6-11-10 LETTING ITEM 091

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	1
	ILLINOIS	CONTRACT NO. 76410		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

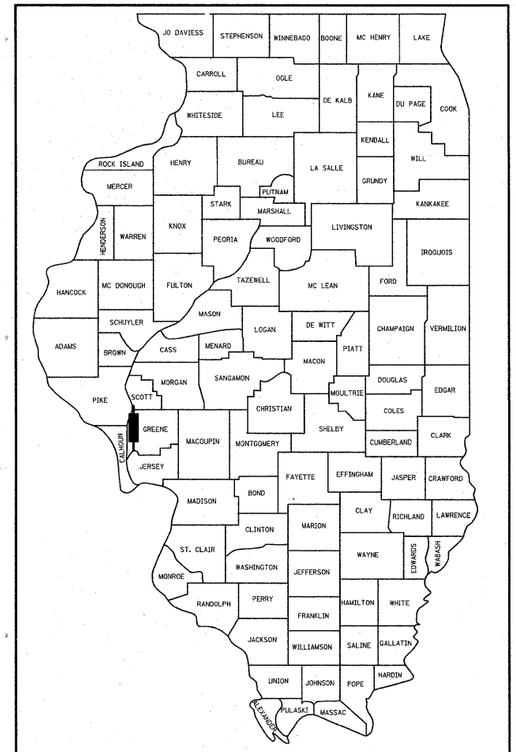
PROPOSED
HIGHWAY PLANS

FAS ROUTE 739 (ELDRED–HILLVIEW RD)
SECTION 1BR, 1–2BR, 401–2BR
PROJECT – –
BRIDGE REPLACEMENT, SCOUR MITIGATION
GREENE COUNTY

C–98–030–10

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D–98–060–01

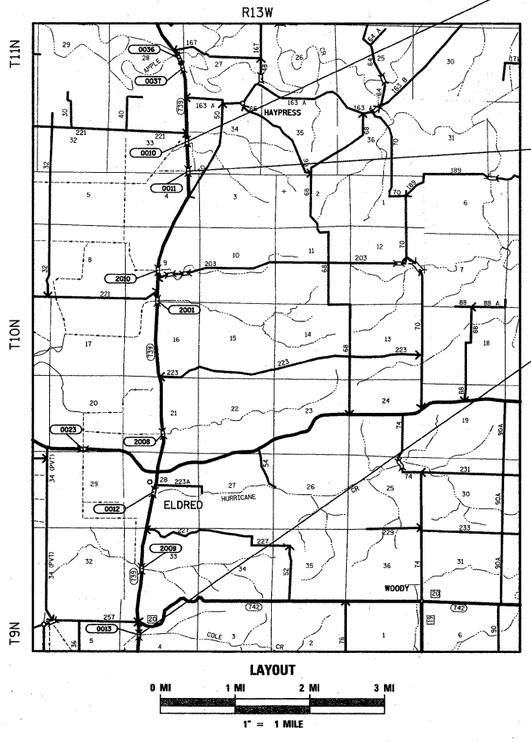


LOCATION OF SECTION INDICATED THUS: –

PROPOSED SINGLE SPAN W33 BEAM
BRIDGE OVER UNNAMED STREAM
70'–0" BACK TO BACK ABUTS, 0° SKEW
STA 237+00
SN 031-0010 (E), SN 031-0039 (P)
BEGIN STA 234+37.5
END STA 239+62.5

PROPOSED SINGLE SPAN W30 BEAM
BRIDGE OVER UNNAMED STREAM
55'–0" BACK TO BACK ABUTS, 0° SKEW
STA 216+50
SN 031-0011 (E), SN 031-0040 (P)
BEGIN STA 214+57.5
END STA 219+17.5

PROPOSED SINGLE SPAN W36 BEAM
BRIDGE OVER COLE CREEK
84'–0" BACK TO BACK ABUTS, 0° SKEW
STA 124+00
SN 031-0013 (E), SN 031-0041 (P)
BEGIN STA 120+77.5
END STA 127+60



LAYOUT

0 MI 1 MI 2 MI 3 MI
1" = 1 MILE

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

SEC 1BR SN 031-0039 (P)
& SEC 1-2BR SN 031-0040 (P)
ADT = 750 (2001)
ADT = 975 (2028)
SU = 5.5%
MU = 4.1%

SEC 401-2BR SN 031-0041 (P)
ADT = 650 (2007)
ADT = 850 (2030)
SU = 8.6%
MU = 1.7%

DESIGN DESIGNATION
N/A

SEC 1BR
GROSS LENGTH = 0.013 MI
NET LENGTH = 0.013 MI

SEC 1-2BR
GROSS LENGTH = 0.010 MI
NET LENGTH = 0.010 MI

SEC 401-2BR
GROSS LENGTH = 0.016 MI
NET LENGTH = 0.016 MI

TOTAL
GROSS LENGTH = 0.039 MI
NET LENGTH = 0.039 MI

SEC 1BR SN 031-0039 (P)
LATITUDE 39.3525
LONGITUDE -90.5440

SEC 1-2BR SN 031-0040 (P)
LATITUDE 39.3469
LONGITUDE -90.5437

SEC 401-2BR SN 031-0041 (P)
LATITUDE 39.2565
LONGITUDE -90.5552

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 24 20 10
Mark Hamer
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER
May 7 20 10
Scott E. Stitt P.E. /sz
Acting ENGINEER OF DESIGN AND ENVIRONMENT
May 7 20 10
Christine M. Reed /sz
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: PATTI LeBEAU (618) 346–3179
PROJECT MANAGER: REBECCA THARP (618) 346–3323

CONTRACT NO. 76410

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STANDARDS

000001-05
001001-02
001006
280001-05
420401-08
482001-02
515001-03
630001-08
630301-05
631031-08
635006-03
635011-02
666001-01
701206-02
701306-02
701311-03
701321-10
701326-03
701901-01
704001-06
780001-02
781001-03
420401-08
601101-01

GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

   - ILLINOIS RURAL ELECTRIC COOPERATIVE
   - VERIZON NORTH, INC.
   - AMERENCIPS (GAS & ELECTRIC)
   - GREENE COUNTY RURAL WATER DISTRICT

   MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY *. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

2. ALL ELEVATIONS REFER TO THE USGS MEAN SEA LEVEL DATUM.

3. THE THICKNESS OF THE LEVELING BINDER (MACHINE METHOD) SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE LEVELING BINDER (MACHINE METHOD) IS PLACED.

4. THE STANDARDS AND REVISION NUMBERS LISTED SHALL APPLY TO THIS PROJECT.

5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

6. A QUANTITY OF 1512.5 FEET OF "TEMPORARY PAVEMENT MARKING - LINE 6" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.

7. IF THE CONTRACTOR REMOVES TREES WITHIN THE RIGHT-OF-WAY LIMITS FOR HIS CONSTRUCTION ACTIVITY, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE, IT SHALL BE HIS RESPONSIBILITY TO REPLACE THE TREES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. TREES ALONG THE EDGE OF RIGHT-OF-WAY SHALL BE SAVED IF, IN THE OPINION OF THE ENGINEER, THEY DO NO INTERFERE WITH CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL PROTECT TREES SCHEDULED TO REMAIN IN PLACE FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. ANY TREE REMOVAL AND REPLACEMENT OTHER THAN THOSE SPECIFIED SHALL BE AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

8. RIGHT OF WAY MARKERS SHALL BE SET SO THE BACK OF THE POST IS TWELVE (12") INCHES INSIDE THE RIGHT OF WAY BOUNDARY. RIGHT OF WAY CORNERS ARE MARKED BY A 5/8" IRON ROD WITH IDOT ALUMINUM CAP AND SHALL NOT BE REMOVED OR DAMAGED WHEN SETTING THE RIGHT OF MARKERS.

9. ALL EXISTING AND PROPOSED RIGHT-OF-WAY LINES AND PROPERTY LINES SHOWN ON THE PLAN SHEETS ARE GRAPHICAL REPRESENTATIONS AND SHALL NOT BE USED AS A MEANS TO ESTABLISH OWNERSHIP. IN ALL MATTERS RELATING TO RIGHT-OF-WAY, THE PLAT OF HIGHWAYS SHALL BE THE CONTROLLING DOCUMENT.

10. ACCESS TO PRIVATE ENTRANCES SHALL BE MAINTAINED AT ALL TIMES.

11. THE COST OF "BARRICADES, TYPE III" USED DURING CONSTRUCTION SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".

12. THE WIDTH OF THE EXISTING PAVEMENT TO BE RESURFACED IS THE NOMINAL WIDTH. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING PAVEMENT WIDTH.

13. ALL AREAS DISTURBED FOR ANY REASON SHALL BE PERMANENTLY SEEDED AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE.

14. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT EACH END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS, AND WILL BE CONSIDERED INCIDENTAL TO THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE IN COLOR.

15. THE ARCHAEOLOGICAL CLEARANCE HAS NOT BEEN OBTAINED FOR THE ENTIRE PROJECT. THE RESIDENT ENGINEER SHALL PROVIDE THE CONTRACTOR THOSE AREAS OF THE PROJECT WHICH HAVE BEEN CLEARED, AND IN WHICH THE CONTRACTOR MAY WORK. THE RESIDENT ENGINEER SHALL ALSO NOTIFY THE CONTRACTOR WHEN ADDITIONAL SITES BECOME AVAILABLE.

COMMITMENTS

1. THE LOW WATER CROSSING WEST OF PROPOSED STRUCTURE NUMBER 031-0041 SHALL BE ACCESSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION, WEATHER PERMITTING.

2. A 25 FOOT ASPHALT DRIVEWAY ENTRANCE SHALL BE PROVIDED NORTHEAST OF PROPOSED STRUCTURE NUMBER 031-0041 TO ACCOMMODATE ACCESS TO THE MRS. NORINE E. HELTON PROPERTY. A 25 FOOT GRAVEL DRIVE SHALL BE CONSTRUCTED CONNECTING THE PROPOSED ENTRANCE TO THE EXISTING CIRCLE DRIVE.

3. THE GRAVEL FIELD ENTRANCE LOCATED AT STA 121+00 RT WILL INCLUDE FILL MATERIAL AND GRAVEL TO BRING IT UP TO A LEVEL GRADE FOR ACCESS TO THE FARM FIELD WEST OF THE ROAD.

PERTINENT INFORMATION

A PROPOSED FIELD ENTRANCE SHALL BE CONSTRUCTED ON THE WEST SIDE OF ELDRED-HILLVIEW ROAD BETWEEN PROPOSED STRUCTURES 031-0040 AND 031-0039. THE PROPOSED FIELD ENTRANCE, LOCATED BETWEEN STATIONS 218+95 AND 235+00 LEFT, WILL PROVIDE ACCESS THAT WAS PREVIOUSLY PROVIDED BY THE EXISTING FIELD ENTRANCES AT STATIONS 216+94 LEFT AND 236+46.5 LEFT. THE RESIDENT ENGINEER SHALL CONTACT THE PROPERTY OWNER TO INSURE THE CORRECT FIELD ENTRANCE LOCATION.

CONTACT INFO:
MS. DONNA SHOFF
C/O ELDRED FARM
1154 FOLGER
ST. LOUIS, MO 63122

Rev.

FILE NAME = 701301-03	USER NAME = tharprl	DESIGNED -	REVISED -
c:\pw_work\PWIDOT\THARPRL\dms52692\D876410-sht-gennote.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 4/27/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	2
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 031-0041(P) 401-2BR X071-2A	SN 031-0040(P) 1-2BR X071-2A	SN 031-0039(P) 1BR X071-2A
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	12			12
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	46			46
20200100	EARTH EXCAVATION	CU YD	778	659	49	70
20300100	CHANNEL EXCAVATION	CU YD	3000	1770	290	940
20400800	FURNISHED EXCAVATION	CU YD	3854	961	1353	1540
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	398	130	130	138
25000200	SEEDING, CLASS 2	ACRE	1.75	0.75	0.5	0.5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	175	75	50	50
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	175	75	50	50
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	175	75	50	50
25100115	MULCH, METHOD 2	ACRE	7.25	3.25	2	2
25100630	EROSION CONTROL BLANKET	SQ YD	988	988		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	635	335	150	150
28000400	PERIMETER EROSION BARRIER	FOOT	3909	1517	1042	1350
28000500	INLET AND PIPE PROTECTION	EACH	8	6	2	
28100105	STONE RIPRAP, CLASS A3	SQ YD	104	104		
28100106	STONE RIPRAP, CLASS A3 (SPECIAL)	SQ YD	201	92	40	69
28100109	STONE RIPRAP, CLASS A5	SQ YD	1948	766	521	661
28200200	FILTER FABRIC	SQ YD	2823	1532	561	730
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	31	31		
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	237	220	17	
35600712	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	SQ YD	704		371	333
40200700	AGGREGATE SURFACE COURSE, TYPE A 8"	SQ YD	462	392	70	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	411	411		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	2.7	0.9	0.9	0.9
40600300	AGGREGATE (PRIME COAT)	TON	5.2	2.4	1.3	1.5
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	538	242	148	148
40600990	TEMPORARY RAMP	SQ YD	50		25	25
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	499.5	285.5	122	92
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	337.9	126.9	103	108
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	45	44	1	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	140	44	48	48
44000100	PAVEMENT REMOVAL	SQ YD	718	250	230	238

Rev.

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	PLOT DATE = 3/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	3
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 031-0041(P) 401-2BR X071-2A	SN 031-0040(P) 1-2BR X071-2A	SN 031-0039(P) 1BR X071-2A
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	165	165		
48100500	AGGREGATE SHOULDERS, TYPE A 6"	SQ YD	235	235		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	410	106	140	164
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1			1
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1		1	
50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1	1		
50104400	CONCRETE HEADWALL REMOVAL	EACH	1	1		
50105220	PIPE CULVERT REMOVAL	FOOT	66	66		
50200100	STRUCTURE EXCAVATION	CU YD	681	219	226	236
50300100	FLOOR DRAINS	EACH	8		8	
50300225	CONCRETE STRUCTURES	CU YD	179.4	56.2	61.5	61.7
50300255	CONCRETE SUPERSTRUCTURE	CU YD	602.7	204.8	189	208.9
50300260	BRIDGE DECK GROOVING	SQ YD	1244	422	386	436
50300280	CONCRETE ENCASEMENT	CU YD	13.2	6.6	6.6	
50300300	PROTECTIVE COAT	SQ YD	1594	552	488	554
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	0.46	0.2	0.34
50500505	STUD SHEAR CONNECTORS	EACH	2916	846	972	1098
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	158740	53620	50690	54430
50800515	BAR SPLICERS	EACH	1071	56	486	529
51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	693			693
51201800	FURNISHING STEEL PILES HP14X73	FOOT	1520	580	940	
51202305	DRIVING PILES	FOOT	2213	580	940	693
51203200	TEST PILE METAL SHELLS	EACH	1			1
51203800	TEST PILE STEEL HP14X73	EACH	4	2	2	
51205200	TEMPORARY SHEET PILING	SQ FT	3377		1217	2160
51500100	NAME PLATES	EACH	3	1	1	1
52100520	ANCHOR BOLTS, 1"	EACH	72	24	24	24
54213453	END SECTIONS 18"	EACH	4	2	2	
54213471	END SECTIONS 36"	EACH	2	2		
5421A036	PIPE CULVERTS, CLASS A, TYPE 1 36" (TEMPORARY)	FOOT	160	160		
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	119	43	76	
542D0241	PIPE CULVERTS, CLASS D, TYPE 1 36"	FOOT	57	57		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	218	63	76	79

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		DRAWN -	REVISED -
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	PLOT DATE = 3/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	4
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	SUMMARY OF QUANTITIES			100% STATE	CONSTRUCTION TYPE CODE		
	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 031-0041(P) 401-2BR X071-2A	SN 031-0040(P) 1-2BR X071-2A	SN 031-0039(P) 1BR X071-2A
	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	407	140	132	135
*	63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	475	175	125	175
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	12	4	4	4
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	12	4	4	4
	66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	23	7	8	8
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	15	7	4	4
	67100100	MOBILIZATION	L SUM	1	0.4	0.3	0.3
	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
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2		1	1
	70106700	TEMPORARY RUMBLE STRIP	EACH	12		6	6
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	570	170	200	200
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1512.5		775	737.5
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	837.5		412.5	425
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	675		362.5	312.5
*	72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	48	24	12	12
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	480	140	170	170
*	78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	90	30	30	30
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	18	6	6	6
*	78200520	BARRIER WALL MARKERS, TYPE B	EACH	12	4	4	4
*	78200530	BARRIER WALL MARKERS, TYPE C	EACH	12	4	4	4
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	12	4	4	4
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	134		67	67
	X0324952	DETOUR SIGNING	L SUM	1	1		
	X0325445	RIGHT-OF-WAY AND PROPERTY CORNERS	EACH	5	5		
	X7200200	WIDE LOAD SIGNING	L SUM	1		0.5	0.5
	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

*Specialty Items

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	PLOT DATE = 3/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

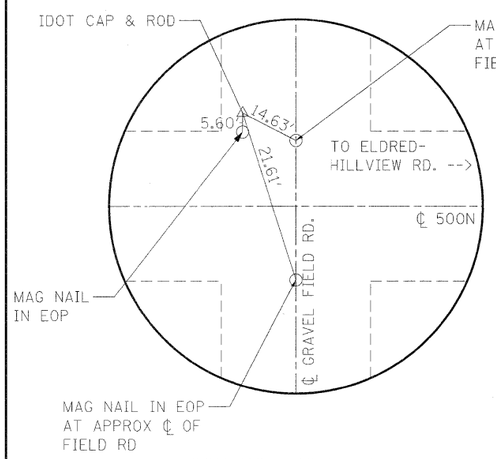
SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	5
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BM 1: RR SPIKE SET IN POWER POLE ON EAST SIDE OF ELDRED-HILLVIEW RD, ± 489 FT SOUTH OF ℄ 975N.
STATION ± 118+70, 49′ LT, ELEVATION 447.65.

BM 2: RR SPIKE SET IN POWER POLE ON EAST SIDE OF ELDRED-HILLVIEW RD, 151.03′ SOUTHEAST OF CONTROL POINT 6.
STATION ± 130+71, 51′ LT, ELEVATION 456.44



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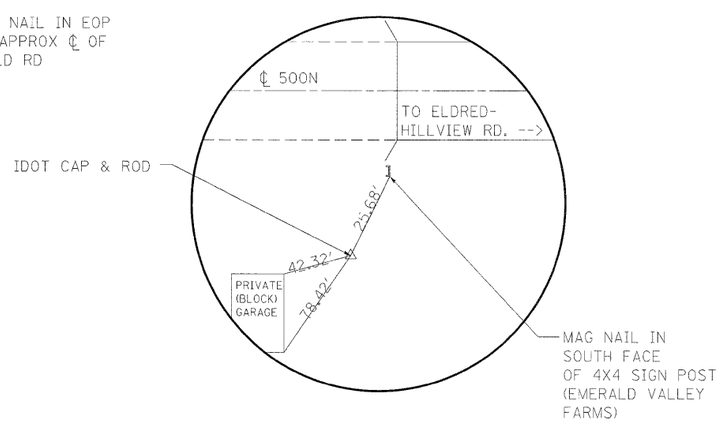

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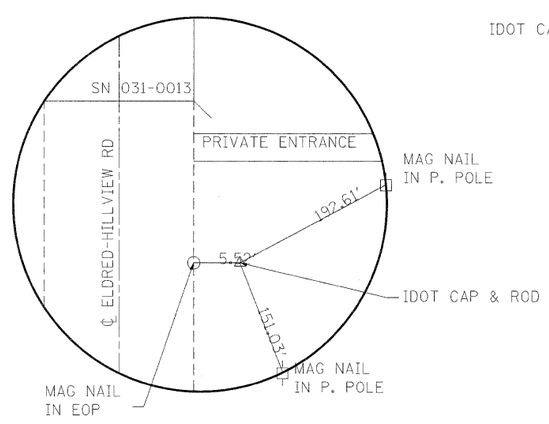
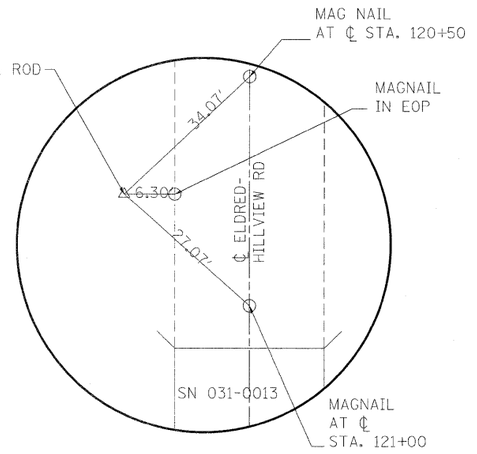


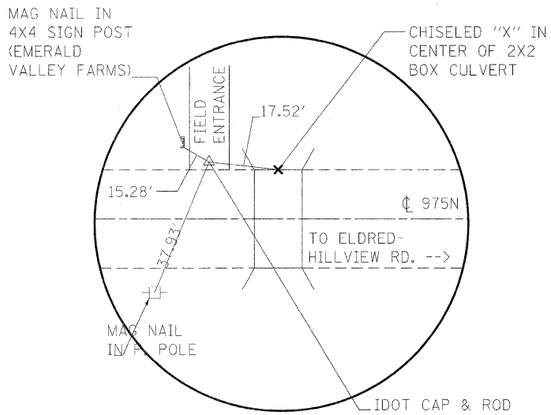
CONTROL POINT 6

STATION 129+22.99
OFFSET 16.68′ LT
N. 942,824.2542 E. 186,719.2120



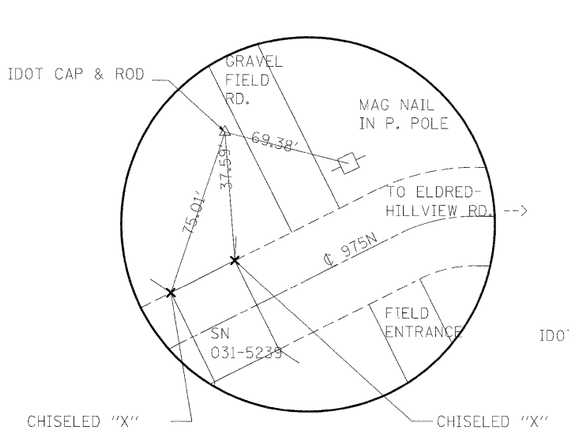
CONTROL POINT 7

STATION 120+79.23
OFFSET 17.43′ RT
N. 943,668.5823 E. 186,704.7989



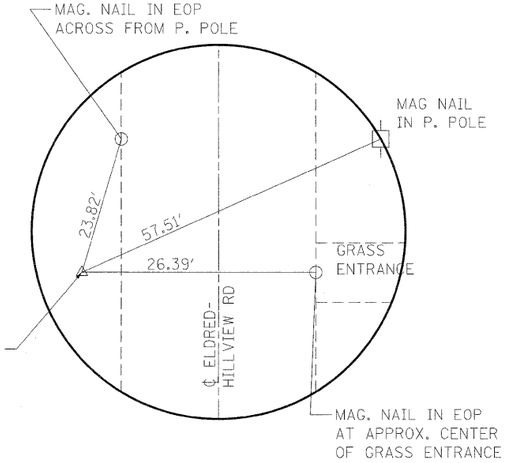
CONTROL POINT 8

N. 944,445.4414 E. 182,693.0072



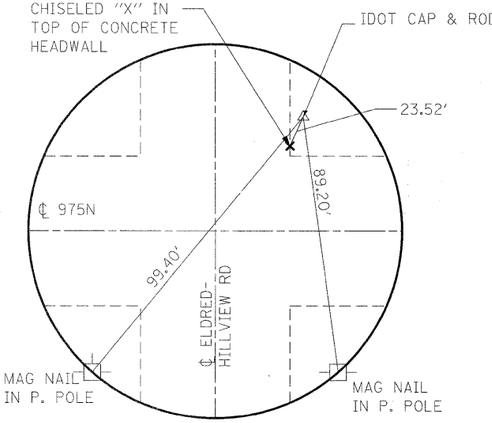
CONTROL POINT 9

N. 944,395.3026 E. 180,558.6762



CONTROL POINT 10

N. 942,076.6377 E. 186,669.1611



CONTROL POINT 11

STATION 113+31.82
OFFSET 22.36′ LT
N. 944,414.8543 E. 186,762.0260

NOTES:
NOT TO SCALE.
ALL TIES ARE PULLED DIRECT, UNLESS OTHERWISE NOTED.

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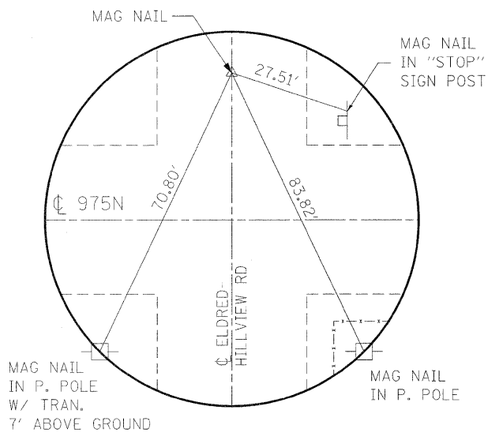
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TIES AND BENCHMARKS
SN 031-0013(E) 0041(P), SECTION 401-2BR

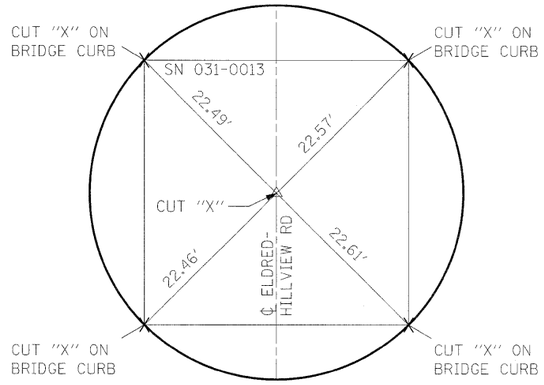
SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	6
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



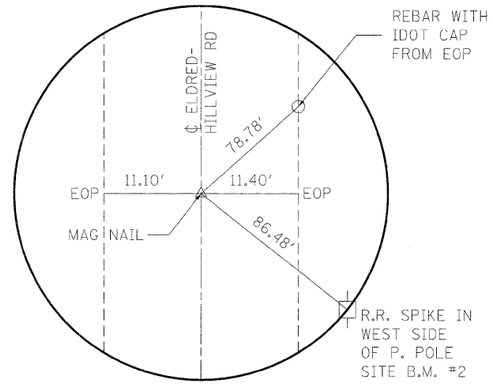
EXISTING ALIGNMENT- STA 113+49.97

N. 944,397.2395 E. 186,739.2507



EXISTING ALIGNMENT- STA 124+00

N. 943,347.4909 E. 186,714.7409



EXISTING ALIGNMENT- STA 130+99.97

N. 942,647.7094 E. 186,698.4023

ABOVE MEASUREMENTS AT STA 113+49.97 ARE HORIZ. EDM DISTANCES

NOTES:
NOT TO SCALE.
ALL TIES ARE PULLED DIRECT, UNLESS OTHERWISE NOTED.

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		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TIES AND BENCHMARKS
SN 031-0013(E) 0041(P), SECTION 401-2BR

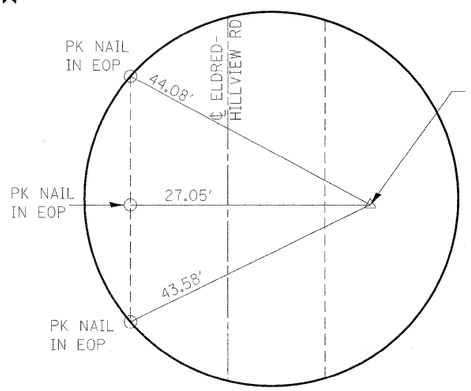
SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	7
			CONTRACT NO. 76410	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

N

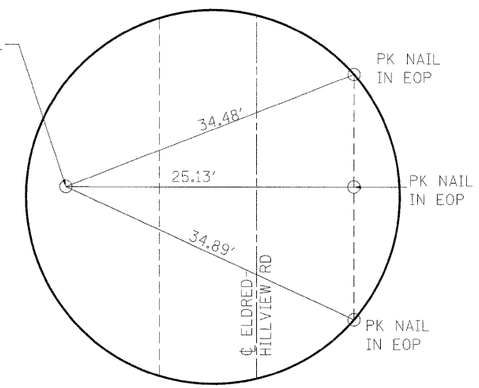
TBM 1: SOUTHWEST CORNER OF EAST PARAPET CURB ON THE STRUCTURE.
STATION ± 216+33, OFFSET 17' RT, ELEVATION 444.05

TBM 2: RR SPIKE SET IN POWER POLE AT SOUTH END OF PROJECT.
STATION ± 205+50, OFFSET 45' RT, ELEVATION 453.95



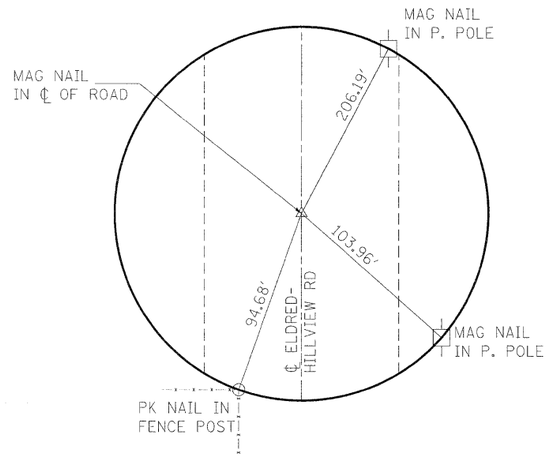
CONTROL POINT 55

STATION 206+44.80
OFFSET 15.42' RT
N. 97,073.436 E. 101,484.893



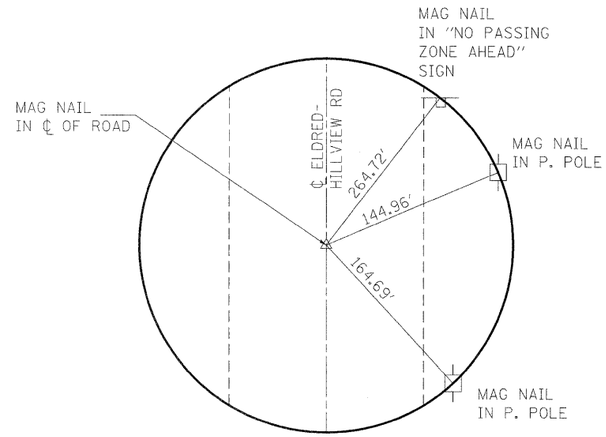
CONTROL POINT 30

STATION 213+74.98
OFFSET 14.32' RT
N. 97,714.526 E. 101,134.110



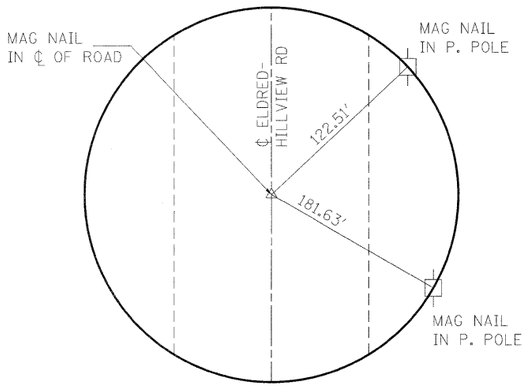
EXISTING ALIGNMENT STATION EQUATION
STA 206+22.42 (BACK) = STA 206+39.10 (AHEAD)

N. 97,061.4797 E. 101,473.6046



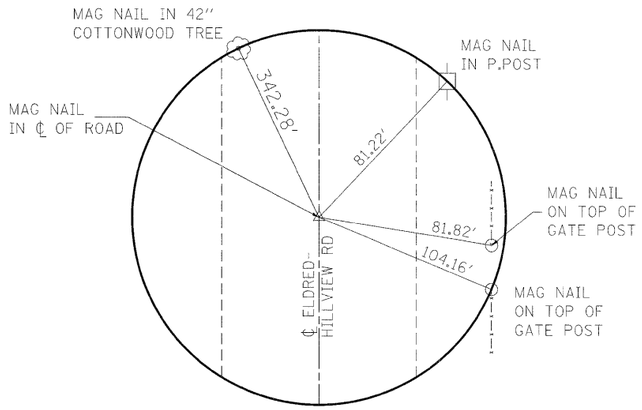
EXISTING ALIGNMENT - STA 210+00

N. 97,384.8724 E. 101,313.3985



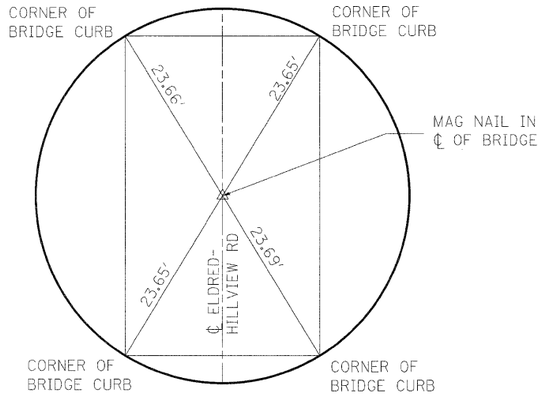
EXISTING ALIGNMENT - STA 222+00

N. 98,460.1597 E. 100,780.7098



EXISTING ALIGNMENT STATION EQUATION
STA 231+28.46 (BACK) = STA 231+28.25 (AHEAD)

N. 99,292.1274 E. 100,368.5597



EXISTING ALIGNMENT - STA 216+50

N. 97,967.3163 E. 101,024.8605

NOTES:
NOT TO SCALE.
ALL TIES ARE PULLED DIRECT, UNLESS OTHERWISE NOTED.

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		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

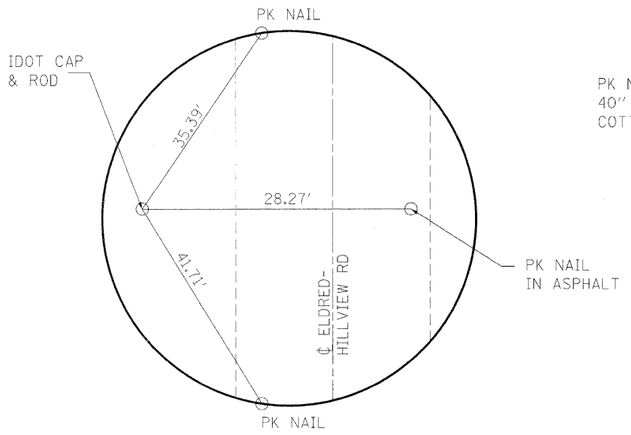
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TIES AND BENCHMARKS
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

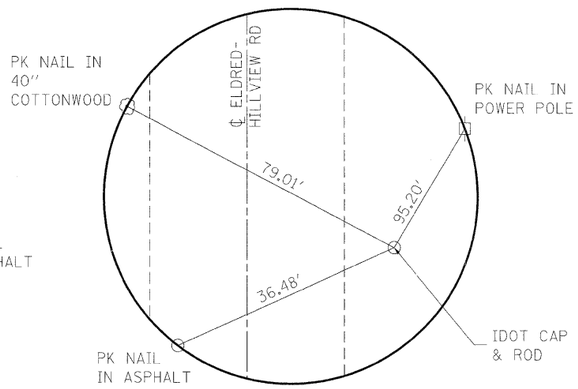
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	8
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BM 1: RR SPIKE IN POWER POLE
STATION 240+89, OFFSET 40' RIGHT, ELEVATION 440.16
BM 2: CHISELED "□" ON THE TOP NW CORNER OF THE BRIDGE RAIL.
STATION 237+16, OFFSET 19' LEFT, ELEVATION 446.78
BM 3: RR SPIKE IN POWER POLE
STATION 232+02, OFFSET 36' RIGHT, ELEVATION 441.90



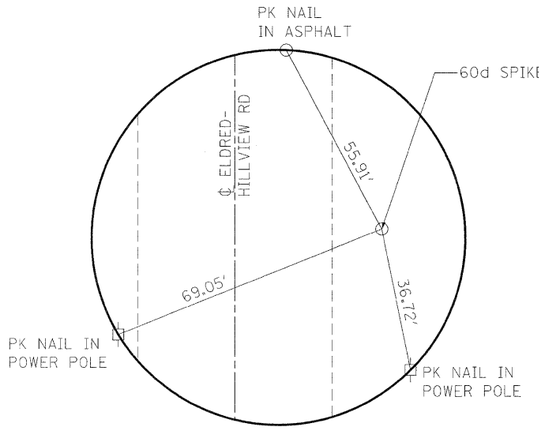
CONTROL POINT 1

STATION 239+26.13
OFFSET 17.68' LT
N. 100,000.000 E. 100,000.000



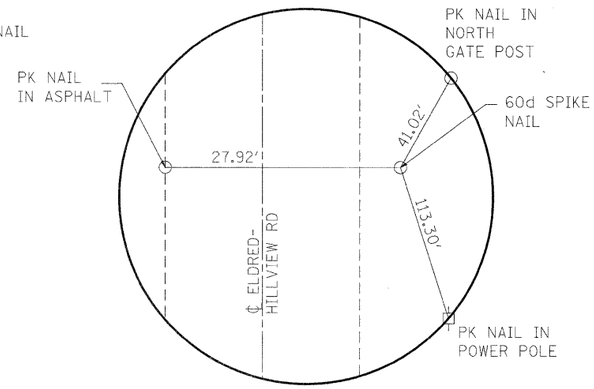
CONTROL POINT 2

STATION 234+04.05
OFFSET 16.68' RT
N. 99,546.886 E. 100,261.605



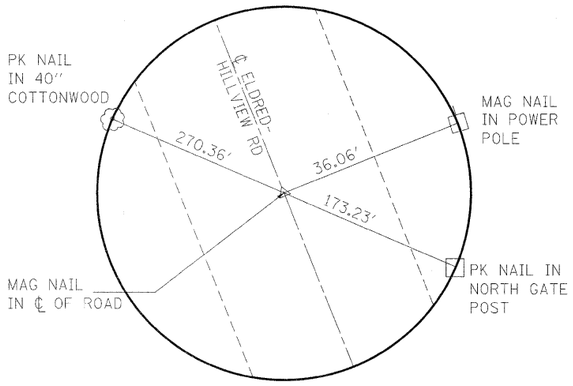
CONTROL POINT 3

STATION 244+06.17
OFFSET 13.25' RT
N. 100,444.259 E. 99,815.537



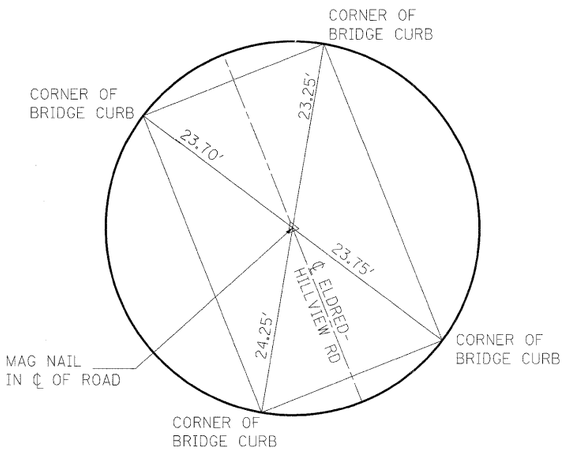
CONTROL POINT 4

STATION 230+17.43
OFFSET 17.10' RT
N. 99,200.225 E. 100,433.174



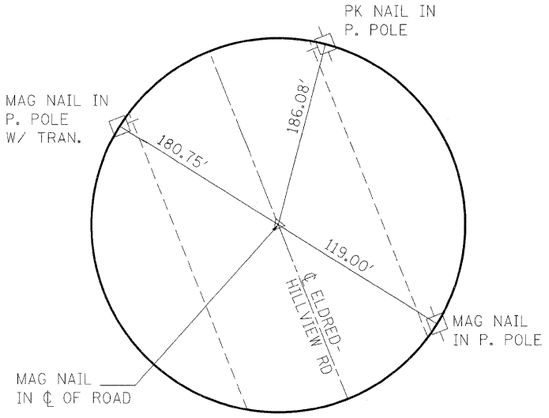
EXISTING ALIGNMENT - STA 232+00

N. 99,356.4863 E. 100,336.8423



EXISTING ALIGNMENT - STA 237+00

N. 99,804.9844 E. 100,115.8132



EXISTING ALIGNMENT - STA 242+00

N. 100,253.4746 E. 99,894.7880

NOTES:
NOT TO SCALE.
ALL TIES ARE PULLED DIRECT, UNLESS OTHERWISE NOTED.

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		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TIES AND BENCHMARKS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	9
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS 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 PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, 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.

MARY C. LAMIE	Mary C Lamie
PRINT NAME	SIGNATURE
DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER	March 24, 2010
TITLE	DATE
IL DEPT. OF TRANSPORTATION	
AGENCY	

I. SITE DESCRIPTION:

A. THE FOLLOWING IS A DESCRIPTION OF THE PROJECT LOCATION:

THE PROJECT CONSISTS OF THE PROPOSED IMPROVEMENTS OF 0.039 MILES OF ELDRED-HILLVIEW ROAD, SPECIFICALLY STRUCTURE OVER UNNAMED STREAM 4.5 MILES NORTH OF IL 108 SN 031-0010(E) 0039(P), STRUCTURE OVER UNNAMED STREAM 4.1 MILES NORTH OF IL 108 SN 031-0011(E) 0040(P), AND STRUCTURE OVER COLE CREEK 2.2 MILES SOUTH OF IL 108 SN 031-0013(E) 0041(P).

B. THE FOLLOWING IS A DESCRIPTION OF THE CONSTRUCTION ACTIVITY WHICH IS THE SUBJECT OF THIS PLAN:

CONSTRUCTION WILL INCLUDE THE REMOVAL AND THE REPLACEMENT OF SN 031-0010(E) 0039(P), SN 031-0011(E) 0040(P), AND SN 031-0013(E) 0041(P). WORK WILL ALSO CONSIST OF AGGREGATE SHOULDERS, HOT-MIX ASPHALT SHOULDERS, HMA DRIVEWAY CONSTRUCTION, PAVEMENT MARKING, TEMPORARY LOW WATER CROSSING, LANDSCAPING AND ALL INCIDENTAL AND COLLATERAL WORK NECESSARY TO COMPLETE THE PROJECT AS SHOWN ON THE PLANS.

C. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE, SUCH AS GRUBBING, EXCAVATION AND GRADING:

PRE-STAGE 1: CONSTRUCTION OF TEMPORARY LOW WATER CROSSING ADJACENT TO EXISTING PAVEMENT FOR SN 031-0013(E) 0041(P).

STAGE 1: BEGIN REMOVAL AND CONSTRUCTION OF SN 031-0010(E) 0039(P), SN 031-0011(E) 0040(P), AND SN 031-0013(E) 0041(P). BEGIN CONSTRUCTION OF THE EAST HALF OF THE PROPOSED PAVEMENT AND BRIDGE CONSTRUCTION OF SN 031-0010(E) 0039(P) AND SN 031-0011(E) 0040(P). BEGIN CONSTRUCTION OF THE ENTIRE PROPOSED PAVEMENT AND BRIDGE CONSTRUCTION OF SN 031-0013(E) 0041(P).

STAGE 2: COMPLETE CONSTRUCTION OF THE PROPOSED BRIDGES AND PROPOSED PAVEMENT OF THE EAST HALF OF SN 031-0010(E) 0039(P) AND SN 031-0011(E) 0040(P). CONSTRUCT PROPOSED HMA SHOULDERS AND DRAINAGE RIPRAP ON THE EAST HALF OF SN 031-0010(E) 0039(P) AND SN 031-0011(E) 0040(P). COMPLETE THE CONSTRUCTION OF THE PROPOSED BRIDGE AND PROPOSED PAVEMENT FOR SN 031-0013(E) 0041(P).

STAGE 3: BEGIN CONSTRUCTION OF THE WEST HALF OF THE PROPOSED PAVEMENT AND BRIDGE CONSTRUCTION OF SN 031-0010(E) 0039(P) AND SN 031-0011(E) 0040(P). CONSTRUCT PROPOSED HMA SHOULDERS, AGGREGATE SHOULDERS, AND DRAINAGE RIPRAP FOR SN 031-0013(E) 0041(P).

STAGE 4: COMPLETE CONSTRUCTION OF THE PROPOSED BRIDGES AND PROPOSED PAVEMENT OF THE WEST HALF OF SN 031-0010(E) 0039(P) AND SN 031-0011(E) 0040(P). CONSTRUCT PROPOSED HMA SHOULDERS AND DRAINAGE RIPRAP ON THE WEST HALF OF SN 031-0010(E) 0039(P) AND SN 031-0011(E) 0040(P). REMOVE TEMPORARY LOW WATER CROSSING AND REGRADE CHANNEL.

D. THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 3.4 ACRES.

THE TOTAL AREA OF THE SITE THAT IS ESTIMATED WILL BE DISTURBED BY EXCAVATION, GRADING OR OTHER ACTIVITIES IS 1.75 ACRES.

E. THE FOLLOWING IS A WEIGHTED AVERAGE OF THE RUNOFF COEFFICIENT FOR THIS PROJECT AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED: 0.5

F. THE FOLLOWING IS A DESCRIPTION OF THE SOIL TYPES FOUND AT THE PROJECT SITE FOLLOWED BY INFORMATION REGARDING THEIR EROSIVITY:

TWO SOIL TYPES ARE LOCATED WITHIN THE PROJECT AREA OF ELDRED-HILLVIEW ROAD BRIDGE REPLACEMENTS OVER UNNAMED STREAMS (SN 031-0010(E) 0039(P) AND SN 031-0011(E) 0040(P)) AND OVER COLE CREEK (SN 031-0013(E) 0041(P)). THESE ARE:

DUPO SILT LOAM (180) - A SOMEWHAT POORLY DRAINED SOIL WITH SLOW PERMEABILITY. THIS SOIL IS OCCASIONALLY FLOODED WITH SLOPES THAT ARE BETWEEN ZERO AND TWO PERCENT. THIS SOIL HAS A LOW SUSCEPTIBILITY TO WATER EROSION AND A LOW SUSCEPTIBILITY TO WIND EROSION.

HAYMOND SILT LOAM (331) - A WELL DRAINED SOIL WITH MODERATE PERMEABILITY. THIS SOIL IS FREQUENTLY FLOODED WITH SLOPES THAT ARE BETWEEN ZERO AND THREE PERCENT. THIS SOIL HAS A LOW SUSCEPTIBILITY TO WATER EROSION AND A LOW SUSCEPTIBILITY TO WIND EROSION.

G. THE FOLLOWING IS A DESCRIPTION OF POTENTIALLY EROSIVE AREAS ASSOCIATED WITH THIS PROJECT:

THE TWO SOIL TYPES DUPO SILT LOAM (180) AND HAYMOND SILT LOAM (331) ARE FOUND IN ALL THREE PROJECT LOCATIONS. BOTH SOIL HAVE LOW SUSCEPTIBILITY TO WATER EROSION AND LOW SUSCEPTIBILITY TO WIND EROSION.

H. THE FOLLOWING IS A DESCRIPTION OF SOIL DISTURBING ACTIVITIES, THEIR LOCATIONS, AND THEIR EROSIVE FACTORS (E.G. STEEPNESS OF SLOPES, LENGTH OF SLOPES, ETC):

THE NATURE AND PURPOSE OF LAND DISTURBING ACTIVITIES ON THIS PROJECT IS TO REMOVE AND REPLACE SN 031-0010 OVER UNNAMED STREAM 4.5 MILES NORTH OF IL 108, SN 031-0011 OVER UNNAMED STREAM 4.1 MILES NORTH OF IL 108, AND SN 031-0013 OVER COLE CREEK 2.2 MILES SOUTH OF IL 108; THE RECONSTRUCTION OF THE APPROACH SLABS; AND THE REGRADING OF THE ROADSIDE DRAINAGE FEATURES. PROPOSED RIGHT-OF-WAY WILL BE REQUIRED TO ACCOMMODATE RECONSTRUCTION OF THE BRIDGE AND THE ROADWAY APPROACHES. A PROPOSED TEMPORARY LOW WATER CROSSING WILL BE BUILT WEST OF SN 031-0013. THERE ARE NO SCHEDULED NEIGHBORING ACTIVITIES THAT WILL AFFECT THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND NO OFF-SITE LAND DISTURBING ACTIVITIES.

THE TWO SOIL TYPES HAVE LOW EROSIVE CHARACTERISTICS - DUPO SILT LOAM (180) AND HAYMOND SILT LOAM (331) HAVE LOW SUSCEPTIBILITY TO WATER AND WIND EROSION.

I. SEE THE EROSION CONTROL PLANS AND/OR DRAINAGE PLANS FOR THIS CONTRACT FOR INFORMATION REGARDING DRAINAGE PATTERNS, APPROXIMATE SLOPES ANTICIPATED BEFORE AND AFTER MAJOR GRADING ACTIVITIES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AND CONTROLS TO PREVENT OFF SITE SEDIMENT TRACKING (TO BE ADDED AFTER CONTRACTOR IDENTIFIES LOCATIONS), AREAS OF SOIL DISTURBANCE, THE LOCATION OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS IDENTIFIED IN THE PLAN, THE LOCATION OF AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS (INCLUDING WETLANDS) AND LOCATIONS WHERE STORM WATER IS DISCHARGED TO SURFACE WATER INCLUDING WETLANDS.

J. THE FOLLOWING IS A LIST OF RECEIVING WATER(S) AND THE ULTIMATE RECEIVING WATER(S), AND AERIAL EXTENT OF WETLAND ACREAGE AT THE SITE. THE LOCATION OF THE RECEIVING WATERS CAN BE FOUND ON THE EROSION AND SEDIMENT CONTROL PLANS:

UNNAMED STREAM - SN 031-0010(E) 0039(P)
UNNAMED STREAM - SN 031-0011(E) 0040(P)
COLE CREEK - SN 031-0013(E) 0041(P)

K. THE FOLLOWING POLLUTANTS OF CONCERN WILL BE ASSOCIATED WITH THIS CONSTRUCTION PROJECT: (CHECK ALL THAT APPLY)

☒ SOIL SEDIMENT	☒ PETROLEUM (GAS, DIESEL, OIL, KEROSENE, HYDRAULIC OIL/FLUIDS)
☒ CONCRETE	☒ ANTIFREEZE / COOLANTS
☒ CONCRETE TRUCK WASTE	☒ WASTE WATER FROM CLEANING CONSTRUCTION EQUIPMENT
☒ CONCRETE CURING COMPOUNDS	☐ OTHER (SPECIFY)_____
☒ SOLID WASTE DEBRIS	☐ OTHER (SPECIFY)_____
☒ PAINTS	☐ OTHER (SPECIFY)_____
☐ SOLVENTS	☐ OTHER (SPECIFY)_____
☒ FERTILIZERS / PESTICIDES	☐ OTHER (SPECIFY)_____

II. CONTROLS

THIS SECTION OF THE PLAN ADDRESSES THE CONTROLS THAT WILL BE IMPLEMENTED FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES DESCRIBED IN I.C. ABOVE AND FOR ALL USE AREAS, BORROW SITES, AND WASTE SITES. FOR EACH MEASURE DISCUSSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ITS IMPLEMENTATION AS INDICATED. THE CONTRACTOR SHALL PROVIDE TO THE RESIDENT ENGINEER A PLAN FOR THE IMPLEMENTATION OF THE MEASURES INDICATED. THE CONTRACTOR, AND SUBCONTRACTORS, WILL NOTIFY THE RESIDENT ENGINEER OF ANY PROPOSED CHANGES, MAINTENANCE, OR MODIFICATIONS TO KEEP CONSTRUCTION ACTIVITIES COMPLIANT WITH THE PERMIT. EACH SUCH CONTRACTOR HAS SIGNED THE REQUIRED CERTIFICATION ON FORMS WHICH ARE ATTACHED TO, AND ARE A PART OF THIS PLAN:

A. EROSION AND SEDIMENT CONTROL

1. STABILIZED PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES, INCLUDING SITE SPECIFIC SCHEDULING OF THE IMPLEMENTATION OF THE PRACTICES. SITE PLANS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SODDING, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION, AND OTHER APPROPRIATE MEASURES. EXCEPT AS PROVIDED BELOW IN II(A)(1)(a) AND II(A)(3), STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASES ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION WILL NOT OCCUR FOR A PERIOD OF 14 OR MORE CALENDAR DAYS.

a. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE THEREAFTER.

THE FOLLOWING STABILIZATION PRACTICES WILL BE USED FOR THIS PROJECT: (CHECK ALL THAT APPLY)

☐ PRESERVATION OF MATURE VEGETATION	☒ EROSION CONTROL BLANKET / MULCHING
☐ VEGETATED BUFFER STRIPS	☐ SODDING
☐ PROTECTION OF TREES	☐ GEOTEXTILES
☒ TEMPORARY EROSION CONTROL SEEDING	☐ OTHER (SPECIFY)_____
☐ TEMPORARY TURF (SEEDING, CLASS 7)	☐ OTHER (SPECIFY)_____
☒ TEMPORARY MULCHING	☐ OTHER (SPECIFY)_____
☒ PERMANENT SEEDING	☐ OTHER (SPECIFY)_____

DESCRIBE HOW THE STABILIZATION PRACTICES LISTED ABOVE WILL BE UTILIZED:

1. TEMPORARY EROSION CONTROL SEEDING - THIS ITEM WILL BE APPLIED TO ALL BARE AREAS EVERY SEVEN DAYS TO MINIMIZE THE AMOUNT OF EXPOSED SURFACE AREAS.

EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 14 DAYS.

WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.

BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN 7 DAYS.

2. PERMANENT SEEDING - SEEDING, CLASS 2 WILL BE INSTALLED PER IDOT SPECIFICATIONS.

3. EROSION CONTROL BLANKETS/MULCHING - EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES AND IN HIGH VELOCITY AREAS (I.E. DITCHES) THAT HAVE BEEN BROUGHT TO FINAL GRADE AND SEEDED TO PROTECT SLOPES FROM EROSION AND ALLOW SEEDS TO GERMINATE. MULCH, METHOD 2 WILL BE APPLIED IN RELATIVELY FLAT AREAS TO PROTECT THE DISTURBED AREAS AND PREVENT FURTHER EROSION.

MULCH AS APPLIED TO TEMPORARY EROSION CONTROL SEEDING SHALL BE BY THE METHOD SPECIFIED IN THE CONTRACT AND AT THE DIRECTION OF THE ENGINEER. MULCH WILL BE PAID SEPARATELY AND SHALL CONFORM TO SECTION 251 OF THE STANDARD SPECIFICATIONS.

PERMANENT STABILIZATION - ALL AREAS DISTURBED BY CONSTRUCTION WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING THE FINISHED GRADING. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW SEED TO GERMINATE PROPERLY. MULCH, METHOD 2 WILL BE USED ON RELATIVELY FLAT AREAS.

2. STRUCTURAL PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF STRUCTURAL PRACTICES THAT WILL BE IMPLEMENTED, TO THE DEGREE ATTAINABLE, TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: PERIMETER EROSION BARRIER, EARTH DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, DITCH CHECKS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORM DRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, REINFORCED SOIL RETAINING SYSTEMS, GABIONS, AND TEMPORARY OR PERMANENT SEDIMENT BASINS. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

THE FOLLOWING STRUCTURAL PRACTICES WILL BE USED FOR THIS PROJECT:

☒ PERIMETER EROSION BARRIER	☐ ROCK OUTLET PROTECTION
☐ TEMPORARY DITCH CHECK	☒ RIPRAP
☒ STORM DRAIN INLET PROTECTION	☐ GABIONS
☐ SEDIMENT TRAP	☐ SLOPE MATTRESS
☐ TEMPORARY PIPE SLOPE DRAIN	☐ RETAINING WALLS
☐ TEMPORARY SEDIMENT BASIN	☐ SLOPE WALLS
☐ TEMPORARY STREAM CROSSING	☐ CONCRETE REVETMENT MATS
☐ STABILIZED CONSTRUCTION EXITS	☐ LEVEL SPREADERS
☐ TURF REINFORCEMENT MATS	☐ OTHER (SPECIFY)_____
☐ PERMANENT CHECK DAMS	☐ OTHER (SPECIFY)_____
☐ PERMANENT SEDIMENT BASIN	☐ OTHER (SPECIFY)_____
☐ AGGREGATE DITCH	☐ OTHER (SPECIFY)_____
☐ PAVED DITCH	☐ OTHER (SPECIFY)_____

DESCRIBE HOW THE STRUCTURAL PRACTICES LISTED ABOVE WILL BE UTILIZED:

1. PERIMETER EROSION BARRIER - SILT FENCES WILL BE PLACED ALONG THE SLOPES OF THE ELDRED-HILLVIEW ROAD BETWEEN STATIONS 120+77.5 AND 127+60, STATIONS 213+68 AND 219+35.75, AND STATIONS 233+50 AND 240+50. SILT FENCES WILL ALSO BE PLACED ALONG THE BANKS OF THE UNNAMED CREEKS AND BANKS OF COLE CREEK, ALONG THE SLOPES OF THE PROPOSED TEMPORARY LOW WATER CROSSING, AND ALONG THE SLOPES OF THE PROPOSED DRIVEWAY NEAR STATION 122+06 LT IN AN EFFORT TO CONTAIN SILT AND RUNOFF FROM LEAVING THE SITE.

CONSTRUCT AT BEGINNING OF CONSTRUCTION. REMOVE AT END OF CONSTRUCTION.

2. STORM DRAIN INLET PROTECTION - INLET AND PIPE PROTECTION WILL BE PROVIDED FOR STORM SEWERS AND CULVERTS. SEDIMENT FILTERS WILL BE PLACED IN ALL INLETS, CATCH BASINS AND MANHOLES DURING CONSTRUCTION AND WILL BE CLEANED ON A REGULAR BASIS.

3. RIPRAP - STONE RIPRAP WITH FILTER FABRIC WILL BE USED AS PROTECTION AT THE END OF ALL BRIDGE APPROACH PAVEMENTS TO PREVENT SCOURING DOWNSTREAM EROSION. STONE RIPRAP WILL ALSO BE USED IN THE CHANNEL OF THE STREAMS.

AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, INLET AND PIPE PROTECTION, AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.

ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

FILE NAME = c:\pw_work\pwidot\tharpr1\dms52692\D876410-SWPPP.dgn	USER NAME = tharpr1	DESIGNED -	REVISED - 4-20-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORMWATER POLLUTION PREVENTION PLAN			F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
								739	1BR, 1-2BR, 401-2BR	GREENE	150	10
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -							CONTRACT NO. 76410		
	PLOT DATE = 3/24/2010	DATE -	REVISED -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

3. STORM WATER MANAGEMENT: PROVIDED BELOW IS A DESCRIPTION OF MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

a. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: STORM WATER DETENTION STRUCTURES (INCLUDING WET PONDS), STORM WATER RETENTION STRUCTURES, FLOW ATTENUATION BY USE OF OPEN VEGETATED SWALES AND NATURAL DEPRESSIONS, INFILTRATION OF RUNOFF ON SITE, AND SEQUENTIAL SYSTEMS (WHICH COMBINE SEVERAL PRACTICES).
THE PRACTICES SELECTED FOR IMPLEMENTATION WERE DETERMINED ON THE BASIS OF THE TECHNICAL GUIDANCE IN SECTION 59-8 (EROSION AND SEDIMENT CONTROL) IN CHAPTER 59 (LANDSCAPE DESIGN AND EROSION CONTROL) OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION BUREAU OF DESIGN AND ENVIRONMENT MANUAL. IF PRACTICES OTHER THAN THOSE DISCUSSED IN SECTION 59-8 ARE SELECTED FOR IMPLEMENTATION OR IF PRACTICES ARE APPLIED TO SITUATIONS DIFFERENT FROM THOSE COVERED IN SECTION 59-8, THE TECHNICAL BASIS FOR SUCH DECISIONS WILL BE EXPLAINED BELOW.

b. VELOCITY DISSIPATION DEVICES WILL BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL AS NECESSARY TO PROVIDE A NON-EROSIVE VELOCITY FLOW FROM THE STRUCTURE TO A WATER COURSE SO THAT THE NATURAL PHYSICAL AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS ARE MAINTAINED AND PROTECTED (E.G. MAINTENANCE OF HYDROLOGIC CONDITIONS SUCH AS THE HYDROPERIOD AND HYDRODYNAMICS PRESENT PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES).

DESCRIPTION OF STORM WATER MANAGEMENT CONTROLS:

THE PHASE I LOCATION DRAINAGE STUDY, PERFORMED BY STUDIES AND PLANS HAS DETERMINED THAT NO STORM WATER DETENTION IS REQUIRED FOR THIS PROJECT.

4. OTHER CONTROLS:

a. VEHICLE ENTRANCES AND EXITS - STABILIZED CONSTRUCTION ENTRANCES AND EXITS MUST BE CONSTRUCTED TO PREVENT TRACKING OF SEDIMENTS ONTO ROADWAYS.

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN IDENTIFYING THE LOCATION OF STABILIZED ENTRANCES AND EXITS AND THE PROCEDURES (S)HE WILL USE TO CONSTRUCT AND MAINTAIN THEM.

b. MATERIAL DELIVERY, STORAGE, AND USE - THE FOLLOWING BMPS SHALL BE IMPLEMENTED TO HELP PREVENT DISCHARGES OF CONSTRUCTION MATERIALS DURING DELIVERY, STORAGE, AND USE:

- ALL PRODUCTS DELIVERED TO THE PROJECT SITE MUST BE PROPERLY LABELED.
- WATER TIGHT SHIPPING CONTAINERS AND/OR SEMI TRAILERS SHALL BE USED TO STORE HAND TOOLS, SMALL PARTS, AND MOST CONSTRUCTION MATERIALS THAT CAN BE CARRIED BY HAND, SUCH AS PAINT CANS, SOLVENTS, AND GREASE.
- A STORAGE/CONTAINMENT FACILITY SHOULD BE CHOSEN FOR LARGER ITEMS SUCH AS DRUMS AND ITEMS SHIPPED OR STORED ON PALLETS. SUCH MATERIAL IS TO BE COVERED BY A TIN ROOF OR LARGE SHEETS OF PLASTIC TO PREVENT PRECIPITATION FROM COMING IN CONTACT WITH THE PRODUCTS BEING STORED.
- LARGE ITEMS SUCH AS LIGHT STANDS, FRAMING MATERIALS AND LUMBER SHALL BE STORED IN THE OPEN IN A GENERAL STORAGE AREA. SUCH MATERIAL SHALL BE ELEVATED WITH WOOD BLOCKS TO MINIMIZE CONTACT WITH STORM WATER RUNOFF.
- SPILL CLEAN-UP MATERIALS, MATERIAL SAFETY DATA SHEETS, AN INVENTORY OF MATERIALS, AND EMERGENCY CONTACT NUMBERS SHALL BE MAINTAINED AND STORED IN ONE DESIGNATED AREA AND EACH CONTRACTOR IS TO INFORM HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER OF THIS LOCATION.

c. STOCKPILE MANAGEMENT - BMPS SHALL BE IMPLEMENTED TO REDUCE OR ELIMINATE POLLUTION OF STORM WATER FROM STOCKPILES OF SOIL AND PAVING MATERIALS SUCH AS BUT NOT LIMITED TO PORTLAND CEMENT CONCRETE RUBBLE, ASPHALT CONCRETE, ASPHALT CONCRETE RUBBLE, AGGREGATE BASE, AGGREGATE SUB BASE, AND PRE-MIXED AGGREGATE. THE FOLLOWING BMPS MAY BE CONSIDERED:

- PERIMETER EROSION BARRIER
- TEMPORARY SEEDING
- TEMPORARY MULCH
- PLASTIC COVERS
- SOIL BINDERS
- STORM DRAIN INLET PROTECTION

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN OF THE PROCEDURES (S)HE WILL USE ON THE PROJECT AND HOW THEY WILL BE MAINTAINED.

d. WASTE DISPOSAL. NO MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED INTO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

e. THE PROVISIONS OF THIS PLAN SHALL ENSURE AND DEMONSTRATE COMPLIANCE WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

f. THE CONTRACTOR SHALL PROVIDE A WRITTEN AND GRAPHIC PLAN TO THE RESIDENT ENGINEER IDENTIFYING WHERE EACH OF THE ABOVE AREAS WILL BE LOCATED AND HOW THEY ARE TO BE MANAGED.

5. APPROVED STATE OR LOCAL LAWS

THE MANAGEMENT PRACTICES, CONTROLS AND PROVISIONS CONTAINED IN THIS PLAN WILL BE IN ACCORDANCE WITH IDOT SPECIFICATIONS, WHICH ARE AT LEAST AS PROTECTIVE AS THE REQUIREMENTS CONTAINED IN THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S ILLINOIS URBAN MANUAL, 1995. PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS SHALL BE DESCRIBED OR INCORPORATED BY REFERENCE IN THE SPACE PROVIDED BELOW. REQUIREMENTS SPECIFIED IN SEDIMENT AND EROSION SITE PLANS, SITE PERMITS, STORM WATER MANAGEMENT SITE PLANS OR SITE PERMITS APPROVED BY LOCAL OFFICIALS THAT ARE APPLICABLE TO PROTECTING SURFACE WATER RESOURCES ARE, UPON SUBMITTAL OF AN NOI, TO BE AUTHORIZED TO DISCHARGE UNDER PERMIT ILR10 INCORPORATED BY REFERENCE AND ARE ENFORCEABLE UNDER THIS PERMIT EVEN IF THEY ARE NOT SPECIFICALLY INCLUDED IN THE PLAN.

DESCRIPTION OF PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS:

ALL MANAGEMENT PRACTICES, CONTROLS, AND OTHER PROVISIONS PROVIDED IN THIS PLAN ARE IN ACCORDANCE WITH "IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND THE ILLINOIS URBAN MANUAL".

III. MAINTENANCE:

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT WILL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, THE VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. THE RESIDENT ENGINEER WILL PROVIDE MAINTENANCE GUIDES TO THE CONTRACTOR FOR THE PRACTICES ASSOCIATED WITH THIS PROJECT.

1. SEEDING - ALL ERODIBLE BARE EARTH WILL BE TEMPORARILY SEEDED ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE WITHIN THE CONTRACT LIMITS.

2. PERIMETER EROSION BARRIER - SEDIMENT WILL BE REMOVED IF THE INTEGRITY OF THE FENCING IS IN JEOPARDY AND ANY FENCING KNOCKED DOWN WILL BE REPAIRED IMMEDIATELY.

3. EROSION CONTROL BLANKET/MULCHING - ANY AREAS THAT FAIL WILL BE REPAIRED IMMEDIATELY.

ALL MAINTENANCE OF EROSION CONTROL SYSTEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND ACCEPTED BY IDOT AFTER FINAL INSPECTION. ALL LOCATIONS WHERE VEHICLES ENTER AND EXIT THE CONSTRUCTION SITE AND ALL OTHER AREAS SUBJECT TO EROSION SHOULD ALSO BE INSPECTED PERIODICALLY.

INSPECTION OF THESE AREAS SHALL BE MADE AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF THE END OF EACH 0.5 INCHES OR GREATER RAINFALL, OR AN EQUIVALENT SNOWFALL. 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 EROSION CONTROL WORK IS NECESSARY.

THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE TEMPORARY EROSION CONTROL SYSTEM.

IV. INSPECTIONS

QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE WHICH HAVE NOT YET BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES AND EQUIPMENT ENTER AND EXIT THE SITE. SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL.

A. DISTURBED AREAS, USE AREAS (STORAGE OF MATERIALS, STOCKPILES, MACHINE MAINTENANCE FUELING, ETC.), BORROW SITES, AND WASTE SITES SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS THAT ARE ACCESSIBLE, SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF SITE SEDIMENT TRACKING.

B. BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN SECTION I ABOVE AND POLLUTION PREVENTION MEASURES IDENTIFIED IN SECTION II ABOVE SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. ANY CHANGES TO THIS PLAN RESULTING FROM THE REQUIRED INSPECTIONS SHALL BE IMPLEMENTED WITHIN 1/2 HOUR TO 1 WEEK BASED ON THE URGENCY OF THE SITUATION. THE RESIDENT ENGINEER WILL NOTIFY THE CONTRACTOR OF THE TIME REQUIRED TO IMPLEMENT SUCH ACTIONS THROUGH THE WEEKLY INSPECTION REPORT.

C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE 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 IV(B) SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE (3) YEARS AFTER THE DATE OF THE INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI. G OF THE GENERAL PERMIT.

D. 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 SHALL NOTIFY THE APPROPRATE I.E.P.A. FIELD OPERATIONS SECTION OFFICE BY EMAIL OF: epa.swnoncompel@illinois.gov, TELEPHONE OR FAX WITHIN 24 HOURS OF THE INCIDENT. THE RESIDENT ENGINEER SHALL THEN COMPLETE AND SUBMIT AN "INCIDENCE OF NON-COMPLIANCE" (ION) REPORT FOR THE IDENTIFIED VIOLATION WITHIN 5 DAYS OF THE INCIDENT. THE RESIDENT ENGINEER SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF 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 INCIDENCE OF NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
ATTN: COMPLIANCE ASSURANCE SECTION
1021 NORTH GRAND EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

V. NON-STORM WATER DISCHARGES:

EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER THAT IS COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH THE INDUSTRIAL ACTIVITY ADDRESSED IN THIS PLAN MUST BE DESCRIBED BELOW. APPROPRIATE POLLUTION PREVENTION MEASURES, AS DESCRIBED BELOW, WILL BE IMPLEMENTED FOR THE NON-STORM WATER COMPONENT(S) OF THE DISCHARGE.

A. SPILL PREVENTION AND CONTROL - BMPS SHALL BE IMPLEMENTED TO CONTAIN AND CLEAN-UP SPILLS AND PREVENT MATERIAL DISCHARGES TO THE STORM DRAIN SYSTEM. THE CONTRACTOR SHALL PRODUCE A WRITTEN PLAN STATING HOW HIS/HER COMPANY WILL PREVENT, REPORT, AND CLEAN UP SPILLS AND PROVIDE A COPY TO ALL OF HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER. THE CONTRACTOR SHALL NOTIFY ALL OF HIS/HER EMPLOYEES ON THE PROPER PROTOCOL FOR REPORTING SPILLS. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY SPILLS IMMEDIATELY.

B. CONCRETE RESIDUALS AND WASHOUT WASTES - THE FOLLOWING BMPS SHALL BE IMPLEMENTED TO CONTROL RESIDUAL CONCRETE, CONCRETE SEDIMENTS, AND RINSE WATER:

1. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED FOR RINSING OUT CONCRETE TRUCKS. SIGNS SHALL BE INSTALLED DIRECTING CONCRETE TRUCK DRIVERS WHERE DESIGNATED WASHOUT FACILITIES ARE LOCATED.
2. THE CONTRACTOR SHALL HAVE THE LOCATION OF TEMPORARY CONCRETE WASHOUT FACILITIES APPROVED BY THE RESIDENT ENGINEER.
3. ALL TEMPORARY CONCRETE WASHOUT FACILITIES ARE TO BE INSPECTED BY THE CONTRACTOR AFTER EACH USE AND ALL SPILLS MUST BE REPORTED TO THE RESIDENT ENGINEER AND CLEANED UP IMMEDIATELY.
4. CONCRETE WASTE SOLIDS/LIQUIDS SHALL BE DISPOSED OF PROPERLY.

C. LITTER MANAGEMENT - A PROPER NUMBER OF DUMPSTERS SHALL BE PROVIDED ON SITE TO HANDLE DEBRIS AND LITTER ASSOCIATED WITH THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING HIS/HER EMPLOYEES PLACE ALL LITTER INCLUDING MARKING PAINT CANS, SODA CANS, FOOD WRAPPERS, WOOD LATHE, MARKING RIBBON, CONSTRUCTION STRING, AND ALL OTHER CONSTRUCTION RELATED LITTER IN THE PROPER DUMPSTERS.

D. VEHICLE AND EQUIPMENT CLEANING - VEHICLES AND EQUIPMENT ARE TO BE CLEANED IN DESIGNATED AREAS ONLY, PREFERABLY OFF SITE.

E. VEHICLE AND EQUIPMENT FUELING - A VARIETY OF BMPS CAN BE IMPLEMENTED DURING FUELING OF VEHICLES AND EQUIPMENT TO PREVENT POLLUTION. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER AS TO WHICH BMPS WILL BE USED ON THE PROJECT. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER HOW (S)HE WILL BE INFORMING HIS/HER EMPLOYEES OF THESE BMPS (I.E. SIGNS, TRAINING, ETC.). BELOW ARE A FEW EXAMPLES OF THESE BMPS:

1. CONTAINMENT
2. SPILL PREVENTION AND CONTROL
3. USE OF DRIP PANS AND ABSORBENTS
4. AUTOMATIC SHUT-OFF NOZZLES
5. TOPPING OFF RESTRICTIONS
6. LEAK INSPECTION AND REPAIR

F. VEHICLE AND EQUIPMENT MAINTENANCE - ON SITE MAINTENANCE MUST BE PERFORMED IN ACCORDANCE WITH ALL ENVIRONMENTAL LAWS SUCH AS PROPER STORAGE AND NO DUMPING OF OLD ENGINE OIL OR OTHER FLUIDS ON SITE.

VI. FAILURE TO COMPLY:

FAILURE TO COMPLY WITH ANY PROVISIONS OF THIS STORM WATER POLLUTION PREVENTION PLAN WILL RESULT IN THE IMPLEMENTATION OF AN EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION AGAINST THE CONTRACTOR AND/OR PENALTIES UNDER THE NPDES PERMIT WHICH COULD BE PASSED ONTO THE CONTRACTOR.

LEGEND

- TEMPORARY DITCH CHECK- ROLLED EXCELSIOR, SILT WEDGES/PANELS
- TEMPORARY DITCH CHECK- AGGREGATE
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER- SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
- INLET AND PIPE PROTECTION- STRAW BALES, FILTER FABRIC, AGGREGATES

FILE NAME = c:\pw_work\pwidot\tharpr1\dms52692\D876410-SWPPP.dgn	USER NAME = tharpr1	DESIGNED -	REVISED - 4-20-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORMWATER POLLUTION PREVENTION PLAN
	PLOT SCALE = 50.000 ' / IN.	DRAWN -	REVISED -		SCALE: / SHEET NO. 2 OF 2 SHEETS / STA. / TO STA.
	PLOT DATE = 3/24/2010	CHECKED -	REVISED -		
		DATE -	REVISED -		

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR		150	11
			CONTRACT NO. 76410	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND FOR EXISTING TOPOGRAPHIC SYMBOLS

TRAFFIC SIGNAL HANDHOLE
TRAFFIC SIGNAL GULFBOX
TRAFFIC SIGNAL HANDHOLE
TRAFFIC SIGNAL SIGNAL POST
TRAFFIC SIGNAL STEEL MAST ARM
TRAFFIC SIGNAL COMBINED MAST ARM
TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON
TRAFFIC SIGNAL WOODEN POLE
TRAFFIC SIGNAL VEHICLE DETECTION PRIORITY
TRAFFIC SIGNAL VEHICLE DETECTION MAGNET
TRAFFIC SIGNAL JUNCTION BOX
TRAFFIC SIGNAL CONTROLLER
TRAFFIC SIGNAL HEAVY DUTY HANDHOLE
RAILROAD CANTILEVER MAST ARM
RAILROAD CROSSBUCK
RAILROAD TRACK PATTERN
RAILROAD ABANDON PATTERN
RAILROAD CROSSGATE
RAILROAD CONTROL BOX
RAILROAD FLASHING SIGNAL
TELEPHONE SPLICE BOX ABOVE GROUND
UTILITY POWER POLE
TELEPHONE POLE
UTILITY TRAFFIC SIGNAL
UTILITY LIGHT POLE
FIRE HYDRANT
UTILITY MANHOLE
UTILITY TELEPHONE POLE
UTILITY GUY POLE
PIPELINE WARNING SIGN
UTILITY HANDHOLE
UTILITY SPLICE ABOVE GROUND
UTILITY JUNCTION BOX
UTILITY HEAVY DUTY HANDHOLE
UTILITY DOUBLE HANDHOLE
UTILITY CONTROLLER
UTILITY WATER METER

DRAINAGE FLOW LINE
RIP RAP
HEADWALL
CULVERT END SECTION
DRAINAGE MANHOLE
INLET
ROADWAY DITCH FLOW
VEGETATION LINE
STUMP
SHRUB
EVERGREEN TREE
DECIDUOUS TREE
WOODS/BUSH PATTERN
TRAFFIC SIGN
GAURDRAIL POST
GAURDRAIL PATTERN
FIELD LINE
LEVEE/NOISE BARRIER
FENCE PATTERN
MAIL BOX
ADVERTISING SIGN
MARSH
LIGHTING HANDHOLE
LIGHTING POWER POLE
LIGHTING JUNCTION BOX
LIGHTING HEAVYDUTY HANDHOLE
LIGHTING CONTROLLER
LIGHTING PULL POINT
HIGHWAY LIGHTING ELECTRICAL GROUND
HIGHWAY LIGHTING SINGLE UNIT
HIGHWAY LIGHTING DOUBLE UNIT
EXISTING CONCRETE BARRIER
EXISTING CREEK OR DITCH
EXISTING EDGE OF PAVEMENT

RIGHT OF WAY LEGEND

SECTION CORNERS
QUARTER SECTION CORNERS

EXISTING CENTERLINE
EXISTING RIGHT OF WAY LINE
FORMER RIGHT OF WAY LINE
EXISTING IDOT EASEMENT LINE
EXISTING EASEMENT LINE
BUILDING SETBACK LINE
EXISTING ACCESS CONTROL LINE
EXISTING RIGHT OF WAY & PROPOSED ACCESS CONTROL LINE
PROPOSED ACCESS CONTROL LINE
PROPOSED CENTERLINE
PROPOSED RIGHT OF WAY LINE
PROPOSED TEMPORARY EASEMENT LINE
PROPOSED PERMANENT EASEMENT LINE
SECTION LINE
QUARTER SECTION LINE
QUARTER QUARTER SECTION LINE
PROPERTY (DEED) LINE
APPARENT PROPERTY LINE
121.45' MEASURED DIMENSION
(121.45') RECORDED DIMENSION
FOUND STONE
FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
SET 5/8 INCH IRON ROD WITH PLASTIC CAP IDENTIFIED BY SURVEYORS LICENSE NUMBER AT CORNER UNLESS OTHERWISE NOTED
PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
SET 5/8 INCH IRON ROD AS SURVEY CONTROL UNLESS OTHERWISE NOTED
FOUND CUT CROSS
SET CUT CROSS
SAME OWNERSHIP
EXISTING BUILDING

■ STAKING OF PROPOSED RIGHT OF WAY CORNERS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY ALUMINUM CAP TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS LICENSE NUMBER. (PROPOSED RIGHT OF WAY CORNERS SET IN CULTIVATED AREAS SHALL BE A MINIMUM OF 20 INCHES BELOW THE GROUND SURFACE).

LEGEND FOR ABREVIATIONS

A/C	ACCESS CONTROL
AC	ACRE
AVE	AVENUE
BK	BOOK
BLVD	BOULEVARD
℄	CENTERLINE
CH	COUNTY HIGHWAY
Ch	CHAIN
DB	DEED BOOK
E	EAST
EX	EXISTING
FA	FEDERAL AID
FAI	FEDERAL AID INTERSTATE
FAP	FEDERAL AID PRIMARY
FAS	FEDERAL AID SECONDARY
FAUS	FEDERAL AID URBAN SECONDARY
FND	FOUND
ha	HECTARE
IP	IRON PIPE
IR	IRON ROD
LT	LEFT
m	METER
m²	SQUARE METERS
N	NORTH
N & BC	NAIL AND BOTTLE CAP
N & C	NAIL AND CAP
N & W	NAIL AND WASHER
NE	NORTHEAST
NW	NORTHWEST
PB	PLAT BOOK
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
POT	POINT OF TANGENT
℄	PROPERTY LINE
PR	PROPOSED
RD	ROAD
ROW	RIGHT OF WAY
RR	RAILROAD
RRS	RAILROAD SPIKE
RT	RIGHT
RTE	ROUTE
S	SOUTH
SBI	STATE BOND ISSUE
SE	SOUTHEAST
SQ FT	SQUARE FEET
SR	STATE ROUTE
ST	STREET
STA	STATION
SMK	SURVEY MARKER
SW	SOUTHWEST
TWP	TOWNSHIP
TR	TOWNSHIP ROAD
USGS	U.S. GEOLOGICAL SURVEY
W	WEST

SPACE RESERVED FOR RECORDING OFFICER

PROPOSED PARCEL NUMBER LEGEND

8001001	PROPOSED FEE SIMPLE ACQUISITION
8001001PE	PROPOSED PERMANENT EASEMENT
8001001TE	PROPOSED TEMPORARY EASEMENT
8001001DED	PROPOSED DEDICATION
8001001AC	PROPOSED ACCESS CONTROL LINE

CURVE ABBREVIATIONS

PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVE
PCC	POINT OF COMPOUND CURVE
CB	CHORD BEARING
R	RADIUS OF CURVE
L	CURVE LENGTH
CB	CHORD BEARING
C	CHORD LENGTH
D	DEGREE OF CURVE
e	EXTERNAL
△	CENTRAL ANGLE

GEOTECH ENGINEERING & TESTING, INC.
500 SOUTH 17th STREET, PADUCAH, KENTUCKY 42003 ◆ PHONE - 270.443.1995
601 NORTH 4th STREET, MURRAY, KENTUCKY 42071 ◆ PHONE - 270.753.7307
403 NORTH COURT STREET, MARION, ILLINOIS 62959 ◆ PHONE - 618.997.9190
131 SAUNDERSVILLE ROAD, HENDERSON, TN 37075 ◆ PHONE - 615.590.4224
REGISTRATION NO. 184-003258

RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

TOTAL HOLDING AREA SOURCE TABLE

1	AREA ACCORDING TO THE SURVEY PERFORMED BY THE CONSULTANT.
2	AREA LISTED IN RECORDED DEED.
3	AREA ACCORDING TO A RECORDED SUBDIVISION PLAT.
4	AREA ACCORDING TO A PLAT OF SURVEY.
5	AREA CALCULATED FROM RECORDED DEEDS OR TITLE COMMITMENTS - NOT SURVEYED.
6	AREA ACCORDING TO COUNTY TAX MAPS AND COUNTY ASSESSMENT RECORDS.
7	AREA ACCORDING TO OTHER RECORDS, SEE NOTE ON THE PLAT OF HIGHWAYS.

TOPOGRAPHIC STATEMENT

THE TOPOGRAPHY SHOWN HEREON WAS PHYSICALLY LOCATED IN THE FIELD BY THE SURVEYOR ON MARCH 6, 2009.

BASIS OF COORDINATE & BEARING STATEMENT

SN 031-0010 & SN 031-0011:
BEARINGS AND COORDINATES SHOWN HEREON ARE ASSUMED. BASED ON FIELD MEASUREMENTS AT TIME OF SURVEY.

SN 031-0013:
BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 1BR, 1-2BR, 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09

60' 0 60' 120'
SCALE: 1" = 60'
SHEET 2 OF 9

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	12
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PART OF THE NW 1/4 OF SECTION 4, T9N, R13W OF THE 3RD PM, GREENE COUNTY, ILLINOIS

SEE BASIS OF COORDINATES AND BEARINGS STATEMENT ON SHEET 2

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
EXIST. ℄ STA. 98+64.84	℄	945,881.9476	186,773.8116
PROP. ℄ STA. 113+49.97	℄	944,397.2395	186,739.2507
PROP. ℄ STA. 120+50.00	50.02' RT.	943,698.5677	186,672.9075
PROP. ℄ STA. 120+50.00	49.98' LT.	943,696.2335	186,772.8803
PROP. ℄ STA. 120+79.23	17.43' RT.	943,668.5823	186,704.7989
PROP. ℄ STA. 121+50.00	55.01' RT.	943,598.7116	186,665.5787
PROP. ℄ STA. 121+50.00	54.99' LT.	943,596.1440	186,775.5488
PROP. ℄ STA. 121+80.00	54.99' LT.	943,566.1521	186,774.8497
PROP. ℄ STA. 121+98.00	70.00' LT.	943,547.8066	186,789.4370
PROP. ℄ STA. 122+10.00	149.99' LT.	943,533.9428	186,869.1248
PROP. ℄ STA. 122+50.00	170.01' RT.	943,501.4230	186,548.2799
PROP. ℄ STA. 123+50.01	55.00' LT.	943,396.1852	186,770.8881
PROP. ℄ STA. 123+50.01	75.00' LT.	943,395.7192	186,790.8827
PROP. ℄ STA. 124+00.00	℄	943,347.4909	186,714.7409
PROP. ℄ STA. 125+50.00	55.00' RT.	943,198.8202	186,656.2580
PROP. ℄ STA. 125+50.00	170.00' RT.	943,201.5045	186,541.2893
PROP. ℄ STA. 126+50.00	49.99' RT.	943,098.7306	186,658.9265
PROP. ℄ STA. 127+31.11	49.99' RT.	943,017.6429	186,657.0365
PROP. ℄ STA. 130+99.98	℄	942,647.7094	186,698.4023
EXIST. ℄ STA. 140+82.04	℄	941,665.8927	186,675.5433

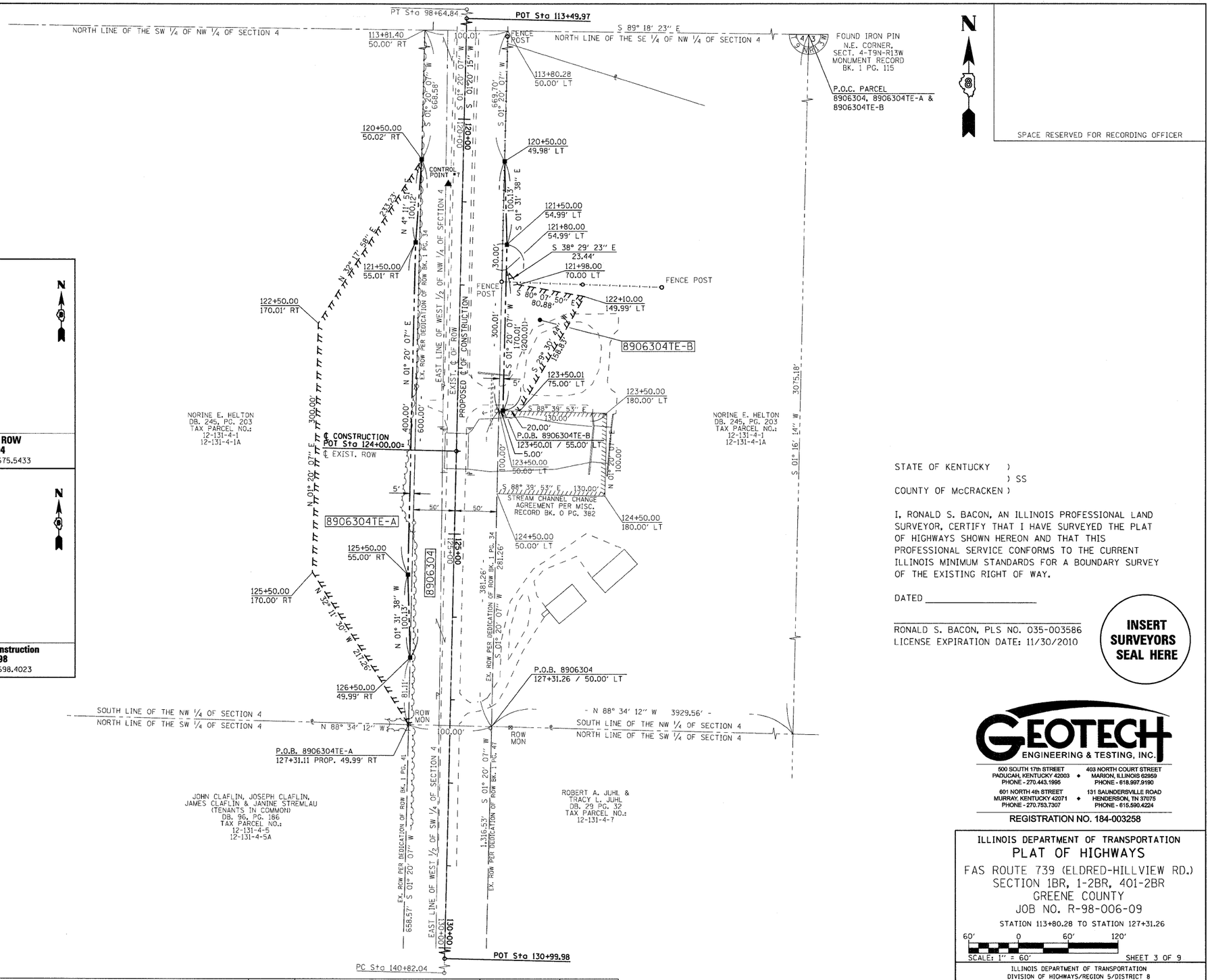
Existing Centerline of ROW
PT Sta. 98+64.84
N=945,881.9476 E=186,773.8116

Existing Centerline of ROW
PC Sta. 140+82.04
N=941,665.8927 E=186,675.5433

Proposed Centerline of Construction
POT Sta. 113+49.97
N=944,397.2395 E=186,739.2507

Proposed Centerline of Construction
POT Sta. 130+99.98
N=942,647.7094 E=186,698.4023

N.E. CORNER SEC 4, T. 9 N., R. 13 W.
MONUMENT RECORD BK. 1, PG. 115
N=889,175.6940, E=2,254,760.0700



* SEE TOTAL HOLDING AREA SOURCE TABLE ON SHEET 2

PARCEL NO.	OWNER	TOTAL HOLDING	FEE SIMPLE ACQUISITION						REMAINDER	EASEMENTS			PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
			GROSS		PREVIOUSLY DEDICATED AND/OR USED		NET			PE = PERMANENT TE = TEMPORARY		EASEMENT PURPOSE		
		ACRES	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	ACRES	SQ. FT.			
8906304	NORINE E. HELTON AS TRUSTEE UNDER THE TESTAMENTARY TRUST OF CHARLES L. HELTON ESTABLISED UNDER THE WILL OF CHARLES L. HELTON, AS TO AN UNDIVIDED 1/5 INTEREST AND NORINE E. HELTON, AS TRUSTEE OF THE NORINE E. HELTON TRUST #11-01 AS TO AN UNDIVIDED 1/5 INTEREST 1/5	322.9699	3.1860	138,783	3.0999 (ROW) 0.2961 (ESMT)	135,033 (ROW) 13,000 (ESMT)	0.0861	3,750	319.7839	TE-A=1.2940 TE-B=0.2031	TE-A=56,367 TE-B=8,846	TE-A=GRADING & TEMP. DETOUR ROAD CONSTRUCTION TE-B=GRADING & ENTRANCE CONSTRUCION	12-131-4-1 12-131-4-1A	

STATE OF KENTUCKY)
) SS
COUNTY OF McCRACKEN)

I, RONALD S. BACON, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY OF THE EXISTING RIGHT OF WAY.

DATED _____

RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

INSERT SURVEYORS SEAL HERE

SPACE RESERVED FOR RECORDING OFFICER

GEOTECH ENGINEERING & TESTING, INC.
500 SOUTH 17th STREET, PADUCAH, KENTUCKY 42003, PHONE - 270.443.1995
403 NORTH COURT STREET, MARION, ILLINOIS 62959, PHONE - 618.997.9190
601 NORTH 4th STREET, MURRAY, KENTUCKY 42071, PHONE - 270.753.7307
131 SAUNDERSVILLE ROAD, HENDERSON, TN 37075, PHONE - 615.590.4224
REGISTRATION NO. 184-003258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS

FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 1BR, 1-2BR, 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09

STATION 113+80.28 TO STATION 127+31.26

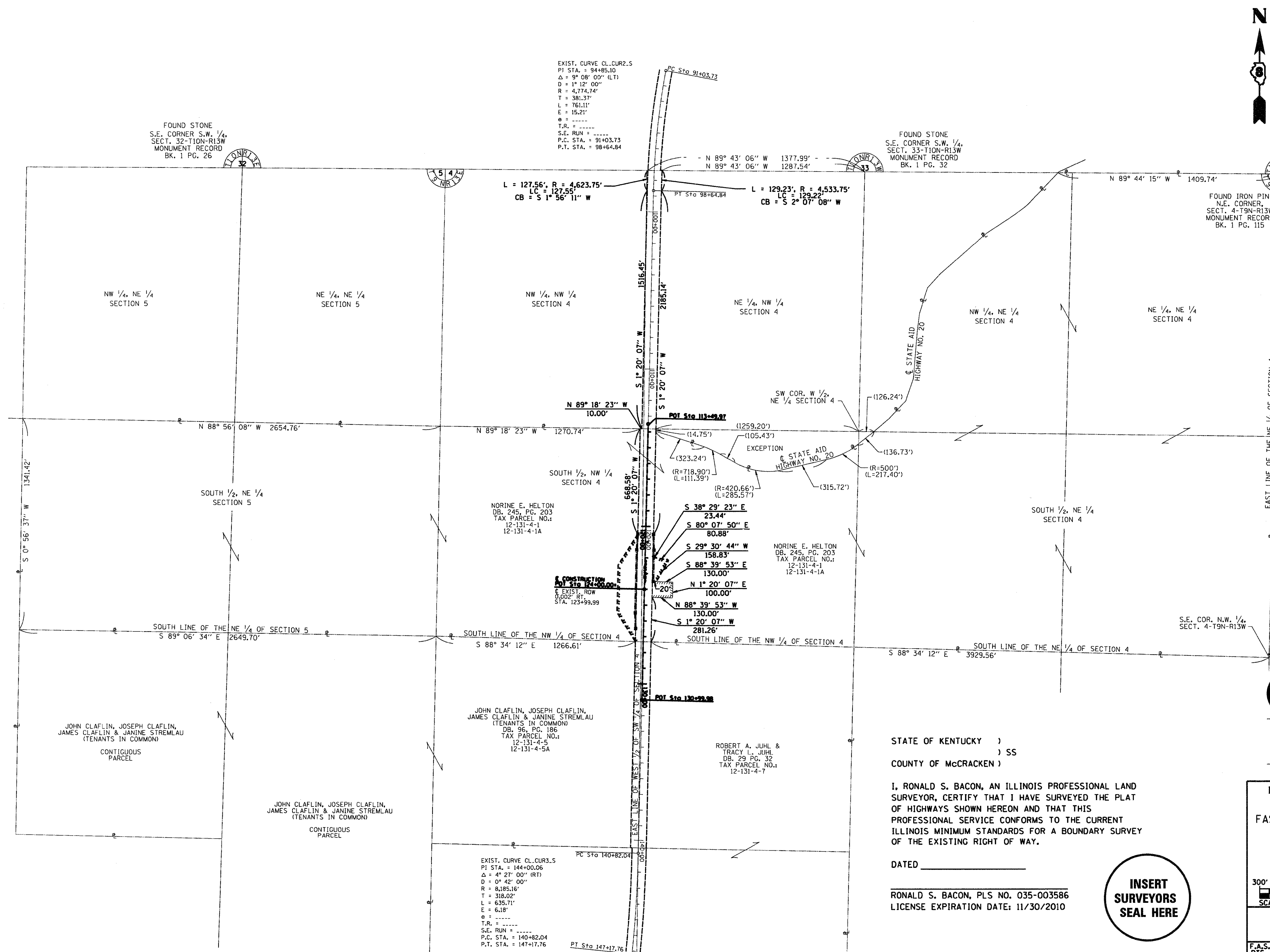
60' 0 60' 120'
SCALE: 1" = 60' SHEET 3 OF 9

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	13
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: APRIL 28, 2009	ROW STAKING:

PART OF THE NW 1/4 OF SECTION 4, T9N, R13W OF THE 3RD PM, GREENE COUNTY, ILLINOIS



N
SPACE RESERVED FOR RECORDING OFFICER
EXIST. CURVE CL.CUR2.S
PI STA. = 94+85.10
Δ = 9° 08' 00" (LT)
D = 1° 12' 00"
R = 4,774.74'
T = 381.37'
L = 761.11'
E = 15.21'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 91+03.73
P.T. STA. = 98+64.84
PC Sta 91+03.73
PT Sta 98+64.84
FOUND STONE
S.E. CORNER S.W. 1/4,
SECT. 32-T10N-R13W
MONUMENT RECORD
BK. 1 PG. 26
FOUND STONE
S.E. CORNER S.W. 1/4,
SECT. 33-T10N-R13W
MONUMENT RECORD
BK. 1 PG. 32
FOUND 5/8" REBAR
S.E. CORNER,
SECT. 33-T10N-R13W
MONUMENT RECORD
BK. 1 PG. 115
FOUND IRON PIN
N.E. CORNER,
SECT. 4-T9N-R13W
MONUMENT RECORD
BK. 1 PG. 115
POC PARCEL
8906304, 8906304TE-A &
8906304TE-B
N 89° 43' 06" W 1377.99'
N 89° 43' 06" W 1287.54'
N 89° 44' 15" W 1409.74'
L = 127.56', R = 4,623.75'
LC = 127.55'
CB = S 1° 56' 11" W
L = 129.23', R = 4,533.75'
LC = 129.22'
CB = S 2° 07' 08" W
NW 1/4, NE 1/4
SECTION 5
NE 1/4, NE 1/4
SECTION 5
NW 1/4, NW 1/4
SECTION 4
NE 1/4, NW 1/4
SECTION 4
NW 1/4, NE 1/4
SECTION 4
NE 1/4, NE 1/4
SECTION 4
1516.45'
2185.14'
S 1° 20' 07" W
S 1° 20' 07" W
℄ STATE AID
HIGHWAY NO. 20
SW COR. W 1/2,
NE 1/4 SECTION 4
(126.24')
N 89° 18' 23" W
10.00'
POT Sta 113+49.97
N 88° 56' 08" W 2654.76'
N 89° 18' 23" W 1270.74'
(1259.20')
(14.75')
(105.43')
(323.24')
EXCEPTION
℄ STATE AID
HIGHWAY NO. 20
(136.73')
(R=718.90')
(L=111.39')
(R=420.66')
(L=285.57')
(R=500')
(L=217.40')
(315.72')
EAST LINE OF THE NE 1/4 OF SECTION 4
N 1° 16' 14" E 3075.18'
1341.42'
S 0° 56' 37" W
SOUTH 1/2, NE 1/4
SECTION 5
SOUTH 1/2, NW 1/4
SECTION 4
SOUTH 1/2, NE 1/4
SECTION 4
668.58'
S 1° 20' 07" W
NORINE E. HELTON
DB. 245, PG. 203
TAX PARCEL NO.:
12-131-4-1
12-131-4-1A
S 38° 29' 23" E
23.44'
S 80° 07' 50" E
80.88'
S 29° 30' 44" W
158.83'
S 88° 39' 53" E
130.00'
N 1° 20' 07" E
100.00'
N 88° 39' 53" W
130.00'
S 1° 20' 07" W
281.26'
NORINE E. HELTON
DB. 245, PG. 203
TAX PARCEL NO.:
12-131-4-1
12-131-4-1A
℄ CONSTRUCTION
POT Sta 124+00.00
℄ EXIST. ROW
0.002' RT.
STA. 123+99.99
20
SOUTH LINE OF THE NE 1/4 OF SECTION 5
S 89° 06' 34" E 2649.70'
SOUTH LINE OF THE NW 1/4 OF SECTION 4
S 88° 34' 12" E 1266.61'
SOUTH LINE OF THE NW 1/4 OF SECTION 4
S 88° 34' 12" E 3929.56'
SOUTH LINE OF THE NE 1/4 OF SECTION 4
S.E. COR. N.W. 1/4,
SECT. 4-T9N-R13W
POT Sta 130+99.98
EAST LINE OF WEST 1/2 OF SW 1/4 OF SECTION 4
JOHN CLAFLIN, JOSEPH CLAFLIN,
JAMES CLAFLIN & JANINE STREMLAU
(TENANTS IN COMMON)
CONTIGUOUS
PARCEL
JOHN CLAFLIN, JOSEPH CLAFLIN,
JAMES CLAFLIN & JANINE STREMLAU
(TENANTS IN COMMON)
DB. 96, PG. 186
TAX PARCEL NO.:
12-131-4-5
12-131-4-5A
ROBERT A. JUHL &
TRACY L. JUHL
DB. 29 PG. 32
TAX PARCEL NO.:
12-131-4-7
JOHN CLAFLIN, JOSEPH CLAFLIN,
JAMES CLAFLIN & JANINE STREMLAU
(TENANTS IN COMMON)
CONTIGUOUS
PARCEL
EXIST. CURVE CL.CUR3.S
PI STA. = 144+00.06
Δ = 4° 27' 00" (RT)
D = 0° 42' 00"
R = 8,185.16'
T = 318.02'
L = 635.71'
E = 6.18'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 140+82.04
P.T. STA. = 147+17.76
PC Sta 140+82.04
PT Sta 147+17.76

STATE OF KENTUCKY)
) SS
COUNTY OF McCRACKEN)

I, RONALD S. BACON, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY OF THE EXISTING RIGHT OF WAY.

DATED ____________________

RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

INSERT SURVEYORS SEAL HERE

GEOTECH ENGINEERING & TESTING, INC.

500 SOUTH 17th STREET, PADUCAH, KENTUCKY 42003, PHONE - 270.443.1995
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REGISTRATION NO. 184-003258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09
TOTAL HOLDING (HELTON TRACT)

300' 0 300' 600'
SCALE: 1" = 300' SHEET 4 OF 9

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	14
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: APRIL 28, 2009	ROW STAKING:

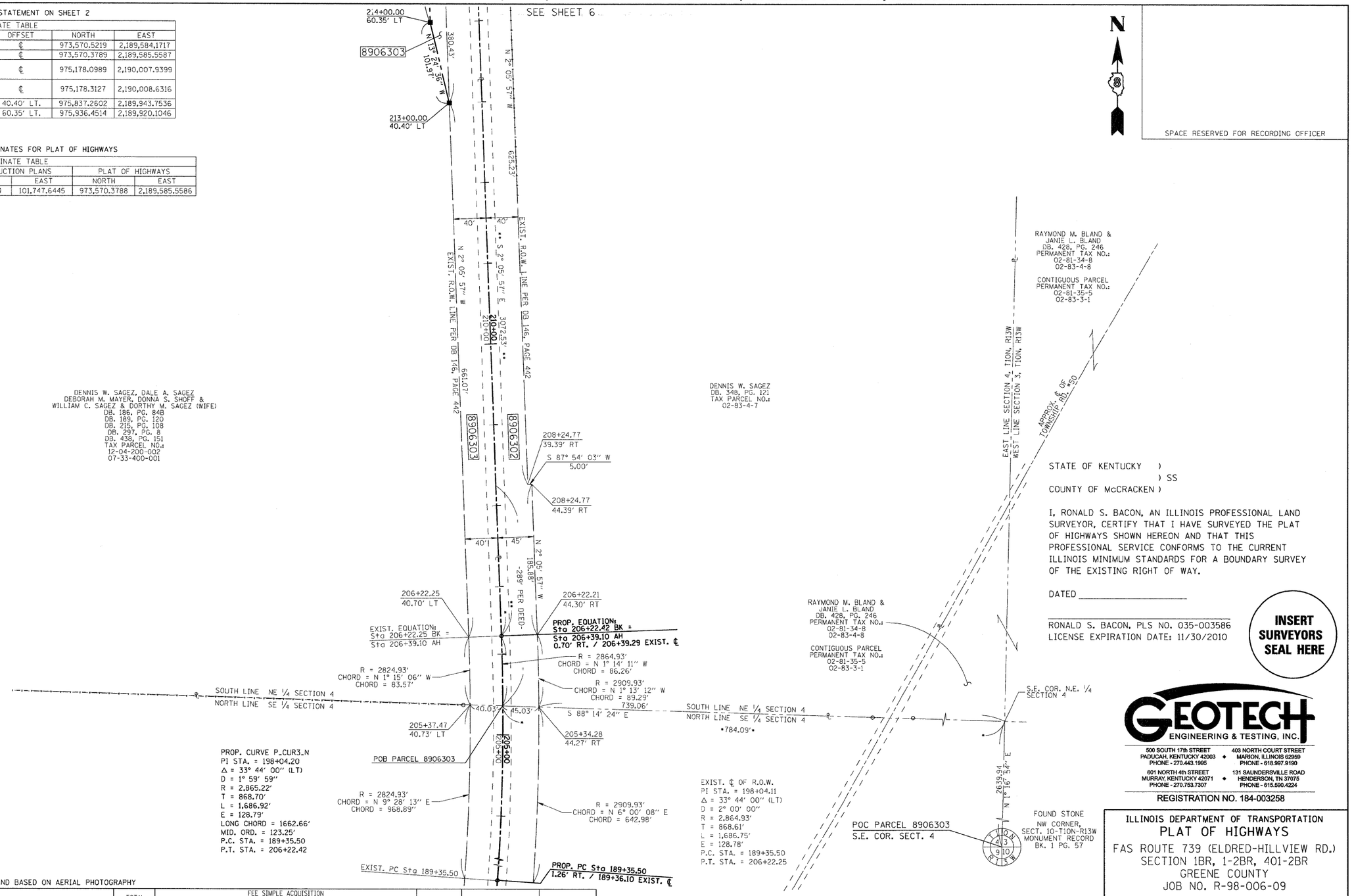
PART OF THE NE 1/4 OF SECTION 4, T10N, R13W OF THE 3RD PM, GREENE COUNTY, ILLINOIS

SEE BASIS OF COORDINATES AND BEARINGS STATEMENT ON SHEET 2

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
EXIST. ℄ STA. 189+35.50	℄	973,570.5219	2,189,584.1717
PROP. ℄ STA. 189+35.50	℄	973,570.3789	2,189,585.5587
EXIST. ℄ STA. 206+22.25 BK.= EXIST. ℄ STA. 206+39.10 AH.	℄	975,178.0989	2,190,007.9399
PROP. ℄ STA. 206+22.42 BK.= PROP. ℄ STA. 206+39.10 AH.	℄	975,178.3127	2,190,008.6316
PROP. ℄ STA. 213+00.00	40.40' LT.	975,837.2602	2,189,943.7536
PROP. ℄ STA. 214+00.00	60.35' LT.	975,936.4514	2,189,920.1046

BASIS OF ROTATED AND TRANSLATED COORDINATES FOR PLAT OF HIGHWAYS

COORDINATE TABLE				
STATION	CONSTRUCTION PLANS		PLAT OF HIGHWAYS	
	NORTH	EAST	NORTH	EAST
PROP. ℄ STA. 189+35.50	95,421.5574	101,747.6445	973,570.3788	2,189,585.5586



* SEE TOTAL HOLDING AREA SOURCE TABLE ON SHEET 2

** TOTAL HOLDING ACREAGE APPROXIMATE AND BASED ON AERIAL PHOTOGRAPHY

PARCEL NO.	OWNER	TOTAL HOLDING ACRES	FEE SIMPLE ACQUISITION GROSS ACRES	GROSS SQ. FT.	PREVIOUSLY DEDICATED AND/OR USED ACRES	PREVIOUSLY DEDICATED AND/OR USED SQ. FT.	NET ACRES	NET SQ. FT.	REMAINDER ACRES	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
8906301	RONALD L YORK, JR. AND KAREN G. YORK, HUSBAND AND WIFE IN JOINT TENANCY AS TO AN UNDIVIDED ½ INTEREST AND RONALD L. YORK JR. AND KAREN G. YORK, HUSBAND AND WIFE AS TENANTS IN COMMON AS TO AN UNDIVIDED ½ INTEREST - 18-2008GN-158.0	1751.1919 [5]	0.1266	5516	—	—	0.1266	5516	1751.0653	02-81-33-1; 02-81-32-4(PT); 02-83-5-2(PT); 02-83-4-2; 10-41-28-5	
8906302	DENNIS W. SAGEZ - 18-2009GN-161.0 & 18-2008GN-151.0	295** [5]	4.0142	174,857	3.7215	162,107	0.2927	12,750	290.9858	02-83-4-7 02-81-34-3	
8906303	DALE A SAGEZ, AS TO AN UNDIVIDED ¼ INTEREST; DEBORAH M. MEYER, AS TO AN UNDIVIDED ¼ INTEREST; DONNA S. SHOFF, AS TO AN UNDIVIDED ¼ INTEREST; DENNIS W. SAGEZ, AS TO AN UNDIVIDED 1/12 INTEREST; AND WILLIAM C. SAGEZ & DOROTHY M. SAGEZ, TRUSTEES OF THE WILLIAM C. SAGEZ REVOCABLE LIVING TRUST DATED FEB. 22, 1994, AS TO AN UNDIVIDED 1/6 INTEREST - 18-2008GN-152.0	159.0932 [5]	1.1851	51,624	1.0331	45,002	0.1520	6,622	157.9081	12-04-200-002 (MAP NO. 02-83-4-1); 07-33-400-001 (MAP NO. 02-81-33-2)	
8906305	FARM CREDIT BANK OF ST. LOUIS SUCCESSOR TO THE FEDERAL LAND BANK OF ST. LOUIS - 18-2009GN-160.0	12.4539 [5]	2.1764	94,802	1.9299	84,065	0.2465	10,737	10.2775	02-81-34-3 (PT)	

STATE OF KENTUCKY)
) SS
COUNTY OF McCRACKEN)

I, RONALD S. BACON, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY OF THE EXISTING RIGHT OF WAY.

DATED _____

_____
RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

INSERT SURVEYORS SEAL HERE

GEOTECH ENGINEERING & TESTING, INC.
500 SOUTH 17th STREET, PADUCAH, KENTUCKY 42003, PHONE - 270.443.1995
403 NORTH COURT STREET, MARION, ILLINOIS 62959, PHONE - 618.997.9190
601 NORTH 4th STREET, MURRAY, KENTUCKY 42071, PHONE - 270.753.7307
131 SAUNDERSVILLE ROAD, HENDERSON, TN 37075, PHONE - 615.590.4224
REGISTRATION NO. 184-003258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 1BR, 1-2BR, 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09
STATION 189+35.50 TO STATION 214+00.00

60' 0 60' 120'
SCALE: 1" = 60'

SHEET 5 OF 9

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

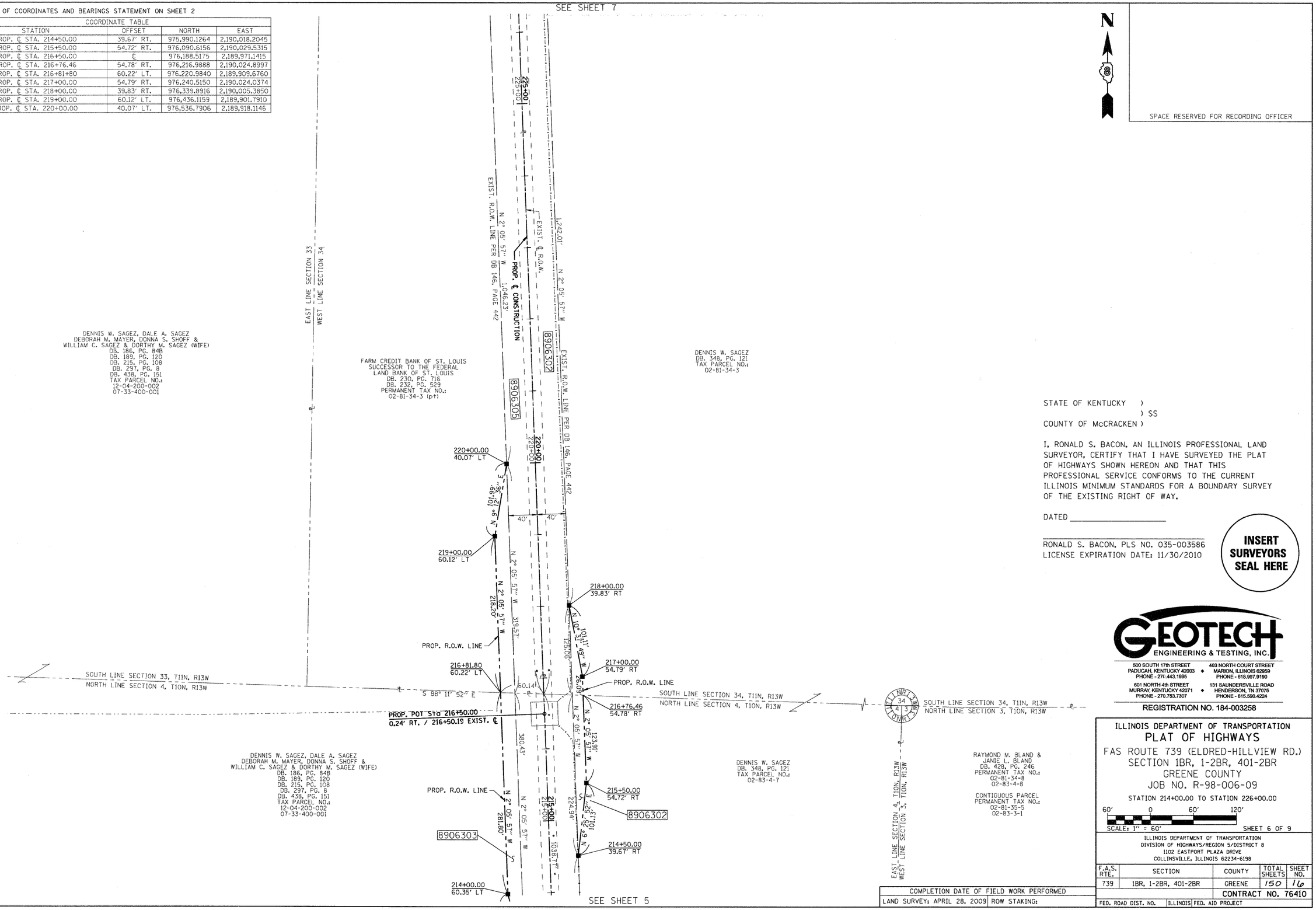
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	15
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: APRIL 28, 2009	ROW STAKING:

PART OF THE SW 1/4 OF SECTION 34, T11N, R13W & NE 1/4 OF SECTION 4, T10N, R13W OF THE 3RD PM, GREENE COUNTY, ILLINOIS

SEE BASIS OF COORDINATES AND BEARINGS STATEMENT ON SHEET 2

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
PROP. ℄ STA. 214+50.00	39.67' RT.	975,990.1264	2,190,018.2045
PROP. ℄ STA. 215+50.00	54.72' RT.	976,090.6156	2,190,029.5315
PROP. ℄ STA. 216+50.00	℄	976,188.5175	2,189,971.1415
PROP. ℄ STA. 216+76.46	54.78' RT.	976,216.9888	2,190,024.8997
PROP. ℄ STA. 216+81+80	60.22' LT.	976,220.9840	2,189,909.6760
PROP. ℄ STA. 217+00.00	54.79' RT.	976,240.5150	2,190,024.0374
PROP. ℄ STA. 218+00.00	39.83' RT.	976,339.8916	2,190,005.3850
PROP. ℄ STA. 219+00.00	60.12' LT.	976,436.1159	2,189,901.7910
PROP. ℄ STA. 220+00.00	40.07' LT.	976,536.7906	2,189,918.1146



STATE OF KENTUCKY)
) SS
COUNTY OF McCRACKEN)

I, RONALD S. BACON, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY OF THE EXISTING RIGHT OF WAY.

DATED _____

_____
RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

INSERT SURVEYORS SEAL HERE

GEOTECH
ENGINEERING & TESTING, INC.
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REGISTRATION NO. 184-003258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 1BR, 1-2BR, 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09
STATION 214+00.00 TO STATION 226+00.00

60' 0 60' 120'
SCALE: 1" = 60'

SHEET 6 OF 9

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

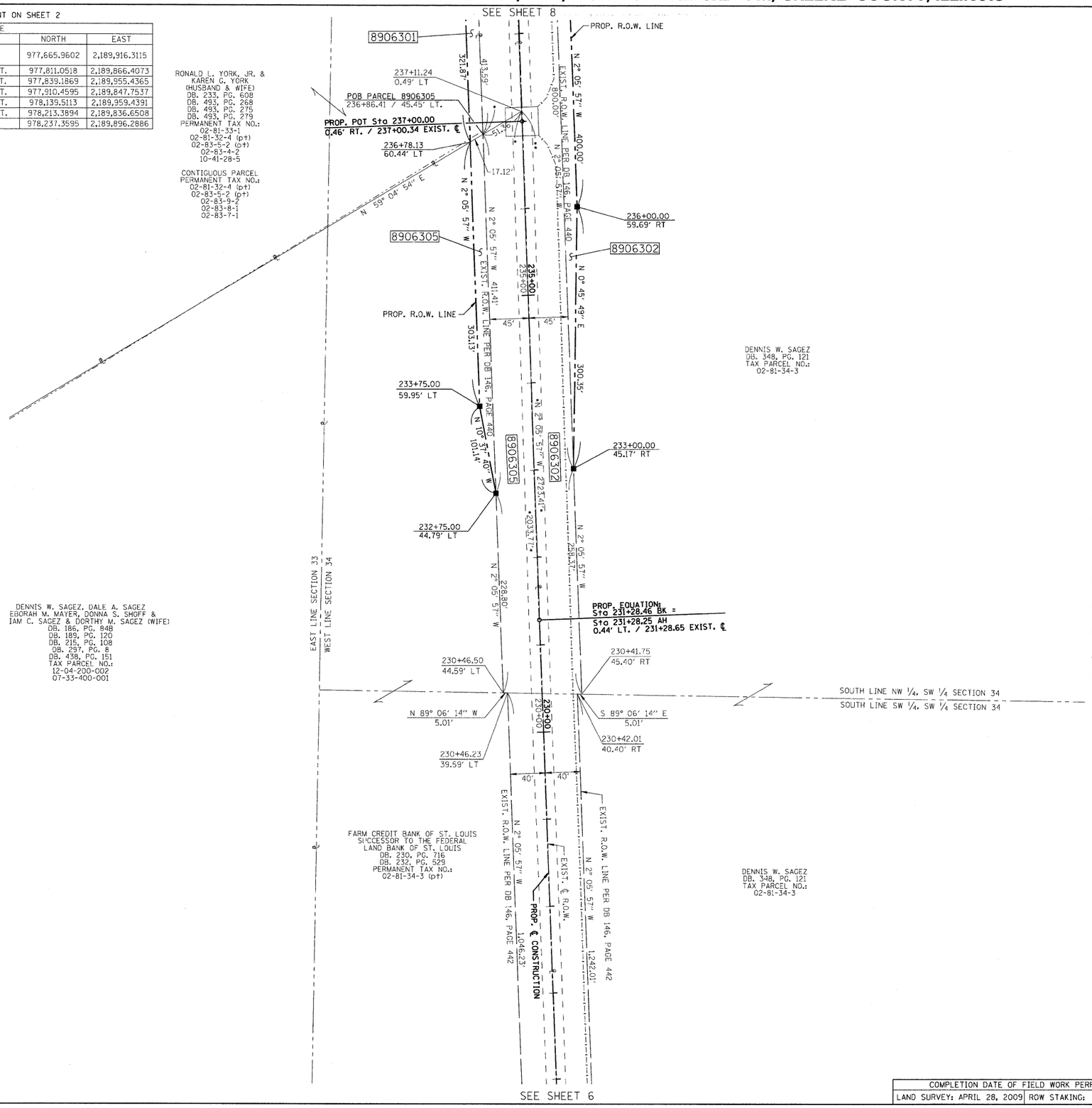
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	16
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: APRIL 28, 2009	ROW STAKING:

PART OF THE SW 1/4 OF SECTION 34, T11N, R13W OF THE 3RD PM, GREENE COUNTY, ILLINOIS

SEE BASIS OF COORDINATES AND BEARINGS STATEMENT ON SHEET 2

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
PROP. ℄ STA. 231+28.46 BK = PROP. ℄ STA. 231+28.25 AH.	℄	977,665.9602	2,189,916.3115
PROP. ℄ STA. 232+75.00	44.79' LT.	977,811.0518	2,189,866.4073
PROP. ℄ STA. 233+00.00	45.17' RT.	977,839.1869	2,189,955.4365
PROP. ℄ STA. 233+75.00	59.95' LT.	977,910.4595	2,189,847.7537
PROP. ℄ STA. 236+00.00	59.69' RT.	978,139.5113	2,189,959.4391
PROP. ℄ STA. 236+78.13	60.44' LT.	978,213.3894	2,189,836.6508
PROP. ℄ POT STA. 237+00.00	℄	978,237.3595	2,189,896.2886



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SPACE RESERVED FOR RECORDING OFFICER

STATE OF KENTUCKY)
) SS
COUNTY OF McCRACKEN)

I, RONALD S. BACON, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY OF THE EXISTING RIGHT OF WAY.

DATED _____

RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

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131 SAUNDERSVILLE ROAD, HENDERSON, TN 37075 ◆ PHONE - 615.590.4224
REGISTRATION NO. 184-003258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS

FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 1BR, 1-2BR, 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09

STATION 226+00.00 TO STATION 238+00.00

60' 0 60' 120'
SCALE: 1" = 60'

SHEET 7 OF 9

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	17
			CONTRACT NO. 76410	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: APRIL 28, 2009	ROW STAKING:

PART OF THE SW 1/4 OF SECTION 34, T11N, R13W OF THE 3RD PM, GREENE COUNTY, ILLINOIS

SEE BASIS OF COORDINATES AND BEARINGS STATEMENT ON SHEET 2

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
PROP. ℄ STA. 240+00.00	59.04' RT.	978,539.2434	2,189,944.7882
PROP. ℄ STA. 240+00.00	60.96' LT.	978,535.0409	2,189,824.8617
PROP. ℄ STA. 241+00.00	43.88' RT.	978,638.6511	2,189,926.1347
PROP. ℄ STA. 241+00.00	46.12' LT.	978,635.4993	2,189,836.1898
PROP. ℄ STA. 246+72.92	℄	979,209.6851	2,189,862.2164
EXIST. ℄ OF R.O.W. STA. 285+39.90	℄	983,073.5975	2,189,718.5558

BASIS OF ROTATED AND TRANSLATED COORDINATES FOR PLAT OF HIGHWAYS

COORDINATE TABLE				
STATION	CONSTRUCTION PLANS		PLAT OF HIGHWAYS	
	NORTH	EAST	NORTH	EAST
PROP. ℄ STA. 246+72.92	100,677.6802	99,685.7308	979,209.6851	2,189,862.2164

Existing Centerline of ROW
PC Sta. 189+35.50
N=973,570.5219 E=2,189,584.1717

Prop. Centerline of Const.
PC Sta. 189+35.50
N=973,570.3789 E=2,189,585.5587

Existing Centerline of ROW
PT Sta. 206+22.25 BK=PT Sta. 206+39.10 AH
N=975,178.0989 E=2,190,007.9399

Prop. Centerline of Const.
PT Sta. 206+22.42 BK=PT Sta. 206+39.10 AH
N=975,178.3127 E=2,190,008.6316

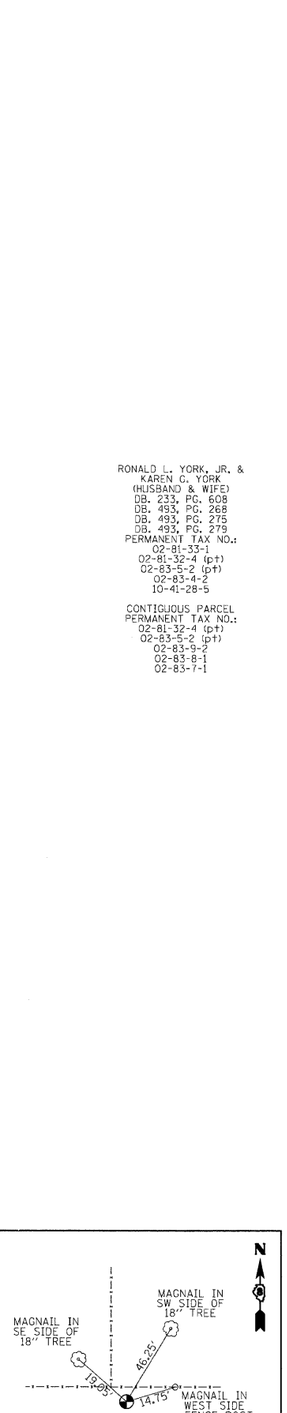
Prop. Centerline of Const.
POT Sta. 231+28.46 BK=POT Sta. 231+28.25 AH
N=977,665.9602 E 2,189,916.3115

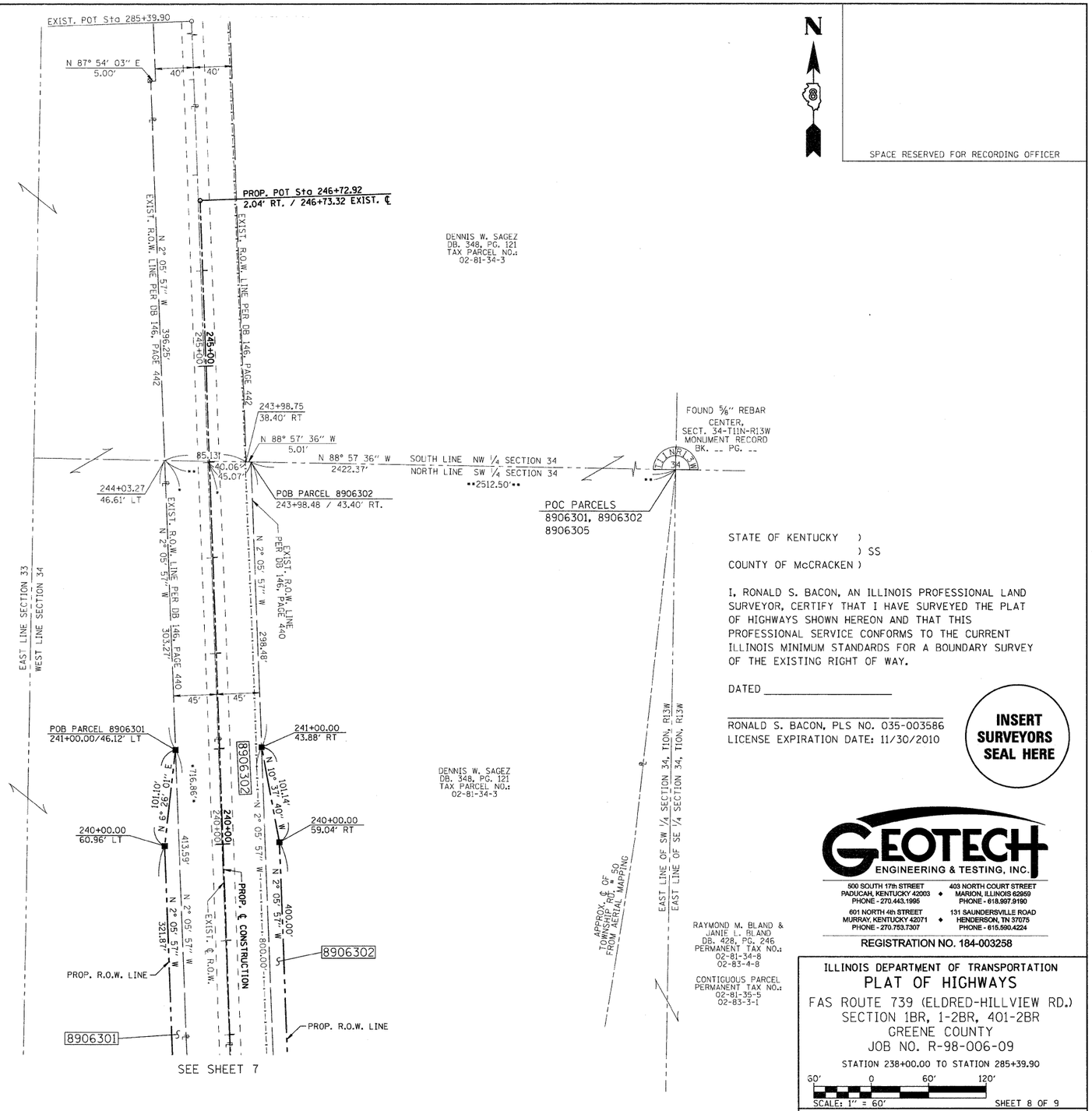
Prop. Centerline of Const.
POT Sta. 246+72.92
N=979,209.6851 E=2,189,862.2164

Existing Centerline of ROW
POT Sta. 285+39.90
N=983,073.5975 E=2,189,718.5558

CENTER SEC 34, T. 11 N., R. 13 W.
MONUMENT RECORD BK. __, PG. __
N=978,892.9724 E=2,192,337.1708

N.W. COR. SEC 10, T. 10 N., R. 13 W.
MONUMENT RECORD BK. 1, PG. 57
N=972,428.4962 E=2,190,734.4756





SEE SHEET 7

N

SPACE RESERVED FOR RECORDING OFFICER

STATE OF KENTUCKY)
) SS
COUNTY OF McCRACKEN)

I, RONALD S. BACON, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY OF THE EXISTING RIGHT OF WAY.

DATED _____

_____
RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

INSERT SURVEYORS SEAL HERE

GEOTECH
ENGINEERING & TESTING, INC.
600 SOUTH 17th STREET
PADUCAH, KENTUCKY 42003
PHONE - 270.443.1995
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE - 618.997.8190
601 NORTH 4th STREET
MURRAY, KENTUCKY 42071
PHONE - 270.753.7307
131 SAUNDERSVILLE ROAD
HENDERSON, TN 37075
PHONE - 615.590.4224
REGISTRATION NO. 184-003258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 1BR, 1-2BR, 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09

STATION 238+00.00 TO STATION 285+39.90

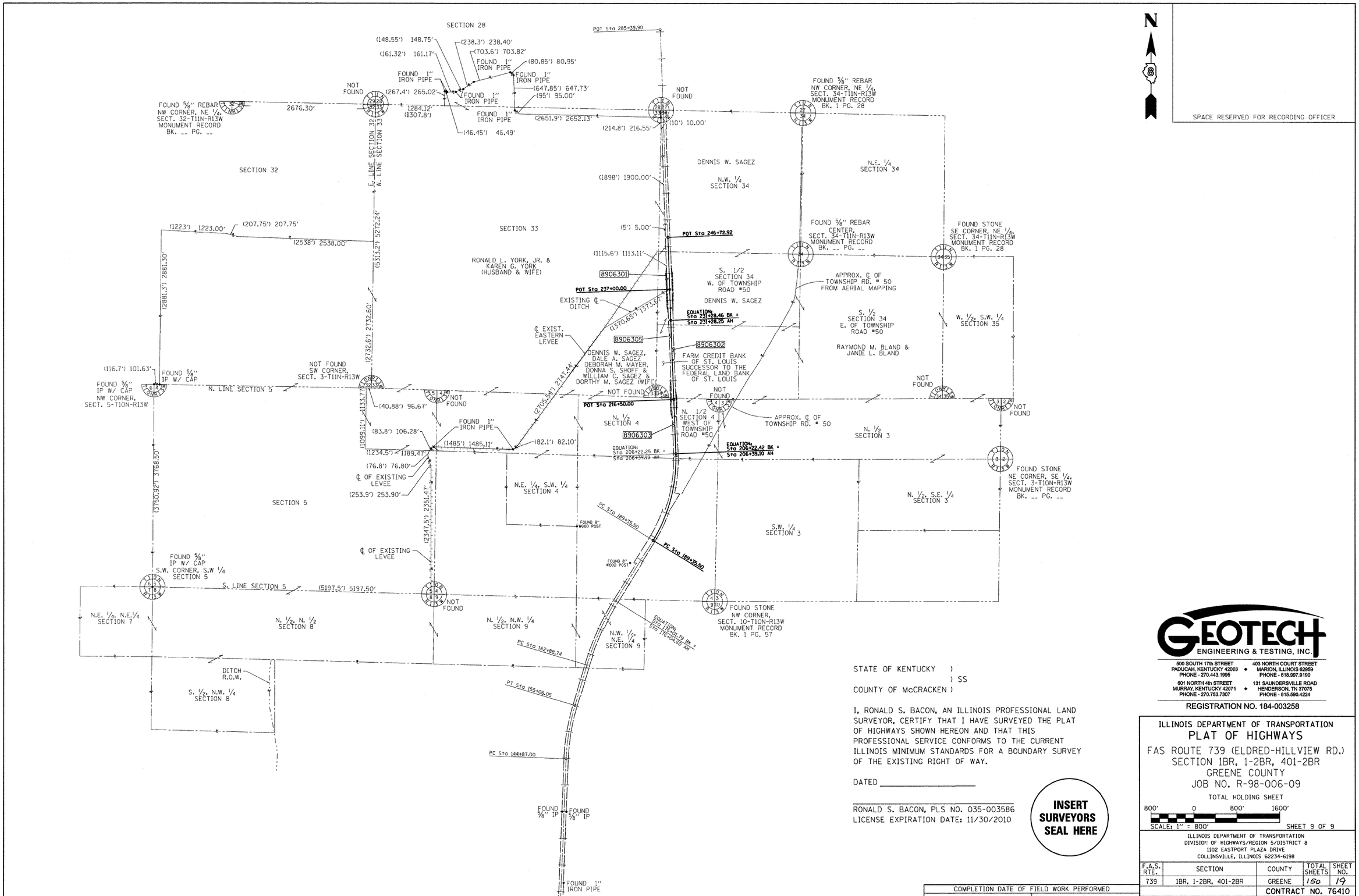
60' 0 60' 120'
SCALE: 1" = 60'

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	18
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: APRIL 28, 2009	ROW STAKING:

PART OF SEC. 3, 4, 5, 7, 8, 9, T.10N., R.13W. & SEC. 32, 33, 34, T.11N., R.13W. OF THE 3RD PM, GREENE COUNTY, ILLINOIS



STATE OF KENTUCKY)
) SS
COUNTY OF McCRACKEN)

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DATED _____

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RONALD S. BACON, PLS NO. 035-003586
LICENSE EXPIRATION DATE: 11/30/2010

INSERT SURVEYORS SEAL HERE

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: APRIL 28, 2009	ROW STAKING:

GEOTECH ENGINEERING & TESTING, INC.

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PADUCAH, KENTUCKY 42003
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ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAT OF HIGHWAYS

FAS ROUTE 739 (ELDRED-HILLVIEW RD.)
SECTION 1BR, 1-2BR, 401-2BR
GREENE COUNTY
JOB NO. R-98-006-09

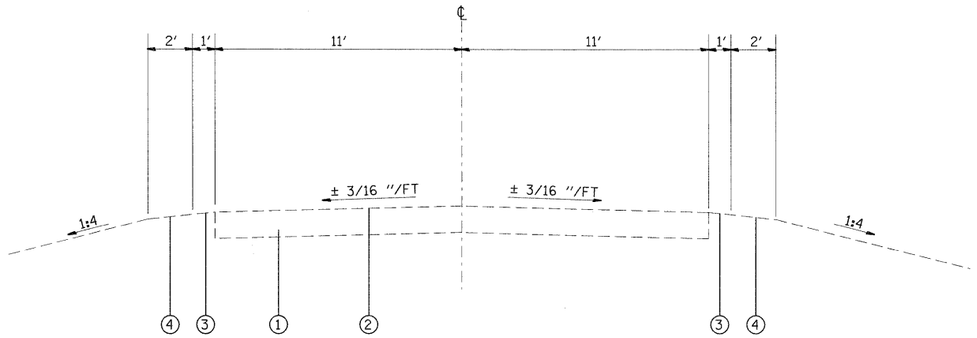
TOTAL HOLDING SHEET

800' 0 800' 1600'
SCALE: 1" = 800'

SHEET 9 OF 9

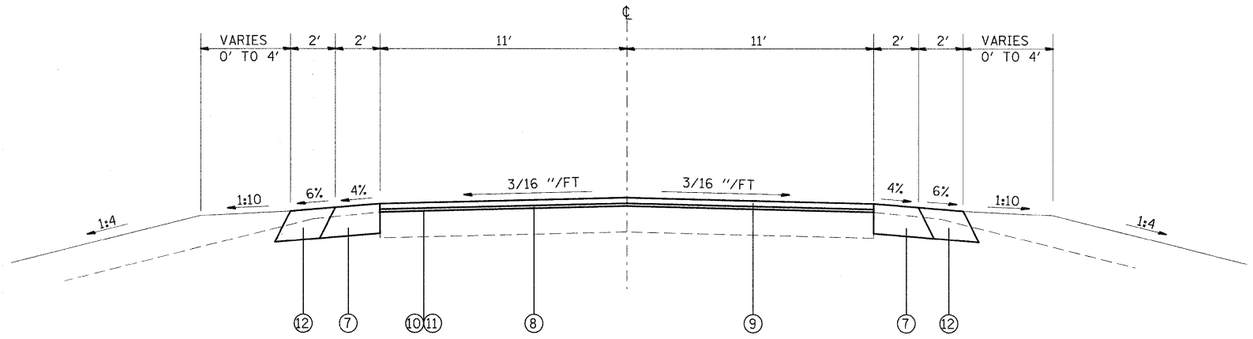
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	19
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXISTING SECTION

STA 120+77.5 TO STA 123+78.75
STA 124+21.25TO STA 127+60



PROPOSED SECTION

STA 120+77.5 TO STA 123+22
STA 124+78 TO STA 127+60

LEGEND

① EXISTING OIL AND CHIP
② EXISTING BITUMINOUS SURFACE TREATMENT, CLASS A-1
③ EXISTING AGGREGATE SHOULDERS
④ EXISTING EARTH SHOULDERS
⑤ EXISTING AGGREGATE SURFACE COURSE, TYPE 1 4"
⑥ EXISTING OIL AND CHIP ± 3"
⑦ PROPOSED HOT-MIX ASPHALT SHOULDERS 8"
⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE - 2 1/4" AND VARIES
⑨ PROPOSED HOT-MIX ASPHALT SURFACE COURSE - 1 1/2" AND VARIES
⑩ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
⑪ PROPOSED AGGREGATE (PRIME COAT)
⑫ PROPOSED AGGREGATE SHOULDERS
⑬ PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIES 0 TO 15 3/4"
⑭ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9"

MIXTURE REQUIREMENTS

MIXTURE USE	SURFACE COURSE	INCIDENTAL SURFACE	BINDER COURSE	HOT-MIX ASPHALT SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIAL PROV	SEE SPECIAL PROV	SEE SPECIAL PROV	SEE SPECIAL PROV
DESIGN AIR VOIDS	4.0%@Ndes=70	4.0%@Ndes=70	4.0%@Ndes=70	SEE SPECIAL PROV
MIX COMPOSITION				2.0%@Ndes=30
(GRADATION MIXTURE)	IL 9.5		IL 19.0	
FRICTION AGG	MIXTURE "C"	MIXTURE "C"	MIXTURE "B"	BAM

TOP LIFT SHOULDERS - DESIGN THIS MIX AT 2% VOIDS AND ADD ASPHALT TO REDUCE VOIDS TO 1.5%.

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

HMA SURFACE COURSE AND BINDER COURSE THICKNESSES

	℄ ROADWAY		LEFT EDGE OF PAVEMENT		RIGHT EDGE OF PAVEMENT	
STATION	PROPOSED SURFACE COURSE THICKNESS (FOOT)	PROPOSED HMA BINDER COURSE THICKNESS (FOOT)	PROPOSED SURFACE COURSE THICKNESS (FOOT)	PROPOSED HMA BINDER COURSE THICKNESS (FOOT)	PROPOSED SURFACE COURSE THICKNESS (FOOT)	PROPOSED HMA BINDER COURSE THICKNESS (FOOT)
120+80	0.13		0.13		0.13	
121+00	0.13		0.13		0.13	
121+50	0.13		0.22		0.22	
122+08.5	0.13	0.18	0.13	0.26	0.13	0.28
122+50	0.13	0.37	0.13	0.47	0.13	0.52
123+00	0.13	0.69	0.13	0.71	0.13	0.80
123+28	0.13	0.80	0.13	1.01	0.13	1.10
124+72	0.13	0.96	0.13	1.15	0.13	1.43
125+00	0.13	0.88	0.13	0.88	0.13	0.98
125+50	0.13	0.64	0.13	0.57	0.13	0.74
126+00	0.13	0.26	0.13	0.25	0.13	0.43
126+50	0.13		0.14		0.13	0.18
127+00	0.13		0.13		0.13	
127+09.49	0.13		0.13		0.13	
127+30.95	0.13		0.13		0.13	
127+50	0.13		0.13		0.13	

NOTE: NOT TO SCALE

FILE NAME = c:\pw_work\pwidot\tharpr1\dms52692\D876410-sht-typical.dgn	USER NAME = tharpr1	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. 120+77.5 TO STA. 127+22.5

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	20
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	BARRIER WALL MARKERS, TYPE C	TERMINAL MARKER - DIRECT APPLIED
	FOOT	EACH	EACH	EACH	EACH	EACH	EACH
NB ELDRED-HILLVIEW RD				3	2	2	
SB ELDRED-HILLVIEW RD				3	2	2	
NW QUADRANT	87.5	1	1				1
NE QUADRANT		1	1				1
SW QUADRANT		1	1				1
SE QUADRANT	87.5	1	1				1
TOTAL =	175	4	4	6	4	4	4

PIPE CULVERT SCHEDULE

LOCATION		PIPE CULVERTS CLASS D TYPE 1 18"	PIPE CULVERTS CLASS D TYPE 1 36"	END SECTIONS 18"	END SECTIONS 36"
STATION	TO STATION	FOOT	FOOT	EACH	EACH
120+79.3	TO 121+21.5 RT	43		2	
121+75.2	TO 122+36.1 LT		57		2
	TOTAL =	43	57	2	2

REMOVAL SCHEDULE

LOCATION			HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	PIPE CULVERT REMOVAL	CONCRETE HEADWALL REMOVAL	REMOVE SIGN PANEL TYPE 1	PAVEMENT REMOVAL	DRIVEWAY PAVEMENT REMOVAL
STATION	TO	STATION	SQ YD	FOOT	EACH	SQ FT	SQ YD	SQ YD
120+77.55	TO	121+07.5	75					
123+05.5	TO	123+71.4 LT		66	1			165
123+28	TO	123+78.75					125	
		123+72.3 RT				6		
		123+72.5 LT				3		
		123+74.7 RT				3		
124+21.25	TO	124+72					125	
		124+25.9 RT				3		
		124+27.2 LT				3		
		124+28.3 LT				6		
126+92.5	TO	127+60	167					
		TOTAL =	242	66	1	24	250	165

ROW MARKERS SCHEDULE

LOCATION			FURNISHING & ERECTING RIGHT-OF-WAY MARKERS	RIGHT-OF-WAY AND PROPERTY CORNERS
STATION	OFFSET (FT)	RT/LT	EACH	EACH
120+50	50.02	RT	1	1
120+50	49.98	LT	1	
121+50	55.01	RT	1	1
121+50	54.99	LT	1	
123+50.01	55.00	LT	1	1
125+50	55.00	RT	1	1
126+50	49.99	RT	1	1
		TOTAL =	7	5

RESURFACING SCHEDULE

LOCATION			BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALT BINDER COURSE	INCIDENTAL HOT-MIX ASPHALT SURFACING	AGGREGATE SURFACE COURSE, TYPE A 8"	AGGREGATE BASE COURSE, TYPE B 8"	AGGREGATE BASE COURSE, TYPE B 6"	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	HOT-MIX ASPHALT SHOULDERS		AGGREGATE SHOULDERS, TYPE A 6"	
STATION	TO	STATION	TON	TON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	LT	RT	LT	RT
												TON		SQ YD	
120+77.5	TO	120+80	0.1	0.1	0.6							0.3	0.3	0.6	0.6
120+80	TO	121+20	0.1	0.2	8.3							4.0	4.0	8.9	8.9
120+80	TO	121+20 RT						125							
121+20	TO	121+62.6	0.1	0.2	27.2							4.3	4.3	9.5	9.5
121+62.6	TO	122+49.4	0.1	0.4	17.9	33.3						8.7	8.7	19.3	19.3
121+62.6	TO	122+49.4 LT					37		220						
122+49.4	TO	123+22	0.1	0.3	14.9	84.7						7.3	7.3	16.2	16.2
123+22	TO	123+28									22				
124+72	TO	124+78									22				
124+78	TO	126+92.48	0.2	0.8	44.0	167.5						21.4	21.4	47.7	47.7
126+92.48	TO	127+26.48 LT					7			31					
127+07.46	TO	127+54.46 RT						100							
126+92.48	TO	127+54.46	0.1	0.3	12.8							6.2	6.2	13.8	13.8
127+54.46	TO	127+60	0.1	0.1	1.2							0.6	0.6	1.3	1.3
PROP DRIVEWAY CONNECTION NEAR STA 122+08.5 LT								167							
		TOTAL =	0.9	2.4	126.9	285.5	44	392	220	31	44	106		235	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
SN 031-0013 (E) 0041 (P), SECTION 401-2BR

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	21
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING SCHEDULE

LOCATION			THERMOPLASTIC PAVEMENT MARKING SKIP-DASH CENTERLINE YELLOW - 4"	POLYUREA PAVEMENT MARKING TYPE I SKIP-DASH CENTERLINE YELLOW - 4"	TEMPORARY PAVEMENT MARKING - LINE 4"
STATION	TO	STATION		FOOT	FOOT
120+77.5	TO	123+28	70		70
123+28	TO	124+72		30	30
124+72	TO	127+60	70		70
		TOTAL =	140	30	170

SEE STANDARDS 781001 AND 780001 FOR PAVEMENT MARKING DETAILS.

EARTHWORK SCHEDULE

LOCATION			EARTH EXCAVATION	EARTH EXCAVATION ADJ FOR SHRINKAGE (25%)	CHANNEL EXCAVATION	FURNISHED EXCAVATION	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STATION	TO	STATION	CU YD	CU YD	CU YD	CU YD	CU YD
ELDRED-HILLVIEW ROAD - SECTION 401-2BR							
120+77.5	TO	120+80	0.1	0.1		0.5	-0.4
120+80	TO	121+00	3.0	2.3		27.0	-24.8
121+00	TO	121+50	7.1	5.3		81.2	-75.9
121+50	TO	122+06	4.5	3.4		130.1	-126.7
122+06	TO	122+50	1.4	1.1		122.4	-121.4
122+50	TO	123+00	0.0	0.0		110.7	-110.7
123+00	TO	123+28	67.4	50.6		38.3	12.3
123+28	TO	123+32.1	17.7	13.3		0.6	12.7
123+32	TO	123+60.5	106.1	79.6		125.2	-45.6
123+60.5	TO	124+39.5			1230		
124+39.5	TO	124+72	26.3	19.7		56.2	-36.5
124+72	TO	125+00	5.9	4.4		64.9	-60.5
125+00	TO	125+50	0.0	0.0		155.4	-155.4
125+50	TO	126+00	0.7	0.5		106.9	-106.4
126+00	TO	126+50	3.7	2.8		63.7	-60.9
126+50	TO	127+00	4.7	3.5		27.2	-23.7
127+00	TO	127+09.49	0.7	0.5		0.2	0.3
127+09.49	TO	127+30.95	7.0	5.3		0.1	5.2
127+30.95	TO	127+50	6.9	5.2		0.3	4.9
127+50	TO	127+60	0.7	0.5		0.1	0.4
TEMPORARY LOW WATER CROSSING							
0+00	TO	1+75.6	236.8	177.6		175.0	2.6
1+75.6	TO	2+57.6			540	10.9	
2+57.6	TO	4+33.25	138.7	104.0		166.2	-62.2
DRIVEWAY CONNECTION			20.0	15.0		5.0	10.0
		TOTAL =	659	495	1770	1468	-963

EROSION CONTROL SCHEDULE

LOCATION	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	POTASSIUM FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	NITROGEN FERTILIZER NUTRIENT	MULCH, METHOD 2	SEEDING CLASS 2	STONE RIPRAP, CLASS A3	STONE RIPRAP, CLASS A3 (SPECIAL)	FILTER FABRIC	EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING
	FOOT	EACH	POUND	POUND	POUND	ACRE	ACRE	SQ YD	SQ YD	SQ YD	SQ YD	POUND
NW QUADRANT									11	11		
NE QUADRANT									27	27		
SW QUADRANT									17	17		
SE QUADRANT									17	17		
STA120+77.5 TO STA121+50 LT	83.5		3	3	3	0.12	0.03					9
STA120+77.5 TO STA121+50 RT	135	2	4	4	4	0.16	0.04					12
STA121+50 TO STA122+50 LT	78	2	2	2	2	0.08	0.02					6
STA121+50 TO STA122+50 RT	100		5	5	5	0.20	0.05					15
STA122+50 TO STA123+48 LT	63		7	7	7	0.28	0.07					21
STA122+50 TO STA123+48 RT	115.5		4	4	4	0.16	0.04					12
STA124+52 TO STA125+50 LT	123		6	6	6	0.24	0.06					18
STA124+52 TO STA125+50 RT	123.5		6	6	6	0.24	0.06					18
STA125+50 TO STA126+50 LT	100		5	5	5	0.20	0.05					15
STA125+50 TO STA126+50 RT	101.5		6	6	6	0.24	0.06					18
STA126+50 TO STA127+60 LT	112	2	2	2	2	0.08	0.02					6
STA126+50 TO STA127+60 RT	140		3	3	3	0.12	0.03					9
DRIVEWAY CONNECTION	142		5	5	5	0.20	0.05					15
TEMPORARY LOW WATER CROSSING	100					0.25		104		674	988	95
TOTAL =	1517	6	75	75	75	3.25	0.75	104	72	746	988	335

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
SN 031-0013 (E) 0041 (P), SECTION 401-2BR

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	22
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES:

1. DETOUR SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THEE CONTRACTOR SHALL PICK UP SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTRACT JEAN SLAPE, PHONE (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR DETOUR SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.
7. THE CONTRACTOR SHALL PLACE TWO CHANGEABLE MESSAGE SIGNS ON ELDRED-HILLVIEW ROAD TWO (2) WEEKS PRIOR TO CLOSURE TO ALERT THE PUBLIC OF THE UPCOMING CLOSURE. LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER.
8. THE CONTRACTOR SHALL FURNISH ADVANCE WARNING SIGNS, ROAD CLOSURE SIGNS, MESSAGE BOARD, AND TYPE III BARRICADES.
9. ALL ADVANCE WARNING SIGNS SHALL BE 48" FLOURESCENT ORANGE WITH FLASHING LIGHTS.

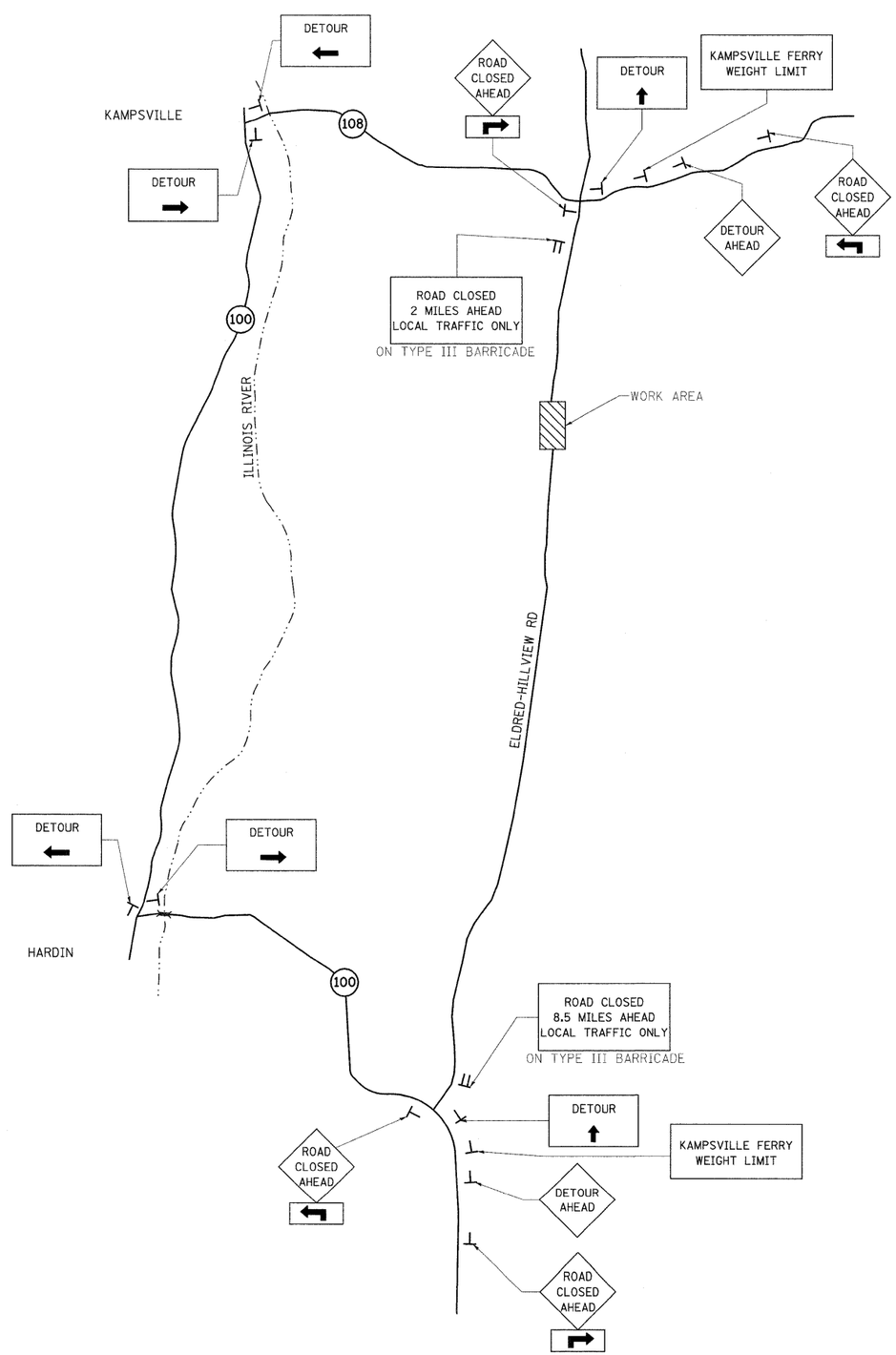
SIGNS REQUIRED

TO BE PROVIDED BY IDOT:

- KAMPSVILLE FERRY WEIGHT LIMIT (2)
- DETOUR ↑ (2)
- DETOUR → (2)
- DETOUR ← (2)
- ROAD CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY — 2 MILES (1), 8.5 MILES (1)

TO BE PROVIDED BY CONTRACTOR:

- ROAD CLOSED AHEAD (4)
- ↱ (2)
- DETOUR AHEAD (2)
- ↰ (2)



NOTE: NOT TO SCALE

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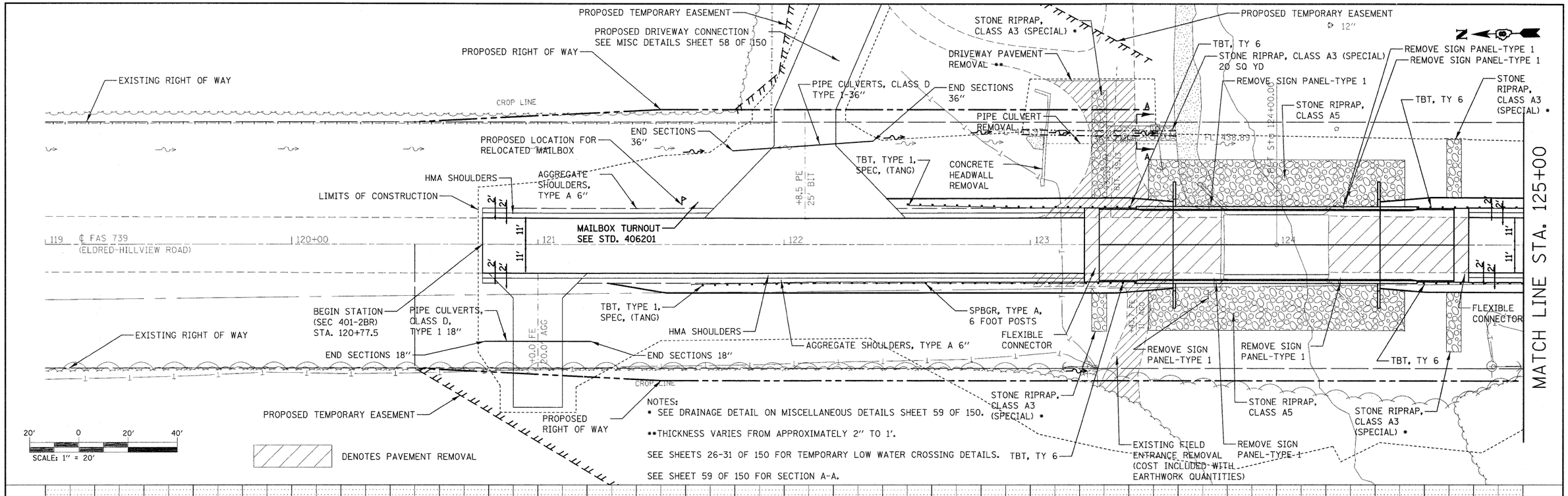
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	23
		CONTRACT NO. 76410		
	ILLINOIS	FED. AID PROJECT		



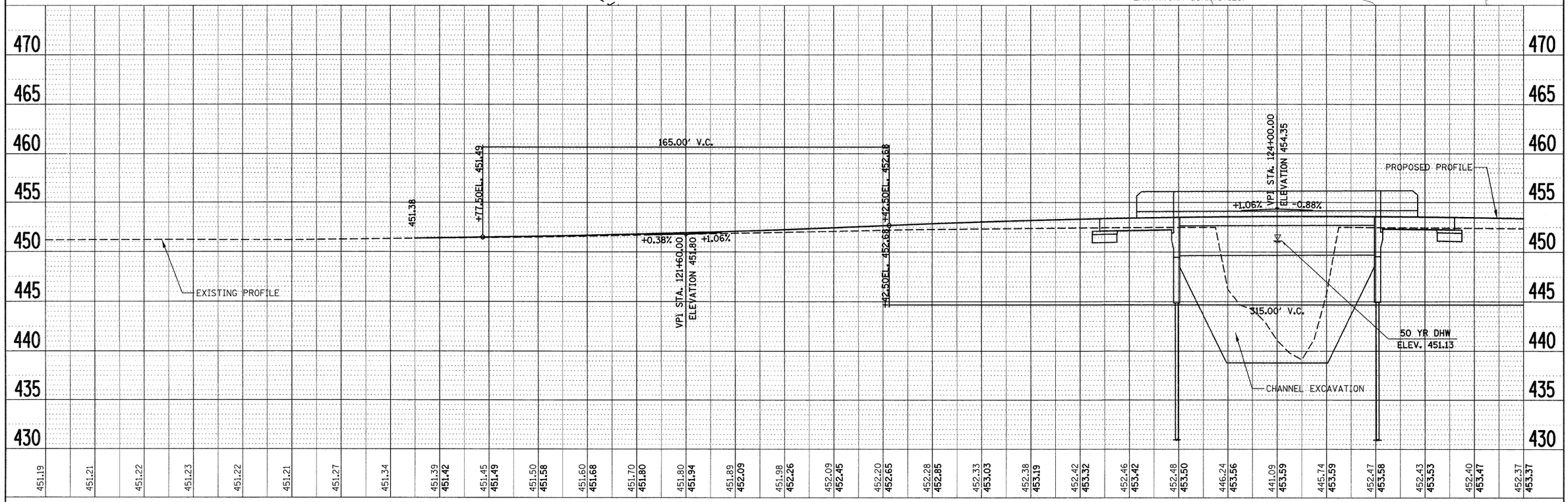
NOTES:

- SEE DRAINAGE DETAIL ON MISCELLANEOUS DETAILS SHEET 59 OF 150.

••THICKNESS VARIES FROM APPROXIMATELY 2" TO 1'.

SEE SHEETS 26-31 OF 150 FOR TEMPORARY LOW WATER CROSSING DETAILS.

SEE SHEET 59 OF 150 FOR SECTION A-A.



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	PLOT DATE = 3/25/2010	DATE -	REVISED -	

PLAN AND PROFILE SHEETS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 119+00 TO STA. 125+00

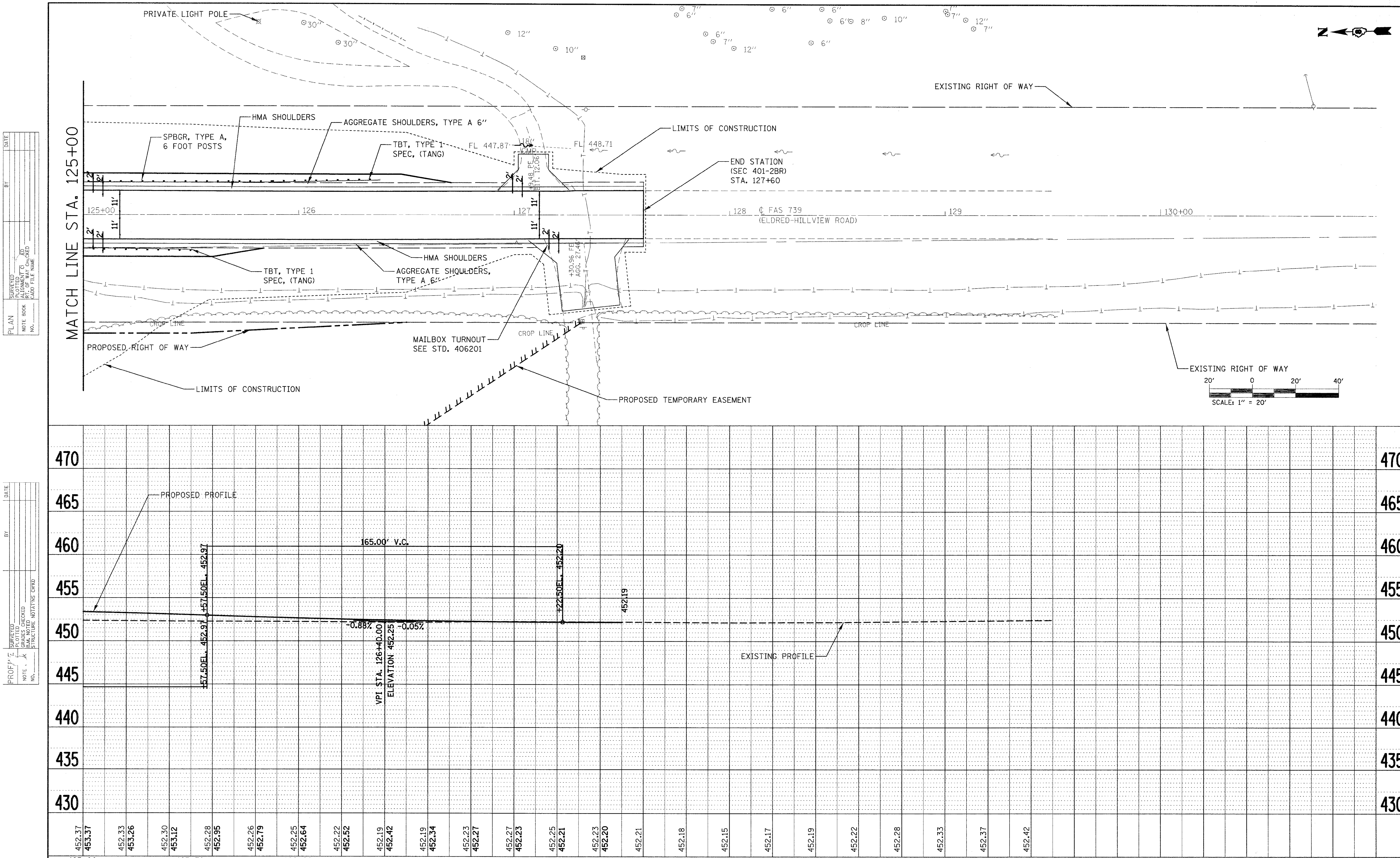
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	24

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT

PLAN: DATE | BY | SURVEYED | PLOTTED | DRAWN | CHECKED | QUANTITIES | R.M. NOTED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO. | CADD FILE NAME

PROF: DATE | BY | SURVEYED | PLOTTED | DRAWN | CHECKED | QUANTITIES | R.M. NOTED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO.


PRIVATE LIGHT POLE
EXISTING RIGHT OF WAY
HMA SHOULDERS
AGGREGATE SHOULDERS, TYPE A 6"
SPBGR, TYPE A,
6 FOOT POSTS
TBT, TYPE 1
SPEC, (TANG)
FL 447.87
FL 448.71
LIMITS OF CONSTRUCTION
END STATION
(SEC 401-2BR)
STA. 127+60
MATCH LINE STA. 125+00
125+00
126
127
128
℄ FAS 739
(ELDRED-HILLVIEW ROAD)
129
130+00
HMA SHOULDERS
TBT, TYPE 1
SPEC, (TANG)
AGGREGATE SHOULDERS,
TYPE A 6"
CROP LINE
PROPOSED RIGHT OF WAY
MAILBOX TURNOUT
SEE STD. 406201
LIMITS OF CONSTRUCTION
PROPOSED TEMPORARY EASEMENT
EXISTING RIGHT OF WAY
SCALE: 1" = 20'
PROPOSED PROFILE
165.00' V.C.
+57.50EL. 452.97
+22.50EL. 452.20
452.19
-0.88%
-0.05%
VPI STA. 126+40.00
ELEVATION 452.25
EXISTING PROFILE
470
465
460
455
450
445
440
435
430
452.37 453.37
452.33 453.26
452.30 453.12
452.28 452.95
452.26 452.79
452.25 452.64
452.22 452.52
452.19 452.42
452.19 452.34
452.23 452.27
452.27 452.23
452.25 452.21
452.23 452.20
452.21
452.18
452.15
452.17
452.19
452.22
452.28
452.33
452.37
452.42
125+00
125+50
126+00
126+50
127+00
127+50
128+00
128+50
129+00
129+50
PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CI ED
R.T. OF WAY CHECKED
CADD FILE NAME
BY
DATE
PROFI'Z
NOTE
NO.
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEETS
SN 031-0013(E) 0041(P), SECTION 401-2BR

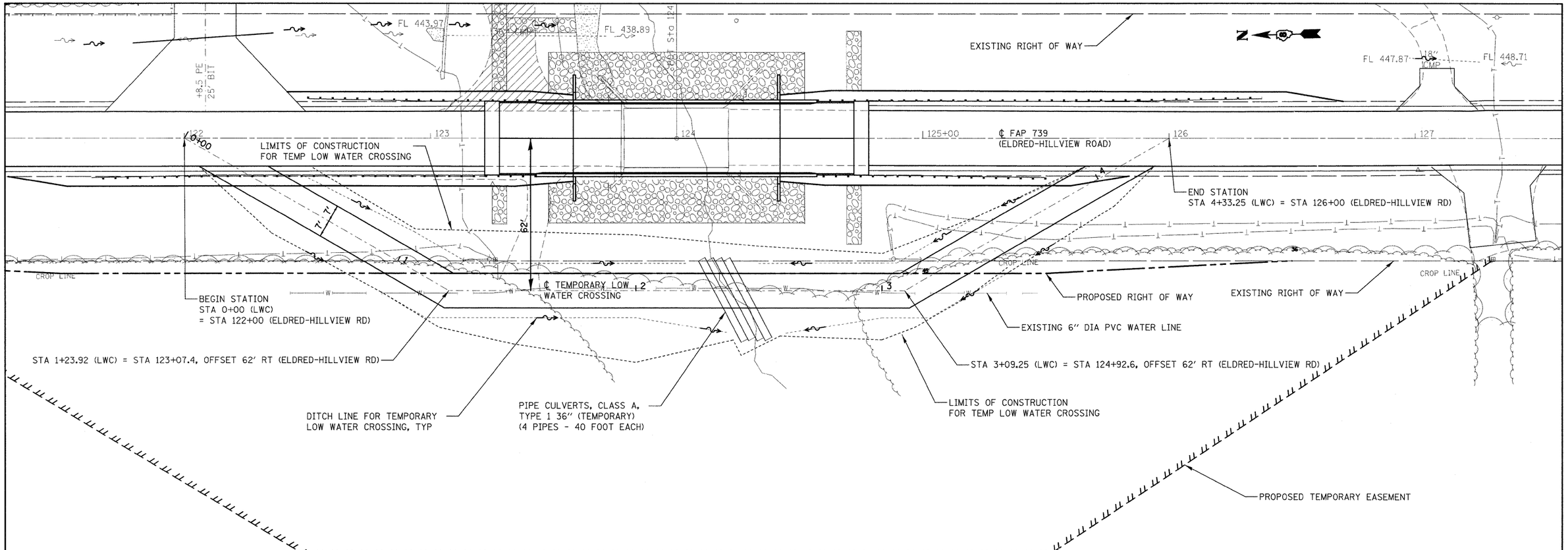
SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 125+00 TO STA. 129+50

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	25

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT

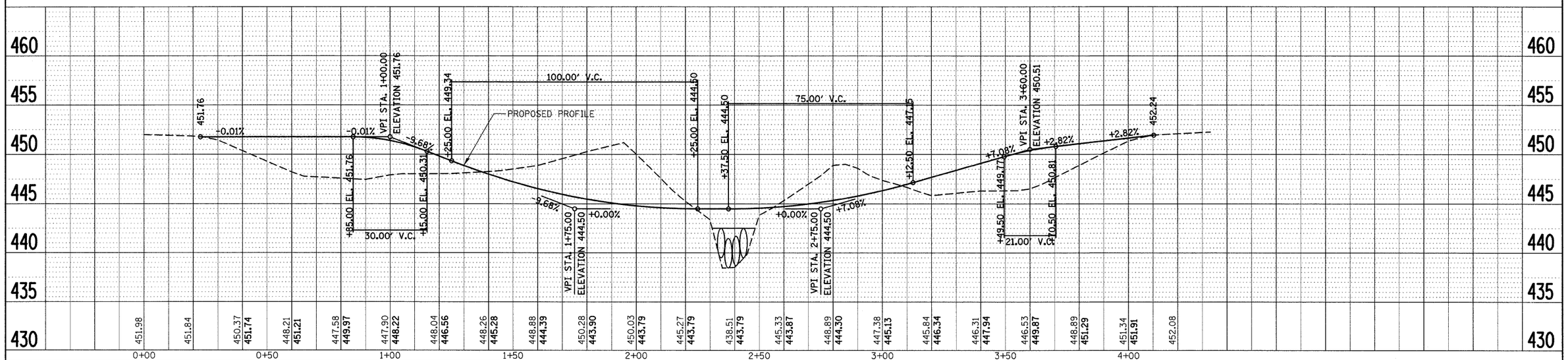
PLAN — SURVEYED / PLOTTED / GRADES CHECKED / R.O.W. CHECKED / R.O.W. CHECKED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE



NOTE: EXISTING GROUND LINE HAS BEEN MODIFIED FROM WHAT IS SHOWN DUE TO PLACEMENT OF EXISTING 6" DIA PVC WATER LINE AFTER SURVEY.

20' 0 20' 40'
SCALE: 1" = 20'

PRL LE — SURVEYED / PLOTTED / GRADES CHECKED / ALIGNMENT / NOTE BOOK / NO. / BY / DATE / STRUCTURE NO(S)/MS CHKD



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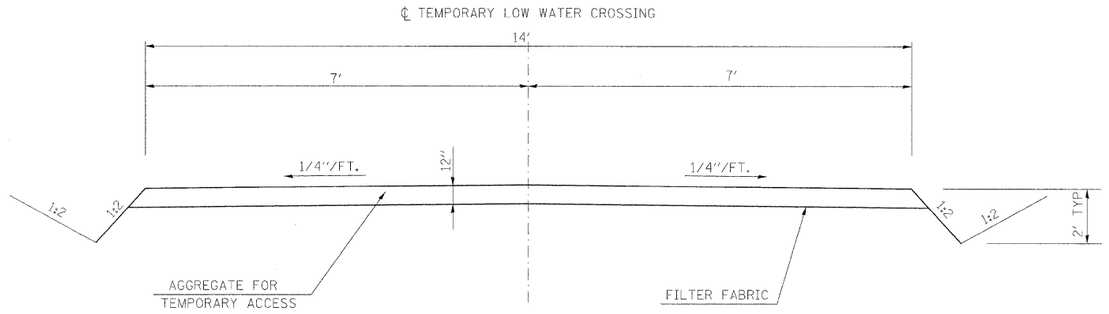
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

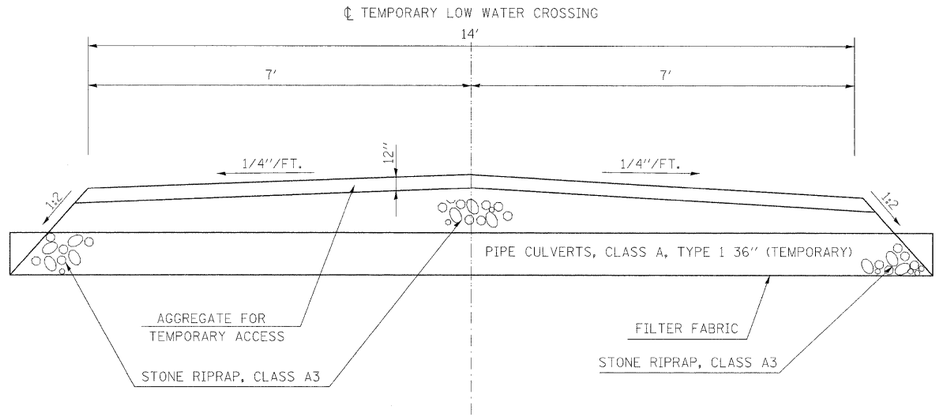
PLAN AND PROFILE TEMPORARY LOW WATER CROSSING
SN 031-0013(E) SN 0041(P), SECTION 401-2BR

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 0+00 TO STA. 4+33.25

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	26
		CONTRACT NO. 76410		
	ILLINOIS	FED. AID PROJECT		



TYPICAL SECTION
STA. 0+00 TO STA 2+25.5
STA. 2+55.5 TO STA. 4+33.25



TYPICAL SECTION
STA. 2+25.5 TO STA. 2+55.5
STREAM CROSSING

GENERAL NOTES

1. THE CONTRACTOR SHALL CONSTRUCT, MAINTAIN, AND REMOVE THE TEMPORARY LOW WATER CROSSING GENERALLY TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL MAINTAIN A 12' MINIMUM HORIZONTAL CLEARANCE TO ANY OBJECT MEASURED AT A DISTANCE OF 3'-0" ABOVE THE TEMPORARY LOW WATER CROSSING PROFILE GRADE, TYPICAL BOTH SIDES.
3. THE CONTRACTOR SHALL RELOCATE THE BERM WEST OF THE PROPOSED TEMPORARY LOW WATER CROSSING AS SHOWN IN THE LOW WATER CROSSING CROSS SECTIONS. THE RELOCATED BERM SHALL MAINTAIN CREEK FROM FLOODING SURROUNDING FARM FIELDS. AFTER REMOVAL OF LOW WATER CROSSING, THE BERM SHALL BE RETURNED TO INITIAL STATE. COST SHALL BE INCLUDED WITH CHANNEL EXCAVATION.
4. FILTER FABRIC SHALL BE PLACED UNDER THE AGGREGATE FOR TEMPORARY ACCESS AND STONE RIPRAP, CLASS A3 TO ASSIST IN THE REMOVAL OF THESE MATERIALS.
5. PIPE CULVERTS (TEMPORARY) OF THE TYPE AND SIZE SPECIFIED SHALL BE SECURED IN PLACE BY MEANS OF CABLES AND/OR ANCHORS IN A MANNER MEETING THE APPROVAL OF THE ENGINEER. THE COST SHALL BE INCLUDED IN THE COST OF THE PIPE CULVERTS (TEMPORARY) OF THE TYPE AND SIZE SPECIFIED.
6. MAINTENANCE OF THE TEMPORARY LOW WATER CROSSING WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04. IT IS THE INTENT TO MAINTAIN THE TEMPORARY LOW WATER CROSSING ONLY TO THE DEGREE NECESSARY TO PROVIDE AN ALL WEATHER SURFACE FOR ITS INTENDED USE. THE CONTRACTOR SHALL KEEP THE CHANNEL CLEAR OF DEBRIS WHILE THE LOW WATER CROSSING IS IN USE.
7. REMOVAL AND DISPOSAL OF THE AGGREGATE MATERIAL (AGGREGATE FOR TEMPORARY ACCESS AND STONE RIPRAP, CLASS A3) WHEN THE TEMPORARY LOW WATER CROSSING IS NO LONGER REQUIRED WILL BE MEASURED FOR PAYMENT AS EARTH EXCAVATION AND DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03.
8. CONTRACTOR MUST MAINTAIN MINIMUM 3.5 FOOT CLEAR COVER REQUIRED FOR EXISTING 6" PVC WATER LINE.

TEMPORARY LOW WATER CROSSING SCHEDULE				
LOCATION			AGGREGATE FOR TEMPORARY ACCESS	PIPE CULVERTS, CLASS A, TYPE 1 36" (TEMPORARY)
STATION	TO	STATION	TON	FOOT
0+00	TO	2+25.5	213	
2+25.5	TO	2+55.5	31	160
2+55.5	TO	4+33.25	167	
		TOTAL =	411	160

SEE EROSION CONTROL SCHEDULE FOR STONE RIPRAP, CLASS A3, FILTER FABRIC, EROSION CONTROL BLANKET, TEMPORARY EROSION CONTROL SEEDING, AND PERIMETER BARRIER USED FOR TEMPORARY LOW WATER CROSSING.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

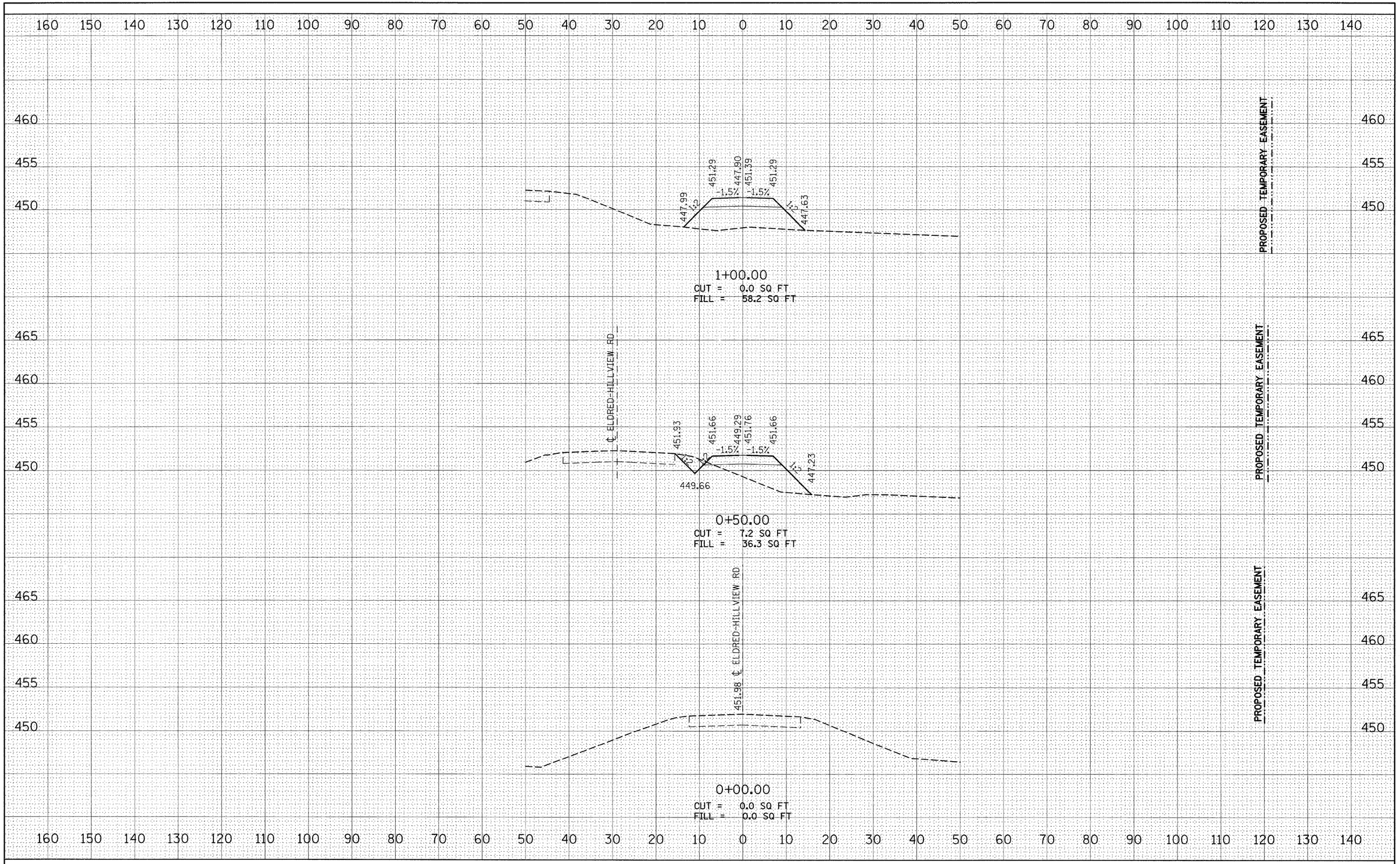
TEMPORARY LOW WATER CROSSING DETAILS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	27
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



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	PLOT DATE = 4/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LOW WATER CROSSING CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. +00.00 | TO STA. 1+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	28
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			

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

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

460 455 450 445 440

447.65 450.03 450.82

1:2 1:2 444.70 -1.5% 444.80 -1.5% 444.70 1:2 1:2

442.70 442.70

PROPOSED TEMPORARY EASEMENT

EXISTING 6" DIA PVC WATER LINE
(TO REMAIN IN PLACE)

2+00.00

CUT = 239.2 SQ FT
FILL = 0.0 SQ FT

449.09 447.12 448.52 447.22 447.12 448.09

1:2 1:2 -1.5% -1.5% 1:2 1:2

445.12 445.12

PROPOSED TEMPORARY EASEMENT

EXISTING 6" DIA PVC WATER LINE
(TO REMAIN IN PLACE)

1+50.00

CUT = 78.5 SQ FT
FILL = 0.0 SQ FT

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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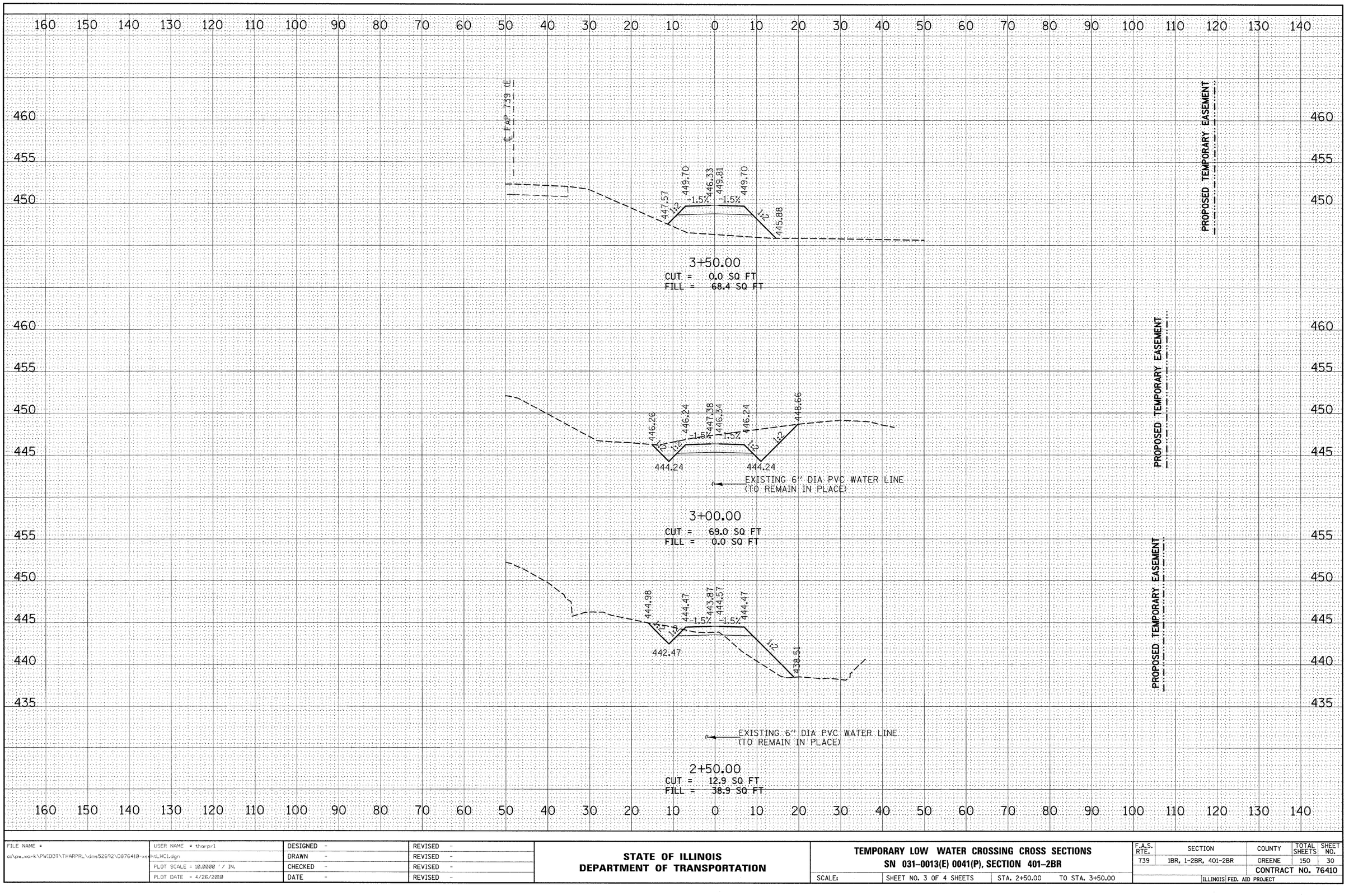
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LOW WATER CROSSING CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. 1+50.00 | TO STA. 2+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	29
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



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	PLOT DATE = 4/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LOW WATER CROSSING CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. 2+50.00 | TO STA. 3+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	30

CONTRACT NO. 76410

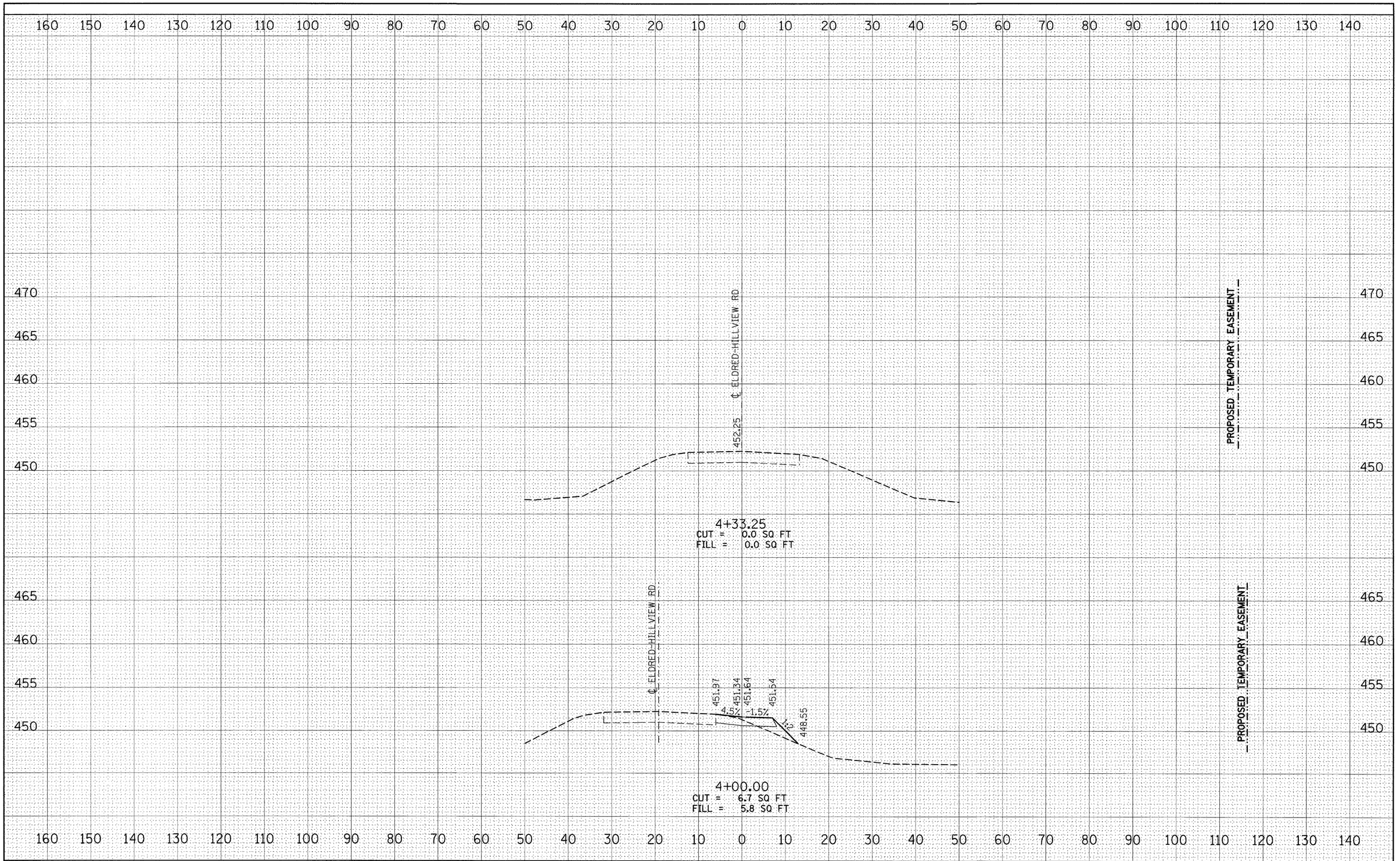
ILLINOIS FED. AID PROJECT

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

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

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



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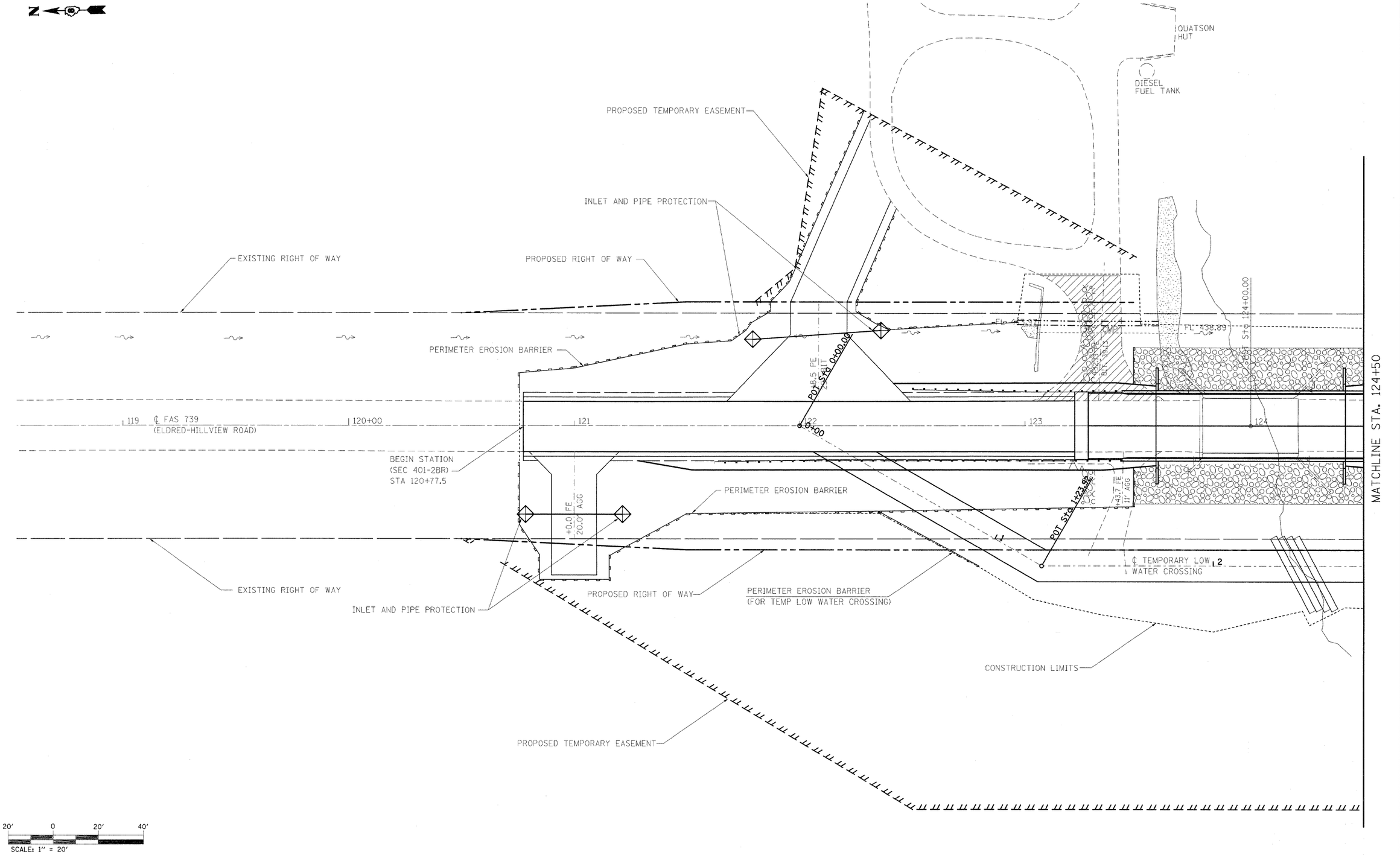
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LOW WATER CROSSING CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. 4+00.00 | TO STA. 4+33.25

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	31
		CONTRACT NO. 76410		
	ILLINOIS	FED. AID PROJECT		



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	PLOT DATE = 4/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

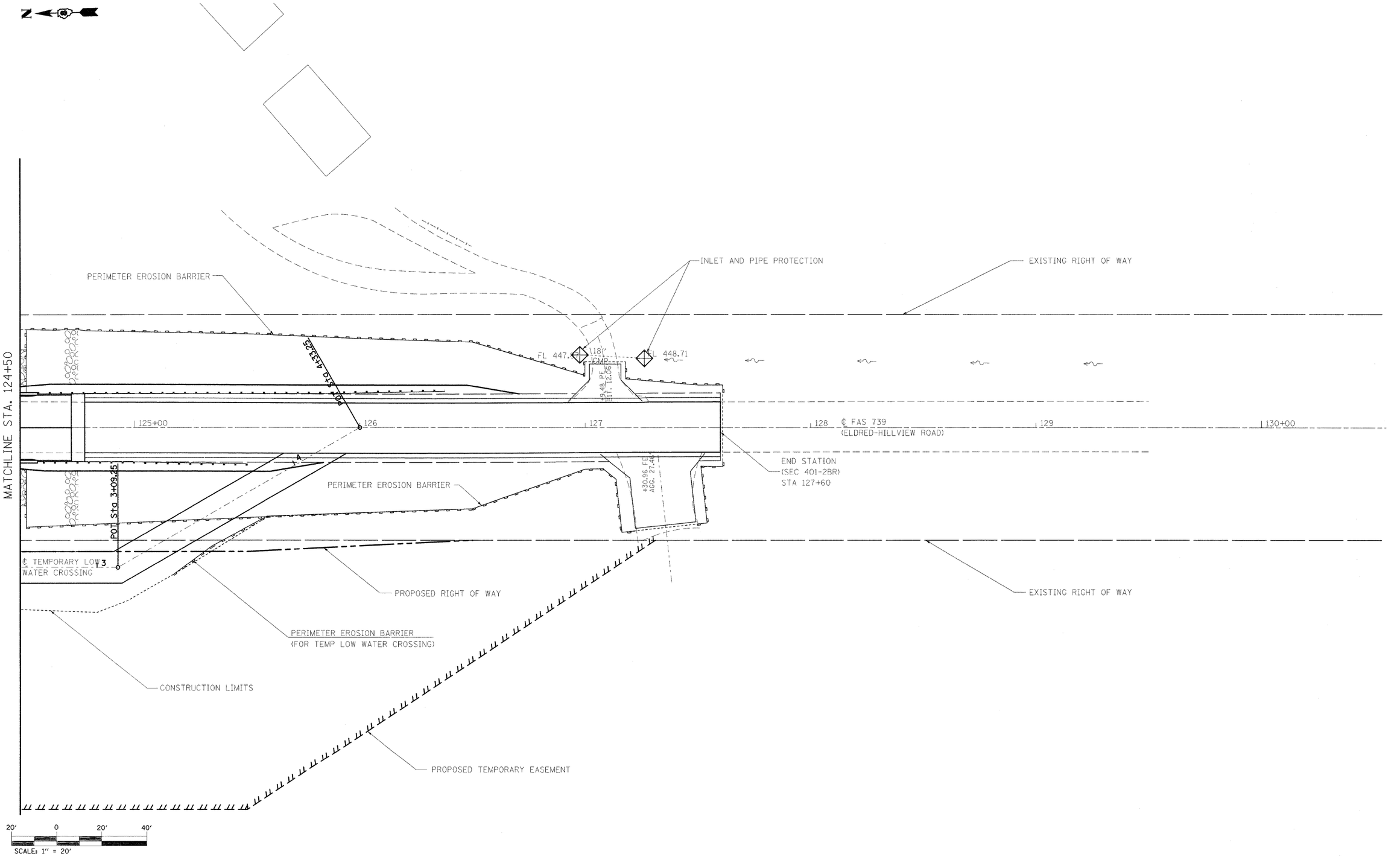
EROSION AND SEDIMENT CONTROL SHEETS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 118+50 TO STA. 124+50

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	32

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT



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	PLOT DATE = 4/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL SHEETS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 124+50 TO STA. 130+50

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	33

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT

0310041-76410-GPEL-01.DGN SEPT. 1, 2009

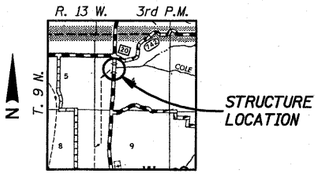
BENCHMARK: T.B.M. Nail Set (by IDOT)
℄ Existing Bridge Sta. 124+00
El. 452.638

EXISTING STRUCTURE S.N. 031-0013 was built in 1946 as FA Route 155, Section 401B. The existing structure consists of a concrete deck and steel stringers on closed concrete abutments measuring 42'-6" back to back of abutments and 28'-0" out to out of deck.

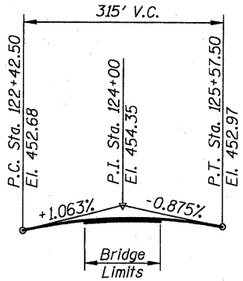
The existing structure is to be removed and replaced.

The road shall be closed to traffic.

SALVAGE: No Salvage



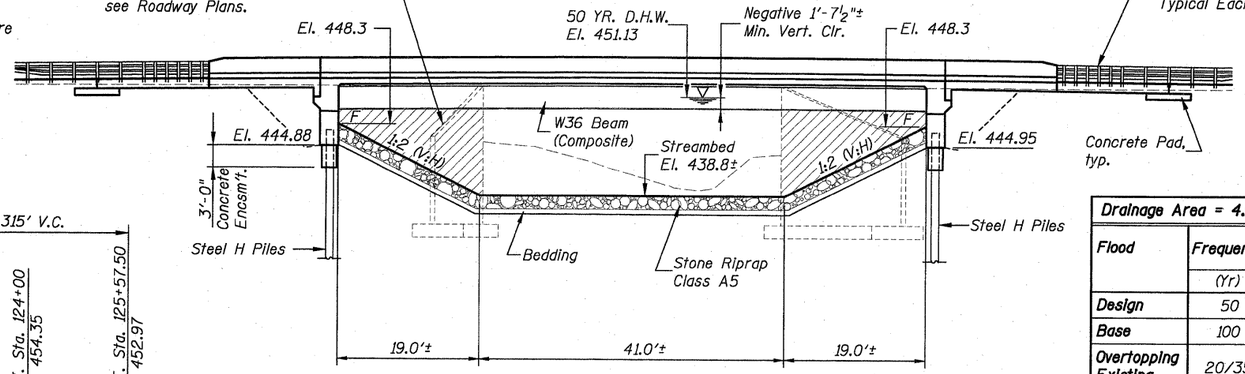
LOCATION SKETCH



PROFILE GRADE
along ℄ FAS 739

Hatched areas indicate excavation between existing abutments and the new abutments. For quantities of Pavement Removal and Excavation, see Roadway Plans.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION

DESIGN SCOUR ELEVATION TABLE

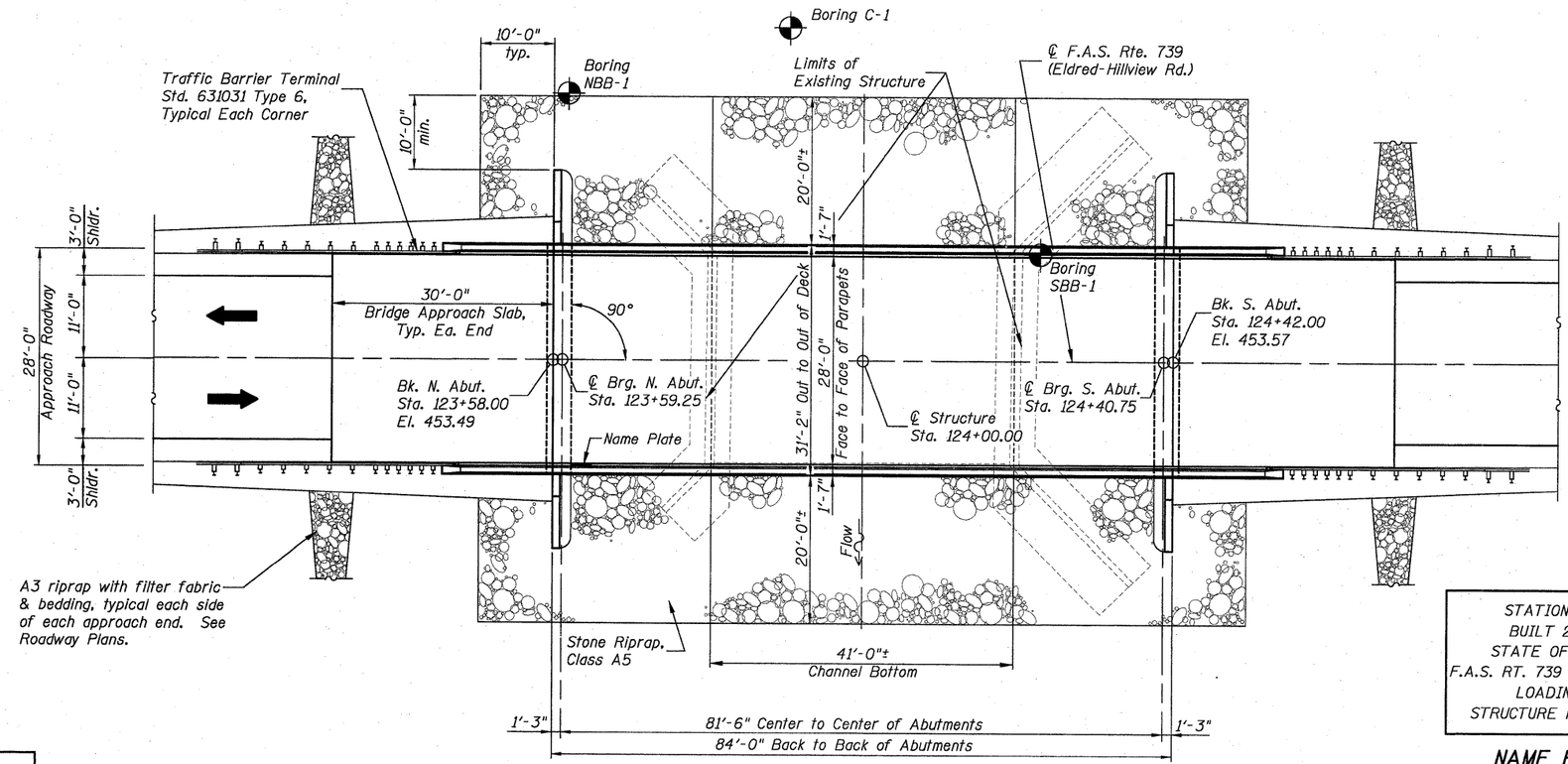
Design Scour Elevation (Feet)	N. Abut.	S. Abut.
	441.88	441.95

WATERWAY INFORMATION

Drainage Area = 4.09 Sq. Mi. — Low Grade El. 451.24 ● Sta. 118+90.80

Flood	Frequency	Q	Opening		Natural H.W.E.	Created Head		H.W.E.	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
	(Yr)	(CFS)	(Sq Ft)	(Sq Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)
Design	50	2,934	303	640	451.13	0.76	0.40	451.89	451.53
Base	100	3,422	303	640	451.63	0.54	0.36	452.17	451.99
Overtopping Existing	20/35	2,301/ 2,750	303	640	450.42/ 450.93	0.82	0.31	451.24	451.24
Scour	10	1,823	303	640	449.76	0.67	0.25	450.43	450.01

INDEX OF SHEETS



PLAN ◄ N

STATION 124+00
BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RT. 739 SEC. 401-2BR
LOADING HL93
STRUCTURE NO. 031-0041

NAME PLATE
See Std. 515001

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications w/2008 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270, Grade 50)
fy = 36,000 psi (M270, Grade 36)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.160g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.294g
Soil Site Class = D

GENERAL PLAN & ELEVATION
ELDRED-HILLVIEW ROAD
OVER COLE CREEK
STATION 124+00

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Bradley G. Hummert
Licensed Structural Engineer
In Carlyle, Illinois
No. 081-005428, Expires 11/30/2010

Date: 12/1/09

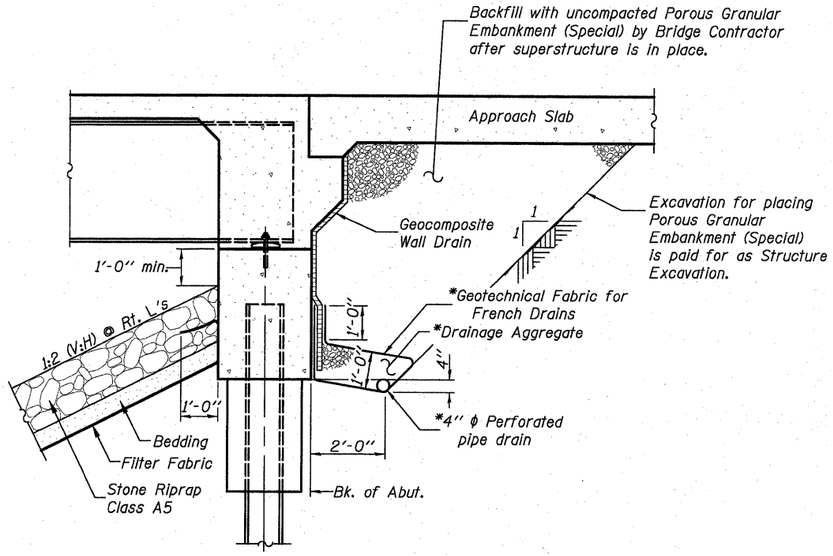
BRADLEY G. HUMMERT 081-005428 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS CARLYLE

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson (TJD)
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	34
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.151

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

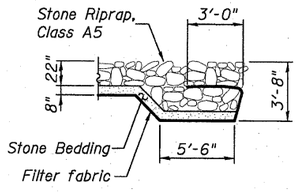


SECTION THRU INTEGRAL ABUTMENT

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

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



STONE RIPRAP FLANK DETAIL

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Porous Granular Embankment (Special)	Cu. Yd.	———	130	130
	Stone Riprap, Class A5	Sq. Yd.	———	766	766
	Filter Fabric	Sq. Yd.	———	766	766
	Removal of Existing Structures No. 3	Each	———	———	1
	Structure Excavation	Cu. Yd.	———	219	219
	Concrete Structures	Cu. Yd.	———	56.2	56.2
	Concrete Superstructure	Cu. Yd.	204.8	———	204.8
	Bridge Deck Grooving	Sq. Yd.	422	———	422
	Concrete Encasement	Cu. Yd.	———	6.6	6.6
**	Protective Coat	Sq. Yd.	552	———	552
	Furnishing and Erecting Structural Steel	L. Sum	0.46	———	0.46
	Stud Shear Connectors	Each	846	———	846
***	Reinforcement Bars, Epoxy Coated	Pound	46,800	6,820	53,620
***	Bar Splicers	Each	56	———	56
	Furnishing Steel Piles HP 14x73	Foot	———	580	580
	Driving Piles	Foot	———	580	580
	Test Pile Steel HP 14x73	Each	———	2	2
	Name Plates	Each	1	———	1
	Anchor Bolts, 1"	Each	———	24	24
	Geocomposite Wall Drain	Sq. Yd.	———	63	63
	Pipe Underdrains for Structures 4"	Foot	———	140	140

** Quantity includes top of concrete surface of bridge deck and approach slabs end to end and the top and inside vertical faces of the parapets and curbs.

*** Reinforcement and Bar Splicer quantities for Bridge Approach Slabs and Footings are included in Superstructure quantities.

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 4,130 lbs. (M270, Grade 36) 85,100 lbs. (M270, Grade 50)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
7. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".
8. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
10. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
11. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
12. Slipforming of the parapets is not allowed.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

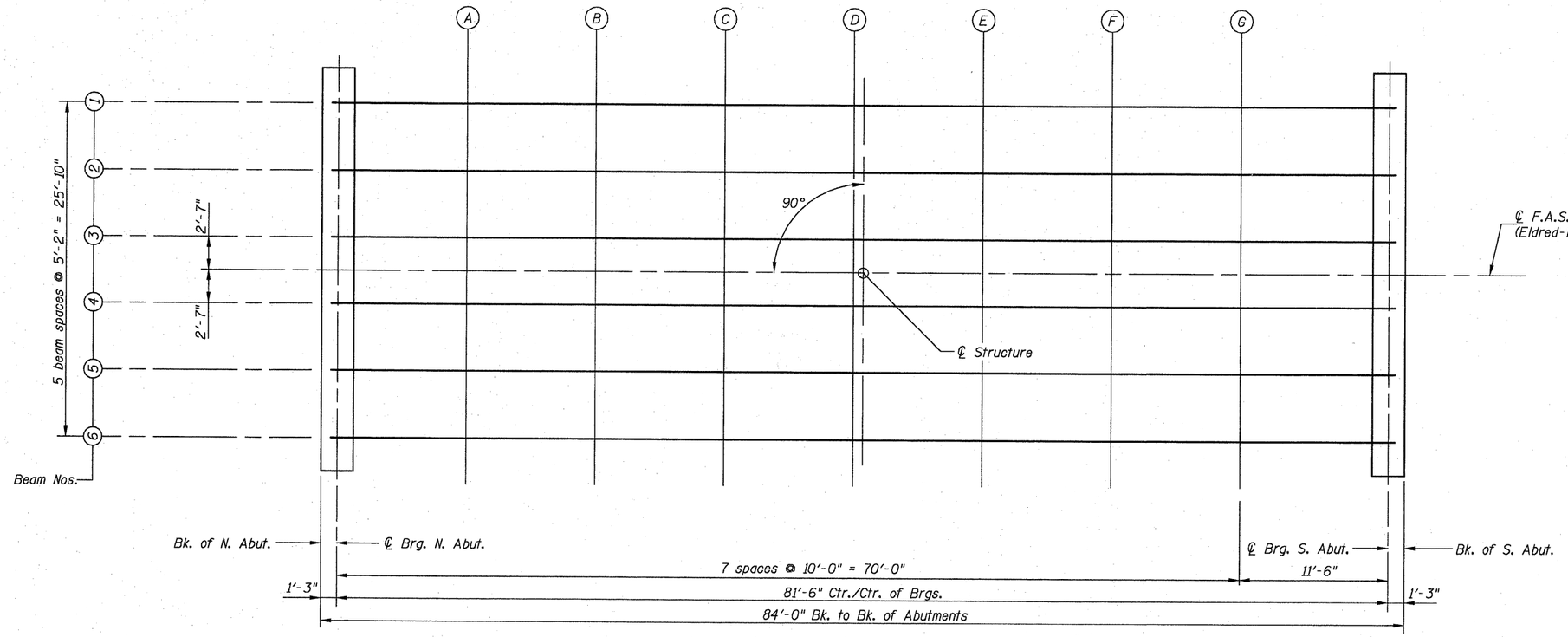
GENERAL DATA

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	35
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

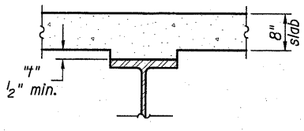
H.M. & G. NO. 6020.161

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

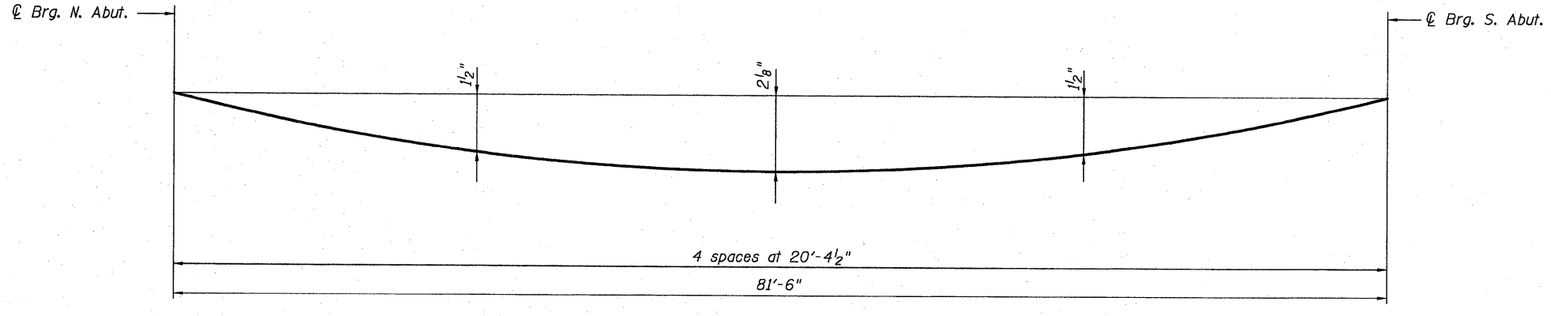


PLAN N



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 4 and 5 of 21, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 4 and 5 of 21 sheets.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

TOP OF SLAB ELEVATIONS

SHEET NO. 3	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	36
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.151

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM #1

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	123+58.00	-12.92	453.29	453.29
℄ Brg. N. Abut.	123+59.25	-12.92	453.29	453.29
A	123+69.25	-12.92	453.32	453.39
B	123+79.25	-12.92	453.35	453.47
C	123+89.25	-12.92	453.37	453.53
D	123+99.25	-12.92	453.38	453.55
E	124+09.25	-12.92	453.39	453.55
F	124+19.25	-12.92	453.39	453.52
G	124+29.25	-12.92	453.38	453.46
℄ Brg. S. Abut.	124+40.75	-12.92	453.37	453.37
Bk. S. Abut.	124+42.00	-12.92	453.37	453.37

BEAM #2

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	123+58.00	-7.75	453.37	453.37
℄ Brg. N. Abut.	123+59.25	-7.75	453.38	453.38
A	123+69.25	-7.75	453.41	453.47
B	123+79.25	-7.75	453.43	453.56
C	123+89.25	-7.75	453.45	453.61
D	123+99.25	-7.75	453.47	453.64
E	124+09.25	-7.75	453.47	453.64
F	124+19.25	-7.75	453.47	453.60
G	124+29.25	-7.75	453.47	453.54
℄ Brg. S. Abut.	124+40.75	-7.75	453.45	453.45
Bk. S. Abut.	124+42.00	-7.75	453.45	453.45

BEAM #3

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	123+58.00	-2.58	453.45	453.45
℄ Brg. N. Abut.	123+59.25	-2.58	453.46	453.46
A	123+69.25	-2.58	453.49	453.55
B	123+79.25	-2.58	453.51	453.64
C	123+89.25	-2.58	453.53	453.69
D	123+99.25	-2.58	453.55	453.72
E	124+09.25	-2.58	453.55	453.72
F	124+19.25	-2.58	453.55	453.68
G	124+29.25	-2.58	453.55	453.62
℄ Brg. S. Abut.	124+40.75	-2.58	453.53	453.53
Bk. S. Abut.	124+42.00	-2.58	453.53	453.53

℄ ROADWAY AND PROFILE GRADE

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	123+58.00	0.00	453.49	453.49
℄ Brg. N. Abut.	123+59.25	0.00	453.50	453.50
A	123+69.25	0.00	453.53	453.60
B	123+79.25	0.00	453.55	453.68
C	123+89.25	0.00	453.57	453.73
D	123+99.25	0.00	453.59	453.76
E	124+09.25	0.00	453.59	453.76
F	124+19.25	0.00	453.59	453.72
G	124+29.25	0.00	453.59	453.66
℄ Brg. S. Abut.	124+40.75	0.00	453.57	453.57
Bk. S. Abut.	124+42.00	0.00	453.57	453.57

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 3 of 21 for elevation locations.

TOP OF SLAB ELEVATIONS

SHEET NO. 4	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	37
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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BEAM #4

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	123+58.00	2.58	453.45	453.45
℄ Brg. N. Abut.	123+59.25	2.58	453.46	453.46
A	123+69.25	2.58	453.49	453.55
B	123+79.25	2.58	453.51	453.64
C	123+89.25	2.58	453.53	453.69
D	123+99.25	2.58	453.55	453.72
E	124+09.25	2.58	453.55	453.72
F	124+19.25	2.58	453.55	453.68
G	124+29.25	2.58	453.55	453.62
℄ Brg. S. Abut.	124+40.75	2.58	453.53	453.53
Bk. S. Abut.	124+42.00	2.58	453.53	453.53

BEAM #5

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	123+58.00	7.75	453.37	453.37
℄ Brg. N. Abut.	123+59.25	7.75	453.38	453.38
A	123+69.25	7.75	453.41	453.47
B	123+79.25	7.75	453.43	453.56
C	123+89.25	7.75	453.45	453.61
D	123+99.25	7.75	453.47	453.64
E	124+09.25	7.75	453.47	453.64
F	124+19.25	7.75	453.47	453.60
G	124+29.25	7.75	453.47	453.54
℄ Brg. S. Abut.	124+40.75	7.75	453.45	453.45
Bk. S. Abut.	124+42.00	7.75	453.45	453.45

BEAM #6

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	123+58.00	12.92	453.29	453.29
℄ Brg. N. Abut.	123+59.25	12.92	453.29	453.29
A	123+69.25	12.92	453.32	453.39
B	123+79.25	12.92	453.35	453.47
C	123+89.25	12.92	453.37	453.53
D	123+99.25	12.92	453.38	453.55
E	124+09.25	12.92	453.39	453.55
F	124+19.25	12.92	453.39	453.52
G	124+29.25	12.92	453.38	453.46
℄ Brg. S. Abut.	124+40.75	12.92	453.37	453.37
Bk. S. Abut.	124+42.00	12.92	453.37	453.37

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 3 of 21 for elevation locations.

TOP OF SLAB ELEVATIONS

SHEET NO. 5	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	38
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
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WEST CURB LINE

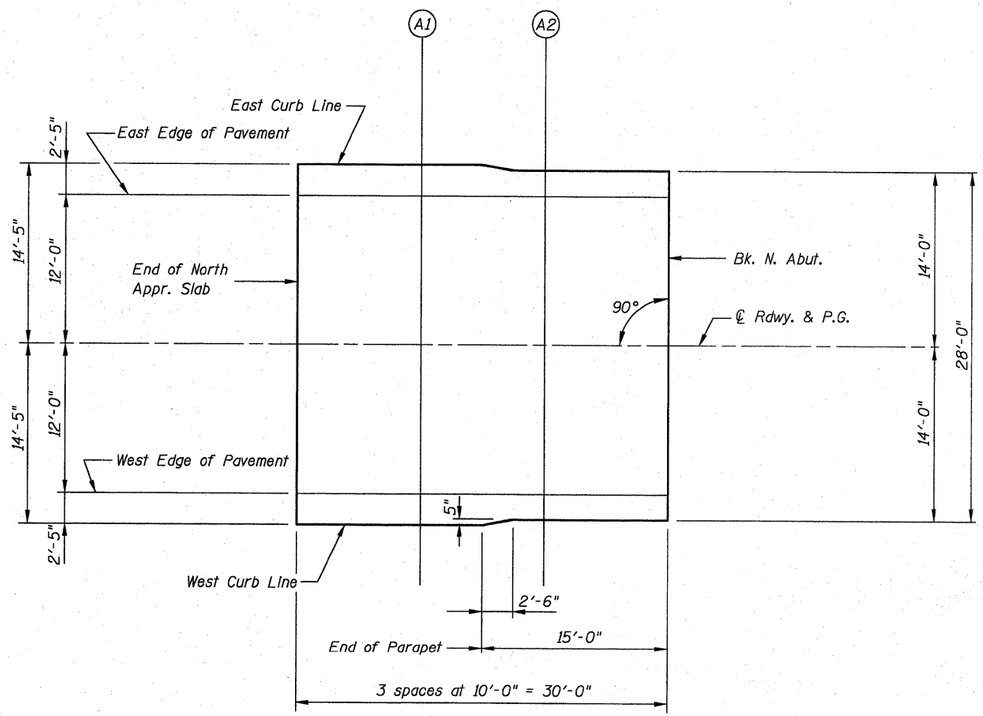
Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	123+28.00	-14.42	453.12
A1	123+38.00	-14.42	453.17
A2	123+48.00	-14.00	453.23
Bk. N. Abut.	123+58.00	-14.00	453.26

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	123+28.00	-12.00	453.17
A1	123+38.00	-12.00	453.22
A2	123+48.00	-12.00	453.27
Bk. N. Abut.	123+58.00	-12.00	453.31

℄ ROADWAY AND PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	123+28.00	0.00	453.36
A1	123+38.00	0.00	453.41
A2	123+48.00	0.00	453.46
Bk. N. Abut.	123+58.00	0.00	453.49



EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	123+28.00	12.00	453.17
A1	123+38.00	12.00	453.22
A2	123+48.00	12.00	453.27
Bk. N. Abut.	123+58.00	12.00	453.31

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	123+28.00	14.42	453.12
A1	123+38.00	14.42	453.17
A2	123+48.00	14.00	453.23
Bk. N. Abut.	123+58.00	14.00	453.26

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

NORTH APPROACH PLAN ◄ N

TOP OF NORTH APPROACH SLAB ELEVATIONS

SHEET NO. 6	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	39
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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WEST CURB LINE

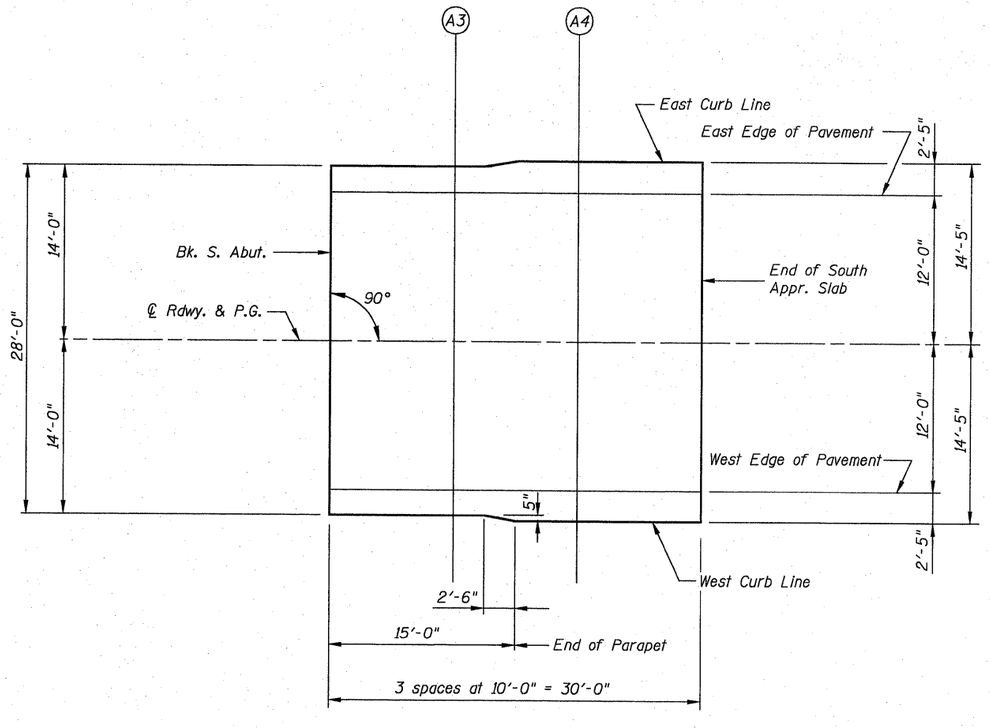
Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	124+42.00	-14.00	453.34
A3	124+52.00	-14.00	453.32
A4	124+62.00	-14.42	453.29
End S. Appr. Slab	124+72.00	-14.42	453.26

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	124+42.00	-12.00	453.38
A3	124+52.00	-12.00	453.37
A4	124+62.00	-12.00	453.34
End S. Appr. Slab	124+72.00	-12.00	453.31

℄ ROADWAY AND PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	124+42.00	0.00	453.57
A3	124+52.00	0.00	453.55
A4	124+62.00	0.00	453.53
End S. Appr. Slab	124+72.00	0.00	453.50



SOUTH APPROACH PLAN

N

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	124+42.00	12.00	453.38
A3	124+52.00	12.00	453.37
A4	124+62.00	12.00	453.34
End S. Appr. Slab	124+72.00	12.00	453.31

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	124+42.00	14.00	453.34
A3	124+52.00	14.00	453.32
A4	124+62.00	14.42	453.29
End S. Appr. Slab	124+72.00	14.42	453.26

TOP OF SOUTH APPROACH SLAB ELEVATIONS

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SHEET NO. 7	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	40
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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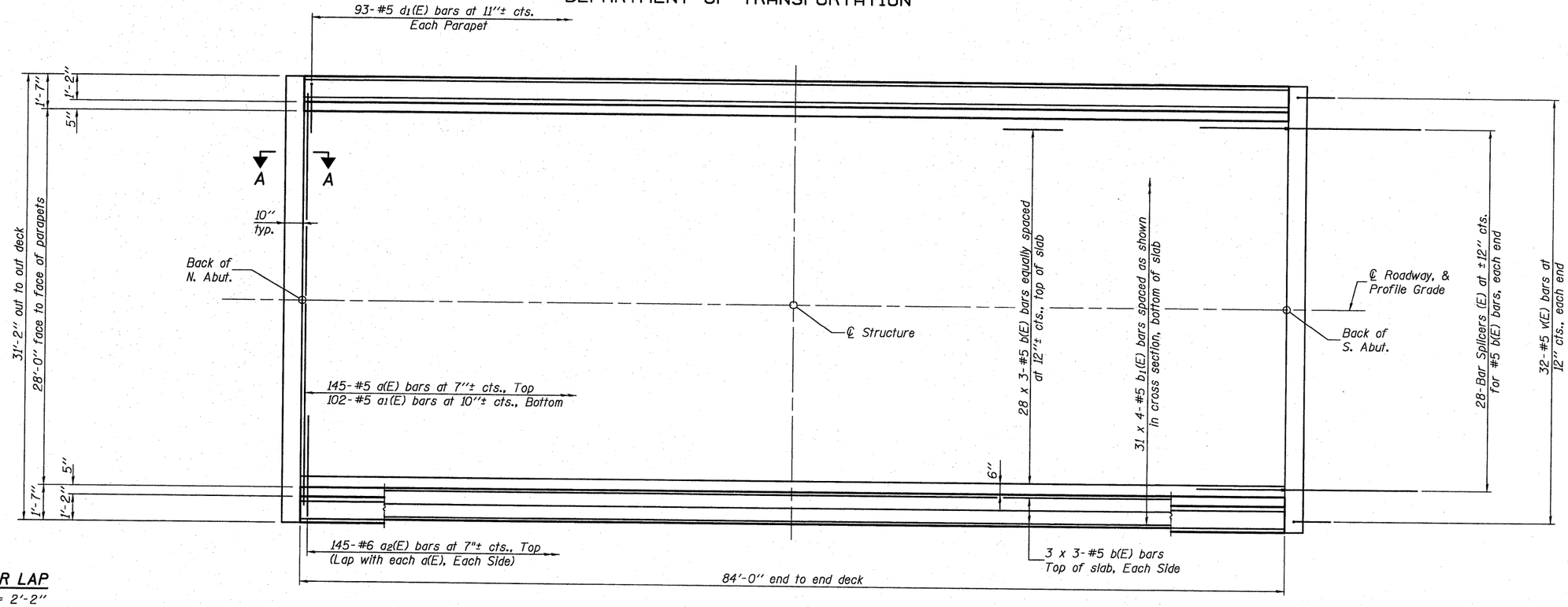
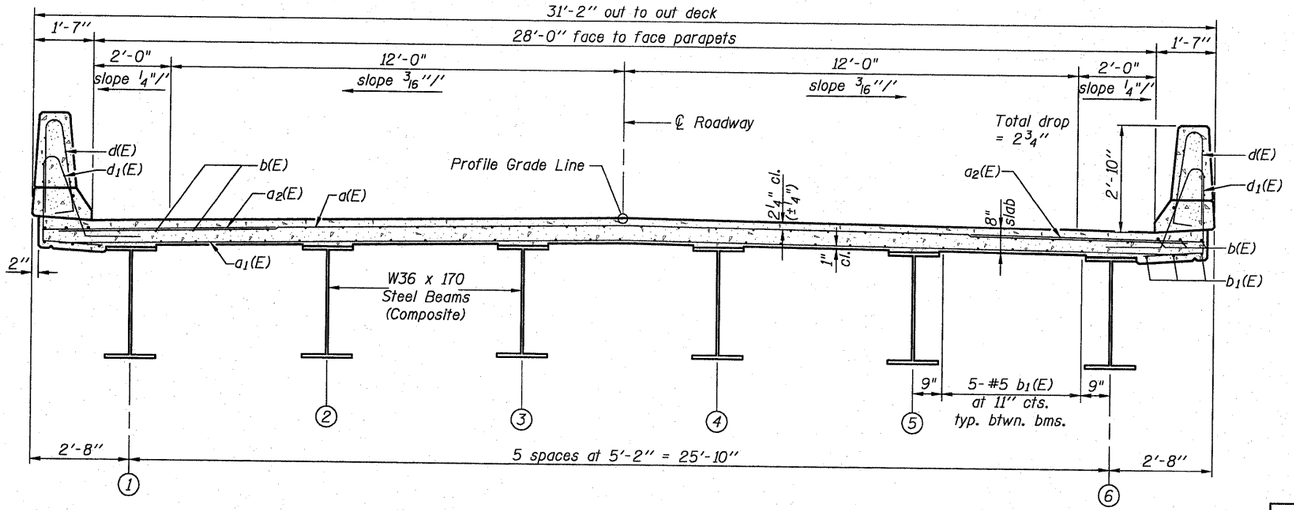


MIN. BAR LAP
#5 bar = 2'-2"

PLAN N



CROSS SECTION
(Looking South)

Notes:
See Sheet 9 of 21 for superstructure details and Bill of Material.
Bars indicated thus 28 x 3-#5 etc. indicates 28 lines of bars with 3 lengths per line.
See Sheet 9 of 21 for parapet reinforcement.
See Section A-A shown on sheet 10 of 21.
For Bar Splicer details see sheet 17 of 21.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SI-1-0 10-1-08

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SUPERSTRUCTURE

SHEET NO. 8	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	41
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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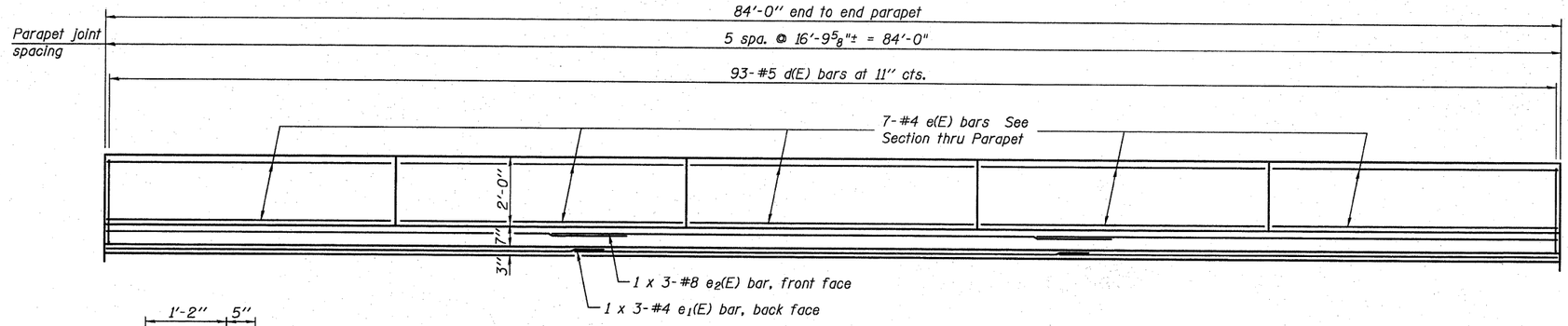
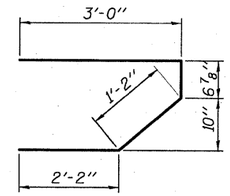
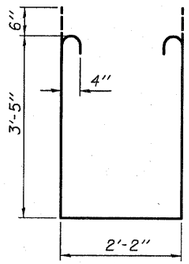


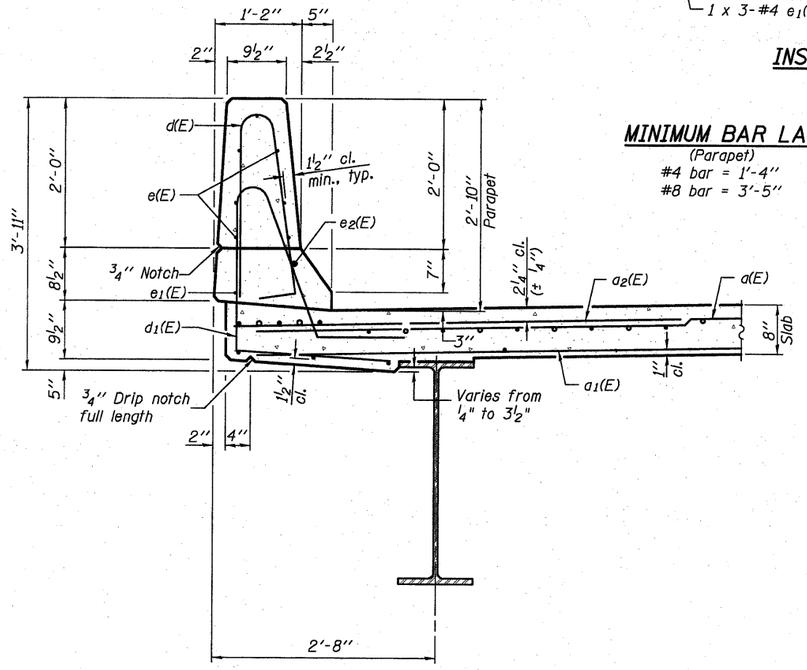


BAR s(E)



BAR s1(E)

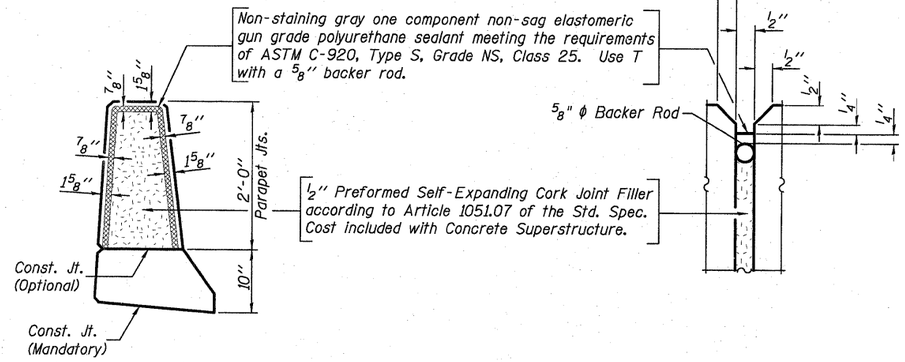
INSIDE ELEVATION OF PARAPET



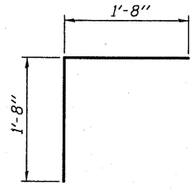
SECTION THRU PARAPET

MINIMUM BAR LAP

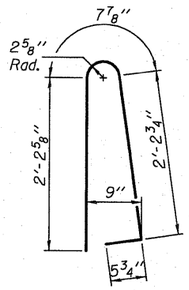
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



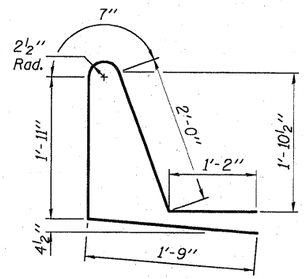
PARAPET JOINT DETAILS



BAR v(E)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	145	#5	30'-6"	
d1(E)	102	#5	29'-9"	
a2(E)	290	#6	6'-0"	
b(E)	102	#5	29'-5"	
b1(E)	124	#5	22'-7"	
d(E)	186	#5	5'-7"	
d1(E)	186	#5	7'-5"	
e(E)	70	#4	16'-6"	
e1(E)	6	#4	28'-11"	
e2(E)	6	#8	30'-2"	
m(E)	4	#6	30'-10"	
m1(E)	6	#6	30'-10"	
m2(E)	24	#6	7'-4"	
m3(E)	10	#6	4'-10"	
m4(E)	4	#6	2'-4"	
s(E)	72	#5	6'-11"	
s1(E)	62	#4	10'-0"	
v(E)	64	#5	3'-4"	
Reinforcement Bars, Epoxy Coated		Pound	22,310	
Concrete Superstructure		Cu. Yds.	111.1	

Bars indicated thus 1 x 3-#4 etc. indicates 1 line of bars with 3 lengths per line.

SUPERSTRUCTURE DETAILS

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

S-I-D 10-1-08

SHEET NO. 9	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	42
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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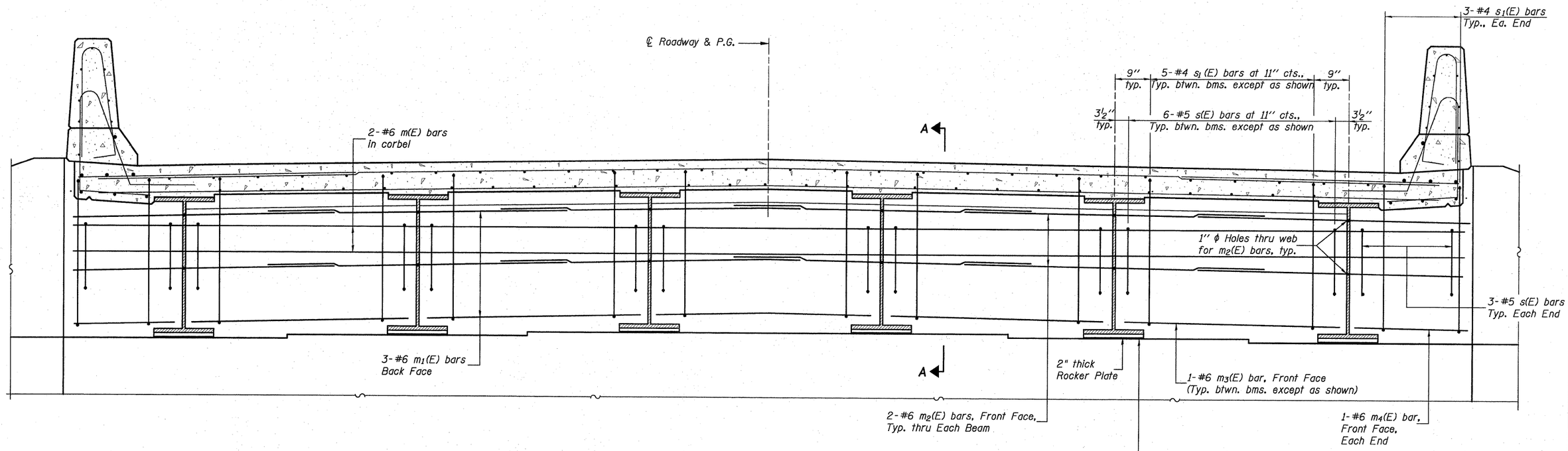
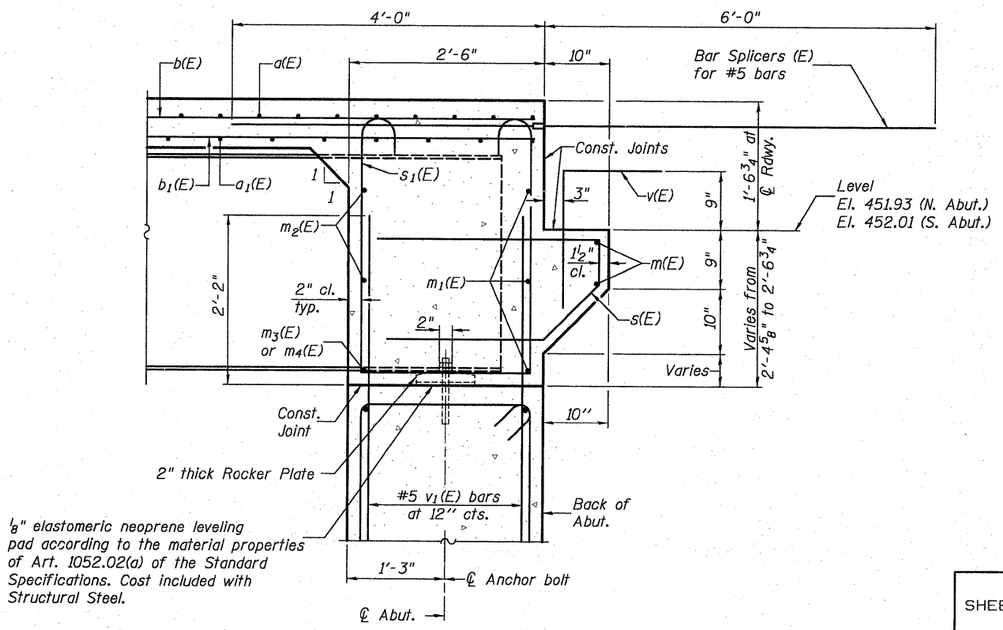


DIAPHRAGM ELEVATION AT SOUTH ABUTMENT

(Looking South)



SECTION A-A

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 9 of 21.
Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 21.
For details of bars s(E) & s_1(E) see sheet 9 of 21.
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.

MIN. BAR LAP

#6 bar = 2'-9"

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

INTEGRAL ABUTMENT DIAPHRAGM DETAILS

SHEET NO. 10	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	43
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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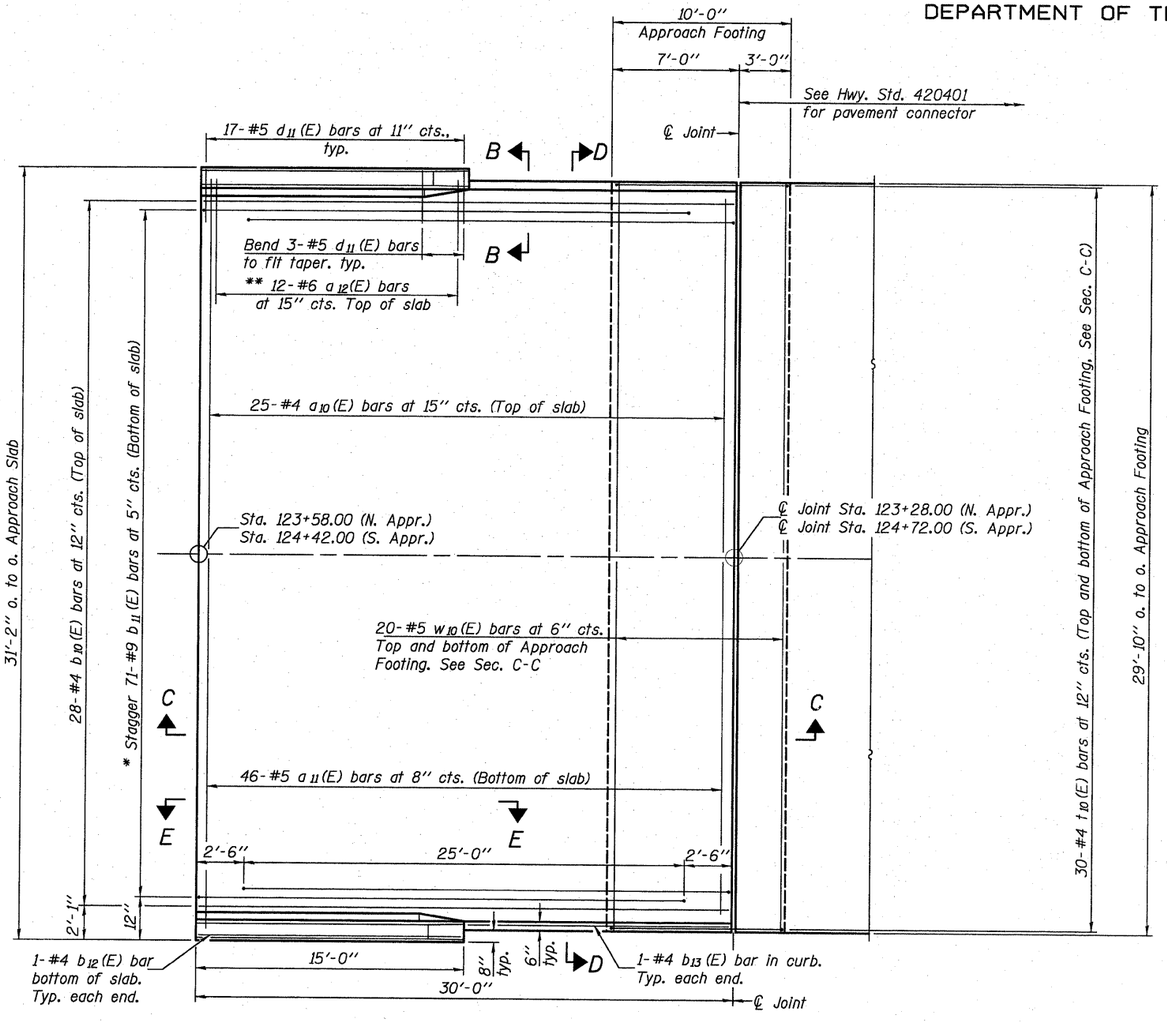
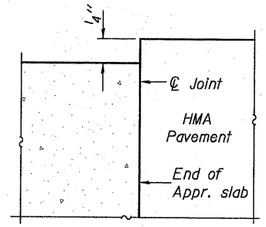
Notes:
See sheet 12 of 21 for Sections C-C & D-D and View E-E.
a_{10}(E), a_{11}(E), and w_{10}(E) bar spacings measured parallel to ℄ Rdwy.

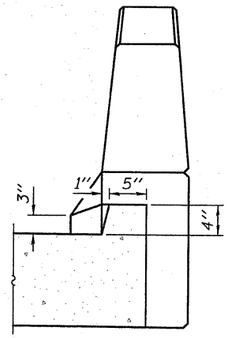


PLAN ◄ N
(South Approach shown. North Approach similar)

* Tilt #9 b_{11}(E) bars as required to maintain clearance.
** Alternate with a_{10}(E) bars, typ. ea. parapet.



DETAIL A



VIEW B-B
(Exit ends only)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

BA-0 10-31-08

(Sheet 1 of 2)
BRIDGE APPROACH SLAB DETAILS

SHEET NO. 11 / 21 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	739	401-2BR	GREENE	150	44
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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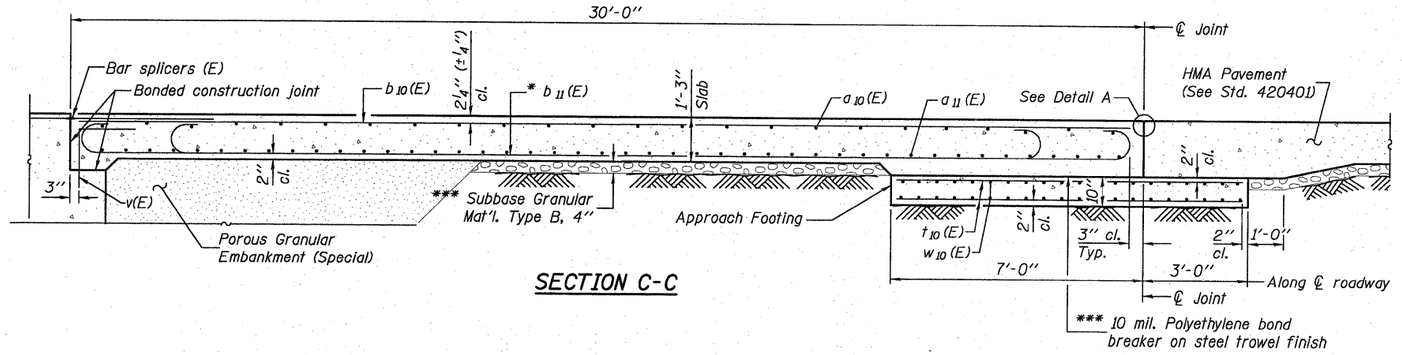
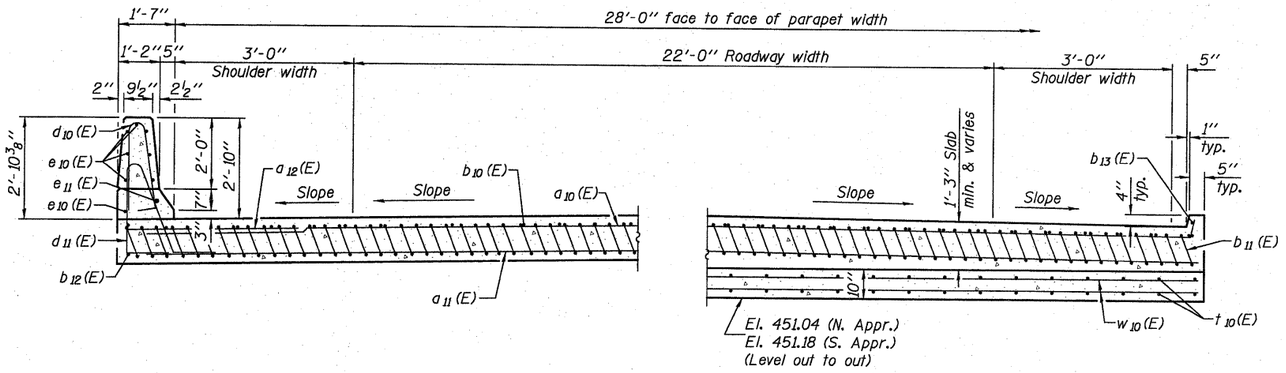


SECTION C-C

Notes:
See sheet 11 of 21 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 9 of 21.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 17 of 21.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 21.

* Tilt #9 b 11 (E) bars as required to maintain clearance.

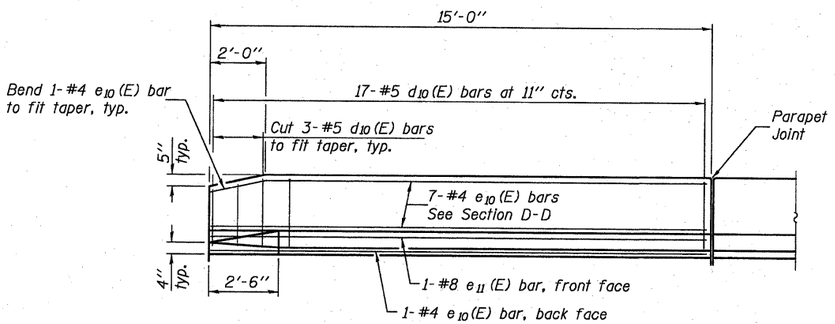
*** Cost included with Concrete Superstructure.



NEAR ABUTMENT

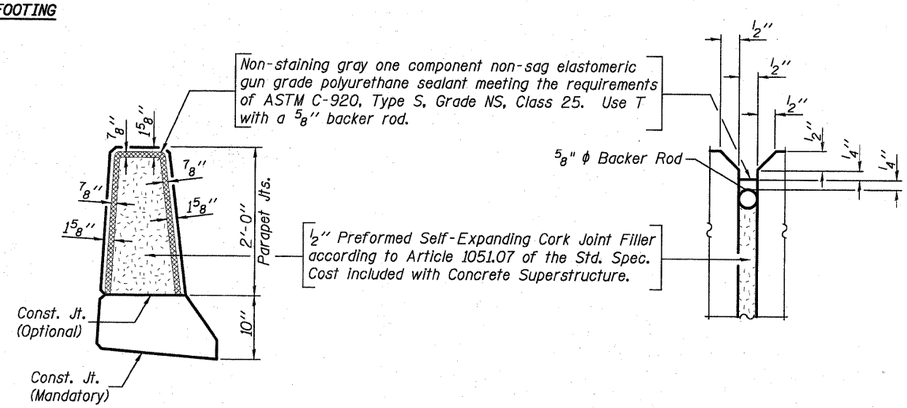
SECTION D-D

(See Plan for dimensions not shown)

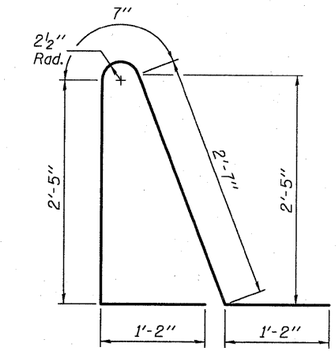


VIEW E-E

AT APPROACH FOOTING



PARAPET JOINT DETAILS

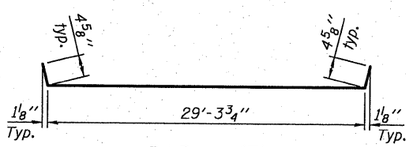


BAR d 10 (E)

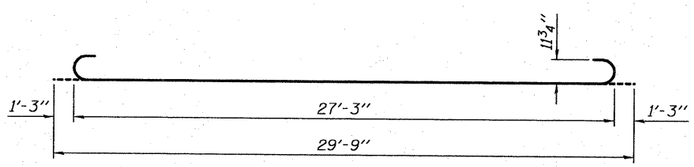
BAR d 11 (E)

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a 10 (E)	50	#4	30'-1"	
a 11 (E)	92	#5	29'-6"	
a 12 (E)	48	#6	6'-0"	
b 10 (E)	56	#4	29'-8"	
b 11 (E)	142	#9	29'-9"	
b 12 (E)	4	#4	14'-8"	
b 13 (E)	4	#4	14'-8"	
d 10 (E)	68	#5	5'-7"	
d 11 (E)	68	#5	7'-11"	
e 10 (E)	32	#4	14'-8"	
e 11 (E)	4	#8	14'-8"	
t 10 (E)	120	#4	9'-8"	
w 10 (E)	80	#5	29'-6"	
Concrete Superstructure			Cu. Yd.	93.7
Concrete Structures			Cu. Yd.	18.4
Reinforcement Bars, Epoxy Coated			Pound	24,490



BAR a 10 (E)



BAR b 11 (E)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

BA-0 10-31-08

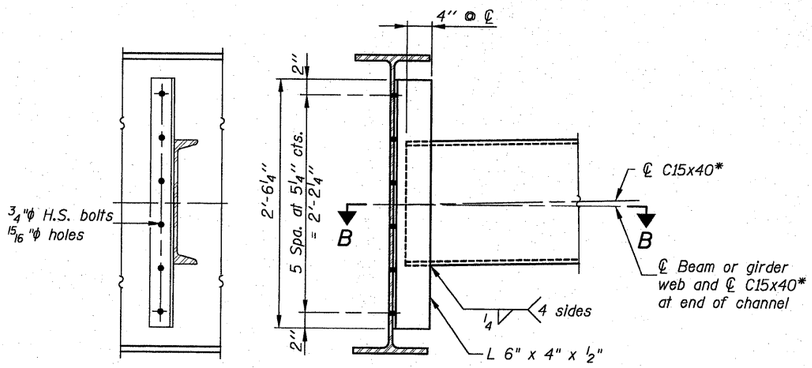
(Sheet 2 of 2)

BRIDGE APPROACH SLAB DETAILS

SHEET NO. 12	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	45
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

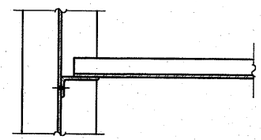
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



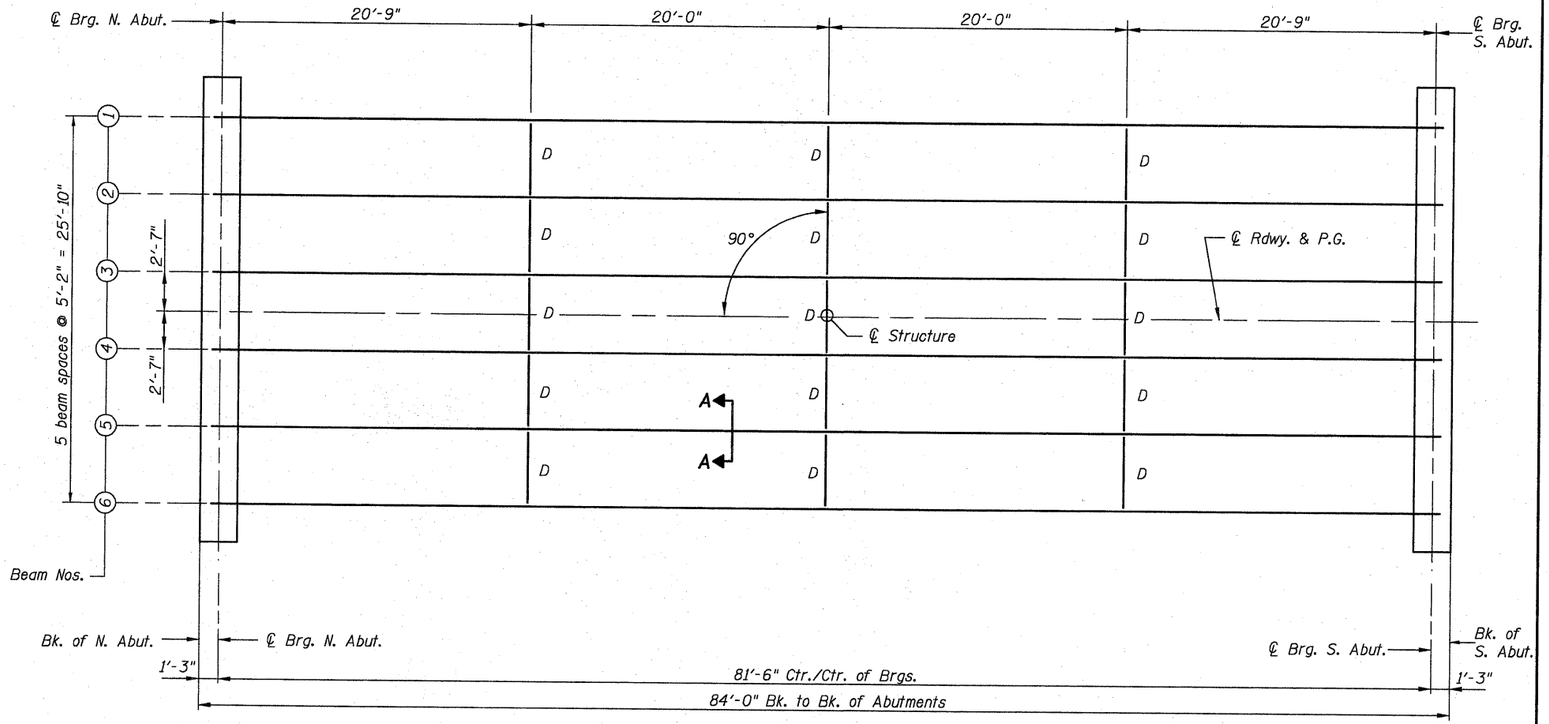
DIAPHRAGM D

(15 Required)

* Alternate channel C15x50 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.



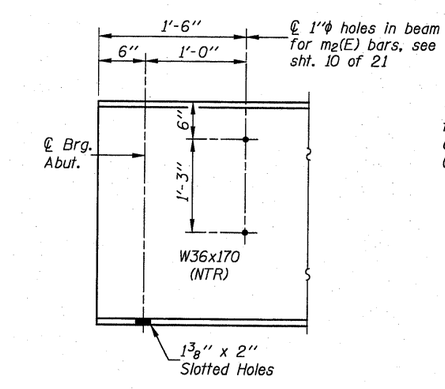
SECTION B-B



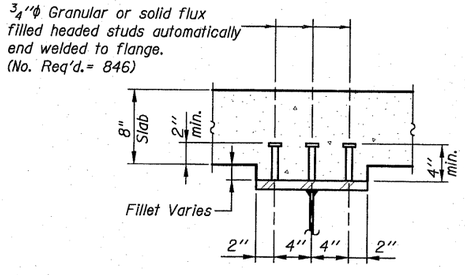
FRAMING PLAN

N

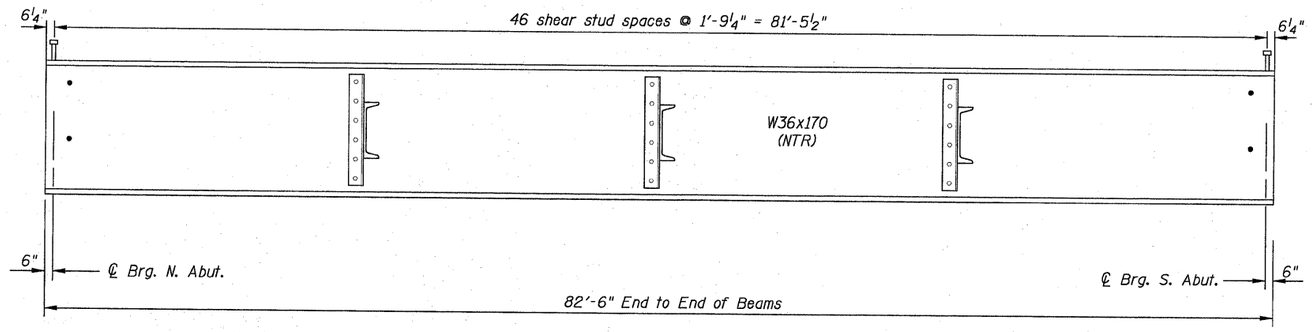
All Beams are W36x170 (NTR) and AASHTO M270, Gr. 50.



TYP. END OF BEAM ELEVATION



SECTION A-A



BEAM ELEVATION

Notes:

Two hardened washers required for each set of oversized holes.

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

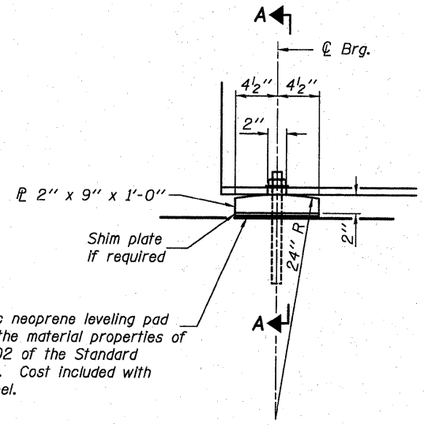
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

STRUCTURAL STEEL

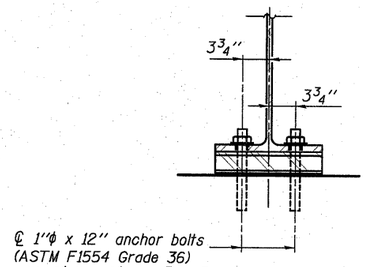
SHEET NO. 13	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	46
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENT



SECTION A-A

FIXED BEARING

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

Beam No.	℄ Brg. N. Abut.	℄ Brg. S. Abut.
1	452.573	452.649
2	452.658	452.734
3	452.739	452.815
4	452.739	452.815
5	452.658	452.734
6	452.573	452.649

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

All bearing plates shall conform to the requirements of AASHTO M 270, Grade 50.

INTERIOR GIRDER MOMENT TABLE		
		0.5 Span
I_s	(in^4)	10,500
$I_c(n)$	(in^4)	23,611
$I_c(3n)$	(in^4)	17,163
S_s	(in^3)	580
$S_c(n)$	(in^3)	796
$S_c(3n)$	(in^3)	714
DC1	(k/')	0.73
M_{DC1}	('k)	609
DC2	(k/')	0.15
M_{DC2}	('k)	125
DW	(k/')	0.23
M_{DW}	('k)	194
M_{L+IM}	('k)	1,019
M_u (Strength I)	('k)	2,992
$\phi_f M_n$	('k)	3,899
f_s DC1	(ksi)	12.6
f_s DC2	(ksi)	2.1
f_s DW	(ksi)	3.3
f_s 1.3(L+IM)	(ksi)	20.0
f_s (Service II)	(ksi)	37.9
f_s (Total)(Strength I)	(ksi)	
V_f	(k)	22.7

INTERIOR GIRDER REACTION TABLE HL93 Loading		
		Abutment
R_{DC1}	(k)	29.9
R_{DC2}	(k)	6.1
R_{DW}	(k)	9.5
R_{L+IM}	(k)	67.5
R_{Total}	(k)	113.0

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

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

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

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

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

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

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

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

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

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

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

V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	24

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

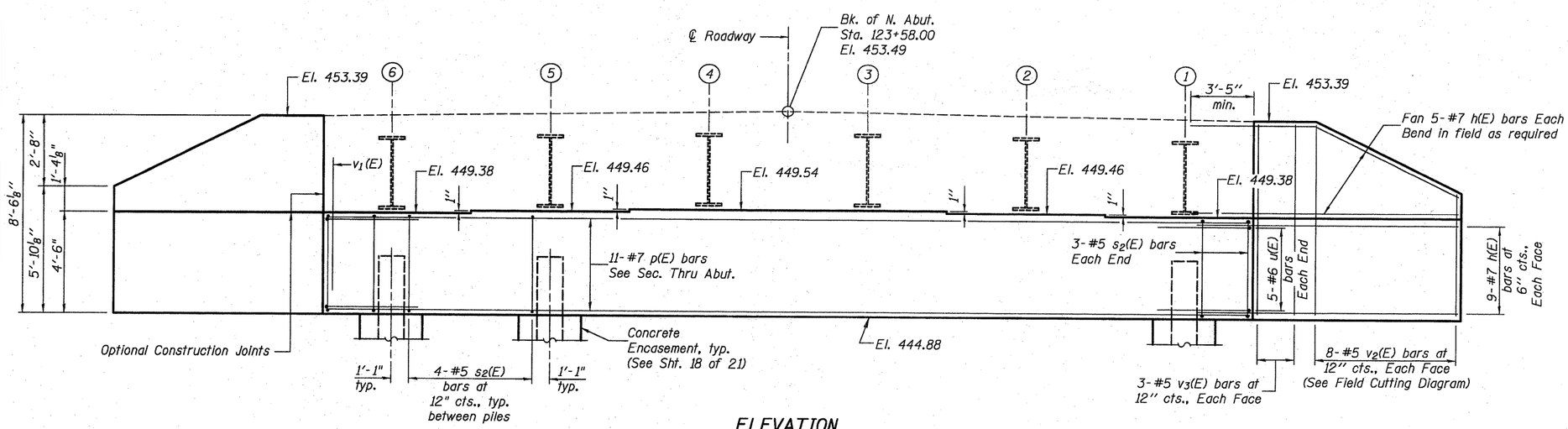
STEEL DETAILS

SHEET NO. 14	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	47
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

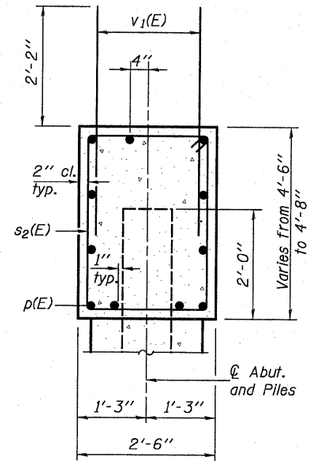
H.M. & G. NO. 6020.161

Notes:
Pour steps monolithically with cap.

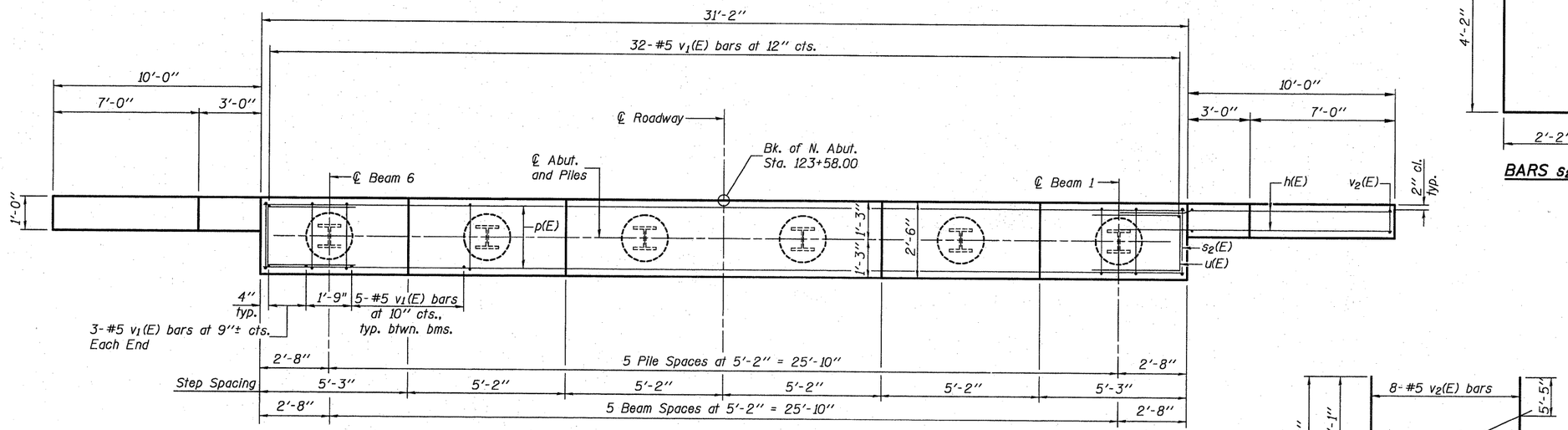
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



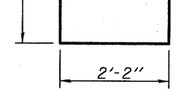
ELEVATION
(Looking North)



SEC. THRU ABUT.



PLAN

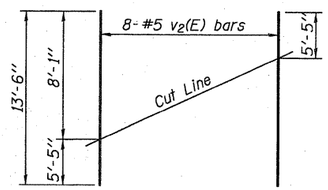


BARS s2(E)

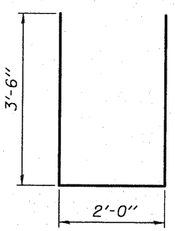
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#7	14'-0"	
p(E)	11	#7	30'-10"	
s2(E)	26	#5	13'-7"	
u(E)	10	#6	9'-0"	
v1(E)	62	#5	4'-4"	
v2(E)	16	#5	13'-6"	
v3(E)	12	#5	8'-1"	
Structure Excavation		Cu. Yd.		110
Concrete Structures		Cu. Yd.		18.9
Reinforcement Bars, Epoxy Coated		Pound		3,410
Furnishing Steel Piles HP 14x73		Foot		300
Driving Piles		Foot		300
Test Pile Steel HP 14x73		Each		1
Concrete Encasement		Cu. Yd.		3.3

For details of piles and Concrete Encasement, see sht. 18 of 21.



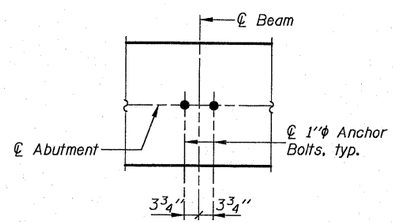
FIELD CUTTING DIAGRAM
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR u(E)

PILE DATA

Type:	HP 14x73
Nominal Required Bearing:	420 kips
Factored Resistance Available:	210 kips
Est. Length:	60 feet
No. Production Piles:	5
No. Test Piles:	1



ANCHOR BOLT LAYOUT

NORTH ABUTMENT

SHEET NO. 15	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	48
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

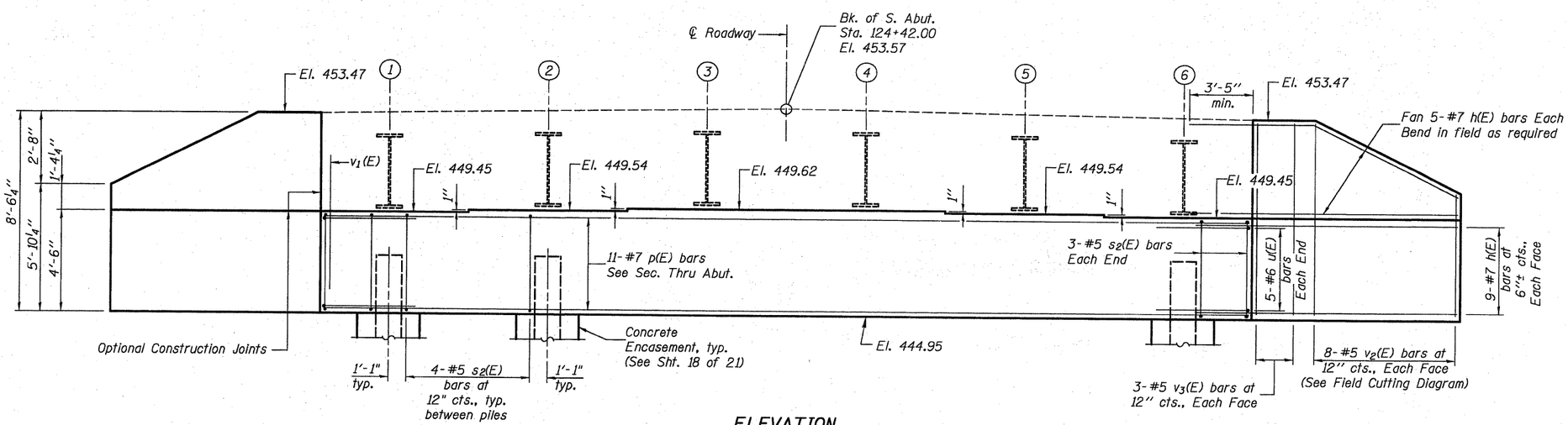
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

AI-0 10-1-08

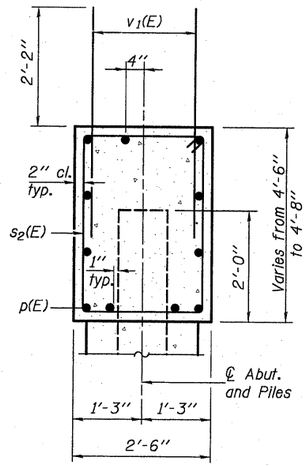
H.M. & G. NO. 6220.161

Notes:
Pour steps monolithically with cap.

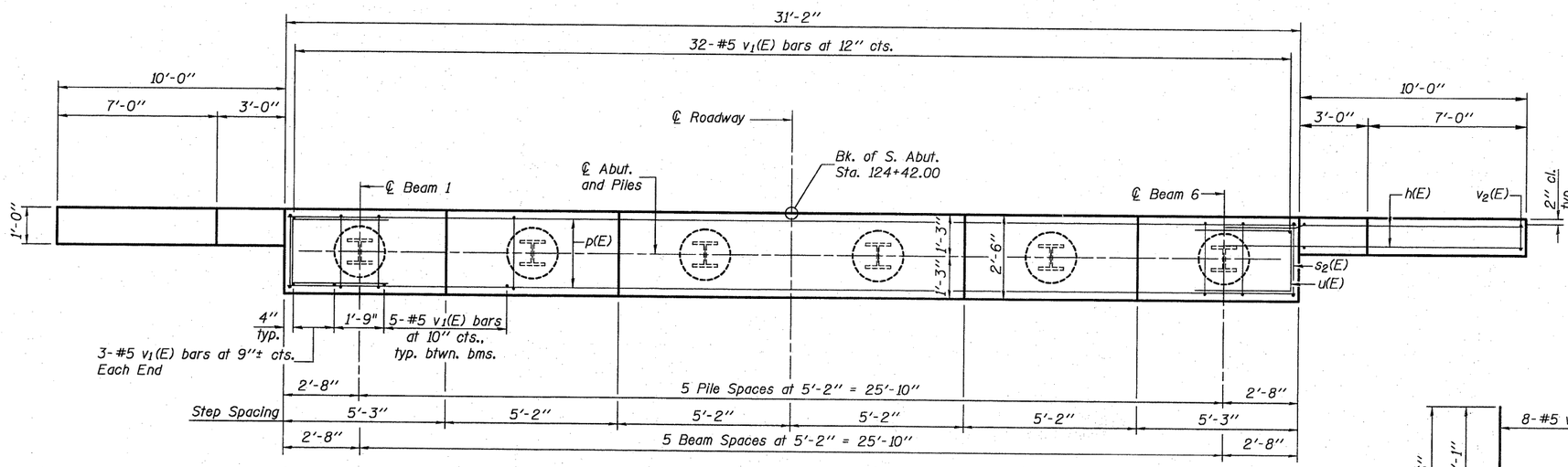
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



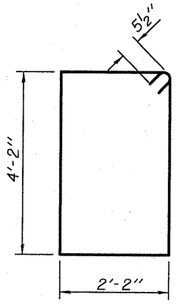
ELEVATION
(Looking South)



SEC. THRU ABUT.



PLAN

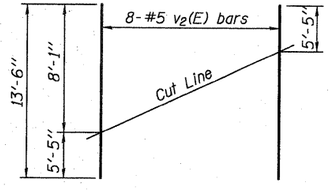


BARS s2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#7	14'-0"	
p(E)	11	#7	30'-10"	
s2(E)	26	#5	13'-7"	
u(E)	10	#6	9'-0"	
v1(E)	62	#5	4'-4"	
v2(E)	16	#5	13'-6"	
v3(E)	12	#5	8'-1"	
Structure Excavation			Cu. Yd.	109
Concrete Structures			Cu. Yd.	18.9
Reinforcement Bars, Epoxy Coated			Pound	3,410
Furnishing Steel Piles HP 14x73			Foot	280
Driving Piles			Foot	280
Test Pile Steel HP 14x73			Each	1
Concrete Encasement			Cu. Yd.	3.3

For details of piles and Concrete Encasement, see sht. 18 of 21.

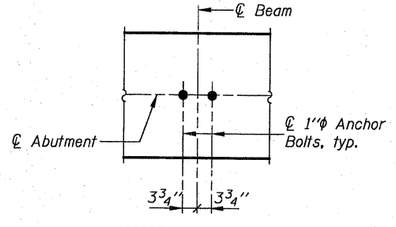


FIELD CUTTING DIAGRAM

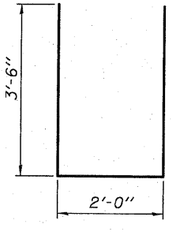
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.

PILE DATA

Type:	HP 14x73
Nominal Required Bearing:	420 kips
Factored Resistance Available:	210 kips
Est. Length:	56 feet
No. Production Piles:	5
No. Test Piles:	1



ANCHOR BOLT LAYOUT



BAR u(E)

SOUTH ABUTMENT

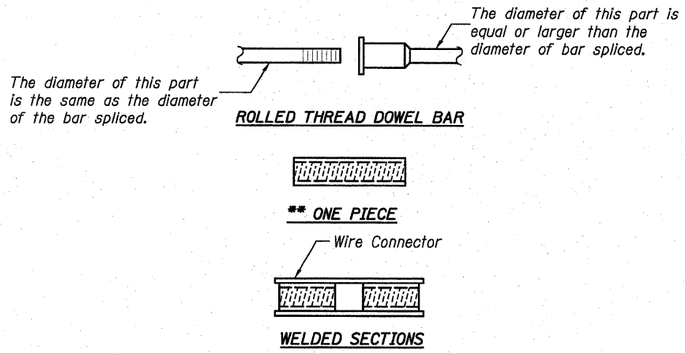
SHEET NO. 16	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	49
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

AI-0 10-1-08

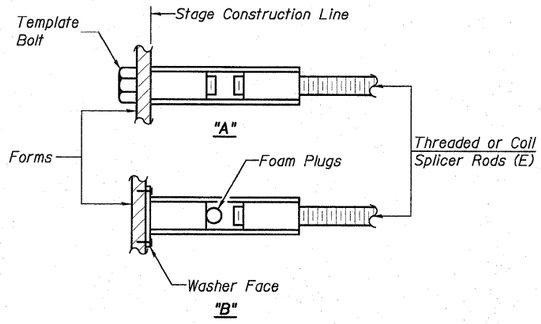
H.M. & G. NO. 6020.161

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:

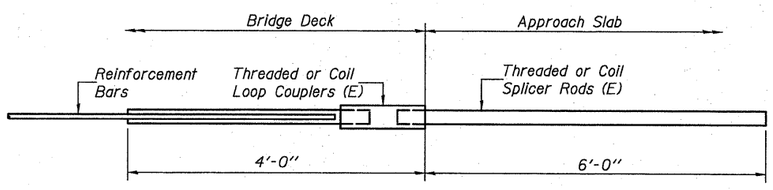
① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

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

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

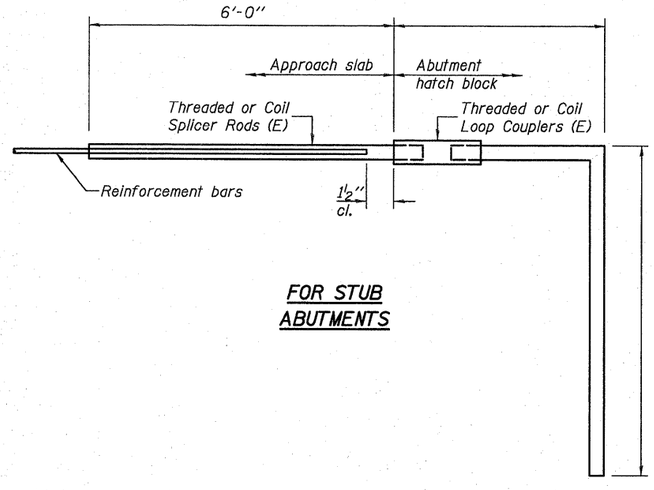
BAR SPLICER ASSEMBLIES

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	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



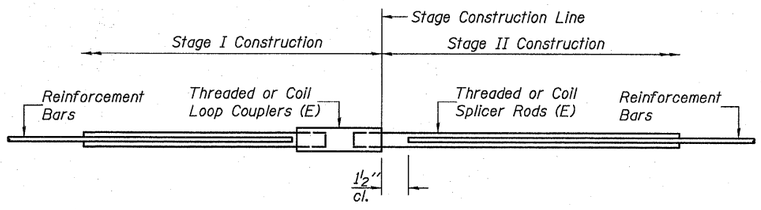
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 56



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#6	None	Diaphragm
#5	None	Deck
#7	None	Abutment
#4	None	Approach
#5	None	Approach

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

BSD-1 10-1-08

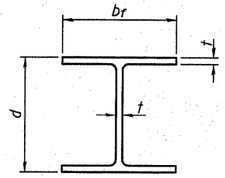
BAR SPLICER ASSEMBLY DETAILS

SHEET NO. 17	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	50
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

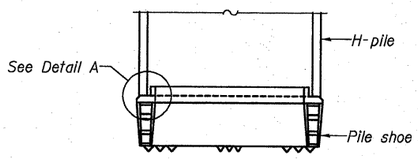
HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

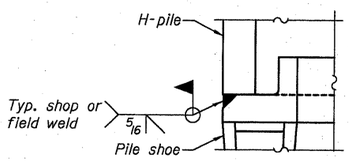


STEEL PILE TABLE

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"

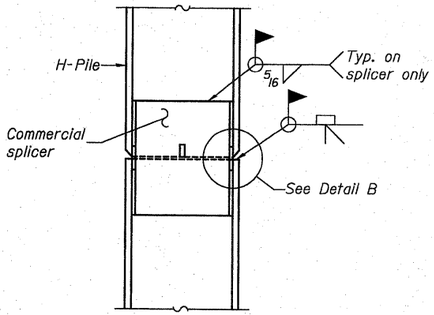


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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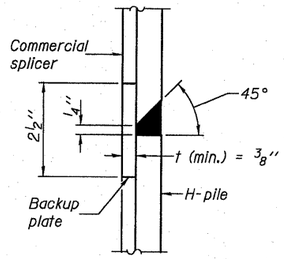
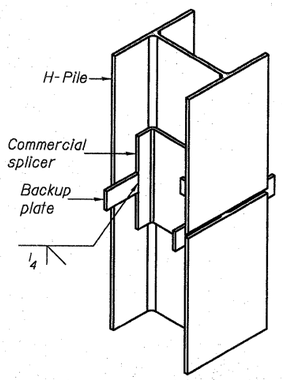
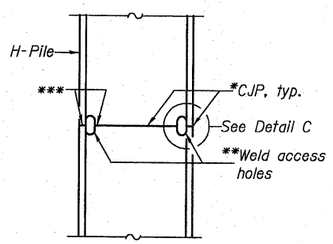


DETAIL "B"

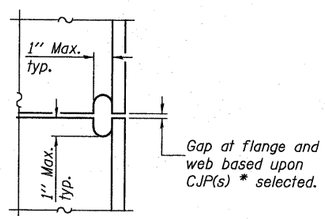


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



ELEVATION



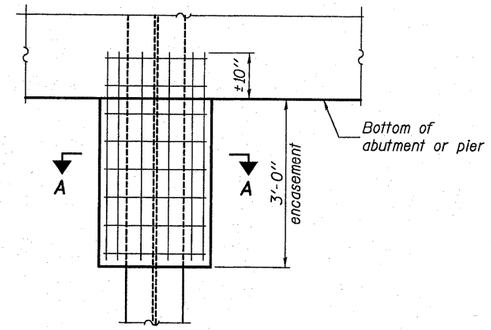
DETAIL C

COMPLETE PENETRATION WELD SPLICE

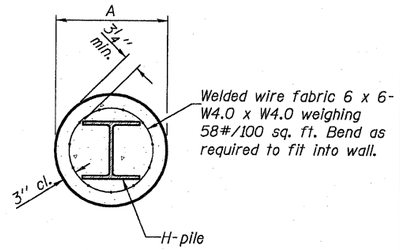
* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

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

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



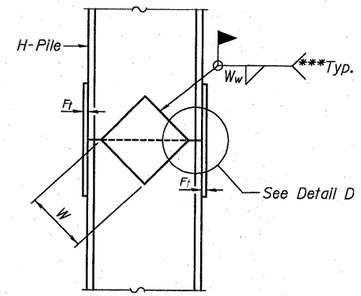
ELEVATION



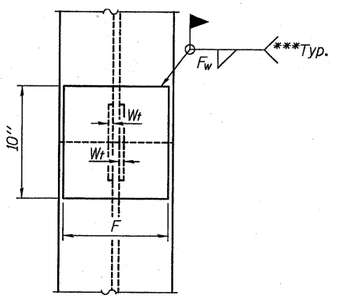
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

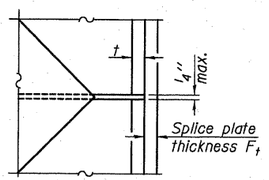
PILE ENCASEMENT



ELEVATION



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.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

F-HP 10-1-08

HP PILE DETAILS

SHEET NO. 18	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	51
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 2

Date 12/12/07

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Cole Creek LOGGED BY E. Stewart

SECTION 401-2BR LOCATION NW 1/4, SEC. 4, TWP. 9N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0013 (E) / 031-0041 (P)
Station 124+00

BORING NO. C-1
Station 123+90
Offset 45.00ft LT
Ground Surface Elev. 443.05 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 423.1 ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Medium Brown LOAM
	6			
	5		10	
-5	3	NC		
	4			
	3	0.37	15	
	2	S/0		
433.6				
-10	5			
	4	0.37	19	Light Brown Clay LOAM Speckled with Sand
	4	S/10		
	3			
-15	3	0.49	21	
	4	S/20		
	5			
	6	0.33	11	
	6	B/20		
	4			
426.1	2	0.33	18	Light Gray Sandy LOAM with Aggregate
	2	S/20		
	10			
	8		16	
	2	NC		
-20	2			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	3	0.33	20	Light Gray Sandy LOAM with Aggregate *(continued)*
	2	B/20		
	13			
	7		16	
	7	NC		
-25	1			
	1	0.07	25	
	1	B/20		
416.1				
	2			Light Gray Sandy LOAM
	4	0.33	23	
	6	B/20		
413.6				
-30	2			Light Brown Sandy Clay LOAM
	5	0.33	25	
	6	B/10		
408.6				
-35	21			Silt LOAM A-6(8) See Classification @ 35 ft
	21		11	
	14	NC		
-40	2			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 2 of 2

Date 12/12/07

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Cole Creek LOGGED BY E. Stewart

SECTION 401-2BR LOCATION NW 1/4, SEC. 4, TWP. 9N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0013 (E) / 031-0041 (P)
Station 124+00

BORING NO. C-1
Station 123+90
Offset 45.00ft LT
Ground Surface Elev. 443.05 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 423.1 ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	4	0.62	18	Silt LOAM *(continued)*
	6			
399.6				
-45				Sand Came Up in Augers - END OF BORING
-50				
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SOIL BORING LOGS

SHEET NO. 19	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	52
	S.N. 031-0041		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 9/26/07

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Cole Creek LOGGED BY E. Stewart

SECTION 401-2BR LOCATION NW 1/4, SEC. 4, TWP. 9N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0013 (E) / 031-0041 (P)
Station 124+00

BORING NO. NBB-1
Station 123+60
Offset 37.00ft LT
Ground Surface Elev. 452.45 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 419.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	6			
	4	1.00	5	Light Brown CLAY
	4	P		
	4			
	3		11	
447.5 -5	5	P		
	4			
	4	0.18	13	Brown Silty Clay LOAM
	2	S/10		
	2			
	2	0.19	20	
-10	2	S/5		
	1			
	2	0.31	23	
440.0	1	B/10		
	1			Light Greenish Gray Clay LOAM
	0	0.49	24	
	1	B/20		
-15	1			
	1	0.33	25	
	1	B/20		
	0			
	0	0.23	28	
-20	0	B/20		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	1			
	1	1.04	27	Light Greenish Gray Clay LOAM *(continued)*
	1	B/20		
	1			
	1	0.81	27	
-25	1	B/20		
	2			
	0	0.33	27	
	0	B/20		
425.0				
	1			Gray Silty LOAM
	1	0.62	25	
	1	B/20		
422.5 -30	2			
	1	1.40	27	Light Brown CLAY
	1	B/20		
	2			
	4	0.55	28	
-35	1	B/20		
414.0				
	12			Fine to Coarse SAND with some Gravel & Loam See Gradation @ 40 ft
	16		14	
-40	12	NC		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 9/26/07

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Cole Creek LOGGED BY E. Stewart

SECTION 401-2BR LOCATION NW 1/4, SEC. 4, TWP. 9N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0013 (E) / 031-0041 (P)
Station 124+00

BORING NO. NBB-1
Station 123+60
Offset 37.00ft LT
Ground Surface Elev. 452.45 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 419.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Fine to Coarse SAND with some Gravel & Loam See Gradation @ 40 ft *(continued)*
	7			
	8		18	
-45	17	NC		
403.5	23			Light Brown Clay Lens
	16		16	
-50	19	NC		Coarse to Medium SAND See Gradation @ 50 ft
399.0	22			
	39		16	Fine to Coarse SAND with some Gravel See Gradation @ 60 ft
-55	-	NC		
	2			
	12		13	
-60	17	NC		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Fine to Coarse SAND with some Gravel See Gradation @ 60 ft *(continued)*
389.5				
GRAVEL 389.0	50/5.75"			
	-	1.55	12	Weathered Gray SHALE
-65	-	S/10		
380.0	50/3"			
	-		13	
-70	-	NC		
	50/0.25"			
	-		NC	Borehole continued with rock coring.
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK CORE LOG

Date 9/26/07

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Cole Creek LOGGED BY E. Stewart

SECTION 401-2BR LOCATION NW 1/4, SEC. 4, TWP. 9N, RNG. 13W, 3 PM

COUNTY Greene CORING METHOD

STRUCT. NO. 031-0013 (E) / 031-0041 (P)
Station 124+00

CORING BARREL TYPE & SIZE

BORING NO. NBB-1
Station 123+60
Offset 37.00ft LT
Ground Surface Elev. 452.45 ft

Core Diameter 2 in
Top of Rock Elev. 379.95 ft
Begin Core Elev. 379.95 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	Description
379.95						
		96	57	20.47		Light Gray to White SHALE (Strong & Dry)
		96	57	2.13		
-75		96	57	5.52		
		96	57	7.98		
		96	57	7.97		
		96	57	9.33		
		96	57	12.17		
372.95						
-90						Weathered Gray SHALE
371.95						
						End of Boring and Rock Core
-95						

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SOIL BORING LOGS

SHEET NO. 20	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	53
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.151

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 2

Date 9/21/07

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Cole Creek LOGGED BY E. Stewart

SECTION 401-2BR LOCATION NW 1/4, SEC. 4, TWP. 9N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0013 (E) / 031-0041 (P)
Station 124+00

BORING NO. SBB-1
Station 124+44
Offset 14.50ft LT
Ground Surface Elev. 452.47 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 425.5 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	7			Light Brown Clay LOAM
	5 7	1.30 B/20	14	
	5			
-5	6 7	0.55 S/10	14	
446.5	3			Light Brown SILT A-4(6) See Classification @ 6 ft
	2 0	2.00 P	17	
	1			
-10	2 5	0.77 S/10	19	
	4			
	4 2	0.70 S/5	24	
	1			
-18	1 8	0.40 B/10	21	
436.5	11			LIMESTONE
	18 19	0.37 S/5	11	
434.0	2			Light Gray Silty CLAY
-20	2 2	NC	26	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Light Gray Silty CLAY *(continued)*
	1			
428.5	2			
	2 3	0.67 B/15	24	
-25	3 8	1.14 B/20	25	Light Gray Silty CLAY with Gravel
426.0	3			
	1 1	0.92 B/10	28	Brown and Gray Silty Clay LOAM
424.0	14			
-30	10 9	NC	11	Weathered SHALE and GRAVEL
419.0	2			
-35	1 12	1.56 B/20	25	Light Brown Silty LOAM
414.0	13			
-40	8 9	0.37 S/10	12	Light Gray Weathered SHALE with some Rocks

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 2 of 2

Date 9/21/07

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Cole Creek LOGGED BY E. Stewart

SECTION 401-2BR LOCATION NW 1/4, SEC. 4, TWP. 9N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0013 (E) / 031-0041 (P)
Station 124+00

BORING NO. SBB-1
Station 124+44
Offset 14.50ft LT
Ground Surface Elev. 452.47 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 425.5 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Light Gray Weathered SHALE with some Rocks *(continued)*
408.5	15			
	18 21	NC	16	Red and Brown SAND
404.0	7			
-50	7 8	NC	13	Light Brown SAND
398.5	47			
	50 –	NC	9	GRAVEL
393.5	20	2.00	10	
393.0	50/1"	/ P		SHALE
-60		NS		REFUSAL - End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

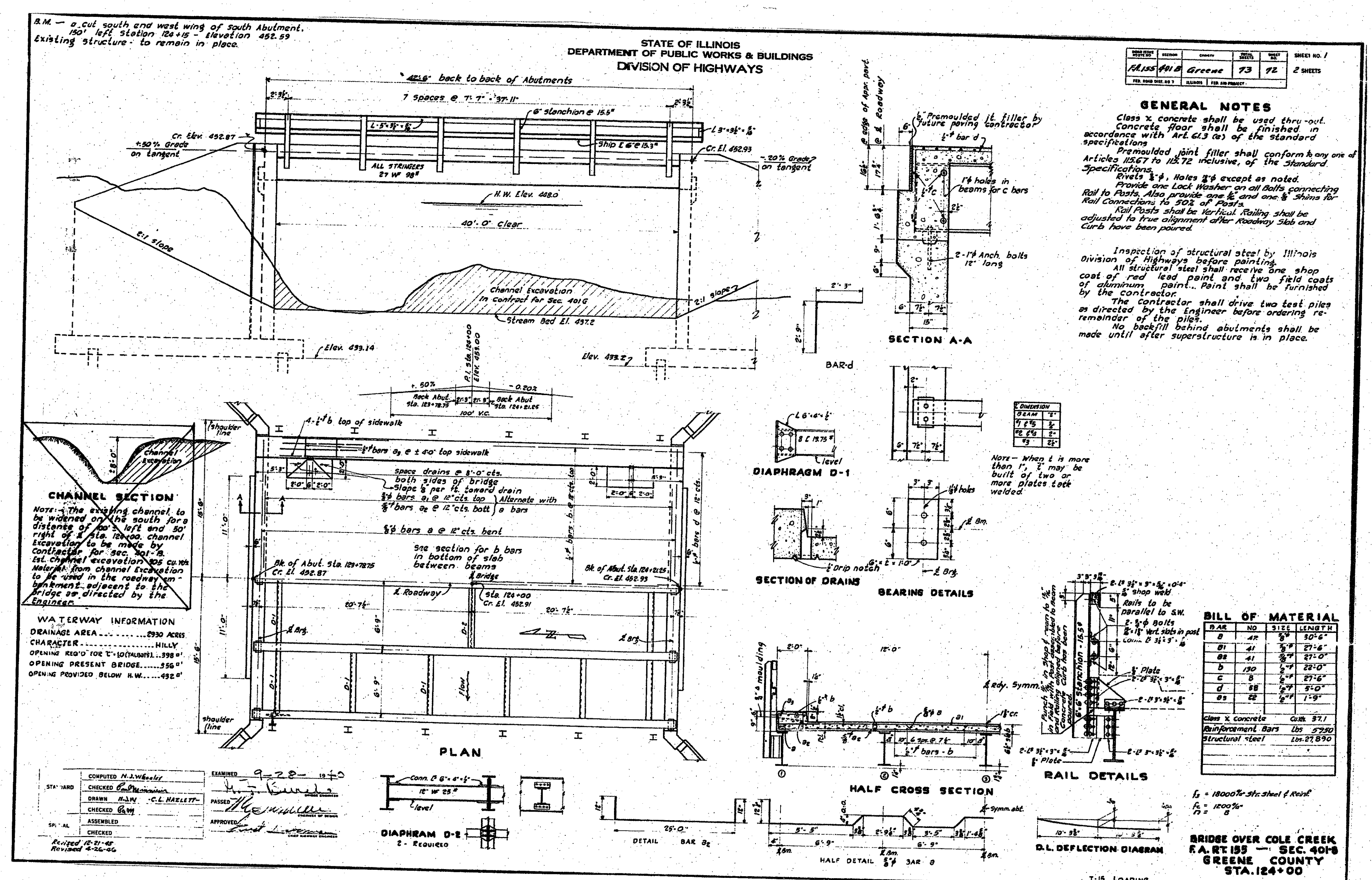
BBS, from 137 (Rev. 8-99)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SOIL BORING LOGS

SHEET NO. 21	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	401-2BR	GREENE	150	54
		S.N. 031-0041	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM


B.M. — □ cut south end west wing of south Abutment. 150' left Station 126+15 - Elevation 452.59
Existing structure - to remain in place.
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
F.A.155 401 B Greene 73 72
SHEET NO. 1
2 SHEETS
GENERAL NOTES
Class X concrete shall be used thru-out.
Concrete floor shall be finished in accordance with Art. 61.3 (e) of the standard specifications
Premoulded joint filler shall conform to any one of Articles 115.67 to 115.72 inclusive, of the Standard Specifications.
Provide one Lock Washer on all Bolts connecting Rail to Posts. Also provide one 1/16" and one 1/8" Shims for Rail Connections to 50% of Posts.
Rail Posts shall be Vertical. Railing shall be adjusted to true alignment after Roadway Slab and Curb have been poured.
Inspection of structural steel by Illinois Division of Highways before painting.
All structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. Paint shall be furnished by the contractor.
The contractor shall drive two test piles as directed by the Engineer before ordering remainder of the piles.
No backfill behind abutments shall be made until after superstructure is in place.
SECTION A-A
CHANNEL SECTION
WATERWAY INFORMATION
PLAN
DIAPHRAGM D-1
DIAPHRAGM D-2
SECTION OF DRAINS
BEARING DETAILS
HALF CROSS SECTION
RAIL DETAILS
D.L. DEFLECTION DIAGRAM
BILL OF MATERIAL
BAR NO SIZE LENGTH
a 42 5/8" 30'-6"
a1 41 5/8" 27'-6"
a2 41 5/8" 27'-0"
b 190 1/2" 22'-0"
c 8 1/2" 27'-6"
d 58 1/2" 5'-0"
a3 22 1/2" 1'-9"
Class X Concrete Cu.Yds. 37.1
Reinforcement Bars Lbs 5950
Structural steel Lbs. 27,890
BRIDGE OVER COLE CREEK
F.A. RT. 155 — SEC. 401-B
GREENE COUNTY
STA. 124+00
H-15 LOADING

FOR INFORMATION ONLY

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	PLOT SCALE = 50.000 ' / IN.	DRAWN -	REVISED -
	PLOT DATE = 3/18/2010	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

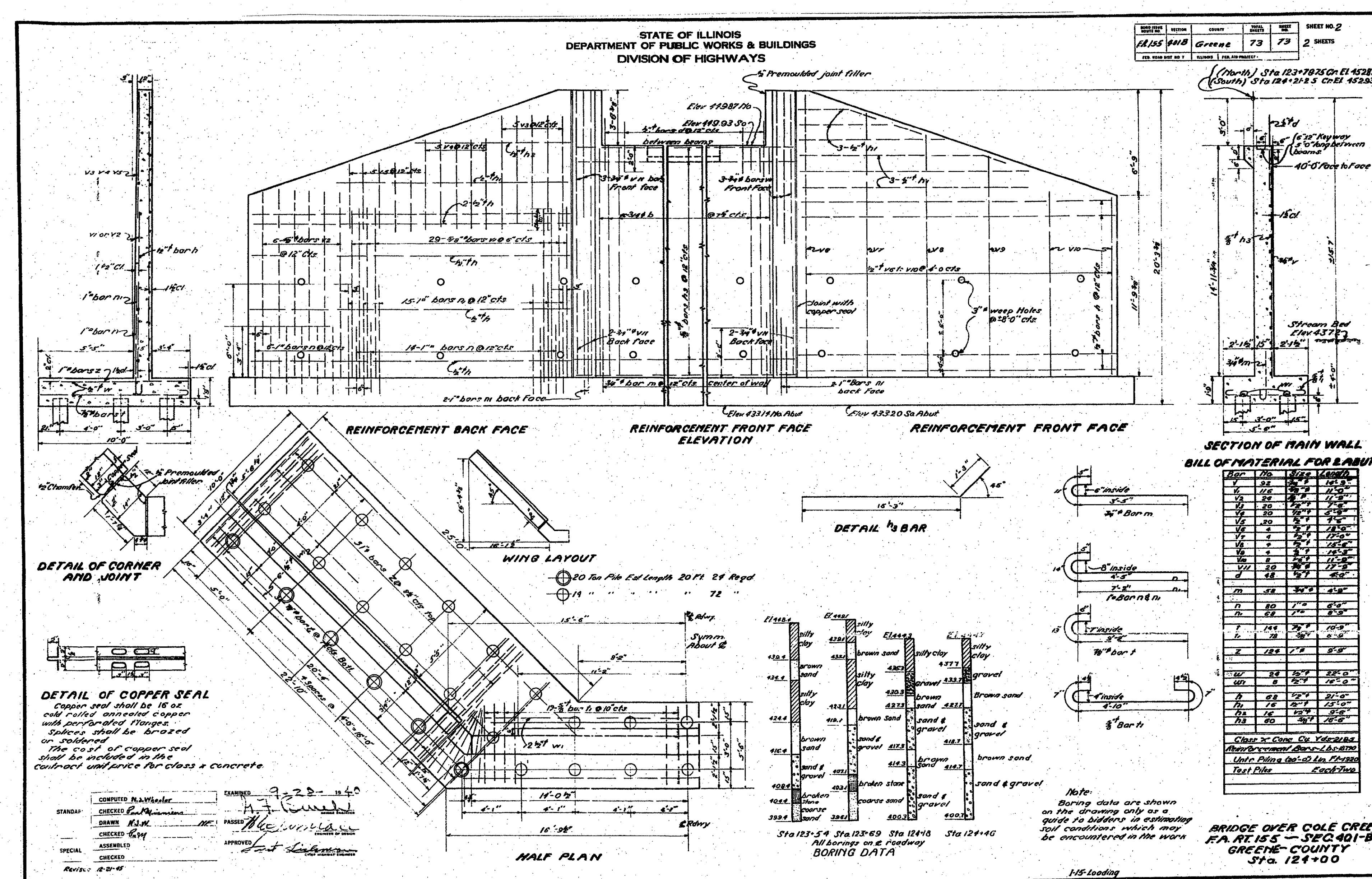
EXISTING STRUCTURE PLANS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: N/A | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	55

CONTRACT NO. 76410

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



FOR INFORMATION ONLY

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	PLOT DATE = 3/18/2010	CHECKED -	REVISED -
		DATE -	REVISED -

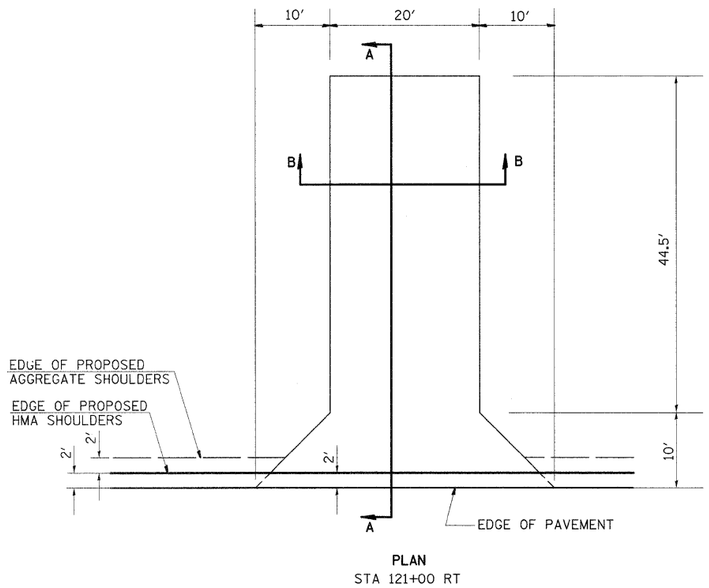
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
SN 031-0013(E) 0041(P), SECTION 401-2BR

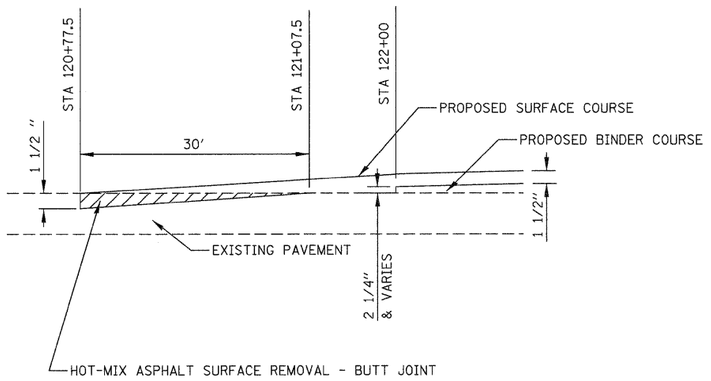
SCALE: N/A | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	56
		CONTRACT NO. 76410		

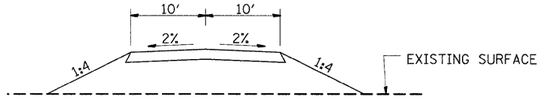
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



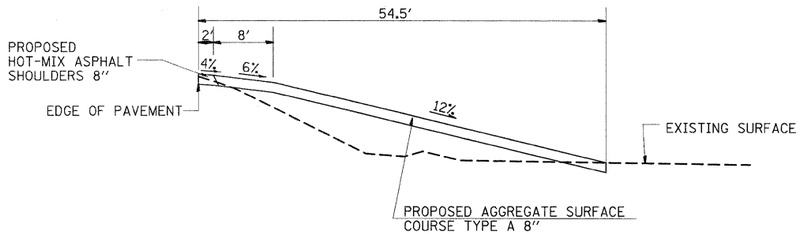
PLAN
STA 121+00 RT



BUTT JOINT DETAIL

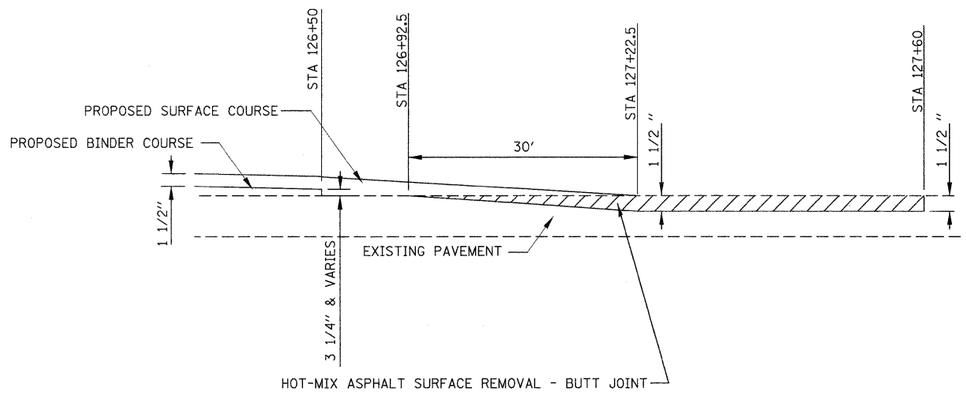


SECTION B-B



SECTION A-A

ENTRANCE DETAILS



BUTT JOINT DETAIL

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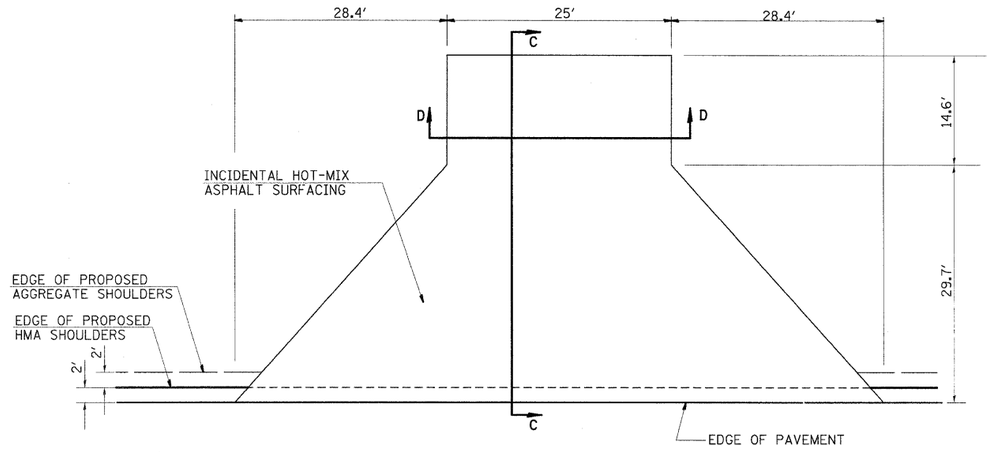
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

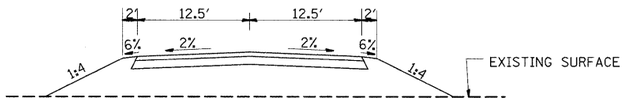
MISCELLANEOUS DETAILS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: N/A | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

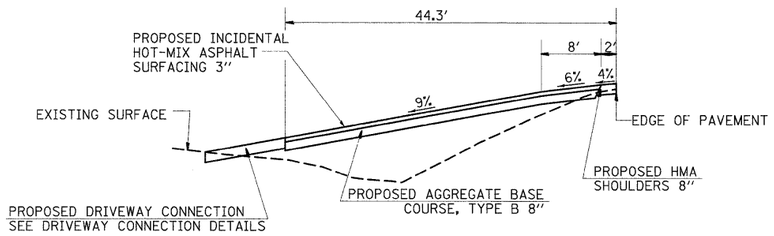
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	57
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN
STA 122+08.5 LT

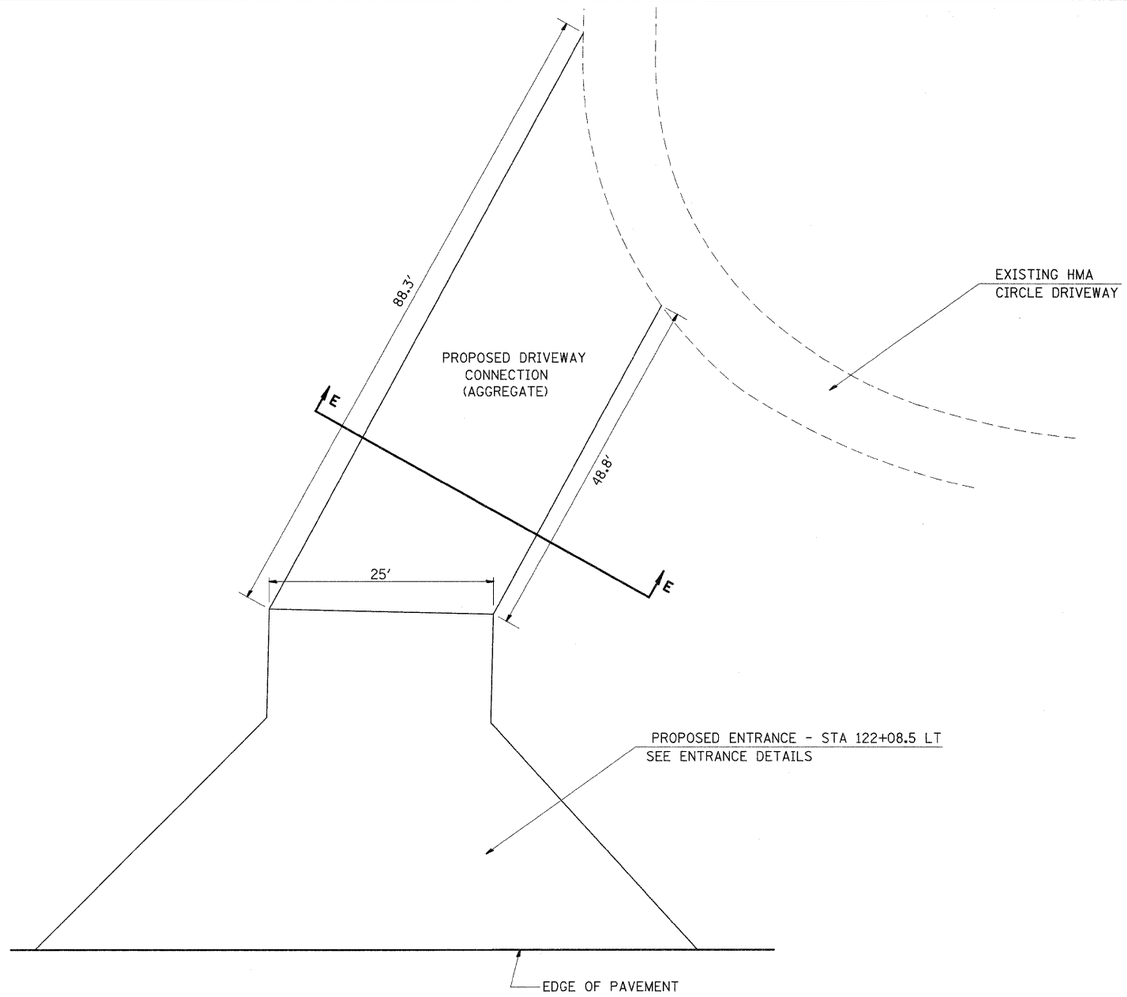


SECTION D-D

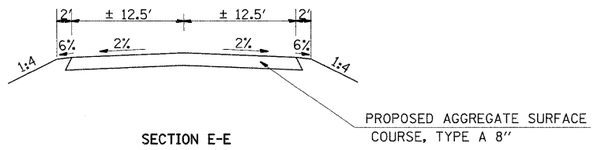


SECTION C-C

ENTRANCE DETAILS



DRIVEWAY CONNECTION DETAILS



SECTION E-E

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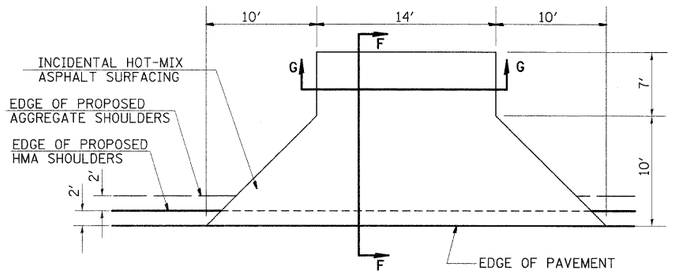
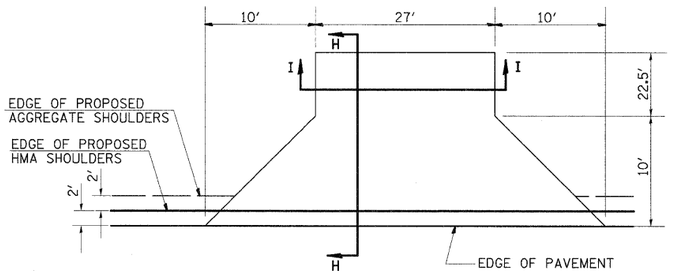
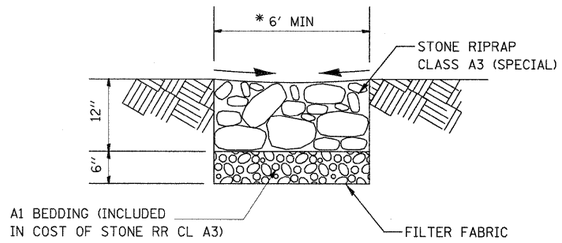
		DRAWN -	REVISED -					739	1BR, 1-2BR, 401-2BR	GREENE	150	58
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -							CONTRACT NO. 76410		
	PLOT DATE = 3/25/2010	DATE -	REVISED -		SCALE: N/A	SHEET NO. 2 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN
STA. 127+09.48 LT



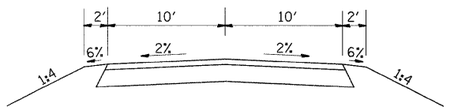
PLAN
STA. 127+30.96 RT



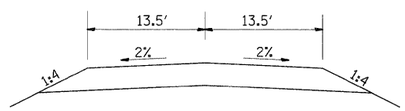
* PROVIDES DRAINAGE DOWN EMBANKMENT
FROM BRIDGE APPROACH PAVEMENT

DRAINAGE DETAIL

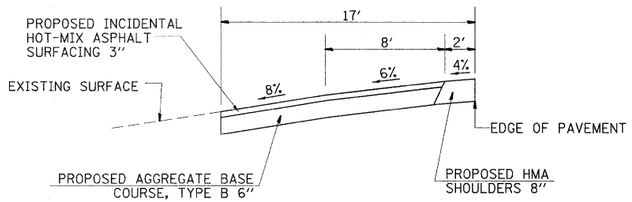
SEE PLAN VIEW FOR LOCATIONS
SECTION TAKEN THRU ROADWAY EMBANKMENT



SECTION G-G

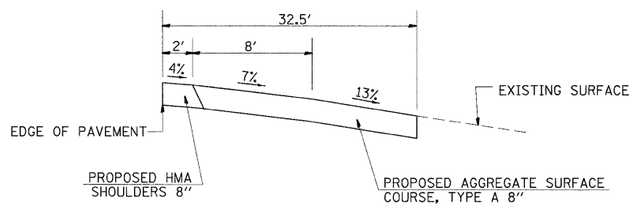


SECTION I-I



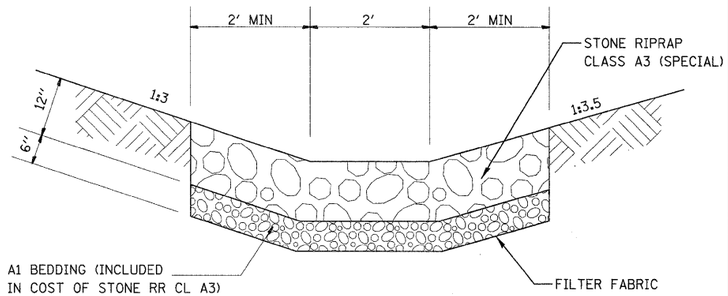
SECTION F-F

ENTRANCE DETAILS



SECTION H-H

ENTRANCE DETAILS



SECTION A-A

STA 123+31 TO STA 123+59.2 LT
SECTION TAKEN THRU DITCH (SEE PLAN VIEW)

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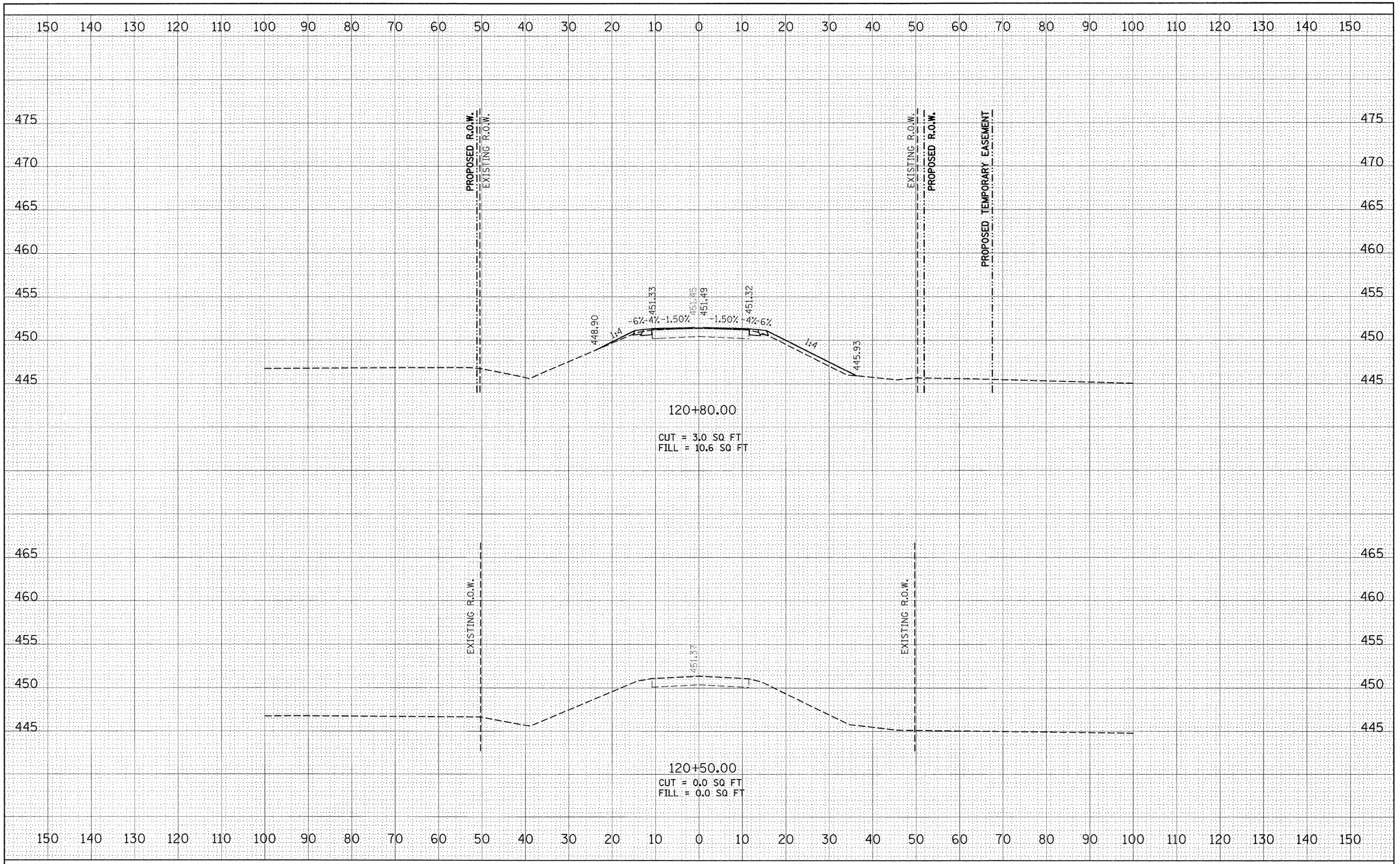
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: N/A | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	59
		CONTRACT NO. 76410		
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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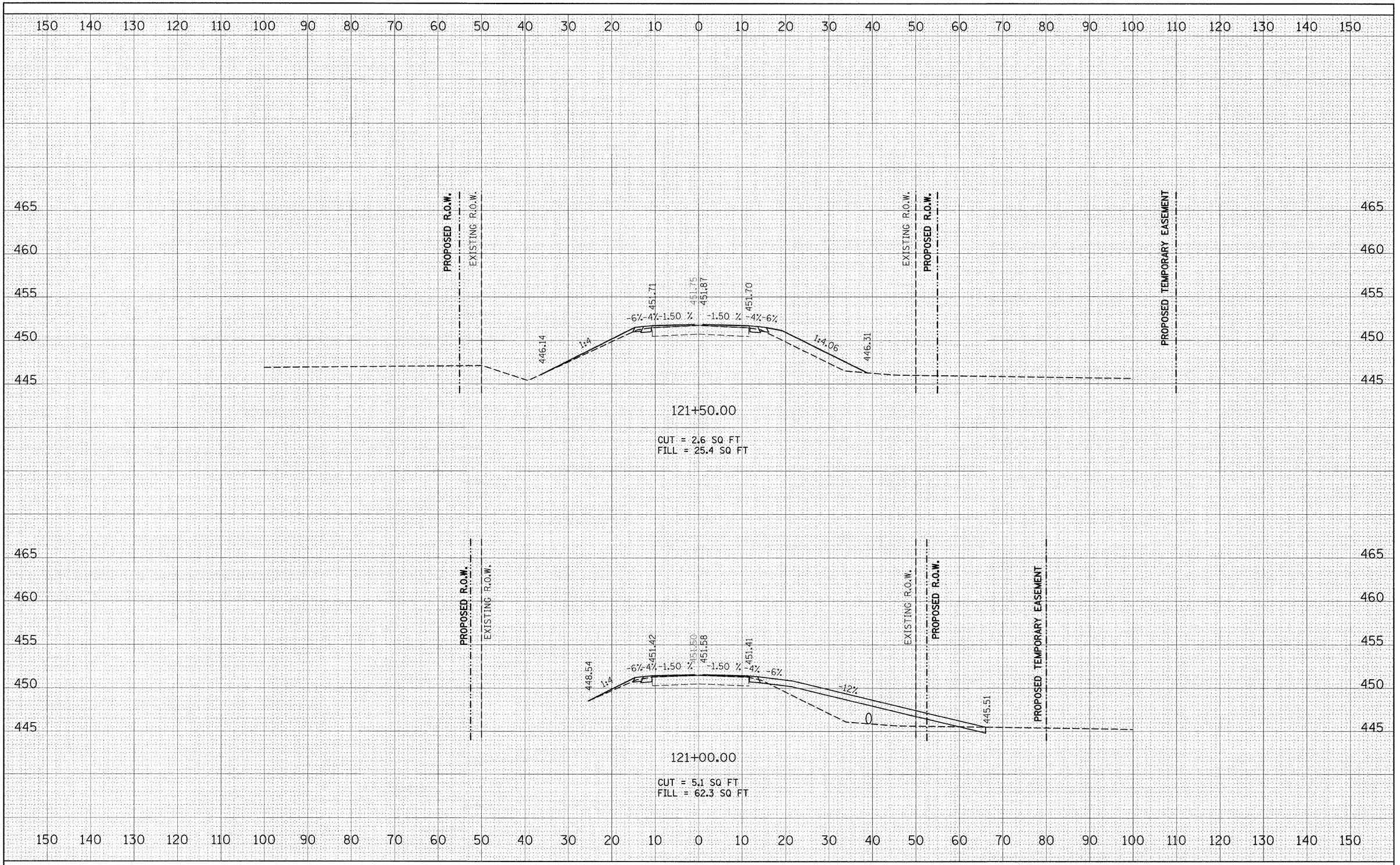
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 1 OF 10 SHEETS | STA. 120+50.00 | TO STA. 120+80.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	60
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



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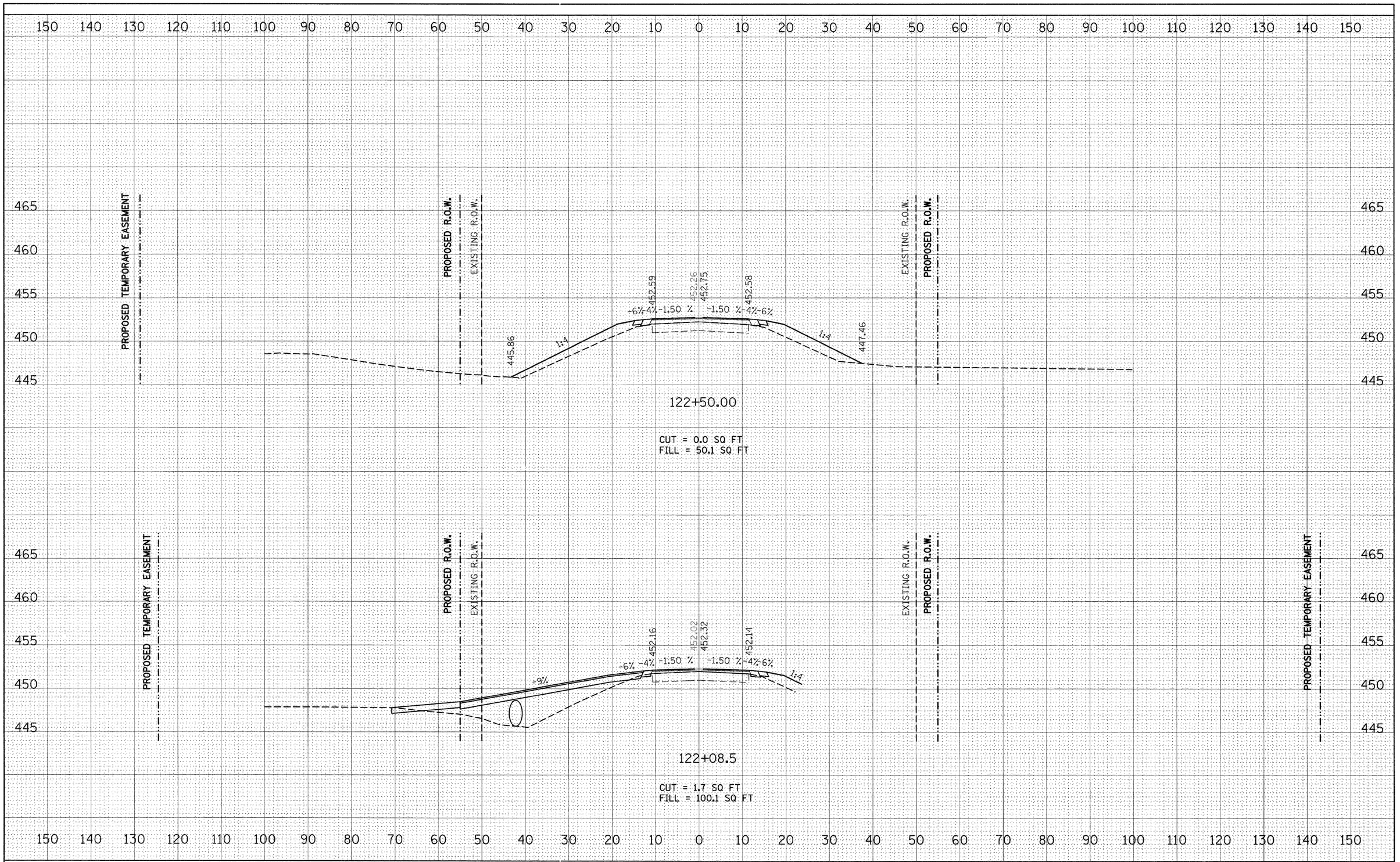
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 2 OF 10 SHEETS | STA. 121+00.00 | TO STA. 121+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	61
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

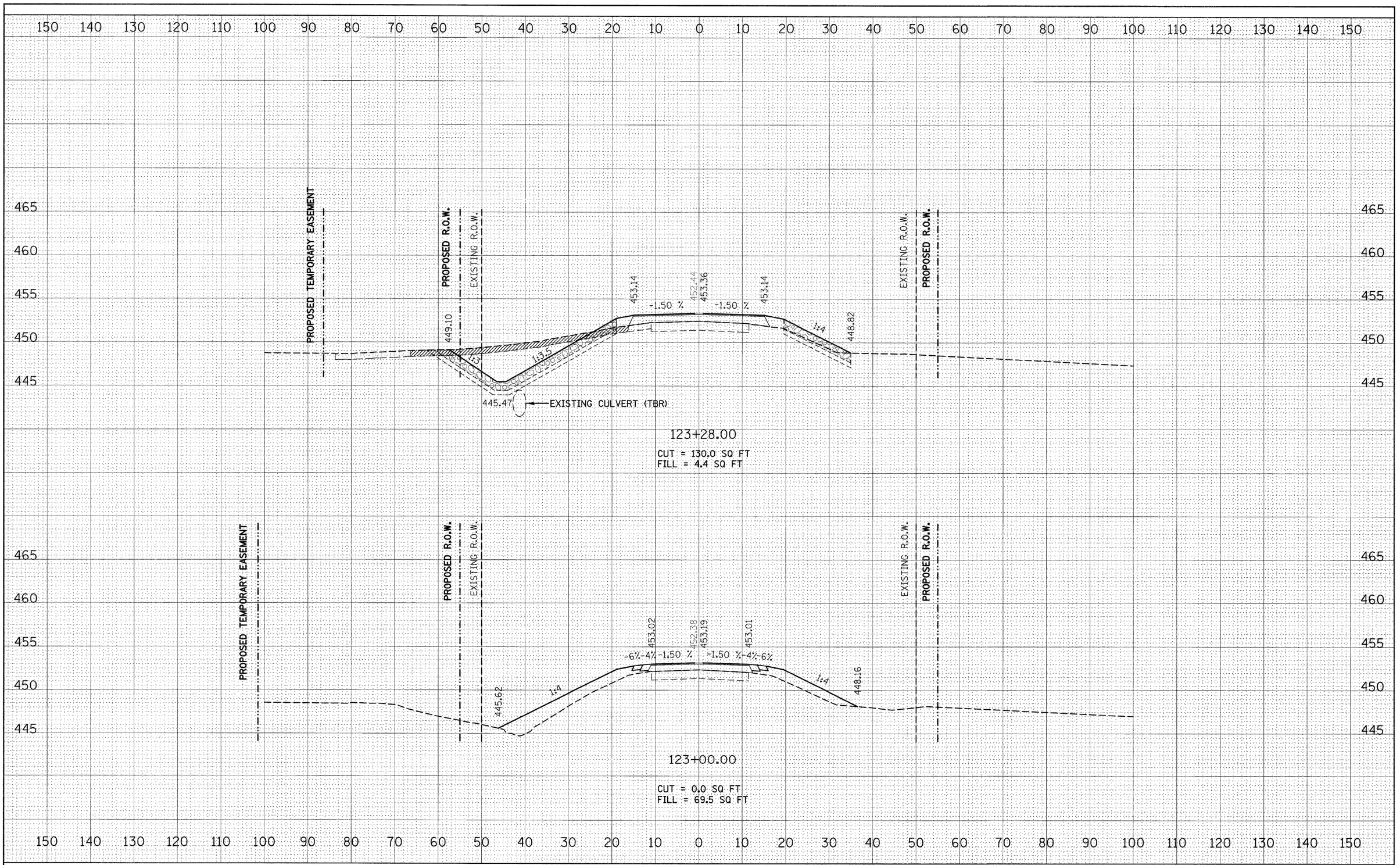
CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 3 OF 10 SHEETS | STA. 122+06.00 TO STA. 122+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	62

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 4 OF 10 SHEETS | STA. 123+00.00 TO STA. 123+28.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	63

CONTRACT NO. 76410

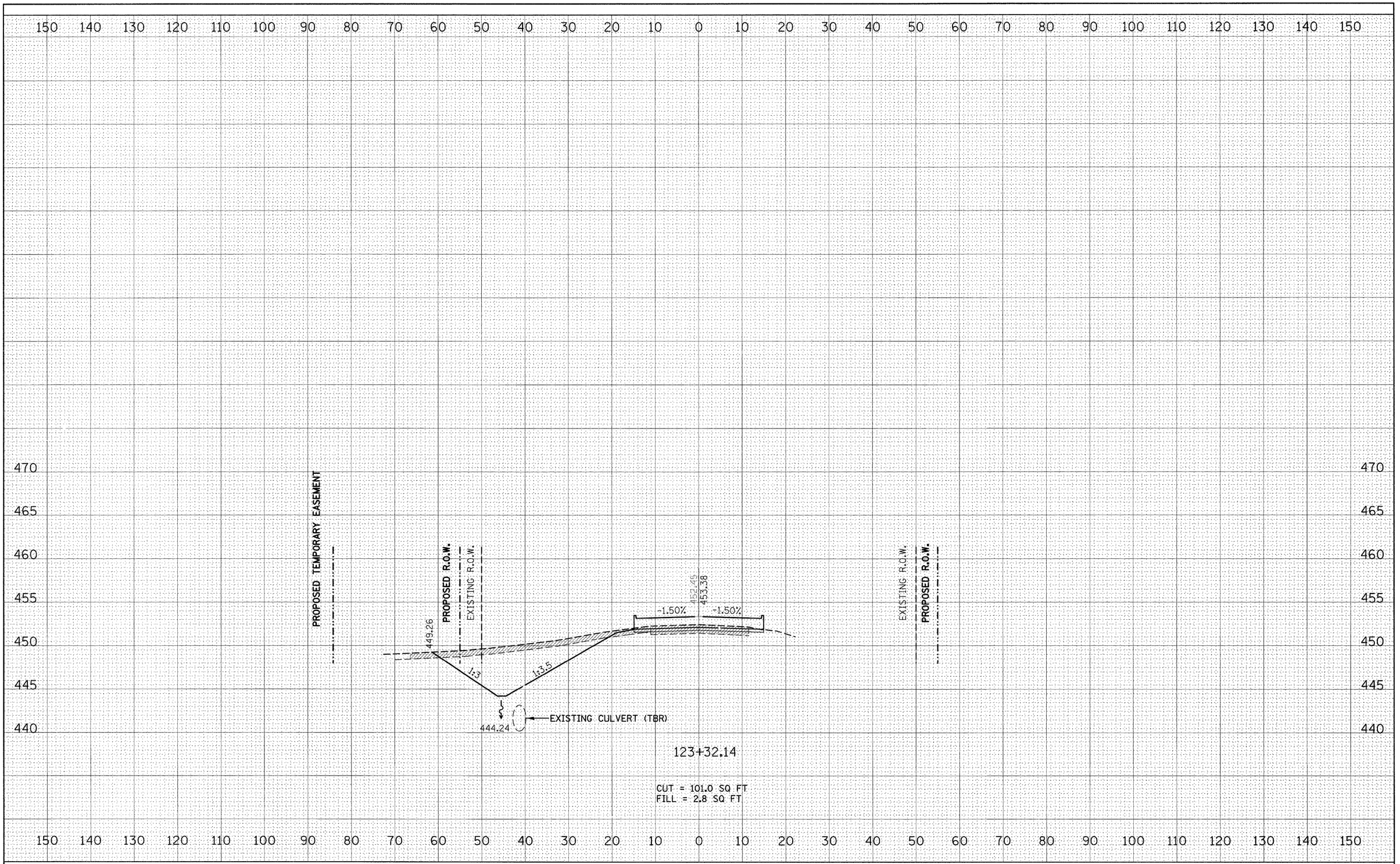
ILLINOIS FED. AID PROJECT

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 DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 5 OF 10 SHEETS | STA. 123+32.14 | TO STA. 123+32.14

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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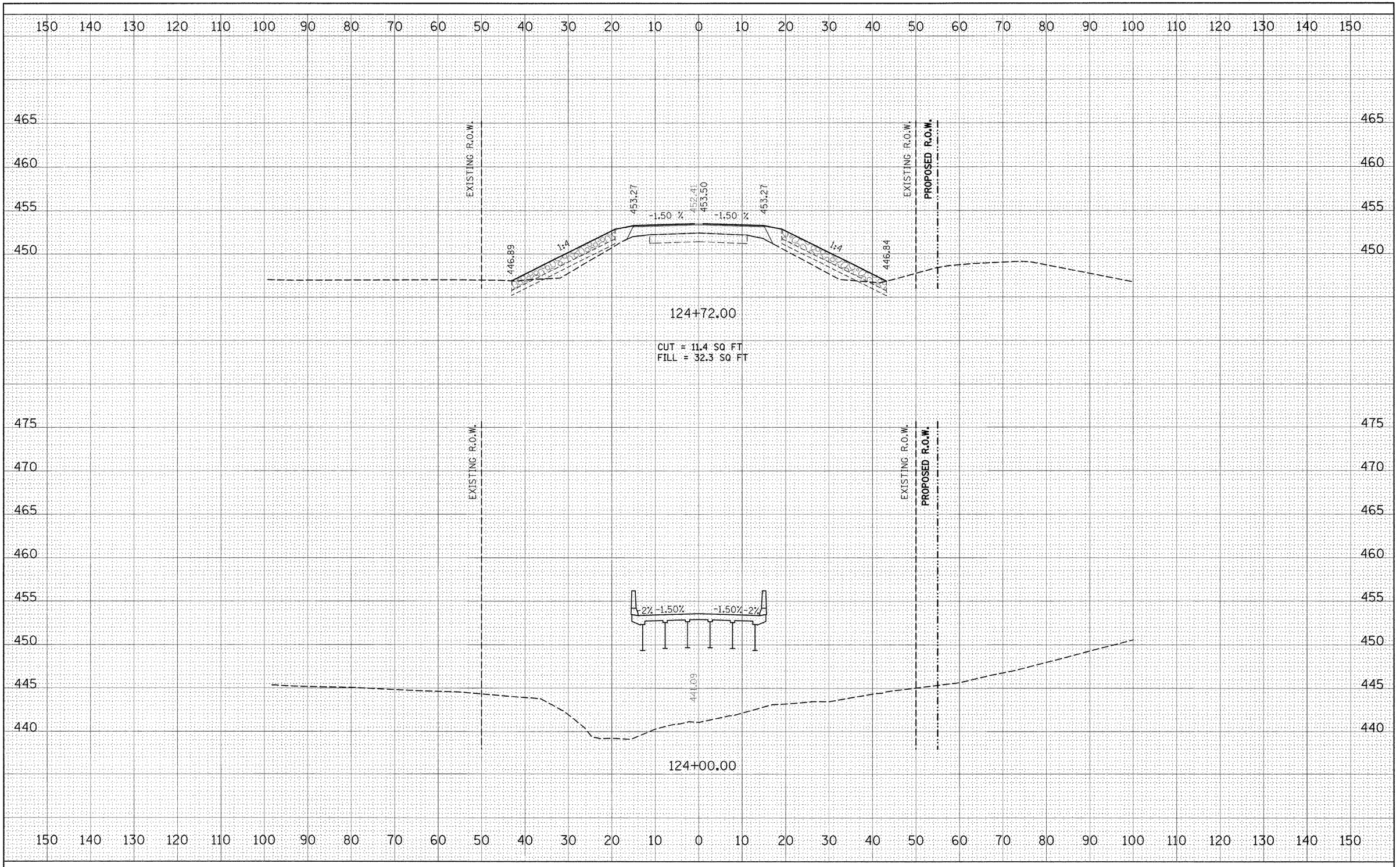
		CONTRACT NO. 76410		
		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY

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

ORIGINAL SURVEY

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

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		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

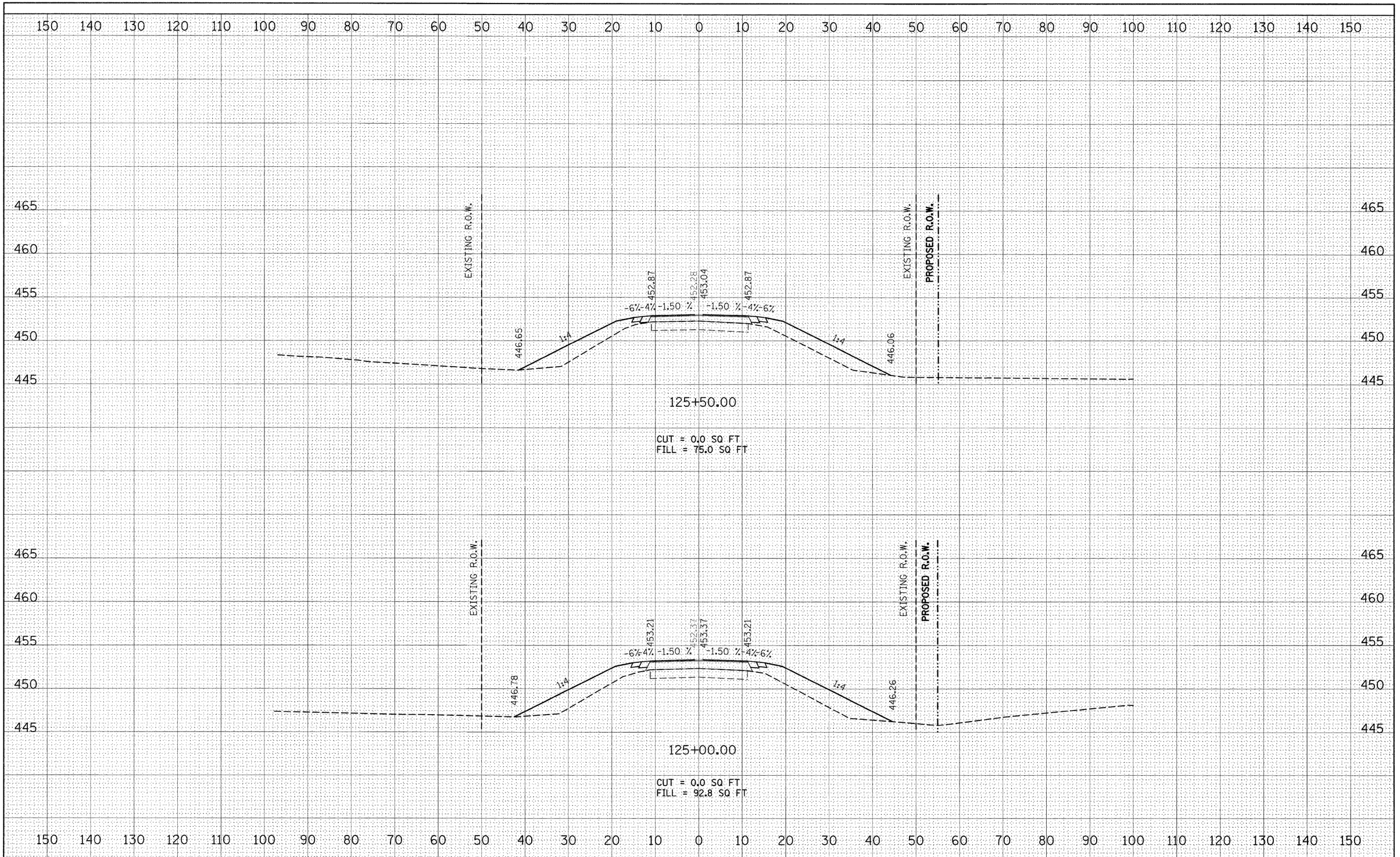
SCALE: | SHEET NO. 6 OF 10 SHEETS | STA. 124+00.00 | TO STA. 124+72.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	65

CONTRACT NO. 76410

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		

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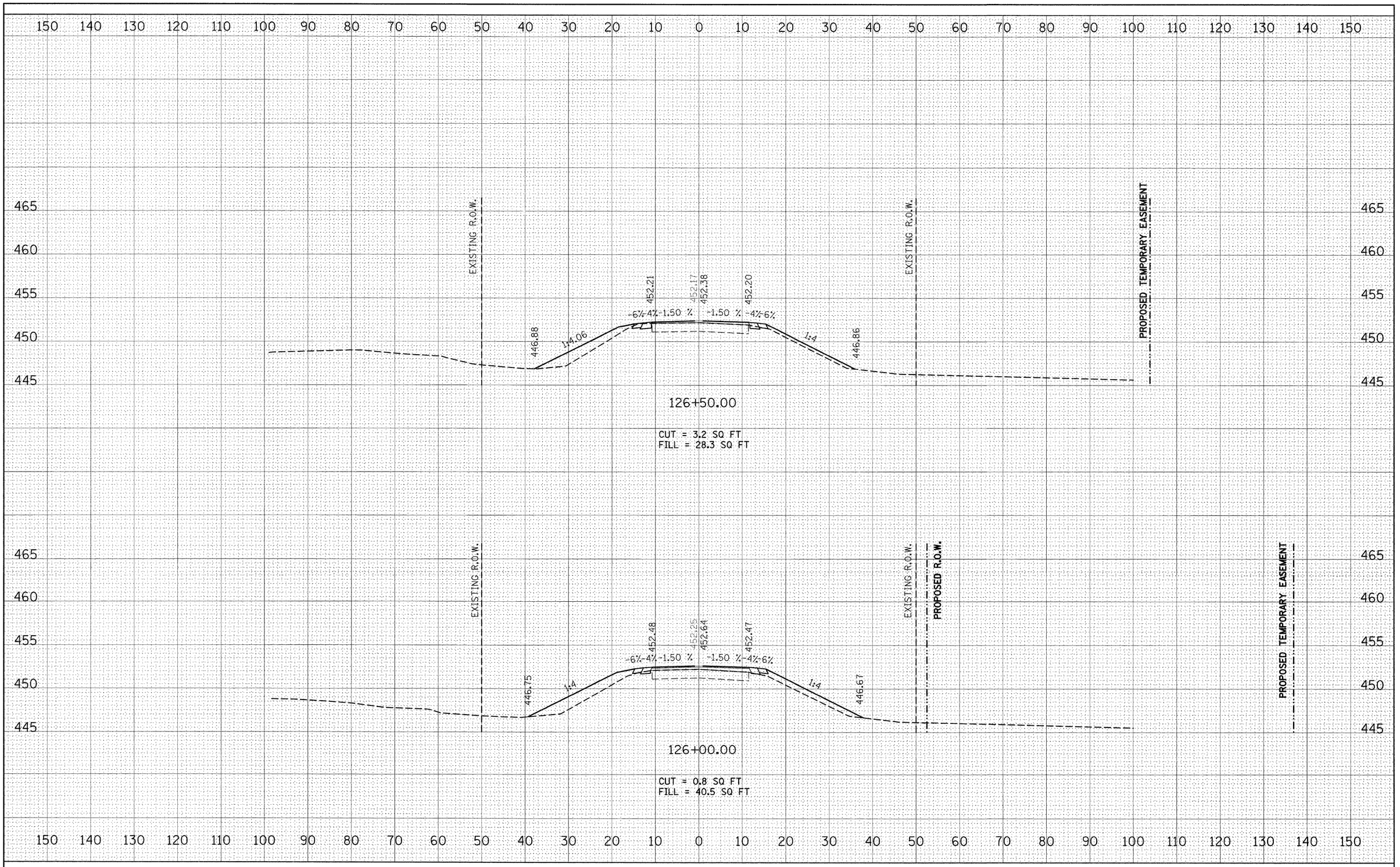
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 7 OF 10 SHEETS | STA. 125+00.00 TO STA. 125+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	66
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			

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



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	SURVEYED	BY
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	DATE

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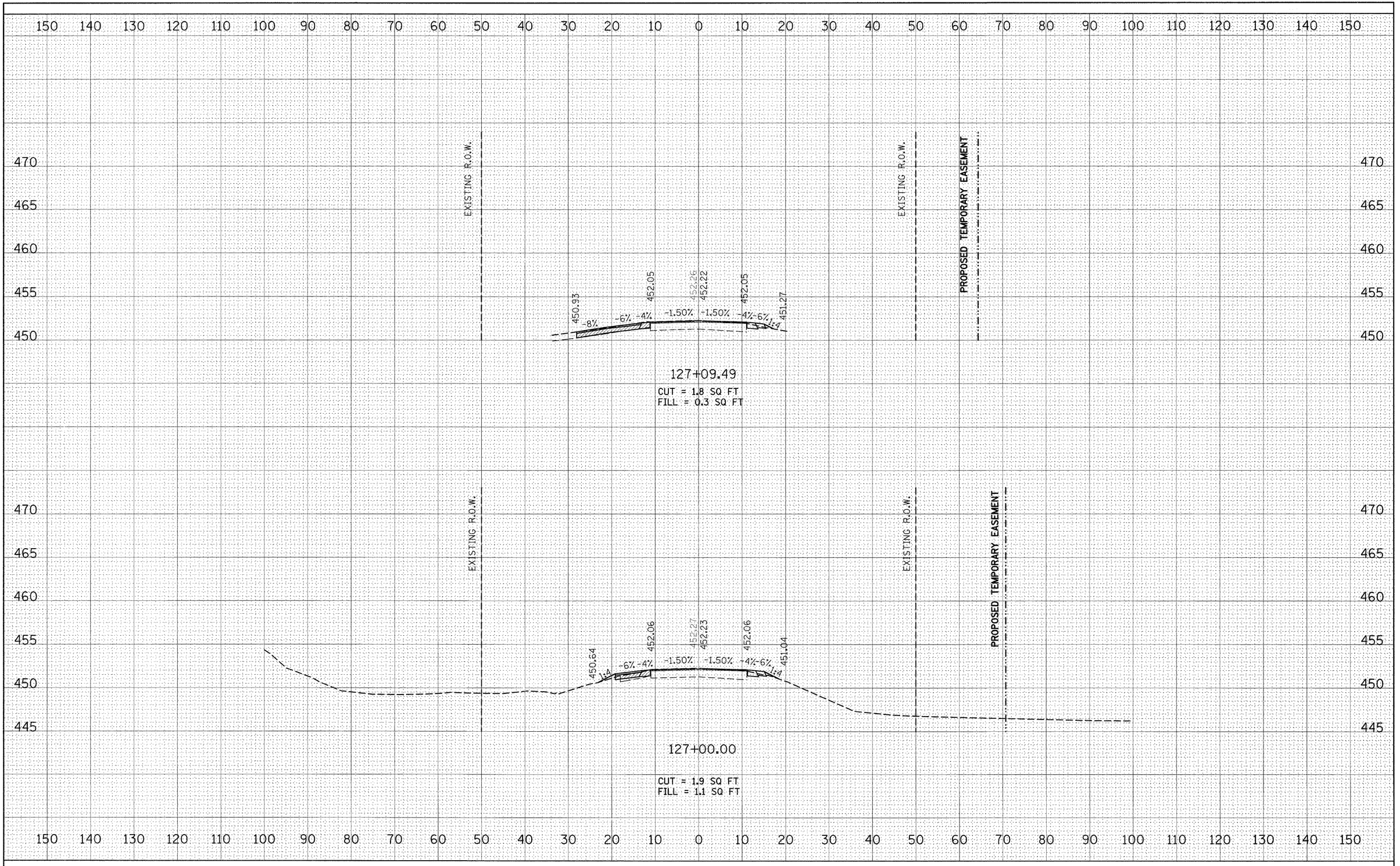
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 8 OF 10 SHEETS | STA. 126+00.00 TO STA. 126+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	67
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



FINAL SURVEY — NOTE BOOK — NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY — NOTE BOOK — NO.

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

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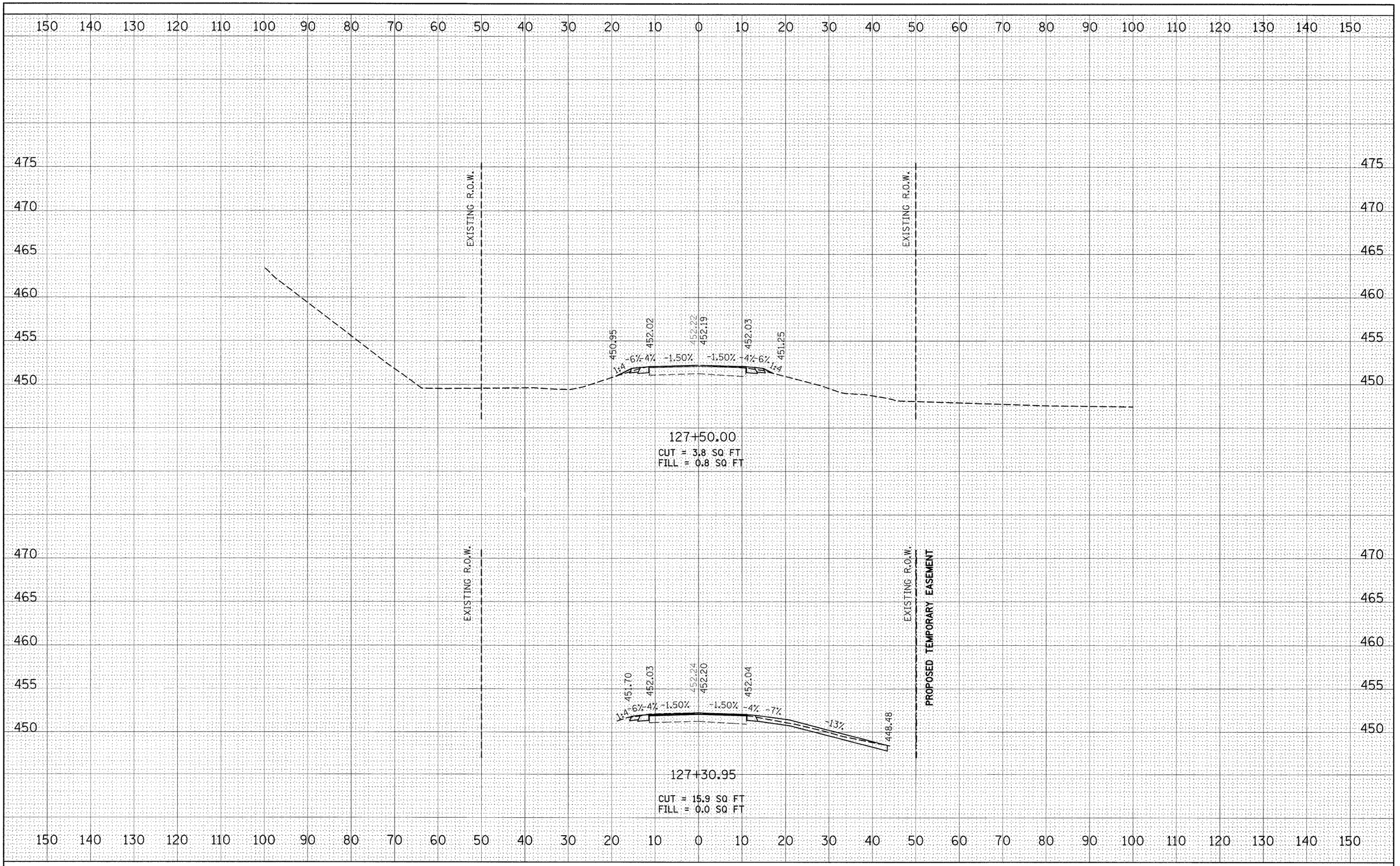
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 9 OF 10 SHEETS | STA. 127+00.00 TO STA. 127+09.49

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	68
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			

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



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

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	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0013(E) 0041(P), SECTION 401-2BR

SCALE: | SHEET NO. 10 OF 10 SHEETS | STA. 127+30.95 | TO STA. 127+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	69

CONTRACT NO. 76410

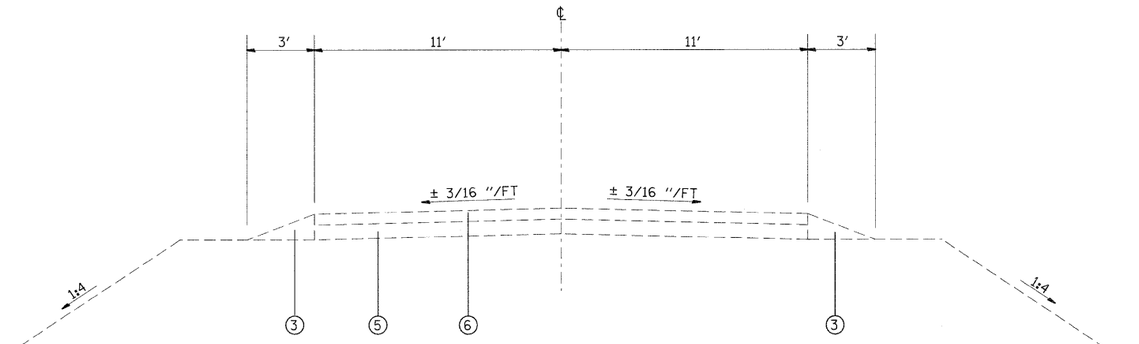
ILLINOIS | FED. AID PROJECT

MIXTURE REQUIREMENTS

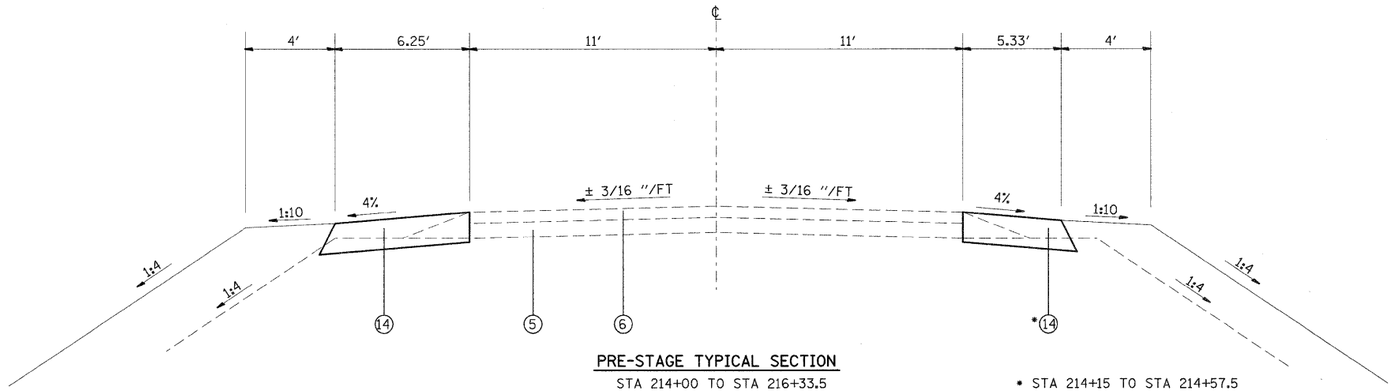
MIXTURE USE	SURFACE COURSE	INCIDENTAL SURFACE	BINDER COURSE	HOT-MIX ASPHALT SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIAL PROV	SEE SPECIAL PROV	SEE SPECIAL PROV	SEE SPECIAL PROV
DESIGN AIR VOIDS	4.0%@Ndes=70	4.0%@Ndes=70	4.0%@Ndes=70	SEE SPECIAL PROV
MIX COMPOSITION				2.0%@Ndes=30
(GRADATION MIXTURE)	IL 9.5		IL 19.0	
FRICTION AGG	MIXTURE "C"	MIXTURE "C"	MIXTURE "B"	BAM

TOP LIFT SHOULDERS - DESIGN THIS MIX AT 2% VOIDS AND ADD ASPHALT TO REDUCE VOIDS TO 1.5%.

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

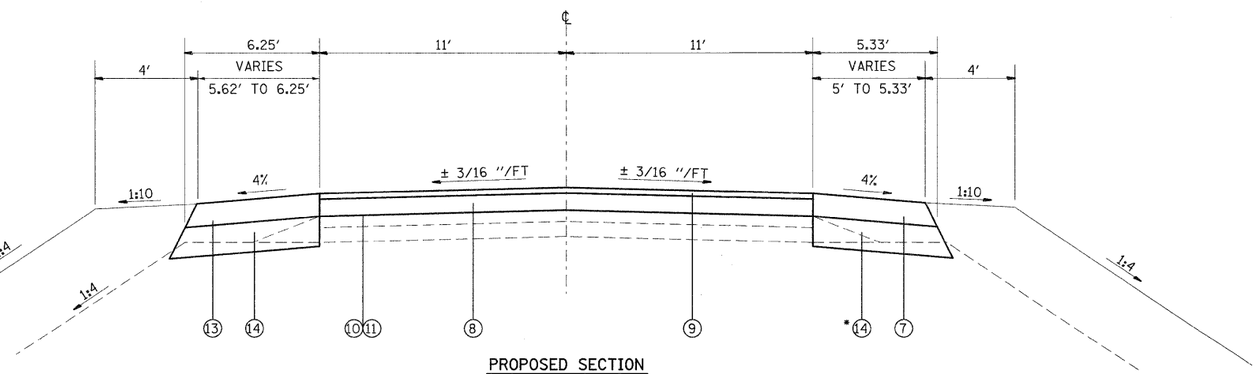


EXISTING SECTION
STA 214+57.5 TO STA 216+33.5
STA 216+66.5 TO STA 219+17.5



PRE-STAGE TYPICAL SECTION
STA 214+00 TO STA 216+33.5
STA 216+66.5 TO STA 219+17.5

* STA 214+15 TO STA 214+57.5



PROPOSED SECTION
STA 214+57.5 TO STA 215+86.5
STA 217+13.5 TO STA 219+17.5

* STA 214+15 TO STA 214+57.5

LEGEND

1. EXISTING OIL AND CHIP
2. EXISTING BITUMINOUS SURFACE TREATMENT, CLASS A-1
3. EXISTING AGGREGATE SHOULDERS
4. EXISTING EARTH SHOULDERS
5. EXISTING AGGREGATE SURFACE COURSE, TYPE 1 4"
6. EXISTING OIL AND CHIP ± 3"
7. PROPOSED HOT-MIX ASPHALT SHOULDERS 8"
8. PROPOSED HOT-MIX ASPHALT BINDER COURSE - 2 1/4" AND VARIES
9. PROPOSED HOT-MIX ASPHALT SURFACE COURSE - 1 1/2" AND VARIES
10. PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
11. PROPOSED AGGREGATE (PRIME COAT)
12. PROPOSED AGGREGATE SHOULDERS
13. PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIES 0 TO 15 3/4"
14. PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9"

LEFT SHOULDER
STA 214+00 TO STA 215+86.5
STA 217+13.5 TO STA 219+17.5

RIGHT SHOULDER
STA 214+15 TO STA 214+57.5
STA 217+13.5 TO STA 219+17.5

NOTE: NOT TO SCALE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. 214+57.5 TO STA. 219+17.5

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	70
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

THICKNESS TABLE						
	CL ROADWAY		LEFT EDGE OF PAVEMENT		RIGHT EDGE OF PAVEMENT	
STATION	PROPOSED SURFACE COURSE THICKNESS (FOOT)	PROPOSED HMA BINDER COURSE THICKNESS (FOOT)	PROPOSED SURFACE COURSE THICKNESS (FOOT)	PROPOSED HMA BINDER COURSE THICKNESS (FOOT)	PROPOSED SURFACE COURSE THICKNESS (FOOT)	PROPOSED HMA BINDER COURSE THICKNESS (FOOT)
214+60	0.13		0.21		0.32	
214+70	0.13		0.25		0.30	
214+80	0.13		0.30		0.27	
214+90	0.13		0.35		0.24	
215+00	0.13		0.37		0.28	
215+10	0.17		0.39		0.31	
215+20	0.26		0.41		0.36	
215+30	0.13	0.22	0.13	0.26	0.13	0.25
215+40	0.13	0.28	0.13	0.29	0.13	0.32
215+50	0.13	0.33	0.13	0.33	0.13	0.43
215+60	0.13	0.37	0.13	0.37	0.13	0.54
215+70	0.13	0.40	0.13	0.40	0.13	0.62
215+80	0.13	0.43	0.13	0.45	0.13	0.61
STRUCTURE						
217+20	0.13	0.40	0.13	0.40	0.13	0.53
217+30	0.13	0.36	0.13	0.40	0.13	0.49
217+40	0.13	0.31	0.13	0.39	0.13	0.40
217+50	0.13	0.27	0.13	0.37	0.13	0.30
217+60	0.13	0.23	0.13	0.34	0.13	0.25
217+70	0.31		0.50		0.40	
217+80	0.26		0.48		0.35	
217+90	0.22		0.46		0.26	
218+00	0.17		0.43		0.17	
218+10	0.14		0.39		0.13	
218+20	0.13		0.35		0.13	
218+30	0.13		0.33		0.13	
218+40	0.13		0.31		0.13	
218+50	0.13		0.30		0.13	
218+60	0.13		0.28		0.13	
218+70	0.13		0.24		0.13	
218+80	0.13		0.21		0.13	
218+90	0.13		0.23		0.13	
219+00	0.13		0.26		0.13	
219+10	0.13		0.29		0.13	

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	BARRIER WALL MARKERS, TYPE C	TERMINAL MARKER - DIRECT APPLIED
	FOOT	EACH	EACH	EACH	EACH	EACH	EACH
NB ELDRED-HILLVIEW RD				3	2	2	
SB ELDRED-HILLVIEW RD				3	2	2	
NW QUADRANT	62.5	1	1				1
NE QUADRANT	0	1	1				1
SW QUADRANT	0	1	1				1
SE QUADRANT	62.5	1	1				1
TOTAL =	125	4	4	6	4	4	4

REMOVAL SCHEDULE

LOCATION			HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	REMOVE SIGN PANEL TYPE 1	PAVEMENT REMOVAL
STATION	TO	STATION	SQ YD	SQ FT	SQ YD
215+57.50	TO	215+87.50	74		
219+17.5	TO	218+87.5	74		
216+26.72		RT		3	
216+27.95		LT		3	
216+71.40		RT		3	
216+71.69		LT		3	
215+86.5	TO	216+33.5			115
216+66.50	TO	217+13.5			115
		TOTAL =	148	12	230

ROW MARKERS SCHEDULE

LOCATION			FURNISHING & ERECTING RIGHT-OF-WAY MARKERS
STATION	OFFSET (FT)	RT/LT	EACH
213+00	40.40	LT	1
214+00	60.35	LT	1
214+50	39.67	RT	1
215+50	54.72	RT	1
217+00	54.79	RT	1
218+00	39.83	RT	1
219+00	60.12	LT	1
220+00	40.07	LT	1
		TOTAL =	8

RESURFACING SCHEDULE

LOCATION				BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALT BINDER COURSE	INCIDENTAL HOT-MIX ASPHALT SURFACING	AGGREGATE BASE COURSE, TYPE B 8"	AGGREGATE SURFACE COURSE, TYPE B 8"	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	HOT-MIX ASPHALT SHOULDERS		TEMPORARY RAMP
STATION	TO	STATION											LT	RT	
				TON	TON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	TON		SQ YD
214+00	TO	216+33.5	PRE-STAGE LEFT								162				
216+66.50	TO	219+17.50	PRE-STAGE LEFT								175				
214+00	TO	214+57.5	PRE-STAGE RIGHT								34				
214+57.50	TO	215+86.50		0.3	0.5	39	67						18	37	
217+13.50	TO	219+17.50		0.6	0.8	64	55						27	58	
215+86.50	TO	215+92.5										24			
217+07.50	TO	217+13.50										24			
216+22.50			BACK OF ABUTMENT												12.5
216+77.50			BACK OF ABUTMENT												12.5
ENTRANCE		RELOCATION F.E. LEFT						1	17	70					
			TOTAL =	0.9	1.3	103	122	1	17	70	371	48	140		25

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
SN 031-0011(E) 0040(P), SECTION 1-2BR

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	72
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING SCHEDULE

LOCATION			THERMOPLASTIC PAVEMENT MARKING SKIP-DASH CENTERLINE YELLOW - 4"	POLYUREA PAVEMENT MARKING TYPE I SKIP-DASH CENTERLINE YELLOW - 4"	TEMPORARY PAVEMENT MARKING - LINE 4"	PAVEMENT MARKING REMOVAL
STATION	TO	STATION	FOOT	FOOT	FOOT	SQ FT
212+44	TO	215+92.5	90		90	30
215+92.5	TO	217+07.5		30	30	10
217+07.5	TO	220+42.5	80		80	27
		TOTAL =	170	30	200	67

SEE STANDARDS 781001 AND 780001 FOR PAVEMENT MARKING DETAILS.

EARTHWORK SCHEDULE

LOCATION			EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	CHANNEL EXCAVATION
STA	TO	STA	CU YD	CU YD	CU YD	CU YD	CU YD
213+75	TO	216+20	18	14	729	-715	
STRUCTURE							290
216+75	TO	219+10	31	23	661	-638	
TOTAL			49	37	1390	-1353	290

STAGING SCHEDULE

STAGE	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	TEMPORARY RUMBLE STRIP	TEMPORARY BRIDGE TRAFFIC SIGNALS, (STATE FURNISHED CONTROLLER)
	FOOT	FOOT	EACH	EACH	EACH	EACH
STAGE I	412.5		2			
STAGE II		362.5		2		
STAGE I & II					6	1
TOTAL	412.5	362.5	2	2	6	1

EROSION CONTROL SCHEDULE

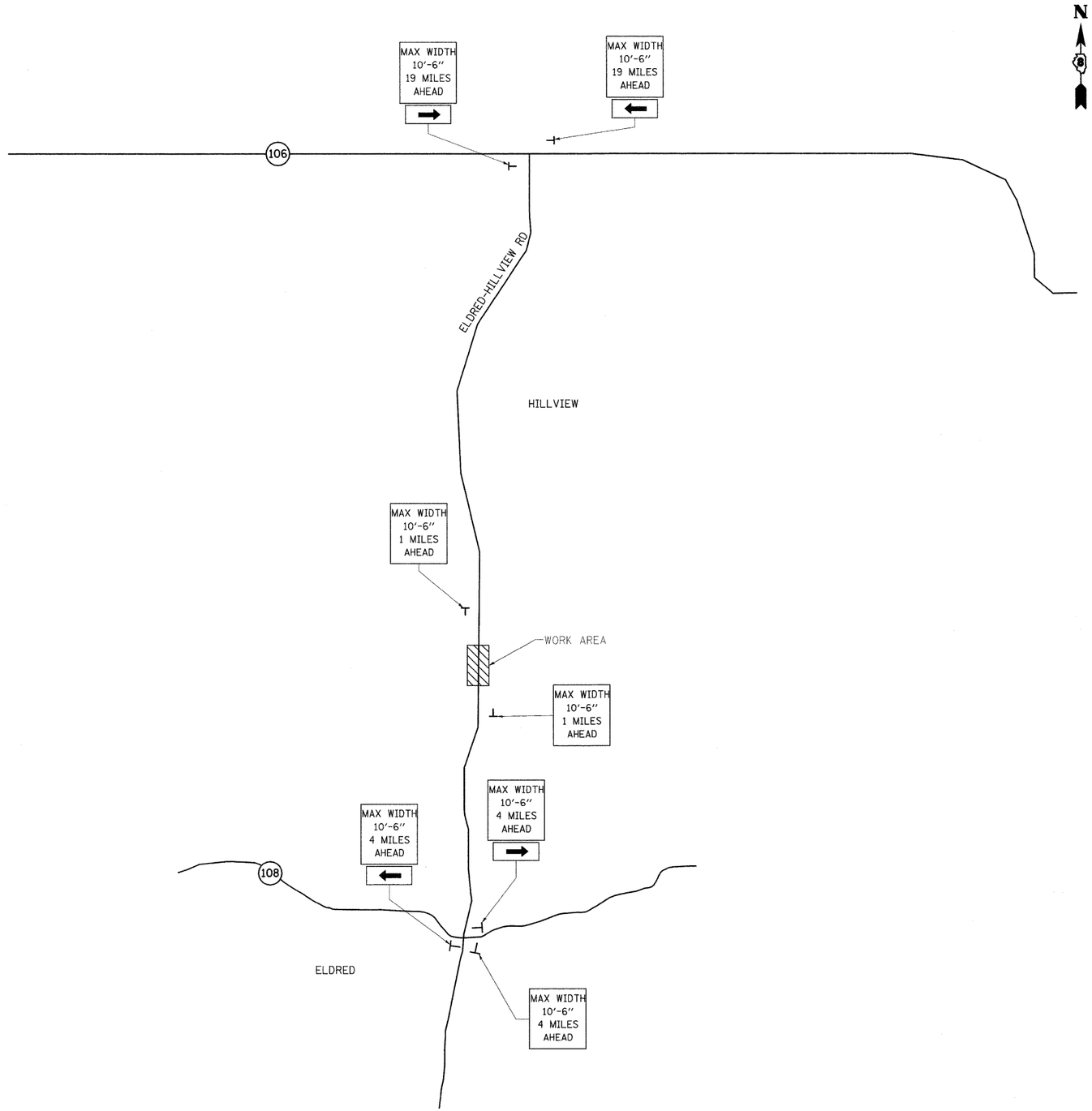
LOCATION				PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	POTASSIUM FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	NITROGEN FERTILIZER NUTRIENT	MULCH, METHOD 2	SEEDING CLASS 2	TEMPORARY EROSION CONTROL SEEDING	STONE RIPRAP CLASS A3 (SPECIAL)	FILTER FABRIC
STATION	TO	STATION	LT/RT	FOOT	EACH	POUND	POUND	POUND	ACRE	ACRE	POUND	SQ YD	SQ YD
213+68.03	TO	216+11.50	LT	271.5									
213+85.21	TO	216+11.97	RT	251.1									
216+88.51	TO	219+33.89	LT	271.1									
216+88.07	TO	219+35.75	RT	248.3									
214+00.00	TO	216+00.00	LT			13	13	13	0.52	0.13	39		
214+00.00	TO	216+00.00	RT			6	6	6	0.24	0.06	18		
217+00.00	TO	219+17.50	LT			12	12	12	0.48	0.12	36		
217+00.01	TO	219+17.51	RT			6	6	6	0.24	0.06	18		
PROPOSED FIELD ENTRANCE					2								
NW QUADRANT												7	7
NE QUADRANT												11	11
SW QUADRANT												9	9
SE QUADRANT												13	13
TOTAL =				1042	2	50	50	50	2	0.5	150	40	40

NOTES:

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THEE CONTRACTOR SHALL PICK UP SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTRACT JEAN SLAPE, PHONE (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.

SIGNS REQUIRED

		(4)
48" MAX WIDTH 10'-6" 19 MILES AHEAD	48"	(2)
48" MAX WIDTH 10'-6" 4 MILES AHEAD	48"	(3)
48" MAX WIDTH 10'-6" 1 MILE AHEAD	48"	(2)



NOTE: NOT TO SCALE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	74
		CONTRACT NO. 76410		
	ILLINOIS	FED. AID PROJECT		

PLAN
SURVEYED
PLOTTED
CROSS CHECKED
R.P. OF W.A.Y. CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

EXISTING RIGHT OF WAY
PROPOSED RIGHT OF WAY
CONSTRUCTION LIMITS
REMOVE SIGN PANEL - TYPE 1
EXISTING FIELD ENTRANCE REMOVAL (COST INCLUDED WITH EARTHWORK QUANTITIES)
REMOVE SIGN PANEL - TYPE 1
STONE RIPRAP, CLASS A5
FIELD ENTRANCE TO BE CLOSED. ACCESS TO BE PROVIDED BY PROPOSED FIELD ENTRANCE. SEE PERTINENT INFORMATION.
CONSTRUCTION LIMITS
TBT, TYPE 6
SPBGR, TYPE A, 6 FOOT POSTS
TBT, TYPE 1 SPEC, (TANG)
FLEXIBLE CONNECTOR
TBT, TYPE 6
HMA SHOULDERS
CROP LINE
CROP LINE
EARTH SHOULDER
EARTH SHOULDER
HMA SHOULDERS
+00.00
+15.00
+13.50
+86.50
6.25'±
11'
11'
5'
6.25'±
11'
5'
212
213
214
215+00
216
217
℄ FAS 739
(ELDRED-HILLVIEW RD)
MATCH LINE STA. 218+00
HMA SHOULDERS
TBT, TYPE 6
STONE RIPRAP, CLASS A3 (SPECIAL), TYP. *
EXISTING RIGHT OF WAY
CONSTRUCTION LIMITS
BEGIN STATION (SEC 1-2BR) STA. 214+57.5
SPBGR, TYPE A, 6 FOOT POSTS
PROPOSED RIGHT OF WAY
TBT, TYPE 1 SPEC, (TANG)
TBT, TYPE 6
REMOVE SIGN PANEL - TYPE 1
FLEXIBLE CONNECTOR
HMA SHOULDERS
REMOVE SIGN PANEL - TYPE 1
TBT, TYPE 1 SPEC, (TANG)
EARTH SHOULDER
EARTH SHOULDER
STONE RIPRAP, CLASS A5

20' 0 20' 40'
SCALE: 1" = 20'

DENOTES PAVEMENT REMOVAL

NOTE:
* SEE DRAINAGE DETAIL ON MISCELLANEOUS DETAILS SHEET 105 OF 150.

PROFILE
SURVEYED
PLOTTED
CROSS CHECKED
R.P. OF W.A.Y. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.

460 455 450 445 440 435 430 425 420

PROPOSED PROFILE
EXISTING PROFILE
444.18
+57.50EL. 444.46
VPI STA. 216+05.00
ELEVATION 444.84
+0.26%
-0.54%
295.00' V.C.
+52.50EL. 444.04
+52.50EL. 444.04
50 YR DHW ELEV. 537.7

444.15	444.09	444.10	444.13	444.15	444.16	444.17	444.16	444.20 444.21	444.23 444.26	444.23 444.31	444.24 444.36	444.37 444.41	444.45 444.47	444.47 444.51	444.45 444.54	444.31 444.57	444.17 444.58	444.08 444.58	444.02 444.57	443.91 444.55	443.79 444.52	436.25 444.48	435.67 444.43	443.69 444.36	443.67 444.29	443.67 444.21	443.67 444.11	443.65 444.01	443.65 443.92	443.67 443.85
212+00		212+50		213+00		213+50		214+00		214+50		215+00		215+50		216+00		216+50		217+00		217+50		218+00						

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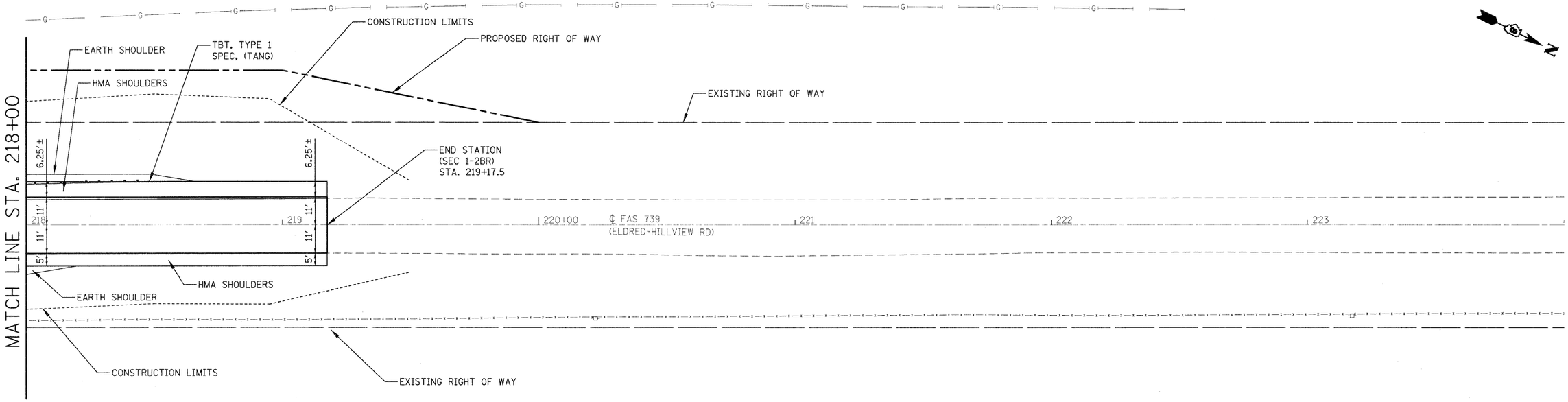
	PLOT DATE = 3/25/2012	CHECKED -	REVISED -	
		DATE -	REVISED -	

PLAN AND PROFILE SHEETS
SN 031-0011(E) 0040(P), SECTION 1-2BR

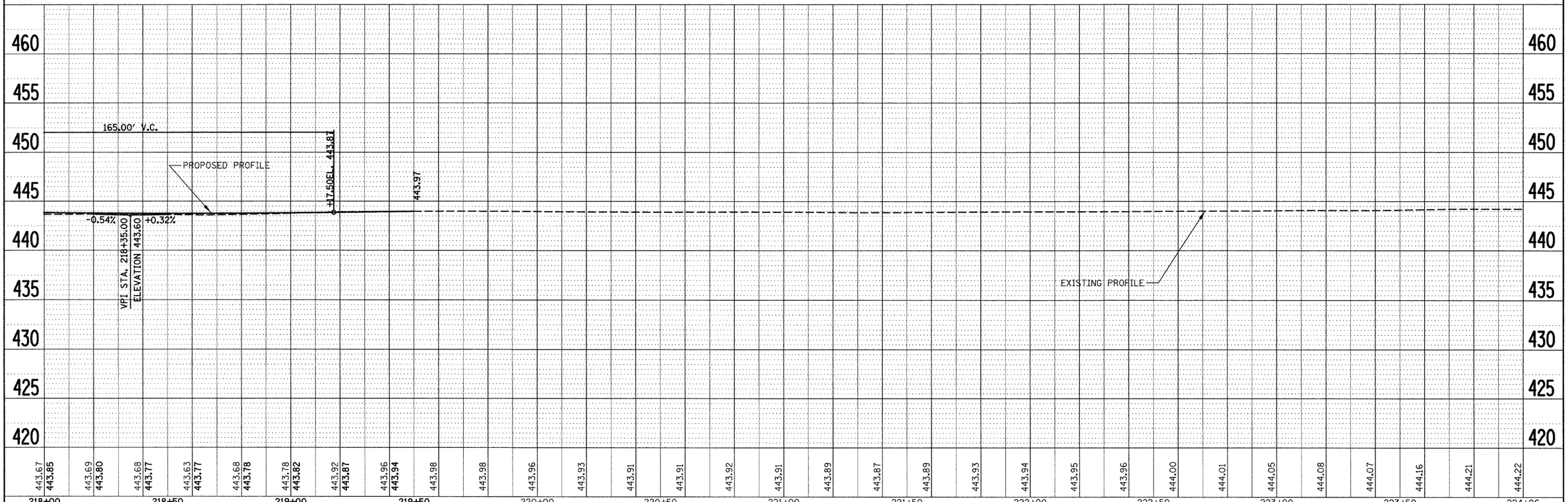
SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 212+00 | TO STA. 218+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	75

CONTRACT NO. 76410
ILLINOIS FED. AID PROJECT



PLAN
SURVEYED
PLOTTED
ROADS CHECKED
R/W NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE



PROFILE
SURVEYED
PLOTTED
ROADS CHECKED
R/W NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

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	PLOT DATE = 3/25/2010	DATE -	REVISED -

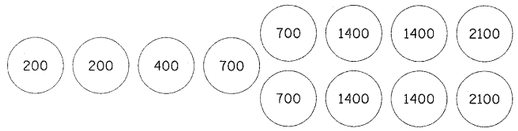
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEETS
SN 031-0011(E) 0040(P), SECTION 1-2BR

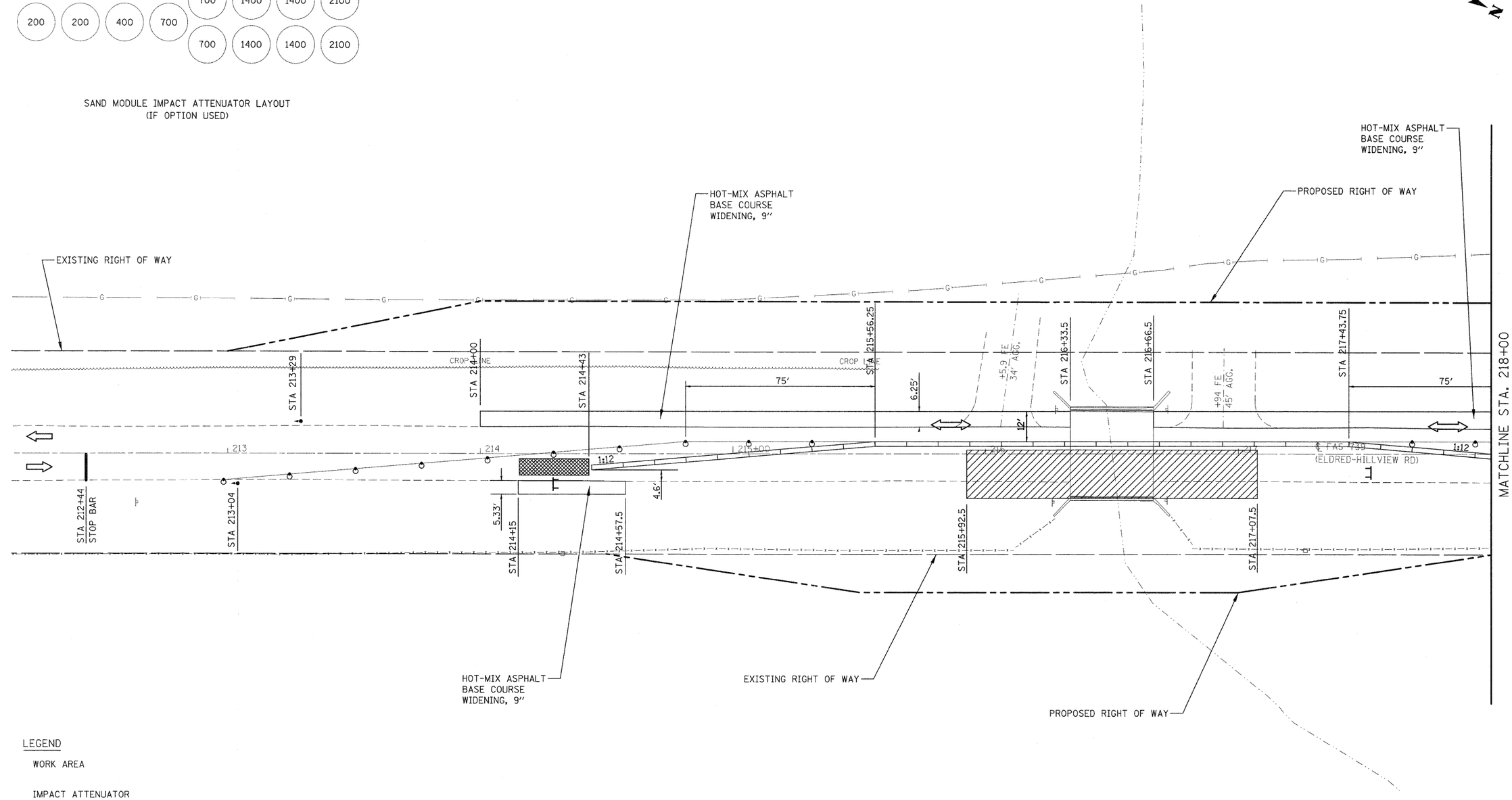
SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 218+00 TO STA. 224+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	76

CONTRACT NO. 76410
ILLINOIS FED. AID PROJECT



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)



LEGEND

- WORK AREA
- IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- BARRELS WITH STEADY BURNING LIGHT
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE III BARRICADE

20' 0 20' 40'
SCALE: 1" = 20'

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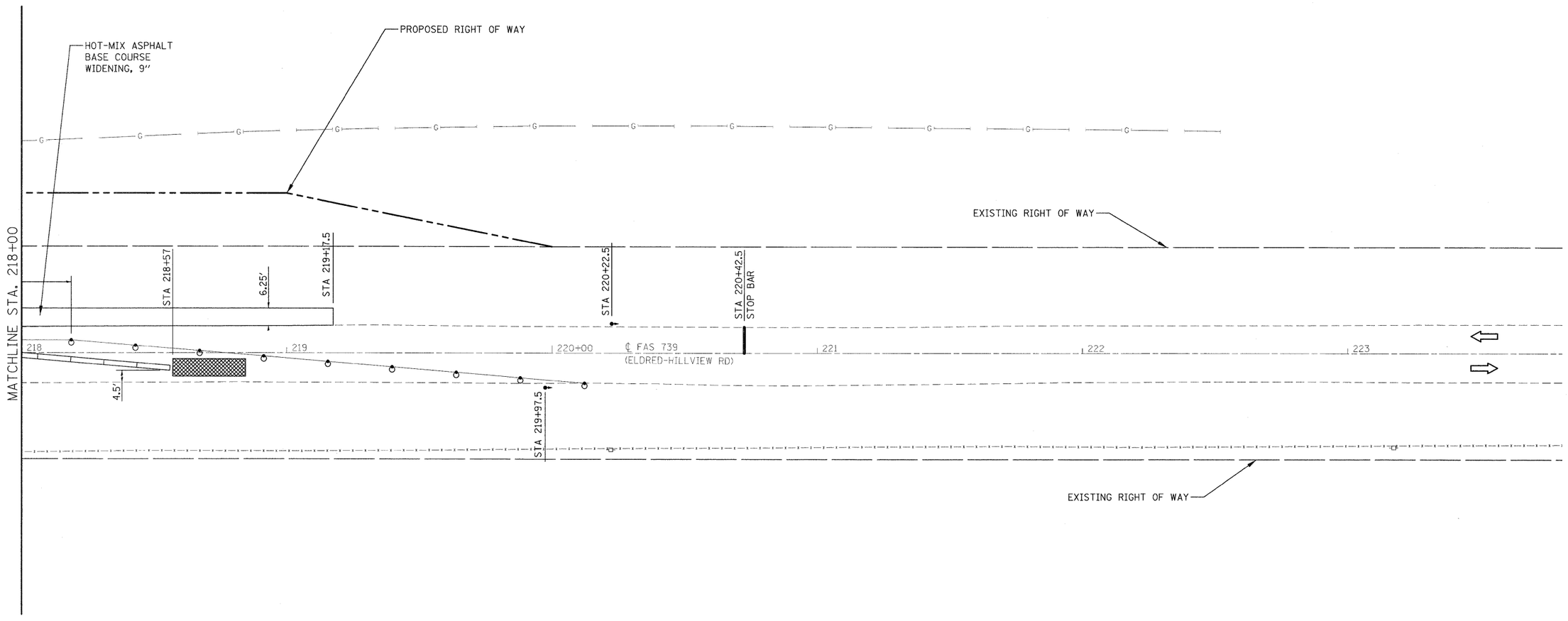
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 212+15 TO STA. 218+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	77
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



SEQUENCE OF CONSTRUCTION - STAGE I

PLACE HOT-MIX ASPHALT BASE COURSE, 9" AS SPECIFIED IN THE PLAN VIEW AS A PRE-STAGE TO STAGE I.

PLACE STOP BARS AS SHOWN ON PLANS.

REMOVE SKIP-DASH PAVEMENT MARKINGS BETWEEN STOP BARS.

PLACE 412.5 FT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

PERFORM ALL NECESSARY WORK FOR STAGE I CONSTRUCTION.

20' 0 20' 40'

SCALE: 1" = 20'

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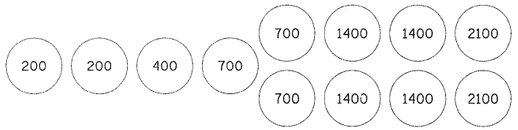
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

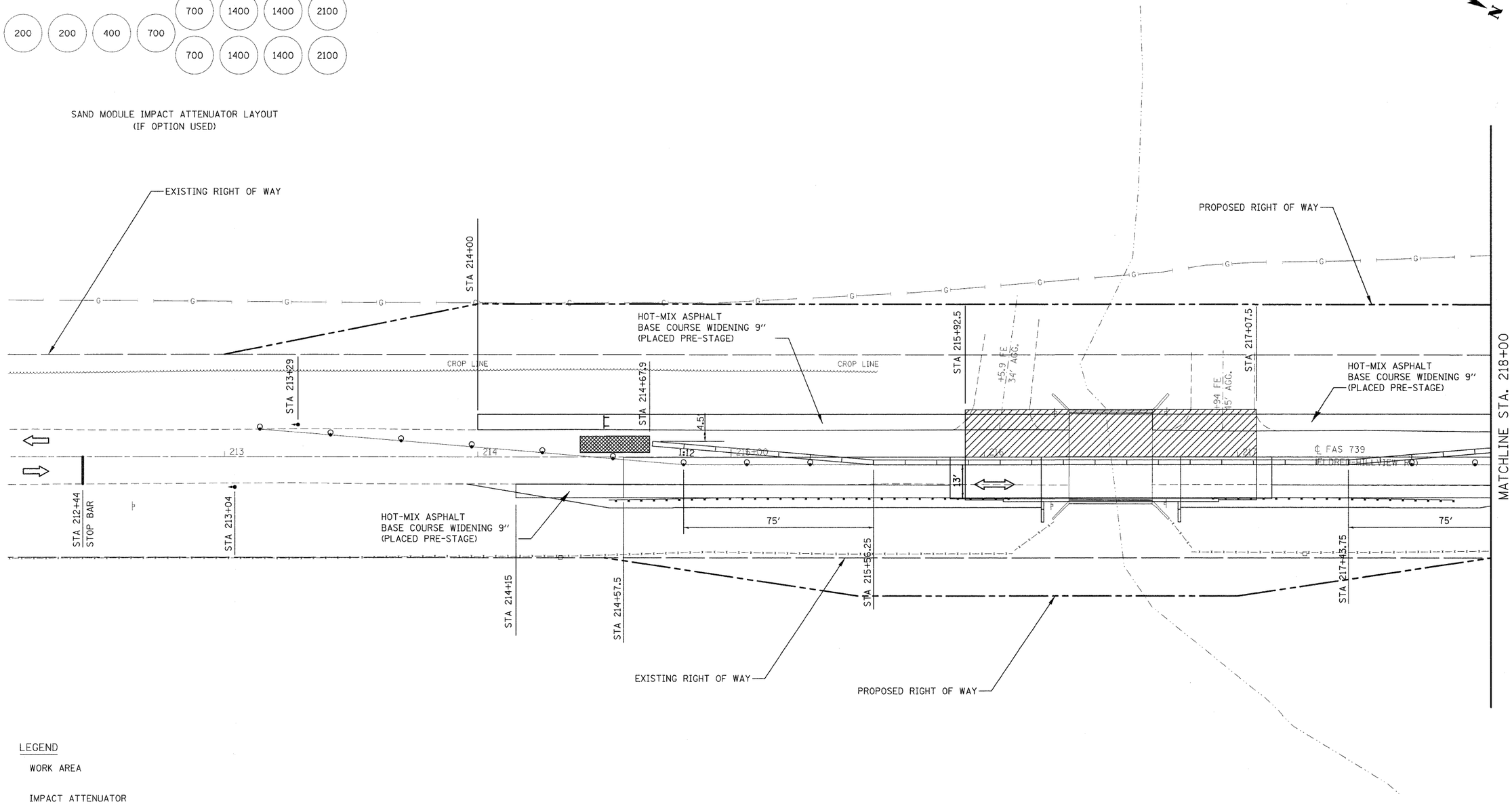
STAGE I CONSTRUCTION
SN 039-0011(E) 0040(P), SECTION 1-2BR

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 218+00 TO STA. 223+86

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	78
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)



LEGEND

- WORK AREA
- IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- BARRELS WITH STEADY BURNING LIGHT
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE III BARRICADE

20′ 0 20′ 40′
SCALE: 1″ = 20′

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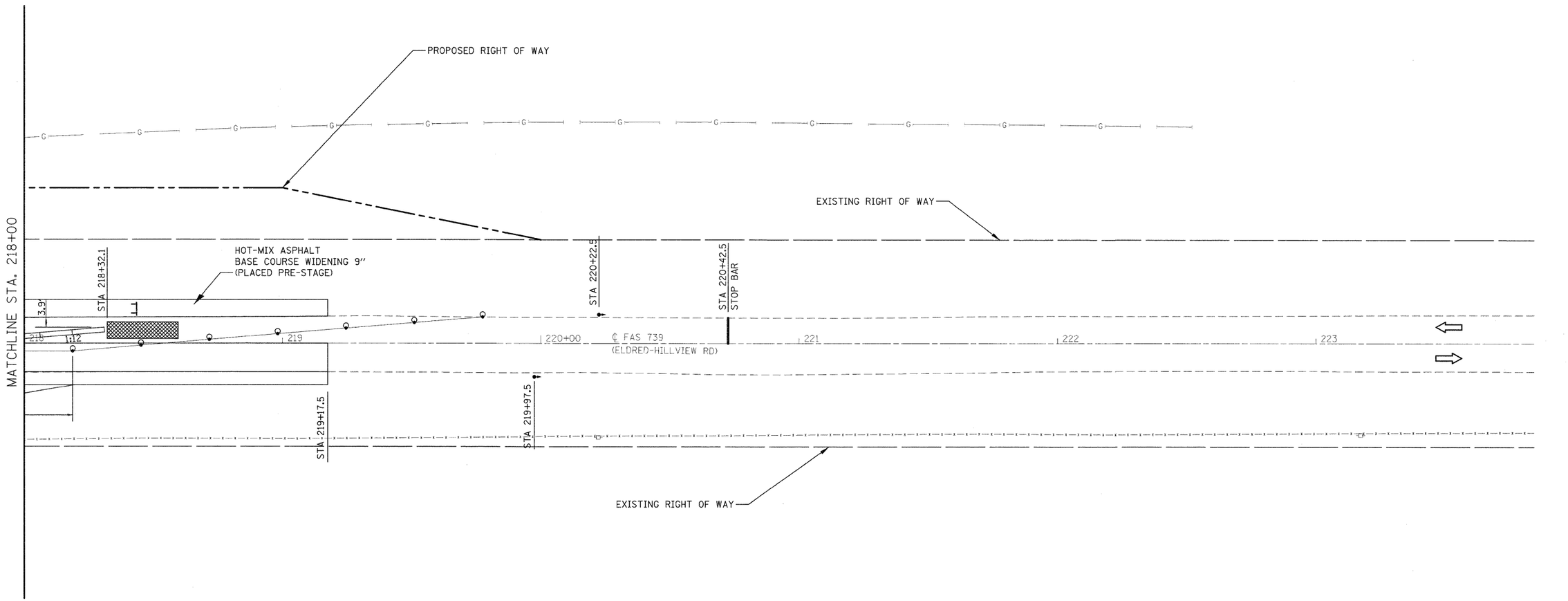
	PLOT SCALE = 20.000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: 1″ = 20′ | SHEET NO. 1 OF 2 SHEETS | STA. 212+15 TO STA. 218+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	79
		CONTRACT NO. 76410		
		ILLINOIS FED. AID PROJECT		



SEQUENCE OF CONSTRUCTION - STAGE II

RELOCATE 362.5 FT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

PERFORM ALL NECESSARY WORK FOR STAGE II CONSTRUCTION.

20′ 0 20′ 40′

SCALE: 1″ = 20′

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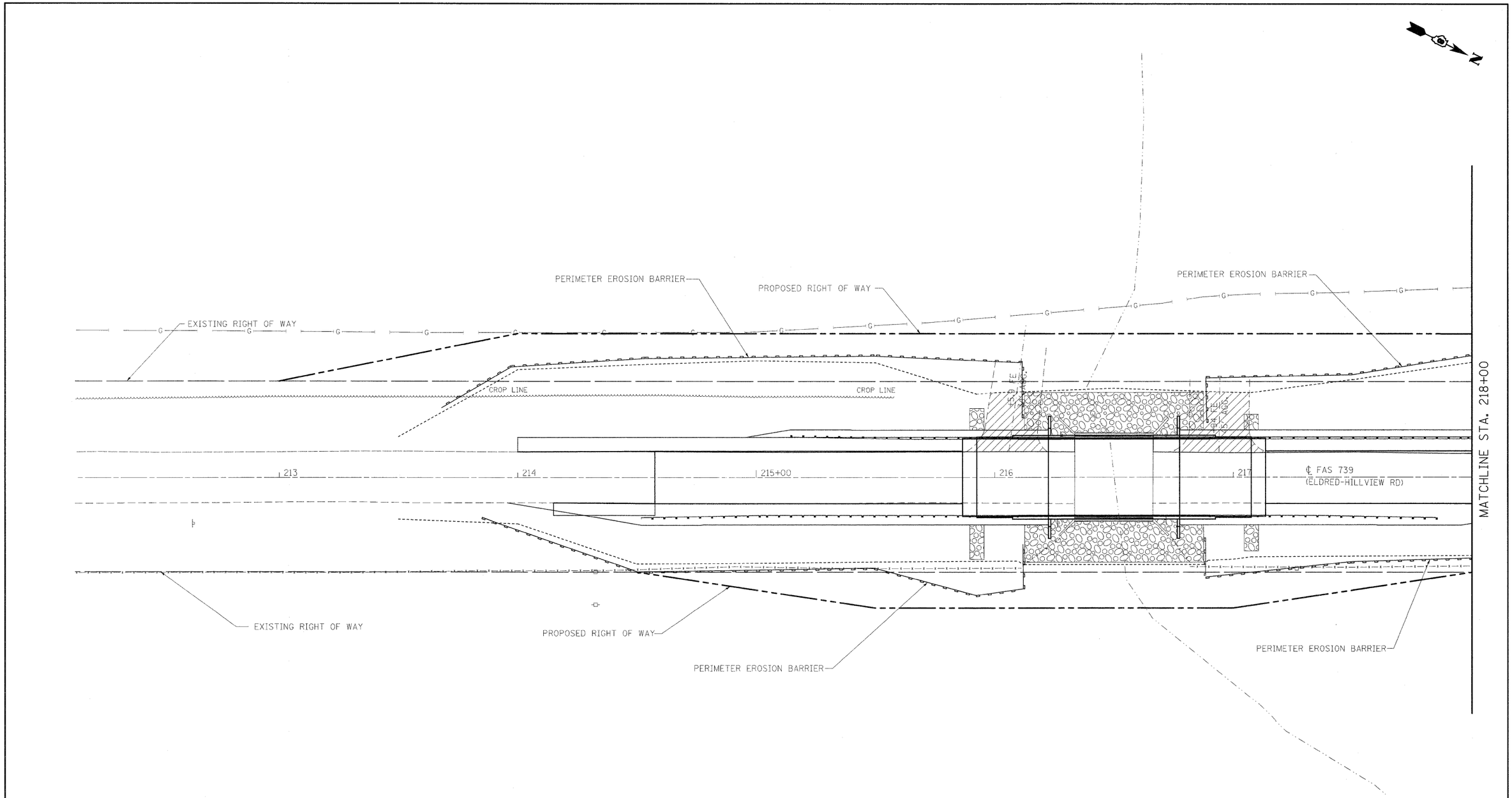
	PLOT SCALE = 20.000 ' / IN.	DRAWN -	REVISED -
	PLOT DATE = 3/25/2010	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION
SN 039-0011(E) 0040(P), SECTION 1-2BR

SCALE: 1″ = 20′ | SHEET NO. 2 OF 2 SHEETS | STA. 218+00 TO STA. 223+86

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	80
		CONTRACT NO. 76410		
		ILLINOIS FED. AID PROJECT		



20′ 0 20′ 40′

SCALE: 1″ = 20′

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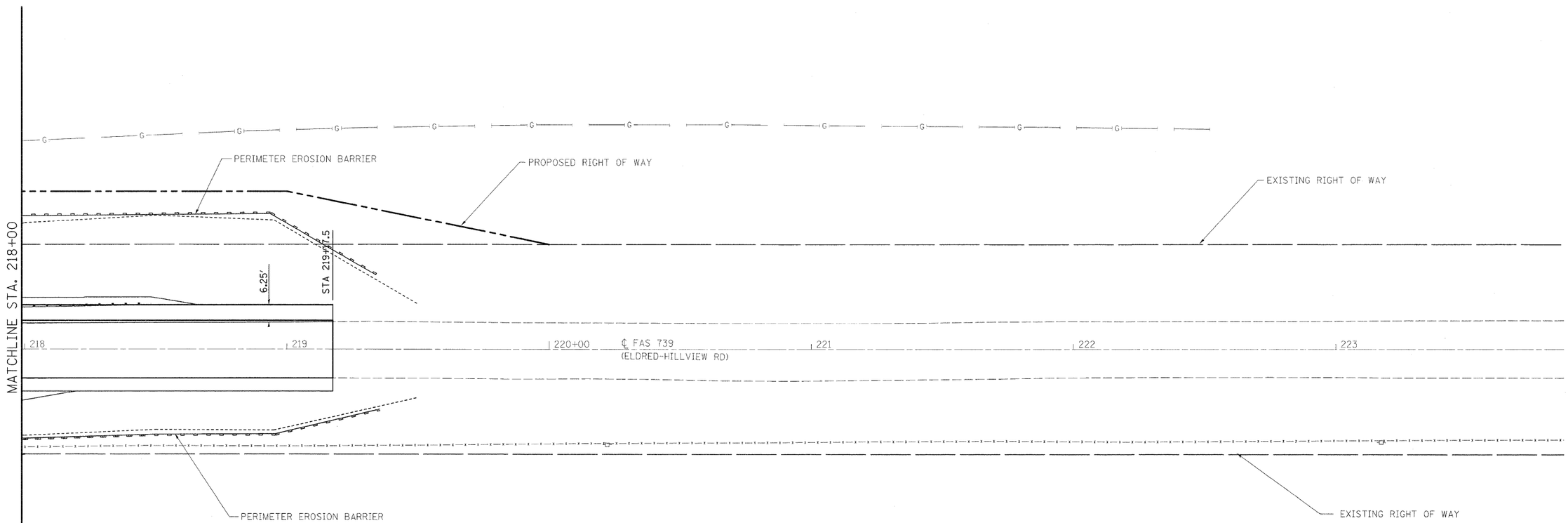
	PLOT SCALE = 20.000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL SHEETS
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: 1″ = 20′ | SHEET NO. 1 OF 2 SHEETS | STA. 212+15 | TO STA. 218+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	81
		CONTRACT NO. 76410		
		ILLINOIS FED. AID PROJECT		



20' 0 20' 40'

SCALE: 1" = 20'

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		DRAWN -	REVISED -
	PLOT SCALE = 20.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL SHEETS
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 218+00 TO STA. 223+86

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	82
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

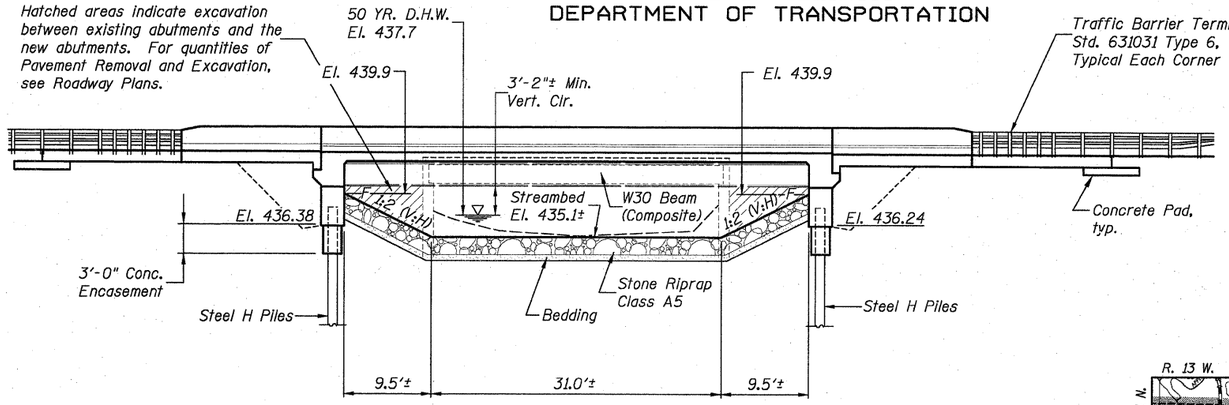
BENCHMARK: T.B.M. Iron Rod Set (by IDOT)
Sta. 230+17.23, 17.4' Rt.
El. 442.931

EXISTING STRUCTURE S.N. 031-0011 was built in 1939 as F.A. Route 155, Section 1B. The existing structure consists of a 6½" concrete deck on 24" steel beams spanning between treated timber abutments on timber piles. The existing structure measures 33'-0" back to back of abutments and 37'-4" out to out of deck.

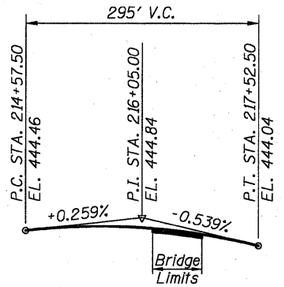
Existing structure to be removed and replaced.

The road shall be kept open to one lane of traffic at all times by utilizing stage construction.

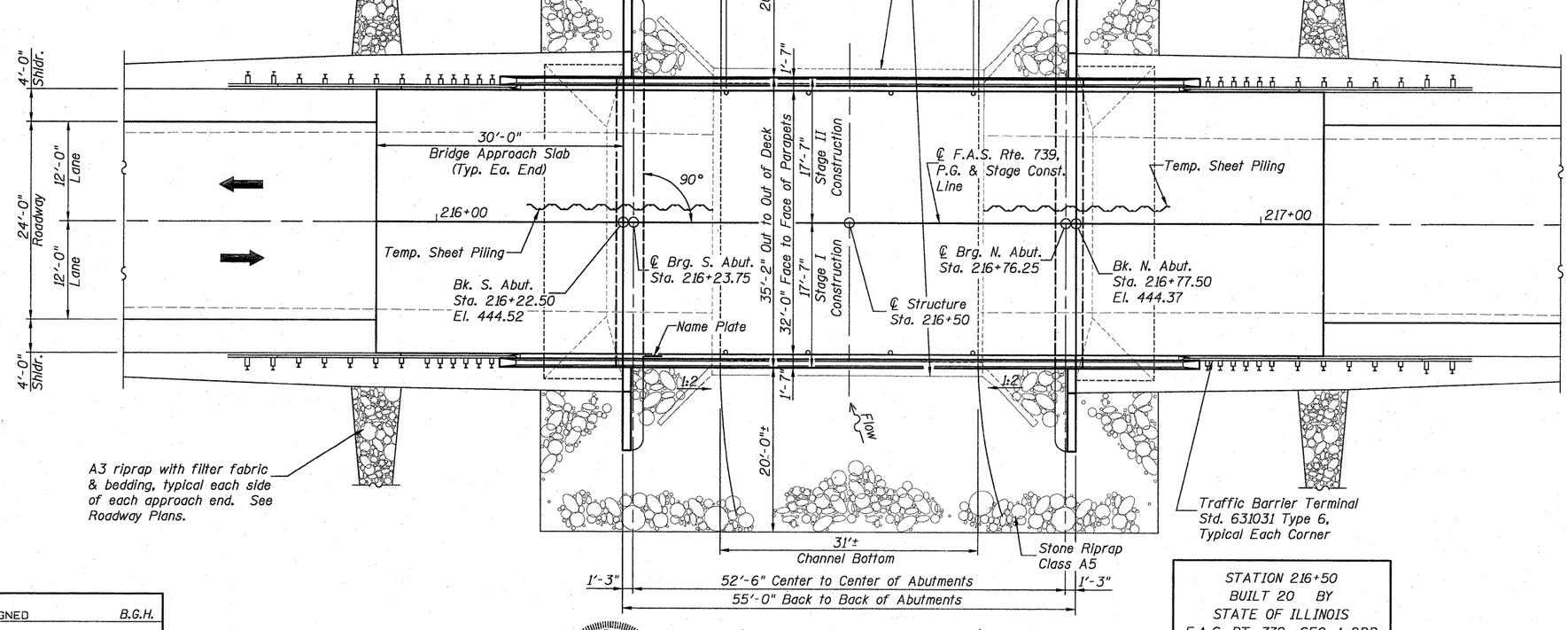
SALVAGE: No Salvage



ELEVATION



PROFILE GRADE
(along ℄ FAS 739)



PLAN

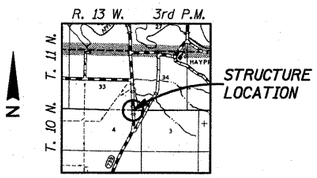
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (Feet)	S. Abut.	N. Abut.
	433.38	433.24

WATERWAY INFORMATION

Drainage Area = 0.77 Sq. Mi.
Existing Low Grade El. 443.63 ℄ Sta. 218+62
Proposed Low Grade El. 443.72 ℄ Sta. 218+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	1,188	37	86	437.70	6.06	4.90	443.76	442.60
Base	100	1,395	39	90	437.80	6.93	5.37	444.73	443.17
Exist. Overtopping	47	1,160	36	--	437.69	5.94	--	443.63	--
Prop. Overtopping	200	1,610	--	94	437.89	--	5.83	--	443.72
Max. Calc.	500	N/A							
Scour	10	721	30	75	437.43	4.15	3.86	441.58	441.29



LOCATION SKETCH

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications w/2008 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270, Grade 50)
fy = 36,000 psi (M270, Grade 36)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.160g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.294g
Soil Site Class = D

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Bradley G. Hummert
Bradley G. Hummert
Licensed Structural Engineer
in Carlyle, Illinois
No. 081-005428, Expires 11/30/2010

Date: 12/1/09

BRADLEY G. HUMMERT 081-005428 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS CARLYLE, IL

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (TD)
ENGINEER OF BRIDGES AND STRUCTURES

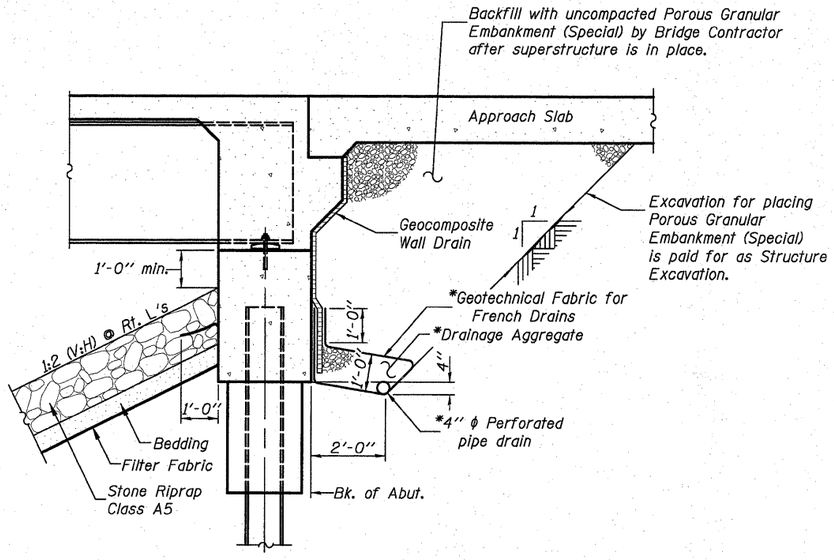
STATION 216+50
BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RT. 739 SEC. 1-2BR
LOADING HL93
STRUCTURE NO. 031-0040

NAME PLATE
See Std. 515001

GENERAL PLAN & ELEVATION
ELDRED-HILLVIEW ROAD
OVER UNNAMED STREAM
STATION 216+50

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	83
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

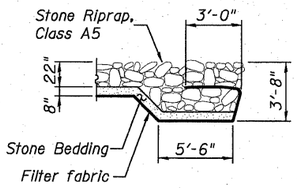


SECTION THRU INTEGRAL ABUTMENT

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

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



STONE RIPRAP FLANK DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Porous Granular Embankment (Special)	Cu. Yd.	———	130	130
	Stone Riprap, Class A5	Sq. Yd.	———	521	521
	Filter Fabric	Sq. Yd.	———	521	521
	Removal of Existing Structures No. 2	Each	———	———	1
	Structure Excavation	Cu. Yd.	———	226	226
	Floor Drains	Each	8	———	8
	Concrete Structures	Cu. Yd.	———	61.5	61.5
	Concrete Superstructure	Cu. Yd.	189.0	———	189.0
	Bridge Deck Grooving	Sq. Yd.	386	———	386
	Concrete Encasement	Cu. Yd.	———	6.6	6.6
**	Protective Coat	Sq. Yd.	488	———	488
	Furnishing and Erecting Structural Steel	L. Sum	0.2	———	0.2
	Stud Shear Connectors	Each	972	———	972
***	Reinforcement Bars, Epoxy Coated	Pound	43,510	7,180	50,690
***	Bar Splicers	Each	486	———	486
	Furnishing Steel Piles HP 14x73	Foot	———	940	940
	Driving Piles	Foot	———	940	940
	Test Pile Steel HP 14x73	Each	———	2	2
	Temporary Sheet Piling	Sq. Ft.	———	1,217	1,217
	Name Plates	Each	1	———	1
	Anchor Bolts, 1"	Each	———	24	24
	Geocomposite Wall Drain	Sq. Yd.	———	76	76
	Pipe Underdrains for Structures 4"	Foot	———	132	132

** Quantity includes top of concrete surface of bridge deck and approach slabs end to end and the top and inside vertical faces of the parapets and curbs.

*** Reinforcement and Bar Splicer quantities for Bridge Approach Slabs and Footings are included in Superstructure quantities.

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $^{3}/_{4}$ in. ϕ, holes $^{15}/_{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 3,100 lbs. (M270, Grade 36)
   = 35,520 lbs. (M270, Grade 50)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
7. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".
8. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
9. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
10. Slipforming of the parapets is not allowed.

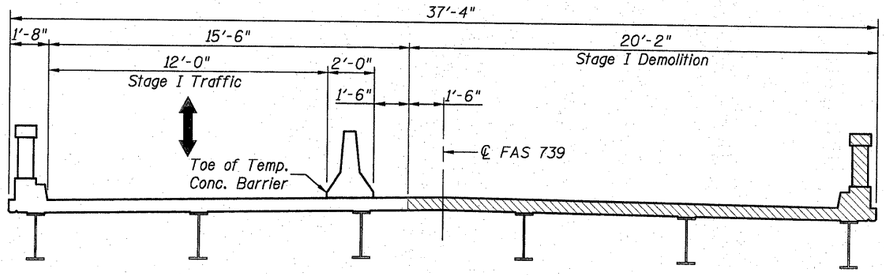
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

GENERAL DATA

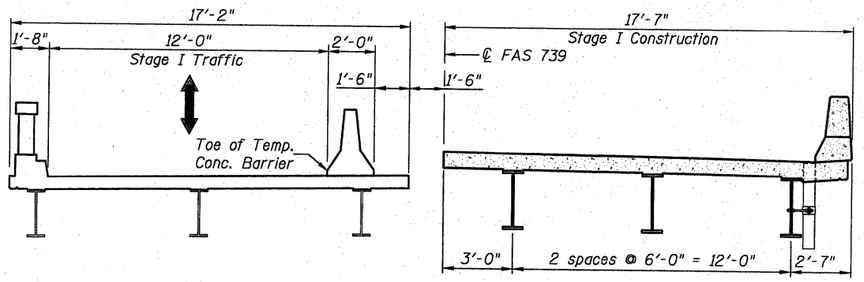
SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	84
		S.N. 031-0040	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

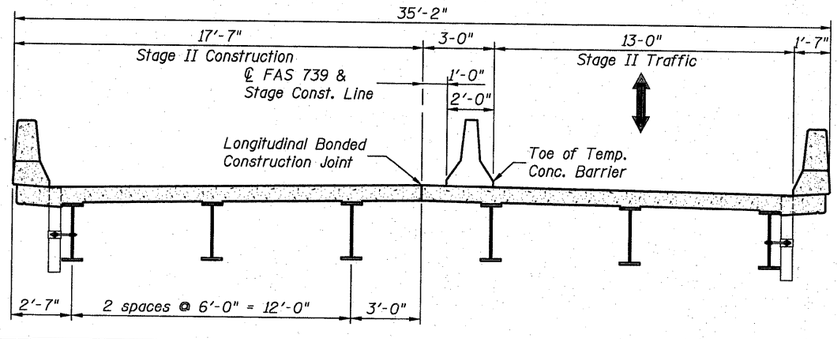


STAGE I DEMOLITION
(Looking North)



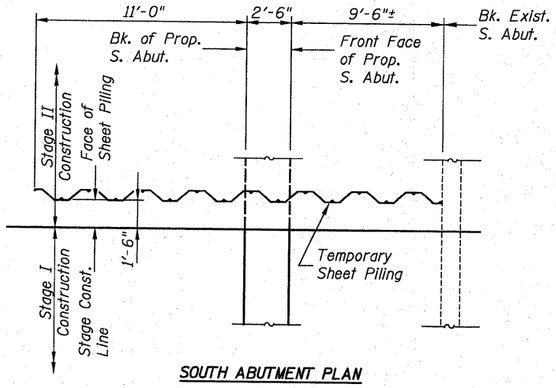
STAGE I CONSTRUCTION
(Looking North)

STAGE II DEMOLITION
(Looking North)

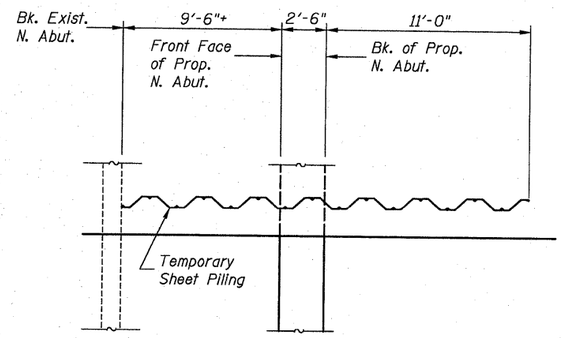


STAGE II CONSTRUCTION
(Looking North)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

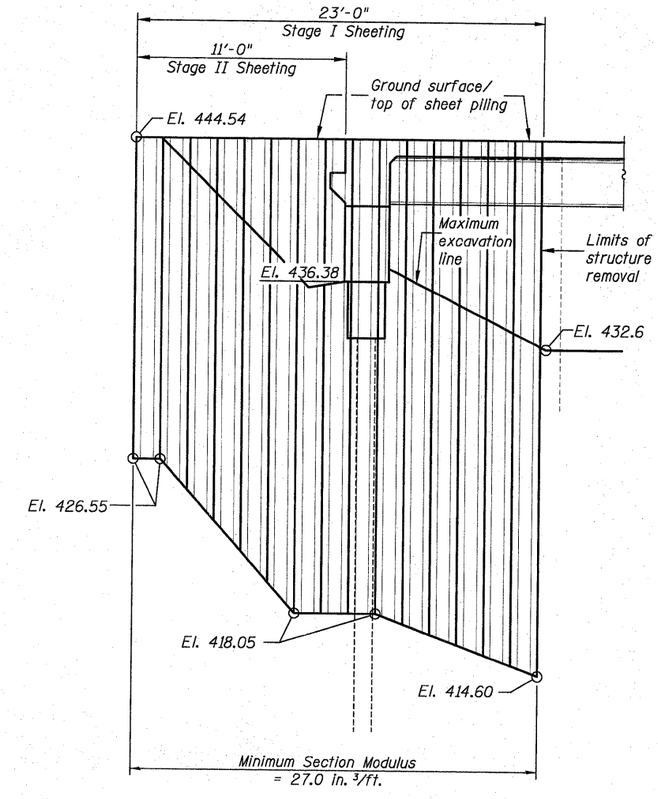


SOUTH ABUTMENT PLAN

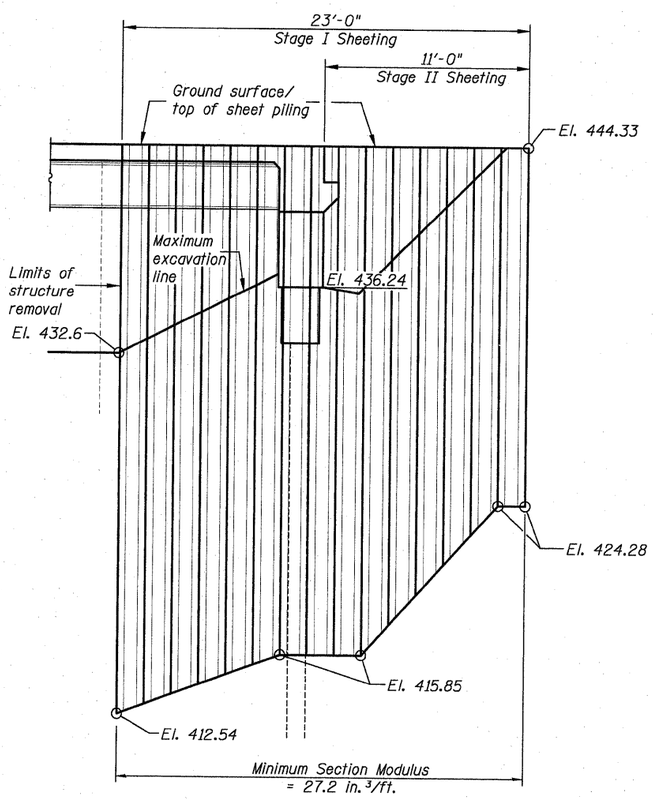


NORTH ABUTMENT PLAN

TEMPORARY SHEET PILING PLAN



SOUTH ABUTMENT ELEVATION



NORTH ABUTMENT ELEVATION

TEMPORARY SHEET PILING ELEVATION

NOTES

1. 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.
2. See Roadway Plans for quantity of Temporary Concrete Barrier.

STAGE CONSTRUCTION DETAILS

SHEET NO. 3	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	85
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

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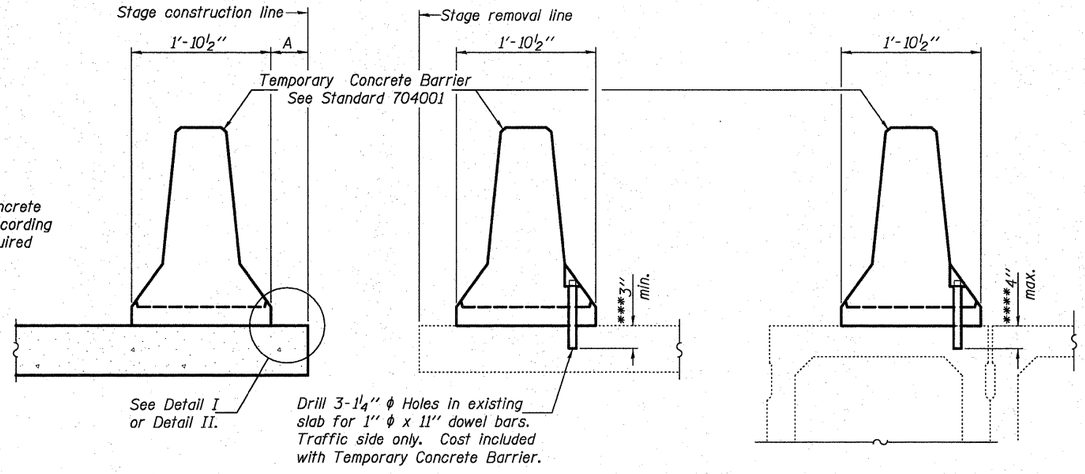
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

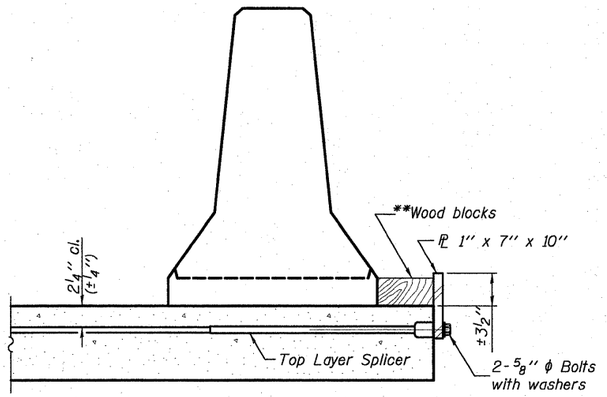
Cost of anchorage is included with Temporary Concrete Barrier.

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.

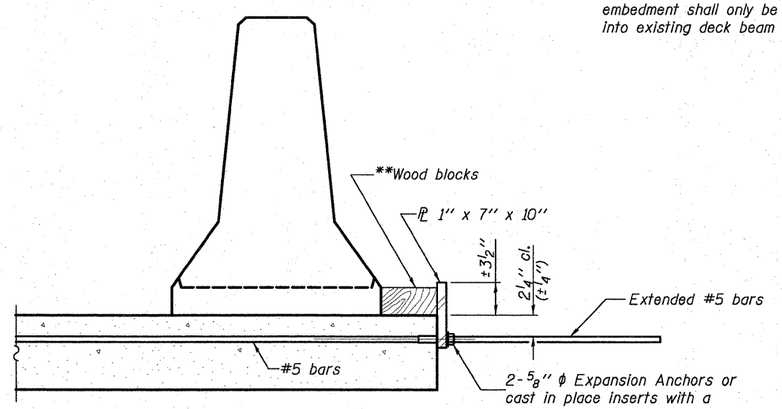
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

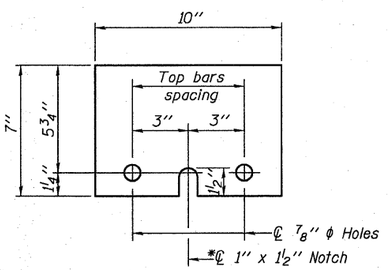
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 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.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

R-27 10-1-08

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

SHEET NO. 4	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	86
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
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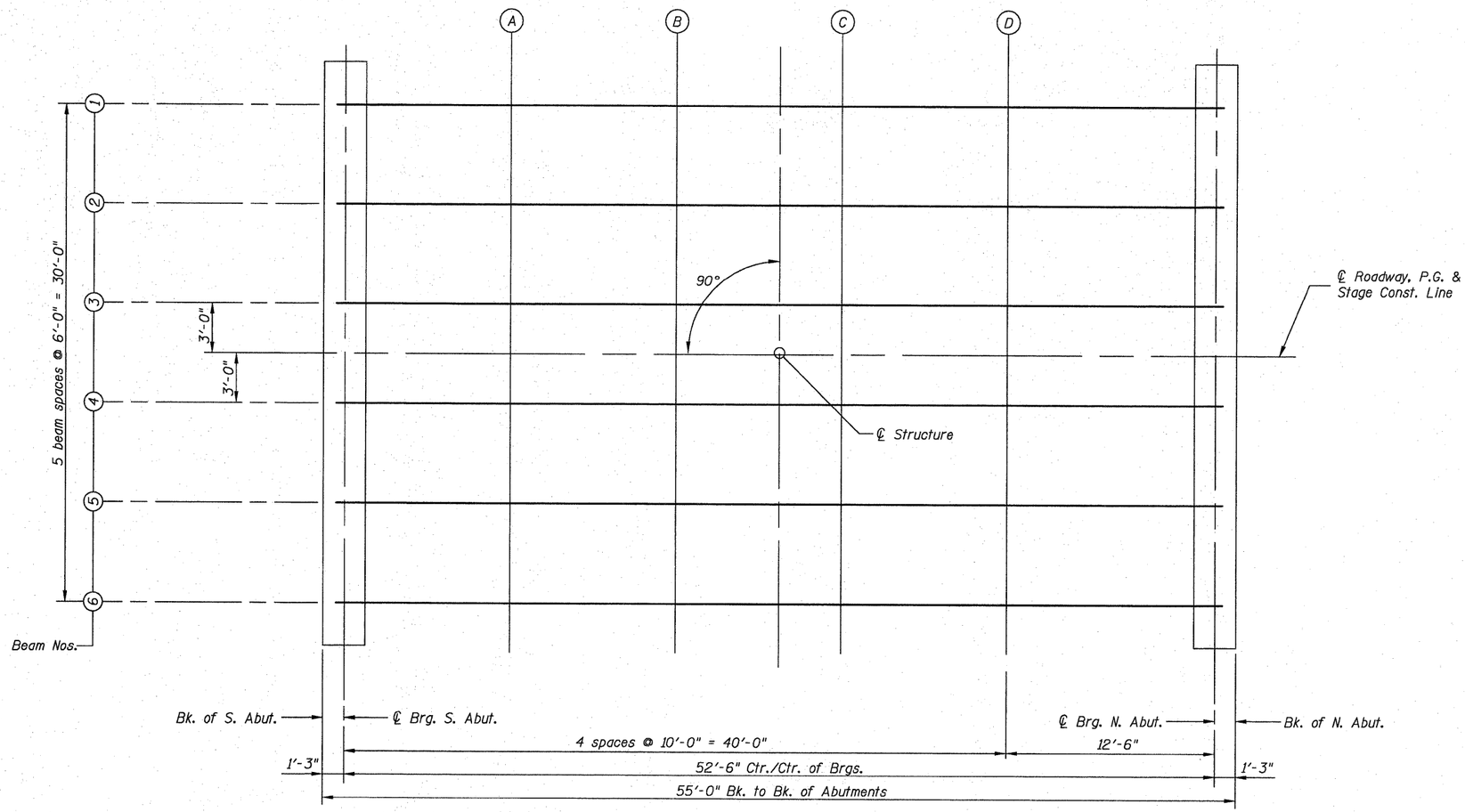
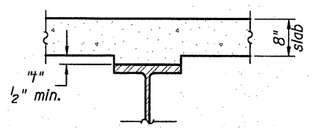
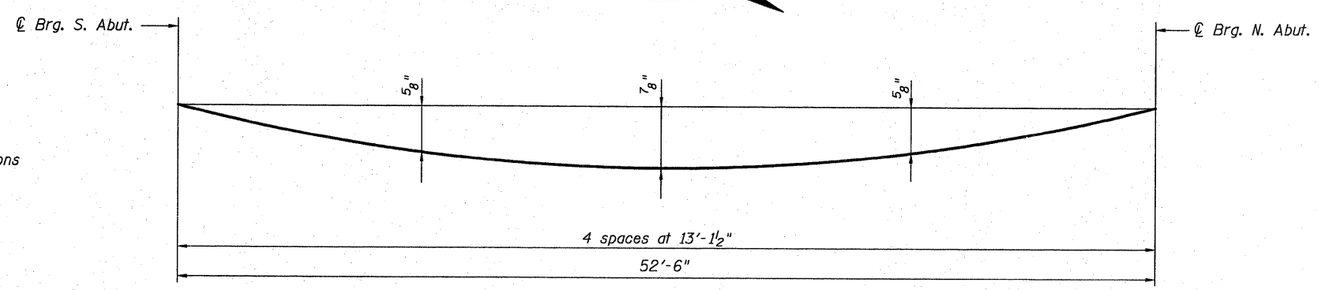


PLAN N



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 6 and 7 of 21, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 6 and 7 of 21.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

TOP OF SLAB ELEVATIONS

SHEET NO. 5	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	87
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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BEAM #1

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	216+22.50	-15.00	444.27	444.27
℄ Brg. S. Abut.	216+23.75	-15.00	444.26	444.26
A	216+33.75	-15.00	444.24	444.29
B	216+43.75	-15.00	444.22	444.29
C	216+53.75	-15.00	444.20	444.27
D	216+63.75	-15.00	444.17	444.22
℄ Brg. N. Abut.	216+76.25	-15.00	444.13	444.13
Bk. N. Abut.	216+77.50	-15.00	444.12	444.12

BEAM #2

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	216+22.50	-9.00	444.38	444.38
℄ Brg. S. Abut.	216+23.75	-9.00	444.37	444.37
A	216+33.75	-9.00	444.35	444.40
B	216+43.75	-9.00	444.33	444.40
C	216+53.75	-9.00	444.30	444.38
D	216+63.75	-9.00	444.28	444.33
℄ Brg. N. Abut.	216+76.25	-9.00	444.24	444.24
Bk. N. Abut.	216+77.50	-9.00	444.23	444.23

BEAM #3

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	216+22.50	-3.00	444.47	444.47
℄ Brg. S. Abut.	216+23.75	-3.00	444.47	444.47
A	216+33.75	-3.00	444.45	444.49
B	216+43.75	-3.00	444.42	444.50
C	216+53.75	-3.00	444.40	444.47
D	216+63.75	-3.00	444.37	444.42
℄ Brg. N. Abut.	216+76.25	-3.00	444.33	444.33
Bk. N. Abut.	216+77.50	-3.00	444.33	444.33

℄ ROADWAY, P.G. AND STAGE CONSTRUCTION LINE

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	216+22.50	0.00	444.52	444.52
℄ Brg. S. Abut.	216+23.75	0.00	444.51	444.51
A	216+33.75	0.00	444.49	444.54
B	216+43.75	0.00	444.47	444.54
C	216+53.75	0.00	444.45	444.52
D	216+63.75	0.00	444.42	444.47
℄ Brg. N. Abut.	216+76.25	0.00	444.38	444.38
Bk. N. Abut.	216+77.50	0.00	444.37	444.37

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 5 of 21 for elevation locations.

TOP OF SLAB ELEVATIONS

SHEET NO. 6	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	88
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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BEAM #4

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	216+22.50	3.00	444.47	444.47
℄ Brg. S. Abut.	216+23.75	3.00	444.47	444.47
A	216+33.75	3.00	444.45	444.49
B	216+43.75	3.00	444.42	444.50
C	216+53.75	3.00	444.40	444.47
D	216+63.75	3.00	444.37	444.42
℄ Brg. N. Abut.	216+76.25	3.00	444.33	444.33
Bk. N. Abut.	216+77.50	3.00	444.33	444.33

BEAM #5

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	216+22.50	9.00	444.38	444.38
℄ Brg. S. Abut.	216+23.75	9.00	444.37	444.37
A	216+33.75	9.00	444.35	444.40
B	216+43.75	9.00	444.33	444.40
C	216+53.75	9.00	444.30	444.38
D	216+63.75	9.00	444.28	444.33
℄ Brg. N. Abut.	216+76.25	9.00	444.24	444.24
Bk. N. Abut.	216+77.50	9.00	444.23	444.23

BEAM #6

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	216+22.50	15.00	444.27	444.27
℄ Brg. S. Abut.	216+23.75	15.00	444.26	444.26
A	216+33.75	15.00	444.24	444.29
B	216+43.75	15.00	444.22	444.29
C	216+53.75	15.00	444.20	444.27
D	216+63.75	15.00	444.17	444.22
℄ Brg. N. Abut.	216+76.25	15.00	444.13	444.13
Bk. N. Abut.	216+77.50	15.00	444.12	444.12

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 5 of 21 for elevation locations.

TOP OF SLAB ELEVATIONS

SHEET NO. 7	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	89
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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WEST CURB LINE

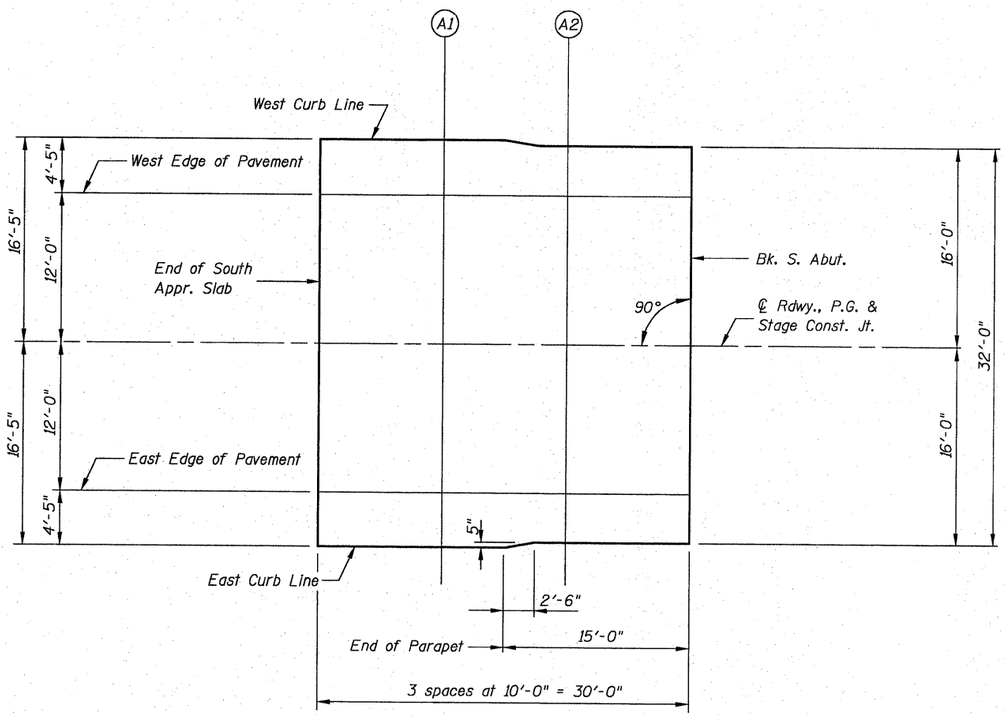
Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	215+92.50	-16.42	444.28
A1	216+02.50	-16.42	444.27
A2	216+12.50	-16.00	444.26
Bk. S. Abut.	216+22.50	-16.00	444.25

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	215+92.50	-12.00	444.37
A1	216+02.50	-12.00	444.36
A2	216+12.50	-12.00	444.35
Bk. S. Abut.	216+22.50	-12.00	444.33

℄ ROADWAY, P.G. & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	215+92.50	0.00	444.56
A1	216+02.50	0.00	444.55
A2	216+12.50	0.00	444.53
Bk. S. Abut.	216+22.50	0.00	444.52



EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	215+92.50	12.00	444.37
A1	216+02.50	12.00	444.36
A2	216+12.50	12.00	444.35
Bk. S. Abut.	216+22.50	12.00	444.33

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	215+92.50	16.42	444.28
A1	216+02.50	16.42	444.27
A2	216+12.50	16.00	444.26
Bk. S. Abut.	216+22.50	16.00	444.25

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SOUTH APPROACH PLAN

TOP OF SOUTH APPROACH SLAB ELEVATIONS

	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 8	739	1-2BR	GREENE	150	90
21 SHEETS	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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WEST CURB LINE

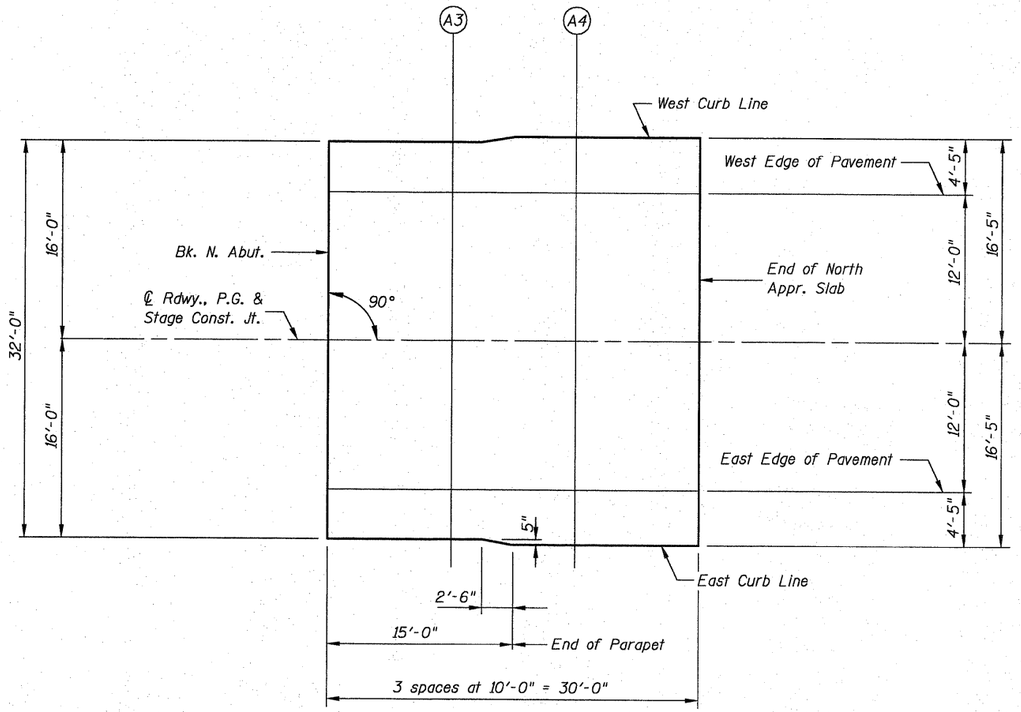
Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	216+77.50	-16.00	444.10
A3	216+87.50	-16.00	444.07
A4	216+97.50	-16.42	444.02
End N. Appr. Slab	217+07.50	-16.42	443.98

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	216+77.50	-12.00	444.18
A3	216+87.50	-12.00	444.15
A4	216+97.50	-12.00	444.11
End N. Appr. Slab	217+07.50	-12.00	444.07

℄ ROADWAY, P.G. & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	216+77.50	0.00	444.37
A3	216+87.50	0.00	444.34
A4	216+97.50	0.00	444.30
End N. Appr. Slab	217+07.50	0.00	444.26



EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	216+77.50	12.00	444.18
A3	216+87.50	12.00	444.15
A4	216+97.50	12.00	444.11
End N. Appr. Slab	217+07.50	12.00	444.07

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	216+77.50	16.00	444.10
A3	216+87.50	16.00	444.07
A4	216+97.50	16.42	444.02
End N. Appr. Slab	217+07.50	16.42	443.98

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

NORTH APPROACH PLAN N

TOP OF NORTH APPROACH SLAB ELEVATIONS

SHEET NO. 9	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	91
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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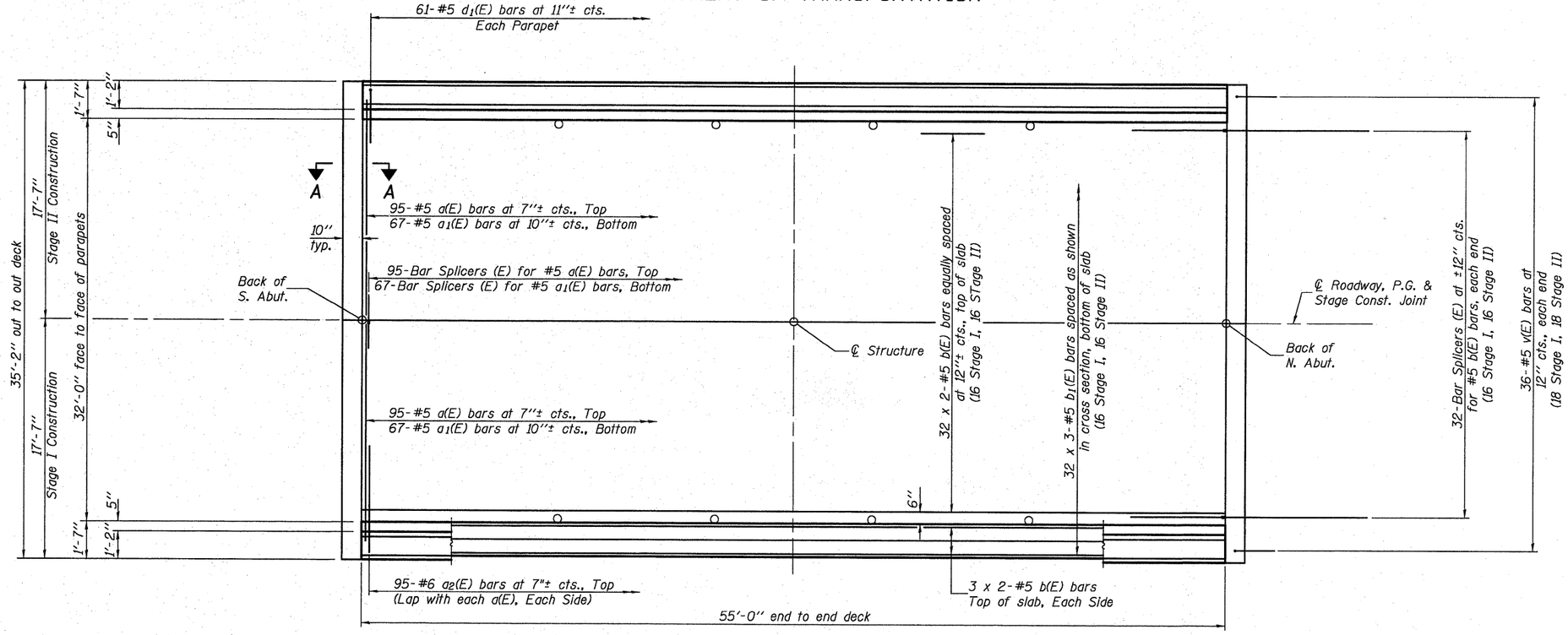
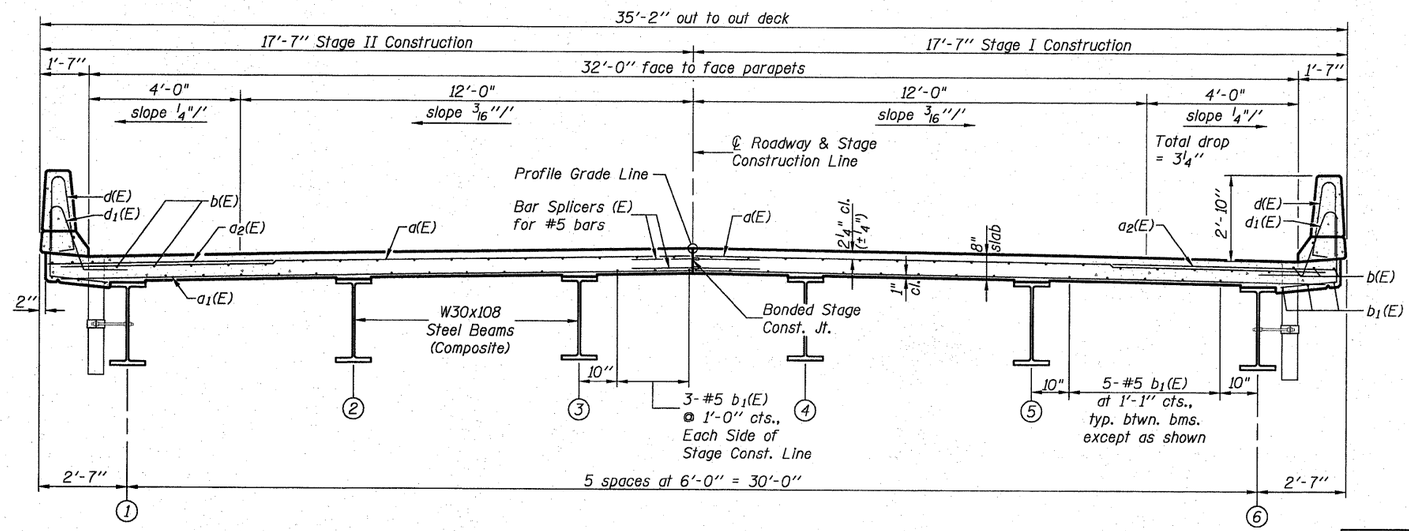


PLAN

MIN. BAR LAP

#5 bar = 2'-2"



CROSS SECTION

(Looking North)

Notes:

See Sheet 11 of 21 for superstructure details and Bill of Material.

Bars indicated thus 32 x 3-#5 etc. indicates 32 lines of bars with 3 lengths per line.

See Sheet 11 of 21 for parapet reinforcement.

See Section A-A shown on sheet 12 of 21.

For Bar Splicer details see sheet 19 of 21.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SI-1-0 10-1-08

SHEET NO. 10	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	92
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUPERSTRUCTURE

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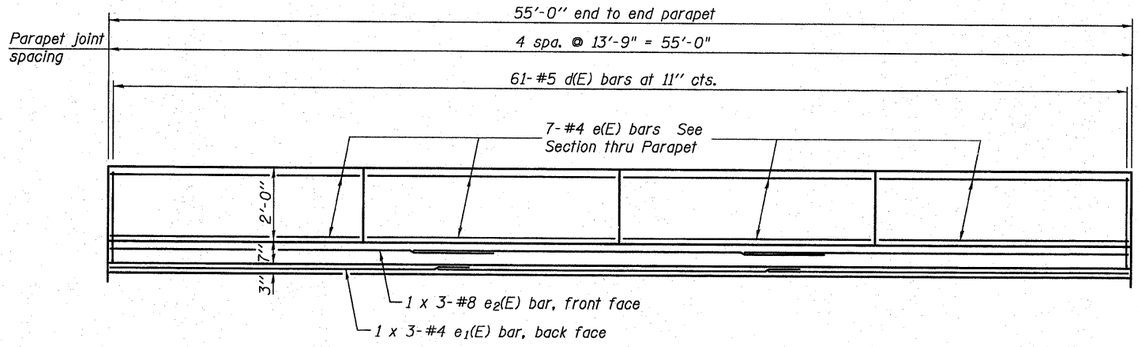
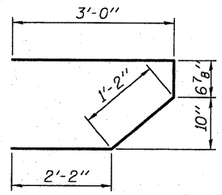
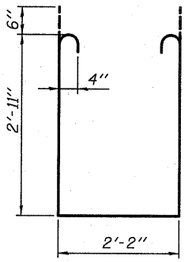
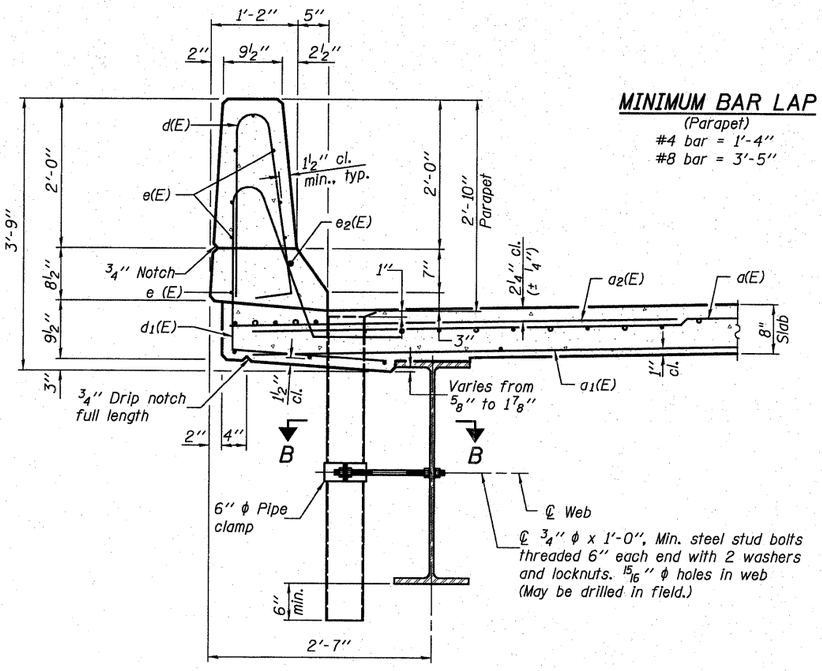




BAR s(E)

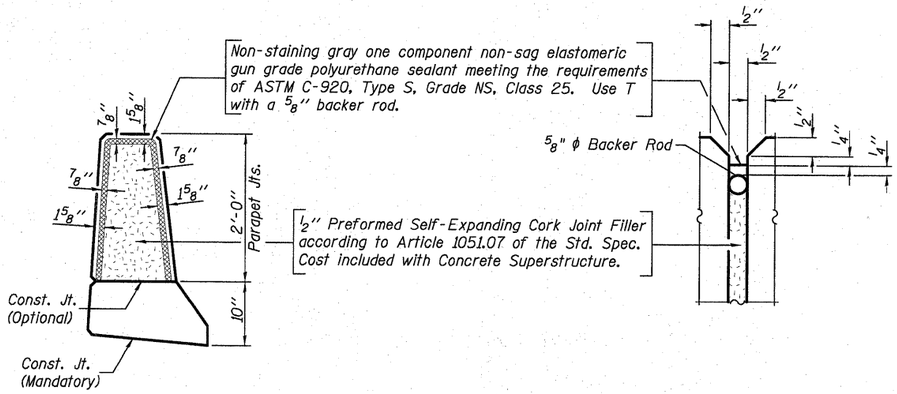


BAR s1(E)



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

INSIDE ELEVATION OF PARAPET



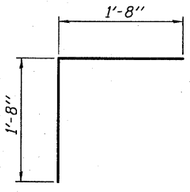
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	190	#5	17'-1"	——
a1(E)	134	#5	16'-8"	——
a2(E)	190	#6	6'-0"	——
b(E)	76	#5	28'-5"	——
b1(E)	96	#5	19'-8"	——
d(E)	122	#5	5'-7"	
d1(E)	122	#5	7'-4"	
e(E)	56	#4	13'-6"	——
e1(E)	6	#4	19'-1"	——
e2(E)	6	#8	20'-7"	——
m(E)	8	#6	17'-3"	——
m1(E)	12	#6	17'-3"	——
m2(E)	24	#6	7'-8"	——
m3(E)	8	#6	5'-8"	——
m4(E)	4	#6	2'-2"	——
m5(E)	4	#6	2'-8"	——
s(E)	84	#5	6'-11"	
s1(E)	64	#4	9'-0"	
v(E)	72	#5	3'-4"	
Reinforcement Bars, Epoxy Coated		Pound	16,340	
Concrete Superstructure		Cu. Yds.	83.4	

Bars indicated thus 1 x 3-#4 etc. indicates 1 line of bars with 3 lengths per line.

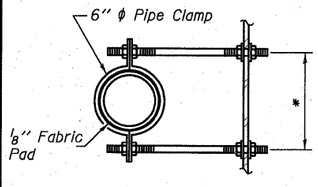
PARAPET JOINT DETAILS

Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Drains shall be located clear of all diaphragms.

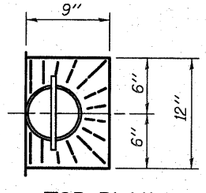


BAR v(E)

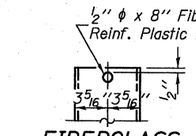
SECTION THRU PARAPET



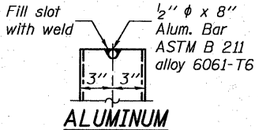
SECTION B-B
*Dimension as required by Pipe Clamp



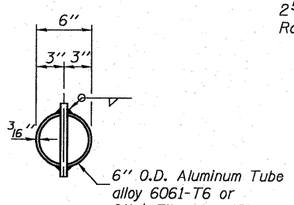
TOP PLAN



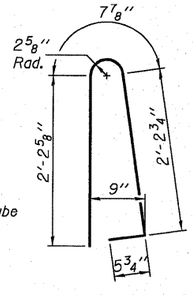
FIBERGLASS PIPE



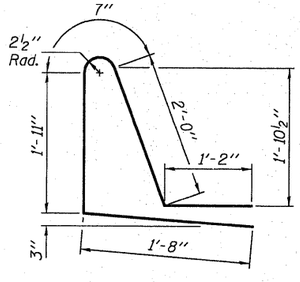
ALUMINUM TUBE



TOP PLAN
(Showing Aluminum Tube)



BAR d(E)



BAR d1(E)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

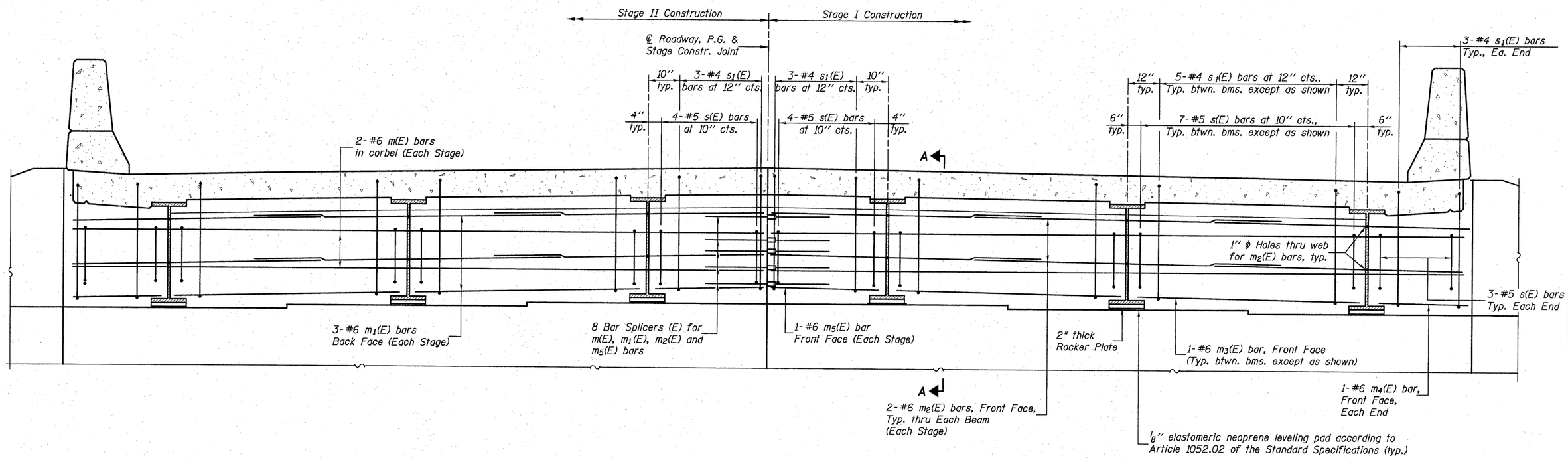
S-I-D 10-1-08

SUPERSTRUCTURE DETAILS

SHEET NO. 11	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	93
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

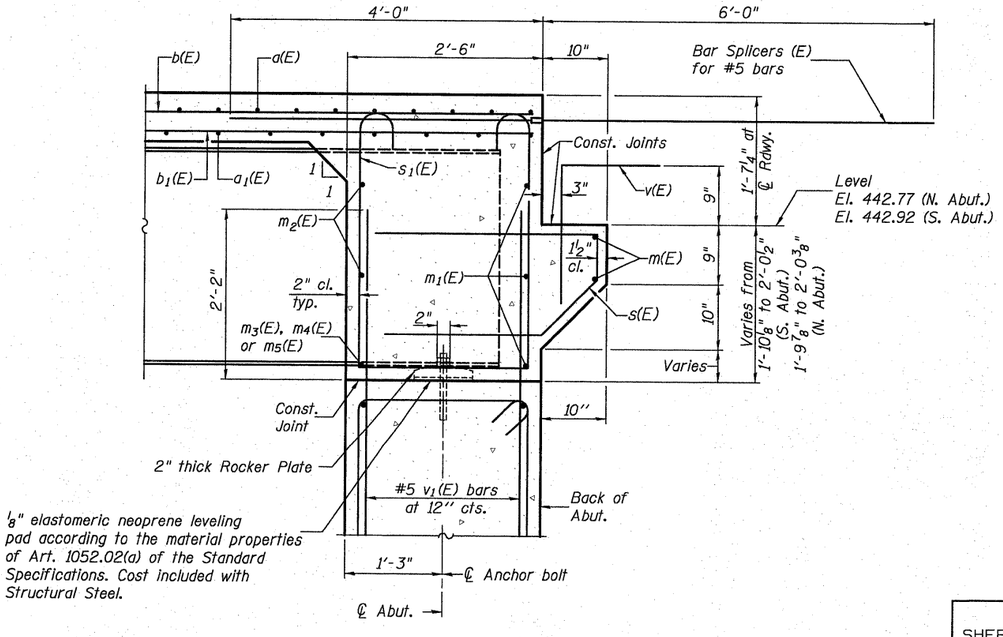
H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM ELEVATION AT NORTH ABUTMENT

(Looking North)



SECTION A-A

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 11 of 21.
Concrete in diaphragm is included with Concrete Superstructure on sheet 11 of 21.
For details of bars s(E) & s_1(E) see sheet 11 of 21.
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.

MIN. BAR LAP

#6 bar = 2'-9"

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

INTEGRAL ABUTMENT DIAPHRAGM DETAILS

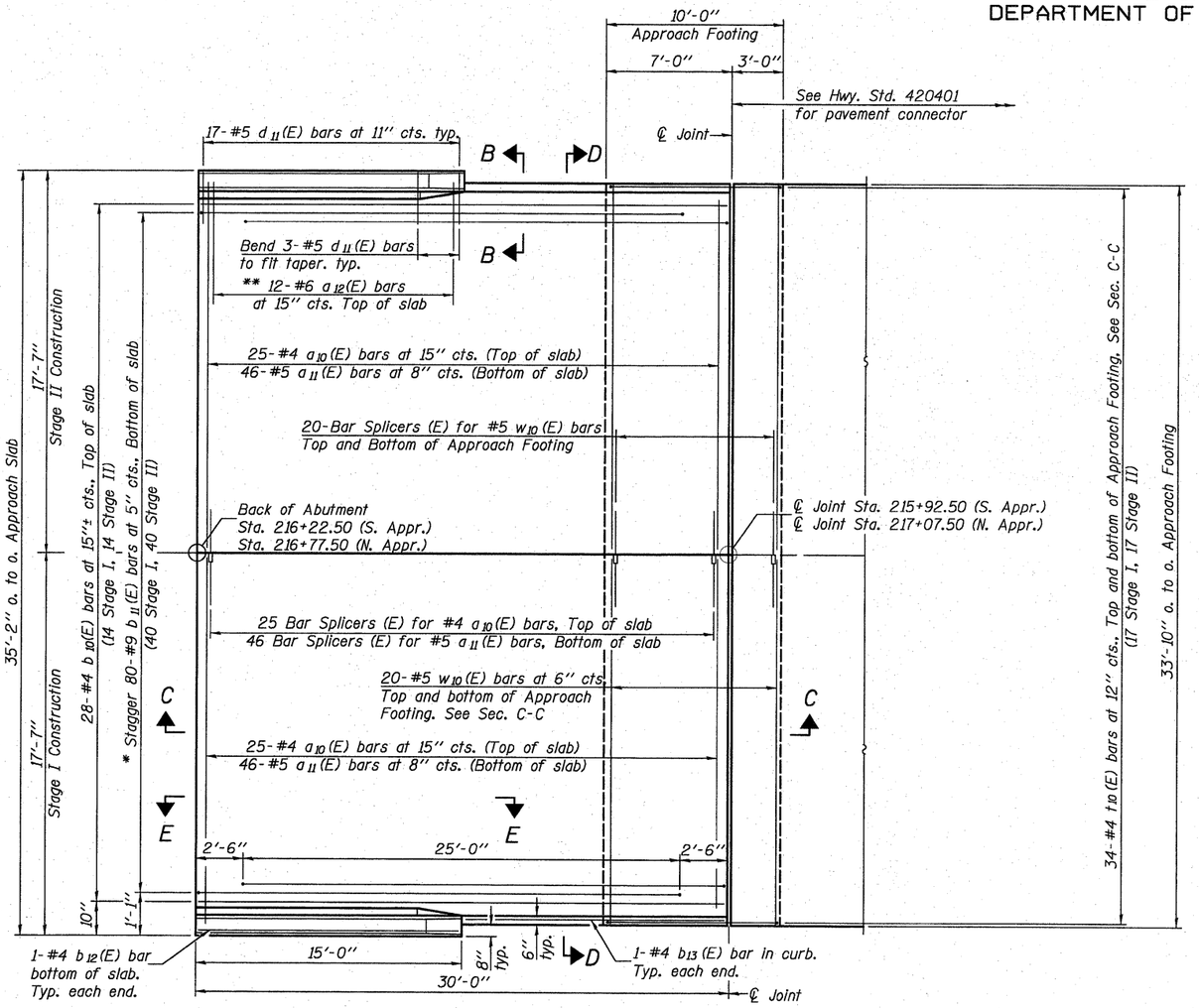
SHEET NO. 12	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	94
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

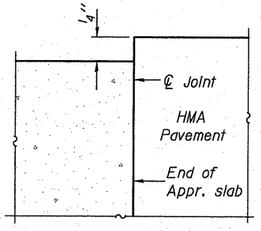
Notes:
See sheet 14 of 21 for Sections C-C & D-D and View E-E.
a_{10}(E), a_{11}(E), and w_{10}(E) bar spacings measured parallel to ℄ Rdwy.



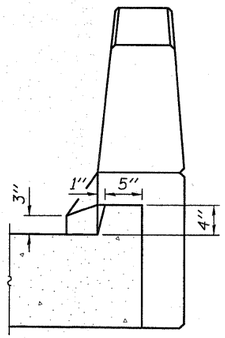
PLAN

(North Approach shown, South Approach similar)

* Tilt #9 b_{11}(E) bars as required to maintain clearance.
** Alternate with a_{10}(E) bars, typ. ea. parapet.



DETAIL A



VIEW B-B

(Exit ends only)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

BA-0 10-31-08

(Sheet 1 of 2)

BRIDGE APPROACH SLAB DETAILS

SHEET NO. 13	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	95
		S.N. 031-0040	CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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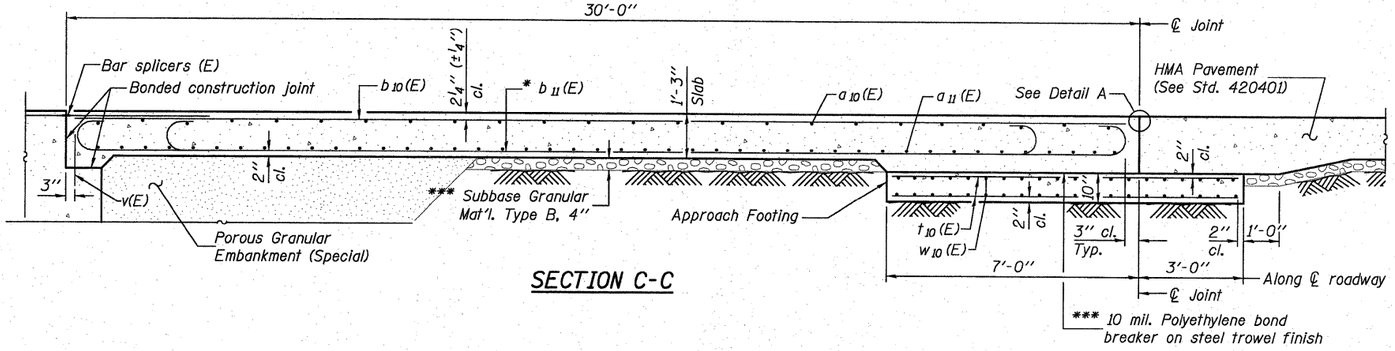
DEPARTMENT OF TRANSPORTATION

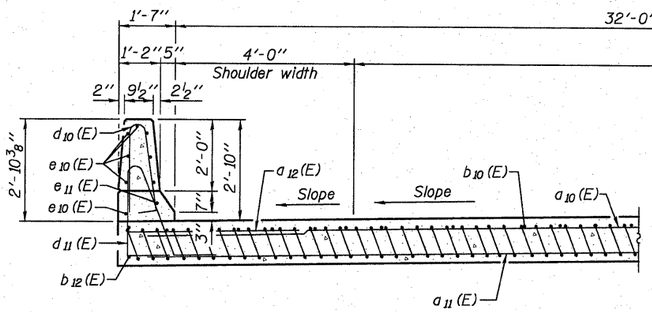
Notes:
See sheet 13 of 21 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 11 of 21.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 19 of 21.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 21.

* Tilt #9 b_{11} (E) bars as required to maintain clearance.

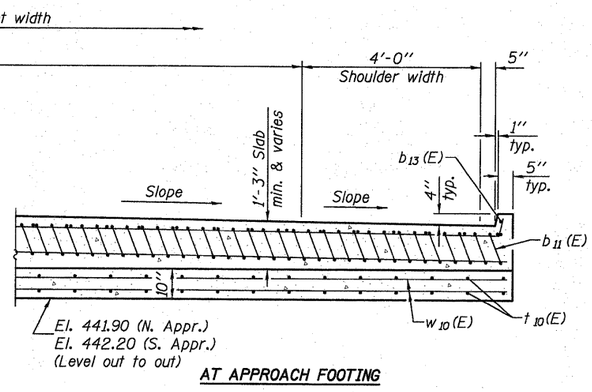
*** Cost included with Concrete Superstructure.



SECTION C-C

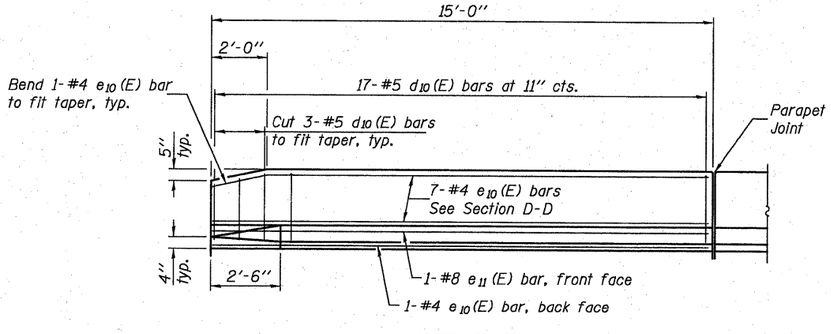


NEAR ABUTMENT

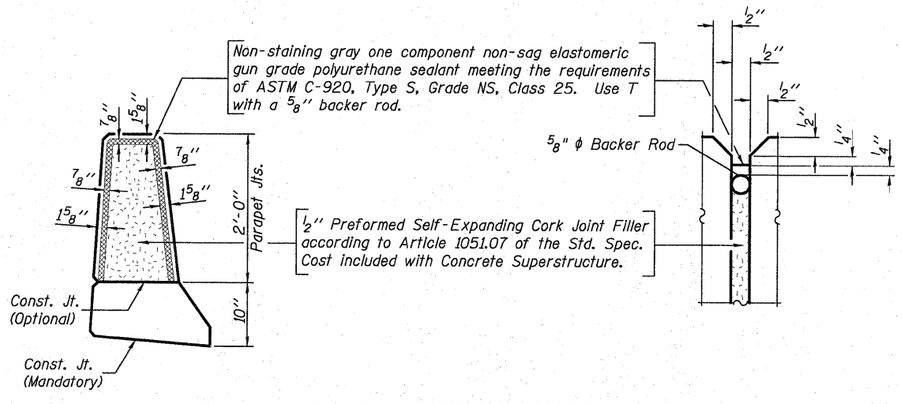


AT APPROACH FOOTING

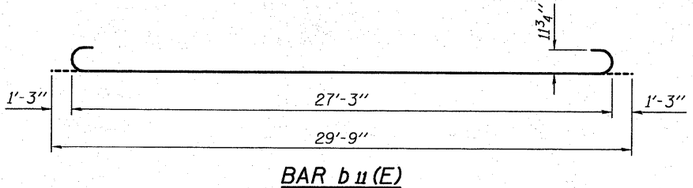
SECTION D-D
(See Plan for dimensions not shown)



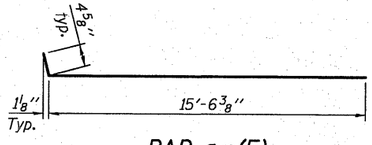
VIEW E-E



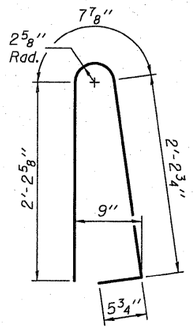
PARAPET JOINT DETAILS



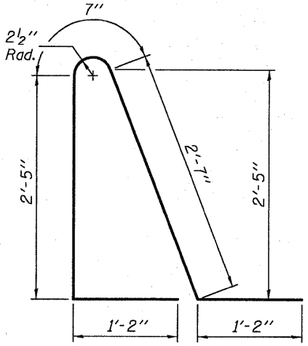
BAR b 11 (E)



BAR a 10 (E)



BAR d 10 (E)



BAR d 11 (E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{10} (E)	100	#4	16'-11"	
a_{11} (E)	184	#5	16'-6"	
a_{12} (E)	48	#6	6'-0"	
b_{10} (E)	56	#4	29'-8"	
b_{11} (E)	160	#9	29'-9"	
b_{12} (E)	4	#4	14'-8"	
b_{13} (E)	4	#4	14'-8"	
d_{10} (E)	68	#5	5'-7"	
d_{11} (E)	68	#5	7'-11"	
e_{10} (E)	32	#4	14'-8"	
e_{11} (E)	4	#8	14'-8"	
t_{10} (E)	136	#4	9'-8"	
w_{10} (E)	160	#5	16'-6"	
Concrete Superstructure			Cu. Yd.	105.6
Concrete Structures			Cu. Yd.	20.9
Reinforcement Bars, Epoxy Coated			Pound	27,170

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

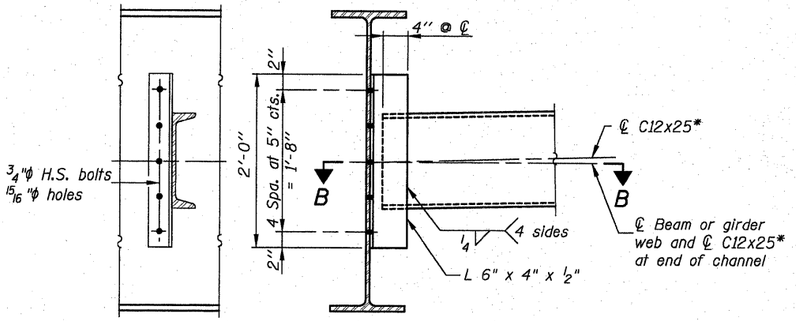
BA-0 10-31-08

(Sheet 2 of 2)
BRIDGE APPROACH SLAB DETAILS

SHEET NO. 14	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	96
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

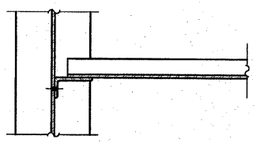
H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

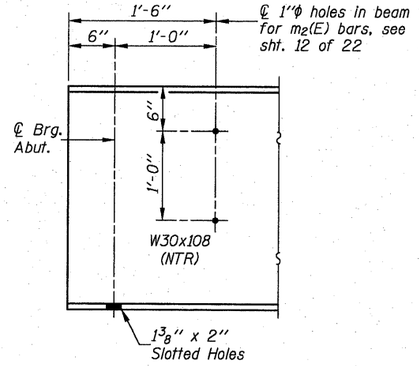


DIAPHRAGM D
(12 Required)

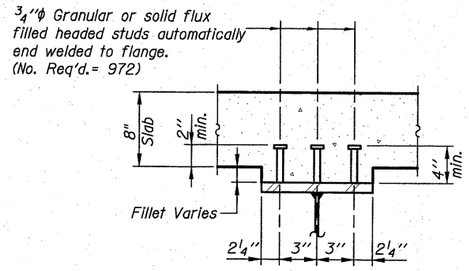
* Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.



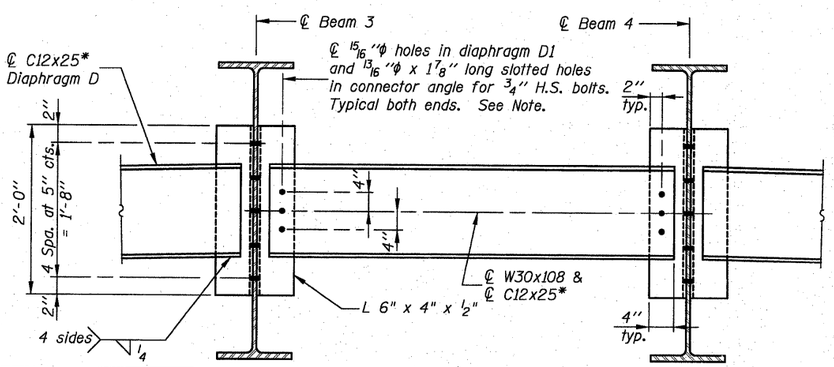
SECTION B-B



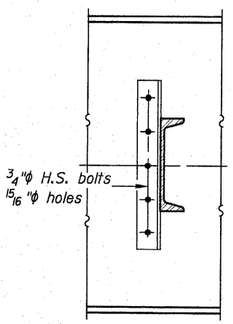
TYP. END OF BEAM ELEVATION

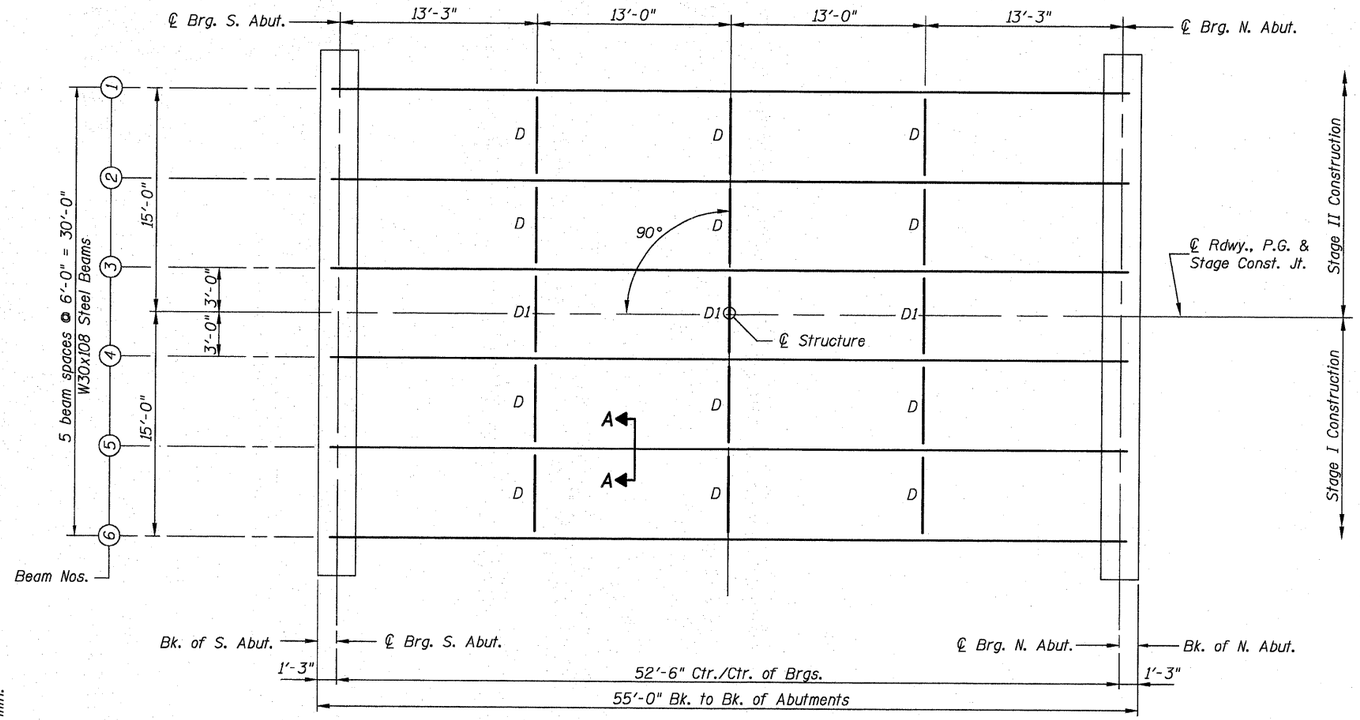


SECTION A-A



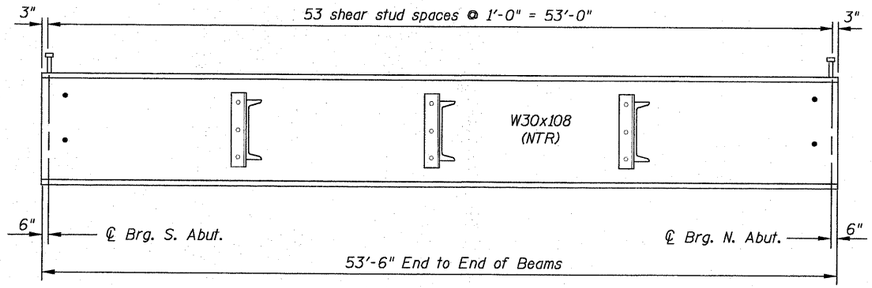
DIAPHRAGM D1
(3 Required)





FRAMING PLAN

All Beams are W30x108 (NTR) and AASHTO M270, Gr. 50.



BEAM ELEVATION

Notes:

Two hardened washers required for each set of oversized holes.

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Bolts in slots shall be finger tight until the second stage pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load allowing maximum displacement without laterally stressing main members. All holes shall have appropriate hardened or plate washers.

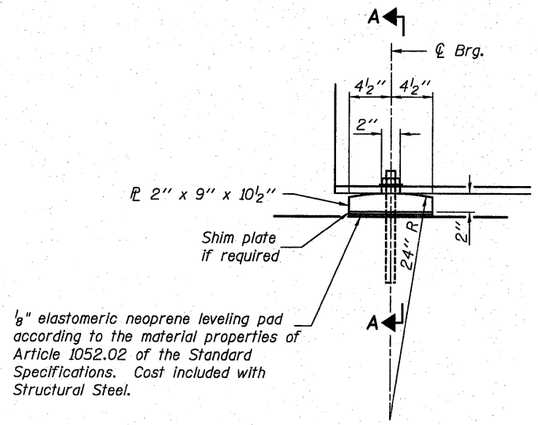
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

STRUCTURAL STEEL

SHEET NO. 15	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	97
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

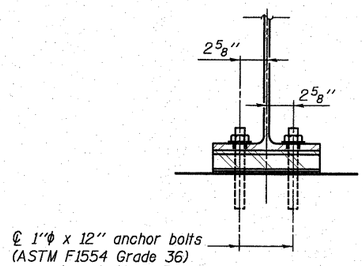
H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



⅛" elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

ELEVATION AT ABUTMENT



℄ 1"ϕ x 12" anchor bolts (ASTM F1554 Grade 36) with 2¼" x 2¼" x 5/16" ℄ washer under nut. 1⅜" x 2" slotted hole in flange. 1½"ϕ holes in bearing plate.

SECTION A-A

FIXED BEARING

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

Beam No.	℄ Brg. S. Abut.	℄ Brg. N. Abut.
1	443.547	443.410
2	443.657	443.519
3	443.750	443.613
4	443.750	443.613
5	443.657	443.519
6	443.547	443.410

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

All bearing plates shall conform to the requirements of AASHTO M 270, Grade 50.

INTERIOR GIRDER MOMENT TABLE

		0.5 Span
I_s	(in^4)	4,470
$I_c(n)$	(in^4)	12,384
$I_c(3n)$	(in^4)	9,139
S_s	(in^3)	300
$S_c(n)$	(in^3)	450
$S_c(3n)$	(in^3)	406
DC1	(k/')	0.74
M_{DC1}	('k)	254
DC2	(k/')	0.15
M_{DC2}	('k)	52
DW	(k/')	0.27
M_{DW}	('k)	92
M_{L+IM}	('k)	637
M_u (Strength I)	('k)	1,635
$\phi_f M_n$	('k)	2,350
f_s DC1	(ksi)	10.2
f_s DC2	(ksi)	1.5
f_s DW	(ksi)	2.7
f_s 1.3(L+IM)	(ksi)	22.1
f_s (Service II)	(ksi)	36.5
f_s (Total)(Strength I)	(ksi)	48.4
V_r	(k)	20.2

INTERIOR GIRDER REACTION TABLE
HL93 Loading

		Abutment
R_{DC1}	(k)	19.3
R_{DC2}	(k)	3.9
R_{DW}	(k)	7.0
R_{L+IM}	(k)	64.1
R_{Total}	(k)	94.3

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

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

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

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

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

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

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

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

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

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

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

V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	24

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

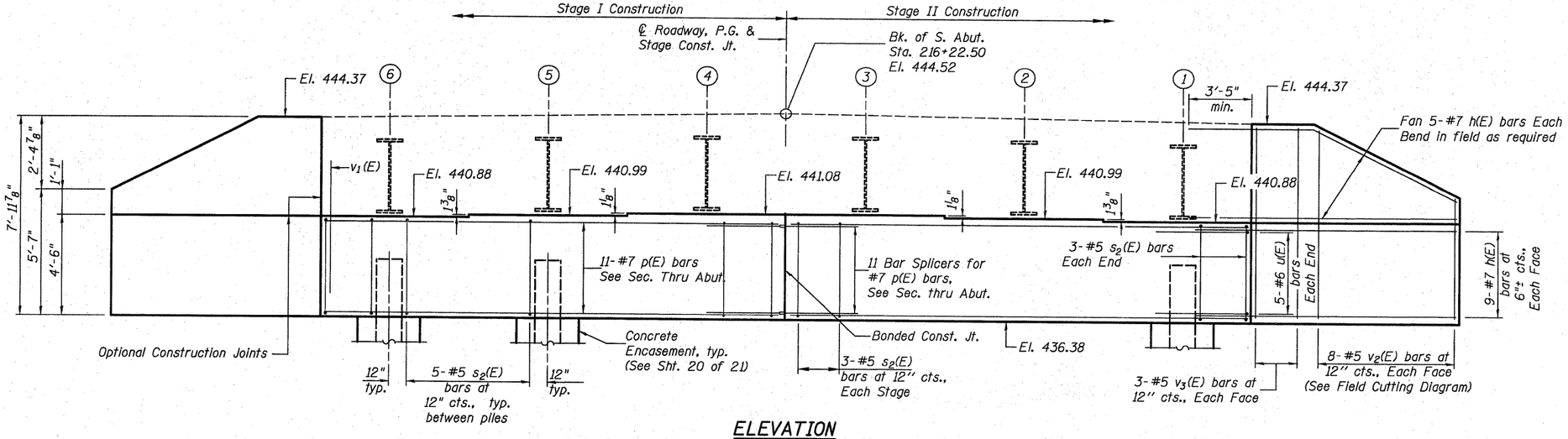
STEEL DETAILS

SHEET NO. 16	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	98
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

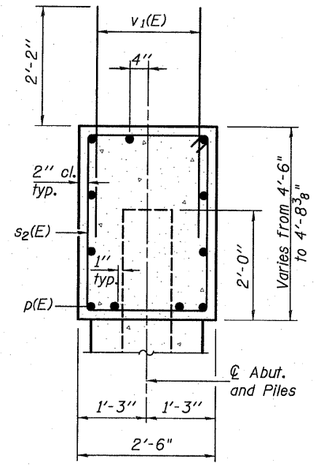
H.M. & G. NO. 6020.161

Notes:
Pour steps monolithically with cap.

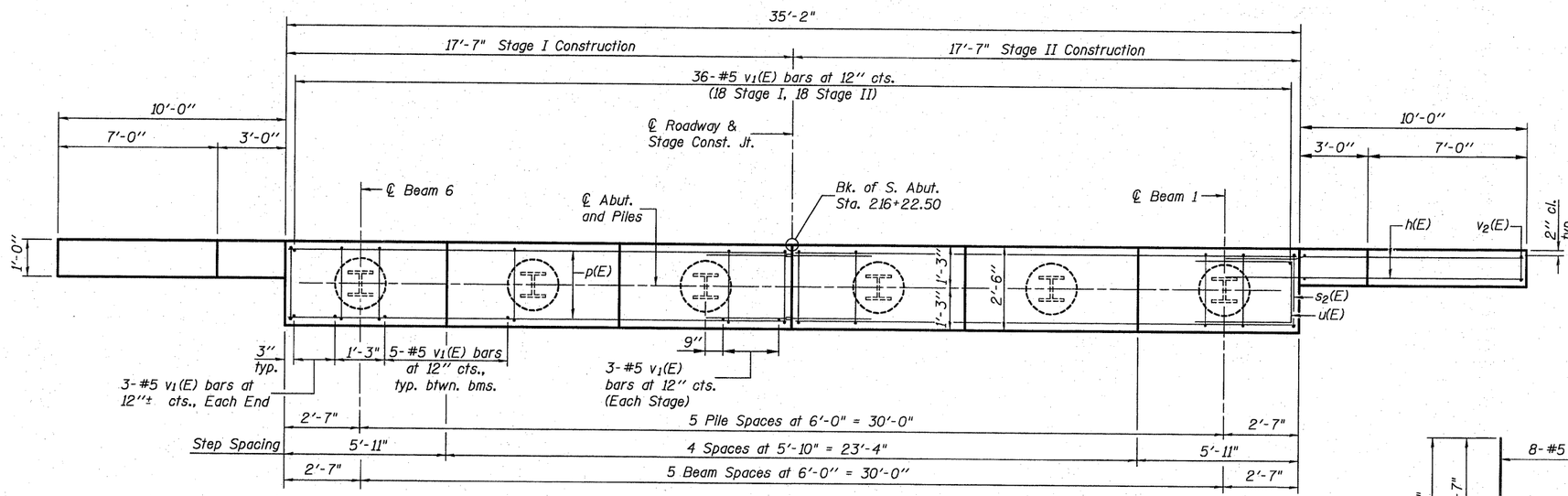
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



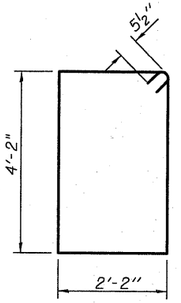
ELEVATION
(Looking South)



SEC. THRU ABUT.



PLAN



BARS $s_2(E)$

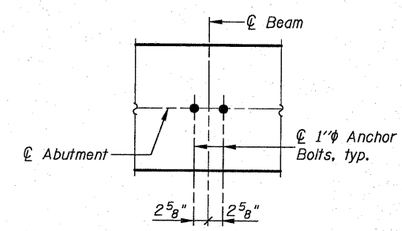
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#7	14'-0"	
p(E)	22	#7	17'-3"	
s2(E)	32	#5	13'-7"	
u(E)	10	#6	9'-0"	
v1(E)	68	#5	4'-4"	
v2(E)	16	#5	12'-9"	
v3(E)	12	#5	7'-7"	
Structure Excavation		Cu. Yd.	113	
Concrete Structures		Cu. Yd.	20.3	
Reinforcement Bars, Epoxy Coated		Pound	3,590	
Furnishing Steel Piles HP 14x73		Foot	405	
Driving Piles		Foot	405	
Test Pile Steel HP 14x73		Each	1	
Concrete Encasement		Cu. Yd.	3.3	

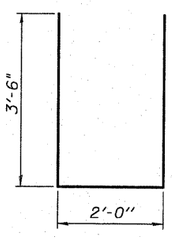
For details of Bar Splicers, see sht. 19 of 21.
For details of piles and Concrete Encasement, see sht. 20 of 21.

PILE DATA

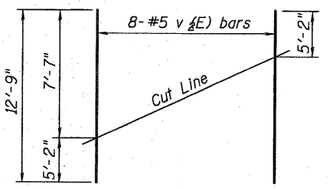
Type:	HP 14x73
Nominal Required Bearing:	420 kips
Factored Resistance Available:	210 kips
Est. Length:	81 feet
No. Production Piles:	5
No. Test Piles:	1



ANCHOR BOLT LAYOUT



BAR u(E)



FIELD CUTTING DIAGRAM

Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite face.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

AI-0 10-1-08

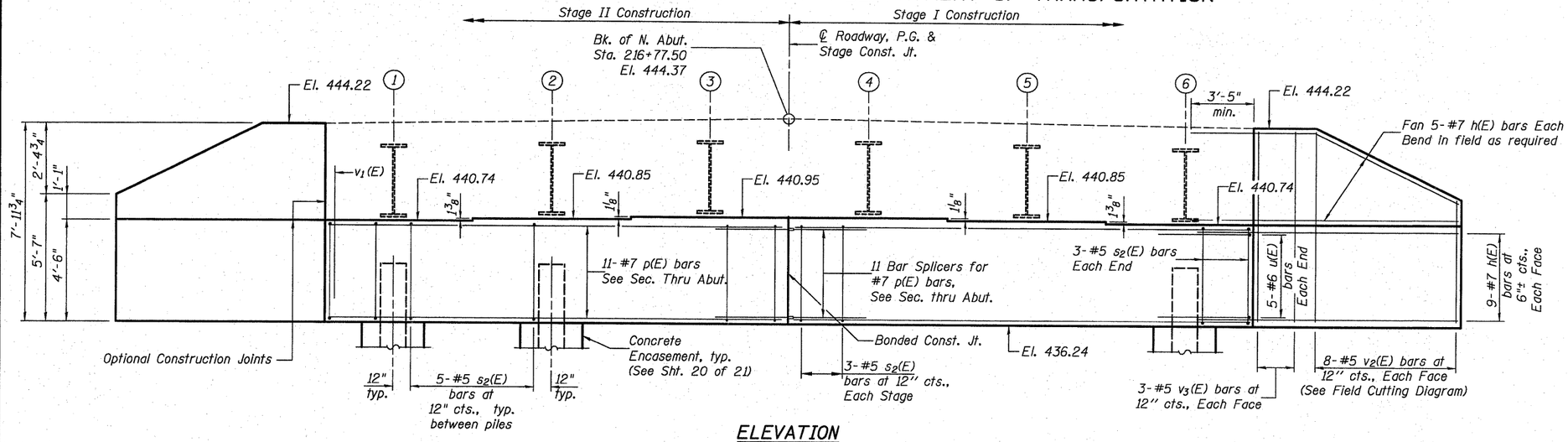
SOUTH ABUTMENT

SHEET NO. 17	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	99
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

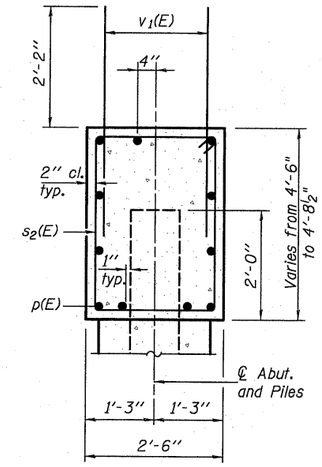
HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

Notes:
Pour steps monolithically with cap.

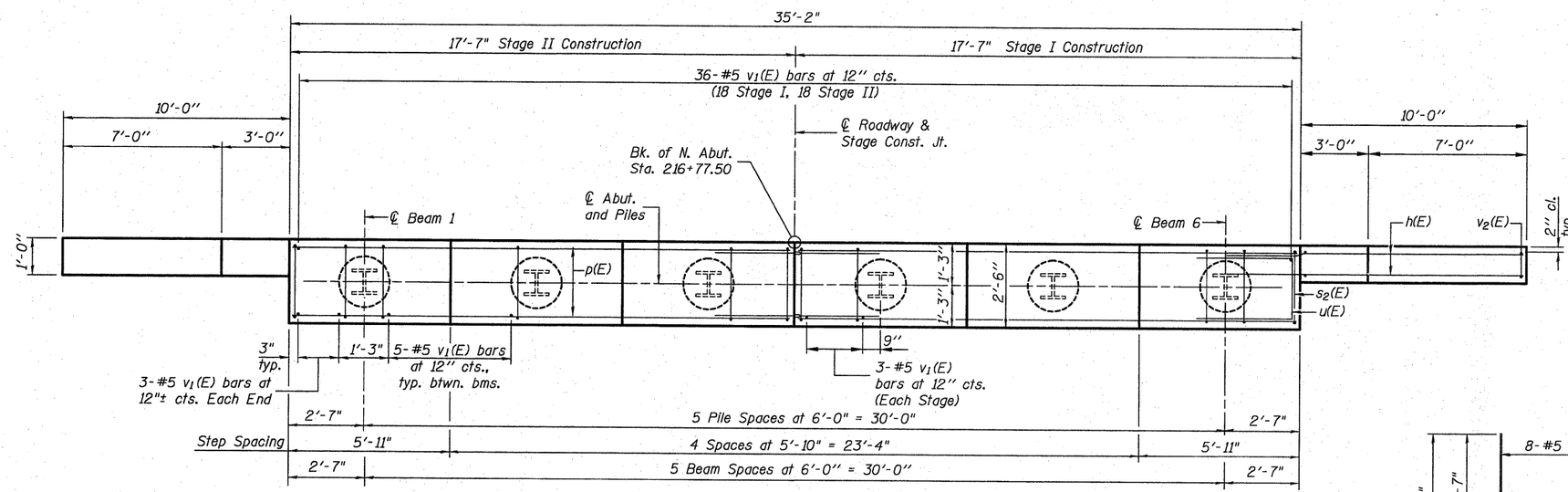
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



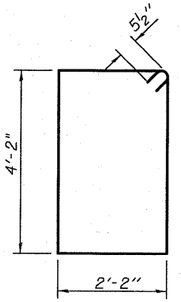
ELEVATION
(Looking North)



SEC. THRU ABUT.



PLAN



BARS s2(E)

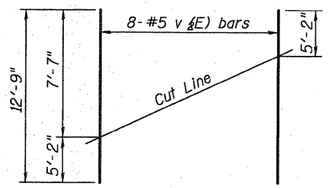
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#7	14'-0"	——
p(E)	22	#7	17'-3"	——
s2(E)	32	#5	13'-7"	□
u(E)	10	#6	9'-0"	□
v1(E)	68	#5	4'-4"	——
v2(E)	16	#5	12'-9"	——
v3(E)	12	#5	7'-7"	——
Structure Excavation			Cu. Yd.	113
Concrete Structures			Cu. Yd.	20.3
Reinforcement Bars, Epoxy Coated			Pound	3,590
Furnishing Steel Piles HP 14x73			Foot	535
Driving Piles			Foot	535
Test Pile Steel HP 14x73			Each	1
Concrete Encasement			Cu. Yd.	3.3

For details of Bar Splicers, see sht. 19 of 21.
For details of piles and Concrete Encasement, see sht. 20 of 21.

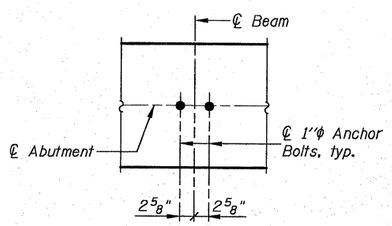
PILE DATA

Type:	HP 14x73
Nominal Required Bearing:	420 kips
Factored Resistance Available:	210 kips
Est. Length:	107 feet
No. Production Piles:	5
No. Test Piles:	1

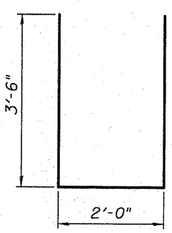


FIELD CUTTING DIAGRAM

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



ANCHOR BOLT LAYOUT



BAR u(E)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

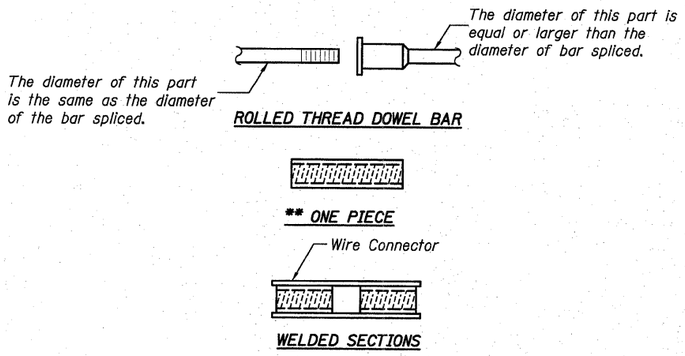
AI-0 10-1-08

NORTH ABUTMENT

SHEET NO. 18	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	100
		S.N. 031-0040	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

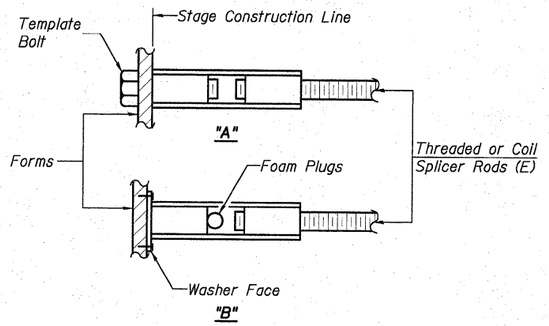
H.M. & G. NO. 6020.161

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:

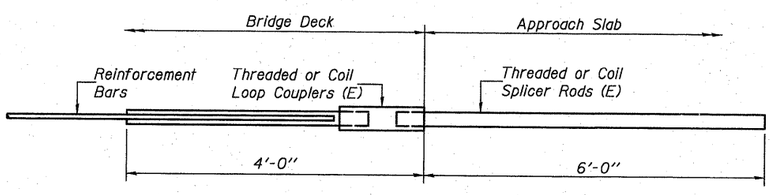
① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

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

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

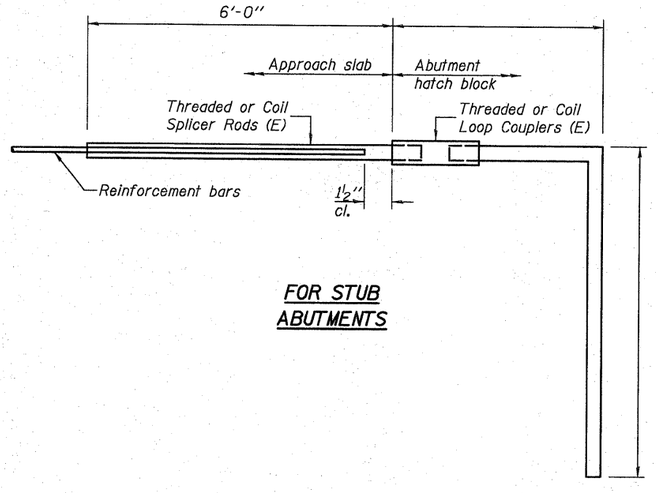
BAR SPLICER ASSEMBLIES

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	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



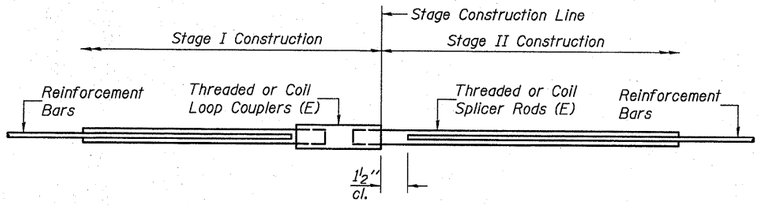
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#6	16	Diaphragm
#5	162	Deck
#7	22	Abutment
#4	50	Approach
#5	172	Approach

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

BSD-1 10-1-08

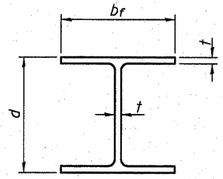
BAR SPLICER ASSEMBLY DETAILS

SHEET NO. 19	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	101
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

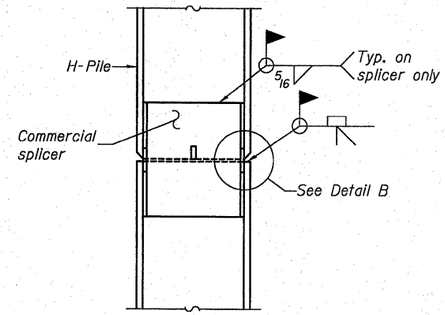
H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

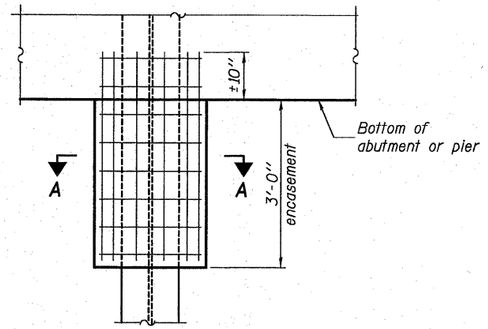


STEEL PILE TABLE

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"



ELEVATION



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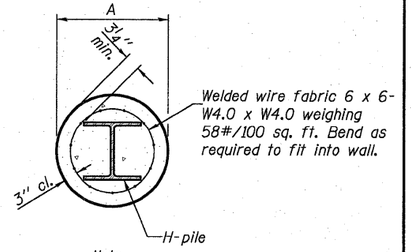
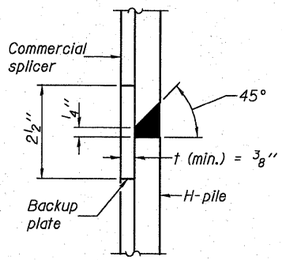


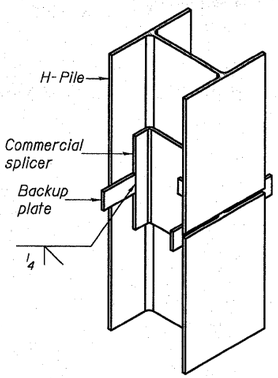
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

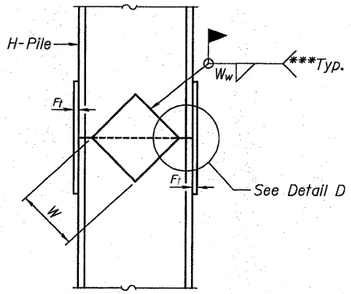
PILE ENCASEMENT



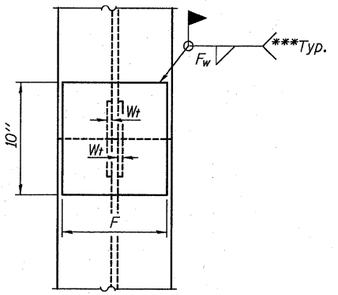
DETAIL "B"



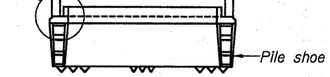
ISOMETRIC VIEW



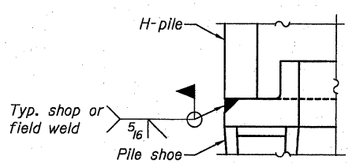
ELEVATION



END VIEW

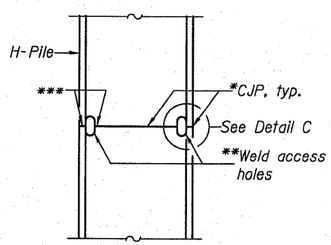


ELEVATION

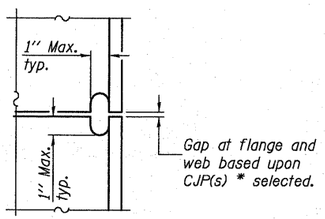


DETAIL A

H-PILE SHOE ATTACHMENT

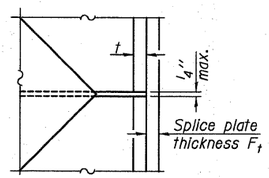


ELEVATION



DETAIL C

WELDED COMMERCIAL SPLICE



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

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.

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

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

F-HP 10-1-08

HP PILE DETAILS

SHEET NO. 20	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	102
	S.N. 031-0040		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & C. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 4/7/08

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.1 miles North of IL 108 LOGGED BY E. Stewart

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0011 (E) / 031-0040 (P)
Station 216+50

BORING NO. S. Abut
Station 216+20
Offset 30.00ft Left
Ground Surface Elev. 442.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 425.5 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	2			
	4	0.66	25	Medium Brown Soft Clay LOAM
440.0	2	S/15		
	2	0.62	27	Light Brown/Red Speckled Clay LOAM
438.0	3	S		
-5	4			
	4	1.29	31	Hard Dark Brown CLAY
	6	B/20		
435.5	3			
	4	1.37	32	Light Brown CLAY with Red Speckles
	5	B/20		
433.0	3			
-10	3			
	3	1.77	48	Hard Dark Brown CLAY
	5	B/20		
430.5	2			
	2	1.24	27	Light Brown Hard CLAY, Mottled with Red
	4	B/20		
-15	4			
	4	1.63	24	
	5	B/20		
425.5 ▼	4			
	10		20	Light Red Fine Loamy SAND See Gradation @ 17.5 ft
	11	NC		
423.0				
-20	2			Light Red Medium to Fine SAND

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	6		21	Light Red Medium to Fine SAND *(continued)* See Gradations @ 20, 25, & 27.5 ft
	7	NC		
	3			
	7			
	8	NS		
-25	6			
	7		22	
	9	NC		
	5			
	8		20	
	13	NC		
-30	8			
410.5				
	11		22	Light Gray Fine SAND See Gradation @ 32.5 ft
	17	NC		
-35				
	3			
	10			
	10	NS		
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 4/7/08

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.1 miles North of IL 108 LOGGED BY E. Stewart

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0011 (E) / 031-0040 (P)
Station 216+50

BORING NO. S. Abut
Station 216+20
Offset 30.00ft Left
Ground Surface Elev. 442.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 425.5 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Light Gray Fine SAND See Gradation @ 32.5 ft *(continued)*
	7			
	7			
	13	NS		
-45				
	8			
393.0	10	1.24	30	Light Gray CLAY, Speckled with Sand See Gradation @ 50 ft
-50	26	B/20		
388.5	10			Light Gray Loamy Fine to Medium SAND See Gradations @ 55 & 60 ft
-55	17		23	
	18	NC		
	4			
-60				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	11		22	Light Gray Loamy Fine to Medium SAND See Gradations @ 55 & 60 ft *(continued)*
	15	NC		
379.5				
	6			Light Gray Fine SAND See Gradations @ 65 & 70 ft
-65	5		21	
	9	NC		
	3			
	7		20	
	14	NC		
-70				
368.0	2			
	6		14	Coarse to Fine SAND See Gradations @ 75 & 80 ft
-75	8	NC		
	1			
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 4/7/08

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.1 miles North of IL 108 LOGGED BY E. Stewart

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0011 (E) / 031-0040 (P)
Station 216+50

BORING NO. S. Abut
Station 216+20
Offset 30.00ft Left
Ground Surface Elev. 442.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 425.5 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	8		18	Coarse to Fine SAND See Gradations @ 75 & 80 ft *(continued)*
	17	NC		
358.0				
-85	50/1"			
TILL 357.0	-			
COAL 356.5	-	NC		
END OF BORING				
-90				
-95				
-100				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

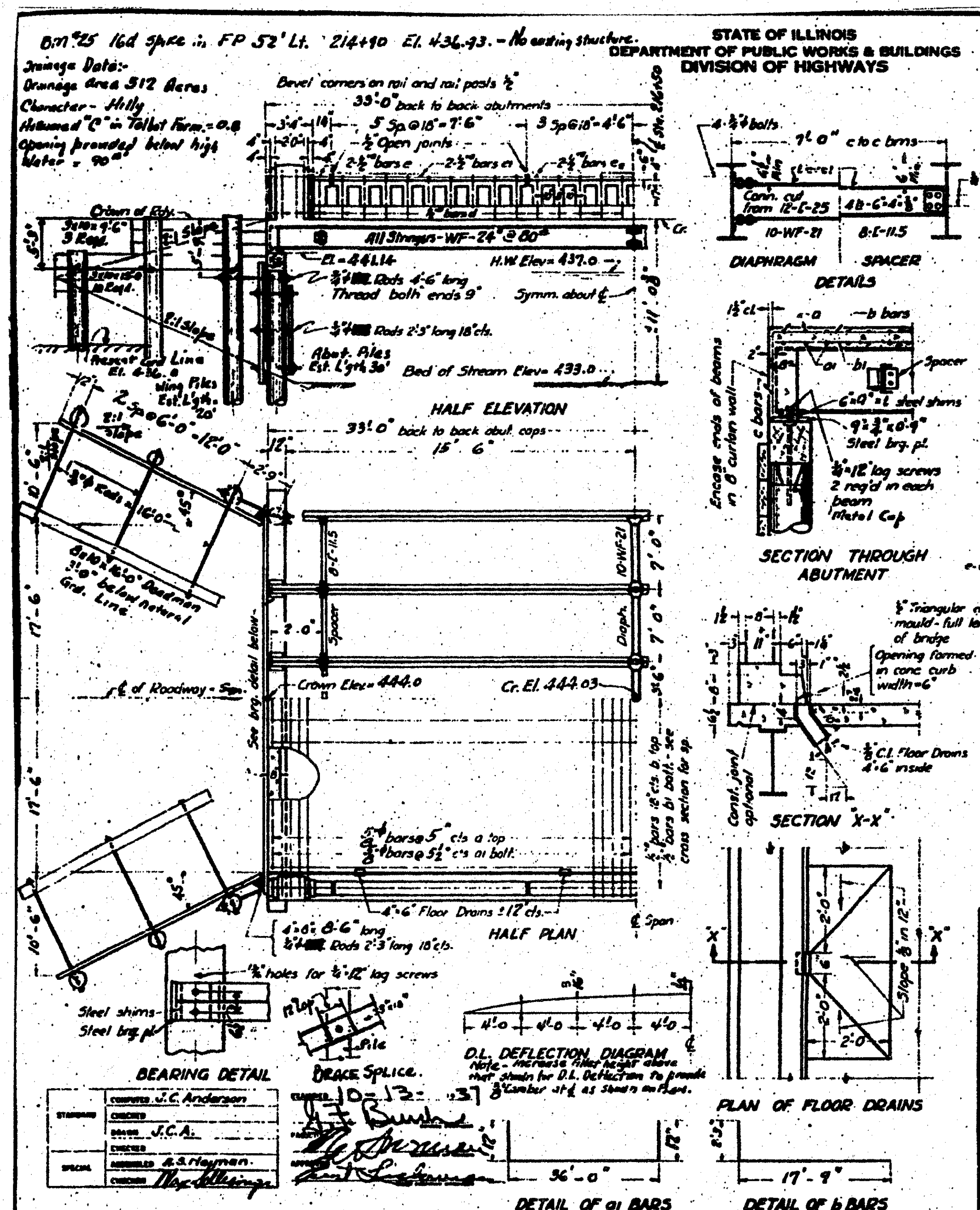
BBS, from 137 (Rev. 8-99)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SHEET NO. 21	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	739	1-2BR	GREENE	150	103
		S.N. 031-0040	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



Field Conns. $\frac{3}{4}$" Bolts.

GENERAL NOTES

Shop connections shall be riveted. Rivets $\frac{3}{4}$" - Holes $\frac{13}{16}$".

Structural steel shall receive one shop coat of blue lead paint, and two field coats of white lead pt. All paint to be furnished by the department.

All steel surfaces in contact with Concrete and contact surfaces of shop riveted or welded strl. steel shall not be painted. See specifications for inaccessible surfaces.

Inspection by Illinois Division of Highways before painting.

All rods, bolts and nuts shall be wrought iron A.S.T.M. A-41-30 for timber conn.

All spikes and lag screws shall be galvanized steel.

O.G. or malleable iron washers shall be used on rods through piles.

Contractor shall cut off, at his own expense, all rods which project more than one inch beyond nut.

Piles in abutments shall be driven to a minimum penetration of 15 feet below stream bed and shall have a minimum capacity of 15 tons.

Piles in wings shall have a minimum capacity of 10 tons.

All piles in the structure shall be creosoted. All piles shall have metal caps and shall be treated in accordance with Art. 15 of the Specs. for piling effective Feb. 1st 1937.

Plank backing shall be fastened to each pile with two 60d spikes.

All lumber shall be structural square edge and sound longleaf (1600#) or dense structural square edge and sound shortleaf (1600#) southern yellow pine or select structural (1600#) Douglas fir. Caps shall be S4S; backing and bracing shall be full sawn rough.

All lumber shall be creosoted

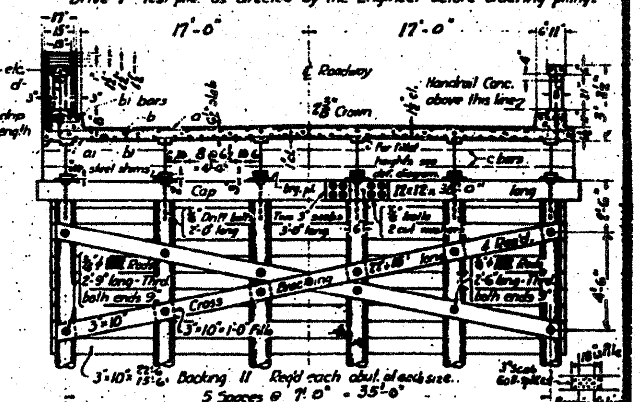
Backing, bracing and caps may be furnished full length or spliced.

Quantities of lumber and hardware based on sizes and lengths shown and includes splices shown only. No extra compensation will be allowed for splices or waste.

Class "X" concrete shall be used throughout.

Aggregate which is to be used in handrails must be absolutely free of chert, flint, limonite, lignite and soft sandstone.

Drive 1 test pile as directed by the Engineer before ordering piling.



ABUTMENT CROSS SECTION

BILL OF MATERIAL

Bars	Number	Size	Length
a	74	$\frac{5}{8}$"φ	37'-3"
a1	72	"	38'-0"
b	50	$\frac{1}{2}$"φ	20'-0
b1	63	$\frac{1}{2}$"φ	32'-6"
c	4	$\frac{1}{2}$"φ	37'-0
d	52	$\frac{1}{2}$"φ	3'-0"
e	8	$\frac{1}{2}$"φ	4'-3
e1	8	$\frac{1}{2}$"φ	7'-3
e2	4	"	8'-9"

Item	Unit	Quantity
Rods [redacted]	Lbs.	490
~~Untreated Lumber~~	~~Ft.B.M.~~	
Creosoted Lumber	Ft.B.M.	5910
Treated Piling (20' Long)	Lin.Ft.	240
Treated Piling (30' Long)	Lin.Ft.	360
~~Treated Piling over 35'~~	~~Lin.Ft.~~	
C.I. Floor Drains	Each	6
~~Removal of Existing Struct.~~	~~Each~~	
Test Piles	Each	1
~~Name Plate~~	~~Each~~	
Handrail Concrete	Cu.Yds.	4.0
Class "X" Concrete	Cu.Yds.	31.8
Reinforcing Steel	Lbs.	8860
Structural Steel	Lbs.	18370
Hardware	Lbs.	380

F.A. ROUTE 155 - SECTION 1-B
BLUFFDALE TWP. - GREENE COUNTY
PROJECT 325-D
STATION 216+50.

Computed J.C. Anderson
Drawn J.C.A.
Checked E.S. Hayman
10-13-37

FOR INFORMATION ONLY

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	PLOT DATE = $DATE$	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

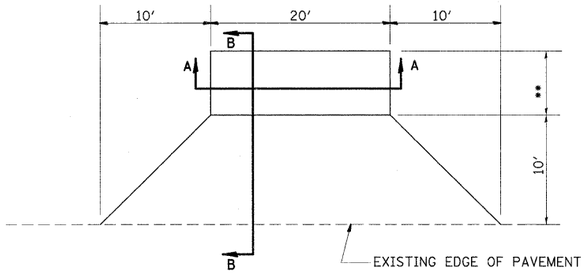
EXISTING STRUCTURE PLANS
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

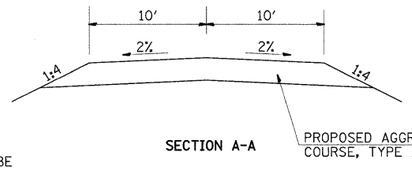
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	104

CONTRACT NO. 76410

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

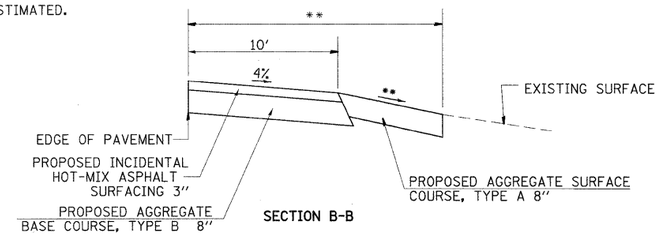


PLAN



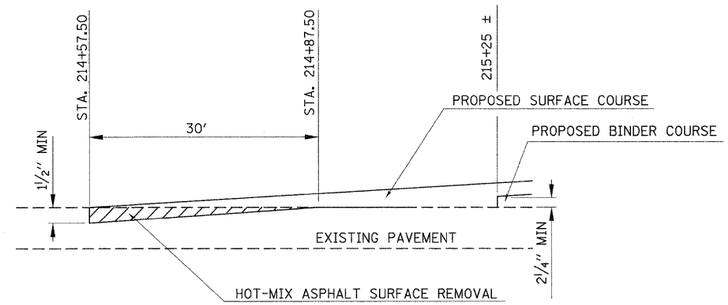
SECTION A-A

** ENTRANCE LOCATION TO BE DETERMINED BY RESIDENT ENGINEER AND THE PROPERTY OWNER. DIMENSION AND SLOPE TO BE DETERMINED IN FIELD. QUANTITIES ESTIMATED.

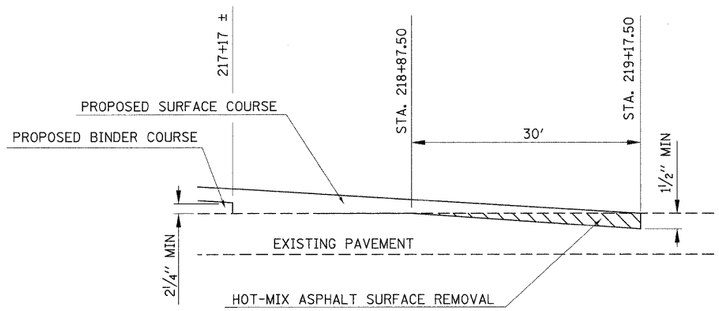


SECTION B-B

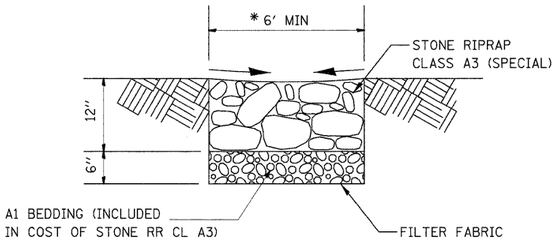
ENTRANCE DETAILS



BUTT JOINT DETAIL



BUTT JOINT DETAIL



* PROVIDES DRAINAGE DOWN EMBANKMENT FROM BRIDGE APPROACH PAVEMENT

DRAINAGE DETAIL

SEE PLAN VIEW FOR LOCATIONS
SECTION TAKEN THRU ROADWAY EMBANKMENT

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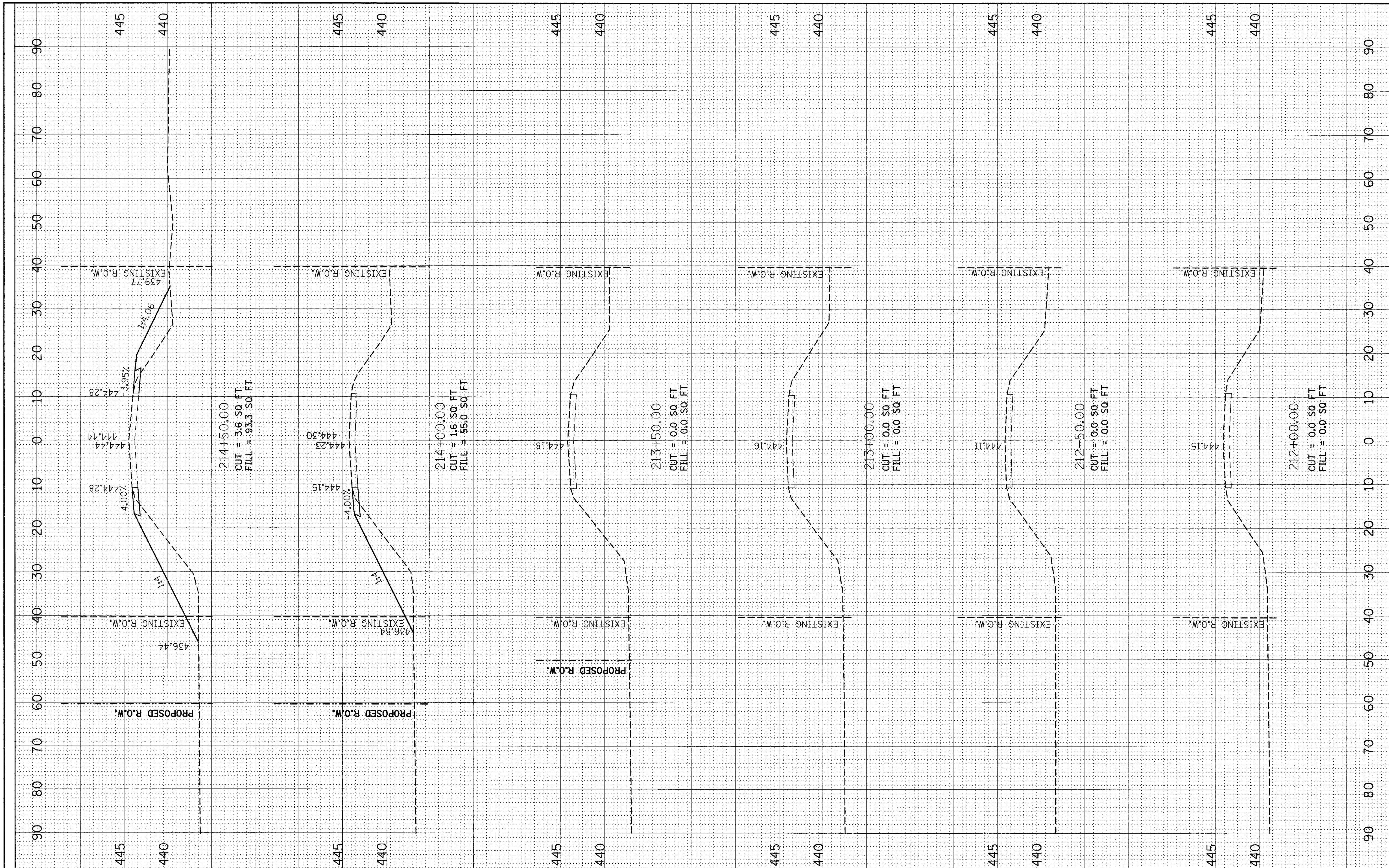
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
SN 031-0011(E) 0040(P), SECTION 1-2BR

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

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	105
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: H=10 V=5 | SHEET NO. 1 OF 3 SHEETS | STA. 212+00.00 TO STA. 214+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	106

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT

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

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0011(E) 0040(P), SECTION 1-2BR

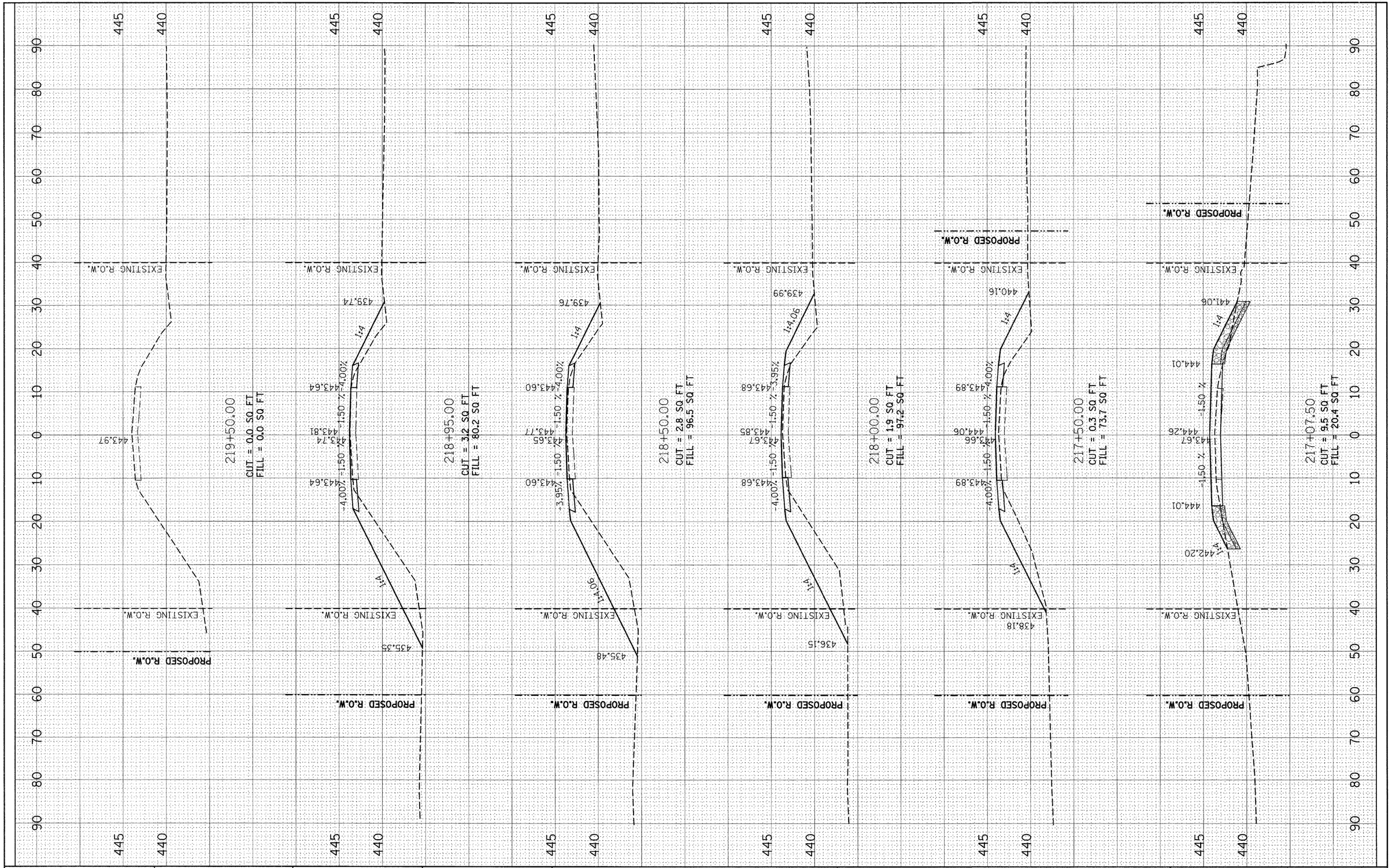
SCALE: H=10 V=5 | SHEET NO. 2 OF 3 SHEETS | STA. 215+00.00 TO STA. 217+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	107

CONTRACT NO. 76410

ILLINOIS | FED. AID PROJECT

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



ORIGINAL SURVEY	SURVEYED	BY	DATE
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NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0011(E) 0040(P), SECTION 1-2BR

SCALE: H=10 V=5 | SHEET NO. 3 OF 3 SHEETS | STA. 217+07.50 TO STA. 219+50.00

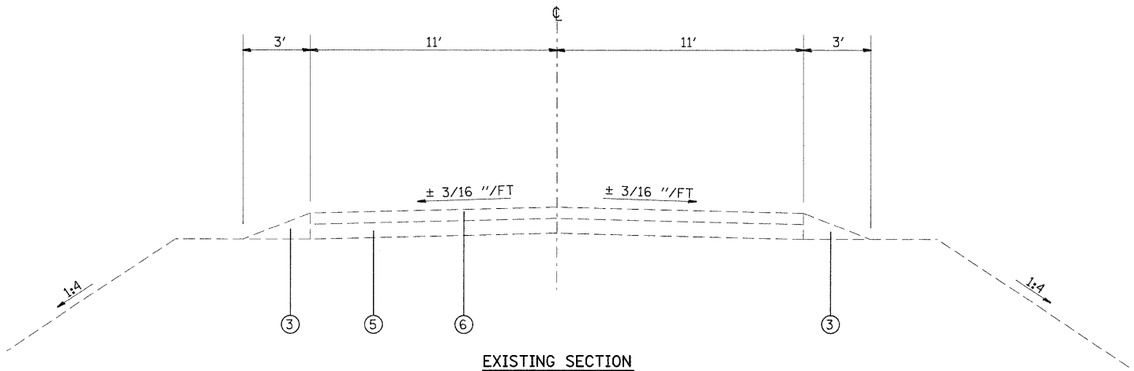
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	108
		CONTRACT NO. 76410		
	ILLINOIS	FED. AID PROJECT		

MIXTURE REQUIREMENTS

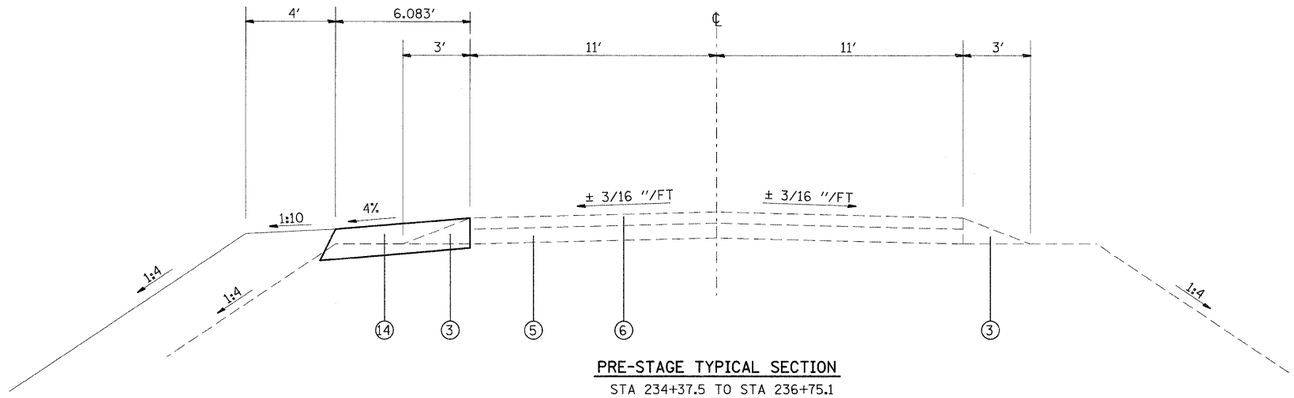
MIXTURE USE	SURFACE COURSE	INCIDENTAL SURFACE	BINDER COURSE	HOT-MIX ASPHALT SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIAL PROV	SEE SPECIAL PROV	SEE SPECIAL PROV	SEE SPECIAL PROV
DESIGN AIR VOIDS	4.0%@Ndes=70	4.0%@Ndes=70	4.0%@Ndes=70	SEE SPECIAL PROV
MIX COMPOSITION				2.0%@Ndes=30
(GRADATION MIXTURE)	IL 9.5		IL 19.0	
FRICTION AGG	MIXTURE "C"	MIXTURE "C"	MIXTURE "B"	BAM

TOP LIFT SHOULDERS - DESIGN THIS MIX AT 2% VOIDS AND ADD ASPHALT TO REDUCE VOIDS TO 1.5%.

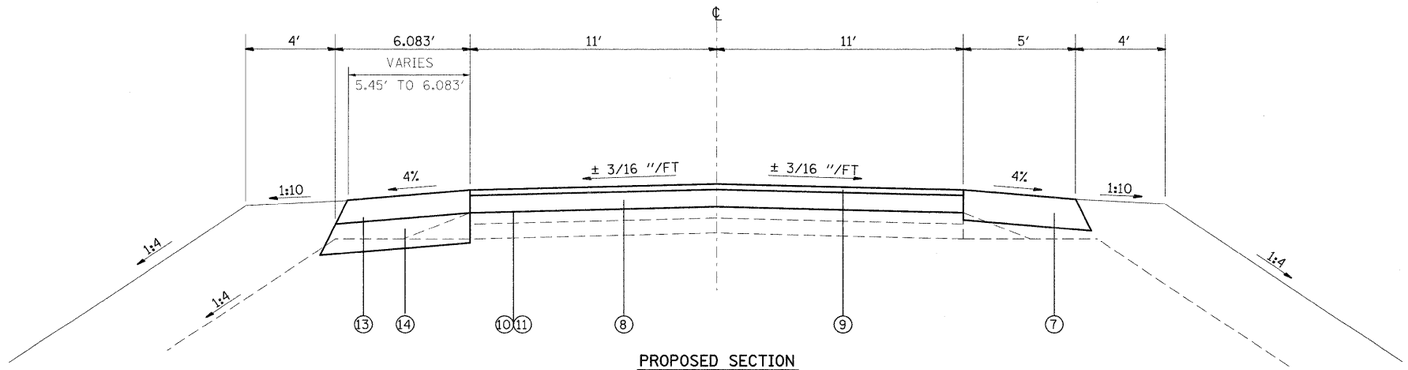
PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.



EXISTING SECTION
STA 234+37.5 TO STA 236+83.5
STA 237+16.5 TO STA 239+62.5



PRE-STAGE TYPICAL SECTION
STA 234+37.5 TO STA 236+75.1
STA 237+16 TO STA 239+62.5



PROPOSED SECTION
STA 234+37.5 TO STA 236+35
STA 237+65 TO STA 239+62.5

LEGEND

1. EXISTING OIL AND CHIP
2. EXISTING BITUMINOUS SURFACE TREATMENT, CLASS A-1
3. EXISTING AGGREGATE SHOULDERS
4. EXISTING EARTH SHOULDERS
5. EXISTING AGGREGATE SURFACE COURSE, TYPE 1 4"
6. EXISTING OIL AND CHIP ± 3"
7. PROPOSED HOT-MIX ASPHALT SHOULDERS 8"
8. PROPOSED HOT-MIX ASPHALT BINDER COURSE - 2 1/4" AND VARIES
9. PROPOSED HOT-MIX ASPHALT SURFACE COURSE - 1 1/2" AND VARIES
10. PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
11. PROPOSED AGGREGATE (PRIME COAT)
12. PROPOSED AGGREGATE SHOULDERS
13. PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIES 0 TO 15 3/4"
14. PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9"

NOTE: NOT TO SCALE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. 234+37.5 TO STA. 239+62.5

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	109
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

THICKNESS CHART

STATION	CL ROADWAY		LEFT EDGE OF PAVEMENT		RIGHT EDGE OF PAVEMENT	
	PROPOSED SURFACE COURSE THICKNESS (INCH)	PROPOSED HMA BINDER COURSE THICKNESS (INCH)	PROPOSED SURFACE COURSE THICKNESS (INCH)	PROPOSED HMA BINDER COURSE THICKNESS (INCH)	PROPOSED SURFACE COURSE THICKNESS (INCH)	PROPOSED HMA BINDER COURSE THICKNESS (INCH)
234+40.00	0.13		0.13		0.13	
234+50.00	0.13		0.13		0.13	
234+60.00	0.13		0.13		0.13	
234+70.00	0.13		0.13		0.13	
234+80.00	0.13		0.13		0.19	
234+90.00	0.13		0.13		0.20	
235+00.00	0.13		0.13		0.14	
235+10.00	0.13		0.18		0.19	
235+20.00	0.13		0.22		0.22	
235+30.00	0.13		0.27		0.25	
235+40.00	0.18		0.34		0.29	
235+50.00	0.24		0.41		0.33	
235+60.00	0.29		0.49		0.37	
235+70.00	0.13	0.22	0.13	0.40	0.13	0.30
235+80.00	0.13	0.29	0.13	0.44	0.13	0.37
235+90.00	0.13	0.35	0.13	0.49	0.13	0.44
236+00.00	0.13	0.42	0.13	0.53	0.13	0.49
236+10.00	0.13	0.47	0.13	0.57	0.13	0.54
236+20.00	0.13	0.52	0.13	0.63	0.13	0.60
STRUCTURE						
237+70.00	0.13	0.61	0.13	0.67	0.13	0.67
237+80.00	0.13	0.53	0.13	0.60	0.13	0.58
237+90.00	0.13	0.44	0.13	0.53	0.13	0.50
238+00.00	0.13	0.35	0.13	0.46	0.13	0.42
238+10.00	0.13	0.28	0.13	0.40	0.13	0.34
238+20.00	0.34		0.44		0.43	
238+30.00	0.29		0.36		0.39	
238+40.00	0.26		0.28		0.36	
238+50.00	0.23		0.24		0.34	
238+60.00	0.18		0.21		0.32	
238+70.00	0.14		0.17		0.30	
238+80.00	0.13		0.13		0.28	
238+90.00	0.13		0.13		0.27	
239+00.00	0.13		0.13		0.29	
239+10.00	0.13		0.13		0.20	
239+20.00	0.13		0.13		0.16	
239+30.00	0.13		0.13		0.14	
239+40.00	0.13		0.13		0.13	

EARTHWORK SCHEDULE

LOCATION			EARTH EXCAVATION	EARTH EXCAVATION ADJ FOR SHRINKAGE (25%)	CHANNEL EXCAVATION	FURNISHED EXCAVATION	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STATION	TO	STATION	CU YD	CU YD	CU YD	CU YD	CU YD
SECTION 1BR							
234+37.5	TO	235+00	3.0	2.3		138.4	-136.2
235+00	TO	235+50	4.3	3.2		257.6	-254.4
235+50	TO	236+00	3.9	2.9		244.2	-241.3
236+00	TO	236+50	14.9	11.2		102.1	-90.9
236+50	TO	236+50	6.8	5.1		32.4	-27.3
236+50	TO	236+55	0.7	0.5		11.9	-11.4
236+55	TO	237+45			940		0.0
237+45	TO	237+50	0.7	0.5		8.5	-8.0
237+50	TO	237+65	5.5	4.1		33.5	-29.3
237+65	TO	238+00	11.7	8.8		133.5	-124.7
238+00	TO	238+50	4.1	3.1		234.7	-231.7
238+50	TO	239+00	5.0	3.8		202.3	-198.6
239+00	TO	239+50.	6.1	4.6		171.3	-166.7
239+50	TO	239+62.5	0.9	0.7		20.5	-19.8
		TOTAL =	68	51	940	1591	-1540

PAVEMENT MARKING SCHEDULE

LOCATION			THERMOPLASTIC PAVEMENT MARKING SKIP-DASH CENTERLINE YELLOW - 4"	POLYUREA PAVEMENT MARKING TYPE I SKIP-DASH CENTERLINE YELLOW - 4"	TEMPORARY PAVEMENT MARKING - LINE 4"	PAVEMENT MARKING REMOVAL
STATION	TO	STATION	FOOT	FOOT	FOOT	SQ FT
233+15	TO	236+35	80		80	27
236+35	TO	237+65		30	30	10
237+65	TO	241+35	90		90	30
		TOTAL =	170	30	200	67

SEE STANDARDS 781001 AND 780001 FOR PAVEMENT MARKING DETAILS.

TREE REMOVAL SCHEDULE

LOCATION			DIAMETER	
STATION	OFFSET (FT)	RT/LT	6" TO 15" (UNITS)	OVER 15" (UNITS)
234+85	30.4	LT	4	
234+89	30.4	LT		46
234+93	30.4	LT	8	
		TOTAL =	12	46

EROSION CONTROL SCHEDULE

LOCATION			PERIMETER EROSION BARRIER	POTASSIUM FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	NITROGEN FERTILIZER NUTRIENT	MULCH, METHOD 2	SEEDING CLASS 2	STONE RIPRAP, CLASS A3 (SPECIAL)	FILTER FABRIC	TEMPORARY EROSION CONTROL SEEDING
			FOOT	POUND	POUND	POUND	ACRE	ACRE	SQ YD	SQ YD	POUND
NW QUADRANT									22	22	
NE QUADRANT									18	18	
SW QUADRANT									10	10	
SE QUADRANT									19	19	
STA 233+50	TO	STA 234+37.5 LT	93	1	1	1	0.04	0.01			3
STA 233+50	TO	STA 234+37.5 RT	90	1	1	1	0.04	0.01			3
STA 234+37.5	TO	STA 235+00 LT	63	3	3	3	0.12	0.03			9
STA 234+37.5	TO	STA 235+00 RT	63	2	2	2	0.08	0.02			6
STA 235+00	TO	STA 235+50 LT	50	4	4	4	0.16	0.04			12
STA 235+00	TO	STA 235+50 RT	50	3	3	3	0.12	0.03			9
STA 235+50	TO	STA 236+00 LT	50	3	3	3	0.12	0.03			9
STA 235+50	TO	STA 236+00 RT	50	3	3	3	0.12	0.03			9
STA 236+00	TO	STA 236+55 LT	74	2	2	2	0.08	0.02			6
STA 236+00	TO	STA 236+55 RT	86	3	3	3	0.12	0.03			9
STA 237+45	TO	STA 238+00 LT	89	4	4	4	0.16	0.04			12
STA 237+45	TO	STA 238+00 RT	84	3	3	3	0.12	0.03			9
STA 238+00	TO	STA 238+50 LT	50	3	3	3	0.12	0.03			9
STA 238+00	TO	STA 238+50 RT	50	3	3	3	0.12	0.03			9
STA 238+50	TO	STA 239+00 LT	50	3	3	3	0.12	0.03			9
STA 238+50	TO	STA 239+00 RT	50	4	4	4	0.16	0.04			12
STA 239+00	TO	STA 239+50 LT	50	3	3	3	0.12	0.03			9
STA 239+00	TO	STA 239+50 RT	50	3	3	3	0.12	0.03			9
STA 239+50	TO	STA 239+62.5 LT	13	0	0	0	0.00	0.00			0
STA 239+50	TO	STA 239+62.5 RT	13	0	0	0	0.00	0.00			0
STA 239+62.5	TO	STA 240+50 LT	91	1	1	1	0.04	0.01			3
STA 239+62.5	TO	STA 240+50 RT	91	1	1	1	0.04	0.01			3
TOTAL =			1350	50	50	50	2.00	0.50	69	69	150

ROW MARKERS SCHEDULE

LOCATION			FURNISHING & ERECTING RIGHT-OF-WAY MARKERS
STATION	OFFSET (FT)	RT/LT	EACH
232+75	44.79	LT	1
233+00	45.17	RT	1
233+75	59.95	LT	1
236+00	59.69	RT	1
240+00	60.96	LT	1
240+00	59.04	RT	1
241+00	46.12	LT	1
241+00	43.88	RT	1
		TOTAL =	8

REMOVAL SCHEDULE

LOCATION				HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	REMOVE SIGN PANEL TYPE 1	PAVEMENT REMOVAL
STATION	TO	STATION		SQ YD	SQ FT	SQ YD
234+37.5	TO	234+67.5		74		
		236+75.5	LT		3	
		236+76.7	RT		3	
236+35	TO	236+83.5				119
237+16.5	TO	237+65				119
		237+20.5	LT		3	
		237+21	RT		3	
126+92.5	TO	127+60		74		
		TOTAL =		148	12	238

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		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
SN 031-0010(E) 0039(P), SECTION 1BR

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	111
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RESURFACING SCHEDULE

LOCATION			BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT SURFACE COURSE	HOT-MIX ASPHALT BINDER COURSE	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	HOT-MIX ASPHALT SHOULDERS		TEMPORARY RAMP
									LT	RT	
STATION	TO	STATION	TON	TON	TON	TON	SQ YD	SQ YD	TON		SQ YD
234+37.5	TO	235+00	0.1	0.2	12.8	0.0	42.3		1.6	15.6	
235+00	TO	235+50	0.1	0.2	10.3	0.0	33.8		5.8	12.4	
235+50	TO	236+00	0.1	0.2	27.0	19.6	33.8		11.2	12.4	
236+00	TO	236+29	0.1	0.1	6.0	28.2	19.6		7.8	7.2	
236+29	TO	236+35					4.1	24			25
236+35	TO	236+83.5					32.8				
237+16.5	TO	23+65					32.8				
237+65	TO	237+71					4.1	24			25
237+71	TO	238+00	0.1	0.1	6.0	26.9	19.6		14.4	7.2	
238+00	TO	238+50	0.1	0.2	10.3	17.3	33.8		18.1	12.5	
238+50	TO	239+00	0.1	0.2	22.7	0.0	33.8		7.6	12.5	
239+00	TO	239+50	0.1	0.2	10.3	0.0	33.8		2.1	12.5	
239+50	TO	239+62.5	0.1	0.1	2.6	0.0	8.5		0	3.1	
		TOTAL =	0.9	1.5	108	92	333	48	164		50

STAGING SCHEDULE

LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	TEMPORARY RUMBLE STRIP	TEMPORARY BRIDGE TRAFFIC SIGNALS (STATE FURNISHED)
	FOOT	FOOT	EACH	EACH	EACH	EACH
STAGE I	425		2			
STAGE II		312.5		2		
STAGE I & II					6	1
TOTAL =	425	312.5	2	2	6	1

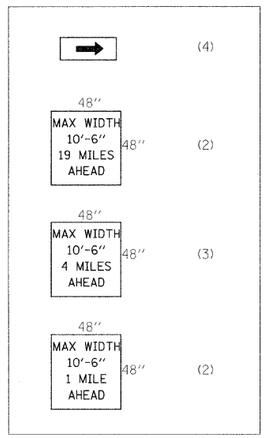
GUARDRAIL SCHEDULE

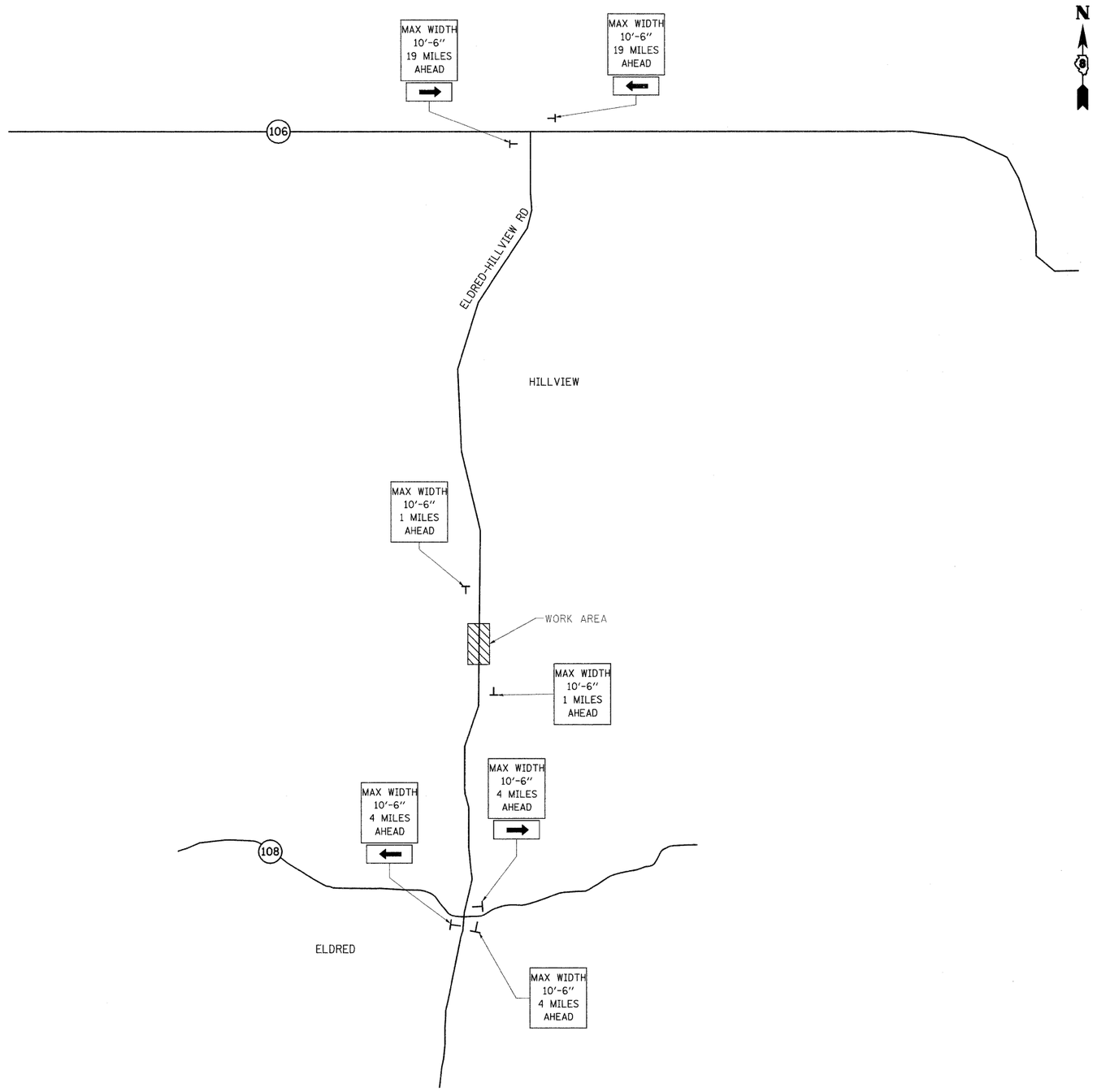
LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	BARRIER WALL MARKERS, TYPE C	TERMINAL MARKER - DIRECT APPLIED
	FOOT	EACH	EACH	EACH	EACH	EACH	EACH
NB ELDRED-HILLVIEW RD				3	2	2	
SB ELDRED-HILLVIEW RD				3	2	2	
NW QUADRANT	87.5	1	1				1
NE QUADRANT		1	1				1
SW QUADRANT		1	1				1
SE QUADRANT	87.5	1	1				1
TOTAL =	175	4	4	6	4	4	4

NOTES:

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THEE CONTRACTOR SHALL PICK UP SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTRACT JEAN SLAPE, PHONE (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.

SIGNS REQUIRED





NOTE: NOT TO SCALE

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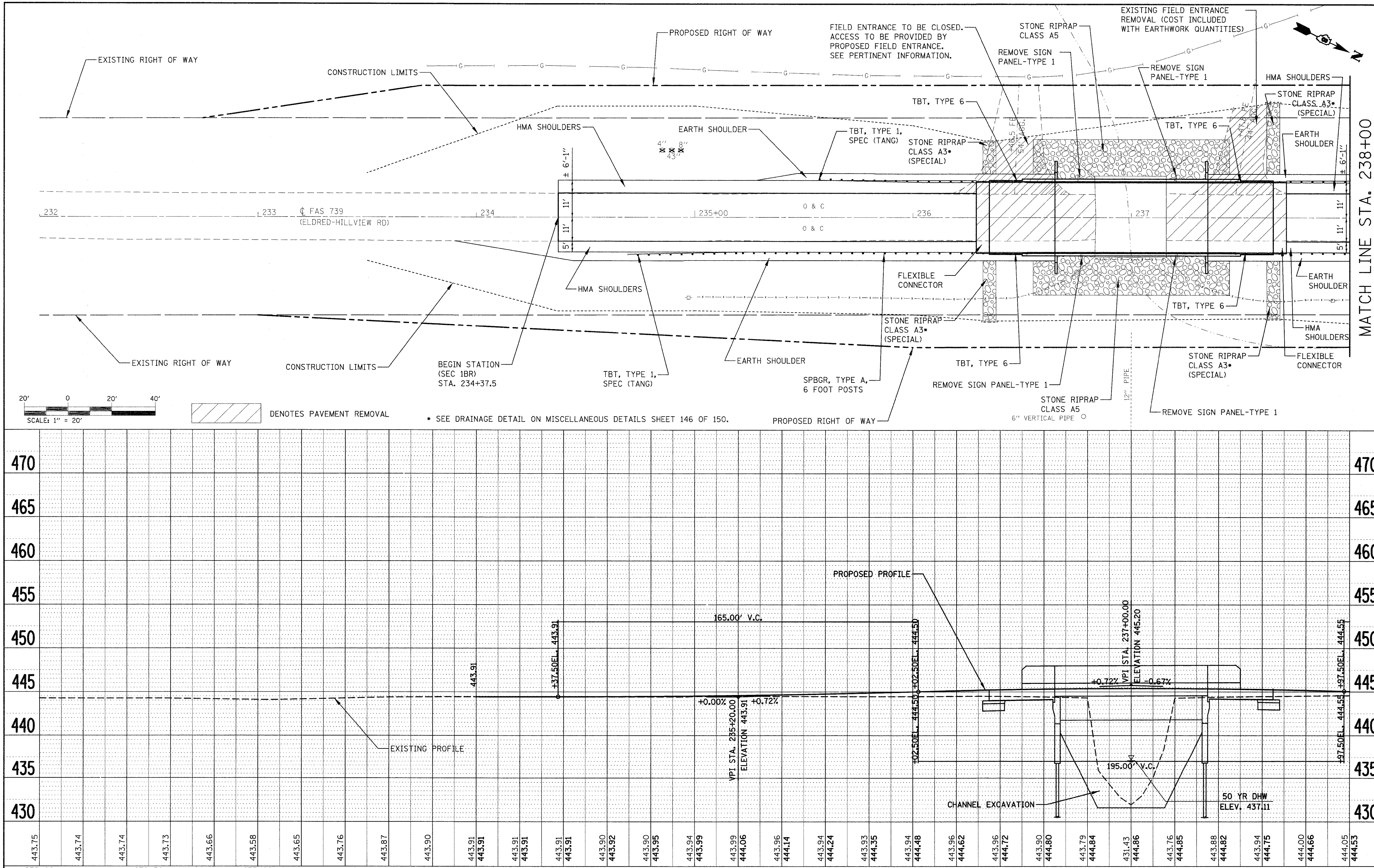
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	113
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



EXISTING RIGHT OF WAY
CONSTRUCTION LIMITS
PROPOSED RIGHT OF WAY
FIELD ENTRANCE TO BE CLOSED. ACCESS TO BE PROVIDED BY PROPOSED FIELD ENTRANCE. SEE PERTINENT INFORMATION.
STONE RIPRAP CLASS A5
REMOVE SIGN PANEL-TYPE 1
EXISTING FIELD ENTRANCE REMOVAL (COST INCLUDED WITH EARTHWORK QUANTITIES)
HMA SHOULDERS
STONE RIPRAP CLASS A3• (SPECIAL)
EARTH SHOULDER
TBT, TYPE 6
TBT, TYPE 1, SPEC (TANG)
EARTH SHOULDER
HMA SHOULDERS
± 6'-1"
11'
11'
5'
232
233
℄ FAS 739 (ELDRED-HILLVIEW RD)
234
235+00
236
237
O & C
MATCH LINE STA. 238+00
FLEXIBLE CONNECTOR
HMA SHOULDERS
EXISTING RIGHT OF WAY
CONSTRUCTION LIMITS
BEGIN STATION (SEC 1BR) STA. 234+37.5
TBT, TYPE 1, SPEC (TANG)
EARTH SHOULDER
SPBGR, TYPE A, 6 FOOT POSTS
PROPOSED RIGHT OF WAY
REMOVE SIGN PANEL-TYPE 1
STONE RIPRAP CLASS A5
6" VERTICAL PIPE
12" PIPE
20' 0 20' 40'
SCALE: 1" = 20'
DENOTES PAVEMENT REMOVAL
• SEE DRAINAGE DETAIL ON MISCELLANEOUS DETAILS SHEET 146 OF 150.
470
465
460
455
450
445
440
435
430
PROPOSED PROFILE
165.00' V.C.
+37.50EL. 443.91
+0.00%
+0.72%
VPI STA. 235+20.00 ELEVATION 443.91
+02.50EL. 444.50
VPI STA. 237+00.00 ELEVATION 445.20
+0.72%
-0.67%
195.00' V.C.
+97.50EL. 444.55
EXISTING PROFILE
CHANNEL EXCAVATION
50 YR DHW ELEV. 437.11
232+00
232+50
233+00
233+50
234+00
234+50
235+00
235+50
236+00
236+50
237+00
237+50
238+00

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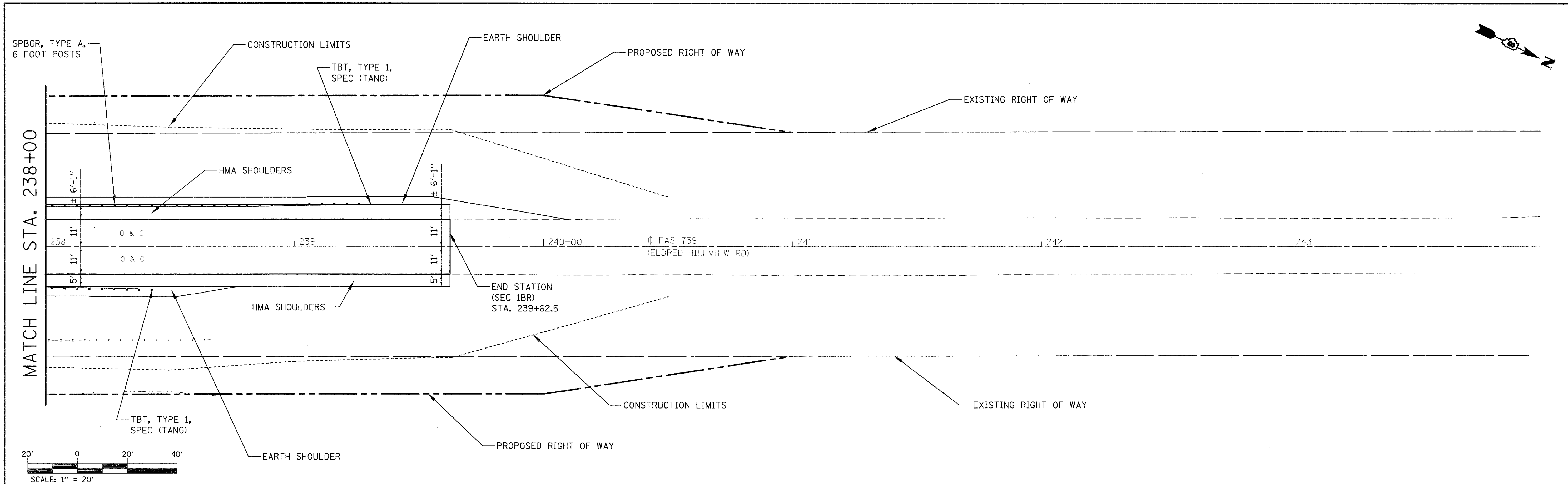
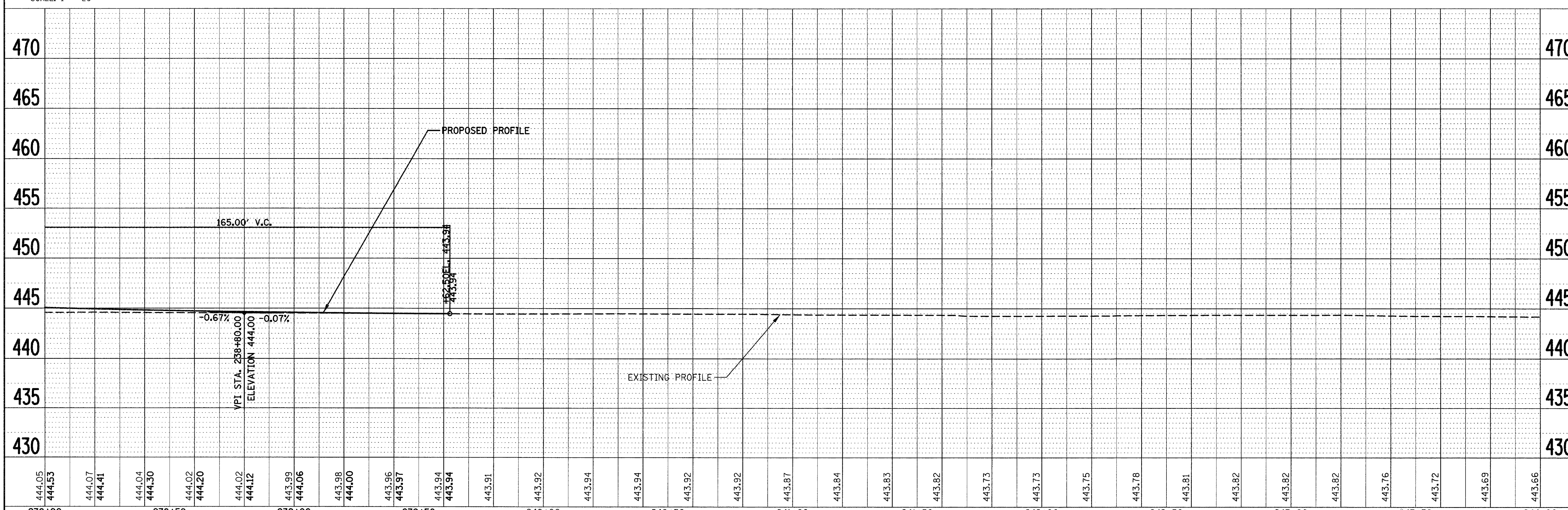
		DRAWN -	REVISED -		
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -		
	PLOT DATE = 3/25/2010	DATE -	REVISED -		SCALE: 1" = 20' SHEET NO. 1 OF 2 SHEETS STA. 232+00 TO STA. 238+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	114
		CONTRACT NO. 76410		
		ILLINOIS FED. AID PROJECT		





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	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

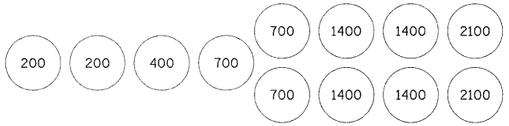
PLAN AND PROFILE SHEETS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 238+00 TO STA. 244+00

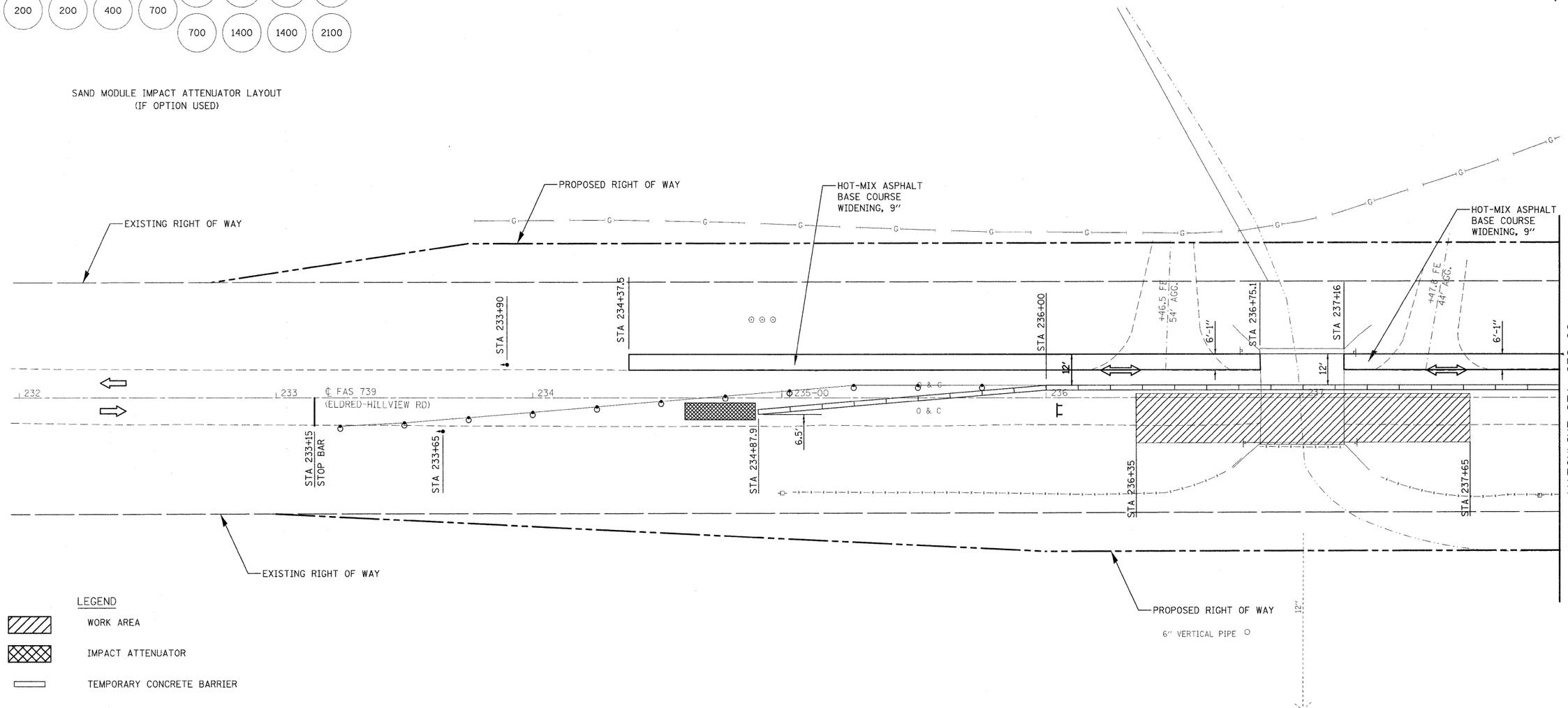
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	115

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)



LEGEND

- WORK AREA
- IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- BARRELS WITH STEADY BURNING LIGHT
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE III BARRICADE

20′ 0 20′ 40′
SCALE: 1" = 20′

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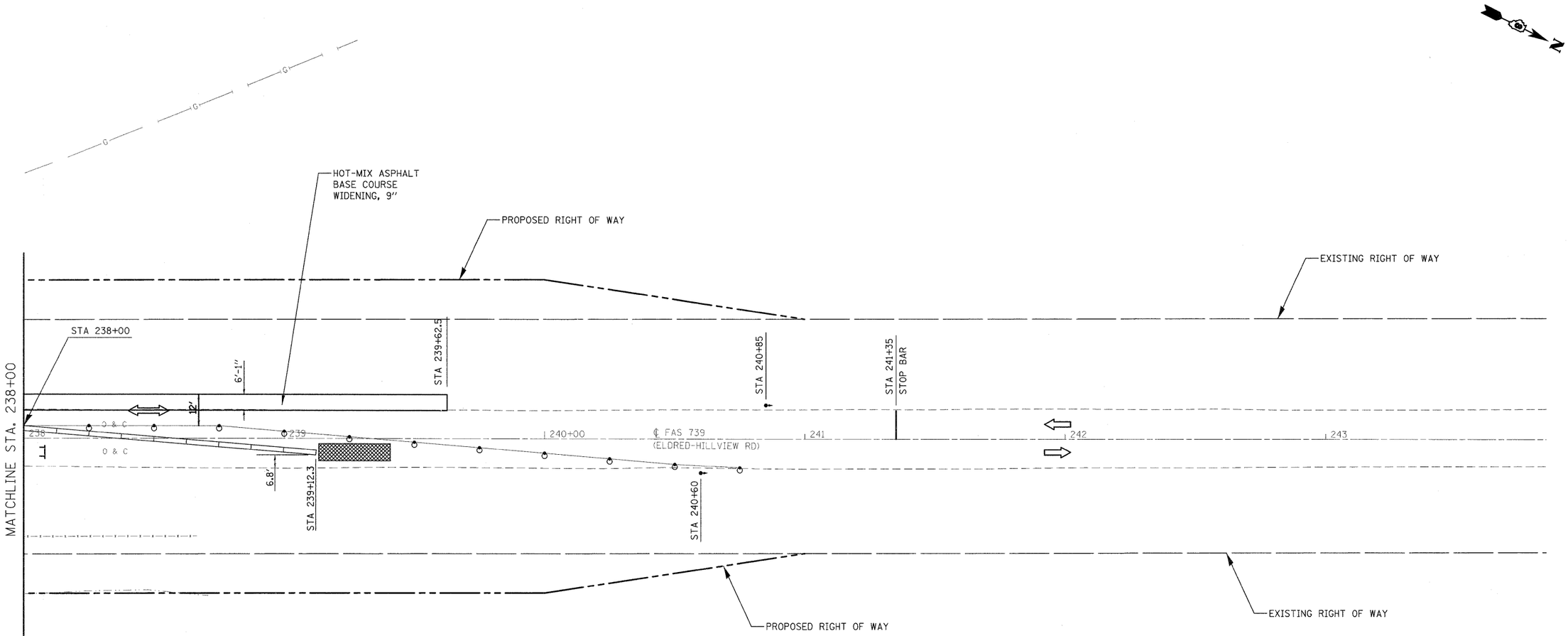
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: 1" = 20′ | SHEET NO. 1 OF 2 SHEETS | STA. 232+00 TO STA. 238+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	116
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



SEQUENCE OF CONSTRUCTION - STAGE I

PLACE HOT-MIX ASPHALT BASE COURSE WIDENING, 9" AS SPECIFIED IN THE PLAN VIEW AS A PRE-STAGE TO STAGE I.

PLACE STOP BARS AS SHOWN ON PLANS.

REMOVE SKIP-DASH PAVEMENT MARKING BETWEEN STOP BARS.

PLACE 425 FOOT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

PERFORM ALL NECESSARY WORK FOR STAGE I CONSTRUCTION.

20' 0 20' 40'
SCALE: 1" = 20'

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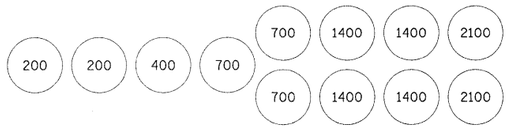
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

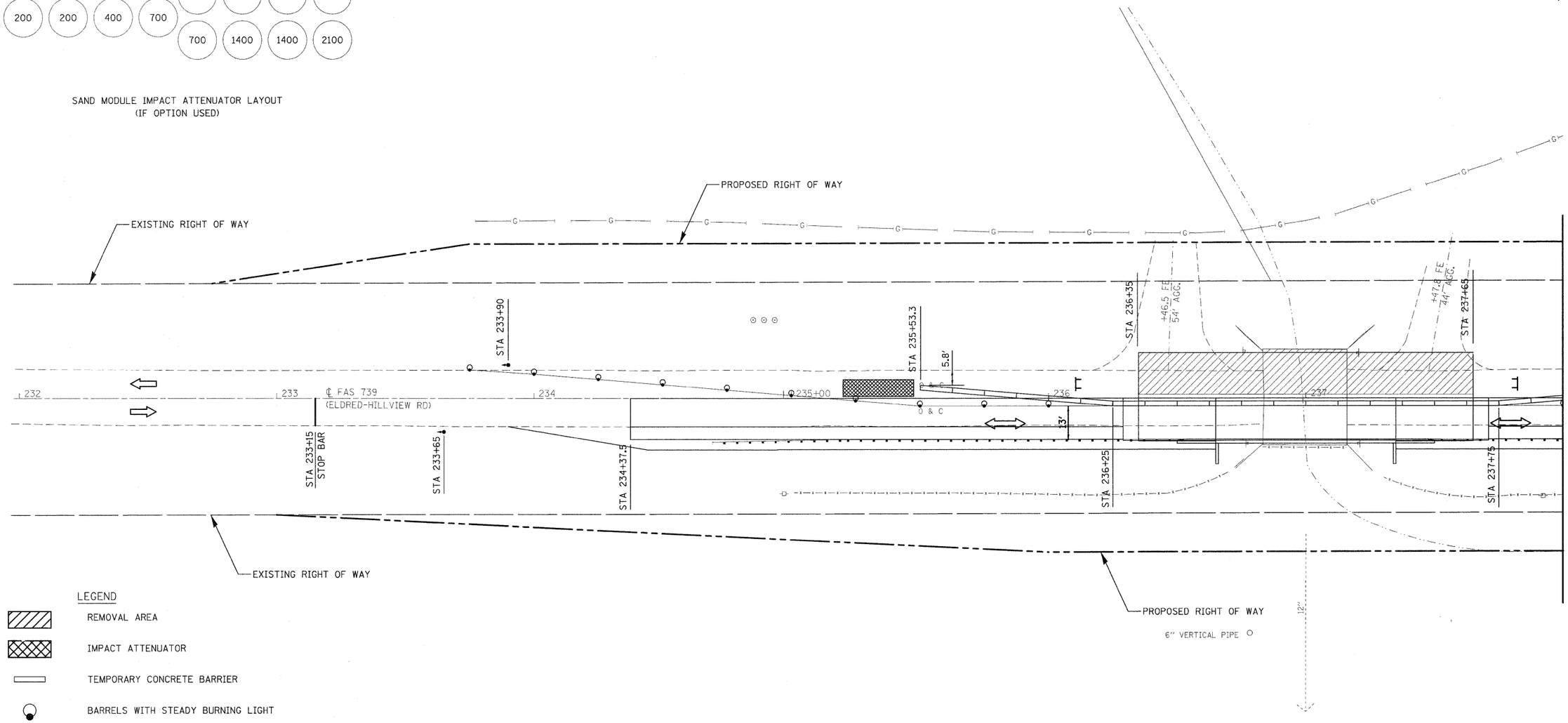
STAGE I CONSTRUCTION
SN 031-0010(E), 0039(P), SECTION 1BR

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 238+00 TO STA. 243+85

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	117
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)



LEGEND

- REMOVAL AREA
- IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- BARRELS WITH STEADY BURNING LIGHT
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE III BARRICADE

20′ 0 20′ 40′
SCALE: 1″ = 20′

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		DRAWN -	REVISED -
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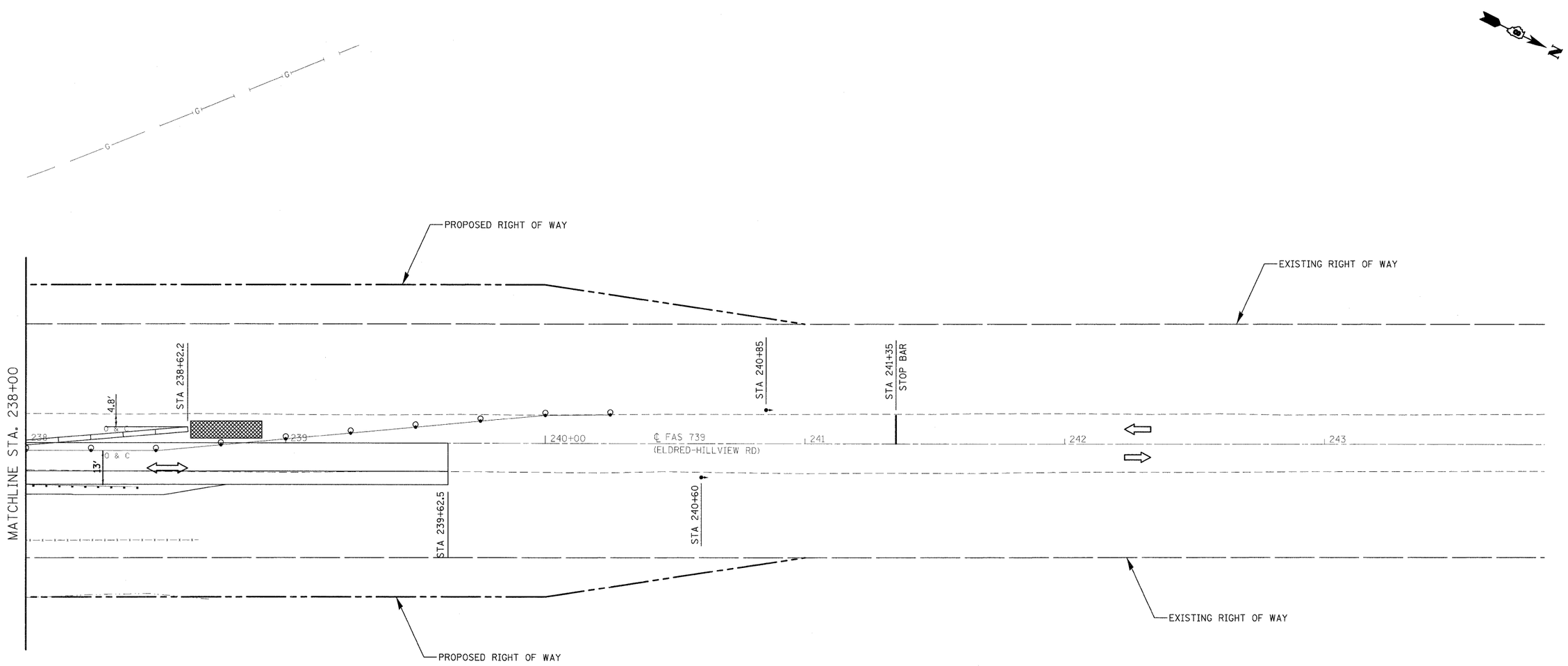
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: 1″ = 20′ | SHEET NO. 1 OF 2 SHEETS | STA. 232+00 TO STA. 238+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	118
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



SEQUENCE OF CONSTRUCTION - STAGE II

RELOCATE 312.5 FT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

PERFORM ALL NECESSARY WORK FOR STAGE II CONSTRUCTION.

20' 0 20' 40'

SCALE: 1" = 20'

FILE NAME = c:\pw_work\PWIDOT\THARPRL\dms52692\D876410-sht-staging203%.dgn	USER NAME = tharprl	DESIGNED -	REVISED -
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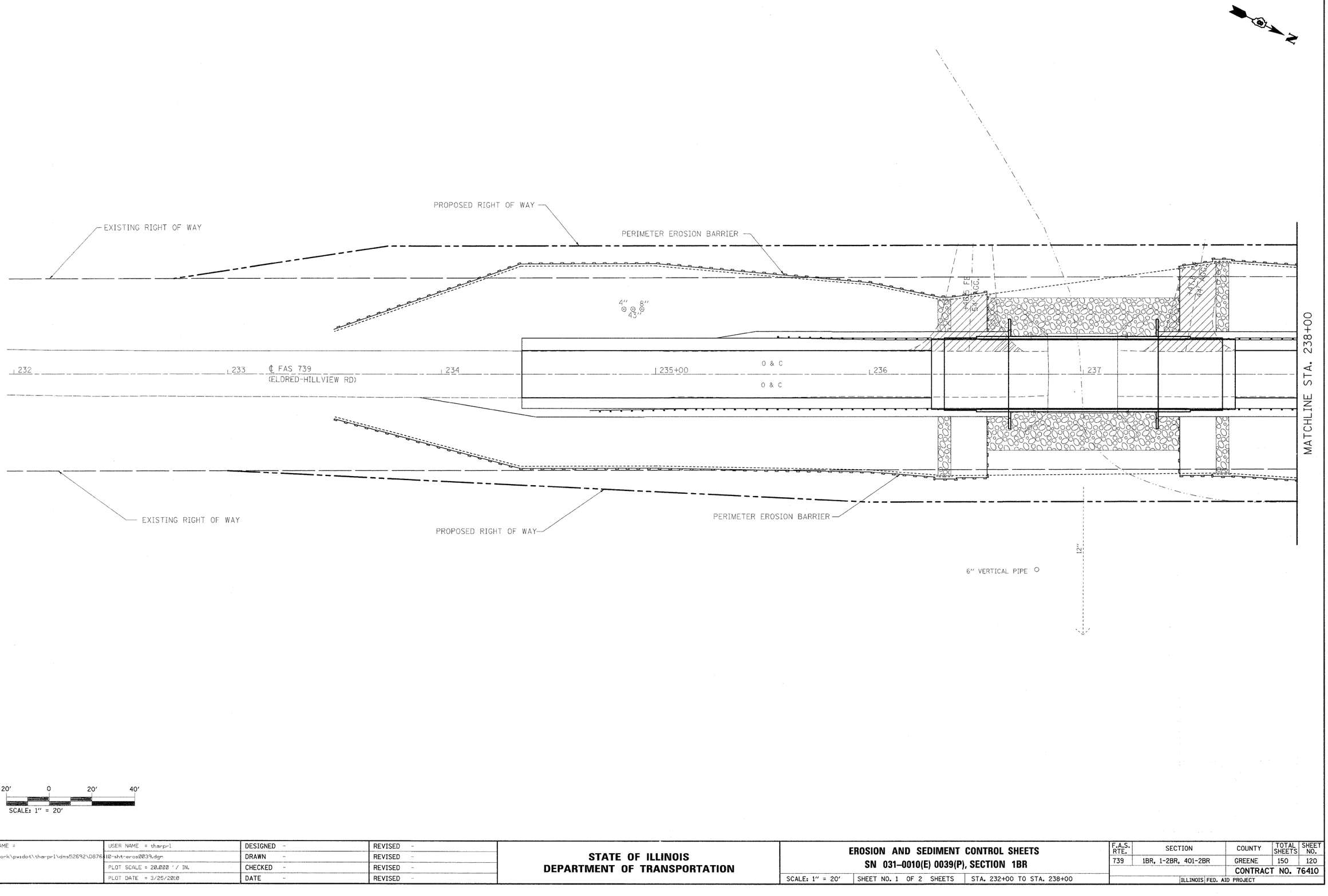
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 238+00 TO STA. 243+85

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	119
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			



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	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

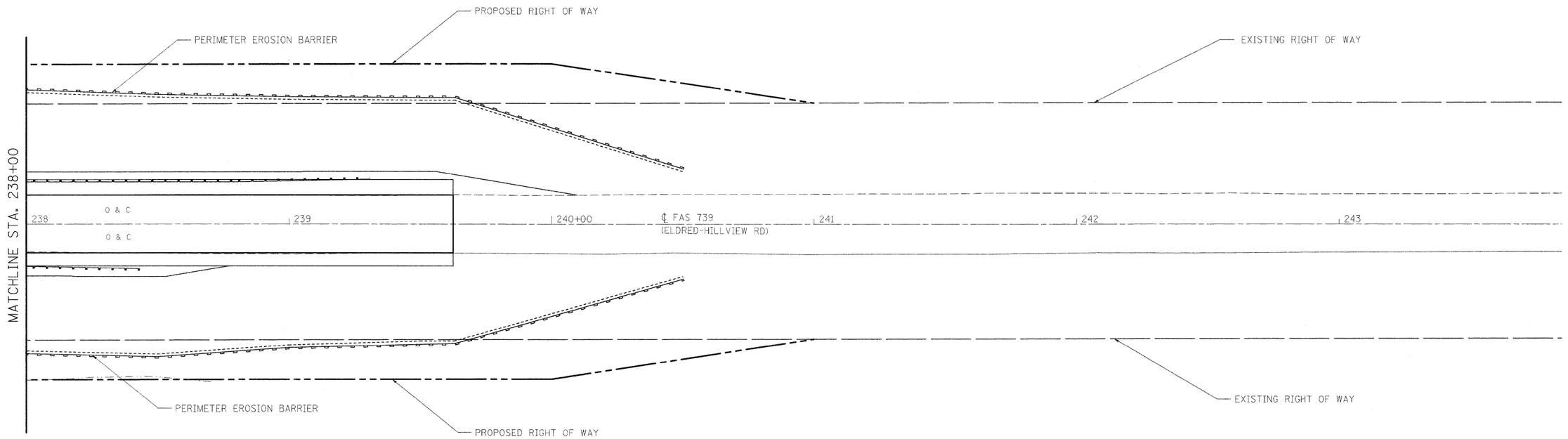
EROSION AND SEDIMENT CONTROL SHEETS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 232+00 TO STA. 238+00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	120

CONTRACT NO. 76410

ILLINOIS FED. AID PROJECT



20′ 0 20′ 40′

SCALE: 1″ = 20′

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		DRAWN -	REVISED -
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	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL SHEETS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: 1″ = 20′ | SHEET NO. 2 OF 2 SHEETS | STA. 238+00 TO STA. 243+85

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	121
		CONTRACT NO. 76410		
		ILLINOIS FED. AID PROJECT		

03100039-T6410-01-GPEL.DGN NOV. 30, 2009

BENCHMARK: T.B.M. Iron Rod Set (by IDOT)
Sta. 230+17.23, 17.4' Rt.
El. 442.931

EXISTING STRUCTURE S.N. 031-0010

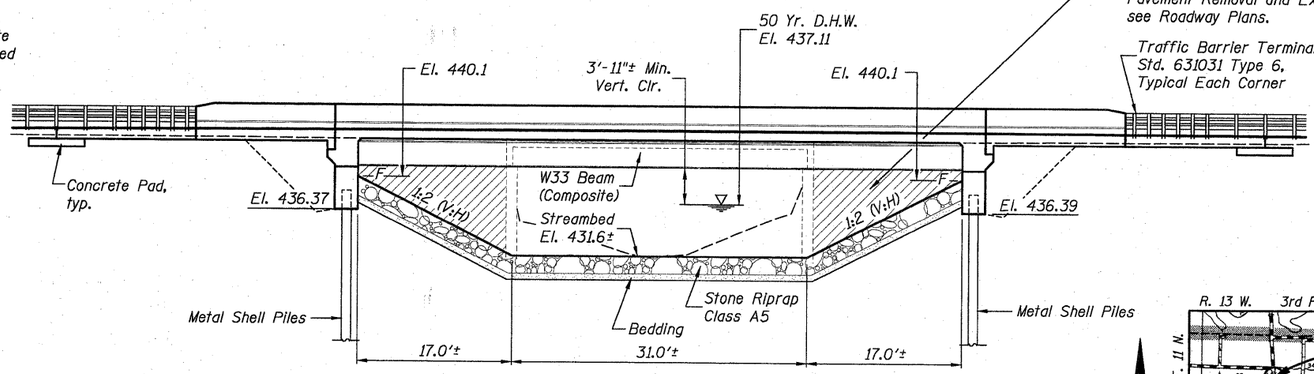
was built in 1939 as F.A. Route 155, Section 1B. The existing structure consists of a 6½" concrete deck on 24" steel beams spanning between treated timber abutments on timber piles.
The existing structure measures 33'-0" back to back of abutments and 37'-4" out to out of deck.

Existing structure to be removed and replaced.

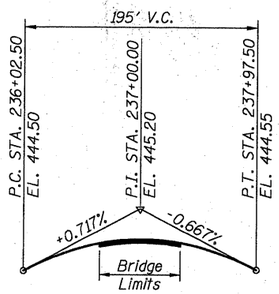
The road shall be kept open to one lane of traffic at all times by utilizing stage construction.

SALVAGE: No Salvage

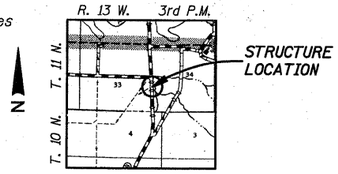
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



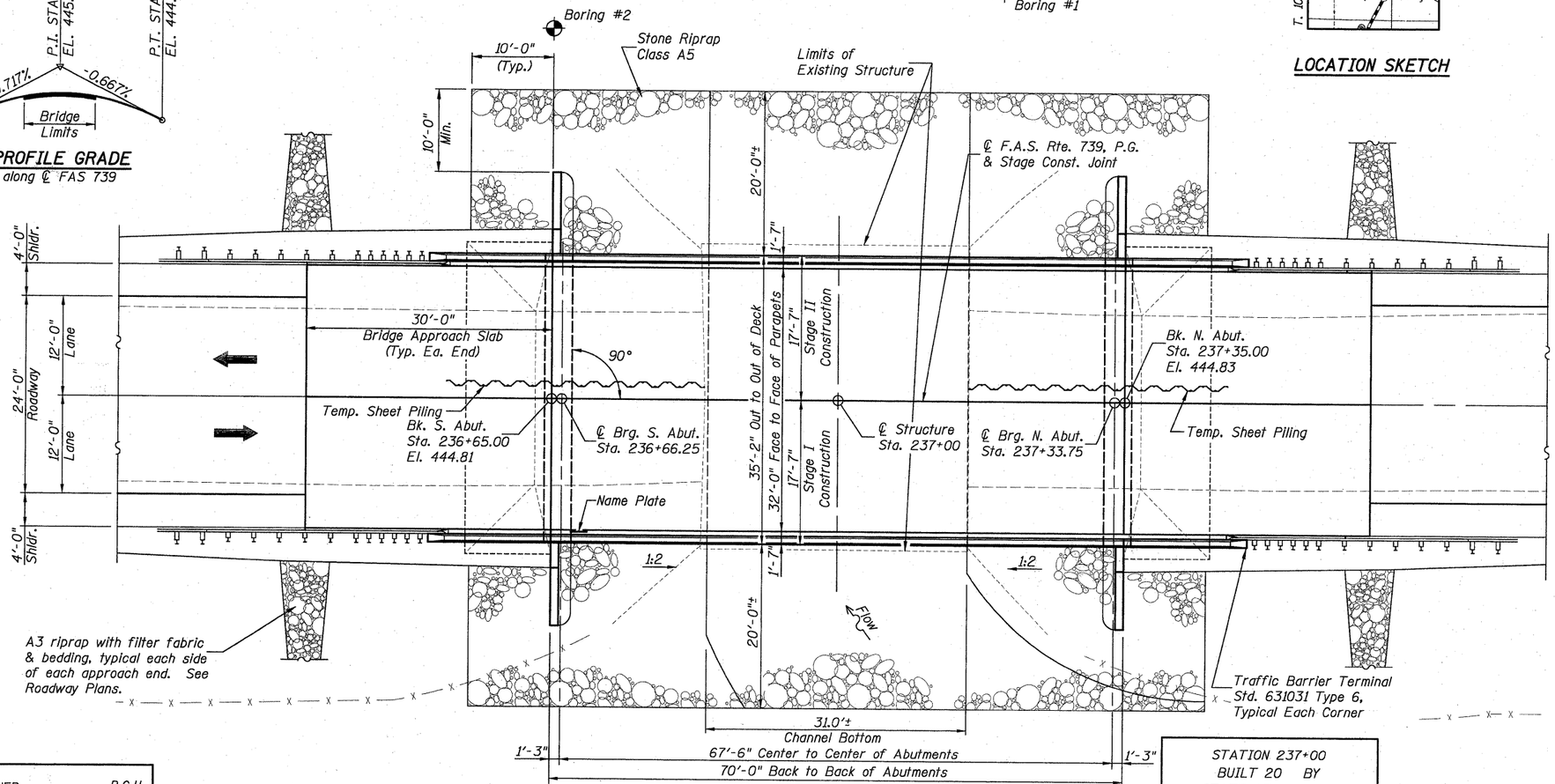
ELEVATION



PROFILE GRADE
along ℄ FAS 739



LOCATION SKETCH



PLAN

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (Feet)	S. Abut.	N. Abut.
	436.37	436.39

WATERWAY INFORMATION

Drainage Area = 1.36 Sq. Mi. — Low Grade El. 443.57 @ Sta. 233+05

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	1,443	101	231	437.11	3.40	2.43	440.51	439.54
Base	100	1,687	105	239	437.26	3.89	2.68	441.15	439.94
Overtopping	N/A								
Max. Calc.	500	2,286	117	260	437.65	5.32	3.20	442.97	440.85
Scour	10	889	88	209	436.69	2.29	1.76	438.98	438.45

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications w/2008 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)
fy = 36,000 psi (M270 Grade 36)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.160g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.294g
Soil Site Class = D

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Bradley G. Hummert
Bradley G. Hummert
Licensed Structural Engineer
In Carlyle, Illinois
No. 081-005428, Expires 11/30/2010

Date: 12/1/09

081-005428 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS BRADLEY G. HUMMERT CARLYLE, IL

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E Anderson (for)
ENGINEER OF BRIDGES AND STRUCTURES

STATION 237+00
BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RT. 739 SEC. 1BR
LOADING HL93
STRUCTURE NO. 031-0039

NAME PLATE
See Std. 515001

GENERAL PLAN & ELEVATION
ELDRED-HILLVIEW ROAD
OVER UNNAMED STREAM
STATION 237+00

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	122
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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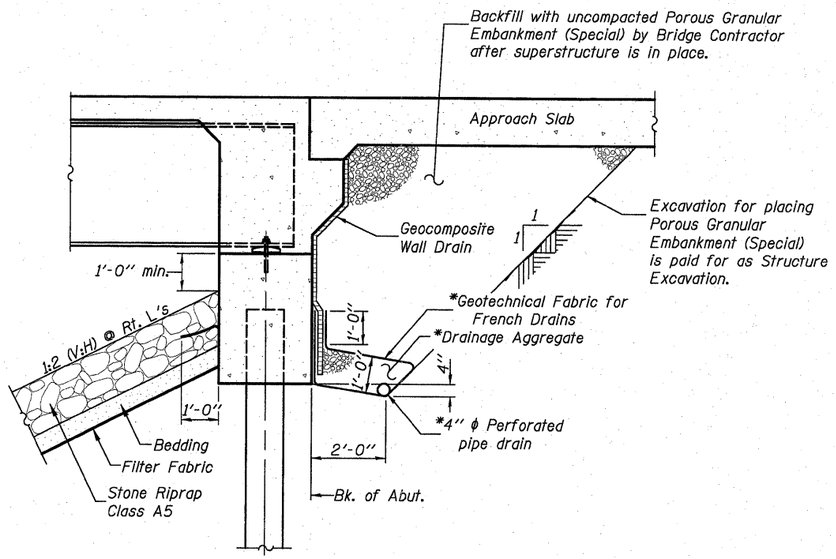
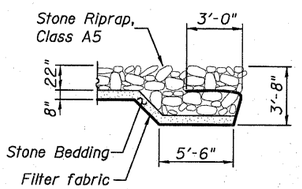


SECTION THRU INTEGRAL ABUTMENT

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

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



STONE RIPRAP FLANK DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Porous Granular Embankment (Special)	Cu. Yd.	———	138	138
	Stone Riprap, Class A5	Sq. Yd.	———	661	661
	Filter Fabric	Sq. Yd.	———	661	661
	Removal of Existing Structures No. 1	Each	———	———	1
	Structure Excavation	Cu. Yd.	———	236	236
	Concrete Structures	Cu. Yd.	———	61.7	61.7
	Concrete Superstructure	Cu. Yd.	208.9	———	208.9
	Bridge Deck Grooving	Sq. Yd.	436	———	436
**	Protective Coat	Sq. Yd.	554	———	554
	Furnishing and Erecting Structural Steel	L. Sum	0.34	———	0.34
	Stud Shear Connectors	Each	1,098	———	1,098
***	Reinforcement Bars, Epoxy Coated	Pound	47,250	7,180	54,430
***	Bar Splicers	Each	529	———	529
	Furnishing Metal Shell Piles 14"x0.312"	Foot	———	693	693
	Driving Piles	Foot	———	693	693
	Test Pile Metal Shell	Each	———	1	1
	Temporary Sheet Piling	Sq. Ft.	———	2,160	2,160
	Name Plates	Each	1	———	1
	Anchor Bolts, 1"	Each	———	24	24
	Geocomposite Wall Drain	Sq. Yd.	———	79	79
	Pipe Underdrains for Structures 4"	Foot	———	135	135

** Quantity includes top of concrete surface of bridge deck and approach slabs end to end and the top and inside vertical faces of the parapets and curbs.

*** Reinforcement and Bar Splicer quantities for Bridge Approach Slabs and Footings are included in Superstructure quantities.

GENERAL NOTES

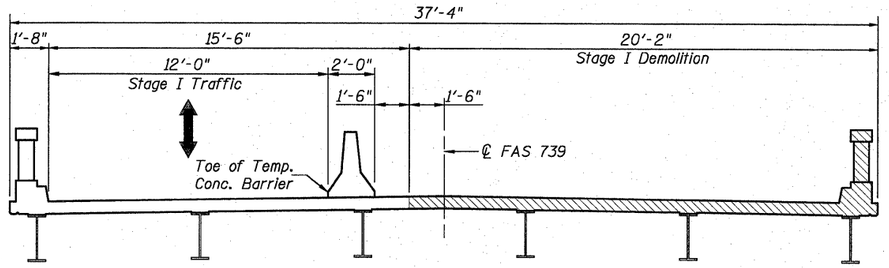
1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 3,100 lbs. (M270, Grade 36)
   63,400 lbs. (M270, Grade 50)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
7. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".
8. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
9. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
10. Slipforming of the parapets is not allowed.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

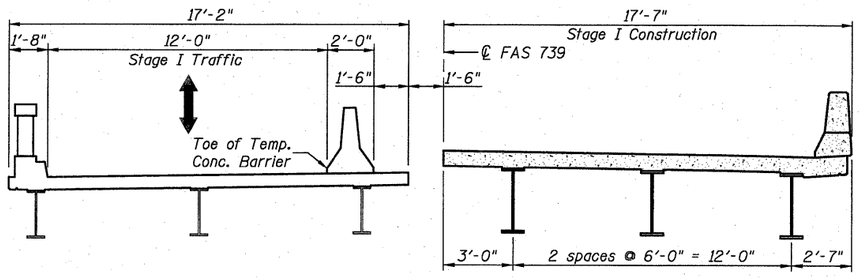
GENERAL DATA

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	123
		S.N. 031-0039	CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

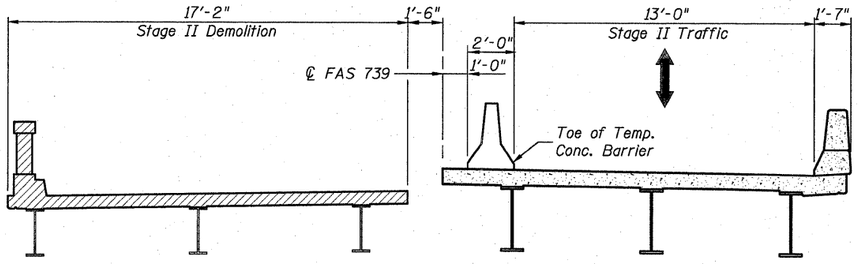
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



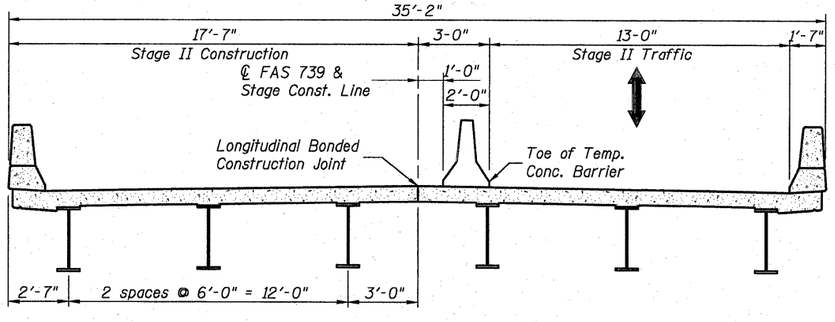
STAGE I DEMOLITION
(Looking North)



STAGE I CONSTRUCTION
(Looking North)

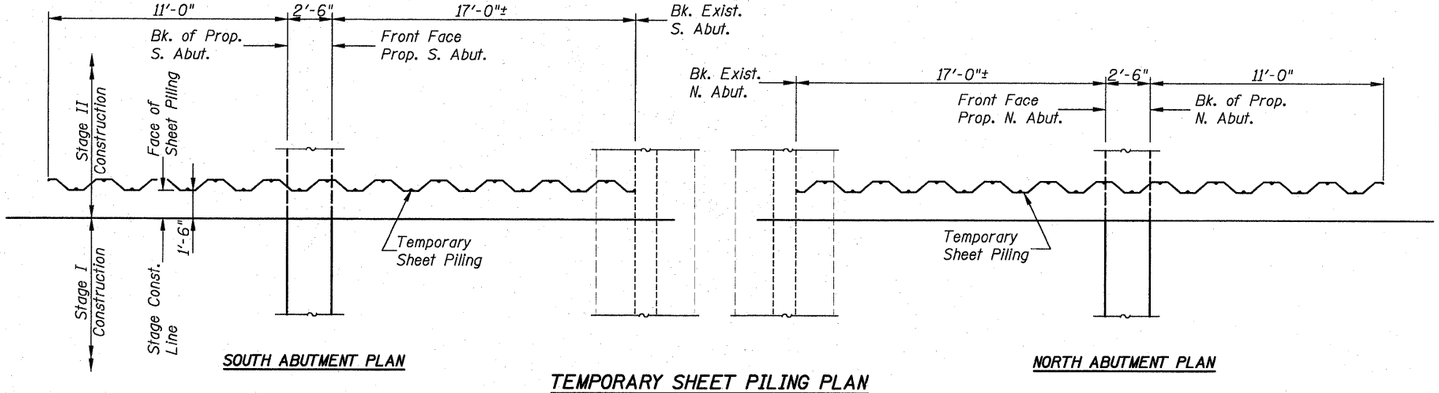


STAGE II DEMOLITION
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

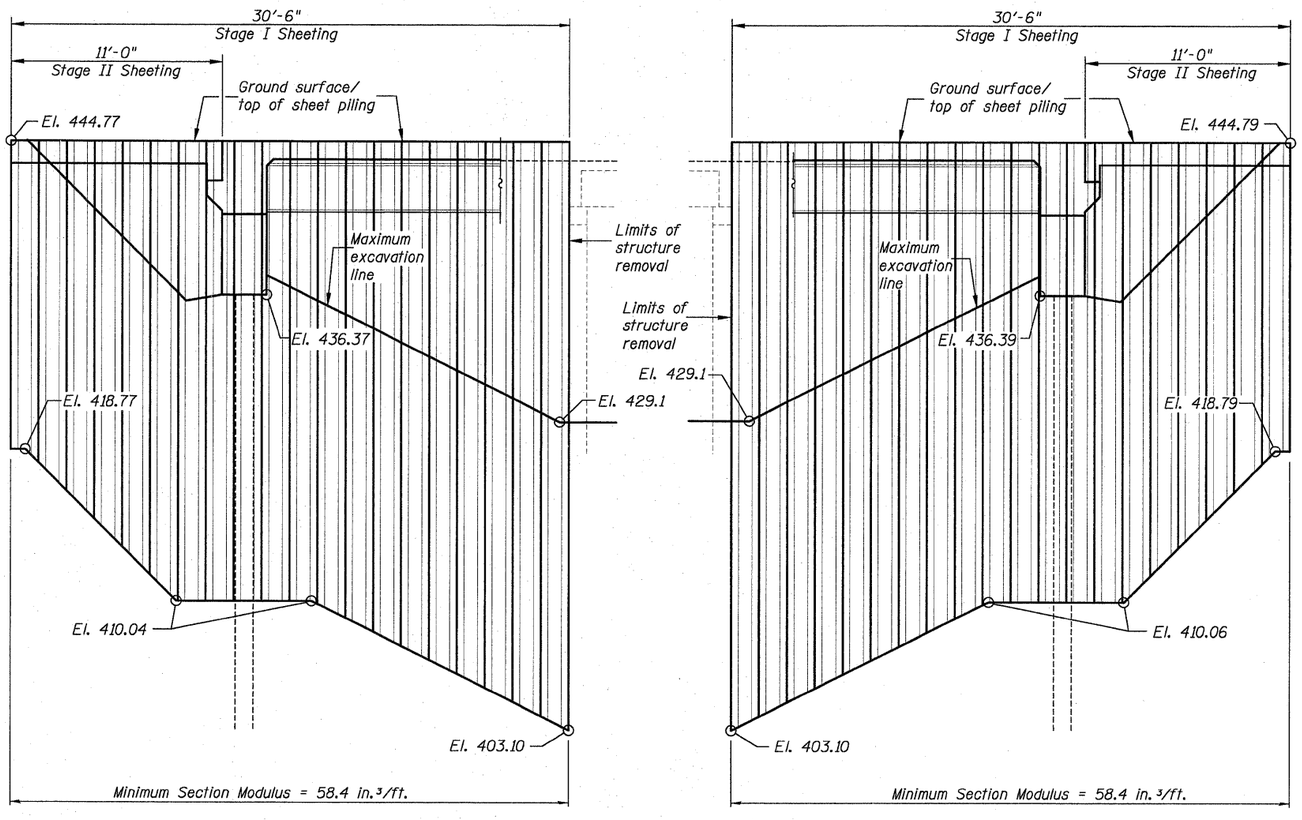
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.



SOUTH ABUTMENT PLAN

TEMPORARY SHEET PILING PLAN

NORTH ABUTMENT PLAN



SOUTH ABUTMENT ELEVATION

TEMPORARY SHEET PILING ELEVATION

NORTH ABUTMENT ELEVATION

NOTES

1. 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.
2. See Roadway Plans for quantity of Temporary Concrete Barrier.

STAGE CONSTRUCTION DETAILS

SHEET NO. 3	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	124
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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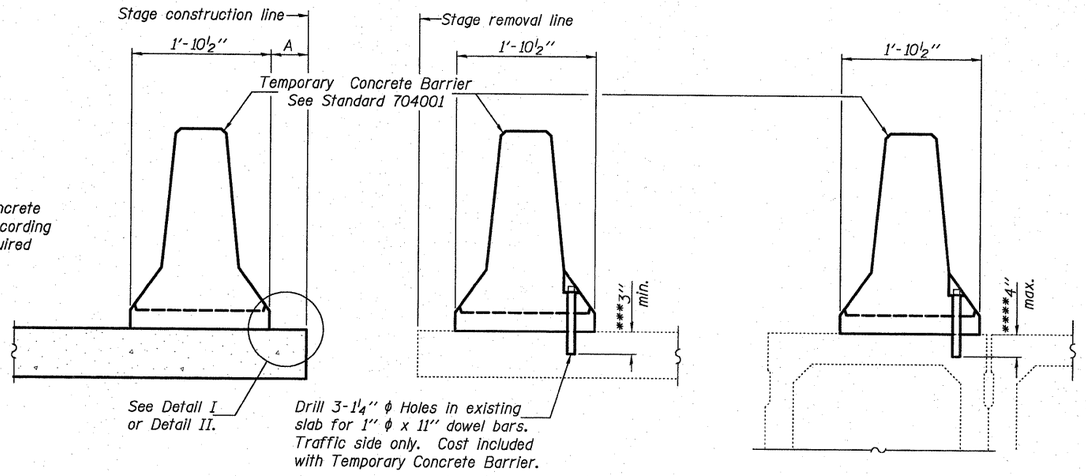
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

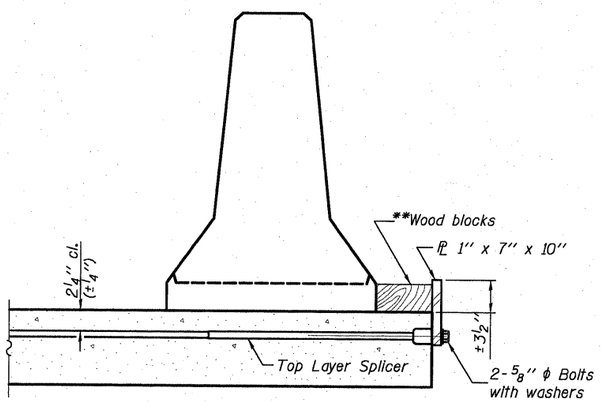
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

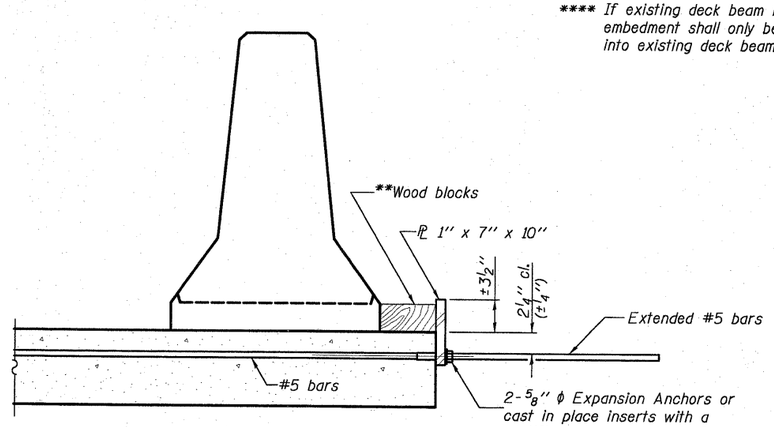
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.

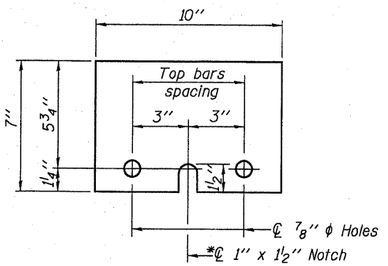


DETAIL I



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.



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

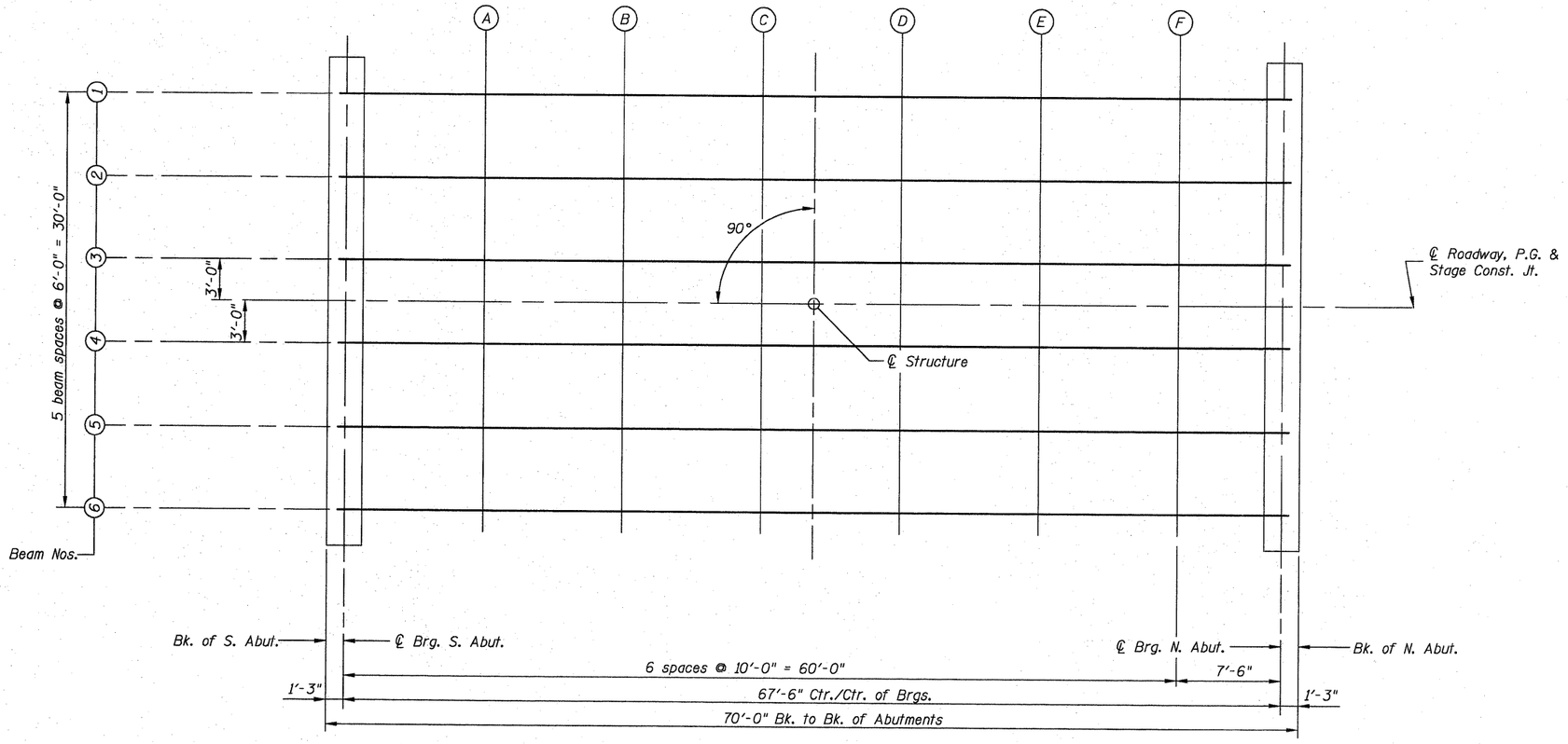
R-27 10-1-08

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

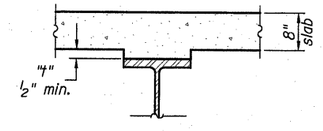
SHEET NO. 4	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	125
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

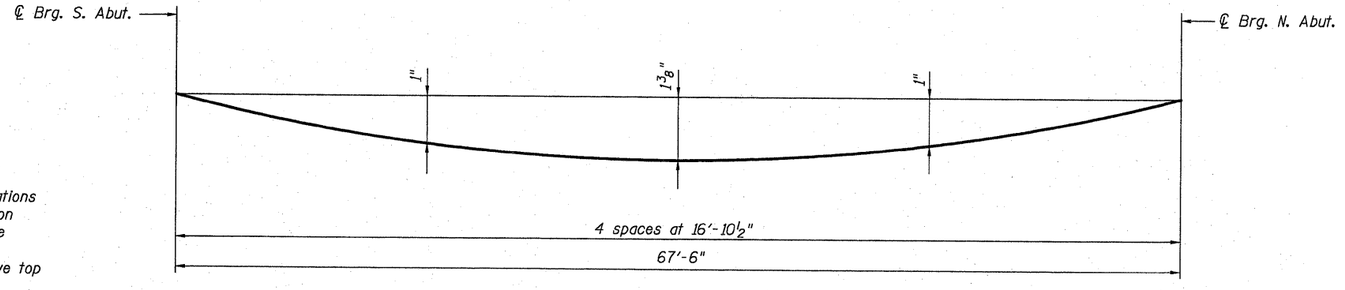


PLAN N



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 6 and 7 of 23, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 6 and 7 of 23.

TOP OF SLAB ELEVATIONS

DESIGNED	B.G.H.				
CHECKED	L.D.G.				
DRAWN	K.H.L.				
CHECKED	B.G.H.				

SHEET NO. 5	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	126
		S.N. 031-0039	CONTRACT NO. 76410		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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DEPARTMENT OF TRANSPORTATION

BEAM #1

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	236+65.00	-15.00	444.56	444.56
℄ Brg. S. Abut.	236+66.25	-15.00	444.56	444.56
A	236+76.25	-15.00	444.59	444.64
B	236+86.25	-15.00	444.60	444.69
C	236+96.25	-15.00	444.61	444.72
D	237+06.25	-15.00	444.61	444.72
E	237+16.25	-15.00	444.61	444.69
F	237+26.25	-15.00	444.59	444.63
℄ Brg. N. Abut.	237+33.75	-15.00	444.58	444.58
Bk. N. Abut.	237+35.00	-15.00	444.58	444.58

BEAM #2

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	236+65.00	-9.00	444.67	444.67
℄ Brg. S. Abut.	236+66.25	-9.00	444.67	444.67
A	236+76.25	-9.00	444.70	444.75
B	236+86.25	-9.00	444.71	444.80
C	236+96.25	-9.00	444.72	444.83
D	237+06.25	-9.00	444.72	444.83
E	237+16.25	-9.00	444.72	444.80
F	237+26.25	-9.00	444.70	444.74
℄ Brg. N. Abut.	237+33.75	-9.00	444.69	444.69
Bk. N. Abut.	237+35.00	-9.00	444.69	444.69

BEAM #3

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	236+65.00	-3.00	444.76	444.76
℄ Brg. S. Abut.	236+66.25	-3.00	444.77	444.77
A	236+76.25	-3.00	444.79	444.84
B	236+86.25	-3.00	444.80	444.90
C	236+96.25	-3.00	444.81	444.93
D	237+06.25	-3.00	444.82	444.93
E	237+16.25	-3.00	444.81	444.89
F	237+26.25	-3.00	444.80	444.84
℄ Brg. N. Abut.	237+33.75	-3.00	444.78	444.78
Bk. N. Abut.	237+35.00	-3.00	444.78	444.78

℄ ROADWAY, P.G. AND STAGE CONSTRUCTION LINE

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	236+65.00	0.00	444.81	444.81
℄ Brg. S. Abut.	236+66.25	0.00	444.81	444.81
A	236+76.25	0.00	444.84	444.89
B	236+86.25	0.00	444.85	444.94
C	236+96.25	0.00	444.86	444.97
D	237+06.25	0.00	444.86	444.97
E	237+16.25	0.00	444.86	444.94
F	237+26.25	0.00	444.84	444.88
℄ Brg. N. Abut.	237+33.75	0.00	444.83	444.83
Bk. N. Abut.	237+35.00	0.00	444.83	444.83

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 5 of 23 for elevation locations.

TOP OF SLAB ELEVATIONS

SHEET NO. 6	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	127
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

H.M. & G. NO. 6020.161

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DEPARTMENT OF TRANSPORTATION

BEAM #4

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	236+65.00	3.00	444.76	444.76
℄ Brg. S. Abut.	236+66.25	3.00	444.77	444.77
A	236+76.25	3.00	444.79	444.84
B	236+86.25	3.00	444.80	444.90
C	236+96.25	3.00	444.81	444.93
D	237+06.25	3.00	444.82	444.93
E	237+16.25	3.00	444.81	444.89
F	237+26.25	3.00	444.80	444.84
℄ Brg. N. Abut.	237+33.75	3.00	444.78	444.78
Bk. N. Abut.	237+35.00	3.00	444.78	444.78

BEAM #5

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	236+65.00	9.00	444.67	444.67
℄ Brg. S. Abut.	236+66.25	9.00	444.67	444.67
A	236+76.25	9.00	444.70	444.75
B	236+86.25	9.00	444.71	444.80
C	236+96.25	9.00	444.72	444.83
D	237+06.25	9.00	444.72	444.83
E	237+16.25	9.00	444.72	444.80
F	237+26.25	9.00	444.70	444.74
℄ Brg. N. Abut.	237+33.75	9.00	444.69	444.69
Bk. N. Abut.	237+35.00	9.00	444.69	444.69

BEAM #6

Location	Station	Offset from Ctrline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	236+65.00	15.00	444.56	444.56
℄ Brg. S. Abut.	236+66.25	15.00	444.56	444.56
A	236+76.25	15.00	444.59	444.64
B	236+86.25	15.00	444.60	444.69
C	236+96.25	15.00	444.61	444.72
D	237+06.25	15.00	444.61	444.72
E	237+16.25	15.00	444.61	444.69
F	237+26.25	15.00	444.59	444.63
℄ Brg. N. Abut.	237+33.75	15.00	444.58	444.58
Bk. N. Abut.	237+35.00	15.00	444.58	444.58

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 5 of 23 for elevation locations.

TOP OF SLAB ELEVATIONS

SHEET NO. 7	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	128
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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WEST CURB LINE

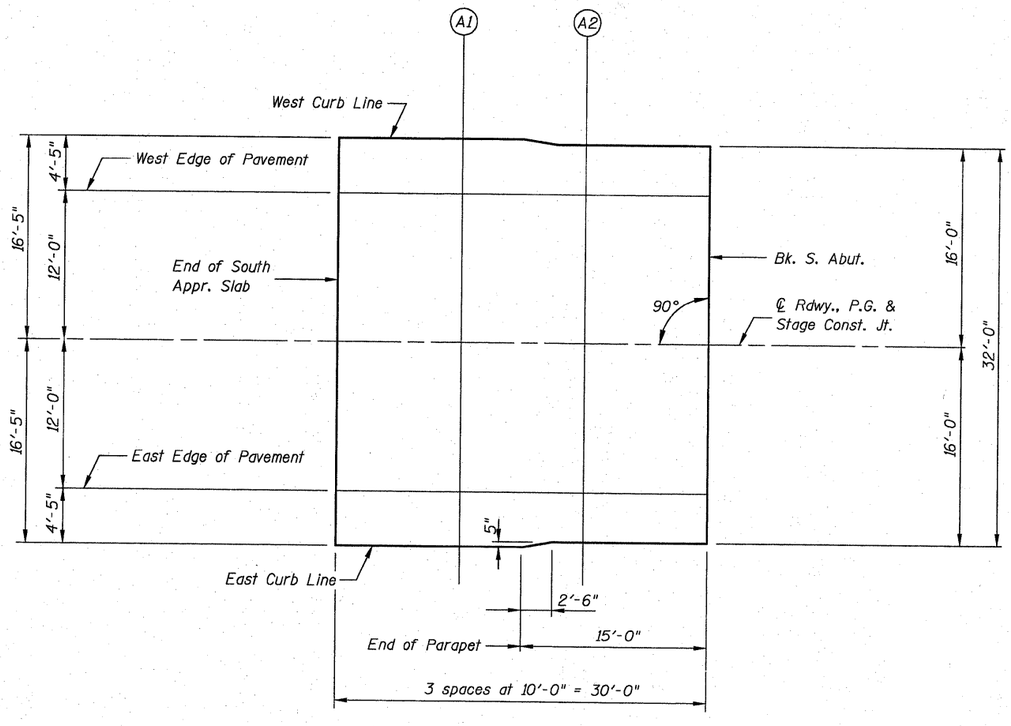
Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	236+35.00	-16.42	444.42
A1	236+45.00	-16.42	444.46
A2	236+55.00	-16.00	444.51
Bk. S. Abut.	236+65.00	-16.00	444.54

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	236+35.00	-12.00	444.51
A1	236+45.00	-12.00	444.55
A2	236+55.00	-12.00	444.59
Bk. S. Abut.	236+65.00	-12.00	444.62

℄ ROADWAY, P.G. & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	236+35.00	0.00	444.70
A1	236+45.00	0.00	444.74
A2	236+55.00	0.00	444.78
Bk. S. Abut.	236+65.00	0.00	444.81



SOUTH APPROACH PLAN N

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	236+35.00	12.00	444.51
A1	236+45.00	12.00	444.55
A2	236+55.00	12.00	444.59
Bk. S. Abut.	236+65.00	12.00	444.62

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Slab	236+35.00	16.42	444.42
A1	236+45.00	16.42	444.46
A2	236+55.00	16.00	444.51
Bk. S. Abut.	236+65.00	16.00	444.54

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

TOP OF SOUTH APPROACH SLAB ELEVATIONS

SHEET NO. 8	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	129
		S.N. 031-0039	CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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WEST CURB LINE

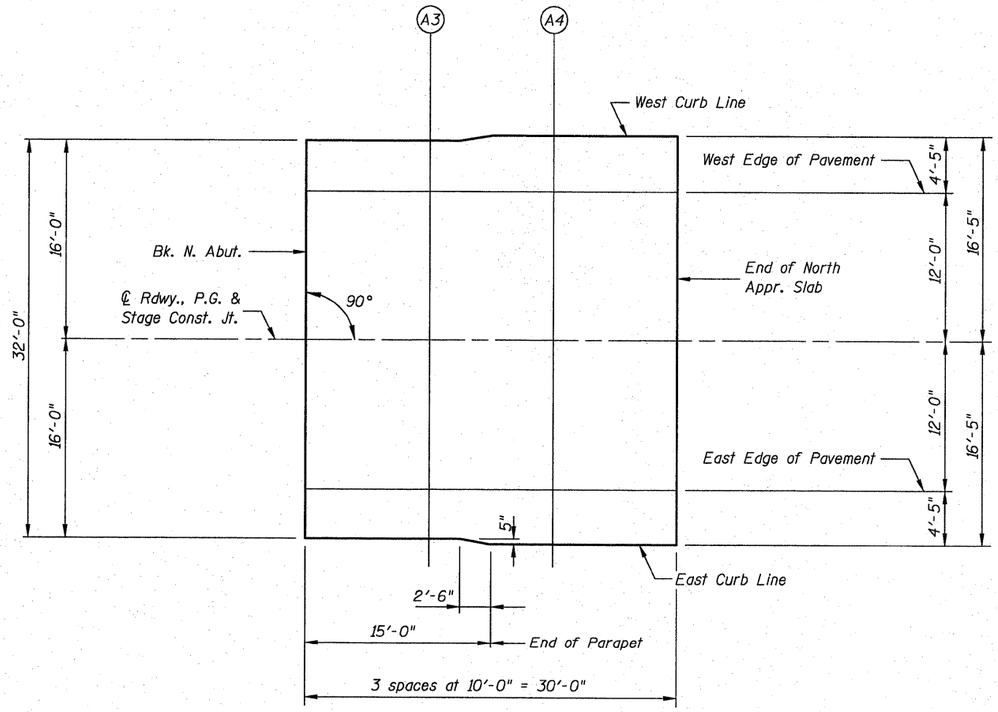
Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	237+35.00	-16.00	444.56
A3	237+45.00	-16.00	444.53
A4	237+55.00	-16.42	444.49
End N. Appr. Slab	237+65.00	-16.42	444.45

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	237+35.00	-12.00	444.64
A3	237+45.00	-12.00	444.61
A4	237+55.00	-12.00	444.58
End N. Appr. Slab	237+65.00	-12.00	444.54

℄ ROADWAY, P.G. & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	237+35.00	0.00	444.83
A3	237+45.00	0.00	444.80
A4	237+55.00	0.00	444.77
End N. Appr. Slab	237+65.00	0.00	444.73



NORTH APPROACH PLAN N

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	237+35.00	12.00	444.64
A3	237+45.00	12.00	444.61
A4	237+55.00	12.00	444.58
End N. Appr. Slab	237+65.00	12.00	444.54

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. N. Abut.	237+35.00	16.00	444.56
A3	237+45.00	16.00	444.53
A4	237+55.00	16.42	444.49
End N. Appr. Slab	237+65.00	16.42	444.45

TOP OF NORTH APPROACH SLAB ELEVATIONS

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SHEET NO. 9	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	130
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
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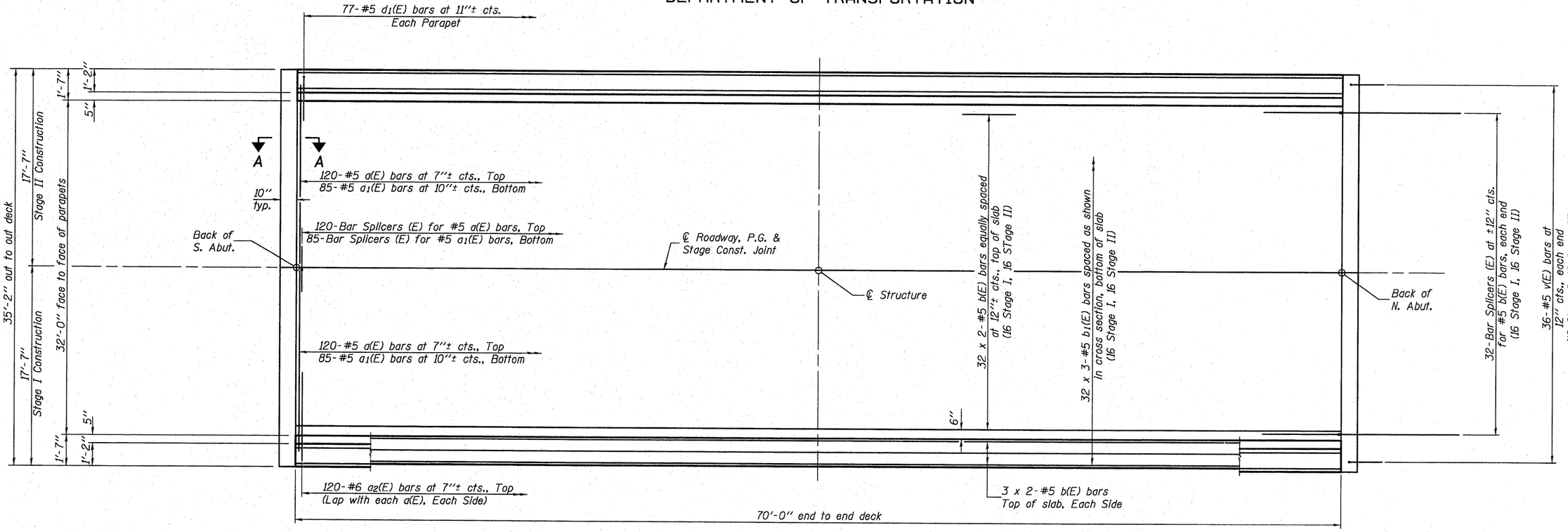
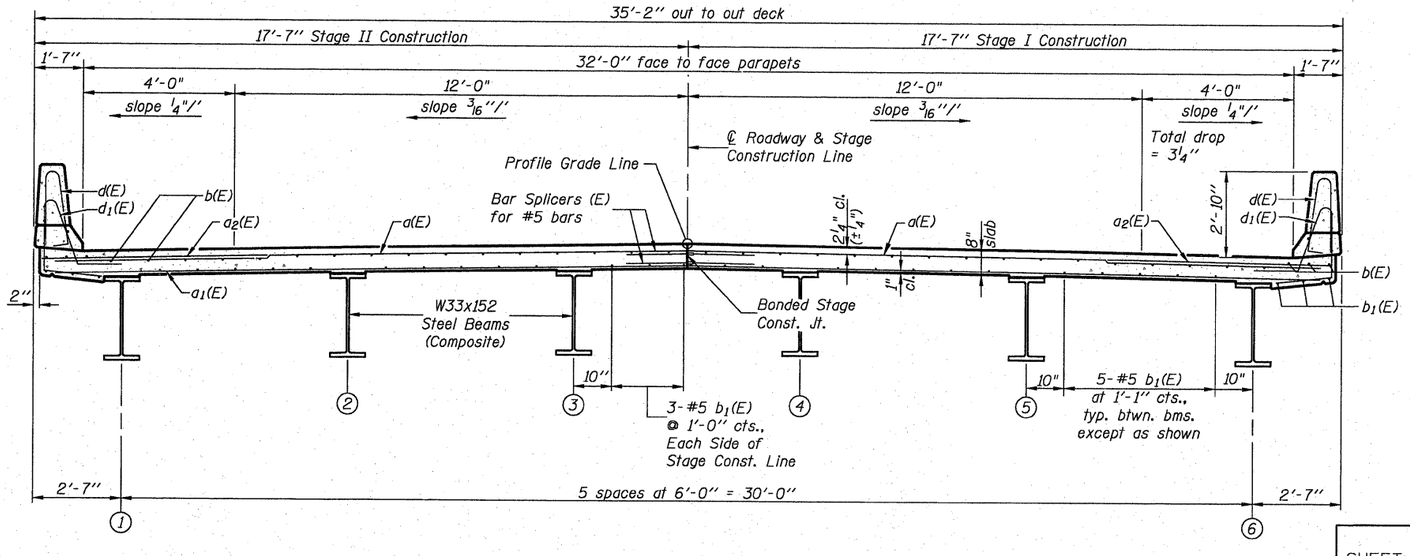


MIN. BAR LAP
#5 bar = 2'-2"

PLAN



CROSS SECTION
(Looking North)

Notes:
See Sheet 11 of 23 for superstructure details and Bill of Material.
Bars indicated thus 32 x 3-#5 etc. indicates 32 lines of bars with 3 lengths per line.
See Sheet 11 of 23 for parapet reinforcement.
See Section A-A shown on sheet 12 of 23.
For Bar Splicer details see sheet 19 of 23.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SI-1-0 10-1-08

SUPERSTRUCTURE

SHEET NO. 10	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	131
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

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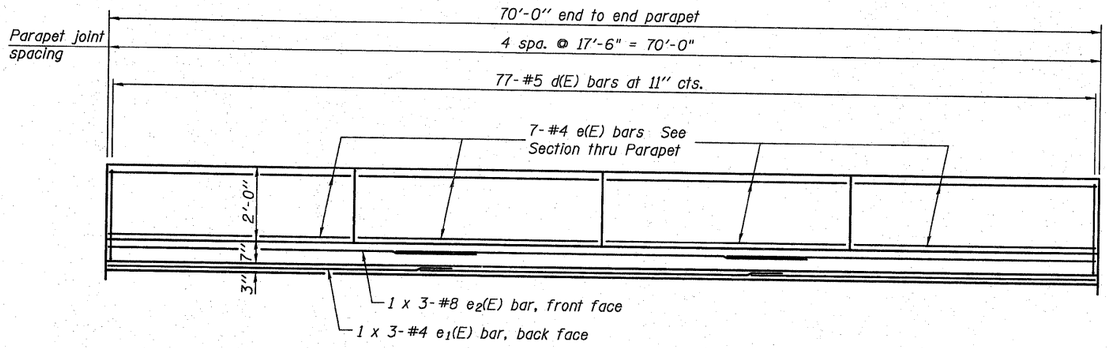
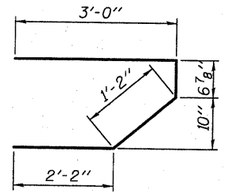
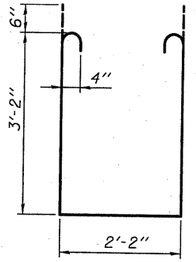


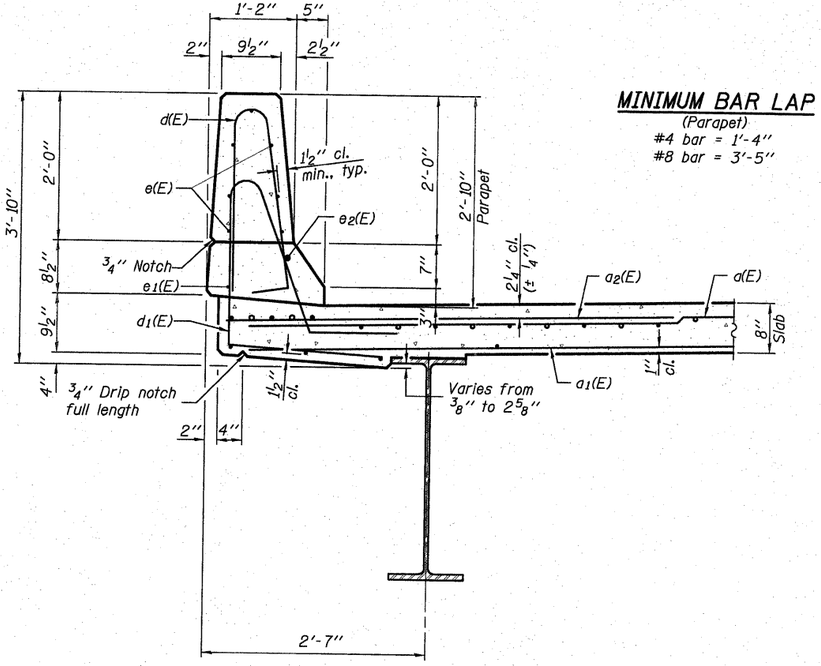


BAR s(E)



BAR s1(E)

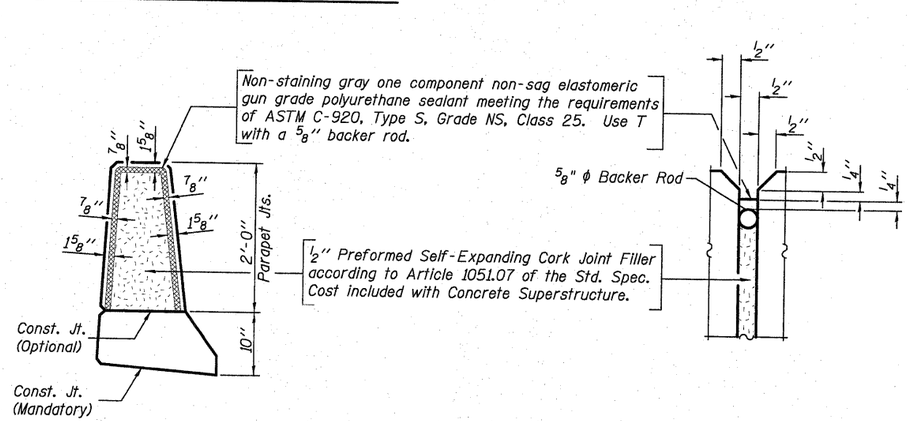
INSIDE ELEVATION OF PARAPET



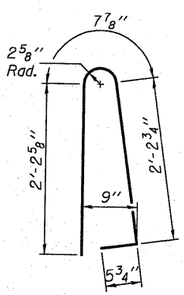
SECTION THRU PARAPET

MINIMUM BAR LAP

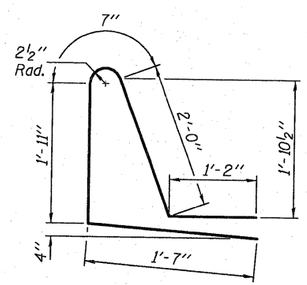
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



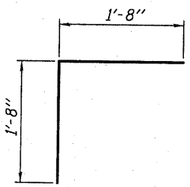
PARAPET JOINT DETAILS



BAR d(E)



BAR d1(E)



BAR v(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	240	#5	17'-1"	
a1(E)	170	#5	16'-8"	
a2(E)	240	#6	6'-0"	
b(E)	76	#5	35'-11"	
b1(E)	96	#5	24'-8"	
d(E)	154	#5	5'-7"	
d1(E)	154	#5	7'-3"	
e(E)	56	#4	17'-3"	
e1(E)	6	#4	24'-2"	
e2(E)	6	#8	25'-7"	
m(E)	8	#6	17'-3"	
m1(E)	12	#6	17'-3"	
m2(E)	24	#6	7'-8"	
m3(E)	8	#6	5'-8"	
m4(E)	4	#6	2'-2"	
m5(E)	4	#6	2'-8"	
s(E)	84	#5	6'-11"	
s1(E)	64	#4	9'-6"	
v(E)	72	#5	3'-4"	
Reinforcement Bars, Epoxy Coated		Pound	20,080	
Concrete Superstructure		Cu. Yds.	103.3	

Bars indicated thus 1 x 3-#4 etc. indicates 1 line of bars with 3 lengths per line.

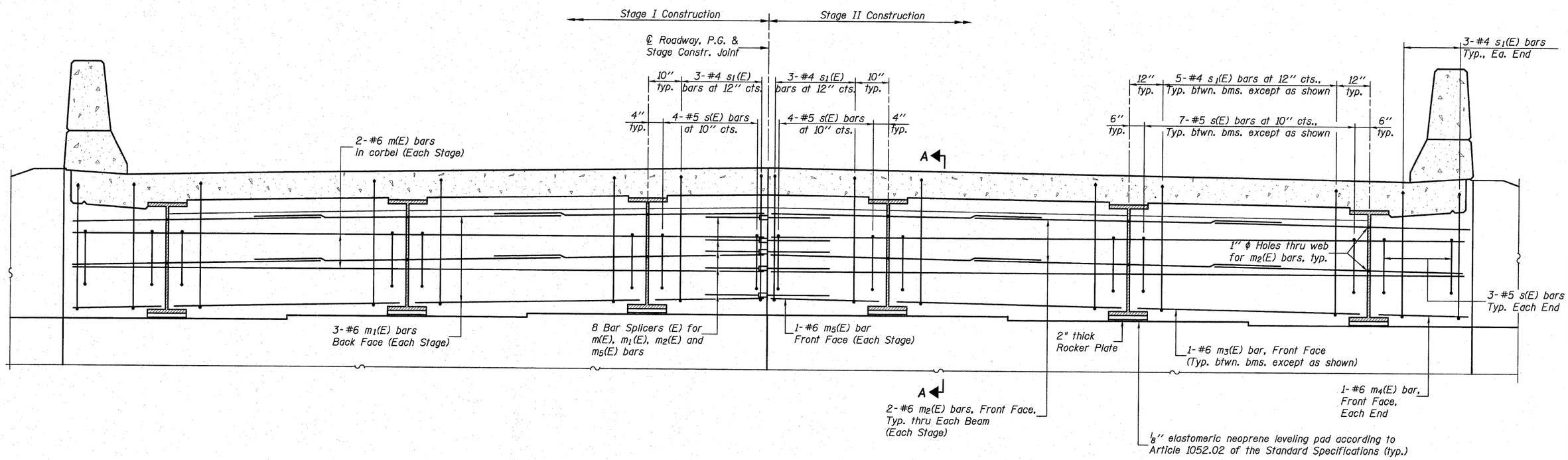
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

S-I-D 10-1-08

SUPERSTRUCTURE DETAILS

SHEET NO. 11	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	132
		S.N. 031-0039	CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161



DIAPHRAGM ELEVATION AT SOUTH ABUTMENT

(Looking South)

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 11 of 23.

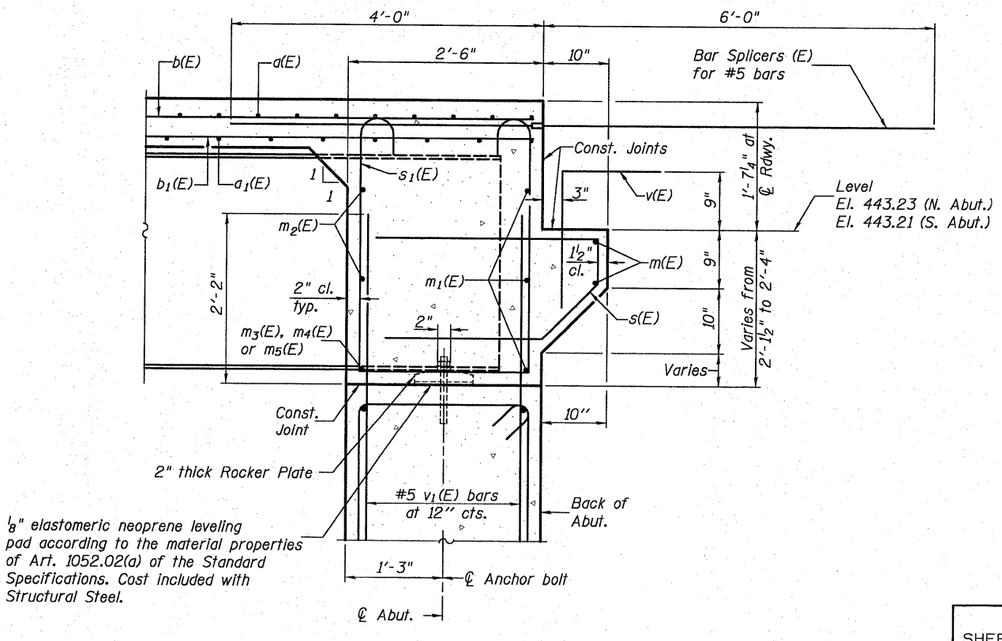
Concrete in diaphragm is included with Concrete Superstructure on sheet 11 of 23.

For details of bars s(E) & s_1(E) see sheet 11 of 23.

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.

MIN. BAR LAP

#6 bar = 2'-9"



SECTION A-A

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

INTEGRAL ABUTMENT DIAPHRAGM DETAILS

SHEET NO. 12	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	133
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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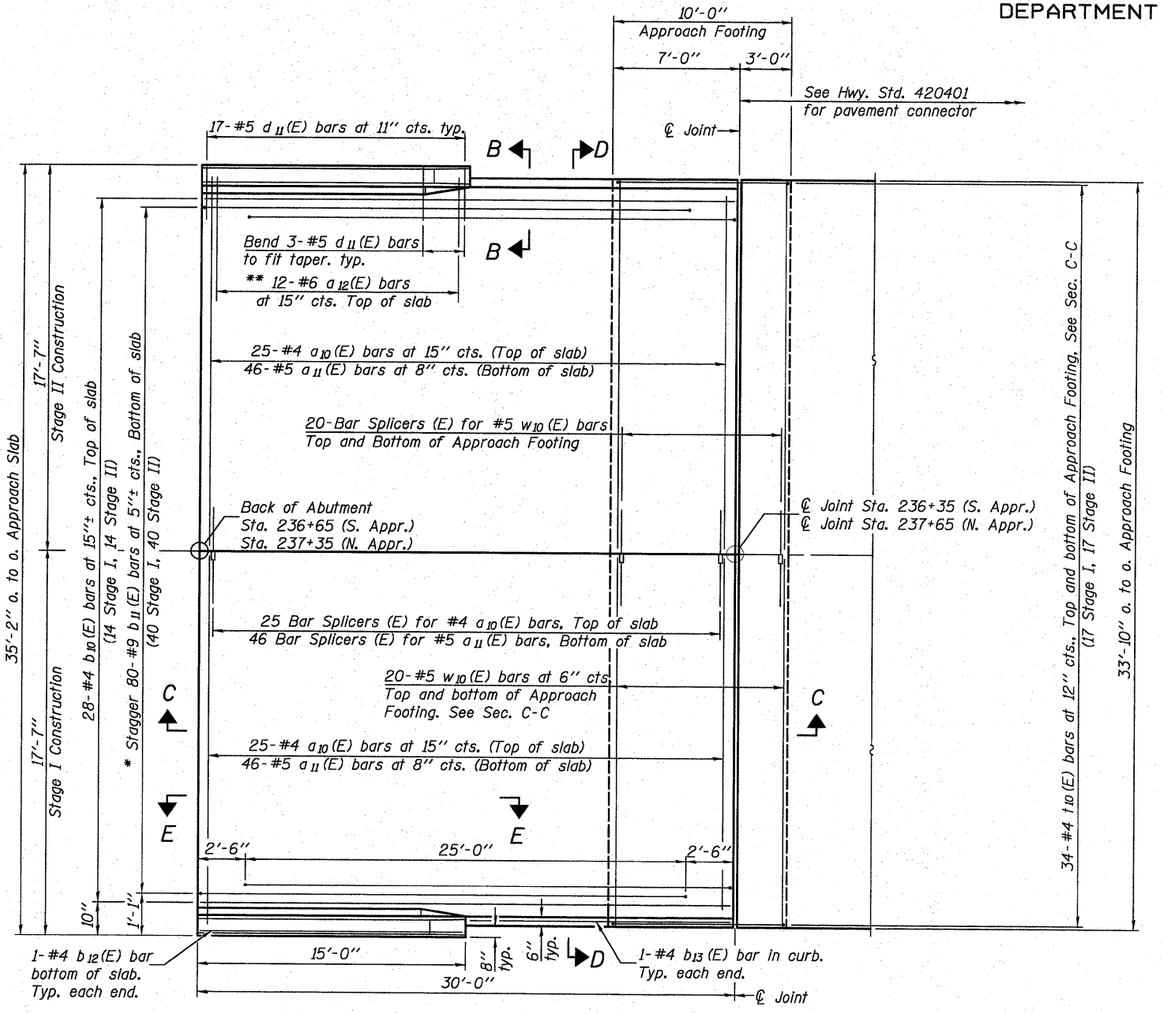
0130039-7430-12-DIAP.DGN NOV. 30, 2009
H.M. & G. NO. 6020.161

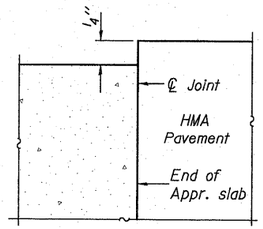
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet 14 of 23 for Sections C-C & D-D and View E-E.
a_{10}(E), a_{11}(E), and w_{10}(E) bar spacings measured parallel to ℄ Rdwy.

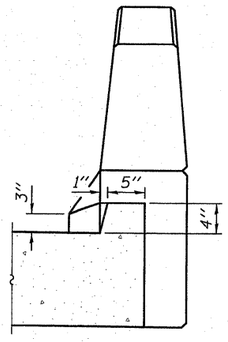


PLAN

(North Approach shown, South Approach similar)



DETAIL A



VIEW B-B

(Exit ends only)

* Tilt #9 b_{11}(E) bars as required to maintain clearance.
** Alternate with a_{10}(E) bars, typ. ea. parapet.

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

BA-0 10-31-08

(Sheet 1 of 2)

BRIDGE APPROACH SLAB DETAILS

SHEET NO. 13	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	134
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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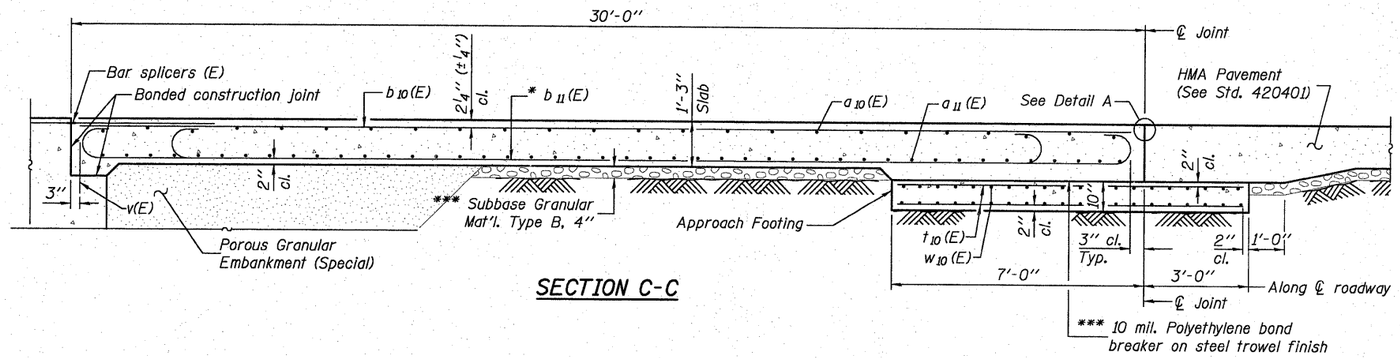
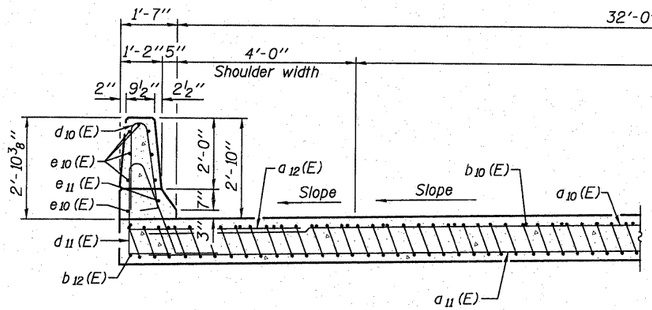
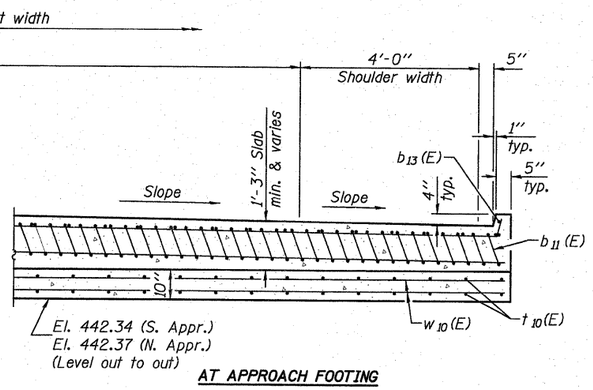
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION C-C

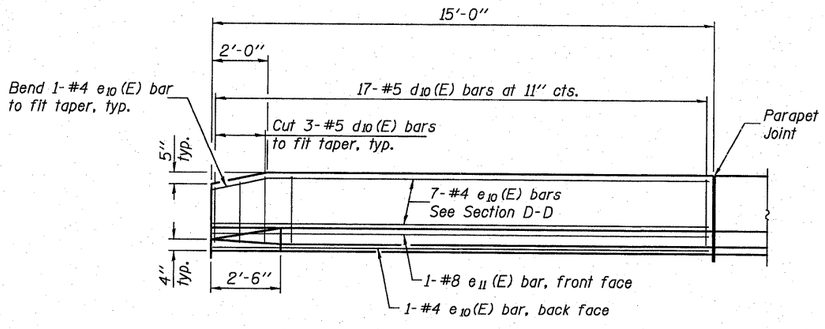


NEAR ABUTMENT

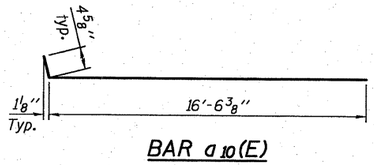


AT APPROACH FOOTING

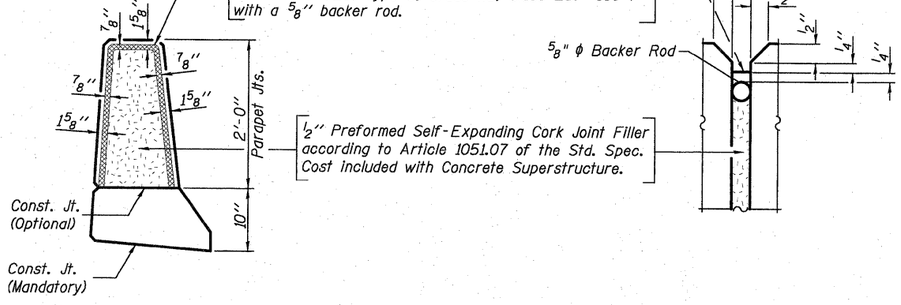
SECTION D-D
(See Plan for dimensions not shown)



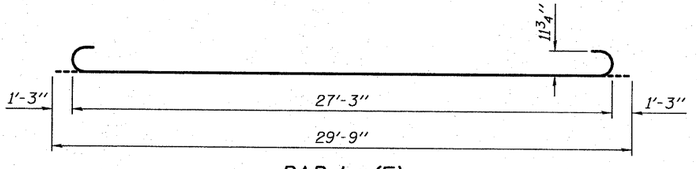
VIEW E-E



BAR a 10 (E)



PARAPET JOINT DETAILS

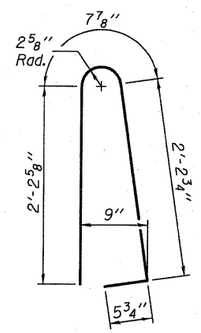


BAR b 11 (E)

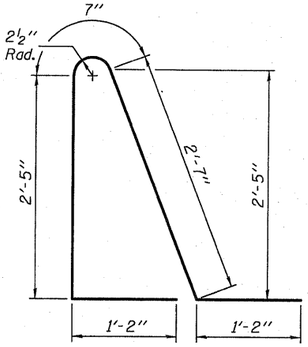
Notes:
See sheet 13 of 23 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 11 of 23.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 19 of 23.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 23.

* Tilt #9 b 11 (E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.



BAR d 10 (E)



BAR d 11 (E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a 10 (E)	100	#4	16'-11"	
a 11 (E)	184	#5	16'-6"	
a 12 (E)	48	#6	6'-0"	
b 10 (E)	56	#4	29'-8"	
b 11 (E)	160	#9	29'-9"	
b 12 (E)	4	#4	14'-8"	
b 13 (E)	4	#4	14'-8"	
d 10 (E)	68	#5	5'-7"	
d 11 (E)	68	#5	7'-11"	
e 10 (E)	32	#4	14'-8"	
e 11 (E)	4	#8	14'-8"	
t 10 (E)	136	#4	9'-8"	
w 10 (E)	160	#5	16'-6"	
Concrete Superstructure			Cu. Yd.	105.6
Concrete Structures			Cu. Yd.	20.9
Reinforcement Bars, Epoxy Coated			Pound	27,170

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

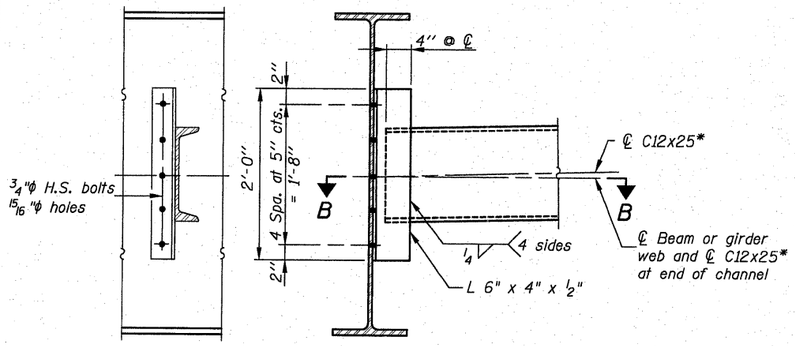
BA-0 10-31-08

(Sheet 2 of 2)
BRIDGE APPROACH SLAB DETAILS

SHEET NO. 14	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	135
		S.N. 031-0039	CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

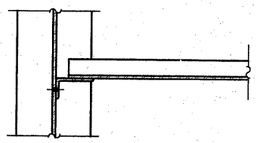
H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

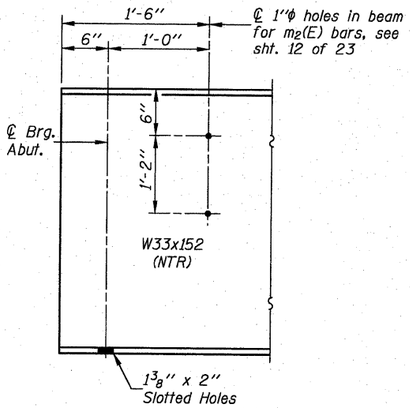


DIAPHRAGM D
(12 Required)

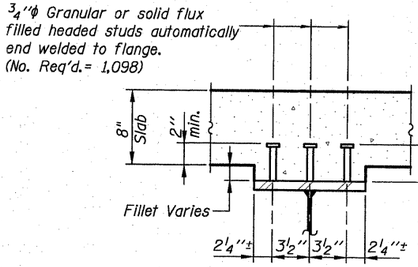
* Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.



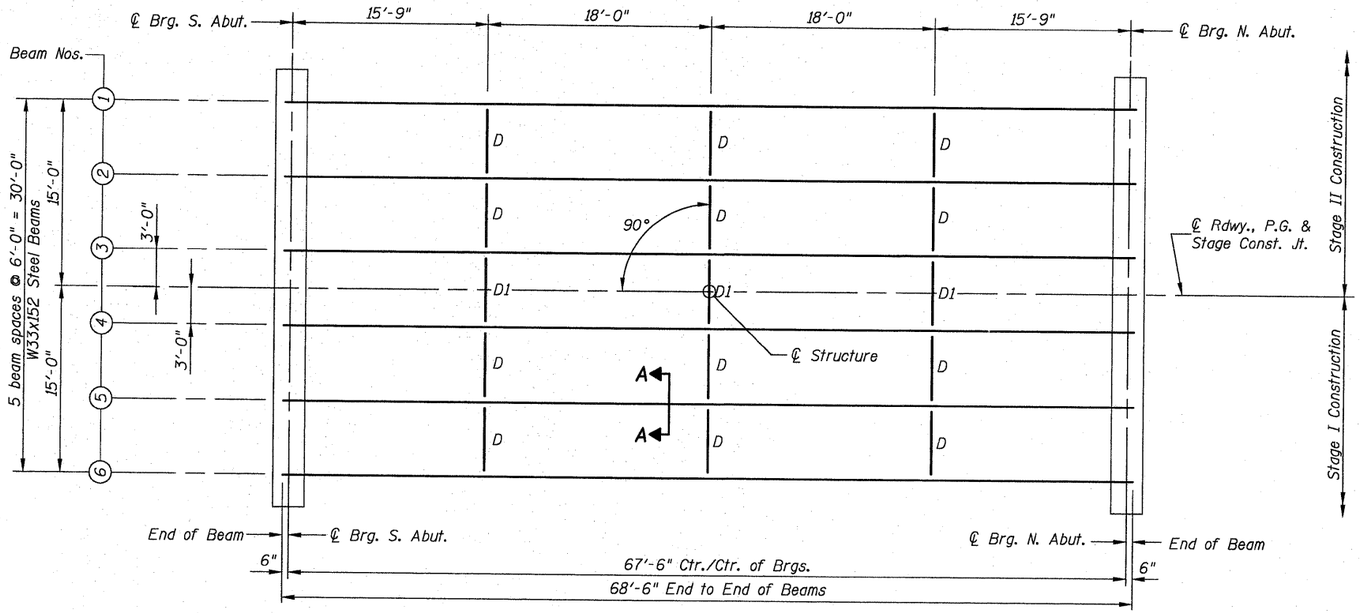
SECTION B-B



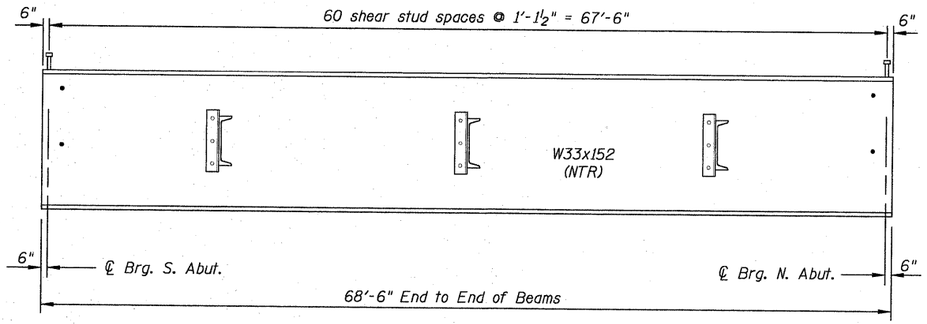
TYP. END OF BEAM ELEVATION



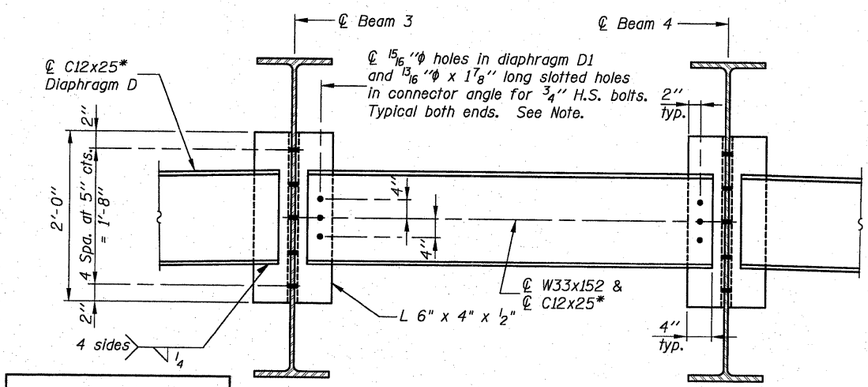
SECTION A-A

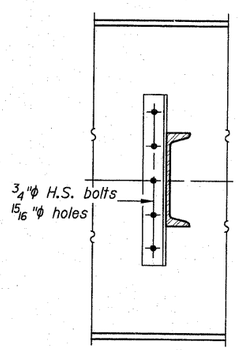


FRAMING PLAN
All Beams are W33x152 (NTR) and AASHTO M270, Gr. 50.



BEAM ELEVATION





DIAPHRAGM D1
(3 Required)

Notes:

Two hardened washers required for each set of oversized holes.

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Bolts in slots shall be finger tight until the second stage pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load allowing maximum displacement without laterally stressing main members. All holes shall have appropriate hardened or plate washers.

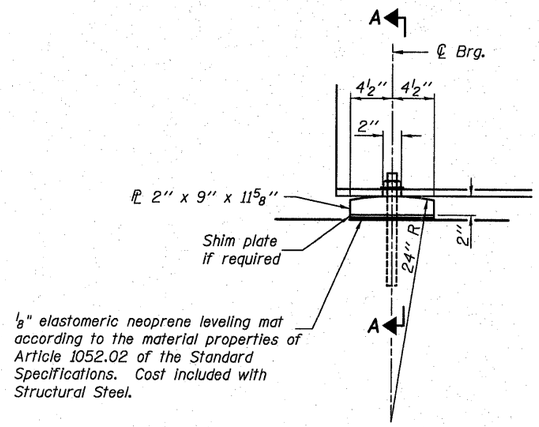
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

STRUCTURAL STEEL

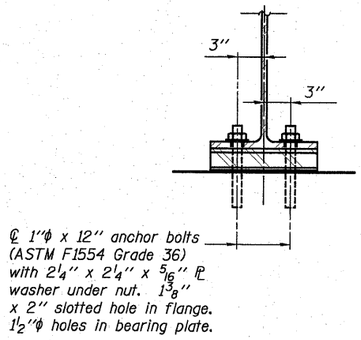
SHEET NO. 15	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	136
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENT



SECTION A-A

FIXED BEARING

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

Beam No.	℄ Brg. S. Abut.	℄ Brg. N. Abut.
1	443.844	443.861
2	443.954	443.971
3	444.048	444.064
4	444.048	444.064
5	443.954	443.971
6	443.844	443.861

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

All bearing plates shall conform to the requirements of AASHTO M 270, Grade 50.

INTERIOR GIRDER MOMENT TABLE		0.5 Span
I_s	(in^4)	8,160
$I_c(n)$	(in^4)	19,848
$I_c(3n)$	(in^4)	14,496
S_s	(in^3)	487
$S_c(n)$	(in^3)	685
$S_c(3n)$	(in^3)	618
DC1	(k/')	0.79
M_{DC1}	('k)	449
DC2	(k/')	0.15
M_{DC2}	('k)	85
DW	(k/')	0.27
M_{DW}	('k)	152
M_{L+IM}	('k)	887
M_u (Strength I)	('k)	2,448
$\phi_f M_n$	('k)	3,403
f_s DC1	(ksi)	11.1
f_s DC2	(ksi)	1.7
f_s DW	(ksi)	3.0
f_s 1.3(L+IM)	(ksi)	20.2
f_s (Service II)	(ksi)	36
f_s (Total)(Strength I)	(ksi)	47.7
V_f	(k)	22.6

INTERIOR GIRDER REACTION TABLE HL93 Loading		Abutment
R_{DC1}	(k)	26.6
R_{DC2}	(k)	5.1
R_{DW}	(k)	9.0
R_{L+IM}	(k)	69.8
R_{Total}	(k)	110.5

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

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

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

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

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

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

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

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

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

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

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

V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	24

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

STEEL DETAILS

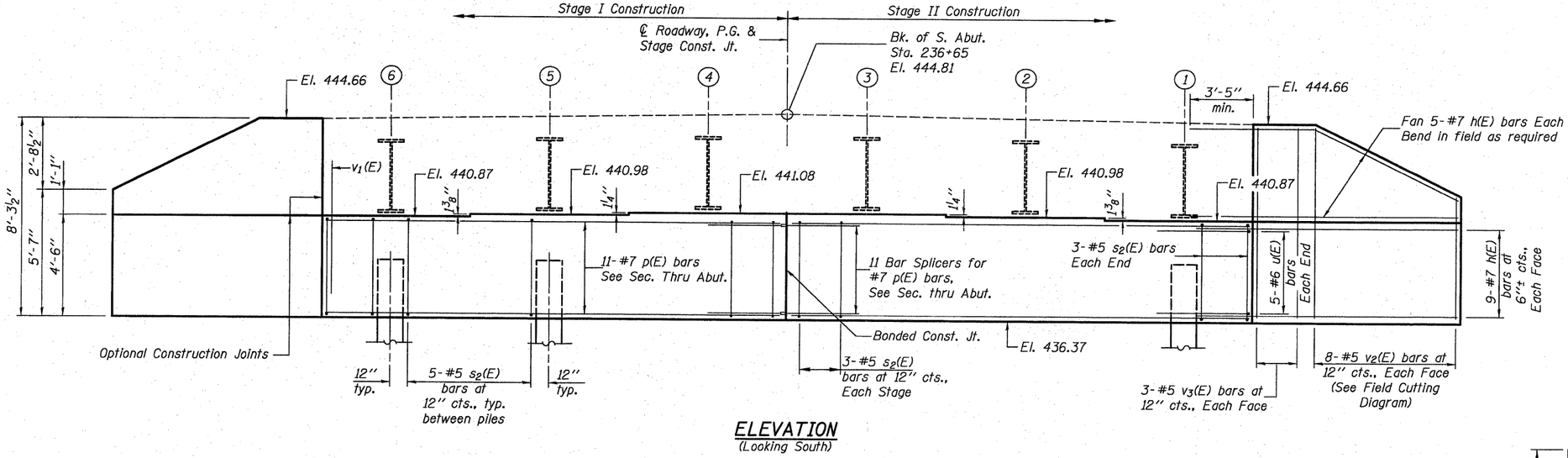
SHEET NO. 16	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	137
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

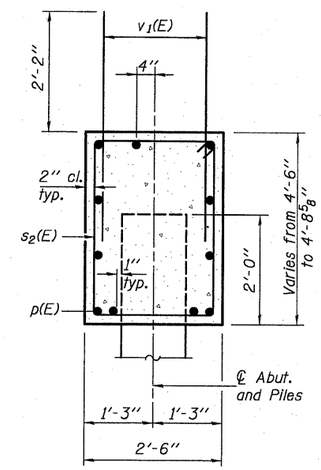
0130039-74310-17-SABT.DGN NOV. 30, 2009

Notes:
Pour steps monolithically with cap.

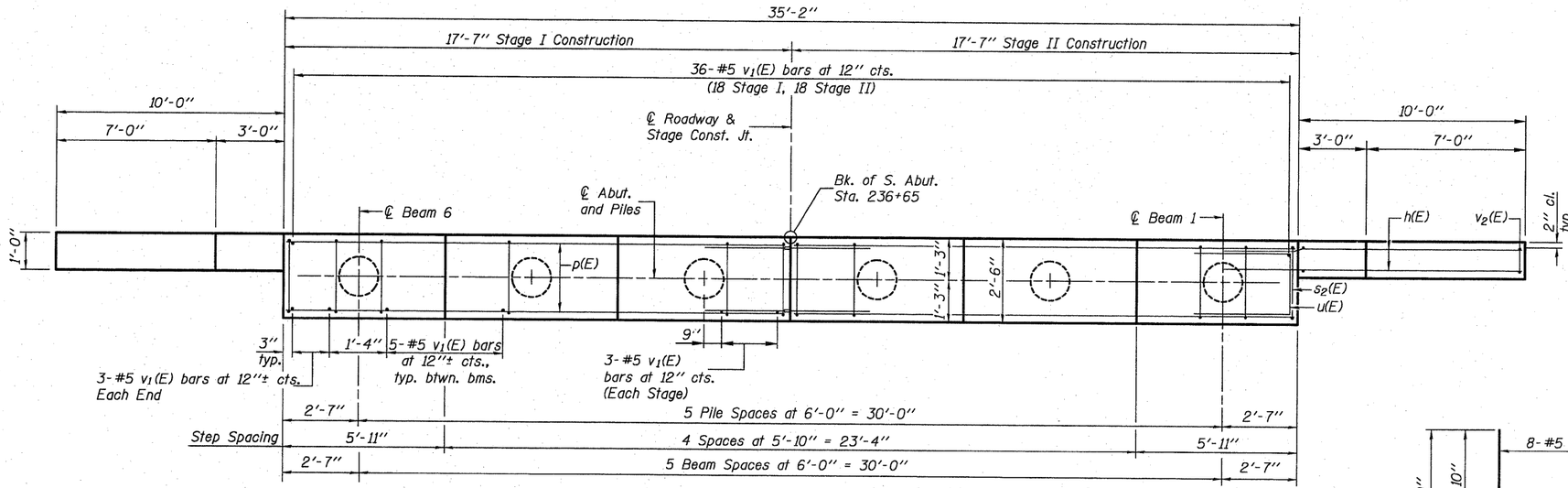
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



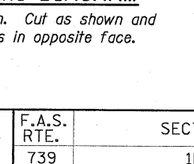
ELEVATION
(Looking South)



SEC. THRU ABUT.



PLAN



BARS s2(E)

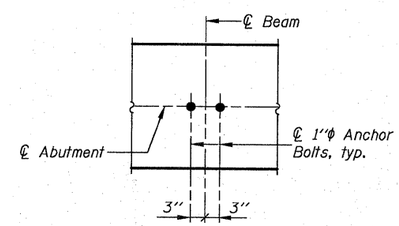
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#7	14'-0"	——
p(E)	22	#7	17'-3"	——
s2(E)	32	#5	13'-7"	□
u(E)	10	#6	9'-0"	▭
v1(E)	68	#5	4'-4"	——
v2(E)	16	#5	13'-0"	——
v3(E)	12	#5	7'-10"	——
Structure Excavation		Cu. Yd.	118	
Concrete Structures		Cu. Yd.	20.4	
Reinforcement Bars, Epoxy Coated		Pound	3,590	
Furnishing Metal Shell Piles 14"x0.312"		Foot	378	
Driving Piles		Foot	378	

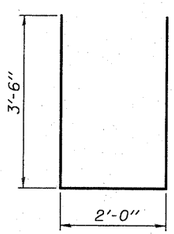
For details of Bar Splicers, see sht. 19 of 23.
For details of piles, see sht. 20 of 23.

PILE DATA

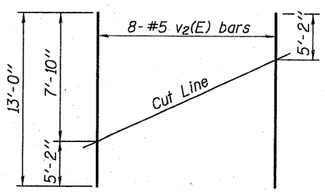
Type:	Metal Shell 14"x0.312"
Nominal Required Bearing:	480 kips
Factored Resistance Available:	240 kips
Est. Length:	63 feet
No. Production Piles:	6
No. Test Piles:	0



ANCHOR BOLT LAYOUT



BAR u(E)



FIELD CUTTING DIAGRAM

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

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

AI-0 10-1-08

SOUTH ABUTMENT

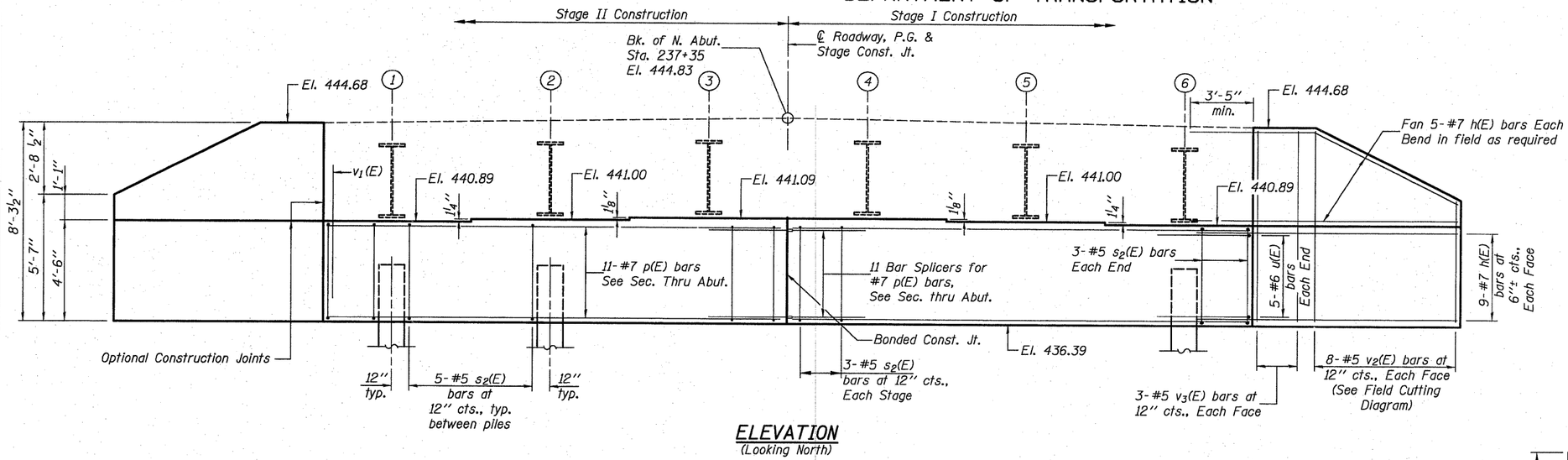
SHEET NO. 17	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	138
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

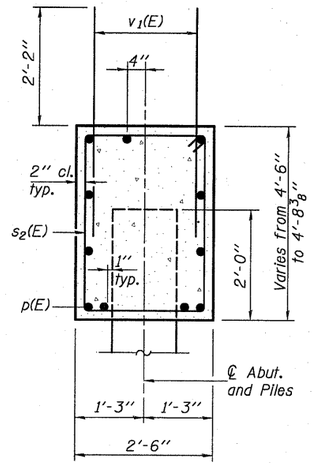
HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

Notes:
Pour steps monolithically with cap.

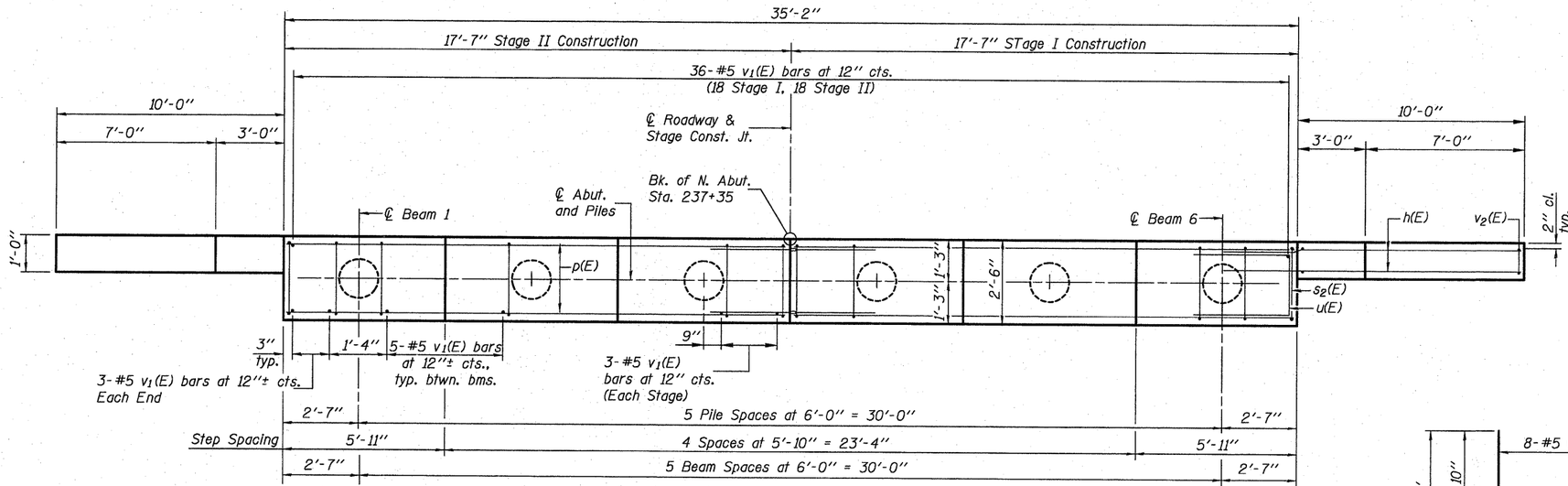
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



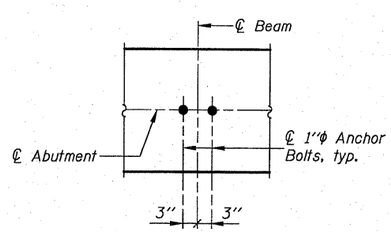
ELEVATION
(Looking North)



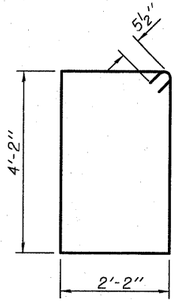
SEC. THRU ABUT.



PLAN



ANCHOR BOLT LAYOUT



BARS s2(E)

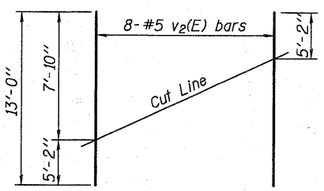
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	56	#7	14'-0"	——
p(E)	22	#7	17'-3"	——
s2(E)	32	#5	13'-7"	□
u(E)	10	#6	9'-0"	⊐
v1(E)	68	#5	4'-4"	——
v2(E)	16	#5	13'-0"	——
v3(E)	12	#5	7'-10"	——
Structure Excavation		Cu. Yd.	118	
Concrete Structures		Cu. Yd.	20.4	
Reinforcement Bars, Epoxy Coated		Pound	3,590	
Furnishing Metal Shell Piles 14"x0.312"		Foot	315	
Driving Piles		Foot	315	
Test Pile Metal Shell		Each	1	

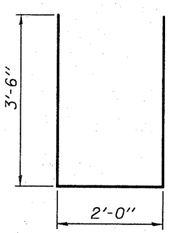
For details of Bar Splicers, see sht. 19 of 23.
For details of piles, see sht. 20 of 23.

PILE DATA

Type:	Metal Shell 14"x0.312"
Nominal Required Bearing:	480 kips
Factored Resistance Available:	240 kips
Est. Length:	63 feet
No. Production Piles:	5
No. Test Piles:	1



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



BAR u(E)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

AI-0 10-1-08

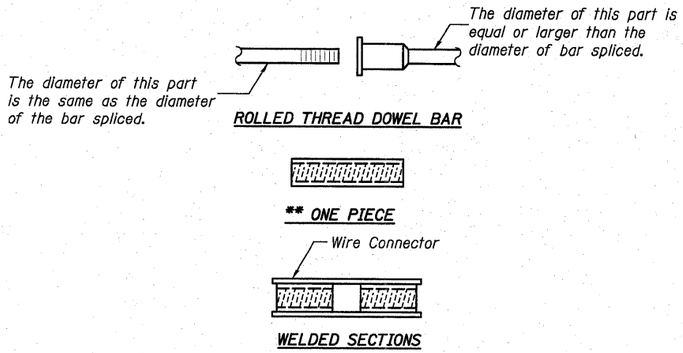
NORTH ABUTMENT

SHEET NO. 18	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	139
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

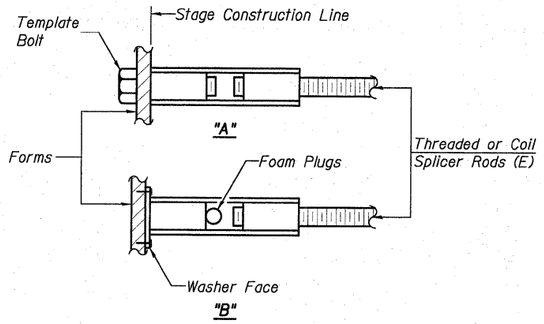
HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

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.

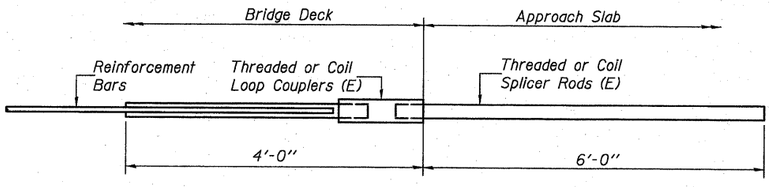
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

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

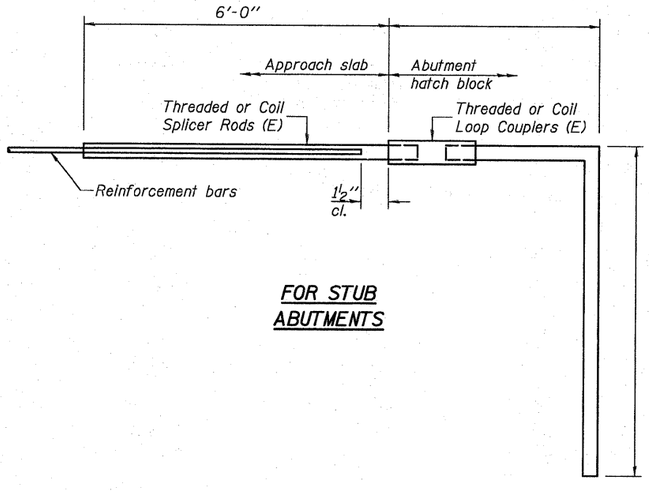
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR 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	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



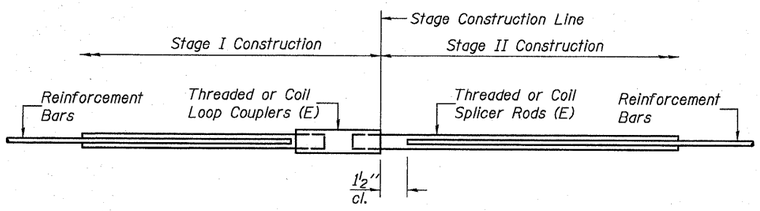
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#6	16	Diaphragm
#5	205	Deck
#7	22	Abutment
#4	50	Approach
#5	172	Approach

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

BSD-1 10-1-08

BAR SPLICER ASSEMBLY DETAILS

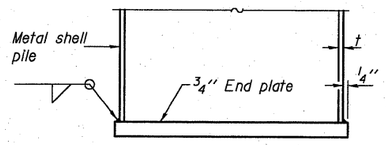
SHEET NO. 19	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	140
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

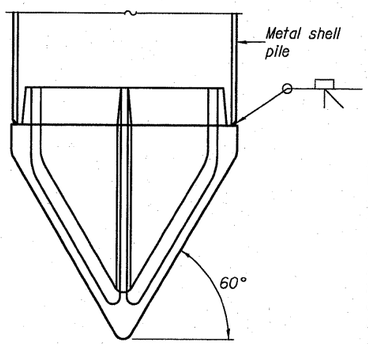
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



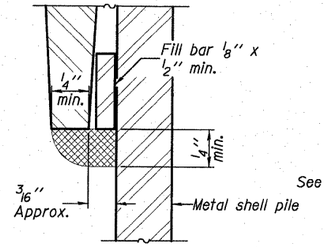
END PLATE ATTACHMENT



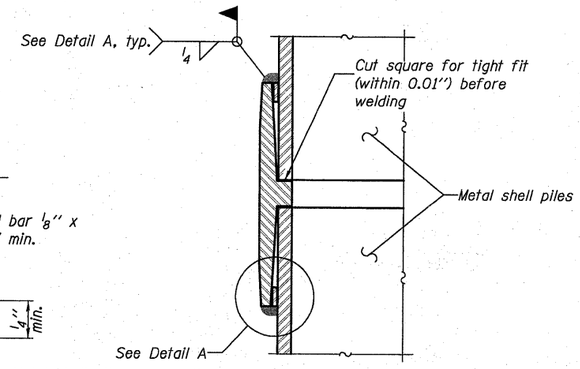
Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

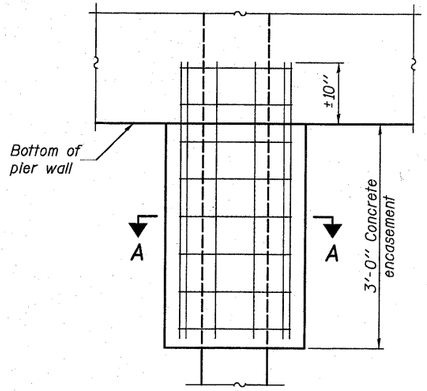


DETAIL A

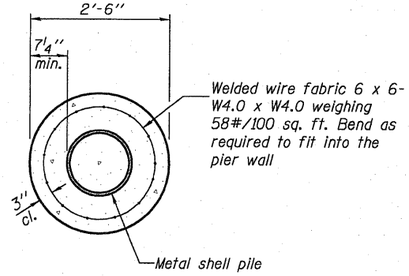


Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



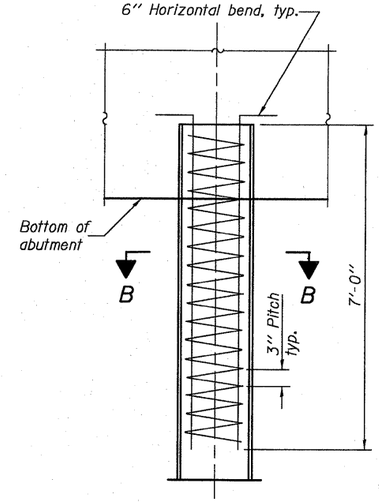
ELEVATION



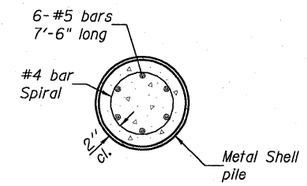
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS

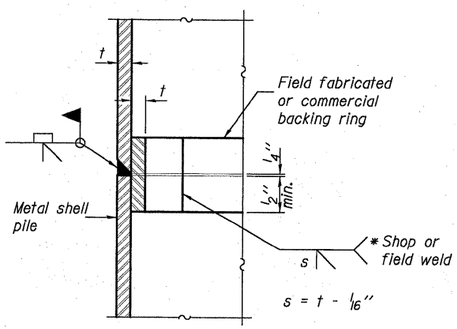


ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

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

METAL SHELL PILE DETAILS

SHEET NO. 20	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	141
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

F-MS 10-1-08

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.5 miles North of IL 106 LOGGED BY E. Stewart
SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic
STRUCT. NO. 031-0010 (E) / 031-0039 (P)
Station 237+00
BORING NO. South Abutment
Station 237+20
Offset 50.00ft Left
Ground Surface Elev. 437.67 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft
Groundwater Elev.:
First Encounter 417.9 ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Dark Brown Sandy Clay LOAM
	4			
	4	0.72	24	
433.4		S/15		
-5	2			Dark Brown CLAY
	3	0.81	29	
430.9	3	B/20		
	2			Light Gray LOAM
	3	1.30	40	
	4	B/20		
428.4				
-10	3			Light Gray Sandy LOAM
	3	1.37	38	
	5	B/20		
	3			
	2	1.56	27	
	4	B/20		
-15	3			
	4	1.07	24	
	5	B/20		
	3			
	4	1.79	25	
	4	B/20		
-20	2			
	3	1.30	25	Light Gray Sandy LOAM *(continued)*
	3	B/20		
415.9				
	2			Medium to Fine SAND
	4		17	See Gradations @ 22.5 & 25 ft
	7	NC		
-25	3			
	6		21	
410.9	7	NC		
	3			Coarse to Fine SAND
	5	-	15	See Gradation @ 27.5 ft
	10	NC		
408.4				
-30	2			Fine SAND
	5		18	See Gradation @ 30 ft
	7	NC		
405.4				
				Coarse to Fine SAND
	4			See Gradations @ 35 & 45 ft
-35	12		18	
	6	NC		
-40	2			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.5 miles North of IL 106 LOGGED BY E. Stewart
SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic
STRUCT. NO. 031-0010 (E) / 031-0039 (P)
Station 237+00
BORING NO. South Abutment
Station 237+20
Offset 50.00ft Left
Ground Surface Elev. 437.67 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft
Groundwater Elev.:
First Encounter 417.9 ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	5			Coarse to Fine SAND
	8	NS	-	See Gradations @ 35 & 45 ft
				(continued)
-45	2			
	4		15	
	9	NC		
	16			
387.9				
-50	21			Fine SAND
	18	NS	-	See Gradations @ 55, 60, & 65 ft
-55	6			
	13		18	
	25	NC		
-60	3			
	8		17	Fine SAND
	31	NC		See Gradations @ 55, 60, & 65 ft
				(continued)
-65	8			
	16		20	
	33	NC		
367.9				
-70				Coarse Loamy SAND
				See Gradations @ 75 & 85 ft
-75	2			
	3			
	12	NC		
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SOIL BORING LOGS

SHEET NO. 21	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	142
		S.N. 031-0039	CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

HENRY, MEISENHEIMER & GENDE, INC. CONSULTING ENGINEERS 1075 LAKE ROAD, P.O. BOX 70 CARLYLE, ILLINOIS 62231 (618) 594-3711 WWW.HMGENGINEERS.COM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 3 of 4

Date 5/5/08

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.5 miles North of IL 108 LOGGED BY E. Stewart

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0010 (E) / 031-0039 (P)
Station 237+00

BORING NO. South Abutment
Station 237+20
Offset 50.00ft Left
Ground Surface Elev. 437.87 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 417.9 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
Coarse Loamy SAND See Gradations @ 75 & 85 ft *(continued)*				
-35	3 8 19	NC		
-90	50/0.1	-	--	
		-	NS	
	50/6"	-		
344.9		-	NC	
Highly Weathered Shale 344.4				
Borehole continued with rock coring.				
-100				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Page 4 of 4

Date 5/5/08

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.5 miles North of IL 108 LOGGED BY E. Stewart

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene CORING METHOD

STRUCT. NO. 031-0010 (E) / 031-0039 (P)
Station 237+00

CORING BARREL TYPE & SIZE

BORING NO. South Abutment
Station 237+20
Offset 50.00ft Left
Ground Surface Elev. 437.87 ft

Core Diameter 2 In
Top of Rock Elev. 335.37 ft
Begin Core Elev. 344.37 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
344.37					
Closed Jointed Dark Mudstone		91	41	4.83	
-95		91	41	8.87	754.51
		91	41	9.35	
		91	41	9.17	
		91	41	9.38	
		91	41	10.05	
-100		91	41	12.75	
		91	41	9.7	535.39
335.37		91	41	6.33	
END OF BORING AND ROCK CORE					
-105					
-110					

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 136 (Rev. 8-99)

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SOIL BORING LOGS

SHEET NO. 22	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	143
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/25/09

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.5 miles North of IL 108 LOGGED BY JH & CL

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0010 (E) / 031-0039 (P)
Station 237+00

BORING NO. North Abutment
Station 236+65
Offset 45.00ft Left
Ground Surface Elev. 438.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 420.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Dark Brown Silty Clay LOAM A-6(6) See Classification @ 5 ft
-5	1 1 1	0.17 S/15	27	
	2 2 3	0.17 S/15	26	
	2 2 4	0.88 B/20	39	
429.0				
-10	2 4 5	0.65 B/20	37	Light Brown and Gray Mottled Silty Clay LOAM A-6(12) See Classification @ 15 ft
	3 3	0.76 B/20	27	
-15	2 3 4	0.65 B/20	24	
	3 4 4	0.91 B/20	26	
419.0				
-20	3			Light Brown Silty LOAM
	3 4 4	0.23 B/20	23	Light Brown Silty LOAM *(continued)* A-4(8) See Classification @ 20 ft
418.5				
	4 5 3	NC	15	Brown Coarse to Fine SAND See Gradation @ 22.5 ft
-25				
	3 5 10	NS	–	
-30				
	3 6 6	NS	–	
-35				
	3 8 7	NS	–	
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/25/09

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.5 miles North of IL 108 LOGGED BY JH & CL

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0010 (E) / 031-0039 (P)
Station 237+00

BORING NO. North Abutment
Station 236+65
Offset 45.00ft Left
Ground Surface Elev. 438.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 420.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Brown Coarse to Fine SAND See Gradation @ 22.5 ft *(continued)*
-45	2 4 8	NS	–	
	9 13 13	NS	–	
-50				
	12 17 20	NS	–	
-55				
	5 10 28	NS	–	
-60				
	5 14 29	NS	–	Brown Coarse to Fine SAND See Gradation @ 22.5 ft *(continued)*
-65				
	6 9 22	NS	–	
-70				
-75				
369.0				
-80	1			Brown Coarse to Fine SAND

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/25/09

ROUTE FAS 739 DESCRIPTION Eldred-Hillview Road over Stream, 4.5 miles North of IL 108 LOGGED BY JH & CL

SECTION 1BR, 1-2BR LOCATION SE 1/4, SEC. 33, TWP. 10N, RNG. 13W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-0010 (E) / 031-0039 (P)
Station 237+00

BORING NO. North Abutment
Station 236+65
Offset 45.00ft Left
Ground Surface Elev. 438.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 420.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	1 9	NC	18	Brown Coarse to Fine SAND *(continued)* See Gradation @ 80 ft
-85				
	3 15 21	NS	–	
349.0				
-90	52 56/1"		22	Black Coarse to Fine SAND with some Shale See Gradation @ 90 ft
346.5	-	NC		
				END OF BORING
-95				
-100				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

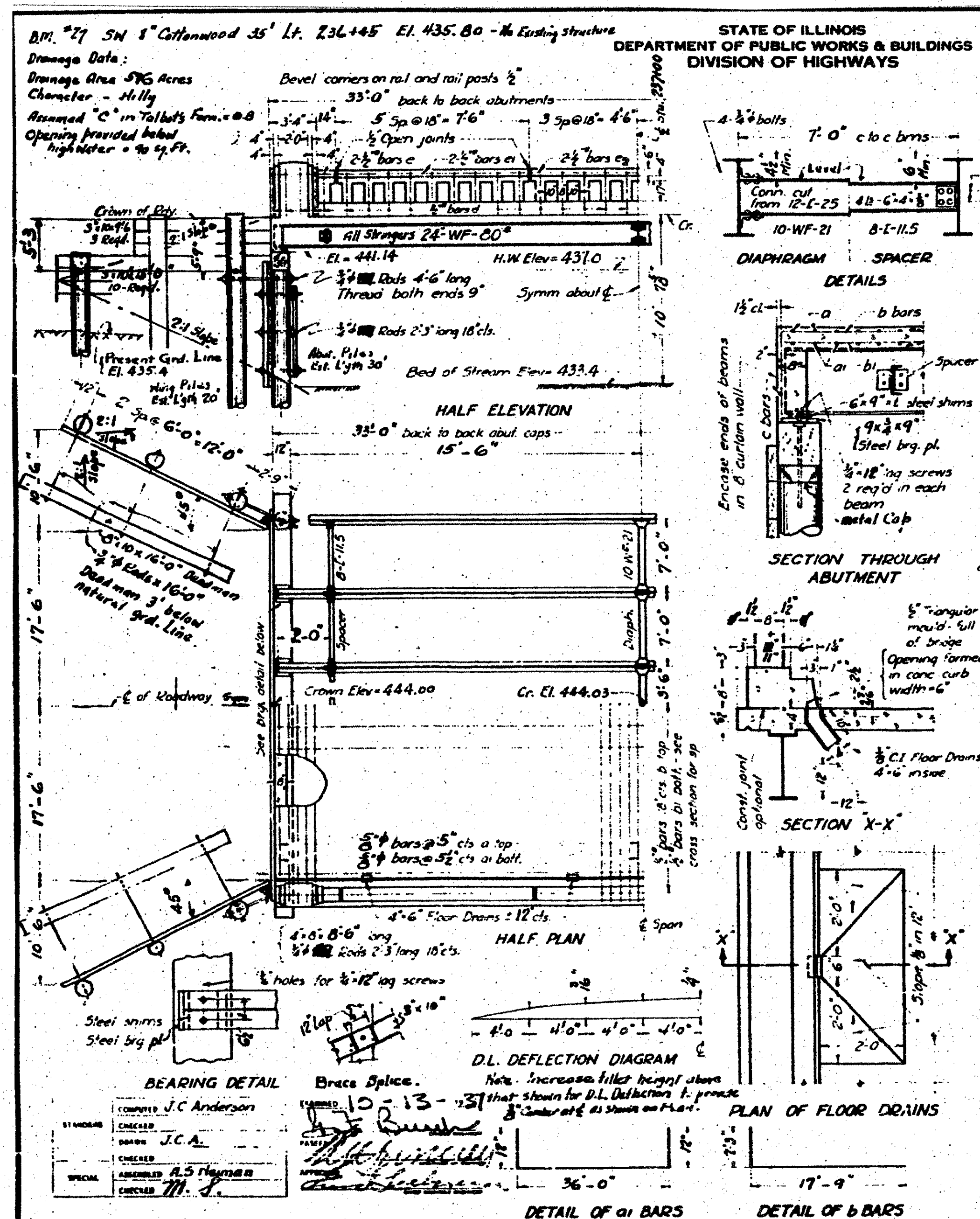
DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

SOIL BORING LOGS

SHEET NO. 23	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	739	1BR	GREENE	150	144
	S.N. 031-0039		CONTRACT NO. 76410		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

H.M. & G. NO. 6020.161

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



Field Conn's. - 3/4"φ Bolts.

GENERAL NOTES

Shop connections shall be riveted. Rivets 3/4" - Holes 13/16".

Structural steel shall receive one shop coat of blue lead paint and two field coats of white lead paint. All paint to be furnished by the Department.

All steel surfaces in contact with Concrete and Contact surfaces of shop riveted or welded strl. steel shall not be painted - See specifications for inaccessible surfaces.

Inspection by Illinois Division of Highways before painting.

All rods, bolts and nuts shall be wrought iron A.S.T.M. A-41-30 or 0.2% Copper bearing steel for timber conn.

All spikes and log screws shall be galvanized steel.

O.G. or malleable iron washers shall be used on rods through piles.

Contractor shall cut off, at his own expense, all rods which project more than one inch beyond nut.

Piles in abutments shall be driven to a minimum penetration of 15 feet below stream bed and shall have a minimum capacity of 15 tons.

Piles in wings shall have a minimum capacity of 10 tons.

All piles in the structure shall be creosoted. All piles shall have metal Caps and shall be treated in accordance with Art. 15 of the spec's for Piling effective Feb. 1st 1937.

Plank backing shall be fastened to each pile with two 60d spikes.

All lumber shall be structural square edge and sound longleaf (1600#) or dense structural square edge and sound shortleaf (1600#) southern yellow pine or select structural (1600#) Douglas fir. Caps shall be S4S; backing and bracing shall be full sawn rough.

All lumber shall be creosoted.

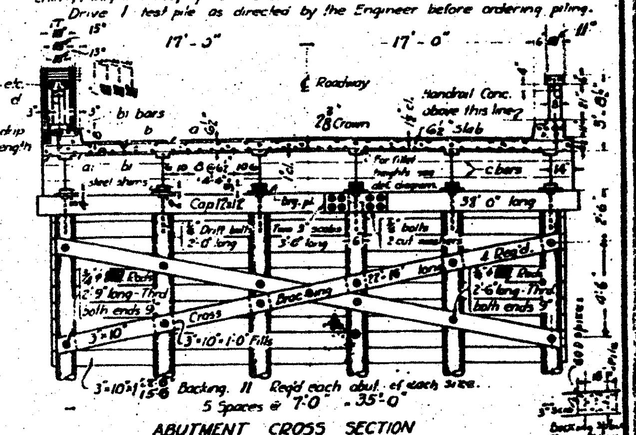
Backing, bracing and caps may be furnished full length or spliced.

Quantities of lumber and hardware based on sizes and lengths shown and includes splices shown only. No extra compensation will be allowed for splices not shown or waste.

Class "X" concrete shall be used throughout.

Aggregate which is to be used in handrails must be absolutely free of chert, flint, limonite, lignite and soft sandstone.

Drive 1 test pile as directed by the Engineer before ordering piling.



BILL OF MATERIAL

Bars	Number	Size	Length
a	79	5/8"φ	37'-0"
a1	72	"	38'-0"
b	50	1/2"φ	20'-0"
b1	63	1/2"φ	32'-6"
c	4	1/2"φ	37'-0"
d	52	1/2"φ	3'-0"
e	3	1/2"φ	4'-3"
e1	8	1/2"φ	7'-3"
e2	4	"	8'-9"

Handrail Concrete	Cu. Yds.	4.0
Class "X" Concrete	Cu. Yds.	31.8
Reinforcing Steel	lbs	8860
Structural Steel	Lbs.	18390
Hardware	Lbs.	380

[redacted] Rods [redacted]	lbs	490
~~Untreated Lumber~~	~~Ft.B.M.~~	
Creosoted Lumber	Ft.B.M.	5110
Treated Piling - (20' Long)	Lin Ft	240
Treated Piling (30' Long)	Lin Ft	360
~~Treated Piling over 35'~~	~~Lin Ft~~	
C.I. Floor Drains	Each	6
~~Removal of Existing Struct.~~	~~Each~~	
Test Piles	Each	1
~~Name Plate~~	~~Each~~	

F.A. ROUTE 155 - SECTION 1-B
BLUFFDALE TWP. - GREENE COUNTY
PROJECT 325-D
STATION 237+00

COMPUTED J.C. Anderson
CHECKED J.C.A.
ASSEMBLED A.S. Hayman
EXAMINED 10-13-37

FOR INFORMATION ONLY

FILE NAME =	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE PLANS SN 031-0010(E) 0039(P), SECTION 1BR	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
$FILEL$		DRAWN -	REVISED -			739	1BR, 1-2BR, 401-2BR	GREENE	150	145
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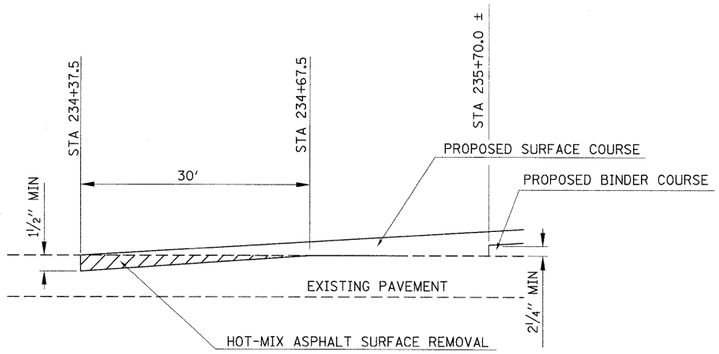
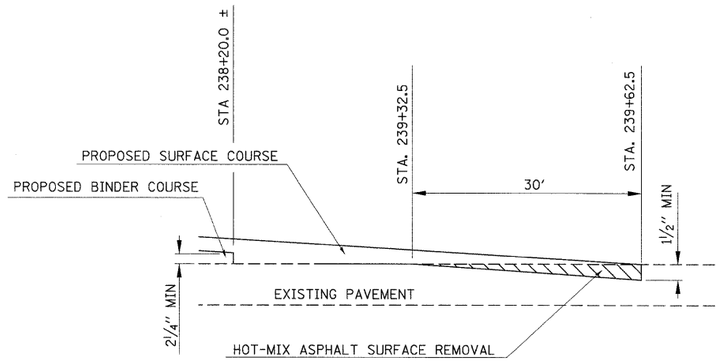
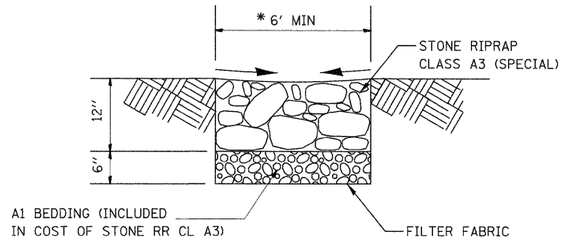
	PLOT DATE = $DATE$	DATE	REVISED -		SCALE: N/A · SHEET NO. 1 OF 1 SHEETS · STA. · TO STA.	FED. ROAD DIST. NO. · ILLINOIS · FED. AID PROJECT				



BUTT JOINT DETAIL



BUTT JOINT DETAIL



* PROVIDES DRAINAGE DOWN EMBANKMENT
FROM BRIDGE APPROACH PAVEMENT

DRAINAGE DETAIL

SEE PLAN VIEW FOR LOCATIONS
SECTION TAKEN THRU ROADWAY EMBANKMENT

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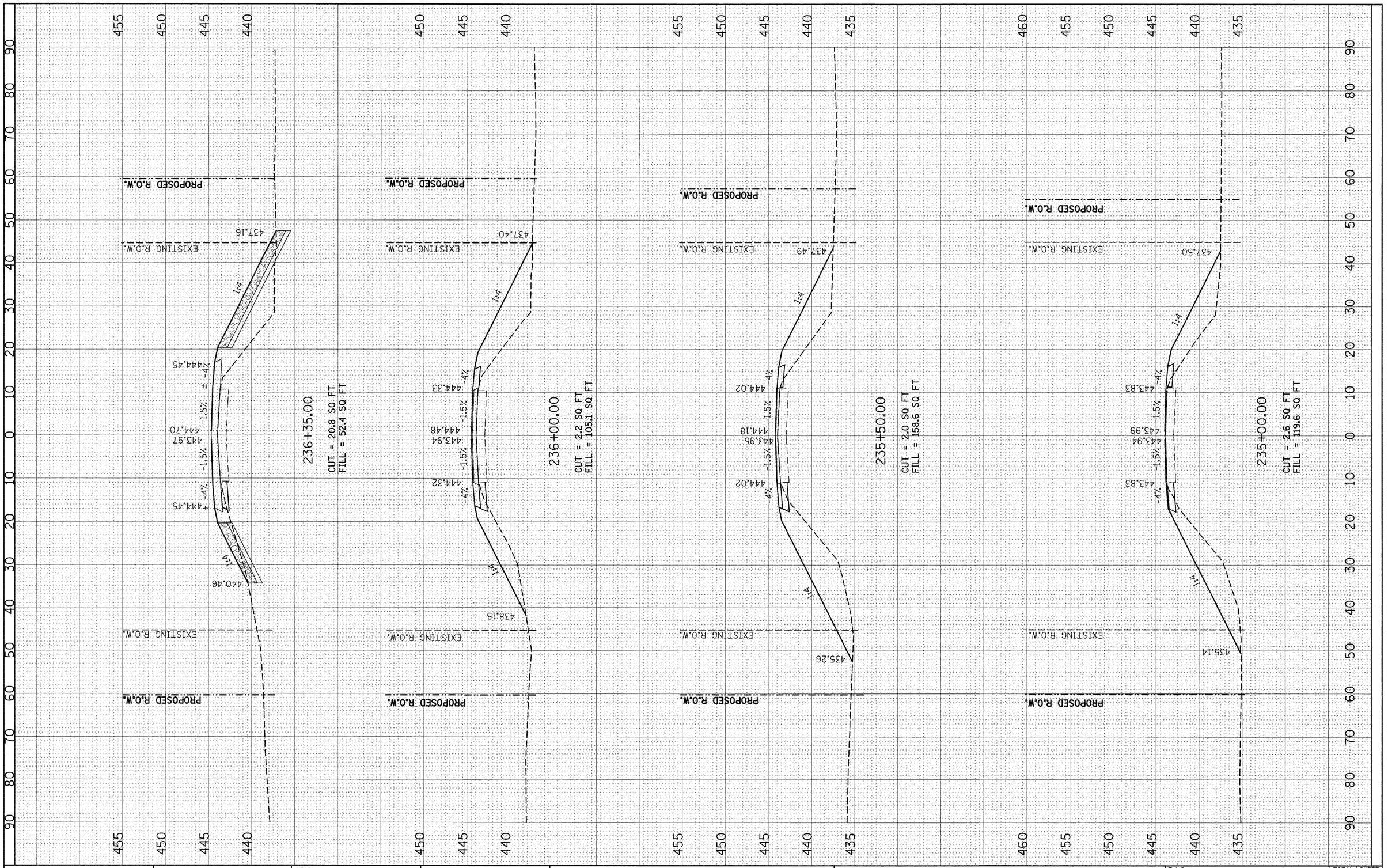
	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	146
		CONTRACT NO. 76410		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY NOTE BOOK

NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY NOTE BOOK

NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. 235+00.00 TO STA. 236+35.00

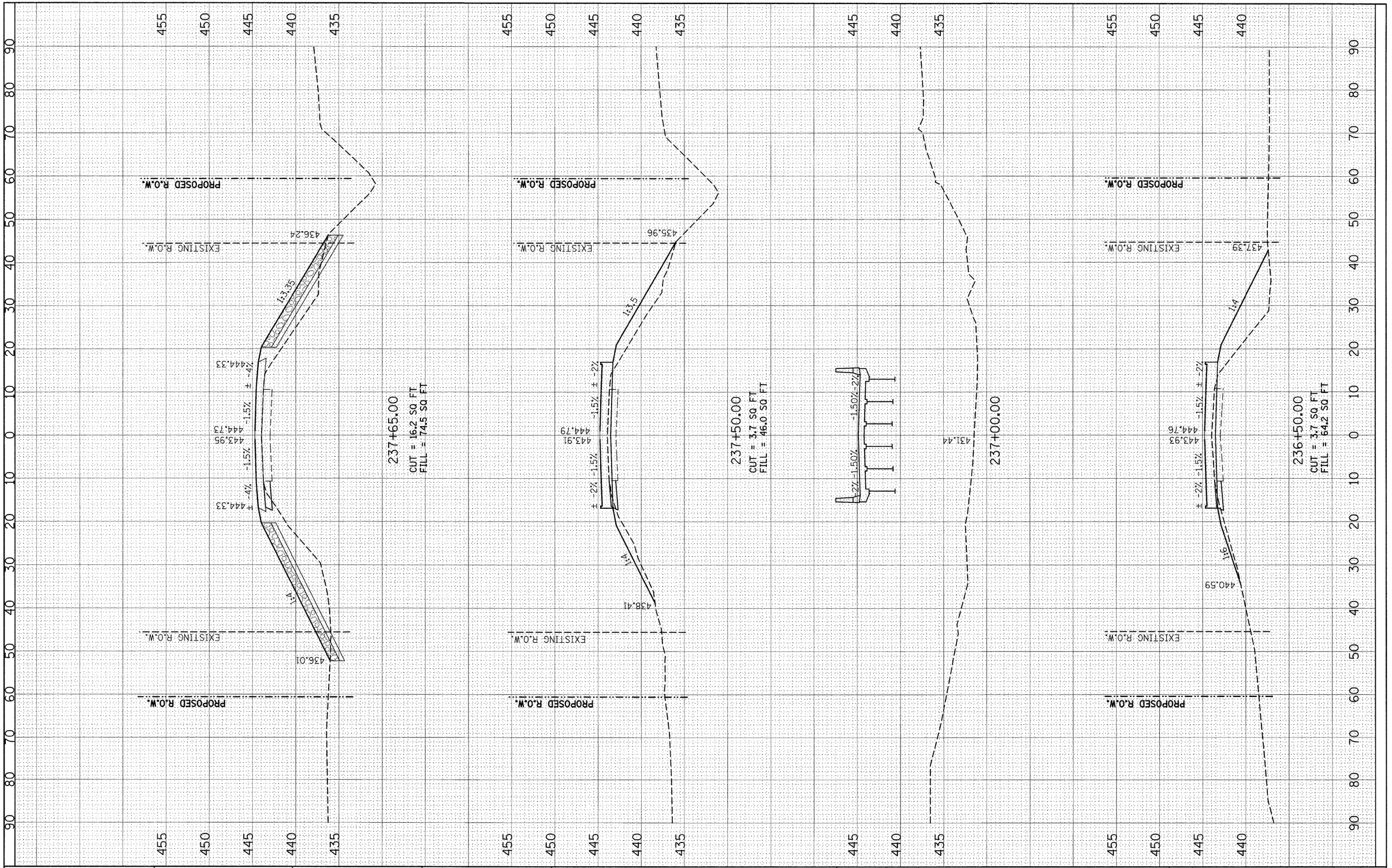
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	147

CONTRACT NO. 76410

ILLINOIS | FED. AID PROJECT

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

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



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	PLOT DATE = 3/25/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. 236+50.00 TO STA. 237+65.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	148
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			

NOTE: SURVEY DATA WAS NOT AVAILABLE FOR EXISTING GROUNDLINE ELEVATIONS RIGHT OF THE EXISTING EDGE OF PAVEMENT. GROUNDLINE ELEVATIONS AT THIS LOCATION (RIGHT OF EXISTING EDGE OF PAVEMENT) WERE APPROXIMATED AND SKETCHED IN FOR ILLUSTRATION.

238+00.00
CUT = 1.9 SQ FT
FILL = 131.5 SQ FT

238+50.00
CUT = 2.5 SQ FT
FILL = 122.0 SQ FT

239+00.00
CUT = 2.9 SQ FT
FILL = 96.5 SQ FT

EXISTING R.O.W.
PROPOSED R.O.W.
436.32
436.27
436.12
436.45
436.25
436.48
444.37
444.08
444.02
444.25
444.00
444.06
443.88
443.89
444.05
444.53
-4%
-1.5%
1:3.9
1:4
1:4

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

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

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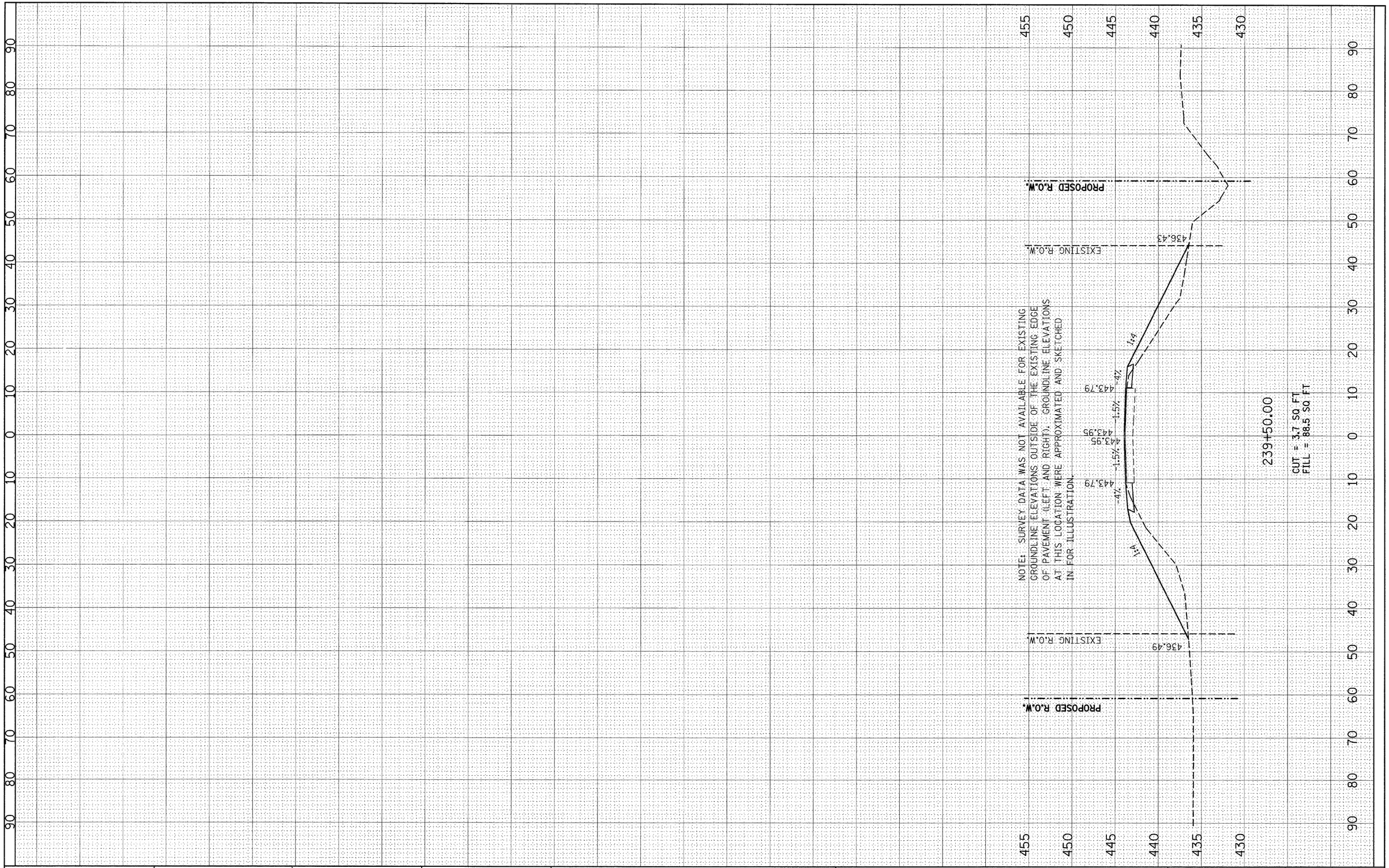
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. 238+00.00 TO STA. 239+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	149
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			

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



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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SN 031-0010(E) 0039(P), SECTION 1BR

SCALE:	SHEET NO. 4 OF 4 SHEETS	STA. 239+50.00	TO STA. 239+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
739	1BR, 1-2BR, 401-2BR	GREENE	150	150
		CONTRACT NO. 76410		
	ILLINOIS FED. AID PROJECT			