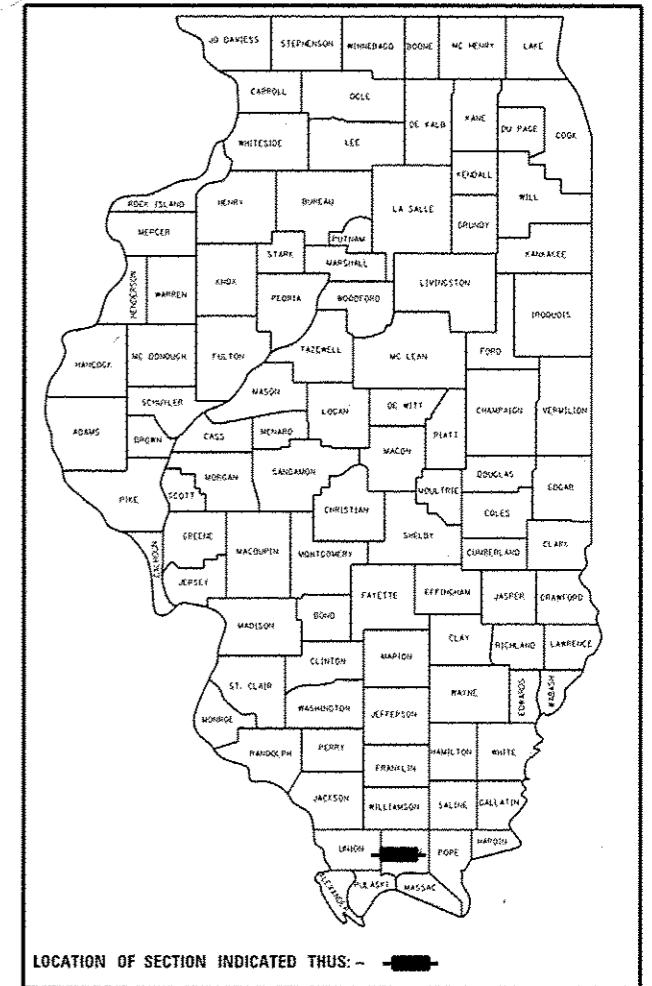


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
OFFICE OF HIGHWAYS PROJECT IMPLEMENTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	107B-1	JOHNSON	26	1
ILLINOIS			CONTRACT NO. 78521	

D-99-023-16



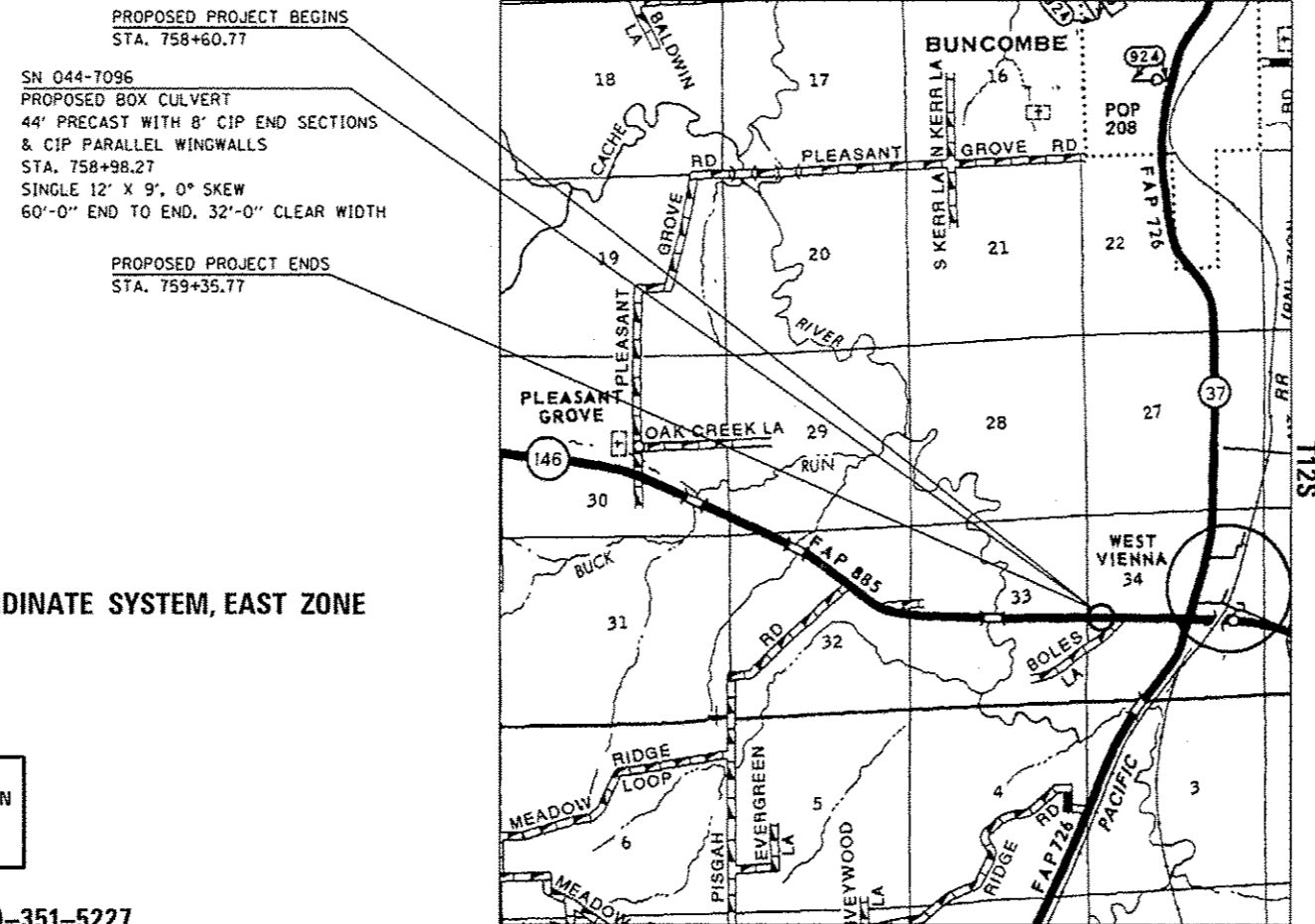
LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 885 (IL 146)
SECTION 107B-1
PROJECT ACNHPP-0885(052)
BOX CULVERT REPLACEMENT OVER DITCH
JOHNSON COUNTY

C-99-023-16

R2E



PROPOSED PROJECT BEGINS
STA. 758+60.77

SN 044-7096
PROPOSED BOX CULVERT
44' PRECAST WITH 8' CIP END SECTIONS
& CIP PARALLEL WINGWALLS
STA. 758+98.27
SINGLE 12" X 9", 0° SKEW
60'-0" END TO END, 32'-0" CLEAR WIDTH

PROPOSED PROJECT ENDS
STA. 759+35.77

TRAFFIC DATA

2016 ADT 2370
15.4% TRUCKS

TOWNSHIP:

COUNTY UNIT ROAD DISTRICT 01

DESIGN DESIGNATION : N/A

COORDINATE SYSTEM : ILLINOIS COORDINATE SYSTEM, EAST ZONE

POSTED SPEED : 55 MPH

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

PROJECT ENGINEER: DAVID PICHE (618)-351-5227

PROJECT DESIGNER: BILL PORTER (618)-351-5224

CONTRACT NO. 78521

GROSS LENGTH = 75 FT. = 0.0142 MILES

NET LENGTH = 75 FT. = 0.0142 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
OFFICE OF HIGHWAYS PROJECT IMPLEMENTATION

SUBMITTED Dec 5 2016

Jeffrey L Keem
REGION FIVE ENGINEER

Jan 27 2017
Maureen M. Addis, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 27 2017
Kevin A. [Signature]
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, GENERAL NOTES, STANDARDS, AND SIGNATURES
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- 7-9 TYPICAL SECTIONS
- 10 TRAFFIC CONTROL AND PROTECTION WITH MAX WIDTH SIGNS
- 11 PLAN AND PROFILE SHEET
- 12 PROPOSED GUARDRAIL AND EROSION CONTROL LAYOUT
- 13 SEEDING & MULCHING, STEP CONSTRUCTION ON EXISTING FILLS
- 14-22 CROSS-SECTIONS
- 23-24 STRUCTURE PLANS
- 25-26 STRUCTURE BORINGS

GENERAL NOTES

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

- ALL HOT MIX ASPHALT 2.016 TONS/CU. YD.
- ALL AGGREGATE 2.05 TONS/CU. YD.
- BITUMINOUS MATERIALS:
 - (TACK COAT)
 - ON PAVEMENT 0.05 LB./SQ. FT.
 - HMA LIFTS 0.025 LB./SQ. FT.
 - (PRIME COAT)
 - AGGREGATE BASES 0.25 LB./SQ. FT.
 - RIPRAP 1.5 TONS/CU. YD.
 - EARTH 110 LBS/CU. FT.

FLAGGERS SHALL BE USED ANY TIME THE EXISTING OR PROPOSED STEEL PLATE BEAM GUARDRAIL IS NOT IN PLACE OR THE TEMPORARY CONCRETE BARRIER IS NOT IN PLACE.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THE PLANS.

AT ALL LOCATIONS WHERE EXISTING HOT-MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT-MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING CONDITIONS HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NORMAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK. THE CONTRACTOR, HOWEVER, WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE FOR THE WORK. CONSTRUCTION PLANS ARE AVAILABLE FOR REVIEW AT THE DISTRICT 9 OFFICE.

ALL EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE UNTIL REMOVAL IS REQUIRED TO CONSTRUCT FINAL GRADE LINES.

THE QUANTITY OF EROSION BARRIER IS ESTIMATED. THE FINAL PLACEMENT AND QUANTITY ARE TO BE DETERMINED BY THE RESIDENT ENGINEER.

A CALCIUM CHLORIDE ACCELERATOR WILL BE ALLOWED IN THE PCC PAVEMENT 10". THE CONCRETE SHALL BE CLASS PP-1 OR PP-2 PER ARTICLE 102D OF THE STANDARD SPECIFICATIONS. REMOVAL OF EXISTING AGGREGATE SHOULDERS SHALL BE INCLUDED IN THE QUANTITY OF EARTH EXCAVATION.

THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.

THERE ARE NO AVAILABLE WASTE SITES ON THE EXISTING RIGHT OF WAY WITHIN THE PROJECT LIMITS. DISPOSAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.

STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 420001-08 PAVEMENT JOINTS
- 420601-06 24' PCC PAVEMENT
- 420701-03 PAVEMENT WELDED WIRE REINFORCEMENT
- 630001-11 STEEL PLATE BEAM GUARDRAIL
- 630301-07 SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
- 701321-16 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-06 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 725001-01 OBJECT AND TERMINAL MARKERS
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 782006 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
- B.L.R. 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

COMMITMENTS

THE FOLLOWING SHALL BE CONTACTED 3 WEEKS PRIOR TO ANY WORK INVOLVING TRAFFIC CONTROL AND PROTECTION THAT AFFECTS THE PUBLIC AND PRIOR TO THE 21 DAY NOTIFICATION SIGNING:

- JOHNSON COUNTY SHERIFF
CHARLES HARNER
618-658-8264
- VIENNA HIGH SCHOOL
SHERRY FIELD, TRANSPORTATION COORDINATOR
618-658-4461 EXT. 202
sherryfield@viennahighschool.com
- VIENNA ELEMENTARY SCHOOL
618-658-8286
- BUNCOMBE ELEMENTARY SCHOOL
618-658-8830
- CYPRESS ELEMENTARY SCHOOL
618-657-2525

Prepared By:		DISTRICT STUDIES & PLANS ENGINEER
Examined By:		DISTRICT LAND ACQUISITION ENGINEER
Examined By:		DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By:		DISTRICT OPERATIONS ENGINEER
Examined By:		DISTRICT PROJECT IMPLEMENTATION ENGINEER
Examined By:		DISTRICT CONSTRUCTION ENGINEER
Examined By:		DISTRICT MATERIALS ENGINEER

FILE NAME: P:\11\2048\BID\BID\G:\11\msg\gov\PM\DOT Documents\DOT Offices\District 9\Projects\78521\CD00\stds\CD00sheets\78521-intro-cvr-seq-index.dgn

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	DRAWN: -	REVISED: -
PLOT SCALE: 1/8" = 1'-0"	CHECKED: -	REVISED: -
PLOT DATE: 11/30/2016	DATE: -	REVISED: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	107B-1	JOHNSON	26	2
CONTRACT NO. 78521				
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS

SUMMARY OF QUANTITIES

JOHNSON
FAP 885 (IL 146)
80% FED / 20% STATE
RURAL
ROADWAY
0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	202
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	215
20400800	FURNISHED EXCAVATION	CU YD	26
20700220	POROUS GRANULAR EMBANKMENT	CU YD	801
25000200	SEEDING, CLASS 2	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.5
25100630	EROSION CONTROL BLANKET	SQ YD	174
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50
28000400	PERIMETER EROSION BARRIER	FOOT	180
28100109	STONE RIPRAP, CLASS A5	SQ YD	98
28200200	FILTER FABRIC	SQ YD	98

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SUMMARY OF QUANTITIES - CONT

JOHNSON
FAP 885 (IL 146)
80% FED / 20% STATE
RURAL
ROADWAY
0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
4200060	WELDED WIRE REINFORCEMENT	SQ YD	200
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	200
44000100	PAVEMENT REMOVAL	SQ YD	200
44213204	TIE BARS 3/4"	EACH	76
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	73
50102400	CONCRETE REMOVAL	CU YD	75.7
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	24,810
54003000	CONCRETE BOX CULVERTS	CU YD	88.5
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	400
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	558
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3

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* SPECIALTY ITEM

SUMMARY OF QUANTITIES - CONT

JOHNSON
FAP 885 (IL 146)
80% FED / 20% STATE
RURAL
ROADWAY
0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
67100100	MOBILIZATION	LSUM	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	LSUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2
70300100	SHORT TERM PAVEMENT MARKING	FOOT	40
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	14
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	900
70400100	TEMPORARY CONCRETE BARRIER	FOOT	250
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4

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* SPECIALTY ITEM

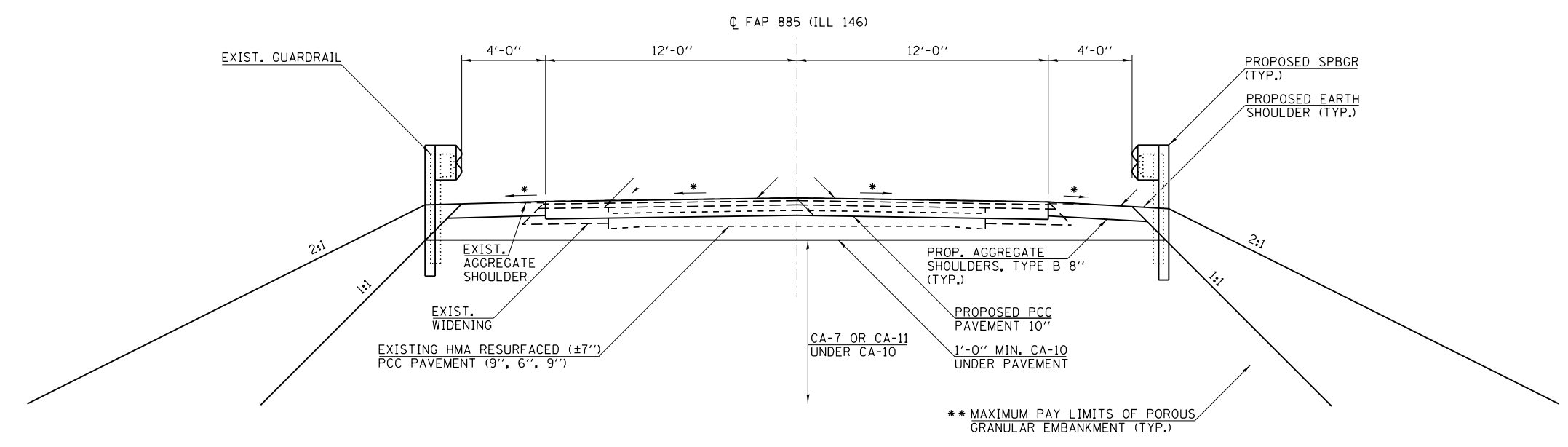
SUMMARY OF QUANTITIES - CONT

JOHNSON
FAP 885 (IL 146)
80% FED / 20% STATE
RURAL
ROADWAY
0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	900
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8
* 86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
X0325110	BIAXIAL GEOGRID	SQ YD	266
X0322120	MEMBRANE WATERPROOFING FOR BURIED STRUCTURES	SQ YD	104
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	328
X5401209	PRECAST CONCRETE BOX CULVERTS 12' X 9' (SPECIAL)	FOOT	44
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	60
* Z0054517	ROCK FILL - FOUNDATION	TON	166

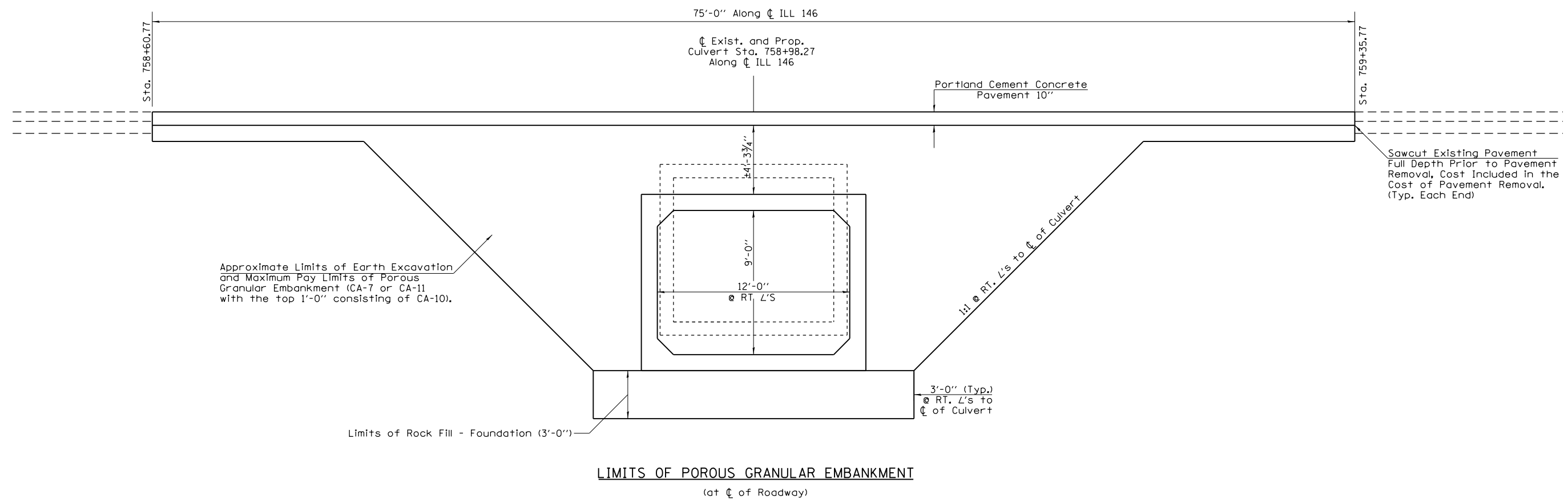
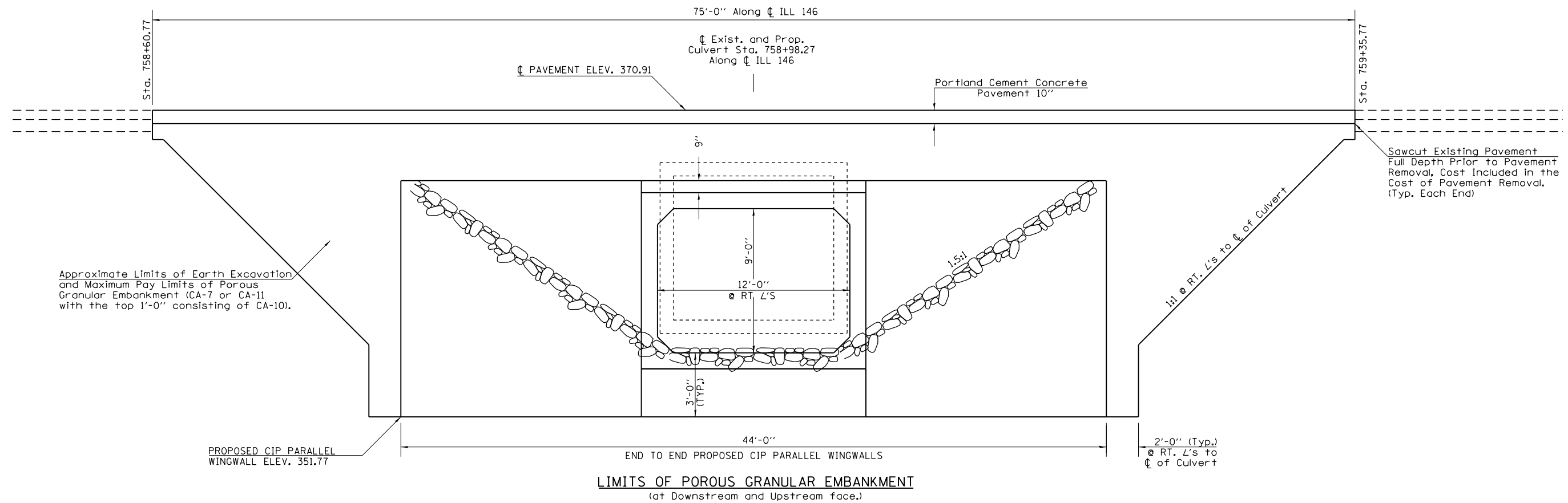
10
* SPECIALTY ITEM

- * MATCH EXISTING CROSS SLOPES
- ** MAXIMUM PAY LIMITS OF POROUS GRANULAR EMBANKMENT (CA-7 OR CA11 WITH THE TOP 1'-0" CONSISTING OF CA-10). EXCEPT FOR THE AREA OF SELECT FILL BEHIND THE PRECAST MODULAR RETAINING WALL AS PER THE STANDARD SPECIFICATIONS.

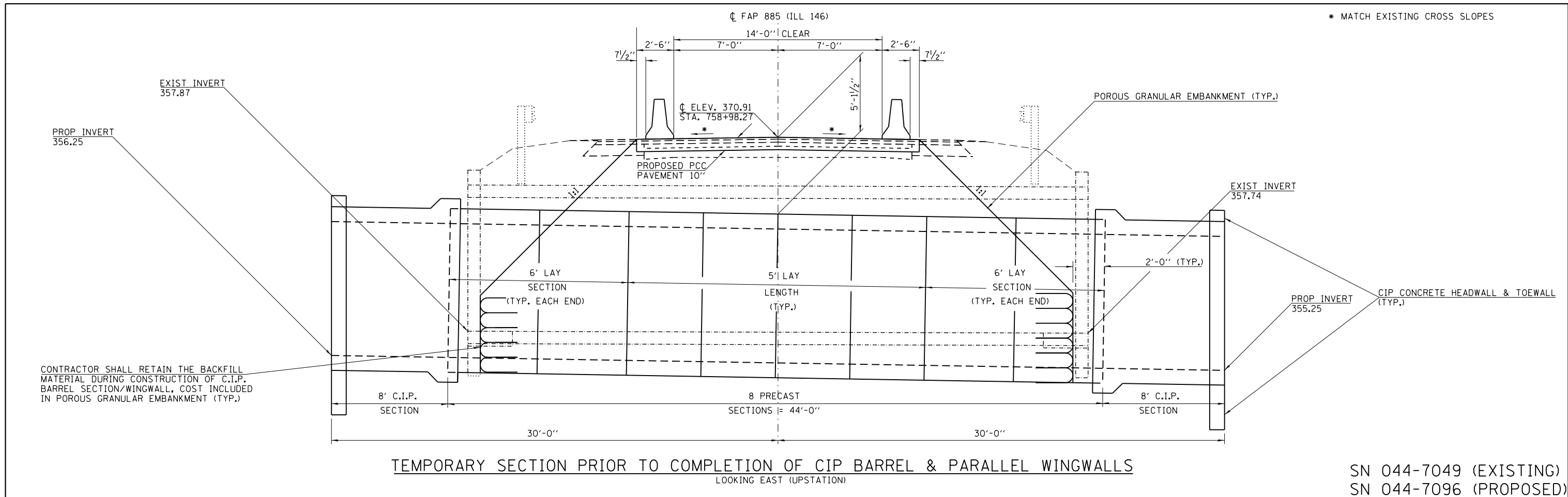


TYPICAL SECTION WITHIN PAVEMENT REMOVAL
LOOKING EAST (UPSTATION)

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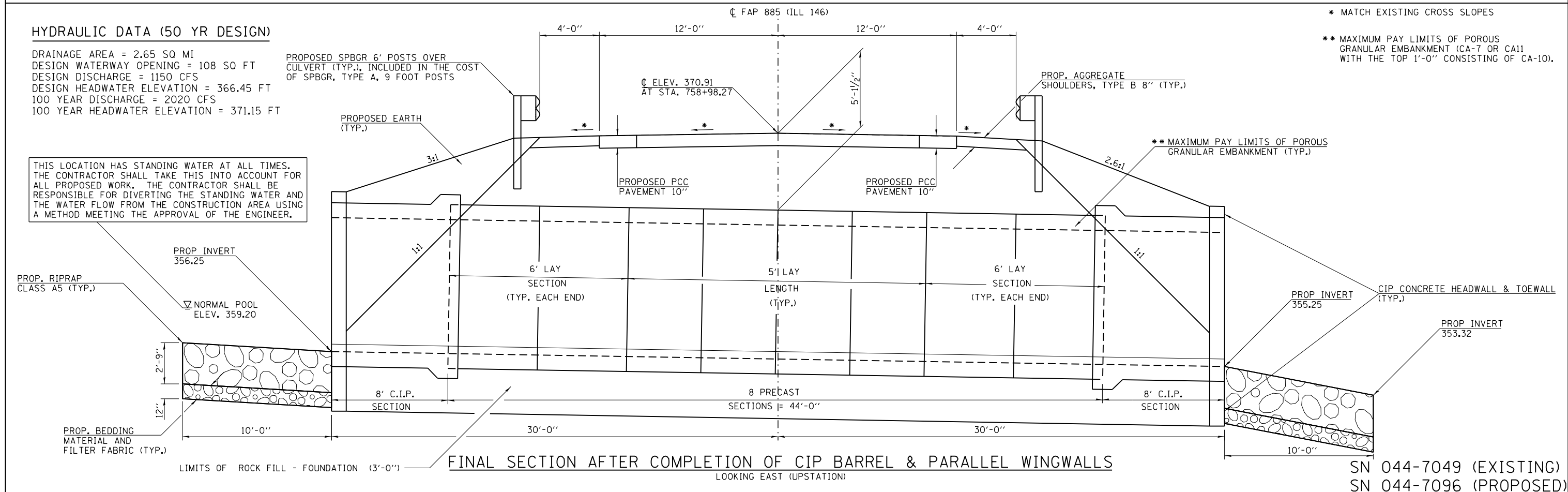
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TEMPORARY SECTION PRIOR TO COMPLETION OF CIP BARREL & PARALLEL WINGWALLS
LOOKING EAST (UPSTATION)

* MATCH EXISTING CROSS SLOPES

SN 044-7049 (EXISTING)
SN 044-7096 (PROPOSED)



FINAL SECTION AFTER COMPLETION OF CIP BARREL & PARALLEL WINGWALLS
LOOKING EAST (UPSTATION)

* MATCH EXISTING CROSS SLOPES

** MAXIMUM PAY LIMITS OF POROUS GRANULAR EMBANKMENT (CA-7 OR CA11 WITH THE TOP 1'-0" CONSISTING OF CA-10).

SN 044-7049 (EXISTING)
SN 044-7096 (PROPOSED)

HYDRAULIC DATA (50 YR DESIGN)

DRAINAGE AREA = 2.65 SQ MI
DESIGN WATERWAY OPENING = 108 SQ FT
DESIGN DISCHARGE = 1150 CFS
DESIGN HEADWATER ELEVATION = 366.45 FT
100 YEAR DISCHARGE = 2020 CFS
100 YEAR HEADWATER ELEVATION = 371.15 FT

PROPOSED SPBGR 6' POSTS OVER CULVERT (TYP.), INCLUDED IN THE COST OF SPBGR, TYPE A, 9 FOOT POSTS

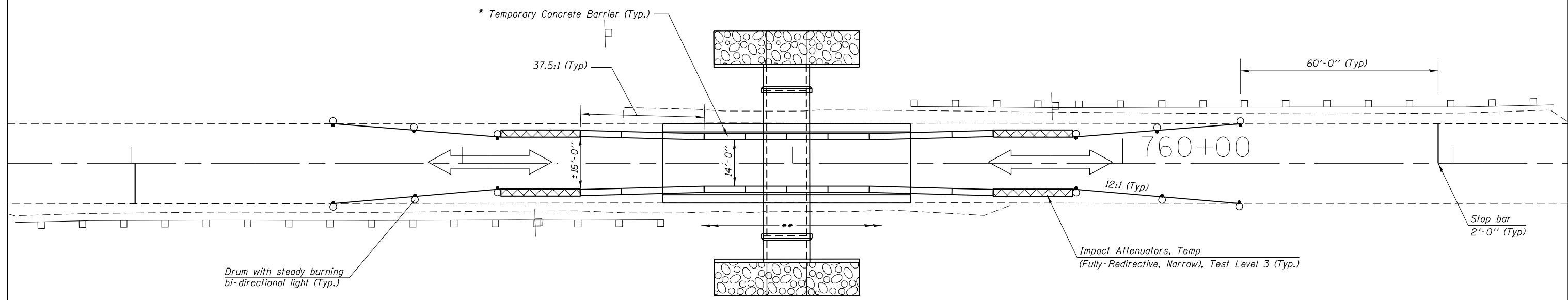
THIS LOCATION HAS STANDING WATER AT ALL TIMES. THE CONTRACTOR SHALL TAKE THIS INTO ACCOUNT FOR ALL PROPOSED WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DIVERTING THE STANDING WATER AND THE WATER FLOW FROM THE CONSTRUCTION AREA USING A METHOD MEETING THE APPROVAL OF THE ENGINEER.

FILE NAME =	USER NAME = porterc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY AND FINAL SECTION	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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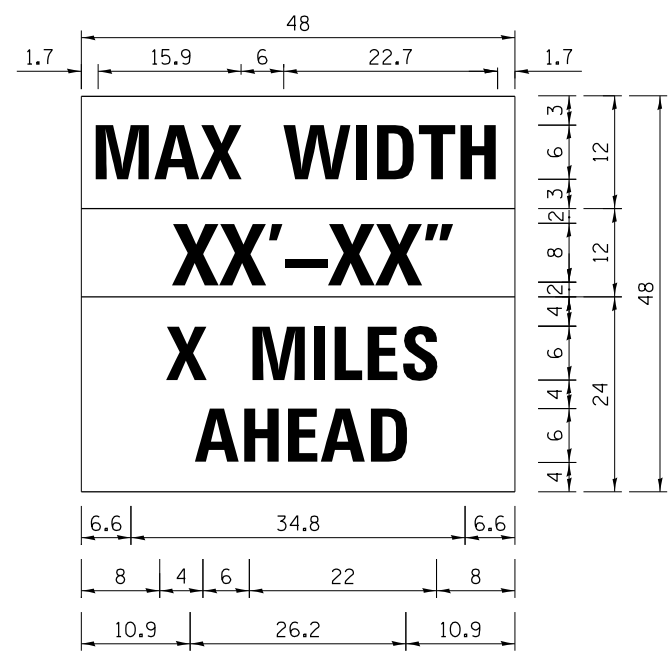
SCALE: SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

Notes:
 * See Standard 701321 for additional details.
 * All Sections of Temporary Concrete Barrier shall be pinned.
 ** The Existing Guardrail has been removed to allow for the Contractor's access to install the Precast barrels and to construct the CIP barrels/wingwalls. (Typ.)



TEMPORARY PLAN SECTION PRIOR TO COMPLETION OF CIP BARREL & PARALLEL WINGWALLS



W12-I103

W12-I103 (Width is 8D);
 No border, Black on White;
 "MAX WIDTH" D;
 No border, Black on Orange;
 "XX'-XX'" D;
 No border, Black on White;
 "X MILES" D; "AHEAD" D

NOTE: THIS SIGN SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. ONE SIGN SHALL BE PROVIDED FOR EACH APPROACH DURING EACH STAGE TO THE SITE.

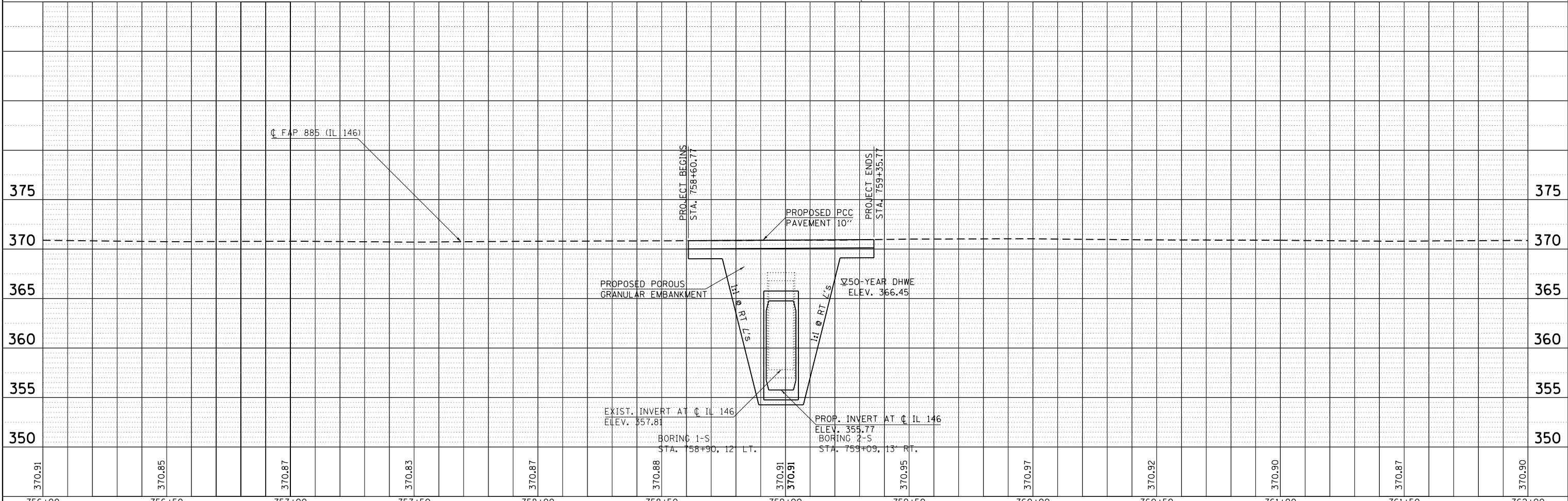
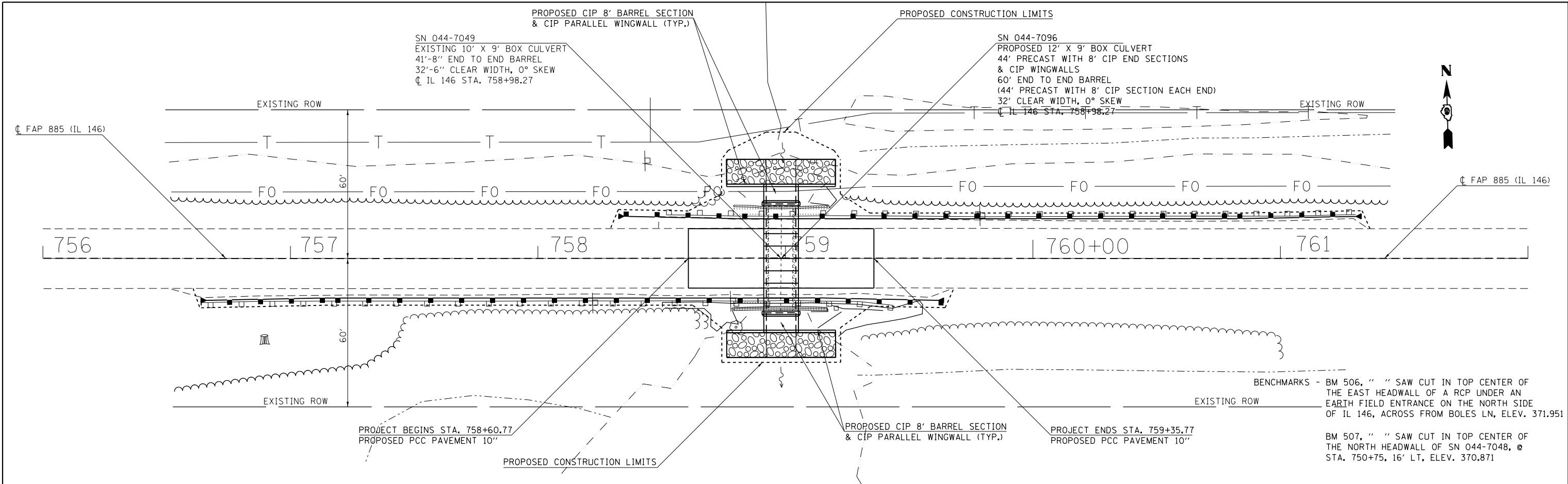
ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321 (SPECIAL).

THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-I102(0)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-I103) SHOWN ON THIS SHEET SHALL BE 12'-6" FOR STAGED TRAFFIC.

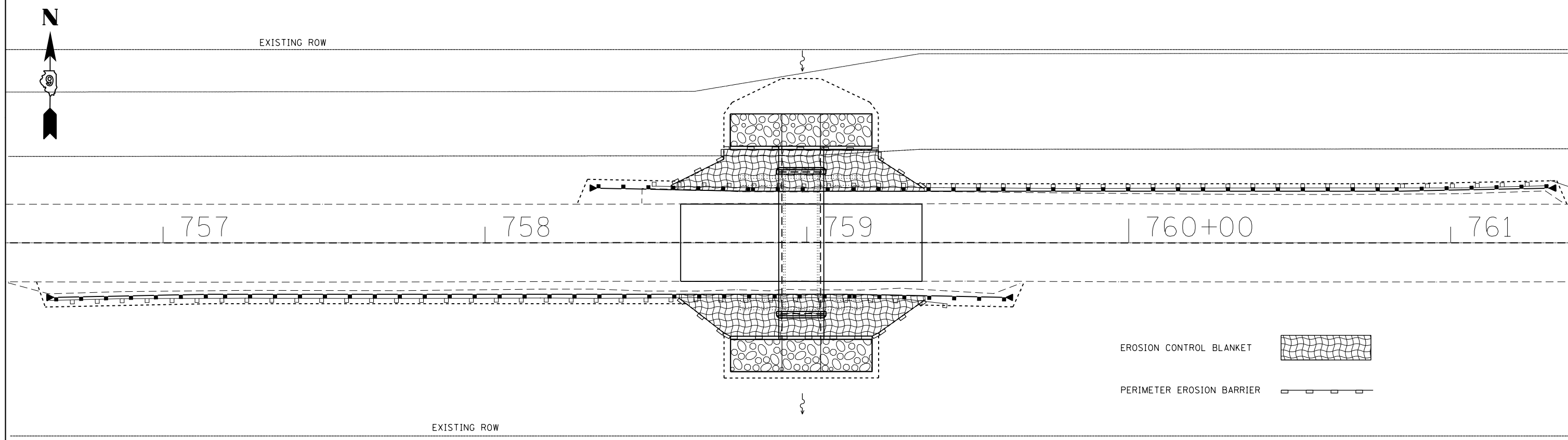
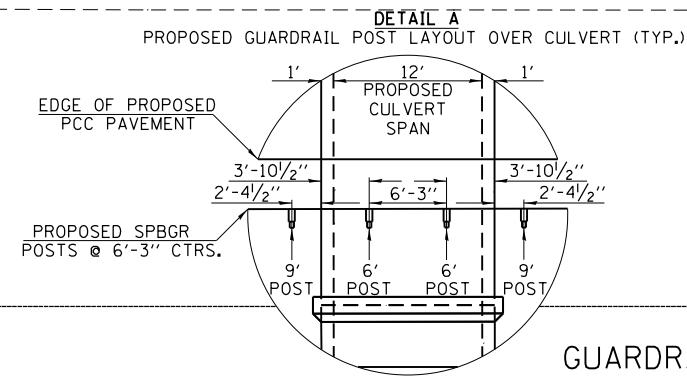
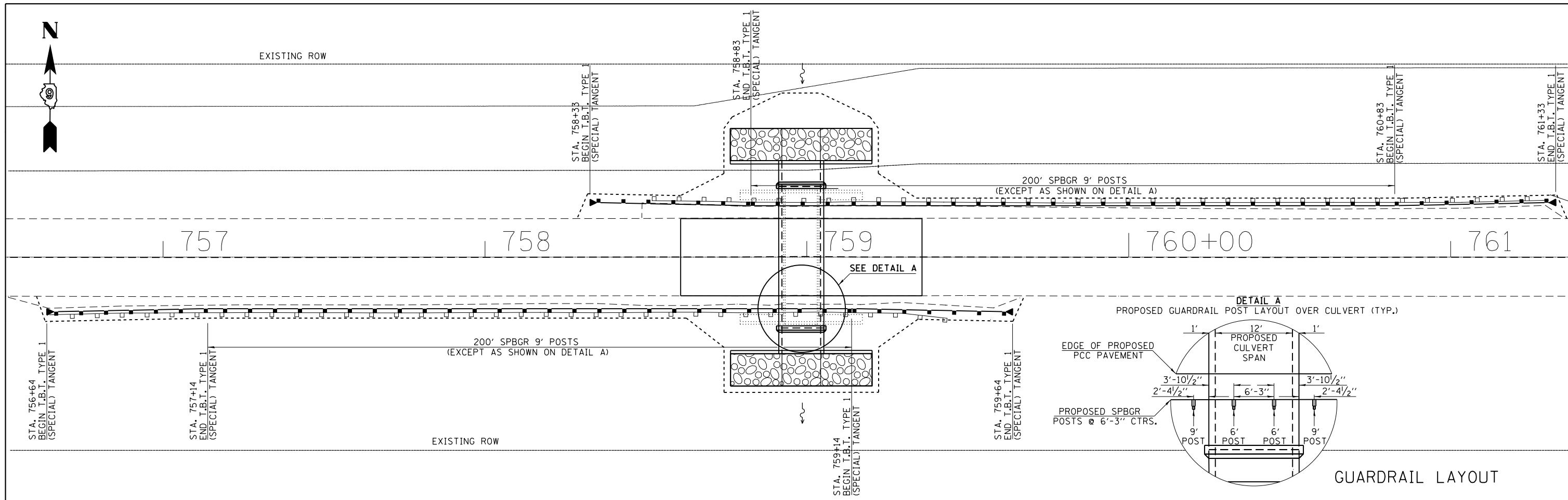
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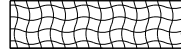
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	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
NOTE BOOK NO.	CADD FILE NAME	


PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.		



FILE NAME =	USER NAME = portercw	DESIGNED -	REVISOR -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		REVISOR -	REVISOR -			885	107B-1	JOHNSON	26	11	
		CHECKED -	REVISOR -			CONTRACT NO. 78521					
		DATE -	REVISOR -			ILLINOIS FED. AID PROJECT					
PLOT SCALE = 40.0000' / in.		DATE = 12/9/2016		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	



EROSION CONTROL BLANKET 

PERIMETER EROSION BARRIER 

EROSION CONTROL

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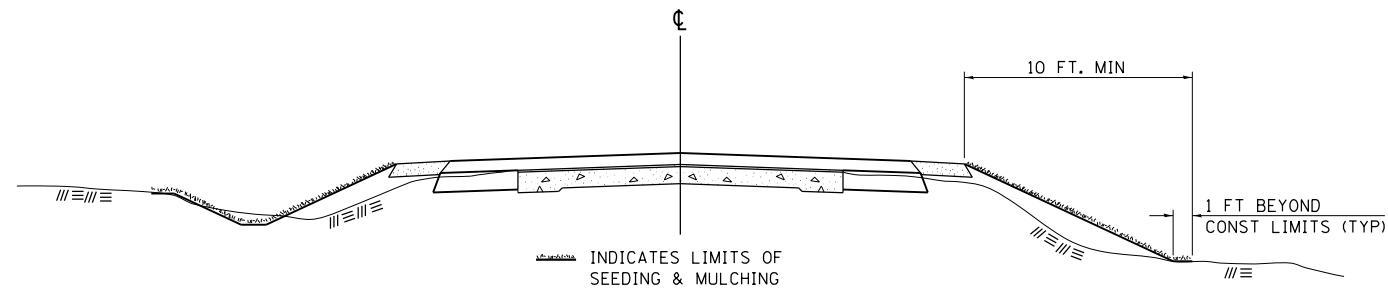
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL LAYOUT & EROSION CONTROL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	107B-1	JOHNSON	26	12
CONTRACT NO. 78521				
ILLINOIS FED. AID PROJECT				

SEEDING & MULCHING



GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

ON DETOUR ROADS, SLOPES SHALL BE SEEDED IMMEDIATELY UPON COMPLETION OF ANY GIVEN STAGE GRADING. TEMPORARY SEEDING SHALL BE CLASS 7.

FERTILIZER NUTRIENTS SHALL BE APPLIED TO ALL SEEDED AREAS. LIMESTONE SHALL BE APPLIED TO ALL AREAS OF FINAL SEEDING.

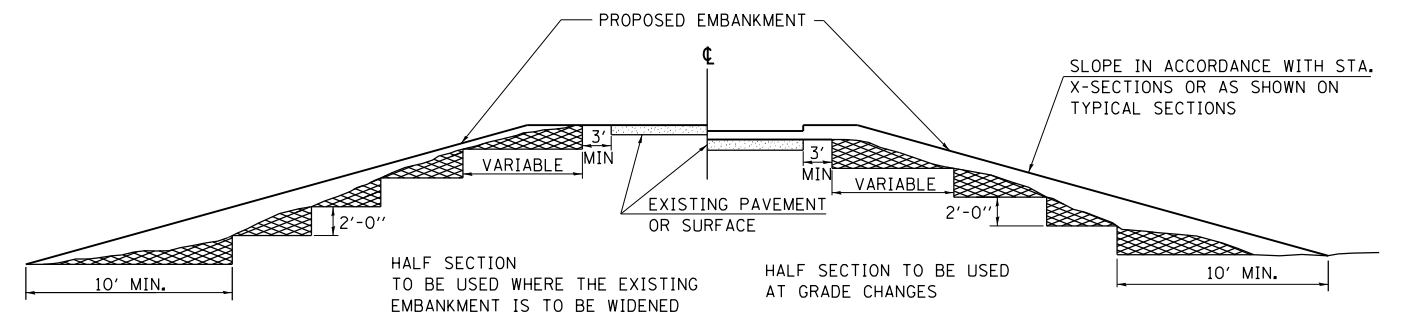
THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR ROAD AND BRIDGE CONSTRUCTION.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99
REVISED	3-27-08
REVISED	5-16-13

STD. 9-12

TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL



MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99
RESIZED	5-7-08
REVIEWED	5-17-13

STD. 9-16

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Default	PLOT DATE = 12/9/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

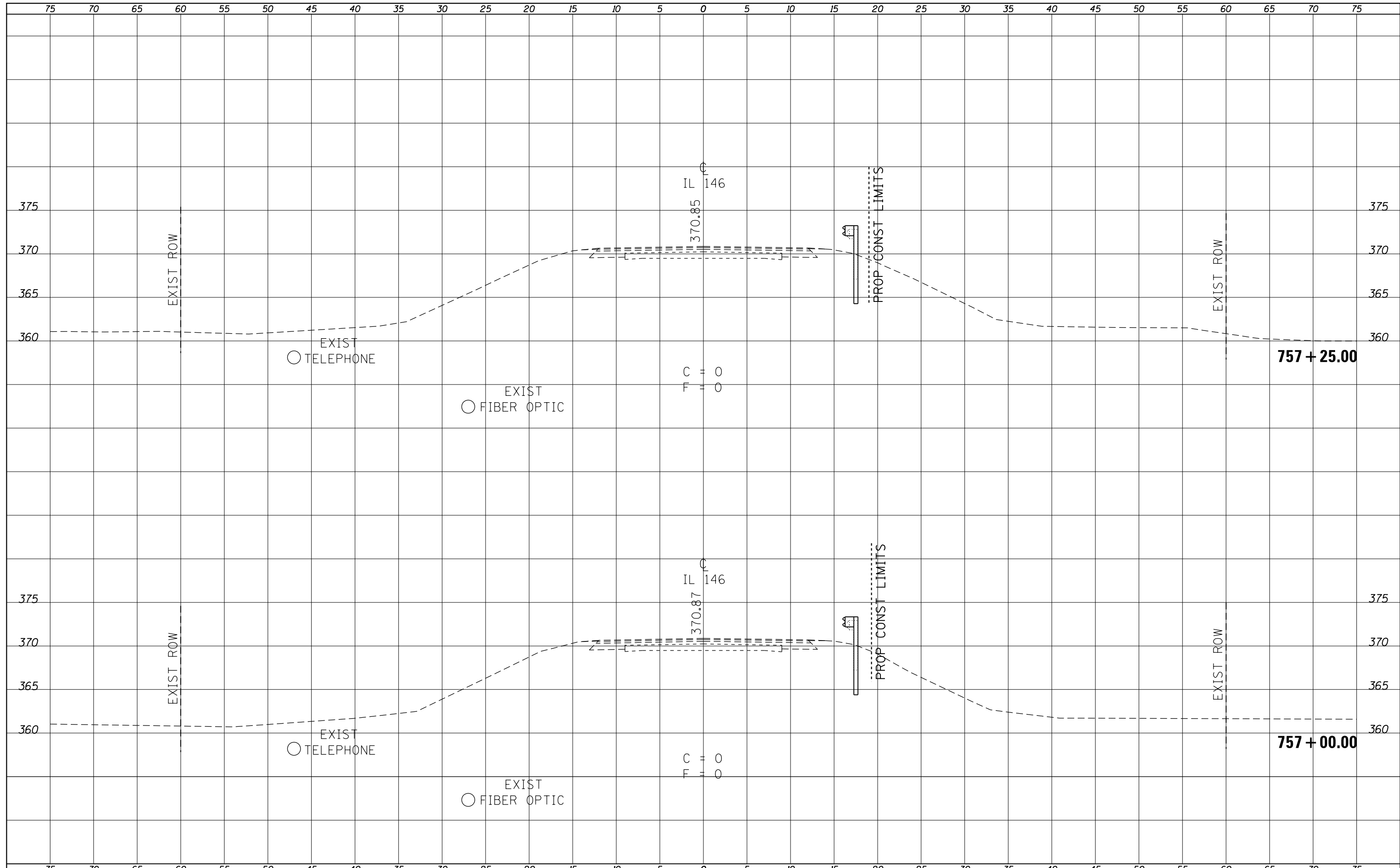
DISTRICT STANDARDS

SCALE: SHEET OF SHEETS STA. TO STA.

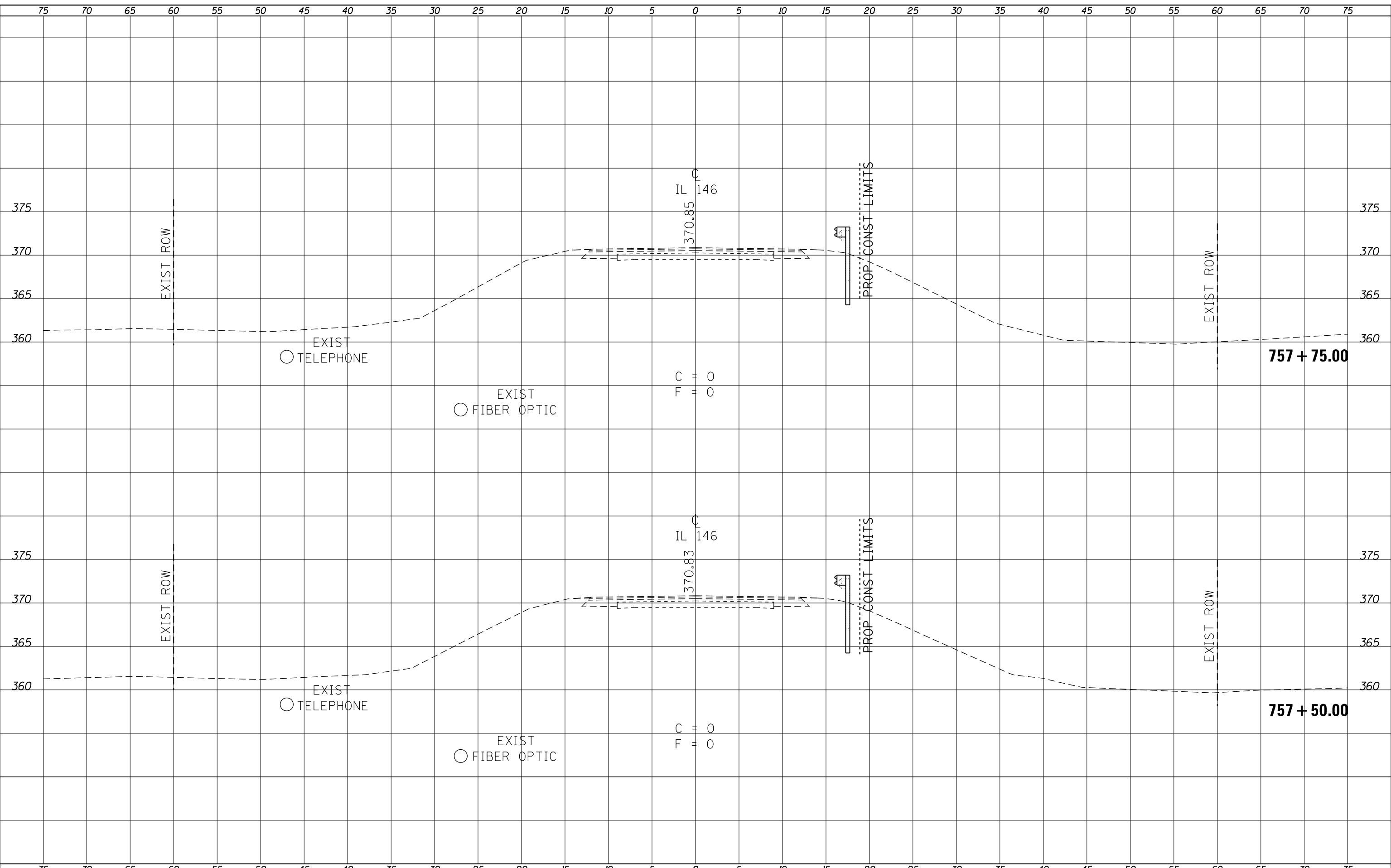
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	107B-1	JOHNSON	26	13
CONTRACT NO. 78521				
ILLINOIS FED. AID PROJECT				

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

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



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



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

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 PLOT DATE = 12/9/2016

DESIGNED -
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 DATE -

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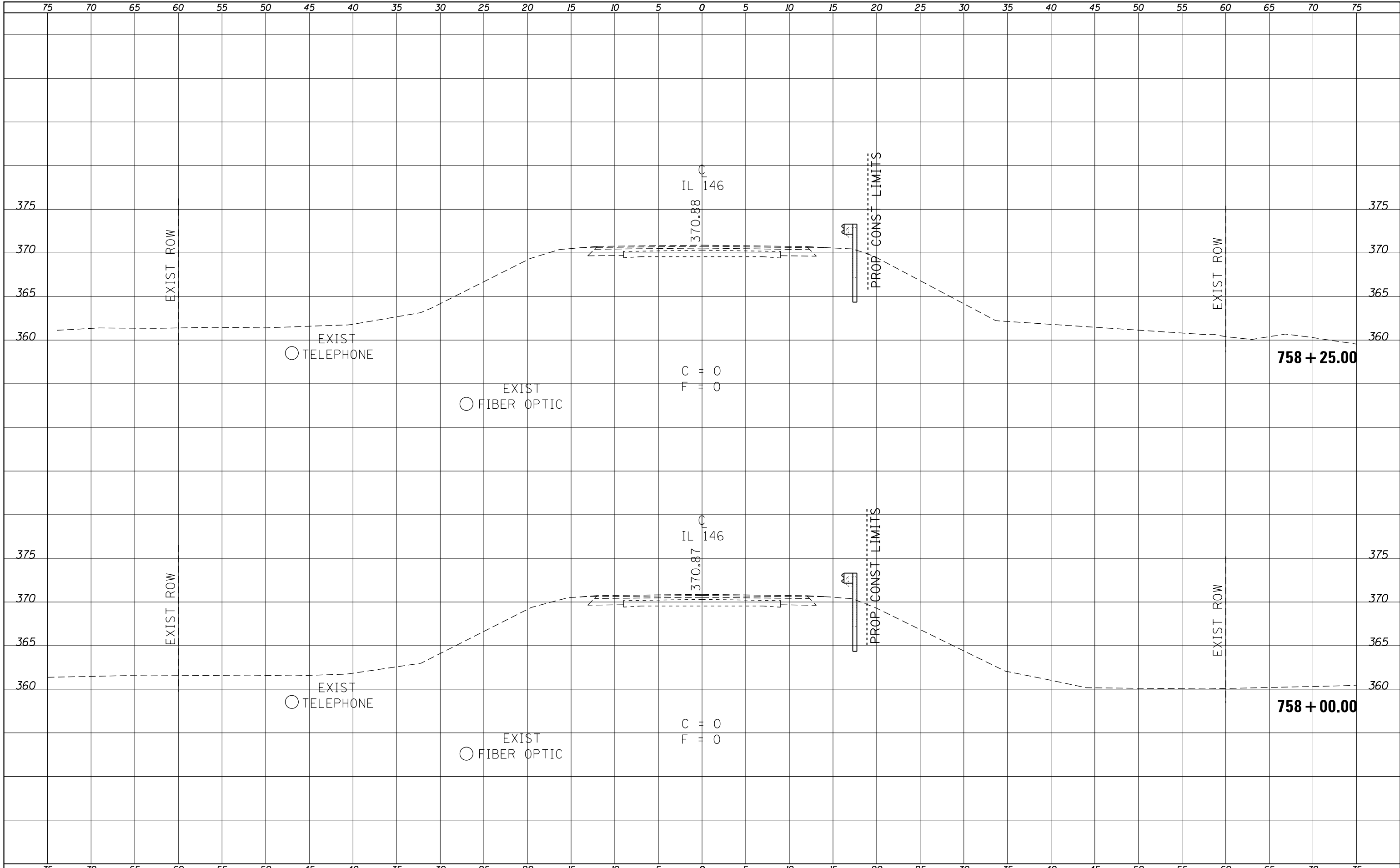
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS			
SCALE:	SHEET	OF	SHEETS
	757+50.00		TO STA. 757+75.00

F.A.P. RTE. 885	SECTION 107B-1	COUNTY JOHNSON	TOTAL SHEETS 26	SHEET NO. 15
CONTRACT NO. 78521				
ILLINOIS FED. AID PROJECT				

BY	DATE

BY	DATE



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 PLOT DATE = 12/9/2016

DESIGNED -
 CHECKED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

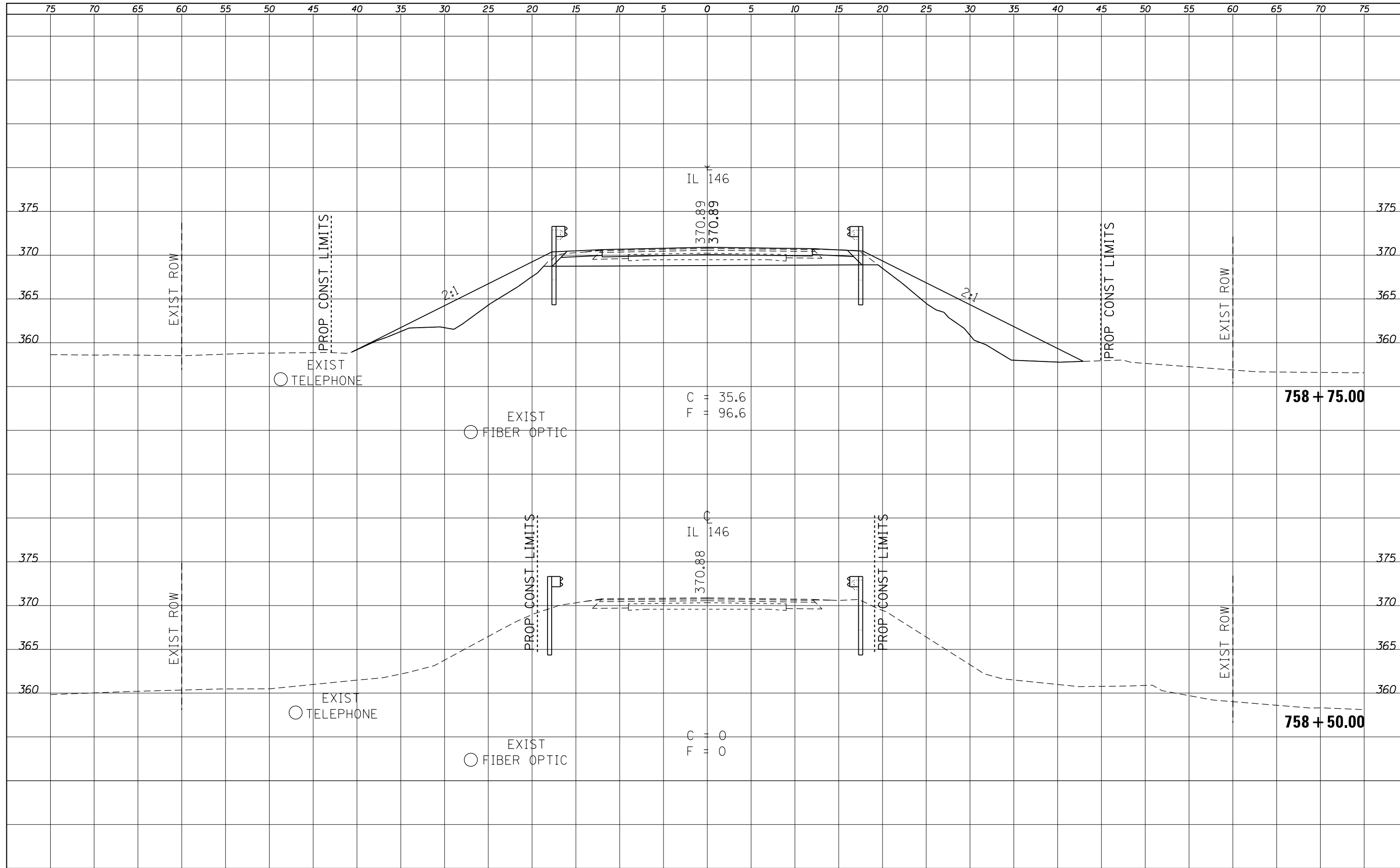
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CROSS SECTIONS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				78521
ILLINOIS FED. AID PROJECT				

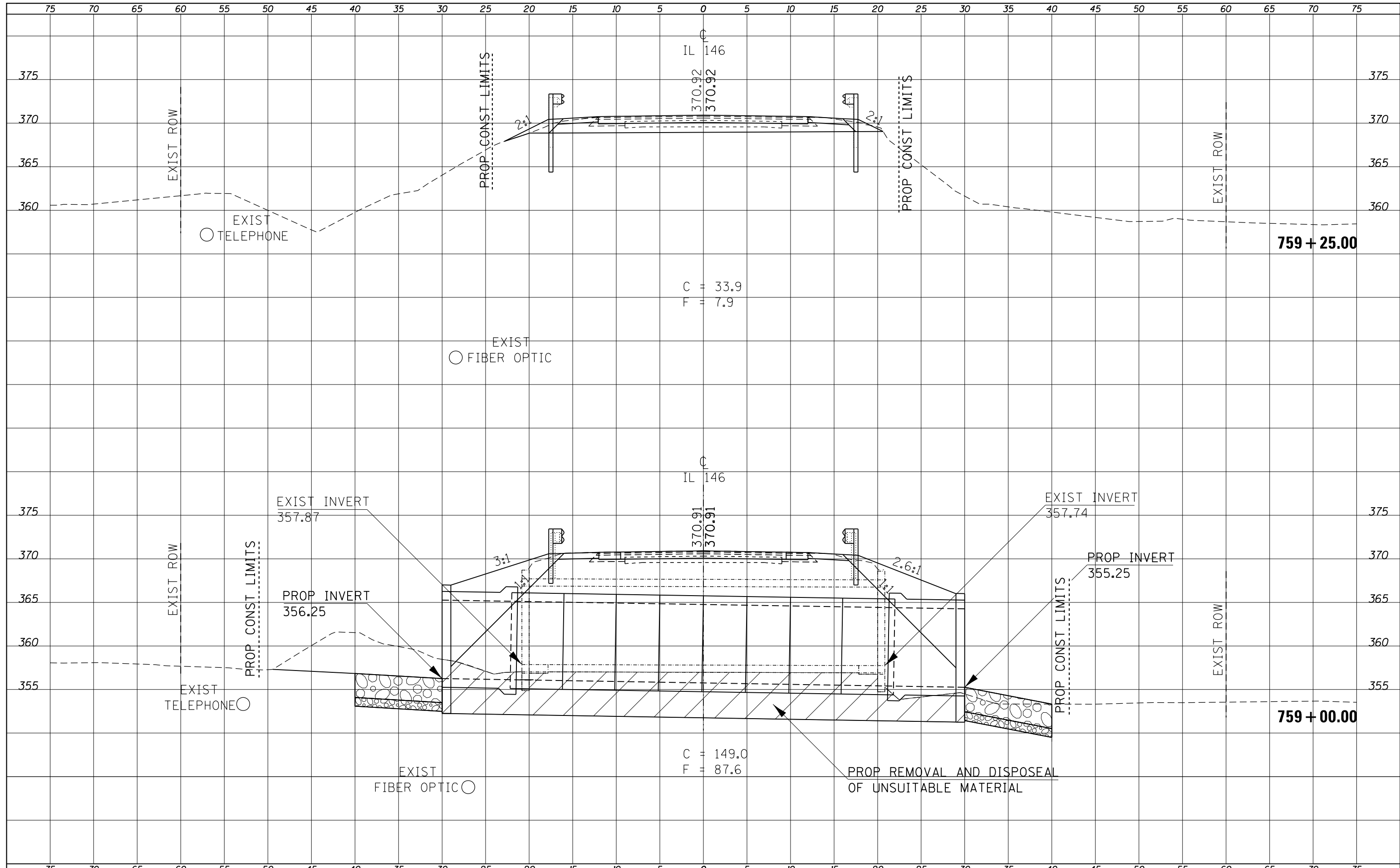
BY	DATE

ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED



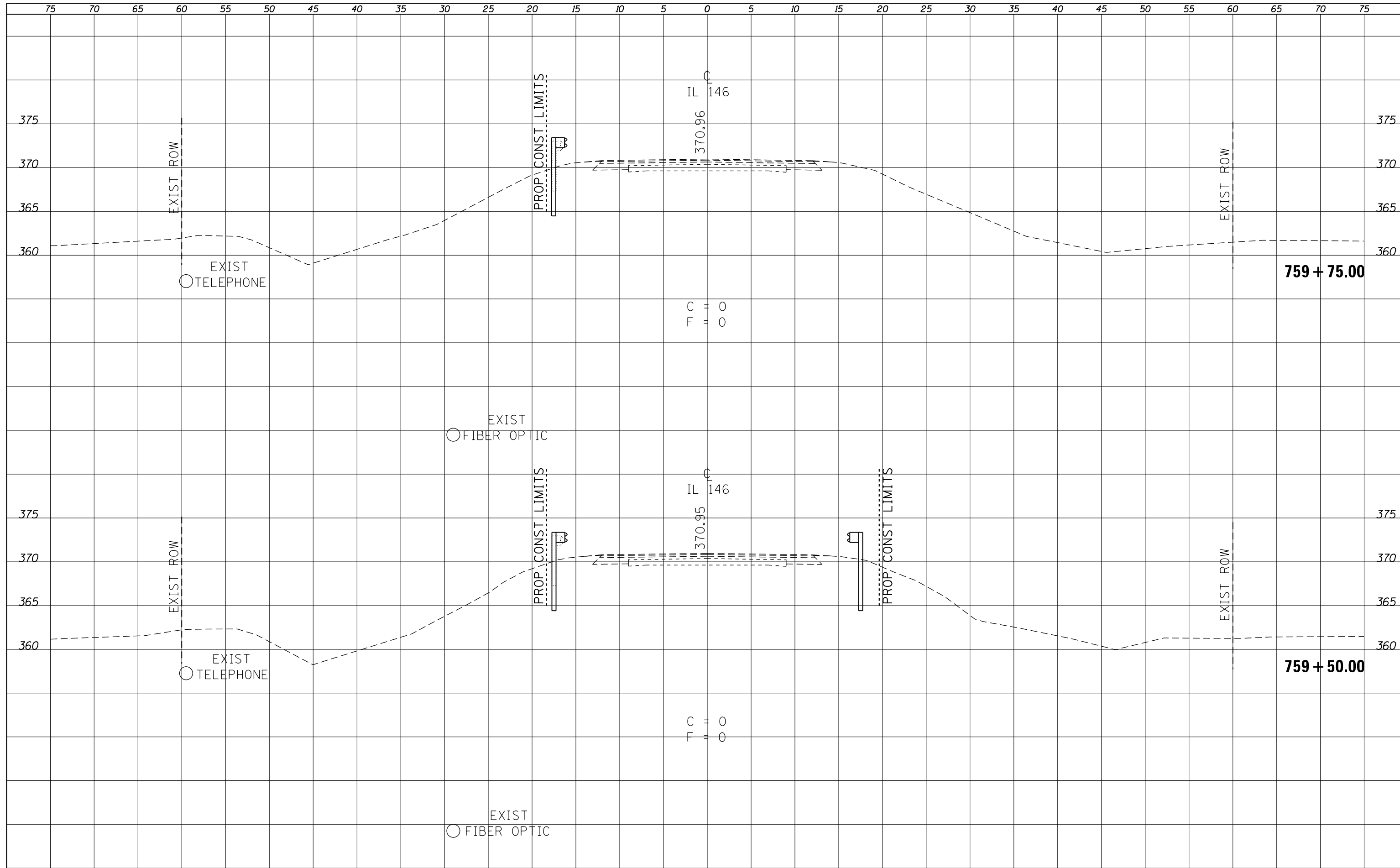
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NOTE BOOK NO.	

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



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

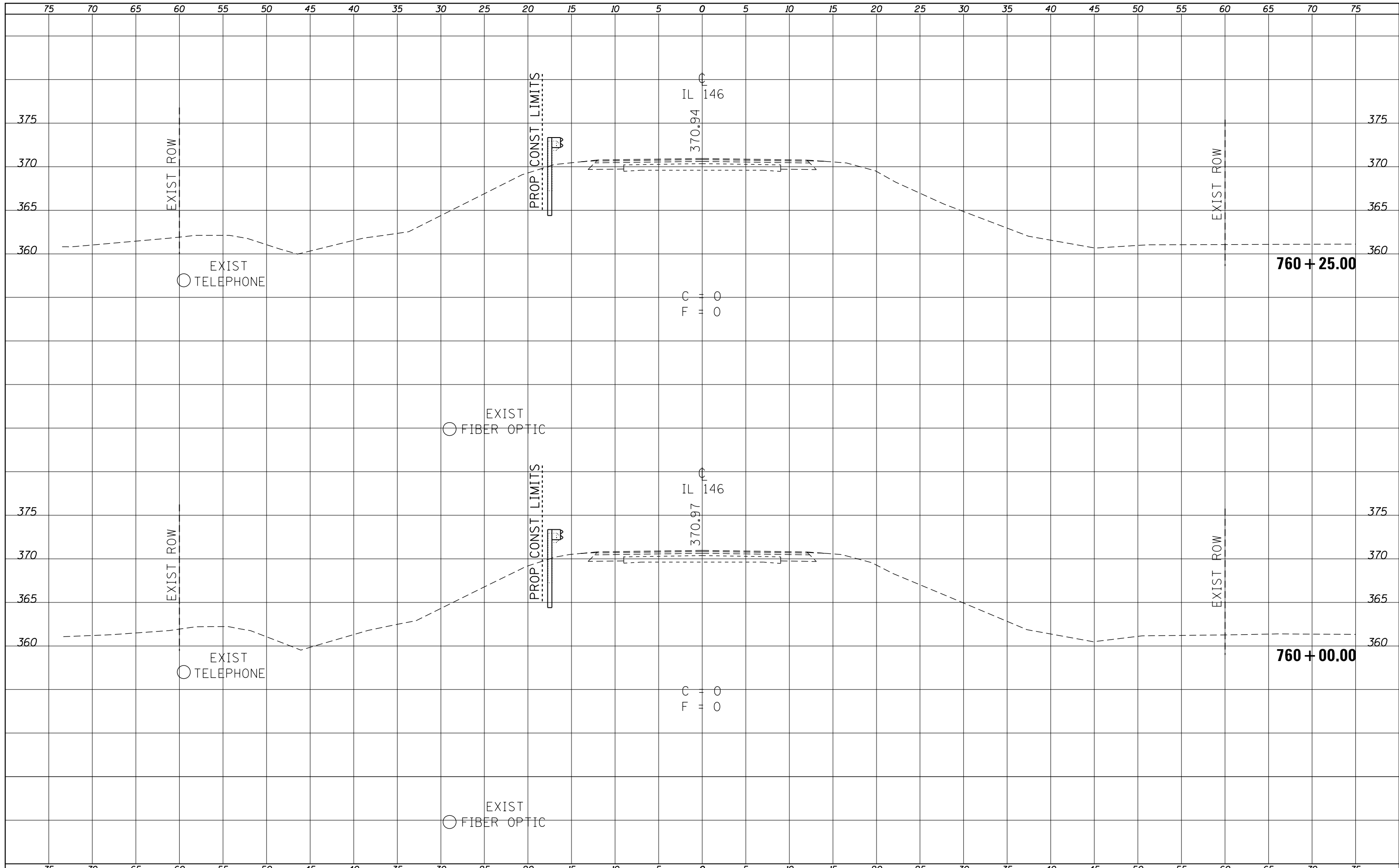
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BY	
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ORIGINAL SURVEY NOTE BOOK NO.	



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	PLOT DATE = 12/9/2016	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
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FINAL SURVEY NOTE BOOK NO.	

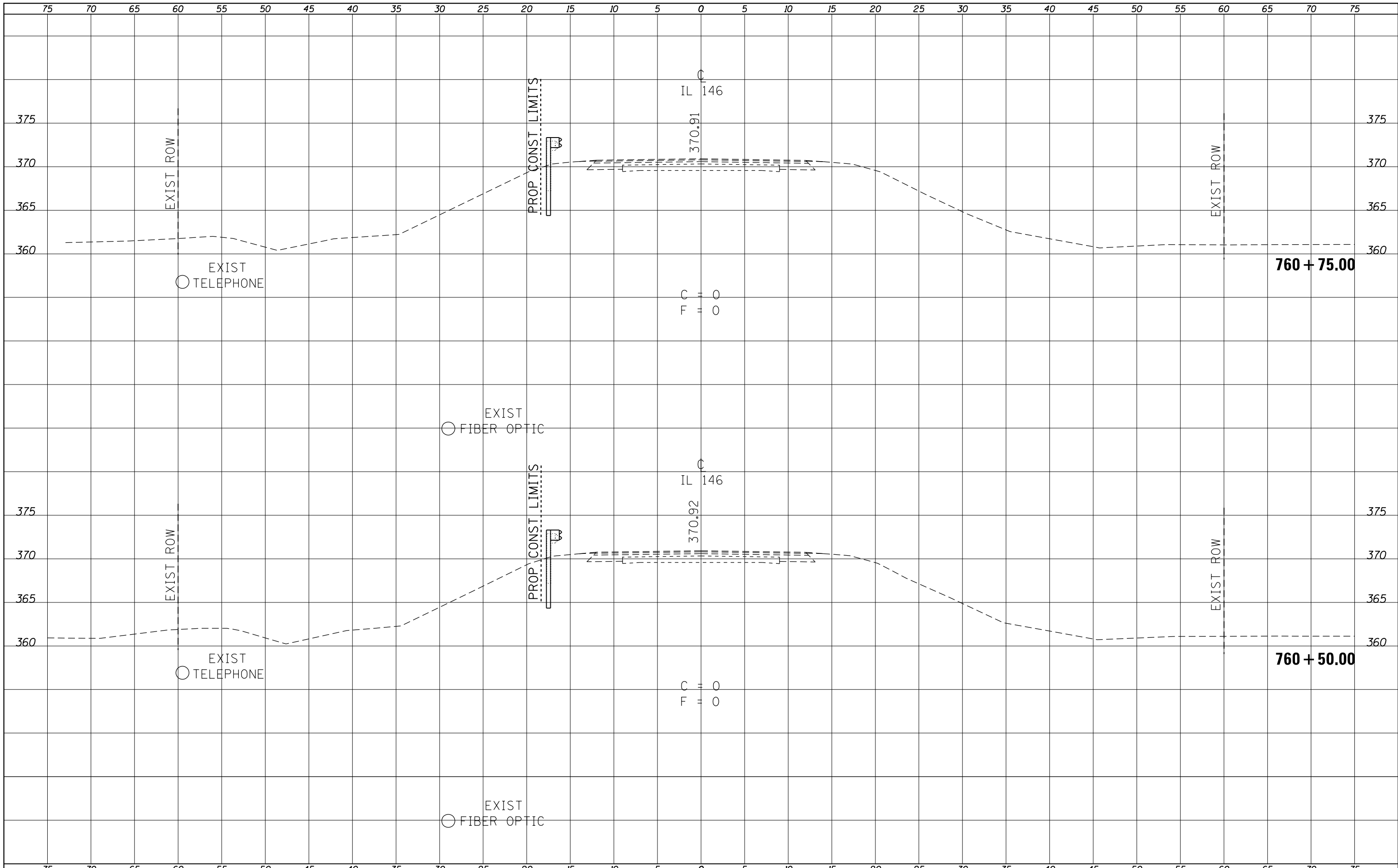
BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
AREAS CHECKED	
ORIGINAL SURVEY NOTE BOOK NO.	



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Default	12/9/2016	DATE -	REVISIED -			885	107B-1	JOHNSON	26	20	
						CONTRACT NO. 78521					
						ILLINOIS FED. AID PROJECT					

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

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



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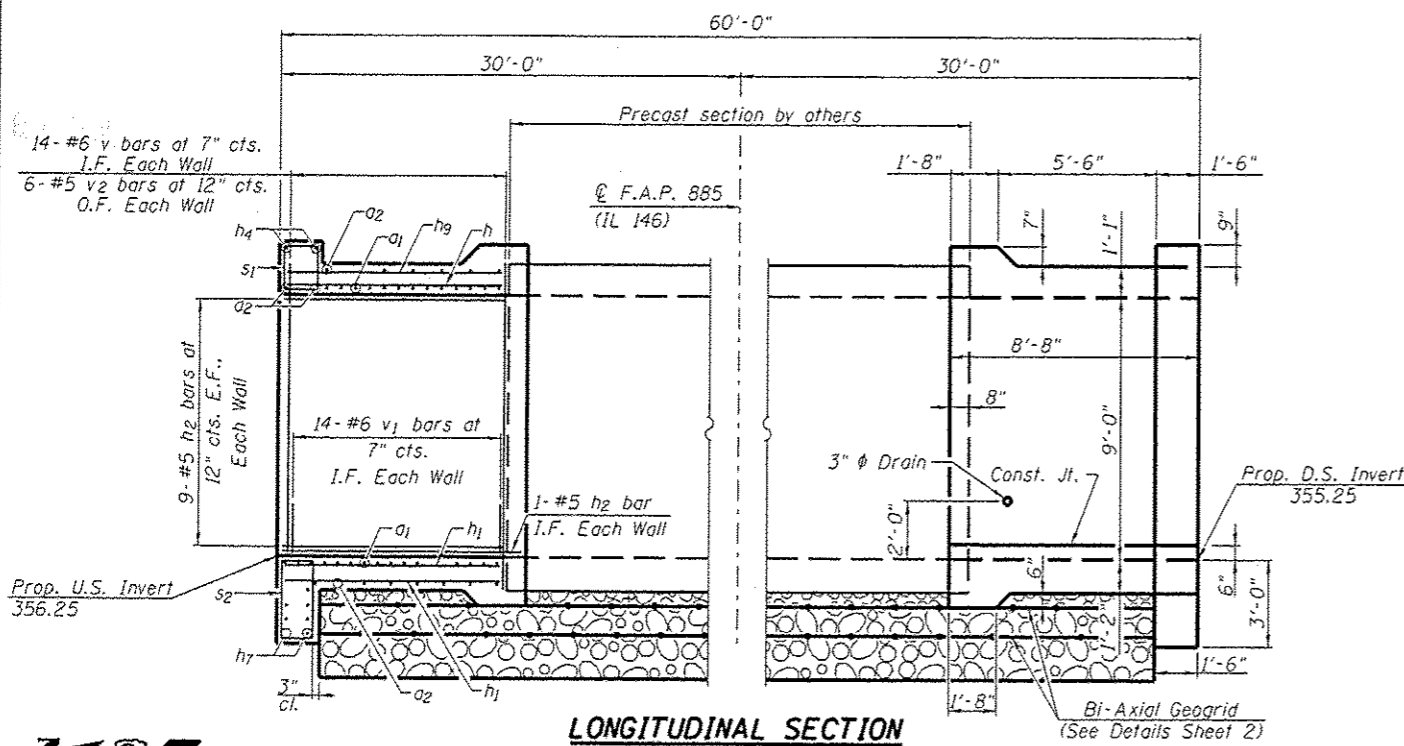
REVISOR -
 REVISIONS -
 REVISIONS -
 REVISIONS -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

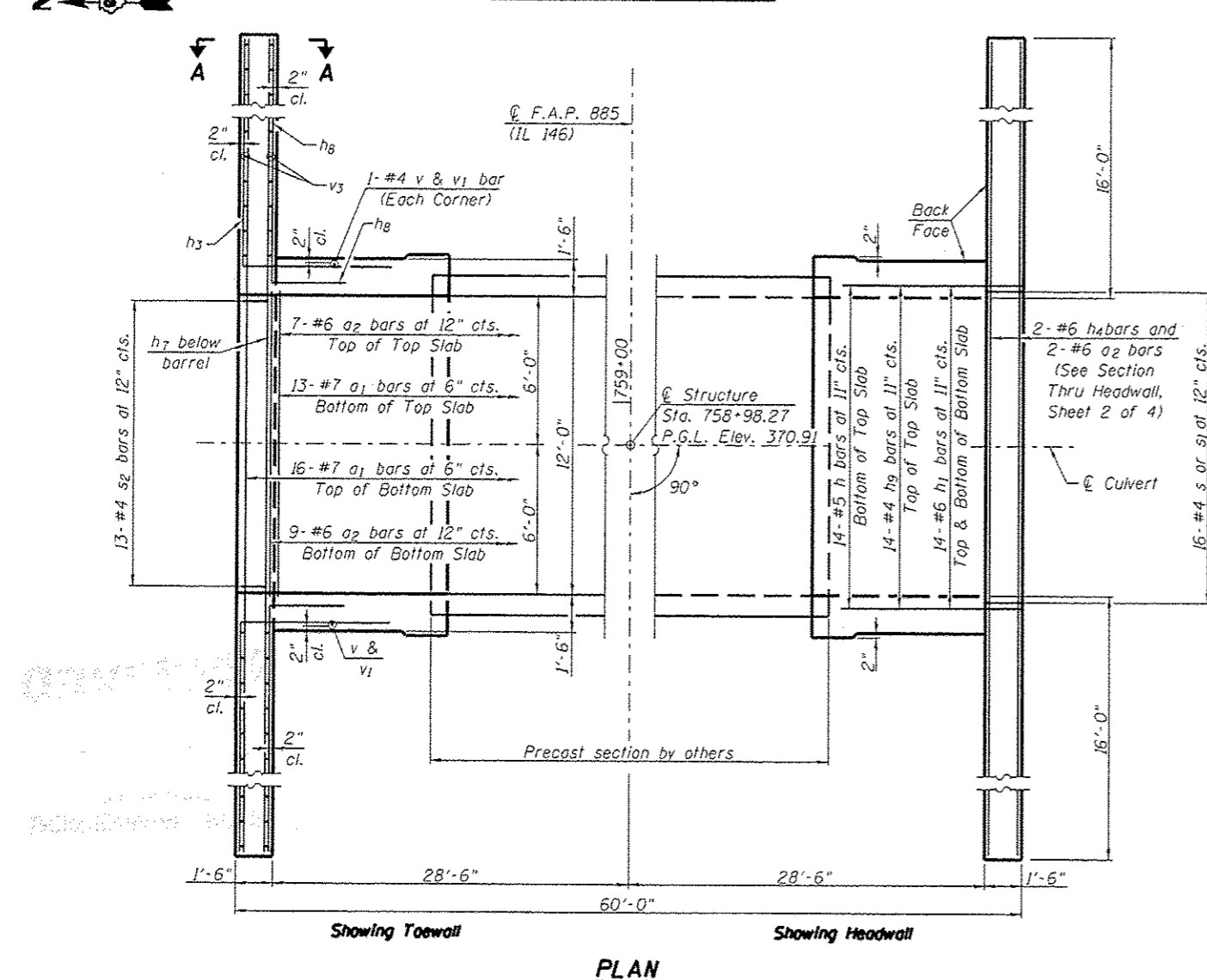
CROSS SECTIONS

SCALE: SHEET OF SHEETS STA. 760+50.00 TO STA. 760+75.00

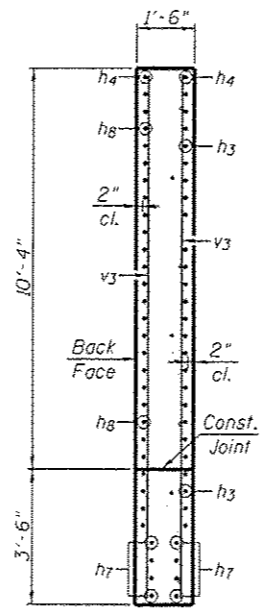
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885	107B-1	JOHNSON	26	21
CONTRACT NO. 78521				
ILLINOIS FED. AID PROJECT				



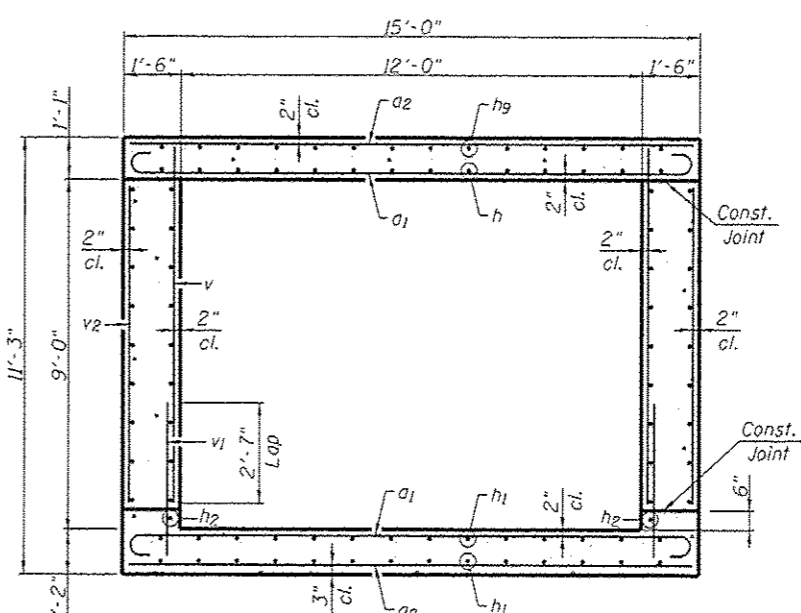
LONGITUDINAL SECTION



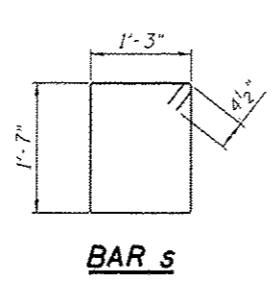
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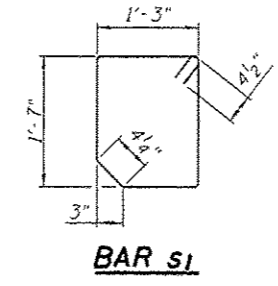
SECTION A-A



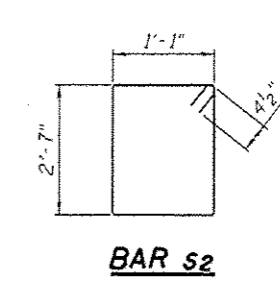
SECTION THRU BARREL



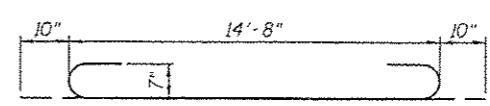
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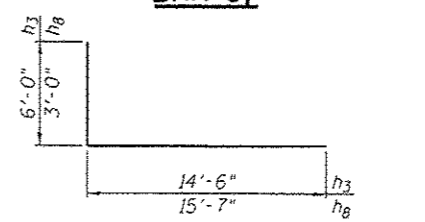
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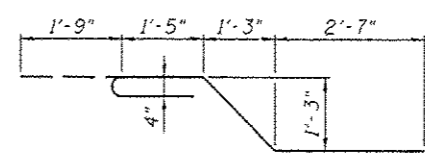
BAR s2



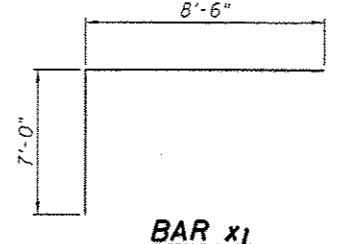
BAR a1



BARS h3 & h8

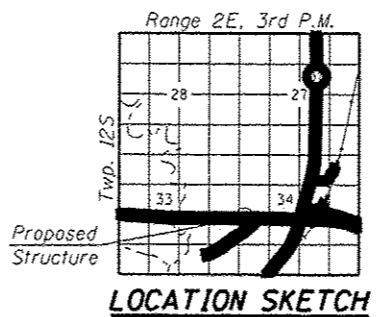


BAR x



BAR x1

12-8-2016
 LEONARDO MARCATELLI
 LICENSED STRUCTURAL ENGINEER
 STATE OF ILLINOIS
 081-006320
 Leonardo Marcattelli
 Exp. 11-30-2018



LOCATION SKETCH

DESIGN STRESSES

Field Units

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

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface
 Design Fill > 2 feet

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge
 Design Specifications, 7th Edition
 with 2015 & 2016 Interims

INDEX OF SHEETS

1. Culvert General Plan and Elevation
2. Culvert Details
3. Boring Logs - 1
4. Boring Logs - 2

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	58	#7	16'-4"	U
a2	36	#6	14'-8"	—
h	28	#5	7'-8"	—
h1	56	#6	7'-8"	—
h2	72	#5	7'-8"	—
h3	108	#9	20'-6"	—
h4	4	#6	43'-8"	—
h7	16	#9	43'-8"	—
h8	108	#9	18'-7"	—
h9	28	#4	7'-8"	—
s	16	#4	6'-5"	□
s1	16	#4	6'-4"	□
s2	26	#4	8'-1"	□
v	56	#6	9'-3"	—
v1	56	#6	4'-2"	—
v2	24	#5	8'-2"	—
v3	120	#4	13'-5"	—
x	112	#4	7'-6"	—
x1	24	#4	15'-6"	—
Concrete Box Culverts Cu. Yd.				88.5
Reinforcement Bars, Epoxy Coated Pound				24,810
Bi-Axial Geogrid Sq. Yd.				266

Note:
 The barrel shall be poured monolithically with the wingwalls. At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.
 All Reinforcement Bars, shall be Epoxy Coated.

GENERAL PLAN & ELEVATION

F.A.P. ROUTE 885 (IL. 146)

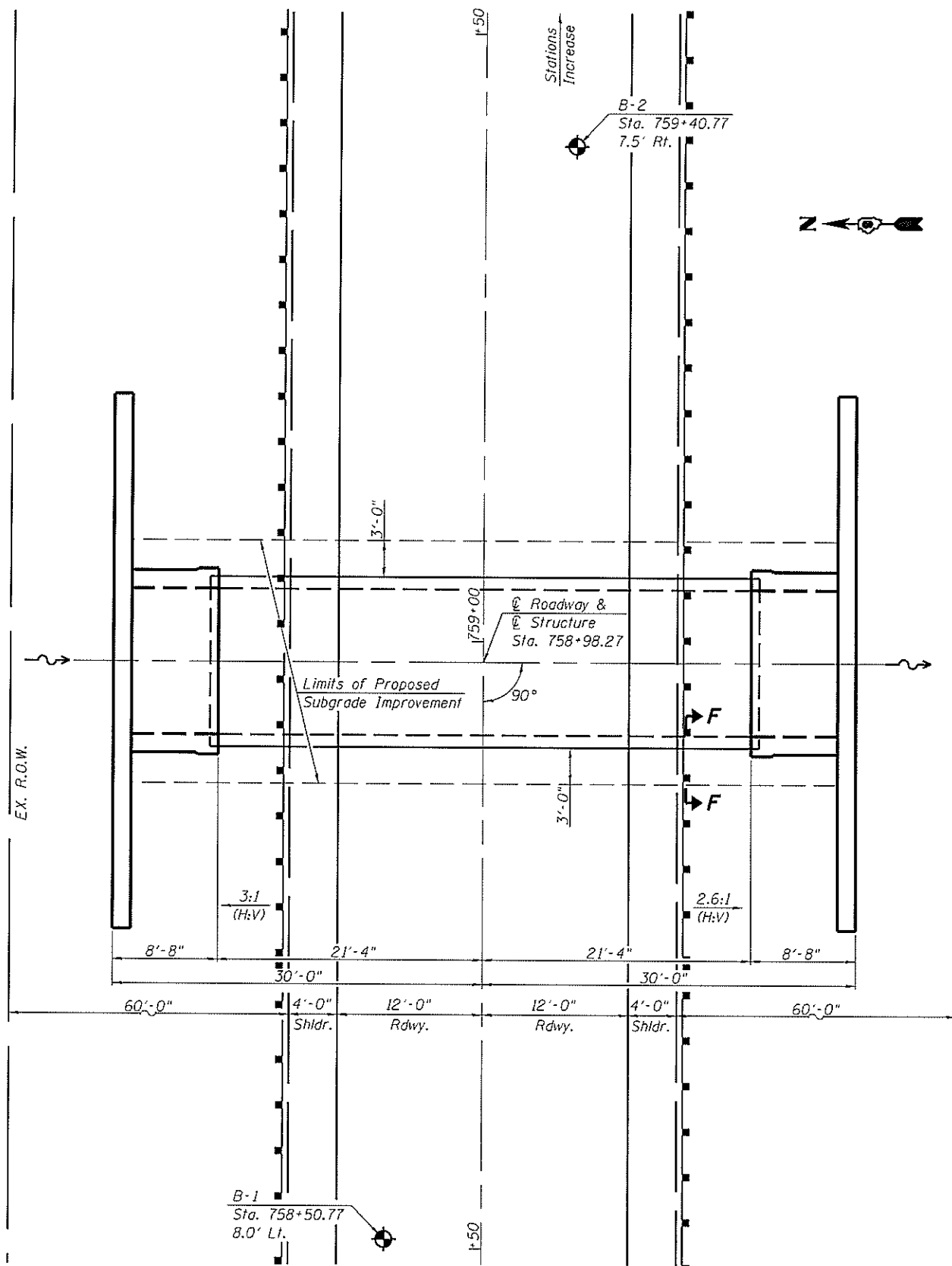
SECTION 107B-1

JOHNSON COUNTY

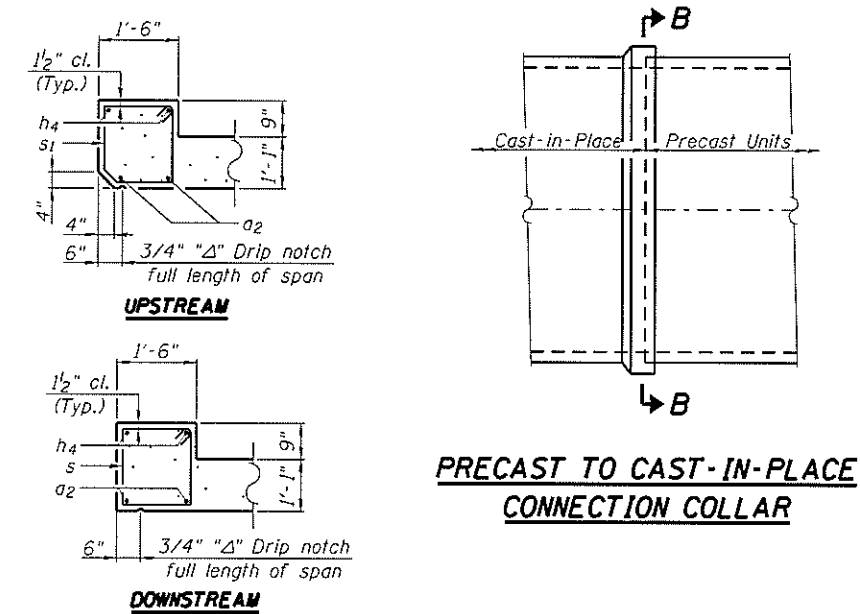
STA. 758+98.27

S.N. 044-7096

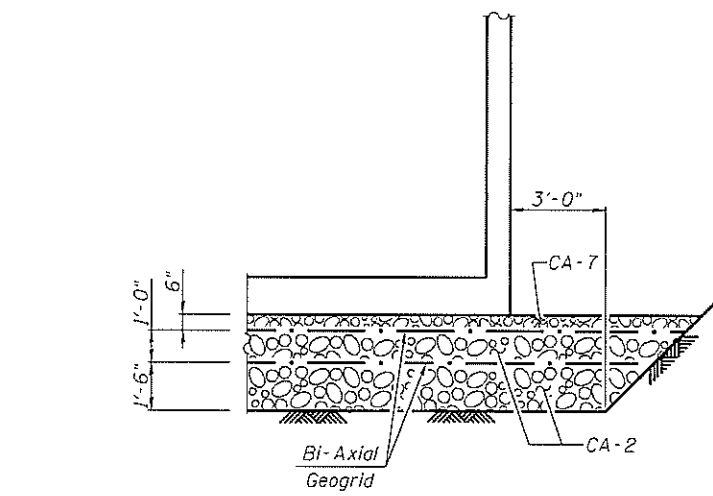
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#MODELNAME	PLOT SCALE 10:0.0000 1" = 10'	DRAWN - MS	REVISED -			SCALE:	SHEET 1 OF 4 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
	PLOT DATE 12/8/2016	CHECKED - CJW	REVISED -							CONTRACT NO. 78521		
		DATE 12/8/2016	REVISED -									



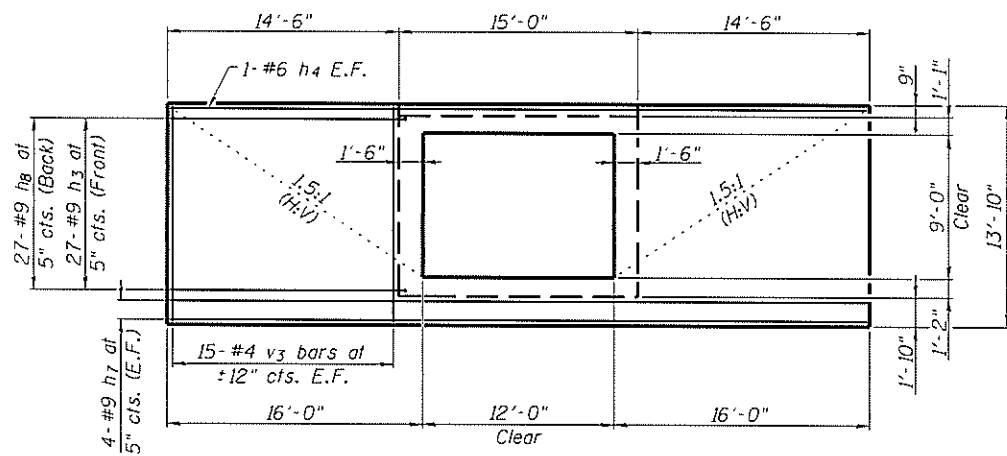
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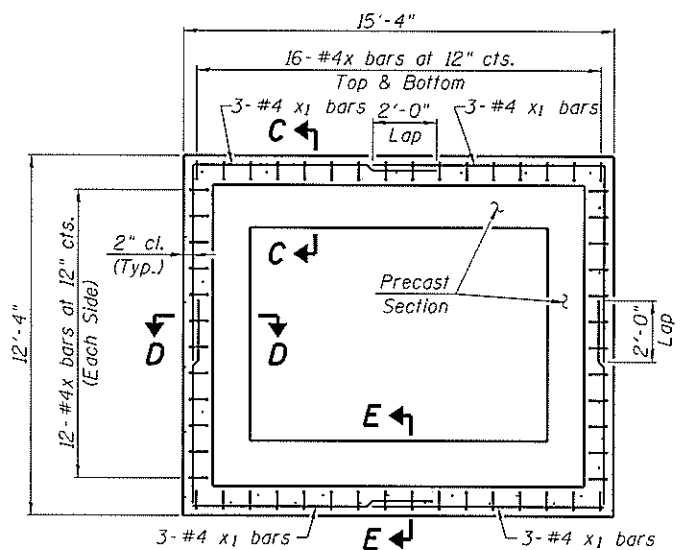
SECTION THRU HEADWALL



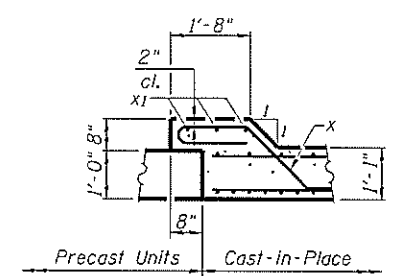
SECTION F-F



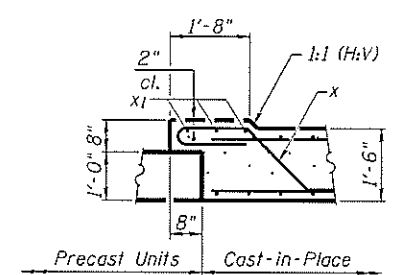
END VIEW SHOWING WINGWALL REINFORCEMENT



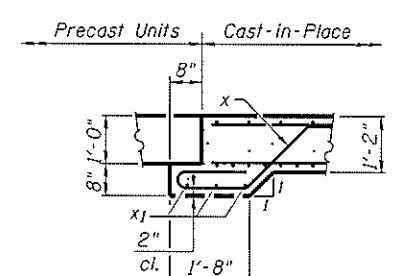
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

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MODEL NAME *	PLOT SCALE = 12:0.0000 1/2" = 1'	CHECKED - CJW	REVISED -		SCALE:	SHEET 2 OF 4 SHEETS	STA.	TO STA.	CONTRACT NO. 78521			
	PLOT DATE = 12/8/2016	DATE - 12/8/2016	REVISED -		ILLINOIS FED. AID PROJECT							



Illinois Department
of Transportation
Division of Highways

SOIL BORING LOG

Page 1 of 3

Date 9/28/16

ROUTE FAP 885 DESCRIPTION IL 146 over Ditch (Prop. SN 044-7096) LOGGED BY KEG

SECTION 107B-1 LOCATION West Vienna, IL

COUNTY Johnson DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	D E P T H S		B L O W S	U C S Q _u	M O I S T U R	Surface Water Elev.	Stream Bed Elev.	D E P T H S		B L O W S	U C S Q _u	M O I S T U R
		(ft)	(/6")	(tsf)	(%)		ft	ft	(ft)	(/6")	(tsf)	(%)	
ASPHALT	370.40												
CONCRETE	369.73												
SILTY CLAY: Brown, trace black spots, stiff													
		4								5			
		6	3.3	19						6	1.1	29	
		6	P							6	B		
[Low Recovery] medium stiff		2								0			
		3	0.8	25						0	0.4	28	
		2	P							4	B		
		3								0			
		3	2.0	21						1	0.3	32	
		3	P							3	B		
[No Recovery]		2											
		1								1.2		29	
		2											
		1											
		3	0.5	29									
		4	B										
trace organics		3								2			
		4	1.0	25						3	0.7	28	
		5	B							3	B		
		2											
		3	0.3	27									
		4	B										
SILTY CLAY/CLAYEY SILT: Light brown-gray, trace iron staining, moist, medium stiff	352.90	4								0			
		5	0.3	26						0	0.3	32	
		4	B							1	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)



Illinois Department
of Transportation
Division of Highways

SOIL BORING LOG

Page 2 of 3

Date 9/28/16

ROUTE FAP 885 DESCRIPTION IL 146 over Ditch (Prop. SN 044-7096) LOGGED BY KEG

SECTION 107B-1 LOCATION West Vienna, IL

COUNTY Johnson DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	D E P T H S		B L O W S	U C S Q _u	M O I S T U R	Surface Water Elev.	Stream Bed Elev.	D E P T H S		B L O W S	U C S Q _u	M O I S T U R
		(ft)	(/6")	(tsf)	(%)		ft	ft	(ft)	(/6")	(tsf)	(%)	
SILTY CLAY: Gray-light brown, iron and black staining, stiff (continued)													
		0								0	0.2	37	
		0								0	B		
with shell fragments and fossils		0											
		0											
		0	0.3	34						0			
		0	B							0	B		
		0								1			
		0	0.5	26						4	0.5	26	
		0	B							6	B		
		0											
		0											
		0											
trace fine sand		0											
		0	0.3	21									
		1	B										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)



Illinois Department
of Transportation
Division of Highways

SOIL BORING LOG

Page 3 of 3

Date 9/28/16

ROUTE FAP 885 DESCRIPTION IL 146 over Ditch (Prop. SN 044-7096) LOGGED BY KEG

SECTION 107B-1 LOCATION West Vienna, IL

COUNTY Johnson DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	D E P T H S		B L O W S	U C S Q _u	M O I S T U R	Surface Water Elev.	Stream Bed Elev.	D E P T H S		B L O W S	U C S Q _u	M O I S T U R
		(ft)	(/6")	(tsf)	(%)		ft	ft	(ft)	(/6")	(tsf)	(%)	
SAND: Brown, fine (continued)													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

FILE NAME = L:\1001\8886610\WD_30\Draw\Sheets\...	USER NAME = Mathew Smith	DESIGNED - LW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CULVERT BORING B-2 STA. 759 + 40.77 7.5' RT.		F.A.P. RTE. 885	SECTION 107B-1	COUNTY JOHNSON	TOTAL SHEETS 26	SHEET NO. 26	
PLOT SCALE = 1:8,000 1" / 100'		DRAWN - MS	REVISOR -		SCALE:	SHEET 4 OF 4 SHEETS	STA. TO STA.	CONTRACT NO. 78521				
PLOT DATE = 12/8/2016 10:10:07 AM		CHECKED - CJW	REVISOR -		ILLINOIS FED. AID PROJECT							
Culvert Details Sht 4		DATE - 12/8/2016	REVISOR -									