F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6780	08-00601-19-BR	KNOX	70	1
	ILL. FED.	CONTRACT NO. 89699		

01-19-2018 LETTING ITEM 109

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
424016-04	MID-BLOCK CURB RAMPS FOR SIDEWALKS
515001-03	NAME PLATE FOR BRIDGES
602001-02	CATCH BASIN TYPE A
604006-05	FRAME AND GRATE TYPE 3
606001-07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-06	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
B.L.R. 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
B.L.R. 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (2L, 2W, RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)

DISTRICT STANDARDS

406101-04	BUTT JOINTS
440001-04	HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

SEE SHEET 2 FOR GENERAL NOTES

ALIGNMENT, TIES, BENCHMARKS	HORIZONTAL	0 50 100 150
PLAN & PROFILE	HORIZONTAL	0 20 40 60
	VERTICAL	0 5 10 15
EROSION CONTROL PLAN	HORIZONTAL	0 20 40 60
CROSS SECTIONS	HORIZONTAL	0 10 20 30
	VERTICAL	0 5 10 15

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.

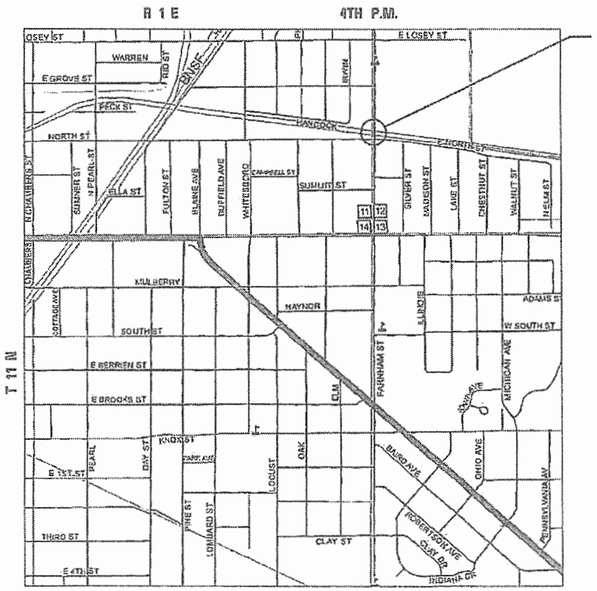
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

CONTRACT NO. 89699
CATALOG NO. 035380-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED LOCAL AGENCY IMPROVEMENT

N FARNHAM STREET OVER BNSF RAILWAY
SECTION 08-00601-19-BR
PROJECT B94U(416)
CITY OF GALESBURG
KNOX COUNTY
C-94-041-16



GALESBURG TOWNSHIP

LOCATION MAP
NOT TO SCALE

GROSS AND NET LENGTH = 630 FT 0.16MILES
2013 A.D.T = 9500 (3% TRUCK(S)
HIGHWAY CLASS = LOCAL STREET (URBAN)
POSTED SPEED : 30 M.P.H
DESIGN SPEED : 30 M.P.H
DESIGN GUIDELINES : BLRS - URBAN
VARIANCES : YES

REPLACING THE SUPERSTRUCTURE, INCLUDING THE DECK, REHABILITATING PORTIONS OF SUBSTRUCTURE, AND INCREASING THE VERTICAL CLEARANCE OVER BNSF RAILROAD TRACKS
EXISTING SN: 048-6027
PROPOSED SN: 048-6027
BEGIN PROJECT: STA 10+35.00
END PROJECT: STA 18+65.00

LOCATION OF SECTION INDICATED THUS:- [redacted]

LIN ENGINEERING, LTD.
WESTMONT, IL 60559
(630) 323-5168

TERRA ENGINEERING LTD.

ERIC S. THERKILDSEN
062-044857
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

ERIC S. THERKILDSEN, P.E.
ILLINOIS REGISTERED ENGINEER NO. 062-044857
REGISTRATION EXPIRES NOV. 30, 2019

FRED M. LIN
062-056704
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

FRED M. LIN, P.E.
ILLINOIS REGISTERED ENGINEER NO. 062-056704
REGISTRATION EXPIRES NOV. 30, 2019

APPROVED 11/6 20 17
LOCAL AGENCY OFFICIAL

PASSED NOV. 08 20 17
DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW November 8 20 17
REGION THREE ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

ADJUSTMENT OF PROPOSED GRADES TO MATCH EXISTING ENTRANCES OR OTHER FIELD CONDITIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

THE WORK AREA SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION, AND TRAFFIC.

WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A FULL DEPTH SAWCUT SHALL BE MADE TO ACHIEVE A CLEAN BREAK BETWEEN THE PROPOSED AND THE EXISTING ITEM. THE SAWCUT IS TO BE INCLUDED IN THE COST OF THE ADJACENT REMOVAL.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED. THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR REFERENCED THEIR LOCATION.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE(S):	SURFACE COURSE	BINDER COURSE
PG:	SBS OR SBR 76-28 AC	SBS OR SBR 76-28 AC
DESIGN AIR VOIDS:	4.0% @ N-50	4.0% @ N-50
MIXTURE COMPOSITION:	IL 9.5	IL 19.0
FRICTION AGGREGATE:	MIXTURE D	N/A
MIXTURE WEIGHT:	116 LB/SQ YD/IN	116 LB/SQ YD/IN
QUALITY MGMT. PROGRAM:	QC/QA	QC/QA
SUBLOT SIZE:	N/A	N/A

NOTES: PER IDOT DISTRICT 4 GENERAL NOTE 406.10, INDIVIDUAL LIFT THICKNESS OF EACH MIX TYPE WILL BE NO LESS THAN 3 TIMES NOMINAL MAXIMUM AGGREGATE SIZE AND NO MORE THAN 6 TIMES NOMINAL MAXIMUM AGGREGATE SIZE. COMPACTION SHALL BE DONE ACCORDING TO SECTION 406 OF THE ILLINOIS STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) RATES

TYPE OF SURFACE TO BE TACKED:	RESIDUAL ASPHALT RATE
MILLED HMA, AGED NON-MILLED HMA, MILLED CONCRETE NON-MILLED CONCRETE & TINED CONCRETE	0.08 LB/SQ FT
HMA LIFTS, IL-4.75 & BRICK	0.04 LB/SQ FT

NOTES: RESIDUAL ASPHALT RATES PER IDOT DISTRICT 4 GENERAL NOTE 406.05.

POLYMERIZED BIT MATERIALS (PRIME COAT)	0.25 LB/SQ FT
HOT-MIX ASPHALT	116 LB/SQ YD/INCH
NITROGEN FERTILIZER NUTRIENTS	60 LB/ACRE
PHOSPHORUS FRETILIZER NUTRIENTS	60 LB/ACRE
POTASSIUM FERTILIZER NUTRIENTS	60 LB/ACRE

ALL TRAFFIC CONTROL DEVICES AND DETOUR SIGNING NEEDED FOR THIS PROJECT ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND CONFORM TO MUTCD GUIDELINES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL DETOUR SIGNING AND TRAFFIC CONTROL DEVICES ARE GROUND MOUNTED AND IN ACCORDANCE WITH SECTION 700 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

MICROSTATION AND GEOPAK FILES OF THIS PROJECT WILL BE MADE AVAILABLE TO THE CONTRACTOR. IF THERE IS A CONFLICT BETWEEN THE ELECTRONIC FILES AND THE PRINTED CONTRACT PLANS AND DOCUMENTS, THE PRINTED CONTRACT PLANS AND DOCUMENTS SHALL TAKE PRECEDENCE OVER THE ELECTRONIC FILES. THE CONTRACTOR SHALL ACCEPT ALL RISK ASSOCIATED WITH USING THE ELECTRONIC FILES AND SHALL HOLD THE DEPARTMENT HARMLESS FOR ANY ERRORS OR OMISSIONS IN THE ELECTRONIC FILES AND THE DATA CONTAINED THEREIN. ERRORS OR DELAYS RESULTING FROM THE USE OF THE ELECTRONIC FILES BY THE CONTRACTOR SHALL NOT RESULT IN AN EXTENSION OF TIME FOR ANY INTERIM OR FINAL COMPLETION DATE OR SHALL NOT BE CONSIDERED CAUSE FOR ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL NOT USE, SHARE, OR DISTRIBUTE THESE ELECTRONIC FILES EXCEPT FOR THE PURPOSE OF CONSTRUCTING THIS CONTRACT. ANY CLAIMS BY THIRD PARTIES DUE TO USE OR ERRORS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE THIS DISCLAIMER WITH THE TRANSFER OF THESE ELECTRONIC FILES TO ANY OTHER PARTIES AND SHALL INCLUDE APPROPRIATE LANGUAGE BINDING THEM TO SIMILAR RESPONSIBILITIES.

BUTT JOINTS SHALL HAVE A CLEAN, SOUND, VERTICAL FACE AND SHALL NOT BE MILLED MORE THAN THREE (3) DAYS PRIOR TO PLACEMENT OF THE HMA SURFACE COURSE

SIGN LOCATIONS MAY VARY FROM THE STATIONS SHOWN ON THE PLANS IN ACCORDANCE WITH DIRECTIONS FROM THE ENGINEER AT THE TIME OF CONSTRUCTION. SIGN LOCATIONS MAY BE ADJUSTED IN THE FIELD TO AVOID ANY FOUND UTILITIES.

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

CONTINUOUS PAVING OPERATIONS ON THE MAIN ROADWAY SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THE HOT-MIX ASPHALT SURFACE. NO INTERRUPTIONS FOR SIDE ROADS, ENTRANCES, TURN LANES, ETC. WILL BE ALLOWED.

THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.

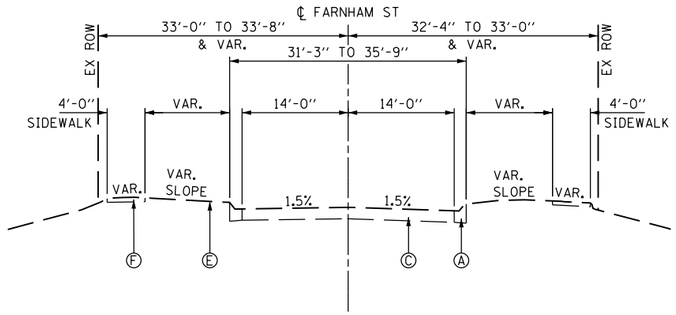
ALL EXISTING SURROUNDING AREA AND PROPERTY SHALL BE PROTECTED FROM DAMAGE AND LEFT UNDAMAGED BY THE OPERATION OF THE CONTRACTOR. ANY OF THE SURROUNDING PROPERTY DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO AN EQUAL OR BETTER CONDITION THAN WHAT EXISTED PRIOR TO CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL MAKE A REASONABLE EFFORT TO MINIMIZE THE SIZE AND SEVERITY OF DISTURBED AREAS.

THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DUST THAT LEAVES THE SITE WHEN NEAR RESIDENTIAL PROPERTY.

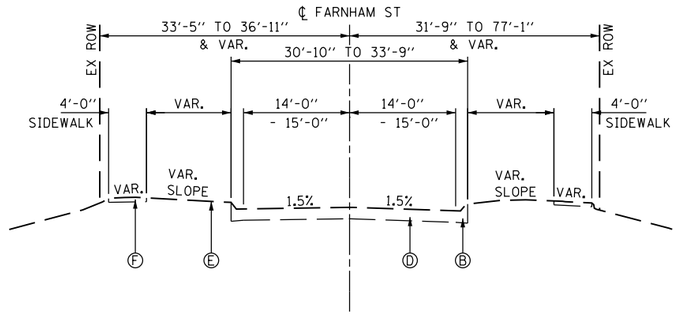
COMMITMENTS

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.



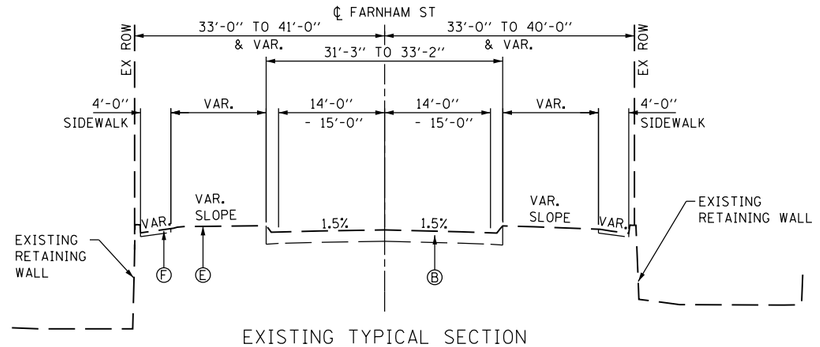
EXISTING TYPICAL SECTION

STA 10+35.00 TO STA 11+13.06
STA 18+37.44 TO STA 18+65.00
EX STRUCTURE AND BRIDGE
APPROACH SLAB OMISSION
STA 13+03.21 TO 15+21.68



EXISTING TYPICAL SECTION

STA 11+13.06 TO STA 12+05.70
STA 15+21.68 TO STA 18+37.44
EX STRUCTURE AND BRIDGE
APPROACH SLAB OMISSION
STA 13+03.21 TO 15+21.68

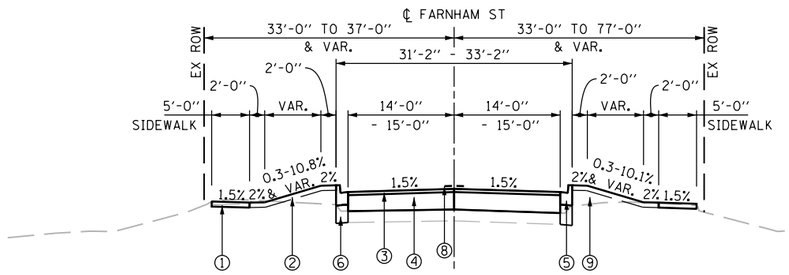


EXISTING TYPICAL SECTION AT RETAINING WALL

STA 12+05.70 TO STA 13+03.21

LEGEND

Ⓐ EXISTING B-6.12 COMBINATION CURB AND GUTTER
Ⓑ EXISTING MONOLITHIC CURB AND GUTTER
Ⓒ EXISTING HMA PAVEMENT
Ⓓ EXISTING PCC PAVEMENT
Ⓔ EXISTING SOD/TOPSOIL
Ⓕ EXISTING PCC SIDEWALK

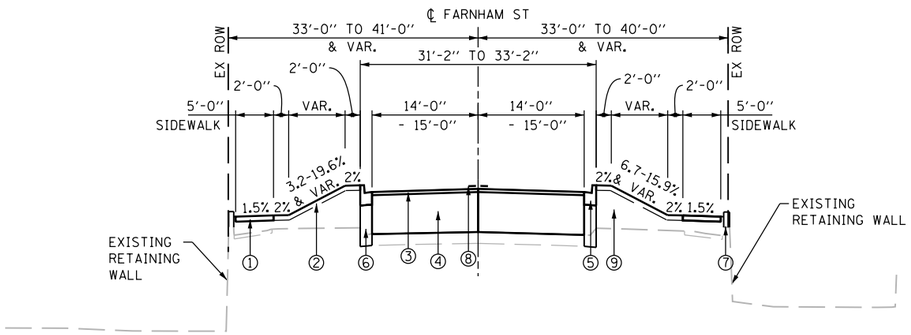


PROPOSED TYPICAL SECTION

STA 10+35.00 TO STA 11+80.00
STA 15+11.72 TO STA 18+65.00
STRUCTURE AND BRIDGE
APPROACH SLAB OMISSION
STA 13+13.43 TO 15+11.72

LEGEND

① PR PCC SIDEWALK
② PR 4'' TOPSOIL FURNISH IN PLACE
③ PR 2.5'' PHMA SURFACE COURSE, MIX "D", N50
④ PR PHMA BINDER COURSE, IL-19.0, N50, VAR. DEPTH (0''-25.4'')
⑤ PR B-6.12 COMBINATION CURB AND GUTTER
⑥ PR AGGREGATE BASE COURSE, TYPE B, VAR. DEPTH (0''-24.6'')
⑦ PR RETAINING WALL EXTENSION (SEE NOTE 1)
⑧ PR MODIFIED URETHANE PAVEMENT MARKING
⑨ PR FURNISHED EXCAVATION



PROPOSED TYPICAL SECTION AT RETAINING WALL

STA 11+80.00 TO STA 13+13.43

NOTES:

1. SEE RETAINING WALL PLANS FOR LOCATIONS OF INSTALLATION OF NEW RETAINING WALLS.
2. SEE REMOVAL PLANS FOR DETAILS OF EXISTING PAVEMENT AND SURFACE REMOVALS.

LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois		DESIGNED - RC	REVISED - -- -------	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FARNHAM STREET OVER BNSF RAILWAY TYPICAL SECTIONS
		DRAWN - RC	REVISED - -- -------		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED - -- -------		SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.
	PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED - -- -------		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	3
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				ROADWAY	BRIDGE REHAB NO CAPACITY ADDED
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004	0013
				URBAN	S. N. 048-6027
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	36	36	
20101100	TREE TRUNK PROTECTION	EACH	2	2	
20200100	EARTH EXCAVATION	CU YD	90	90	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	47		47
20400800	FURNISHED EXCAVATION	CU YD	210	210	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	72		72
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1,639	1,639	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	30	30	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	30	30	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	30	30	
25200110	SODDING, SALT TOLERANT	SQ YD	1,639	1,639	
25200200	SUPPLEMENTAL WATERING	UNIT	15	15	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	160	160	
28000400	PERIMETER EROSION BARRIER	FOOT	459	459	
28000510	INLET FILTERS	EACH	12	12	
35101400	AGGREGATE BASE COURSE, TYPE B	TON	96	96	
40600285	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	POUND	1,100	1,100	
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	3,990	3,990	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	191	191	
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	9	9	
40600990	TEMPORARY RAMP	SQ YD	52	52	
40603230	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	806	806	
40603535	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	260	260	
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	200	200	
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	204	204	
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	6,753.5	6,753.5	
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	801	801	
42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	20	20	
42400800	DETECTABLE WARNINGS	SQ FT	20	20	
44000100	PAVEMENT REMOVAL	SQ YD	166	166	

* SPECIALTY ITEM

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				ROADWAY	BRIDGE REHAB NO CAPACITY ADDED
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004	0013
				URBAN	S. N. 048-6027
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	228	228	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	220	220	
44000600	SIDEWALK REMOVAL	SQ FT	6,121	6,121	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
50102400	CONCRETE REMOVAL	CU YD	41		41
50157300	PROTECTIVE SHIELD	SQ YD	235		235
50200100	STRUCTURE EXCAVATION	CU YD	611		611
50300225	CONCRETE STRUCTURES	CU YD	183.1		183.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	169.6		169.6
50300260	BRIDGE DECK GROOVING	SQ YD	657		657
50300300	PROTECTIVE COAT	SQ YD	1,172		1,172
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	110.3		110.3
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	6,204		6,204
50800105	REINFORCEMENT BARS	POUND	5,040		5,040
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	79,280		79,280
51500100	NAME PLATES	EACH	1		1
52000020	PREFORMED JOINT SEAL 1 3/4"	FOOT	94		94
* 56400400	FIRE HYDRANTS TO BE RELOCATED	EACH	1	1	
58700300	CONCRETE SEALER	SQ FT	587		587
59000200	EPOXY CRACK INJECTION	FOOT	31		31
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	209		209
60100915	PIPE DRAINS 6"	FOOT	225	225	
60200105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1	1	
60255500	MANHOLES TO BE ADJUSTED	EACH	6	6	
60260100	INLETS TO BE ADJUSTED	EACH	8	8	
60266600	VALVE BOXES TO BE ADJUSTED	EACH	1	1	
60404300	FRAMES AND GRATES, TYPE 3	EACH	8	8	
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1,272.5	1,272.5	
* 66500105	WOVEN WIRE FENCE, 4'	FOOT	15	15	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	7	

* SPECIALTY ITEM

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

		DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
PLOT SCALE = 2.0000 ' / in.		CHECKED - ST	REVISED -
PLOT DATE = 11/16/2017		DATE - 10/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	4
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

	SUMMARY OF QUANTITIES			CONSTRUCTION CODE	
				ROADWAY	BRIDGE REHAB NO CAPACITY ADDED
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004	0013
				URBAN	S. N. 048-6027
67100100	MOBILIZATION	LSUM	1	1	
▪ 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1,937	1,937	
▪ 78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	45	45	
▪ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	10	
X0322024	TRENCH DRAIN	EACH	7	7	
X0325318	LIGHTWEIGHT CELLULAR CONCRETE FILL	CU YD	400		400
X4400100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	203	203	
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	19	19	
X440A200	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (COLD MILLING)	SQ YD	1,457	1,457	
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	491		491
▪ X5091730	BRIDGE FENCE RAILING (SPECIAL)	FOOT	274		274
▪ X5091755	PARAPET RAILING, SPECIAL	FOOT	274		274
▪ X5091765	PIPE HANDRAIL (SPECIAL)	FOOT	202		202
▪ X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	1,264	1,264	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	220	220	
▪ Z0007124	STEEL RAILING (SPECIAL)	FOOT	561		561
Z0010614	CLEANING EXISTING MANHOLE OR HANDHOLE	EACH	3	3	
Z0010700	COLD MILLING	SQ YD	132	132	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	102		102
Z0013798	CONSTRUCTION LAYOUT	LSUM	1	1	
Z0016702	DETOUR SIGNING	LSUM	1	1	
Z0022800	FENCE REMOVAL	FOOT	41	41	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	384		384
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1	1	
△ Z0076600	TRAINEES	HOUR	1,000		
△ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,000		

▪ SPECIALTY ITEM

△ 0042

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

PLOT SCALE = 2.0000 ' / in.
PLOT DATE = 11/16/2017

DESIGNED -	RC	REVISED -	
DRAWN -	RC	REVISED -	
CHECKED -	ST	REVISED -	
DATE -	10/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	5
		CONTRACT NO. 89699		
		ILLINOIS FED. AID PROJECT		

LANDSCAPING TABLE

FROM STATION	TO STATION	LT/RT	TOPSOIL FURNISH AND PLACE, 4"	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	SODDING, SALT TOLERANT
			21101615	25000400	25000500	25000600	25200110
			SQ YD	POUND	POUND	POUND	SQ YD
10+20.21	10+29.74	LT	11.15	0.14	0.14	0.14	11.15
10+20.21	10+31.00	LT	1.20	0.01	0.01	0.01	1.20
10+35.01	10+73.37	RT	49.89	0.62	0.62	0.62	49.89
10+35.03	10+69.84	RT	2.72	0.03	0.03	0.03	2.72
10+40.55	10+55.00	LT	1.92	0.02	0.02	0.02	1.92
10+41.74	10+98.00	LT	69.18	0.86	0.86	0.86	69.18
10+57.84	10+97.23	LT	5.65	0.07	0.07	0.07	5.65
10+72.85	10+74.36	RT	0.12	0.00	0.00	0.00	0.12
10+84.33	11+21.77	RT	2.49	0.03	0.03	0.03	2.49
10+85.37	10+98.00	RT	13.84	0.17	0.17	0.17	13.84
11+00.17	11+10.41	LT	1.57	0.02	0.02	0.02	1.57
11+03.00	11+09.33	LT	5.85	0.07	0.07	0.07	5.85
11+03.00	11+23.25	RT	23.50	0.29	0.29	0.29	23.50
11+28.30	11+36.34	LT	1.32	0.02	0.02	0.02	1.32
11+29.33	13+33.78	LT	197.58	2.45	2.45	2.45	197.58
11+35.25	11+76.77	RT	49.14	0.61	0.61	0.61	49.14
11+36.67	11+76.77	RT	2.00	0.02	0.02	0.02	2.00
11+39.19	13+40.99	LT	65.49	0.81	0.81	0.81	65.49
11+88.95	12+30.64	RT	49.08	0.61	0.61	0.61	49.08
11+89.09	12+05.51	RT	0.57	0.01	0.01	0.01	0.57
12+42.18	13+31.35	RT	16.59	0.21	0.21	0.21	16.59
12+42.64	13+27.82	RT	59.81	0.74	0.74	0.74	59.81
12+63.49	13+46.48	LT	40.20	0.50	0.50	0.50	40.20
12+71.97	12+97.68	RT	2.01	0.02	0.02	0.02	2.01
12+97.88	13+39.25	RT	23.06	0.29	0.29	0.29	23.06
14+78.05	15+27.98	RT	29.01	0.36	0.36	0.36	29.01
14+85.92	16+23.57	LT	51.14	0.63	0.63	0.63	51.14
14+91.29	18+65.00	RT	438.03	5.43	5.43	5.43	438.03
14+97.40	17+04.07	LT	238.89	2.96	2.96	2.96	238.89
16+22.94	17+03.88	LT	27.63	0.34	0.34	0.34	27.63
17+21.44	17+52.54	LT	5.89	0.07	0.07	0.07	5.89
17+24.07	17+51.41	LT	30.87	0.38	0.38	0.38	30.87
17+62.22	18+13.95	LT	9.69	0.12	0.12	0.12	9.69
17+63.41	18+12.99	LT	58.00	0.72	0.72	0.72	58.00
18+23.90	18+65.00	LT	6.46	0.08	0.08	0.08	6.46
18+24.95	18+65.00	LT	47.04	0.58	0.58	0.58	47.04
ROUNDED TOTAL			1,639	30	30	30	1,639

EXCAVATION TABLE

LOCATION			EARTH EXCAVATION	EARTH EXC. ADJ. FOR SHRINKAGE (25%)	EMBANKMENT	FURNISHED EXCAVATION
STATION	STATION	LT/RT	20200100			20400800
			(CU YD)	(CU YD)	(CU YD)	(CU YD)
10+19.76	13+46.63	LT	18.65	13.99	94.11	-80.12
10+35.00	13+39.25	RT	14.44	10.83	56.13	-45.30
14+78.05	18+65.00	RT	23.38	17.53	68.21	-50.68
14+85.92	18+65.00	LT	32.89	24.67	61.53	-36.86
ROUNDED TOTAL			90	70	280	210

TREE REMOVAL (OVER 15 UNITS DIAMETER) - 20100210

STATION	LT/RT	UNIT
14+88.94	LT	36
TOTAL		36

TREE TRUNK PROTECTION 20101100

STATION	LT/RT	EACH
10+49.18	LT	1
10+90.20	LT	1
TOTAL		2

PERIMETER EROSION BARRIER 28000400

FROM STATION	TO STATION	LT/RT	FOOT
14+78.05	18+00.00	RT	321.99
14+87.36	16+23.71	LT	136.29
ROUNDED TOTAL			459

WOVEN WIRE FENCE, 4' 66500105

STATION	STATION	LT/RT	FOOT
11+65.23	11+80.00	LT	14.77
TOTAL			15

INLET FILTERS 28000510

STATION	LT/RT	EACH
10+90.34	RT	1
10+91.11	LT	1
12+66.00	RT	1
12+97.86	RT	1
13+27.14	RT	1
13+27.23	LT	1
15+04.80	RT	1
15+05.01	LT	1
16+71.13	LT	1
17+41.49	RT	1
17+42.88	LT	1
17+48.42	LT	1
TOTAL		12

FENCE REMOVAL Z0022800

STATION	STATION	LT/RT	FOOT
11+65.23	12+05.45	LT	40.24
TOTAL			41

AGGREGATE BASE COURSE, TYPE B
35101400

FROM STATION	TO STATION	OFFSET	TON
11+12.35	13+11.38	RT	30.12
11+13.51	13+15.70	LT	30.60
15+09.37	18+00.00	RT	17.71
15+13.84	18+00.00	LT	17.47
ROUNDED TOTAL			96

POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) - 40600285

FROM STATION	TO STATION	OFFSET	NO. OF LIFTS	POUND
11+12.35	13+11.38	RT	4	314.8
11+13.51	13+15.70	LT	4	319.8
15+09.37	18+00.00	RT	2	229.6
15+13.84	18+00.00	LT	2	226.4
ROUNDED TOTAL				1,100

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) - 40600295

FROM STATION	TO STATION	SURFACE	NO. OF LIFTS	POUND
10+35.00	10+65.00	BUTT JOINT	1	67.2
10+65.00	10+70.92	SURFACE	1	13.3
10+70.92	13+13.43	SURFACE	1	275.0
10+70.92	13+13.43	BINDER	1	550.0
10+70.92	13+13.43	BINDER	5	1375.1
15+11.72	17+73.52	SURFACE	1	296.3
15+11.72	17+73.52	BINDER	1	592.7
15+11.72	17+73.52	BINDER	2	592.7
17+73.52	18+35.00	SURFACE	1	145.5
18+35.00	18+65.00	BUTT JOINT	1	76.4
ROUNDED TOTAL				3,990

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH - X4401198

FROM STATION	TO STATION	AREA (SQ YD)
10+65.00	10+70.92	18.38
ROUNDED TOTAL		19

APPROACH SLAB REMOVAL
Z0004552

FROM STATION	TO STATION	AREA (SQ YD)
13+13.43	13+45.39	108.68
14+79.30	15+11.72	111.00
ROUNDED TOTAL		220

PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH) - X4400100

FROM STATION	TO STATION	AREA (SQ YD)
17+73.52	18+35.00	202.02
ROUNDED TOTAL		203

PORTLAND CEMENT CONCRETE SURFACE REMOVAL (COLD MILLING), 3/4" - X440A200

FROM STATION	TO STATION	AREA (SQ YD)
11+13.06	13+13.44	633.01
15+11.72	17+73.52	823.15
ROUNDED TOTAL		1,457

COLD MILLING, 3/4"
Z0010700

FROM STATION	TO STATION	AREA (SQ YD)
10+70.92	11+13.06	131.66
ROUNDED TOTAL		132

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT - 40600982

FROM STATION	TO STATION	AREA (SQ YD)
10+35.00	10+65.00	93.3
18+37.44	18+65.00	97.3
ROUNDED TOTAL		191

TEMPORARY RAMP
42000070

FROM STATION	TO STATION	AREA (SQ YD)
10+35.00	10+43.33	25.9
18+56.67	18+65.00	25.9
ROUNDED TOTAL		52

PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB - 42000070

FROM STATION	TO STATION	AREA (SQ YD)
13+13.43	13+43.43	100.0
14+81.72	15+11.72	100.0
ROUNDED TOTAL		200

PAVEMENT REMOVAL
44000100

FROM STATION	TO STATION	OFFSET	AREA (SQ YD)
11+12.35	13+11.38	RT	29.82
11+13.51	13+15.70	LT	34.36
15+09.37	18+00.00	RT	56.74
15+13.84	18+00.00	LT	44.89
ROUNDED TOTAL			166

PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT - 40600985

FROM STATION	TO STATION	AREA (SQ YD)
18+35.00	18+37.44	8.5
ROUNDED TOTAL		9

POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 - 40603230

FROM STATION	TO STATION	TON
10+70.92	13+13.43	542.76
15+11.72	17+73.52	262.58
ROUNDED TOTAL		806.0

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 - 40603535

FROM STATION	TO STATION	TON
10+65.00	10+70.92	2.7
10+70.92	13+13.43	110.8
15+11.72	17+73.52	119.4
17+73.52	18+35.00	29.3
ROUNDED TOTAL		260.0

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH - 42300200

FROM STATION	TO STATION	LT/RT	AREA (SQ YD)
10+26.75	10+44.75	LT	20.3
10+70.36	10+88.36	RT	19.8
11+06.34	11+32.34	LT	32.0
11+20.24	11+38.24	RT	19.9
11+73.94	11+91.94	RT	19.5
12+27.63	12+45.63	RT	19.2
17+01.05	17+27.05	LT	32.6
17+48.39	17+66.39	LT	20.9
18+09.97	18+27.97	LT	19.4
ROUNDED TOTAL			204

PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH
42400100

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)
10+20.21	10+27.74	LT	28.56
10+35.00	10+71.37	RT	157.57
10+43.74	11+07.33	LT	372.49
10+87.37	11+21.25	RT	216.47
11+31.33	13+38.71	LT	1442.43
11+37.57	11+74.95	RT	188.51
11+90.96	12+28.65	RT	188.45
12+44.65	13+37.88	RT	759.71
14+90.31	18+65.00	RT	1868.85
14+96.39	17+02.08	LT	1029.23
17+26.08	17+49.41	LT	116.67
17+65.41	18+10.99	LT	227.91
18+26.99	18+65.00	LT	156.30
ROUNDED TOTAL			6,753.5

PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH
42400300

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)
10+27.74	10+43.74	LT	80.00
10+71.37	10+87.37	RT	81.07
11+07.33	11+31.33	LT	120.00
11+21.25	11+37.57	RT	80.00
11+74.95	11+90.96	RT	80.00
12+28.65	12+44.65	RT	80.01
17+02.08	17+26.08	LT	120.00
17+49.41	17+65.41	LT	80.00
18+10.99	18+26.99	LT	79.89
ROUNDED TOTAL			801.0

PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH
42400410

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)
10+98.00	11+03.00	LT	10.0
10+98.00	11+03.00	RT	10.0
ROUNDED TOTAL			20.0

DETECTABLE WARNINGS
42400800

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)
10+98.00	11+03.00	LT	10.0
10+98.00	11+03.00	RT	10.0
ROUNDED TOTAL			20

DRIVEWAY PAVEMENT REMOVAL
44000200

FROM STATION	TO STATION	LT/RT	AREA (SQ YD)
10+28.37	10+43.16	LT	18.94
10+70.31	10+88.23	RT	22.01
11+03.74	11+35.55	LT	37.90
11+21.78	11+36.67	RT	27.31
11+74.12	11+93.73	RT	21.54
12+26.41	12+45.38	RT	20.27
17+01.14	17+26.83	LT	33.47
17+49.60	17+69.62	LT	23.59
18+09.74	18+28.62	LT	22.21
ROUNDED TOTAL			228

SIDEWALK REMOVAL
44000600

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)
10+20.21	13+46.20	LT	1638.46
10+35.00	13+41.00	RT	1487.63
14+78.63	18+65.00	RT	1518.37
14+83.75	18+65.00	LT	1475.66
ROUNDED TOTAL			6,121

FIRE HYDRANTS TO BE RELOCATED
56400400

STATION	LT/RT	EACH
10+99.02	RT	1
	TOTAL	1

MANHOLES TO BE ADJUSTED
60255500

STATION	LT/RT	EACH
10+91.82	RT	1
12+63.00	LT	1
12+90.95	LT	1
17+30.56	LT	1
17+41.67	RT	1
18+30.62	RT	1
	TOTAL	6

INLETS TO BE ADJUSTED
60260100

STATION	LT/RT	EACH
10+90.34	RT	1
10+91.11	LT	1
13+27.14	RT	1
13+27.23	LT	1
15+04.80	RT	1
15+05.01	LT	1
17+41.49	RT	1
17+42.88	LT	1
	TOTAL	8

VALVE BOXES TO BE ADJUSTED
60266600

STATION	LT/RT	EACH
11+92.99	RT	1
	TOTAL	1

CLEANING EXISTING MANHOLE OR HANDHOLE - Z0010614

STATION	LT/RT	EACH
12+66.00	RT	1
12+97.86	LT	1
16+71.13	LT	1
	TOTAL	3

PIPE DRAINS 6"
60100915

FROM STATION	TO STATION	LT/RT	FOOT
10+90.32	11+23.25	RT	34.93
10+91.09	11+09.33	LT	21.56
11+35.25	11+76.95	RT	41.70
11+88.95	12+30.65	RT	41.70
17+24.07	17+51.41	LT	27.33
17+63.41	18+12.99	LT	49.58
18+24.99	18+32.86	LT	7.88
		ROUNDED TOTAL	225

TRENCH DRAIN
X0322024

STATION	LT/RT	EACH
11+19.35	LT	1
11+29.22	RT	1
11+82.93	RT	1
12+36.62	RT	1
17+14.03	LT	1
17+57.36	LT	1
18+18.94	LT	1
	TOTAL	7

COMBINATION CURB AND GUTTER REMOVAL
44000500

FROM STATION	TO STATION	LT/RT	FOOT
10+26.75	11+13.51	LT	86.78
10+35.00	11+12.35	RT	77.38
18+36.90	18+65.00	LT	28.12
18+38.00	18+65.00	RT	27.01
		ROUNDED TOTAL	220

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 - 60603800

FROM STATION	TO STATION	LT/RT	FOOT
10+26.75	13+15.70	LT	288.97
10+35.00	13+11.38	RT	276.39
15+09.37	18+65.00	RT	355.71
15+13.84	18+65.00	LT	351.15
		ROUNDED TOTAL	1,272.5

MODIFIED URETHANE PAVEMENT MARKING-LINE 4"
78009004

FROM STATION	TO STATION	OFFSET	TYPE	FOOT
10+35.00	18+65.00	CL	4DSY	1,660.00
13+41.38	14+79.60	RT	4SW	138.21
13+45.49	14+83.84	LT	4SW	138.36
			ROUNDED TOTAL	1,937

MODIFIED URETHANE PAVEMENT MARKING - LINE 12" - 78009012

STATION	LT/RT	FOOT
11+00.00	CL	45.00
	ROUNDED TOTAL	45

RAISED REFLECTIVE PAVEMENT MARKER
78100100

STATION	LT/RT	EACH
11+14.00	CL	1
11+94.00	CL	1
12+74.00	CL	1
13+54.00	CL	1
14+34.00	CL	1
15+14.00	CL	1
15+94.00	CL	1
16+74.00	CL	1
17+54.00	CL	1
18+34.00	CL	1
	TOTAL	10

GROOVING FOR RECESSED PAVEMENT MARKING 5"
X7830070

FROM STATION	TO STATION	OFFSET	FOOT
10+35.00	13+13.43	CL	556.87
15+11.72	18+65.00	CL	706.56
		ROUNDED TOTAL	1,264

FRAMES AND GRATES, TYPE 3
60404300

STATION	LT/RT	EACH
10+90.34	RT	1
10+91.11	LT	1
13+27.14	RT	1
13+27.23	LT	1
15+04.80	RT	1
15+05.01	LT	1
17+41.49	RT	1
17+42.88	LT	1
	TOTAL	8

CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID - 60200105

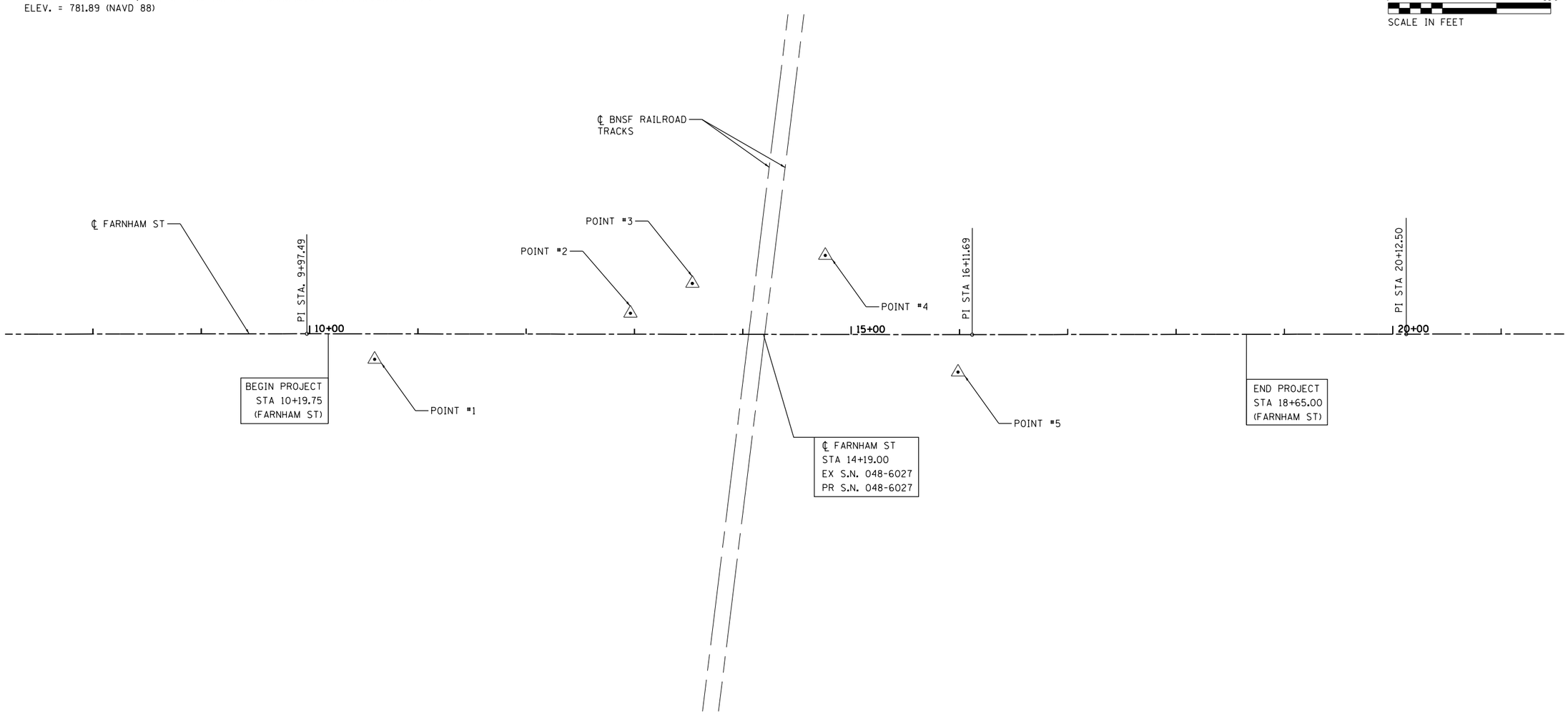
STATION	LT/RT	EACH
18+32.86	LT	1
	TOTAL	1

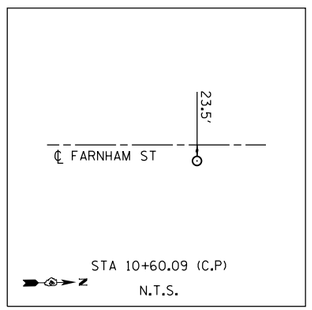
BENCHMARK: C-196/LD0086 - AT THE JUNCTION OF MADISON ST AND NORTH ST, 19' NORTH OF THE ℄ OF NORTH ST, 25' WEST OF THE EXTENDED ℄ OF MADISON ST, 12' NW OF A POWER POLE, SET IN THE TOP OF A CONCRETE POST PROJECTING 3". ELEV. = 781.89 (NAVD 88)

N

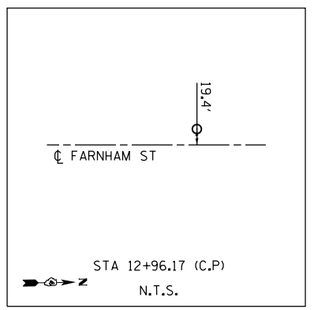
0 50 100 150

SCALE IN FEET

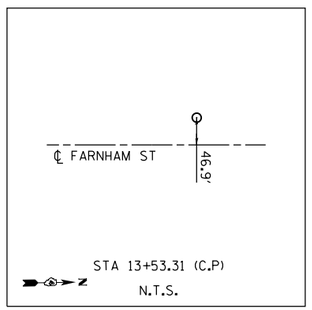




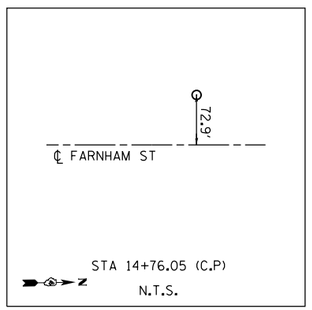
△ CONTROL POINT #1



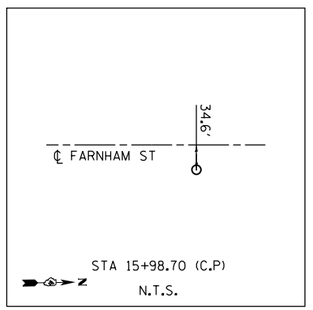
△ CONTROL POINT #2



△ CONTROL POINT #3



△ CONTROL POINT #4



△ CONTROL POINT #5

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

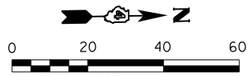
	DESIGNED - RC	REVISED -	
	DRAWN - RC	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED -	

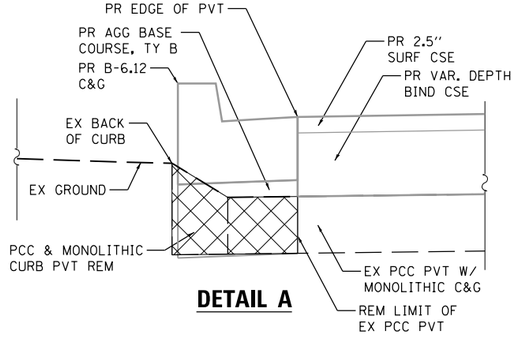
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	9
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

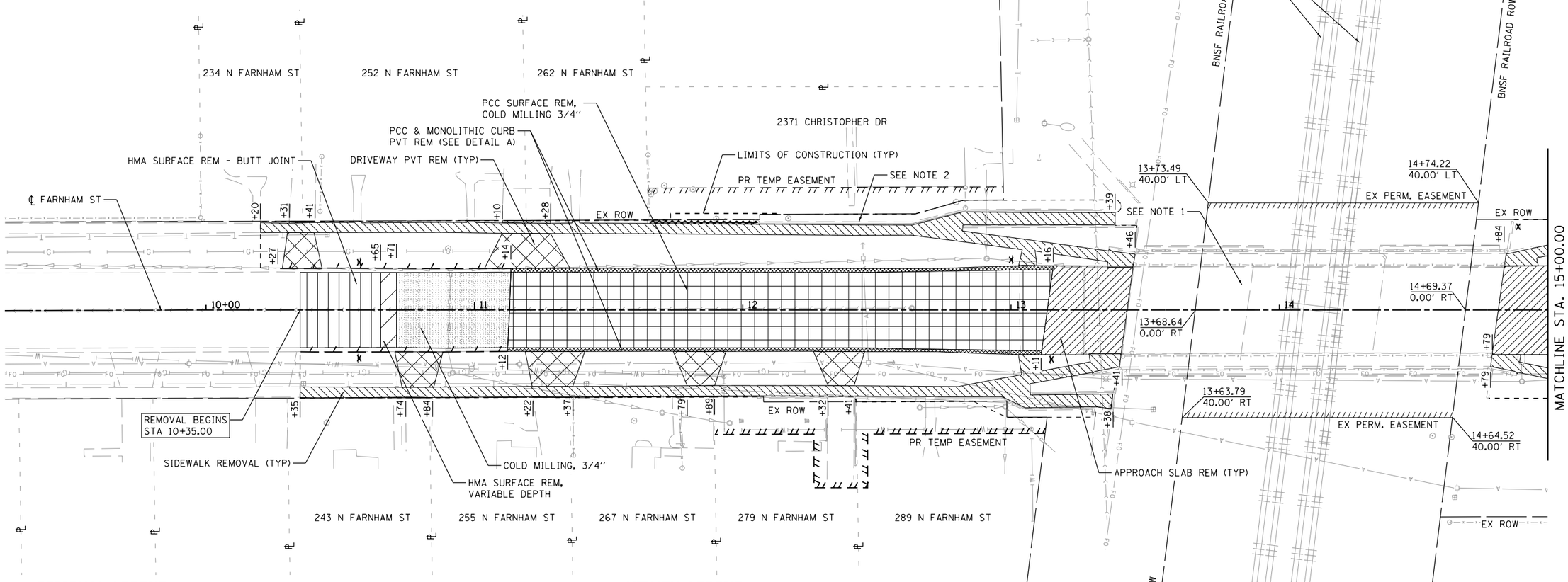




DETAIL A

NOTES:

1. SEE STRUCTURAL PLANS FOR BRIDGE REMOVALS.
2. SEE RETAINING WALL PLANS FOR RETAINING WALL REMOVALS.



REMOVAL LEGEND

- HMA SURFACE REM - BUTT JOINT
- PCC SURFACE REM - BUTT JOINT
- HMA SURFACE REM, VARIABLE DEPTH
- COLD MILLING, 3/4"
- PCC SURFACE REM, VARIABLE DEPTH
- PCC SURFACE REM, COLD MILLING 3/4"
- PAVEMENT REMOVAL
- APPROACH SLAB REM
- DRIVEWAY PAVEMENT REM
- SIDEWALK REM
- COMBINATION CURB AND GUTTER REM
- EXISTING FENCE TO BE REMOVED
- SIGN ASSEMBLY (TO BE REMOVED BY OTHERS)
- TREE REMOVAL

UTILITY LEGEND

- EX UNDERGROUND WATER LINE
- EX AERIAL CABLE
- EX UNDERGROUND TELEPHONE CABLE
- EX UNDERGROUND GAS LINE
- EX UNDERGROUND FIBER OPTIC CABLE
- EX UNDERGROUND SANITARY SEWER

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - RC	REVISED - --	-------
	DRAWN - RC	REVISED - --	-------
PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED - --	-------
PLOT DATE = 11/22/2017	DATE - 10/2017	REVISED - --	-------

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
REMOVAL PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 10+19.75 TO STA. 15+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	10
		CONTRACT NO. 89699		
		ILLINOIS FED. AID PROJECT		

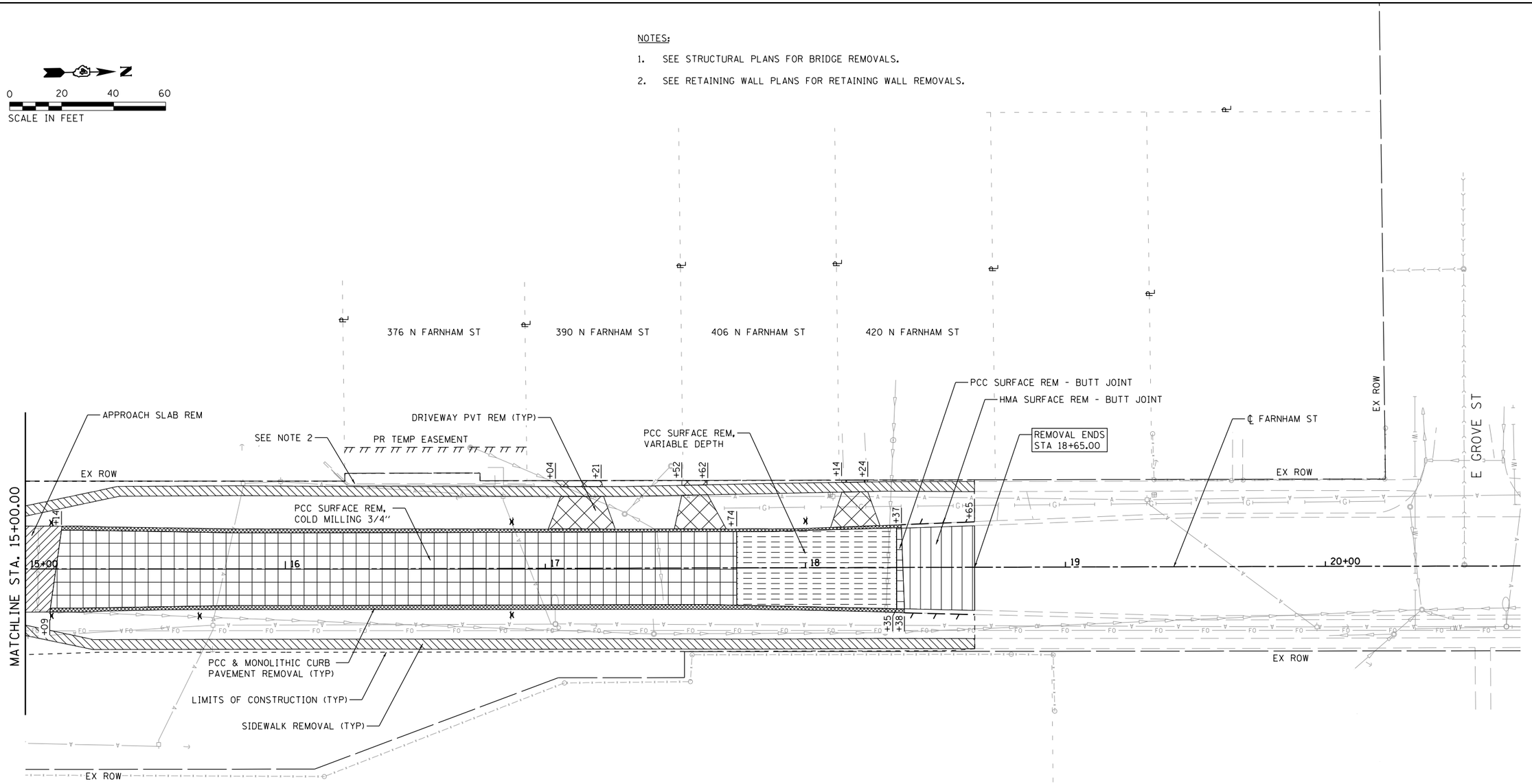
N

0 20 40 60

SCALE IN FEET

NOTES:

1. SEE STRUCTURAL PLANS FOR BRIDGE REMOVALS.
2. SEE RETAINING WALL PLANS FOR RETAINING WALL REMOVALS.



REMOVAL LEGEND

- HMA SURFACE REM - BUTT JOINT
- PCC SURFACE REM - BUTT JOINT
- HMA SURFACE REM, VARIABLE DEPTH
- COLD MILLING, 3/4"
- PCC SURFACE REM, VARIABLE DEPTH
- PCC SURFACE REM, COLD MILLING 3/4"
- PAVEMENT REMOVAL
- APPROACH SLAB REM
- DRIVEWAY PAVEMENT REM
- SIDEWALK REM
- COMBINATION CURB AND GUTTER REM
- EXISTING FENCE TO BE REMOVED
- SIGN ASSEMBLY (TO BE REMOVED BY OTHERS)
- TREE REMOVAL

UTILITY LEGEND

- EX UNDERGROUND WATER LINE
- EX AERIAL CABLE
- EX UNDERGROUND TELEPHONE CABLE
- EX UNDERGROUND GAS LINE
- EX UNDERGROUND FIBER OPTIC CABLE
- EX UNDERGROUND SANITARY SEWER

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

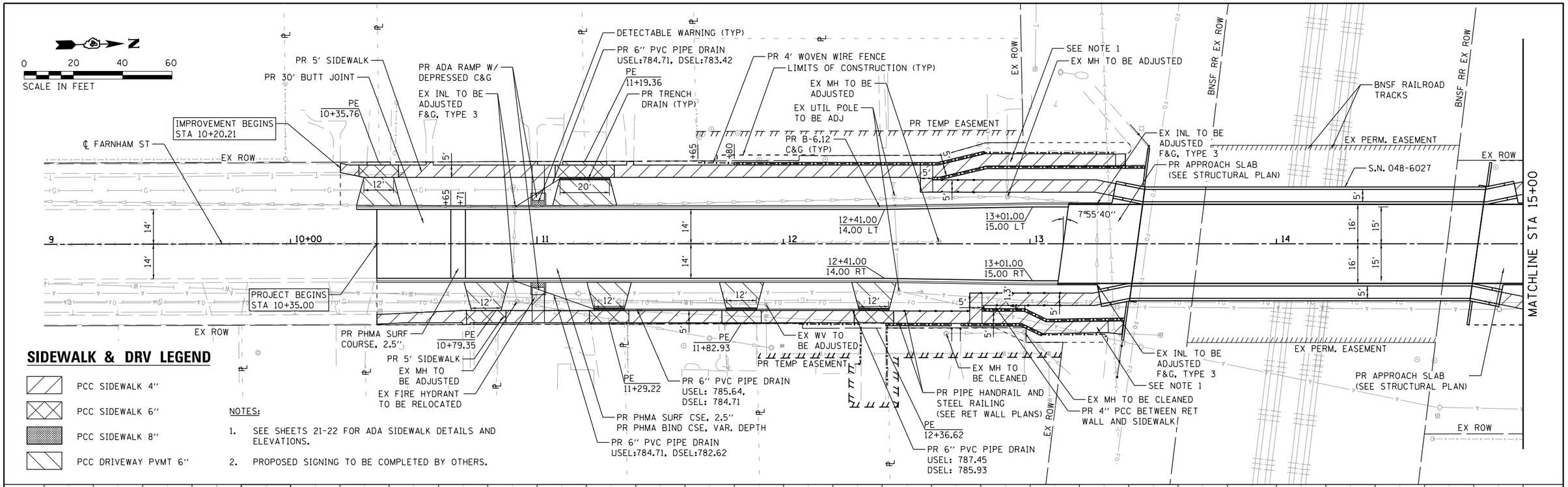
	DESIGNED - RC	REVISED -	
	DRAWN - RC	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
REMOVAL PLAN

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 15+00.00 TO STA. 18+65.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	11
		CONTRACT NO. 89699		
	ILLINOIS	FED. AID PROJECT		

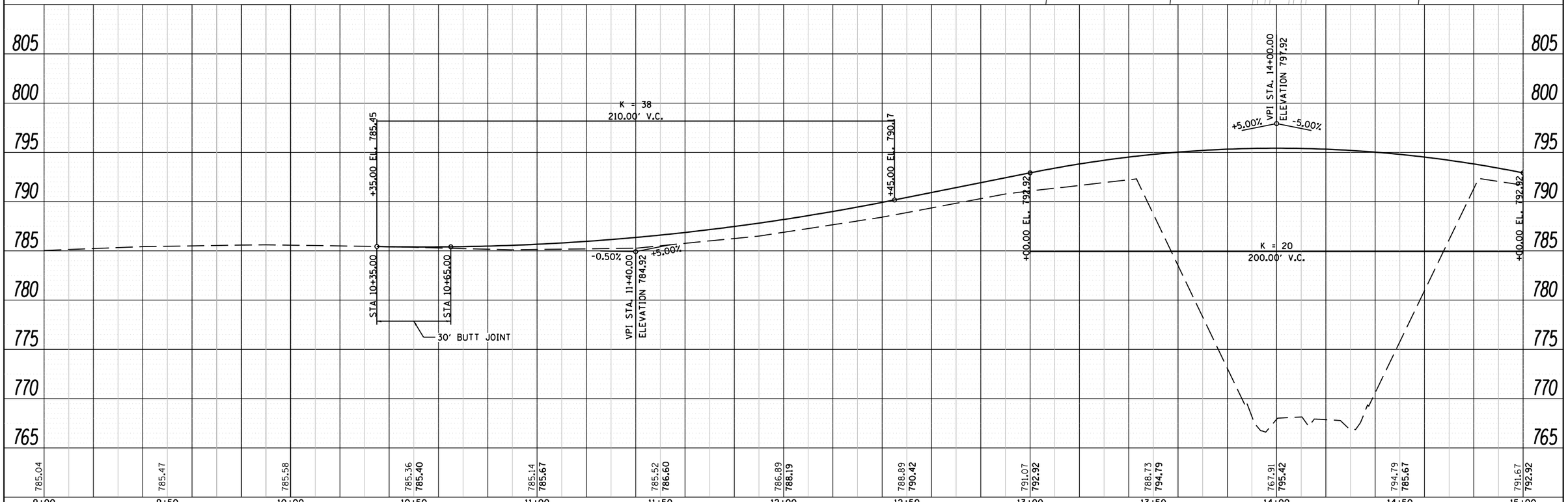


SIDEWALK & DRV LEGEND

- PCC SIDEWALK 4"
- PCC SIDEWALK 6"
- PCC SIDEWALK 8"
- PCC DRIVEWAY PVMT 6"

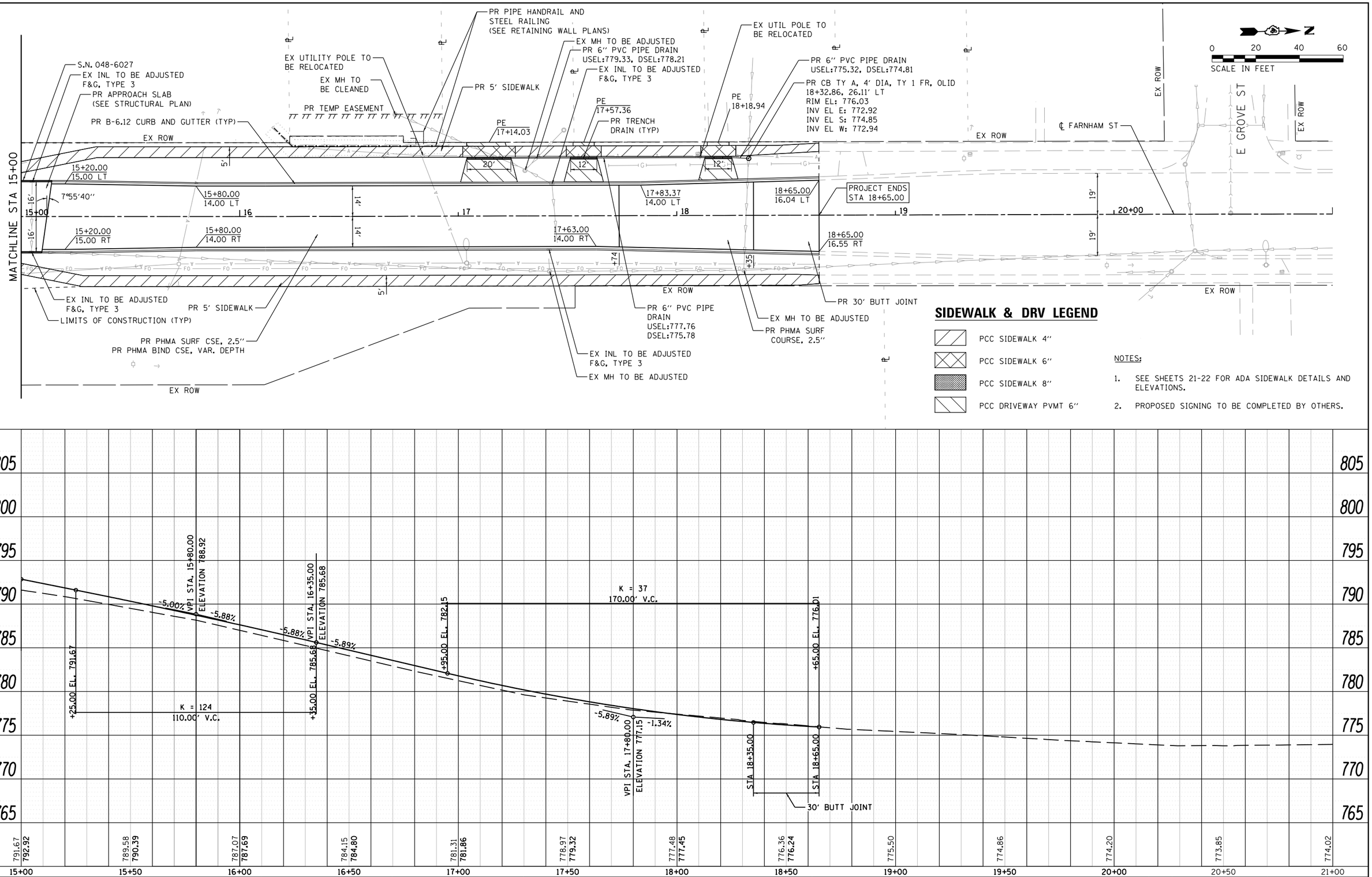
NOTES:

1. SEE SHEETS 21-22 FOR ADA SIDEWALK DETAILS AND ELEVATIONS.
2. PROPOSED SIGNING TO BE COMPLETED BY OTHERS.



LIN ENGINEERING, LTD. Consulting Engineers, Westmont, Illinois		DESIGNED - RC	REVISED - -- -------	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FARNHAM STREET OVER BNSF RAILWAY PLAN & PROFILE
	PLOT SCALE = 40.0000 ' / in.	DRAWN - RC	REVISED - -- -------		SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 10+19.75 TO STA. 15+00.00
	PLOT DATE = 11/22/2017	CHECKED - ST	REVISED - -- -------		
		DATE - 10/2017	REVISED - -- -------		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	12
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois	DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RC	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED -	

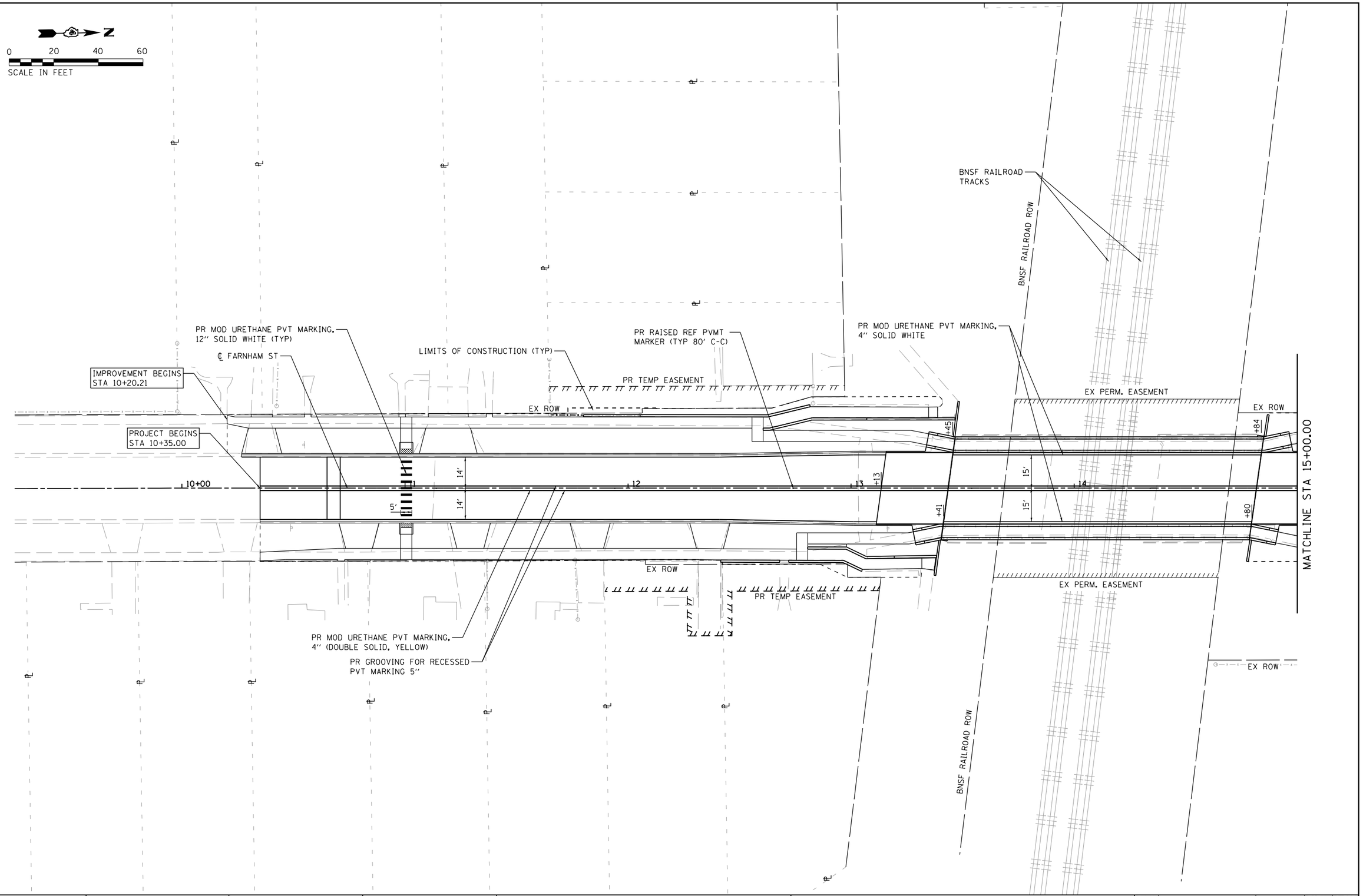
FARNHAM STREET OVER BNSF RAILWAY
PLAN & PROFILE

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 15+00.00 TO STA. 18+65.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	13

CONTRACT NO. 89699

ILLINOIS FED. AID PROJECT



LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

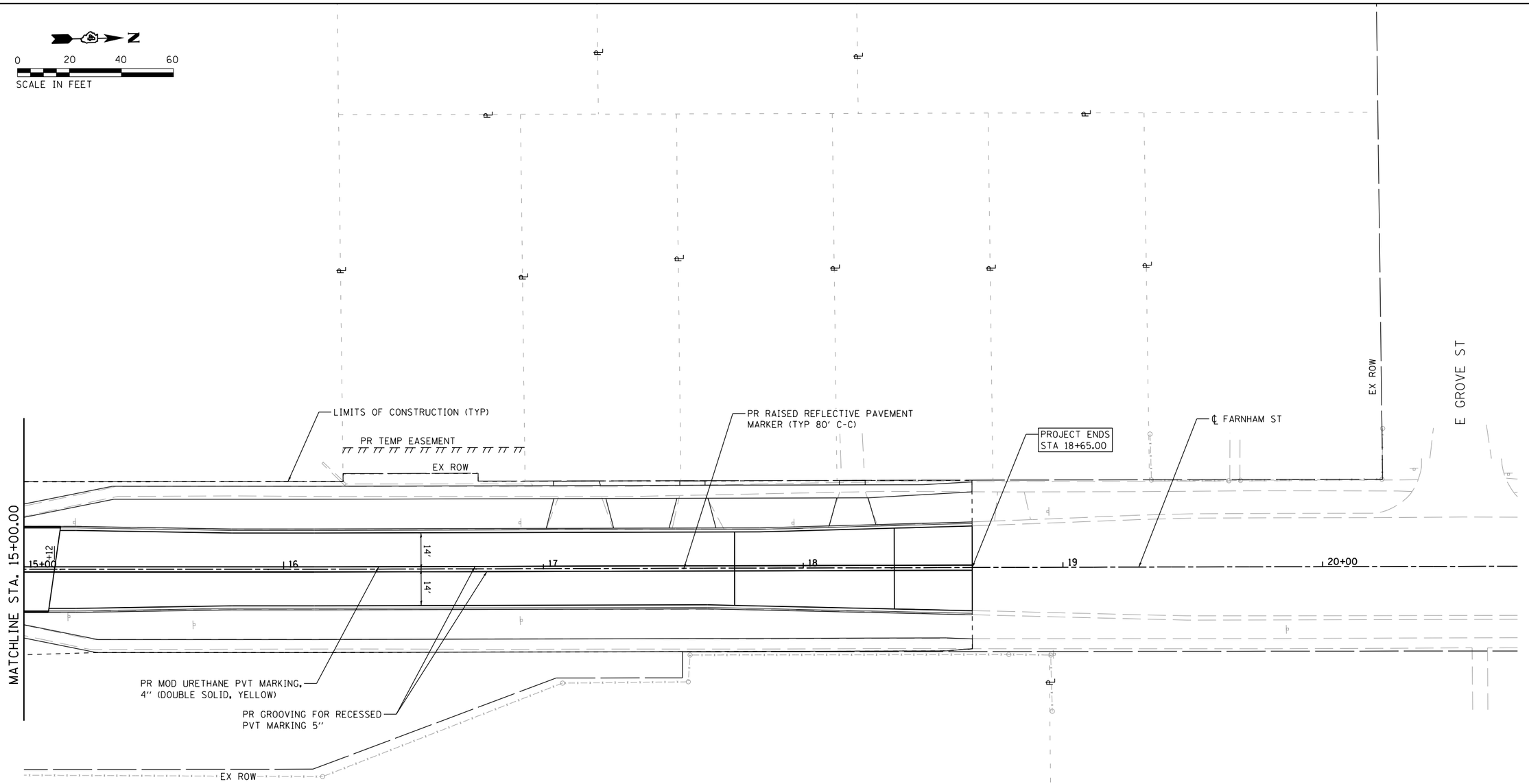
	DESIGNED - RC	REVISED - -- -------	
	DRAWN - RC	REVISED - -- -------	
PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED - -- -------	
PLOT DATE = 11/16/2017	DATE - 10/2017	REVISED - -- -------	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
PAVEMENT MARKING PLAN

SCALE: 1''=20' | SHEET NO. 1 OF 2 SHEETS | STA. 10+19.75 TO STA. 15+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	14
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



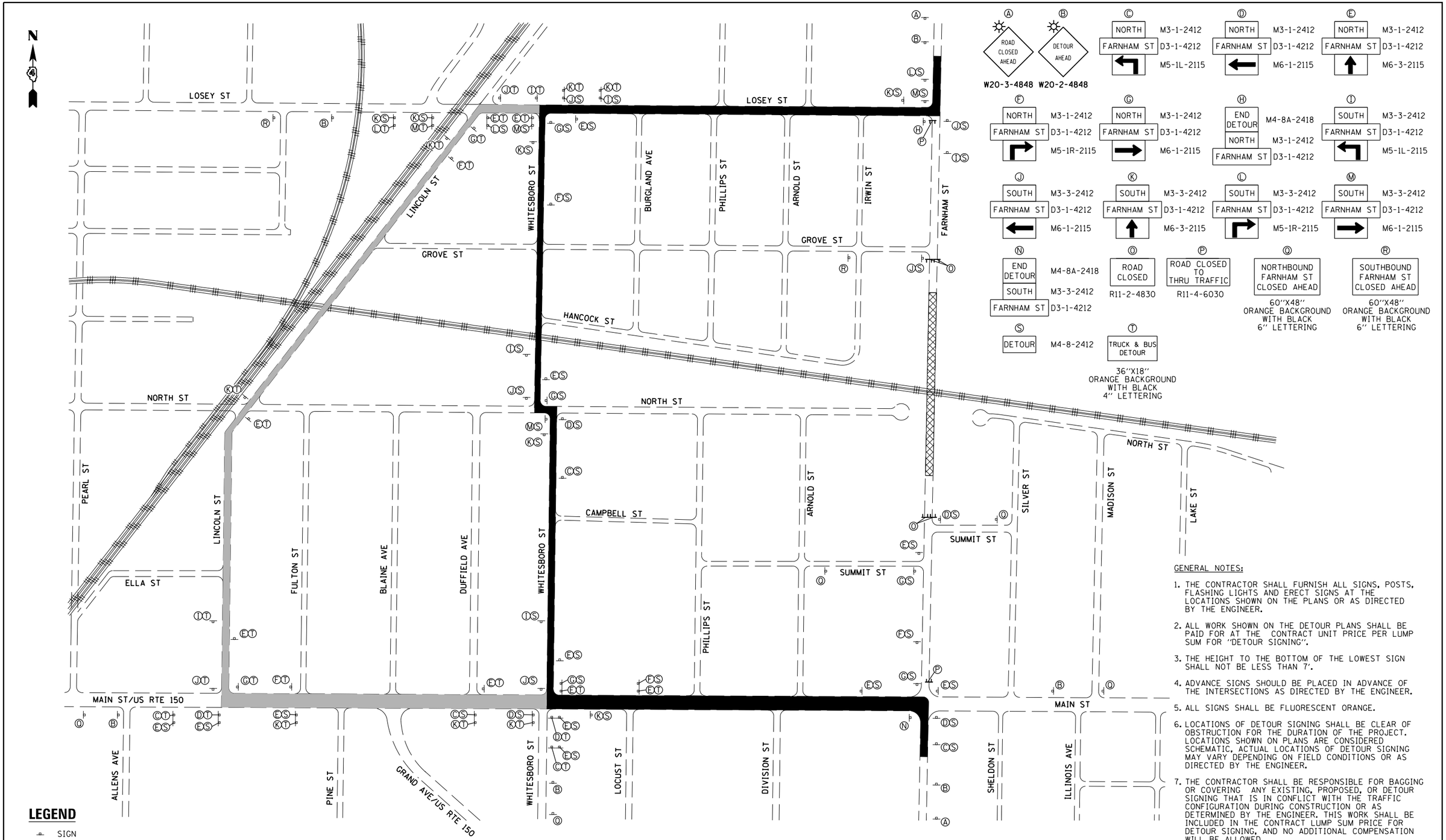
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois		DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 11/16/2017	DATE - 10/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
PAVEMENT MARKING PLAN

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 15+00.00 TO STA. 18+65.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	15
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



LEGEND

- SIGN
- WORK AREA
- PASSENGER CAR DETOUR
- TRUCK AND BUS DETOUR
- TYPE III BARRICADE

GENERAL NOTES:

1. THE CONTRACTOR SHALL FURNISH ALL SIGNS, POSTS, FLASHING LIGHTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
2. ALL WORK SHOWN ON THE DETOUR PLANS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR "DETOUR SIGNING".
3. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 7'.
4. ADVANCE SIGNS SHOULD BE PLACED IN ADVANCE OF THE INTERSECTIONS AS DIRECTED BY THE ENGINEER.
5. ALL SIGNS SHALL BE FLUORESCENT ORANGE.
6. LOCATIONS OF DETOUR SIGNING SHALL BE CLEAR OF OBSTRUCTION FOR THE DURATION OF THE PROJECT. LOCATIONS SHOWN ON PLANS ARE CONSIDERED SCHEMATIC, ACTUAL LOCATIONS OF DETOUR SIGNING MAY VARY DEPENDING ON FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BAGGING OR COVERING ANY EXISTING, PROPOSED, OR DETOUR SIGNING THAT IS IN CONFLICT WITH THE TRAFFIC CONFIGURATION DURING CONSTRUCTION OR AS DETERMINED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR DETOUR SIGNING, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. ALL DETOUR SIGNS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL INSPECT SIGNS BY 8:00 AM EACH DAY TO ENSURE THAT THE SIGNS ARE FULLY OPERATIONAL AND IN PROPER WORKING ORDER. PAYMENT FOR SIGNS AND MAINTENANCE WILL BE INCLUDED IN THE COST OF DETOUR SIGNING.

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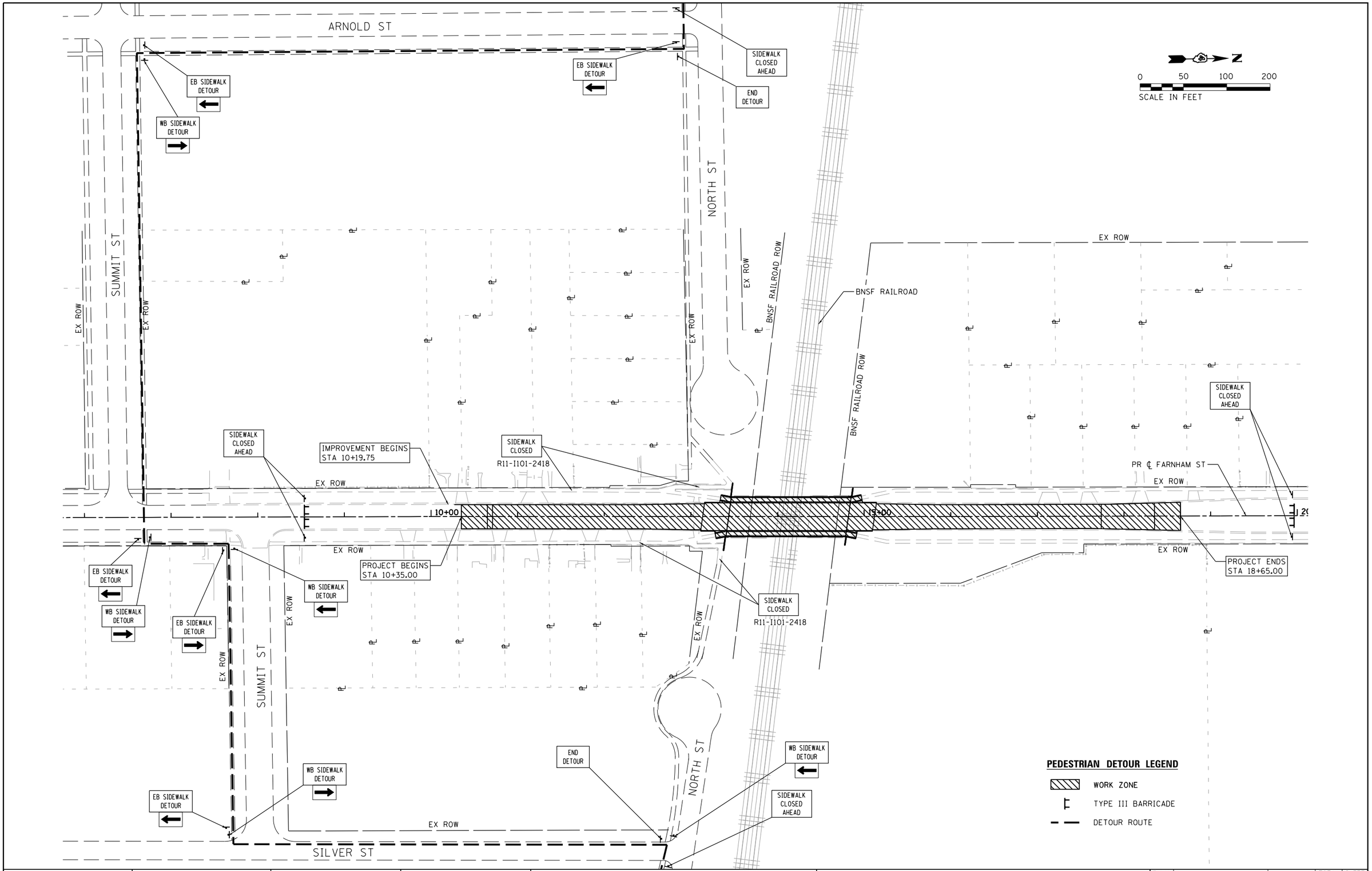
PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED - -- -------	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
DETOUR PLANS

SCALE: N.T.S | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	16
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - RC	REVISED - -- -------	
	DRAWN - RC	REVISED - -- -------	
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED - -- -------	
PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED - -- -------	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
DETOUR PLANS

SCALE: N.T.S. | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	17
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

0 20 40 60
SCALE IN FEET

GENERAL NOTES:

1. THE CONTRACTOR SHALL MAKE A REASONABLE EFFORT TO MINIMIZE THE SIZE AND SEVERITY OF DISTURBED AREAS.
2. SILT FENCE AND INLET FILTERS SHALL BE IN GOOD WORKING ORDER PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THEY SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE ADEQUATELY STABILIZED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING AND CLEANING INLET FILTERS WEEKLY, OR AFTER A RAINFALL EVENT OF 0.5" OR GREATER. INLET FILTERS SHALL BE REPLACED IF NO LONGER DEEMED TO BE IN GOOD WORKING ORDER BY THE ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR INLET FILTERS.
4. SILT FENCE SHALL BE INSTALLED PER IDOT STANDARD 280001. THE CONTRACTOR SHALL INSPECT AND CLEAR THE SILT FENCE WEEKLY, OR AFTER A RAINFALL EVENT OF 0.5" OR GREATER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PERIMETER EROSION BARRIER.
5. THE CONTRACTOR SHALL ENSURE THAT EXPOSED AREAS HAVE ADEQUATE TEMPORARY SEEDING OR OTHER STABILIZATION PER THE NPDES 1 AND 14 DAY RULE.
6. CONCRETE WASHOUT AREAS SHALL BE ADEQUATELY SIGNED AND MAINTAINED. CONCRETE WASHOUT SHALL NOT ENTER ANY DRAINAGE STRUCTURE.
7. THE CONTRACTOR SHALL ENSURE THAT ALL MUD, SEDIMENT, AND DEBRIS RESULTING FROM CONSTRUCTION RELATED ACTIVITIES SHALL BE CONTAINED WITHIN THE PROJECT LIMITS.
8. THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DUST THAT LEAVES THE SITE WHEN NEAR RESIDENTIAL PROPERTY.

EROSION CONTROL LEGEND

- SODDING, SALT TOLERANT/TOPSOIL FURNISH AND PLACE 4"
- INLET FILTERS
- TREE TRUNK PROTECTION
- PERIMETER EROSION BARRIER

IMPROVEMENT BEGINS STA 10+20.21

PROJECT BEGINS STA 10+35.00

℄ FARNHAM ST

10+91.11
14.99 LT

LIMITS OF CONSTRUCTION (TYP)

PR TEMP EASEMENT

EX ROW

13+27.23
16.04 LT

+47

BNSF RAILROAD TRACKS

BNSF RAILROAD ROW

EX PERM. EASEMENT

+87

EX ROW

MATCHLINE STA 15+00.00

10+00 11 12 13 14

10+90.34
14.85 RT

EX ROW

PR TEMP EASEMENT

12+66.00
36.36' RT

12+97.86
36.00' RT

+39

13+27.14
16.11' RT

EX PERM. EASEMENT

+78

EX ROW

BNSF RAILROAD ROW

LIN ENGINEERING,LTD. Consulting Engineers, Westmont, Illinois	DESIGNED - RC	REVISED - -- -------	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RC	REVISED - -- -------	
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PLOT DATE = 11/22/2017	DATE - 10/2017	REVISED - -- -------	

FARNHAM STREET OVER BNSF RAILWAY
EROSION CONTROL PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 10+19.75 TO STA. 14+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	18
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

EROSION CONTROL LEGEND

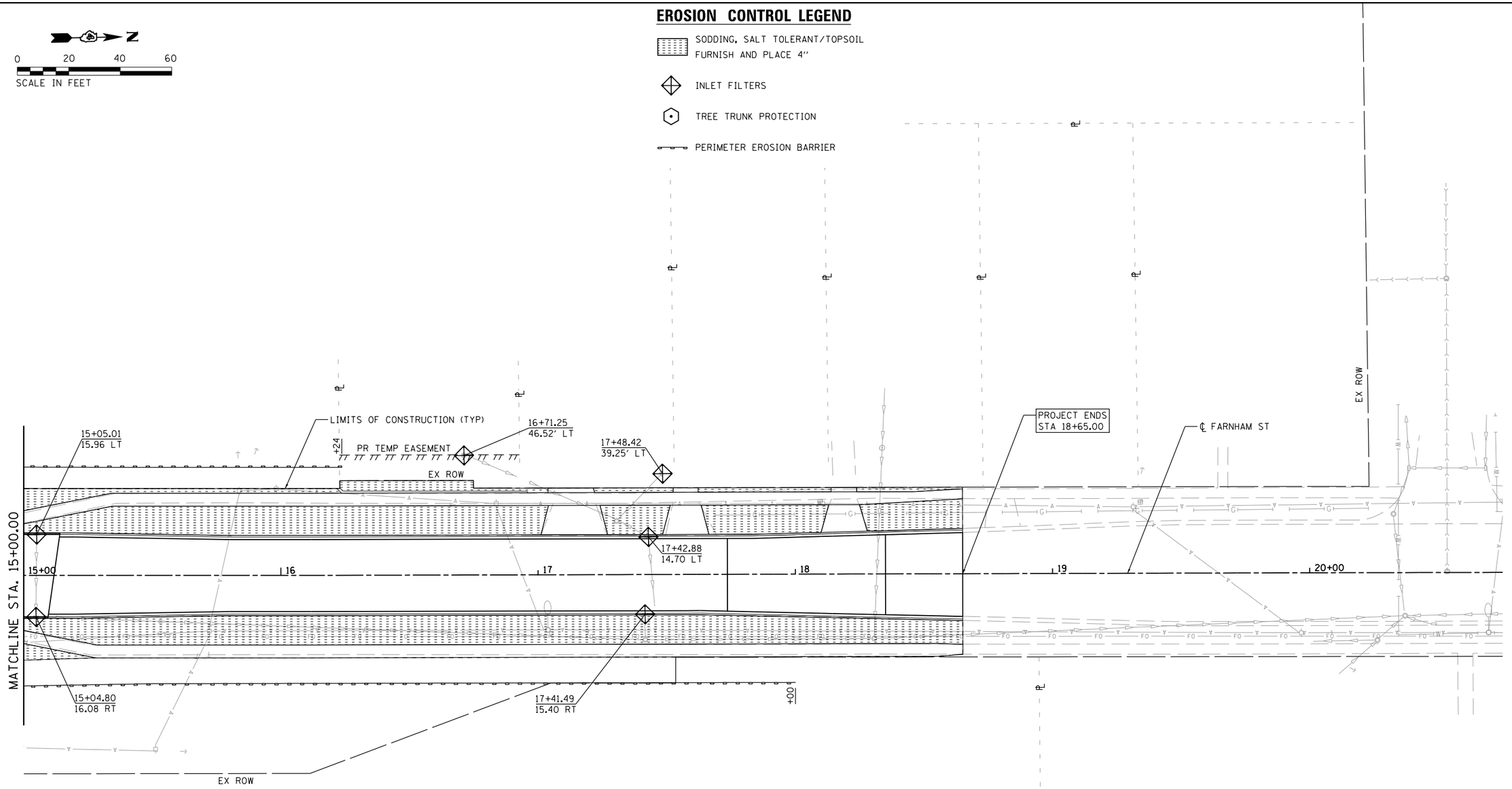
SODDING, SALT TOLERANT/TOPSOIL
FURNISH AND PLACE 4"

INLET FILTERS

TREE TRUNK PROTECTION

PERIMETER EROSION BARRIER

0 20 40 60
SCALE IN FEET

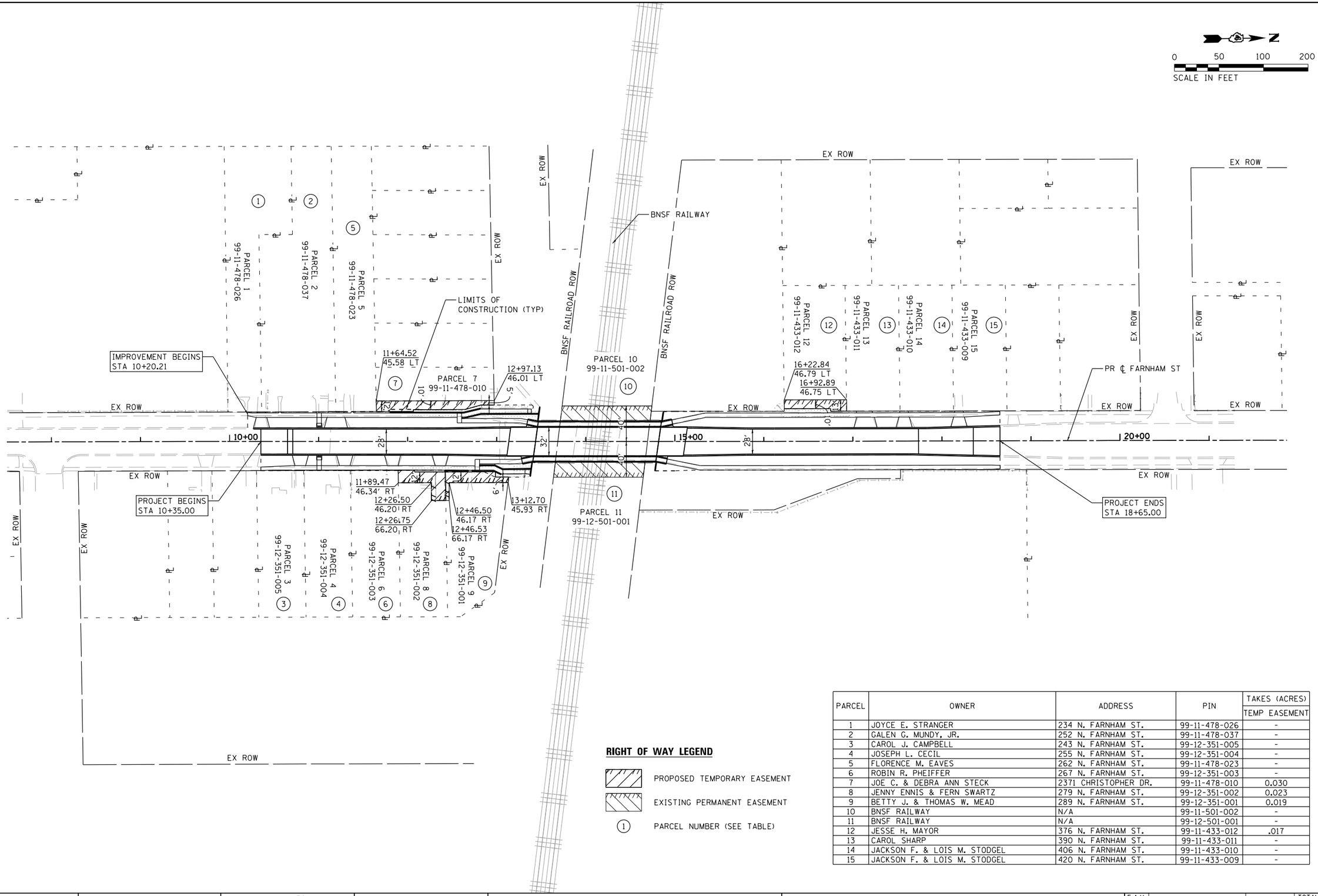


LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois		DESIGNED - RC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - RC	REVISED -	
	PLOT SCALE = 40.0000 ' / in.	CHECKED - ST	REVISED -	
	PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED -	

FARNHAM STREET OVER BNSF RAILWAY
EROSION CONTROL PLAN

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 14+50.00 TO STA. 18+65.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	19
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



RIGHT OF WAY LEGEND

- PROPOSED TEMPORARY EASEMENT
- EXISTING PERMANENT EASEMENT
- (1) PARCEL NUMBER (SEE TABLE)

PARCEL	OWNER	ADDRESS	PIN	TAKES (ACRES) TEMP EASEMENT
1	JOYCE E. STRANGER	234 N. FARNHAM ST.	99-11-478-026	-
2	GALEN G. MUNDY, JR.	252 N. FARNHAM ST.	99-11-478-037	-
3	CAROL J. CAMPBELL	243 N. FARNHAM ST.	99-12-351-005	-
4	JOSEPH L. CECIL	255 N. FARNHAM ST.	99-12-351-004	-
5	FLORENCE M. EAVES	262 N. FARNHAM ST.	99-11-478-023	-
6	ROBIN R. PHEIFFER	267 N. FARNHAM ST.	99-12-351-003	-
7	JOE C. & DEBRA ANN STECK	2371 CHRISTOPHER DR.	99-11-478-010	0.030
8	JENNY ENNIS & FERN SWARTZ	279 N. FARNHAM ST.	99-12-351-002	0.023
9	BETTY J. & THOMAS W. MEAD	289 N. FARNHAM ST.	99-12-351-001	0.019
10	BNSF RAILWAY	N/A	99-11-501-002	-
11	BNSF RAILWAY	N/A	99-12-501-001	-
12	JESSE H. MAYOR	376 N. FARNHAM ST.	99-11-433-012	.017
13	CAROL SHARP	390 N. FARNHAM ST.	99-11-433-011	-
14	JACKSON F. & LOIS M. STODGEL	406 N. FARNHAM ST.	99-11-433-010	-
15	JACKSON F. & LOIS M. STODGEL	420 N. FARNHAM ST.	99-11-433-009	-

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PLOT DATE = 10/30/2017

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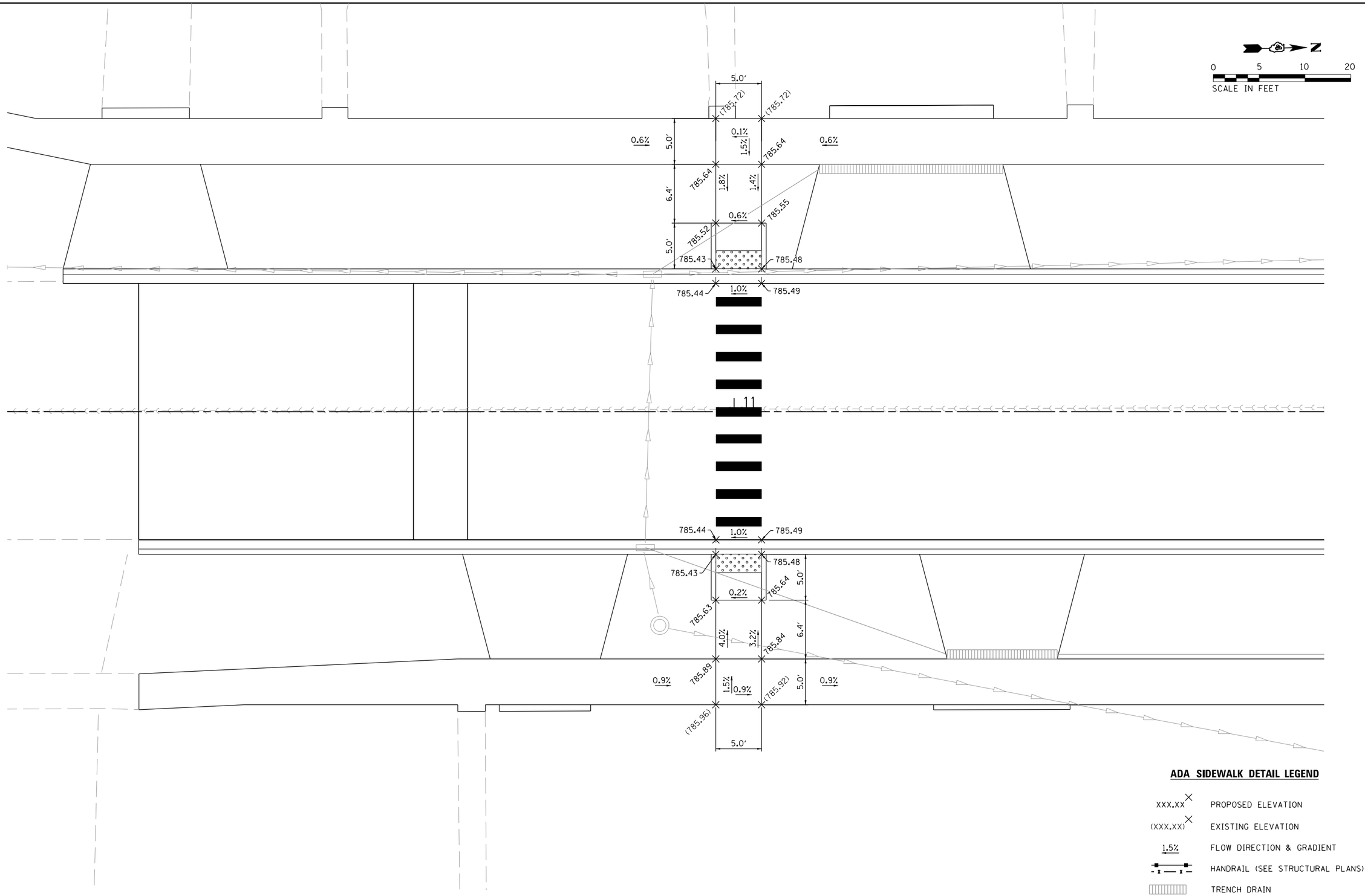
CHECKED - ST | REVISED - -- -------
DATE - 10/2017 | REVISED - -- -------

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
RIGHT OF WAY PLAN

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. 10+19.75 TO STA. 18+65.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	20
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



ADA SIDEWALK DETAIL LEGEND

XXX.XX	PROPOSED ELEVATION
(XXX.XX)	EXISTING ELEVATION
1.5%	FLOW DIRECTION & GRADIENT
	HANDRAIL (SEE STRUCTURAL PLANS)
	TRENCH DRAIN

LIN ENGINEERING,LTD.
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Westmont, Illinois

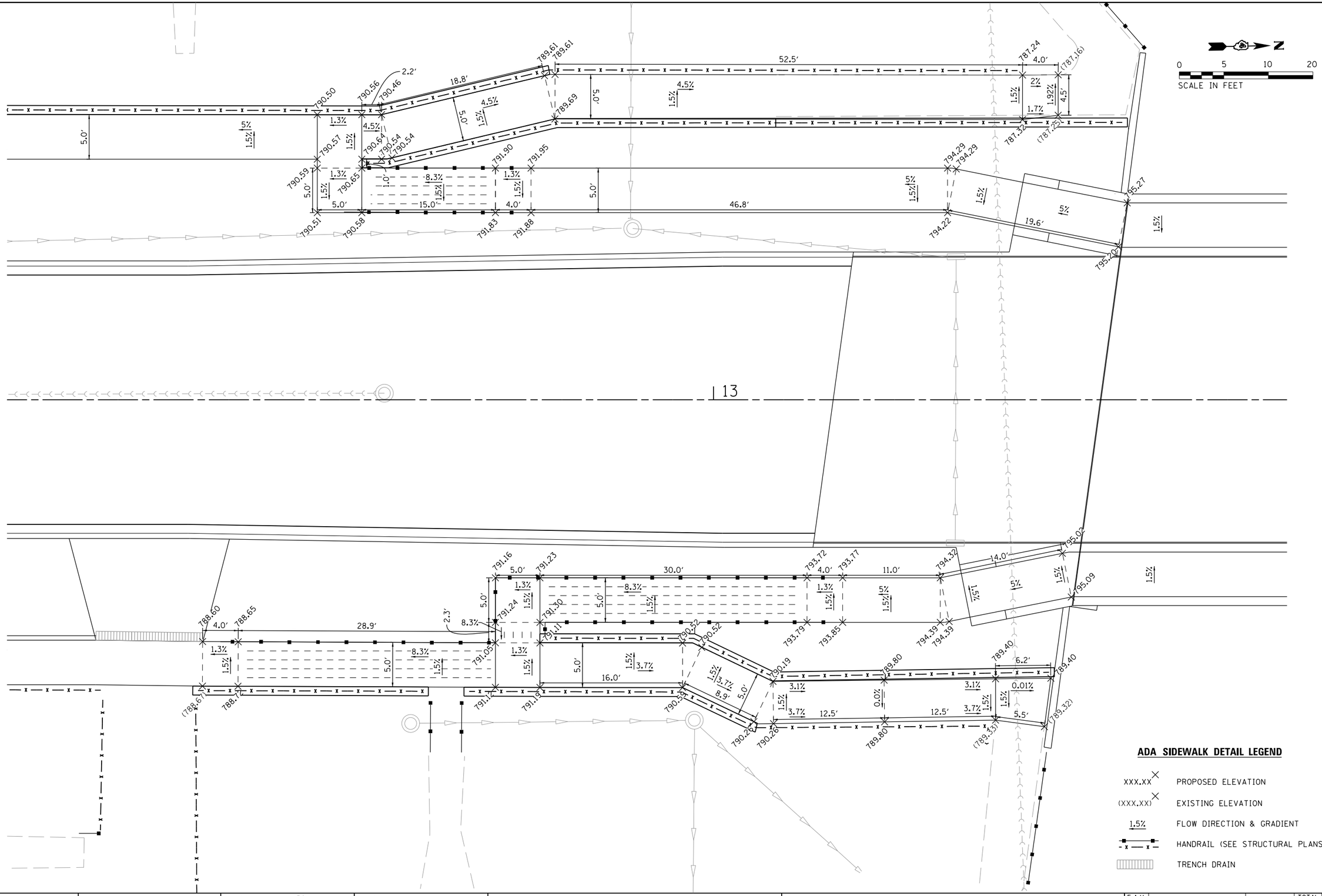
	DESIGNED - RC	REVISED -	
	DRAWN - RC	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
PROPOSED ADA SIDEWALK RAMP DETAILS

SCALE: 1"=5' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	21
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



ADA SIDEWALK DETAIL LEGEND

- XXX.XX — PROPOSED ELEVATION
- (XXX.XX) — EXISTING ELEVATION
- 1.5% — FLOW DIRECTION & GRADIENT
- HANDRAIL (SEE STRUCTURAL PLANS)
- TRENCH DRAIN

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - RC	REVISED -	
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PLOT SCALE = 10.0000 ' / in.	CHECKED - ST	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
PROPOSED ADA SIDEWALK RAMP DETAILS

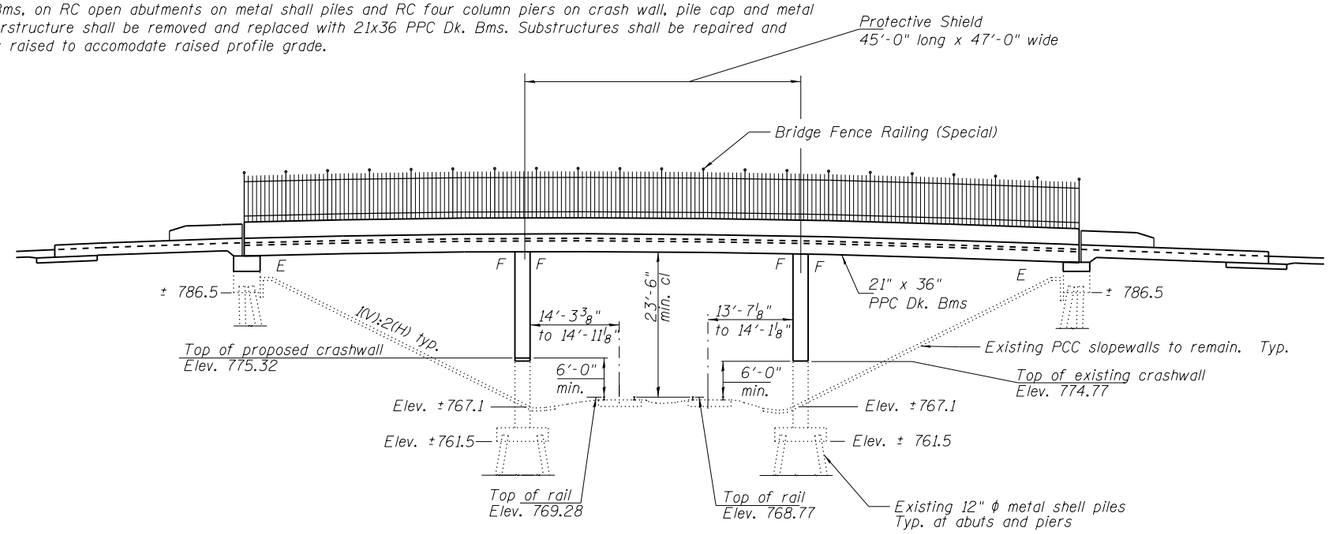
SCALE: 1"=5' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	22
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

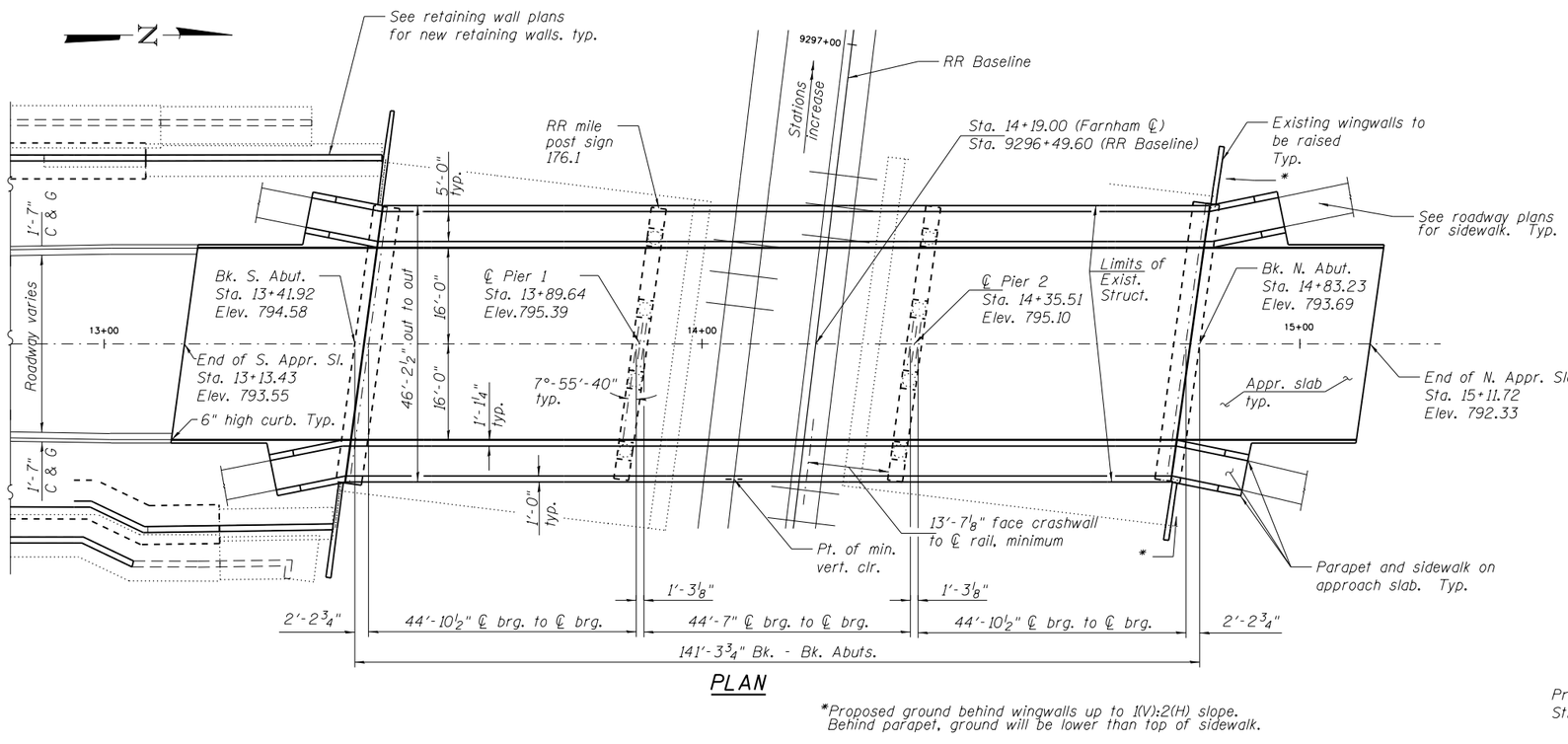
Bench Mark: Chisled "X" on east side top of manhole rim on North Street court, west side of Farnham Street. Elev. 782.03

Existing Structure: SN 048-6027 built in 1976 as Section 0601-1 CS. Structure consists of three spans, 46-46-46, 21x36 PPC Dk. Bms. on RC open abutments on metal shell piles and RC four column piers on crash wall, pile cap and metal shell piles. Superstructure shall be removed and replaced with 21x36 PPC Dk. Bms. Substructures shall be repaired and bearing elevations raised to accomodate raised profile grade.

No salvage.



ELEVATION



PLAN

*Proposed ground behind wingwalls up to 1(V):2(H) slope. Behind parapet, ground will be lower than top of sidewalk.

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

Minimum Construction Clearance Envelope of 21'-6" vertical above the plane of top-of-rail and 15'-0" horizontal at right angle from centerline of track shall be maintained at all times during Construction.

The proposed grade separation project shall not change the quantity and/or characteristics of the flow in the Railroad ditches and/or drainage structures.

The existing slopewall shall remain. Contractor shall repair at his own expense any damage to the slopewall due to construction activities.

STATION 14+12.58
BUILT 2018 BY
CITY OF GALESBURG
LOADING HL-93
STRUCTURE NO. 048-6027

NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

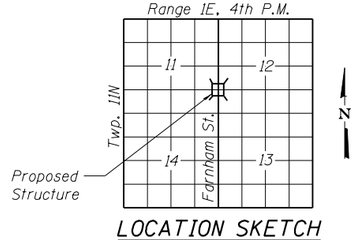
LICENSED STRUCTURAL ENGINEER
DONALD BELL
081-004544
STATE OF ILLINOIS

SIGNATURE : Donald Bell

DATE SIGNED : 10-25-2017

LIC. EXP. DATE : 11-30-2018

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design laoding shown on the plans. The design is an economical one for the style structure and complies with the requirements of the current "AASHTO LRFD Specifications".



LOCATION SKETCH

GENERAL PLAN & ELEVATION
FARNHAM STREET OVER BNSF RR
SECTION 08-00601-19-BR
KNOX COUNTY
STATION 14+12.58
STRUCTURE NO. 048-6027

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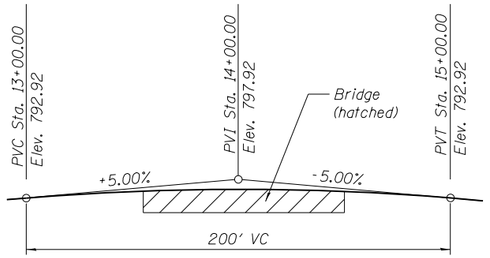
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 048-6027
SHEET NO. 1 OF 22 SHEETS

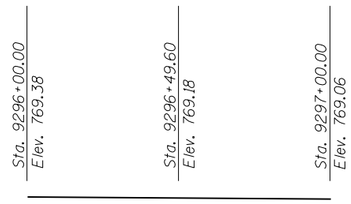
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
___	08-00601-19-BR	KNOX	70	23
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

INDEX OF SHEETS



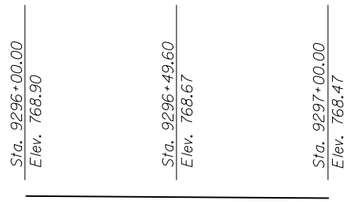
PROFILE GRADE

(Proposed Farnham Street)



PROFILE GRADE

(Top of Rail, south tracks)



PROFILE GRADE

(Top of Rail, north tracks)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

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

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi (superstructure)
f'c = 3,500 psi (substructure)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000psi
f'ci = 5,000 psi
fpu = 270,000 psi ($\frac{1}{2}$" ϕ low lax. strands)
fbtb = 201,960 psi ($\frac{1}{2}$" ϕ low lax. strands)

SEISMIC DATA

Seismic Performance Category (SPC) = A

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Removal Of Existing Superstructures	Each	1		1
	Concrete Removal	Cu. Yd.		34.9	34.9
	Protective Shield	Sq. Yd.	235		235
	Structure Excavation	Cu. Yd.		11	11
	Concrete Structures	Cu. Yd.		116.0	116.0
	Concrete Superstructure	Cu. Yd.	169.6		169.6
	Bridge Deck Grooving	Sq. Yd.	657		657
	Protective Coat	Sq. Yd.	1,172		1,172
	Concrete Superstructure (Approach Slab)	Cu. Yd.	110.3		110.3
	Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	6,204		6,204
	Reinforcement Bars, Epoxy Coated	Pound	64,140	14,760	78,900
	Name Plates	Each	1		1
	Preformed Joint Seal 1 3/4"	Foot	94		94
	Concrete Sealer	Sq. Ft.		587	587
	Epoxy Crack Injection	Foot		31	31
*	Concrete Wearing Surface, 5"	Sq. Yd.	491		491
*	Bridge Fence Railing (Special)	Foot	274		274
*	Parapet Railing, Special	Foot	274		274
*	Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.		101	101
*	Steel Railing (Special)	Foot		32	32

* See Special Provisions

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

GENERAL DATA
STRUCTURE NO. 048-6027
SHEET NO. 2 OF 22 SHEETS

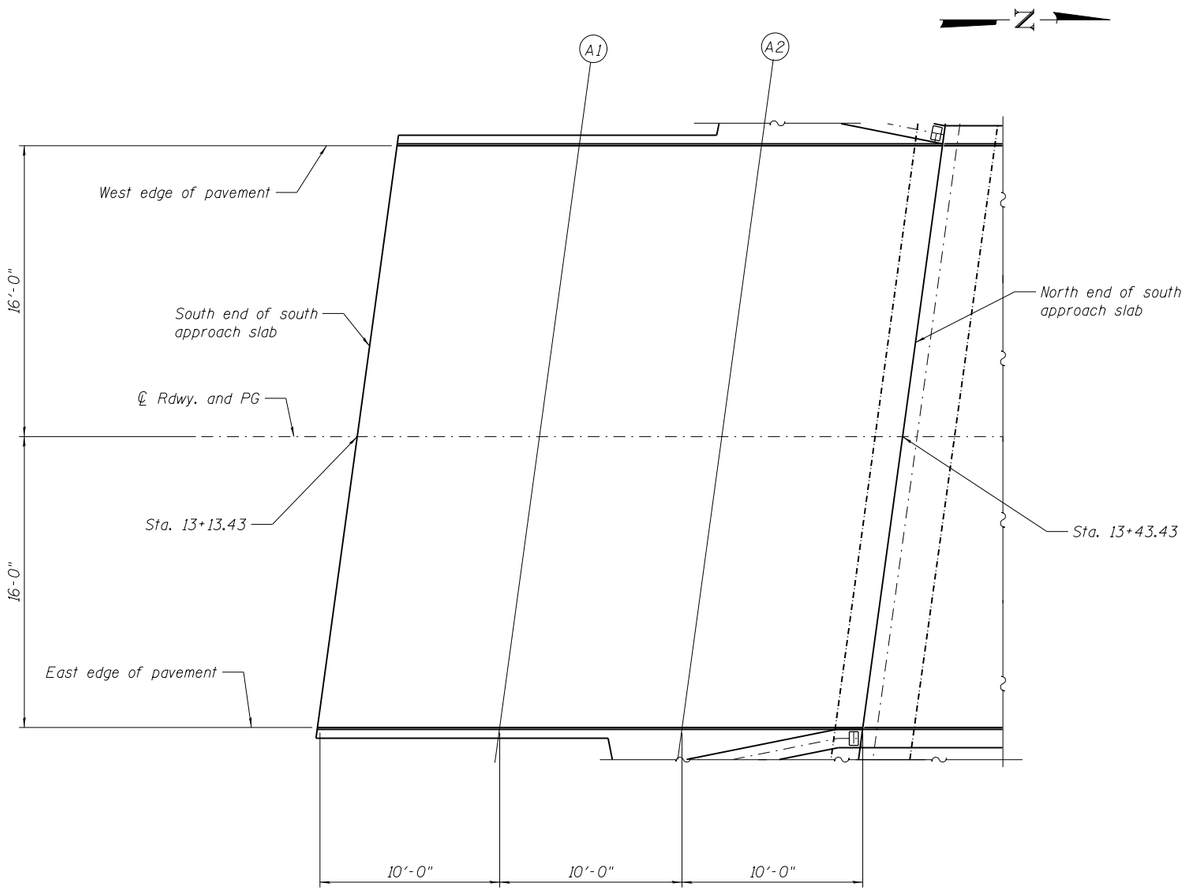
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	24
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
SOUTH END OF SOUTH APPR. PAV'T.	13+15.66	-16.00	793.39
A1	13+25.66	-16.00	793.79
A2	13+35.66	-16.00	794.14
NORTH END OF SOUTH APPR. PAV'T	13+45.66	-16.00	794.43

PROFILE GRADE & CL RDWY

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
SOUTH END OF SOUTH APPR. PAV'T.	13+13.43	0.00	793.55
A1	13+23.43	0.00	793.95
A2	13+33.43	0.00	794.31
NORTH END OF SOUTH APPR. PAV'T	13+43.43	0.00	794.62



PLAN

EAST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
SOUTH END OF SOUTH APPR. PAV'T.	13+11.20	16.00	793.20
A1	13+21.20	16.00	793.62
A2	13+31.20	16.00	793.99
NORTH END OF SOUTH APPR. PAV'T	13+41.20	16.00	794.31

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

TOP OF SLAB ELEVATIONS – SOUTH APPROACH SLAB
STRUCTURE NO. 048–6027
SHEET NO. 3 OF 22 SHEETS

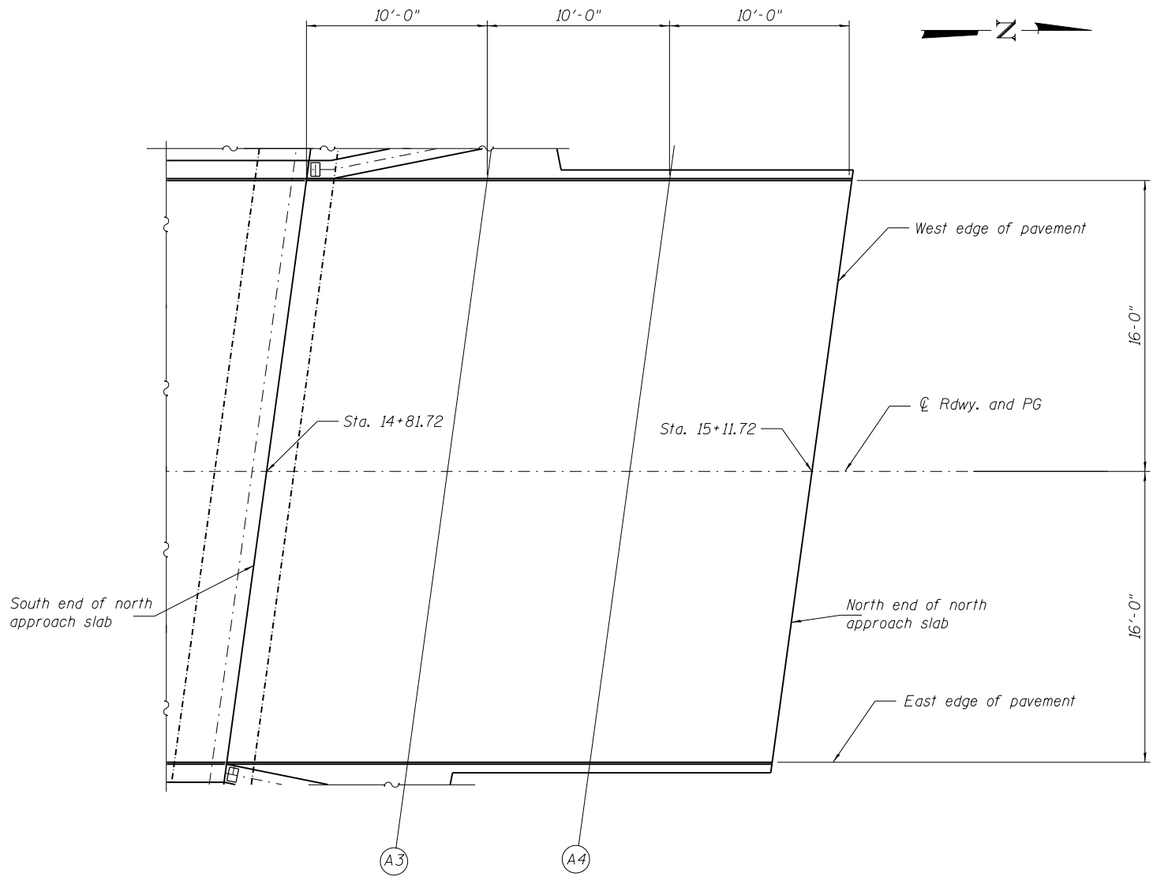
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	25
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
SOUTH END OF NORTH APPR. PAV'T.	14+83.95	-16.00	793.41
A3	14+93.95	-16.00	792.96
A4	15+03.95	-16.00	792.47
NORTH END OF NORTH APPR. PAV'T	15+13.95	-16.00	791.97

PROFILE GRADE & CL RDWY

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
SOUTH END OF NORTH APPR. PAV'T.	14+81.72	0.00	793.75
A3	14+91.72	0.00	793.32
A4	15+01.72	0.00	792.83
NORTH END OF NORTH APPR. PAV'T	15+11.72	0.00	792.33



PLAN

EAST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
SOUTH END OF NORTH APPR. PAV'T.	14+79.49	16.00	793.59
A3	14+89.49	16.00	793.17
A4	14+99.49	16.00	792.70
NORTH END OF NORTH APPR. PAV'T	15+09.49	16.00	792.20

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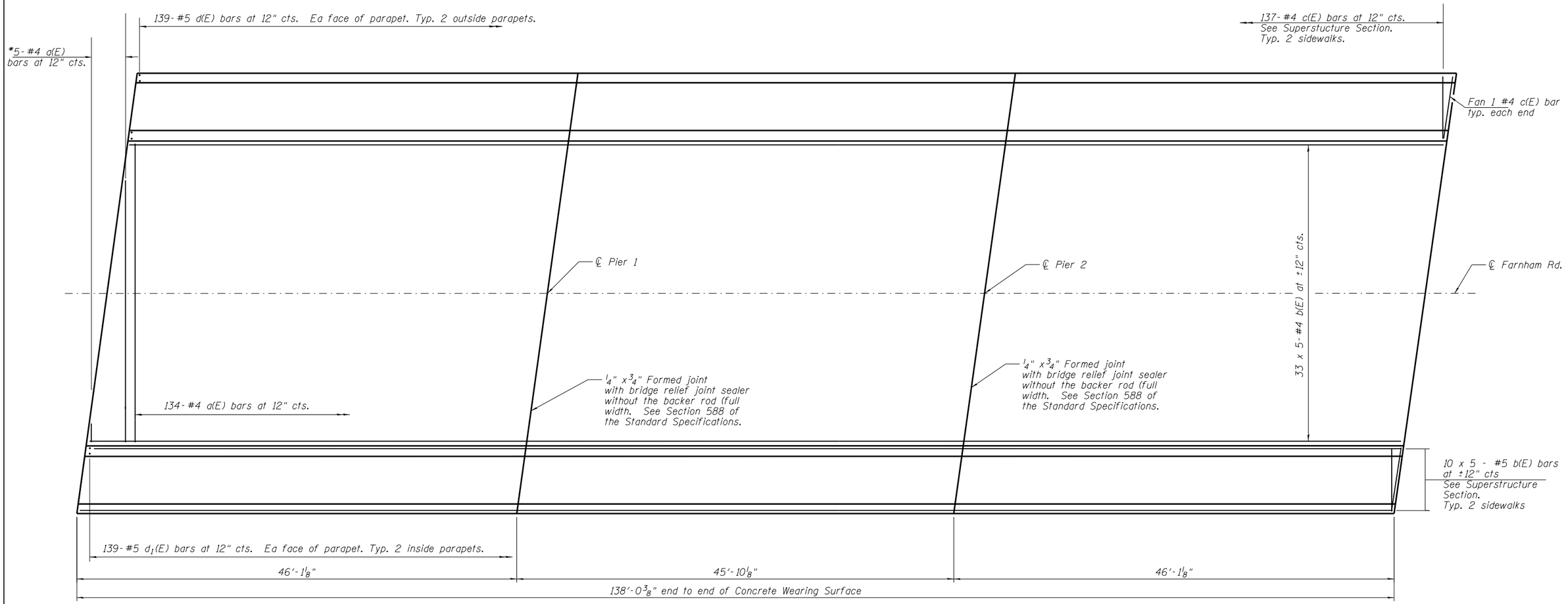
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

TOP OF SLAB ELEVATIONS – NORTH APPROACH SLAB
STRUCTURE NO. 048-6027
SHEET NO. 4 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	26
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

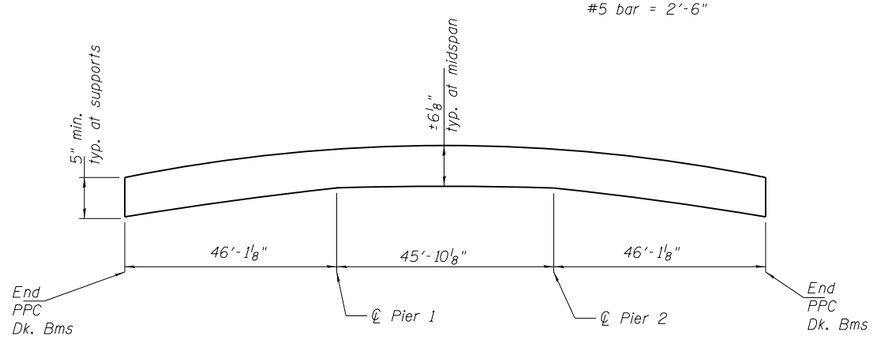


* Order a(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.

REINFORCING PLAN - CONCRETE WEARING SURFACE AND SIDEWALKS

MINIMUM BAR LAP

(CWS and sidewalks)
#5 bar = 2'-6"



CONCRETE WEARING SURFACE PROFILE

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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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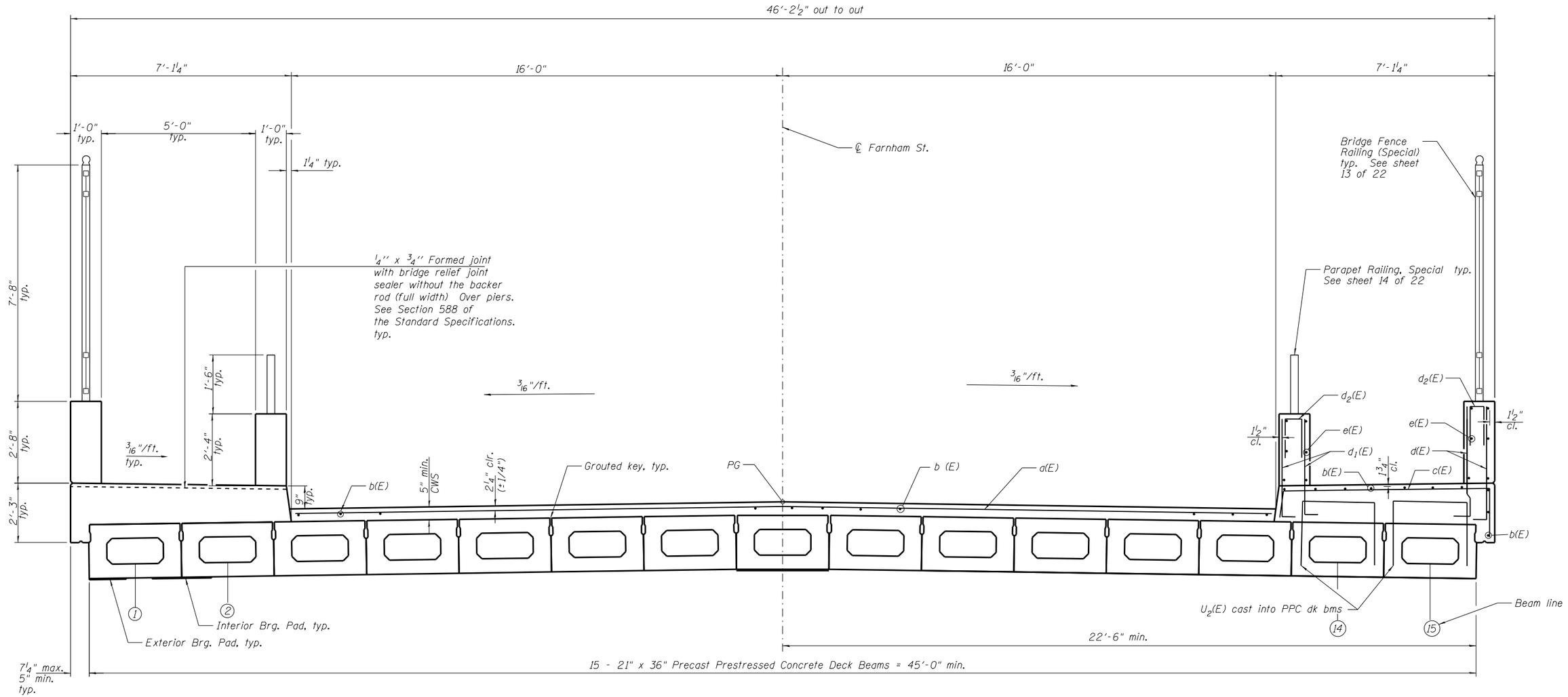
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



SUPERSTRUCTURE SECTION

Looking north

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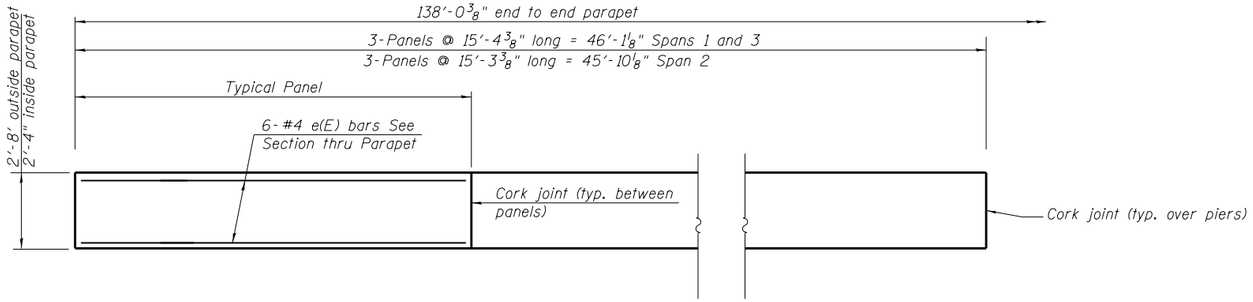
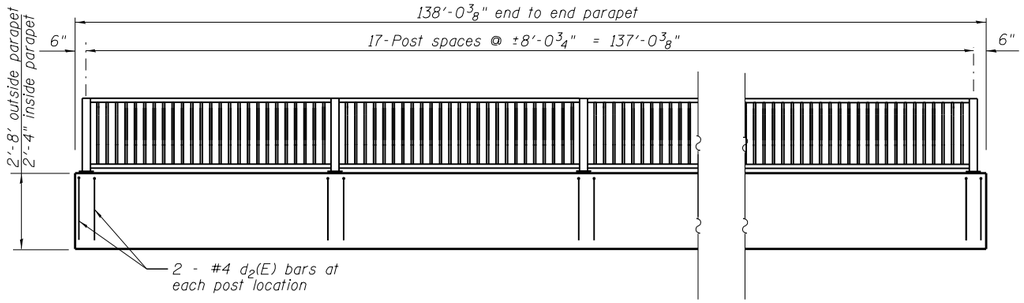
SUPERSTRUCTURE SECTION
STRUCTURE NO. 048-6027
SHEET NO. 6 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	28
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



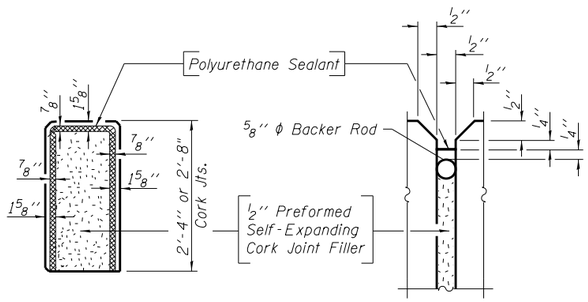
INSIDE ELEVATION OF PARAPET

Showing cork joint spacing and e(E) bars
Typ. at 4 locations.

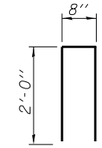


INSIDE ELEVATION OF PARAPET

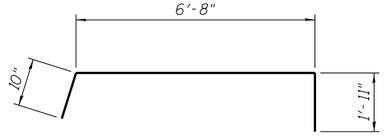
Showing rail post spacing and d_2(E) bars
Typ. at 4 locations.
Parapet Railing, Special shown. Bridge Fence Railing (Special) similar.



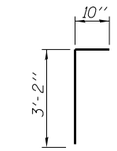
PARAPET JOINT DETAILS



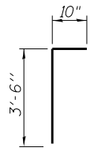
BAR d_2 (E)



BAR c(E)



BAR d_1 (E)



BAR d(E)

Notes:
The Polyurethane Sealant shall be non-staining gray one component non-sag elastomeric gun grade meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.
The 1/2" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	139	#4	31'-8"	
b(E)	265	#5	29'-7"	
c(E)	278	#4	9'-5"	
d(E)	556	#5	4'-4"	
d_1(E)	556	#5	4'-0"	
d_2(E)	144	#4	4'-8"	
e(E)	216	#4	15'-0"	
Reinforcement Bars, Epoxy Coated			Lbs.	20,310
Concrete Superstructure			Cu. Yds.	147.9
Concrete Wearing Surface			Sq. Yd.	491
Bridge Deck Grooving			Sq. Yd.	459
Protective Coat			Sq. Yd.	882

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

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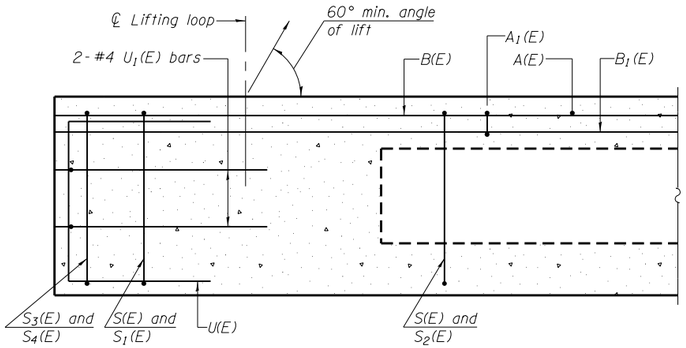
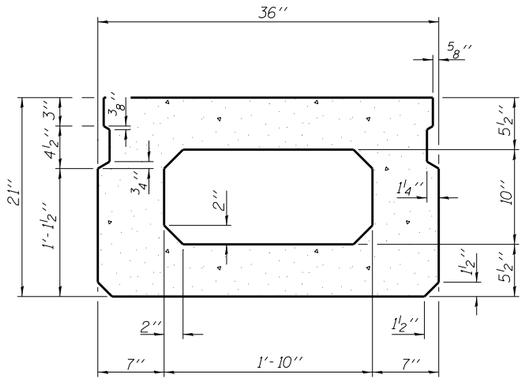
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 048-6027
SHEET NO. 7 OF 22 SHEETS

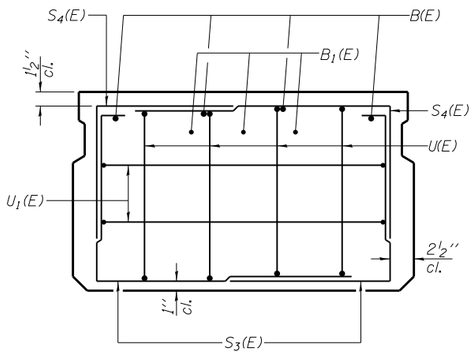
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	29
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



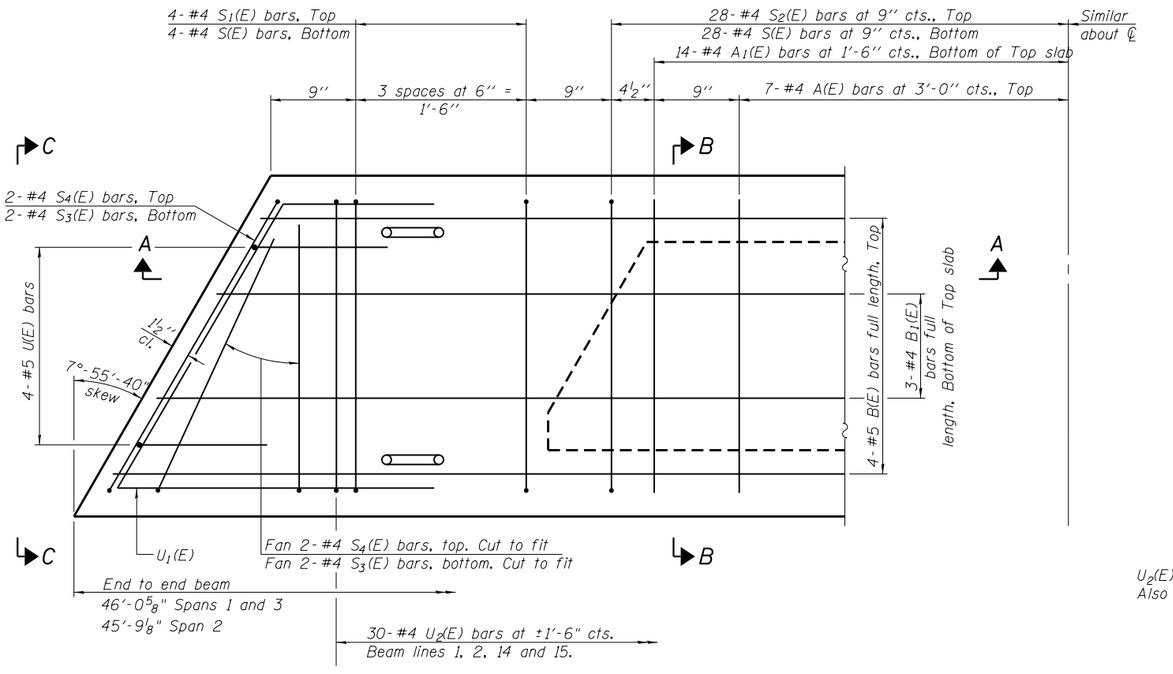
SECTION A-A



SECTION B-B
(Showing dimensions)



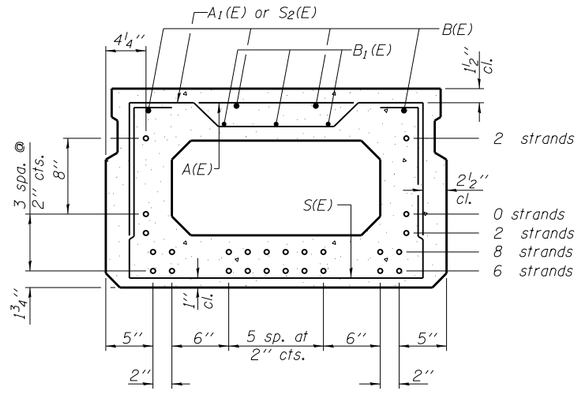
VIEW C-C



PLAN VIEW

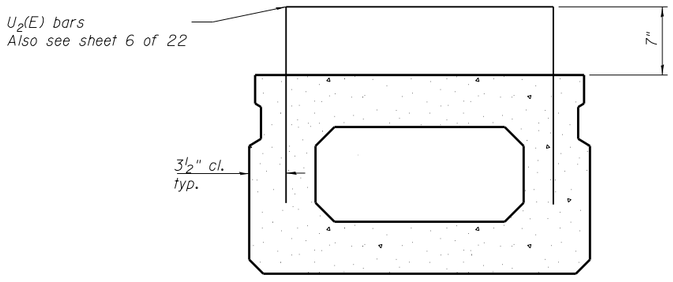
Note: Spacing of S(E) and S_2(E) bars may be adjusted up to 4'' in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP
#4 bar = 1'-11''
#5 bar = 2'-6''



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



SECTION B-B
(Showing U_2(E) bars)

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	14	#4	2'-7''	—
A_1(E)	28	#4	2'-10''	⌣
B(E)	4	#5	*45'-9''	—
B_1(E)	3	#4	*45'-9''	—
S(E)	64	#4	6'-5''	⊔
S_1(E)	8	#4	4'-11''	⊓
S_2(E)	56	#4	5'-2''	⊐
S_3(E)	4	#4	4'-4''	⌊
S_4(E)	8	#4	3'-7''	⌊
U(E)	8	#5	4'-0''	⊏
U_1(E)	4	#4	5'-5''	⊏
**U_2(E)	30	#4	5'-7''	⊏

Note: See sheet 9 of 22 for additional details and Bill of Material.

* Spans 1 and 3
45'-5" for Span 2

**Beam lines 1, 2, 14 and 15

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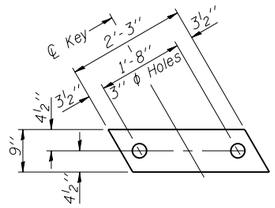
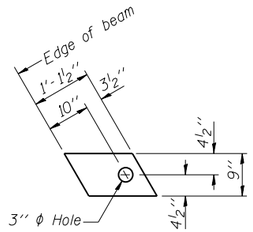
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

21" X 36" PPC DECK BEAM
STRUCTURE NO. 048-6027
SHEET NO. 8 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	30
		CONTRACT NO. 89699		
		ILLINOIS FED. AID PROJECT		

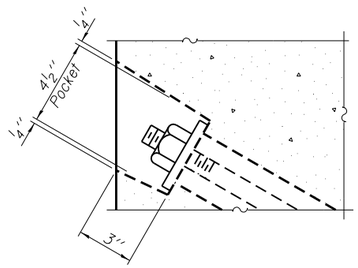


FABRIC BEARING PAD
(Interior)



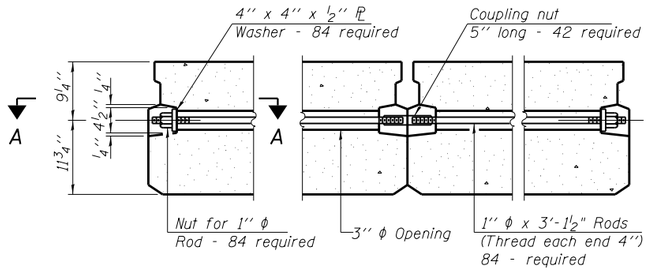
FABRIC BEARING PAD
(Exterior)

FIXED

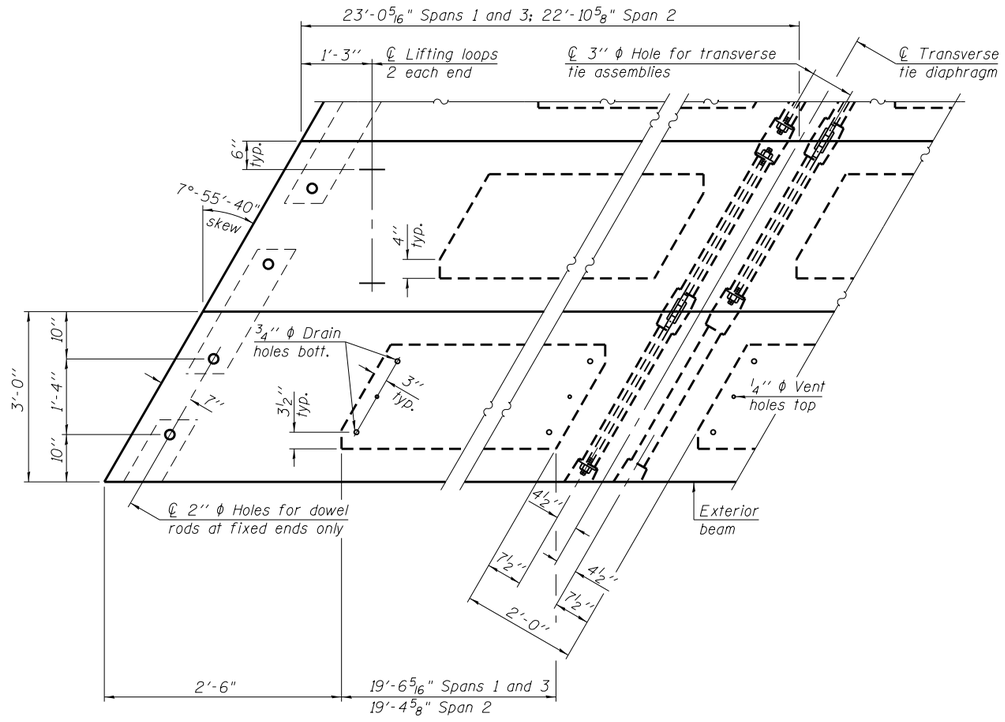


SECTION A-A

Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW

Note:
Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

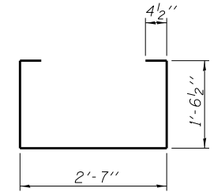
Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

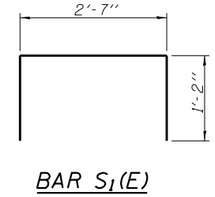
Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



BAR S(E)



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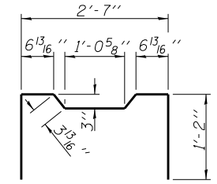
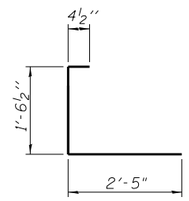


BAR S2(E)



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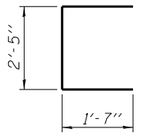
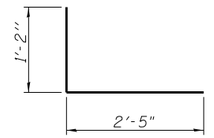


BAR U2(E)



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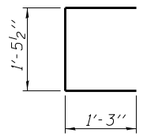
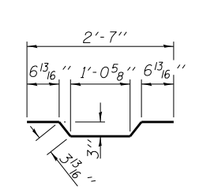


BAR U(E)



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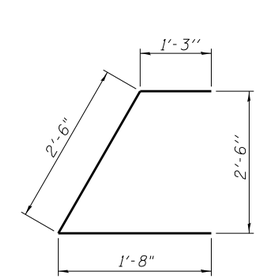

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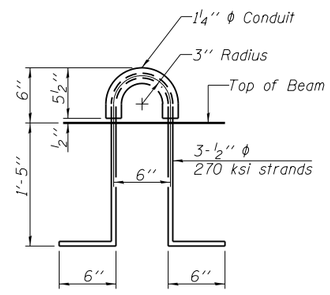

LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	6,204

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

21" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 048-6027
SHEET NO. 9 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	31
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

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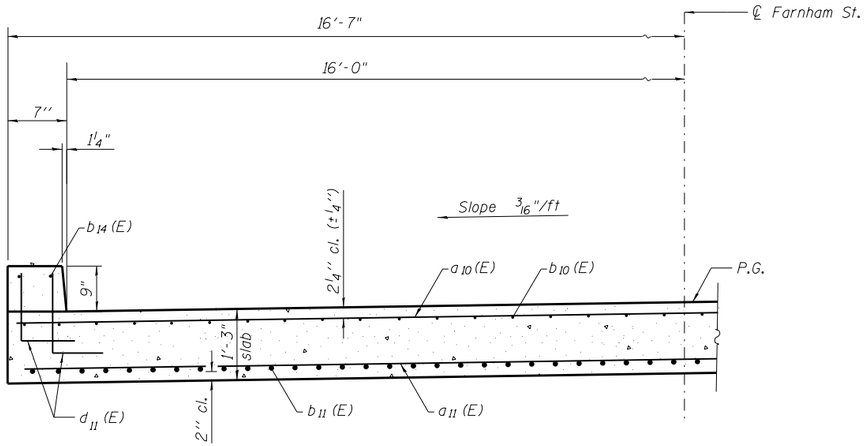
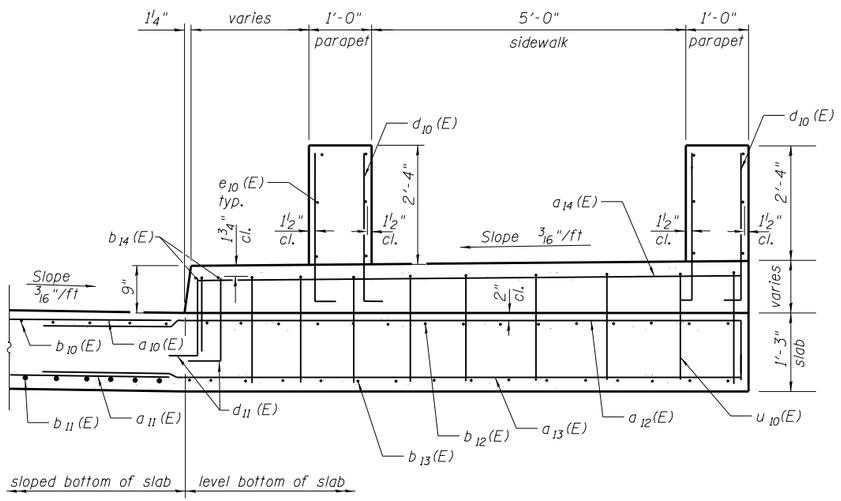
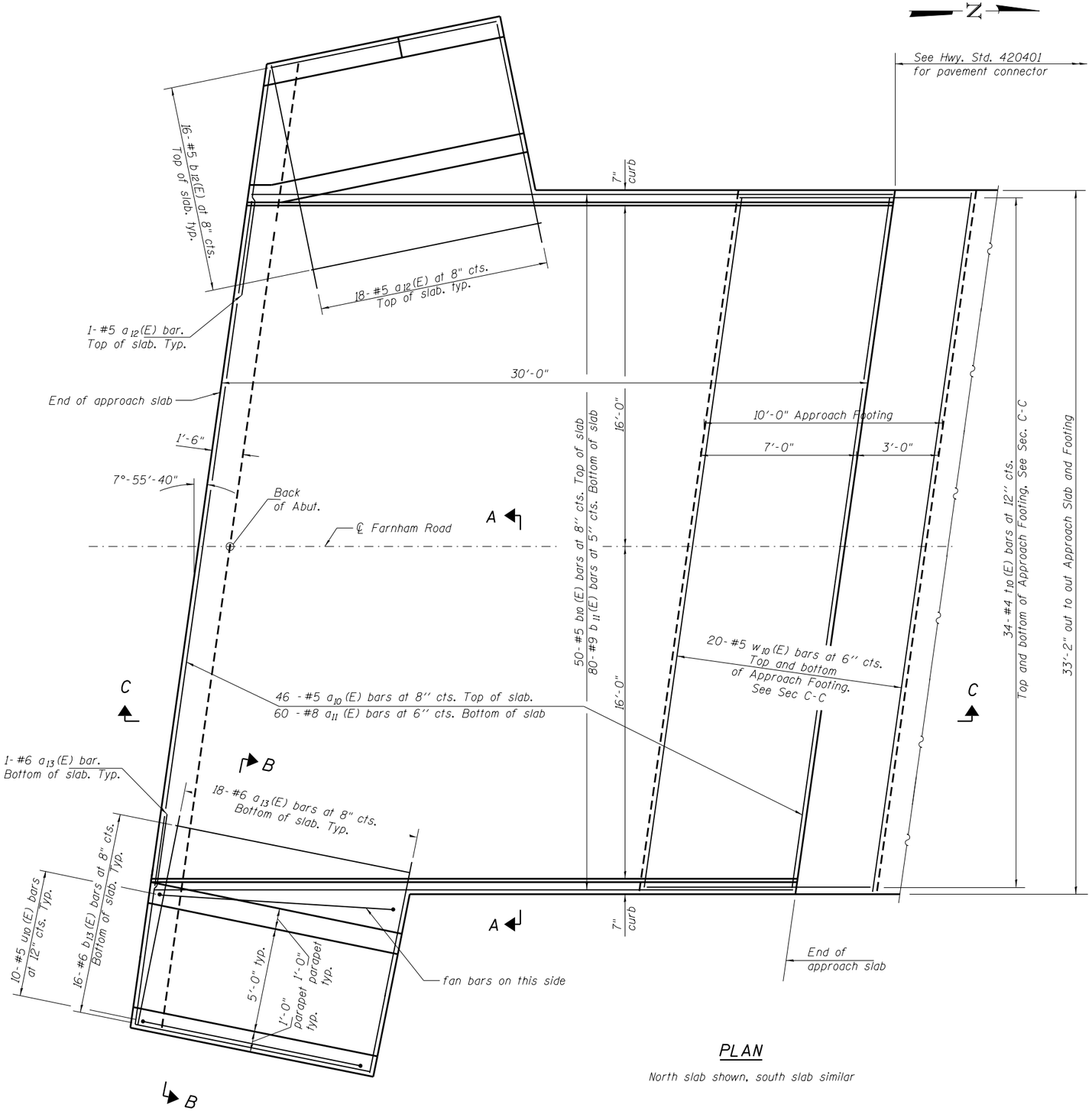


SECTION A-A



SECTION B-B



PLAN

North slab shown, south slab similar

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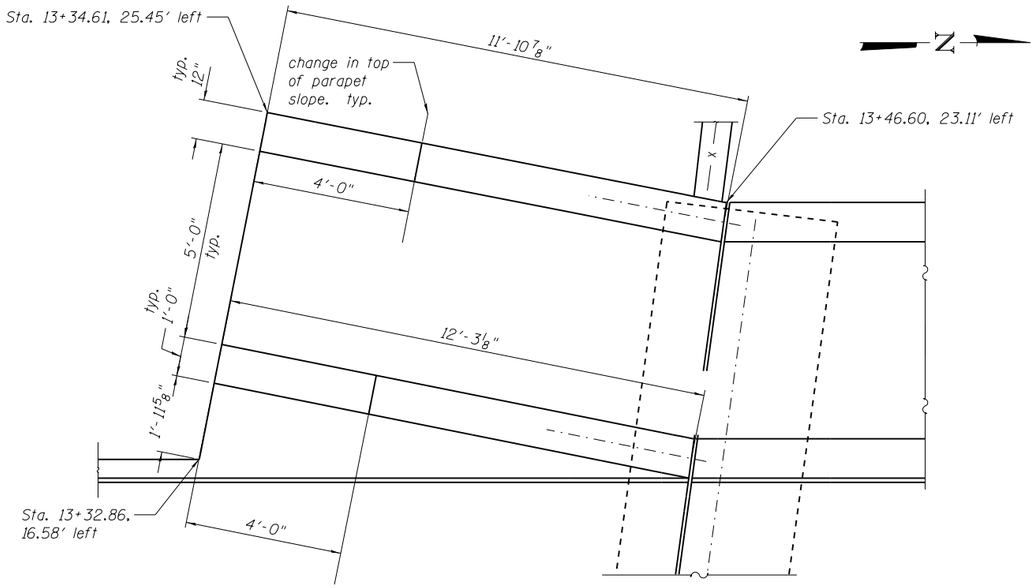
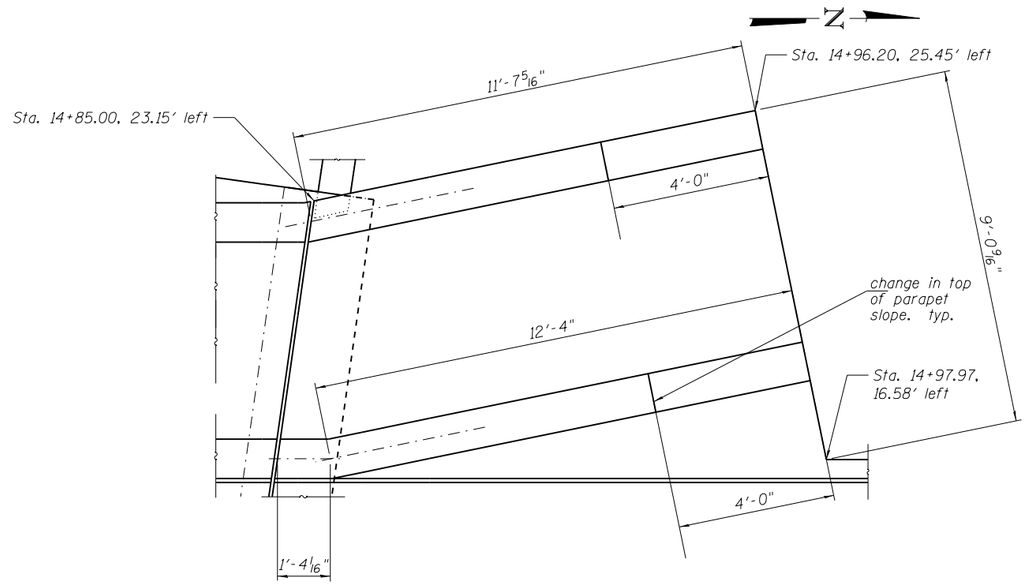
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

BRIDGE APPROACH SLAB
STRUCTURE NO. 048-6027
SHEET NO. 10 OF 22 SHEETS

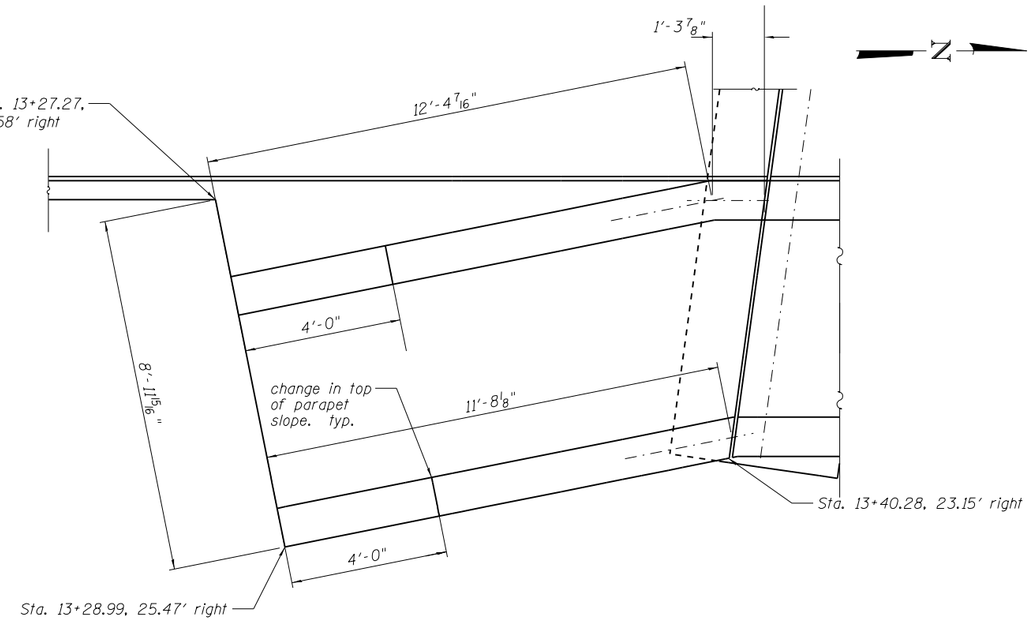
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	32
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



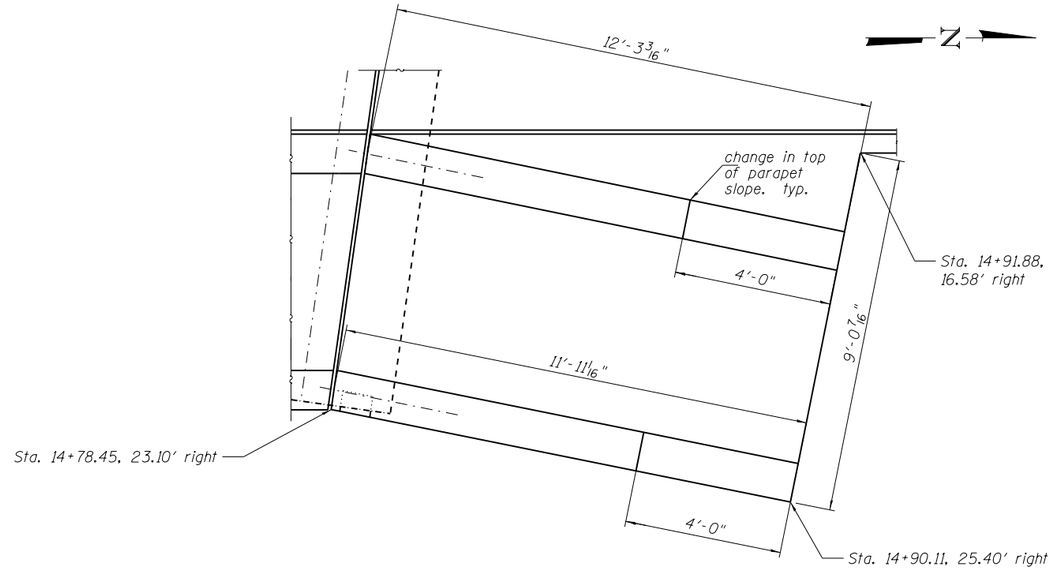
SOUTHWEST CORNER



NORTHWEST CORNER



SOUTHEAST CORNER



NORTHEAST CORNER

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

BRIDGE APPROACH SLAB LAYOUT
STRUCTURE NO. 048-6027
SHEET NO. 11 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	33
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

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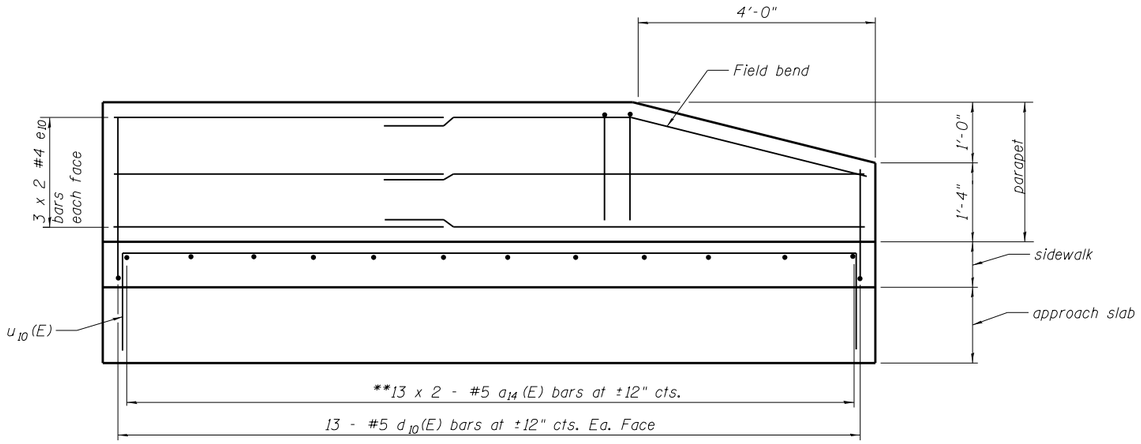
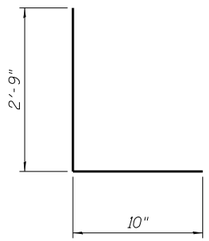


INSIDE ELEVATION OF PARAPETS

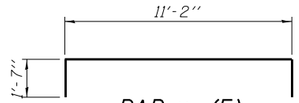
typ. 8 locations

**Field bend at southeast and northwest corners

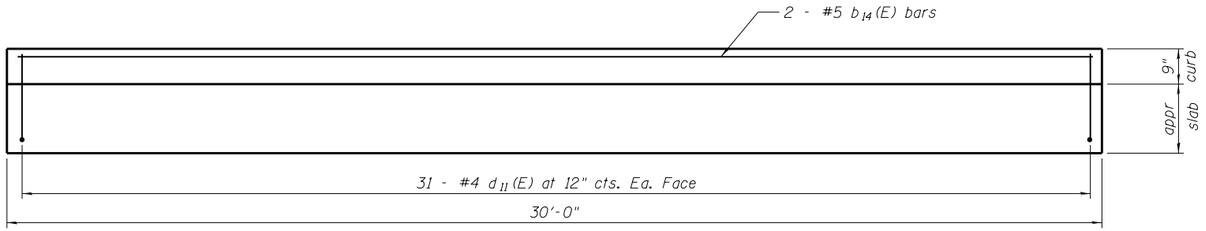
Notes:
Parapet, sidewalk, and curb concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.



BAR d10(E)

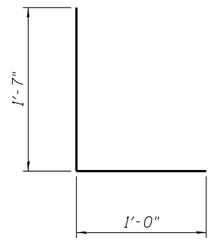


BAR u10(E)

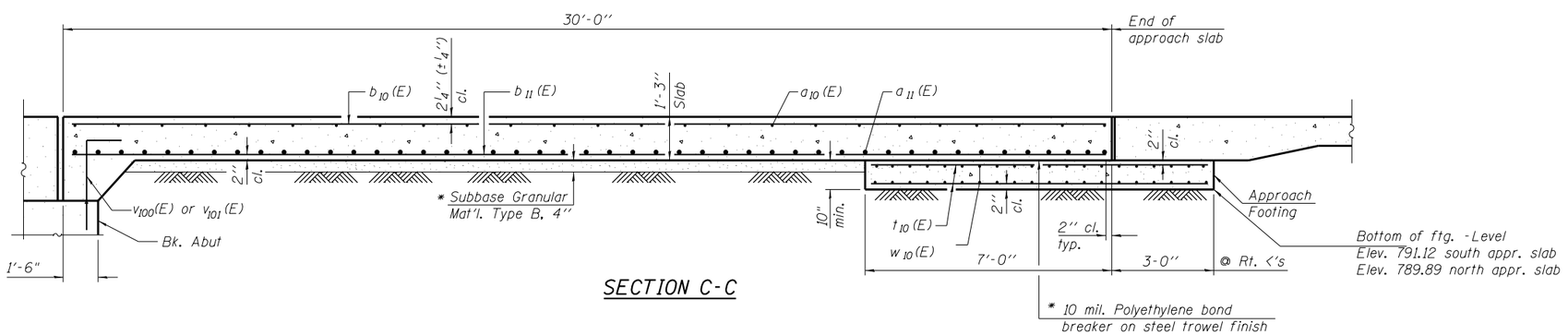


INSIDE ELEVATION OF CURB

typ. 4 locations



BAR d11(E)



SECTION C-C

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	33'-0"	—
a11(E)	120	#8	33'-0"	—
a12(E)	76	#5	11'-0"	—
a13(E)	76	#6	11'-0"	—
a14(E)	104	#5	6'-5"	—
b10(E)	100	#5	29'-8"	—
b11(E)	160	#9	29'-8"	—
b12(E)	64	#5	11'-5"	—
b13(E)	64	#6	11'-5"	—
b14(E)	8	#5	29'-8"	—
d10(E)	208	#5	3'-7"	L
d11(E)	248	#4	2'-7"	L
e10(E)	96	#4	7'-9"	—
t10(E)	136	#4	9'-8"	—
u10(E)	40	#5	14'-4"	⌊⌋
w10(E)	80	#5	33'-0"	—
Concrete Superstructure			Cu. Yd.	21.7
Concrete Superstructure (Approach Slab)			Cu. Yd.	110.3
Concrete Structures			Cu. Yd.	23.6
Reinforcement Bars, Epoxy Coated			Pound	43,830
Bridge Deck Grooving			Sq. Yd.	198
Protective Coat			Sq. Yd.	290

* Cost included with Concrete Superstructure (Approach Slab).

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

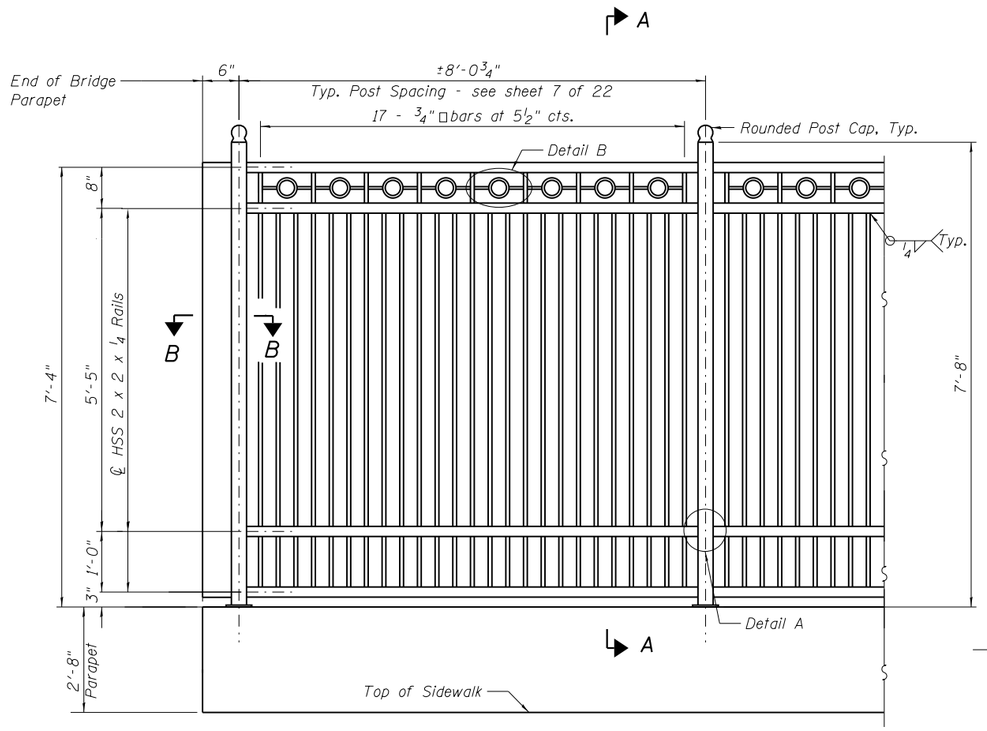
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 048-6027
SHEET NO. 12 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	34
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

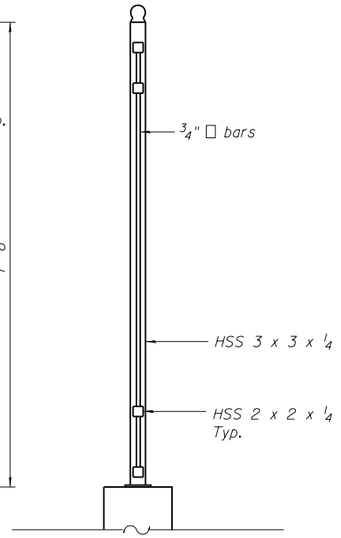
All steel rail elements shall be galvanized according to the Special Provision for Handrail and Railing and Article 509.05 of the Standard Specifications.

All post, railing, splices, anchor devises, and bent plates shall be painted black using the Organic Zinc Rich Primer/Epoxy/Urethane Paint System per the Special Provision for Handrails and Railing and Article 509.05 of the Standard Specifications.

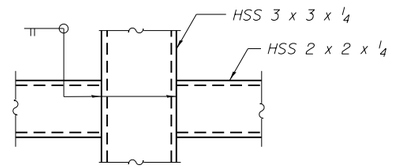
Posts and vertical bars shall be fabricated to be plumb when installed on the bridge. Bevel the base plate and angle the horizontal rolls as necessary to follow the vertical curve across the bridge.



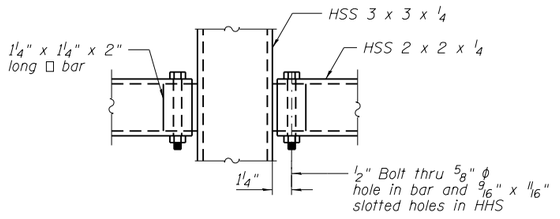
ELEVATION
(Inside Face)

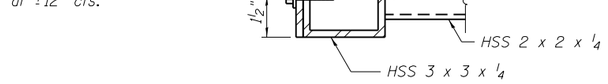


SECTION A-A



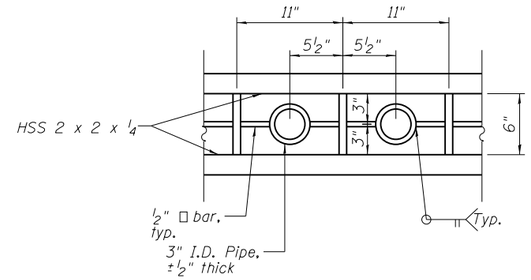
DETAIL A



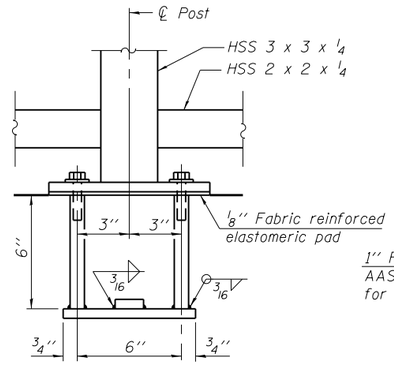


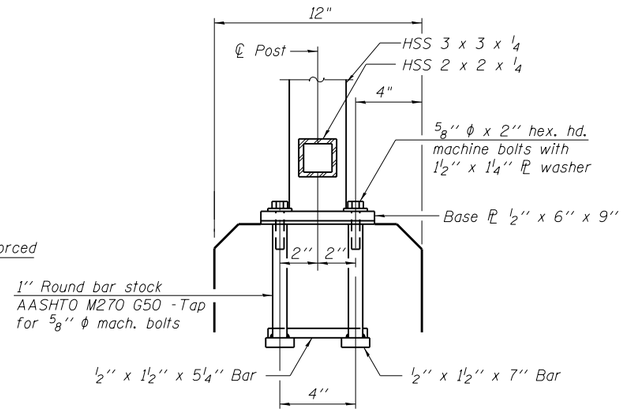
SECTION B-B

DETAIL A
(at Field Splice)



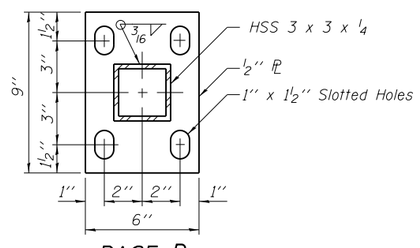
DETAIL B





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



BASE PL

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing (Special)	Foot	274

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

BRIDGE FENCE RAILING (SPECIAL)
STRUCTURE NO. 048-6027
SHEET NO. 13 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	35
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

All steel rail elements shall be galvanized according to the Special Provision for Handrail and Railing and Article 509.05 of the Standard Specifications.

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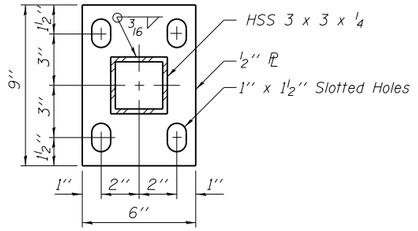
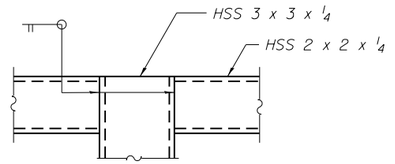
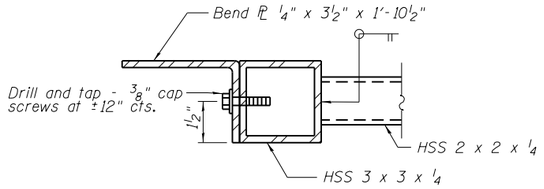
Posts and vertical bars shall be fabricated to be plumb when installed on the bridge. Bevel the base plate and angle the horizontal rolls as necessary to follow the vertical curve across the bridge.



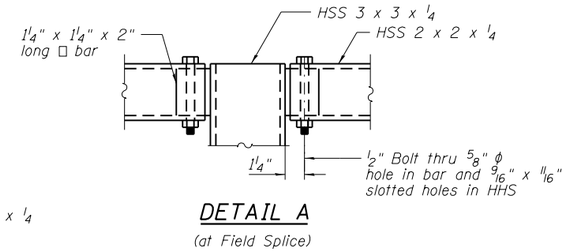
BASE PL



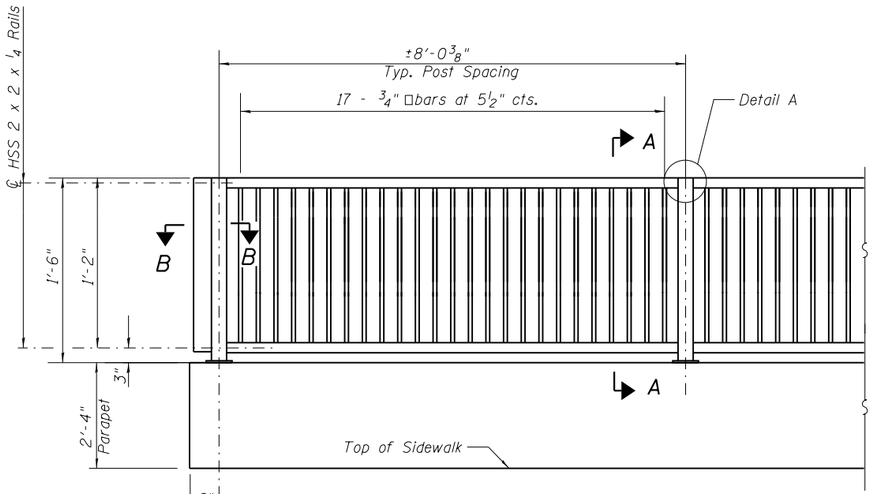
DETAIL A



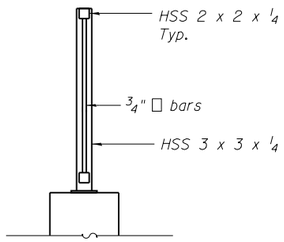
SECTION B-B



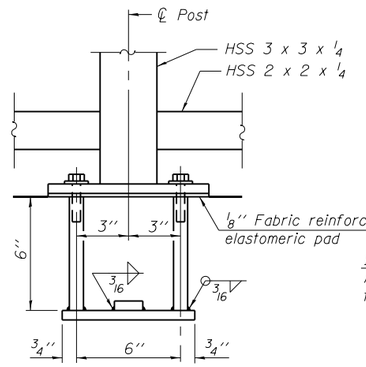
DETAIL A
(at Field Splice)

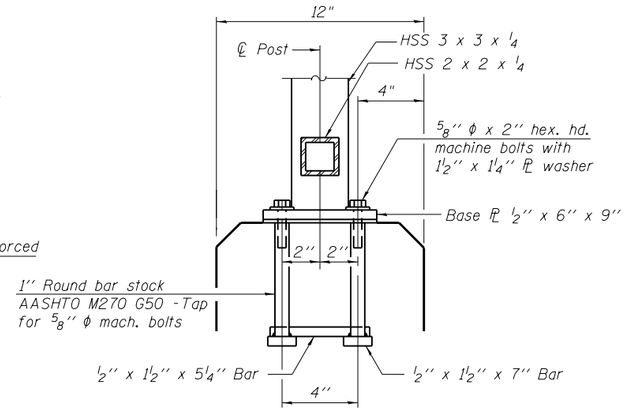


ELEVATION OF HANDRAILS ON BRIDGE PARAPETS
(Inside Face)



SECTION A-A





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing, Special	Foot	274

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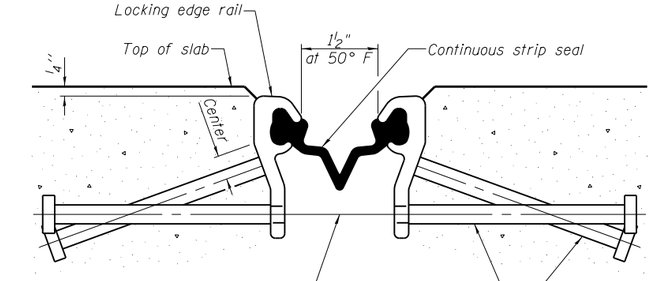
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

PARAPET RAILING, SPECIAL
STRUCTURE NO. 048-6027
SHEET NO. 14 OF 22 SHEETS

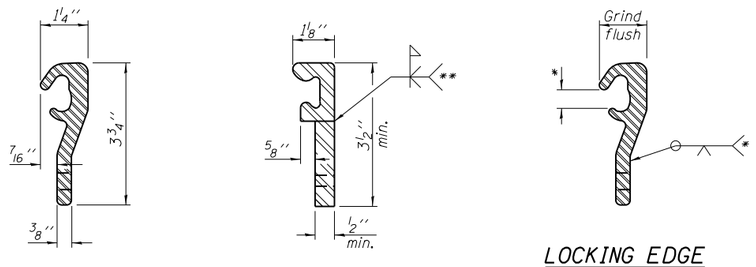
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	36
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



$\frac{7}{16}$" ϕ holes at 4'-0" cts. for $\frac{3}{8}$" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place ½" ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS



ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

Rolled rail shown, welded rail similar.

LOCKING EDGE RAIL

* Omit weld at seal opening.

** Back gouge not required if complete joint penetration is verified by mock-up.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

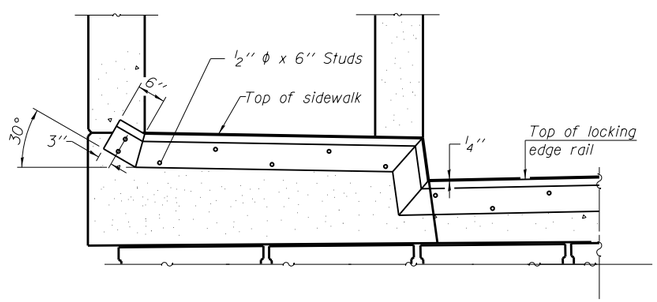
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue.

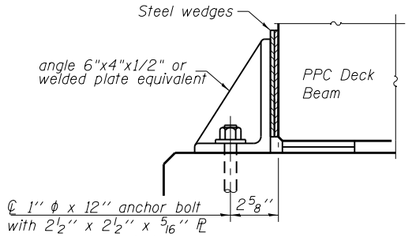
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

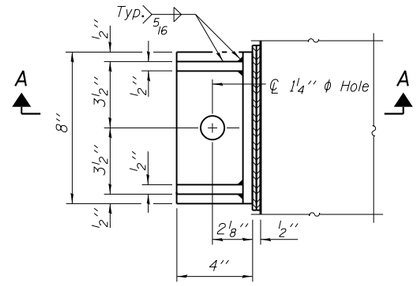
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



END TREATMENT OF STRIP SEAL AT SIDEWALK



SECTION A-A



PLAN

Notes:

Cost of retainer and accessories are included with Precast Prestressed Concrete Deck Beams.

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

The side retainers shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM 385.

Anchor bolts and plate washers shall be galvanized according to AASHTO M 232.

After the concrete wearing surface has been poured and cured, the steel wedges shall be removed.

RETAINER ANGLE AT ABUTMENT EXPANSION JOINTS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	94

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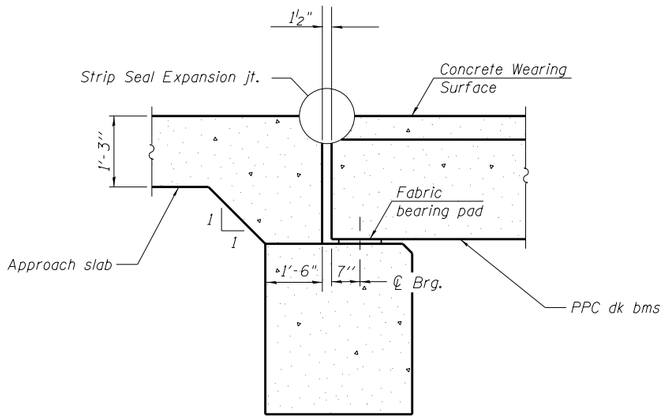
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

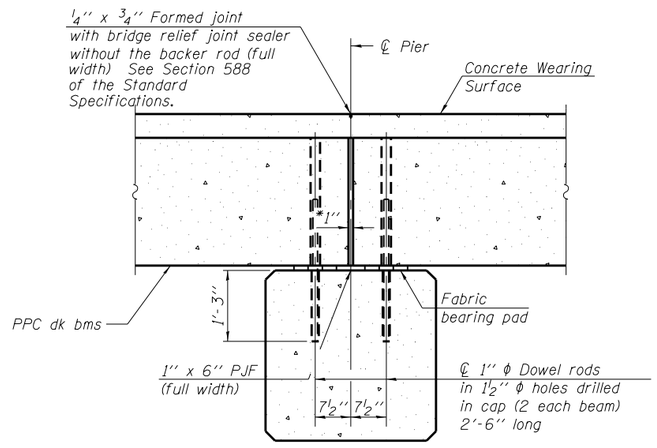
EXPANSION JOINT DETAILS
STRUCTURE NO. 048-6027
SHEET NO. 15 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	37
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



SECTION THRU ABUTMENTS

(Dimensions are at Rt. L's)



SECTION THRU PIERS

(Dimensions are at Rt. L's)

* 1" Joint shall be filled with non-shrink grout. Included in cost of PPC Deck Beams. 1" dimension may vary to accommodate tolerance in beam length.

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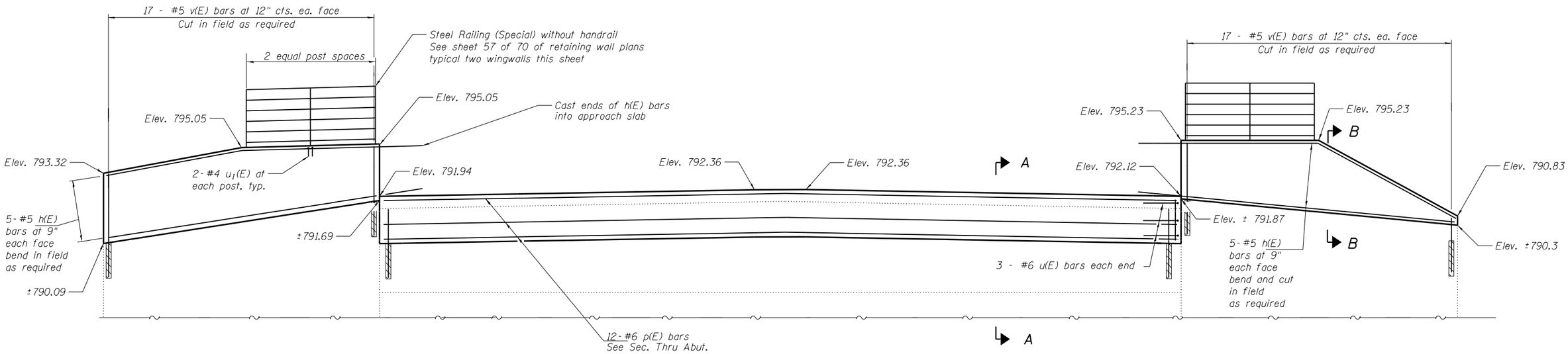
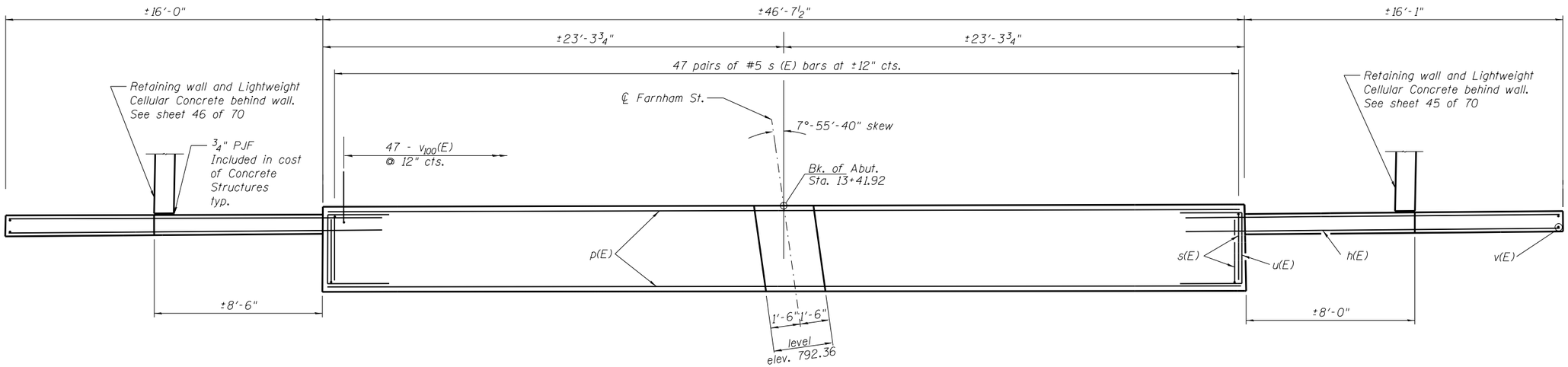
BEARING DETAILS
STRUCTURE NO. 048-6027
SHEET NO. 16 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	38
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



ELEVATION



PLAN

N

Notes:

Epoxy grout s(E) and v(E) bars into 9" minimum drilled holes according to Section 584 of the Standard Specifications. Holes shall be approximately 4" from edge of existing member to avoid existing longitudinal reinforcement. Cost included in Reinforcement Bars, Epoxy Coated.

At areas of Concrete Removal, the existing reinforcement extending into the areas of new construction shall be cleaned, straightened and incorporated into the new construction. Included in cost of Concrete Removal.

The existing bridge wingwalls and proposed vertical extensions shall be temporarily braced to resist the liquid lateral force of the Lightweight Cellular Concrete (LCC) in areas where LCC is placed behind the retaining walls. See sheets 47 and 48 of 72.

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

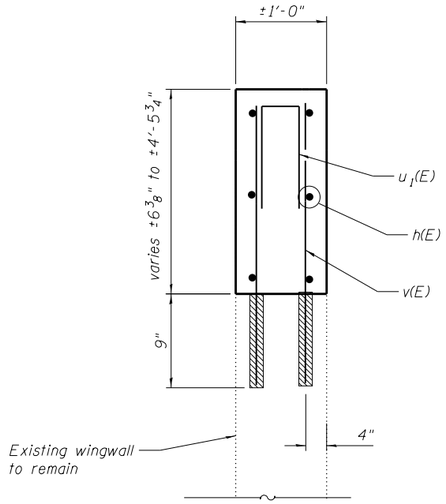
SOUTH ABUTMENT
STRUCTURE NO. 048-6027
SHEET NO. 17 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	39
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

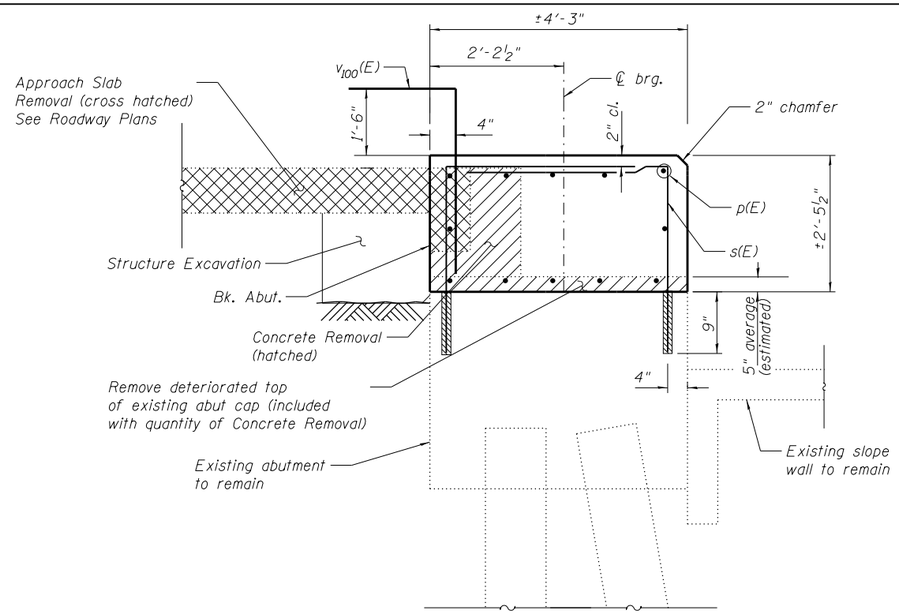
Notes:
Epoxy grout s(E) and v(E) bars into 9" minimum drilled holes according to Section 584 of the Standard Specifications. Holes shall be approximately 4" from edge of existing member to avoid existing longitudinal reinforcement. Cost included in Reinforcement Bars, Epoxy Coated.

At areas of Concrete Removal, the existing reinforcement extending into the areas of new construction shall be cleaned, straightened and incorporated into the new construction. Included in cost of Concrete Removal.

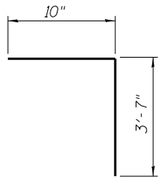
Concrete Sealer shall be applied to the top of the new abutment cap and to the new concrete portion of the front face of the concrete cap.



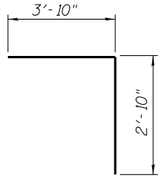
SECTION B-B



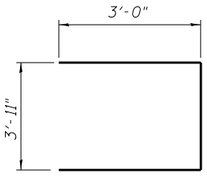
SECTION A-A
dimensions at rt. angles



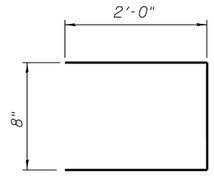
BAR $v_{100}(E)$



BAR s(E)



BAR u(E)



BAR $u_1(E)$

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	19'-0"	———
p(E)	12	#6	46'-3"	———
s(E)	94	#5	6'-8"	⌐
u(E)	6	#6	9'-11"	⊐
$u_1(E)$	12	#4	4'-8"	⊐
v(E)	68	#5	5'-1"	———
$v_{100}(E)$	47	#5	4'-5"	⌐
Structure Excavation			Cu. Yd.	7
Concrete Structures			Cu. Yd.	22.1
Reinforcement Bars, Epoxy Coated			Pound	2,590
Concrete Removal			Cu. Yd.	6.0
Concrete Sealer			Sq. Ft.	313
Steel Railing (Special)			Foot	14

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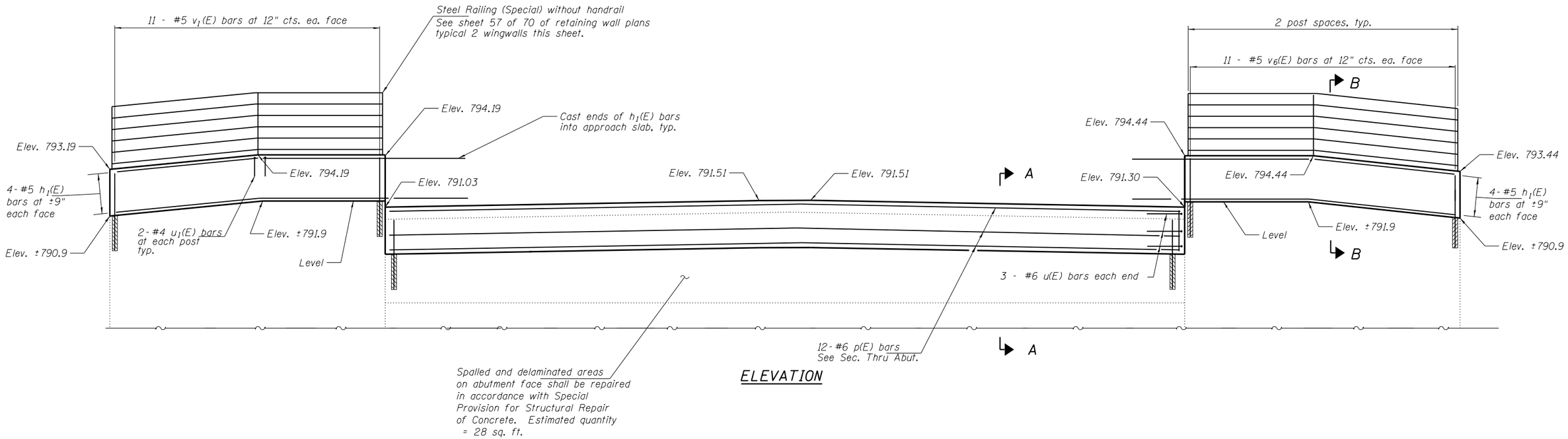
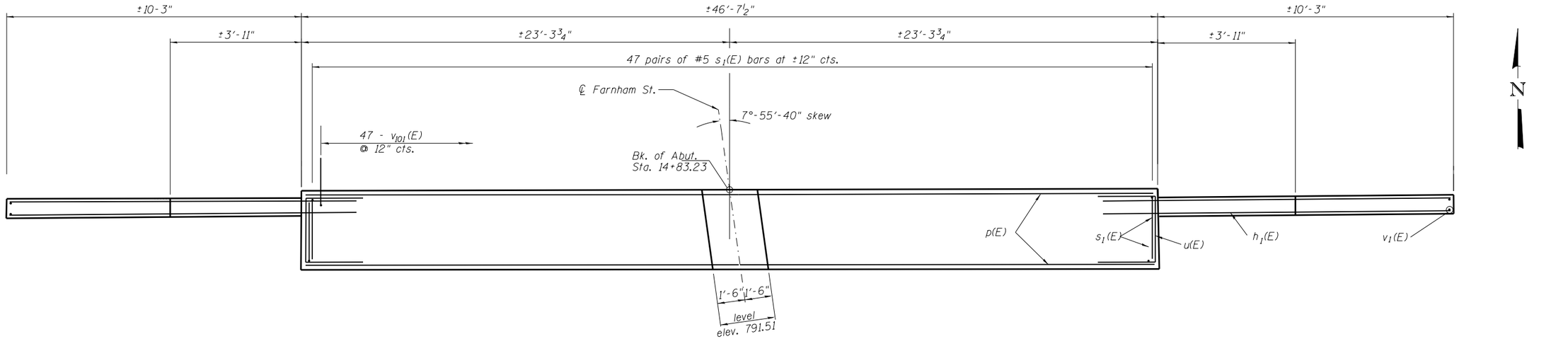
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

SOUTH ABUTMENT DETAILS
STRUCTURE NO. 048-6027
SHEET NO. 18 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	40
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



ELEVATION



PLAN

Notes:

Epoxy grout s_1(E) and v_1(E) bars into 9" minimum drilled holes according to Section 584 of the Standard Specifications. Holes shall be approximately 4" from edge of existing member to avoid existing longitudinal reinforcement. Cost included in Reinforcement Bars, Epoxy Coated.

At areas of Concrete Removal, the existing reinforcement extending into the areas of new construction shall be cleaned, straightened and incorporated into the new construction. Included in cost of Concrete Removal.

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BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

NORTH ABUTMENT
STRUCTURE NO. 048-6027
SHEET NO. 19 OF 22 SHEETS

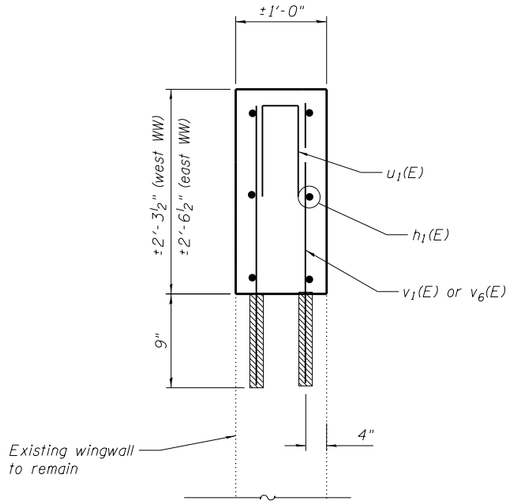
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	41
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

Notes:

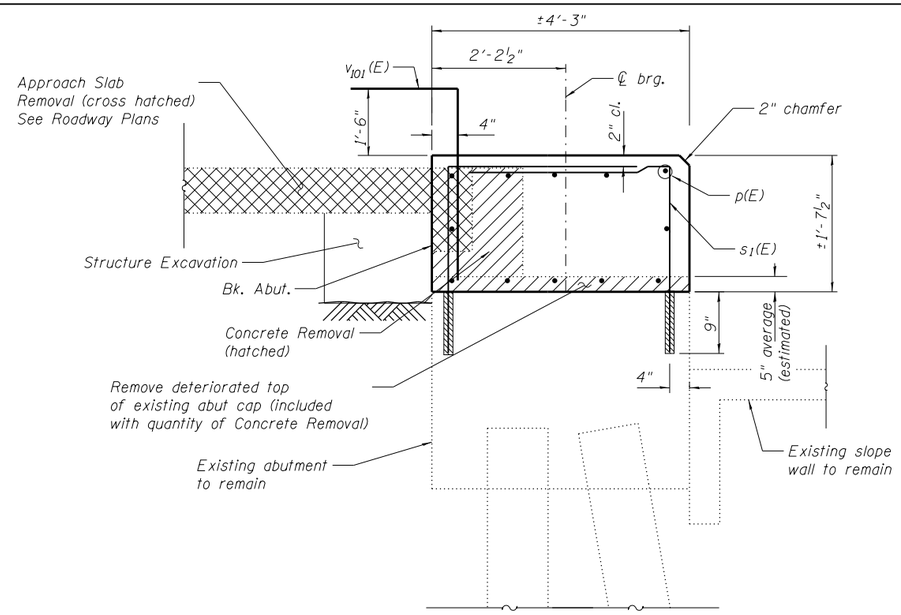
Epoxy grout s (E) and v (E) bars into 9" minimum drilled holes according to Section 584 of the Standard Specifications. Holes shall be approximately 4" from edge of existing member to avoid existing longitudinal reinforcement. Cost included in Reinforcement Bars, Epoxy Coated.

At areas of Concrete Removal, the existing reinforcement extending into the areas of new construction shall be cleaned, straightened and incorporated into the new construction. Included in cost of Concrete Removal.

Concrete Sealer shall be applied to the top of the new abutment cap and to the new concrete portion of the front face of the concrete cap.

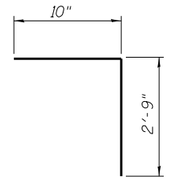


SECTION B-B

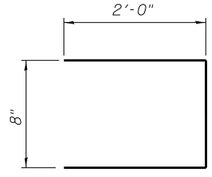


SECTION A-A

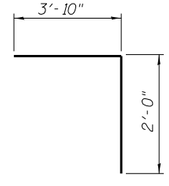
dimensions at rt. angles



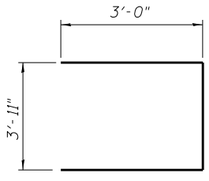
BAR v_{101} (E)



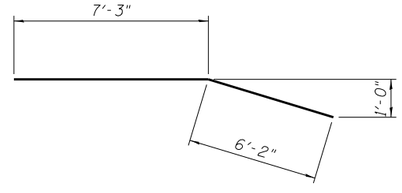
BAR u_1(E)



BAR s_1(E)



BAR u(E)



BAR h_1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_1(E)	16	#5	13'-5"	
p(E)	12	#6	46'-3"	
s_1(E)	94	#5	5'-10"	
u(E)	6	#6	9'-11"	
u (E)	12	#4	4'-8"	
v_1(E)	44	#5	2'-10"	
v_6(E)	22	#5	3'-1"	
v_{101}(E)	47	#5	3'-7"	
Structure Excavation		Cu. Yd.	4	
Concrete Structures		Cu. Yd.	13.7	
Reinforcement Bars, Epoxy Coated		Pound	2130	
Concrete Removal		Sq. Yd.	6.0	
Concrete Sealer		Sq. Ft.	274	
Steel Railing (Special)		Foot	18	
Structural Repair of Concrete (Depth equal to or less than 5 inches)		Sq. Ft.	28	

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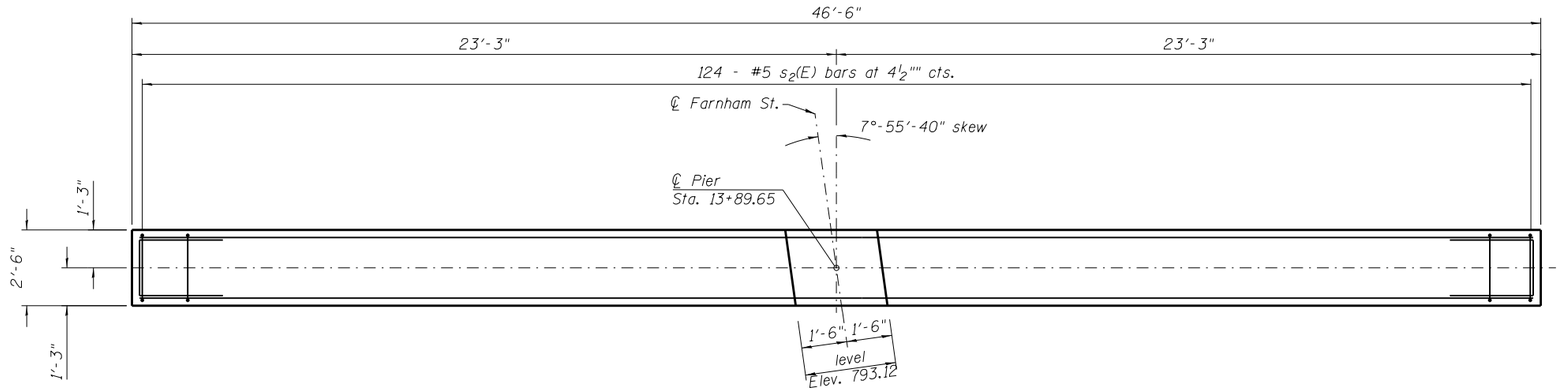
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

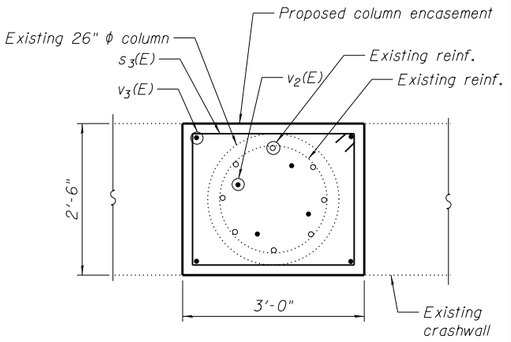
NORTH ABUTMENT DETAILS
STRUCTURE NO. 048-6027

SHEET NO. 20 OF 22 SHEETS

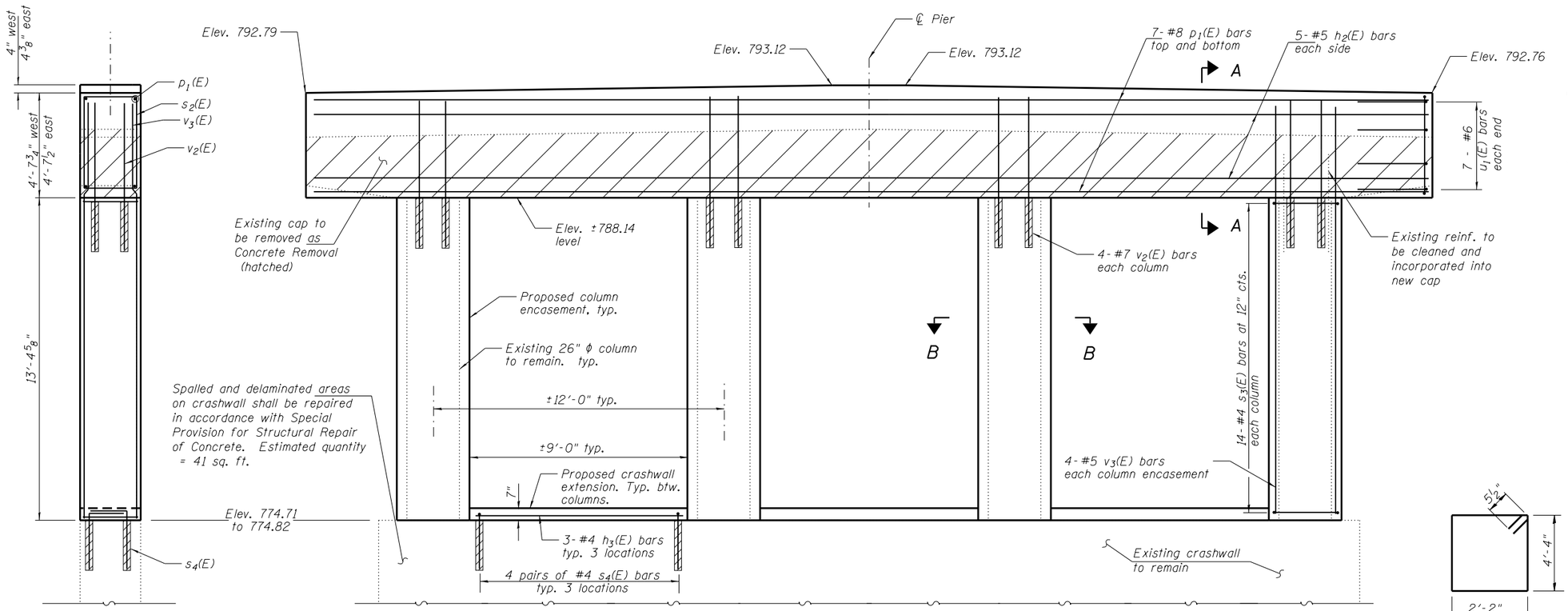
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	42
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



TOP PLAN



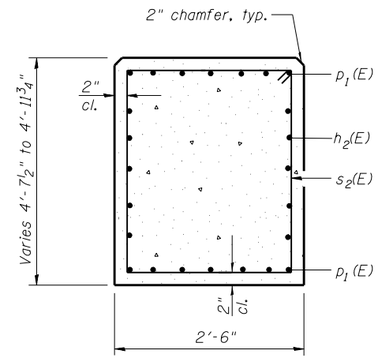
SECTION B-B



END VIEW

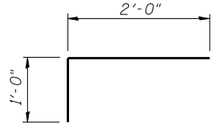
ELEVATION

(Looking north)

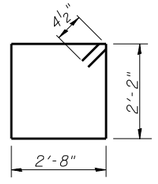


SECTION A-A

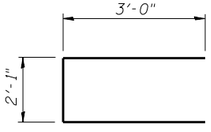
BAR s_2(E)



BAR s_4(E)



BAR s_3(E)



BAR u_1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_2(E)	10	#5	46'-2"	
h_3(E)	9	#4	8'-8"	
p_1(E)	14	#8	46'-2"	
s_2(E)	124	#5	13'-11"	
s_3(E)	56	#4	10'-5"	
s_4(E)	24	#4	3'-0"	
u_1(E)	14	#6	8'-1"	
v_2(E)	16	#7	5'-0"	
v_3(E)	16	#5	17'-6"	
Structural Repair of Concrete (Depth equal to or less than 5 inches)		Sq. Ft.		41
Concrete Structures		Cu. Yd.		29.7
Reinforcement Bars, Epoxy Coated		Pound		5,120
Concrete Removal		Cu. Yd.		11.5
Epoxy Crack Injection		Foot		4

NOTES

Epoxy grout s_4(E) and v_2(E) bars into 9" minimum drilled holes according to Section 584 of the Standard Specifications. Holes shall be approximately 4" from edge of existing member to avoid existing longitudinal reinforcement. Cost included in Reinforcement Bars, Epoxy Coated.

At areas of Concrete Removal, the existing reinforcement extending into the areas of new construction shall be cleaned, straightened and incorporated into the new construction. Included in cost of Concrete Removal.

Delaminated or otherwise damaged existing concrete on the columns shall be removed and cleaned and the exposed reinforcement cleaned in accordance with Section 501.05 of the Standard Specifications. This work shall be paid for as Concrete Removal. Estimated quantity = 0.3 cu. Yd.

Existing exposed reinforcement on the columns shall be cleaned in accordance with Section 501.05 of the Standard Specifications. Included in the cost of Concrete Removal.

Cracks in the columns larger than 0.01 inches shall have Epoxy Crack Injection according to Section 590 of the Standard Specifications. Estimated quantity = 4 lineal feet.

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TERRA ENGINEERING LTD.

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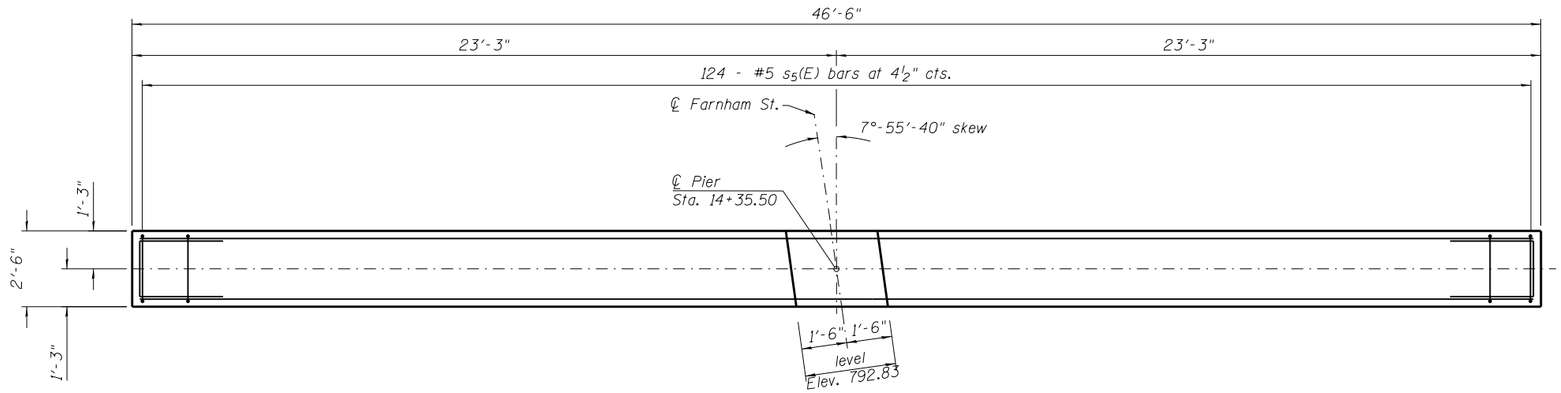
DATE PLOTTED: 10/25/2017	DRAWN - DDB	REVISED -	
TIME PLOTTED: 1:17:34 PM	CHECKED - KF	REVISED -	

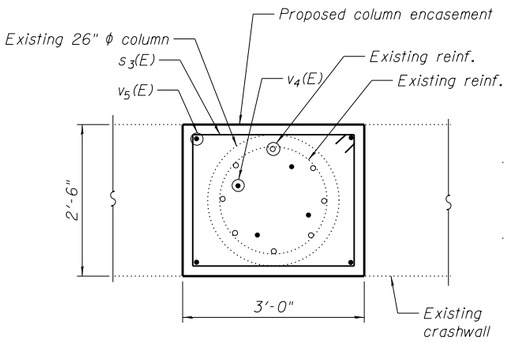
ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

PIER 1
STRUCTURE NO. 048-6027
SHEET NO. 21 OF 22 SHEETS

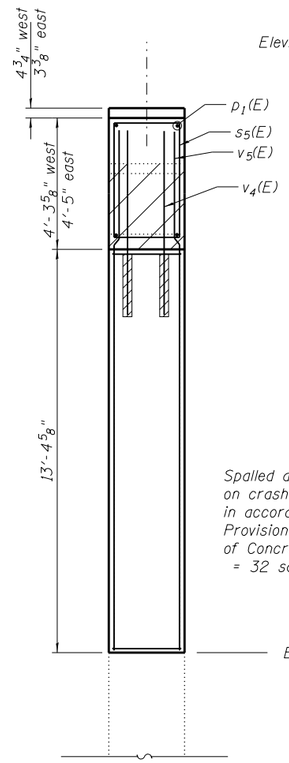
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	43
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



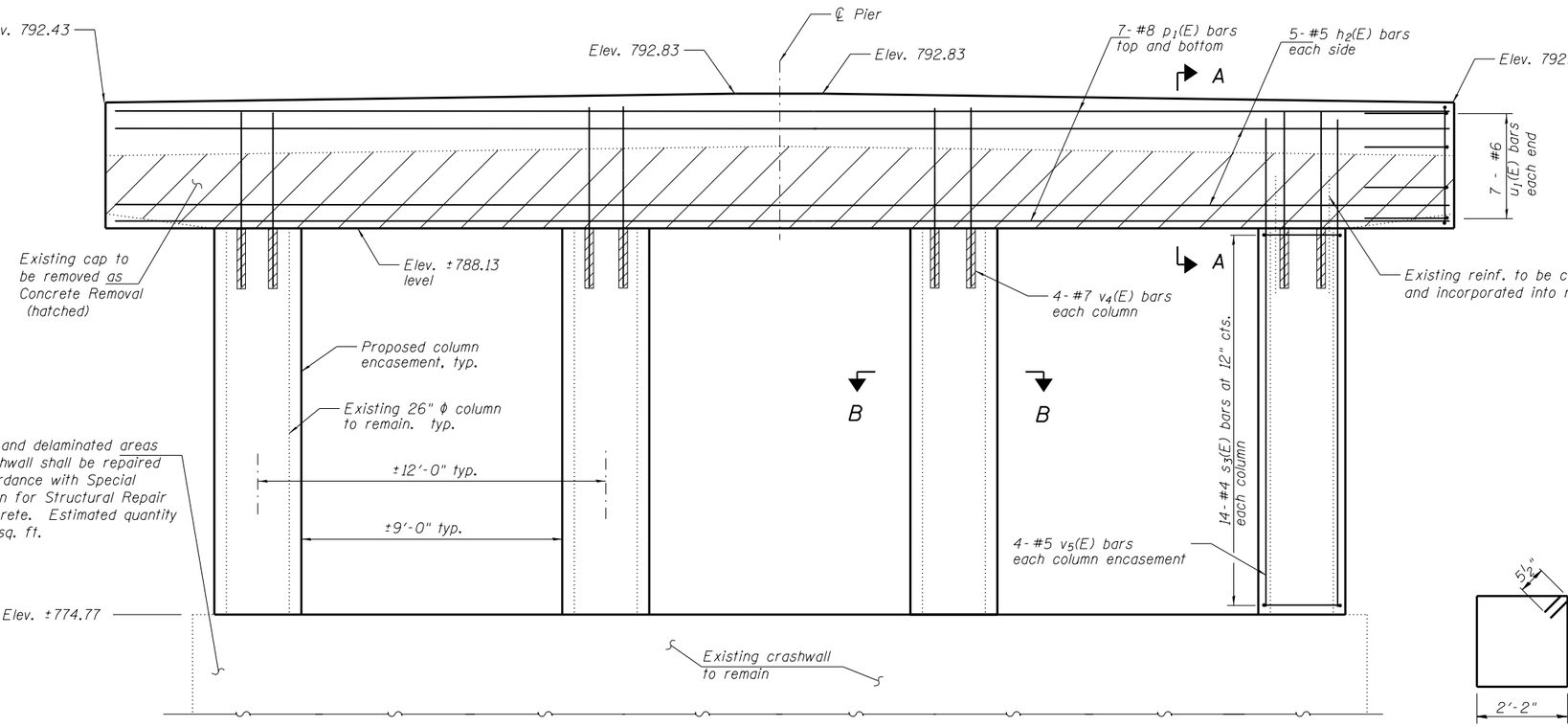
TOP PLAN



SECTION B-B

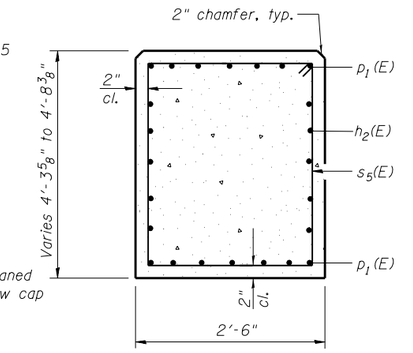


END VIEW



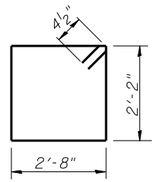
ELEVATION

(Looking north)

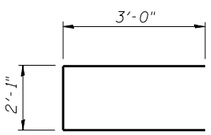


SECTION A-A

BAR s5(E)



BAR s3(E)



BAR u1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_2(E)$	10	#5	46'-2"	
$p_1(E)$	14	#8	46'-2"	
$s_3(E)$	56	#4	10'-5"	
$s_5(E)$	124	#5	13'-3"	
$u_1(E)$	14	#6	8'-1"	
$v_4(E)$	16	#7	4'-8"	
$v_5(E)$	16	#5	17'-2"	
Structural Repair of Concrete (Depth equal to or less than 5 inches)		Sq. Ft.	32	
Concrete Structures		Cu. Yd.	26.9	
Reinforcement Bars, Epoxy Coated		Pound	4,920	
Concrete Removal		Cu. Yd.	11.4	
Epoxy Crack Injection		Foot	27	

NOTES

Epoxy grout $v_4(E)$ bars into 9" minimum drilled holes according to Section 584 of the Standard Specifications. Holes shall be approximately 4" from edge of existing member to avoid existing longitudinal reinforcement. Cost included in Reinforcement Bars, Epoxy Coated.

At areas of Concrete Removal, the existing reinforcement extending into the areas of new construction shall be cleaned, straightened and incorporated into the new construction. Included in cost of Concrete Removal.

Delaminated or otherwise damaged existing concrete on the columns shall be removed and cleaned and the exposed reinforcement cleaned in accordance with Section 501.05 of the Standard Specifications. This work shall be paid for as Concrete Removal. Estimated quantity = 0.2 cu. yd.

Existing exposed reinforcement on the columns shall be cleaned in accordance with Section 501.05 of the Standard Specifications. Included in the cost of Concrete Removal.

Cracks in the columns larger than 0.01 inches shall have Epoxy Crack Injection according to Section 590 of the Standard Specifications. Estimated quantity = 27 lineal feet.

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ILLINOIS DEPARTMENT OF TRANSPORTATION
BNSF MP 176.1 ON THE CHILLICOTHE SUBDIVISION

PIER 2
STRUCTURE NO. 048-6027
SHEET NO. 22 OF 22 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	44
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

Benchmark: Chisled "X" on east side top of manhole rim on North Street court, west side of Farnham Street. Elev 782.03

Existing Structure: Walls built in 1976 as Section 0601-1 CS. There are 2 structures with the following approximate lengths: Southwest Wall 141'-1", Southeast Wall 132'-9". The walls are cast in place reinforced concrete. The existing wall heights will be raised to accommodate a profile change to the roadway. N. Farnham St. will be closed for construction, and traffic rerouted via detour.

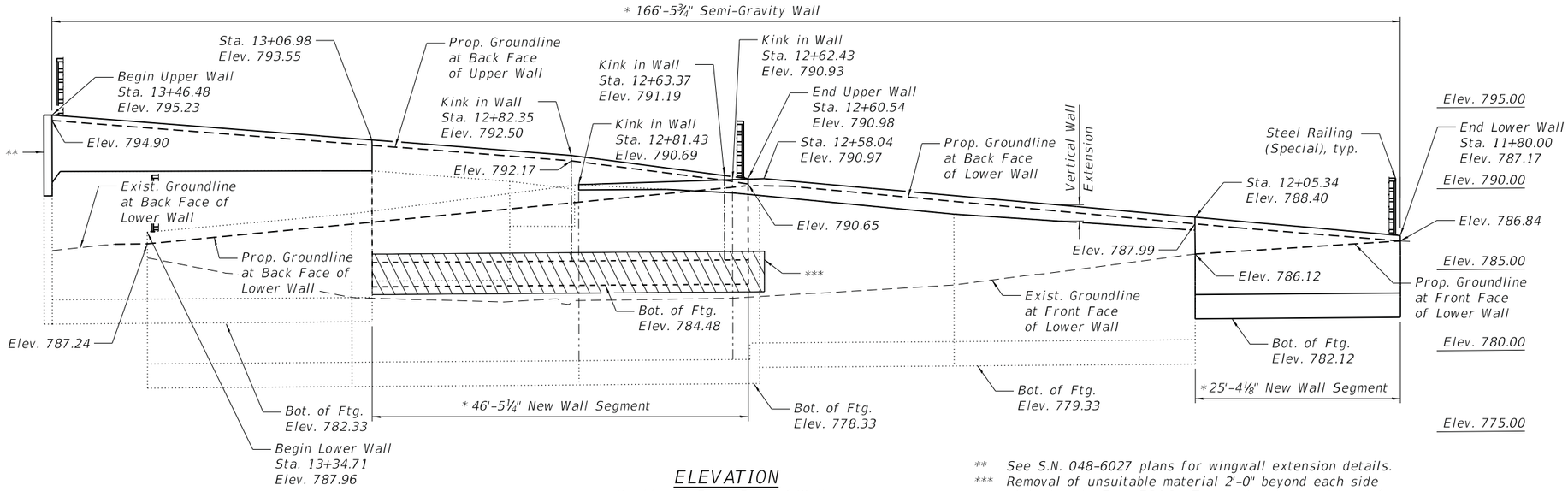
No salvage.

I certify that to the best of knowledge, information and belief, this retaining wall design is structurally adequate for the design specifications shown on the plans. The design is an economical one for the style of structure and complies with requirements of the applicable AASHTO design standards.

LICENSED STRUCTURAL ENGINEER
VINCENT P. TABOR
081-007047
STATE OF ILLINOIS

Vincent P. Tabor 10/23/2017

Vincent P. Tabor — Date
Licensed Structural Engineer
State of Illinois No. 081-007047
Expires 11/30/2018



ELEVATION

(Looking at Front Face of Walls)

* Measured along ℄ N. Farnham St.

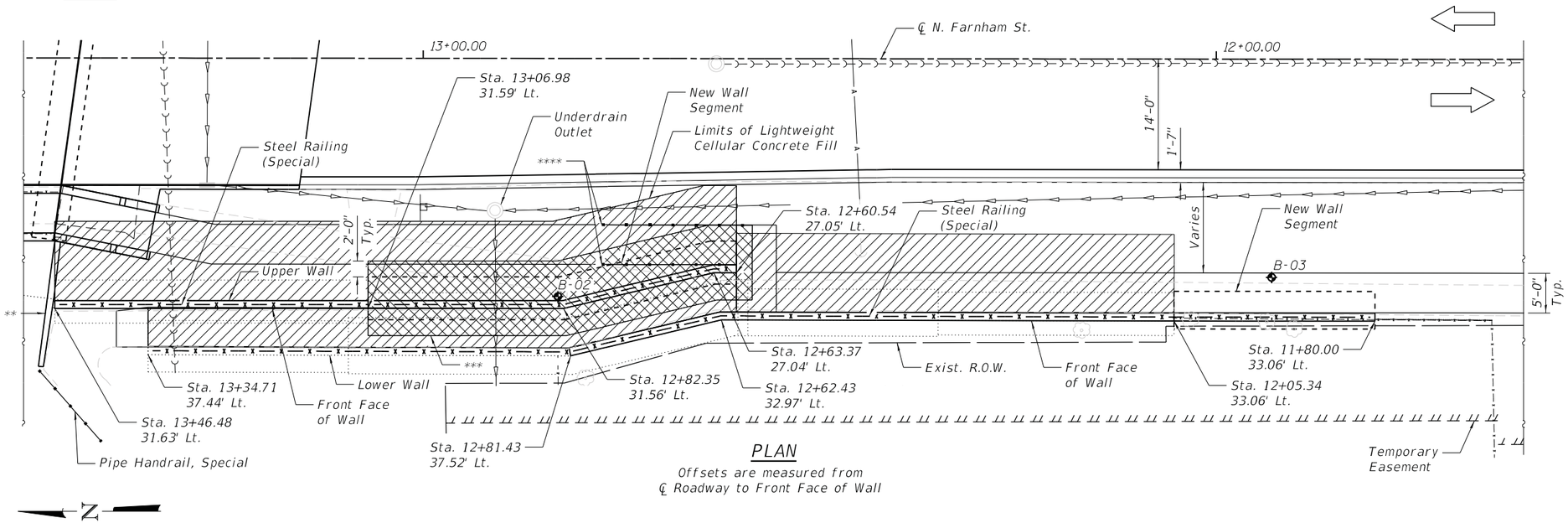
LEGEND

- Lightweight Cellular Concrete Fill
- Removal of Unsuitable Soils

** See S.N. 048-6027 plans for wingwall extension details.

*** Removal of unsuitable material 2'-0" beyond each side of footing to Elev. 784.0. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

**** Pipe Handrail, Special



PLAN

Offsets are measured from ℄ Roadway to Front Face of Wall

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

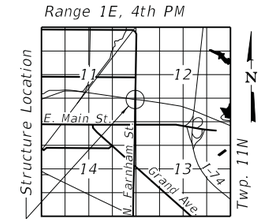
DESIGN STRESSES

EXISTING UNITS

f'c = 3,000 psi
fy = 40,000 psi (Reinforcement)

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



LOCATION SKETCH

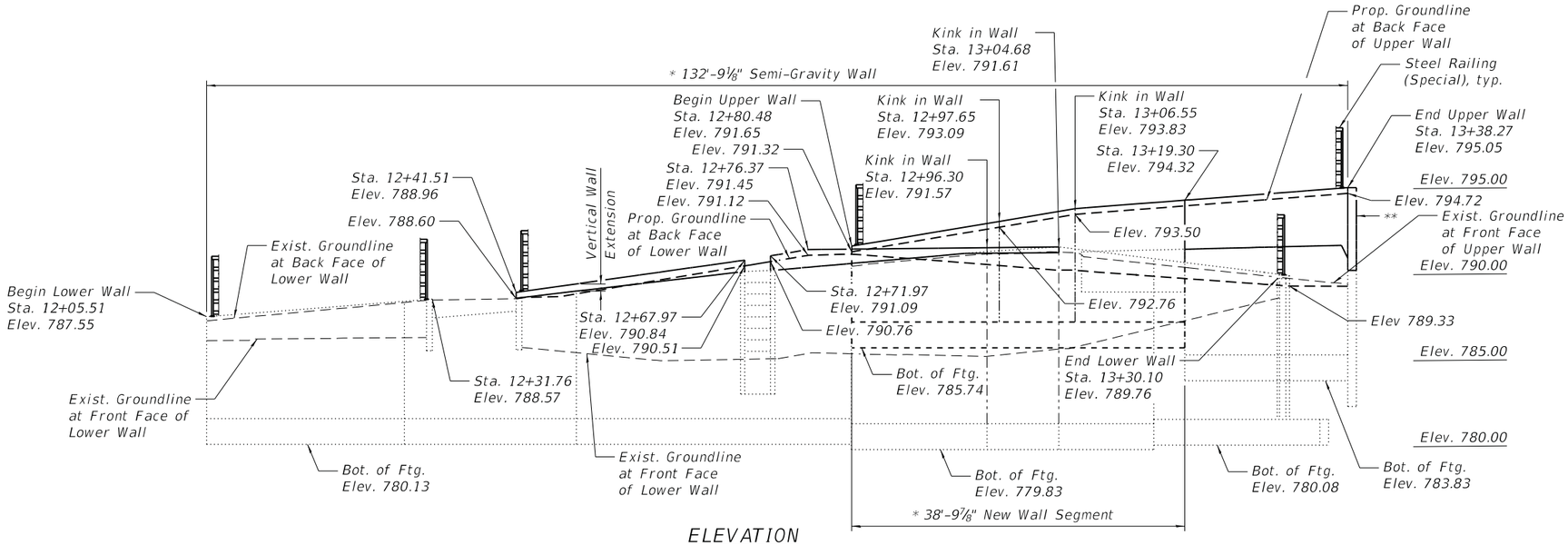
GENERAL PLAN AND ELEVATION SOUTHWEST RETAINING WALL N. FARNHAM STREET OVER BNSF R.R. SECTION 08-00601-19-BR KNOX COUNTY STA. 11+50.00 to STA. 13+50.00 NEAR STRUCTURE NO. 048-6027

LIN ENGINEERING, LTD. Consulting Engineers, Springfield, Illinois		DESIGNED - VPT	REVISED -
		CHECKED - MTH	REVISED -
	PLOT TIME = 5:07:52 PM	DRAWN - CGY	REVISED -
	PLOT DATE = 10/27/2017	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - SOUTHWEST RETAINING WALL
RETAINING WALLS
SHEET 1 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	45
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



ELEVATION

(Looking at Front Face of Walls)

* Measured along ℄ N. Farnham St.

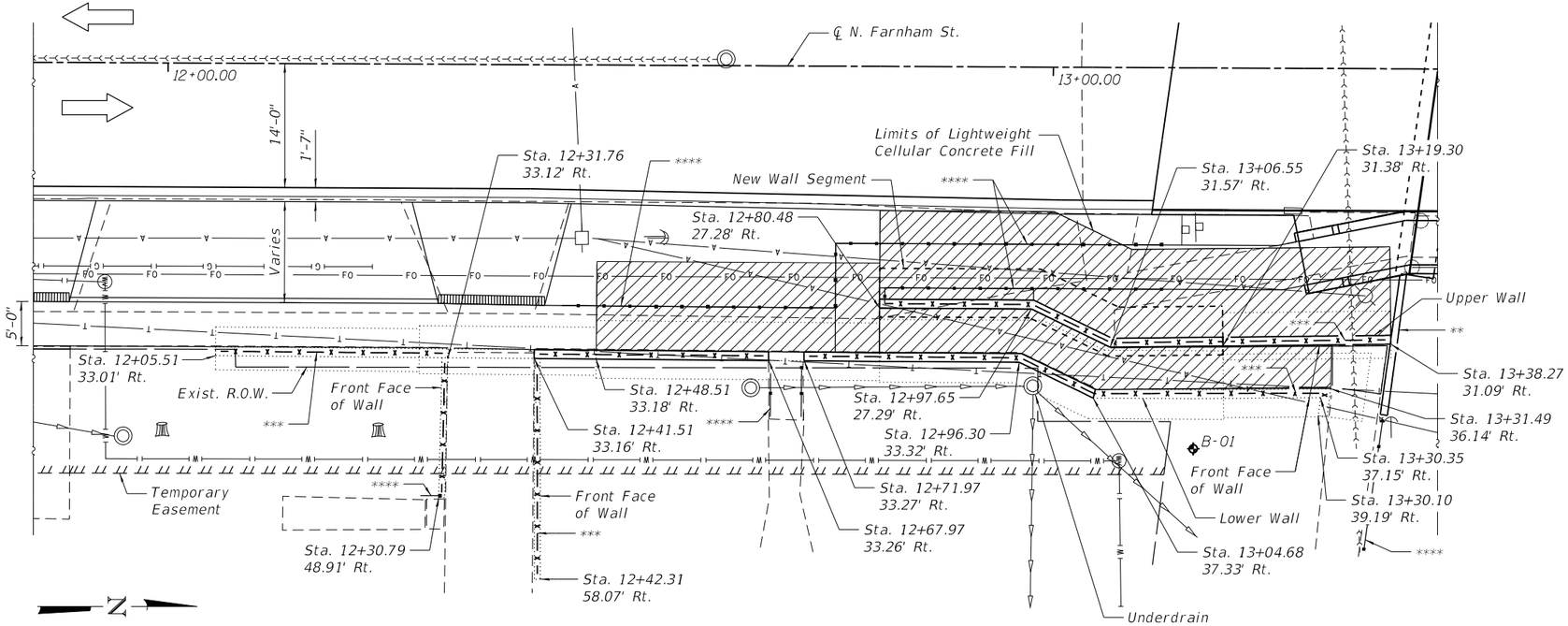
** See S.N. 048-6027 plans for wingwall extension details.

*** Steel Railing (Special)

**** Pipe Handrail, Special

LEGEND

- Lightweight Cellular Concrete Fill
- Removal of Unsuitable Soils



PLAN

Offsets are measured from
℄ Roadway to Front Face of Wall

GENERAL PLAN AND ELEVATION
SOUTHEAST RETAINING WALL
N. FARNHAM STREET OVER BNSF R.R.
SECTION 08-00601-19-BR
KNOX COUNTY
STA. 11+50.00 to STA. 13+50.00
NEAR STRUCTURE NO. 048-6027

LIN ENGINEERING, LTD. Consulting Engineers, Springfield, Illinois		DESIGNED - VPT	REVISED -
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	PLOT TIME = 5:07:55 PM	DRAWN - CGY	REVISED -
	PLOT DATE = 10/27/2017	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION – SOUTHEAST RETAINING WALL
RETAINING WALLS
SHEET 2 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	46
		CONTRACT NO. 89699		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

All exposed vertical edges of vertical concrete wall extensions shall be chamfered to match the existing wall below. All other exposed concrete edges shall have a ¾" x 45° chamfer. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

Cover from the face of concrete to face of reinforcement bars shall be 3" for surfaces formed against earth and 2" for all other surfaces unless otherwise shown.

The location of construction and expansion joints through vertical concrete wall extensions shall match those of the existing retaining wall below the extensions.

No concrete cutting shall be permitted until the cutting limits have been outlined by the Contractor and approved by the Engineer.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

It shall be the Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.

The Contractor shall use care when excavating around existing foundations. Any damage to the existing structure and/or supporting foundation shall be repaired or replaced at the Contractor's expense at no additional cost to the Owner.

At locations where an Upper Wall and a Lower Wall are 10 ft or less from each other, no excavation shall be made in front of either wall until excavation behind the nearby Upper Wall has been completed.

At locations where an Upper Wall and a Lower Wall are more than 10 ft from each other, no excavation shall be made in front of a Lower Wall until excavation behind the same wall has been completed. Any excavations made in front of a Lower Wall shall be backfilled prior to placement of fill behind the same wall.

At locations that require excavation between adjacent Upper and Lower Walls, drainage materials and Lightweight Cellular Concrete Fill required between the adjacent walls shall be installed prior to placement of any materials behind the adjacent Upper Wall.

Lightweight Cellular Concrete Fill shall be Class I.

The location of the Back Face of Lightweight Fill shall be determined by extension of a 1V:1H slope from the Working Point identified at the base of the footing.

Geocomposite Wall Drain and Porous Granular Embankment shall, at a minimum, extend up to the top surface of the Lightweight Cellular Concrete Fill.

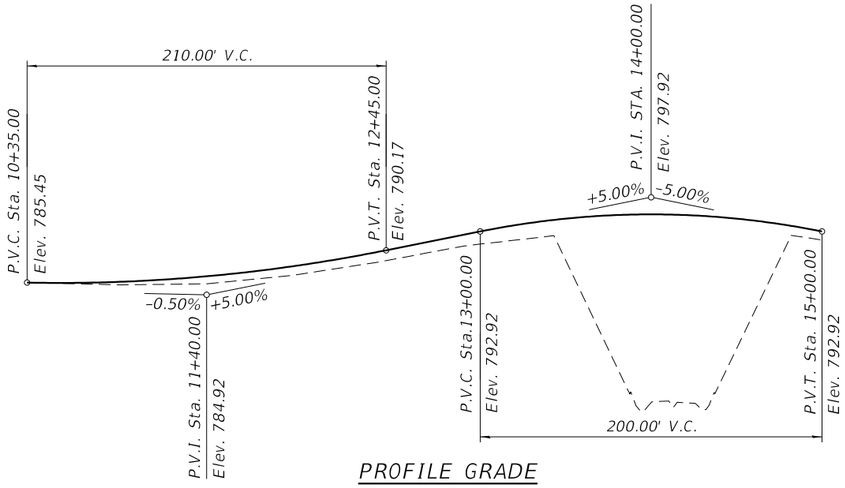
During placement and prior to intitial set, the Contractor shall provide measures to ensure the separation of materials between the Lightweight Cellular Concrete Fill from the Porous Granular Embankment and the Pipe Underdrains for Structures.

For all existing retaining walls within 250 ft and located northwest, southwest, and southeast of S.N. 048-6027: Where excavation behind the existing retaining wall is not required for installation of lightweight fill and the replacement of the existing underdrain, the existing weep holes shall be cleaned from the front face of the wall of all debris and flushed with water at a pressure less than 50 psi. Where replacement underdrains are installed, existing weep holes shall be cleaned from the excavated face of the wall of all debris and flushed with water at a pressure less than 50 psi.

See Proposed ADA Sidewalk Ramp Details for additional information relative to sidewalk and ramps in vicinity of retaining walls.

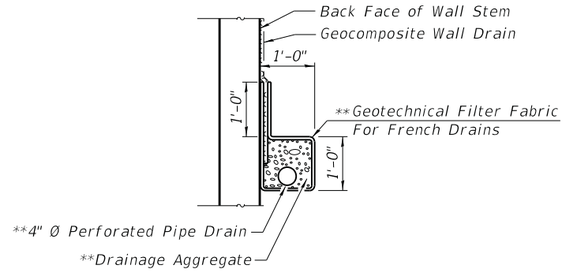
Porous Granular Embankment shall be gradation CA 7 or CA 11. CA 6 material shall not be used.

The elevations shown in the existing structure plans were adjusted by 0.17' to coincide with the current survey datum.



PROFILE GRADE

(℄ N. Farnham Street)

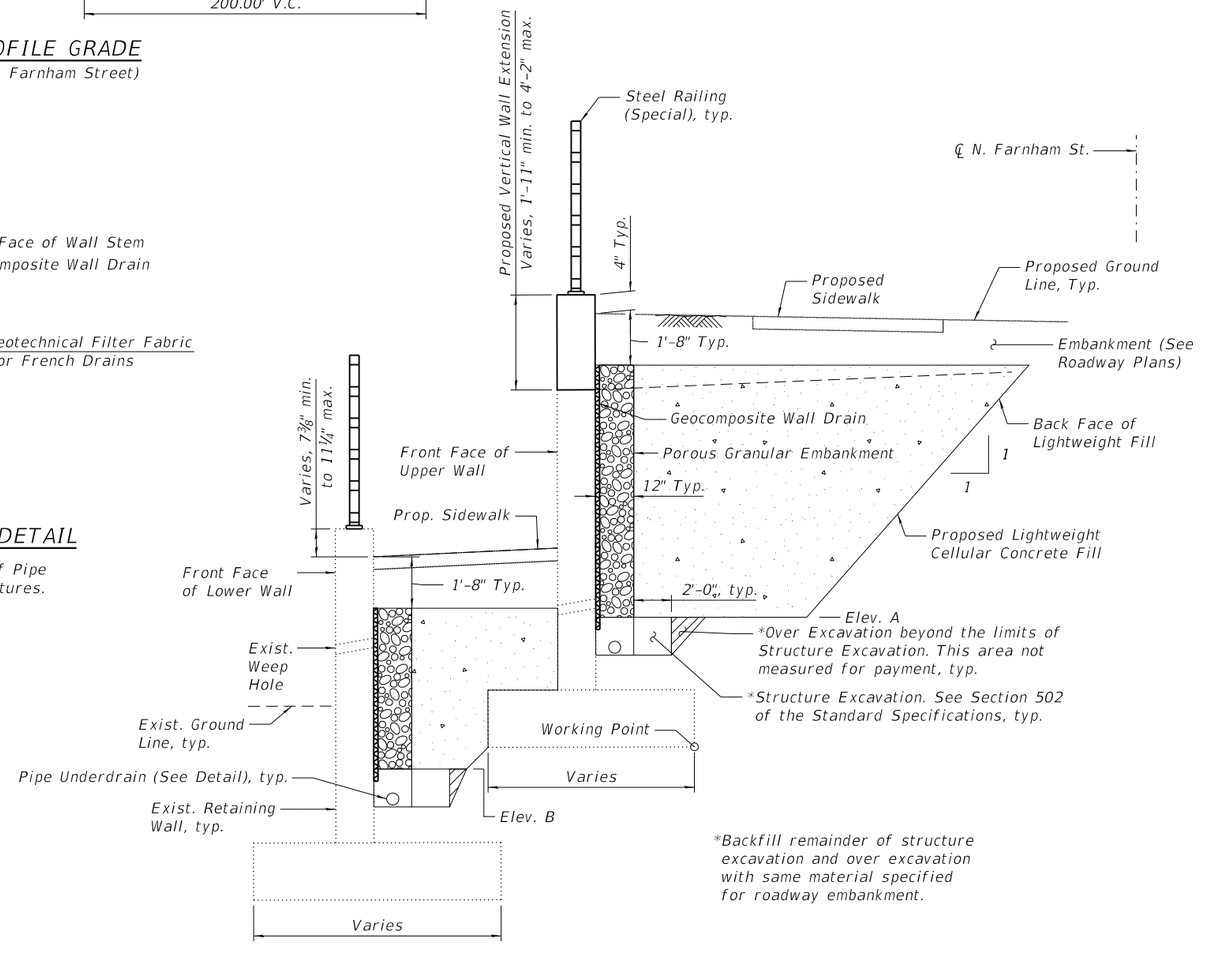


PIPE UNDERDRAIN DETAIL

**Included in the cost of Pipe Underdrains for Structures.

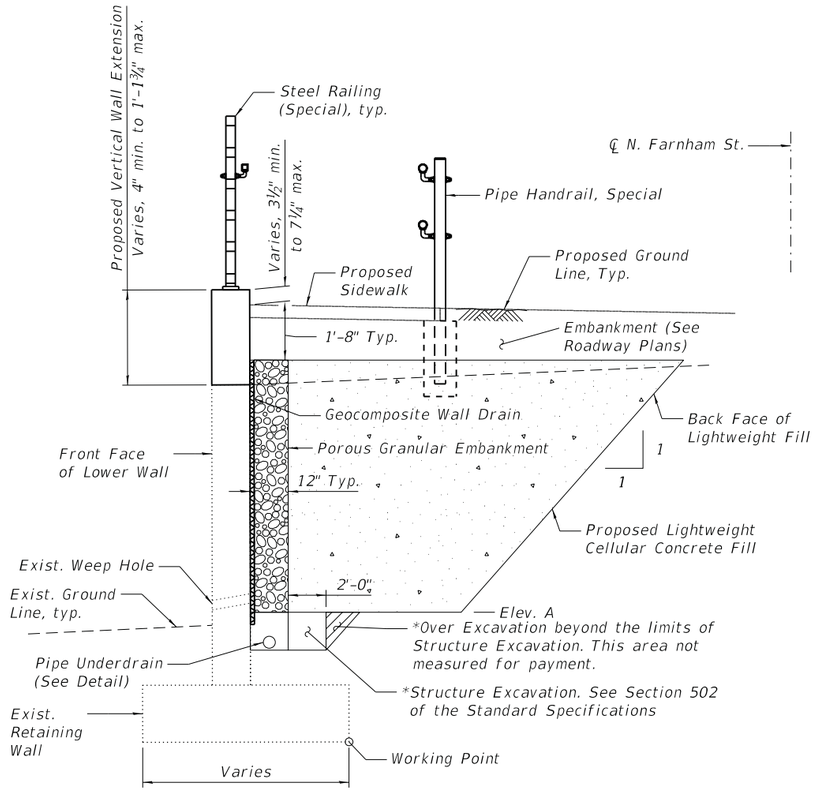
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	72
Concrete Removal	Cu. Yd.	6.1
Structure Excavation	Cu. Yd.	600
Concrete Structures	Cu. Yd.	67.1
Reinforcement Bars	Pound	5040
Reinforcement Bars, Epoxy Coated	Pound	380
Pipe Handrail, Special	Foot	202.0
Lightweight Cellular Concrete Fill	Cu. Yd.	400
Steel Railing (Special)	Foot	529.0
Pipe Underdrains for Structures 4"	Foot	384
Removal and Disposal of Unsuitable Material	Cu. Yd.	47
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	1.0
Geocomposite Wall Drain	Sq. Yd.	209



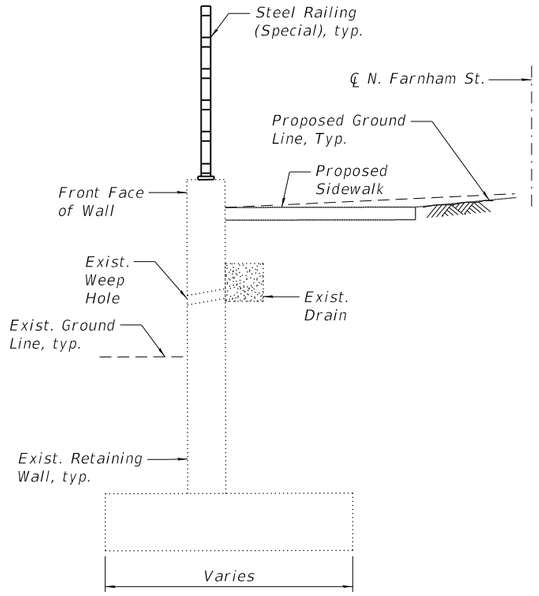
TYPICAL SECTION

Southwest Wall Sta. 13+06.98 to Sta. 13+46.48: Elev. A = 785.98'; Elev. B = 782.33';
Southeast Wall Sta. 13+19.30 to Sta. 13+38.27: Elev. A = 787.24'; Elev. B = 783.83';



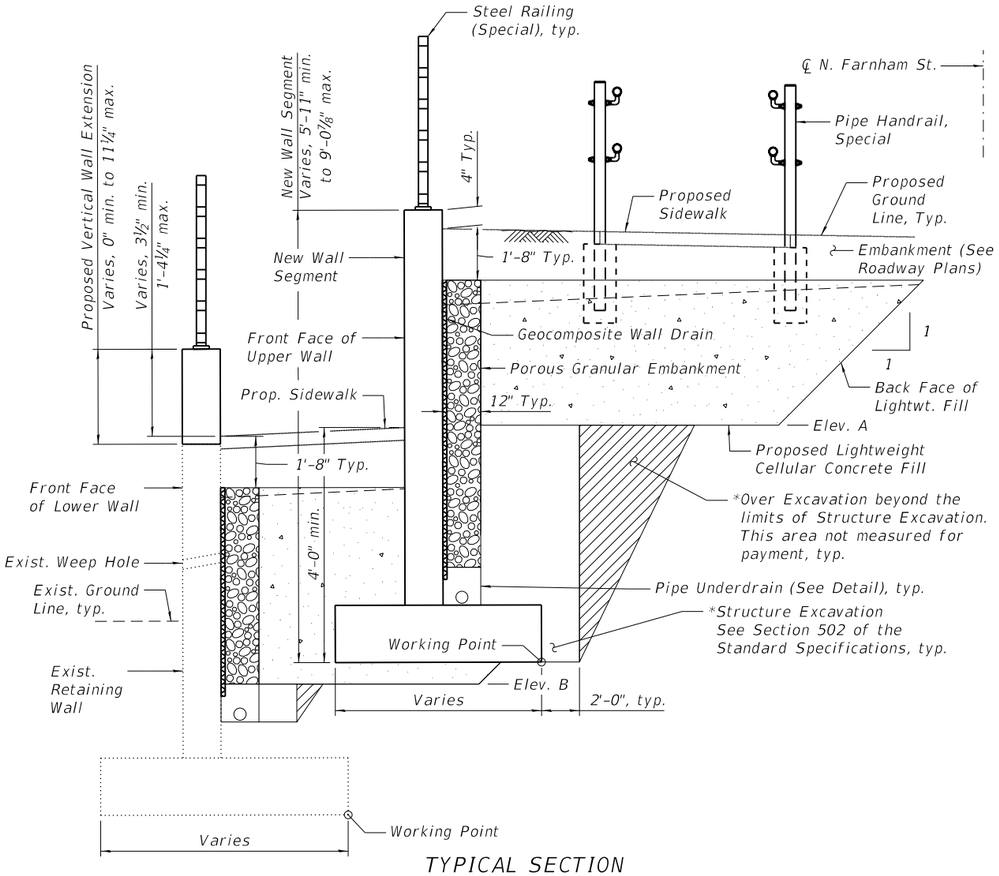
TYPICAL SECTION

Southwest Wall Sta. 12+05.34 to Sta. 12+60.54: Elev. A = 782.97;
Southeast Wall Sta. 12+41.51 to Sta. 12+80.48: Elev. A = 783.83;



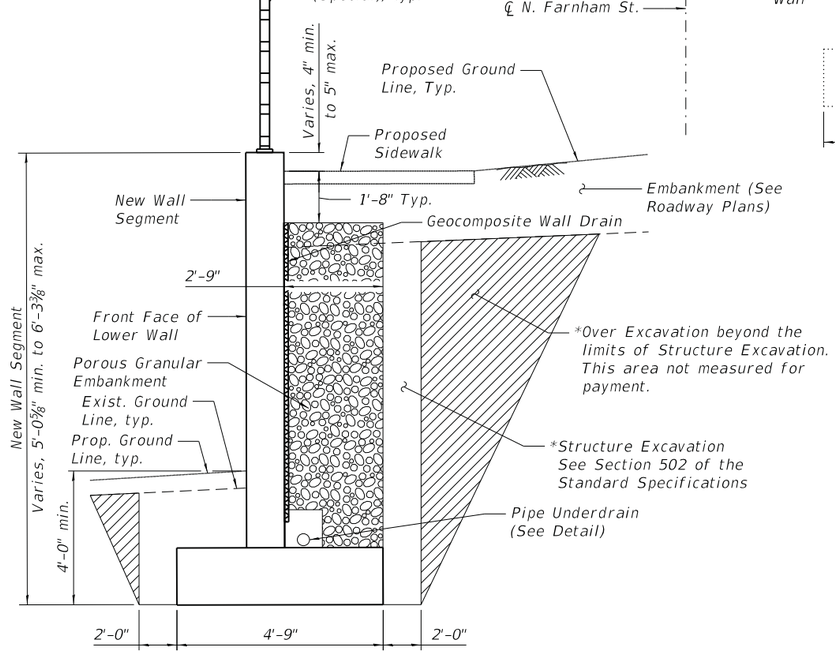
TYPICAL SECTION

Northwest Wall Sta. 16+15.61 to Sta. 16+95.78



TYPICAL SECTION

S.W. Wall Sta. 12+60.54 to Sta. 13+06.98: Elev. A = 785.98; Elev. B = 782.97;
S.E. Wall Sta. 12+80.48 to Sta. 13+19.30: Elev. A = 788.60; Elev. B = 783.83;

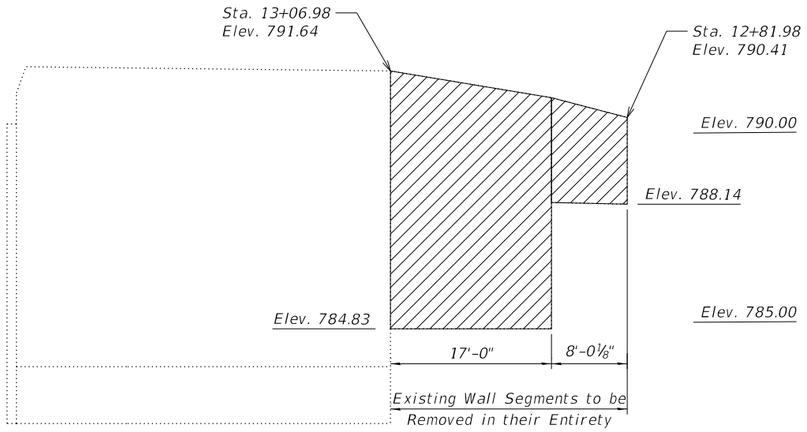


TYPICAL SECTION

Southwest Wall Sta. 11+80.00 to Sta. 12+05.34

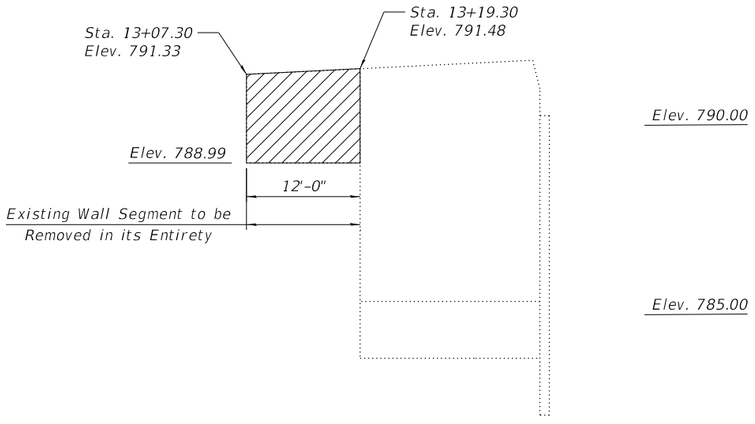
*Backfill remainder of structure excavation and over excavation with same material specified for roadway embankment.

LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois		DESIGNED - VPT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS RETAINING WALLS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - MTH	REVISED -			6790	08-00601-19-BR	KNOX	70	48
	PLOT TIME = 5:08:01 PM	DRAWN - CGY	REVISED -						CONTRACT NO. 89699	
	PLOT DATE = 10/27/2017	CHECKED - MTH	REVISED -		SHEET 4 OF 16 SHEETS		ILLINOIS	FED. AID PROJECT		



ELEVATION – SOUTHWEST UPPER WALL

(Looking at Front Face of Wall)



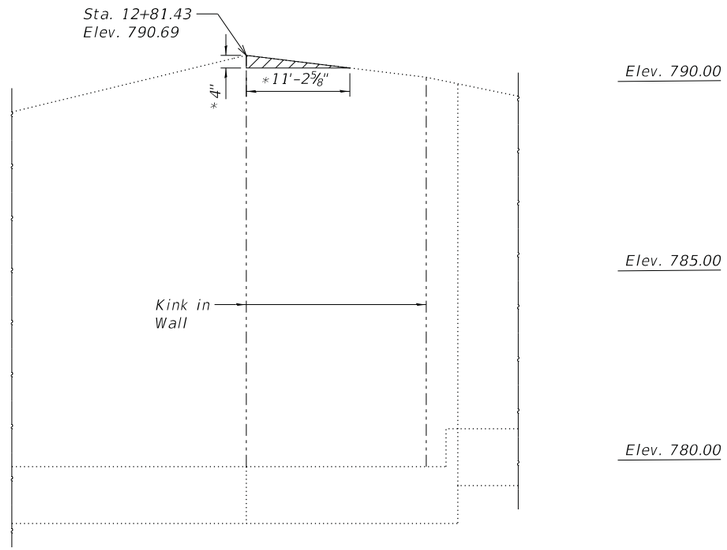
ELEVATION – SOUTHEAST UPPER WALL

(Looking at Front Face of Wall)

Note: All lengths measured along front face of wall.

LEGEND

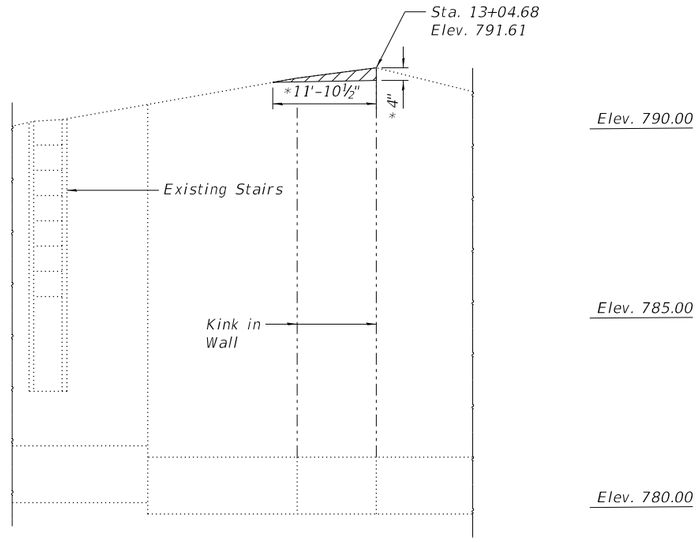
Concrete Removal



ELEVATION – SOUTHWEST LOWER WALL

(Looking at Front Face of Wall)

* Anticipated removal required to provide a minimum vertical extension height of 4".



ELEVATION – SOUTHEAST LOWER WALL

(Looking at Front Face of Wall)

LIN ENGINEERING, LTD. Consulting Engineers, Springfield, Illinois		DESIGNED - VPT	REVISED -
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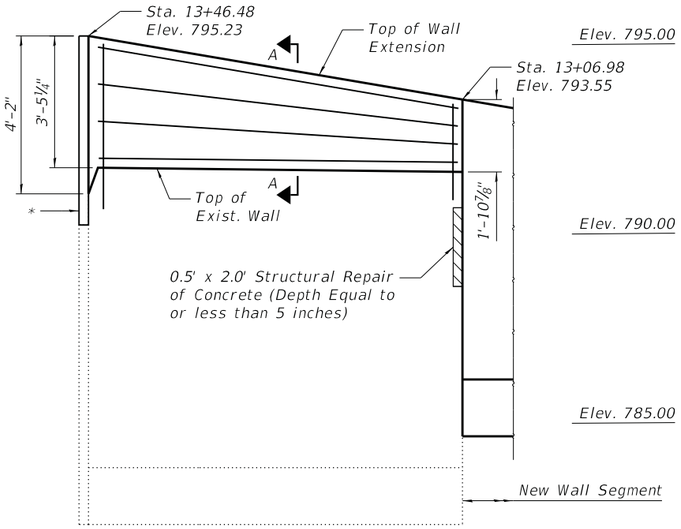
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL
RETAINING WALLS

SHEET 5 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	49
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



ELEVATION – SOUTHWEST UPPER WALL

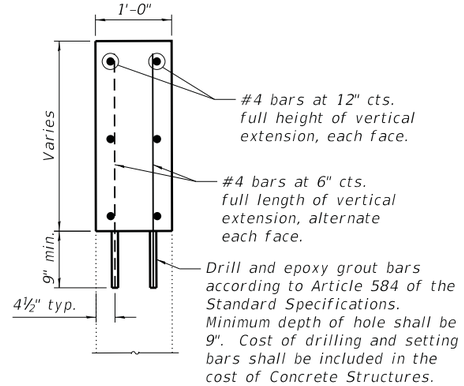
(Looking at Front Face of Wall)

BILL OF MATERIAL – S.W. UPPER WALL

(For Information Only)

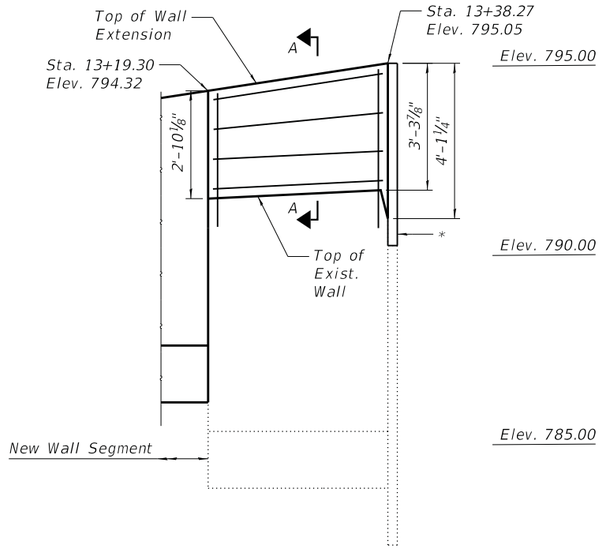
Concrete Structures	Cu. Yd.	4.0
Reinforcement Bars	Pound	290
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	1.0

*See S.N. 048-6027 plans for wingwall extension details.



SECTION A-A

Vertical Wall Extension



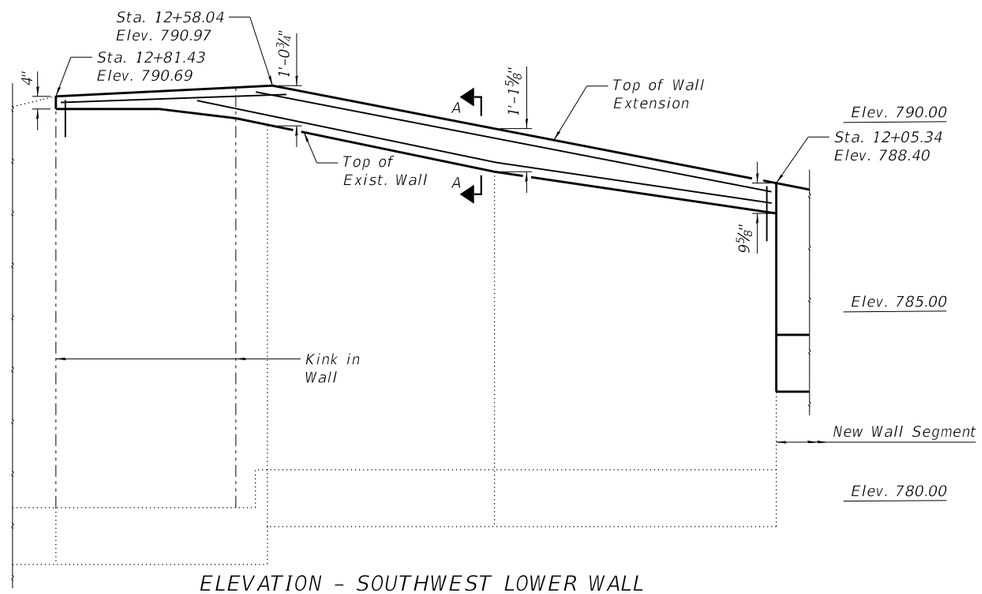
ELEVATION – SOUTHEAST UPPER WALL

(Looking at Front Face of Wall)

BILL OF MATERIAL – S.E. UPPER WALL

(For Information Only)

Concrete Structures	Cu. Yd.	2.2
Reinforcement Bars	Pound	210



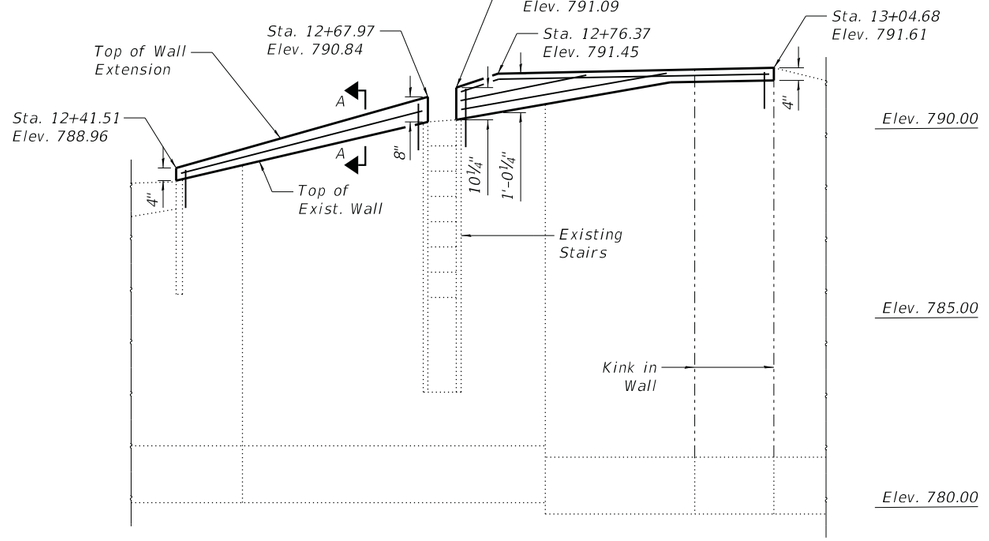
ELEVATION – SOUTHWEST LOWER WALL

(Looking at Front Face of Wall)

BILL OF MATERIAL – S.W. LOWER WALL

(For Information Only)

Concrete Structures	Cu. Yd.	2.6
Reinforcement Bars	Pound	390



ELEVATION – SOUTHEAST LOWER WALL

(Looking at Front Face of Wall)

BILL OF MATERIAL – S.E. LOWER WALL

(For Information Only)

Concrete Structures	Cu. Yd.	1.3
Reinforcement Bars	Pound	230

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Consulting Engineers
Springfield, Illinois

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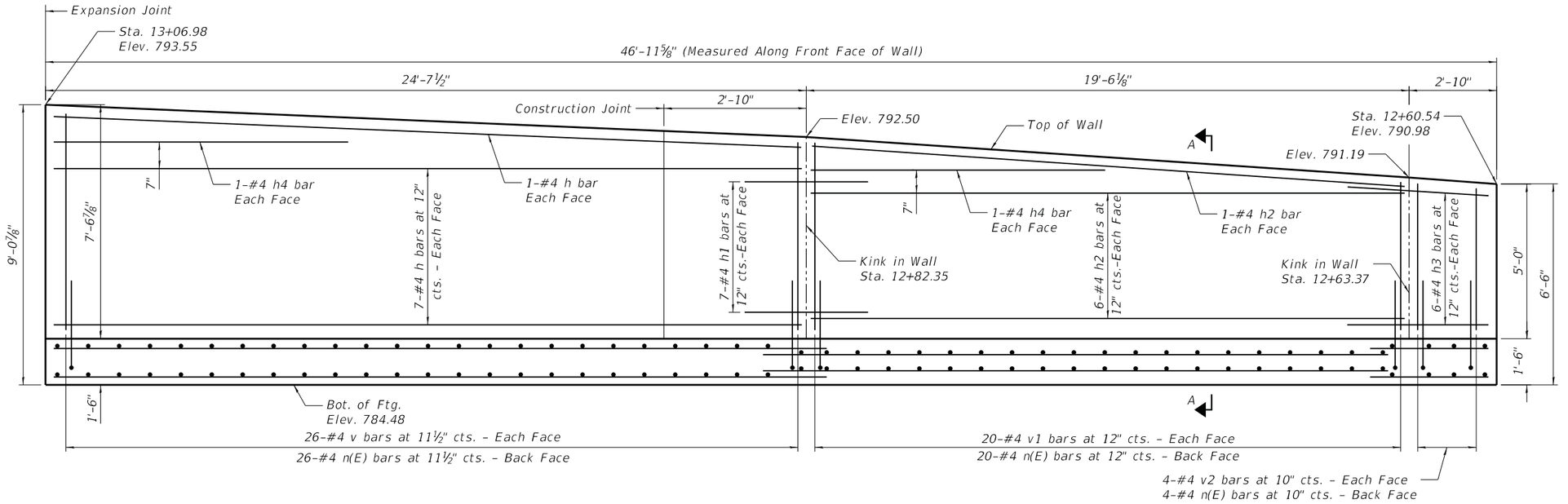
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VERTICAL EXTENSIONS
RETAINING WALLS

SHEET 6 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	50
		CONTRACT NO. 89699		
		ILLINOIS	FED. AID PROJECT	

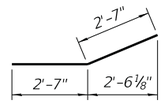


ELEVATION - SOUTHWEST UPPER WALL

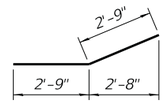
(Unfolded, Looking at Front Face of Wall)

BILL OF MATERIAL

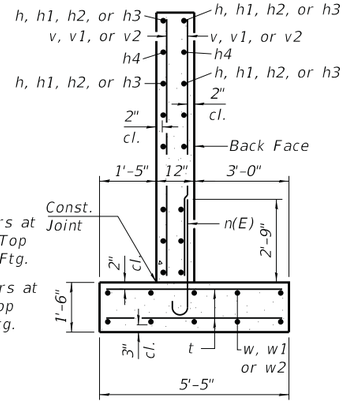
Bar	No.	Size	Length	Shape
h	16	#4	24'-4"	
h1	14	#4	5'-2"	
h2	14	#4	19'-6"	
h3	12	#4	5'-6"	
h4	4	#4	9'-0"	
n(E)	50	#4	4'-6"	
t	100	#4	5'-1"	
v	26	#4	13'-4"	
v1	20	#4	11'-0"	
v2	8	#4	4'-8"	
w	12	#4	24'-7"	
w1	12	#4	19'-6"	
w2	24	#4	5'-2"	
Concrete Structures			Cu. Yd.	25.4
Reinforcement Bars			Pound	1740
Reinforcement Bars, Epoxy Coated			Pound	160



BARS h1, w2

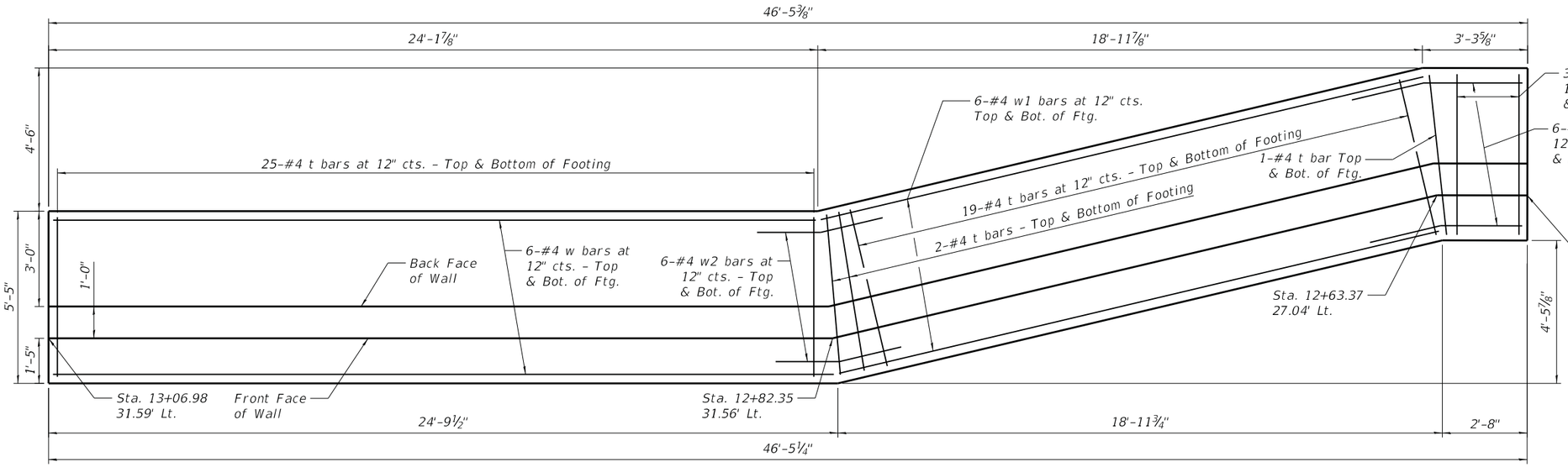


BAR h3



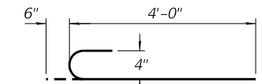
SECTION A-A

(Max. Applied Service Bearing Pressure = 0.9 ksf)



N

PLAN - SOUTHWEST UPPER WALL



BAR n(E)

See Sheet 8 of 16 for field cutting diagrams and joint details.

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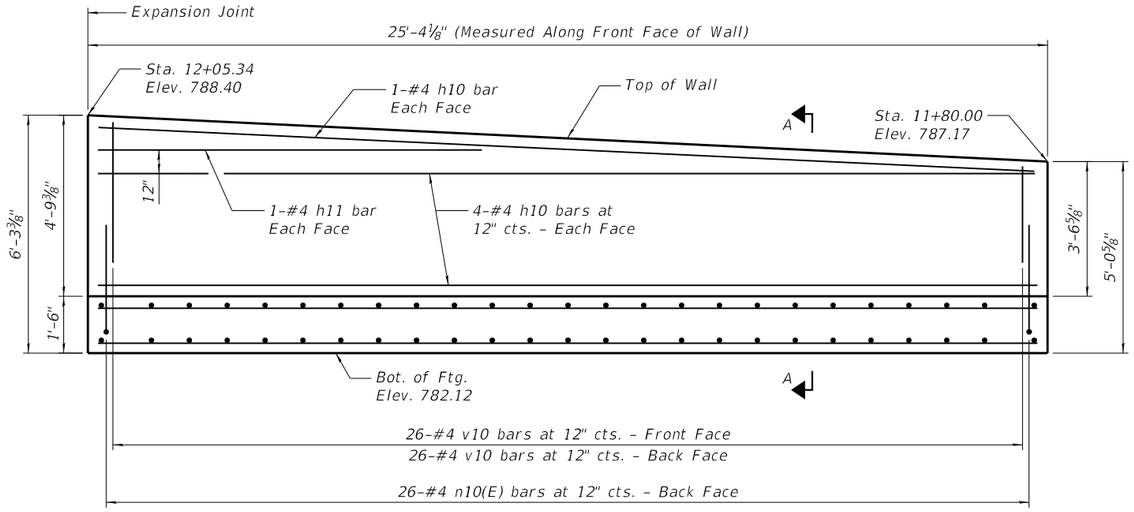
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

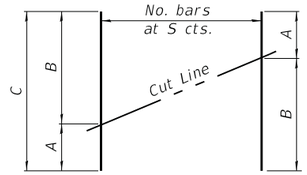
SOUTHWEST UPPER WALL - NEW SEGMENT
RETAINING WALLS
SHEET 7 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	51
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



ELEVATION - SOUTHWEST LOWER WALL

(Looking at Front Face of Wall)



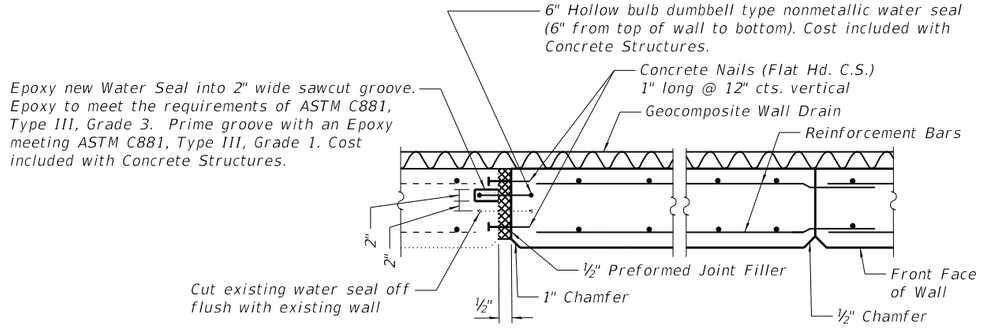
FIELD CUTTING DIAGRAM

Order bars shown full length. Cut as shown and use remainder of bars in opposite end.

Bar	No.	S	A	B	C
v	26	11½"	6'-2"	7'-2"	13'-4"
v1	20	12"	4'-10"	6'-2"	11'-0"
v10	26	12"	3'-3"	4'-5"	7'-8"
v20	18	12"	4'-1"	5'-6"	9'-7"
v21	12	10½"	5'-6"	6'-2"	11'-8"
v22	14	11½"	6'-3"	6'-8"	12'-11"

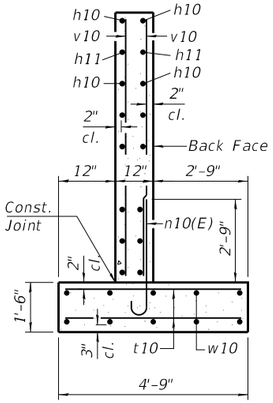
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10	10	#4	25'-0"	
h11	2	#4	9'-0"	
n10(E)	26	#4	4'-6"	
t10	52	#4	4'-5"	
v10	26	#4	7'-8"	
w10	12	#4	25'-0"	
Concrete Structures			Cu. Yd.	10.6
Reinforcement Bars			Pound	670
Reinforcement Bars, Epoxy Coated			Pound	80



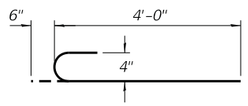
EXPANSION JOINT CONSTRUCTION JOINT

WALL JOINT DETAIL

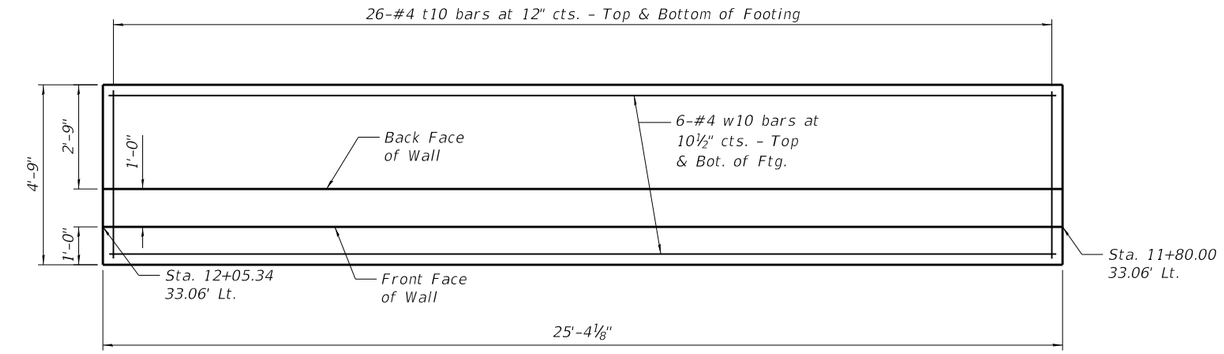


SECTION A-A

(Max. Applied Service Bearing Pressure = 1.3 ksf)



BAR n10(E)



PLAN - SOUTHWEST LOWER WALL

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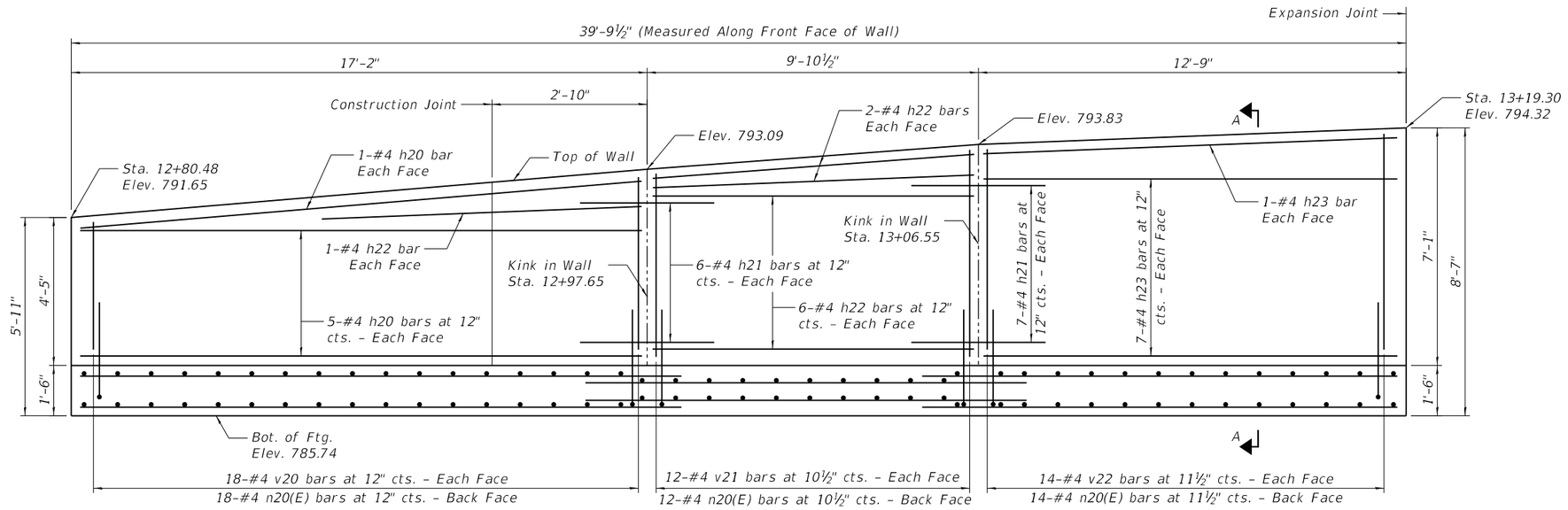
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTHWEST LOWER WALL - NEW SEGMENT
RETAINING WALLS
SHEET 8 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	52
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

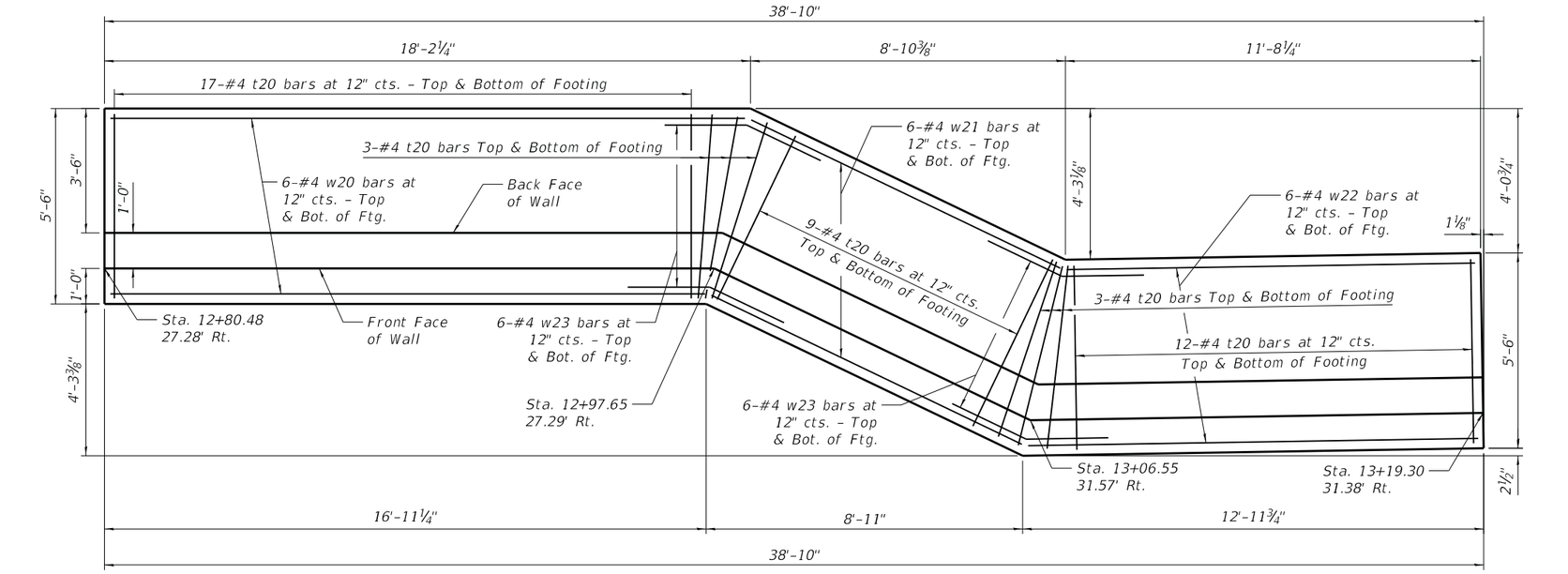


ELEVATION - SOUTHEAST UPPER WALL

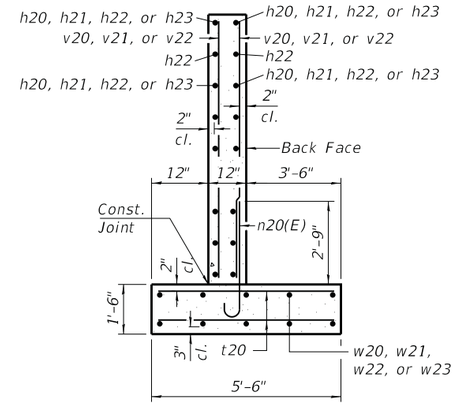
(Unfolded, Looking at Front Face of Wall)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20	12	#4	17'-0"	
h21	26	#4	5'-2"	
h22	18	#4	9'-9"	
h23	16	#4	12'-4"	
n20(E)	44	#4	4'-6"	
t20	88	#4	5'-2"	
v20	18	#4	9'-7"	
v21	12	#4	11'-8"	
v22	14	#4	12'-11"	
w20	12	#4	17'-2"	
w21	12	#4	9'-10"	
w22	12	#4	12'-0"	
w23	24	#4	5'-2"	
Concrete Structures			Cu. Yd.	21.0
Reinforcement Bars			Pound	1510
Reinforcement Bars, Epoxy Coated			Pound	140

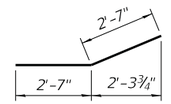


PLAN - SOUTHEAST UPPER WALL

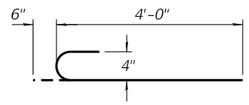


SECTION A-A

(Max. Applied Service Bearing Pressure = 1.4 ksf)

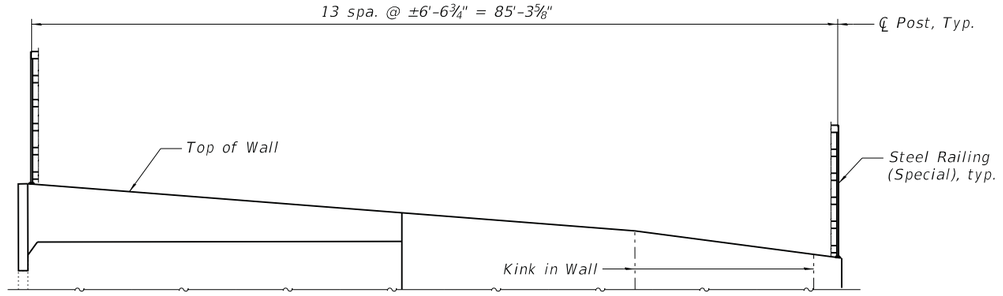


BARS h21, w23



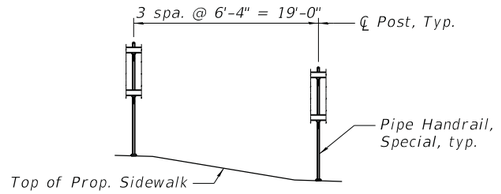
BAR n20(E)

See Sheet 8 of 16 for field cutting diagrams and joint details.



ELEVATION – UPPER WALL

(Unfolded, Looking at Front Face of Wall)



ELEVATION – EAST SIDE OF WALKWAY

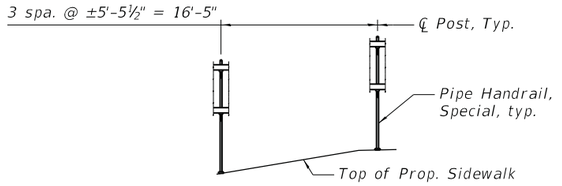
(Unfolded, Looking at Sidewalk Face of Rail)

Notes:

Number and spacing of posts may be adjusted at the discretion of the rail fabricator within the limits specified on the rail detail sheets.

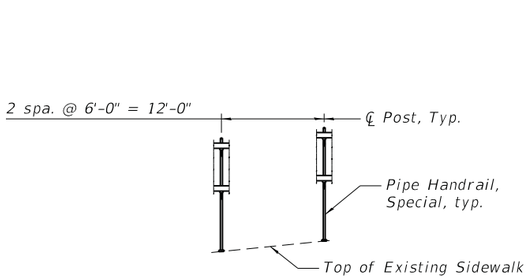
The rail fabricator shall be responsible for field verification of all horizontal and vertical retaining wall geometry and joints prior to fabrication of the prescribed rails.

Where proposed rail will be replacing an existing rail that is mounted to an existing concrete surface, the existing rail and its connection shall be removed flush to the top of the existing concrete surface. Any holes in existing concrete surfaces left open by the removal of the existing rail shall be filled with a nonshrink grout meeting the requirements of Section 1024.02 of the Standard Specifications. Where proposed rail will be replacing an existing rail that is supported by a post foundation, the existing rail and post foundation shall be removed to a depth satisfying the requirements of the Standard Specifications. Any damage caused by removal of existing rail and post foundations to items that are to remain in place shall be repaired at the expense of the Contractor to the satisfaction of the Engineer. Cost of removal of existing rail and post foundations, and filling of holes with nonshrink grout shall be included in the cost of the type of proposed rail prescribed to replace it.



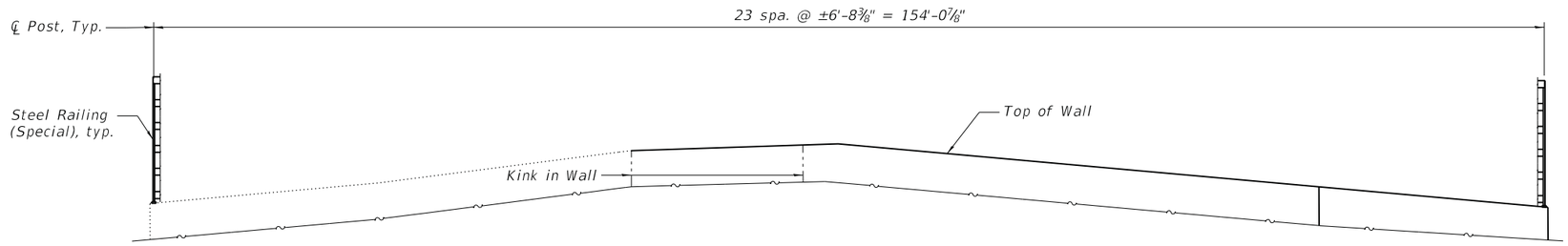
ELEVATION – WEST SIDE OF WALKWAY

(Unfolded, Looking at Sidewalk Face of Rail)



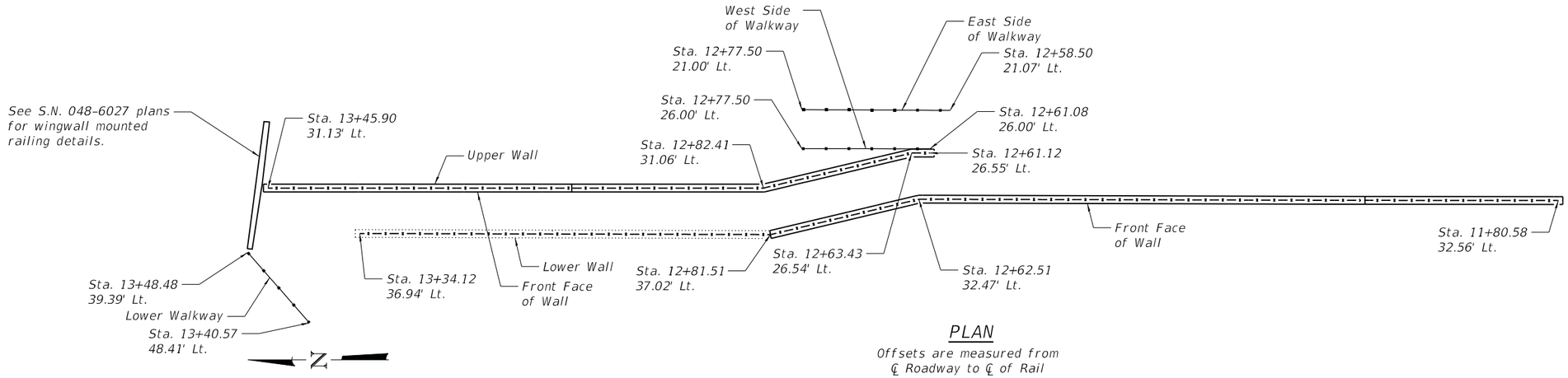
ELEVATION – LOWER WALKWAY

(Looking at Sidewalk Face of Rail)



ELEVATION – LOWER WALL

(Unfolded, Looking at Front Face of Wall)



PLAN

Offsets are measured from ℄ Roadway to ℄ of Rail

LEGEND

Steel Railing (Special)

Pipe Handrail, Special

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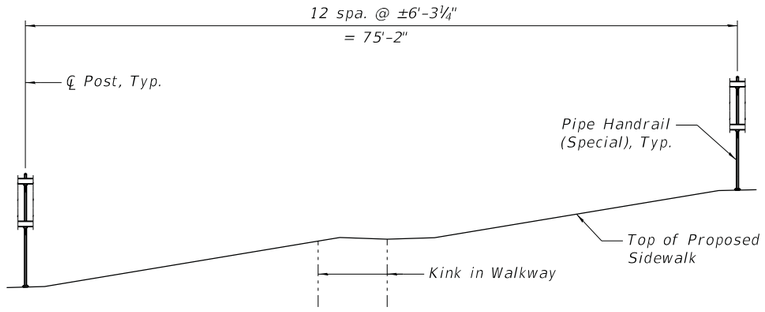
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTHWEST RETAINING WALL – RAIL LAYOUT
RETAINING WALLS

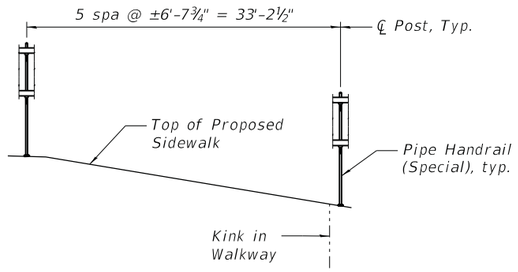
SHEET 10 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	54
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



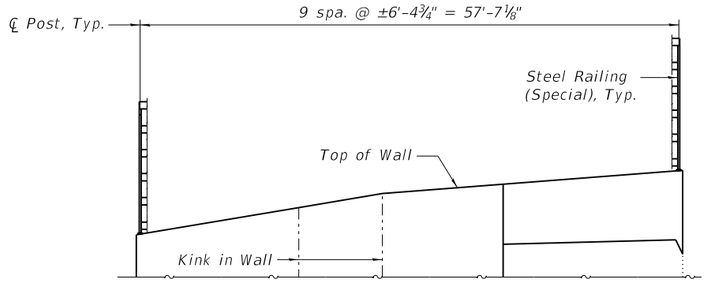
ELEVATION – WEST SIDE OF WALKWAY

(Unfolded, Looking at Sidewalk Face of Rail)



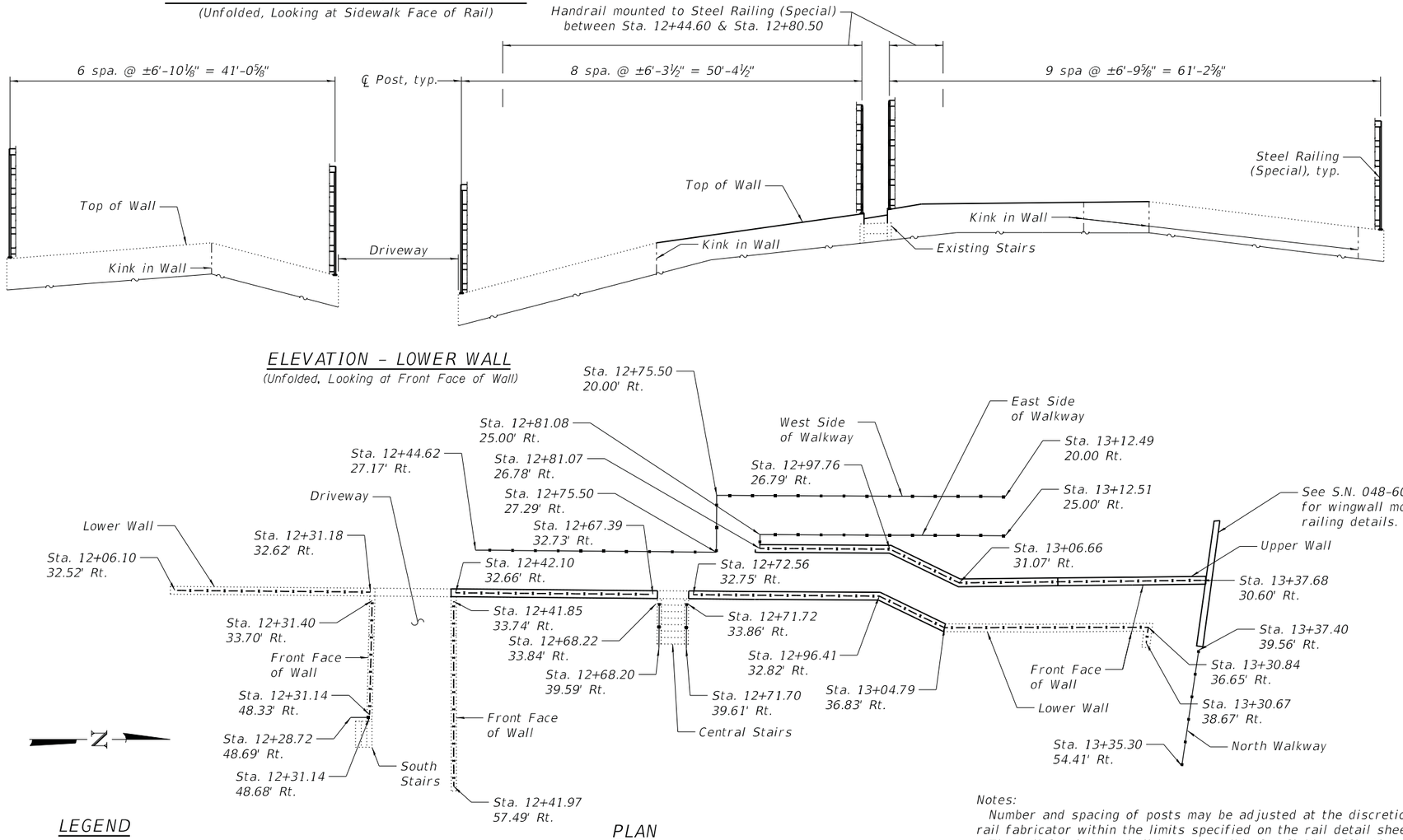
ELEVATION – EAST SIDE OF WALKWAY

(Unfolded, Looking at Sidewalk Face of Rail)



ELEVATION – UPPER WALL

(Unfolded, Looking at Front Face of Wall)

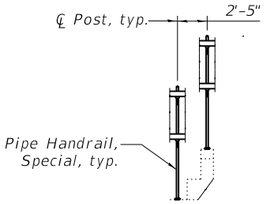


ELEVATION – LOWER WALL

(Unfolded, Looking at Front Face of Wall)

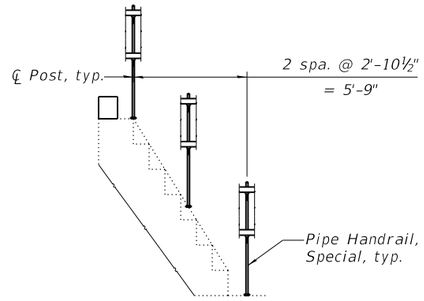
PLAN

Offsets are measured from ℄ Roadway to ℄ of Rail



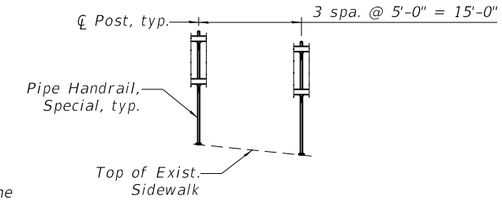
ELEVATION – SOUTH STAIRS

(Looking West from Stairs)



ELEVATION – CENTRAL STAIRS

(Looking North, Typical both Sides)



ELEVATION – NORTH WALKWAY

(Looking at Sidewalk Face of Rail)

LEGEND

Steel Railing (Special)

Pipe Handrail, Special

Notes:

Number and spacing of posts may be adjusted at the discretion of the rail fabricator within the limits specified on the rail detail sheets.

The rail fabricator shall be responsible for field verification of all horizontal and vertical retaining wall geometry and joints prior to fabrication of the prescribed rails.

See Sheet 10 of 16 for additional notes in regards to removal of existing rail and post foundations.

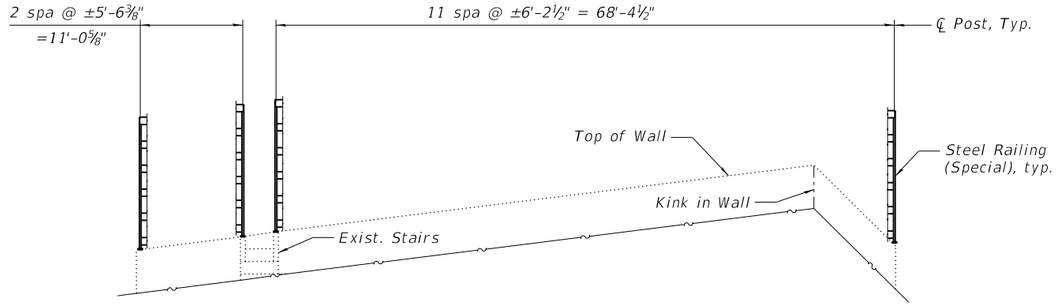
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

	DESIGNED - VPT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT TIME = 5:08:18 PM	DRAWN - CGY	REVISED -	
PLOT DATE = 10/27/2017	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

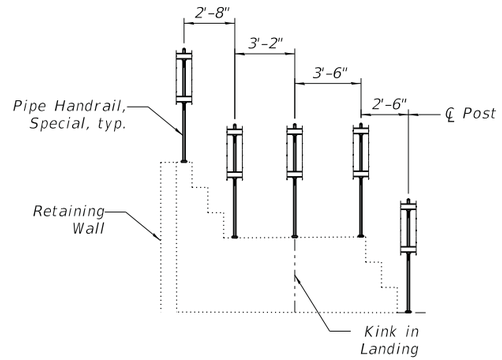
SOUTHEAST RETAINING WALL – RAIL LAYOUT
RETAINING WALLS
SHEET 11 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	55
		CONTRACT NO. 89699		
	ILLINOIS	FED. AID PROJECT		



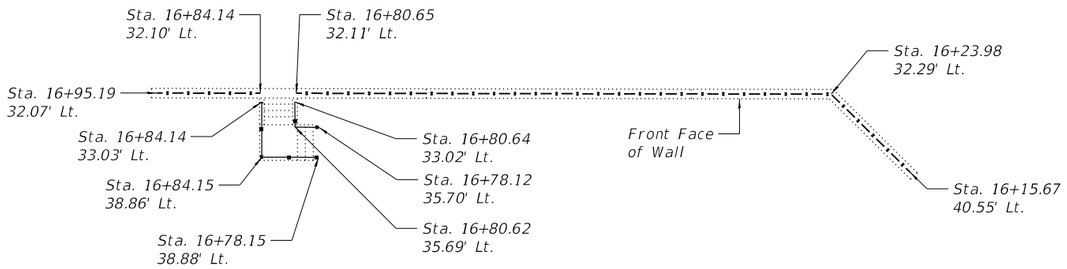
ELEVATION – WALL

(Unfolded, Looking at Front Face of Wall)



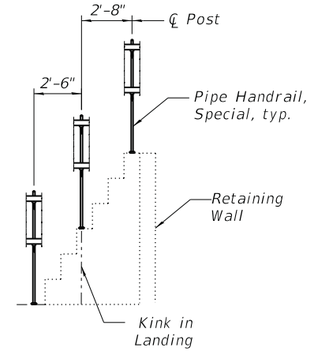
ELEVATION – OUTSIDE OF STAIRS

(Looking at Outside Face of Rail)



PLAN

Offsets are measured from
℄ Roadway to ℄ Rail



ELEVATION – INSIDE OF STAIRS

(Looking at Outside Face of Rail)

Notes:

Number and spacing of posts may be adjusted at the discretion of the rail fabricator within the limits specified on the rail detail sheets.

The rail fabricator shall be responsible for field verification of all horizontal and vertical retaining wall geometry and joints prior to fabrication of the prescribed rails.

See Sheet 10 of 16 for additional notes in regards to removal of existing rail and post foundations.

LEGEND

Steel Railing (Special)

Pipe Handrail, Special

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

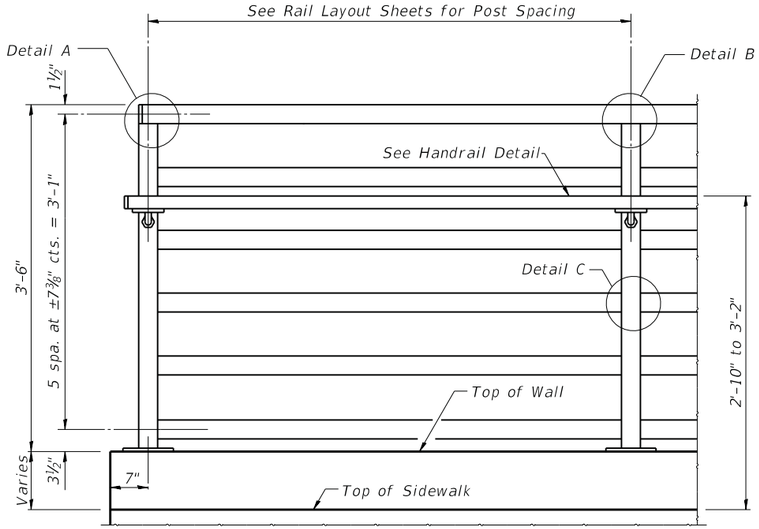
	DESIGNED - VPT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT TIME = 5:08:21 PM	DRAWN - CGY	REVISED -	
PLOT DATE = 10/27/2017	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

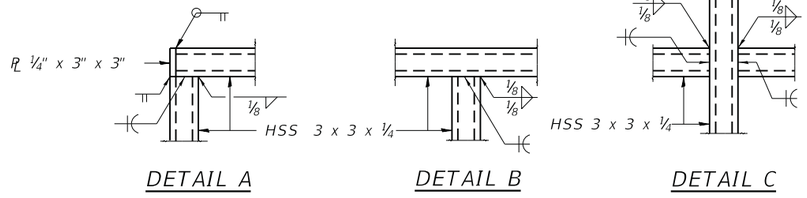
NORTHWEST RETAINING WALL – RAIL LAYOUT
RETAINING WALLS

SHEET 12 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	56
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			



RAILING

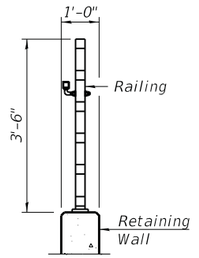


DETAIL A DETAIL B DETAIL C

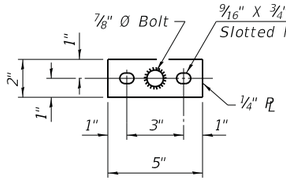
All steel rail elements shall be galvanized according to the Special Provision for Handrails and Railing and Article 509.05 of the Standard Specifications.

All post, railing, splices, anchor devices, and bent plates shall be painted black using the Organic Zinc Rich Primer / Epoxy / Urethane Paint System per the Special Provision for Handrails and Railing and Article 509.05 of the Standard Specifications.

Posts and vertical bars shall be fabricated to be plumb when installed on the retaining wall. Bevel the base plate and angle the horizontal rails as necessary to follow the vertical profile of the top of retaining wall.



SECTION THRU WALL



BASE PL (Handrail)

Notes:

All structural steel tubing post and railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.

The inside handrail on switchbacks or doglegs shall always be continuous.

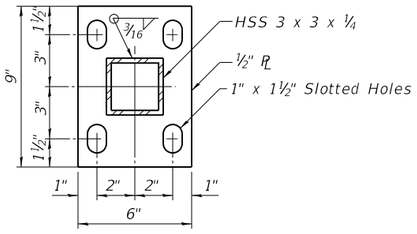
Gripping surfaces shall be uninterrupted by posts, other construction elements, or obstructions.

Ends of handrail shall be either rounded or returned smoothly to floor, wall, or post.

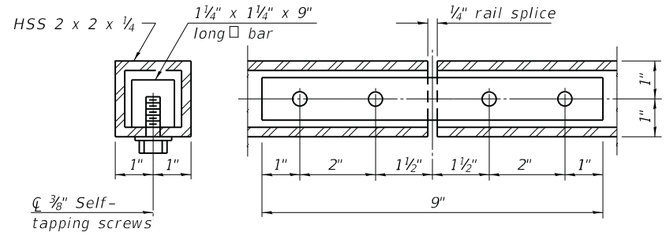
Hand & safety rails shall not rotate within their fittings.

Expansion joints in railing shall match location of expansion joints in walls.

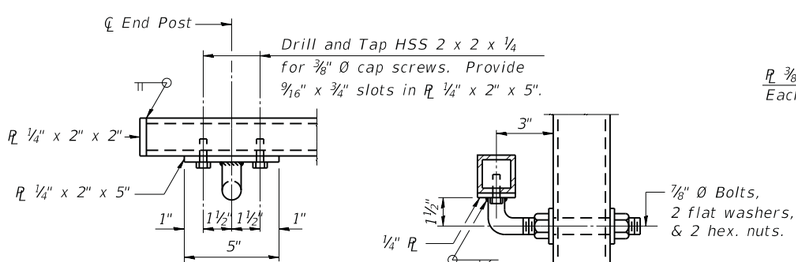
The rail fabricator shall be responsible for field verification of all horizontal and vertical retaining wall geometry and joints prior to fabrication of the prescribed rails.



BASE PL

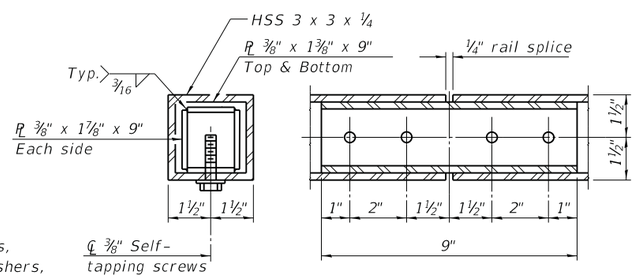


HANDRAIL SPLICE

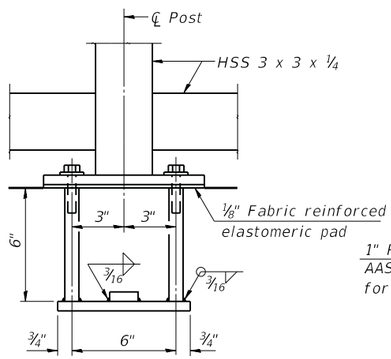


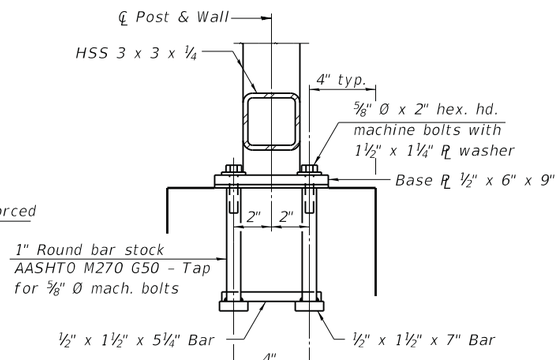
HANDRAIL DETAIL

(7'-0" Maximum Post Spacing)



RAIL SPLICE





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" Ø anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing (Special)	Foot	529.0

LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

	DESIGNED - VPT	REVISED -	
	CHECKED - MTH	REVISED -	
PLOT TIME = 5:08:23 PM	DRAWN - CGY	REVISED -	
PLOT DATE = 10/27/2017	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

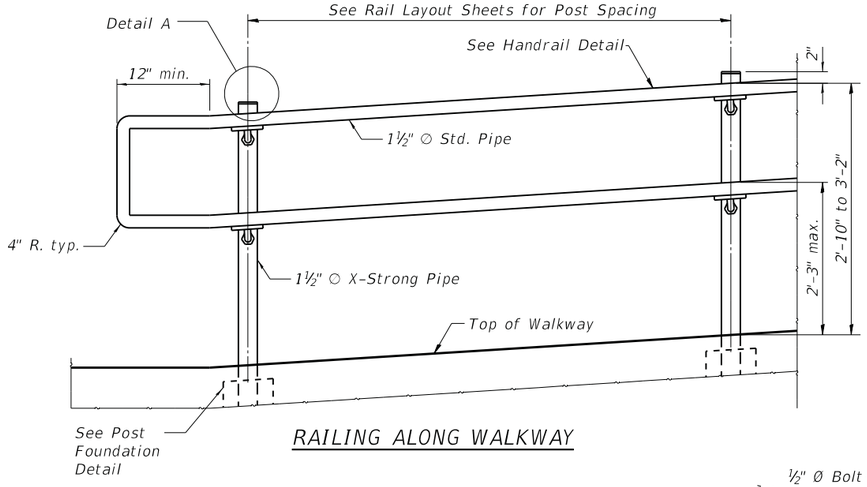
STEEL RAILING (SPECIAL)
RETAINING WALLS
SHEET 13 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	57
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

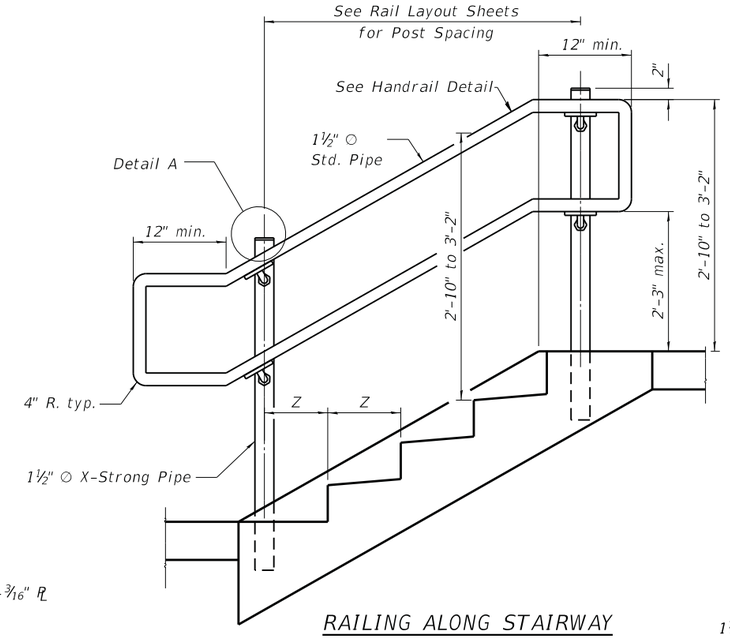
All steel rail elements shall be galvanized according to the Special Provision for Handrails and Railing and Article 509.05 of the Standard Specifications.

All post, railing, splices, anchor devices, and bent plates shall be painted black using the Organic Zinc Rich Primer / Epoxy / Urethane Paint System per the Special Provision for Handrails and Railing and Article 509.05 of the Standard Specifications.

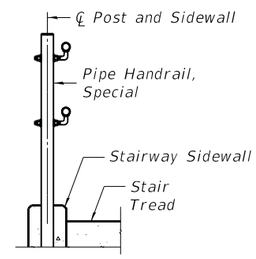
Posts and vertical bars shall be fabricated to be plumb when installed on the retaining wall. Bevel the base plate and angle the horizontal rails as necessary to follow the vertical profile of the top of retaining wall.



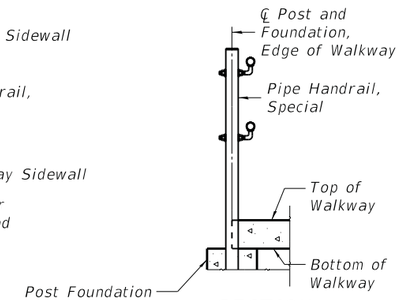
RAILING ALONG WALKWAY



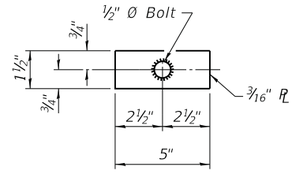
RAILING ALONG STAIRWAY



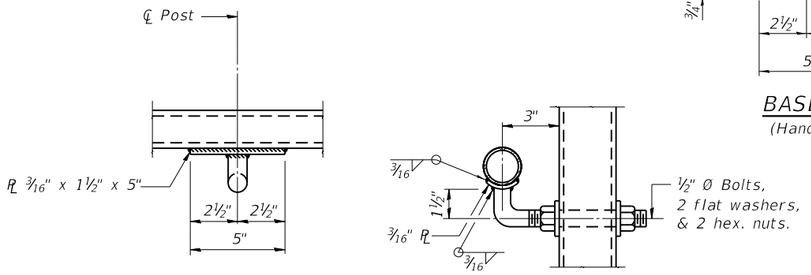
SECTION THRU STAIRWAY



SECTION THRU WALKWAY

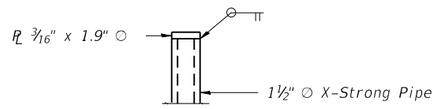


BASE PL (Handrail)

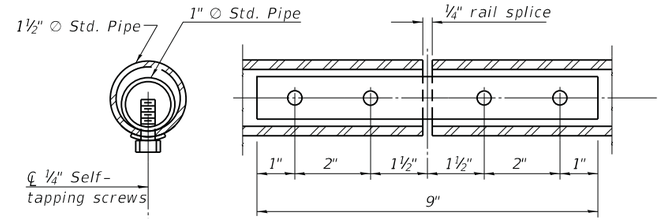


HANDRAIL DETAIL

(7'-0" Maximum Post Spacing)



DETAIL A



HANDRAIL SPLICE

Notes:

Stairways shall have continuous handrails both sides of all stairs.

The inside handrail on switchback or dogleg stairs shall always be continuous.

Gripping surfaces shall be uninterrupted by posts, other construction elements, or obstructions.

Ends of handrail shall be either rounded or returned smoothly to floor, wall, or post.

Hand & safety rails shall not rotate within their fittings.

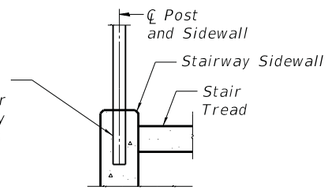
Expansion joints in handrail shall match location of expansion joints of any concrete structure to which it is attached.

The rail fabricator shall be responsible for field verification of all horizontal and vertical retaining wall geometry and joints prior to fabrication of the prescribed rails.

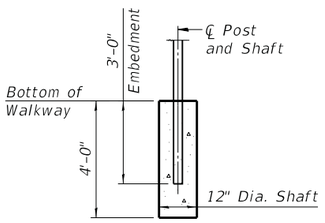
Cost of post foundations shall be included in the cost of Pipe Handrail, Special.

Costs of coring and epoxy grout for stairway sidewall attachment shall be included in the cost of Pipe Handrail, Special.

Core 2½" ∅ Max. hole, 9" deep in top of stairway sidewall. Minimum core diameter shall allow adequate distribution of epoxy around embedded post in accordance with the epoxy manufacturer's specifications. Set post into cored hole and epoxy grout in place according to Article 584 of the Standard Specifications.



STAIRWAY SIDEWALL ATTACHMENT



POST FOUNDATION

BILL OF MATERIAL

Item	Unit	Quantity
Pipe Handrail, Special	Foot	202.0

LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois		DESIGNED - VPT	REVISED -
		CHECKED - MTH	REVISED -
	PLOT TIME = 5:08:26 PM	DRAWN - CGY	REVISED -
	PLOT DATE = 10/27/2017	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIPE HANDRAIL, SPECIAL
RETAINING WALLS
SHEET 14 OF 16 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	58
		CONTRACT NO. 89699		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Whitney & Associates

SOIL BORING LOG

Page 1 of 1

Date 6/19/17

ROUTE _____ DESCRIPTION Farnham Street Retaining Walls LOGGED BY Fehl

SECTION 08-00061-019-BR LOCATION Galesburg, SEC. 12, TWP. T11N, RNG. R1E, 4th PM,
Latitude , Longitude

COUNTY Knox DRILLING METHOD Hollow Stem Augers HAMMER TYPE D-50 Automatic

STRUCT. NO. 048-6027
Station 14+12.38

BORING NO. B-01
Station 13+16
Offset 43.0 ft Right
Ground Surface Elev. 788.20 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter None ft
Upon Completion None ft
After - Hrs. - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dark Brown SILTY CLAY LOAM Organic Topsoil (20")				
	786.53			
Stiff, Brown And Dark Brown SILTY CLAY With Some Coarse-Grained SAND And Brick Fragments (Fill)		2		
		3 3	1.2 B	18
	784.20			
Medium, Dark Brown And Brown SILTY CLAY With Considerable Coarse-Grained Sand, Fine-Grained Gravel And Cinders (Fill)	-5	2		
		3 4	0.9 B	16
	781.70			
Very Loose, Black OIL And CHIPS, Fine-Grained GRAVEL And SILTY CLAY LOAM (Fill)		2		
		1 2	- B	5
	779.20			
Medium, Light Brown And Gray Mottled Dark Brown SILTY CLAY	-10	2		
		2 3	0.9 B	28
	776.20			
Medium, Light Brown And Gray Mottled Dark Brown SILTY CLAY LOAM		2		
		2 2	0.7 B	26
	-15	1		
		2 3	0.6 B	27
		2		
		2 3	1.0 B	26
	769.20			
Very Stiff, Brown CLAY LOAM GLACIAL TILL	-20			

DD = 102 PCF

DD = 92 PCF

DD = 93 PCF

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very Stiff, Brown CLAY LOAM GLACIAL TILL *(continued)*	767.20	5 6 8	2.1 B	17
End of Boring				
	-25			
	-30			
	-35			
	-40			

DD = 116 PCF

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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Whitney & Associates

SOIL BORING LOG

Page 1 of 1

Date 6/19/17

ROUTE _____ DESCRIPTION Farnham Street Retaining Walls LOGGED BY Fehl

SECTION 08-00061-019-BR LOCATION Galesburg, SEC. 12, TWP. T11N, RNG. R1E, 4th PM,
Latitude , Longitude

COUNTY Knox DRILLING METHOD Hollow Stem Augers HAMMER TYPE D-50 Automatic

STRUCT. NO. 048-6027
Station 14+12.88

BORING NO. B-02
Station 12+83
Offset 30.0 ft Left
Ground Surface Elev. 791.00 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter None ft
Upon Completion None ft
After - Hrs. - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dark Brown SILTY CLAY LOAM Organic Topsoil (10.0")	790.17			
Very Stiff, Dark Brown And Brown SILTY CLAY With Occasional Coarse-Grained Sand (Fill)		3		
		4 4	2.2 B	19
	786.50			
Loose, Dark Brown And Brown OIL And CHIPS, Coarse-Grained GRAVEL And SILTY CLAY (Fill)	-5	2		
		3 2	- B	9
	784.00			
Medium, Dark Gray, Dark Brown And Brown SILTY CLAY (Fill)		1		
		2 2	0.8 B	26
	782.50			
APPARENT CONCRETE	782.00			
Medium, Brown And Dark Brown SILTY CLAY With Some Coarse-Grained Sand (Fill)	-10	2		
		2 3	0.9 B	23
	779.00			
Medium, Gray And Orange-Brown Mottled Dark Gray SILTY CLAY		2		
		2 3	0.7 B	27
	776.50			
Medium, Light Brown And Gray Mottled Dark Brown SILTY CLAY LOAM	-15	3		
		3 3	0.9 B	26
		3		
		3 4	1.0 B	26
	772.00			
Medium, Brown CLAY LOAM	-20			

DD = 94 PCF

DD = 97 PCF

DD = 94 PCF

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium, Brown CLAY LOAM *(continued)*	770.00	4 5 6	0.7 B	23
End of Boring				
	-25			
	-30			
	-35			
	-40			

DD = 99 PCF

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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Whitney & Associates

SOIL BORING LOG

Page 1 of 1

Date 6/19/17

ROUTE _____ DESCRIPTION Farnham Street Retaining Walls LOGGED BY Fehl

SECTION 08-00061-019-BR LOCATION Galesburg, SEC. 12, TWP. T11N, RNG. R1E, 4th PM,
Latitude , Longitude

COUNTY Knox DRILLING METHOD Hollow Stem Augers HAMMER TYPE D-50 Automatic

STRUCT. NO. 048-6027
Station 14+12.88

BORING NO. B-03
Station 11+93
Offset 28.0 ft Left
Ground Surface Elev. 787.60 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

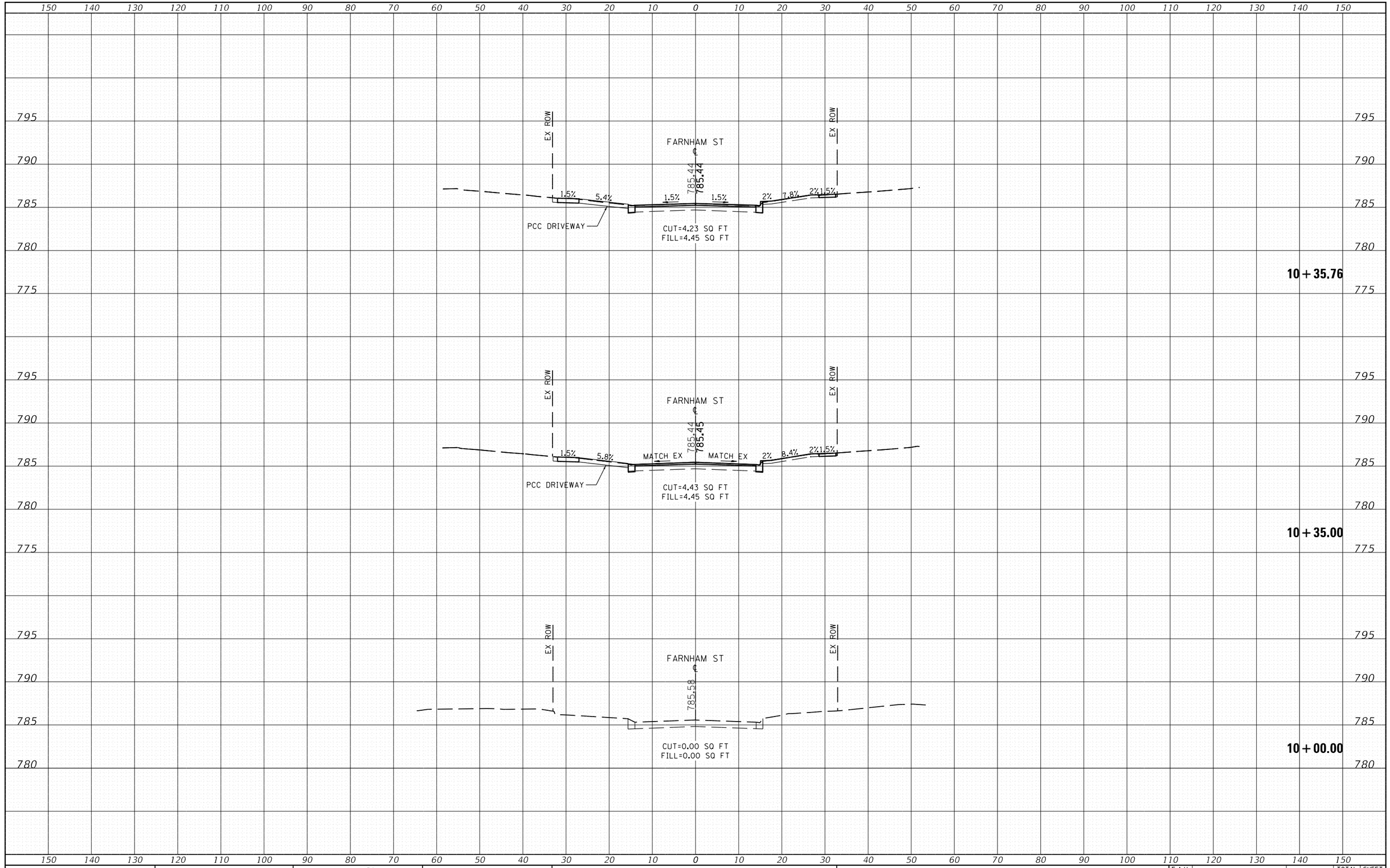
Groundwater Elev.:
First Encounter None ft
Upon Completion None ft
After - Hrs. - ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
Brown SILTY CLAY LOAM Organic Topsoil (6.0')	787.10				
Hard, Dark Brown CLAY LOAM (Fill)		3			
		4 5	4.2 B	18	DD = 104 PCF
	783.60				
Loose, Dark Brown, Brown And Orange-Brown CINDERS, BRICK FRAGMENTS And CLAY LOAM (Fill)	-5	3			
		4 4	-	21	
	780.60				
Medium, Light Brown And Gray Mottled Dark Gray SILTY CLAY LOAM		2			
		3 3	0.7 B	26	DD = 93 PCF
	778.60				
Stiff, Light Brown And Gray SILT	-10	3			
		3 4	1.1 B	21	
	776.60				
End of Boring	-15				
	-20				

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, form 137 (Rev. 8-99)

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



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

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - RC	REVISED - -- -------	
	DRAWN - RC	REVISED - -- -------	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED - -- -------	
PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED - -- -------	

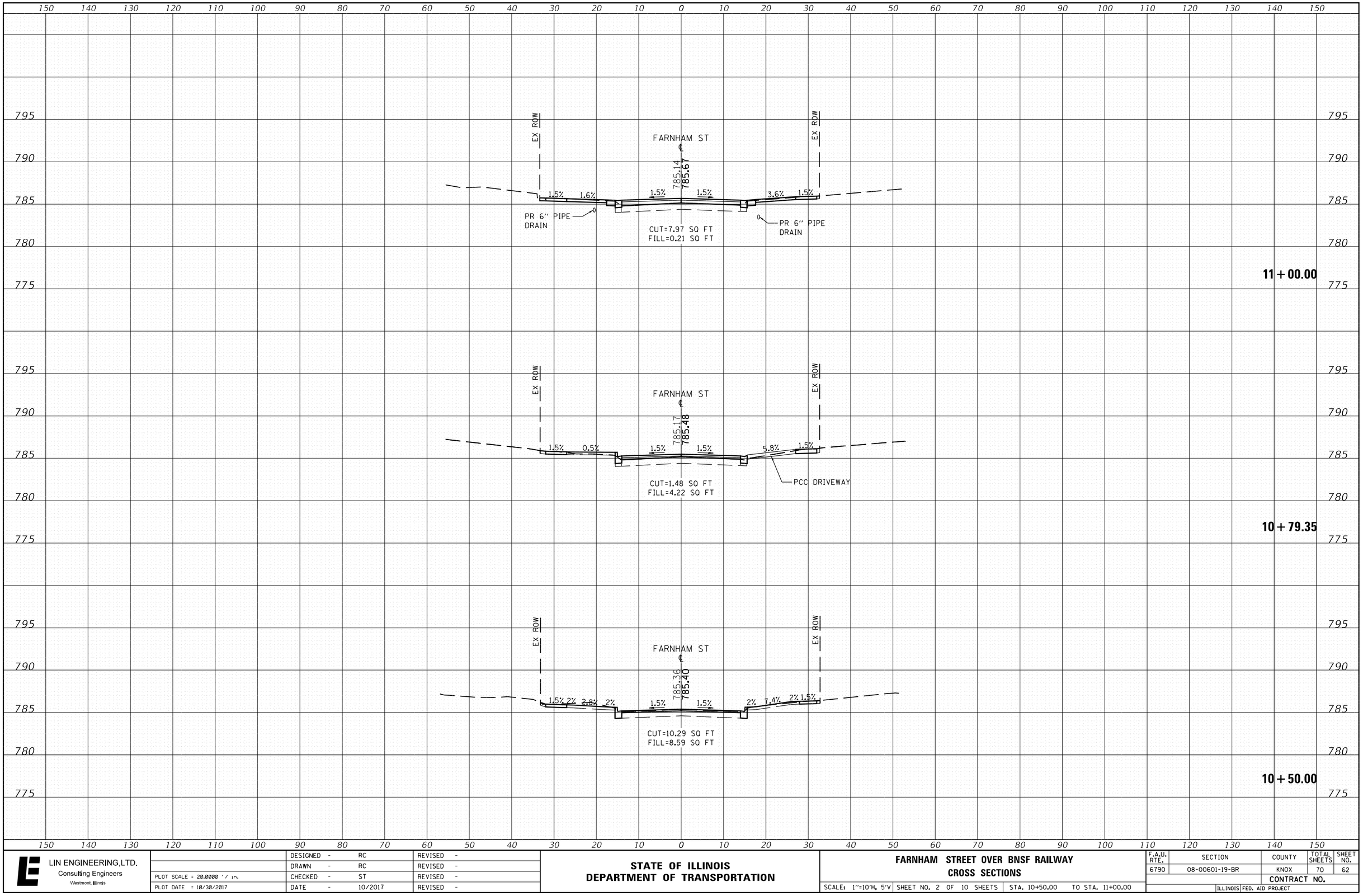
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 1 OF 10 SHEETS | STA. 10+00.00 TO STA. 10+35.76

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	61
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

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



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

LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois		DESIGNED - RC	REVISED -
		DRAWN - RC	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 10/30/2017	DATE - 10/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 2 OF 10 SHEETS | STA. 10+50.00 TO STA. 11+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	62
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

795 790 785 780 775

EX ROW — FARNHAM ST ℄ — EX ROW

785.52 786.60

1.5% 7.8% 2% 1.5% 1.5% 2% 9.8% 1.5%

PR 6" PIPE DRAIN

CUT=1.67 SQ FT
FILL=15.69 SQ FT

11+50.00

EX ROW — FARNHAM ST ℄ — EX ROW

785.23 786.14

1.5% 2.1% 1.5% 1.5% 3.7% 1.5%

PCC DRIVEWAY

PCC DRIVEWAY

CUT=0.48 SQ FT
FILL=0.49 SQ FT

11+29.22

EX ROW — FARNHAM ST ℄ — EX ROW

785.20 785.95

1.5% 1.2% 1.5% 1.5% 2% 5.6% 1.5%

PCC DRIVEWAY

PR 6" PIPE DRAIN

CUT=0.73 SQ FT
FILL=6.22 SQ FT

11+19.35

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

FINAL SURVEY — NOTE BOOK — NO.

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO.

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

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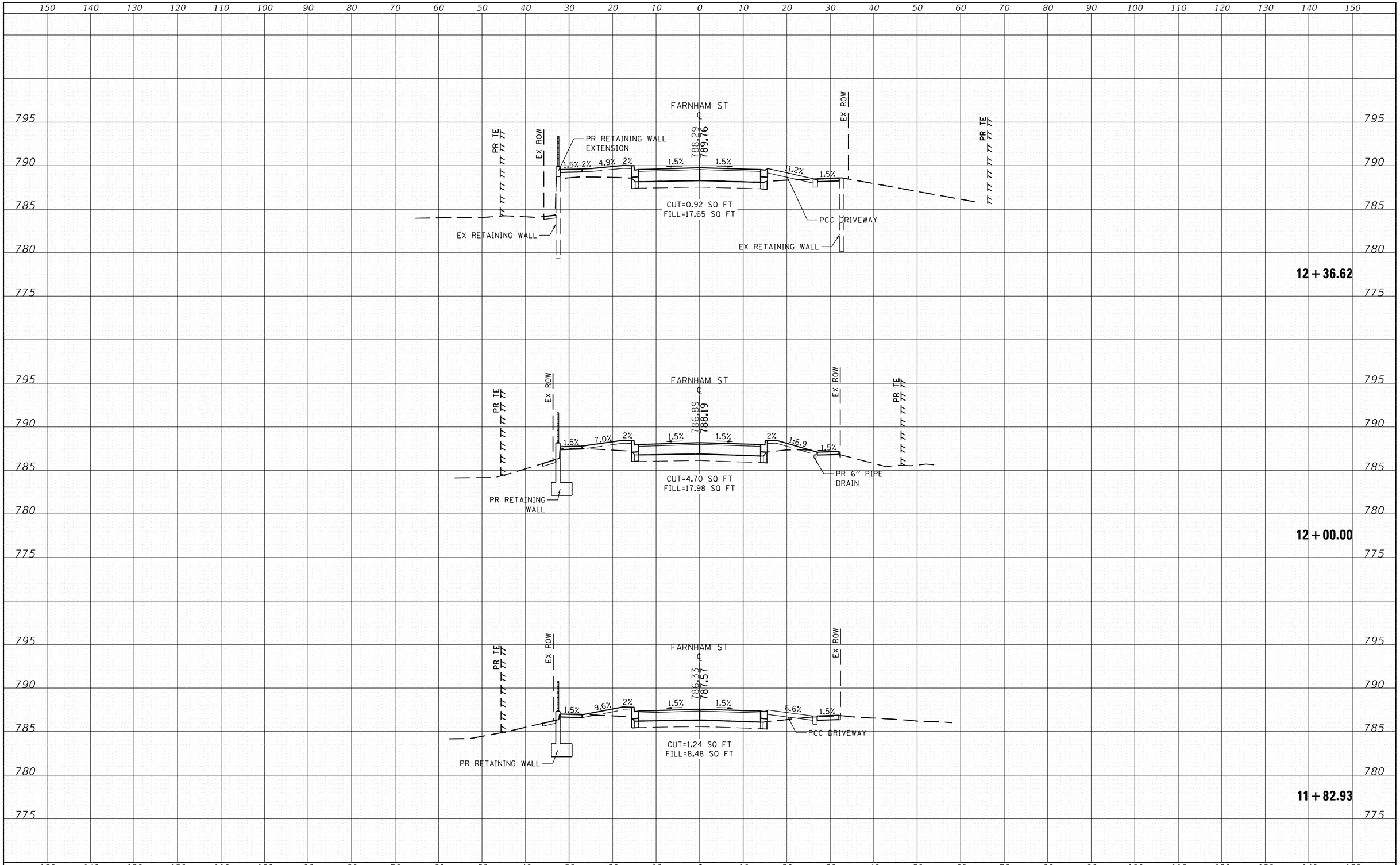
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 3 OF 10 SHEETS | STA. 11+19.35 TO STA. 11+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	63
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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



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

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

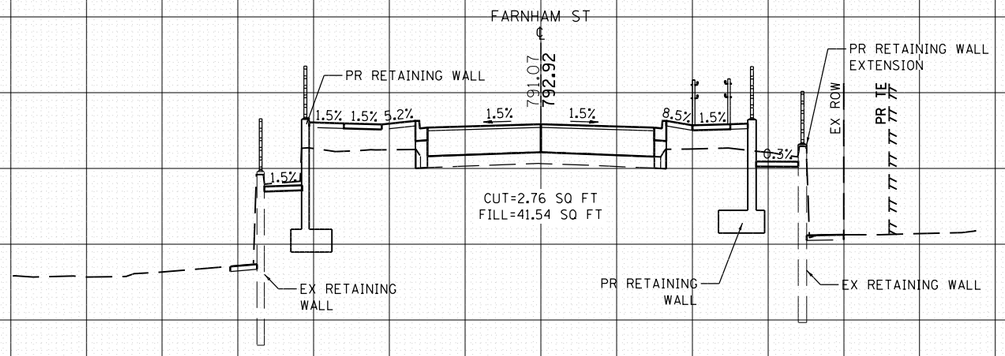
FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

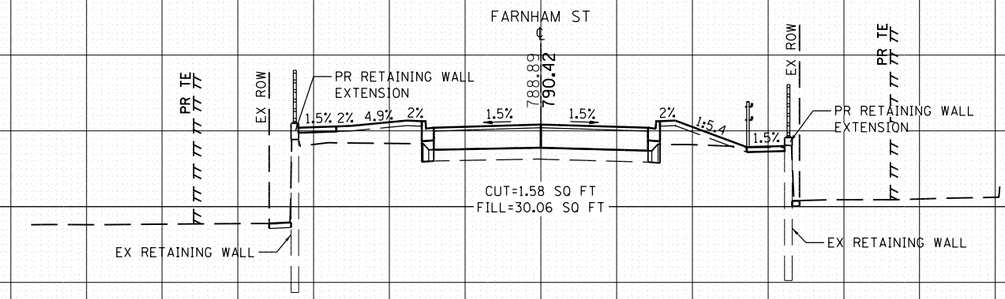
SCALE: 1"=10'H, 5'V | SHEET NO. 4 OF 10 SHEETS | STA. 11+82.93 | TO STA. 12+36.62

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	64
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

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

BRIDGE OMISSION, SEE STRUCTURAL SHEETS





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

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

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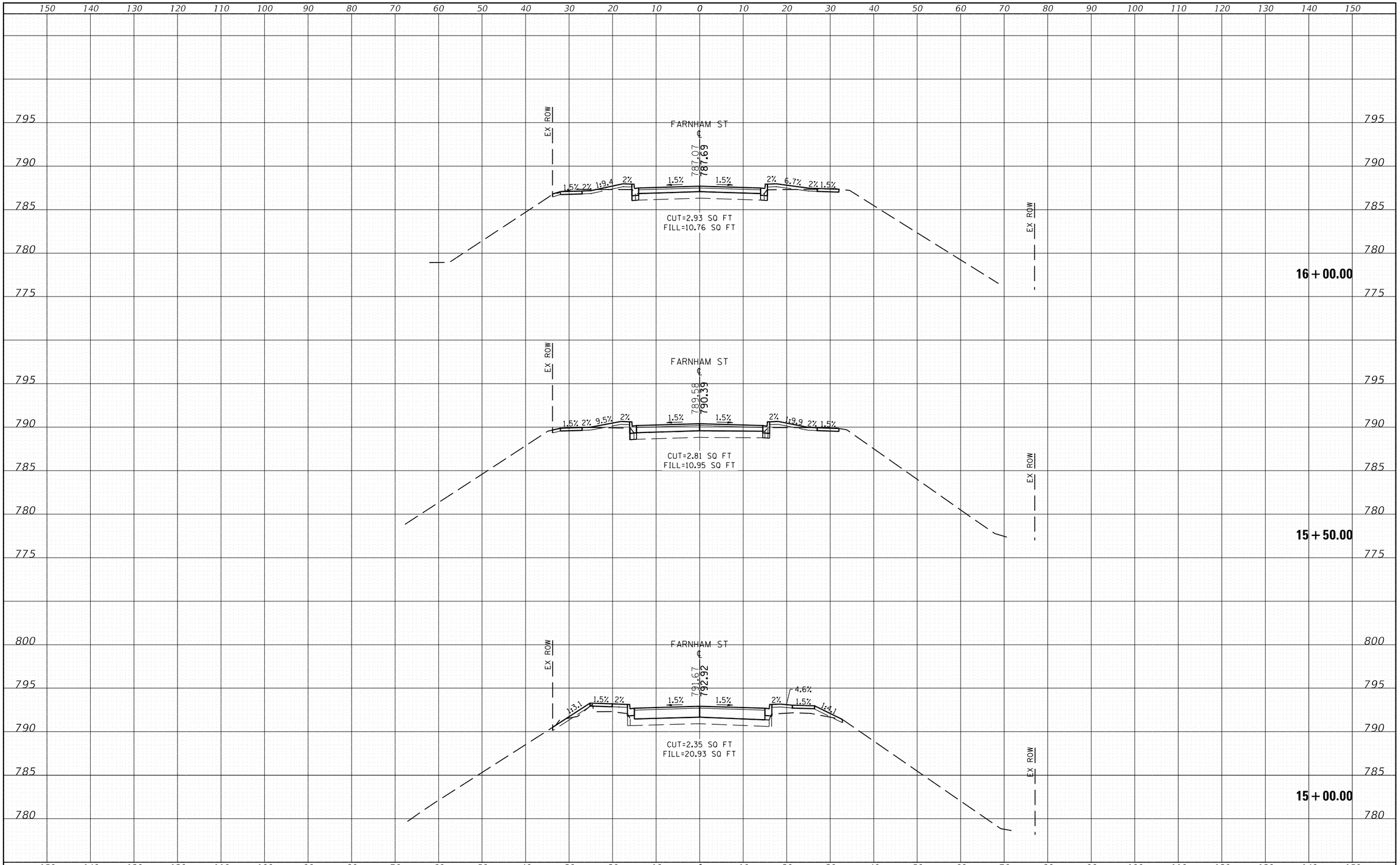
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 5 OF 10 SHEETS | STA. 12+50.00 TO STA. 13+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	65
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

LIN ENGINEERING, LTD.
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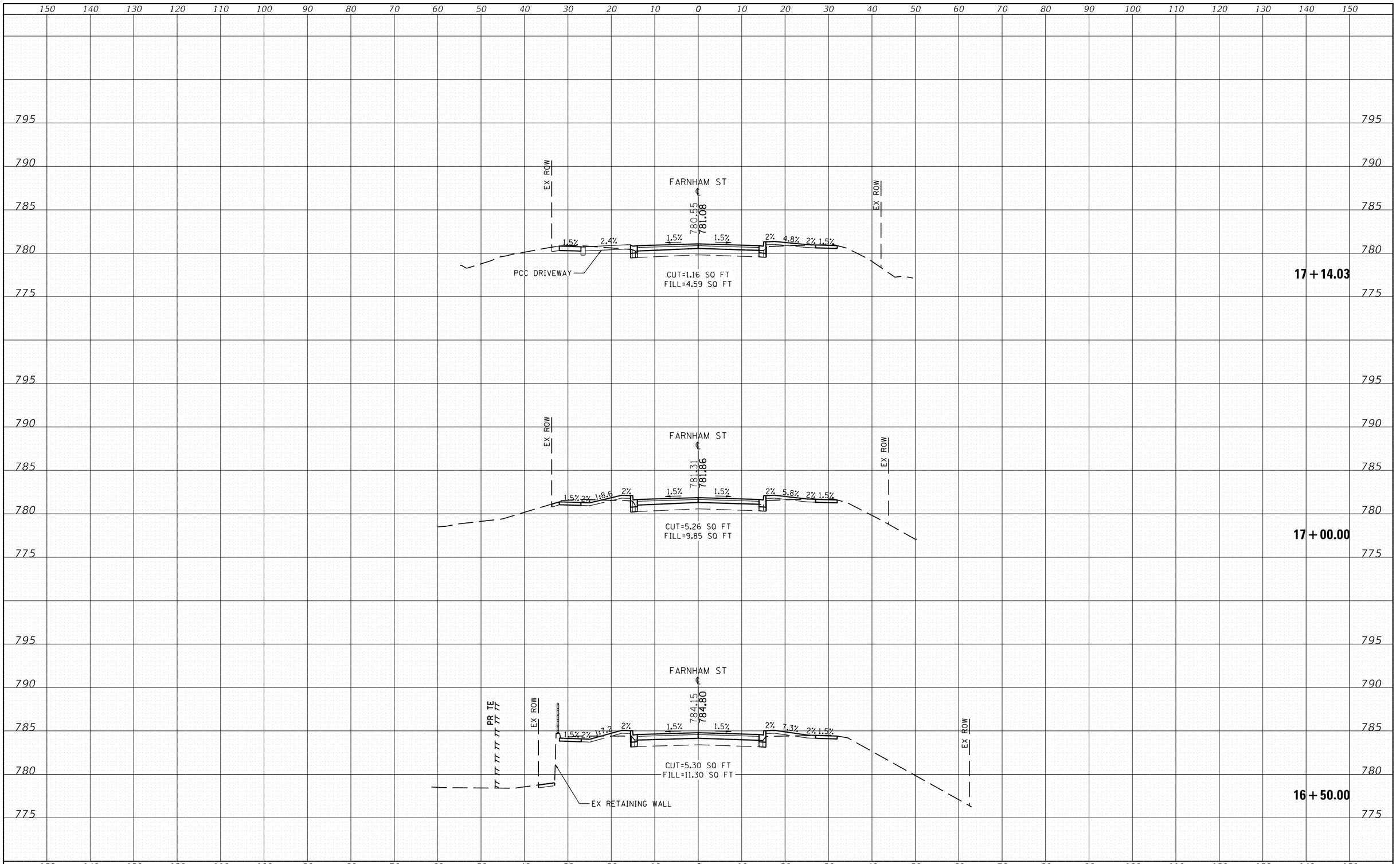
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H. 5'V | SHEET NO. 6 OF 10 SHEETS | STA. 15+00.00 TO STA. 16+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	66
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK — NO.

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO.

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

PLOT SCALE = 20.0000 ' / in.
PLOT DATE = 10/30/2017

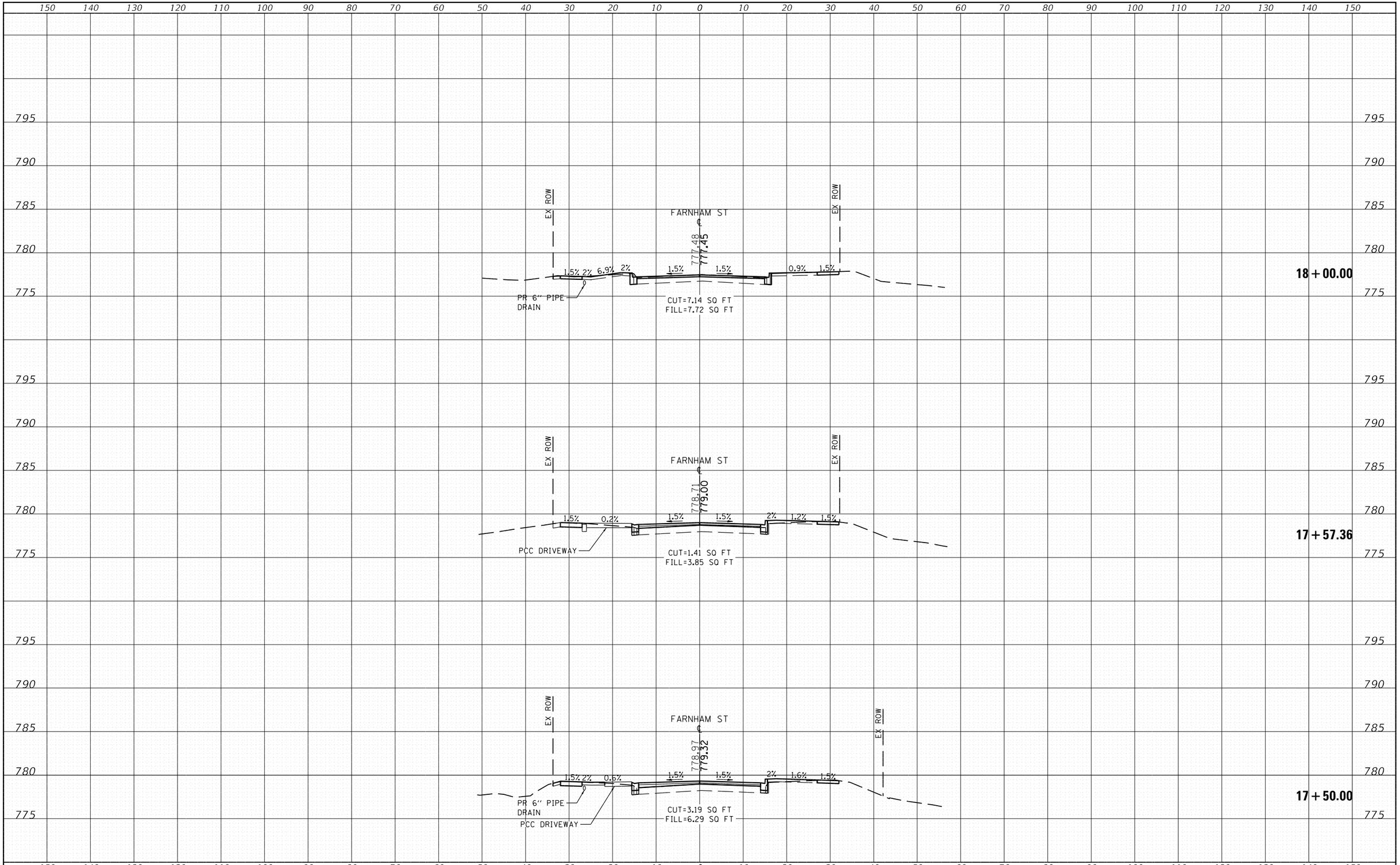
DESIGNED	-	RC	REVISED -
DRAWN	-	RC	REVISED -
CHECKED	-	ST	REVISED -
DATE	-	10/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 7 OF 10 SHEETS | STA. 16+50.00 TO STA. 17+14.03

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	67
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



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

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

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STATE OF ILLINOIS
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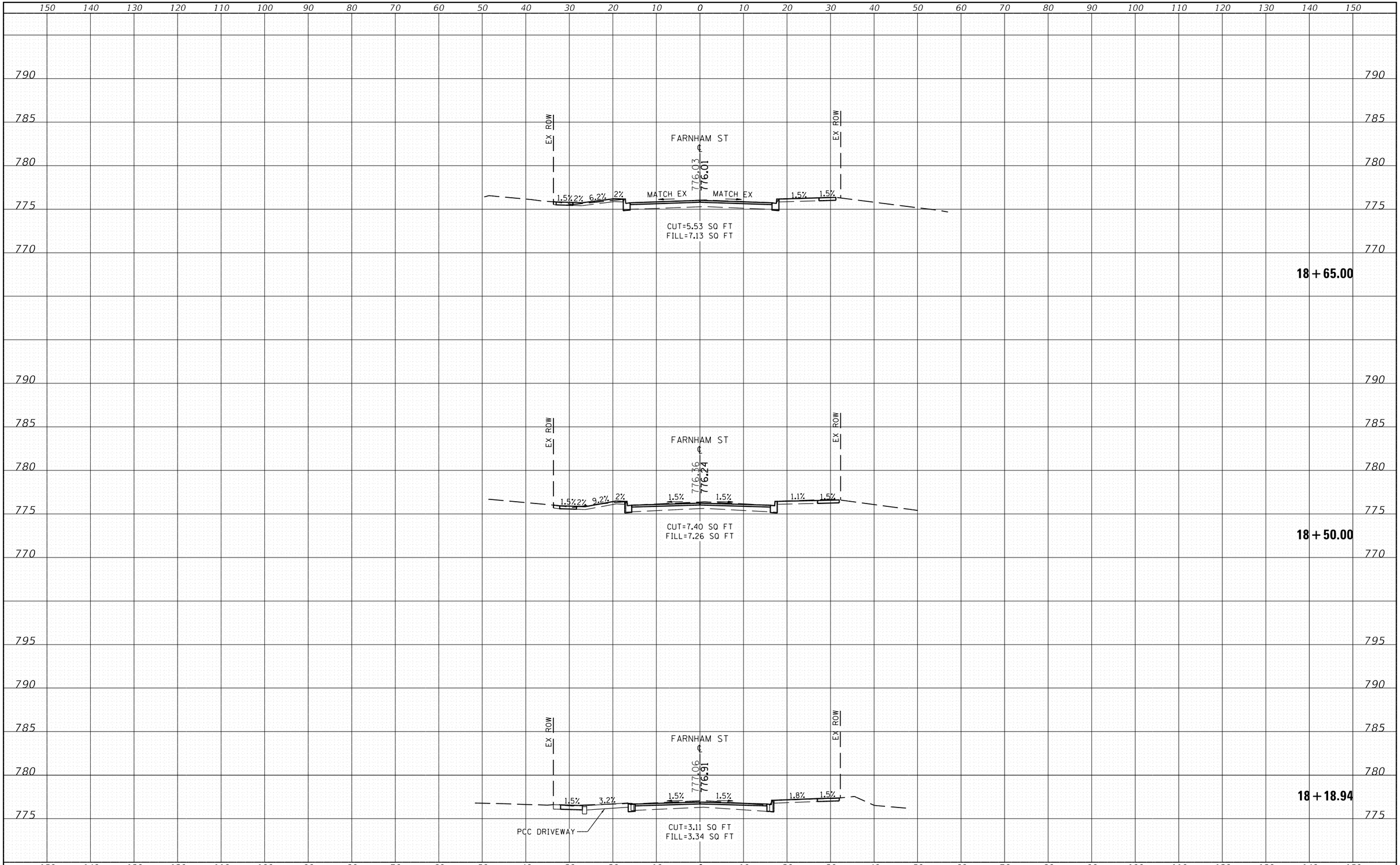
FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 8 OF 10 SHEETS | STA. 17+50.00 TO STA. 18+18.94

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	68
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



FINAL SURVEY

NO.	NOTE BOOK	BY	DATE
	SURVEYED		
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	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE
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	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 9 OF 10 SHEETS | STA. 18+65.00 TO STA. $XSSTA18

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	69
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

DATE	BY	
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		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

790
785
780
775
770

EX ROW

FARNHAM ST

℄

775.50

EX ROW

CUT=0.00 SQ FT
FILL=0.00 SQ FT

19+00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

LIN ENGINEERING,LTD.
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FARNHAM STREET OVER BNSF RAILWAY
CROSS SECTIONS

SCALE: 1"=10'H, 5'V | SHEET NO. 10 OF 10 SHEETS | STA. 19+00.00 TO STA. 19+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6790	08-00601-19-BR	KNOX	70	70
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			