

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1622	07-00100-00-BR	SANGAMON	16	1
		ILLINOIS	CONTRACT NO. 93506	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

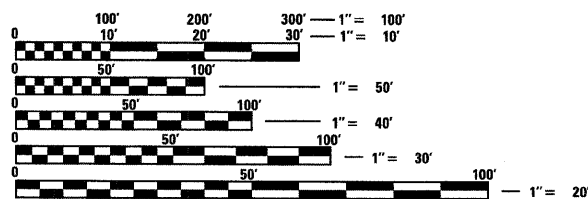
PLANS FOR PROPOSED BRIDGE REHABILITATION HIGHWAY BRIDGE PROGRAM

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES AND SUMMARY OF QUANTITIES
- 3 TYPICAL SECTIONS
- 4 PLAN AND PROFILE
- 5-16 BRIDGE PLANS

STANDARDS

- 280001-05 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-03 NAME PLATES
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631032-05 TRAFFIC BARRIER TERMINAL TYPE 6A
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 701901-01 TRAFFIC CONTROL DEVICES
- 780001-02 TYPICAL PAVEMENT MARKINGS
- BLR 21-8 TYPICAL APPLICATION FOR TRAFFIC CONTROL DEVICES FOR LOCAL HIGHWAYS

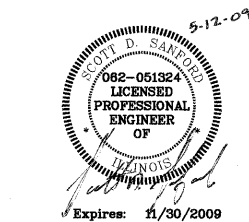


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

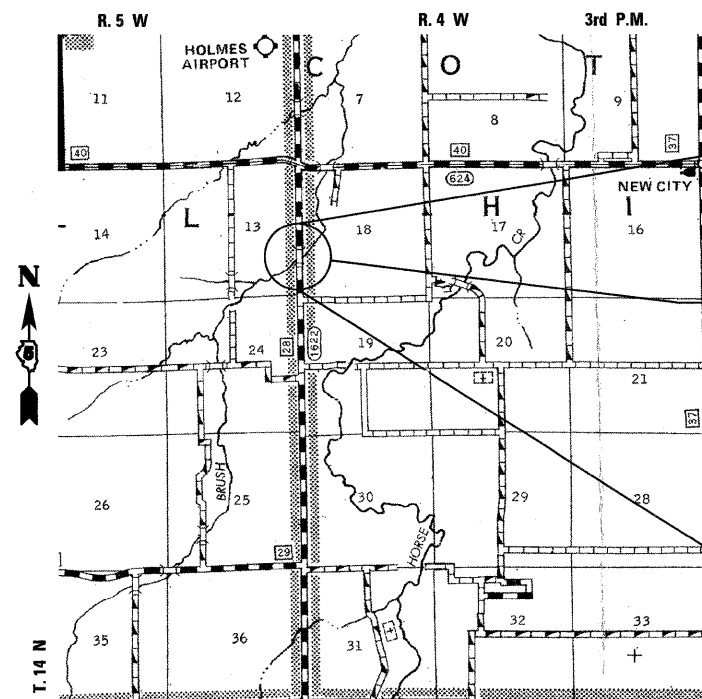
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: CHRISTOPHER M. VOLLMER, P.E.
PROJECT MANAGER: SCOTT D. SANFORD, P.E., S.E.

CONTRACT NO. 93506



F.A.S. 1622 - CH 28 (PAWNEE ROAD)
SANGAMON COUNTY
SECTION 07-00100-00-BR
PROJECT BHS-1622 (108)
JOB NUMBER C-96-237-09



LOCATION MAP

TOTAL LENGTH = 400.00 FEET (0.076 MI)
NET LENGTH = 400.00 FEET (0.076 MI)



LOCATION MAP SCALE

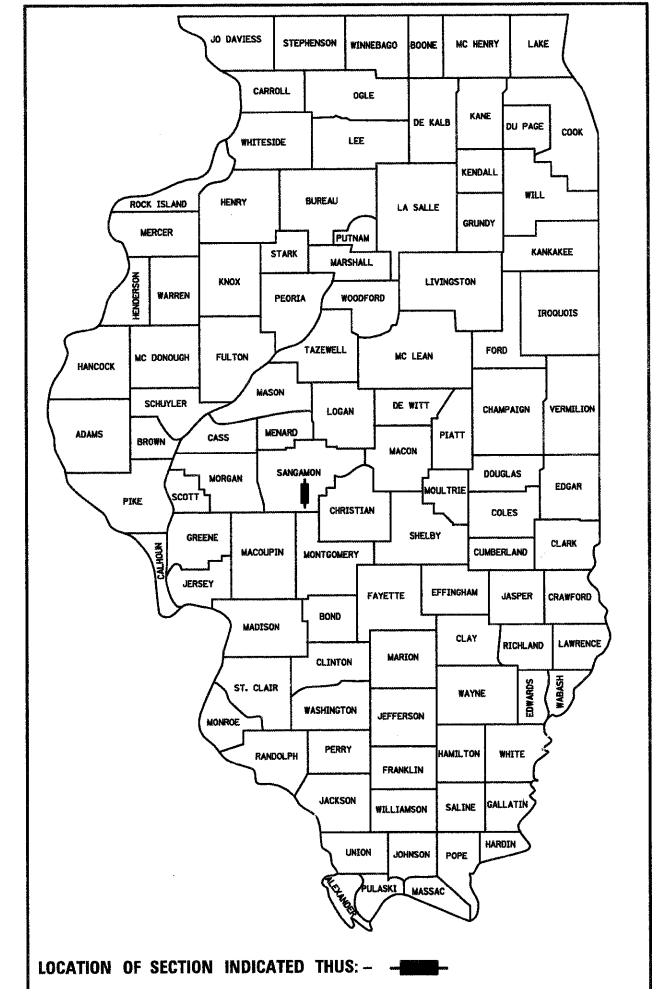
IMPROVEMENTS ENDS
STA. 142 + 20.00

STA. 144 + 20 SUPERSTRUCTURE REPLACEMENT
PRECAST PRESTRESSED CONCRETE
DECK BEAM BRIDGE, HMA WEARING
SURFACE. THREE SPANS AT 151'-6"
BACK-TO-BACK OF ABUTMENTS.
27'-0" OUT-TO-OUT, 35 DEGREE RT. FWD. SKEW.
SN 084-3037.

IMPROVEMENTS BEGINS
STA. 146 + 20.00

UTILITY COMPANIES

RURAL ELECTRIC
CONVENIENCE COOP.
3973 W. STATE RT. 104
P.O. BOX 19
AUBURN, IL 62615
PHONE: 217-438-6197
CONTACT: MARTY HINTON / TOM JONES



FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR (NON-URBAN)
2029 ADT = 1900
DESIGN SPEED = 50 MPH

APPROVED MAY 28 20 09
[Signature]
COUNTY ENGINEER

APPROVED OCTOBER 26 20 09
[Signature]
DISTRICT SIX ENGINEER OF LOCAL ROADS AND STREETS

APPROVED October 26, 20 09
[Signature]
DISTRICT SIX CONSTRUCTION ENGINEER

Releasing For Bid Based on Limited Review
OCTOBER 26 20 09
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS
REGION FOUR ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	TOTAL
20200100	EARTH EXCAVATION	CU YD	28
20300100	CHANNEL EXCAVATION	CU YD	947
20400800	FURNISHED EXCAVATION	CU YD	222
• 20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	33
• 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2
28000315	AGGREGATE DITCH CHECKS	TON	24
28100107	STONE RIPRAP, CLASS A4	SQ YD	1,417
28200200	FILTER FABRIC	SQ YD	1,417
35101400	AGGREGATE BASE COURSE, TYPE B	TON	4
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	77
48101200	AGGREGATE SHOULDERS, TYPE B	TON	107
• 50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	39
• 50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	4,050
Δ 50901050	STEEL RAILING, TYPE SM	FOOT	303
51500100	NAME PLATES	EACH	1
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	450
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	480
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	20
• 60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	80
Δ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	400
67100100	MOBILIZATION	L SUM	1
• 70101700	TRAFFIC CONTROL AND PROTECTION	LSUM	1
Δ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	40
Δ • 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
• X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	51
• Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	36

• SPECIAL PROVISION CONSTRUCTION TYPE CODE: X081-2A
 Δ SPECIALTY ITEMS

GENERAL NOTES

- WHERE PERMANENT SURVEY MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE DISTURBED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATION.
- THE ENGINEER SHALL NOT GUARANTEE THE WORK OF ANY CONTRACTOR OR SUBCONTRACTOR, SHALL HAVE NO SUPERVISION OF THE PERSONS DOING THE WORK, SHALL HAVE NO CHARGE OF THE WORK, SHALL NOT BE RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE JOB SITE OR HAVE ANY CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENT, SCAFFOLDING, SUPPORT, FORMS OR OTHER WORK AIDS.
- THE FOLLOWING RATES WERE USED IN CALCULATING QUANTITIES FOR THIS PROJECT:

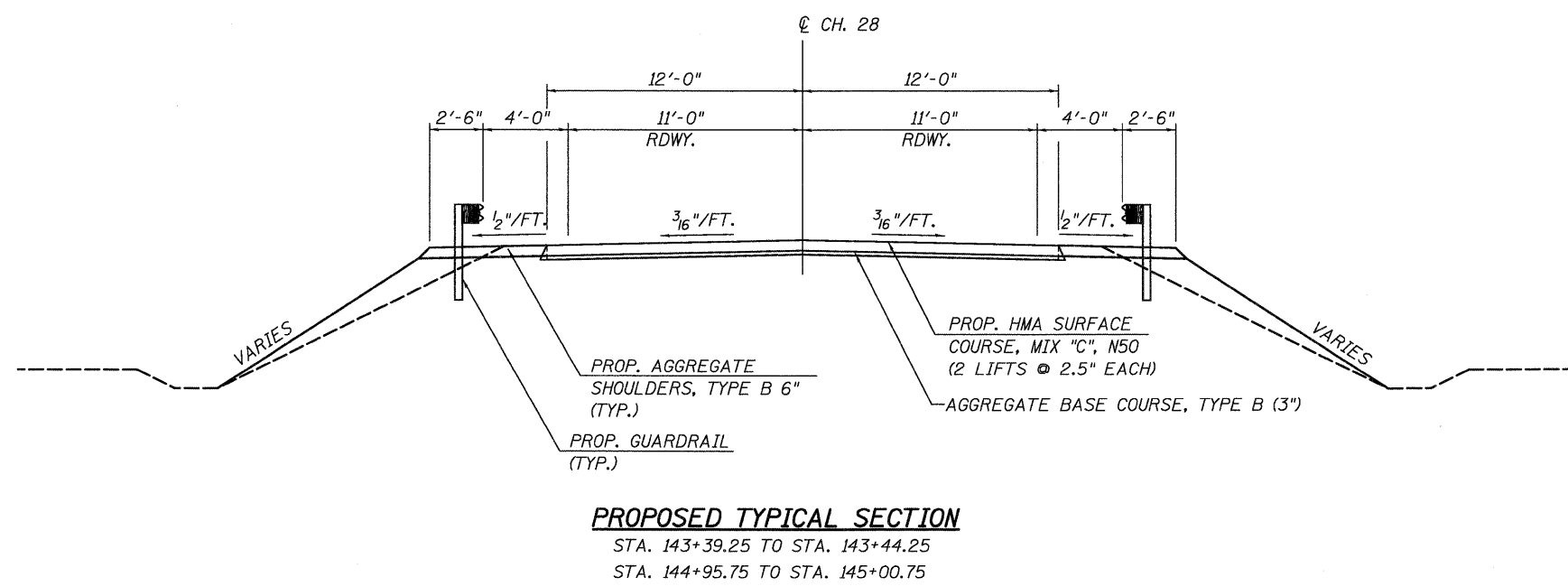
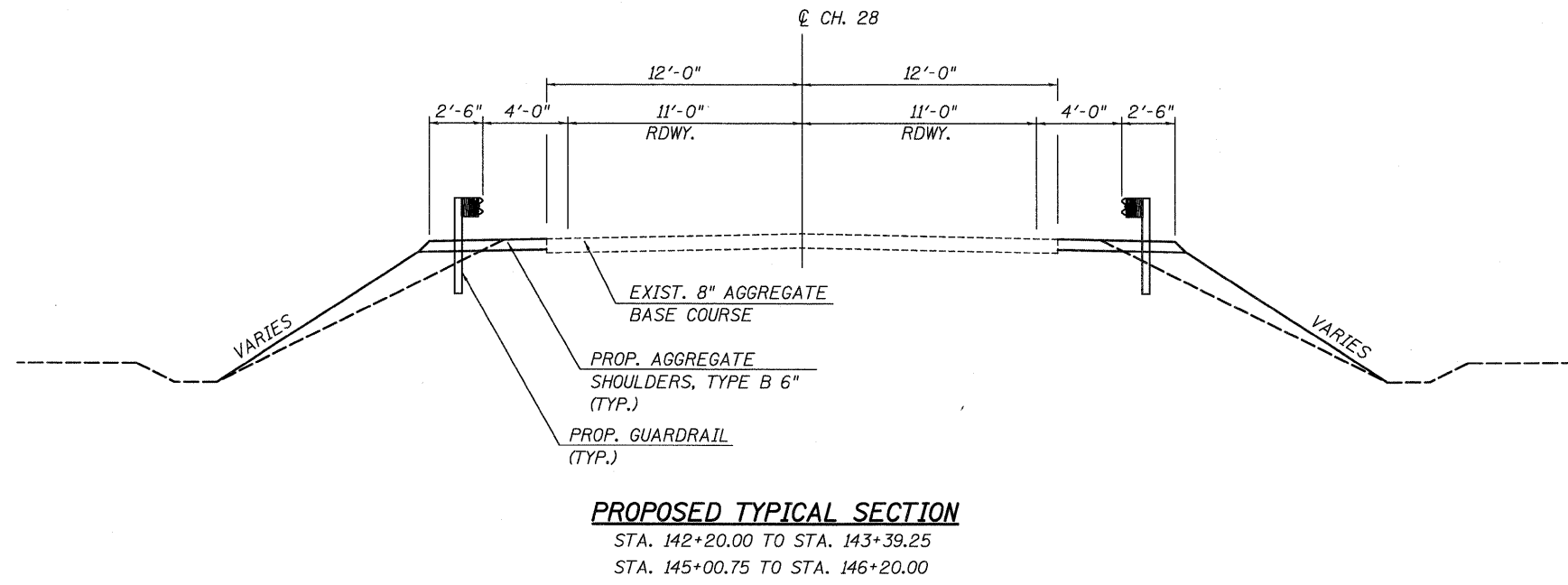
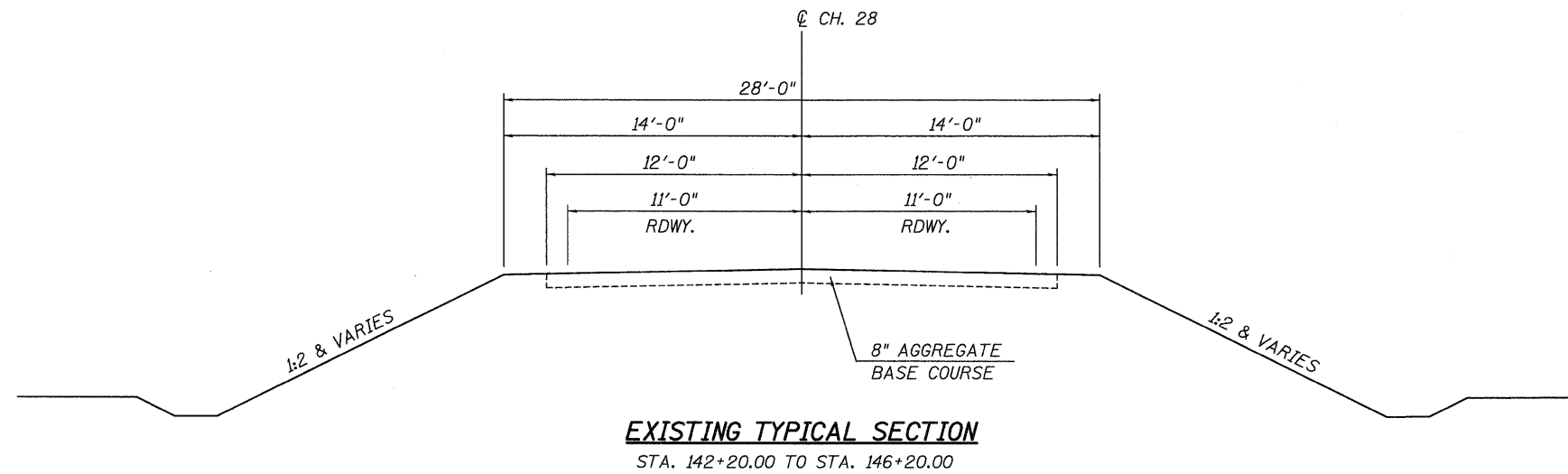
RIPRAP:	1.5 TONS/CU YD
AGGREGATE SHOULDERS:	2.05 TONS/CU YD
AGGREGATE BASE COURSE:	2.05 TONS/CU YD
BITUMINOUS MATERIALS (PRIME COAT):	0.375 GAL/SY
BITUMINOUS MATERIALS (COVER & SEAL COAT):	0.35 GAL/SY
COVER & SEAL COAT AGGREGATE:	23 LB/SY
- CONTRACTOR SHALL FOLLOW CONSTRUCTION REQUIREMENTS OF SECTION 611 WHEN EXISTING FIELD TILE IS ENCOUNTERED UNLESS DIRECTED OTHERWISE BY ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES FOR THE WORK ITEMS SPECIFIED.
- THE CONTRACTOR SHALL REPLACE ALL STREET SIGNS REMOVED DURING CONSTRUCTION AS NEAR AS POSSIBLE TO THEIR ORIGINAL LOCATION OR AS DETERMINED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES FOR THE WORK ITEMS SPECIFIED.

EARTH WORK SCHEDULE

LOCATION	1	2	3	4
	20200100 EARTH EXCAVATION	*EXCAVATION TO BE USED IN EMBANKMENT (ADJUSTED FOR SHRINKAGE) (COL 1 x 0.75) (CU. YD.)	*EMBANKMENT (FILL)	20400800 FURNISHED EXCAVATION
142+20 TO 143+40	14	11	122	111
145+00 TO 146+20	14	11	122	111
TOTAL	28	22	244	222
EARTH EXCAVATION SHRINKAGE FACTOR = 25%				
ITEMS MARKED WITH AN ASTERISK (*) ARE FOR INFORMATIONAL PURPOSES ONLY				

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
ITEM	AGGREGATE COMPOSITION	ASPHALT GRADE	DESIGN AIR VOIDS
HMA SURFACE CSE	IL-9.5 OR 12.5 MIX "C"	PG 64-22	4.0% @ N50

HOT-MIX ASPHALT QUANTITIES BASED ON 112 LB./SQ. YD./INCH



USER NAME = dheberling	DESIGNED - CMV	REVISED
PLOT SCALE = 1/4" = 1' / IN.	DRAWN - DLH	REVISED
PLOT DATE = 5/11/2009	CHECKED - JAC	REVISED
	DATE - 3-16-2009	REVISED

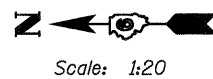
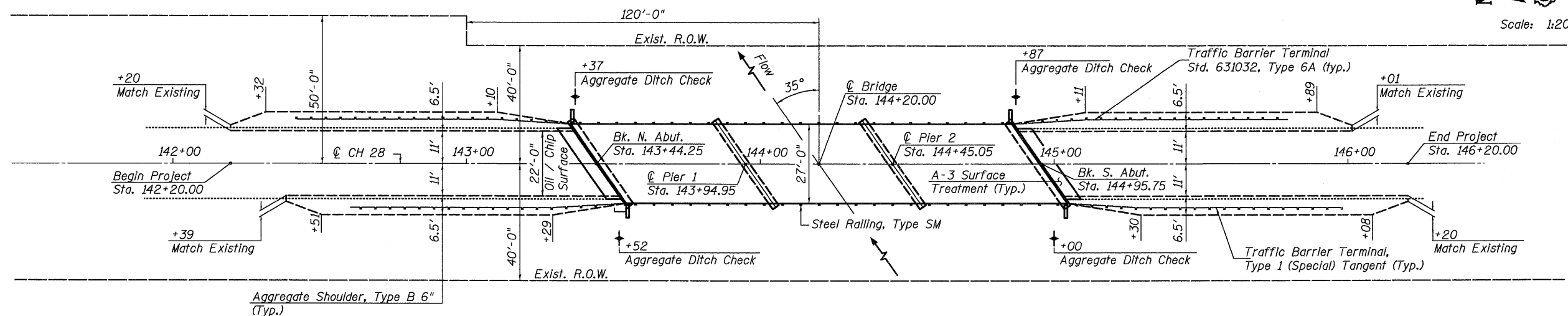
WHKS & CO.
ENGINEERING
 7018 KINGSMILL CT.,
 SPRINGFIELD, IL
 (217) 483-9457
 DESIGN FIRM #184001036

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS		
CH 28 OVER BRUSH CREEK		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.

F.A.S. RTE. 1622	SECTION 07-00100-00-BR	COUNTY SANGAMON	TOTAL SHEETS 16	SHEET NO. 3
S.N. -	CONTRACT 93506		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	REVISIONS		
	NO. OF REVISIONS		
	CADD FILE NAME		
	NO.		



CHANNEL EXCAVATION

The channel shall be excavated as shown within the limits of the proposed structure, then tapered to the existing channel at the R.O.W. lines.

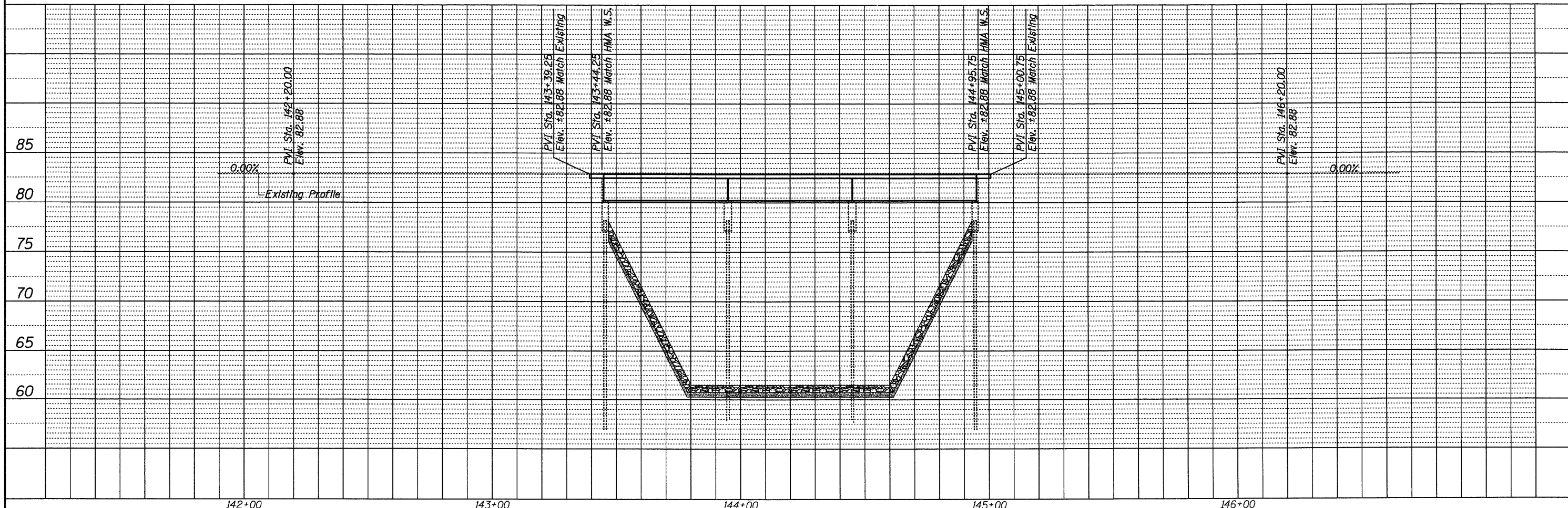
Channel Excavation = 947 C.Y.

B.M.: None

Note:

Stations & Elevations shown on these plans are according to 1960 survey for the purpose of reconstruction.

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	REVISIONS		
	NO. OF REVISIONS		
	STRUCTURE NOTATION CHFD		
	NO.		



USER NAME = dheber.ling	DESIGNED - CMV	REVISED
	DRAWN - DLH	REVISED
	CHECKED - JAC/SDS	REVISED
	DATE - 03-16-2009	REVISED

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE	
CH 28 OVER BRUSH CREEK	
SCALE: 20	SHEET NO. 1 OF 1 SHEETS
STA. 143+39.25 TO STA. 145+00.75	

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	07-00100-00-BR	SANGAMON	16	4
S.N. -	CONTRACT		93506	
LOCAL ROAD PROJECT		ILLINOIS FED. AID PROJECT		

B.M.: None

Existing Structure: 3 span PPC Deck Beam Bridge with bituminous wearing surface and concrete curbs. Precast concrete pile bent piers and timber pile supported stub abutments. Contractor to remove and replace superstructure. Road to be closed during construction.

No Salvage

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

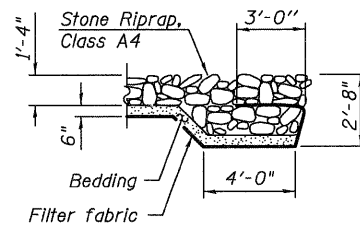
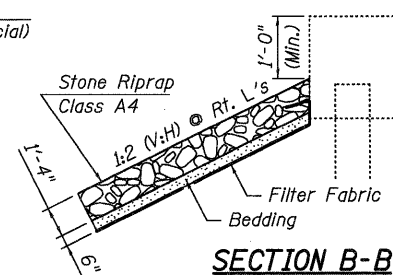
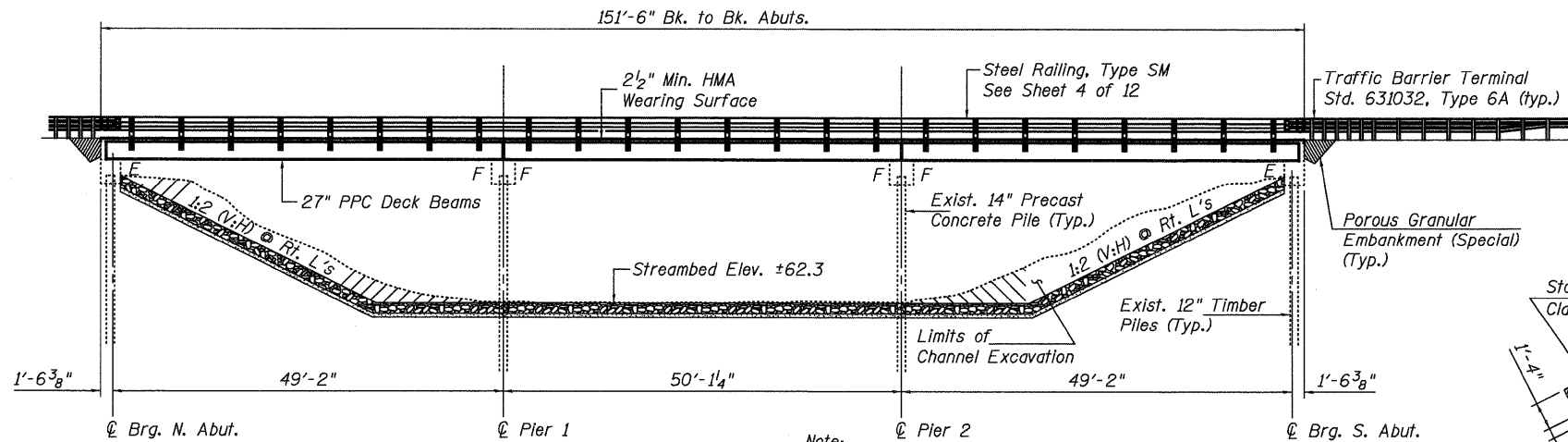
- 1. General Plan & Elevation
2.-3. PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type SM
6. Substructure Repairs
7.-12. Existing Bridge Plans

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. Plan dimensions and details relative to existing plans are subject to nominal construction variations.

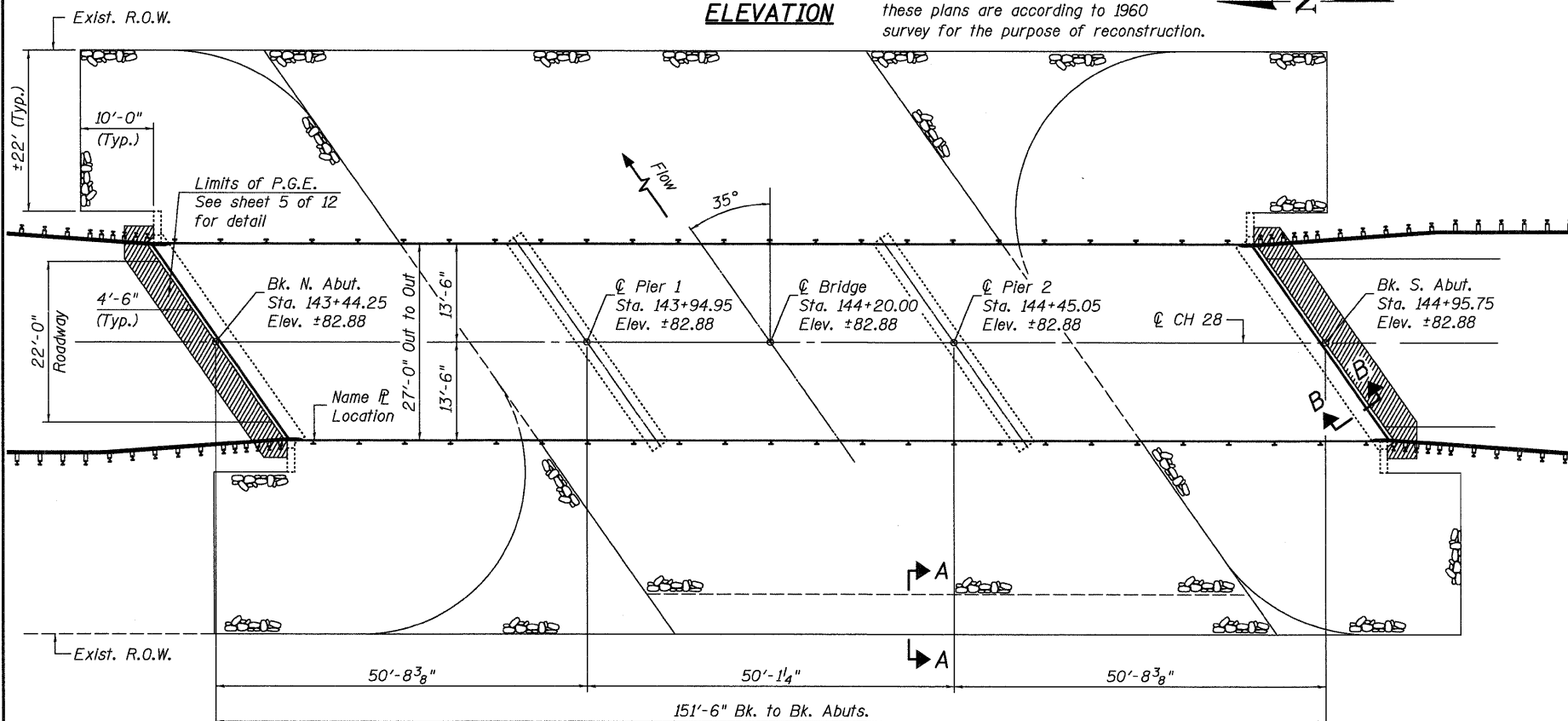
TOTAL BILL OF MATERIAL

Table with 5 columns: ITEM, UNIT, SUPER, SUB, TOTAL. Lists materials like Channel Excavation, Stone Riprap, and Precast Prestressed Concrete Deck Beams.



Note: Stations & Elevations shown on these plans are according to 1960 survey for the purpose of reconstruction.

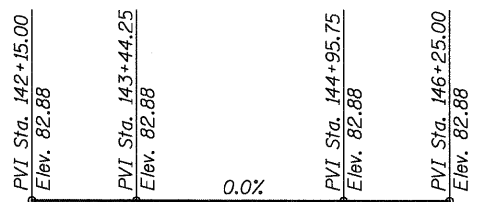
ELEVATION



PLAN

EXISTING WATERWAY INFORMATION

Drainage Area = 42.7 Sq. Miles
Present Opening (15yr) = 950 Sq. Ft.
Design High Water Elev. (15yr) = 78.3



BRUSH CREEK REBUILT 2009 BY SANGAMON COUNTY SEC. 07-00100-00-BR F.A.S. RT. 1642 STA. 144+20 STR. NO. 084-3037 LOADING HL93

NAME PLATE

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

LOADING HS20-44 No future wearing surface allowed. DESIGN SPECIFICATIONS 2002 AASHTO

DESIGN STRESSES

FIELD UNITS (NEW CONST.) f'c = 6,000 psi f'ci = 5,000 psi f's = 270,000 psi (1/2" low-lax strands) f'si = 201,960 psi (1/2" low-lax strands)

FIELD UNITS (EXISTING CONST.)

f'c = 3,500 psi fy = 40,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.161g Design Spectral Acceleration at 0.2 sec. (SDS) = 0.301g Soil Site Class = D

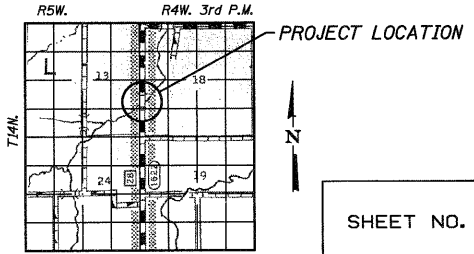


Expires: 11/30/2010

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.

Signed: [Signature] Dated: 5-12-09

GENERAL PLAN AND ELEVATION PAWNEE ROAD (FAS 1622) OVER BRUSH CREEK



LOCATION SKETCH

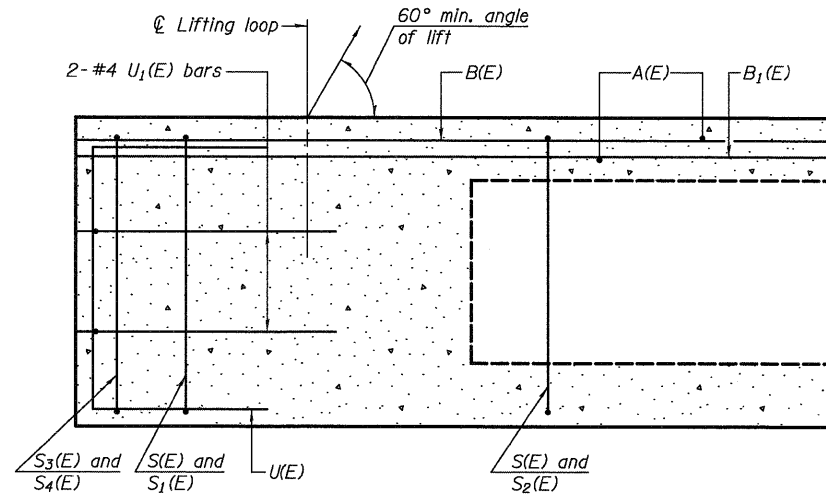
Table with 2 columns: Role and Name. Includes DESIGNED - CMV, CHECKED - SDS, DRAWN - DLH, CHECKED - CMV.

WHKS & Co. ENGINEERING logo and address: 7018 KINGSMILL CT., SPRINGFIELD, IL (217) 483-9457 DESIGN FIRM #184001036

Table with 5 columns: SHEET NO., F.A. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO. Includes SHEET NO. 1, 12 SHEETS, F.A. RTE. 1622, SECTION 07-00100-00-BR, COUNTY SANGAMON, TOTAL SHEETS 16, SHEET NO. 5, S.N. 084-3037, CONTRACT NO. 93506, FED. ROAD DIST. NO. ILLINOIS, FED. AID PROJECT.

Operator: dneberling Date: 5/11/2009 Filename: L:\Jobs\Sangamon_County\6919\Drawings\Structure\SN084-3037.dgn

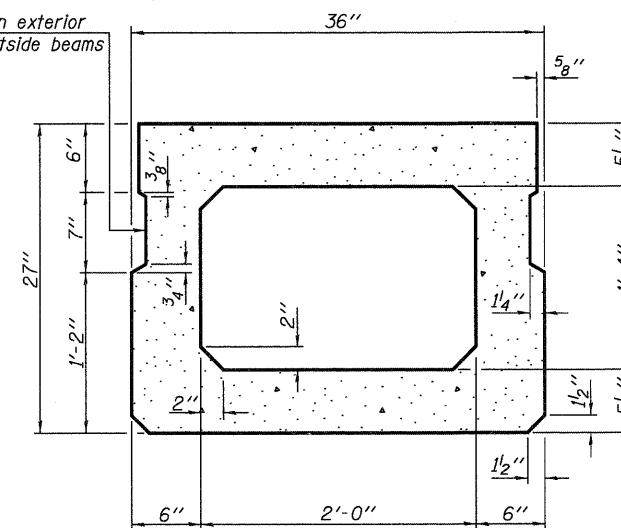
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



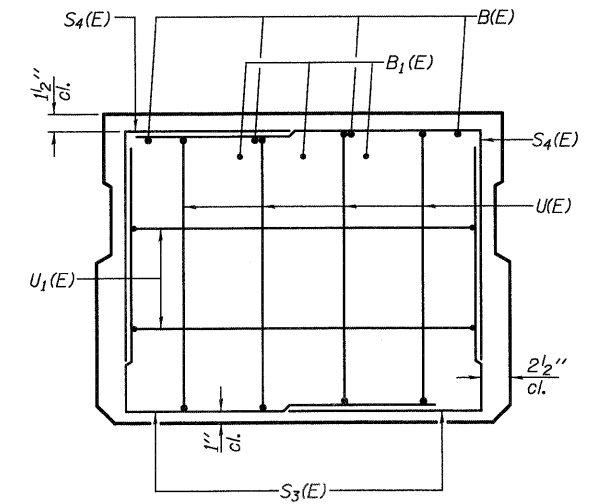
SECTION C-C

* Rail Post Anchors to be cast into exterior face of outside beams. For location of rail post see sheet 4 of 12.

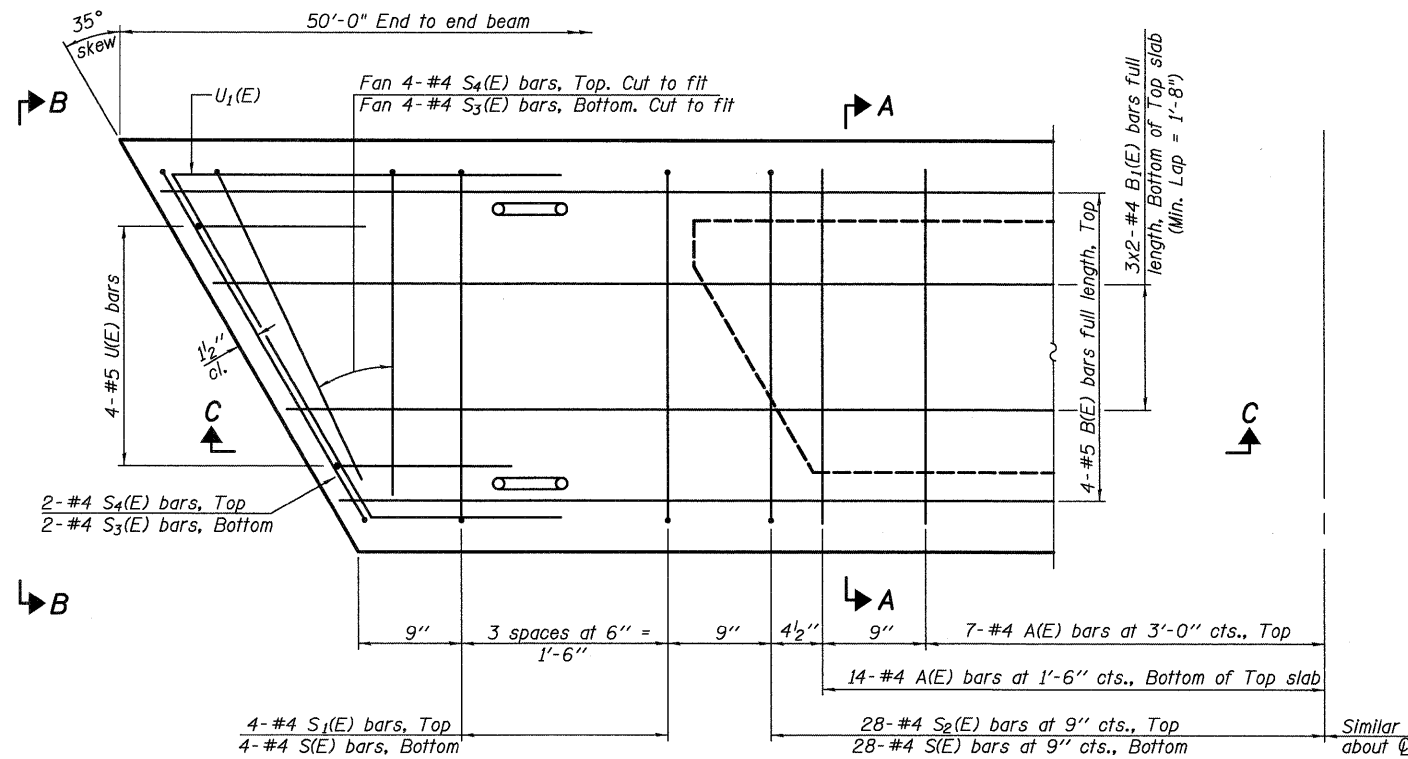
* Omit key on exterior face of outside beams



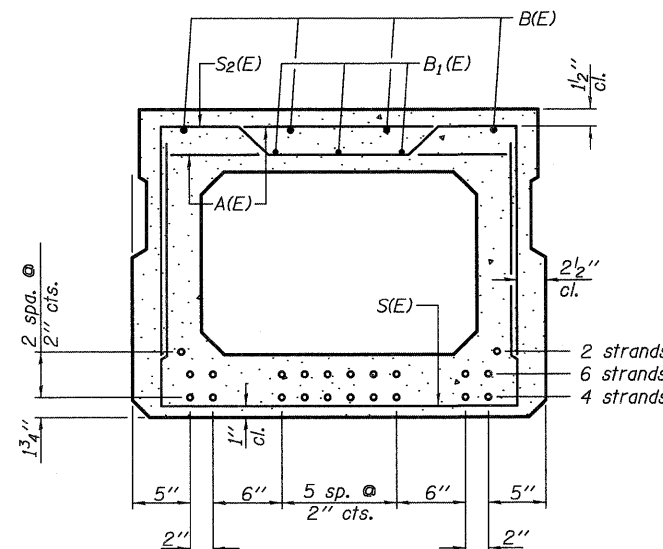
SECTION A-A
(Showing dimensions)



VIEW B-B



PLAN VIEW



SECTION A-A

(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	28	#4	2'-7"	—
B(E)	4	#5	49'-9"	—
B1(E)	6	#4	25'-9"	—
S(E)	64	#4	6'-5"	⌋
S1(E)	8	#4	5'-11"	⌋
S2(E)	56	#4	6'-2"	⌋
S3(E)	12	#4	4'-11"	⌋
S4(E)	12	#4	4'-8"	⌋
U(E)	8	#5	4'-6"	⌋
U1(E)	4	#4	7'-3"	⌋

Note: See sheet 3 of 12 for additional details and Bill of Material.

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

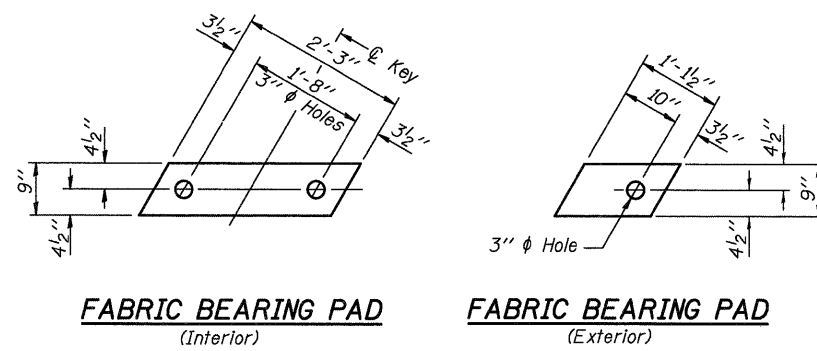
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DESIGN FIRM #184001038

PD-2736-R 5-16-08

27" X 36" PPC DECK BEAM
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1622	07-00100-00-BR	SANGAMON	16	6
12 SHEETS	S.N. 084-3037		CONTRACT NO. 93506		
	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

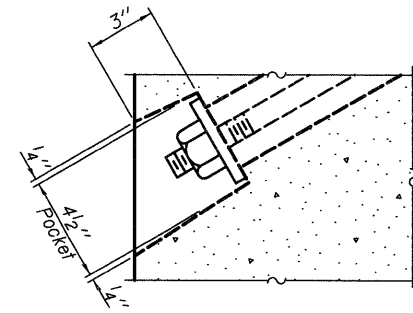


FABRIC BEARING PAD
(Interior)

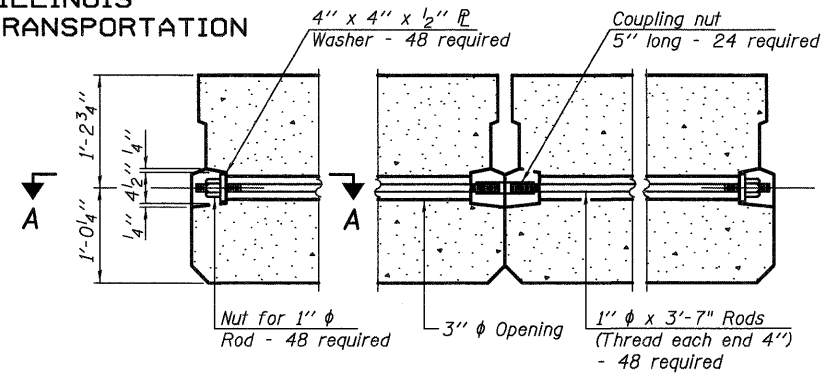
FABRIC BEARING PAD
(Exterior)

FIXED

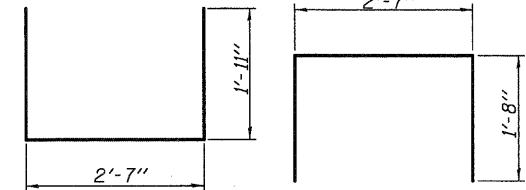
Note: Omit holes when using expansion bearings.



SECTION A-A

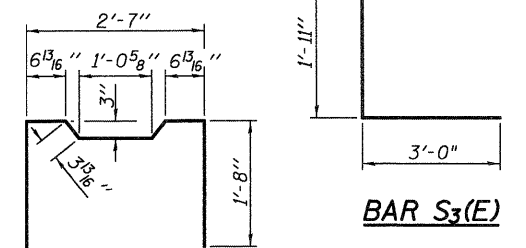


TYPICAL TRANSVERSE TIE ASSEMBLY



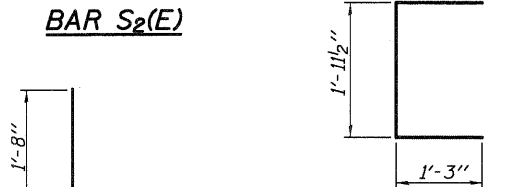
BAR S(E)

BAR S1(E)



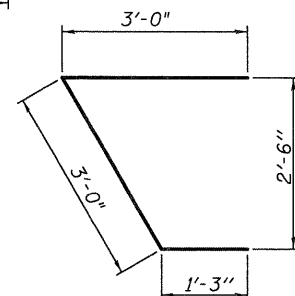
BAR S2(E)

BAR S3(E)

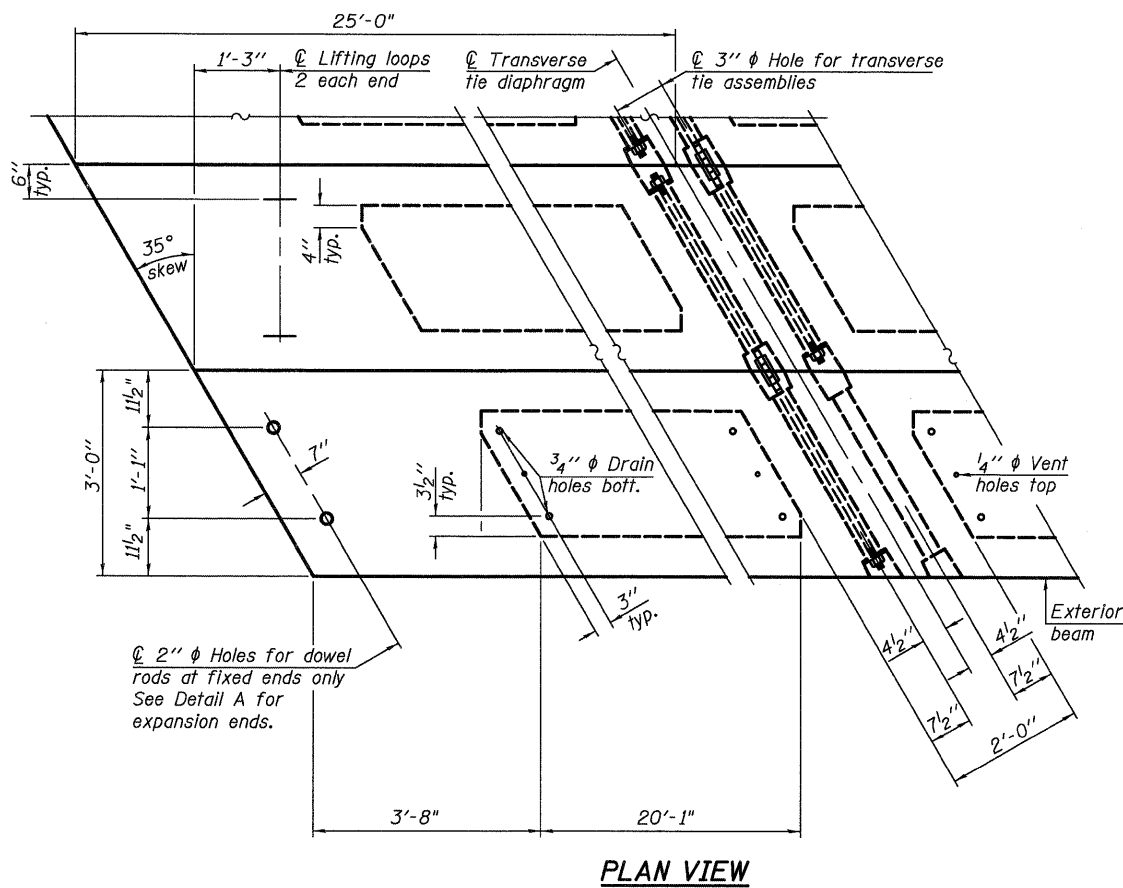


BAR S4(E)

BAR U(E)



BAR U1(E)

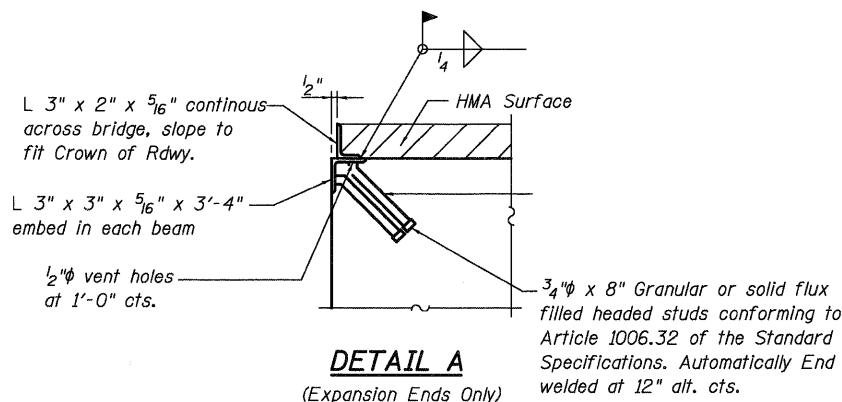


PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

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7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036



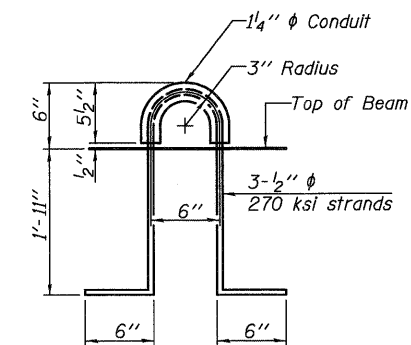
DETAIL A

(Expansion Ends Only)

Note: After fabrication all surfaces of the steel L's shall be given one shop coat of paint. Cost included with PPC Deck Beams.

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2 inch and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1 inch diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two 1/2 inch fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2 inch diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'cl, shall be 5000 psi.



LIFTING LOOP DETAIL

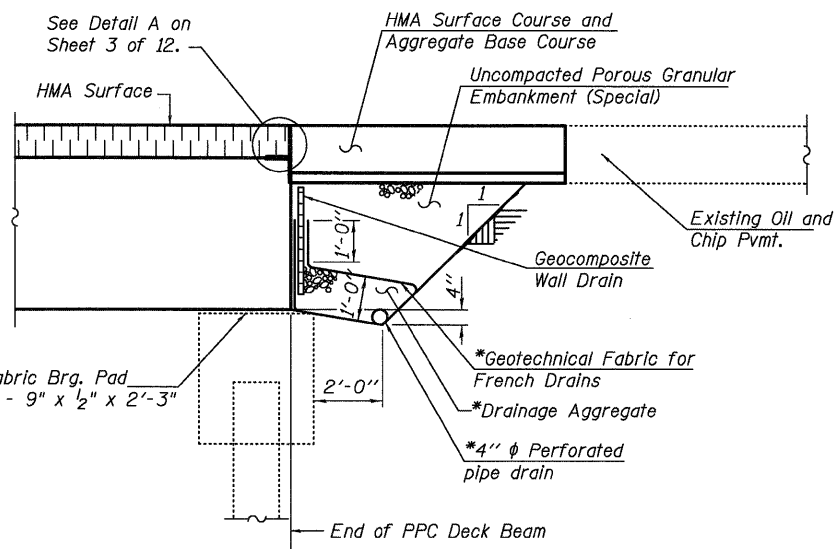
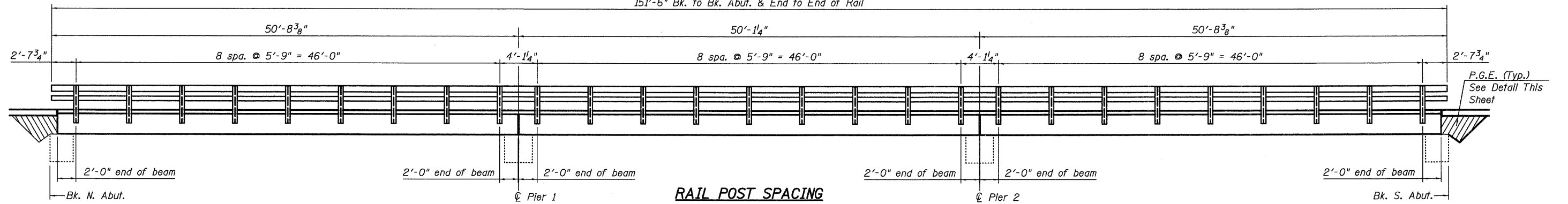
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	4,050
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**27" X 36" PPC DECK BEAM DETAILS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK**

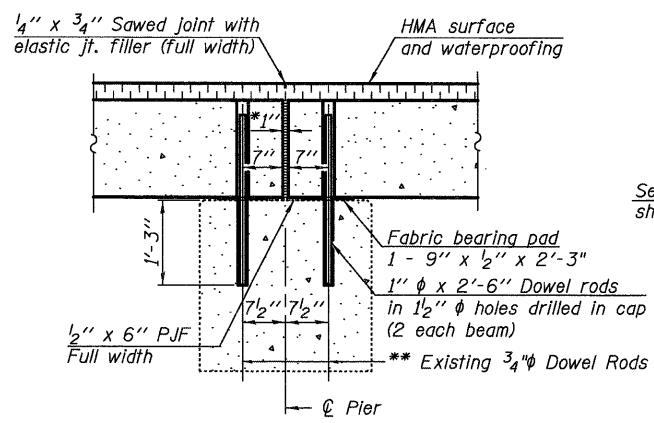
SHEET NO. 3	F.A.S. RTE. 1622	SECTION 07-00100-00-BR	COUNTY SANGAMON	TOTAL SHEETS 16	SHEET NO. 7
12 SHEETS	S.N. 084-3037		CONTRACT NO. 93506		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
151'-6" Bk. to Bk. Abut. & End to End of Rail



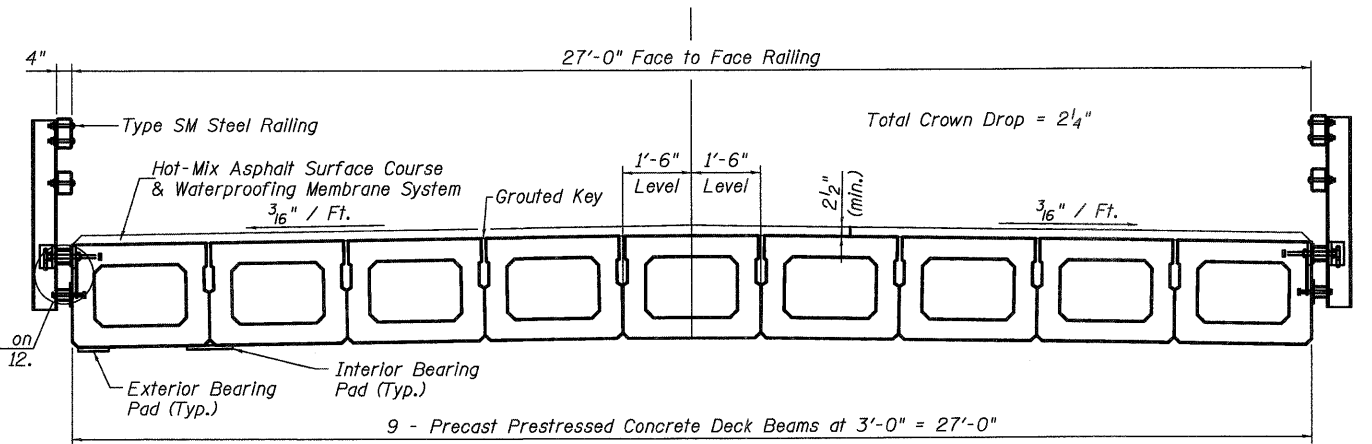
SECTION THRU ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls.



SECTION THRU FIXED PIER

- * 1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.
- ** Existing 3/4" dowel rods extending from pier cap shall be cut off flush with top of bearing seat and covered with a layer of epoxy grout. Cost included with Precast Prestressed Concrete Deck Beams (27" Depth).



PROPOSED CROSS SECTION

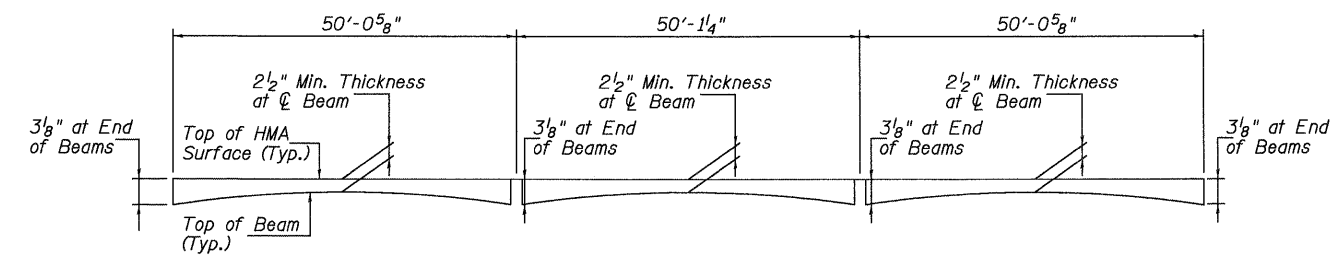
Notes:
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
Porous Granular Embankment, Geocomposite Wall Drain, Geotechnical Fabric and Perforated Pipe Drain shall be constructed after the beams are in place.
All horizontal dimensions are along ϕ roadway.
See sheet 3 of 12 for bearing pad details.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structure Excavation	Cu. Yd.	39
Geocomposite Wall Drain	Sq. Yd.	20
Porous Granular Embankment (Special)	Cu. Yd.	33
Pipe Underdrains for Structures, 4"	Foot	80

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

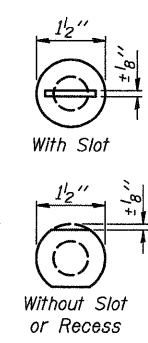
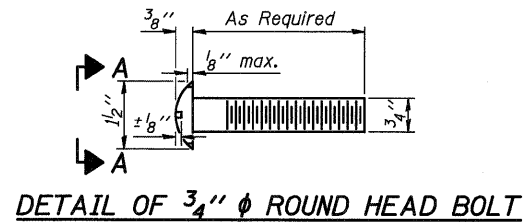


HOT-MIX ASPHALT SURFACE PROFILE
Includes Waterproofing Membrane System

**SUPERSTRUCTURE DETAILS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK**

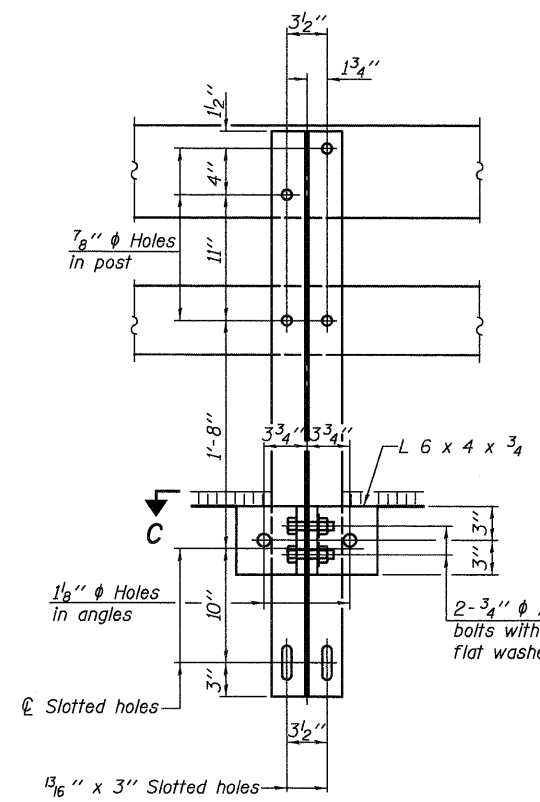
SHEET NO. 4 12 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1622	07-00100-00-BR	SANGAMON	16	8
	S.N. 084-3037		CONTRACT NO. 93506		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

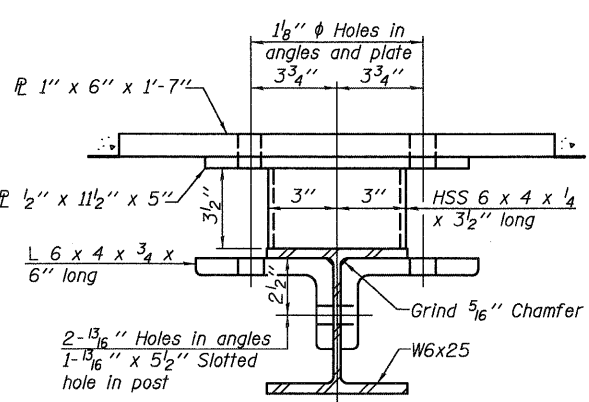


VIEW A-A

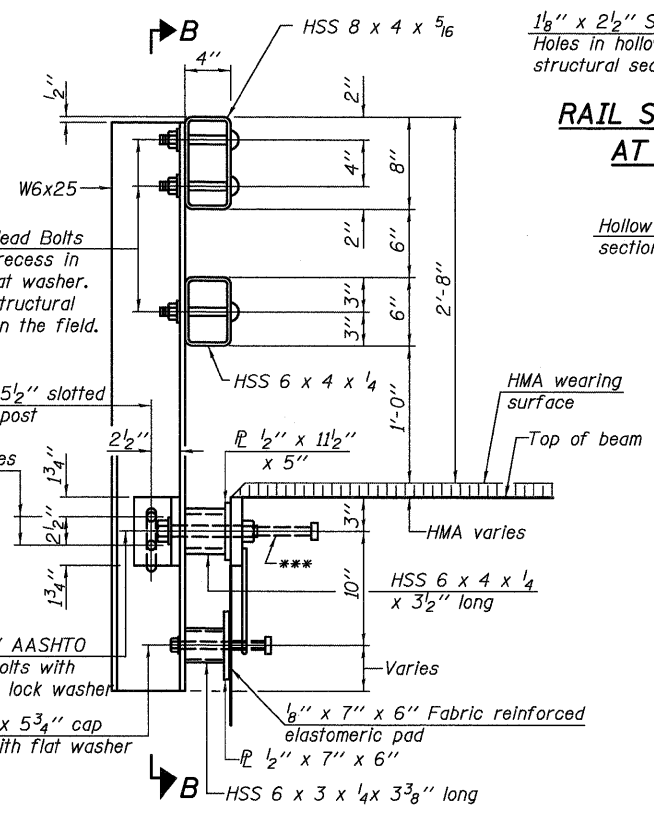
4-3/4" ϕ x 6" Round Head Bolts
(With slot or approved recess in head) with locknut & flat washer.
7/8" ϕ holes in hollow structural section may be drilled in the field.



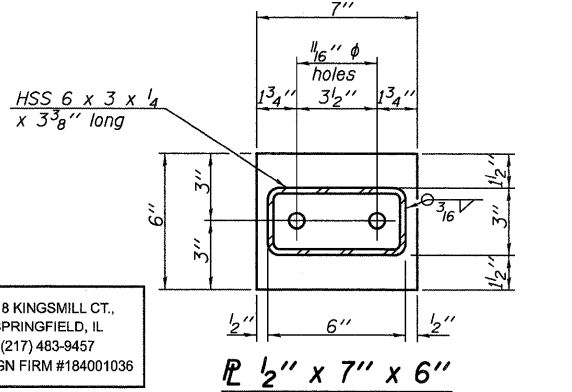
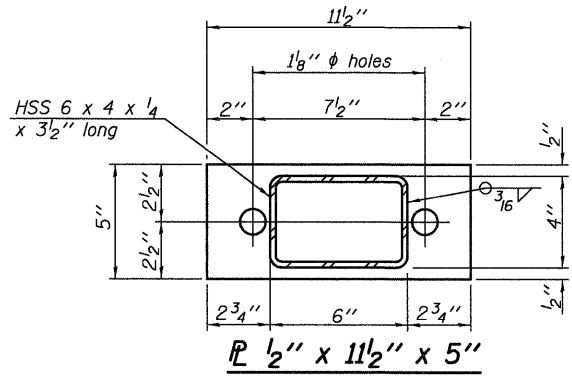
SECTION B-B



SECTION C-C



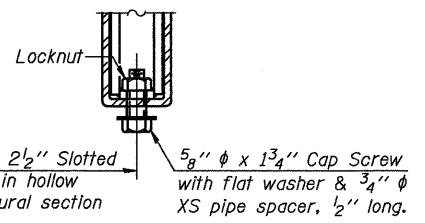
SECTION AT RAIL POST



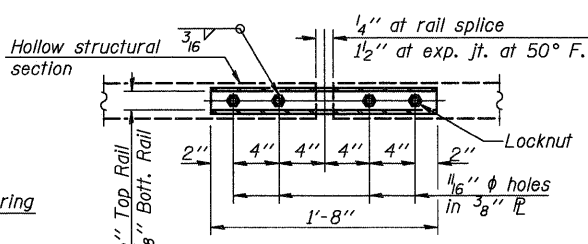
DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

R-34HMAWS 5-16-08 (6'-3" Maximum Post Spacing) (1 1/4" minimum to 3/8" maximum HMA thickness)

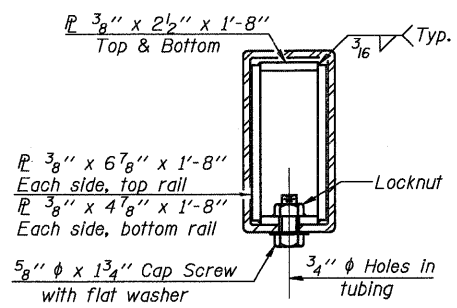


RAIL SPLICE CONNECTION
AT EXPANSION JT.



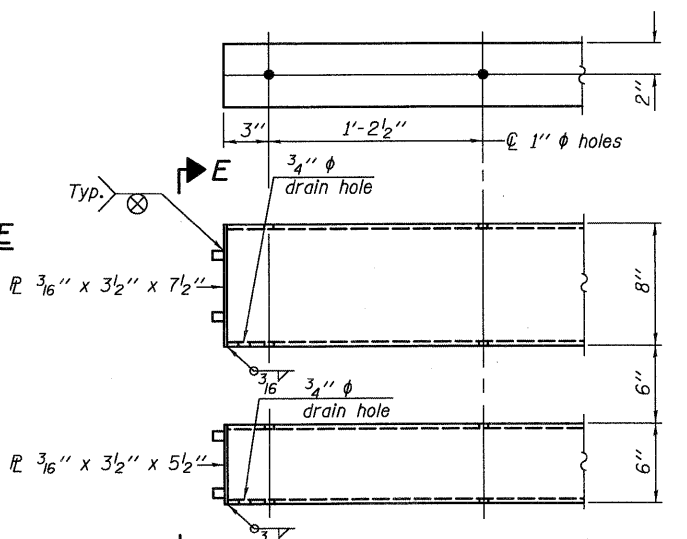
PLAN-BOTTOM. SPLICE P TYPICAL

1/8" x 2 1/2" Slotted Holes in hollow structural section
5/8" ϕ x 1 3/4" Cap Screw with flat washer & 3/4" ϕ XS pipe spacer, 1/2" long.

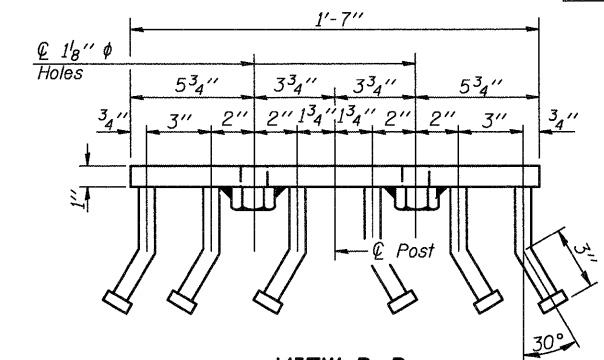


SECTION AT RAIL SPLICE

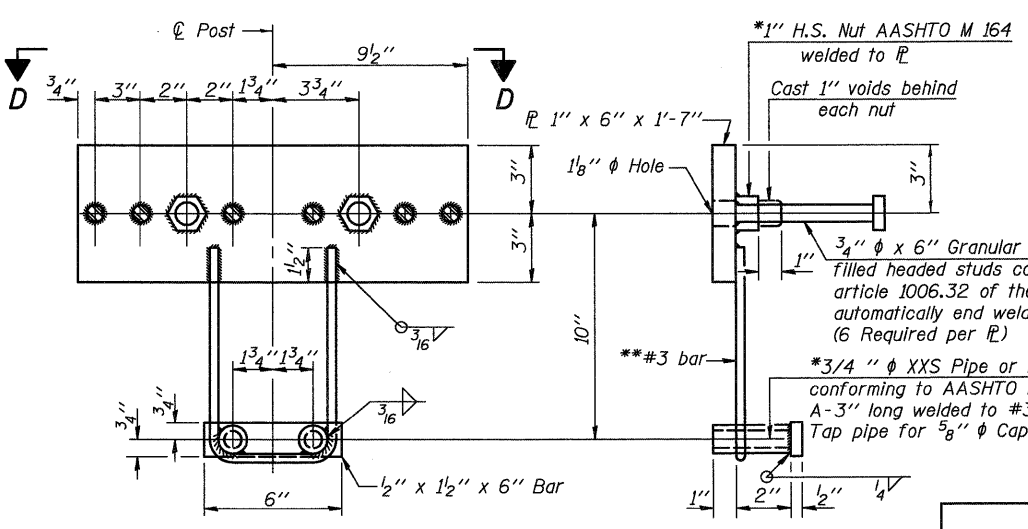
3/8" x 2 1/2" x 1'-8" Top & Bottom
3/16" Typ.
Locknut
3/8" x 6 7/8" x 1'-8" Each side, top rail
3/8" x 4 7/8" x 1'-8" Each side, bottom rail
5/8" ϕ x 1 3/4" Cap Screw with flat washer
3/4" ϕ Holes in tubing



END OF RAIL DETAILS



VIEW D-D



ANCHOR DEVICE

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



VIEW E-E

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.
All steel rail members 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.

**Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

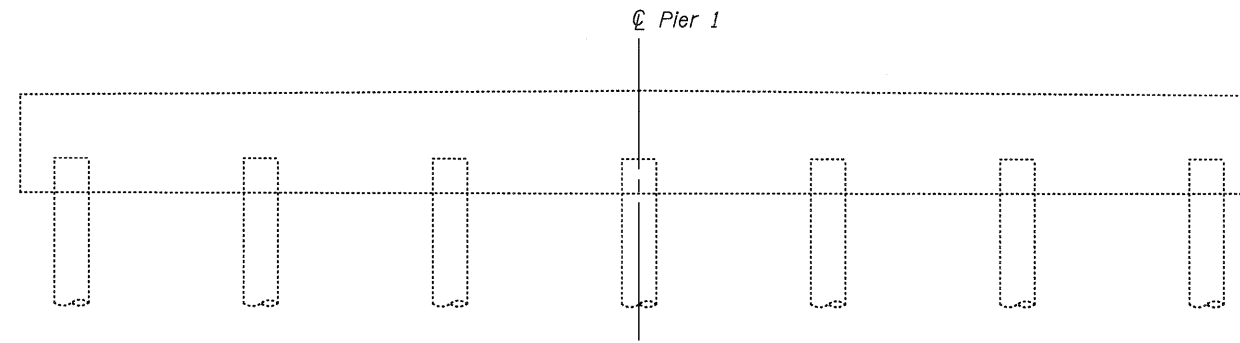
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	303

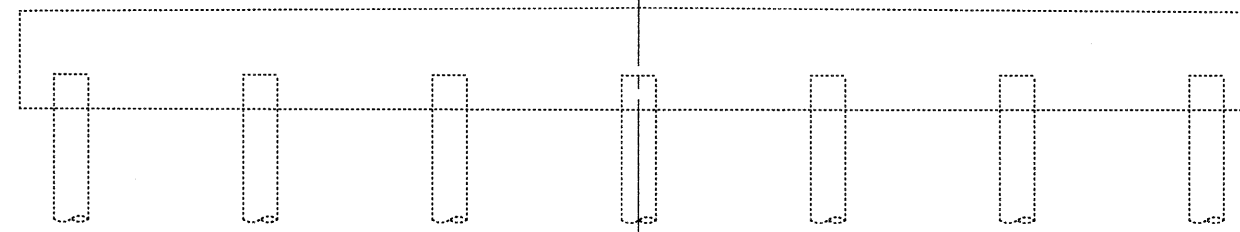
STEEL RAILING, TYPE SM WITH HOT-MIX ASPHALT WEARING SURFACE
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK

SHEET NO. 5	F.A.S. RTE. 1622	SECTION 07-00100-00-BR	COUNTY SANGAMON	TOTAL SHEETS 16	SHEET NO. 9
12 SHEETS	S.N. 084-3037		CONTRACT NO. 93506		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

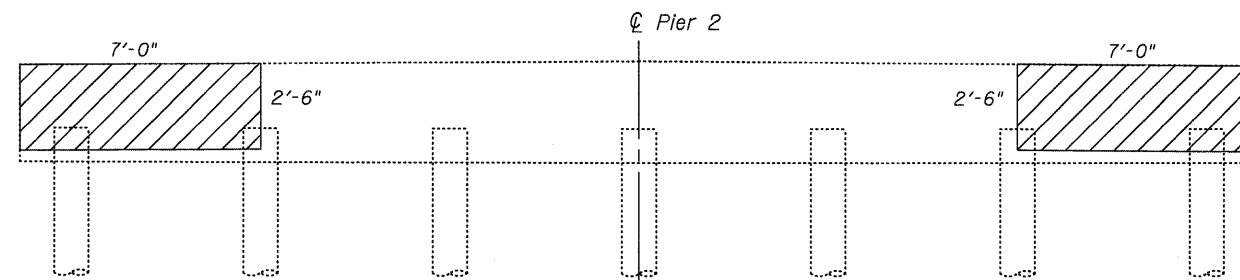
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



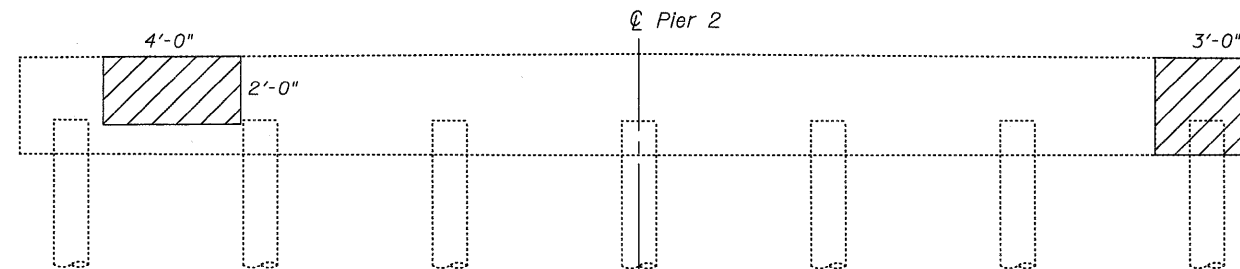
PIER 1 - NORTH FACE
Looking South
C Pier 1



PIER 1 - SOUTH FACE
Looking North
C Pier 1



PIER 2 - NORTH FACE
Looking South
C Pier 2



PIER 2 - SOUTH FACE
Looking North
C Pier 2

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	51

Note:

The Engineer shall locate the proposed repair and make adjustments to plan quantity as necessary. Such adjustments shall not be cause for additional compensation for a change in scope of the work, however the Contractor will be paid for the actual quantity furnished at the unit bid price for the work.

Structural Repair of Concrete (Depth ≤ 5")

SUBSTRUCTURE REPAIR DETAILS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & CO.
ENGINEERING

7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

SHEET NO. 6	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1622	07-00100-00-BR	SANGAMON	16	10
12 SHEETS	S.N. 084-3037		CONTRACT NO. 93506		
	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

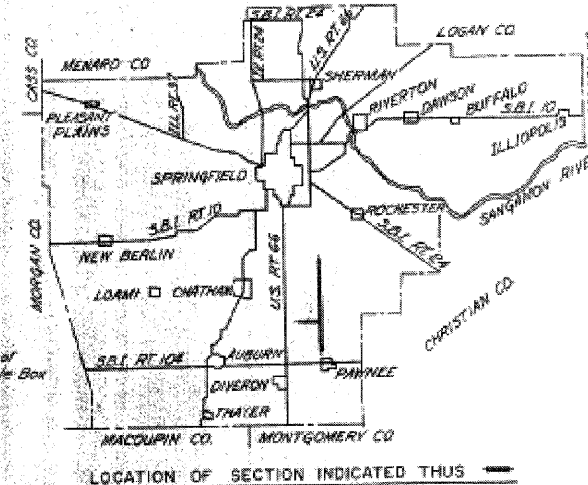
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL-AID SECONDARY PROJECT

PROJECT NO.	SECTION	SHEET NO.
1622	07-00100-00-BR	19

INDEX OF SHEETS

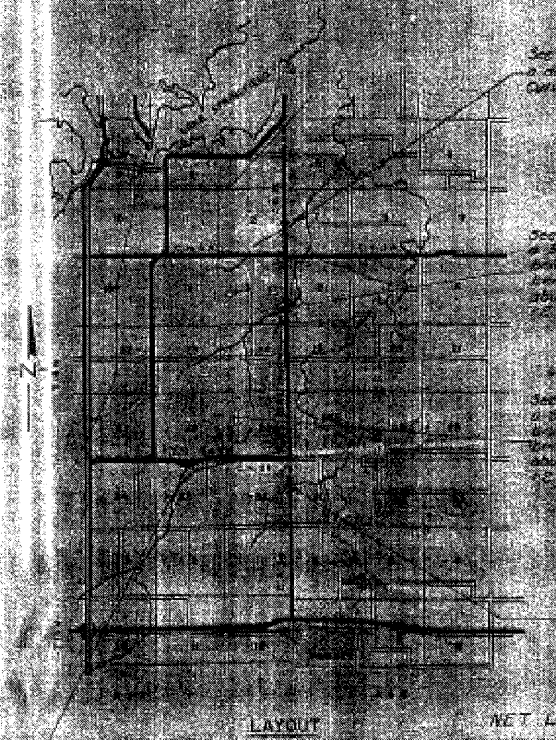
- 1 COVER SHEET
- 2-6 PLAN & PROFILE SHEETS
- 7 CULVERT DETAILS STA. 86+75
- 8-11 BRIDGE PLANS STA. 144+20
- 12 CULVERT DETAILS STA. 290+25
- 13 CULVERT DETAILS STA. 290+25
- 14-17 BRIDGE PLANS STA. 58+75
- 18 STANDARD 213
- 19 STANDARDS 1971-3, 1972-1, 2126-1, S.L.R. #2-F

F.A.S. ROUTE 1622
1643 SECTION 100-B SANGAMON COUNTY
PROJECT S-1642-1(I)
S-1643-1(I)



QUANTITIES

SUMMARY OF QUANTITIES			UNIT OF MEASURE	PAY ITEM	CODE NUMBER
2,570	2,540	4,810	CYD.	EARTH EXCAVATION	011001
1,710	6,750	900	CYD.	CHANNEL EXCAVATION	012001
44	43	87	TON	BITUMINOUS CONCRETE SURFACE COURSE, SUBCLASS 1-11	048007
2	1	3	EACH	REMOVAL OF EXISTING STRUCTURES	049001
-	16	16	EACH	EXPANSION BOLTS (3/4 INCH)	049008
4,050	3,769	8,019	SQ. FT.	PRECAST PRESTRESSED CONCRETE BRIDGE DECK	051010
508.7	89.1	597.8	CYD.	CLASS X CONCRETE	052003
85447	8420	93867	LBS.	REINFORCEMENT BARS	059001
288	312	600	LIN. FT.	FURNISHING CREOSOTED PILES, 20" x 36"	060005
312	-	312	LIN. FT.	FURNISHING CREOSOTED PILES, OVER 36"	060006
1	1	2	EACH	TEST PILES (TIMBER)	060007
600	312	1,112	LIN. FT.	DRIVING TIMBER PILES	060008
307	453	762	LIN. FT.	FURNISHING PRECAST CONCRETE PILES, 14"	060010
1	1	2	EACH	TEST PILES (PRECAST CONCRETE)	060012
307	453	762	LIN. FT.	DRIVING PRECAST CONCRETE PILES	060013
3	1	4	EACH	NAME PLATES	061001
284	278	342	LIN. FT.	ALUMINUM HANDRAIL	200004



See 100-B includes the construction of a double 12' x 8' Reinforced Concrete Box Culvert, Shew 301 @ Sta. 86+75

See 100-B includes the construction of a 4' x 30' precast prestressed concrete bridge deck, precast concrete pile bent piers and precast concrete pile bent abutments, Shew 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

DESIGNED JULY 7 1961
H. B. BARNES
ENGINEER IN CHARGE OF BRIDGE & TRAFFIC STRUCTURES

ILLINOIS STRUCTURAL NO. 2134

NET LENGTH PROJ. S-1642-1(I) = 212.64 FT = 0.040 MILES
NET LENGTH PROJ. S-1643-1(I) = 154.50 FT = 0.029 MILES

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED BY: *[Signature]*
DATE: 6-2-61
PROJECT: 1622
SECTION: 07-00100-00-BR
COUNTY: SANGAMON

APPROVED: *[Signature]*
DATE: 7-12-61
TITLE: COUNTY SUPERINTENDENT OF HIGHWAYS

JOB NO. 21276

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

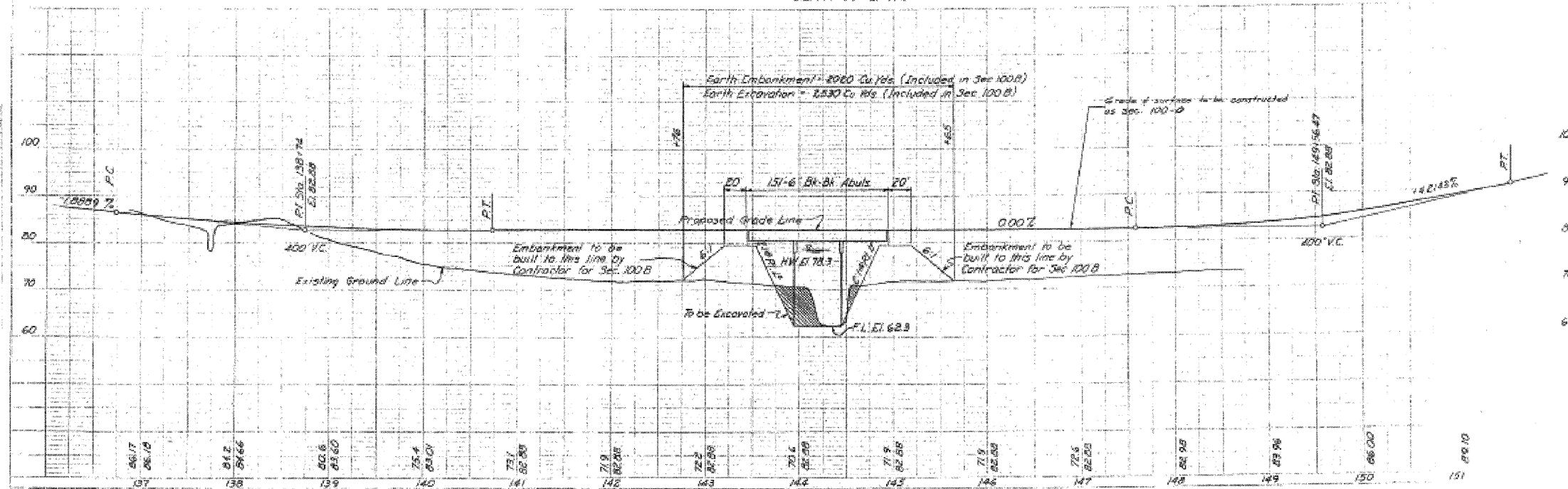
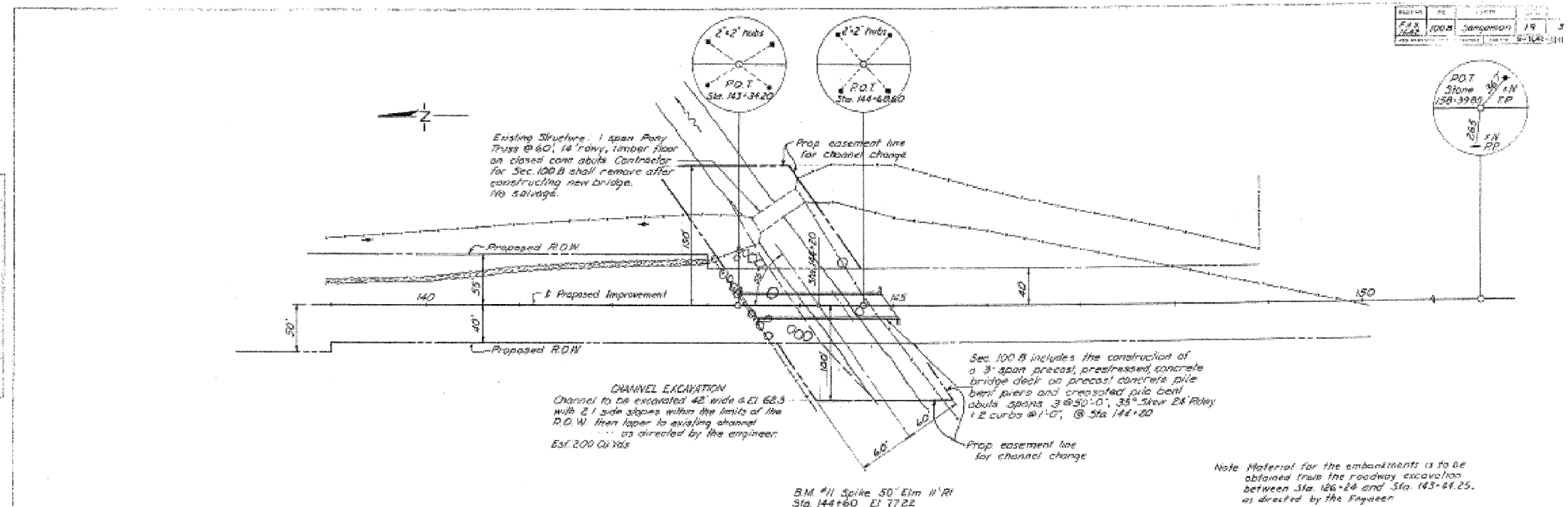
WHKS & CO.
ENGINEERING

7018 KINGSMILL CT.
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

EXISTING PLANS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK

SHEET NO. 7	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1622	07-00100-00-BR	SANGAMON	16	11
12 SHEETS	S.N. 084-3037		CONTRACT NO. 93506		
	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & Co.
ENGINEERING
7018 KINGSMILL CT.
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

**EXISTING PLANS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK**

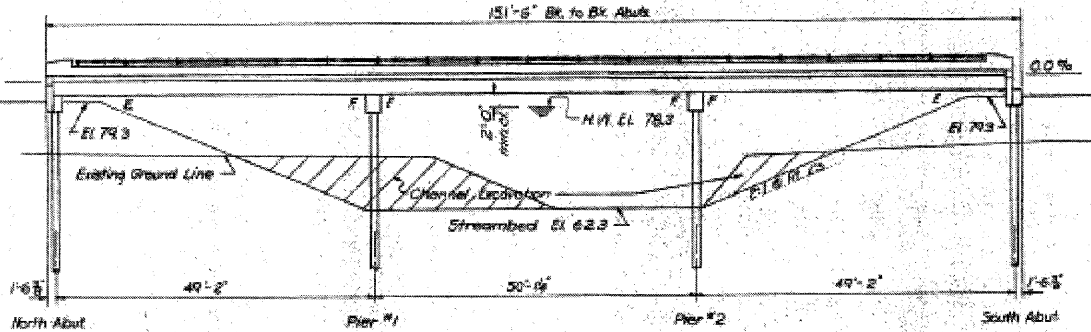
SHEET NO. 8 12 SHEETS	F.A.S. RTE. 1622	SECTION 07-00100-00-BR	COUNTY SANGAMON	TOTAL SHEETS 16	SHEET NO. 12
	S.N. 084-3037		CONTRACT NO. 93506		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	1008	SANGAMON	19	8
DATE	10-1-61			

SHEET 1 OF 4

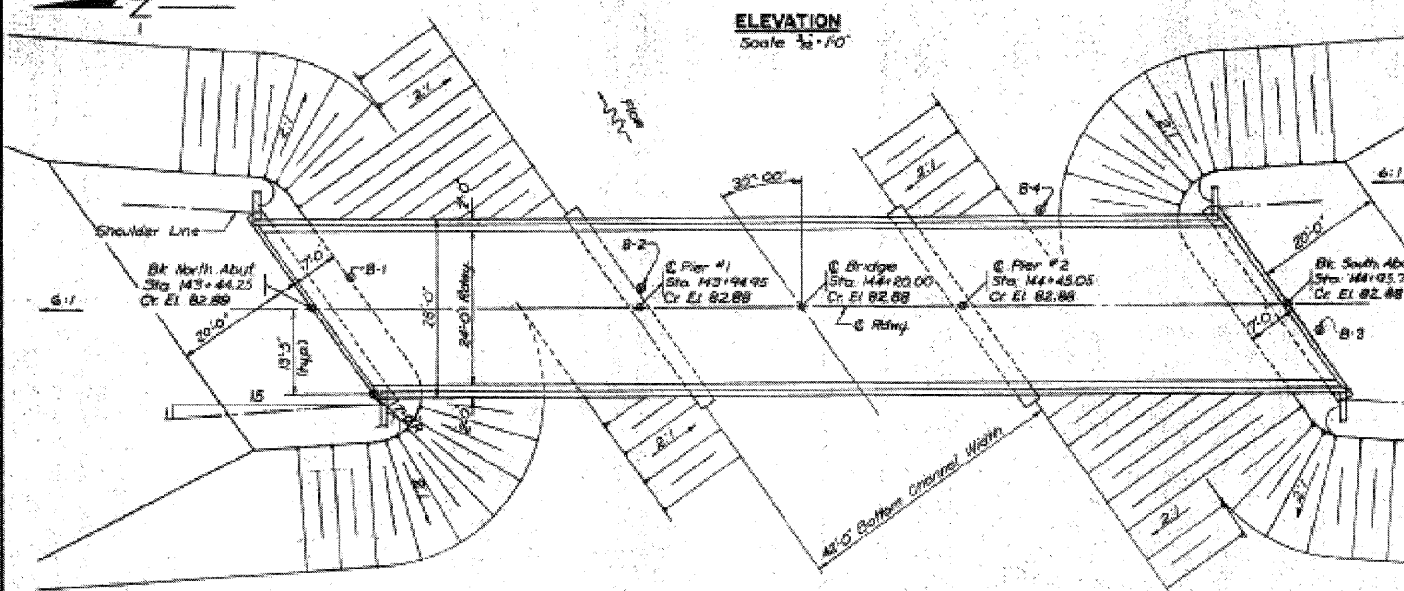
Bk. 11 - Spike in 50' Dia
11' Rt. Sta. 144+60 El. 77.22
Exist. Structure - Steel pony
truss, 1 span 60' 14"
rdwy., timber floor.
Substructure - Closed conc.
abutments.
Contractor shall remove
existing structure after
proposed bridge is
completed.
No salvage.



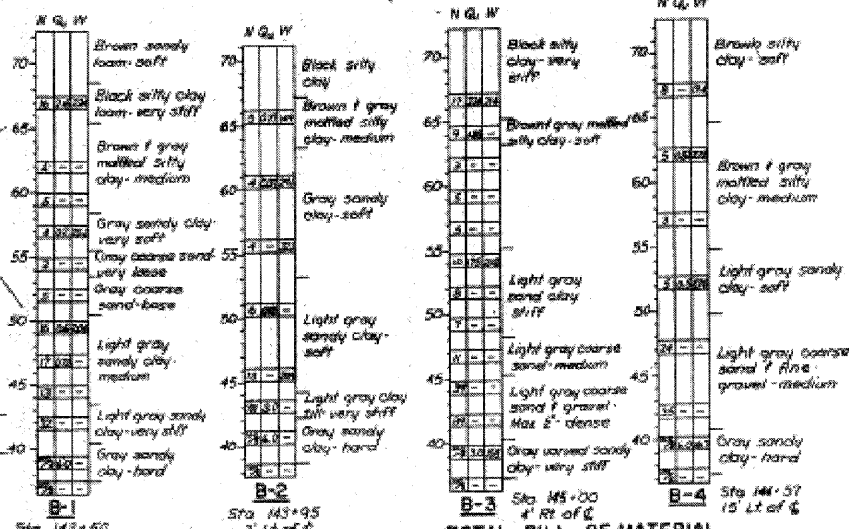
ELEVATION
Scale: 1/2" = 1'-0"

GENERAL NOTES

Class I Concrete shall be used in the pier caps, the abutments and the curbs and parapets.
The aggregate for the Class I Concrete used in the parapets and handrail and posts, shall be free from chert, flint, ironite, lignite, and soft sandstone.
Embankments shall be constructed to the elevation shown in accordance with Sec. 16 of the Standard Specifications before the abutment piles are driven.
Holes for the abutment piles shall be precored in accordance with Article 60.9(c) of the Standard Specifications.
The Contractor shall drive two(2) test piles before ordering the remainder of the piles. One timber test pile shall be driven near the North Abutment. One precast concrete test pile shall be driven, in a permanent location, in Pier #2.



PLAN
Scale: 3/32" = 1'-0"



TOTAL BILL OF MATERIAL

Item	Super	Sub	Total
Precast Prestressed Concrete	4050	—	4050
Bridge Deck	36.3	38.5	74.8
Class I Concrete	—	—	—
Reinforcement Bars	2580	3170	5750
Aluminum Handrail	284	—	284
Name Plates	—	—	—
Precast Piles	—	600	600
Precast Concrete Piles	—	507	507
Test Piles (Timber)	—	—	—
Test Piles (Precast Concrete)	—	—	—
Removal of Existing Structures	—	—	—
Bituminous Concrete Surface	—	—	—
Subbase 2:1	44	—	44

N - Standard Penetration Test
Blows per ft to drive 2" O.D.
Split Spoon Sampler 12"
with 40# hammer falling 30"
Q - Unconfined Compressive
Strength - Tons/Sq Ft
W - Water Content - percentage
of oven dry weight.

DESIGN STRESSES

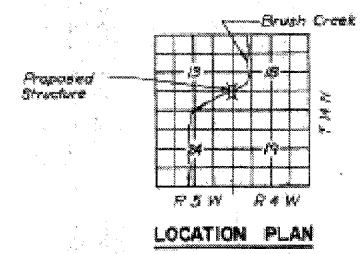
f_c = 2000 psi (Super)
f_c = 1400 psi (Sub)
f_s = 20,000 psi (Reinf.)
f_s = 160,000 psi (Prestress Cables)
n = 10

WATERWAY INFORMATION

Drainage Area 27,850 Acres
Required Opening (15 yr) 950 Sq Ft
Present Opening 470 Sq Ft
Proposed Opening 950 Sq Ft
below El. 78.3

STATION 144+20
BRUSH CREEK
BUILT 1966
FAS. RT. 1622 SEC. 008
EA. PROJ. 3-1641-MO
LOADING H15-512

LETTERING FOR NAME PLATE
See Std. 2113



LOCATION PLAN

GENERAL PLAN & ELEVATION

F.A.S. RT. 1622 (CH. RT. 26) SEC. 008
SANGAMON COUNTY
STATION 144+20

HANSON, COLLINS & RICE
CONSULTING ENGINEERS

Bridge No. 8037

Loading H15-512-44

**EXISTING PLANS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK**

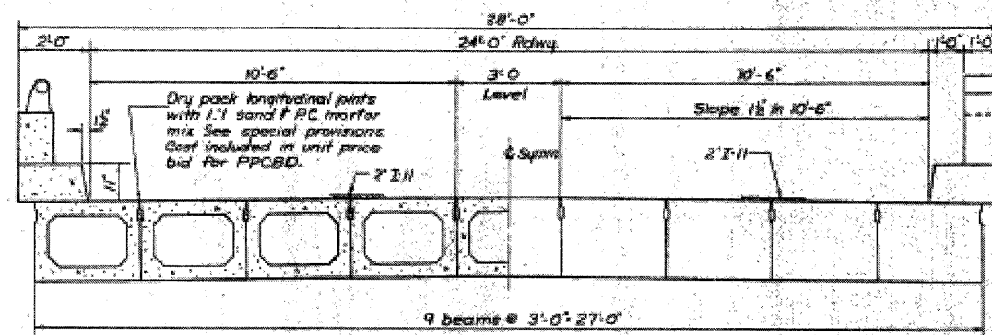
DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

SHEET NO. 9	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1622	07-00100-00-BR	SANGAMON	16	13
12 SHEETS	S.N. 084-3037		CONTRACT NO. 93506		
	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

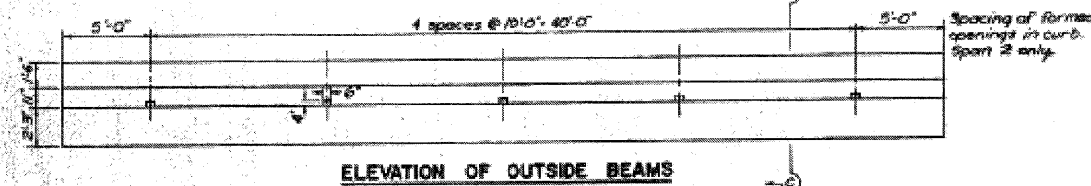
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	100 B	SANGAMON	19	9
NO. SHEET OF	SHEET 2 OF 4			

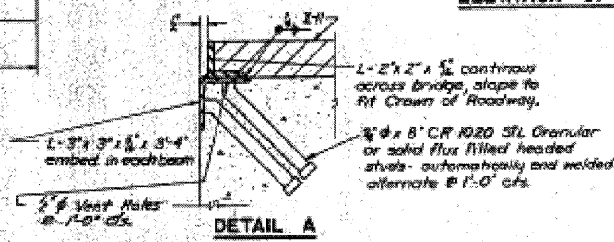


HALF CROSS SECTION

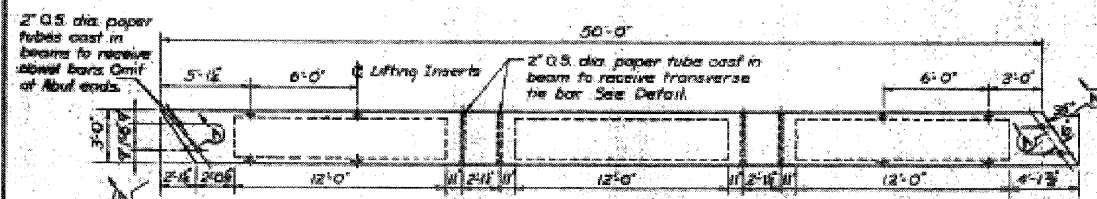
HALF END ELEVATION



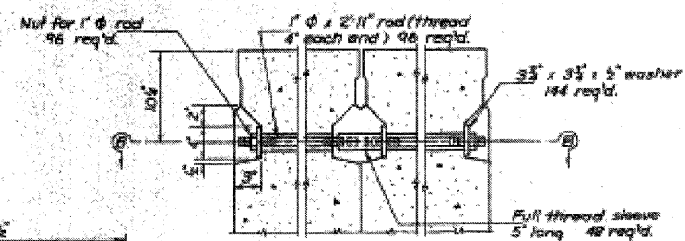
ELEVATION OF OUTSIDE BEAMS



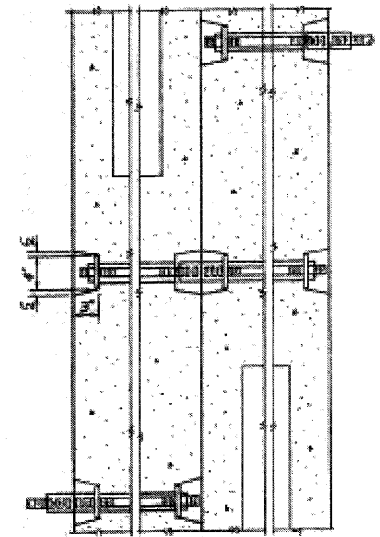
DETAIL A



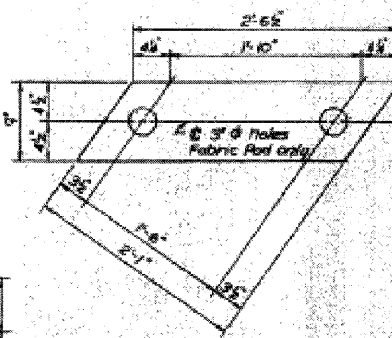
TYPICAL PLAN OF BEAMS



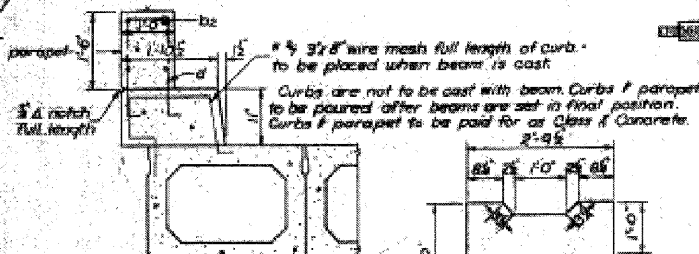
TYPICAL TRANSVERSE TIE ASSEMBLY



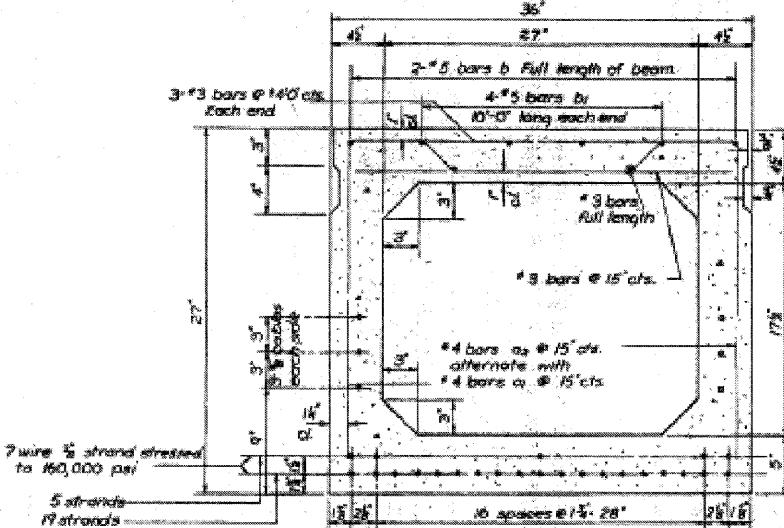
SECTION B-B



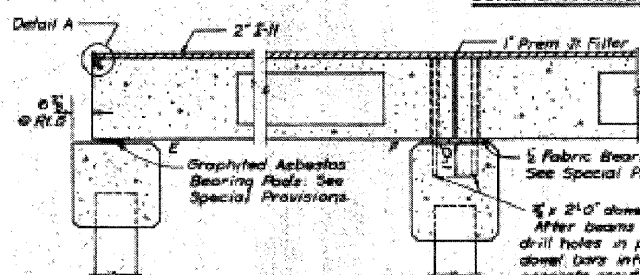
PLAN OF BEARING PADS



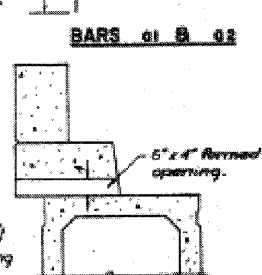
CURB & PARAPET DETAIL



TYPICAL SECTION THRU BEAM



SECTION A-A



SECTION C-C

BILL OF MATERIAL - SUPERSTRUCTURE

Item	Quantity
Precast Prestressed Concrete Bridge Deck	36 FT. 4050
Class I Concrete	Cl. 1500 34.5
Reinforcement Bars	Lbs. 2980
Effluvious Concrete Surface Course Subbase F-11	Tons 44

SUPERSTRUCTURE

F.A.S. RT. 1642 (CH. RT 28) SEC. 100 B
SANGAMON COUNTY
STATION 144+20

HANSON, COLLINS & RICE
CONSULTING ENGINEERS

DATE: 8-2-61
BY: B-59-10

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

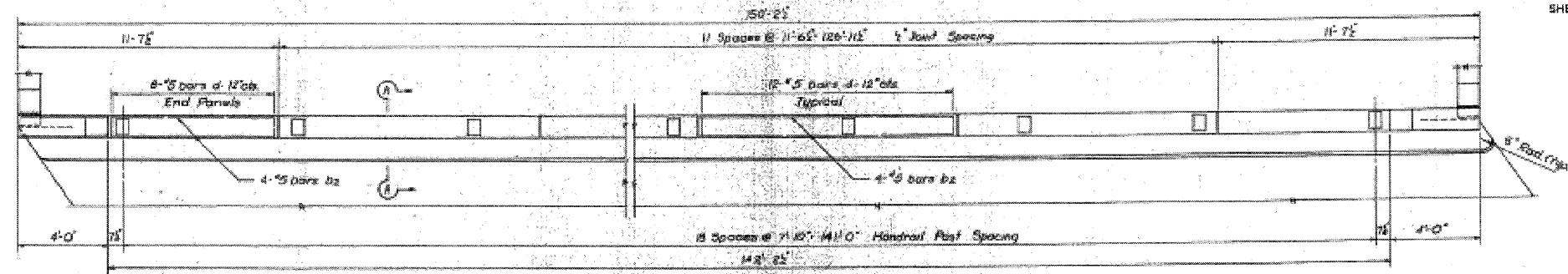
EXISTING PLANS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK

SHEET NO. 10 12 SHEETS	F.A.S. RTE. 1622	SECTION 07-00100-00-BR	COUNTY SANGAMON	TOTAL SHEETS 16	SHEET NO. 14
	S.N. 084-3037		CONTRACT NO. 93506		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

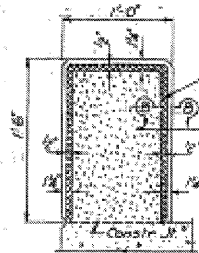
SECTION	NO.	QUANTITY	SCALE	DATE
FAS 1642	100 B	Sangamon	19	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	3	1947-30

SHEET 3 OF 4



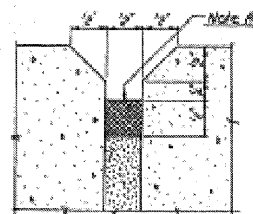
PLAN

Handrail Symm. by rotation thru 180° about C-Railway.

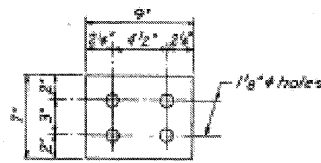


SECTION A-A

Note A: Two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade w/ primer.
Note B: 1/2\"/>

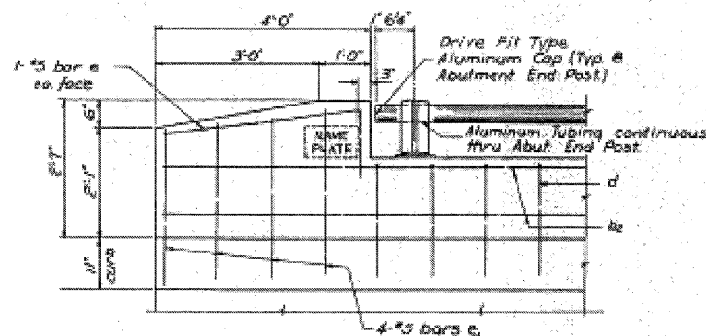


SECTION B-B



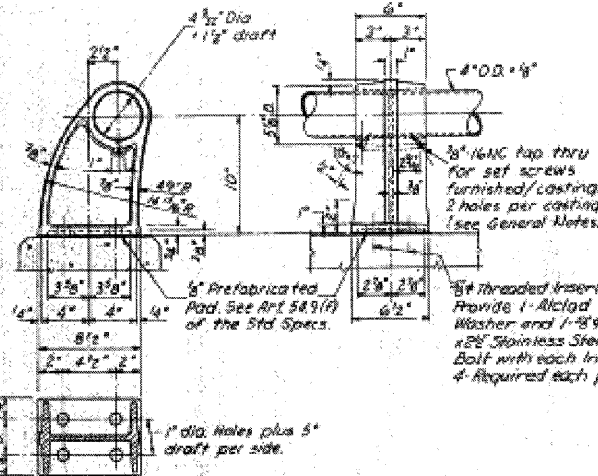
RAIL PAD

7\"/>



ELEVATION - END POST

Note: Name plate of HW Werner only.



DETAILS - HANDRAIL POST

GENERAL NOTES

Aluminum Alloy Extruded Tube shall conform to ASTM Spec. B-235-36T Alloy 6061 condition T-6.
Aluminum Handrail Post (Permanent Cast) shall conform to ASTM Spec. B-108-54 T Alloy 5070 condition T-6.
Set screws shall be of aluminum conforming to ASTM Specification B-21 Alloy C6-42A, condition T-4.
Set screws to be tightened at one end of each tubing section only. Turn screw for snug fit at opposite end.
Aluminum Alloy Washers shall be made from sheet conforming to ASTM Spec. B-209-34T Alloy C102, C6-42A, condition T-4.
All posts shall be placed normal to parapet.
Class A Concrete & Reinforcement Bars shown on this sheet are billed with Super-structure on Sheet 2.

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
1a	104	2\"/>		
d	288	1/8\"/>		
e	0	1/8\"/>		
f	32	1/8\"/>		

Aluminum Handrail Lvs. 289

HANDRAIL	
FAS RT 1642 (CH RT 28)	SEC 100 B
SANGAMON COUNTY	
STATION 144+20	
HANSON COLLINS & RICE	
CHIEF ENG. EXP. 1947	
DESIGNED BY M.J.C.	CHECKED BY L.L.M.
DATE 2-4-57	BY B-59-10

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & CO.
ENGINEERING

7018 KINGSMILL CT.
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

EXISTING PLANS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK

SHEET NO.	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	1622	07-00100-00-BR	SANGAMON	16	15
12 SHEETS	S.N. 084-3037		CONTRACT NO. 93506		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

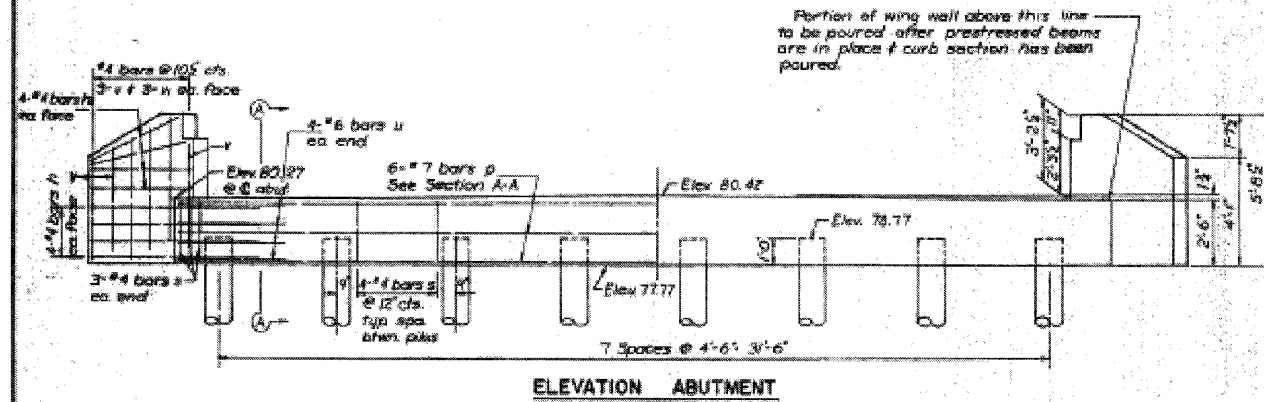
PROJECT NO.	1662	SECTION	07-00100-00-BR	SHEET NO.	16
DATE	10/28	CONTRACT	144-20	TOTAL SHEETS	16
DESIGNED BY	CMV	DRAWN BY	DLH	CONTRACT NO.	93506
CHECKED BY	SDS	DATE	11/12	FED. ROAD DIST. NO.	ILLINOIS
DRAWN BY	DLH	SCALE	AS SHOWN	FED. AID PROJECT	
CHECKED BY	CMV	PROJECT NO.	1662		

SHEET 4 OF 4

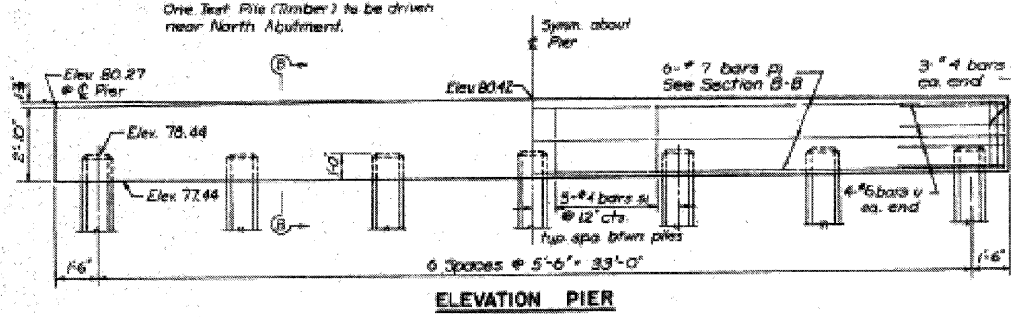
PILE DATA

Type	No. Abut. Crossed	Class Concrete	So. Abut. Crossed
No. Req'd	8	14"	8
Min Capacity	20T	35T	20T
Est. Length	29'	39'	36'

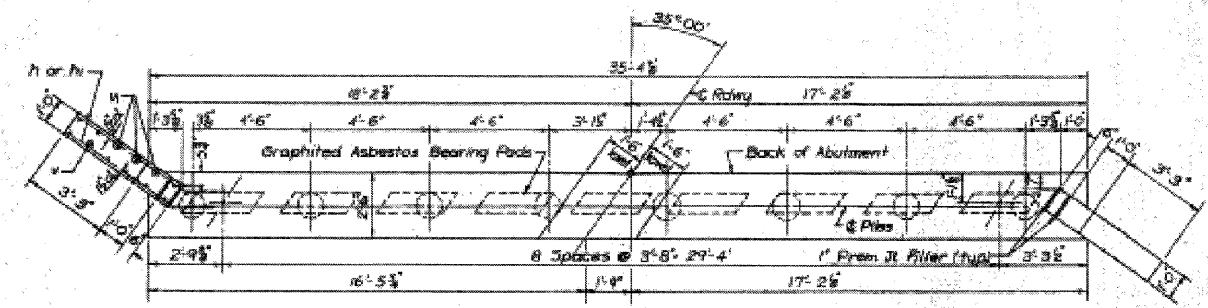
* Includes one Test Pile (Concrete) to be driven in Pier # 2
One Test Pile (Timber) to be driven near North Abutment.



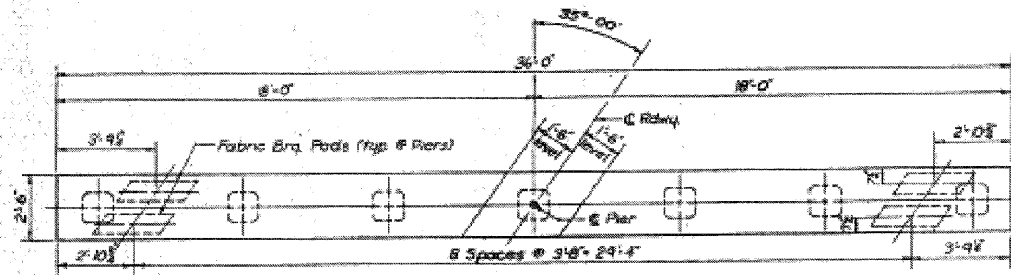
ELEVATION ABUTMENT



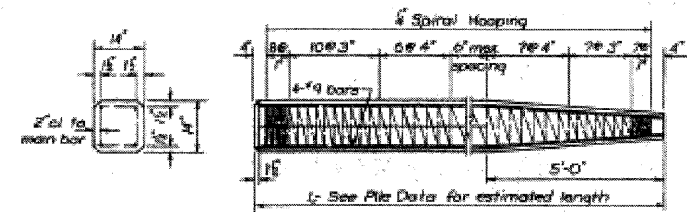
ELEVATION PIER



PLAN ABUTMENT

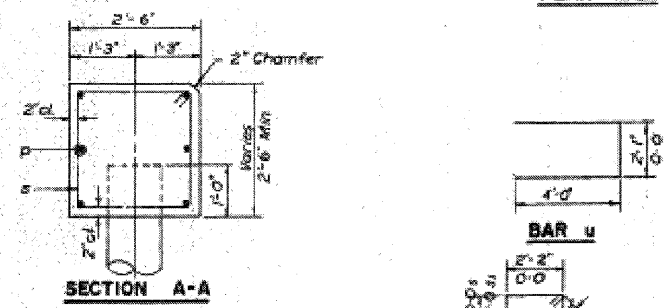


PLAN PIER



DETAIL OF PRECAST CONCRETE PILES

Note to Contractor:
For pile lengths up to 45' use two slings placed at a distance of 0.21 L from each end. On piles longer than 45' use three slings placed at .12 L from each end and at mid-point of pile.



SECTION A-A

SECTION B-B

BILL OF MATERIAL
2-PIERS 2-ABUTS

Bar	No.	Size	Length	Shape
h	32	#4	6'-4"	
h	32	#4	4'-4"	
p	12	#7	35'-0"	
p	12	#7	35'-8"	
u	64	#4	9'-8"	□
u	72	#4	10'-1"	□
u	32	#6	10'-1"	□
v	24	#4	3'-10"	
h	24	#4	4'-7"	

Class 3 Concrete Cu Rls 38.5
Reinforcement Bars (lbs) 3470
Precast Piles (Lin Ft) 600
Test Piles (Timber) Ea. 1
Precast Concrete Piles (Lin Ft) 507
Test Piles (Concrete) Ea. 1

ABUTMENTS & PIERS

F.A.S. RT. 1642 (CH. RT. 28) SEC. 100 B
SANGAMON COUNTY
STATION 144+20
HANSON, COLLINS & RICE
CONSULTING ENGINEERS
DESIGNED BY: CMV
DRAWN BY: DLH
CHECKED BY: SDS
DATE: 11/12
PROJECT NO.: 1662
SCALE: AS SHOWN
SHEET NO.: 16 OF 16
CONTRACT NO.: 93506
FED. ROAD DIST. NO.: ILLINOIS
FED. AID PROJECT

DESIGNED - CMV
CHECKED - SDS
DRAWN - DLH
CHECKED - CMV

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

EXISTING PLANS
PAWNEE ROAD (FAS 1622)
OVER BRUSH CREEK

SHEET NO. 12	F.A.S. RTE. 1622	SECTION 07-00100-00-BR	COUNTY SANGAMON	TOTAL SHEETS 16	SHEET NO. 16
12 SHEETS	S.N. 084-3037	CONTRACT NO. 93506		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	