

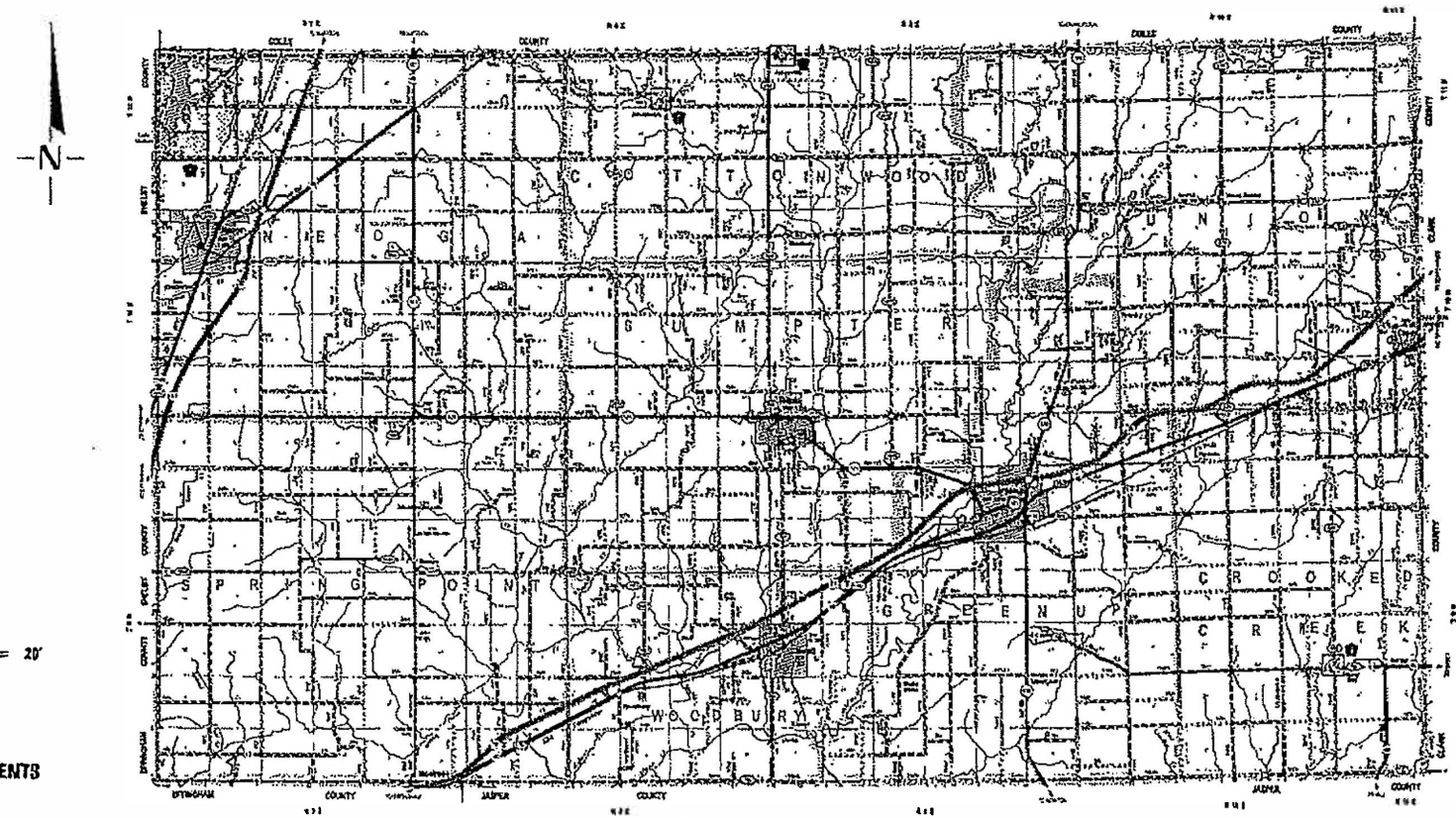
ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	1
FEDERAL AID PROJECT	ILLINOIS	CONTRACT NO. 95835		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**PLANS FOR PROPOSED  
HIGHWAY SAFETY  
IMPROVEMENT PROJECT**  
VARIOUS ROUTES  
SECTION 16-00081-00-GR  
PROJECT GMXU(746)  
CUMBERLAND COUNTY  
C-97-051-17

**INDEX OF SHEETS**

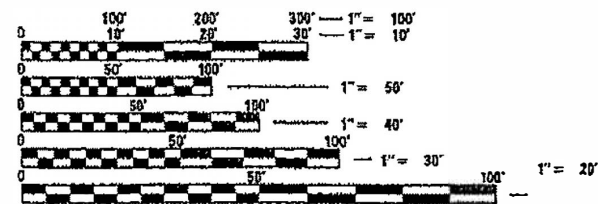
SHEET NO.	TITLE
1	COVER SHEET
2	SUMMARY OF QUANTITIES, GENERAL NOTES, AND STANDARDS
3	TYPICAL CROSS SECTIONS
4-7	SCHEDULE OF QUANTITIES
8	LOCATION MAP
9-32	PLAN SHEETS
33	STEEL RAILING, TYPE 2399
34	STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS
35-43	CROSS SECTIONS

SEE SHEET 2 FOR LIST OF ILLINOIS DOT HIGHWAY STANDARDS



SEE SHEET 8 FOR WORKSITE LOCATIONS

**LAYOUT**  
CUMBERLAND COUNTY  
COUNTY WIDE  
(NOT TO SCALE)



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  
OR 811

CONTRACT NO. 95835



*Amberly S. Cummins* 3-19-18  
ILLINOIS PROFESSIONAL NO. 56816  
(Expires 11/30/19)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

APPROVED: *MARCH 12* 2018  
CUMBERLAND COUNTY ENGINEER

PASSED: *MARCH 29* 2018  
*SA Phillips*  
DISTRICT SEVEN ENGINEER OF LOCAL ROADS AND STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW: *MARCH 29* 2018  
*Jeffrey M South*  
REGION FOUR ENGINEER

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

**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
Δ 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	48
Δ 20400800	FURNISHED EXCAVATION	CU YD	3,830
Δ 21400100	GRADING AND SHAPING DITCHES	FOOT	999
25100630	EROSION CONTROL BLANKET	SQ YD	902
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	301
28000305	TEMPORARY DITCH CHECKS	FOOT	144
28000400	PERIMETER EROSION BARRIER	FOOT	8,856
28000500	INLET AND PIPE PROTECTION	EACH	19
Δ 44004000	PAVED DITCH REMOVAL	FOOT	379
Δ 48101200	AGGREGATE SHOULDERS, TYPE B	TON	75
50104000	BRIDGE RAIL REMOVAL	FOOT	563.5
50900200	STEEL RAILING, TYPE 2399	FOOT	563.5
Δ 54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	918
Δ 54200223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	60
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	6,450.0
63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	3,550.0
63000007	STEEL PLATE BEAM GUARDRAIL, TYPE B, 6 FOOT POSTS	FOOT	275.0
63000009	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS	FOOT	462.5
63000350	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	FOOT	75.0
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	6
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	111
63200310	GUARDRAIL REMOVAL	FOOT	13,362.5
67100100	MOBILIZATION	L SUM	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	LSUM	1
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	111
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	325
• X0326519	STEEL RAILING REMOVAL	FOOT	258.0
• X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	3.25
• X6300130	STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL)	FOOT	625.0
• X6320100	GUARDRAIL REMOVAL SPECIAL	FOOT	625.0
• X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	50.0
• X6331007	REMOVAL AND REPLACEMENT OF STEEL PLATE BEAM GUARDRAIL, RAIL ELEMENT	FOOT	150.0

• SEE SPECIAL PROVISIONS

**Δ SPECIALTY ITEMS**

**LIST OF ILLINOIS DOT HIGHWAY STANDARDS**

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-08	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
631032-09	TRAFFIC BARRIER TERMINAL, TYPE 6A
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY FROM EDGE OF PAVEMENT
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" AWAY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701901-07	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 27-1	TRAFFIC BARRIER TERMINAL TYPE 5A

**GENERAL NOTES**

- NO MATERIAL SHALL BE LEFT ON OR NEAR THE ROADWAY DURING NON-WORKING HOURS.
- ILLINOIS STATE LAW REQUIRES 48 HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. (PHONE 800-892-0123) OR FOR NON-MEMBERS THE UTILITY COMPANY DIRECTLY.
- WHEN NO WORK IS BEING PERFORMED, THE FLAGGERS WILL NOT BE REQUIRED. IF THE FLAGGERS ARE NOT PRESENT, THE FLAGGER SIGNS SHALL BE REMOVED OR COVERED.
- ARTICLE 701.20 OF THE STANDARD SPECIFICATIONS DISCUSSES AN ADJUSTED UNIT PRICE. NO ADJUSTMENTS SHALL BE MADE TO THE TRAFFIC CONTROL AND PROTECTION PAY ITEMS FOR THIS CONTRACT.
- THE CONTRACTOR IS ADVISED THAT THE GUARDRAIL AND TERMINAL PAY ITEMS INCLUDED IN THE PLANS WILL BE USED TO REPLACE STEEL PLATE BEAM GUARDRAIL AND TRAFFIC BARRIER TERMINALS FOR EITHER CURRENT MIDWEST STYLES OR STEEL PLATE BEAM GUARDRAIL AND TRAFFIC BARRIER TERMINALS INSTALLED PRIOR TO JANUARY 1, 2007. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR UTILIZING THE CURRENT MIDWEST STANDARDS.
- SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
- THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.
- ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE RIGHT OF WAY DUE TO ENVIRONMENTAL DOCUMENTATION REQUIREMENTS.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE REVISION NUMBER SHOWN IN THE LIST OF ILLINOIS DOT HIGHWAY STANDARDS OR THE COPY INCLUDED IN THESE PLANS.
- GUARDRAIL POSTS THAT NEED TO BE DRIVEN THROUGH EXISTING HOT-MIX ASPHALT SHOULDERS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF STEEL PLATE BEAM GUARDRAIL.
- REMOVED GUARDRAIL THAT IS NOT REPLACED ON THE SAME DAY MUST BE DELINEATED WITH LIGHTED BARRICADES. NO LOCATIONS SHALL BE LEFT WITHOUT EITHER LIGHTED BARRICADES OR RESTORED GUARDRAIL AT ANY TIME.
- GUARDRAIL REFLECTORS SHALL NOT BE ATTACHED TO TERMINAL SECTIONS.
- FURNISHED EXCAVATION, AS SHOWN, IS FOR CONSTRUCTION OF THE PROPOSED SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS AND FOR SHOULDER WIDENING ALONG STEEL PLATE BEAM GUARDRAIL AS NEEDED. SHOULDER WIDENING AT TYPE 1 (SPECIAL) TERMINALS SHALL BE AS SHOWN ON STANDARD 630301. SHOULDER WIDENING AT STEEL PLATE BEAM GUARDRAIL TYPE A, SIX FOOT POSTS WILL BE TWO FEET BEHIND THE POST AS SHOWN ON STANDARD 630001. SHOULDER WIDENING AT STEEL PLATE BEAM GUARDRAIL TYPE A, NINE FOOT POSTS WILL BE TO THE FACE OF THE POST AS SHOWN ON STANDARD 630001. QUANTITIES SHOWN ARE APPROXIMATE.

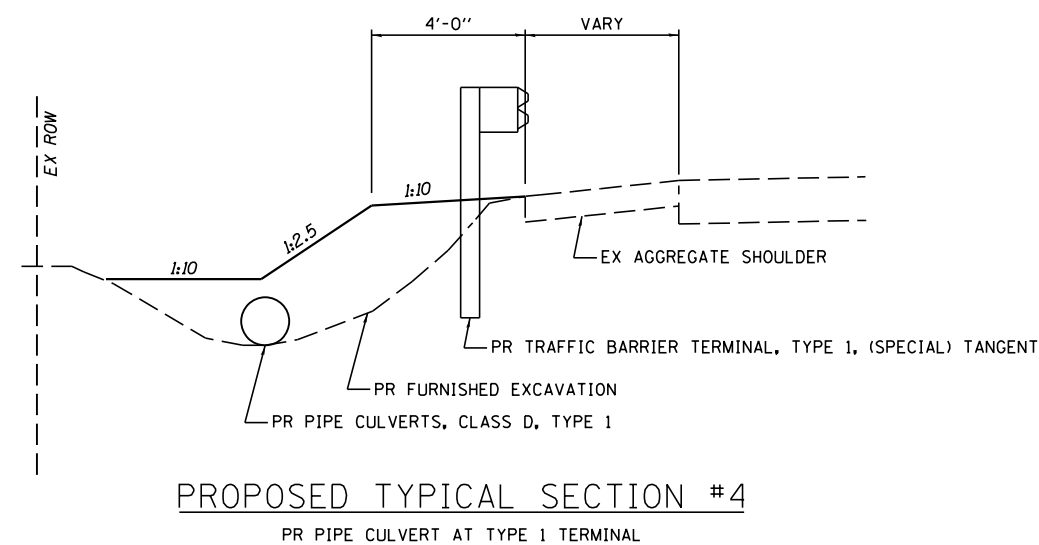
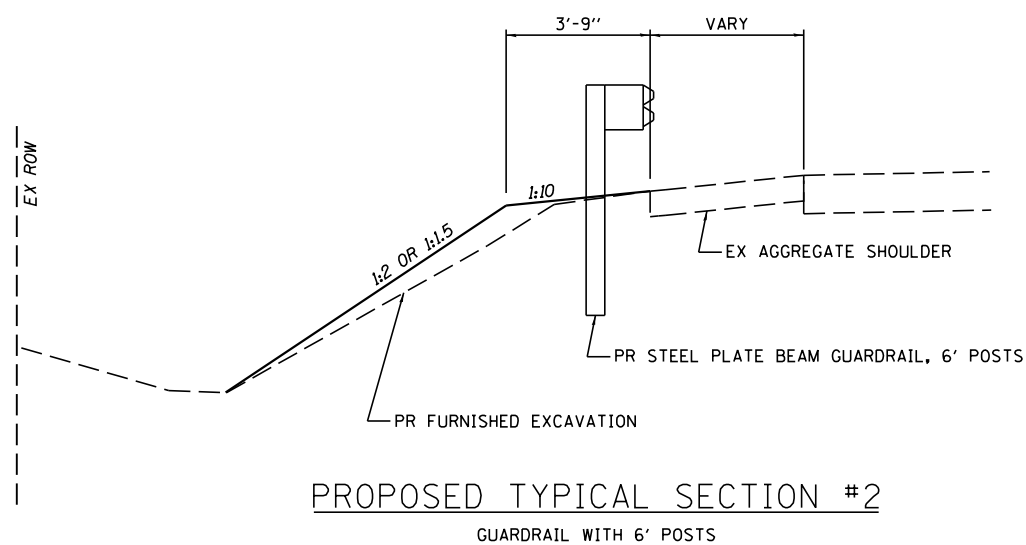
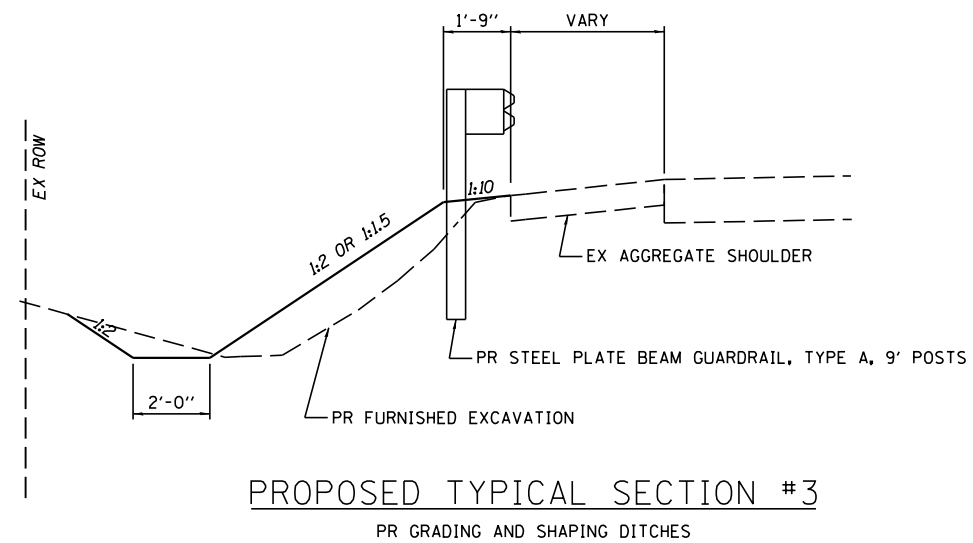
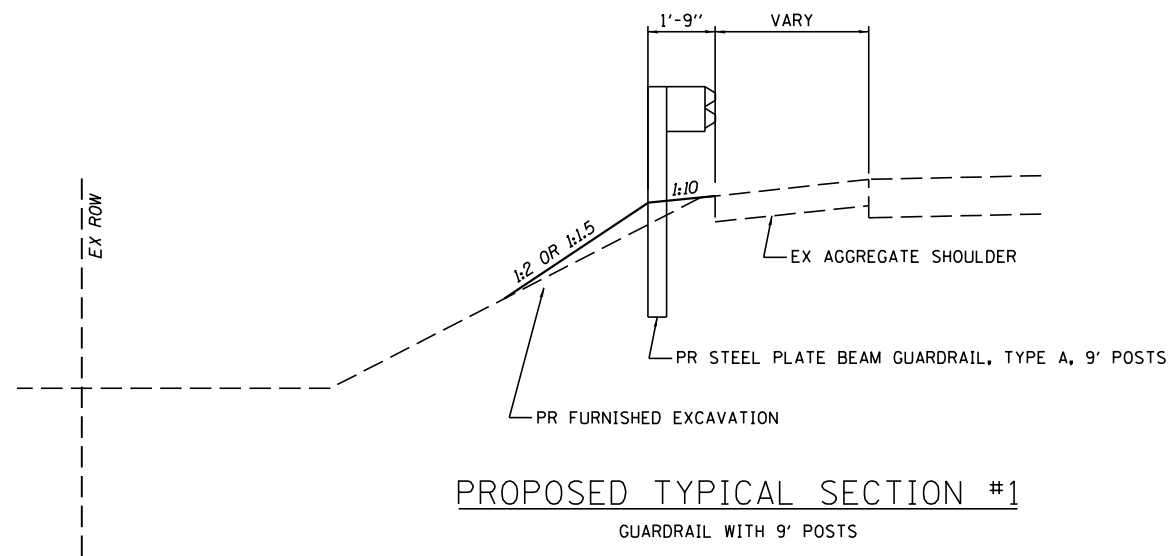


JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-gen.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 100.0000' / 1"	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 8/28/2017	REVISED -

**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

**SUMMARY OF QUANTITIES, GENERAL NOTES,  
AND STANDARDS**

ROUTE VARIOUS	SECTION 16-00081-00-GR	COUNTY CUMBERLAND	TOTAL SHEETS 43	SHEET NO. 2
SCALE:			CONTRACT NO. 95835	
SHEET NO. OF	SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	FURNISHED EXCAVATION
		CU YD
2	SE CORNER	65
2	SW CORNER	55
2	NE CORNER	45
2	NW CORNER	70
3	SE CORNER	35
3	SW CORNER	60
3	NE CORNER	70
3	NW CORNER	40
4	LEFT	25
5	LEFT	55
5	RIGHT	110
6	LEFT	165
6	RIGHT	195
7	SE CORNER	15
7	NW CORNER	15
8	LEFT	115
9	LEFT	75
9	RIGHT	50
10	LEFT	145
10	RIGHT	150
12	SE CORNER	30
12	SW CORNER	35
12	NE CORNER	40
12	NW CORNER	35
14	LEFT	30
14	RIGHT	30
20	SE CORNER	10
20	SW CORNER	5
24	SE CORNER	50
24	SW CORNER	60
24	NE CORNER	70
24	NW CORNER	80
25	SE CORNER	85
25	SW CORNER	15
25	NE CORNER	150
25	NW CORNER	80
27	NE CORNER	30
27	SW CORNER	20
28	SE CORNER	30
28	SW CORNER	30
28	NE CORNER	50
28	NW CORNER	35

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	FURNISHED EXCAVATION
		CU YD
30	LEFT	130
30	RIGHT	190
31	LEFT	110
31	RIGHT	150
36	SE CORNER	20
36	SW CORNER	40
36	NE CORNER	15
36	NW CORNER	10
37	SE CORNER	20
37	SW CORNER	10
37	NE CORNER	25
37	NW CORNER	30
38	LEFT	30
38	RIGHT	45
39	SE CORNER	20
39	SW CORNER	10
39	NE CORNER	5
39	NW CORNER	5
40	RIGHT	45
40	LEFT	35
41	RIGHT	35
41	LEFT	40
43	SW CORNER	125
43	NE CORNER	130

TOTAL 3,830

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	SEEDING, CLASS 2 (SPECIAL)
		ACRE
2	SE CORNER	0.028
2	SW CORNER	0.050
2	NE CORNER	0.049
2	NW CORNER	0.029
3	SE CORNER	0.020
3	SW CORNER	0.027
3	NE CORNER	0.034
3	NW CORNER	0.024
4	LEFT	0.034
5	LEFT	0.061
5	RIGHT	0.077
6	LEFT	0.107
6	RIGHT	0.106
7	SE CORNER	0.020
7	NW CORNER	0.028
8	LEFT	0.086
9	LEFT	0.076
9	RIGHT	0.056
10	LEFT	0.076
10	RIGHT	0.062
12	SE CORNER	0.034
12	SW CORNER	0.035
12	NE CORNER	0.037
12	NW CORNER	0.039
14	LEFT	0.043
14	RIGHT	0.037
20	SE CORNER	0.023
20	SW CORNER	0.012
24	SE CORNER	0.042
24	SW CORNER	0.050
24	NE CORNER	0.046
24	NW CORNER	0.056
25	SE CORNER	0.030
25	SW CORNER	0.020
25	NE CORNER	0.048
25	NW CORNER	0.034
27	NE CORNER	0.031
27	SW CORNER	0.030
28	SE CORNER	0.024
28	SW CORNER	0.025
28	NE CORNER	0.029
28	NW CORNER	0.018

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	SEEDING, CLASS 2 (SPECIAL)
		ACRE
30	LEFT	0.097
30	RIGHT	0.164
31	LEFT	0.106
31	RIGHT	0.157
36	SE CORNER	0.022
36	SW CORNER	0.056
36	NE CORNER	0.025
36	NW CORNER	0.010
37	SE CORNER	0.019
37	SW CORNER	0.015
37	NE CORNER	0.040
37	NW CORNER	0.031
38	LEFT	0.032
38	RIGHT	0.030
39	SE CORNER	0.017
39	SW CORNER	0.011
39	NE CORNER	0.012
39	NW CORNER	0.011
40	RIGHT	0.033
40	LEFT	0.035
41	RIGHT	0.037
41	LEFT	0.035
43	SE CORNER	0.047
43	NE CORNER	0.182

TOTAL 3.02  
ROUNDED TOTAL 3.25

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	TREE REMOVAL (6 TO 15 UNITS DIAMETER)
		UNIT
25	NW CORNER	48
TOTAL		48

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	PIPE CULVERTS, CLASS D, TYPE 1 15"	PIPE CULVERTS, CLASS D, TYPE 1 18"
		FOOT	FOOT
2	SE CORNER	58	
2	NW CORNER		60
3	SW CORNER	50	
3	NE CORNER	50	
3	NW CORNER	42	
5	RIGHT	42	
9	LEFT	36	
9	RIGHT		
10	LEFT	60	
10	RIGHT	116	
24	NW CORNER	48	
25	NW CORNER	50	
30	LEFT	42	
30	RIGHT	52	
31	RIGHT	52	
36	SE CORNER	32	
40	RIGHT	78	
41	LEFT	66	
43	SE CORNER	44	
TOTAL		918	60

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	PAVED DITCH REMOVAL
		FOOT
2	NW CORNER	64
3	SW CORNER	54
9	LEFT	94
7	NW CORNER	65
10	LEFT	48
30	RIGHT	54
TOTAL		379

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	AGGREGATE SHOULDERS, TYPE B
		FOOT
43	NE CORNER	75
TOTAL		75



JOB = 2458.1  
 FILE NAME = 2458.1sh-t-schedules.dgn  
 PLOT SCALE = 2.0000' / in.  
 PLOT DATE = 3/19/2018  
 DESIGNED - CGF  
 DRAWN - CGF  
 CHECKED - NAK  
 DATE - 11/15/2017  
 REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

**SCHEDULE OF QUANTITIES**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	4
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 95835

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	SPBGR TY A 6' Posts	SPBGR TY B 6' Posts	SPBGR TY A 9' Posts	SPBGR TY B 9' Posts	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	REM & REPL SPBGR RAIL ELEMENT	GUARDRAIL REMOVAL SPECIAL	STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL)	STEEL RAILING REMOVAL	BRIDGE RAIL REMOVAL	TBT TY 1 (SPECIAL) TANGENT (EACH)	TBT TYPE 2	TBT TYPE 5A	TBT TYPE 6A	STEEL RAILING TY 2399	GUARDRAIL REMOVAL	GUARDRAIL REFLECTORS, TYPE A	TERMINAL MARKER - DIRECT APPLIED
													50'							
		FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	FOOT	FOOT	EACH	EACH
2	SE CORNER				12.5								1					25	4	1
2	SW CORNER			37.5	25			25					1					62.5	4	1
2	NE CORNER			37.5	25								1					62.5	4	1
2	NW CORNER				12.5			25					1					25	4	1
3	SE CORNER				12.5								1					25	4	1
3	SW CORNER			12.5	25			25					1					50	4	1
3	NE CORNER			12.5	25								1					50	4	1
3	NW CORNER				12.5			25					1					25	4	1
4	LEFT			162.5									2					100	4	2
5	LEFT			87.5									2					125	4	2
5	RIGHT			87.5									2					162.5	4	2
6	LEFT			37.5									2					100	4	2
6	RIGHT			37.5									2					100	4	2
7	SE CORNER	12.5	25										1					75	4	1
7	SW CORNER	62.5	25						137.5	137.5	129		1					75	4	1
7	NE CORNER	62.5	25										1					75	4	1
7	NW CORNER			12.5	25				137.5	137.5	129		1					75	4	1
8	LEFT			50									2					100	4	2
9	LEFT			50									2					100	4	2
9	RIGHT			87.5									2					100	4	2
10	LEFT			37.5									2					100	4	2
10	RIGHT			37.5									2					100	4	2
12	SE CORNER												1		1					1
12	SW CORNER												1		1					1
12	NE CORNER												1		1					1
12	NW CORNER												1		1					1
14	LEFT			175									2					287.5	4	2
14	RIGHT			150									2					250	4	2
15	NW CORNER	25											1					25		1
15	NE CORNER												1					25		1
15	SE CORNER	25											1					25		1
15	SW CORNER												1					25		1
20	SE CORNER	50											1					25	4	1
20	SW CORNER												1					25		1
24	SE CORNER			12.5	25								1					25	4	1
24	SW CORNER			12.5	25								1					25	4	1
24	NE CORNER			12.5	25								1					25	4	1
24	NW CORNER			12.5	25								1					25	4	1
25	SE CORNER			12.5									1					62.5	4	1
25	SW CORNER			12.5									1					62.5	4	1
25	NE CORNER			25									1					62.5	4	1
25	NW CORNER			12.5									1					62.5	4	1
26	NW CORNER	12.5											1					50	4	1
26	NE CORNER												1					25		1
26	SE CORNER												1					25		1
26	SW CORNER												1					25		1

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	SPBGR TY A 6' Posts	SPBGR TY B 6' Posts	SPBGR TY A 9' Posts	SPBGR TY B 9' Posts	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	REM & REPL SPBGR RAIL ELEMENT	GUARDRAIL REMOVAL SPECIAL	STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL)	STEEL RAILING REMOVAL	BRIDGE RAIL REMOVAL	TBT TY 1 (SPECIAL) TANGENT (EACH)	TBT TYPE 2	TBT TYPE 5A	TBT TYPE 6A	STEEL RAILING TY 2399	GUARDRAIL REMOVAL	GUARDRAIL REFLECTORS, TYPE A	TERMINAL MARKER - DIRECT APPLIED
													50'							
		FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	FOOT	FOOT	EACH	EACH
27	NE CORNER			50									1					25	4	1
27	NW CORNER												1		1					1
27	SW CORNER			50									1					25	4	1
27	SE CORNER												1		1					1
28	SE CORNER												1					50		1
28	SW CORNER												1					50		1
28	NE CORNER												1					50		1
28	NW CORNER												1					50		1
29	NW CORNER	12.5											1			1		50	4	1
29	NE CORNER												1			1				1
29	SE CORNER					25					281.75			1		1	281.75	50	4	
29	SW CORNER									281.75			1			1	281.75			1
30	LEFT			300									2					400	4	2
30	RIGHT			250									2					350	4	2
31	LEFT			362.5									2					462.5	5	2
31	RIGHT			412.5									2					512.5	5	2
36	SE CORNER				25								1					37.5	4	1
36	SW CORNER			75	25			12.5					1					37.5	4	1
36	NE CORNER			50	25								1					25	4	1
36	NW CORNER				12.5	25		12.5										25	4	
37	SE CORNER				25								1					37.5	4	1
37	SW CORNER			50	25			12.5					1					37.5	4	1
37	NE CORNER			50	25								1					37.5	4	1
37	NW CORNER				25			12.5					1					37.5	4	1
38	LEFT			25									2					87.5	4	2
38	RIGHT			25									2					87.5	4	2
39	SE CORNER												1					50		1
39	SW CORNER			12.5									1					50	4	1
39	NE CORNER			12.5									1					50	4	1
39	NW CORNER												1					50		1
40	LEFT			37.5									2					75	4	2
40	RIGHT			37.5									2					75	4	2
41	LEFT			12.5		37.5							2					75	4	2
41	RIGHT			12.5		37.5							2					75	4	2
43	SE CORNER												1					50		1
43	NE CORNER			500														500	7	
45	SE CORNER	537.5	25										1					612.5	8	1
45	SW CORNER	1387.5	25						112.5	112.5			1					1462.5	18	1
45	NE CORNER	575	25										1					650	8	1
45	NW CORNER	1712.5	25						112.5	112.5			3					1887.5	22	3
46	SE CORNER	575	25										1					650	8	1
46	SW CORNER	500	25										1					575	7	1
46	NE CORNER	575	25						62.5	62.5			1					650	8	1
46	NW CORNER	325	25						62.5	62.5			1					425	5	1
TOTAL		6450.0	275.0	3,550.0	462.5	50.0	75.0	150.0	625.0	625.0	258.0	563.5	111	1	6	4	563.5	13,362.5	325	111
ROUNDED TOTAL																				

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	INLET AND PIPE PROTECION	GRADING AND SHAPING DITCHES	EROSION CONTROL BLANKET
		FOOT	POUND	FOOT	EACH	FOOT	SQ YD
2	SE CORNER		2.8		1		
2	SW CORNER	70	5.0	8		72	
2	NE CORNER	50	4.9	8		76	
2	NW CORNER	20	2.9		1		
3	SE CORNER	97	2.0				
3	SW CORNER	48	2.7		1		
3	NE CORNER	54	3.4		1		
3	NW CORNER	30	2.4		1		
4	LEFT	313	3.4				
5	LEFT	279	6.1				
5	RIGHT	228	7.7		1		
6	LEFT	90	10.7				
6	RIGHT	107	10.6	16		74	120
7	SE CORNER	85	2.0				
7	NW CORNER	122	2.8	8		63	
8	LEFT	228	8.6	8		59	
9	LEFT	135	6.6	8	1	83	185
9	RIGHT	239	5.9				150
10	LEFT	123	7.6	8	1	70	
10	RIGHT	57	6.2		2		
12	SE CORNER	93	3.4				
12	SW CORNER	81	3.5				
12	NE CORNER	84	3.7				
12	NW CORNER	100	3.9				
14	LEFT	249	4.3	8		31	
14	RIGHT	186	3.7				
20	SE CORNER	137	2.3				
20	SW CORNER	71	1.2				
24	SE CORNER	138	4.2				
24	SW CORNER	131	5.0				
24	NE CORNER	141	4.6				
24	NW CORNER	45	5.6		1		
25	SE CORNER	99	3.0				
25	SW CORNER	74	2.0				
25	NE CORNER	120	4.8				
25	NW CORNER	28	3.4		1		
27	NE CORNER	96	3.1				
27	SW CORNER	97	3.0				
28	SE CORNER	97	2.4				
28	SW CORNER	0	2.5	8		48	
28	NE CORNER	95	2.9				
28	NW CORNER	0	1.8	8		28	

Location Number	Quadrant (NE, SE, NW, SW, LEFT, RIGHT)	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	INLET AND PIPE PROTECION	GRADING AND SHAPING DITCHES	EROSION CONTROL BLANKET
		FOOT	POUND	FOOT	EACH	FOOT	SQ YD
30	LEFT	373	9.7		1		173
30	RIGHT	345	16.4		1		
31	LEFT	545	10.6				229
31	RIGHT	527	15.7		1		
36	SE CORNER	23	2.2		1		
36	SW CORNER	148	5.6	8		72	
36	NE CORNER	142	2.5	8		37	
36	NW CORNER		1.0				
37	SE CORNER	110	1.9				
37	SW CORNER	159	1.5				
37	NE CORNER	119	4.0	8		69	20
37	NW CORNER	101	3.1	8		66	25
38	LEFT	159	3.2				
38	RIGHT	160	3.0				
39	SE CORNER	80	1.7				
39	SW CORNER	100	1.1				
39	NE CORNER	112	1.2				
39	NW CORNER	98	1.1				
40	LEFT	147	3.5	8		30	
40	RIGHT	129	3.3		1		
41	LEFT	56	3.5	8	1	60	
41	RIGHT	135	3.7	8		61	
43	SE CORNER	36	4.7		1		
43	NE CORNER	515	18.2				
TOTAL		8,856	301	144	19	999	902



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 FILE NAME = 2458.1sht-schedules.dgn  
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 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - CGF  
 CHECKED - NAK  
 DATE - 11/15/2017

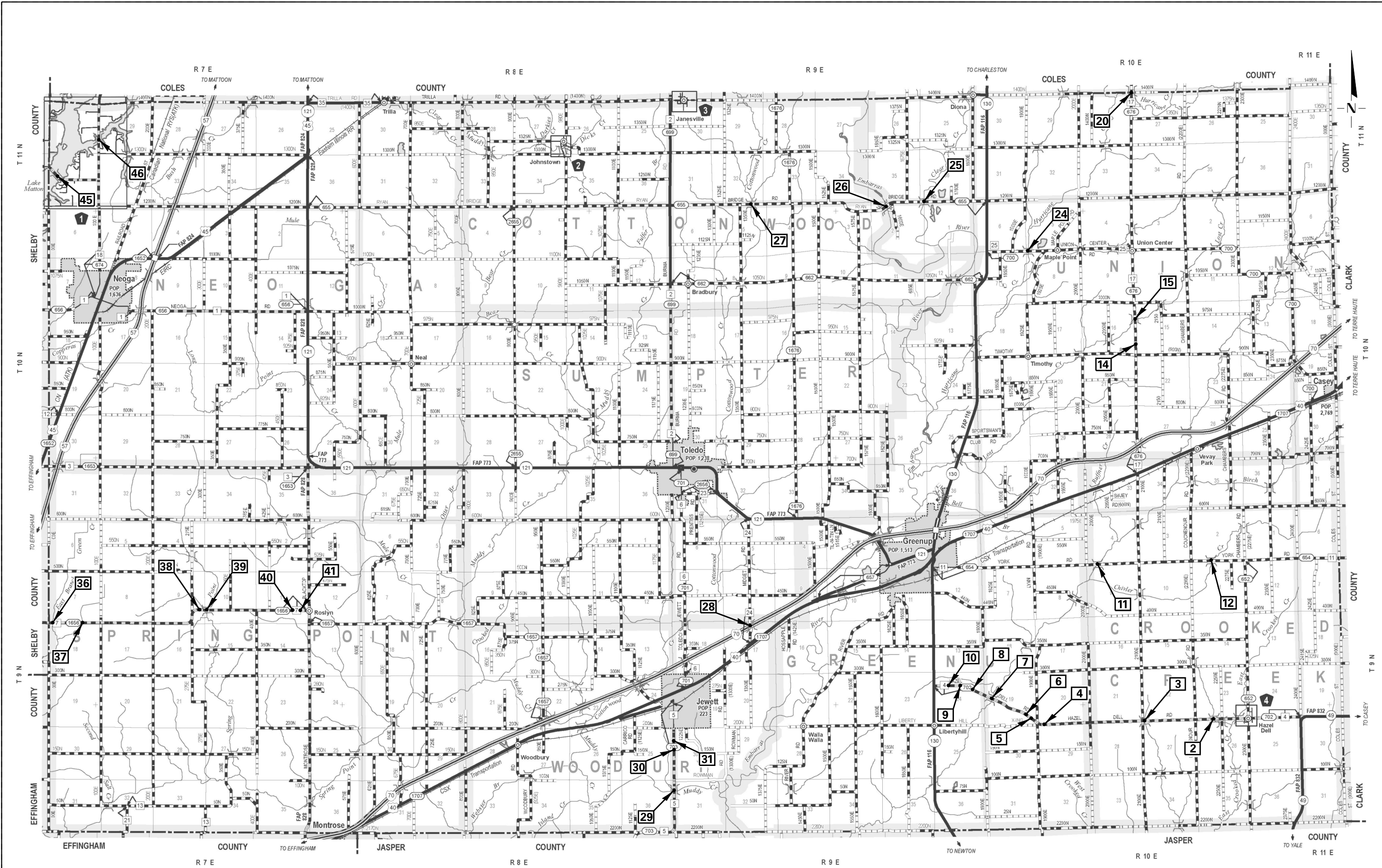
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**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

**SCHEDULE OF QUANTITIES**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	7
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT CONTRACT NO. 95835		



**CEC** Cummins  
Engineering  
Corporation  
Civil and Structural Engineering

JOB = 2458.1  
FILE NAME = #FILES#  
PLOT SCALE = #SCALE#  
PLOT DATE = #DATE#

DESIGNED - NAK  
DRAWN - SJS  
CHECKED - NAK  
DATE - 6/23/2017

REVISED -  
REVISED -  
REVISED -  
REVISED -

**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

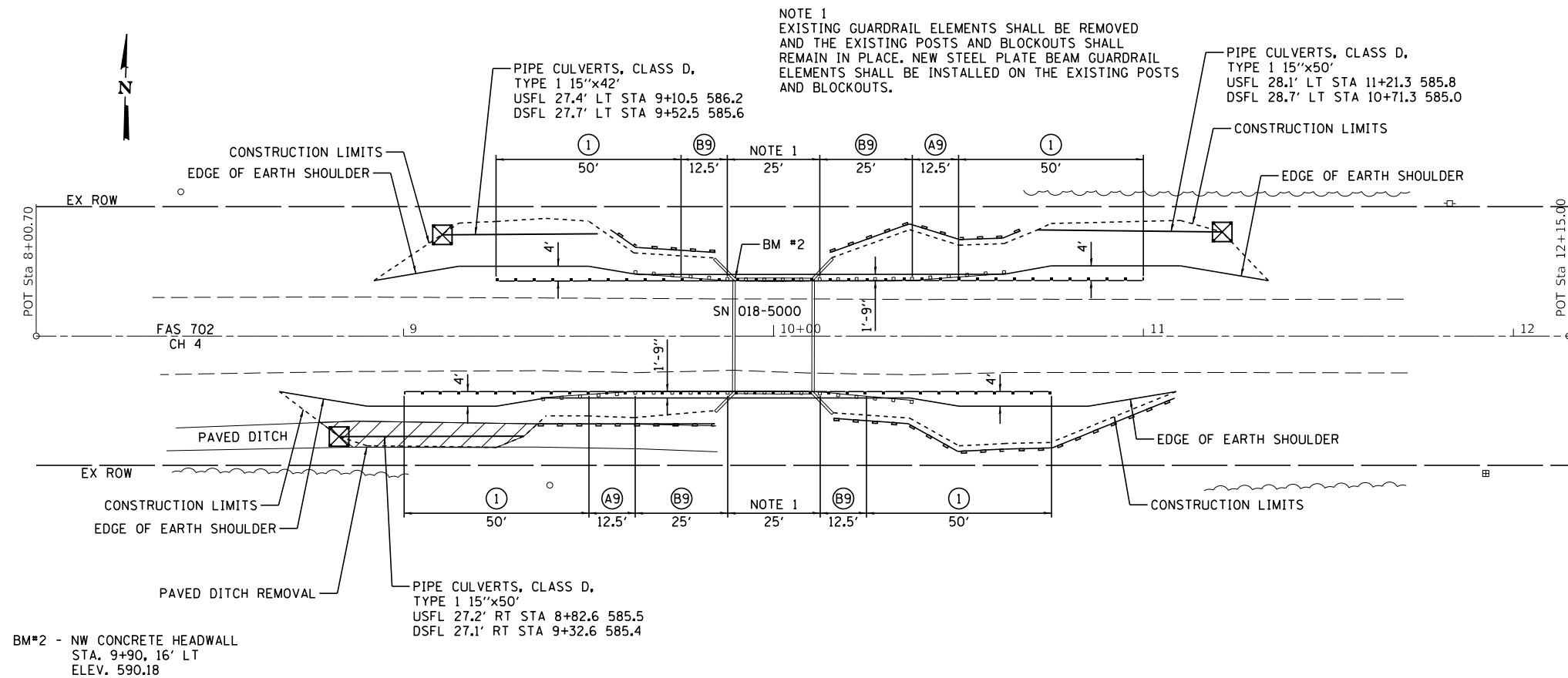
**LOCATION MAP  
CUMBERLAND COUNTY**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	8
		CONTRACT NO. 95835		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SEC 22, T9N, R10E, 3RD PM



**LEGEND**

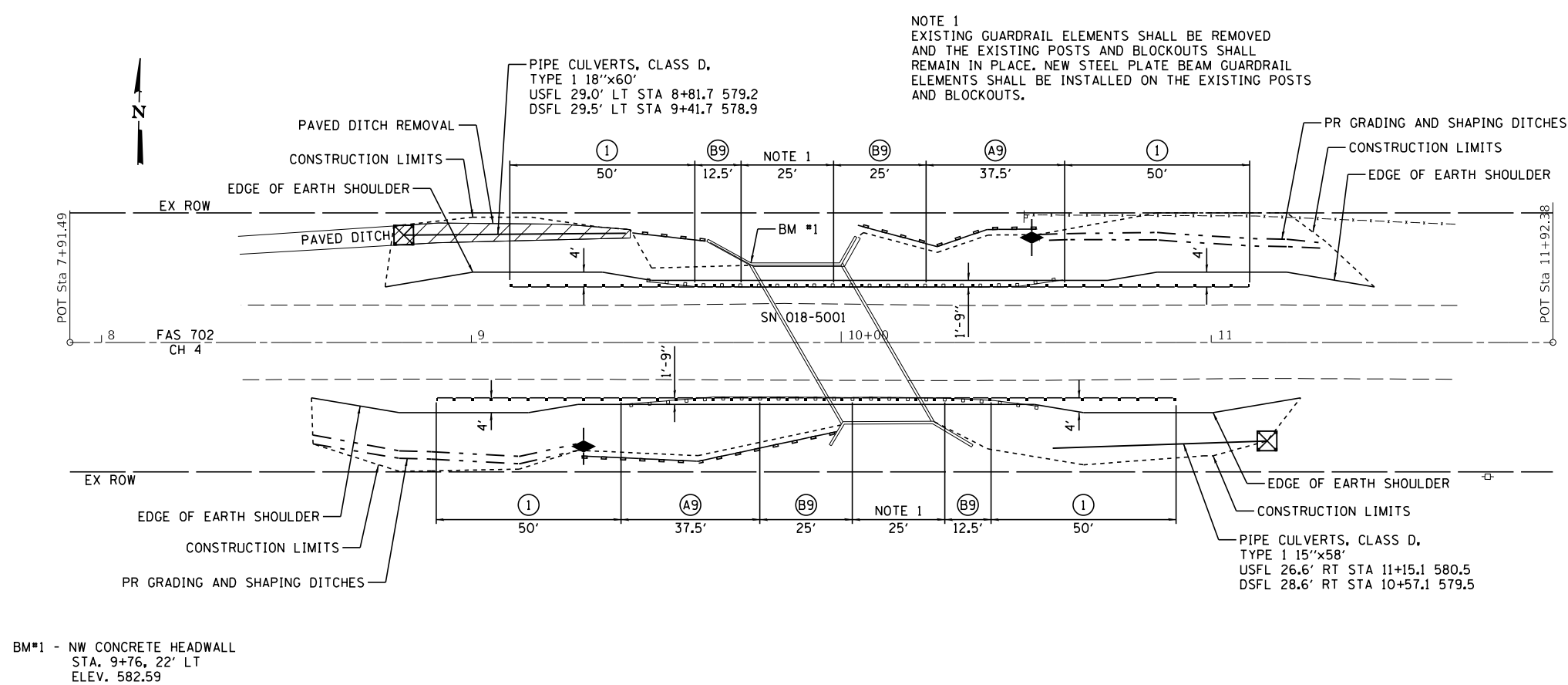
- ◆ TEMPORARY DITCH CHECKS
- ▬ PERIMETER EROSION BARRIER
- ⊗ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- ② TRAFFIC BARRIER TERMINAL, TYPE 2
- ⑤A TRAFFIC BARRIER TERMINAL, TYPE 5A
- ① TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 4

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+00.70	923343.62	1056072.32
POT	10+00.00	923349.16	1056271.54
POT	12+15.00	923355.13	1056486.45

LOCATION NO. 3  
MAJOR COLLECTOR  
ADT 500  
DESIGN SPEED 50 MPH

SEC 27, T9N, R10E, 3RD PM  
SEC 23, T9N, R10E, 3RD PM



CH 4

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+91.49	923530.21	1063084.59
POT	10+00.00	923534.44	1063293.06
POT	11+92.38	923538.33	1063485.40

LOCATION NO. 2  
MAJOR COLLECTOR  
ADT 500  
DESIGN SPEED 50 MPH

SEC 26, T9N, R10E, 3RD PM

<p>Cummins Engineering Corporation Civil and Structural Engineering</p>	JOB = 2458.1	DESIGNED - CGF	REVISED -
	FILE NAME = 2458-shl-plan_2_3.dgn	DRAWN - SJS	REVISED -
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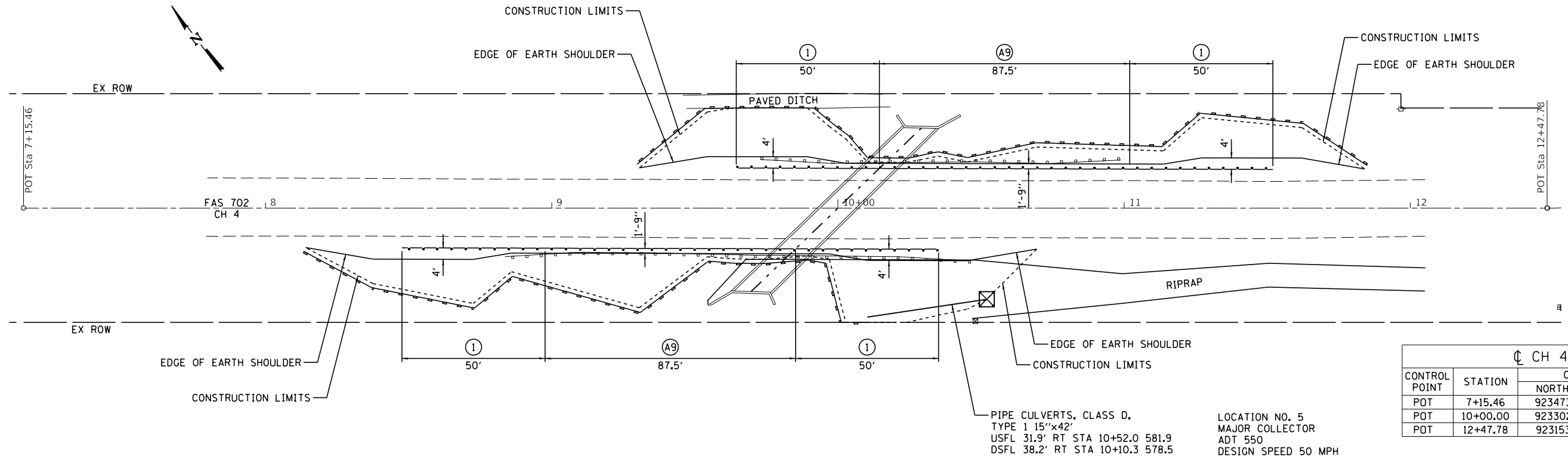
**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

PLAN

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
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ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	9
CONTRACT NO. 95835			ILLINOIS FED. AID PROJECT	

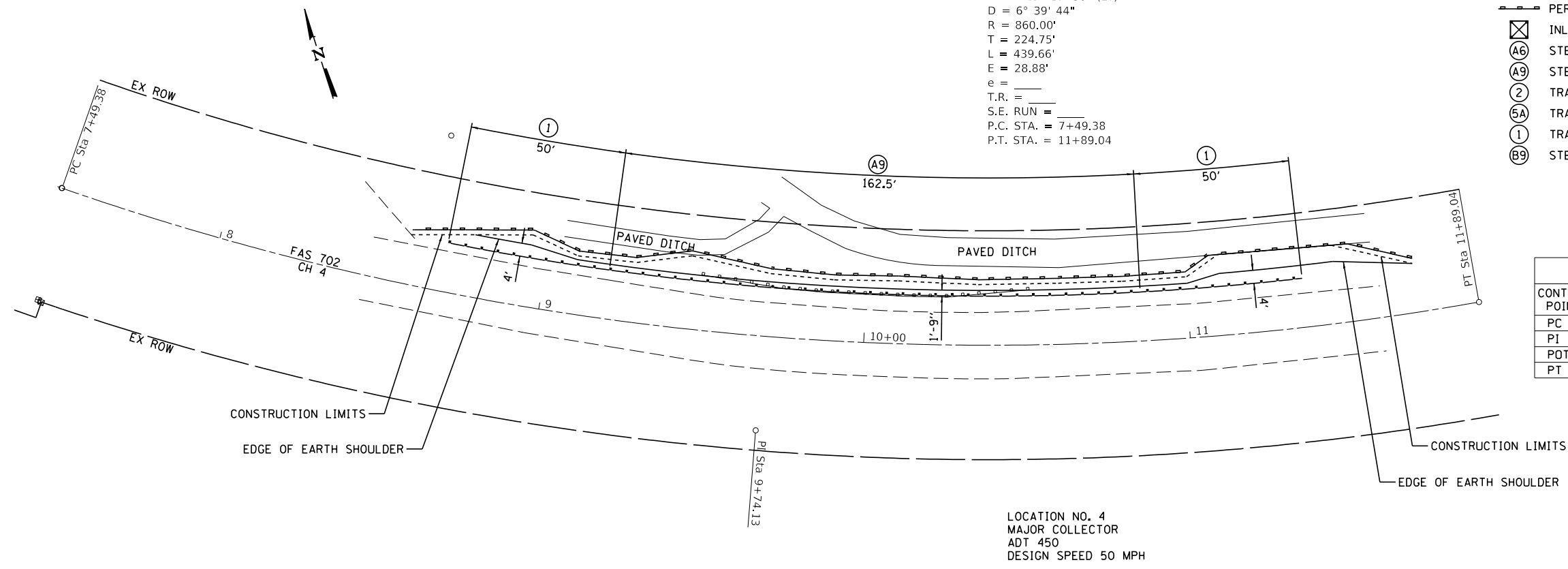
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CH 4			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+15.46	923473.67	1044950.83
POT	10+00.00	923302.55	1045178.16
POT	12+47.78	923153.53	1045376.12

PIPE CULVERTS, CLASS D,  
TYPE 1 15"x42"  
USFL 31.9' RT STA 10+52.0 581.9  
DSFL 38.2' RT STA 10+10.3 578.5

LOCATION NO. 5  
MAJOR COLLECTOR  
ADT 550  
DESIGN SPEED 50 MPH



EXIST. CURVE CRV4  
PI STA. = 9+74.13  
 $\Delta = 29^\circ 17' 30''$  (LT)  
D = 6° 39' 44"  
R = 860.00'  
T = 224.75'  
L = 439.66'  
E = 28.88'  
e = \_\_\_\_\_  
T.R. = \_\_\_\_\_  
S.E. RUN = \_\_\_\_\_  
P.C. STA. = 7+49.38  
P.T. STA. = 11+89.04

LOCATION NO. 4  
MAJOR COLLECTOR  
ADT 450  
DESIGN SPEED 50 MPH

LEGEND

- ◆ TEMPORARY DITCH CHECKS
- ▬ PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 2
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 5A
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 4			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
PC	7+49.38	923153.45	1045376.23
PI	9+74.13	923018.28	1045555.79
POT	10+00.00	923033.81	1045595.44
PT	11+89.04	922988.25	1045778.52

MODEL: Default  
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PLOT DATE = 3/19/2018

DESIGNED - CGF  
DRAWN - SJS  
CHECKED - NAK  
DATE - 10/11/2017

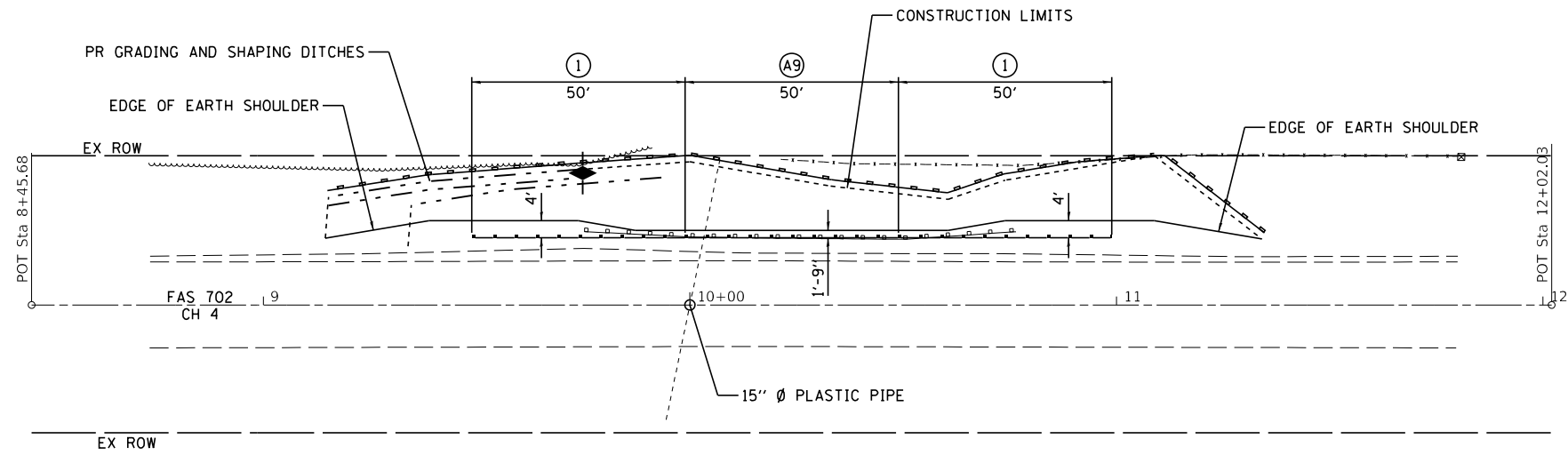
REVISED -  
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REVISED -  
REVISED -

CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS

SCALE: SHEET OF SHEETS STA. TO STA.

PLAN

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	10
CONTRACT NO. 95835				
ILLINOIS FED. AID PROJECT				



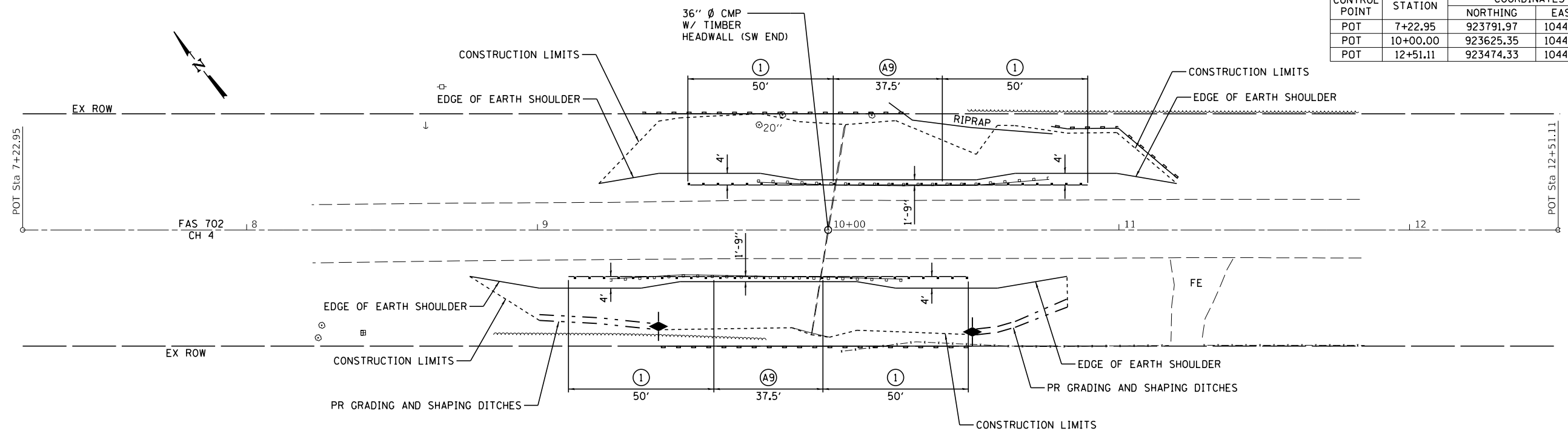
**LEGEND**

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊗ INLET AND PIPE PROTECTION
- ⓐ6 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- ⓐ9 STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- ⓐ2 TRAFFIC BARRIER TERMINAL, TYPE 2
- ⓐ5A TRAFFIC BARRIER TERMINAL, TYPE 5A
- ⓐ1 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- ⓐ9 STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 4

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+45.68	926687.38	1038444.25
POT	10+00.00	926622.43	1038584.23
POT	12+02.03	926537.39	1038767.50

LOCATION NO. 8  
 MAJOR COLLECTOR  
 ADT 550  
 DESIGN SPEED 50 MPH



CH 4

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+22.95	923791.97	1044527.99
POT	10+00.00	923625.35	1044749.33
POT	12+51.11	923474.33	1044949.95

USE EROSION CONTROL BLANKET  
 ON SLOPES STEEPER THAN 1:2  
 RT STA 9+76 TO STA 10+23

LOCATION NO. 6  
 MAJOR COLLECTOR  
 ADT 550  
 DESIGN SPEED 50 MPH

MODEL: Default  
 FILE NAME: 2458.1\_Cumberland\_Guardrail\_P1 & P2\CADD\Sheets\2458-cht-pln\_6\_8.dgn



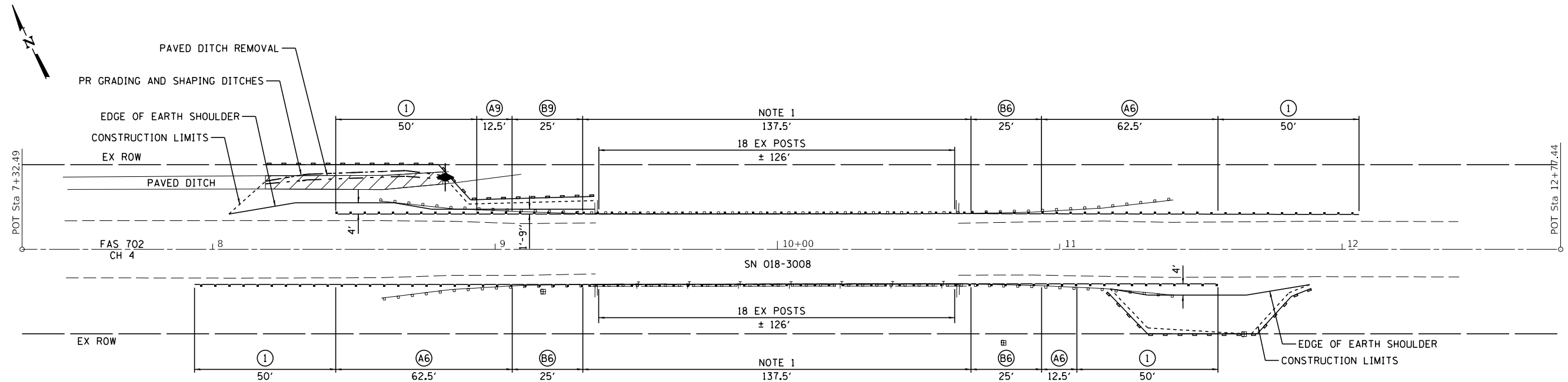
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PLOT SCALE = 40,000' / 1 in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 10/11/2017	REVISED -

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

**PLAN**

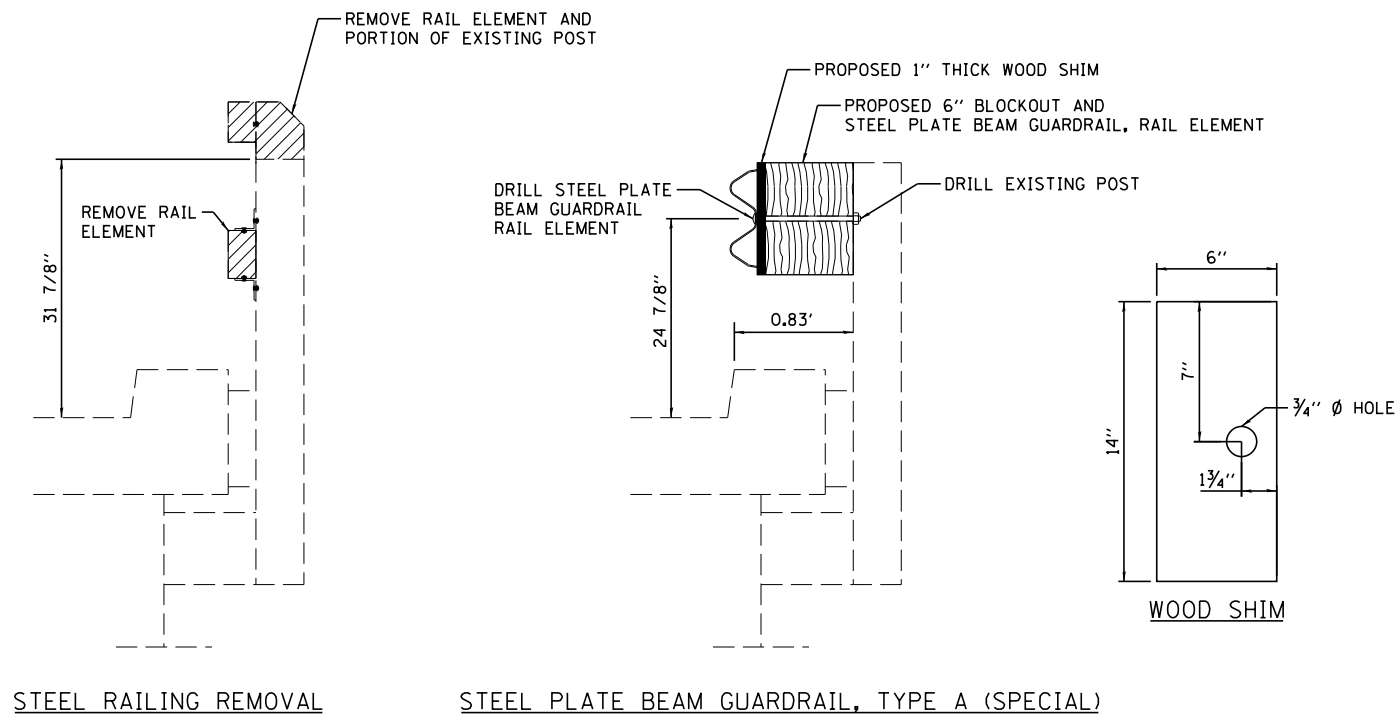
SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-0081-00-GR	CUMBERLAND	43	11
CONTRACT NO. 95835				
		ILLINOIS	FED. AID PROJECT	



LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- ⊙ A6 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- ⊙ A9 STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- ⊙ 2 TRAFFIC BARRIER TERMINAL, TYPE 2
- ⊙ 5A TRAFFIC BARRIER TERMINAL, TYPE 5A
- ⊙ 1 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- ⊙ B9 STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
- ⊙ B6 STEEL PLATE BEAM GUARDRAIL, TYPE B, 6 FOOT POSTS



**NOTE 1**  
 EXISTING BRIDGE RAIL ELEMENTS SHALL BE REMOVED AND THE EXISTING POSTS MODIFIED AS DETAILED. NEW 6" BLOCKOUT, WOOD SHIMS, AND STEEL PLATE BEAM GUARDRAIL ELEMENTS SHALL BE INSTALLED ON THE EXISTING POSTS. THE CUT PORTION OF THE EXISTING POSTS SHALL BE TREATED ACCORDING TO THE REQUIREMENTS OF AASHTO M36.

WOOD SHIMS SHALL MEET THE REQUIREMENTS OF ARTICLES 1007.01, 1007.02 AND 1007.03 OF THE STANDARD SPECIFICATIONS.

CH 4 SHALL BE CLOSED FOR REMOVAL OF EXISTING BRIDGE RAILING AND INSTALLING STEEL PLATE BEAM GUARDRAIL, RAIL ELEMENTS ON THE EXISTING POSTS. THE MAXIMUM CLOSURE TIME SHALL BE 3 CALENDAR DAYS.

CH 4			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+32.49	925698.97	1040579.72
POT	10+00.00	925587.75	1040823.01
POT	12+77.44	925472.40	1041075.33

LOCATION NO. 7  
 MAJOR COLLECTOR  
 ADT 550  
 DESIGN SPEED 50 MPH

MODEL: Default  
 FILE NAME: 2458-1\_Cumberland\_Guardrail\_P1 & PE2\_CDD\_Sheets12458-1-CH-2-Plan\_7.dgn



JOB = 2458.1  
 FILE NAME = 2458-1-Plan\_7.dgn  
 PLOT SCALE = 40,000 / 1 in.  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - SJS  
 CHECKED - NAK  
 DATE - 10/11/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS

PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

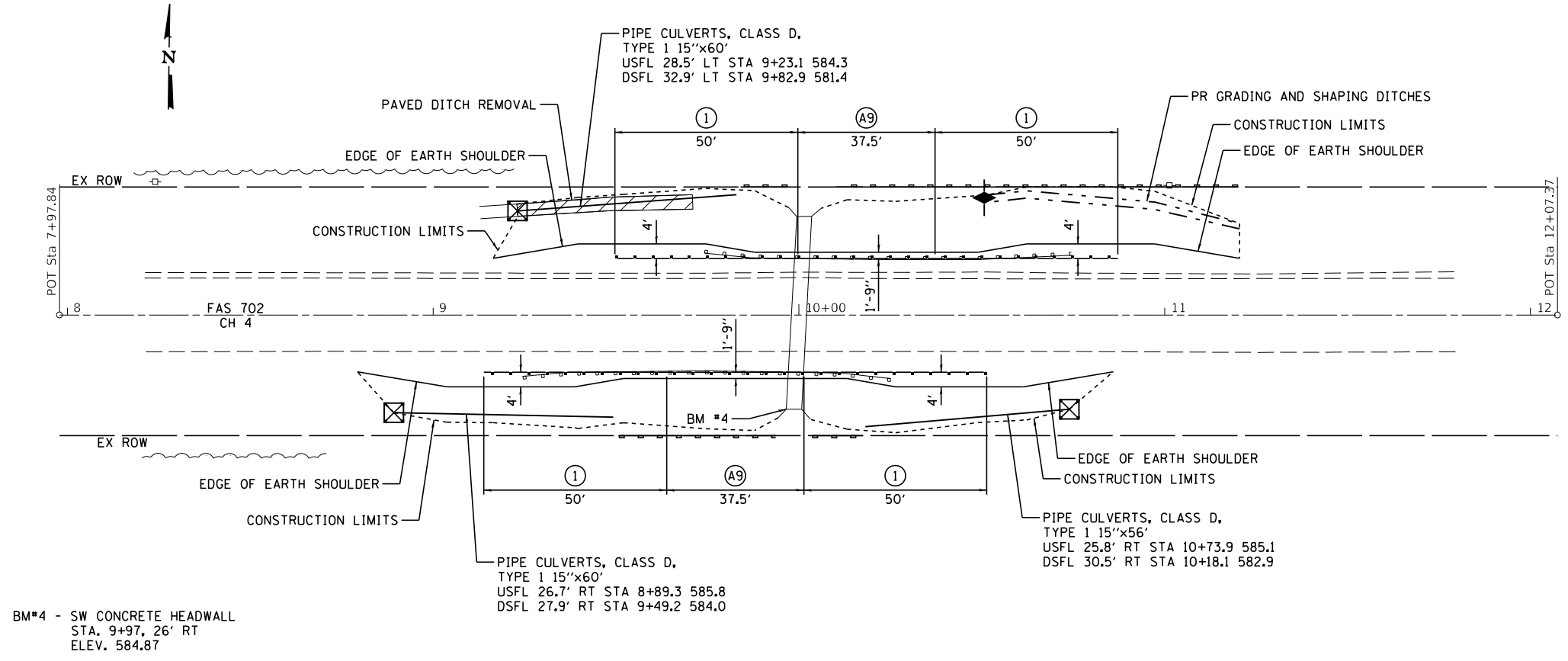
ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	12
CONTRACT NO. 95835				
		ILLINOIS	FED. AID PROJECT	

LEGEND

- ◆ TEMPORARY DITCH CHECKS
- ▬ PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 2
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 5A
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 4			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+97.84	926915.52	1036393.11
POT	10+00.00	926918.10	1036595.26
POT	12+07.37	926920.75	1036802.60

LOCATION NO. 10  
MAJOR COLLECTOR  
ADT 550  
DESIGN SPEED 50 MPH

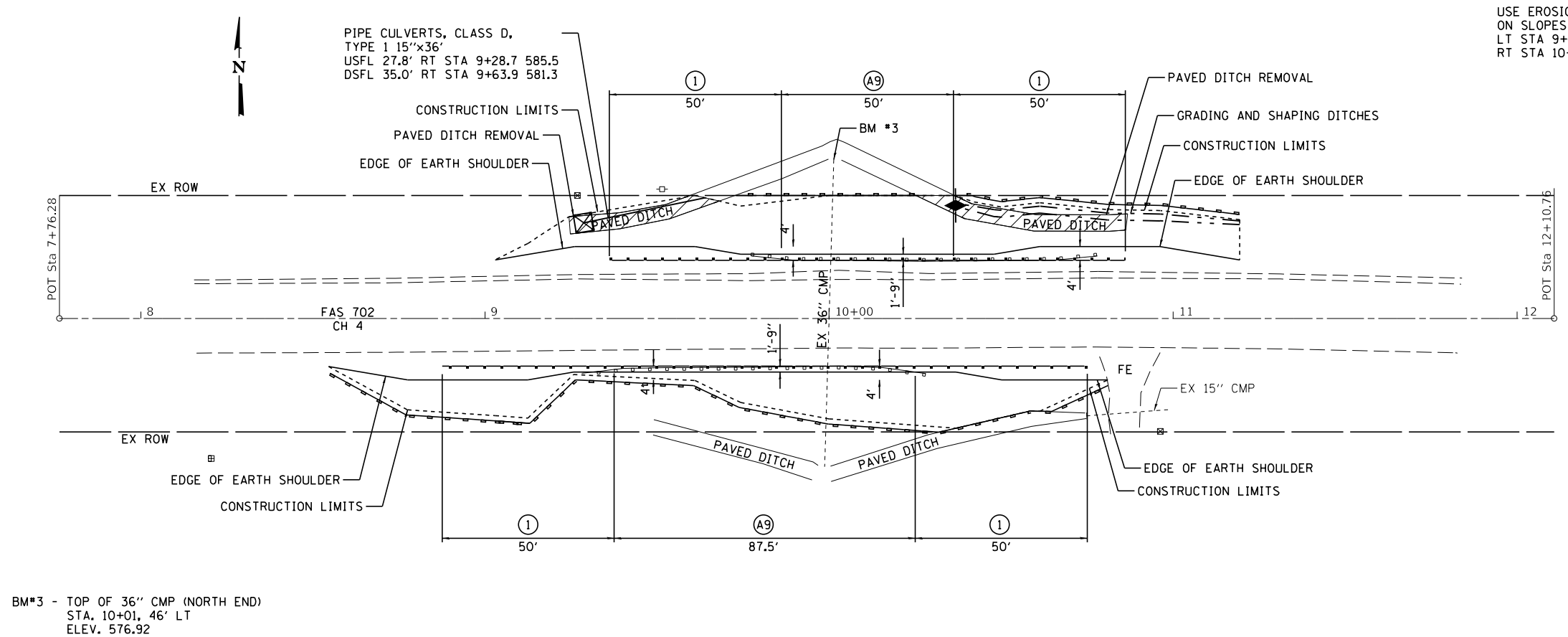


BM#4 - SW CONCRETE HEADWALL  
STA. 9+97, 26' RT  
ELEV. 584.87

USE EROSION CONTROL BLANKET  
ON SLOPES STEEPER THAN 1:2  
LT STA 9+52 TO STA 11+00  
RT STA 10+40 TO STA 10+75

CH 4			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+76.28	926925.02	1037168.78
POT	10+00.00	926926.02	1037392.50
POT	12+10.76	926926.96	1037603.25

LOCATION NO. 9  
MAJOR COLLECTOR  
ADT 550  
DESIGN SPEED 50 MPH



BM#3 - TOP OF 36" CMP (NORTH END)  
STA. 10+01, 46' LT  
ELEV. 576.92

MODEL: Default  
FILE NAME: 24581\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets13458-cht-dwg\_9\_10.dgn



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FILE NAME = 2458-cht-plan\_9\_10.dgn  
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PLOT DATE = 3/19/2018

DESIGNED - CGF  
DRAWN - SJS  
CHECKED - NAK  
DATE - 10/11/2017

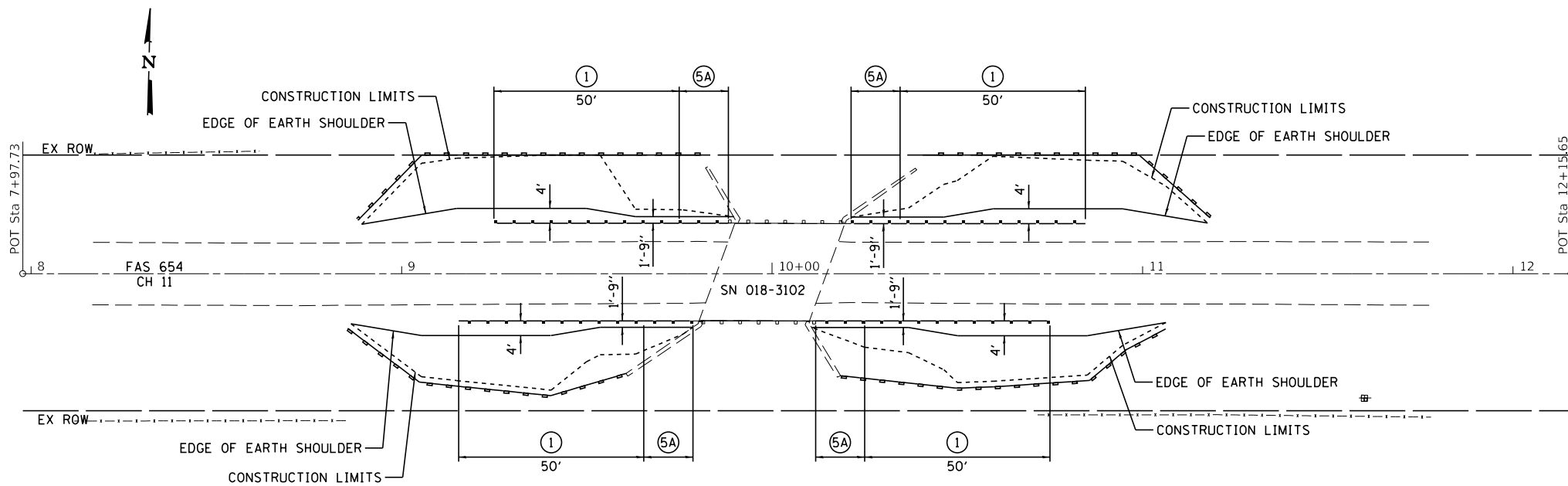
REVISED -  
REVISED -  
REVISED -  
REVISED -

CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS

PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	13
CONTRACT NO. 95835				
		ILLINOIS	FED. AID PROJECT	



LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ6 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ9 STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- ⓪2 TRAFFIC BARRIER TERMINAL, TYPE 2
- ⓪5A TRAFFIC BARRIER TERMINAL, TYPE 5A
- ⓪1 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- ⓪B9 STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 11			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+97.73	939599.62	1062837.13
POT	10+00.00	939604.62	1063039.34
POT	12+15.65	939609.94	1063254.92

LOCATION NO. 12  
 MAJOR COLLECTOR  
 ADT 200  
 DESIGN SPEED 40 MPH

MODEL: Default  
 FILE NAME: I:\2018\16-00081-00-GR\16-00081-00-GR-CH-2A01\_12.dgn



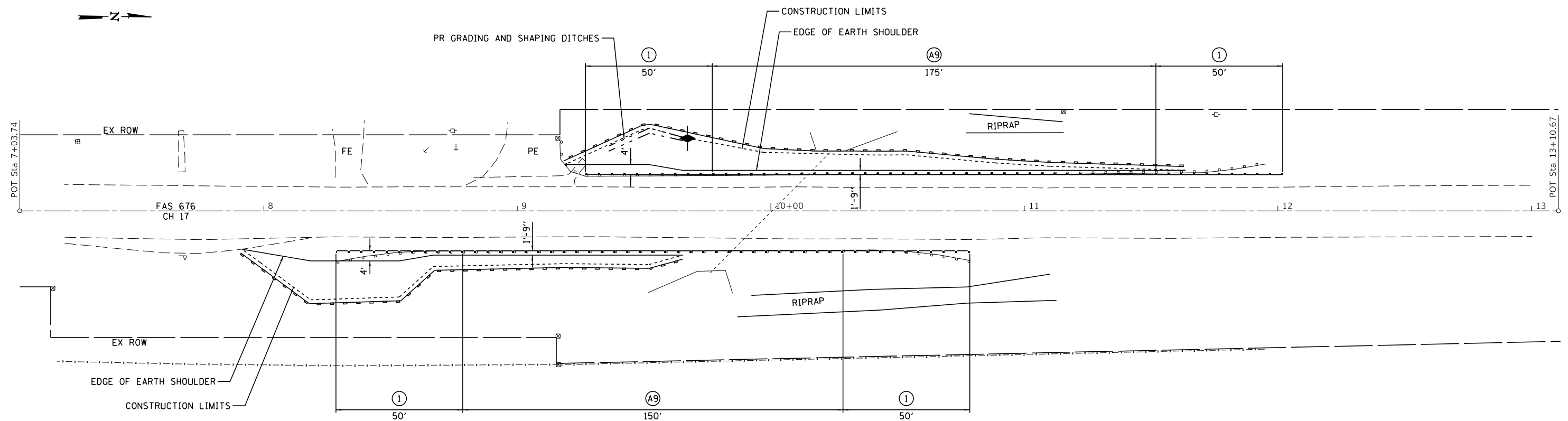
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PLOT DATE = 3/19/2018	DATE - 10/11/2017	REVISED -

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

**PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	14
			CONTRACT NO. 95835	
		ILLINOIS	FED. AID PROJECT	



LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ6 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ9 STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓒ2 TRAFFIC BARRIER TERMINAL, TYPE 2
- Ⓐ5A TRAFFIC BARRIER TERMINAL, TYPE 5A
- Ⓒ1 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ9 STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 17			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+03.74	960956.24	1055387.93
POT	10+00.00	961252.46	1055382.49
POT	13+10.67	961563.07	1055376.79

LOCATION NO. 14  
 MAJOR COLLECTOR  
 ADT 300  
 DESIGN SPEED 40 MPH

MODEL: Default  
 FILE NAME: I:\2018\16-00081-00-GR\16-00081-00-GR-CH-2400\_14.dgn



JOB = 2458.1  
 FILE NAME = 2458-shl-plan\_14.dgn  
 PLOT SCALE = 40,0000' / 1in.  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - SJS  
 CHECKED - NAK  
 DATE - 10/11/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS

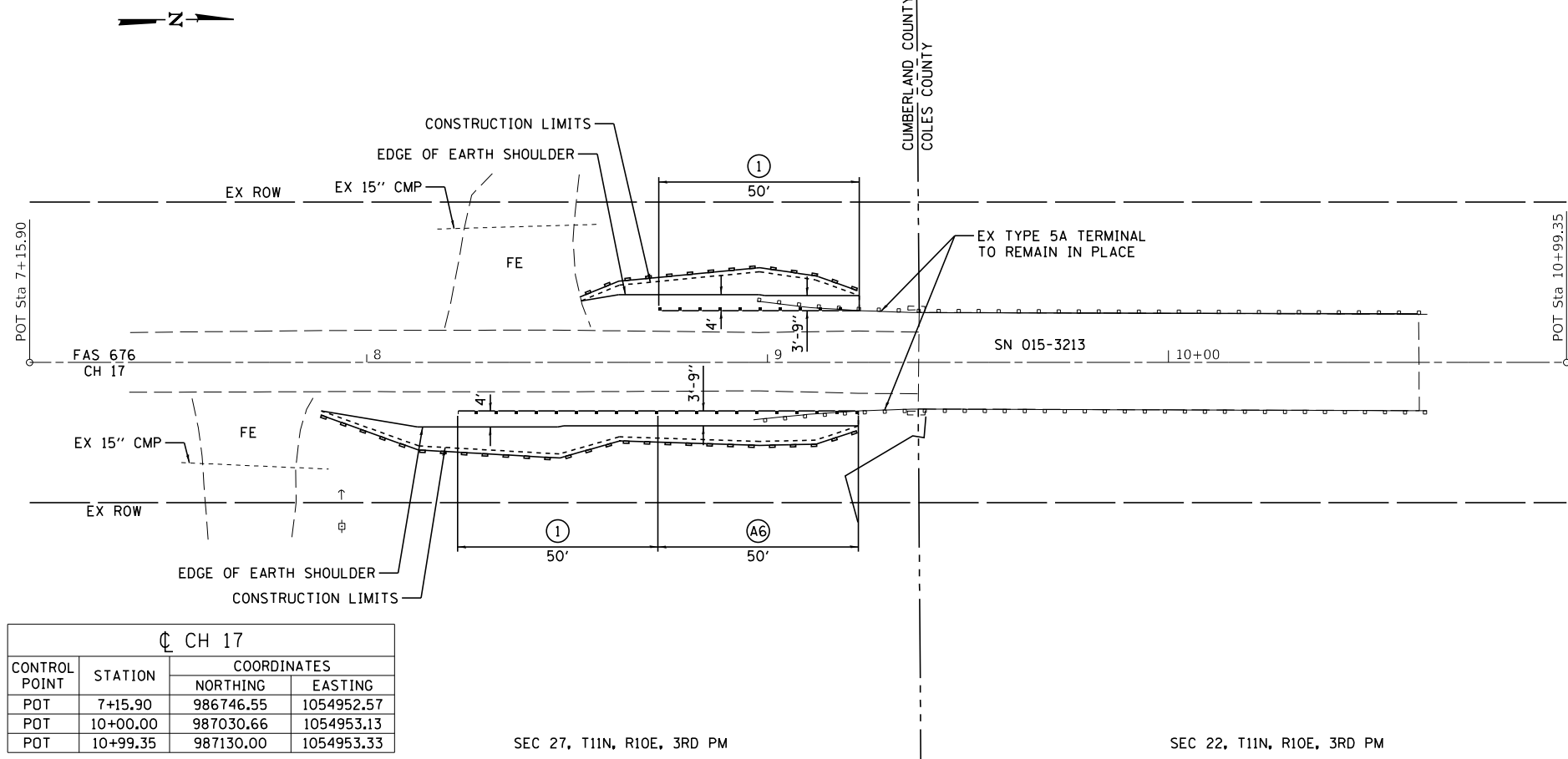
PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	15
			CONTRACT NO. 95835	
		ILLINOIS	FED. AID PROJECT	

SEC 28, T11N, R10E, 3RD PM

SEC 21, T11N, R10E, 3RD PM



CH 17			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+15.90	986746.55	1054952.57
POT	10+00.00	987030.66	1054953.13
POT	10+99.35	987130.00	1054953.33

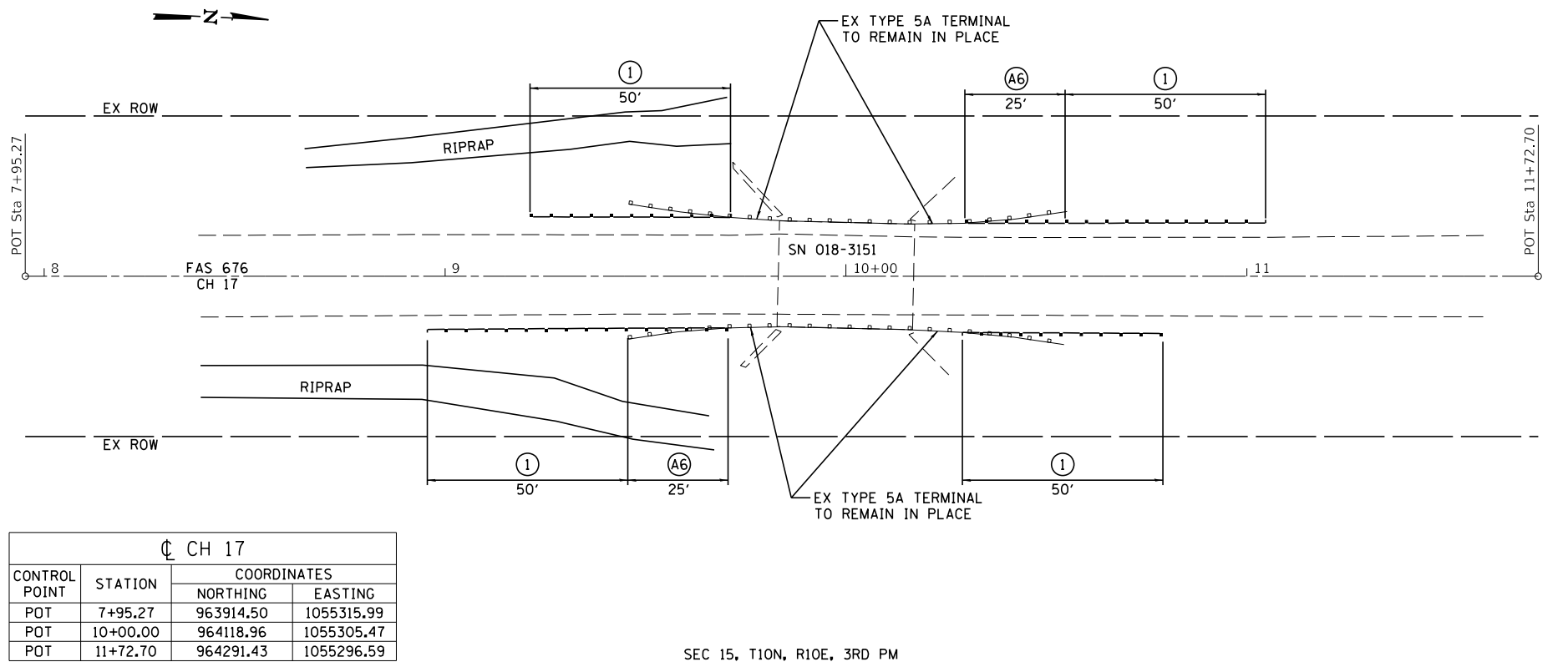
LOCATION NO. 20  
MAJOR COLLECTOR  
ADT 125  
DESIGN SPEED 40 MPH

LEGEND	
	TEMPORARY DITCH CHECKS
	PERIMETER EROSION BARRIER
	INLET AND PIPE PROTECTION
	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
	TRAFFIC BARRIER TERMINAL, TYPE 2
	TRAFFIC BARRIER TERMINAL, TYPE 5A
	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

SEC 27, T11N, R10E, 3RD PM

SEC 22, T11N, R10E, 3RD PM

SEC 16, T10N, R10E, 3RD PM



CH 17			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+95.27	963914.50	1055315.99
POT	10+00.00	964118.96	1055305.47
POT	11+72.70	964291.43	1055296.59

NO SHOULDER WIDENING REQUIRED

LOCATION NO. 15  
MAJOR COLLECTOR  
ADT 300  
DESIGN SPEED 40 MPH

SEC 15, T10N, R10E, 3RD PM

**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

**PLAN**



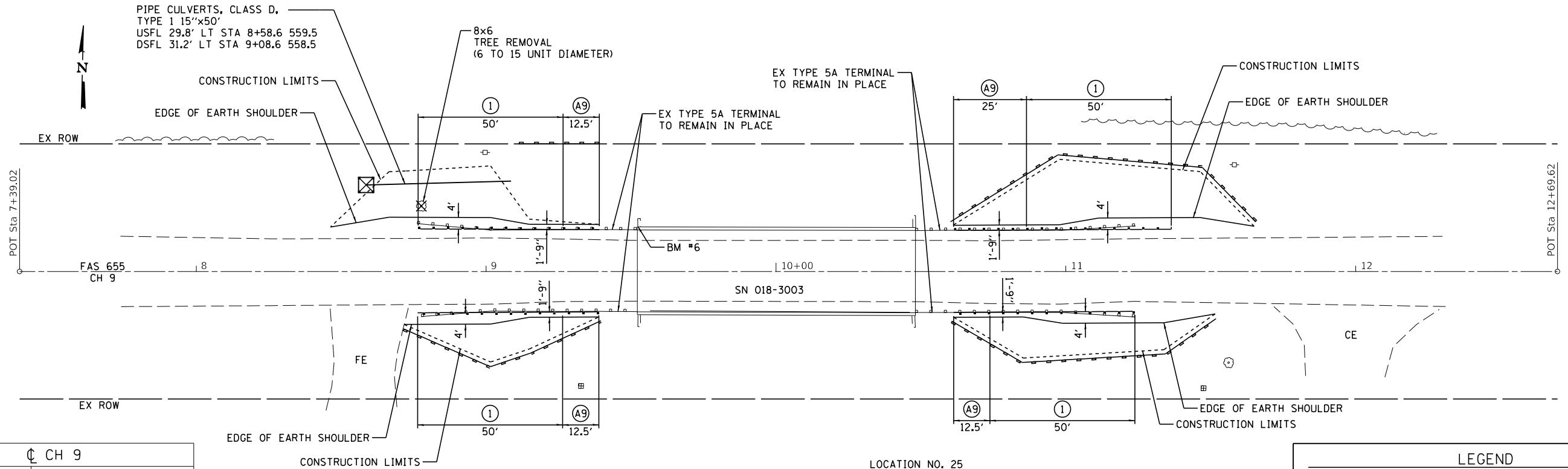
JOB = 2458.1	DESIGNED - CGF	REVISED -
FILE NAME = 2458-shl-plan_15_20.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 40,000' / 1" =	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 10/11/2017	REVISED -

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
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ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	16
			CONTRACT NO. 95835	
		ILLINOIS	FED. AID PROJECT	

MODEL: Default  
FILE NAME: 2458.1\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets13458-shl-plan\_15\_20.dgn





CH 9			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+39.02	975917.91	1033706.85
POT	10+00.00	975924.27	1033967.76
POT	12+69.62	975930.85	1034237.29

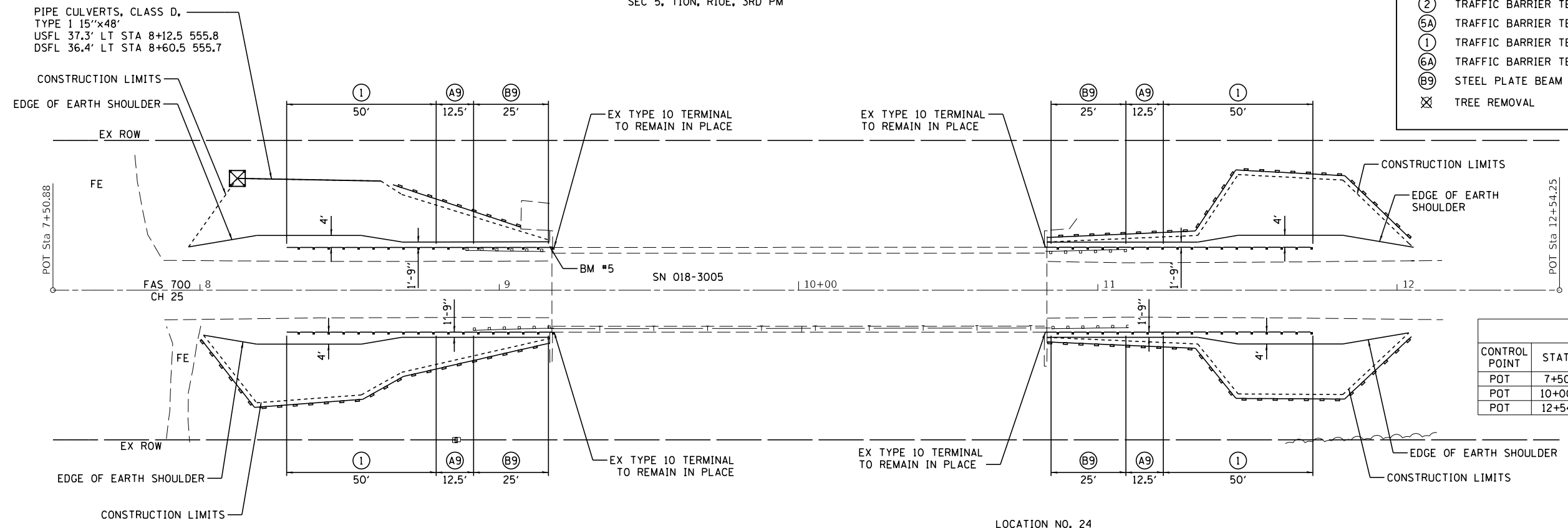
BM#6 - TOP OF NW WINGWALL (SW CORNER)  
 STA. 9+52, 16' LT  
 ELEV. 568.49

LOCATION NO. 25  
 MAJOR COLLECTOR  
 ADT 375  
 DESIGN SPEED 40 MPH

LEGEND	
	TEMPORARY DITCH CHECKS
	PERIMETER EROSION BARRIER
	INLET AND PIPE PROTECTION
	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
	TRAFFIC BARRIER TERMINAL, TYPE 2
	TRAFFIC BARRIER TERMINAL, TYPE 5A
	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
	TRAFFIC BARRIER TERMINAL, TYPE 6A
	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
	TREE REMOVAL

SEC 2, T10N, R9E, 3RD PM

SEC 1, T10N, R9E, 3RD PM



CH 25			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+50.88	970917.60	1044233.25
POT	10+00.00	970924.37	1044482.27
POT	12+54.25	970931.29	1044736.43

BM#5 - TOP OF NW WINGWALL (SW CORNER)  
 STA. 9+17, 14' LT  
 ELEV. 565.52

LOCATION NO. 24  
 MAJOR COLLECTOR  
 ADT 375  
 DESIGN SPEED 40 MPH

SEC 8, T10N, R10E, 3RD PM

MODEL: Default  
 FILE NAME: 24581\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets12458-shc-plan\_24\_25.dgn



JOB = 2458.1  
 FILE NAME = 2458-shc-plan\_24\_25.dgn  
 PLOT SCALE = 40,0000' / in.  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - SJS  
 CHECKED - NAK  
 DATE - 10/11/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

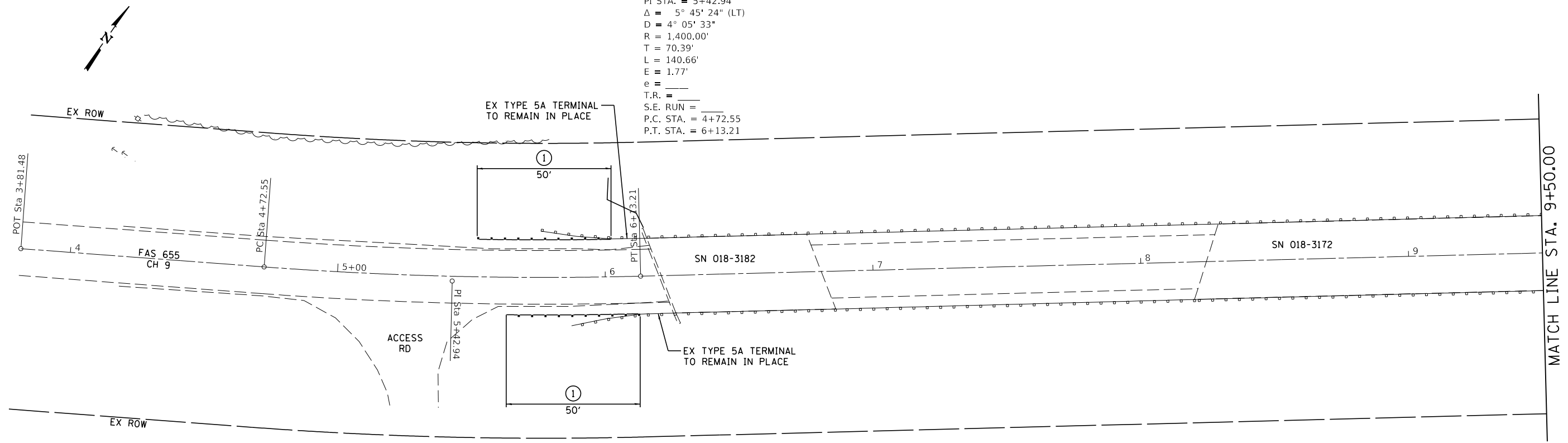
SCALE: SHEET OF SHEETS STA. TO STA.

**PLAN**

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16-00081-00-GR		CUMBERLAND	43	17
CONTRACT NO. 95835				
ILLINOIS FED. AID PROJECT				

SEC 2, T11N, R9E, 3RD PM

EXIST. CURVE 26CRV1  
 PI STA. = 5+42.94  
 $\Delta = 5^\circ 45' 24''$  (LT)  
 $D = 4^\circ 05' 33''$   
 $R = 1,400.00'$   
 $T = 70.39'$   
 $L = 140.66'$   
 $E = 1.77'$   
 $e =$   
 T.R. =  
 S.E. RUN =  
 P.C. STA. = 4+72.55  
 P.T. STA. = 6+13.21



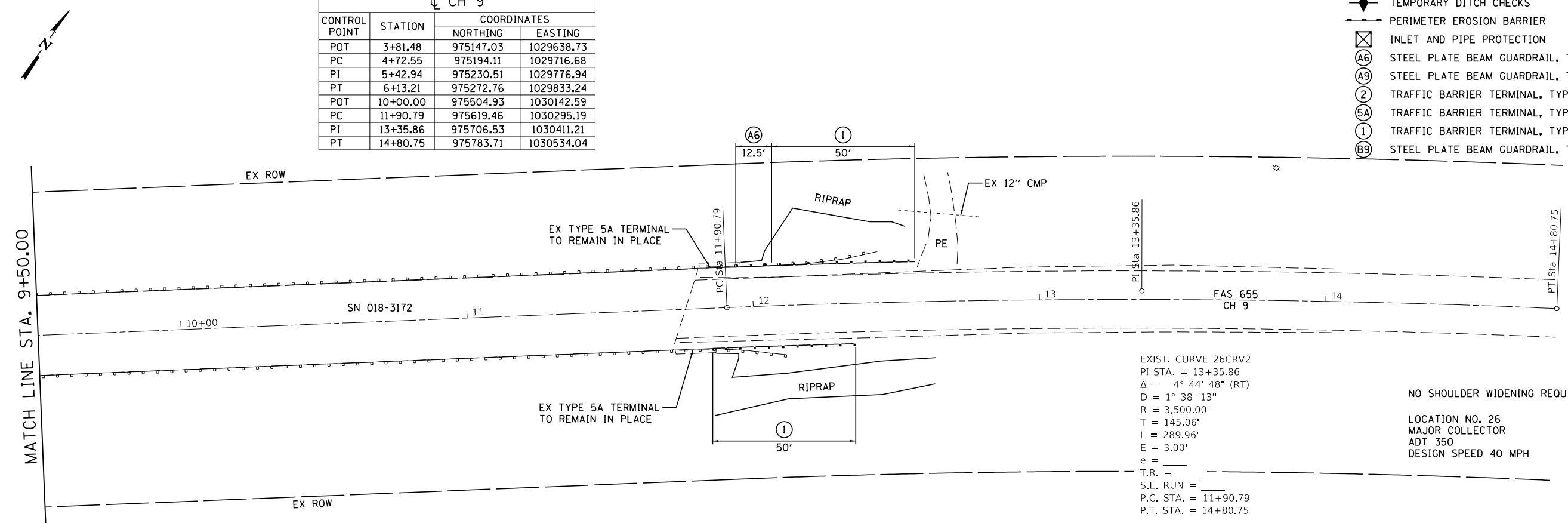
SEC 2, T10N, R9E, 3RD PM

CH 9

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	3+81.48	975147.03	1029638.73
PC	4+72.55	975194.11	1029716.68
PI	5+42.94	975230.51	1029776.94
PT	6+13.21	975272.76	1029833.24
POT	10+00.00	975504.93	1030142.59
PC	11+90.79	975619.46	1030295.19
PI	13+35.86	975706.53	1030411.21
PT	14+80.75	975783.71	1030534.04

LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- TRAFFIC BARRIER TERMINAL, TYPE 2
- TRAFFIC BARRIER TERMINAL, TYPE 5A
- TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS



EXIST. CURVE 26CRV2  
 PI STA. = 13+35.86  
 $\Delta = 4^\circ 44' 48''$  (RT)  
 $D = 1^\circ 38' 13''$   
 $R = 3,500.00'$   
 $T = 145.06'$   
 $L = 289.96'$   
 $E = 3.00'$   
 $e =$   
 T.R. =  
 S.E. RUN =  
 P.C. STA. = 11+90.79  
 P.T. STA. = 14+80.75

NO SHOULDER WIDENING REQUIRED  
 LOCATION NO. 26  
 MAJOR COLLECTOR  
 ADT 350  
 DESIGN SPEED 40 MPH

SEC 2, T10N, R9E, 3RD PM

MODEL: Default  
 FILE NAME: 2458.1\_Cumberland\_Guardrail\_P1 & P2.dwg  
 SHEET: 18 of 18



JOB = 2458.1  
 FILE NAME = 2458-shl-plan\_26.dwg  
 PLOT SCALE = 40,000' / 1" = 1/4" = 1/4" = 1/4"  
 PLOT DATE = 3/19/2018

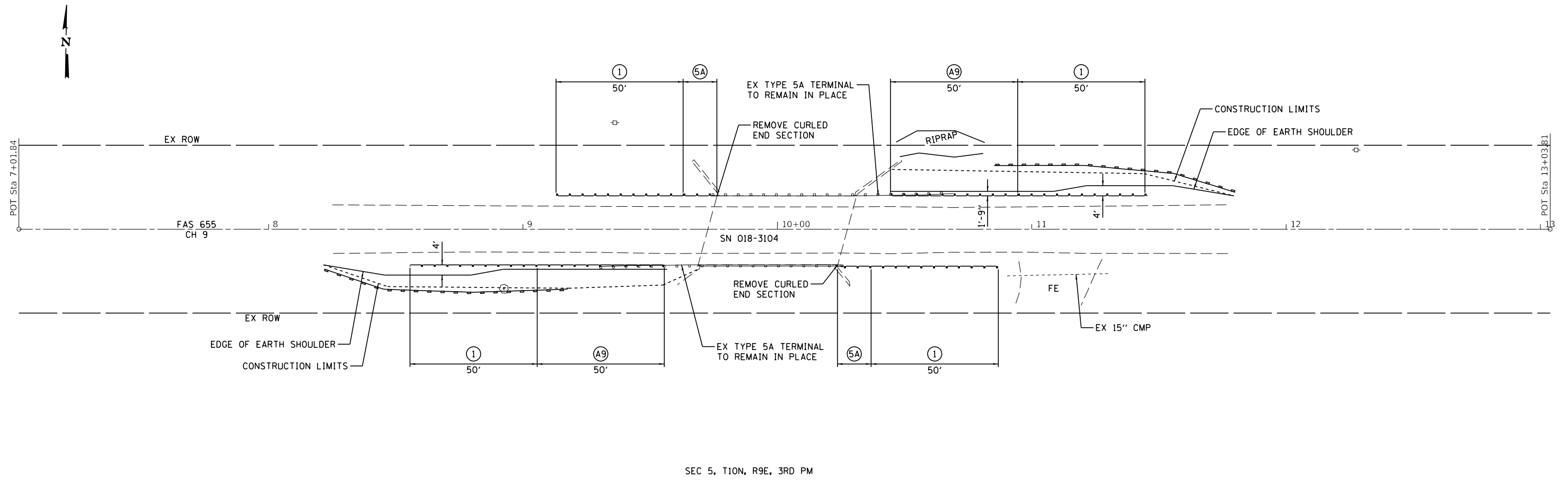
DESIGNED - CGF	REVISED -
DRAWN - SJS	REVISED -
CHECKED - NAK	REVISED -
DATE - 10/11/2017	REVISED -

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

**PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16-00081-00-GR		CUMBERLAND	43	18
CONTRACT NO. 95835				
		ILLINOIS	FED. AID PROJECT	



CH 9

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	7+01.84	975684.15	1016107.78
POT	10+00.00	975689.62	1016405.89
POT	13+03.81	975695.20	1016709.65

**LEGEND**

TEMPORARY DITCH CHECKS	
	PERIMETER EROSION BARRIER
INLET AND PIPE PROTECTION	
(A6)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(2)	TRAFFIC BARRIER TERMINAL, TYPE 2
(5A)	TRAFFIC BARRIER TERMINAL, TYPE 5A
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(B9)	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

LOCATION NO. 27  
 MAJOR COLLECTOR  
 ADT 400  
 DESIGN SPEED 50 MPH

MODEL: Default  
 FILE NAME: I:\2018\16-00081-Cumberland-Guardrail-PE1 & PE2\CADD\Sheets\16-00081-GR-CH-PLAN\_27.dgn



JOB = 2458.1  
 FILE NAME = 2458-shl-plan\_27.dgn  
 PLOT SCALE = 40,0000' / 1in.  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - SJS  
 CHECKED - NAK  
 DATE - 10/11/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

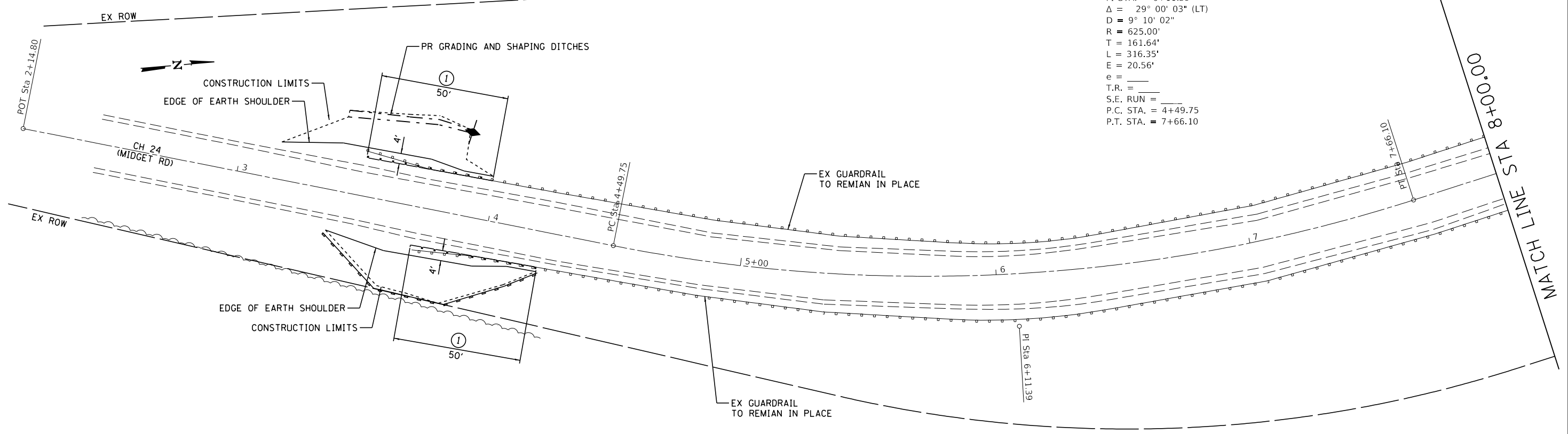
**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

**PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

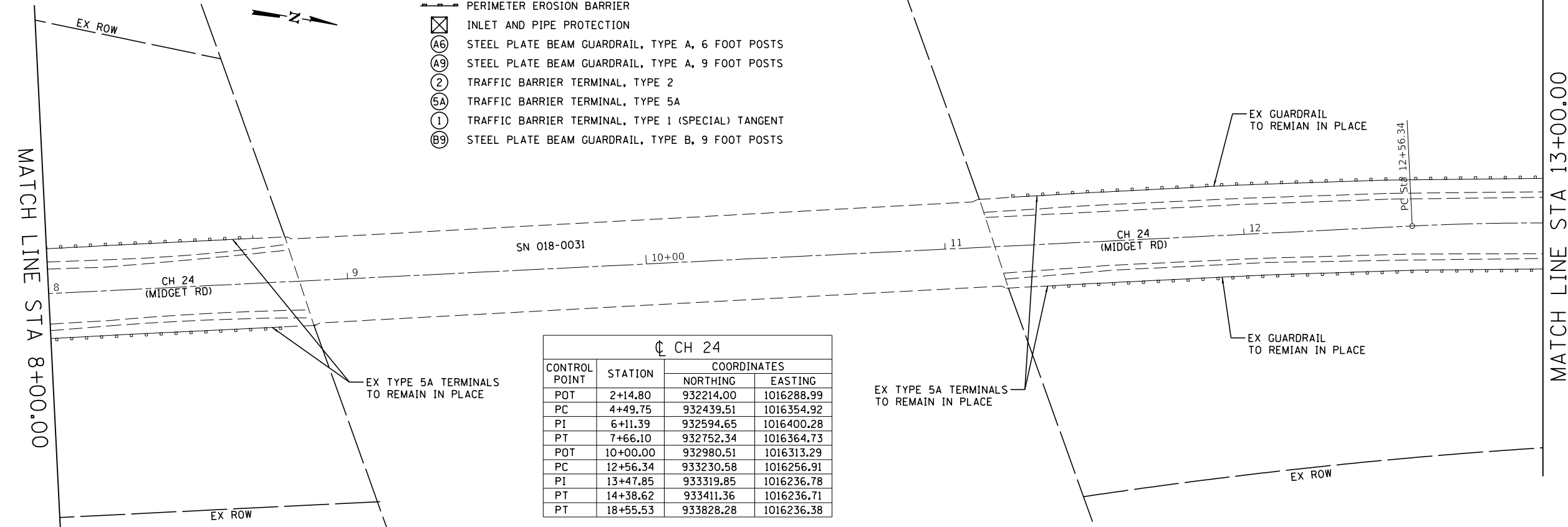
ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	19
CONTRACT NO. 95835				
		ILLINOIS	FED. AID PROJECT	

EXIST. CURVE 28CRV1  
 PI STA. = 6+11.39  
 $\Delta = 29^\circ 00' 03''$  (LT)  
 $D = 9^\circ 10' 02''$   
 $R = 625.00'$   
 $T = 161.64'$   
 $L = 316.35'$   
 $E = 20.56'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 4+49.75$   
 $P.T. STA. = 7+66.10$



LEGEND

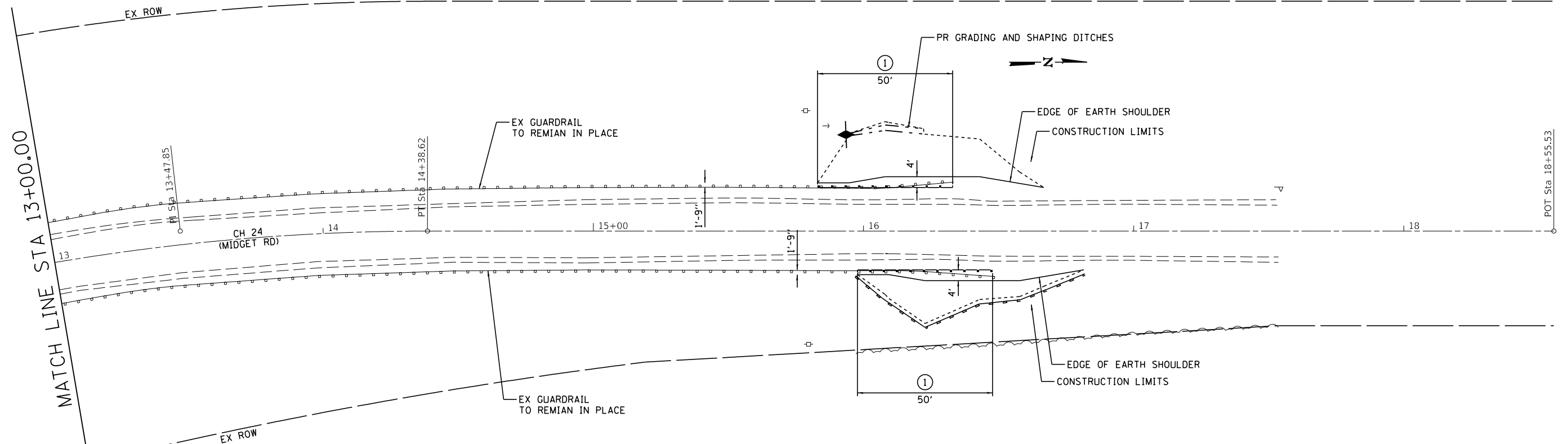
- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 2
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 5A
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS



CH 24			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	2+14.80	932214.00	1016288.99
PC	4+49.75	932439.51	1016354.92
PI	6+11.39	932594.65	1016400.28
PT	7+66.10	932752.34	1016364.73
POT	10+00.00	932980.51	1016313.29
PC	12+56.34	933230.58	1016256.91
PI	13+47.85	933319.85	1016236.78
PT	14+38.62	933411.36	1016236.71
PT	18+55.53	933828.28	1016236.38

LOCATION NO. 28  
 MINOR COLLECTOR  
 ADT 350  
 DESIGN SPEED 40 MPH

MODEL: Default  
 FILE NAME: 1023458.1 Cumberland Guardrail PE1 & PE2.CADD/Sheet13458-shc-dwg\_28.dgn



EXIST. CURVE 28CRV2  
 PI STA. = 13+47.85  
 $\Delta = 12^\circ 39' 33''$  (RT)  
 $D = 6^\circ 56' 42''$   
 $R = 825.00'$   
 $T = 91.51'$   
 $L = 182.28'$   
 $E = 5.06'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 12+56.34$   
 $P.T. STA. = 14+38.62$

LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓓ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓔ TRAFFIC BARRIER TERMINAL, TYPE 2
- ⒺⒶ TRAFFIC BARRIER TERMINAL, TYPE 5A
- Ⓔ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 24			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	2+14.80	932214.00	1016288.99
PC	4+49.75	932439.51	1016354.92
PI	6+11.39	932594.65	1016400.28
PT	7+66.10	932752.34	1016364.73
POT	10+00.00	932980.51	1016313.29
PC	12+56.34	933230.58	1016256.91
PI	13+47.85	933319.85	1016236.78
PT	14+38.62	933411.36	1016236.71
PT	18+55.53	933828.28	1016236.38

LOCATION NO. 28  
 MINOR COLLECTOR  
 ADT 350  
 DESIGN SPEED 40 MPH

MODEL: Default  
 FILE NAME: I:\2018\1\_Cumberland\_Guardrail\_P1 & P2\CADD\Sheets\2458-cht-dwg\_28.dwg



JOB = 2458.1  
 FILE NAME = 2458-cht-plan\_28.dwg  
 PLOT SCALE = 40,0000' / 1in.  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - SJS  
 CHECKED - NAK  
 DATE - 10/11/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

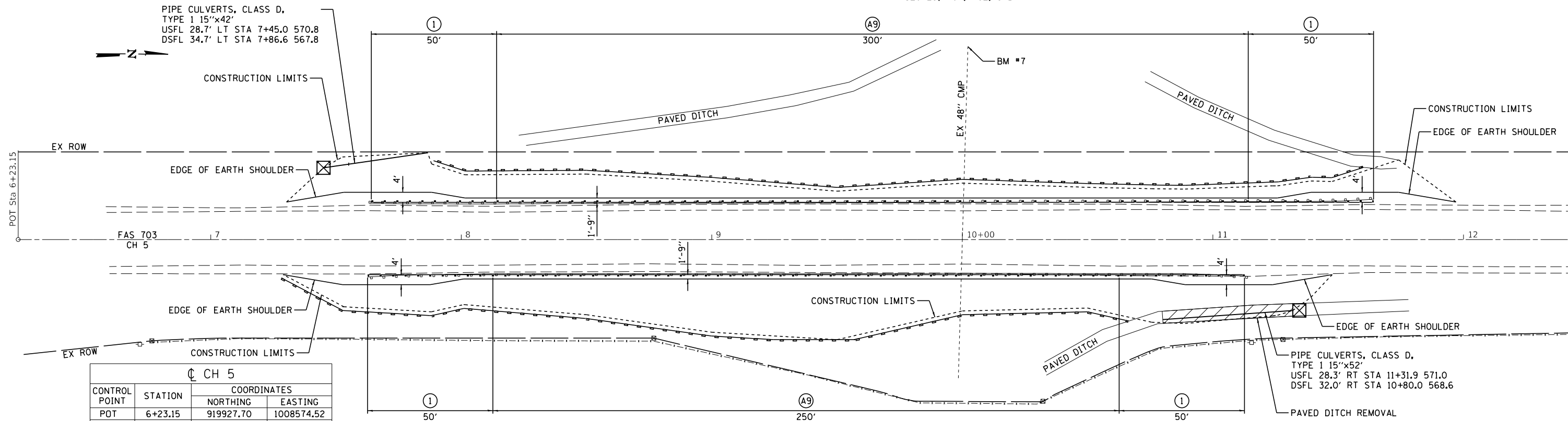
CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS

PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	21
CONTRACT NO. 95835				
ILLINOIS FED. AID PROJECT				

PIPE CULVERTS, CLASS D,  
TYPE 1 15"x42"  
USFL 28.7' LT STA 7+45.0 570.8  
DSFL 34.7' LT STA 7+86.6 567.8



CH 5

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+23.15	919927.70	1008574.52
POT	10+00.00	920304.53	1008571.20
POT	13+34.75	920639.27	1008568.25

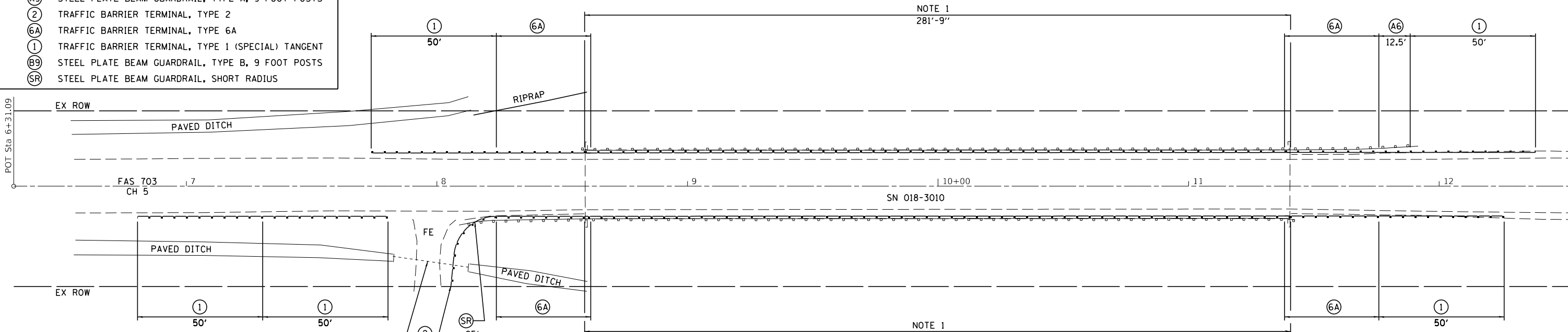
BM#7 - TOP OF 48" CMP (WEST END)  
STA. 10+02.77' LT  
ELEV. 550.42

USE EROSION CONTROL BLANKET  
ON SLOPES STEEPER THEN 1:2  
LT STA 7+65 TO STA 9+50

LOCATION NO. 30  
MINOR COLLECTOR  
ADT 400  
DESIGN SPEED 50 MPH

LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 2
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 6A
- Ⓐ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
- Ⓐ STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS



CH 5

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+31.09	915883.13	1008613.89
POT	10+00.00	916252.04	1008612.55
POT	13+55.29	916607.33	1008611.27

NOTE 1  
EXISTING BRIDGE RAIL ELEMENTS, POSTS, BLOCKOUTS, AND BRACKETS SHALL BE REMOVED AND REPLACED WITH STEEL RAILING TYPE, TYPE 2399. THE STEEL RAILING SHALL BE ATTACHED TO THE EXISTING CONCRETE CURB.

CH 5 SHALL BE CLOSED FOR REMOVAL AND REPLACEMENT OF BRIDGE RAIL, POSTS, AND BRACKETS WITH STEEL RAILING, TYPE 2399. THE MAXIMUM CLOSURE TIME SHALL BE 3 CALENDAR DAYS.

LOCATION NO. 29  
MINOR COLLECTOR  
ADT 325  
DESIGN SPEED 50 MPH

CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS

PLAN



JOB = 2458.1  
FILE NAME = 2458-shl-plan\_29\_30.dgn  
PLOT SCALE = 40,0000' / 1in.  
PLOT DATE = 3/19/2018

DESIGNED - CGF  
DRAWN - SJS  
CHECKED - NAK  
DATE - 10/11/2017

REVISED -  
REVISED -  
REVISED -  
REVISED -

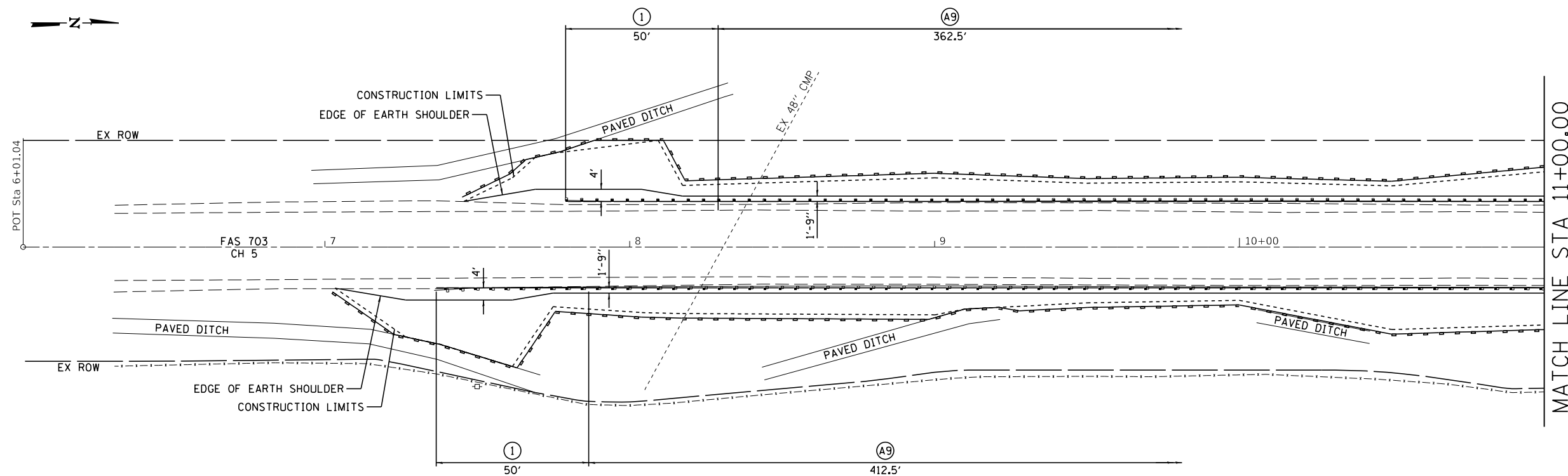
SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	22
CONTRACT NO. 95835				
ILLINOIS		FED. AID PROJECT		

MODEL: Default  
FILE NAME: 2458.1\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets13458-shl-plan\_29\_30.dgn

SEC 25, T9N, R8E, 3RD PM

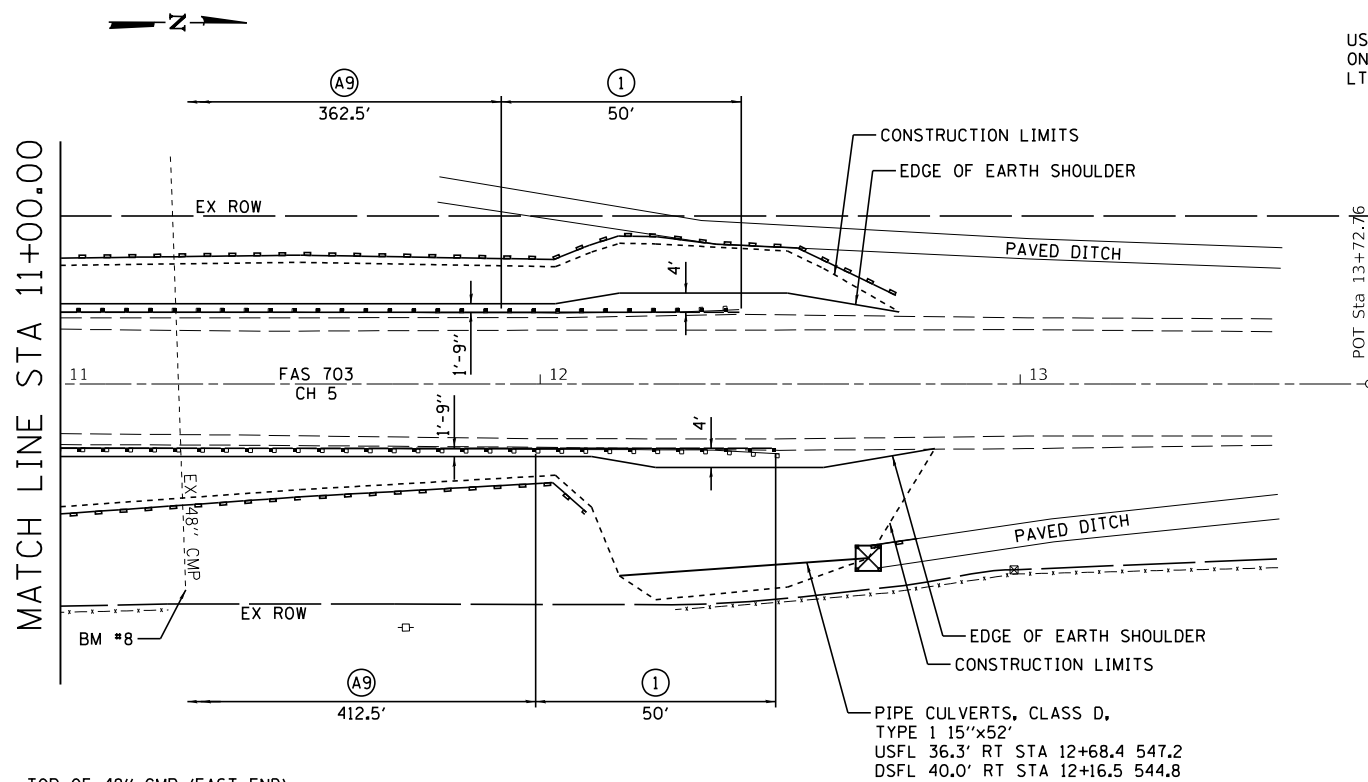
GRADE TO EXISTING PAVED DITCH AS SHOWN  
 LT STA 7+69 TO STA 8+04  
 RT STA 7+26 TO STA 7+62



SEC 30, T9N, R9E, 3RD PM

SEC 25, T9N, R8E, 3RD PM

USE EROSION CONTROL BLANKET  
 ON SLOPES STEEPER THEN 1:2  
 LT STA 10+25 TO STA 12+65



BM#8 - TOP OF 48" CMP (EAST END)  
 STA. 11+26, 43' RT  
 ELEV. 543.65

PIPE CULVERTS, CLASS D,  
 TYPE 1 15"x52'  
 USFL 36.3' RT STA 12+68.4 547.2  
 DSFL 40.0' RT STA 12+16.5 544.8

LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓘ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓜ TRAFFIC BARRIER TERMINAL, TYPE 2
- Ⓜ TRAFFIC BARRIER TERMINAL, TYPE 5A
- Ⓜ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 5			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	6+01.04	920884.62	1008565.47
POT	10+00.00	921283.57	1008563.32
POT	13+72.76	921656.33	1008561.31

LOCATION NO. 31  
 MINOR COLLECTOR  
 ADT 400  
 DESIGN SPEED 50 MPH

SEC 30, T9N, R9E, 3RD PM

CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS

PLAN



JOB = 2458.1  
 FILE NAME = 2458-shl-plan\_31.dgn  
 PLOT SCALE = 40,0000"/in.  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - SJS  
 CHECKED - NAK  
 DATE - 10/11/2017

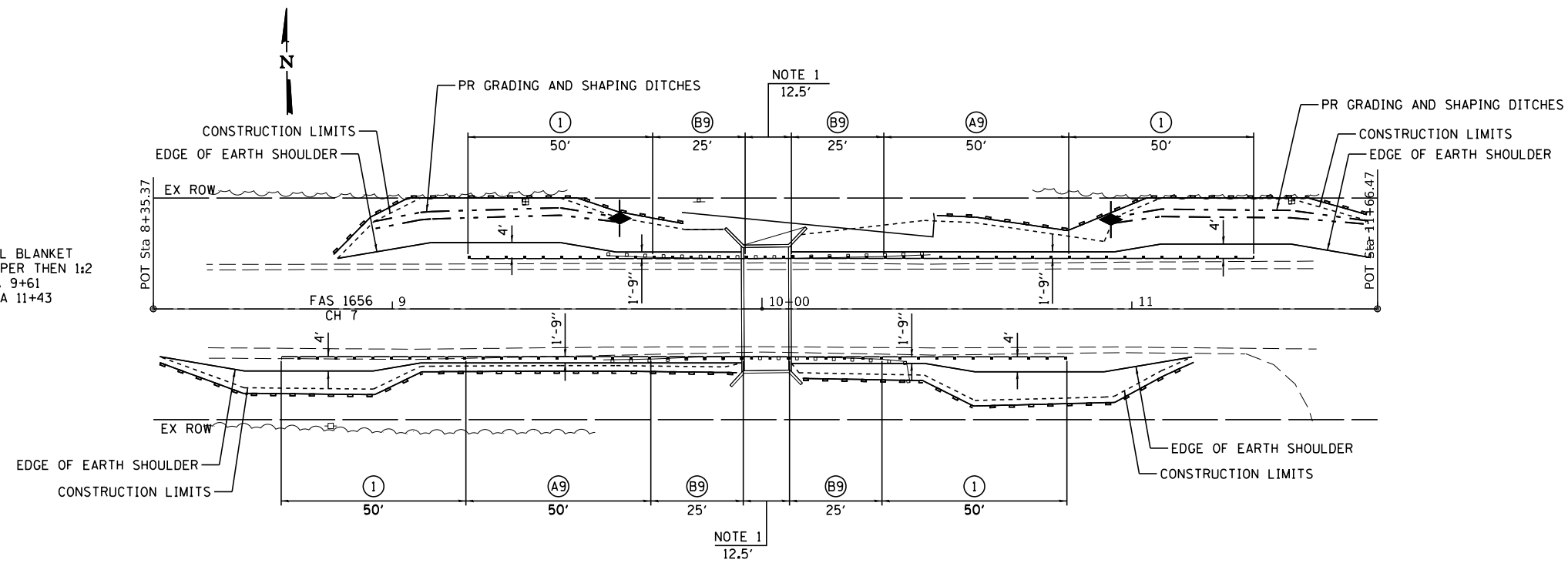
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	23
CONTRACT NO. 95835				
ILLINOIS FED. AID PROJECT				

MODEL: Default  
 FILE NAME: 2458.1\_Cumberland\_Guardrail\_P1 & P2.dwg  
 SHEET: 23 of 43

NOTE 1  
EXISTING GUARDRAIL ELEMENTS SHALL BE REMOVED AND THE EXISTING POSTS AND BLOCKOUTS SHALL REMAIN IN PLACE. NEW STEEL PLATE BEAM GUARDRAIL ELEMENTS SHALL BE INSTALLED ON THE EXISTING POSTS AND BLOCKOUTS.



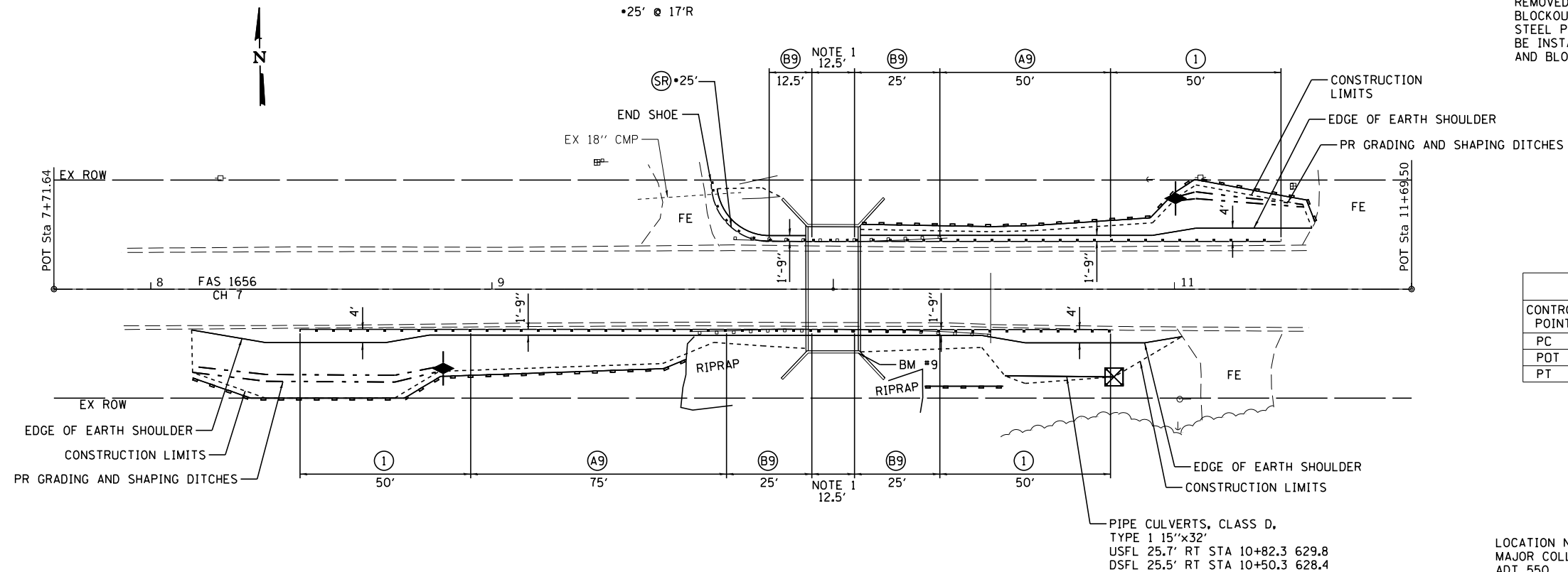
USE EROSION CONTROL BLANKET ON BACKSLOPES STEEPER THEN 1:2  
LT STA 8+95 TO STA 9+61  
LT STA 10+95 TO STA 11+43

- LEGEND
- ◆ TEMPORARY DITCH CHECKS
  - ▬ PERIMETER EROSION BARRIER
  - ⊗ INLET AND PIPE PROTECTION
  - Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
  - Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
  - Ⓜ TRAFFIC BARRIER TERMINAL, TYPE 2
  - Ⓜ TRAFFIC BARRIER TERMINAL, TYPE 5A
  - Ⓜ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
  - Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 7			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+35.37	933260.02	948514.27
POT	10+00.00	933258.76	948678.89
POT	11+66.47	933257.48	948845.36

LOCATION NO. 37  
MAJOR COLLECTOR  
ADT 550  
DESIGN SPEED 50 MPH

NOTE 1  
EXISTING GUARDRAIL ELEMENTS SHALL BE REMOVED AND THE EXISTING POSTS AND BLOCKOUTS SHALL REMAIN IN PLACE. NEW STEEL PLATE BEAM GUARDRAIL ELEMENTS SHALL BE INSTALLED ON THE EXISTING POSTS AND BLOCKOUTS.



CH 7			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
PC	7+71.64	933283.26	945495.70
POT	10+00.00	933280.48	945724.04
PT	11+69.50	933278.42	945893.53

BM#9 - SE CONCRETE HEADWALL  
STA. 10+07, 19' RT  
ELEV. 632.04

LOCATION NO. 36  
MAJOR COLLECTOR  
ADT 550  
DESIGN SPEED 50 MPH

CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS

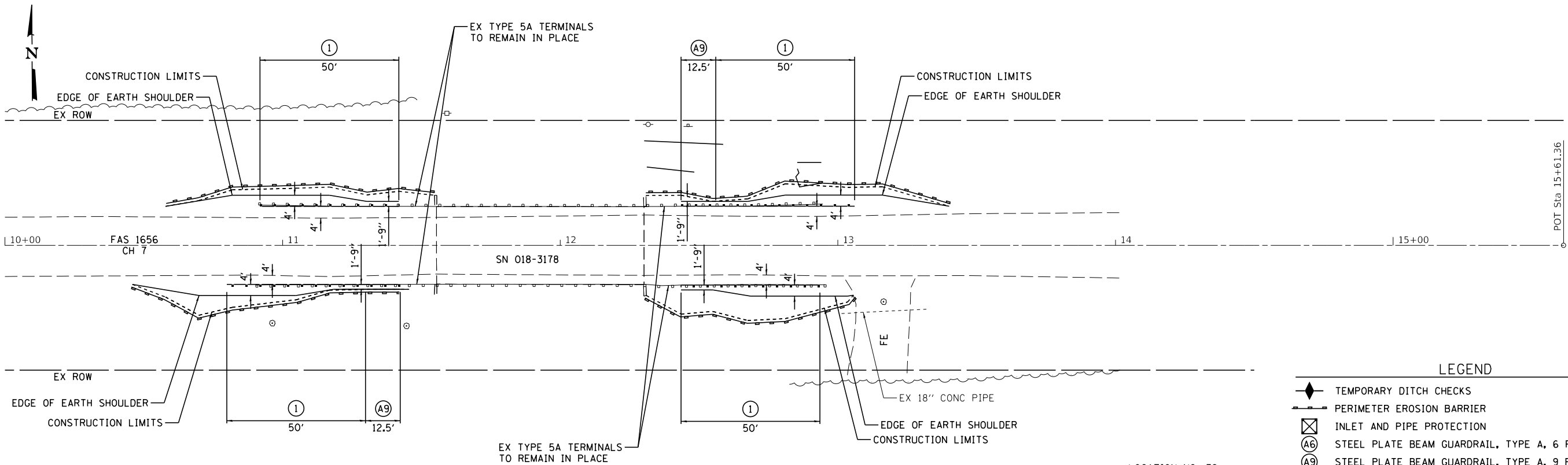
PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-0081-00-GR	CUMBERLAND	43	24
CONTRACT NO. 95835				
ILLINOIS FED. AID PROJECT				

MODEL: Default  
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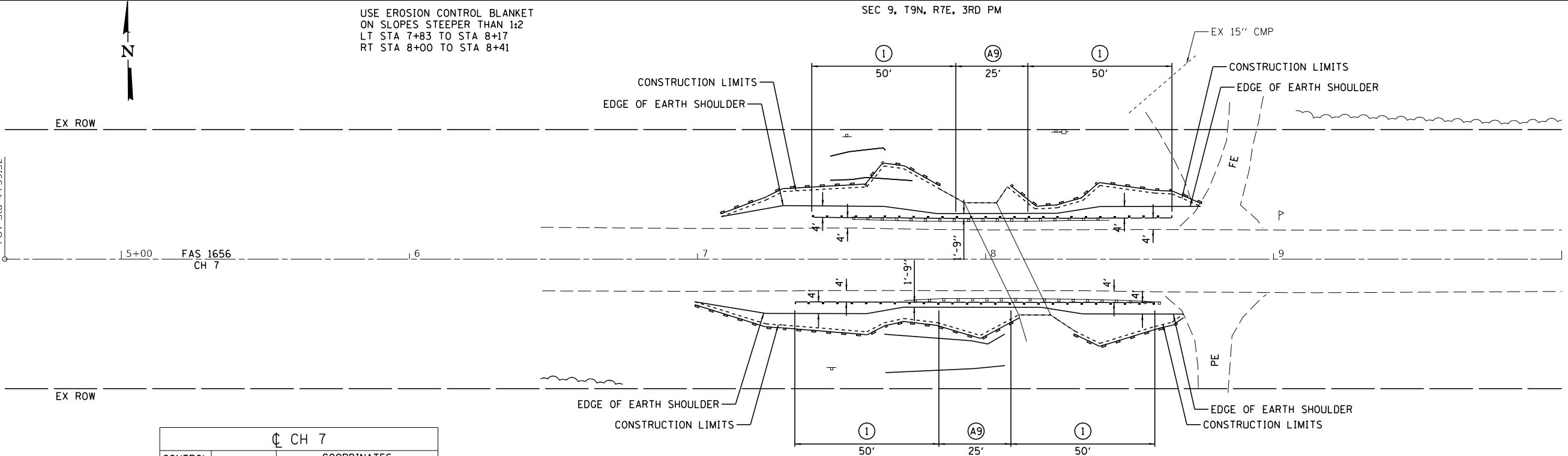




- LEGEND**
- ◆ TEMPORARY DITCH CHECKS
  - ▬ PERIMETER EROSION BARRIER
  - ⊠ INLET AND PIPE PROTECTION
  - ⊙(A6) STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
  - ⊙(A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
  - ⊙(2) TRAFFIC BARRIER TERMINAL, TYPE 2
  - ⊙(5A) TRAFFIC BARRIER TERMINAL, TYPE 5A
  - ⊙(1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
  - ⊙(B9) STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

LOCATION NO. 39  
 MAJOR COLLECTOR  
 ADT 325  
 DESIGN SPEED 40 MPH

USE EROSION CONTROL BLANKET  
 ON SLOPES STEEPER THAN 1:2  
 LT STA 7+83 TO STA 8+17  
 RT STA 8+00 TO STA 8+41



LOCATION NO. 38  
 MAJOR COLLECTOR  
 ADT 325  
 DESIGN SPEED 40 MPH

CH 7			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	4+59.52	934539.08	960627.00
POT	10+00.00	934535.37	961167.46
POT	15+61.36	934531.51	961728.81

MODEL: Default  
 FILE NAME: 2458-1\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets12458-38-39.dgn



JOB = 2458.1  
 FILE NAME = 2458-shl-plan\_38\_39.dgn  
 PLOT SCALE = 40,000' / 1" = 40000  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - CGF  
 CHECKED - NAK  
 DATE - 1/19/2018

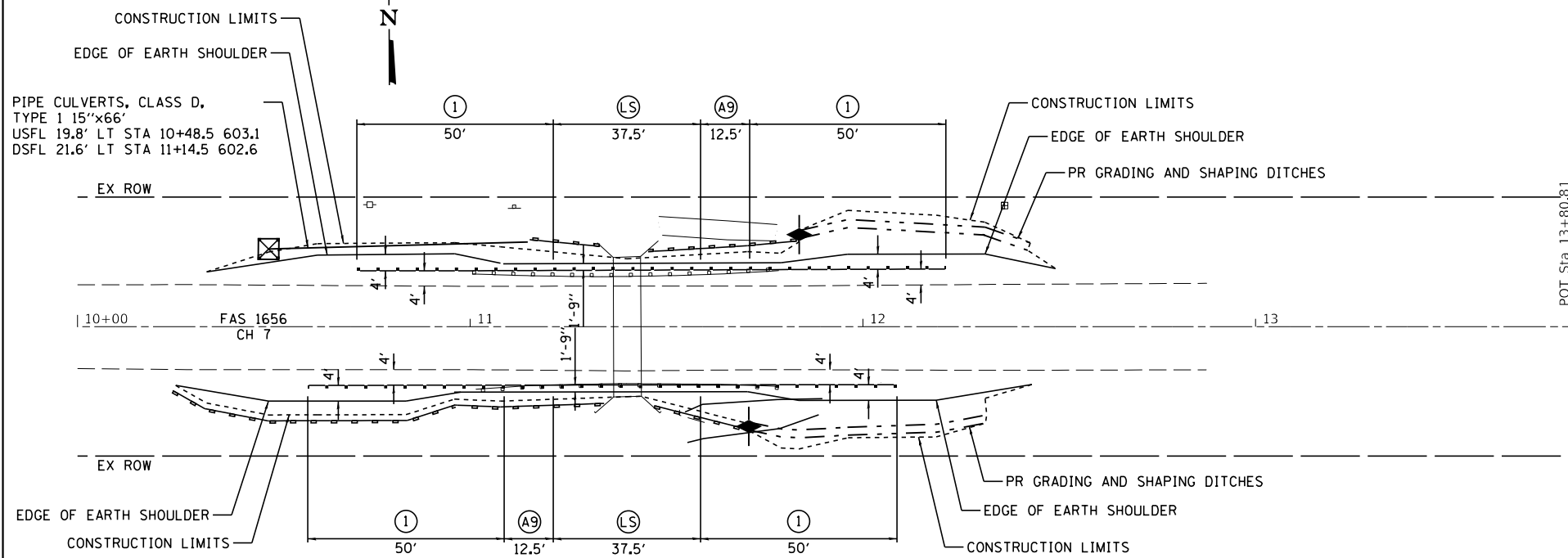
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

**PLAN**  
 SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	25
CONTRACT NO. 95835				
		ILLINOIS	FED. AID PROJECT	

SEC 11, T9N, R7E, 3RD PM

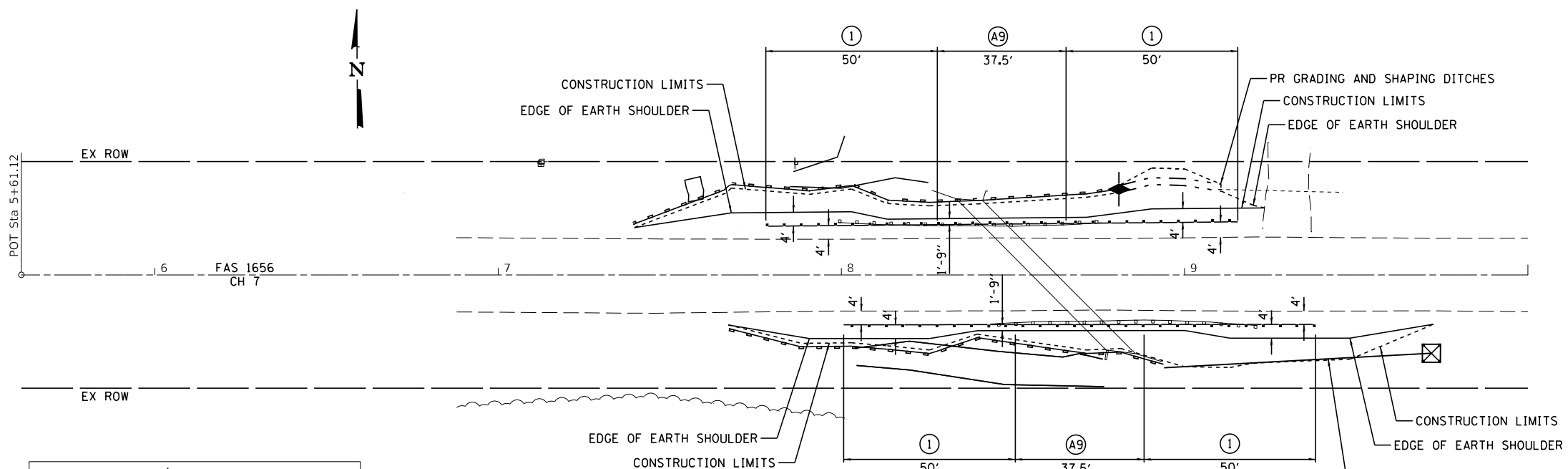


LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- TRAFFIC BARRIER TERMINAL, TYPE 2
- TRAFFIC BARRIER TERMINAL, TYPE 5A
- TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS
- LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN

LOCATION NO. 41  
 MAJOR COLLECTOR  
 ADT 325  
 DESIGN SPEED 40 MPH

SEC 11, T9N, R7E, 3RD PM



CH 7

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	5+61.12	934490.26	969499.78
POT	10+00.00	934487.57	969938.65
POT	13+80.81	934485.23	970319.45

PIPE CULVERTS, CLASS D,  
 TYPE 1 15"x78'  
 USFL 22.8' RT STA 9+71.9 601.8  
 DSFL 26.7' RT STA 9+00.0 599.2

LOCATION NO. 40  
 MAJOR COLLECTOR  
 ADT 325  
 DESIGN SPEED 40 MPH

MODEL: Default  
 FILE NAME: 16-00081-00-GR-1-Cumberland-Guardrail-PE1 & PE2-CADD-Sheets12458-chr-2dra\_40\_41.dgn



JOB = 2458.1  
 FILE NAME = 2458-shl-plan\_40\_41.dgn  
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 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - CGF  
 CHECKED - NAK  
 DATE - 1/19/2018

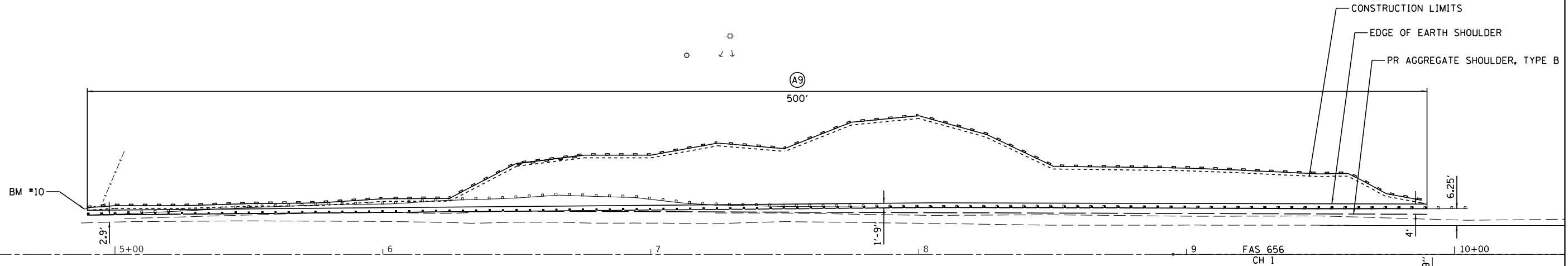
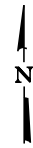
REVISED -  
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CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS

PLAN

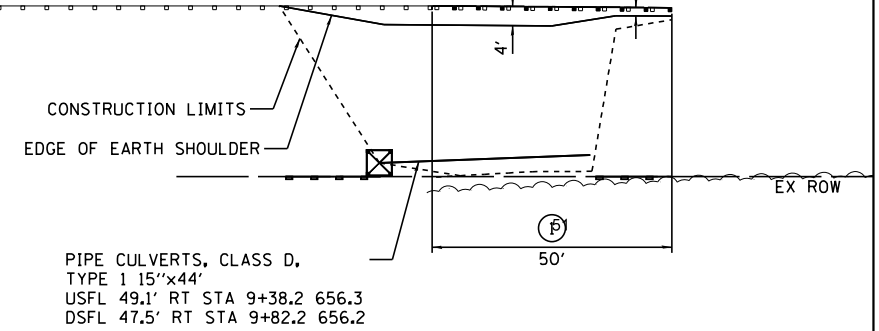
SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
16-00081-00-GR		CUMBERLAND	43	26
CONTRACT NO. 95835				
ILLINOIS		FED. AID PROJECT		



NOTE:  
PROPOSED BLOCKOUTS SHALL  
MATCH EXISTING BLOCKOUTS.

EX GUARDRAIL  
TO REMAIN IN PLACE



BM#10 - TOP OF NW WINGWALL (SE CORNER)  
STA. 4+89, 17' LT  
ELEV. 680.25

LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- ② TRAFFIC BARRIER TERMINAL, TYPE 2
- ⑤A TRAFFIC BARRIER TERMINAL, TYPE 5A
- ① TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 1			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	8+94.93	964906.63	955062.68
POT	10+00.00	964906.38	955167.75
POT	11+49.67	964906.03	955317.42

LOCATION NO. 43  
MAJOR COLLECTOR  
ADT 1100  
DESIGN SPEED 50 MPH

MODEL: Default  
FILE NAME: 1023458.1\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets12458-cht-dwg\_43.dgn



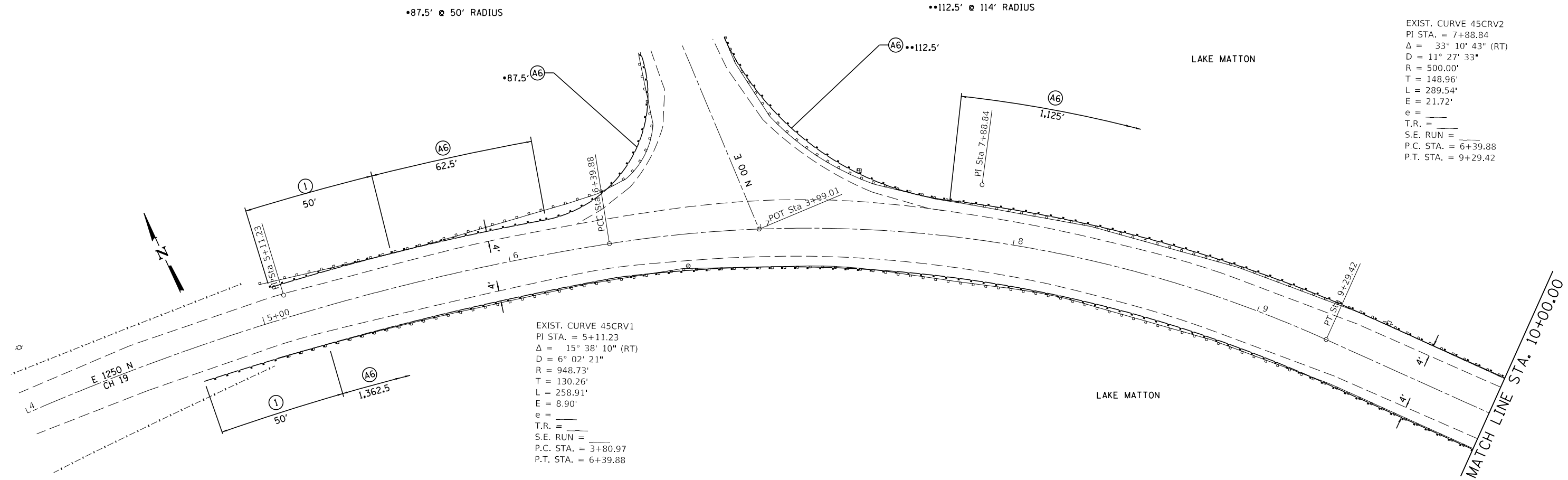
JOB = 2458.1	DESIGNED - CGF	REVISED -
FILE NAME = 2458-cht-plan_43.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 40,0000' / 1in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/08/2018	REVISED -

CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS

PLAN

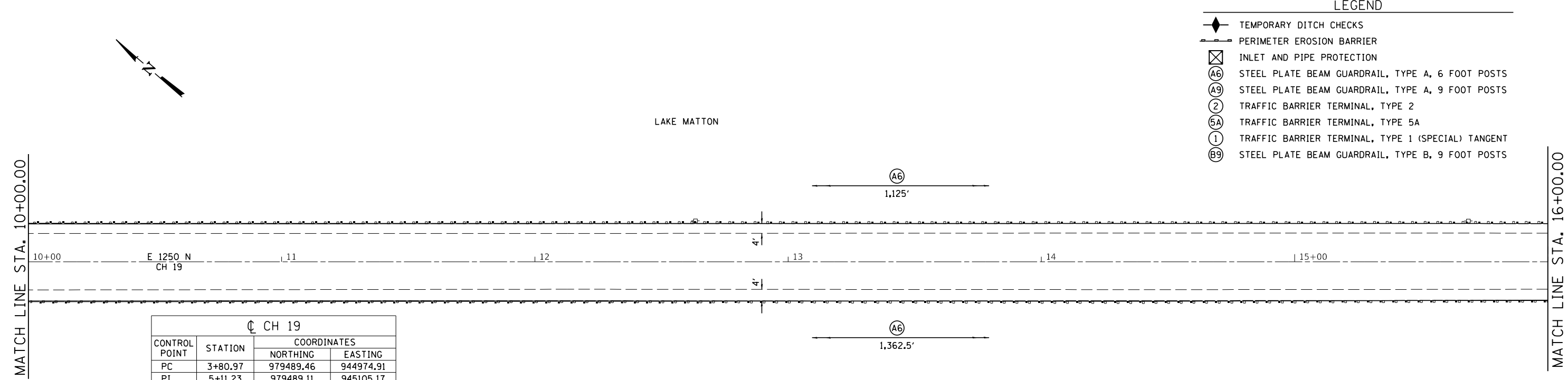
SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	27
			CONTRACT NO. 95835	
		ILLINOIS	FED. AID PROJECT	



EXIST. CURVE 45CRV2  
 PI STA. = 7+88.84  
 Δ = 33° 10' 43" (RT)  
 D = 11° 27' 33"  
 R = 500.00'  
 T = 148.96'  
 L = 289.54'  
 E = 21.72'  
 e = \_\_\_\_\_  
 T.R. = \_\_\_\_\_  
 S.E. RUN = \_\_\_\_\_  
 P.C. STA. = 6+39.88  
 P.T. STA. = 9+29.42

EXIST. CURVE 45CRV1  
 PI STA. = 5+11.23  
 Δ = 15° 38' 10" (RT)  
 D = 6° 02' 21"  
 R = 948.73'  
 T = 130.26'  
 L = 258.91'  
 E = 8.90'  
 e = \_\_\_\_\_  
 T.R. = \_\_\_\_\_  
 S.E. RUN = \_\_\_\_\_  
 P.C. STA. = 3+80.97  
 P.T. STA. = 6+39.88



- LEGEND**
- ◆ TEMPORARY DITCH CHECKS
  - PERIMETER EROSION BARRIER
  - ⊠ INLET AND PIPE PROTECTION
  - Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
  - Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
  - ② TRAFFIC BARRIER TERMINAL, TYPE 2
  - ⑤A TRAFFIC BARRIER TERMINAL, TYPE 5A
  - ① TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
  - Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 19

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
PC	3+80.97	979489.46	944974.91
PI	5+11.23	979489.11	945105.17
PCC	6+39.88	979453.66	945230.52
PI	7+88.84	979413.12	945373.86
PT	9+29.42	979300.76	945471.64
PC	21+60.22	978372.28	946279.59
PI	24+46.59	978156.2	946467.59
PT	26+96.77	978159.32	946753.94
POT	29+64.83	978162.19	947021.99

LOCATION NO. 45  
 MINOR COLLECTOR  
 ADT 750  
 DESIGN SPEED 50 MPH

MODEL: Default  
 FILE NAME: 2458-1\_Cumberland\_Guardrail\_P1 & P2.dwg  
 SHEET: 16-00081-00-GR



JOB = 2458.1  
 FILE NAME = 2458-shl-plan\_45.dwg  
 PLOT SCALE = 40,000' / 1" = 40000  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - CGF  
 CHECKED - NAK  
 DATE - 1/19/2018

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

**PLAN**

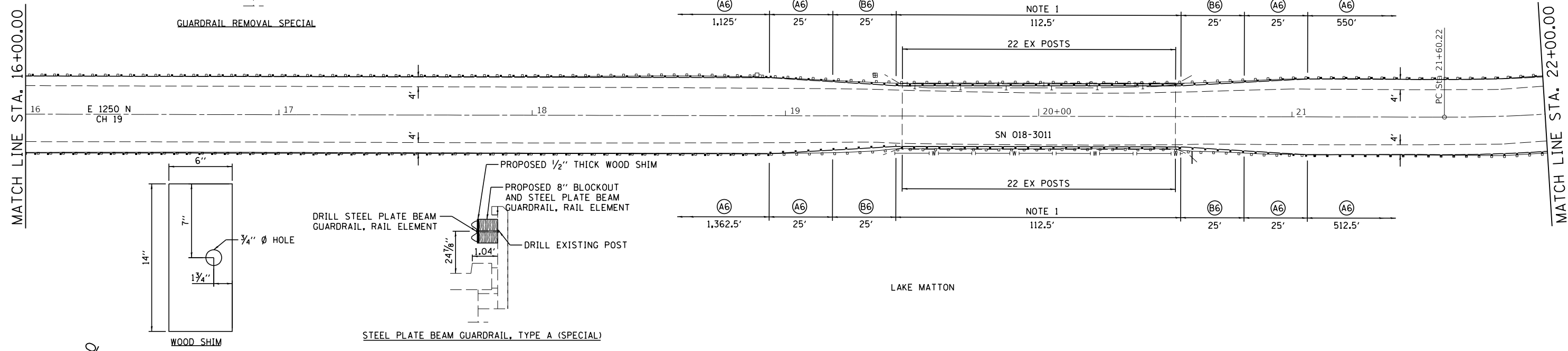
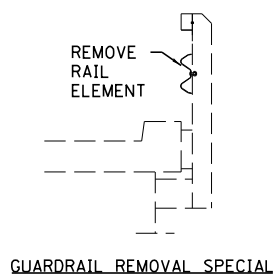
SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	28
CONTRACT NO. 95835				
ILLINOIS		FED. AID PROJECT		

LAKE MATTON

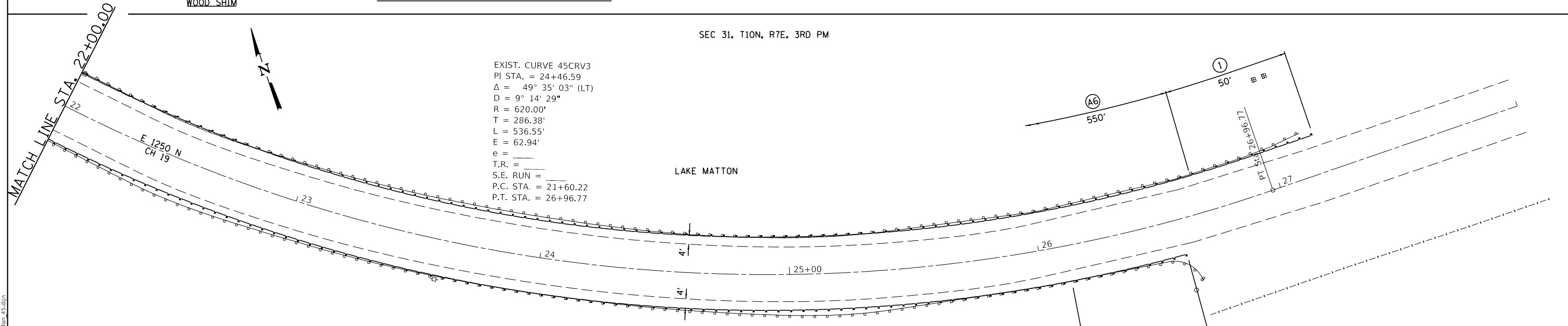
**NOTE 1**  
 EXISTING STEEL PLATE BEAM RAIL ELEMENTS SHALL BE REMOVED. NEW 8" BLOCKOUTS, WOOD SHIMS, AND STEEL PLATE BEAM GUARDRAIL ELEMENTS SHALL BE INSTALLED ON THE EXISTING POSTS. THE FIRST POST OFF EACH CORNER OF THE STRUCTURE SHALL REMAIN IN PLACE. GUARDRAIL ELEMENTS SHALL BE ATTACHED TO THESE POSTS IN A MANNER APPROVED BY THE ENGINEER.

CH 18 SHALL BE CLOSED FOR REMOVAL OF EXISTING STEEL PLATE BEAM GUARDRAIL ELEMENTS AND INSTALLING STEEL PLATE BEAM GUARDRAIL, RAIL ELEMENTS ON THE EXISTING POSTS. THE MAXIMUM CLOSURE TIME SHALL BE 3 CALENDAR DAYS.



LAKE MATTON

EXIST. CURVE 45CRV3  
 PI STA. = 24+46.59  
 $\Delta = 49^\circ 35' 03''$  (LT)  
 $D = 9^\circ 14' 29''$   
 $R = 620.00'$   
 $T = 286.38'$   
 $L = 536.55'$   
 $E = 62.94'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 21+60.22$   
 $P.T. STA. = 26+96.77$



CH 19

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
PC	3+80.97	979489.46	944974.91
PI	5+11.23	979489.11	945105.17
PCC	6+39.88	979453.66	945230.52
PI	7+88.84	979413.12	945373.86
PT	9+29.42	979300.76	945471.64
PC	21+60.22	978372.28	946279.59
PI	24+46.59	978156.2	946467.59
PT	26+96.77	978159.32	946753.94
POT	29+64.83	978162.19	947021.99

LEGEND

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊠ INLET AND PIPE PROTECTION
- Ⓐ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓓ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- Ⓒ TRAFFIC BARRIER TERMINAL, TYPE 2
- Ⓔ TRAFFIC BARRIER TERMINAL, TYPE 5A
- Ⓚ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- Ⓑ STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

LOCATION NO. 45  
 MINOR COLLECTOR  
 ADT 750  
 DESIGN SPEED 50 MPH

MODEL: Default  
 FILE NAME: 24581\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets12458-Gr-2Ato\_45.dgn



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 FILE NAME = 2458-shl-plan\_45.dgn  
 PLOT SCALE = 40,0000' / 1in.  
 PLOT DATE = 3/19/2018

DESIGNED - CGF  
 DRAWN - CGF  
 CHECKED - NAK  
 DATE - 1/19/2018

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

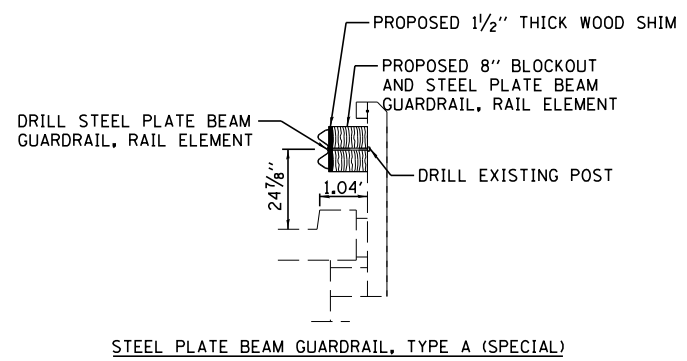
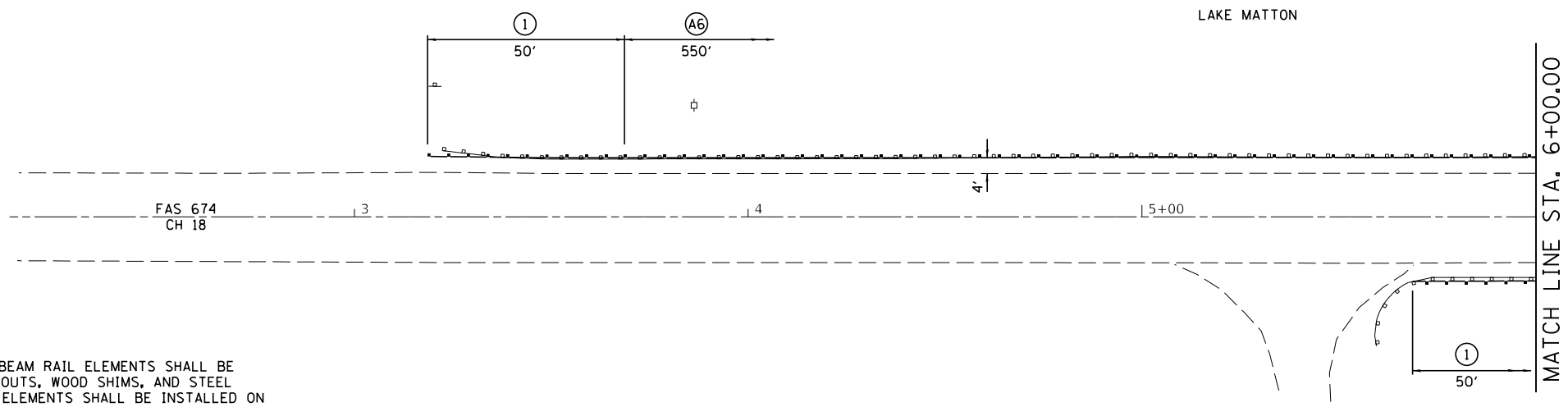
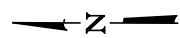
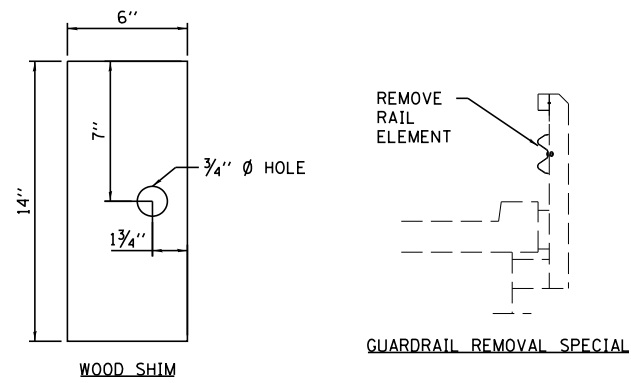
CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS

PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-0081-00-GR	CUMBERLAND	43	29
CONTRACT NO. 95835				
ILLINOIS		FED. AID PROJECT		



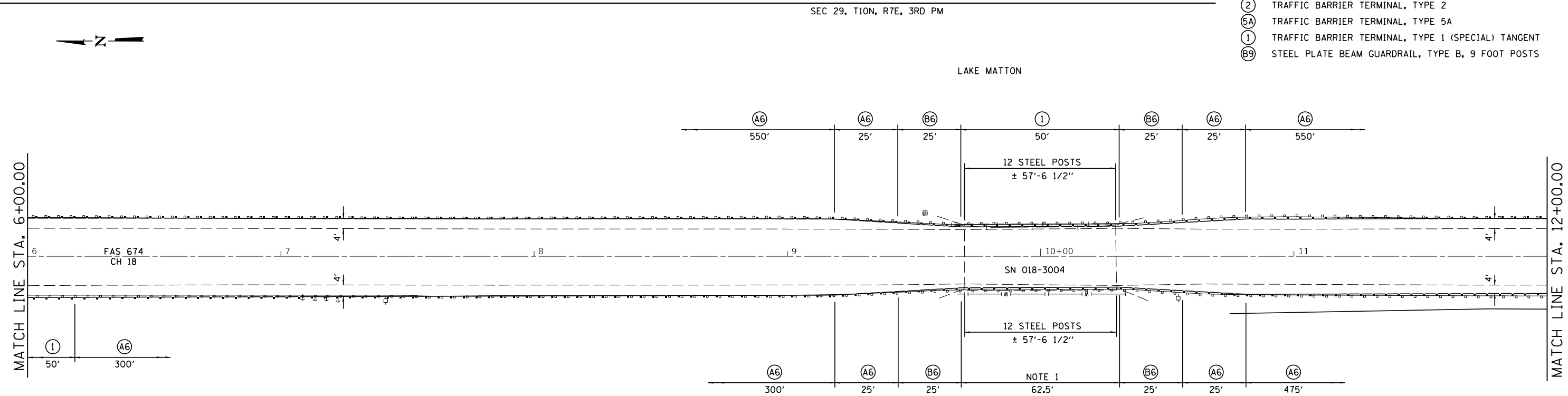


**NOTE 1**  
 EXISTING STEEL PLATE BEAM RAIL ELEMENTS SHALL BE REMOVED. NEW 8" BLOCKOUTS, WOOD SHIMS, AND STEEL PLATE BEAM GUARDRAIL ELEMENTS SHALL BE INSTALLED ON THE EXISTING POSTS. THE FIRST POST OFF EACH CORNER OF THE STRUCTURE SHALL REMAIN IN PLACE. GUARDRAIL ELEMENTS SHALL BE ATTACHED TO THESE POSTS IN A MANNER APPROVED BY THE ENGINEER.

CH 18 SHALL BE CLOSED FOR REMOVAL OF EXISTING STEEL PLATE BEAM GUARDRAIL ELEMENTS AND INSTALLING STEEL PLATE BEAM GUARDRAIL, RAIL ELEMENTS ON THE EXISTING POSTS. THE MAXIMUM CLOSURE TIME SHALL BE 3 CALENDAR DAYS.

**LEGEND**

- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- ⊗ INLET AND PIPE PROTECTION
- ⊖(A6) STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- ⊖(A9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- ⊖(2) TRAFFIC BARRIER TERMINAL, TYPE 2
- ⊖(5A) TRAFFIC BARRIER TERMINAL, TYPE 5A
- ⊖(1) TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- ⊖(B9) STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS



CH 18

CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	0+74.61	983228.84	950341.22
POT	10+00.00	982303.45	950344.54
POT	19+59.87	981343.59	950347.98

LOCATION NO. 46  
 MINOR COLLECTOR  
 ADT 1550  
 DESIGN SPEED 50 MPH

MODEL: Default  
 FILE NAME: 24581\_Cumberland\_Guardrail\_P1 & P2\_CADD\_Sheets12458-cht-dwg\_46.dgn

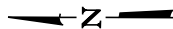


JOB = 2458.1	DESIGNED - CGF	REVISED -
FILE NAME = 2458-cht-plan_46.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 1/19/2018	REVISED -

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

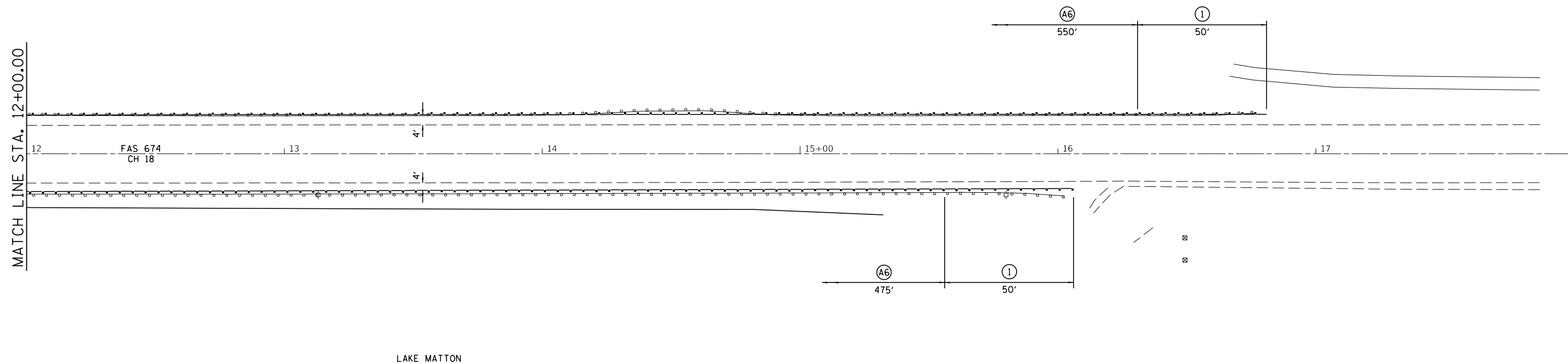
PLAN			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	31
CONTRACT NO. 95835				
ILLINOIS FED. AID PROJECT				












LAKE MATTON

MATCH LINE STA. 12+00.00



LEGEND

-  TEMPORARY DITCH CHECKS
-  PERIMETER EROSION BARRIER
-  INLET AND PIPE PROTECTION
-  STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
-  STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
-  TRAFFIC BARRIER TERMINAL, TYPE 2
-  TRAFFIC BARRIER TERMINAL, TYPE 5A
-  TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
-  STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS

CH 18			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
POT	0+74.61	983228.84	950341.22
POT	10+00.00	982303.45	950344.54
POT	19+59.87	981343.59	950347.98

LOCATION NO. 46  
MINOR COLLECTOR  
ADT 1550  
DESIGN SPEED 50 MPH

MODEL: Default  
FILE NAME: I:\2018\16-00081-00-GR\16-00081-00-GR-CH-24-46.dgn



JOB = 2458.1	DESIGNED - CGF	REVISED -
FILE NAME = 2458-shl-plan_46.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 40,0000' / 1in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 1/19/2018	REVISED -

CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS

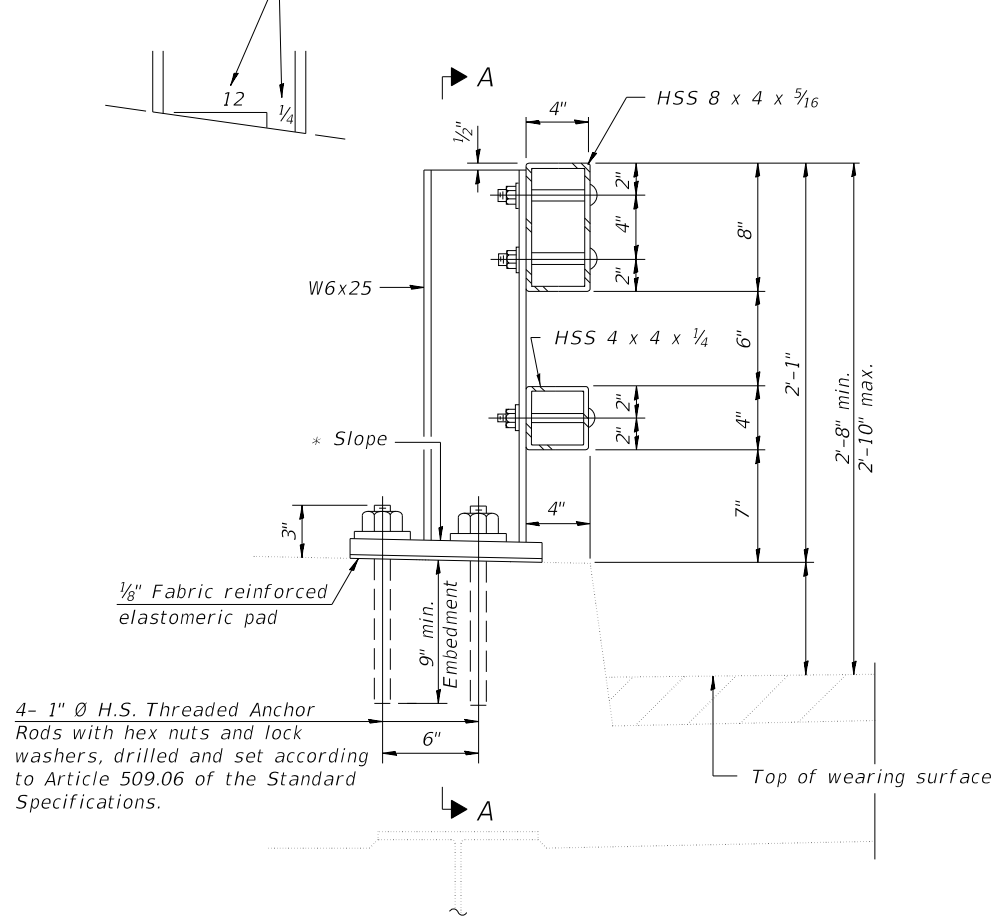
PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

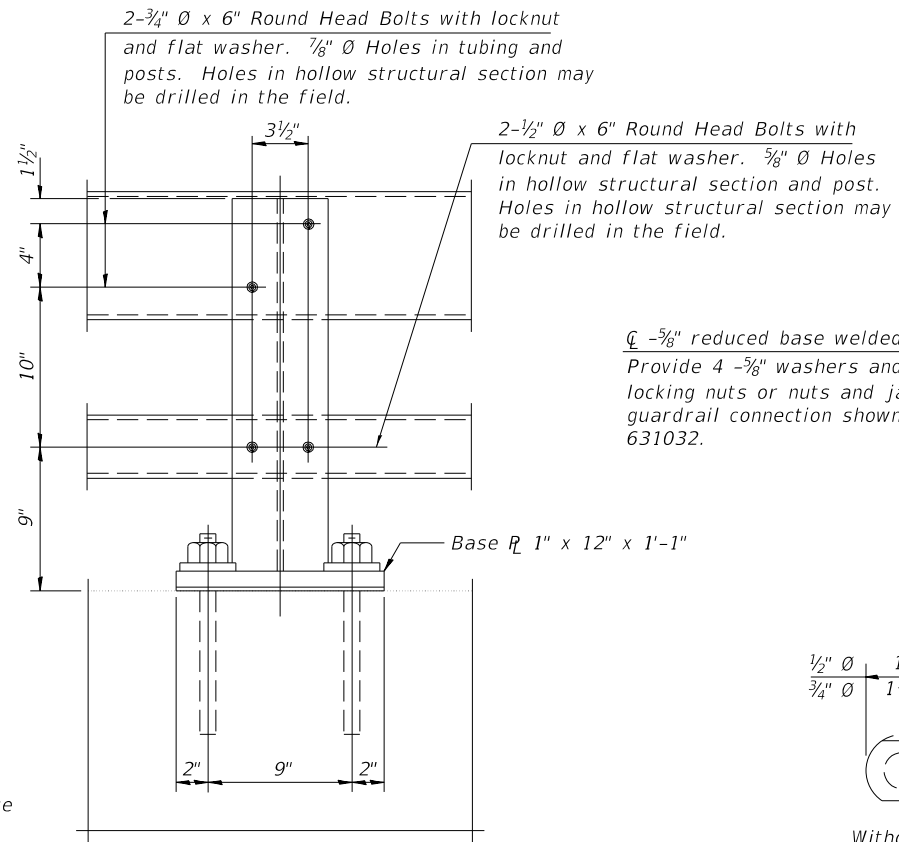
ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	32
			CONTRACT NO. 95835	
		ILLINOIS	FED. AID PROJECT	



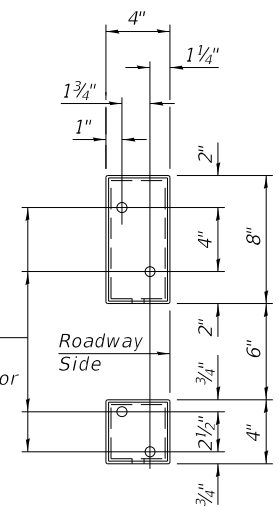
\* Cut bottom end of post to curb slope.



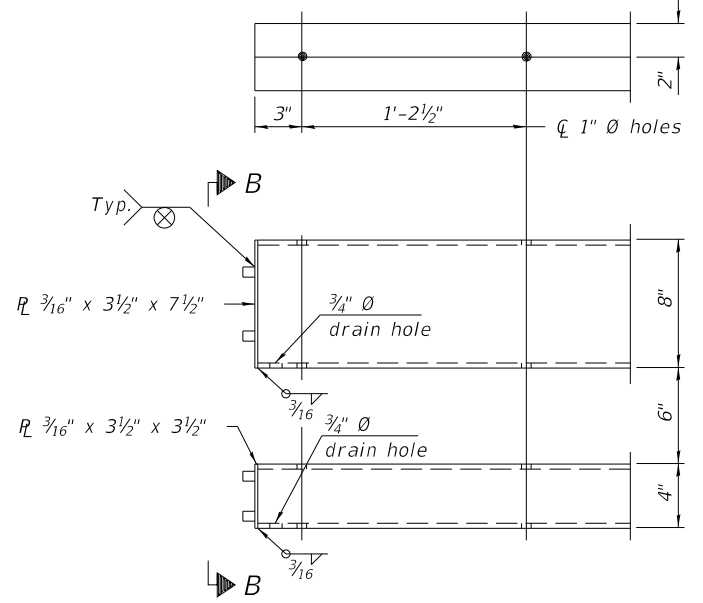
SECTION AT RAIL POST



SECTION A-A



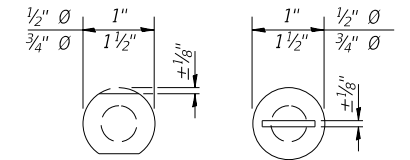
VIEW B-B



END OF RAIL DETAILS

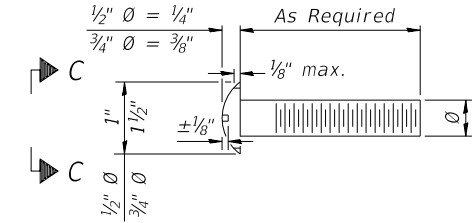
4- 1" Ø H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.

Provide 4 -5/8" reduced base welded studs. Provide 4 -5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



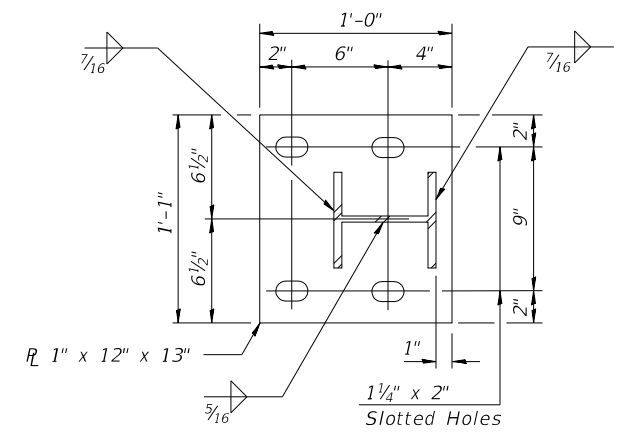
Without Slot or Recess      With Slot (shown) or Approved Recess

VIEW C-C

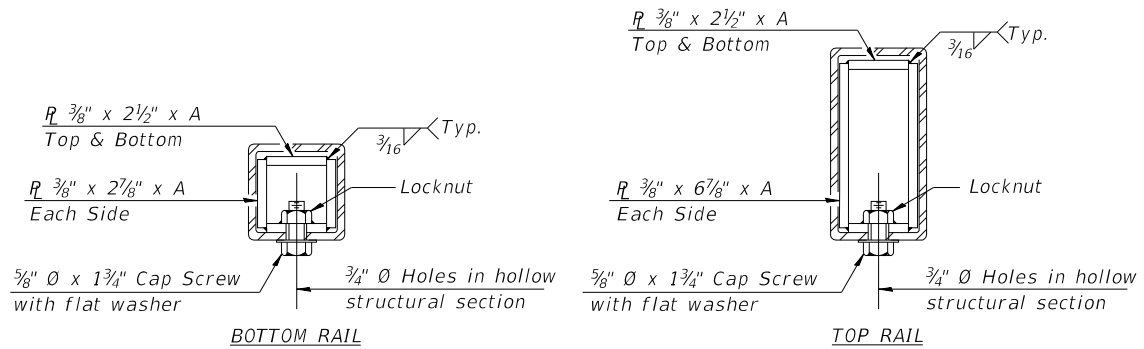


DETAIL OF 1/2" Ø & 3/4" Ø ROUND HEAD BOLTS

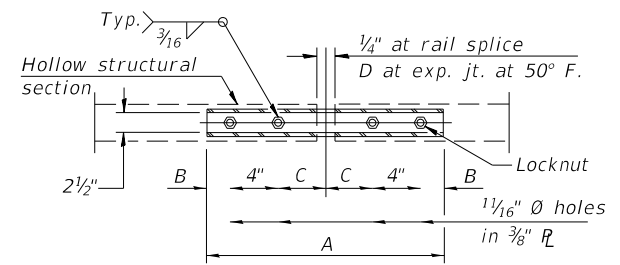
Notes:  
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.  
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.  
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.  
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



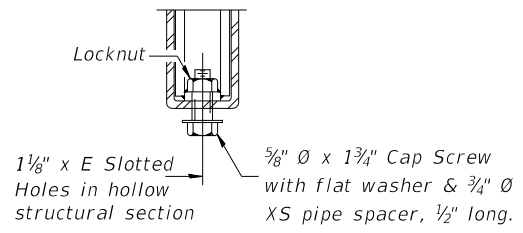
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE R TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	563.5

MODEL: Default  
FILE NAME: H:\2458.1\_Cumberland\_Guardrail\_PE1 & PE2\CADD\Sheets\2458-sh-SteelRailing.dgn

R-31

8-11-2017

(6'-3" Maximum Post Spacing)

**CEC**  
Civil and Structural Engineering

Cummins Engineering Corporation  
 JOB = 2458.1  
 FILE NAME = 2458-sh-SteelRailing.dgn  
 PLOT DATE = 3/19/2018

DESIGNED - NAK  
 CHECKED - SJS  
 DRAWN - CGF  
 CHECKED - 9/15/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

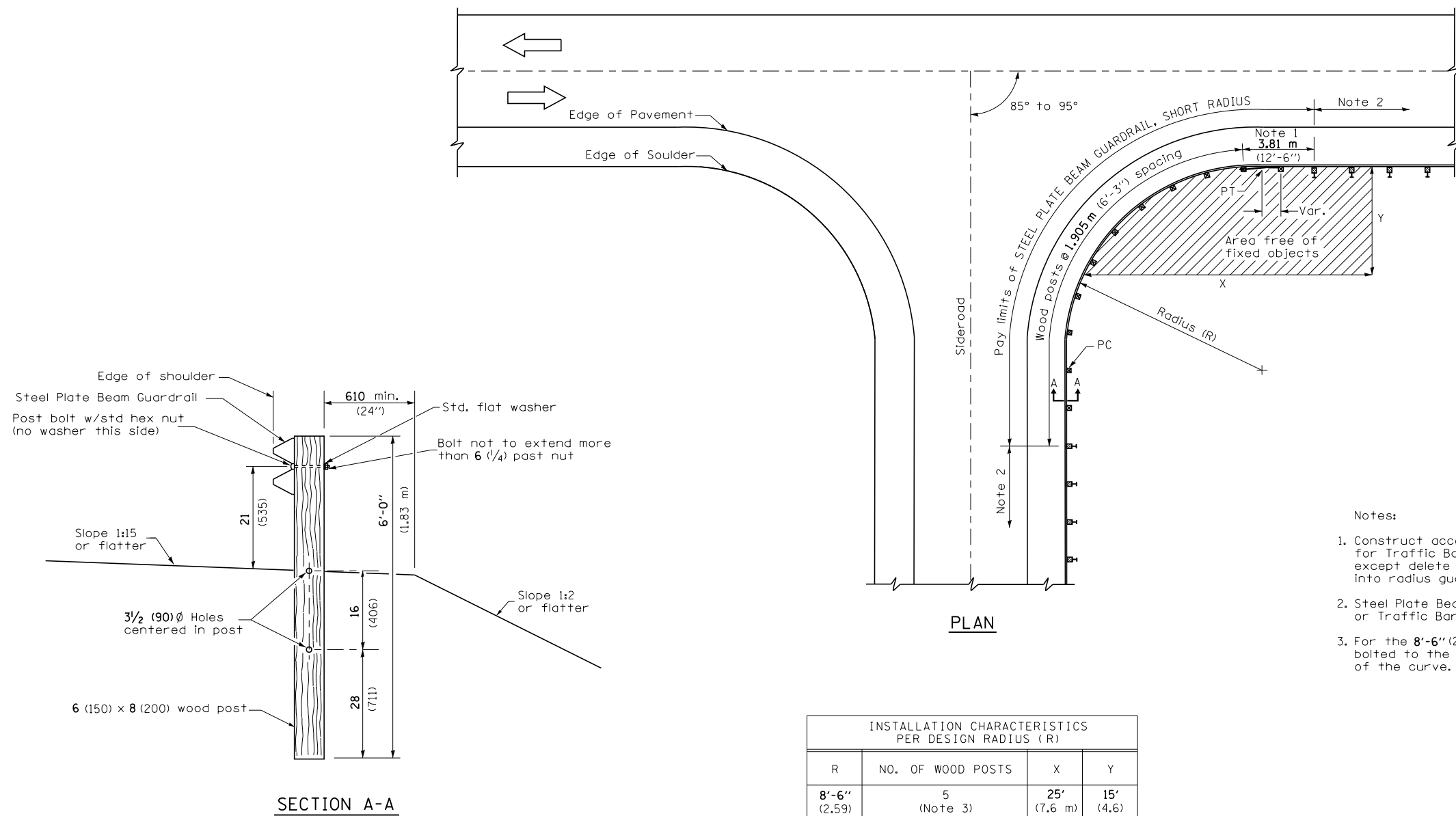
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE 2399

SHEET OF SHEETS

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	33
CONTRACT NO. 95835				

ILLINOIS FED. AID PROJECT



- Notes:
1. Construct according to Standard 631011 for Traffic Barrier Terminal Type 2, except delete end section and splice into radius guardrail.
  2. Steel Plate Beam Guardrail Type A, Type B, or Traffic Barrier Terminal as specified.
  3. For the 8'-6" (2.59 m) radius, the rail is not bolted to the post located at the midpoint of the curve.

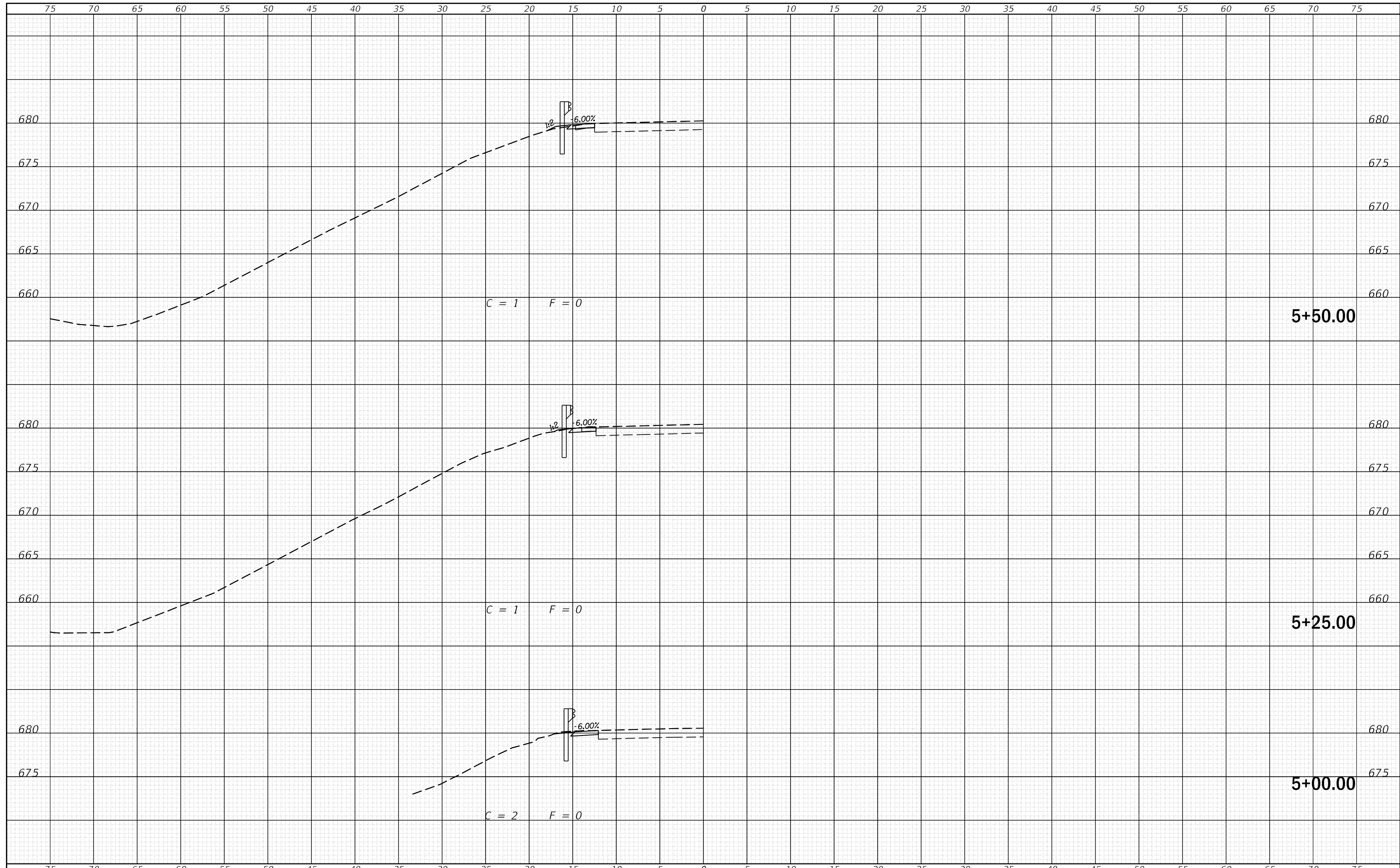
INSTALLATION CHARACTERISTICS PER DESIGN RADIUS (R)			
R	NO. OF WOOD POSTS	X	Y
8'-6" (2.59)	5 (Note 3)	25' (7.6 m)	15' (4.6)
17'-0" (5.18)	6	30' (9.1 m)	15' (4.6)
25'-6" (7.77)	8	40' (12.2 m)	20' (6.1)
35'-0" (10.67)	11	50' (15.2 m)	20' (6.1)

**GENERAL NOTES**

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).  
All dimensions are in inches (millimeters) unless otherwise shown.

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FINAL SURVEY NOTE BOOK NO.	

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TEMPLATE	
AREAS	
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ORIGINAL SURVEY NOTE BOOK NO.	



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Civil and Structural Engineering

JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-xsec.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/09/2018	REVISED -

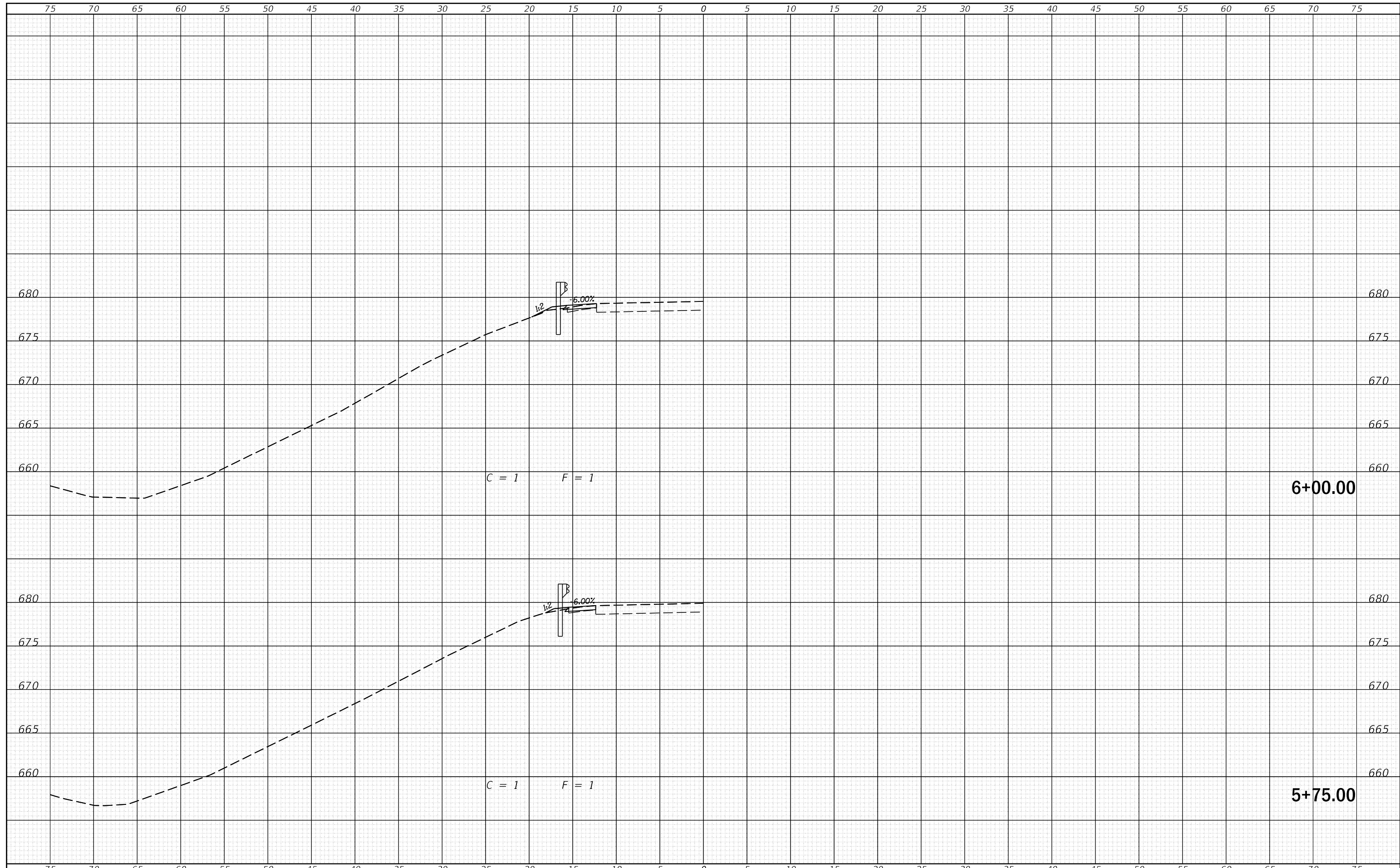
**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

<b>CROSS SECTIONS</b>			
SCALE:	SHEET NO.	OF SHEETS	TO STA. 5+50.00

ROUTE VARIOUS	SECTION 16-00081-00-GR	COUNTY CUMBERLAND	TOTAL SHEETS 43	SHEET NO. 35
			CONTRACT NO. 95835	ILLINOIS FED. AID PROJECT

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ORIGINAL SURVEY	
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JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-xsec.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/09/2018	REVISED -

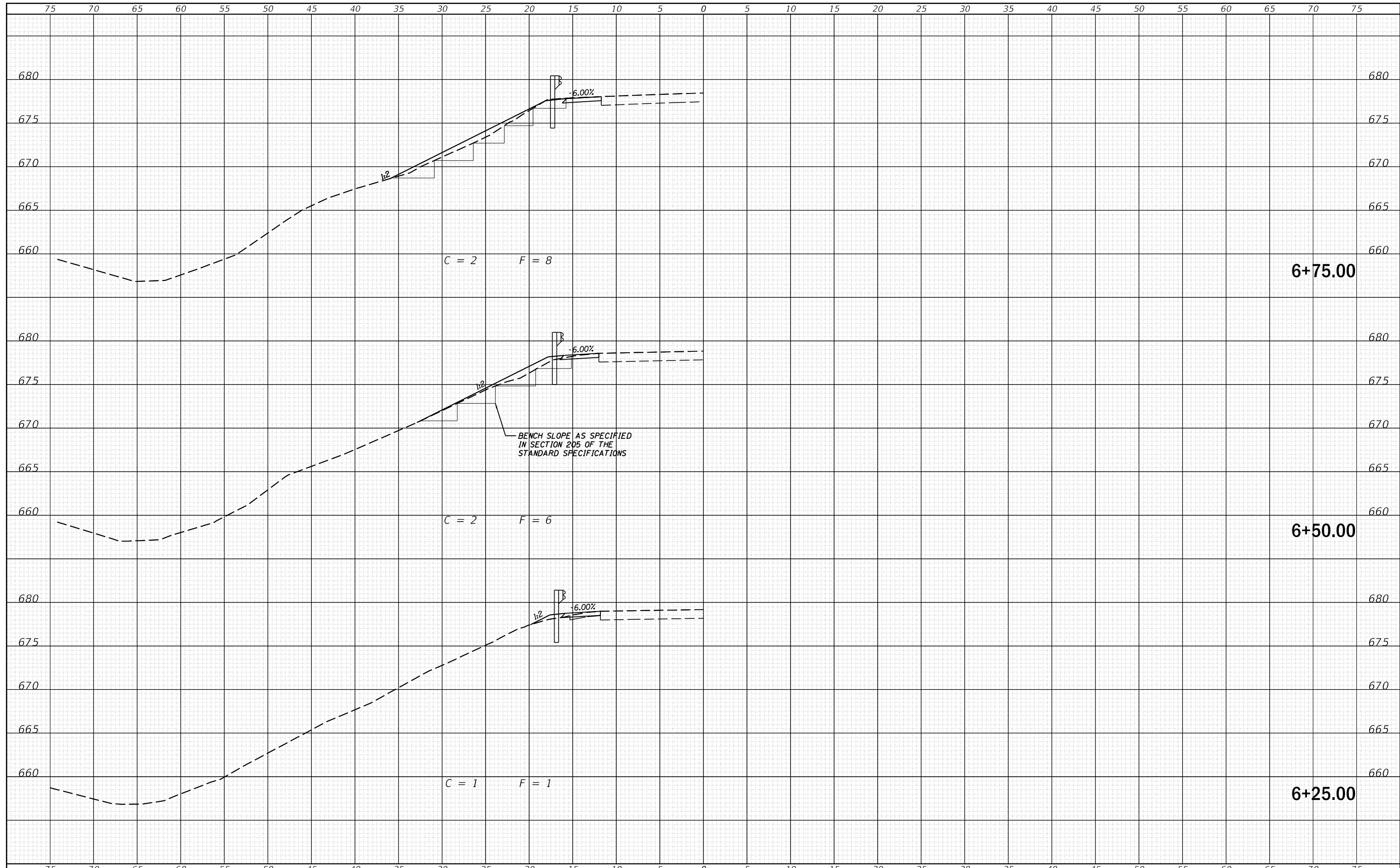
**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

<b>CROSS SECTIONS</b>			
SCALE:	SHEET NO.	OF SHEETS	TO STA. 6+00.00

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	36
			CONTRACT NO.	95835
ILLINOIS FED. AID PROJECT				

DATE	
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NOTE BOOK	
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ORIGINAL SURVEY	
NOTE BOOK	
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JOB = 2458.1  
 FILE NAME = 2458.1-sht-xsec.dgn  
 PLOT SCALE = 10.0000' / in.  
 PLOT DATE = 3/19/2018

DESIGNED	-	NAK	REVISED	-
DRAWN	-	SJS	REVISED	-
CHECKED	-	NAK	REVISED	-
DATE	-	3/09/2018	REVISED	-

**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

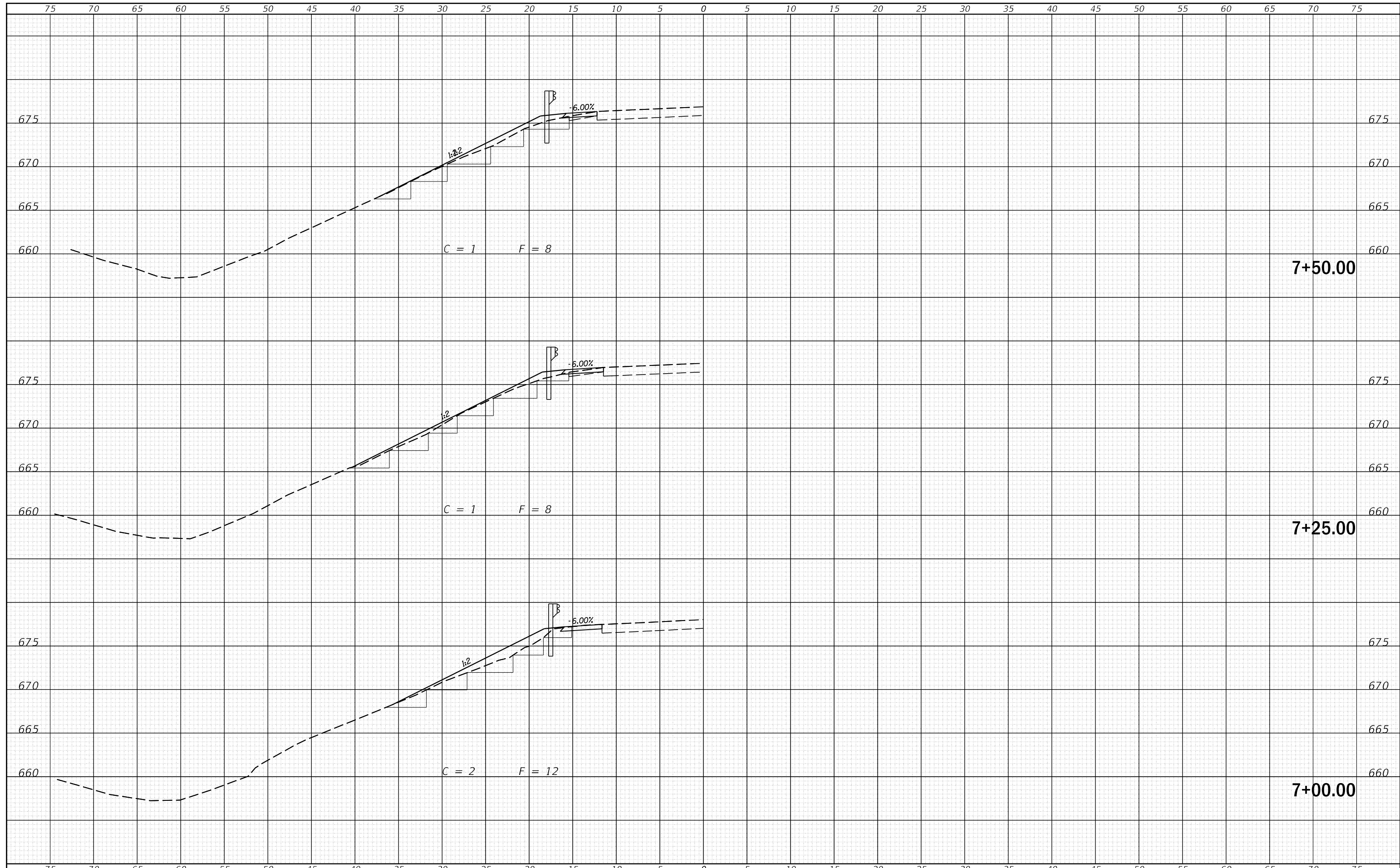
**CROSS SECTIONS**

SCALE: SHEET NO. OF SHEETS STA. 6+25.00 TO STA. 6+75.00

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	37
			CONTRACT NO.	95835
ILLINOIS FED. AID PROJECT				

DATE	
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ORIGINAL SURVEY	
NOTE BOOK	
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**CEC** Cummins  
Engineering  
Corporation  
Civil and Structural Engineering

JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-xsec.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/09/2018	REVISED -

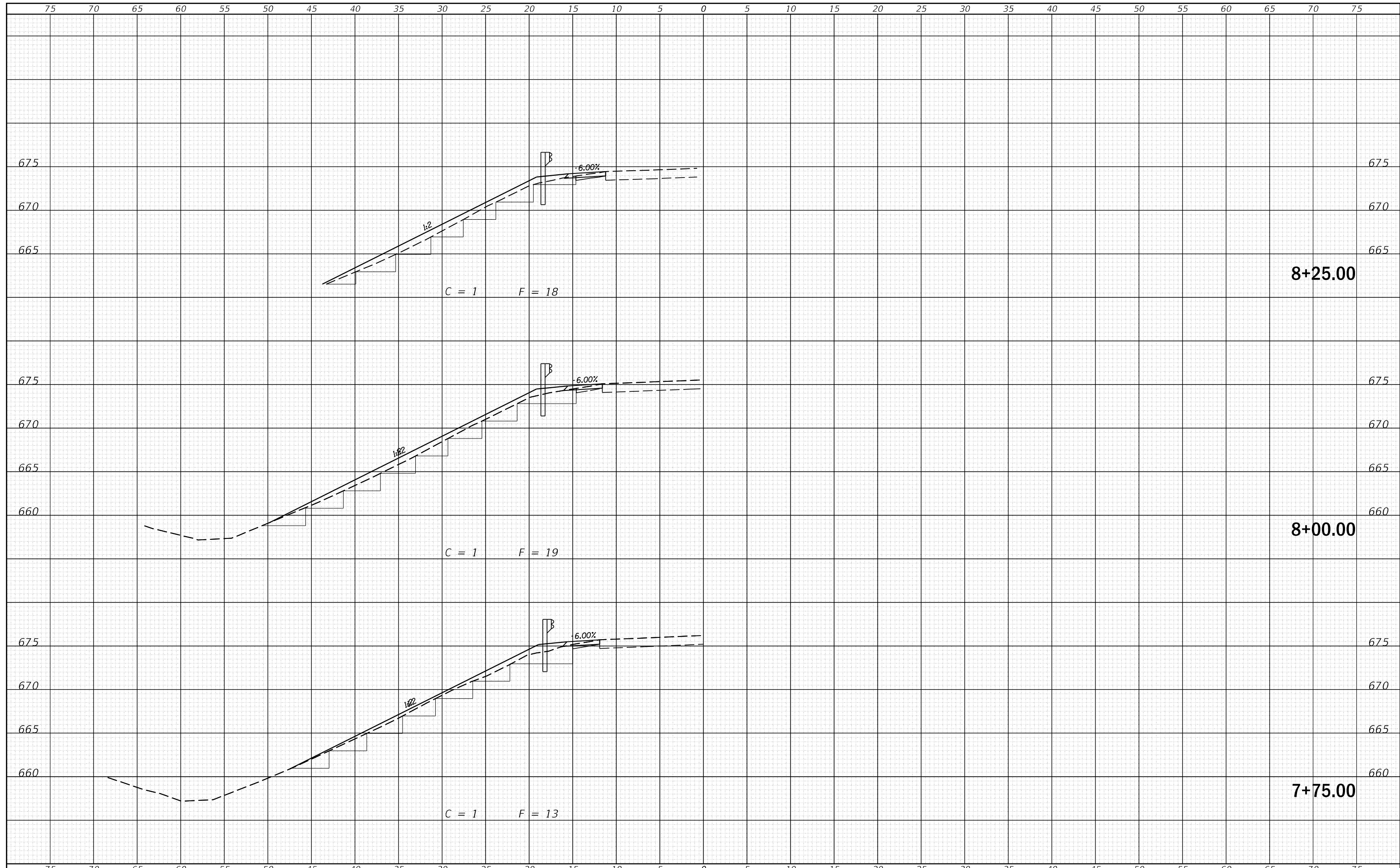
**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

CROSS SECTIONS			
SCALE:	SHEET NO.	OF SHEETS	STA. 7+00.00 TO STA. 7+50.00

ROUTE VARIOUS	SECTION 16-00081-00-GR	COUNTY CUMBERLAND	TOTAL SHEETS 43	SHEET NO. 38
			CONTRACT NO. 95835	ILLINOIS FED. AID PROJECT

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ORIGINAL SURVEY NOTE BOOK NO.	



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Civil and Structural Engineering

JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-xsec.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/09/2018	REVISED -

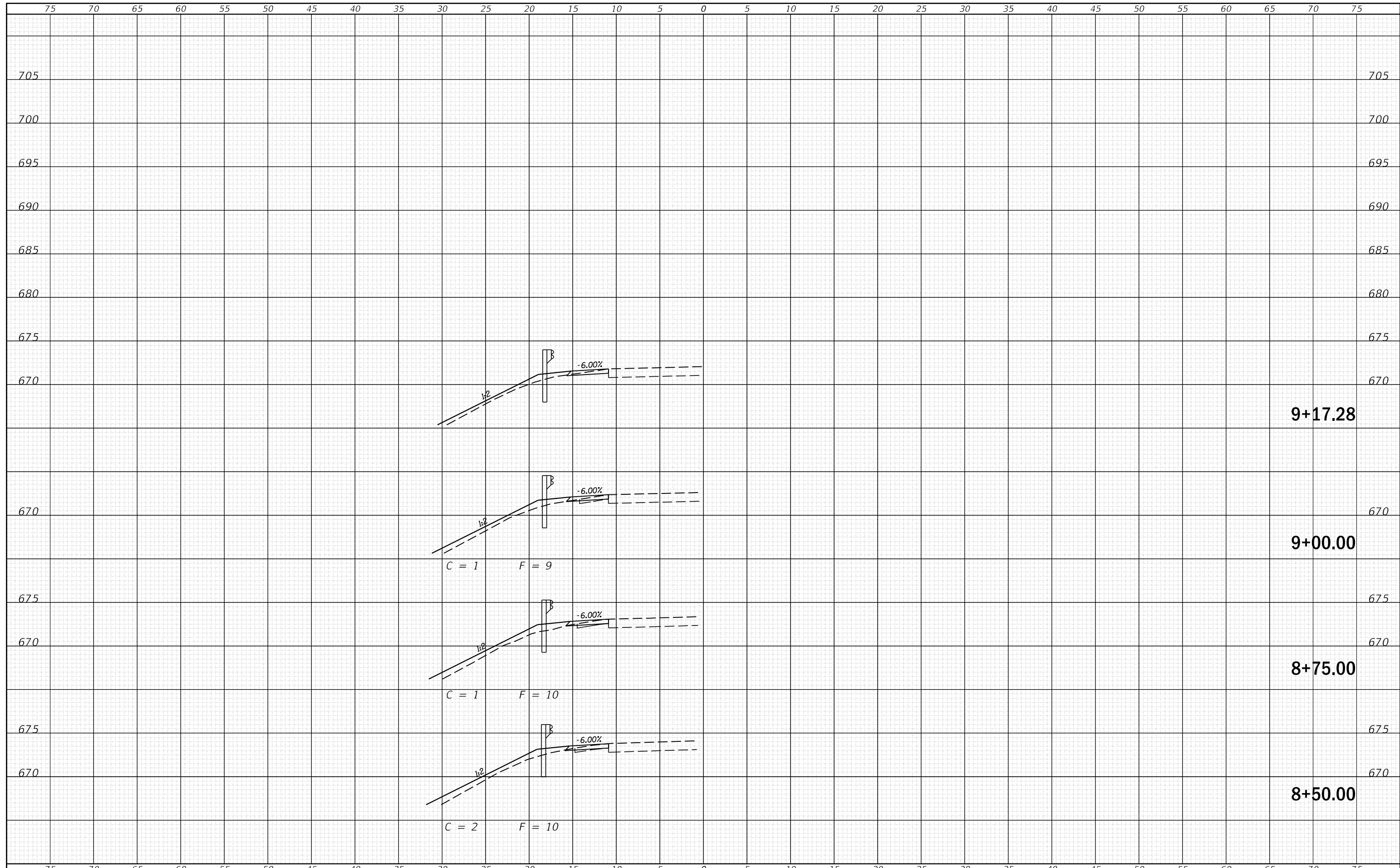
**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

<b>CROSS SECTIONS</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. 7+75.00 TO STA. 8+25.00

ROUTE VARIOUS	SECTION 16-00081-00-GR	COUNTY CUMBERLAND	TOTAL SHEETS 43	SHEET NO. 39
			CONTRACT NO. 95835	ILLINOIS FED. AID PROJECT

DATE	
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FINAL SURVEY NOTE BOOK NO.	

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ORIGINAL SURVEY NOTE BOOK NO.	



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Civil and Structural Engineering

JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-xsec.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/09/2018	REVISED -

**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

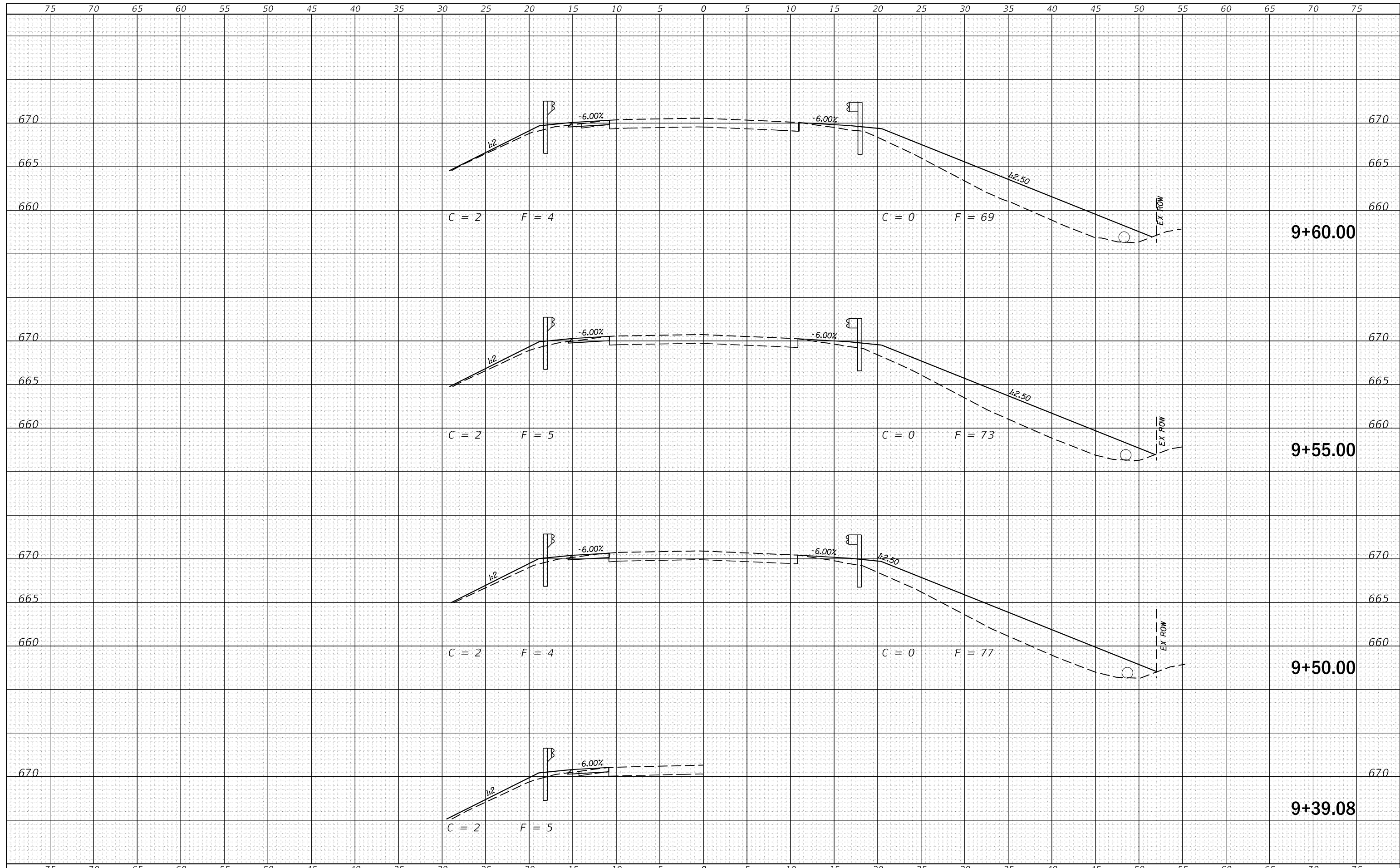
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SCALE:	SHEET NO.	OF SHEETS	TO STA. 9+17.28

ROUTE VARIOUS	SECTION 16-00081-00-GR	COUNTY CUMBERLAND	TOTAL SHEETS 43	SHEET NO. 40
			CONTRACT NO. 95835	
ILLINOIS FED. AID PROJECT				



DATE	
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JOB = 2458.1  
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 PLOT SCALE = 10.0000' / in.  
 PLOT DATE = 3/19/2018

DESIGNED - NAK  
 DRAWN - SJS  
 CHECKED - NAK  
 DATE - 3/09/2018

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**CUMBERLAND COUNTY  
 GUARDRAIL IMPROVEMENTS**

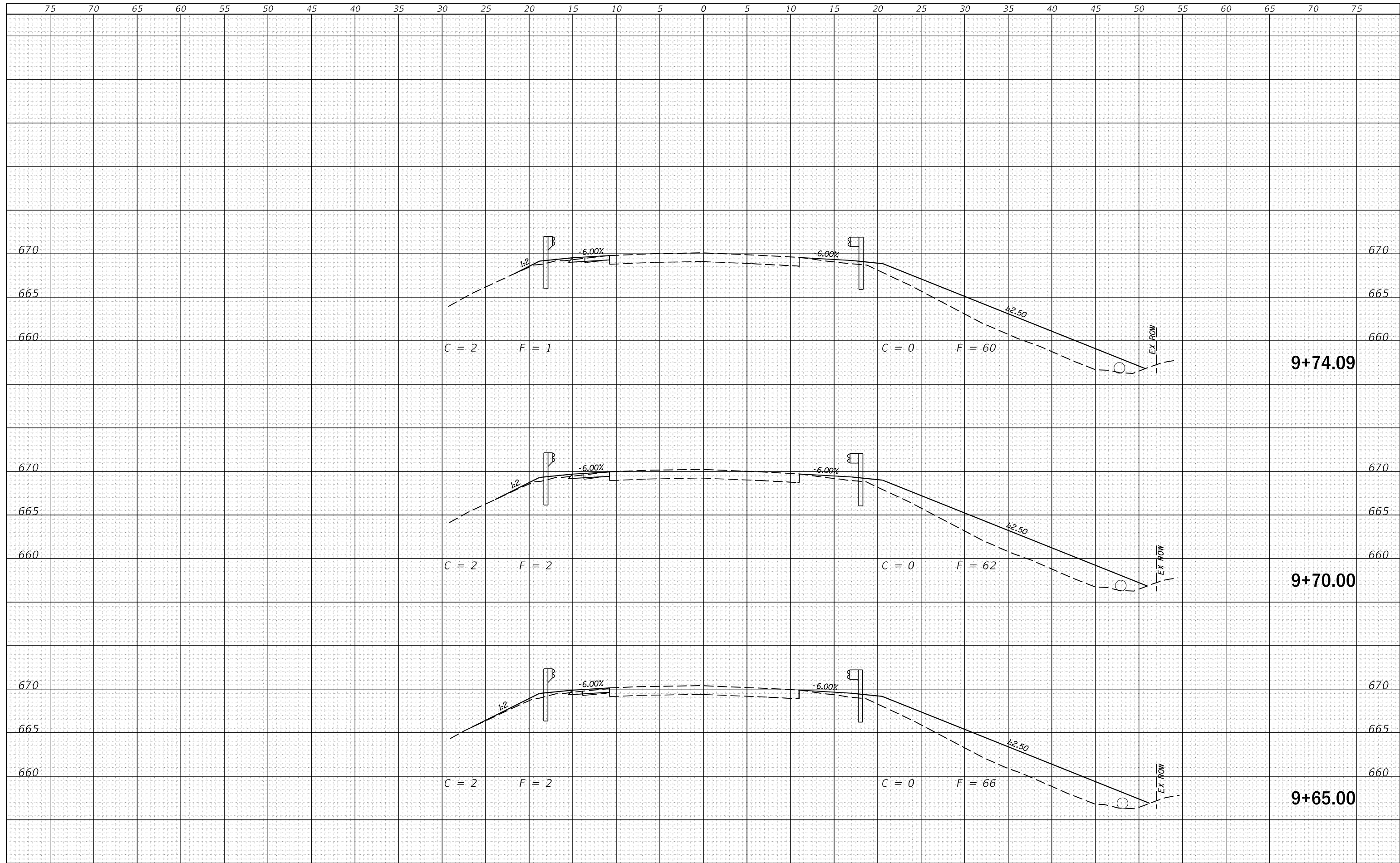
**CROSS SECTIONS**

SCALE: SHEET NO. OF SHEETS STA. 9+39.08 TO STA. 9+60.00

ROUTE VARIOUS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	16-00081-00-GR	CUMBERLAND	43	41
			CONTRACT NO.	95835
ILLINOIS FED. AID PROJECT				

DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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Civil and Structural Engineering

JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-xsec.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/09/2018	REVISED -

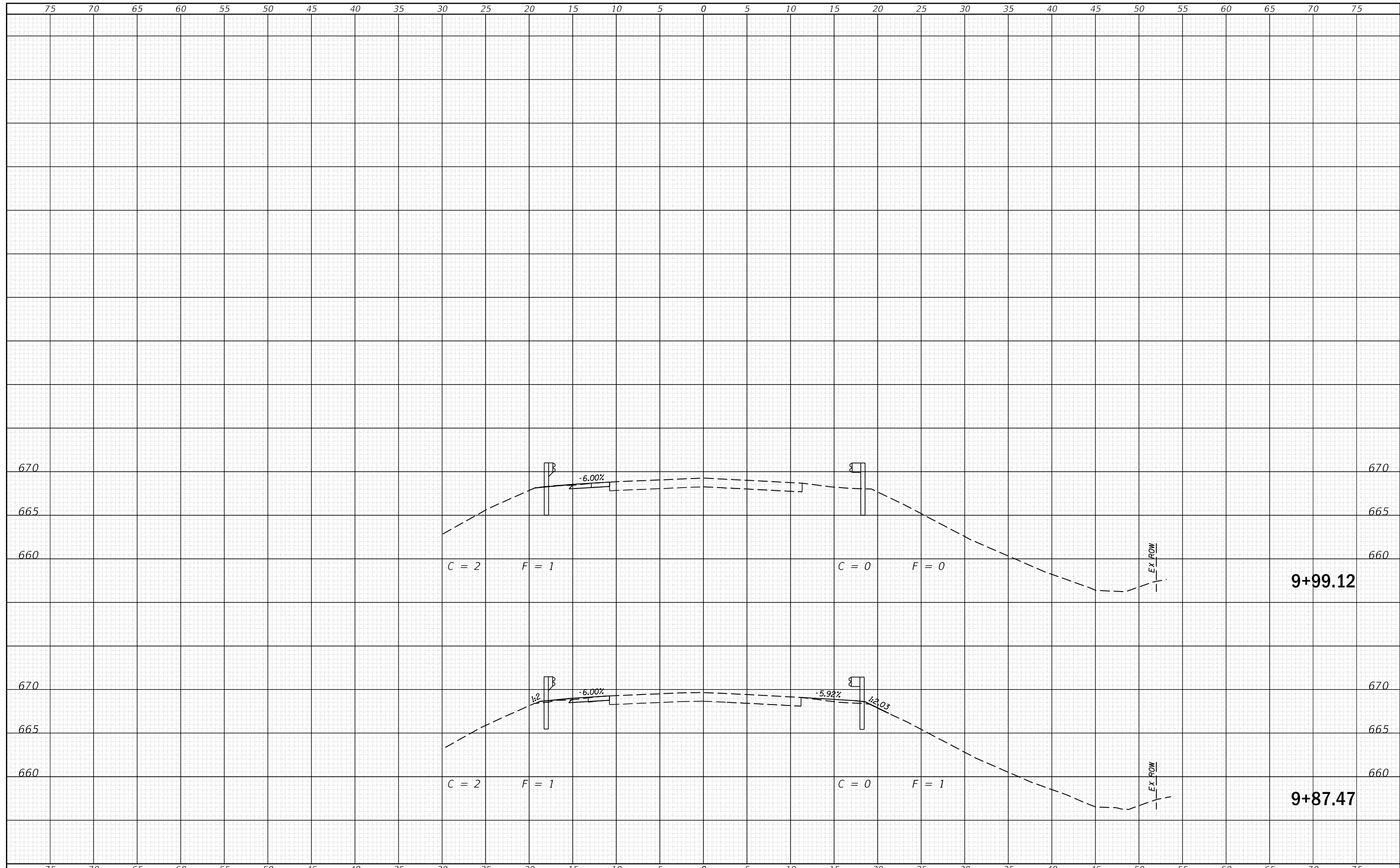
**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

<b>CROSS SECTIONS</b>			
SCALE:	SHEET NO.	OF SHEETS	TO STA. 9+74.09

ROUTE VARIOUS	SECTION 16-00081-00-GR	COUNTY CUMBERLAND	TOTAL SHEETS 43	SHEET NO. 42
			CONTRACT NO. 95835	
ILLINOIS FED. AID PROJECT				

DATE	
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FINAL SURVEY	
NOTE BOOK	
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ORIGINAL SURVEY	
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Civil and Structural Engineering

JOB = 2458.1	DESIGNED - NAK	REVISED -
FILE NAME = 2458.1-sht-xsec.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 3/19/2018	DATE - 3/09/2018	REVISED -

**CUMBERLAND COUNTY  
GUARDRAIL IMPROVEMENTS**

<b>CROSS SECTIONS</b>			
SCALE:	SHEET NO.	OF SHEETS	TO STA. 9+87.47 TO STA. 9+99.12

ROUTE VARIOUS	SECTION 16-00081-00-GR	COUNTY CUMBERLAND	TOTAL SHEETS 43	SHEET NO. 43
			CONTRACT NO. 95835	
ILLINOIS FED. AID PROJECT				