

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3 FAS 2192	07-00188 -00-BR	WHITESIDE	32	1
ILLINOIS			85465	

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

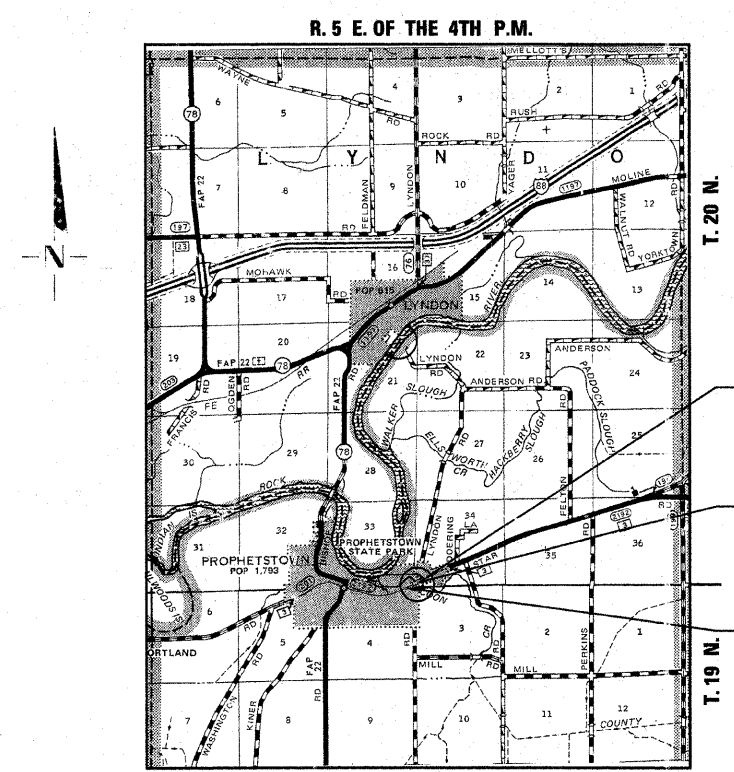
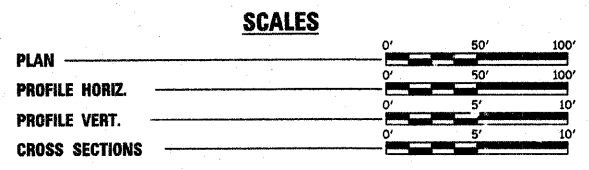
SECTION 07-00188-00-BR
WHITESIDE COUNTY
PROJECT NO. BRS-2192(104)
C.H. 3 (FAS 2192)
C-92-053-08
CONTRACT NO. 85465

INDEX OF SHEETS

SHEET NO.	TITLE
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES, GENERAL NOTES & TYPICAL SECTIONS
3.	PLAN AND PROFILE SHEET (C.H. 3)
4.	PLAN AND PROFILE SHEET (LYNDON RD.)
5.	GUARDRAIL AND SHOULDER DETAILS
6.-27.	BRIDGE PLANS
28.-31.	STATION CROSS SECTIONS
32.	EROSION CONTROL PLAN

STANDARDS

280001-04	TEMPORARY EROSION CONTROL SYSTEMS
420401-07	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
630001-08	STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-04	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701006-03	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-01	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A AND 3 METAL POSTS (FOR SIGNS AND MARKERS)
780001-02	TYPICAL PAVEMENT MARKINGS
BLR 21-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS



LOCATION PLAN

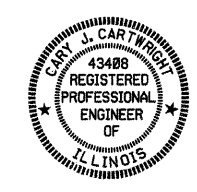
GROSS LENGTH OF SECTION = 555.00 FEET = 0.105 MILES
NET LENGTH OF SECTION = 555.00 FEET = 0.105 MILES

SCALE IN MILES

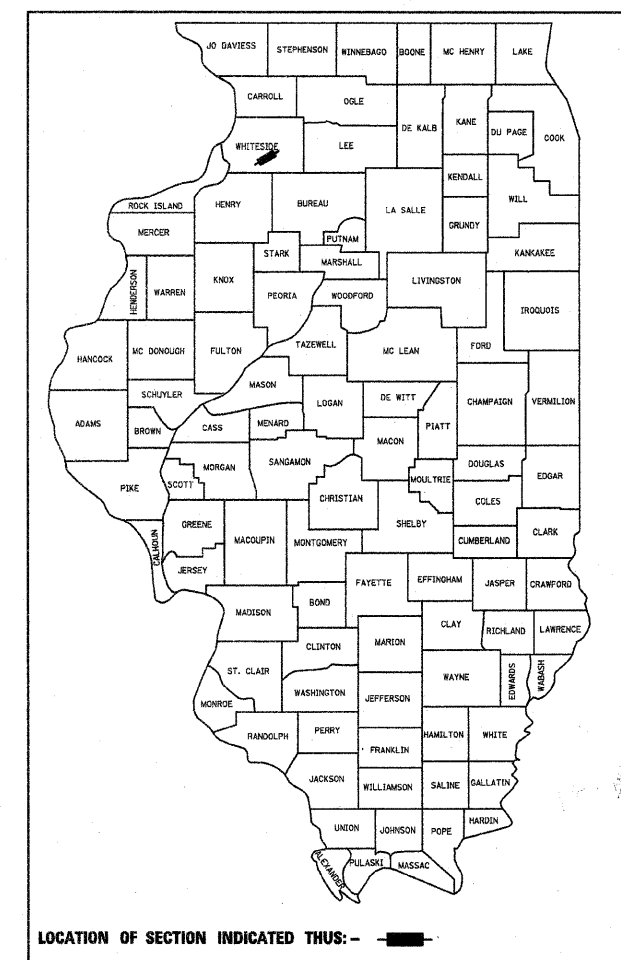
**IMPROVEMENT ENDS
STA. 50 + 55**

**STA. 48 + 02.50 - SPECIAL BRIDGE DESIGN
STEEL WIDE FLANGE (COMPOSITE)
BRIDGE, THREE SPANS AT 37'-0", 59'-0", 37'-0";
36'-0" ROADWAY; 135'-6" BK.-BK., 0° SKEW
EXISTING S.N. 098-0046
PROPOSED S.N. 098-3076**

**IMPROVEMENT BEGINS
STA. 45 + 00**



Cary J. Cartwright 8-20-09
ILLINOIS PROFESSIONAL NO. 36874
EXPIRES 11-30-09



CLASSIFICATION: MAJOR COLLECTOR - RURAL
DESIGN VOLUME: 1000-3000 ADT
CURRENT ADT: 2750 (2008)
DESIGN SPEED: 55 MPH

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

APPROVED	<i>Steve J. Haring</i>	2009
COUNTY ENGINEER		
PASSED	<i>[Signature]</i>	20
DISTRICT TWO ENGINEER OF LOCAL ROADS & STREETS		
RELEASED FOR BID BASED ON LIMITED REVIEW	<i>[Signature]</i>	20
DEPUTY DIRECTOR OF HIGHWAYS, REGION TWO ENGINEER		
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		

CONTRACT NO. 85465

4440 ASH GROVE
SPRINGFIELD, IL 62711
(217) 793-9600
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PROPHETSTOWN, ILLINOIS

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: X071-2A

NUMBER	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	66
20300100	CHANNEL EXCAVATION	CU YD	2,025
20700400	POROUS GRANULAR EMBANKMENT (SPECIAL)	CU YD	92
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	45
28000400	PERIMETER EROSION BARRIER	FOOT	1,060
28100207	STONE RIPRAP, CLASS A4	TON	374
28200200	FILTER FABRIC	SQ YD	445
35501320	HOT-MIX ASPHALT BASE COURSE, 9"	SQ YD	1,200
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	222
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	186
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	93
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	48
44000100	PAVEMENT REMOVAL	SQ YD	1,612
48100100	AGGREGATE SHOULDERS, TYPE A	TON	248
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	224
50300225	CONCRETE STRUCTURES	CU YD	80.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	257.2
50300260	BRIDGE DECK GROOVING	SQ YD	739
50300280	CONCRETE ENCASEMENT	CU YD	57.9
50300300	PROTECTIVE COAT	SQ YD	1,077
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	3,222
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	68,910
50800515	BAR SPLICERS	EACH	72
50901050	STEEL RAILING, TYPE SM	FOOT	331
51201800	FURNISHING STEEL PILES HP14X73	FOOT	2,337
51202305	DRIVING PILES	FOOT	2,337
51203800	TEST PILE STEEL HP14X73	EACH	2
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	24
52100530	ANCHOR BOLTS, 1/4"	EACH	24
56109210	WATER VALVES TO BE ADJUSTED	EACH	2
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	61
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4
60109580	PIPE UNDERDRAINS FOR STRUCTURE 4"	FOOT	140
60255500	MANHOLES TO BE ADJUSTED	EACH	1
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	12.5
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	460
63300725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	75
67100100	MOBILIZATION	L SUM	1
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,153
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1

*SEE SPECIAL PROVISIONS

△ SPECIALTY ITEMS

PAVEMENT DESIGN

STRUCTURAL DESIGN TRAFFIC (S.D.T.): YEAR 2018; P.V. = 4,123, S.U. = 85, M.U. = 42
CLASS II ROAD

MINIMUM SOIL SUPPORT: I.B.R. = 3.0 (ASSUMED) (> 3 K.S.I.)

PERCENT OF S.D.T. IN DESIGN LANE P = 50%, S = 50%, M = 50%
T.F. = 0.26

TEMP. = 78.4° F.; E_{ac} = 500; DESIGN STRAIN = 220

APPLICATION RATES USED IN QUANTITY CALCULATIONS

STONE RIPRAP, CLASS A4	1.65 TON/CU YD
AGGREGATE SHOULDERS	2.05 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT) ON H.M.A.	0.10 GAL/SQ YD
HOT-MIX ASPHALT, BASE, BINDER AND SURFACE COURSE	112*/SQ YD/IN

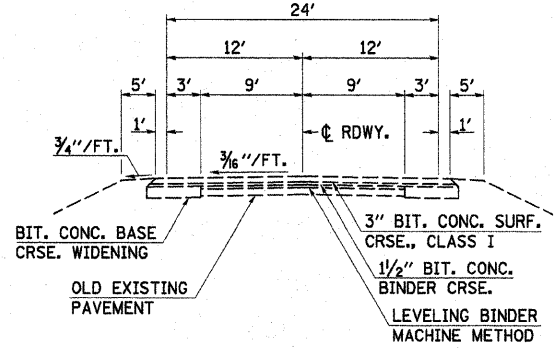
GENERAL NOTES

THE EXISTING STRUCTURE MUST BE REMOVED IN A MANNER THAT WILL PREVENT PORTIONS OF THE EXISTING BRIDGE FROM FALLING INTO COON CREEK AND LIMIT THE DEGREE TO WHICH DEBRIS AND BROKEN CONCRETE ENTERS THE CREEK. SEE SPECIAL PROVISIONS.

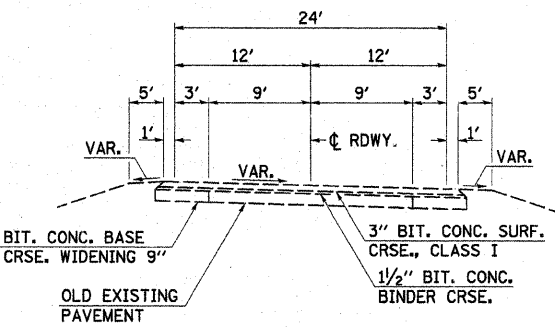
WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

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

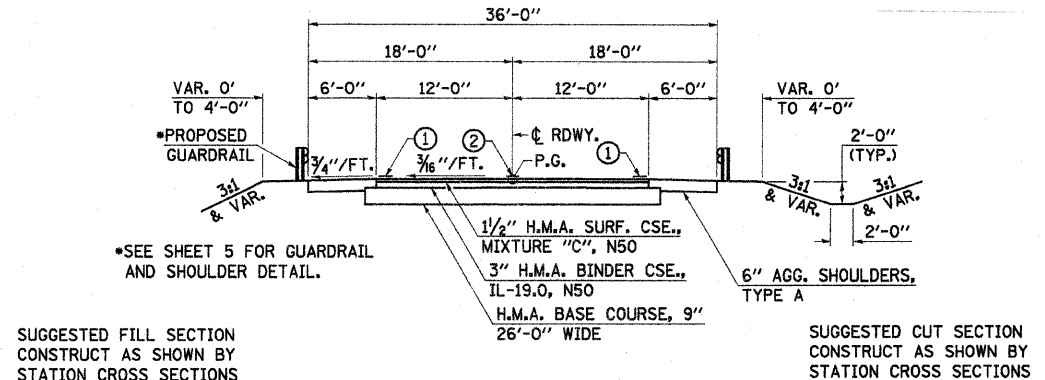
SEEDING, CLASS 2 (SPECIAL) = 0.25 ACRE



EXISTING TYPICAL CROSS SECTION #1
STA. 45+00 TO STA. 48+26



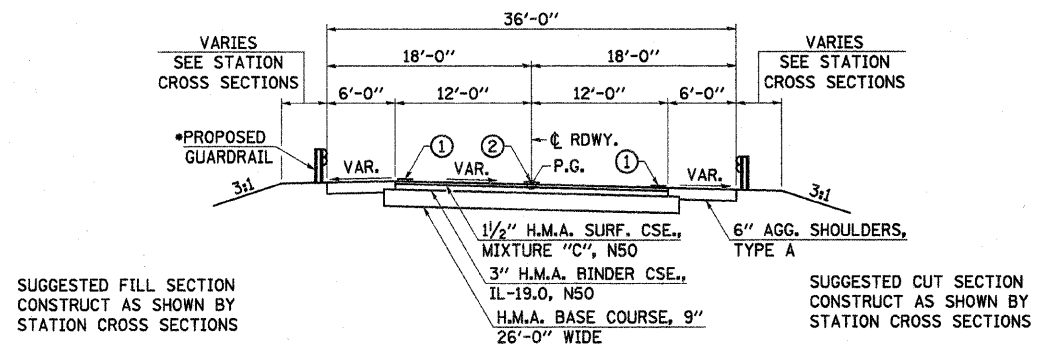
EXISTING TYPICAL CROSS SECTION #2
STA. 48+26 TO STA. 50+55



TYPICAL PROPOSED CROSS SECTION #1
STA. 45+50 TO STA. 46+98.75
TRANSITION FROM EXISTING PAVEMENT WIDTH STA. 45+00 TO PROPOSED AT STA. 45+50

SUGGESTED FILL SECTION CONSTRUCT AS SHOWN BY STATION CROSS SECTIONS

SUGGESTED CUT SECTION CONSTRUCT AS SHOWN BY STATION CROSS SECTIONS



TYPICAL PROPOSED CROSS SECTION #2
TRANSITION FROM NORMAL CROWN STA. 48+26 TO S.E. 0.026'/' AT STA. 49+76 AND FROM S.E. 0.026'/' AT STA. 49+76 TO EXISTING S.E. STA. 50+55

SUGGESTED FILL SECTION CONSTRUCT AS SHOWN BY STATION CROSS SECTIONS

SUGGESTED CUT SECTION CONSTRUCT AS SHOWN BY STATION CROSS SECTIONS

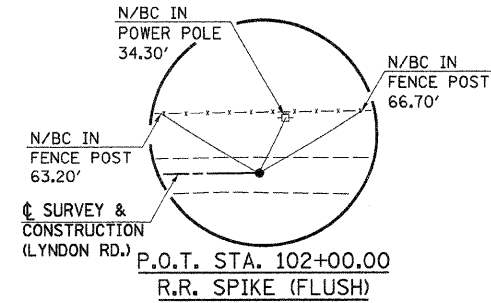
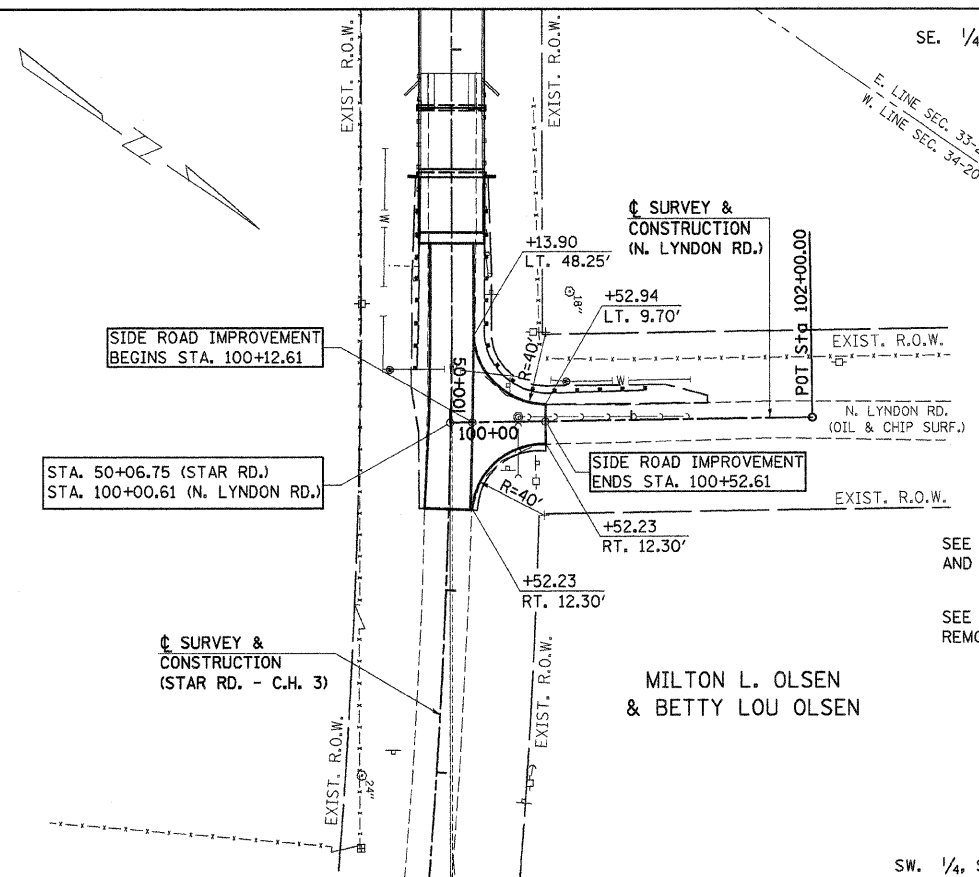
- ① SOLID WHITE PAINT PAVEMENT MARKING - LINE 4"
- ② SKIP-DASH YELLOW PAINT PAVEMENT MARKING - LINE 4"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
MIXTURE USE(S)	SURFACE	BINDER	BIT. BASE COURSE
PG _s	PG 58-22	PG 58-22	PG 58-22
DESIGN AIR VOIDS _s	3.0 @ N50	3.0 @ N50	2 @ N50
MIXTURE COMPOSITION _s (GRADATION MIXTURE)	IL 9.5 OR 12.5	IL 19.0	BAM
FRICTION AGGREGATE	C	N/A	N/A
20 YEAR ESAL	0.0	0.0	N/A
MIX UNIT WEIGHT	112 LBS/SY/IN		

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	H.M.A. BASE COURSE, 9"	H.M.A. BINDER CSE., IL-19.0, N50	H.M.A. SURFACE CSE., MIXTURE "C", N50	AGGREGATE SHOULDERS, TYPE A	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) WIDTH 36'
	GALLON	TON	TON	TON	TON	SQ YD
STA. 45+00 TO STA. 46+98.75	108	580	90	45		
STA. 49+06.25 TO STA. 50+55	80	432	67	33.5		
N. LYNDON ROAD	34	188	29	14.5		
LT. STA. 45+00 TO LT. STA. 47+34.75					61	
RT. STA. 45+00 TO RT. STA. 47+34.75					61	
LT. STA. 48+70.25 TO LT. STA. 50+55					75	
RT. STA. 48+70.25 TO RT. STA. 50+55					51	
STA. 46+98.75 TO STA. 47+04.75						24
STA. 49+00.25 TO STA. 49+06.25						24
TOTAL	222	1200	186	93	248	48

SE. 1/4, SEC. 33, T. 20 N., R. 5 E., 4TH P.M.
I.D.N.R.

ANITA OETZEL
SW. 1/4, SEC. 34, T. 20 N., R. 5 E., 4TH P.M.



SEE SHEET 5 FOR SHOULDER AND GUARDRAIL DETAILS.

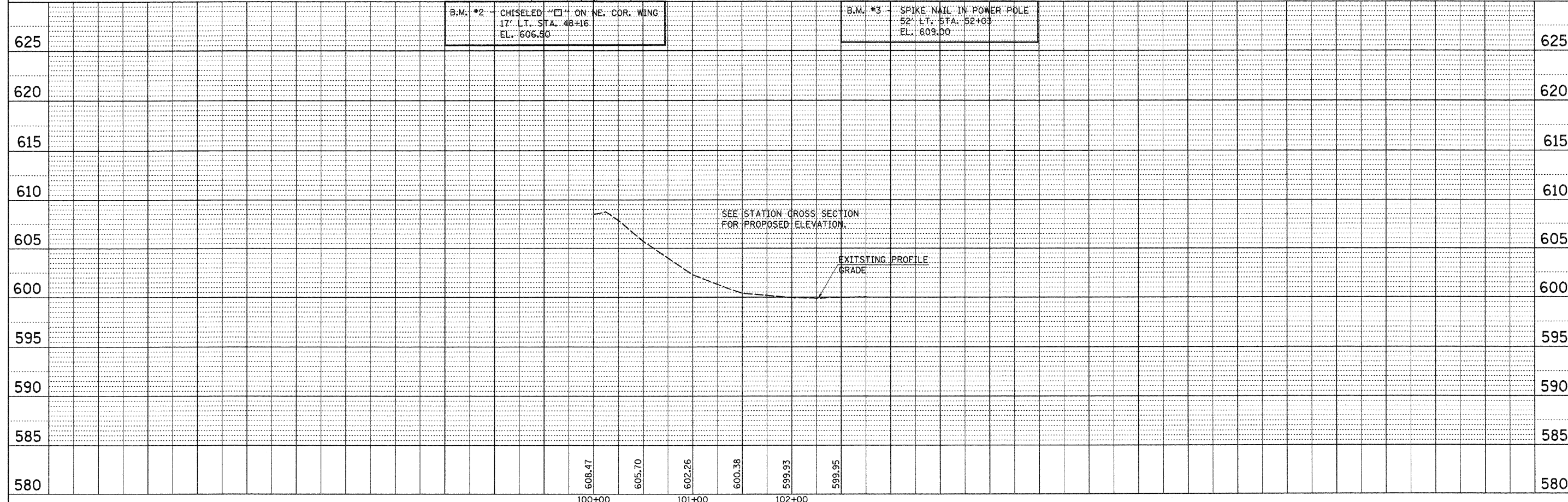
SEE SHEET 3 FOR PAVEMENT REMOVAL.

MILTON L. OLSEN
& BETTY LOU OLSEN

UTILITIES

COM ED	
TOM STUTZMAN	630-437-2236
FRONTIER COMMUNICATIONS	
BILL DANIEL	402-250-1095
NICOR GAS	
UTILITY CONSULTANT G03W	630-388-2362
CITY OF PROPHETSTOWN	
PAUL HUMMEL	815-537-5598
MEDIA COM	
JAKE BYOD	563-243-6350

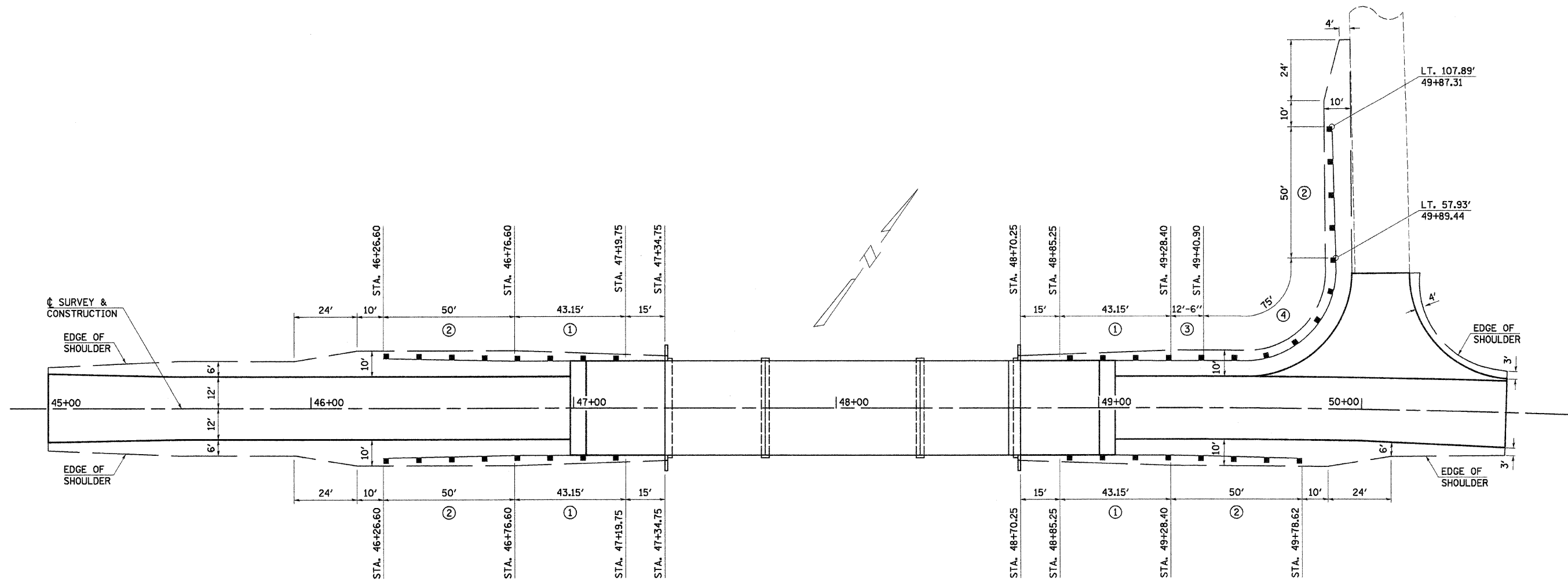
SW. 1/4, SEC. 34, T. 20 N., R. 5 E., 4TH P.M.



DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY

FILE NAME = 47515P&P\LYNDON RD.DGN	USER NAME = S.A.P.	DESIGNED - G.J.C.	REVISED - 4/10/09	<p>FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS FREEPORT, IL ROCKFORD, IL ROCHELLE, IL MONROE, WI SPRINGFIELD, IL</p>	<p>PLAN AND PROFILE N. LYNDON RD.</p>	F.A. RTE. C.H. 3	SECTION 07-00188-00-BR	COUNTY WHITESIDE	TOTAL SHEETS 32	SHEET NO. 4
PLOT SCALE =	CHECKED - R.J.C.	REVISED -	SCALE:			STA. 100+00 TO STA. 102+00	N. LYNDON ROAD		CONTRACT NO. 85465	
PLOT DATE = 03/18/08	DATE - 2/23/09	REVISED -					ILLINOIS			



SHOULDER AND GUARDRAIL DETAIL

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POST

18' LT. STA. 49+28.40 TO 18' LT. STA. 49+40.90 = 12.5 FOOT
 TOTAL = 12.5 FOOT

TRAFFIC BARRIER TERMINAL, TYPE 6A

18' LT. STA. 46+76.40 TO 18' LT. STA. 47+19.75 = 1 EACH
 18' RT. STA. 46+76.40 TO 18' RT. STA. 47+19.75 = 1 EACH
 18' LT. STA. 48+85.25 TO 18' LT. STA. 49+28.40 = 1 EACH
 18' RT. STA. 48+85.25 TO 18' RT. STA. 49+28.40 = 1 EACH
 TOTAL = 4 EACH

TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGNET

19' LT. STA. 46+26.60 TO 18' LT. STA. 46+76.60 = 1 EACH
 19' RT. STA. 46+26.60 TO 18' RT. STA. 46+76.60 = 1 EACH
 18' LT. STA. 49+28.40 TO 19' RT. STA. 49+78.62 = 1 EACH
 57.93' LT. STA. 49+89.44 TO 107.89' LT. STA. 49+87.31 = 1 EACH
 TOTAL = 4 EACH

STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)

18' LT. STA. 49+40.90 TO 57.93' LT. STA. 49+89.44 = 75 FOOT
 TOTAL = 75 FOOT

LEGEND

NOTE: ALL DIMENSIONS REFER TO THE FRONT FACE OF THE PROPOSED RAILING.

- ① TRAFFIC BARRIER TERMINAL, TYPE 6A
- ② TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGNET
- ③ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POST
- ④ STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)

FILE NAME =	DESIGNED - G.J.C.	REVISED - 4/10/09
47516_SUMTYP.DGN	DRAWN - S.A.P.	REVISED -
	CHECKED - G.J.C.	REVISED -
	DATE - 3/20/09	REVISED -

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



SHOULDER AND GUARDRAIL DETAIL

SCALE: 1"=20'

PROPOSED STRUCTURE @ STA. 48+02.50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	5
			CONTRACT NO. 85465	
ILLINOIS				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	7
		ILLINOIS		

Sheet 2 of 22 Contract No. 85465

GENERAL NOTES

Fasteners shall be high strength bolts (AASHTO M 164, Type 3). Bolts $\frac{7}{8}$ " ϕ , open holes $\frac{15}{16}$ " ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 96,480 Pound AASHTO M270 Grade 50W

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

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

Anchor Bolts shall be set before bolting diaphragms over supports.

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

Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

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

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

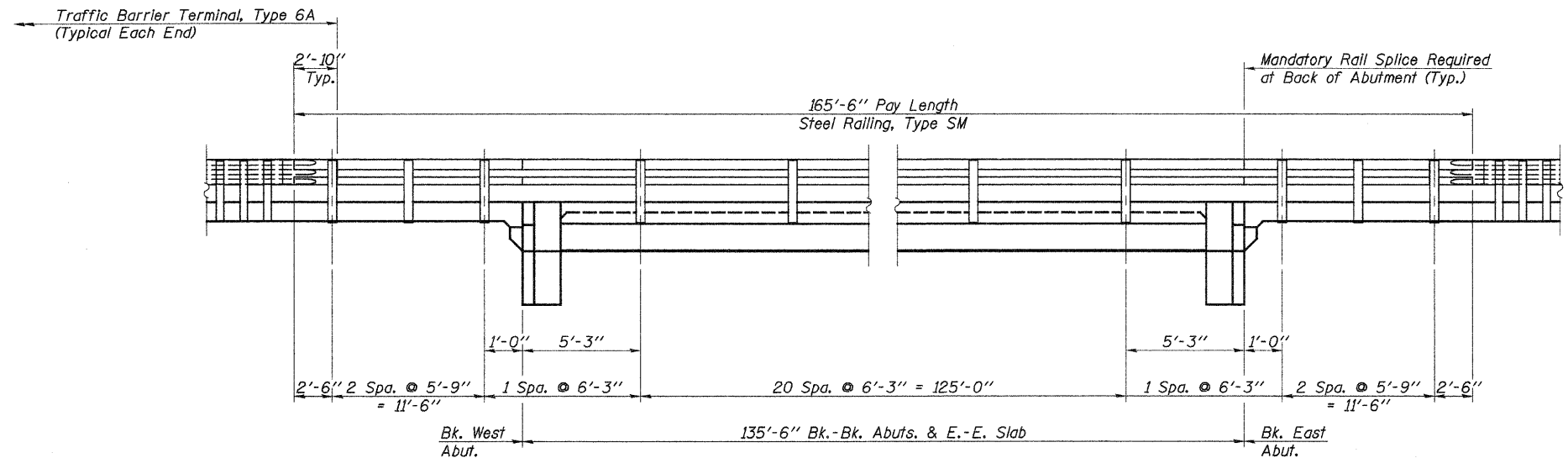
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimension of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The contractor shall drive one steel HP14x73 test pile in a permanent location at the west abutment & one steel HP14x73 test pile at pier #2 as directed by the Engineer before ordering the remainder of piles.

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

All exposed portions of abutments, wing walls, and piers shall receive a rubbed finish in accordance with Article 503.15 (b) of the standard specifications. Cost to be included in cost of Concrete Structures.

See Proposal Booklet for Soil Boring Data.



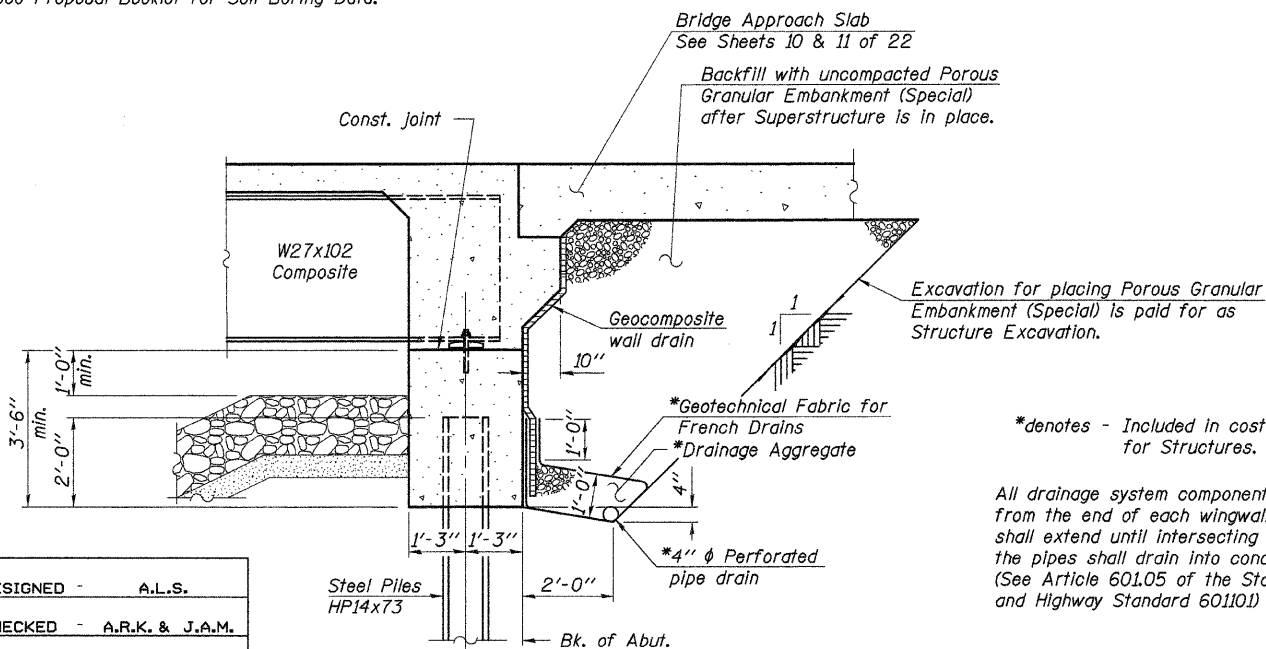
RAIL POST SPACING

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, (Special)	Cu. Yd.		92	92
Stone Riprap, Class A4	Ton		374	374
Filter Fabric	Sq. Yd.		445	445
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		224	224
Concrete Structures	Cu. Yd.		80.1	80.1
Concrete Superstructure	Cu. Yd.	257.2		257.2
Bridge Deck Grooving	Sq. Yd.	739		739
Protective Coat	Sq. Yd.	1,063	14	1,077
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3,222		3,222
Reinforcement Bars, Epoxy Coated	Pound	61,910	7,000	68,910
Steel Railing, Type SM	Foot	331		331
Furnishing Steel Piles HP14x73	Foot		2,337	2,337
Driving Piles	Foot		2,337	2,337
Test Piles, HP14x73	Each		2	2
Concrete Encasement	Cu. Yd.		57.9	57.9
Name Plates	Each	1		1
Pipe Underdrains for Structure 4"	Foot		140	140
Geocomposite Wall Drain	Sq. Yd.		61	61
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1
Bar Splicers	Each	72		72
Concrete Headwalls for Pipe Drains	Each		4	4
Anchor Bolts 1" ϕ	Each		24	24
Anchor Bolts 1 1/4" ϕ	Each		24	24

COON CREEK
BUILT 200_ BY
WHITESIDE COUNTY
SEC. 07-00188-00-BR
F.A.S. RT. 2192
STR. NO. 098-3076
LOADING HL-93

LETTERING FOR NAME PLATE
See Std. 515001



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

DESIGNED -	A.L.S.
CHECKED -	A.R.K. & J.A.M.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

*denotes - Included in cost of Pipe Underdrains for Structures.

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)

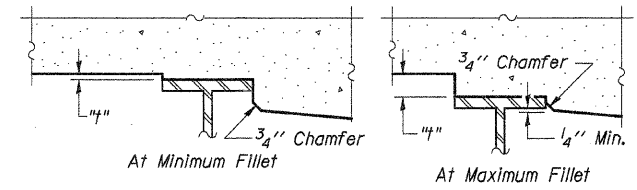
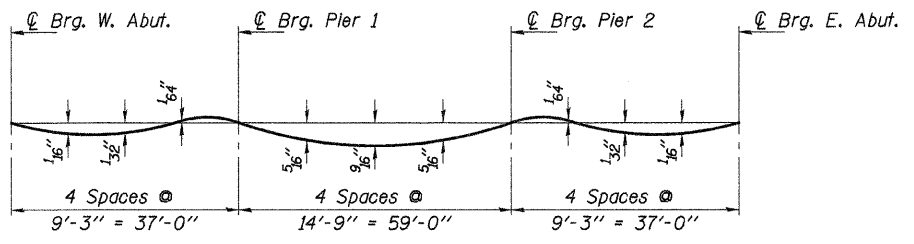
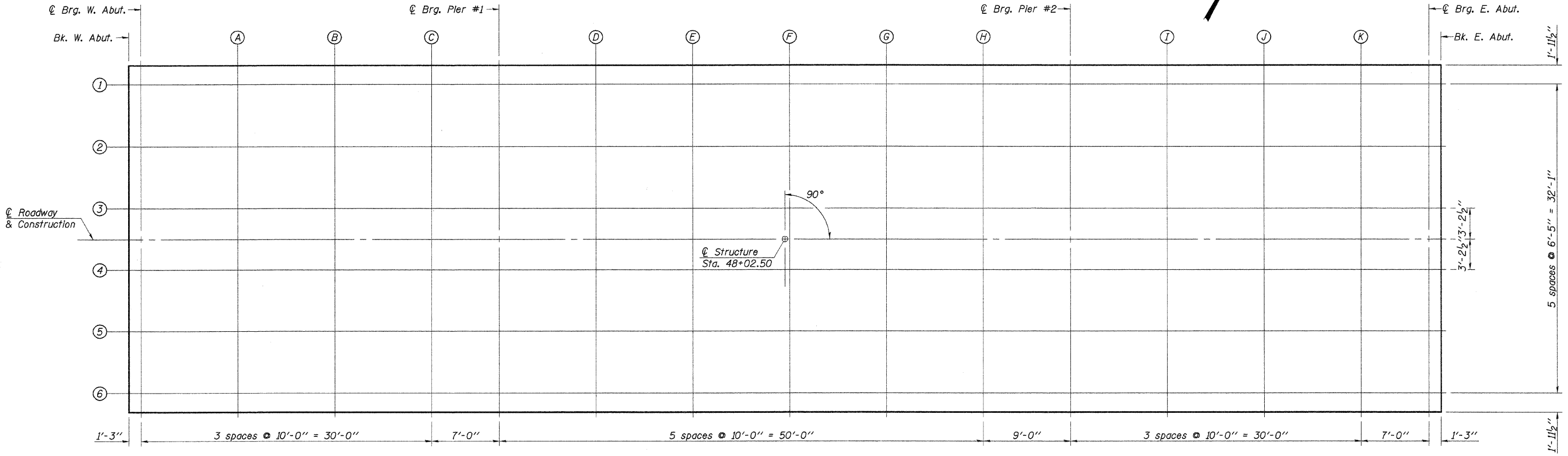
GENERAL NOTES, BILL OF MATERIAL & MISCELLANEOUS DETAILS

SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

4440 ASH GROVE
SPRINGFIELD, IL 62711
(217) 798-8600
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PREPARED BY: RODRIGUEZ, R. RODRIGUEZ, R. RODRIGUEZ, R.
DATE: 08/17/09

JOB NO.: 47515
FILE: NOTES.DGN
DATE: 08/17/09



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 4 & 5 of 22, minus slab thickness, equals the fillet heights "t" above top flange of beams.

DESIGNED -	A.L.S.
CHECKED -	A.R.K. & J.A.M.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

TOP OF SLAB ELEVATIONS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS PREPARED BY: ROYCE L. ROYCE, P.E., ROYCE L. ROYCE, P.E., MORGAN W. SPENGLER, P.E.	JOB NO.: 47515 FILE: SLAB.DGN DATE: 08/17/09
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BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+34.75	-16.042	608.289	608.289
☉ Brg. W. Abut.	47+36.00	-16.042	608.289	608.289
A	47+46.00	-16.042	608.289	608.294
B	47+56.00	-16.042	608.289	608.291
C	47+66.00	-16.042	608.289	608.288
☉ Brg. Pier 1	47+73.00	-16.042	608.289	608.289
D	47+83.00	-16.042	608.289	608.307
E	47+93.00	-16.042	608.289	608.323
F	48+03.00	-16.042	608.289	608.336
G	48+13.00	-16.042	608.289	608.322
H	48+23.00	-16.042	608.289	608.305
☉ Brg. Pier 2	48+32.00	-16.042	608.316	608.316
I	48+42.00	-16.042	608.361	608.360
J	48+52.00	-16.042	608.405	608.408
K	48+62.00	-16.042	608.450	608.454
☉ Brg. E. Abut.	48+69.00	-16.042	608.481	608.481
Bk. E. Abut.	48+70.25	-16.042	608.486	608.486

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+34.75	-9.625	608.390	608.390
☉ Brg. W. Abut.	47+36.00	-9.625	608.390	608.390
A	47+46.00	-9.625	608.390	608.395
B	47+56.00	-9.625	608.390	608.392
C	47+66.00	-9.625	608.390	608.389
☉ Brg. Pier 1	47+73.00	-9.625	608.390	608.390
D	47+83.00	-9.625	608.390	608.407
E	47+93.00	-9.625	608.390	608.423
F	48+03.00	-9.625	608.390	608.436
G	48+13.00	-9.625	608.390	608.422
H	48+23.00	-9.625	608.390	608.406
☉ Brg. Pier 2	48+32.00	-9.625	608.406	608.406
I	48+42.00	-9.625	608.432	608.431
J	48+52.00	-9.625	608.459	608.462
K	48+62.00	-9.625	608.486	608.490
☉ Brg. E. Abut.	48+69.00	-9.625	608.504	608.504
Bk. E. Abut.	48+70.25	-9.625	608.508	608.508

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+34.75	-3.208	608.490	608.490
☉ Brg. W. Abut.	47+36.00	-3.208	608.490	608.490
A	47+46.00	-3.208	608.490	608.495
B	47+56.00	-3.208	608.490	608.492
C	47+66.00	-3.208	608.490	608.489
☉ Brg. Pier 1	47+73.00	-3.208	608.490	608.490
D	47+83.00	-3.208	608.490	608.508
E	47+93.00	-3.208	608.490	608.523
F	48+03.00	-3.208	608.490	608.536
G	48+13.00	-3.208	608.490	608.522
H	48+23.00	-3.208	608.490	608.506
☉ Brg. Pier 2	48+32.00	-3.208	608.495	608.495
I	48+42.00	-3.208	608.504	608.503
J	48+52.00	-3.208	608.513	608.516
K	48+62.00	-3.208	608.522	608.526
☉ Brg. E. Abut.	48+69.00	-3.208	608.528	608.528
Bk. E. Abut.	48+70.25	-3.208	608.529	608.529

☉ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+34.75	0.000	608.540	608.540
☉ Brg. W. Abut.	47+36.00	0.000	608.540	608.540
A	47+46.00	0.000	608.540	608.545
B	47+56.00	0.000	608.540	608.542
C	47+66.00	0.000	608.540	608.539
☉ Brg. Pier 1	47+73.00	0.000	608.540	608.540
D	47+83.00	0.000	608.540	608.558
E	47+93.00	0.000	608.540	608.573
F	48+03.00	0.000	608.540	608.586
G	48+13.00	0.000	608.540	608.572
H	48+23.00	0.000	608.540	608.556
☉ Brg. Pier 2	48+32.00	0.000	608.540	608.540
I	48+42.00	0.000	608.540	608.539
J	48+52.00	0.000	608.540	608.543
K	48+62.00	0.000	608.540	608.544
☉ Brg. E. Abut.	48+69.00	0.000	608.540	608.540
Bk. E. Abut.	48+70.25	0.000	608.540	608.540

DESIGNED -	A.L.S.
CHECKED -	A.R.K. & J.A.M.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

E-S

10-1-08

TOP OF SLAB ELEVATIONS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

4440 ASH GROVE
SPRINGFIELD, IL. 62711
(217) 793-8800
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PROFESSIONAL ENGINEERS, PROFESSIONAL SURVEYORS, PROFESSIONAL GEOTECHNICAL ENGINEERS

JOB NO.: 47515
FILE: SLAB.DGN
DATE: 08/17/09

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+34.75	3.208	608.490	608.490
☉ Brg. W. Abut.	47+36.00	3.208	608.490	608.490
A	47+46.00	3.208	608.490	608.495
B	47+56.00	3.208	608.490	608.492
C	47+66.00	3.208	608.490	608.489
☉ Brg. Pier 1	47+73.00	3.208	608.490	608.490
D	47+83.00	3.208	608.490	608.508
E	47+93.00	3.208	608.490	608.523
F	48+03.00	3.208	608.490	608.536
G	48+13.00	3.208	608.490	608.522
H	48+23.00	3.208	608.490	608.506
☉ Brg. Pier 2	48+32.00	3.208	608.490	608.490
I	48+42.00	3.208	608.490	608.489
J	48+52.00	3.208	608.490	608.493
K	48+62.00	3.208	608.490	608.494
☉ Brg. E. Abut.	48+69.00	3.208	608.490	608.490
Bk. E. Abut.	48+70.25	3.208	608.490	608.490

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+34.75	9.625	608.390	608.390
☉ Brg. W. Abut.	47+36.00	9.625	608.390	608.390
A	47+46.00	9.625	608.390	608.395
B	47+56.00	9.625	608.390	608.392
C	47+66.00	9.625	608.390	608.389
☉ Brg. Pier 1	47+73.00	9.625	608.390	608.390
D	47+83.00	9.625	608.390	608.407
E	47+93.00	9.625	608.390	608.423
F	48+03.00	9.625	608.390	608.436
G	48+13.00	9.625	608.390	608.422
H	48+23.00	9.625	608.390	608.406
☉ Brg. Pier 2	48+32.00	9.625	608.390	608.390
I	48+42.00	9.625	608.390	608.389
J	48+52.00	9.625	608.390	608.393
K	48+62.00	9.625	608.390	608.394
☉ Brg. E. Abut.	48+69.00	9.625	608.390	608.390
Bk. E. Abut.	48+70.25	9.625	608.390	608.390

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	47+34.75	16.042	608.289	608.289
☉ Brg. W. Abut.	47+36.00	16.042	608.289	608.289
A	47+46.00	16.042	608.289	608.294
B	47+56.00	16.042	608.289	608.291
C	47+66.00	16.042	608.289	608.288
☉ Brg. Pier 1	47+73.00	16.042	608.289	608.289
D	47+83.00	16.042	608.289	608.307
E	47+93.00	16.042	608.289	608.323
F	48+03.00	16.042	608.289	608.336
G	48+13.00	16.042	608.289	608.322
H	48+23.00	16.042	608.289	608.305
☉ Brg. Pier 2	48+32.00	16.042	608.289	608.289
I	48+42.00	16.042	608.289	608.288
J	48+52.00	16.042	608.289	608.292
K	48+62.00	16.042	608.289	608.293
☉ Brg. E. Abut.	48+69.00	16.042	608.289	608.289
Bk. E. Abut.	48+70.25	16.042	608.289	608.289

DESIGNED -	A.L.S.
CHECKED -	A.R.K. & J.A.M.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

TOP OF SLAB ELEVATIONS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Slab	47+04.75	-18.000	608.259
A1	47+14.75	-18.000	608.259
A2	47+24.75	-18.000	608.259
Bk. of W. Abut.	47+34.75	-18.000	608.259

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Slab	47+04.75	-12.000	608.353
A1	47+14.75	-12.000	608.353
A2	47+24.75	-12.000	608.353
Bk. of W. Abut.	47+34.75	-12.000	608.353

℄ ROADWAY

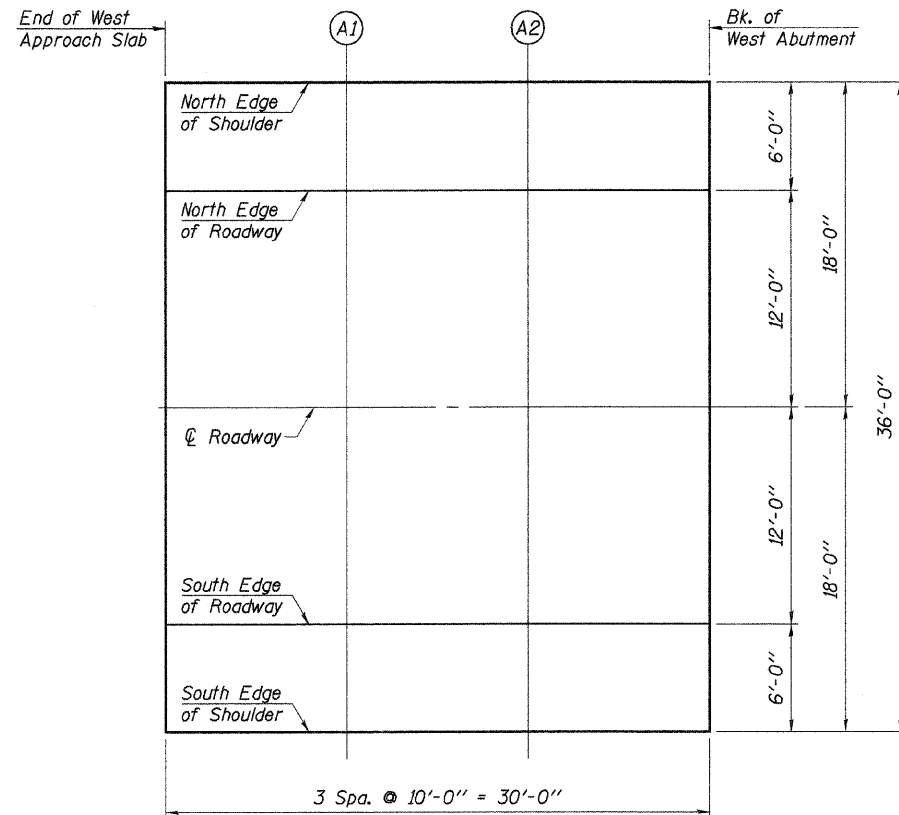
Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Slab	47+04.75	0.000	608.540
A1	47+14.75	0.000	608.540
A2	47+24.75	0.000	608.540
Bk. of W. Abut.	47+34.75	0.000	608.540

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Slab	47+04.75	12.000	608.353
A1	47+14.75	12.000	608.353
A2	47+24.75	12.000	608.353
Bk. of W. Abut.	47+34.75	12.000	608.353

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End of W. Approach Slab	47+04.75	18.000	608.259
A1	47+14.75	18.000	608.259
A2	47+24.75	18.000	608.259
Bk. of W. Abut.	47+34.75	18.000	608.259



PLAN

DESIGNED -	A.L.S.
CHECKED -	A.R.K. & J.A.M.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

E-AS

9-3-07

TOP OF WEST APPROACH SLAB ELEVATIONS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

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SPRINGFIELD, IL 62711
(217) 793-8600
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ENGINEERING AND SCIENCE CONSULTANTS
PESQUERA, ILL. ROCHFORD, ILL. ROCKFORD, ILL. SPRINGFIELD, ILL.

JOB NO.: 47515
FILE: APRCH_SLAB.DGN
DATE: 08/17/09

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	48+70.25	-18.000	608.480
A3	48+80.25	-18.000	608.530
A4	48+90.25	-18.000	608.580
End of E. Approach Slab	49+00.25	-18.000	608.630

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	48+70.25	-12.000	608.500
A3	48+80.25	-12.000	608.533
A4	48+90.25	-12.000	608.567
End of E. Approach Slab	49+00.25	-12.000	608.600

℄ ROADWAY

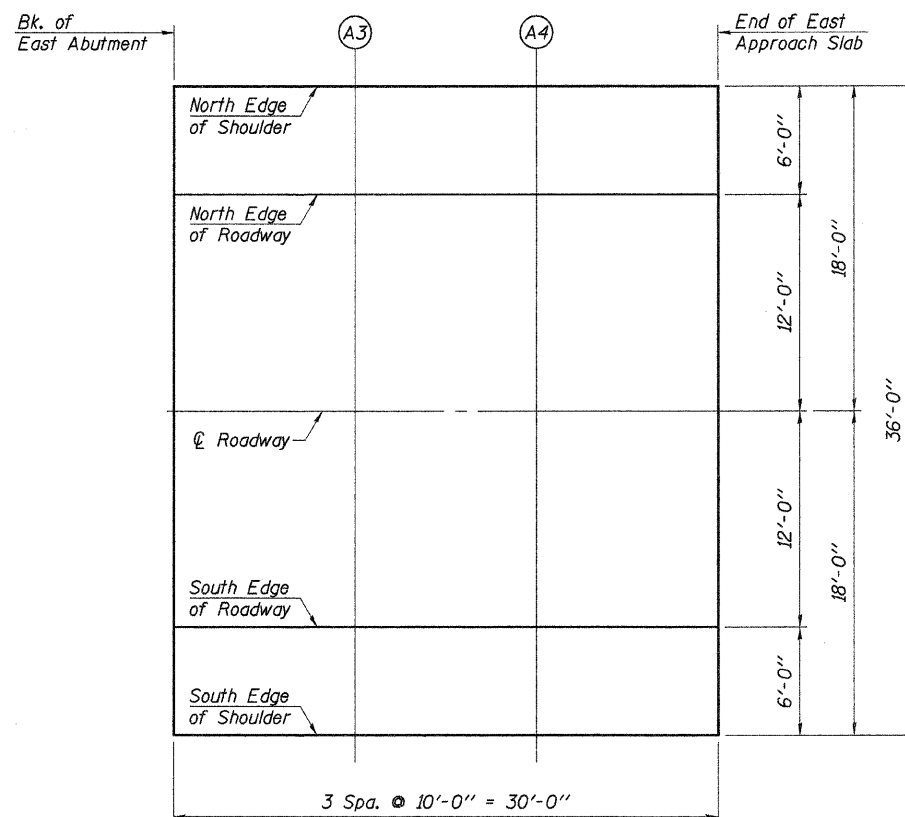
Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	48+70.25	0.000	608.540
A3	48+80.25	0.000	608.540
A4	48+90.25	0.000	608.540
End of E. Approach Slab	49+00.25	0.000	608.540

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	48+70.25	12.000	608.353
A3	48+80.25	12.000	608.353
A4	48+90.25	12.000	608.353
End of E. Approach Slab	49+00.25	12.000	608.353

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	48+70.25	18.000	608.259
A3	48+80.25	18.000	608.259
A4	48+90.25	18.000	608.259
End of E. Approach Slab	49+00.25	18.000	608.259



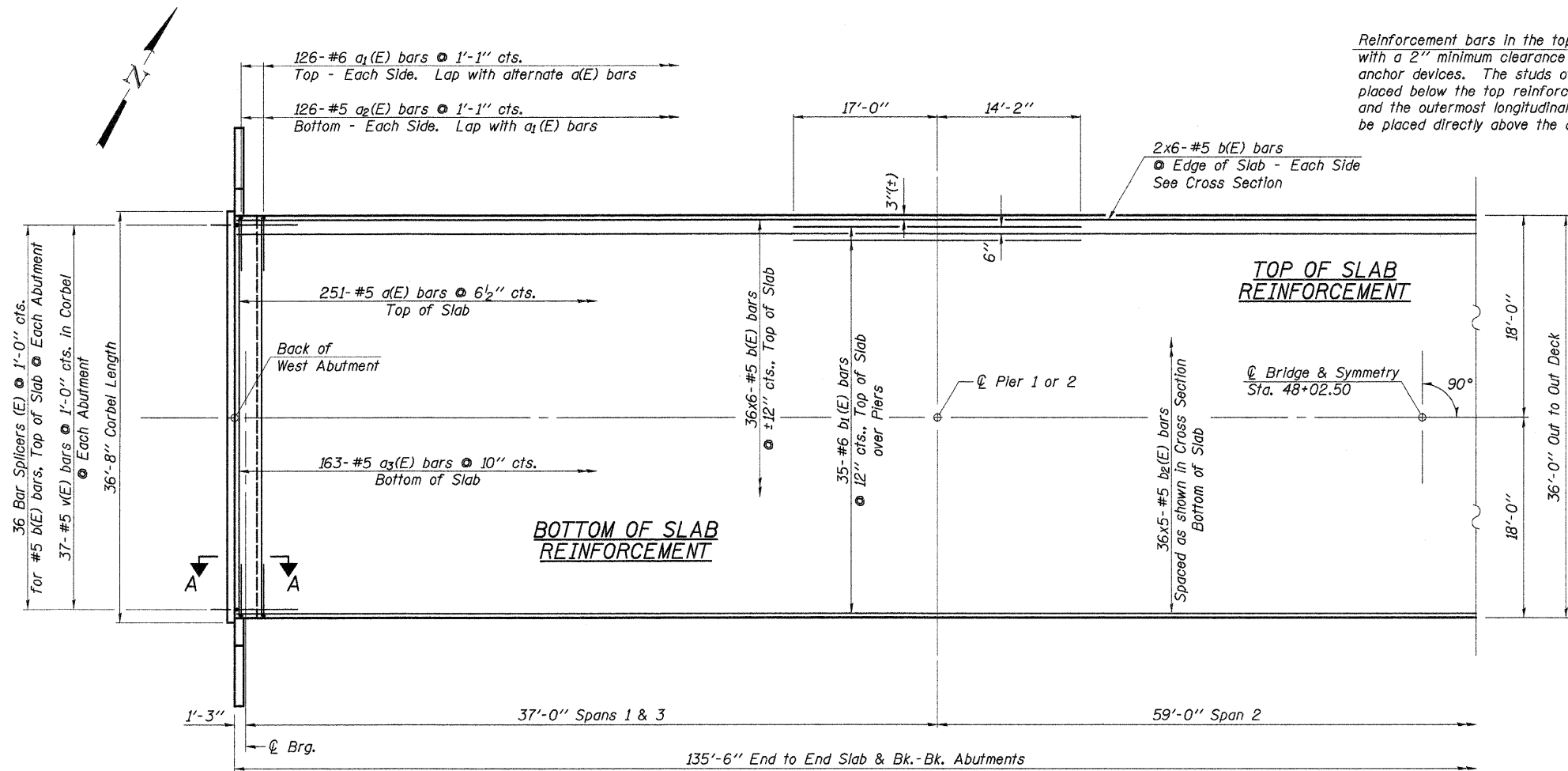
PLAN

DESIGNED -	A.L.S.
CHECKED -	A.R.K. & J.A.M.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

E-AS

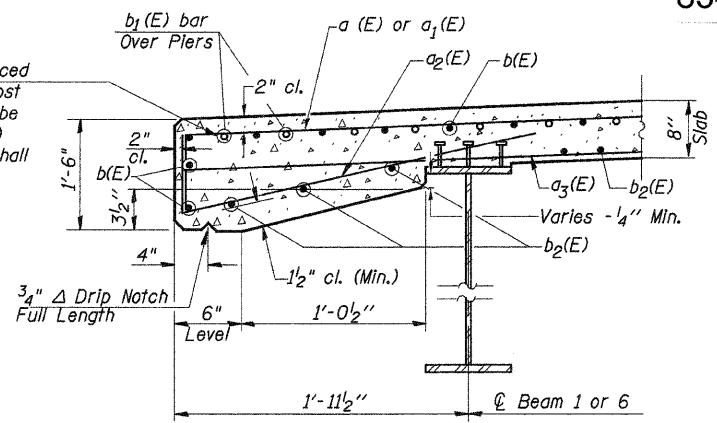
9-3-07

TOP OF EAST APPROACH SLAB ELEVATIONS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50



HALF PLAN

Reinforcement bars in the top of the deck shall be placed with a 2" minimum clearance in the area of the rail post anchor devices. The studs of the anchor device shall be placed below the top reinforcement bars a(E) and a1(E) and the outermost longitudinal reinforcement bar b(E) shall be placed directly above the anchor device studs.



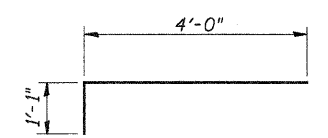
SECTION THRU EDGE OF SLAB

SUPERSTRUCTURE BILL OF MATERIAL

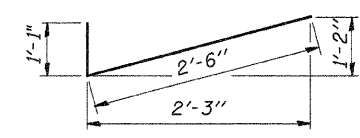
Bar	No.	Size	Length	Shape
a(E)	251	#5	35'-8"	—
a1(E)	252	#6	5'-1"	—
a2(E)	252	#5	3'-7"	✓
a3(E)	163	#5	35'-4"	—
b(E)	240	#5	23'-11"	—
b1(E)	70	#6	31'-2"	—
b2(E)	180	#5	28'-5"	—
m(E)	4	#6	36'-4"	—
m1(E)	6	#6	35'-8"	—
m2(E)	24	#6	8'-5"	—
m3(E)	10	#6	6'-2"	—
m4(E)	4	#6	1'-9"	—
s(E)	82	#5	5'-5"	□
s1(E)	72	#4	8'-6"	□
v(E)	74	#5	2'-9"	—
Protective Coat		Sq. Yd.	823	
Conc. Superstructure		Cu. Yd.	152.8	
Reinforcement Bars, Epoxy Coated		Pound	34,840	
Bridge Deck Grooving		Sq. Yd.	512	

MIN. BAR LAPS

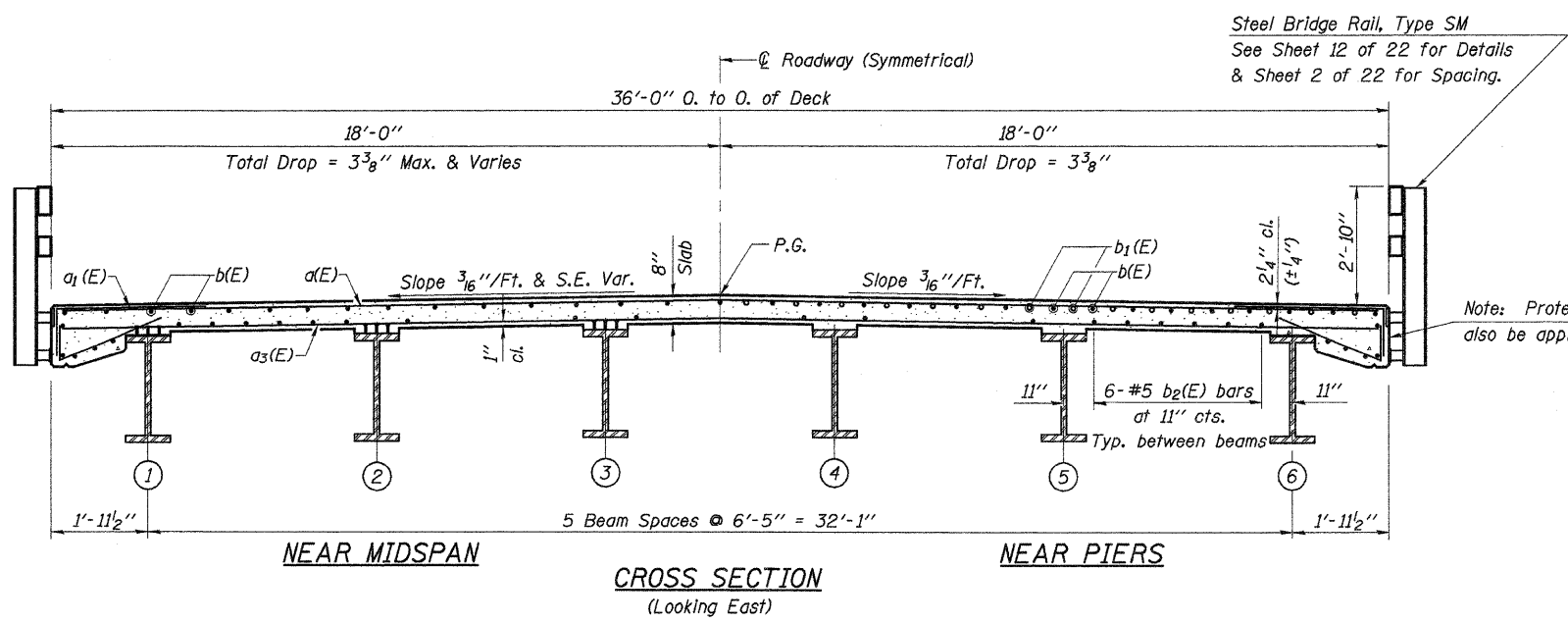
#5 1'-8"
#6 2'-0"



BAR a1(E)



BAR a2(E)



CROSS SECTION (Looking East)

Note: Protective Coat shall also be applied to Deck Fascias.

DESIGNED -	A.L.S.
CHECKED -	A.R.K.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

Bars indicated thus 20x3-#5 etc. Indicates 20 lines of bars with 3 lengths per line. See Sheet 20 of 22 for Bar Splicer Details.

Work this Sheet with Sheet 9 of 22.

SUPERSTRUCTURE
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

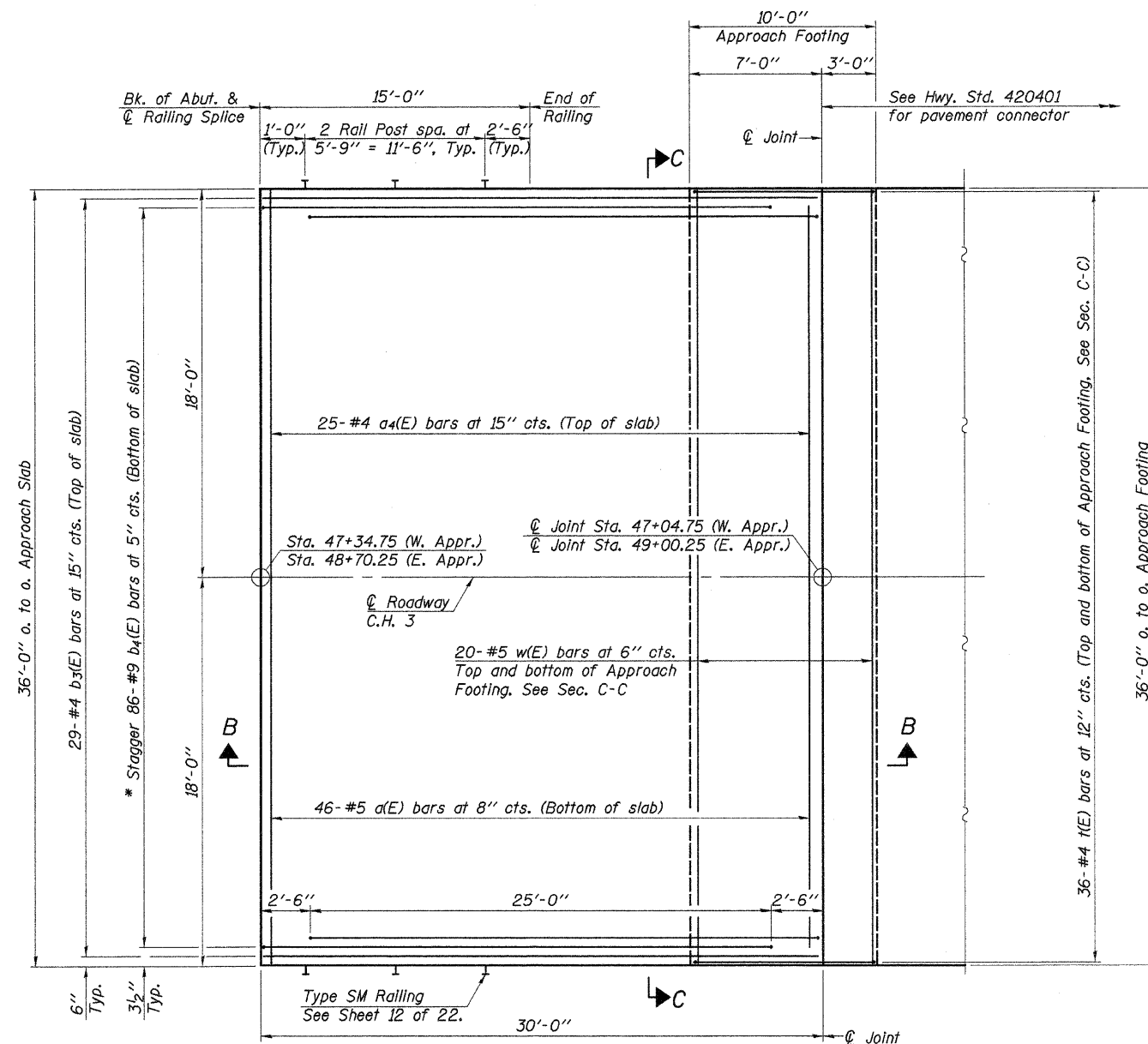
4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS PREPARED BY: ROOFPOR, L. ROCHILLI, L. MORRIS, W. BRUNSWICK, L.L.	JOB NO.: 47515 FILE: SUPER.DGN DATE: 08/17/09
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	15
		ILLINOIS		

Sheet 10 of 22 Contract No. 85465

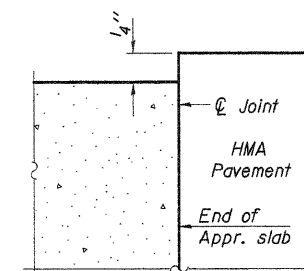
Notes:

See sheet 11 of 22 for Sections B-B & C-C.
 See sheet 12 of 22 for Railing & Railing Connection Details.
 a(E), a₄(E), and w(E) bar spacings measured perpendicular to @ Rdwy.



PLAN

* Tilt #9 b₄(E) bars as required to maintain clearance.



DETAIL A

DESIGNED -	A.R.K.
CHECKED -	A.L.S.
DRAWN -	S.A.P.
CHECKED -	A.R.K. & A.L.S.

BA-0

10-31-08

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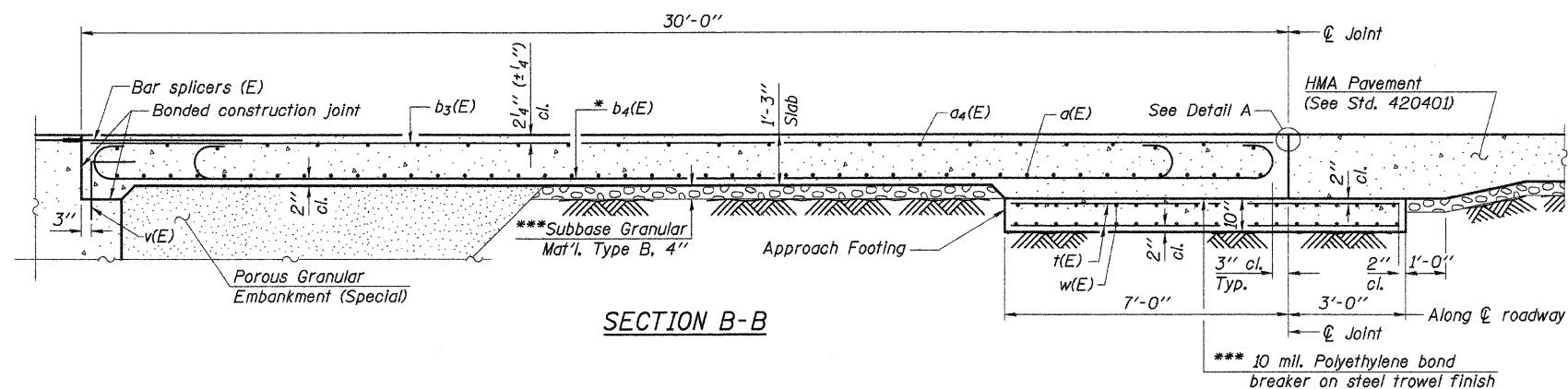
FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 FREDERICK, MISSOURI, & ROCKFORD, ILLINOIS, SPRINGFIELD, ILLINOIS

JOB NO.: 47515
 FILE: APRCH-DTL.DGN
 DATE: 08/17/09

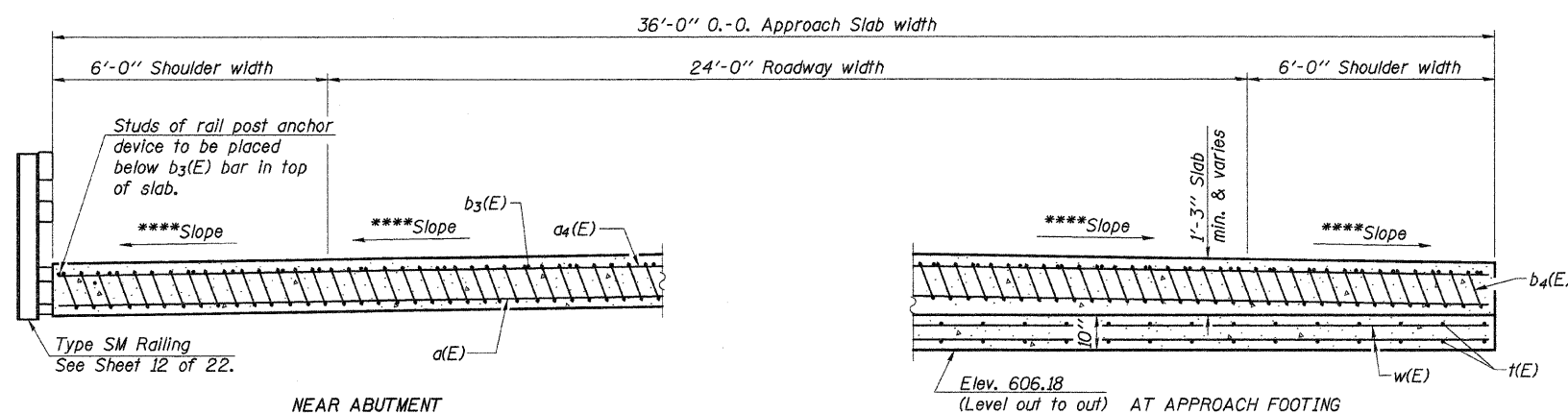
BRIDGE APPROACH SLAB DETAILS
 SECTION 07-00188-00-BR
 COUNTY HIGHWAY 3
 WHITESIDE COUNTY
 STA. 48+02.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	16
ILLINOIS				

Sheet 11 of 22 Contract No. 85465



Notes:
 See sheet 10 of 22 for Detail A.
 Approach slab 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 22.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet 20 of 22.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 22.



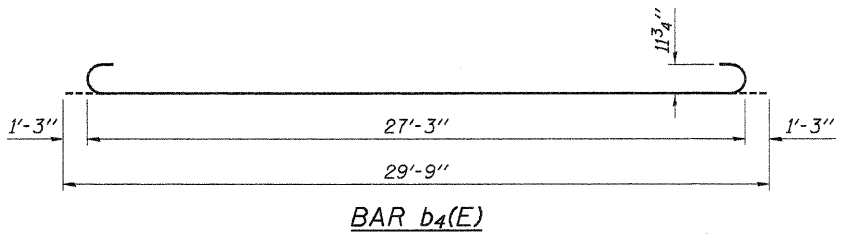
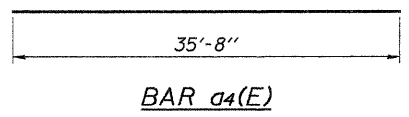
* Tilt #9 b4(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.
 **** 3/16"/Ft. & Varies. See Sheets 6 & 7 of 22 for Approach Slab Elevations

NEAR ABUTMENT

SECTION C-C
 (See Plan for dimensions not shown)

TWO APPROACHES
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	92	#5	35'-8"	—
a4(E)	50	#4	35'-8"	—
b3(E)	58	#4	29'-8"	—
b4(E)	172	#9	29'-9"	⌋
t(E)	144	#4	9'-8"	—
w(E)	80	#5	35'-8"	—
Concrete Superstructure		Cu. Yd.	104.4	
Concrete Structures		Cu. Yd.	22.2	
Reinforcement Bars, Epoxy Coated		Pound	27,070	
Protective Coat		Sq. Yd.	240	
Bridge Deck Grooving		Sq. Yd.	227	

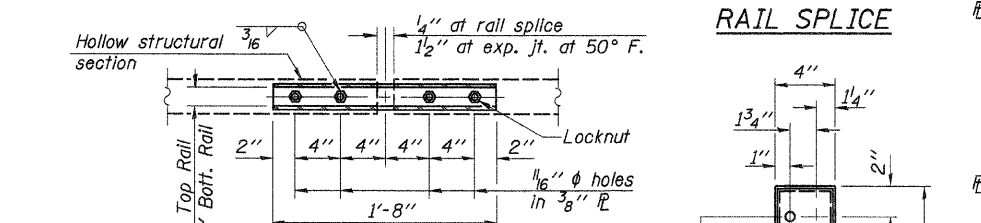
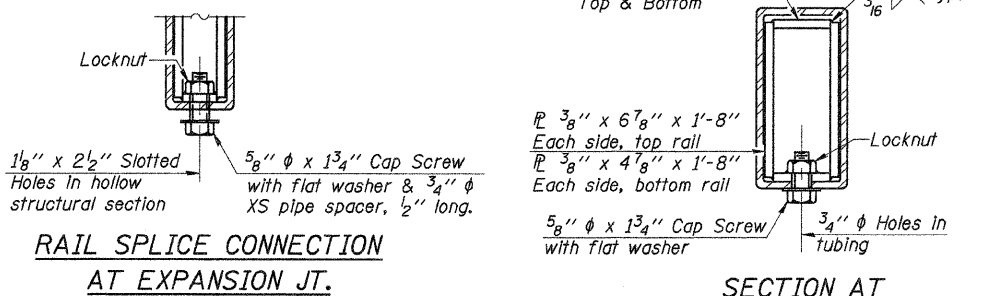
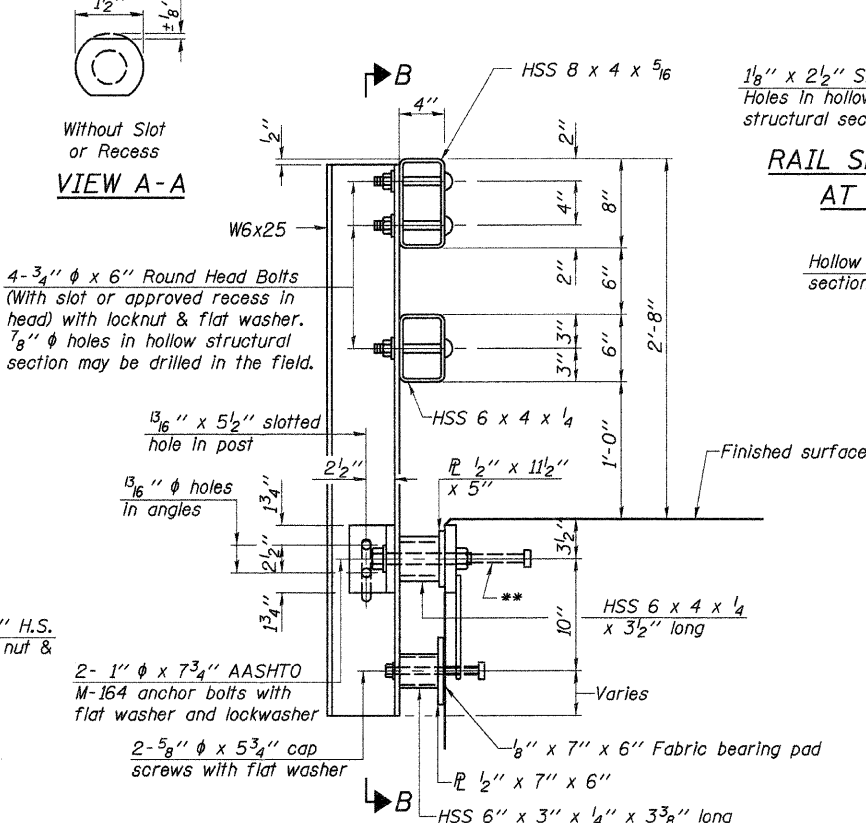
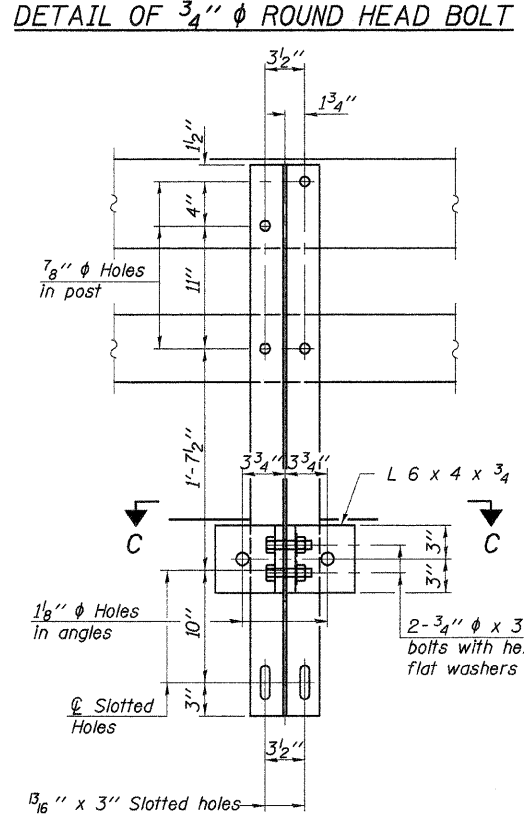
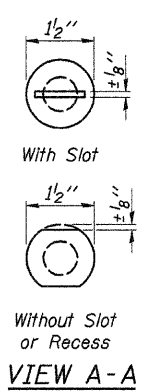
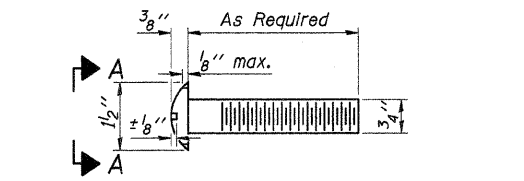


DESIGNED -	A.R.K.
CHECKED -	A.L.S.
DRAWN -	S.A.P.
CHECKED -	A.R.K. & A.L.S.

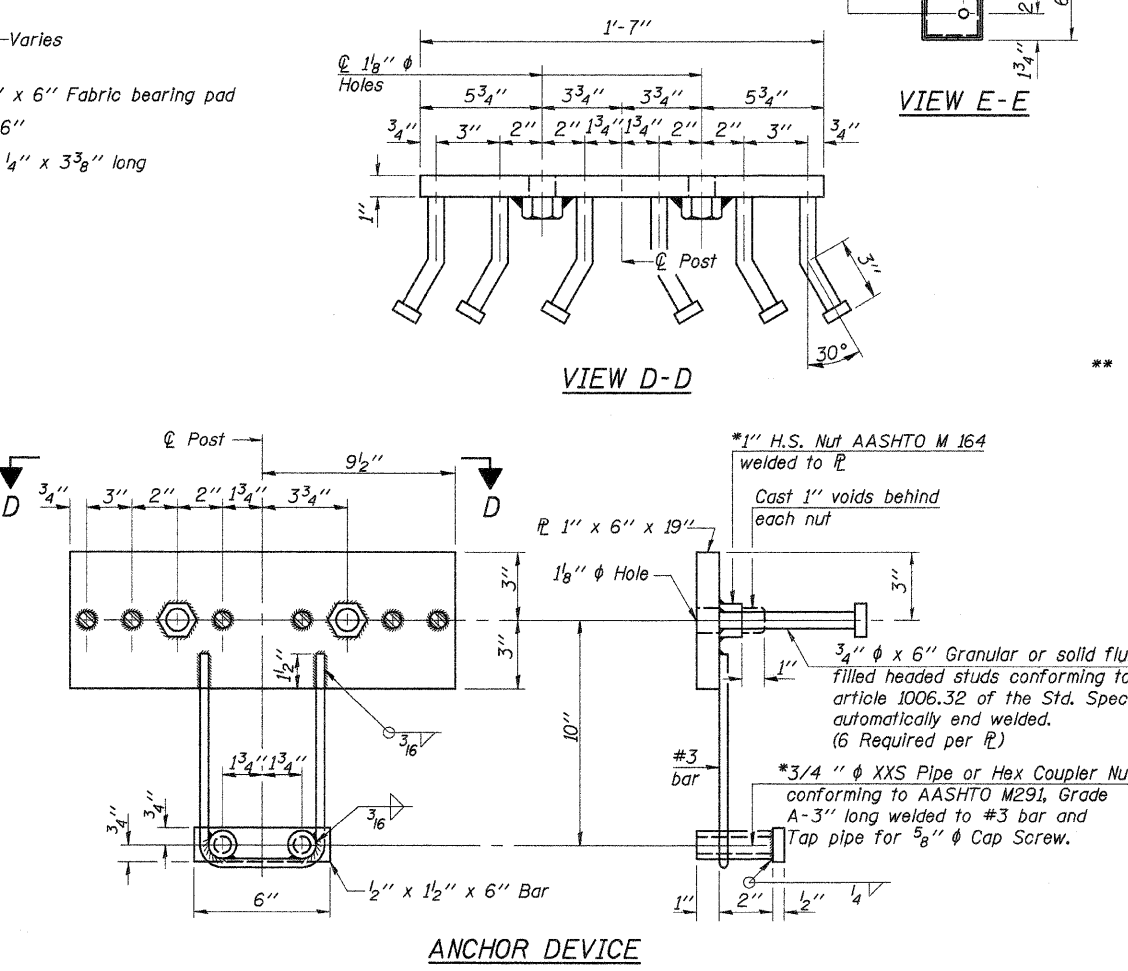
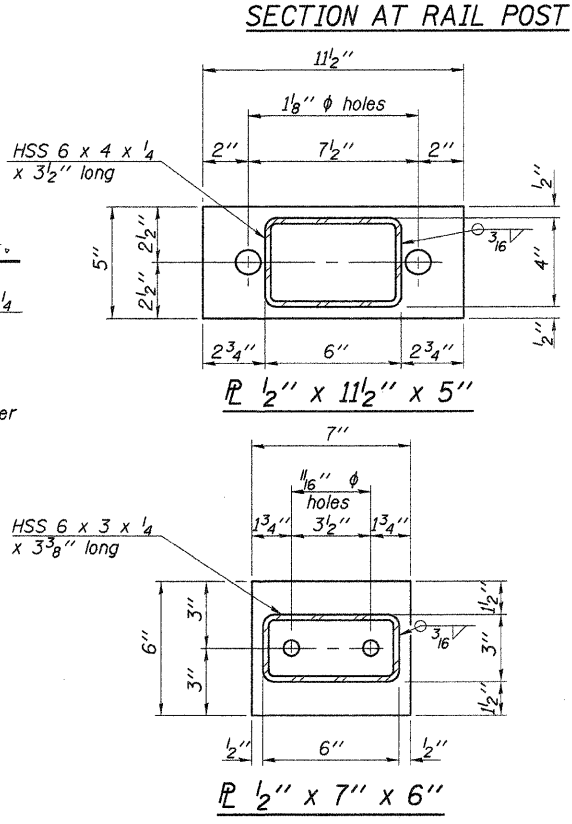
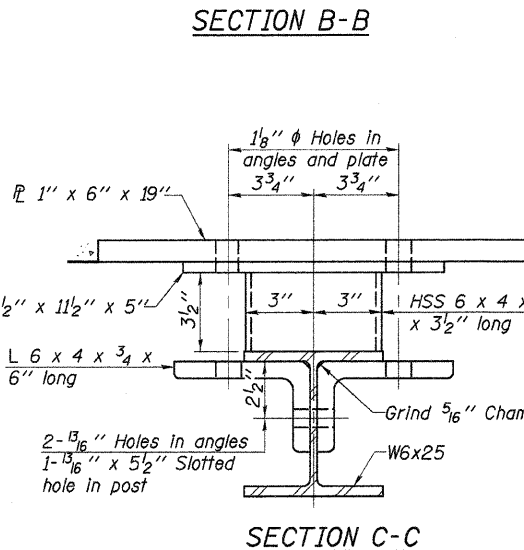
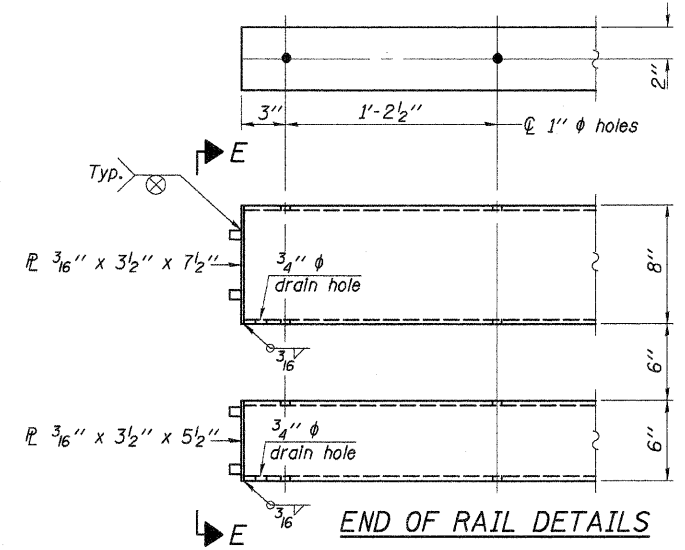
BA-0 10-31-08

BRIDGE APPROACH SLAB DETAILS
 SECTION 07-00188-00-BR
 COUNTY HIGHWAY 3
 WHITESIDE COUNTY
 STA. 48+02.50

4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8800 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS <small>FREEDPORT, IL ROCOFORD, IL ROCKFORD, IL MONROE, WI SPRINGFIELD, IL</small>	JOB NO.: 47515 FILE: APRCH-DTL.DGN DATE: 08/17/09
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SECTION AT RAIL SPLICE



Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.

Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

** The studs of 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.

Note: See Sheet 2 of 22 for Post Spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	331

STEEL RAILING, TYPE SM
 SECTION 07-00188-00-BR
 COUNTY HIGHWAY 3
 WHITESIDE COUNTY
 STA. 48+02.50

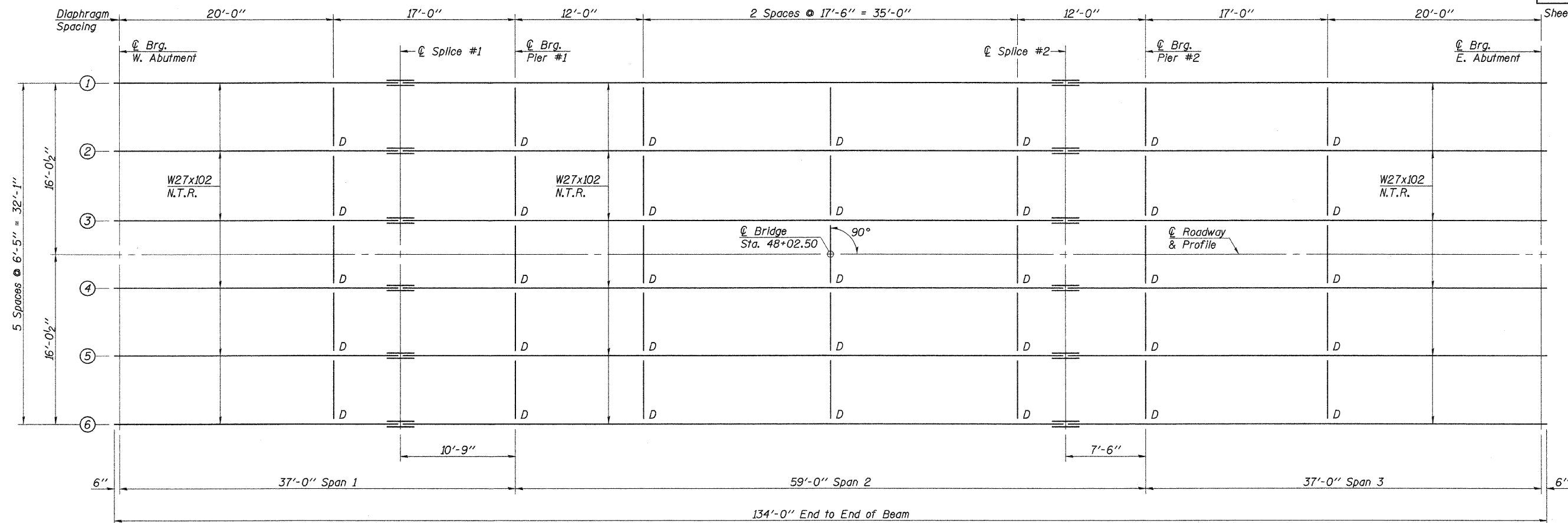
DESIGNED -	A.L.S.
CHECKED -	A.R.K.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

10-1-08 (6'-3" Maximum Post Spacing) (5" minimum to 7/8" maximum CWS thickness)

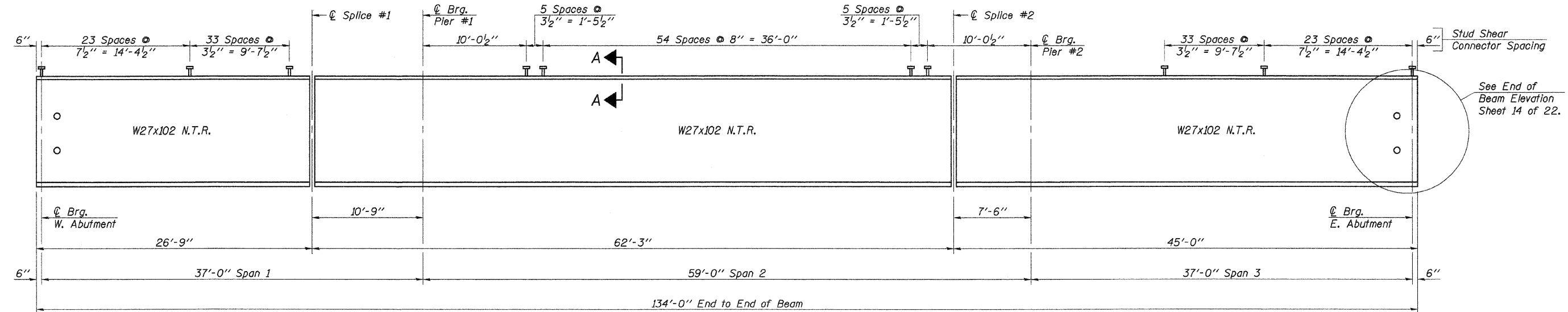
*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	18
ILLINOIS				

Sheet 13 of 22 Contract No. 85465



FRAMING PLAN

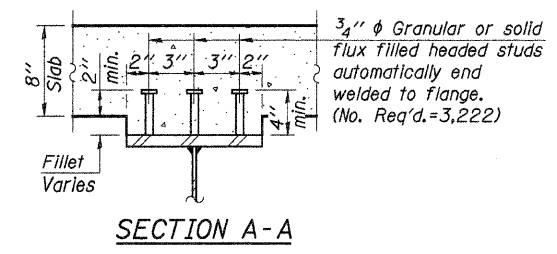


ELEVATION

Note: N.T.R. Indicates that Notch Toughness Requirements are applicable.

TOP OF BEAM ELEVATIONS
(For Fabrication Only)

DESIGNED -	A.L.S.	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
CHECKED -	A.R.K.	607.58	607.68	607.78	607.78	607.68	607.58
DRAWN -	S.A.P.	607.51	607.61	607.71	607.71	607.61	607.51
CHECKED -	A.R.K.	607.53	607.63	607.73	607.73	607.63	607.53
		607.57	607.66	607.75	607.74	607.64	607.54
		607.77	607.79	607.82	607.78	607.68	607.58



Note: See Sheet 14 of 22 for Splice Details.

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

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

Work this Sheet with Sheets 14 & 15 of 22.

STRUCTURAL STEEL
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

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(217) 793-8600
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ENGINEERING AND SCIENCE CONSULTANTS
P.O. BOX 1000, SPRINGFIELD, IL 62711

JOB NO.: 47515
FILE: STEEL.DGN
DATE: 08/17/09

INTERIOR BEAM MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in ⁴)	3,620	3,620
$I_o(n)$	(in ⁴)	11,065	11,065
$I_o(3n)$	(in ⁴)	8,264	8,264
S_s	(in ³)	267	267
$S_o(n)$	(in ³)	417	417
$S_o(3n)$	(in ³)	378	378
Z	(in ³)	305	305
DC1	(k/')	0.789	0.789
M _{DC1}	(k)	48	138
DC2	(k/')	0.033	0.033
M _{DC2}	(k)	1.3	3.8
DW	(k/')	0.300	0.300
M _{DW}	(k)	24	67
M _{Σ + IM}	(k)	343	597
M _u (Strength I)	(k)	698	1,323
*** $\phi_r M_n, \phi_r M_{nc}$	(k)	1,904	1,904
f_s DC1	(ksi)	2.2	6.2
f_s DC2	(ksi)	0.1	0.2
f_s DW	(ksi)	0.8	2.1
f_s 1.3(Σ + IM)	(ksi)	12.8	22.3
f_s (Service II)	(ksi)	15.9	30.8
f_s (Total)(Strength I)	(ksi)	21.4	41.3
**** V _r	(k)	22	23

*** Compact sections
**** Non-Compact and slender sections

INTERIOR BEAM REACTION TABLE		
	Abuts.	Pier 1 & 2
R _{DC1}	(k)	8.9
R _{DC2}	(k)	0.2
R _{DW}	(k)	3.9
R _{Σ + IM}	(k)	55.4
R _{Total}	(k)	68.4

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

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

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

Z: Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations (in³).

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

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

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

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

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

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

M_{Σ + 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_{Σ + IM}

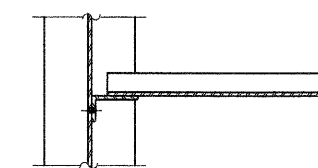
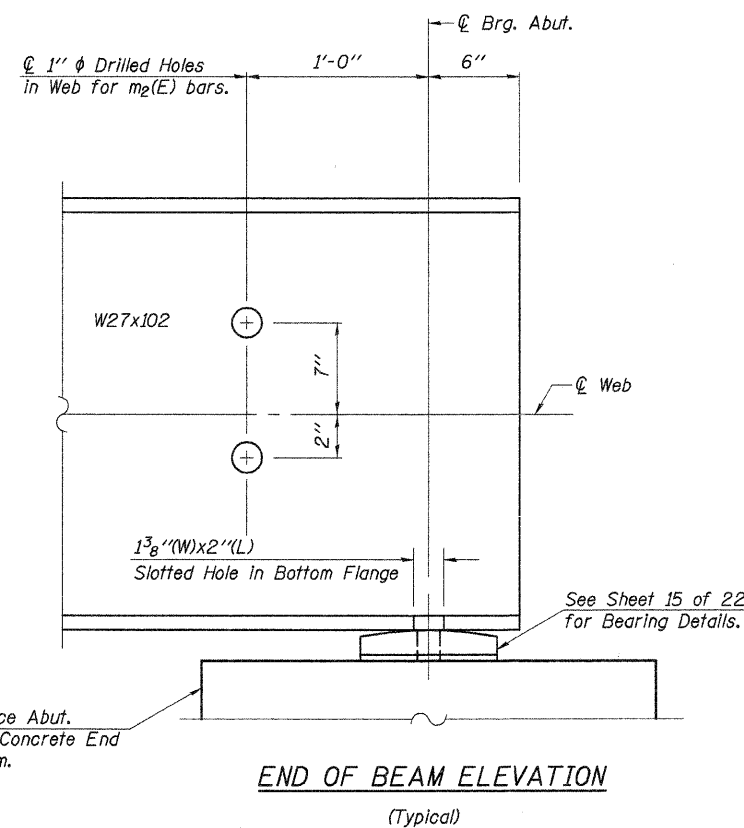
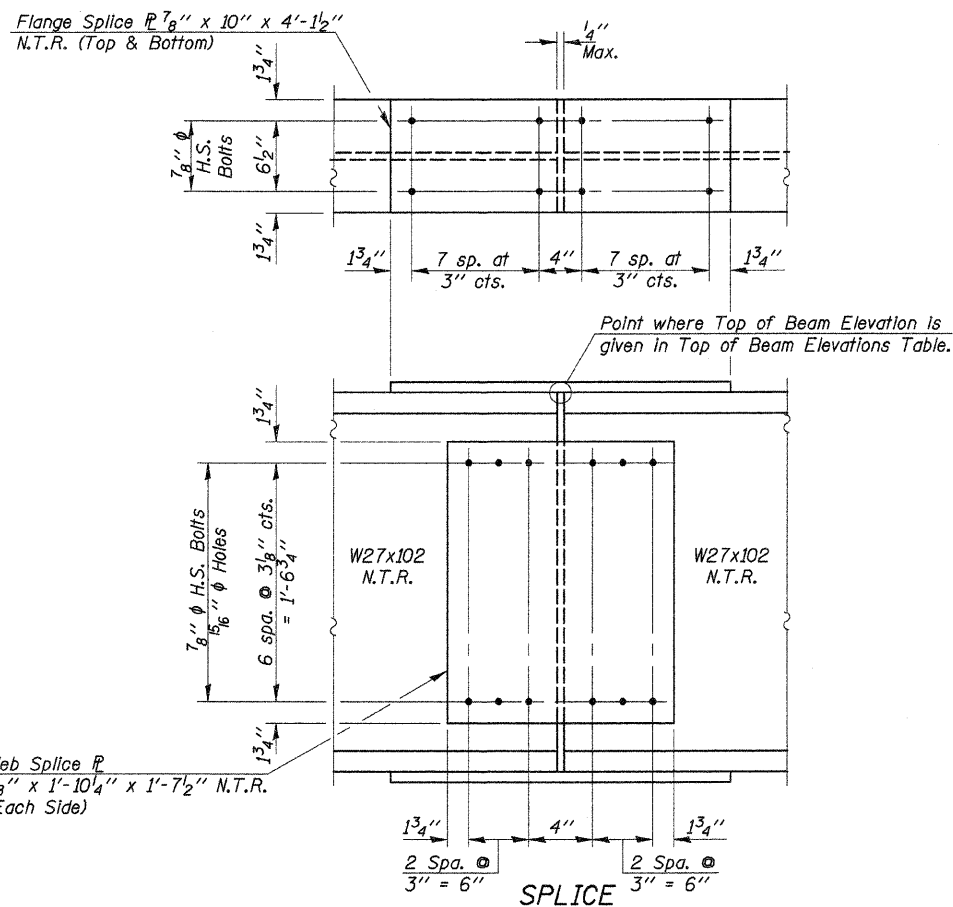
$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

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

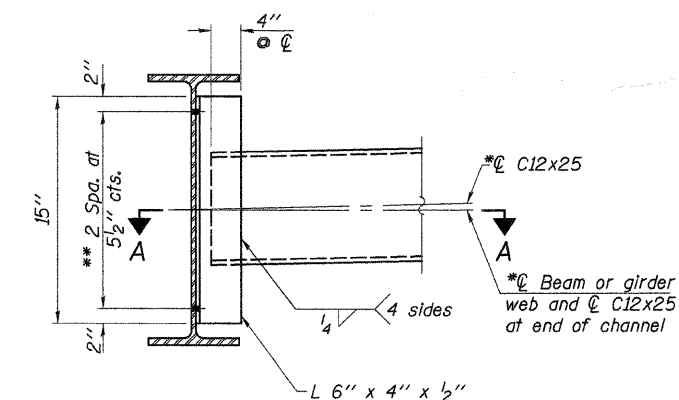
f_s (Service II): Sum of stresses as computed from the moments below (ksi).
M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_{Σ + IM}

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_{Σ + IM}

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



SECTION A-A



INTERIOR DIAPHRAGM

Note:
Two hardened washers required for each set of oversized holes.
* Alternate channels C12x30 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
*** 3/4" ϕ HS bolts, 1 5/8" ϕ holes

Work this Sheet with Sheets 13 & 15 of 22.

DESIGNED -	A.L.S.
CHECKED -	A.R.K. & J.A.M.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

<p>STRUCTURAL STEEL SECTION 07-00188-00-BR COUNTY HIGHWAY 3 WHITESIDE COUNTY STA. 48+02.50</p>	
<p>4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com</p>	<p>FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS PROFESSIONAL ENGINEERS DATE: 08/17/09</p>
JOB NO.: 47515	FILE: STEEL.DGN
DATE: 08/17/09	

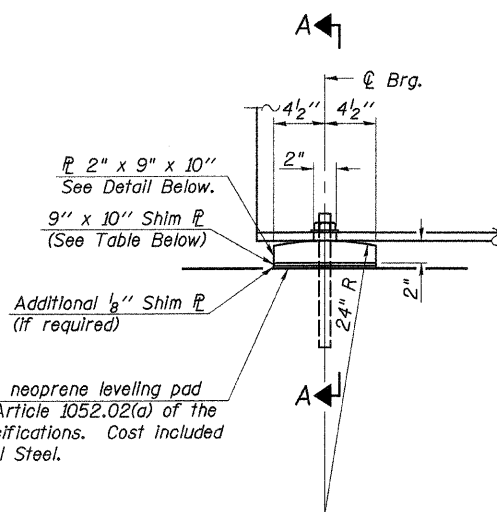
Notes:

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

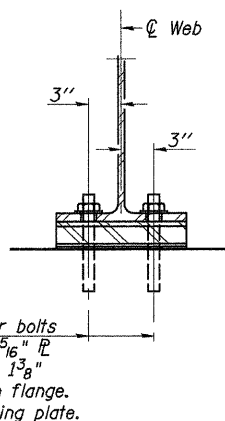
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

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

Two 1/8" adjusting shims, of the dimension of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.



ELEVATION AT ABUTMENTS

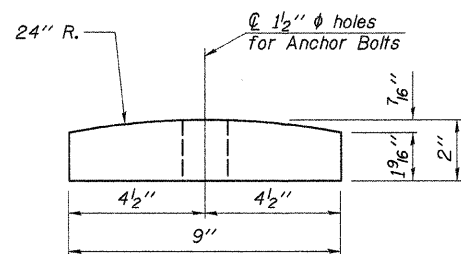


SECTION A-A

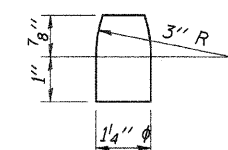
1/8" elastomeric neoprene leveling pad according to Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

1" ϕ x 15" anchor bolts with 2 1/4" x 2 1/4" x 5/16" \bar{P} washer under nut. 1 3/8" x 2" slotted hole in flange. 1/2" ϕ holes in bearing plate.

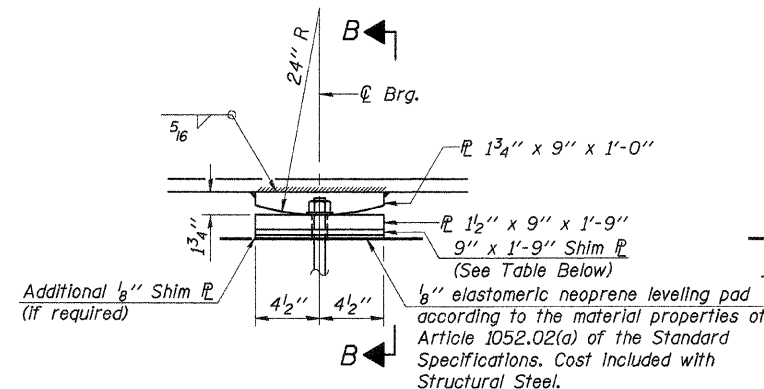
ABUTMENT BEARING
(12 Required)
Weight included with Structural Steel.



BEARING PLATE DETAIL

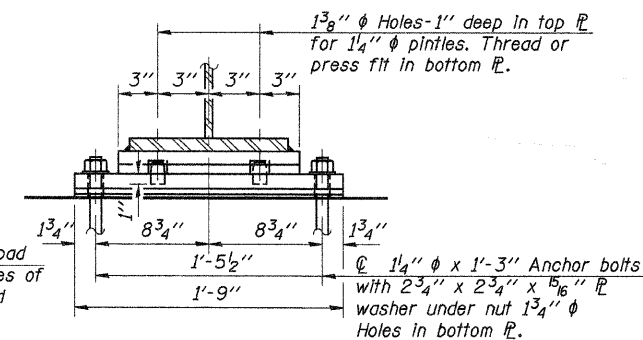


PINTLE



ELEVATION AT PIERS 1 & 2

FIXED BEARING
(12 Required)
Weight included with Structural Steel.



SECTION B-B

SHIM PLATE THICKNESS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
West Abutment	—	—	5/16"	5/16"	—	—
Pier 1	—	—	—	—	—	—
Pier 2	3/4"	5/8"	1/2"	3/8"	3/8"	3/8"
East Abutment	2 1/4"	1 5/16"	5/16"	5/16"	—	—

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts 1" ϕ	Each	24
Anchor Bolts 1 1/4" ϕ	Each	24

Work this Sheet with Sheets 13 & 14 of 22.

BEARING DETAILS
 SECTION 07-00188-00-BR
 COUNTY HIGHWAY 3
 WHITESIDE COUNTY
 STA. 48+02.50

DESIGNED -	A.L.S.
CHECKED -	A.R.K.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

I-2E-2

10-1-08

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SPRINGFIELD, IL 62711
(217) 793-8800
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FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
PROFESSOR, E. ROCKFORD, ILL. ROCHAMONTE, ILL. MONROE, ILL. SPRINGFIELD, ILL.

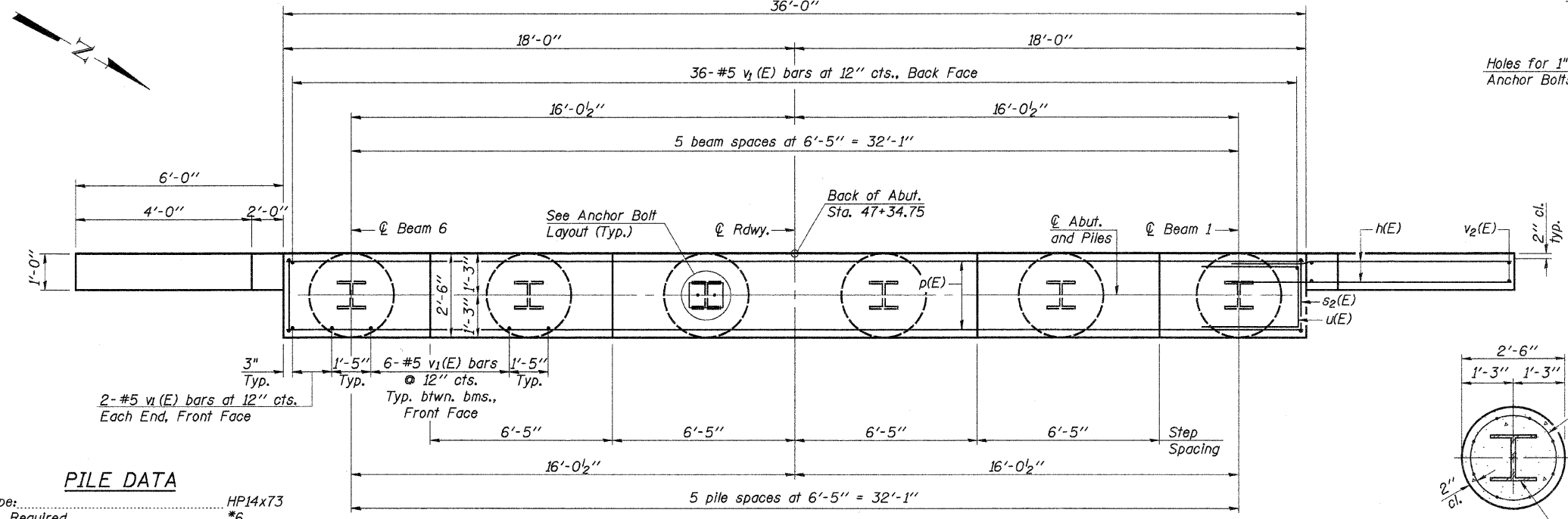
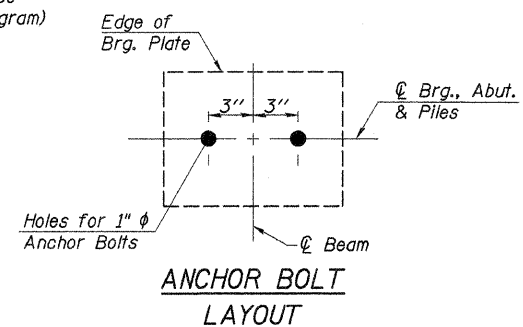
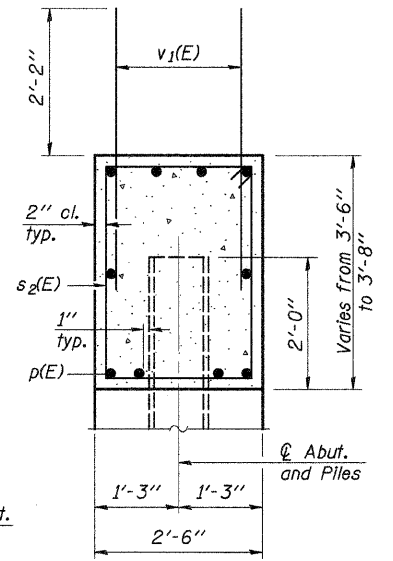
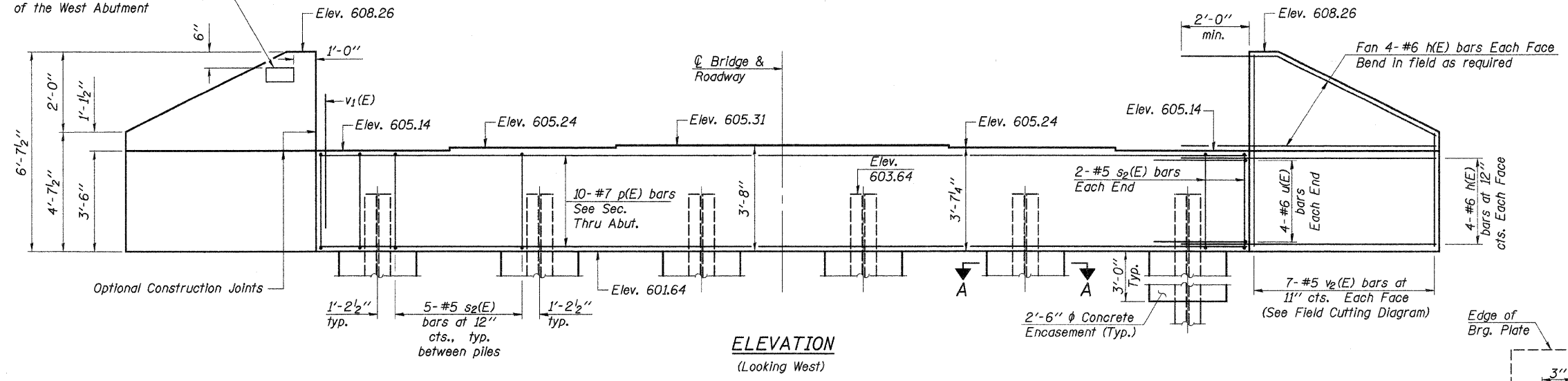
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 DATE: 08/17/09

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	21

Sheet 16 of 22 Contract No. 85465

Notes: Four steps monolithically with cap.

Name Plate shall be placed on the outside face of the South Wing of the West Abutment



Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit. Extend welded wire fabric 2'-0" min. into Abutment cap.

SECTION A-A
Concrete Encasement

BILL OF MATERIAL

Bar No.	Size	Length	Shape
h(E)	#6	8'-6"	
p(E)	#7	35'-8"	
s ₂ (E)	#5	11'-7"	
u(E)	#6	12'-1"	
v ₁ (E)	#5	4'-6"	
v ₂ (E)	#5	10'-9"	
Structure Excavation	Cu. Yd.	112	
Concrete Structures	Cu. Yd.	14.6	
Reinforcement Bars, Epoxy Coated	Pound	2,120	
Name Plate	Each	1	
Furnishing Steel Piles HP14x73	Foot	390	
Driving Piles	Foot	390	
Test Pile, HP14x73	Each	1	
Concrete Encasement	Cu. Yd.	3.3	
Protective Coat	Sq. Yd.	7	

For Pile details, see sheet 19 of 22.

PILE DATA

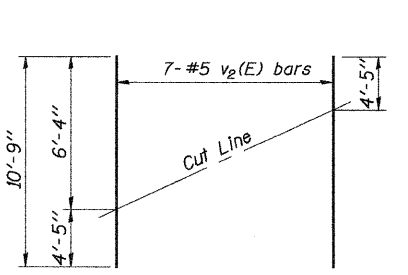
Type: HP14x73
 No. Required: *6
 Nominal Required Bearing: 260 kips
 Factored Resistance Available: 130 kips
 Est. Length: 78 Foot

*Includes 1 Test Pile to be driven in a permanent location at the west abutment.
 The steel H-piles shall be according to AASHTO M270, Grade 50.
 The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated above.

DESIGNED -	A.L.S.
CHECKED -	J.A.M.
DRAWN -	S.A.P.
CHECKED -	J.A.M.

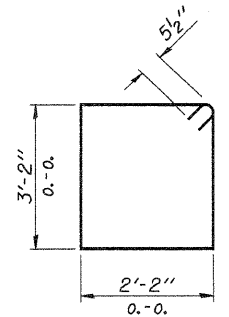
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11-1-06

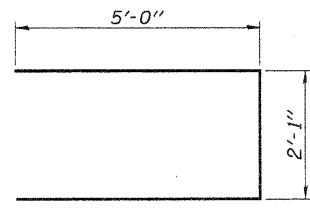


FIELD CUTTING DIAGRAM

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



BAR s₂(E)



BAR u(E)

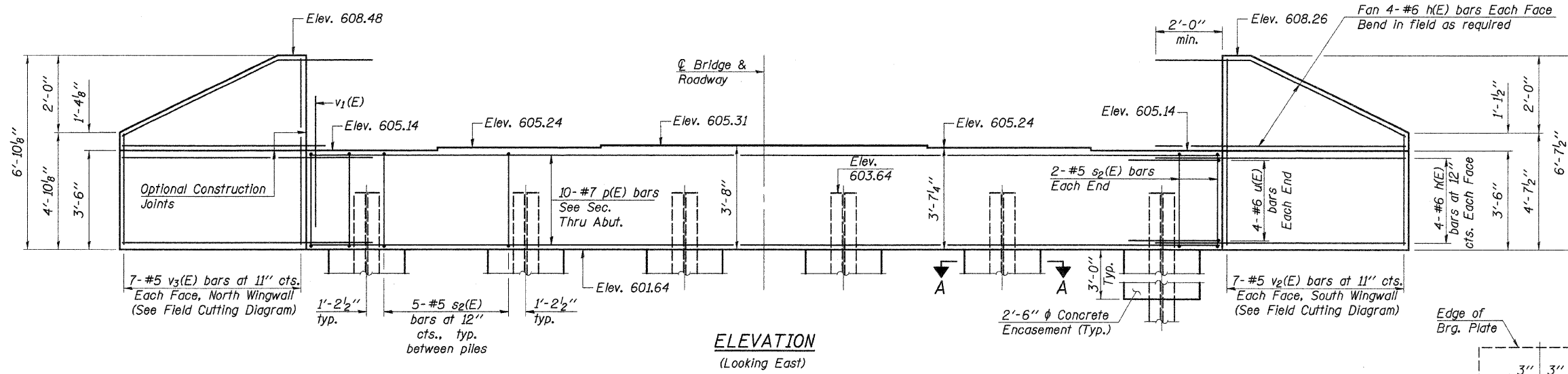
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FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 PROFESSIONAL ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS

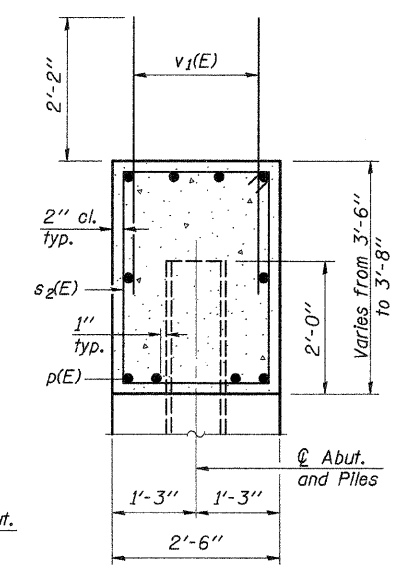
JOB NO.: 47515
 FILE: ABUTS.DGN
 DATE: 08/17/09

WEST ABUTMENT
 SECTION 07-00188-00-BR
 COUNTY HIGHWAY 3
 WHITESIDE COUNTY
 STA. 48+02.50

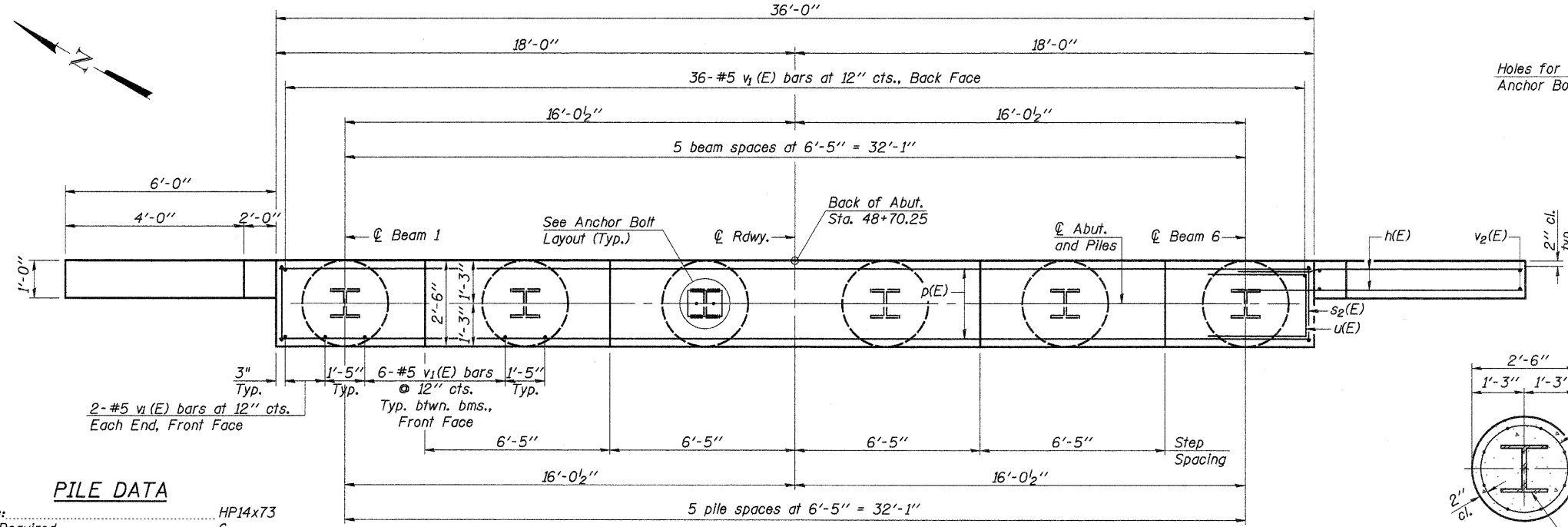
Notes: Four steps monolithically with cap.



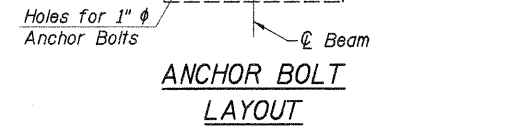
ELEVATION
(Looking East)



SEC. THRU ABUT.



PLAN



ANCHOR BOLT LAYOUT

BILL OF MATERIAL

Bar No.	Size	Length	Shape
h(E)	32	#6	8'-6"
p(E)	10	#7	35'-8"
s2(E)	29	#5	11'-7"
u(E)	8	#6	12'-1"
v1(E)	70	#5	4'-6"
v2(E)	7	#5	10'-9"
v3(E)	7	#5	11'-1"
Structure Excavation	Cu. Yd.	112	
Concrete Structures	Cu. Yd.	14.5	
Reinforcement Bars, Epoxy Coated	Pound	2,120	
Furnishing Steel Piles HP14x73	Foot	468	
Driving Piles	Foot	468	
Concrete Encasement	Cu. Yd.	3.3	
Protective Coat	Sq. Yd.	7	

For Pile details, see sheet 19 of 22.

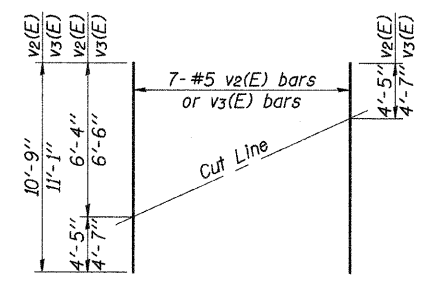
PILE DATA

Type: HP14x73
 No. Required: 6
 Nominal Required Bearing: 260 kips
 Factored Resistance Available: 130 kips
 Est. Length: 78 Foot

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

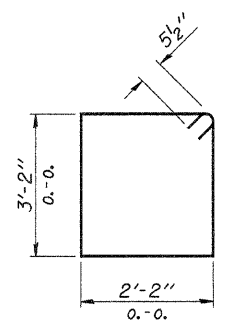
DESIGNED -	A.L.S.
CHECKED -	J.A.M.
DRAWN -	S.A.P.
CHECKED -	J.A.M.

AI-0 11-1-06

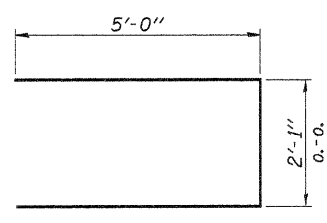


FIELD CUTTING DIAGRAM

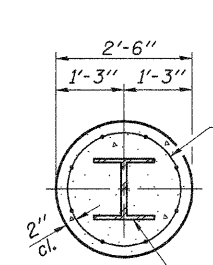
Order v2(E) & v3(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s2(E)



BAR u(E)



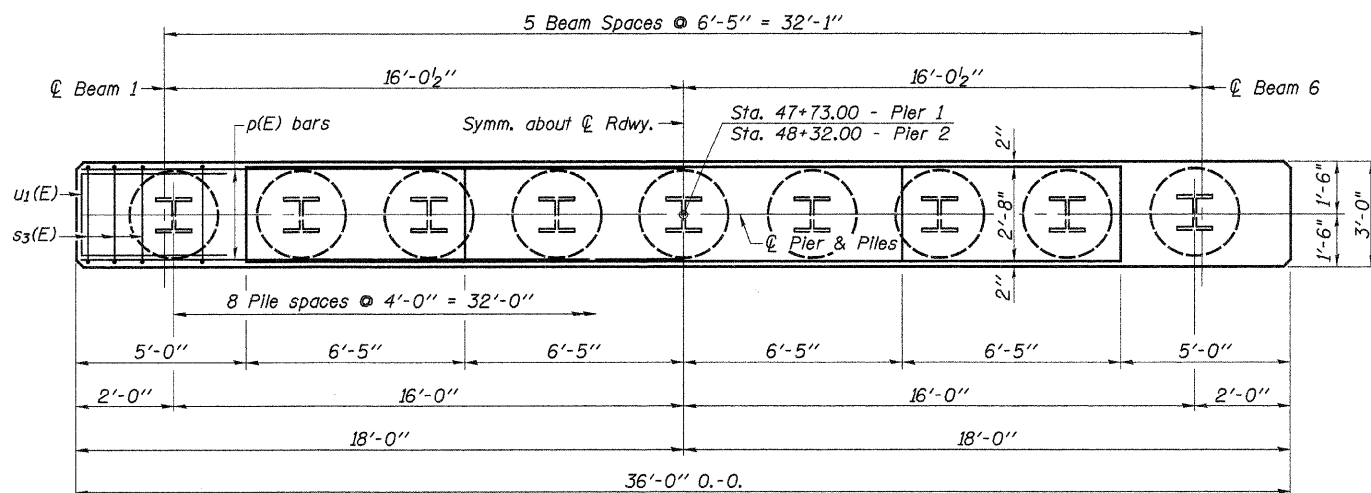
SECTION A-A
Concrete Encasement

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit. Extend welded wire fabric 2'-0" min. into Abutment cap.

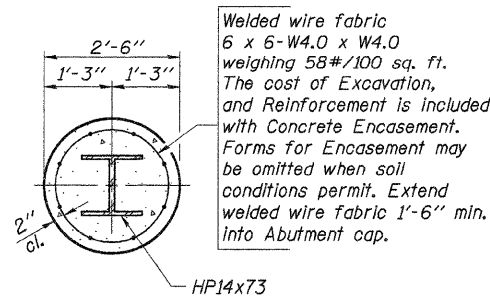
EAST ABUTMENT
 SECTION 07-00188-00-BR
 COUNTY HIGHWAY 3
 WHITESIDE COUNTY
 STA. 48+02.50

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	23
ILLINOIS				

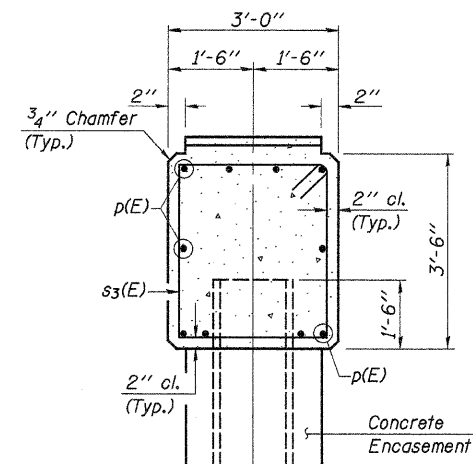
Sheet 18 of 22 Contract No. 85465



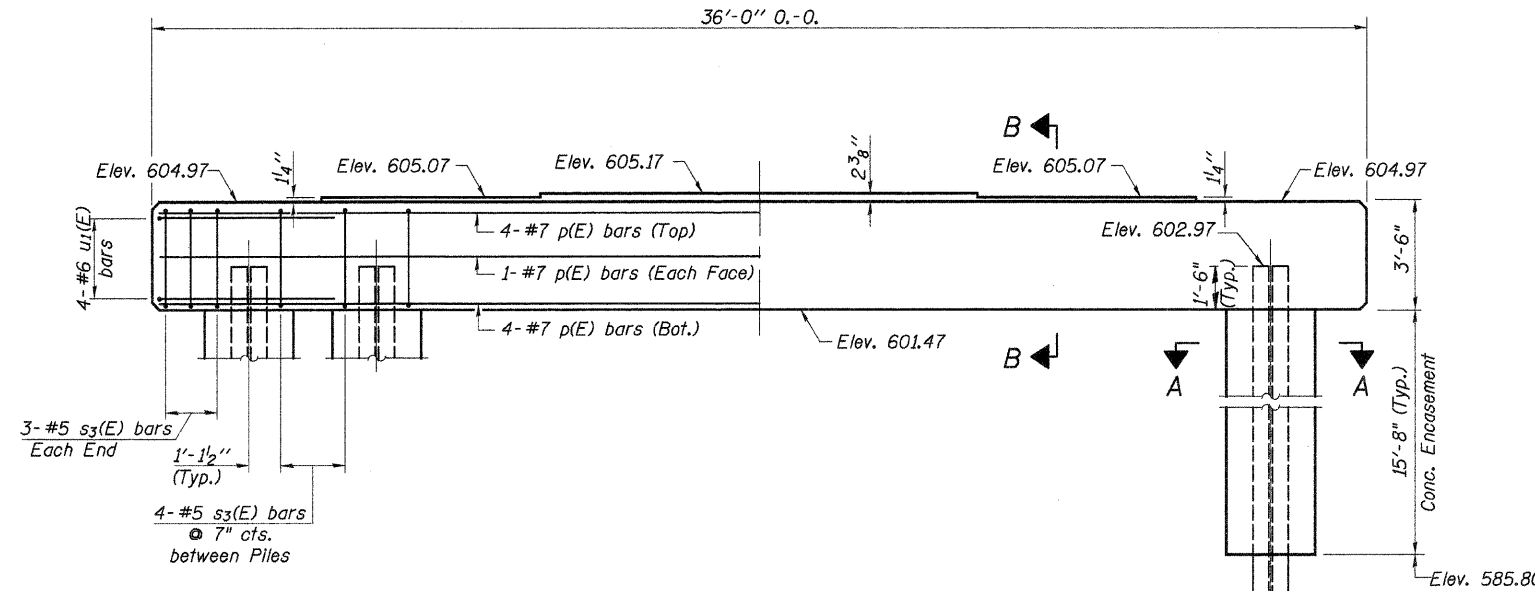
PLAN



SECTION A-A
PILE ENCASEMENT DETAIL



SECTION B-B



ELEVATION
(Looking East)

PILE DATA

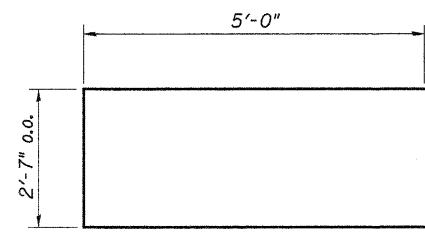
Type & Size	Steel HP14x73
No. Req'd	*18
Nominal Required Bearing	290 kips
Allowable Resistance Available	139 kips
Estimated Length	.87 ft.

*Includes 1 Test Pile to be driven in a permanent location at pier 2.
The test piles shall be driven to 110 percent of the Nominal Required Bearing Indicated above.
The steel H-pile shall be according to AASHTO M270, Grade 50.

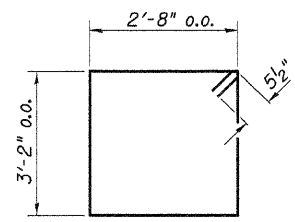
BILL OF MATERIAL - 2 PIERS

BAR	NO.	SIZE	LENGTH	SHAPE	
p(E)	20	#7	35'-8"	—	
s3(E)	76	#5	12'-7"	□	
u1(E)	16	#6	12'-7"	▭	
Concrete Structures				Cu. Yd.	28.8
Reinforcement Bars, Epoxy Coated				Pound	2,760
Driving Piles				Foot	1,479
Furnishing Steel Pile HP14x73				Foot	1,479
Test Piles, HP14x73				Each	1
Concrete Encasement				Cu. Yd.	51.3

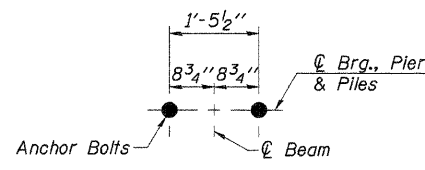
See Sheet 19 of 22 for Pile Details.



BAR u1(E)



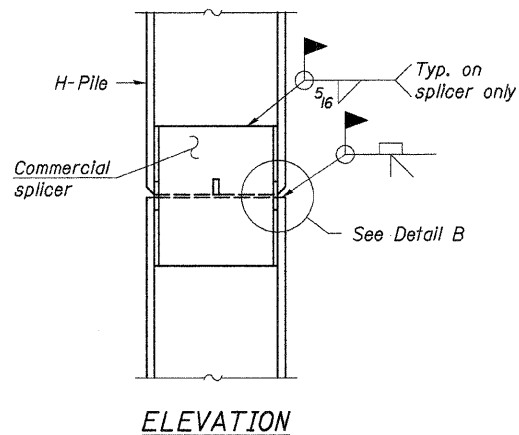
BAR s3(E)



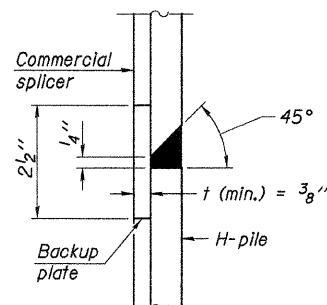
ANCHOR BOLT LAYOUT

DESIGNED -	J.A.M.
CHECKED -	A.L.S.
DRAWN -	S.A.P.
CHECKED -	J.A.M.

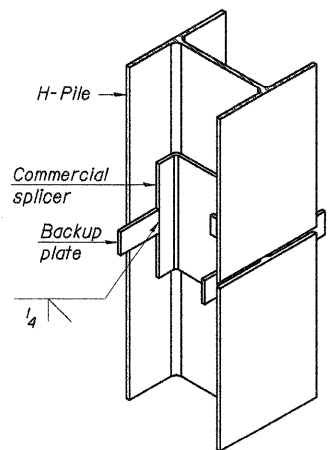
PIERS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50



ELEVATION

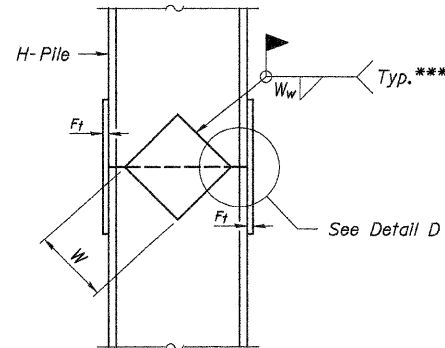


DETAIL "B"

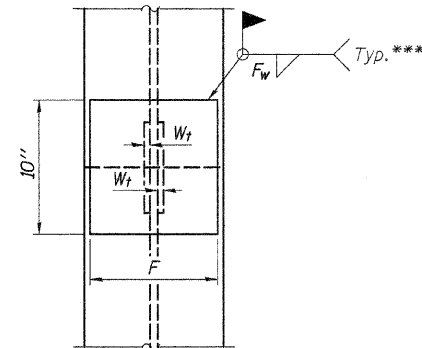


ISOMETRIC VIEW

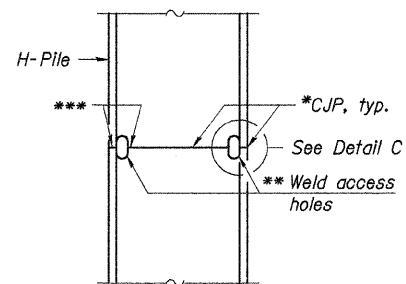
WELDED COMMERCIAL SPLICE



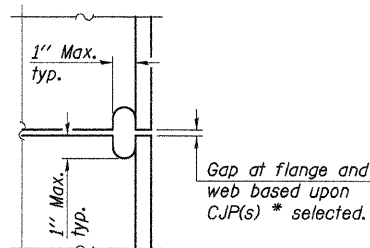
ELEVATION



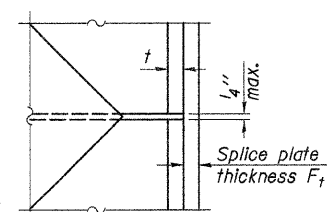
END VIEW



ELEVATION



DETAIL C



DETAIL D

COMPLETE PENETRATION WELD 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"

WELDED PLATE FIELD SPLICE

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

STEEL PILE SPLICING DETAILS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

DESIGNED -	A.L.S.
CHECKED -	A.L.S.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

F-HP

11-1-06

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REGISTERED PROFESSIONAL ENGINEERS & ARCHITECTS IN ILLINOIS

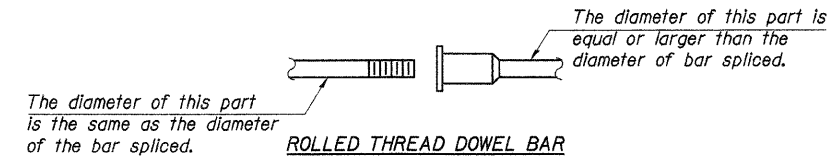
JOB NO.: 47515
FILE: PILES.DGN
DATE: 08/17/09

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 = $1.25 \times f_y \times A_t$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-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

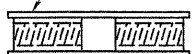


ROLLED THREAD DOWEL BAR



**** ONE PIECE**

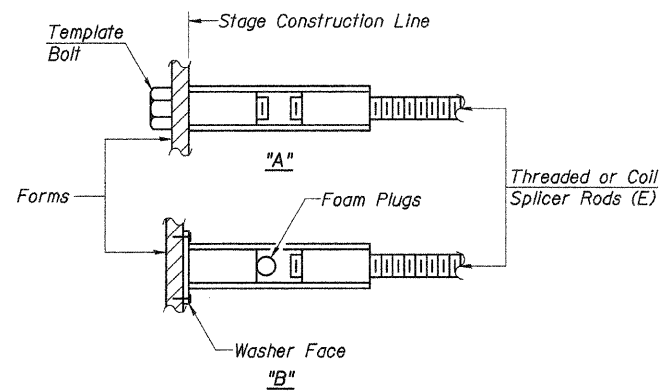
Wire Connector



WELDED SECTIONS

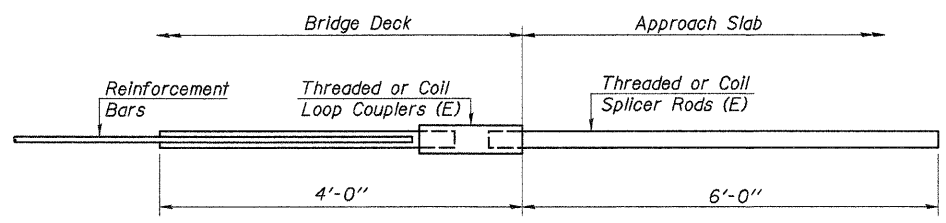
BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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

Bar Size	No. Assemblies Required	Location
#5	72	Abuts.

DESIGNED -	A.L.S.
CHECKED -	A.R.K.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

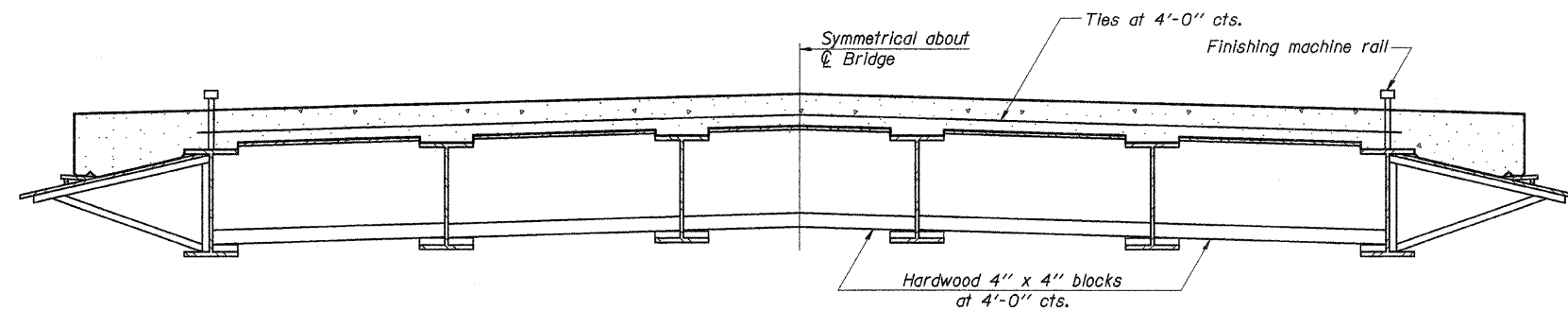
BSD-1 10-1-08

BAR SPLICER ASSEMBLY DETAILS
 SECTION 07-00188-00-BR
 COUNTY HIGHWAY 3
 WHITESIDE COUNTY
 STA. 48+02.50

4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS <small>PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND PLANNERS</small>	JOB NO.: 47515 FILE: SPLICER.DGN DATE: 08/17/09
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	26
ILLINOIS				

Sheet 21 of 22 Contract No. 85465



**FORM BRACES FOR
STANDARD CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

DESIGNED -	A.L.S.
CHECKED -	A.R.K.
DRAWN -	S.A.P.
CHECKED -	A.R.K.

SB-1

10-1-08

CANTILEVER FORMING BRACKETS
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

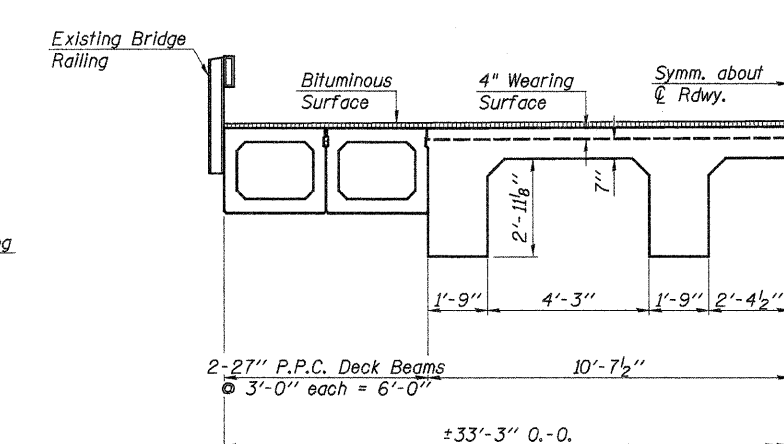
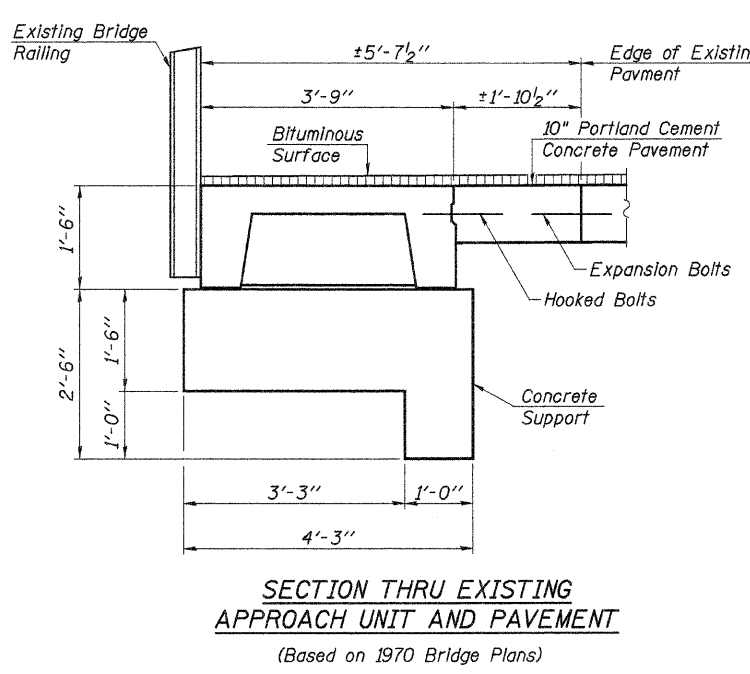
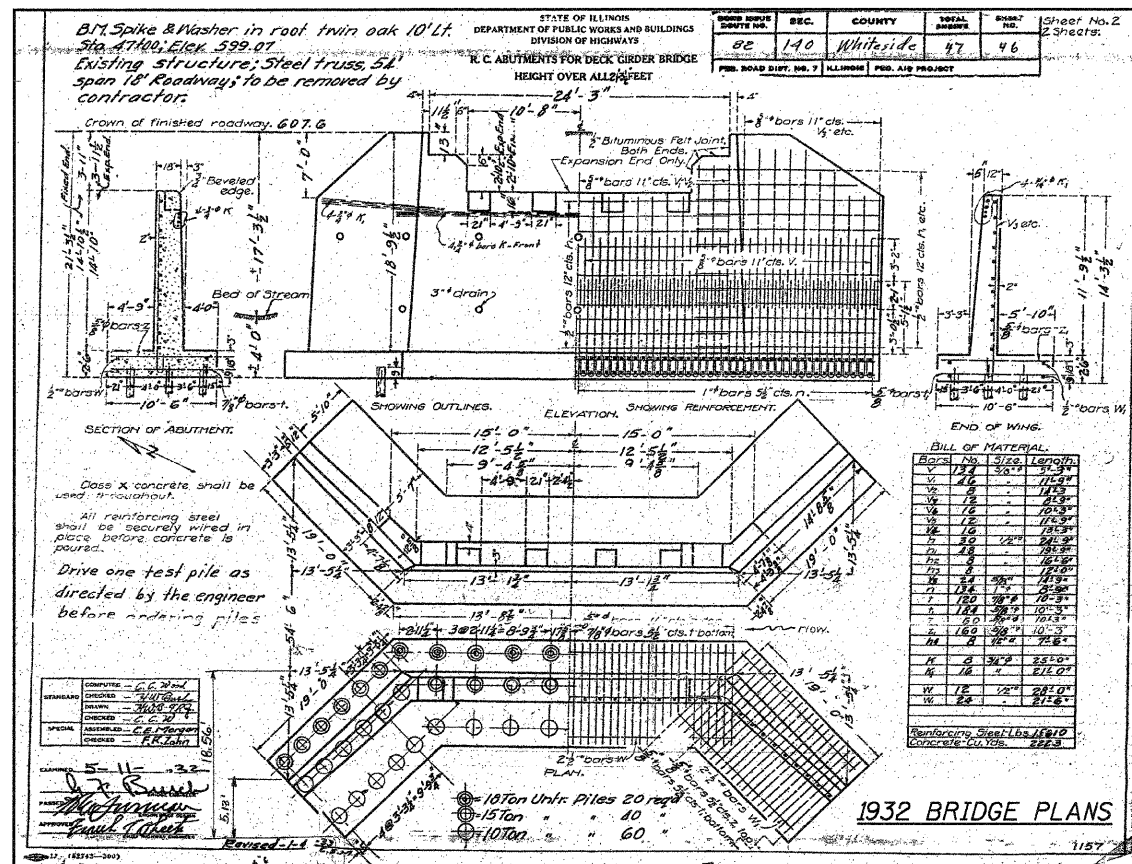
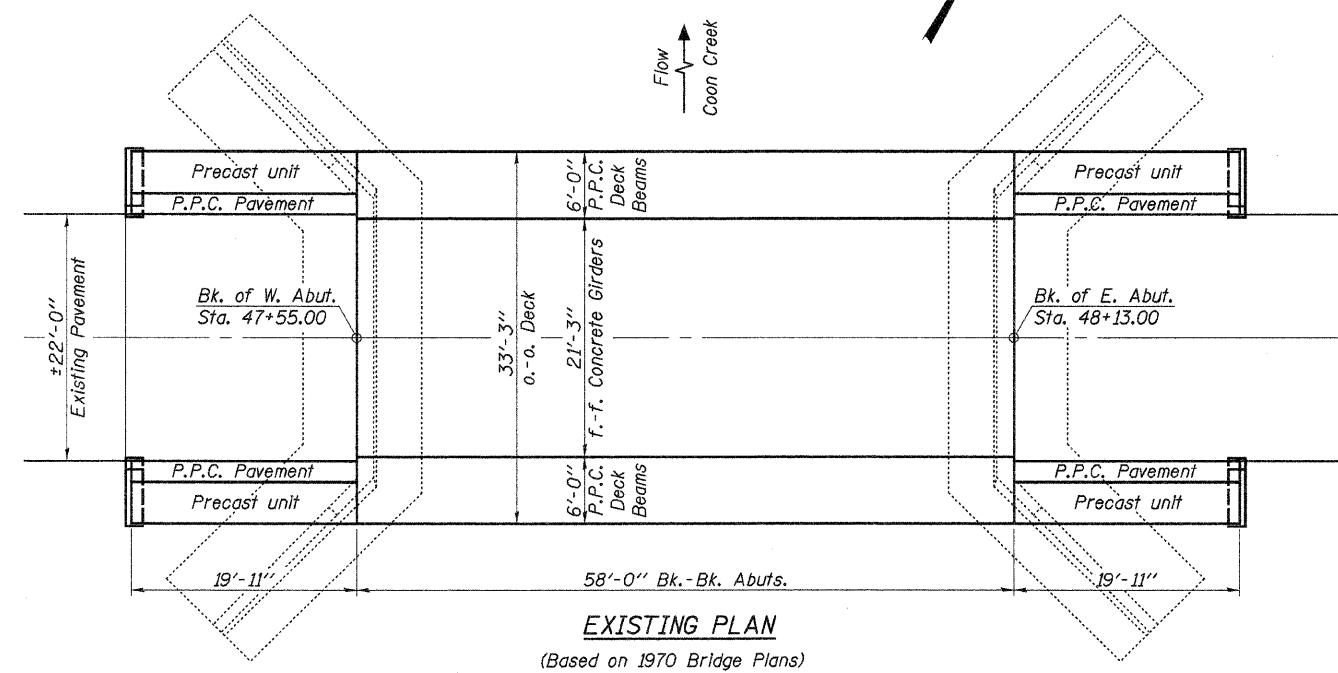
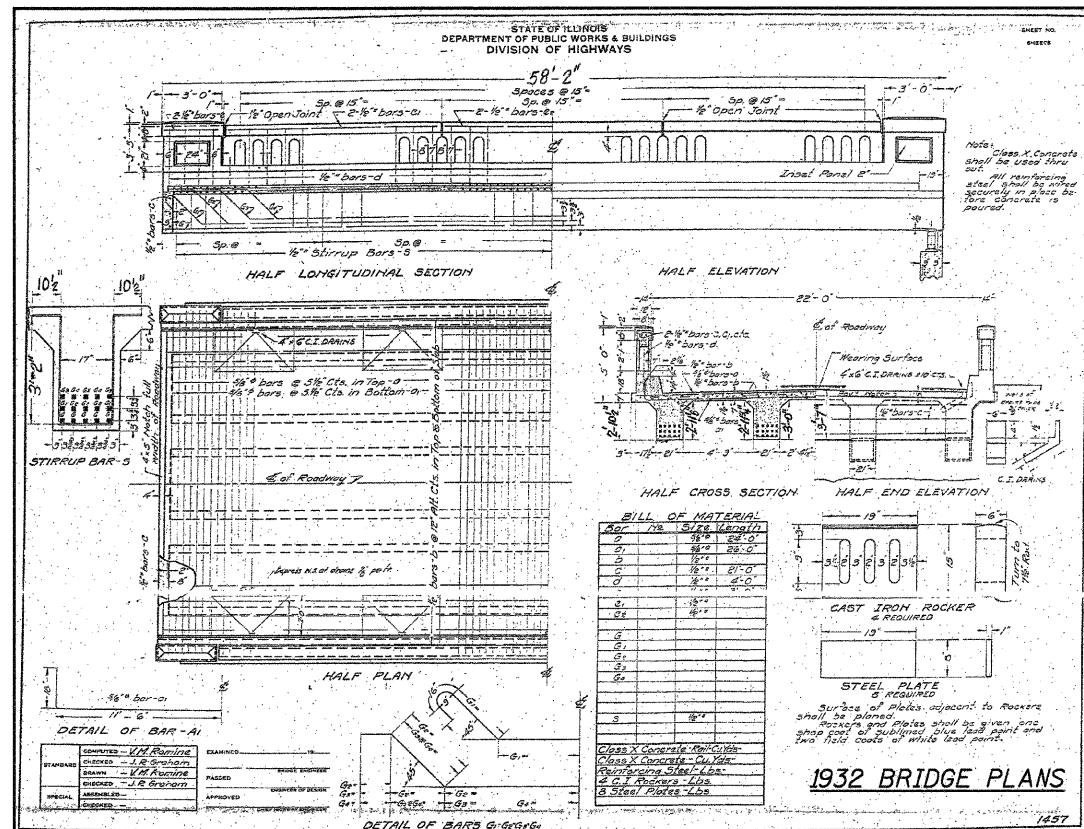
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FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PROFESSIONAL ENGINEERS AND ARCHITECTS
ILLINOIS LICENSE NO. 021-000000000-000000000

JOB NO.: 47515
FILE: CANTILEVER.DGN
DATE: 08/17/09

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	27
		ILLINOIS		

Sheet 22 of 22 Contract No. 85465



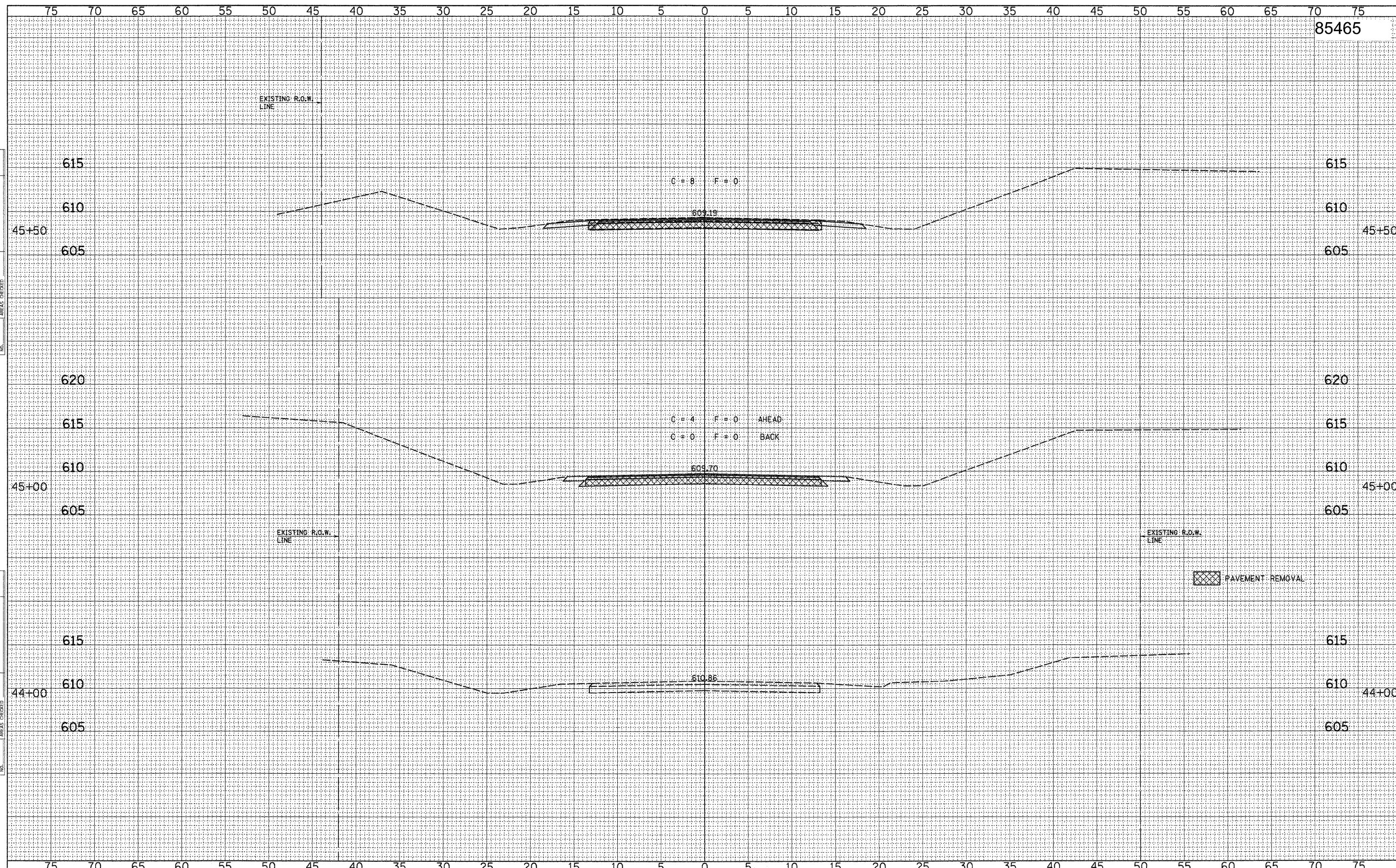
FOR INFORMATION ONLY

EXISTING STRUCTURE INFORMATION
SECTION 07-00188-00-BR
COUNTY HIGHWAY 3
WHITESIDE COUNTY
STA. 48+02.50

85465

DATE	
BY	
ORIGINAL SURVEY	
NOTED	
PLOTTED	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
NOTED	
PLOTTED	
AREAS CHECKED	
NO.	



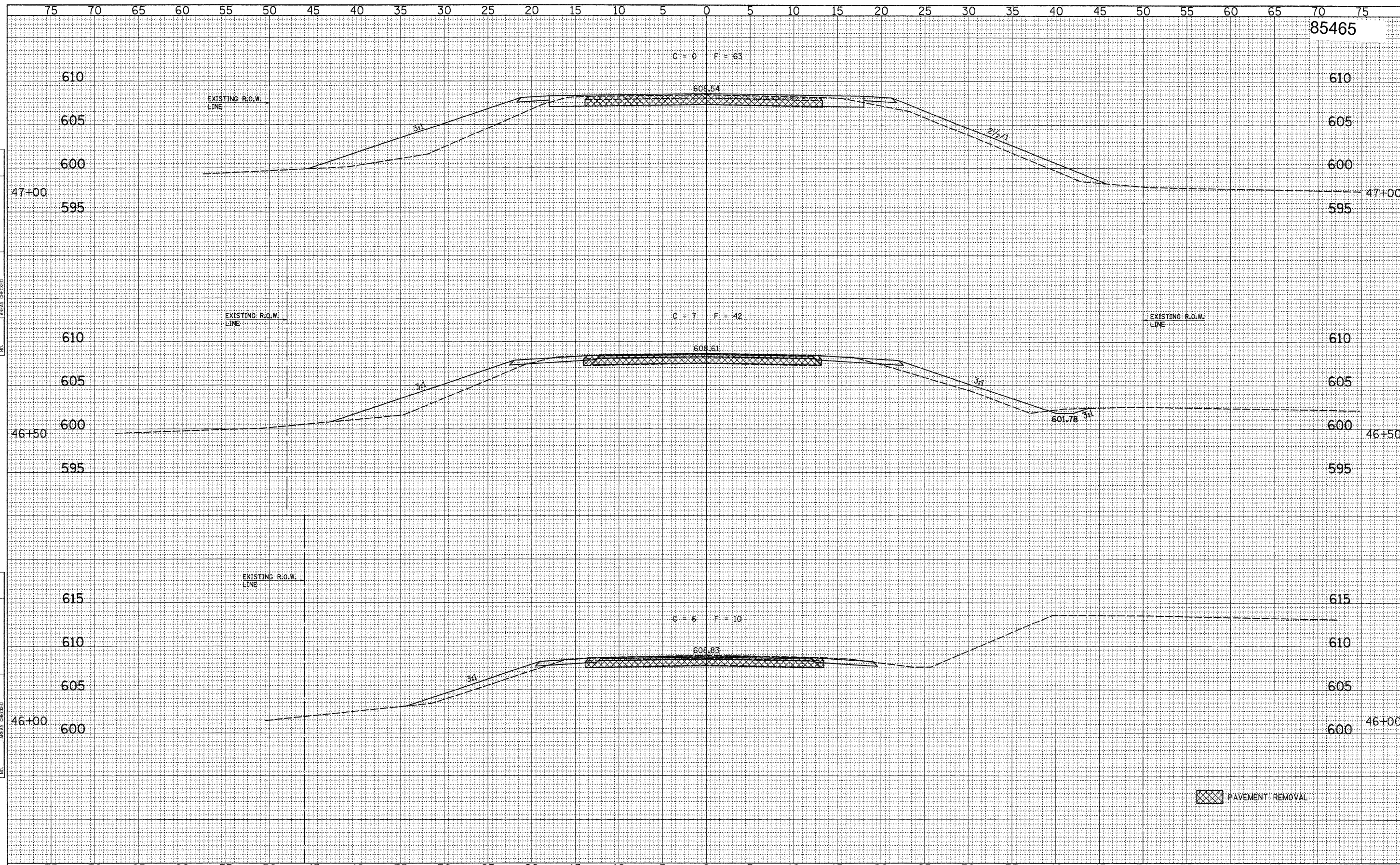
FILE NAME = 47515XS.SHEETS(STAR RD).DGN
 USER NAME = S.A.P.
 PLOT SCALE = 5
 PLOT DATE = 5/27/08

DESIGNED	- G.J.C.	REVISED	-
DRAWN	- S.A.P.	REVISED	-
CHECKED	- R.J.C.	REVISED	-
DATE	- 3/3/09	REVISED	-

FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 FREEPORT, IL ROCKFORD, IL ROCHELLE, IL MONROE, WI SPRINGFIELD, IL

ROADWAY CROSS SECTIONS (STAR RD.)
 SCALE: 1" = 5'
 SHEET NO. 1 OF 4 SHEETS
 STA. 44+00.00 TO STA. 45+50.00

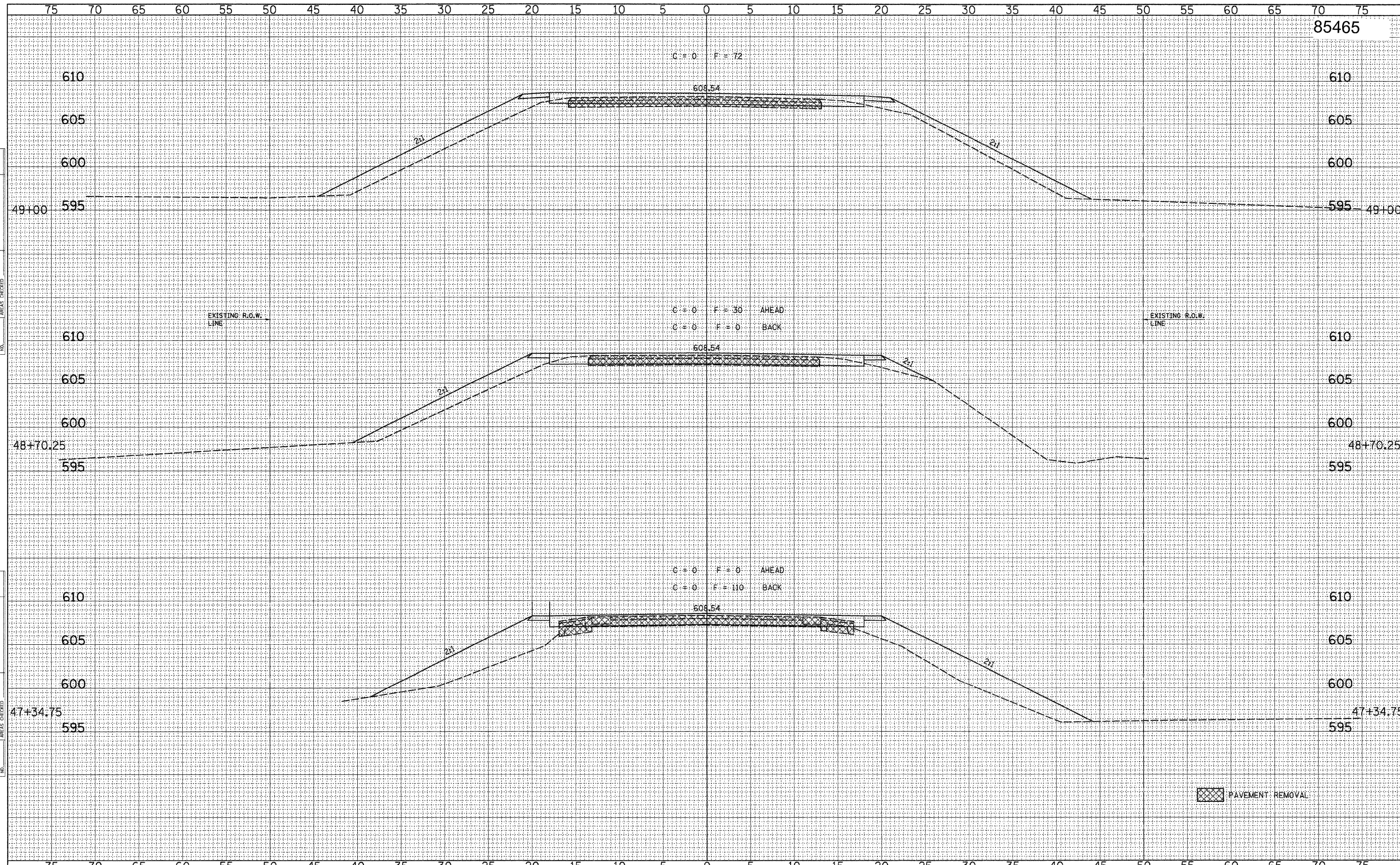
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	28
			CONTRACT NO. 85465	
ILLINOIS				



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

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

FILE NAME = 47515XS.SHEETS\STAR RD.J.DON	USER NAME = S.A.P.	DESIGNED - G.J.C.	REVISED -	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS FREEPORT, IL ROCKFORD, IL ROCHELLE, IL MONROE, WI SPRINGFIELD, IL	ROADWAY CROSS SECTIONS (STAR RD.)		F.A. RTE. C.H. 3	SECTION 07-00188-00-BR	COUNTY WHITESIDE	TOTAL SHEETS 32	SHEET NO. 29	
PLOT SCALE = 5	CHECKED - R.J.C.	REVISED -	REVISED -		SCALE: 1" = 5'	SHEET NO. 2 OF 4 SHEETS	STA. 46+00.00 TO STA. 47+00.00	ILLINOIS		CONTRACT NO. 85465		
PLOT DATE = 5/27/08	DATE - 3/3/09	REVISED -	REVISED -									
*47515												



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

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

FILE NAME =	USER NAME = S.A.P.
47515XS_SHEETS(STAR RD).DGN	
PLOT SCALE = 5	PLOT DATE = 5/27/08

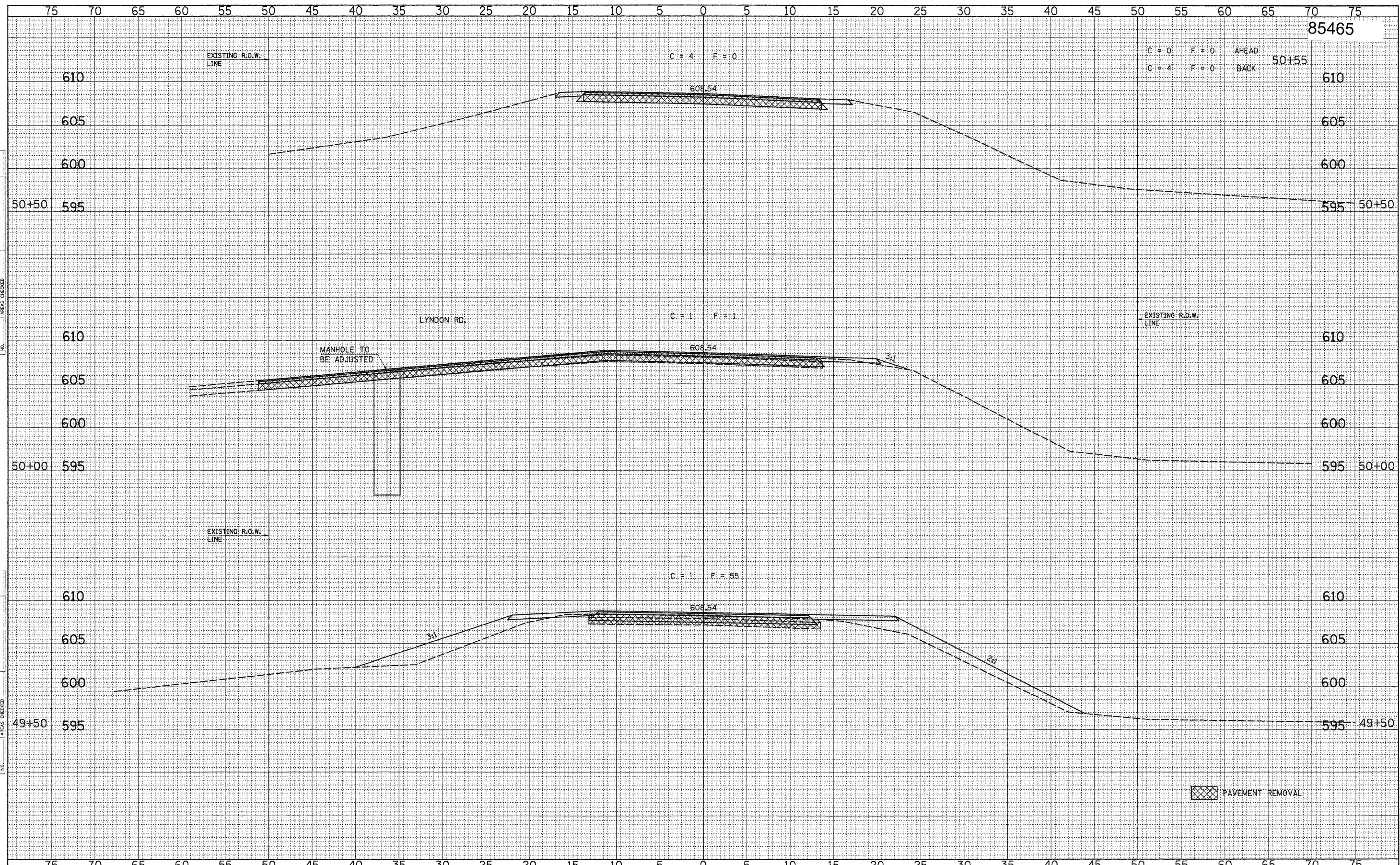
DESIGNED - G.J.C.	REVISED -
DRAWN - S.A.P.	REVISED -
CHECKED - R.J.C.	REVISED -
DATE - 3/3/09	REVISED -

FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 FREEPORT, IL ROCKFORD, IL ROCHELLE, IL MONROE, WI SPRINGFIELD, IL

ROADWAY CROSS SECTIONS (STAR RD.)
 SCALE: 1" = 5'
 SHEET NO. 3 OF 4 SHEETS
 STA. 47+34.75 TO STA. 49+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3	07-00188-00-BR	WHITESIDE	32	30
CONTRACT NO. 85465			ILLINOIS	

85465



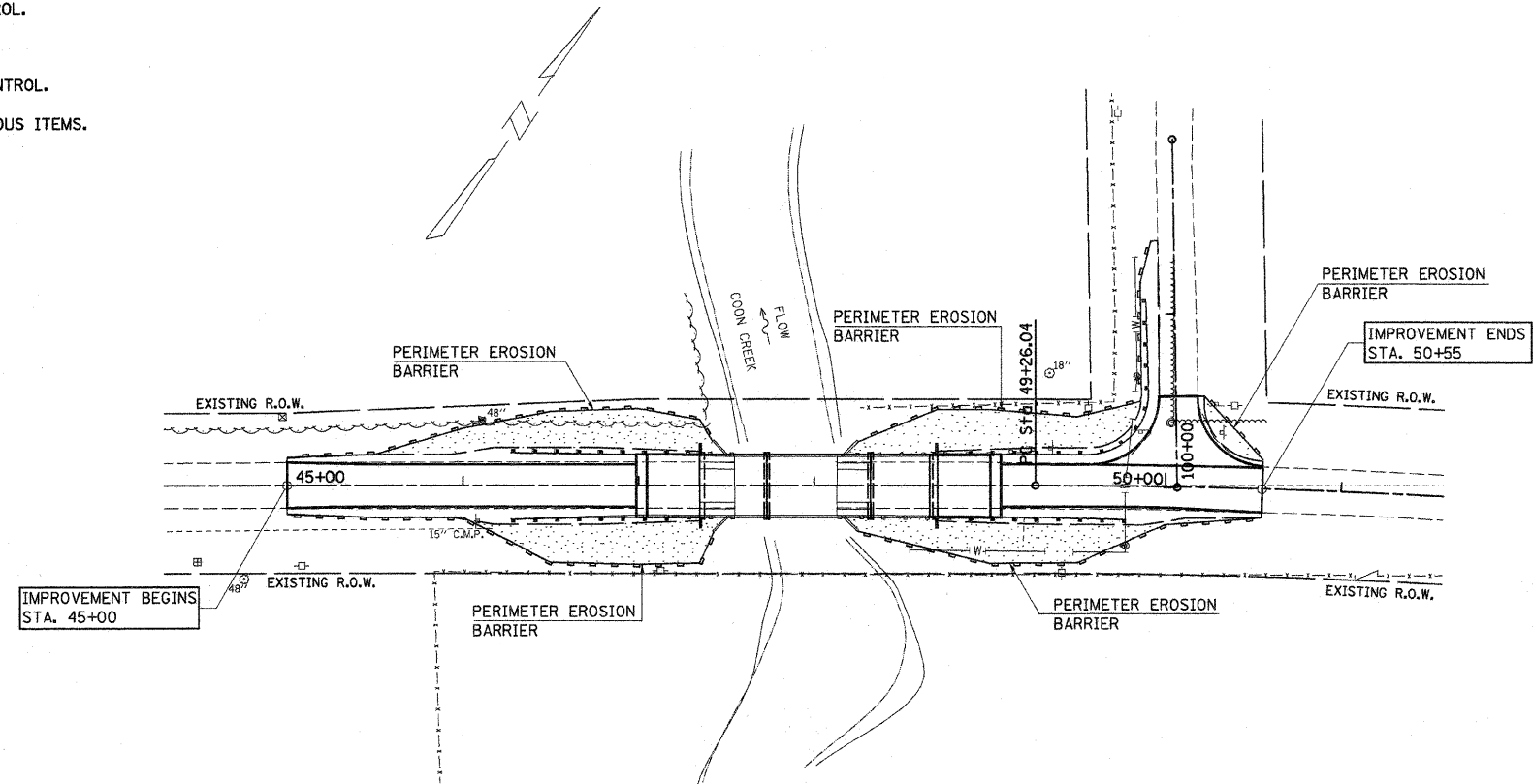
DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	DATE
	AREAS CHECKED

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

FILE NAME = 47515XS.SHEETS\STAR RD.DGN	USER NAME = S.A.P.	DESIGNED - G.J.C.	REVISED -	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS FREEPORT, IL ROCKFORD, IL ROCHELLE, IL MONROE, WI SPRINGFIELD, IL	ROADWAY CROSS SECTIONS (STAR RD.)			F.A. RTE. C.H. 3	SECTION 07-00188-00-BR	COUNTY WHITESIDE	TOTAL SHEETS 32	SHEET NO. 31
	PLOT SCALE = 5	DRAWN - S.A.P.	REVISED -		SCALE: 1" = 5'	SHEET NO. 4 OF 4 SHEETS	STA. 49+50.00 TO STA. 50+55.00	ILLINOIS	CONTRACT NO. 85465			
	PLOT DATE = 5/27/09	CHECKED - R.J.C.	REVISED -									
		DATE - 3/3/09	REVISED -									

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 FENCE PRIOR TO THE COMMENCEMENT OF ANY ROAD OR BRIDGE WORK. SEE STD. 280001.
2. REMOVAL OF EXISTING STRUCTURE.
3. CONSTRUCTION OF THE REPLACEMENT STRUCTURE.
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.



TEMPORARY EROSION CONTROL:	
	PERIMETER EROSION BARRIER
PERMANENT EROSION CONTROL:	
	SEEDING CLASS 2, FERTILIZERS, & MULCH, METHOD 2

TEMPORARY EROSION CONTROL SEEDING

LT. STA. 45+00 TO LT. STA. 47+43	= 11 POUND
RT. STA. 45+00 TO RT. STA. 47+43	= 10 POUND
LT. STA. 48+25 TO LT. STA. 49+97	= 12 POUND
LT. STA. 50+19 TO LT. STA. 50+55	= 1 POUND
RT. STA. 48+25 TO RT. STA. 50+55	= 11 POUND
TOTAL	= 45 POUND

PERIMETER EROSION BARRIER

LT. STA. 45+00 TO LT. STA. 47+43	= 253 FOOT
RT. STA. 45+00 TO RT. STA. 47+43	= 260 FOOT
LT. STA. 48+25 TO LT. STA. 49+97	= 256 FOOT
LT. STA. 50+19 TO LT. STA. 50+55	= 55 FOOT
RT. STA. 48+25 TO RT. STA. 50+55	= 236 FOOT
TOTAL	= 1,060 FOOT

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
TEMPORARY EROSION CONTROL SEEDING	POUND	45
PERIMETER EROSION BARRIER	FOOT	1,060

THE QUANTITIES ABOVE ARE ESTIMATES ONLY. ACTUAL QUANTITIES FOR EROSION CONTROL WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND THERE WILL BE NO ADJUSTMENT IN ANY PRICE DUE TO A CHANGE IN PLAN QUANTITY.