASSUMING (1) RRRPM FALLS WITHIN PATCH LIMITS

MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES							
LOCATION	STRUCTURE	STATION	TOP WIDTH (FT)	LENGTH (FT)	SIDE 1 (FT)	SIDE 2 (FT)	X090064 MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES
							SQ YD
LOC-1	SLD-0.81	64+12.0	4.8	48.0	1.0	1.0	36.4
LOC-2	SN 057-8233	75+55.0	7.2	46.0	1.0	1.0	46.9
LOC-4	SN 057-8234	213+68.0	7.2	36.0	1.0	1.0	36.7
LOC-5	SN 057-8230	271+75.0	14.0	41.0	1.0	1.0	72.9
LOC-6	SN 057-8231	289+80.0	14.0	49.0	1.0	1.0	87.1
LOC-7	SN 057-8232	310+28.0	14.0	49.0	1.0	1.0	87.1
LOC-8	SLD-1.34	365+75.0	4.8	32.0	1.0	1.0	24.3
TOTAL FAS 1476							391.4
ROUNDED							400.0

PERMANENT BENCH MARKS			
CULVERT LOCATION	STRUCTURE	STATION	Z0038700 PERMANENT BENCH MARKS
			EACH
LOC-2	S.N. 057-8233	75+55.00	1.0
LOC-4	S.N. 057-8234	213+68.00	1.0
LOC-5	S.N. 057-8230	271+75.00	1.0
LOC-6	S.N. 057-8231	289+80.00	1.0
LOC-7	S.N. 057-8232	310+28.00	1.0
TOTAL FAS 1476			5.0

BENCHMARKS

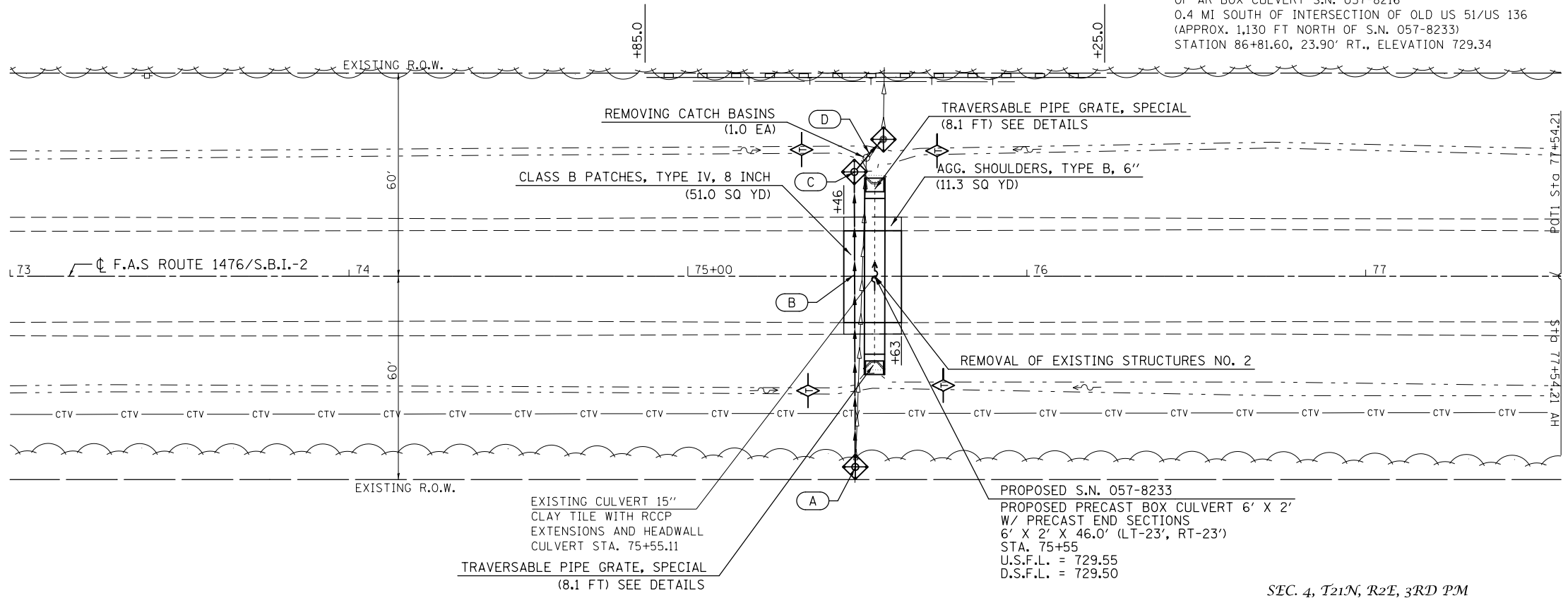
- BM #4858-1 STA. 86+81.60, 23.9' RT
CHISELED SQUARE, TOP CENTER OF EAST HEADWALL
OF AR BOX CULVERT 057-8216. GO SOUTH FROM
INTERSECTION OF US 136 AND OLD US 51 ALONG
OLD US 51, 0.4 MI TO MARK ON LEFT.
ELEV.= 729.34
- BM #4858-2 STA. 273+52.40, 20.83' LT
CHISELED SQUARE, TOP CENTER OF SOUTH HEADWALL
TO FIELD ENTRANCE, N OF 057-8208. GO NORTH FROM
INTERSECTION OF OLD US 51 AND US 136 ALONG OLD
US 51, 3.10 MI TO THE POINT ON THE LEFT.
ELEV.= 732.72
- BM #4858-3 STA. 287+68.05, 21.95' LT
CHISELED SQUARE, TOP CENTER OF HEADWALL IN SW QUAD
OF INTERSECTION OF OLD US 51 AND CR 525N. GO NORTH
FROM THE INTERSECTION OF OLD US 51 AND US 136
ALONG OLD US 51, 3.40 MI TO POINT ON THE LEFT
ELEV.= 745.31
- BM #4858-4 STA. 309+35.20, 42.45' LT
CHISELED SQUARE, NE CORNER ON TOP OF METAL CURB
& GUTTER INLET FOR KNOB HILL DR. GO NORTH FROM
INTERSECTION OF US 136 AND OLD US 51 ALONG OLD
US 51, 3.80 MI TO POINT ON THE LEFT
ELEV.= 750.97

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BENCHMARKS			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0577\DRAWING\0577\Design\0577\0752-sh1-ATB.dgn								1476	(55,55A)CR	McLEAN	130	24
PLOT SCALE = 40.0000' / in.					SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.			CONTRACT NO. 70752				
PLOT DATE = 8/7/2018								ILLINOIS FED. AID PROJECT				

BENCHMARK: 4858-1
 CHISELED SQUARE, TOP CENTER OF EAST HEADWALL
 OF AR BOX CULVERT S.N. 057-8216
 0.4 MI SOUTH OF INTERSECTION OF OLD US 51/US 136
 (APPROX. 1,130 FT NORTH OF S.N. 057-8233)
 STATION 86+81.60, 23.90' RT., ELEVATION 729.34

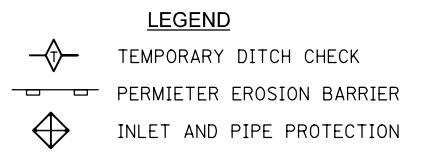


PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	ALIGNED	
	CHECKED	
	FILE NAME	



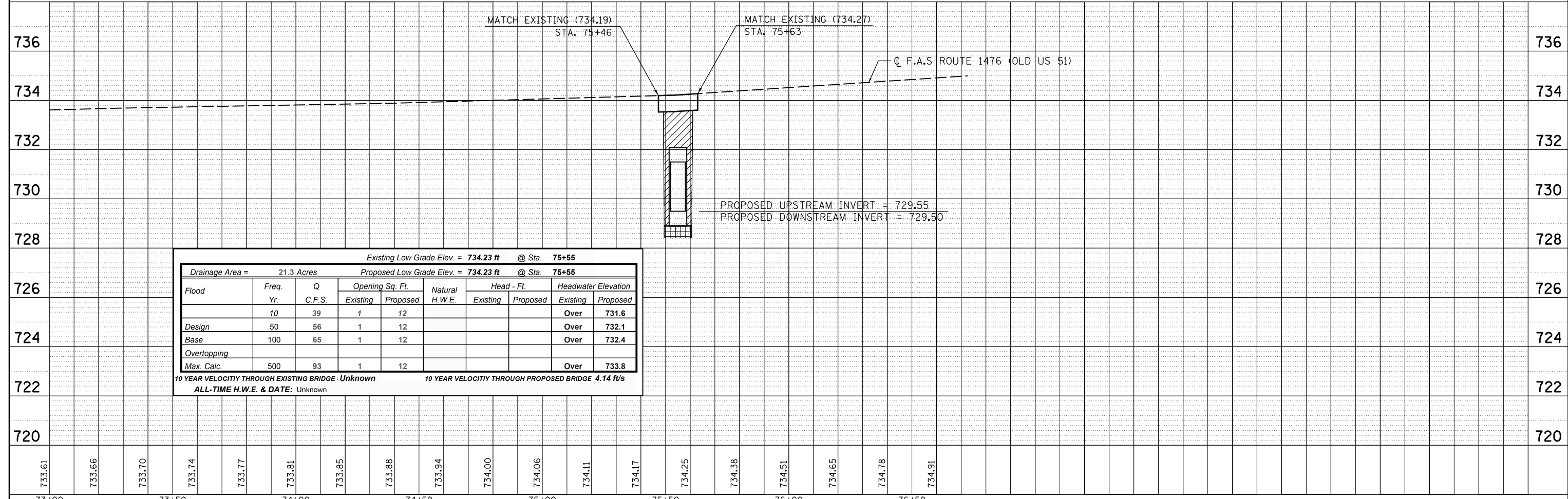
- (A) FIELD TILE JUNCTION VAULT, 2.0' DIA. STA. ± 75+49.0, 56' RT
- (B) STORM SEWERS PROTECTED, CLASS A 8" - (86.0 FT)
- (C) FIELD TILE JUNCTION VAULT, 2.0' DIA. STA. ± 75+49.0, 31' LT
- (D) STORM SEWERS (SPECIAL), 8" - (12.0 FT)

- NOTES:**
- LOCATION OF EXISTING FIELD TILE IS APPROXIMATE TILE IS TO BE REMOVED AND RELOCATED AS SHOWN. SIZE OF EXISTING TILE IS UNKNOWN, BUT IS ESTIMATED AT 8".
 - ACTUAL STATIONS, OFFSETS, AND INVERTS OF THE FIELD TILE JUNCTION VAULTS AND STORM SEWER ARE TO BE FIELD VERIFIED AFTER EXPLORATION TRENCH OPERATIONS LOCATE THE EXISTING TILE CROSSING ROADWAY.



SEC. 4, T21N, R2E, 3RD PM

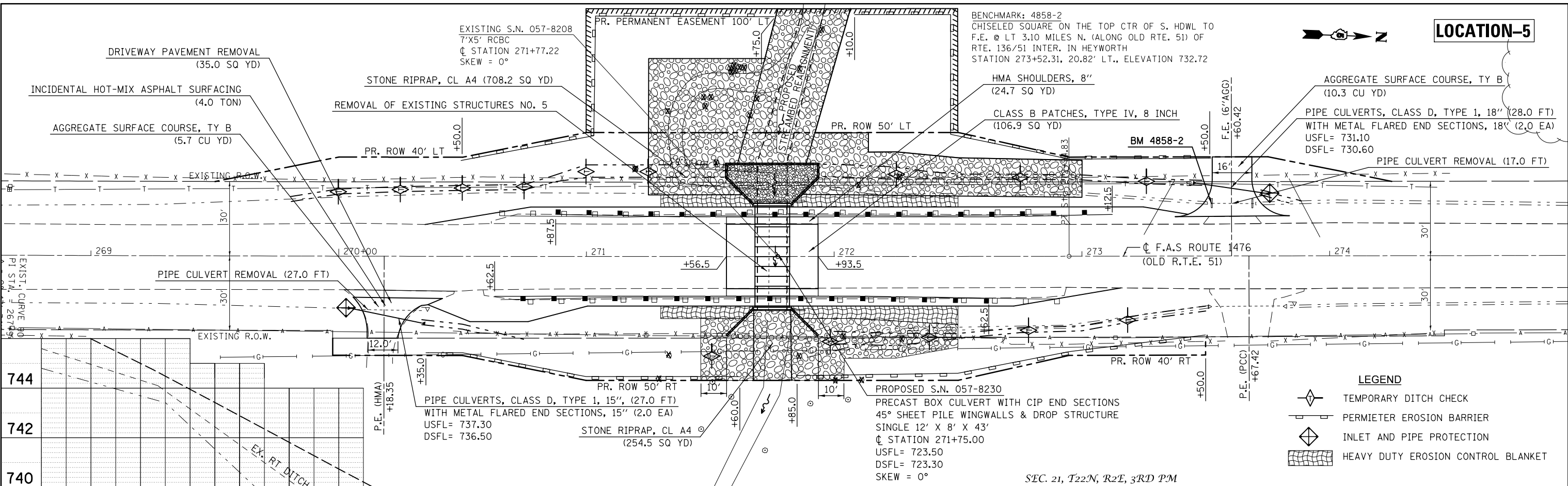
PROFILE	SURVEYED	DATE
NOTE BOOK	GRADES CHECKED	BY
NO.	STRUCTURE	
	NOT AT THIS OFFICE	



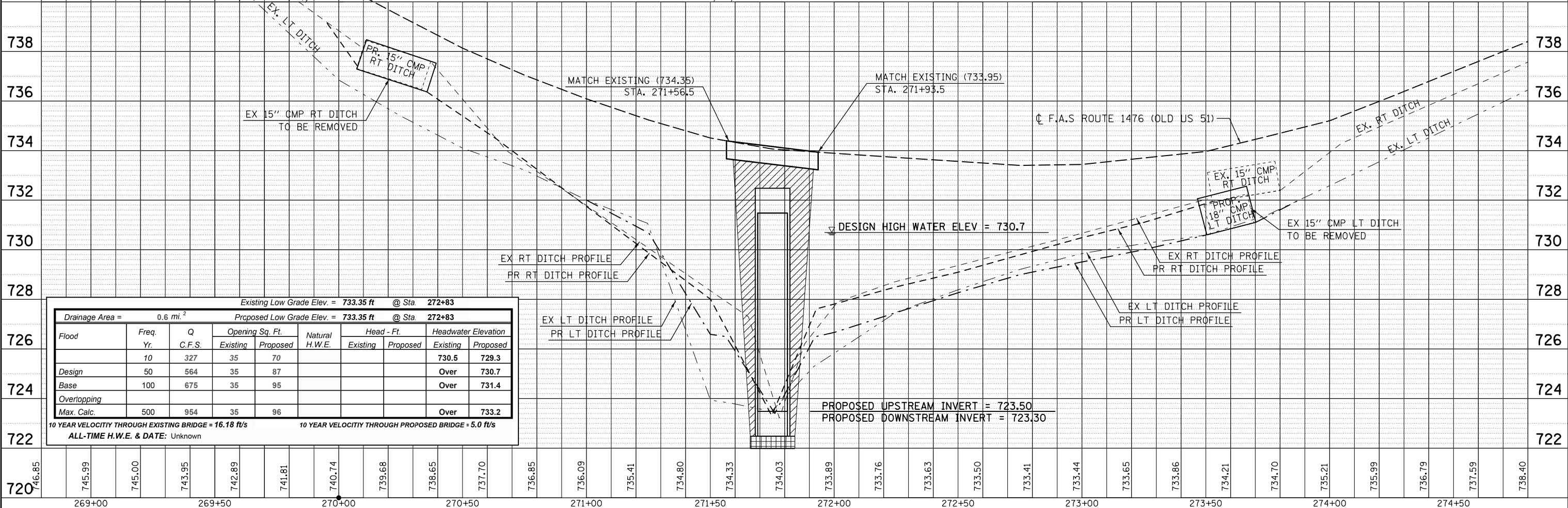
Existing Low Grade Elev. = 734.23 ft @ Sta. 75+55		Proposed Low Grade Elev. = 734.23 ft @ Sta. 75+55	
Drainage Area = 21.3 Acres			
Flood	Freq. Yr.	Q C.F.S.	Headwater Elevation
			Natural H.W.E.
			Head - Ft.
			Existing Proposed Existing Proposed
Design	10	39	Over 731.6
Base	50	56	Over 732.1
Overtopping	100	65	Over 732.4
Max. Calc.	500	93	Over 733.8
10 YEAR VELOCITY THROUGH EXISTING BRIDGE: Unknown		10 YEAR VELOCITY THROUGH PROPOSED BRIDGE: 4.14 ft/s	
ALL-TIME H.W.E. & DATE: Unknown			



BENCHMARK: 4858-2
CHISELED SQUARE ON THE TOP CTR OF S. HDWL TO
F.E. @ LT 3.10 MILES N. (ALONG OLD RTE. 51) OF
RTE. 136/51 INTER. IN HEYWORTH
STATION 273+52.31, 20.82' LT., ELEVATION 732.72



SEC. 21, T22N, R2E, 3RD PM



Existing Low Grade Elev. = 733.35 ft @ Sta. 272+83		Proposed Low Grade Elev. = 733.35 ft @ Sta. 272+83		Natural H.W.E.		Head - Ft.		Headwater Elevation	
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing
Design	10	327	35	70			730.5	729.3	
Base	50	564	35	87			Over	730.7	
Overtopping	100	675	35	95			Over	731.4	
Max. Calc.	500	954	35	96			Over	733.2	

10 YEAR VELOCITY THROUGH EXISTING BRIDGE = 16.18 ft/s
10 YEAR VELOCITY THROUGH PROPOSED BRIDGE = 5.0 ft/s
ALL-TIME H.W.E. & DATE: Unknown

PLAN

DATE	
BY	
SURVEYED	
PLOTTED	
ALIGNED	
CHECKED	
DESIGNED	
NO. 1	

PROFILE

DATE	
BY	
SURVEYED	
PLOTTED	
GRADES CHECKED	
STRUCTURE NOTATIONS CHECKED	
NO. 1	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEET
LOCATION 5 - S.N. 057-8230

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -
DRAMA		REVISED -	REVISED -
PLOT SCALE = 40.000' / in.	CHECKED -	REVISED -	REVISED -
PLOT DATE = 8/7/2018	DATE -	REVISED -	REVISED -

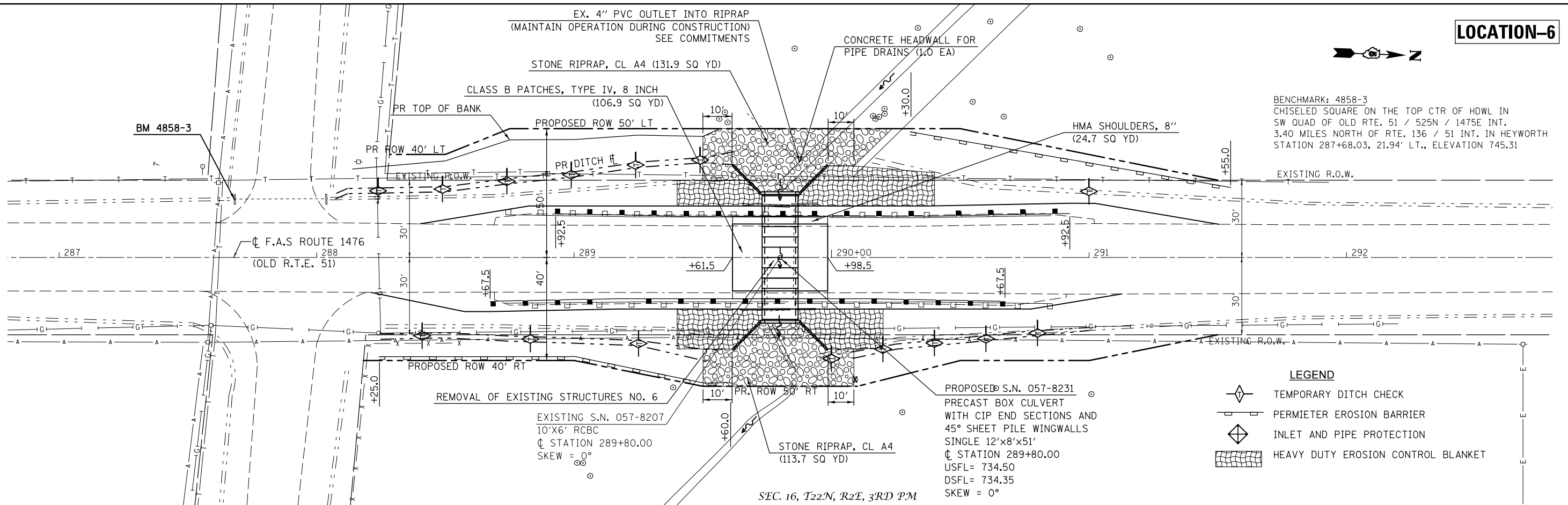
SCALE:	SHEET 4 OF 7 SHEETS	STA. TO STA.
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F.A.S. RTE. 1476	SECTION (55, 55A) CR	COUNTY MCLEAN	TOTAL SHEETS 130	SHEET NO. 28
CONTRACT NO. 70752				ILLINOIS FED. AID PROJECT



BENCHMARK: 4858-3
 CHISELED SQUARE ON THE TOP CTR OF HDWL IN
 SW QUAD OF OLD RTE. 51 / 525N / 1475E INT.
 3.40 MILES NORTH OF RTE. 136 / 51 INT. IN HEYWORTH
 STATION 287+68.03, 21.94' LT., ELEVATION 745.31

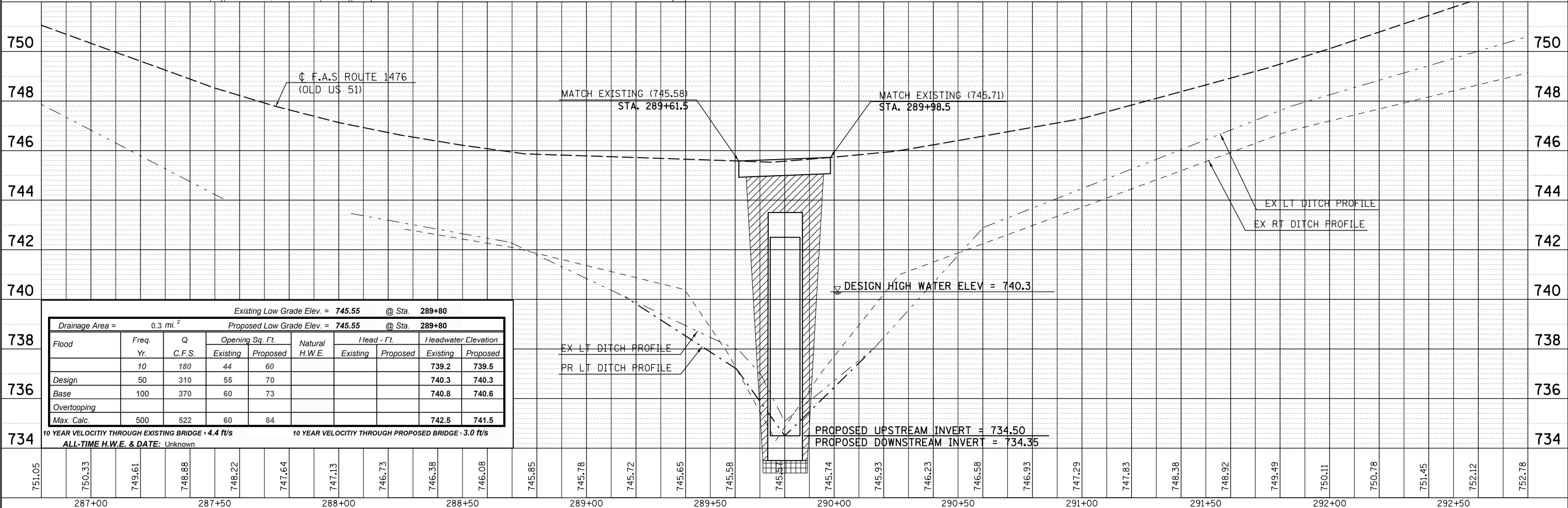
PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	



LEGEND

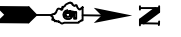
- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- HEAVY DUTY EROSION CONTROL BLANKET

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CHKD	
	NO.	

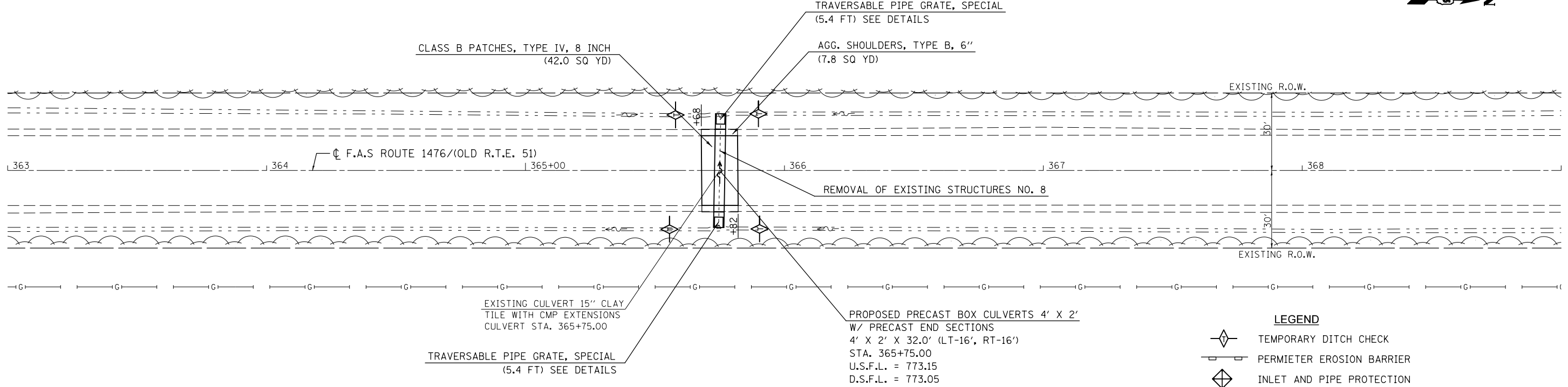


Existing Low Grade Elev. = 745.55 @ Sta. 289+80		Proposed Low Grade Elev. = 745.55 @ Sta. 289+80							
Drainage Area = 0.3 mi. ²									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.	Head - Ft.		Headwater Elevation	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
Design	10	180	44	60				739.2	739.5
Base	50	310	55	70				740.3	740.3
Overtopping	100	370	60	73				740.8	740.6
Max. Calc.	500	522	60	84				742.5	741.5

10 YEAR VELOCITY THROUGH EXISTING BRIDGE - 4.4 ft/s 10 YEAR VELOCITY THROUGH PROPOSED BRIDGE - 3.0 ft/s
 ALL-TIME H.W.E. & DATE: Unknown



PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	
	NO.	
	NO.	
	NO.	
	NO.	
	NO.	

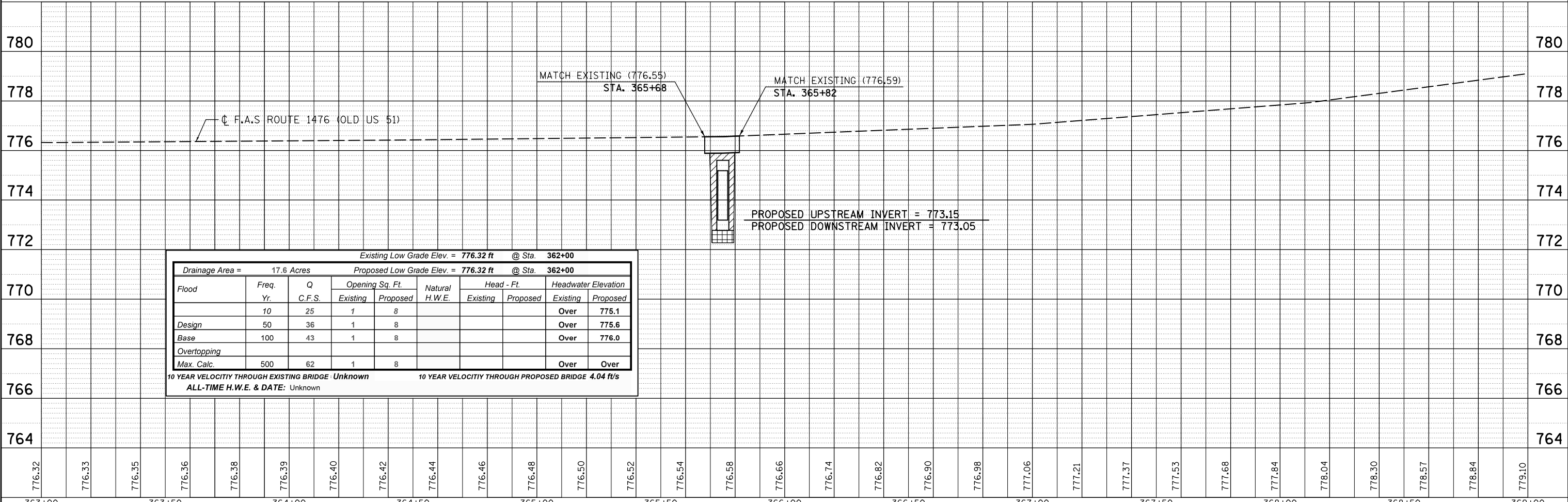


LEGEND

	TEMPORARY DITCH CHECK
	PERMIETER EROSION BARRIER
	INLET AND PIPE PROTECTION

SEC. 9, T22N, R2E, 3RD PM

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE	
	NOT AT THIS OFFICE	
	NO.	
	NO.	
	NO.	
	NO.	



FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE SHEET LOCATION 8 - SLD 1.34	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\IL084EBIDINTEG.allinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\057075\DRAMA\Design\0570752-sht-plnprf.dgn	DRAMA	REVISOR -	REVISOR -			1476	(55 55A)CR	McLEAN	130	31	
MODELNAME =	PLOT SCALE = 48.000' / in.	CHECKED -	REVISOR -			CONTRACT NO. 70752					
	PLOT DATE = 8/7/2018	DATE -	REVISOR -			ILLINOIS FED. AID PROJECT					

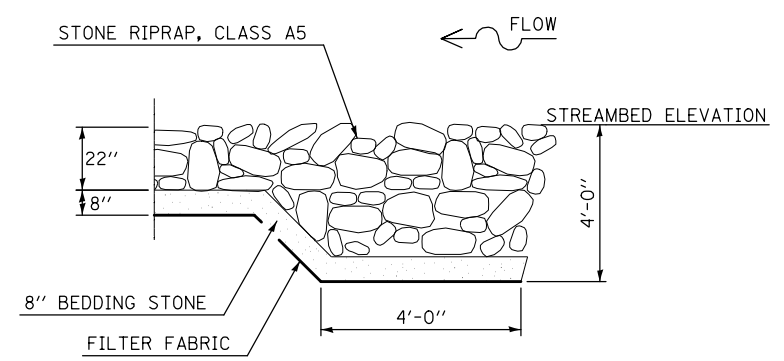
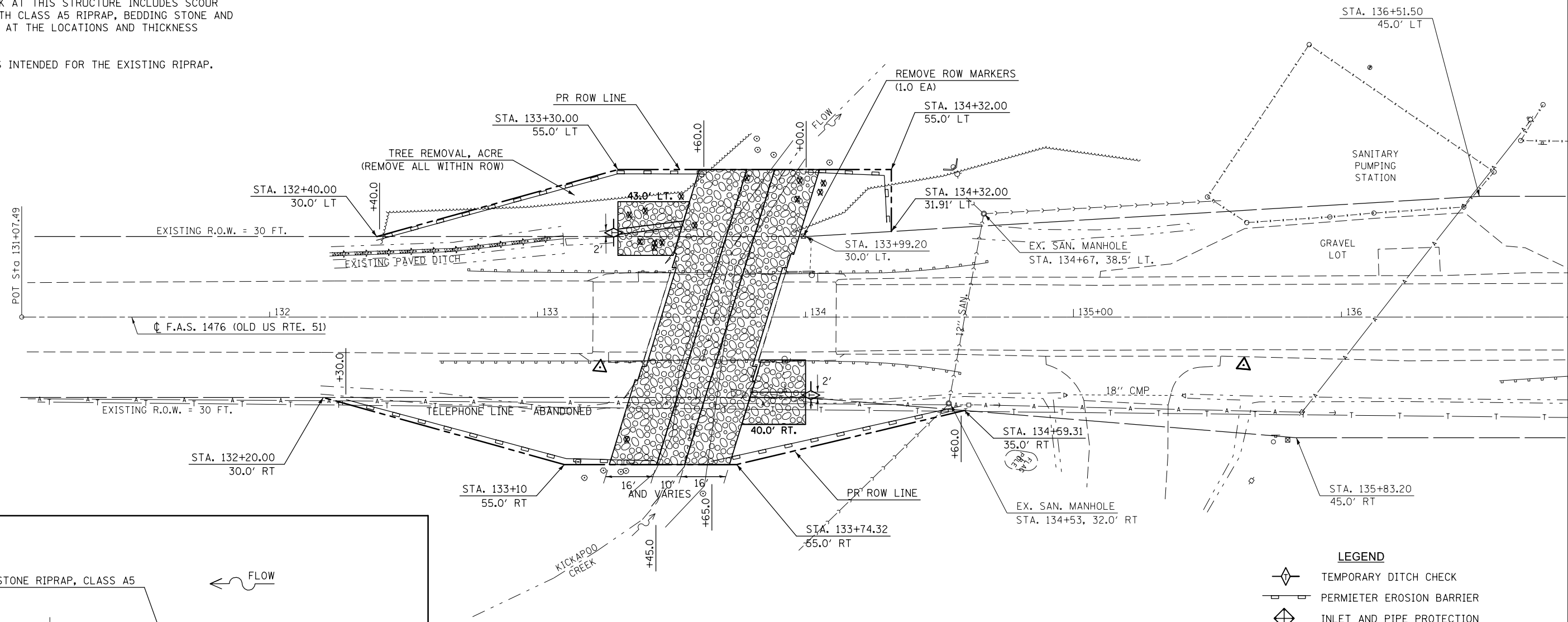
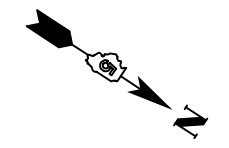
SCOUR MITIGATION PLAN S.N. 057-0225

BENCHMARK: RAILROAD SPIKE IN POWER POLE;
STA. 134+64, 34' RT. ELEV. 707.13.

EXISTING STRUCTURE: S.N. 057-0225 WAS BUILT BY THE STATE OF ILLINOIS IN 1990 AS S.B.I. ROUTE 2, SECTION 55BR AT STATION 133+66 IN MCLEAN COUNTY. IT IS A SINGLE SPAN STRUCTURE CONSISTING OF W24 STEEL BEAMS WITH A 7 1/2" R.C. DECK ON INTEGRAL ABUTMENTS. THE STRUCTURE HAS A BACK TO BACK OF ABUTMENT LENGTH OF 43'-1 3/4" AND AN OUT-TO-OUT WIDTH OF 35'-2". THE STRUCTURE LIES ON A 17° LT. FWD. SKEW.

PROPOSED WORK AT THIS STRUCTURE INCLUDES SCOUR MITIGATION WITH CLASS A5 RIPRAP, BEDDING STONE AND FILTER FABRIC AT THE LOCATIONS AND THICKNESS SHOWN.

NO SALVAGE IS INTENDED FOR THE EXISTING RIPRAP.



- LEGEND**
- TEMPORARY DITCH CHECK
 - PERIMETER EROSION BARRIER
 - INLET AND PIPE PROTECTION
 - STONE RIPRAP, CLASS A5, 22" (WITH 8" BEDDING STONE AND FILTER FABRIC)

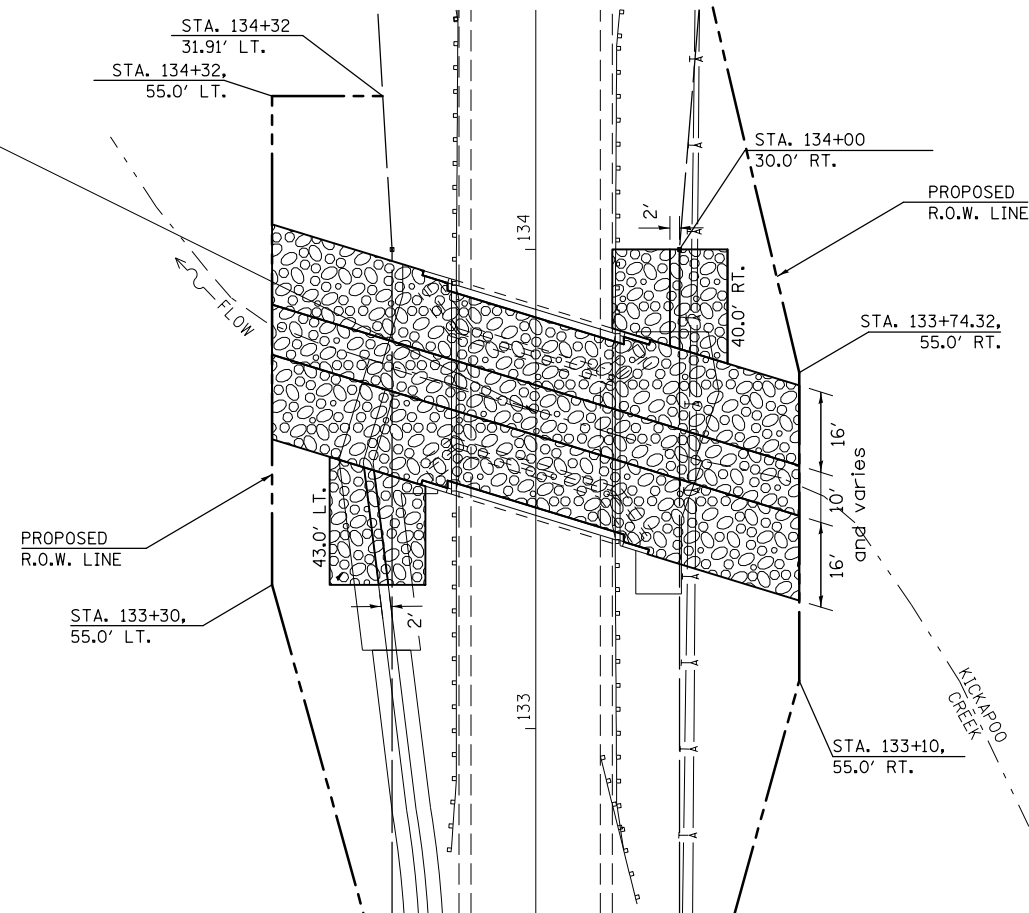
BILL OF MATERIALS

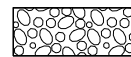
ITEM	UNIT	TOTAL
STONE RIPRAP, CLASS A5, 22"	SQ YD	680.0
FILTER FABRIC	SQ YD	680.0
CHANNEL EXCAVATION	CU YD	190.0

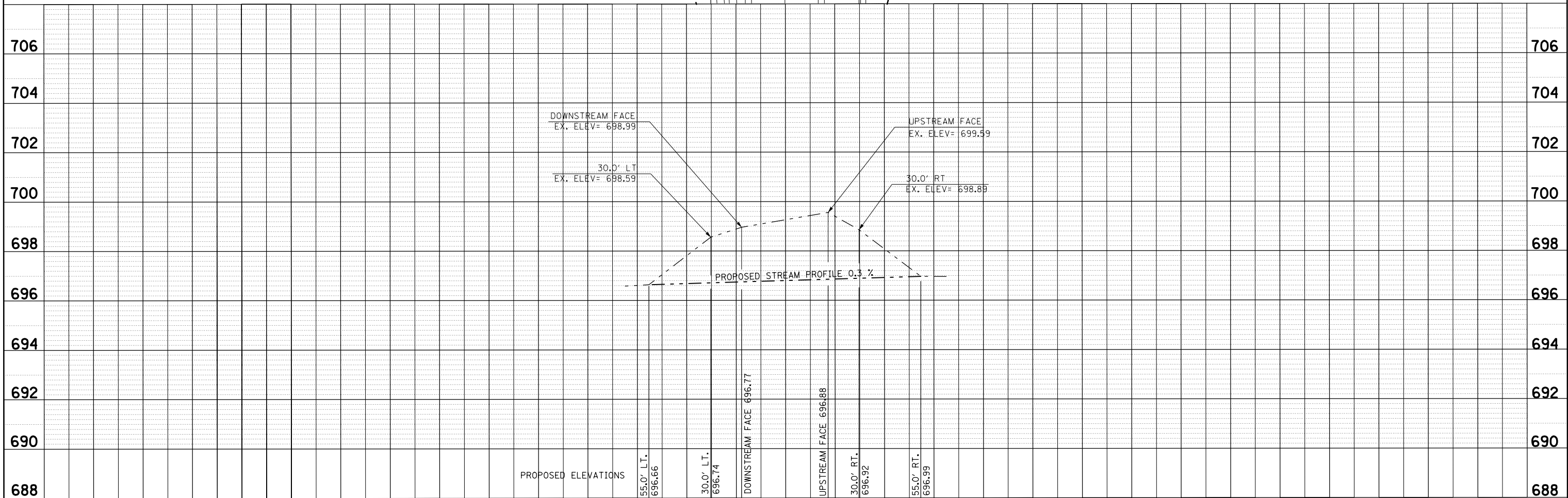
PLAN	REVISIONS	DATE
NO.	NO.	
NOTE BOOK	ALIGNED CHECKED	BY
	CAD FILE NAME	

PROFILE	REVISIONS	DATE
NO.	NO.	
NOTE BOOK	GRADES CHECKED	BY
	STRUCTURE NOTATIONS CHYAD	

EXISTING S.N. 057-0225
 1 SPAN @ 40'-6 1/2"
 43'-1 3/4" BK. TO BK. ABUT.
 35'-2" OUT-TO-OUT
 SKEW: 17° LT. FWD.
 STATION 133+66

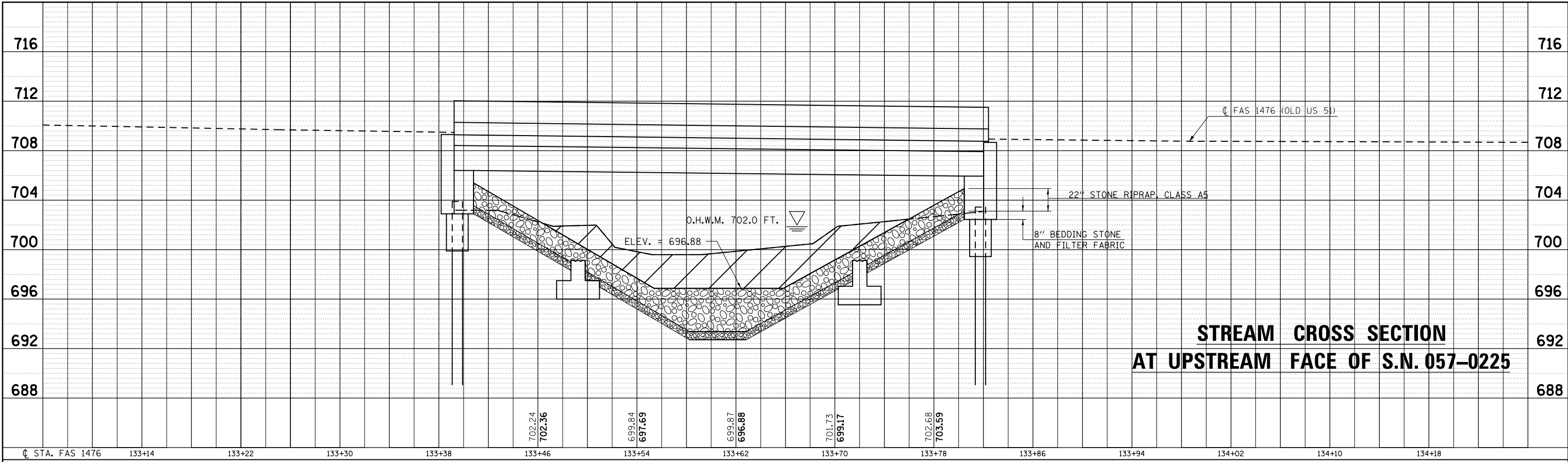


 STONE RIPRAP, CLASS A5, 22"
 (WITH 8" BEDDING STONE AND FILTER FABRIC)



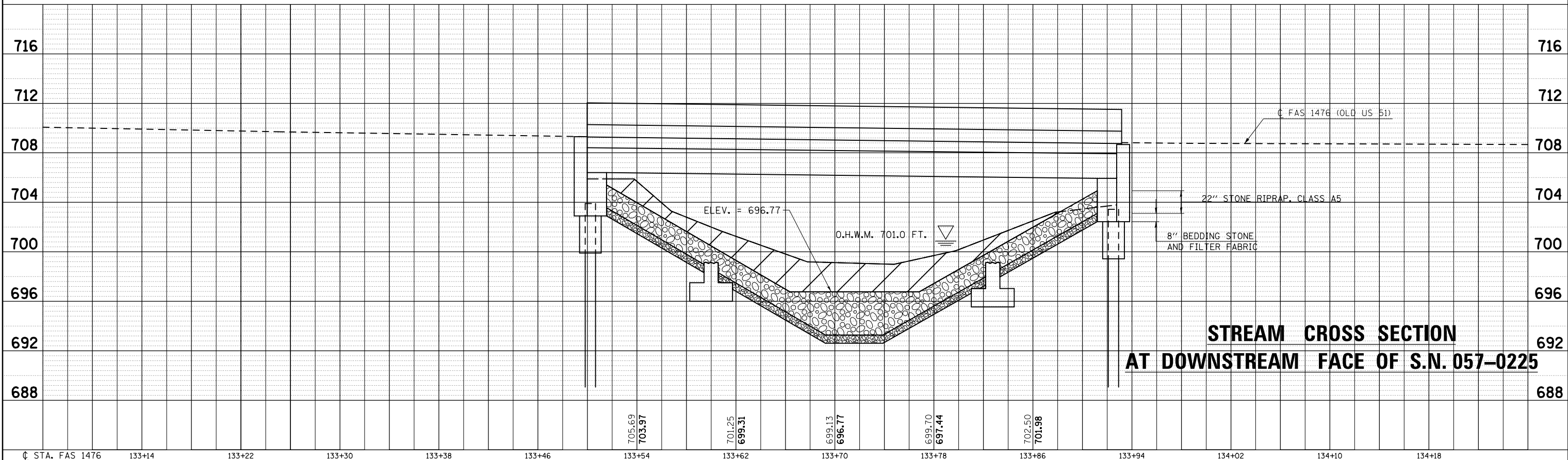
FILE NAME =	USER NAME = ppersonbr	DESIGNED - TJB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND STREAM PROFILE LOCATION-3 S.N. 057-0225			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
px:\IL084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0570752\Drawings\Design\0570752-shr-mitigation\REVISED	PLOT SCALE = 48.0539' / in.	CHECKED -	REVISED -					1476	(55,55A)CR	MCLEAN	130	33
#MODELNAME\$	PLOT DATE = 8/7/2018	DATE - 10/7/2015	REVISED -					SCALE: SHEET 2 OF 7 SHEETS STA. TO STA.			CONTRACT NO. 70752	

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CARD FILE NAME	



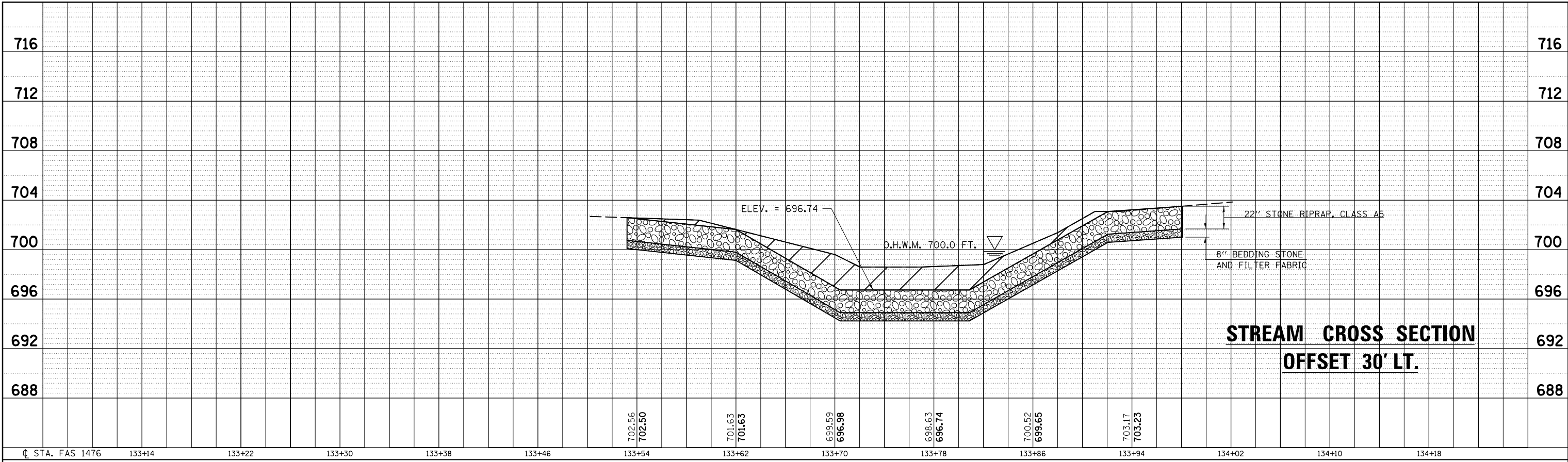
CHANNEL EXCAVATION
(AREA ABOVE PROPOSED STONE RIPRAP ONLY)

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CARD FILE NAME	



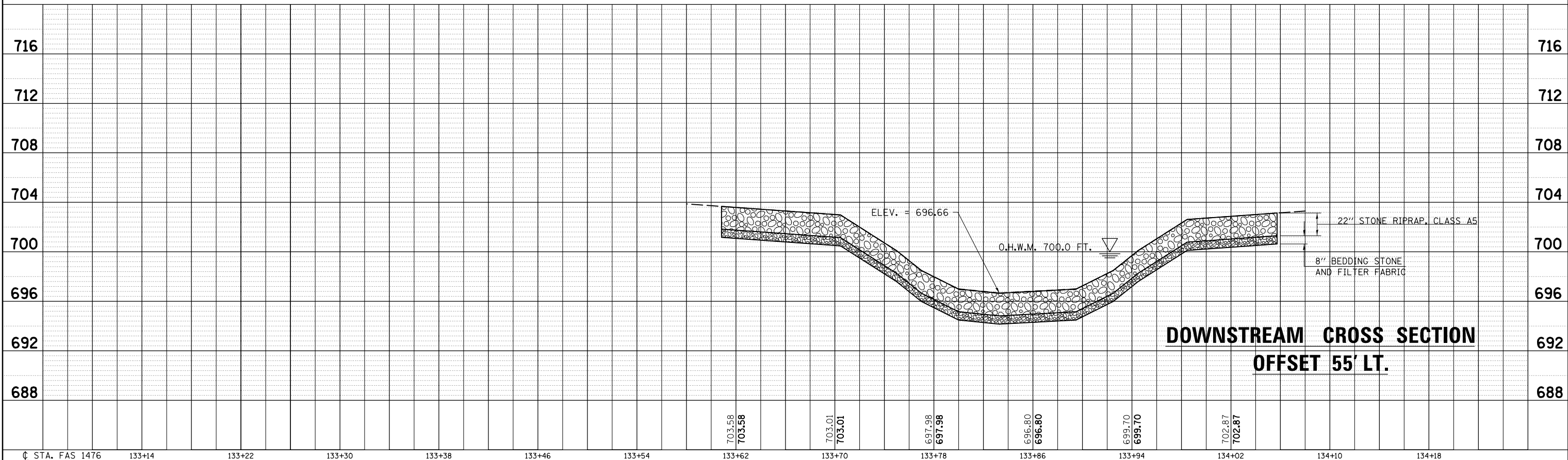
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PLOT SCALE = 40.0000' / in.					CHECKED -	REVISED -	SCALE:		SHEET NO. 4 OF 7 SHEETS		STA.	TO STA.	CONTRACT NO. 70752
PLOT DATE = 8/7/2018					DATE -	REVISED -	ILLINOIS FED. AID PROJECT						

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CARD FILE NAME	



CHANNEL EXCAVATION
(AREA ABOVE PROPOSED STONE RIPRAP ONLY)

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CARD FILE NAME	

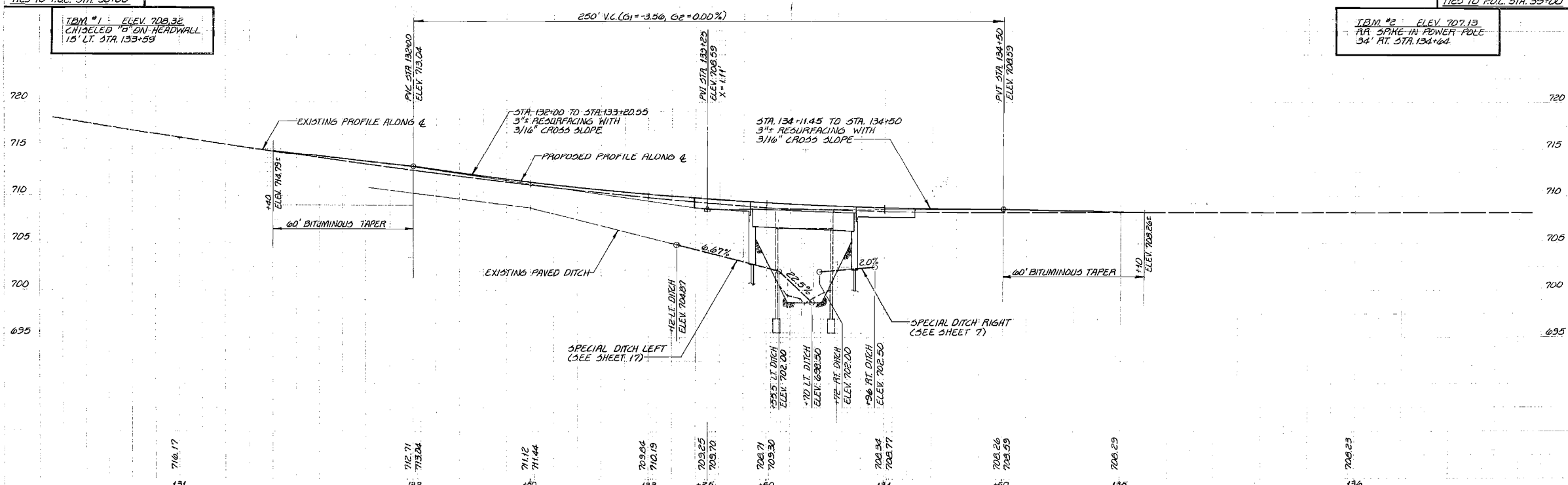
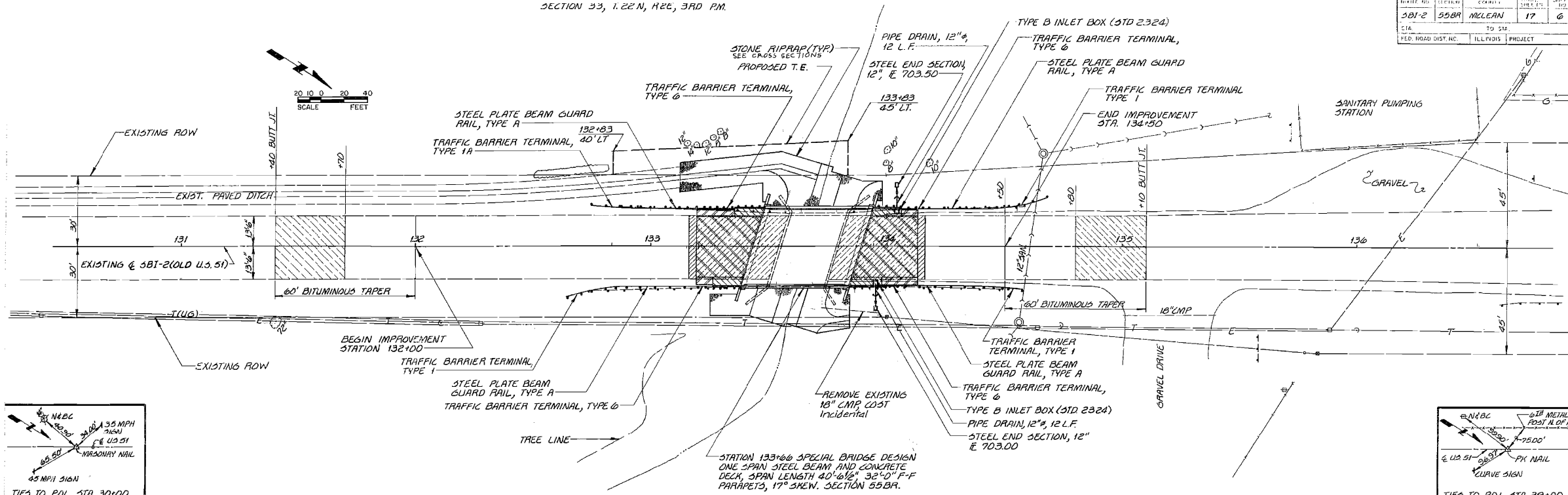


FILE NAME =	USER NAME = piersonbr	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DOWNSTREAM CROSS SECTIONS LOCATION-3 S.N. 057-0225			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\1\IL084EBIDINTEG.allinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\057075\DRAMA\Design\0570752-shr-mitigation\REVISED		CHECKED -	REVISED -		1476	(55,55)CR	MCLEAN	130	36			
PLOT SCALE = 40.0000' / in.		DATE -	REVISED -		CONTRACT NO. 70752			ILLINOIS FED. AID PROJECT				
PLOT DATE = 8/7/2018					SCALE:	SHEET NO. 5 OF 7 SHEETS	STA.	TO STA.				

AS-BUILT PLANS FOR INFORMATION ONLY

SECTION 53, 1.22 N, R2E, 3RD PM.

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
531-2	55BR	MCLEAN	17	6
TO STA.		PROJECT		
FED. ROAD DIST. NO.		ILLINOIS		



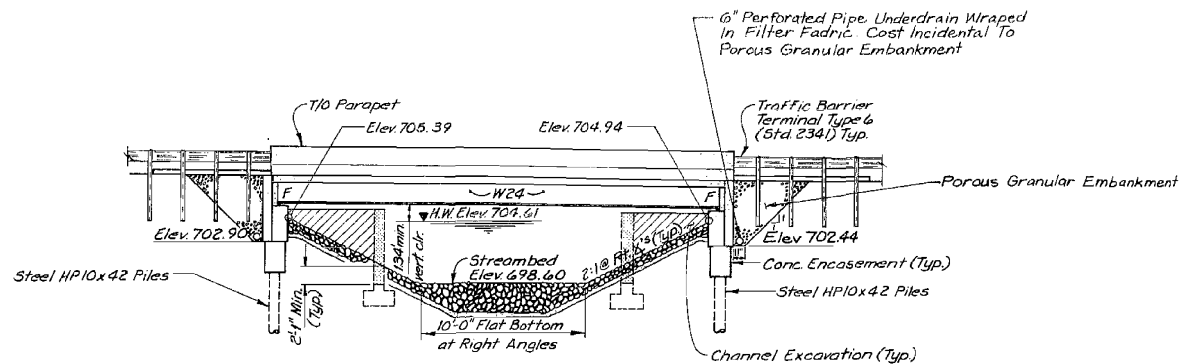
PLAN AND PROFILE

FILE NAME =	USER NAME = piersonbr	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS-BUILT PLANS FOR INFORMATION ONLY	F.A.S. RTE. 1476	SECTION (55,55A)CR	COUNTY MCLEAN	TOTAL SHEETS 130	SHEET NO. 37
DRAWN DATA DESIGN GMS 70752-shr-mitigation				SCALE: SHEET NO. 6 OF 7 SHEETS STA. TO STA.		CONTRACT NO. 70752				
PLOT SCALE = 40.0000' / in.				DATE		ILLINOIS FED. AID PROJECT				
PLOT DATE = 8/7/2018				DATE						

AS-BUILT PLANS FOR INFORMATION ONLY

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SBI 2	55BR	McLean	17	10
STA.	TO STA.		PROJECT	
FED. ROAD DIST. NO.	ILLINOIS		PROJECT	
Dwg. No. 1 of 7				

BENCHMARK: 34' RT. OF STA. 134+64; RAILROAD SPIKE IN POWER POLE; ELEV. 707.13.
EXISTING STRUCTURE: STA. 133+66, SBI RTE 2, SECTION 55B. BUILT IN 1923, STRUCTURE NO. 057-0057. SUPERSTRUCTURE IS ONE SPAN, REINFORCED CONCRETE SLAB, 25'-0" OVERALL LENGTH, 29'-0" CLEAR FACE TO FACE OF CURBS. SUB-STRUCTURE IS REINFORCED CONCRETE CLOSED ABUTMENTS. STRUCTURE TO BE REMOVED IN IT'S ENTIRETY. TRAFFIC TO BE DETOURED DURING CONSTRUCTION.



ELEVATION

STATION 133+66
BUILT 199_ BY
STATE OF ILLINOIS
S.B.I. RTE 2 SECTION 55BR
F.A. PROJ.
LOADING HS20
STR. NO. 057-0225

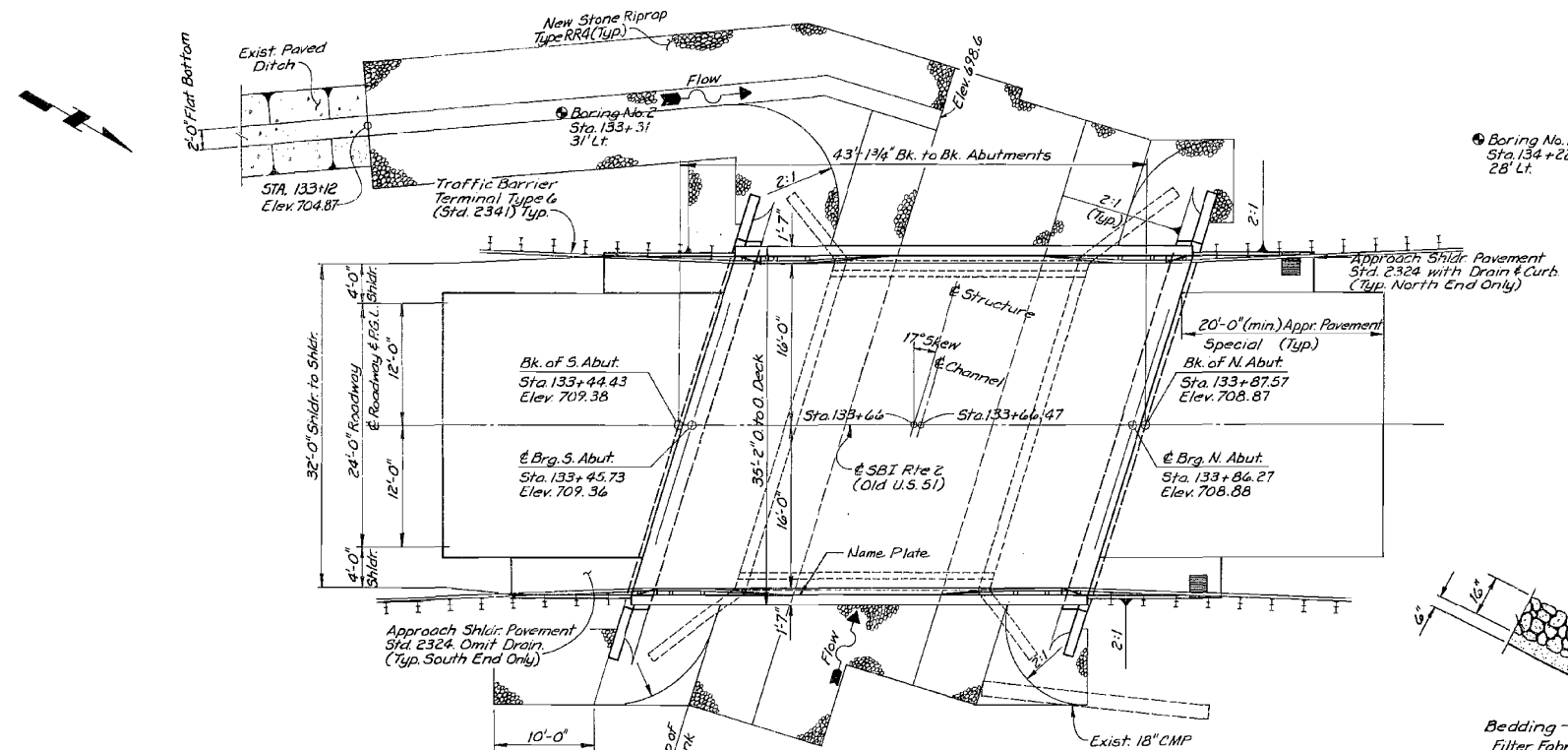
NAME PLATE
(SEE STD. 2113)

GENERAL NOTES

- SEE DWG. NO. 4 FOR BORING DATA.
- FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4"Ø, OPEN HOLES 15/16"Ø, UNLESS OTHERWISE NOTED.
- CALCULATED WEIGHT OF STRUCTURAL STEEL = 14,310 (AASHTO M223) 1,100 (AASHTO M183)
- THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE VINYL FINISH COAT SHALL BE MUNSSELL NO. 7.5G 4/8
- FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
- STEEL STRINGERS SHALL BE AASHTO M223.
- THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTICE TOUGHNESS ZONE 2. THESE COMPONENTS ARE THE WIDE FLANGE BEAMS.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.
- LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN PERMANENT LOCATIONS AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

LEGEND

- F = Fixed Bearing
- R.G.L. = Profile Grade Line
- ⊙ = Soil Boring Location
- ▨ = Exist Structure to be Removed

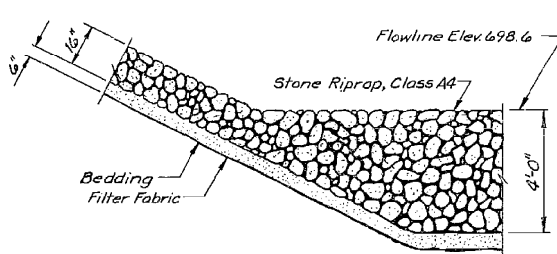


PLAN

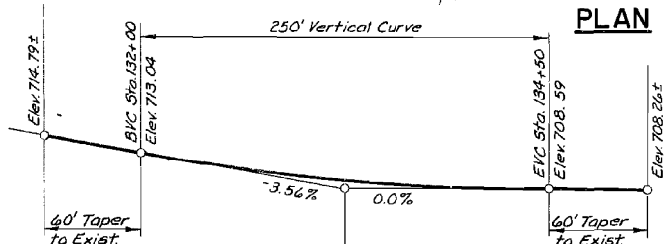
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER STRUCTURE	SUB STRUCTURE	TOTAL
Channel Excavation	Cu.Yd.	-	110	110
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu.Yd.	-	150	150
Stone Riprap, Class A4	Sq.Yd.	-	387	387
Class X Concrete Superstructure	Cu.Yd.	62.3	-	62.3
Protective Coat*	Sq.Yd.	171	-	171
Class X Concrete	Cu.Yd.	-	27.9	27.9
Furnishing & Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	765	-	765
Reinforcement Bars	Lbs	-	3240	3240
Reinforcement Bars (Epoxy Coated)	Lbs	13,215	-	13,215
Furnishing Steel Piles, HP10x42	Lin.Ft.	-	268	268
Driving Steel Piles	Lin.Ft.	-	268	268
Test Piles, Steel HP10x42	Each	-	2	2
Filter Fabric for use with Riprap	Sq.Yd.	-	387	387
Name Plates	Each	1	-	1
Porous Granular Embankment	Cu.Yd.	-	82	82

*Includes Deck Surface Area.



STONE RIPRAP TREATMENT



PROFILE GRADE
(Along & S.B.I. Rte 2)

WATERWAY INFORMATION

Drainage Area = 3.5 Sq Miles Low Grade Elev 708.25 at Sta 136+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq.Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.
Design	50	876	112 132	704.61	0.12 0.11	704.73 704.72
Base	100	1007	118 142	704.91	0.20 0.14	705.11 705.05
Overtopping						
Max. Calc.	500	1313	133 148	705.62	1.43 0.32	707.05 705.94

DESIGN SPECIFICATIONS

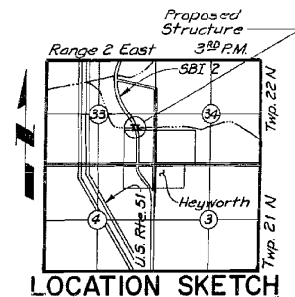
AASHTO 1983, WITH 1984 THRU 1988 INTERIMS

LOADING

HS20-44, WITH ALLOWANCE FOR 25 PSI PURE WEARING SURFACE

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (REINF.)
fy = 50,000 psi (M223 STRUCTURAL STEEL)
LOAD FACTOR DESIGN



LOCATION SKETCH

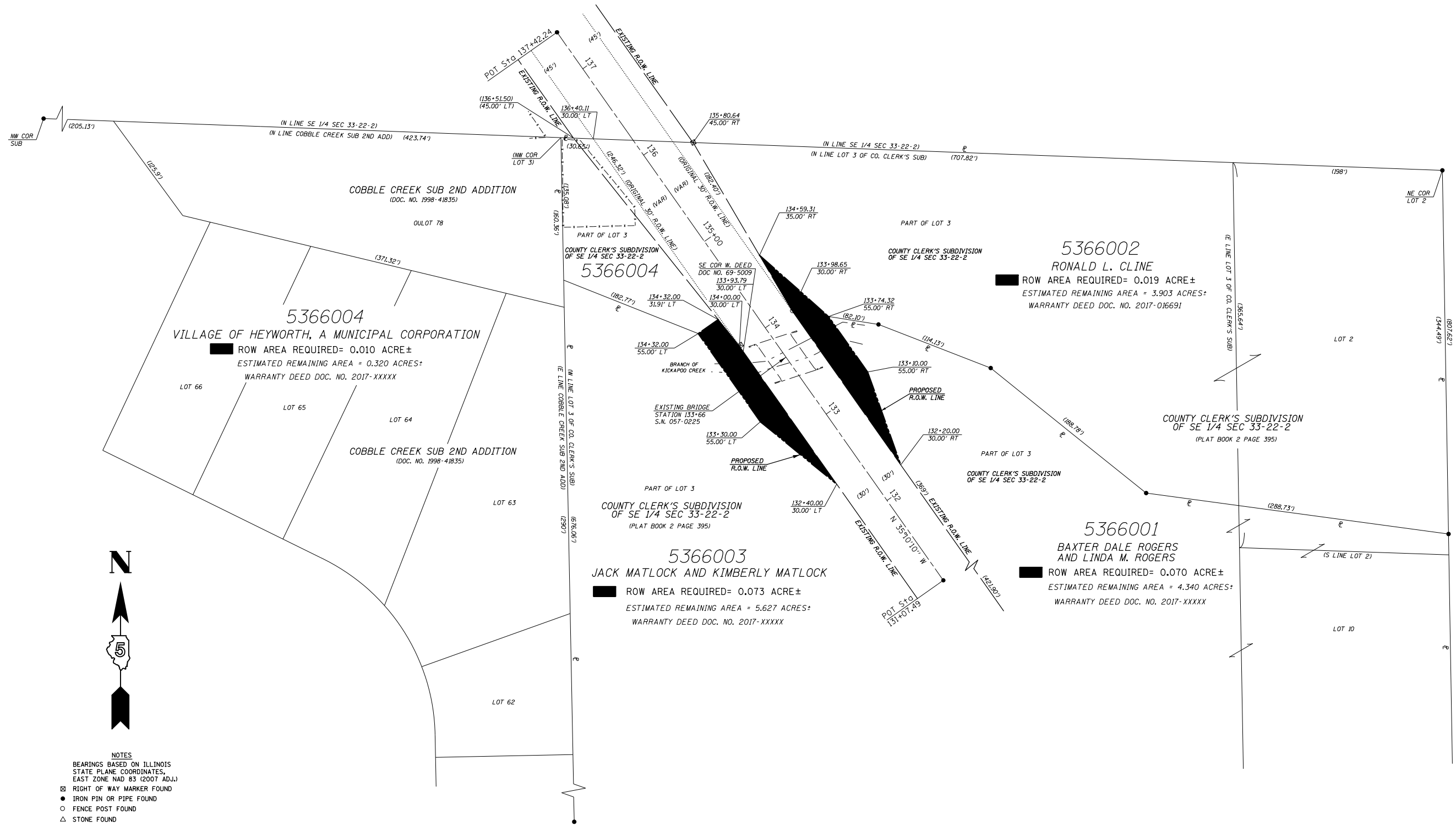
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

John W. Clark
Registered Structural Engineer

GENERAL PLAN & ELEVATION
OLD U.S. ROUTE 51 OVER
UNNAMED DRAINAGE DITCH
S.B.I. RTE. 2 SECTION 55BR
STA. 133+66
MCLEAN COUNTY
STRUCTURE NO. 057-0225

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	1-89
DRAWN BY:	WEM	1-89
CHECKED BY:	JRF	2-89
APPROVED BY:	RDP	2-89



NOTES
 BEARINGS BASED ON ILLINOIS
 STATE PLANE COORDINATES,
 EAST ZONE NAD 83 (2007 ADJ)
 □ RIGHT OF WAY MARKER FOUND
 ● IRON PIN OR PIPE FOUND
 ○ FENCE POST FOUND
 △ STONE FOUND
 - - - - - EXISTING FENCE
 () RECORD DATA
 FIELD WORK COMPLETED = OCT. 2016

"NORTHERN LIMITS OF VILLAGE OF HEYWORTH"

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLAN LOCATION 3 - S.N. 057-0225			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBID\INTEG\Illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0570752\Drawings\Design\0570752-shr-row-plan.dwg		CHECKED -	REVISED -		1476	(55, 55A)CR	McLEAN	130	39			
\$MODELNAME\$	PLOT DATE = 8/7/2018	DATE -	REVISED -		CONTRACT NO. 70752			ILLINOIS FED. AID PROJECT				

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

NE 1/4 SECTION 21, TOWNSHIP 22 NORTH, RANGE 2 EAST, THIRD P.M.

SE 1/4 SECTION 16, TOWNSHIP 22 NORTH,
RANGE 2 EAST, THIRD P.M.

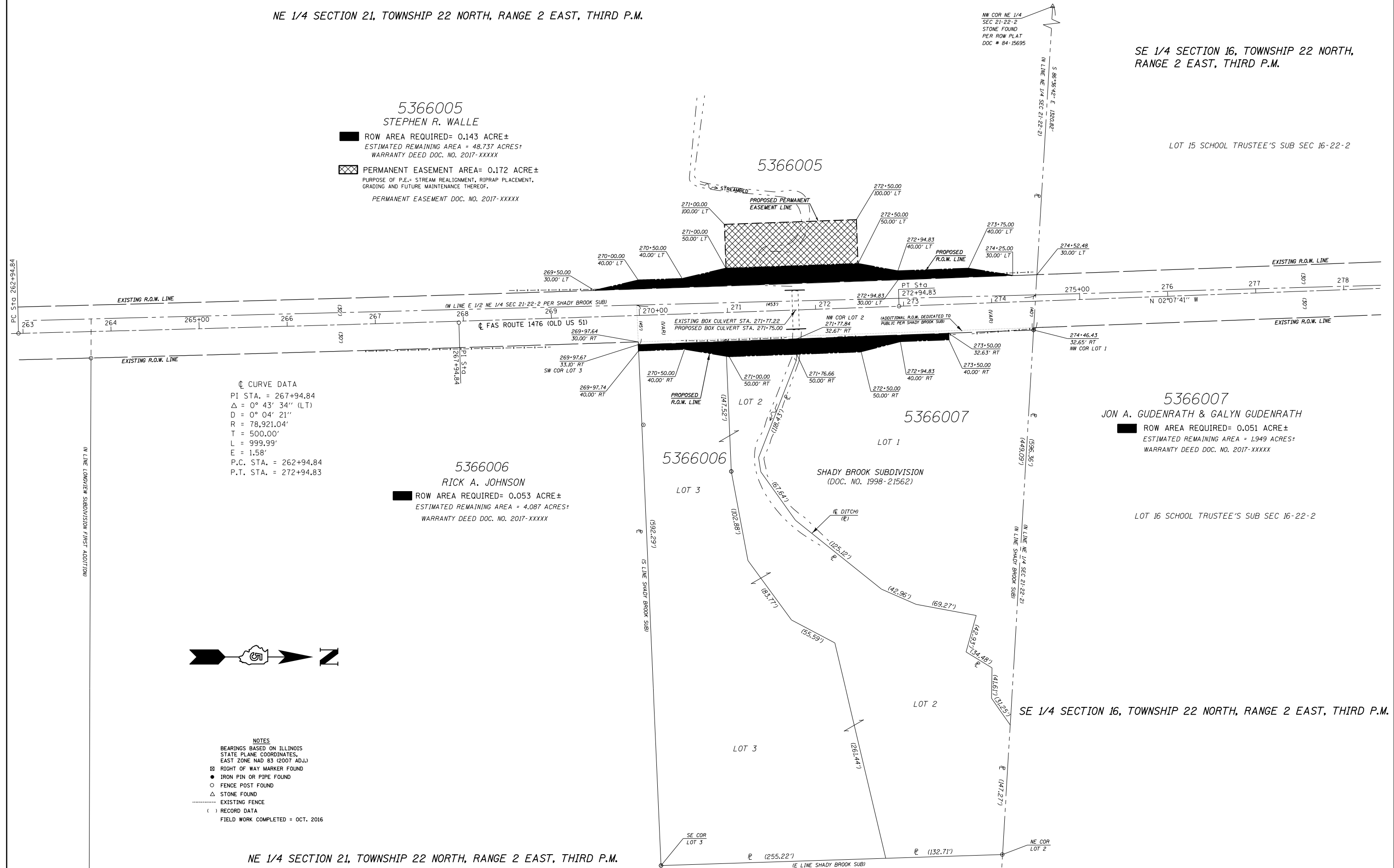
5366005
STEPHEN R. WALLE

ROW AREA REQUIRED= 0.143 ACRE±
ESTIMATED REMAINING AREA = 48.737 ACRES±
WARRANTY DEED DOC. NO. 2017-XXXXX

PERMANENT EASEMENT AREA= 0.172 ACRE±
PURPOSE OF P.E.= STREAM REALIGNMENT, RIPRAP PLACEMENT,
GRADING AND FUTURE MAINTENANCE THEREOF.
PERMANENT EASEMENT DOC. NO. 2017-XXXXX

NW COR NE 1/4
SEC 21-22-2
STONE FOUND
PER ROW PLAT
DOC # 84-15695

LOT 15 SCHOOL TRUSTEE'S SUB SEC 16-22-2



☉ CURVE DATA
PI STA. = 267+94.84
Δ = 0° 43' 34" (LT)
D = 0° 04' 21"
R = 78,921.04'
T = 500.00'
L = 999.99'
E = 1.58'
P.C. STA. = 262+94.84
P.T. STA. = 272+94.83

5366006
RICK A. JOHNSON

ROW AREA REQUIRED= 0.053 ACRE±
ESTIMATED REMAINING AREA = 4.087 ACRES±
WARRANTY DEED DOC. NO. 2017-XXXXX

5366007
JON A. GUDENRATH & GALYN GUDENRATH

ROW AREA REQUIRED= 0.051 ACRE±
ESTIMATED REMAINING AREA = 1.949 ACRES±
WARRANTY DEED DOC. NO. 2017-XXXXX



NOTES
BEARINGS BASED ON ILLINOIS
STATE PLANE COORDINATES,
EAST ZONE NAD 83 (2007 ADJ.)

- ☐ RIGHT OF WAY MARKER FOUND
- IRON PIN OR PIPE FOUND
- FENCE POST FOUND
- △ STONE FOUND
- EXISTING FENCE
- () RECORD DATA

FIELD WORK COMPLETED = OCT. 2016

NE 1/4 SECTION 21, TOWNSHIP 22 NORTH, RANGE 2 EAST, THIRD P.M.

SE 1/4 SECTION 16, TOWNSHIP 22 NORTH, RANGE 2 EAST, THIRD P.M.

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLAN LOCATION 5 - S.N. 057-8230		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\11\084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\0570752-shr-rowplan.dwg		CHECKED -	REVISED -		1476	(55, 55A)CR	McLEAN	130	40		
MODELNAME	PLOT DATE = 8/7/2018	DATE -	REVISED -		SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.		CONTRACT NO. 70752				

ILLINOIS FED. AID PROJECT



- NOTES**
 BEARINGS BASED ON ILLINOIS
 STATE PLANE COORDINATES,
 EAST ZONE (NAD 83 (2007 ADJ.))
 ☒ RIGHT OF WAY MARKER FOUND
 ● IRON PIN OR PIPE FOUND
 ○ FENCE POST FOUND
 △ STONE FOUND
 - - - - - EXISTING FENCE
 () RECORD DATA
 FIELD WORK COMPLETED = OCT. 2016

(LOT 15 SCHOOL TRUSTEE'S SUB SEC 16-22-2)
 (PLAT BOOK 2 PAGE 97)

5366008

CHAD E. WILLS &
 MICHELLE L. WILLS

ROW AREA REQUIRED= 0.071 ACRE±
 ESTIMATED REMAINING AREA = 1.029 ACRES±
 WARRANTY DEED DOC. NO. 2017-XXXX

WHITE TAIL RIDGE SUBDIVISION
 FIRST ADDITION
 (DOC. NO. 1994-26108)

5366008

5366009

5366009

MARK K. GRESHAM AND
 CLARA L. HAYNES
 n/k/a CLARA L. GRESHAM

ROW AREA REQUIRED= 0.046 ACRE±
 ESTIMATED REMAINING AREA = 2.874 ACRES±
 WARRANTY DEED DOC. NO. 2017-016692

5366010 (TRACT A)

LARRY A. MIKESH &
 JONALEE K. MIKESH

ROW AREA REQUIRED= 0.094 ACRE±
 ESTIMATED REMAINING AREA = 92.344 ACRES±
 WARRANTY DEED DOC. NO. 2017-016693
 NOTE: SEE SHEET 5 OF 5 FOR 5366010 (TRACT B)

(LOT 16 SCHOOL TRUSTEE'S SUB SEC 16-22-2)
 (PLAT BOOK 2 PAGE 97)

(LOT 9 SCHOOL TRUSTEE'S SUB SEC 16-22-2)
 (PLAT BOOK 2 PAGE 97)

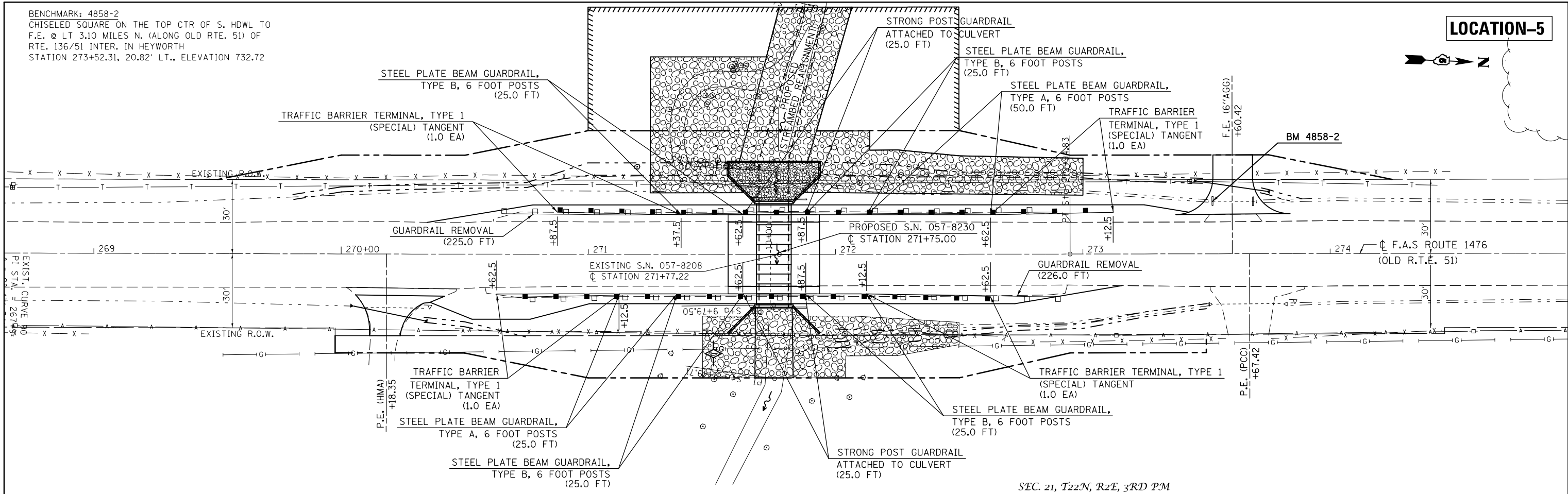
FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLAN LOCATION 6 - S.N. 057-8231		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\1\084EBIDINTEG\Illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0578231\Drawings\Design\0578231-rtw\rowland.dwg		DRAWN -	REVISED -		1476	(55, 55A)CR	McLEAN	130	41		
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 70752						
	PLOT DATE = 8/7/2018	DATE -	REVISED -		SCALE:	SHEET 3 OF 4 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

BENCHMARK: 4858-2
 CHISELED SQUARE ON THE TOP CTR OF S. HDWL TO
 F.E. @ LT 3.10 MILES N. (ALONG OLD RTE. 51) OF
 RTE. 136/51 INTER. IN HEYWORTH
 STATION 273+52.31, 20.82' LT., ELEVATION 732.72

LOCATION-5



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	



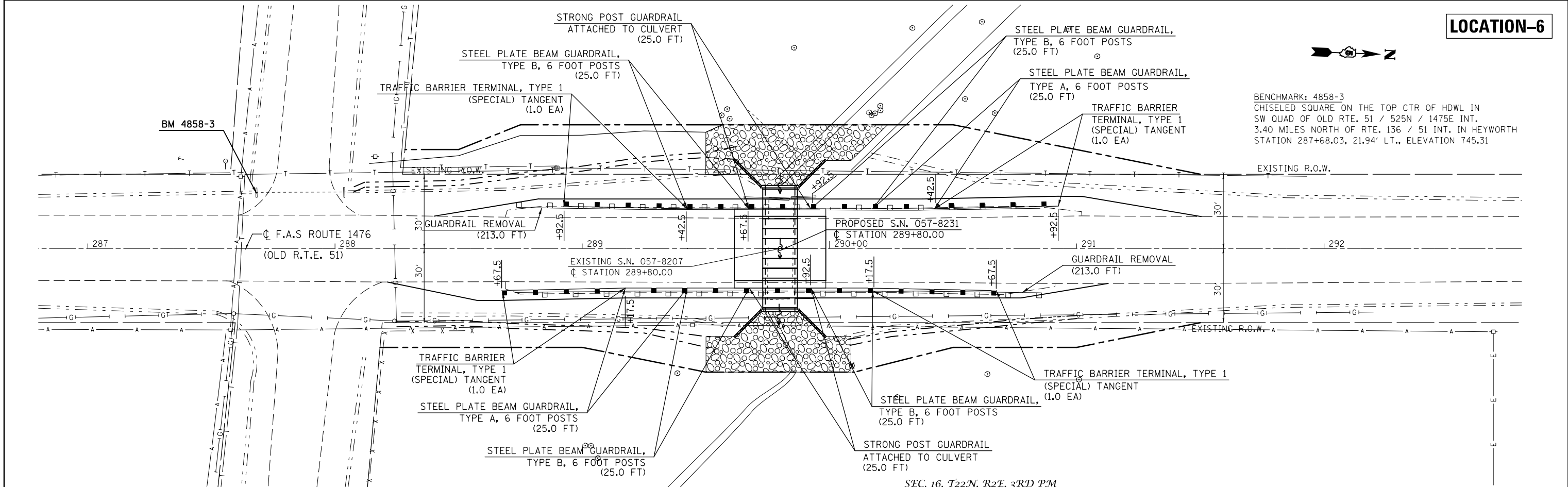
SEC. 21, T22N, R2E, 3RD PM

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIS	
	CPKD	
	NO.	

LOCATION-6



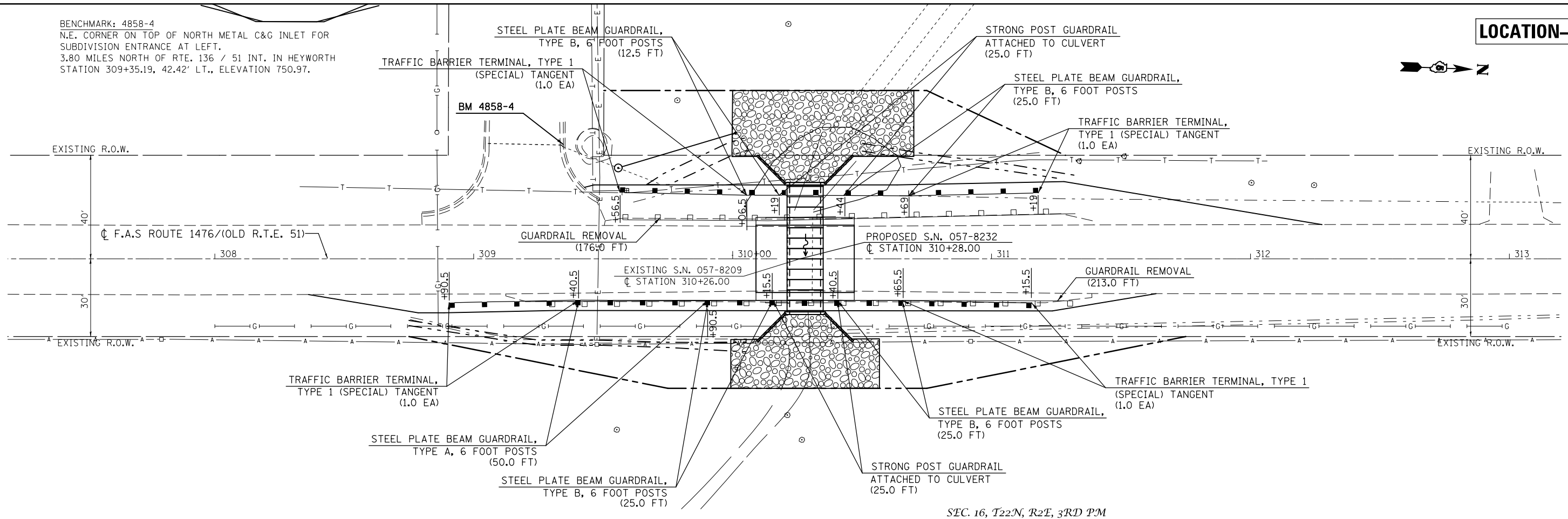
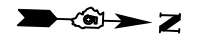
BENCHMARK: 4858-3
 CHISELED SQUARE ON THE TOP CTR OF HDWL IN
 SW QUAD OF OLD RTE. 51 / 525N / 1475E INT.
 3.40 MILES NORTH OF RTE. 136 / 51 INT. IN HEYWORTH
 STATION 287+68.03, 21.94' LT., ELEVATION 745.31



SEC. 16, T22N, R2E, 3RD PM

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL PLAN SHEET		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pwt:\IL084EBIDINTEG\Illinois.gov\PIWIDOT\Documents\100T\Offices\District 5\Projects\0570752\DRAMA\Design\0570752-shr-Guardrail.dgn		CHECKED -	REVISED -		LOC-5 S.N. 057-8230, LOC-6 S.N. 057-8231		1476	(55, 55A) CR	MCLEAN	130	43
MODELNAME =		DATE -	REVISED -		SCALE:	SHEET 1	OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 70752	
										ILLINOIS FED. AID PROJECT	

BENCHMARK: 4858-4
 N.E. CORNER ON TOP OF NORTH METAL C&G INLET FOR
 SUBDIVISION ENTRANCE AT LEFT.
 3.80 MILES NORTH OF RTE. 136 / 51 INT. IN HEYWORTH
 STATION 309+35.19, 42.42' LT., ELEVATION 750.97.



PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	AS-BUILT FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO.	

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -
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MODELNAME\$	PLOT SCALE = 40.000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/7/2018	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GUARDRAIL PLAN SHEET
 LOC-7 S.N. 057-8232**

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	MCLEAN	130	44
CONTRACT NO. 70752				
ILLINOIS FED. AID PROJECT				

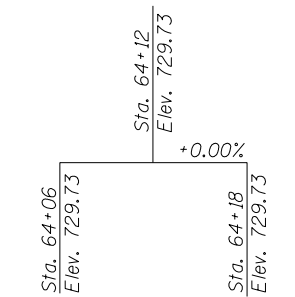
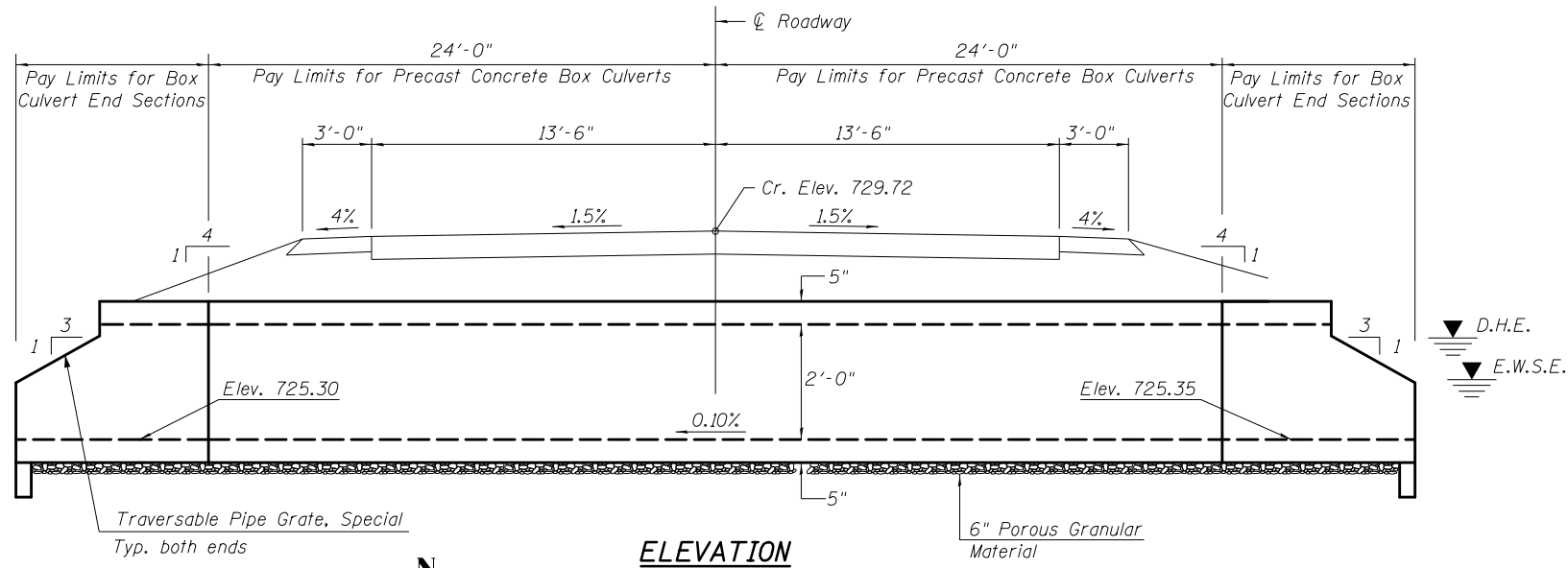
Existing Structure: SLD 0.81 is a 15" clay pipe culvert constructed at Sta. 64+12 in 1924, with 15" concrete pipe culvert extensions in 1957 as part of FAS 1476, Section (55,55A)CR

INDEX OF SHEETS

1. General Plan and Elevation
2. Precast Concrete Box Culvert End Section Details
3. Grating for Precast Box Culvert End Section
4. Porous Granular Embankment Detail

GENERAL NOTES

The design fill height for this box is < 1.7 feet. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
 Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.



DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
 6th Edition with 2013 interims

LOADING HL-93

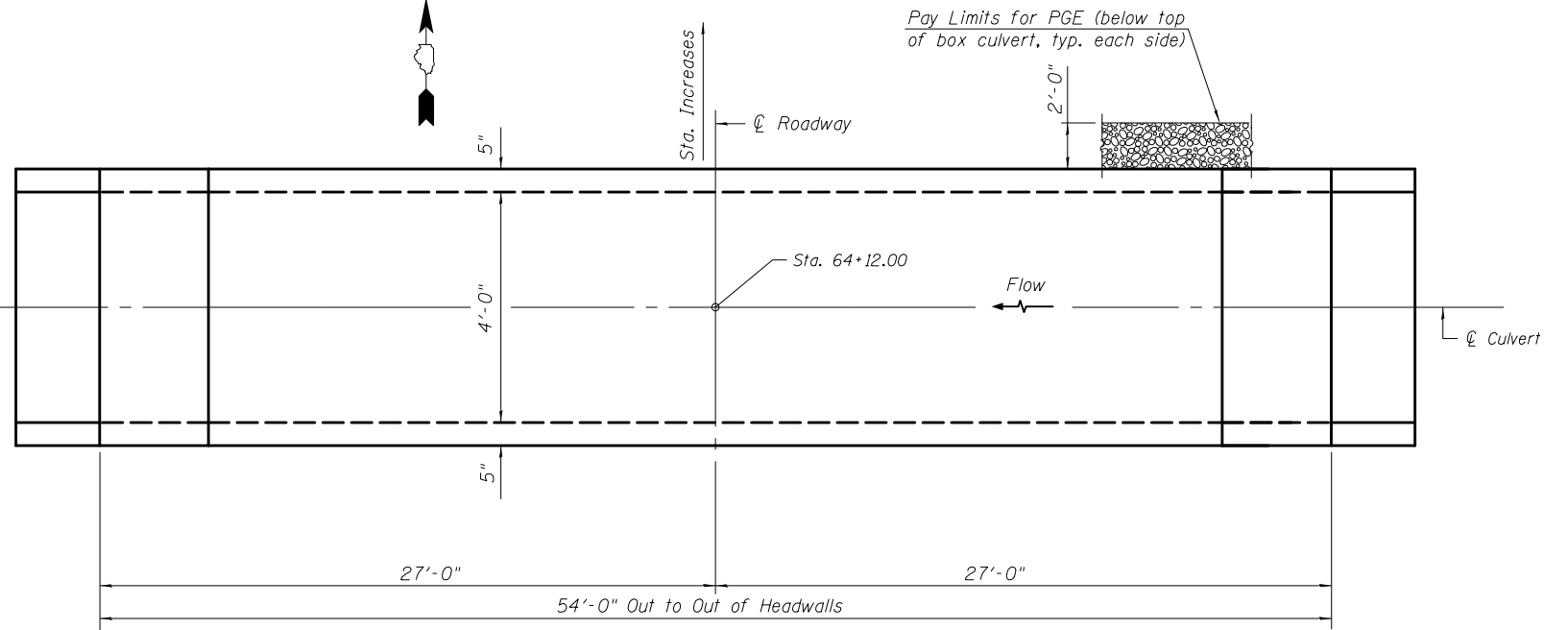
DESIGN STRESSES

PRECAST UNITS

f'_c = 5,000 psi
 f_y = 65,000 psi (Welded Wire Reinforcement)

TOTAL BILL OF MATERIAL

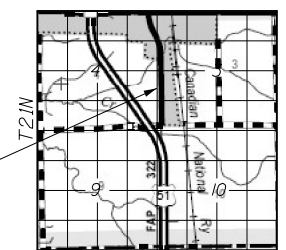
ITEM	UNIT	TOTAL
Removal of Existing Structures No. 1	Each	1.0
Box Culvert End Sections, Culvert No. 1	Each	2.0
Precast Concrete Box Culverts, 4' x 2'	Foot	48.0
Porous Granular Embankment	Cu. Yd.	43.0
Membrane Waterproofing System for Buried Str.	Sq. Yd.	37.0
Traversable Pipe Grate, Special	Foot	11.0



WATERWAY INFORMATION

Drainage Area = 17.5 Acres		Existing Low Grade Elev. = 729.74 ft @ Sta. 64+12		Proposed Low Grade Elev. = 729.74 ft @ Sta. 64+12				
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Existing	Proposed	Head - Ft. Existing	Proposed	Headwater Elevation Existing	Proposed
Design	10	29	1	8			Over	727.5
Base	50	43	1	8			Over	728.2
Overtopping	100	50	1	8			Over	728.7
Max. Calc.	500	72	1	8			Over	Over

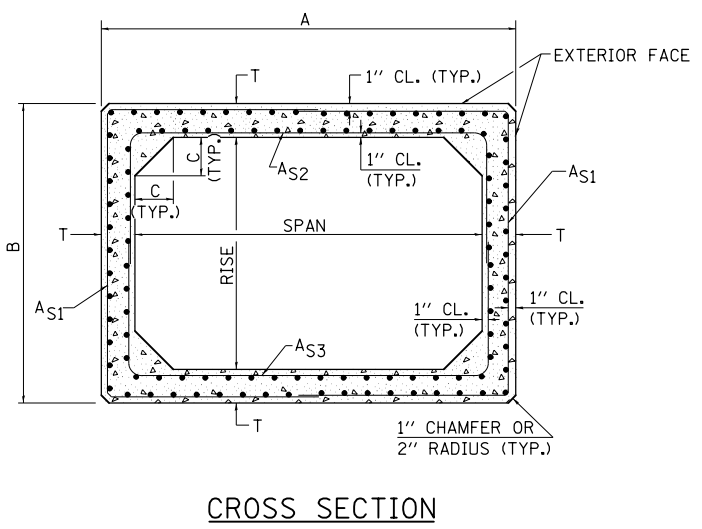
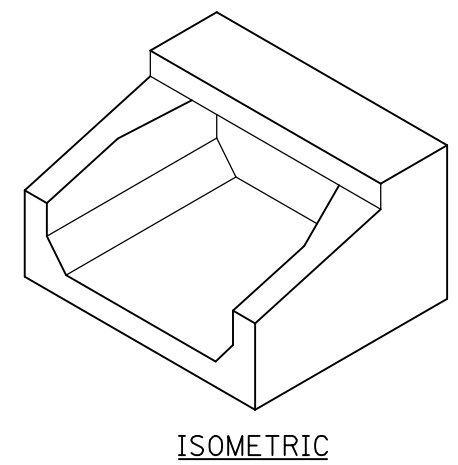
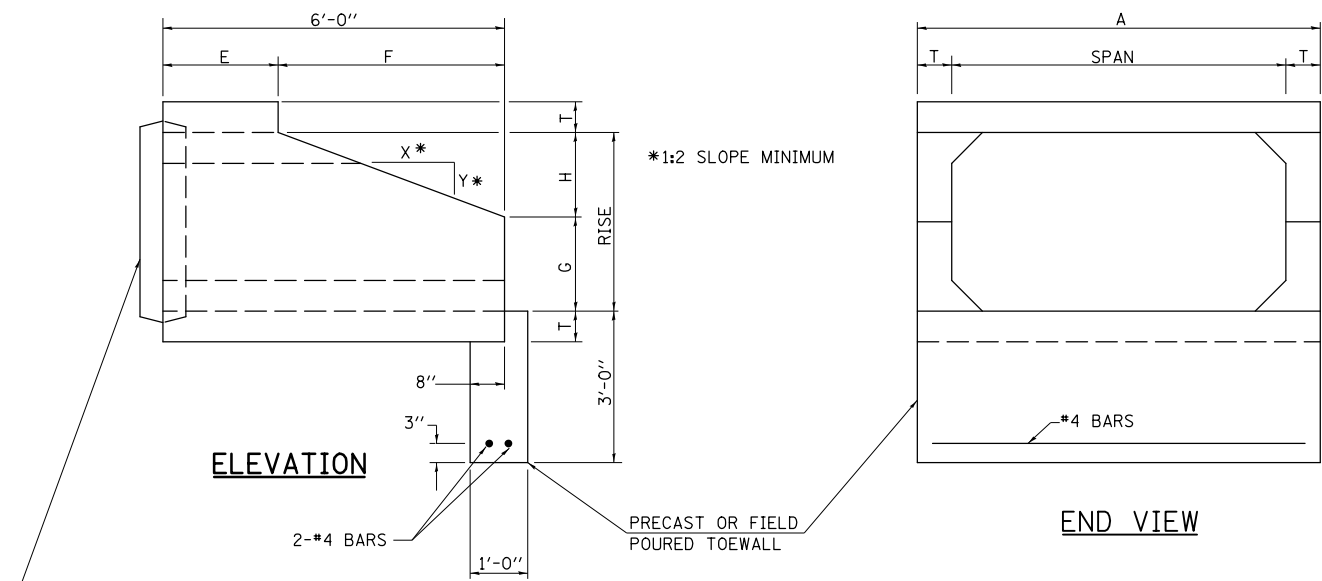
10 YEAR VELOCITY THROUGH EXISTING BRIDGE: Unknown
 10 YEAR VELOCITY THROUGH PROPOSED BRIDGE: 4.56 ft/s
 ALL-TIME H.W.E. & DATE: Unknown



**GENERAL PLAN AND ELEVATION
 SINGLE 4' X 2' PRECAST BOX CULVERT
 RTE. OLD US 51
 F.A.S. 1476 SEC. (55,55A)CR
 McLEAN COUNTY
 STATION 64+12.00
 SLD 0.81**

DIMENSIONS

SPAN X RISE	T (INCHES)	A (FT.-IN.)	B (FT.-IN.)	C (INCHES)	E (FT.-IN.)	F (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	SLOPE (Y:X)
2' X 2'	4	2-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 2'	4	3-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 3'	4	3-8	3-8	4	2-0	4-0	1-8	1-4	1:3
4' X 2'	5	4-10	2-10	5	3-0	3-0	1-0	1-0	1:3
4' X 3'	5	4-10	3-10	5	2-0	4-0	1-8	1-4	1:3
4' X 4'	5	4-10	4-10	5	2-0	4-0	2-0	2-0	1:2
5' X 2'	6	6-0	3-0	6	3-0	3-0	1-0	1-0	1:3
5' X 3'	6	6-0	4-0	6	2-0	4-0	1-8	1-4	1:3
5' X 4'	6	6-0	5-0	6	2-0	4-0	2-0	2-0	1:2
5' X 5'	6	6-0	6-0	6					
6' X 2'	7	7-2	3-2	7	3-0	3-0	1-0	1-0	1:3
6' X 3'	7	7-2	4-2	7	2-0	4-0	1-8	1-4	1:3
6' X 4'	7	7-2	5-2	7	2-0	4-0	2-0	2-0	1:2
6' X 5'	7	7-2	6-2	7	2-0	4-0	3-0	2-0	1:2
6' X 6'	7	7-2	7-2	7	2-0	4-0	4-0	2-0	1:2
7' X 4'	8	8-4	5-4	8	2-0	4-0	2-0	2-0	1:2
7' X 5'	8	8-4	6-4	8	2-0	4-0	3-0	2-0	1:2
7' X 6'	8	8-4	7-4	8	2-0	4-0	4-0	2-0	1:2
7' X 7'	8	8-4	8-4	8	2-0	4-0	5-0	2-0	1:2
8' X 4'	8	9-4	5-4	8	2-0	4-0	2-0	2-0	1:2
8' X 5'	8	9-4	6-4	8	2-0	4-0	3-0	2-0	1:2
8' X 6'	8	9-4	7-4	8	2-0	4-0	4-0	2-0	1:2
8' X 7'	8	9-4	8-4	8	2-0	4-0	5-0	2-0	1:2
8' X 8'	8	9-4	9-4	8	2-0	4-0	6-0	2-0	1:2
9' X 5'	9	10-6	6-6	9	2-0	4-0	3-0	2-0	1:2
9' X 6'	9	10-6	7-6	9	2-0	4-0	4-0	2-0	1:2
9' X 7'	9	10-6	8-6	9	2-0	4-0	5-0	2-0	1:2
9' X 8'	9	10-6	9-6	9	2-0	4-0	6-0	2-0	1:2
9' X 9'	9	10-6	10-6	9	2-0	4-0	7-0	2-0	1:2
10' X 5'	10	11-8	6-8	10	2-0	4-0	3-0	2-0	1:2
10' X 6'	10	11-8	7-8	10	2-0	4-0	4-0	2-0	1:2
10' X 7'	10	11-8	8-8	10	2-0	4-0	5-0	2-0	1:2
10' X 8'	10	11-8	9-8	10	2-0	4-0	6-0	2-0	1:2
10' X 9'	10	11-8	10-8	10	2-0	4-0	7-0	2-0	1:2
10' X 10'	10	11-8	11-8	10	2-0	4-0	8-0	2-0	1:2
11' X 4'	11	12-10	5-10	11	2-0	4-0	2-0	2-0	1:2
11' X 6'	11	12-10	7-10	11	2-0	4-0	4-0	2-0	1:2
11' X 8'	11	12-10	9-10	11	2-0	4-0	6-0	2-0	1:2
11' X 10'	11	12-10	11-10	11	2-0	4-0	8-0	2-0	1:2
11' X 11'	11	12-10	12-10	11	2-0	4-0	9-0	2-0	1:2
12' X 4'	12	14-0	6-0	12	2-0	4-0	2-0	2-0	1:2
12' X 6'	12	14-0	8-0	12	2-0	4-0	4-0	2-0	1:2
12' X 8'	12	14-0	10-0	12	2-0	4-0	6-0	2-0	1:2
12' X 10'	12	14-0	12-0	12	2-0	4-0	8-0	2-0	1:2
12' X 12'	12	14-0	14-0	12	2-0	4-0	10-0	2-0	1:2



END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX OR HEADWALL)

*1:2 SLOPE MINIMUM

PRECAST OR FIELD POURED TOEWALL

ELEVATION

END VIEW

ISOMETRIC

CROSS SECTION

PLAN

“NON-STANDARD PRECAST CONCRETE BOX CULVERT (ASTM) DESIGNS”; STANDARD PCBC (ASTM) DESIGNS ARE PREFERRED.

GENERAL NOTES

SHOP DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 1042.03(b) OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH SECTION 1055 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS AS1, AS2, & AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM C1577. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO M55-81.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

STD. 9-50 (FROM DISTRICT 9)

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED -
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\$MODELNAME\$	PLOT DATE = 10/1/2018	DATE -	REVISED -

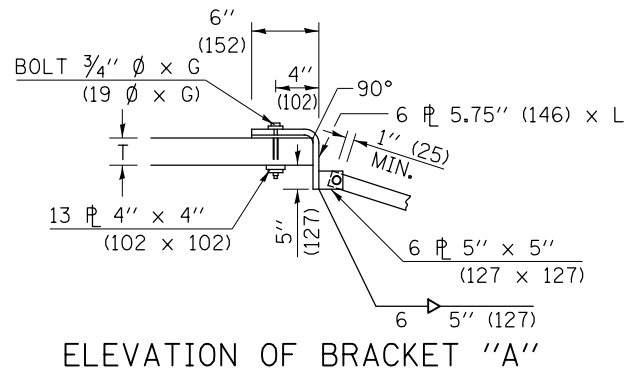
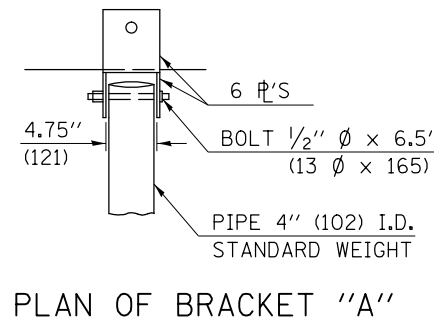
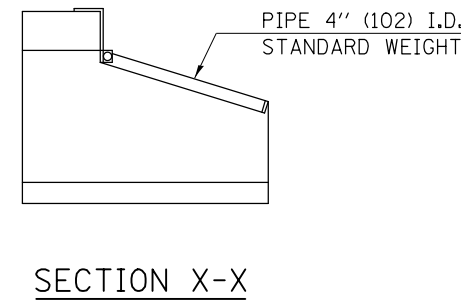
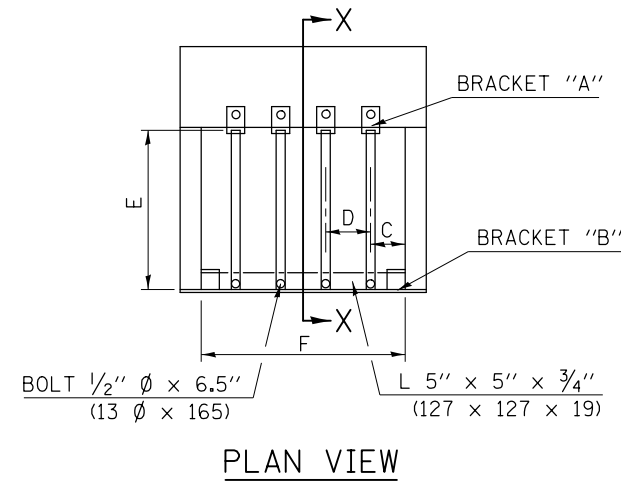
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT END SECTION (PRECAST CONCRETE)
PROPOSED BOX CULVERT LOC-1: SLD 0.81**

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 54001AAA

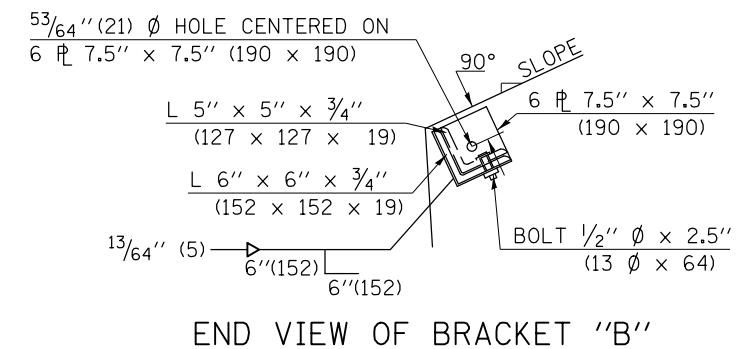
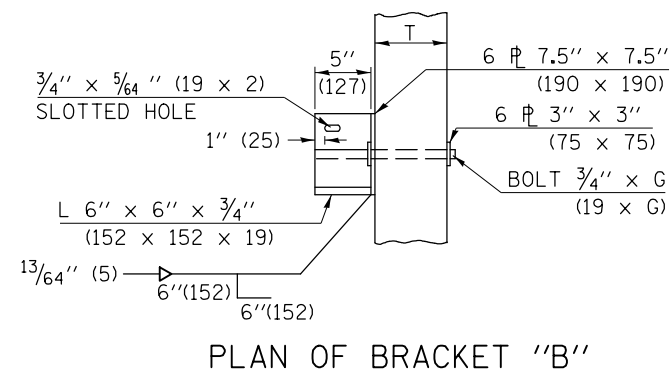
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55,55A)CR	McLEAN	130	46
				CONTRACT NO. 70752
ILLINOIS FED. AID PROJECT				



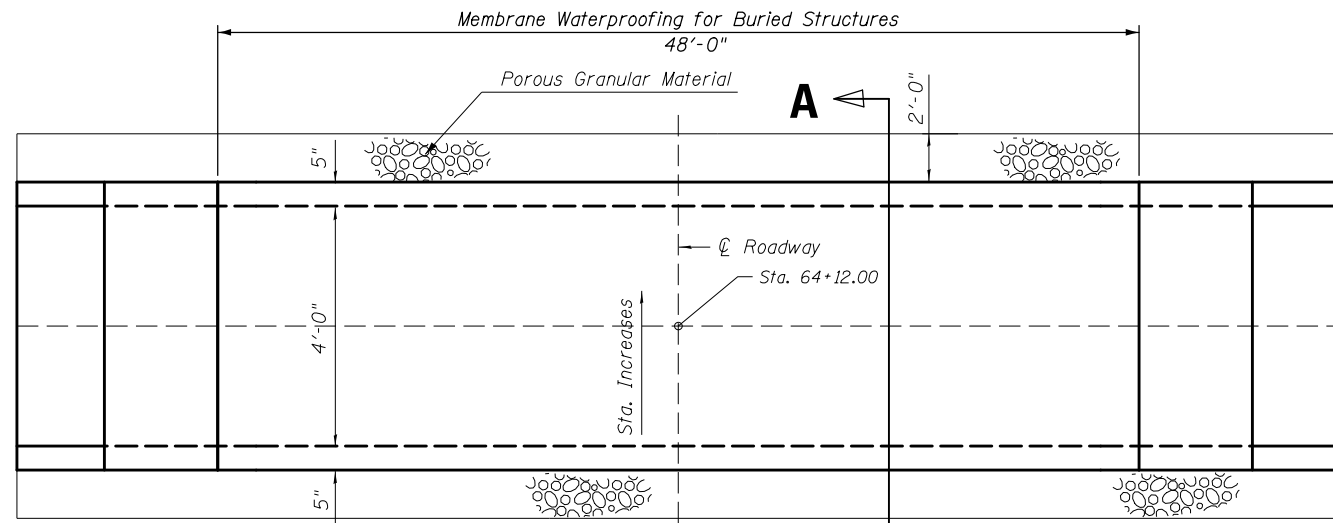
BOX CULVERT SPAN AND RISE	EXT. SPACE C	INT. SPACE D	SLOPE	NO. PIPES REQ'D	PIPE LENGTH E	ANGLE LENGTH F	BOLT LENGTH G	WEIGHT	L	WALL THICK. T
					FT (m)	FT (m)	INCHES (mm)			
3.0x3.0 (0.9x0.9)	18 (450)	N/A	3:1	1	3.74 (1.14)	2.82 (0.86)	5.5 (140)	150 (68)	15 (380)	4 (102)
4.0x2.0 (1.2x0.6)	15 (380)	18 (450)	3:1	2	2.69 (0.82)	3.84 (1.17)	6.5 (165)	222 (101)	16 (405)	5 (127)
4.0x3.0 (1.2x0.9)	15 (380)	18 (450)	3:1	2	3.74 (1.14)	3.84 (1.17)	6.5 (165)	227 (103)	16 (405)	5 (127)
4.0x4.0 (1.2x1.2)	15 (380)	18 (450)	2:1	2	4.00 (1.22)	3.84 (1.17)	6.5 (165)	234 (106)	16 (405)	5 (127)
5.0x3.0 (1.5x0.9)	12 (300)	18 (450)	3:1	3	3.74 (1.14)	4.82 (1.47)	7.5 (190)	304 (138)	17 (430)	6 (152)
5.0x4.0 (1.5x1.2)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
5.0x5.0 (1.5x1.5)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
6.0x2.0 (1.8x0.6)	18 (450)	18 (450)	3:1	3	2.69 (0.82)	5.74 (1.78)	8.5 (215)	326 (148)	18 (460)	7 (178)
6.0x3.0 (1.8x0.9)	18 (450)	18 (450)	3:1	3	3.74 (1.14)	5.74 (1.78)	8.5 (215)	331 (150)	18 (460)	7 (178)
6.0x4.0 (1.8x1.2)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
6.0x5.0 (1.8x1.5)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
7.0x3.0 (2.1x0.9)	15 (380)	18 (450)	3:1	4	3.74 (1.14)	6.82 (2.08)	9.5 (240)	408 (185)	19 (485)	8 (203)
7.0x4.0 (2.1x1.2)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
7.0x5.0 (2.1x1.5)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
8.0x3.0 (2.4x0.9)	12 (300)	18 (450)	3:1	5	3.74 (1.14)	7.84 (2.39)	9.5 (240)	487 (221)	19 (485)	8 (203)
8.0x4.0 (2.4x1.2)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
8.0x5.0 (2.4x1.5)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
9.0x3.0 (2.7x0.9)	18 (450)	18 (450)	3:1	5	3.74 (1.14)	8.83 (2.69)	10.5 (265)	511 (232)	20 (510)	9 (229)
9.0x4.0 (2.7x1.2)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
9.0x5.0 (2.7x1.5)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
10.0x4.0 (3.0x1.2)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)
10.0x5.0 (3.0x1.5)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)

GENERAL NOTES

- BOLTS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS. ALL BOLTS SHALL HAVE WASHERS AT EACH END. HOLES SHALL BE 5/64" (2 mm) OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" (3 mm) OVERSIZE.
- ALL STEEL PIPE SHALL BE ACCORDING TO ASTM A 53 (TYPE E OR S), GRADE B, OR ASTM A 500 GRADE B, STANDARD WEIGHT (SCH. 40).
- STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ACCORDING TO AASHTO M270 GRADE 50 (M 270M GRADE 345) AND THE REQUIREMENTS OF ARTICLE 1006.04 OF THE STANDARD SPECIFICATIONS.
- ALL STEEL COMPONENTS OF THE GRATING SYSTEM SHALL BE GALVANIZED ACCORDING TO AASHTO M 111 OR ASTM F 2329 AS APPLICABLE.
- THE APPROXIMATE WEIGHT OF STEEL IS LISTED IN THE CHART. THIS TOTAL INCLUDES PLATES, ANGLES AND PIPES. BOLTS, NUTS, AND WASHERS ARE NOT INCLUDED.
- THE CONTRACTOR SHALL VERIFY THE PIPE LENGTHS AND HOLE LOCATIONS PRIOR TO CUTTING THE PIPES TO LENGTH OR DRILLING HOLES.
- GRATING FOR THE PRECAST END SECTION WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "TRAVERSABLE PIPE GRATE, SPECIAL" WHICH PRICE SHALL INCLUDE FABRICATION, GALVANIZING AND INSTALLATION OF THE GRATING AS DETAILED.



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.



PLAN

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 2'-0" OUTSIDE OF THE EDGE OF SHOULDER

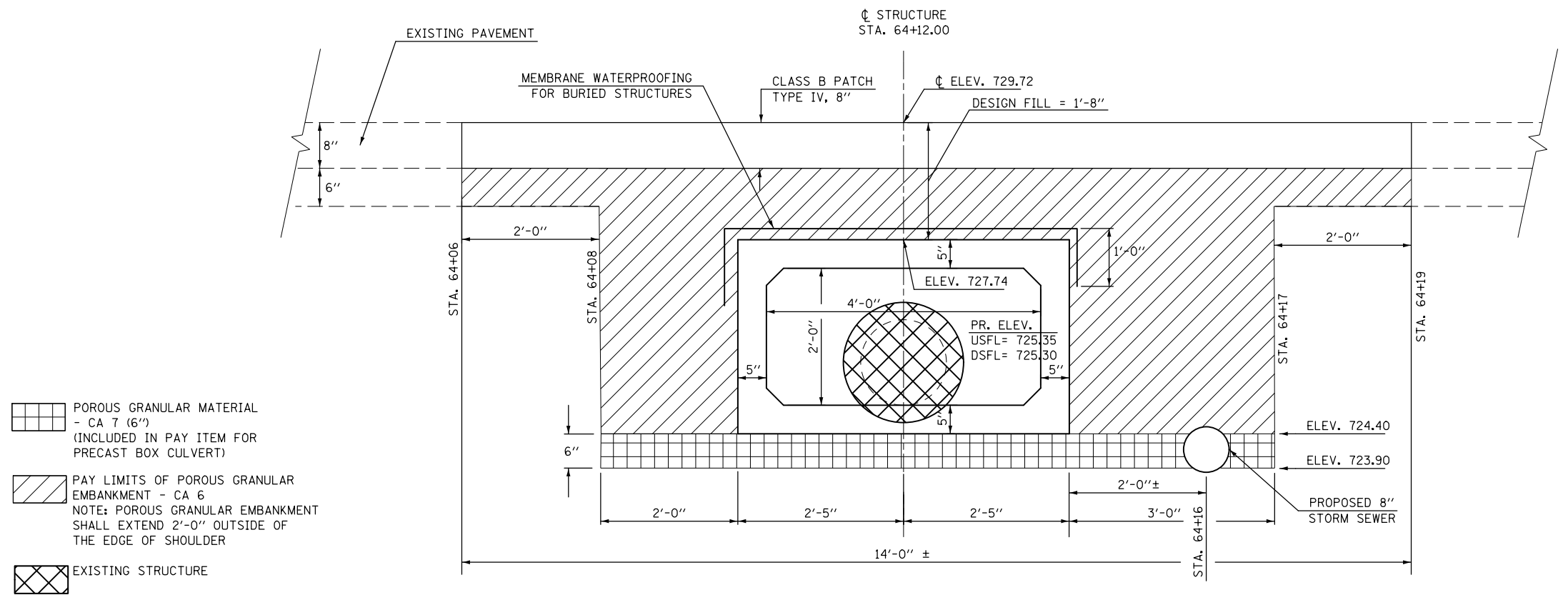
THE WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.

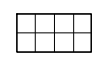
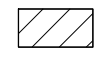
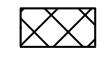
THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.

THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS.

MEMBRANE WATERPROOFING FOR BURIED STRUCTURES

SEE SPECIAL PROVISIONS



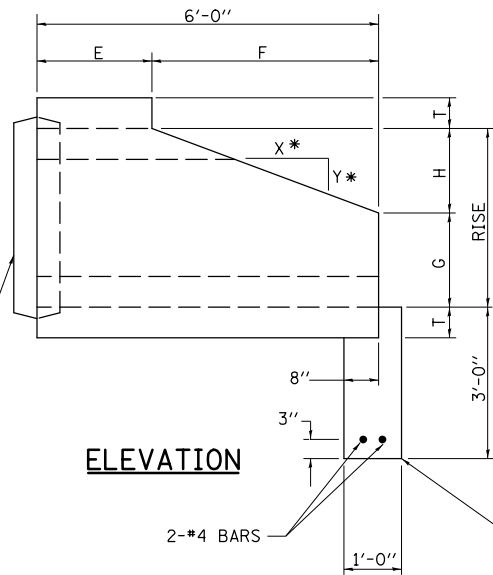
-  POROUS GRANULAR MATERIAL - CA 7 (6") (INCLUDED IN PAY ITEM FOR PRECAST BOX CULVERT)
-  PAY LIMITS OF POROUS GRANULAR EMBANKMENT - CA 6
NOTE: POROUS GRANULAR EMBANKMENT SHALL EXTEND 2'-0" OUTSIDE OF THE EDGE OF SHOULDER
-  EXISTING STRUCTURE

SECTION A-A

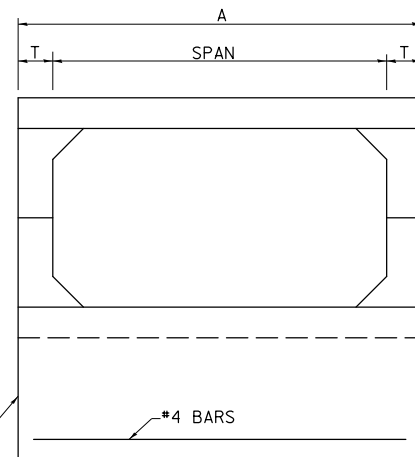
FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POROUS GRANULAR EMBANKMENT DETAIL PROPOSED BOX CULVERT LOC-1: SLD 0.81	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG.illinois.gov\PIWIDT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\0577-2-sh-GPE.SLD	DRAWN	REVISED	1476			(55,55A)CR	McLEAN	130	48	
PLOT SCALE = 2.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 70752							
MODELNAME	DATE -	REVISED -	ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -	SCALE:	SHEET 4 OF 4 SHEETS	STA.	TO STA.			

DIMENSIONS

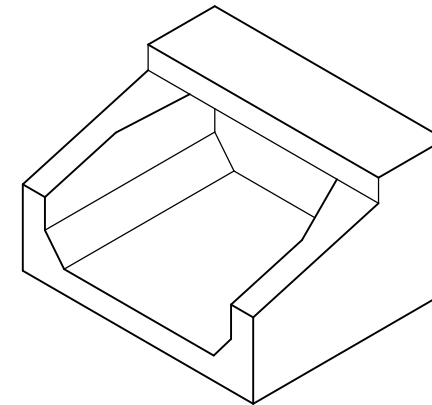
SPAN X RISE	T (INCHES)	A (FT.-IN.)	B (FT.-IN.)	C (INCHES)	E (FT.-IN.)	F (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	SLOPE (Y:X)
2' X 2'	4	2-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 2'	4	3-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 3'	4	3-8	3-8	4	2-0	4-0	1-8	1-4	1:3
4' X 2'	5	4-10	2-10	5	3-0	3-0	1-0	1-0	1:3
4' X 3'	5	4-10	3-10	5	2-0	4-0	1-8	1-4	1:3
4' X 4'	5	4-10	4-10	5	2-0	4-0	2-0	2-0	1:2
5' X 2'	6	6-0	3-0	6	3-0	3-0	1-0	1-0	1:3
5' X 3'	6	6-0	4-0	6	2-0	4-0	1-8	1-4	1:3
5' X 4'	6	6-0	5-0	6	2-0	4-0	2-0	2-0	1:2
5' X 5'	6	6-0	6-0	6					
6' X 2'	7	7-2	3-2	7	3-0	3-0	1-0	1-0	1:3
6' X 3'	7	7-2	4-2	7	2-0	4-0	1-8	1-4	1:3
6' X 4'	7	7-2	5-2	7	2-0	4-0	2-0	2-0	1:2
6' X 5'	7	7-2	6-2	7	2-0	4-0	3-0	2-0	1:2
6' X 6'	7	7-2	7-2	7	2-0	4-0	4-0	2-0	1:2
7' X 4'	8	8-4	5-4	8	2-0	4-0	2-0	2-0	1:2
7' X 5'	8	8-4	6-4	8	2-0	4-0	3-0	2-0	1:2
7' X 6'	8	8-4	7-4	8	2-0	4-0	4-0	2-0	1:2
7' X 7'	8	8-4	8-4	8	2-0	4-0	5-0	2-0	1:2
8' X 4'	8	9-4	5-4	8	2-0	4-0	2-0	2-0	1:2
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8' X 6'	8	9-4	7-4	8	2-0	4-0	4-0	2-0	1:2
8' X 7'	8	9-4	8-4	8	2-0	4-0	5-0	2-0	1:2
8' X 8'	8	9-4	9-4	8	2-0	4-0	6-0	2-0	1:2
9' X 5'	9	10-6	6-6	9	2-0	4-0	3-0	2-0	1:2
9' X 6'	9	10-6	7-6	9	2-0	4-0	4-0	2-0	1:2
9' X 7'	9	10-6	8-6	9	2-0	4-0	5-0	2-0	1:2
9' X 8'	9	10-6	9-6	9	2-0	4-0	6-0	2-0	1:2
9' X 9'	9	10-6	10-6	9	2-0	4-0	7-0	2-0	1:2
10' X 5'	10	11-8	6-8	10	2-0	4-0	3-0	2-0	1:2
10' X 6'	10	11-8	7-8	10	2-0	4-0	4-0	2-0	1:2
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10' X 8'	10	11-8	9-8	10	2-0	4-0	6-0	2-0	1:2
10' X 9'	10	11-8	10-8	10	2-0	4-0	7-0	2-0	1:2
10' X 10'	10	11-8	11-8	10	2-0	4-0	8-0	2-0	1:2
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11' X 6'	11	12-10	7-10	11	2-0	4-0	4-0	2-0	1:2
11' X 8'	11	12-10	9-10	11	2-0	4-0	6-0	2-0	1:2
11' X 10'	11	12-10	11-10	11	2-0	4-0	8-0	2-0	1:2
11' X 11'	11	12-10	12-10	11	2-0	4-0	9-0	2-0	1:2
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12' X 10'	12	14-0	12-0	12	2-0	4-0	8-0	2-0	1:2
12' X 12'	12	14-0	14-0	12	2-0	4-0	10-0	2-0	1:2



*1:2 SLOPE MINIMUM

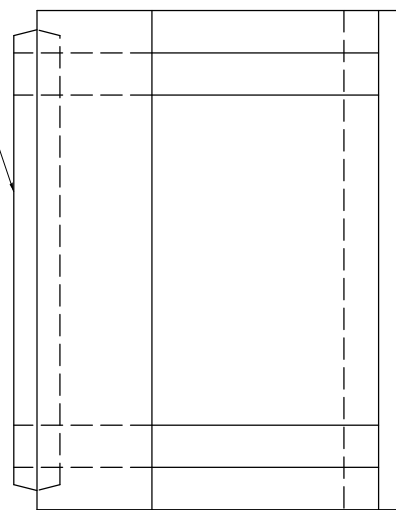


END VIEW

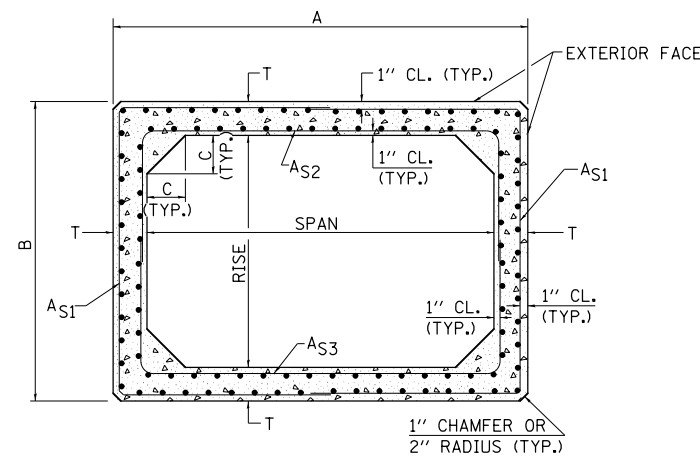


ISOMETRIC

ELEVATION



PLAN



CROSS SECTION

“NON-STANDARD PRECAST CONCRETE BOX CULVERT (ASTM) DESIGNS”; STANDARD PCBC (ASTM) DESIGNS ARE PREFERRED.

GENERAL NOTES

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MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH SECTION 1055 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS AS1, AS2, & AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM C1577. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO M55-81.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

STD. 9-50 (FROM DISTRICT 9)

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED -
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\$MODELNAME\$	PLOT SCALE = 2.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/1/2018	DATE -	REVISED -

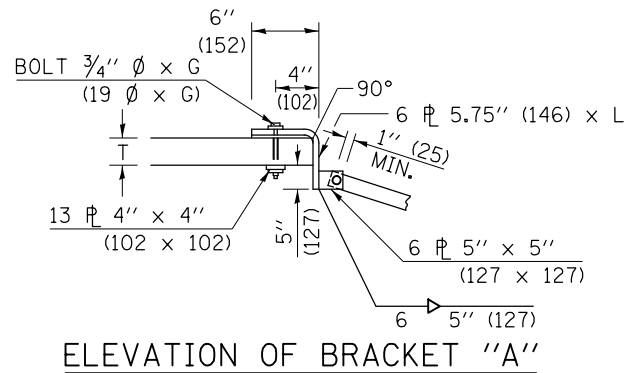
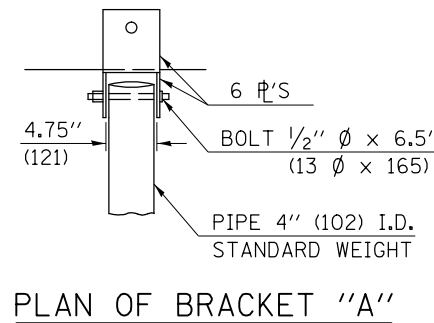
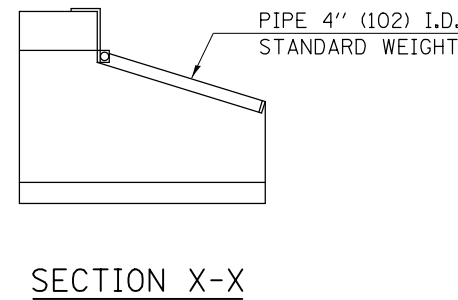
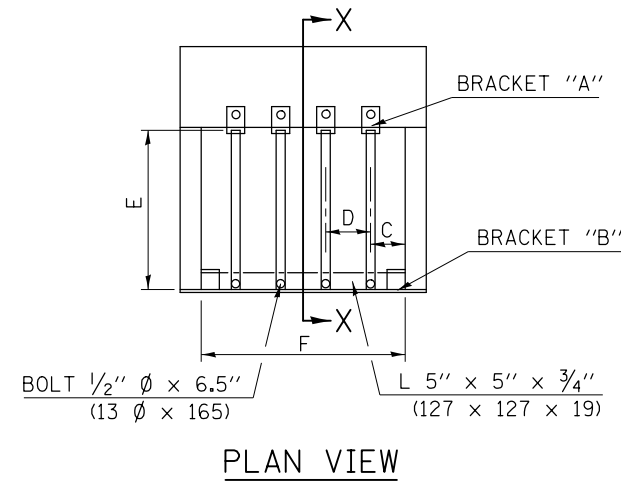
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION (PRECAST CONCRETE)
PROPOSED BOX CULVERT LOC-2: S.N. 057-8233

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 54001AAA

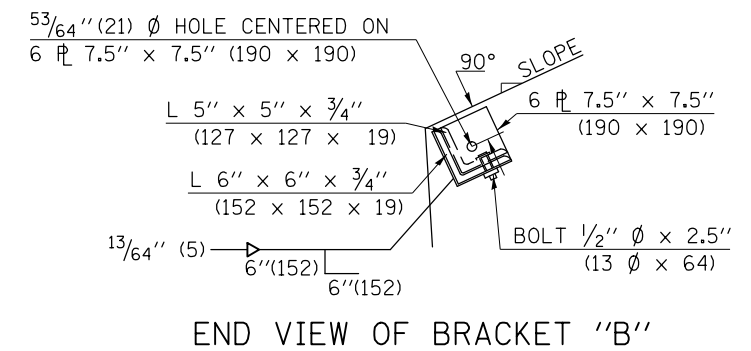
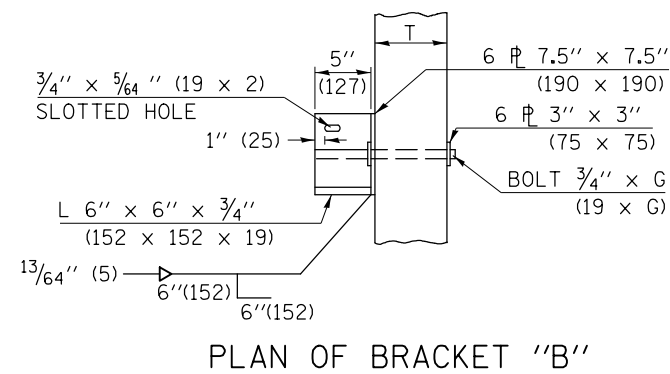
F.A.S. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55,55A)CR	McLEAN	130	50
				CONTRACT NO. 70752
ILLINOIS FED. AID PROJECT				



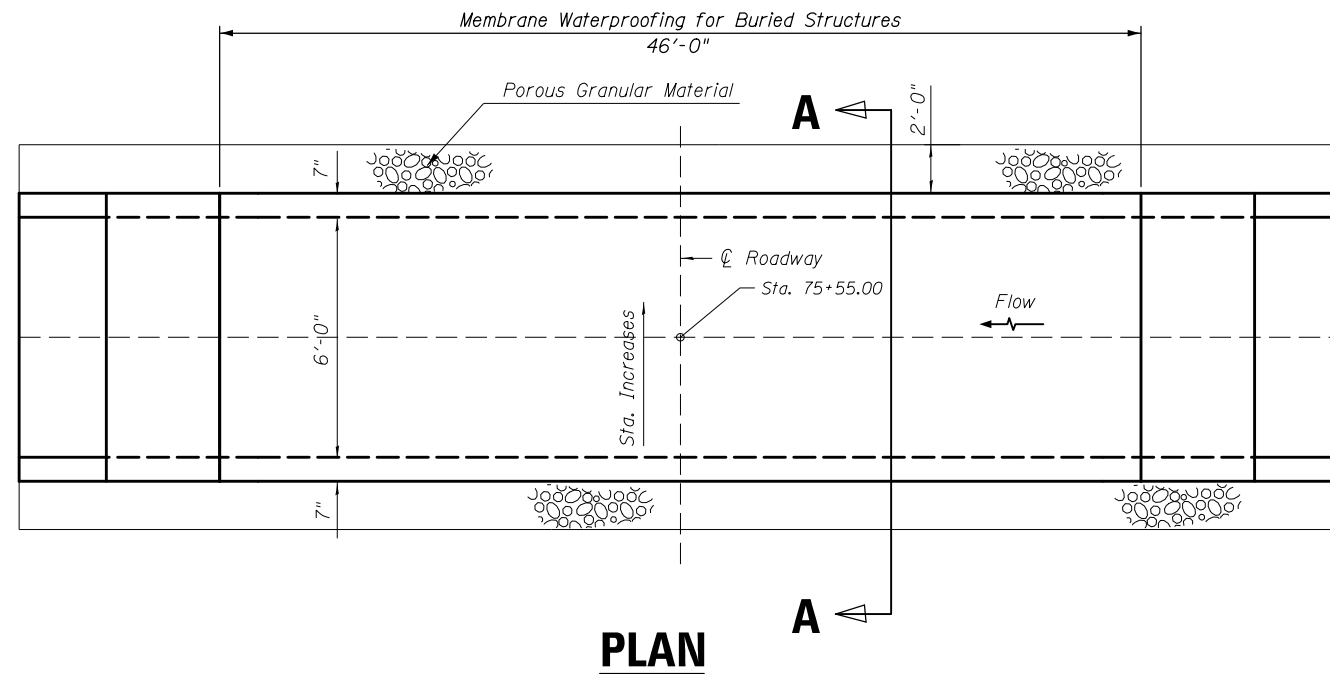
BOX CULVERT SPAN AND RISE	EXT. SPACE C	INT. SPACE D	SLOPE	NO. PIPES REQ'D	PIPE LENGTH E	ANGLE LENGTH F	BOLT LENGTH G	WEIGHT	L	WALL THICK. T
					FT (m)	FT (m)	INCHES (mm)			
3.0x3.0 (0.9x0.9)	18 (450)	N/A	3:1	1	3.74 (1.14)	2.82 (0.86)	5.5 (140)	150 (68)	15 (380)	4 (102)
4.0x2.0 (1.2x0.6)	15 (380)	18 (450)	3:1	2	2.69 (0.82)	3.84 (1.17)	6.5 (165)	222 (101)	16 (405)	5 (127)
4.0x3.0 (1.2x0.9)	15 (380)	18 (450)	3:1	2	3.74 (1.14)	3.84 (1.17)	6.5 (165)	227 (103)	16 (405)	5 (127)
4.0x4.0 (1.2x1.2)	15 (380)	18 (450)	2:1	2	4.00 (1.22)	3.84 (1.17)	6.5 (165)	234 (106)	16 (405)	5 (127)
5.0x3.0 (1.5x0.9)	12 (300)	18 (450)	3:1	3	3.74 (1.14)	4.82 (1.47)	7.5 (190)	304 (138)	17 (430)	6 (152)
5.0x4.0 (1.5x1.2)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
5.0x5.0 (1.5x1.5)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
6.0x2.0 (1.8x0.6)	18 (450)	18 (450)	3:1	3	2.69 (0.82)	5.74 (1.78)	8.5 (215)	326 (148)	18 (460)	7 (178)
6.0x3.0 (1.8x0.9)	18 (450)	18 (450)	3:1	3	3.74 (1.14)	5.74 (1.78)	8.5 (215)	331 (150)	18 (460)	7 (178)
6.0x4.0 (1.8x1.2)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
6.0x5.0 (1.8x1.5)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
7.0x3.0 (2.1x0.9)	15 (380)	18 (450)	3:1	4	3.74 (1.14)	6.82 (2.08)	9.5 (240)	408 (185)	19 (485)	8 (203)
7.0x4.0 (2.1x1.2)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
7.0x5.0 (2.1x1.5)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
8.0x3.0 (2.4x0.9)	12 (300)	18 (450)	3:1	5	3.74 (1.14)	7.84 (2.39)	9.5 (240)	487 (221)	19 (485)	8 (203)
8.0x4.0 (2.4x1.2)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
8.0x5.0 (2.4x1.5)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
9.0x3.0 (2.7x0.9)	18 (450)	18 (450)	3:1	5	3.74 (1.14)	8.83 (2.69)	10.5 (265)	511 (232)	20 (510)	9 (229)
9.0x4.0 (2.7x1.2)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
9.0x5.0 (2.7x1.5)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
10.0x4.0 (3.0x1.2)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)
10.0x5.0 (3.0x1.5)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)

GENERAL NOTES

- BOLTS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS. ALL BOLTS SHALL HAVE WASHERS AT EACH END. HOLES SHALL BE 5/64" (2 mm) OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" (3 mm) OVERSIZE.
- ALL STEEL PIPE SHALL BE ACCORDING TO ASTM A 53 (TYPE E OR S), GRADE B, OR ASTM A 500 GRADE B, STANDARD WEIGHT (SCH. 40).
- STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ACCORDING TO AASHTO M270 GRADE 50 (M 270M GRADE 345) AND THE REQUIREMENTS OF ARTICLE 1006.04 OF THE STANDARD SPECIFICATIONS.
- ALL STEEL COMPONENTS OF THE GRATING SYSTEM SHALL BE GALVANIZED ACCORDING TO AASHTO M 111 OR ASTM F 2329 AS APPLICABLE.
- THE APPROXIMATE WEIGHT OF STEEL IS LISTED IN THE CHART. THIS TOTAL INCLUDES PLATES, ANGLES AND PIPES. BOLTS, NUTS, AND WASHERS ARE NOT INCLUDED.
- THE CONTRACTOR SHALL VERIFY THE PIPE LENGTHS AND HOLE LOCATIONS PRIOR TO CUTTING THE PIPES TO LENGTH OR DRILLING HOLES.
- GRATING FOR THE PRECAST END SECTION WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "TRAVERSABLE PIPE GRATE, SPECIAL" WHICH PRICE SHALL INCLUDE FABRICATION, GALVANIZING AND INSTALLATION OF THE GRATING AS DETAILED.



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.



POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 2'-0" OUTSIDE OF THE EDGE OF SHOULDER

THE WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.

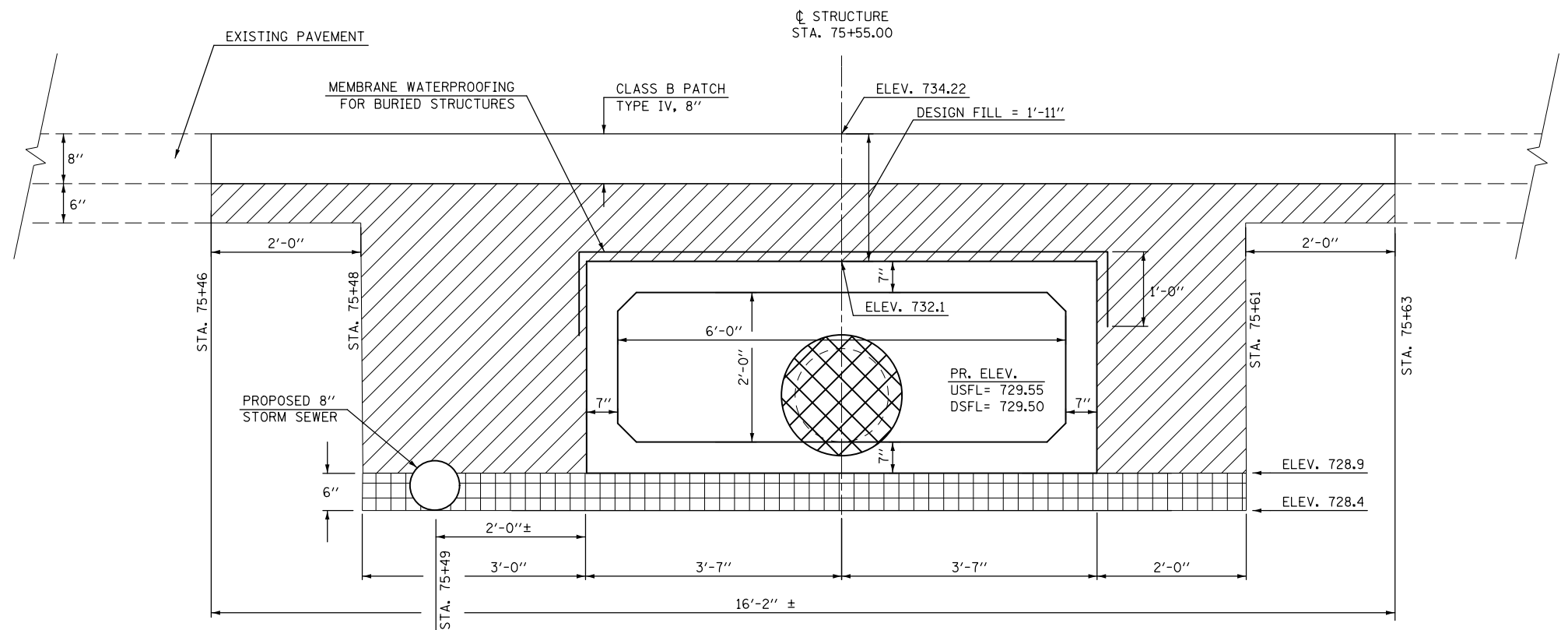
THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.




THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS.

MEMBRANE WATERPROOFING FOR BURIED STRUCTURES

SEE SPECIAL PROVISIONS

PLAN



-  POROUS GRANULAR MATERIAL - CA 7 (6") (INCLUDED IN PAY ITEM FOR PRECAST BOX CULVERT)
-  PAY LIMITS OF POROUS GRANULAR EMBANKMENT - CA 6 NOTE: POROUS GRANULAR EMBANKMENT SHALL EXTEND 2'-0" OUTSIDE OF THE EDGE OF SHOULDER
-  EXISTING STRUCTURE

SECTION A-A

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POROUS GRANULAR EMBANKMENT DETAIL PROPOSED BOX CULVERT LOC-2: S.N. 057-8233	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
p:\1\084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\0570752-shr-GPE.057-8233	DRAWN BY =	CHECKED -	REVISED -			1476	(55,55)ICR	McLEAN	130	52	
MODELNAME	PLOT SCALE = 2.0000' / in.	DATE -	REVISED -			CONTRACT NO. 70752					
	PLOT DATE = 8/7/2018					ILLINOIS FED. AID PROJECT					

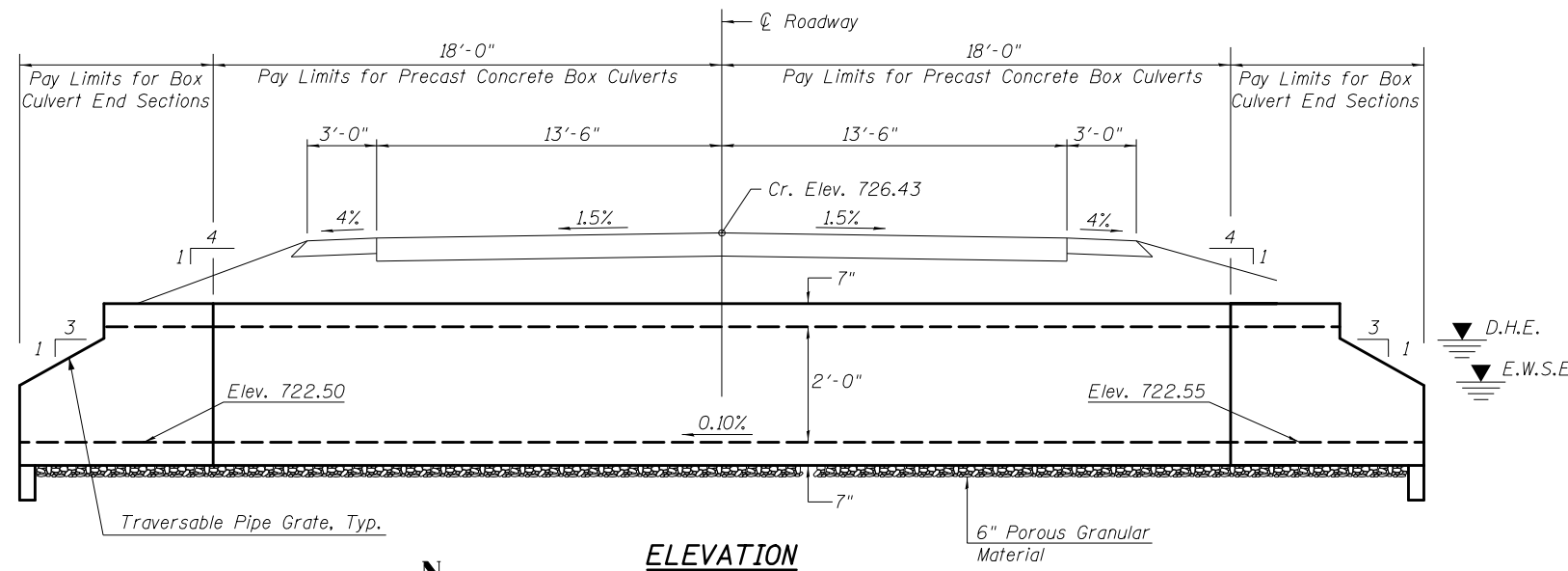
Existing Structure: SLD 4.23 is a 15" clay pipe culvert constructed at Sta. 213+68 in 1924, with 15" CMP extensions in 1957 as part of F.A.S. Route 1476, Section (55,55A)CR

INDEX OF SHEETS

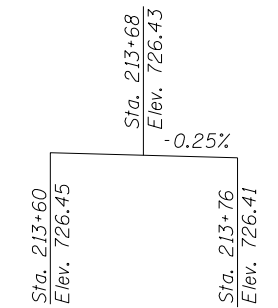
1. General Plan and Elevation
2. Precast Concrete Box Culvert End Section Details
3. Grating for Precast Box Culvert End Section
4. Porous Granular Embankment Detail

GENERAL NOTES

The design fill height for this box is < 1.1 feet. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
 Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.



ELEVATION



PROFILE GRADE

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
 6th Edition with 2013 interims

LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
 fy = 65,000 psi (Welded Wire Reinforcement)

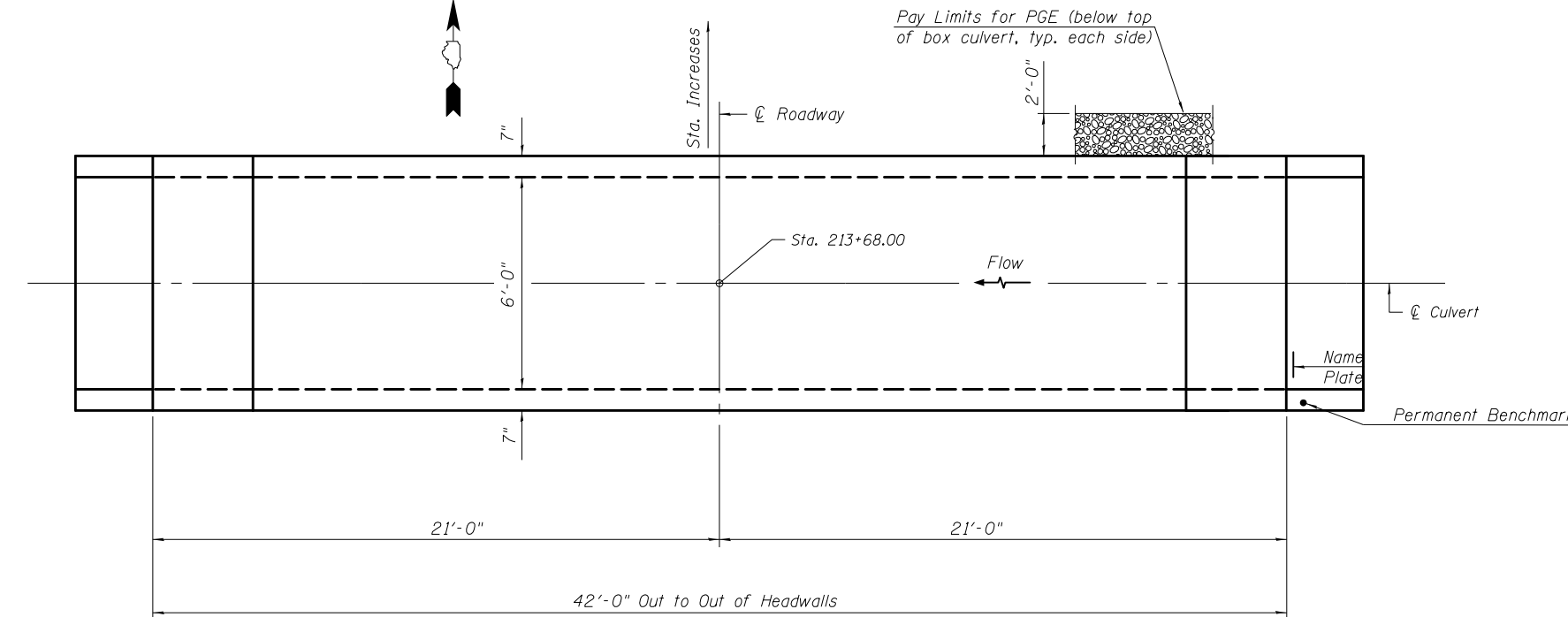
STATION 213+68.00
 BUILT 2018 BY
 STATE OF ILLINOIS
 F.A.S. RT. 1476 SEC. (55,55A)CR
 LOADING HL-93
 STR. NO. 057-8234

NAME PLATE
 See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 4	Each	1.0
Name Plates	Each	1.0
Box Culvert End Sections, Culvert No. 4	Each	2.0
Precast Concrete Box Culverts, 6' x 2'	Foot	36.0
Porous Granular Embankment	Cu. Yd.	30.0
Membrane Waterproofing System for Buried Str.	Sq. Yd.	37.0
Traversable Pipe Grate, Special	Foot	17.0
Permanent Bench Marks	Each	1.0

GENERAL PLAN AND ELEVATION
SINGLE 6' X 2' PRECAST BOX CULVERT
RTE. OLD US 51
F.A.S. RTE. 1476 SEC. (55,55A)CR
McLEAN COUNTY
STATION 213+68.00
S.N. 057-8234



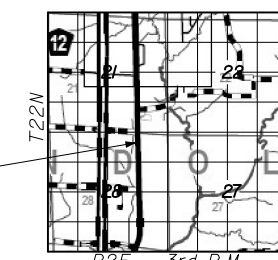
PLAN

WATERWAY INFORMATION

Drainage Area = 28.0 Acres		Existing Low Grade Elev. = 726.45 ft @ Sta. 213+68		Proposed Low Grade Elev. = 726.45 ft @ Sta. 213+68				
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Existing	Proposed	Head - Ft. Existing	Proposed	Headwater Elevation Existing	Proposed
Design	10	42	3	12			Over	724.6
Base	50	61	3	12			Over	725.3
Overtopping	100	72	3	12			Over	725.8
Max. Calc.	500	104	3	12			Over	Over

10 YEAR VELOCITY THROUGH EXISTING BRIDGE: Unknown
 10 YEAR VELOCITY THROUGH PROPOSED BRIDGE: 4.40 ft/s
 ALL-TIME H.W.E. & DATE: Unknown

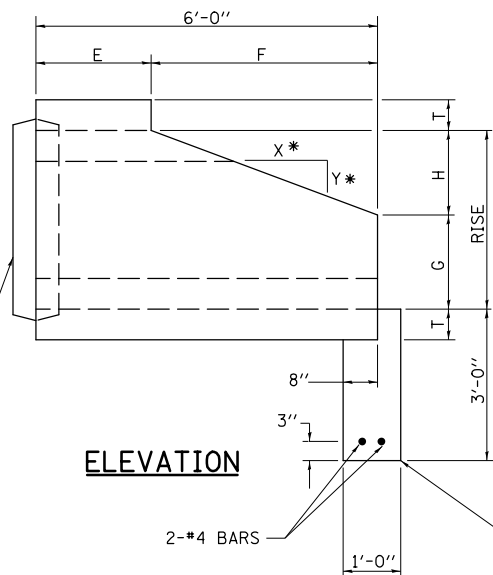
PR. Box Culvert - S.N. 057-8234
 Sta. 213+68.00



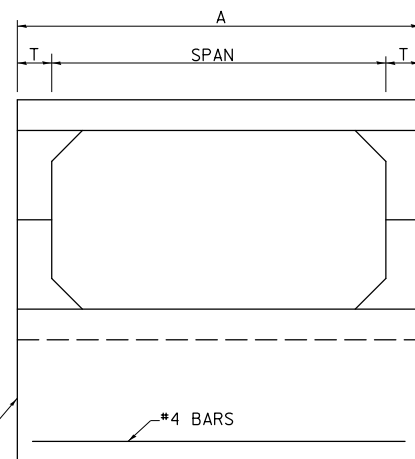
LOCATION SKETCH

DIMENSIONS

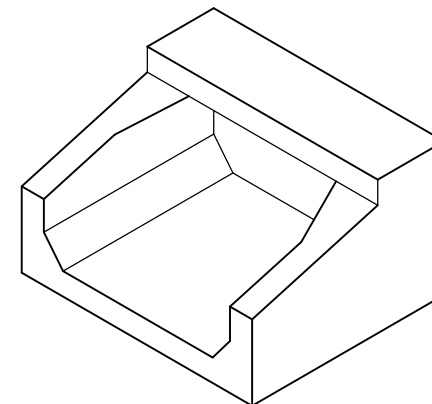
SPAN X RISE	T (INCHES)	A (FT.-IN.)	B (FT.-IN.)	C (INCHES)	E (FT.-IN.)	F (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	SLOPE (Y:X)
2' X 2'	4	2-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 2'	4	3-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 3'	4	3-8	3-8	4	2-0	4-0	1-8	1-4	1:3
4' X 2'	5	4-10	2-10	5	3-0	3-0	1-0	1-0	1:3
4' X 3'	5	4-10	3-10	5	2-0	4-0	1-8	1-4	1:3
4' X 4'	5	4-10	4-10	5	2-0	4-0	2-0	2-0	1:2
5' X 2'	6	6-0	3-0	6	3-0	3-0	1-0	1-0	1:3
5' X 3'	6	6-0	4-0	6	2-0	4-0	1-8	1-4	1:3
5' X 4'	6	6-0	5-0	6	2-0	4-0	2-0	2-0	1:2
5' X 5'	6	6-0	6-0	6					
6' X 2'	7	7-2	3-2	7	3-0	3-0	1-0	1-0	1:3
6' X 3'	7	7-2	4-2	7	2-0	4-0	1-8	1-4	1:3
6' X 4'	7	7-2	5-2	7	2-0	4-0	2-0	2-0	1:2
6' X 5'	7	7-2	6-2	7	2-0	4-0	3-0	2-0	1:2
6' X 6'	7	7-2	7-2	7	2-0	4-0	4-0	2-0	1:2
7' X 4'	8	8-4	5-4	8	2-0	4-0	2-0	2-0	1:2
7' X 5'	8	8-4	6-4	8	2-0	4-0	3-0	2-0	1:2
7' X 6'	8	8-4	7-4	8	2-0	4-0	4-0	2-0	1:2
7' X 7'	8	8-4	8-4	8	2-0	4-0	5-0	2-0	1:2
8' X 4'	8	9-4	5-4	8	2-0	4-0	2-0	2-0	1:2
8' X 5'	8	9-4	6-4	8	2-0	4-0	3-0	2-0	1:2
8' X 6'	8	9-4	7-4	8	2-0	4-0	4-0	2-0	1:2
8' X 7'	8	9-4	8-4	8	2-0	4-0	5-0	2-0	1:2
8' X 8'	8	9-4	9-4	8	2-0	4-0	6-0	2-0	1:2
9' X 5'	9	10-6	6-6	9	2-0	4-0	3-0	2-0	1:2
9' X 6'	9	10-6	7-6	9	2-0	4-0	4-0	2-0	1:2
9' X 7'	9	10-6	8-6	9	2-0	4-0	5-0	2-0	1:2
9' X 8'	9	10-6	9-6	9	2-0	4-0	6-0	2-0	1:2
9' X 9'	9	10-6	10-6	9	2-0	4-0	7-0	2-0	1:2
10' X 5'	10	11-8	6-8	10	2-0	4-0	3-0	2-0	1:2
10' X 6'	10	11-8	7-8	10	2-0	4-0	4-0	2-0	1:2
10' X 7'	10	11-8	8-8	10	2-0	4-0	5-0	2-0	1:2
10' X 8'	10	11-8	9-8	10	2-0	4-0	6-0	2-0	1:2
10' X 9'	10	11-8	10-8	10	2-0	4-0	7-0	2-0	1:2
10' X 10'	10	11-8	11-8	10	2-0	4-0	8-0	2-0	1:2
11' X 4'	11	12-10	5-10	11	2-0	4-0	2-0	2-0	1:2
11' X 6'	11	12-10	7-10	11	2-0	4-0	4-0	2-0	1:2
11' X 8'	11	12-10	9-10	11	2-0	4-0	6-0	2-0	1:2
11' X 10'	11	12-10	11-10	11	2-0	4-0	8-0	2-0	1:2
11' X 11'	11	12-10	12-10	11	2-0	4-0	9-0	2-0	1:2
12' X 4'	12	14-0	6-0	12	2-0	4-0	2-0	2-0	1:2
12' X 6'	12	14-0	8-0	12	2-0	4-0	4-0	2-0	1:2
12' X 8'	12	14-0	10-0	12	2-0	4-0	6-0	2-0	1:2
12' X 10'	12	14-0	12-0	12	2-0	4-0	8-0	2-0	1:2
12' X 12'	12	14-0	14-0	12	2-0	4-0	10-0	2-0	1:2



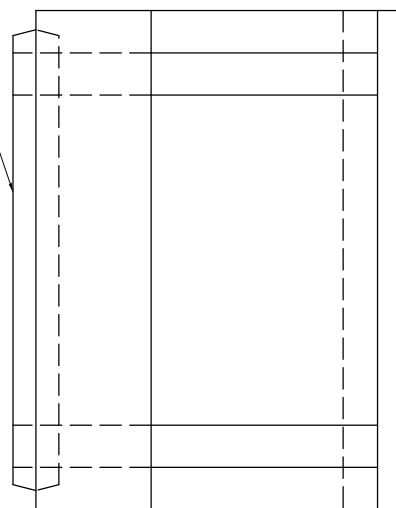
*1:2 SLOPE MINIMUM



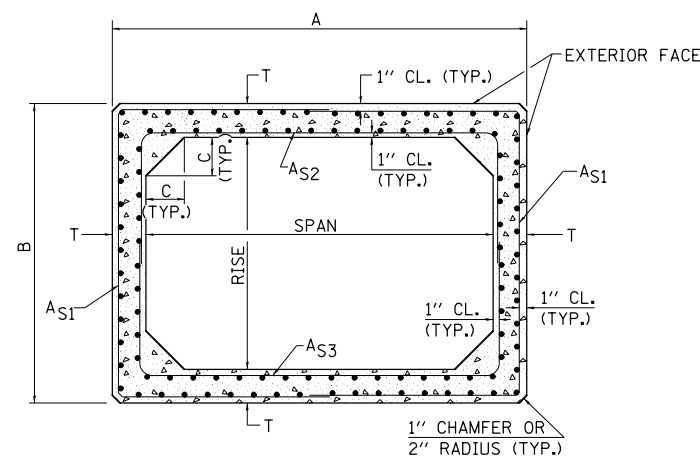
END VIEW



ISOMETRIC



PLAN



CROSS SECTION

⬡ "NON-STANDARD PRECAST CONCRETE BOX CULVERT (ASTM) DESIGNS"; STANDARD PCBC (ASTM) DESIGNS ARE PREFERRED.

GENERAL NOTES

SHOP DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 1042.03(b) OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH SECTION 1055 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS AS1, AS2, & AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM C1577. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO M55-81.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

STD. 9-50 (FROM DISTRICT 9)

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED -
p:\1\084EBIDINTEG\illinois.gov\PIDOT\Documents\DOT Offices\District 5\Projects\05797\Drawings\Design\0570752-shr-GPE_057-8234		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

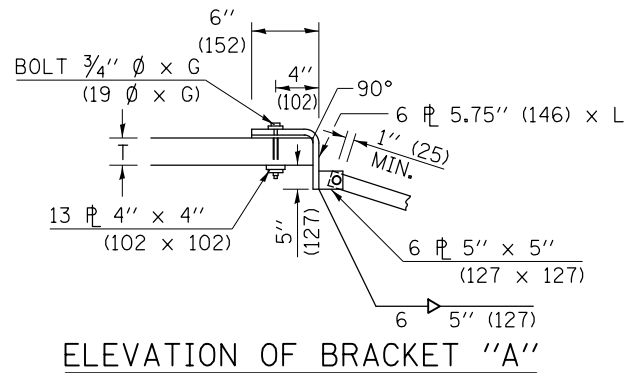
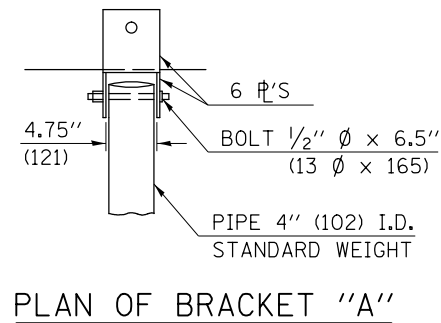
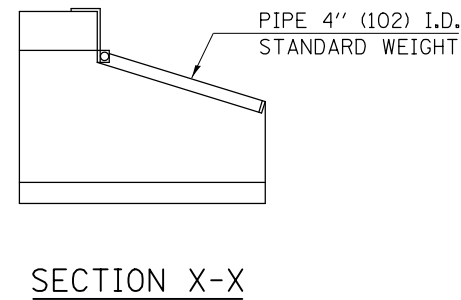
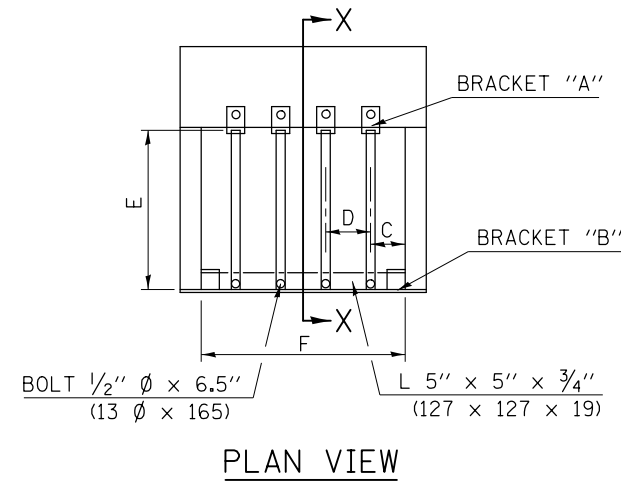
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT END SECTION (PRECAST CONCRETE)
PROPOSED BOX CULVERT LOC-4: S.N. 057-8234**

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 54001AAA

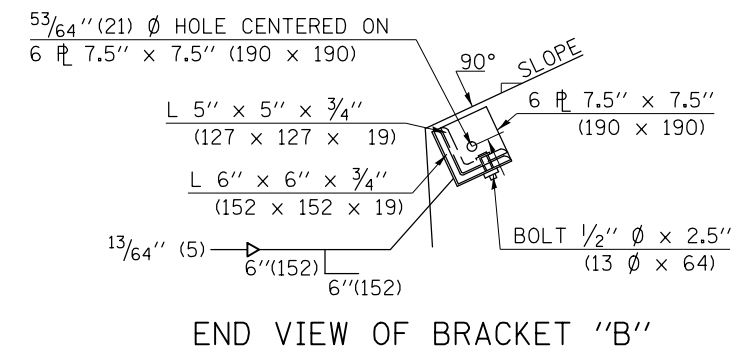
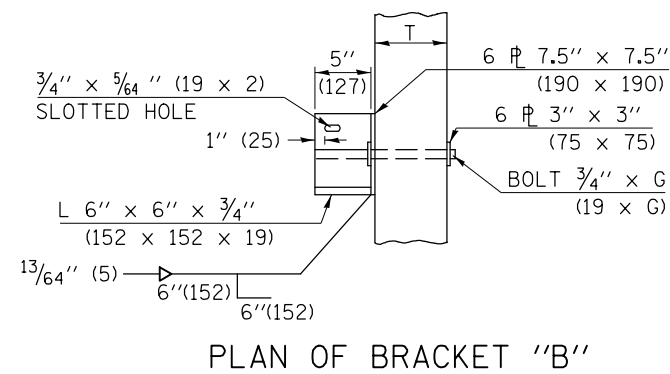
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55,55A)CR	McLEAN	130	54
CONTRACT NO. 70752				
ILLINOIS FED. AID PROJECT				



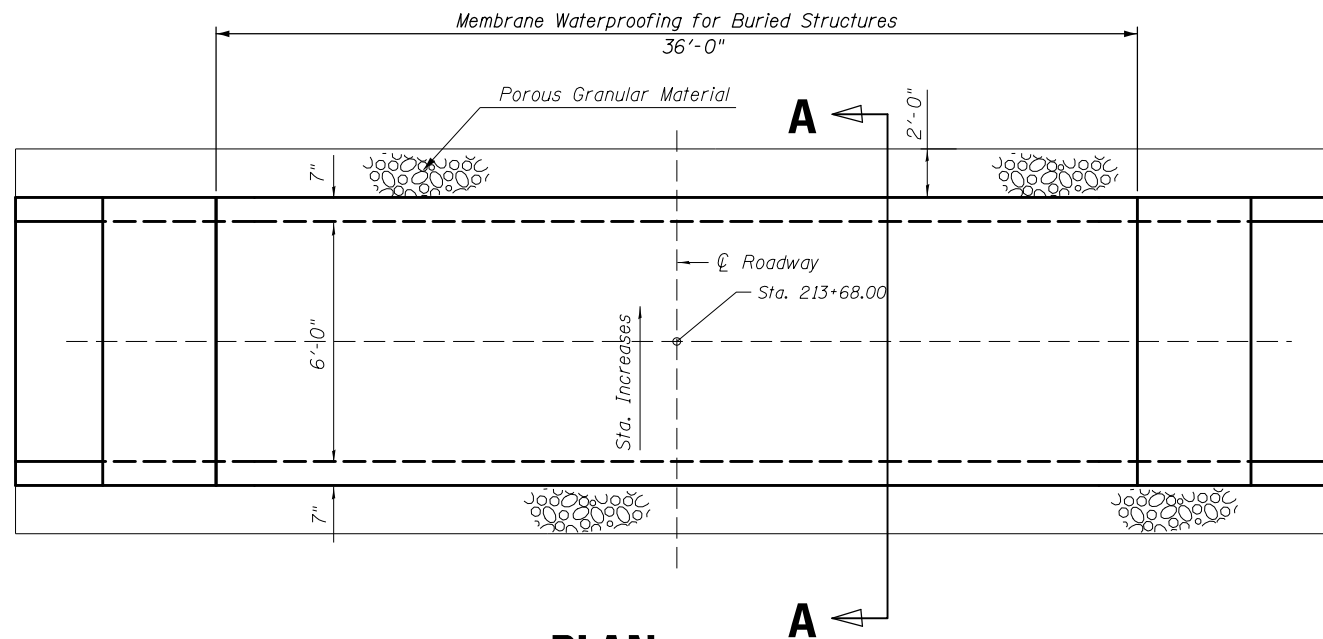
BOX CULVERT SPAN AND RISE	EXT. SPACE C	INT. SPACE D	SLOPE	NO. PIPES REQ'D	PIPE LENGTH E	ANGLE LENGTH F	BOLT LENGTH G	WEIGHT	L	WALL THICK. T
					FT (m)	FT (m)	INCHES (mm)			
3.0x3.0 (0.9x0.9)	18 (450)	N/A	3:1	1	3.74 (1.14)	2.82 (0.86)	5.5 (140)	150 (68)	15 (380)	4 (102)
4.0x2.0 (1.2x0.6)	15 (380)	18 (450)	3:1	2	2.69 (0.82)	3.84 (1.17)	6.5 (165)	222 (101)	16 (405)	5 (127)
4.0x3.0 (1.2x0.9)	15 (380)	18 (450)	3:1	2	3.74 (1.14)	3.84 (1.17)	6.5 (165)	227 (103)	16 (405)	5 (127)
4.0x4.0 (1.2x1.2)	15 (380)	18 (450)	2:1	2	4.00 (1.22)	3.84 (1.17)	6.5 (165)	234 (106)	16 (405)	5 (127)
5.0x3.0 (1.5x0.9)	12 (300)	18 (450)	3:1	3	3.74 (1.14)	4.82 (1.47)	7.5 (190)	304 (138)	17 (430)	6 (152)
5.0x4.0 (1.5x1.2)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
5.0x5.0 (1.5x1.5)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
6.0x2.0 (1.8x0.6)	18 (450)	18 (450)	3:1	3	2.69 (0.82)	5.74 (1.78)	8.5 (215)	326 (148)	18 (460)	7 (178)
6.0x3.0 (1.8x0.9)	18 (450)	18 (450)	3:1	3	3.74 (1.14)	5.74 (1.78)	8.5 (215)	331 (150)	18 (460)	7 (178)
6.0x4.0 (1.8x1.2)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
6.0x5.0 (1.8x1.5)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
7.0x3.0 (2.1x0.9)	15 (380)	18 (450)	3:1	4	3.74 (1.14)	6.82 (2.08)	9.5 (240)	408 (185)	19 (485)	8 (203)
7.0x4.0 (2.1x1.2)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
7.0x5.0 (2.1x1.5)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
8.0x3.0 (2.4x0.9)	12 (300)	18 (450)	3:1	5	3.74 (1.14)	7.84 (2.39)	9.5 (240)	487 (221)	19 (485)	8 (203)
8.0x4.0 (2.4x1.2)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
8.0x5.0 (2.4x1.5)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
9.0x3.0 (2.7x0.9)	18 (450)	18 (450)	3:1	5	3.74 (1.14)	8.83 (2.69)	10.5 (265)	511 (232)	20 (510)	9 (229)
9.0x4.0 (2.7x1.2)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
9.0x5.0 (2.7x1.5)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
10.0x4.0 (3.0x1.2)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)
10.0x5.0 (3.0x1.5)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)

GENERAL NOTES

- BOLTS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS. ALL BOLTS SHALL HAVE WASHERS AT EACH END. HOLES SHALL BE 5/64" (2 mm) OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" (3 mm) OVERSIZE.
- ALL STEEL PIPE SHALL BE ACCORDING TO ASTM A 53 (TYPE E OR S), GRADE B, OR ASTM A 500 GRADE B, STANDARD WEIGHT (SCH. 40).
- STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ACCORDING TO AASHTO M270 GRADE 50 (M 270M GRADE 345) AND THE REQUIREMENTS OF ARTICLE 1006.04 OF THE STANDARD SPECIFICATIONS.
- ALL STEEL COMPONENTS OF THE GRATING SYSTEM SHALL BE GALVANIZED ACCORDING TO AASHTO M 111 OR ASTM F 2329 AS APPLICABLE.
- THE APPROXIMATE WEIGHT OF STEEL IS LISTED IN THE CHART. THIS TOTAL INCLUDES PLATES, ANGLES AND PIPES. BOLTS, NUTS, AND WASHERS ARE NOT INCLUDED.
- THE CONTRACTOR SHALL VERIFY THE PIPE LENGTHS AND HOLE LOCATIONS PRIOR TO CUTTING THE PIPES TO LENGTH OR DRILLING HOLES.
- GRATING FOR THE PRECAST END SECTION WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "TRAVERSABLE PIPE GRATE, SPECIAL" WHICH PRICE SHALL INCLUDE FABRICATION, GALVANIZING AND INSTALLATION OF THE GRATING AS DETAILED.



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.



PLAN

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 2'-0" OUTSIDE OF THE EDGE OF SHOULDER

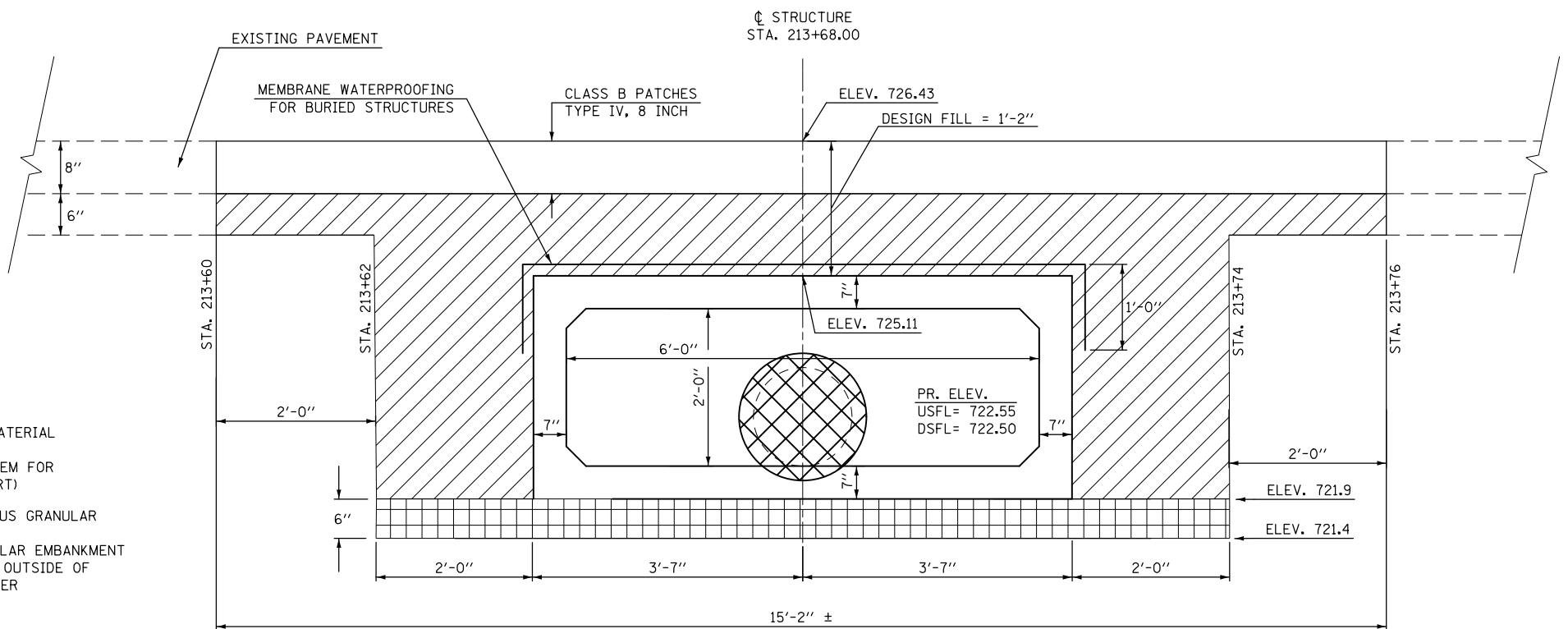
THE WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.




THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.

THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS.

MEMBRANE WATERPROOFING FOR BURIED STRUCTURES

SEE SPECIAL PROVISIONS



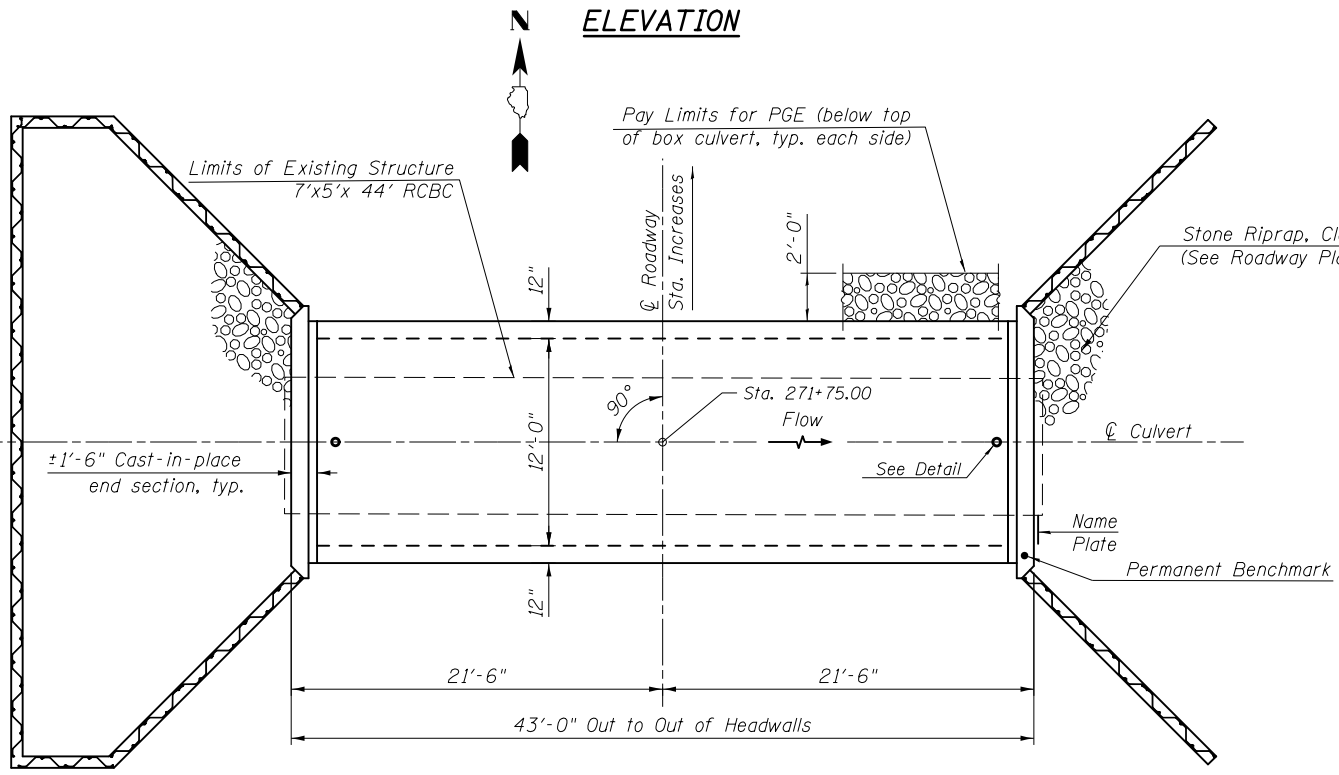
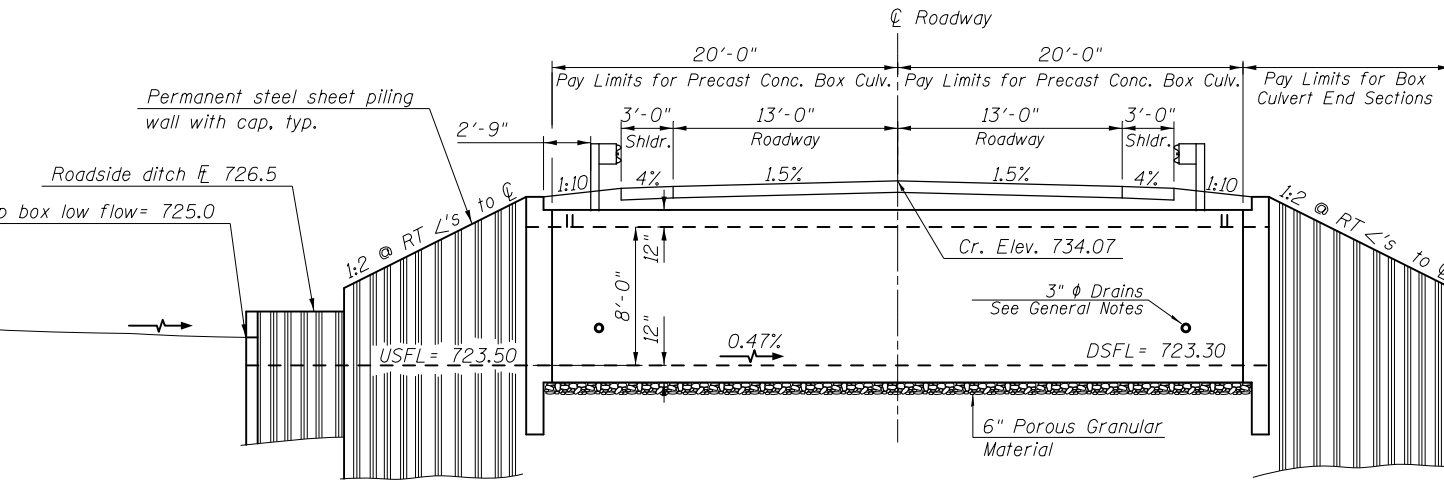
-  POROUS GRANULAR MATERIAL - CA 7 (6") (INCLUDED IN PAY ITEM FOR PRECAST BOX CULVERT)
-  PAY LIMITS OF POROUS GRANULAR EMBANKMENT - CA 6
NOTE: POROUS GRANULAR EMBANKMENT SHALL EXTEND 2'-0" OUTSIDE OF THE EDGE OF SHOULDER
-  EXISTING STRUCTURE

SECTION A-A

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POROUS GRANULAR EMBANKMENT DETAIL PROPOSED BOX CULVERT LOC-4: S.N. 057-8234	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0578234\Design\0578234-shr-GPE_057-8234.dwg	DRAWN BY =	CHECKED -	REVISED -			1476	(55,55A)CR	McLEAN	130	56	
MODELNAME	PLOT SCALE = 2.0000' / in.	DATE -	REVISED -			CONTRACT NO. 70752					
	PLOT DATE = 8/7/2018					ILLINOIS FED. AID PROJECT					

Benchmark: Chiseled square, top center of south headwall of field entrance culvert, North of S.N. 057-8208; Sta. 273+52.40, 20.83' LT, Elevation 732.72.

Existing Structure: S.N 057-8208 was constructed in 1924 at Sta. 271+80 as a single cell 7'x5' cast-in-place RC box culvert as part of F.A.S. Route 1476, Section (55,55A)CR. The existing structure is to be completely removed and replaced. The road is to be temporarily closed during construction.



WATERWAY INFORMATION

Existing Low Grade Elev. = 733.35 ft @ Sta. 272+83		Proposed Low Grade Elev. = 733.35 ft @ Sta. 272+83		Natural H.W.E.		Head - Ft.		Headwater Elevation	
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Existing	Proposed	Existing	Proposed	Existing	Proposed
	10	327	35	70				730.5	729.3
Design	50	564	35	87				Over	730.7
Base	100	675	35	95				Over	731.4
Overtopping									
Max. Calc.	500	954	35	96				Over	733.2

10 YEAR VELOCITY THROUGH EXISTING BRIDGE = 16.18 ft/s 10 YEAR VELOCITY THROUGH PROPOSED BRIDGE = 5.0 ft/s

GENERAL NOTES

The design fill height for this box is < 1.5 feet. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
 Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.

INDEX OF SHEETS

1. General Plan and Elevation
- 2-3. Box Culvert End Section Details
4. Bar Splicer Assembly Details
5. Porous Granular Embankment Detail
6. Soil Boring Logs
7. Existing Structure Details

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
 6th Edition with 2013 interims

LOADING HL-93

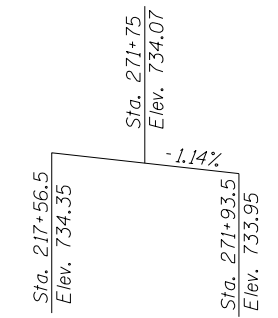
DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
 fy = 65,000 psi (Welded Wire Reinforcement)

FIELD UNITS

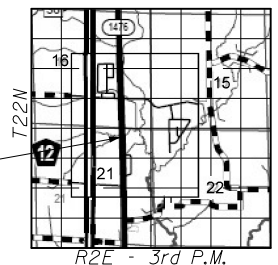
f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)
 fy = 38,000 psi (Permanent Sheet Piling)
 fy = 50,000 psi (AASHTO M270, Grade 50W)



PROFILE GRADE

STATION 271+75.00
 BUILT 2018 BY
 STATE OF ILLINOIS
 F.A.S. RT. 1476 SEC. (55,55A)CR
 LOADING HL-93
 STR. NO. 057-8230

NAME PLATE
 See Std. 515001

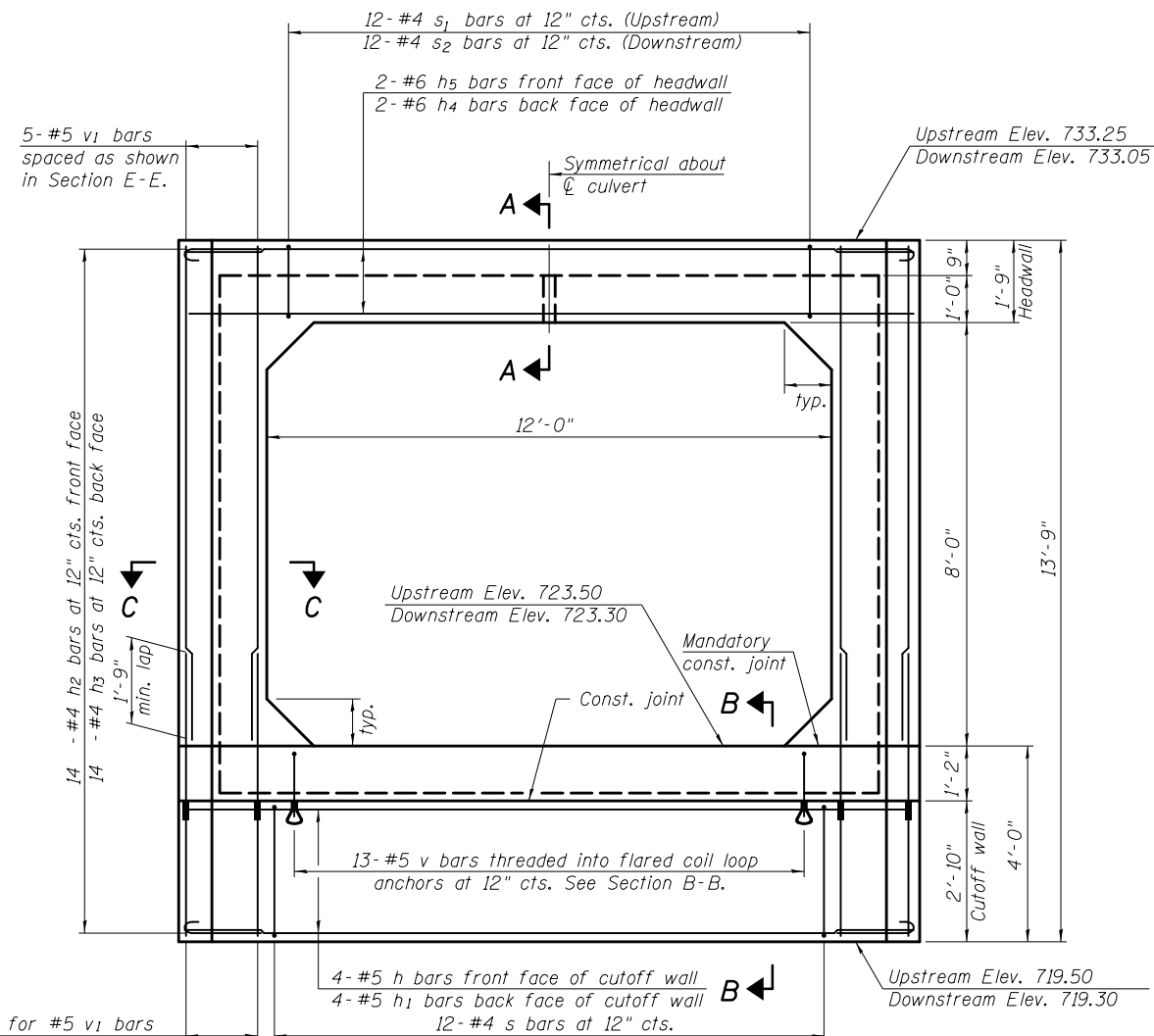


LOCATION SKETCH

TOTAL BILL OF MATERIAL

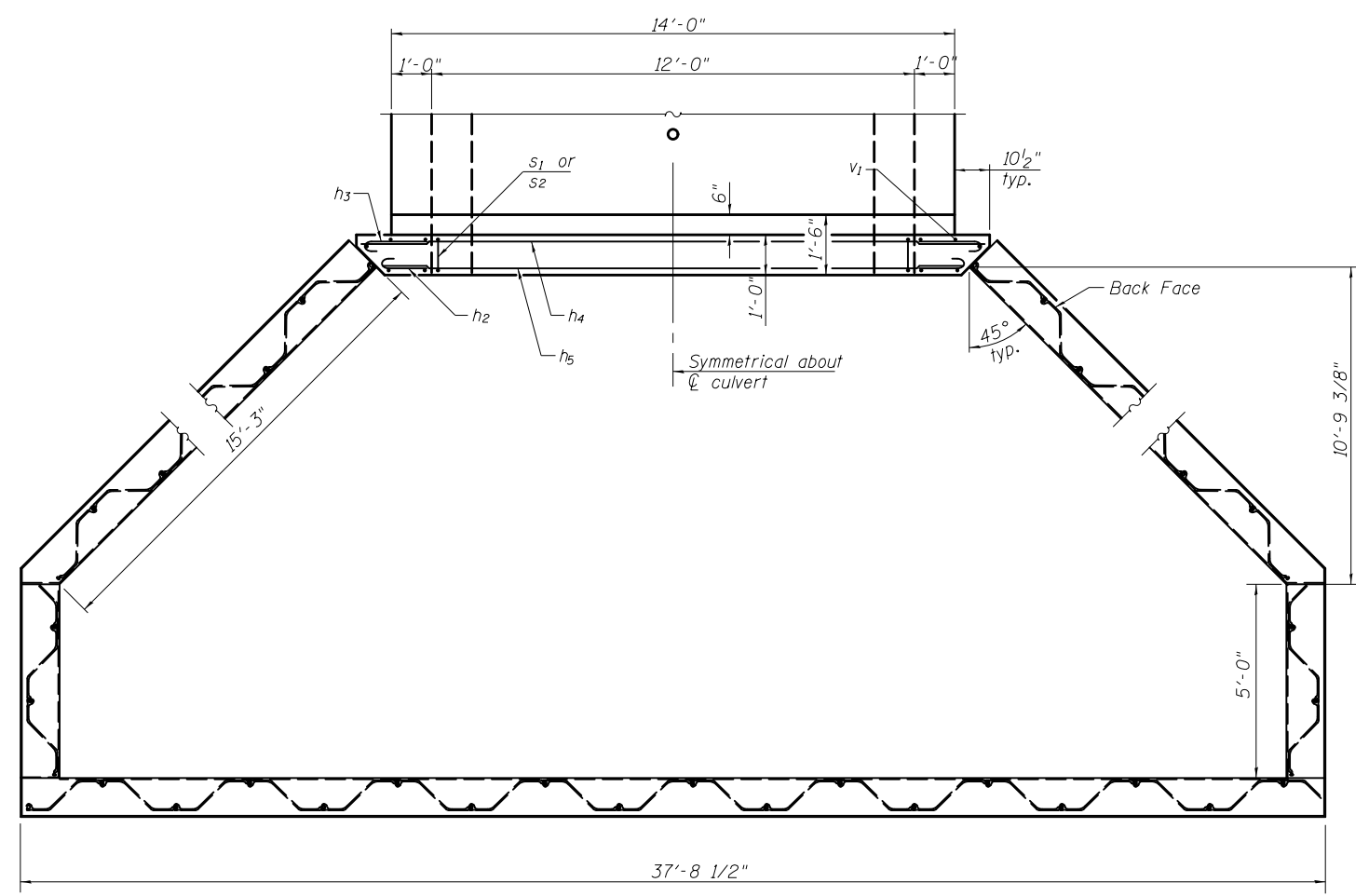
ITEM	UNIT	TOTAL
Removal of Existing Structures, No. 5	Each	1.0
Name Plates	Each	1.0
Box Culvert End Sections, Culvert No. 5	Each	2.0
Precast Concrete Box Culverts, 12' x 8'	Foot	40.0
Porous Granular Embankment	Cu. Yd.	185.0
Membrane Waterproofing System for Buried Str.	Sq. Yd.	72.0
Permanent Bench Marks	Each	1.0

GENERAL PLAN AND ELEVATION
SINGLE 12' X 8' PRECAST BOX CULVERT
RTE. OLD US 51
F.A.S. RTE. 1476 SEC. (55,55A)CR
McLEAN COUNTY
STATION 271+75.00
S.N. 057-8230



END ELEVATION

(Wingwalls omitted in this view for clarity.)



PLAN

Note:

Reinforcement bars shall conform to the requirements of ASTM A706 GR. 60.

The box culvert end section shall be built in the field and a precast option is not allowed except the cutoff wall may be precast. If the Contractor elects to use a precast cutoff wall, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval.

Areas of the precast box culvert in contact with cast-in-place concrete shall be sandblasted, cleaned, and wetted prior to placing concrete in the field according to Article 503.09(b) of the Standard Specifications.

The ends of the precast box sections adjacent to the end section shall be formed without male and female shapes.

The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

Tilt h_2 and h_3 bars as required to maintain clearance. Extend precast concrete box culvert welded wire reinforcement into end section. Bend as necessary to provide 1 1/2" clear cover.

See sheet 3 of 7 for Section A-A, B-B and C-C.
See sheet 3 of 7 for additional wing wall details.

BILL OF MATERIAL

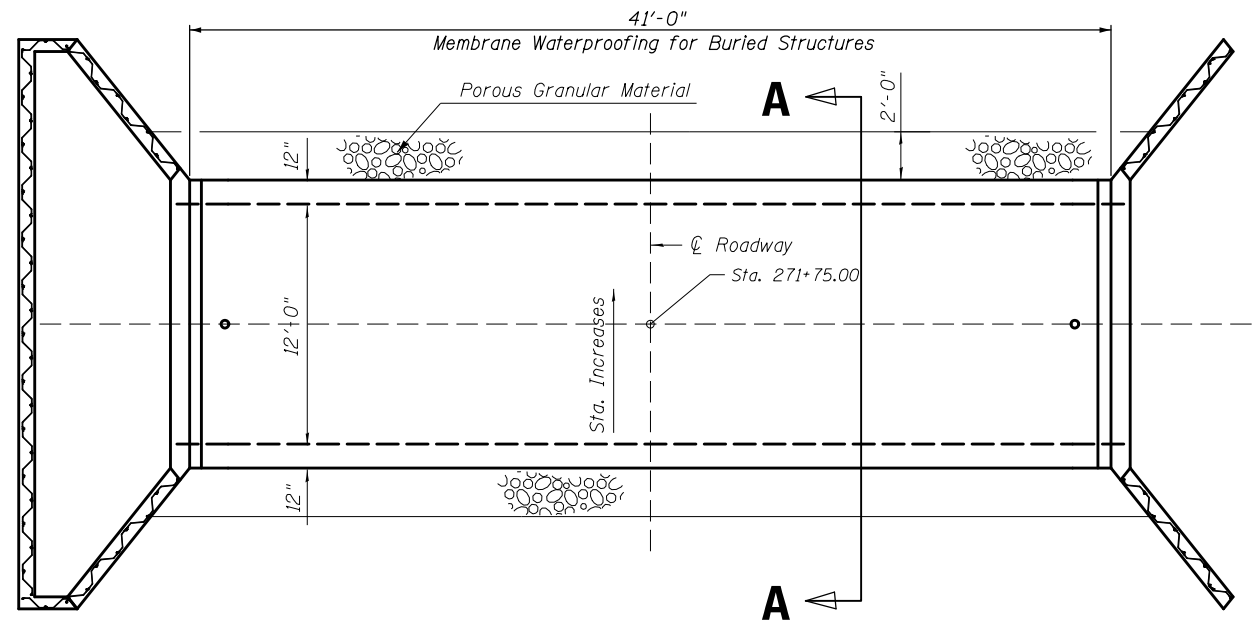
Item	Unit	Total
Box Culvert End Sections, Culvert No. 5	Each	2.0

CIPES-SCB-PSSP-ZS 10-15-2016

(Sheet 1 of 2)

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BOX CULVERT END SECTION DETAILS PROPOSED BOX CULVERT LOC-5: S.N. 057-8230	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\057752-shr-GPE_057-8230	DRAWN -	CHECKED -	REVISED -			1476	(55,55A)CR	McLEAN	130	58
PLOT SCALE = 2.0000' / in.	CHECKED -	REVIS	REVISED -			CONTRACT NO. 70752				
MODELNAME	DATE -	REVIS	REVISED -			ILLINOIS FED. AID PROJECT				

SCALE: SHEET 2 OF 7 SHEETS STA. TO STA.



PLAN

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 4'-6" OUTSIDE OF THE EDGE OF SHOULDER

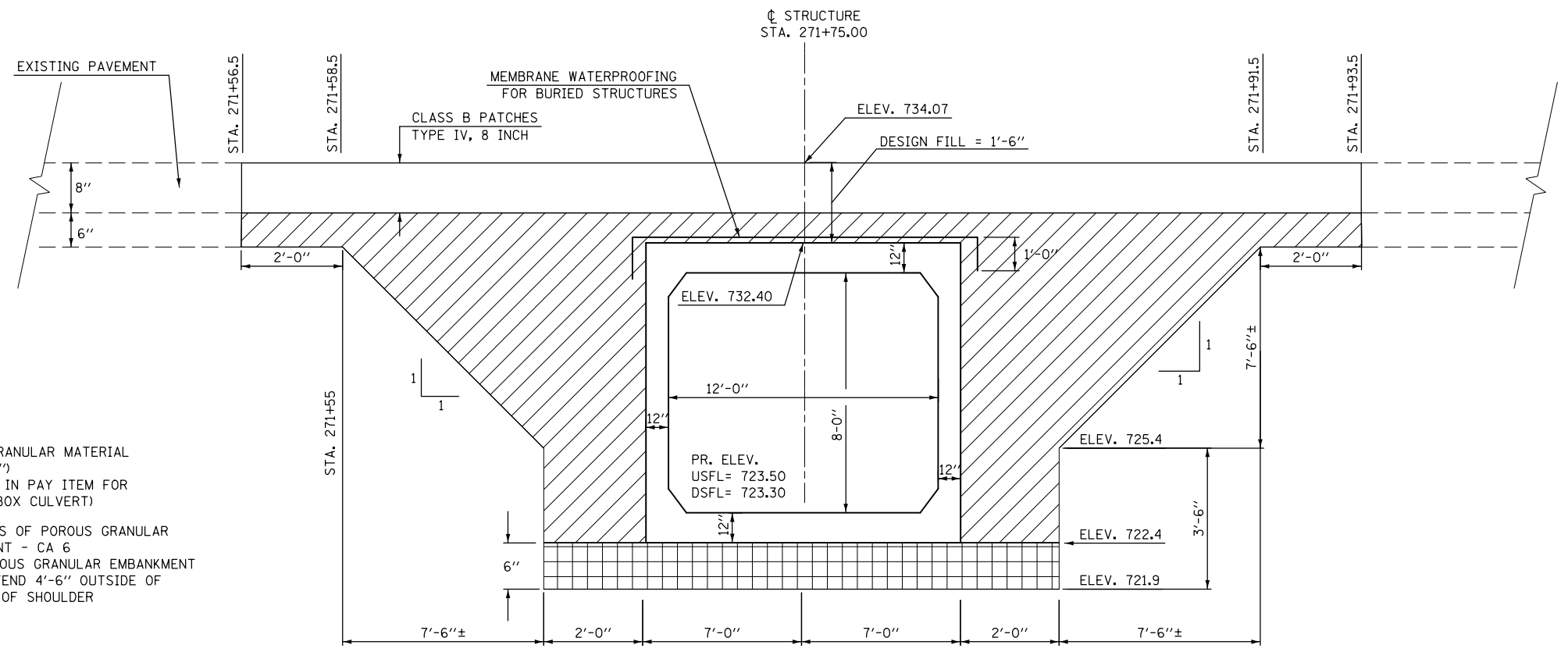
THE WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.

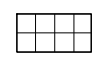
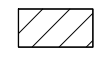
THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.

THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS.

MEMBRANE WATERPROOFING FOR BURIED STRUCTURES

SEE SPECIAL PROVISIONS



 POROUS GRANULAR MATERIAL - CA 7 (6")
 (INCLUDED IN PAY ITEM FOR PRECAST BOX CULVERT)
 PAY LIMITS OF POROUS GRANULAR EMBANKMENT - CA 6
 NOTE: POROUS GRANULAR EMBANKMENT SHALL EXTEND 4'-6" OUTSIDE OF THE EDGE OF SHOULDER

SECTION A-A

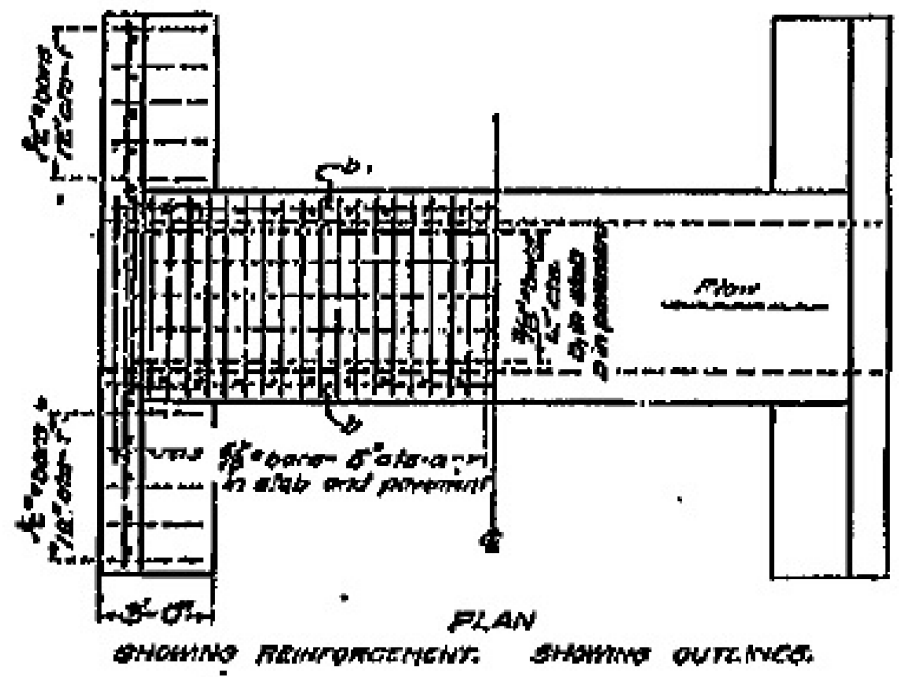
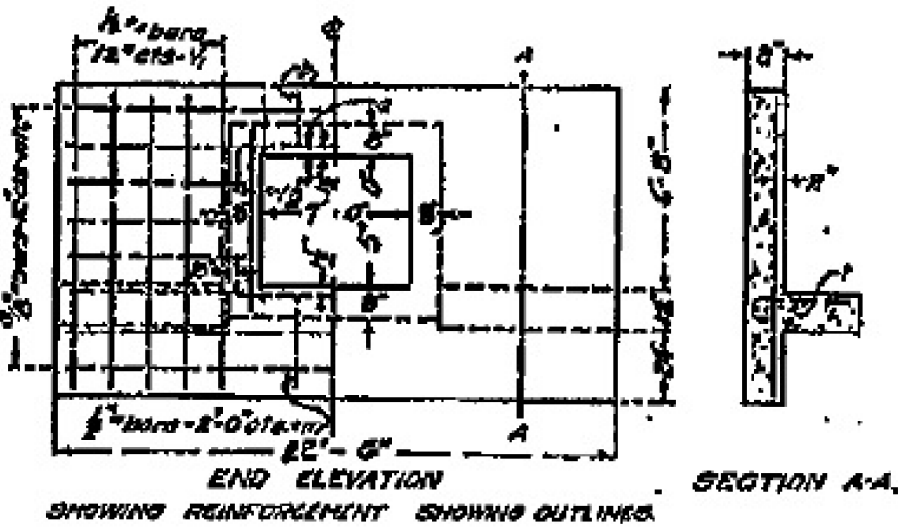
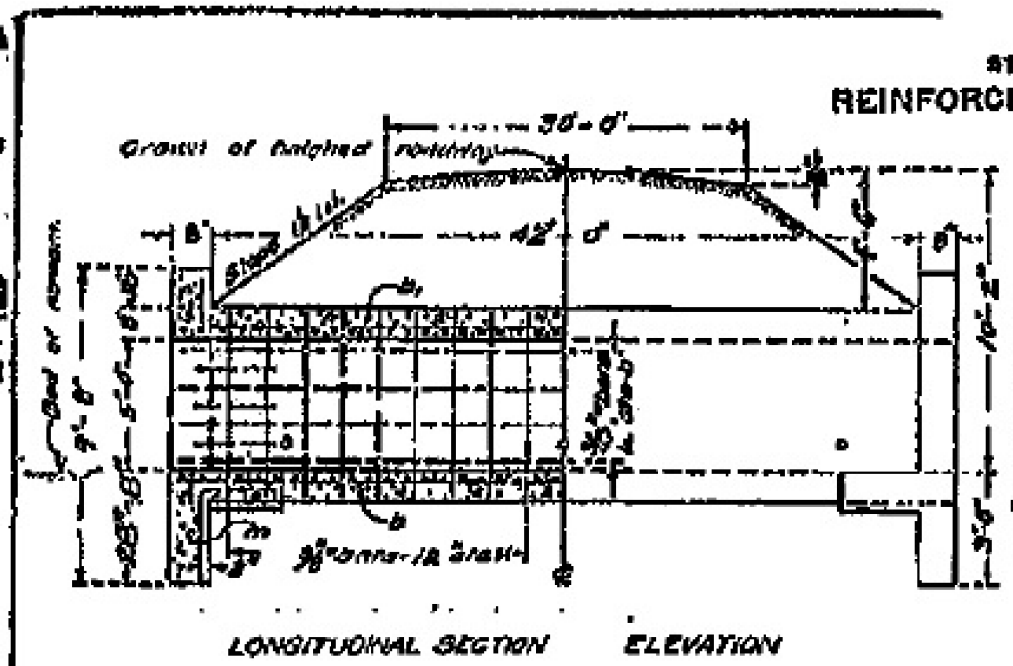
FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POROUS GRANULAR EMBANKMENT DETAIL PROPOSED BOX CULVERT LOC-5: S.N. 057-8230	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0578230\Design\0578230-shr-GPE_057-8230-REVISED	DRAWN	CHECKED -	REVISED -			1476	(55,55A)CR	McLEAN	130	61
PLOT SCALE = 2.0000' / in.		DATE -	REVISED -			CONTRACT NO. 70752				
MODELNAME	PLOT DATE = 8/7/2018		REVISED -			ILLINOIS FED. AID PROJECT				

NOTE: THIS AS-BUILT PLAN SHEET IS FROM THE ORIGINAL 1924 PLANS.

FOR INFORMATION ONLY

FOR INFORMATION ONLY

STATE OF ILLINOIS HIGHWAY DEPARTMENT
REINFORCED CONCRETE BOX CULVERT 2
 COUNTY: **MCLEAN** SEC. **55** STA. **271+80**



BILL OF MATERIAL.

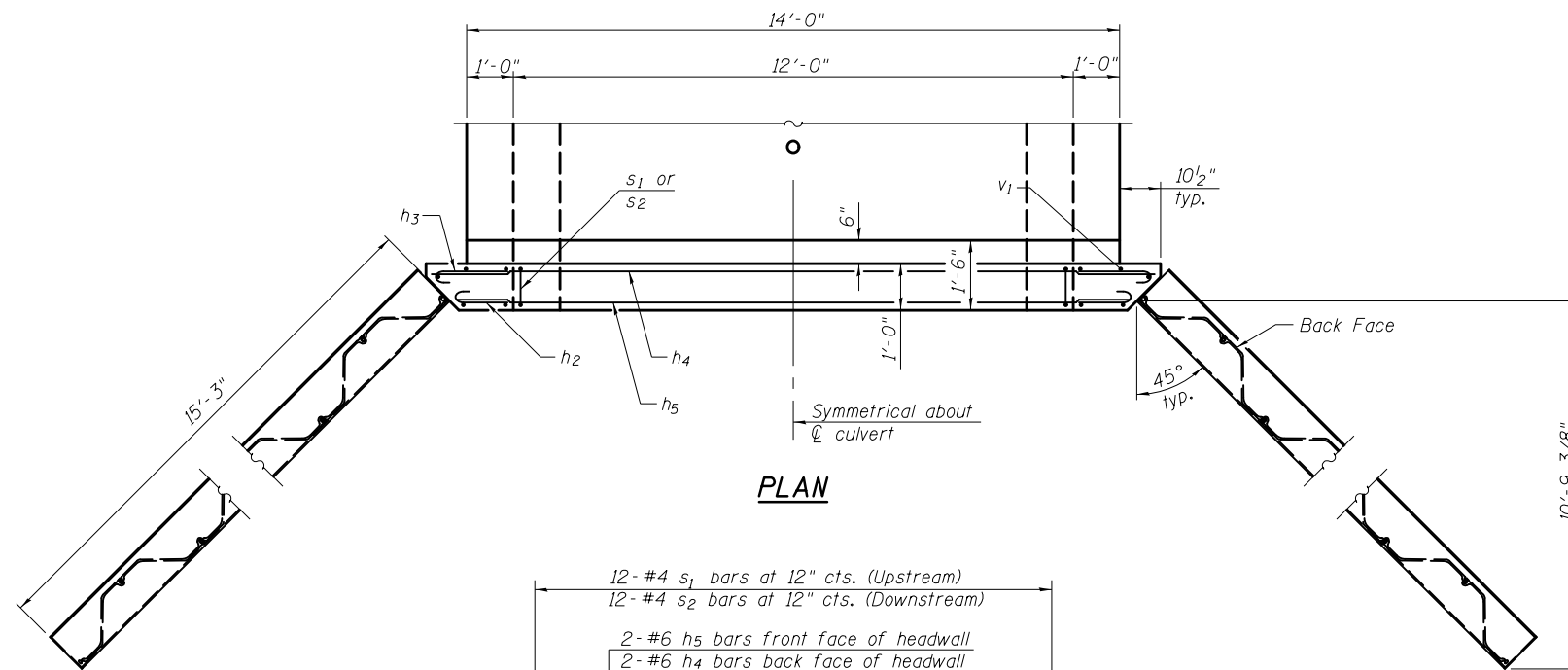
Grade	No.	Size	Length
1	14	#4	6'-0"
2	20	#4	9'-2"
3	6	#4	11'-0"
4	20	#4	11'-0"
5	20	#4	11'-0"
6	24	#4	11'-0"
7	24	#4	11'-0"
8	24	#4	11'-0"
9	24	#4	11'-0"
10	24	#4	11'-0"
11	24	#4	11'-0"
12	24	#4	11'-0"
13	24	#4	11'-0"
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15	24	#4	11'-0"
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86	24	#4	11'-0"
87	24	#4	11'-0"
88	24	#4	11'-0"
89	24	#4	11'-0"
90	24	#4	11'-0"
91	24	#4	11'-0"
92	24	#4	11'-0"
93	24	#4	11'-0"
94	24	#4	11'-0"
95	24	#4	11'-0"
96	24	#4	11'-0"
97	24	#4	11'-0"
98	24	#4	11'-0"
99	24	#4	11'-0"
100	24	#4	11'-0"

Steel - Lbs. 3760 lbs.
 Concrete - Cu Yds. 30.1

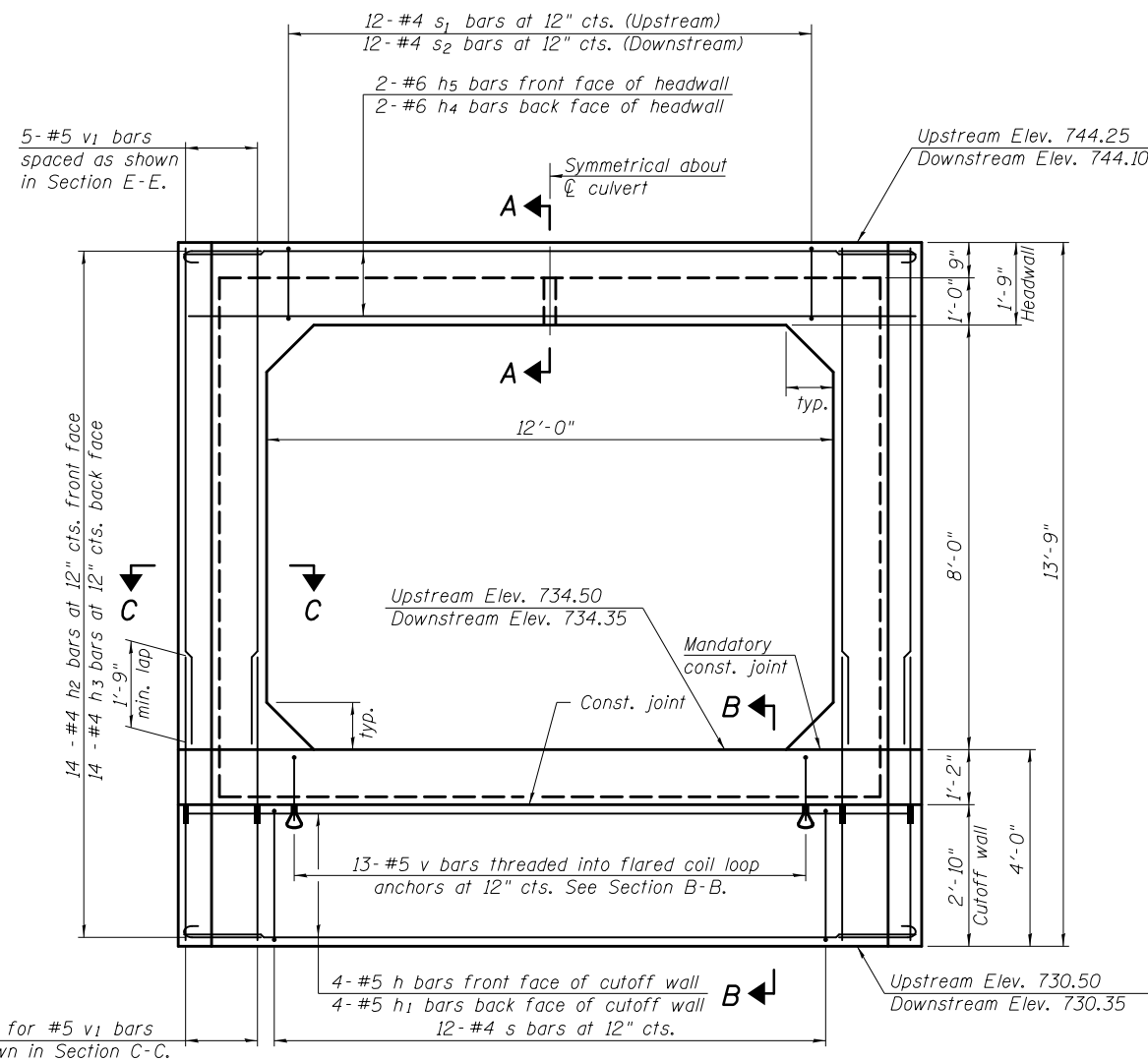
Class A concrete to be used throughout. Proportions 1:2:4. Use #4 bars in downstream headwall only.

STATE BOND ISSUE
 ROUTE 2, SECT. 55-A
 MCLEAN COUNTY
 STATION 271+80

DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 DATE: [Signature]



PLAN



END ELEVATION

(Wingwalls omitted in this view for clarity.)

Note:
 Reinforcement bars shall conform to the requirements of ASTM A706 GR. 60.
 The box culvert end section shall be built in the field and a precast option is not allowed except the cutoff wall may be precast. If the Contractor elects to use a precast cutoff wall, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval.
 Areas of the precast box culvert in contact with cast-in-place concrete shall be sandblasted, cleaned, and wetted prior to placing concrete in the field according to Article 503.09(b) of the Standard Specifications.
 The ends of the precast box sections adjacent to the end section shall be formed without male and female shapes.
 The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.
 Tilt h₂ and h₃ bars as required to maintain clearance. Extend precast concrete box culvert welded wire reinforcement into end section. Bend as necessary to provide 1 1/2" clear cover.
 See sheet 3 of 7 for Section A-A, B-B and C-C. See sheet 3 of 7 for additional wing wall details.

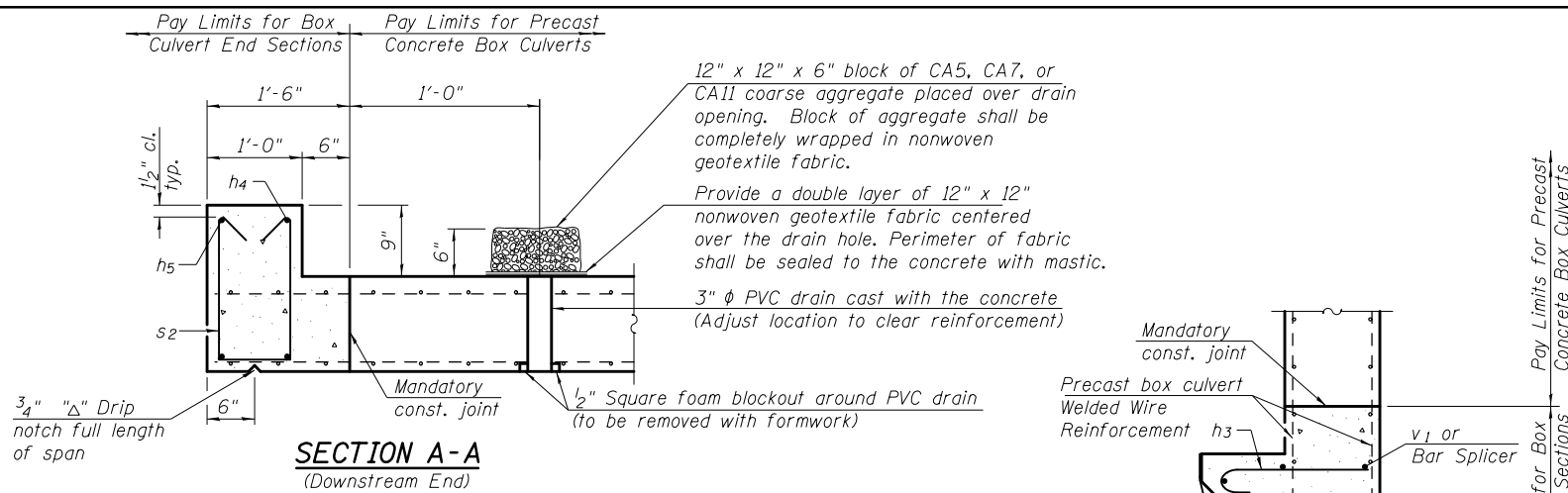
BILL OF MATERIAL

Item	Unit	Total
Box Culvert End Sections, Culvert No. 6	Each	2.0

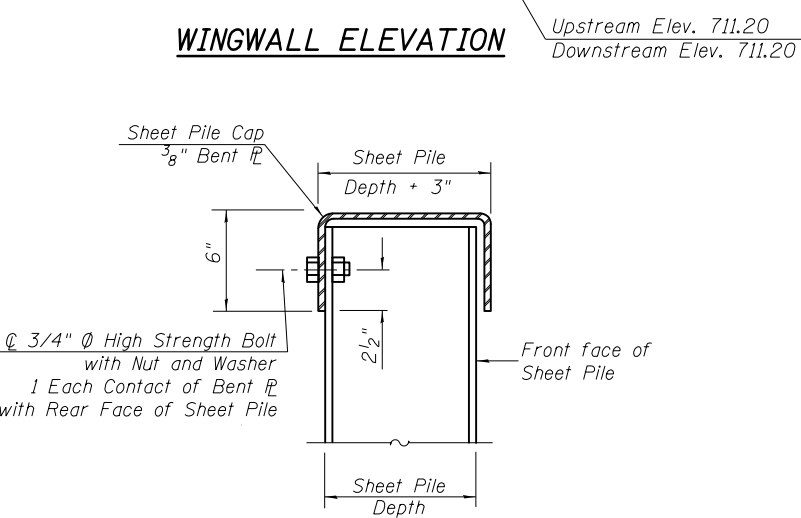
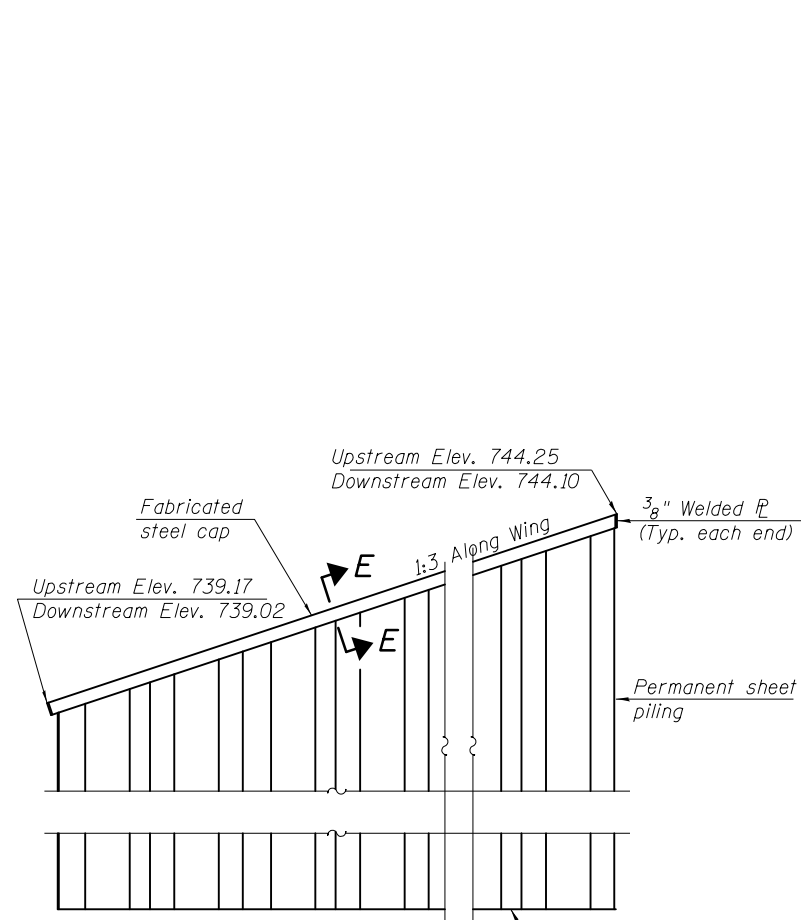
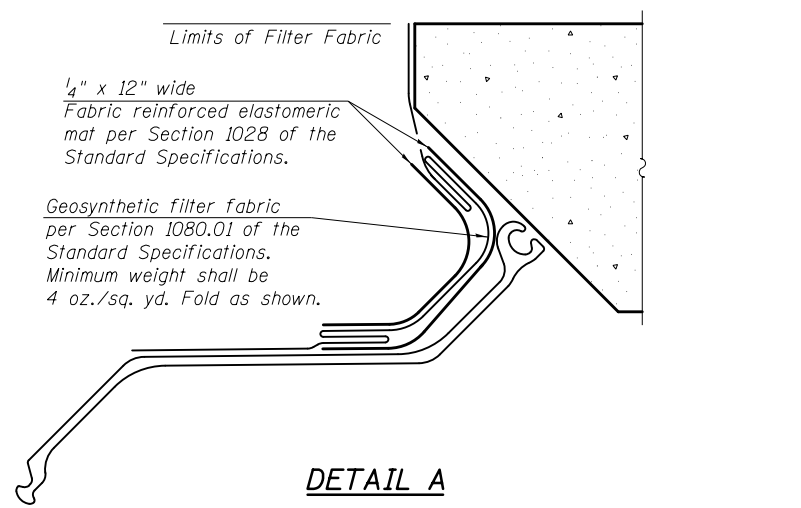
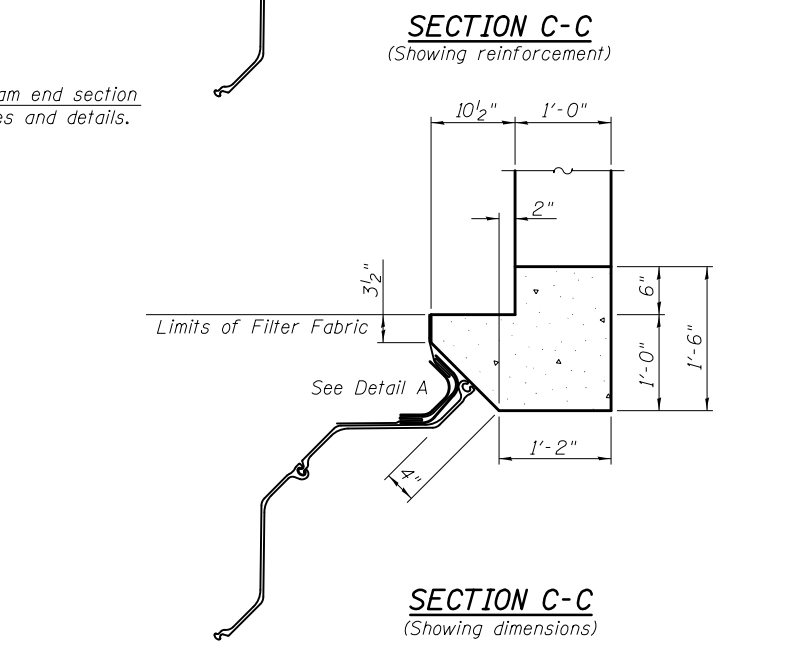
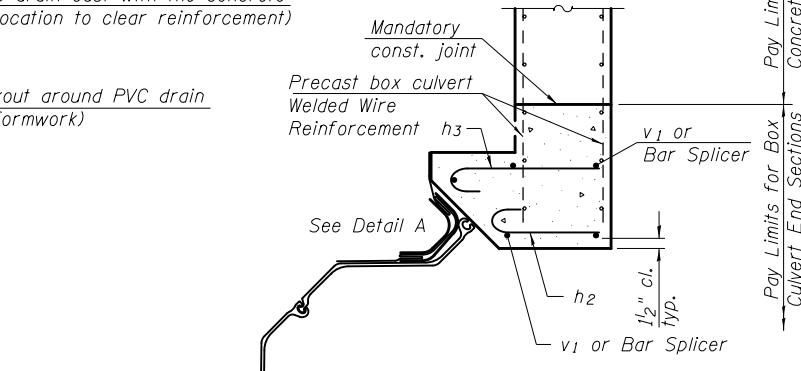
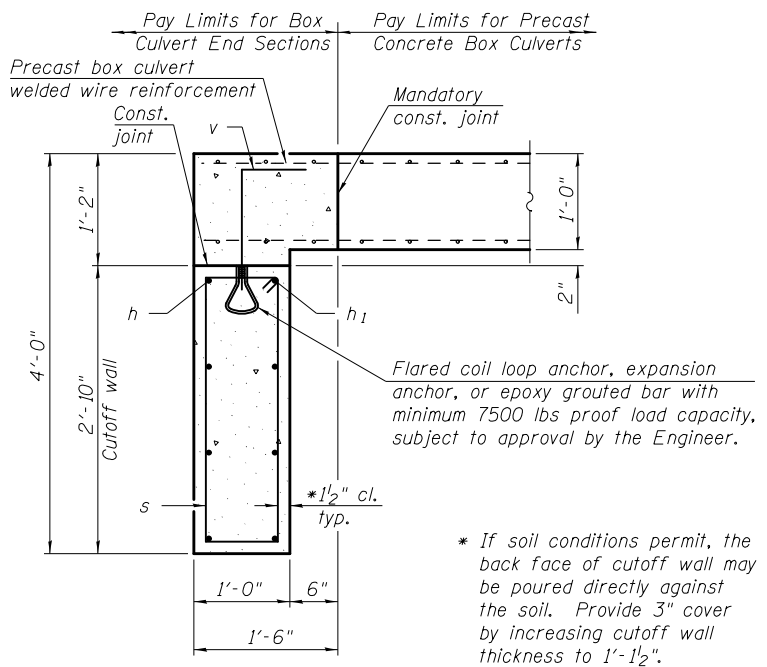
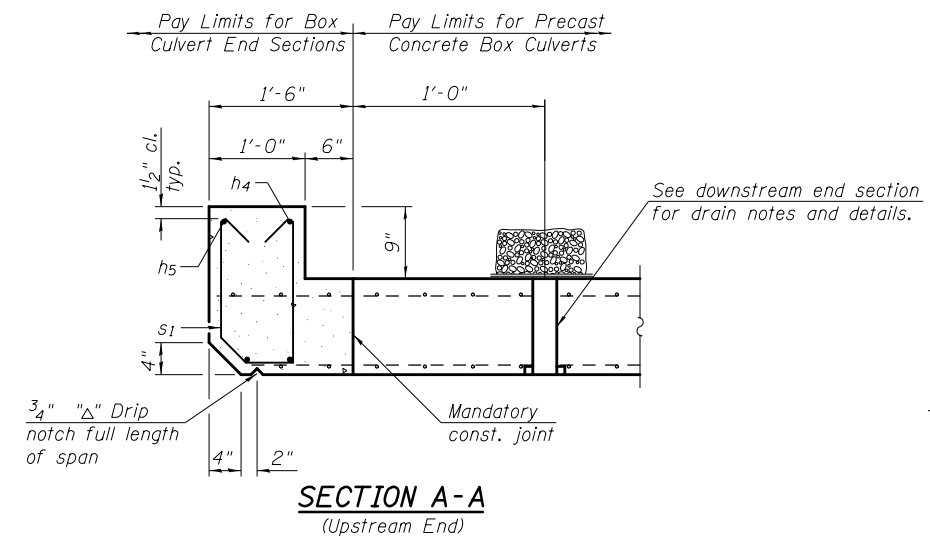
CIPES-SCB-PSSP-ZS 10-15-2016

(Sheet 1 of 2)

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BOX CULVERT END SECTION DETAILS PROPOSED BOX CULVERT LOC-6; S.N. 057-8231	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\057977\Drawings\Design\0570752-shr-GPE_057-8231	DRAWN	CHECKED -	REVISED -			1476	(55,55)ICR	McLEAN	130	65
MODELNAME	PLOT SCALE = 2.0000' / in.	DATE -	REVISED -			CONTRACT NO. 70752				
	PLOT DATE = 8/7/2018					ILLINOIS FED. AID PROJECT				



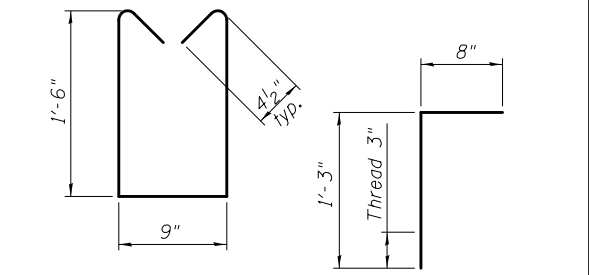
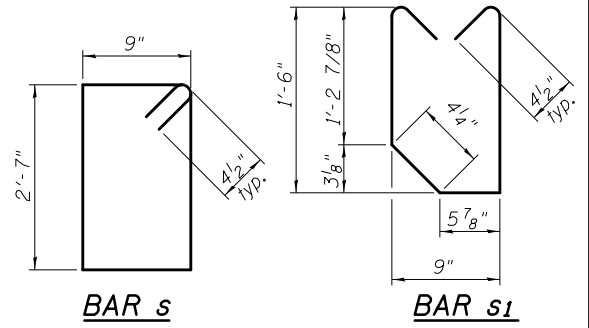
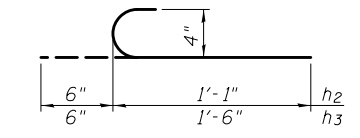
(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



Notes:
The minimum section modulus of the permanent sheet pile wall shall be 28in³/ft.
Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
The cost of furnishing and installing the fabricated steel cap, elastomeric mat, and filter fabric shall be included in the cost of the end section.

ONE END SECTION BILL OF MATERIAL
(For information only)

Bar	No.	Size	Length	Shape
h	4	#5	14'-2"	—
h1	4	#5	15'-6"	—
h2	28	#4	1'-7"	C
h3	28	#4	2'-0"	C
h4	2	#6	14'-2"	—
h5	2	#6	15'-6"	—
s	12	#4	7'-5"	□
s1	12	#4	4'-4"	□
s2	12	#4	4'-6"	□
v	13	#5	1'-11"	—
v1	10	#5	9'-6"	—
Concrete Box Culverts	Cu. Yd.		5.0	
Reinforcement Bars	Pound		510.0	
Bar Splicers	Each		10	
Permanent Sheet Piling - Wingwalls	Sq. Ft.		930	



CIPES-PSSP-ZS-DETAILS 10-15-2016

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -
p:\1\084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\057752-sh-GPE-057-2016-REVISED		CHECKED -	REVISED -
MODELNAME	PLOT DATE = 8/7/2018	DATE -	REVISED -

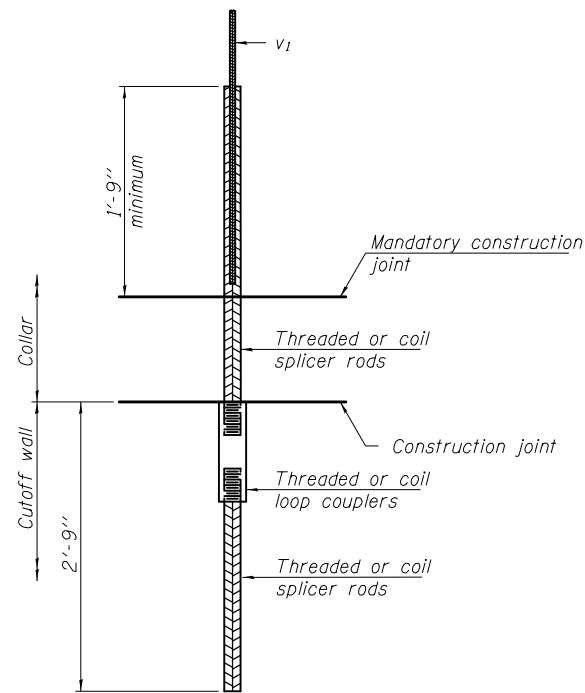
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
PROPOSED BOX CULVERT LOC-6: S.N. 057-8231

SCALE: SHEET 3 OF 7 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55,55A)CR	MCLEAN	130	66
CONTRACT NO. 70752			ILLINOIS FED. AID PROJECT	

(Sheet 2 of 2)

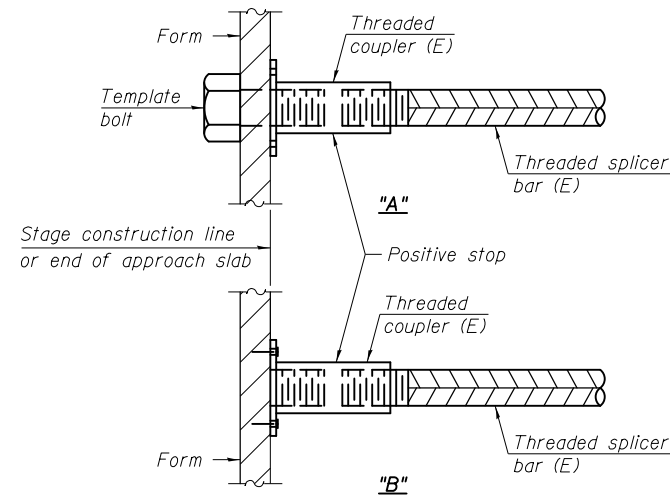


FOR BOX CULVERT END SECTIONS

Threaded splicer bar length = min. lap length + 1/2" + thread length

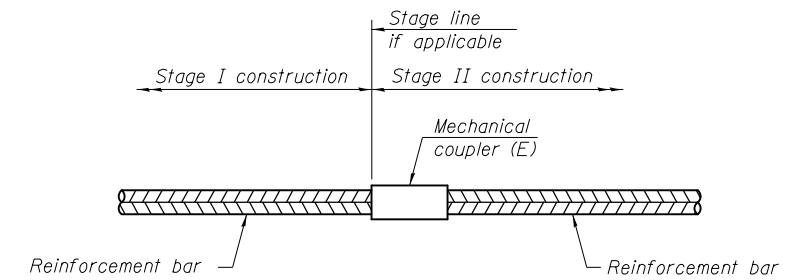
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Cutoff Wall	#5	20	1'-9"

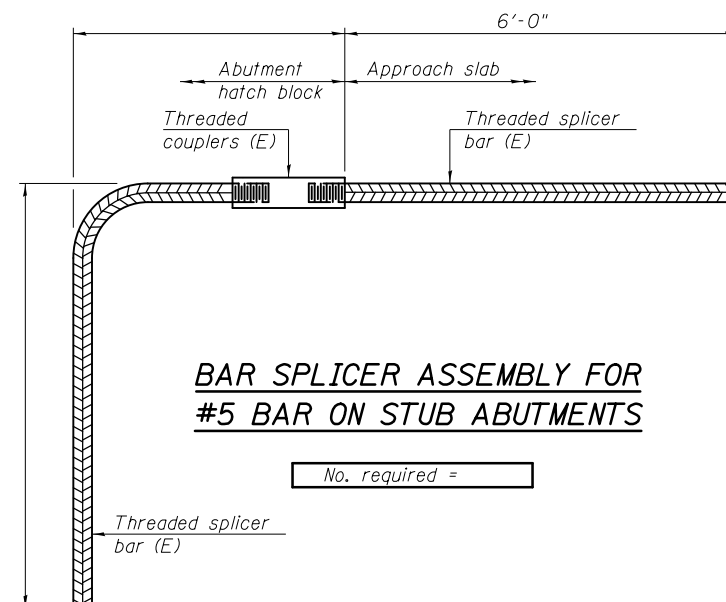


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

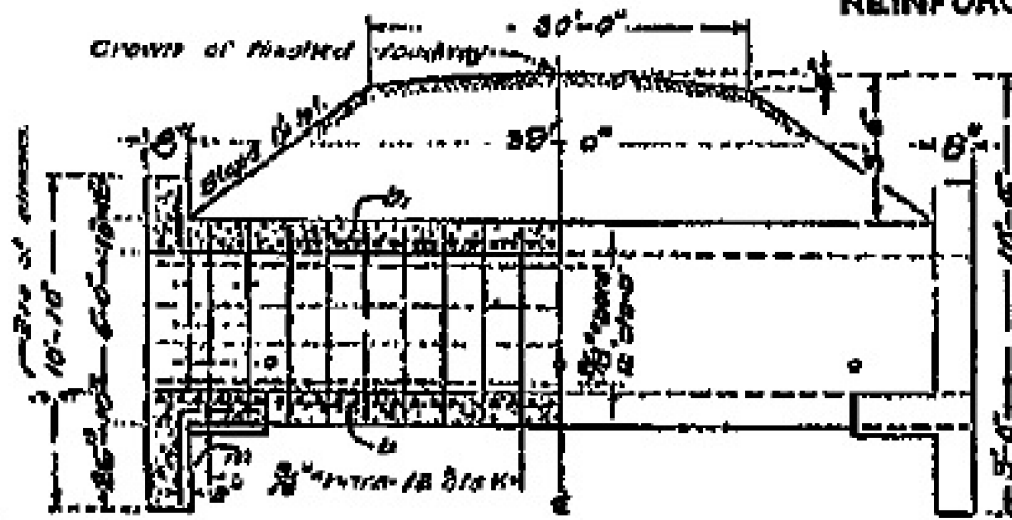
NOTE: THIS AS-BUILT PLAN SHEET IS FROM THE ORIGINAL 1924 PLANS.

FOR INFORMATION ONLY

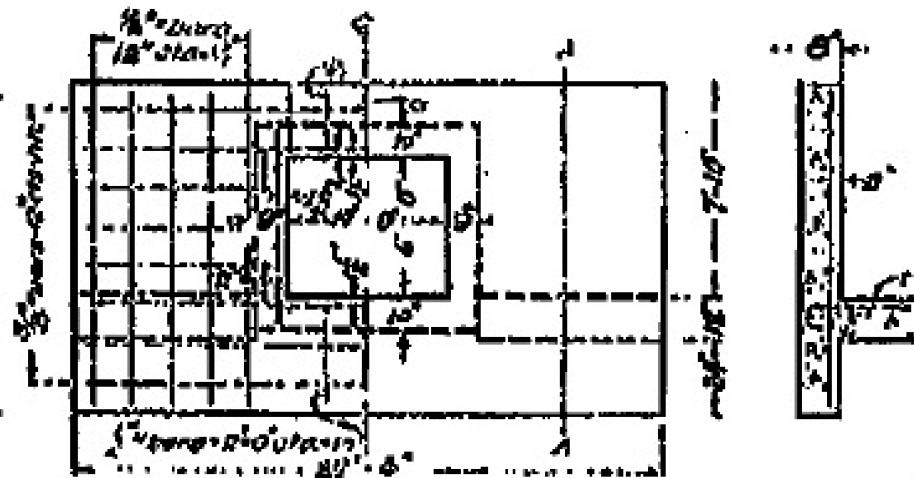
FOR INFORMATION ONLY

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
REINFORCED CONCRETE BOX CULVERT

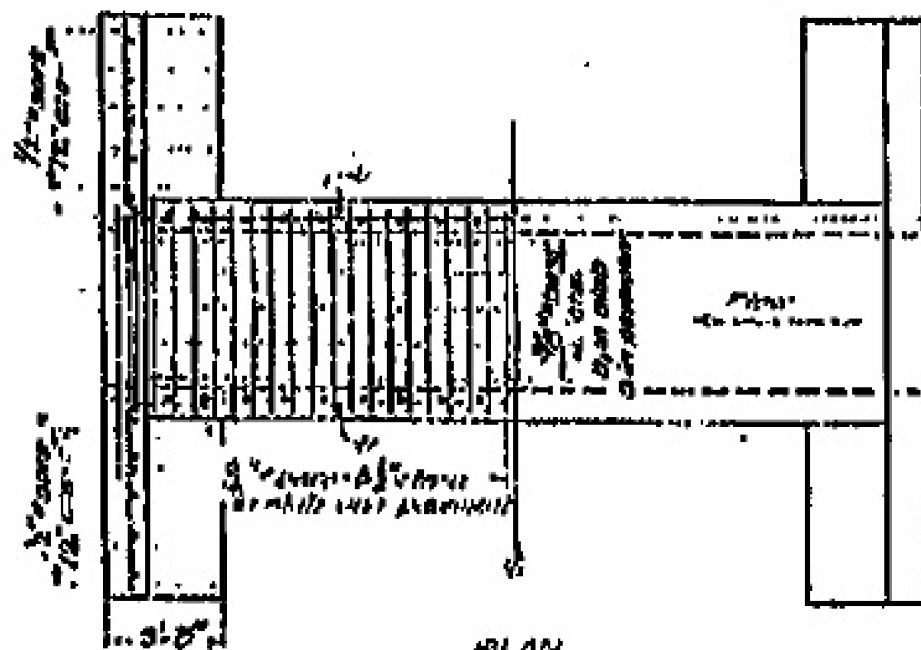
SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
55-A	MCLEAN	21	78



LONGITUDINAL SECTION ELEVATION



END ELEVATION
SHOWING REINFORCEMENT SHOWING OUTLINE



PLAN
SHOWING REINFORCEMENT, SHOWING OUTLINE

BILL OF MATERIAL

Bar	Size	Length	Quantity
1	1/2"	30'-0"	10
2	1/2"	5'-0"	10
3	3/8"	10'-0"	10
4	3/8"	5'-0"	10
5	1/2"	10'-0"	10
6	1/2"	5'-0"	10
7	3/8"	10'-0"	10
8	3/8"	5'-0"	10
9	1/2"	10'-0"	10
10	1/2"	5'-0"	10
11	3/8"	10'-0"	10
12	3/8"	5'-0"	10
13	1/2"	10'-0"	10
14	1/2"	5'-0"	10
15	3/8"	10'-0"	10
16	3/8"	5'-0"	10
17	1/2"	10'-0"	10
18	1/2"	5'-0"	10
19	3/8"	10'-0"	10
20	3/8"	5'-0"	10
21	1/2"	10'-0"	10
22	1/2"	5'-0"	10
23	3/8"	10'-0"	10
24	3/8"	5'-0"	10
25	1/2"	10'-0"	10
26	1/2"	5'-0"	10
27	3/8"	10'-0"	10
28	3/8"	5'-0"	10
29	1/2"	10'-0"	10
30	1/2"	5'-0"	10
31	3/8"	10'-0"	10
32	3/8"	5'-0"	10
33	1/2"	10'-0"	10
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96	3/8"	5'-0"	10
97	1/2"	10'-0"	10
98	1/2"	5'-0"	10
99	3/8"	10'-0"	10
100	3/8"	5'-0"	10

Class of concrete to be used throughout structure shall be 20,000 lb. per sq. in. compressive strength.

STATE BOND ISSUE
ROUTE 2, SECT. 55-A
MCLEAN COUNTY
STATION 289 + 80

1.43

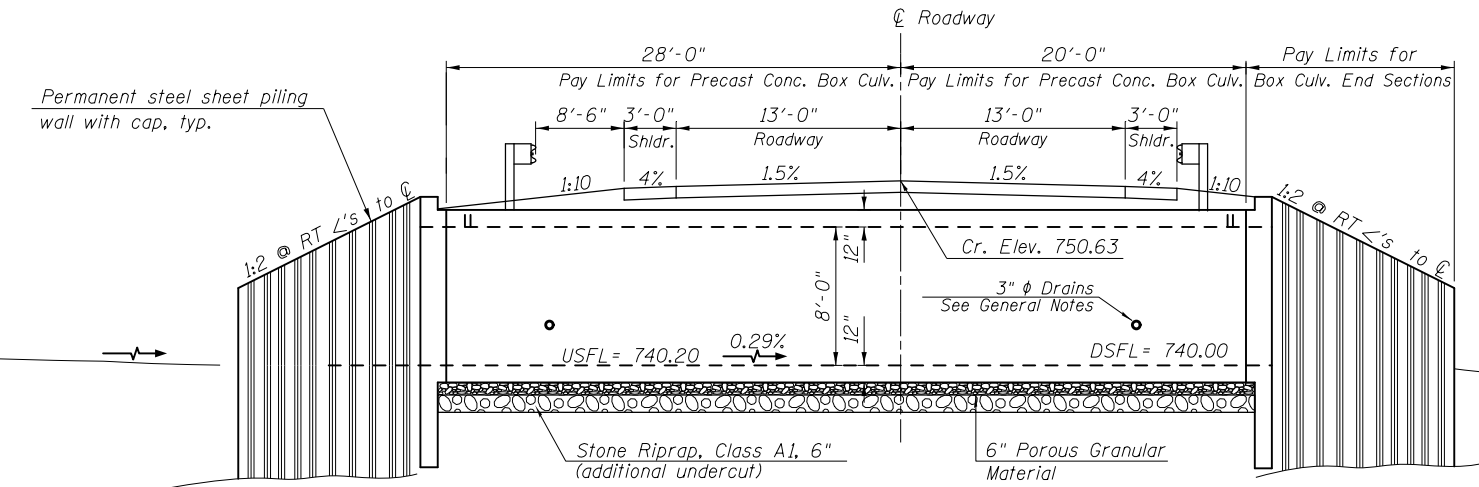
THOMAS J. SCHNEIDER
ENGINEER

003

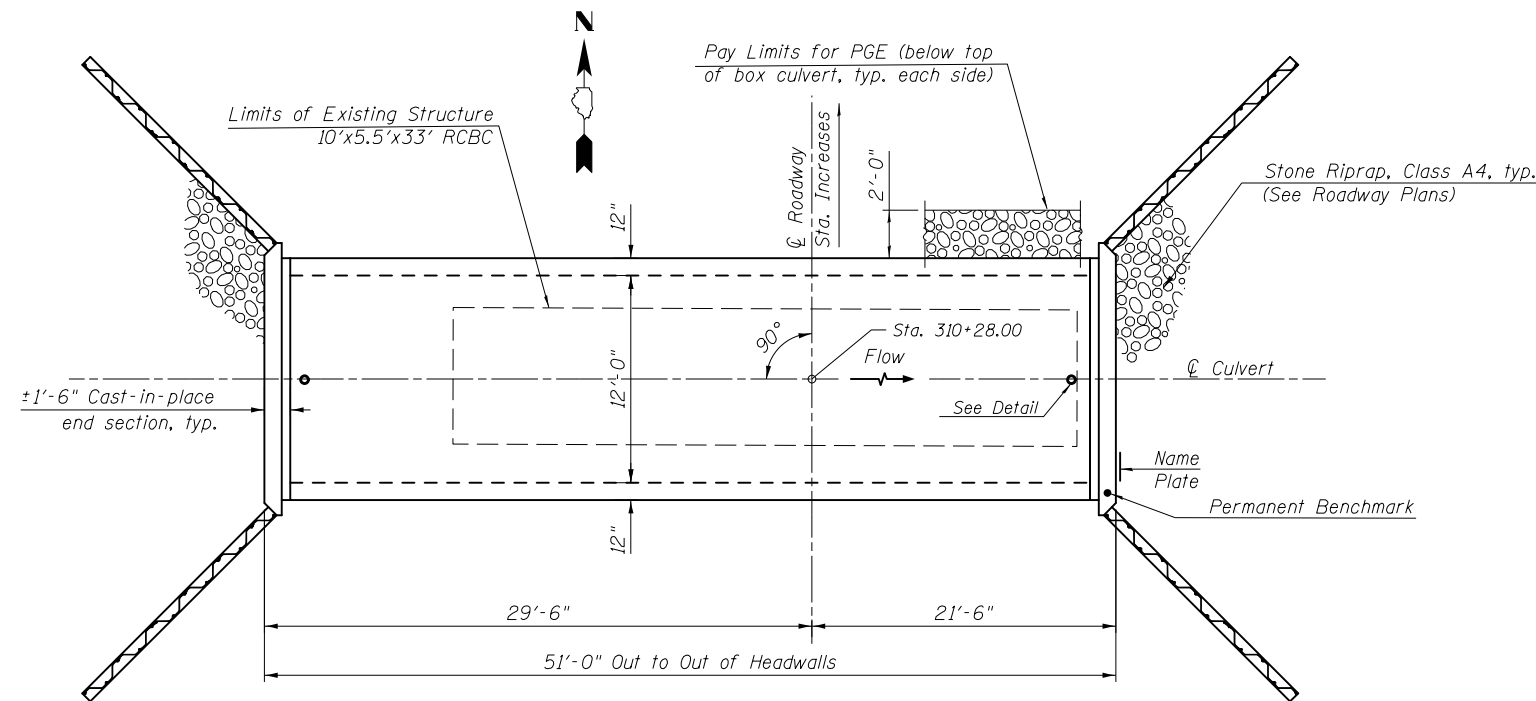
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pw\11084EBIDINTEG.111nois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\057\DRAWING\Design\0570752-shr-GPE_057		DRAWN -	REVISED -			1476	(55,55A)CR	MCLEAN	130	70	
PLOT SCALE = 2.0000 ' / in.		CHECKED -	REVISED -			CONTRACT NO. 70752					
\$MODELNAME\$		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
	PLOT DATE = 8/7/2018				SCALE:	SHEET 7 OF 7 SHEETS		STA.	TO STA.		

Benchmark: Chiseled square, NE corner on top of metal curb and gutter inlet for Knob Hill Dr.; Sta. 309+35.20, 42.45' LT, Elevation 750.97.

Existing Structure: S.N 057-8209 was constructed in 1925 at Sta. 310+39 as a single cell 10'x5.5' cast-in-place RC box culvert as part of F.A.S. Route 1476, Section (55,55A)CR. The existing structure is to be completely removed and replaced. The road is to be temporarily closed during construction.



ELEVATION



PLAN

WATERWAY INFORMATION

Existing Low Grade Elev. = 750.64 ft. @ Sta. 310+28		Proposed Low Grade Elev. = 750.64 ft. @ Sta. 310+28		Natural H.W.E.		Head - Ft.		Headwater Elevation	
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Existing	Proposed	Existing	Proposed	Existing	Proposed
	10	204	45	62		746.5	745.8		
Design	50	340	55	72		747.9	746.6		
Base	100	402	55	76		748.6	746.9		
Overtopping									
Max. Calc.	500	556	55	88		750.6	747.9		

10 YEAR VELOCITY THROUGH EXISTING BRIDGE = 5.2 ft/s

10 YEAR VELOCITY THROUGH PROPOSED BRIDGE = 3.4 ft/s

GENERAL NOTES

The design fill height for this box is < 1.3 feet. The precast box culvert sections shall conform to the requirements of ASTM C 1577. Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification. The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required. Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard. Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.

INDEX OF SHEETS

1. General Plan and Elevation
- 2-3. Box Culvert End Section Details
4. Bar Splicer Assembly Details
5. Porous Granular Embankment Detail
6. Soil Boring Logs

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition with 2013 interims

LOADING HL-93

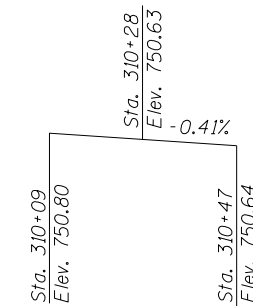
DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinforcement)

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 38,000 psi (Permanent Sheet Piling)
fy = 50,000 psi (AASHTO M270, Grade 50W)

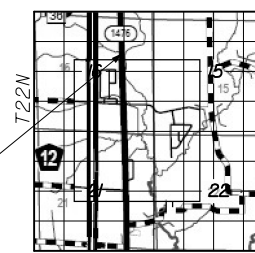


PROFILE GRADE

STATION 310+28.00
BUILT 2018 BY
STATE OF ILLINOIS
F.A.S. RT. 1476 SEC. (55,55A)CR
LOADING HL-93
STR. NO. 057-8232

NAME PLATE

See Std. 515001



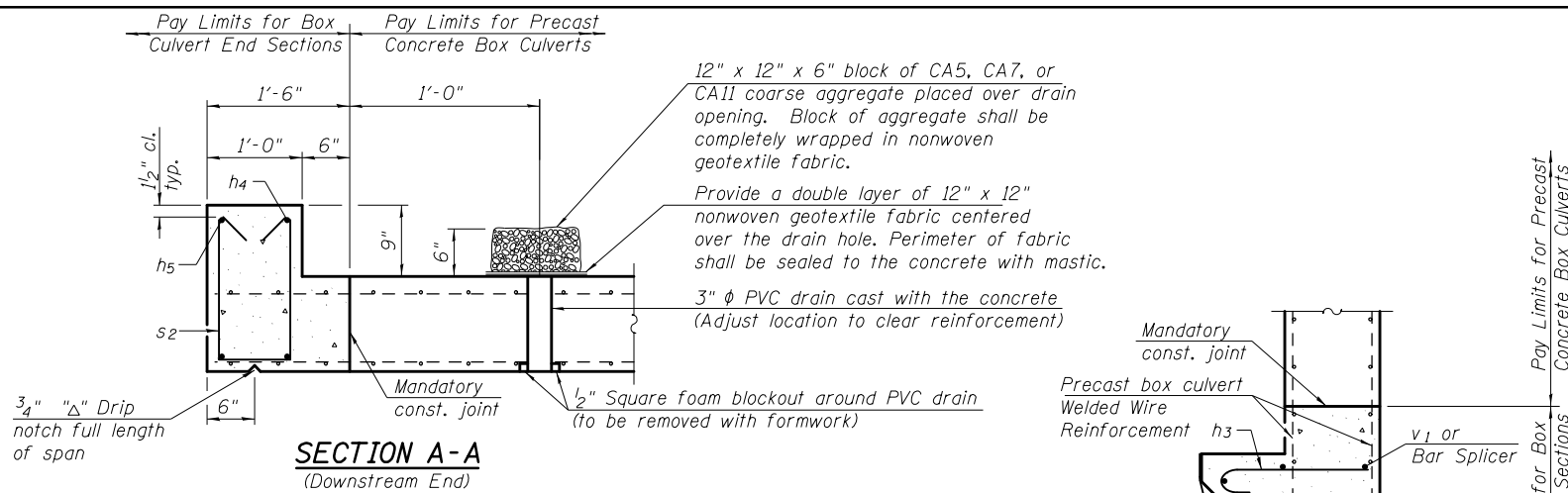
LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
SINGLE 12' X 8' PRECAST BOX CULVERT**

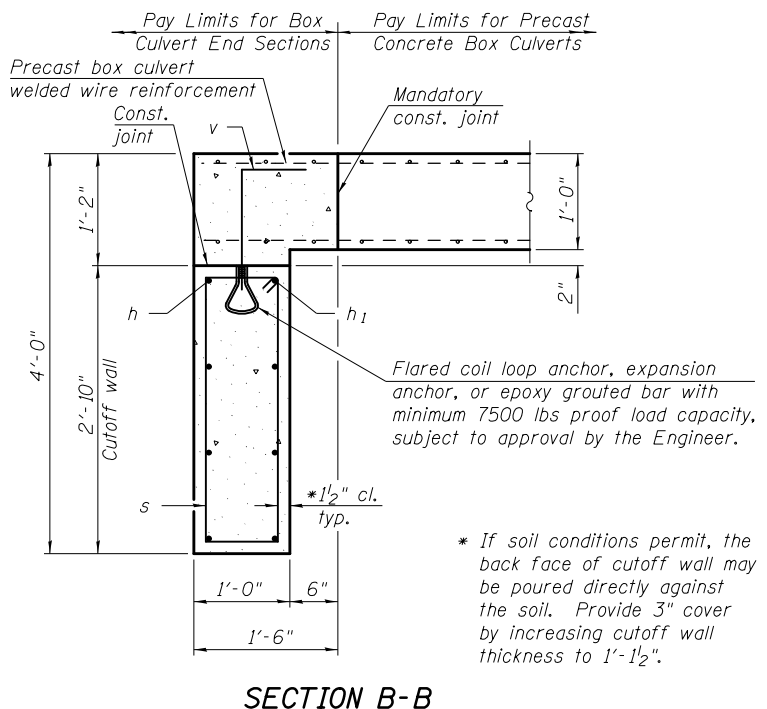
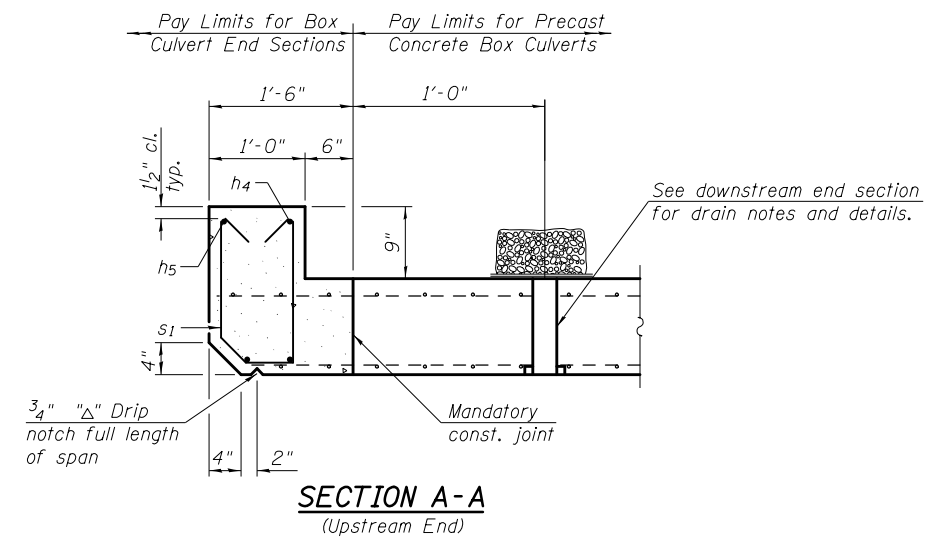
RTE. OLD US 51
F.A.S. RTE. 1476 SEC. (55,55A)CR
McLEAN COUNTY
STATION 310+28.00
S.N. 057-8232

TOTAL BILL OF MATERIAL

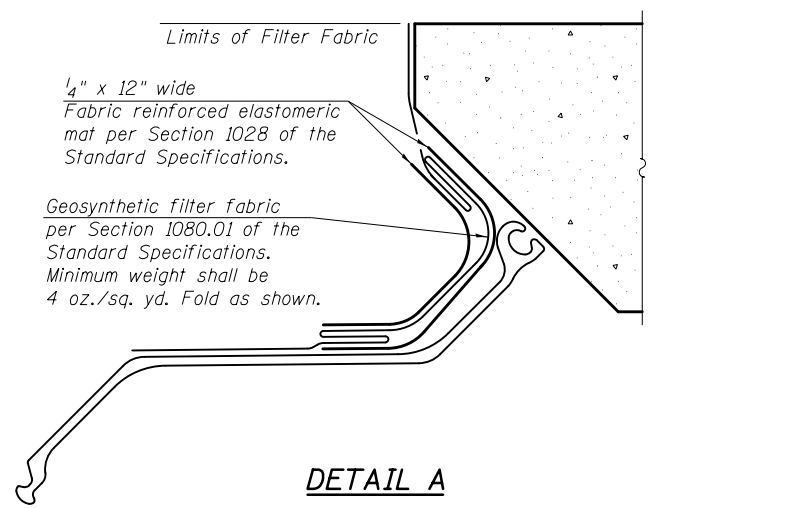
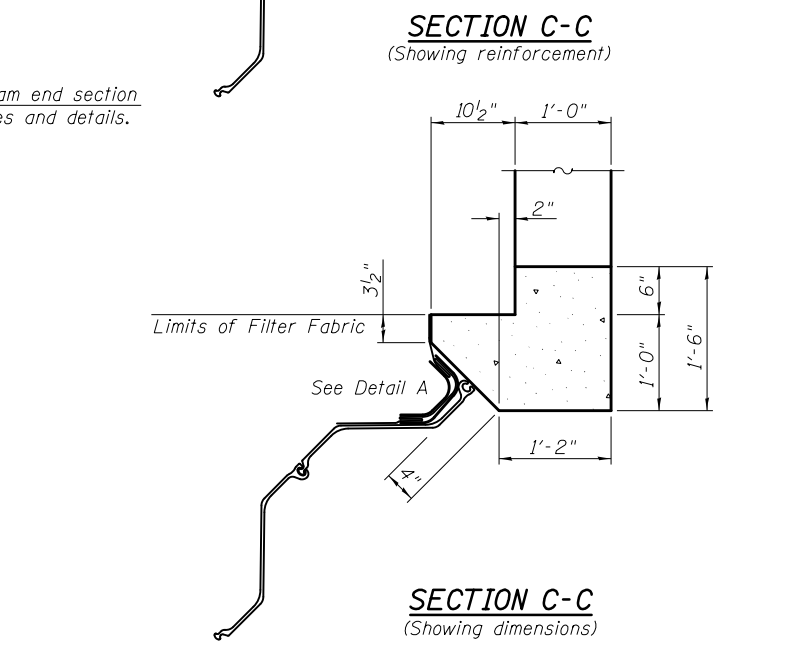
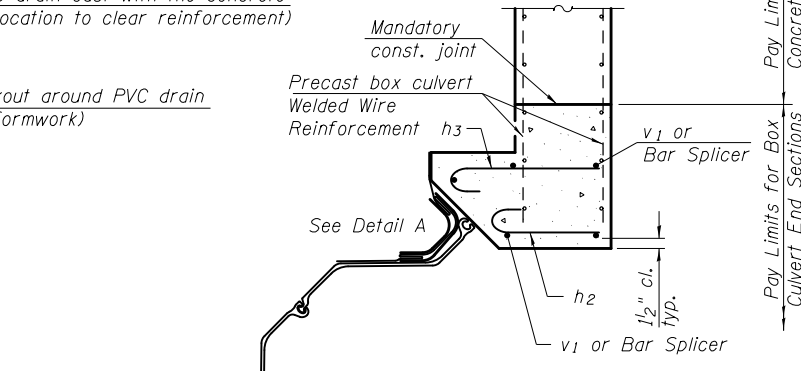
ITEM	UNIT	TOTAL
Removal of Existing Structures, No. 7	Each	1.0
Name Plates	Each	1.0
Box Culvert End Sections, Culvert No. 7	Each	2.0
Precast Concrete Box Culverts, 12' x 8'	Foot	48.0
Porous Granular Embankment	Cu. Yd.	192.0
Membrane Waterproofing System for Buried Str.	Sq. Yd.	86.0
Permanent Bench Marks	Each	1.0
Stone Riprap, Class A1	Ton	31.0



(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



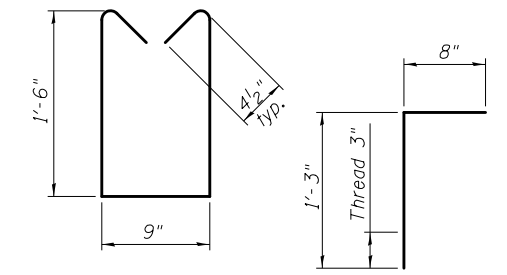
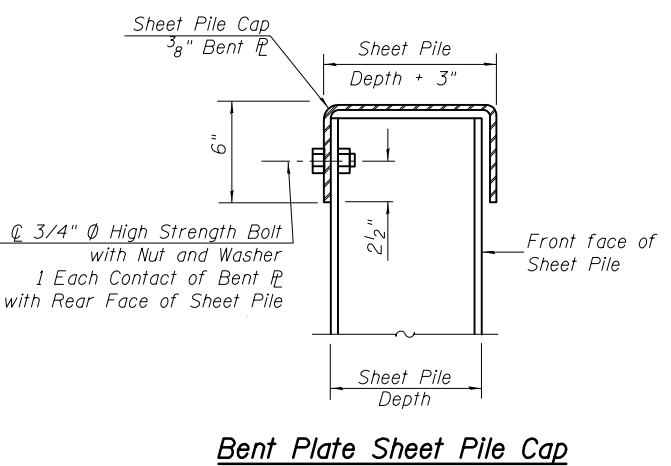
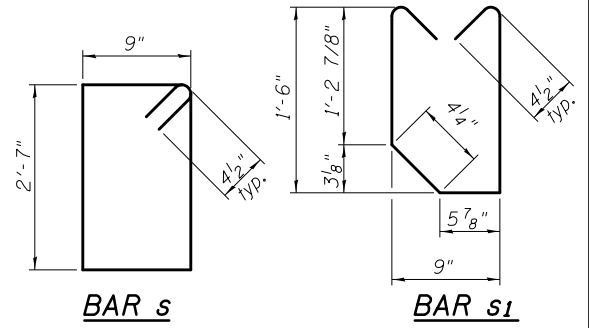
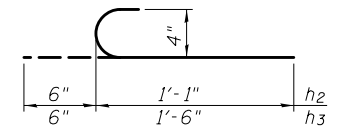
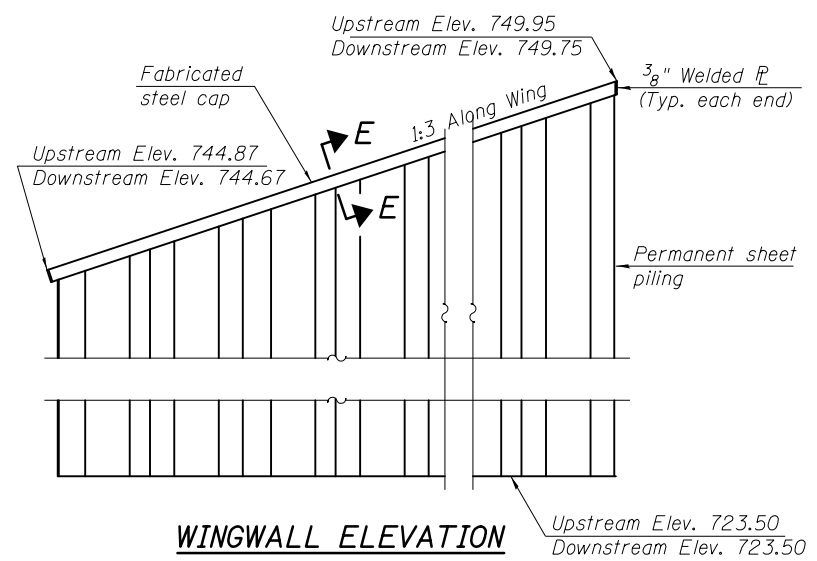
CIPES-PSSP-ZS-DETAILS 10-15-2016



Notes:
 The minimum section modulus of the permanent sheet pile wall shall be 28 in³/ft.
 Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
 The cost of furnishing and installing the fabricated steel cap, elastomeric mat, and filter fabric shall be included in the cost of the end section.

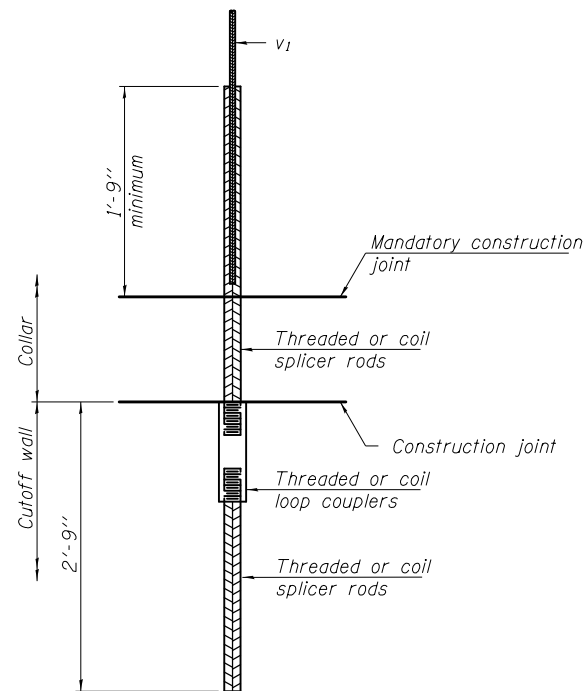
ONE END SECTION BILL OF MATERIAL
 (For information only)

Bar	No.	Size	Length	Shape
h	4	#5	14'-2"	—
h1	4	#5	15'-6"	—
h2	28	#4	1'-7"	C
h3	28	#4	2'-0"	C
h4	2	#6	14'-2"	—
h5	2	#6	15'-6"	—
s	12	#4	7'-5"	□
s1	12	#4	4'-4"	□
s2	12	#4	4'-6"	□
v	13	#5	1'-11"	—
v1	10	#5	9'-6"	—
Concrete Box Culverts	Cu. Yd.		5.0	
Reinforcement Bars	Pound		510.0	
Bar Splicers	Each		10	
Permanent Sheet Piling	Sq. Ft.		740	



Bent Plate Sheet Pile Cap
 SECTION E-E
 Cost Included with Permanent Steel Sheet Piling

BAR s2 **BAR v**
 (Sheet 2 of 2)

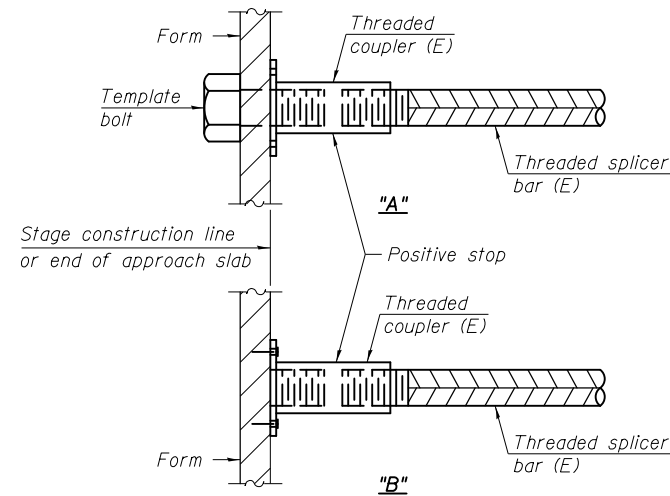


FOR BOX CULVERT END SECTIONS

Threaded splicer bar length = min. lap length + 1/2" + thread length

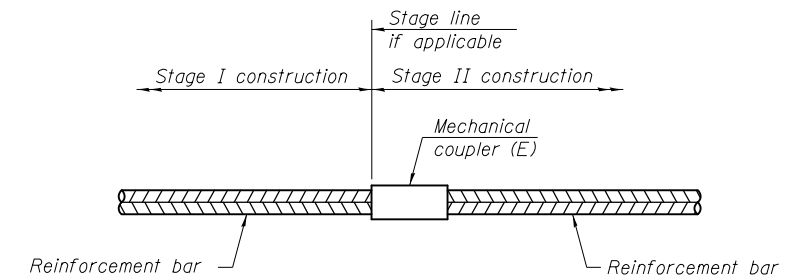
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Cutoff Wall	#5	20	1'-9"

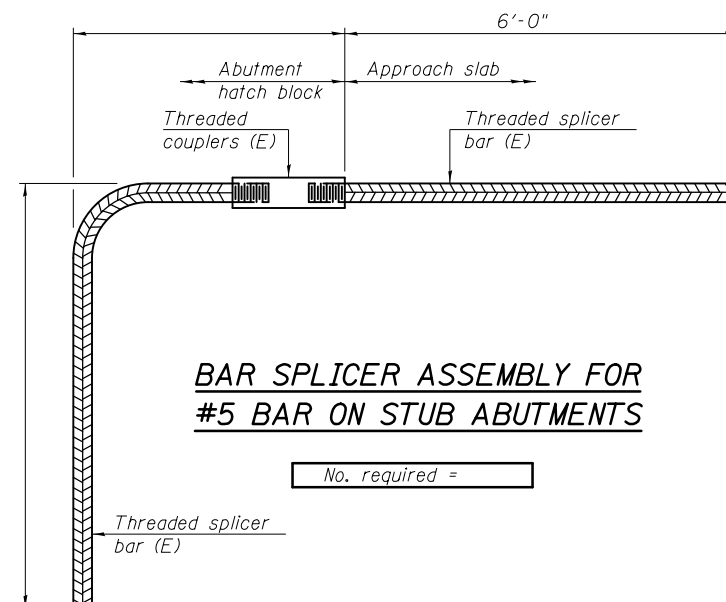


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

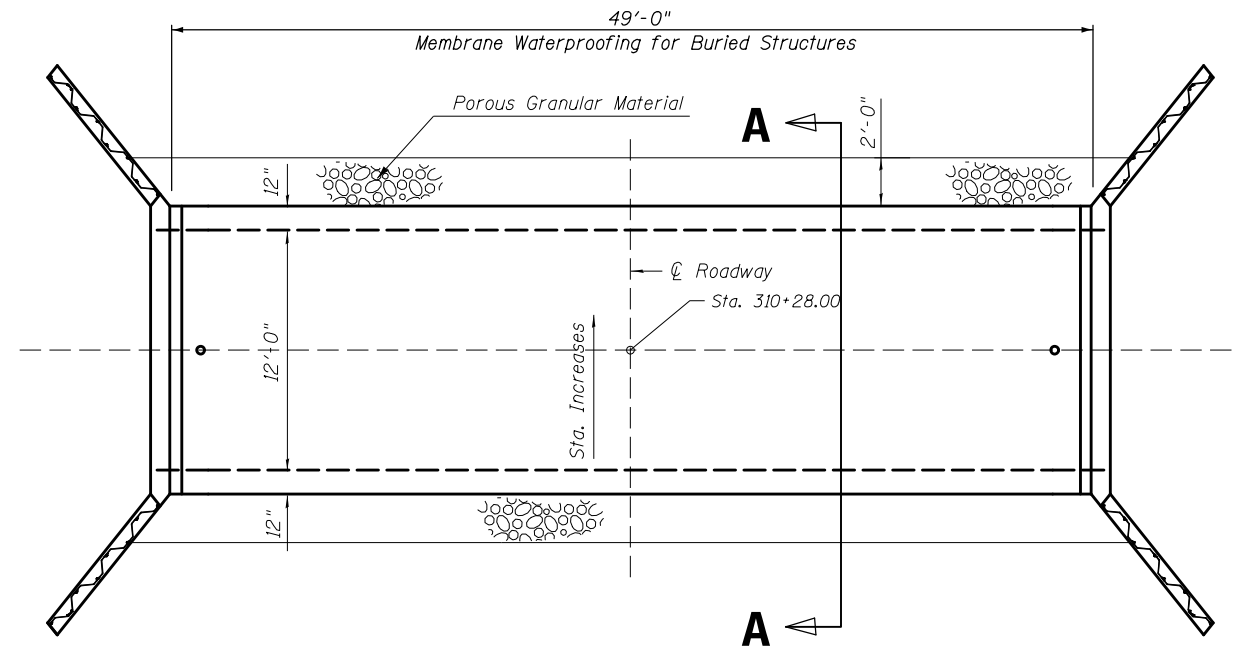


BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.



PLAN

STONE RIPRAP, CLASS A1

STONE RIPRAP, CLASS A1 SHALL BE USED DUE TO UNSTABLE SOIL CONDITIONS.

THE WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 281 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR STONE RIPRAP, CLASS A1.

THE EXCAVATION AND REMOVAL OF THE UNSUITABLE MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE PAY ITEM FOR STONE RIPRAP, CLASS A1.

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 5'-0" OUTSIDE OF THE EDGE OF SHOULDER

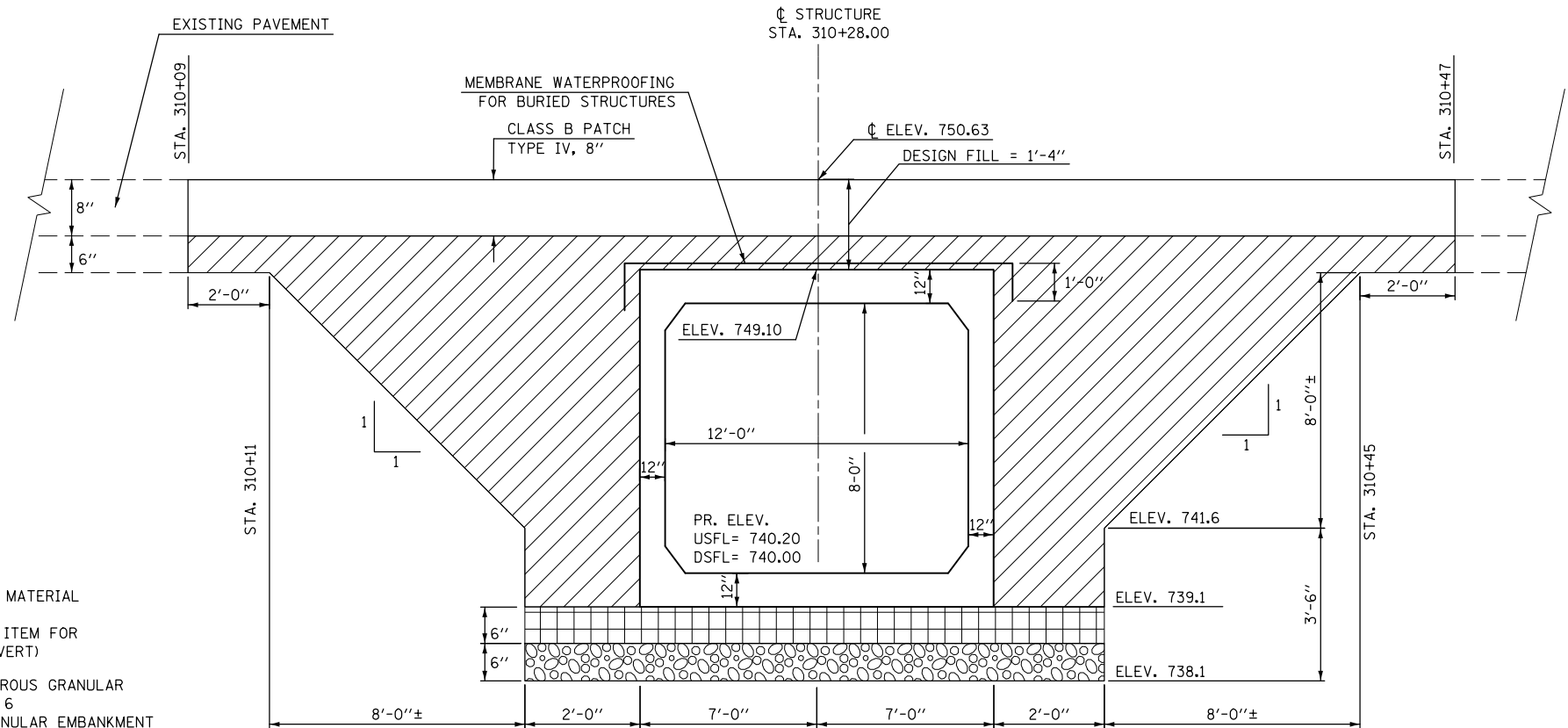
THE WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.




THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS.

MEMBRANE WATERPROOFING FOR BURIED STRUCTURES

SEE SPECIAL PROVISIONS



SECTION A-A

-  POROUS GRANULAR MATERIAL - CA 7 (6") (INCLUDED IN PAY ITEM FOR PRECAST BOX CULVERT)
-  PAY LIMITS OF POROUS GRANULAR EMBANKMENT - CA 6
NOTE: POROUS GRANULAR EMBANKMENT SHALL EXTEND 5'-0" OUTSIDE OF THE EDGE OF SHOULDER
-  ADDITIONAL UNDERCUT (6") (PAID FOR AS STONE RIPRAP, CLASS A1)

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POROUS GRANULAR EMBANKMENT DETAIL PROPOSED BOX CULVERT LOC-7: S.N. 057-8232	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\0570752-shr-GPE-057-8232	DRAWN	CHECKED	REVISED			1476	(55,55A)CR	McLEAN	130	75
MODELNAME	PLOT SCALE = 2.0000' / in.	DATE	REVISED			CONTRACT NO. 70752				
	PLOT DATE = 8/7/2018					ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 10/24/12

ROUTE FAS 1476 (Old Rt. 51) DESCRIPTION 3 Miles North of Heyworth @ 40.365945, 88.984506 LOGGED BY CNA
 SECTION (55, 55A)CR LOCATION NE, SEC. 16, TWP. 22N, RNG. 2E, 3rd PM GPS: 40.365898N, 88.984477W
 COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	DEPTH	BLOW	UCS	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	DEPTH	BLOW	UCS	M O I S T
		(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	ft		(ft)	(/6")	(tsf)	(%)
		750.5														
		748.5														
			1											2	1.4	18
			2		39									3		
			1											5	B	
		744.5														
			1													
			2	0.8	23											
			2	B												
		741.5														
			1											5		
			2	0.4	22									7	4.9	14
			2	B										10	B	
		737.5														
			2													
			3	1.6	12											
			3	B												
		732.5														
			3											6		
			4	2.0	26									8	2.5	12
			7	S										9	E	
			4													
			5	3.7	16											
			11	S												
		732.5														
			5													
			6	3.9	16											
			9	B												
			9	B												

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer E-Estimate)
 The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 10/24/12

ROUTE FAS 1476 (Old Rt. 51) DESCRIPTION 3 Miles North of Heyworth @ 40.365945, 88.984506 LOGGED BY CNA
 SECTION (55, 55A)CR LOCATION NE, SEC. 16, TWP. 22N, RNG. 2E, 3rd PM GPS: 40.366013N, 88.984561W
 COUNTY McLean DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	DEPTH	BLOW	UCS	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	DEPTH	BLOW	UCS	M O I S T
		(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	ft		(ft)	(/6")	(tsf)	(%)
		750.4														
		748.4														
			2													
			2	0.4	26											
			2	B												
		742.4														
			1													
			2	0.9	24											
			2	B												
		739.4														
			1													
			2	1.2	27											
			3	B												
		734.9														
			2													
			4	2.3	21											
			5	B												
		731.9														
			3													
			6	4.1	16											
			7	B												
		731.9														
			6													
			5	3.0	22											
			7	E												
			7	E												

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer E-Estimate)
 The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

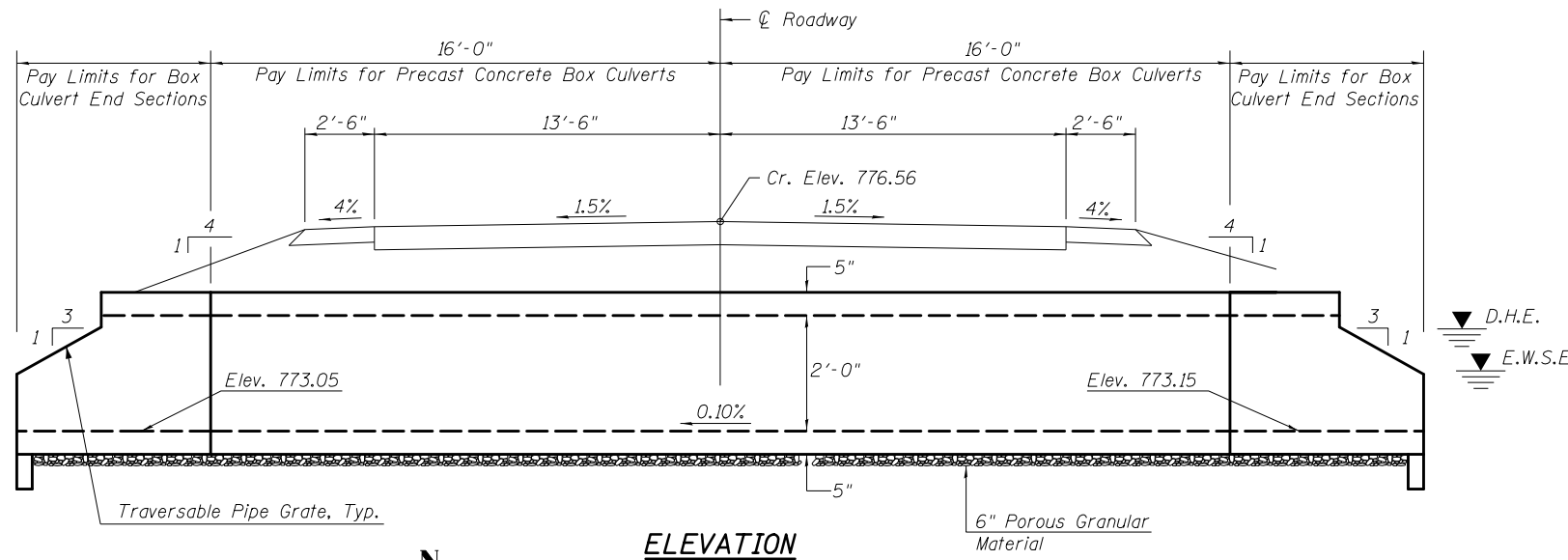
Existing Structure: SLD 1.34 is a 15" clay pipe culvert constructed at Sta. 365+75 in 1924, with 15" CMP extensions in 1957 as part of F.A.S. Route 1476, Section (55,55A)CR

INDEX OF SHEETS

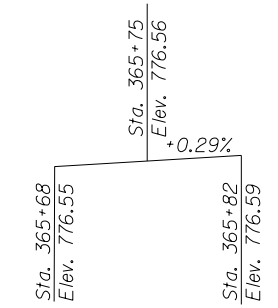
1. General Plan and Elevation
2. Precast Concrete Box Culvert End Section Details
3. Grating for Precast Box Culvert End Section
4. Porous Granular Embankment Detail

GENERAL NOTES

The design fill height for this box is < 0.8 feet. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
 Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.



ELEVATION



PROFILE GRADE

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
 6th Edition with 2013 Interims

LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

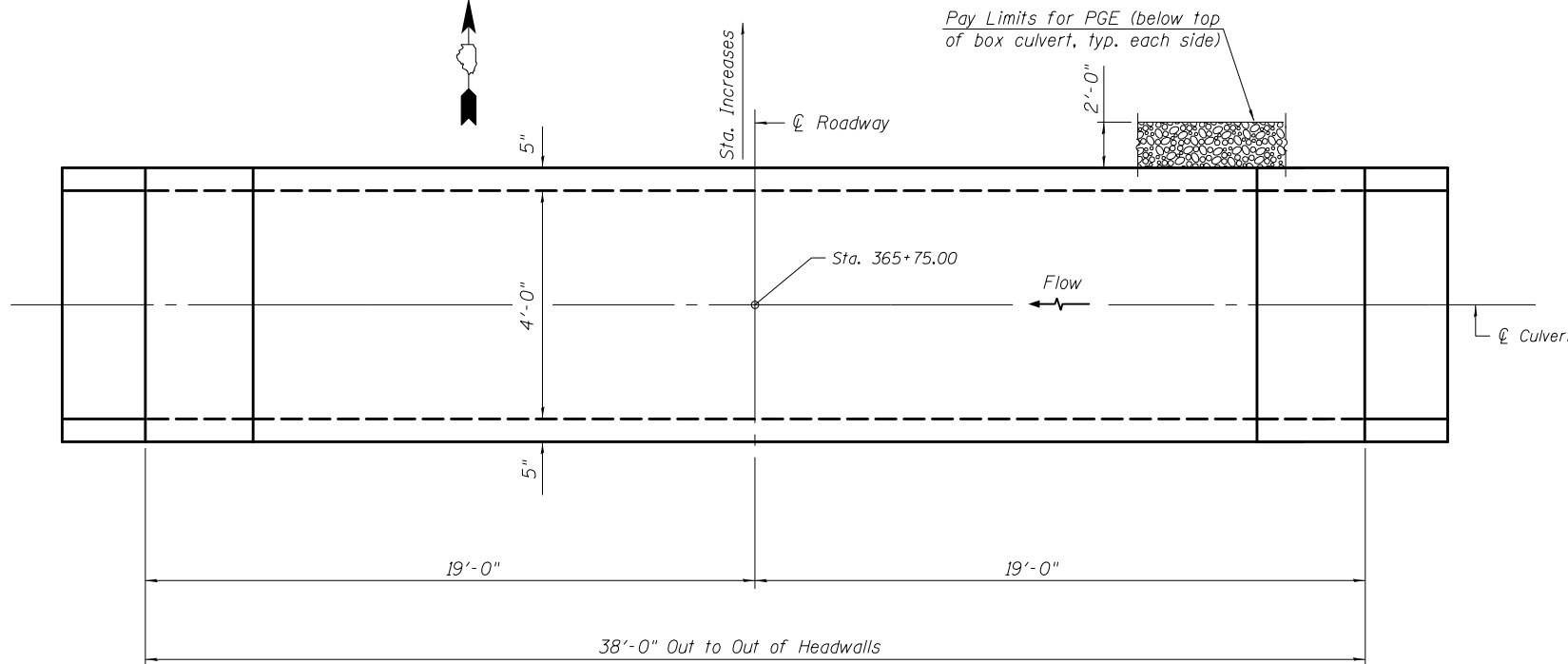
f'c = 5,000 psi
 fy = 65,000 psi (Welded Wire Reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 8	Each	1.0
Box Culvert End Sections, Culvert No. 8	Each	2.0
Precast Concrete Box Culverts, 4' x 2'	Foot	32.0
Porous Granular Embankment	Cu. Yd.	21.0
Membrane Waterproofing System for Buried Str.	Sq. Yd.	25.0
Traversable Pipe Grate	Foot	11.0

**GENERAL PLAN AND ELEVATION
 SINGLE 4' X 2' PRECAST BOX CULVERT**

**RTE. OLD US 51
 F.A.S. RTE. 1476 SEC. (55,55A)CR
 McLEAN COUNTY
 STATION 365+75.00
 S.L.D. 1.34**



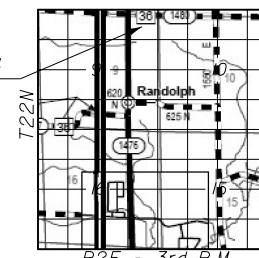
PLAN

WATERWAY INFORMATION

Drainage Area = 17.6 Acres		Existing Low Grade Elev. = 776.32 ft @ Sta. 362+00		Proposed Low Grade Elev. = 776.32 ft @ Sta. 362+00		Head - Ft.		Headwater Elevation	
Flood	Freq. Yr.	Q C.F.S.	Existing	Proposed	Natural H.W.E.	Existing	Proposed	Existing	Proposed
Design	10	25	1	8				Over	775.1
Base	50	36	1	8				Over	775.6
Overtopping	100	43	1	8				Over	776.0
Max. Calc.	500	62	1	8				Over	Over

10 YEAR VELOCITY THROUGH EXISTING BRIDGE Unknown
 10 YEAR VELOCITY THROUGH PROPOSED BRIDGE 4.04 ft/s
 ALL-TIME H.W.E. & DATE: Unknown

PR. Box Culvert - S.L.D. 1.34
 Sta. 365+75.00



LOCATION SKETCH

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
 PROPOSED BOX CULVERT LOC-8: S.L.D. 1.34**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55,55A)CR	McLEAN	130	77

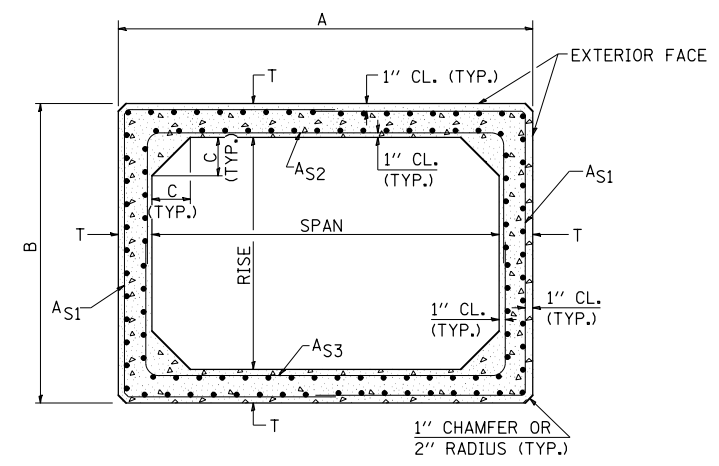
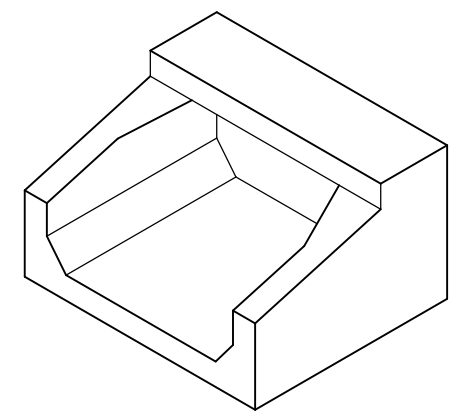
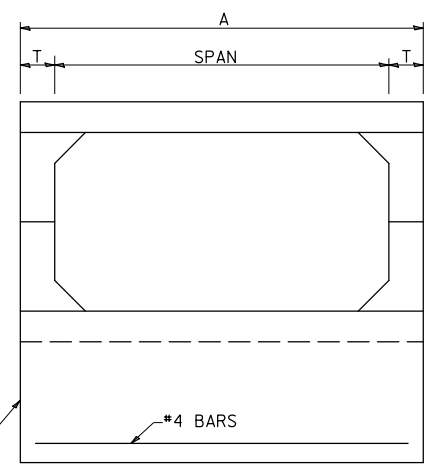
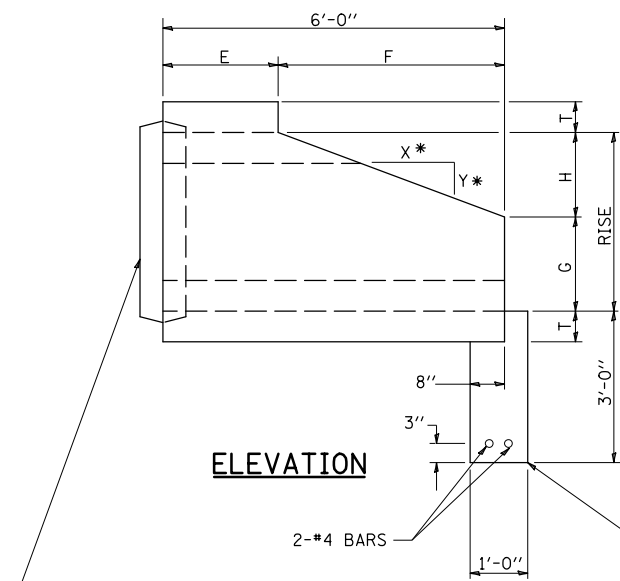
CONTRACT NO. 70752
 ILLINOIS FED. AID PROJECT

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -
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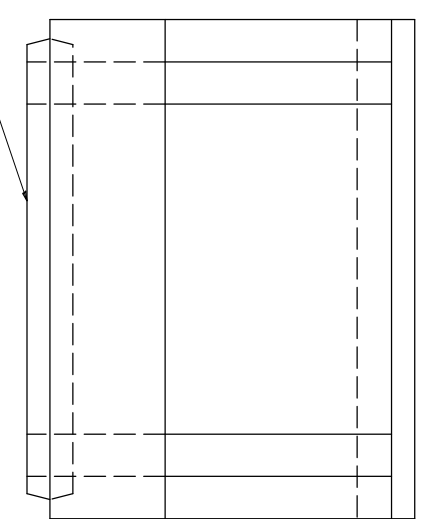
SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

DIMENSIONS

SPAN X RISE	T (INCHES)	A (FT.-IN.)	B (FT.-IN.)	C (INCHES)	E (FT.-IN.)	F (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	SLOPE (Y:X)
2' X 2'	4	2-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 2'	4	3-8	2-8	4	3-0	3-0	1-0	1-0	1:3
3' X 3'	4	3-8	3-8	4	2-0	4-0	1-8	1-4	1:3
4' X 2'	5	4-10	2-10	5	3-0	3-0	1-0	1-0	1:3
4' X 3'	5	4-10	3-10	5	2-0	4-0	1-8	1-4	1:3
4' X 4'	5	4-10	4-10	5	2-0	4-0	2-0	2-0	1:2
5' X 2'	6	6-0	3-0	6	3-0	3-0	1-0	1-0	1:3
5' X 3'	6	6-0	4-0	6	2-0	4-0	1-8	1-4	1:3
5' X 4'	6	6-0	5-0	6	2-0	4-0	2-0	2-0	1:2
5' X 5'	6	6-0	6-0	6					
6' X 2'	7	7-2	3-2	7	3-0	3-0	1-0	1-0	1:3
6' X 3'	7	7-2	4-2	7	2-0	4-0	1-8	1-4	1:3
6' X 4'	7	7-2	5-2	7	2-0	4-0	2-0	2-0	1:2
6' X 5'	7	7-2	6-2	7	2-0	4-0	3-0	2-0	1:2
6' X 6'	7	7-2	7-2	7	2-0	4-0	4-0	2-0	1:2
7' X 4'	8	8-4	5-4	8	2-0	4-0	2-0	2-0	1:2
7' X 5'	8	8-4	6-4	8	2-0	4-0	3-0	2-0	1:2
7' X 6'	8	8-4	7-4	8	2-0	4-0	4-0	2-0	1:2
7' X 7'	8	8-4	8-4	8	2-0	4-0	5-0	2-0	1:2
8' X 4'	8	9-4	5-4	8	2-0	4-0	2-0	2-0	1:2
8' X 5'	8	9-4	6-4	8	2-0	4-0	3-0	2-0	1:2
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8' X 8'	8	9-4	9-4	8	2-0	4-0	6-0	2-0	1:2
9' X 5'	9	10-6	6-6	9	2-0	4-0	3-0	2-0	1:2
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9' X 8'	9	10-6	9-6	9	2-0	4-0	6-0	2-0	1:2
9' X 9'	9	10-6	10-6	9	2-0	4-0	7-0	2-0	1:2
10' X 5'	10	11-8	6-8	10	2-0	4-0	3-0	2-0	1:2
10' X 6'	10	11-8	7-8	10	2-0	4-0	4-0	2-0	1:2
10' X 7'	10	11-8	8-8	10	2-0	4-0	5-0	2-0	1:2
10' X 8'	10	11-8	9-8	10	2-0	4-0	6-0	2-0	1:2
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10' X 10'	10	11-8	11-8	10	2-0	4-0	8-0	2-0	1:2
11' X 4'	11	12-10	5-10	11	2-0	4-0	2-0	2-0	1:2
11' X 6'	11	12-10	7-10	11	2-0	4-0	4-0	2-0	1:2
11' X 8'	11	12-10	9-10	11	2-0	4-0	6-0	2-0	1:2
11' X 10'	11	12-10	11-10	11	2-0	4-0	8-0	2-0	1:2
11' X 11'	11	12-10	12-10	11	2-0	4-0	9-0	2-0	1:2
12' X 4'	12	14-0	6-0	12	2-0	4-0	2-0	2-0	1:2
12' X 6'	12	14-0	8-0	12	2-0	4-0	4-0	2-0	1:2
12' X 8'	12	14-0	10-0	12	2-0	4-0	6-0	2-0	1:2
12' X 10'	12	14-0	12-0	12	2-0	4-0	8-0	2-0	1:2
12' X 12'	12	14-0	14-0	12	2-0	4-0	10-0	2-0	1:2



END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX OR HEADWALL)



PLAN

CROSS SECTION

END VIEW

ISOMETRIC

“NON-STANDARD PRECAST CONCRETE BOX CULVERT (ASTM) DESIGNS”; STANDARD PCBC (ASTM) DESIGNS ARE PREFERRED.

GENERAL NOTES

SHOP DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 1042.03(b) OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH SECTION 1055 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS AS1, AS2, & AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM C1577. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO M55-81.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

STD. 9-50 (FROM DISTRICT 9)

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

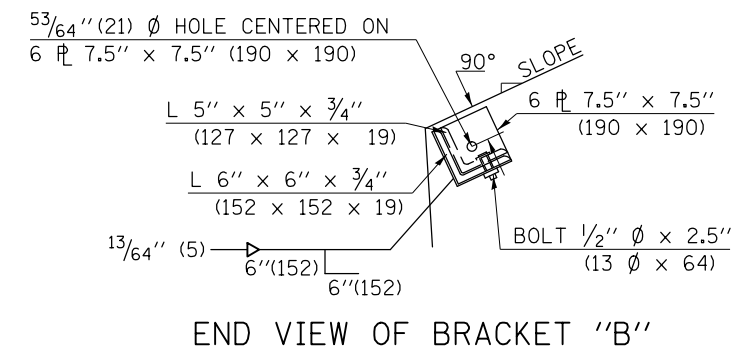
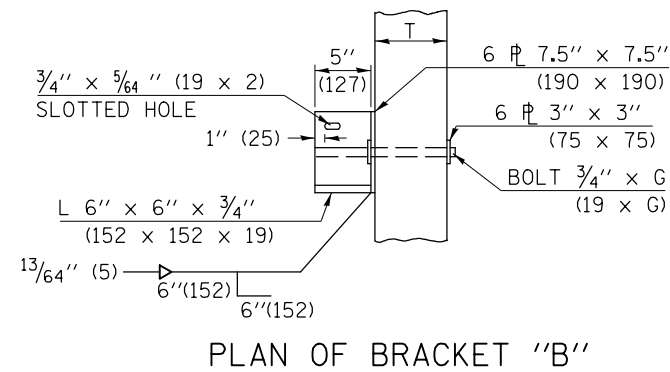
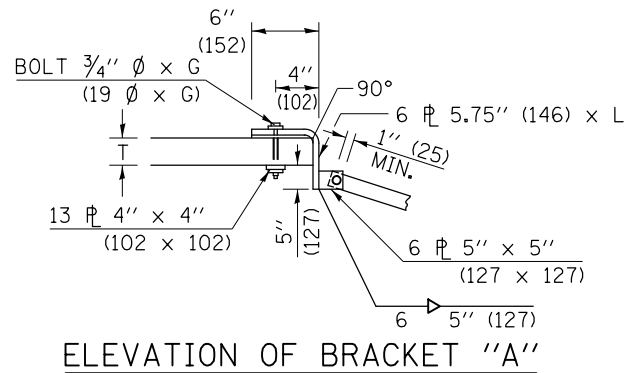
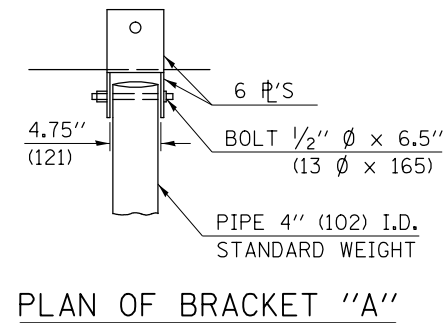
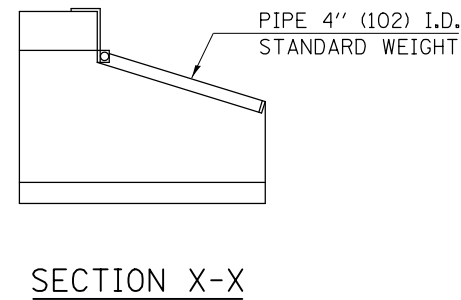
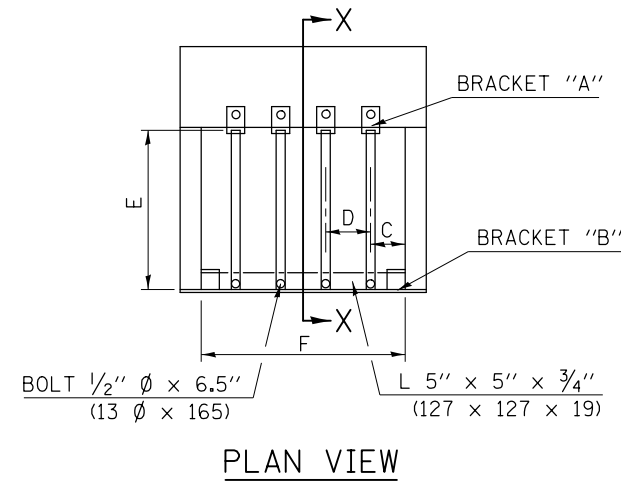
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT END SECTION (PRECAST CONCRETE)
PROPOSED BOX CULVERT LOC-8: S.L.D. 134**

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 54001AAA

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55,55A)CR	McLEAN	130	78
				CONTRACT NO. 70752
ILLINOIS FED. AID PROJECT				

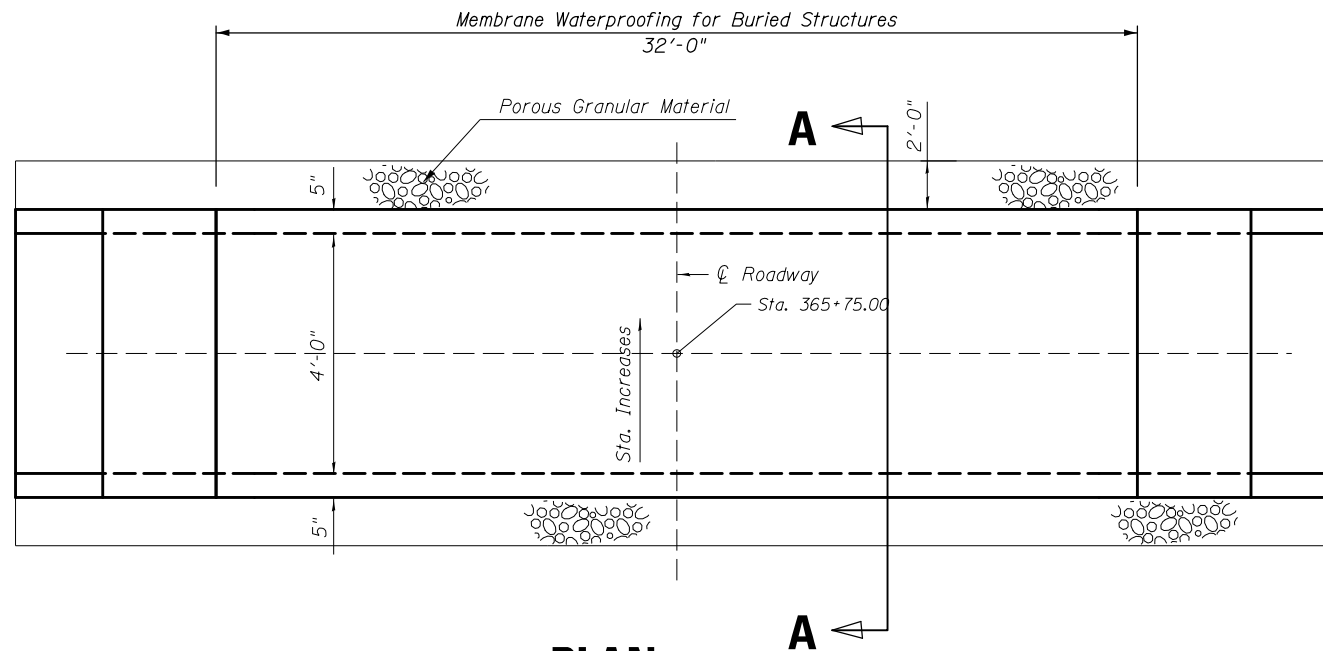


BOX CULVERT SPAN AND RISE	EXT. SPACE C	INT. SPACE D	SLOPE	NO. PIPES REQ'D	PIPE LENGTH E	ANGLE LENGTH F	BOLT LENGTH G	WEIGHT	L	WALL THICK. T
					FT (m)	FT (m)	INCHES (mm)			
3.0x3.0 (0.9x0.9)	18 (450)	N/A	3:1	1	3.74 (1.14)	2.82 (0.86)	5.5 (140)	150 (68)	15 (380)	4 (102)
4.0x2.0 (1.2x0.6)	15 (380)	18 (450)	3:1	2	2.69 (0.82)	3.84 (1.17)	6.5 (165)	222 (101)	16 (405)	5 (127)
4.0x3.0 (1.2x0.9)	15 (380)	18 (450)	3:1	2	3.74 (1.14)	3.84 (1.17)	6.5 (165)	227 (103)	16 (405)	5 (127)
4.0x4.0 (1.2x1.2)	15 (380)	18 (450)	2:1	2	4.00 (1.22)	3.84 (1.17)	6.5 (165)	234 (106)	16 (405)	5 (127)
5.0x3.0 (1.5x0.9)	12 (300)	18 (450)	3:1	3	3.74 (1.14)	4.82 (1.47)	7.5 (190)	304 (138)	17 (430)	6 (152)
5.0x4.0 (1.5x1.2)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
5.0x5.0 (1.5x1.5)	12 (300)	18 (450)	2:1	3	4.00 (1.22)	4.82 (1.47)	7.5 (190)	313 (142)	17 (430)	6 (152)
6.0x2.0 (1.8x0.6)	18 (450)	18 (450)	3:1	3	2.69 (0.82)	5.74 (1.78)	8.5 (215)	326 (148)	18 (460)	7 (178)
6.0x3.0 (1.8x0.9)	18 (450)	18 (450)	3:1	3	3.74 (1.14)	5.74 (1.78)	8.5 (215)	331 (150)	18 (460)	7 (178)
6.0x4.0 (1.8x1.2)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
6.0x5.0 (1.8x1.5)	18 (450)	18 (450)	2:1	3	4.00 (1.22)	5.74 (1.78)	8.5 (215)	337 (153)	18 (460)	7 (178)
7.0x3.0 (2.1x0.9)	15 (380)	18 (450)	3:1	4	3.74 (1.14)	6.82 (2.08)	9.5 (240)	408 (185)	19 (485)	8 (203)
7.0x4.0 (2.1x1.2)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
7.0x5.0 (2.1x1.5)	15 (380)	18 (450)	2:1	4	4.00 (1.22)	6.82 (2.08)	9.5 (240)	419 (190)	19 (485)	8 (203)
8.0x3.0 (2.4x0.9)	12 (300)	18 (450)	3:1	5	3.74 (1.14)	7.84 (2.39)	9.5 (240)	487 (221)	19 (485)	8 (203)
8.0x4.0 (2.4x1.2)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
8.0x5.0 (2.4x1.5)	12 (300)	18 (450)	2:1	5	4.00 (1.22)	7.84 (2.39)	9.5 (240)	500 (227)	19 (485)	8 (203)
9.0x3.0 (2.7x0.9)	18 (450)	18 (450)	3:1	5	3.74 (1.14)	8.83 (2.69)	10.5 (265)	511 (232)	20 (510)	9 (229)
9.0x4.0 (2.7x1.2)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
9.0x5.0 (2.7x1.5)	18 (450)	18 (450)	2:1	5	4.00 (1.22)	8.83 (2.69)	10.5 (265)	527 (239)	20 (510)	9 (229)
10.0x4.0 (3.0x1.2)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)
10.0x5.0 (3.0x1.5)	15 (380)	18 (450)	2:1	6	4.00 (1.22)	9.84 (3.00)	11.5 (290)	608 (276)	21 (535)	10 (254)

GENERAL NOTES

- BOLTS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS. ALL BOLTS SHALL HAVE WASHERS AT EACH END. HOLES SHALL BE 5/64" (2 mm) OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" (3 mm) OVERSIZE.
- ALL STEEL PIPE SHALL BE ACCORDING TO ASTM A 53 (TYPE E OR S), GRADE B, OR ASTM A 500 GRADE B, STANDARD WEIGHT (SCH. 40).
- STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ACCORDING TO AASHTO M270 GRADE 50 (M 270M GRADE 345) AND THE REQUIREMENTS OF ARTICLE 1006.04 OF THE STANDARD SPECIFICATIONS.
- ALL STEEL COMPONENTS OF THE GRATING SYSTEM SHALL BE GALVANIZED ACCORDING TO AASHTO M 111 OR ASTM F 2329 AS APPLICABLE.
- THE APPROXIMATE WEIGHT OF STEEL IS LISTED IN THE CHART. THIS TOTAL INCLUDES PLATES, ANGLES AND PIPES. BOLTS, NUTS, AND WASHERS ARE NOT INCLUDED.
- THE CONTRACTOR SHALL VERIFY THE PIPE LENGTHS AND HOLE LOCATIONS PRIOR TO CUTTING THE PIPES TO LENGTH OR DRILLING HOLES.
- GRATING FOR THE PRECAST END SECTION WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "TRAVERSABLE PIPE GRATE, SPECIAL" WHICH PRICE SHALL INCLUDE FABRICATION, GALVANIZING AND INSTALLATION OF THE GRATING AS DETAILED.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.



PLAN

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 1'-0" OUTSIDE OF THE EDGE OF SHOULDER

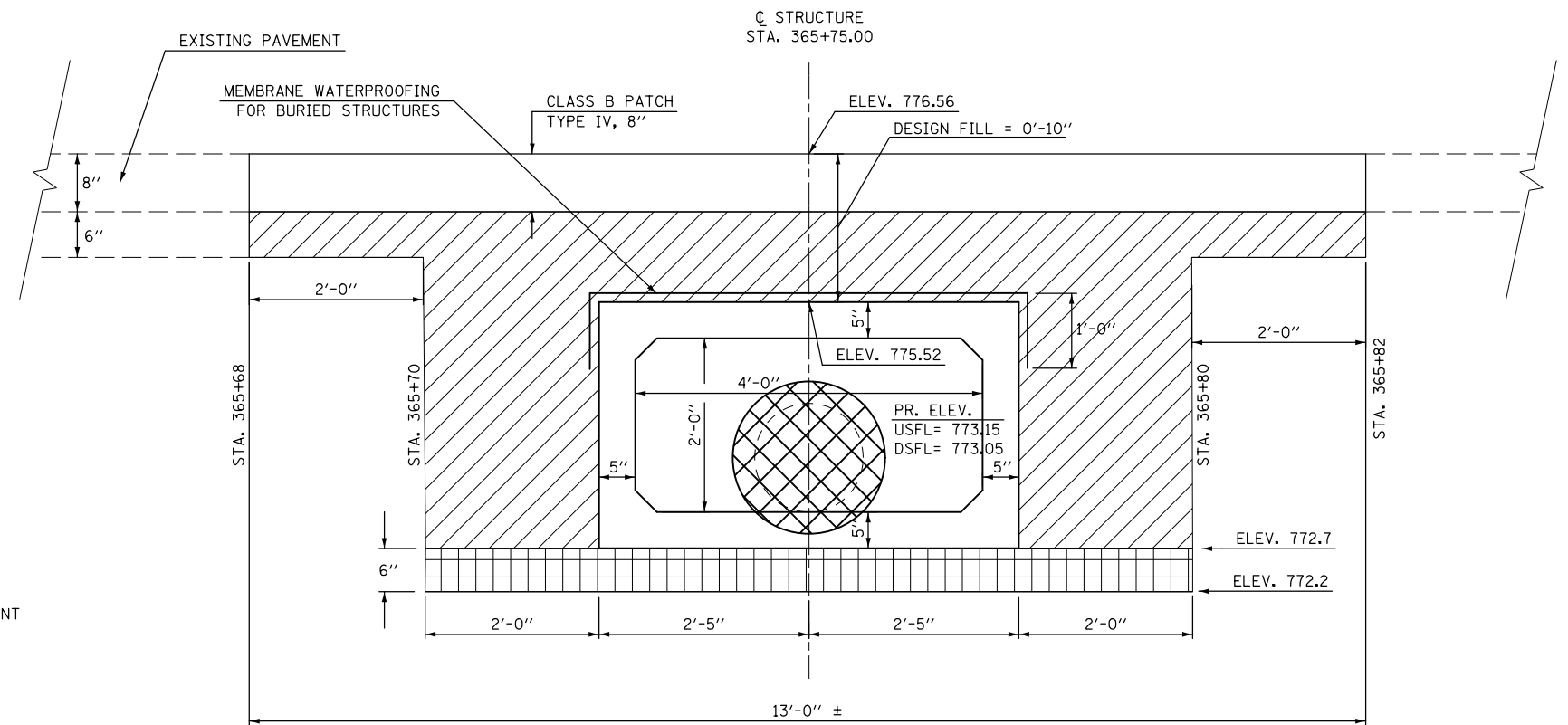
THE WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.




THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.

THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS.

MEMBRANE WATERPROOFING FOR BURIED STRUCTURES

SEE SPECIAL PROVISIONS

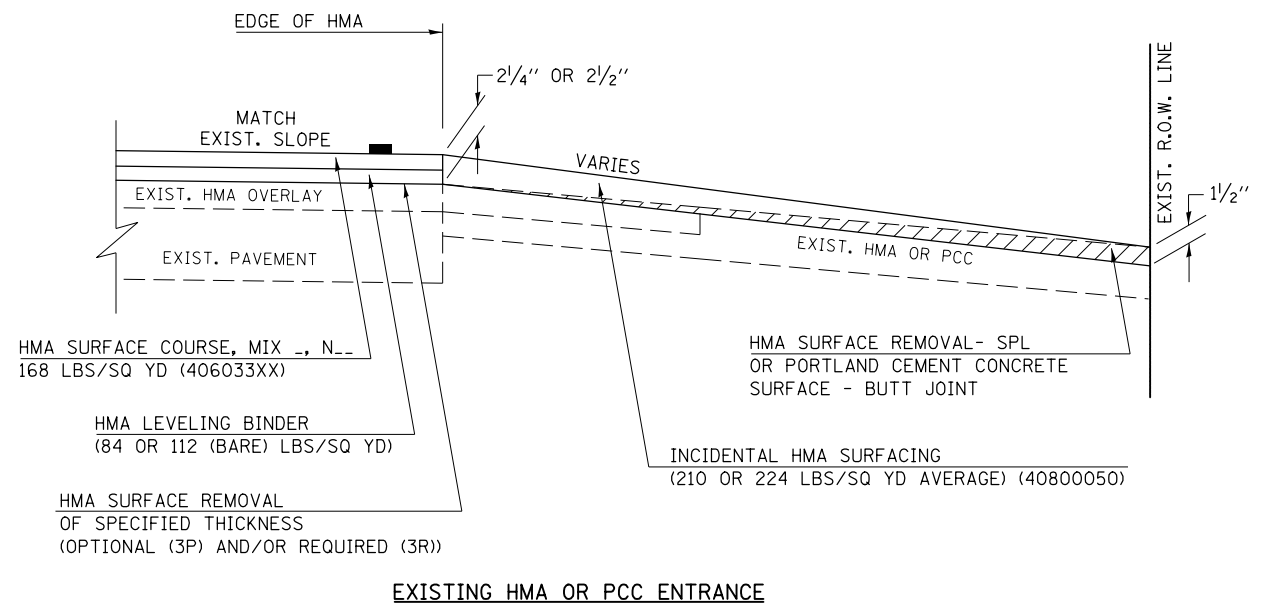
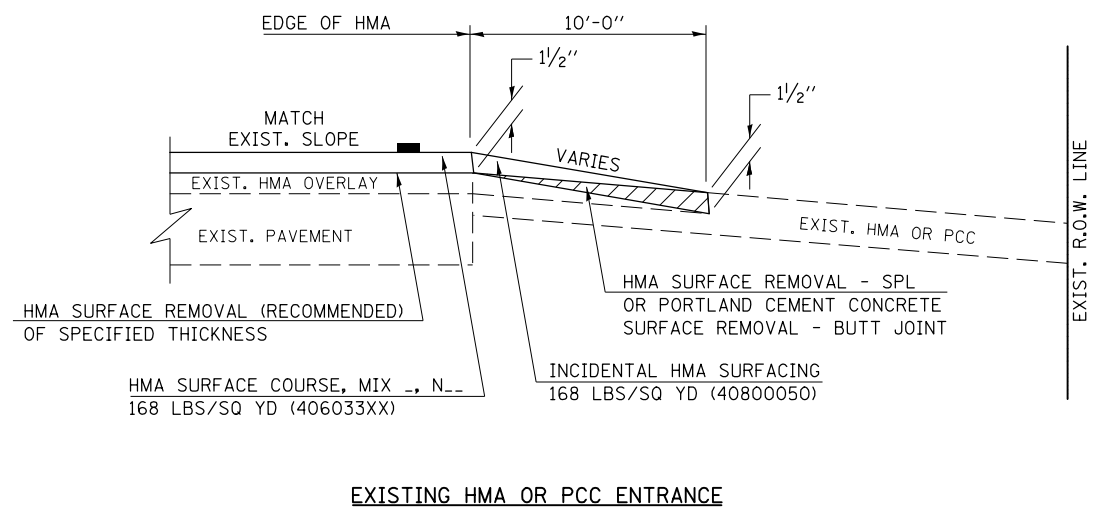
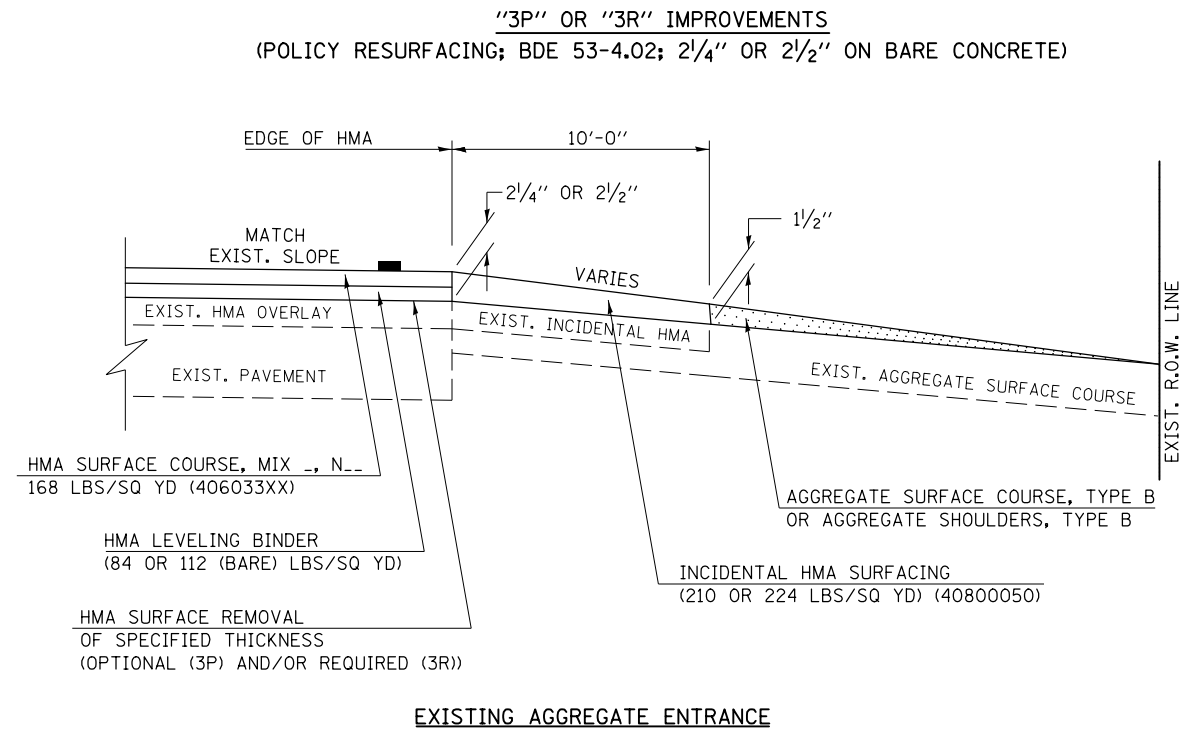
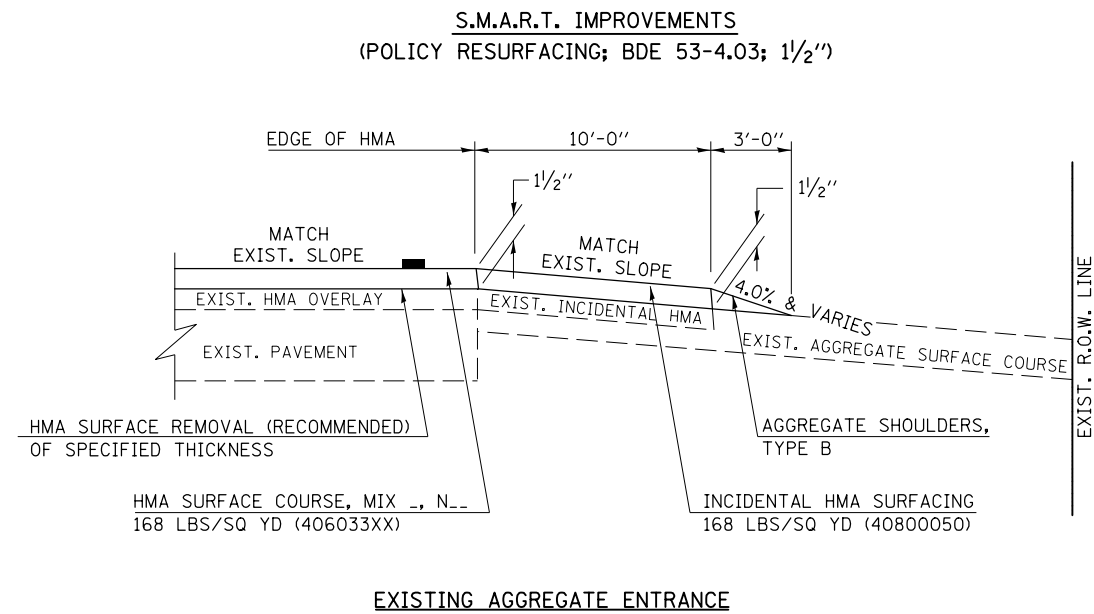


-  POROUS GRANULAR MATERIAL - CA 7 (6") (INCLUDED IN PAY ITEM FOR PRECAST BOX CULVERT)
-  PAY LIMITS OF POROUS GRANULAR EMBANKMENT - CA 6
NOTE: POROUS GRANULAR EMBANKMENT SHALL EXTEND 1'-0" OUTSIDE OF THE EDGE OF SHOULDER
-  EXISTING STRUCTURE

SECTION A-A

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POROUS GRANULAR EMBANKMENT DETAIL PROPOSED BOX CULVERT LOC-8: S.L.D. 1.34	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
p:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0579\Drawings\Design\0579-2-sh-GPE.SLD	DRAWN	REVISED	1476			(55,55A)CR	McLEAN	130	80		
MODELNAME	PLOT SCALE = 2.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 70752					
	PLOT DATE = 8/7/2018	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

PROJECTS WITHOUT RECONSTRUCTION



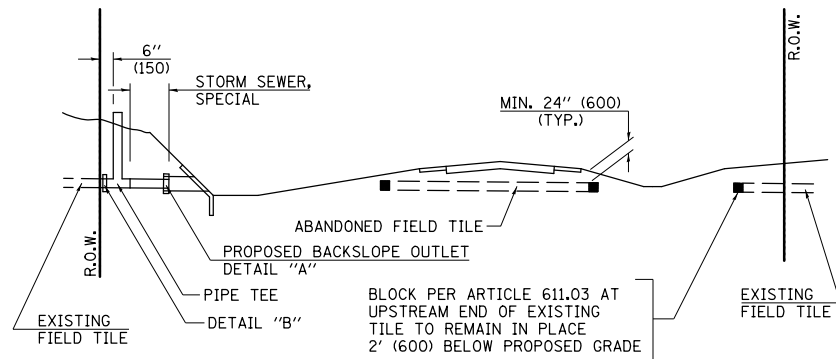
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED - 12/06 TJB
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	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED - 05/08 KJT
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

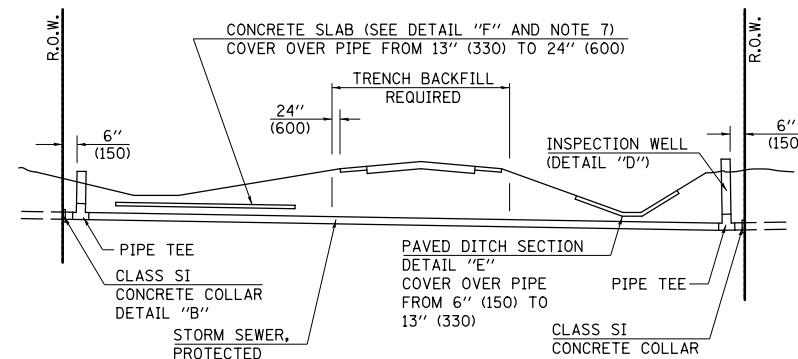
PRIVATE AND COMMERCIAL ENTRANCES (NONCOMMERCIAL AND COMMERCIAL RURAL)			
SCALE:	SHEET 1	OF 2 SHEETS	STA. TO STA.

DISTRICT 5 DETAIL NO. 4080050C				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	81
CONTRACT NO. 70752				
ILLINOIS FED. AID PROJECT				



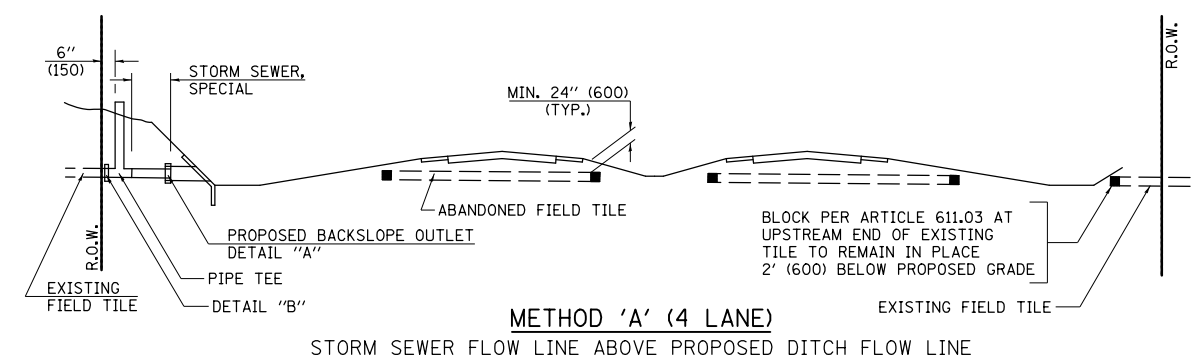
METHOD 'A' (2 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE



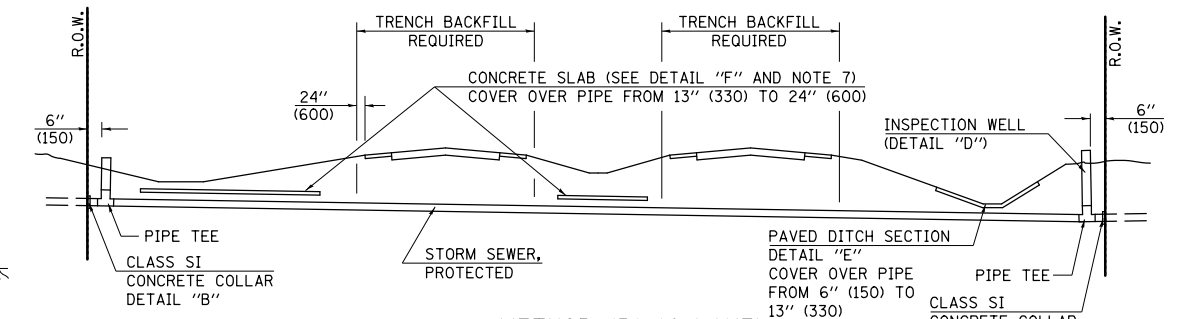
METHOD 'B' (2 LANE)

STORM SEWER LESS THAN 2' (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENT AND PAVED DITCH



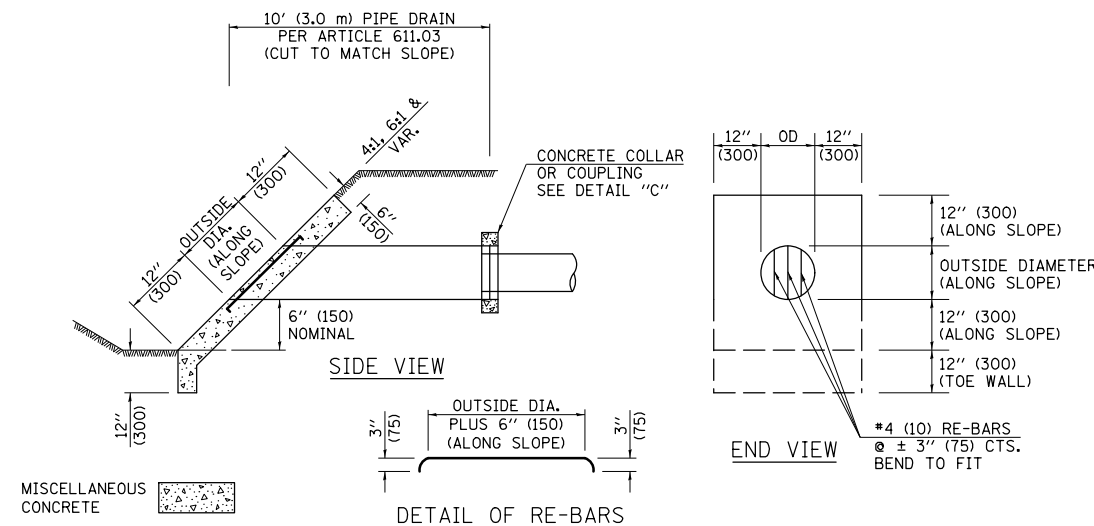
METHOD 'A' (4 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE

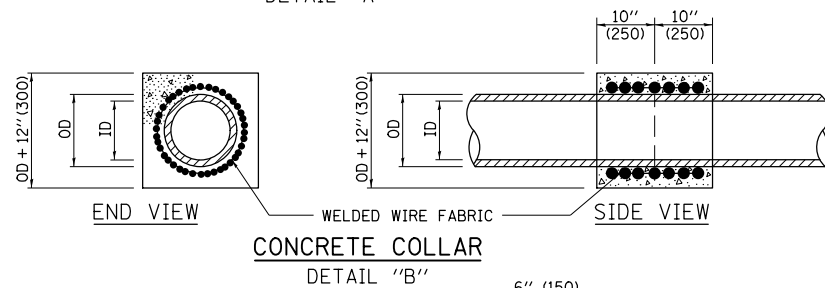


METHOD 'B' (4 LANE)

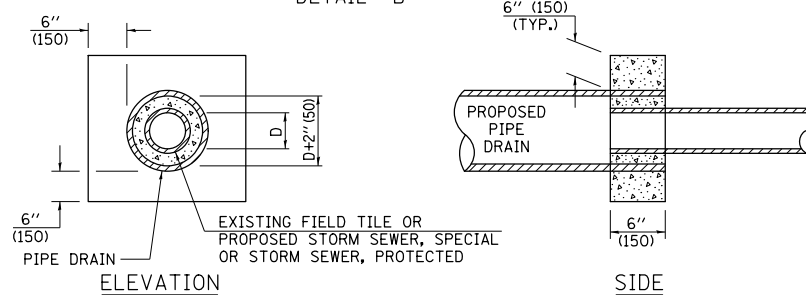
STORM SEWER LESS THAN 2' (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENTS AND PAVED DITCHES



**HEADWALL FOR BACKSLOPE OUTLET
DETAIL "A"**



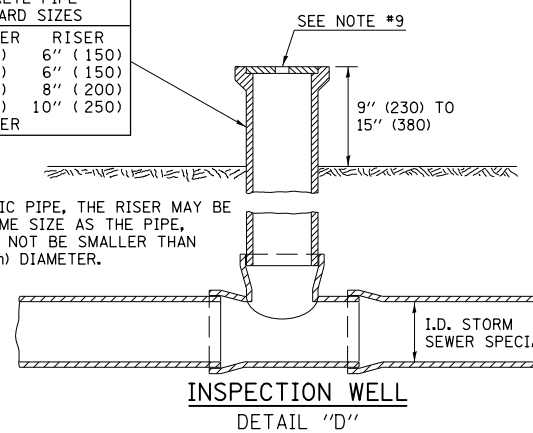
**CONCRETE COLLAR
DETAIL "B"**



**CLASS SI COLLAR
DETAIL "C"**

CONCRETE PIPE STANDARD SIZES	
STORM SEWER	RISER
6" (150)	6" (150)
8" (200)	6" (150)
10" (250)	8" (200)
12" (300)	10" (250)
OR GREATER	

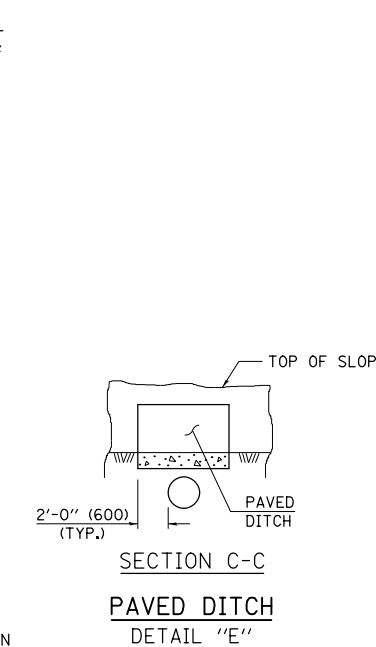
FOR PLASTIC PIPE, THE RISER MAY BE OF THE SAME SIZE AS THE PIPE, BUT SHALL NOT BE SMALLER THAN 4" (100 mm) DIAMETER.



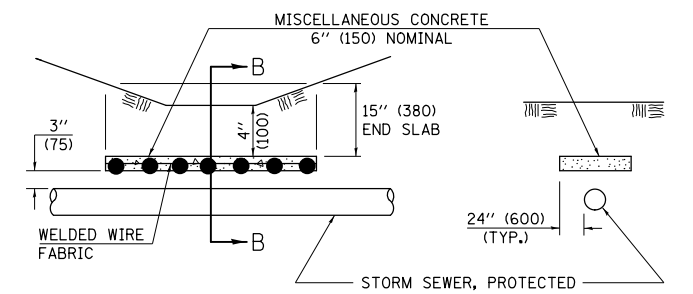
**INSPECTION WELL
DETAIL "D"**

GENERAL NOTES

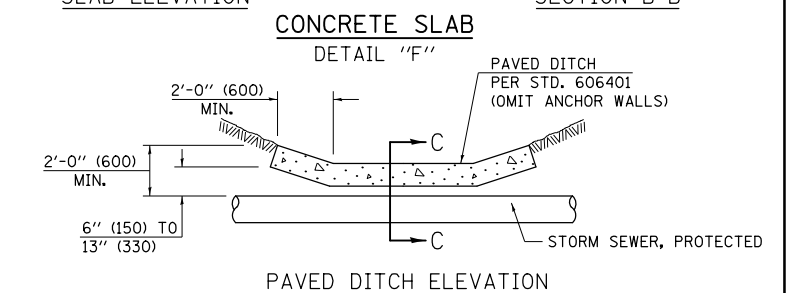
- EXISTING FIELD TILE ENCOUNTERED BY EXPLORATION TRENCH SHALL BE INSPECTED BY THE ENGINEER FOR UNOBSTRUCTED FLOW WITHIN THE LIMITS OF THE RIGHT-OF-WAY.
- ONLY FIELD TILE THAT DOES NOT HAVE SATISFACTORY FLOW AND OR HAS VISIBLE SIGNS OF DETERIORATION (SINK HOLES, ETC.) SHALL BE REPLACED WITHIN THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH METHOD "B".
- INSPECTION WELLS SHALL BE CONSTRUCTED APPROXIMATELY 6" (150 mm) INSIDE OF BOTH RIGHT-OF-WAY LINES AT ALL FIELD TILE LOCATIONS.
- EXISTING FIELD TILE ABANDONED UNDER EXISTING PAVEMENTS OR PAVED SHOULDERS SHALL BE FILLED WITH FLOWABLE GROUT AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.
- NON-CIRCULAR FIELD TILE SHALL BE REPLACED WITH STORM SEWER, SPECIAL OF AT LEAST THE SAME CROSS SECTIONAL AREA. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR THE MINIMUM DEPTH OF COVER.
- THE 6" (150 mm) CONCRETE SLAB OR DITCH LINING SHALL BE POURED THE LENGTH OF THE TRENCH AT ALL DITCH FLOW LINE LOCATIONS WITHIN THE RIGHT-OF-WAY WITH LESS THAN 2' (600 mm) OF EARTH COVER. MISCELLANEOUS CONCRETE SHALL BE USED ACCORDING TO SECTION 611.
- ALL MISCELLANEOUS SLABS, APRONS AND DITCH LININGS SHALL BE REINFORCED WITH WELDED WIRE FABRIC AS SHOWN FOR PAVED DITCH IN STANDARD 606401.
- HEADWALL FOR BACKSLOPE OUTLET MAY BE USED FOR PIPE DRAIN DIAMETERS UP TO 10" (250 mm). SPECIAL DESIGNS WILL BE REQUIRED FOR LARGER SIZES.
- THE INSPECTION WELL LID FOR P.C.C. PIPE SHALL BE CONSTRUCTED OF 3/8" (10 mm) CAST IRON AND PROVIDED WITH A 1" (25 mm) DIAMETER HOLE IN CENTER. THE LID FOR THE OTHER PIPE MATERIALS SHALL BE A GRATE ASSEMBLY PREFABRICATED FOR AND COMPATIBLE WITH THE PIPE SYSTEM.



**SECTION C-C
PAVED DITCH
DETAIL "E"**



SLAB ELEVATION SECTION B-B



CONCRETE SLAB DETAIL "F" PAVED DITCH ELEVATION

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 61101011A

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED - 11/06
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\$MODELNAME\$	PLOT DATE = 8/7/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FIELD TILE SYSTEMS (TREATMENT OF EXISTING)

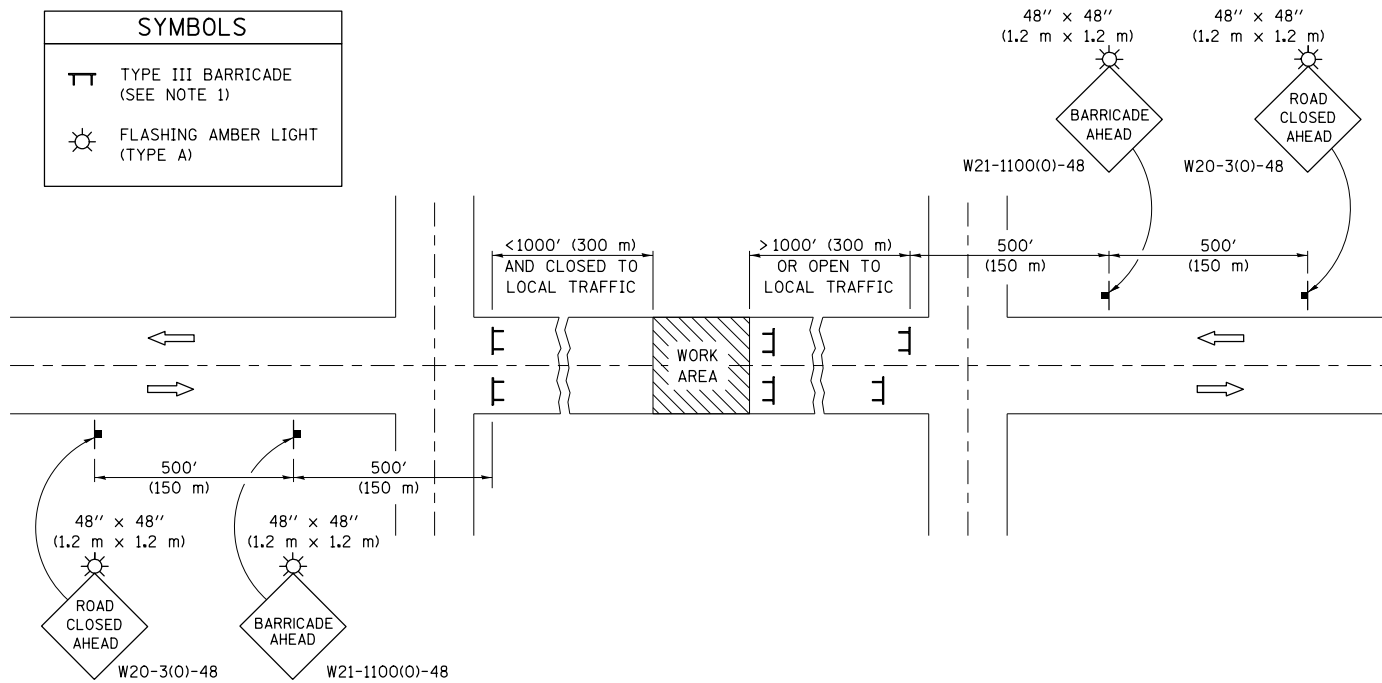
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	83
CONTRACT NO. 70752				
ILLINOIS FED. AID PROJECT				

ROAD CLOSURE

SIDEROAD / STREET CLOSURE

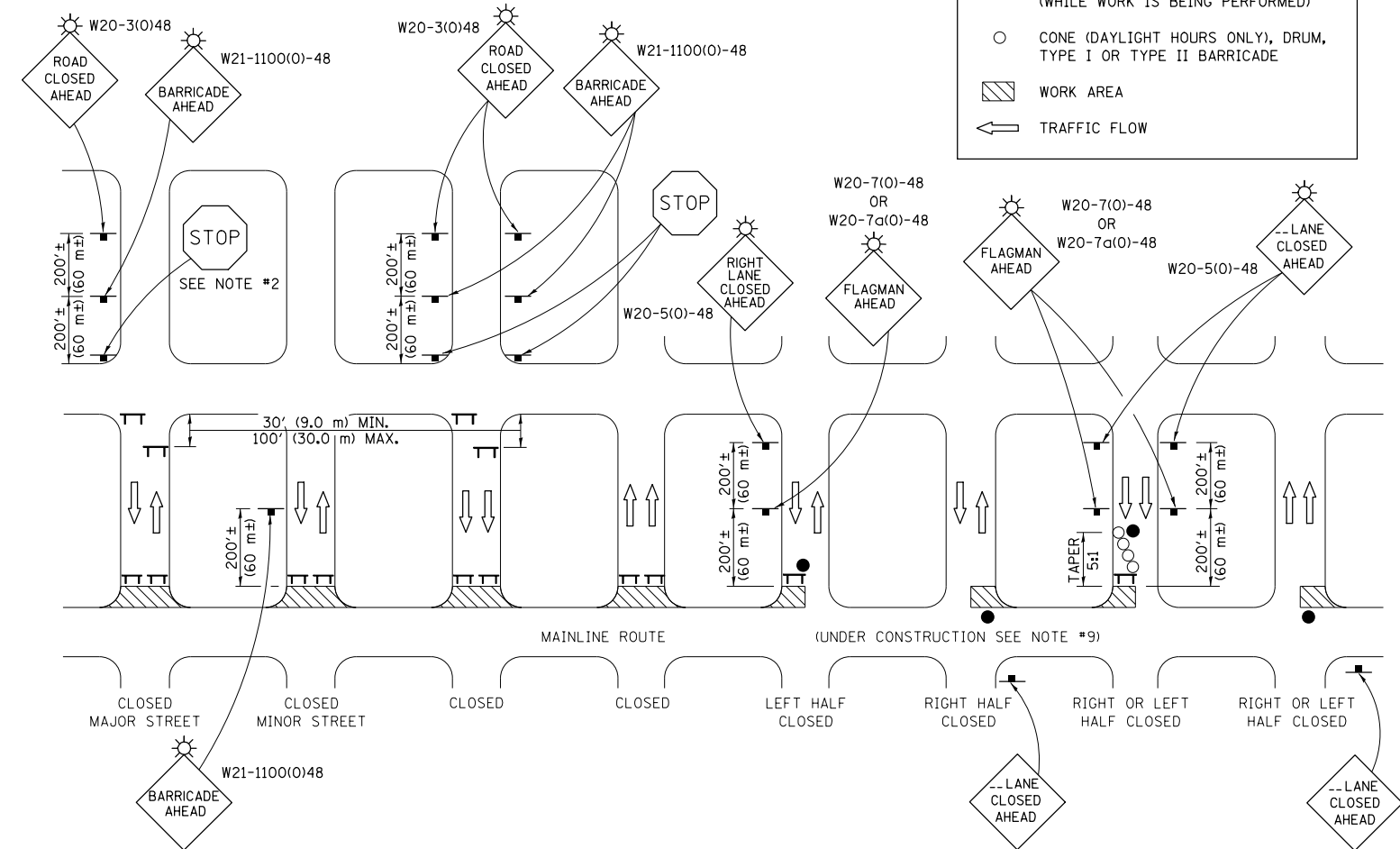
SYMBOLS	
	TYPE III BARRICADE (SEE NOTE 1)
	FLASHING AMBER LIGHT (TYPE A)



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 701901 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
- WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
- REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TYPE III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT. 725 AND BT. 726 ARE REQUIRED.
- WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
- AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

SYMBOLS	
	TYPE III BARRICADE (SEE NOTE)
	FLASHING LIGHT
	FLAGGER WITH TRAFFIC CONTROL SIGN (WHILE WORK IS BEING PERFORMED)
	CONES (DAYLIGHT HOURS ONLY), DRUM, TYPE I OR TYPE II BARRICADE
	WORK AREA
	TRAFFIC FLOW



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT 725 AND BT 726 ARE REQUIRED.
- THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
- ALL FLAGGERS REQUIRED AT SIDE ROADS AND ENTRANCES REMAINING OPEN TO TRAFFIC AND/OR ADDITIONAL BARRICADES REQUIRED BY THE ENGINEER TO CLOSE SIDE ROADS AND ENTRANCES WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED -
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\$MODELNAME\$	PLOT SCALE = 48.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/7/2018	DATE -	REVISED -

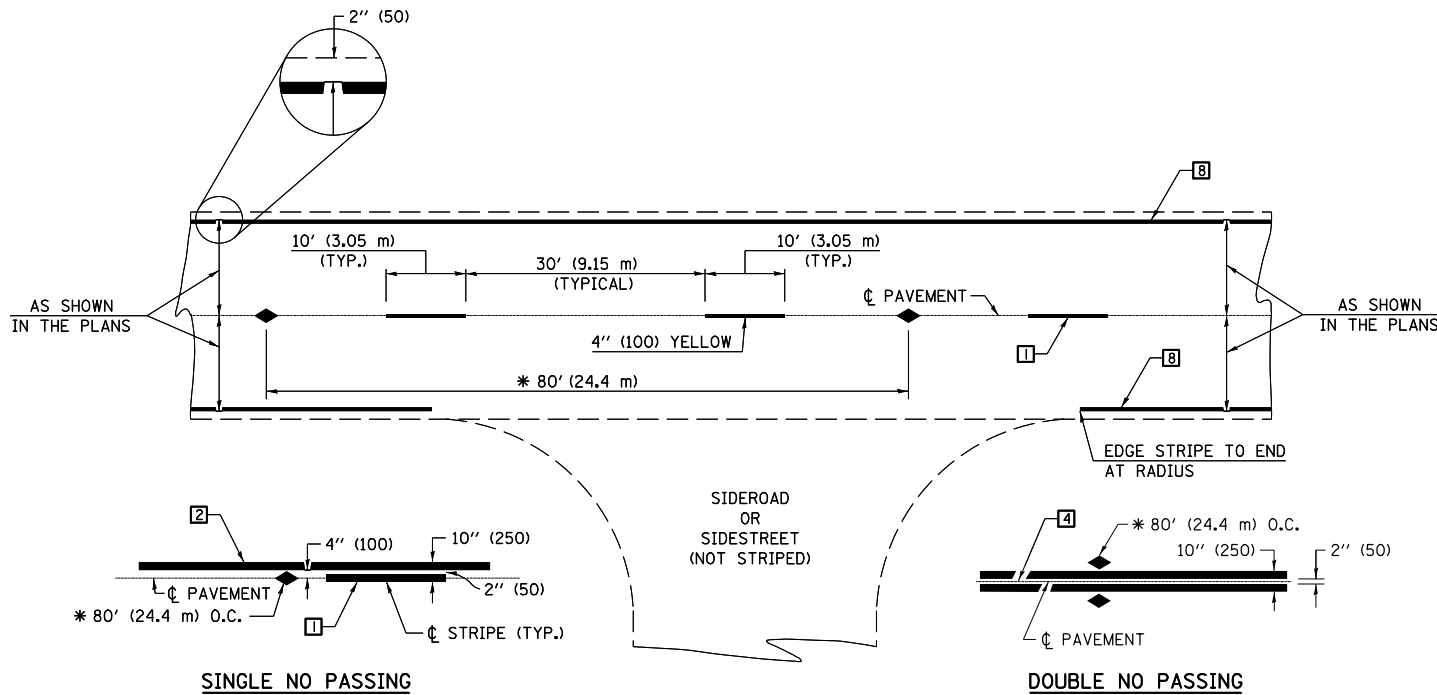
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION DEVICES
(ROAD & SIDEROAD/STREET CLOSURES)

SCALE: SHEET OF SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7020000

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	84
CONTRACT NO. 70752				
ILLINOIS FED. AID PROJECT				



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

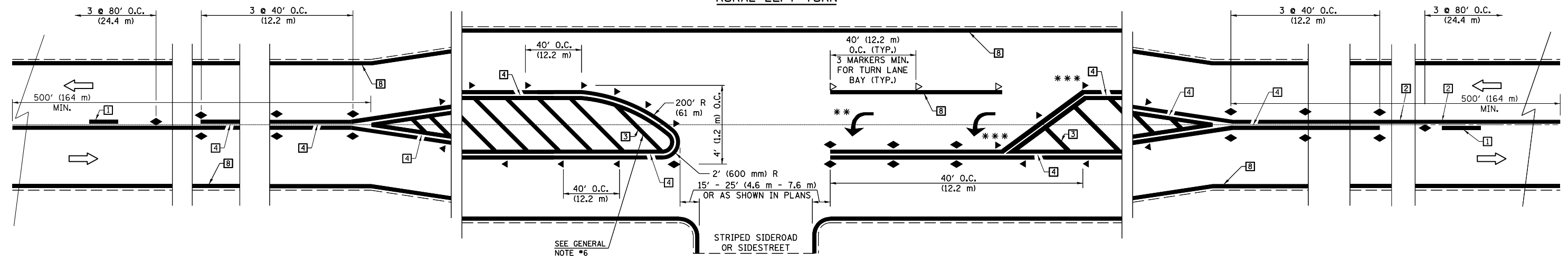
TYPICAL PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

RURAL LEFT TURN



*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.
 ** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

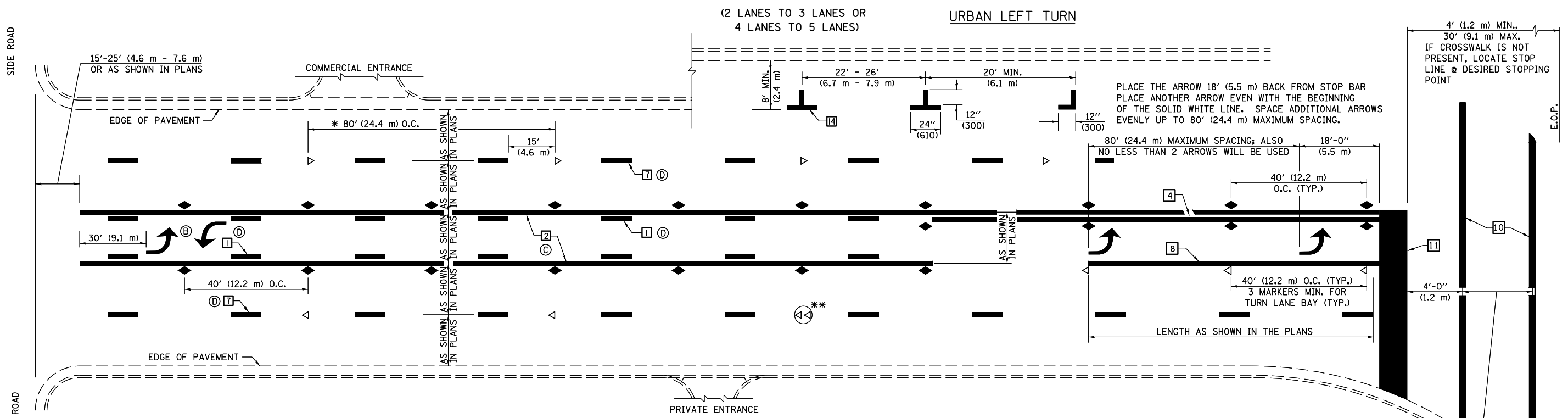
FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED - 11/06
p:\work\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0577\Drawings\Design\057752-shr-details.dwg		DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED - 04/14 - JLA
MODELNAME	PLOT DATE = 8/7/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)**

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7800AAA				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	85
CONTRACT NO. 70752				
ILLINOIS FED. AID PROJECT				

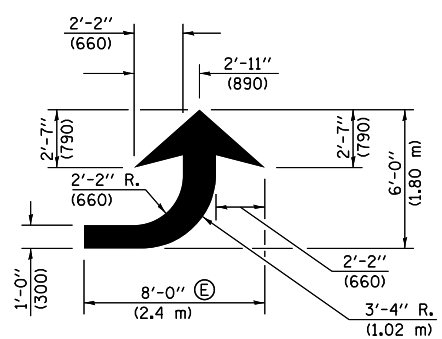


* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

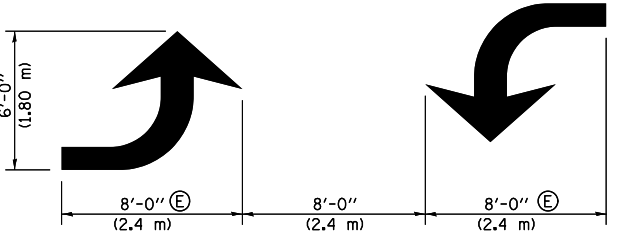
GENERAL NOTES:

- ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
- ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
- ⓓ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
- ⓔ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



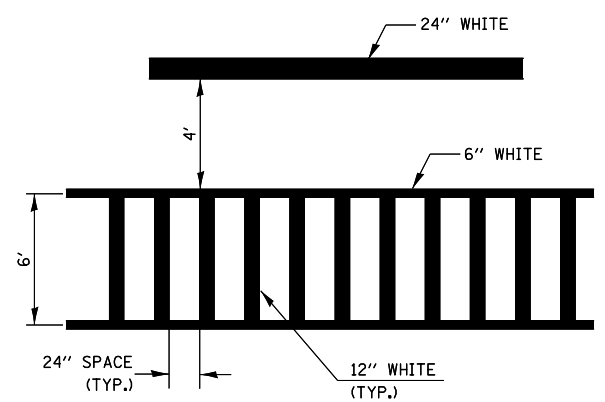
LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m²)
(WHITE)

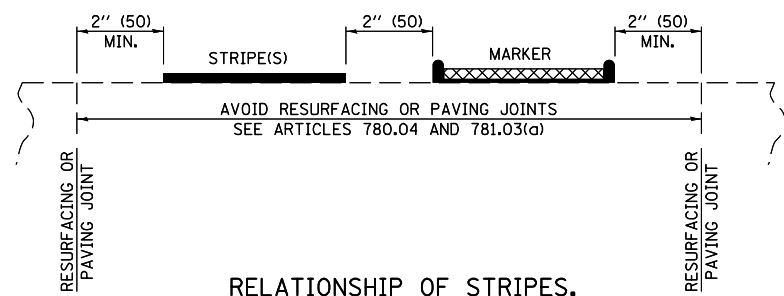


TYPICAL DOUBLE TURN ARROWS (WHITE)

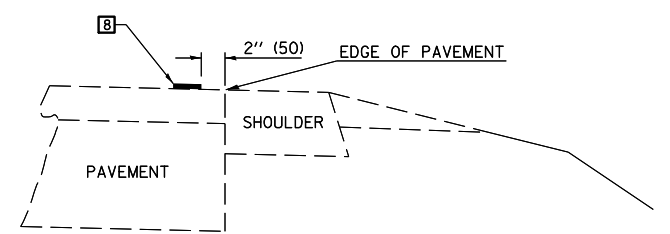
BLOOMINGTON-NORMAL CITY LIMITS ONLY



TYPICAL SPACING FOR CROSSWALKS & STOP BARS



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS



RELATIONSHIP OF EDGE LINE TO EDGE OF PAVEMENT (SAFETY SHOULDER OR PAVED SURFACE) SEE ARTICLE 780.04

4' (1.2 m) MIN., 30' (9.1 m) MAX. IF CROSSWALK IS NOT PRESENT, LOCATE STOP LINE @ DESIRED STOPPING POINT

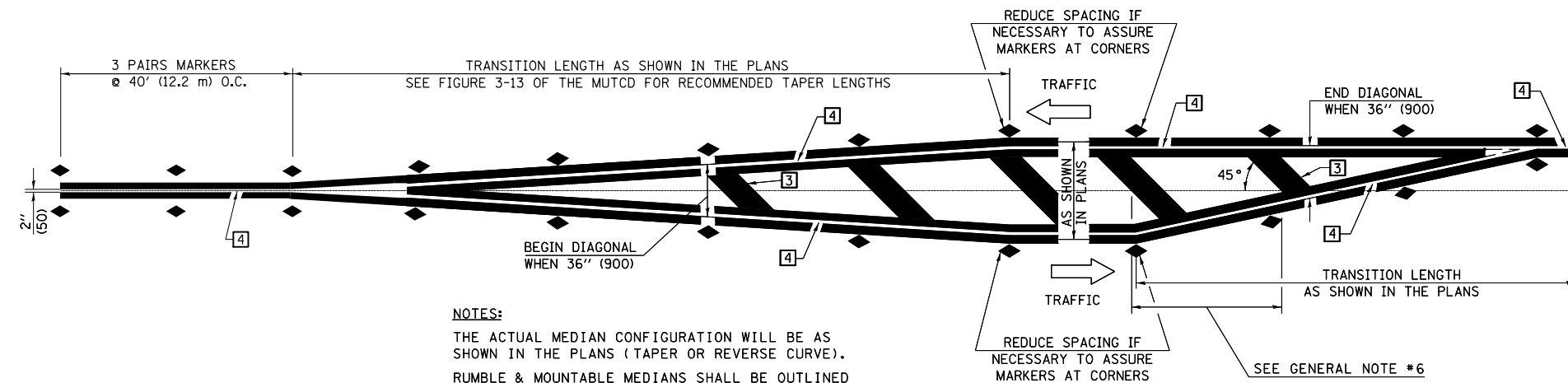
CROSSWALK WIDTH 6'-0" (1.8 m) OR AS SHOWN IN THE PLANS

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAA

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED - 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0577\DRAWING\Design\0577\752-shd-details.d		DRAWN -	REVISED - 09/2009 - KJT			1476	(55, 55A)CR	McLEAN	130	86	
		PLOT SCALE = 40.0000' / in.	CHECKED -			REVISED - 04/14 - JLA	CONTRACT NO. 70752				
MODELNAME		PLOT DATE = 8/7/2018	DATE -			REVISED -	ILLINOIS FED. AID PROJECT				

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

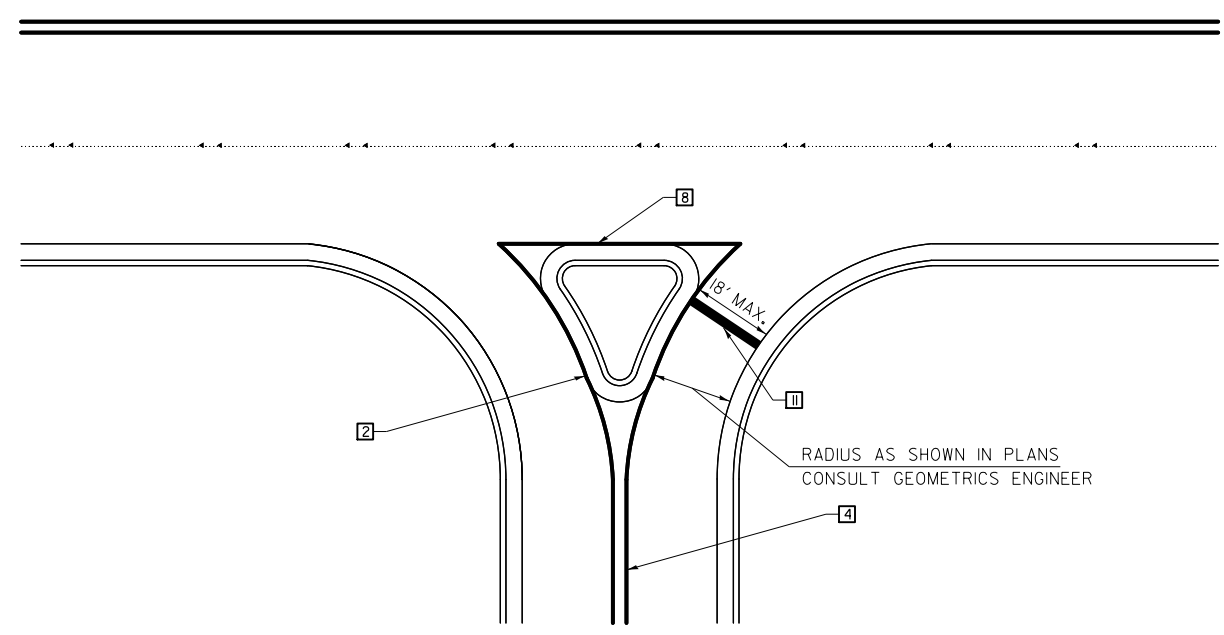


NOTES:
 THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).
 RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

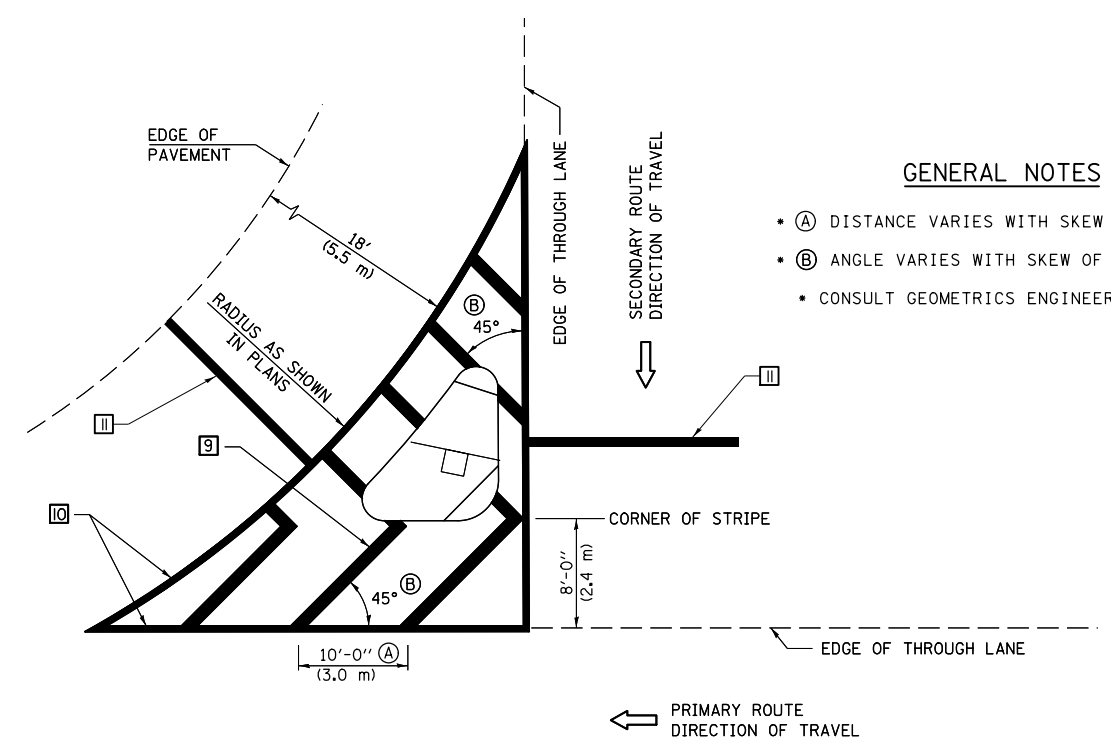
TYPICAL MEDIAN TRANSITIONS

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
 < 30 MPH USE 15' (< 50 km/h USE 4.5 m)
 30-45 MPH USE 20' (50-75 km/h USE 6.0 m)
 > 45 MPH USE 30' (> 75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



ISLAND

GENERAL NOTES

- (A) DISTANCE VARIES WITH SKEW OF INTERSECTION.
- (B) ANGLE VARIES WITH SKEW OF INTERSECTION.
- CONSULT GEOMETRICS ENGINEER

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED - 11/06
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	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED - 04/14 - JLA
\$MODELNAME\$	PLOT DATE = 8/7/2018	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

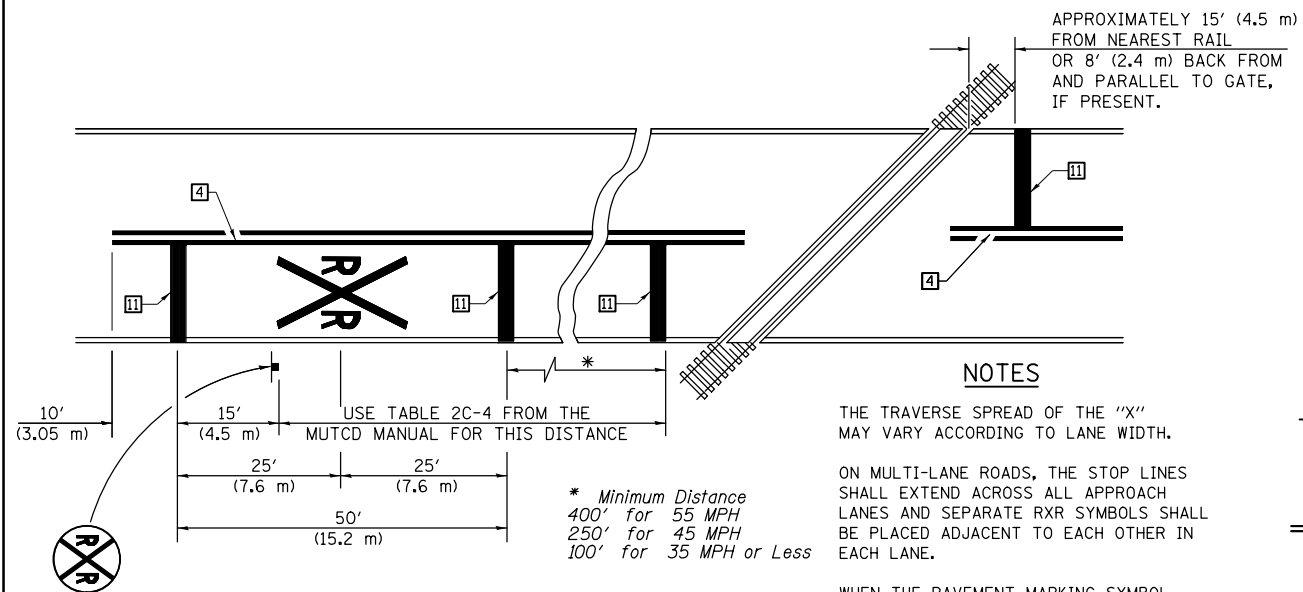
**PAVEMENT MARKING AND MARKERS
 (RURAL & URBAN APPLICATIONS)**

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7800AAA

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	87
CONTRACT NO. 70752				

ILLINOIS FED. AID PROJECT



PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

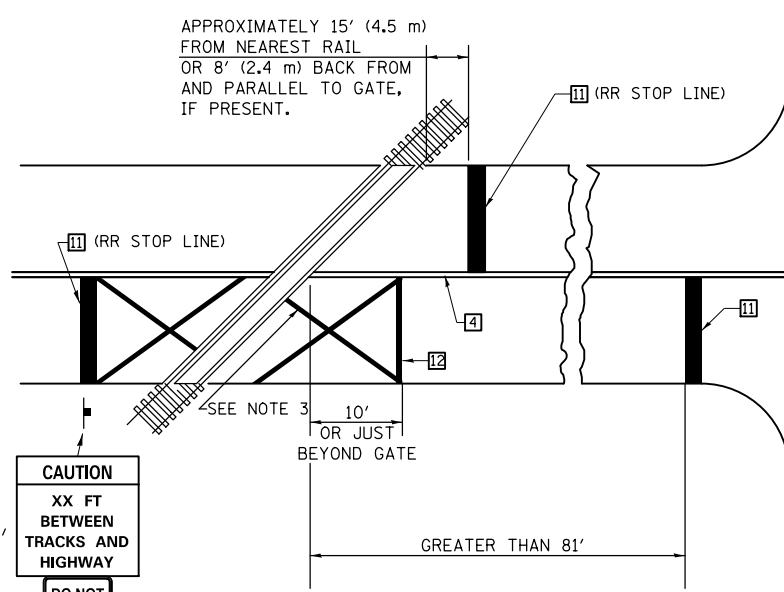
NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

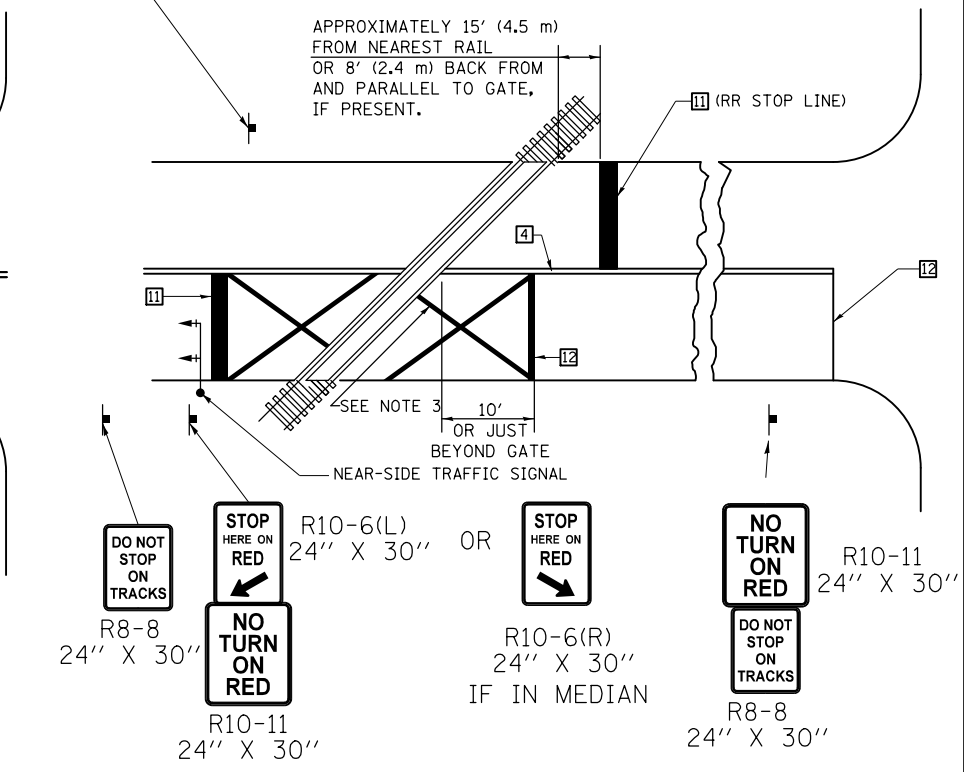
ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

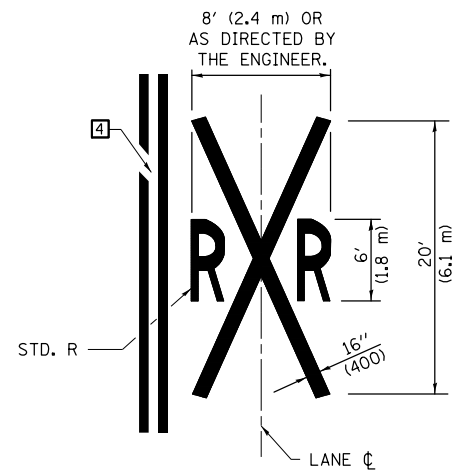
RAILROAD CROSSING WITH INTERCONNECT ONLY



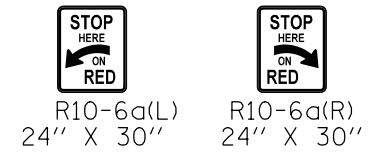
RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING



ALTERNATE SIGNS



GENERAL NOTES

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
- 6" WHITE PAVEMENT MARKINGS AT 45° TO PAVEMENT, 8' CENTER TO CENTER.
- XX DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET FROM THE RAIL CLOSEST TO THE INTERSECTION OR FROM THE CLOSEST POINT ALONG THE EXIT GATE IF PRESENT OVER THE ROADWAY WHEN IN THE LOWERED POSITION TO THE STOP BAR OR CROSSWALK, WHICH EVER IS CLOSEST, ROUNDED DOWN TO NEAREST 5 FEET. WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
- THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6 FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS EXTENDED TO THE INTERSECTION.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISED - 11/06
p:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0579\Drawings\Design\0579-shr-details.dwg		DRAWN -	REVISED - 09/2009 - KJT
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\$MODELNAME\$	PLOT DATE = 8/7/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)**

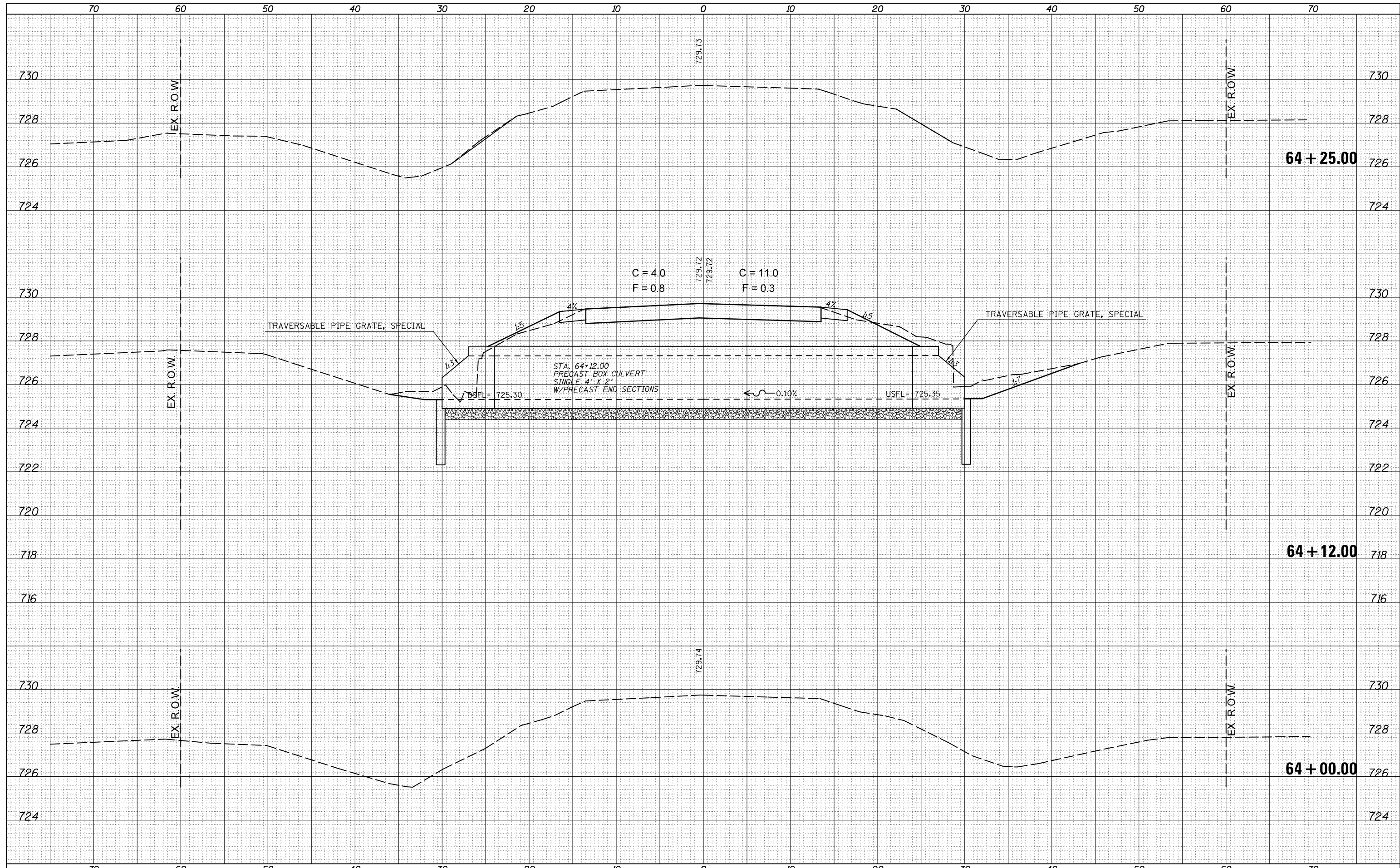
SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7800AAA

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	88
CONTRACT NO. 70752				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINISHED SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

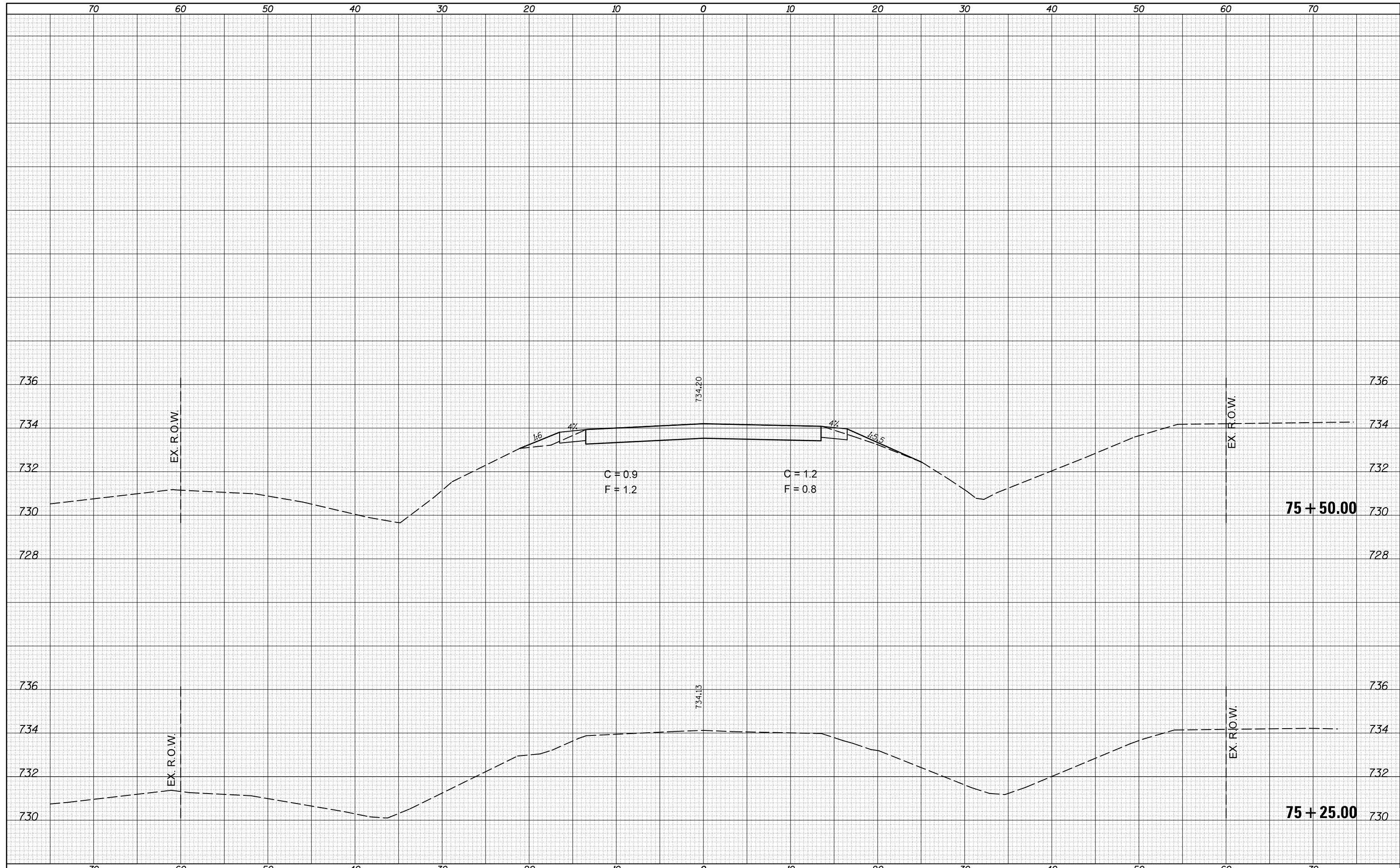
DATE	
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ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISIED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTION SHEET LOCATION 1 - S.L.D. 0.81	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 10.0000' / in.	CHECKED -	REVISIED -	CONTRACT NO. 70752							
DATE = 8/7/2018	DATE -	REVISIED -	ILLINOIS FED. AID PROJECT							
SCALE:	SHEET 1	OF 1	SHEETS	STA. 64+00.00	TO STA. 64+25.00					

DATE	
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SURVEYED	
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TEMPLATE	
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FINAL SURVEY	
NOTE BOOK	
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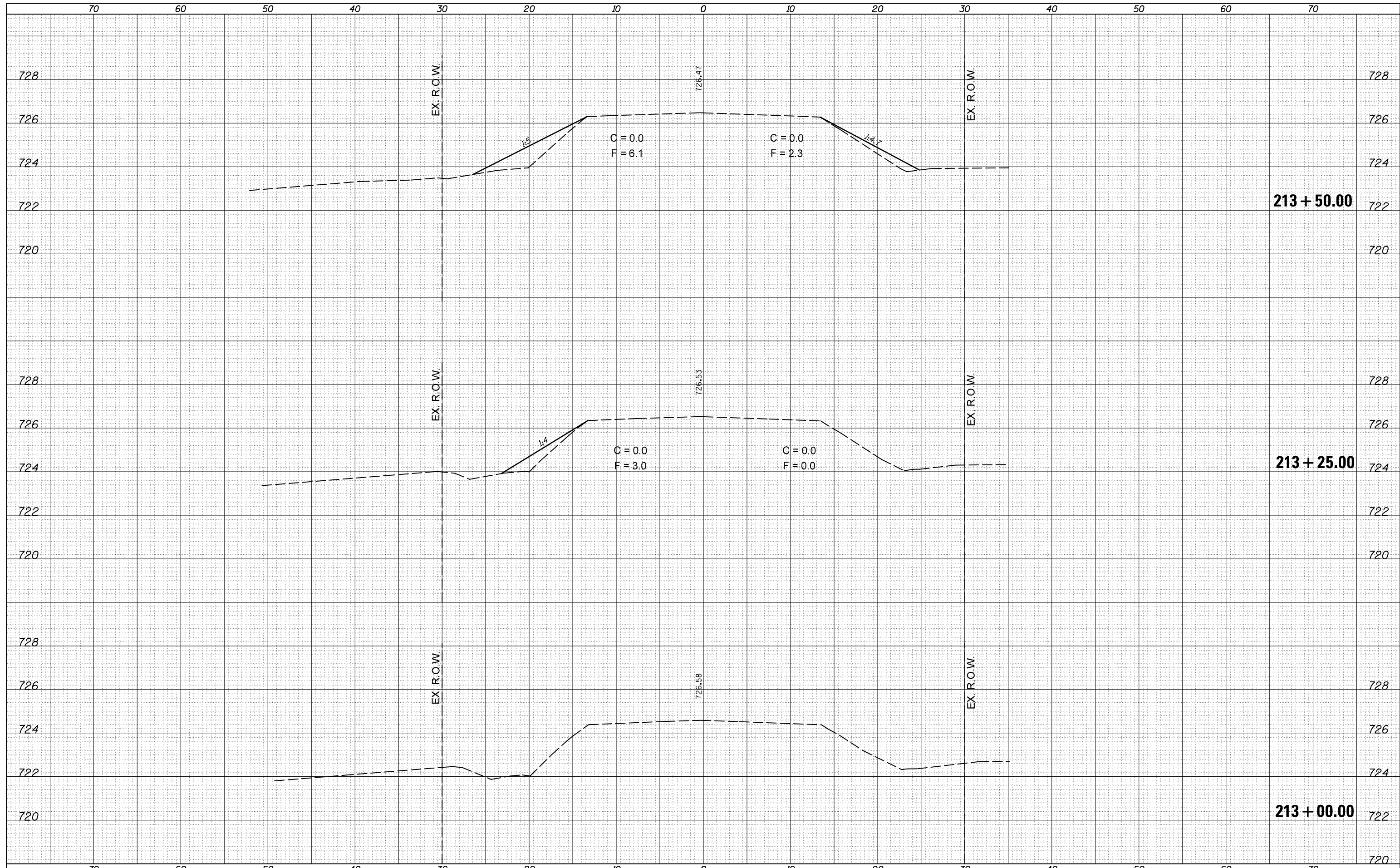
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NOTE BOOK	
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FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISIED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTION SHEET LOCATION 2 - S.N. 057-8233			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MODEL NAME	PROJECT =	CHECKED -	REVISIED -					1476	(55, 55A)CR	MCLEAN	130	90
	DATE = 8/7/2018	DATE -	REVISIED -		SCALE: SHEET 1 OF 2 SHEETS STA. 75+25.00 TO STA. 75+50.00			CONTRACT NO. 70752				
								ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
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ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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USER NAME = piersonbr	DESIGNED -	REVISÉ -
NO. 1476	CHECKED -	REVISÉ -
PLOT SCALE = 10.0000 / in.	DATE -	REVISÉ -
PLOT DATE = 8/7/2018		

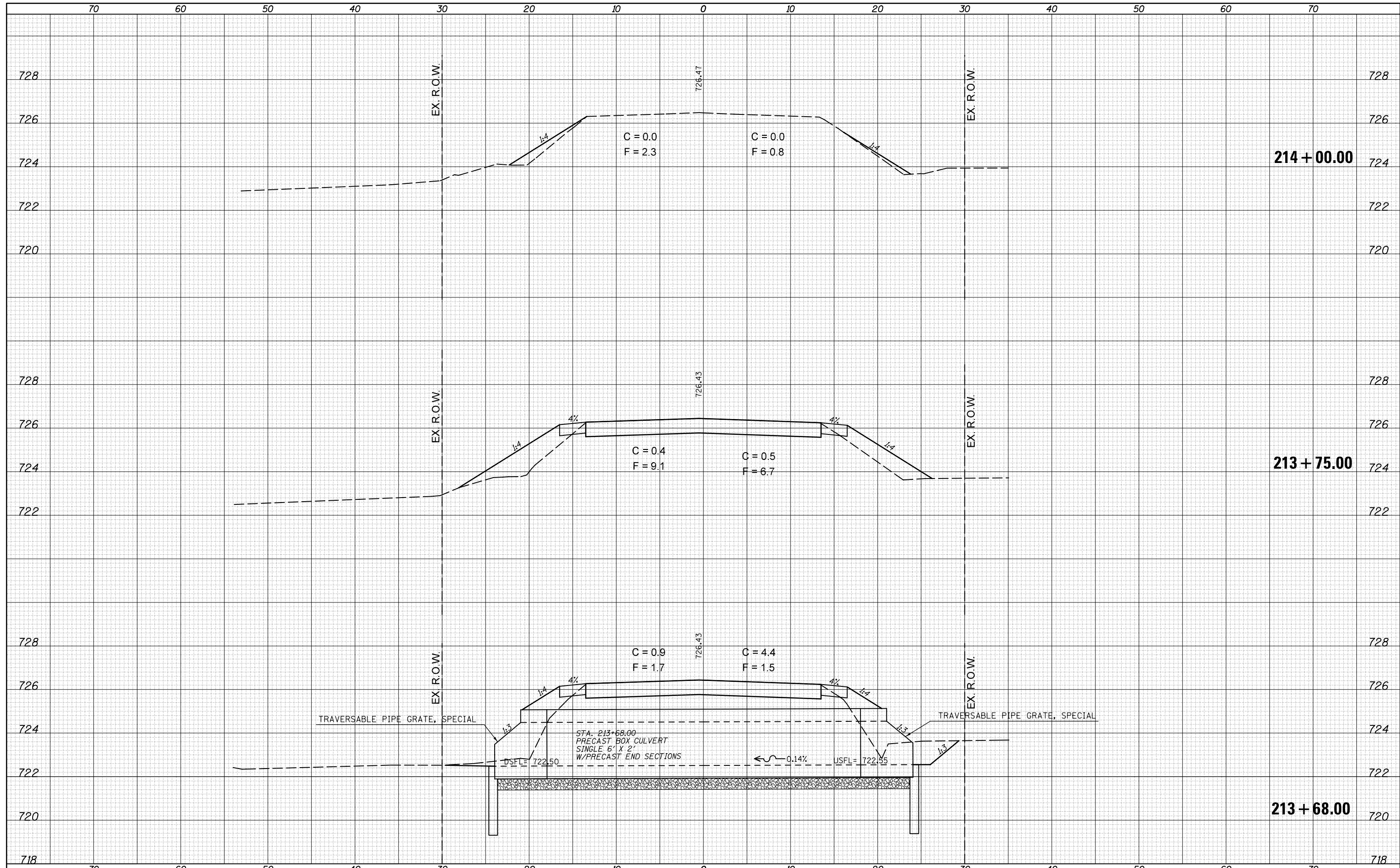
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTION SHEETS
LOCATION 4 - S.N 057-8234
 SCALE: SHEET 1 OF 3 SHEETS STA. 213+00.00 TO STA. 213+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	92
CONTRACT NO. 70752			ILLINOIS FED. AID PROJECT	

DATE	
BY	
FINISHED SURVEY	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
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DATE	
BY	
ORIGINAL SURVEY	
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

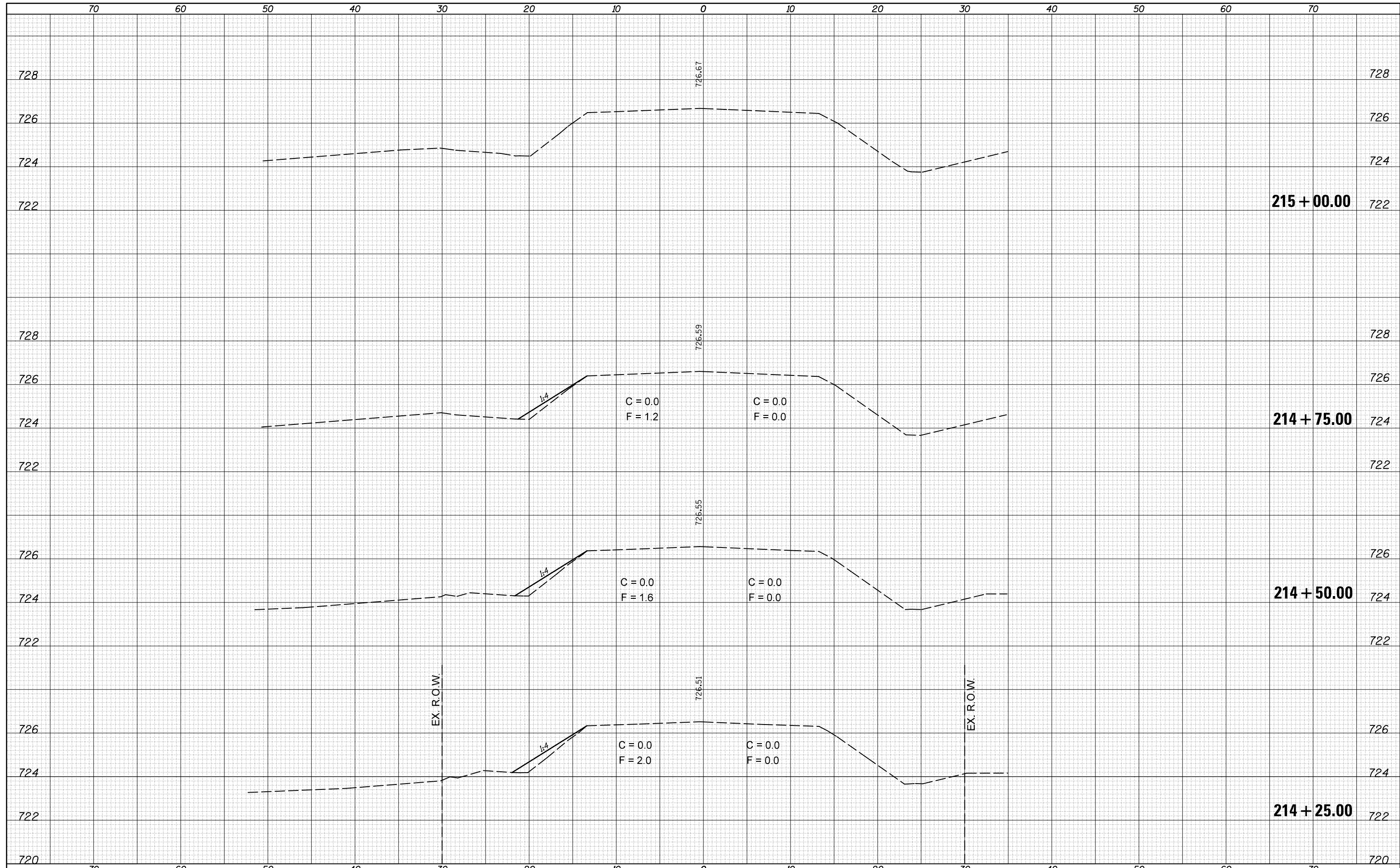
**CROSS SECTION SHEETS
LOCATION 4 - S.N 057-8234**

SCALE: SHEET 2 OF 3 SHEETS STA. 213+68.00 TO STA. 214+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1476	(55, 55A)CR	McLEAN	130	93
				CONTRACT NO. 70752
ILLINOIS FED. AID PROJECT				

DATE	
BY	
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TEMPLATE AREAS CHECKED	

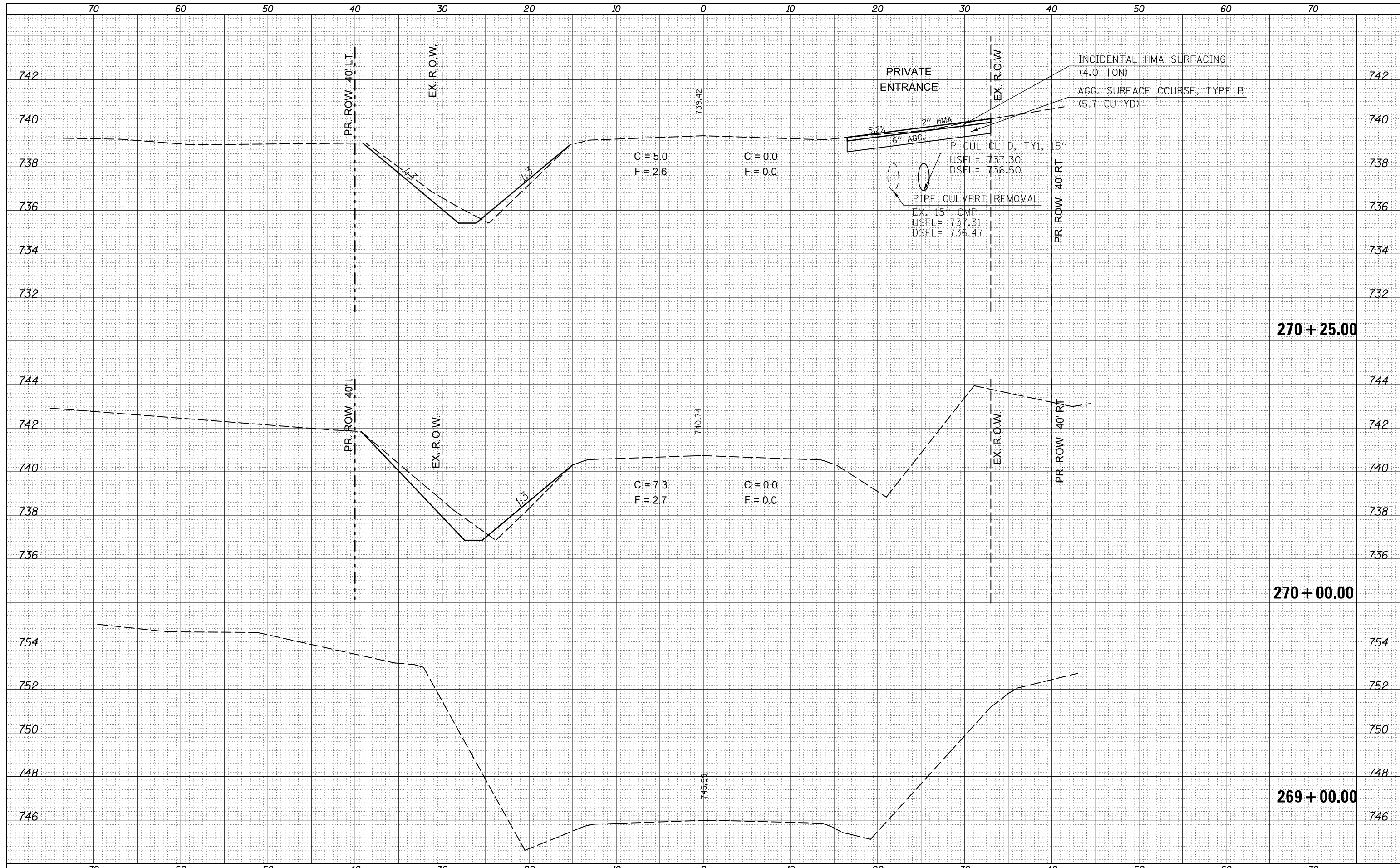
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NOTE BOOK AREAS CHECKED	
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MODEL NAME	PROJECT =	CHECKED -	REVISÉ -					1476	(55, 55A)CR	MCLEAN	130	94
	DATE = 8/7/2018	DATE -	REVISÉ -					CONTRACT NO. 70752				
								ILLINOIS FED. AID PROJECT				
SCALE:				SHEET 3 OF 3 SHEETS				STA. 214+25.00 TO STA. 215+00.00				

DATE	
BY	
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NOTE BOOK	
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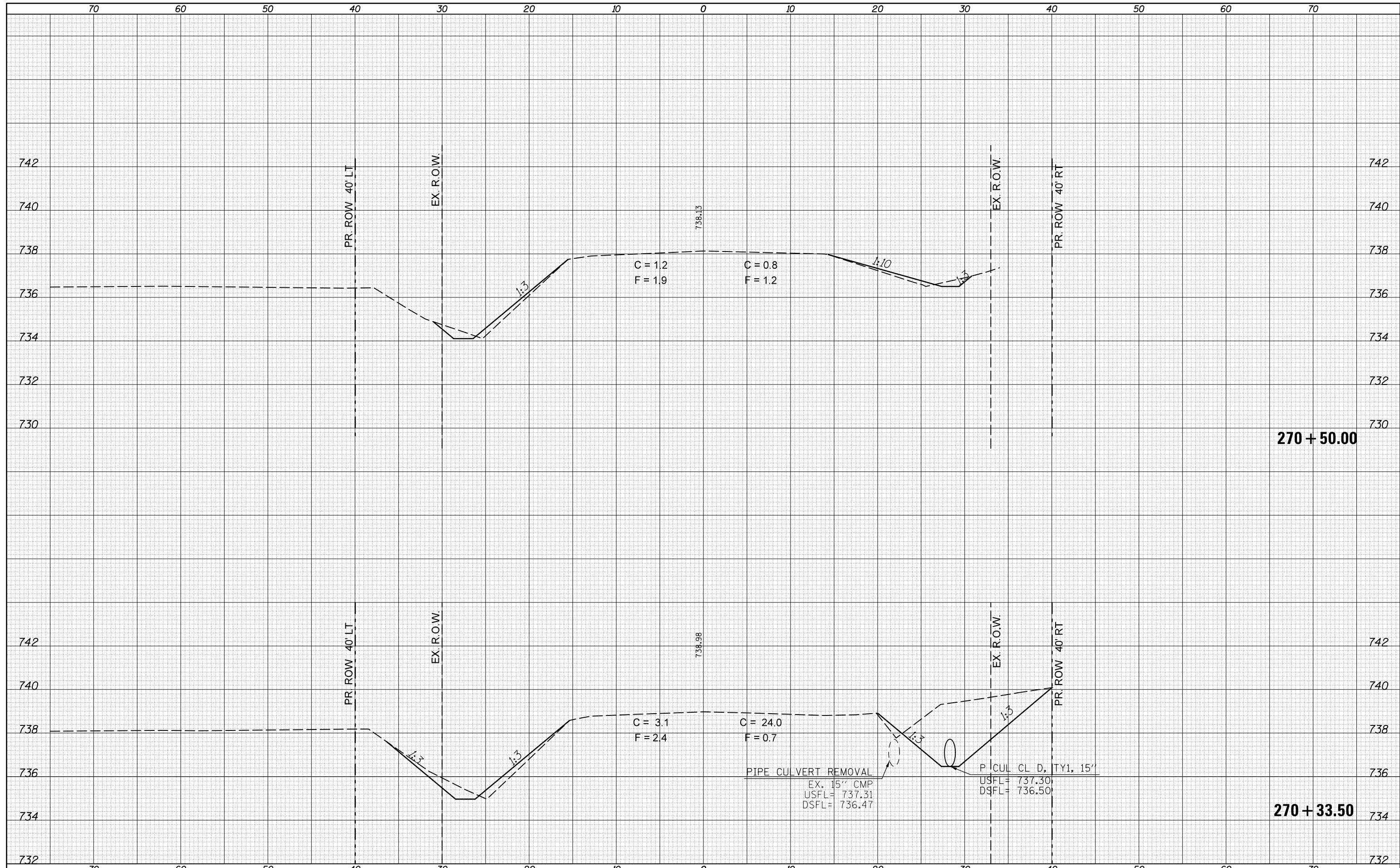
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ORIGINAL SURVEY	
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TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
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FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISÉ -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		CROSS SECTION SHEET		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
MODEL NAME =	PROJECT =	CHECKED -	REVISÉ -			SCALE:	SHEET 1 OF 11 SHEETS	STA. 269+00.00 TO STA. 270+00.00	1476	(55, 55A)CR	McLEAN	130	95
	PLOT SCALE = 10.0000' / in.	DATE -	REVISÉ -					CONTRACT NO. 70752		ILLINOIS FED. AID PROJECT			
	PLOT DATE = 8/7/2018		REVISÉ -										

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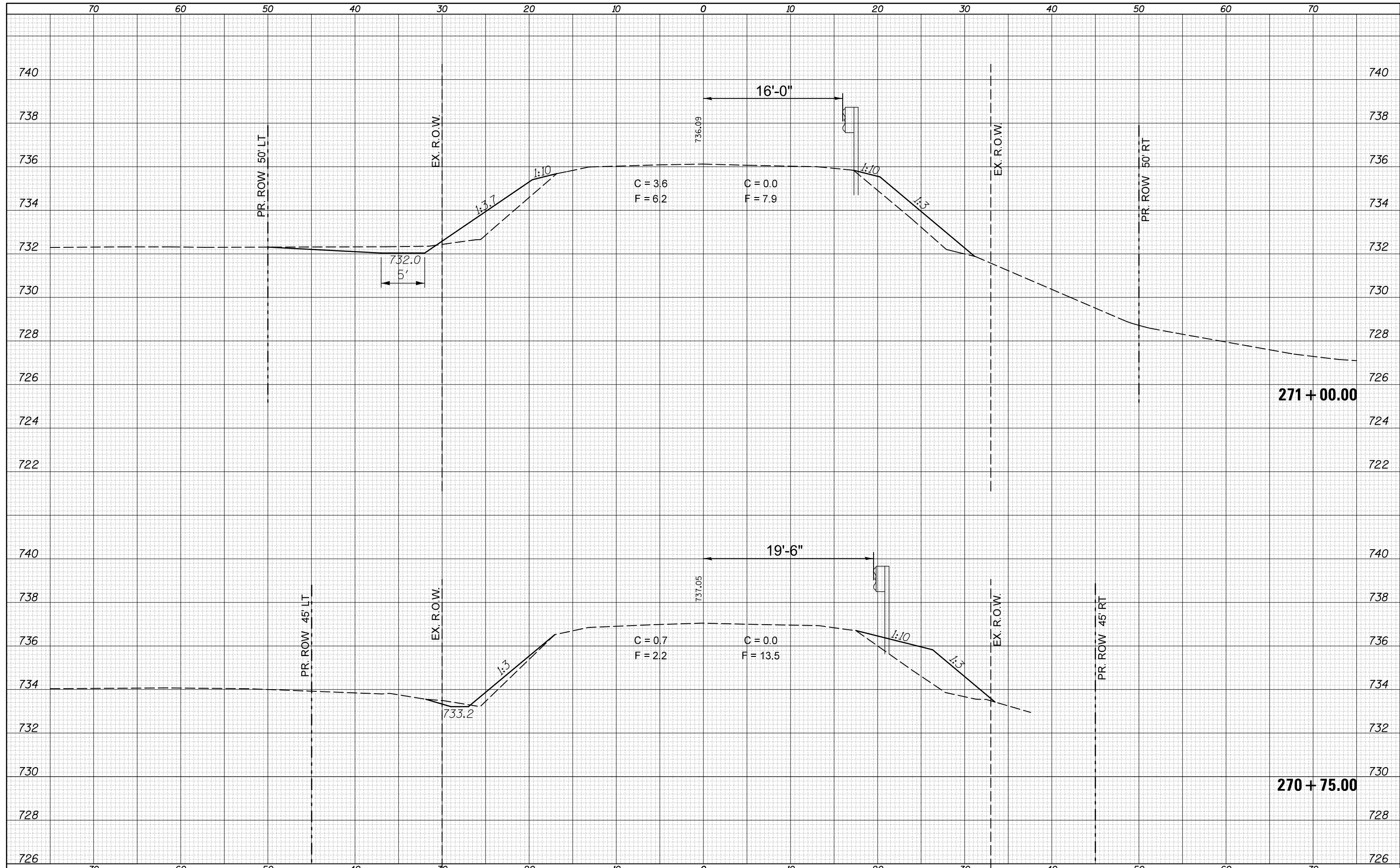
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FILE NAME =	USER NAME = piersonbr	DESIGNED -	REVISOR -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		CROSS SECTION SHEET LOCATION 5 - S.N. 057-8230		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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MODELNAME	PLOT SCALE = 10.0000' / in.	CHECKED -	REVISOR -					CONTRACT NO. 70752				
	PLOT DATE = 8/7/2018	DATE -	REVISOR -			SCALE: SHEET 2 OF 11 SHEETS STA. 270+25.00 TO STA. 270+50.00		ILLINOIS FED. AID PROJECT				

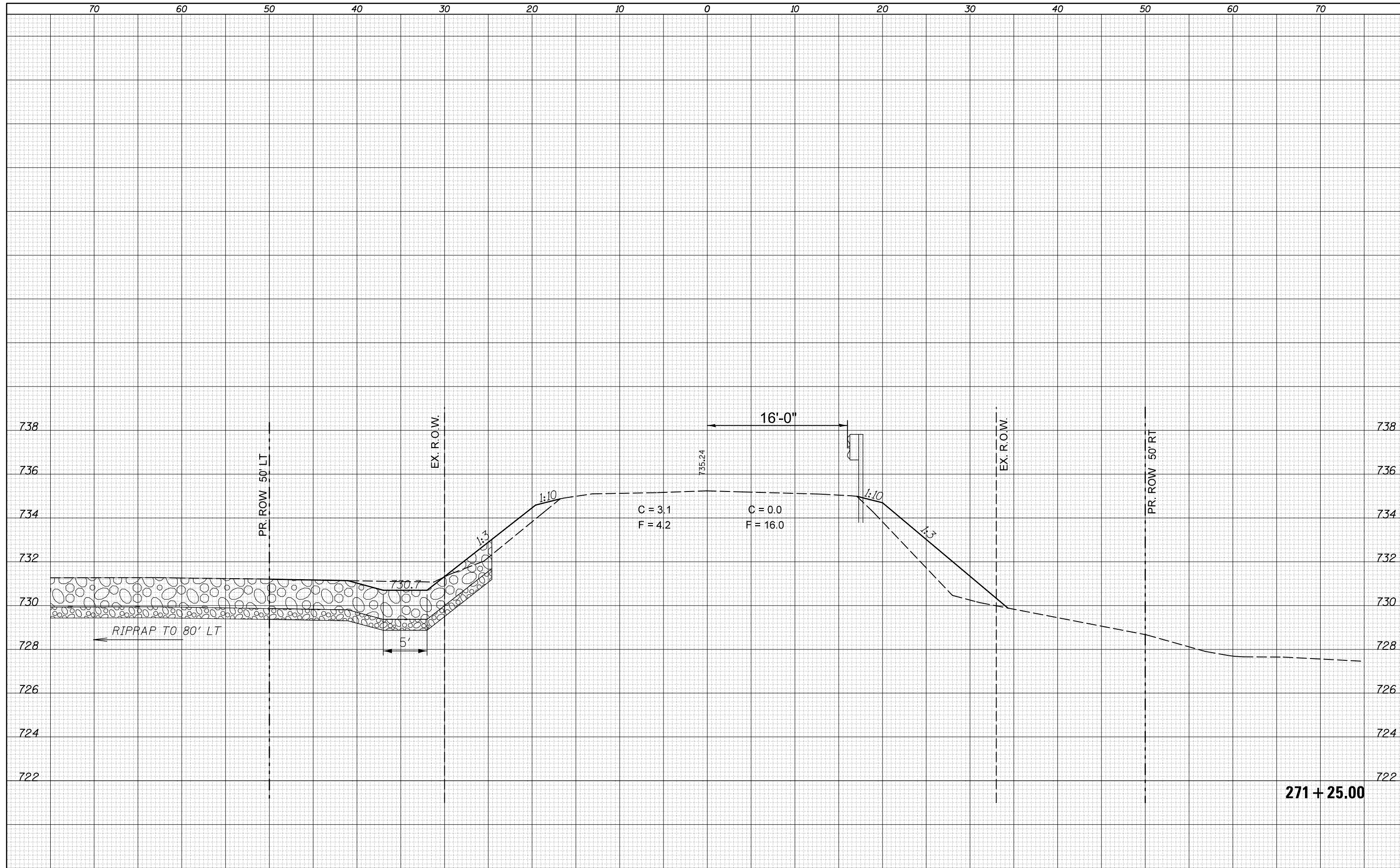
DATE	
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FINAL SURVEY NO.	
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NOTE BOOK NO.	
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DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
NOTE BOOK NO.	
TEMPLATE AREAS CHECKED	



DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
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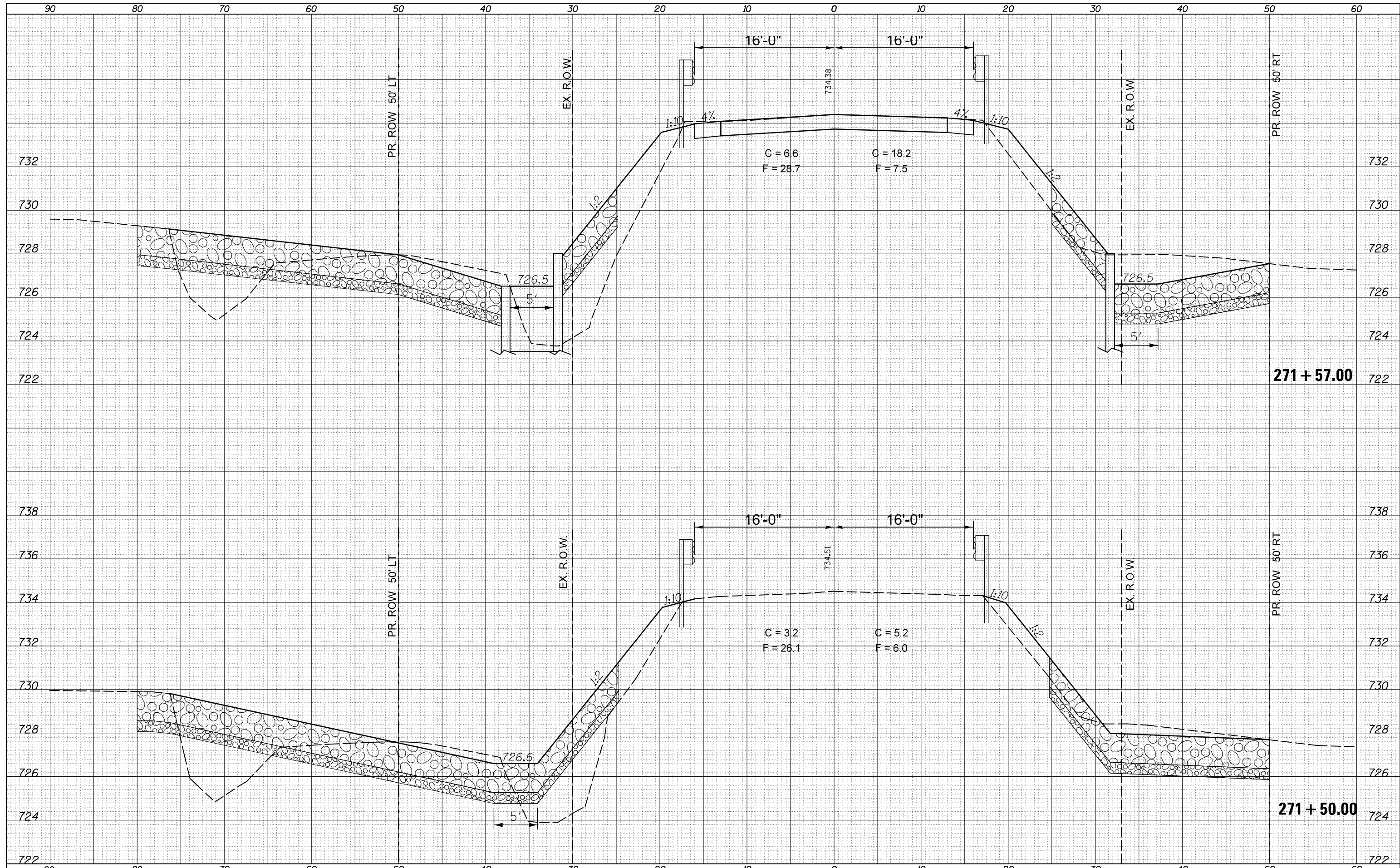
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED



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MODEL NAME	DATE = 8/7/2018	CHECKED -	REVISOR -			1476	(55, 55A)CR	McLEAN	130	98
		DATE -	REVISOR -			CONTRACT NO. 70752			ILLINOIS FED. AID PROJECT	

DATE	
BY	
FINAL SURVEY	
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NOTE BOOK	
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DATE	
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ORIGINAL SURVEY	
SURVEYED	
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TEMPLATE	
NOTE BOOK	
AREAS	
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PLOT SCALE = 10.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 70752								
DATE = 8/7/2018	DATE -	REVISED -	ILLINOIS FED. AID PROJECT								
MODELNAME				SCALE:		SHEET 5 OF 11 SHEETS	STA.	TO STA.			

DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

