

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	1

+1
49

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 751 (IL 106)
SECTION 101B-2
PROJECT : ACBRF-0751(004)
PIKE COUNTY
BRIDGE REMOVAL AND REPLACEMENT
C-96-507-08

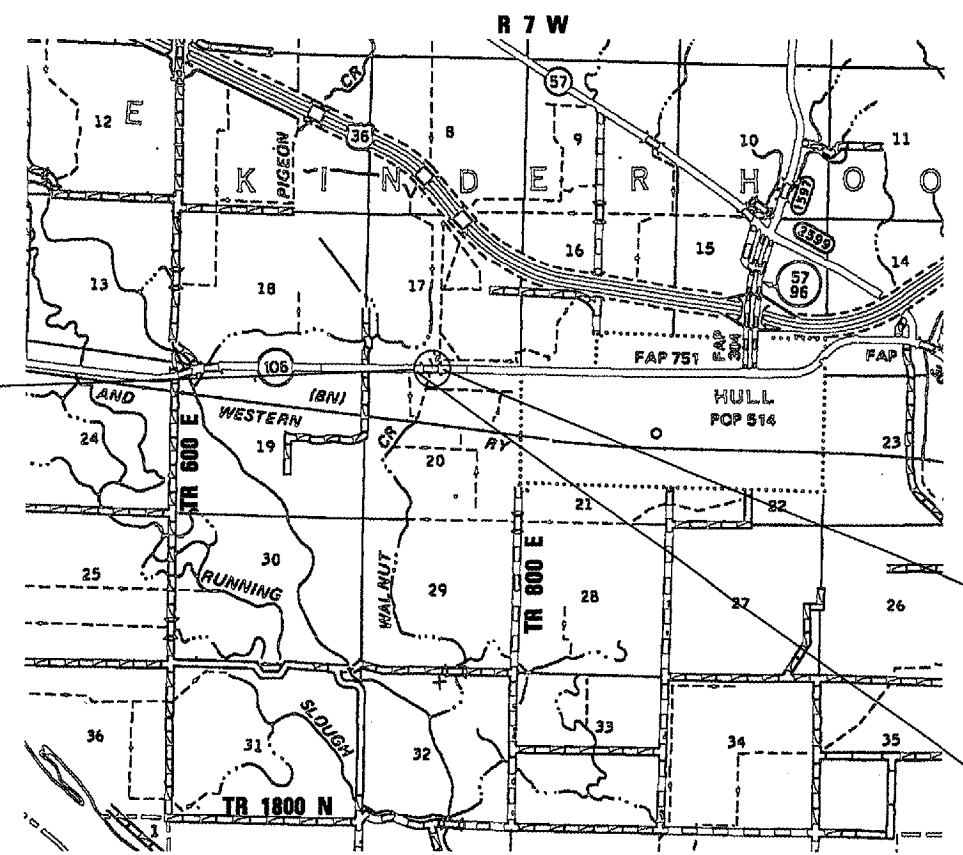
FOR INDEX OF SHEETS, SEE SHEET NO. 2

STANDARDS

- 000001-04
- 001001-01
- 280001-03
- 420401-05
- 515001-02
- 542401
- 609006-03
- 630001-07
- 630301-04
- 631031-06
- 635006-02
- 666001
- 701201-02
- 701306-01
- 702001-06
- 780001-01
- 781001-02
- BLR 21-6
- 401101

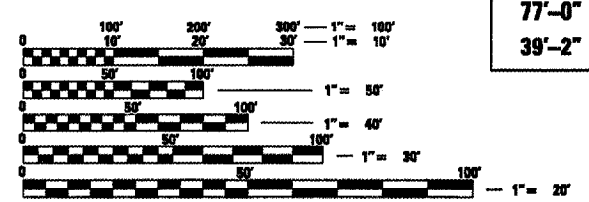


STA 381+00
PROJECT INCLUDES
BRIDGE REMOVAL AND
REPLACEMENT
OF SN 075-0025
EX SINGLE SPAN BRIDGE
48'-0" BK TO BK ABUT
46'-4" OUT TO OUT
WITH PROP
SN 075-0507
SINGLE SPAN
77'-0" BK TO BK ABUT
39'-2" OUT TO OUT



END PROJECT STA 385+00

BEGIN PROJECT STA 377+00



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.L.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

AVERAGE DAILY TRAFFIC: 1050 (2005)
SU: 50
MU: 40

GROSS LENGTH OF PROJECT = 800 FT = 0.152 MILES
NET LENGTH OF PROJECT = 800 FT = 0.152 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *August 15, 2007*
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 12, 2007
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

October 13, 2007
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

PROJECT ENGINEER: JOHN NEGANGARD (217) 782-6990
SR. SQUAD LEADER: MARK DUST (217) 785-0597

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

- 1 ALL ELEVATIONS SHOWN IN THE PLANS ARE U. S. G. S. MEAN SEA LEVEL DATUM.
- 2 ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERRUPTED TO BE THE LATEST STANDARDS OF THE DEPARTMENT AS SHOWN IN THE PLANS.
- 3 THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NORMAL THICKNESS. DEVIATIONS FROM THE NORMAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- 4 SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. AREAS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER.
- 5 EXISTING PAVEMENT DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS, AND NOT OTHER WISE NECESSARY TO REPLACE, SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- 6 THE LOCATIONS OF THOSE BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINE IN ARTICLE 107.26 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCED NOTICE IS REQUIRED.
- 7 THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 8 ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT-OF-WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARDS SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 9 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 OTHERWISE REFERENCED THEIR LOCATION IF THE ENGINEER DECIDES TO HAVE THE CONTRACTOR RESET THE MONUMENT, THIS WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.
- 10 NO PASSING ZONES SHALL BE FIELD VERIFIED BY DAVE BERTETTO, DIST. 6, (217)785-0288, 14 DAYS PRIOR TO FINAL PAVEMENT MARKINGS.
- 11 THE FOLLOWING APPLICATION RATES WERE USED FOR QUANTITY CALCULATIONS.

- BITUMINOUS SURFACE COURSE, _____ 0.056 TON / 50 YD • IN
- AGGREGATE SHOULDERS TYPE A _____ 2.05 TON / CU YD
- BITUMINOUS MATERIAL (PRIME COAT) _____ 0.00038 TON / 50 YD
- NITROGEN _____ 90 LBS / ACRE
- PHOSPHOROUS _____ 90 LBS / ACRE
- POTASSIUM _____ 90 LBS / ACRE
- LIMESTONE _____ 2 TON / ACRE
- MULCH _____ 2 TON / ACRE
- TEMPORARY EROSION CONTROL SEEDING _____ 100 LB / ACRE
- RIPRAP _____ 1.50 TON / CU YD
- AGGREGATE SHOULDERS TYPE B _____ 1.89 TON / CU YD

12 THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

MIXTURE USE	Surface 40603310	Level Binder 40600625	Binder 40603080	Shoulders 48203100
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 58-22
DESIGN AIR VOIDS	4.0 @ N Design = 50	4.0 @ N Design = 50	4.0 @ N design = 50	2.0 @ N design = 30
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5 OR 12.5	IL 9.5	IL 19.0	BAM
FRICTION AGGREGATE	Mix "C"	N/A	N/A	N/A

13 PRIOR TO ROAD CLOSURE, THE R.E. SHALL VIDEOTAPE THE LOCAL ROAD NETWORK FOR DETERMINATION OF DAMAGES DUE TO THE DETOURED TRAFFIC. THIS SHALL BE USED TO DETERMINE NECESSARY REPAIRS TO RETURN THE LOCAL ROADS TO THEIR ORIGINAL CONDITION AS DETERMINED BY THE ENGINEER. ESTIMATED QUANTITIES FOR REPAIRS TO LOCAL ROADS ARE INCLUDED IN THE PLANS.

COMMITMENTS

- THE FIELD/RESIDENT ENGINEER SHALL CONTACT STUDIES & PLANS CONCERNING ANY MAJOR PLAN CHANGES TO MAKE SURE NO PREVIOUS COMMITMENTS (NOT LISTED) WERE MADE AFFECTING THE DESIGN AND ALLOW AN IMPROVED DESIGN FOR FUTURE PROJECTS.
- ROAD CLOSURE: MAY 27, 2008 TO AUGUST 29, 2008.

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES & COMMITMENTS
- 3-6 SUMMARY OF QUANTITIES
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- 14 BENCHMARKS & CROSS TIES
- 15-16 DETOUR PLAN
- 17-19 PLAN AND PROFILE SHEETS
- 20-24 STORM WATER POLLUTION PREVENTION PLAN
- 25 BUTT JOINT DETAIL
- 26-39 STRUCTURE PLANS (INCLUDING SOIL BORINGS)
- 40-48 CROSS SECTIONS
- 48A. CONCRETE PARAPET SLIPFORMING OPTION

DISTRICT SIX

EXAMINED Aug 8 2007

Sam J. Ham

OPERATIONS ENGINEER

EXAMINED Aug 3 2007

W.R. J.

PROGRAM IMPLEMENTATION ENGINEER

EXAMINED Aug 15 2007

W.R. J.

PROGRAM DEVELOPMENT ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & COMMITMENTS

SCALE: VERT. _____
HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

Rev.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PAY CODE NUMBER	SUMMARY OF QUANTITIES PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	1000 CONSTR. CODE	X071-2A CONSTR. CODE
			80% FEDERAL 20% STATE	ROADWAY 80% FEDERAL 20% STATE	IL 106 BRIDGE SN 075-0507 80% FEDERAL 20% STATE
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	36	36	-
20200100	EARTH EXCAVATION	CU YD	2750	2750	-
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	128	-	128
25000200	SEEDING, CLASS 2	ACRE	1.1	1.1	-
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	99	99	-
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	99	99	-
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	99	99	-
25000700	AGRICULTURAL GROUND LIMESTONE	TON	2.2	2.2	-
25100115	MULCH, METHOD 2	ACRE	1.1	1.1	-
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	250	250	-
28000400	PERIMETER EROSION BARRIER	FOOT	500	500	-
28001000	AGGREGATE EROSION CONTROL	TON	25	25	-
28100109	STONE RIPRAP, CLASS A5	SQ YD	2249	1173	1076
28200200	FILTER FABRIC	SQ YD	2249	1173	1076
35800100	PREPARATION OF BASE	SQ YD	2500	2500	-
35800200	AGGREGATE BASE REPAIR	TON	50	50	-
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	105	105	-
40300400	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	TON	30	30	-
40300600	SEAL COAT AGGREGATE	TON	215	215	-
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	2	2	-
40600300	AGGREGATE (PRIME COAT)	TON	10	10	-
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	67	67	-

PLOT DATE : Aug-15-2007 01:35:52PM
 PLOT SCALE : 1/8"=1'-0"
 USER NAME : boughlin

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. DATE
HORIZ. DATE

DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES		UNIT	TOTAL QUANTITY	1000 CONSTR. CODE	X071-2A CONSTR. CODE
PAY CODE NUMBER	PAY ITEM DESCRIPTION		80% FEDERAL 20% STATE	ROADWAY 80% FEDERAL 20% STATE	IL 106 BRIDGE SN 075-0507 80% FEDERAL 20% STATE
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	160	160	-
40603080	HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50	TON	417	417	-
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	146	146	-
42001165	BRIDGE APPROACH PAVEMENT	SO YD	288	288	-
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO YD	48	48	-
44000100	PAVEMENT REMOVAL	SO YD	269	269	-
44004250	PAVED SHOULDER REMOVAL	SO YD	250	250	-
44200108	PAVEMENT PATCHING, TYPE II, 9 INCH	SO YD	30	30	-
44200112	PAVEMENT PATCHING, TYPE III, 9 INCH	SO YD	25	25	-
48101200	AGGREGATE SHOULDERS, TYPE B	TON	112	112	-
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	408	408	-
48203100	HOT-MIX ASPHALT SHOULDERS	TON	47	47	-
50100100	REMOVAL OF EXISTING STRUCTURE	EACH	1	-	1
50105220	PIPE CULVERT REMOVAL	FOOT	48	48	-
50200100	STRUCTURE EXCAVATION	CU YD	172	-	172
50300100	FLOOR DRAINS	EACH	8	-	8
50300225	CONCRETE STRUCTURES	CU YD	33	-	33
50300255	CONCRETE SUPERSTRUCTURES	CU YD	115.8	-	115.8
50300260	BRIDGE DECK GROOVING	SO YD	552	261	291
50300300	PROTECTIVE COAT	SO YD	372	-	372
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	-	1
50500505	STUD SHEAR CONNECTORS	EACH	1116	-	1116

PLOT DATE : Aug-18-2007 08:35:45 PM
 PLOT SCALE : 1/8" = 1'-0"
 USER NAME : baughn1

REVISIONS	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. DATE
 HORIZ. DATE
 DRAWN BY CHECKED BY

Rev.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES		UNIT	TOTAL QUANTITY	I000 CONSTR. CODE	X071-2A CONSTR. CODE
PAY CODE NUMBER	PAY ITEM DESCRIPTION		80% FEDERAL 20% STATE	ROADWAY 80% FEDERAL 20% STATE	IL 106 BRIDGE SN 075-0507 80% FEDERAL 20% STATE
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	28600	-	28600
50800515	BAR SPLICERS	EACH	72	-	72
<i>51200957</i>	<i>FURNISHING METAL SHELL PILES 12" X 0.25"</i>	FOOT	1340	-	1340
51202305	DRIVING PILES	FOOT	1340	-	1340
51203200	TEST PILE METAL SHELLS	EACH	1	-	1
51500100	NAME PLATES	EACH	1	-	1
52100520	ANCHOR BOLTS, 1"	EACH	24	-	24
54215547	METAL END SECTIONS 12"	EACH	4	-	4
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	71	-	71
60100945	PIPE DRAINS 12"	FOOT	56	-	56
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	145	-	145
60900140	TYPE B INLET BOX, STANDARD 609006	EACH	4	-	4
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	625	625	-
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	-
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4	-
* 63200310	GUARDRAIL REMOVAL	FOOT	440	440	-
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	8	8	-
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL MO	8	8	-
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	-
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	-
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1	-

PLOT DATE : Aug 15 2007 09:05:09PM
 FILE NAME : c:\p\projects\6254582\sh1300.dgn
 PLOT SCALE : 1/8"=1'-0"
 USER NAME : laughtinr1

** SPECIALTY ITEMS*

Rev.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. _____
 DATE: _____

DRAWN BY _____
 CHECKED BY _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES		UNIT	TOTAL QUANTITY	I000 CONSTR. CODE	X071-2A CONSTR. CODE
PAY CODE NUMBER	PAY ITEM DESCRIPTION		80% FEDERAL 20% STATE	ROADWAY 80% FEDERAL 20% STATE	IL 106 BRIDGE SN 075-0507 80% FEDERAL 20% STATE
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	0.5	0.5
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	2.5	2.5
*78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	1800	1800	-
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	11	11	-
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	14	14	-
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	-
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	11	11	-
Z0005000	BITUMINOUS MIXTURE FOR PATCHING POTHoles (COLD MIX)	TON	25	25	-

*SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SUMMARY OF QUANTITIES
 SCALE: VERT. DATE
 HORIZ. DATE
 DRAWN BY
 CHECKED BY

PLOT DATE = Aug 15 2007 01:27:05PM
 FILE NAME = c:\projects\0824\0824\0824.dgn
 USER NAME = laughton

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

BITUMINOUS SHOULDERS				
LOCATION	LENGTH	BIT PAY WIDTH	HOT-MIX ASPHALT SHLDRS. (2-1/4"	HOT-MIX ASPHALT SHLDRS. (8"
	FOOT	FOOT	TON	SQ YD
RT STA 377+00.00 TO RT STA 377+46.40	46.40	1.5	1.0	-
LT STA 377+00.00 TO LT STA 378+12.50	112.50	1.5	2.4	-
RT STA 377+46.40 TO RT STA 377+76.40	30.00	VAR 1.5 - 6	1.5	-
LT STA 378+12.50 TO LT STA 378+75.00	62.50	VAR 1.5 - 6	3.2	-
RT STA 377+76.40 TO RT STA 378+50.00	73.60	6.0	3.8	-
LT STA 378+75.00 TO LT STA 379+56.02	81.02	6.0	-	54.0
RT STA 378+50.00 TO RT STA 379+56.02	106.02	6.0	-	70.7
LT STA 379+56.02 TO LT STA 380+00.00	43.98	6.0	3.7	-
RT STA 379+56.02 TO RT STA 380+00.00	43.98	6.0	3.7	-
LT STA 380+00.00 TO LT STA 380+31.50	31.50	6.0	-	21.0
RT STA 380+00.00 TO RT STA 380+31.50	31.50	6.0	-	21.0
LT STA 381+68.50 TO LT STA 381+80.00	11.50	6.0	-	7.7
RT STA 381+68.50 TO RT STA 381+80.00	11.50	6.0	-	7.7
LT STA 381+80.00 TO LT STA 382+45.50	65.50	6.0	5.5	-
RT STA 381+80.00 TO RT STA 382+45.50	65.50	6.0	5.5	-
LT STA 382+45.50 TO LT STA 383+50.00	104.50	6.0	-	69.7
RT STA 382+45.50 TO RT STA 383+11.10	55.60	6.0	-	37.1
LT STA 383+50.00 TO LT STA 384+23.60	73.60	6.0	6.2	-
RT STA 383+11.10 TO RT STA 383+41.10	130.00	VAR 6 TO 1.5	-	119.2
LT STA 384+23.60 TO LT STA 384+53.60	130.00	VAR 6 TO 1.5	6.7	-
RT STA 383+41.10 TO RT STA 383+50.00	8.90	1.5	0.2	-
LT STA 384+53.60 TO LT STA 385+00.00	46.40	1.5	1.0	-
RT STA 383+50.00 TO RT STA 385+00.00	150.00	1.5	3.2	-
TOTAL =			47.42	407.93

NOTE: PRIME COAT QUANTITIES ARE INCLUDED IN RESURFACING SCHEDULE
 NOTE: TRANSITION AREA FROM LT STA 378+12.50 TO LT STA 378+75.00 INCLUDED IN HOT-MIX ASPHALT SHLDRS. (2-1/4"

PIPE SCHEDULE				
LOCATION	OFFSET	TYPE B INLET BOX STANDARD 609006	PIPE DRAINS 12"	METAL END SECTIONS 12"
		EACH	FOOT	EACH
STA 380+44.3	18' LT	1	14	1
STA 380+44.3	18' RT	1	14	1
STA 381+55.3	18' LT	1	14	1
STA 381+55.3	18' RT	1	14	1
TOTAL =		4	56	4

ESTIMATED QUANTITIES	
ITEMS	TOTAL
THE FOLLOWING ITEMS INCLUDE ESTIMATED QUANTITIES FOR HANDLING TEMPORARY EROSION CONTROL (SEE SPECIAL PROVISIONS)	
AGGREGATE (EROSION CONTROL)	25 TON
TEMPORARY EROSION CONTROL SEEDING	250 LBS
PERIMETER EROSION CONTROL BARRIER	500 FT
THE FOLLOWING ITEMS INCLUDE ESTIMATED QUANTITIES FOR THE REPAIR OF TR 800 E, TR 1800 N AND TR 600 E. (LOCAL ROADS)	
PREPARATION OF BASE	2500 SQ. YD.
AGGREGATE BASE REPAIR	50 TON
BITUMINOUS MATERIALS (COVER AND SEAL COATS)	30 TON
SEAL COAT AGGREGATE	215 TON
BITUMINOUS MIXTURE FOR PATCHING POTHOLES (COLD MIX)	25 TON
THE FOLLOWING ITEM INCLUDES AN ESTIMATED QUANTITY OF AGGREGATE FOR TEMPORARY ACCESS	
AGGREGATE SURFACE COURSE, TYPE B	40 TON

RESURFACING & BRIDGE APPROACH PAVEMENT												
LOCATION	LENGTH	WIDTH	PR BIT SURF CSE AREA	AVERAGE THICKNESS (SURF & LEV B)	HOT-MIX ASPH SURF. REM. BUTT JOINT	BITUMINOUS MATERIALS (PR COAT)*	AGGREGATE (PR COAT)	HMA BINDER IL19.0, N50 VAR DEPTH	LEVEL BIND (MACH METH) N50	HMA SURF MIX C N50 1.5 INCH	BRIDGE APPROACH PAVEMENT	FLEXIBLE PAVEMENT CONNECTOR
	FOOT	FOOT	SQ YD	INCHES	SQ YD	TON	TON	TON	TON	TON	SQ YD	SQ YD
STA 377+00.00 TO STA 377+45.00	45.00	24.00	120.00	1.50 TO 2.25	80.00	0.08	0.61	0.00	2.00	10.08	0.00	0.00
STA 377+45.00 TO STA 378+50.00	105.00	24.00	280.00	2.25	0.00	0.23	1.77	0.00	11.76	23.52	0.00	0.00
STA 378+50.00 TO STA 380+25.50	175.50	24.00	468.00	2.25	0.00	0.37	2.21	221.60	19.66	39.31	0.00	0.00
STA 380+25.50 TO STA 380+61.50 BR APPR PVT & FLEX PVT CONN	36.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	144.00	24.00
STA 380+61.50 TO STA 381+38.50 BRIDGE			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STA 381+38.50 TO STA 381+74.50 BR APPR PVT & FLEX PVT CONN	36.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	144.00	24.00
STA 381+74.50 TO STA 383+50.00	175.50	24.00	468.00	2.25	0.00	0.37	2.21	195.00	19.66	39.31	0.00	0.00
STA 383+50.00 TO STA 384+55.00	105.00	24.00	280.00	2.25	0.00	0.23	1.77	0.00	11.76	23.52	0.00	0.00
STA 384+55.00 TO STA 385+00.00	45.00	24.00	120.00	2.25 TO 1.50	80.00	0.08	0.61	0.00	2.00	10.08	0.00	0.00
TOTAL =					160.00	1.36	9.18	416.60	66.84	145.82	288.00	48.00

* BIT MATERIALS (PRIME COAT) INCLUDES 0.00038 TONS/SY UNDER LEV BINDER AND SHLDR AND 0.00019 TONS/SY UNDER SURFACE.

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 USER NAME = laughlin-1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT. HORIZ.
 DATE: DRAWN BY: CHECKED BY:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SEEDING SCHEDULE						
LOCATION	SEEDING, CLASS 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHER. FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRIC. GROUND LIMESTONE	MULCH METHOD 2
	ACRE	POUND	POUND	POUND	TON	ACRE
NORTHWEST QUADRANT	0.2	18	18	18	0.4	0.2
NORTHEAST QUADRANT	0.3	27	27	27	0.6	0.3
SOUTHWEST QUADRANT	0.2	18	18	18	0.4	0.2
SOUTHEAST QUADRANT	0.4	36	36	36	0.8	0.4
TOTAL	1.1	99	99	99	2.2	1.1

FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS		
LOCATION	OFFSET	MARKER
		EACH
STA 377+00.00	40.00' RT	1
STA 378+50.00	40.00' LT	1
STA 380+00.00	90.00' RT	1
STA 380+00.01	90.00' LT	1
STA 381+50.00	100.00' LT	1
STA 382+50.00	40.00' LT	1
STA 385+50.00	90.00' RT	1
STA 386+00.00	40.46' RT	1
TOTAL		8

PAVEMENT MARKING				
LOCATION	RAISED REFL PVT MK REMOVAL	PAINT PVT MK - LINE 5" SOLID WHITE	PAINT PVT MK - LINE 5" SD YELLOW	RAISED REFL PVT MARKERS
	EACH	FOOT	FOOT	EACH
STA 377+00.00 TO STA 385+00.00 (PERMANENT)	11	1600	200	11
TOTAL =	11	1600	200	11

EARTHWORK				
	EARTH EXCAVATION (CU. YD.)	EARTH EXC. ADJ FOR SHRINKAGE (CU. YD.)	EMBANKMENT (CU. YD.)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU. YD.)
	TOTAL	2750	2063	1847

RIPRAP SCHEDULE		
LOCATION	STONE RIPRAP CLASS A5	FILTER FABRIC
	SQ YD	SQ YD
LT STA 380+38.9 TO LT STA 381+70.4	1213.1	1213.1
RT STA 380+36.2 TO RT STA 381+61.1	1036.2	1036.2
TOTAL =	2249.3	2249.3

AGGREGATE SHOULDERS			
LOCATION	LENGTH	AVE WIDTH	AGGREGATE SHOULDERS
			TYPE B
	FOOT	FOOT	TON
LT STA 377+00.00 TO LT STA 378+50.00	148.60	3.00	4.23
RT STA 377+00.00 TO RT STA 378+50.00	148.60	3.00	4.23
LT STA 378+50.00 TO LT STA 379+56.02	106.02	3.00	13.89
RT STA 378+50.00 TO RT STA 379+56.02	106.02	3.00	13.89
LT STA 379+56.02 TO LT STA 380+00.00	43.98	3.00	5.76
RT STA 379+56.02 TO RT STA 380+00.00	43.98	3.00	5.76
LT STA 380+00.00 TO LT STA 380+31.50	31.50	3.00	4.13
RT STA 380+00.00 TO RT STA 380+31.50	31.50	3.00	4.13
LT STA 381+68.50 TO LT STA 381+80.00	11.50	3.00	1.51
RT STA 381+68.50 TO RT STA 381+80.00	11.50	3.00	1.51
LT STA 381+80.00 TO LT STA 382+45.50	65.50	3.00	8.58
RT STA 381+80.00 TO RT STA 382+45.50	65.50	3.00	8.58
LT STA 382+45.50 TO LT STA 383+50.00	104.50	3.00	13.69
RT STA 382+45.50 TO RT STA 383+50.00	104.50	3.00	13.69
LT STA 384+53.60 TO LT STA 385+00.00	148.60	3.00	4.23
RT STA 383+50.00 TO RT STA 385+00.00	148.60	3.00	4.23
TOTAL =			112.01

SCHEDULE FOR REMOVING EXISTING CULVERT	
LOCATION	CULVERT REMOVAL 12"
	FOOT
RT STA 382+71.0	48
TOTAL =	48

TREE REMOVAL	
LOCATION	TREE REMOVAL > 15"
	UNIT
LT STA 379+50	36
TOTAL =	36

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT. / HORIZ. DATE

DRAWN BY / CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GUARDRAIL SCHEDULE						
LOCATION	TBT T-1 SPL (TANGENT)	TERMINAL MARKER DIR. APPL.	TBT T-6	SPBGR T-A	GUARDRAIL MARKERS T-A	GUARDRAIL REMOVAL
	EACH	EACH	EACH	FOOT	EACH	FOOT
NW QUADRANT						110.0
RT STA 378+88.90 TO RT STA 379+38.90	1.0	1.0			3.0	
RT STA 379+38.90 TO RT STA 380+38.90				100.0		
RT STA 380+38.90 TO RT STA 380+84.50			1.0			
SW QUADRANT						110.0
LT STA 377+76.40 TO LT STA 378+26.40	1.0	1.0			4.0	
LT STA 378+26.40 TO LT STA 380+38.90				212.5		
LT STA 380+38.90 TO LT STA 380+84.50			1.0			
NE QUADRANT						110.0
RT STA 381+15.50 TO RT STA 381+61.10			1.0		4.0	
RT STA 381+61.10 TO RT STA 383+73.60				212.5		
RT STA 383+73.60 TO RT STA 384+23.60	1.0	1.0				
SE QUADRANT						110.0
LT STA 381+15.50 TO LT STA 381+61.10			1.0		3.0	
LT STA 381+61.10 TO LT STA 382+61.10				100.0		
LT STA 382+61.10 TO LT STA 383+11.10	1.0	1.0				
TOTAL =	4.0	4.0	4.0	625.0	14.0	440.0

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REVISIONS	
NAME	DATE

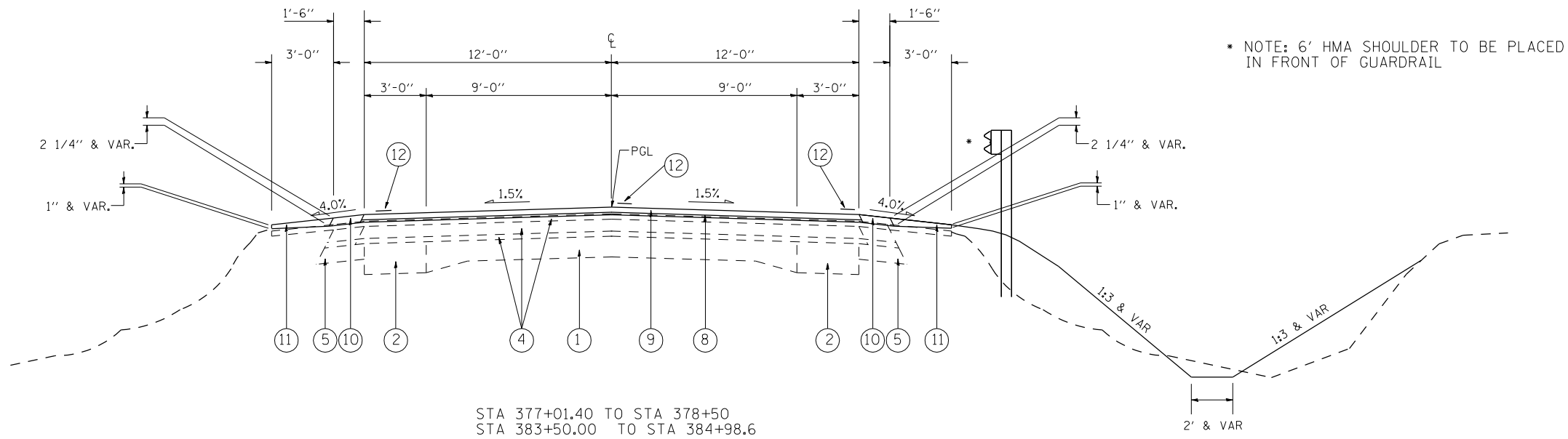
ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT.
 HORIZ.
 DATE

DRAWN BY
 CHECKED BY

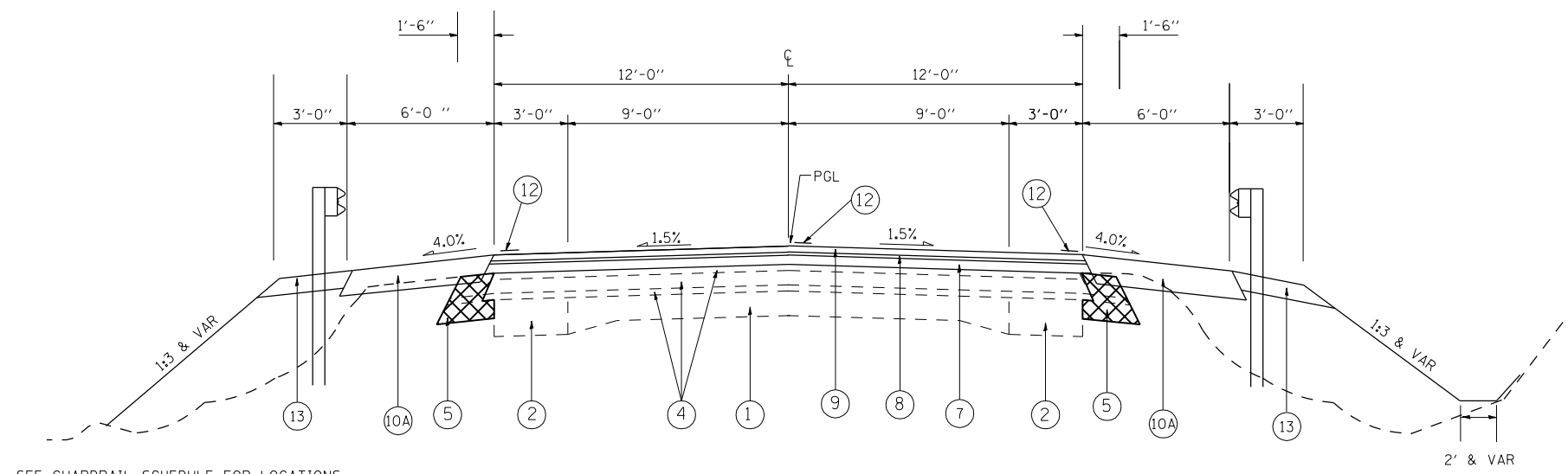
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751	101 (B-2)	PIKE	48	10
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STA 377+01.40 TO STA 378+50
 STA 383+50.00 TO STA 384+98.6

LEGEND

- ① EX P.C.C. PAVEMENT, 9" - 6" - 9"
- ② EX BIT. CONC. BASE COURSE WIDENING, 9"
- ③ EX P.C.C. BASE COURSE WIDENING, 9"
- ④ EX BIT. CONC. SURFACE, 4 1/2"
- ⑤ EX BIT. SHOULDERS, 6"
- ⑥ EX BIT. SHOULDER 8"
- ⑦ PR HMA BIND. CSE., IL 19.0, N 50, VAR. DEPTH (2 1/4" MIN.)
- ⑧ PR LEVEL. BIND., N 50, 3/4" & VAR. DEPTH
- ⑨ PR HMA SURF. CSE., MIX "C", N 50, 1 1/2"
- ⑩ PR HMA SHLDS. - 2 1/4" & VAR. DEPTH
- ⑩A PR HMA SHLDS. - 8"
- ⑪ PR AGG. WEDGE SHLDS., TYPE B
- ⑫ PR PAVEMENT MARKING, LINE - 5"
- ⑬ PR AGG SHOULDERS, TY A - 6"
- ⑭ PR GRANULAR SUB-BASE TY A - VAR. DEPTH



SEE GUARDRAIL SCHEDULE FOR LOCATIONS

STA 378+50 TO STA 379+56.02
 STA 382+45.5 TO STA 383+50

NOT TO SCALE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

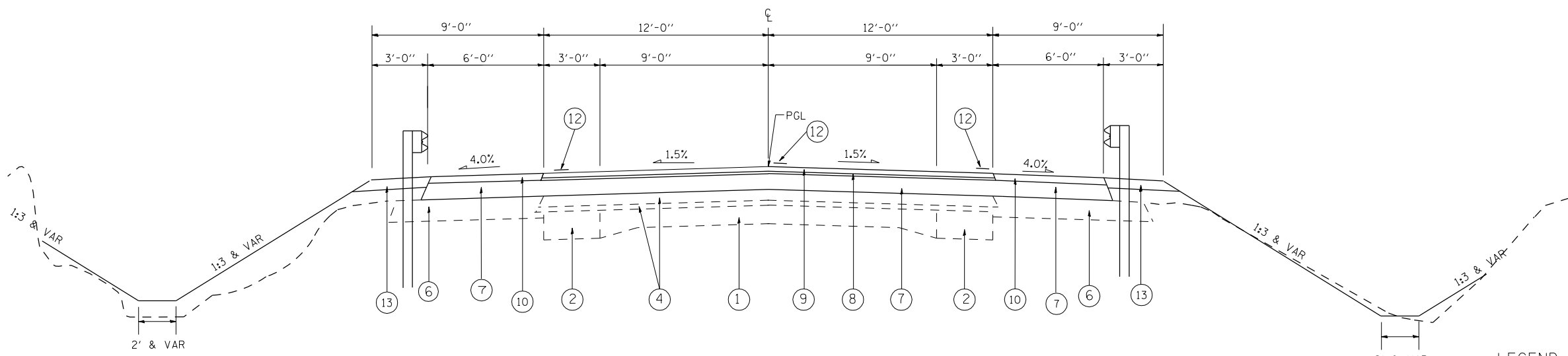
TYPICAL SECTIONS

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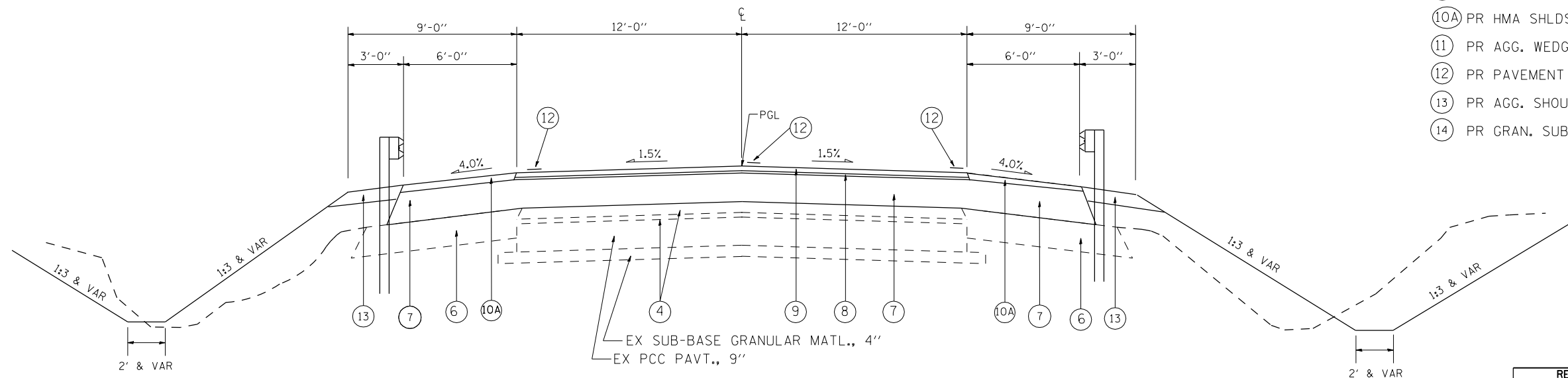
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
75I	101 (B-2)	PIKE	48	11
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STA 379+56.02 TO STA 380+00.00
 STA 381+80.00 TO STA 382+45.5

LEGEND

- ① EX P.C.C. PAVEMENT, 9" - 6" - 9"
- ② EX BIT. CONC. BASE COURSE WIDENING, 9"
- ③ EX P.C.C. BASE COURSE WIDENING, 9"
- ④ EX BIT. CONC. SURFACE, 4 1/2"
- ⑤ EX BIT. SHOULDERS, 6"
- ⑥ EX BIT. SHOULDER 8"
- ⑦ PR HMA BIND. CSE., IL 19.0, N 50, VAR. DEPTH (2 1/4" MIN.)
- ⑧ PR LEVEL. BIND., N 50, 3/4" & VAR. DEPTH
- ⑨ PR HMA SURF. CSE., MIX "C", N 50, 1 1/2"
- ⑩ PR HMA SHLDS. - 2 1/4" & VAR. DEPTH
- ⑩A PR HMA SHLDS. - 8"
- ⑪ PR AGG. WEDGE SHLDS., TY B
- ⑫ PR PAVEMENT MARKING, LINE - 5"
- ⑬ PR AGG. SHOULDER TY A, - 6"
- ⑭ PR GRAN. SUB-BASE, TY A, VAR. DEPTH



EX SUB-BASE GRANULAR MATL., 4"
 EX PCC PAVT., 9"

STA 380+00.00 TO STA 380+31.50
 STA 381+68.50 TO STA 381+80.00

NOT TO SCALE

SEE GUARDRAIL SCHEDULE FOR LOCATIONS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

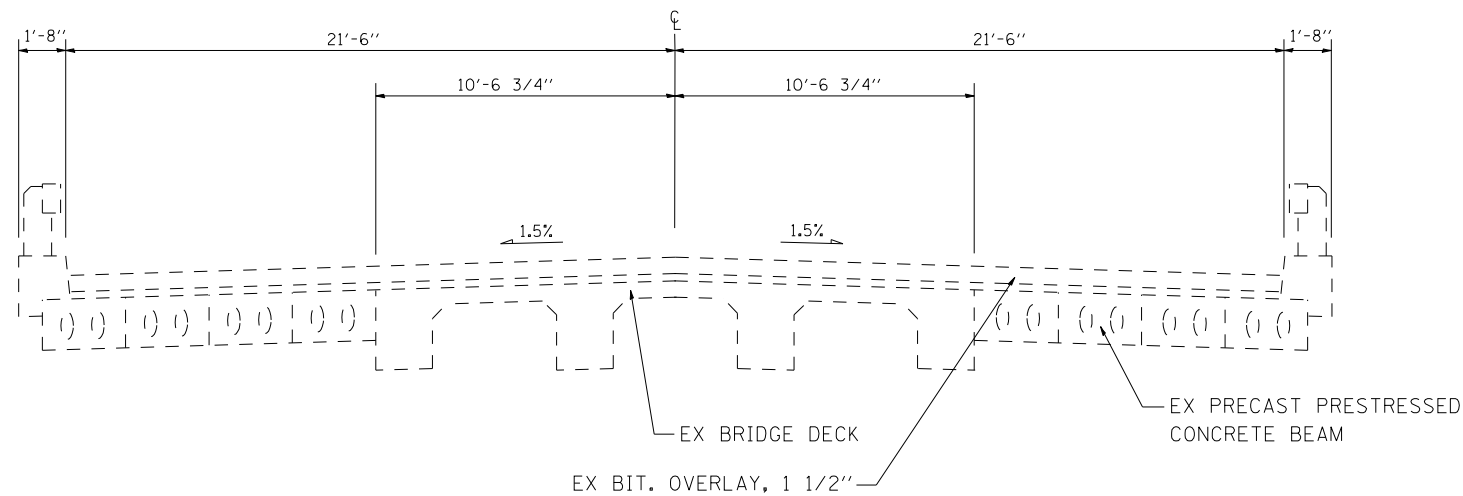
TYPICAL SECTIONS

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 HORIZ. _____

DRAWN BY _____
 CHECKED BY _____

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
75I	101 (B-2)	PIKE	48	12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

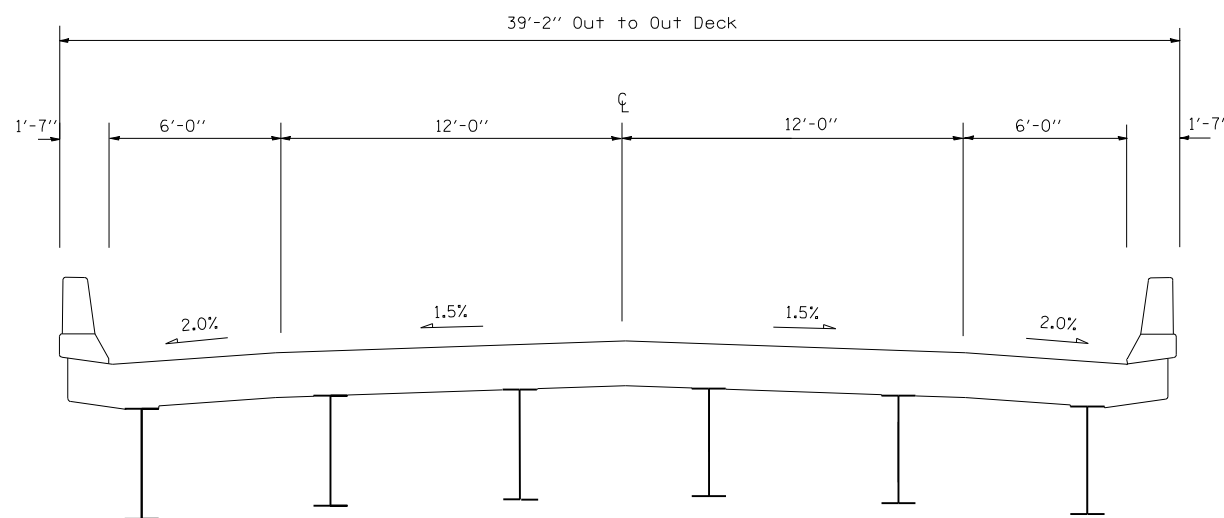


EX SN 075-0025
(OVER WALNUT CREEK)
TBR

STA 380+76.00 TO STA 381+24.00

LEGEND

- ① EX P.C.C. PAVEMENT, 9" - 6" - 9"
- ② EX BIT. CONC. BASE COURSE WIDENING, 9"
- ③ EX P.C.C. BASE COURSE WIDENING, 9"
- ④ EX BIT. CONC. SURFACE, 4 1/2"
- ⑤ EX BIT. SHOULDERS, 6"
- ⑥ EX BIT. SHOULDER 8"
- ⑦ PR HMA BIND. CSE., IL 19.0, N 50, VAR. DEPTH (2 1/4" MIN.)
- ⑧ PR LEVEL. BIND., N 50, 3/4" & VAR. DEPTH
- ⑨ PR HMA SURF. CSE., MIX "C", N 50, 1 1/2"
- ⑩ PR HMA SHLDS. 2 1/4" & VAR. DEPTH
- ⑩A PR HMA SHLDS. - 8"
- ⑪ PR AGG. WEDGE SHLDS., TY B
- ⑫ PR PAVEMENT MARKING, LINE - 5"
- ⑬ PR AGG. SHOULDER TY A , - 6"
- ⑭ PR GRAN. SUB-BASE, TY A , VAR. DEPTH



PROPOSED STRUCTURE
NO. 075-0507
WALNUT CREEK
STA 381+00

NOT TO SCALE

PR BRIDGE (SEE DETAILS)
STA 380+61.50 TO STA 381+38.50
PR BRIDGE APPR. PVT. (STD 420401)
STA 380+31.50 TO STA 380+61.50
STA 381+38.50 TO STA 381+68.50

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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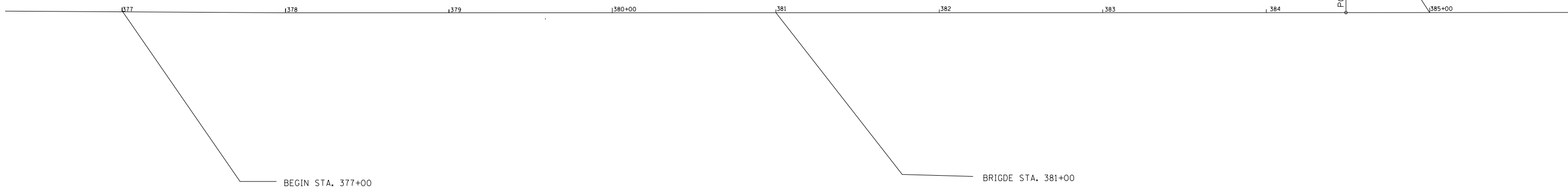
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXIST. CURVE CALCEX
 PI STA. = 390+89.18
 $\Delta = 1^\circ 20' 39''$ (LT)
 $D = 0^\circ 08' 00''$
 $R = 42,971.84'$
 $T = 504.13'$
 $L = 1,008.22'$
 $E = 2.96'$
 P.C. STA. = 385+85.05
 P.T. STA. = 395+93.27

END STA. 385+00

POT. Sta. 384+48.78



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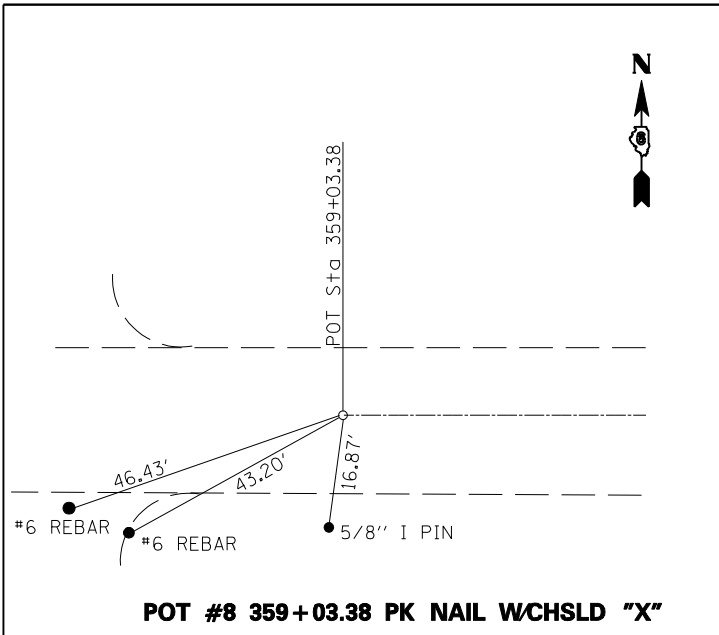
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

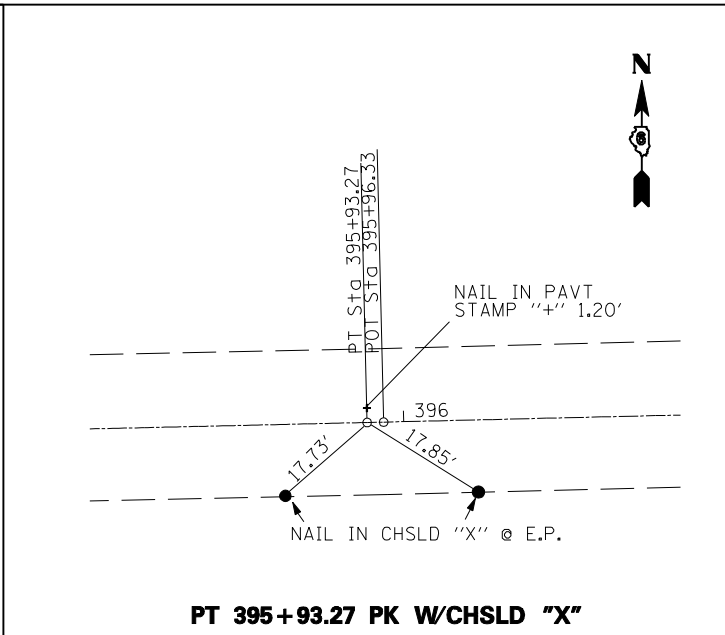
SURVEY ALIGNMENT

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
 DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

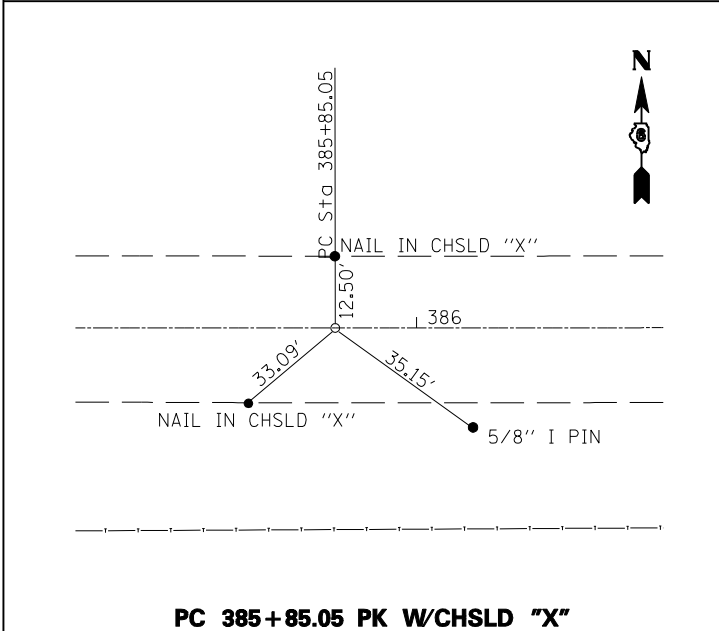


POT #8 359+03.38 PK NAIL W/CHSLD "X"

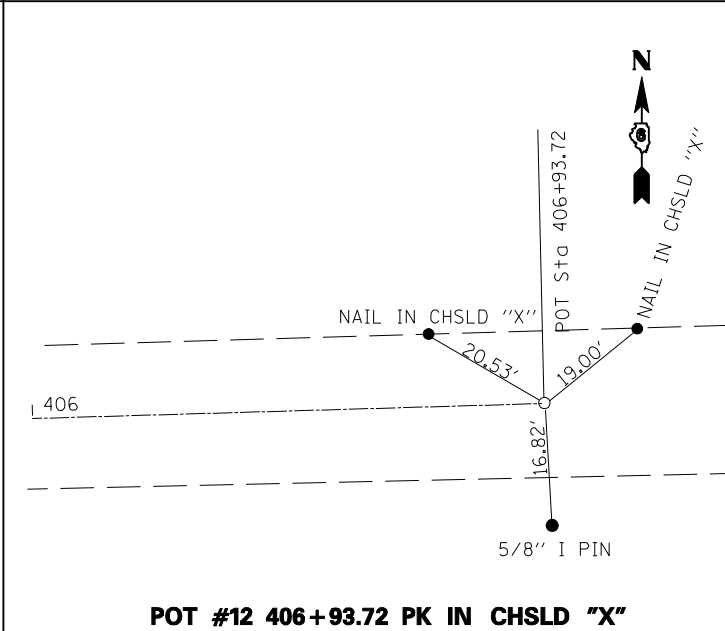


PT 395+93.27 PK W/CHSLD "X"

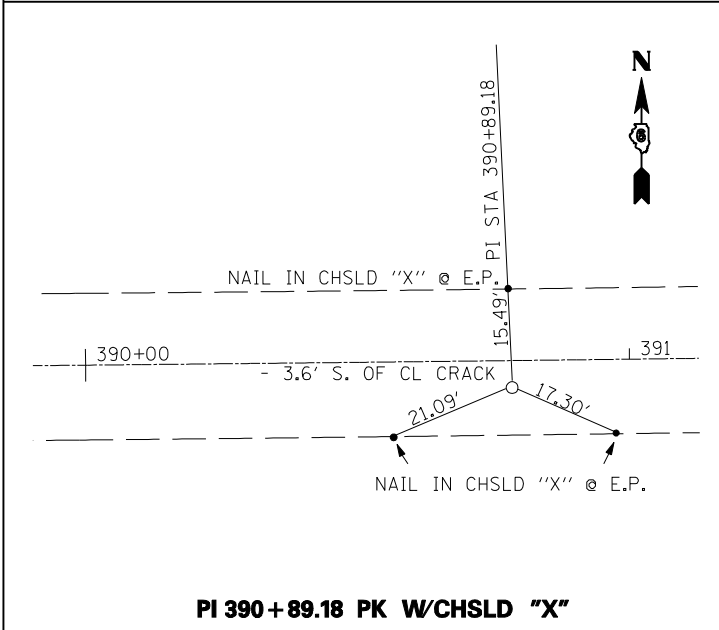
BM #100 FIND CHIS "□" TOP HDWL @ NE COR. EXIST. STRUCT. (USED EL FROM SHEET 6 SBI ROUTE 106 PIKE CO. PROJ F-378(4) C-96-059-64 DATED 9/28/64) AT STA. 381+22.5; 23.00 LT NGVD 29 DATUM = 463.73 FT



PC 385+85.05 PK W/CHSLD "X"



POT #12 406+93.72 PK IN CHSLD "X"



PI 390+89.18 PK W/CHSLD "X"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BENCHMARKS & CROSS TIES

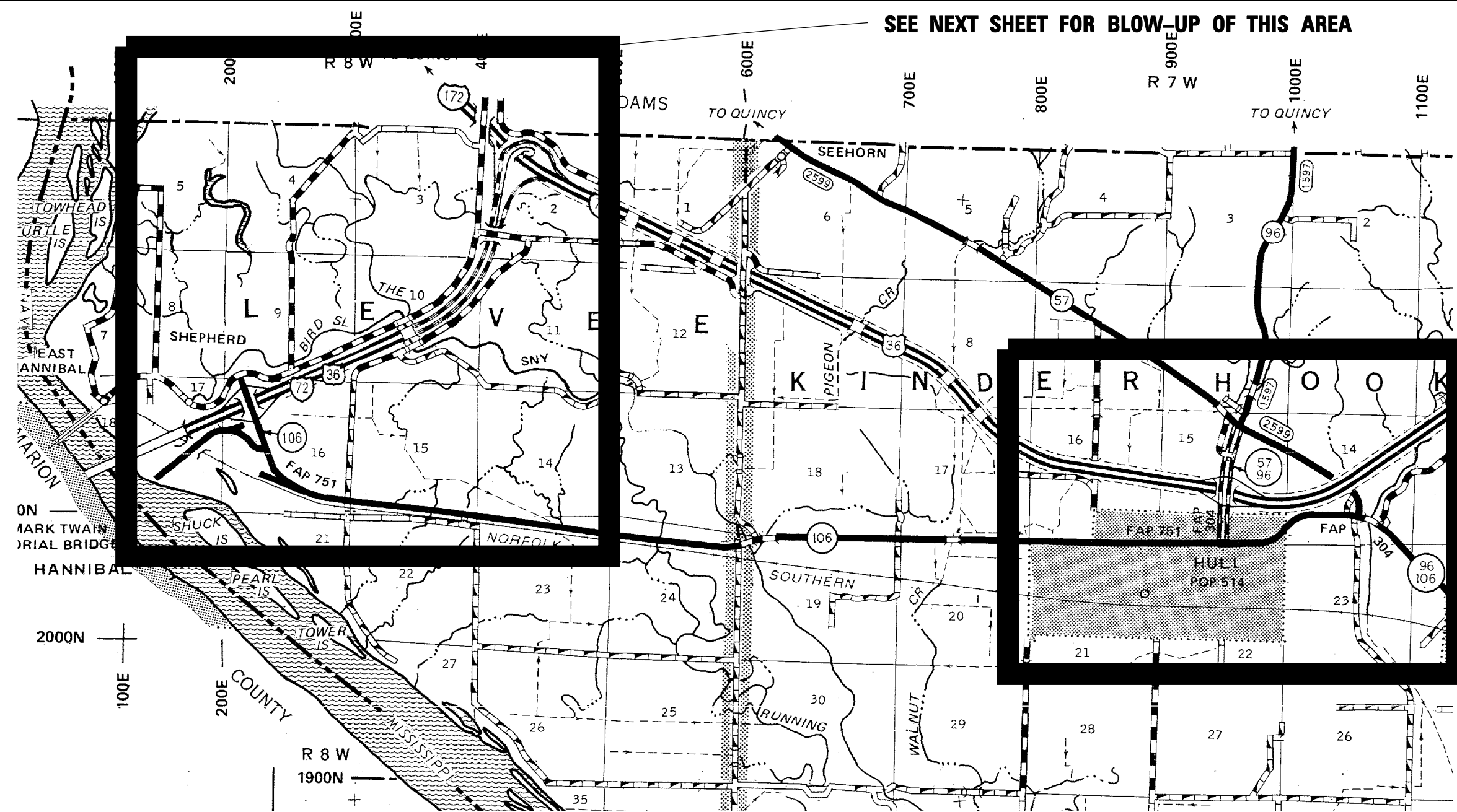
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DATE

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CHECKED BY

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Aug-15-2007 01:40:11PM
REF01

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	15
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SEE NEXT SHEET FOR BLOW-UP OF THIS AREA



SEE NEXT SHEET FOR BLOW-UP OF THIS AREA

NOTE: STANDARD BLR 21 ADDRESSES ROAD CLOSURE DETAILS WITHIN THE IMMEDIATE VICINITY OF THE WALNUT CREEK STRUCTURE

- ① ILLINOIS ROUTE 106 CLOSED 2 MILES AHEAD
R11-3B (60 x 30)
- ② ILLINOIS ROUTE 106 CLOSED 5 MILES AHEAD
R11-3B (60 x 30)
- ③ ILLINOIS ROUTE 106 BRIDGE CLOSED 0.5 MILES WEST OF HULL FOLLOW MARKED DETOUR
- ④ ROAD CLOSURE BEGINS MAY 27 AT WALNUT CR
- ⑤ DETOUR WEST ILLINOIS 106
M4-8 (24 x 12)
M3-4 (24 x 12)
M1-1100 (24 x 30)
M6-3 (21 x 15)
- ⑥ DETOUR EAST ILLINOIS 106
M4-8 (24 x 12)
M3-2 (24 x 12)
M1-1100 (24 x 30)
M5-1(L) (21 x 15)
- ⑦ DETOUR EAST ILLINOIS 106
M4-8 (24 x 12)
M3-2 (24 x 12)
M1-1100 (24 x 30)
M6-1(L) (21 x 15)
- ⑧ DETOUR EAST ILLINOIS 106
M4-8 (24 x 12)
M3-2 (24 x 12)
M1-1100 (24 x 30)
M6-3 (21 x 15)
- ⑨ DETOUR EAST ILLINOIS 106
M4-8 (24 x 12)
M3-2 (24 x 12)
M1-1100 (24 x 30)
M5-2(R) (21 x 15)
- ⑩ DETOUR EAST ILLINOIS 106
M4-8 (24 x 12)
M3-2 (24 x 12)
M1-1100 (24 x 30)
M6-2(R) (21 x 15)
- ⑪ DETOUR WEST ILLINOIS 106
M4-8 (24 x 12)
M3-4 (24 x 12)
M1-1100 (24 x 30)
M5-2(R) (21 x 15)
- ⑫ DETOUR WEST ILLINOIS 106
M4-8 (24 x 12)
M3-4 (24 x 12)
M1-1100 (24 x 30)
M6-2(R) (21 x 15)
- ⑬ END DETOUR ILLINOIS 106
M4-6 (24 x 12)
M4-8 (24 x 12)
M1-1100 (24 x 30)
- ⑭ DETOUR WEST ILLINOIS 106
M4-8 (24 x 12)
M3-4 (24 x 12)
M1-1100 (24 x 30)
M5-1(R) (21 x 15)
- ⑮ DETOUR WEST ILLINOIS 106
M4-8 (24 x 12)
M3-4 (24 x 12)
M1-1100 (24 x 30)
M6-1(R) (21 x 15)
- ⑯ DETOUR WEST ILLINOIS 106
M4-8 (24 x 12)
M3-4 (24 x 12)
M1-1100 (24 x 30)
M5-1(L) (21 x 15)
- ⑰ DETOUR WEST ILLINOIS 106
M4-8 (24 x 12)
M3-4 (24 x 12)
M1-1100 (24 x 30)
M6-1(L) (21 x 15)

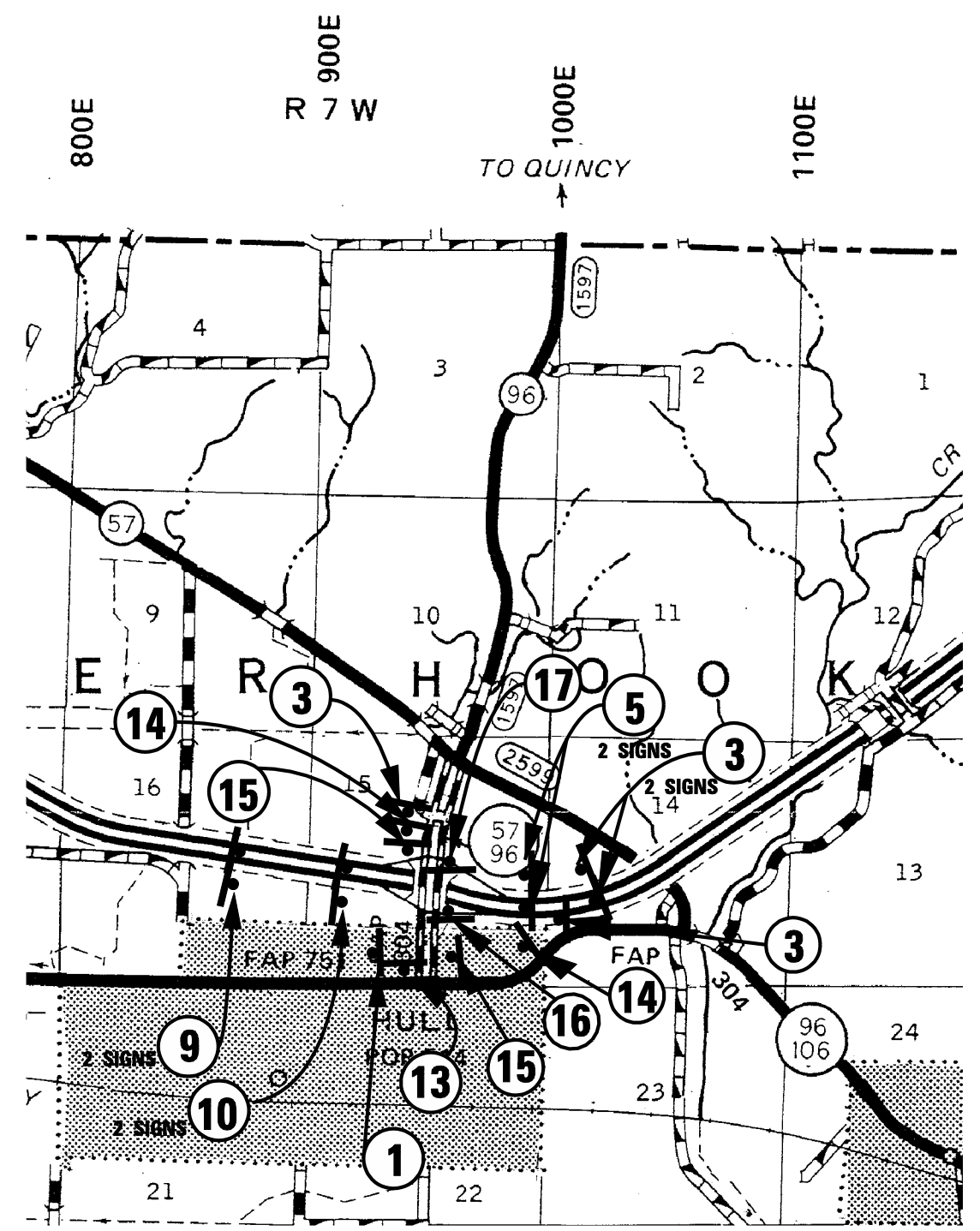
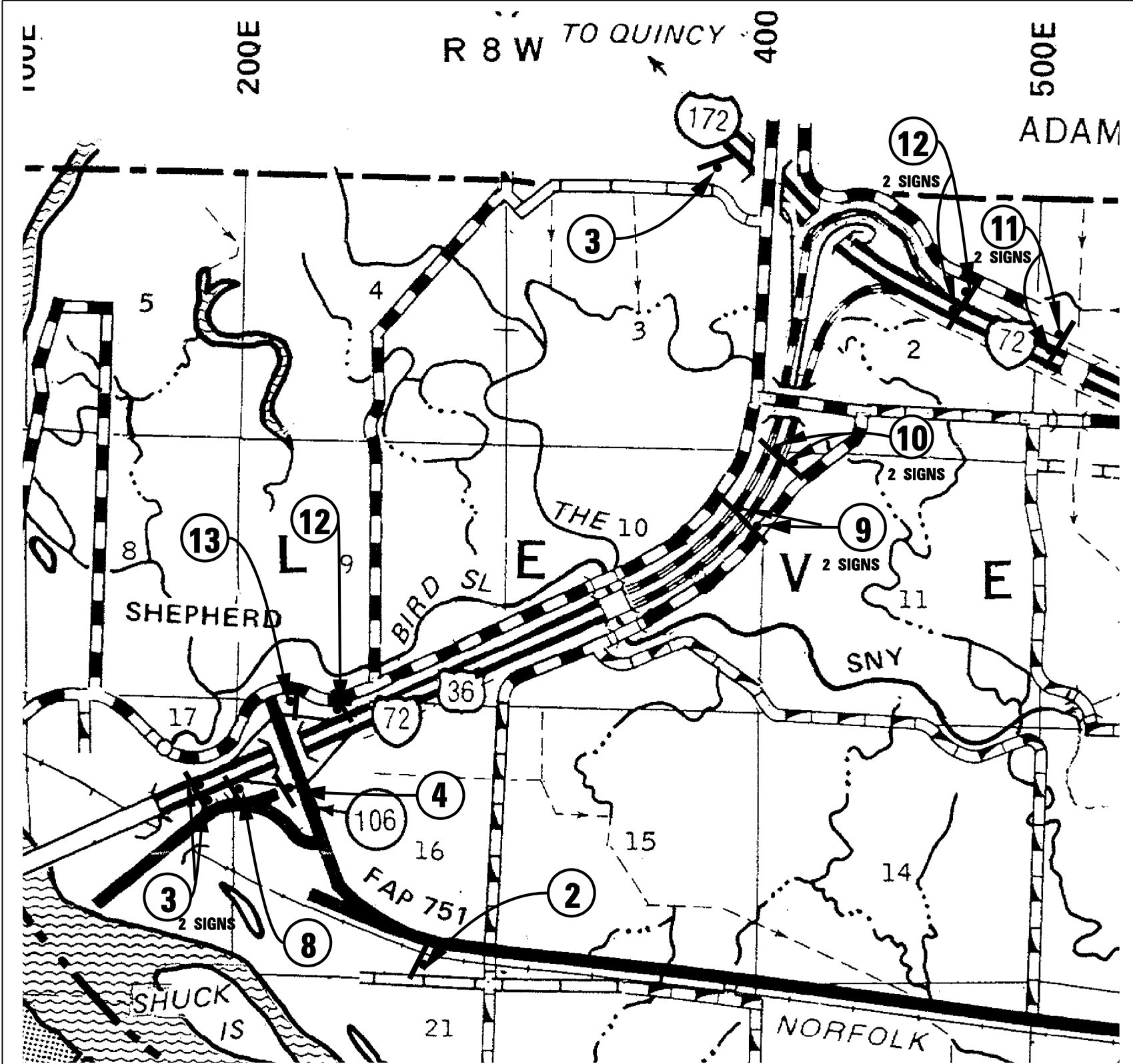
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 USER NAME = laughlin-1

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		

DETOUR PLAN

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
 DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	16
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND - REFER TO FIRST SHEET OF DETOUR PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETOUR PLAN

SCALE: VERT. / HORIZ.
DATE: / /

DRAWN BY: /
CHECKED BY: /

PLOT DATE: Aug-15-2007 01:40:26PM
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 USER NAME: laughtin1

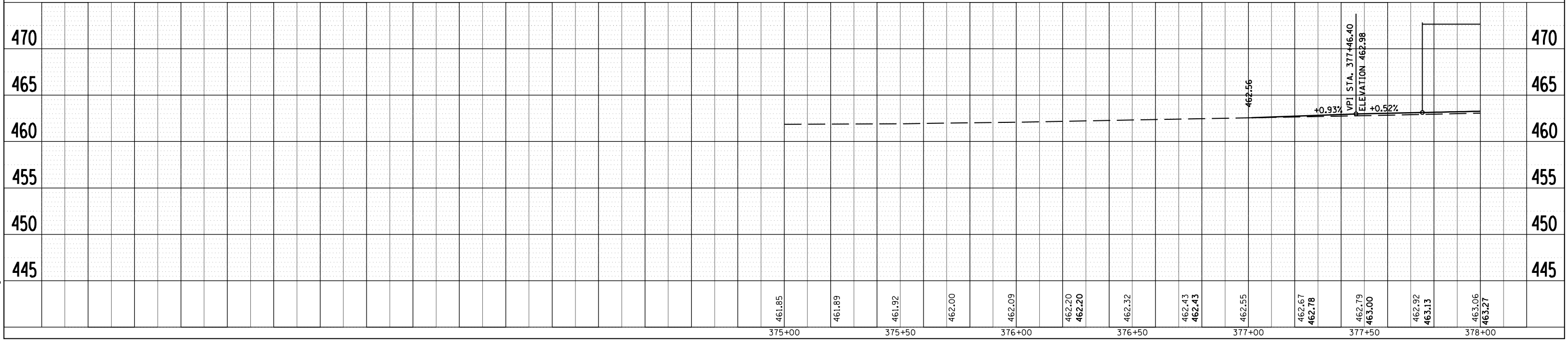
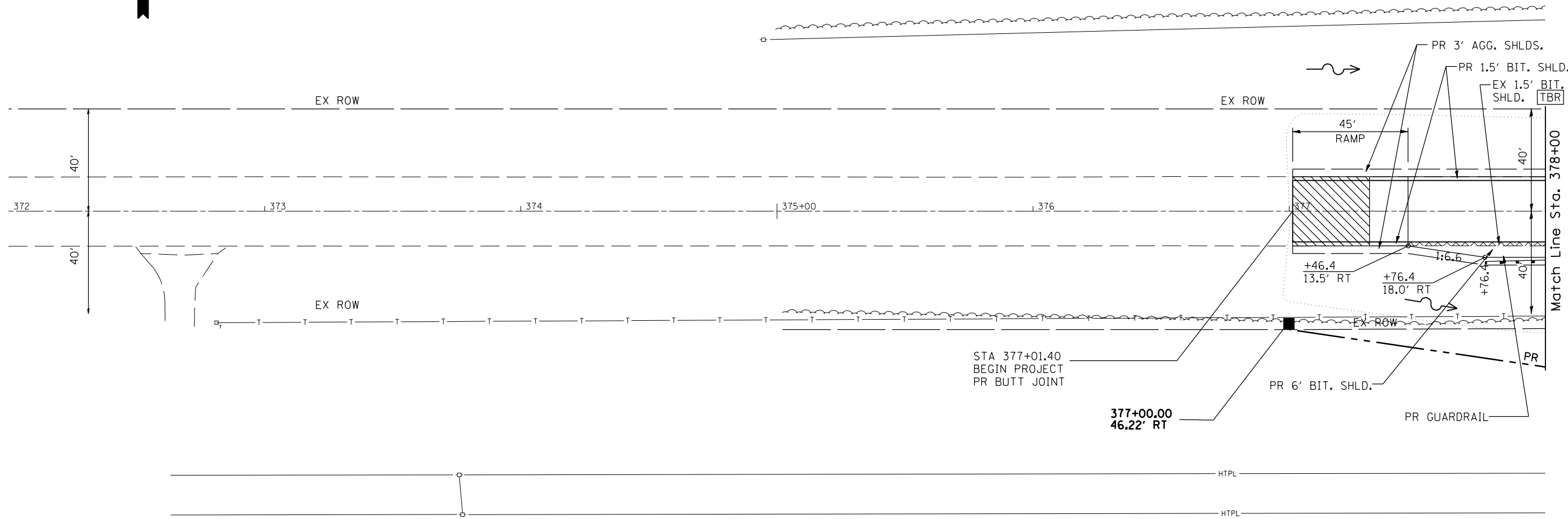
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101 (B-2)	PIKE	48	17
STA. 377+01.40		TO STA. 378+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN	SURVEYED	BY	DATE
NO. _____	PLotted		
	Checked		
	By		
	Noted		
	Structure		
	Notations		
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	Notations		

PROFILE	SURVEYED	BY	DATE
NO. _____	Plotted		
	Checked		
	By		
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	Structure		
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	Checked		
	By		
	Noted		
	Structure		
	Notations		

PLOT DATE = Aug 15 2007 01:40:30PM
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 PLOT SCALE = 42.3525' / IN.
 USER NAME = laughlinr-1



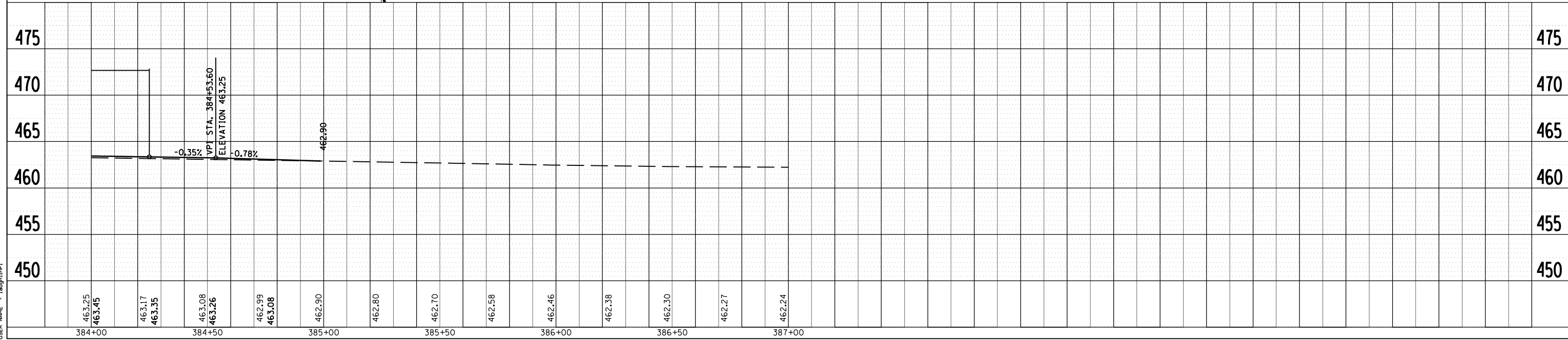
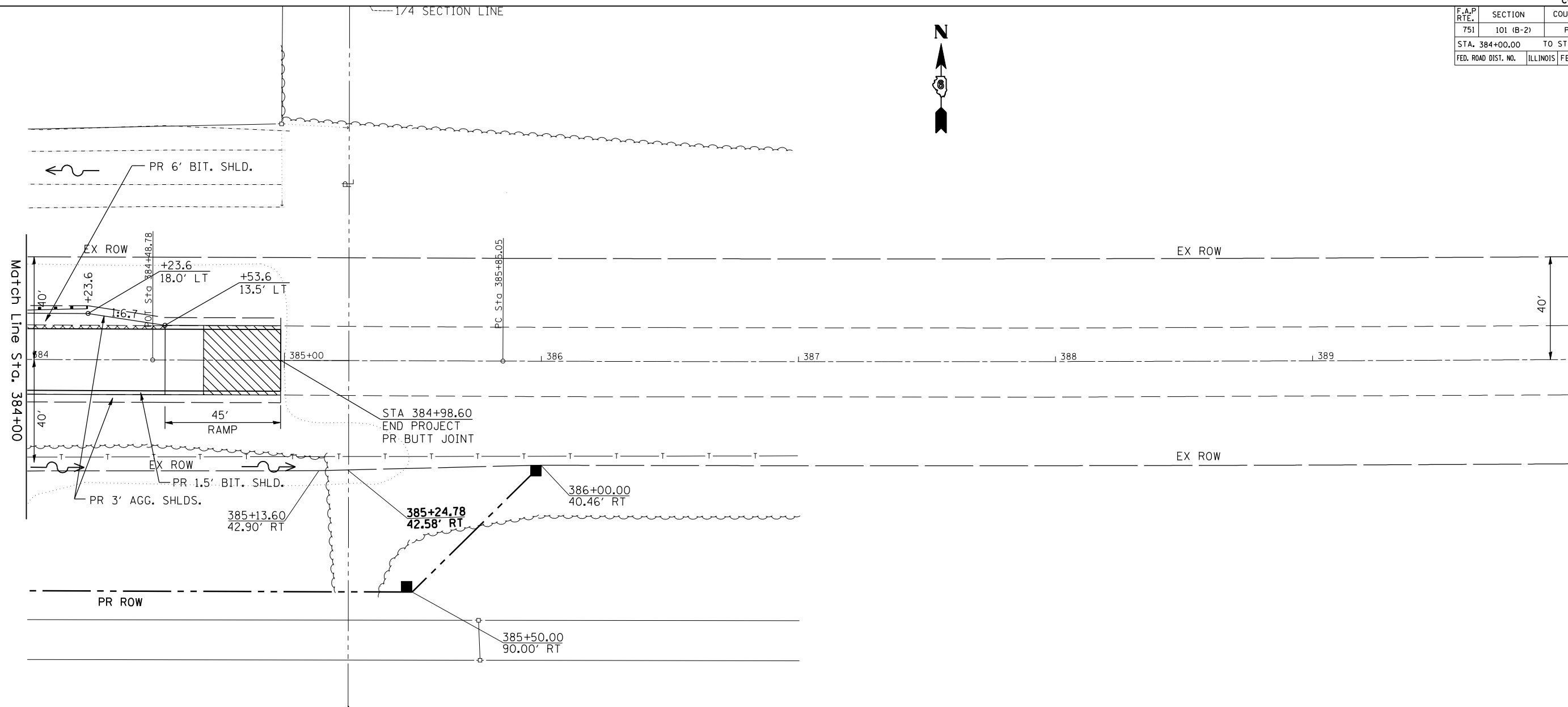
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101 (B-2)	PIKE	48	19
STA. 384+00.00		TO STA. 384+98.60		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	NOTE BOOK NO.		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	NOTE BOOK NO.		
	STRUCTURE NOTATIONS CHORD		

PLOT DATE = Aug 15 2007 01:40:33PM
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 USER NAME = laughlinr1



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROLS

Description of Stabilization Practices at the Beginning of Construction:

1. The area between the existing and proposed right-of-way/temporary easement boundaries and limits of the project will be improved and managed for the purposes of controlling erosion within the area, reducing water flow by temporary diversion and minimizing siltation into the construction zone, and establishing vegetative cover which will become permanent vegetation and act as an erosion barrier. Work at the beginning of construction will consist of the following:

(a) Areas of existing vegetation (woods and grasslands) outside the proposed construction slope limits shall be identified for preserving and shall be protected from mowing, brush cutting, tree removal and other activities which would be detrimental to their maintenance and development.

(b) Dead, diseased, or unsuitable vegetation within the site shall be removed as directed by the Engineer, along with required tree removal.

(c) As soon as reasonable access is available (such as trees cleared) to all locations where water drains away from the project, sediment basins, riprap ditch checks, temporary ditch checks, and/or erosion control fence shall be installed as called out in this plan and directed by the Engineer.

(d) Bare and sparsely vegetated ground in highly erodible areas as determined by the Engineer shall be temporarily seeded at the beginning of construction where no construction activities are immediately expected as stated in the special provision "Temporary Erosion Control Seeding".

(e) Immediately after tree removal is completed in certain areas which are highly erodible areas as determined by the Engineer, the areas shall be temporarily seeded where no construction activities are immediately expected as stated in the special provision "Temporary Erosion Control Seeding".

(f) At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), erosion control fence, temporary ditch checks, or riprap ditch checks will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the right-of-way line. Erosion control items will not be allowed to be installed to cause flooding to upstream private property which could cause crop damages or other undesirable conditions.

2. Establishment of these temporary erosion control measures will have additional benefits to the project. Desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and overseeding can be complete.

3. A third benefit of these filter areas is that they will begin to provide a screen and buffer. They will help protect the construction site from winds and excess sun and mitigate construction noise and dust.

Description of Stabilization Practices During Construction:

1. During roadway construction, areas outside the construction slope limits as outlined previous herein shall be protected from damaging effects of construction. The Contractor shall not use this area for staging (except as designated on the plans or directed by the Engineer), parking of vehicles or construction equipment, storage of materials, or other construction related activities.

(a) Within the construction zone, critical areas which have high flows of water as determined by the Engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.

(b) Top soil and earth stockpiles shall be temporarily seeded if they are to remain unused for more than fourteen days.

(c) As the Contractor constructs a portion of roadway in a fill section, he/she shall follow the following steps as directed by the Engineer:

- i. Place temporary erosion control systems at locations where water leaves and enters the construction zone
- ii. Temporary seed highly erodible areas outside the construction slope limits
- iii. Construct roadside ditches and provide temporary erosion control systems
- iv. Temporary divert water around proposed culvert locations
- v. Build necessary embankment at culvert locations and then excavate and place culvert
- vi. Continue building up the embankment to the proposed grade while at the same time place permanent erosion control such as riprap ditch lining and conduct final shaping to the slopes

(d) The Contractor shall immediately follow major earth moving operations with final grading equipment. After the major earth spread operation has moved to a new location, final grading shall be completed within fourteen days. If grading is not completed within fourteen days, all major earth moving operations will be stopped, as directed by the Engineer, until disturbed areas are final graded and seeded.

(e) Excavated areas and embankments shall be permanently seeded when final graded. If not, they shall be temporarily seeded as stated in the special provision "Temporary Erosion Control Seeding".

(f) Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution run-off in compliance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.

(g) The Resident Engineer shall inspect the project daily during activities and weekly or after large rains during the winter shutdown period. The project shall additionally be inspected by the Construction Field Engineer on a bi-weekly basis to determine that erosion control efforts are in place and effective and if other control work is necessary.

(h) Sediment collected during construction by the various temporary erosion control systems shall be disposed of on the site on a regular basis as directed by the Engineer. The cost of this maintenance will be paid for in accordance with Article 109.04 of the Standard Specifications.

(i) The temporary erosion control systems shall be removed as directed by the Engineer after use is no longer needed or no longer functioning. The costs of this removal shall be included in the unit bid price for the temporary erosion control system. No additional compensation will be allowed.

Description of Structural Practices After Final Grading:

1. Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control is in place and working properly and all proposed turf areas seeded and established with a proper stand.

2. Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded. Temporary riprap ditch checks will be allowed to remain in place where approved by the Engineer.

Maintenance after Construction:

1. Construction is complete after acceptance is received at the final inspection.

2. Areas will be inspected on a regular basis by IDOT District 6 Bureau of Operations.

3. Maintenance crews will perform regular mowings to aid in keeping weeds down and establishing a good roadside seed stand.

4. Maintenance crews will also aid in any ditch lining maintenance or in any drainage problems.

5. All maintenance will be conducted at times when weather conditions will not cause site damage.

DOCUMENTATION

1. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with Section 4.b. shall be made and retained as part of the plan for at least three years after the date of inspection. The report shall be signed in accordance with part VI.G of the general permit.

2. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incident of Noncompliance (ION)" report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI.G. of the general permit. The report of noncompliance shall be mailed to the following address:

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 2200 Churchill Road, P.O. Box 19276
 Springfield, IL 62794-9276
 Attn: Compliance Assurance Section

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN

SCALE: VERT.
 HORIZ.
 DATE: APRIL 5, 1999

DRAWN BY CADD
 CHECKED BY JCN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	22
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACTOR CERTIFICATION STATEMENT

This certification statement is part of the Storm Water Pollution Plan for the project described below in accordance with NPDES Permit No. ILR10 _____, issued by the Illinois Environmental Protection Agency on _____.

Route: FAP 751 Marked: IL 106
 Section: 101B-2 Project No.: NA
 County: Pike Contract No.: 72928

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature _____ Date _____
 Title _____
 Name of Firm _____
 Street Address _____
 City, State, Zip _____
 Phone Number _____

Note: The above boxed in area shall be filled out by the Contractor after the award of the contract to obtain the required NPDES Permit from IEPA. This is a requirement for this contract.

PLOT DATE : Aug-15-2007 01:40:45PM
 FILE NAME : c:\p\projects\655488A\stswpp.dgn
 PLOT SCALE : 4.23524 / IN.
 USER NAME : laughlin-1

SWPPLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN

SCALE: VERT.
 HORIZ.
 DATE: APRIL 5, 1999

DRAWN BY CADD
 CHECKED BY JCN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND FOR STORM WATER POLLUTION PREVENTION PLAN

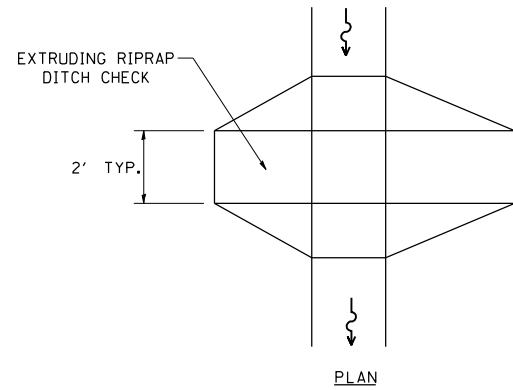
ITEM	SYMBOL
AGGREGATE (EROSION CONTROL) [STONE DUMPED RIPRAP DITCH CHECKS: Height = 0.6m (2')]]	
TEMPORARY DITCH CHECKS	
INLET PIPE PROTECTION (I&PP)	
EROSION CONTROL FENCE	
EARTH EXCAVATION FOR EROSION CONTROL (SEDIMENT BASINS)	
PRESERVE EXISTING TREES, WOODLANDS, AND UNDERSTORY (OUTSIDE CONSTRUCTION LIMITS)	
ITEM PLACED AT BEGINNING OF CONSTRUCTION (Requirement)	* [ITEM] *
ITEM PLACED AS DIRECTED BY ENGINEER (When required by situation)	[ITEM]
DIRECTION OF OVERLAND FLOW	

GENERAL NOTES:

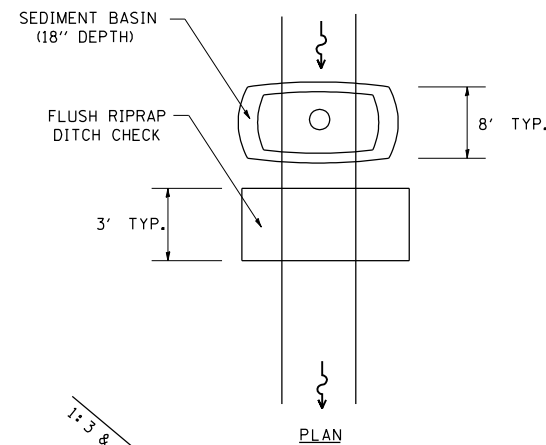
All items shall be constructed as shown on this sheet, on Standard 280001, and as directed by the Engineer.

The symbology on the STORM WATER POLLUTION PREVENTION PLAN sheets does not represent the size or quantity of bales, for number of bales refer to details and notes shown on this sheet and/or as directed by the Engineer.

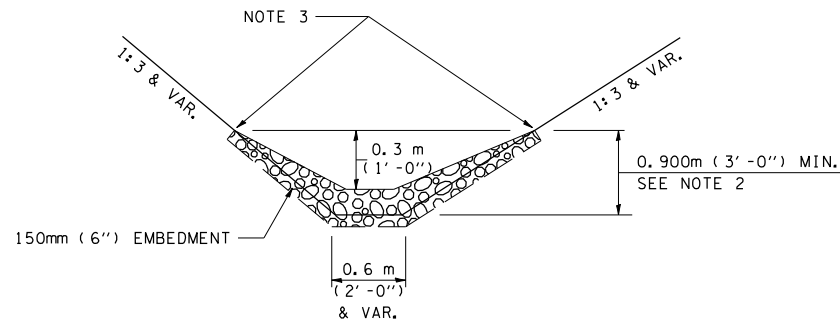
THE CONTRACTOR SHALL INSTALL DITCH CHECKS AS DIRECTED BY THE ENGINEER. IF THE ENGINEER ELECTS TO UTILIZE FLUSH RIPRAP DITCH CHECKS IN LIEU OF TEMPORARY DITCH CHECKS AS SHOWN ON THE FOLLOWING PLAN SHEETS, THE SPACING SHOULD BE DOUBLED.



PLAN



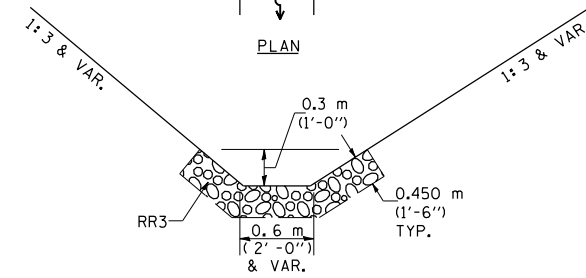
PLAN



ELEVATION

OPTION 1

(EXTRUDING DITCH CHECK)
RECOMMENDED FOR AREAS
W/ RIPRAP DITCH LINING



ELEVATION

OPTION 2

(FLUSH DITCH CHECK)
RECOMMENDED FOR AREAS
W/O RIPRAP DITCH LINING

STONE DUMPED RIPRAP DITCH CHECK

(TYPICAL & OPTIONS 1 & 2
AS DIRECTED BY THE ENGINEER)

NOTE 1: BALES SHALL EXTEND FAR ENOUGH UP THE SLOPES TO ALLOW 0.3m (1') OVERTOPPING TO AVOID ERODING AROUND THE EDGES OF THE BALES.

NOTE 2: RIPRAP SHALL EXTEND FAR ENOUGH UP THE SLOPES TO ALLOW 0.3m (1') OVERTOPPING TO AVOID ERODING AROUND THE EDGES OF THE RIPRAP.

NOTE 3: ENDS SHALL BE TIED INTO SLOPES.

SWPPLAN

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USER NAME = laughlin-1

REVISIONS	
NAME	DATE
CAD Symbol	2AUG99
JCN	MAR2004

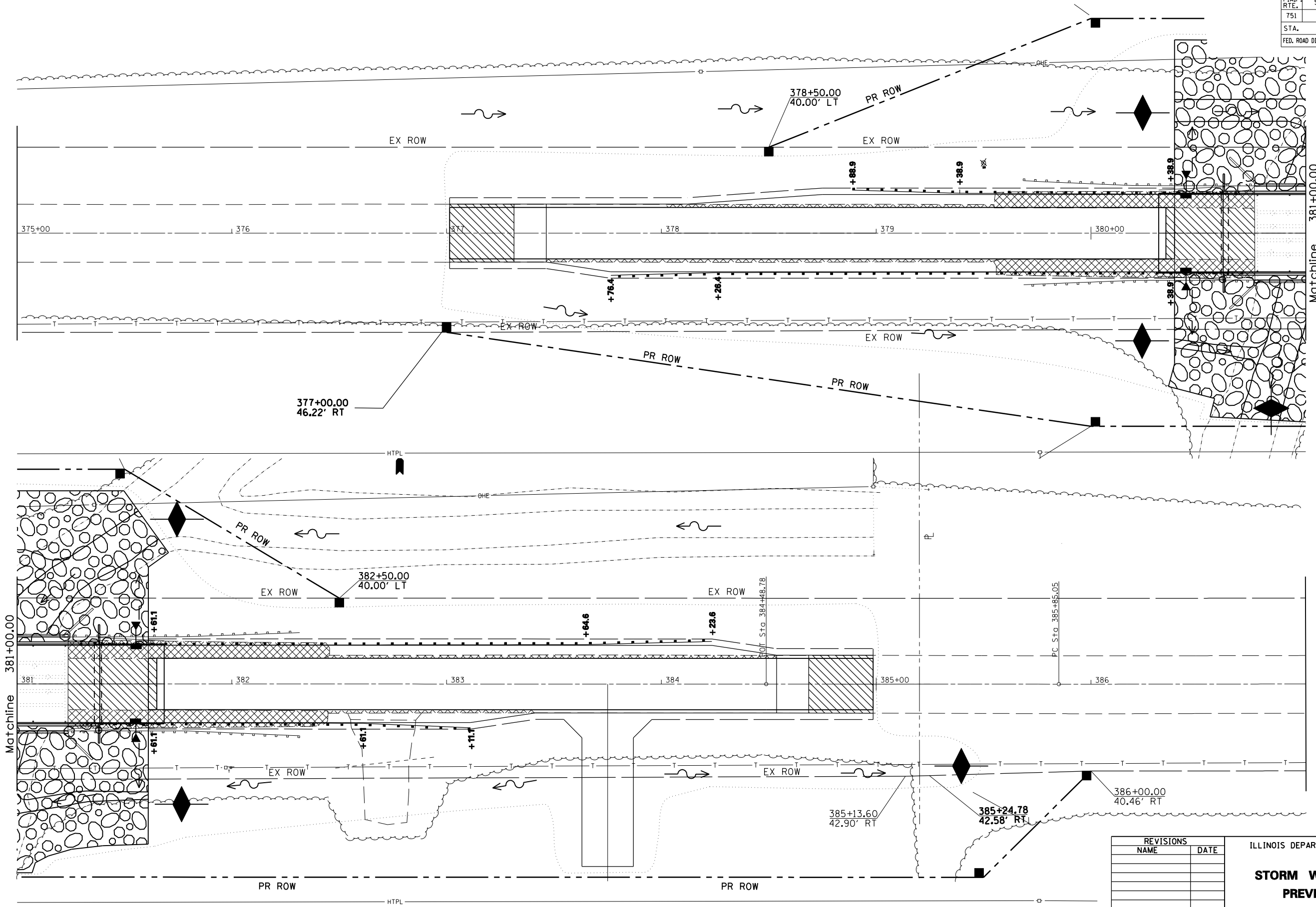
ILLINOIS DEPARTMENT OF TRANSPORTATION

**STORM WATER POLLUTION
PREVENTION PLAN**

SCALE: VERT.
HORIZ.
DATE: APRIL 5, 1999

DRAWN BY CADD
CHECKED BY JCN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	24
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

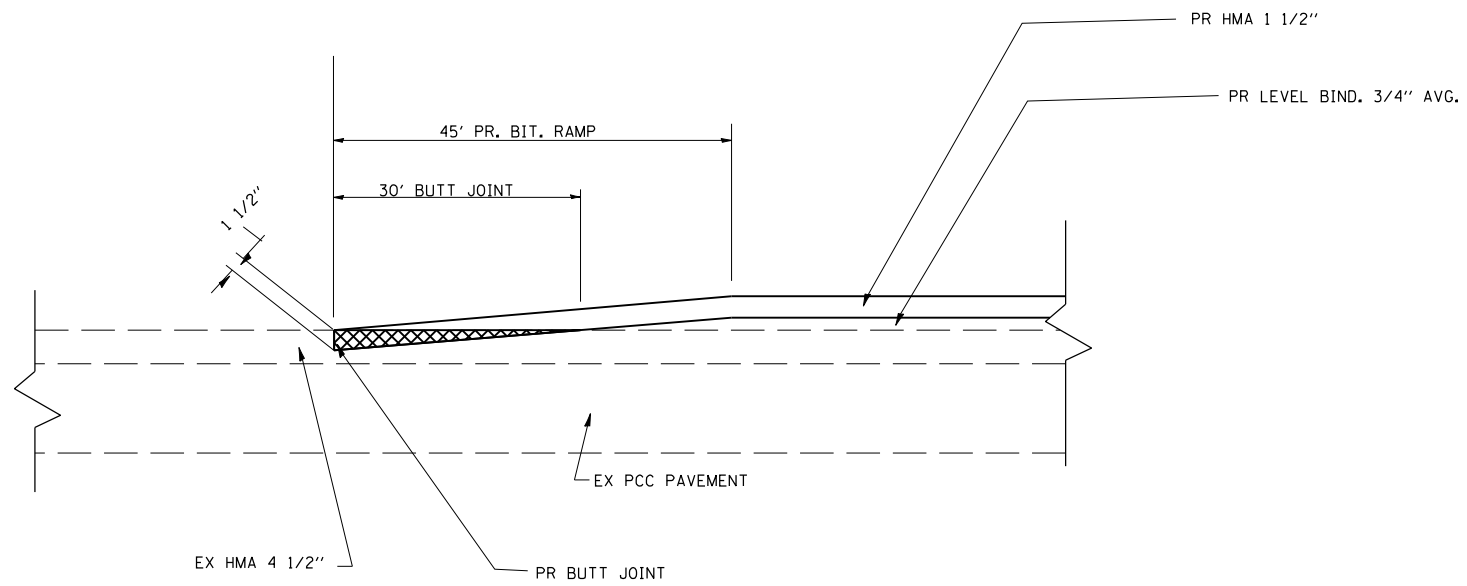


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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STORM WATER POLLUTION PREVENTION PLAN
 SCALE: VERT. / HORIZ.
 DATE / DRAWN BY / CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	25
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BIT. RAMP DETAIL
 STA 377+00.00 TO STA 377+45.00
 STA 384+55.00 TO STA 385+00.00

PLOT DATE : Aug-15-2007 01:40:51PM
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 PLOT SCALE : 1/8"=1'-0" / IN.
 USER NAME : laughlin-1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT DETAILS

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
 DATE

Bench Mark: BM 100, chiseled square on top of headwall, on the northeast corner of existing structure. Station 381+22.5, 23' left. Elevation 463.73

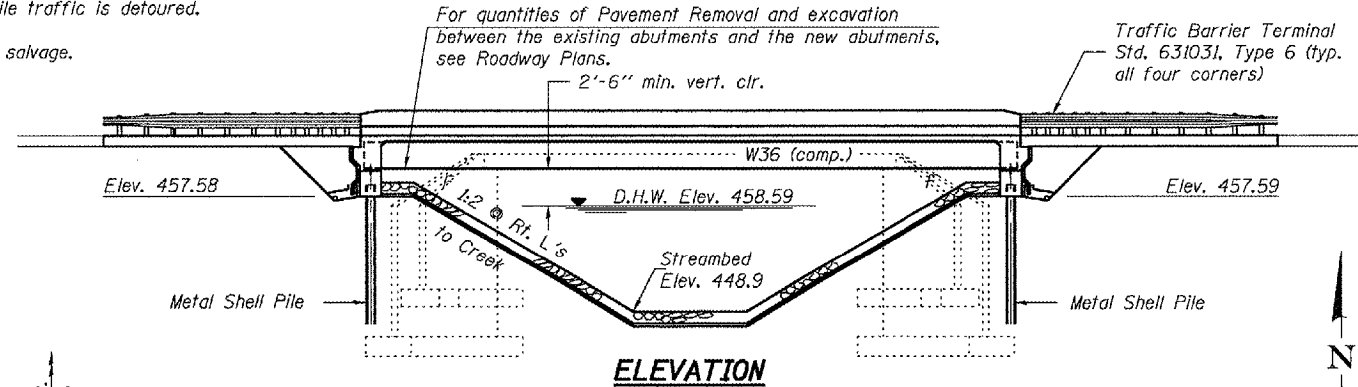
Existing Structure: S.N. 075-0025, originally built in 1930 as S.B.I. Route 106, Section 101 B. The original structure consisted of single span concrete T beam structure on closed abutments. In 1965 the substructure and superstructure were widened with precast deck beams. The back to back abutment length is 48'-0" and the out to out bridge width is 46'-4". The structure is to be removed and replaced while traffic is detoured.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 14 SHEETS
F.A.P. 751	101B-2	PIKE	48	26	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #72928



INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Data
- 3-4 Top of Slab Elevations
- 5 Superstructure
- 6 Superstructure Details
- 7 Diaphragm Details
- 8 Structural Steel Details
- 9 West Abutment
- 10 East Abutment
- 11 Metal Shell Piles
- 12 Bar Splicer Details
- 13-14 Soil Boring Logs

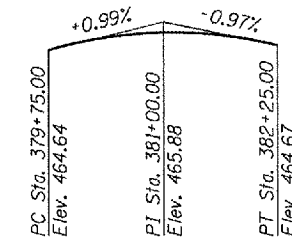
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		128	128
Stone Riprap Class A5	Sq. Yd.			1076
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		172	172
Driving Piles	Foot		1340	1340
Floor Drains	Each	8		8
Concrete Structures	Cu. Yd.		33.0	33.0
Concrete Superstructure	Cu. Yd.	115.8		115.8
Bridge Deck Grooving	Sq. Yd.	291		291
Protective Coat	Sq. Yd.	372		372
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1116		1116
Reinforcement Bars, Epoxy Coated	Pound	23680	4920	28600
Furnishing Metal Shell Piles, 12" ϕ X 0.25"	Foot		1340	1340
Test Pile Metal Shells	Each		1	1
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		71	71
Pipe Underdrain for Structure, 4"	Foot		145	145
Bar Splicers	Each		72	72
Anchor Bolts, 1"	Each		24	24
Filter Fabric	Sq. Yd.			1076

STATION 381+00.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 751 SEC. 101B-2
LOADING HL93
STR. NO. 075-0507

NAME PLATE

See Std. 515001



PROFILE GRADE

(along ϕ Roadway)

DESIGN SCOUR ELEVATION	W. & E. Abut. 457.6
------------------------	------------------------

LOADING HL93

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

DESIGN SPECIFICATIONS

2004 AASHTO LRFD Bridge Design Specifications with 2005 Interlms

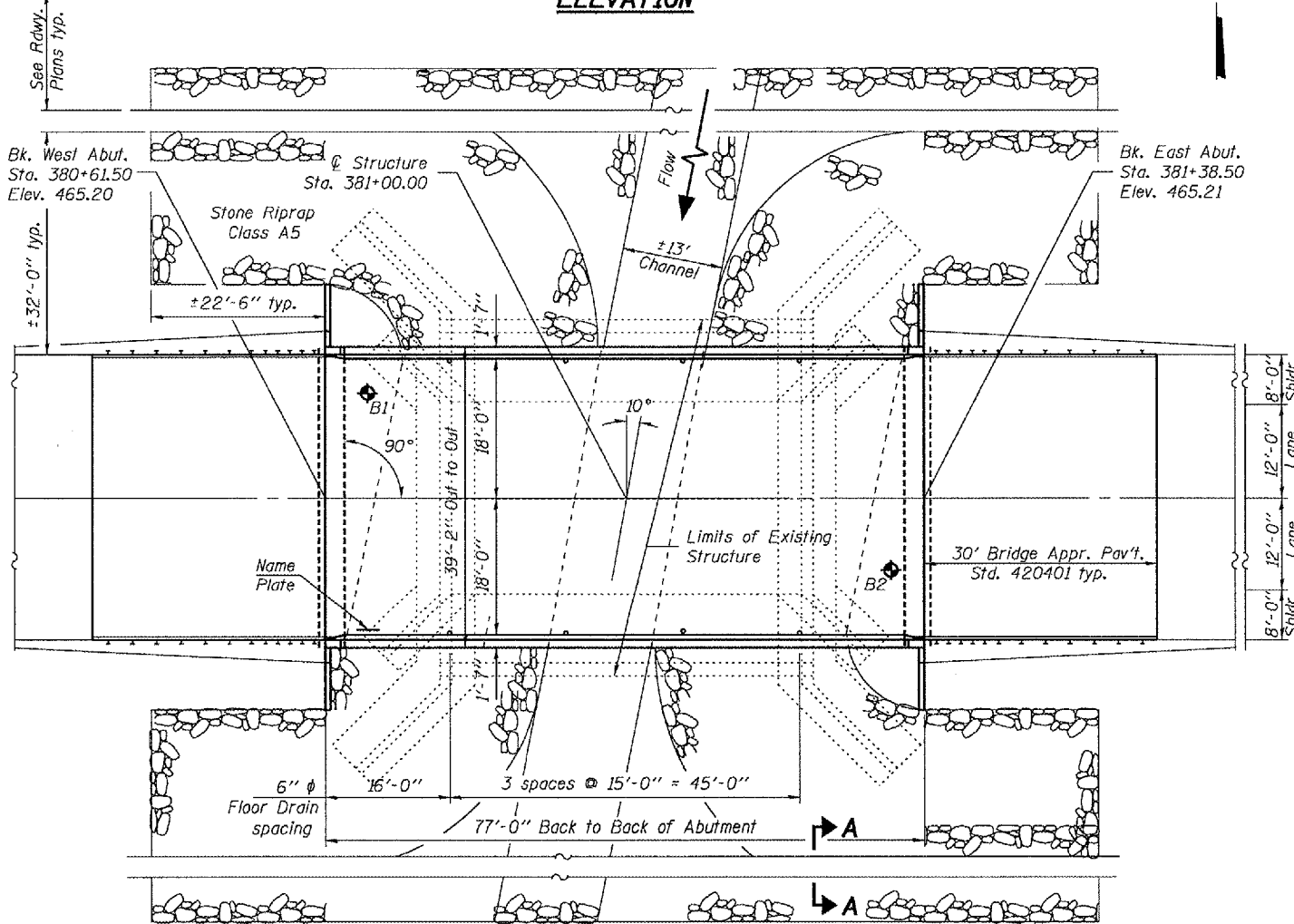
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (M270 Gr. 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.046
Site Coefficient (S) = 1.0



Note: See sheet 2 of 14 for Sec. A-A.

PLAN

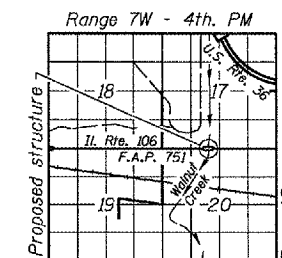
WATERWAY INFORMATION

Existing Low Grade Elev. 462.19 @ Sta. 377+00
Proposed Low Grade Elev. 462.19 @ Sta. 377+00

Drainage Area = 6.5 sq. mi.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	50	2017	272	282	458.14	0.35	0.34	458.49	458.48	
Base	100	2312	296	311	458.59	0.76	0.74	459.35	459.33	
Overlapping	-	-	-	-	-	-	-	-	-	
Max. Calc.	500	3022	326	349	459.1	1.8	1.7	460.9	460.8	

10 year velocity through Exist. Bridge = 5.03 fps 10 year velocity through Prop. Bridge = 4.88 fps



GENERAL PLAN AND ELEVATION

ILLINOIS ROUTE 106 OVER

WALNUT CREEK

F.A.P. RT. 751 - SEC. 101B-2

PIKE COUNTY

STATION 381+00.00

STRUCTURE NO. 075-0507

DESIGNED: [Signature] August 2007
CHECKED: [Signature] EXAMINED: [Signature]
DRAWN: [Signature] PASSED: [Signature]
CHECKED: NRB PRL

STATE OF ILLINOIS
ENGINEER OF BRIDGES AND STRUCTURES
081-0046225
EXPIRES 11-30-2008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 751	101B-2	PIKE	48	27	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #72928

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 3 Bolts. Bolts $\frac{3}{4}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 76720 lbs.

All structural steel shall be AASHTO M 270 Grade 50W.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions

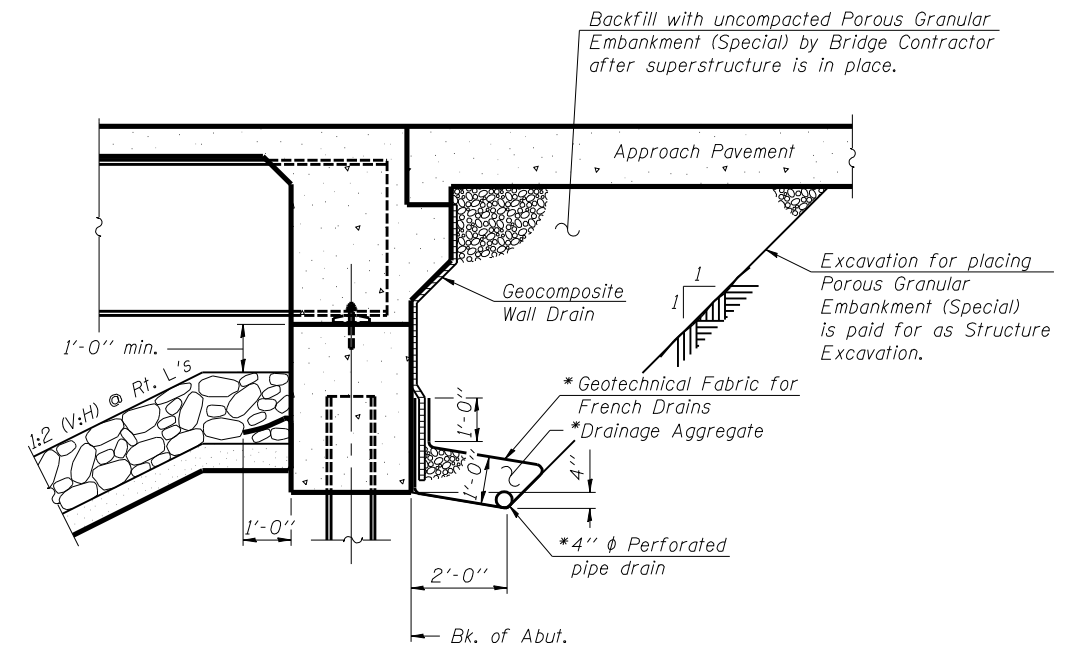
Reinforcement bars designated (E) shall be epoxy coated.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in permanent locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.



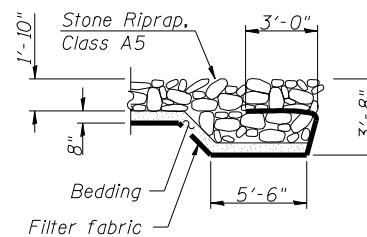
SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures, 4".

Note:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110).



SECTION A-A

DESIGNED	Nicholas R. Barnett
CHECKED	Phillip R. Litchfield
DRAWN	Greg D. Farmer
CHECKED	NRB/PRL

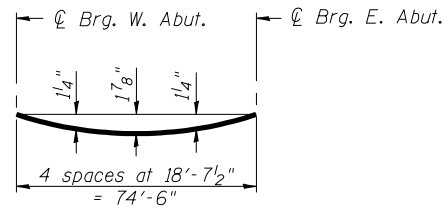
August 30, 2007
EXAMINED <i>Thomas J. Damagalli</i>
PASSED <i>Ralph E. Anderson</i>
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL DATA
F.A.P. RT. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 751	SECTION 101B-2	COUNTY PIKE	TOTAL SHEETS 48	SHEET NO. 28	SHEET NO. 3 14 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #72928

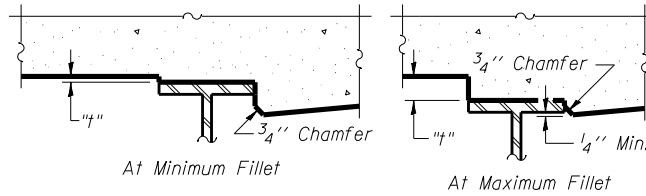


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

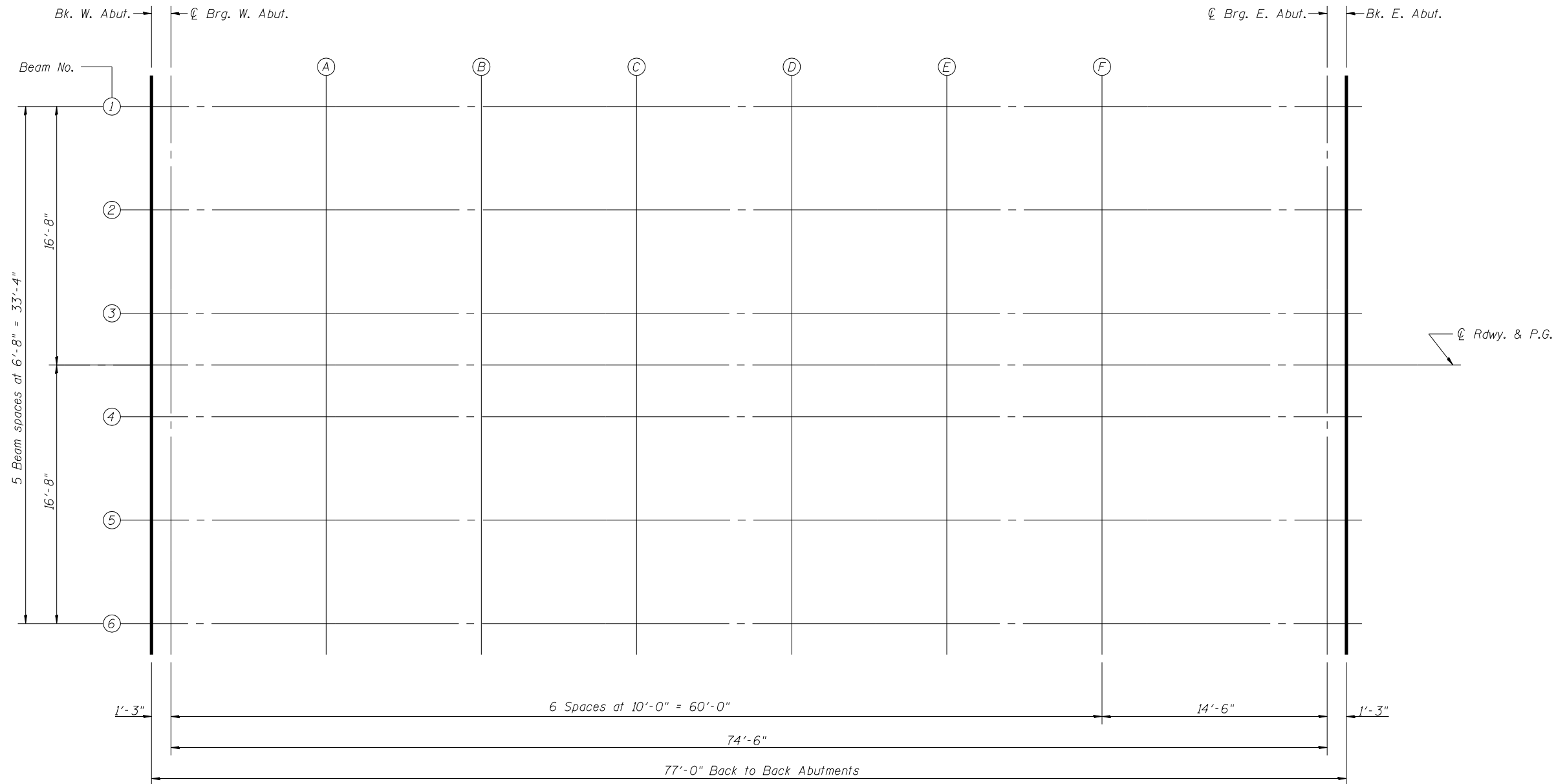
Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 4 of 14.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 4 of 14, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

DESIGNED	Nicholas R. Barnett
CHECKED	Phillip R. Litchfield
DRAWN	Greg D. Farmer
CHECKED	NRB/PRL

August 30, 2007
 EXAMINED *Thomas J. Damagalli*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RT. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 751	101B-2	PIKE	48	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 4
14 SHEETS

Contract #72928

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	38061.50	-16.67	464.92	464.92
⊕ Brg. W. Abut.	38062.75	-16.67	464.92	464.92
A	38072.75	-16.67	464.95	465.01
B	38082.75	-16.67	464.97	465.08
C	38092.75	-16.67	464.98	465.11
D	38102.75	-16.67	464.98	465.13
E	38112.75	-16.67	464.98	465.10
F	38122.75	-16.67	464.96	465.05
⊕ Brg. E. Abut.	38137.25	-16.67	464.93	464.93
Bk. E. Abut.	38138.50	-16.67	464.93	464.93

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	38061.50	-10.00	465.05	465.05
⊕ Brg. W. Abut.	38062.75	-10.00	465.05	465.05
A	38072.75	-10.00	465.08	465.14
B	38082.75	-10.00	465.10	465.21
C	38092.75	-10.00	465.11	465.24
D	38102.75	-10.00	465.11	465.25
E	38112.75	-10.00	465.10	465.23
F	38122.75	-10.00	465.09	465.18
⊕ Brg. E. Abut.	38137.25	-10.00	465.06	465.06
Bk. E. Abut.	38138.50	-10.00	465.05	465.05

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	38061.50	-3.33	465.15	465.15
⊕ Brg. W. Abut.	38062.75	-3.33	465.15	465.15
A	38072.75	-3.33	465.18	465.24
B	38082.75	-3.33	465.20	465.31
C	38092.75	-3.33	465.21	465.35
D	38102.75	-3.33	465.21	465.36
E	38112.75	-3.33	465.21	465.33
F	38122.75	-3.33	465.19	465.28
⊕ Brg. E. Abut.	38137.25	-3.33	465.16	465.16
Bk. E. Abut.	38138.50	-3.33	465.16	465.16

⊕ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	38061.50	0.00	465.20	465.20
⊕ Brg. W. Abut.	38062.75	0.00	465.21	465.21
A	38072.75	0.00	465.23	465.29
B	38082.75	0.00	465.25	465.36
C	38092.75	0.00	465.26	465.40
D	38102.75	0.00	465.26	465.41
E	38112.75	0.00	465.26	465.38
F	38122.75	0.00	465.25	465.33
⊕ Brg. E. Abut.	38137.25	0.00	465.21	465.21
Bk. E. Abut.	38138.50	0.00	465.21	465.21

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	38061.50	3.33	465.15	465.15
⊕ Brg. W. Abut.	38062.75	3.33	465.15	465.15
A	38072.75	3.33	465.18	465.24
B	38082.75	3.33	465.20	465.31
C	38092.75	3.33	465.21	465.35
D	38102.75	3.33	465.21	465.36
E	38112.75	3.33	465.21	465.33
F	38122.75	3.33	465.19	465.28
⊕ Brg. E. Abut.	38137.25	3.33	465.16	465.16
Bk. E. Abut.	38138.50	3.33	465.16	465.16

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	38061.50	10.00	465.05	465.05
⊕ Brg. W. Abut.	38062.75	10.00	465.05	465.05
A	38072.75	10.00	465.08	465.14
B	38082.75	10.00	465.10	465.21
C	38092.75	10.00	465.11	465.24
D	38102.75	10.00	465.11	465.25
E	38112.75	10.00	465.10	465.23
F	38122.75	10.00	465.09	465.18
⊕ Brg. E. Abut.	38137.25	10.00	465.06	465.06
Bk. E. Abut.	38138.50	10.00	465.05	465.05

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	38061.50	16.67	464.92	464.92
⊕ Brg. W. Abut.	38062.75	16.67	464.92	464.92
A	38072.75	16.67	464.95	465.01
B	38082.75	16.67	464.97	465.08
C	38092.75	16.67	464.98	465.11
D	38102.75	16.67	464.98	465.13
E	38112.75	16.67	464.98	465.10
F	38122.75	16.67	464.96	465.05
⊕ Brg. E. Abut.	38137.25	16.67	464.93	464.93
Bk. E. Abut.	38138.50	16.67	464.93	464.93

DESIGNED *Nicholas R. Barnett*
 CHECKED *Phillip R. Litchfield*
 DRAWN *Greg D. Farmer*
 CHECKED *NRB/PRL*

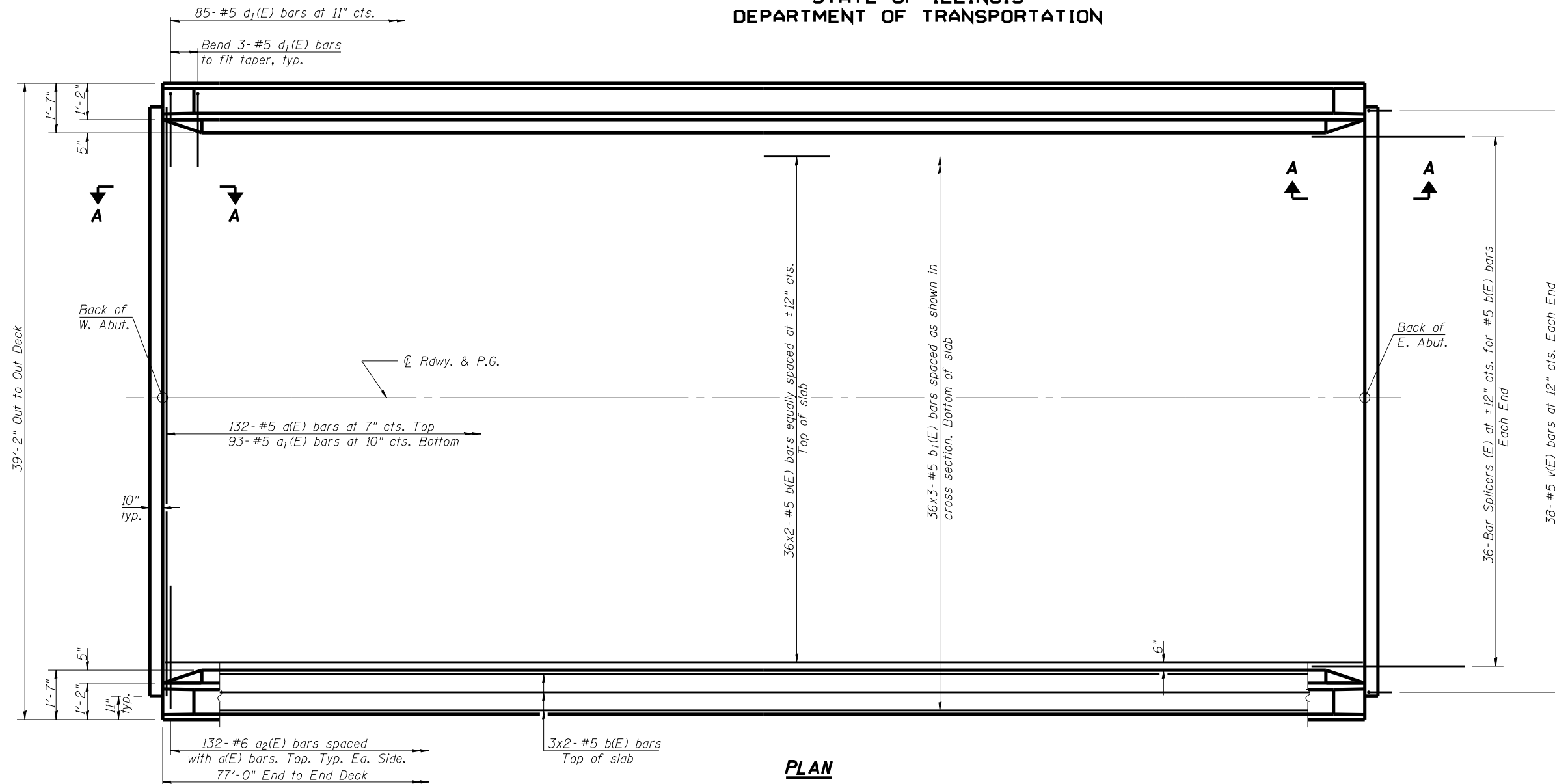
August 30, 2007
 EXAMINED *Thomas J. Damagalki*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

**TOP OF SLAB ELEVATIONS
 F.A.P. RT. 751 SEC. 101B-2
 PIKE COUNTY
 STATION 381+00.00
 STRUCTURE NO. 075-0507**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 14 SHEETS
F.A.P. 751	101B-2	PIKE	48	30	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

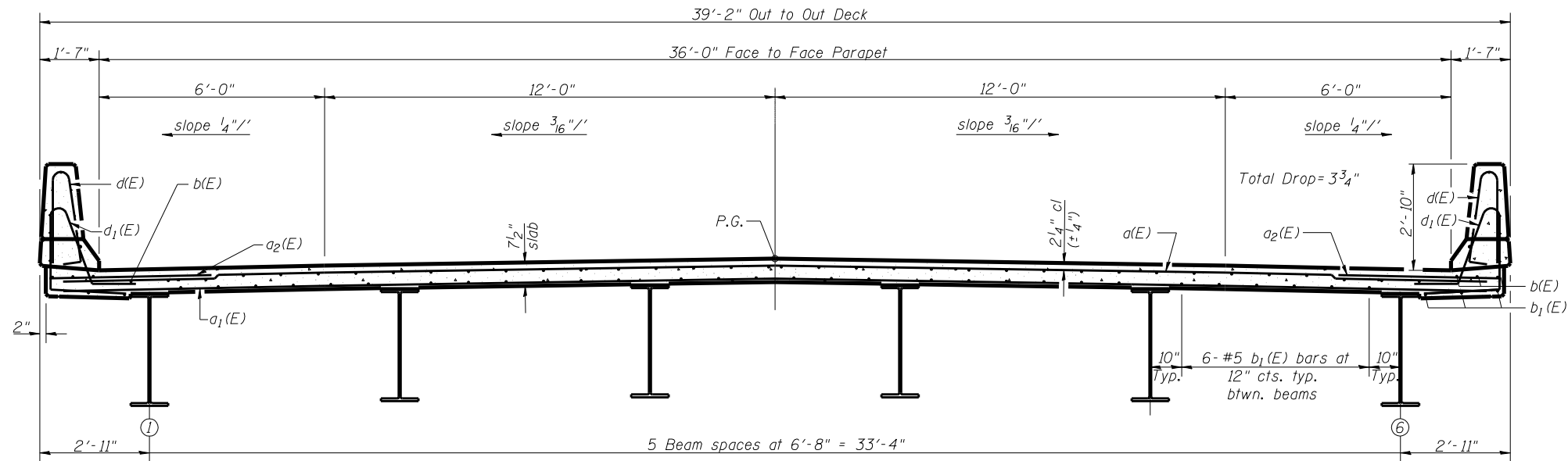
Contract #72928



PLAN

Notes:
See Sheet 6 of 14 for superstructure details and Bill of Material.
Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.
See Sheet 6 of 14 for parapet reinforcement.
See Sheet 7 of 14 for Sec. A-A

MIN. BAR LAP
#5 bar = 2'-2"



CROSS SECTION
(Looking East)

DESIGNED Nicholas R. Barnett
CHECKED Phillip R. Litchfield
DRAWN Greg D. Farmer
CHECKED NRB/PRL

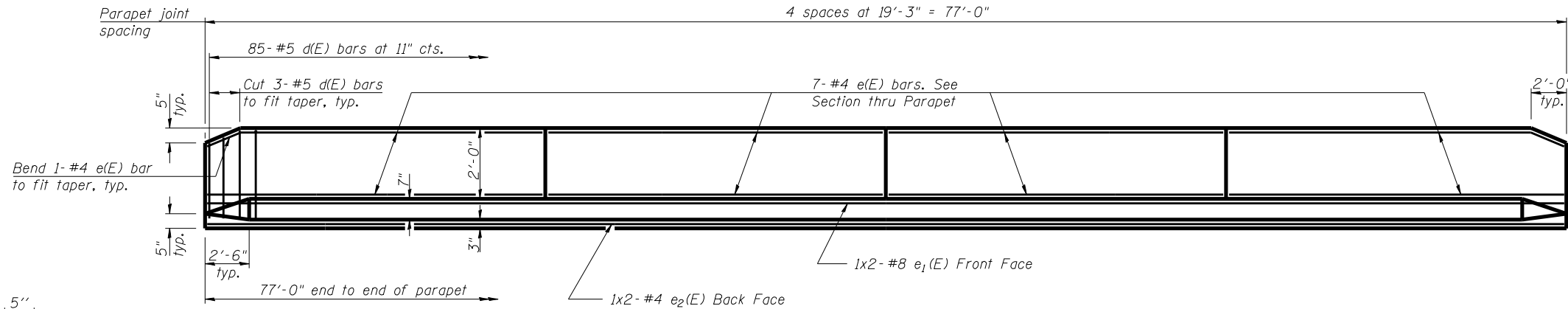
August 30, 2007
EXAMINED Thomas J. Damagalli
PASSED Ralph E. Anderson
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
F.A.P. RT. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

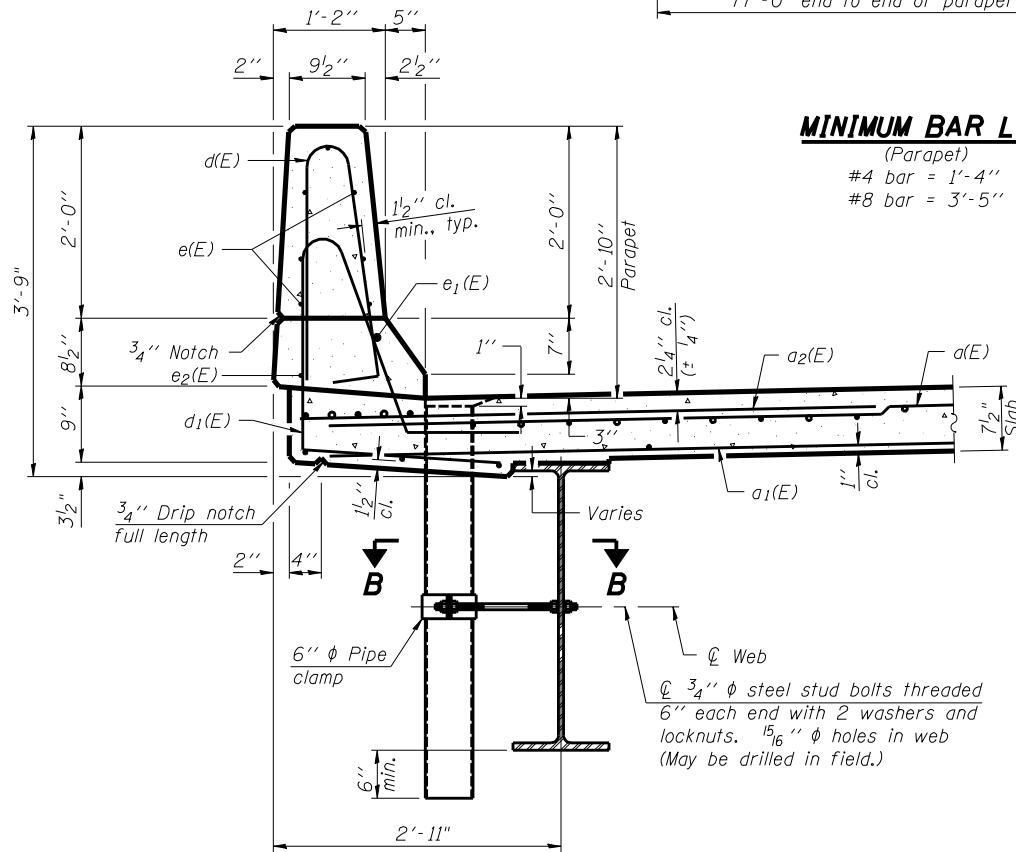
ROUTE NO. F.A.P. 751	SECTION 101B-2	COUNTY PIKE	TOTAL SHEETS 48	SHEET NO. 31	SHEET NO. 6 14 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #72928

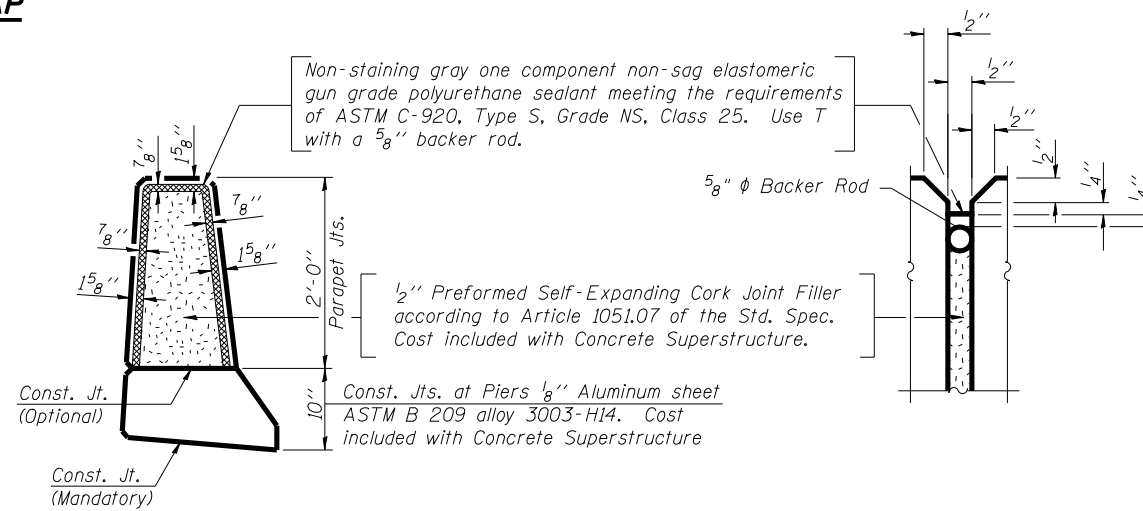


INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



SECTION THRU PARAPET



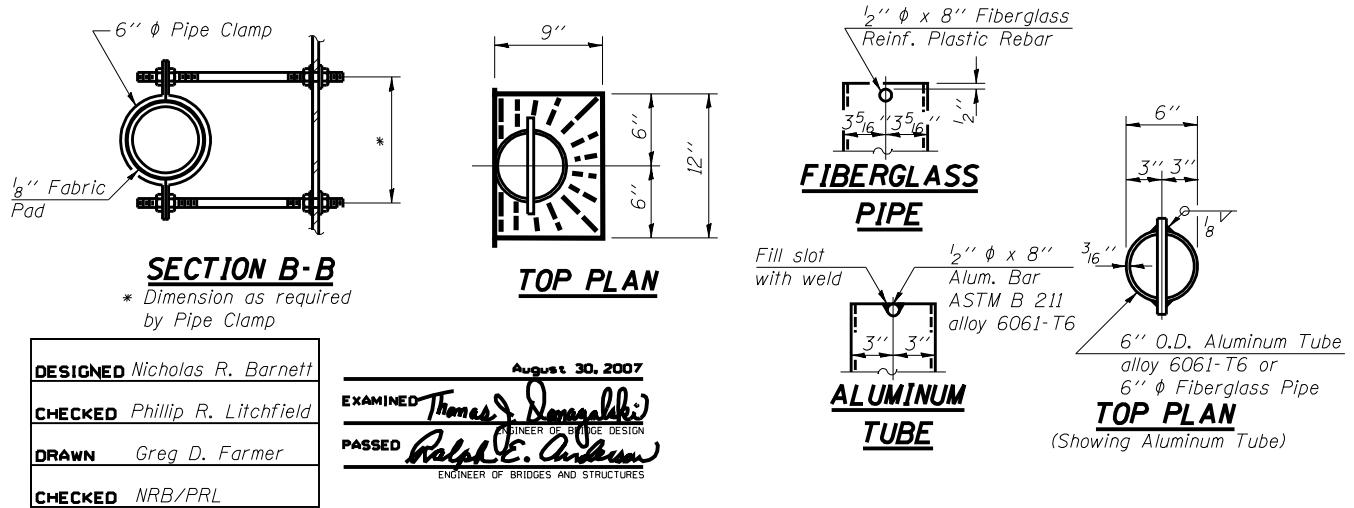
PARAPET JOINT DETAILS

Notes:
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	132	#5	38'-6"	—
a ₁ (E)	93	#5	36'-10"	—
a ₂ (E)	264	#6	6'-0"	—
b(E)	84	#5	39'-6"	—
b ₁ (E)	108	#5	27'-0"	—
d(E)	170	#5	5'-7"	⌒
d ₁ (E)	170	#5	7'-8"	⌒
e(E)	56	#4	19'-0"	—
e ₁ (E)	4	#8	40'-1"	—
e ₂ (E)	4	#4	39'-0"	—
m(E)	4	#6	37'-0"	—
m ₁ (E)	6	#6	38'-10"	—
m ₂ (E)	24	#6	8'-10"	—
m ₃ (E)	10	#6	6'-5"	—
m ₄ (E)	4	#6	2'-8"	—
s(E)	82	#5	6'-10"	⌒
s ₁ (E)	72	#4	9'-10"	⌒
v(E)	76	#5	3'-4"	⌒
Reinforcement Bars, Epoxy Coated		Pound	23680	
Concrete Superstructure		Cu. Yds.	115.8	

Bars indicated thus 1x2- #5 etc. indicates 1 line of bars with 2 lengths per line.



SUPERSTRUCTURE DETAILS
F.A.P. RT. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

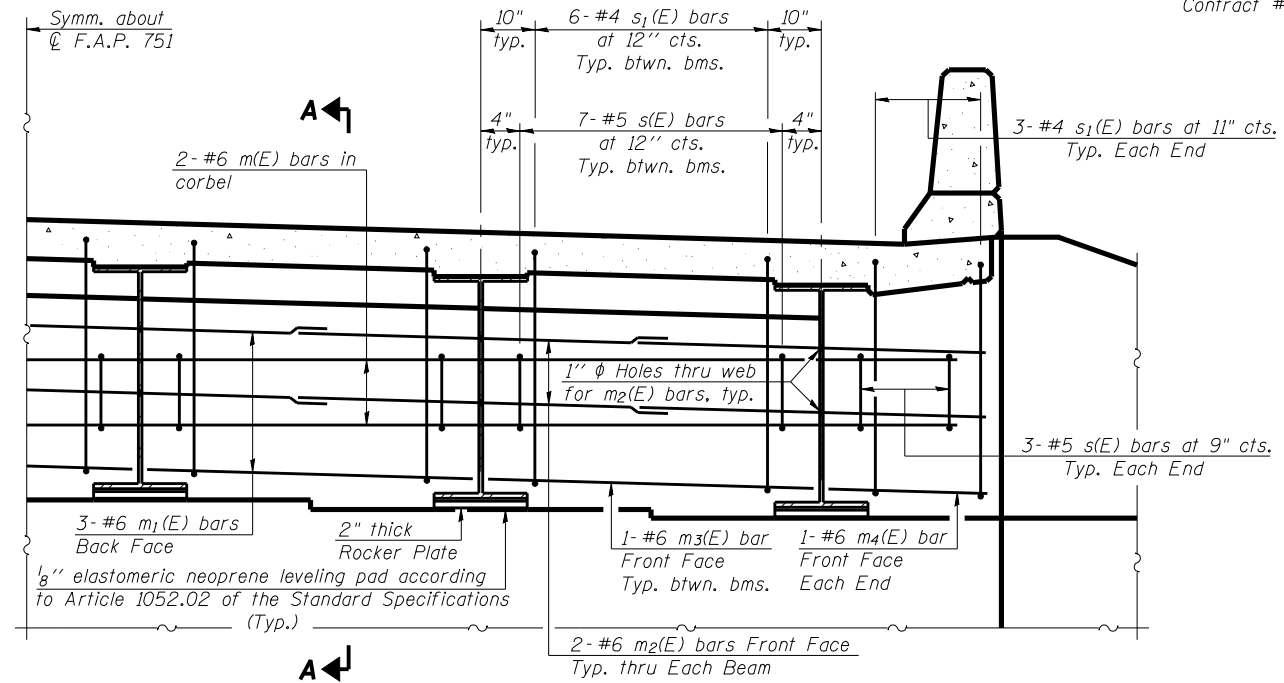
DESIGNED Nicholas R. Barnett
CHECKED Phillip R. Litchfield
DRAWN Greg D. Farmer
CHECKED NRB/PRL

August 30, 2007
EXAMINED Thomas J. Damalchi
PASSED Ralph E. Anderson

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 751	SECTION 101B-2	COUNTY PIKE	TOTAL SHEETS 48	SHEET NO. 32	SHEET NO. 7 14 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

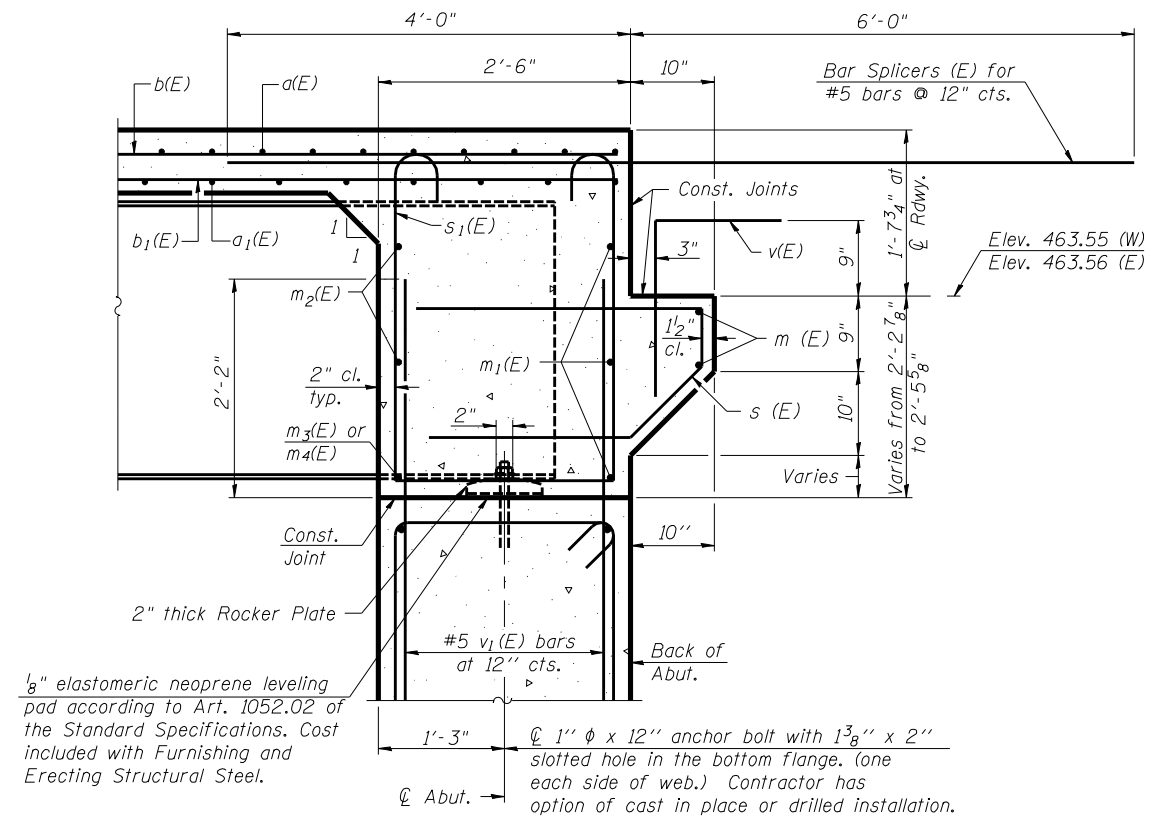
Contract #72928



DIAPHRAGM ELEVATION AT ABUTMENT

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 6 of 14.
Concrete in diaphragm is included with Concrete Superstructure on sheet 6 of 14.
For details of bars s(E) & s₁(E) see sheet 6 of 14.
The s(E) and s₁(E) bars shall be placed parallel to the beams.

MIN. BAR LAP
#6 bar = 2'-9"



SECTION A-A

DIAPHRAGM DETAILS
F.A.P. RT. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

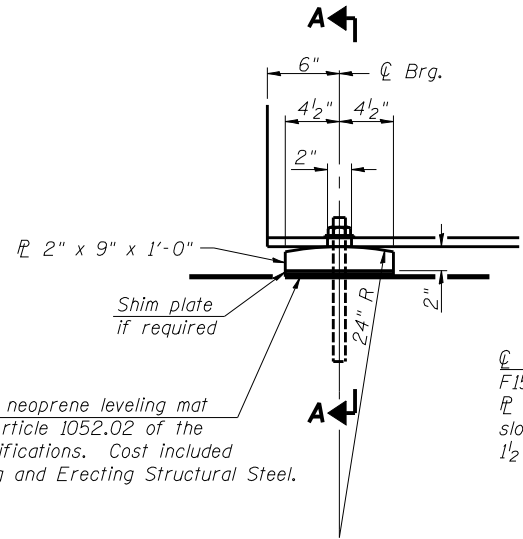
DESIGNED	Nicholas R. Barnett
CHECKED	Phillip R. Litchfield
DRAWN	Greg D. Farmer
CHECKED	NRB/PRL

EXAMINED	Thomas J. Damagalli	August 30, 2007
PASSED	Ralph E. Anderson	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8 14 SHEETS
F.A.P. 751	101B-2	PIKE	48	33	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #72928

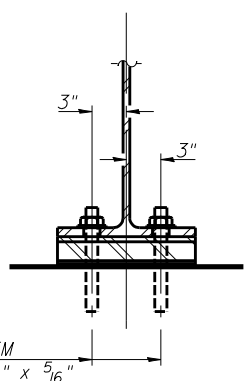


ELEVATION AT ABUTMENT

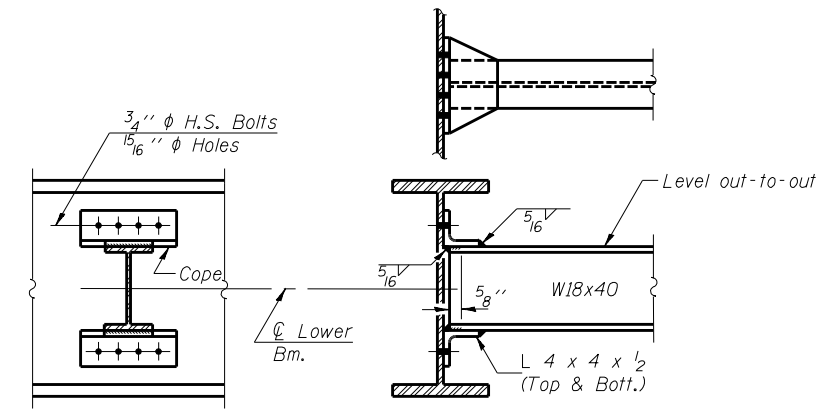
FIXED BEARING

1/8" elastomeric neoprene leveling mat according to Article 1052.02 of the Standard Specifications. Cost included with Furnishing and Erecting Structural Steel.

1" φ x 12" anchor bolts (ASTM F1554 Grade 36) with 2 1/4" x 2 1/4" x 5/16" washer under nut. 1 3/8" x 2" slotted hole in bott. flange. 1 1/2" φ holes in bearing plate.



SECTION A-A

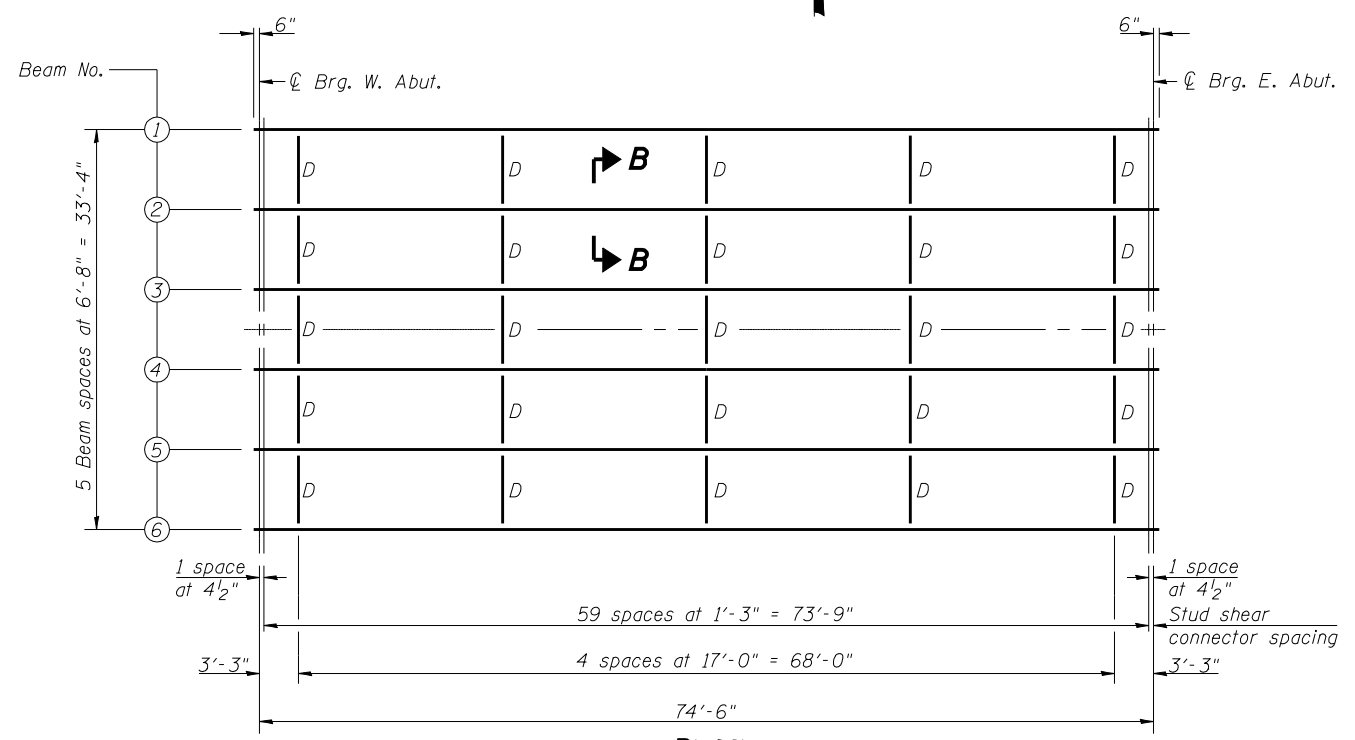


DIAPHRAGM D
25 Required

Notes:
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
Two hardened washers shall be required over all 1 5/16" φ holes for diaphragms.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy = 36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

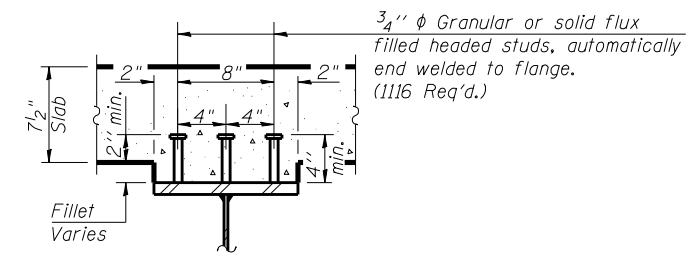
Symbol	Unit	Value
I _s	(in ⁴)	9040
I _c (n)	(in ⁴)	22452
I _c (3n)	(in ⁴)	16432
S _s	(in ³)	504
S _c (n)	(in ³)	717
S _c (3n)	(in ³)	648
DC1	(k/')	0.811
M _{DC1}	(k)	562.7
DC2	(k/')	0.150
M _{DC2}	(k)	104.1
DW	(k/')	0.333
M _{DW}	(k)	231.0
M _{Σ + Imp}	(k)	1040
M _u (Strength I)	(k)	3000
φ _f M _n	(k)	3740.7
f _s DC1	(ksi)	13.398
f _s DC2	(ksi)	1.928
f _s DW	(ksi)	4.278
f _s 1.3(Σ + I)	(ksi)	22.628
f _s (Service II)	(ksi)	42.231
f _s (Total)(Strength I)	(ksi)	
V _r	(k)	24.5

Symbol	Unit	Value
R _{DC1}	(k)	30.2
R _{DC2}	(k)	5.6
R _{DW}	(k)	12.4
R _{Σ + Imp}	(k)	77.4
R _{Total}	(k)	125.6

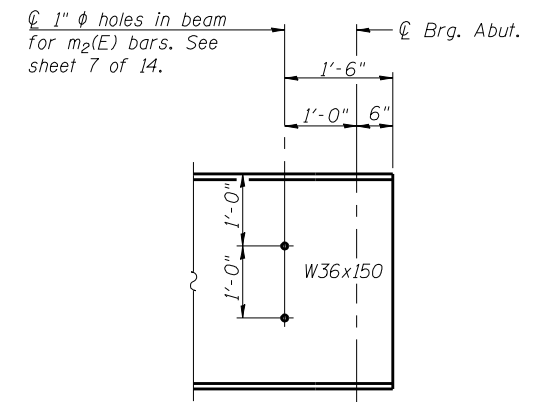


PLAN

All beams are W 36X150, NTR, and AASHTO M 270 Gr. 50W



SECTION B-B



TYP. END OF BEAM ELEVATION

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

I_c(n), S_c(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).

I_c(3n), S_c(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and in³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{Σ + Imp}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{Σ + Imp}

φ_fM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

φ_fM_{nc}: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_{Σ + Imp}

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{Σ + Imp}

V_r: Factored shear range computed according to Article 6.10.10.

***TOP OF BEAM ELEVATIONS**

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
West Abut.	464.25	464.38	464.48	464.48	464.38	464.25
East Abut.	464.26	464.39	464.49	464.49	464.39	464.26

*For Fabrication only

DESIGNED Nicholas R. Barnett
CHECKED Phillip R. Litchfield
DRAWN Greg D. Farmer
CHECKED NRB/PRL

August 30, 2007
EXAMINED Thomas J. Damagalki
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

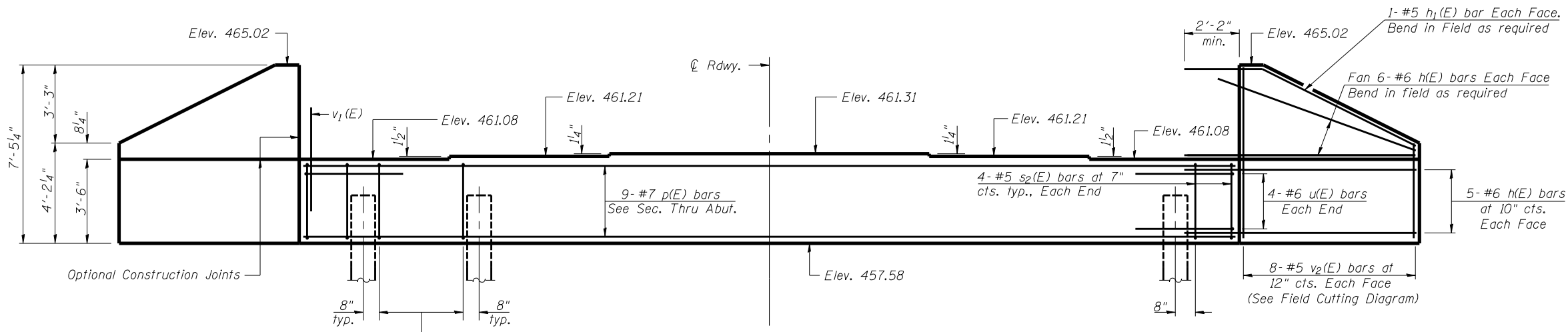
STRUCTURAL STEEL DETAILS
F.A.P. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

Notes: Four steps monolithically with cap.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 751	SECTION 101B-2	COUNTY PIKE	TOTAL SHEETS 48	SHEET NO. 34	SHEET NO. 9 14 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

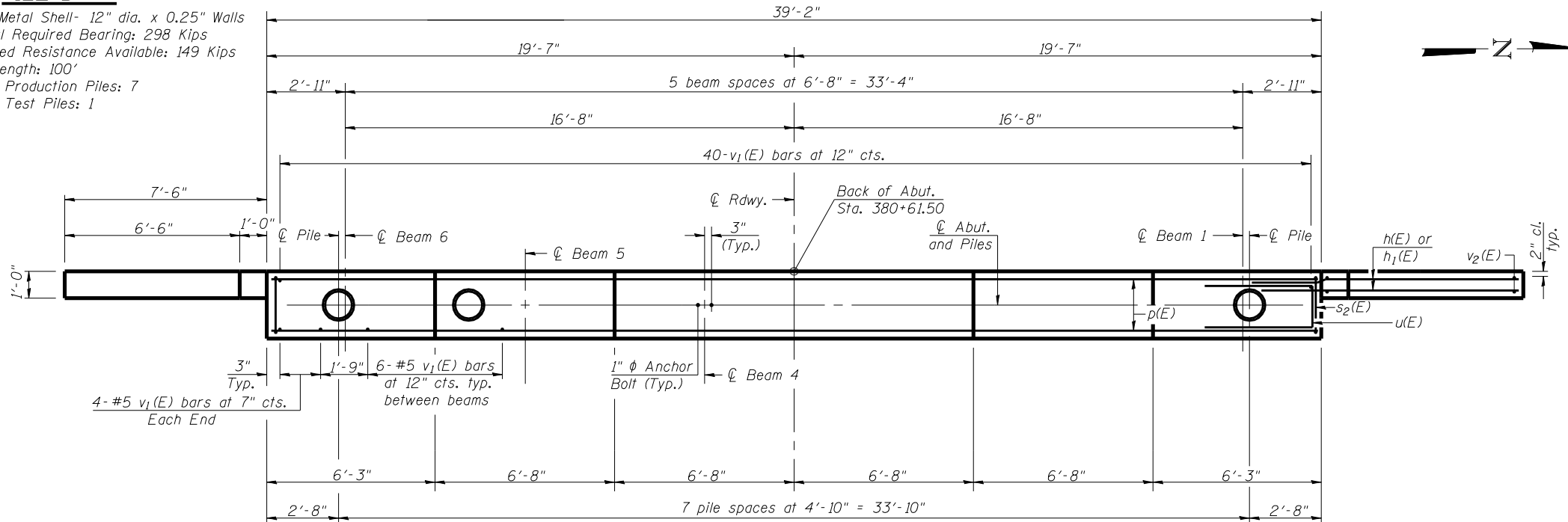
Contract #72928



ELEVATION
(Looking West)

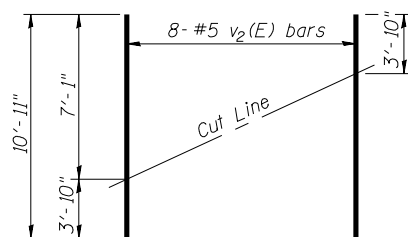
PILE DATA

Type: Metal Shell- 12" dia. x 0.25" Walls
Nominal Required Bearing: 298 Kips
Factored Resistance Available: 149 Kips
Est. Length: 100'
No. of Production Piles: 7
No. of Test Piles: 1



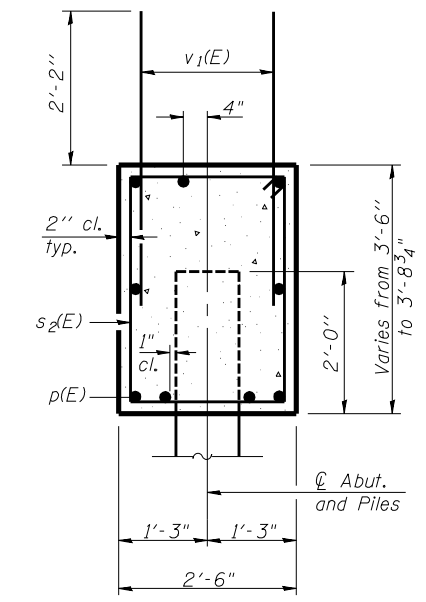
PLAN

Note: If h(E) bars interfere with Metal Shell Piles, cut h(E) bars to fit and maintain min. 2'-2" embedment.



FIELD CUTTING DIAGRAM

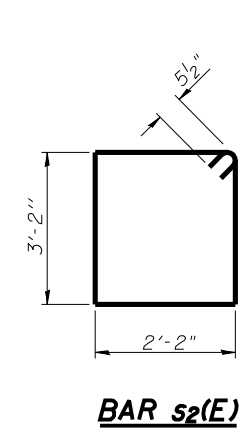
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



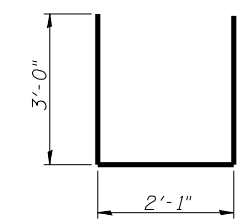
SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	44	#6	9'-8"	—
h1(E)	4	#5	10'-3"	—
p(E)	9	#7	38'-10"	—
s2(E)	36	#5	11'-7"	□
u(E)	8	#6	8'-1"	—
v1(E)	78	#5	4'-4"	—
v2(E)	16	#5	10'-11"	—
Concrete Structures		Cu. Yd.	16.5	
Reinforcement Bars, Epoxy Coated		Pound	2460	
Structure Excavation		Cu. Yd.	86	
Anchor Bolts, 1"		Each	12	
Furnishing Metal Shell Piles, 12" φ X 0.25"		Foot	700	
Driving Piles		Foot	700	
Test Pile Metal Shells		Each	1	



BAR s2(E)



BAR u(E)

DESIGNED	Nicholas R. Barnett
CHECKED	Phillip R. Litchfield
DRAWN	Greg D. Farmer
CHECKED	NRB/PRL

August 30, 2007
EXAMINED *Thomas J. Damagalli*
ENGINEER OF BRIDGE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

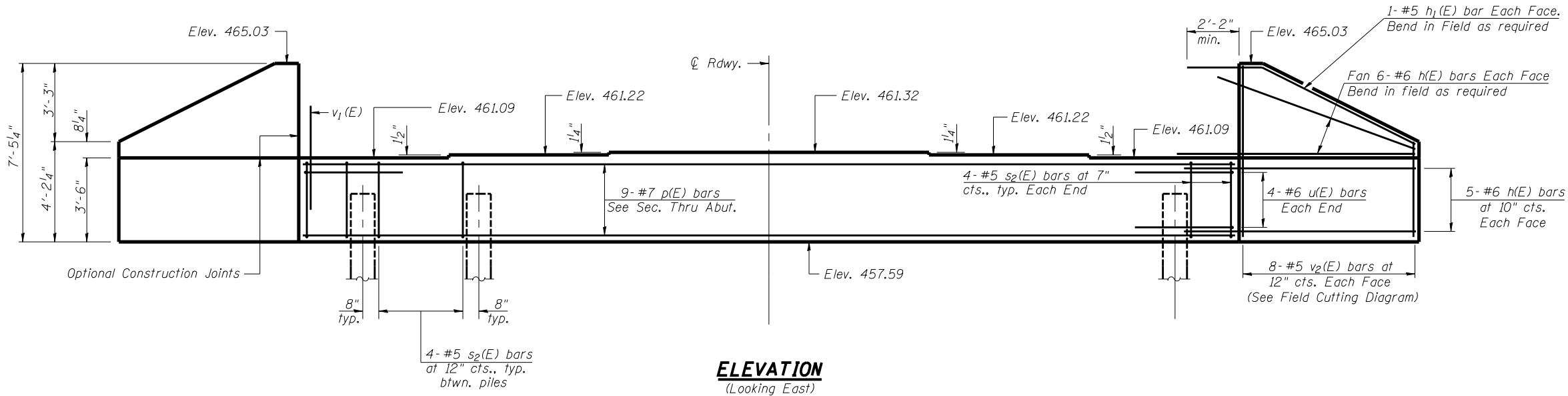
WEST ABUTMENT
F.A.P. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

Notes: Four steps monolithically with cap.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 14 SHEETS
F.A.P. 751	10IB-2	PIKE	48	35	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

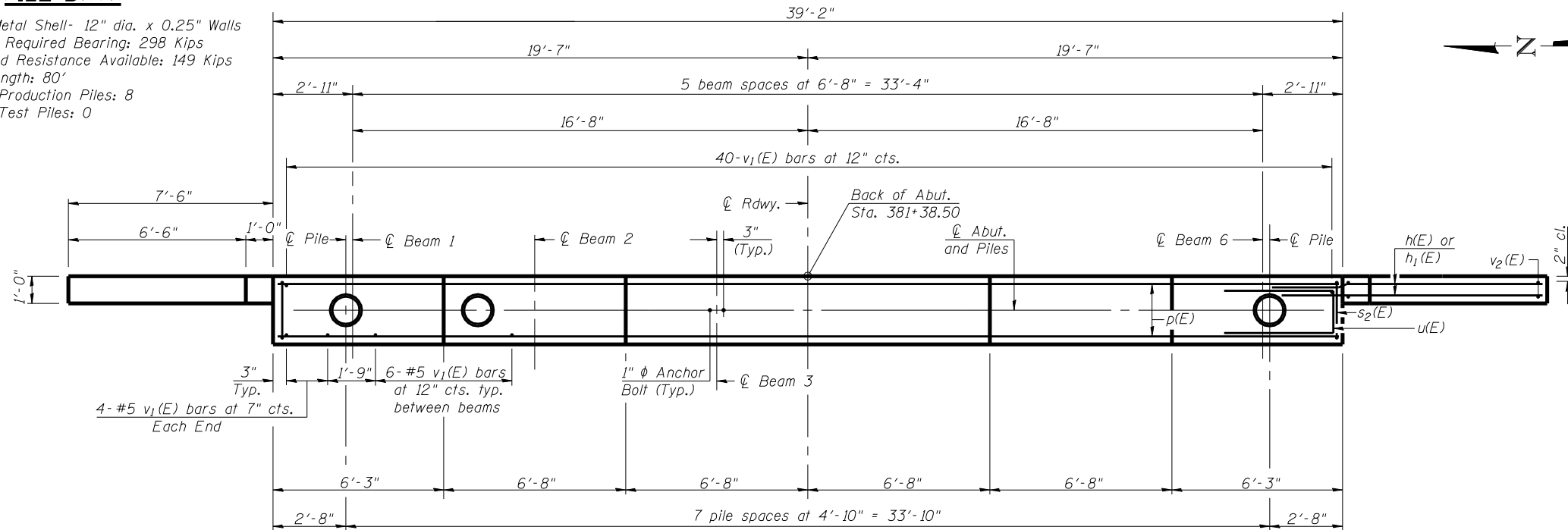
Contract #72928



ELEVATION
(Looking East)

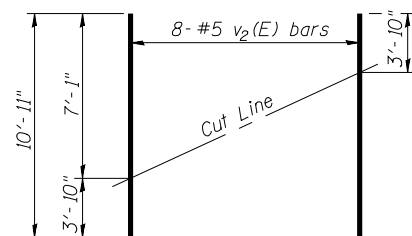
PILE DATA

Type: Metal Shell- 12" dia. x 0.25" Walls
Nominal Required Bearing: 298 Kips
Factored Resistance Available: 149 Kips
Est. Length: 80'
No. of Production Piles: 8
No. of Test Piles: 0



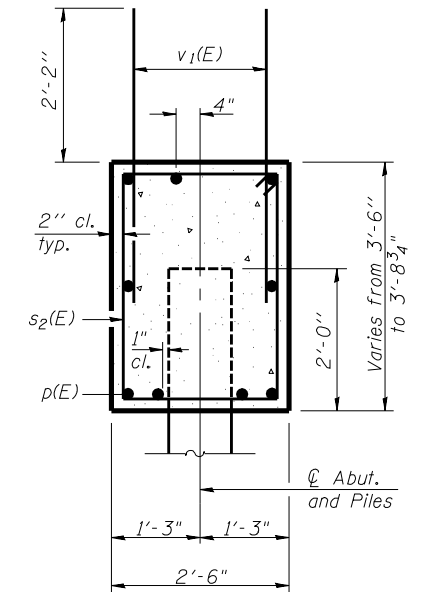
PLAN

Note: If h(E) bars interfere with Metal Shell piles, cut h(E) bars to fit and maintain minimum 2'-2" embedment.



FIELD CUTTING DIAGRAM

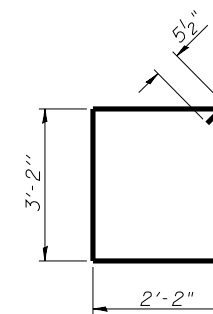
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



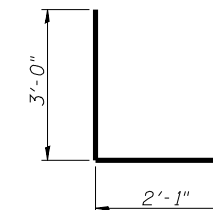
SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	44	#6	9'-8"	—
h1(E)	4	#5	10'-3"	—
p(E)	9	#7	38'-10"	—
s2(E)	36	#5	11'-7"	□
u(E)	8	#6	8'-1"	—
v1(E)	78	#5	4'-4"	—
v2(E)	16	#5	10'-11"	—
Concrete Structures	Cu. Yd.		16.5	
Reinforcement Bars, Epoxy Coated	Pound		2460	
Structure Excavation	Cu. Yd.		86	
Anchor Bolts, 1"	Each		12	
Furnishing Metal Shell Piles, 12" φ x 0.25"	Foot		640	
Driving Piles	Foot		640	



BAR s2(E)



BAR u(E)

DESIGNED	Nicholas R. Barnett
CHECKED	Phillip R. Litchfield
DRAWN	Greg D. Farmer
CHECKED	NRB/PRL

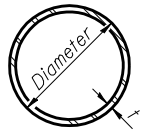
August 30, 2007	
EXAMINED	Thomas J. Damagalli
PASSED	Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES	

EAST ABUTMENT
F..A.P. 751 SEC. 10IB-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

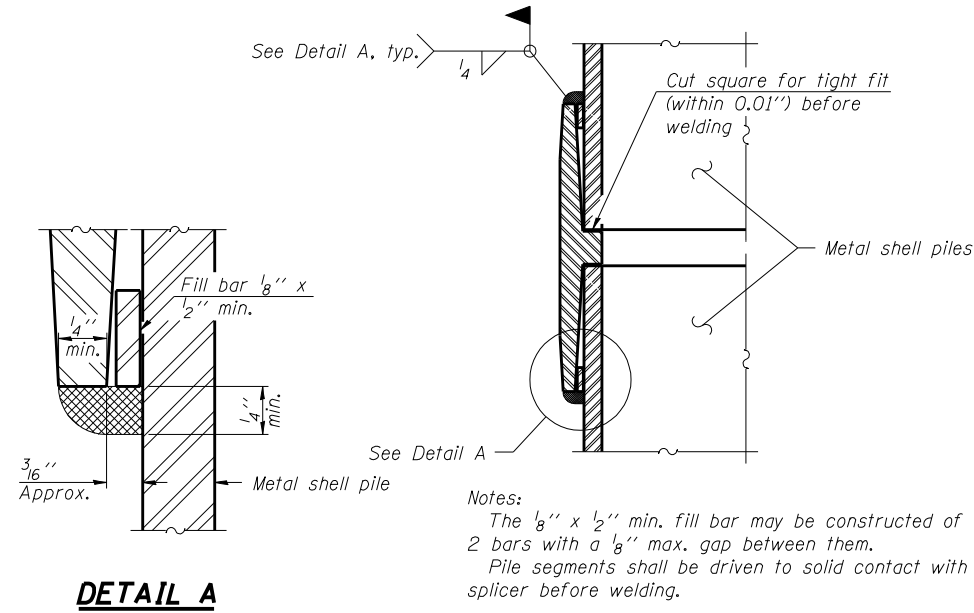
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11 14 SHEETS
F.A.P. 751	101B-2	PIKE	48	36	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #72928



METAL SHELL PILE TABLE

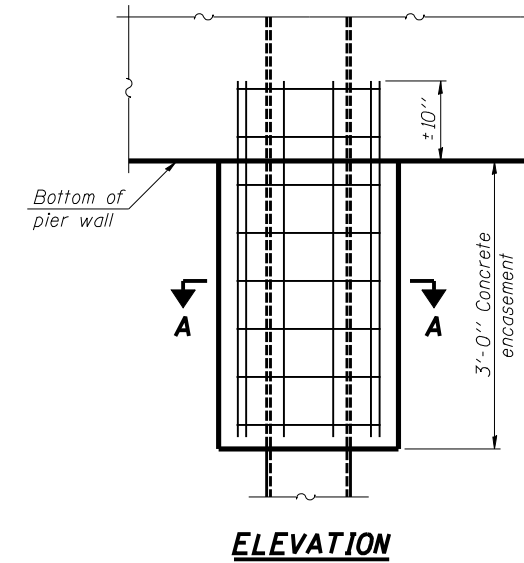
Designation	Wall thickness <i>t</i>	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)	Encasement diameter A
PP12	0.179"	22.60	0.0274	30"
PP12	0.250"	31.37	0.0267	30"
PP14	0.250"	36.71	0.0368	30"
PP14	0.312"	45.61	0.0361	30"



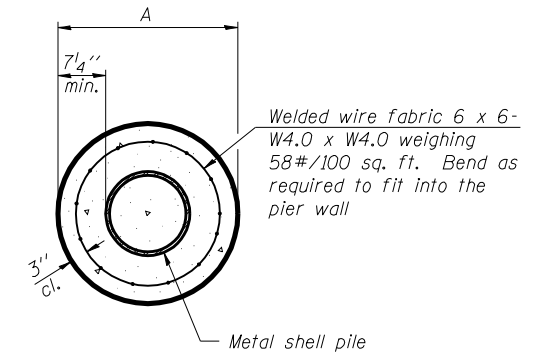
DETAIL A

Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



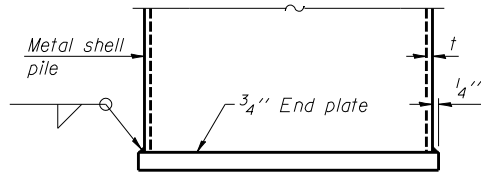
ELEVATION



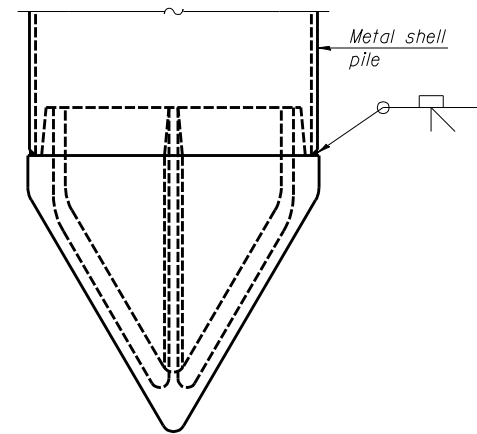
SECTION A-A

Notes:
See Metal Shell Pile Table for dimension "A".
Forms for encasement may be omitted when soil conditions permit.

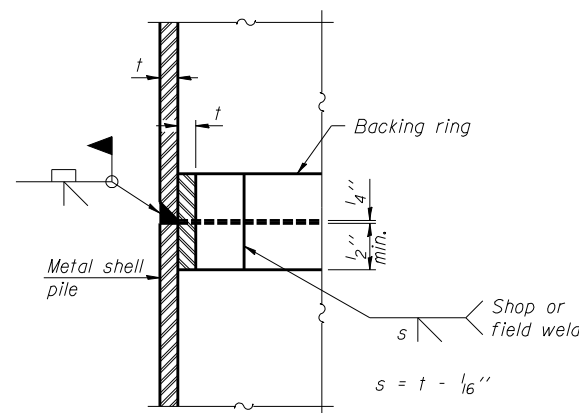
CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

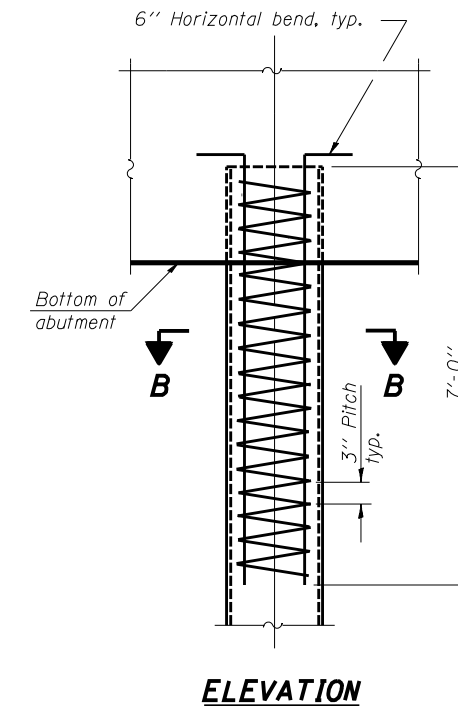


METAL SHELL PILE SHOE ATTACHMENT

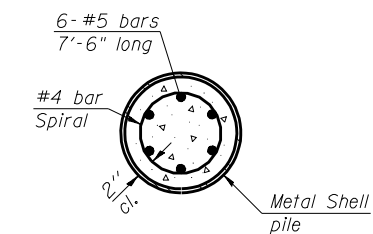


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

DESIGNED	Nicholas R. Barnett
CHECKED	Phillip R. Litchfield
DRAWN	Greg D. Farmer
CHECKED	NRB/PRL

EXAMINED	Thomas J. Damagalki	August 30, 2007
PASSED	Ralph E. Anderson	

F-MS

11-1-06

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

PILE DATA
F.A.P. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 12 14 SHEETS
F.A.P. 751	101B-2	PIKE	48	37	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #72928

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

The diameter of this part is equal or larger than the diameter of bar spliced.
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

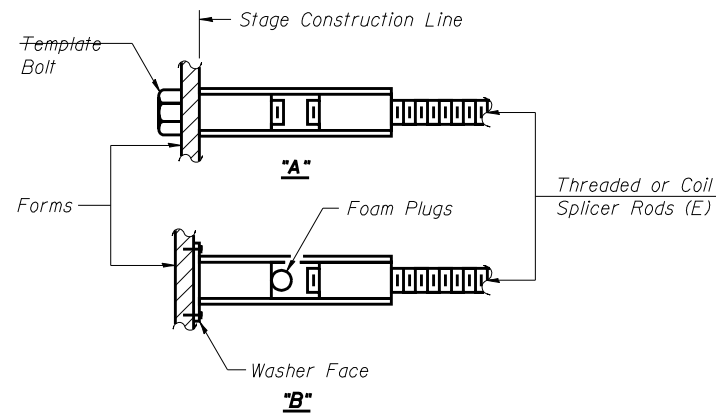
Wire Connector



WELDED SECTIONS

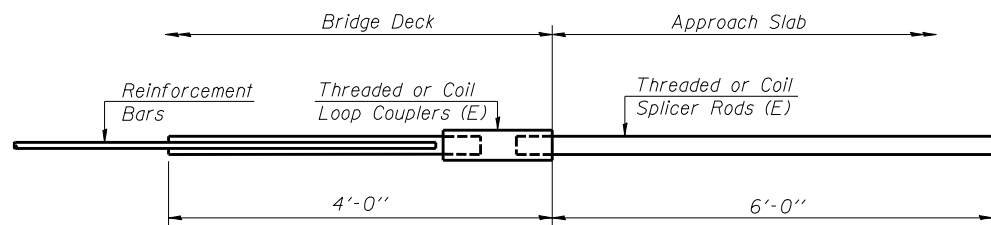
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



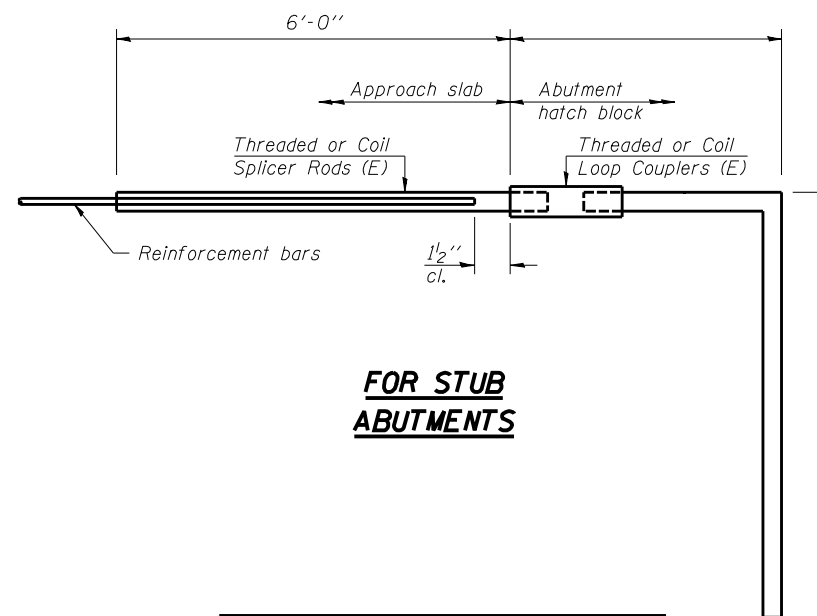
INSTALLATION AND SETTING METHODS

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



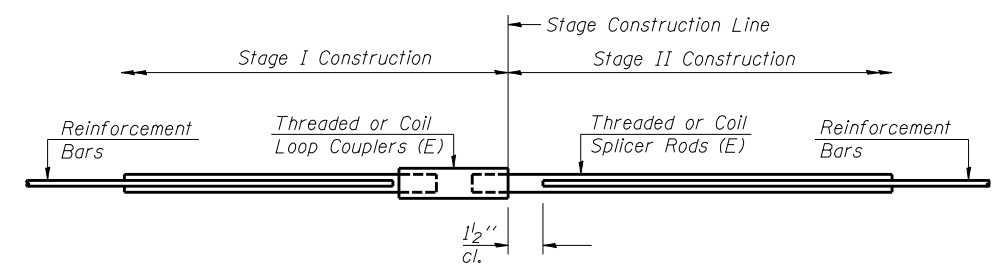
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 72



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location

BAR SPLICER ASSEMBLY DETAILS

F.A.P. RT. 751 SEC. 101B-2
PIKE COUNTY
STATION 381+00.00
STRUCTURE NO. 075-0507

DESIGNED Nicholas R. Barnett
CHECKED Phillip R. Litchfield
DRAWN Greg D. Farmer
CHECKED NRB/PRL

August 30, 2007
EXAMINED Thomas J. Damagalki
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	40
STA. 376+50.00		TO STA. 377+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

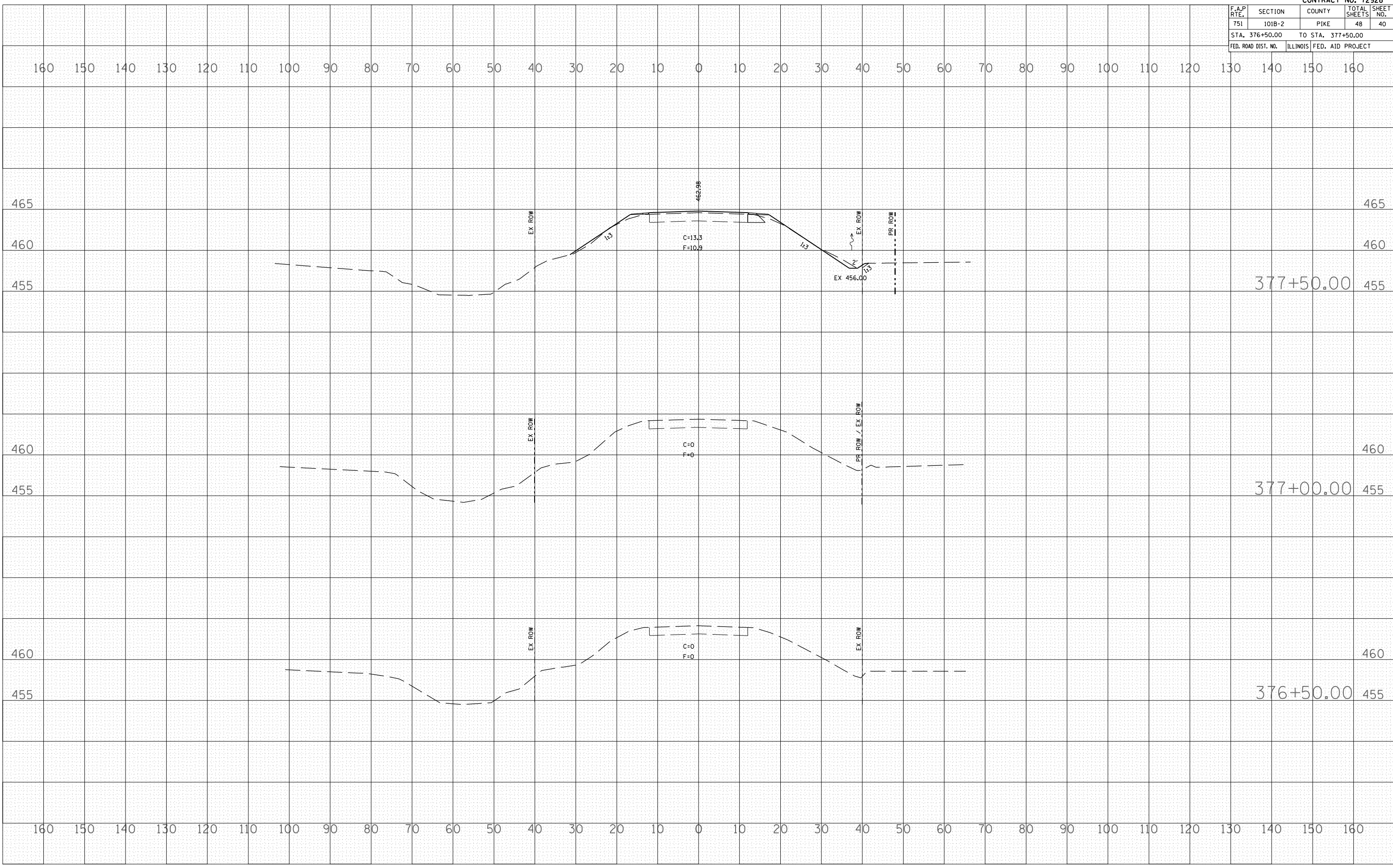
BY	DATE

FINAL SURVEY	SURVEYED	PLOTTED	DATE	AREAS CHECKED

BY	DATE

ORIGINAL SURVEY	SURVEYED	PLOTTED	DATE	AREAS CHECKED

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 PLOT SCALE = 211765 / IN.
 USER NAME = laughlin-1



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	44
STA. 381+50.00		TO STA. 382+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

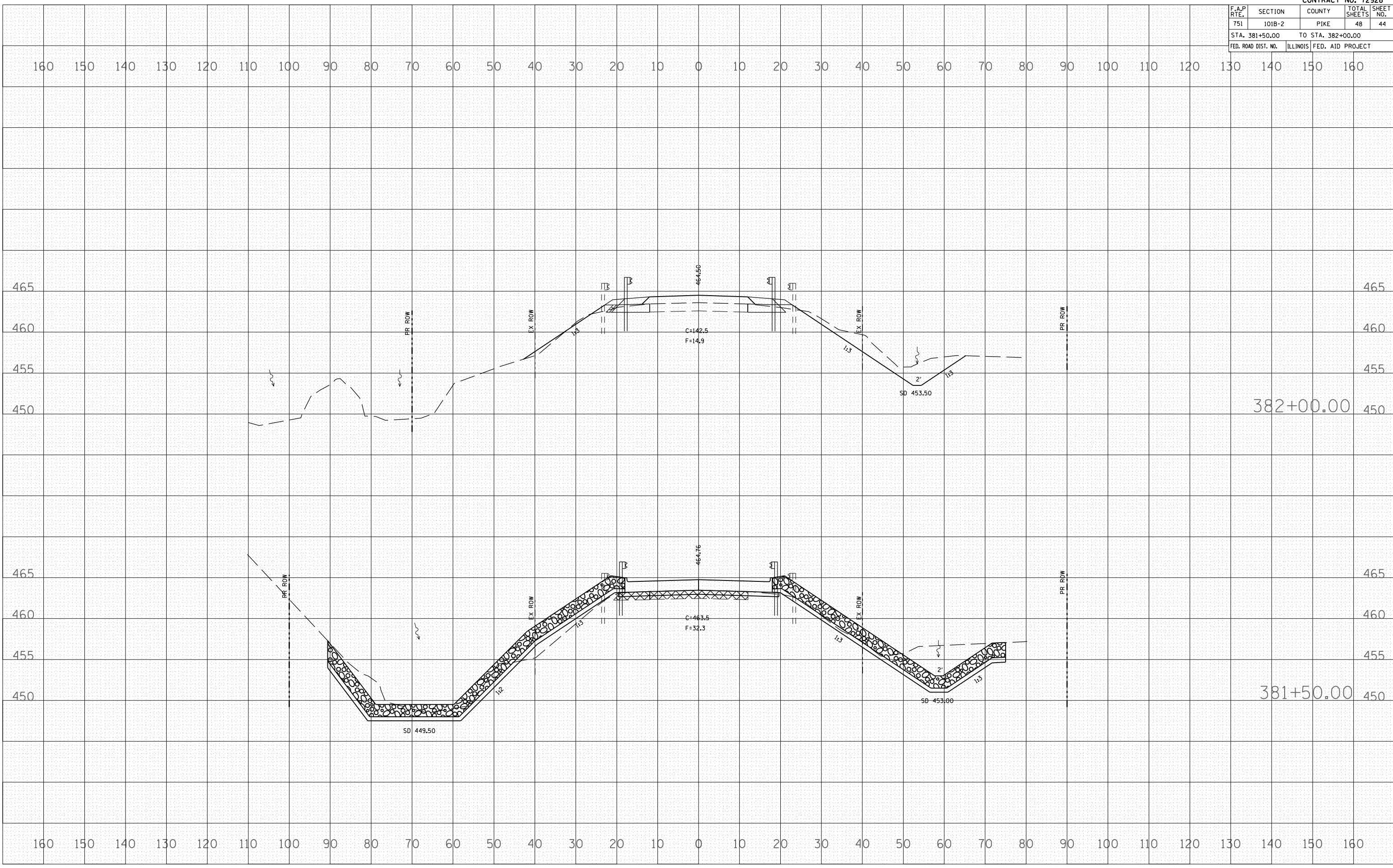
BY	DATE

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BY	DATE

NO.	DATE	BY	AREAS CHECKED

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 USER NAME = laughlin-1



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	45
STA. 382+50.00		TO STA. 383+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

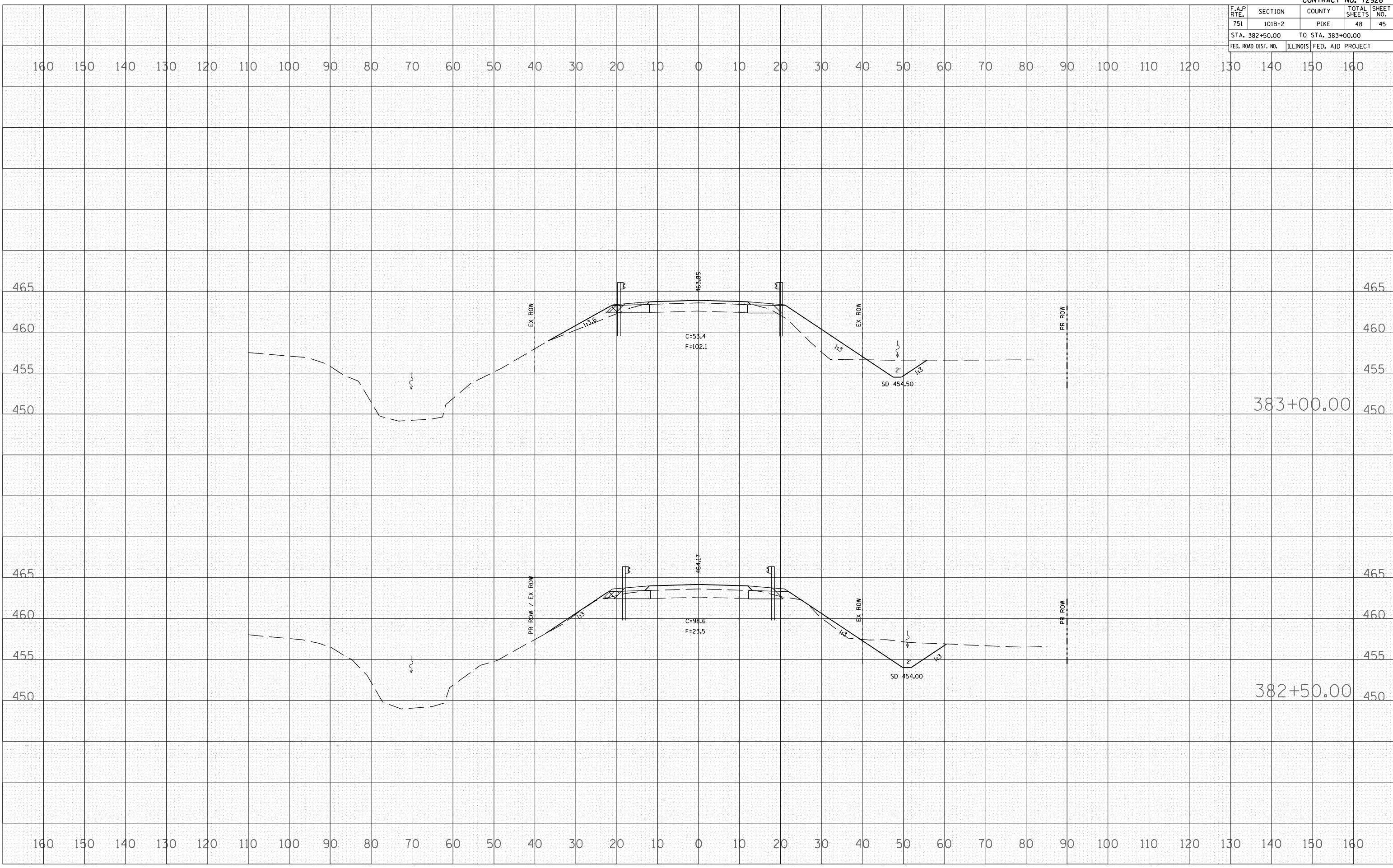
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BY	DATE

NO.	AREAS CHECKED

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USER NAME = laughlin-1



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	46
STA. 383+50.00		TO STA. 383+75.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

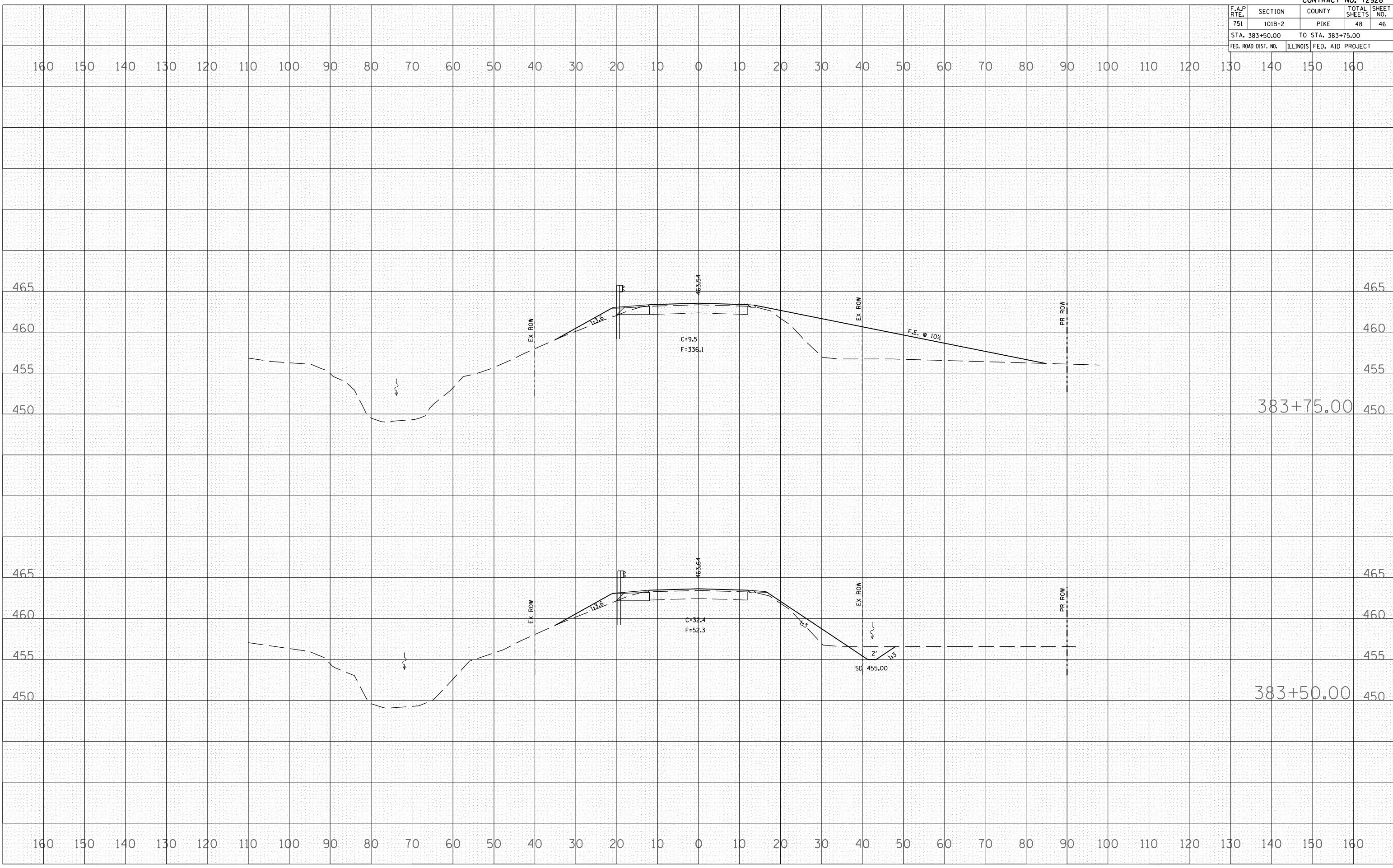
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NO.	AREAS CHECKED

BY	DATE

NO.	AREAS CHECKED

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 USER NAME = laughlin-1



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
751	101B-2	PIKE	48	47
STA. 384+00.00		TO STA. 384+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BY	DATE

NO.	AREAS CHECKED

BY	DATE

NO.	AREAS CHECKED

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