

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022-00-BR	PUTNAM	23	1

ILLINOIS
CONTRACT NO. 89434

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED HIGHWAY BRIDGE PROGRAM

**SECTION 08-00022-00-BR
PUTNAM COUNTY
PROJECT NO. BRS-254(108)
COUNTY HIGHWAY 11
F.A.S. RT. 254
JOB NO. C-94-133-06**

INDEX OF SHEETS

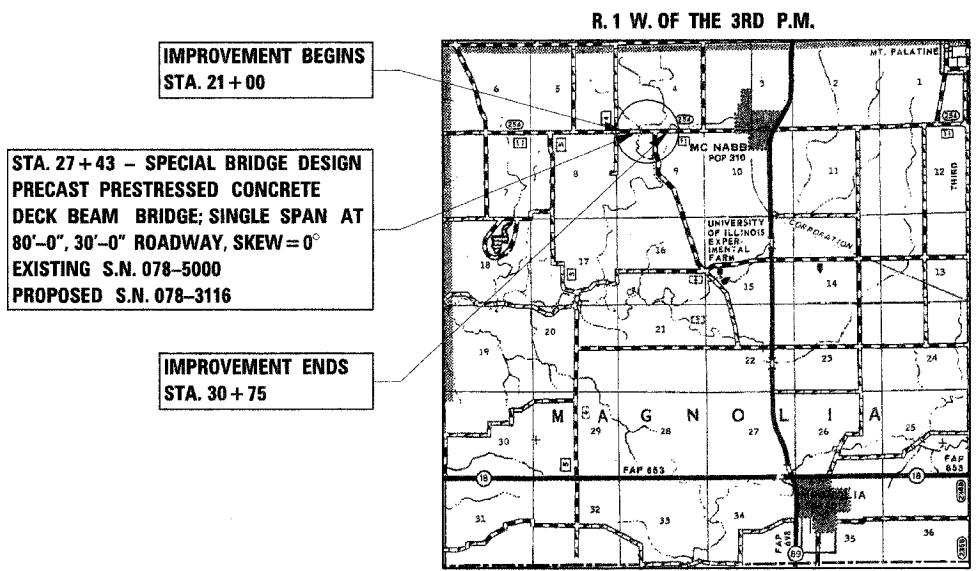
SHEET NO.	TITLE
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES, GENERAL NOTES & DETAILS
3.	TYPICAL CROSS-SECTIONS
4.-5.	PLAN AND PROFILE
6.	SHOULDER AND GUARDRAIL DETAILS
7.-11.	BRIDGE PLANS
12.-21.	STATION CROSS SECTIONS
22.-23.	EROSION CONTROL PLAN

STANDARDS

280001-04
515001-02
542301-01

630301-04

635006-02
701901
BLR 21-7
BLR 26
BLR 27



IMPROVEMENT BEGINS
STA. 21+00

STA. 27+43 - SPECIAL BRIDGE DESIGN
PRECAST PRESTRESSED CONCRETE
DECK BEAM BRIDGE; SINGLE SPAN AT
80'-0", 30'-0" ROADWAY, SKEW = 0°
EXISTING S.N. 078-5000
PROPOSED S.N. 078-3116

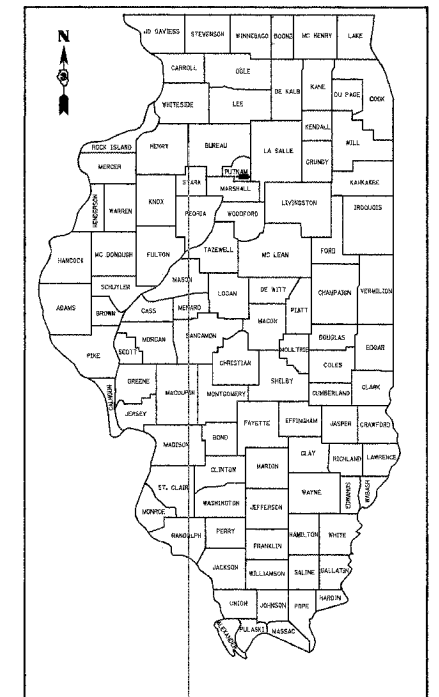
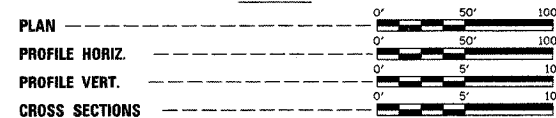
IMPROVEMENT ENDS
STA. 30+75

LOCATION PLAN

GROSS LENGTH OF SECTION = 975.00 FEET = 0.185 MILES
NET LENGTH OF SECTION = 975.00 FEET = 0.185 MILES

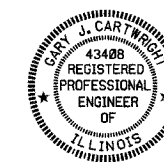


SCALES



LOCATION OF SECTION INDICATED THIS: ■
CLASSIFICATION: RURAL TWO-LANE COLLECTOR
DESIGN VOLUME: 400-1000 ADT
CURRENT ADT: 850 (2008)
DESIGN SPEED: 40 M.P.H.
3R DESIGN GUIDELINES

TOLL FREE JOINT UTILITY LOCATING
INFORMATION FOR EXCAVATORS (J.U.L.I.E.)
TELEPHONE NUMBER 1-800-892-0123



Gary J. Cartwright 10-10-07
ILLINOIS PROFESSIONAL NO. 43408

EXPIRES 11-30-07

APPROVED	October 10	20 07
	<i>George P. Miller</i>	COUNTY ENGINEER
PASSED	7-5	20 08
	<i>D. J. Carter</i>	DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS
RELEASED FOR BID BASED ON LIMITED REVIEW	Feb 13	20 08
	<i>[Signature]</i>	DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER
	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

4440 ASH GROVE
SPRINGFIELD, IL 62711
(217) 793-8600
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PROFESSIONAL ENGINEERS & ARCHITECTS & SURVEYORS OF ILLINOIS

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: X081-2A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022	PUTNAM	23	2
F.A.S. 254	-00-BR			

ILLINOIS CONTRACT NO. 89434

NUMBER	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	6
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	18
20200100	EARTH EXCAVATION	CU YD	2,048
20300100	CHANNEL EXCAVATION	CU YD	440
20400800	FURNISHED EXCAVATION	CU YD	1,268
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	1.2
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	160
28000300	TEMPORARY DITCH CHECKS	EACH	23
28000400	PERIMETER EROSION BARRIER	FOOT	2,717
28000500	INLET AND PIPE PROTECTION	EACH	3
* 28101700	RIPRAP, SPECIAL	TON	138
* 28102600	STONE RIPRAP DITCH	TON	595
35101400	AGGREGATE BASE COURSE, TYPE B	TON	1,706
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	31
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1,174
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	306
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	214
44000100	PAVEMENT REMOVAL	SQ YD	1,000
* 48101200	AGGREGATE SHOULDERS, TYPE B	TON	272
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	22.7
50300280	CONCRETE ENCASEMENT	CU YD	3.5
* 50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2,400
50800105	REINFORCEMENT BARS	POUND	2,750
50900205	STEEL RAILING, TYPE S1	FOOT	164
51201400	FURNISHING STEEL PILES HP10X42	FOOT	320
51202305	DRIVING PILES	FOOT	320
51203400	TEST PILE STEEL HP10X42	EACH	2
51500100	NAME PLATES	EACH	1
54010604	PRECAST CONCRETE BOX CULVERT 6' X 4'	FOOT	78
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	80
54200439	PIPE CULVERTS, TYPE 1 RCCP 24"	FOOT	48
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	267
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	720
Δ 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	25
Δ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	2
63200310	GUARDRAIL REMOVAL	FOOT	150
67100100	MOBILIZATION	L SUM	1
* 70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
* 78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	4
* XX007390	PRECOATED GALVANIZED CORRUGATED STEEL CULVERT PIPE TYPE 1 18"	FOOT	20

*SEE SPECIAL PROVISIONS Δ SPECIALTY ITEMS

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE(25%)	SUITABLE CHANNEL EXCAVATION	CHANNEL EXCAVATION REDUCED FOR SHRINKAGE	EMBANKMENT (INFORMATION ONLY)	BALANCE (+) WASTE (-) FURNISHED EXCAVATION
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
STA. 21+00 TO STA. 27+03	280	210			2,123	-1,913
STA. 27+83 TO STA. 30+75	239	179			681	-502
*STA. 30+75 TO STA. 39+00	1,529	1,147			45	1,102
CHANNEL EXCAVATION			300	225	91	134
ENTRANCES						
RT. STA. 21+95 P.E.					46	-46
LT. STA. 26+02 P.E.					43	-43
TOTAL	2,048	1,536	300	225	3,029	-1,268

*TO BE USED IN THE BRIDGE APPROACH EMBANKMENTS.

GENERAL NOTES

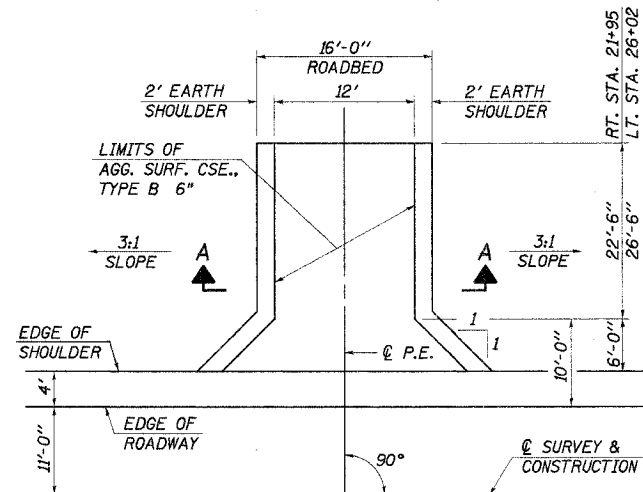
WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY, AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) = 1.2 ACRE

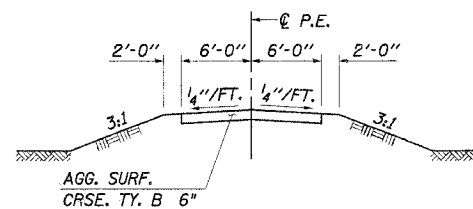
PAVEMENT REMOVAL

STA. 21+00 TO STA. 23+00 = 533 SQ YD
 STA. 29+00 TO STA. 30+75 = 467
 TOTAL = 1,000 SQ YD



ENTRANCE DETAIL

P.E. RT. STA. 21+95
 F.E. LT. STA. 26+02



SECTION A-A

APPLICATION RATES USED IN QUANTITY CALCULATIONS

STONE RIPRAP DITCH & RIPRAP (SPECIAL).....	1.65 TON/CU YD
AGGREGATE BASE.....	2.05 TON/CU YD
AGGREGATE SURFACE AND AGGREGATE SHOULDERS.....	2.05 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT) - ON AGG. BASE.....	0.40 GAL/SQ YD
BITUMINOUS MATERIALS (PRIME COAT) - ON BINDER CSE.....	0.10 GAL/SQ YD
BITUMINOUS CONCRETE (BINDER & SURFACE COURSE).....	112#/SQ YD/IN

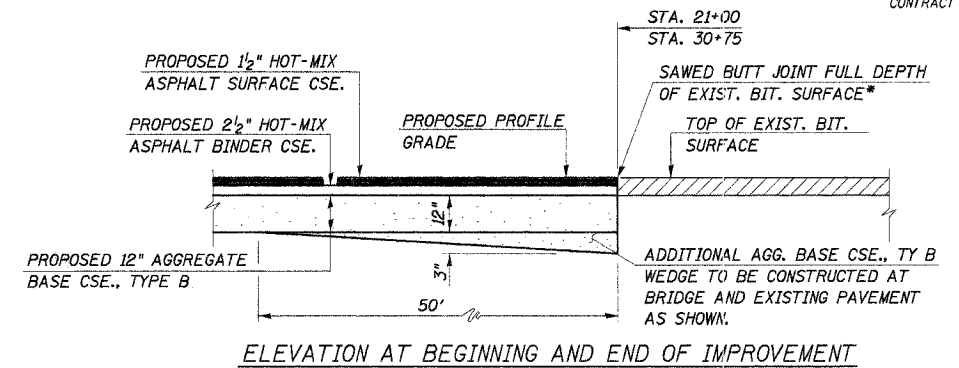
PAVEMENT DESIGN (80,000 LBS.)

Structural Design Traffic (S.D.T.): Year 2017; P.V. = 865, S.U. = 56, M.U. = 21
 Class III Road

Minimum Soil Support: $E_{R1} = 3$ k.s.f. (Assumed)

Percent of S.D.T. in Design Lane: P = 50%, S = 50%, M = 50%
 T.F. = 0.135

Temp. = 74.5° F.; $E_{AC} = 690$ (AC-10); Design Strain = 265



JOINT DETAILS

*COST INCLUDED IN "PAVEMENT REMOVAL".

BITUMINOUS MIXTURE REQUIREMENTS

MIXTURE USE(S)	SURFACE COURSE	BINDER COURSE
AC/PG:	64-22	64-22
RAP %: (MAX)	15%	25%
DESIGN AIR VOIDS:	4.0% @ $N_{des} = 50$	4.0% @ $N_{des} = 50$
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5	IL 19.0
FRICION AGGREGATE:	MIXTURE C	N/A

TREE REMOVAL

ALL TREES WHICH INTERFERE WITH THE CONSTRUCTION WITHIN THE LIMITS OF THE R.O.W. SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER.

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

38' RT. STA. 21+52 = 6 UNITS DIAMETER

TREE REMOVAL (OVER 15 UNITS DIAMETER)

31' RT. STA. 28+59 = 18 UNITS DIAMETER

LOCATION	AGGREGATE BASE COURSE, TYPE B	AGGREGATE SURFACE COURSE, TYPE B	BITUMINOUS MATERIALS (PRIME COAT)	HMA BINDER COURSE IL-19.0, N50	HMA SURFACE COURSE MIX "C", N50
	TON	TON	GALLON	TON	TON
STA. 21+00 TO STA. 27+03	1121		790	206	124
STA. 27+83 TO STA. 30+75	555		394	100	60
BRIDGE SURFACE					30
A.R. CULVERT, RT. STA. 31+93	30				
ENTRANCES					
RT. STA. 21+95 P.E.		15			
LT. STA. 26+02 P.E.		16			
TOTAL	1706	31	1174	306	214

SUMMARY OF QUANTITIES, GENERAL NOTES AND DETAILS

SECTION 08-00022-00-BR
 PUTNAM COUNTY
 COUNTY HIGHWAY 11
 STATION 27+43

4440 ASH GROVE
 SPRINGFIELD, IL 62711
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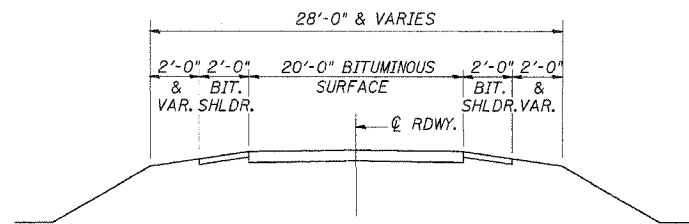
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CHECKED: G.J.C.
 DATE: 03/02/07

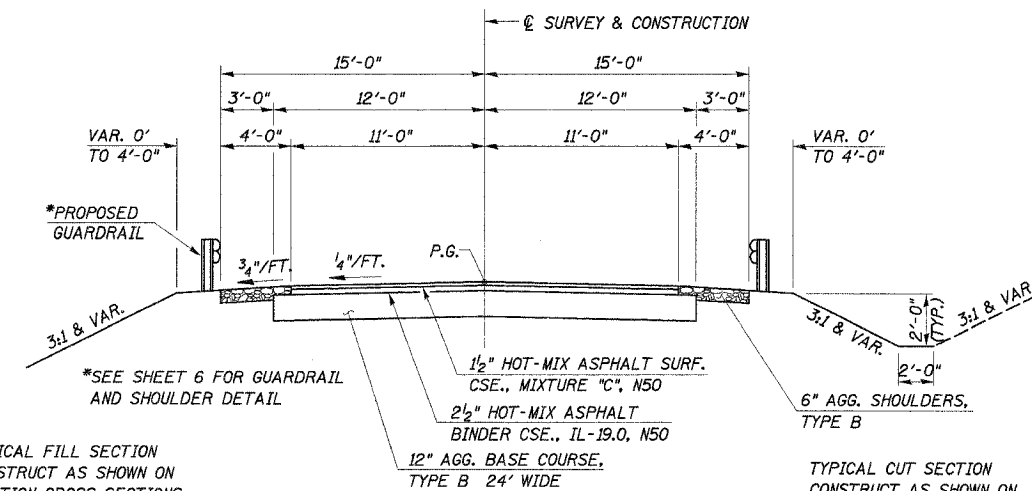
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11 F.A.S. 254	08-00022 -00-BR	PUTNAM	23	3
ILLINOIS				

CONTRACT NO. 89434



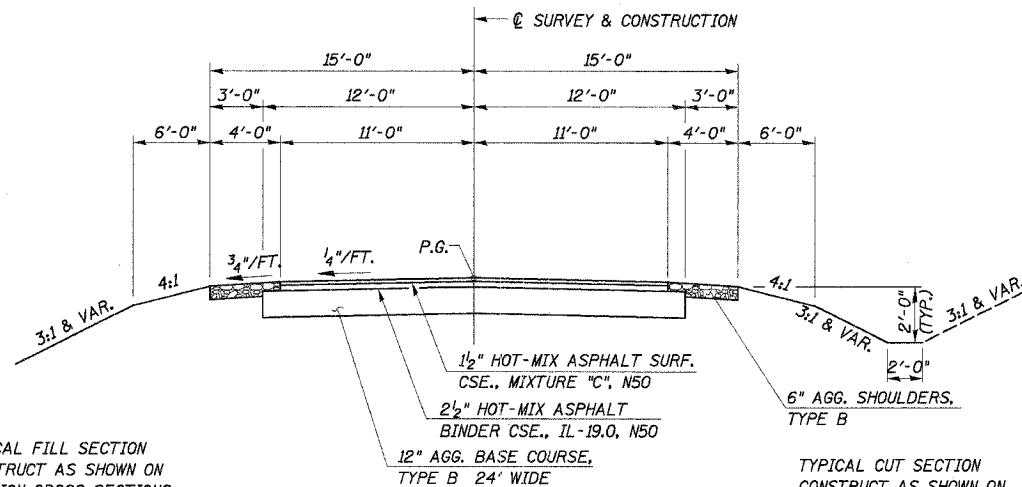
EXISTING TYPICAL CROSS SECTION



PROPOSED TYPICAL CROSS SECTION

STA. 24+00 TO STA. 27+03
STA. 27+83 TO STA. 30+25

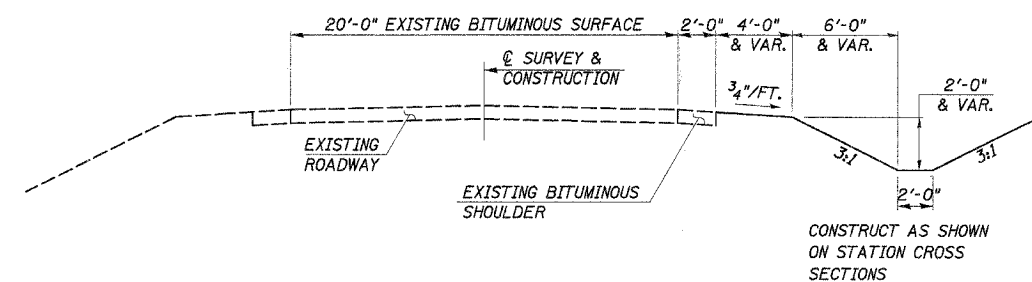
TRANSITION FROM STA. 30+25 TO STA. 30+75
STA. 30+75 TO STA. 31+60
CONSTRUCT AS SHOWN ON STATION CROSS SECTIONS



PROPOSED TYPICAL CROSS SECTION

STA. 21+50 TO STA. 23+50

TRANSITION FROM STA. 21+00 TO STA. 21+50 AND FROM STA. 23+50 TO STA. 24+00



PROPOSED TYPICAL CROSS SECTION

RT. STA. 32+00 TO RT. STA. 39+00
TRANSITION FROM RT. STA. 39+00 TO RT. STA. 39+25

TYPICAL CROSS-SECTIONS
SECTION 08-00022-00-BR
PUTNAM COUNTY
COUNTY HIGHWAY 11
STATION 27+43

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SPRINGFIELD, IL 62711
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ENGINEERING AND SCIENCE CONSULTANTS
PREPARED IN ROCKFORD, IL. ROCHELLE, IL. MORNINGVIEW SPRINGFIELD, IL.

DRAWN: S.A.P.
DATE: 02/05/07

CHECKED: G.J.C.
DATE: 03/02/07

JOB NO.: 46856
FILE: 46856typ.dgn
DATE: 04/17/07

WALTER C. KELLER ESTATE

SW 1/4, SEC. 4, T. 31 N., R. 1 W., 3RD P.M.

BENJAMIN G. HOYLE

CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	08-00022-00-BR	PUTNAM	23	4
STA. 19+00		TO STA. 35+00		
ILLINOIS				

CONTRACT NO. 89434

ENTRANCES TO BE BUILT

RT. STA. 21+95, P.E. -11.0%, 16' ROADBED
 LT. STA. 26+02, F.E. -15.0%, 16' ROADBED
 QUANTITIES INCLUDED IN THOSE LISTED

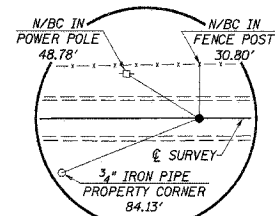
PIPES TO BE REMOVED

RT. STA. 21+95, 15" CMP, 20' LONG
 A.R. STA. 22+43, 42" CMP, 52' LONG
 LT. STA. 26+02, 12" CMP, 22' LONG
 RT. STA. 31+93, 12" CMP, 46' LONG
 QUANTITIES INCLUDED IN "EARTH EXCAVATION".

PI STA. = 32+96.00
 $\Delta = 1^\circ 33' 01''$ (RT)
 $D = 0^\circ 19' 39''$
 $R = 17,500.00'$
 $T = 236.76'$
 $L = 473.50'$
 $E = 1.60'$
 P.C. STA. = 30+59.24
 P.T. STA. = 35+32.74

UTILITIES

AMEREN IP
 STEVE RALSTON 618-236-6207
 MCNABB TELEPHONE COMPANY
 DAVID HAWORTH
 308 W. MAIN
 MCNABB, IL 61335



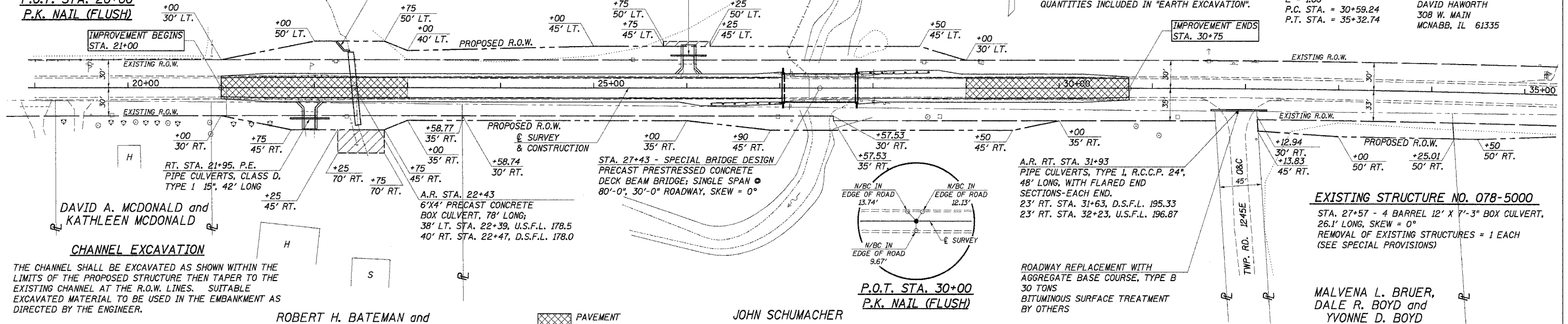
INDICATES TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED.

GUARDRAIL REMOVAL
 LT. STA. 26+94.50 TO STA. 27+32 = 37.5 FOOT
 RT. STA. 26+94.50 TO STA. 27+32 = 37.5 FOOT
 LT. STA. 27+82 TO STA. 28+19.50 = 37.5 FOOT
 RT. STA. 27+82 TO STA. 28+19.50 = 37.5 FOOT
 TOTAL = 150 FOOT

EXISTING 15" TILE TO BE LOCATED IN FIELD
 PRECOATED GALVANIZED CORRUGATED CULVERT PIPE, TYPE 1 18" 20' LONG WITH 45° ELBOW CONNECTED TO EXISTING TILE

LT. STA. 26+02 F.E. PIPE CULVERTS, CLASS D, TYPE 1 15", 38' LONG

P.O.T. STA. 20+00
 P.K. NAIL (FLUSH)



CHANNEL EXCAVATION
 THE CHANNEL SHALL BE EXCAVATED AS SHOWN WITHIN THE LIMITS OF THE PROPOSED STRUCTURE THEN TAPER TO THE EXISTING CHANNEL AT THE R.O.W. LINES. SUITABLE EXCAVATED MATERIAL TO BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.

ROBERT H. BATEMAN and CYNTHIA M. BATEMAN

JOHN SCHUMACHER

NW 1/4, SEC. 9, T. 31 N., R. 1 W., 3RD P.M.

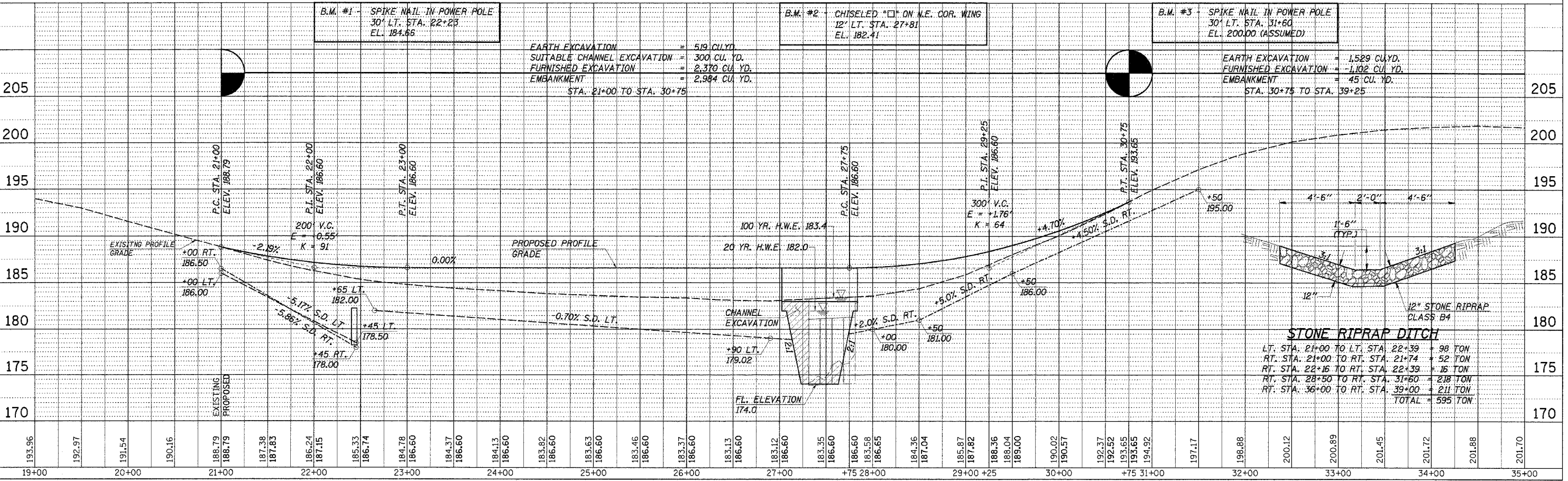
CHANNEL EXCAVATION = 440 CU. YD.

PAVEMENT REMOVAL

ROADWAY REPLACEMENT WITH AGGREGATE BASE COURSE, TYPE B 30 TONS BITUMINOUS SURFACE TREATMENT BY OTHERS

EXISTING STRUCTURE NO. 078-5000
 STA. 27+57 - 4 BARREL 12' X 7'-3" BOX CULVERT, 26.1' LONG, SKEW = 0°
 REMOVAL OF EXISTING STRUCTURES = 1 EACH (SEE SPECIAL PROVISIONS)

MALVENA L. BRUER, DALE R. BOYD and YVONNE D. BOYD



STONE RIPRAP DITCH
 LT. STA. 21+00 TO LT. STA. 22+39 = 98 TON
 RT. STA. 21+00 TO RT. STA. 21+74 = 52 TON
 RT. STA. 22+16 TO RT. STA. 22+39 = 16 TON
 RT. STA. 28+50 TO RT. STA. 31+60 = 218 TON
 RT. STA. 36+00 TO RT. STA. 39+00 = 211 TON
 TOTAL = 595 TON

PLAN
 DATE
 BY
 CHECKED
 ALIGNED
 CHECKED
 NOTE BOOK
 NO.

PROFILE
 DATE
 BY
 CHECKED
 GRADES
 CHECKED
 STRUCTURE
 NOTATIONS
 CHRD
 NO.

PLOT DATE = 1/14/06
 PLOT SCALE = 4800/1
 USER NAME = SPRICE

SE. 1/4, SEC. 4, T. 31 N., R. 1 W., 3RD P.M.

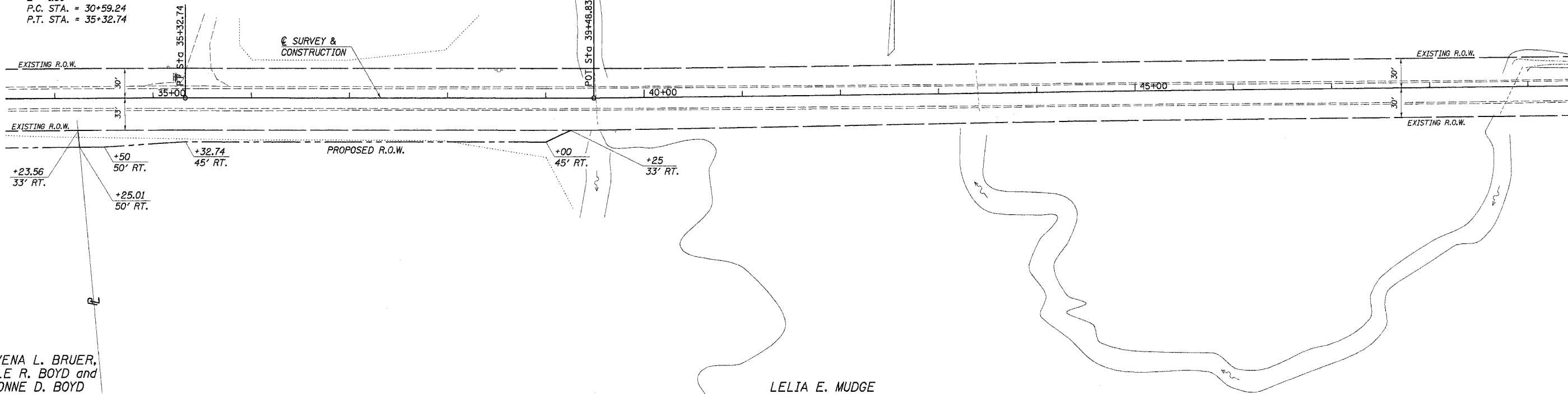
BENJAMIN G. HOYLE

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	08-00022-00-BR	POTNAM	23	5
STA. 33+50		TO STA. 49+50		
ILLINOIS				

CONTRACT NO. 89434

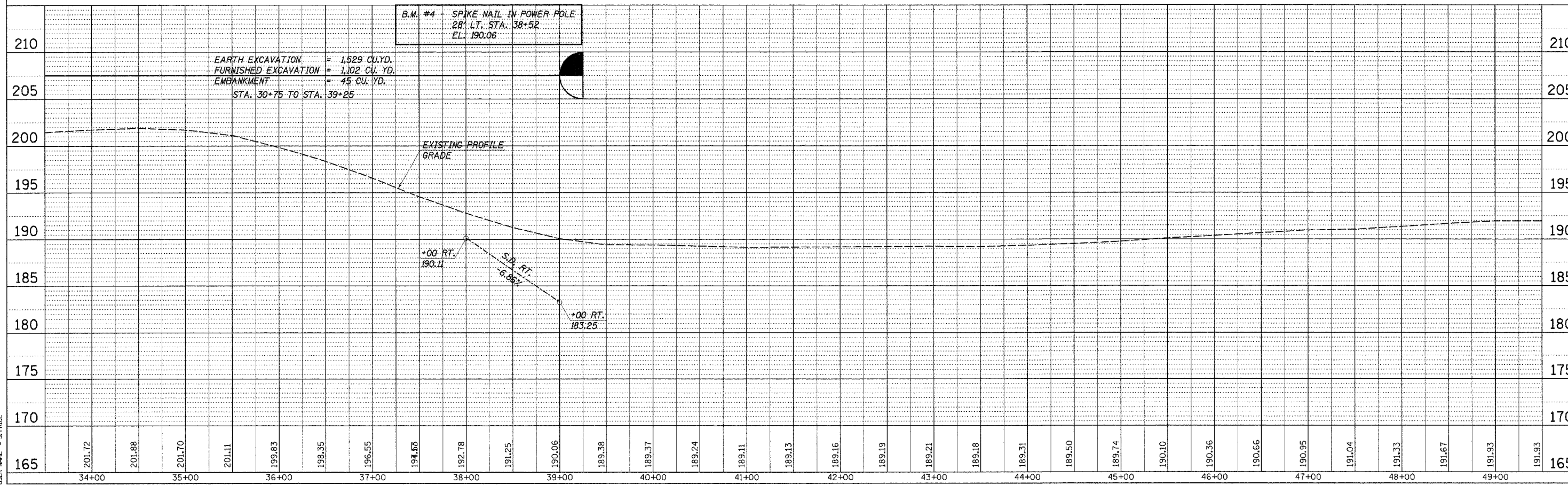
PI STA. = 32+96.00
 $\Delta = 1^\circ 33' 01''$ (RT)
 $D = 0^\circ 19' 39''$
 $R = 17,500.00'$
 $T = 236.76'$
 $L = 473.50'$
 $E = 1.60'$
 P.C. STA. = 30+59.24
 P.T. STA. = 35+32.74



MALVENA L. BRUER,
 DALE R. BOYD and
 YVONNE D. BOYD

LELIA E. MUDGE

NE. 1/4, SEC. 9, T. 31 N., R. 1 W., 3RD P.M.



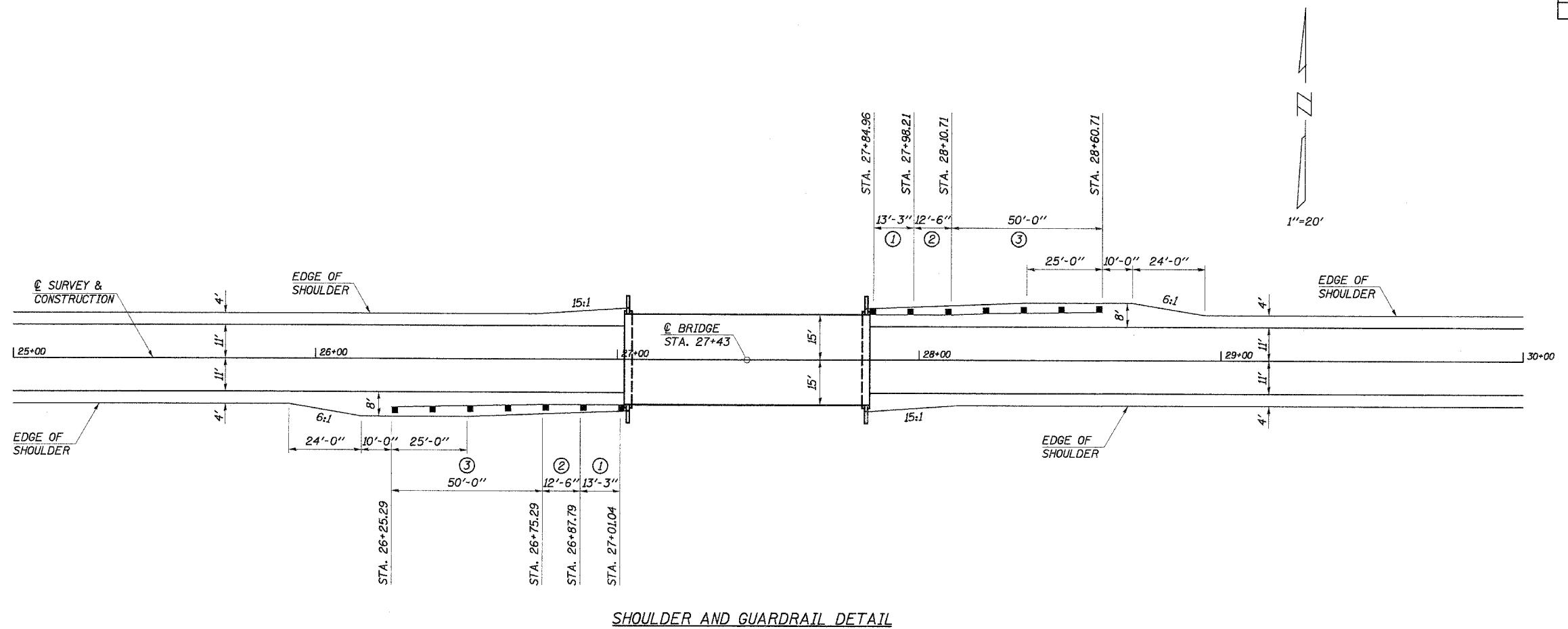
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DATE	
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PROFILE	DATE
BY	
CHECKED	
DATE	
NO.	

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 PLOT SCALE = S. PRICE
 USER NAME = S. PRICE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022	PUTNAM	23	6
F.A.S. 254	-00-BR			
ILLINOIS				

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SHOULDER AND GUARDRAIL DETAIL

TRAFFIC BARRIER TERMINAL, TYPE 5A
 15' RT. STA. 26+87.79 TO 15' RT. STA. 27+01.04 = 1 EACH
 15' LT. STA. 27+84.96 TO 15' LT. STA. 27+98.21 = 1 EACH
 TOTAL = 2 EACH
 SEE STANDARD B&R 27

STEEL PLATE BEAM GUARD RAIL, TYPE A
 15' RT. STA. 26+75.29 TO 15' RT. STA. 26+87.79 = 12.5 FOOT
 15' LT. STA. 27+98.21 TO 15' LT. STA. 28+10.71 = 12.5 FOOT
 TOTAL = 25.0 FOOT
 SEE STANDARD B&R 26

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
 16' RT. STA. 26+25.29 TO 15' RT. STA. 26+75.29 = 1 EACH
 15' LT. STA. 28+10.71 TO 16' LT. STA. 28+60.71 = 1 EACH
 TOTAL = 2 EACH
 SEE HIGHWAY STANDARD 630301

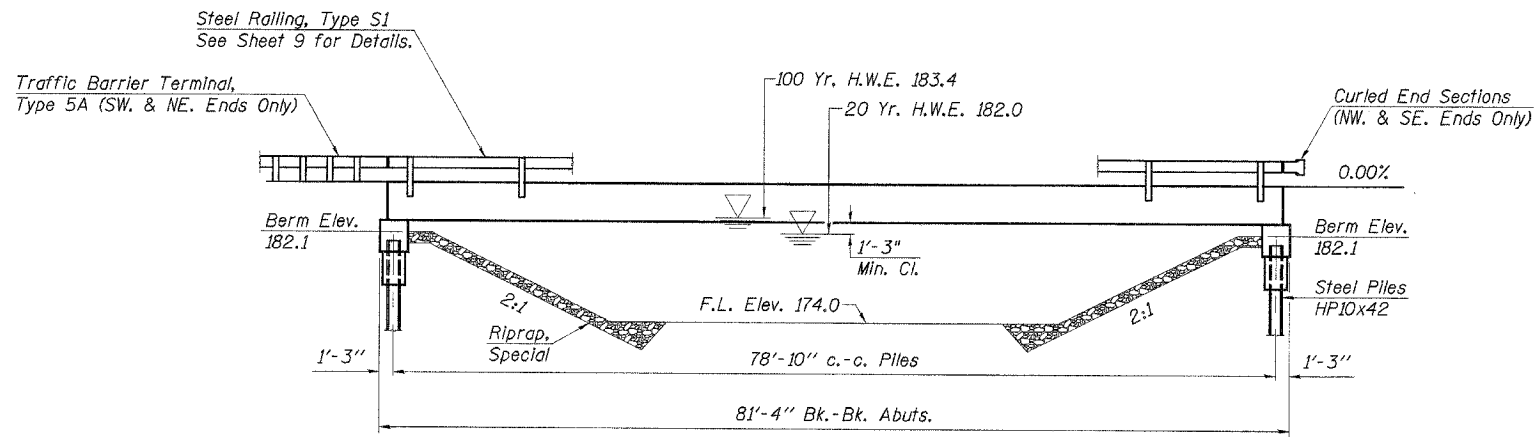
- LEGEND**
- NOTE: ALL DIMENSIONS REFER TO FRONT FACE OF PROPOSED RAILING
- ① TRAFFIC BARRIER TERMINAL, TYPE 5A
 - ② STEEL PLATE BEAM GUARD RAIL, TYPE A
 - ③ TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

SHOULDER AND GUARDRAIL DETAIL
 SECTION 08-00022-00-BR
 PUTNAM COUNTY
 COUNTY HIGHWAY 11
 STATION 27+43

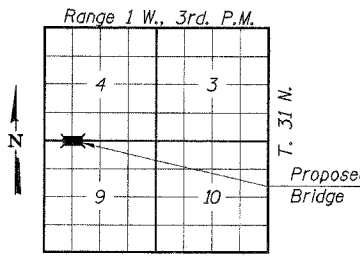
4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.tehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS REGISTERED PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND PLANNERS	DRAWN: S.A.P. DATE: 1/30/07	CHECKED: G.J.C. DATE: 2/2/07	JOB NO.: 46856 FILE: 46856SHLDR.DGN DATE: 04/17/07
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022-00-BR	PUTNAM	23	7
		ILLINOIS		

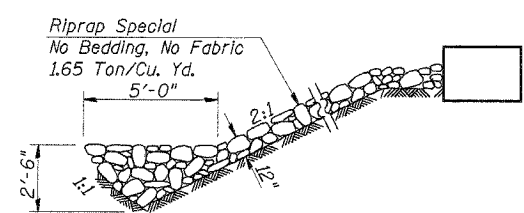
CONTRACT NO. 09434



ELEVATION



LOCATION PLAN



STONE RIPRAP ANCHOR DETAIL

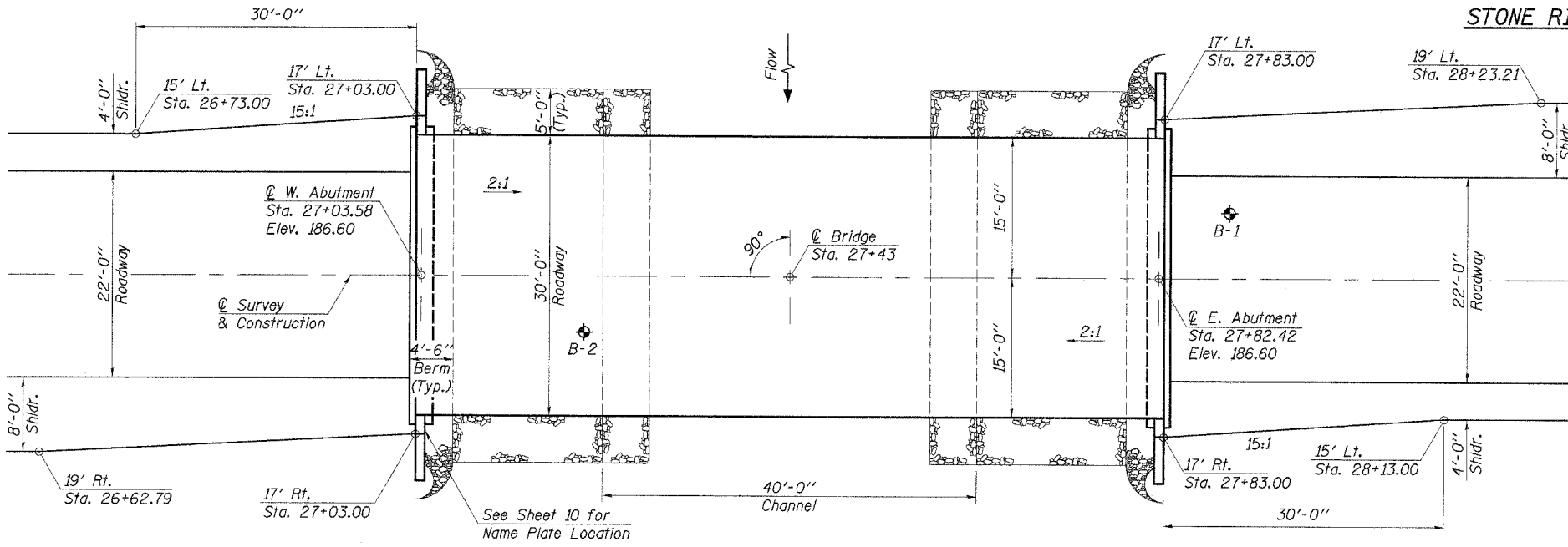
GENERAL NOTES

See Proposal Booklet for Boring data.

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions.

The Contractor shall drive one steel test pile in a permanent location at each abutment as directed by the Engineer, before ordering the remainder of piles.

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



PLAN

**CLEAR CREEK
BUILT 200_ BY
PUTNAM COUNTY
SEC. 08-00022-00-BR
COUNTY HIGHWAY 11
F.A. PROJ. BRS-254()
STR. NO. 078-3116 LOADING HS20**

LETTERING FOR NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,400		2,400
Concrete Structures	Cu. Yd.		22.7	22.7
Reinforcement Bars	Pound		2,750	2,750
Steel Railing, Type S1	Foot	164		164
Name Plates	Each		1	1
Steel Piles HP10x42	Foot		320	320
Test Pile Steel HP10x42	Each		2	2
Riprap, Special	Ton		138	138
Concrete Encasement	Cu. Yd.		3.5	3.5
Hot-Mix Asphalt Surf. Course, Mix "C" N50	Ton	30.0		30.0
P.C. Mortar Fairing Course	Foot	720		720
Waterproofing Membrane System	Sq. Yd.	267		267

DESIGN STRESSES

$f'_c = 5,000$ p.s.i. (Prestressed Beams)
 $f'_{bt} = 4,000$ p.s.i. (Prestressed Beams)
 $f_c = 1,400$ p.s.i. (Concrete)
 $f'_s = 270,000$ p.s.i. (Prestressed Strands)
 $f_{sl} = 201,960$ p.s.i. (Prestressed Strands)
 $f_s = 24,000$ p.s.i. (Reinf. Bars -- Field Units)
 $f_y = 60,000$ p.s.i. (Reinf. Bars -- Field Units)
 $n = 9$ (Concrete)
 LOADING HS20-44
 Design Specifications: 2002 AASHTO
 25#/Sq. Ft. included in dead load for future wearing surface.

WATERWAY INFORMATION

Drainage Area 8.51 Sq. Mi.
 Existing Opening (20 Yr.) 336 Sq. Ft.
 Required Opening (20 Yr.) 464 Sq. Ft.
 Proposed Opening (20 Yr.) 464 Sq. Ft.
 Design Discharge (20 Yr.) 1,723 C.F.S.
 Created Head (20 Yr.) 0.0 Ft.
 100 Year Discharge 2,694 C.F.S.
 100 Yr. Created Head 0.3 Ft.

DESIGNED	F.J.S.
CHECKED	S.F.M.
DRAWN	S.A.P.
CHECKED	F.J.S.

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



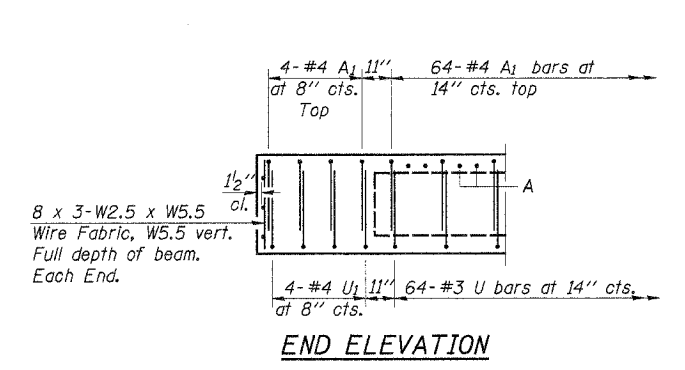
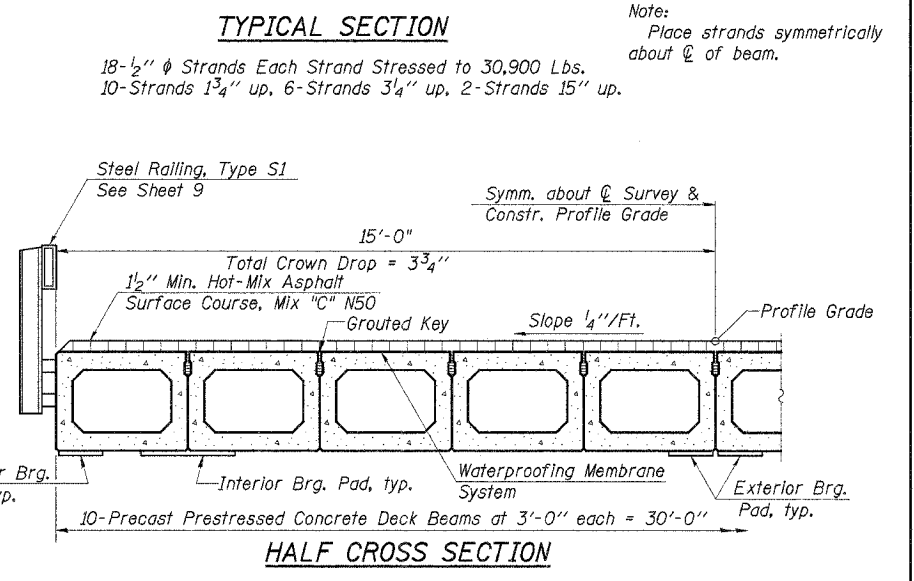
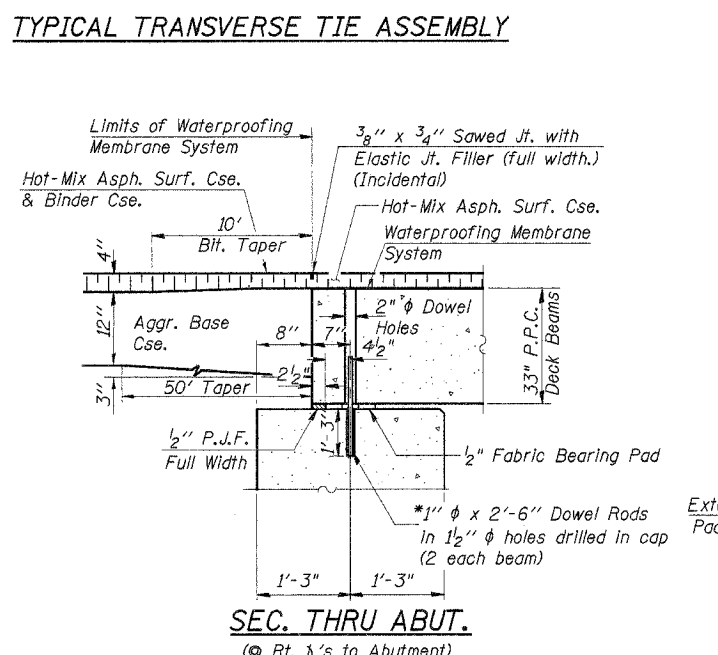
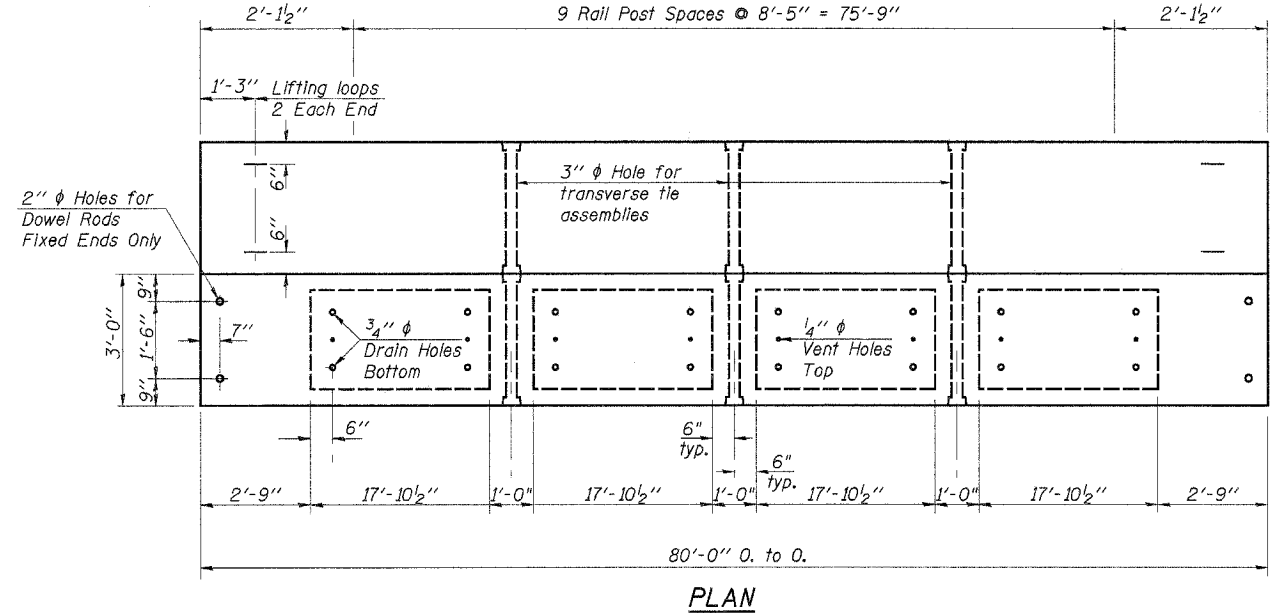
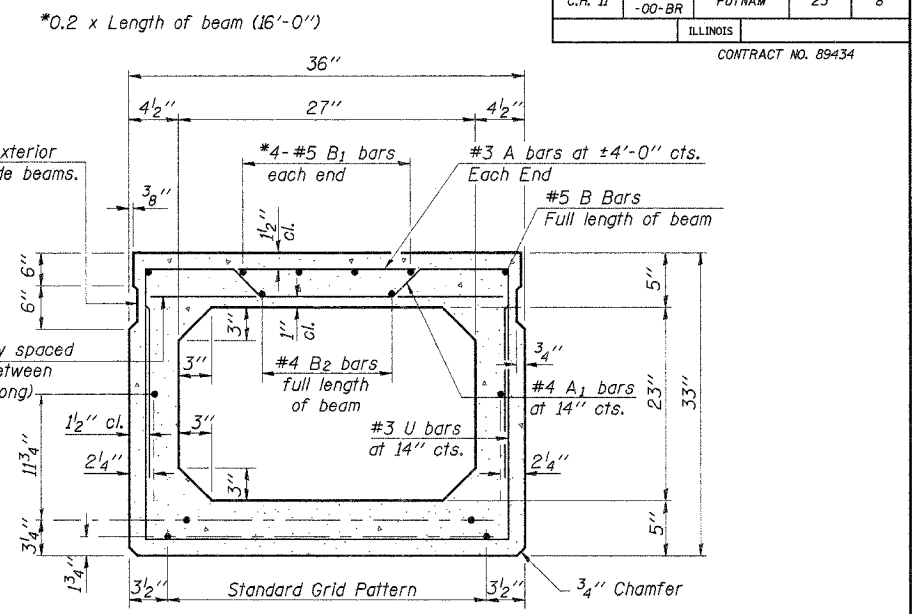
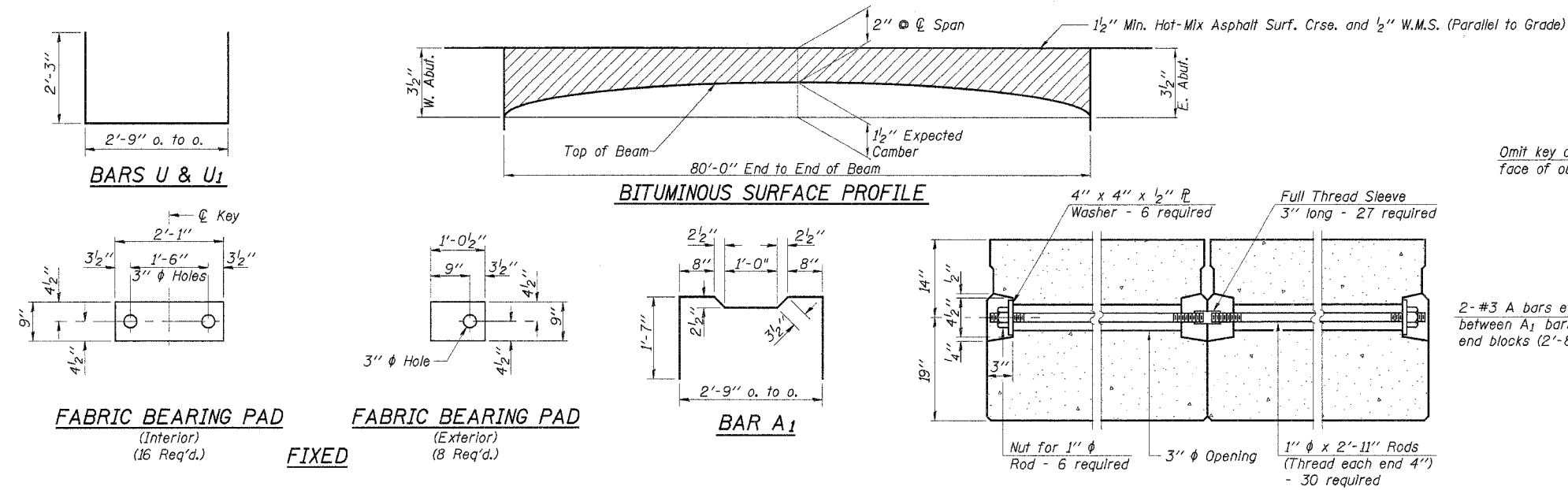
Fred J. Stone, Jr. (10-10-07)
 ILLINOIS STRUCTURAL NO. 2934 (Expires 11/30/08)

GENERAL PLAN & ELEVATION

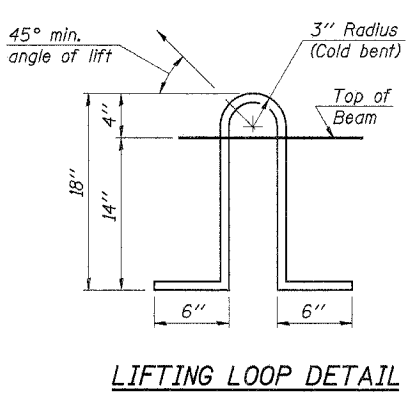
**COUNTY HIGHWAY 11
SECTION 08-00022-00-BR
PUTNAM COUNTY
STATION 27+43**

4440 ASH GROVE SPRINGFIELD, IL. 62711 (217) 793-8800 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS REPORTS, RECORDS, & SPECIFICATIONS MADE BY INSTRUMENTED.	JOB NO.: 46856 FILE: 46856GPE.DGN DATE: 04/12/07
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022-00-BR	PUTNAM	23	8
ILLINOIS			CONTRACT NO. 89434	



Note A:
The top surface of the beams shall be finished in accordance with the Manual for Fabrication of Precast Prestressed Concrete Products and the surface shall not be roughed by brooming. The finished surface shall be free of depressions or high spots with sharp corners and the top edge of keys shall be rounded or chamfered a min. of 1/4".



NOTES
* Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting the shear keys.

NOTES
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 3-1/2" φ-270 ksi strands, as shown. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A706 Gr 60 (IL Modified). The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. (No. Req'd. 48) Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'ci, shall be 4,000 p.s.i. See Special Provisions for review and distribution of shop drawings. Rail post anchor devices shall be cast into outside beam as elsewhere specified.

DESIGNED	S.F.M.
CHECKED	F.J.S.
DRAWN	S.A.P.
CHECKED	F.J.S.

PD-5-S 9-1-03

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,400
Hot-Mix Asphalt Surf. Crse., Mix "C", N50	Ton	30.0
P.C. Mortar Fairing Course	Foot	720
Waterproofing Membrane System	Sq. Yd.	267
Estimated Total Weight (One Beam) = 55,100 Pounds		

SUPERSTRUCTURE
COUNTY HIGHWAY 11
SECTION 08-00022-00-BR
PUTNAM COUNTY
STATION 27+43

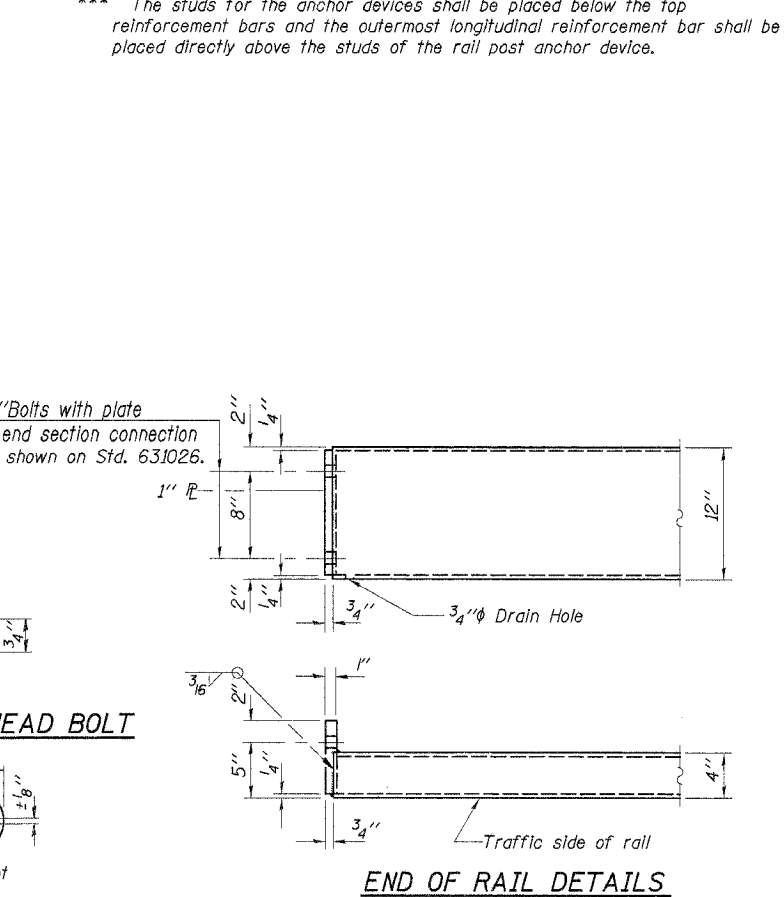
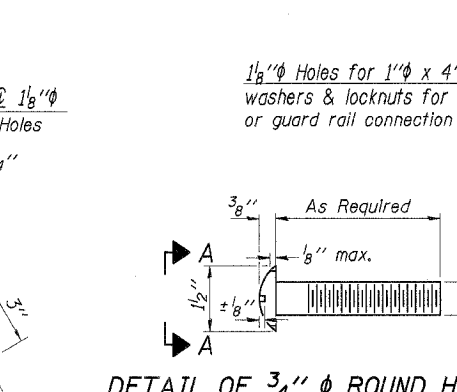
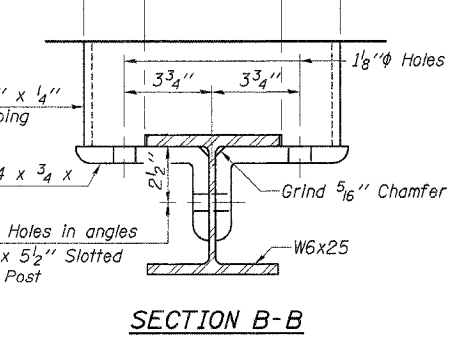
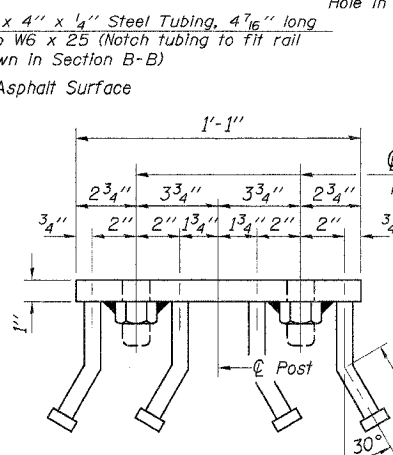
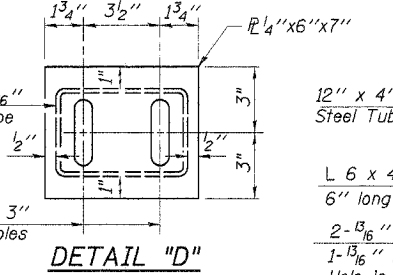
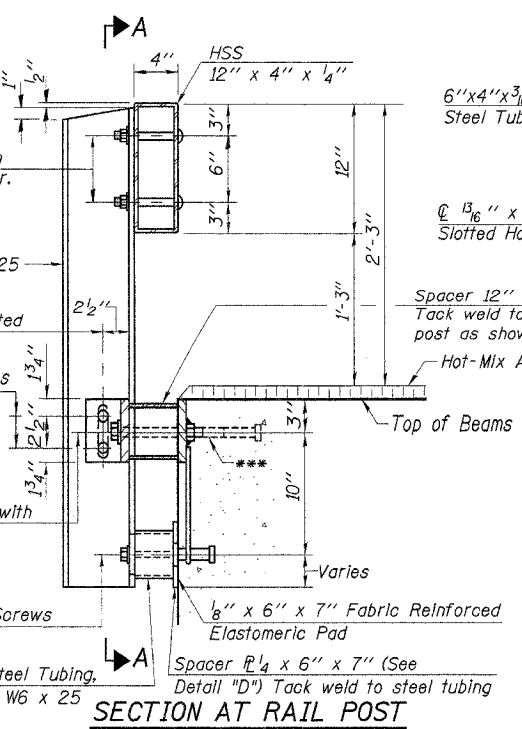
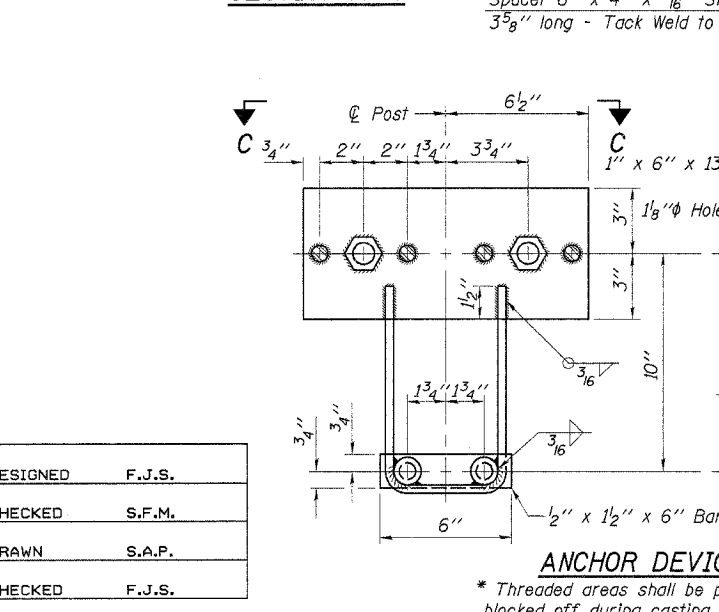
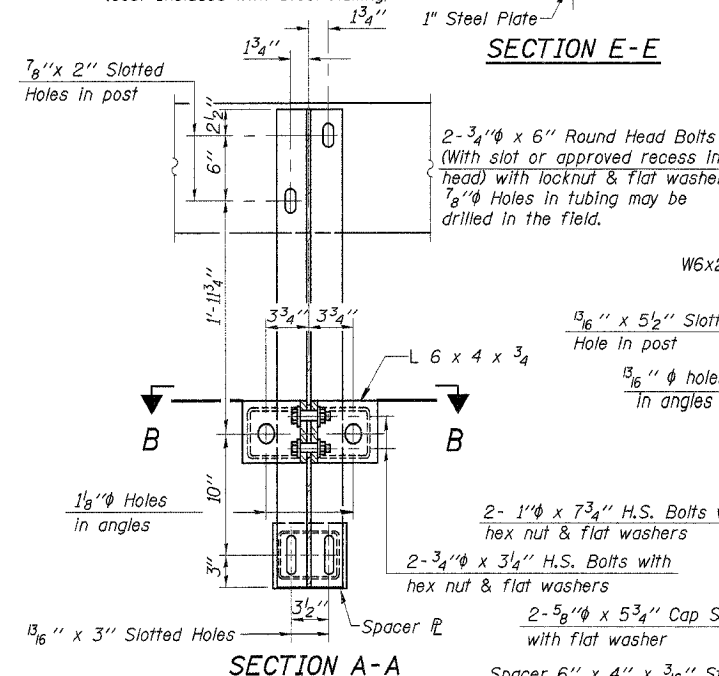
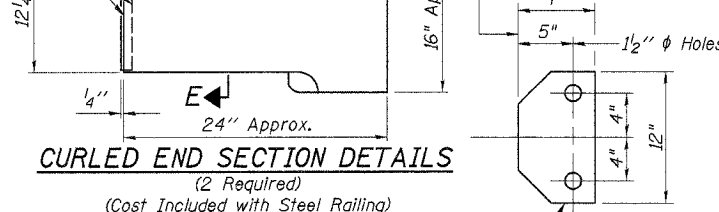
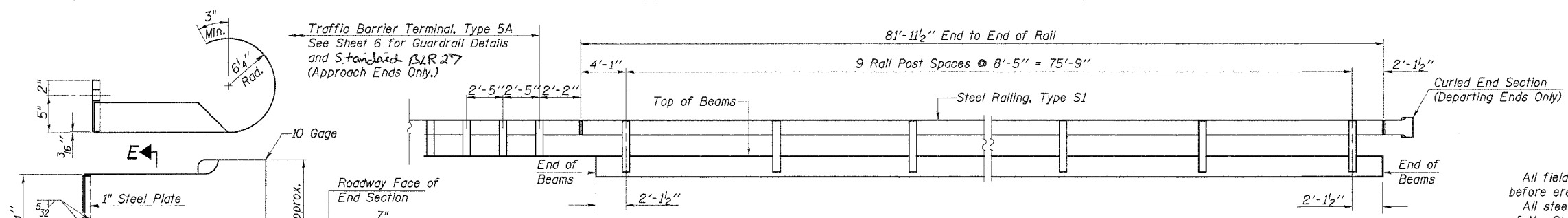
4440 ASH GROVE
SPRINGFIELD, ILL. 62711
(217) 793-8600
www.lehr-graham.com

LEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PREPARED BY: ROYCE P. B. ROYCE, P.E., SPRINGFIELD, ILL.

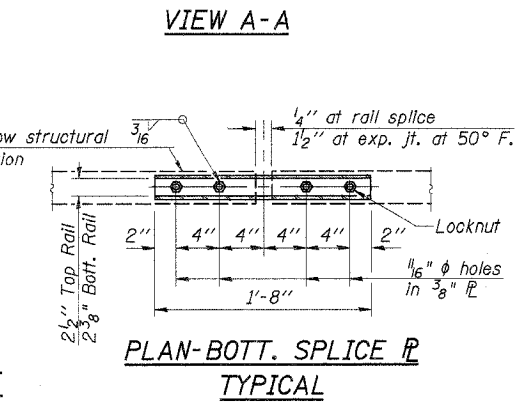
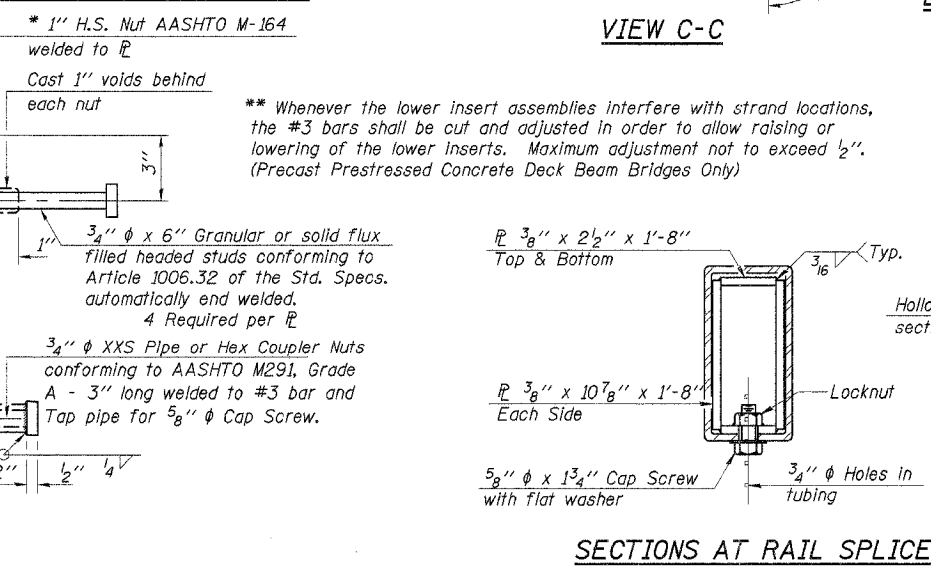
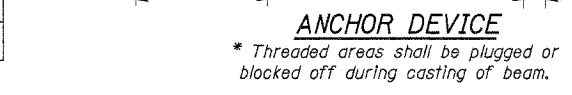
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FILE: 46856SUPER.DGN
DATE: 04/12/07

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022-00-BR	PUTNAM	23	9
ILLINOIS				

CONTRACT NO. 89434



DESIGNED	F.J.S.
CHECKED	S.F.M.
DRAWN	S.A.P.
CHECKED	F.J.S.



NOTES

All field drilled holes shall be coated with an approved zinc rich paint before erection.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications. In addition to the elements specified in Article 509.05, all angles and spacers are to be galvanized in accordance with AASHTO M-111, and all cap screws, washers, and lock washers are to be galvanized in accordance with AASHTO M-232.
The 3/4" (M20) diameter high strength bolts used to connect the 6x4x3/4" angles to the post shall be tightened in accordance with Article 504.04(f)(2) of the Standard Specifications. The 1" (M24) diameter high strength bolts connecting steel to concrete shall be brought to a snug tight condition and given an additional 1/8 turn. The 5/8" (M16) cap screws in the bottom of the posts shall be brought to a snug tight condition only.
*** The studs for the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

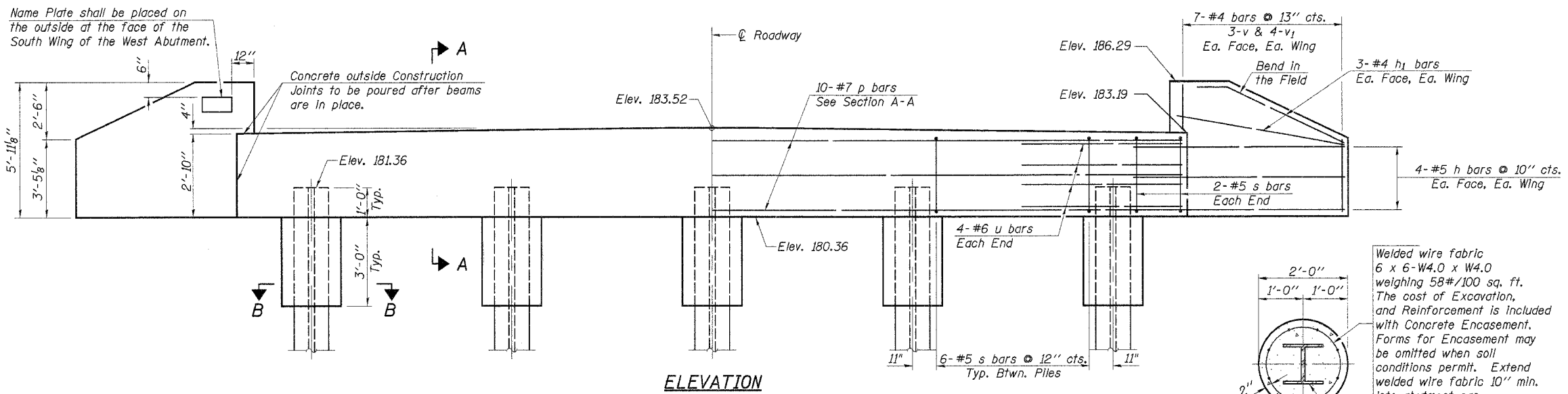
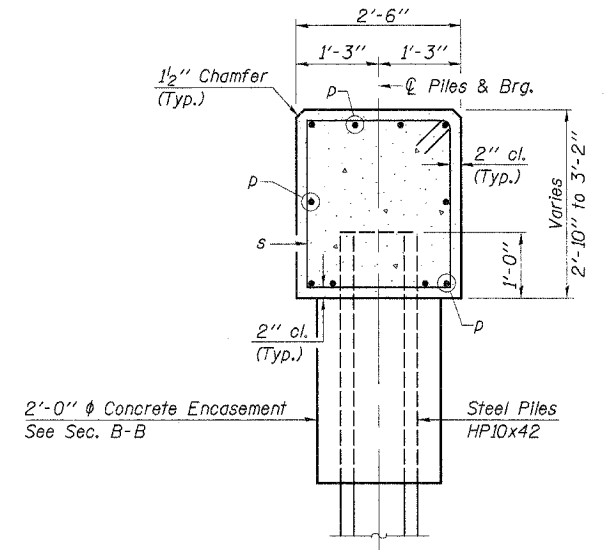
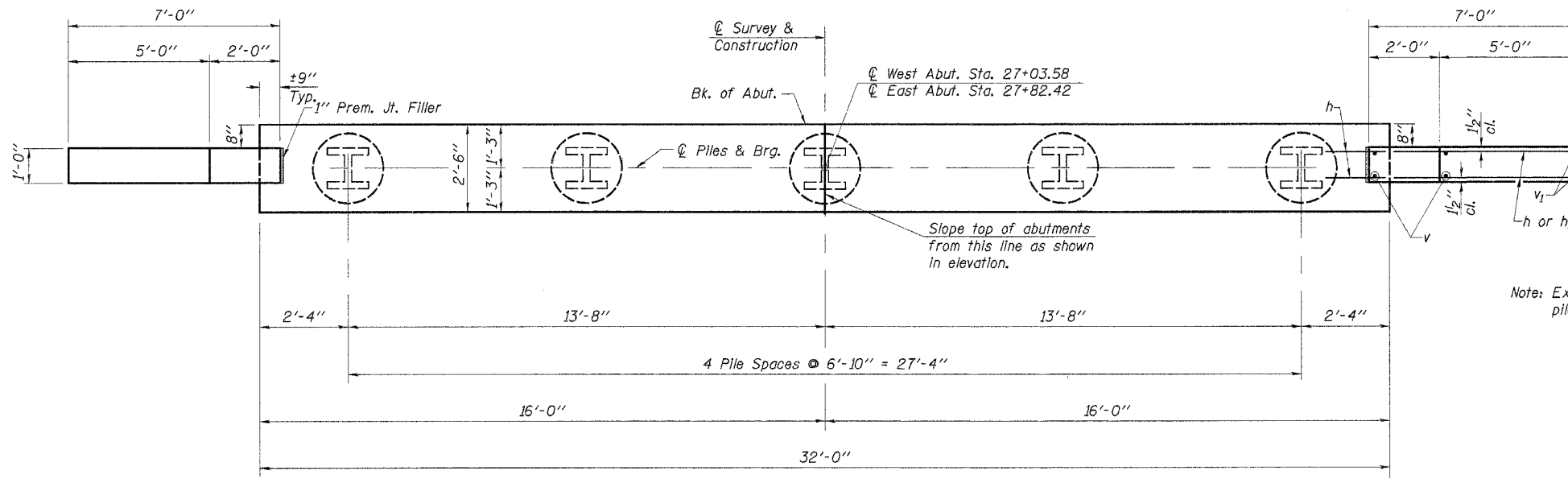
Item	Unit	Quantity
Steel Railing, Type S1	Foot	164

STEEL RAILING, TYPE S1
COUNTY HIGHWAY 11
SECTION 08-00022-00-BR
PUTNAM COUNTY
STATION 27+43

4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8800 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS PREPARED BY: ROBERT L. BOGGS, P.E. DATE: 04/12/07	JOB NO.: 46856 FILE: RAIL.dgn DATE: 04/12/07
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022-00-BR	PUTNAM	23	10

CONTRACT NO. 89434



**2 ABUTMENTS
BILL OF MATERIAL**

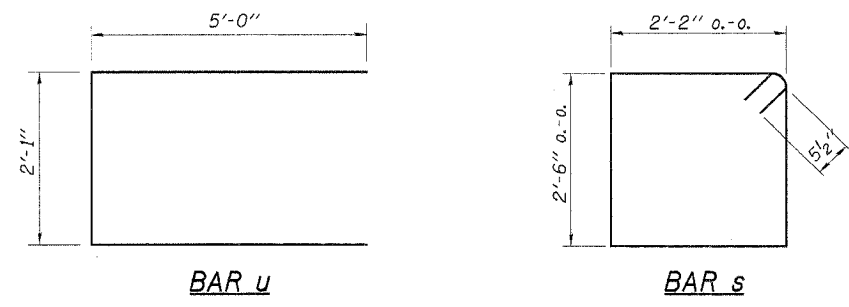
Bar	No.	Size	Length	Shape
h	32	#5	8'-3"	—
h ₁	24	#4	6'-9"	—
p	20	#7	31'-8"	—
s	56	#5	10'-3"	□
u	16	#6	12'-1"	—
v	24	#4	5'-7"	—
v ₁	32	#4	4'-4"	—
Concrete Structures		Cu. Yd.	22.7	
Reinforcement Bars		Pound	2,750	
Name Plates		Each	1	
Test Pile Steel HP10x42		Each	2	
Steel Piles HP10x42		Foot	320	
Concrete Encasement		Cu. Yd.	3.5	

PILE DATA

Type & Size	Steel HP10x42
No. Req'd. (2 Abut.)	*10
Nominal Required Bearing	330 Kips/Pile
Allowable Resistance Available	110 Kips/Pile
Estimated Length	40 Feet/Pile

*Includes 1 Test Pile to be driven in a permanent location at each abutment.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated above. The Steel H-Piles shall be according to AASHTO M270 Grade 50. See Sheet 11 for Steel Pile Splicing Details.

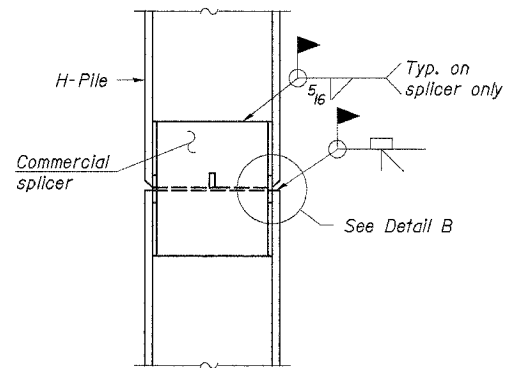


DESIGNED	S.F.M.
CHECKED	F.J.S.
DRAWN	S.A.P.
CHECKED	F.J.S.

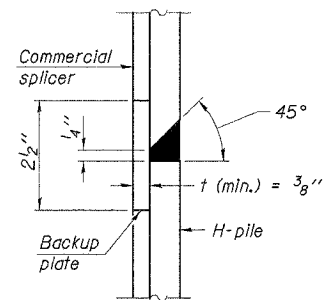
ABUTMENTS
COUNTY HIGHWAY 11
SECTION 08-00022-00-BR
PUTNAM COUNTY
STATION 27+43

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022-00-BR	PUTNAM	23	11
ILLINOIS				

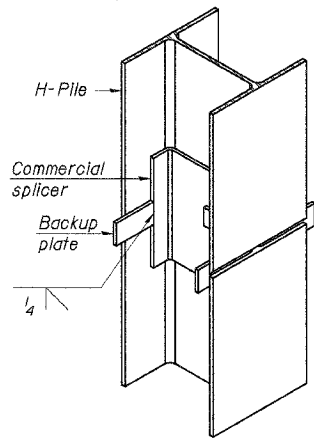
CONTRACT NO. 89434



ELEVATION

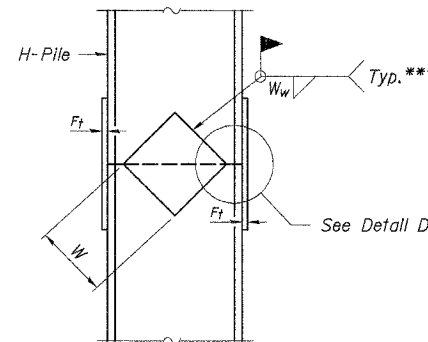


DETAIL "B"

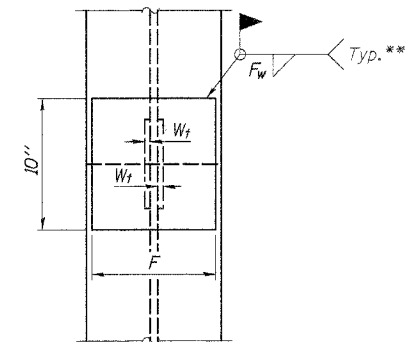


ISOMETRIC VIEW

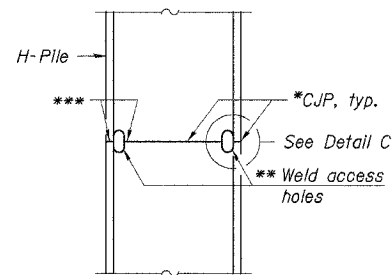
WELDED COMMERCIAL SPLICE



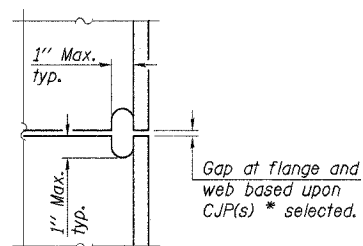
ELEVATION



END VIEW

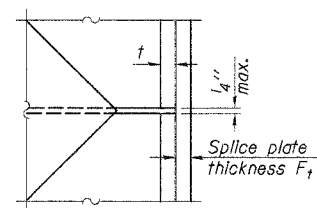


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

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"

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

- * 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.

DESIGNED	J.A.M.
CHECKED	F.J.S.
DRAWN	S.A.P.
CHECKED	F.J.S.
F-HP	

11-1-06

**STEEL PILE
SPlicing DETAILS**
COUNTY HIGHWAY 11
SECTION 08-00022-00-BR
PUTNAM COUNTY
STATION 27+43

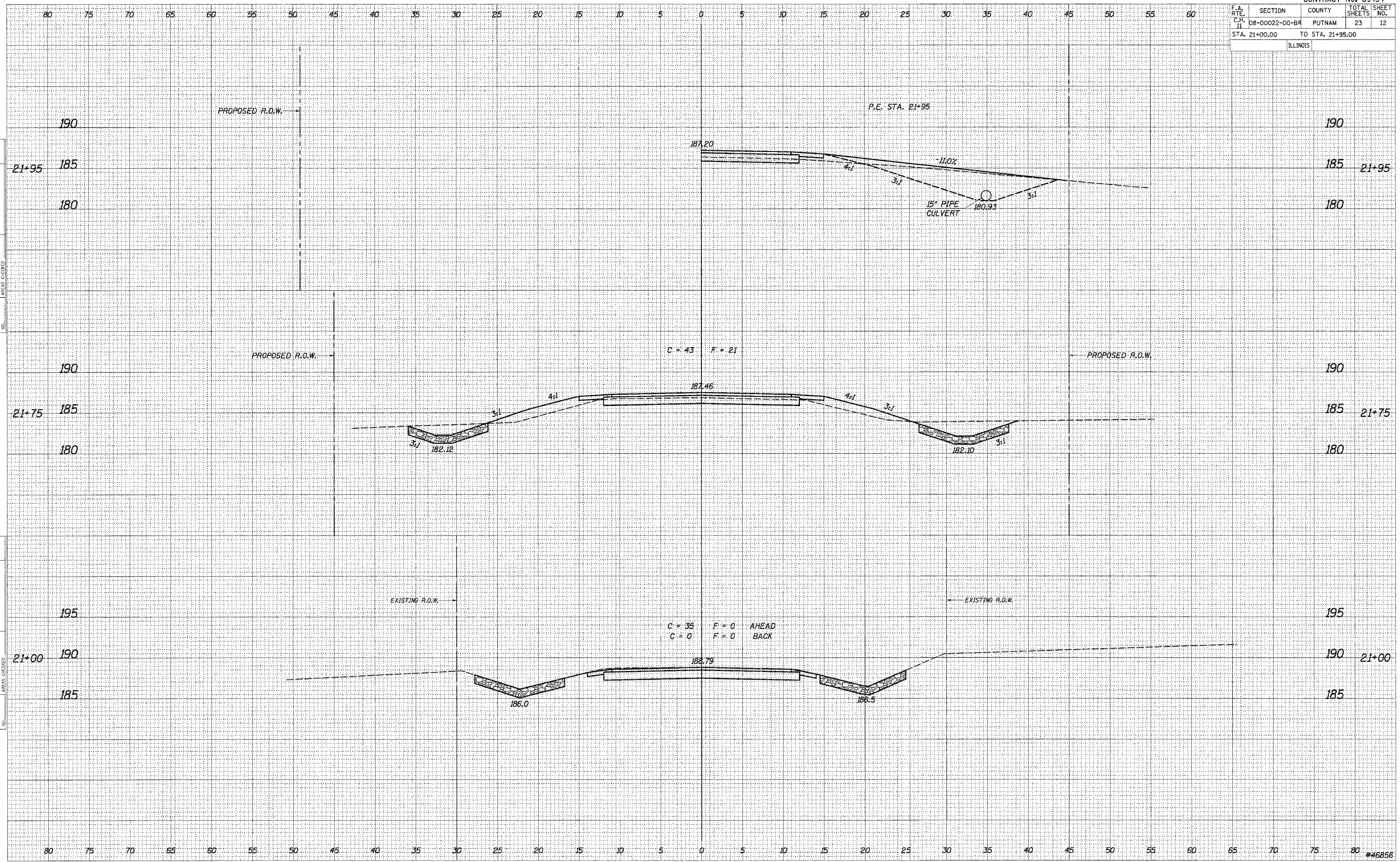
4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS PROFESSIONAL ENGINEERS AND ARCHITECTS ROCKFORD, ILLINOIS	JOB NO.: 46856 FILE: 46856STEEL.DGN DATE: 04/12/07
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F.A. R.T.E. C.V. 11	SECTION 08-00022-00-BR	COUNTY PUTNAM	TOTAL SHEETS 23	SHEET NO. 12
STA. 21+00.00		TO STA. 21+95.00		
ILLINOIS				

DATE	
BY	
DESIGNED	
CHECKED	
IN CHARGE	
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DESIGNED	
CHECKED	
IN CHARGE	

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 USER NAME = S. PRICE

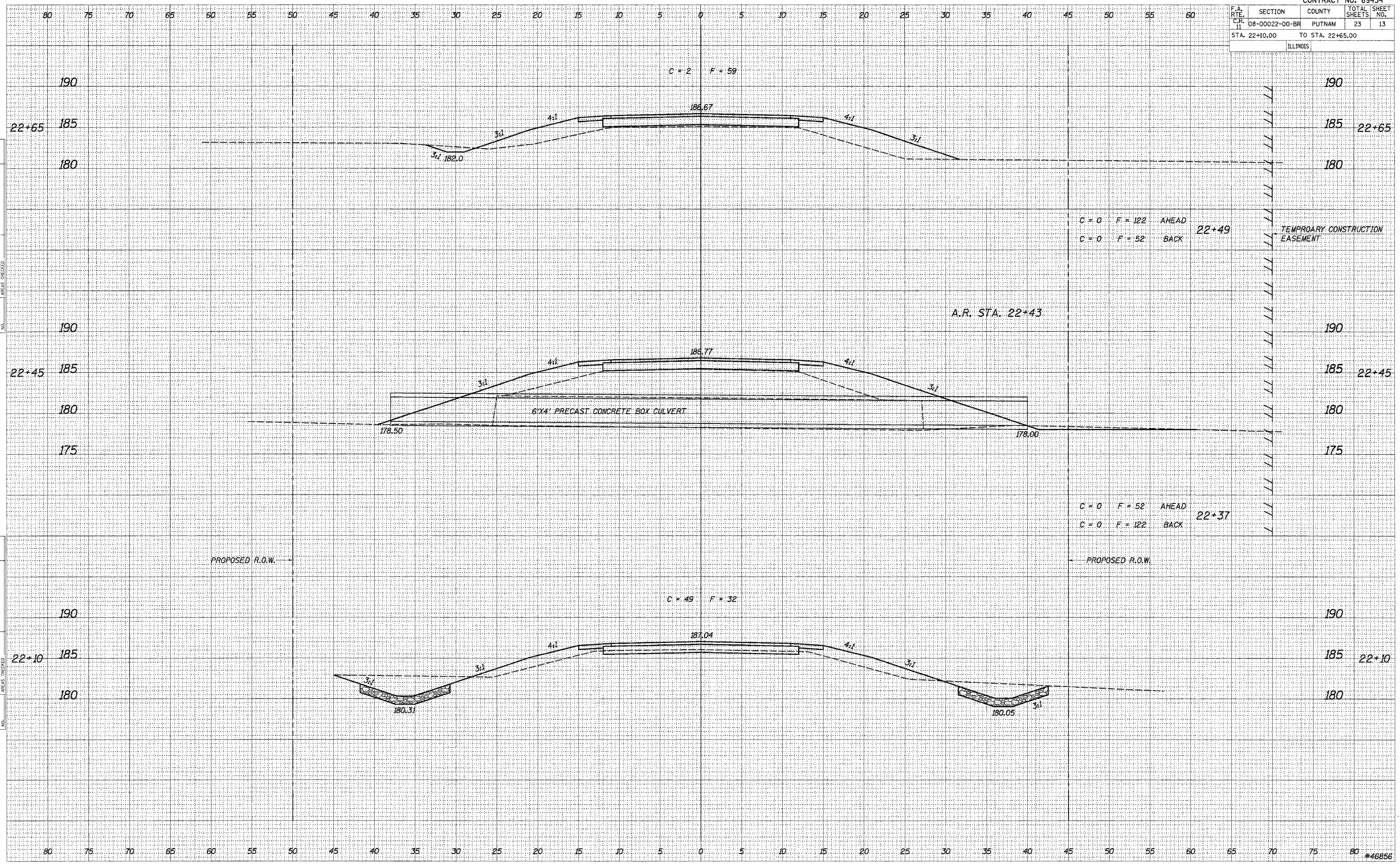


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STA. 22+10.00		TO STA. 22+65.00		
ILLINOIS				

DATE	
BY	
DESIGNED	
CHECKED	
PLOTTED	
TEMPERATURE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
DESIGNED	
CHECKED	
PLOTTED	
TEMPERATURE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

PLOT DATE = 11/17/05
 FILE NAME = 46856SECTIONSSHEET13.DGN
 PLOT SCALE = 80
 USER NAME = S. PRICE



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	08-00022-00-BR	PUTNAM	23	14
STA. 23+00.00		TO STA. 25+00.00		
ILLINOIS				

DATE	BY

FINAL SURVEY	DATE

NO.	DATE	BY

NO.	DATE	BY

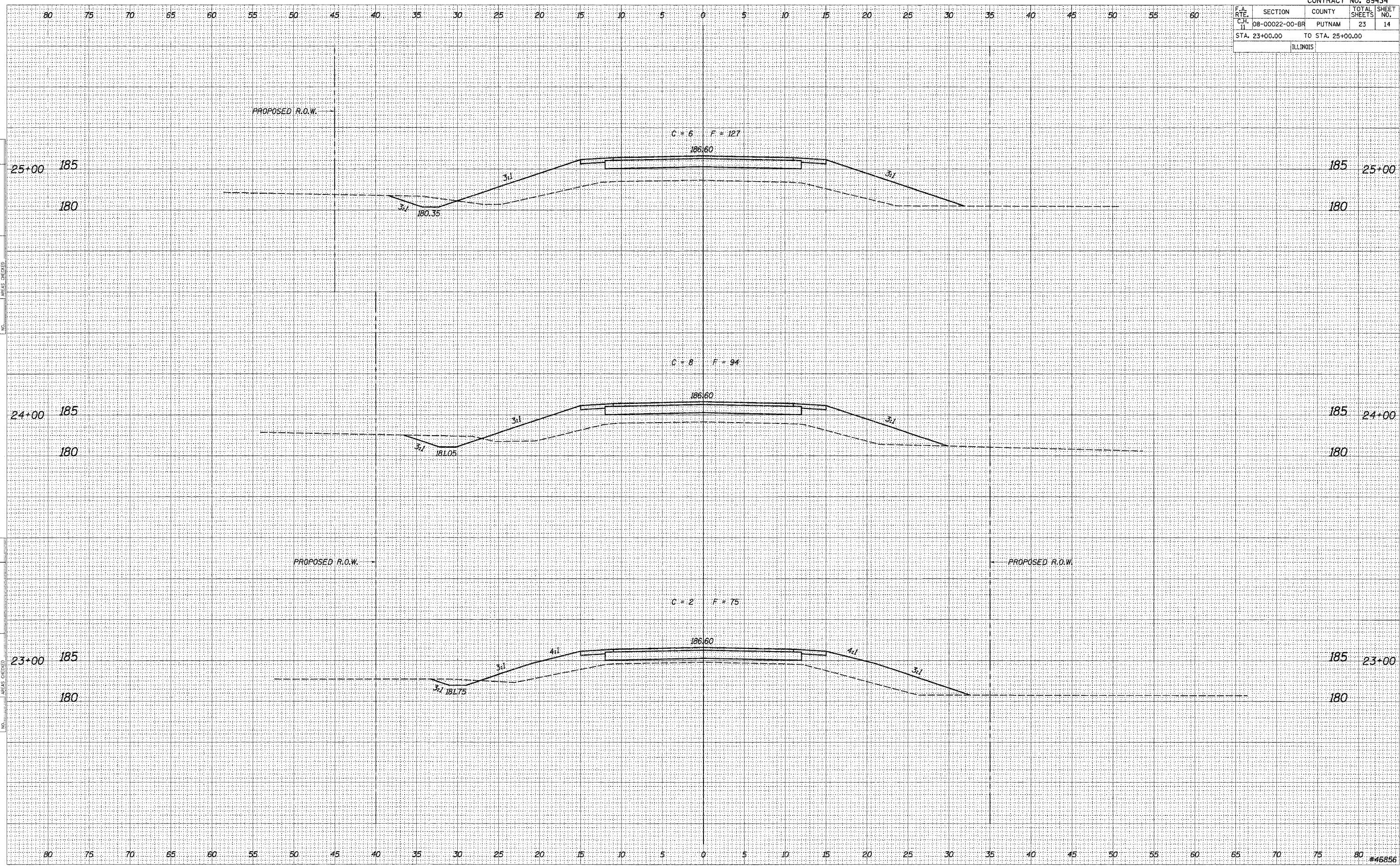
DATE	BY

ORIGINAL SURVEY	DATE

NO.	DATE	BY

NO.	DATE	BY

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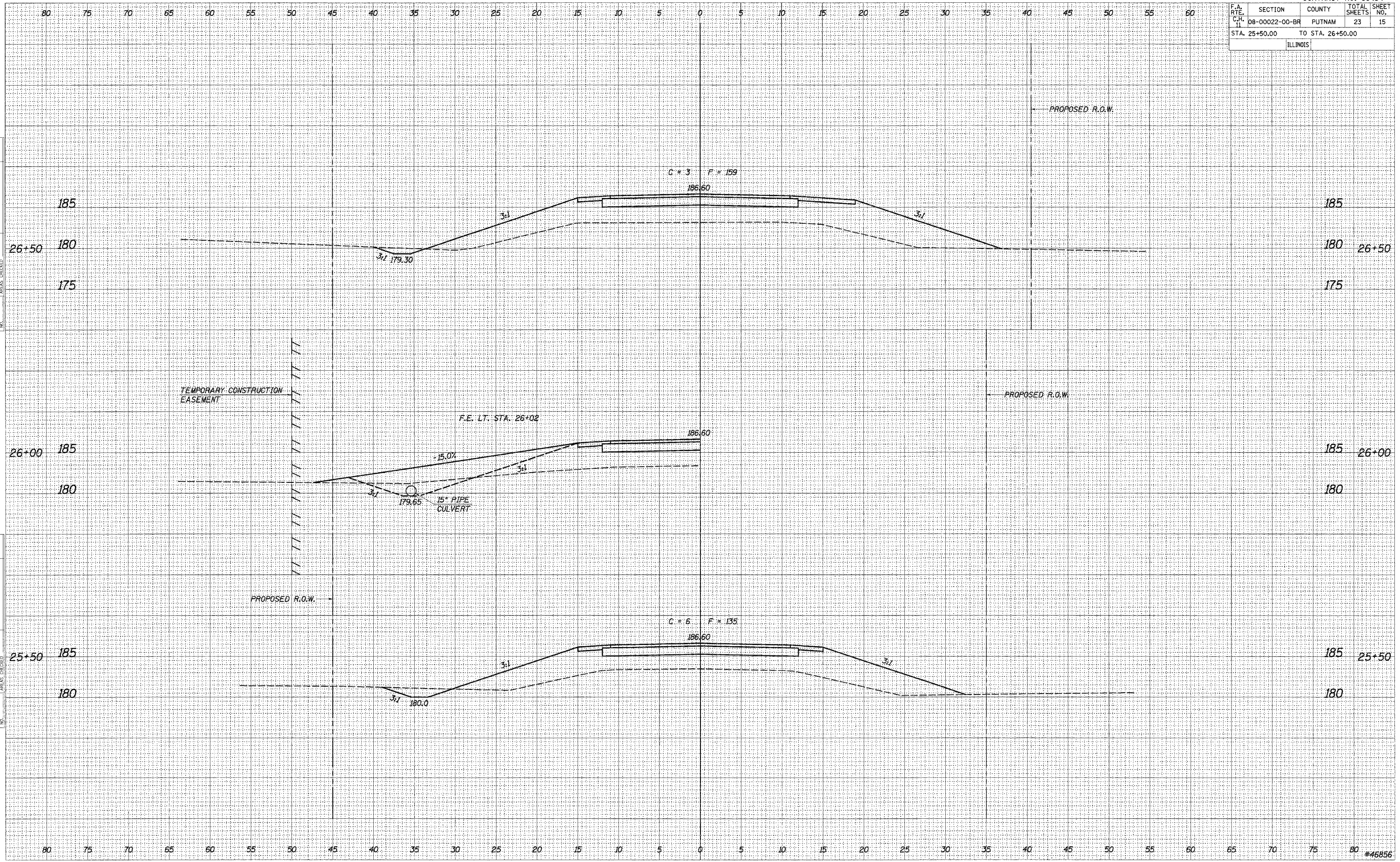


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08-00022-00-BR	PUTNAM	23	15	
STA. 25+50.00		TO STA. 26+50.00		
ILLINOIS				

DATE	BY
DESIGNED	PLOTTED
SURVEY	TEMPLATE
NOTE BOOK	AREAS CHECKED
NO.	

DATE	BY
DESIGNED	PLOTTED
SURVEY	TEMPLATE
NOTE BOOK	AREAS CHECKED
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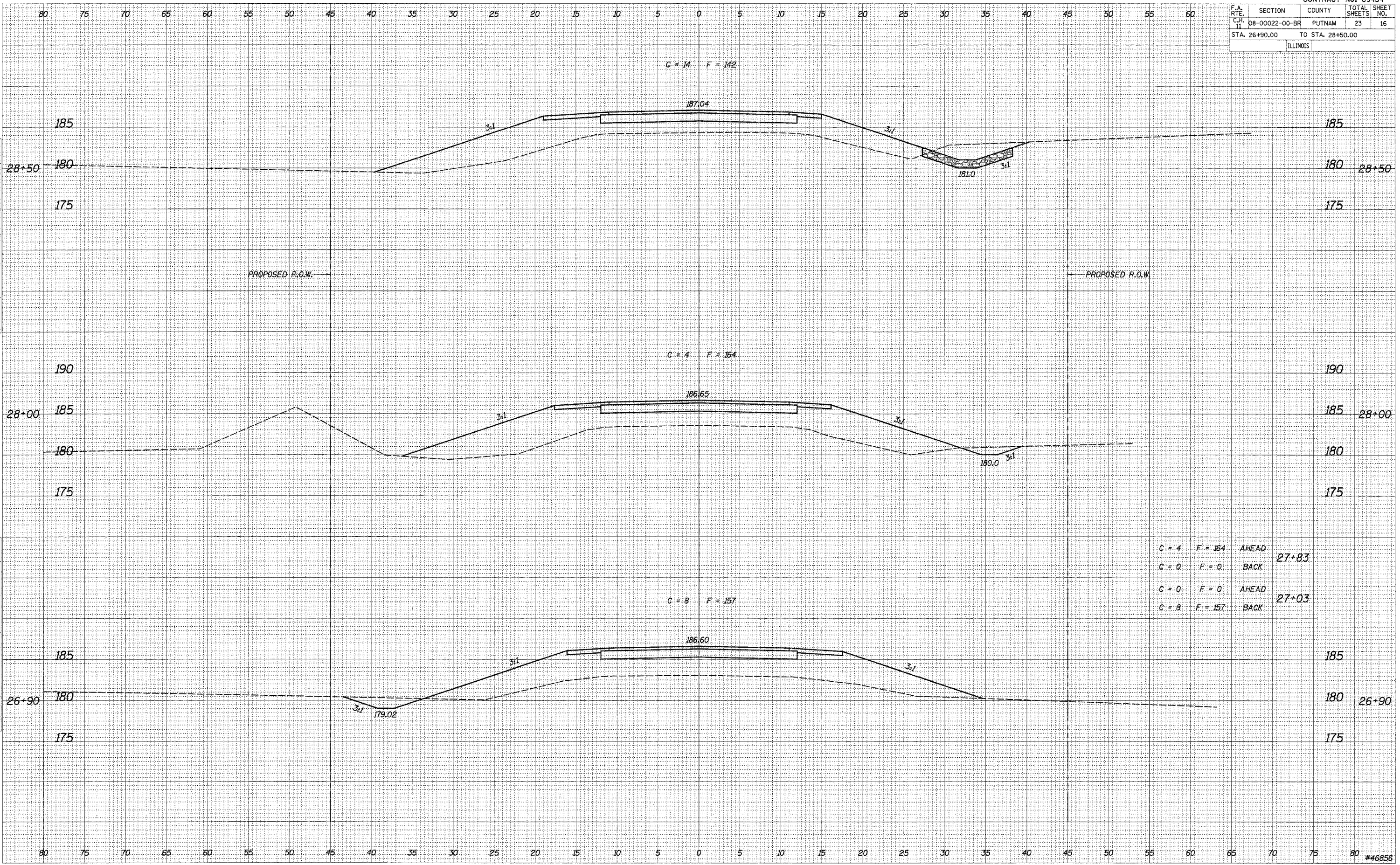


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STA. 26+90.00			TO STA. 28+50.00	
ILLINOIS				

DATE	
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PLOT DATE = 11/17/06
 FILE NAME = 4685SECTIONSHEET.DGN
 PLOT SCALE = 80
 USER NAME = S. PRICE



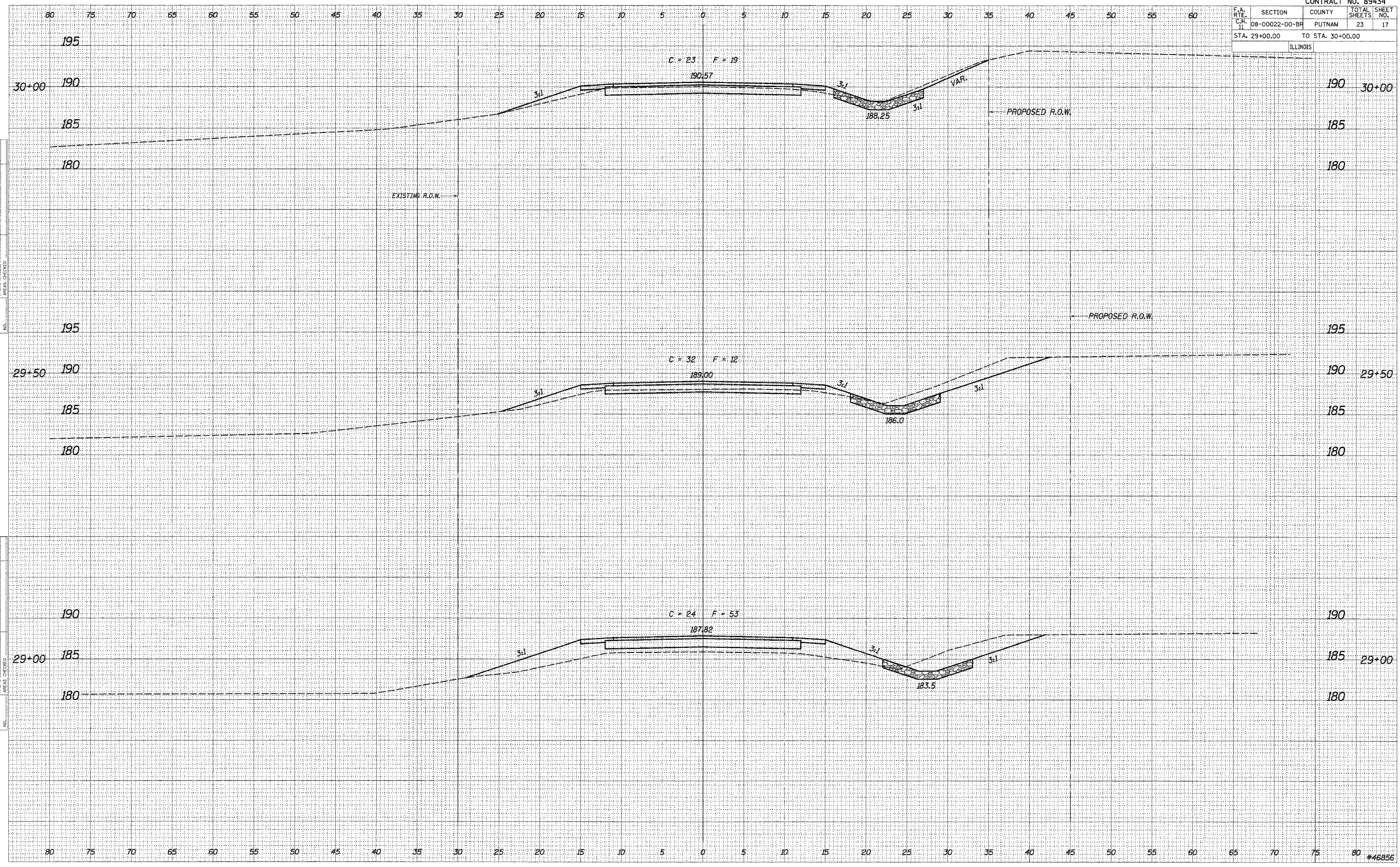
C = 4	F = 164	AHEAD	27+83
C = 0	F = 0	BACK	
C = 0	F = 0	AHEAD	27+03
C = 8	F = 157	BACK	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH. 11	08-00022-00-BR	PUTNAM	23	17
STA. 29+00.00		TO STA. 30+00.00		
ILLINOIS				

BY _____ DATE _____
 SURVEYED _____
 TEMPLATE _____
 AREAS CHECKED _____
 FINAL SURVEY NO. _____

BY _____ DATE _____
 SURVEYED _____
 TEMPLATE _____
 AREAS CHECKED _____
 ORIGINAL SURVEY NO. _____

PLOT DATE = 11/17/06
 FILE NAME = 4686SECTIONSHR02.DGN
 PLOT SCALE = 50
 USER NAME = S. PRICE

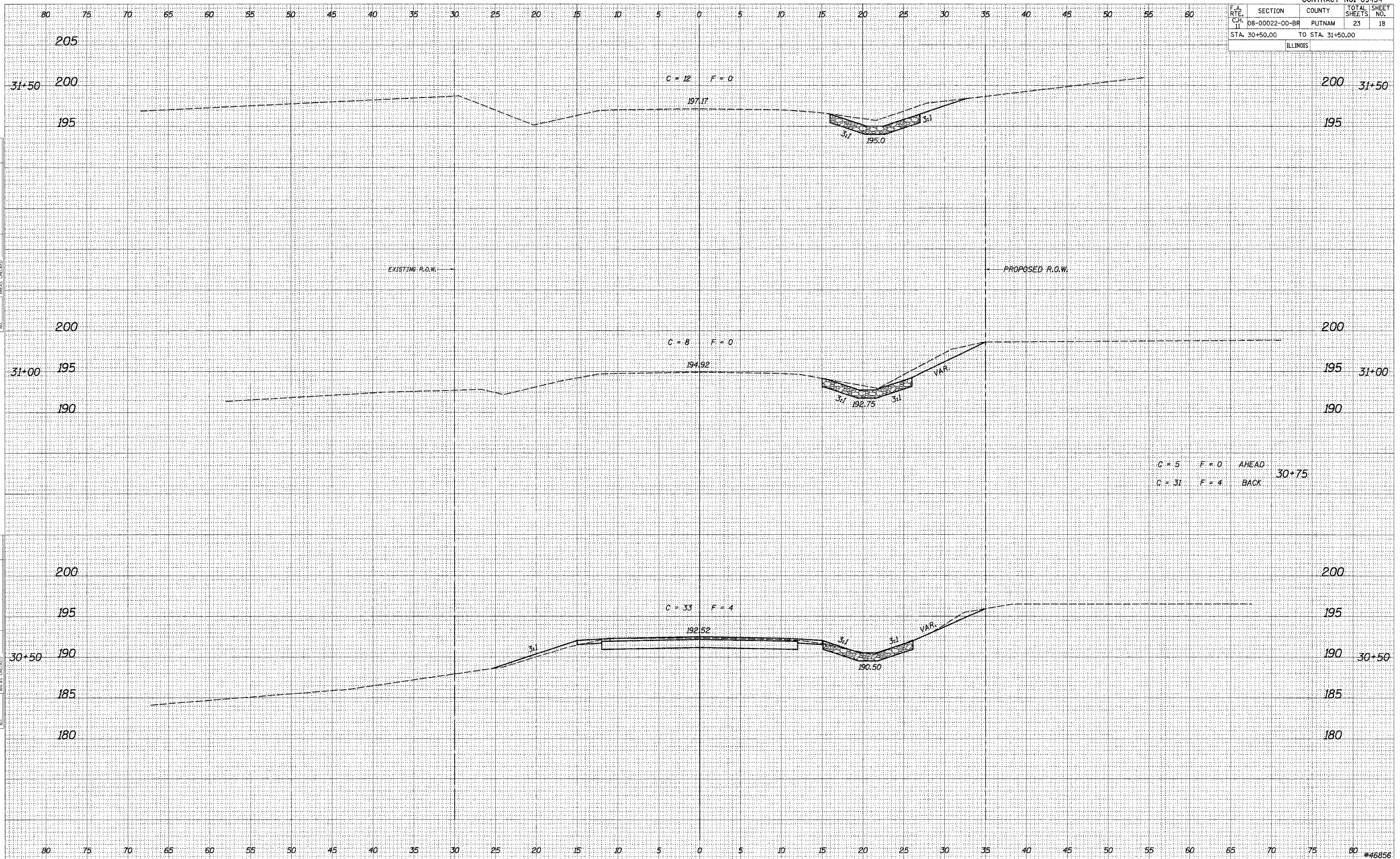


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	08-00022-00-BR	PUTNAM	23	18
STA. 30+50.00 TO STA. 31+50.00			ILLINOIS	

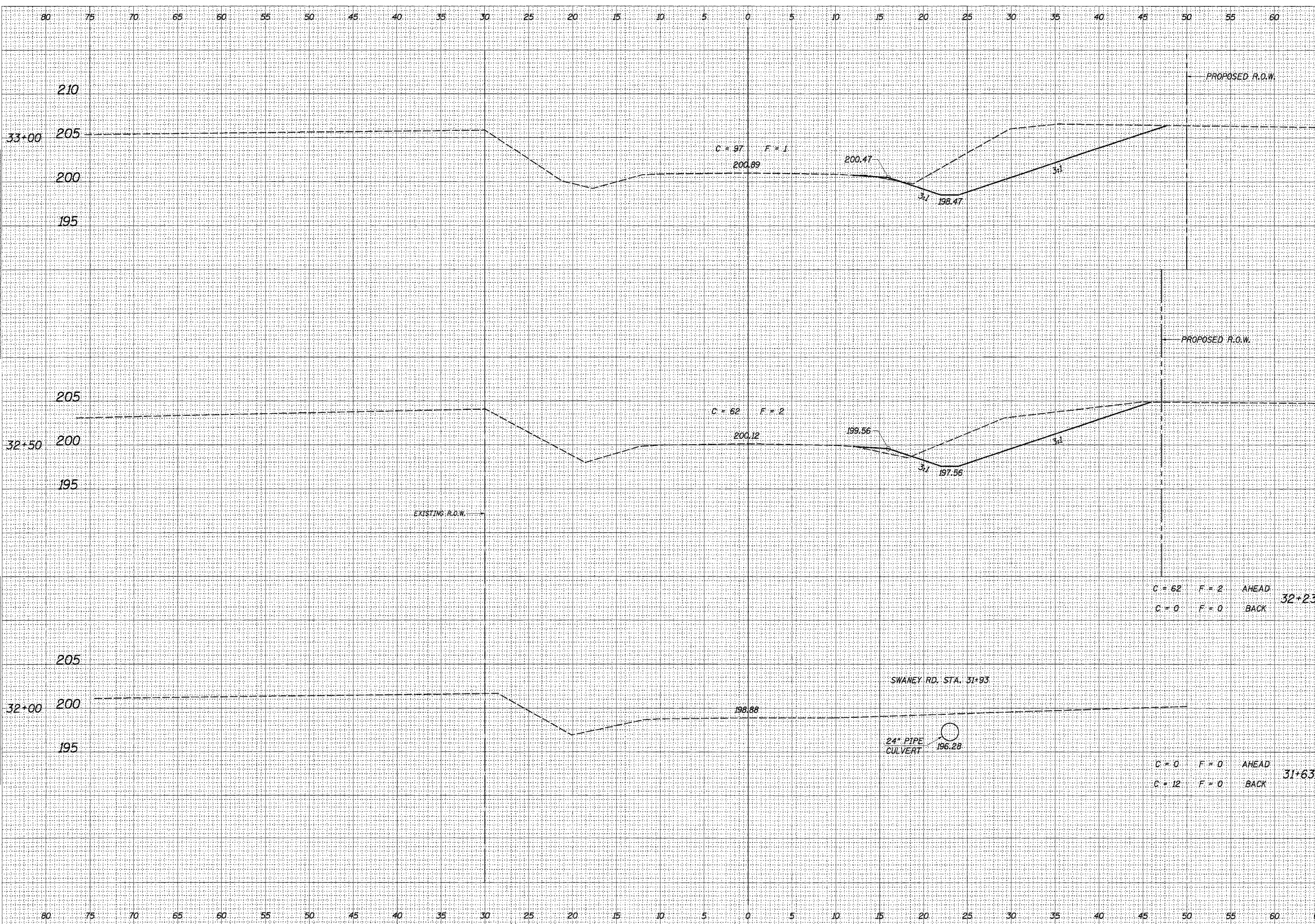
FINAL SURVEY
 SURVEYED _____ BY _____ DATE _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS CHECKED _____

ORIGINAL SURVEY
 SURVEYED _____ BY _____ DATE _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS CHECKED _____

PLOT DATE = 11/17/08
 FILE NAME = 4688SECTIONSHETL08N
 PLOT SCALE = 50
 USER NAME = S. PRICE



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
IL	08-00022-00-BR	PUTNAM	23	19
STA. 32+00.00 TO STA. 33+00.00				
FEB. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



BY: _____ DATE: _____

FINAL SURVEY PLOTTED
NOTE BOOK NO. _____

REMOVED SURVEY PLOTTED
NOTE BOOK NO. _____

TEMPLATES AREAS CHECKED

BY: _____ DATE: _____

ORIGINAL SURVEY PLOTTED
NOTE BOOK NO. _____

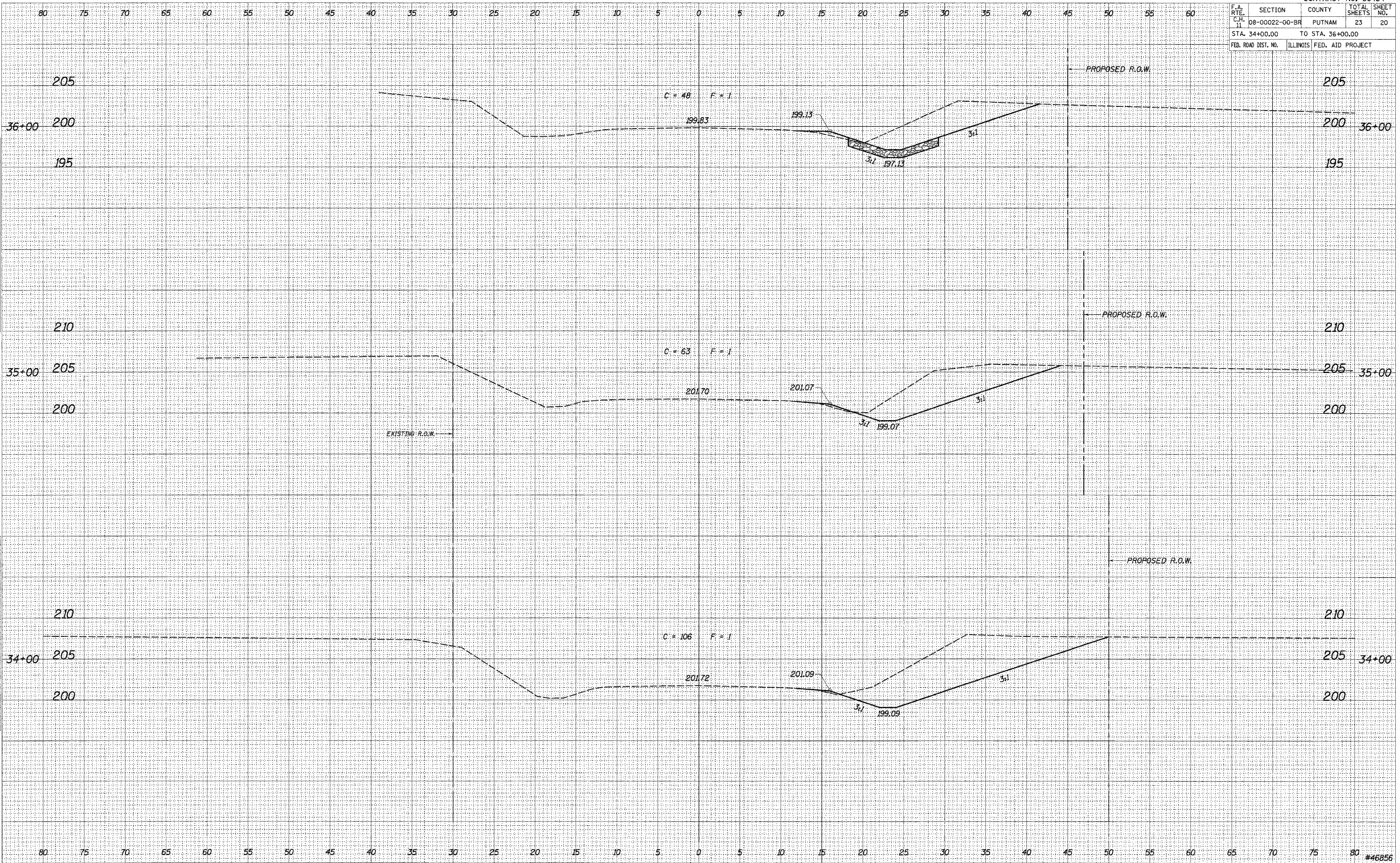
REMOVED SURVEY PLOTTED
NOTE BOOK NO. _____

TEMPLATES AREAS CHECKED

PLOT DATE = 11/17/06
FILE NAME = 46856SECTION19.DGN
PLOT SCALE = 50
USER NAME = S. PRICE

$C = 62$	$F = 2$	AHEAD	32+23
$C = 0$	$F = 0$	BACK	
$C = 0$	$F = 0$	AHEAD	31+63
$C = 12$	$F = 0$	BACK	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	08-00022-00-BR	PUTNAM	23	20
STA. 34+00.00		TO STA. 36+00.00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



DATE	BY
FINAL SURVEY	

DATE	BY
ORIGINAL SURVEY	

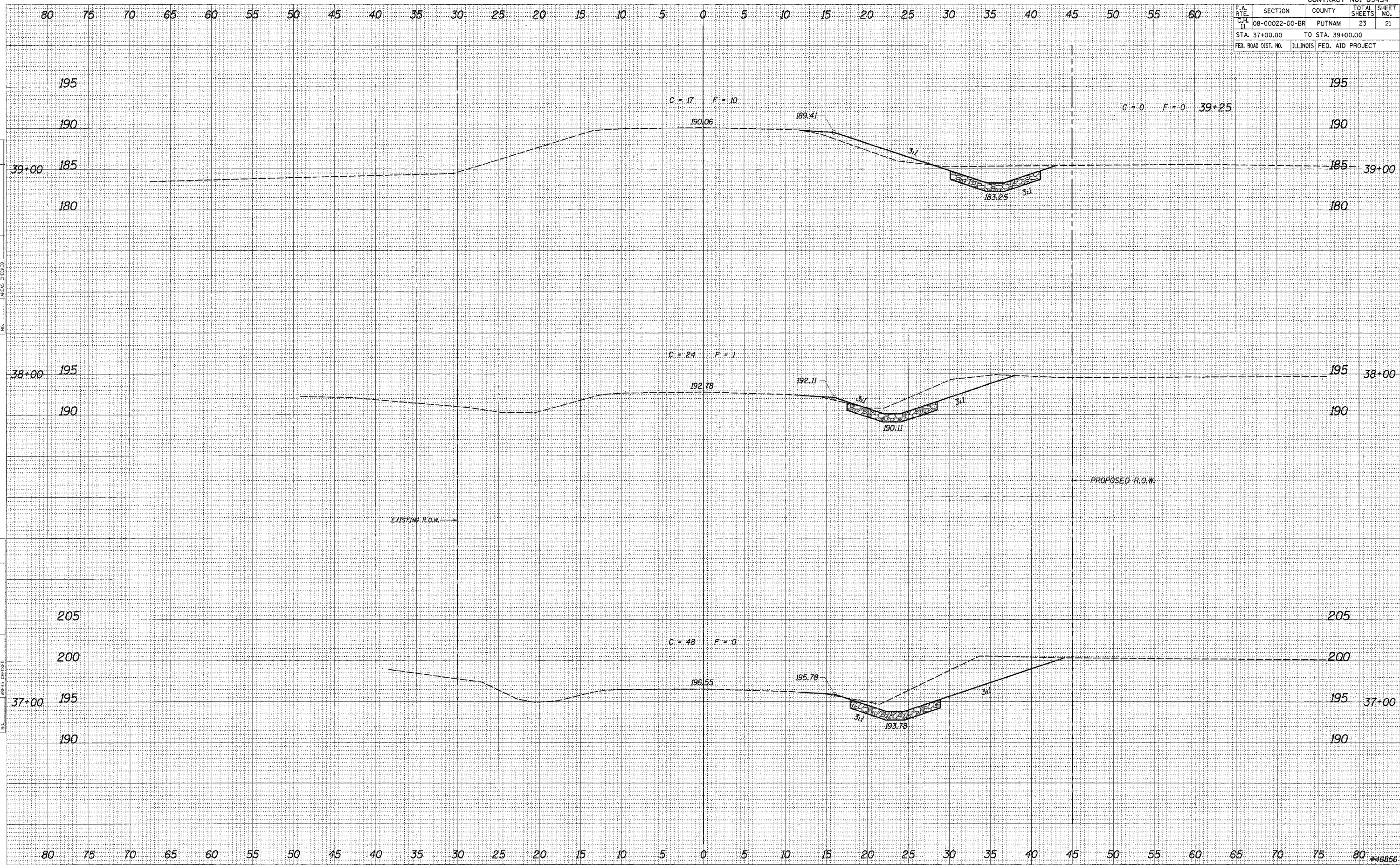
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 FILE NAME = 4685SECTIONSSHEET.DGN
 PLOT SCALE = 8"
 USER NAME = S. PRICE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
08-00022-00-BR	PUTNAM	23	21	
STA. 37+00.00		TO STA. 39+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
REVISIONS	
NO.	
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REVISIONS	
NO.	
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REVISIONS	
NO.	

PLOT DATE = 11/17/86
 FILE NAME = 4685SECTIONSHEET.DGN
 PLOT SCALE = 89
 USER NAME = G. PRICE

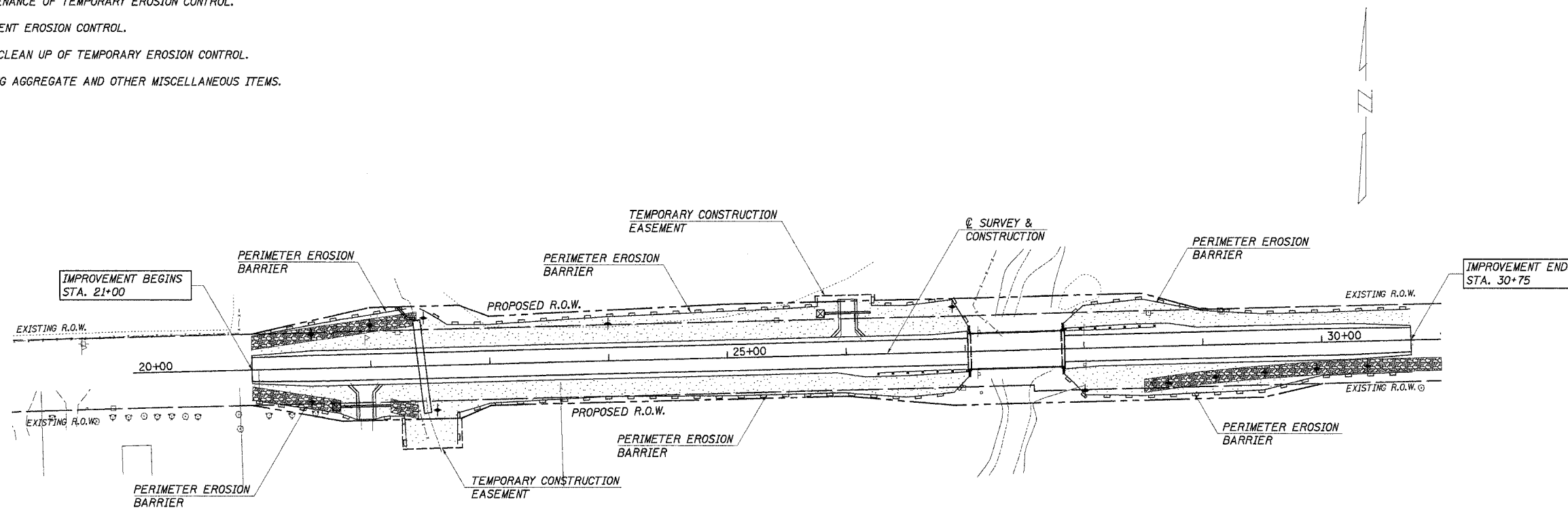


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022	PUTNAM	23	22
F.A.S. 254	-00-BR			
ILLINOIS				

CONTRACT NO. 89434

DESCRIPTION OF INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB EARTH AND LEAD TO POSSIBLE EROSION FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. PLACEMENT OF PERIMETER EROSION CONTROL BARRIER PRIOR TO THE COMMENCEMENT OF ANY ROAD OR BRIDGE WORK. SEE STD. 280001.
2. REMOVAL OF EXISTING STRUCTURE.
3. CONSTRUCTION OF THE REPLACEMENT STRUCTURE AND CROSS-ROAD DRAINAGE STRUCTURES
4. PLACEMENT OF ROADWAY EMBANKMENT TO RAISE THE ROADWAY TO THE PROPOSED GRADE.
5. DRAINAGE STRUCTURES, INCLUDING DITCHES, WILL BE INSTALLED BEFORE AND/OR DURING THE COMPLETION OF THE EMBANKMENT.
6. PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROL.
7. PLACEMENT OF PERMANENT EROSION CONTROL.
8. REMOVAL AND PROPER CLEAN UP OF TEMPORARY EROSION CONTROL.
9. FINAL GRADING, PLACING AGGREGATE AND OTHER MISCELLANEOUS ITEMS.



INLET AND PIPE PROTECTION

RT. STA. 21+75	= 1 EACH
LT. STA. 25+85	= 1 EACH
RT. STA. 32+30	= 1 EACH
TOTAL	= 3 EACH

TEMPORARY DITCH CHECKS

LT. & RT. STA. 21+50	= 2 EACH
LT. STA. 22+00	= 1 EACH
LT. & RT. STA. 22+45	= 2 EACH
LT. STA. 24+00	= 1 EACH
LT. STA. 26+90	= 1 EACH
RT. STA. 28+00	= 1 EACH
RT. STA. 28+70	= 1 EACH
RT. STA. 29+10	= 1 EACH
RT. STA. 29+50	= 1 EACH
RT. STA. 29+95	= 1 EACH
RT. STA. 30+38	= 1 EACH
RT. STA. 30+83	= 1 EACH
RT. STA. 31+27	= 1 EACH
RT. STA. 36+00	= 1 EACH
RT. STA. 36+60	= 1 EACH
RT. STA. 37+19	= 1 EACH
RT. STA. 37+74	= 1 EACH
RT. STA. 38+15	= 1 EACH
RT. STA. 38+44	= 1 EACH
RT. STA. 38+73	= 1 EACH
RT. STA. 39+00	= 1 EACH
TOTAL	= 23 EACH

TEMPORARY EROSION CONTROL:

- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION

PERMANENT EROSION CONTROL:

- SEEDING CLASS 2, FERTILIZERS, & MULCH, METHOD 2
- STONE RIPRAP DITCH

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
TEMPORARY EROSION CONTROL SEEDING	POUND	160
TEMPORARY DITCH CHECKS	EACH	23
PERIMETER EROSION BARRIER	FOOT	2,717
INLET AND PIPE PROTECTION	EACH	3

EROSION CONTROL PLAN

SECTION 08-00022-00-BR
PUTNAM COUNTY
COUNTY HIGHWAY 11
STATION 27+43

4440 ASH GROVE
SPRINGFIELD, IL 62711
(217) 793-8600
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
P.O. BOX 10000, SPRINGFIELD, IL 62707

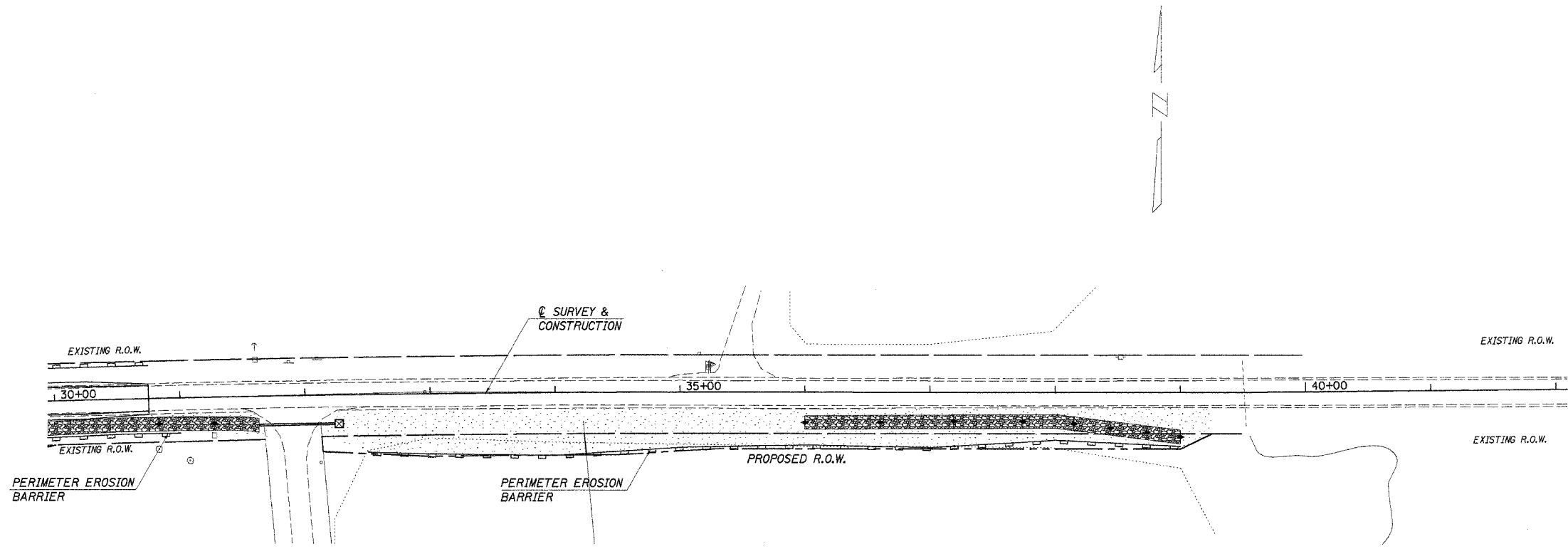
DRAWN: S.A.P.
DATE: 02/05/07

CHECKED: G.J.C.
DATE: 03/02/07

JOB NO.: 46856
FILE: EROSION.DGN
DATE: 04/17/07

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11 F.A.S. 254	08-00022 -00-BR	PUTNAM	23	23
ILLINOIS				

CONTRACT NO. 89434



<u>TEMPORARY EROSION CONTROL:</u>	
	PERIMETER EROSION BARRIER
	TEMPORARY DITCH CHECK
	INLET AND PIPE PROTECTION
<u>PERMANENT EROSION CONTROL:</u>	
	SEEDING CLASS 2, FERTILIZERS, & MULCH, METHOD 2
	STONE RIPRAP DITCH

EROSION CONTROL PLAN
SECTION 08-00022-00-BR
PUTNAM COUNTY
COUNTY HIGHWAY 11
STATION 27+43

4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS MEMPHIS, IL. ROCKFORD, IL. ROCHELLE, IL. MONROE, WI. SPRINGFIELD, IL.	DRAWN: S.A.P. DATE: 02/07/07	CHECKED: G.J.C. DATE: 03/2/07	JOB NO.: 46856 FILE: EROSION2.DGN DATE: 04/17/07
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