129

3-5-CX Randolph sec. 119-1BR-I T & R

#129

95%
5-28-2005

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	1

* UNMARKED

PROJECT NHCB-00D8(097)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

UNMARKED ROUTE
SECTION 119–1BR-I
PROJECT NHCB-00D8(097)
RANDOLPH COUNTY
C–98–021–04
COVERED BRIDGE REHABILITATION

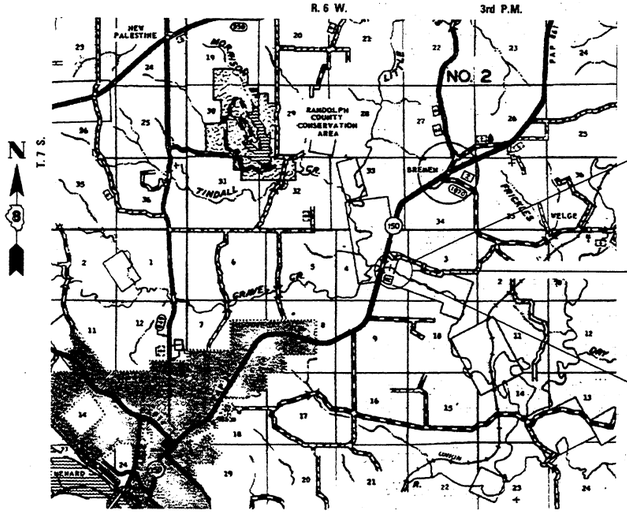
INDEX OF SHEETS

IDOT STANDARDS

280001–02
542401
602301
604036-01
701001
702001–03

D–98–100–01

LOCATION OF SECTION INDICATED THUS: –



LOCATION MAP

PROPOSED PROJECT ENDS
STA. 11+45.00

EXISTING COVERED BRIDGE, S.N. 079–9000 TO BE REHABILITATED. (EXISTING STRUCTURE TO BE SHORED AND RAISED ABOVE THE 50 YEAR HIGH WATER ELEVATION. EXISTING SUBSTRUCTURE TO BE MODIFIED AND RAISED. NEW EARTH APPROACHES TO BE CONSTRUCTED.)

PROPOSED PROJECT BEGINS
STA. 8+75.00

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

GROSS LENGTH = 270.00 FEET = 0.051 MILES
NET LENGTH = 270.00 FEET = 0.051 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct 22 20 03
Mary Ramer
DISTRICT ENGINEER

December 5 20 03
Michael T. Blue
ENGINEER OF DESIGN AND ENVIRONMENT

December 5 20
Virginia A. Henderson
DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: PATTI LEBEAU (618)346–3179
SQUAD LEADER: TIFFANY BRASE (618)346–3329

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS

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

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

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

DESIGN DESIGNATION

CONTRACT NO. 76602

COUNTY: RANDOLPH SECTION 119–1BR FAP ROUTE: UNMARKED

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033

PLOT DATE: 10/16/03

079-9000

9-181

SUMMARY OF QUANTITIES

80% FED. 20% STATE

RURAL - RANDOLPH COUNTY

CODE NO.	ITEM	UNIT	QUANTITY	TOTAL	CONSTRUCTION TYPE CODE Y044 ROADWAY	CONSTRUCTION TYPE CODE X002 STRUCTURE
X0324193	JACKING AND SHORING EXISTING BRIDGE	L. SUM		1		1
X0324194	REMOVE AND REPLACE CEDAR SHINGLES	SQ. FT.		2710		2710
X0324195	REMOVAL OF EXISTING SIDING	SQ. FT.		3208		3208
X0324196	LIMESTONE MASONRY	CU. YD.		60.3		60.3
X0324192	PAINTING TIMBER STRUCTURE	SQ. FT.		3910		3910
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT		84	84	
20400800	FURNISHED EXCAVATION	CU. YD.		716	716	
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE		0.6	0.6	
25100630	EROSION CONTROL BLANKET	SQ. YD.		840	840	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND		100	100	
28000300	TEMPORARY DITCH CHECKS	EACH		3	3	
28000400	PERIMETER EROSION BARRIER	FOOT		278	278	
28100209	STONE RIPRAP, CLASS A5	TON		1733		1733
28200100	FILTER FABRIC FOR USE WITH RIPRAP	SQ. YD.		1387	1387	
35100500	AGGREGATE BASE COURSE, TYPE A 6"	SQ. YD.		378	378	
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON		142	142	
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON		228	228	
40300500	COVER COAT AGGREGATE	TON		4	4	
40400800	SEAL COAT AGGREGATE	TON		4	4	
50102400	CONCRETE REMOVAL	CU. YD.		3.2		3.2
50102700	MASONRY REMOVAL	CU. YD.		7.1		7.1
50105100	REMOVAL OF EXISTING TIMBER FLOOR	EACH		1		1
50300225	CONCRETE STRUCTURES	CU. YD.		49.2		49.2
50300320	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH		4		4
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L. SUM		1		1
50501110	STRUCTURAL STEEL REMOVAL	POUND		2790		2790
50700105	TREATED TIMBER	F.B.M.		5386		5386
50700205	UNTREATED TIMBER	F.B.M.		13388		13388
50700305	HARDWARE	POUND		7390		7390
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND		3910		3910
54215559	METAL END SECTIONS 24"	EACH		1	1	
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT		38	38	
58700200	BRIDGE SEAT SEALER	SQ. FT.		183		183
60239400	INLETS, TYPE A, SPECIAL, TYPE 8 GRATE	EACH		1	1	
63400105	GUARD POSTS	EACH		24	24	
63400205	GUARD POSTS REMOVAL	EACH		17	17	
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL. MO.		6	6	
67100100	MOBILIZATION	L. SUM		1	1	
70103700	TRAFFIC CONTROL COMPLETE	L. SUM		1	1	
72400330	REMOVE SIGN PANEL-TYPE 3	SQ. FT.		24	24	
72400730	RELOCATE SIGN PANEL-TYPE 3	SQ. FT.		24	24	
* 80400105	ELECTRIC SERVICE INSTALLATION (SPECIAL)	EACH		1	1	

SUMMARY OF QUANTITIES

80% FED. 20% STATE

RURAL - RANDOLPH COUNTY

CODE NO.	ITEM	UNIT	QUANTITY	TOTAL	CONSTRUCTION TYPE CODE Y044 ROADWAY	CONSTRUCTION TYPE CODE X002 STRUCTURE
* X0300188	WATER SERVICE CONNECTION	L. SUM		1	1	
X0321600	FORM LINER TEXTURED SURFACE	SQ. FT.		177		177
X0322001	TUCKPOINTING MASONRY JOINTS	FOOT		480		480
* X0322283	VIDEO SURVEILLANCE SYSTEM COMPLETE	EACH		1	1	
* X0323607	FIRE PROTECTION SYSTEM	L. SUM		1	1	
* X0323608	FIRE ALARM SYSTEM	L. SUM		1	1	
X0323609	MECHANICAL BUILDING STRUCTURE	L. SUM		1	1	
* X0323610	ELECTRICAL DISTRIBUTION SYSTEM	L. SUM		1	1	
X0323700	REMOVE AND RELOCATE PICNIC TABLES	EACH		1	1	
* X8011010	TELEPHONE SERVICE INSTALLATION	L. SUM		1	1	

* SPECIALTY ITEM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	2
STA. 8+75 TO STA. 11+45				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

76602

GENERAL NOTES

EXCEPT AS NOTED IN THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

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 MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ALL SAW CUTTING OF THE EXISTING PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING BY CALLING J.U.L.I.E. AND BY NOTIFYING NON-JULIE MEMBERS INDIVIDUALLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

- CHARTER COMMUNICATIONS, INC.
  317 WEST MAIN STREET
  BELLEVILLE, IL 62220

- VERIZON NORTH, INC.
  SOUTHERN DIVISION
  111 E. STATE STREET
  MASCOUTAH, IL 62258

- ILLINOIS POWER COMPANY
  1010 N. MARKET STREET
  P.O. BOX 218
  SPARTA, IL 62286-0218

- VILLAGE OF CHESTER
  1330 SWANWICK STREET
  CHESTER, IL 62233

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

THE STANDARD AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.

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

THE CONTRACTOR SHALL FURNISH AND INSTALL WOOD SIGN SUPPORTS IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS; HOWEVER, INSTALLATION BY METHOD "A" (ARTICLE 730.04(a)) SHALL BE THE ONLY METHOD PERMITTED.

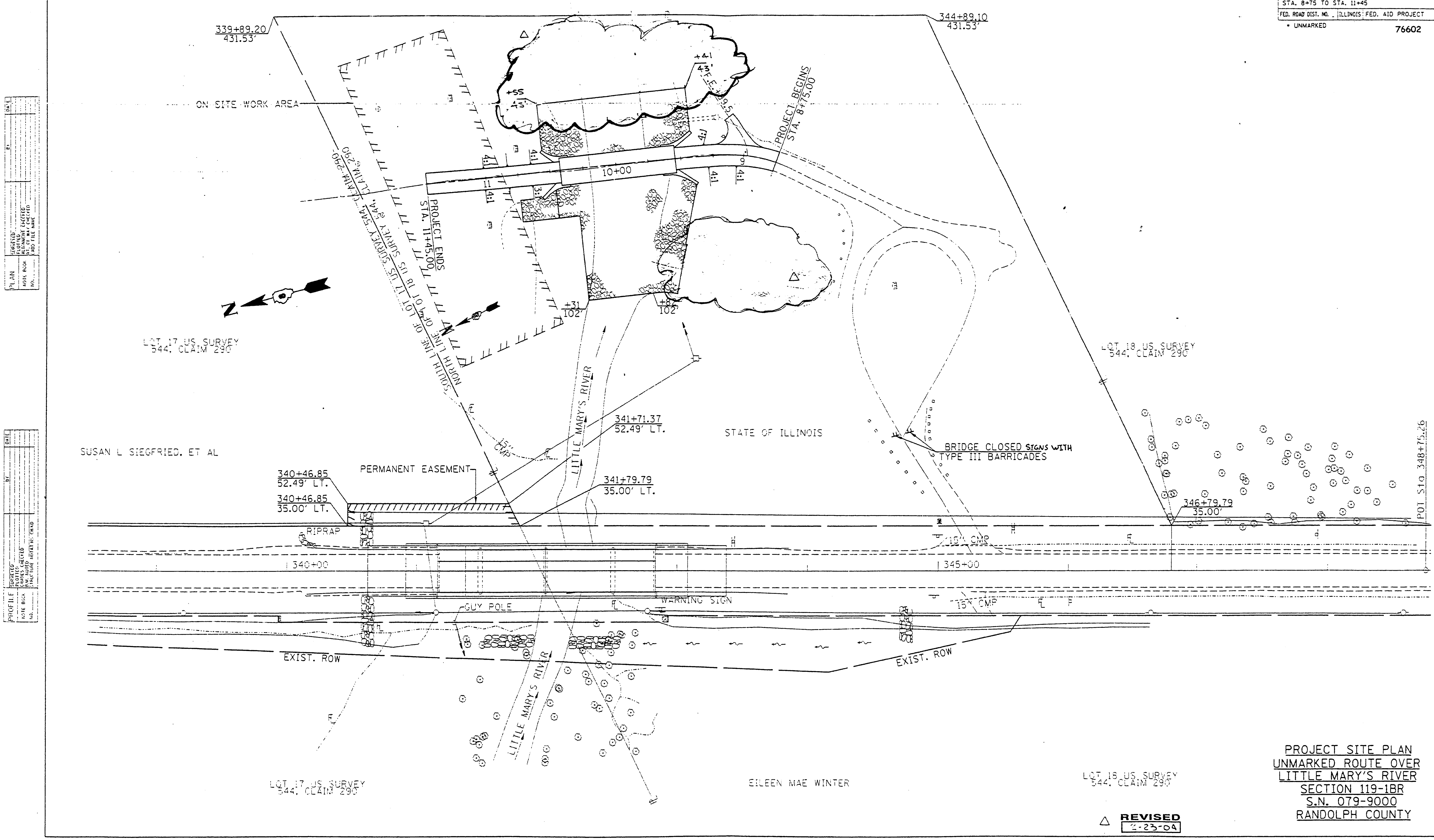
THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES OR SHOULD BE APPLIED AT THIS RATE IF INCLUDED IN A PLAN QUANTITY:

BITUMINOUS MATERIALS (PRIME COAT)	0.375 GALLON/SQ. YD. (ON AGG.)
AGGREGATE MATERIAL	2.05 TON/CU. YD.
RIPRAP	1.75 TON/CU. YD.
AGRICULTURAL GROUND LIMESTONE	2.0 TON/ACRE
AGGREGATE PRIME COAT	0.002 TON/SQ. YD.
BITUMINOUS MATERIALS (COVER AND SEAL COATS)	0.30 GALLON/SQ. YD.

△ REVISED 2-23-04

SUMMARY OF QUANTITIES & GENERAL NOTES
UNMARKED ROUTE OVER LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
RANDOLPH COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	3
STA. 8+75 TO STA. 11+45				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* UNMARKED		76602		



PROJECT SITE PLAN
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
RANDOLPH COUNTY

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033

BM #10A - 60d Nail & Washer in Wood Light Pole 14' Rt. Sta. 9+15 El. 396.32

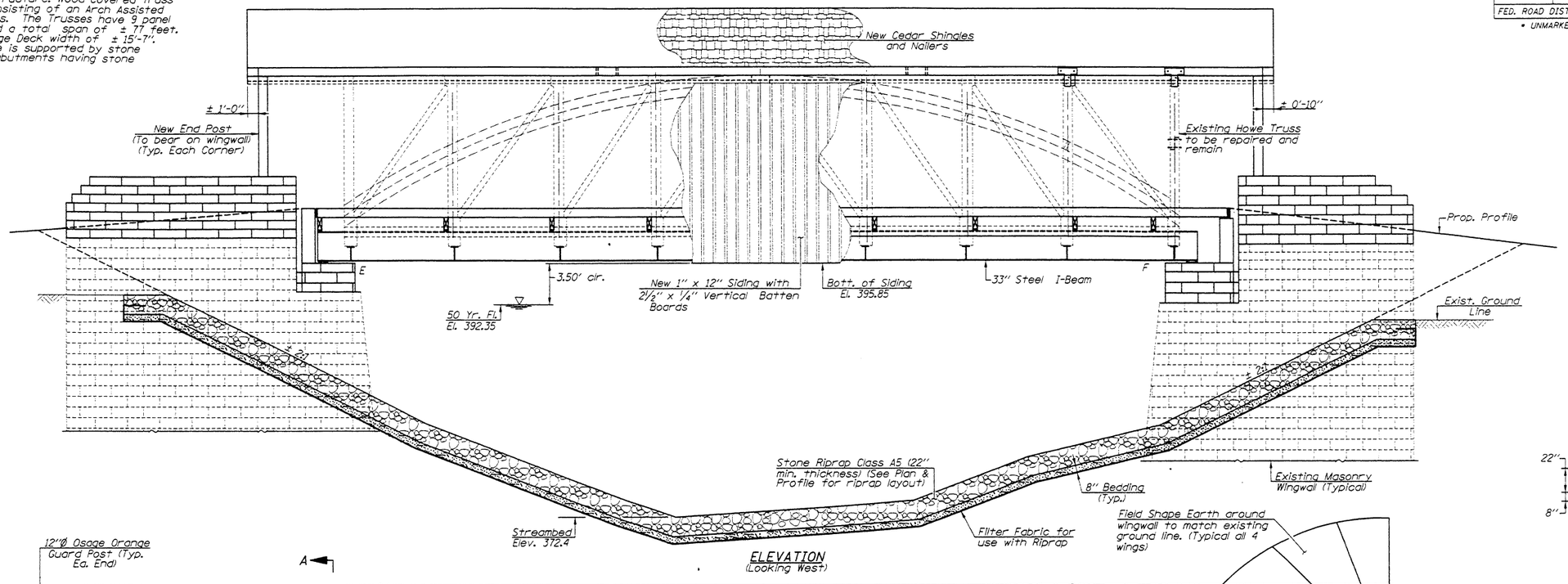
Existing Structure: Wood Covered Truss Bridge Consisting of an Arch Assisted Howe Truss. The Trusses have 9 panel points and a total span of ± 77 feet. Clear Bridge Deck width of ± 15'-7". The Bridge is supported by stone masonry abutments having stone wingwalls.

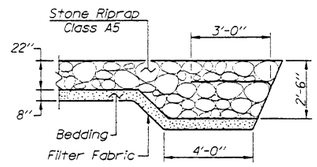
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	9
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

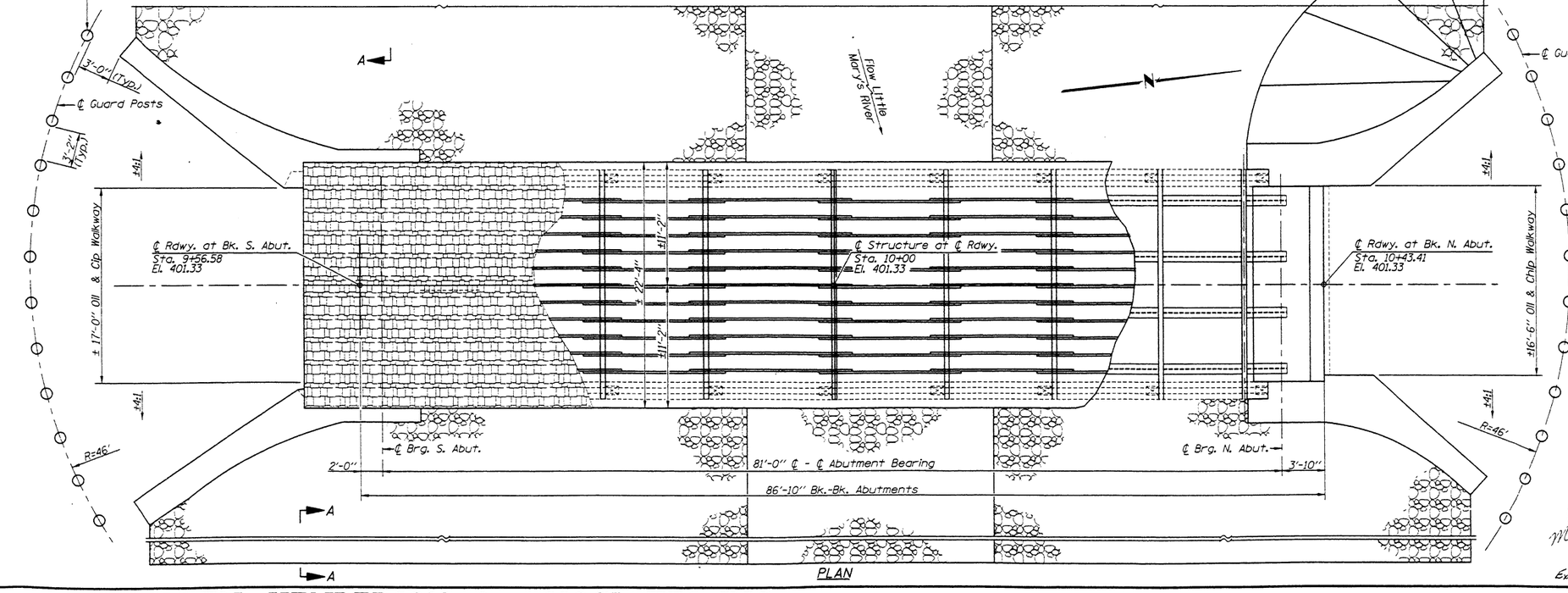
• UNMARKED

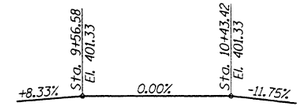
SHEET NO. 1 OF 16 SHEETS





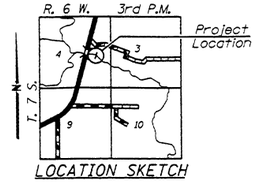
SECTION A-A





PROFILE GRADE
(Along ℄ Sidewalk)

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



LOCATION SKETCH

Mark Henderson 10/1/03

EXPIRATION DATE 11/30/04

GENERAL PLAN & ELEVATION
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

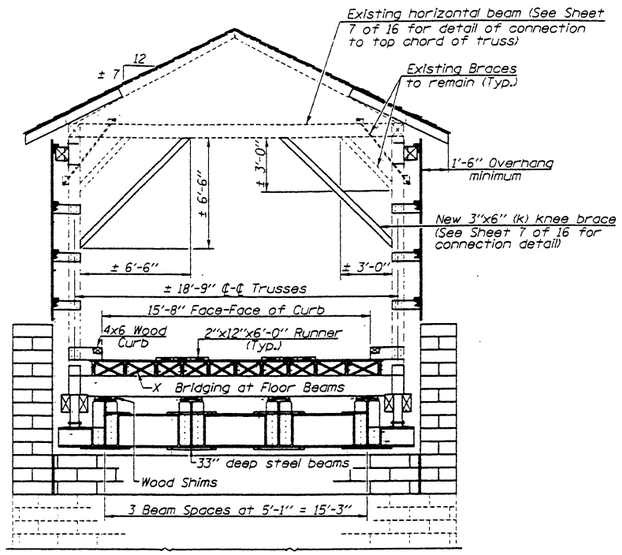
ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	10
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

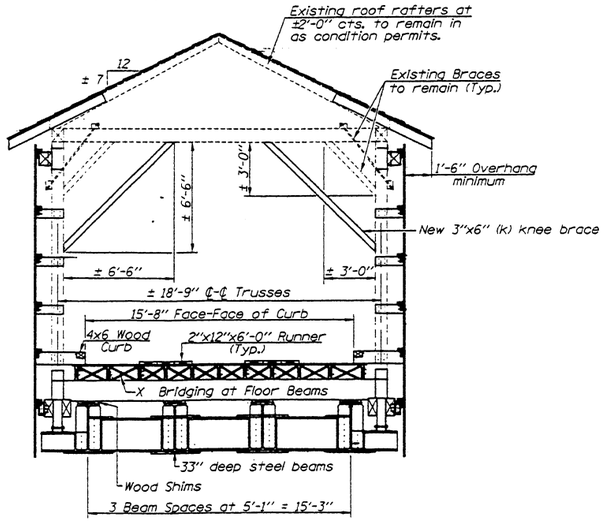
* UNMARKED

SHEET NO. 2 OF 16 SHEETS

76602



CROSS SECTION THROUGH REHABILITATED BRIDGE
(At Abutments)



CROSS SECTION THROUGH REHABILITATED BRIDGE
(Near Midspan)

SUGGESTED SEQUENCE OF CONSTRUCTION

1. Remove and dispose of existing siding.
2. Reposition and secure all top chord truss bracing. Replace damaged bracing and provide new bracing where existing bracing is missing.
3. Remove roof from existing structure. Dispose of all existing shingles and any nailers deemed not fit for re-use as directed by the Engineer. Store roof rafters for re-use as condition allows.
4. Provide temporary shoring for existing structure. Jack existing trusses to remove sag. Where jacking of the existing structure is required to remove sag, a system of flat jacks shall be used to provide for simultaneous jacking and uniform adjustments. The structure may be lifted and stored at an on site work area at the contractor's option. Support structure at each lower chord panel point. Temporary shoring design shall be the responsibility of the contractor, shall be sealed by an Illinois licensed structural engineer, and shall be approved by the Illinois Department of Transportation or their representative.
5. Remove existing steel hangers and bottom chord channels from existing trusses. Remove floor beams, floor stringers and decking as shown on the plans. Replace damaged and deteriorated truss members as shown on the plans and as directed by the Engineer. Rigidly connect all truss members.
6. Place new floor beams, floor joists and decking as shown on the plans. Reconnect existing floor beam cross bracing in a manner similar to the existing connections.
7. Reposition existing knee braces and provide new knee braces at each truss vertical member as shown on the plans. Complete this work in a manner that will leave trusses in a plumb position.
8. Tuck point the existing masonry abutment mortar joints according to the Special Provisions and as directed by the Engineer.
9. Using the temporary shoring, raise the structure a sufficient amount that will allow the placement of the new concrete abutments caps and new steel superstructure. At the Contactor's option, the structure may be lifted and stored at the on-site work area shown on the Site Plan.
10. Pour new concrete abutment caps.
11. Place new steel superstructure onto the concrete abutments caps.
12. Lower the existing structure and place on the new steel superstructure. Shim as required to provide proper vertical alignment.
13. Provide new roof. Use existing roof rafters and nailers as condition permits. Provide new cedar shingles.
14. Raise wingwalls to elevations show on plans using limestone masonry of the same color and shape as existing stone masonry. (See Special Provisions.)
15. Place new 1x12 siding with vertical batten boards. Vertical Siding and batten boards shall be continuous full height of structure. Paint siding with two coats of latex paint according to the Special Provision for Painting Timber Structure.
16. Place riprap at locations shown on the plans.

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts ⅞" Ø, open holes 15/16" Ø, unless noted otherwise.

Calculated weight of Structural Steel = 61700 lbs. (M270 Gr. 36)

Field welding of construction accessories will not be permitted to beams.

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams.

Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31, M-42 or M-53 Grade 60.

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

Plan dimensions and details relative to the existing structure have been taken from the existing plans and are subject to nominal construction variances. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The inorganic zinc rich primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel and all hardware except where otherwise noted. The color of the final finish coat for all steel surfaces shall be pale brown, Munsell No. 7.5YR4/2. The finish coat shall have a semi-gloss finish. See Special Provisions for "Cleaning and Painting New Metal Structures".

Bridge Seat Sealer shall be applied to the seat area of both abutments.

All construction joints shall be bonded.

The contractor shall pre-drill holes where required for driving nails. The cost of pre-drilling holes will be included with "Hardware".

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Structures	Cu. Yd.		49.2	49.2
Elastomeric Bearing Assembly, Type II	Each	4		4
Reinforcement Bars, Epoxy Coated	Pound		3910	3910
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stone Riprap, Class A5	Ton			1783
Filter Fabric For Use With Riprap	Sq. Yd.			138
Remove and Replace Cedar Shingles	Sq. Ft.	2710		~~2710~~
Treated Timber	F.B.M.	5386		5386
Untreated Timber	F.B.M.	13388		13388
Jacking and Shoring Existing Bridge	L. Sum	1		1
Hardware	Pound	7390		7390
Remove Existing Timber Siding	Sq. Ft.	3208		3208
Bridge Seat Sealer	Sq. Ft.		183	183
Concrete Removal	Cu. Yd.		3.2	3.2
Tuckpointing Masonry Joints	Foot		480	480
Limestone Masonry	Cu. Yd.	60.3		60.3
Structural Steel Removal	Pound	2790		2790
Masonry Removal	Cu. Yd.		7.1	7.1
Removal of Existing Timber Floor	Each	1		1
Form Liner Textured Surface	Sq. Ft.		177	177
Painting Timber Structure	Sq. Ft.		3910	3910

WATERWAY INFORMATION

Drainage Area = 66.44 sq. mi. | Low Grade Elev. = N.A. | @ Sta. N.A.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Erosion	10	6028	966.5	967.0	391.14	1.44	1.38	392.58	392.52
Design	50	9126	983.7	1055.7	392.35	2.23	2.17	394.58	394.52
Base	100	10439	983.7	1084.6	392.75	2.49	2.43	395.24	395.18
Overtopping	NA	NA	NA	NA	NA	NA	NA	NA	NA
Max. Calc.	500	NA	NA	NA	NA	NA	NA	NA	NA

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications with 2003 Interim Specifications.

Illinois Accessibility Code 1997.

A.A.S.H.T.O. Guide Specifications for Design of Pedestrian Bridges.

LOADING

Pedestrian - 85 p.s.f. (Reducible per A.A.S.H.T.O.)
Alternate H5 Truck Load
Roof Snow Load: 20 p.s.f.
Roof Live Load: 30 p.s.f. Maximum DL+LL deflection = L/240
Wind Speed: 70 m.p.h.

DESIGN STRESSES

f'c = 3500 p.s.i.
fy = 60000 p.s.i. (Reinforcement)
Fy = 36000 p.s.i. (Structural Steel M270 Gr. 36)
Fb = 1050 p.s.i. (Red Oak No. 2 2" to 4" thick, 5" and wider and siding)
Fb = 725 p.s.i. (Red Oak No. 2, Beams and Stringers)
Masonry Mortar: ASTM C270, Type O, (350 p.s.i.) (Tuckpointing)
ASTM C270, Type N

SEISMIC DATA

Seismic Performance Category = B
Bedrock Acceleration Coeffecient = 13%g
Site Coeffecient = 1.0

△ REVISED 2-23-04

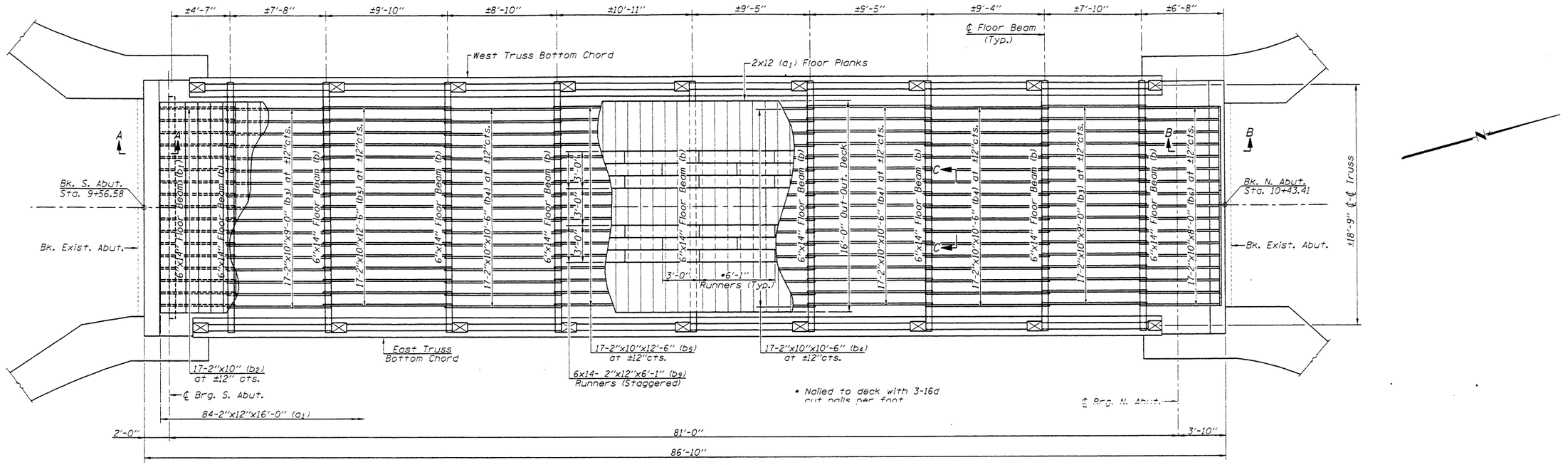
GENERAL PLAN & ELEVATION
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	11
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• UNMARKED

SHEET NO. 3 OF 16 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



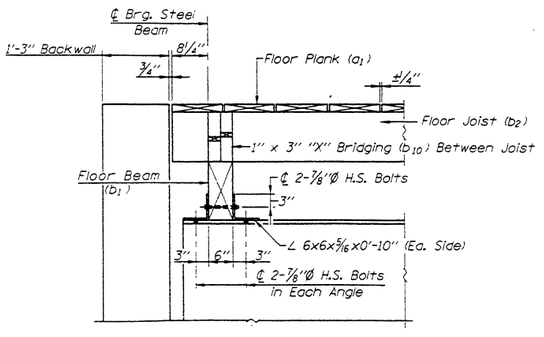
FLOOR FRAMING PLAN

Notes:
1. Structural timber designated ( ), represents member designation. See Bill of Material - Deck this sheet.
2. All holes in timber members shall be field drilled according to Article 507.08 of the Standard Specifications.
3. Timber members must be cut-to-fit as needed.
4. Structural timber shall be rough sawn.
5. Sizes shown are the actual dimensions of structural timber to be used. Nominal sizes will not be permitted.

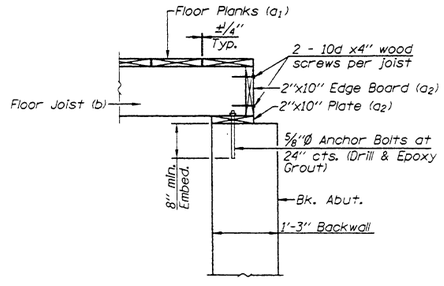
BILL OF MATERIAL - DECK

MEMBER	DESCRIPTION	NUMBER	SIZE	MATERIAL
a_1	Floor Planks	84	2" x 12" x 16'-0"	Red Oak
a_2	Edge/Plate Boards	2	2" x 10" x 16'-0"	Red Oak
b	Floor Beam	9	6" x 14" x 19'-6"	Red Oak
b_1	Floor Beam	1	6" x 14" x 18'-0"	Red Oak
b_2	Floor Joists	17	2" x 10" x 6'-6"	Red Oak
b_3	Floor Joists	34	2" x 10" x 9'-0"	Red Oak
b_4	Floor Joists	68	2" x 10" x 10'-6"	Red Oak
b_5	Floor Joists	34	2" x 10" x 12'-6"	Red Oak
b_6	Floor Joists	17	2" x 10" x 8'-0"	Red Oak
b_9	Runners	84	2" x 12" x 6'-1"	Red Oak
b_{10}	Bridging	40	1" x 3" x 12'-0"	Red Oak
h_1	Curbs	16	4" x 6" x 10'-0"	Red Oak

• Bridging to be field cut to length



SECTION A-A



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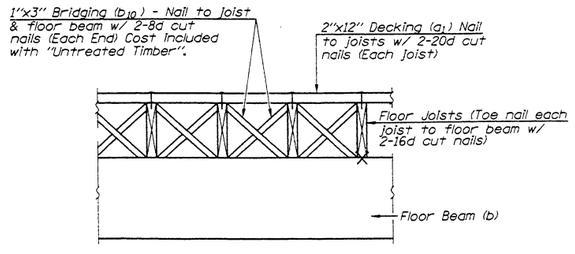


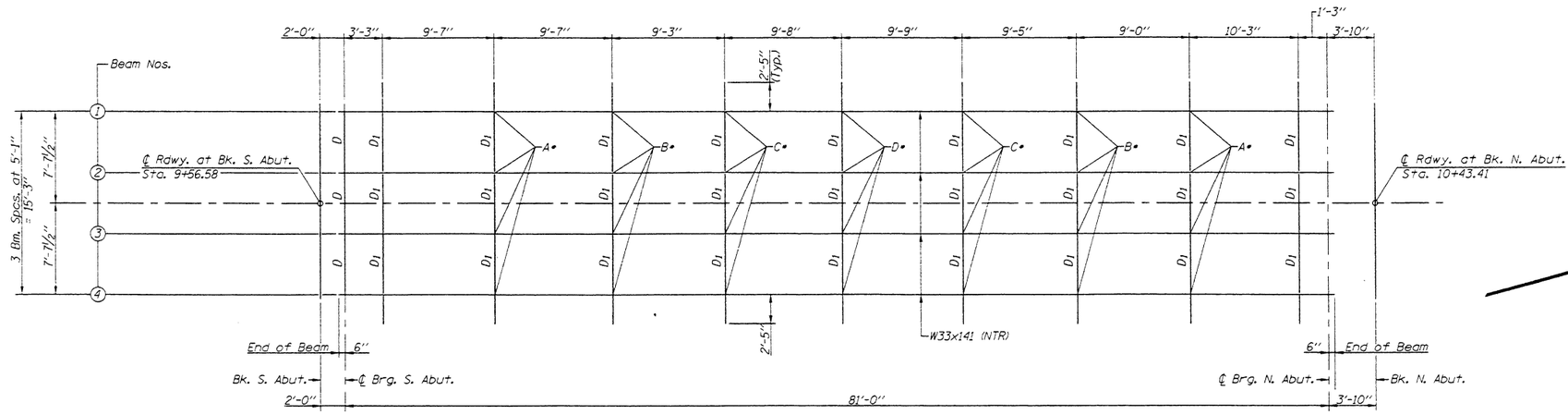
SECTION C-C

DECK PLAN
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

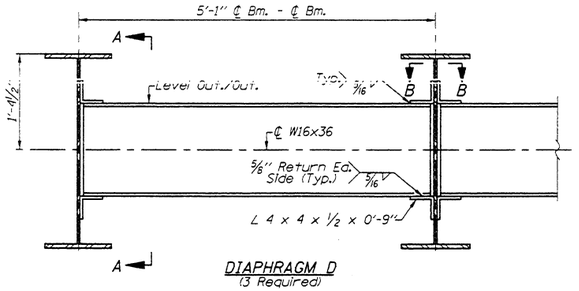
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	12
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• UNMARKED

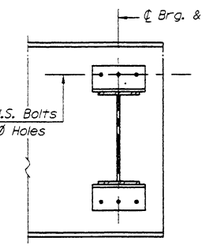
SHEET NO. 4 OF 16 SHEETS



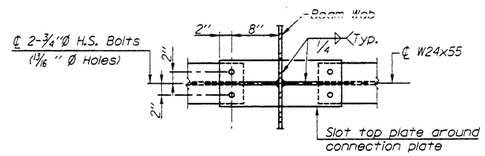
FRAMING PLAN
• See Shim Plate Table



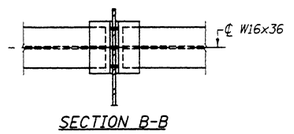
DIAPHRAGM D
(3 Required)



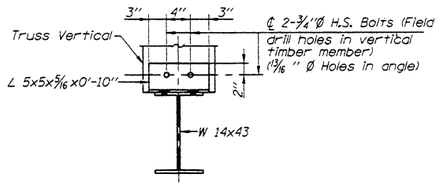
SECTION A-A



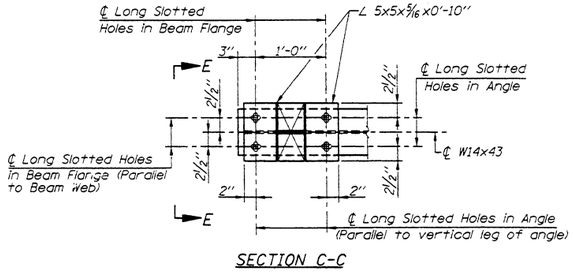
SECTION D-D



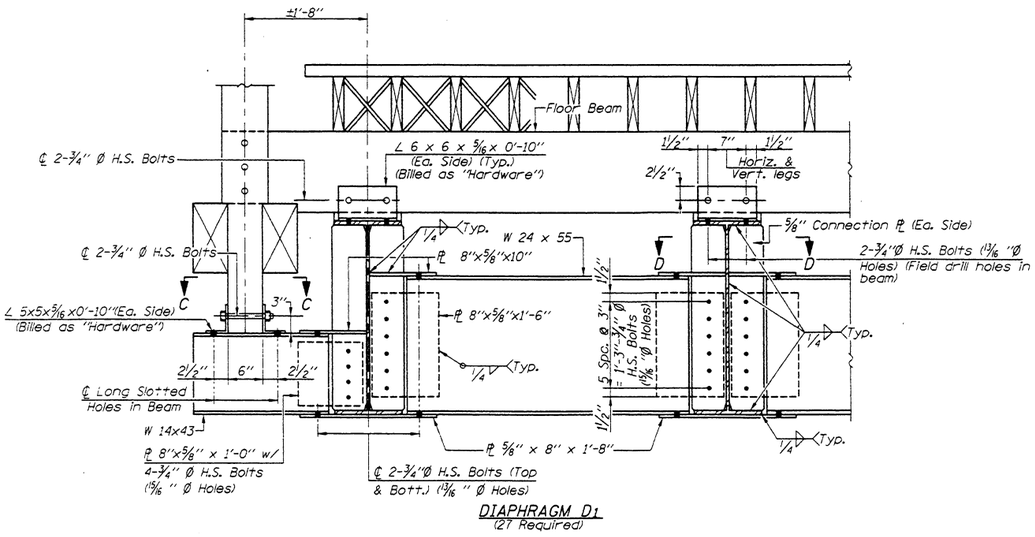
SECTION B-B



SECTION E-E



SECTION C-C



DIAPHRAGM D1
(27 Required)

SHIM PLATE TABLE		
LOCATION	THICKNESS	SIZE
A	1¼"	6"x12"
B	1⅞"	6"x12"
C	2⅜"	6"x12"
D	2½"	6"x12"

Note: Hardwood shim plates quantity included with bid item "Treated Timber".

INTERIOR BEAM MOMENT TABLE	
	0.5 PT SIMPLE SPAN
I (in4)	7450
ℚ (k/ft/) •	498
Mℚ (Ft-k)	408
MLL (Ft-k)	259
Imp (Ft-k)	0
fs (ksi)	17.9

INTERIOR BEAM REACTION TABLE	
Rℚ (k)	20.9
RLL (k)	13.5
Imp (k)	0
R Total	34.4

I is the moment of inertia of the steel section used in computing fs.

• Mℚ is computed using a series of point loads located at the truss panel points. ℚ is the equivalent uniform load required to produce Mℚ as shown in the table.

STRUCTURAL STEEL
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

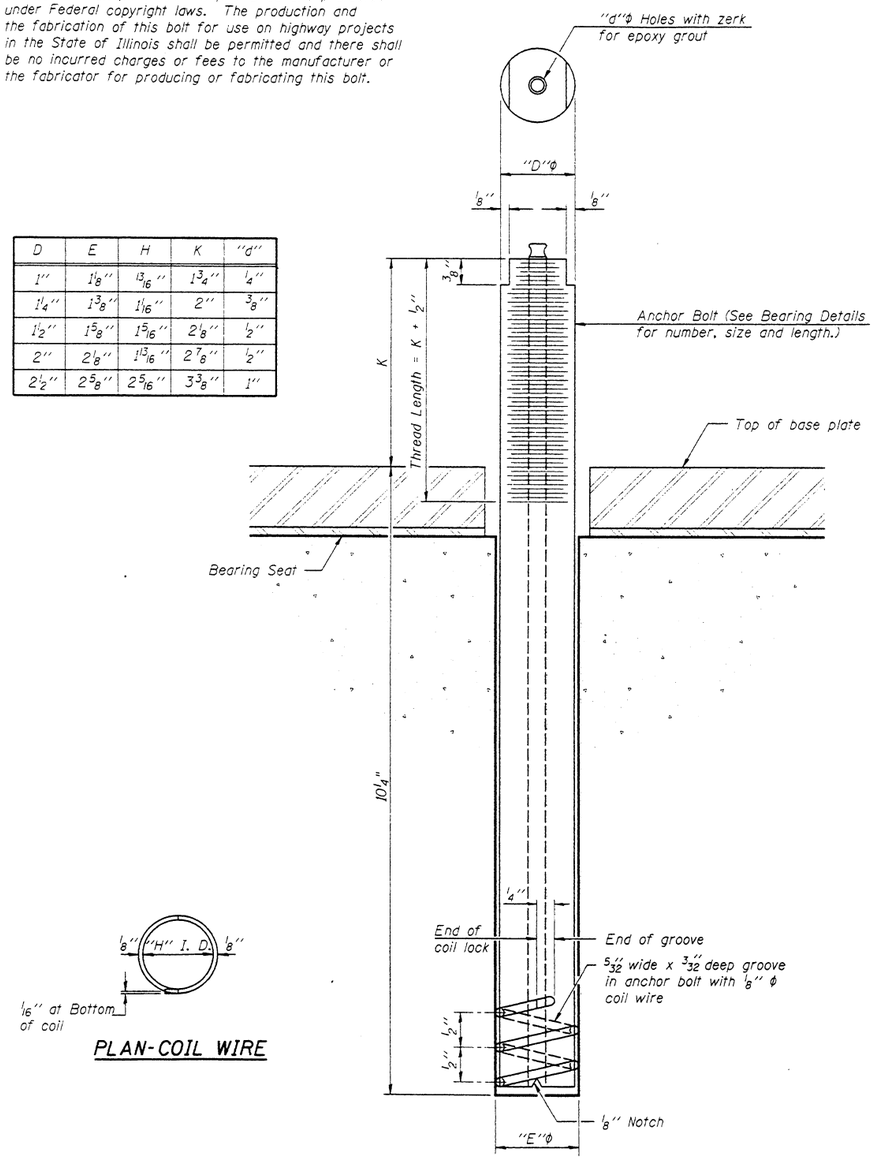
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	14
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• UNMARKED

SHEET NO. 6 OF 16 SHEETS

D	E	H	K	"d"
1"	1 1/8"	13/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



ILLINOIS COIL-LOCK ANCHOR BOLT

PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abuts.	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

ANCHOR BOLT DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

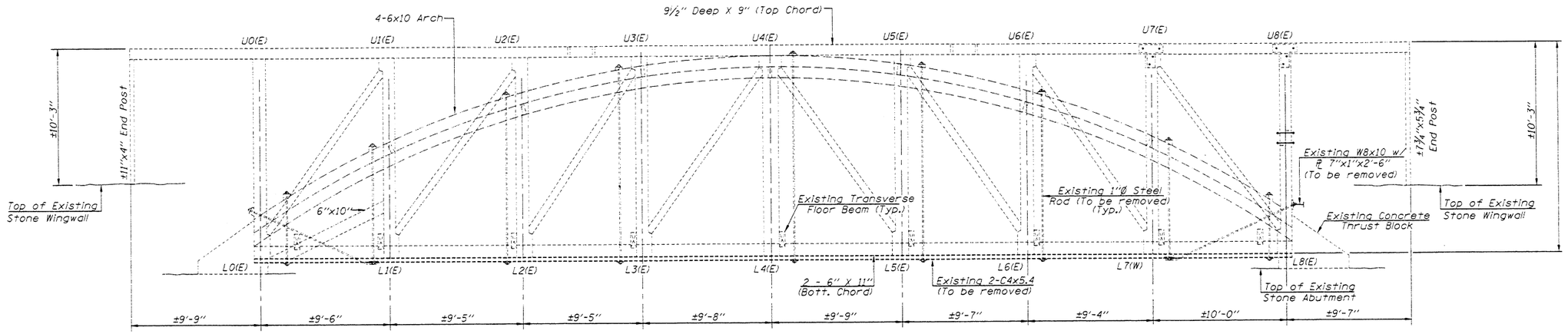
ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

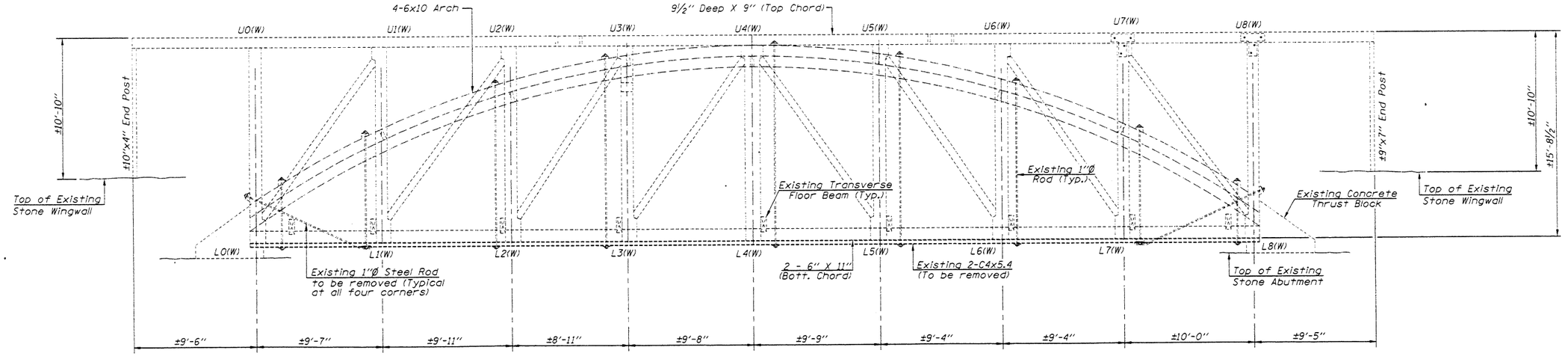
• UNMARKED

SHEET NO. 7 OF 16 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



EAST TRUSS ELEVATION
(Looking West)



WEST TRUSS ELEVATION
(Looking West)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Removal	Pound	2790

NOTES

Temporary shoring for the existing structure shall be in place and the existing structure shall be fully supported prior to removing any of the existing structural steel as shown above.

Removal of timber blocking and washers at locations of steel rods to be removed shall be included with the bid item "Structural Steel Removal".

STRUCTURAL STEEL REMOVAL
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

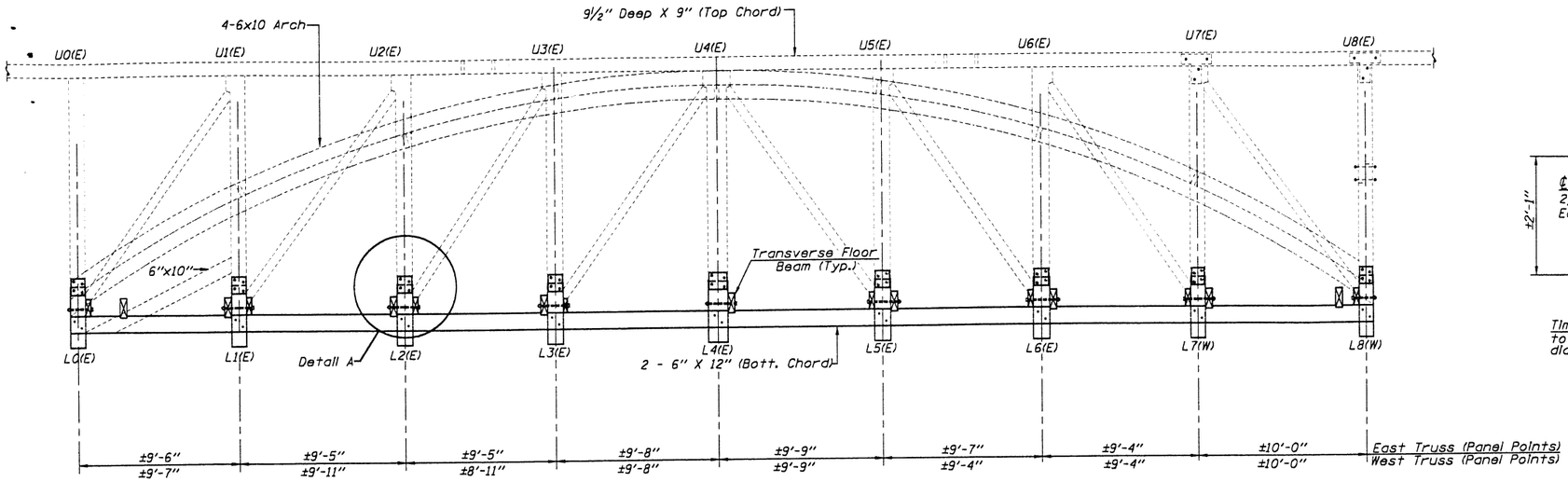
ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

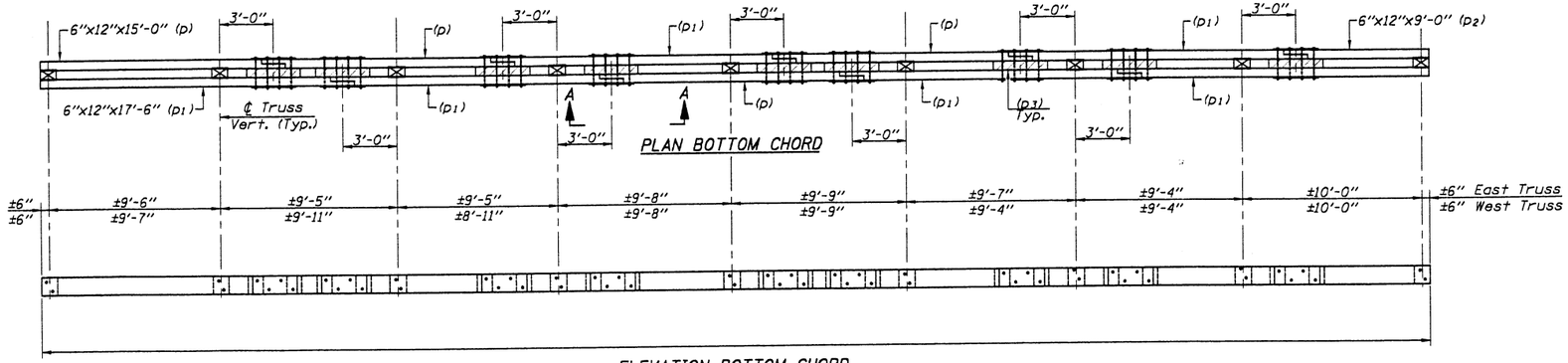
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	16
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* UNMARKED

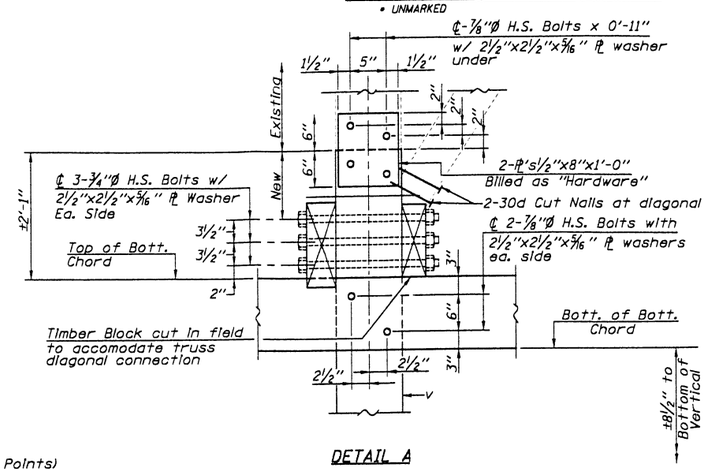
SHEET NO. 8 OF 16 SHEETS



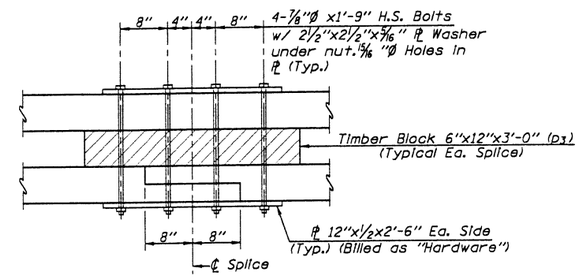
TRUSS ELEVATION
(Looking West)



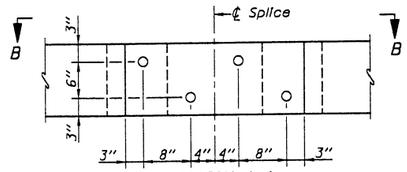
ELEVATION BOTTOM CHORD



DETAIL A



SECTION B-B

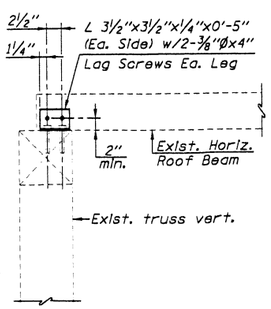


SECTION A-A

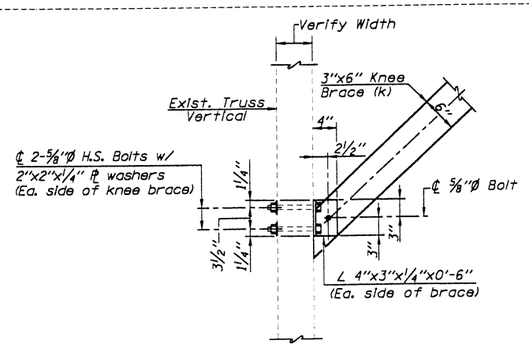
BILL OF MATERIAL - 2 TRUSSES
(Replacement Details)

MEMBER	DESCRIPTION	NUMBER	SIZE	MATERIAL
p	Bottom Chord	8	6"x12"x15'-0"	Red Oak
p1	Bottom Chord	12	6"x12"x17'-6"	Red Oak
p2	Bottom Chord	2	6"x12"x9'-0"	Red Oak
p3	Timber Block	18	6"x12"x3'-0"	Red Oak
* v	Vertical Post	18	8"x12"x4'-6"	Red Oak
k	Knee Brace	18	3"x6"x9'-6"	Red Oak

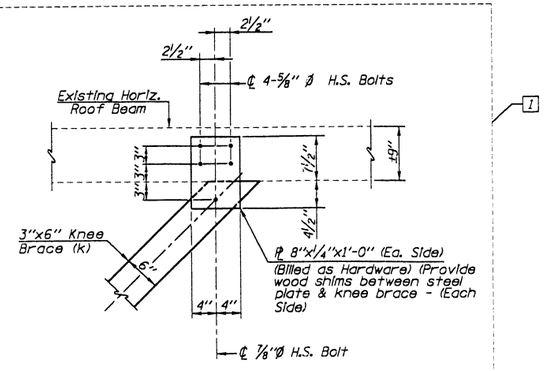
* Field cut new member to match size of existing truss vertical. Quantity of vertical posts shown is based on the bottom of all verticals being replaced. If the engineer in the field deems any of the verticals fit for re-use, this quantity shall be adjusted.



ROOF BEAM TO TRUSS CONNECTION
(18 Required)



KNEE BRACE CONNECTION DETAIL AT TRUSS VERT.



1

KNEE BRACE CONNECTION DETAIL AT ROOF BEAM

Notes:
1. Dimensions shown are actual sizes of timber to be used. Nominal sizes will not be permitted.
2. Timber members must be cut to fit as needed.
3. Structural Timber shall be rough sawn.
4. Holes in timber members shall be field drilled according to Article 507.08 of the Standard Specifications.
5. Holes in steel members and hardware shall be standard size holes unless noted otherwise.

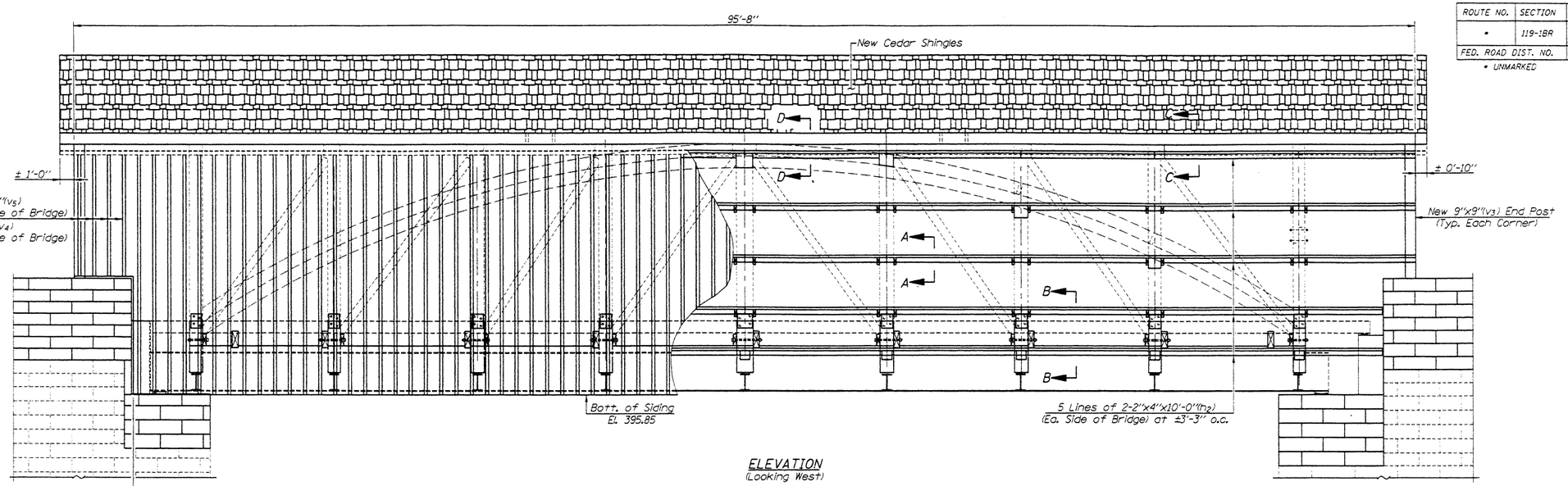
TRUSS REPAIR DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

1 - Revised 9/20/04 MAH

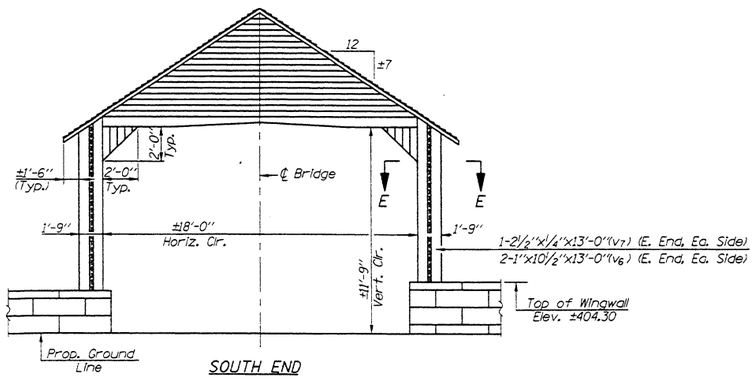
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	17
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• UNMARKED

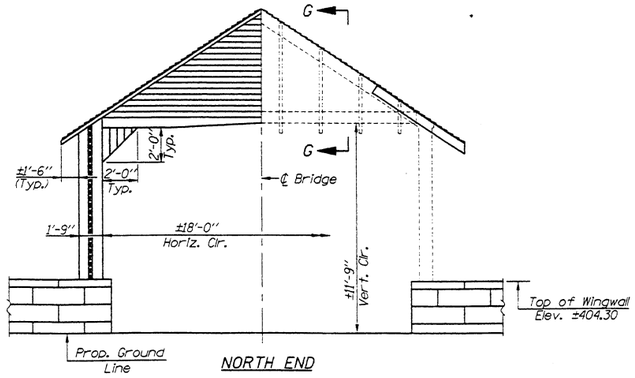
SHEET NO. 9 OF 16 SHEETS



ELEVATION
(Looking West)



SOUTH END



NORTH END

BILL OF MATERIAL - ROOF AND SIDING

	MEMBER	DESCRIPTION	NUMBER	SIZE	MATERIAL
•	D_7	Roof Rafters	15	•	Red Oak
	D_8	Rafter Extension	98	2"x4"x6'-0"	Red Oak
	h_2	Siding Supports	200	2"x4"x10'-0"	Red Oak
	h_3	Siding Connector	80	2"x6"x1'-9"	Red Oak
	h_4	Connection Block	22	8"x4"x0'-9"	Red Oak
	h_5	Curb/Siding Connector	36	2"x6"x3'-0"	Red Oak
	h_6	Connection Block	20	9"x9"x0'-9"	Red Oak
	h_7	Connection Block	6	8"x4"x1'-3"	Red Oak
	h_8	Horizontal/Siding(Ends)	64	8"x⅜"x12'-0"	Red Oak
••	D_4	Nailers	50	1"xVariesx16'-0"	Red Oak
•••	v_1	Vertical Siding	176	1"x12"x18'-0"	Red Oak
	v_2	Batten Boards	176	2½"x¼"x18'-0"	Red Oak
	v_3	End Post	4	9"x9"x10'-6"	Red Oak
	v_4	Vertical Siding	12	1"x12"x10'-6"	Red Oak
	v_5	Batten Boards	16	2½"x¼"x10'-6"	Red Oak
	v_6	Siding (Ends)	8	1"x 10½"x13'-0"	Red Oak
	v_7	Batten Boards (Ends)	4	2½"x¼"x13'-0"	Red Oak

• Replace roof rafters as condition requires. Quantity of roof factors is based on 15% of roof rafters being replaced. Existing roof rafters are 2" thick with a depth of 7" at the outside support and 3½" at the roof ridge. Approximate length = 11'-6". Field verify roof rafter dimensions and quantity required prior to ordering members.

•• Nailer widths shall vary between 4" and 12" and shall be nailed to roof rafters in a random order with a distance between roof nailers varying from 4" to 8". Quantity of nailers is based on 25% of nailers being replaced.

••• Nail siding boards to each horizontal (h_2) using 3-12d cut nails per board. Nail batten boards to each horizontal (h_2) w/ 1-8d cut nail each side of joint.

Notes:

1. Structural timber designated ( ), repesents member designation. See Bill of Material - Roof and Siding this sheet.
2. All holes shall be field drilled.
3. Timber members must be cut to fit as needed.
4. Sizes shown are the actual dimensions of structural timber to be used Nominal sizes will not be permitted.

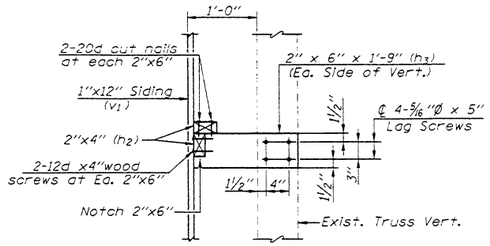
ROOF & SIDING DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

Note: Work this sheet with Sheet No. 9 of 16.

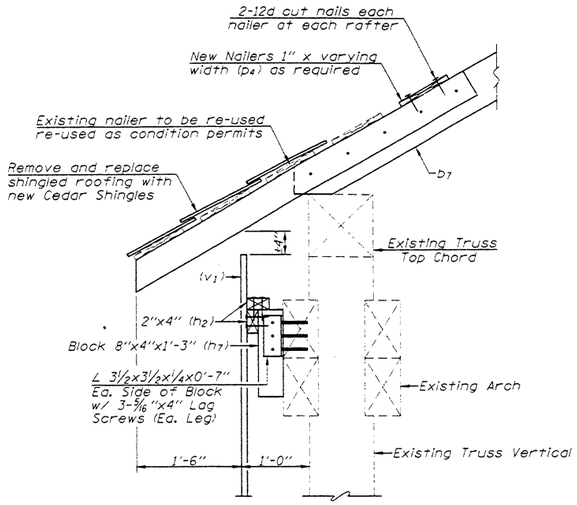
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	18
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• UNMARKED

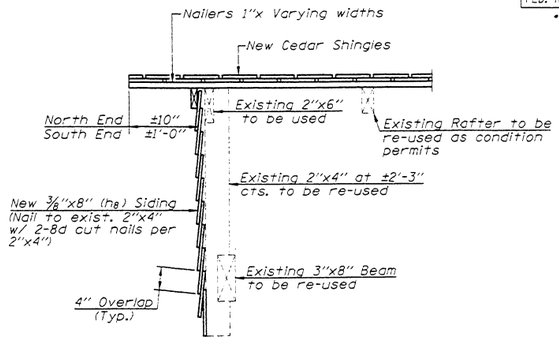
SHEET NO. 10 OF 16 SHEETS



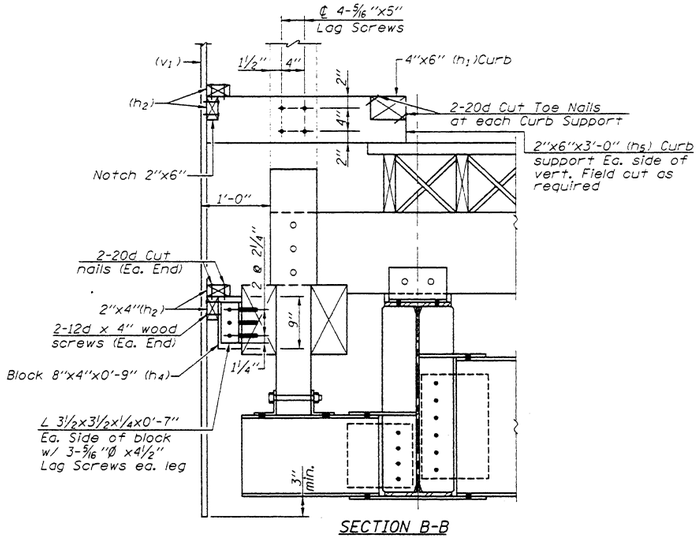
SECTION A-A



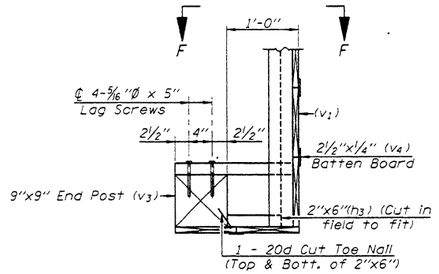
SECTION D-D



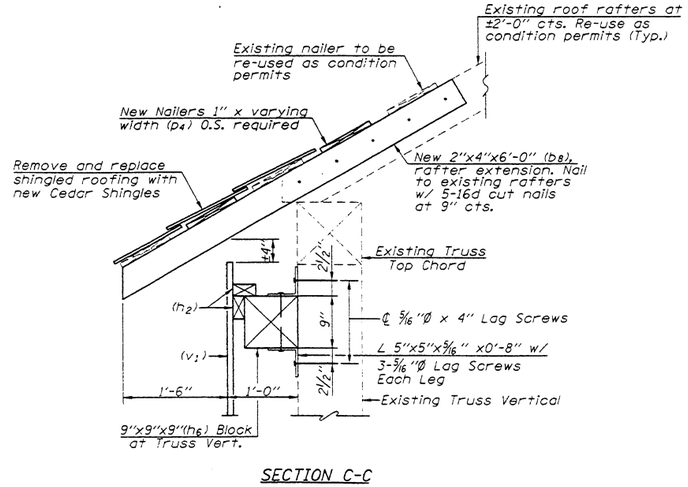
SECTION G-G



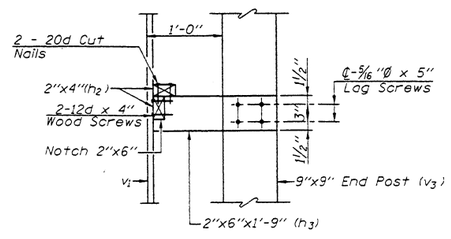
SECTION B-B



SECTION E-E



SECTION C-C



SECTION F-F

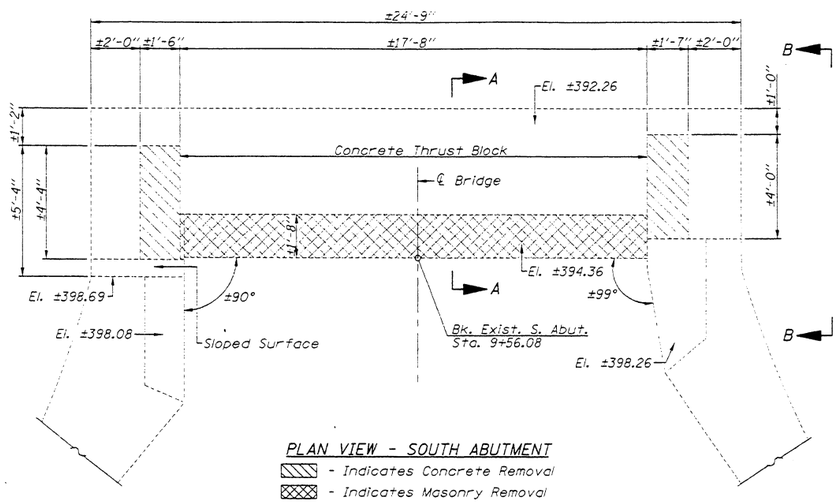
ROOF & SIDING DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	19
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

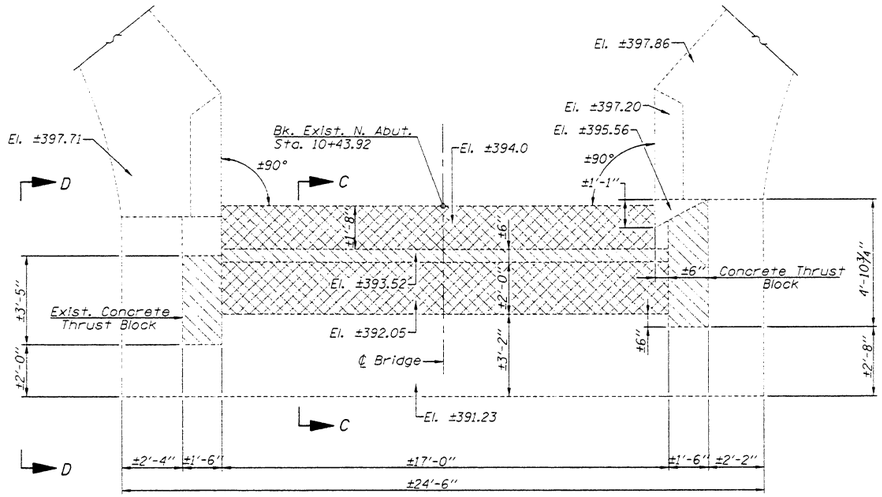
* UNMARKED

SHEET NO. 11 OF 16 SHEETS



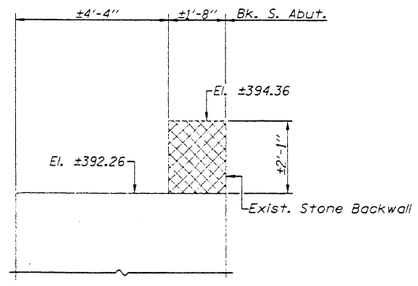
PLAN VIEW - SOUTH ABUTMENT

- Indicates Concrete Removal
- Indicates Masonry Removal

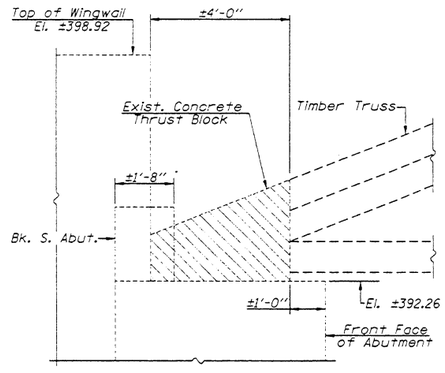


PLAN VIEW - NORTH ABUTMENT

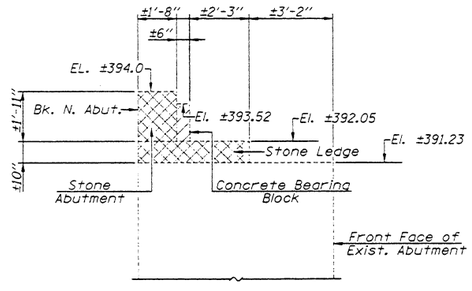
- Indicates Concrete Removal
- Indicates Masonry Removal



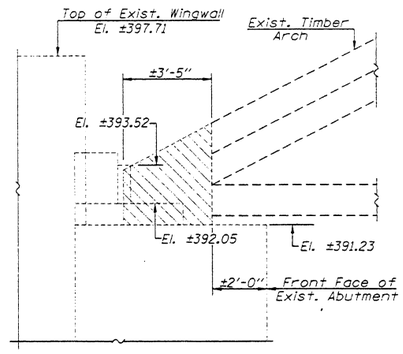
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

BILL OF MATERIAL

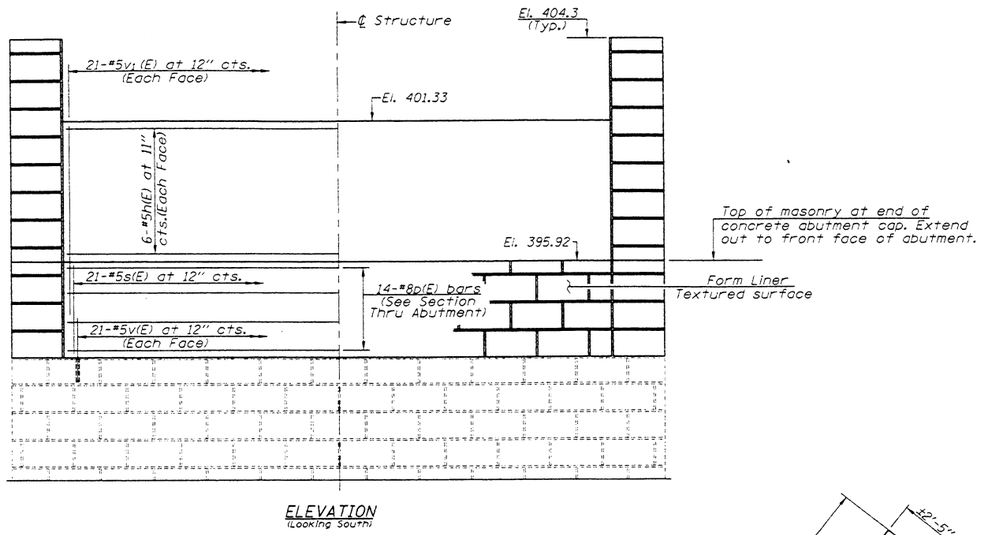
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	3.2
Masonry Removal	Cu. Yd.	7.1

ABUTMENT REMOVAL DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

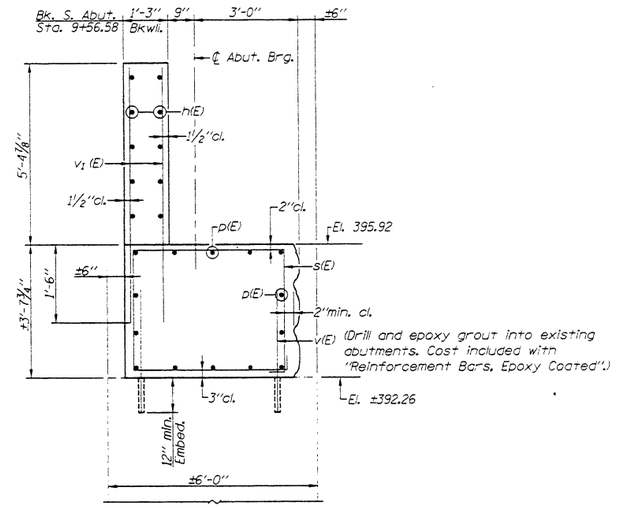
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	20
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

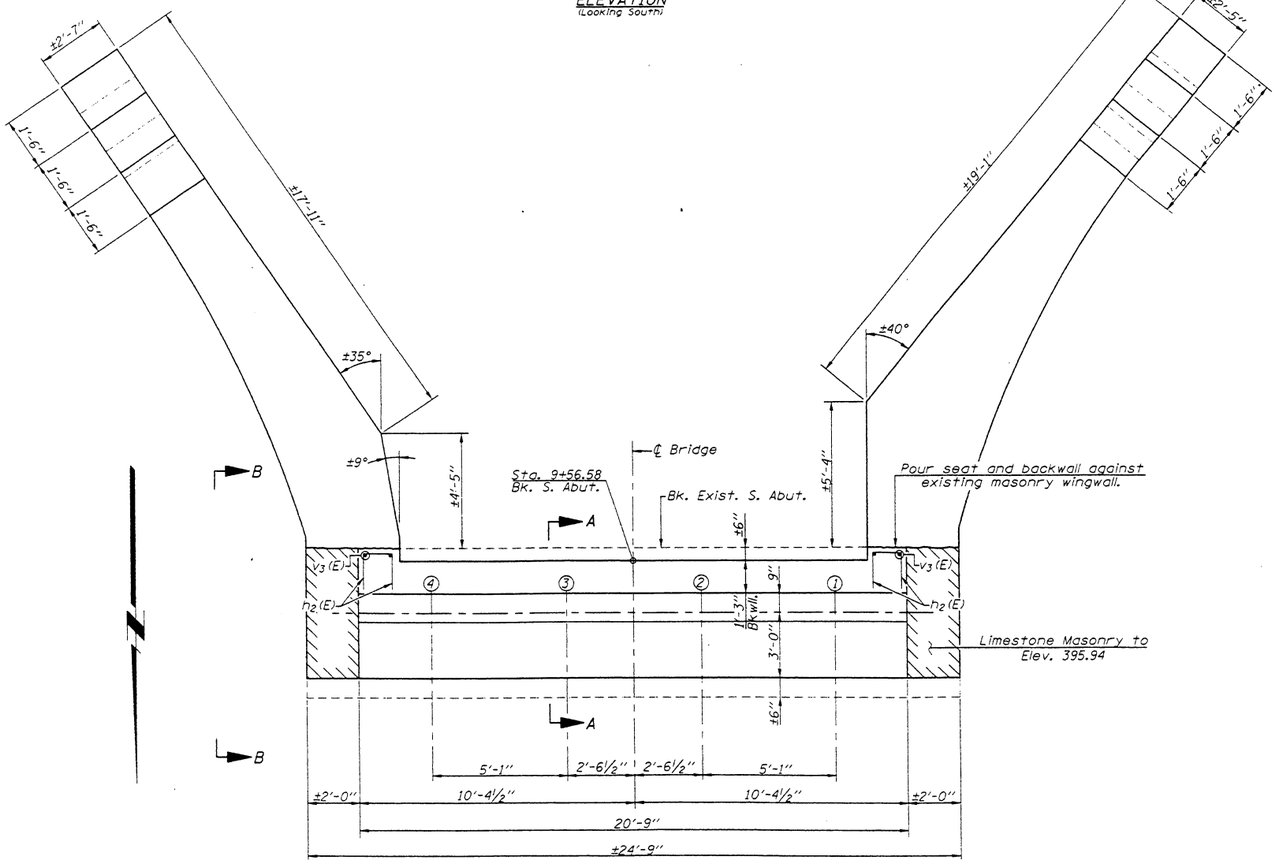
SHEET NO. 12 OF 16 SHEETS



ELEVATION
(Looking South)



SECTION A-A



PLAN

NOTES

Reinforcement bars designated (E) shall be epoxy coated.

All exposed edges shall have standard ¾" chamfer.

Work this sheet with Sheet No. 13 of 16.

Place reinforcement bars in top of cap to miss anchor bolts.

The bridge superstructure shall be in place prior to placing additional backfill behind the abutment.

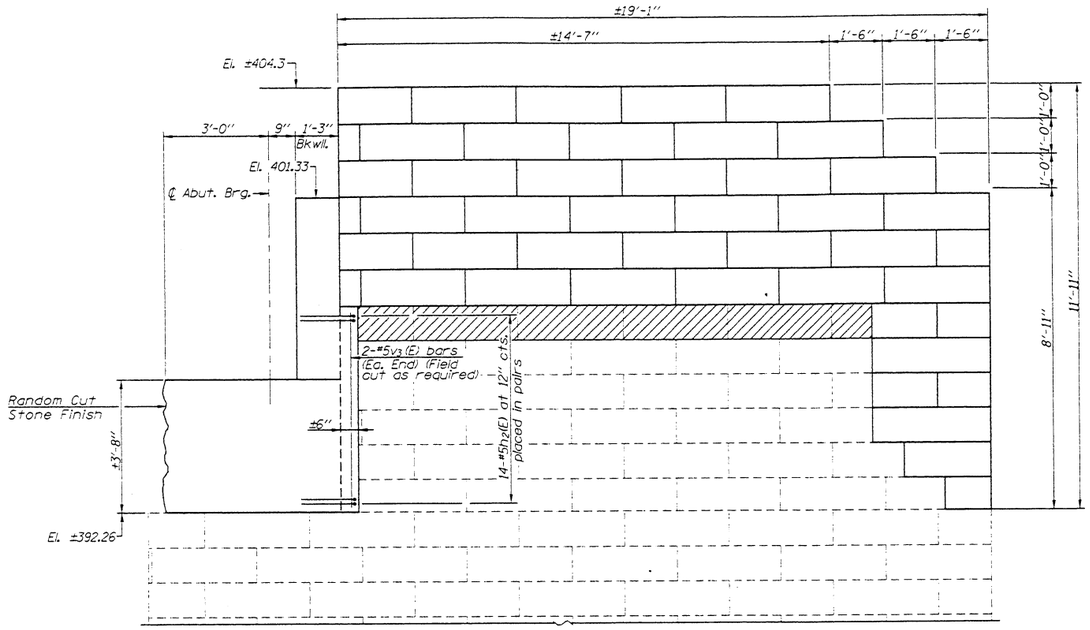
SOUTH ABUTMENT
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

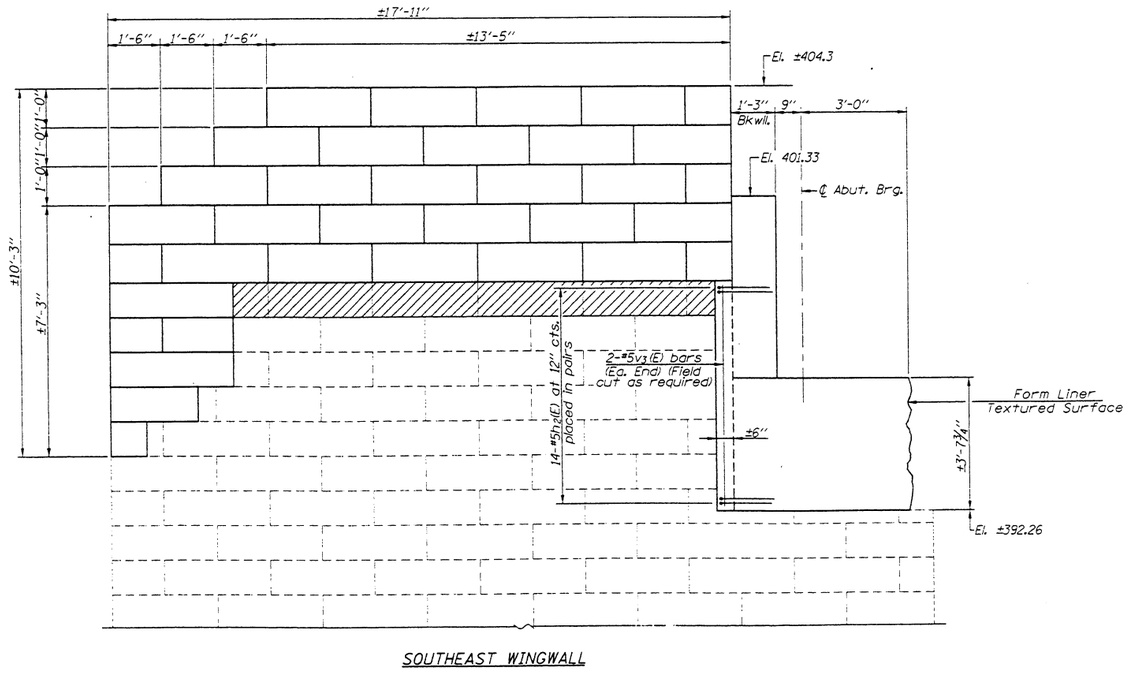
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	21
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

SHEET NO. 13 OF 16 SHEETS

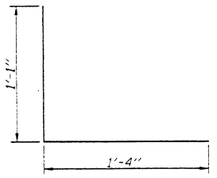


SOUTHWEST WINGWALL

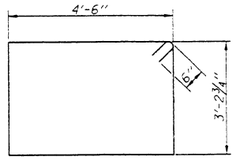


SOUTHEAST WINGWALL

- Existing top wingwall course to be removed and incorporated into new wingwall as top course



BAR h2(E)



BAR s

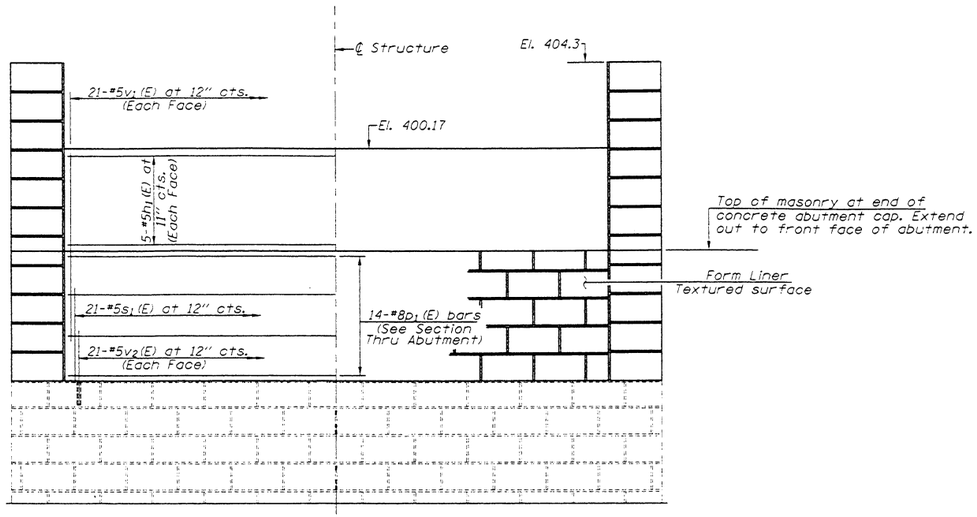
BILL OF MATERIAL
SOUTH ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	12	#5	20'-5"	———
h_2(E)	28	#5	2'-5"	⌐
p(E)	14	#8	20'-5"	———
s(E)	21	#5	16'-6"	□
v(E)	42	#5	3'-0"	———
v_1(E)	42	#5	6'-9"	———
v_3(E)	4	#5	6'-0"	———
Concrete Structures			Cu. Yd.	19.9
Reinforcement Bars, Epoxy Coated			Pound	1910
Bridge Seat Sealer			Sq. Ft.	78
Limestone Masonry			Cu. Yd.	30.7
Tuckpointing Masonry Joints			Foot	260
Form Liner Textured Surface			Sq. Ft.	76

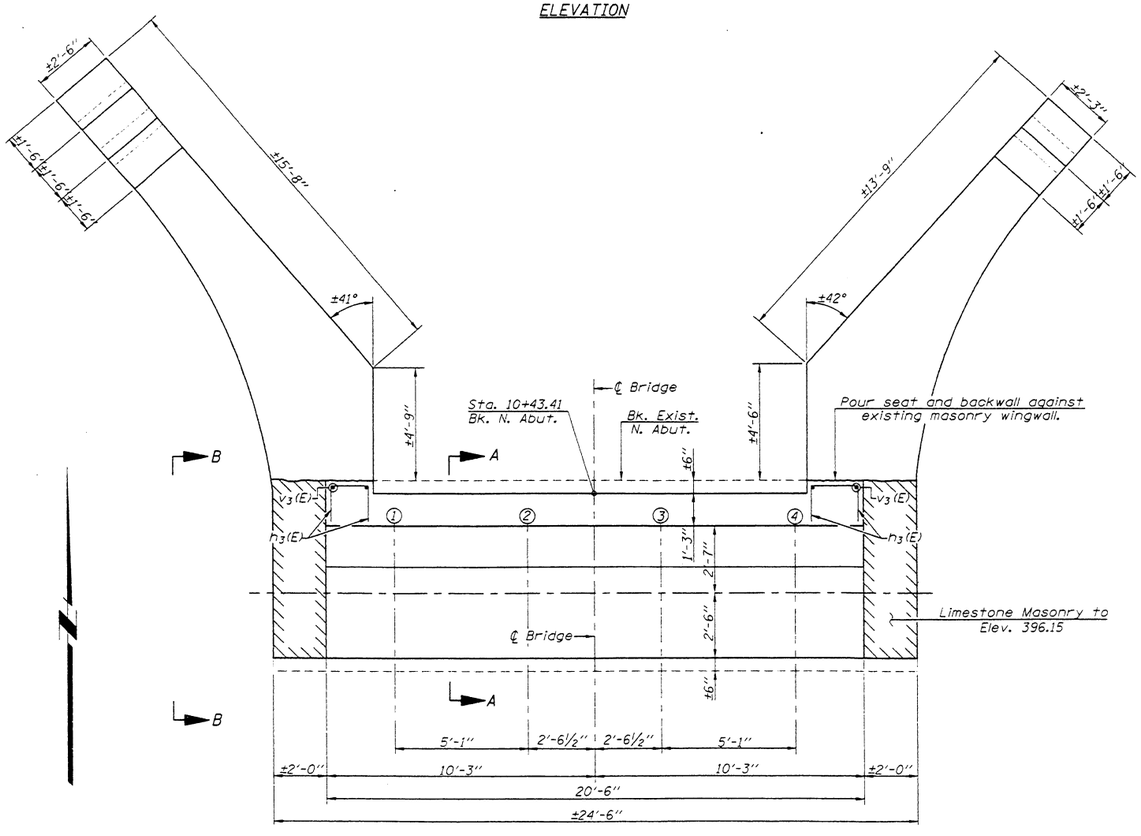
SOUTH ABUTMENT
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	119-1BR	RANDOLPH	34	22
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

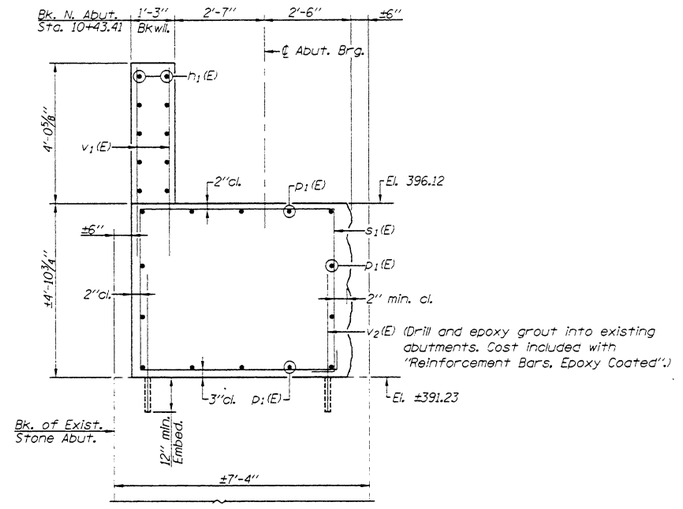
• UNMARKED



ELEVATION



PLAN



SECTION A-A

NOTES

Reinforcement bars designated (E) shall be epoxy coated.

All exposed edges shall have standard ¾" chamfer.

Work this sheet with Sheet No. 15 of 16.

Place reinforcement bars in top of cap to miss anchor bolts.

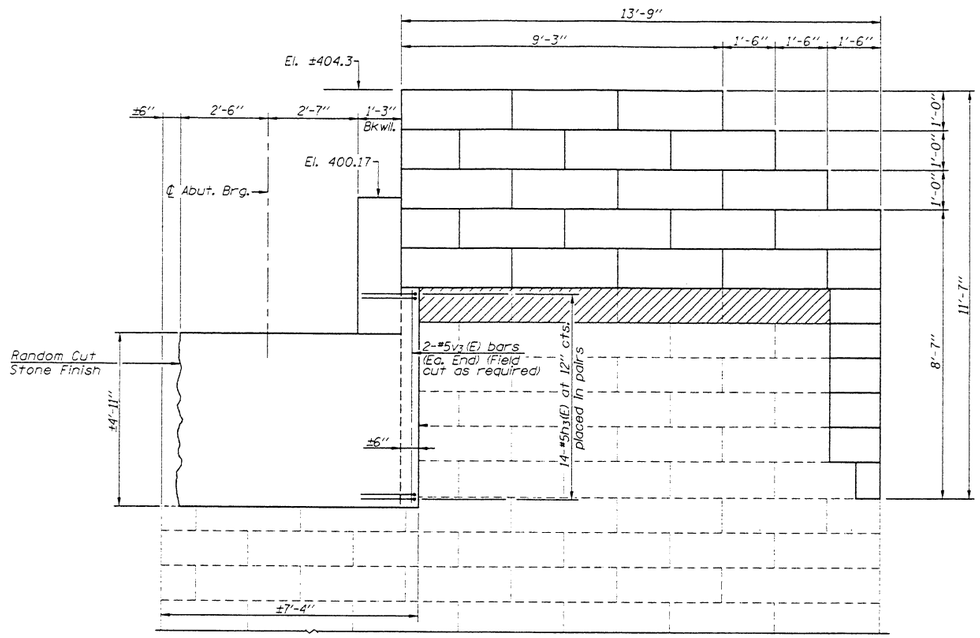
The bridge superstructure shall be in place prior to placing additional backfill behind the abutment.

NORTH ABUTMENT
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

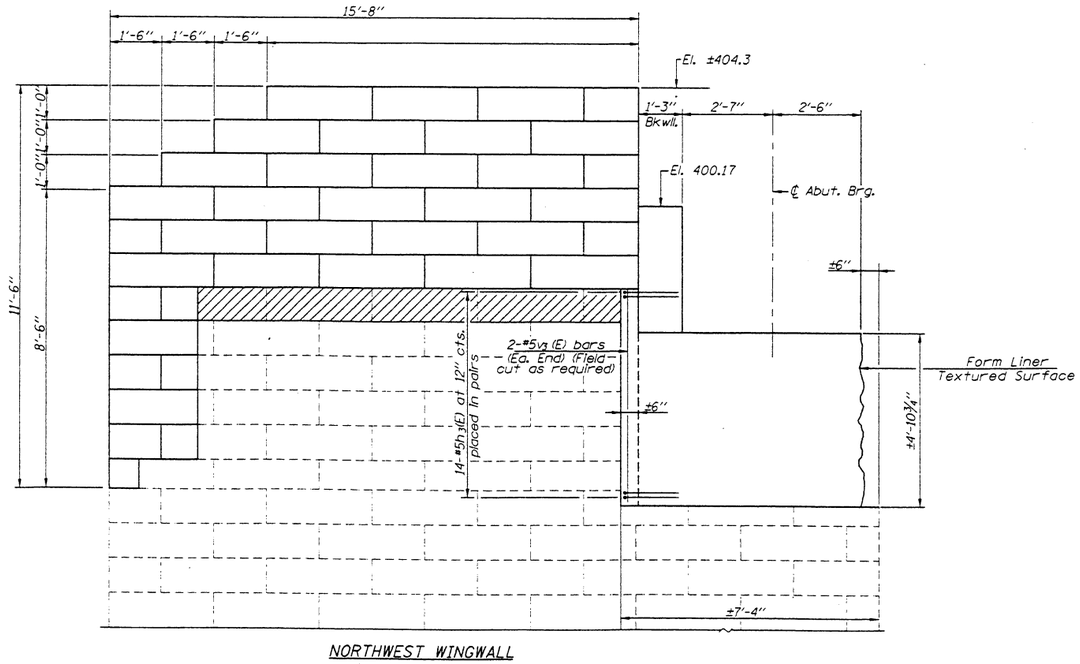
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	23
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* UNMARKED

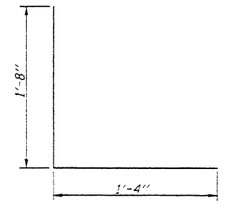


NORTHEAST WINGWALL

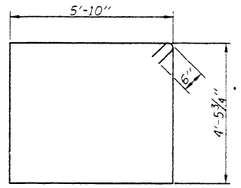


NORTHWEST WINGWALL

- Existing top wingwall course to be removed and incorporated into new wingwall as top course



BAR h3(E)



BAR s1(E)

BILL OF MATERIAL
NORTH ABUTMENT

Bar	No.	Size	Length	Shape
h1(E)	10	#5	20'-2"	——
h3(E)	28	#5	3'-0"	L
p1(E)	14	#8	20'-2"	——
s1(E)	21	#5	21'-8"	□
v1(E)	42	#5	6'-9"	——
v2(E)	42	#5	3'-6"	——
v3(E)	4	#5	6'-0"	——
Concrete Structures			Cu. Yd.	29.3
Reinforcement Bars, Epoxy Coated			Pound	2000
Bridge Seat Sealer			Sq. Ft.	105
Limestone Masonry			Cu. Yd.	29.6
Tuckpointing Masonry Joints			Foot	220
Form Liner Textured Surface			Sq. Ft.	101

NORTH ABUTMENT
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	24
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

SHEET NO. 16 OF 16 SHEETS

Date 7/30/02

ROUTE Unmarked DESCRIPTION Covered Bridge over Little St. Mary's River LOGGED BY Larry Ford

SECTION 119-1BR LOCATION SEC. TWP. 7S. RNG. 6W. 3 PM.

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

STRUCT. NO. 079-9000
Station 10+00

BORING NO. 1 S Abut
Station 9+42
Offset 4.00ft RT CL
Ground Surface Elev. 396.5 ft

Surface Water Elev. 372.8 ft
Stream Bed Elev. 372.5 ft

Groundwater Elev.:
First Encounter Dry Hole ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	6		
	4		
392.5	2	NC	4
	3		
	3	1.3	
390.0	3	S/10	24
	2		
	3	0.8	
385.0	3	S/10	22
	3		
382.5	5	1.1	
	5	S/10	24
	3		
381.0	5		14
	5	NC	33
		1.2	
	5	S/5	
	6	1.6	
-20	9	S/5	26
	5		

Reddish Gray Very Weathered SHALE with Limestone Gravel *(continued)*

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	4	1.6	
	5	S/10	25
373.5	9		
	13	2.8	23
Gray SHALE 372.5	21	S/10	19
		NC	
Brown and Gray Very Weathered SHALE	6		
371.0	8	1.0	31
Gray SHALE 370.9	33	S/10	19
		NC	
Brown and Gray Slightly Weathered SHALE	22		
	35	2.3	
	30	S/5	23
	24		
	34	4.2	
Hard Shelves 365.0	40	S/10	18
364.5			
Gray Slightly Weathered SHALE	14		
	24		
	47	NC	19
(Top of Formation) 358.0			
Gray LIMESTONE (Drilled Hard) 357.5	10		
		NP	
End of Boring -40			

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

BBS, from 137 (Rev. 8-99)

Date 7/31/02

ROUTE Unmarked DESCRIPTION Covered Bridge over Little St. Mary's River LOGGED BY Larry Ford

SECTION 119-1BR LOCATION SEC. TWP. 7S. RNG. 6W. 3 PM.

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

STRUCT. NO. 079-9000
Station 10+00

BORING NO. 2 N Abut
Station 10+59
Offset 9.00ft LT CL
Ground Surface Elev. 392.7 ft

Surface Water Elev ft
Stream Bed Elev. 373.2 ft

Groundwater Elev.:
First Encounter 376.7 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
391.2			
Large Rip Rap			
	2		
Gray Limestone GRAVEL with some Brown Silt	2		
	2	NC	7
389.7			
	3		
Brown Silt LOAM with Brown Sand Lenses	3	0.5	
	3	S/5	15
386.3			
Brown Silty Clay LOAM	1		
	2		21
384.7	4	S/5	15
Brown Loamy SAND 383.7		NC	
Brown Sandy LOAM	1		
	2	0.5	
381.2	3	S/5	18
Gray Sandy Clay LOAM	0		
	0	0.3	
378.7 ▼	0	S/10	24
Gray Fine SAND See Gradation @ 18 ft	0		
	1		
	1	NC	20
	0		
	2		
373.7	2	NC	20
Gray Fine SAND with some Limestone Gravel -20	5		

Gray Fine SAND with some Limestone Gravel *(continued)* See Gradation @ 24 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	4		
	5	NC	20
368.2			20
Brown SHALE with Limestone Gravel	25	1.5	21
366.7	14	S/10	
			26
Reddish Gray SHALE			
	13		
	21		
	29	NC	20
Gray LIMESTONE 358.7			
357.7	50/1"		19
		NC	
End of Boring			

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

BBS, from 137 (Rev. 8-99)

BORINGS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	25
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

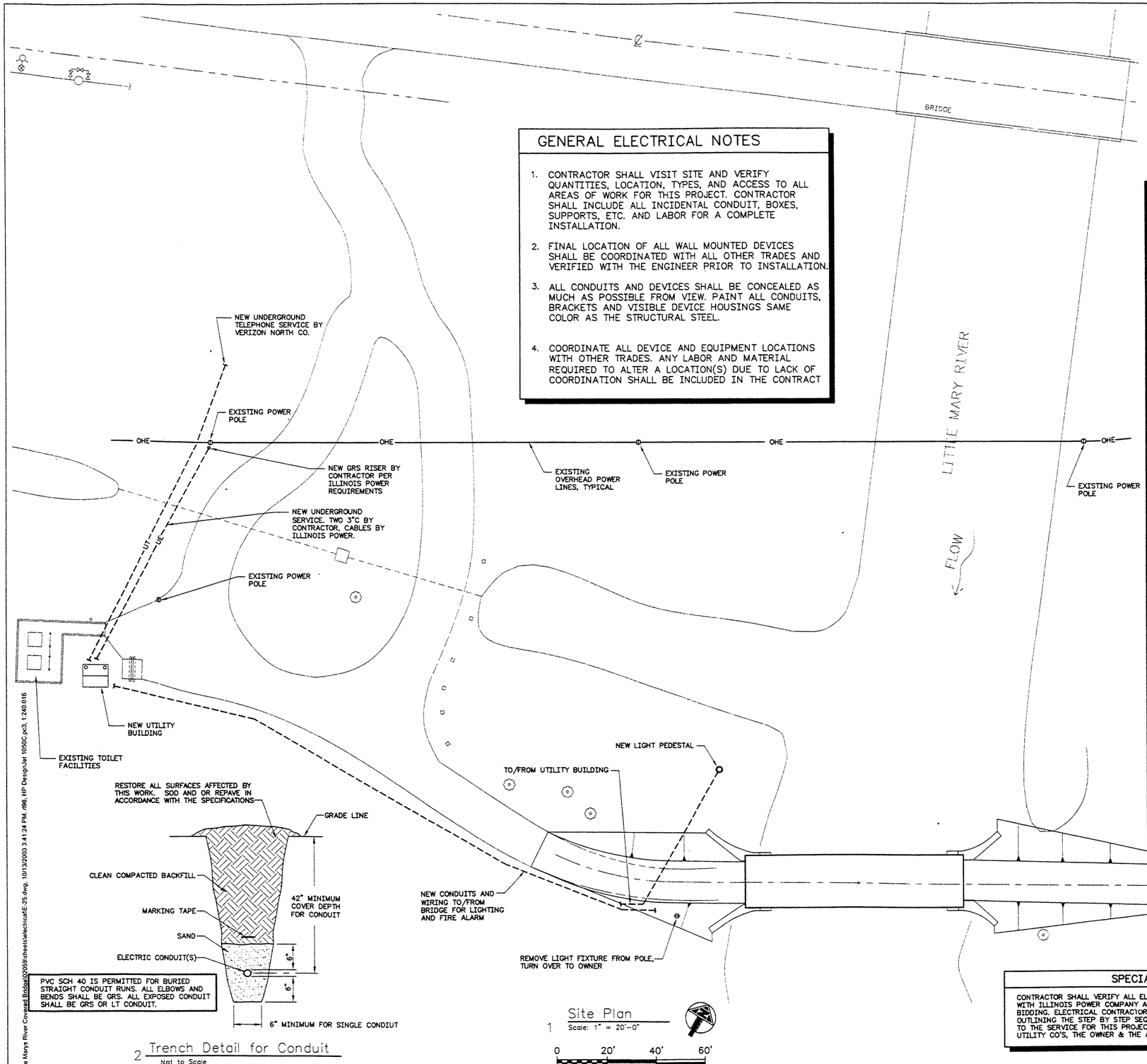
* UNMARKED

LINCOLN D. COCHRAN 62-31349 REGISTERED PROFESSIONAL ENGINEER ILLINOIS

EXPIRES 11/30/03

GENERAL ELECTRICAL NOTES

1. CONTRACTOR SHALL VISIT SITE AND VERIFY QUANTITIES, LOCATION, TYPES, AND ACCESS TO ALL AREAS OF WORK FOR THIS PROJECT. CONTRACTOR SHALL INCLUDE ALL INCIDENTAL CONDUIT, BOXES, SUPPORTS, ETC. AND LABOR FOR A COMPLETE INSTALLATION.
2. FINAL LOCATION OF ALL WALL MOUNTED DEVICES SHALL BE COORDINATED WITH ALL OTHER TRADES AND VERIFIED WITH THE ENGINEER PRIOR TO INSTALLATION.
3. ALL CONDUITS AND DEVICES SHALL BE CONCEALED AS MUCH AS POSSIBLE FROM VIEW. PAINT ALL CONDUITS, BRACKETS AND VISIBLE DEVICE HOUSINGS SAME COLOR AS THE STRUCTURAL STEEL.
4. COORDINATE ALL DEVICE AND EQUIPMENT LOCATIONS WITH OTHER TRADES. ANY LABOR AND MATERIAL REQUIRED TO ALTER A LOCATION(S) DUE TO LACK OF COORDINATION SHALL BE INCLUDED IN THE CONTRACT



PVC SCH 40 IS PERMITTED FOR BURIED STRAIGHT CONDUIT RUNS. ALL ELBOWS AND BENDS SHALL BE GRS. ALL EXPOSED CONDUIT SHALL BE GRS OR LT CONDUIT.

2 Trench Detail for Conduit
Not to Scale

1 Site Plan
Scale: 1" = 20'-0"

0 20' 40' 60'

ELECTRICAL SYMBOLS

FIRE ALARM

- (FH) HEAT DETECTOR - 190° FIXED TEMPERATURE
- (AV) AUDIO/VISUAL ALARM HORN
- (D) AUTOMATIC DIALER
- (TS) TAMPER SWITCH CONNECTION
- (FS) FLOW SWITCH CONNECTION
- (SV) SOLENOID VALVE
- (PS) PRESSURE SWITCH
- (FACP) FIRE ALARM CONTROL PANEL
- (KB) KNOX BOX
- MESSENGER WIRE
- HEAT DETECTION WIRING

LIGHT FIXTURES

LETTER & NUMBER = FIXTURE TYPE
EM = WITH EMERGENCY BATTERY PACK

- LOW VOLTAGE FIXTURE
- SURFACE MOUNTED FIXTURE
- BRACKET MOUNTED LIGHT FIXTURE
- GROUND MOUNTED FIXTURE

DEVICES

SWITCHING:

- SINGLE POLE LIGHT SWITCH
- (P) PHOTOCELL

RECEPTACLES:

"GFI" INDICATES GROUND FAULT INTERRUPTER TYPE
"S" INDICATES SURGE SUPRESSION

- DUPLEX RECEPTACLE
- QUADRAPLEX RECEPTACLE

SYSTEMS

- TTB TELEPHONE TERMINAL BOARD

EQUIPMENT AND CONNECTIONS

- SURFACE MOUNTED PANEL
- EQUIPMENT AS NOTED
- SAFETY SWITCH - NON FUSED
- COMBINATION STARTER - FUSED TYPE
- FHMS (FRACTIONAL HORSEPOWER MOTOR STARTER)
- MOTOR OR EQUIPMENT CONNECTION
- (MD) MOTORIZED DAMPER
- (J) OR • JUNCTION BOX OR CONDUIT CONNECTION

SITE

- UTILITY POLE
- —UE— UNDERGROUND ELECTRIC
- —OHE— OVERHEAD ELECTRIC
- —UT— UNDERGROUND TELEPHONE

ABBREVIATIONS

C	CONDUIT
EC	ELECTRICAL CONTRACTOR
EM	WITH EMERGENCY BATTERY BACKUP
FACP	FIRE ALARM CONTROL PANEL
GC	GENERAL CONTRACTOR
GRD	GROUND
GRS	GALV. RIGID STEEL
kcmil	THOUSAND CIRCULAR MILLS
LT	LIQUID TIGHT CONDUIT
MC	MECHANICAL CONTRACTOR
NEC	NATIONAL ELECTRICAL CODE
PC	PLUMBING CONTRACTOR
WP	WEATHERPROOF

CONDUIT AND WIRE

- HOME RUN: DOT=GRD, SHORT=PHASE, LONG=NEUT DASHED=ISOLATED GRD
- (A-1) HOME RUN CIRCUIT DESIGNATION LETTER(S) = PANEL SERVING CIRCUIT NUMERAL(S) = CIRCUIT NUMBER
- CONDUIT AND WIRING CONCEALED WALL
- CONDUIT AND WIRING CONCEALED
- CONDUIT AND WIRING UNDERGROUND

SECURITY

- CAMERA
- WALL MOUNTED MOTION SENSOR
- CEILING MOUNTED MOTION SENSOR
- (DC) DOOR CONTACTS
- (EL) ELECTRIC LOCK
- (PR) PROXIMITY CARD READER
- (KP) KEYPAD
- (SEC) SECURITY CABINET

SPECIAL NOTE

CONTRACTOR SHALL VERIFY ALL ELECTRICAL POWER SYSTEM REQUIREMENTS WITH ILLINOIS POWER COMPANY AND VERIZON NORTH INC. PRIOR TO BIDDING. ELECTRICAL CONTRACTOR SHALL PREPARE A WORK SCHEDULE OUTLINING THE STEP BY STEP SEQUENCE OF ALL NEW WORK AS IT PERTAINS TO THE SERVICE FOR THIS PROJECT FOR REVIEW BY THE UTILITY CO'S, THE OWNER & THE A/E PRIOR TO COMMENCING WORK.

ELECTRICAL DISTRIBUTION SYSTEM
UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

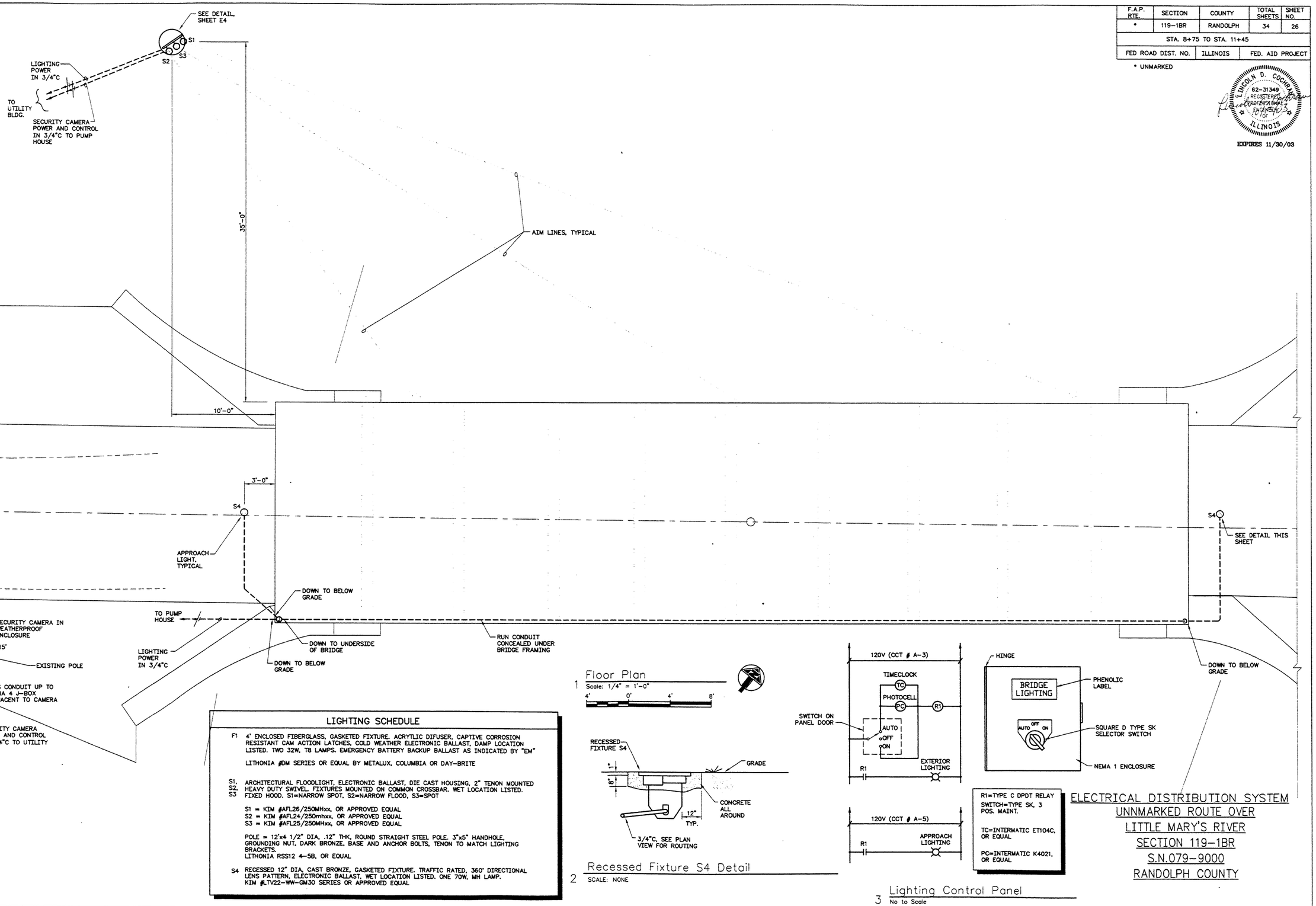
X:\Little Marys River Covered Bridge\020059\sheets\electrical\E-25.dwg, 10/13/2003 3:41:24 PM, rr66, HP DesignJet 1050C.pc3, 1:240.016

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	26
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT	

* UNMARKED

LINCOLN D. COCHRAN
62-31349
REGISTERED PROFESSIONAL ENGINEER
OF
ILLINOIS

EXPIRES 11/30/03



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LIGHTING SCHEDULE

F1 4' ENCLOSED FIBERGLASS, GASKETED FIXTURE. ACRYTLIC DIFUSER, CAPTIVE CORROSION RESISTANT CAM ACTION LATCHES, COLD WEATHER ELECTRONIC BALLAST, DAMP LOCATION LISTED. TWO 32W, T8 LAMPS. EMERGENCY BATTERY BACKUP BALLAST AS INDICATED BY "EM"

LITHONIA #DM SERIES OR EQUAL BY METALUX, COLUMBIA OR DAY-BRITE

S1, S2, S3 ARCHITECTURAL FLOODLIGHT, ELECTRONIC BALLAST, DIE CAST HOUSING, 2" TENON MOUNTED HEAVY DUTY SWIVEL FIXTURES MOUNTED ON COMMON CROSSBAR. WET LOCATION LISTED. FIXED HOOD. S1=NARROW SPOT, S2=NARROW FLOOD, S3=SPOT

S1 = KIM #AFL26/250MHxx, OR APPROVED EQUAL
S2 = KIM #AFL24/250mhxx, OR APPROVED EQUAL
S3 = KIM #AFL25/250MHxx, OR APPROVED EQUAL

POLE = 12'x4 1/2" DIA, .12" THK, ROUND STRAIGHT STEEL POLE. 3"x5" HANDHOLE, GROUNDING NUT, DARK BRONZE, BASE AND ANCHOR BOLTS, TENON TO MATCH LIGHTING BRACKETS.
LITHONIA RSS12 4-5B, OR EQUAL

S4 RECESSED 12" DIA, CAST BRONZE, GASKETED FIXTURE. TRAFFIC RATED, 360° DIRECTIONAL LENS PATTERN, ELECTRONIC BALLAST, WET LOCATION LISTED. ONE 70W, MH LAMP.
KIM #LTV22-WW-GM30 SERIES OR APPROVED EQUAL

1 Floor Plan
Scale: 1/4" = 1'-0"
4' 0' 4' 8'

2 Recessed Fixture S4 Detail
SCALE: NONE

R1=TYPE C DPDT RELAY
SWITCH=TYPE SK, 3 POS. MAINT.

TC=INTERMATIC ET104C, OR EQUAL

PC=INTERMATIC K4021, OR EQUAL

3 Lighting Control Panel
No to Scale

ELECTRICAL DISTRIBUTION SYSTEM
UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	27
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

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ILLINOIS
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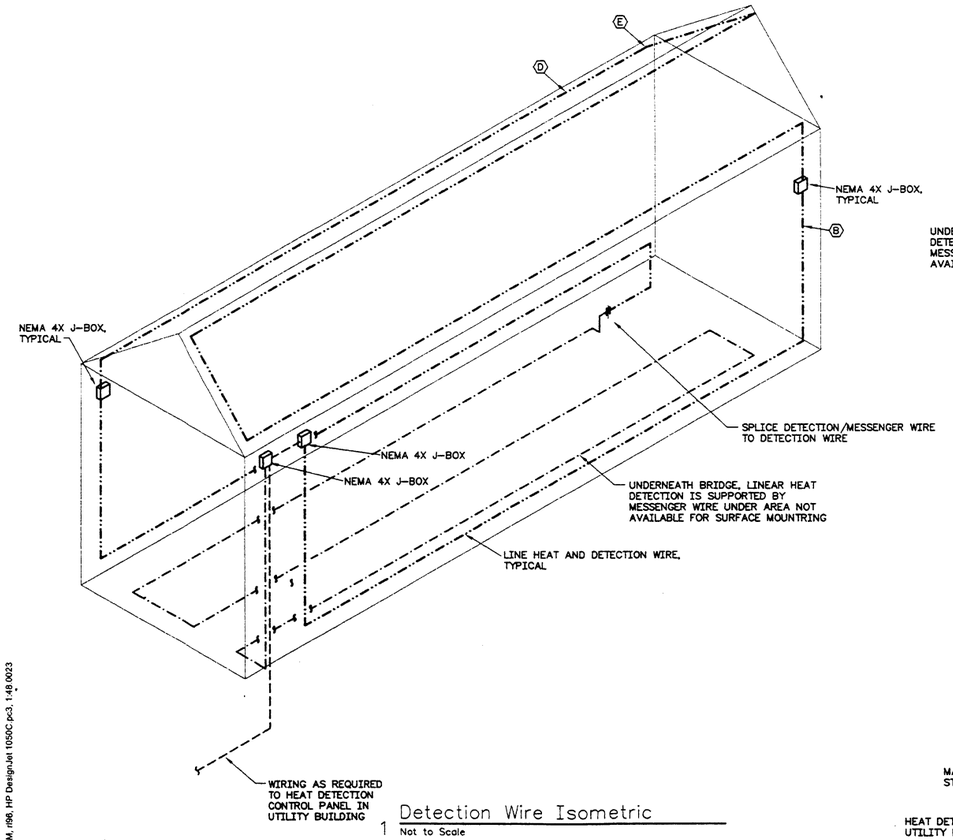
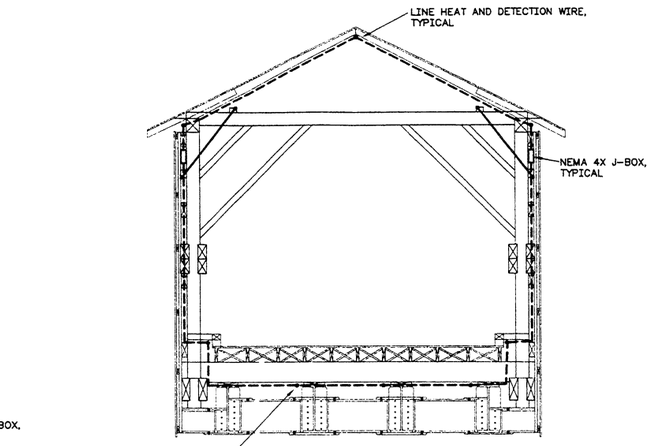
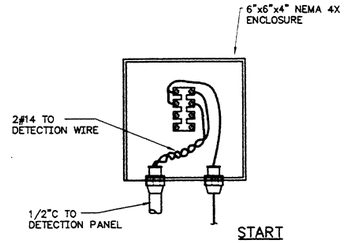


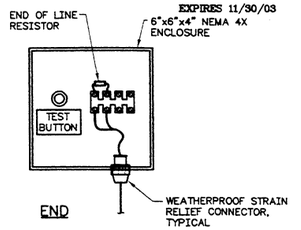
1 Detection Wire Isometric
Not to Scale



2 End Elevation
Scale: 1/4" = 1'-0"
4' 0' 4' 8'



4 Zone Box Detail
Not to Scale



5 Test Zone/EOL Box Detail
Not to Scale

KEYED NOTES

Ⓐ PROVIDE WEATHERPROOF NEMA 4 ENCLOSURE TO PROTECT DETECTION WIRING FROM MOISTURE. PIPE 1/2"C WITH DETECTION WIRE INTO THE NEMA 4 ENCLOSURE. USE WATERTIGHT STRAIN RELIEF CONNECTOR TO ENSURE A WATERTIGHT CONNECTION FOR DETECTION WIRE TO EXIT THE NEMA 4 ENCLOSURE

Ⓑ PROVIDE 1/2"C TO PROTECT DETECTION WIRE FROM BEING TAMPERED WITH. EXTEND CONDUIT DOWN TO NEMA 4 ENCLOSURE LOCATED ON THE UNDERSIDE OF THE WOOD CURB

Ⓒ PROVIDE 2#14 WIRING IN 1/2"C FROM DETECTION PANEL TERMINALS TO PROTECTIVE ZONE BOX, SEE DETAILS THIS SHEET

Ⓓ INSTALL STAINLESS STEEL OHS LINE CLIPS AT 15' AND 20' INTERVALS AS THE INTERMEDIATE FASTENERS BETWEEN CORNER MOUNTED WAW CLIPS, WHICH PROVIDE MAIN SUPPORT

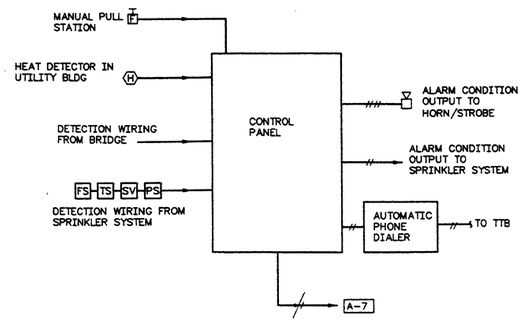
Ⓔ INSTALL WALL CLIP FASTENERS AT CORNERS (TURNS) OF DETECTION CABLE

SPECIAL NOTE

MOUNT ALL COMPONENTS ON BRIDGE SO TO BE CONCEALED AS MUCH AS POSSIBLE. ANY EXPOSED CONDUITS OR J-BOXES SHALL BE PAINTED DARK BROWN

MANUFACTURER NOTE

THE DETECTION SYSTEM SHOWN IS MODELED AFTER DETECTION SYSTEMS BY PROTECTO FIRESYSTEMS MANUFACTURING CO. INC., HANOVER, MASSACHUSETTS. INSTALLATION AND EQUIPMENT REQUIREMENTS MAY VARY PER MANUFACTURER.



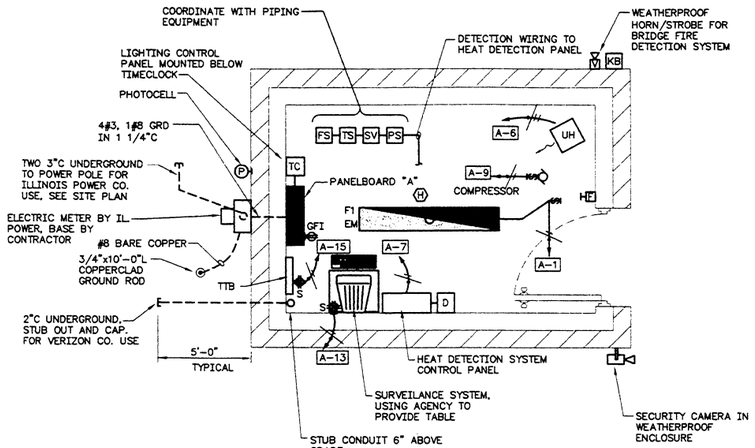
3 Heat Detection System
No to Scale

ELECTRICAL DISTRIBUTION SYSTEM
UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

X:\Little Marys River Covered Bridge\00209\sheets\electricalE-27.dwg, 10/13/2003 4:16:34 PM, rl98, HP DesignJet 1050C pc3, 1:48.0023

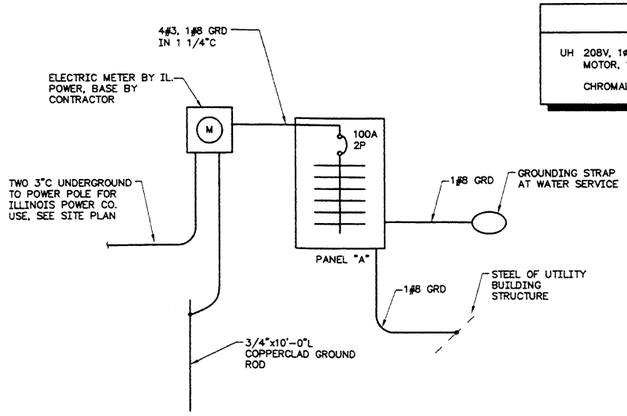
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	28
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED



1 Pump House Plan
Scale: 1/2"=1'-0"

0' 2' 4' 6'

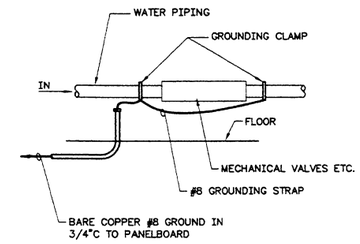


2 Electrical One-Line
No to Scale

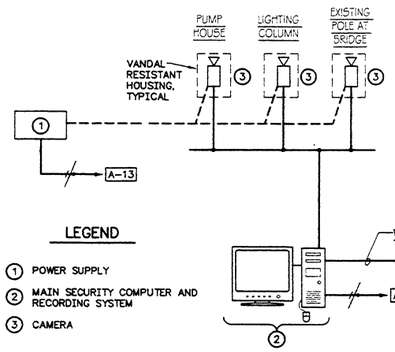
EQUIPMENT LEGEND

UH 208V, 1Φ, 2.6KW HEATER WITH INTEGRAL 120V CONTROL CIRCUIT AND THERMOSTAT, FAN MOTOR, 1000 RPM, 310 CFM, THROW 12', AND SAFETY THERMAL CUTOUT

CHROMALOX #LUH SERIES, OR EQUAL

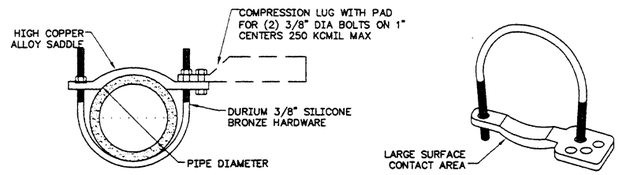


3 Water Service Grounding
No to Scale



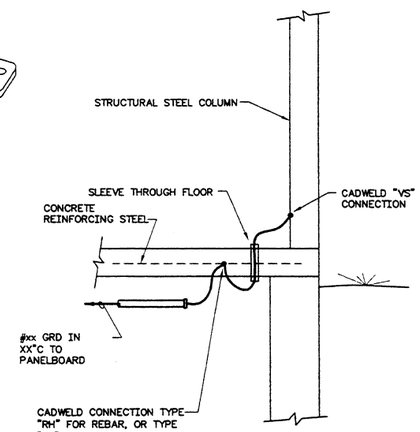
4 Camera System One-Line
No to Scale

BURNDY TYPE GAR-TC GROUND CONNECTOR

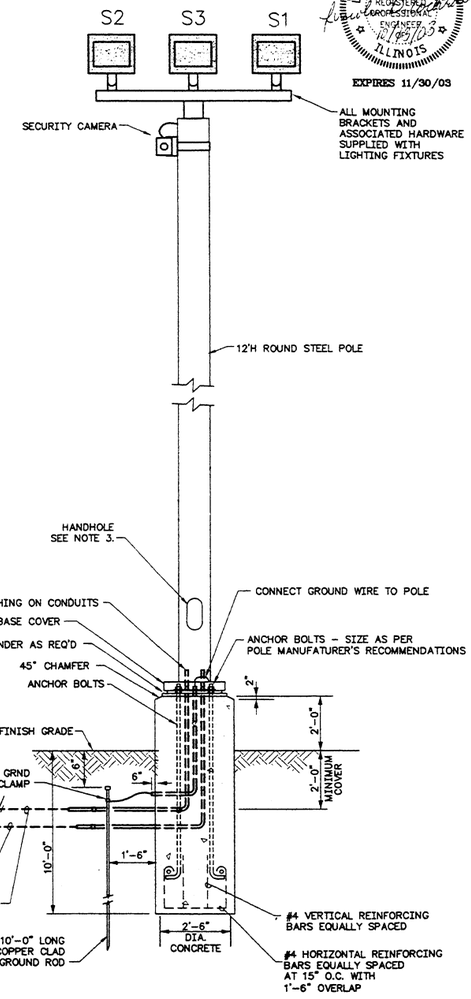


CATALOG NUMBER	FIG.	ACCOMMODATES I.P.S.	ACCOMMODATES O.D. SIZE
GAR3902TC	1	1/2" - 1"	.840 - 1.32
GAR3903TC	1	1-1/4" - 2"	1.66 - 2.38
GAR3904TC	1	2-1/2" - 3-1/2"	2.88 - 4.00
GAR3905TC	1	4" - 5"	4.50 -5.56
GAR3906TC	1	6"	6.62

5 Pipe Strap Detail
No to Scale



6 Structural Grounding
No to Scale



NOTES:

1. WHEN POURING CONCRETE, DO NOT DROP CONCRETE THROUGH WATER IF PRESENT IN HOLE.
2. EXPOSED CONCRETE SHALL BE FINISH RUBBED WITH BURLAP.
3. ALL WIRING CONNECTIONS SHALL BE SEALED AND SUITABLE FOR DIRECT IMMERSION

7 Fixture S1,S2,S3 Detail
Not to Scale

PANELBOARD SCHEDULE

PANEL: A

MAINS: 100 AMPS MCB 100 MLO ____ VOLTAGE: 120 / 240 VOLTS, 1 PHASE 3 WIRE.

ENCLOSURE: NEMA 1

OPTIONS:
____ TWO SECTION
____ FEED-THRU LUGS
____ GROUND BUS
____ ISOLATED GRND. BUS
____ SERVICE ENTRANCE LISTED
X EXTERNAL TVSS

BRANCH BREAKERS

WIRE SIZE	GRD SIZE	C.	ITEM	POLE	AMP RAT.	CKT NO.	LEFT PHASE A	LEFT PHASE B	RIGHT PHASE A	RIGHT PHASE B	CKT NO.	AMP RAT.	POLE	ITEM	C.	GRD SIZE	WIRE SIZE
#12	#12	3/4"	PUMP HOUSE LIGHTING	1	20	1	0.64		0.10		2	30	2	TVSS	3/4"	#12	#10
#12	#12	3/4"	BRIDGE EXTERIOR LIGHTING	1	20	3		0.83		0.10	4						
#12	#12	3/4"	BRIDGE INTERIOR LIGHTING	1	20	5	0.68		1.30		6	30	2	UNIT HEATER	3/4"	#12	#10
#12	#12	3/4"	HEAT DETECTION CONTROL PANEL	1	20	7		0.50		1.30	8						
#12	#12	3/4"	COMPRESSOR	1	20	9	0.70		-		10	20	1	SPARE	-	-	-
#12	#12	3/4"	RECEPTACLES	1	20	11		0.20		-	12	-	-	SPACE	-	-	-
#12	#12	3/4"	SECURITY COMPUTER	1	20	13	1.00		-		14	-	-	SPACE	-	-	-
#12	#12	3/4"	TTB	1	20	15		0.50		-	16	-	-	SPACE	-	-	-
#12	#12	3/4"	FIRE SUPRESSION CONTROL PANEL	1	20	17	0.50		-		18	-	-	SPACE	-	-	-
-	-	-	SPARE	1	20	19		-		-	20	-	-	SPACE	-	-	-
							3.52	2.03	1.40	1.40							
							4.92	3.43	kVA PER PHASE								
							41	29	AMPS PER PHASE								

FEEDER WIRE SIZE	FEEDER GRD SIZE	FEEDER CNDT SIZE
#3	#8	1 1/4"

TOP FEED X
BOTTOM FEED ____

X SURFACE MOUNTED
____ FLUSH MOUNTED

TOTAL CONNECTED VA: 8,350 VA

INTEGRAL EQUIPMENT INTERRUPTING RATING: 22,000 AMPS RMS SYMMETRICAL

ELECTRICAL DISTRIBUTION SYSTEM
UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	29
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

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62-31349
REGISTERED PROFESSIONAL ENGINEER
10/8/03
ILLINOIS
EXPIRES 11/30/03

HYDRANT (E)
THRUST BLOCK
30'
45'
W
8" MAIN EXISTING
MASTER METER & PIT (E)
72'
35' R.O.W.
NEW 8"x8"x4" TAPPING SLEEVE & SERVICE VALVE W/ SERVICE BOX
NEW 4" WATER SERVICE. BURY @ 5'-0" DEPTH
TRENCH DETAIL
4/34
DRAINAGE DITCH EXISTING
EXISTING DRAINAGE PIPE
THRUST BLOCKS
P.P.
2/29
EXISTING INLET
EXISTING TOILET FACILITIES
P.P.
EXISTING INFORMATION SIGNAGE
NEW UTILITY BUILDING SEE SHEET 33
FP
ROUTE NEW 4" FP SUPPLY ALONG BITUMINOUS SURFACE IN GRAVELED AREA.
BRIDGE
RT. 150
LITTLE MARY RIVER
FLOW
COVERED BRIDGE
SEE SHEET 30 FOR CONTINUATION
4" FIRE PROTECTION PIPE. BURY AT 5'-0"

1 Site Plan
Scale: 1" = 20'-0"
20' 0' 20' 40'

THRUST BLOCKS
GRAVEL WALKWAY EXISTING
P.P.
REPLACE ALL DISTRUBED MATERIAL
BITUMINOUS SURFACE EXISTING
EXISTING TOILETS OUT BUILDING
6x6 TIMBER EXISTING
11'-0"
SCREEN
5'-8"
8'-0"
SIGNAGE EXISTING
4" FP SUPPLY
THRUST BLOCKS
NEW UTILITY BUILDING
FP

2 Partial Enlarged Site Plan
Scale: 1" = 40'-0"
40' 0' 40' 80'

FIRE PROTECTION
UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

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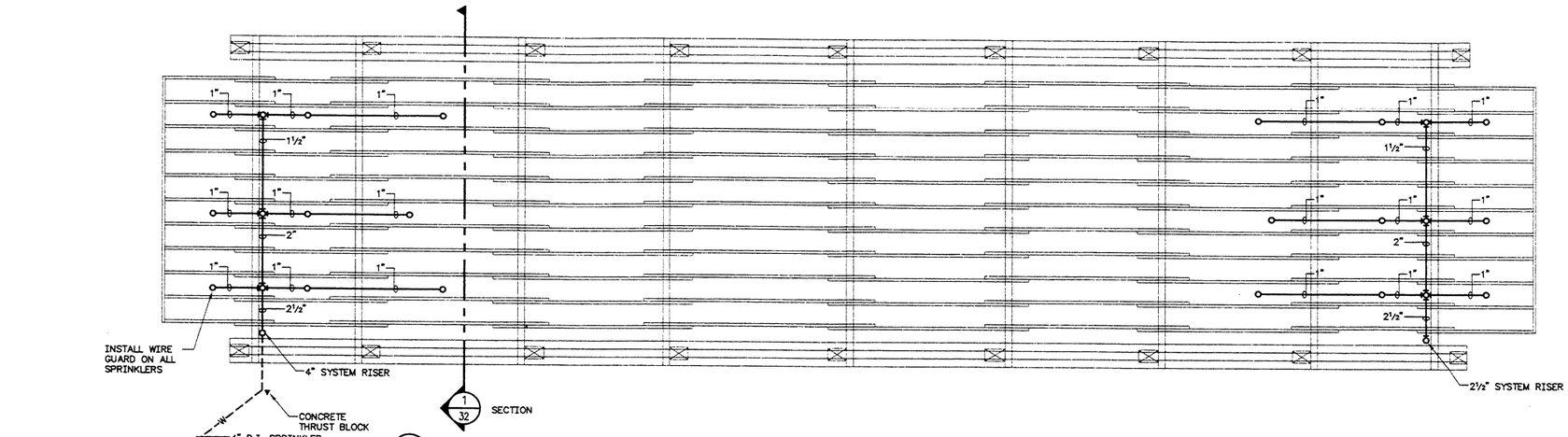
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	30
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

LINCOLN D. COCHRAN
62-31349
REGISTERED
PROFESSIONAL
ENGINEER
DATE 10/13/03
ILLINOIS

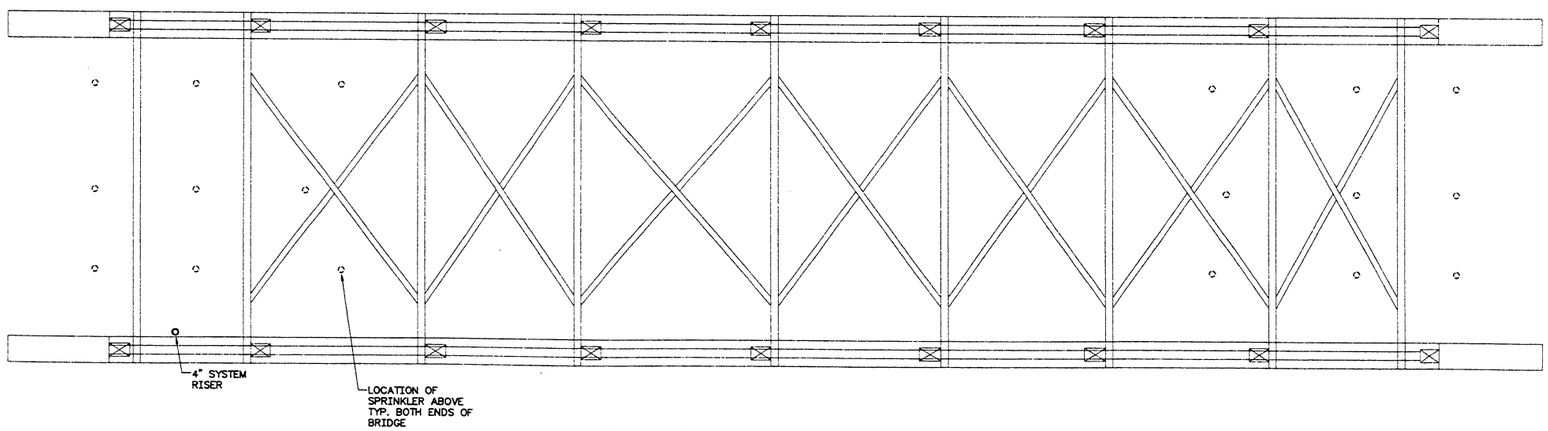
EXPIRES 11/30/03



1 Floor Framing Plan

Scale: 1/4" = 1'-0"

4' 0' 4' 8'



1 Floor Bracing Plan

Scale: 1/4" = 1'-0"

4' 0' 4' 8'

UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	31
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

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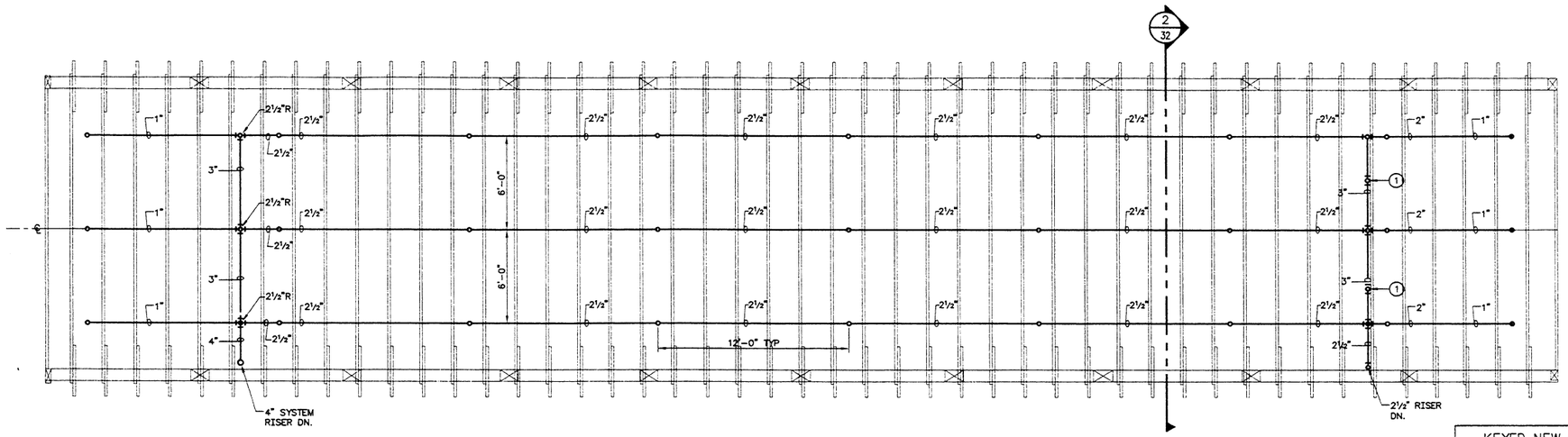
ILLINOIS
EXPIRES 11/30/03



1 Roof Framing Plan

Scale: 1/4" = 1'-0"

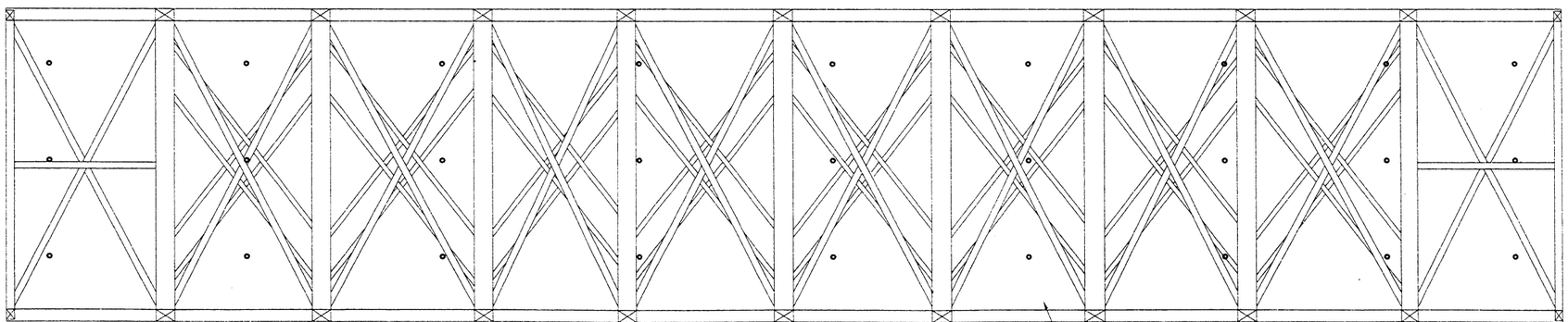
4' 0' 4' 8'

KEYED NEW WORK NOTES

(1) INSTALL ACCELERATORS IN MAIN CROSSOVER PIPE. CONCEAL ON TOP NEAR FRAMING.

SPRINKLER DESIGN

.2 GPM/SF @ 1500 SF ORDINARY HAZZARD GROUP 1



2 Top Chord Bracing Plan

Scale: 1/4" = 1'-0"

4' 0' 4' 8'

UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	32
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

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ENGINEER
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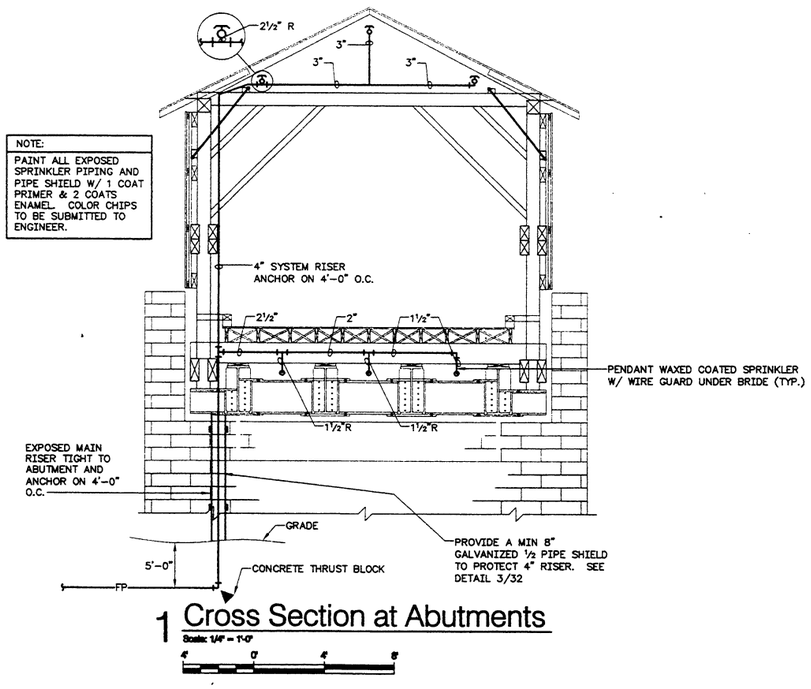
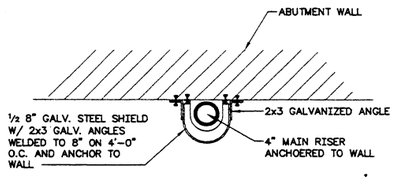
EXPIRES 11/30/03

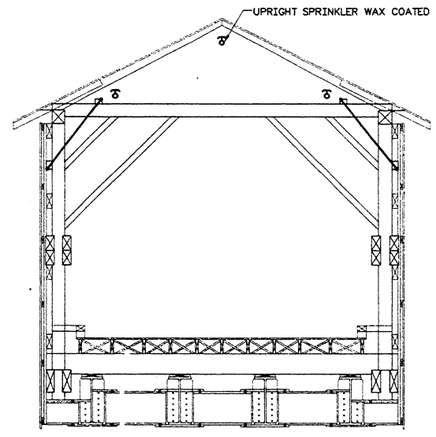
NOTE:
PAINT ALL EXPOSED SPRINKLER PIPING AND PIPE SHIELD W/ 1 COAT PRIMER & 2 COATS ENAMEL. COLOR CHIPS TO BE SUBMITTED TO ENGINEER.



1 Cross Section at Abutments
Scale: 1/4" = 1'-0"
4' 0' 4' 8'



2 Cross Section Near Midspan
Scale: 1" = 1'-0"
1' 0' 1' 2'



2 Cross Section Near Midspan
Scale: 1/4" = 1'-0"
4' 0' 4' 8'

FIRE PROTECTION
UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

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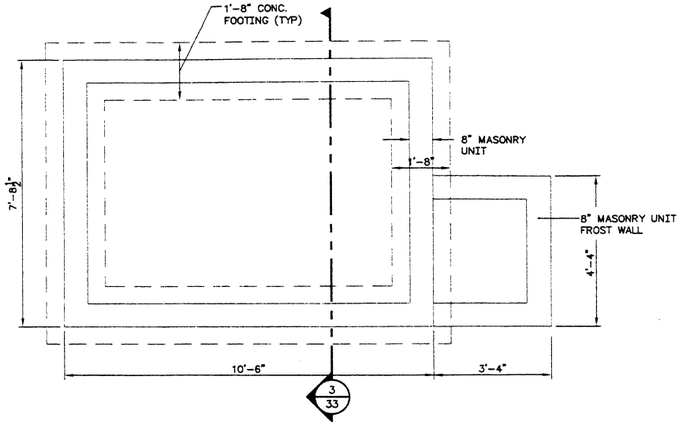
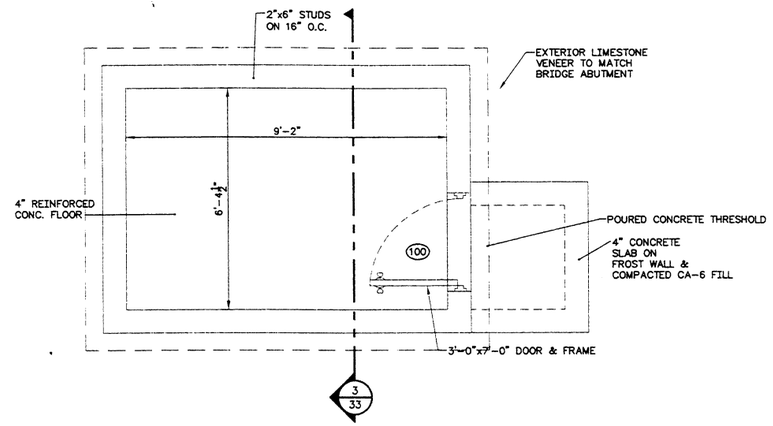
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	33
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED



1 Mechanical Building Structure

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

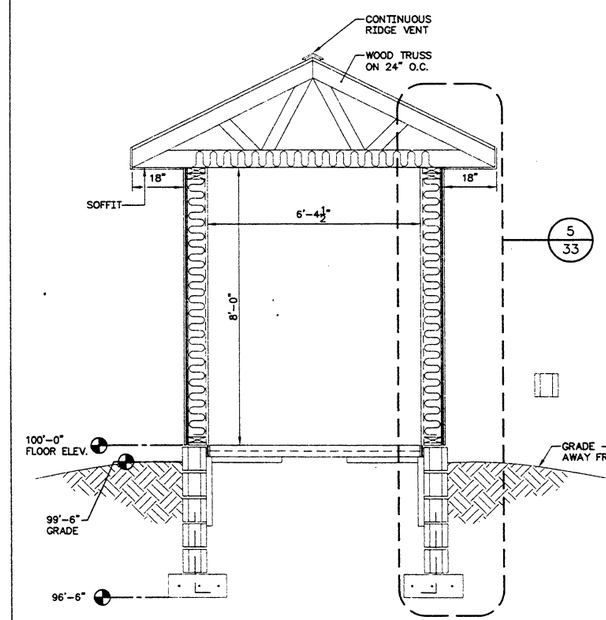


2 Mechanical Building Structure

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

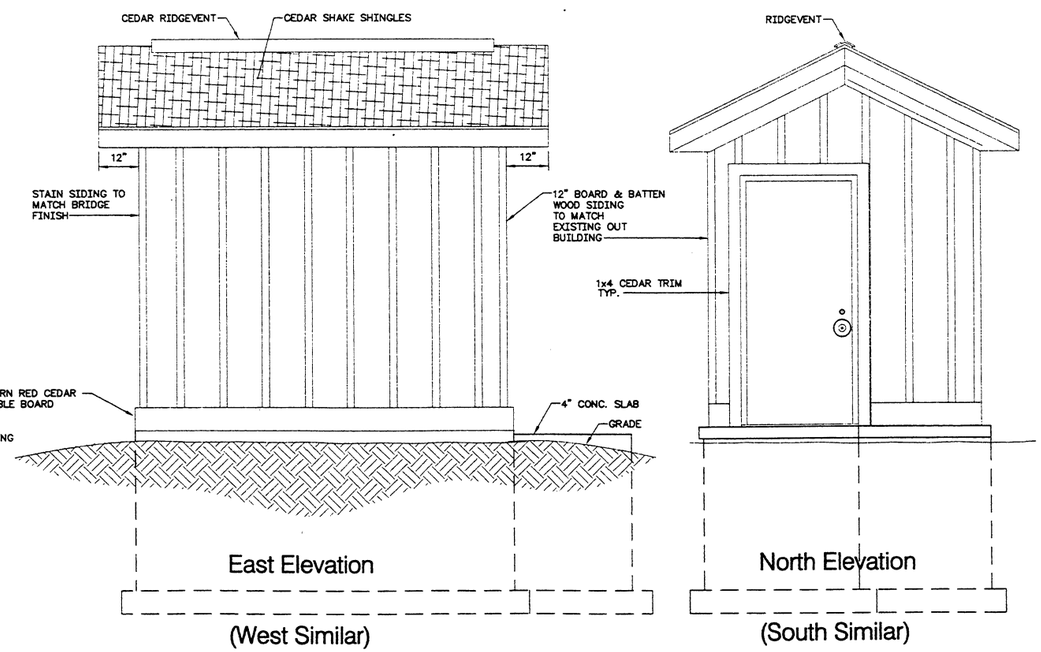
DOOR AND FRAME SCHEDULE										
		DOOR							FRAME	
NUMBER	LOCATION	WIDTH	HEIGHT	THK.	TYPE	CORE	MTL	FINSH	FRAME DEPTH	FINISH
100	EXTERIOR	3'-0"	7'-0"	1¾"	A	INSUL	HM	PT	5¾	PT

WEATHER STRIP DOOR FRAME AND THRESHOLD SWEEP



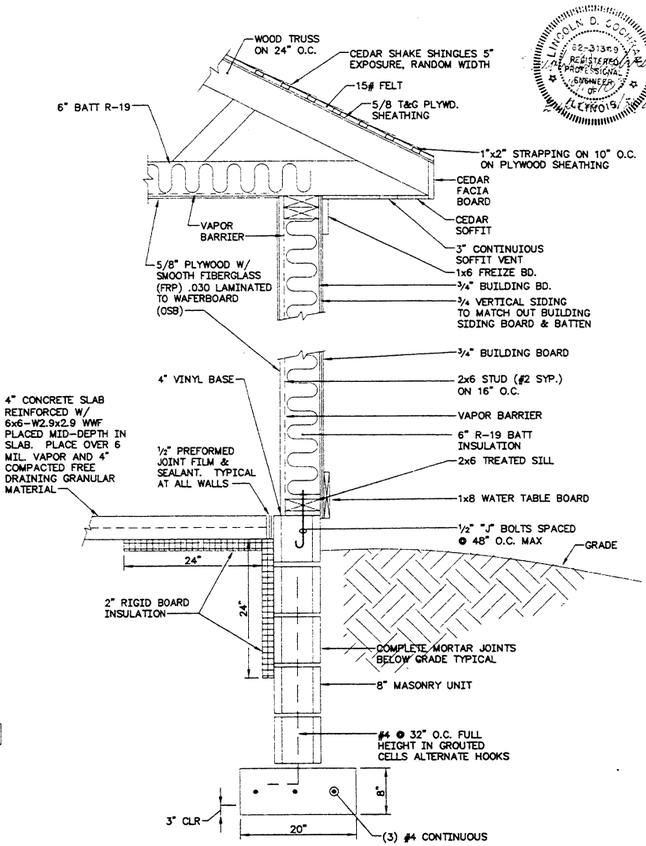
3 Mechanical Building Structure

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



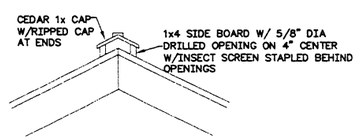
4 Mechanical Building Structure

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



5 Wall Section

Scale: 1" = 1'-0"



6 RIDGE VENT DETAIL

Scale: 1/4" = 1'-0"

UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR	RANDOLPH	34	34
STA. 8+75 TO STA. 11+45				
FED ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* UNMARKED

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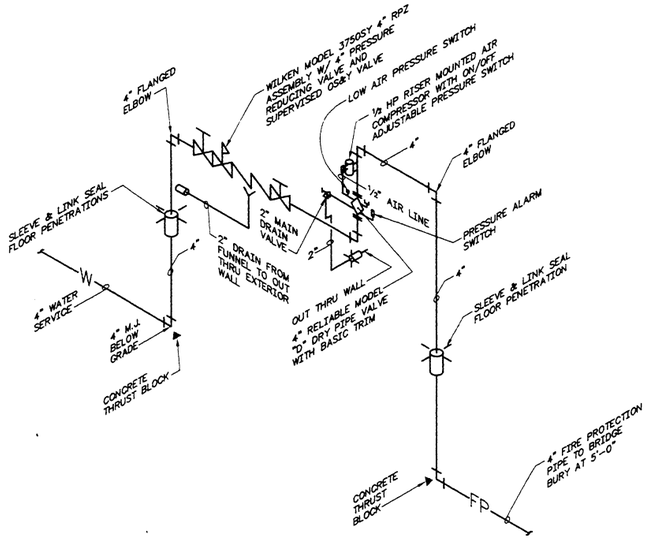
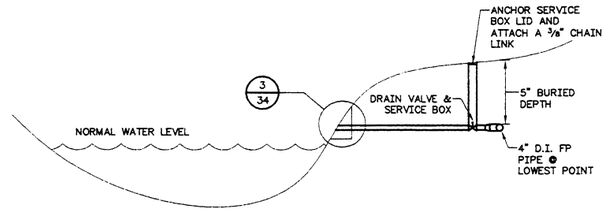
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS

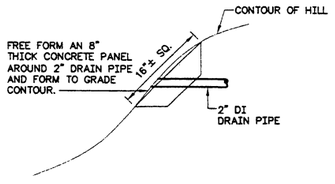
EXPIRES 11/30/03



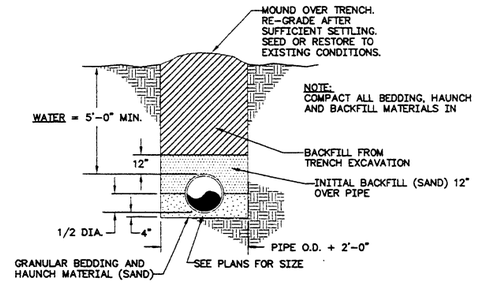
1 Sprinkler Riser Detail
Scale: None



2 Section
Scale: None



3 Discharge Detail
Scale: None



4 Trench Detail - Flexible Pipe (Non-Roadway Areas)
Scale: None

UNNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 119-1BR
S.N.079-9000
RANDOLPH COUNTY

X:\Little Marys River Covered Bridge\02059\sheets\fire protection\fp-34.dwg, 10/13/2003 3:38:48 PM, r96, HP DesignJet 1050C pc3, 1:24.0009

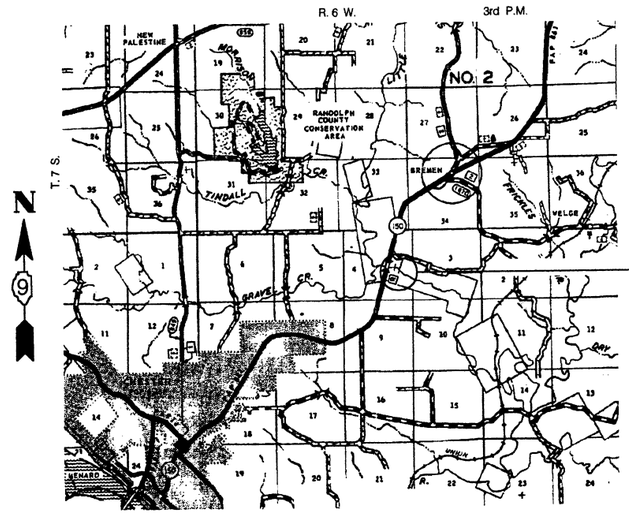
Existing Plans

S.N. 079-9000

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

LITTLE MARY'S RIVER
COVERED BRIDGE
RANDOLPH COUNTY

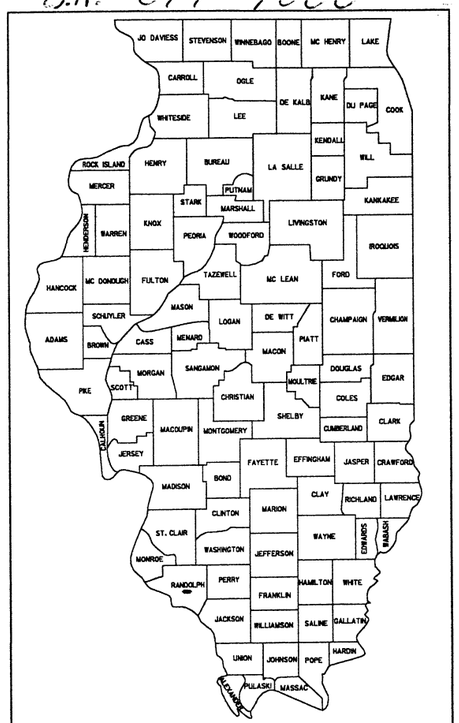
INDEX OF SHEETS



PROJECT LOCATION

LOCATION MAP

Scale: 1" = 1 Mile



LOCATION OF SECTION INDICATED THUS: –

Year: 2002

Note: Existing plans for this covered bridge were not available. Therefore, in the year 2002 the consultant was hired to go and take field measurements of the bridge. From these measurements, the consultant prepared these existing plans.

The next step was to prepare a TSL plan for the rehabilitation of the covered bridge. That has been completed and the consultant is now preparing final plans for the rehabilitation project

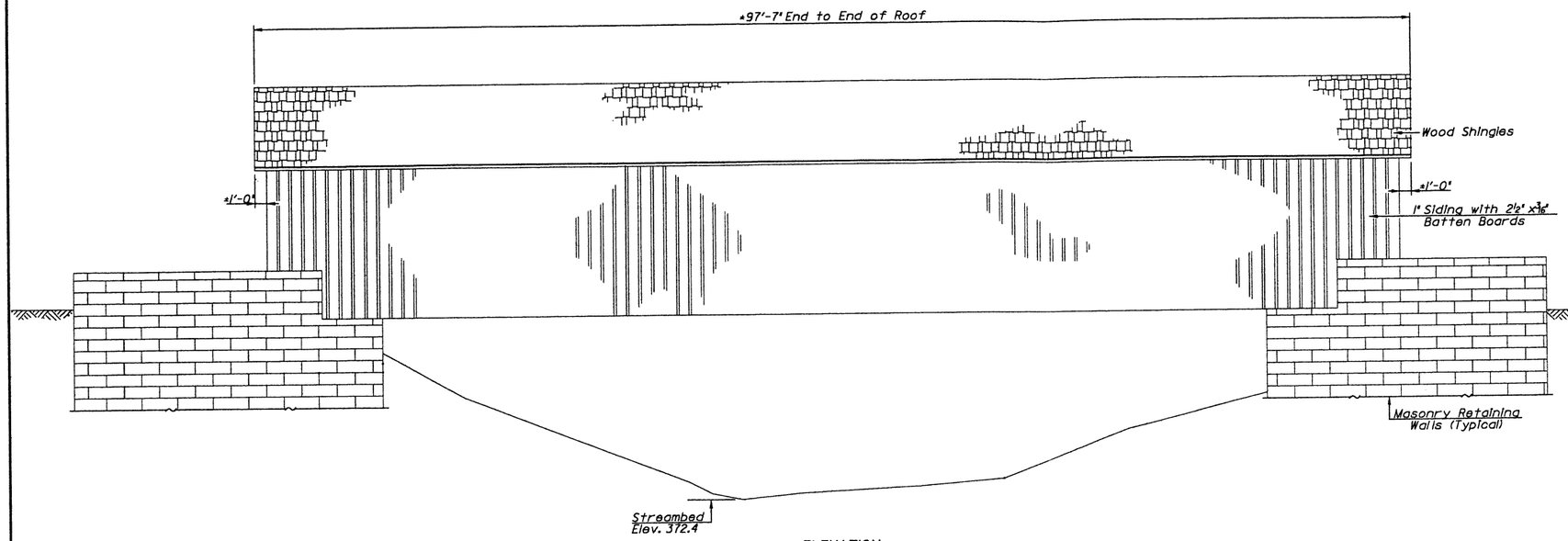
FILE NAME: TS (REV. 1/23/02)

CH-11,602

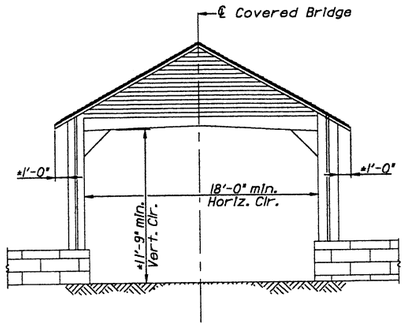
COUNTY: RANDOLPH

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	1
PROJECT				

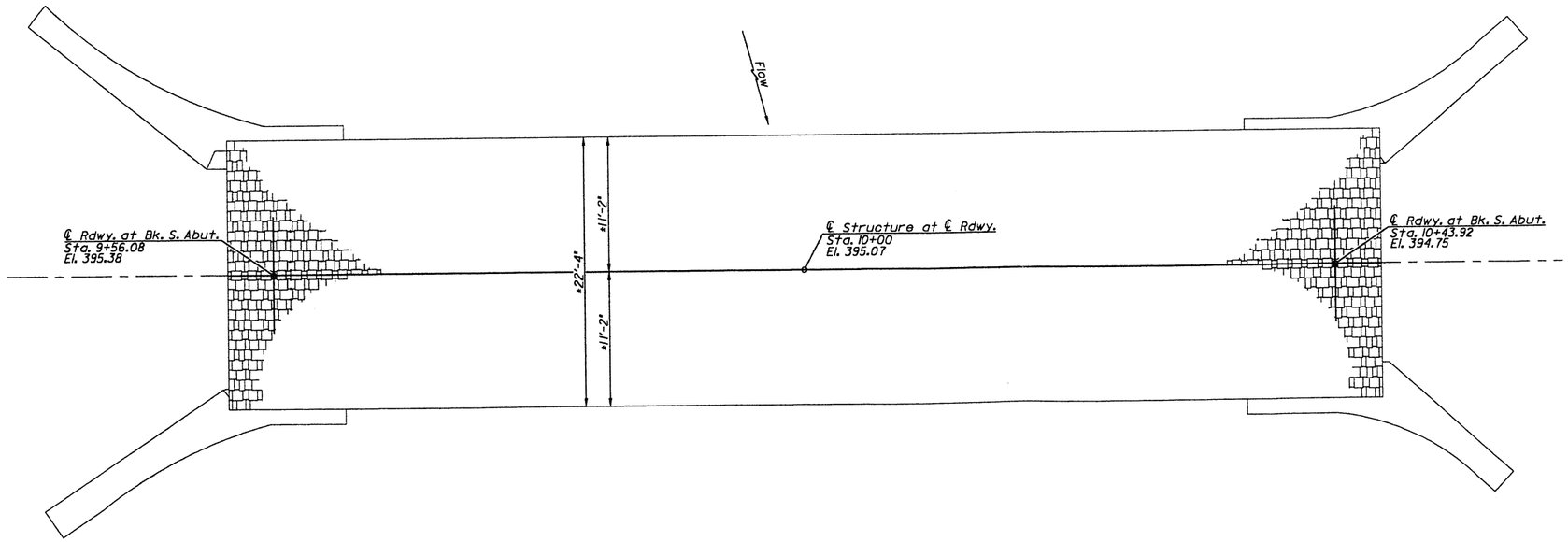
BM #10A - 60d Nail & Washer In Wood Light Pole
14' Rt. Sta. 9+15 El. 396.32



ELEVATION
Not to Scale



END VIEW
(Typical)



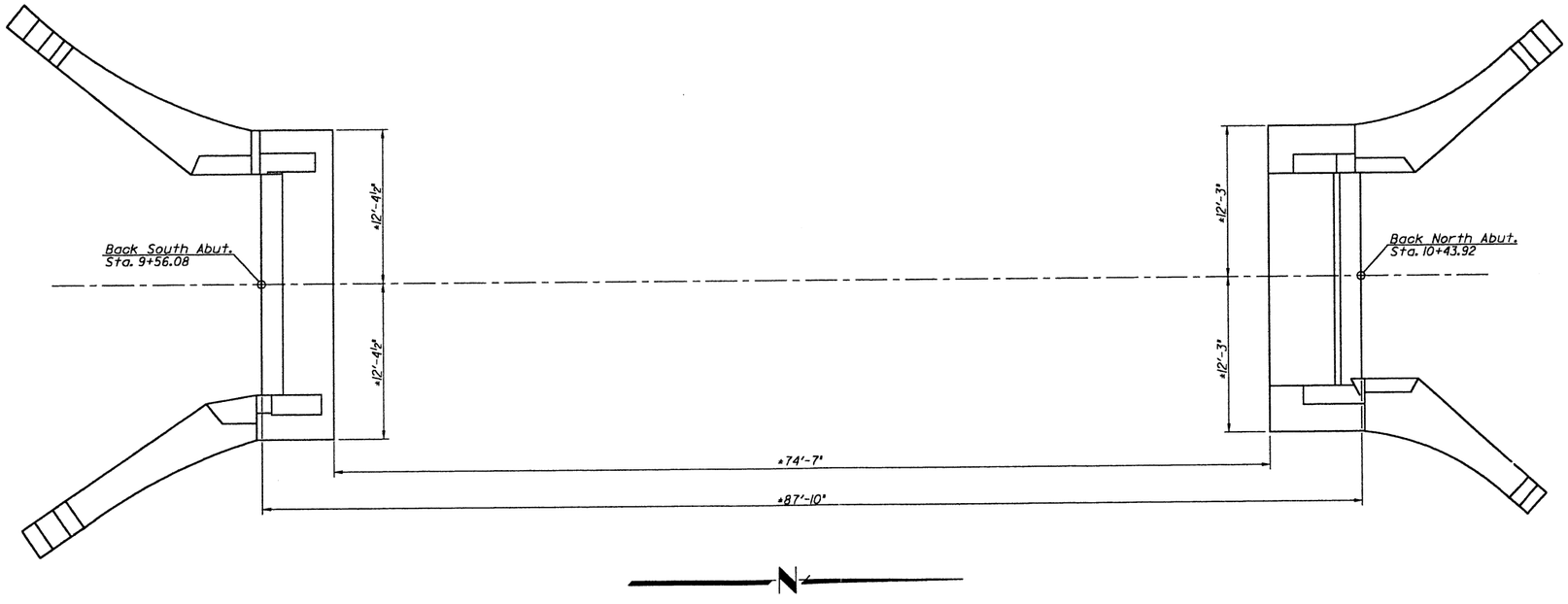
PLAN
Not to Scale

GENERAL PLAN & ELEVATION
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 079-9000
RANDOLPH COUNTY

FILE NAME: GEELIBEV 1/23/02

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD,ILL. PHONE:(217)544-8033

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	2
PROJECT				



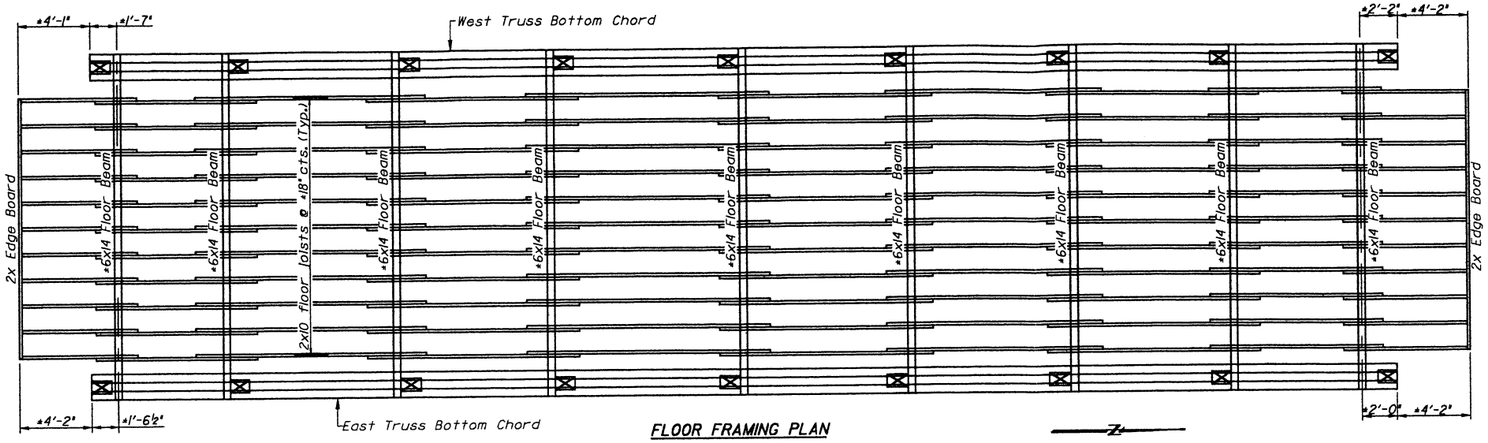
SUBSTRUCTURE LAYOUT

SUBSTRUCTURE
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 079-9000
RANDOLPH COUNTY

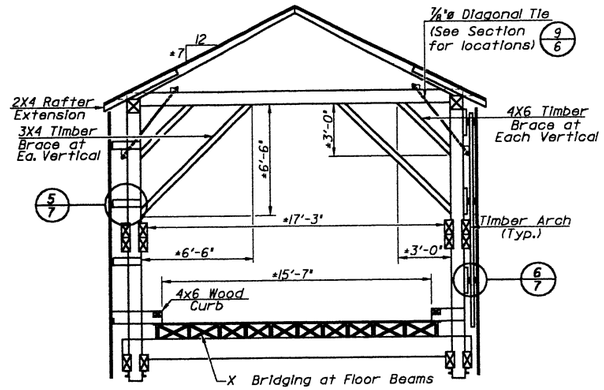
FILE NAME: SUB_LAYEX_12X20.DGN

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD,ILL. PHONE:(217)544-8033

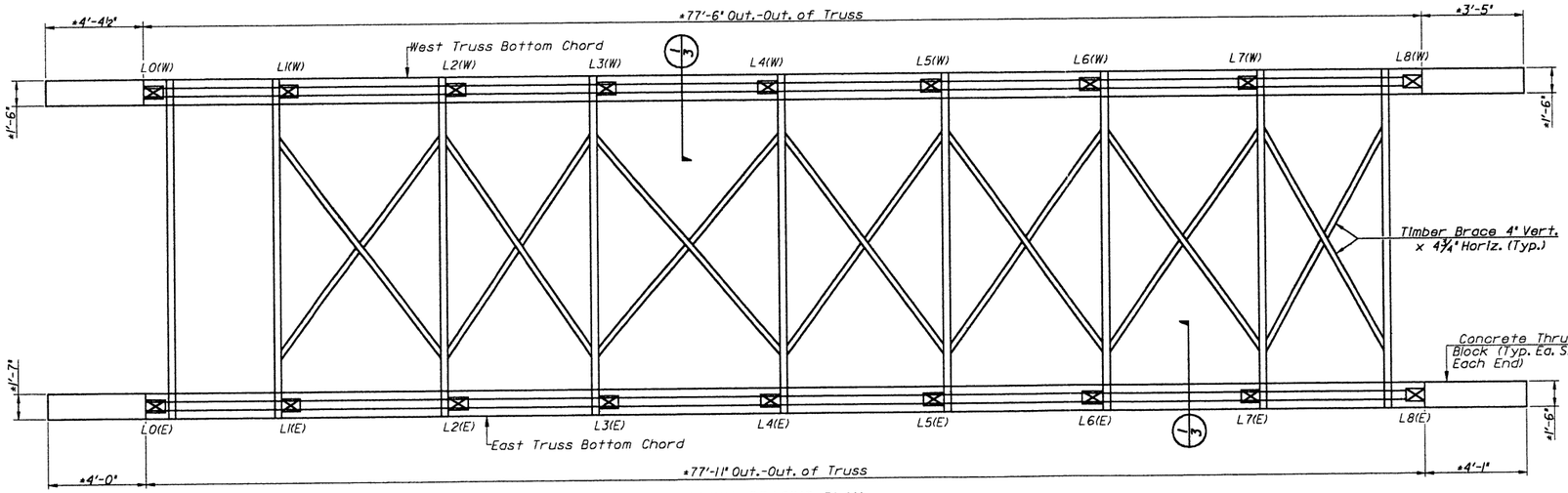
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	3
PROJECT				



FLOOR FRAMING PLAN



SECTION THRU BRIDGE



FLOOR BRACING PLAN

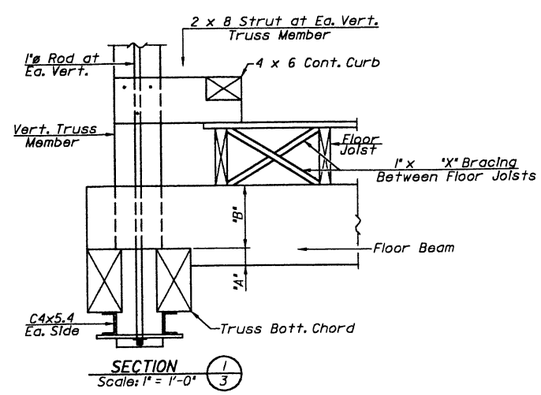
Location	Dim "A"	Dim "B"
L0(W)	5"	7¾"
L1(W)	3¾"	9⅝"
L2(W)	2"	11½"
L3(W)	2"	11½"
L4(W)	2¼"	12⅛"
L5(W)	2"	11½"
L6(W)	1⅞"	11⅛"
L7(W)	3¾"	9¾"
L8(W)	5½"	8"
L0(E)	6¼"	7½"
L1(E)	2⅛"	11¾"
L2(E)	2"	12⅛"
L3(E)	2"	11½"
L4(E)	2"	11¾"
L5(E)	2"	12"
L6(E)	2"	11½"
L7(E)	2¼"	11¼"
L8(W)	5"	9¼"

1/3 Top Number Denotes Detail Number

Bottom Number Denotes page on which detail may be found

TOP OF FLOOR ELEVATIONS

Location	Station	West Curb Line Elev.	℄ Bridge Elev.	East Curb Line Elev.
S. End of Deck	9+57.25	395.39	395.38	395.26
L0	9+61.75	395.21	395.18	395.24
L1	9+71.33	395.09	394.99	395.02
L2	9+80.97	394.94	394.71	394.72
L3	9+90.14	394.73	394.53	394.58
L4	9+99.80	394.57	394.34	394.37
L5	10+09.55	394.42	394.20	394.15
L6	10+19.02	394.73	394.20	394.17
L7	10+28.35	394.44	394.15	394.14
L8	10+38.34	394.47	394.30	394.40
N. End of Deck	10+42.75	394.51	394.75	394.60



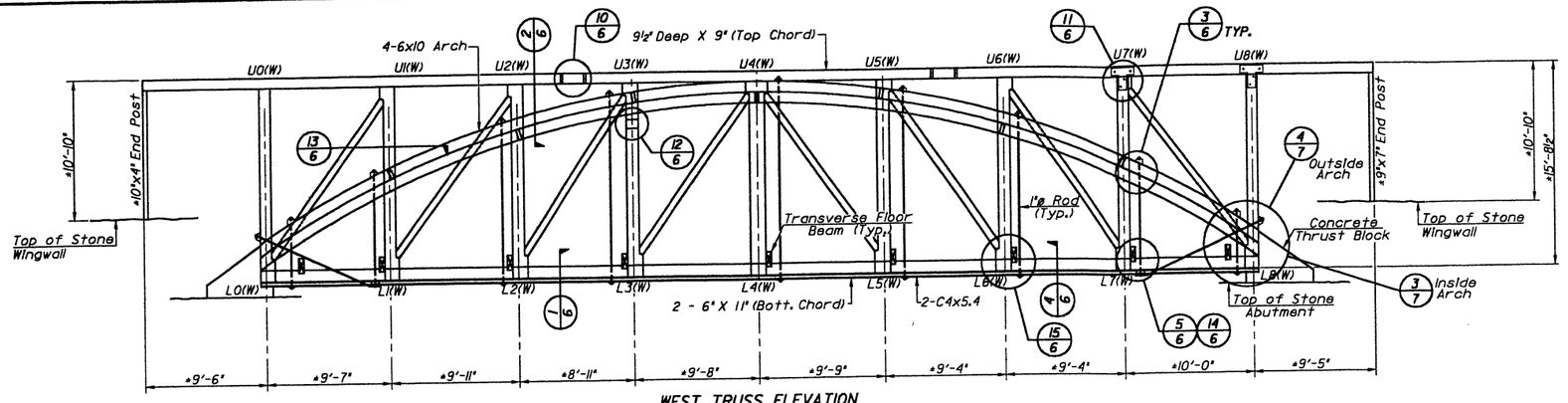
SECTION
Scale: 1" = 1'-0" 1/3

BRIDGE FLOOR PLAN
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 079-9000
RANDOLPH COUNTY

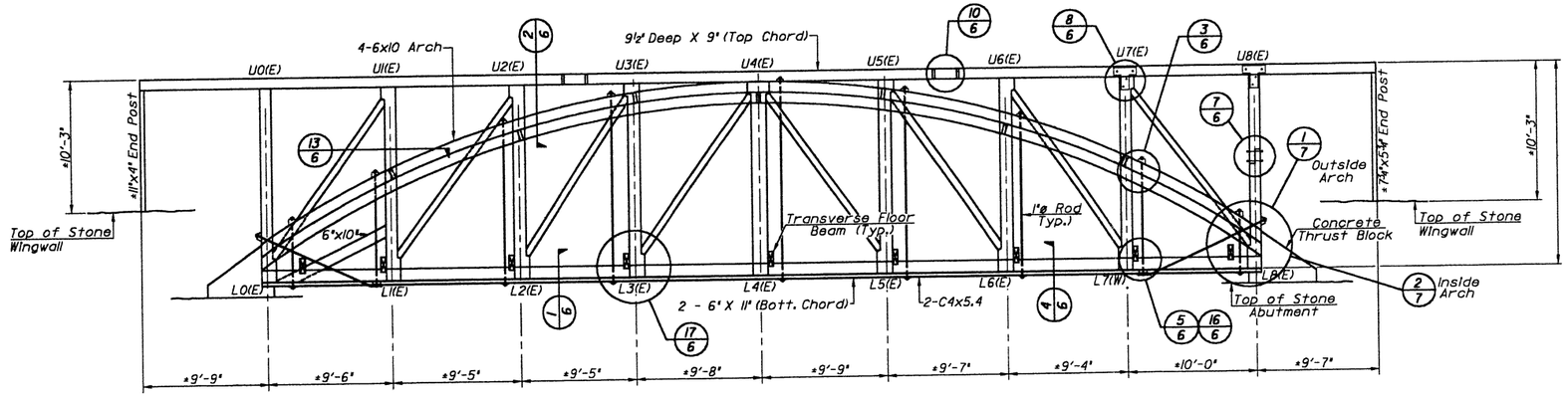
FILE NAME: FLOOR (REV. 1/23/02)

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD,ILL. PHONE:(217)544-8033

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	5
PROJECT				



WEST TRUSS ELEVATION
(Looking West)



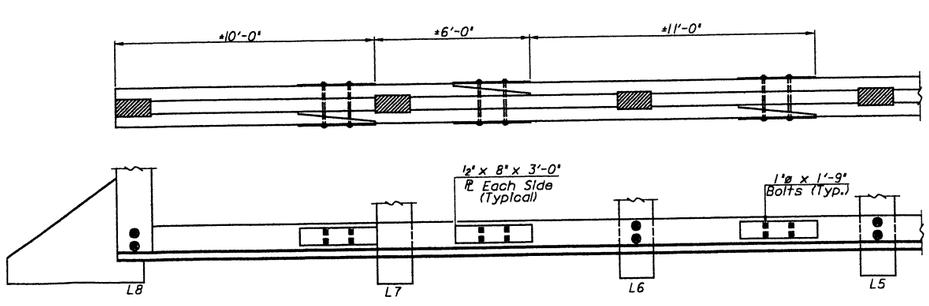
EAST TRUSS ELEVATION
(Looking West)

TRUSS MEMBER SIZES (WEST TRUSS)

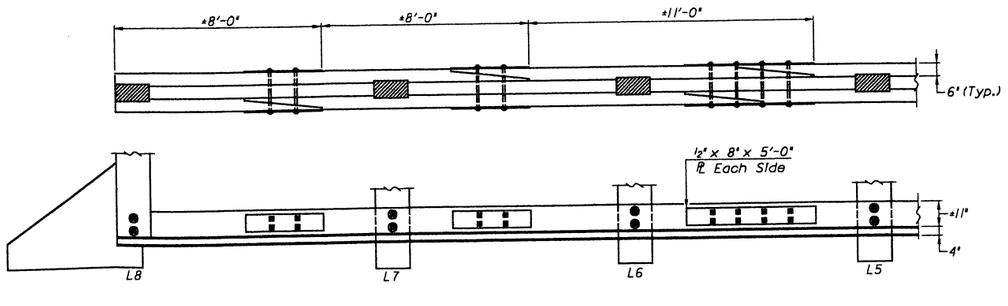
MEMBER	WIDTH x DEPTH
L0(W) - U0(W)	±10" x 11"
L1(W) - U1(W)	±8½" x 10"
L2(W) - U2(W)	±8" x 11"
L3(W) - U3(W)	±8" x 11"
L4(W) - U4(W)	±8½" x 13¾"
L5(W) - U5(W)	±8½" x 11½"
L6(W) - U6(W)	±9" x 11½"
L7(W) - U7(W)	±7½" x 10½"
L8(W) - U8(W)	±7" x 10"
L0(W) - L1(W)	±5¼" x 8"
L1(W) - U2(W)	±8¾" x 6¾"
L2(W) - U3(W)	±9" x 6½"
L3(W) - U4(W)	±9¼" x 6¼"
U4(W) - L5(W)	±8¾" x 6½"
U5(W) - L6(W)	±8¾" x 6½"
U6(W) - L7(W)	±8¾" x 6¼"
U7(W) - L8(W)	±7½" x 5¾"

TRUSS MEMBER SIZES (EAST TRUSS)

MEMBER	WIDTH x DEPTH
L0(E) - U0(E)	±10" x 12"
L1(E) - U1(E)	±8¾" x 11"
L2(E) - U2(E)	±8¾" x 11"
L3(E) - U3(E)	±8¾" x 11"
L4(E) - U4(E)	±8¾" x 14"
L5(E) - U5(E)	±9" x 11¼"
L6(E) - U6(E)	±8¾" x 11"
L7(E) - U7(E)	±9" x 11"
L8(E) - U8(E)	±8" x 10"
L0(E) - U1(E)	±9½" x 8"
L1(E) - U2(E)	±9" x 7"
L2(E) - U3(E)	±9" x 6½"
L3(E) - U4(E)	±8¾" x 6½"
U4(E) - L5(E)	±9" x 7"
U5(E) - L6(E)	±9" x 6½"
U6(E) - L7(E)	±9" x 6½"
U7(E) - L8(E)	±8" x 5½"



EAST TRUSS



WEST TRUSS

LOWER CHORD SPLICES
(Looking East)
Scale: ⅜" = 1'-0"

TRUSS DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 079-9000
RANDOLPH COUNTY

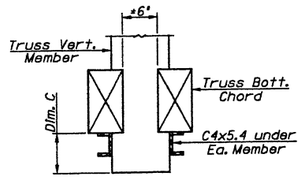
FILE NAME: TRUSS_1REV_1/23/09

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	6
PROJECT				

DIMENSION C

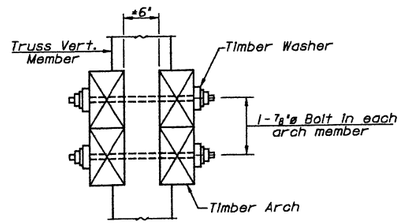
(Work this Table with Section 1/6)

MEMBER	WIDTH x DEPTH
L0(W)	—
L1(W)	*12¼"
L2(W)	*11¼"
L3(W)	*12"
L4(W)	*13½"
L5(W)	*13"
L6(W)	Flush
L7(W)	*12"
L8(W)	—
L0(E)	—
L1(E)	*13¼"
L2(E)	Flush
L3(E)	Deteriorated
L4(E)	*11½"
L5(E)	*11½"
L6(E)	Flush
L7(E)	Flush
L8(E)	—

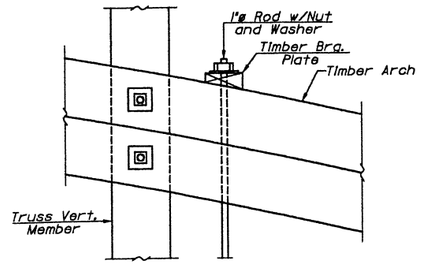


Note: See Table this Sheet for Dimension "C"

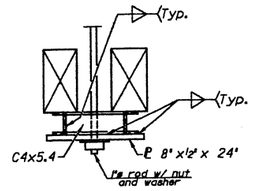
SECTION Scale: 1" = 1'-0" (1/6)



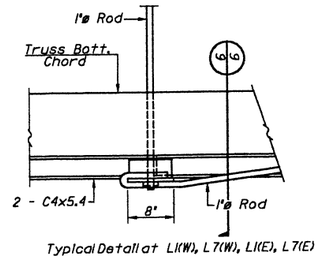
SECTION Scale: 1" = 1'-0" (2/6)



SECTION Scale: 1" = 1'-0" (3/6)

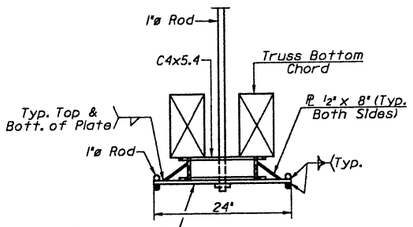


SECTION Scale: 1" = 1'-0" (4/6)

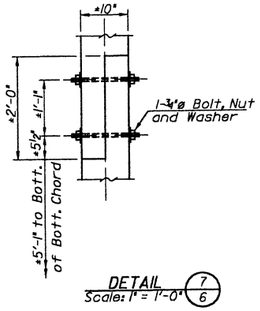


Typical Detail at L1(W), L7(W), L1(E), L7(E)

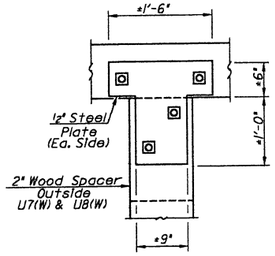
SECTION Scale: 1" = 1'-0" (5/6)



SECTION Scale: 1" = 1'-0" (6/6)

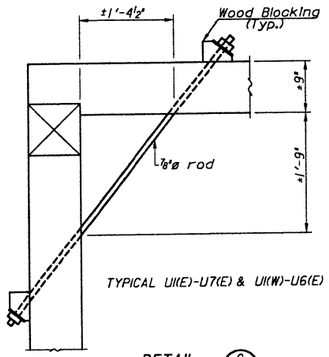


DETAIL Scale: 1" = 1'-0" (7/6)



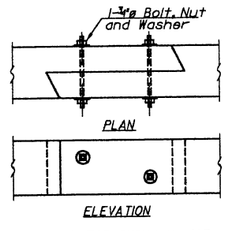
TYPICAL CONNECTION AT U7(E),U8(E),U7(W),U8(W)

DETAIL Scale: 1" = 1'-0" (8/6)



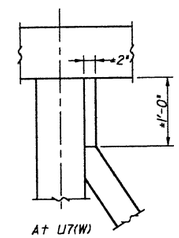
TYPICAL U1(E)-U7(E) & U1(W)-U6(E)

DETAIL Scale: 1" = 1'-0" (9/6)



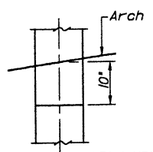
TYPICAL TOP CHORD SPLICE (Btwn. 2-3 & 5-6 E & W)

DETAIL Scale: 1" = 1'-0" (10/6)



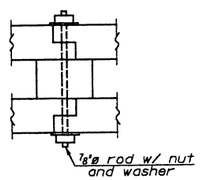
At U7(W)

DETAIL Scale: 1" = 1'-0" (11/6)



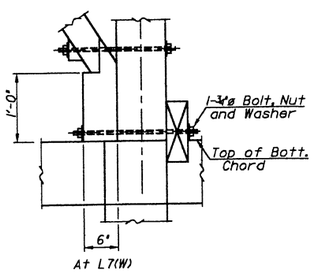
Vertical Splice at L3(w)-U3(W)

DETAIL Scale: ¾" = 1'-0" (12/6)



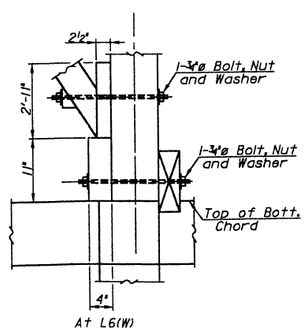
Typical Arch Splice

DETAIL Scale: 1" = 1'-0" (13/6)



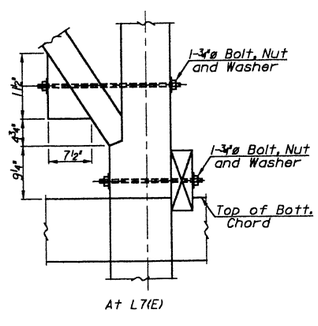
At L7(W)

DETAIL Scale: 1" = 1'-0" (14/6)



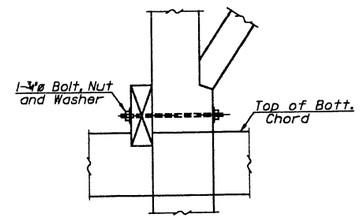
At L6(W)

DETAIL Scale: 1" = 1'-0" (15/6)



At L7(E)

DETAIL Scale: 1" = 1'-0" (16/6)



Typical Beam to Vetical Connection (Unless Shown Otherwise)

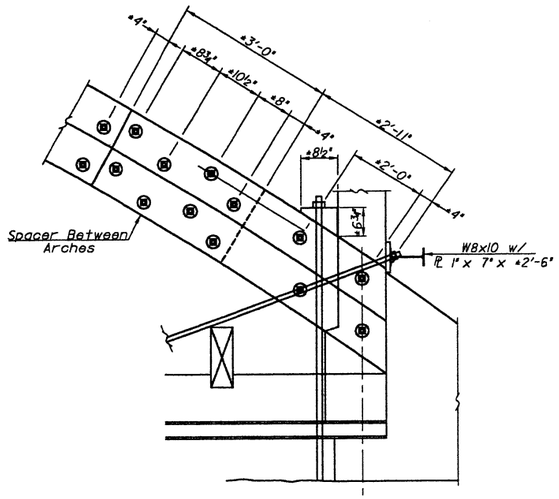
DETAIL Scale: 1" = 1'-0" (17/6)

DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 179-9000
RANDOLPH COUNTY

FILE NAME: DETAILS.DGN REV. 1/23/02

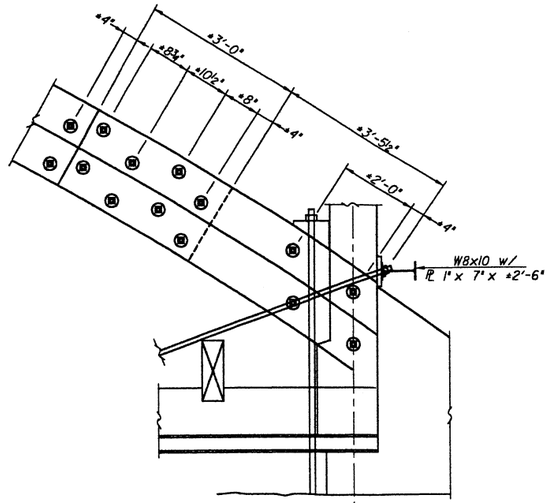
ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD,ILL. PHONE:(217)544-8033

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	7
PROJECT				



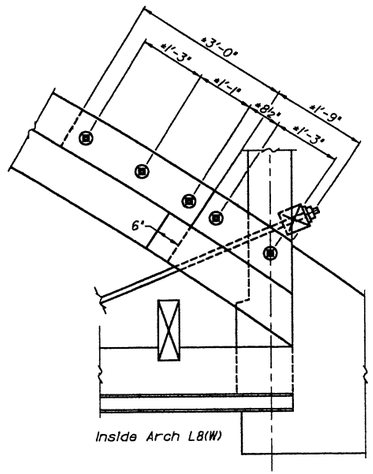
Inside Arch L8(E)

DETAIL 1/7
Scale: 3/4" = 1'-0"



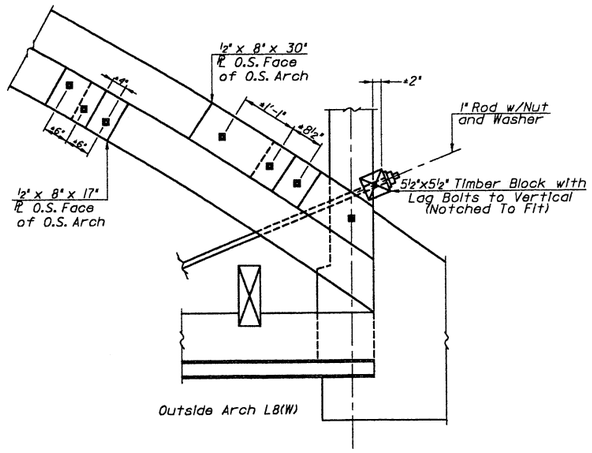
Outside Arch L8(E)

DETAIL 2/7
Scale: 3/4" = 1'-0"



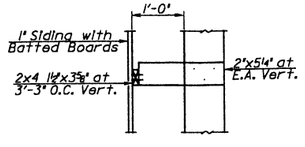
Inside Arch L8(W)

DETAIL 3/7
Scale: 3/4" = 1'-0"

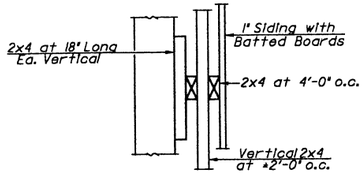


Outside Arch L8(W)

DETAIL 4/7
Scale: 3/4" = 1'-0"



DETAIL 5/7
Scale: 1" = 1'-0"



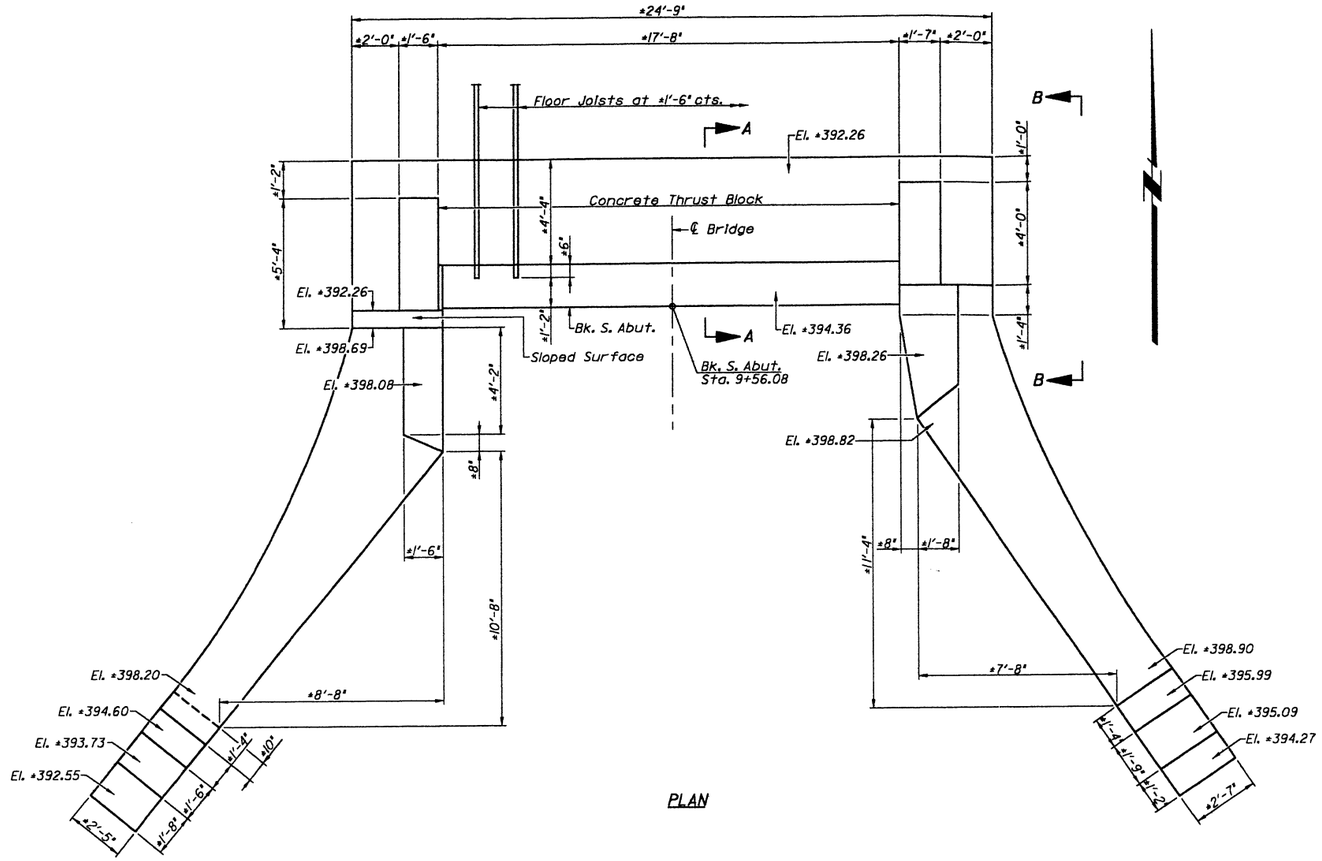
DETAIL 6/7
Scale: 1" = 1'-0"

DETAILS
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 079-9000
RANDOLPH COUNTY

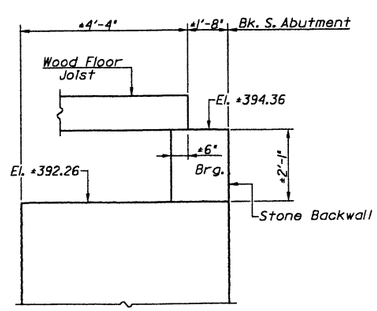
FILE NAME: DETAILS2.IBEV 7/23/021

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD,ILL. PHONE:(217)544-8033

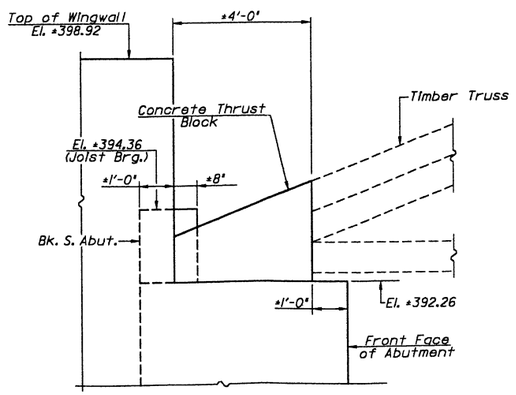
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	8
PROJECT				



PLAN



SECTION A-A



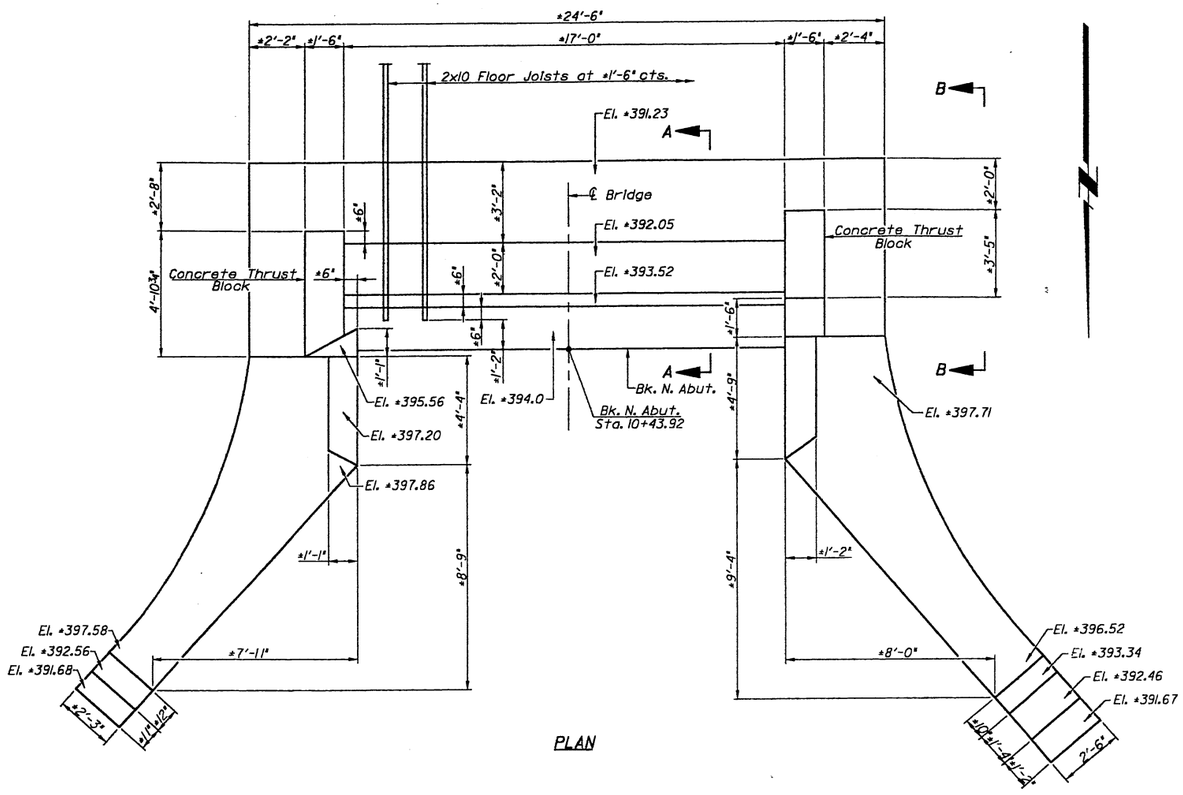
SECTION B-B

SOUTH ABUTMENT
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 079-9000
RANDOLPH COUNTY

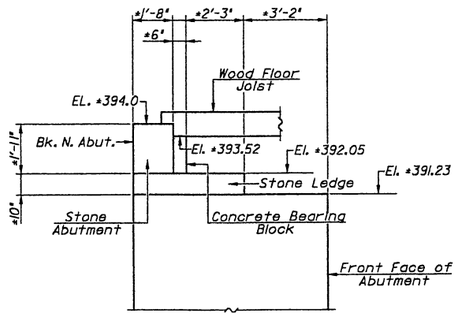
FILE NAME: SABUT (REV. 1/21/02)

ALLEN HENDERSON & ASSOCIATES, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD,ILL. PHONE:(217)544-8033

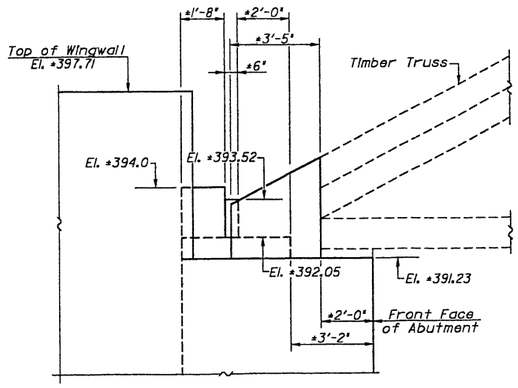
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		RANDOLPH	9	9
PROJECT				



PLAN



SECTION A-A



SECTION B-B

NORTH ABUTMENT
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
S.N. 079-9000
RANDOLPH COUNTY

FILE NAME: NABUT (REV. 7/22/02)