CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	1

+4
116

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 304 (ILL RTE 96)
SECTION 2(B-5,B-6)
PROJECT: ACF-0304(033)
PIKE COUNTY
BREWSTER CREEK AND BROWN CREEK BRIDGE REPLACEMENTS

LIST OF STANDARDS

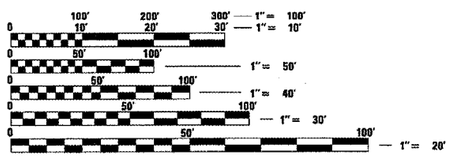
000001-04
280001-03
420401-05
442201-02
515001-02
542301-01
601101
602301-01
602401-01
602601-01
602701-01
604036-01
606201-01
630001-07
630301-04
631031-06
635006-02
635011-01
666001
701001-01
701006-02
701011-01
701201-02
701301-02
701306-01
701321-08
701326-02
702001-06
704001-03
780001-01
781001-02
886001
BLR 21-6
886006

DESIGN STANDARDS

ROADWAY CLASSIFICATION - STATE HIGHWAY
2005 ADT - 1,100
2025 ADT - 1,260
DESIGN SPEED - 60 MPH
POSTED SPEED - 55 MPH
DESIGN GUIDELINES - RURAL

UTILITY COMPANIES

ELECTRIC - AMERENCIPS
GAS - NICOR
WATER - PIKE COUNTY WATER DISTRICT
TELEPHONE - VERIZON



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

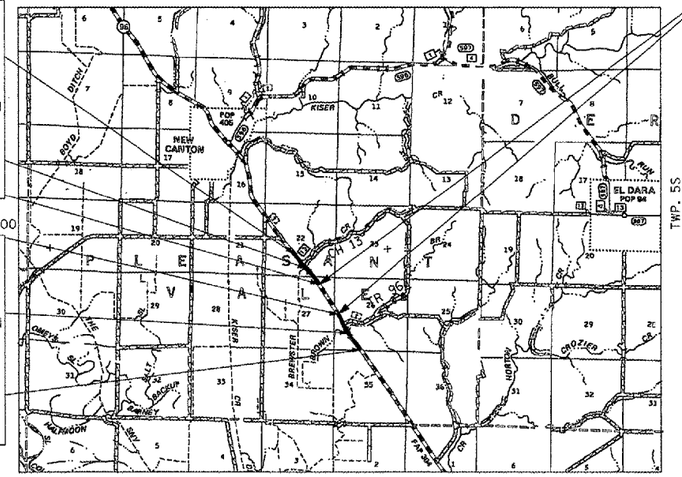
CONTRACT NO. 72891

PROJECT ENGINEER: JOHN NEGANGARD (217) 782-6990
SENIOR SQUAD LEADER: MIKE HIRSCH (217) 782-8693

BREWSTER CREEK
BEGIN PROJECT
BEGIN SECTION 2(B-5)
STA 399+80.00
EX SN 075-0039
PR SN 075-2508
STA 404+21.51
REPLACE EXISTING SINGLE SPAN BRIDGE WITH 3-SIDED BOX CULVERT, 42' BY 10' ON CONCRETE FOUNDATION ON STEEL H PILING
END SECTION 2(B-5)
STA 408+70.00

PROJECT OMISSION
STA 408+70.00 TO STA 452+25.00

BROWN CREEK
BEGIN SECTION 2(B-6)
STA 452+25.00
EX SN 075-0040
PR SN 075-0509
STA 456+34.50
REPLACE EXISTING SINGLE SPAN BRIDGE WITH A 36' FC-FC CONCRETE DECK ON 36" DECK BEAMS, 56'-0" BK TO BK OF OPEN ABUTMENTS ON STEEL H PILING
END SECTION 2(B-6)
END PROJECT
STA 461+45.00



PROJECT OMISSION
STA 408+70.00 TO
STA 452+25.00

LENGTH OF PROJECT

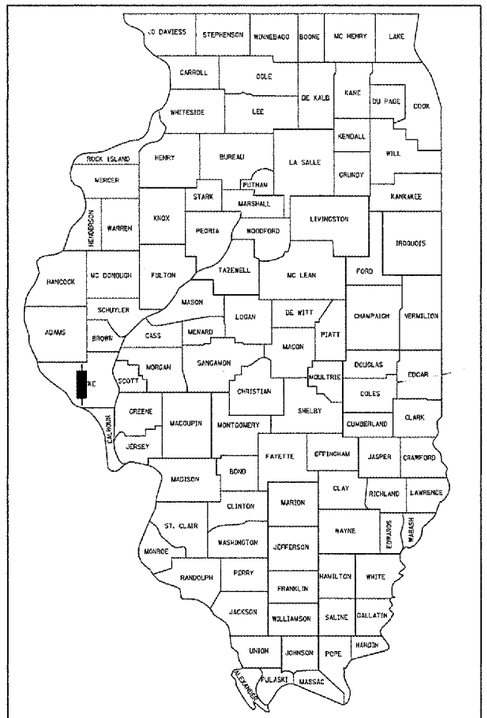
TOTAL LENGTH OF PROJECT	=	6,165.00 FEET = 1.168 MILES
LENGTH OF SECTION 2(B-5)	=	890.00 FEET = 0.169 MILES
LENGTH OF OMISSION	=	4355.00 FEET = 0.825 MILES
LENGTH OF SECTION 2(B-6)	=	920.00 FEET = 0.174 MILES
NET LENGTH OF IMPROVEMENT	=	1,810.00 FEET = 0.343 MILES

LOCATION MAP

0 1/2 1 2

LOCATION MAP SCALE: (MILES)

D-96-020-05



LOCATION OF SECTION INDICATED THUS: -

PLANS PREPARED BY:

PSBA

POEPPING, STONE, BACH & ASSOCIATES, INC.
100 SOUTH 5TH STREET QUINCY, ILLINOIS 62306
PH.: (217) 223-4605 FAX: (217) 223-1546
E-MAIL: PSBA@PSBA.COM WWW.PSBA.COM

THIS SEAL COVERS SHEETS 1-49 AND 75-112

DONALD J KULEK
062-036321
REGISTERED PROFESSIONAL ENGINEER
ILLINOIS

DONALD J. KULEK
LICENSED PROFESSIONAL ENGINEER
QUINCY, ILLINOIS
EXPIRES: 11/30/07

SIGNATURE Donald J Kulek DATE 9/26/07

THIS SEAL COVERS SHEETS 50-74

DAVID S. POLAND
081-005124
LICENSED STRUCTURAL ENGINEER
ILLINOIS

DAVID S. POLAND
LICENSED STRUCTURAL ENGINEER
QUINCY, ILLINOIS
EXPIRES: 11/30/08

SIGNATURE David S Poland DATE 9-26-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Sept 28 2007
Clint M. Boedi
DEPUTY DIRECTOR OF HIGHWAYS, REGION 4 ENGINEER

October 12, 2007
Eric E. Harm PE
Interim ENGINEER OF DESIGN AND ENVIRONMENT

October 12, 2007
Milton R. Seep, P.E. PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

Rev.

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. THICKNESS OF RESURFACING:
THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

2. ALL ELEVATIONS SHOWN ON THE PLANS ARE ESTABLISHED FROM U.S.G.S. MEAN SEA LEVEL DATUM.

3. THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOW 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.

4. 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, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

5. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION, AS INDICATED BY THE SUB-NUMBER LISTED IN THE INDEX OF SHEETS, OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

6. EVERY TREE SHALL BE SAVED IF POSSIBLE. THE ENGINEER IN THE FIELD WILL VERIFY AND MARK ALL TREES REQUIRED TO BE REMOVED. SHOULD THE ENGINEER'S DECISION INCREASE OR DECREASE THE QUANTITIES OF WORK TO BE PERFORMED FROM THE PLANS, THE CONTRACTOR SHALL ACCEPT PAYMENT AS STATED IN ARTICLE 104.02 OF THE STANDARD SPECIFICATIONS. TREES OUTSIDE THE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED UNLESS DESIGNATED BY THE ENGINEER.

7. ALL STATION REFERENCES ARE TO THE ROADWAY BASELINE.

8. IN ADDITION TO FIELD SURVEYS AND AERIAL SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

9. TEMPORARY EASEMENTS HAVE BEEN ACQUIRED FOR SPECIFIC USE.
IT SHOULD BE NOTED THAT THIS EASEMENT HAS A SPECIFIC USE AND THE CONTRACTOR WILL NOT BE PERMITTED TO USE THE EASEMENT AREA FOR ANY OTHER PURPOSE. THE CONTRACTOR SHALL NOT USE THE EASEMENT AREAS FOR PARKING VEHICLES, STORAGE OF MATERIALS OR EQUIPMENT. ONLY ITEMS DESIGNATED FOR REMOVAL IN THE PLANS SHALL BE REMOVED. THE ENTIRE TEMPORARY EASEMENT AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, OR AS DIRECTED BY THE ENGINEER.

10. ALL DETAILS IN THE PLANS SHALL GOVERN CONSTRUCTION OF THIS PROJECT, AND IN CASE OF CONFLICT WITH ANY STANDARD DRAWINGS INCLUDED, THE SAID DETAILS SHALL TAKE PRECEDENCE AND GOVERN.

11. MIXTURE REQUIREMENTS
THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT (BOTH LOCATIONS)

MIXTURE USE(S)	HMA BSE CSE/WID.	LEVELING BINDER	HMA BINDER COURSE	HMA SHOULDERS SPECIAL	HMA CONC SURF CSE. 1 1/2"	INCIDENTAL HMA CONC SURF
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @ NDESIGN = 50	4.0% @ NDESIGN = 50	4.0% @ NDESIGN = 50	4.0% @ NDESIGN = 50	4.0% @ NDESIGN = 50	4.0% @ NDESIGN = 50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 19.0	IL 9.5 OR 12.5	IL 19.0	IL 9.5 OR 12.5	IL 9.5 OR 12.5	IL 9.5 OR 12.5
FRICTION AGGREGATE	NA	NA	NA	MIX C	MIX C	MIX C

12. WHEN EXISTING SLOPES ARE STEEPER THAN 1:3 OR GREATER THAN 6' IN HEIGHT, STEPS SHALL BE CUT INTO THE EXISTING SLOPES PRIOR TO, OR IN CONJUNCTION WITH, PLACING SIDEHILL FILLS.

13. ALL REFERENCES IN THE PLANS TO "BITUMINOUS CONCRETE" SHALL BE INTERPRETED TO MEAN "HOT-MIX ASPALT."

14. 25% OF ALL OF THE QUANTIITY FOR "FURNISHED EXCAVATION" SHALL BE SUITABLE FOR USE AS TOPSOIL. A FOUR INCH FINAL LIFT OF TOPSOIL WILL BE PROVIDED ON ALL AREAS TO BE SEEDED.

COMMITMENTS

1. THE FIELD/RESIDENT ENGINEER SHALL CONTACT STUDIES & PLANS CONCERNING ANY MAJOR PLAN CHANGES TO MAKE SURE NO COMMITMENTS (NOT LISTED) WERE MADE AFFECTING THE DESIGN, AND ALLOW IMPROVEMENTS IN THE DESIGN FOR FUTURE PROJECTS.

2. STORM WATER POLLUTION PREVENTION PLAN.

3.

INDEX OF SHEETS

*INCLUDES 64A.

RATES OF APPLICATION TABLE

THE FOLLOWING APPLICATION RATES HAVE BEEN USED TO DETERMINE PLAN QUANTITIES:

BITUMINOUS MATERIALS PRIME COAT	0.0038 TON/GAL
PAVEMENT	0.1 GAL/SQ YD
AGGREGATE	0.5 GAL/SQ YD
AGGREGATE PRIME COAT	0.002 TON/SQ YD
HOT-MIX ASPHALT CONCRETE	112 LB/SQ YD/1"
AGGREGATE SHOULDER & SURFACES	2.05 TON/CU YD
RIPRAP (LARGE)	1.50 TONS/CU YD
RIPRAP (SMALL)	1.75 TONS/CU YD
NITROGEN FERTILIZER NUTRIENTS	90 LB/ACRE
PHOSPHORUS FERTILIZER NUTRIENTS	90 LB/ACRE
POTASSIUM FERTILIZER NUTRIENTS	90 LB/ACRE
AGRICULTURAL GROUND LIMESTONE	2 TONS/ACRE
MULCH, METHOD 2	2 TONS/ACRE

EXAMINED MARCH 13 20 07
WILLIAM L. FREY JR.
PROGRAM IMPLEMENTATION ENGINEER

EXAMINED July 19 20 07
PROGRAM DEVELOPMENT ENGINEER

DISTRICT SIX
EXAMINED March 13 20 07
OPERATIONS ENGINEER

REVISIONS NAME	DATE

Rev.

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES AND COMMITMENTS
INDEX OF SHEETS
FAP ROUTE 304 (IL RTE 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITITES

	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE 1000 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE 1000 80% FEDERAL 20% STATE BROWN	CONSTRUCTION TYPE CODE X028-2A 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE X081-2A 80% FEDERAL 20% STATE BROWN
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	137	137			
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	16	16			
20100500	TREE REMOVAL, ACRES	ACRE	0.25	0.25			
20200100*	EARTH EXCAVATION	CU YD	753	466	287		
20300100*	CHANNEL EXCAVATION	CU YD	3335	1953	1382		
20400800	FURNISHED EXCAVATION	CU YD	1660	286	1374		
20700400*	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU YD	156				156
20800150	TRENCH BACKFILL	CU YD	30	15	15		
25000100	SEEDING, CLASS 1	ACRE	0.25	0.25			
25000200	SEEDING, CLASS 2	ACRE	1.5	0.5	1		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	141	56	85		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	141	56	85		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	141	56	85		
*	SEE SPECIAL PROVISIONS						

Rev.

REVISIONS NAME	DATE

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES

	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BROWN	CONSTRUCTION TYPE CODE X028-2A 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE X081-2A 80% FEDERAL 20% STATE BROWN
25000700	AGRICULTURAL GROUND LIMESTONE	TON	3.5	1.5	2		
25100115	MULCH, METHOD 2	ACRE	1.75	0.75	1		
25101005*	HEAVY DUTY EXCELSIOR BLANKET	SQ YD	143		143		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	175	75	100		
28000300	TEMPORARY DITCH CHECKS	EACH	14	9	5		
28000400	PERIMETER EROSION BARRIER	FOOT	1267	539	728		
28000500	INLET AND PIPE PROTECTION	EACH	5	4	1		
28000720	MULCH, METHOD 2	ACRE	1.75	0.75	1		
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	169	40	30	99	
28100809*	STONE DUMPED RIPRAP, CLASS A5	TON	2917		23	1913	981
28101840*	RIPRAP FOR STILLING BASIN	TON	1329				1329
28200200	FILTER FABRIC	SQ YD	3899	52	59	1915	1873
35101400	AGGREGATE BASE COURSE, TYPE B	TON	231	117	114		
*	SEE SPECIAL PROVISIONS						

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES
SHEET 2 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT.
HORIZ.
DATE
DRAWN BY
CHECKED BY

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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES

	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BROWN	CONSTRUCTION TYPE CODE X028-2A 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE X081-2A 80% FEDERAL 20% STATE BROWN
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	721	577	144		
35501332	HOT-MIX ASPHALT BASE COURSE, 12"	SQ YD	1957	1118	839		
35600724	HOT-MIX ASPHALT BASE COURSE WIDENING, 12"	SQ YD	458	254	204		
35800100	PREPARATION OF BASE	SQ YD	674	341	333		
35800200	AGGREGATE BASE REPAIR	TON	4	3	1		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	2.2	1.2	1		
40600300	AGGREGATE (PRIME COAT)	TON	12	6	6		
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	224	100	124		
40600895	CONSTRUCTING TEST STRIP	EACH	2	1	1		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT (SPACE)	SQ YD	320	160	160		
40600990	TEMPORARY RAMP	SQ YD	996	68	928		
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	242		242		
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	442	245	197		
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	42	36	6		
*	SEE SPECIAL PROVISIONS						

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES
SHEET 3 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES

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42001165	BRIDGE APPROACH PAVEMENT	SQ YD	240		240		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	48		48		
44000198*	HOT MIX ASHPALT SURFACE REMOVAL (VARIABLE DEPTH)	SQ YD	64	64			
44000100	PAVEMENT REMOVAL	SQ YD	823	412	411		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	149	149			
44000920	BITUMINOUS CONCRETE SHOULDER REMOVAL	SQ YD	328	163	165		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	159	81	78		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	366	117	249		
50100200*	REMOVAL OF EXISTING STRUCTURES	L SUM	1				1
50100300*	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1				1
50105220	PIPE CULVERT REMOVAL	FOOT	97	57	40		
50200100	STRUCTURE EXCAVATION	CU YD	1328			1014	314
50300100	FLOOR DRAINS	EACH	6				6
50300225	CONCRETE STRUCTURES	CU YD	134			94	40
*	SEE SPECIAL PROVISIONS						

Rev.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES
SHEET 4 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.
DATE
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CHECKED BY

PLOT DATE = 7/31/2007
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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES

	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BROWN	CONSTRUCTION TYPE CODE X028-2A 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE X081-2A 80% FEDERAL 20% STATE BROWN
50300255	CONCRETE SUPERSTRUCTURE	CU YD	88.4				88.4
50300260	BRIDGE DECK GROOVING	SQ YD	212				212
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE 36 IN. I-BEAMS,	FOOT	327				327
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	32180			9980	22200
50800515	BAR SPLICERS	EACH	331			24	307
51201400	FURNISHING STEEL PILES HP 10X42	FOOT	1822			1250	572
51201610	FURNISHING STEEL PILES HP 12X63	FOOT	1840			1840	
51202305	DRIVING PILES	FOOT	3662			3090	572
51203400	TEST PILE STEEL HP 10X42	EACH	5			4	1
51203610	TEST PILE STEEL HP 12X63	EACH	2			2	
50300280	CONCRETE ENCASEMENT	CU YD	15.4			11.4	4.0
51204650	PILE SHOES	EACH	60			60	
51205200*	TEMPORARY SHEET PILING	SQ FT	1783			1783	
51500100	NAME PLATES	EACH	2			1	1
*	SEE SPECIAL PROVISIONS						

Rev.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES
SHEET 5 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT.
HORIZ.
DATE
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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES

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54200427	PIPE CULVERTS, TYPE 1 RCCP 12"	FOOT	93	93			
54200430	PIPE CULVERTS, TYPE 1 RCCP 15"	FOOT	48		48		
54200439	PIPE CULVERTS, TYPE 1 RCCP 24"	FOOT	46	46			
54200640	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 15"	FOOT	58	58			
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	2		2		
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	1	1			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	80				80
60109580*	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	182				182
60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	1	1			
60225900*	RESTRICTED DEPTH MANHOLES, 5'-DIAMETER, TYPE 8 GRATE	EACH	1	1			
60602800	CONCRETE GUTTER, TYPE B	FOOT	71			71	
61100500	EXPLORATION TRENCH 52" DEPTH	FOOT	20	10	10		
** 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	775	275	500		
** 63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	100	100			
*	SEE SPECIAL PROVISIONS						

**SPECIALTY ITEMS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES
SHEET 6 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.
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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITITES

		ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE 1000 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE 1000 80% FEDERAL 20% STATE BROWN	CONSTRUCTION TYPE CODE X028-2A 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE X081-2A 80% FEDERAL 20% STATE BROWN
**	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4		4		
**	63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	8	4	4		
	63200305	STEEL PLATE BEAM GUARDRAIL REMOVAL	FOOT	634.5	323.7	310.8		
**	63300725*	STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS	FOOT	56	56			
	66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	23	10	13		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	5	5		
	67100100	MOBILIZATION	L SUM	1	0.5	0.5		
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.5	0.5		
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	0.5	0.5		
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5		
	70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	2	1	1		
	70101830	TRAFFIC CONTROL AND PROTECTION, BLR 21	L SUM	1	0.5	0.5		
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	10	10		
	70106500*	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1		
	*	SEE SPECIAL PROVISIONS						

** SPECIALTY ITEMS

Rev.

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ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITITES

SHEET 7 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES

	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BROWN	CONSTRUCTION TYPE CODE X028-2A 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE X081-2A 80% FEDERAL 20% STATE BROWN
	70300100 SHORT-TERM PAVEMENT MARKING	FOOT	360	176	184		
	70300230 TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	6660	3360	3300		
	70300280 TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	73	35	38		
	70301000 WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2874	1449	1425		
	70400100 TEMPORARY CONCRETE BARRIER	FOOT	938	475	463		
	70400200 RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	763	375	388		
**	78001120 PAINT PAVEMENT MARKING - LINE 5"	FOOT	6013	3013	3000		
**	78001180 PAINT PAVEMENT MARKING - LINE 24"	FOOT	25	11	14		
**	78100100 RAISED REFLECTIVE PAVEMENT MARKER	EACH	24	11	13		
**	78200410 GUARDRAIL MARKERS, TYPE A	EACH	24	10	14		
**	78201000 TERMINAL MARKER - DIRECT APPLIED	EACH	8	4	4		
	78300100 PAVEMENT MARKING REMOVAL	SQ FT	1423	735	688		
	50100400* . REMOVAL OF EXISTING STRUCTURE NO.2	EACH	1			1	
	X0325865 THREE-SIDED PRECAST CONCRETE STRUCTURE 42' X 10' * SEE SPECIAL PROVISIONS	FOOT	59			59	

** SPECIALTY ITEMS

Rev.

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ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITITES
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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIITES

	ITEM	UNIT	TOTAL	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE I000 80% FEDERAL 20% STATE BROWN	CONSTRUCTION TYPE CODE X028-2A 80% FEDERAL 20% STATE BREWSTER	CONSTRUCTION TYPE CODE X081-2A 80% FEDERAL 20% STATE BROWN
X0321100*	GEOTEXTILE RETAINING WALL	SQ FT	176			176	
X0323665*	RIPRAP SLURRY	SQ YD	3682		21	1788	1873
X0323988*	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	350				350
X0324118*	GRANULAR CULVERT BACKFILL	CU YD	488			488	
X5020501*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1			1	
X5020502*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1			1	
X5020503*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 3	EACH	1			1	
X5020504*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 4	EACH	1			1	
X7200201*	WIDTH RESTRICTION SIGNING	L SUM	1	0.5	0.5		
Z0023600*	FILLING EXISTING CULVERTS	EACH	1	1			
Z0030250*	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2		
Z0030350*	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2		
*	SEE SPECIAL PROVISIONS						

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIITES
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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TREE REMOVAL

STATION	OFFSET		6 - 15	>15	ACRES
	FT LT	FT RT	INCH	INCH	
BREWSTER CREEK					
COUNTY HIGHWAY 13					
STA 11+00		28	15		
STA 11+01		21	15		
STA 11+02		24	15		
STA 11+03		22	15		
STA 11+04		26	15		
STA 11+17		34	10		
STA 11+18		34	10		
STA 11+21		19	12		
STA 11+48		12		16	
STA 11+50		14	10		
STA 11+95		17	10		
STA 12+00		17	10		
FAP 304					
STA 403+00.00 TO STA 403+30.00		60 TO 100			0.03
STA 403+40.00 TO STA 403+70.00		40 TO 100			0.04
TOTAL			137	16	0.07
USE			137	16	0.25

CHANNEL EXCAVATION

STATION TO STATION	CHANNEL EXCAVATION	EMBANKMENT	BALANCE WASTE BORROW ( )
	CU YD	CU YD	CU YD
BREWSTER CREEK			
STA 299+90.00 TO STA 304+00.00	1953.0	0.0	1953.0
USE	1953	0	1953
BROWN CREEK			
STA 8+12.81 TO STA 10+95.27	1172.0	258.7	913.3
FROM BRIDGE CALCS	210.0	0.0	210.0
SUBTOTAL	1382.0	258.7	1123.3
USE	1382	259	1124
TOTAL	3335	259	3077

ALL CHANNEL EXCAVATION CONSIDERED AS WASTE NOT SUITABLE FOR ROADWAY FILL.

EARTH EXCAVATION

STATION TO STATION	EARTH EXCAVATION	EARTH EXCAV ADJUSTED FOR SHRINKAGE CU YD × 0.75	EMBANKMENT	BALANCE WASTE BORROW ( )	CUMMULATIVE
	CU YD	CU YD	CU YD	CU YD	CU YD
BREWSTER CREEK					
FAP 304					
STA 399+80.00 TO STA 408+70.00	274.4	205.8	501.0	(295.2)	(295.2)
CH 13					
STA 10+20.20 TO STA 12+00.00	186.1	139.6	40.8	98.8	(196.4)
FE					
STA 403+06.33	5.6	4.2	93.4	(89.2)	(285.6)
SUBTOTAL	466.1	349.6	635.2	(285.6)	(285.6)
USE	466.0	350.0	635.0	(286.0)	(286.0)
BROWN CREEK					
FAP 304					
STA 452+25.00 TO STA 461+45.00	262.8	197.1	1306.4	(1109.3)	(1109.3)
TR 96					
STA 10+12.00 TO STA 10+60.18	19.5	14.6	47.4	(32.8)	(1142.1)
FE					
STA 8+37.38 TO STA 9+81.47	4.7	3.5	234.7	(231.2)	(1373.3)
SUBTOTAL	287.0	215.2	1588.5	(1373.3)	(1373.3)
USE	287.0	215.0	1589.0	(1374.0)	(1374.0)
TOTAL	753	565	2224	(1660)	(1660)

HEAVY DUTY EXCELSIOR BLANKET

LOCATION	SIDE	QTY	DESCRIPTION
		SQ YD	
BROWN CREEK			
AROUND RIPRAP STILLING BASIN		130	
FAP 304			
STA 454+67.00	34.5' LT	6.1	15" FLARED END SECTION
STA 455+19.00	34.5' LT	6.1	15" FLARED END SECTION
SUBTOTAL		142.2	
USE		143.0	

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

SHEET 1 OF 9
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PIKE COUNTY

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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SEEDING, FERTILIZING, MULCH

STATION TO STATION	SIDE	SEEDING CLASS 1	SEEDING CLASS 2	NITROGEN FERT NUTR	PHOS FERT NUTR	POTAS FERT NUTR	AGRIC LIME	MULCH METH 2
		ACRE	ACRE	LB	LB	LB	TON	ACRE
BREWSTER CREEK								
FAP 304								
STA 399+80 TO STA 400+18	RT		0.01	1	1	1	0.01	0.01
STA 400+49 TO STA 403+45	RT		0.13	12	12	12	0.26	0.13
STA 403+30 TO STA 403+87	RT		0.07	7	7	7	0.15	0.07
STA 403+99 TO STA 404+44	RT		0.01	1	1	1	0.01	0.01
STA 404+62 TO STA 408+70	RT		0.13	12	12	12	0.27	0.13
STA 399+80 TO STA 401+81	LT	0.04		3	3	3	0.08	0.04
STA 402+20 TO STA 403+27	LT	0.02		2	2	2	0.04	0.02
STA 403+99 TO STA 404+44	LT		0.01	1	1	1	0.02	0.01
STA 404+62 TO STA 405+00	LT		0.01	1	1	1	0.02	0.01
STA 405+00 TO STA 406+44	LT		0.02	1	1	1	0.03	0.02
STA 406+89 TO STA 408+70	LT		0.03	3	3	3	0.06	0.03
BREWSTER CREEK CHANNEL CHANGE STA 299+90 TO STA 302+00	LT/RT		0.06	6	6	6	0.13	0.06
CH 13								
STA 10+39 TO STA 11+46	LT	0.06		5	5	5	0.12	0.06
STA 11+64 TO STA 12+00	LT	0.01		1	1	1	0.02	0.01
STA 10+33 TO STA 12+00	RT		0.01	1	1	1	0.02	0.01
SUBTOTAL		0.13	0.49	56	56	56	1.24	0.62
USE		0.25	0.50	56	56	56	1.5	0.75
BROWN CREEK								
FAP 304								
STA 452+25 TO STA 454+66	RT		0.08	7	7	7	0.16	0.08
STA 454+66 TO STA 8+37.38 (FE)	RT		0.03	3	3	3	0.07	0.03
STA 455+05 TO STA 456+20	RT		0.19	17	17	17	0.38	0.19
STA 456+53 TO STA 461+45	RT		0.31	28	28	28	0.62	0.31
STA 452+25 TO STA 454+86	LT		0.05	5	5	5	0.10	0.05
STA 455+05 TO STA 455+96	LT		0.06	5	5	5	0.12	0.06
STA 455+96 TO STA 456+40	LT		0.01	1	1	1	0.02	0.01
STA 456+45 TO STA 456+73	LT		0.01	1	1	1	0.02	0.01
STA 456+73 TO STA 461+45	LT		0.19	17	17	17	0.39	0.19
SUBTOTAL		0.00	0.94	85	85	85	1.88	0.94
USE		0	1.00	85	85	85	2.0	1.0
TOTAL		0.25	1.50	141	141	141	3.5	1.75

TEMPORARY EROSION CONTROL SEEDING & MULCH, METHOD 2

LOCATION	SEEDING- FOR EROSION CONTROL	MULCH- FOR EROSION CONTROL
	POUND	ACRE
QUANTITIES ARE ESTIMATED		
BREWSTER CREEK		
FAP 304		
VARIOUS LOCATIONS	75.0	0.75
BROWN CREEK		
FAP 304		
VARIOUS LOCATIONS	100.0	1.00
TOTAL	175.0	1.75

PERIMETER EROSION BARRIER

QUANTITIES ARE ESTIMATED		
LOCATION	SIDE	FOOT
BREWSTER CREEK		
FAP 304		
STA 400+99 TO STA 403+46	RT	275
STA 403+56 TO STA 403+87	RT	31
STA 404+59 TO STA 406+00	RT	153
	SUBTOTAL	459
CH 13		
STA 11+19 TO STA 12+00	RT	80
	SUBTOTAL	539
BROWN CREEK		
FAP 304		
STA 454+46 TO STA 454+87	LT	50
STA 454+00 TO STA 454+52	RT	52
STA 454+52 TO STA 455+66	RT	156
STA 455+78 TO STA 456+12	RT	35
STA 456+79 TO STA 461+02	RT	435
	SUBTOTAL	728
TOTAL		1267

PRIME COAT/AGGREGATE PRIME COAT

LOCATION	BIT MATL (PRIME CT)	AGGREGATE (PRIME CT)
	TON	TON
BREWSTER CREEK		
FAP 304		
STA 399+80.00 TO STA 408+70.00	1.0	4.8
CH 13		
STA 10+12.20 TO STA 12+00.00	0.2	1.0
SUBTOTAL	1.2	5.8
USE	1.2	6.0
BROWN CREEK		
FAP 304		
STA 452+25.00 TO STA 455+76.50	0.4	2.0
STA 456+92.50 TO STA 461+45.00	0.5	3.0
TR 96		
STA 10+12.00 TO STA 10+60.19	0.1	0.4
SUBTOTAL	1.0	5.4
USE	1.0	6.0
TOTAL	2.2	12.0

TEMPORARY RAMP

LOCATION	DEPTH	LENGTH	WIDTH	TEMP RAMP
	INCH	FOOT	FOOT	SQ YD
BREWSTER CREEK				
FAP 304				
STA 399+80.00 TO STA 399+85.00	1.50	5.00	24.0	11.1
STA 408+65.00 TO STA 408+70.00	1.50	5.00	24.0	11.1
LT - STA 403+00.00 TO STA 404+00.00 (CH13)	0.75	5.00	81.0	45.0
SUBTOTAL				67.2
USE				68
BROWN CREEK				
FAP 304				
STA 452+25.00 TO STA 452+30.00	1.50	5.00	24.0	11.1
STA 461+40.00 TO STA 461+45.00	1.50	5.00	24.0	11.1
STA 455+26.50 TO STA 455+76.50 - STAGE II	4.50	50.00	16.0	200.0
STA 456+92.50 TO STA 457+50.00 - STAGE II	10.00	57.50	20.0	230.0
STA 455+26.50 TO STA 455+76.50 - STAGE III	4.50	50.00	16.0	200.0
STA 456+92.50 TO STA 457+50.00 - STAGE III	10.00	57.50	20.0	230.0
LT - STA 454+46.00 TO STA 455+36.00 (TR96)	0.75	5.00	81.0	45.0
SUBTOTAL				927.2
USE				928
TOTAL				996

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RIPRAP/FILTER FABRIC/SLURRY SEAL

STATION TO STATION	SIDE	Average Length	Average Width	AREA	FILTER FABRIC	STONE DUMPED RIPRAP CLASS A4	STONE DUMPED RIPRAP CLASS A5	RIPRAP FOR STILLING BASIN	RIPRAP SLURRY
BREWSTER CREEK		FT	FT	SQ FT	SQ YD	TON	TON	TON	SQ YD
BREWSTER CREEK - UPSTREAM - MAIN CHANNEL									
STA 303+30 TO STA 304+16.20	LT			1620	201		215		201
STA 303+30 TO STA 304+00	RT			750	93		100		93
STA 303+30 TO STA 304+00	CENTER	70	37	2628	292		312		292
BREWSTER CREEK - THRU 3-SIDED BOX		59	42	2478	275		294		275
BREWSTER CREEK - DOWNSTREAM - MAIN CHANNEL									
STA 301+54 TO STA 302+71	LT			1243	154		165		154
STA 301+54 TO STA 302+71	RT			1150	142		152		142
STA 301+54 TO STA 302+71	CENTER	117	48.5	5682	631		675		631
AT WINGWALL - STA 403+96	30' RT			302	38	29			
AT WINGWALL - STA 403+96	30' LT			206	25	20			
AT WINGWALL - STA 404+48	30' RT			256	32	25			
AT WINGWALL - STA 404+48	30' LT			256	32	25			
SUBTOTAL BRIDGE RELATED					1915	99	1913		1788
DRAINAGE DITCH - STA 404+62 TO STA 404+98	42' LT	39	12	466	52	40			
SUBTOTAL ROADWAY RELATED					52	40	0		0
SUBTOTAL BREWSTER CREEK					1967	139	1913		1788
BROWN CREEK									
ENERGY DISSIPATING BASIN					955			1329	955
BROWN CREEK - DOWNSTREAM									
STA 9+44.00 TO STA 9+89.45	CENTER	45.5	74	3374	375		401		375
STA 9+89.45 TO STA 10+69.40	BRIDGE				543		580		543
SUBTOTAL BRIDGE RELATED					1873	0	981	1329	1873
DRAINAGE DITCH - STA 455+96.50 TO STA 456+22.00	LT	26.5	7.0	183	21		23		21
STA 455+76.50	LT	27.5	4.0	111	12	10			
STA 455+76.50	RT	15.0	14.5	230	26	20			
SUBTOTAL ROADWAY RELATED					59	30	23		21
SUBTOTAL BROWN CREEK					1932	30	1004	1329	1894
				TOTAL	3899	169	2917	1329	3682

PAVEMENT REMOVAL

STATION to STATION	AVERAGE LENGTH	AVERAGE WIDTH	AREA
	FOOT	FOOT	SQ YD
BREWSTER CREEK			
FAP 304			
STA 403+81.44 TO STA 403+90.44	9.0	29.9	29.9
STA 404+21.51 TO STA 404+65.50	44.0	28.7	140.3
STA 400+13.00 RT TO STA 400+58.00 RT - PE	39.0	4.6	19.9
STA 401+50.00 LT TO STA 402+36.00 LT - PE	70.0	7.0	54.4
STA 406+10.00 LT TO STA 406+97.00 LT - PE	71.1	7.5	59.3
CH 13			
STA 10+11.65 TO STA 10+30.30	18.6	52.2	107.9
SUBTOTAL			411.7
USE			412
BROWN CREEK			
FAP 304			
STA 455+73.50 TO STA 456+19.44	45.9	36.0	183.6
STA 456+50.48 TO STA 456+95.50	45.0	36.0	180.0
TR 96			
STA 454+47.00 TO STA 455+15.00	51.5	8.2	46.9
SUBTOTAL			410.5
USE			411
TOTAL			823

BITUMINOUS SHOULDER REMOVAL

STATION to STATION	SIDE	LENGTH	WIDTH	AREA
		FOOT	FOOT	SQ YD
BREWSTER CREEK				
FAP 304				
STA 400+25.00 TO STA 403+90.41	LT	365.41	1	40.6
STA 401+00.00 TO STA 403+90.41	RT	290.41	1	32.3
STA 404+21.51 TO STA 408+25.00	LT	403.49	1	44.8
STA 404+21.51 TO STA 408+25.00	RT	403.49	1	44.8
SUBTOTAL				162.5
USE				163
BROWN CREEK				
FAP 304				
STA 453+00.00 TO STA 456+19.50	LT	319.50	1	35.5
STA 453+00.00 TO STA 456+19.50	RT	319.50	1	35.5
STA 456+50.51 TO STA 461+00.00	LT	449.49	1	49.9
STA 456+50.51 TO STA 460+45.00	RT	394.49	1	43.8
SUBTOTAL				164.8
USE				165
TOTAL				328

BRIDGE APPROACH PAVEMENT

STATION TO STATION	WIDTH	QUANTITY
	FT	SQ YD
BROWN CREEK		
FAP 304		
STA 455+76.50 TO STA 456+06.50	36	120
STA 456+62.50 TO STA 456+92.50	36	120
TOTAL		240

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

STATION TO STATION	WIDTH	QUANTITY
	FT	SQ YD
BROWN CREEK		
FAP 304		
STA 455+73.50	36	24
STA 456+89.50	36	24
TOTAL		48

BITUMINOUS SURFACE REMOVAL (VARIABLE DEPTH)

LOCATION	SIDE	WIDTH	BIT SURF REM 1 1/2" & VARIES
		FEET	SQ YD
BREWSTER CREEK			
FAP 304			
STA 400+10.00 TO STA 400+58.00	RT	12	64
TOTALS			64

REMOVAL OF EXISTING STRUCTURES NO. 1

LOCATION	STRUCTURE TYPE	QUANTITY
		EACH
BROWN CREEK STA 9+20 TO STA 9+45	POURED CONCRETE EROSION	1
	IN-STREAM ENERGY DISSIPATOR	

REMOVAL OF EXISTING STRUCTURES NO. 2

STRUCTURE NUMBER	LOCATION	STRUCTURE TYPE	QUANTITY
			EACH
075-0039	BREWSTER CREEK	CONCRETE BEAMS AND DECK	1
	STA 404+05.90	ON CLOSED CONCRETE ABUTMENTS	
		NORTH ABUTMENT TO REMAIN	

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

SHEET 3 OF 9
FAP 304 (IL 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.
DATE
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PLOT DATE = Oct-09-2007 08:26:56AM
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PLOT SCALE = 100.0000 ' / IN.
USER NAME = baughlm

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

AGGREGATE SHOULDERS, TYPE B

STATION to STATION	SIDE	AGG SHLD TYPE B 2 1/4"
		TON
BREWSTER CREEK		
FAP 304		
STA 399+80.00 TO STA 400+25.00	LT	2.6
STA 399+80.00 TO STA 400+11.20	RT	1.6
STA 400+25.00 TO STA 401+61.58	LT	5.8
STA 400+55.50 TO STA 402+99.00	RT	10.4
STA 401+61.58 TO STA 401+81.64	LT	0.3
STA 402+19.22 TO STA 403+17.32	LT	4.2
STA 403+34.21 TO STA 407+00.00	RT	16.9
STA 407+00.00 TO STA 408+25.00	RT	5.3
STA 408+25.00 TO STA 408+70.00	RT	2.1
STA 404+08.17 TO STA 406+25.84	LT	10.1
STA 406+25.84 TO STA 406+44.62	LT	0.3
STA 406+88.27 TO STA 408+25.00	LT	5.8
STA 408+25.00 TO STA 408+70.00	LT	2.2
CH 13		
STA 10+51.96 TO STA 11+33.16	LT	3.5
STA 11+75.72 TO STA 12+00.00	LT	1.0
STA 11+17.90 TO STA 12+00.00	RT	3.5
STA 10+67.90 TO STA 11+17.90	RT	2.3
STA 10+67.90 (CH 13) TO STA 404+08.17 (FAP 304)	RAD	3.2
SUBTOTAL		81.0
USE		81
BROWN CREEK		
FAP 304		
STA 452+25.00 TO STA 453+00.00	RT	4.8
STA 452+25.00 TO STA 453+00.00	LT	4.3
STA 453+00.00 TO STA 454+64.25	LT	7.0
STA 453+00.00 TO STA 454+74.09	RT	7.4
STA 455+18.47 TO STA 456+06.50	LT	4.1
STA 455+09.84 TO STA 456+06.50	RT	4.5
STA 456+62.50 TO STA 459+20.00	RT	12.1
STA 456+62.50 TO STA 460+70.00	LT	19.1
STA 459+20.00 TO STA 460+45.00	RT	5.3
STA 460+70.00 TO STA 461+00.00	LT	1.3
STA 460+45.00 TO STA 461+45.00	RT	5.0
STA 461+00.00 TO STA 461+45.00	LT	2.9
SUBTOTAL		77.9
USE		78
TOTAL		159

REMOVAL OF EXISTING STRUCTURES

STRUCTURE NUMBER	LOCATION	STRUCTURE TYPE	QUANTITY
			L SUM
075-0040	STA 456+34.96	CONCRETE BEAMS AND DECK	1
		ON CLOSED CONCRETE ABUTMENTS	

HOT-MIX ASPHALT SHOULDERS, SPECIAL

STATION to STATION	SIDE	HOT MIX ASPHALT SHOULDER SPECIAL
		TON
BREWSTER CREEK		
FAP 304		
STA 400+25.00 TO STA 401+50.00	LT	7.0
STA 402+23.12 TO STA 403+09.88	LT	8.4
STA 404+12.20 TO STA 406+20.40	LT	19.9
STA 407+00.00 TO STA 408+25.00	LT	7.0
STA 401+00.00 TO STA 402+25.00	RT	7.0
STA 402+25.00 TO STA 407+00.00	RT	45.4
STA 407+00.00 TO STA 408+25.00	RT	7.0
CH 13		
LT STA 404+12.20 FAP 304 TO STA 10+67.91 RT CH 13	RT	7.1
STA 10+67.91 TO STA 11+17.36	RT	3.4
STA 11+17.36 TO STA 11+47.30	RT	1.2
LT STA 403+09.88 FAP 304 TO STA 10+51.96 CH 13	LT	3.4
SUBTOTAL		116.8
USE		117
BROWN CREEK		
FAP 304		
STA 453+00.00 TO STA 454+25.00	LT	7.0
STA 454+25.00 TO TR 96	LT	2.6
TR 96 TO STA 455+76.50	LT	4.5
STA 456+92.50 TO STA 460+70.00	LT	113.4
STA 460+70.00 TO STA 461+00.00	LT	2.3
STA 453+00.00 TO STA 454+25.00	RT	7.0
STA 454+25.00 TO STA 455+76.50	RT	14.5
STA 456+92.50 TO STA 460+45.00	RT	97.5
SUBTOTAL		248.8
USE		249
TOTAL		366

PIPE CULVERT REMOVAL

STATION	SIDE	TYPE AND SIZE OF CULVERT	FT
BREWSTER CREEK			
COUNTY HIGHWAY 13			
STA 11+17	CROSS ROAD	18" CMP	31
STA 11+55	12' LT	12" CMP	26
		SUBTOTAL	57
BROWN CREEK			
TR 96			
STA 10+34.5	CROSS ROAD	15" CMP	40
		SUBTOTAL	40
TOTAL			97

TRAFFIC BARRIER TERMINAL, TYPE 6

LOCATION	SIDE	QUANTITY (EACH)
BROWN CREEK		
FAP 304		
STA 455+75.87 TO STA 456+09.00	LT	1
STA 455+75.87 TO STA 456+09.00	RT	1
STA 456+60.00 TO STA 456+93.13	LT	1
STA 456+60.00 TO STA 456+93.13	RT	1
TOTAL		4

STEEL PLATE BEAM GUARDRAIL

LOCATION	SIDE	TYPE A QUANTITY (FOOT)	ATTACHED TO STRUCT (FOOT)	SHORT RADIUS (FOOT)
BREWSTER CREEK				
FAP 304				
STA 10+67.91 (CH 13) TO STA 404+00.00 (FAP 304)	RADIUS			56.00
STA 404+00.00 TO STA 404+50	LT		50.00	
STA 404+50.00 TO STA 405+50.00	LT	100.00		
STA 403+87.50 TO STA 404+00.00	RT	12.50		
STA 404+00.00 TO STA 404+50.00	RT		50.00	
STA 404+50.00 TO STA 406+12.50	RT	162.50		
SUBTOTAL		275.00	100.00	56.00
BROWN CREEK				
FAP 304				
STA 456+93.13 TO STA 458+68.13	RT	175.00		
STA 456+93.13 TO STA 460+18.13	LT	325.00		
SUBTOTAL		500.00		
TOTAL		775.00	100.00	56.00

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

LOCATION	SIDE	QUANTITY (EACH)
BREWSTER CREEK		
FAP 304		
STA 403+37.50 TO STA 403+87.50	RT	1
STA 406+12.50 TO STA 406+62.50	RT	1
STA 405+50.00 TO STA 406+00.00	LT	1
COUNTY HIGHWAY 13		
STA 10+67.90 TO STA 11+17.90	RT	1
SUBTOTAL		4
BROWN CREEK		
FAP 304		
STA 455+25.87 TO STA 455+75.87	RT	1
STA 455+25.87 TO STA 455+75.87	LT	1
STA 458+68.13 TO STA 459+18.13	RT	1
STA 460+18.13 TO STA 460 +68.13	LT	1
SUBTOTAL		4
TOTAL		8

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

SHEET 4 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.
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USER NAME = laughlinr

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STEEL PLATE BEAM GUARDRAIL REMOVAL

LOCATION	SIDE	QUANTITY (FOOT)
BREWSTER CREEK		
FAP 304		
STA 403+37.2 TO STA 403+89.9	RT	52.6
STA 404+21.9 TO STA 404+99.5	RT	77.6
STA 404+21.9 TO STA 405+74.6	LT	152.7
CH 13		
STA 10+26.0 TO STA 10+62.8	RT	40.8
SUBTOTAL		323.7
BROWN CREEK		
FAP 304		
STA 455+66.3 TO STA 456+19.0	RT	52.7
STA 455+41.2 TO STA 456+19.0	LT	77.8
STA 456+51.1 TO STA 457+53.7	LT	102.6
STA 456+51.1 TO STA 457+28.8	RT	77.7
SUBTOTAL		310.8
TOTAL		634.5

FURNISHING AND ERECTING RIGHT OF WAY MARKERS

LOCATION	OFFSET (FT)		METHOD A	METHOD B
	LT	RT	EACH	EACH
BREWSTER CREEK				
FAP 304				
STA 402+00.00		40.58	1	
STA 403+00.00		60.00	1	
STA 405+00.00		60.00	1	
STA 406+00.00		40.34	1	
STA 403+12.59	39.20			1
STA 405+00.00	39.43		1	
CH 13				
STA 11+44.55	40.00			1
STA 11+52.04		49.30	1	
STA 11+88.52	40.00			1
STA 12+40.35	17.95			1
SUBTOTAL			6	4
BROWN CREEK				
FAP 304				
STA 454+50.00		40.00		1
STA 455+04.72		94.72	1	
STA 455+50.00		140.00	1	
STA 456+00.00		140.00	1	
STA 456+00.00		50.00		1
STA 456+53.82		50.00		1
STA 460+00.00		50.00		1
STA 460+88.90		45.00		1
STA 454+42.88	40.00		1	
STA 454+74.15	64.20		1	
STA 455+16.97	70.00		1	
STA 460+50.00	70.00		1	
STA 460+88.90	40.00		1	
SUBTOTAL			8	5
TOTAL			14	9

TEMPORARY CONCRETE BARRIERS

TEMPORARY CONCRETE BARRIERS LOCATION	ACTIVE LANE	QUANTITY (FOOT)	TEMPORARY CONCRETE BARRIERS RELOCATE TO	ACTIVE LANE	QUANTITY (FOOT)
BREWSTER CREEK			BREWSTER CREEK		
FAP 304			FAP 304		
STA 402+37.50 TO STA 406+12.50 - STAGE II	RT	375	STA 401+87.50 TO STA 406+62.50 - STAGE III	LT	375
STA 401+87.50 TO STA 406+62.50 - STAGE III	LT	100			
SUBTOTAL		475	SUBTOTAL		375
BROWN CREEK			BROWN CREEK		
FAP 304			FAP 304		
STA 454+37.50 TO STA 458+25.00 - STAGE II	LT	387.5	STA 454+00.00 TO STA 458+62.50 - STAGE III	RT	387.5
STA 454+00.00 TO STA 458+62.50 - STAGE III	RT	75			
SUBTOTAL		462.5	SUBTOTAL		387.5
USE		938			763

GEOTEXTILE RETAINING WALL

STATION	SIDE	DEPTH FROM FACE (FEET)	EMBEDMENT (FEET)	HEIGHT (FEET	WIDTH (FEET)	REINFORCEMENT SPACING (FEET)	SQ FT
BREWSTER CREEK							
FAP 304							
STA 403+91.00 TO STA 403+98.83	2.5' LT	9.8	3	10	8	1	80
STA 403+91.00 TO STA 403+98.83	2.5' LT	9.8	3	3	11	1	33
STA 403+98.83 TO STA 404+43.17	2.5' LT	9.8	3	1.4	45	1.4	63
TOTAL							176
USE							176

GUARDRAIL MARKERS, TYPE A

LOCATION	SIDE	SPACING	QUANTITY (EACH)
BREWSTER CREEK			
STA 11+17.90 (CH 13 - RT) TO STA 406+00.00 (FAP 304)	LT	71.8	5
STA 403+37.50 TO STA 406+00.00	RT	76.3	5
SUBTOTAL			10
BROWN CREEK			
STA 455+25.87 TO STA 456+09.00	LT	63.1	2
STA 455+25.87 TO STA 456+09.00	RT	63.1	2
STA 456+60.00 TO STA 459+18.13	RT	79.4	4
STA 456+60.00 TO STA 460+68.13	LT	77.6	6
SUBTOTAL			14
TOTAL			24

TERMINAL MARKER - DIRECT APPLIED

LOCATION	SIDE	QUANTITY EACH
BREWSTER CREEK		
FAP 304		
STA 11+17.90 (CH 13)	RT	1
STA 406+00.00	LT	1
STA 403+37.50	RT	1
STA 406+62.50	RT	1
SUBTOTAL		4
BROWN CREEK		
STA 455+25.87	RT	1
STA 455+25.87	LT	1
STA 459+18.13	RT	1
STA 460+68.13	LT	1
SUBTOTAL		4
TOTAL		8

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

SHEET 5 OF 9
FAP 304 (IL 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT.
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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2B-5	PIKE		17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DRAINAGE SCHEDULE

PLAN LABEL	LOCATION		PIPE CULVERTS RCCP TY1 12" (FT)	PIPE CULVERTS RCCP TY1 15" (FT)	PIPE CULVERTS RCCP TY1 24" (FT)	PIPE CULVERTS CS/AA TY1 15" (FT)	INLETS TYPE A TYPE 8 GR (EACH)	MANHOLE 5' DIA RD W/ TYPE 8 GR (EACH)	FLARED END SECTIONS PRECAST CONCRETE 15" (EACH)	FLARED END SECTIONS PRECAST CONCRETE 24" (EACH)	TRENCH BACKFILL (CU YD)	FLAT SLAB TOP
	STATION	OFFSET										
	BREWSTER CREEK											
INLET, TY A	403+15.00	29.00' LT					1					
	403+16.25	29.36' LT										
	TO		93								3	
	11+16.45	19.44' LT										
MANHOLE	11+18.95	19.44' LT						1				1
	11+18.95	17.44' LT										
	TO				46						12	
	11+18.95	28.52' RT										
	11+18.95	34.00' RT								1		
	11+20.95	19.44' LT										
	TO					58						
	11+80.61	20.84' LT										
	BROWN CREEK											
	454+63.04	34.50' LT							1			
	454+69.12	34.50' LT										
	TO			48							15	
	455+17.12	34.50' LT										
	455+23.21	34.50' LT							1			
	TOTAL		93	48	46	58	1	1	2	1	30	

TEMPORARY DITCH CHECKS

LOCATION	SIDE	EACH
BREWSTER CREEK		
FAP 304		
STA 400+38.00	27' LT	1
STA 401+03.00	28' LT	1
STA 405+37.00	37' LT	1
STA 405+99.00	34' LT	1
STA 408+03.00	31' LT	1
STA 408+56.00	31' LT	1
STA 403+04.00	62' RT	1
STA 407+89.00	24' RT	1
STA 408+65.00	24' RT	1
SUBTOTAL		9
BROWN CREEK		
FAP 304		
STA 452+26.00	31' RT	1
STA 452+95.00	33' RT	1
STA 452+28.00	30' LT	1
STA 453+08.00	32' LT	1
STA 455+90.00	47' LT	1
SUBTOTAL		5
TOTAL		14

GRANULAR CULVERT BACKFILL

LOCATION	AREA TO BE BACKFILLED	WIDTH (FEET)	CU YD
BREWSTER CREEK			
FAP 304			
AROUND FOOTINGS	BELOW STREAMBED ELEV	40	22.8
STA 403+91.00 TO STA 404+00.34	NORTH WALL OF 3 SIDED BOX CULVERT	40	126.4
STA 404+00.34 TO STA 404+42.67	TOP OF BOX CULVERT	40	70.7
STA 404+42.67 TO STA 404+65.50	SOUTH WALL OF 3 SIDED BOX CULVERT	40	223
	ALLOWANCE FOR PRECAST ARCH SHAPE - VARIES BY SUPPLIER		45
TOTAL			487.9
USE			488

INLET AND PIPE PROTECTION

LOCATION	SIDE	EACH
BREWSTER CREEK		
FAP 304		
STA 400+10.00	19.00' LT	1
STA 403+15.00	29.00' LT	1
CH 13		
STA 11+18.95	19.44' LT	1
STA 11+80.61	20.84' LT	1
SUBTOTAL		4
BROWN CREEK		
STA 454+63.04	34.50' LT	1
SUBTOTAL		1
TOTAL		5

BITUMINOUS SURFACE REMOVAL - BUTT JOINT

LOCATION	A	B	WIDTH FOOT	AREA SQ YD
BREWSTER CREEK				
FAP 304	399+80.00	400+10.00	24	80
FAP 304	408+40.00	408+70.00	24	80
BROWN CREEK				
FAP 304	452+25.00	452+55.00	24	80
FAP 304	461+15.00	461+45.00	24	80
TOTALS				320

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SHEET 6 OF 9
FAP 304 (IL 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT.
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DATE

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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	18
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOT-MIX ASPHALT BASE COURSE/BASE COURSE WIDENING

STATION TO STATION	SIDE	AVERAGE WIDTH	HOT-MIX ASPHALT BASE COURSE 8"	HOT-MIX ASPHALT BASE COURSE 12"	HOT-MIX ASPHALT BASE COURSE WIDENING 12"
		FOOT	SQ YD	SQ YD	SQ YD
BREWSTER CREEK					
FAP 304					
STA 400+25.00 TO STA 401+50.00	LT	VARIES			76.4
STA 401+50.00 TO STA 402+23.12	LT	10		80.6	
STA 402+23.12 TO STA 403+90.40	LT	8		148.7	
STA 404+21.51 TO STA 406+20.40	LT	7.4		159.1	
STA 406+20.40 TO STA 407+00.00	LT	9		76.5	
STA 407+00.00 TO STA 408+25.00	LT	VARIES			59.5
STA 401+00.00 TO STA 402+25.00	RT	VARIES			55.6
STA 402+25.00 TO STA 403+90.46	RT	6		110.3	
STA 404+21.51 TO STA 407+00.00	RT	6.8		206.7	
STA 407+00.00 TO STA 408+25.00	RT	VARIES			62.1
STA 403+81.50 TO STA 404+65.50	RT & LT	36 & VARIES		335.8	
CH 13					
STA 10+12.20 TO STA 12+00.00	RT & LT	VARIES	576.8		
SUBTOTAL			576.8	1,117.7	253.6
USE			577	1,118	254
BROWN CREEK					
FAP 304					
STA 453+00.00 TO STA 454+25.00	LT	VARIES			62.5
STA 455+25.00 TO STA 455+70.50	LT	7		110.2	
STA 455+70.50 TO STA 456+19.44	LT	7		37.6	
STA 456+50.43 TO STA 456+98.50	LT	7		36.7	
STA 456+98.50 TO STA 460+70.00	LT	7		293.6	
STA 460+70.00 TO STA 461+00.00	LT	VARIES			15.7
STA 453+00.00 TO STA 454+25.00	RT	VARIES			62.5
STA 454+25.00 TO STA 455+70.50	RT	7		112.7	
STA 455+70.50 TO STA 456+19.44	RT	7		37.7	
STA 456+50.43 TO STA 456+98.50	RT	7		37.3	
STA 456+98.50 TO STA 459+20.00	RT	7		172.3	
STA 459+20.00 TO STA 460+45.00	RT	VARIES			62.5
TR 96					
STA 10+12.00 TO STA 10+60.19	RT & LT	VARIES	143.2		
SUBTOTAL			143.2	838.0	203.2
USE			144	839	204
TOTAL			721	1957	458

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

STATION TO STATION	SIDE	BINDER COURSE IL-19 N50
		TON
BROWN CREEK		
FAP 304		
STA 452+92.50 TO STA 459+00.00	RT	121.0
STA 452+92.50 TO STA 459+00.00	LT	121.0
SUBTOTAL		242.0
TOTAL		242

HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50

STATION TO STATION	SIDE	BCSC SUPER C N50
		TON
BREWSTER CREEK		
FAP 304		
STA 399+80.00 TO STA 408+70.00	RT	100.0
STA 399+80.00 TO STA 408+70.00	LT	100.0
CH 13		
STA 10+12.20 TO STA 12+00.00	RT	22.5
STA 10+12.20 TO STA 12+00.00	LT	22.5
SUBTOTAL		245.0
BROWN CREEK		
FAP 304		
STA 452+25.00 TO STA 455+76.50	RT	39.5
STA 452+25.00 TO STA 455+76.50	LT	39.5
STA 456+92.50 TO STA 461+45.00	RT	50.5
STA 456+92.50 TO STA 461+45.00	LT	50.5
TR 96		
STA 10+12.00 TO STA 10+60.19	RT & LT	17.0
SUBTOTAL		197.0
TOTAL		442

LEVELING BINDER (MACHINE METHOD), N50

STATION TO STATION	SIDE	LEVELING BINDER N50
		TON
BREWSTER CREEK		
FAP 304		
STA 399+80.00 TO STA 408+70.00	RT	50.0
STA 399+80.00 TO STA 408+70.00	LT	50.0
SUBTOTAL		100.0
BROWN CREEK		
FAP 304		
STA 452+25.00 TO STA 455+76.50	RT	20.0
STA 452+25.00 TO STA 455+76.50	LT	20.0
STA 456+92.50 TO STA 461+45.00	RT	34.0
STA 456+92.50 TO STA 461+45.00	LT	34.0
STA 459+00.00 TO STA 459+50.00 - FILL	RT	8.0
STA 459+00.00 TO STA 459+50.00 - FILL	LT	8.0
SUBTOTAL		124.0
TOTAL		224

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

SHEET 7 OF 9
FAP 304 (IL 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT.
HORIZ.

DATE

DRAWN BY

CHECKED BY

PLOT DATE = 7/31/2007
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USER NAME = baughlm

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING

STATION TO STATION	SIDE	TYPE	DISTANCE (FT)	5" YELLOW (FT)	5" WHITE (FT)	24" WHITE (FT)	PAV MARK REMVL (SQ FT)	WORK ZONE PAV MARK REMVL (SQ FT)	REFLECTIVE MARKER 2-WAY AMBER (EACH)	SHORT TERM PAVMNT MARKING		TEMP PAVMNT MRKING LINE	
										YELLOW	WHITE	5" (FT)	24" (FT)
BREWSTER CREEK													
FAP 304													
STA 400+05 TO STA 408+45	10' RT	EXIST EDGE LINE	840				353						
STA 400+05 TO STA 401+14	CL	CL - SOLID/SKIP-DASH	109				59						
STA 401+14 TO STA 403+00	CL	CL - SOLID/SOLID	186				155						
STA 405+27 TO STA 408+45	CL	CL - SOLID/SKIP-DASH	318				168						
STA 399+80 TO STA 408+70	CL	REFLECTOR	80' SPACING						11				
STA 400+05 TO STA 408+45	RT	5" TEMP LINE (WHITE)	840' STAGE II					353				840	
STA 400+05 TO STA 408+45	VARIES	5" TEMP LINE (WHITE)	840' STAGE II					353				840	
STA 400+05 TO STA 408+45	LT	5" TEMP LINE (WHITE)	840' STAGE III					353				840	
STA 400+05 TO STA 408+45	VARIES	5" TEMP LINE (WHITE)	840' STAGE III					353				840	
STA 399+80 TO STA 408+70	11' RT	5" EDGE LINE	890		890								
STA 399+80 TO STA 403+00	11' LT	5" EDGE LINE	320		320								
STA 404+00 TO STA 408+70	11' LT	5" EDGE LINE	370		370								
STA 399+80 TO STA 401+14	CL	CL - SOLID/SKIP-DASH	134	174									
STA 401+14 TO STA 405+27	CL	CL - SOLID/SOLID	413	826									
STA 405+27 TO STA 408+70	CL	CL - SKIP-DASH/SOLID	343	433									
STA 400+05	0 TO 12' RT	TEMP STOP BAR	12' STAGE II										12
STA 408+25	0 TO 12' LT	TEMP STOP BAR	12' STAGE II										12
STA 399+80 TO STA 408+70	CL	4'/40' SKIP-DASH	AFTER LEV BINDER							88			
STA 399+80 TO STA 408+70	CL	4'/40' SKIP-DASH	AFTER FINAL SURFACE					37		88			
CH 13													
STA 10+45	0 TO 11' LT	TEMP STOP BAR	11										11
STA 10+45	0 TO 11' LT	STOP BAR	11			11							
SUBTOTAL				1433	1580	11	735	1449	11	176	0	3360	35
BROWN CREEK													
FAP 304													
STA 452+25 TO STA 461+00	11' LT	EXIST EDGE LINE	875				368						
STA 452+25 TO STA 455+00	CL	CL - SKIP-DASH/SOLID	300				160						
STA 457+50 TO STA 460+50	CL	CL - SKIP-DASH/SOLID	300				160						
STA 452+25 TO STA 461+45	CL	REFLECTOR	80' SPACING						13				
SRA 452+25 TO STA 460+50	LT	5" TEMP LINE (WHITE)	825' STAGE II					347				825	
SRA 452+25 TO STA 460+50	VARIES	5" TEMP LINE (WHITE)	825' STAGE II					347				825	
SRA 452+25 TO STA 460+50	RT	5" TEMP LINE (WHITE)	825' STAGE III					347				825	
SRA 452+25 TO STA 460+50	VARIES	5" TEMP LINE (WHITE)	825' STAGE III					347				825	
STA 452+25 TO STA 461+45	CL	CL - SKIP-DASH/SOLID	920	1160									
STA 452+25 TO STA 454+43	11' LT	5" EDGE LINE	218		218								
STA 454+43 TO STA 461+45	11' LT	5" EDGE LINE	702		702								
STA 452+25 TO STA 461+45	11' RT	5 "EDGE LINE	920		920								
STA 452+25	0 TO 12' RT	TEMP STOP BAR	12										12
STA 460+50	0 TO 12' LT	TEMP STOP BAR	12										12
STA 452+25 TO STA 461+45	CL	4'/40' SKIP-DASH	AFTER LEV BINDER							92			
STA 452+25 TO STA 461+45	CL	4'/40' SKIP-DASH	AFTER FINAL SURFACE					37		92			
TR 96													
STA 10+36	0 TO 14' LT	TEMP STOP BAR	14										14
STA 10+36	0 TO 14' LT	STOP BAR	14			14							
SUBTOTAL				1160	1840	14	688	1425	13	184	0	3300	38
				2593	3420					360	0		
TOTALS				6013		25	1423	2874	24	360		6660	73

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

SHEET 8 OF 9
FAP 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT.
HORIZ.
DATE

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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNDERWATER STRUCTURE PROTECTION

STATION	SIDE	STRUCTURE TO BE PROTECTED	LOCATION #	QUANTITY
BREWSTER CREEK				EACH
FAP 304				
STA 404+00.51	LT	STAGE II - CULVERT/WINGWALL FOUNDATION	1	1
STA 404+42.51	LT	STAGE II - CULVERT/WINGWALL FOUNDATION	2	1
STA 404+00.51	RT	STAGE III - CULVERT/WINGWALL FOUNDATION	3	1
STA 404+42.51	RT	STAGE III - CULVERT/WINGWALL FOUNDATION	4	1

TEMPORARY SOIL RETENTION SYSTEM

LOCATION	SIDE	EST LENGTH (FEET)	AVG DEPTH (FEET)	SQ FT
BROWN CREEK				
FAP 304				
STA 455+96.17 TO STA 456+19.04	N ABUT	22.9	7.9	180
STA 456+51.00 TO STA 456+72.92	S ABUT	22.9	7.4	170
TOTAL				350

FILLING EXISTING CULVERTS

STATION	SIDE	TYPE AND SIZE OF CULVERT	EACH
BREWSTER CREEK			
FAP 304			
STA 402+00	24.5' LT	12" CMP	1
TOTAL			1

IMPACT ATTENUATORS

LOCATION	SIDE	QUANTITY (EACH)	RELOCATE TO	SIDE	QUANTITY (EACH)
BREWSTER CREEK			BREWSTER CREEK		
FAP 304			FAP 304		
STA 402+37.5 - STAGE II	7.3' LT	1	STA 401+87.5 - STAGE III	7' RT	1
STA 406+12.50 - STAGE II	7.3' LT	1	STA 406+62.5 - STAGE III	7' RT	1
SUBTOTAL		2	SUBTOTAL		2
BROWN CREEK			BROWN CREEK		
FAP 304			FAP 304		
STA 454+37.5 - STAGE II	6.25' RT	1	STA 454+00 - STAGE III	7.75' LT	1
STA 458+25 - STAGE II	6.25' RT	1	STA 458+62.5 - STAGE III	6.7' LT	1
SUBTOTAL		2	SUBTOTAL		2
TOTAL		4	TOTAL		4

TEMPORARY SHEET PILING

LOCATION	SIDE	LENGTH (FEET)	DEPTH (FEET)	SQ FT
BREWSTER CREEK				
FAP 304				
STA 404+21.93 TO STA 404+24.18	LT	2.25	12.79	28.78
STA 404+24.18 TO STA 404+46.43	LT	22.25	44.89	998.80
STA 404+46.43 TO STA 404+65.68	LT	19.25	38.62	743.44
ALLOWANCE FOR SHEET PILING ENDS	LT			11.22
TOTAL				1782.24
USE				1783
NOTE: PILING TO BE PLACED AGAINST BACK OF SOUTH ABUTMENT.				
CALCULATIONS BASED ON PZ32 PILING WITH A DRIVING WIDTH OF 21 INCHES.				

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITITES

SHEET 9 OF 9
FAP 304 (IL 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT.
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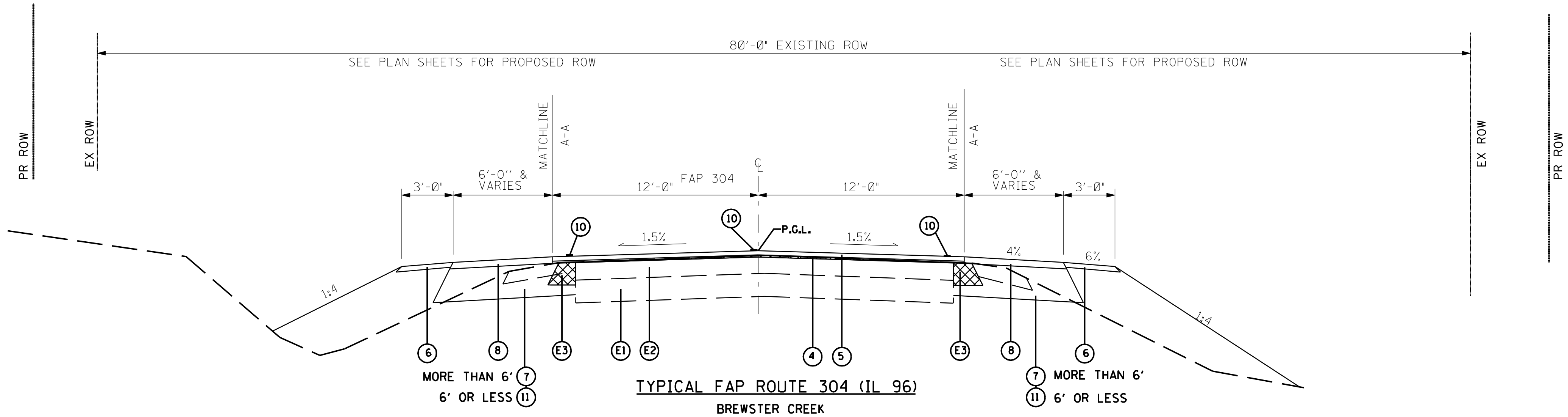
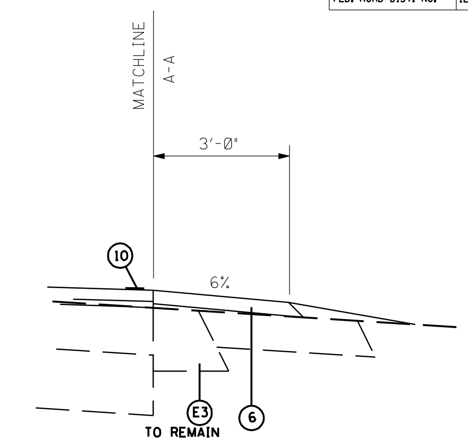
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL FAP ROUTE 304 (IL 96)

BREWSTER CREEK
STA. 399+80.00 TO STA. 403+81.50
STA. 404+65.50 TO STA. 408+70.00

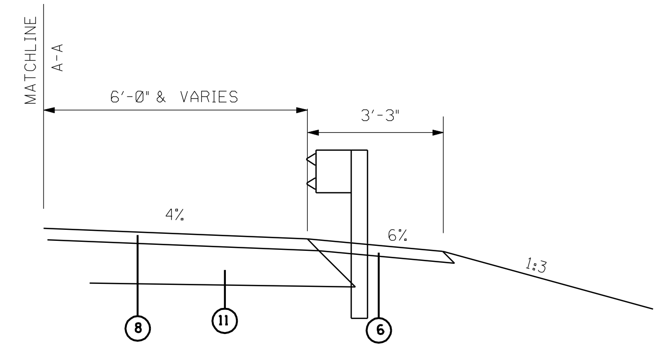


TYPICAL FAP ROUTE 304 (IL 96)

BREWSTER CREEK
STA. 399+80.00 LT TO STA. 400+25.00 LT
STA. 399+80.00 RT TO STA. 401+00.00 RT

LEGEND

- (E1) EXISTING AGGREGATE BASE COURSE
- (E2) EXISTING BITUMINOUS RESURFACING - 6 1/4"
- (E3) EXISTING BITUMINOUS SHOULDERS - 8"
- (4) PROPOSED LEVELING BINDER (MACHINE METHOD) (3/4" & VAR)
- (5) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50 (1 1/2")
- (6) PROPOSED AGGREGATE SHOULDER, TYPE B (2 1/4" & VAR)
- (7) PROPOSED HOT-MIX ASPHALT BASE COURSE, 12"
- (8) PROPOSED HOT-MIX ASPHALT SHOULDERS (2 1/2" & VARIES)
- (9) PROPOSED GRANULAR CULVERT BACKFILL
- (10) PROPOSED PAINT PAVEMENT MARKING - LINE 5"
- (11) PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 12"
- (12) PROPOSED HOT-MIX ASPHALT BASE COURSE, 8"



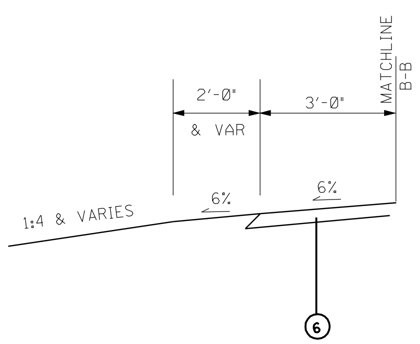
TYPICAL SHOULDER AT GUARDRAIL LOCATIONS

FAP ROUTE 304 (IL 96)

STA. 404+12.20 LT TO STA. 406+00.00 LT
STA. 403+37.50 RT TO STA. 406+62.50 RT

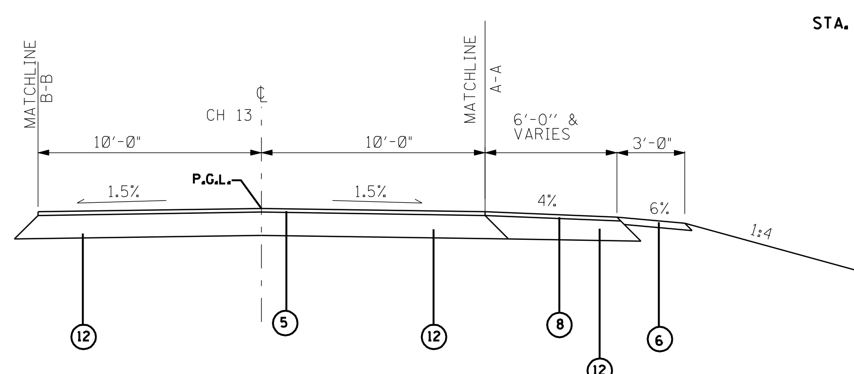
COUNTY HIGHWAY 13

STA. 10+29.53 RT TO STA. 11+18.00 RT



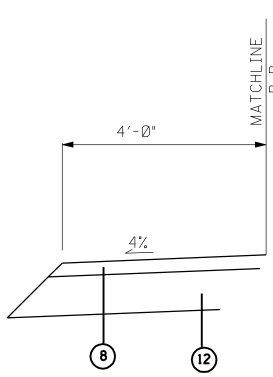
TYPICAL COUNTY HIGHWAY 13

BREWSTER CREEK
STA. 10+51.96 LT TO STA 12+00.00 LT



TYPICAL COUNTY HIGHWAY 13

BREWSTER CREEK
STA. 10+12.20 TO STA 12+00.00



TYPICAL COUNTY HIGHWAY 13

BREWSTER CREEK
STA. 10+12.20 LT TO STA 10+51.96 LT

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REVISIONS	
NAME	DATE

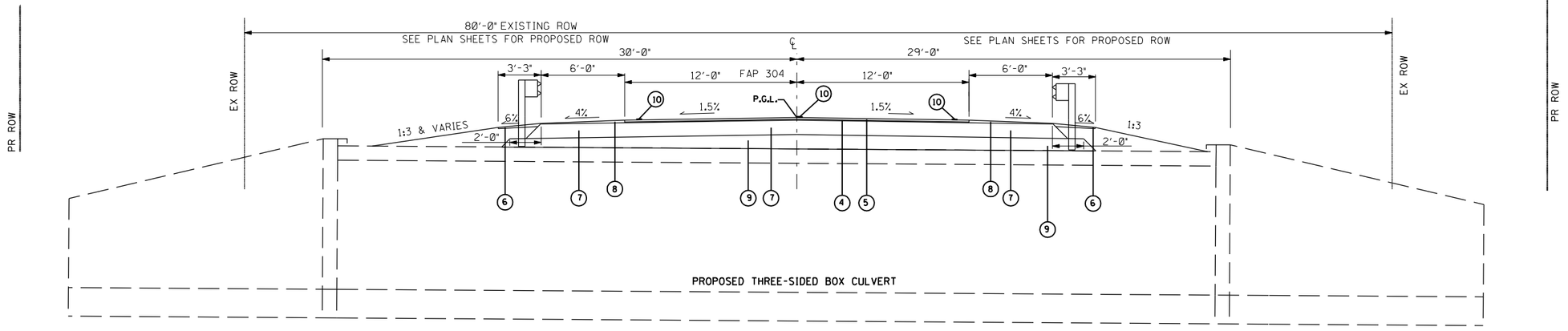
ILLINOIS DEPARTMENT OF TRANSPORTATION

BREWSTER CREEK
TYPICAL SECTIONS
SHEET 1 OF 2
FAP ROUTE 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. NTS HORIZ. NTS
DATE OCTOBER 2005
DRAWN BY BNK
CHECKED BY DJK

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL FAP ROUTE 304 (IL 96)

BREWSTER CREEK

STA. 403+81.50 TO STA. 404+65.50

REMOVE EXISTING PAVEMENT/STRUCTURE

LEGEND

- (E1) EXISTING AGGREGATE BASE COURSE
- (E2) EXISTING BITUMINOUS RESURFACING - 6 1/4"
- (E3) EXISTING BITUMINOUS SHOULDERS - 8"
- (4) PROPOSED LEVELING BINDER (MACHINE METHOD) (3/4" & VAR)
- (5) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50 (1 1/2")
- (6) PROPOSED AGGREGATE SHOULDER, TYPE B (2 1/4" & VAR)
- (7) PROPOSED HOT-MIX ASPHALT BASE COURSE, 12"
- (8) PROPOSED HOT-MIX ASPHALT SHOULDERS (2 1/2" & VARIES)
- (9) PROPOSED GRANULAR CULVERT BACKFILL
- (10) PROPOSED PAINT PAVEMENT MARKING - LINE 5"
- (11) PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 12"
- (12) PROPOSED HOT-MIX ASPHALT BASE COURSE, 8"
- (13) PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 8"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BREWSTER CREEK
TYPICAL SECTIONS
SHEET 2 OF 2
FAP ROUTE 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. NTS
HORIZ. NTS

DATE OCTOBER 2005

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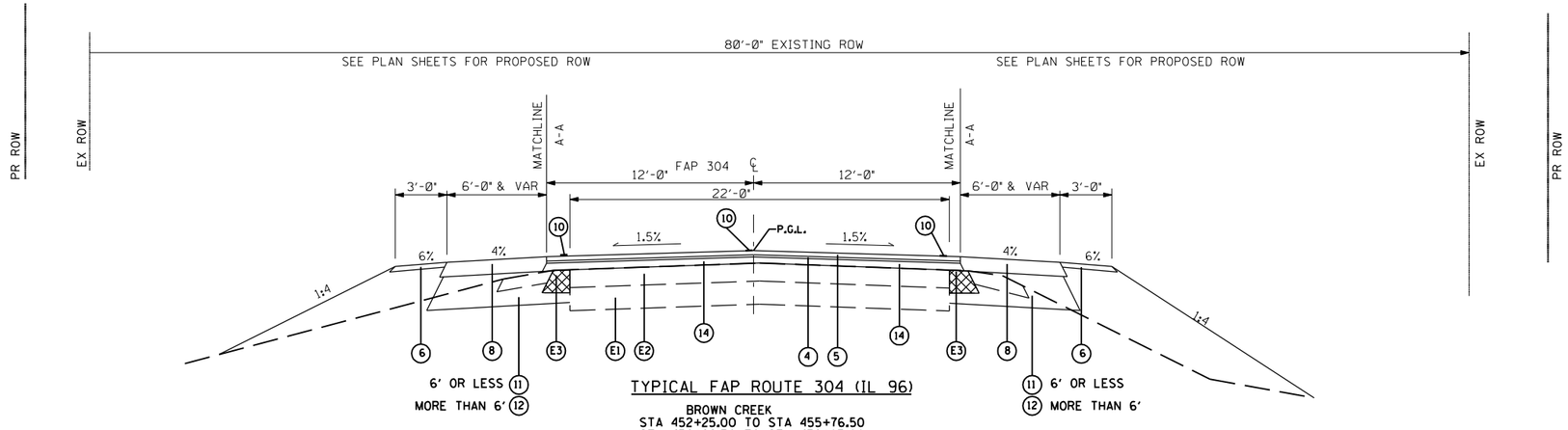
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

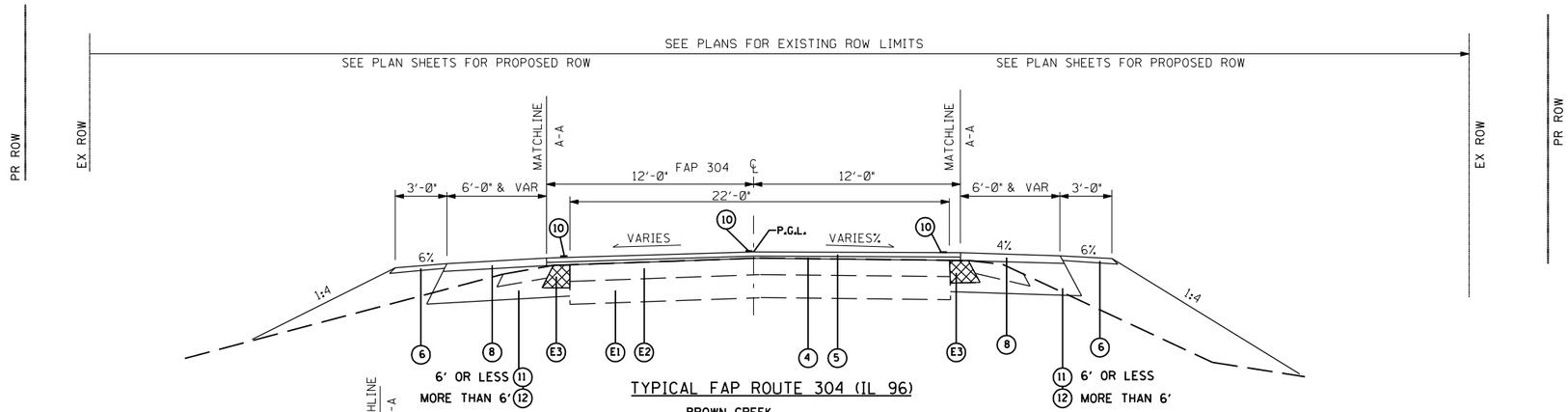


TYPICAL FAP ROUTE 304 (IL 96)

BROWN CREEK
STA 452+25.00 TO STA 455+76.50
STA 456+92.50 TO STA 459+85.00
BRIDGE OMISSION - STA 455+76.50 TO STA 456+92.50
BRIDGE APPROACH PAVEMENT - STA 455+76.50 TO STA 456+06.50 AND
STA 456+62.50 TO STA 456+92.50

LEGEND

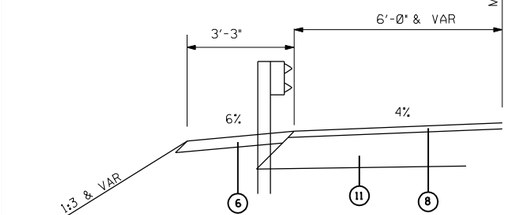
- (E1) EXISTING AGGREGATE BASE COURSE
- (E2) EXISTING BITUMINOUS RESURFACING - 6 1/4"
- (E3) EXISTING BITUMINOUS SHOULDERS, 8"
- (4) PROPOSED LEVELING BINDER (MACHINE METHOD) (3/4" & VAR)
- (5) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50 (1 1/2")
- (6) PROPOSED AGGREGATE SHOULDER, TYPE B (2 1/4" & VAR)
- (7) PROPOSED HOT-MIX ASPHALT BASE COURSE, 12"
- (8) PROPOSED HOT-MIX ASPHALT SHOULDERS (2 1/2" & VARIES)
- (9) PROPOSED GRANULAR CULVERT BACKFILL
- (10) PROPOSED PAINT PAVEMENT MARKING - LINE 5"
- (11) PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 12"
- (12) PROPOSED HOT-MIX ASPHALT BASE COURSE, 8"
- (13) PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 8"
- (14) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50



TYPICAL FAP ROUTE 304 (IL 96)

BROWN CREEK
STA 459+85.00 TO STA 461+45.00

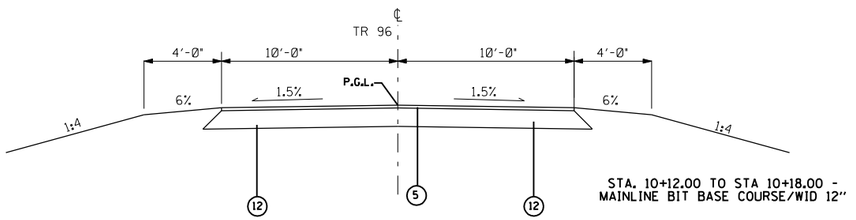
LEFT LANE SUPERELEVATION RATE	(NOT STANDARD)	RIGHT LANE SUPERELEVATION RATE
STA 459+85.00 -1.5%		STA 459+85.00 -1.5%
STA 461+45.00 -3.6%		STA 461+50.00 +0.34%
2.1% CHANGE IN 160 FEET		1.84% CHANGE IN 160 FEET



TYPICALSHOULDER AT GUARDRAIL LOCATIONS

(EITHER SIDE OF CENTERLINE)

RT STA 455+25.85 TO RT STA 455+76.50
LT STA 455+25.85 TO LT STA 455+76.50
RT STA 456+92.50 TO STA RT 459+18.11
LT STA 456+92.50 TO LT STA 459+68.13



STA. 10+12.00 TO STA 10+18.00 -
MAINLINE BIT BASE COURSE/WID 12"

TYPICAL TR 96

BROWN CREEK
STA. 10+18.00 TO STA 10+75.00

- NOTE: WHEN THE THICKNESS OF TOTAL RESURFACING IS GREATER THAN 4.5" (INCL. SURF. COURSE), USE A LIFT OR MORE OF HOT-MIX ASPHALT BINDER COURSE TO BUILD UP THE PAVEMENT TO GRADE. ALLOW 1" LEVELING BINDER AND 1 1/2" SURFACE COURSE ON TOP.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BROWN CREEK
TYPICAL SECTIONS

FAP ROUTE 304 (IL 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. NTS
HORIZ. NTS
DATE OCTOBER 2005

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USER NAME = baughlrr

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GRAPHIC SCALE

0 20 40 60 80 100

FEET

N

N & BC IN POWER POLE

61.53'

32.15'

35.15'

CHISLED SQUARE ON CONC HEADWALL

400+00 FAP 304 IL RT 96

CHISLED SQUARE ON CONC HEADWALL

POT - STATION 400+00

PROP. CURVE CUR_S1
PI STA. = 11+66.55
Δ = 4° 56' 44" (LT)
D = 11° 14' 46"
R = 509.47'
T = 22.00'
L = 43.98'
E = 0.47'
P.C. STA = 11+44.55
P.T. STA = 11+88.52
SE=NC

STA 404+21.51 FAP 304 =
STA 303+00 BREWSTER CREEK BASELINE
SN 075-2508
℄ PROPOSED THREE SIDED BOX CULVERT
W CAST IN PLACE WINGWALLS (1 SPCL WINGWALL)
42' X 10' BOX CULVERT
USFL ELEV 485.30, 30' LT
DSFL ELEV 484.81, 29' RT

FLAG POLE

END CH 13 CONSTRUCTION
STA 12+00.00

PT Sta 11+88.5

PI Sta 11+66.55

PC Sta 11+44.55

BM-CHISLED SQUARE
SOUTHEAST WINGWALL
OF BRIDGE 075-0039
ELEV 497.60

CH 13

N 56° 16' 50" E

60.00' EX ROW

90°0'0"

MATCH LINE

POT Sta 399+00.00

399

400+00

FAP 304 IL RT 96

80' EX ROW

401 S 44° 11' 31" E

402

113°30'39.6"

403

POT Sta 10+00.00

403+45.98

175°45'26"

404

303

405+00

POT Sta 10+00.00

STA 399+80.00
START SECTION 2(B-5)

BM-CHISLED SQUARE ON
SOUTHWEST HEADWALL
ON CULVERT PIPE
STA 400+10 RT
ELEV 492.36

POT Sta 403+60.45

302

19.00

POT Sta 8+90.16

STA 403+50.14
100.72' RT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HORIZONTAL AND VERTICAL CONTROL

SHEET 1 OF 2
FAP ROUTE 304 (IL RTE 96)
SECTION 2(B-5, B-6)
BREWSTER CREEK
PIKE COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

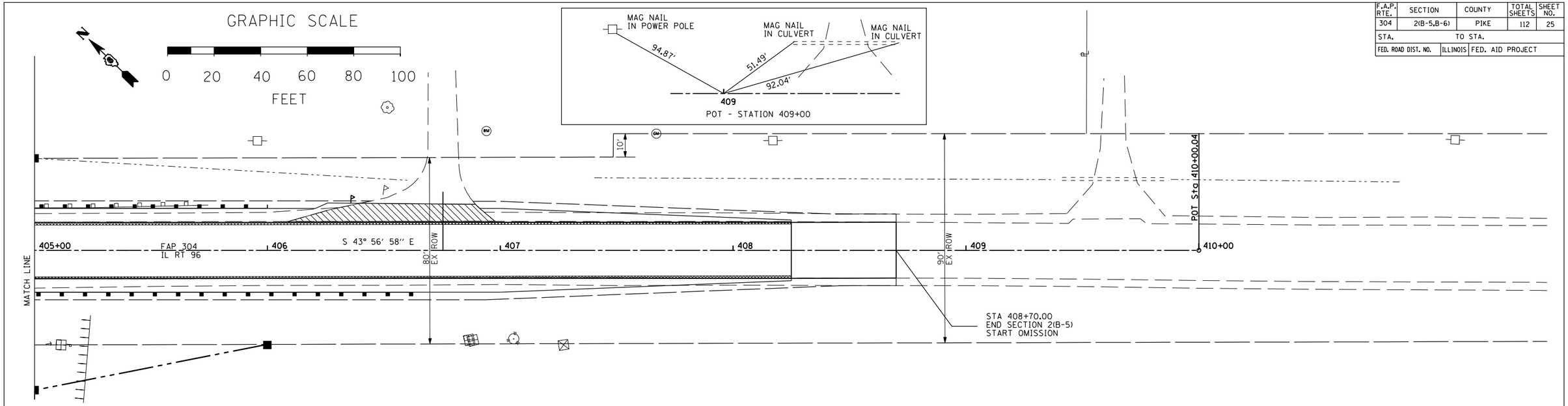
CONTRACT NO. 72891

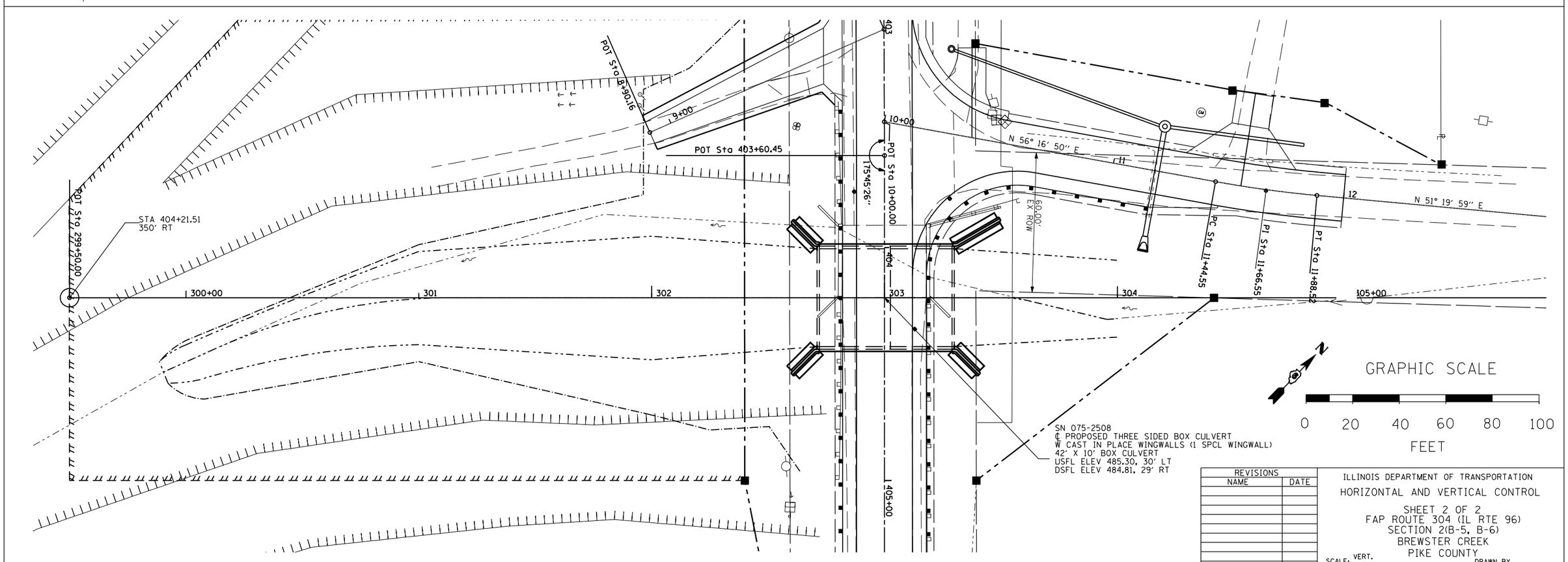
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GRAPHIC SCALE

0 20 40 60 80 100

FEET





GRAPHIC SCALE

0 20 40 60 80 100

FEET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HORIZONTAL AND VERTICAL CONTROL

SHEET 2 OF 2
FAP ROUTE 304 (IL RTE 96)
SECTION 2(B-5, B-6)
BREWSTER CREEK
PIKE COUNTY

SCALE: VERT.
HORIZ.

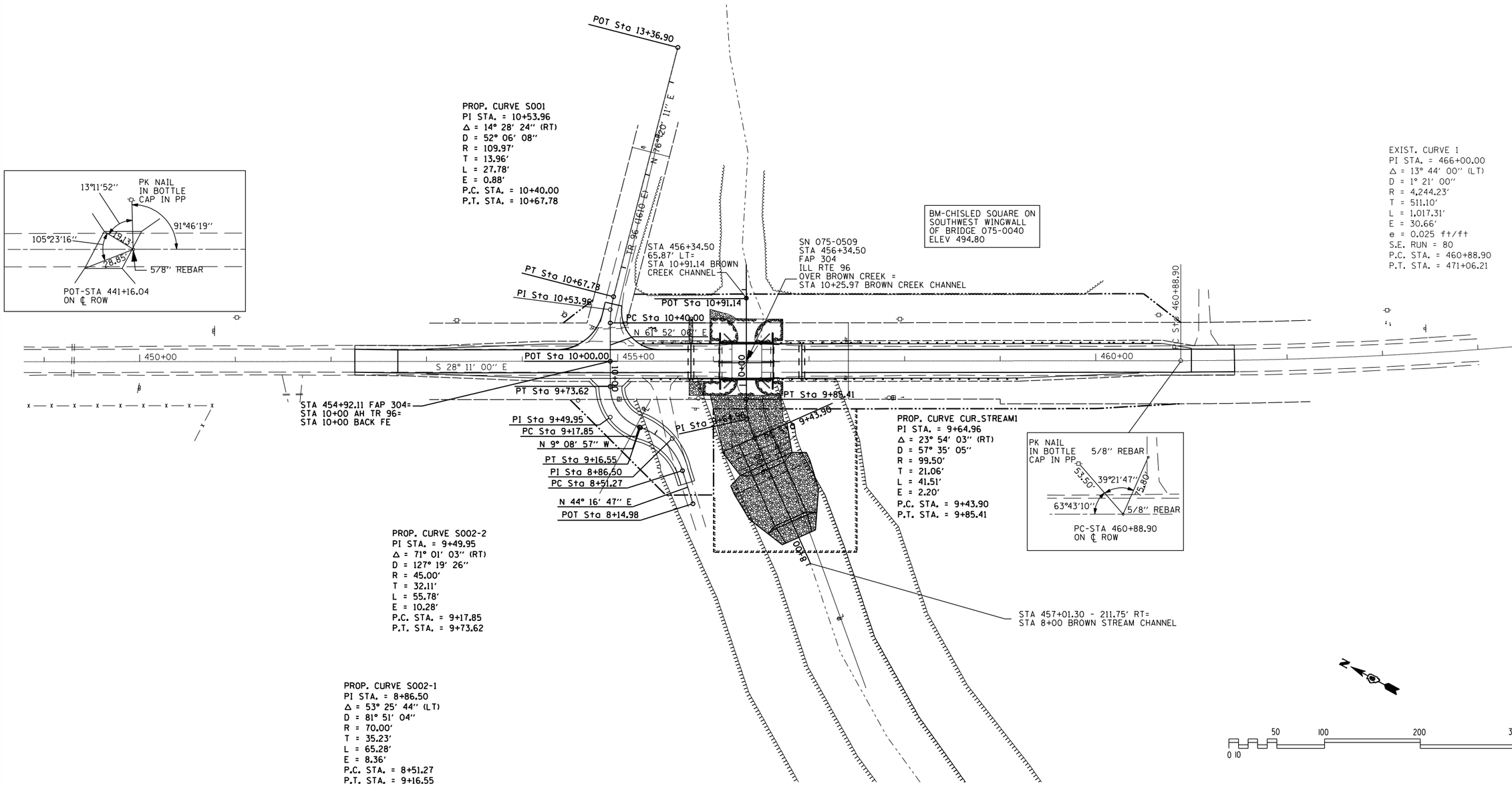
DRAWN BY

DATE

CHECKED BY

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	26
STA. 452+00	TO STA.460+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HORIZONTAL AND VERTICAL CONTROL

BROWN CREEK

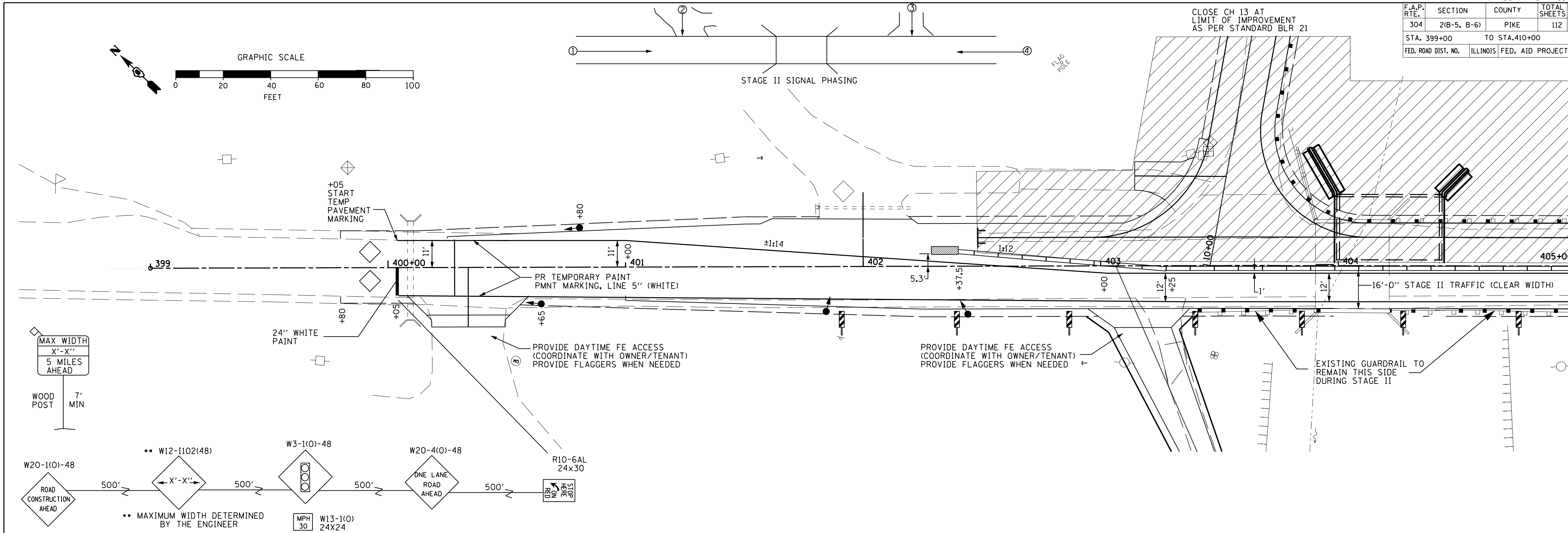
SCALE: VERT.
HORIZ.
DATE

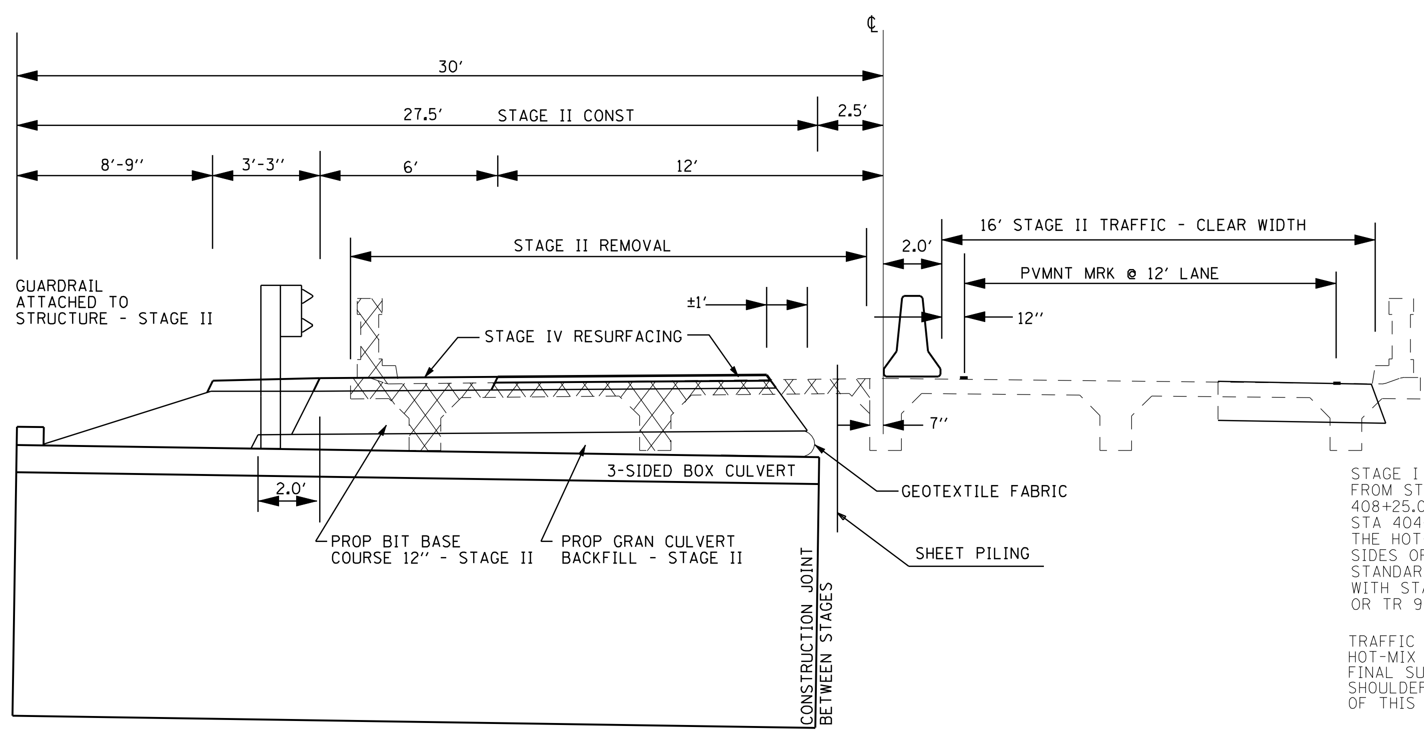
DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\pbos_final\sn075-0040\controlbrown.dgn
PLOT SCALE = 100.0000 ' / IN.
USER NAME = laughlinr

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	27
STA. 399+00	TO STA.410+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 72891





LEGEND

WORK AREA	DRUMS WITH STEADY BURNING LIGHTS
INDUCTION LOOP DETECTOR	TEMPORARY TRAFFIC SIGNAL
DOUBLE VERTICAL PANEL	TEMPORARY CONCRETE BARRIER
IMPACT ATTENTUATOR	TYPE III BARRICADE
24" STOP BAR	

STAGE I WILL CONSIST OF REMOVING THE EXISTING BITUMINOUS SHOULDERS FROM STA 400+25.00 LT TO STA 403+87.00 LT, FROM STA 404+22.00 LT TO STA 408+25.00 LT, FROM STA 400+25.00 RT TO STA 403+90.00 RT AND FROM STA 404+22.00 RT TO STA 408+25.00 RT AND INSTALLING THE HOT-MIX ASPHALT BASE COURSE AND BASE COURSE WIDENING ON BOTH SIDES OF THE ROADWAY BETWEEN THESE STATIONS. ALL DONE AS PER STANDARD 701201 AND STANDARD 701326 AS APPLICABLE. COORDINATE WORK WITH STAGE 1 ON BROWN CREEK TO INSURE THAT EITHER CH 13 AT BREWSTER CREEK OR TR 96 AT BROWN CREEK REMAIN OPEN TO RESIDENTS AT ALL TIMES.

TRAFFIC TO RUN ON EXISTING PAVEMENT AND HOT-MIX ASPHALT BASE COURSE WIDENING DURING STAGE II. THE FINAL SURFACE, LEVELING BINDER AND AGGREGATE SHOULDERS TO BE INSTALLED DURING STAGE IV OF THIS PROJECT.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).

STAGE II
STA 399+80.00 TO STA 405+00.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

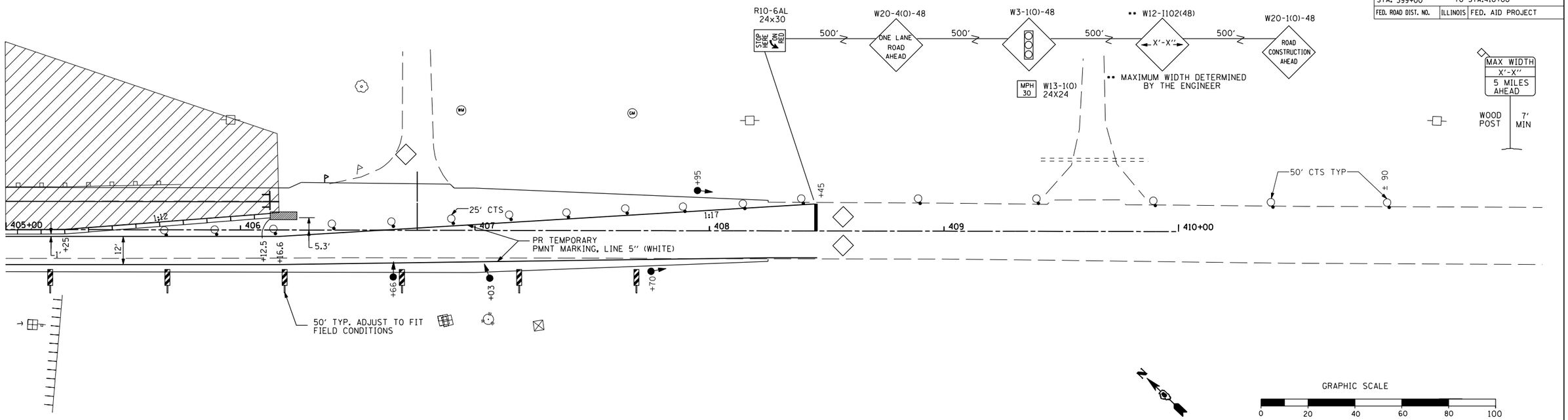
STAGE CONSTRUCTION FAP 304 (IL96) OVER BREWSTER CREEK

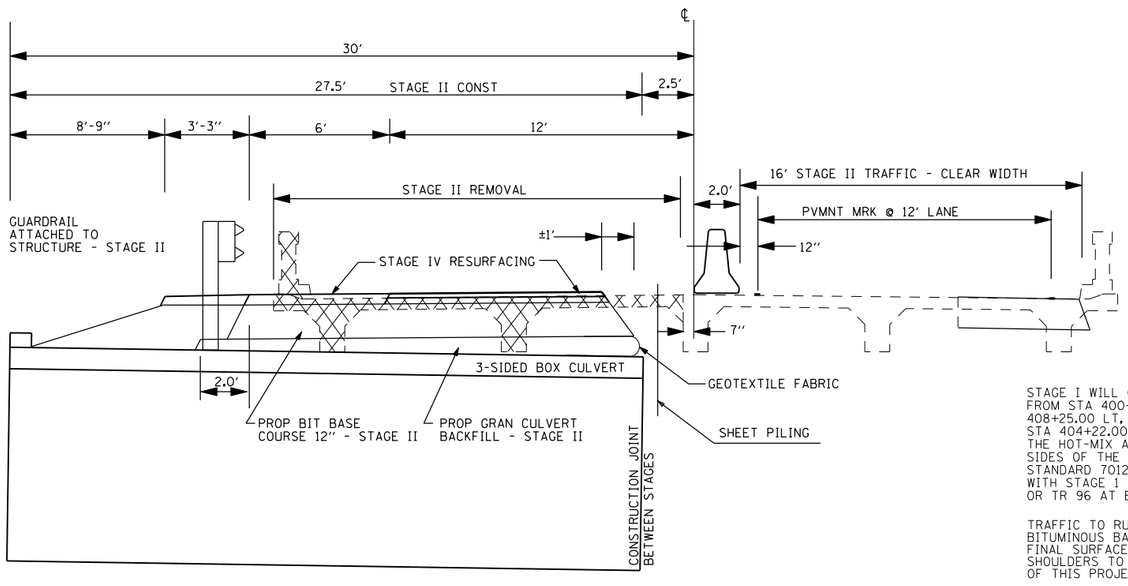
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\psbe.final\sn075-0039\stageconstructionbrewster.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughinr1

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	28
STA. 399+00		TO STA.410+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	





LEGEND

- WORK AREA
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- IMPACT ATTENTUATOR
- 24" STOP BAR
- DRUMS WITH STEADY BURNING LIGHTS
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADE

GRAPHIC SCALE
0 20 40 60 80 100
FEET

STAGE I WILL CONSIST OF REMOVING THE EXISTING BITUMINOUS SHOULDERS FROM STA 400+25.00 LT TO STA 403+87.00 LT, FROM STA 404+22.00 LT TO STA 408+25.00 LT, FROM STA 400+25.00 RT TO STA 403+90.00 RT AND FROM STA 404+22.00 RT TO STA 408+25.00 RT AND INSTALLING THE HOT-MIX ASPHALT BASE COURSE AND BASE COURSE WIDENING ON BOTH SIDES OF THE ROADWAY BETWEEN THESE STATIONS. ALL DONE AS PER STANDARD 701201 AND STANDARD 701326 AS APPLICABLE. COORDINATE WORK HERE WITH STAGE 1 ON BROWN CREEK TO INSURE THAT EITHER CH 13 AT BREWSTER CREEK OR TR 96 AT BROWN CREEK REMAIN OPEN TO RESIDENTS AT ALL TIMES.

TRAFFIC TO RUN ON EXISTING PAVEMENT AND BITUMINOUS BASE COURSE WIDENING DURING STAGE II. THE FINAL SURFACE, LEVELING BINDER AND AGGREGATE SHOULDERS TO BE INSTALLED DURING STAGE IV OF THIS PROJECT.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).

STAGE II

STA 405+00.00 TO STA 408+70.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION
FAP 304 (IL96)
OVER BREWSTER CREEK

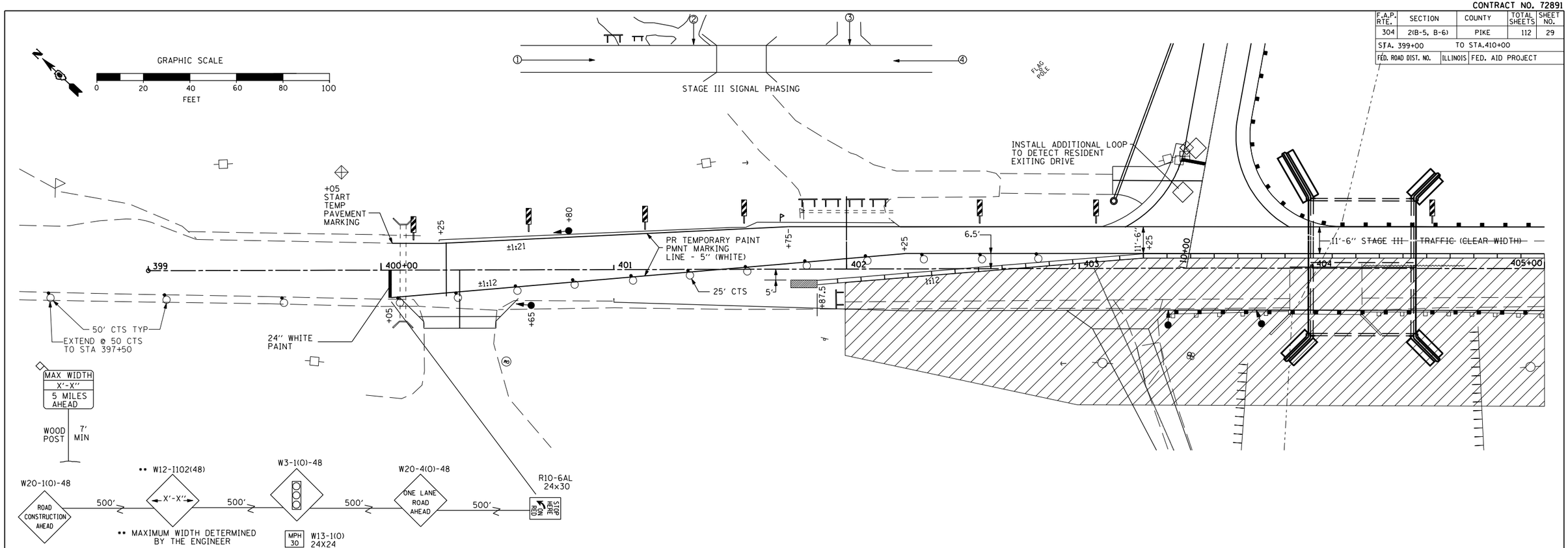
SCALE: VERT.
HORIZ.
DATE

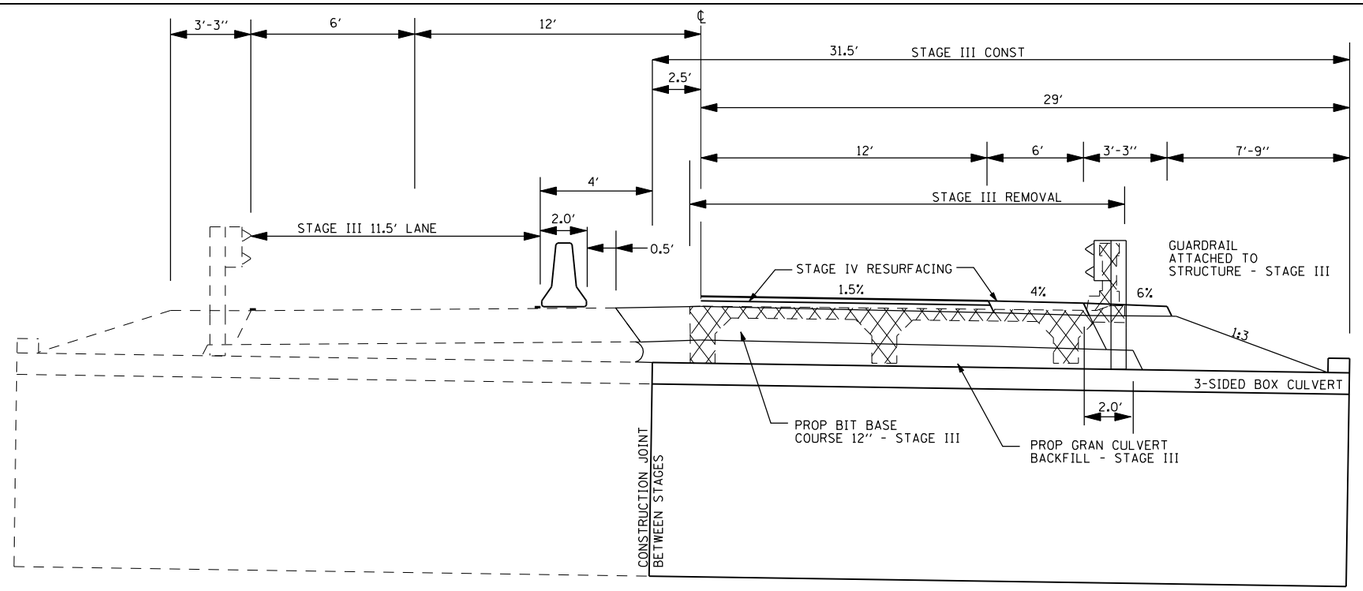
DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\pbos_final\sn075-803\stageconstructionBrewster.dgn
PLOT SCALE = 12.3529 ' / IN.
USER NAME = laughlurl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	29
STA. 399+00	TO STA.410+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





LEGEND

- WORK AREA
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- IMPACT ATTENTUATOR
- 24" STOP BAR
- DRUMS WITH STEADY BURNING LIGHTS
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADE

STAGE III ON THIS PROJECT CAN NOT START UNTIL STAGE II IS COMPLETE ON BROWN CREEK, SECTION 2(B-6).

TRAFFIC TO RUN ON EXISTING PAVEMENT AND BITUMINOUS BASE COURSE WIDENING DURING STAGE III. THE FINAL SURFACE, LEVELING BINDER AND AGGREGATE SHOULDERS TO BE INSTALLED DURING STAGE IV OF THIS PROJECT.

REMOVE TRAFFIC CONTROL AND PROTECTION STAGE III STANDARD 701321 (SPECIAL) PRIOR TO STAGE IV.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)

THE FINAL SURFACE, LEVELING BINDER, BINDER COURSE AND AGGREGATE SHOULDERS TO BE INSTALLED DURING DURING STAGE IV OF THIS PROJECT.

STAGE III
STA 399+80.00 TO STA 405+00.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION FAP 304 (IL96) OVER BREWSTER CREEK

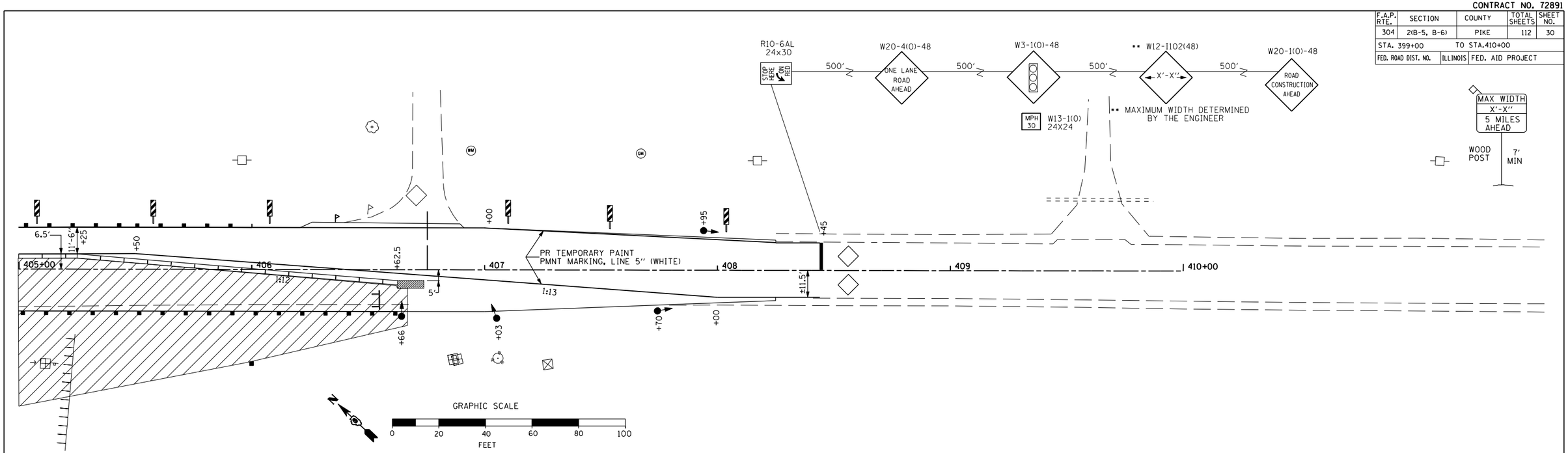
SCALE: VERT.
HORIZ.
DATE

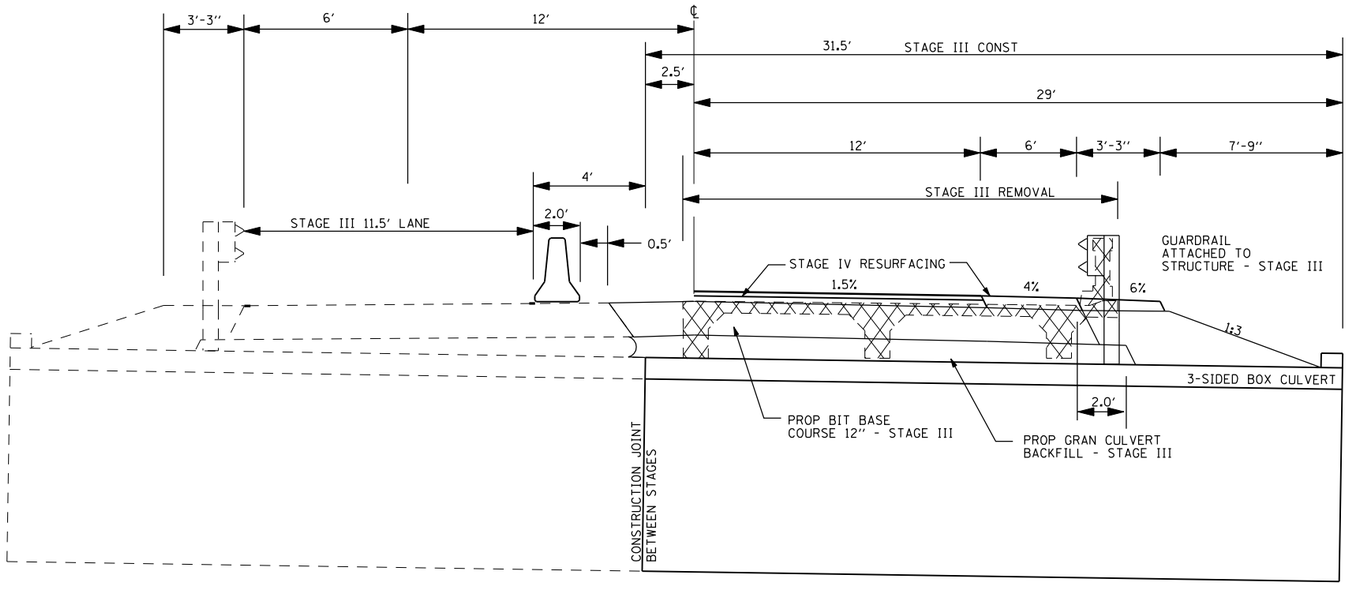
DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d852484\ppbs.final\sn075-0039\stageconstructionbrewster.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlin1

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	30
STA. 399+00	TO STA.410+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





LEGEND

- WORK AREA
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- IMPACT ATTENTUATOR
- 24'' STOP BAR
- DRUMS WITH STEADY BURNING LIGHTS
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADE

STAGE III ON THIS PROJECT CAN NOT START UNTIL STAGE II IS COMPLETE ON BROWN CREEK, SECTION 2(B-6).

TRAFFIC TO RUN ON EXISTING PAVEMENT AND BITUMINOUS BASE COURSE WIDENING DURING STAGE III. THE FINAL SURFACE, LEVELING BINDER AND AGGREGATE SHOULDERS TO BE INSTALLED DURING STAGE IV OF THIS PROJECT.

REMOVE TRAFFIC CONTROL AND PROTECTION STAGE III STANDARD 701321 (SPECIAL) PRIOR TO STAGE IV.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)

THE FINAL SURFACE, LEVELING BINDER, BINDER COURSE AND AGGREGATE SHOULDERS TO BE INSTALLED DURING DURING STAGE IV OF THIS PROJECT.

STAGE III
STA 405+00.00 TO STA 408+70.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION FAP 304 (IL96) OVER BREWSTER CREEK

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
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USER NAME = laughrun1

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	31
STA. 399+00	TO STA.410+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

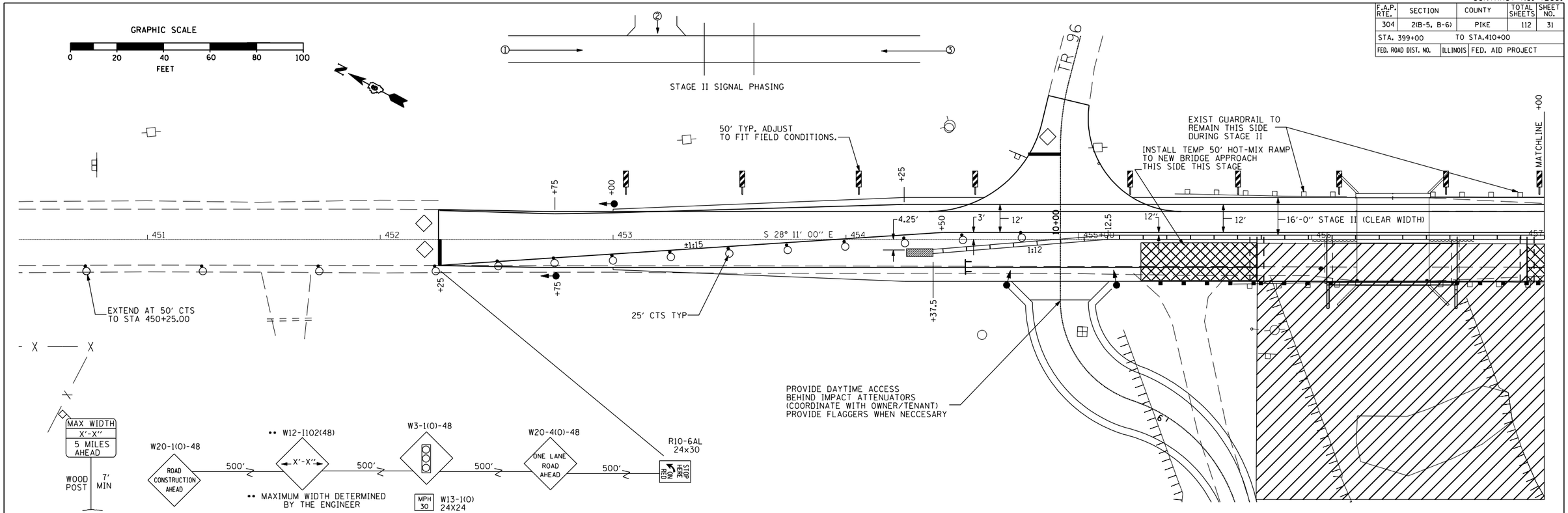
GRAPHIC SCALE

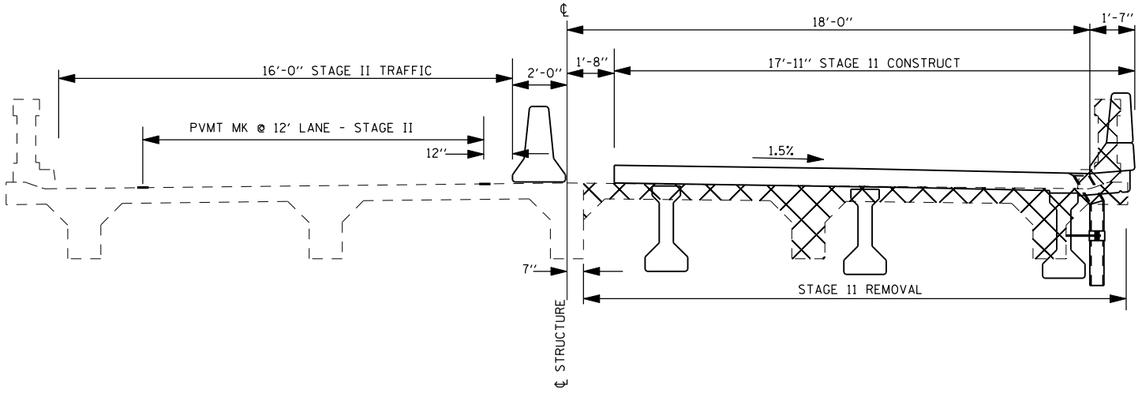
0 20 40 60 80 100

FEET

N

STAGE II SIGNAL PHASING





LEGEND

- WORK AREA
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- IMPACT ATTENTUATOR
- 24" STOP BAR
- DRUMS WITH STEADY BURNING LIGHTS
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADE
- TEMP BIT RAMP

STAGE I WILL CONSIST OF REMOVING THE EXISTING BITUMINOUS SHOULDERS FROM STA 453+00.00 TO STA 456+19+00.00 LT AND RT AND FROM STA 456+51.00 LT TO STA 461+00.00 LT AND FROM STA 456+51.00 RT TO STA 460+45.00 RT AND INSTALLING THE HOT-MIX ASPHALT BASE COURSE AND BASE COURSE WIDENING ON BOTH SIDES OF THE ROADWAY AND DONE AS PER STANDARD 701201 AND STANDARD 701326 AS APPLICABLE. THE WIDENING, TOWNSHIP ROAD RADIUS IMPROVEMENTS AND FE RELOCATION TO BE COMPLETED PRIOR TO STAGE II. COORDINATE WORK ON STAGE I HERE WITH STAGE I AT BREWSTER CREEK TO INSURE THAT EITHER CH 13 AT BREWSTER CREEK OR TR 96 AT BROWN CREEK IS OPEN TO RESIDENTS AT ALL TIMES.

TRAFFIC TO RUN ON EXISTING PAVEMENT AND HOT-MIX ASPHALT BASE COURSE WIDENING ON FAP 304 THIS STAGE. THE FINAL SURFACE, LEVELING BINDER, BINDER COURSE AND AGGREGATE SHOULDERS TO BE INSTALLED DURING DURING STAGE IV OF THIS PROJECT.

PROVIDE TEMPORARY ASPHALT RAMP TO NEW BRIDGE APPROACH PAVEMENT RIGHT SIDE THIS STAGE.

STAGE II
STA 452+25.00 TO STA 457+00.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION FAP 304 (IL96) OVER BROWN CREEK

SCALE: VERT. HORIZ.

DATE

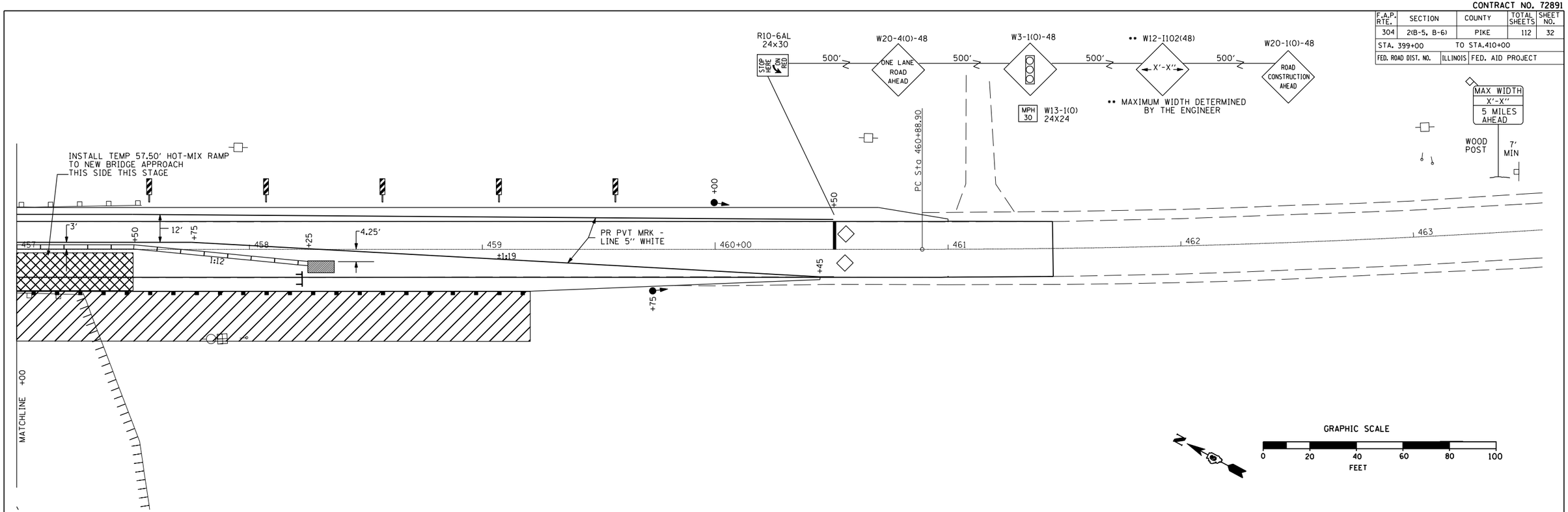
DRAWN BY

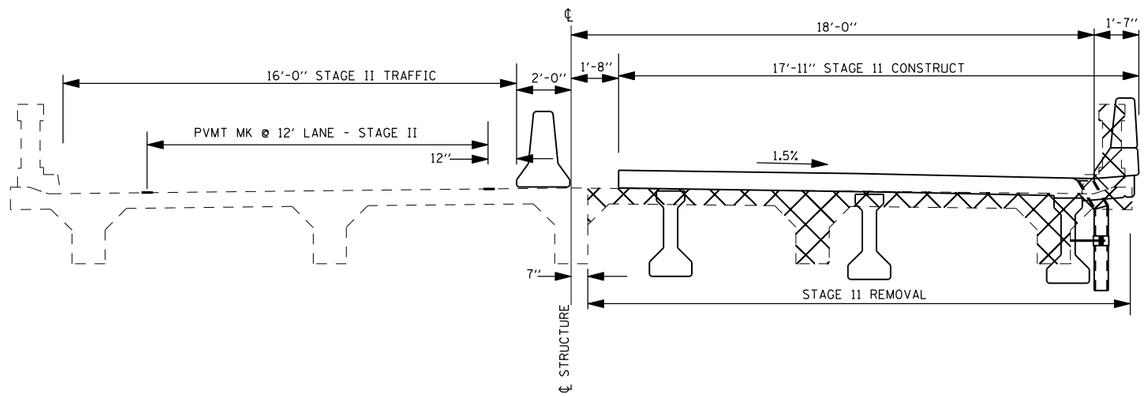
CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\pbs_final\sn075-8040\stageconstructionbrown.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughrn1

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	32
STA. 399+00	TO STA.410+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





LEGEND

- WORK AREA
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- IMPACT ATTENUATOR
- 24'' STOP BAR
- DRUMS WITH STEADY BURNING LIGHTS
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADE

STAGE I WILL CONSIST OF REMOVING THE EXISTING BITUMINOUS SHOULDERS FROM STA 453+00.00 TO STA 456+19+00.00 LT AND RT AND FROM STA 456+51.00 LT TO STA 461+00.00 LT AND FROM STA 456+51.00 RT TO STA 460+45.00 RT AND INSTALLING THE HOT-MIX ASPHALT BASE COURSE AND BASE COURSE WIDENING ON BOTH SIDES OF THE ROADWAY AND DONE AS PER STANDARD 701201 AND STANDARD 701326 AS APPLICABLE. THE WIDENING, TOWNSHIP ROAD RADIUS IMPROVEMENTS AND FE RELOCATION TO BE COMPLETED PRIOR TO STAGE II. COORDINATE WORK ON STAGE I HERE WITH STAGE I AT BREWSTER CREEK TO INSURE THAT EITHER CH 13 AT BREWSTER CREEK OR TR 96 AT BROWN CREEK IS OPEN TO RESIDENTS AT ALL TIMES.

TRAFFIC TO RUN ON EXISTING PAVEMENT AND HOT-MIX ASPHALT BASE COURSE WIDENING ON FAP 304 THIS STAGE. THE FINAL SURFACE, LEVELING BINDER, BINDER COURSE AND AGGREGATE SHOULDERS TO BE INSTALLED DURING DURING STAGE IV OF THIS PROJECT.

PROVIDE TEMPORARY ASPHALT RAMP TO NEW BRIDGE APPROACH PAVEMENT RIGHT SIDE THIS STAGE.

STAGE II

STA 457+00.00 TO STA 461+45.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION
FAP 304 (IL96)
OVER BROWN CREEK

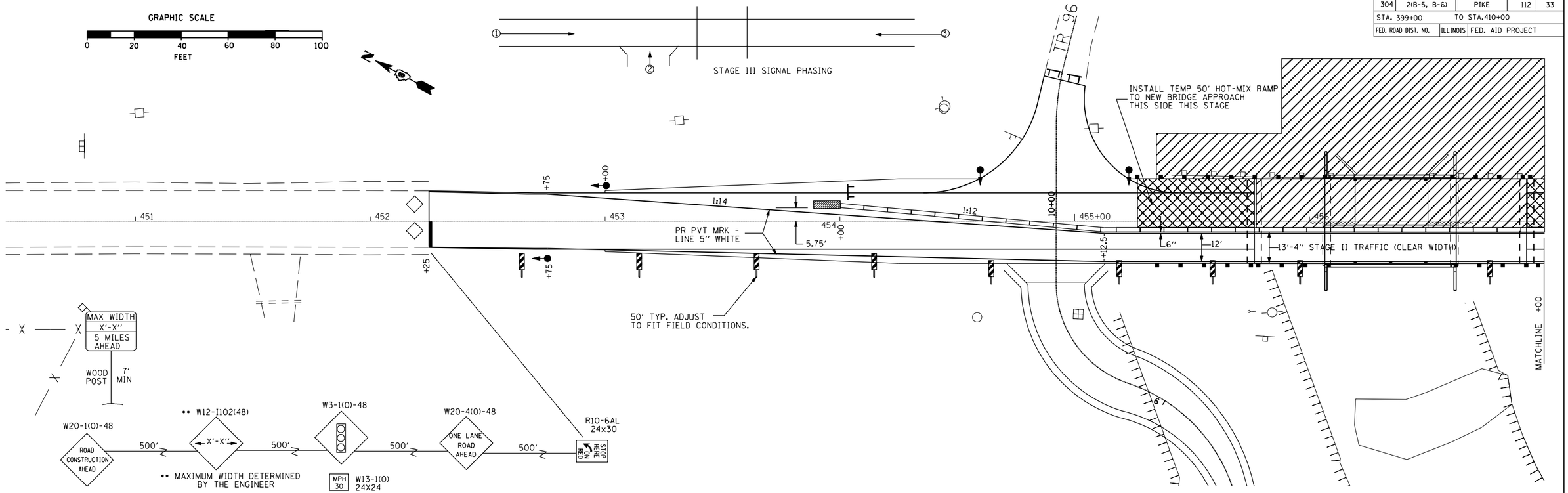
SCALE: VERT.
HORIZ.
DATE

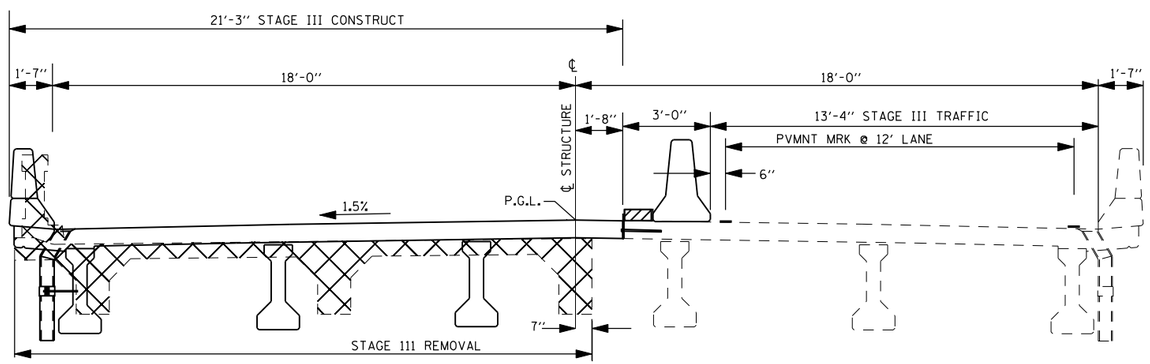
DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\pabe.final\sn075-0040\stageconstructionbrown.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlurl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	33
STA. 399+00	TO STA.410+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





LEGEND

- WORK AREA
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- IMPACT ATTENUATOR
- 24" STOP BAR
- DRUMS WITH STEADY BURNING LIGHTS
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADE

STAGE III ON THIS PROJECT CAN NOT START UNTIL STAGE II IS COMPLETE ON BREWSTER CREEK, SECTION 2(B-5)

TRAFFIC TO RUN ON EXISTING PAVEMENT AND HOT-MIX ASPALT BASE COURSE WIDENING ON FAP 304 THIS STAGE. THE FINAL SURFACE, LEVELING BINDER, BINDER COURSE AND AGGREGATE SHOULDERS TO BE INSTALLED DURING DURING STAGE IV OF THIS PROJECT.

PROVIDE TEMPORARY ASPHALT RAMP TO NEW BRIDGE APPROACH PAVEMENT LEFT SIDE THIS STAGE.

REMOVE TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL) (EXCEPT 50' TEMP BIT RAMPS) PRIOR TO STAGE IV.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)

STAGE III
STA 452+25.00 TO STA 457+00.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION
FAP 304 (IL96)
OVER BROWN CREEK

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
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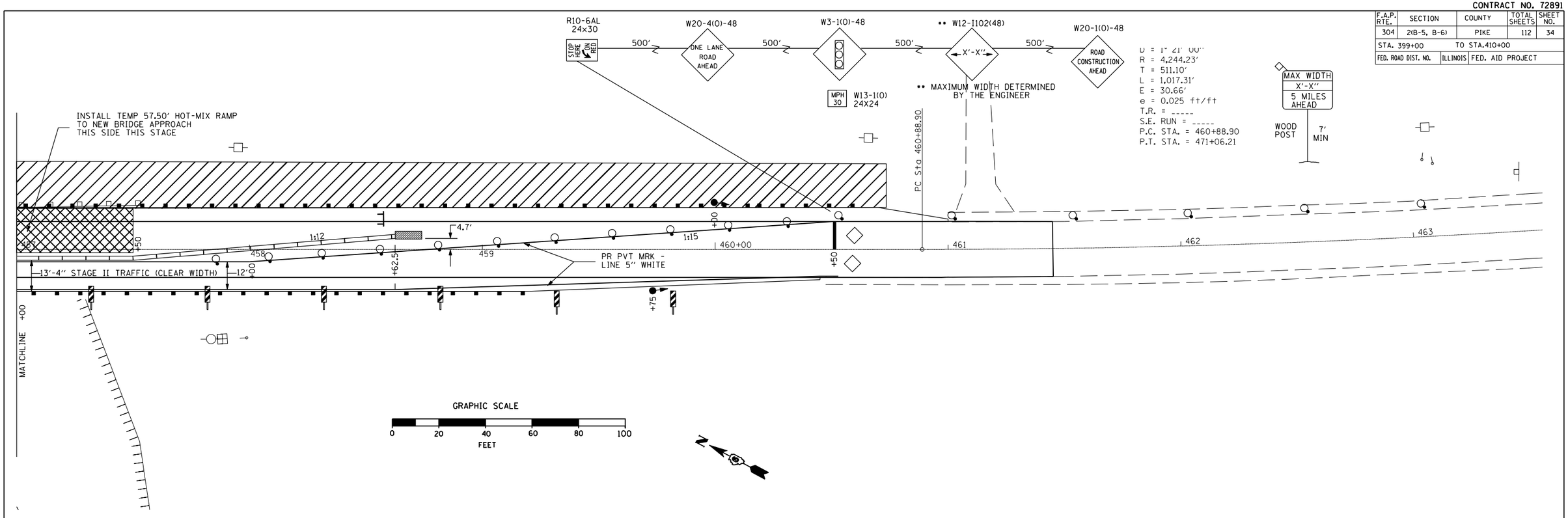
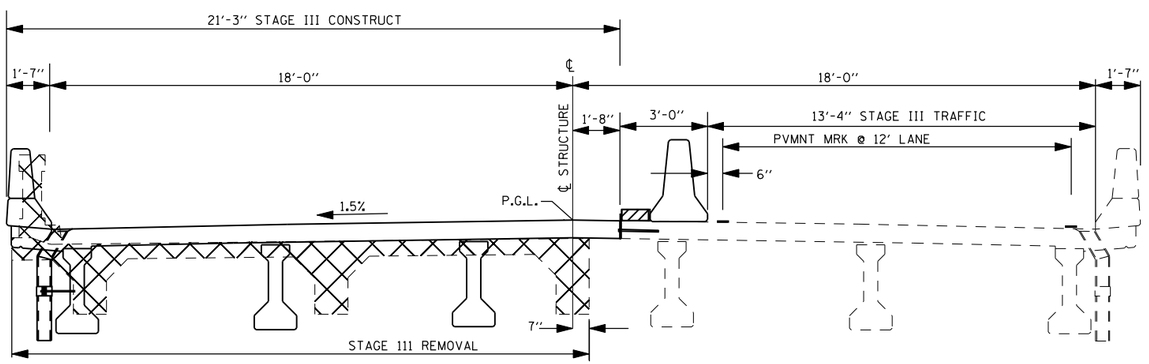
PLOT SCALE = 40.2500 ' / IN.
USER NAME = laughlir

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	34
STA. 399+00	TO STA.410+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





LEGEND

- WORK AREA
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- IMPACT ATTENTUATOR
- 24" STOP BAR
- DRUMS WITH STEADY BURNING LIGHTS
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADE

STAGE III ON THIS PROJECT CAN NOT START UNTIL STAGE II IS COMPLETE ON BREWSTER CREEK, SECTION 2(B-5)

TRAFFIC TO RUN ON EXISTING PAVEMENT AND BITUMINOUS BASE COURSE WIDENING ON FAP 304 THIS STAGE. THE FINAL SURFACE, LEVELING BINDER, BINDER COURSE AND AGGREGATE SHOULDERS TO BE INSTALLED DURING DURING STAGE IV OF THIS PROJECT.

PROVIDE TEMPORARY ASPHALT RAMP TO NEW BRIDGE APPROACH PAVEMENT LEFT SIDE THIS STAGE.

REMOVE TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL) (EXCEPT 50' TEMP BIT RAMPS) PRIOR TO STAGE IV.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)

STAGE III

STA 457+00.00 TO STA 461+45.00

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION FAP 304 (IL96) OVER BROWN CREEK

SCALE: VERT. HORIZ.

DATE

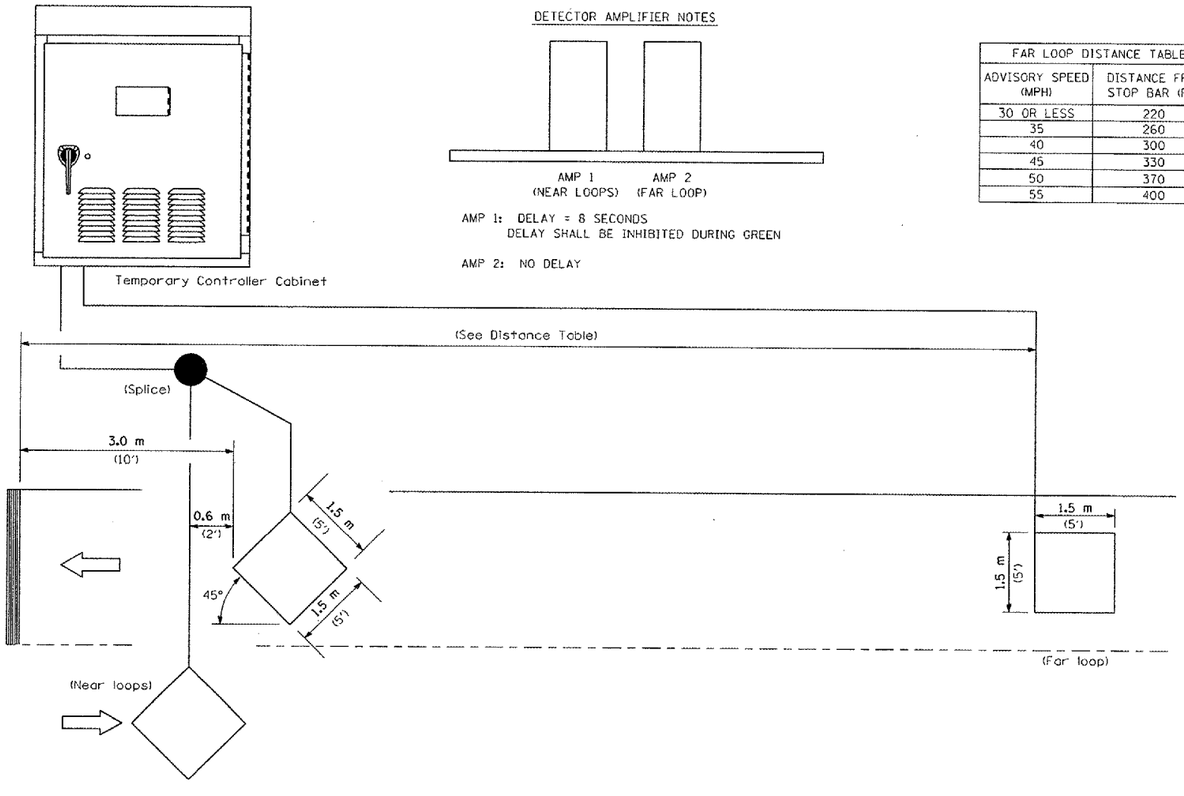
DRAWN BY

CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbs_final\sn075-0040\stageconstructionbrown.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinj

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	20B-5, B-61	PIKE	112	34A.
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DETECTOR AMPLIFIER NOTES

AMP 1: DELAY = 8 SECONDS
DELAY SHALL BE INHIBITED DURING GREEN

AMP 2: NO DELAY

FAR LOOP DISTANCE TABLE	
ADVISORY SPEED (MPH)	DISTANCE FROM STOP BAR (FT.)
30 OR LESS	220
35	260
40	300
45	330
50	370
55	400

NOTE: All loops centered in lane.

INDUCTION LOOP DETECTOR

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION

TEMPORARY BRIDGE TRAFFIC SIGNAL LOOP PLACEMENT DETAIL SHEET

SCALE: VERT. NONE HORIZ.

DRAWN BY DIST. 6

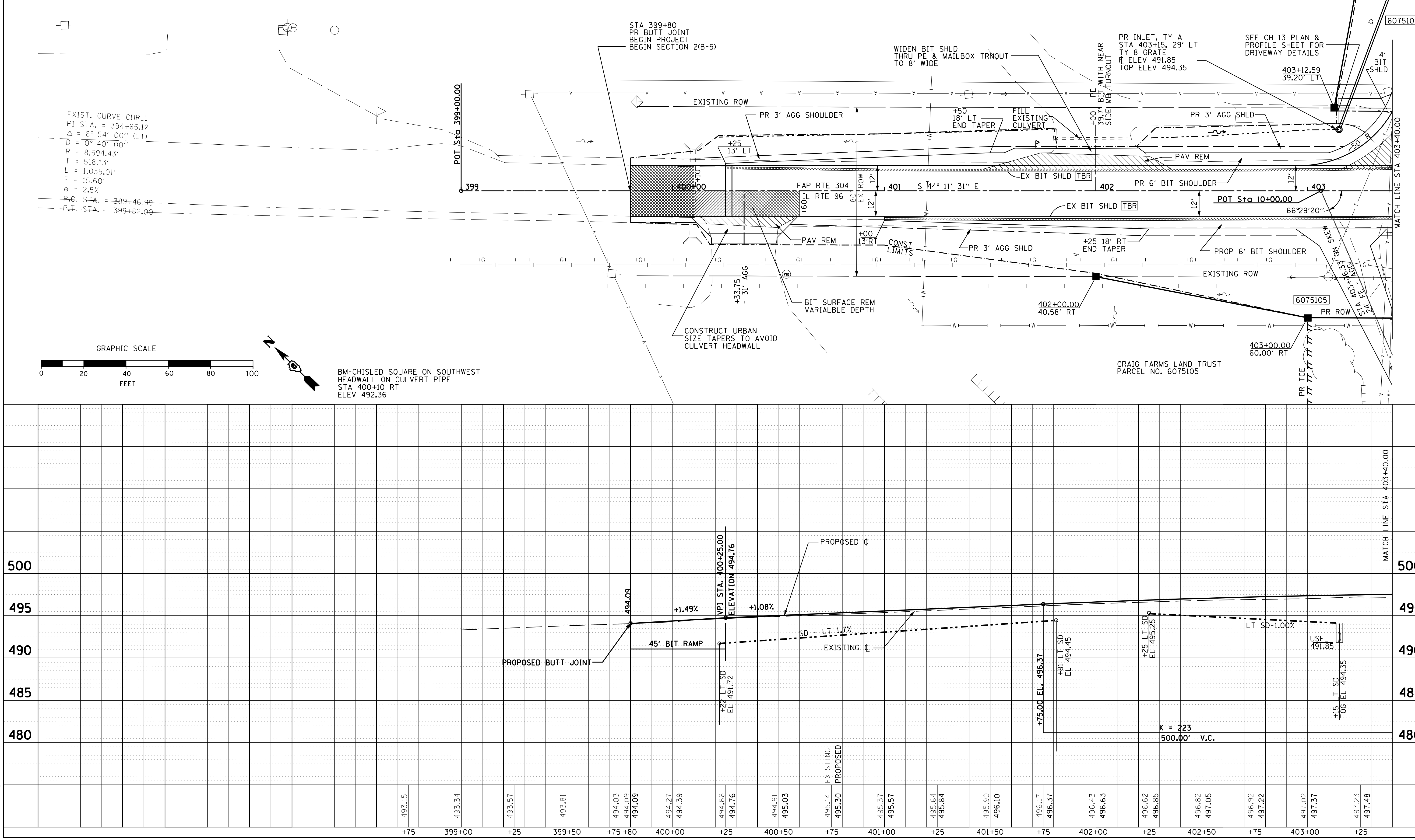
DATE

CHECKED BY

PLOT DATE = Aug-13-2007 10:22:35AM
FILE NAME = c:\proj_recs\d552484\loopdetail.dgn
PLOT SCALE = 183.0824 ' / IN.
USER NAME = laughlin1

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	35
STA. 399+80	TO STA.403+40			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



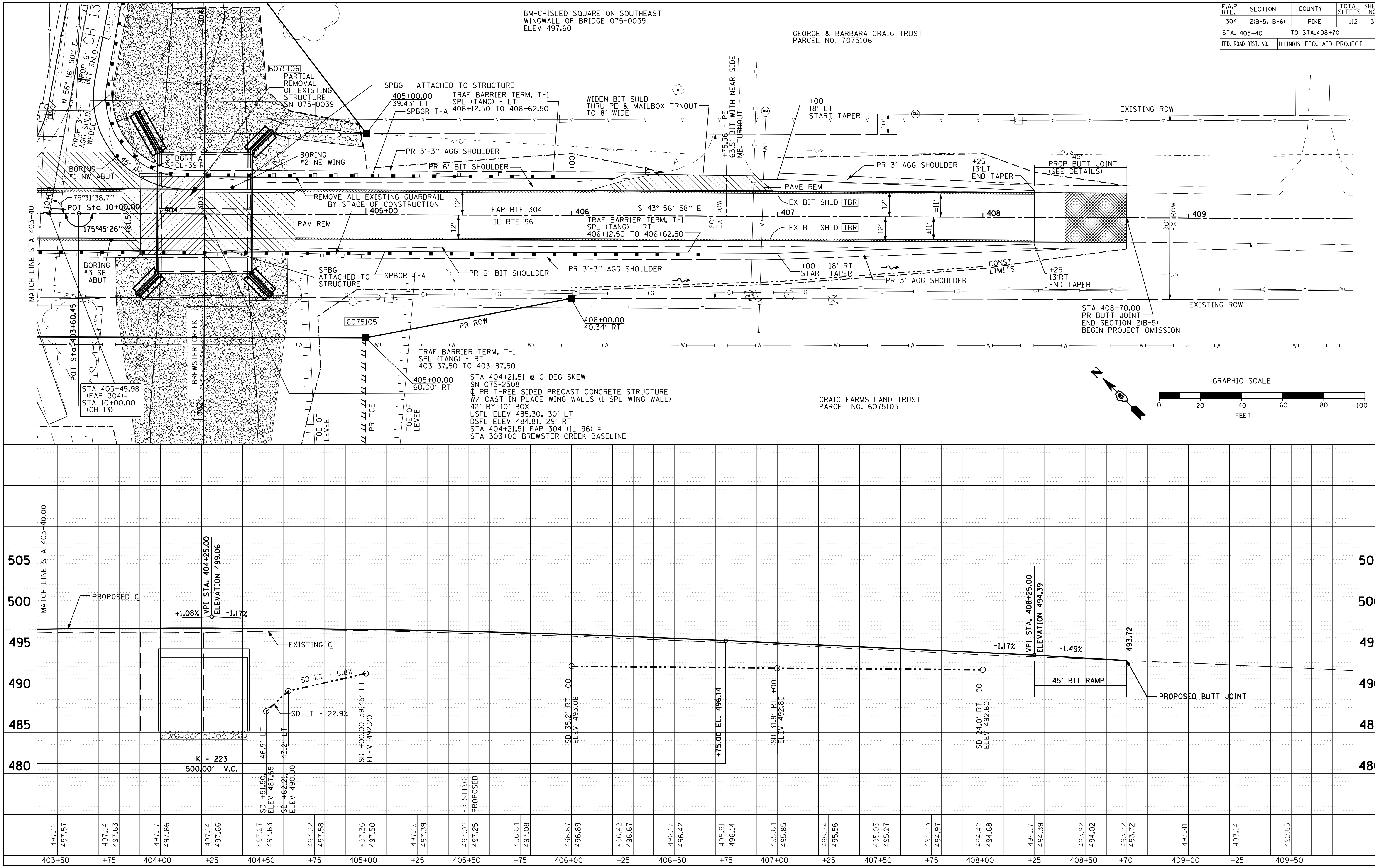
PLAN — NOTE BOOK NO. — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK NO. — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD — BY — DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbe_final\sn075-0039\plan_profile.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	36
STA. 403+40	TO STA.408+70			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BM-CHISLED SQUARE ON SOUTHEAST
WINGWALL OF BRIDGE 075-0039
ELEV 497.60
GEORGE & BARBARA CRAIG TRUST
PARCEL NO. 7075106
6075106
PARTIAL REMOVAL OF EXISTING STRUCTURE SN 075-0039
SPBG - ATTACHED TO STRUCTURE
405+00.00
39.43' LT
SPBGR T-A
TRAF BARRIER TERM, T-1
SPL (TANG) - LT
406+12.50 TO 406+62.50
WIDEN BIT SHLD THRU PE & MAILBOX TRNOUT TO 8' WIDE
+75.36 - PE
63.5' BIT WITH NEAR SIDE MB TURNOUT
+00
18' LT
START TAPER
EXISTING ROW
PROP 3'-3" AGG SHLD WEDGE
PROP 6' BIT SHLD
N 56° 16' 50" E
CH 13
BORING #1 NW ABUT
SPBGRT-A
SPCL-39'R
BORING #2 NE WING
PR 3'-3" AGG SHOULDER
PR 6' BIT SHOULDER
PR 3' AGG SHOULDER
+25
13'LT
END TAPER
45'
PROP BUTT JOINT (SEE DETAILS)
PAVE REM
79°31'38.7"
POT Sta 10+00.00
175°45'26"
REMOVE ALL EXISTING GUARDRAIL BY STAGE OF CONSTRUCTION
405+00
FAP RTE 304
IL RTE 96
406
S 43° 56' 58" E
407
408
409
EX BIT SHLD TBR
PAV REM
TRAF BARRIER TERM, T-1
SPL (TANG) - RT
406+12.50 TO 406+62.50
80' EX ROW
90' EX ROW
MATCH LINE STA 403+40
BORING #3 SE ABUT
SPBG ATTACHED TO STRUCTURE
SPBGR T-A
PR 6' BIT SHOULDER
PR 3'-3" AGG SHOULDER
+00 - 18' RT
START TAPER
PR 3' AGG SHOULDER
CONST LIMITS
+25
13'RT
END TAPER
EXISTING ROW
STA 408+70.00
PR BUTT JOINT
END SECTION 2(B-5)
BEGIN PROJECT OMISSION
6075105
PR ROW
406+00.00
40.34' RT
POT Sta=403+60.45
BREWSTER CREEK
TRAF BARRIER TERM, T-1
SPL (TANG) - RT
403+37.50 TO 403+87.50
405+00.00
60.00' RT
STA 404+21.51 @ 0 DEG SKEW
SN 075-2508
℄ PR THREE SIDED PRECAST CONCRETE STRUCTURE W/ CAST IN PLACE WING WALLS (1 SPL WING WALL)
42' BY 10' BOX
USFL ELEV 485.30, 30' LT
DSFL ELEV 484.81, 29' RT
STA 404+21.51 FAP 304 (IL 96) =
STA 303+00 BREWSTER CREEK BASELINE
STA 403+45.98 (FAP 304)=
STA 10+00.00 (CH 13)
TOE OF LEVEE
PR TCE
TOE OF LEVEE
CRAIG FARMS LAND TRUST
PARCEL NO. 6075105
GRAPHIC SCALE
0 20 40 60 80 100
FEET
MATCH LINE STA 403+40.00
PROPOSED ℄
+1.08%
VPI STA. 404+25.00
ELEVATION 499.06
-1.17%
EXISTING ℄
SD LT - 5.8%
SD LT - 22.9%
K = 223
500.00' V.C.
SD +51.50 46.9' LT ELEV 487.55
SD +62.21 43.2' LT ELEV 490.00
SD +00.00 39.45' LT ELEV 492.20
EXISTING
PROPOSED
SD 35.2' RT +00 ELEV 493.08
+75.00 EL. 496.14
SD 31.8' RT +00 ELEV 492.80
SD 24.0' RT +00 ELEV 492.60
-1.17%
VPI STA. 408+25.00
ELEVATION 494.39
-1.49%
493.72
45' BIT RAMP
PROPOSED BUTT JOINT
505 500 495 490 485 480
497.12 497.57
497.14 497.63
497.17 497.66
497.14 497.66
497.27 497.63
497.32 497.58
497.36 497.50
497.19 497.39
497.02 497.25
496.84 497.08
496.67 496.89
496.42 496.67
496.17 496.42
495.91 496.14
495.64 495.85
495.34 495.56
495.03 495.27
494.73 494.97
494.42 494.68
494.17 494.39
493.92 494.02
493.72 493.72
493.41
493.14
492.85
403+50 +75 404+00 +25 404+50 +75 405+00 +25 405+50 +75 406+00 +25 406+50 +75 407+00 +25 407+50 +75 408+00 +25 408+50 +70 409+00 +25 409+50

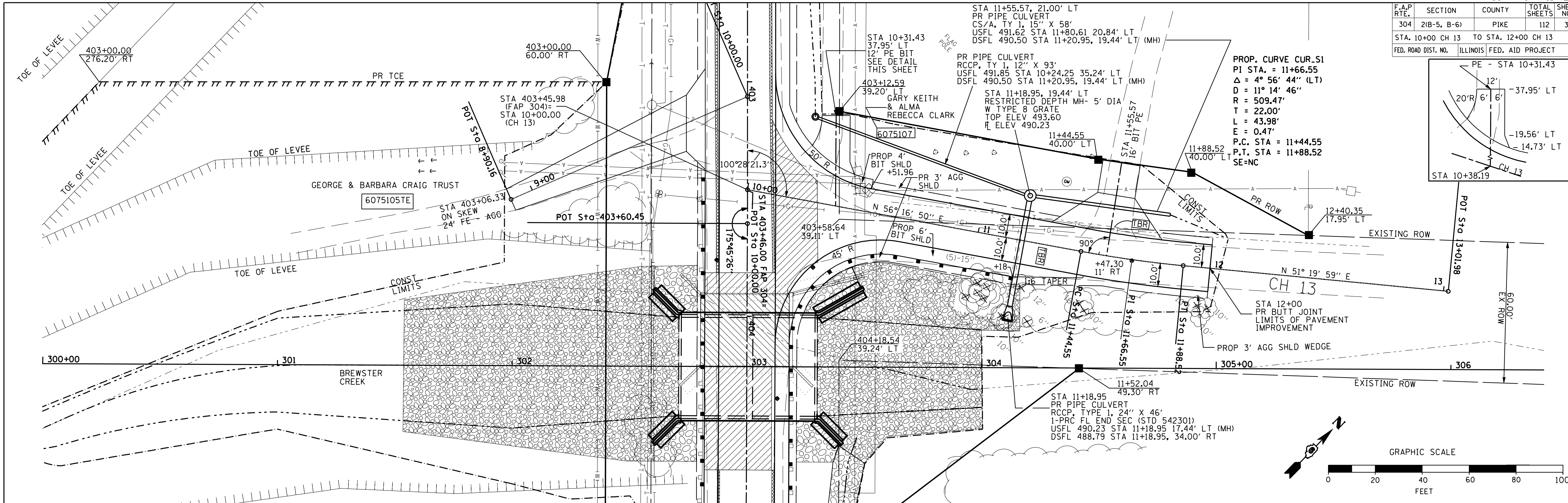
PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.O. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO.

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATIONS CHKD, NOTE BOOK, NO.

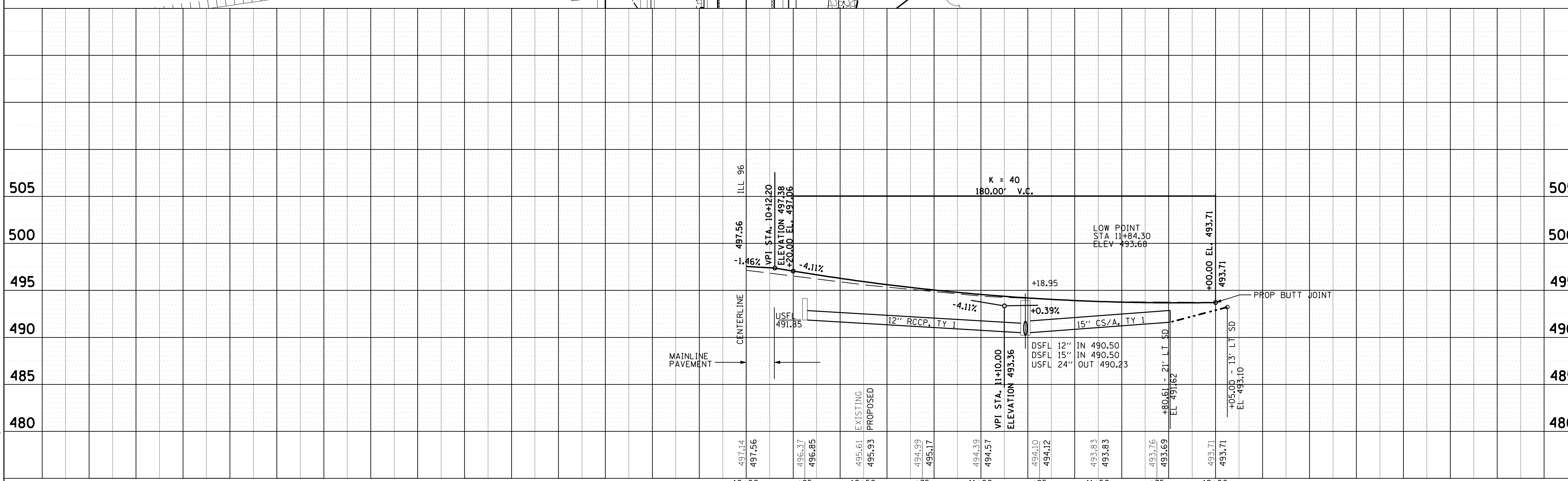
PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\pwbs.final\sn075-0039\plan-profile.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	37
STA. 10+00 CH 13	TO STA. 12+00 CH 13			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOE OF LEVEE
403+00.00
276.20' RT
403+00.00
60.00' RT
PR TCE
POT Sta 8+90.16
STA 403+45.98 (FAP 304)= STA 10+00.00 (CH 13)
GEORGE & BARBARA CRAIG TRUST
6075105TE
STA 403+06.33 ON SKEW 24' FE - AGG
POT Sta 403+60.45
CONST LIMITS
BREWSTER CREEK
300+00
301
302
303
304
305+00
306
STA 10+31.43
37.95' LT
12' PE BIT
SEE DETAIL
THIS SHEET
403+12.59
39.20' LT
GARY KEITH & ALMA REBECCA CLARK
6075107
PROP 4' BIT SHLD
+51.96
PR 3' AGG SHLD
N 56° 16' 50" E
403+58.64
39.11' LT
PROP 6' BIT SHLD
404+18.54
39.24' LT
STA 11+55.57, 21.00' LT
PR PIPE CULVERT
CS/A, TY 1, 15" X 58'
USFL 491.62 STA 11+80.61 20.84' LT
DSFL 490.50 STA 11+20.95, 19.44' LT (MH)
PR PIPE CULVERT
RCCP, TY 1, 12" X 93'
USFL 491.85 STA 10+24.25 35.24' LT
DSFL 490.50 STA 11+20.95, 19.44' LT (MH)
STA 11+18.95, 19.44' LT
RESTRICTED DEPTH MH- 5' DIA
W TYPE 8 GRATE
TOP ELEV 493.60
FL ELEV 490.23
11+44.55
40.00' LT
STA 11+55.57 16' BIT PE
11+88.52
40.00' LT
CONST LIMITS
PR ROW
12+40.35
17.95' LT
EXISTING ROW
1:6 TAPER
+47.30
11' RT
N 51° 19' 59" E
CH 13
STA 12+00
PR BUTT JOINT
LIMITS OF PAVEMENT IMPROVEMENT
PROP 3' AGG SHLD WEDGE
PC Sta 11+44.55
PI Sta 11+66.55
PT Sta 11+88.52
POT Sta 13+01.98
60.00' EX ROW
11+52.04
49.30' RT
STA 11+18.95
PR PIPE CULVERT
RCCP, TYPE 1, 24" X 46'
1-PRC FL END SEC (STD 542301)
USFL 490.23 STA 11+18.95 17.44' LT (MH)
DSFL 488.79 STA 11+18.95, 34.00' RT
PROP. CURVE CUR_S1
PI STA. = 11+66.55
Δ = 4° 56' 44" (LT)
D = 11° 14' 46"
R = 509.47'
T = 22.00'
L = 43.98'
E = 0.47'
P.C. STA = 11+44.55
P.T. STA = 11+88.52
SE=NC
PE - STA 10+31.43
12'
20'R
6'
6'
-37.95' LT
-19.56' LT
-14.73' LT
CH 13
STA 10+38.19
GRAPHIC SCALE
0
20
40
60
80
100
FEET



505
500
495
490
485
480
ILL 96
497.56
VPI STA. 10+12.20
ELEVATION 497.38
+20.00 EL. 497.06
K = 40
180.00' V.C.
-1.46%
-4.11%
LOW POINT
STA 11+84.30
ELEV 493.68
+00.00 EL. 493.71
493.71
+18.95
PROP BUTT JOINT
-4.11%
+0.39%
USFL 491.85
12" RCCP, TY 1
15" CS/A, TY 1
DSFL 12" IN 490.50
DSFL 15" IN 490.50
USFL 24" OUT 490.23
CENTERLINE
MAINLINE PAVEMENT
EXISTING
PROPOSED
VPI STA. 11+10.00
ELEVATION 493.36
+80.61 - 21' LT SD
EL 491.62
+05.00 - 13' LT SD
EL 493.10
497.14
497.56
496.37
496.85
495.61
495.93
494.99
495.17
494.39
494.57
494.10
494.12
493.83
493.83
493.76
493.69
493.71
493.71
10+00
+25
10+50
+75
11+00
+25
11+50
+75
12+00

CH 13 STA 10+00.00 TO STA 12+00.00

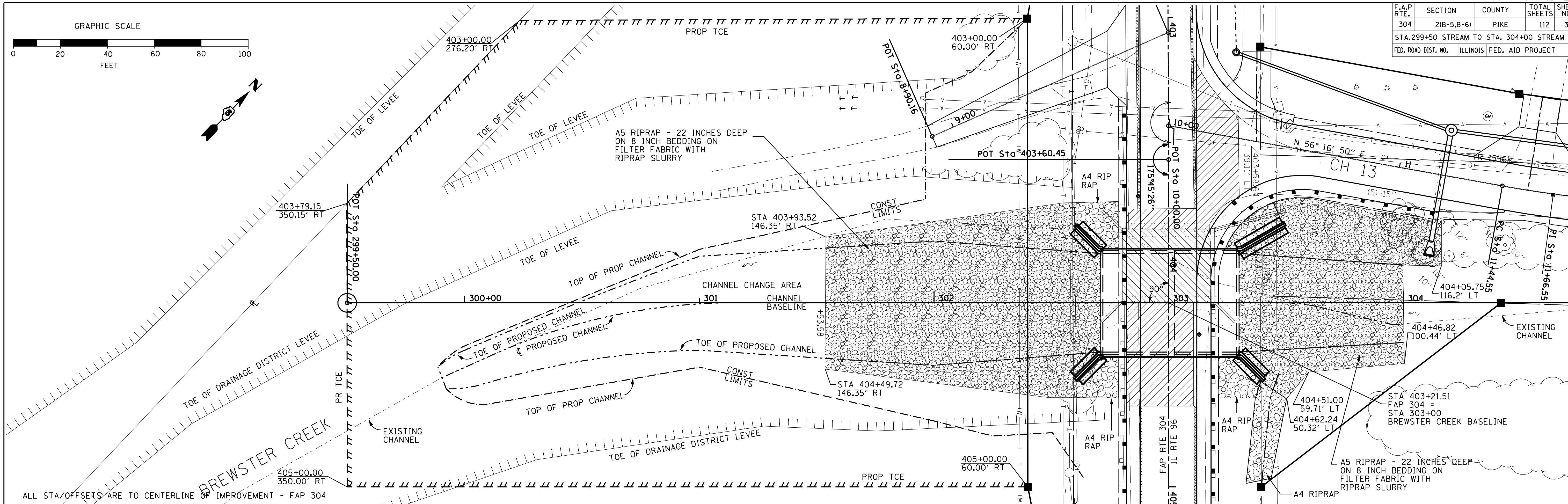
PLAN — DATE / BY — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME — NOTE BOOK / NO.

PROFILE — DATE / BY — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATNS CHKD — NOTE BOOK / NO.

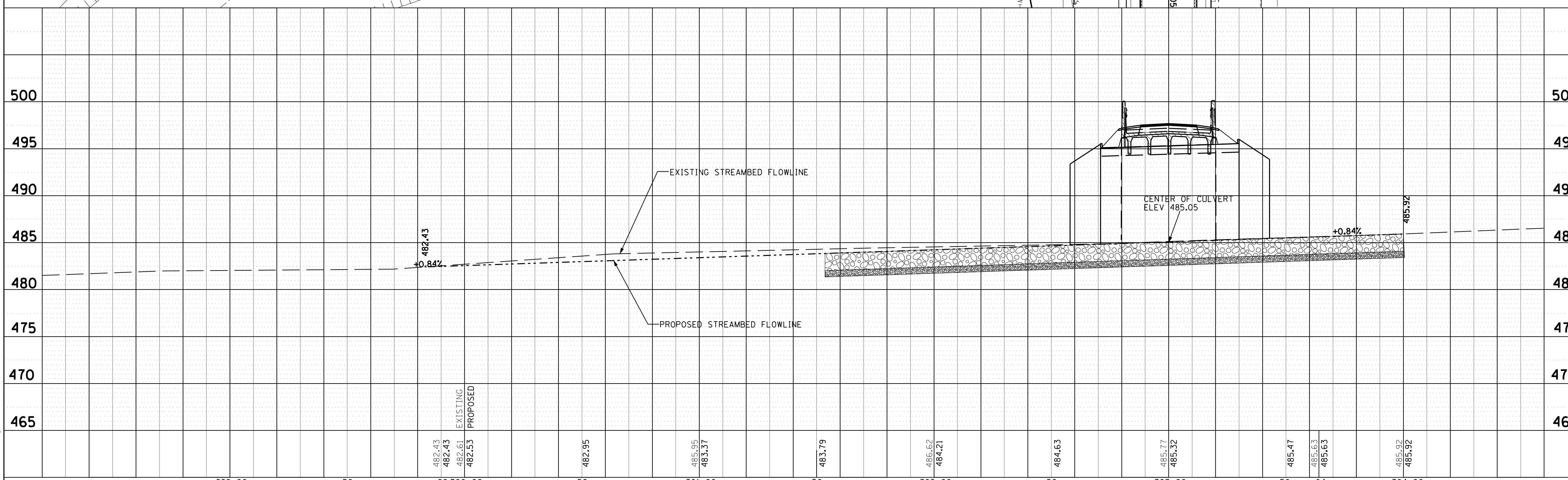
PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\psbe.final\sn075-0037\plan-profile.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	38
STA.299+50 STREAM TO STA. 304+00 STREAM				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GRAPHIC SCALE
0 20 40 60 80 100
FEET
N
PROP TCE
403+00.00
276.20' RT
403+00.00
60.00' RT
POT Sta 8+90.16
9+00
TOE OF LEVEE
A5 RIPRAP - 22 INCHES DEEP ON 8 INCH BEDDING ON FILTER FABRIC WITH RIPRAP SLURRY
POT Sta 403+60.45
403+79.15
350.15' RT
POT Sta 299+50.00
CONST LIMITS
STA 403+93.52
146.35' RT
A4 RIP RAP
TOP OF PROP CHANNEL
CHANNEL CHANGE AREA
300+00
301
302
303
304
CHANNEL BASELINE
+53.58
TOE OF PROPOSED CHANNEL
℄ PROPOSED CHANNEL
STA 404+49.72
146.35' RT
TOE OF DRAINAGE DISTRICT LEVEE
PR TCE
EXISTING CHANNEL
BREWSTER CREEK
405+00.00
350.00' RT
405+00.00
60.00' RT
ALL STA/OFFSETS ARE TO CENTERLINE OF IMPROVEMENT - FAP 304
10+00
POT Sta 10+00.00
175°45'26"
403
404
405
90°
FAP RTE 304
IL RTE 96
N 56° 16' 50" E
CH 13
TR 1556E
PC Sta 11+44.55
PI Sta 11+66.55
404+05.75
116.2' LT
404+46.82
100.44' LT
EXISTING CHANNEL
404+51.00
59.71' LT
404+62.24
50.32' LT
STA 403+21.51
FAP 304 =
STA 303+00
BREWSTER CREEK BASELINE
A5 RIPRAP - 22 INCHES DEEP ON 8 INCH BEDDING ON FILTER FABRIC WITH RIPRAP SLURRY
A4 RIPRAP



500
495
490
485
480
475
470
465
EXISTING STREAMBED FLOWLINE
PROPOSED STREAMBED FLOWLINE
CENTER OF CULVERT
ELEV 485.05
482.43
+0.84%
+0.84%
485.92
EXISTING
PROPOSED
482.43
482.43
482.61
482.53
482.95
485.95
483.37
483.79
486.62
484.21
484.63
485.77
485.32
485.47
485.63
485.63
485.92
485.92
299+00
+50
+90 300+00
+50
301+00
+50
302+00
+50
303+00
+50
+64
304+00

PLAN | NOTE BOOK | NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | R.I. OF WAY CHECKED | CADD FILE NAME | BY | DATE

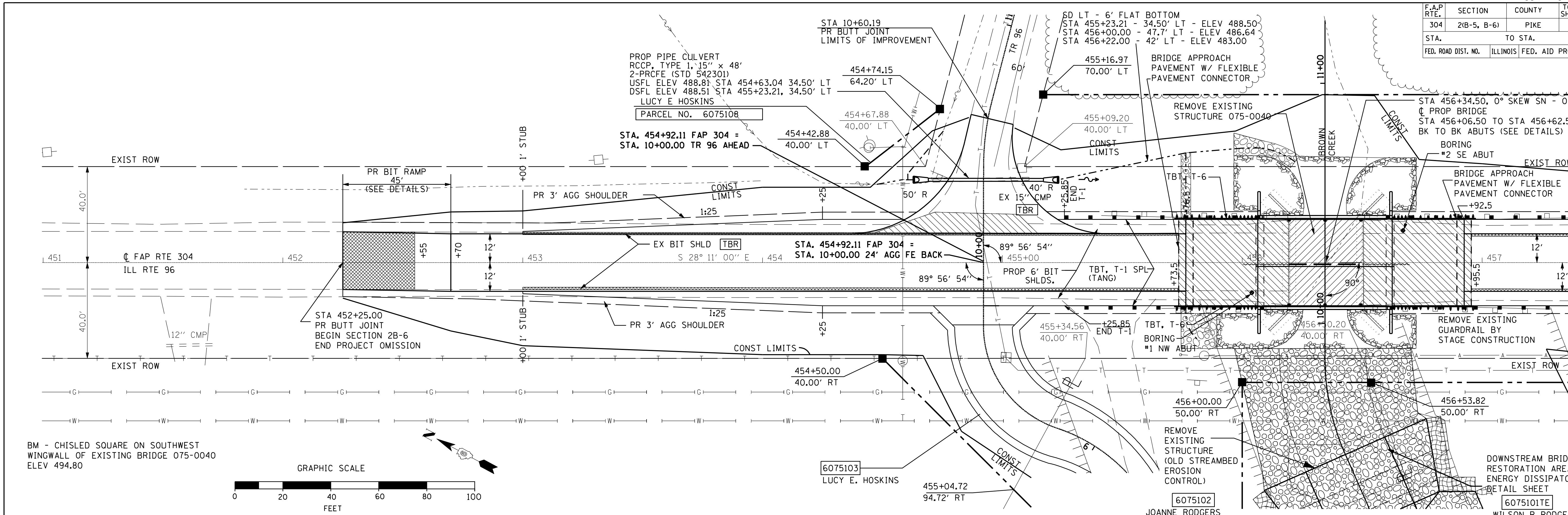
PROFILE | NOTE BOOK | NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATNS CHKD | BY | DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbs.final\sn075-0039\plan-profile.stream.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

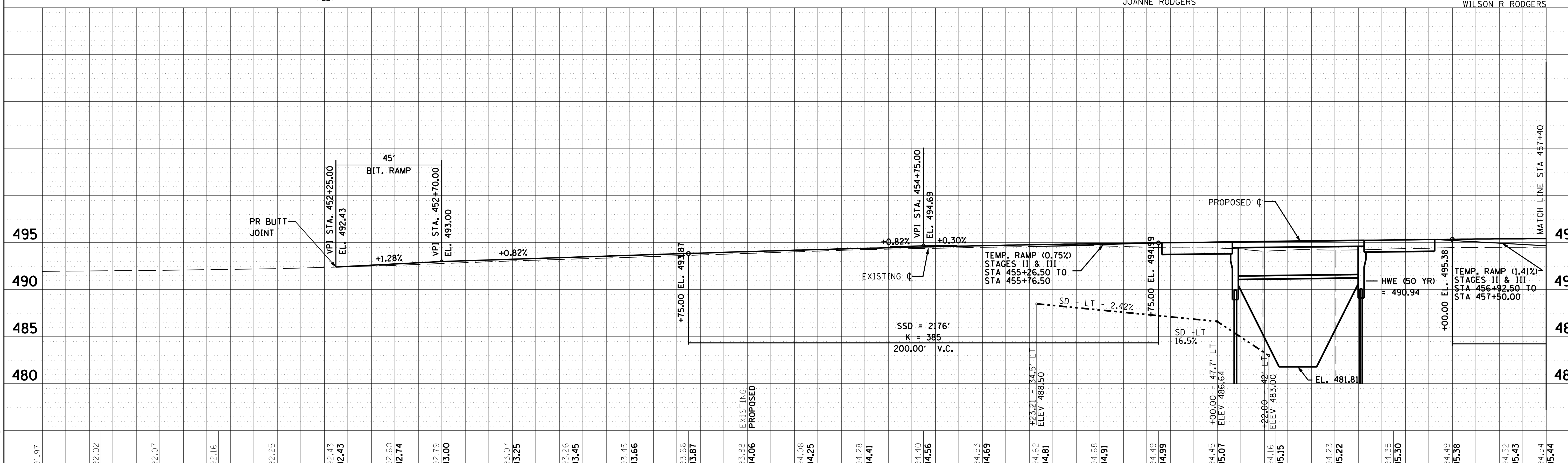
BREWSTER CREEK STREAM - STA 299+50 TO STA 304+00

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	39
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXIST ROW
PR BIT RAMP 45' (SEE DETAILS)
PR 3' AGG SHOULDER
CONST LIMITS
1:25
℄ FAP RTE 304
ILL RTE 96
451
452
453
S 28° 11' 00'' E
454
455+00
457
EX BIT SHLD TBR
STA 452+25.00
PR BUTT JOINT
BEGIN SECTION 2B-6
END PROJECT OMISSION
12'' CMP
+00 1' STUB
PROP PIPE CULVERT
RCCP, TYPE 1, 15'' x 48'
2-PRCFE (STD 542301)
USFL ELEV 488.81 STA 454+63.04 34.50' LT
DSFL ELEV 488.51 STA 455+23.21, 34.50' LT
LUCY E HOSKINS
PARCEL NO. 6075108
STA. 454+92.11 FAP 304 =
STA. 10+00.00 TR 96 AHEAD
STA. 454+92.11 FAP 304 =
STA. 10+00.00 24' AGG FE BACK
STA 10+60.19
PR BUTT JOINT
LIMITS OF IMPROVEMENT
454+74.15
64.20' LT
454+67.88
40.00' LT
454+42.88
40.00' LT
454+50.00
40.00' RT
455+16.97
70.00' LT
455+09.20
40.00' LT
455+34.56
40.00' RT
455+04.72
94.72' RT
SD LT - 6' FLAT BOTTOM
STA 455+23.21 - 34.50' LT - ELEV 488.50
STA 456+00.00 - 47.7' LT - ELEV 486.64
STA 456+22.00 - 42' LT - ELEV 483.00
BRIDGE APPROACH
PAVEMENT W/ FLEXIBLE
PAVEMENT CONNECTOR
REMOVE EXISTING
STRUCTURE 075-0040
TR 96
60'
50' R
40' R
EX 15'' CMP
TBR
89° 56' 54''
PROP 6' BIT SHLDS.
TBT. T-1 SPL (TANG)
TBT. T-6
+25.85 END T-1
BORING #1 NW ABUT
BORING #2 SE ABUT
BROWN CREEK
11+00
10+00
90°
STA 456+34.50, 0° SKEW SN - 075-0509
℄ PROP BRIDGE
STA 456+06.50 TO STA 456+62.50
BK TO BK ABUTS (SEE DETAILS)
+92.5
+95.5
+73.5
12'
REMOVE EXISTING
GUARDRAIL BY
STAGE CONSTRUCTION
456+00.00
50.00' RT
456+53.82
50.00' RT
456+50.20
40.00' RT
REMOVE
EXISTING
STRUCTURE
(OLD STREAMBED
EROSION
CONTROL)
6075102
JOANNE RODGERS
6075103
LUCY E. HOSKINS
DOWNSTREAM BRIDGE SCOUR
RESTORATION AREA - SEE
ENERGY DISSIPATOR
DETAIL SHEET
6075101TE
WILSON R RODGERS
MATCH LINE STA 457+40
BM - CHISLED SQUARE ON SOUTHWEST
WINGWALL OF EXISTING BRIDGE 075-0040
ELEV 494.80
GRAPHIC SCALE
0 20 40 60 80 100
FEET



495
490
485
480
PR BUTT JOINT
VPI STA. 452+25.00
EL. 492.43
45'
BIT. RAMP
VPI STA. 452+70.00
EL. 493.00
+1.28%
+0.82%
+75.00 EL. 493.87
VPI STA. 454+75.00
EL. 494.69
+0.82%
+0.30%
EXISTING ℄
SSD = 2176'
K = 385
200.00' V.C.
TEMP. RAMP (0.75%)
STAGES II & III
STA 455+26.50 TO
STA 455+76.50
+75.00 EL. 494.99
SD - LT - 2.42%
SD -LT
16.5%
PROPOSED ℄
HWE (50 YR)
= 490.94
EL. 481.81
+00.00 EL. 495.38
TEMP. RAMP (1.41%)
STAGES II & III
STA 456+92.50 TO
STA 457+50.00
MATCH LINE STA 457+40
EXISTING
PROPOSED
+23.21 - 34.5' LT
ELEV 488.50
+00.00 - 47.7' LT
ELEV 486.64
+22.00 - 42' LT
ELEV 483.00

Station	Existing	Proposed
451+00	491.97	
+25	492.02	
451+50	492.07	
+75	492.16	
452+00	492.25	
+25	492.43	492.43
452+50	492.60	492.74
+70	492.79	493.00
453+00	493.07	493.25
+25	493.26	493.45
453+50	493.45	493.66
+75	493.66	493.87
454+00	493.88	494.06
+25	494.08	494.25
454+50	494.28	494.41
+75	494.40	494.56
455+00	494.53	494.69
+25	494.62	494.81
455+50	494.68	494.91
+75	494.49	494.99
456+00	494.45	495.07
+25	494.16	495.15
456+50	494.23	495.22
+75	494.35	495.30
457+00	494.49	495.38
+25	494.52	495.43
+40	494.54	495.44

PLAN — NOTE BOOK / NO. — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.O.W. CHECKED / CADD FILE NAME — BY — DATE

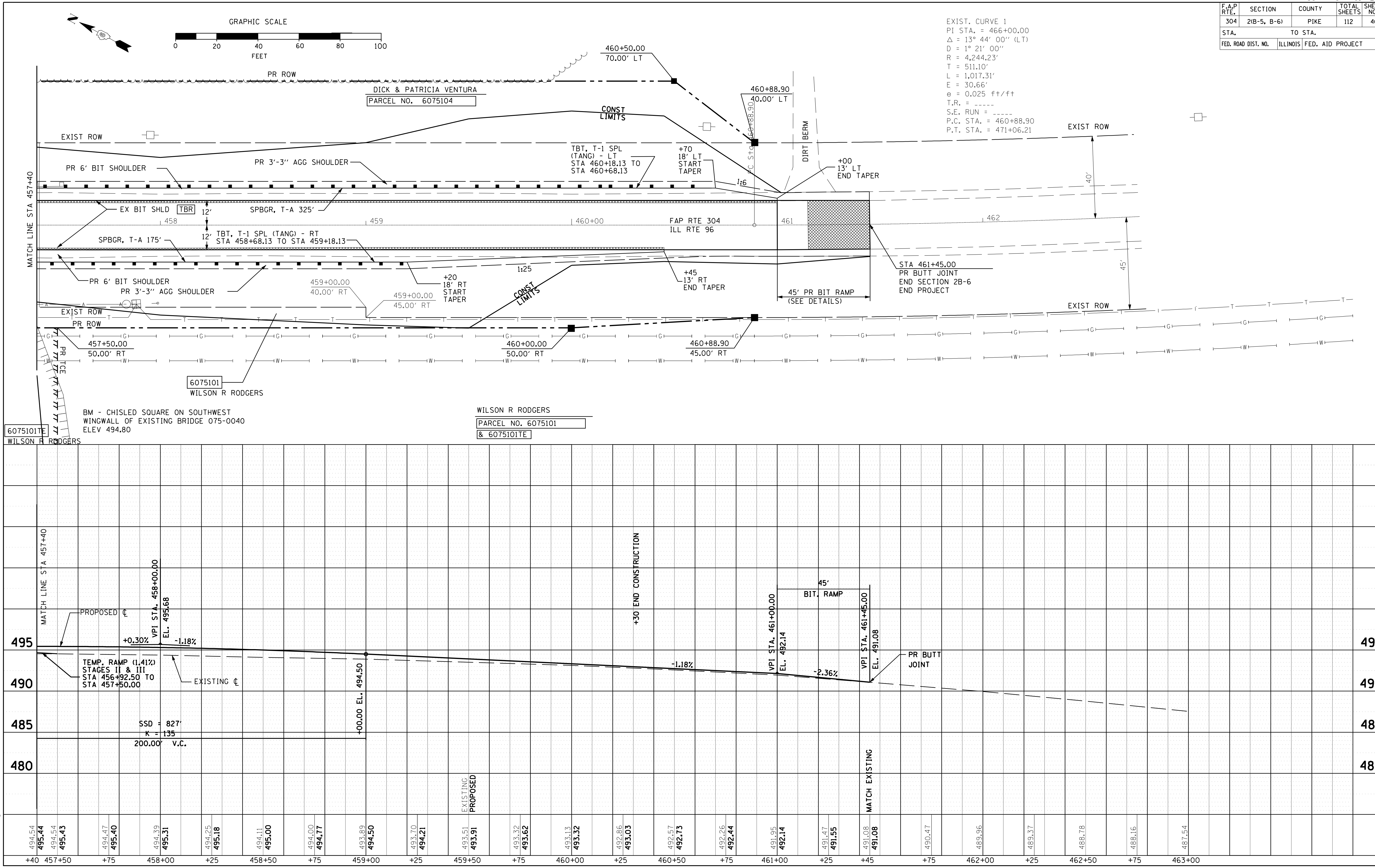
PROFILE — NOTE BOOK / NO. — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATNS CHKD — BY — DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\pabs.final\sn075-0040\plan-profile.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

FAP 304 (IL RT 96) STA 452+25.00 TO STA 457+40.00

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	40
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GRAPHIC SCALE
0 20 40 60 80 100
FEET
EXIST. CURVE 1
PI STA. = 466+00.00
Δ = 13° 44' 00'' (LT)
D = 1° 21' 00''
R = 4,244.23'
T = 511.10'
L = 1,017.31'
E = 30.66'
e = 0.025 ft/ft
T.R. = _____
S.E. RUN = _____
P.C. STA. = 460+88.90
P.T. STA. = 471+06.21
PR ROW
DICK & PATRICIA VENTURA
PARCEL NO. 6075104
460+50.00
70.00' LT
460+88.90
40.00' LT
CONST LIMITS
EXIST ROW
DIRT BERM
PR 6' BIT SHOULDER
PR 3'-3'' AGG SHOULDER
TBT, T-1 SPL (TANG) - LT STA 460+18.13 TO STA 460+68.13
+70 18' LT START TAPER
+00 13' LT END TAPER
1:6
EX BIT SHLD TBR
SPBGR, T-A 325'
12'
FAP RTE 304
ILL RTE 96
MATCH LINE STA 457+40
SPBGR, T-A 175'
TBT, T-1 SPL (TANG) - RT STA 458+68.13 TO STA 459+18.13
+20 18' RT START TAPER
+45 13' RT END TAPER
1:25
STA 461+45.00
PR BUTT JOINT
END SECTION 2B-6
END PROJECT
45' PR BIT RAMP (SEE DETAILS)
40'
45'
459+00.00
40.00' RT
459+00.00
45.00' RT
457+50.00
50.00' RT
460+00.00
50.00' RT
460+88.90
45.00' RT
PR TCE
6075101
WILSON R RODGERS
BM - CHISLED SQUARE ON SOUTHWEST WINGWALL OF EXISTING BRIDGE 075-0040 ELEV 494.80
PARCEL NO. 6075101 & 6075101TE
6075101TE
WILSON R RODGERS
PROPOSED ℄
VPI STA. 458+00.00 EL. 495.68
+0.30%
-1.18%
TEMP. RAMP (1.41%) STAGES II & III STA 456+92.50 TO STA 457+50.00
EXISTING ℄
+00.00 EL. 494.50
SSD = 827'
K = 135
200.00' V.C.
+30 END CONSTRUCTION
-1.18%
45' BIT. RAMP
VPI STA. 461+00.00 EL. 492.14
VPI STA. 461+45.00 EL. 491.08
-2.36%
PR BUTT JOINT
EXISTING PROPOSED
MATCH EXISTING
495 490 485 480
494.54 495.44 | 494.54 495.43 | 494.47 495.40 | 494.39 495.31 | 494.25 495.18 | 494.11 495.00 | 494.00 494.77 | 493.89 494.50 | 493.70 494.21 | 493.51 493.91 | 493.32 493.62 | 493.13 493.32 | 492.86 493.03 | 492.57 492.73 | 492.26 492.44 | 491.95 492.14 | 491.47 491.55 | 491.08 491.08 | 490.47 | 489.96 | 489.37 | 488.78 | 488.16 | 487.54
+40 457+50 +75 458+00 +25 458+50 +75 459+00 +25 459+50 +75 460+00 +25 460+50 +75 461+00 +25 +45 +75 462+00 +25 462+50 +75 463+00

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.I. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO. — BY — DATE

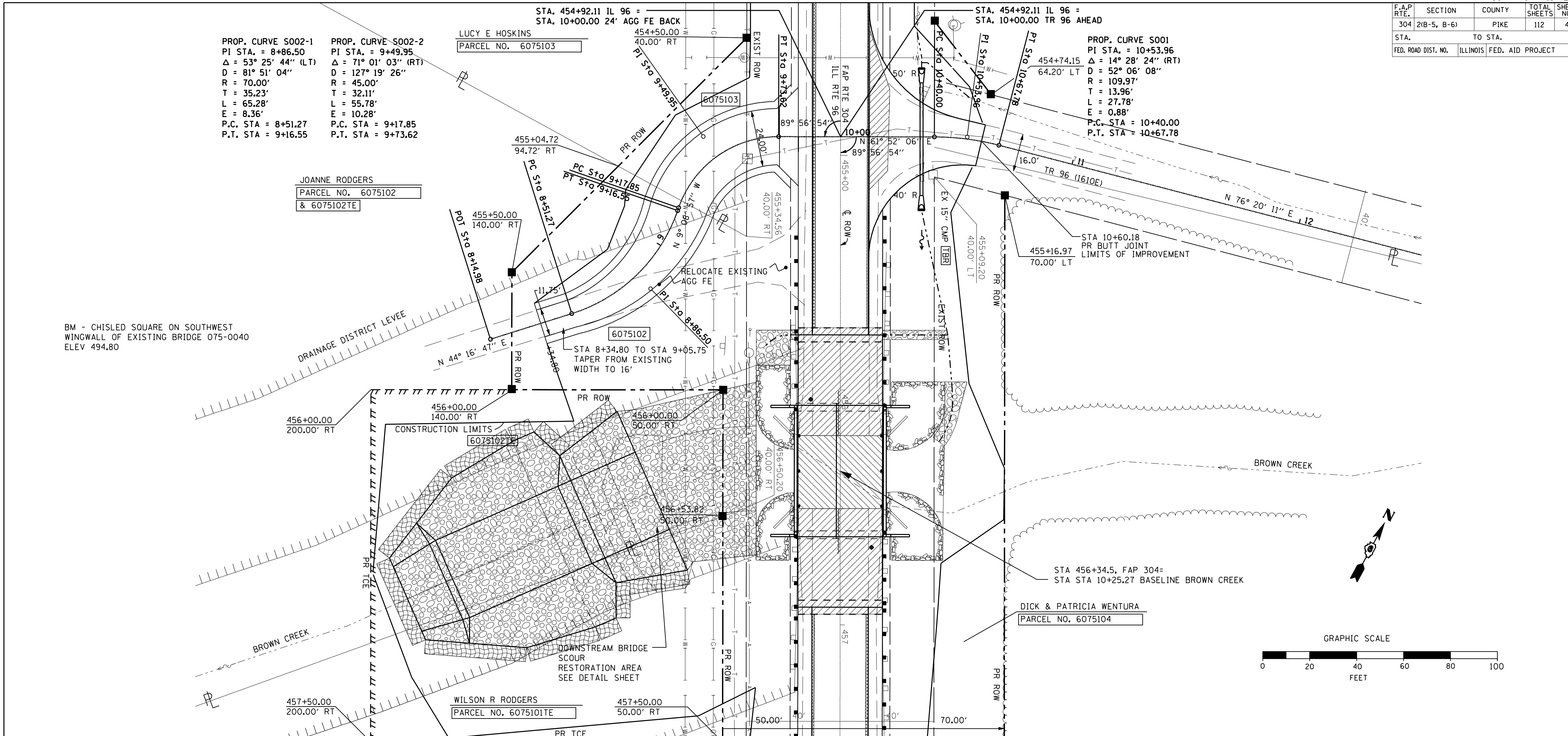
PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHK'D, NOTE BOOK, NO. — BY — DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\psbe.final\sn075-0040\plan-profile.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

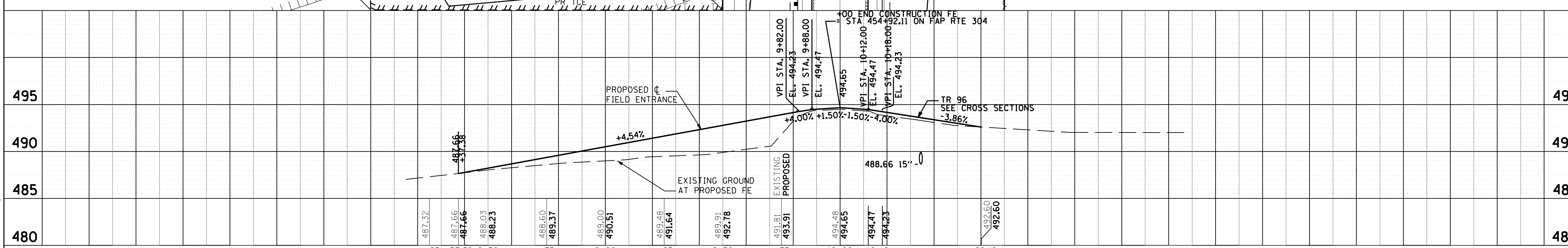
FAP 304 (IL RT 96) STA 452+25.00 TO STA 457+40.00

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	41
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROP. CURVE S002-1
PI STA. = 8+86.50
Δ = 53° 25' 44" (LT)
D = 81° 51' 04"
R = 70.00'
T = 35.23'
L = 65.28'
E = 8.36'
P.C. STA = 8+51.27
P.T. STA = 9+16.55
PROP. CURVE S002-2
PI STA. = 9+49.95
Δ = 71° 01' 03" (RT)
D = 127° 19' 26"
R = 45.00'
T = 32.11'
L = 55.78'
E = 10.28'
P.C. STA = 9+17.85
P.T. STA = 9+73.62
LUCY E HOSKINS
PARCEL NO. 6075103
STA. 454+92.11 IL 96 =
STA. 10+00.00 24' AGG FE BACK
STA. 454+92.11 IL 96 =
STA. 10+00.00 TR 96 AHEAD
PROP. CURVE S001
PI STA. = 10+53.96
Δ = 14° 28' 24" (RT)
D = 52° 06' 08"
R = 109.97'
T = 13.96'
L = 27.78'
E = 0.88'
P.C. STA = 10+40.00
P.T. STA = 10+67.78
454+50.00
40.00' RT
454+74.15
64.20' LT
JOANNE RODGERS
PARCEL NO. 6075102
& 6075102TE
455+04.72
94.72' RT
455+50.00
140.00' RT
PC Sta 9+17.85
PT Sta 9+16.55
PC Sta 8+51.27
POT Sta 8+14.98
PI Sta 9+49.95
PI Sta 9+73.62
PI Sta 8+86.50
PC Sta 10+40.00
PI Sta 10+53.96
PT Sta 10+67.78
6075103
6075102
FAP RTE 304
ILL RTE 96
EXIST ROW
PR ROW
89° 56' 54"
N 61° 52' 06" E
TR 96 (1610E)
N 76° 20' 11" E
16.0'
24.00'
50' R
40' R
EX 15" CMP TBR
455+34.56
40.00' RT
455+09.20
40.00' LT
STA 10+60.18
PR BUTT JOINT
LIMITS OF IMPROVEMENT
455+16.97
70.00' LT
RELOCATE EXISTING
AGG FE
BM - CHISLED SQUARE ON SOUTHWEST
WINGWALL OF EXISTING BRIDGE 075-0040
ELEV 494.80
DRAINAGE DISTRICT LEVEE
N 44° 16' 47" E
11.75'
STA 8+34.80 TO STA 9+05.75
TAPER FROM EXISTING
WIDTH TO 16'
456+00.00
200.00' RT
456+00.00
140.00' RT
CONSTRUCTION LIMITS
6075102TE
456+00.00
50.00' RT
456+50.20
40.00' RT
456+53.82
50.00' RT
BROWN CREEK
STA 456+34.5, FAP 304=
STA STA 10+25.27 BASELINE BROWN CREEK
DICK & PATRICIA WENTURA
PARCEL NO. 6075104
PR TCE
DOWNSTREAM BRIDGE
SCOUR
RESTORATION AREA
SEE DETAIL SHEET
GRAPHIC SCALE
0 20 40 60 80 100
FEET
N
457+50.00
200.00' RT
WILSON R RODGERS
PARCEL NO. 6075101TE
457+50.00
50.00' RT
50.00'
70.00'



495
490
485
480
+00 END CONSTRUCTION FE
= STA 454+92.11 ON FAP RTE 304
VPI STA. 9+82.00
EL. 494.23
VPI STA. 9+88.00
EL. 494.47
494.65
VPI STA. 10+12.00
EL. 494.47
VPI STA. 10+18.00
EL. 494.23
PROPOSED ℄
FIELD ENTRANCE
TR 96
SEE CROSS SECTIONS
-3.86%
+4.54%
+4.00%
+1.50%
-1.50%
-4.00%
487.66
+37.38
488.66 15"
EXISTING GROUND
AT PROPOSED FE
EXISTING
PROPOSED
487.32
487.66
487.66
488.03
488.23
488.60
489.37
489.00
490.51
489.48
491.64
489.91
492.78
491.81
493.91
494.48
494.65
494.47
494.23
492.60
492.60
+25
+37.38
8+50
+75
9+00
+25
9+50
+75
10+00
+12
+18
+60.18

PLAN | NOTE BOOK NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | R/L OF WAY CHECKED | CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATNS CHKD | BY | DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\pseb.final\sn075-0040\plan-profile.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

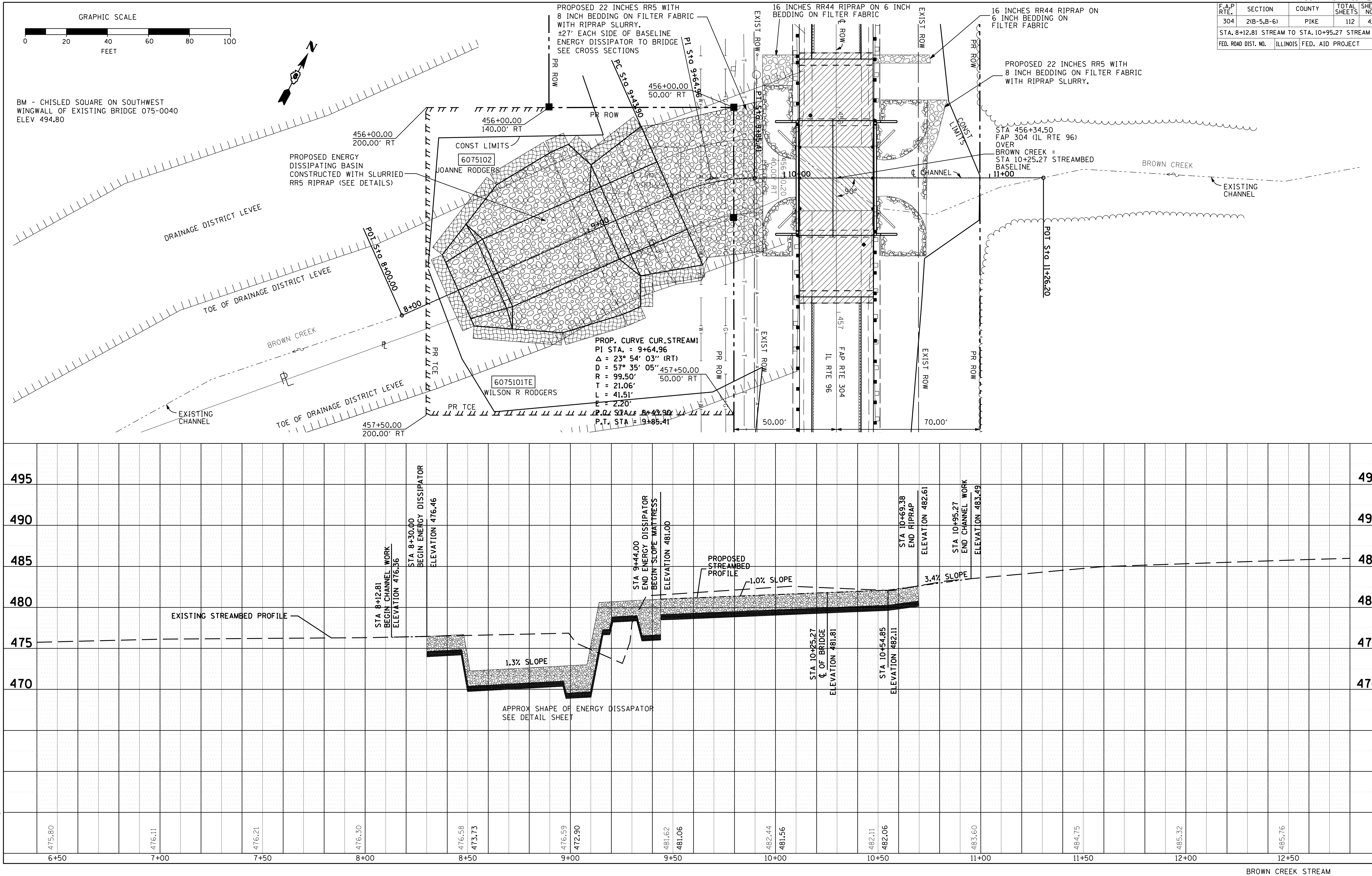
BROWN CREEK PR FE ENTRANCE

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	42

STA. 8+12.81 STREAM TO STA. 10+95.27 STREAM

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



GRAPHIC SCALE
0 20 40 60 80 100
FEET
BM - CHISLED SQUARE ON SOUTHWEST WINGWALL OF EXISTING BRIDGE 075-0040 ELEV 494.80
PROPOSED 22 INCHES RR5 WITH 8 INCH BEDDING ON FILTER FABRIC WITH RIPRAP SLURRY. ±27' EACH SIDE OF BASELINE ENERGY DISSIPATOR TO BRIDGE SEE CROSS SECTIONS
16 INCHES RR44 RIPRAP ON 6 INCH BEDDING ON FILTER FABRIC
16 INCHES RR44 RIPRAP ON 6 INCH BEDDING ON FILTER FABRIC
PROPOSED 22 INCHES RR5 WITH 8 INCH BEDDING ON FILTER FABRIC WITH RIPRAP SLURRY.
PR ROW
EXIST ROW
PC Sta 9+43.90
PI Sta 9+64.96
PT Sta 9+85.41
456+00.00 50.00' RT
456+00.00 140.00' RT
456+00.00 200.00' RT
CONST LIMITS
6075102 JOANNE RODGERS
PROPOSED ENERGY DISSIPATING BASIN CONSTRUCTED WITH SLURRIED RR5 RIPRAP (SEE DETAILS)
DRAINAGE DISTRICT LEVEE
TOE OF DRAINAGE DISTRICT LEVEE
POT Sta 8+00.00
8+00
9+00
10+00
11+00
BROWN CREEK
EXISTING CHANNEL
PR TCE
6075101TE WILSON R RODGERS
457+50.00 50.00' RT
457+50.00 200.00' RT
PROP. CURVE CUR_STREAM1
PI STA. = 9+64.96
Δ = 23° 54' 03" (RT)
D = 57° 35' 05"
R = 99.50'
T = 21.06'
L = 41.51'
E = 2.20'
P.C. STA = 9+43.90
P.T. STA = 9+85.41
FAP RTE 304
IL RTE 96
50.00'
70.00'
℄ ROW
90°
STA 456+34.50 FAP 304 (IL RTE 96) OVER BROWN CREEK = STA 10+25.27 STREAMBED BASELINE
℄ CHANNEL
POT Sta 11+26.20
495
490
485
480
475
470
STA 8+12.81 BEGIN CHANNEL WORK ELEVATION 476.36
STA 8+30.00 BEGIN ENERGY DISSIPATOR ELEVATION 476.46
STA 9+44.00 END ENERGY DISSIPATOR BEGIN SLOPE MATTRESS ELEVATION 481.00
PROPOSED STREAMBED PROFILE
1.0% SLOPE
STA 10+69.38 END RIPRAP ELEVATION 482.61
STA 10+95.27 END CHANNEL WORK ELEVATION 483.49
3.4% SLOPE
EXISTING STREAMBED PROFILE
1.3% SLOPE
STA 10+25.27 ℄ OF BRIDGE ELEVATION 481.81
STA 10+54.85 ELEVATION 482.11
APPROX SHAPE OF ENERGY DISSAPATOR SEE DETAIL SHEET
475.80
476.11
476.21
476.30
476.58 473.73
476.59 472.90
481.62 481.06
482.44 481.56
482.11 482.06
483.60
484.75
485.32
485.76
6+50
7+00
7+50
8+00
8+50
9+00
9+50
10+00
10+50
11+00
11+50
12+00
12+50
BROWN CREEK STREAM

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.T. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK NO. — BY — DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK NO. — BY — DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbs.final\sn075-0040\plan-profile.stream.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	43
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STORM WATER POLLUTION PREVENTION PLAN

Route: FAP 304 Marked: IL-96

Section: 2(B-5, B-6) Project No.:
County: Pike Contract No.: 72891

This plan has been prepared to comply with the provision of the NPDES Permit Number ILR10 Issued by the Illinois Environmental Protection Agency for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquire of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(District Engineer) 7/19/07 (Date)

The following plan was established and included in these plans to direct the Contractor in the placement of temporary erosion control systems and to provide a storm water pollution prevention plan for compliance under NPDES. The Contractor shall abide to all requirements within this plan as part of the contract.

The purpose of this plan is to prevent / minimize siltation within the construction zone and to eliminate sediments from entering and leaving the construction zone by utilizing proper temporary erosion control systems and providing ground cover within a reasonable time.

Certain items, as shown in this plan and referenced by the legend, shall be placed by the Contractor at the beginning of construction. Other items shall be placed by the Contractor as directed by the Engineer on a case by case situation resulting from the Contractor's sequence of activities, time of the year, and expected weather conditions.

The Contractor shall place permanent erosion control systems and seeding within a reasonable amount of time; therefore, reducing the amount of area being open to the possibility of erosion and reducing the amount of temporary erosion control systems and temporary seeding. The Resident Engineer will determine if temporary erosion control systems shown in the plan can be deleted, the size of the proposed ditch checks, the proper method of installation, and if any additional temporary erosion control systems shall be added which are not included in this plan. The Contractor shall perform all work as directed by the Engineer and as shown in special details and in Standard 280001 of the plans.

The special provisions Temporary Erosion Control Seeding additionally supplement this plan.

All disturbed areas having high potential for erosion, as determined by the Engineer, shall be temporarily seeded or permanently seeded by October 1, 2008 and shall not be reopened until after the winter shutdown period.

SITE DESCRIPTION

Description of Construction Activity:

1. The proposed project consists of the reconstruction of two bridges as one joint project in Pike County. Approximately 500 feet of roadway on either side of each bridge will also be widened and resurfaced.
2. Excavation for ditches, constructing inlets, bituminous resurfacing, and other miscellaneous work to complete improvements to the proposed roadways.

Description of Intended Sequence of Major Construction Activities Which Will Disturb Earth and Lead to Possible Erosion for Major Portions of the Construction Site:

1. Tree removal will be completed throughout the project.
2. Drainage structures will be constructed, repaired and reconstructed at various locations throughout the project.
3. Excavation of ditches and grading and shaping will be completed at various locations throuhgout the project.
4. Placement, maintenance, removal and proper clean-up of temporary erosion control, such as erosion control fence, hay or straw bale ditch checks, slope mattress, temporary seeding, etc.
5. Placement of permanent erosion control, such as slope mattress ditch lining, energy dissipating basin, erosion control blanket, seeding, etc.

Area of Construction Site:

The total area of the construction sites combined is estimated to be 6.3 acres of which 5 acres will be disturbed by excavation, grading or other activities.

Other Reports, Studies and Plans which Aid in the Development of this Storm Water Pollution Prevention Plan as Referenced Documents:

1. Information on the soils within the site was obtained from field reviews which were utilized for proposed placement of the temporary erosion control systems.
2. Site maps indicating drainage patterns and approximate slopes were contained in the project design report, USGS drainage maps, and project plan documents were all utilized for proposed placement of the temporary erosion control systems.

Drainage Tributaries Receiving Water from this Construction Site:

1. Brown Creek
2. Brewster creek
3. The Sny Drainage District/Mississippi River

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
SHEET 1 OF 7
FAS ROUTE 304 (IL RTE 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

PLOT DATE = 8/8/2007
FILE NAME = storm_brewster.dgn
PLOT SCALE = 42.9388 '/ IN.
USER NAME = default

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	44
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. 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, temporary ditch checks, and/or erosion control fence shall be installed as called out in this plan and as directed by the Engineer.

   (d) Bare and sparsely vegetated ground in highly erodable 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 erodable 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 other devices 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 undesireable 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) 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.

   (d) 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
   1021 North Grand Avenue East, P.O. Box 19276
   Springfield, IL 62794-9276
   Attn: Compliance Assurance Section

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
SHEET 2 OF 7
FAS ROUTE 304 (IL RTE 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT.
HORIZ.
DRAWN BY
DATE
CHECKED BY

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\ppbs_final\sn075-0039\storm_brewster.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlurl

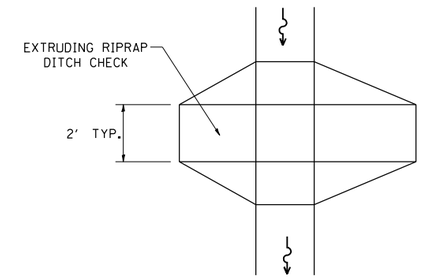
CONTRACT NO. 72891

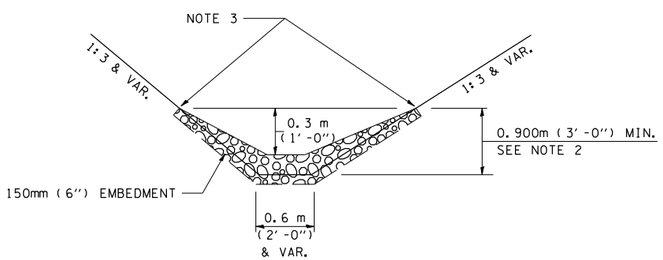
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	45
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS			

LEGEND FOR STORM WATER POLLUTION PREVENTION PLAN

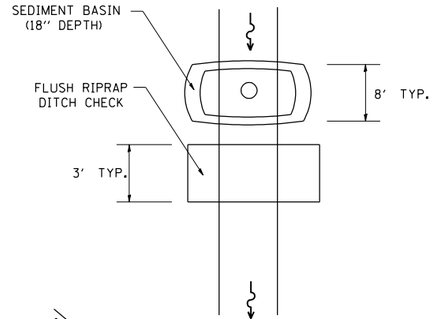
ITEM	SYMBOL
AGGREGATE (EROSION CONTROL) [STONE DUMPED RIPRAP DITCH CHECKS: Height = 0.6m (2')]	
TEMPORARY DITCH CHECKS	
INLET PIPE PROTECTION (I&PP)	
EROSION CONTROL FENCE	
EARTH EXCAVATION FOR EROSION CONTROL (SEDIMENT BASINS)	
PRESERVE EXISTING TREES, WOODLANDS, AND UNDERSTORY (OUTSIDE CONSTRUCTION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

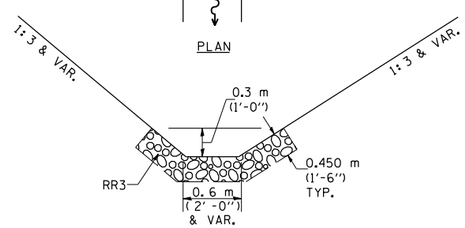
GENERAL NOTES:
All items shall be constructed as shown on this sheet, on Standard 280001, and as directed by the Engineer.





OPTION 1
(EXTRUDING DITCH CHECK)
RECOMMENDED FOR AREAS W/ RIPRAP DITCH LINING





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

NOTE 2: ENDS SHALL BE TIED INTO SLOPES.

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 304 Marked: IL-96

Section: 2(B-5,B-6) Project No.: _____

County: Pike County Contract No.: 72891

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.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
SHEET 3 OF 7
FAS ROUTE 304 (IL RTE 96)
SECTION 2(B-5,B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.
DATE

SWPPLAN

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d65248\vpabe.final\sn075-0039\storm_brewster.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinr1

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	46
STA. 399+80	TO STA. 406+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GRAPHIC SCALE
0 20 40 60 80 100
FEET

N

INLET AND PIPE PROTECTION

PI Sta 11+88.52

PERIMETER EROSION BARRIER

PI Sta 11+66.55

PC Sta 11+44.55

FLAG POLE

INLET AND PIPE PROTECTION

22 INCHES A5 RIPRAP ON 8 INCH BEDDING ON FILTER FABRIC. FILL WITH RIPRAP SLURRY.

TEMPORARY DITCH CHECKS

EX ROW

PR ROW

N 56° 16' 50" E

CH 13

(5)-15"

304

TEMPORARY DITCH CHECKS

MATCH LINE

399+80

400+00

401

S 4° 11' 31" E

402

403

10+00

POT Sta 10+00.00

404

303

405+00

FAP 304
IL RT 96

406

175°45'26"

POT Sta 10+00.00

80' EX ROW

EX ROW

PR ROW

PR ROW

POT Sta 403+60.45

19.00'

302

POT Sta 8+90.16

PERIMETER EROSION BARRIER

PR TCE

PR TCE

PERIMETER EROSION BARRIER

22 INCHES A5 RIPRAP ON 8 INCH BEDDING ON FILTER FABRIC. FILL WITH RIPRAP SLURRY.

301

LEGEND

- TEMPORARY DITCH CHECK (AGG)
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER
- HEAVY DUTY EXCELSIOR BLANKET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
SHEET 4 OF 7
FAS ROUTE 304 (IL RTE 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	47
STA. 406+00	TO STA. 408+70			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GRAPHIC SCALE

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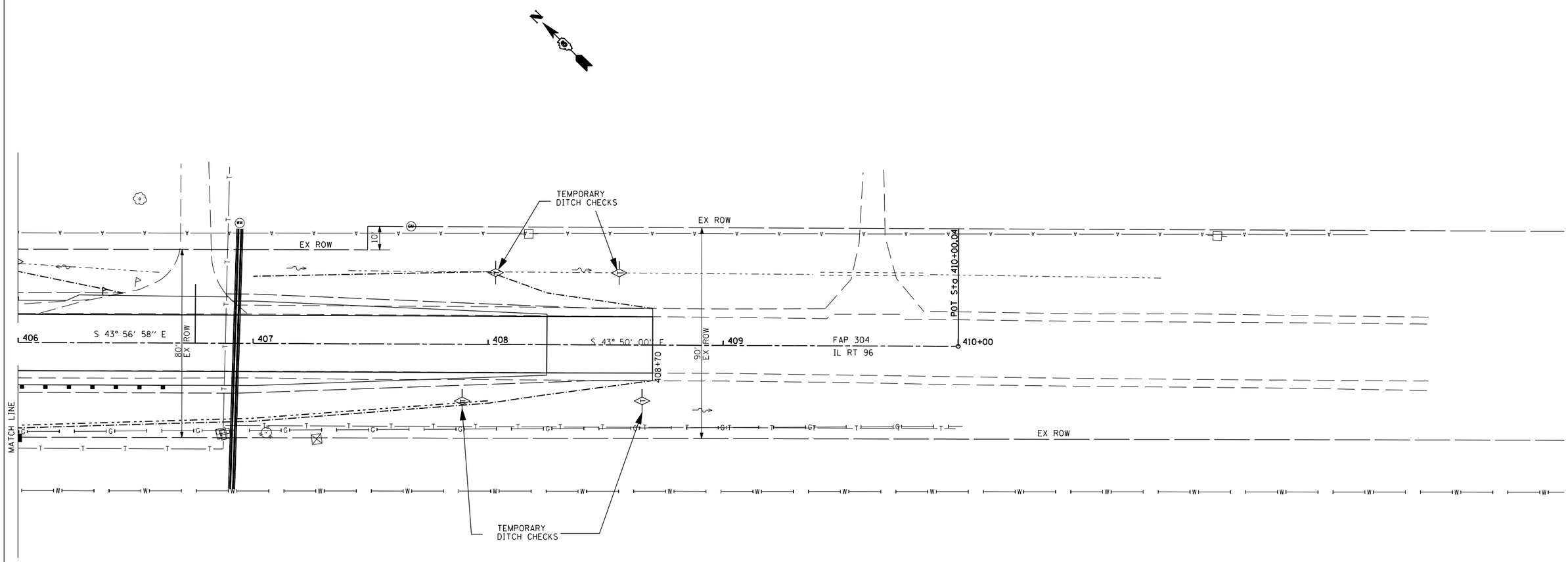
FEET



LEGEND

- TEMPORARY DITCH CHECK (AGG)
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER
- HEAVY DUTY EXCELSIOR BLANKET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
SHEET 5 OF 7
FAS ROUTE 304 (IL RTE 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.

DRAWN BY

DATE

CHECKED BY

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	48
STA. 452+25	TO STA. 458+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GRAPHIC SCALE
0 20 40 60 80 100
FEET

N

EX ROW
LT
EX ROW
22 INCHES OF RR5 ON 8 INCH BEDDING ON FILTER FABRIC WITH RIPRAP SLURRY
TEMPORARY DITCH CHECK
HEAVY DUTY EXCELSIOR BLANKET
INLET AND PIPE PROTECTION
HEAVY DUTY EXCELSIOR BLANKET
11+00
PR ROW
CONST LIMITS
TEMPORARY DITCH CHECK
EX ROW
CONST LIMITS
452
453
S 28° 11' 00" E
454
10+00
455+00
456
457
458
EX ROW
11+00
22 INCHES OF RR5 ON 8 INCH BEDDING ON FILTER FABRIC WITH RIPRAP SLURRY
ENERGY DISSIPATOR CONSTRUCTED WITH RR5 ON 8 INCH BEDDING ON FILTER FABRIC WITH RIPRAP SLURRY - SEE DETAIL SHEET
HEAVY DUTY EXCELSIOR BLANKET
MATCH LINE
TEMPORARY DITCH CHECK
PERIMETER EROSION BARRIER
PR ROW
PR ROW
PR TCE
CONST LIMITS
PR TCE
PERIMETER EROSION BARRIER
8+00

LEGEND
- TEMPORARY DITCH CHECK (AGG)
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER
- HEAVY DUTY EXCELSIOR BLANKET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
SHEET 6 OF 7
FAS ROUTE 304 (IL RTE 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.
DRAWN BY
DATE
CHECKED BY

PLOT DATE = 7/31/2007
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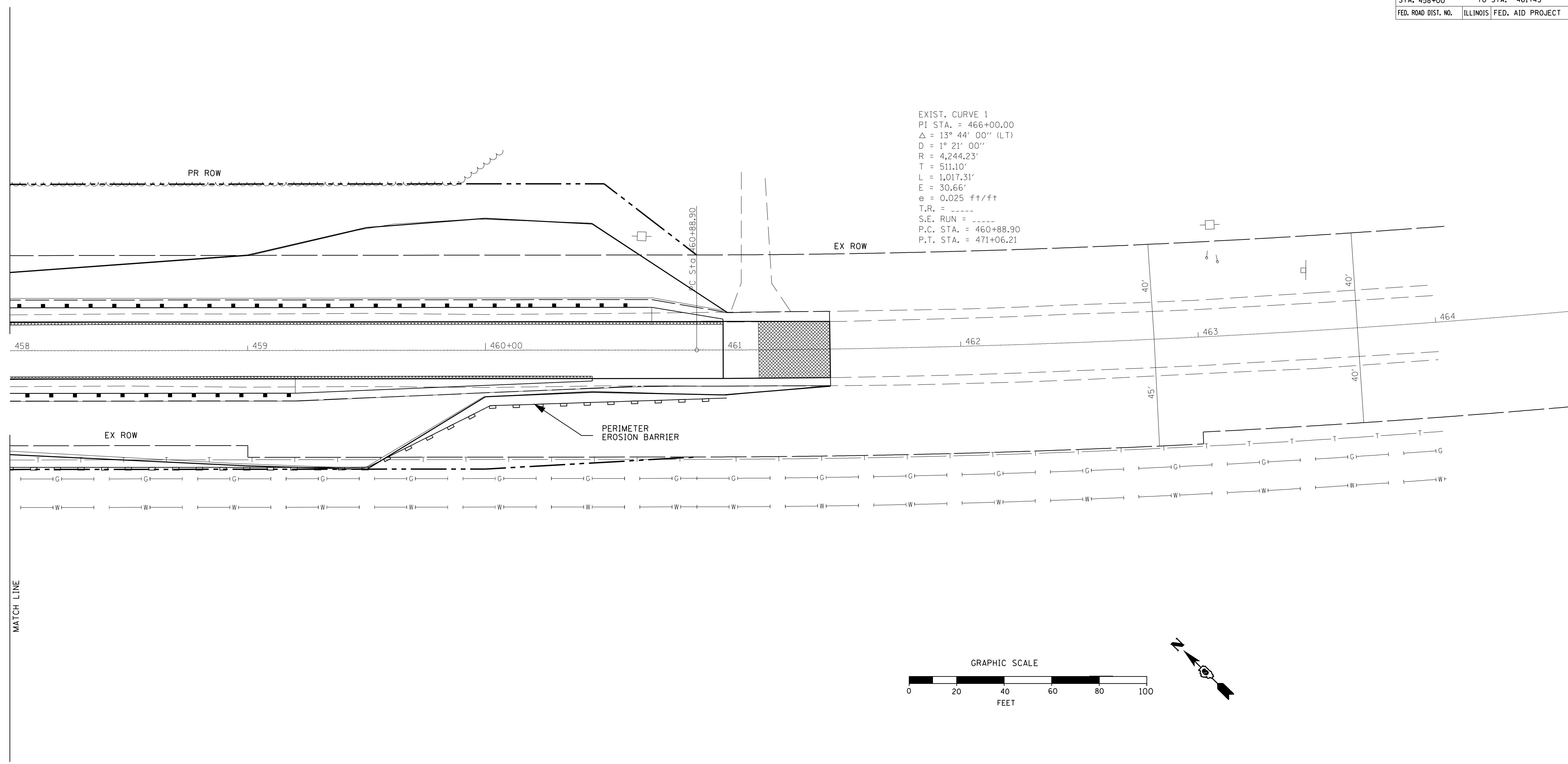
PLOT SCALE = 40.2500 ' / IN.
USER NAME = laughlor

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	49
STA. 458+00	TO STA. 461+45			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

- TEMPORARY DITCH CHECK (AGG)
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER
- HEAVY DUTY EXCELSIOR BLANKET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
SHEET 7 OF 7
FAS ROUTE 304 (IL RTE 96)
SECTION 2(B-5, B-6)
PIKE COUNTY

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = 7/31/2007
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PLOT SCALE = 42.3529 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

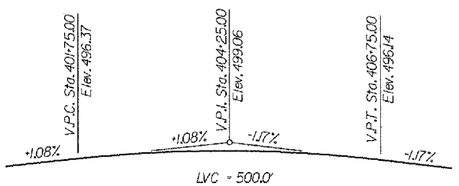
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	50
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-2508 Sheet 1 of 11

Benchmark - chisled "□" on Southeast Wingwall of Bridge No SN 075-0039. Elev.497.60.

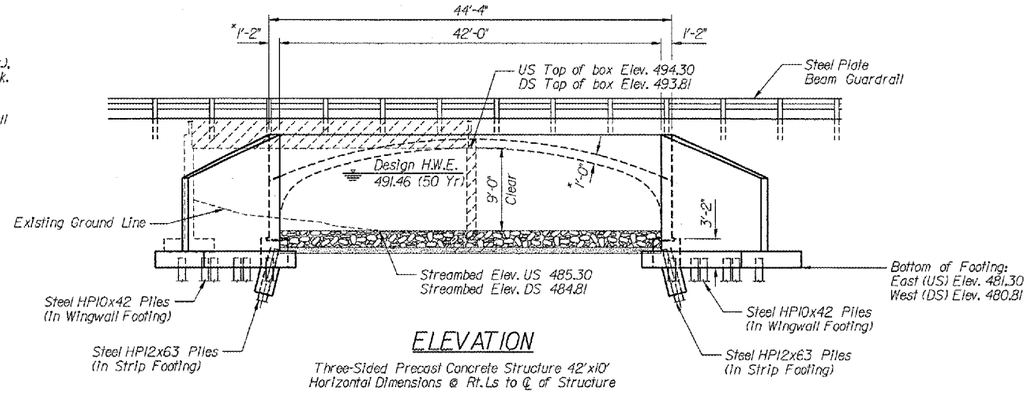
Existing structure: SN 075-0039, 39' wide single span (32'-0" bk. to bk. abut.), reinforced concrete T-beam structure on closed abutments. 39'-4" o. to o. deck. Built in 1937 as F.A. Rte. 158, Sec. No. 2-B. The contractor shall remove the existing structure as required and replace it with a three-sded box culvert (9'(H) x 42' (W) x 59' (L)). The road shall be kept open to one lane traffic at all times utilizing stage construction.

No Salvage.



PROFILE GRADE

Along ℄ Roadway

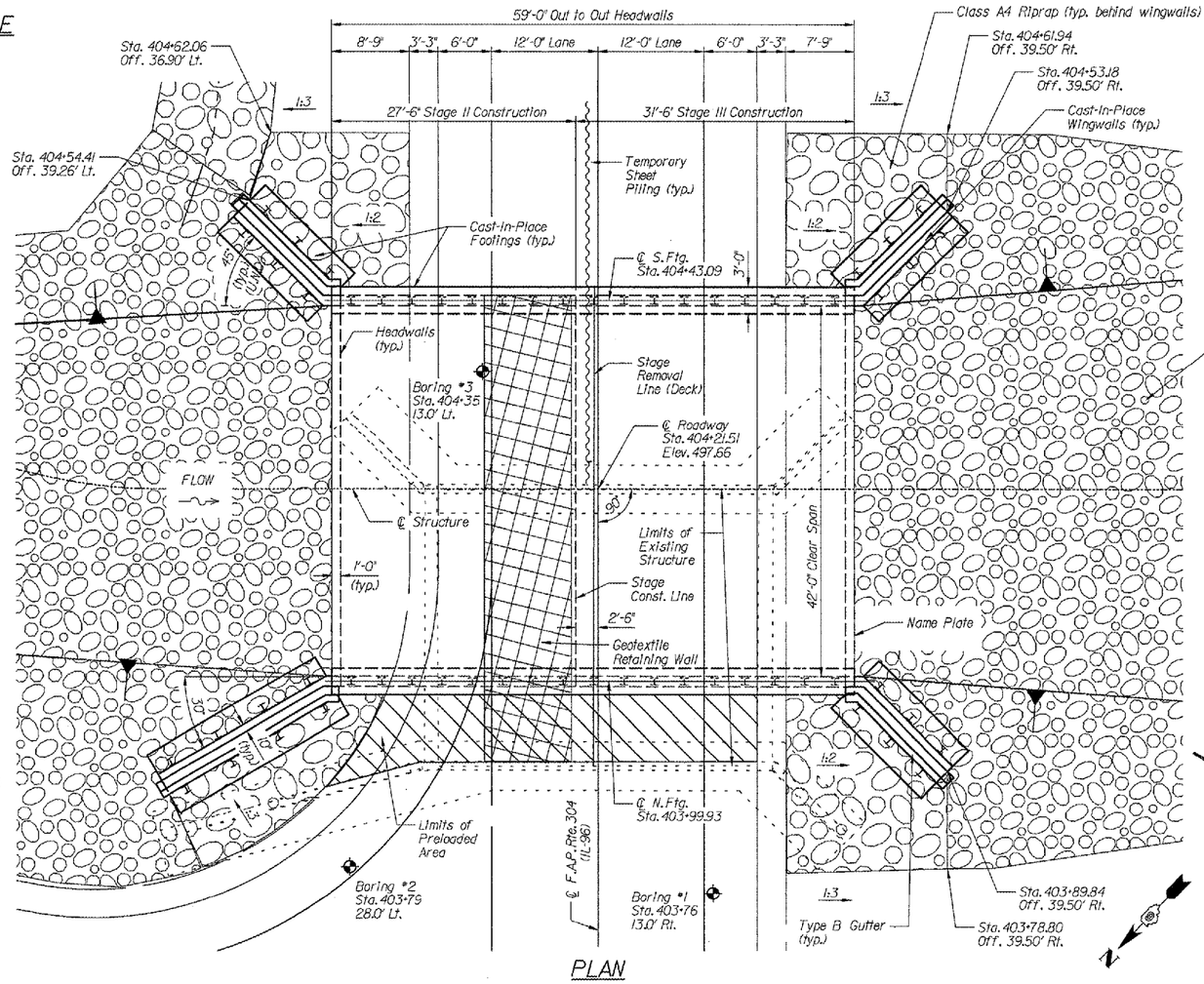


ELEVATION

Three-Sided Precast Concrete Structure 42'x10'
Horizontal Dimensions @ Rt.Ls to ℄ of Structure

* Slab and wall thicknesses may vary as per manufacturer's design

Indicates portions of existing structure to be removed.



PLAN

LOADING HS20-44

Allow 50#/sq.ft. For Future Wearing Surface

DESIGN SPECIFICATIONS

2002 AASHTO Standard Speficiations - 17th Ed.

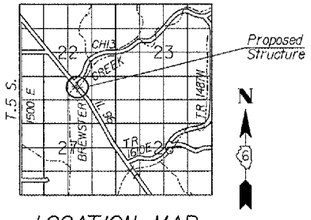
DESIGN STRESSES

(FIELD UNITS)
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (structural steel)

(PRECAST UNITS)
f'c = 5,000 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.8%g
Site Coefficient (S) = 1.0



LOCATION MAP

INDEX OF SHEETS

GENERAL NOTES

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

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

The Contractor shall drive test piles to 110% of the Nominal Required Bearing specified in production locations at substructures specified (six locations follow) or approved by the Engineer before ordering the remainder of piles.

one (1) test pile HP10x42 in each of the four (4) wingwall footings
one (1) test pile HP12x63 in each of the two (2) strip footings, as close to the stage construction line as possible.

The Steel H-piles shall be according to AASHTO M270 Grade 50

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The contractor shall sawcut the upper portion of the existing abutments at the Stage Removal line before Stage II Removal to ensure the remaining portion will not be prematurely damaged.

The footing design is based on the following maximum reactions applied at the top of the footing:
Footings: 16.82 k/ft (vertical), 10.0 k/ft (horizontal).
The Contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete footing design with calculations, details and the required seals shall be submitted for review and approval.

Dimensions for three-sided box are for a 42'x10' ConSpan Section. Hy-Span, REDI-Span and BEBO Bridge Sections are also acceptable, but dimensions may vary.

STATION 404+21.51
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. ROUTE 304
SECTION 2B-5
LOADING HS 20-44
STR. NO. 075-2508

NAME PLATE

See Std. 515001

Design Scour Elevations	
Northwest Footing	Southeast Footing
480.8	480.8

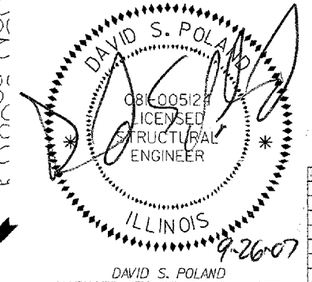
WATERWAY INFORMATION

Drainage Area = 1.9 sq.mi. Low Grade Elev. = 496.44 ft. @ Sta. 411+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq.Ft. Exist.	Opening Sq.Ft. Prop.	Natural H.W.E.	Head Ft. Exist.	Head Ft. Prop.	Headwater Elev. Exist.	Headwater Elev. Prop.
	10	1467	132	221	490.35	0.87	0.00	491.22	490.35
Design	50	2416	166	267	491.46	2.38	0.07	493.84	491.53
Base	100	2839	181	287	491.93	3.00	0.73	494.93	492.66
Overtopping									
Max.Calc.	500	3887	202	316	492.62	4.35	1.99	496.97	494.61

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TJD)
Engineer of Bridges & Structures



DAVID S. POLAND
LICENSED STRUCTURAL ENGINEER
QUINCY, ILLINOIS
EXPIRES: 11/30/08

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

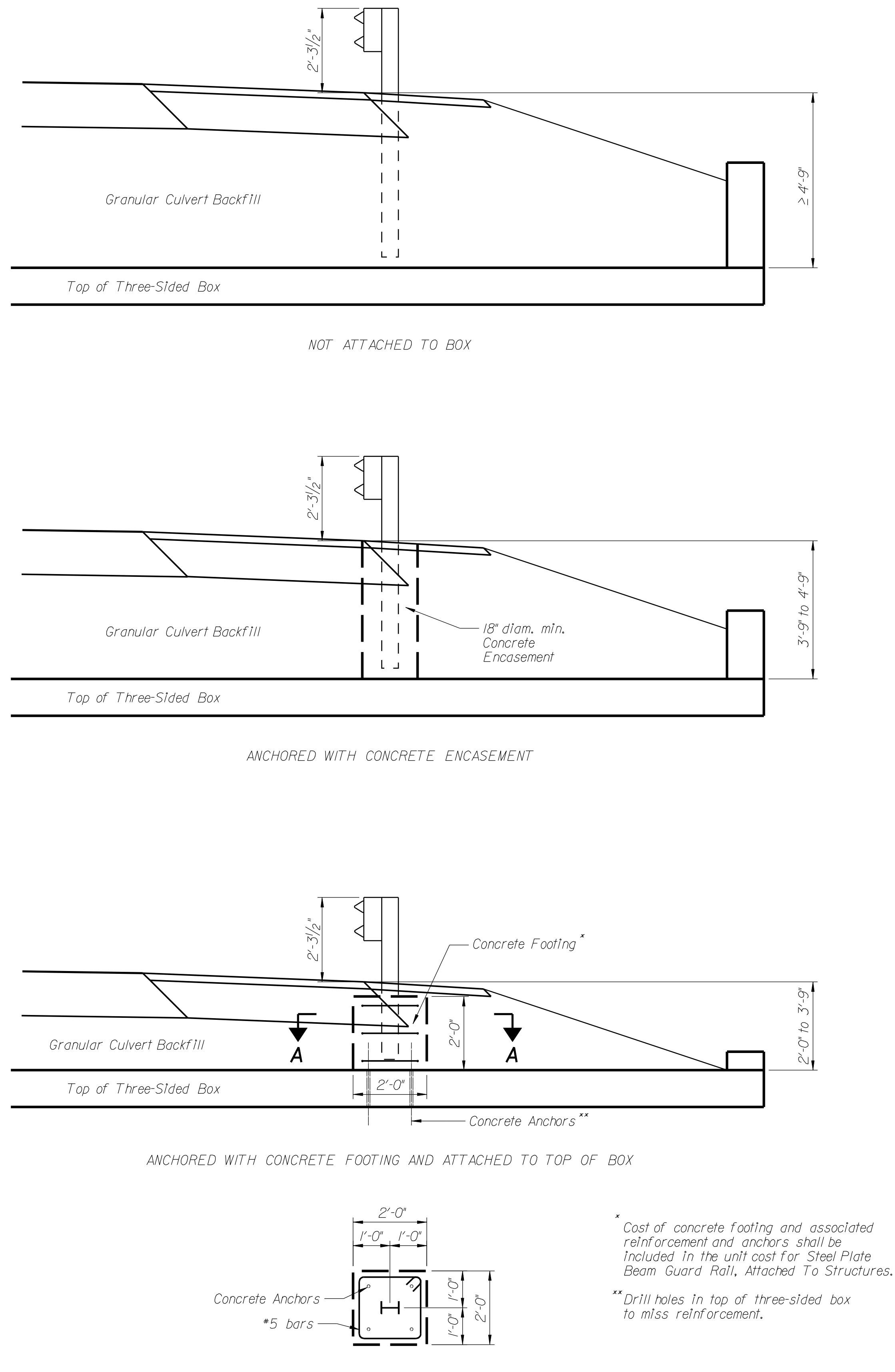
SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

TOTAL BILL OF MATERIAL

	Item	Unit	Total
	STONE DUMPED RIPRAP, CLASS A4	TON	99
	STONE DUMPED RIPRAP, CLASS A5	TON	1,913
	FILTER FABRIC	SQ. YD.	1,915
	STRUCTURE EXCAVATION	CU. YD.	1,014
	CONCRETE STRUCTURES	CU. YD.	94.0
	REINFORCEMENT BARS, EPOXY COATED	POUND	9,980
	FURNISHING STEEL PILES HP10x42	FOOT	1,250
	FURNISHING STEEL PILES HP12x63	FOOT	1,840
	DRIVING PILES	FOOT	3,090
	TEST PILE STEEL HP10x42	EACH	4
	TEST PILE STEEL HP12x63	EACH	2
	CONCRETE ENCASEMENT	CU. YD.	11.4
	PILE SHOES	EACH	60
*	TEMPORARY SHEET PILING	SQ. FT.	1,783
	NAME PLATES	EACH.	1
	CONCRETE GUTTER, TYPE B	FOOT	71
	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	100
*	REMOVAL OF EXISTING STRUCTURES NO.2	EACH	1
*	THREE SIDED PRECAST CONCRETE STRUCTURE	FOOT	59
*	GEOTEXTILE RETAINING WALL	SQ. FT.	176
*	RIPRAP SLURRY	SQ. YD.	1,788
*	GRANULAR CULVERT BACKFILL	CU. YD.	488
*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1
*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1
*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 3	EACH	1
*	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 4	EACH	1
	BAR SPLICERS	EACH	24

* SEE SPECIAL PROVISIONS

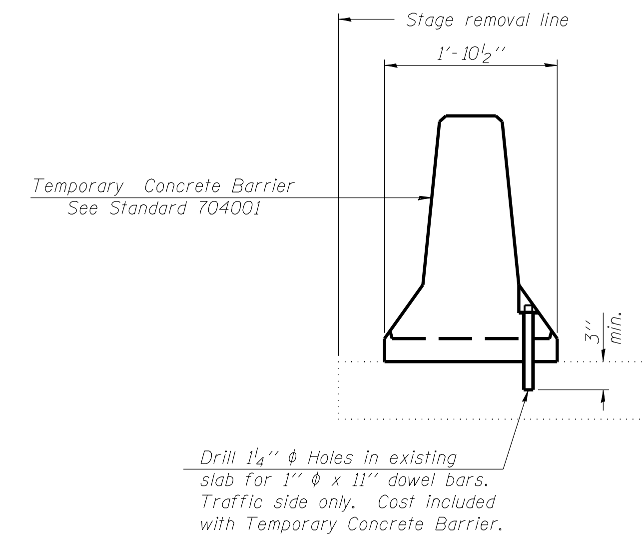


* Cost of concrete footing and associated reinforcement and anchors shall be included in the unit cost for Steel Plate Beam Guard Rail, Attached To Structures.

** Drill holes in top of three-sided box to miss reinforcement.

GUARDRAIL ATTACHMENT TO THREE-SIDED BOX

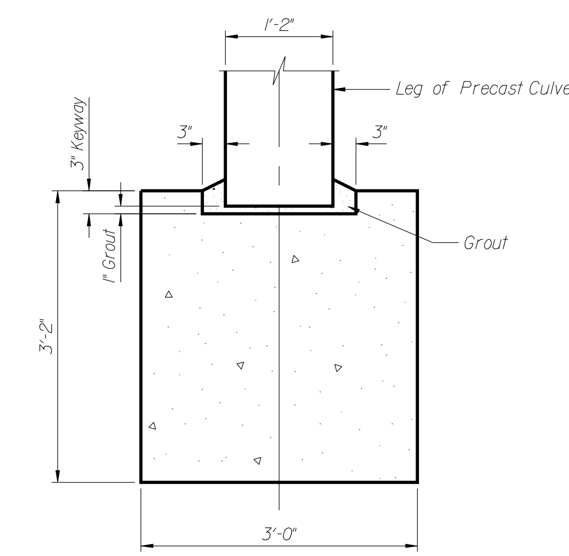
See Roadway Plans for Pay Item "Attached Guard Rail"



TEMPORARY CONCRETE BARRIER DETAIL

SECTIONS THRU SLAB

See Roadway Plans for Pay Item "Temporary Concrete Barrier."



CONNECTION DETAIL

Between Three-Sided Box leg and Strip Footing

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

QUANTITIES & MISC DETAILS

ILLINOIS ROUTE 96 OVER BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A — DRAWN BY JLS
DATE SEPT 2007 — CHECKED BY DSP

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PLOT SCALE = 0.0833 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	52
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

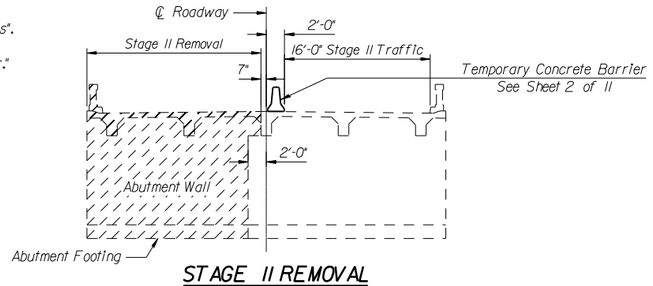
SN075-2508 Sheet 3 of 11

Notes:
Hatched area indicates "Partial Removal of Existing Structures".

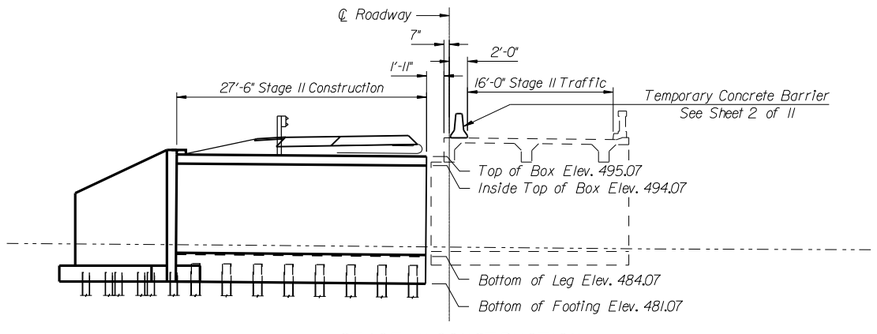
See Roadway Plans for Pay Item "Temporary Concrete Barrier."

All stage construction sections are looking Southeast.

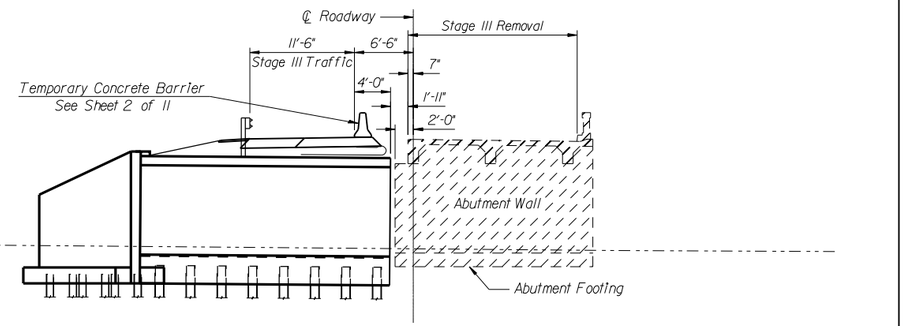
Dimensions are at Rt. L's to ℄ Roadway.



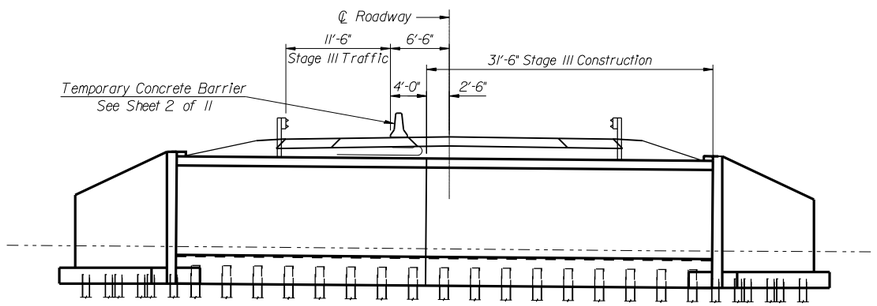
STAGE II REMOVAL



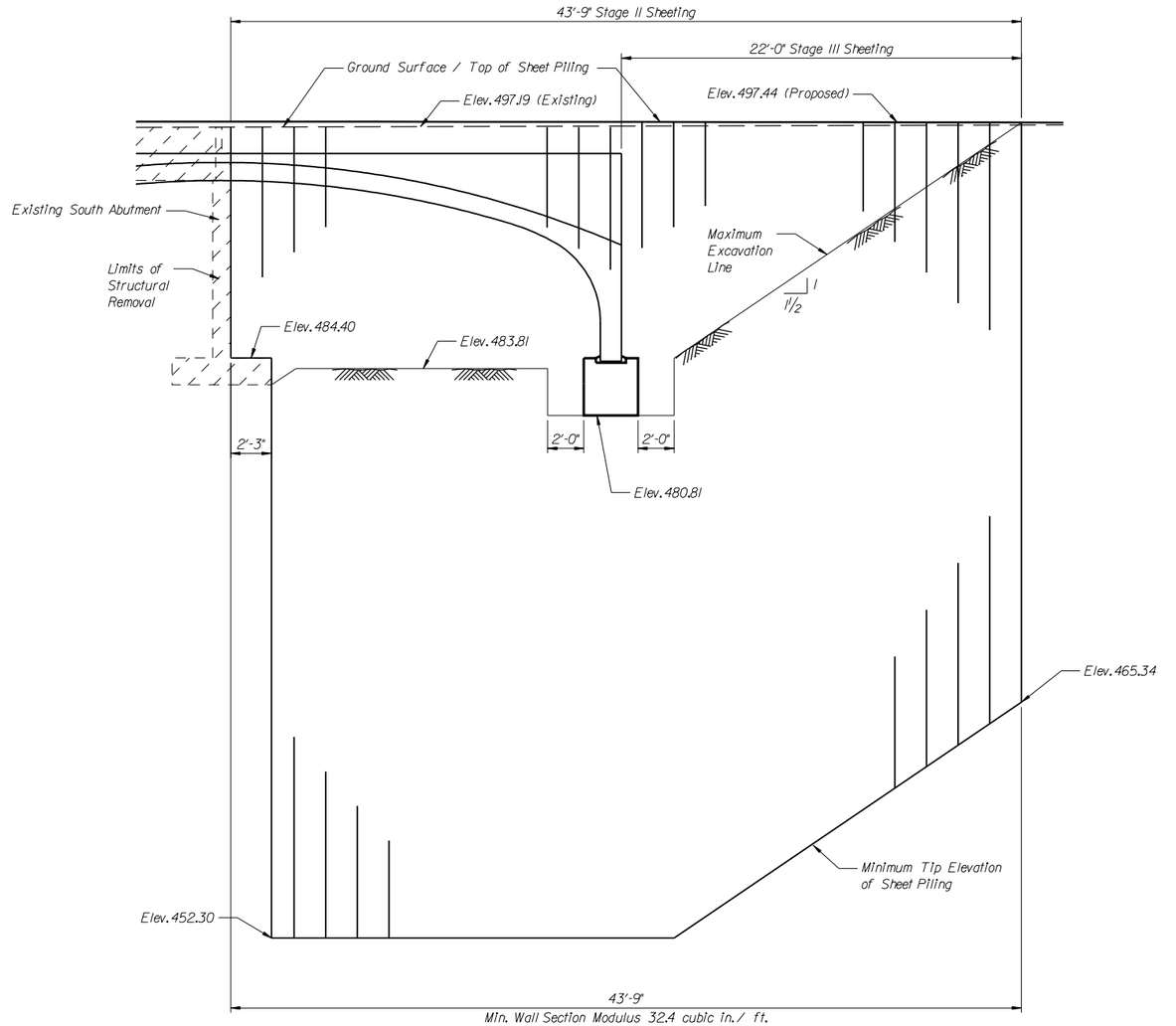
STAGE II CONSTRUCTION



STAGE III REMOVAL



STAGE III CONSTRUCTION



TEMPORARY SHEET PILING DESIGN

Slopes and Distances Shown at Right Angles to ℄ Roadway (along Sheeting)

Notes:

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

See Sheet 4 of 11 for details on Geotextile Retaining Wall.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS

ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A DRAWN BY JLS

DATE SEPT 2007 CHECKED BY DSP

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	53
STA. 403+85		TO STA. 404+50		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-2508 Sheet 4 of 11

Refer to the special provisions for Geotextile Retaining Walls for construction details and design requirements.

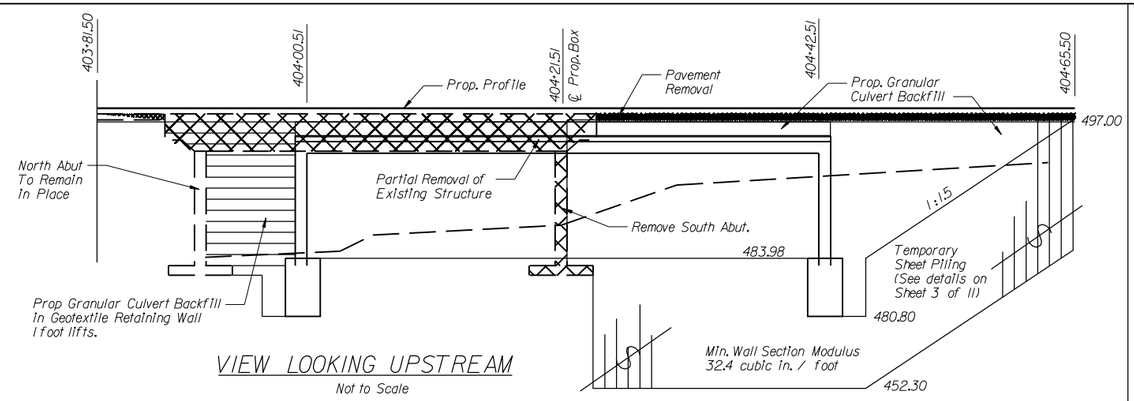
The geotextile fabric shall meet a T minimum of 509 pounds per foot. Use CA-6 OR CA-10 as the backfill material. The backfill in the reinforced mass will not be paid for separately but included in the unit price bid per square foot for Geotextile Retaining Walls. Payment for backfill in the other areas outside the reinforced mass will be paid for at the unit price bid for Granular Culvert Backfill.

Temporary Sheet Piling shall meet a minimum section modulus per foot of wall of 32.4 cubic inches. (See details on Sheet 3 of 11)

Refer to the Special Provisions for Temporary Sheet Piling for construction details and design requirements.

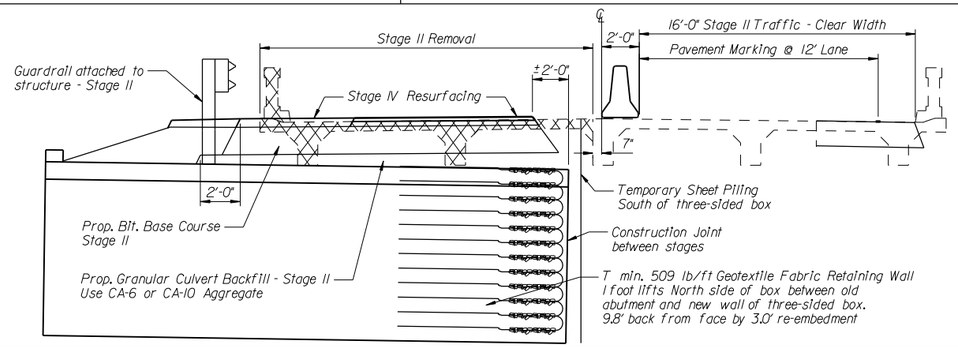
BILL OF MATERIALS

Geotextile Retaining Wall	176 Sq. Ft.
Temporary Sheet Piling	1783 Sq. Ft.
Granular Culvert Backfill	488 Cu. Yd.



VIEW LOOKING UPSTREAM

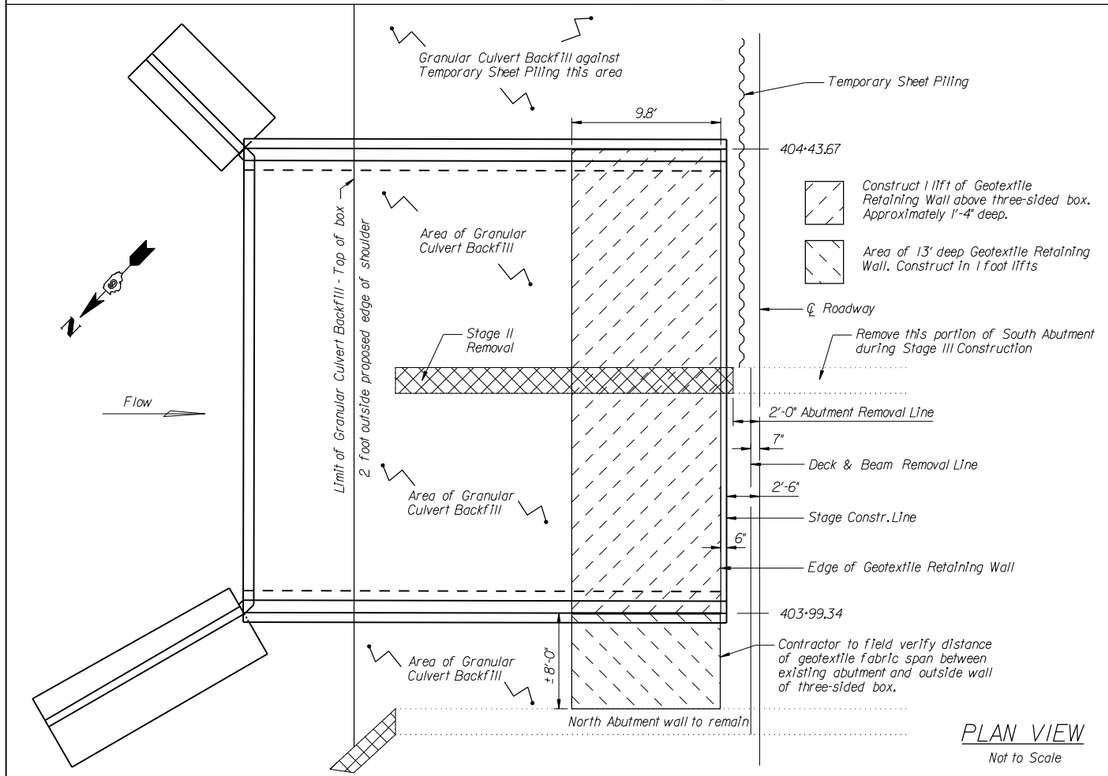
Not to Scale



Hatched area indicates Partial Removal of Existing Structure.

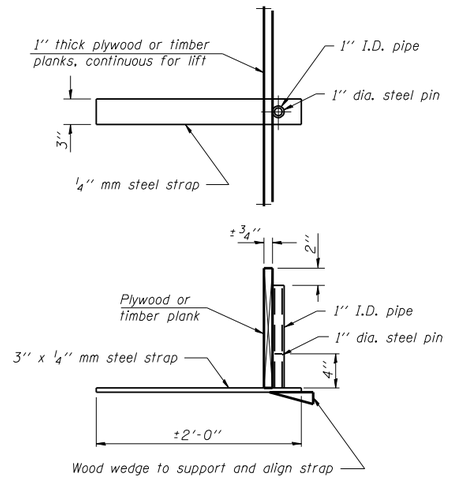
VIEW LOOKING UPSTATION

Not to Scale



PLAN VIEW

Not to Scale



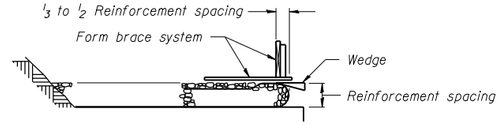
SUGGESTED GEOTEXTILE TEMPORARY FORM BRACE SYSTEM DETAIL

Not to Scale

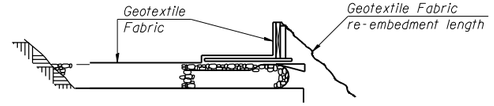
Note:
This is a suggested detail, the Contractor is responsible for the design of the form brace system to be used.

NOTES:
The geotextile fabric shall have a minimum allowable tensile strength (T min) of 509 lb/ft as determined by the procedure stated in the Special Provisions. The computations supporting the determination of (T min) shall be submitted to the engineer for approval.

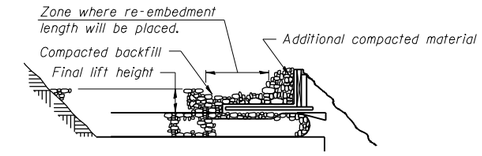
Design Width = 9.8'
Re-embedment Length = 3.0'
Reinforcement Spacing =
12" in section by abutment
16" on top of three-sided box



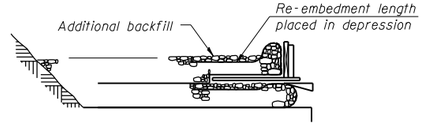
1. *Place form brace system on completed reinforcement level; back from the finished fabric face a distance of ⅓ to ½ the reinforcement spacing.*



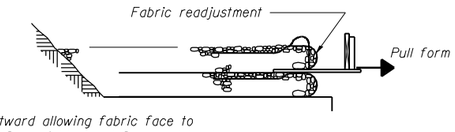
2. *Position fabric so that the required re-embedment length extends over the top of the form brace and the design reinforcement width is placed with no slack against the previous level.*



3. *Compact backfill material in lifts to final lift height, create (±3") depression in zone where re-embedment length will be located and place additional height of compacted material against form brace.*



4. *Fold fabric re-embedment length back over form brace into zone where depression was made in backfill and place additional compacted backfill, (±3") to embed fabric and bring to final lift height.*



5. *Pull form brace outward allowing fabric face to slightly readjust to form tight round face and level with plan reinforcement spacing.*

GEOTEXTILE RETAINING WALL CONSTRUCTION PROCEDURE

Not to Scale

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GEOTEXTILE RETAINING WALL
ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

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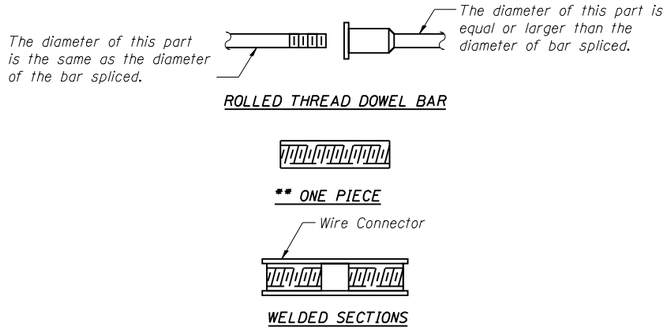
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	54
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

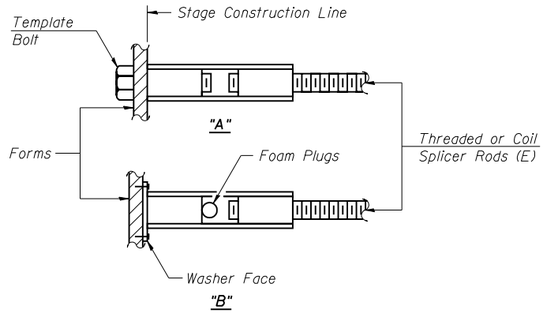
SN075-2508 Sheet 5 of 11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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.

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.

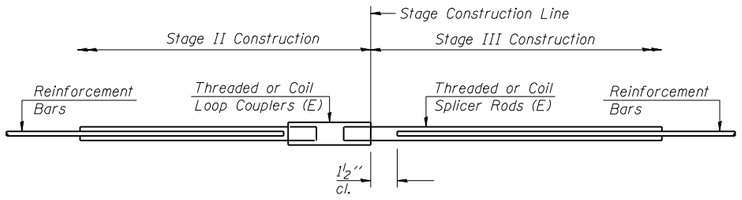
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

1. Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$
2. Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
		Strength Requirements	
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8''	14.7	5.9
#5	2'-0''	23.0	9.2
#6	2'-7''	33.1	13.3
#7	3'-5''	45.1	18.0
#8	4'-6''	58.9	23.6
#9	5'-9''	75.0	30.0
#10	7'-3''	95.0	38.0
#11	9'-0''	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



STANDARD

Bar Size	No. Assemblies Required	Location
#5	4	North Footing
#5	4	South Footing
#7	8	North Footing
#7	8	South Footing

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER DETAILS
ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

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CONTRACT NO. 72891

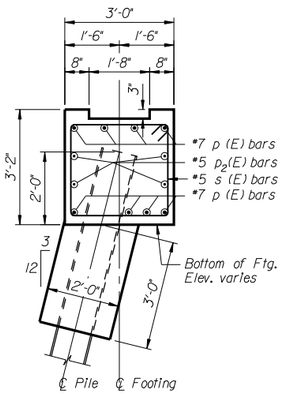
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	55
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-2508 Sheet 6 of 11

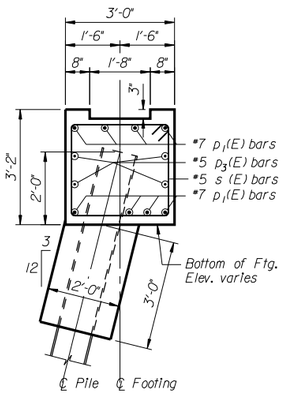
PILE DATA - SOUTH END

	SW WW Ftg.	S. Footing	SE WW Ftg.
Type:	HP10x42	HP12x63	HP10x42
Nominal Required Bearing:	335 kips	497 kips	335 kips
Allow. Resistance Available:	110 kips	164 kips	110 kips
Estimated Length:	65 Ft./Pile	65 Ft./Pile	65 Ft./Pile
Number Required:	6*	17**	6***

* Incl. one test pile HP10x42 driven in a perm. location at the SW WW Ftg.
** Incl. one test pile HP12x63 driven in a perm. location at the S. Footing near the stage construction line.
*** Incl. one test pile HP10x42 driven in a perm. location at the SE WW Ftg.



SECTION C-C



SECTION D-D

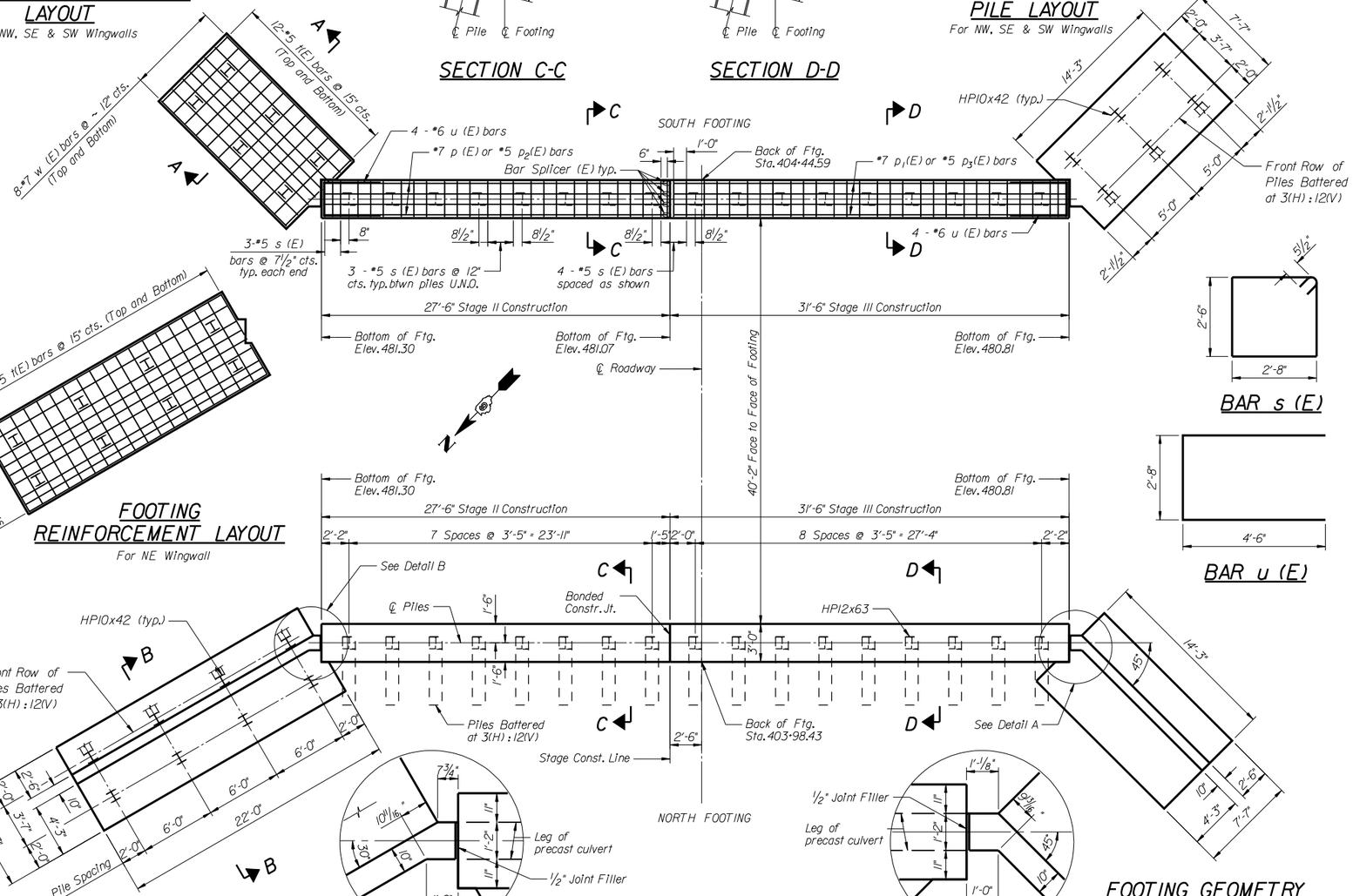
PILE DATA - NORTH END

	NW WW Ftg.	N. Footing	NE WW Ftg.
Type:	HP10x42	HP12x63	HP10x42
Nominal Required Bearing:	335 kips	497 kips	335 kips
Allow. Resistance Available:	104 kips	156 kips	104 kip
Estimated Length:	50 Ft./Pile	50 Ft./Pile	50 Ft./Pile
Number Required:	6*	17**	8***

* Incl. one test pile HP10x42 driven in a perm. location at the NW WW Ftg.
** Incl. one test pile HP12x63 driven in a perm. location at the N. Footing near the stage construction line.
*** Incl. one test pile HP10x42 driven in a perm. location at the NE WW Ftg.

FOOTING REINFORCEMENT LAYOUT

For NW, SE & SW Wingwalls



FOOTING PILE LAYOUT

For NW, SE & SW Wingwalls

BAR s (E)

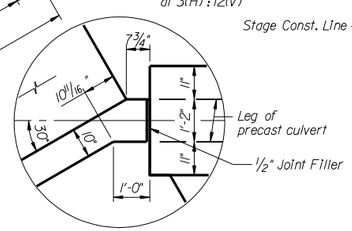
BAR u (E)

FOOTING REINFORCEMENT LAYOUT

For NE Wingwall

FOOTING GEOMETRY & PILE LAYOUT

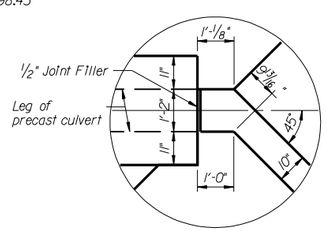
For NE Wingwall



DETAIL B

For NE Wingwall

FOOTING PLAN



DETAIL A

For NW, SE & SW Wingwalls

FOOTING GEOMETRY

For NW, SE & SW Wingwalls

BILL OF MATERIAL SOUTH FOOTING & WINGWALLS

Bar	No.	Size	Length	Shape
h (E)	26	#4	14'-0"	
h_1(E)	4	#4	14'-1"	
h_2(E)	2	#4	14'-3"	
h_3(E)	4	#4	14'-4"	
h_4(E)	2	#4	14'-6"	
h_5(E)	4	#4	14'-9"	
n (E)	32	#6	5'-10"	C
n_1(E)	30	#5	4'-0"	C
p (E)	8	#7	27'-3"	
p_1(E)	8	#7	31'-3"	
p_2(E)	4	#5	27'-3"	
p_3(E)	4	#5	31'-3"	
s (E)	55	#5	11'-3"	
t (E)	48	#5	7'-4"	
u (E)	8	#6	11'-8"	
v (E)	20	#4	7'-1"	
v_1(E)	12	#5	7'-10"	
v_2(E)	12	#5	9'-7"	
v_3(E)	8	#5	10'-10"	
w (E)	32	#7	14'-0"	
Reinforcement Bars, Epoxy Coated		Pound	4490	
Concrete Structures		Cu. Yd.	43.8	
Structure Excavation		Cu. Yd.	481	
Furnishing Steel Piles HP10x42		Foot	650	
Furnishing Steel Piles HP12x63		Foot	1040	
Driving Piles		Foot	1690	
Test Pile Steel HP10x42		Each	2	
Test Pile Steel HP12x63		Each	1	
Pile Shoes		Each	29	
Concrete Encasement		Cu. Yd.	5.7	
Bar Splicers		Each	12	

BILL OF MATERIAL NORTH FOOTING & WINGWALLS

Bar	No.	Size	Length	Shape
h (E)	13	#4	14'-0"	
h_1(E)	2	#4	14'-1"	
h_2(E)	1	#4	14'-3"	
h_3(E)	2	#4	14'-4"	
h_4(E)	1	#4	14'-6"	
h_5(E)	2	#4	14'-9"	
h_6(E)	15	#4	21'-9"	
h_7(E)	1	#4	21'-10"	
h_8(E)	2	#4	21'-11"	
h_9(E)	1	#4	22'-0"	
h_{10}(E)	2	#4	22'-1"	
n (E)	40	#6	5'-10"	C
n_1(E)	38	#5	4'-0"	C
p (E)	8	#7	27'-3"	
p_1(E)	8	#7	31'-3"	
p_2(E)	4	#5	27'-3"	
p_3(E)	4	#5	31'-3"	
s (E)	55	#5	11'-3"	
t (E)	62	#5	7'-4"	
u (E)	8	#6	11'-8"	
v (E)	22	#4	7'-1"	
v_1(E)	11	#5	7'-10"	
v_2(E)	17	#5	9'-7"	
v_3(E)	12	#5	10'-10"	
w (E)	16	#7	14'-0"	
w_1(E)	18	#8	21'-9"	
Reinforcement Bars, Epoxy Coated		Pound	5490	
Concrete Structures		Cu. Yd.	50.2	
Structure Excavation		Cu. Yd.	533	
Furnishing Steel Piles HP10x42		Foot	600	
Furnishing Steel Piles HP12x63		Foot	800	
Driving Piles		Foot	1400	
Test Pile Steel HP10x42		Each	2	
Test Pile Steel HP12x63		Each	1	
Pile Shoes		Each	31	
Concrete Encasement		Cu. Yd.	5.7	
Bar Splicers		Each	12	

Notes:

See Sheet 7 of 11 for Sections A-A and B-B.

Space footing steel to miss piles.

Cut wingwall footing reinforcement in field where it interferes with three-sided box footing.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FOOTING DETAILS

ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A — DRAWN BY JLS

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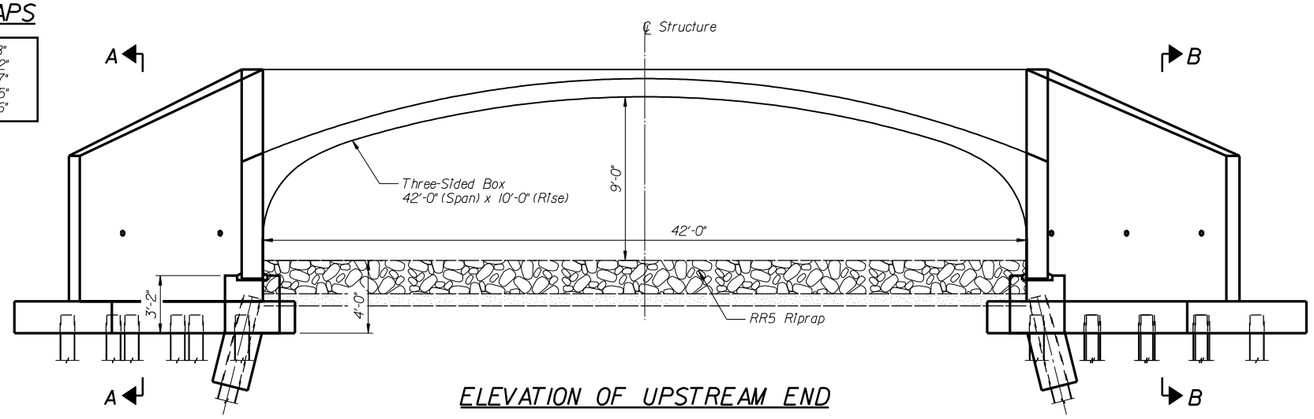
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	56
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

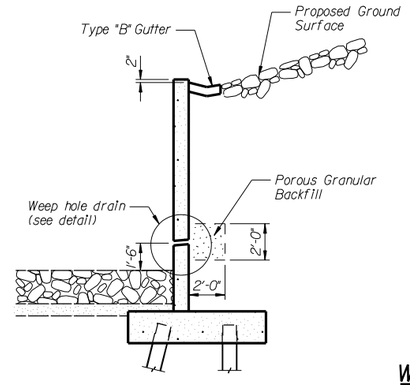
SN075-2508 Sheet 7 of 11

MIN. BAR LAPS

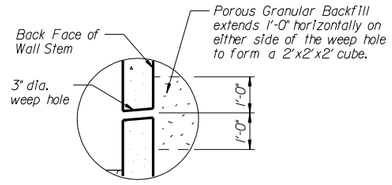
#4 (E)	1'-8"
#5 (E)	2'-2"
#6 (E)	2'-7"
#7 (E)	3'-5"
#8 (E)	4'-6"



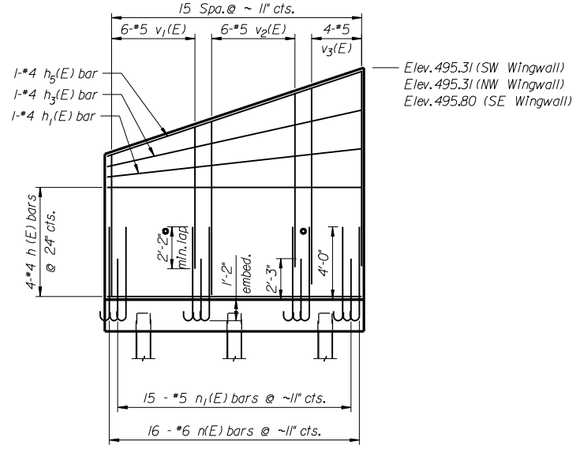
ELEVATION OF UPSTREAM END



DRAINAGE DETAILS BEHIND WINGWALLS

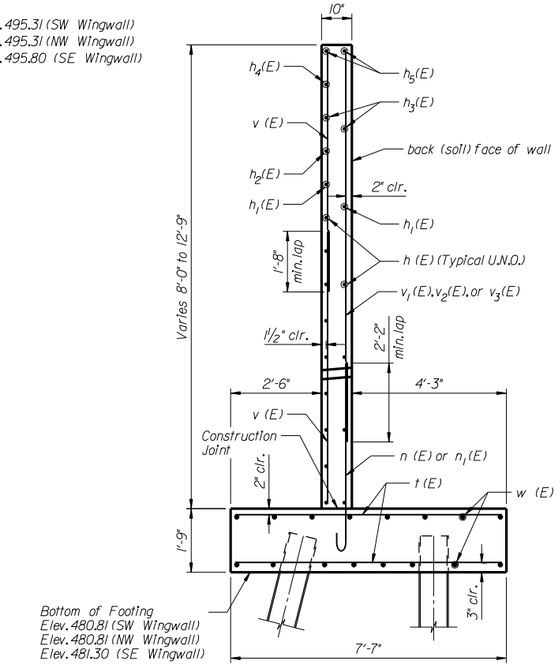


WEEP HOLE DRAIN DETAIL



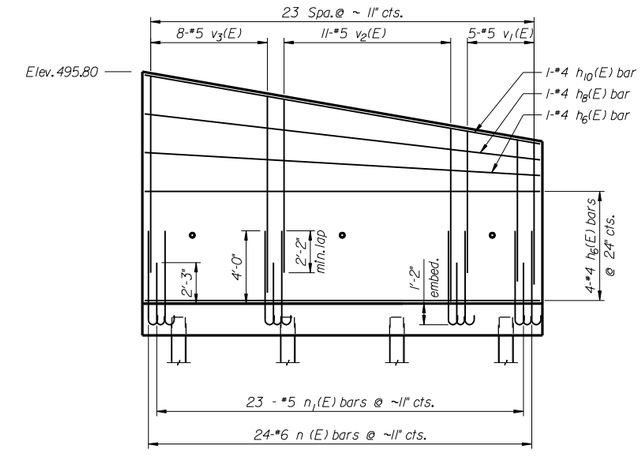
REINFORCEMENT - BACK FACE

(Typ. for NW, SE, & SW Wingwalls)



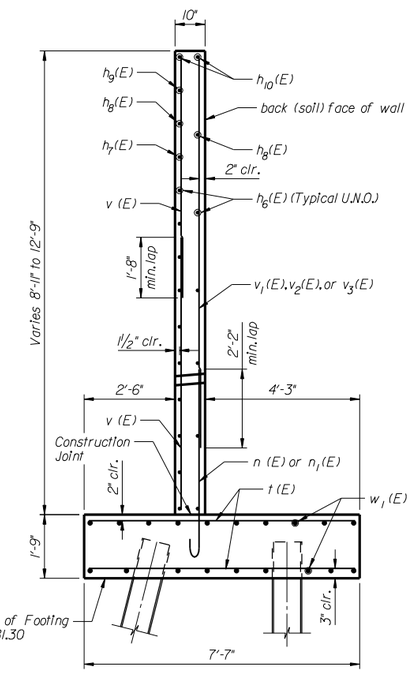
SECTION A-A

(Typ. for NW, SE, & SW Wingwalls)



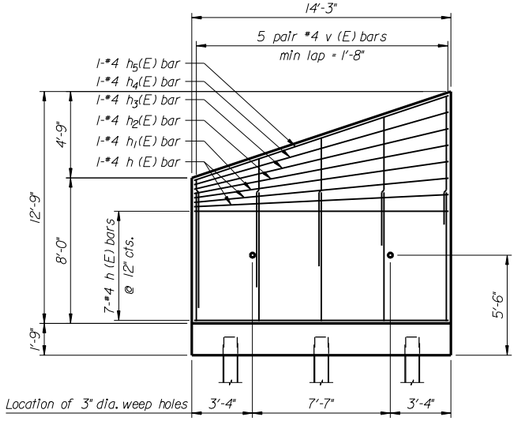
REINFORCEMENT - BACK FACE

(NE Wingwall)



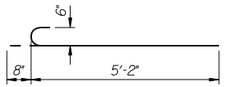
SECTION B-B

(NE Wingwall)

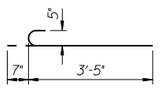


REINFORCEMENT - FRONT FACE

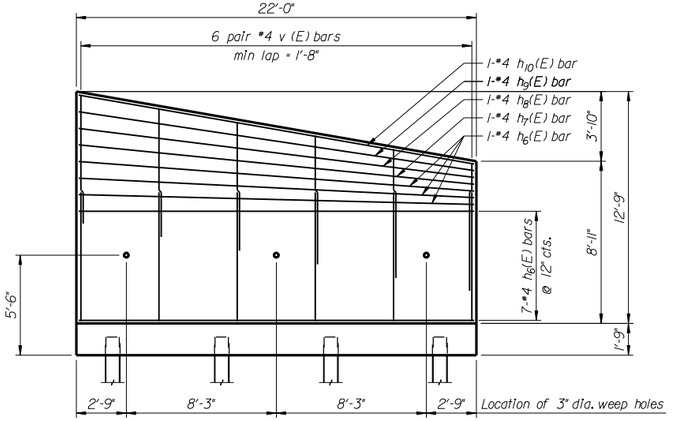
(Typ. for NW, SE, & SW Wingwalls)



BAR n(E)



BAR n_1(E)



REINFORCEMENT - FRONT FACE

(NE Wingwall)

Note

U.N.O. = Unless Noted Otherwise

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

WINGWALL DETAILS

ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

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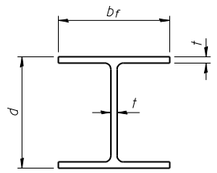
CONTRACT NO. 72891

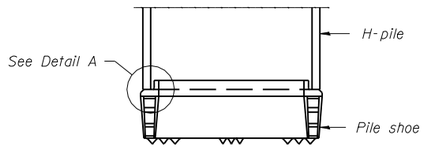
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	56A
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-2508 Sheet 8 of 11

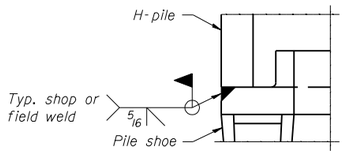


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	$14\frac{1}{4}''$	$14\frac{7}{8}''$	$\frac{13}{16}''$	30''
x102	14''	$14\frac{3}{4}''$	$\frac{11}{16}''$	30''
x89	$13\frac{7}{8}''$	$14\frac{3}{4}''$	$\frac{5}{8}''$	30''
x73	$13\frac{5}{8}''$	$14\frac{5}{8}''$	$\frac{1}{2}''$	30''
HP 12x84	$12\frac{1}{4}''$	$12\frac{1}{4}''$	$\frac{11}{16}''$	24''
x74	$12\frac{1}{8}''$	$12\frac{1}{4}''$	$\frac{5}{8}''$	24''
x63	12''	$12\frac{1}{8}''$	$\frac{1}{2}''$	24''
x53	$11\frac{3}{4}''$	12''	$\frac{7}{16}''$	24''
HP 10x57	10''	$10\frac{1}{4}''$	$\frac{9}{16}''$	24''
x42	$9\frac{3}{4}''$	$10\frac{1}{8}''$	$\frac{7}{16}''$	24''
HP 8x36	8''	$8\frac{1}{8}''$	$\frac{7}{16}''$	18''

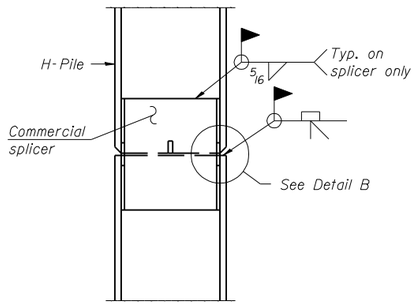


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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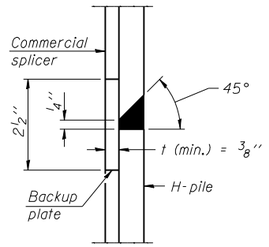
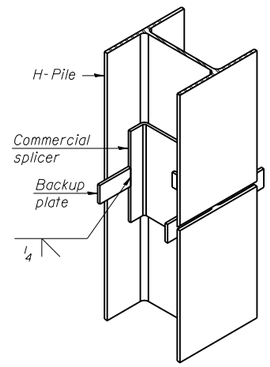
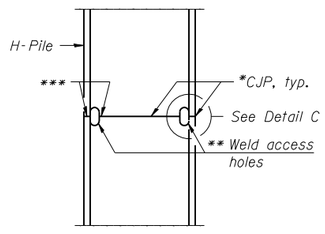


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



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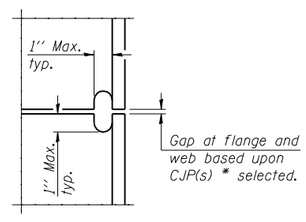
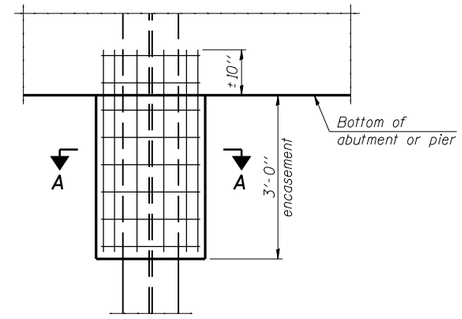


DETAIL C

COMPLETE PENETRATION WELD SPLICE



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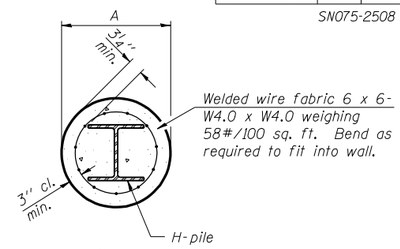
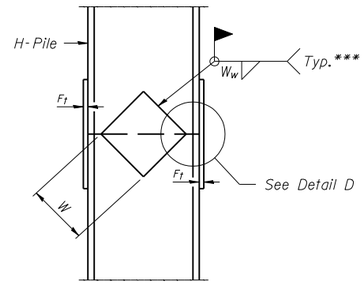


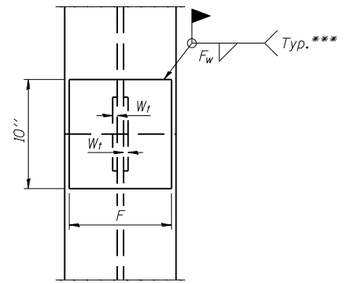
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

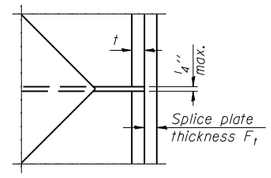
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	$12\frac{1}{2}''$	1''	$\frac{7}{8}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x102	$12\frac{1}{2}''$	$\frac{7}{8}''$	$\frac{3}{4}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x89	$12\frac{1}{2}''$	$\frac{3}{4}''$	$\frac{11}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x73	$12\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{9}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
HP 12x84	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x74	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x63	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x53	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 10x57	8''	$\frac{3}{4}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x42	8''	$\frac{5}{8}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 8x36	7''	$\frac{5}{8}''$	$\frac{7}{16}''$	$4\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$

WELDED PLATE FIELD SPLICE

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds $\frac{1}{4}''$ from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PILE ENCASEMENT
ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

F-HP

11-1-06

PLOT DATE = Sep-26-2007 02:42:56PM
FILE NAME = c:\projects\652484\psbs_final\sn075-0039\v-050181 brewster culvert plans 09-26-2007.dgn
PLOT SCALE = 0.0833 '/ IN.
USER NAME = loughlinj

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 9/20/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brewster Creek LOGGED BY M. Tappan

SECTION 2B-5 LOCATION SW1/4, SEC. 26, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0039 Ex / 075-2508 Pr
Station 404+21

BORING NO. 1 NW Abut.
Station 403+76
Offset 13.0ft Rt
Ground Surface Elev. 496.9 ft

Surface Water Elev. 486.0 ft
Stream Bed Elev. 486.0 ft

Groundwater Elev.:
▽ First Encounter 446.9 ft
▼ Upon Completion Washed ft
▼ After ____ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Grey Moist SILT (Fill)					
			1		
			4	0.9	16
		-5	4	S-10	
Brown Moist Coarse Cherty Limestone GRAVEL (Fill)	491.40				
			1		
			3		
			4		
			1		
			2		
		-10	3		
Brown Moist Coarse Cherty Limestone GRAVEL	486.40				
			1		
			4		
			3		
			5		
			11		
	481.90	-15	13		
Brown Moist SILTY CLAY LOAM					
			2		
			2	0.6	21
			2	B	
			1		
			1	0.6	21
		-20	2	B	
Brown Moist SILTY CLAY LOAM (continued)	476.40				
Brown Wet Coarse Cherty Limestone GRAVEL					
			3		
			6		
			4		
			3		
			12		
		-25	9		
			2		
			5		
		-30	5		
			1		
			3		
		-35	5		
			2		
			4		
Brown Dirty Wet Medium Sand		-40	7		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-2508 IL 96 OVER BREWSTER CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/1/06
Latitude 39 deg 36.713 min N Longitude 91 deg 4.582 min W Datum NAD83 Job Number D-96-524-04

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 9/20/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brewster Creek LOGGED BY M. Tappan

SECTION 2B-5 LOCATION SW1/4, SEC. 26, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0039 Ex / 075-2508 Pr
Station 404+21

BORING NO. 1 NW Abut.
Station 403+76
Offset 13.0ft Rt
Ground Surface Elev. 496.9 ft

Surface Water Elev. 486.0 ft
Stream Bed Elev. 486.0 ft

Groundwater Elev.:
▽ First Encounter 446.9 ft
▼ Upon Completion Washed ft
▼ After ____ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Wet Coarse Cherty Limestone GRAVEL (continued)					
			0		
			2		
Grey Moist Clean Fine Sand		-45	4		
			1		
Brown Coarse Angular Limestone Gravel (Residuum)			4		
Free Water ▽		-50	10		
			2		
			4		
		-55	3		
Drilled Very Hard and Crunchy 55-57.5 ft Possible Limestone Boulder					
Blue Grey Well Indurated Clayey SHALE	438.90				
			100		9
			/6"		
		-60	B.S.		
Blue Grey Well Indurated Clayey SHALE (continued)					
			53		
	432.40		100		5
Boring Completed		-65	/2"		
Washed augers at completion.					
		-70			
		-75			
		-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-2508 IL 96 OVER BREWSTER CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/1/06
Latitude 39 deg 36.713 min N Longitude 91 deg 4.582 min W Datum NAD83 Job Number D-96-524-04

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BORING LOGS - 1 OF 3
ILLINOIS ROUTE 96 OVER BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

PLOT DATE = Sep-26-2007 02:45:39PM
FILE NAME = c:\projects\d52404\pbba_final\sn075-0039\-050181 brewster boring logs.dgn
PLOT SCALE = 0.0833 ' / IN.
USER NAME = loughlin

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	58
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 9/22/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brewster Creek LOGGED BY M. Tappan

SECTION 2B-5 LOCATION SW 1/4, SEC. 26, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0039 Ex / 075-2508 Pr
Station 404+21

BORING NO. 2 NE Wing
Station 403+79
Offset 28.0ft Lt
Ground Surface Elev. 496.5 ft

Surface Water Elev. 486.0 ft
Stream Bed Elev. 486.0 ft

Groundwater Elev.:
∇ First Encounter 446.0 ft
Upon Completion Washed ft
After ___ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Grey Moist SILTY CLAY LOAM (Fill)			1		
		-5	3	0.9	19
			3	S-9	
	490.50				
Brown Moist Coarse Cherty Limestone GRAVEL (Fill)			2		
			7		
			7		
			3		
		-10	17		
			21		
	485.50				
Brown Moist Coarse Cherty Limestone GRAVEL			1		
			3		
			4		
	483.00				
Brown Very Moist LOAM to SAND LOAM			0		
		-15	1	0.2	21
			1	B	
	480.50				
Brown Moist SILTY CLAY LOAM			1		
			2	0.7	23
			2	B	
			0		
		-20	0	0.3	28

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Moist SILTY CLAY LOAM (continued)			1	B	
	475.50				
Brown Moist Coarse Cherty Limestone GRAVEL			1		
			7		
			9		
			0		
		-25	6		
			8		
	469.00				
Brown Very Moist SILTY CLAY LOAM			0		
		-30	1	0.3	26
			1	B	
	464.00				
Grey Moist CLAY LOAM (Colluvium)			1		
		-35	2	1.1	17
			4	B	
	459.00				
Brown Medium Moist SAND			1		
		-40	2		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer, E–Estimated)
Abbreviations W.O.H – Sampler Advanced By Weight of Hammer, W.O.P – Advanced by Weight of Pipe, B.S. – Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8–99)

File Name S:\SOILS\GINT FILES\PIKE\075–2508 IL 96 OVER BREWSTER CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/1/06
Latitude 39 deg 36.715 min N Longitude 91 deg 4.574 min W Datum NAD83 Job Number D–96–524–04

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 9/22/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brewster Creek LOGGED BY M. Tappan

SECTION 2B-5 LOCATION SW 1/4, SEC. 26, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0039 Ex / 075-2508 Pr
Station 404+21

BORING NO. 2 NE Wing
Station 403+79
Offset 28.0ft Lt
Ground Surface Elev. 496.5 ft

Surface Water Elev. 486.0 ft
Stream Bed Elev. 486.0 ft

Groundwater Elev.:
∇ First Encounter 446.0 ft
Upon Completion Washed ft
After ___ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Medium Moist SAND (continued)			8		
	456.00				
Dark Grey Clayey SHALE Greyish Brown Very Weathered Argillicous LIMESTONE (Very Broken)			100/3"		
		-45	B.S.		
			0		
Light Grey and Tan Wet Silt (Possible Void) Free Water ∇		-50	0	0.0	28
			1	Slump	
	442.00				
Grey Very Well Indurated Microcrystalline Limestone			100/2"		
		-55	B.S.		
Auger Refusal Boring Completed					
		-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer, E–Estimated)
Abbreviations W.O.H – Sampler Advanced By Weight of Hammer, W.O.P – Advanced by Weight of Pipe, B.S. – Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8–99)

File Name S:\SOILS\GINT FILES\PIKE\075–2508 IL 96 OVER BREWSTER CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/1/06
Latitude 39 deg 36.715 min N Longitude 91 deg 4.574 min W Datum NAD83 Job Number D–96–524–04

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS - 2 OF 3

ILLINOIS ROUTE 96 OVER
BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

PLOT DATE = Sep-26-2007 02:44:48PM
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PLOT SCALE = 0.0833 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	59
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-2508 Sheet 11 of 11

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 9/21/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brewster Creek LOGGED BY M. Tappan

SECTION 2B-5 LOCATION SW 1/4, SEC. 26, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0039 Ex / 075-2508 Pr
Station 404+21

BORING NO. 3 SE Abut.
Station 404+35
Offset 13.0ft Lt
Ground Surface Elev. 496.9 ft

Surface Water Elev. 486.0 ft
Stream Bed Elev. 486.0 ft

Groundwater Elev.:
▽ First Encounter 446.9 ft
▼ Upon Completion Washed ft
▼ After ___ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Dark Grey Moist SILTY CLAY LOAM (Fill)			1		
			3	1.0	17
		-5	3	S-12	
Brown Moist Coarse Cherty Limestone GRAVEL (Fill)	491.40		1		
			4		
			6		
			0		
			2		
		-10	5		
Brown Moist Coarse Cherty Limestone GRAVEL	486.40		1		
			7		
			7		
			1		
			4		
		-15	6		
			1		
			2		
			2		
			1		
			4		
		-20	3		

Description	Elev.	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown Moist Coarse Cherty Limestone GRAVEL (continued)			2		
			7		
			9		
			1		
			4		
		-25	2		
Brown Wet LOAM with Sand Loam Seams	469.40		0		
			0	0.0	26
		-30	1	Slump	
			0		
			1	0.1	24
		-35	1	B	
Brown Medium Dirty SAND with some Limestone Gravel and Shale Inclusions	459.40		0		
			3		
		-40	6		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-2508 IL 96 OVER BREWSTER CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/1/06
Latitude 39 deg 36.707 min N Longitude 91 deg 4.565 min W Datum NAD83 Job Number D-96-524-04

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 9/21/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brewster Creek LOGGED BY M. Tappan

SECTION 2B-5 LOCATION SW 1/4, SEC. 26, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0039 Ex / 075-2508 Pr
Station 404+21

BORING NO. 3 SE Abut.
Station 404+35
Offset 13.0ft Lt
Ground Surface Elev. 496.9 ft

Surface Water Elev. 486.0 ft
Stream Bed Elev. 486.0 ft

Groundwater Elev.:
▽ First Encounter 446.9 ft
▼ Upon Completion Washed ft
▼ After ___ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown Medium Dirty SAND with some Limestone Gravel and Shale Inclusions (continued)			1		
Brown Medium Clean Sand			4		
		-45	4		
			0		
			1		
Free Water ▽		-50	1		
			1		
Washed			4		
		-55	5		
Brown Coarse Limestone Gravel and Broken Limestone Washed	438.90		15		
			36		
		-60	35		

Description	Elev.	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown Coarse Limestone Gravel and Broken Limestone Washed (continued)					
Drilled Crunchy 58 to 63 ft - Possible Limestone Boulder	433.90				
Light Blue Grey Well Indurated Clayey SHALE			9		
			59		10
		-65	41		
			/2"		
			3		
Blue Grey Very Poorly Indurated Clayey Shale			10		17
		-70	17		
			6		
Grey Moist Poorly to Moderately Indurated Clayey Shale	421.90		30		13
		-75	70		
Boring Completed Creek dry at time of drilling. Refer Station to P.O.T. marked on pavement = 403+60.4 Station increasing to the South. Refer Elevation to chisled square on S.W. wingwall = 497.3 ft			/5"		
		-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-2508 IL 96 OVER BREWSTER CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/1/06
Latitude 39 deg 36.707 min N Longitude 91 deg 4.565 min W Datum NAD83 Job Number D-96-524-04

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS - 3 OF 3

ILLINOIS ROUTE 96 OVER BREWSTER CREEK
FAP RTE 304 - SECT. 2(B-5,B-6)
PIKE COUNTY
STATION 404+21.51
STRUCTURE NO. 075-2508

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	60
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

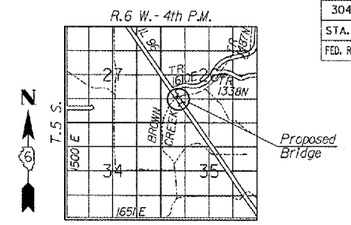
SN075-0509 Sheet 1 of 17

Benchmark - chisled "□" on Southwest Wingwall of Bridge No SN 075-0040. Elev. 494.80

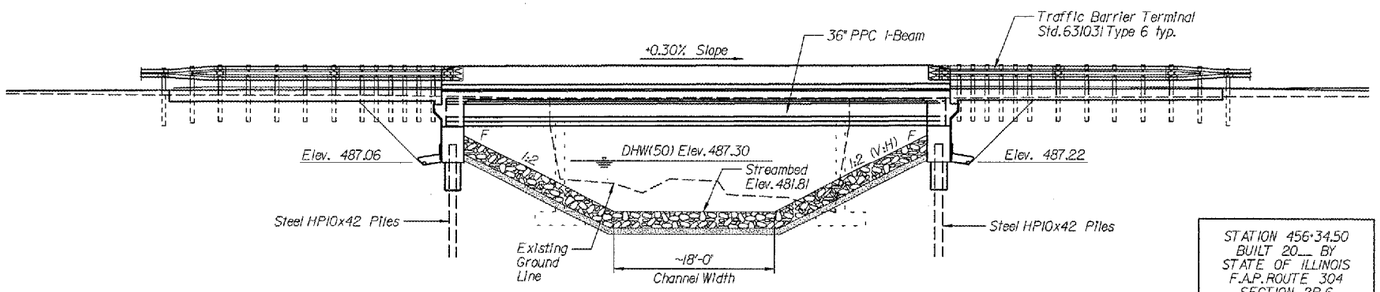
Existing structure: SN 075-0040, single span (32'-0" bk. to bk. abut.), reinforced concrete T-beam structure on closed abutments, 39'-4" o.to o. deck. Built in 1937 as F.A.Rte. 158, Sec. No. 2-B. The contractor shall remove the existing structure as required and replace it with a single span 36" concrete I-beam superstructure on open abutments. The road shall be kept open to one lane traffic at all times utilizing stage construction.

No salvage.

INDEX OF SHEETS



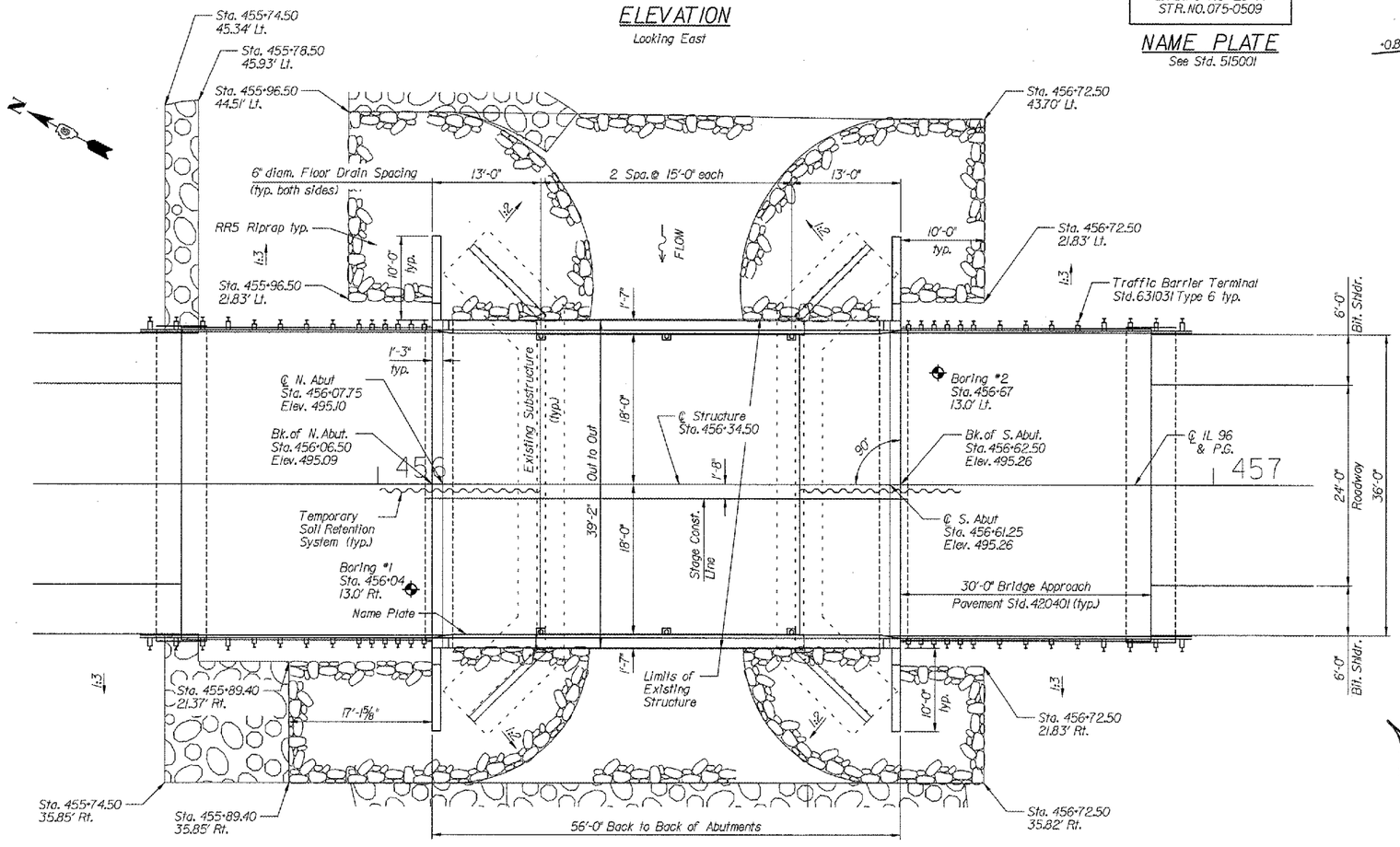
LOCATION MAP



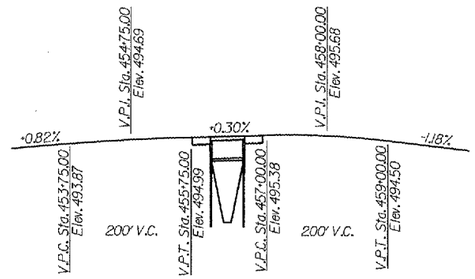
ELEVATION
Looking East

STATION 456+34.50
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. ROUTE 304
SECTION 2B-6
LOADING HS 20-44
STR. NO. 075-0509

NAME PLATE
See Std. 515001



PLAN



PROFILE GRADE
Along ℄ Roadway

LOADING HS20-44
Allow 50#/sq.ft. For Future Wearing Surface

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications - 17th Ed.

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.8%g
Site Coefficient (S) = 1.0

DESIGN STRESSES
(FIELD UNITS)
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

(PRECAST PRESTRESSED UNITS)
f'ci = 6,000 psi
f'cl = 5,000 psi
f's = 270,000 psi (1/2" dia. low lax. strands)
fsi = 201,960 psi (1/2" dia. low lax. strands)

Design Scour Elevations	
North Abutment	South Abutment
487.1	487.2

WATERWAY INFORMATION

Drainage Area = 1.80 sq.mi.			Low Grade Elev. = 489.26 ft. @		Sta. 462+30			
Flood	Freq. Yr.	Q C.F.S.	Opening Sq.Ft.		Natural H.W.E.	Head Ft.		Headwater Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	1285	62	90	486.20	2.99	2.47	489.19	488.67
Design	50	2106	95	135	487.30	4.29	3.64	491.59	490.94
Base	100	2471	108	154	487.73	4.50	3.83	492.23	491.56
Overtopping	20	1580	76	107	485.62	3.88	2.72	490.50	489.34
Max.Calc.	500	3372	137	199	488.69	4.64	3.98	493.33	492.67

APPROVED
For Structural Adequacy Only
Ralph E. Anderson (TJD)
Engineer of Bridges & Structures

DAVID S. POLAND
062-005124
LICENSED
STRUCTURAL
ENGINEER
ILLINOIS
9-26-07

DAVID S. POLAND
LICENSED STRUCTURAL ENGINEER
QUINCY, ILLINOIS
EXPIRES: 11/30/08

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A — DRAWN BY JLS
DATE SEPT 2007 — CHECKED BY DSP

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USER NAME = $USER$

GENERAL NOTES

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

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

The Contractor shall drive test piles to 110% of the Nominal Required Bearing specified in production locations at substructures specified (North Abutment) or approved by the Engineer before ordering the remainder of piles.

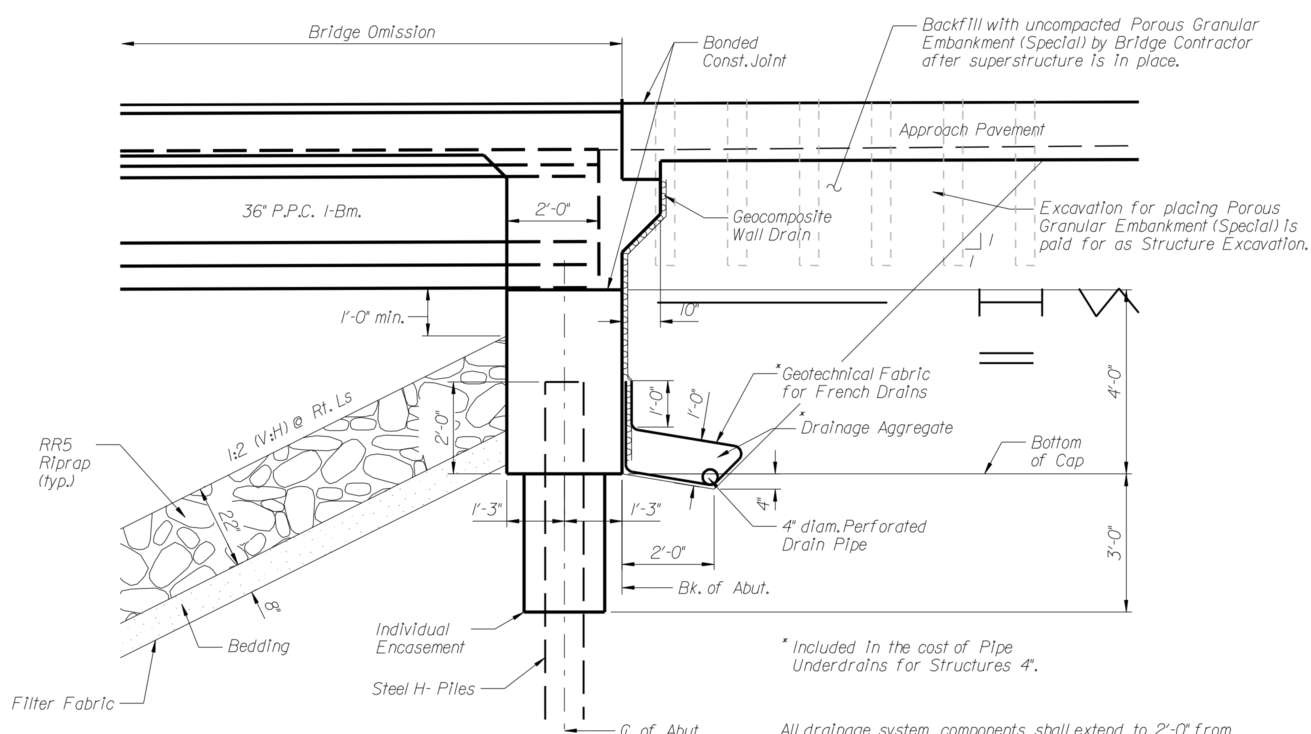
The Steel H-piles shall be according to AASHTO M270 Grade 50.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The contractor shall sawcut the upper portion of the existing abutments at the Stage Removal line before Stage II Removal to ensure the remaining portion will not be prematurely damaged.

TOTAL BILL OF MATERIAL

	Item	Unit	Super	Sub	Total
*	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU. YD.			156
	STONE DUMPED RIPRAP, CLASS A5	TON			981
*	RIPRAP FOR STILLING BASIN	TON			1,329
	FILTER FABRIC	SQ. YD.			1,873
*	REMOVAL OF EXISTING STRUCTURES	L.SUM			1
*	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH			1
	STRUCTURE EXCAVATION	CU. YD.		314	314
	FLOOR DRAINS	EACH	6		6
	CONCRETE STRUCTURES	CU. YD.		40.0	40.0
	CONCRETE SUPERSTRUCTURE	CU. YD.	88.4		88.4
	BRIDGE DECK GROOVING	SQ. YD.	212		212
	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	327		327
	REINFORCEMENT BARS, EPOXY COATED	POUND	16,820	5,380	22,200
	FURNISHING STEEL PILES HP10x42	FOOT		572	572
	DRIVING PILES	FOOT		572	572
	TEST PILE STEEL HP10X42	EACH		1	1
	CONCRETE ENCASEMENT	CU. YD.		4.0	4.0
	NAME PLATES	EACH	1		1
	GEOCOMPOSITE WALL DRAIN	SQ. YD.			80
*	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT		182	182
*	RIPRAP SLURRY	SQ. YD.			1,873
*	TEMPORARY SOIL RETENTION SYSTEM	SQ. FT.			350
	BAR SPLICERS	EACH	279	28	307

* SEE SPECIAL PROVISIONS



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

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 601101)

SECTION THRU INTEGRAL ABUTMENT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

QUANTITIES AND GENERAL NOTES
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A — DRAWN BY JLS
DATE SEPT 2007 — CHECKED BY DSP

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CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	62
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

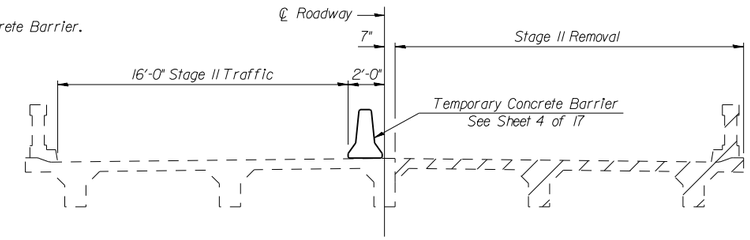
SN075-0509 Sheet 3 of 17

Notes:
Hatched area indicates "Removal of Existing Structures".

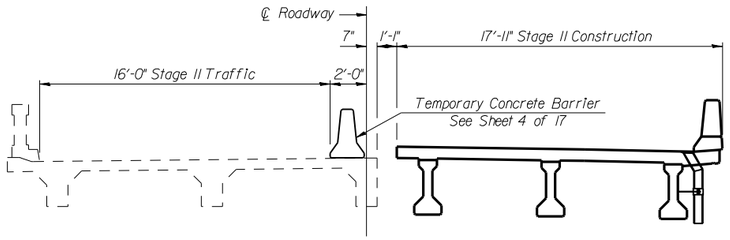
See Roadway Plans for quantity of Temporary Concrete Barrier.

All stage construction sections are looking South.

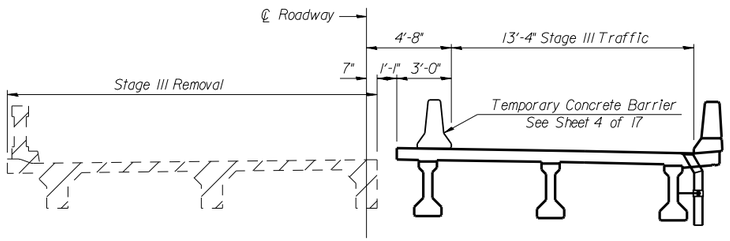
Dimensions are at Rt. L's to ℄ Roadway.



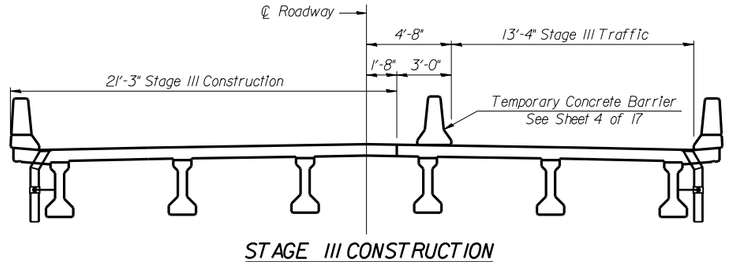
STAGE II REMOVAL



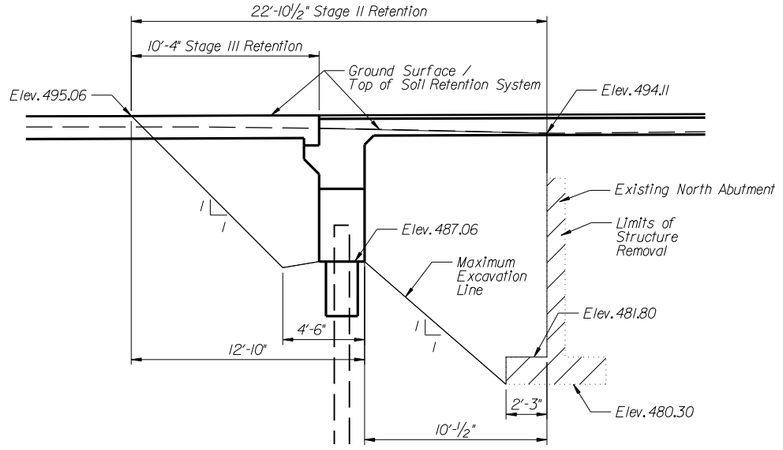
STAGE II CONSTRUCTION



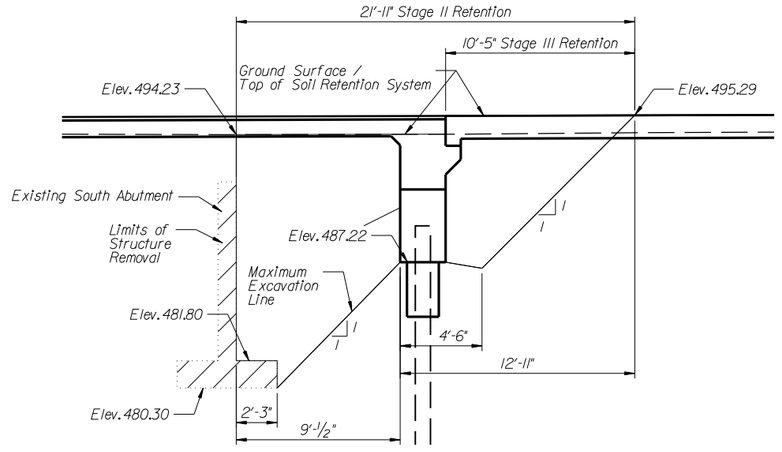
STAGE III REMOVAL



STAGE III CONSTRUCTION



TEMPORARY SOIL RETENTION SYSTEM AT NORTH ABUTMENT



TEMPORARY SOIL RETENTION SYSTEM AT SOUTH ABUTMENT

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

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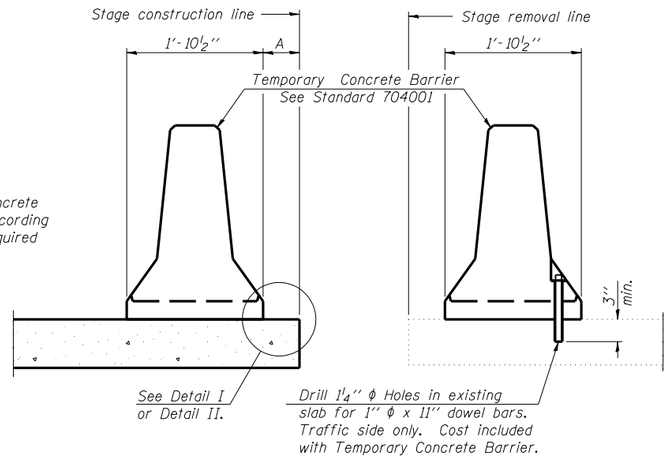
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	63
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 4 of 17

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB EXISTING SLAB

SECTIONS THRU SLAB

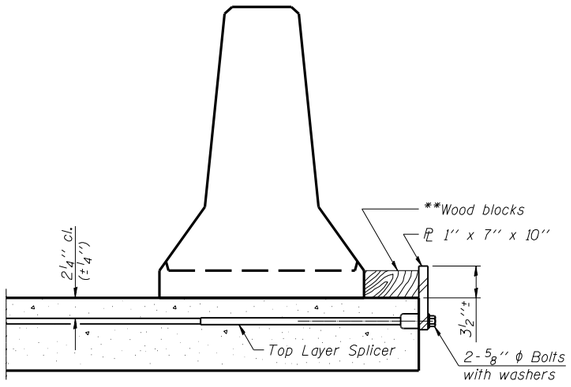
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℄ to the top layer of couplers with 2-$\frac{5}{8}$" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

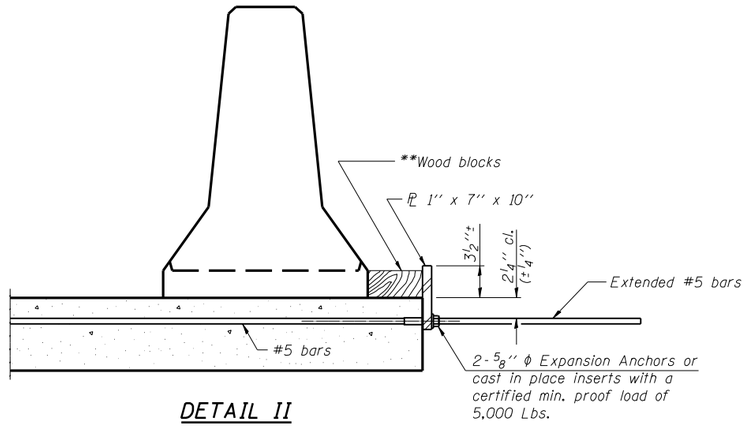
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℄ to the concrete slab with 2-$\frac{5}{8}$" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

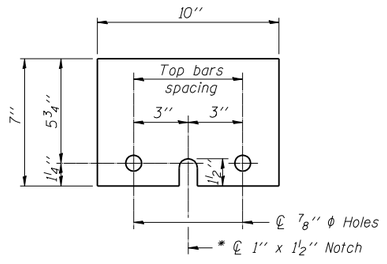
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



DETAIL I



DETAIL II



STEEL RETAINER ℄ 1" x 7" x 10"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

For Pay Item "Temporary Concrete Barrier", see Roadway Plans.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY CONCRETE BARRIER
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

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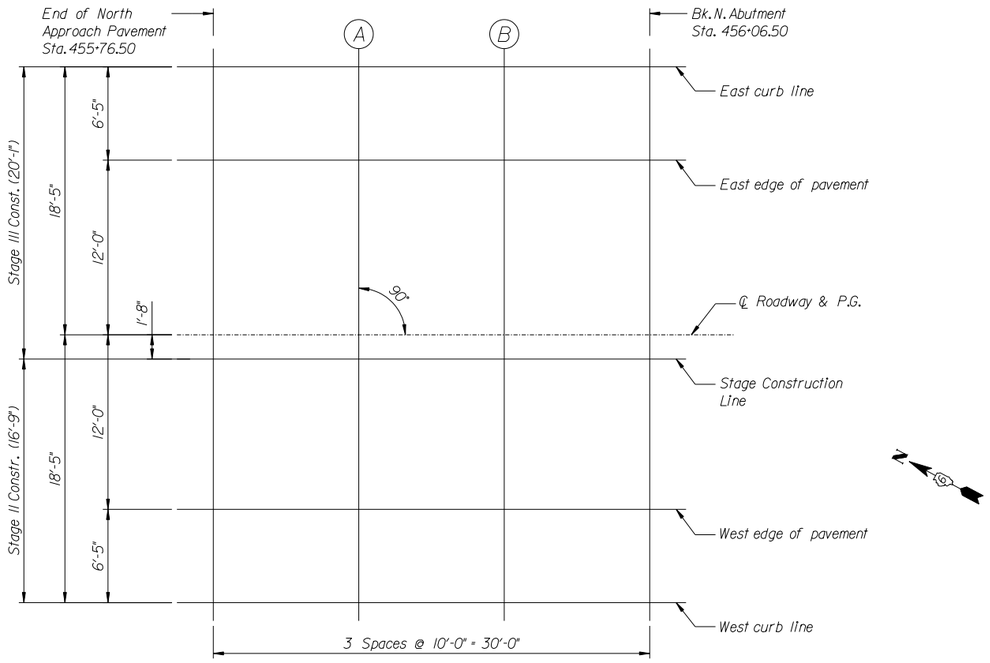
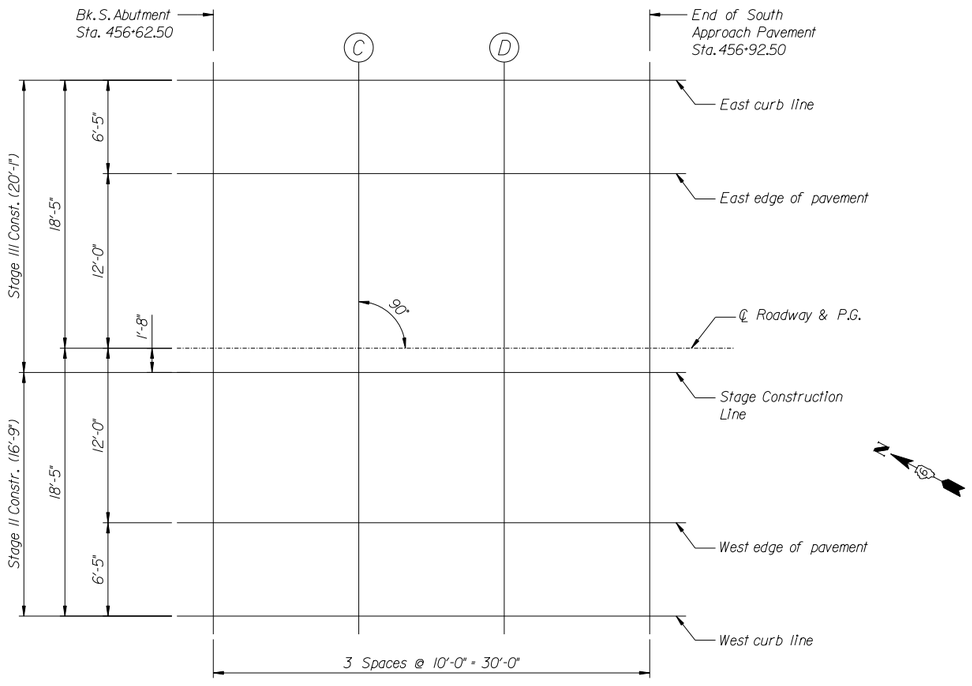
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	64
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 6 of 17



PLAN - NORTH APPROACH PAVEMENT



PLAN - SOUTH APPROACH PAVEMENT

EAST CURB LINE / WEST CURB LINE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	-18.417 / 18.417	494.68
A	455+86.50	-18.417 / 18.417	494.71
B	455+96.50	-18.417 / 18.417	494.74
Bk. N. Abutment	456+06.50	-18.417 / 18.417	494.77
Bk. S. Abutment	456+62.50	-18.417 / 18.417	494.94
C	456+72.50	-18.417 / 18.417	494.97
D	456+82.50	-18.417 / 18.417	495.00
End S. Approach Pav't	456+92.50	-18.417 / 18.417	495.03

EAST EDGE OF PAVEMENT / WEST EDGE OF PAVEMENT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	-12.00 / 12.00	494.82
A	455+86.50	-12.00 / 12.00	494.85
B	455+96.50	-12.00 / 12.00	494.88
Bk. N. Abutment	456+06.50	-12.00 / 12.00	494.91
Bk. S. Abutment	456+62.50	-12.00 / 12.00	495.08
C	456+72.50	-12.00 / 12.00	495.11
D	456+82.50	-12.00 / 12.00	495.14
End S. Approach Pav't	456+92.50	-12.00 / 12.00	495.17

℄ ROADWAY AND P.G.

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	0.0	495.00
A	455+86.50	0.0	495.03
B	455+96.50	0.0	495.06
Bk. N. Abutment	456+06.50	0.0	495.09
Bk. S. Abutment	456+62.50	0.0	495.26
C	456+72.50	0.0	495.29
D	456+82.50	0.0	495.32
End S. Approach Pav't	456+92.50	0.0	495.35

BONDED STAGED CONSTRUCTION JOINT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	1.67	494.98
A	455+86.50	1.67	495.01
B	455+96.50	1.67	495.04
Bk. N. Abutment	456+06.50	1.67	495.07
Bk. S. Abutment	456+62.50	1.67	495.24
C	456+72.50	1.67	495.27
D	456+82.50	1.67	495.30
End S. Approach Pav't	456+92.50	1.67	495.33

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH SLAB ELEV.
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS

DATE SEPT 2007 CHECKED BY DSP

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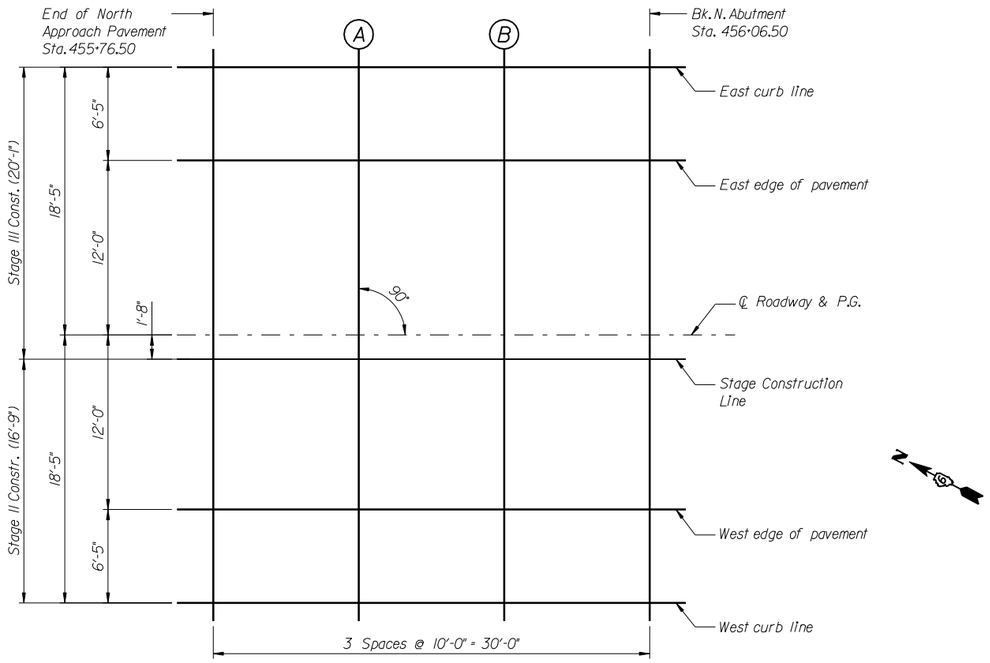
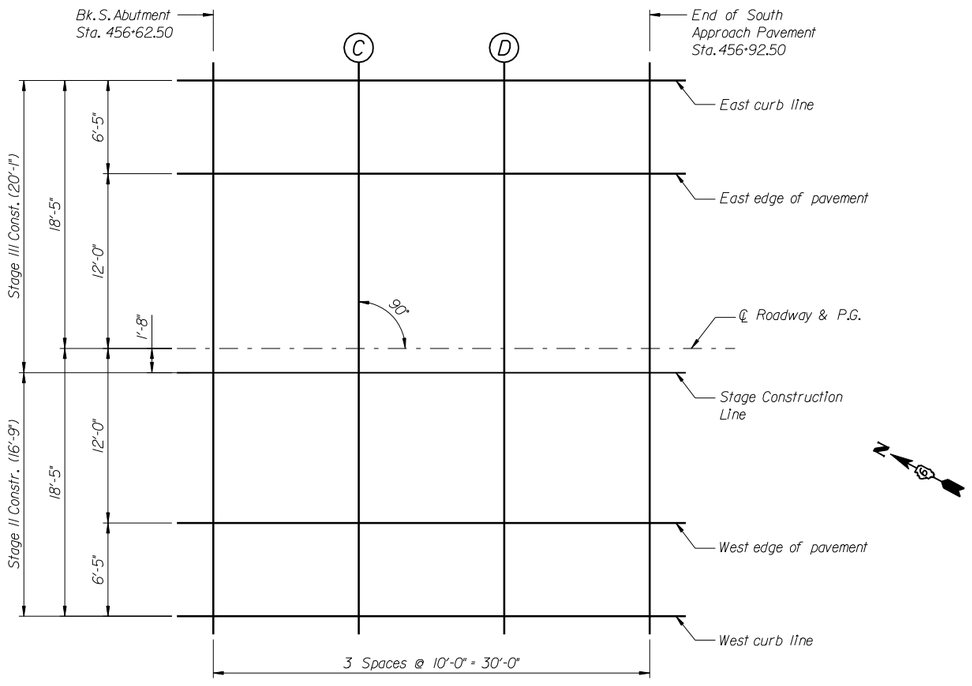
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	64A
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 6 of 17



PLAN - NORTH APPROACH PAVEMENT



PLAN - SOUTH APPROACH PAVEMENT

EAST CURB LINE / WEST CURB LINE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	-18.417 / 18.417	494.68
A	455+86.50	-18.417 / 18.417	494.71
B	455+96.50	-18.417 / 18.417	494.74
Bk. N. Abutment	456+06.50	-18.417 / 18.417	494.77
Bk. S. Abutment	456+62.50	-18.417 / 18.417	494.94
C	456+72.50	-18.417 / 18.417	494.97
D	456+82.50	-18.417 / 18.417	495.00
End S. Approach Pav't	456+92.50	-18.417 / 18.417	495.03

EAST EDGE OF PAVEMENT / WEST EDGE OF PAVEMENT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	-12.00 / 12.00	494.82
A	455+86.50	-12.00 / 12.00	494.85
B	455+96.50	-12.00 / 12.00	494.88
Bk. N. Abutment	456+06.50	-12.00 / 12.00	494.91
Bk. S. Abutment	456+62.50	-12.00 / 12.00	495.08
C	456+72.50	-12.00 / 12.00	495.11
D	456+82.50	-12.00 / 12.00	495.14
End S. Approach Pav't	456+92.50	-12.00 / 12.00	495.17

℄ ROADWAY AND P.G.

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	0.0	495.00
A	455+86.50	0.0	495.03
B	455+96.50	0.0	495.06
Bk. N. Abutment	456+06.50	0.0	495.09
Bk. S. Abutment	456+62.50	0.0	495.26
C	456+72.50	0.0	495.29
D	456+82.50	0.0	495.32
End S. Approach Pav't	456+92.50	0.0	495.35

BONDED STAGED CONSTRUCTION JOINT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Approach Pav't	455+76.50	1.67	494.98
A	455+86.50	1.67	495.01
B	455+96.50	1.67	495.04
Bk. N. Abutment	456+06.50	1.67	495.07
Bk. S. Abutment	456+62.50	1.67	495.24
C	456+72.50	1.67	495.27
D	456+82.50	1.67	495.30
End S. Approach Pav't	456+92.50	1.67	495.33

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH SLAB ELEV.

ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS

DATE SEPT 2007 CHECKED BY DSP

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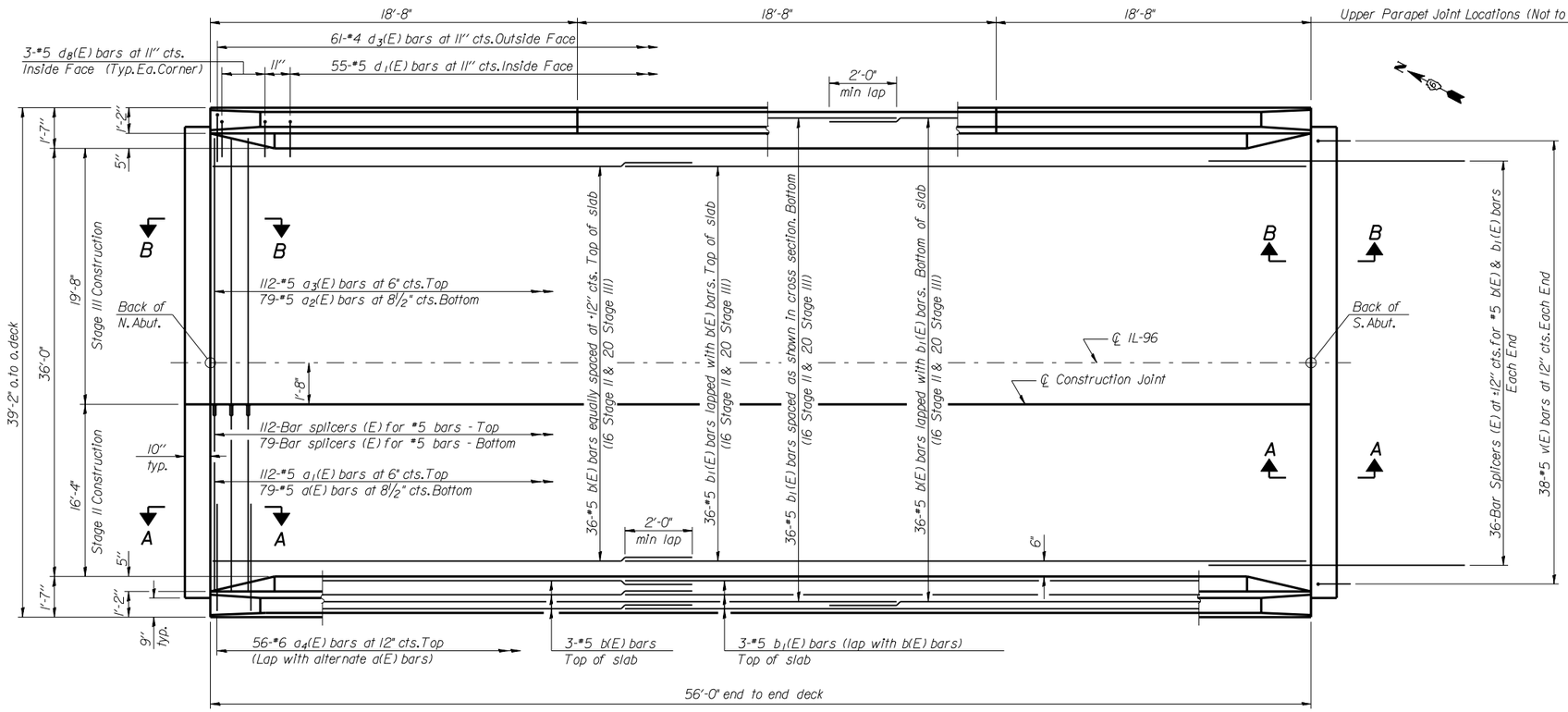
CONTRACT NO. 72891

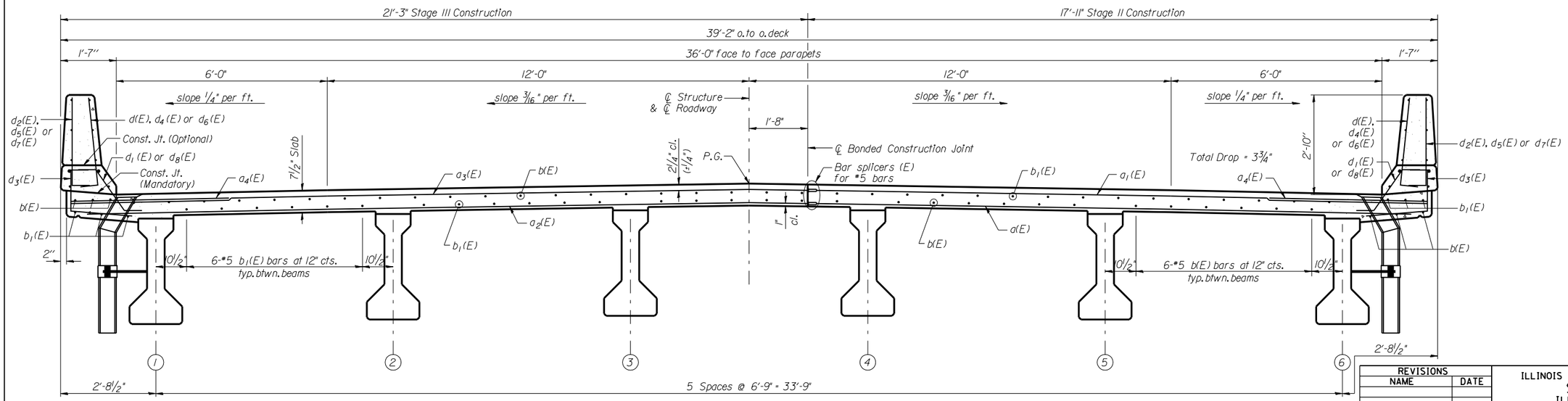
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	65
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 7 of 17



PLAN

Notes:
See Sheet 9 of 17 for Superstructure Details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet 9 of 17 for parapet reinforcement.
See Sheet 14 of 17 for Sections A-A and B-B



NORTH HALF

SOUTH HALF

CROSS SECTION

(Looking South)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS

DATE SEPT 2007 CHECKED BY DSP

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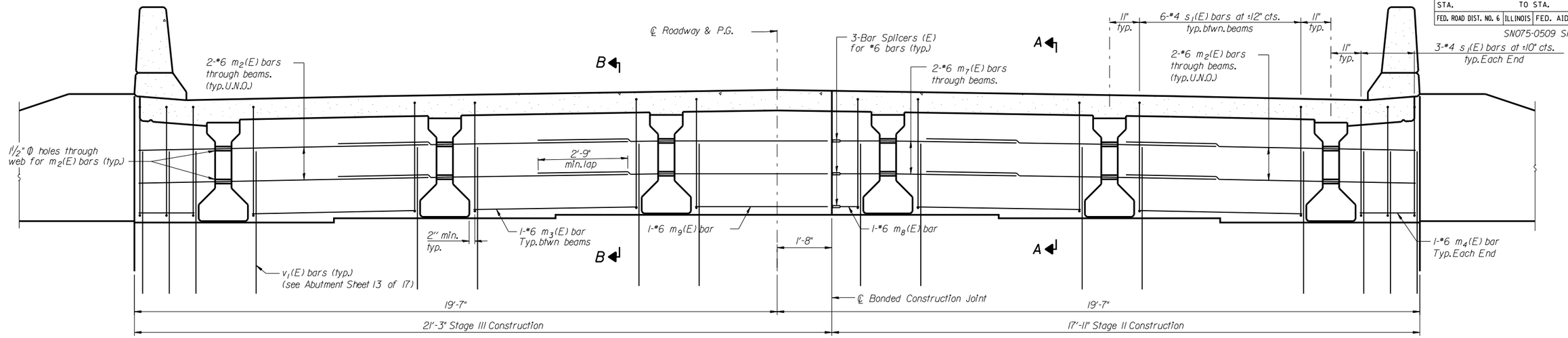
CONTRACT NO. 72891

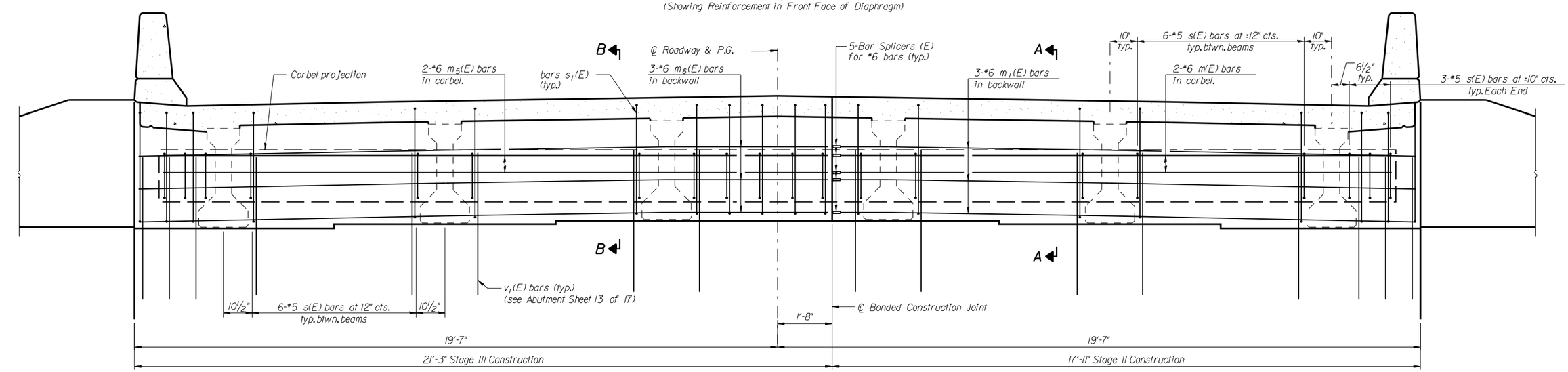
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	66
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 8 of 17



DIAPHRAGM ELEVATION - SOUTH ABUTMENT

(Looking South)
(Showing Reinforcement in Front Face of Diaphragm)



DIAPHRAGM ELEVATION - SOUTH ABUTMENT

(Looking South)
(Showing Reinforcement in Back Face of Diaphragm)

Notes:

South Abutment Shown. North Abutment is mirrored about ℄.

Reinforcement bars in diaphragm are billed with superstructure on sheet 9 of 17.

Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 17.

For details of bars s(E) and s_1(E) see sheet 9 of 17.

The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

See sheet 14 of 17 for Sections A-A and B-B.

Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

MIN.BAR LAP

#6 bar = 2'-9"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS
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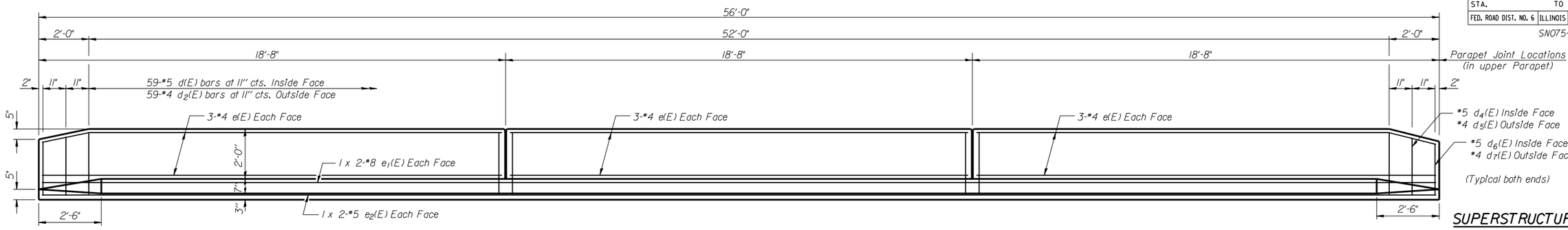
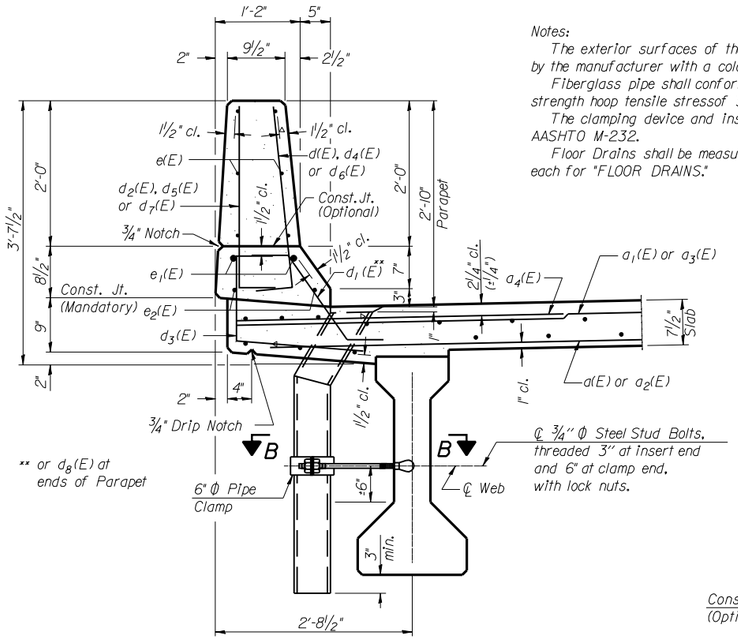
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	67
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 9 of 17



INSIDE ELEVATION OF PARAPET



** or $d_8(E)$ at ends of Parapet

SECTION THRU PARAPET

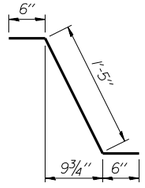
Notes:

The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.

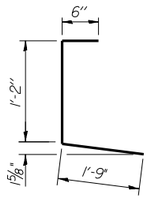
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

The clamping device and inserts shall be galvanized according to AASHTO M-232.

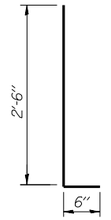
Floor Drains shall be measured and paid for at the contract unit price each for "FLOOR DRAINS."



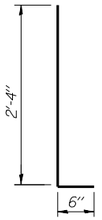
BAR $d_1(E)$



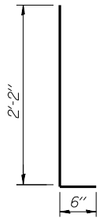
BAR $d_3(E)$



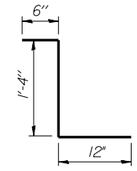
BAR $d(E)$ & BAR $d_2(E)$



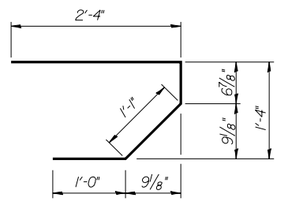
BAR $d_4(E)$ & BAR $d_5(E)$



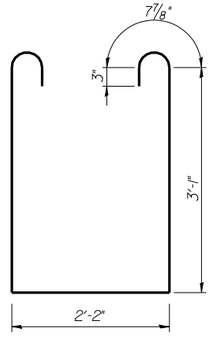
BAR $d_6(E)$ & BAR $d_7(E)$



BAR $d_8(E)$



Bar s(E)

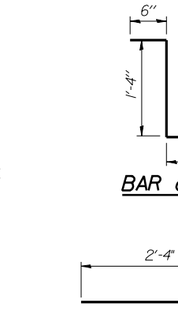


Bar $s_1(E)$

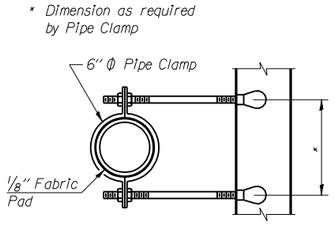
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	79	#5	17'-1"	———
$a_1(E)$	112	#5	17'-6"	———
$a_2(E)$	79	#5	20'-5"	———
$a_3(E)$	112	#5	20'-10"	———
$a_4(E)$	112	#6	4'-6"	———
b(E)	78	#5	20'-0"	———
$b_1(E)$	78	#5	40'-0"	———
d(E)	118	#5	3'-0"	⎯
$d_1(E)$	110	#5	2'-5"	⎿
$d_2(E)$	118	#4	3'-0"	⎯
$d_3(E)$	122	#4	3'-5"	⎿
$d_4(E)$	4	#5	2'-10"	⎯
$d_5(E)$	4	#4	2'-10"	⎯
$d_6(E)$	4	#5	2'-8"	⎯
$d_7(E)$	4	#4	2'-8"	⎯
$d_8(E)$	12	#5	2'-10"	⎿
e(E)	36	#4	18'-4"	———
$e_1(E)$	8	#8	30'-0"	———
$e_2(E)$	8	#5	30'-0"	———
m(E)	2	#6	17'-0"	———
$m_1(E)$	3	#6	17'-8"	———
$m_2(E)$	10	#6	8'-10"	———
$m_3(E)$	4	#6	5'-0"	———
$m_4(E)$	2	#6	1'-8"	———
$m_5(E)$	2	#6	20'-4"	———
$m_6(E)$	3	#6	21'-1"	———
$m_7(E)$	2	#6	5'-6"	———
$m_8(E)$	1	#6	0'-7"	———
$m_9(E)$	1	#6	4'-0"	———
s(E)	36	#5	5'-0"	⎯⎯
$s_1(E)$	36	#4	10'-2"	⎯⎯
v(E)	38	#5	3'-0"	⎾
Reinforcement Bars, Epoxy Coated		Pound	16,820	
Floor Drains		Each	6	
Concrete Superstructure		Cu.Yd.	88.4	
Bridge Deck Grooving		Sq. Yd.	212	
Bar Splicers		Each	279	

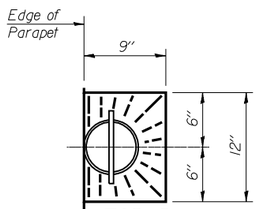
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.



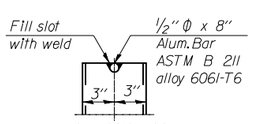
PARAPET JOINT DETAILS



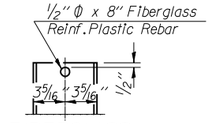
SECTION B-B



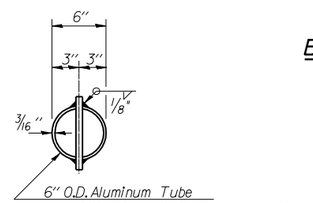
TOP PLAN



ALUMINUM TUBE

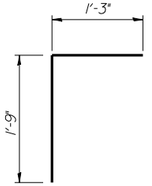


FIBERGLASS PIPE



TOP PLAN

(Showing Aluminum Tube)



Bar v(E)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A — DRAWN BY JLS
DATE SEPT 2007 — CHECKED BY DSP

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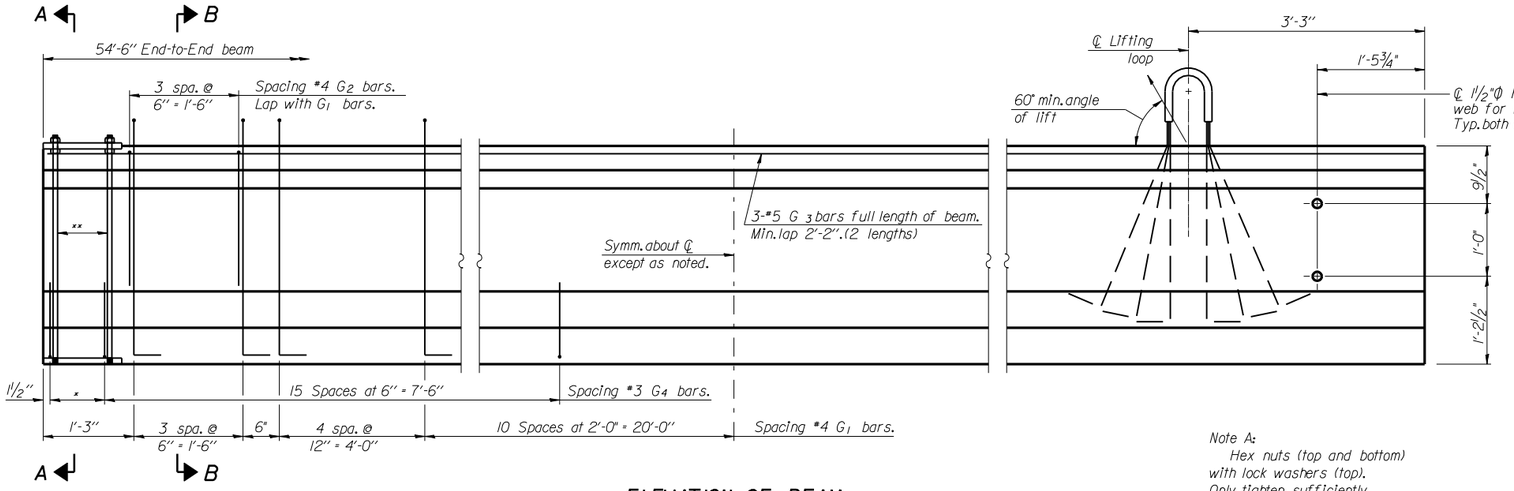
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	68
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

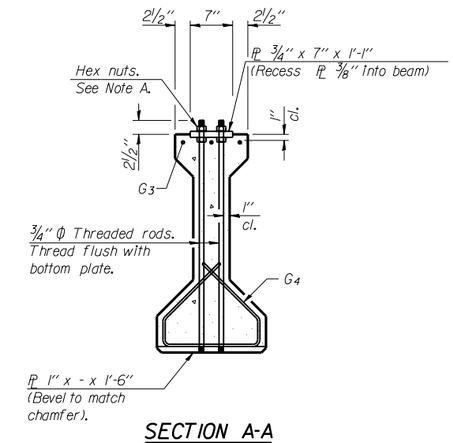
SN075-0509 Sheet 10 of 17



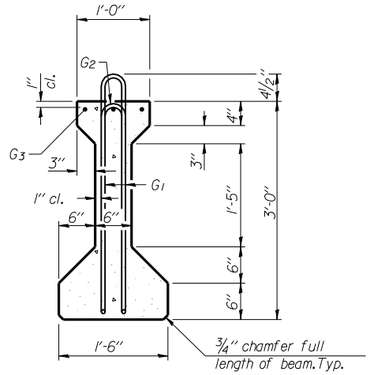
* 3 spaces at 3" = 9"
** 4-¾" Ø threaded dowel rods at 3" cts. each face.

ELEVATION OF BEAM
(Showing reinforcement & dimensions)

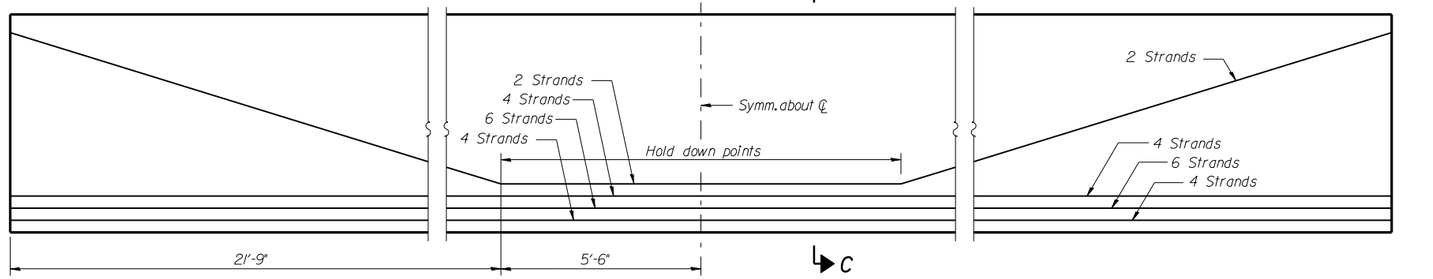
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



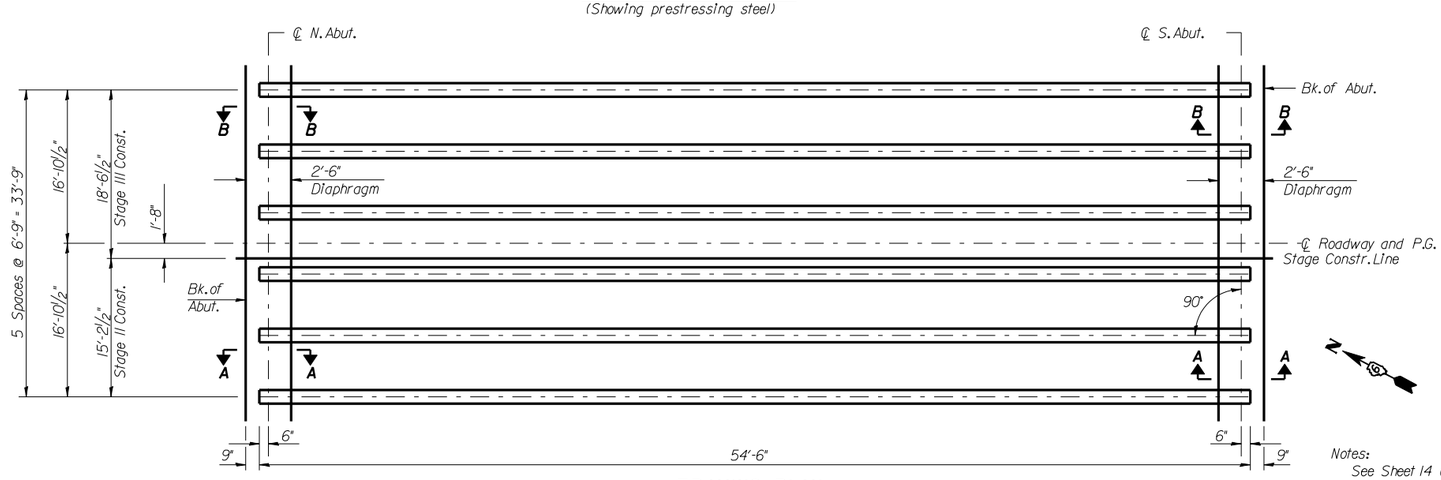
SECTION A-A



SECTION B-B

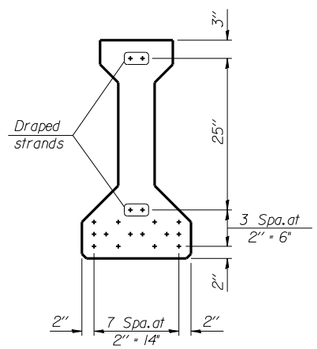


ELEVATION OF BEAM
(Showing prestressing steel)



FRAMING PLAN

Notes:
See Sheet 14 of 17 for Sections A-A and B-B as shown in Framing Plan.



SECTION C-C

BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	37	#4	7'-5"	⊓L
G_2	8	#4	5'-8"	⊓
G_3	6	#5	28'-3"	—
G_4	38	#3	4'-1"	⌓

Notes:
See sheet 11 of 17 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FRAMING PLAN & BEAM DETAILS
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

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CONTRACT NO. 72891

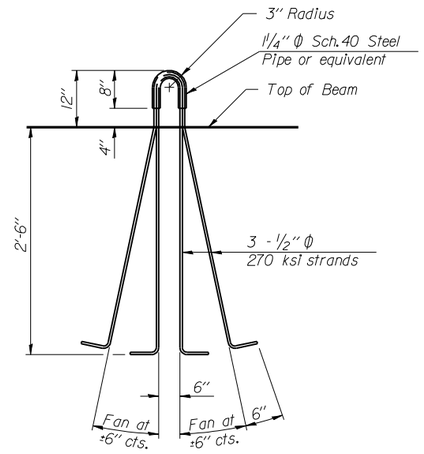
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	69
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 11 of 17

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
I	(in^4)	51,840
I'	(in^4)	188,984
S_b	(in^3)	3,373
S_b'	(in^3)	6,344
S_t	(in^3)	2,513
S_t'	(in^3)	12,847
Q_L	(k/')	1.02
M_{Q_L}	('k)	363.9
s_{Q_L}	(k/')	0.450
$M_{s\,Q_L}$	('k)	160.8
M_{L_L}	('k)	419.1
M_{Imp}	('k)	117.4

INTERIOR BEAM REACTION TABLE		
		Abut.
R (DL)	(k)	27.2
Rs (DL)	(k)	12.0
R (LL)	(k)	31.3
Imp.	(k)	8.8
R (TOTAL)	(k)	78.5

I: Non-composite moment of inertia of beam section ($in.^4$).
I': Composite moment of inertia of beam section ($in.^4$).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_b': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_t: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
S_t': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
Q_L: Un-factored non-composite dead load (kips/ft.).
MQ_L: Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
sQ_L: Un-factored long-term composite (superimposed) dead load (kips/ft.).
M_{sQ_L}: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
M_{L_L}: Un-factored live load moment on the composite section (kip-ft.).
M_{Imp}: Un-factored moment due to impact on the composite section (kip-ft.).



LIFTING LOOP DETAIL

NOTES

Inserts for 3/4" ∅ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq.in.

Non-prestressing steel shall conform to the requirements of ASTM A 706, Grade 60 (IL Modified).

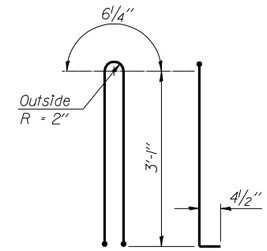
A minimum 2 1/2" ∅ lifting pin shall be used to engage the lifting loops during handling.

Reinforcement bars designated (E) shall be epoxy coated.

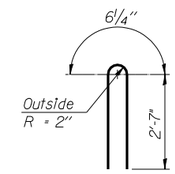
The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.

Threaded rods shall be ASTM F 1554 Grade 55.

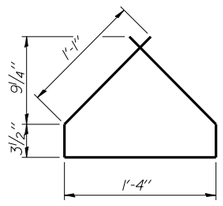
The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam or Bulb-T beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 36 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.



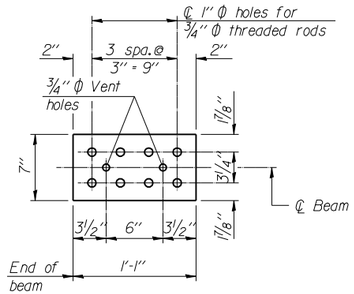
BAR G1



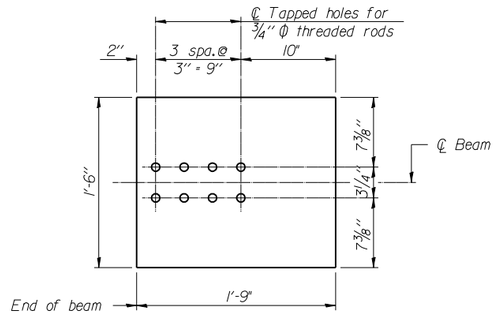
BAR G2



BAR G4



TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 In.	Foot	327

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BEAM DETAILS
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

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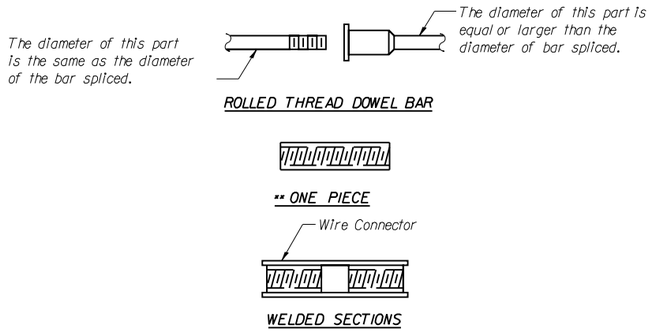
CONTRACT NO. 72891

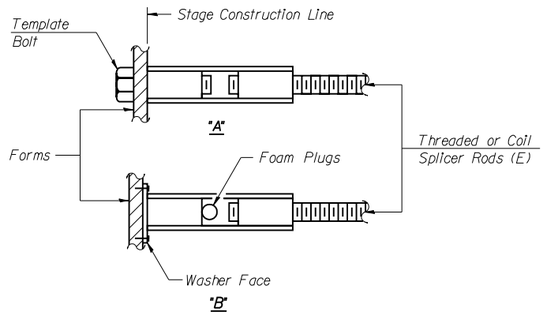
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	70
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 12 of 17



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.

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.

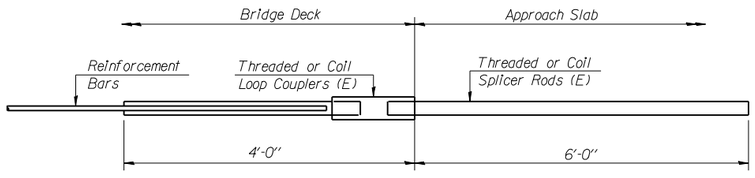
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

1. Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
2. Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

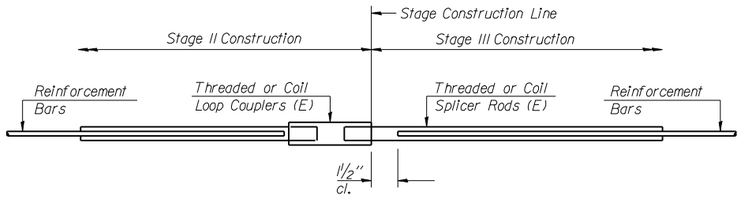
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 72



STANDARD

Bar Size	No. Assemblies Required	Location
#5	191	Super - Deck
#5	6	North Abutment
#5	6	South Abutment
#6	8	Super - N. Diaph.
#6	8	Super - S. Diaph.
#7	8	North Abutment
#7	8	South Abutment

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER DETAILS
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS
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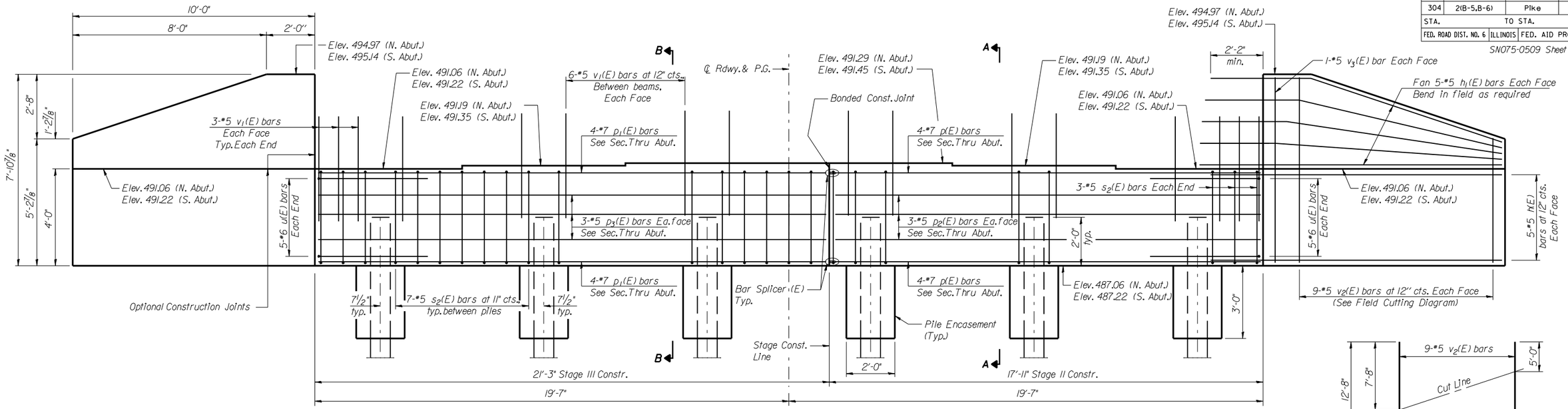
CONTRACT NO. 72891

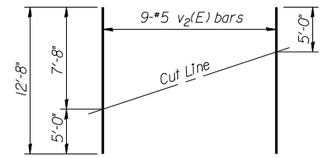
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	71
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 13 of 17



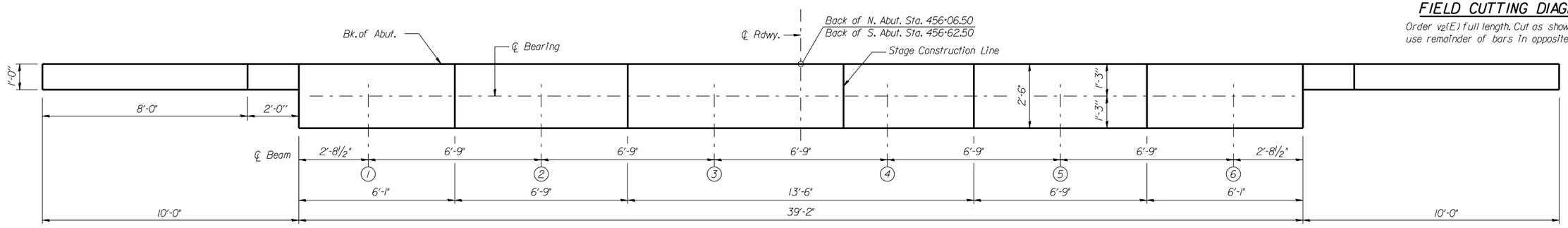
ELEVATION

(South Abutment - Looking South)
(North Abutment - Looking North - mirrored about ℄)

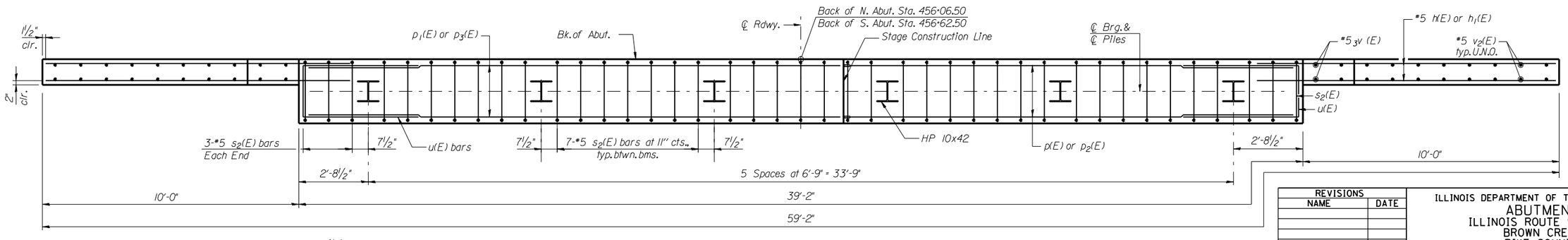


FIELD CUTTING DIAGRAM

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



PLAN



PLAN - PILE CAP

Notes:
Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet 14 of 17 for Sections A-A and B-B.
See Sheet 15 of 17 for Pile Encasement Detail.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ABUTMENT
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

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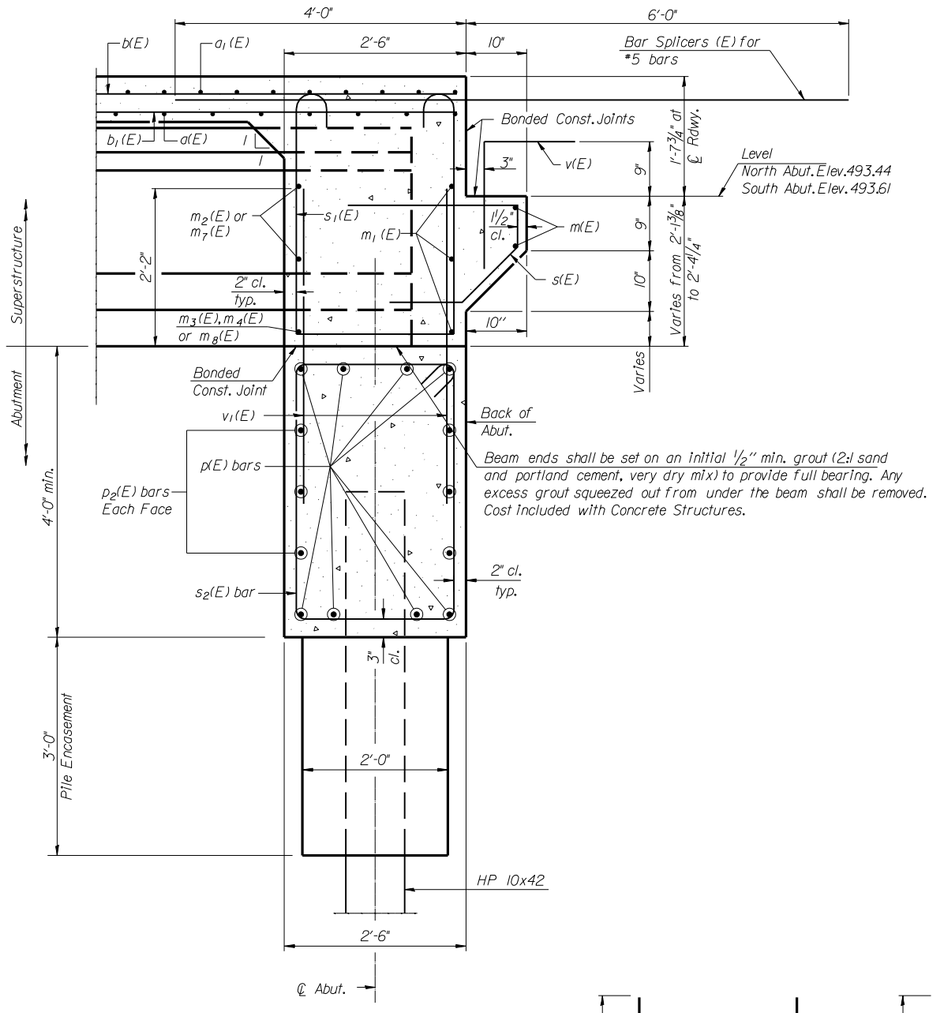
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	72
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

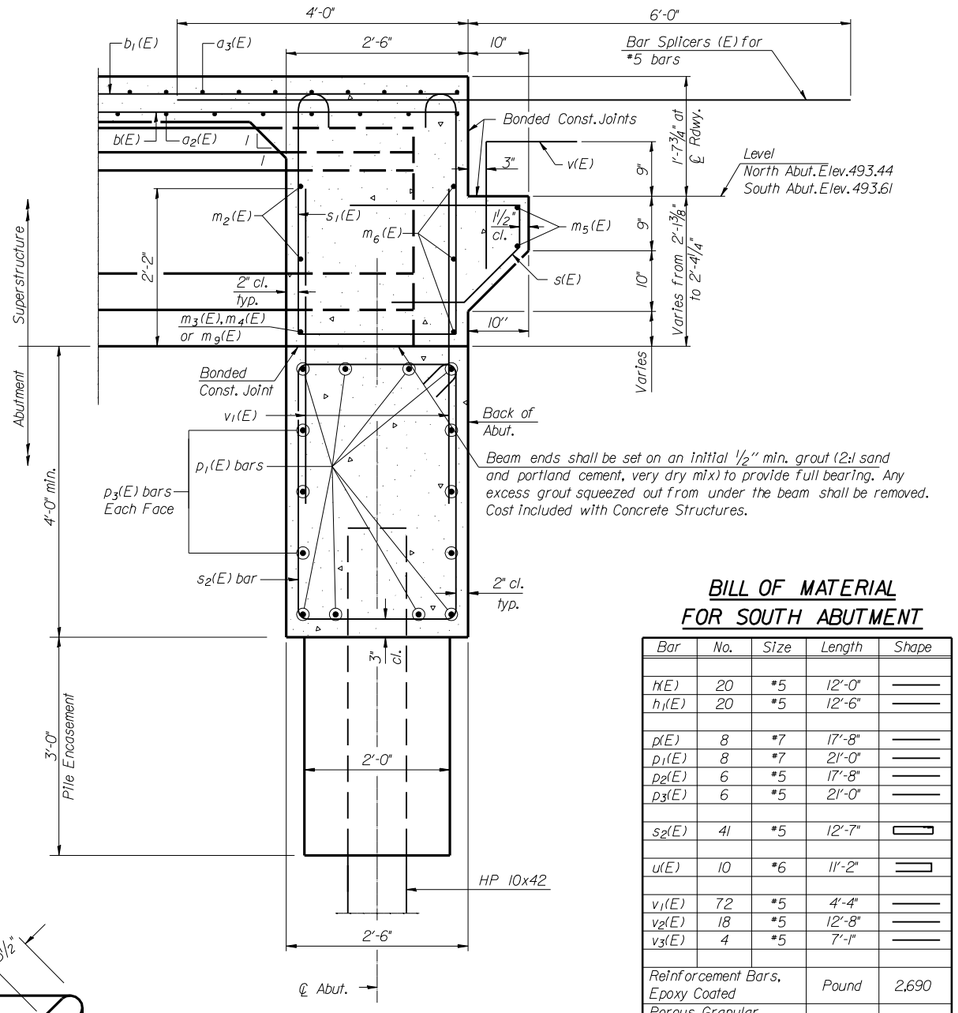
SN075-0509 Sheet 14 of 17



Beam ends shall be set on an initial 1/2" min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

Section through Abutment in Stage II Construction
Dimensions at right angles to abutment, except as shown.



Beam ends shall be set on an initial 1/2" min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

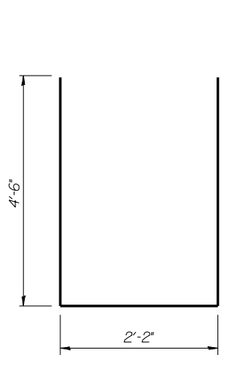
SECTION B-B

Section through Abutment in Stage III Construction
Dimensions at right angles to abutment, except as shown.

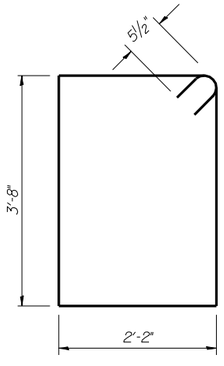
PILE DATA

	N. Abutment	S. Abutment
Type:	Steel HP10x42	Steel HP10x42
Nominal Required Bearing:	335 kips	335 kips
Allowable Resistance Available:	112 kips	112 kips
Estimated Length:	52 ft.	52 ft.
Number Required:	6*	6

* Includes one test pile HP10x42 driven in a permanent location at the North Abutment.



BAR u(E)



BAR s_2(E)

BILL OF MATERIAL FOR SOUTH ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	20	#5	12'-0"	——
h_1(E)	20	#5	12'-6"	——
p(E)	8	#7	17'-8"	——
p_1(E)	8	#7	21'-0"	——
p_2(E)	6	#5	17'-8"	——
p_3(E)	6	#5	21'-0"	——
s_2(E)	41	#5	12'-7"	▭
u(E)	10	#6	11'-2"	▭
v_1(E)	72	#5	4'-4"	——
v_2(E)	18	#5	12'-8"	——
v_3(E)	4	#5	7'-1"	——
Reinforcement Bars, Epoxy Coated		Pound	2,690	
Porous Granular Embankment		Cu.Yds.	78	
Structure Excavation		Cu.Yds.	155	
Concrete Structures		Cu.Yds.	20.0	
Furnishing Steel Piles HP10x42		Foot	312	
Driving Piles		Foot	312	
Concrete Encasement		Cu. Yd.	2.0	
Bar Splicers		Each	14	

BILL OF MATERIAL FOR NORTH ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	20	#5	12'-0"	——
h_1(E)	20	#5	12'-6"	——
p(E)	8	#7	17'-8"	——
p_1(E)	8	#7	21'-0"	——
p_2(E)	6	#5	17'-8"	——
p_3(E)	6	#5	21'-0"	——
s_2(E)	41	#5	12'-7"	▭
u(E)	10	#6	11'-2"	▭
v_1(E)	72	#5	4'-4"	——
v_2(E)	18	#5	12'-8"	——
v_3(E)	4	#5	7'-1"	——
Reinforcement Bars, Epoxy Coated		Pound	2,690	
Porous Granular Embankment		Cu.Yds.	78	
Structure Excavation		Cu.Yds.	159	
Concrete Structures		Cu.Yds.	20.0	
Furnishing Steel Piles HP10x42		Foot	260	
Driving Piles		Foot	260	
Test Pile Steel HP10x42		Each	1	
Concrete Encasement		Cu.Yd.	2.0	
Bar Splicers		Each	14	

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

Notes:

See sheets 7 of 17, 8 of 17 and 13 of 17 for location of Sections A-A and B-B.

See sheet 2 of 17 for section thru abutment showing drainage.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ABUTMENT DETAILS
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

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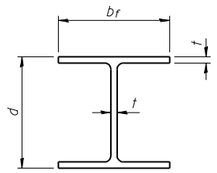
CONTRACT NO. 72891

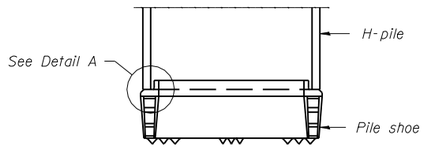
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	72A
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 15 of 17



STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4''	14 7/8''	13/16''	30''
x102	14''	14 3/4''	11/16''	30''
x89	13 7/8''	14 3/4''	5/8''	30''
x73	13 5/8''	14 5/8''	1/2''	30''
HP 12x84	12 1/4''	12 1/4''	11/16''	24''
x74	12 1/8''	12 1/4''	5/8''	24''
x63	12''	12 1/8''	1/2''	24''
x53	11 3/4''	12''	7/16''	24''
HP 10x57	10''	10 1/4''	9/16''	24''
x42	9 3/4''	10 1/8''	7/16''	24''
HP 8x36	8''	8 1/8''	7/16''	18''



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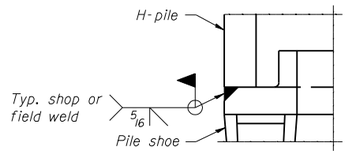
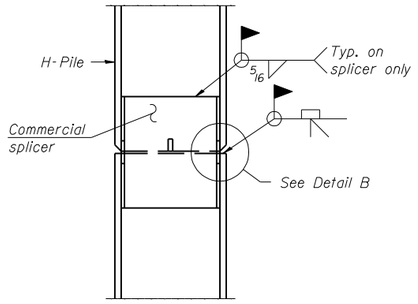


DETAIL A

H-PILE SHOE ATTACHMENT



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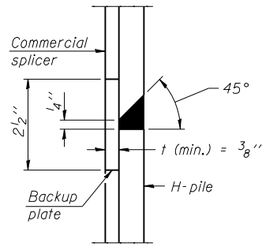
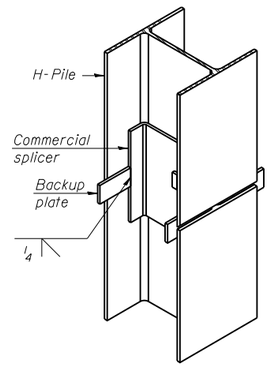
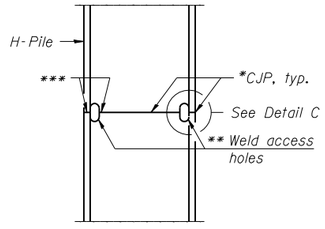


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



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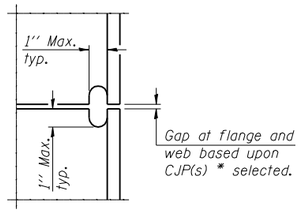


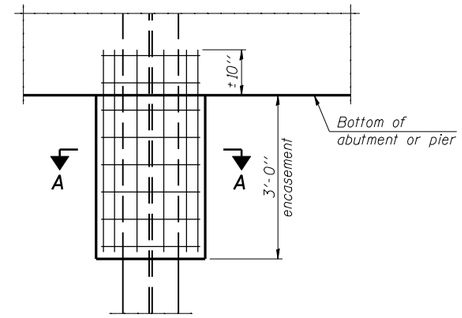
DETAIL C

COMPLETE PENETRATION WELD SPLICE

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds 1/4'' from end of each pile.



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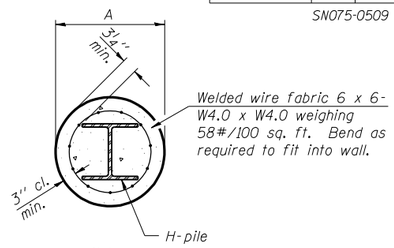
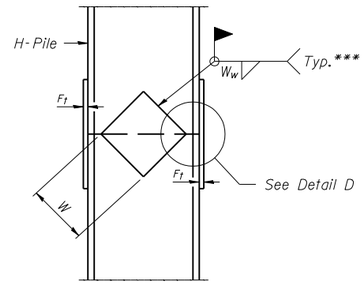


SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

PILE ENCASEMENT



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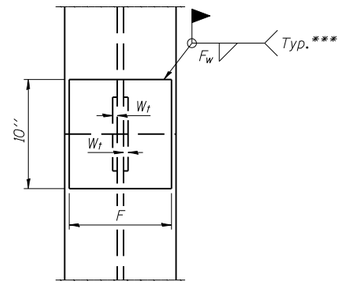
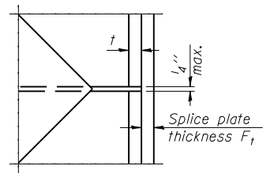


END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2''	1''	7/8''	7 3/4''	5/8''	1/2''
x102	12 1/2''	7/8''	3/4''	7 3/4''	5/8''	1/2''
x89	12 1/2''	3/4''	11/16''	7 3/4''	5/8''	1/2''
x73	12 1/2''	5/8''	9/16''	7 3/4''	5/8''	1/2''
HP 12x84	10''	7/8''	11/16''	6 1/2''	5/8''	1/2''
x74	10''	7/8''	11/16''	6 1/2''	5/8''	1/2''
x63	10''	5/8''	1/2''	6 1/2''	1/2''	3/8''
x53	10''	5/8''	1/2''	6 1/2''	1/2''	3/8''
HP 10x57	8''	3/4''	9/16''	5 1/4''	1/2''	3/8''
x42	8''	5/8''	9/16''	5 1/4''	1/2''	3/8''
HP 8x36	7''	5/8''	7/16''	4 1/4''	1/2''	3/8''

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PILE ENCASEMENT
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

F-HP

11-1-06

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USER NAME = loughlinj

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	73
STA.		TO STA.		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

SN075-0509 Sheet 16 of 17

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Date 9/20/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brown Creek LOGGED BY M. Tappan

SECTION 2, B-5 LOCATION , SEC. 22, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0040 Ex, 075-0509 Pr
Station 456+35

BORING NO. 1 NW ABUT
Station 456+04
Offset 13.0ft RT
Ground Surface Elev. 494.4 ft

Surface Water Elev. 483.5 ft
Stream Bed Elev. 483.5 ft

Groundwater Elev.:
▽ First Encounter 460.4 ft
▼ Upon Completion Washed ft
▼ After ____ Hrs. Plugged ft

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray Moist SILTY CLAY LOAM Fill w/Clay Loam Fill Seams				
		1		
	-5	3	1.4	19
488.90		3	B	
Brown Moist CLAY LOAM Fill				
		1		
		2	0.9	15
486.40		2	B	
Brown Moist Coarse Angular Cherty Limestone GRAVEL				
		1		
	-10	4		
		8		
		2		
		10		
481.40		10		
Brown Moist SILTY CLAY LOAM				
		1		
	-15	2	0.8	20
		2	B	
		1		
		1	0.7	23
		2	B	
		0		
	-20	1	0.4	23

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Moist SILTY CLAY LOAM (continued)		1	B	
Gray and Brown		0		
		2	0.7	23
		2	B	
V. Moist		0		
	-25	0	0.4	28
		1	B	
466.40				
Brown Moist Coarse Angular Cherty Limestone GRAVEL				
		2		
	-30	5		
		3		
461.40				
Brown and Gray to Gray V. Moist SILT LOAM Free Water ▽				
		0		
	-35	0	0.1	31
		1	B	
Gray Wet SILT LOAM		0		
	-40	0	0	30

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-0040 IL 96 OVER BROWN CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/11/06
Latitude 39D 36.008N Longitude 91D 3.959W Datum NAD83 Job Number D-96-524-04

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Date 9/20/05

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brown Creek LOGGED BY M. Tappan

SECTION 2, B-5 LOCATION , SEC. 22, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0040 Ex, 075-0509 Pr
Station 456+35

BORING NO. 1 NW ABUT
Station 456+04
Offset 13.0ft RT
Ground Surface Elev. 494.4 ft

Surface Water Elev. 483.5 ft
Stream Bed Elev. 483.5 ft

Groundwater Elev.:
▽ First Encounter 460.4 ft
▼ Upon Completion Washed ft
▼ After ____ Hrs. Plugged ft

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray to Gray V. Moist SILT LOAM Free Water (continued)		0	Slump	
		0		
	-45	0	0.1	26
		0	B	
		0		
	-50	0	0	33
		0	Slump	
443.40				
Dark Gray Dry Fissile Clayey SHALE				
		41		
	-55	100		8
		/3"		
Dark Gray Moist Clayey SHALE				
434.90		65		
	-60	100		4

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		/2"		
	-65			
	-70			
	-75			
	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-0040 IL 96 OVER BROWN CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/11/06
Latitude 39D 36.008N Longitude 91D 3.959W Datum NAD83 Job Number D-96-524-04

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BORING LOGS - NW ABUTMENT
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

PLOT DATE = Sep-26-2007 02:58:44PM
FILE NAME = c:\projects\d652404\psba_final\sn075-0040\r050181 brown boring logs.dgn
PLOT SCALE = 0.0833 '/ IN.
USER NAME = loughlinrl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	Pike	112	74
STA.		TO STA.		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 91905

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brown Creek LOGGED BY M. Tappan

SECTION 2, B-5 LOCATION , SEC. 22, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0040 EX, 075-0509 Pr
Station 456+35

BORING NO. 2 SE ABUT
Station 456+67
Offset 13.0ft LT
Ground Surface Elev. 494.3 ft

Surface Water Elev. 483.5 ft
Stream Bed Elev. 483.5 ft

Groundwater Elev.:
▽ First Encounter 459.8 ft
▼ Upon Completion Washed ft
▼ After ___ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dark Gray Moist SILTY CLAY LOAM Fill to Brown Moist CLAY LOAM Fill w/Angular Cherty LIMESTONE					
		-5	1		
			2	0.7	20
	488.30		7	B	
Brown Moist Coarse Angular Cherty Limestone GRAVEL					
			2		
			3		
			12		
		-10	1		
			10		
			13		
			0		
			8		
			9		
w/Brown V. Moist SILTY CLAY LOAM	479.30	-15	1		
Brown V. Moist SILTY CLAY LOAM			7	0.3	22
			3	B	
			0		
			1	0.3	25
			1	B	
		-20	0		

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown V. Moist SILTY CLAY LOAM (continued)			0	0.2	28
			1	B	
Moist			0		
			3	0.9	21
			3	B	
No Recovery		-25	0		
			2		
			1		
	465.80				
Brown Wet Coarse Angular Cherty Limestone GRAVEL					
		-30	2		
			8		
			15		
Free Water ▽		-35	0		
w/Gray Moist SILTY CLAY	458.80		4	0.4	27
Brown Coarse Angular Cherty Limestone GRAVEL			4	B	
	456.80				
Brown Coarse Angular Cherty Limestone GRAVEL Washed					
		-40	1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-0040 IL 96 OVER BROWN CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/11/06
Latitude 39D 36.003N Longitude 91D 3.946W Datum NAD83 Job Number D-96-524-04

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 91905

ROUTE FAP 304 (IL 96) DESCRIPTION IL 96 over Brown Creek LOGGED BY M. Tappan

SECTION 2, B-5 LOCATION , SEC. 22, TWP. 5S, RNG. 6W, 4 PM

COUNTY Pike DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 075-0040 EX, 075-0509 Pr
Station 456+35

BORING NO. 2 SE ABUT
Station 456+67
Offset 13.0ft LT
Ground Surface Elev. 494.3 ft

Surface Water Elev. 483.5 ft
Stream Bed Elev. 483.5 ft

Groundwater Elev.:
▽ First Encounter 459.8 ft
▼ Upon Completion Washed ft
▼ After ___ Hrs. Plugged ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Coarse Angular Cherty Limestone GRAVEL Washed (continued)			4		
			7		
		-45	0		
			4		
			3		
	445.80				
Dark Gray Moist Poorly Indurated Clayey SHALE Washed		-50	1		
			5		15
			23		
Gray Dry Fissile Clayey SHALE		-55	100		
			/5"		
Dark Gray Fissile Clayey SHALE	434.30	-60	50		

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			100		12
			/2"		
		-65			
		-70			
		-75			
		-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\PIKE\075-0040 IL 96 OVER BROWN CREEK.GPJ Data Template D6TEMPLT.GDT Date Printed 1/11/06
Latitude 39D 36.003N Longitude 91D 3.946W Datum NAD83 Job Number D-96-524-04

REVISIONS	
NAME	DATE

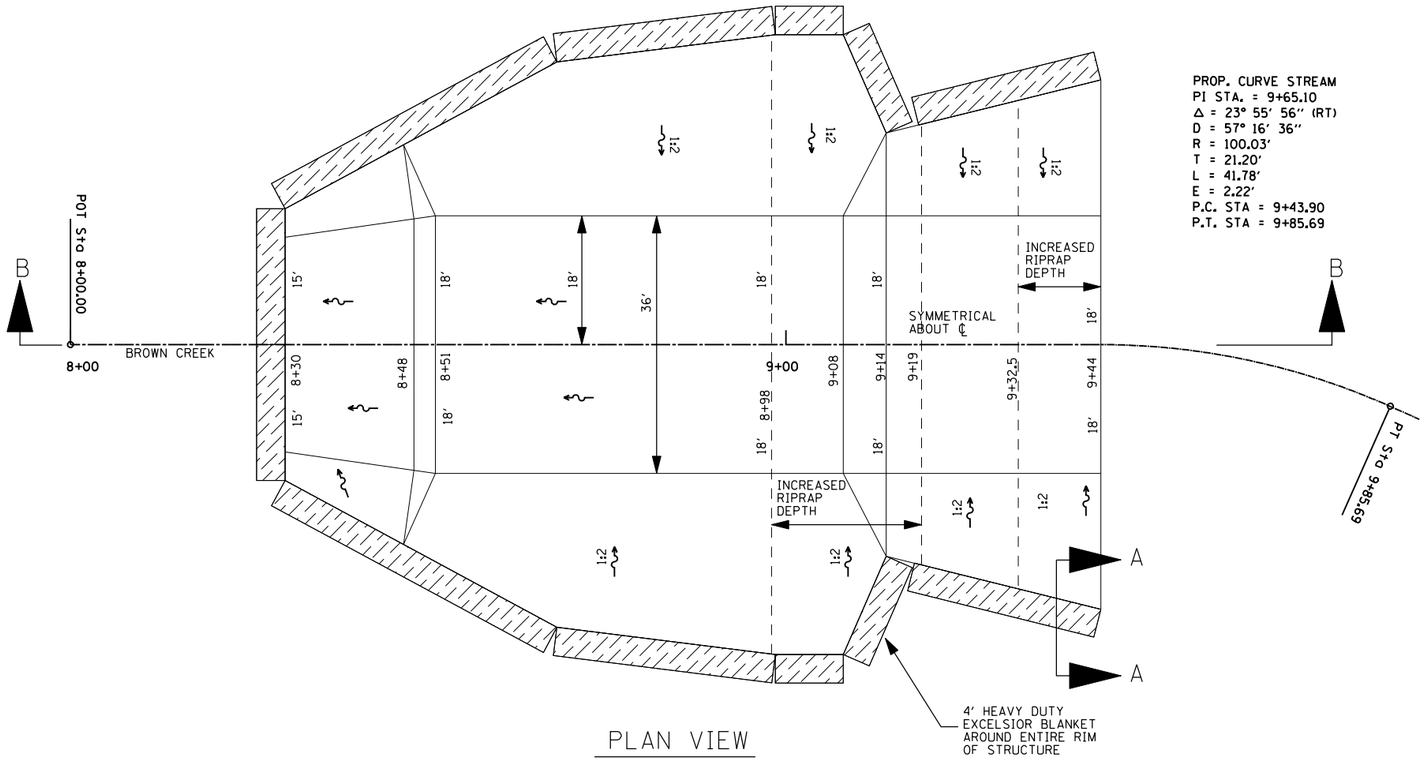
ILLINOIS DEPARTMENT OF TRANSPORTATION
BORING LOGS - SE ABUTMENT
ILLINOIS ROUTE 96 OVER
BROWN CREEK
PIKE COUNTY
FAP RTE 304 - SECTION 2(B-5,B-6)
STATION 456+34.50
STRUCTURE NO. 075-0509

SCALE: N/A DRAWN BY JLS
DATE SEPT 2007 CHECKED BY DSP

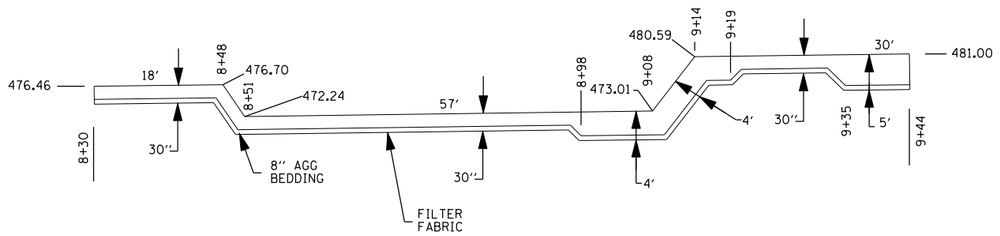
PLOT DATE = Sep-26-2007 02:59:32PM
FILE NAME = c:\projects\d652404\pbbe_final\sn075-0040\sn0750509_brown boring logs.dgn
PLOT SCALE = 0.0833 '/ IN.
USER NAME = laughlinl

CONTRACT NO. 72891

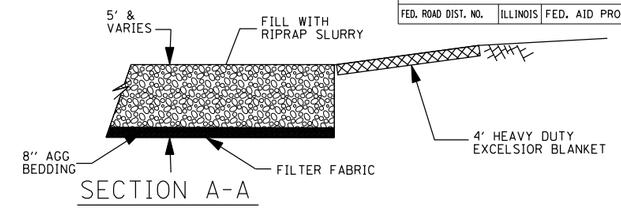
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	75
STA. 8+30	TO STA. 9+40			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



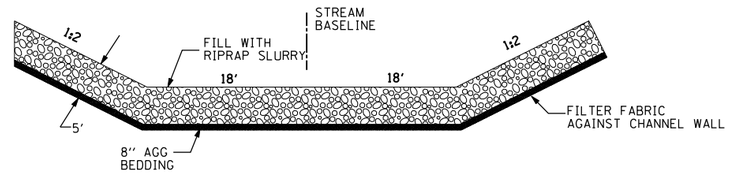
PLAN VIEW



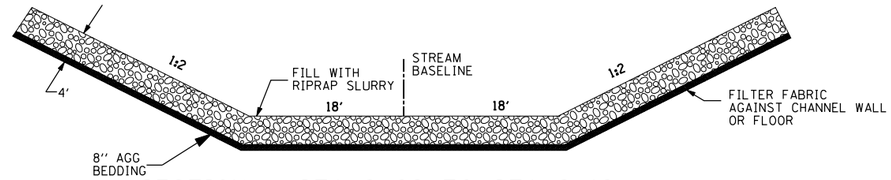
SECTION B-B ALONG CENTERLINE



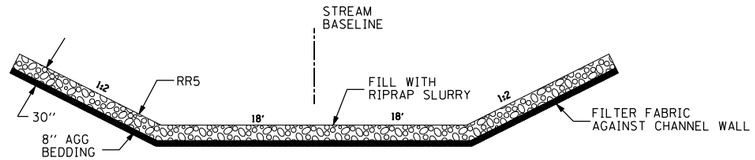
SECTION A-A



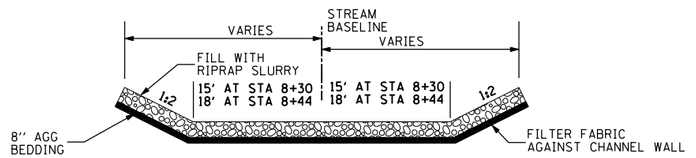
SECTION @ STA 9+35 TO STA 9+44



SECTION @ STA 9+89 TO STA 9+19



SECTION @ STA 8+48 TO STA 8+89
SECTION @ STA 9+19 TO STA 9+35



SECTION @ STA 8+30 TO STA 8+48

ENERGY DISSIPATING RIPRAP STILLING BASIN

RIPRAP FOR THIS ENERGY DISSIPATING RIPRAP STILLING BASIN SHALL BE INSTALLED IN ACORDANCE WITH SECTION 284 OF THE STANDARD SPECIFICATIONS.

THE RIPRAP QUALITY SHALL CONFORM TO CLASS A QUALITY.

FILTER FABRIC WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER SQUARE YARD FOR "FILTER FABRIC".

EXCAVATION FOR THIS BASIN WILL BE CONSIDERED AS NOT SUITABLE FOR ROADWAY FILL AND SHALL BE WASTED OR DISPOSED OF PROPERLY.

EXCAVATION OF THE EXISTING STREAMBED DOWN TO THE SURFACE OF THIS STRUCTURE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR CHANNEL EXCAVATION. EXCAVATION BELOW THE TOP SURFACE NEEDED TO PLACE THE RIPRAP FOR THIS STRUCTURE WILL BE INCIDENTAL TO THE UNIT PRICE BID FOR RIPRAP FOR STILLING BASIN.

CONTRACTOR TO PLACE ON ENTIRE STRUCTURE A CONCRETE SLURRY MIXTURE AROUND THE POSITIONED STONE RIPRAP. PAID FOR AT THE CONTRACT UNIT PRICE BID PER SQUARE YARD FOR RIPRAP SLURRY.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
ENERGY DISSIPATOR

BROWN CREEK

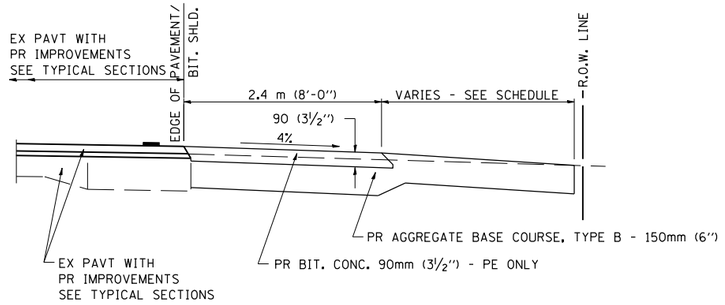
SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

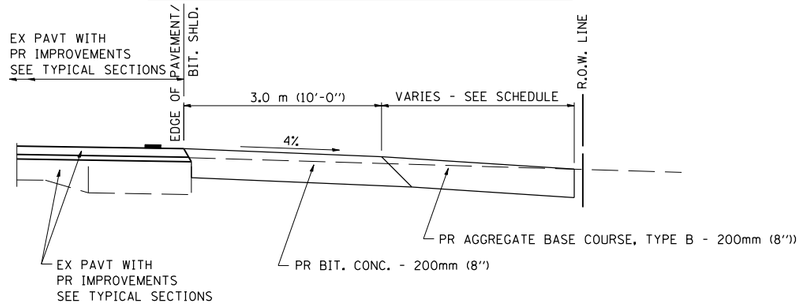
PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\pabs_final\sm075-0040\basin.dgn
PLOT SCALE = 21.2500 ' / IN.
USER NAME = laughlur1

CONTRACT NO. 72891

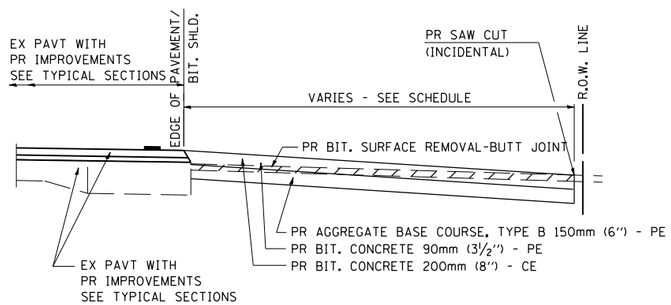
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	76
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



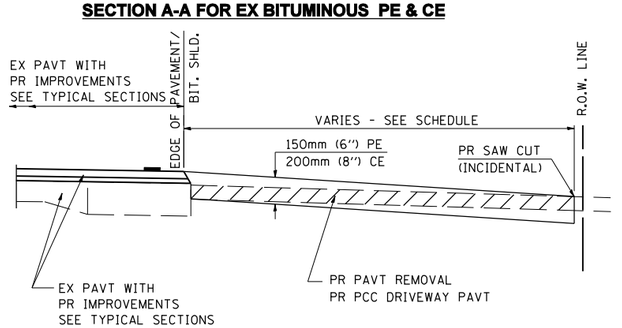
SECTION A-A FOR EX EARTH/AGGREGATE FE & PE



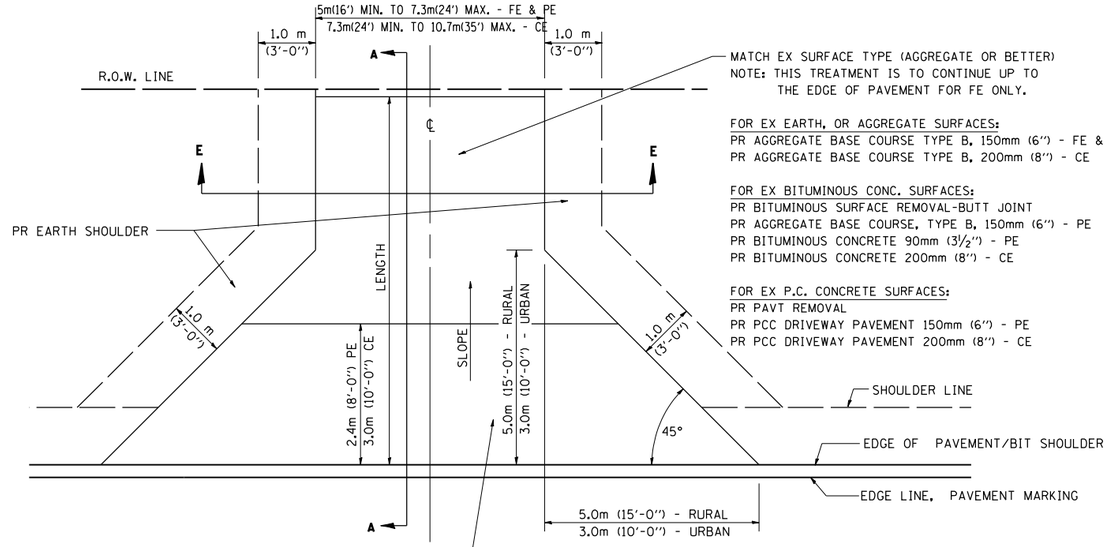
SECTION A-A FOR EX EARTH/AGGREGATE CE



SECTION A-A FOR EX BITUMINOUS PE & CE



SECTION A-A FOR EX P.C. CONC. PE & CE



MATCH EX SURFACE TYPE (AGGREGATE OR BETTER)
NOTE: THIS TREATMENT IS TO CONTINUE UP TO THE EDGE OF PAVEMENT FOR FE ONLY.

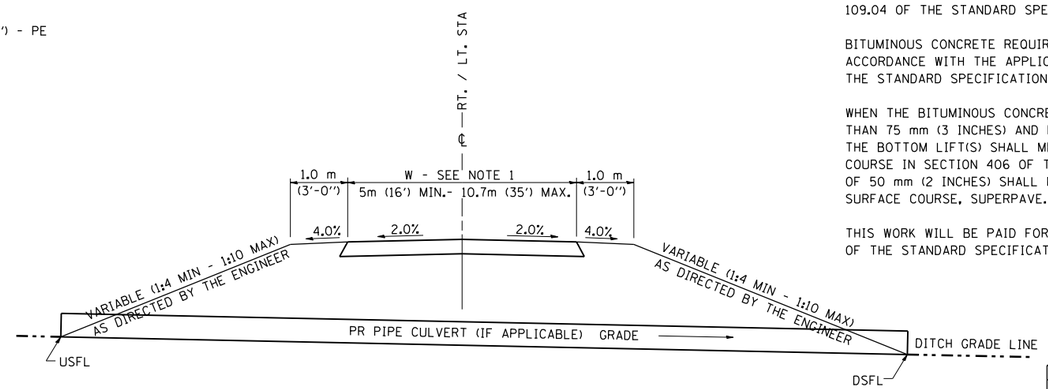
FOR EX EARTH, OR AGGREGATE SURFACES:
PR AGGREGATE BASE COURSE TYPE B, 150mm (6") - FE & PE
PR AGGREGATE BASE COURSE TYPE B, 200mm (8") - CE

FOR EX BITUMINOUS CONC. SURFACES:
PR BITUMINOUS SURFACE REMOVAL-BUTT JOINT
PR AGGREGATE BASE COURSE, TYPE B, 150mm (6") - PE
PR BITUMINOUS CONCRETE 90mm (3½") - PE
PR BITUMINOUS CONCRETE 200mm (8") - CE

FOR EX P.C. CONCRETE SURFACES:
PR PAVT REMOVAL
PR PCC DRIVEWAY PAVEMENT 150mm (6") - PE
PR PCC DRIVEWAY PAVEMENT 200mm (8") - CE

FOR EX EARTH, AGGREGATE, OR BITUMINOUS CONC SURFACES:
PR BIT SURFACE REMOVAL-BUTT JOINT (IF APPLICABLE)
PR AGGREGATE BASE COURSE TYPE B 150mm (6") - FE
PR AGGREGATE BASE COURSE TYPE B, 150mm (6") &
PR BITUMINOUS CONCRETE 90mm (3½") - PE
PR BITUMINOUS CONCRETE 200mm (8") - CE

FOR P.C. CONCRETE SURFACES:
PR PAVT REMOVAL
PR PCC DRIVEWAY PAVT 150mm (6") - PE
PR PCC DRIVEWAY PAVT 200mm (8") - CE



SECTION E - E ENTRANCE TYPICAL SECTION

NOTE 1: WIDTH OF ENTRANCE MAY BE INCREASED AT THE PIPE CULVERT DUE TO THE DITCHLINE BEING LOCATED IN THE ENTRANCE FLARE AREA.

GENERAL NOTES:

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT TYPE OF IMPROVEMENT TO BE COMPLETED FOR ALL ENTRANCES, SIDEROADS AND MAILBOX TURNOUTS ON THIS PROJECT.

THE PLAN DETAILS AND SCHEDULES SHOULD BE USED AS A GUIDE FOR THE ENGINEER TO IMPLEMENT THE FINAL DESIGN. THE ENGINEER MAY DECIDE TO SALVAGE PORTIONS OF THE EXISTING ENTRANCE PAVEMENT STRUCTURE; THEREFORE, REDUCING PAY ITEM QUANTITIES. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THIS REDUCTION IN QUANTITIES.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY A PAY ITEM CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

BITUMINOUS CONCRETE REQUIRED TO CONSTRUCT THE ENTRANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 406 AND 408 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

WHEN THE BITUMINOUS CONCRETE PROPOSED FOR THE IMPROVEMENT IS THICKER THAN 75 mm (3 INCHES) AND REQUIRE PLACEMENT IN MORE THAN ONE LIFT. THE BOTTOM LIFT(S) SHALL MEET THE REQUIREMENTS OF BITUMINOUS BASE COURSE IN SECTION 406 OF THE STANDARD SPECIFICATIONS AND THE TOP LIFT OF 50 mm (2 INCHES) SHALL MEET THE REQUIREMENTS OF BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE.

THIS WORK WILL BE PAID FOR IN ACCORDANCE WITH SECTIONS 351, 358, 408, 423 AND 440 OF THE STANDARD SPECIFICATIONS.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

SHEET 1 OF 3

REVISIONS	
NAME	DATE
JCN	2/19/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT SIX
DETAILS FOR RURAL / URBAN ENTRANCE & MAILBOX TURNOUT W / O CONCRETE GUTTER (3R - PROJECTS)

SCALE: VERT.
HORIZ.
DATE: FEBRUARY 23, 1999
DRAWN BY CADD
CHECKED BY JCN

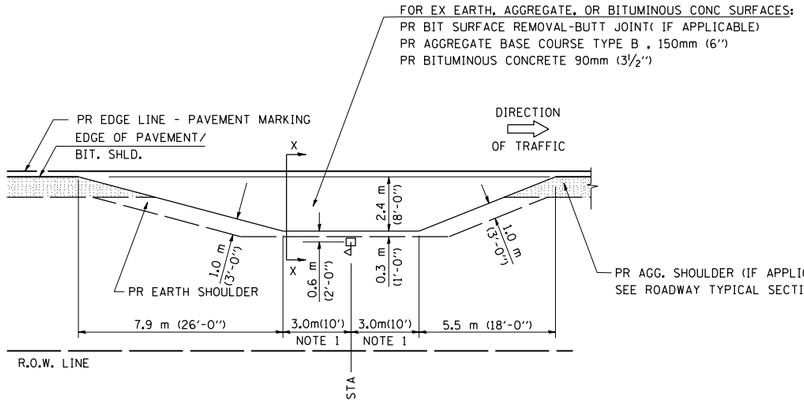
c:\Projects\d652404\psba_final\ent_3r_psba.dgn
7/31/2007
•REF01

D6 PROJECT: d6stds FILE: ENT 3R.DGN .

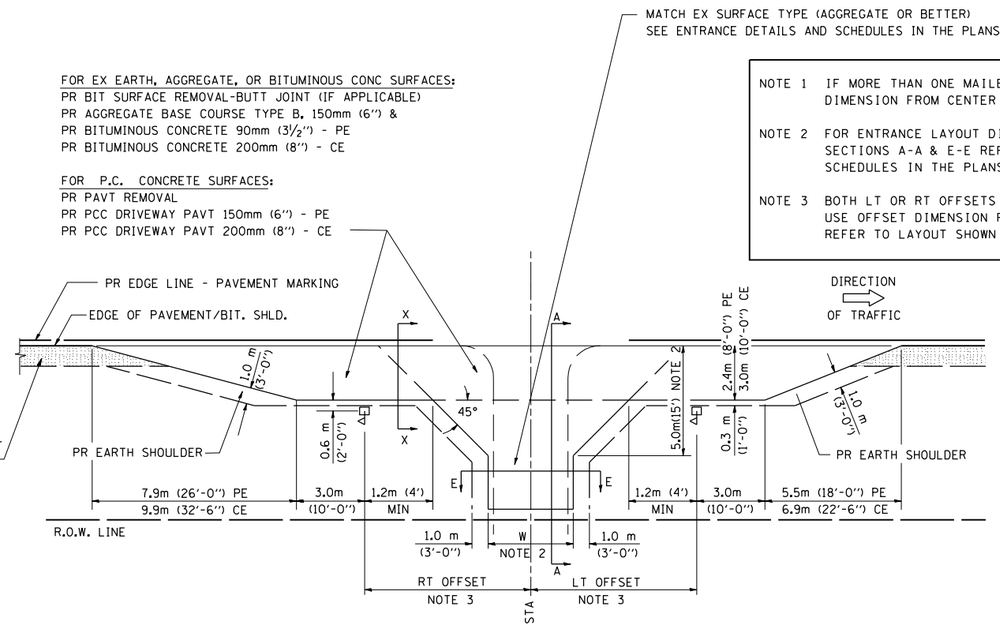
CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2B-5	PIKE	112	77
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETAILS OF MAILBOX TURNOUTS



PLAN - MAILBOX TURNOUTS

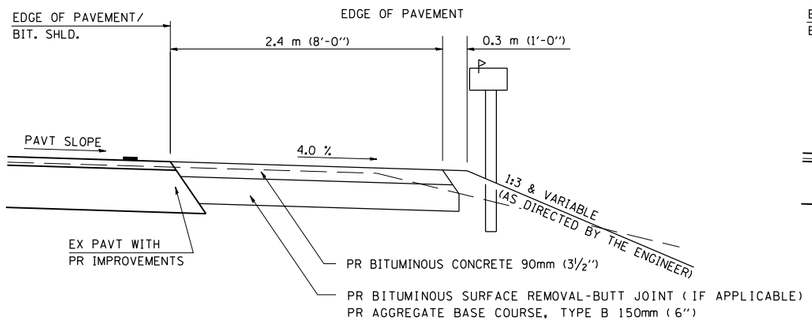


NOTE 1 IF MORE THAN ONE MAILBOX IS PRESENT, DIMENSION FROM CENTER OF END MAILBOX.

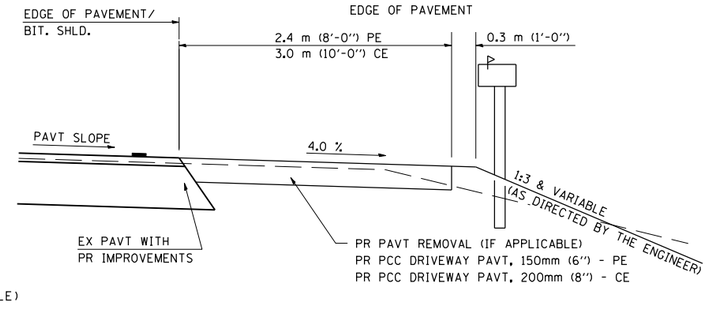
NOTE 2 FOR ENTRANCE LAYOUT DIMENSIONS AND SECTIONS A-A & E-E REFER TO THE SCHEDULES IN THE PLANS.

NOTE 3 BOTH LT OR RT OFFSETS FOR MAILBOX SHOWN USE OFFSET DIMENSION PER SCHEDULE AND REFER TO LAYOUT SHOWN ON THE PLAN.

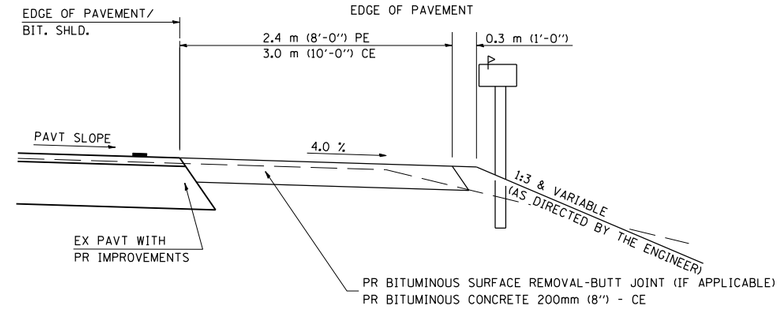
PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE



SECTION X-X THRU MAILBOX TURNOUT
ALSO APPLIES TO MAILBOX TURNOUTS COMBINED WITH EX EARTH, AGGREGATE, OR BITUMINOUS PE & FE



SECTION X-X THRU MAILBOX TURNOUT
COMBINED WITH EX CONC PE OR CE



SECTION X-X THRU MAILBOX TURNOUT
COMBINED WITH EX EARTH, AGGREGATE, OR BITUMINOUS CE

REVISIONS	
NAME	DATE
JCN	2/19/03

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT SIX
DETAILS FOR RURAL / URBAN ENTRANCE & MAILBOX TURNOUT W / O CONCRETE GUTTER (3R - PROJECTS)

SCALE: VERT.
HORIZ.
DRAWN BY CADD
DATE : FEBRUARY 23, 1999
CHECKED BY JCN

c:\Projects\d652404\psbo_final\ent_3r_psbo.dgn
7/31/2007
•REF01

D6 PROJECT: d6stds FILE: ENT 3R.DGN .

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2B-5	PIKE	112	78
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Driveway Schedule

LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	WIDTH	RT OFFSET	LT OFFSET	LENGTH (FROM EDGE OF PVT/BIT SHLD TO LIMITS OF IMPROVEMENT)	PR BIT. CONC. THICKNESS	DRIVEWAY PAVEMENT REMOVAL	PREP OF BASE	AGG. BASE REPAIR	AGGREGATE BASE COURSE TY-B	INCIDENTAL BIT. SUR. SUPERPAVE	P.C.C. DRIVEWAY PAVEMENT 6"	P.C.C. DRIVEWAY PAVEMENT 8"
(LT / RT) (STA)(+)	(FE / PE/ CE/ MB) (RURAL) /(URBAN)	(EARTH /AGG. /BIT. / P.C.C.)	FT.	FT.	FT.	FT.	IN.	SQ YD	SQ YD	TON	TON	TON	SQ. YD.	SQ. YD.
BREWSTER CREEK														
FAP 304														
STA 400+33.75	FE - URBAN SIZE	AGG	31			13	3.5	20	56.2	0.6	19.2	7.6		
STA 402+00.00	PE, MB - RURAL	BIT			28.4			68.9						
STA 403+06.33	FE - RURAL	AGG	24			81.5	3.5		171.6	0.4	58.6	5.8		
STA 406+75.36	PE, MB - RURAL	BIT			39.5			59.3						
CH 13														
STA 10+31.43	PE - RURAL	BIT	12			20.76	3.5		31.0	0.5	10.6	6.1		
STA 11+55.57	PE - RURAL	BIT	16			32	3.5		81.6	1.2	27.9	16.0		
SUBTOTAL								148.2	340.4	2.7	116.3	35.5		
USE								149	341	3	117	36		
BROWN CREEK														
FAP 304														
STA 454+92.11	FE - RURAL	AGG	24			144.63	3.5		332.6	0.4	113.6	5.9		
SUBTOTAL									332.6	0.4	113.6	5.9		
USE									333	1	114	6		
TOTAL								149	674	4	231	42		

SHEET 3 OF 3

REVISIONS	
NAME	DATE
JCN	2/19/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT SIX

SCHEDULES FOR RURAL / URBAN ENTRANCE & MAILBOX TURNOUT W / O CONCRETE GUTTER (3R - PROJECTS)

SCALE: VERT. HORIZ. DRAWN BY CADD

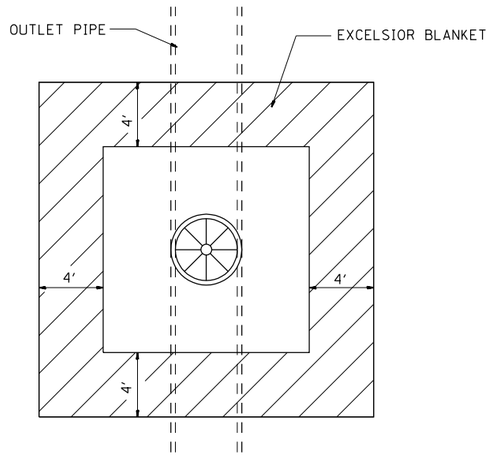
DATE: FEBRUARY 23, 1999 CHECKED BY JCN

c:\Projects\d652404\psba_final\ent_3r_psba.dgn
7/31/2007
•REF01

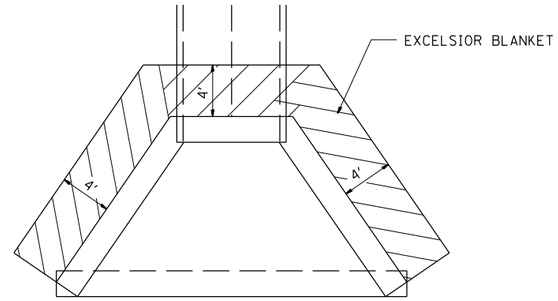
D6 PROJECT: d6stds FILE: ENT 3R.DGN .

CONTRACT NO. 72891

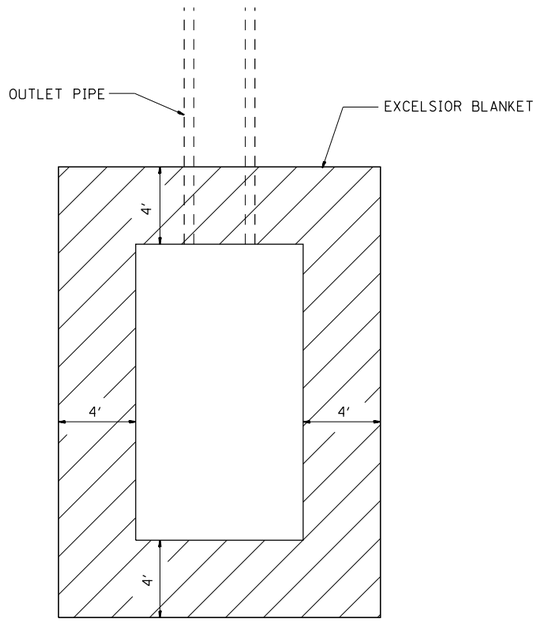
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	79
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		



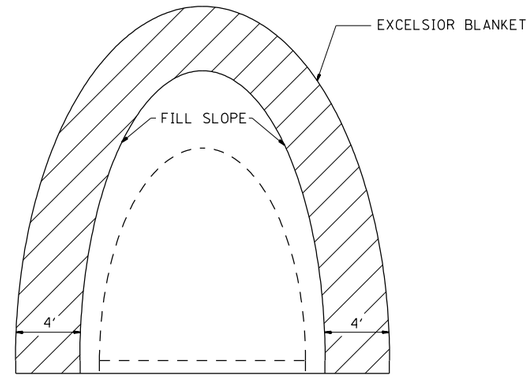
EXCELSIOR BLANKET AROUND
MANHOLE, TYPE A
W/TYPE 1 FRAME, CLOSED LID



EXCELSIOR BLANKET AROUND
HEADWALLS & CULVERT WINGWALLS



EXCELSIOR BLANKET AROUND
HEADWALL FOR PIPE UNDERDRAIN
STD 601101



EXCELSIOR BLANKET AROUND
FLARED END SECTION
STD 542301

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HEAVY DUTY EXCELSIOR BLANKET DETAILS

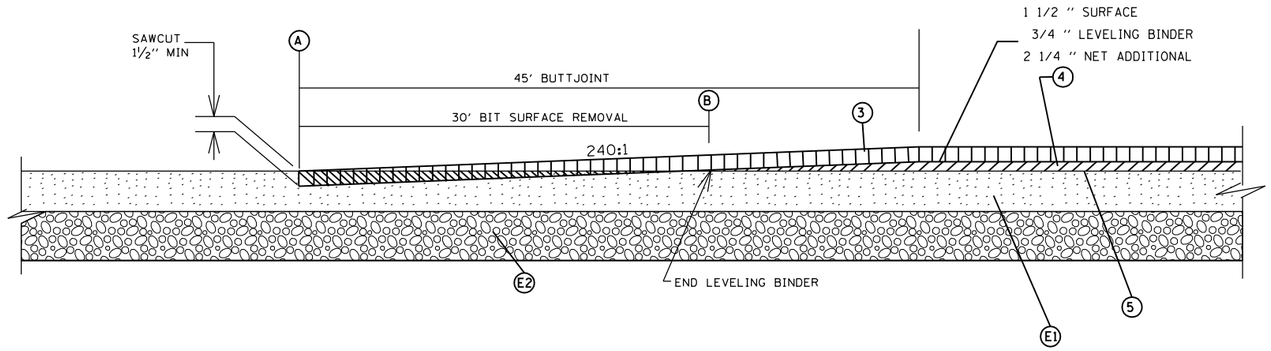
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

c:\Projects\d652404\pabe.final\excelsiorblnktdtl.dgn
7/31/2007
•REF01

D6 PROJECT: ED53799 FILE: DETAILS.DGN .

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5,B-6)	PIKE	112	80
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

- E1 EXISTING BITUMINOUS RESURFACING - 6 1/4 "
- E2 EXISTING AGGREGATE BASE COURSE
- 3 PROPOSED BITUMINOUS SURFACE COURSE
- 4 PROPOSED BITUMINOUS LEVELING BINDER
- 5 PROPOSED BITUMINOUS SURFACE REMOVAL

40600980 BITUMINOUS SURFACE REMOVAL - BUTT JOINT

LOCATION	A	B	WIDTH FOOT	AREA SQ YD
BREWSTER CREEK				
FAP 304	399+80.00	400+10.00	24	80
FAP 304	408+40.00	408+70.00	24	80
BROWN CREEK				
FAP 304	452+25.00	452+55.00	24	80
FAP 304	461+15.00	461+45.00	24	80
TOTALS				320

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT DETAIL

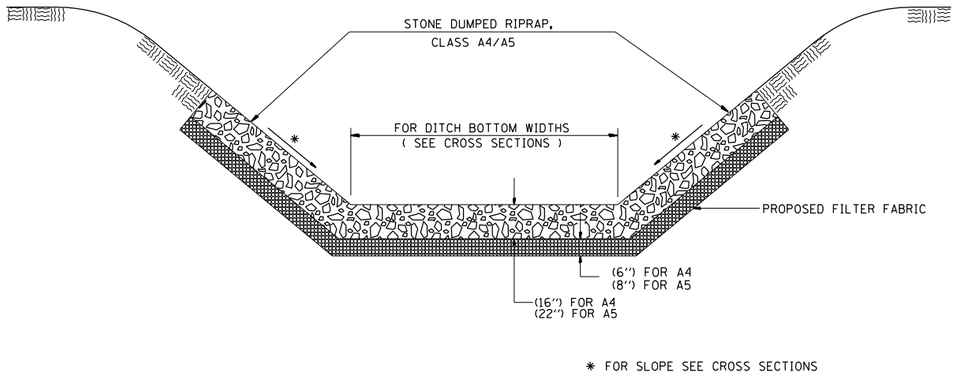
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

c:\Projects\d652404\psba_final\buttjointdetail.dgn
7/31/2007
•REF01

DG PROJECT: ED53799 FILE: DETAILS.DGN .

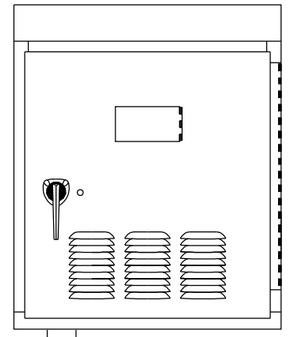
CONTRACT 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	81
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT		



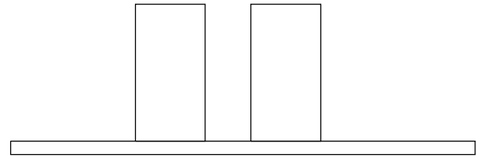
* FOR SLOPE SEE CROSS SECTIONS

STONE DUMPED RIPRAP DITCH LINING DETAIL



Temporary Controller Cabinet

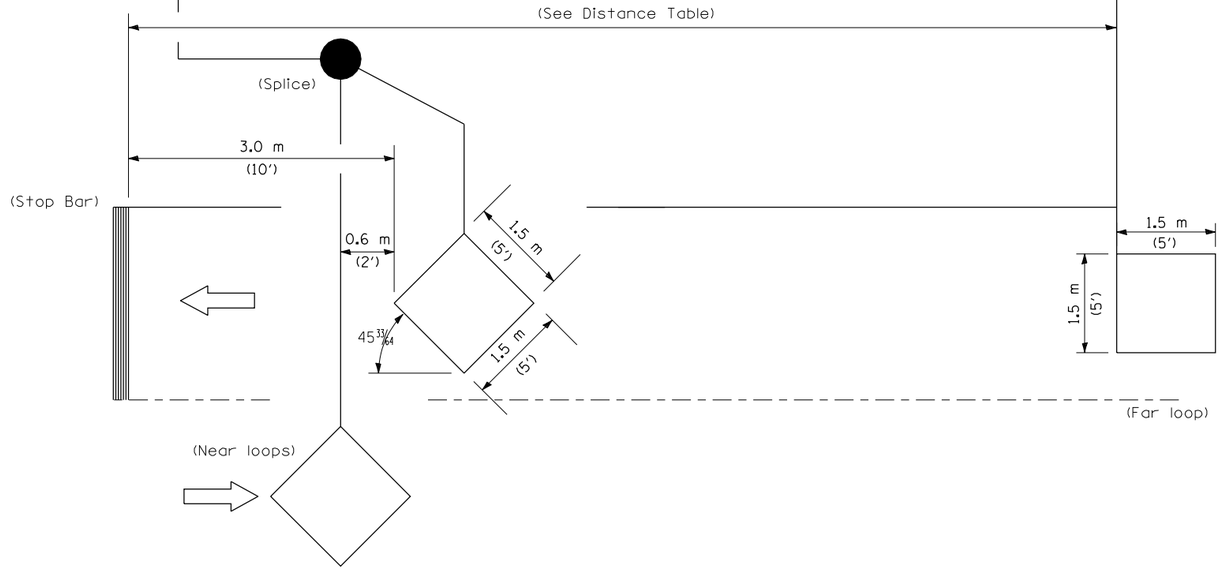
DETECTOR AMPLIFIER NOTES



AMP 1: DELAY = 8 SECONDS
DELAY SHALL BE INHIBITED DURING GREEN

AMP 2: NO DELAY

FAR LOOP DISTANCE TABLE	
ADVISORY SPEED (MPH)	DISTANCE FROM STOP BAR (FT.)
30 OR LESS	220
35	260
40	300
45	330
50	370
55	400



NOTE: All loops centered in lane.

INDUCTION LOOP DETECTOR

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

RIPRAP DITCH LINING DETAIL
TEMPORARY BRIDGE TRAFFIC SIGNAL LOOP PLACEMENT DETAIL

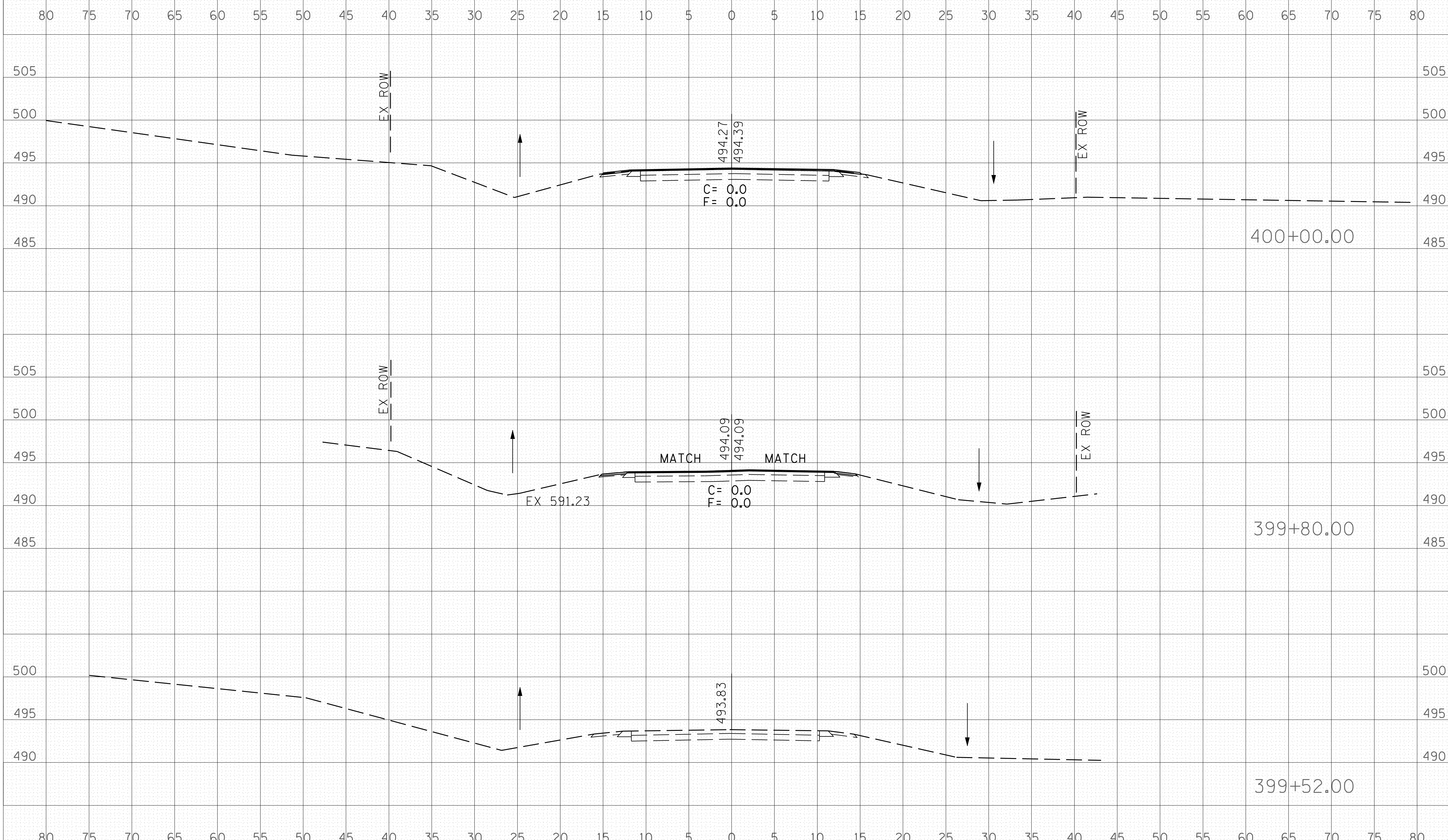
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

c:\Projects\d652404\psba_final\sr075-0040\r-rip-op_details.dgn
7/31/2007
•REF01

DG PROJECT: ED53799 FILE: DETAILS.DGN .

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	82
STA. 399+52.00	TO STA. 400+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = 7/31/2007
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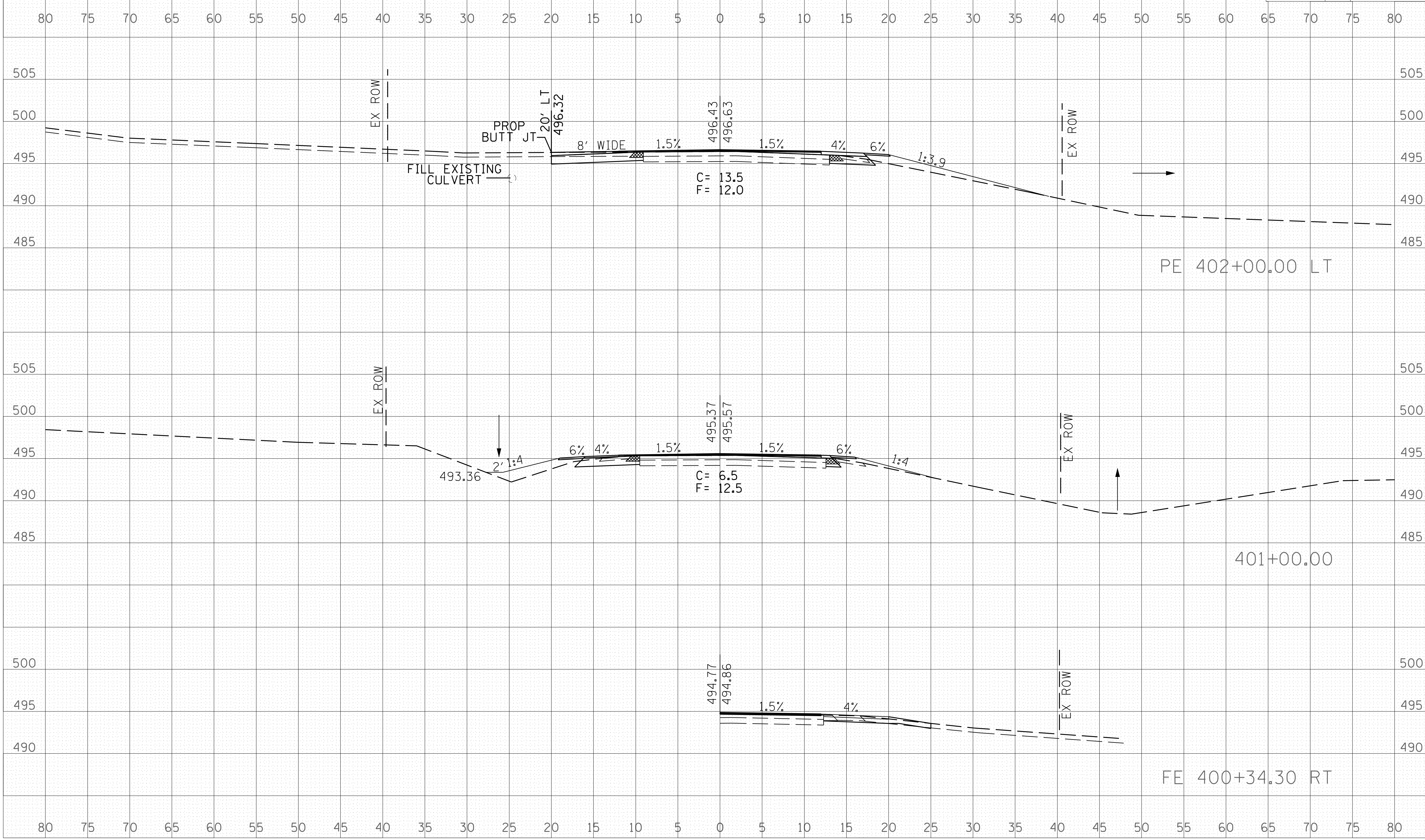
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	83
STA. 400+34.30	TO STA. 402+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

ORIGINAL SURVEY | NO. | SURVEYED | PLOTTED | AREAS | AREAS CHECKED | BY | DATE

PLOT DATE = 7/31/2007

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	84
STA. 402+52.84	TO STA. 403+06.33			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = 7/31/2007
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PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinr1

FE 403+06.33 RT

109.84' RT ON SKEW MATCH 489.31

497.07 | 13.08' RT 497.26 | 19.63' RT 497.10 | 28.35' RT 496.78

FE - CROSS SECTION ON SKEW

9.1667%

9.1667%

EX ROW

PIVOT

403+00.00

494.50 28.8' LT

1:3 2' 1:3 6% 4% 1.5% 497.02 497.37 1.5% 4% 6% 1:4

C= 13.9
F= 25.5

EX ROW

PR ROW

402+52.84

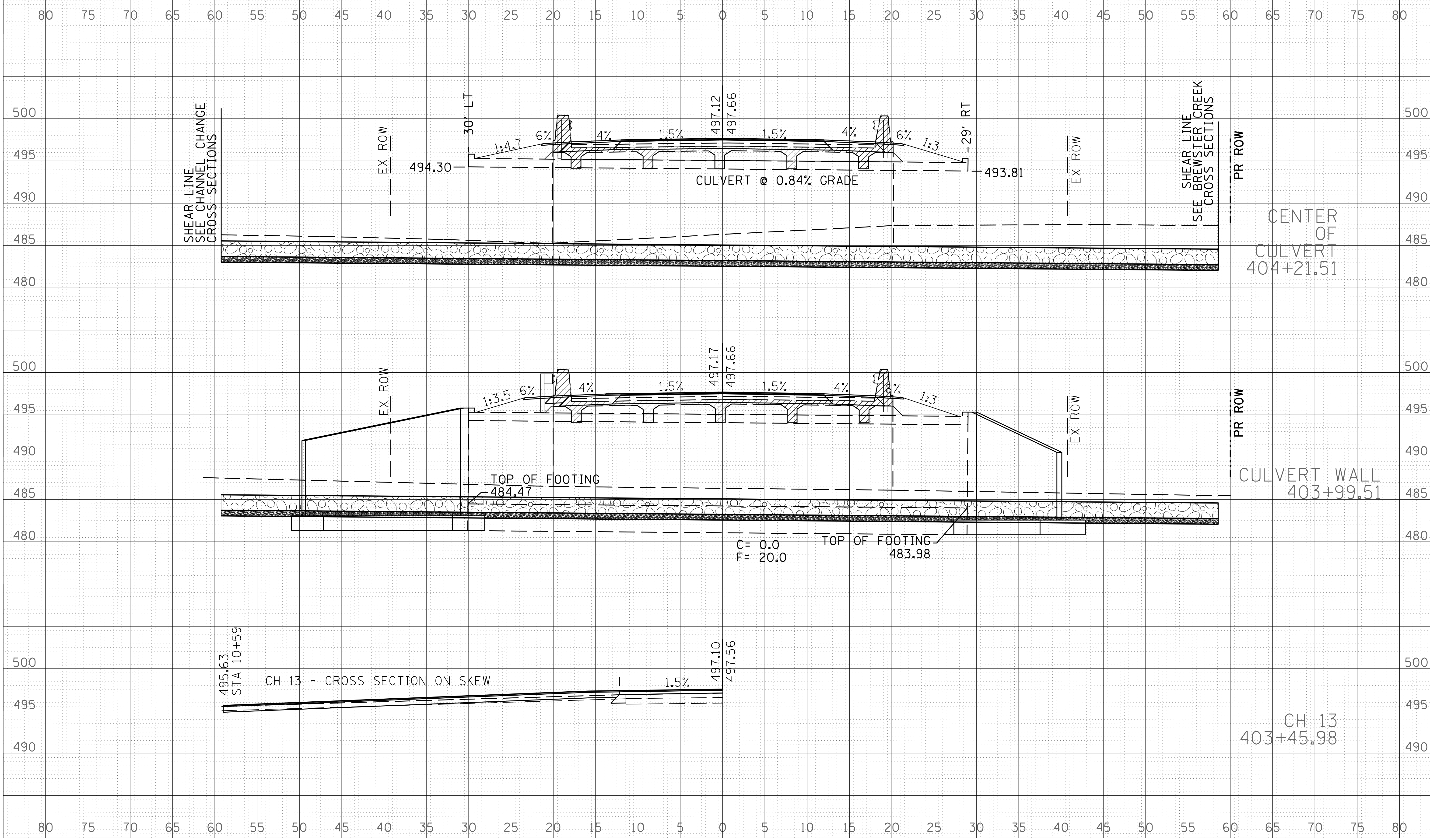
494.98 26.45' LT

EX ROW

2' 1:3 6% 4% 1.5% 496.84 497.07

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	85
STA. 403+45.98	TO STA. 404+21.51			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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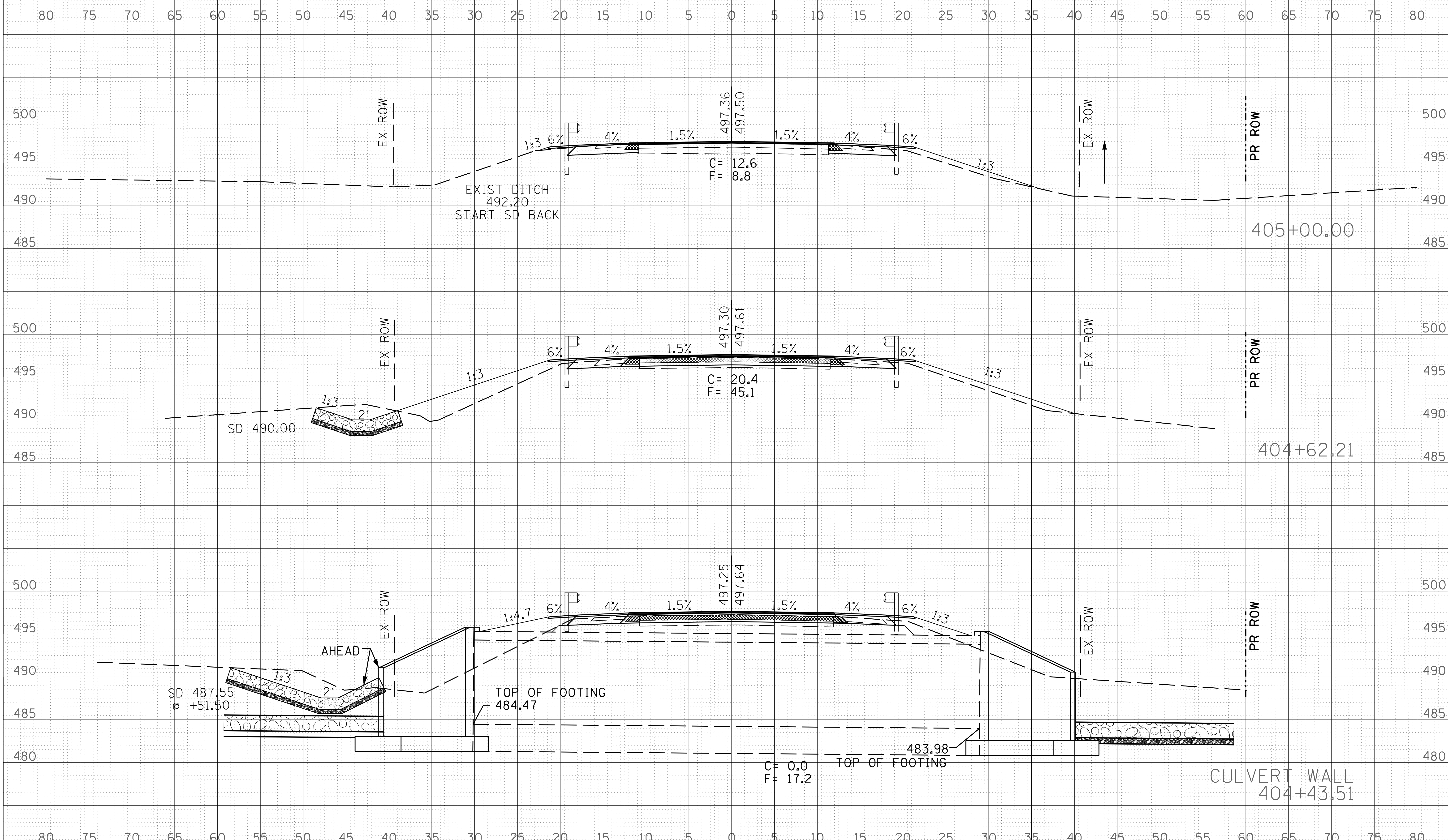
USER NAME = laughlinrl

BREWSTER CREEK FAP 304 - MAINLINE

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	86
STA. 404+43.51	TO STA. 405+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



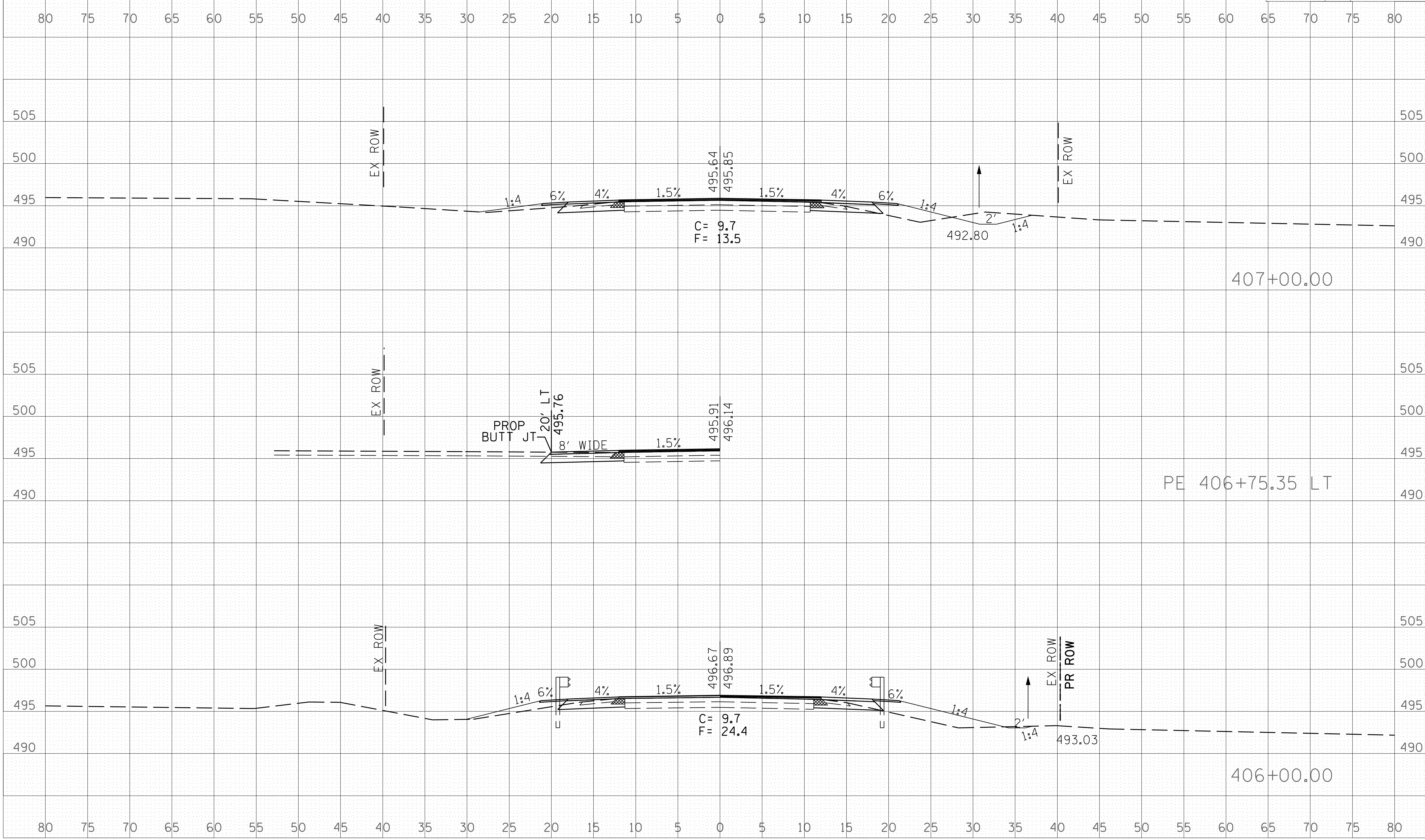
PLOT DATE = 7/31/2007
PLOT SCALE = 10.0000 '/ IN.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	87

CONTRACT NO. 72891

STA. 406+00.00 TO STA. 407+00.00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



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

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

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PLOT SCALE = 10.0000 ' / IN.
USER NAME = laughlinrl

BREWSTER CREEK FAP 304 - MAINLINE

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	88
STA. 408+00.00	TO STA. 408+70.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

500 495 490 485 505

EX ROW

493.72 493.72

MATCH MATCH

C= 0.0
F= 0.0

408+70.00

494.21 494.39

1:4 6% 4% 1.5% 1.5% 4% 6% 1:4

C= 3.3
F= 4.9

408+25.00

494.42 494.68

1:4 6% 4% 1.5% 1.5% 4% 6% 1:4

492.60

C= 5.2
F= 12.9

408+00.00

PLOT DATE = 7/31/2007
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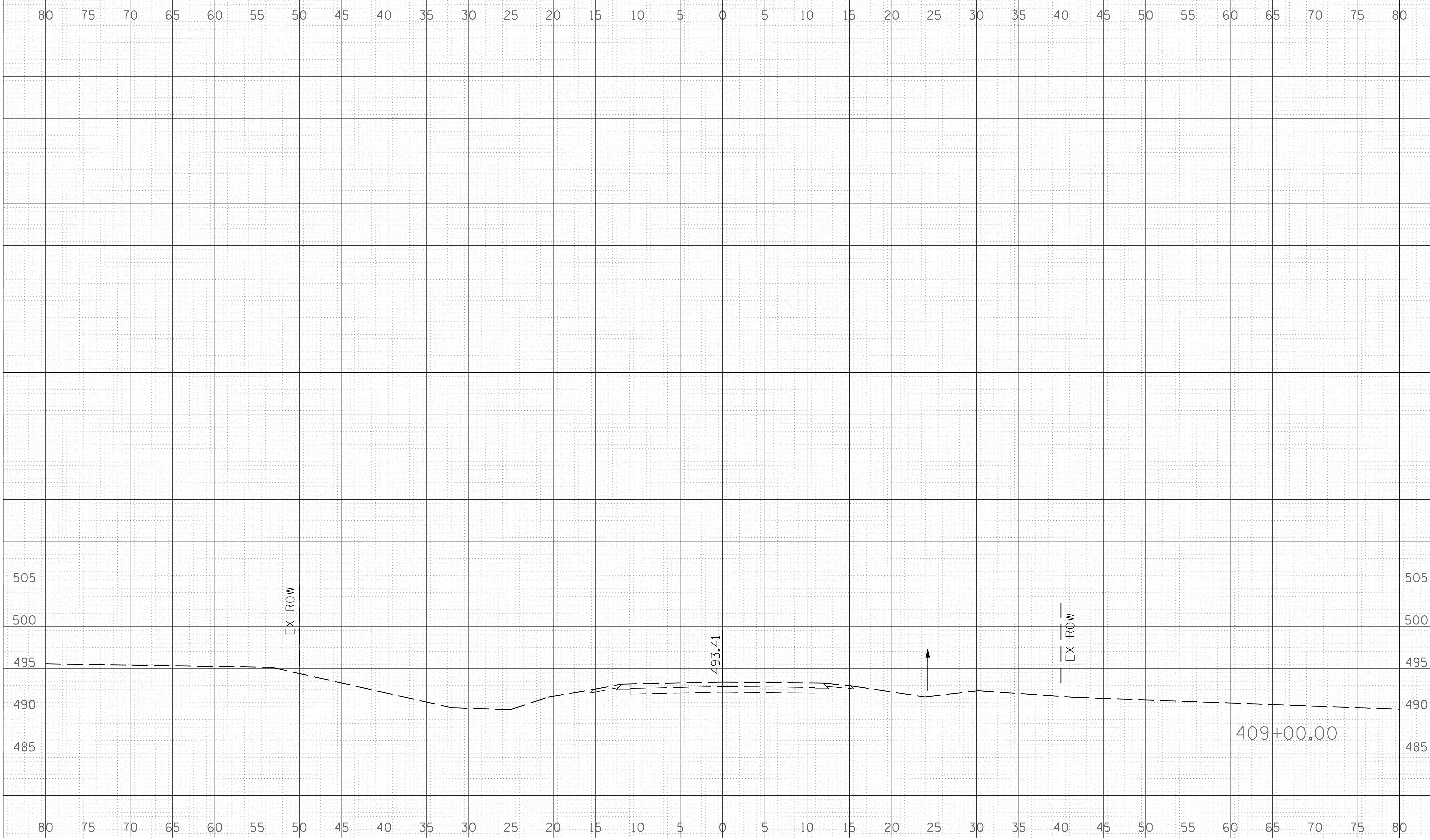
USER NAME = laughlinr1

CONTRACT NO. 72891

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	89
STA. 409+00.00	TO STA. 409+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = 7/31/2007
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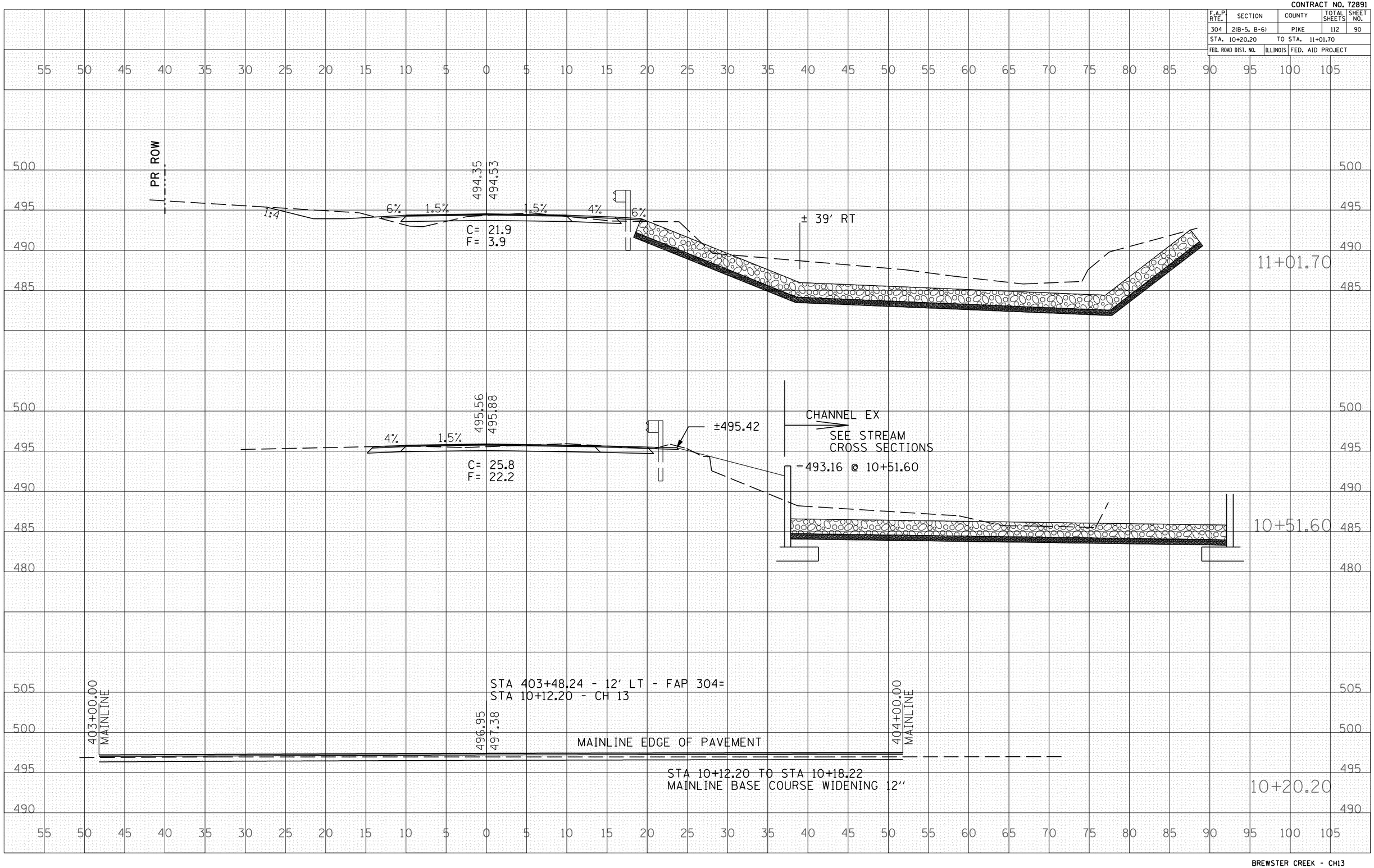
USER NAME = laughlinrl

BREWSTER CREEK FAP 304 - MAINLINE

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	90
STA. 10+20.20		TO STA. 11+01.70		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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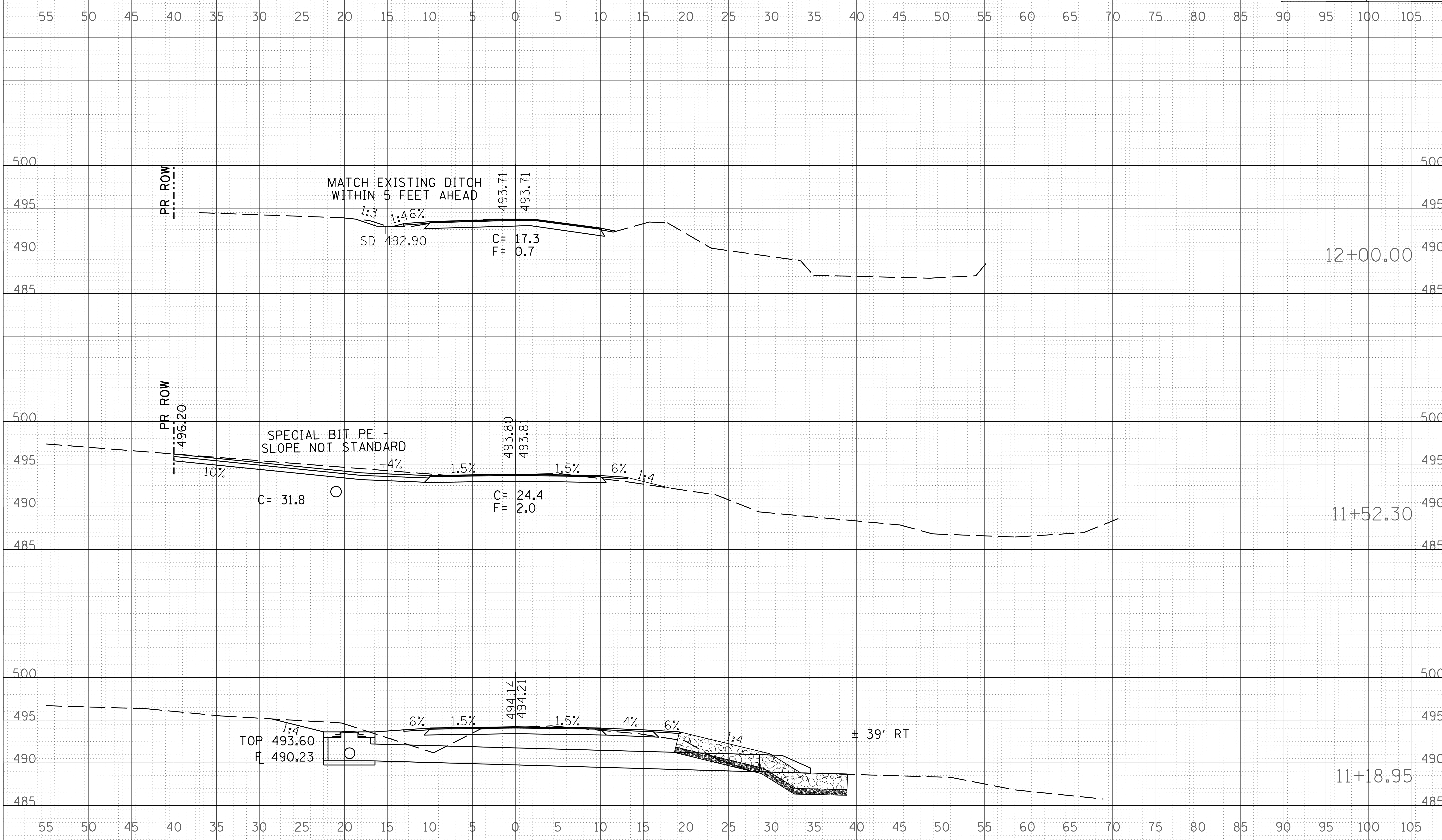
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	91
STA. 11+18.95		TO STA. 12+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



BREWSTER CREEK - CH13

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

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

PLOT DATE = 7/31/2007
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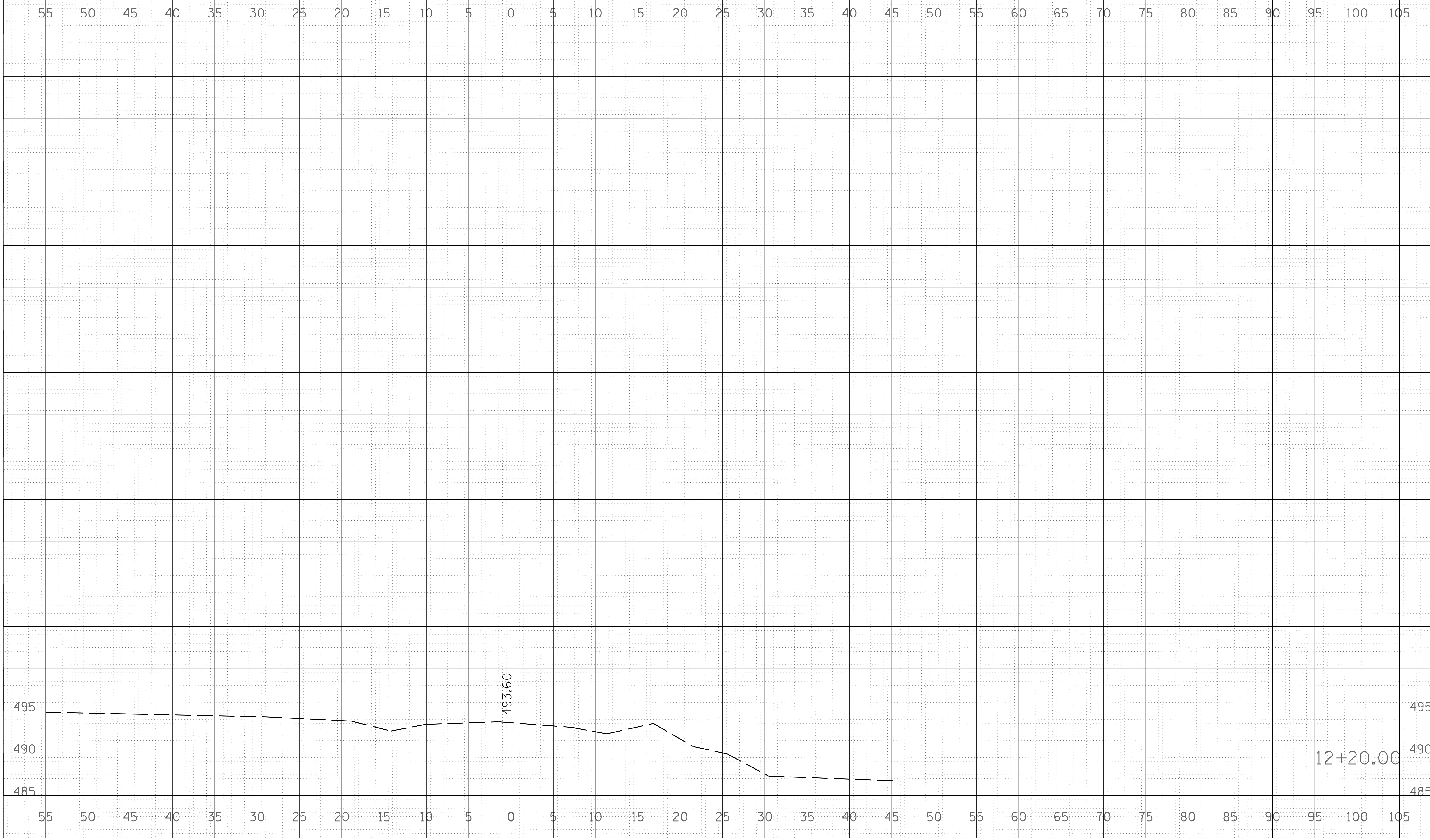
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	92
STA. 12+20.00	TO STA. 12+20.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = 7/31/2007
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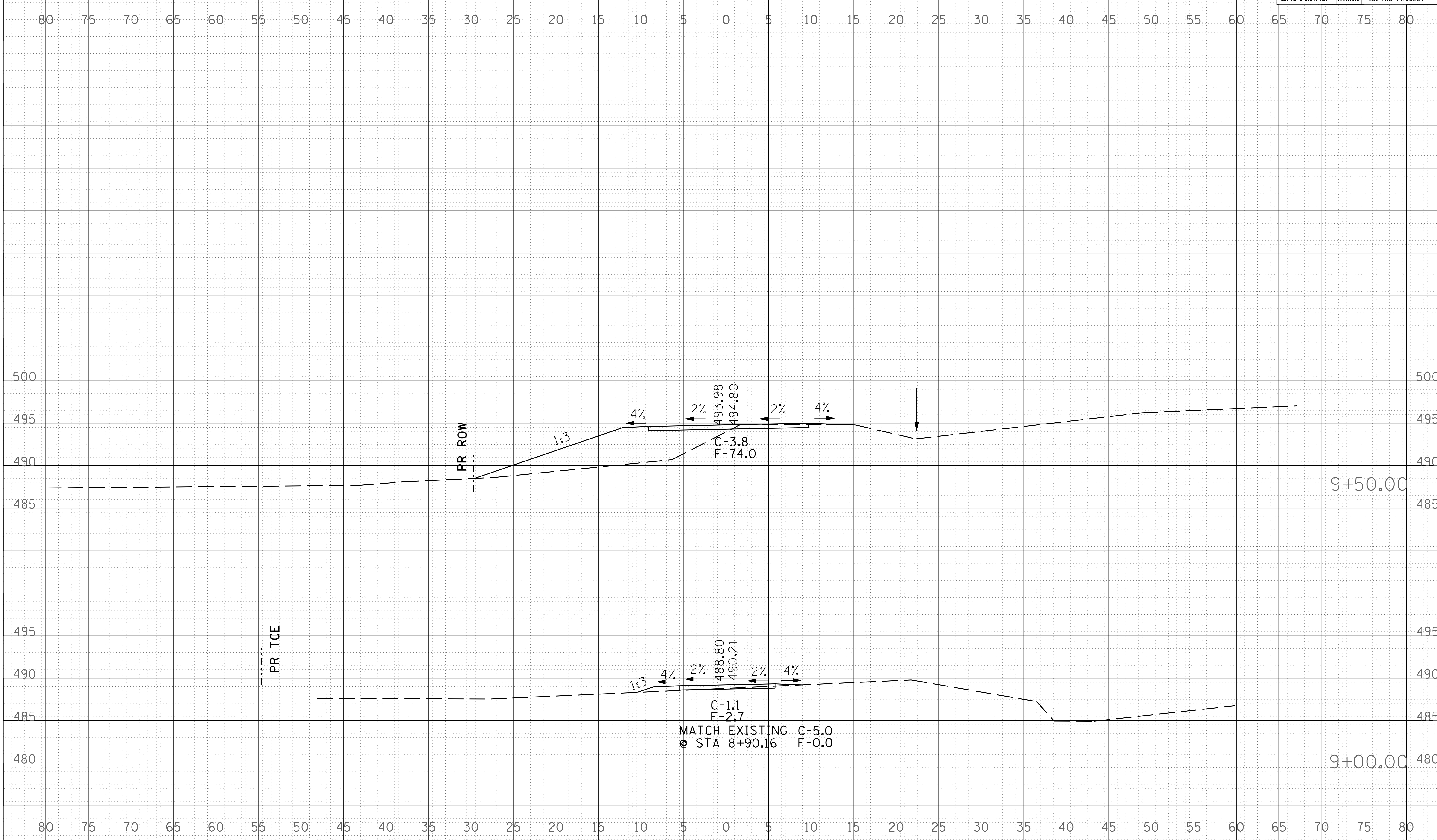
USER NAME = laughlinrl

BREWSTER CREEK - CH13

CONTRACT NO. 72891

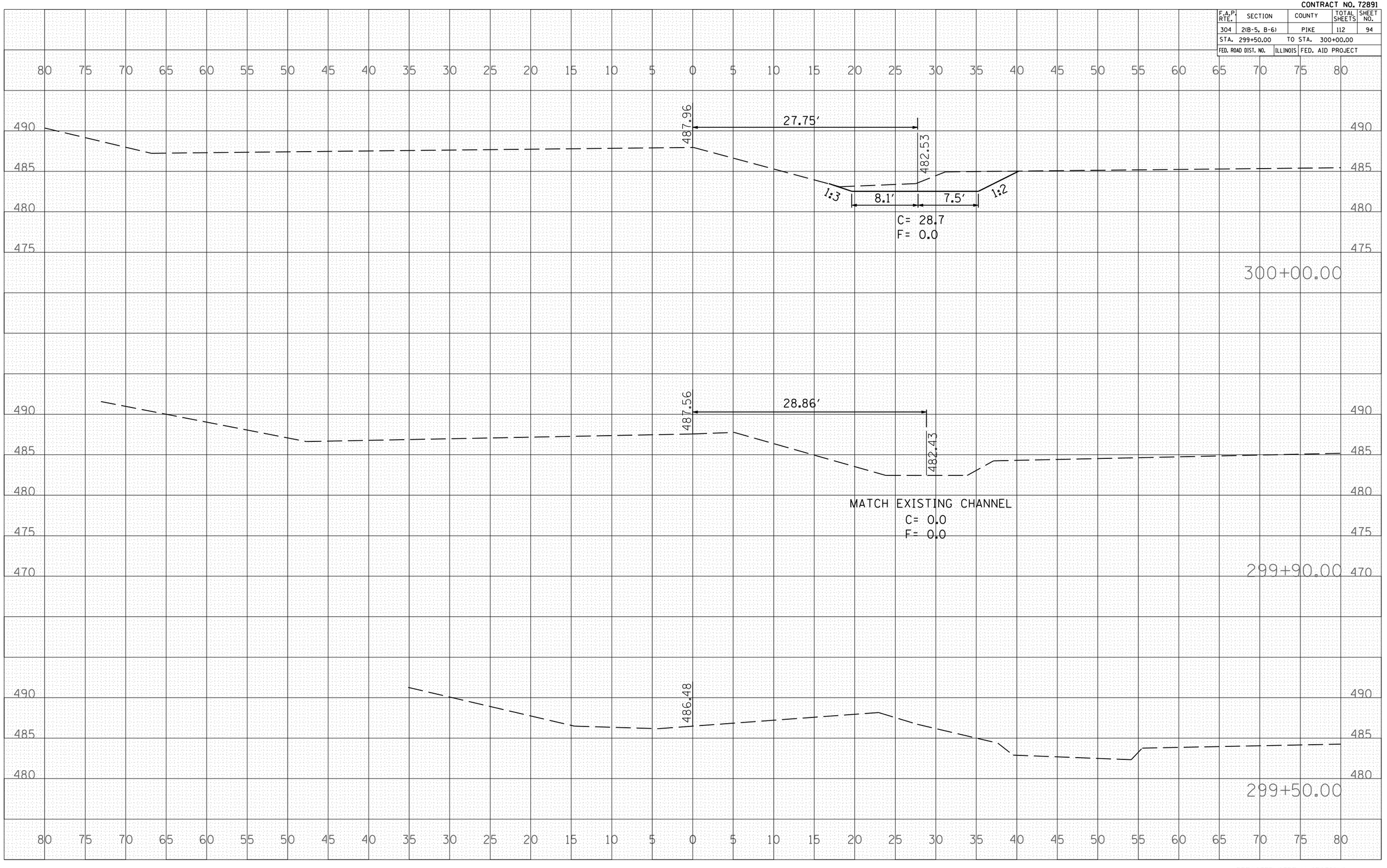
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	93
STA. 9+00.00	TO STA. 9+50.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BREWSTER CREEK - FIELD ENTRANCE STA 403+06.66 RT

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	94
STA. 299+50.00	TO STA. 300+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BREWSTER STREAM SECTIONS

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

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

PLOT DATE = 7/31/2007
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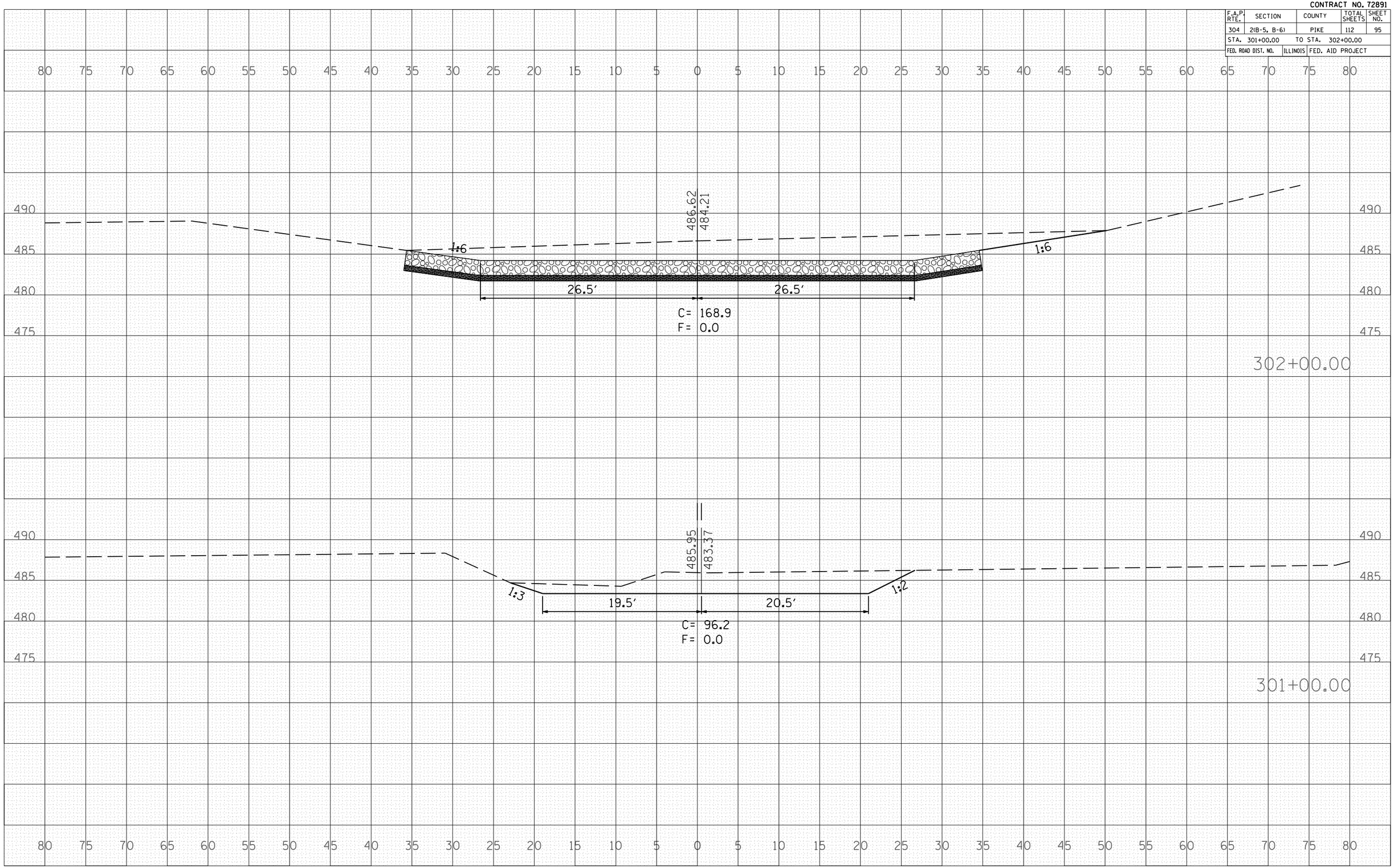
PLOT SCALE = 10.5882 ' / IN.
USER NAME = loughlinr

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	95
STA. 301+00.00	TO STA. 302+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = 7/31/2007
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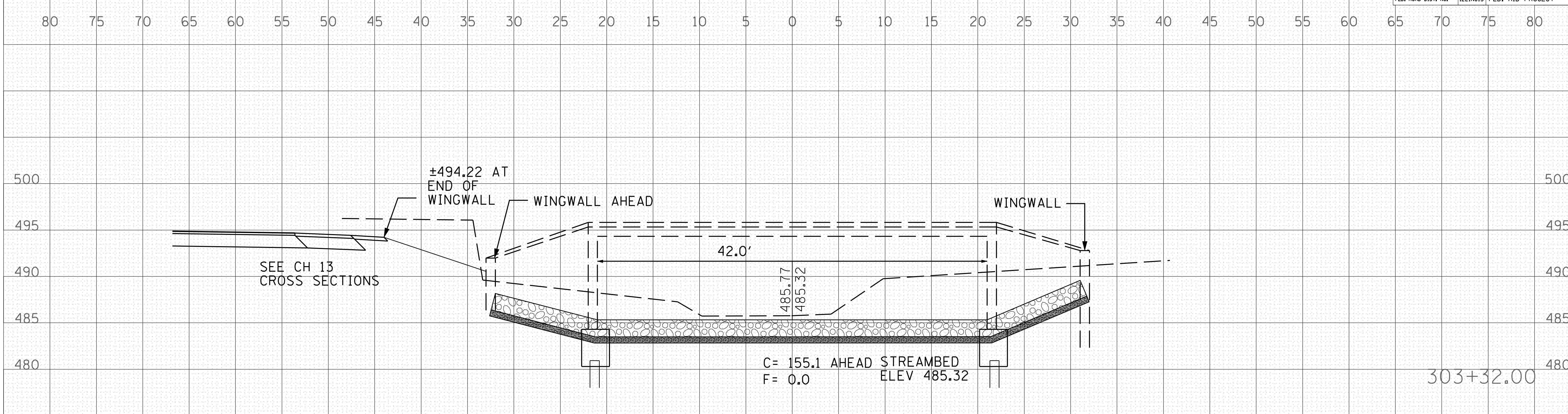
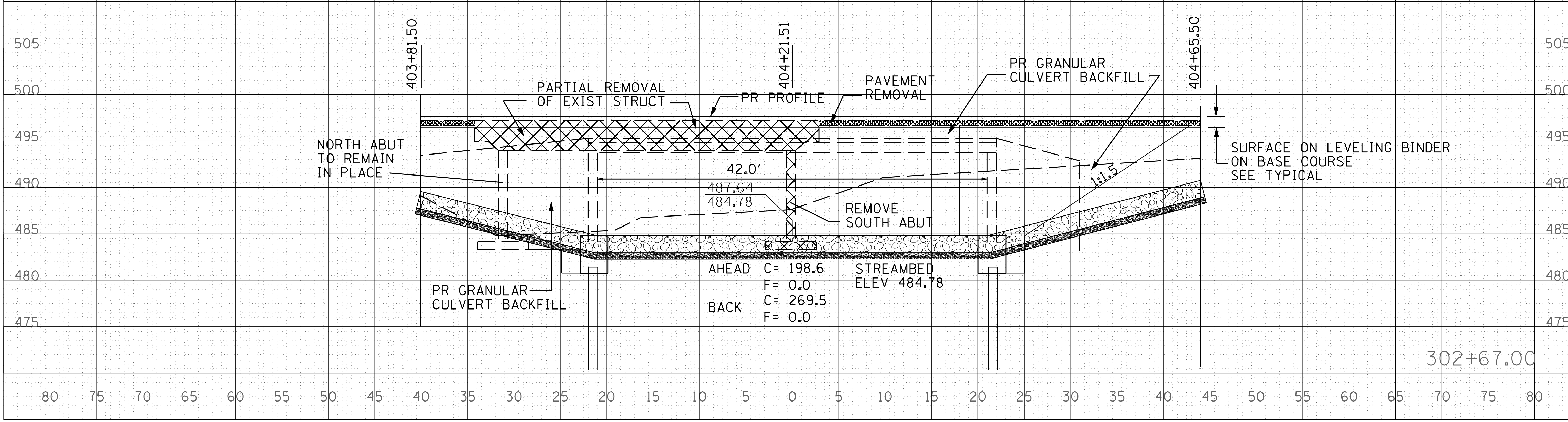
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinr1

BREWSTER STREAM SECTIONS

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	96
STA. 302+67.00 TO STA. 303+32.00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





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

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

PLOT DATE = 7/31/2007
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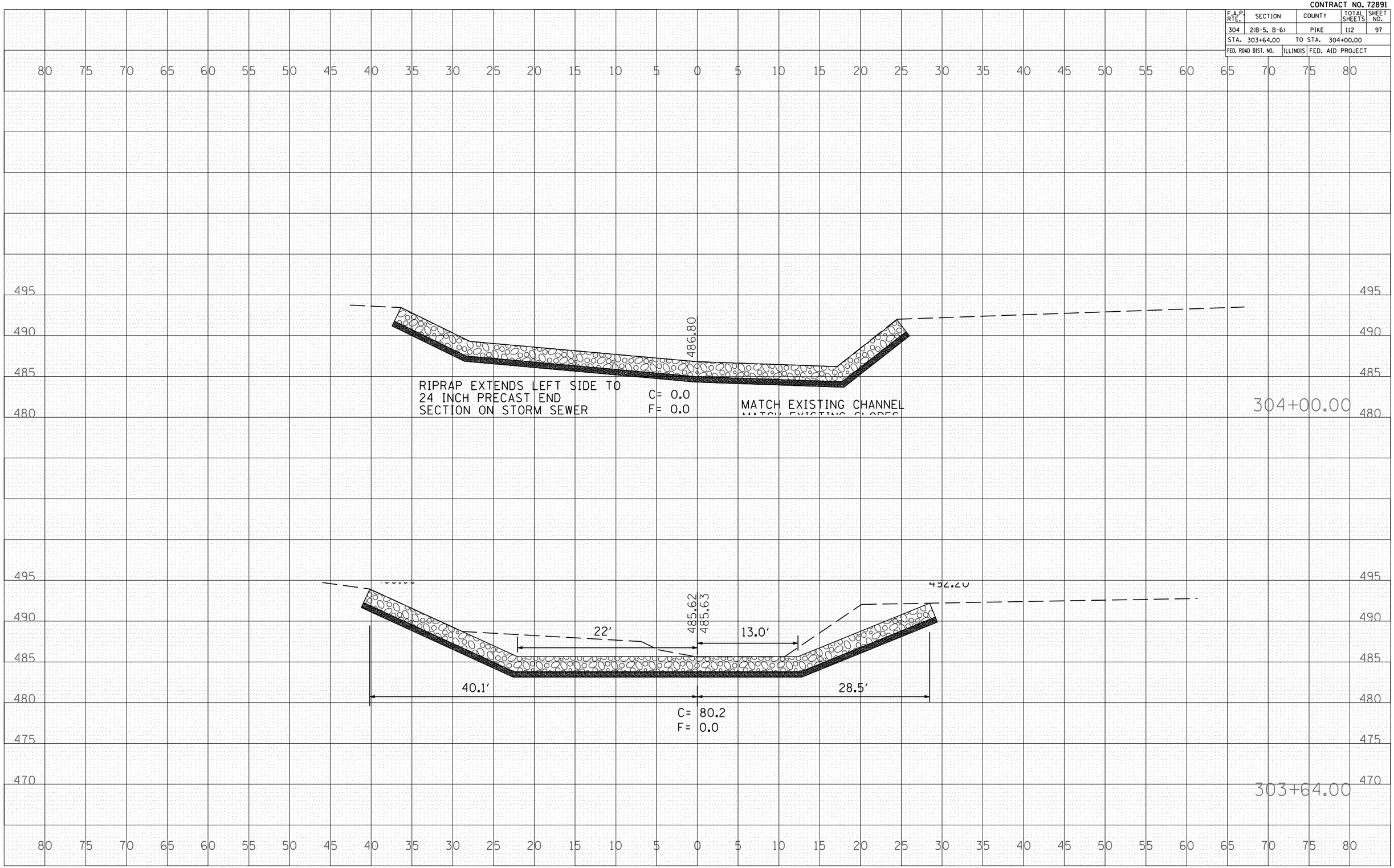
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	97
STA. 303+64.00	TO STA. 304+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



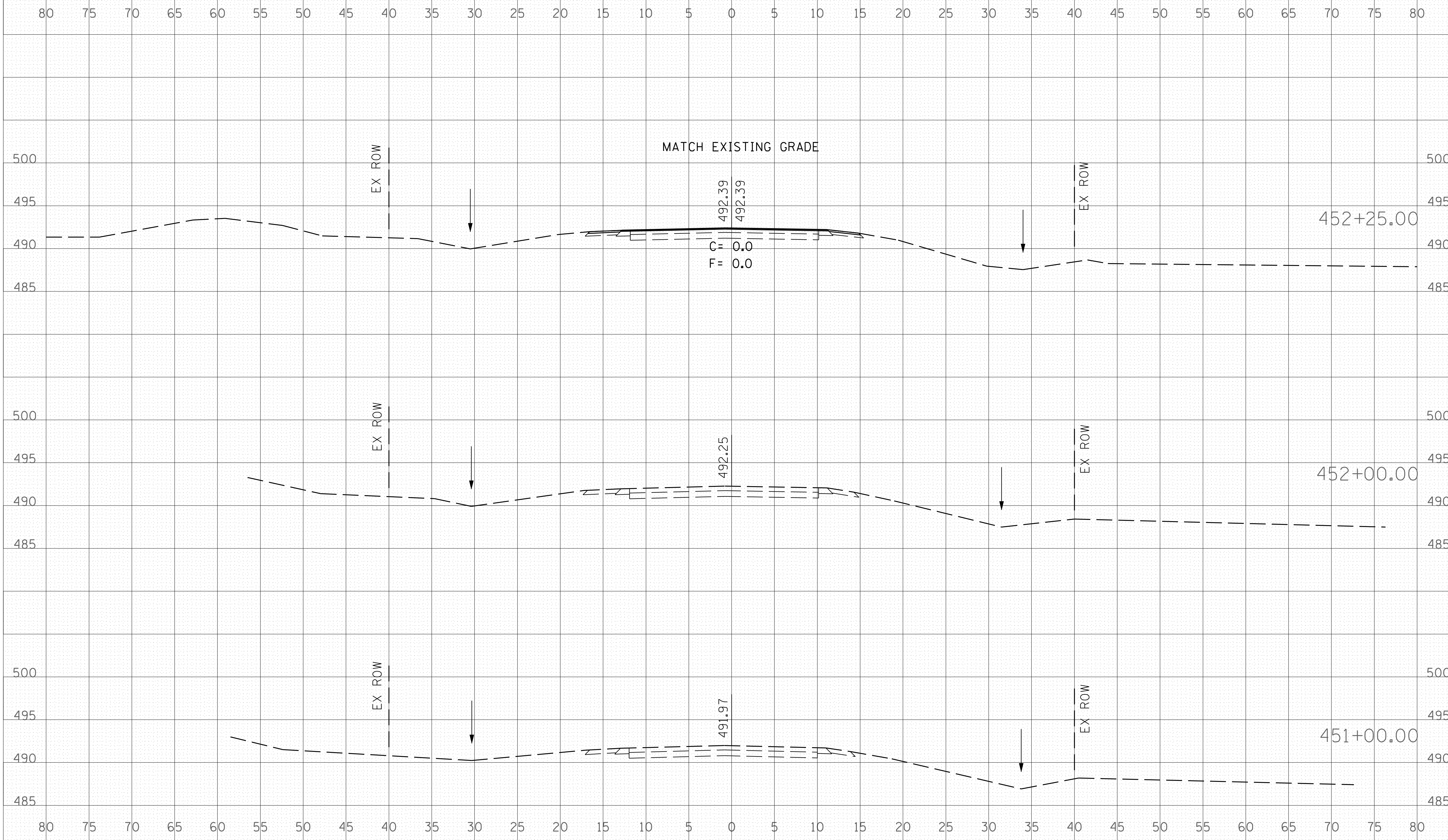
ORIGINAL SURVEY	NOTE BOOK	NO.	BY	DATE
	SURVEYED			
	PLOTTED			
	TRANSFERRED			
	AREAS			
	AREAS CHECKED			

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\pbbo_final\sheets\pbbo_sheet.dgn
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinr

BREWSTER STREAM SECTIONS

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	98
STA. 451+00.00 TO STA. 452+25.00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

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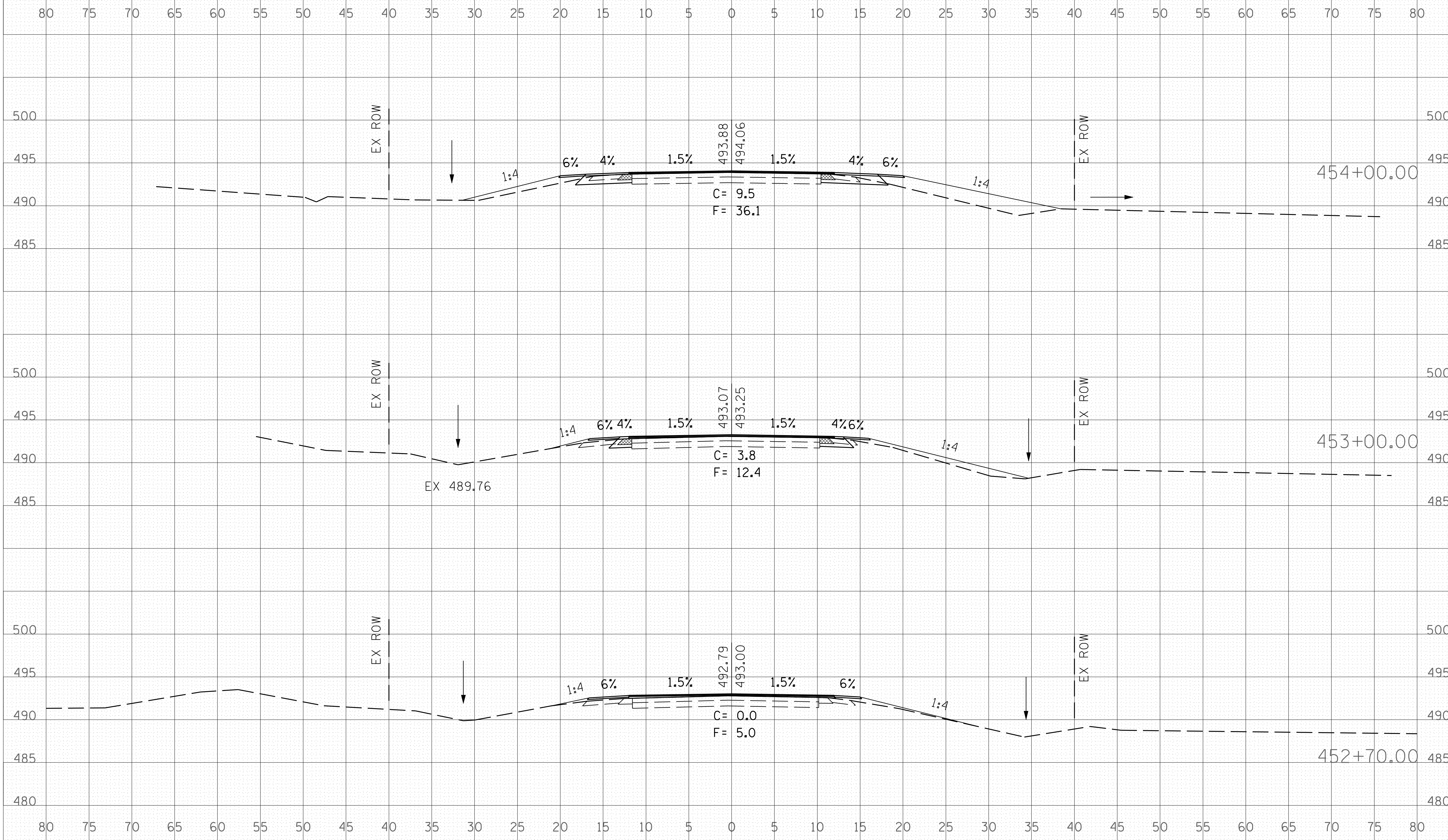
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

BROWN CREEK FAP 304 - MAINLINE

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	99
STA. 452+70.00 TO STA. 454+00.00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

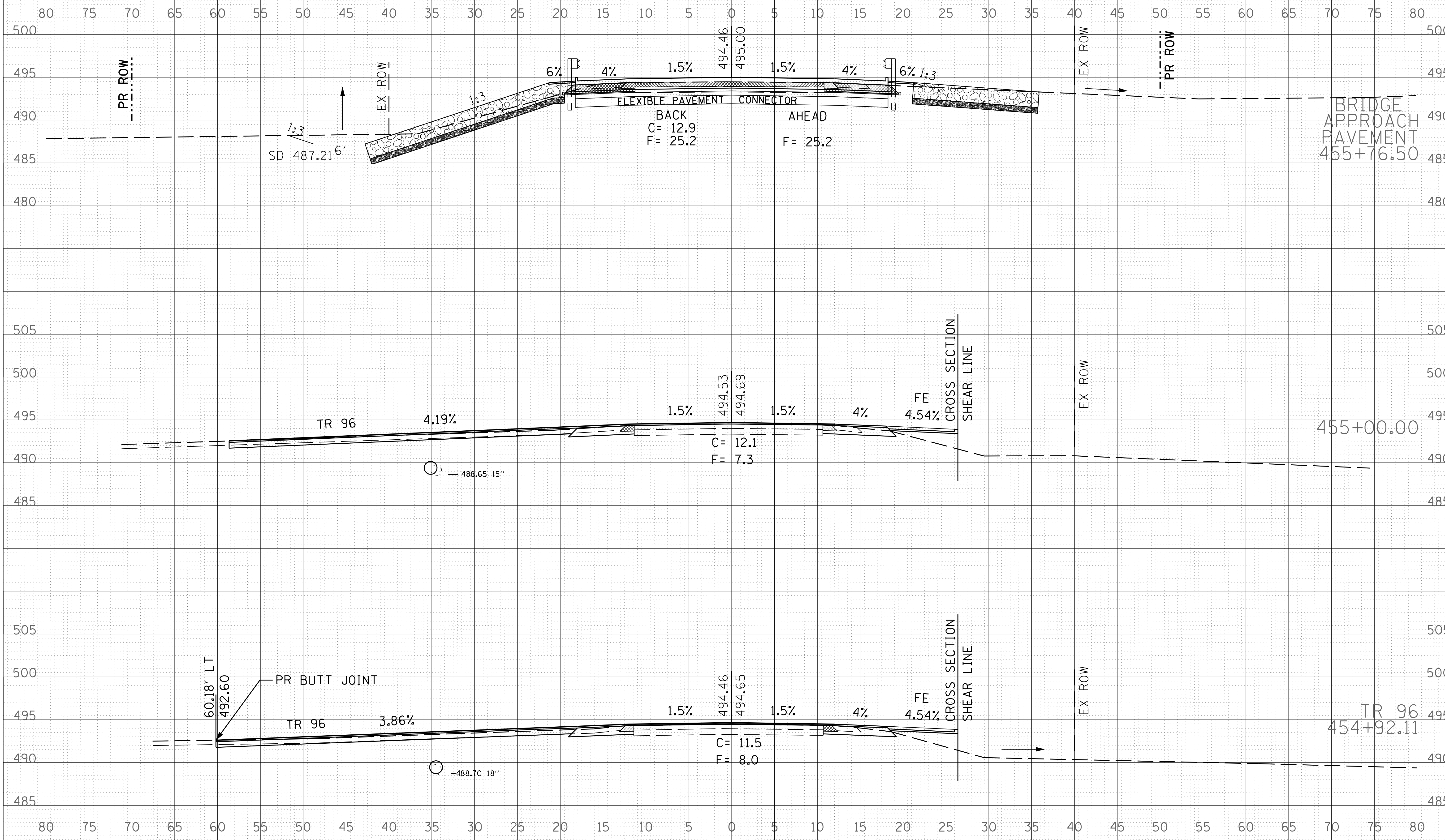


PLOT DATE = 7/31/2007
PLOT SCALE = 10.5882 ' / IN.

BROWN CREEK FAP 304 - MAINLINE

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	100
STA. 454+92.11	TO STA. 455+76.50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	101
STA. 456+00.00	TO STA. 456+34.50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED 7/31/2007 — PLOTTED — TRIANGULATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbo_final\sheet\d652404_psbo_sheet.dgn
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

PR ROW — EX ROW — TOP OF LOW FLOW BANK — STREAM CHANNEL

70.0' LT AHEAD
EL 483.49

29.58' LT
EL 482.04

0.00'
EL 481.81

53.18' RT
EL 481.28

4% 1.5% 1.5% 4%
494.26
495.18

℄ STRUCTURE
456+34.50

1:3 SLOPE (BACK STATION)
1:3 6'
SD 486.00

4% 1.5% 1.5% 4%
494.33
495.09

BACK
C= 22.5
F= 29.7

1:3.6 SLOPE (BACK STATION)

BK ABUT
456+06.50

SD 486.64
1:3 6'
1:3

6% 4% 1.5% 1.5% 4% 6%
494.45
495.07

F= 29.7

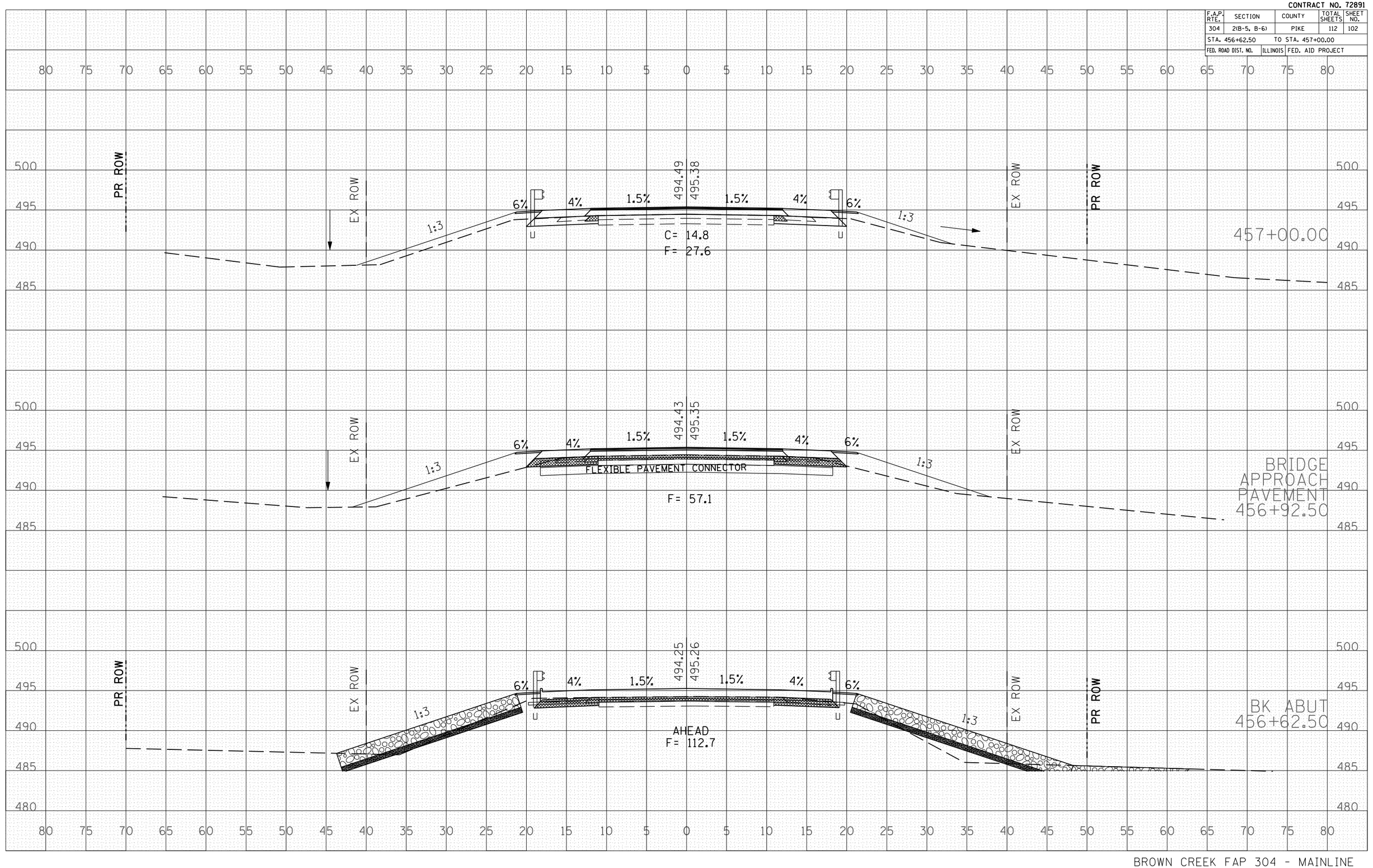
1:5

SEE STREAMBED CROSS SECTIONS

456+00.00

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	102
STA. 456+62.50	TO STA. 457+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



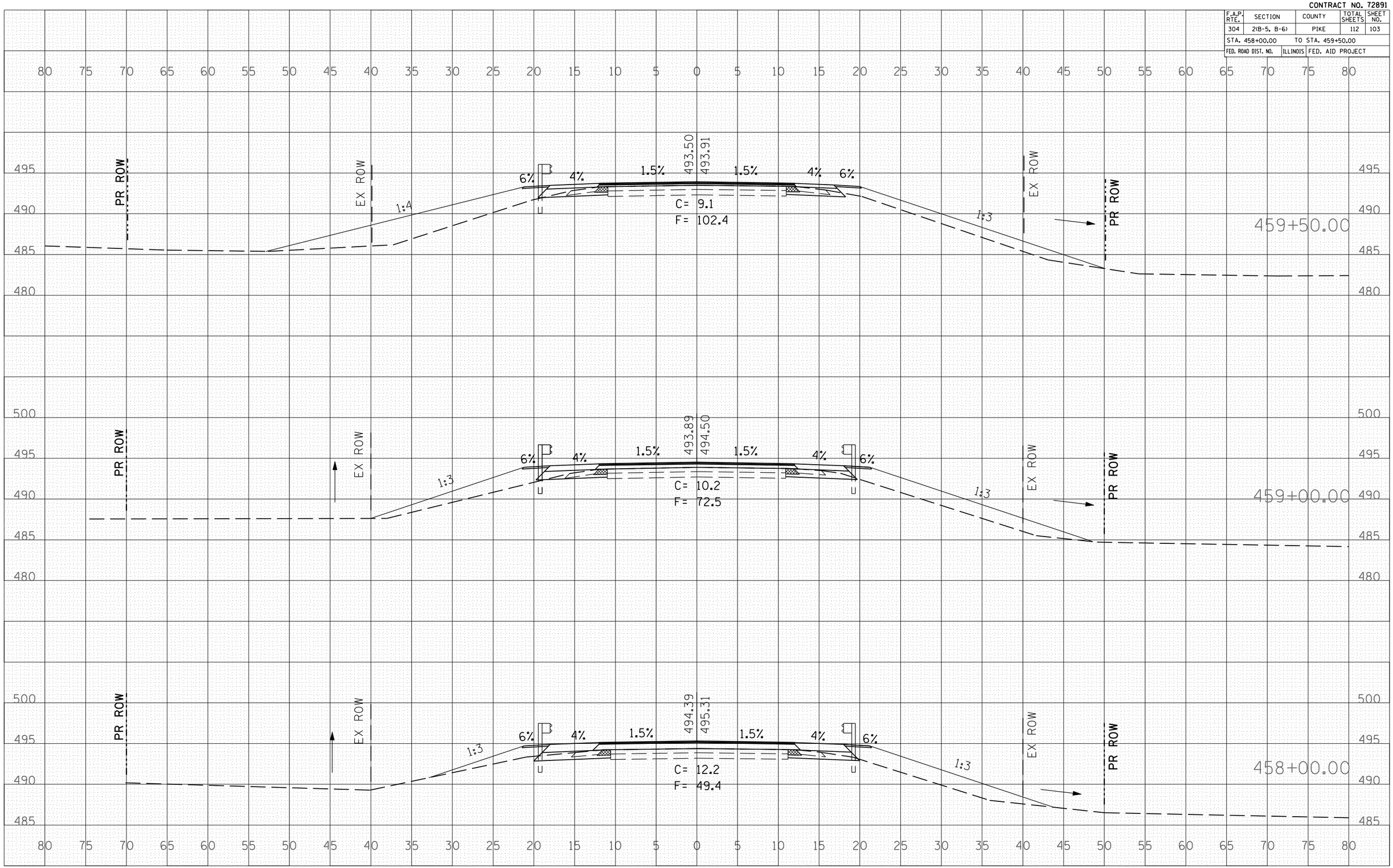
FINAL SURVEY NOTE BOOK — NO. — BY — DATE
SURVEYED
PLOTTED
TRANSFERRED
AREAS
AREAS CHECKED

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

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbs_final\d652404_psbs_sheet.dgn
PLOT SCALE = 10.5882 ' / IN.
USER NAME = loughlinr

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	103
STA. 458+00.00	TO STA. 459+50.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = 7/31/2007
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PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinr1

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	104
STA. 460+00.00	TO STA. 461+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

461+00.00

EX ROW 1:4 6% 4% 3.01% 491.95 492.14 0.18% 6% 1:4 EX ROW
C= 2.0
F= 2.3

460+45.00

PR ROW EX ROW 1:4 6% 4% 2.28% 492.63 492.79 0.81% 4% 6% 1:4 EX ROW PR ROW
C= 6.0
F= 80.7

460+00.00

PR ROW EX ROW 1:4 6% 4% 1.7% 493.13 493.32 1.33% 4% 6% 1:3 EX ROW PR ROW
C= 7.3
F= 92.8

PLOT DATE = 7/31/2007
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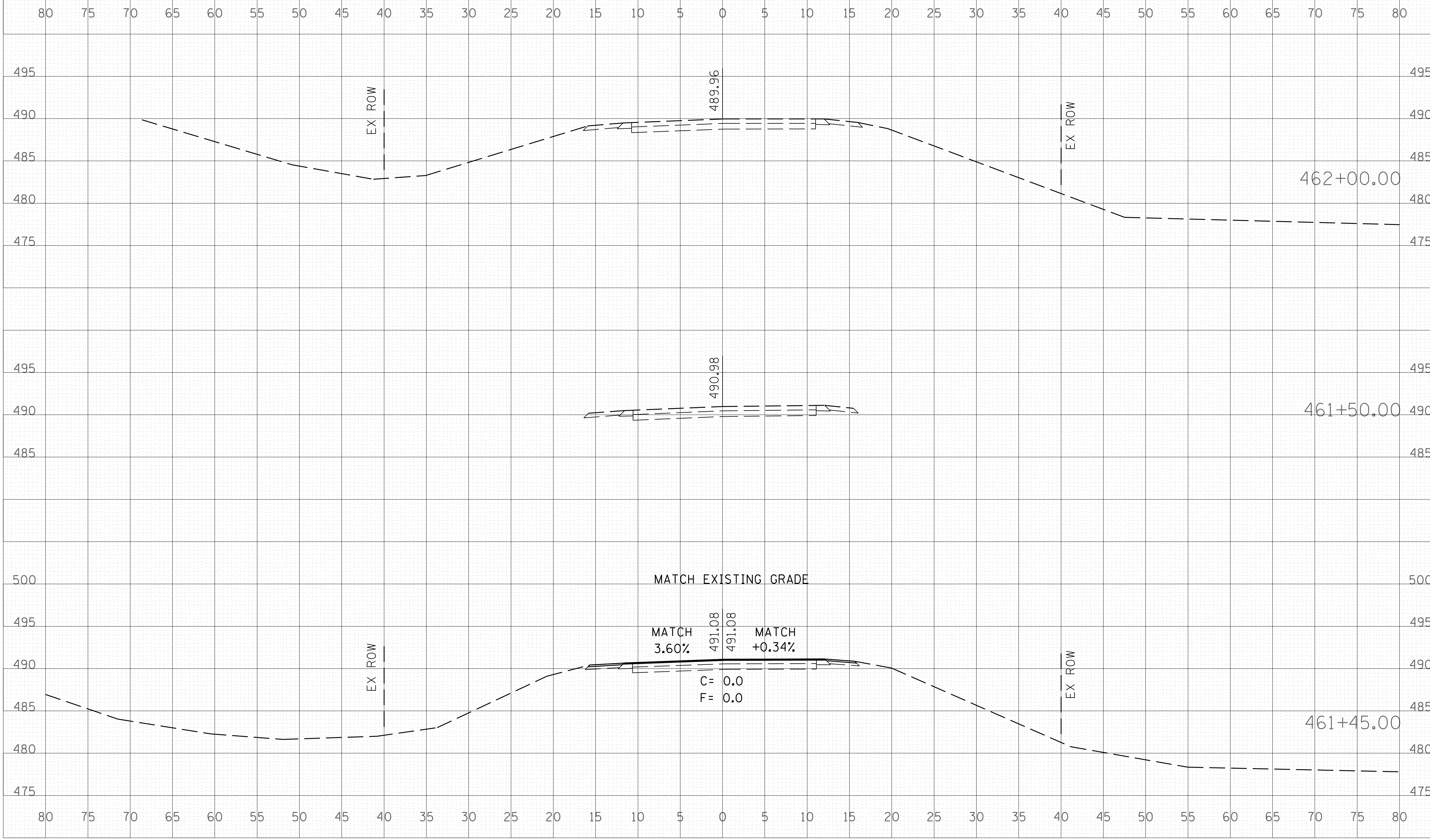
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

CONTRACT NO. 72891				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	105
STA. 461+45.00	TO STA. 462+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

ORIGINAL SURVEY | NO. | SURVEYED | PLOTTED | AREAS | AREAS CHECKED | BY | DATE

PLOT DATE = 7/31/2007
PLOT SCALE = 10.0000 ' / IN.

BROWN CREEK FAP 304 - MAINLINE

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	106
STA. 10+34.50	TO STA. 11+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbo_final\sht_psbo_sheet.dgn
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USER NAME = laughlinr1

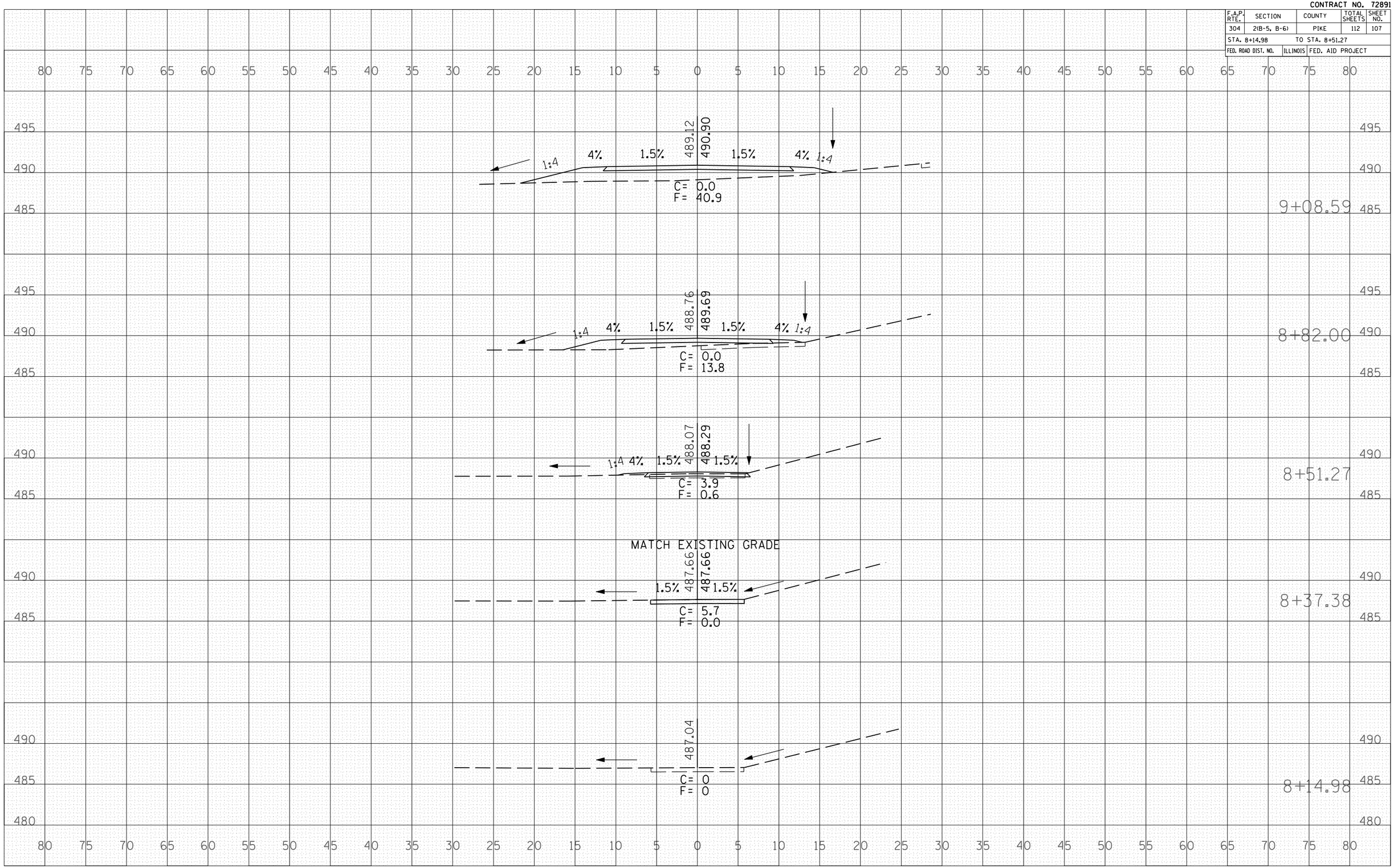
492.01
11+00.00
492.73
492.99
C-11.9
F-5.1
10+50.00
PROP PIPE CULVERT
RCCP, TYPE 1, 15" x 48'
2-PRCFE (STD 542301)
USFL ELEV 488.81 STA 454+63.04 34.50' LT
DSFL ELEV 488.51 STA 455+23.21, 34.50' LT
493.29
493.58
3" WATERMAIN
(4' DEEP)
C-13.8
F-40.2
10+34.50

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	107
STA. 8+14.98		TO STA. 8+51.27		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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USER NAME = laughlinr

CONTRACT NO. 72891

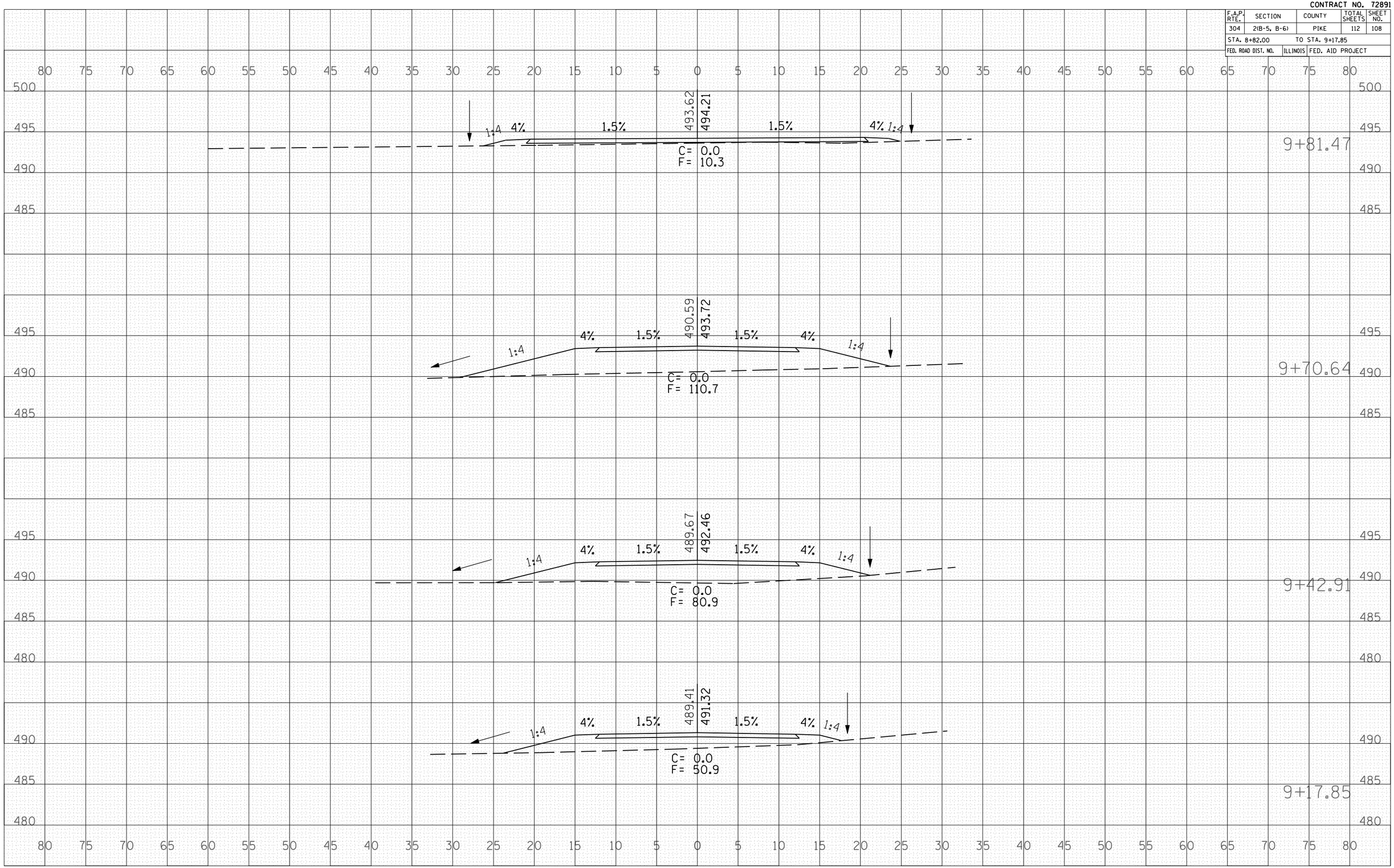
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	108
STA. 8+82.00		TO STA. 9+17.85		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY NOTE BOOK

NO.	BY	DATE
SURVEYED		
PLOTTED		
TRANSFER AREAS		
AREAS CHECKED		

ORIGINAL SURVEY NOTE BOOK

NO.	BY	DATE
SURVEYED		
PLOTTED		
TRANSFER AREAS		
AREAS CHECKED		



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PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinr

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	109
STA. 8+12.81	TO STA. 8+68.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbs_final\sheet\psbs_040_psbs_sheet.dgn
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinrl

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

490 485 480 475 470 465

39.5' LT
483.21

478.17
472.47

39.5' RT
483.21

1:2

18'

18'

1:2

8+68.00

C= 389.3
F= 0.9

BEGIN CONSTRUCTION OF ENERGY DISSIPATOR
BEGIN RIPRAP SLURRY INSTALLATION
SEE DETAIL SHEET

RIPRAP SLURRY THE ENTIRE STRUCTURE

23.0' LT
480.46

476.46
476.46

23.0' RT
480.46

8+30.00

1:2

15'

15'

1:2

C= 2.2
F= 21.4

476.37
476.37

8+12.81

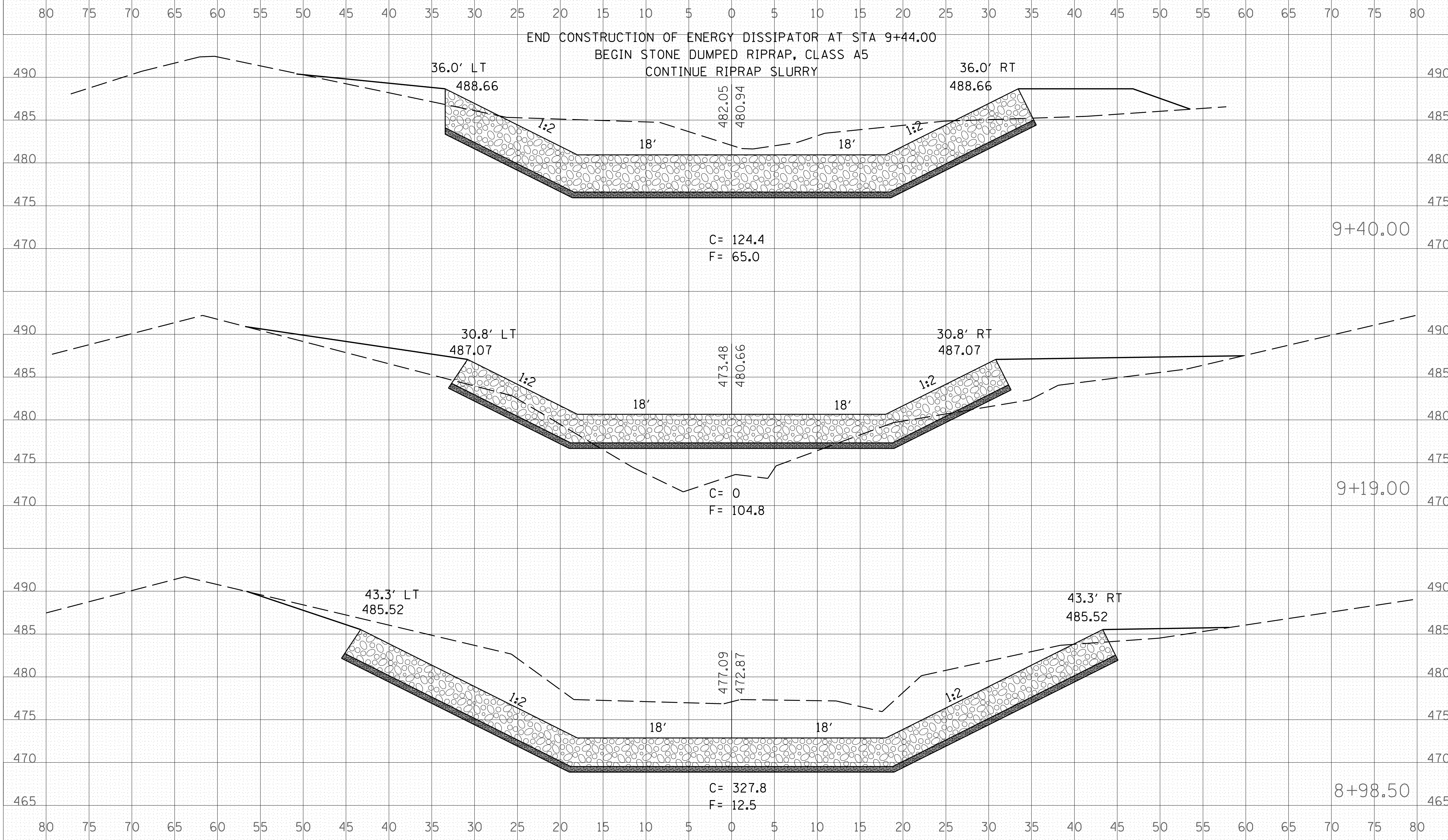
BEGIN CHANNEL WORK
MATCH EXISTING CHANNEL

C= 0.0
F= 0.0

BROWN CREEK STREAMBED

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	110
STA. 8+98.50	TO STA. 9+40.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

ORIGINAL SURVEY — NO. — SURVEYED — PLOTTED — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d6524404\psbo_final\
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USER NAME = laughlinrl

BROWN CREEK STREAMBED

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	111
STA. 9+50.00		TO STA. 10+05.50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

DOWNSTREAM OPENING OF PROPOSED STRUCTURE SN 075-0509

484.32
481.61
±9'
±9'

EXISTING STRUCTURE SN 075-0040

10+05.50

1:2
1:2
482.42
481.39
18'
18'

C=155.0
F=71.0

9+83.50

34.6' LT
489.41

RIPRAP SLURRY ALL
CLASS A5 RIPRAP

489.41
34.6' RT

1:2
1:2
482.57
481.06
18'
18'

C=144.0

9+50.00

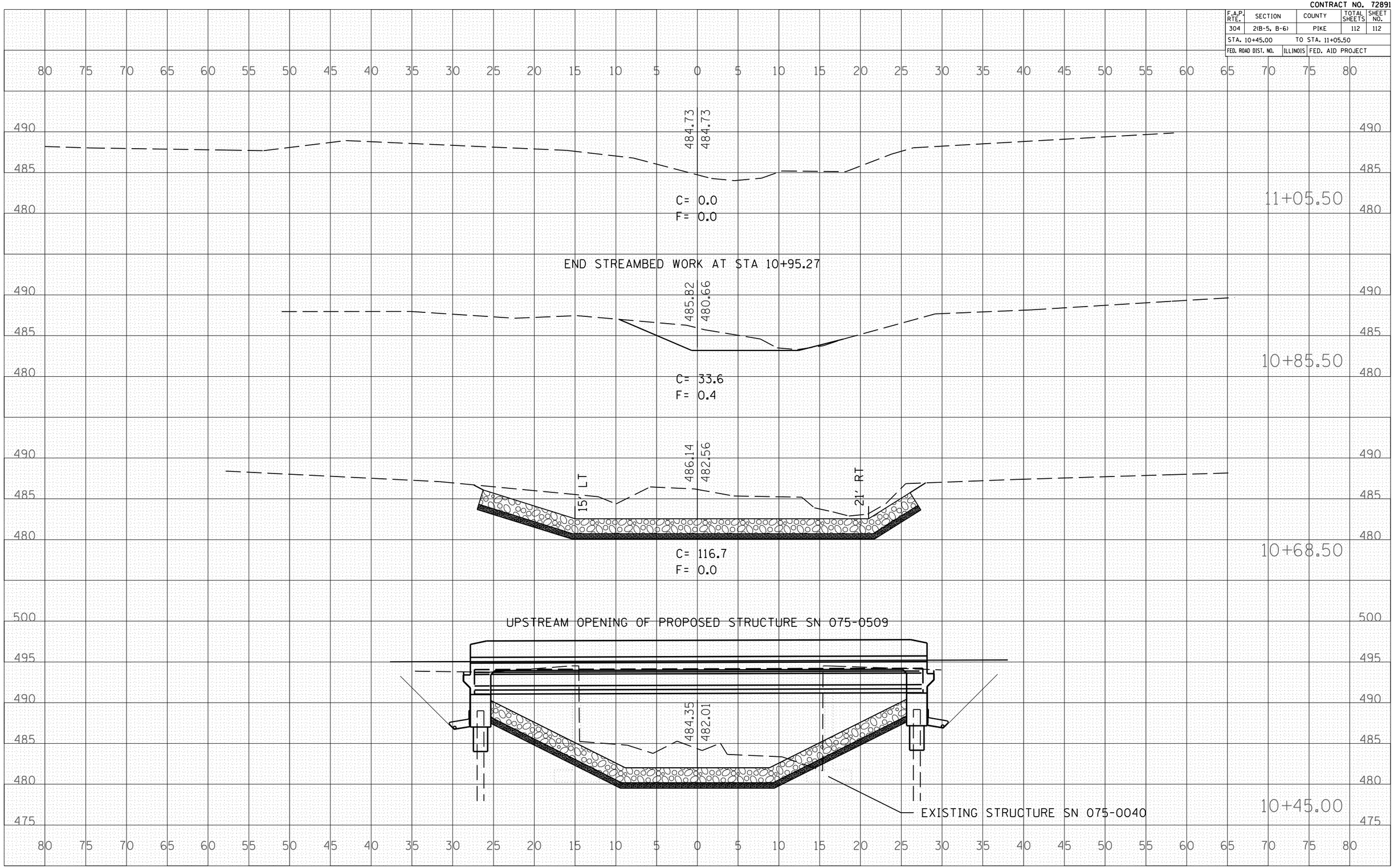
BROWN CREEK STREAMBED

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

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652404\psbo_final\sheets\d652404psbo_sheet.dgn
PLOT SCALE = 10.5882 ' / IN.
USER NAME = laughlinr1

CONTRACT NO. 72891

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	2(B-5, B-6)	PIKE	112	112
STA. 10+45.00	TO STA. 11+05.50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = 7/31/2007
FILE NAME = c:\Projects\d652484\psbo_final\sheets\040_psbo_sheet.dgn
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USER NAME = laughlinr1