

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

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	22	1A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		

UNION COUNTY
MORGAN SCHOOL ROAD - T.R. 131
SECTION 03-01176-00-BR
JOB NO. C-99-542-04
PROJECT NO. BROS-0181 (039)
CONTRACT NO. 99214
CANY CREEK

INDEX OF SHEETS

HIGHWAY PLANS: SHEET NOS. 1A - 13A

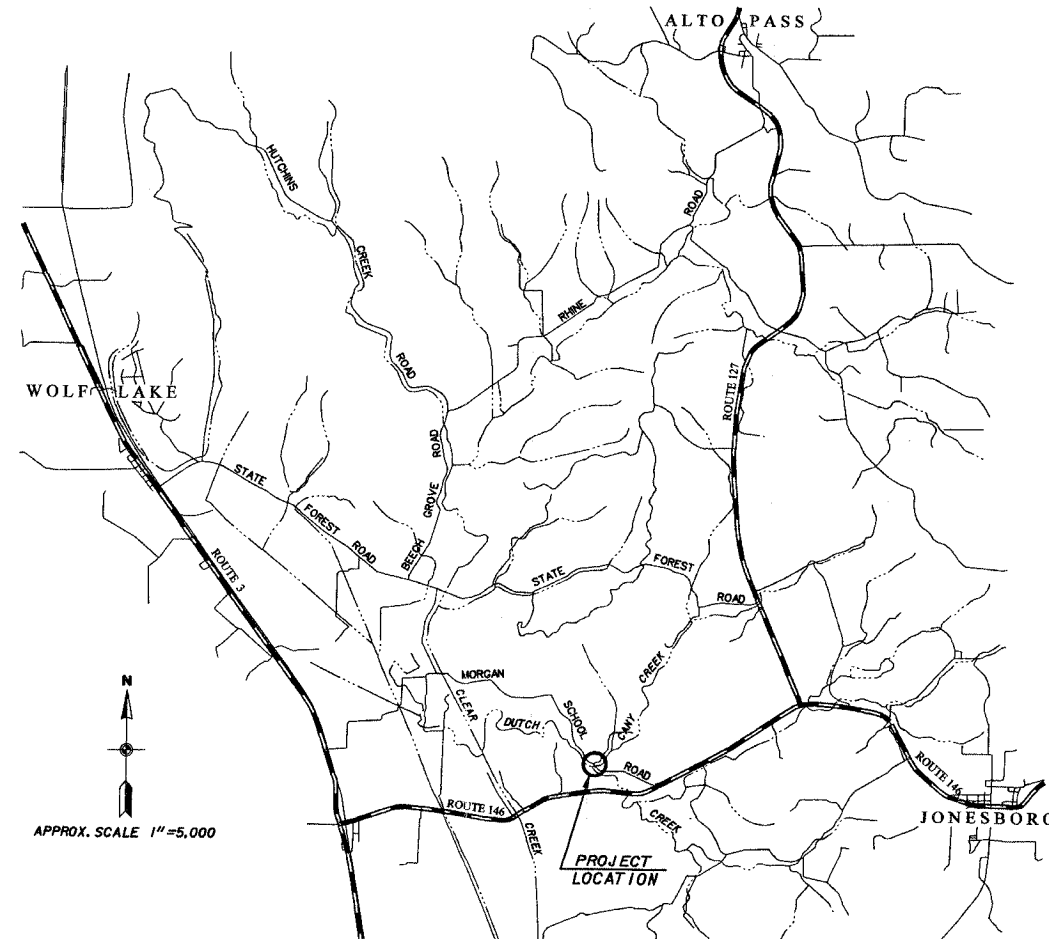
SHEET NO	DESCRIPTION
1A	TITLE AND COVER SHEET INDEX OF SHEETS LIST OF HIGHWAY STANDARDS
2A	SUMMARY OF QUANTITIES, TRAFFIC CONTROL PLAN, TYPICAL SECTIONS & MISCELLANEOUS DETAILS
3A	EXISTING SITE PLAN, REMOVAL PLAN AND CENTERLINE CONTROL MONUMENTATION & REFERENCE TIES
4A	GRADING PLAN
5A	PLAN AND PROFILE
6A - 11A	CROSS SECTIONS
12A	STORM WATER POLLUTION PREVENTION PLAN
13A	SOIL BORING LOGS

BRIDGE PLANS: SHEET NOS. 1 - 8

SHEET NO	DESCRIPTION
(1) 14	GENERAL PLAN AND ELEVATION
(2) 15	SUPERSTRUCTURE SPAN 1 & 3
(3) 16	SUPERSTRUCTURE SPAN 2
(4) 17	STEEL RAILING, TYPE S1
(5) 18	SOUTH ABUTMENT
(6) 19	NORTH ABUTMENT
(7 & 8) 20 & 21	PIERS 1 & 2
(9) 22	NAME PLATE

LIST OF HIGHWAY STANDARDS

STD. NO.	DESCRIPTION
280001-03	TEMPORARY EROSION CONTROL SYSTEMS
515001-02	NAME PLATE FOR BRIDGES
542301-01	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401	METAL END SECTION FOR PIPE CULVERTS
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-03	TRAFFIC BARRIER TERMINAL, TYPE 2
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
702001-06	TRAFFIC CONTROL DEVICES
720011	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
B.L.R. 21-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
B.L.R. 23-1	TRAFFIC BARRIER TERMINAL TYPE 1



LAYOUT
APPROXIMATE SCALE: 1 INCH = 0.947 MILE
NET LENGTH OF PROJECT - 690 FT. - 0.131 MI.

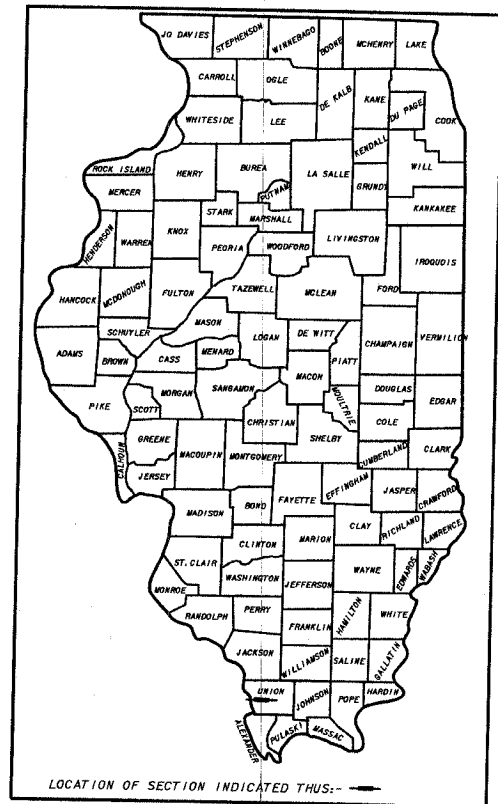
J.U.L.I.E. 1-800-892-0123

UTILITIES ON PROJECT

ELECTRIC	- SOUTHERN ILLINOIS ELECTRIC COOPERATIVE - DONGOLA, IL.
TELEPHONE	- VERIZON NORTH - MARION, IL.
WATER	- SHANNEE VALLEY WATER DISTRICT - WOLF LAKE, IL.

SCALES

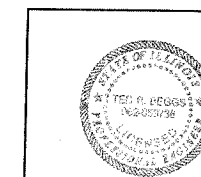
PLAN	1 INCH = 20 FEET
PROFILE	1 INCH = 20 FEET HORZ.
PROFILE	1 INCH = 5 FEET VERT.
CROSS SECTIONS	1 INCH = 10 FEET HORZ.
CROSS SECTIONS	1 INCH = 5 FEET VERT.



LOCATION OF SECTION INDICATED THUS: →

DESIGN DESIGNATION

ROADWAY CLASSIFICATION - RURAL - LOCAL ROAD
DESIGN A.D.T. - 325
DESIGN SPEED - 30 MPH

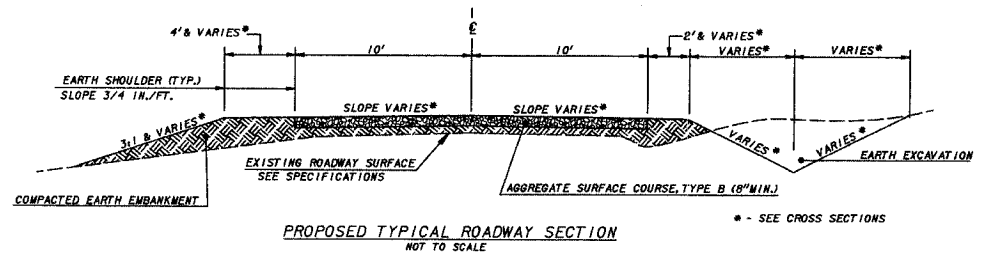


Ted R. Briggs
TED R. BRIGGS, P.E.
REG. NO. 062-053726
DATE 4/10/07
EXPIRES 11-30-07

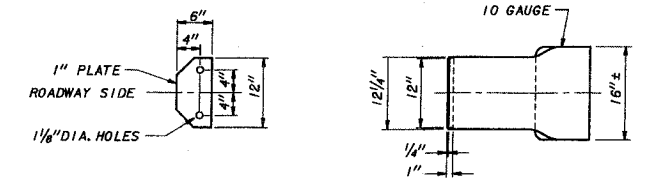
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	<u>April 10</u> 20 <u>07</u> <i>Bill R. Boyd</i> BILL R. BOYD - UNION COUNTY ENGINEER
PASSED	<u>April 11</u> 20 <u>07</u> <i>Dennis W. Hillebrenner</i> DENNIS W. HILLEBRENNER - DISTRICT 9 ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	<u>April 11</u> 20 <u>07</u> <i>Mary C. Lami</i> MARY C. LAMI, P.E. - DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER

SCALE AS SHOWN	PLANS PREPARED BY	BOOK 461-N
DATE MAR. 2007	J. T. BLANKINSHIP AND ASSOCIATES CONSULTING ENGINEERS MURPHYSBORO, ILLINOIS	FILE NO. E*8574 SHEET NO. 1A OF 13A

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01175-00-BR		22	2A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		

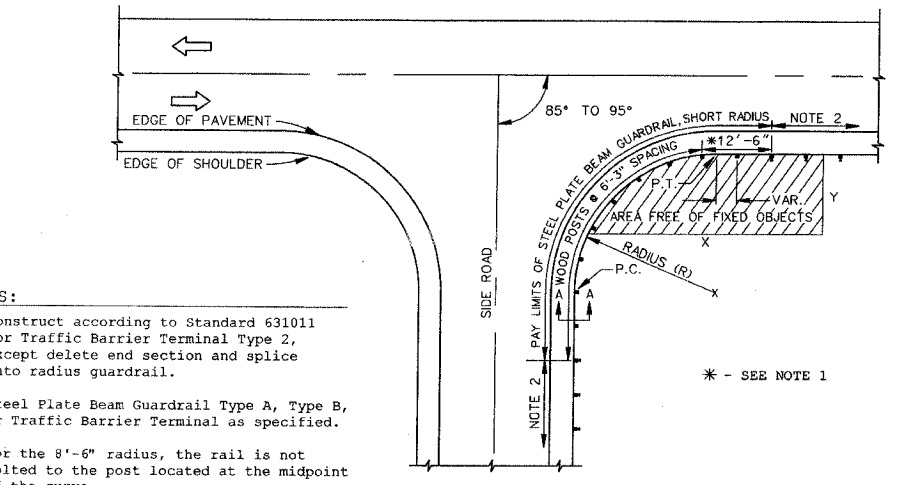
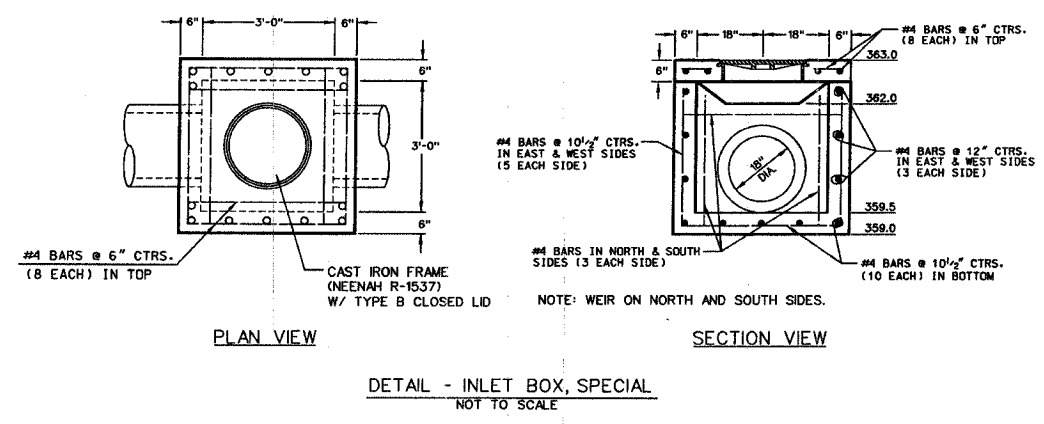
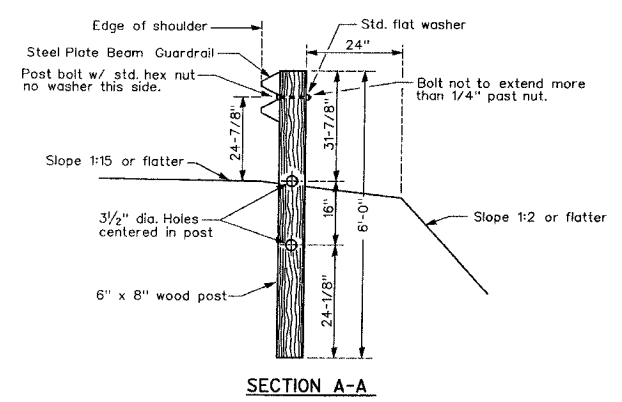
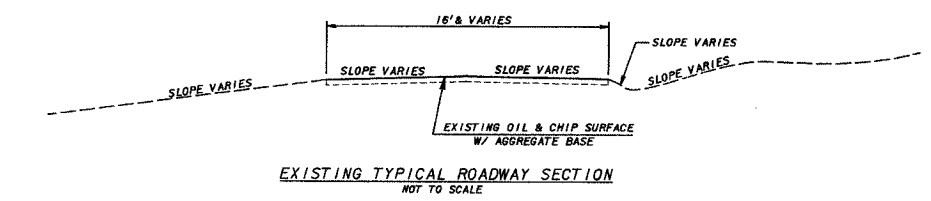


NOTE: COST OF FURNISHING AND INSTALLING CURLED END SECTIONS TO BE INCLUDED IN UNIT BID PRICE FOR STEEL PLATE BEAM GUARDRAIL, TYPE A - (5) REQUIRED.



SUMMARY OF QUANTITIES

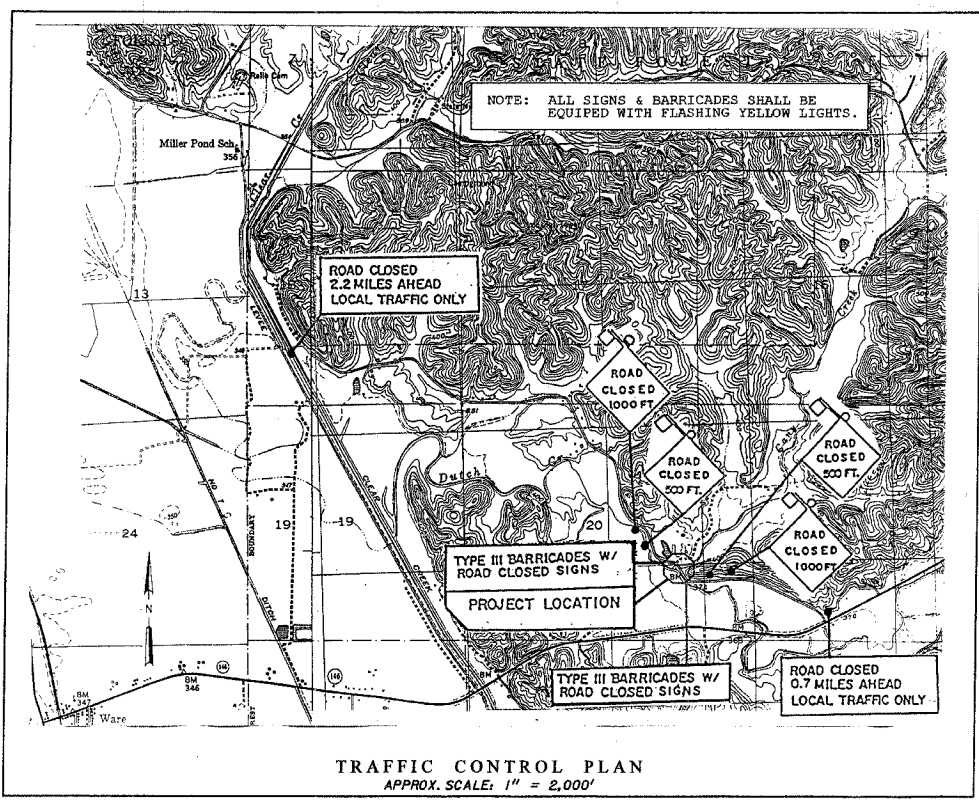
CODE NO.	ITEM	UNIT	X080-2A AWARDED QUANTITY	AS-BUILT QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.2	
20200410	EARTH EXCAVATION (SPECIAL)	CU YD	450	
20300100	CHANNEL EXCAVATION	CU YD	3,800	
20400800	FURNISHED EXCAVATION	CU YD	1,000	
20800150	TRENCH BACKFILL	CU YD	80	
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.65	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	300	
28000300	TEMPORARY DITCH CHECKS	EACH	5	
28000400	PERIMETER EROSION BARRIER	FOOT	700	
28000500	INLET AND PIPE PROTECTION	EACH	4	
28100805	STONE DUMPED RIPRAP, CLASS A3	TON	260	
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	1,600	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	750	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	
50104900	REMOVAL OF EXISTING SUB-STRUCTURES	EACH	1	
50105200	REMOVAL OF EXISTING CULVERTS	EACH	3	
50300225	CONCRETE STRUCTURES	CU YD	39.2	
50300280	CONCRETE ENCASEMENT	CU YD	24.1	
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17\"/>			



- NOTES:
- Construct according to Standard 631011 for Traffic Barrier Terminal Type 2, except delete end section and splice into radius guardrail.
 - Steel Plate Beam Guardrail Type A, Type B, or Traffic Barrier Terminal as specified.
 - For the 8'-6" radius, the rail is not bolted to the post located at the midpoint of the curve.

R	NO. OF WOOD POSTS	X	Y
17'-0"	6	30'	15'

GENERAL NOTES:
All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H)
All dimensions are in inches unless otherwise shown.



DETAIL - STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS

TRAFFIC CONTROL PLAN APPROX. SCALE: 1" = 2,000'

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	24	3A
JOB NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		

NOTES

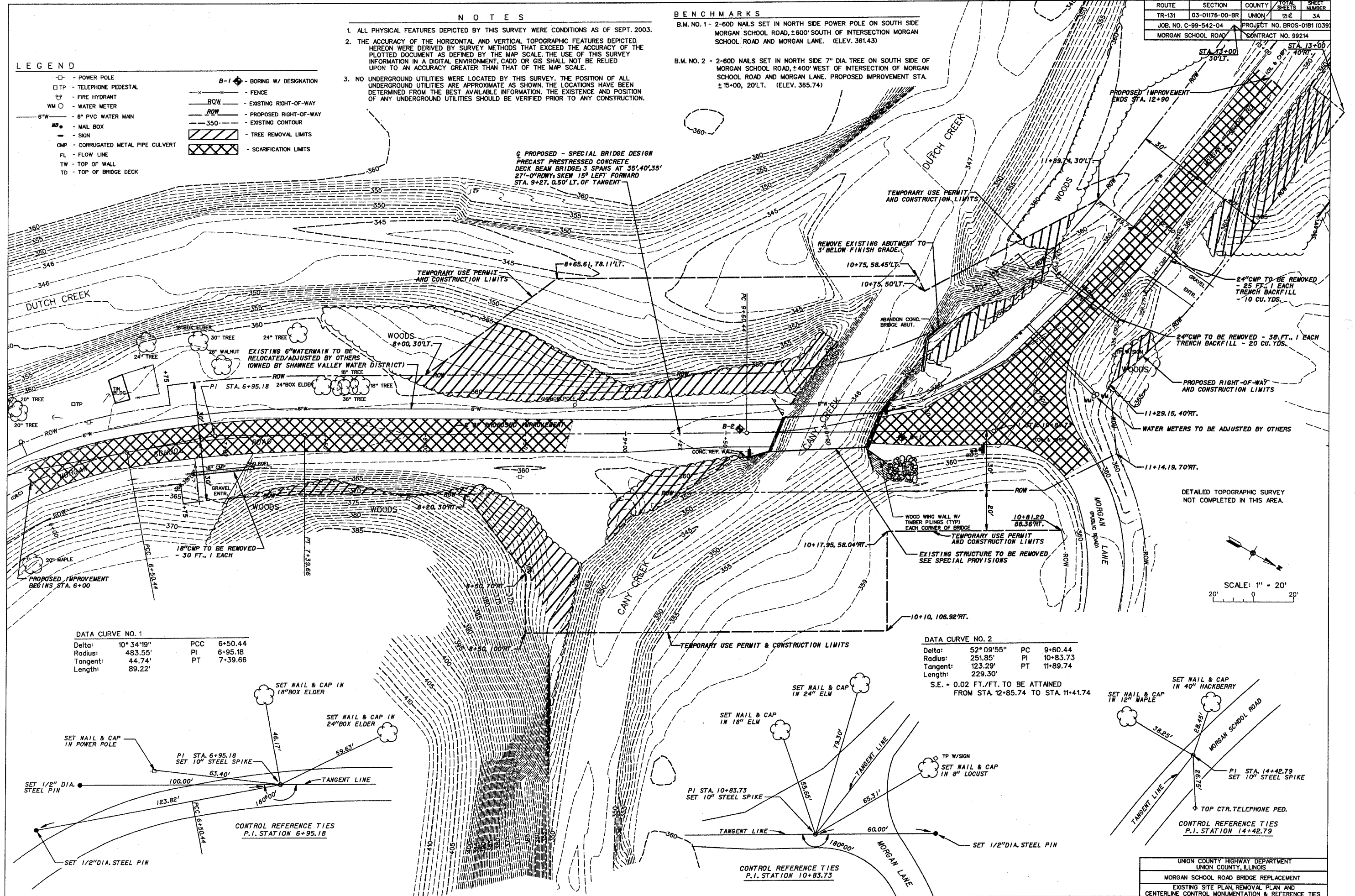
1. ALL PHYSICAL FEATURES DEPICTED BY THIS SURVEY WERE CONDITIONS AS OF SEPT. 2003.
2. THE ACCURACY OF THE HORIZONTAL AND VERTICAL TOPOGRAPHIC FEATURES DEPICTED HEREON WERE DERIVED BY SURVEY METHODS THAT EXCEED THE ACCURACY OF THE PLOTTED DOCUMENT AS DEFINED BY THE MAP SCALE. THE USE OF THIS SURVEY INFORMATION IN A DIGITAL ENVIRONMENT, CADD OR GIS SHALL NOT BE RELIED UPON TO AN ACCURACY GREATER THAN THAT OF THE MAP SCALE.
3. NO UNDERGROUND UTILITIES WERE LOCATED BY THIS SURVEY. THE POSITION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE AS SHOWN. THE LOCATIONS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION. THE EXISTENCE AND POSITION OF ANY UNDERGROUND UTILITIES SHOULD BE VERIFIED PRIOR TO ANY CONSTRUCTION.

BENCHMARKS

- B.M. NO. 1 - 2-600 NAILS SET IN NORTH SIDE POWER POLE ON SOUTH SIDE MORGAN SCHOOL ROAD, ±600' SOUTH OF INTERSECTION MORGAN SCHOOL ROAD AND MORGAN LANE. (ELEV. 361.43)
- B.M. NO. 2 - 2-600 NAILS SET IN NORTH SIDE 7" DIA. TREE ON SOUTH SIDE OF MORGAN SCHOOL ROAD, ±400' WEST OF INTERSECTION OF MORGAN SCHOOL ROAD AND MORGAN LANE. PROPOSED IMPROVEMENT STA. ±15+00, 20'L.T. (ELEV. 365.74)

LEGEND

- - POWER POLE
- TP - TELEPHONE PEDESTAL
- WM ○ - WATER METER
- 6"W - 6" PVC WATER MAIN
- MB - MAIL BOX
- CMP - CORRUGATED METAL PIPE CULVERT
- FL - FLOW LINE
- TW - TOP OF WALL
- TD - TOP OF BRIDGE DECK
- B-1 - BORING W/ DESIGNATION
- FENCE
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- EXISTING CONTOUR
- TREE REMOVAL LIMITS
- SCARIFICATION LIMITS



PROPOSED - SPECIAL BRIDGE DESIGN
 PRECAST PRESTRESSED CONCRETE
 DECK BEAM BRIDGE, 3 SPANS AT 35'40'35"
 27'-0"ROW, SKEW 15° LEFT FORWARD
 STA. 9+27, 0.50' LT. OF TANGENT

REMOVE EXISTING ABUTMENT TO
 3' BELOW FINISH GRADE.

EXISTING 6" WATERMAIN TO BE
 RELOCATED/ADJUSTED BY OTHERS
 (OWNED BY SHAWNEE VALLEY WATER DISTRICT)

WOOD WING WALL W/
 TIE RODS (TYP) EACH CORNER OF BRIDGE

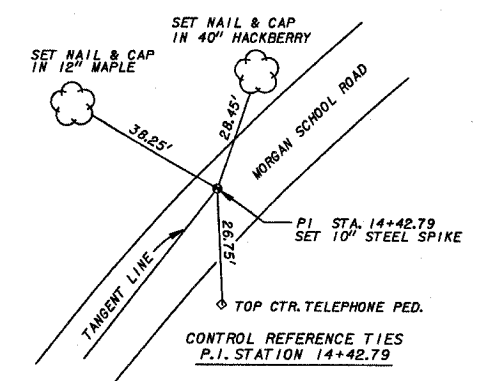
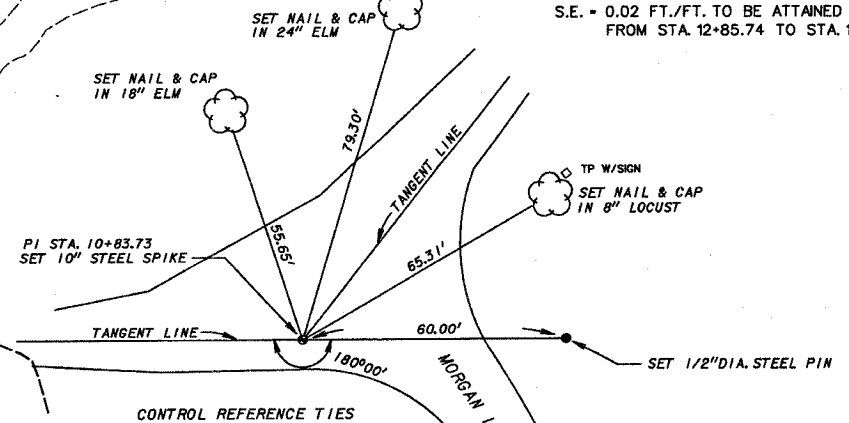
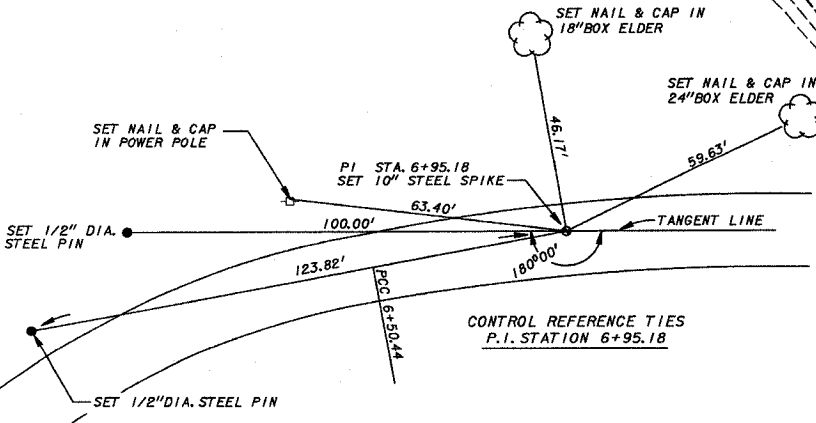
DATA CURVE NO. 1

Delta:	10° 34'19"	PCC	6+50.44
Radius:	483.55'	PI	6+95.18
Tangent:	44.74'	PT	7+39.66
Length:	89.22'		

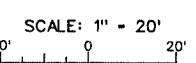
DATA CURVE NO. 2

Delta:	52° 09'55"	PC	9+60.44
Radius:	251.85'	PI	10+83.73
Tangent:	123.29'	PT	11+89.74
Length:	229.30'		

S.E. = 0.02 FT./FT. TO BE ATTAINED
 FROM STA. 12+85.74 TO STA. 11+41.74



UNION COUNTY HIGHWAY DEPARTMENT UNION COUNTY, ILLINOIS
MORGAN SCHOOL ROAD BRIDGE REPLACEMENT EXISTING SITE PLAN, REMOVAL PLAN AND CENTERLINE CONTROL MONUMENTATION & REFERENCE TIES

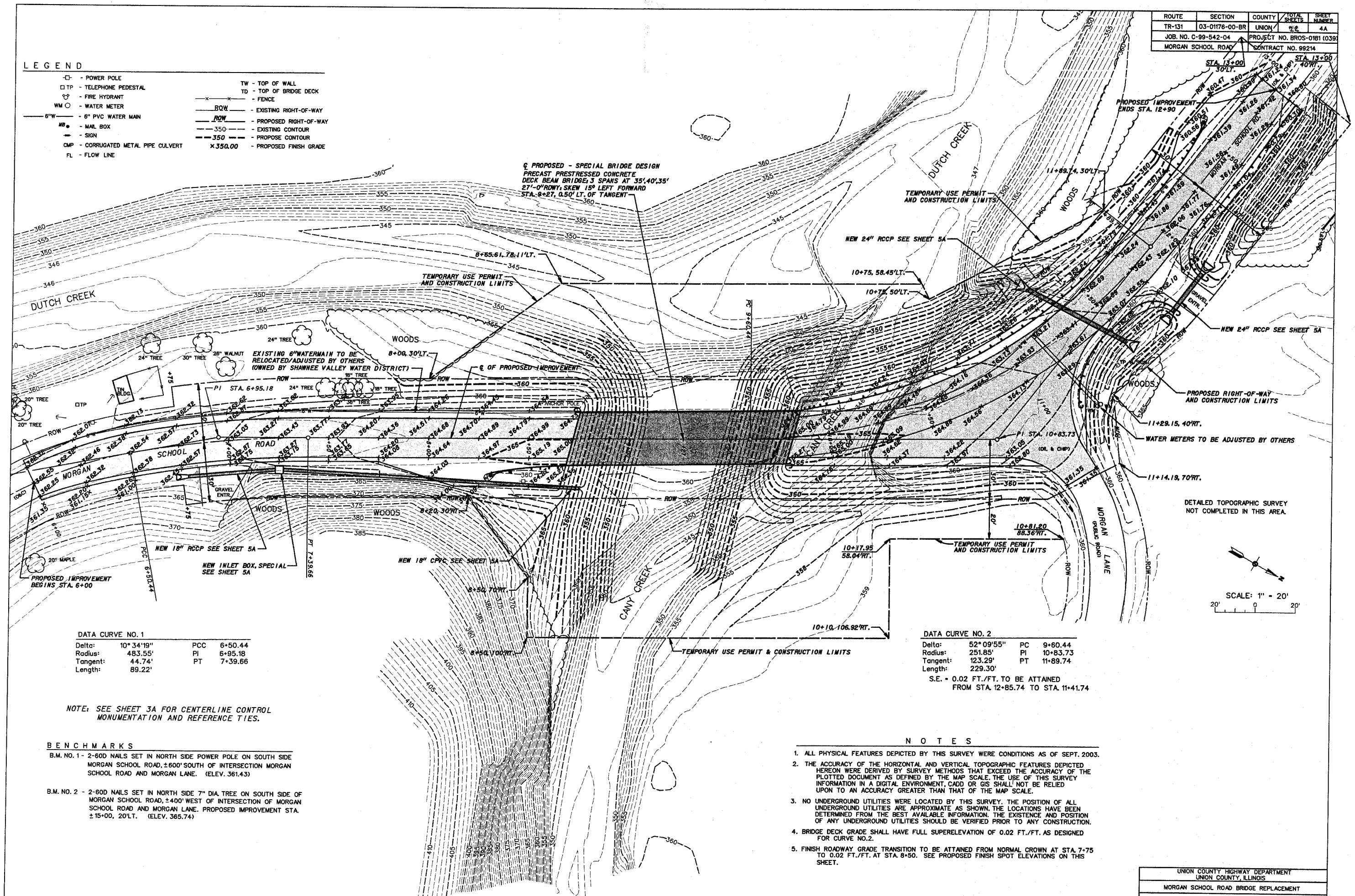


DETAILED TOPOGRAPHIC SURVEY
 NOT COMPLETED IN THIS AREA.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	2	4A
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MORGAN SCHOOL ROAD		CONTRACT NO. 99214		

LEGEND

- - POWER POLE
- TP - TELEPHONE PEDESTAL
- ⊕ - FIRE HYDRANT
- WM ○ - WATER METER
- 6" W - 6" PVC WATER MAIN
- MB • - MAIL BOX
- - SIGN
- CMP - CORRUGATED METAL PIPE CULVERT
- FL - FLOW LINE
- TW - TOP OF WALL
- TD - TOP OF BRIDGE DECK
- - - - - FENCE
- - - - - ROW - EXISTING RIGHT-OF-WAY
- - - - - ROW - PROPOSED RIGHT-OF-WAY
- 350 - EXISTING CONTOUR
- 350 - PROPOSED CONTOUR
- X 350.00 - PROPOSED FINISH GRADE



PROPOSED - SPECIAL BRIDGE DESIGN
 PRECAST PRESTRESSED CONCRETE
 DECK BEAM BRIDGE, 3 SPANS AT 35', 40', 35'
 27'-0" ROWY, SKEW 15° LEFT FORWARD
 STA. 9+27, 0.50' LT. OF TANGENT

DATA CURVE NO. 1

Delta:	10° 34' 19"	PCC	6+50.44
Radius:	483.55'	PI	6+95.18
Tangent:	44.74'	PT	7+39.66
Length:	89.22'		

DATA CURVE NO. 2

Delta:	52° 09' 55"	PC	9+60.44
Radius:	251.85'	PI	10+83.73
Tangent:	123.29'	PT	11+89.74
Length:	229.30'		

S.E. = 0.02 FT./FT. TO BE ATTAINED
 FROM STA. 12+85.74 TO STA. 11+41.74

NOTE: SEE SHEET 3A FOR CENTERLINE CONTROL MONUMENTATION AND REFERENCE TIES.

BENCHMARKS

- B.M. NO. 1 - 2-60D NAILS SET IN NORTH SIDE POWER POLE ON SOUTH SIDE MORGAN SCHOOL ROAD, ±600' SOUTH OF INTERSECTION MORGAN SCHOOL ROAD AND MORGAN LANE. (ELEV. 361.43)
- B.M. NO. 2 - 2-60D NAILS SET IN NORTH SIDE 7" DIA TREE ON SOUTH SIDE OF MORGAN SCHOOL ROAD, ±400' WEST OF INTERSECTION OF MORGAN SCHOOL ROAD AND MORGAN LANE. PROPOSED IMPROVEMENT STA. ±15+00, 20' LT. (ELEV. 365.74)

NOTES

1. ALL PHYSICAL FEATURES DEPICTED BY THIS SURVEY WERE CONDITIONS AS OF SEPT. 2003.
2. THE ACCURACY OF THE HORIZONTAL AND VERTICAL TOPOGRAPHIC FEATURES DEPICTED HEREON WERE DERIVED BY SURVEY METHODS THAT EXCEED THE ACCURACY OF THE PLOTTED DOCUMENT AS DEFINED BY THE MAP SCALE. THE USE OF THIS SURVEY INFORMATION IN A DIGITAL ENVIRONMENT, CADD OR GIS SHALL NOT BE RELIED UPON TO AN ACCURACY GREATER THAN THAT OF THE MAP SCALE.
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4. BRIDGE DECK GRADE SHALL HAVE FULL SUPERELEVATION OF 0.02 FT./FT. AS DESIGNED FOR CURVE NO.2.
5. FINISH ROADWAY GRADE TRANSITION TO BE ATTAINED FROM NORMAL CROWN AT STA. 7+75 TO 0.02 FT./FT. AT STA. 8+50. SEE PROPOSED FINISH SPOT ELEVATIONS ON THIS SHEET.

UNION COUNTY HIGHWAY DEPARTMENT
UNION COUNTY, ILLINOIS
MORGAN SCHOOL ROAD BRIDGE REPLACEMENT
GRADING PLAN

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	22	5A
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- INSTALL CURLED END SECTIONS ON NORTHEAST AND SOUTHWEST CORNERS OF BRIDGE AND AT THE ENDS OF THE STEEL PLATE BEAM GUARDRAIL AT STA. 11+15, 33'RT., STA. 11+72, 30'RT. AND STA. 11+93, 30'RT.

BENCHMARKS

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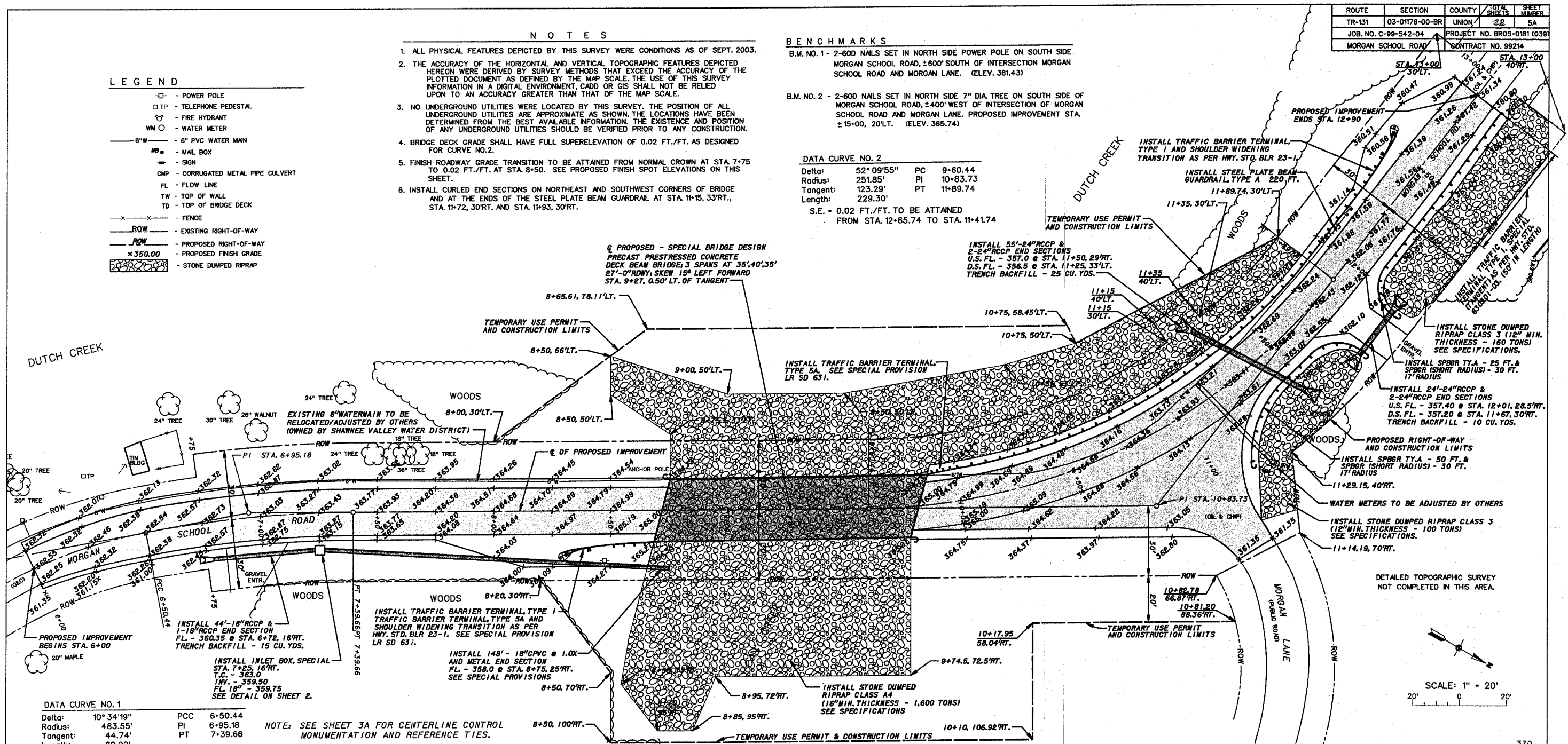
DATA CURVE NO. 2

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 Radius: 251.85' PI 10+83.73
 Tangent: 123.29' PT 11+89.74
 Length: 229.30'

S.E. - 0.02 FT./FT. TO BE ATTAINED FROM STA. 12+85.74 TO STA. 11+41.74

LEGEND

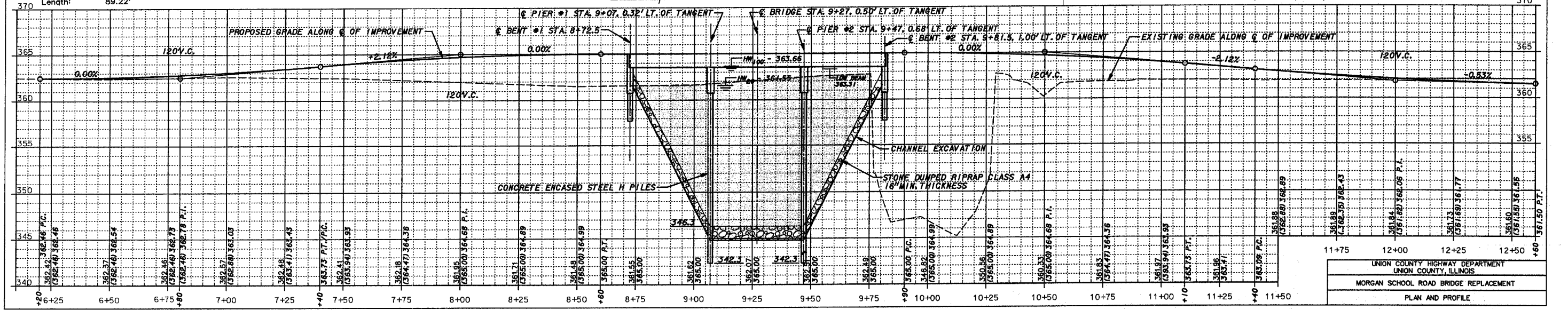
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- CMP - CORRUGATED METAL PIPE CULVERT
- FL - FLOW LINE
- TW - TOP OF WALL
- TD - TOP OF BRIDGE DECK
- x — - FENCE
- RQW - EXISTING RIGHT-OF-WAY
- RQW - PROPOSED RIGHT-OF-WAY
- x 350.00 - PROPOSED FINISH GRADE
- - STONE DUMPED RIPRAP



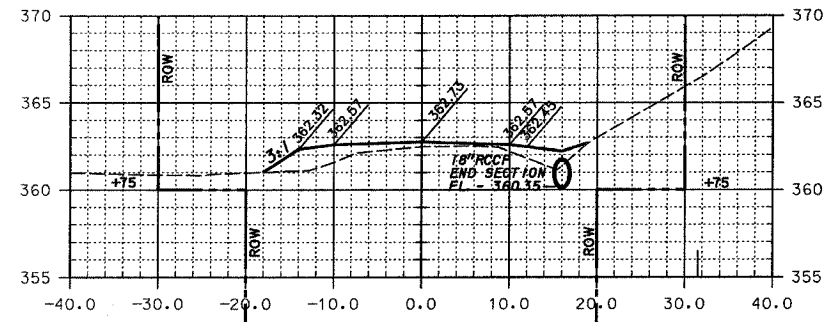
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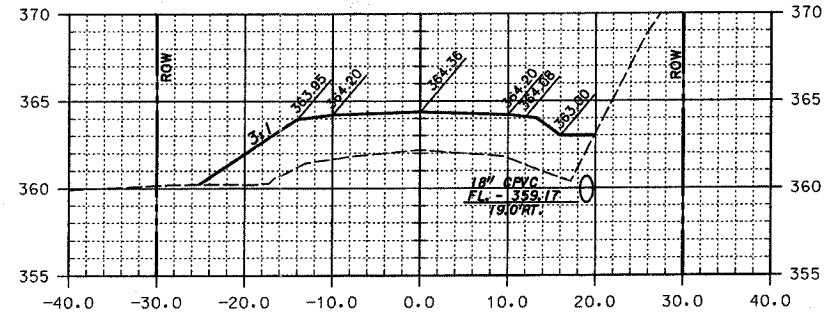
NOTE: SEE SHEET 3A FOR CENTERLINE CONTROL MONUMENTATION AND REFERENCE TIES.



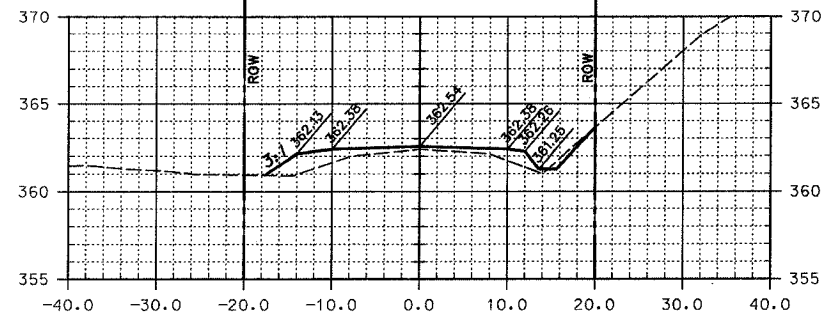
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	2/2	6A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
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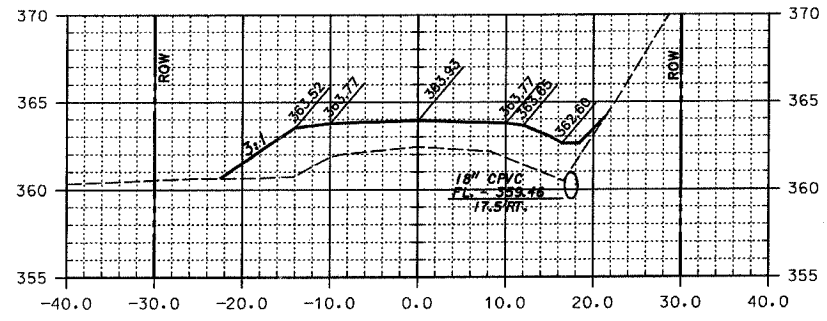
6+75.0



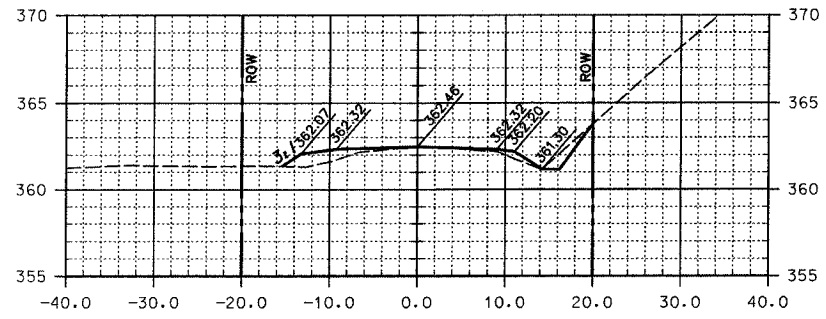
7+75.0



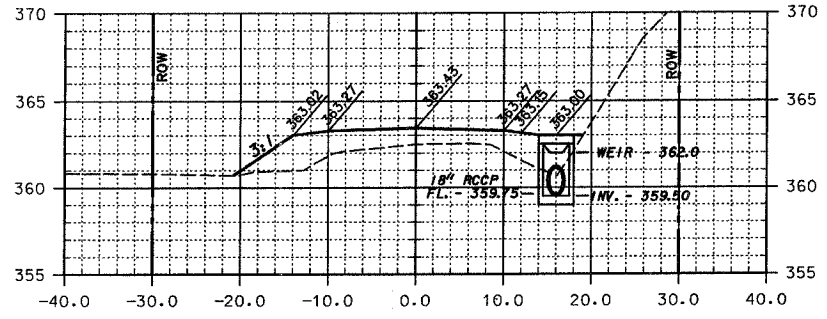
6+50.0



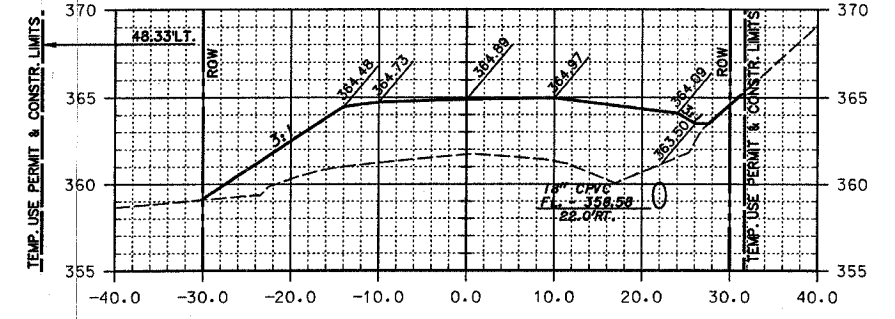
7+50.0



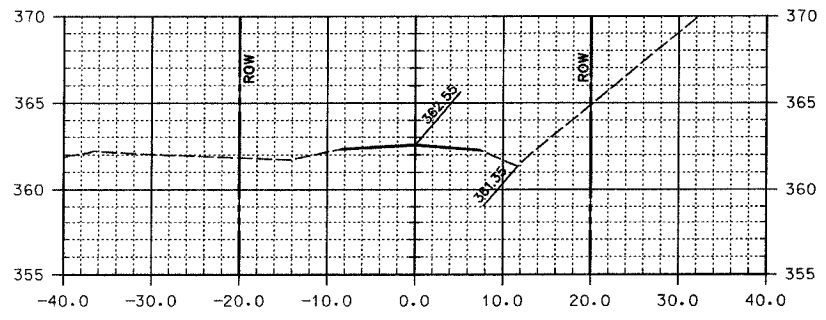
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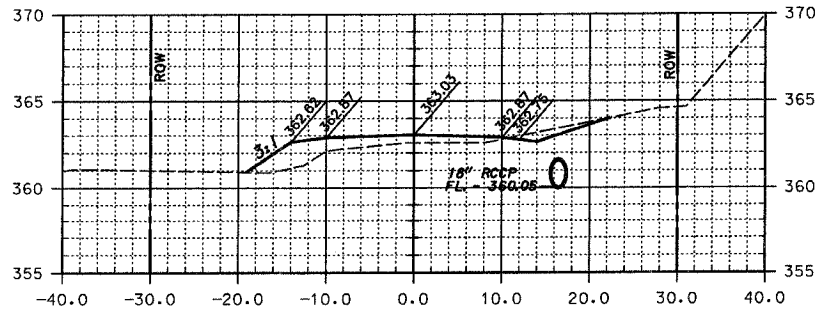
7+25.0



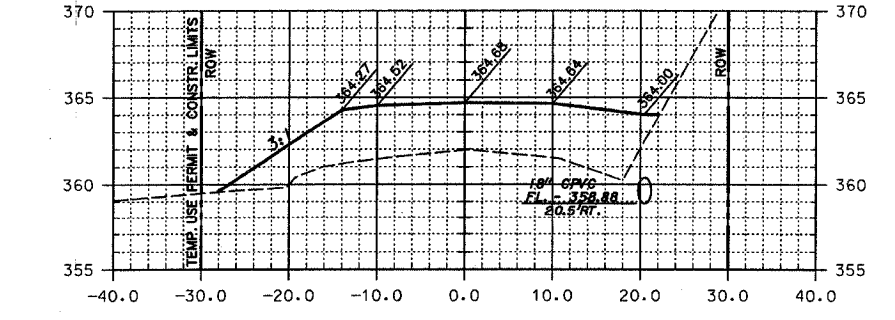
8+25.0



6+00.0

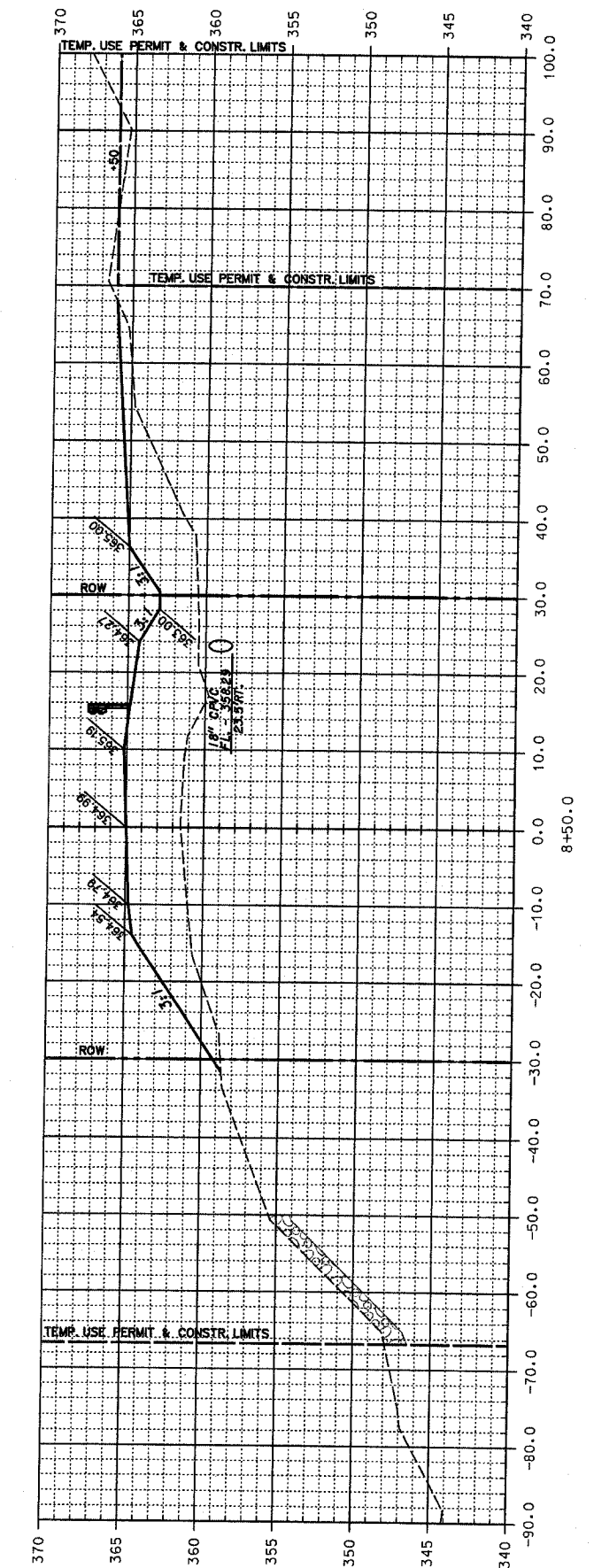
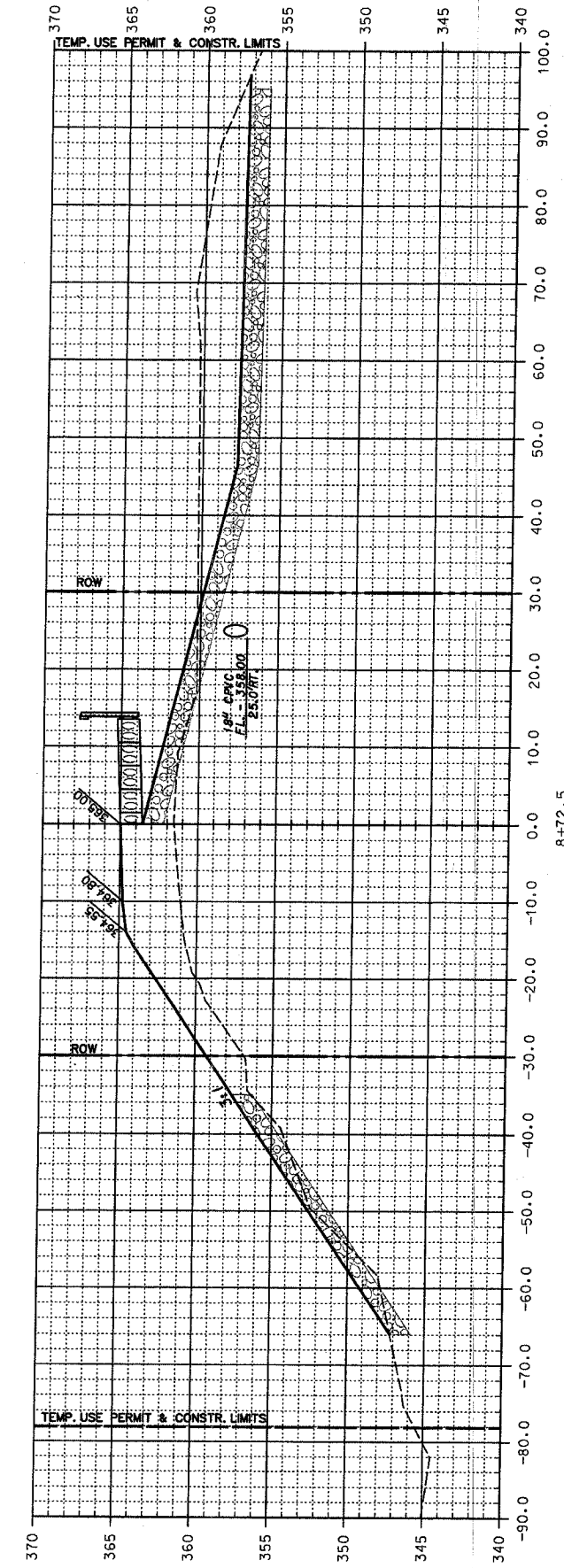
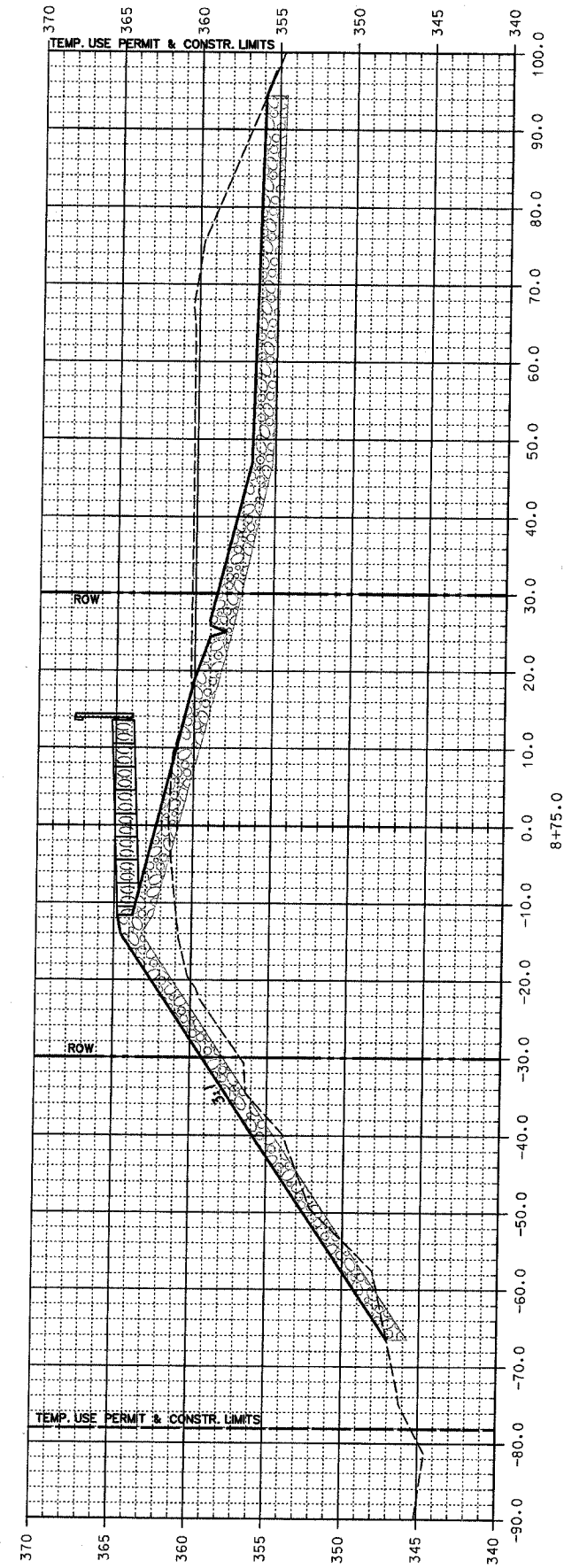
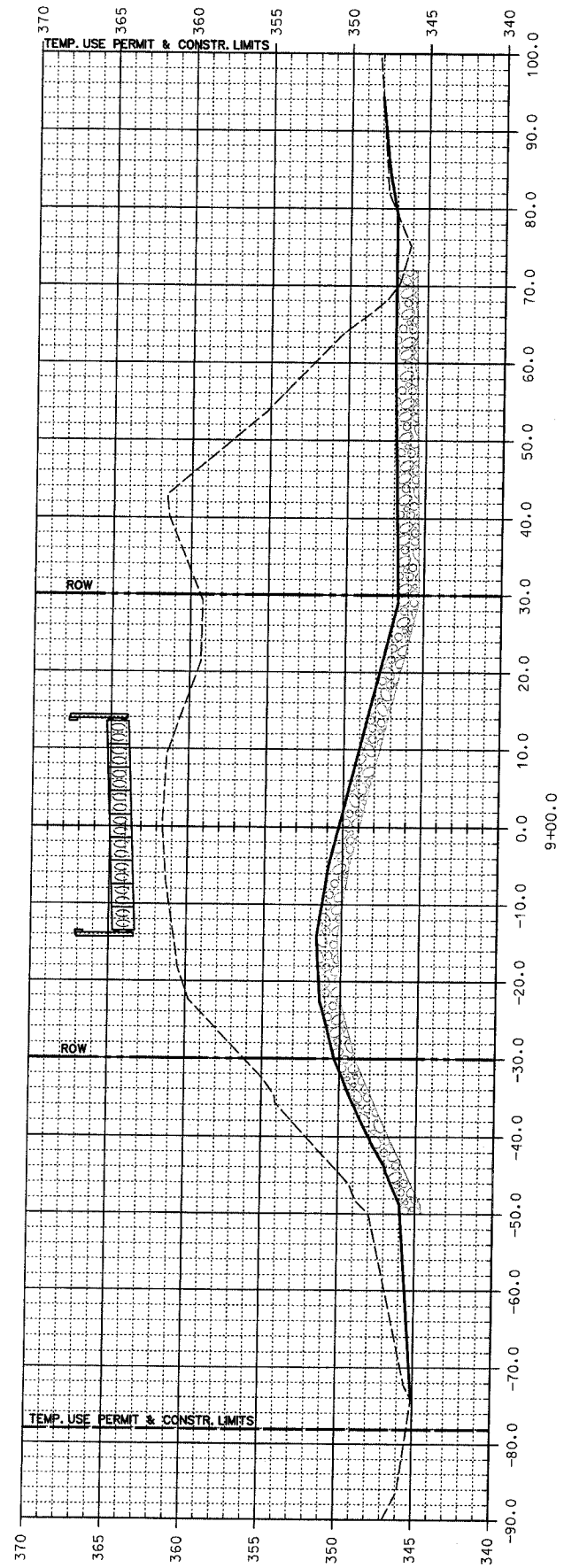


7+00.0 (PER)



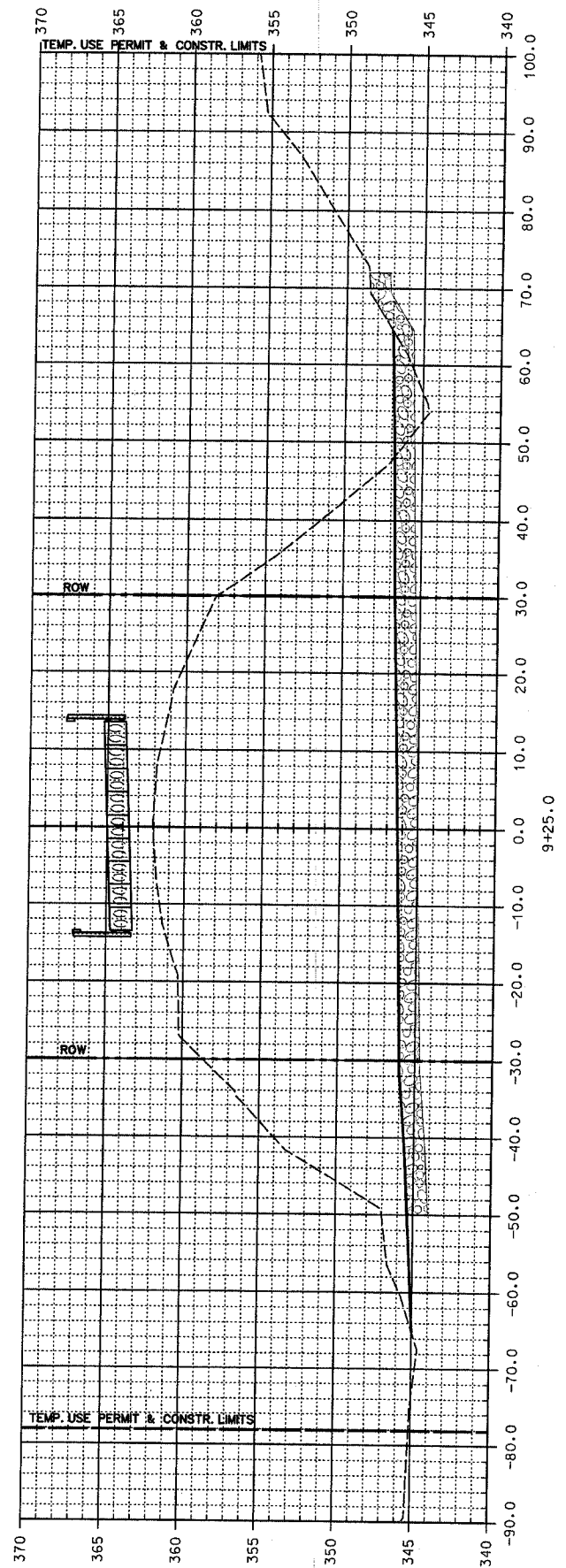
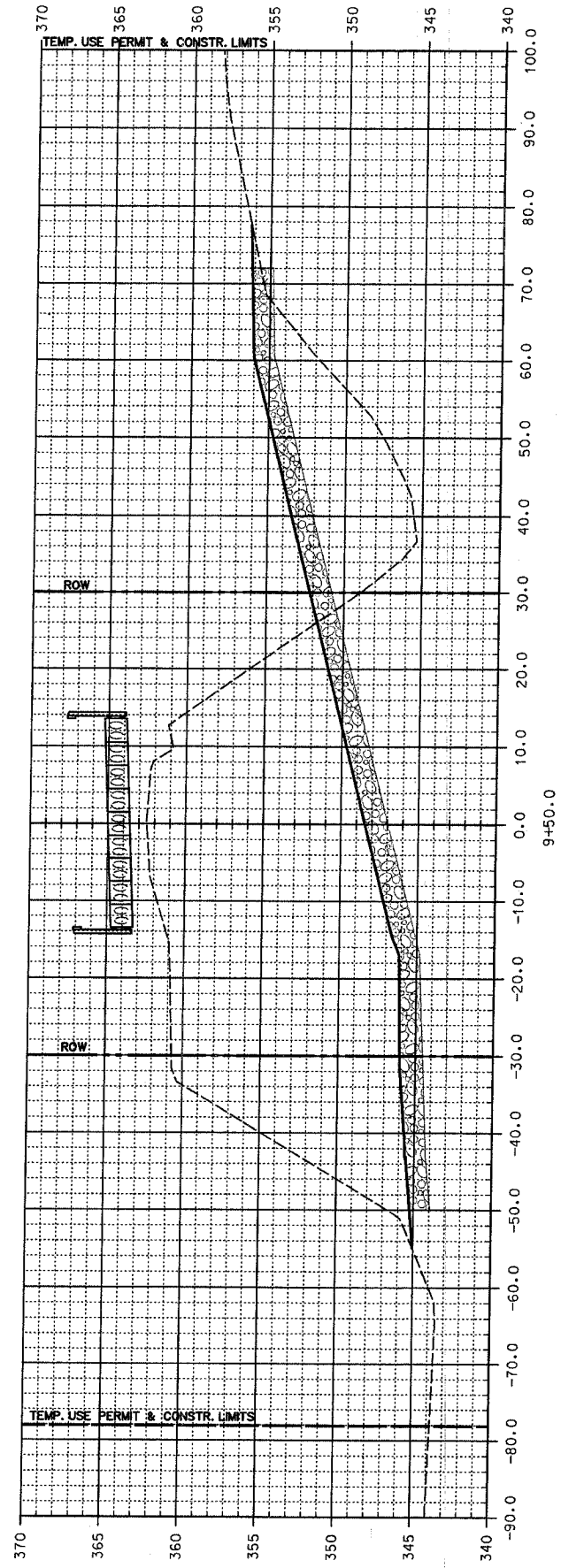
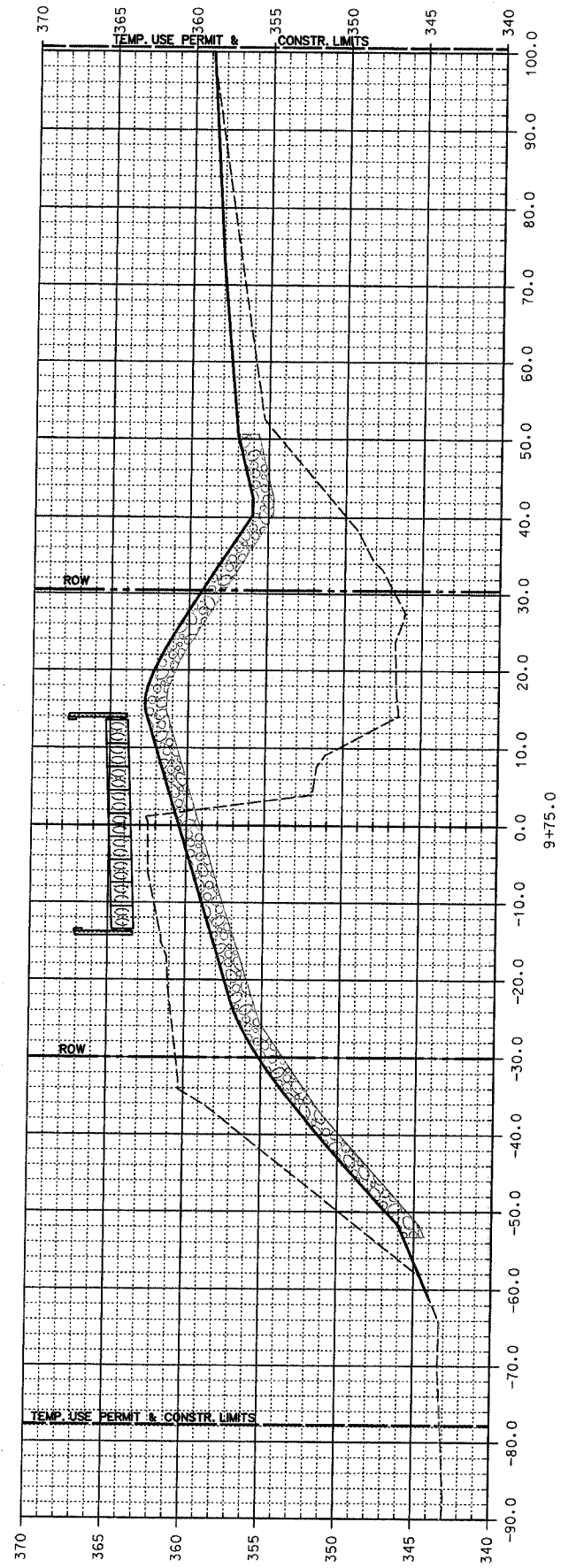
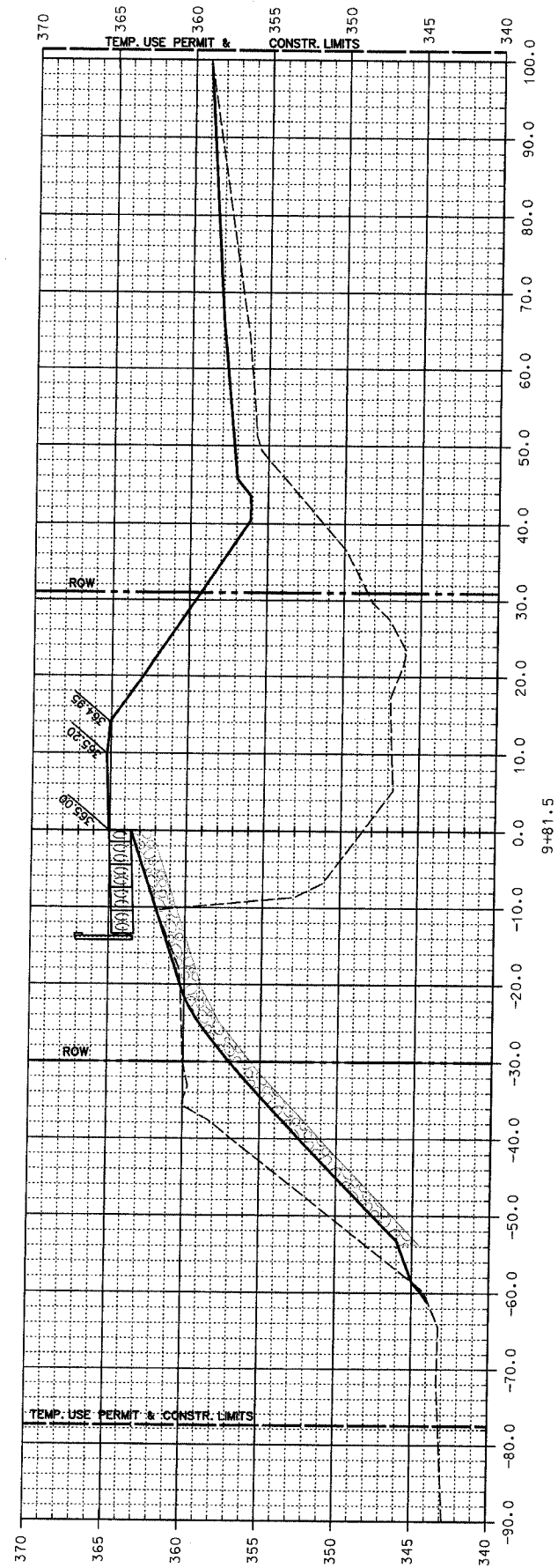
8+00.0

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	24	7A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		



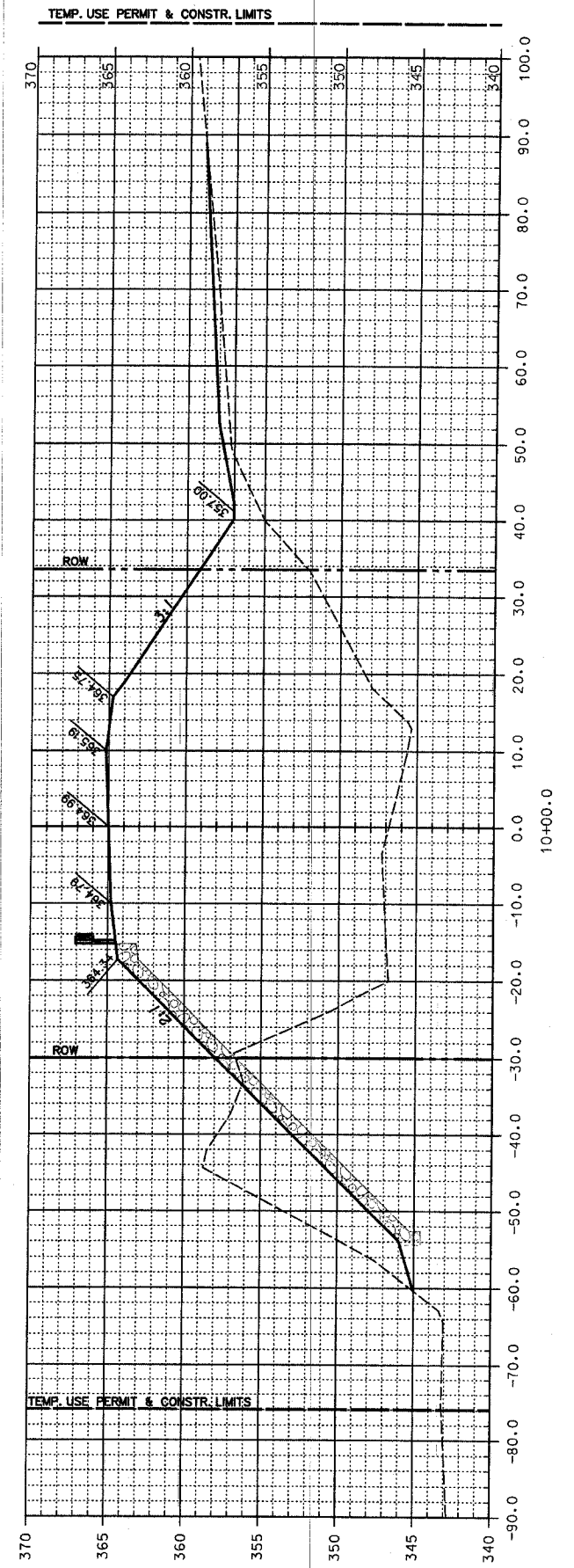
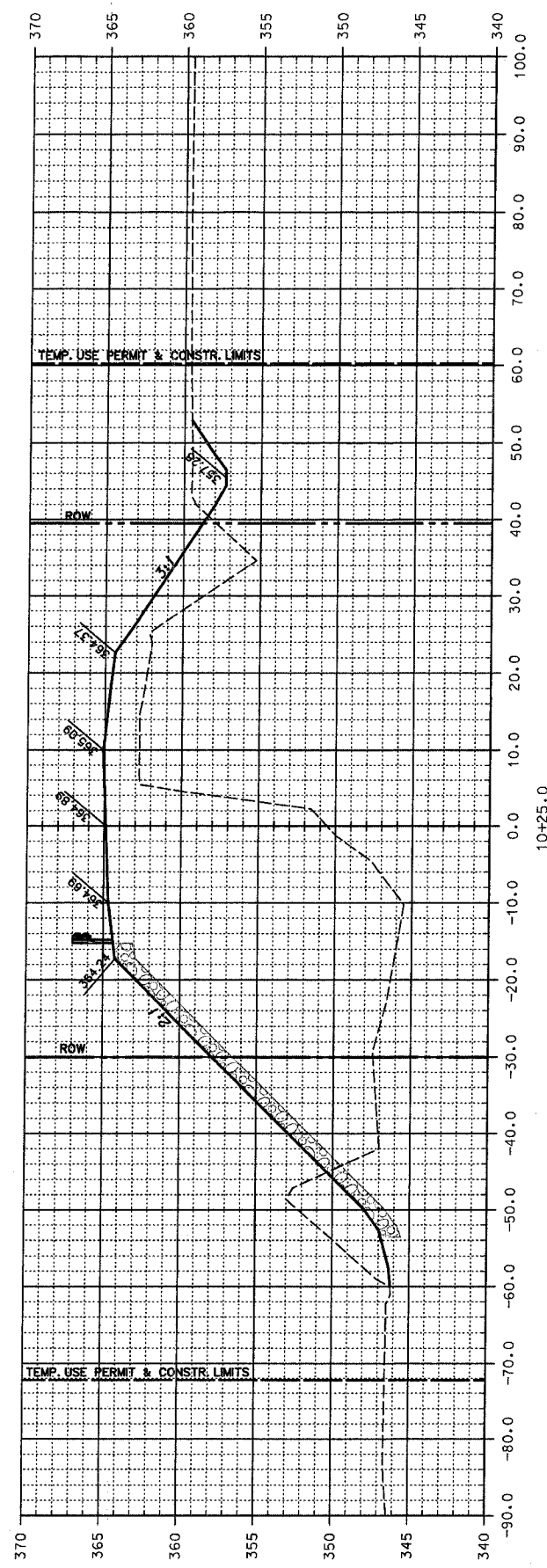
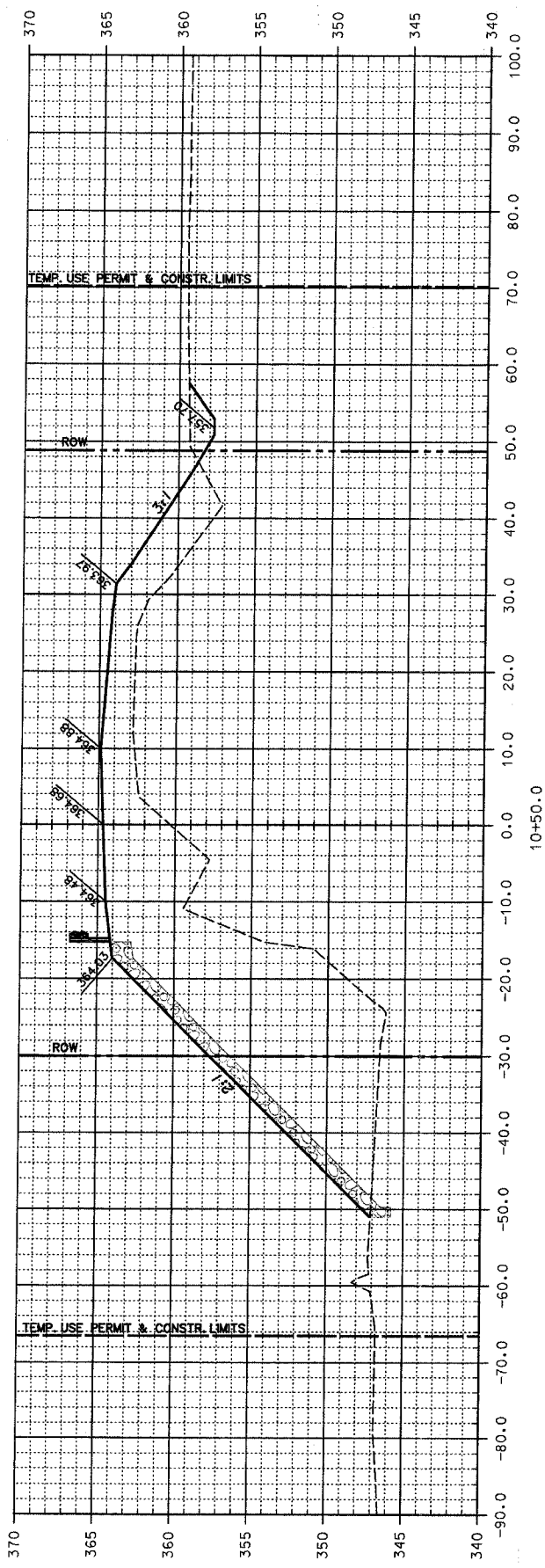
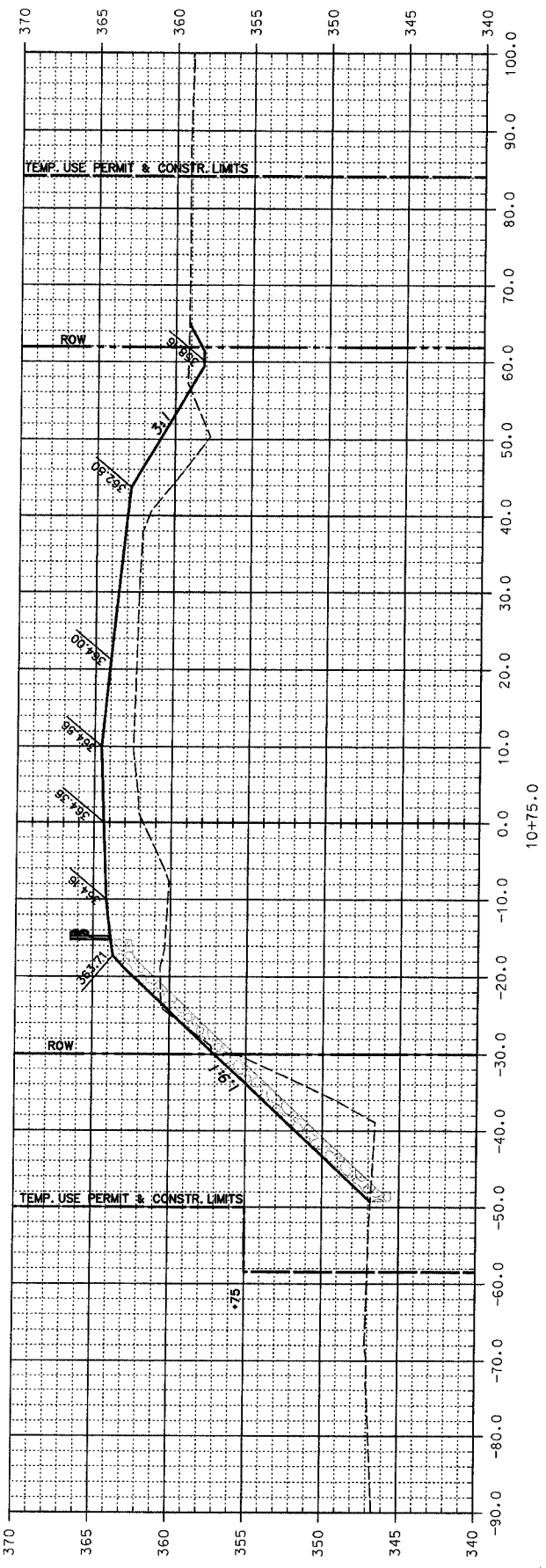
UNION COUNTY HIGHWAY DEPARTMENT
 UNION COUNTY, ILLINOIS
 MORGAN SCHOOL ROAD BRIDGE REPLACEMENT
 CROSS SECTIONS
 STA. 8+50 TO STA. 8+75

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	24	8A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		



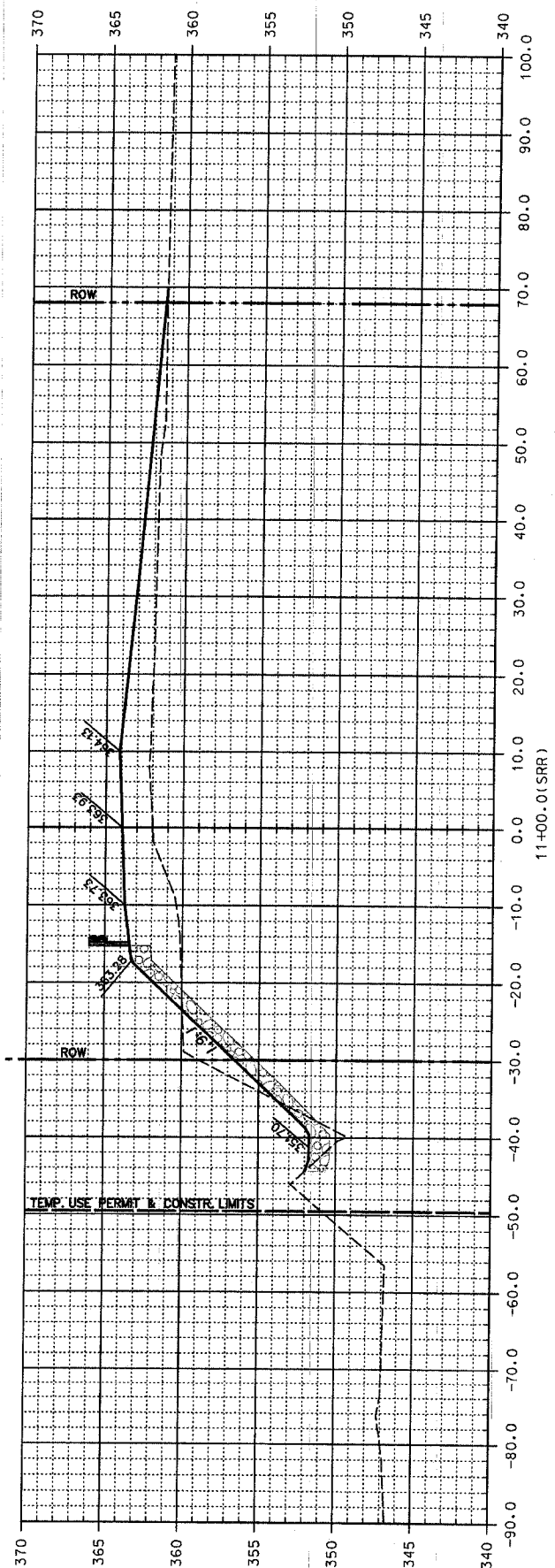
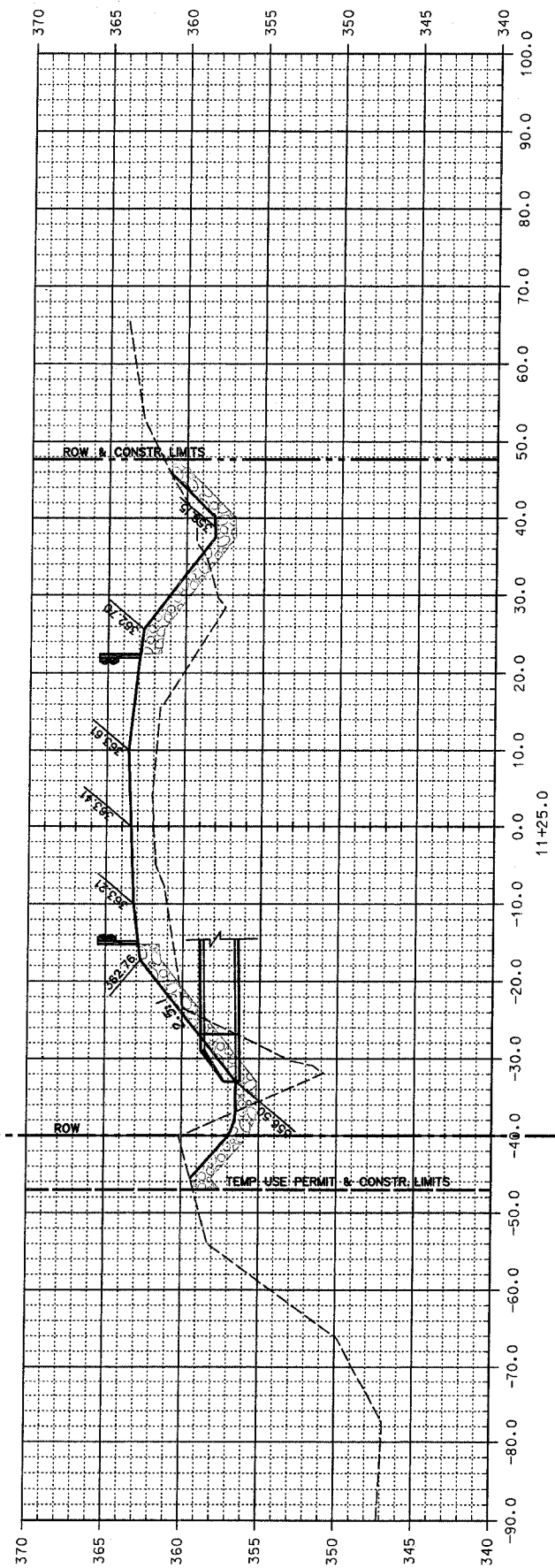
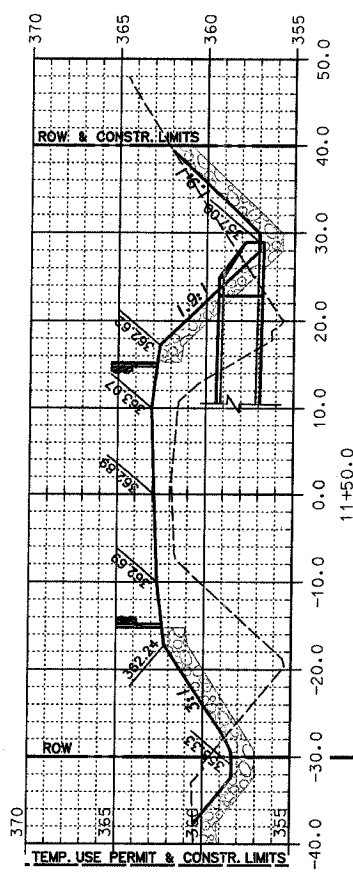
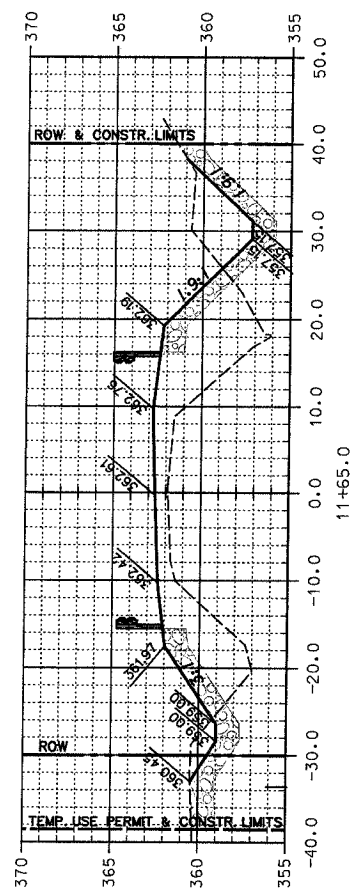
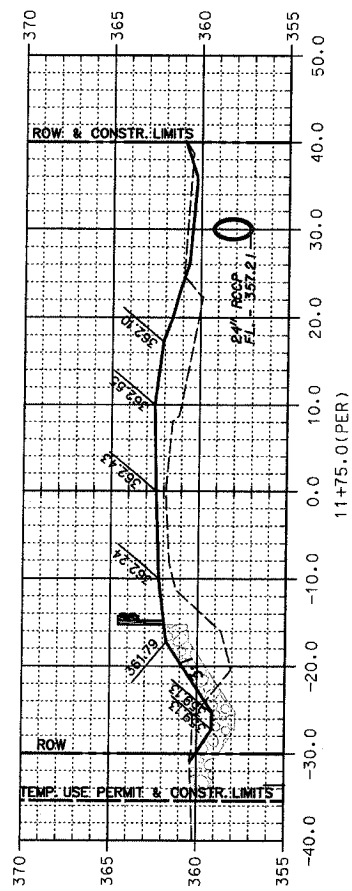
UNION COUNTY HIGHWAY DEPARTMENT
 UNION COUNTY, ILLINOIS
 MORGAN SCHOOL ROAD BRIDGE REPLACEMENT
 CROSS SECTIONS
 STA 9+00 TO STA 9+50

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	122	9A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		



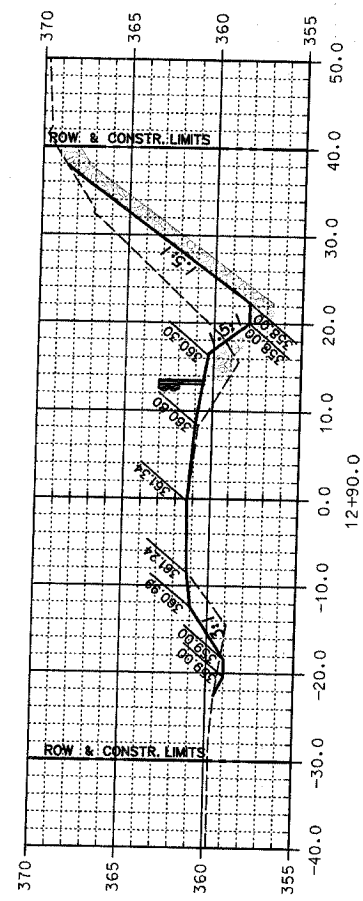
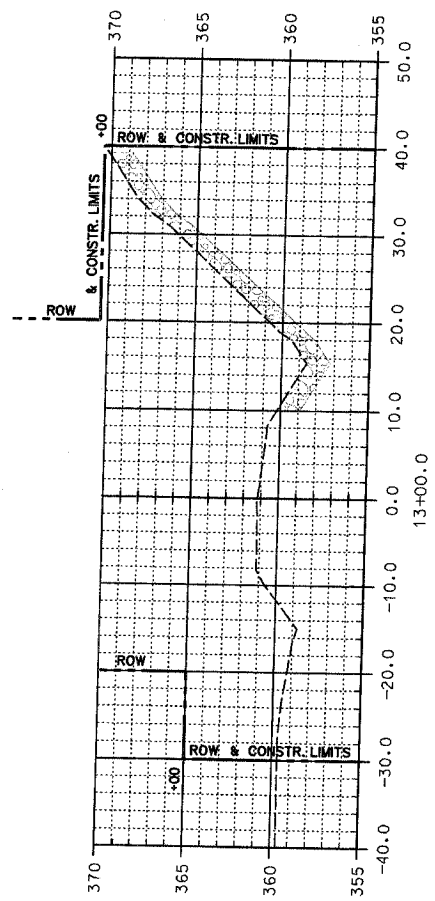
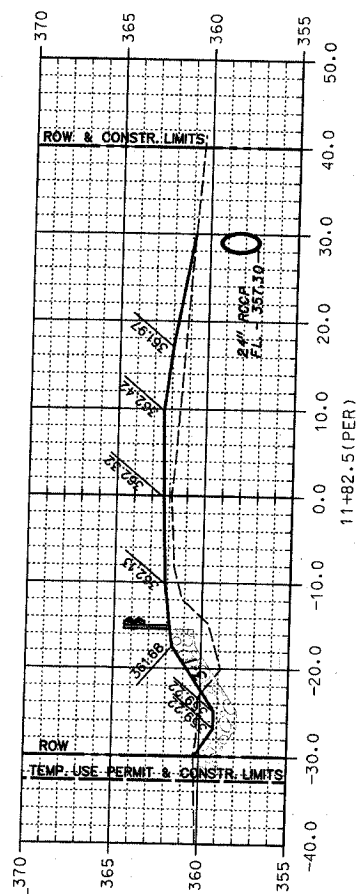
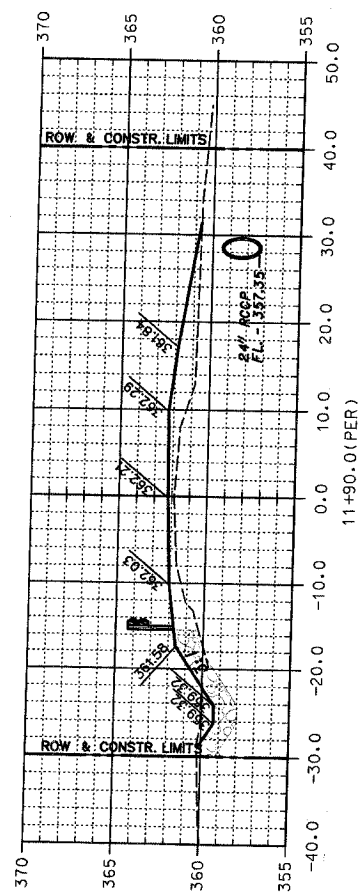
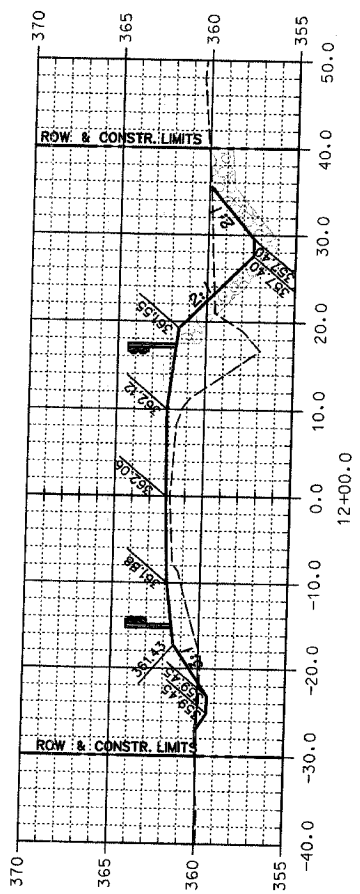
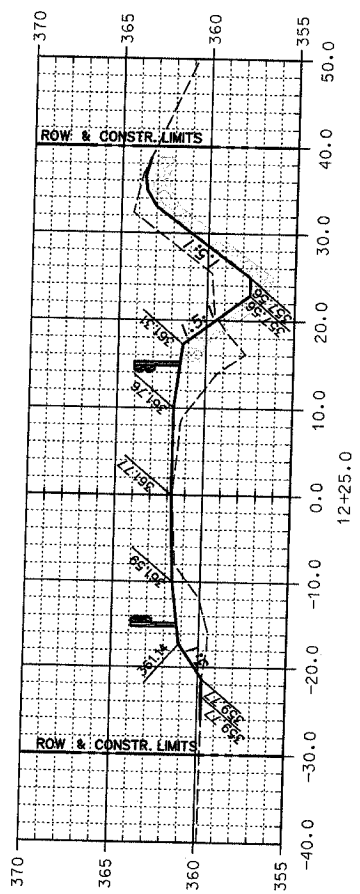
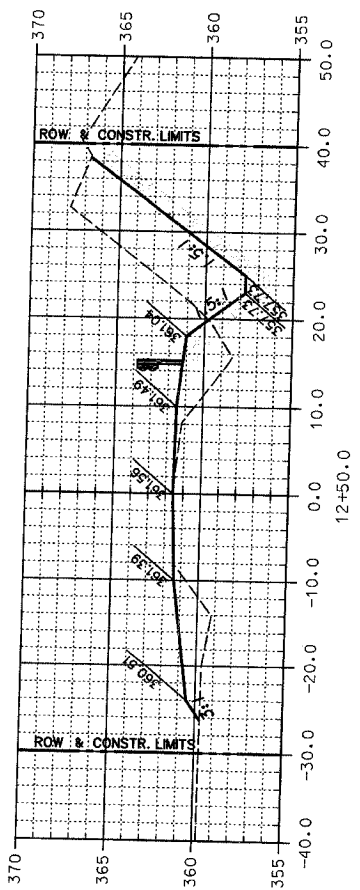
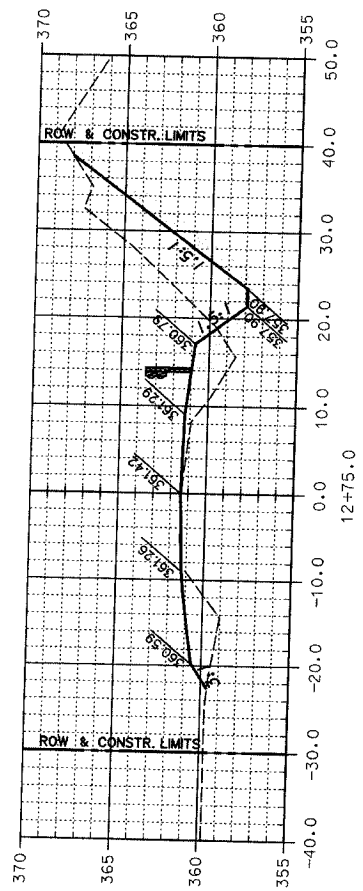
UNION COUNTY HIGHWAY DEPARTMENT
UNION COUNTY, ILLINOIS
MORGAN SCHOOL ROAD BRIDGE REPLACEMENT
CROSS SECTIONS
STA. 9+75 TO STA. 10+15

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	24	10A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		



UNION COUNTY HIGHWAY DEPARTMENT
 UNION COUNTY, ILLINOIS
 MORGAN SCHOOL ROAD BRIDGE REPLACEMENT
 CROSS SECTIONS
 STA. 10+25 TO STA. 11+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	2/2	11A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		

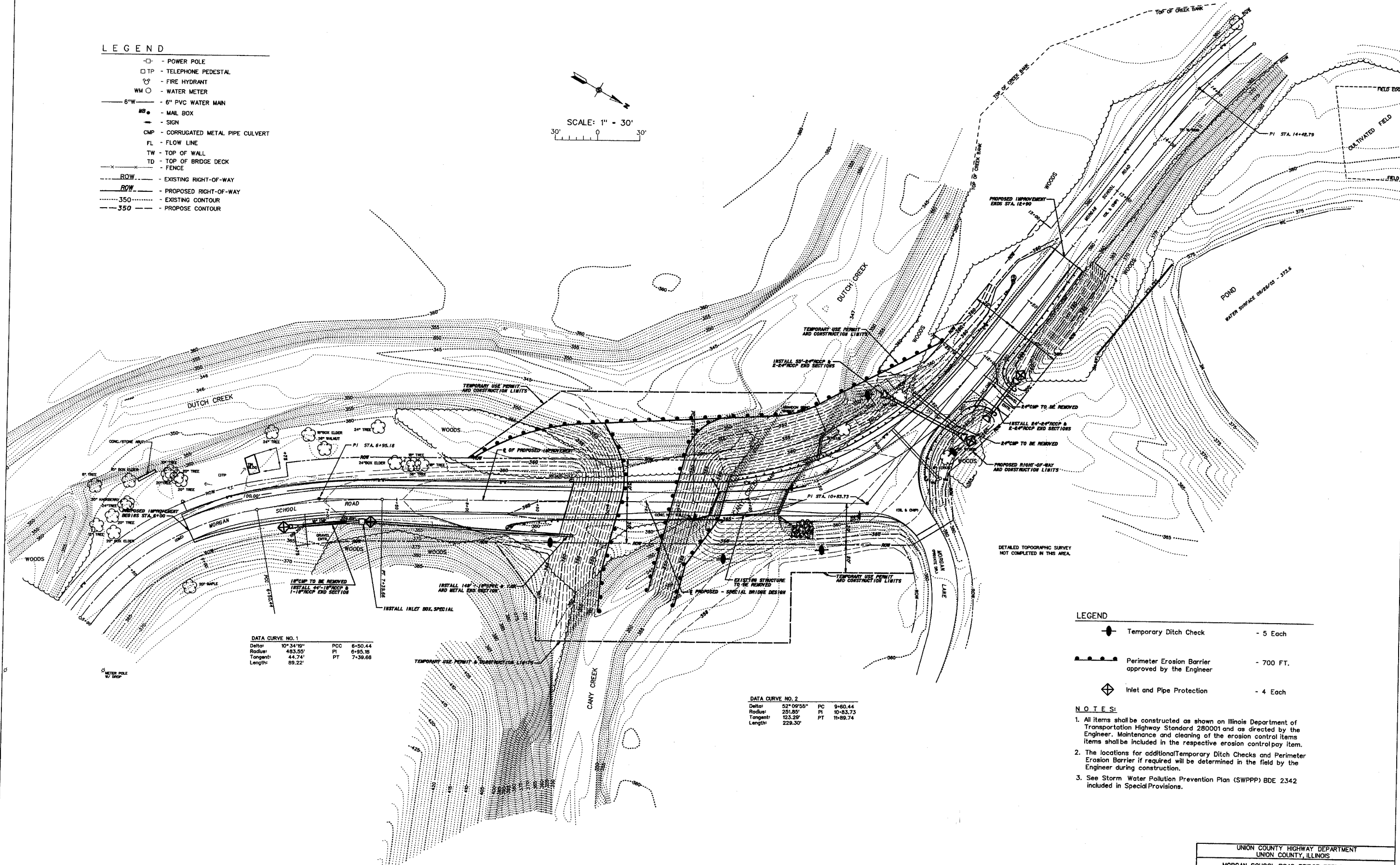
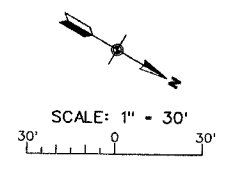


UNION COUNTY HIGHWAY DEPARTMENT
UNION COUNTY, ILLINOIS
MORGAN SCHOOL ROAD BRIDGE REPLACEMENT
CROSS SECTIONS
STA. 10+25 TO STA. 11+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	2	12A
JOB. NO. C-99-542-04		PROJECT NO. BROS-0181 (039)		
MORGAN SCHOOL ROAD		CONTRACT NO. 99214		

LEGEND

□	- POWER POLE
□ TP	- TELEPHONE PEDESTAL
⊕	- FIRE HYDRANT
WM ○	- WATER METER
— 6" W	- 6" PVC WATER MAIN
MB	- MAIL BOX
—	- SIGN
CMP	- CORRUGATED METAL PIPE CULVERT
FL	- FLOW LINE
TW	- TOP OF WALL
TD	- TOP OF BRIDGE DECK
—	- FENCE
---	- EXISTING RIGHT-OF-WAY
---	- PROPOSED RIGHT-OF-WAY
---	- EXISTING CONTOUR
---	- PROPOSED CONTOUR



DATA CURVE NO. 1

Delta:	10° 34' 19"	PCC	6+50.44
Radius:	483.55'	PI	6+95.18
Tangent:	44.74'	PT	7+39.66
Length:	89.22'		

DATA CURVE NO. 2

Delta:	52° 09' 55"	PC	9+60.44
Radius:	251.85'	PI	10+83.73
Tangent:	123.29'	PT	11+89.74
Length:	229.30'		

LEGEND

⊕	Temporary Ditch Check	- 5 Each
—	Perimeter Erosion Barrier approved by the Engineer	- 700 FT.
⊕	Inlet and Pipe Protection	- 4 Each

- NOTES:**
- All items shall be constructed as shown on Illinois Department of Transportation Highway Standard 280001 and as directed by the Engineer. Maintenance and cleaning of the erosion control items shall be included in the respective erosion control pay item.
 - The locations for additional Temporary Ditch Checks and Perimeter Erosion Barrier if required will be determined in the field by the Engineer during construction.
 - See Storm Water Pollution Prevention Plan (SWPPP) BDE 2342 included in Special Provisions.

UNION COUNTY HIGHWAY DEPARTMENT
UNION COUNTY, ILLINOIS
MORGAN SCHOOL ROAD BRIDGE REPLACEMENT
STORM WATER POLLUTION PREVENTION PLAN

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
TR-131	03-01176-00-BR	UNION	22	13A
MORGAN SCHOOL ROAD			PROJECT NO. BROS-0181 (039)	
			CONTRACT NO. 99214	

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials
Soil Log
Sheet 1 of 2

TR 131 (Morgan School Road) Over Cany Creek
Structure Number: 091-3075
Date: 8/4/98
Sored By: RM
Checked By: JZ

Location: SE 1/4, Section 20, T12S, R2W
County: Union

Boring No. 1-S
Station 14' N of N Abutment
Offset: 2' E CL
Ground Surface: 100.3 FT

DEPTH (ft)	D	B	L	O	W	Qu	W%	DESCRIPTION	DEPTH (ft)	D	B	L	O	W	Qu	W%
0.0								Multi A-1 & Crushed Aggregate	0.0							
5.5								Medium, very moist, grey, Silty Clay A-6	5.5							
9.2								Medium to soft, very moist, grey, Silty Clay Loam A-4	9.2							
10.0								Stiff, moist, grey, Silty Clay to Clay A-6	10.0							
13.3								Medium, moist, grey, Gravel	13.3							
15.0								Stiff, moist, grey, Clay A7-6	15.0							
18.3								Stiff, moist, grey, Silty Clay to Silty Clay Loam A-6	18.3							
20.0								Very stiff, moist, grey, Clay to Silty Clay A7-6	20.0							
21.8								Medium, moist, grey, Gravel with some Clay binder	21.8							
25.0								Medium, very moist, grey, Silty Clay Loam A-4	25.0							

Sheet 2 of 2
Date: 8/4/98

Route: TR 131
Section:
County: Union

Boring No. 1-S
Station 14' N of N Abutment
Offset: 2' E CL
Ground Surface: 100.3 FT

DEPTH (ft)	D	B	L	O	W	Qu	W%	DESCRIPTION	DEPTH (ft)	D	B	L	O	W	Qu	W%
11								Bottom of hole = 71.0 feet	11							
18								Free water observed at 18.0 feet	18							
55.0								Elevation referenced to center of existing structure. Assumed elevation = 100.0 feet	55.0							
59								To convert "N" values to "N60" values multiply by 1.25	59							
60.0									60.0							
65.0									65.0							
70.0									70.0							
75.0									75.0							

N-Std Penr Test: 2" OD Sampler.
140# Hammer, 30" Fall (Type Fall, B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials
Soil Log
Sheet 1 of 2

TR 131 (Morgan School Road) Over Cany Creek
Structure Number: 091-3075
Date: 8/4/98
Sored By: RM
Checked By: JZ

Location: SE 1/4, Section 20, T12S, R2W
County: Union

Boring No. 2-S
Station 18' S of S Abutment
Offset: 1' W CL
Ground Surface: 100.0 FT

DEPTH (ft)	D	B	L	O	W	Qu	W%	DESCRIPTION	DEPTH (ft)	D	B	L	O	W	Qu	W%
0.0								Multi A-1 & Crushed Aggregate	0.0							
5.0								Medium to loose, moist, brown, Broken Gravel with clay binder	5.0							
10.0								Medium, moist, brown, Silty Loam A-4	10.0							
15.0								Medium, moist, brown, Silty Loam A-4	15.0							
20.0								Soft, very moist, brown, Silty Loam A-4	20.0							
25.0								Soft, very moist, grey, Silty Clay Loam A-4	25.0							
30.0								Soft, very moist, grey, Silty Clay Loam A-4	30.0							
35.0								Medium, very moist, grey, mottled brown, Silty Clay Loam A-4 with rotten vegetation	35.0							
40.0								Loose to very loose, very moist, grey, Gravel with some Sand and Clay binder	40.0							
45.0								Medium, very moist, grey, Clay to Silty Clay A7-6	45.0							
50.0									50.0							

Sheet 2 of 2
Date: 8/4/98

Route: TR 131
Section:
County: Union

Boring No. 2-S
Station 18' S of S Abutment
Offset: 1' W CL
Ground Surface: 100.0 FT

DEPTH (ft)	D	B	L	O	W	Qu	W%	DESCRIPTION	DEPTH (ft)	D	B	L	O	W	Qu	W%
7									7							
14									14							
45.5								Medium, moist, grey, Gravel	45.5							
55.0								Dense to very dense, damp, white, Chert Gravel	55.0							
60.0									60.0							
61.0								Bottom of hole = 61.0 feet	61.0							
65.0								Free water observed at 18.0 feet	65.0							
70.0								Elevation referenced to center of existing structure. Assumed elevation = 100.0 feet	70.0							
75.0								To convert "N" values to "N60" values multiply by 1.25	75.0							

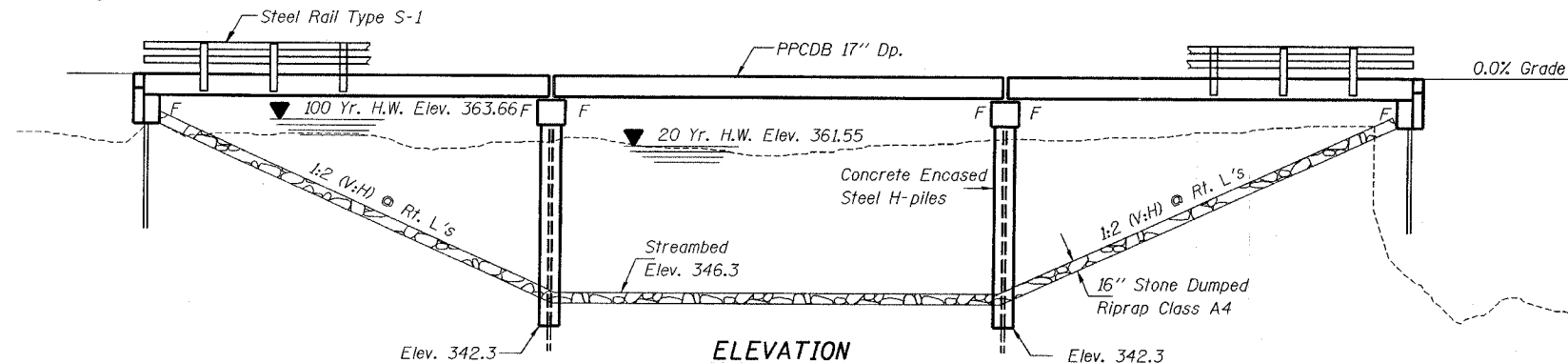
N-Std Penr Test: 2" OD Sampler.
140# Hammer, 30" Fall (Type Fall, B-Bulge S-Shear E-Estimated P-Penetrometer)

B.M. - #1-2-60d Nails set in North side power pole on South side Morgan School Road, +600' South of intersection Morgan School Road and Morgan Lane (Elev. 361.43)

Existing Structure- S.N. 091-3075 was built in 1900 as a single span steel multi-beam bridge. The structure is 38'-8" back to back abutments and 17'-6" out-to-out. The substructure is timber pile bents. The superstructure is a timber deck with 12" steel beams. The existing structure is being replaced by a 3 simple span structure, S.N. 091-3221 on pile bent abutments and piers. Salvage-NONE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
		UNION	24	1A
FED. ROAD DIST. NO. 7				ILLINOIS
Contract No. 99214				9 SHEETS

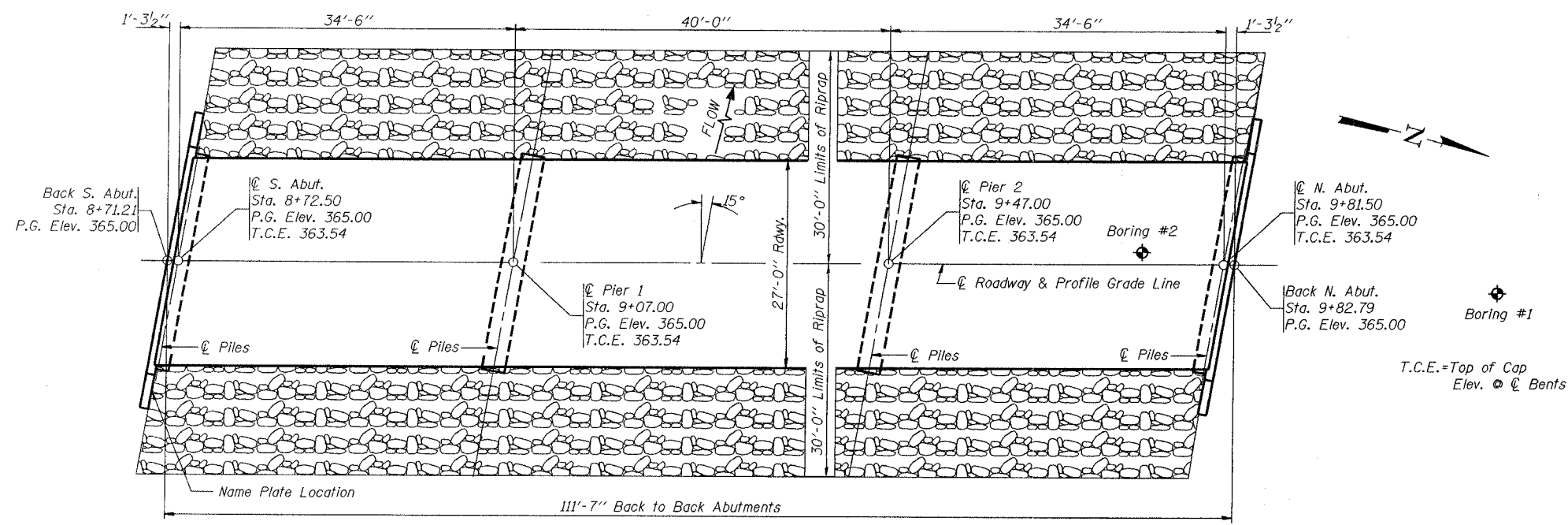


GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60, (II. Modified). See Special Provisions.
The Contractor shall drive two steel HP12 x 53 test piles in permanent locations, one each at Pier 1 and the North abutment, as directed by the Engineer before ordering the remaining piles.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
A corrosion inhibitor, in accordance with Article 1021.06 of the Standards Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yd.		19.0	20.2	39.2
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2970			2970
Steel Railing, Type S-1	Foot	220			220
Stone Dumped Riprap, Class A4	Ton			1600	1600
Reinforcement Bars	Pound		2020	2680	4700
Furnishing Steel Piles HP 12x53	Foot		520	540	1060
Driving Piles	Foot		520	540	1060
Test Pile Steel HP 12x53	Each		1	1	2
Name Plates	Each			1	1
Concrete Encasement	Cu. Yd.		20.7	3.4	24.1
Underwater Structure	Each				
Excavation Protection - Location 1	Each		1		1
Underwater Structure	Each				
Excavation Protection - Location 2	Each		1		1



DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = .15g
Site Coefficient (S) = 1.0

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($1/2"$ low-relaxation strands)
 $f_{si} = 201,960$ psi ($1/2"$ low-relaxation strands)

DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

APRIL - 3 2007
EXAMINED
PASSED
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

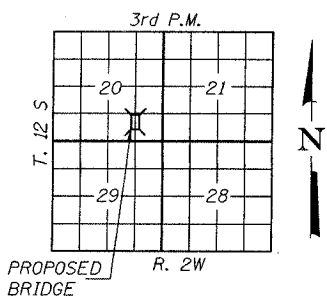


EXPIRES 11-30-2008

STATION 9+27
CANY CREEK
SEC. 03-01176-00-BR BUILT 2007
UNION COUNTY
LOADING HS20
STR. NO. 091-3221

LETTERING FOR NAME PLATE

Locate Name Plate at the Southeast Wingwall (See sheet 9 of 9)



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 6.89 sq. mi. Low Grade Elev. = 361.50 @ Sta. 12+60

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	3070	564	860	361.55				
Base	100	4540	564	882	363.66	0.66	0.23		
Overtopping									
Max. Calc.	500								

INDEX OF SHEETS

1. General Plan & Elevation
2. Superstructure Span 1 & 3
3. Superstructure Span 2
4. Steel Railing, Type S-1
5. South Abutment
6. North Abutment
7. Piers 1 & 2
8. Base Sht. for Steel H-Piles
9. Name Plate

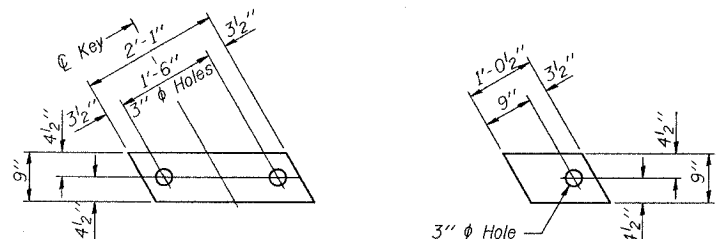
GENERAL PLAN AND ELEVATION

STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		UNION	22	15
FED. ROAD DIST. NO. 7		ILLINOIS	Contract No. 992J4	
* 03-01176-00-BR				

SHEET NO. 2
9 SHEETS

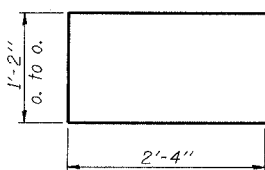


FABRIC BEARING PAD
(Interior)

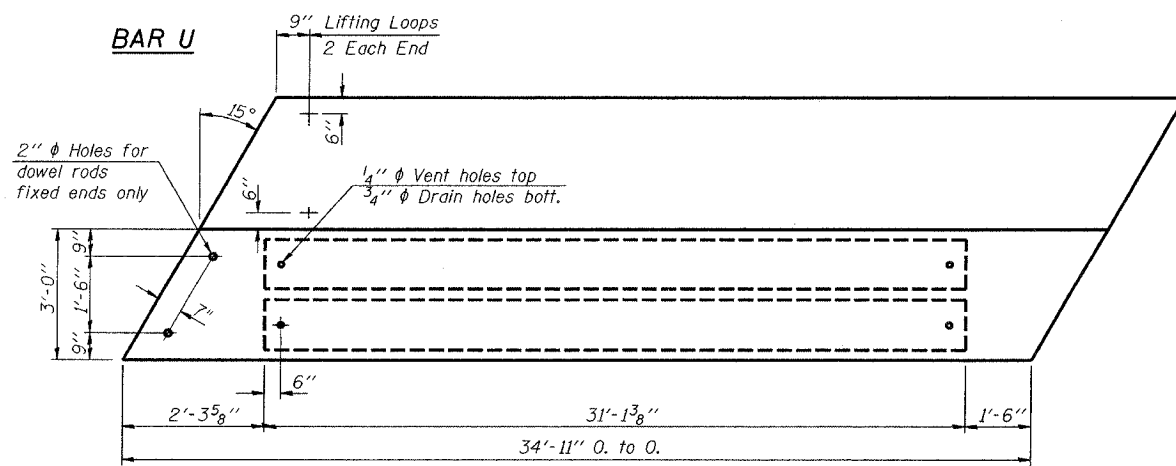
FABRIC BEARING PAD
(Exterior)

FIXED

MIN. BAR LAP
#5 bars = 1'-8"

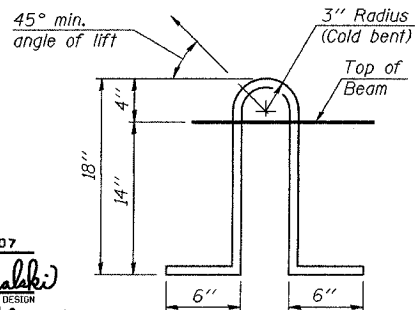


BAR U

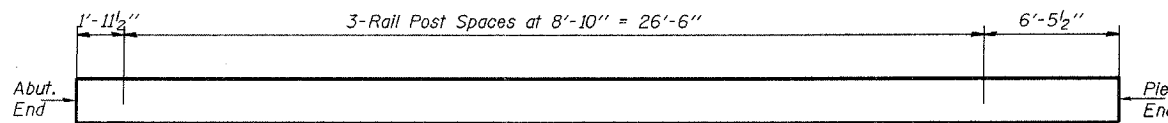


END PLAN

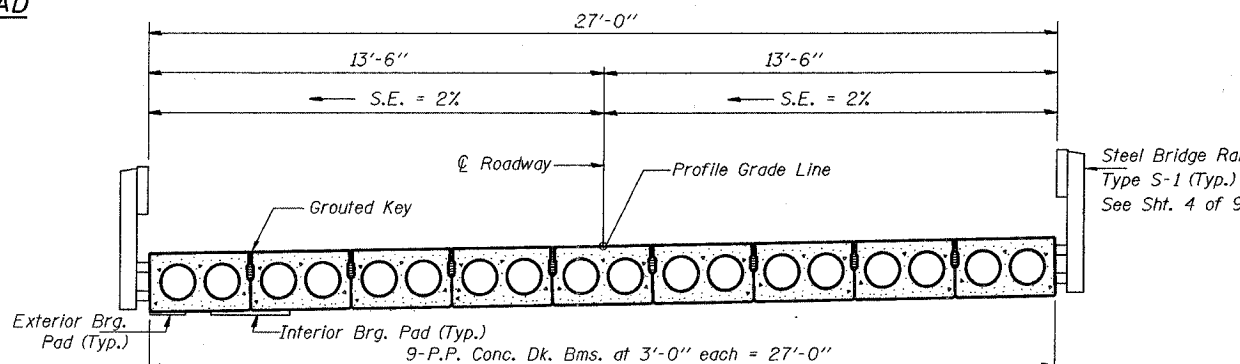
PLAN



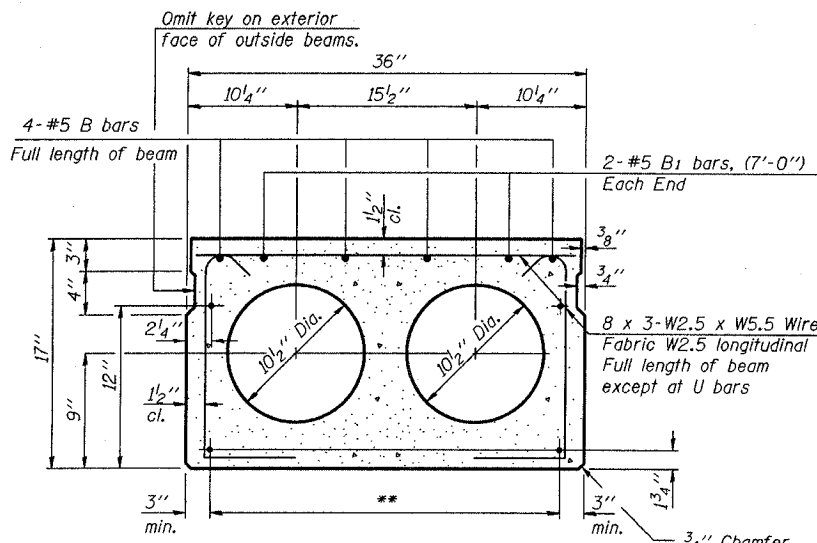
LIFTING LOOP DETAIL



RAIL POST SPACING



CROSS SECTION
(Looking North)



TYPICAL SECTION

** TRANSVERSE STRAND PLACEMENT GUIDELINES

1. Place strands symmetrically about centerline of beam.
2. The minimum distance from center to center of strands in all directions shall be 2".
3. The minimum clearance from strand to dowel hole shall be 1/2".
4. The minimum clearance from strand to void shall be 1/2".

Vertical placement of strands shall not be adjusted to satisfy the above guidelines.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2 - 1/2" φ - 270 ksi strands, as shown. 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. Nominal 1" joint at pier shall be filled with non-shrink grout. 1" dim. may vary to accommodate tolerance in beam lengths. Longitudinal keys shall be grouted. Reinforcement bars shall conform to the requirements of ASTM 706 Gr. 60 (II, Modified). See Special Provisions. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'ci, shall be 4000 p.s.i. A corrosion inhibitor, in accordance with Article 1021.06 of the Standards Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

BILL OF MATERIAL

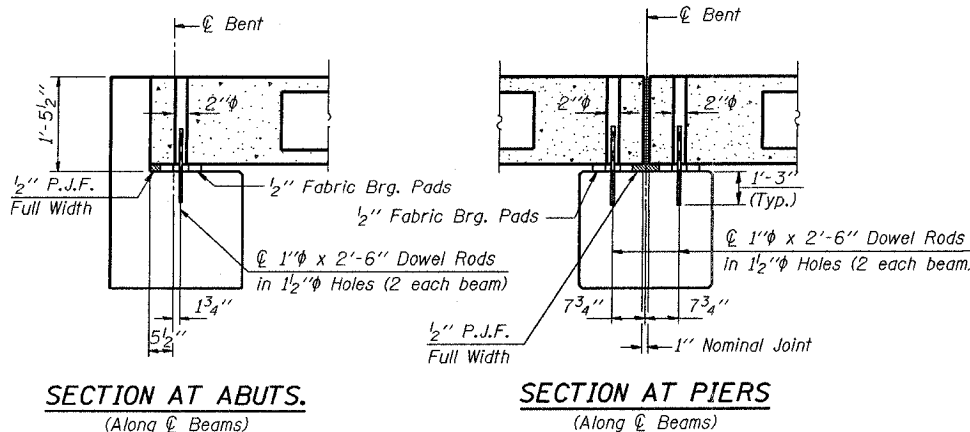
Item	Length	Quantity
Precast Prestressed Conc. Deck Bms.	Sq. Ft.	1890

Estimated Total Weight (One Beam) = 17180 Lbs.

SPAN 1 & 3
SUPERSTRUCTURE DETAILS
STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

APRIL - 3 2007
EXAMINED *Thomas J. Domagalak*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES



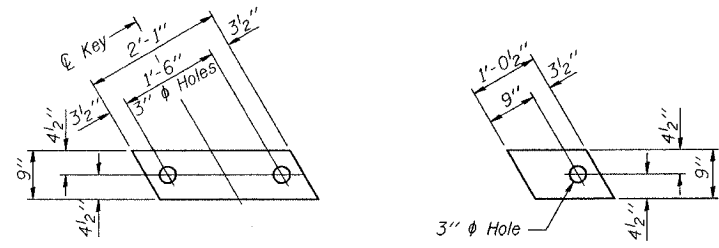
SECTION AT ABUTS.
(Along Centerline of Beams)

SECTION AT PIERS
(Along Centerline of Beams)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	#	UNION	22	16
FED. ROAD DIST. NO. 7		ILLINOIS	Contract No. 99214	
* 03-01176-00-BR				

SHEET NO. 3
9 SHEETS

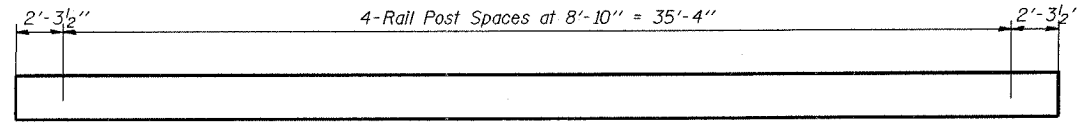


FABRIC BEARING PAD
(Interior)

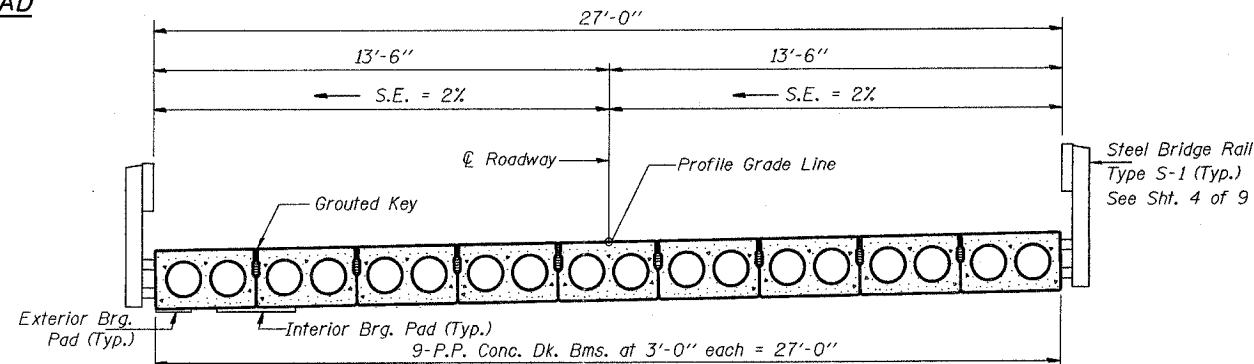
FABRIC BEARING PAD
(Exterior)

FIXED

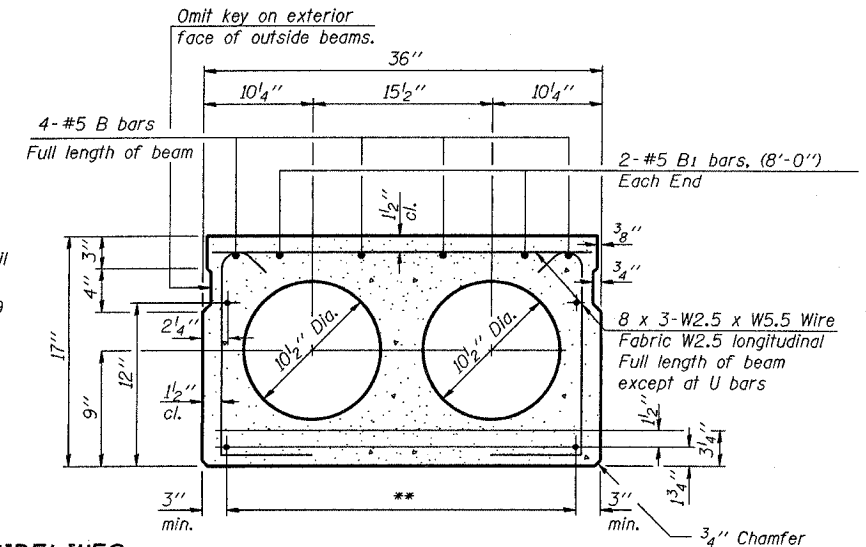
MIN. BAR LAP
#5 bars = 1'-8"



RAIL POST SPACING



CROSS SECTION
(Looking North)



TYPICAL SECTION

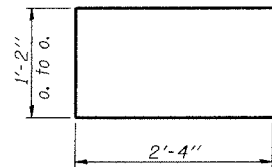
** TRANSVERSE STRAND PLACEMENT GUIDELINES

1. Place strands symmetrically about centerline of beam.
2. The minimum distance from center to center of strands in all directions shall be 2".
3. The minimum clearance from strand to dowel hole shall be 1/2".
4. The minimum clearance from strand to void shall be 1/2".

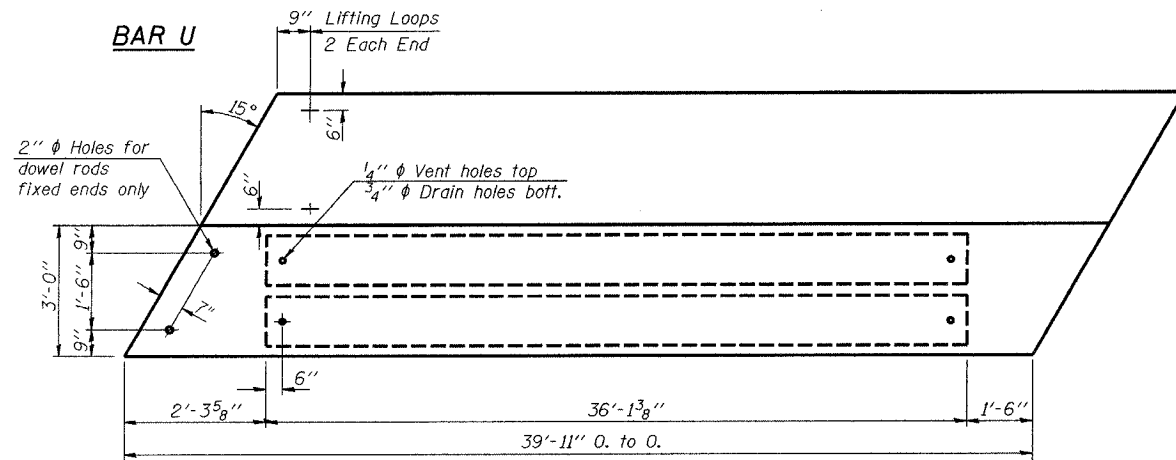
Vertical placement of strands shall not be adjusted to satisfy the above guidelines.

NOTES

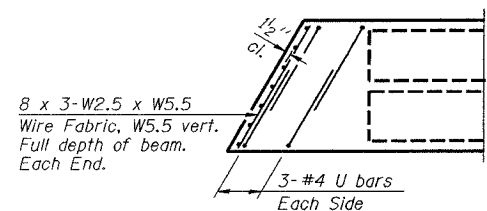
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2 - 1/2" φ - 270 ksi strands, as shown. After beams have been erected, holes shall be drilled 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. Nominal 1" joint at center pier shall be filled with non-shrink grout. 1" dim. may vary to accommodate tolerance in beam lengths. Longitudinal keys shall be grouted. Reinforcement bars shall conform to the requirements of ASTM 706 Gr. 60 (II, Modified). See Special Provisions. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'ci, shall be 4000 p.s.i. A corrosion inhibitor, in accordance with Article 1021.06 of the Standards Specifications, shall be used in the concrete for precast prestressed concrete deck beams.



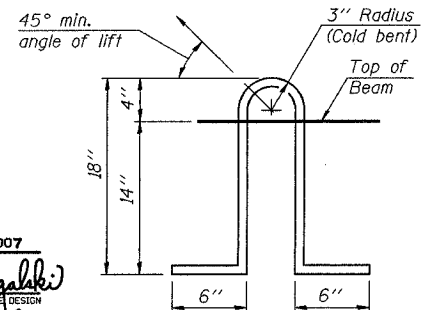
BAR U



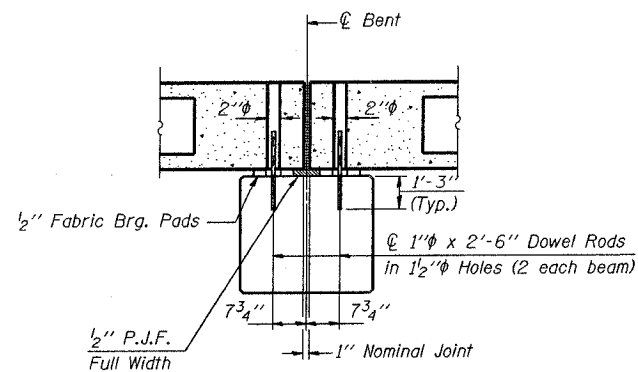
PLAN



END PLAN



LIFTING LOOP DETAIL



SECTION AT PIERS
(Along centerline of Beams)

BILL OF MATERIAL

Item	Length	Quantity
Precast Prestressed Conc. Deck Bms.	Sq. Ft.	1080

Estimated Total Weight (One Beam) = 19530 Lbs.

SPAN 2
SUPERSTRUCTURE DETAILS
STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

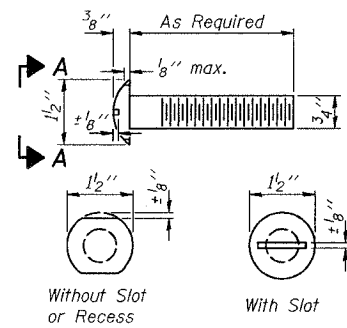
DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

APRIL - 3 2007
EXAMINED *Thomas J. Demagalaki*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

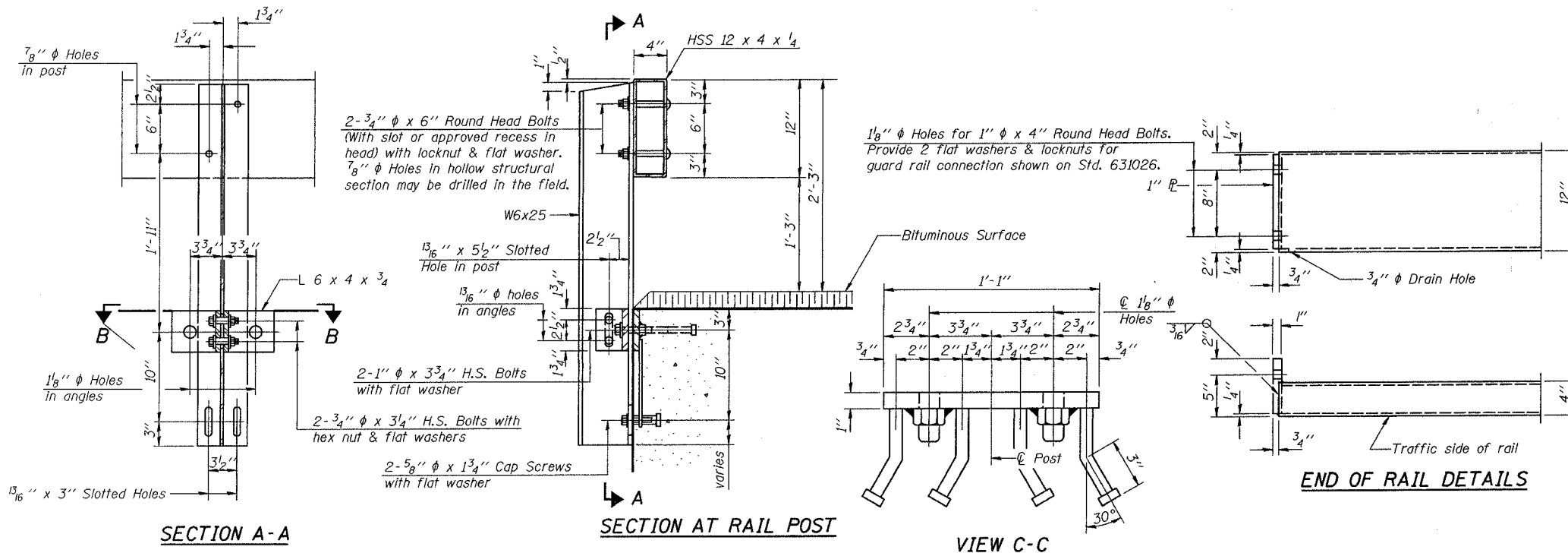
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		UNION	22	17
ILLINOIS Contract No. 99214				
* 03-01176-00-BR				

SHEET NO. 4
9 SHEETS



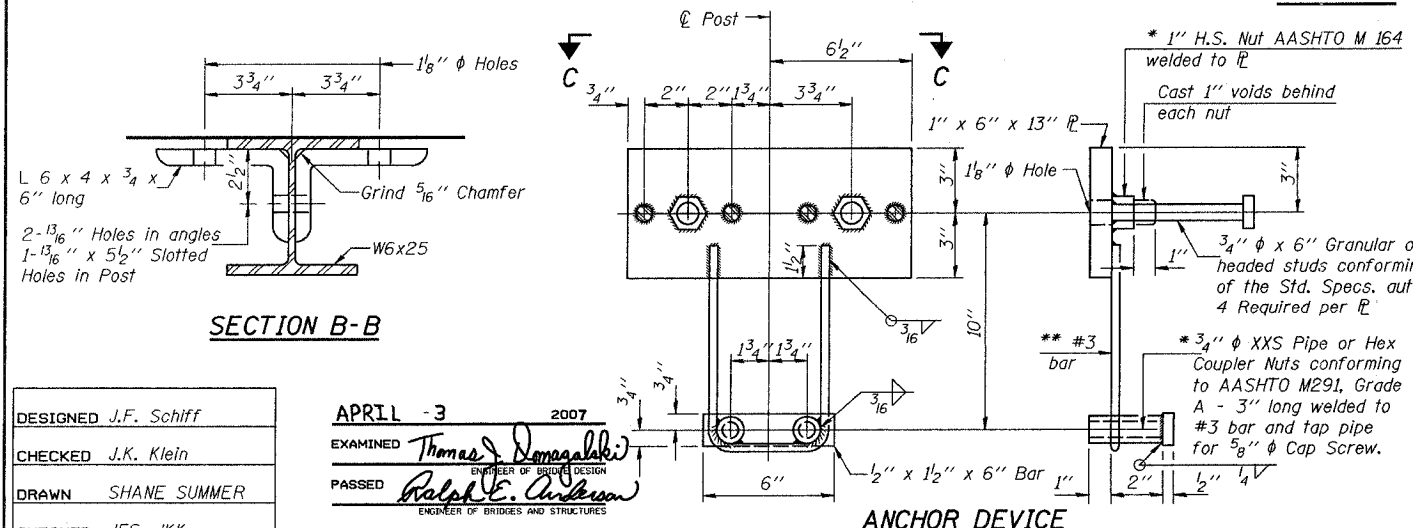
VIEW A-A
ROUND HEAD BOLT



NOTES

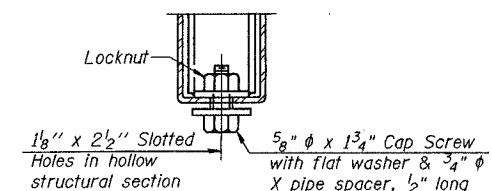
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.
Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.
All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL RAILING, TYPE S-1.
All field drilled holes shall be coated with an approved zinc rich paint before erection.
The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8 inch fabric bearing pad between the post and concrete.
The 3/4 inch diameter high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1 inch diameter high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8 inch diameter cap screws in bottom of posts shall be tightened to a snug fit only.
For multi-span bridges, sufficient 1/4 inch x 6 inch x 1-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with STEEL RAILING, TYPE S-1.

END OF RAIL DETAILS

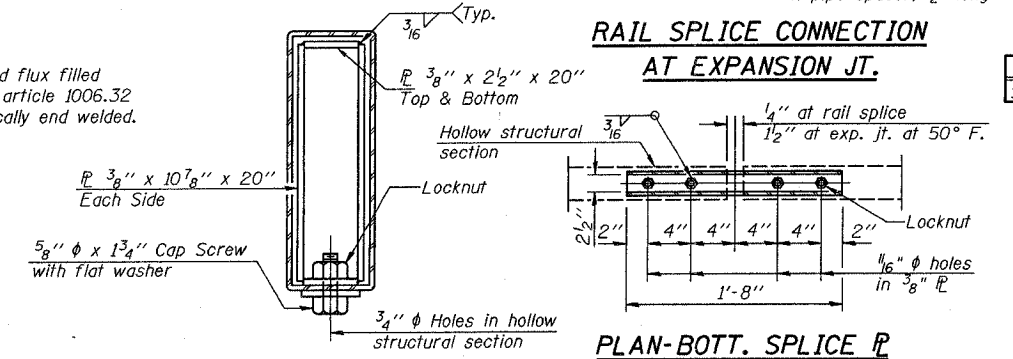


ANCHOR DEVICE

** 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 inch.



RAIL SPLICE CONNECTION
AT EXPANSION JT.



SECTIONS AT RAIL SPLICE

PLAN-BOTT. SPLICE TYPICAL

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	220

STEEL RAILING
STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

APRIL -3 2007
EXAMINED *Thomas J. Demagallaki*
PASSED *Ralph E. Anderson*

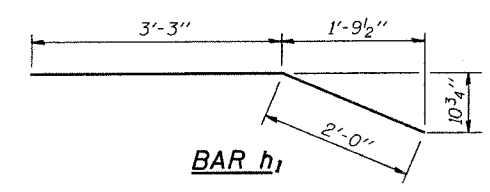
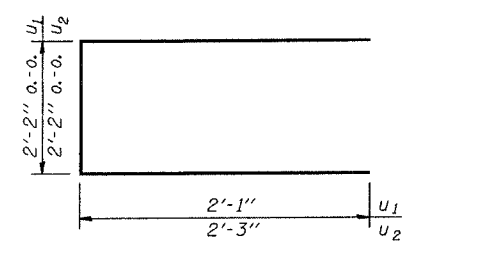
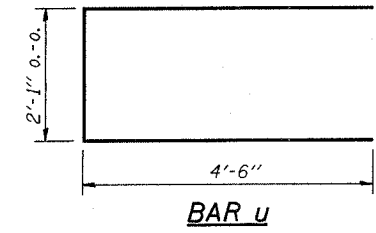
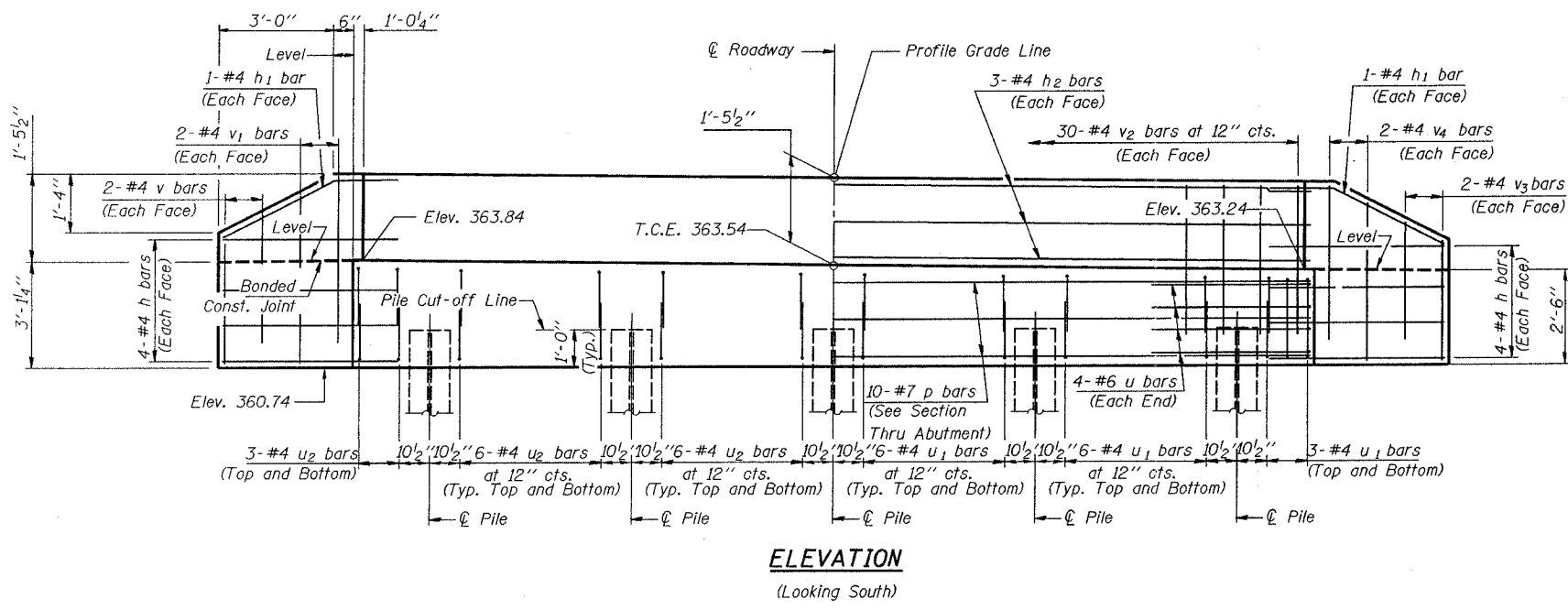
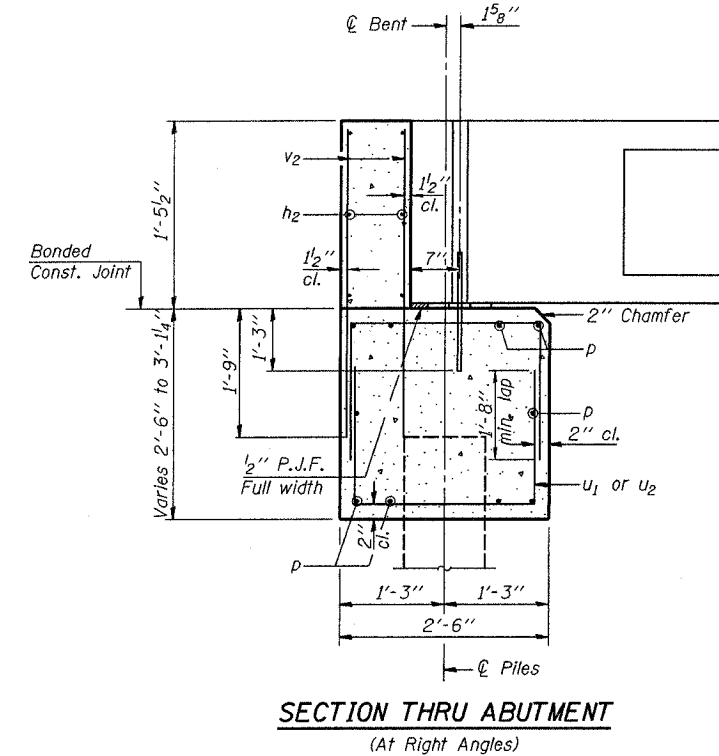
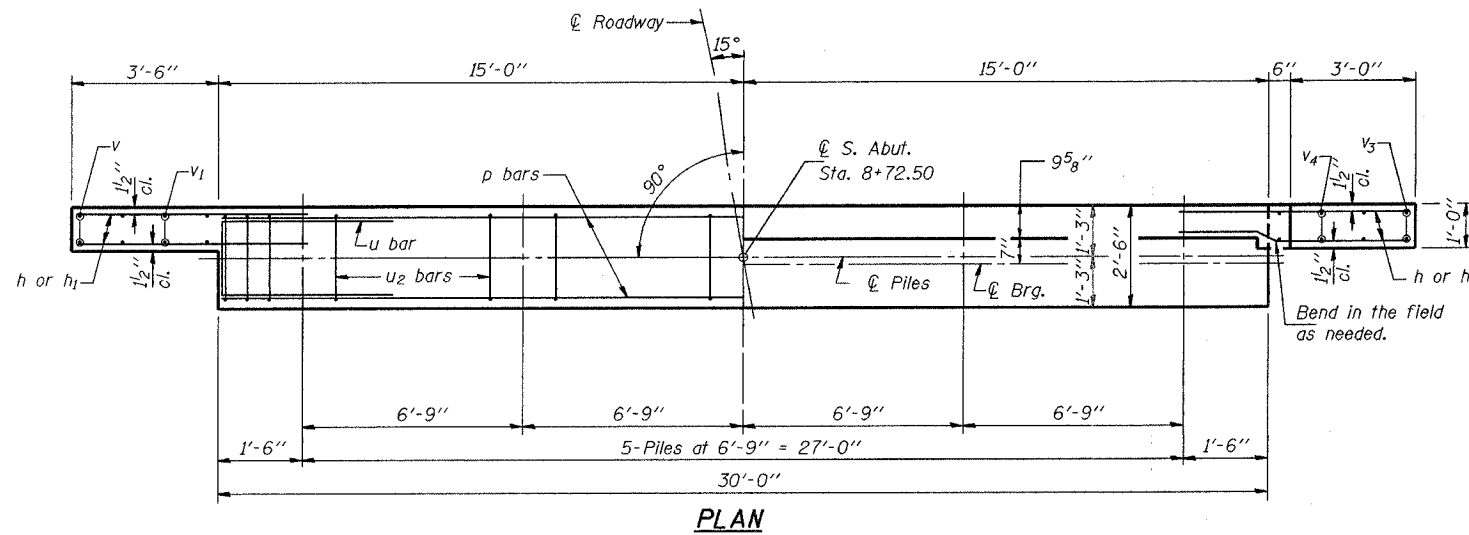
10-22-04 (10'-9" Maximum Post Spacing)

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		UNION	22	18
FED. ROAD DIST. NO. 7		ILLINOIS	Contract No. 99214	
* 03-01176-00-BR				

SHEET NO. 5
9 SHEETS

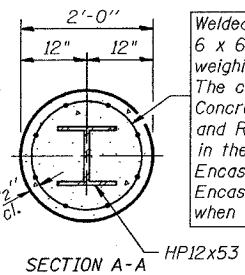


BILL OF MATERIAL FOR SOUTH ABUTMENT

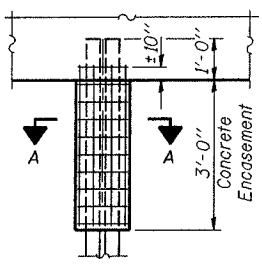
Bar	No.	Size	Length	Shape
h	16	#4	5'-0"	—
h1	4	#4	5'-3"	—
h2	6	#4	29'-8"	—
p	10	#7	29'-8"	—
u	8	#6	11'-1"	□
u1	30	#4	6'-4"	□
u2	30	#4	6'-8"	□
v	4	#4	2'-11"	—
v1	4	#4	3'-10"	—
v2	60	#4	3'-1"	—
v3	4	#4	2'-4"	—
v4	4	#4	3'-3"	—
Concrete Structures	Cu. Yds.	10.1		
Reinforcement Bars	Pounds	1340		
Furnishing Steel Piles	Foot	300		
Concrete Encasement	Cu. Yds.	1.7		
Driving Piles	Foot	300		

ABUT.-PILE DATA

Type: Steel HP 12x53
Allowable Resistance Available: 50 kips
Nominal Required Bearing: 150 Kips
Est. Length: 60 ft.
No. Req'd. 5



Welded wire fabric
6 x 6-W4.0 x W4.0
weighing 58#/100 sq. ft.
The cost of Excavation,
Concrete Encasement
and Reinforcement is included
in the item Concrete
Encasement. Forms for
Encasement may be omitted
when soil conditions permit.



PILE ENCASEMENT DETAIL

NOTES

- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to the requirements of ASTM 706 Gr. 60, (II Modified). See Special Provisions.
- Space reinforcement in cap to miss anchor bolts.

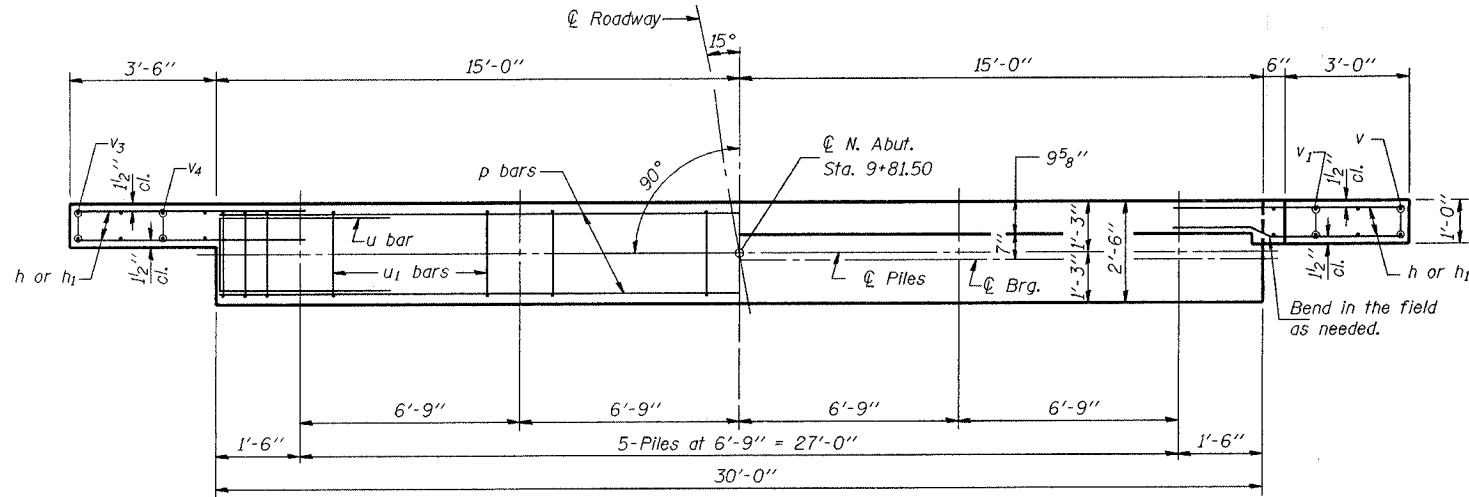
DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

APRIL -3 2007
EXAMINED *Thomas J. Domagalaki*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

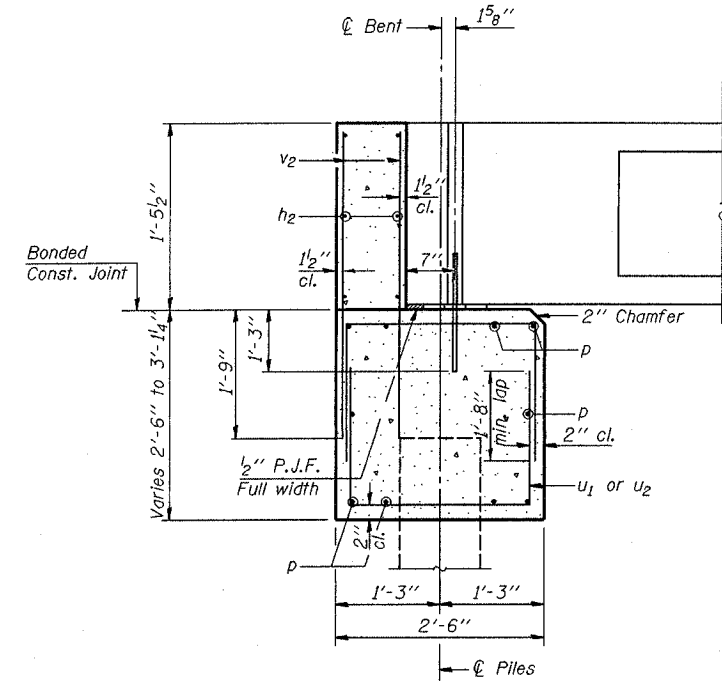
SOUTH ABUTMENT
STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

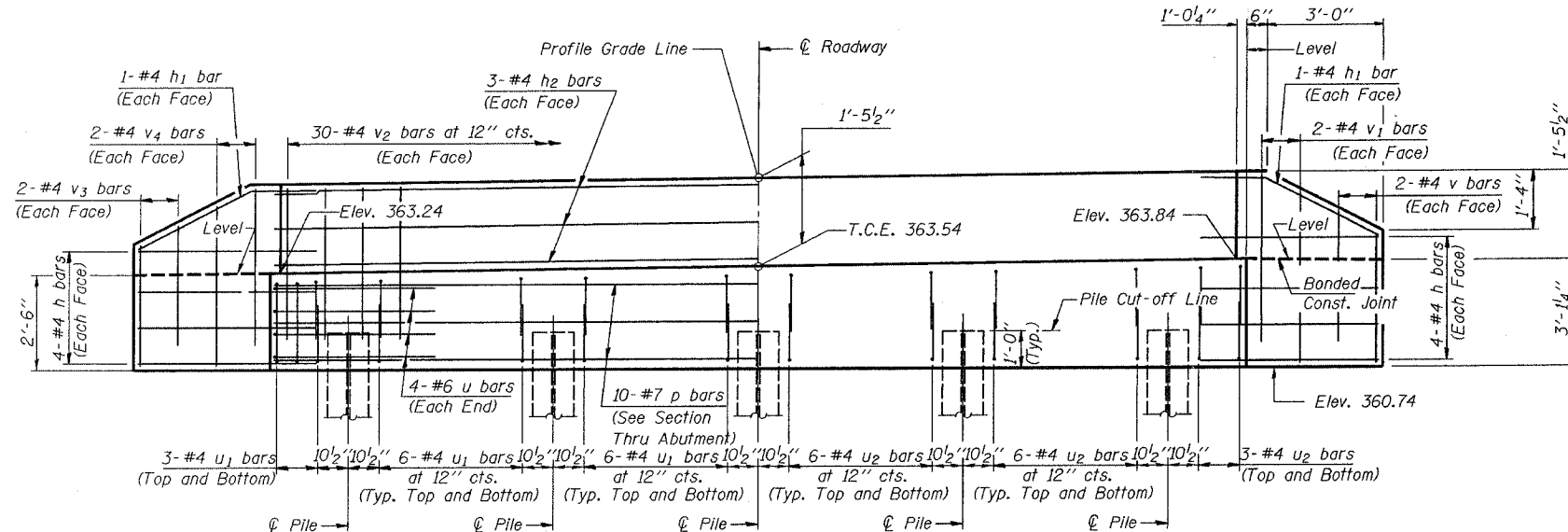
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		UNION	22	19
SHEET NO. 6 9 SHEETS				
Contract No. 99214				



PLAN



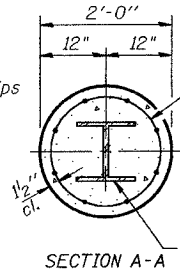
SECTION THRU ABUTMENT
(At Right Angles)



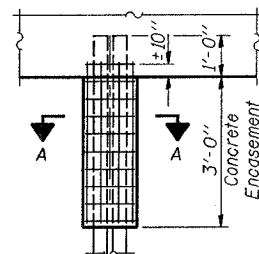
ELEVATION
(Looking North)

ABUT.-PILE DATA

Type: Steel HP 12x53
Allowable Resistance Available: 50 kips
Nominal Required Bearing: 150 kips
Est. Length: 60 ft.
No. Req'd. 4 + 1 Test Pile



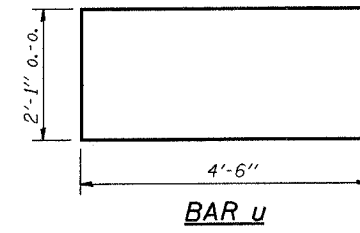
Welded wire fabric
6 x 6-W4.0 x W4.0
weighing 58#/100 sq. ft.
The cost of Excavation,
Concrete Encasement
and Reinforcement is included
in the item Concrete
Encasement. Forms for
Encasement may be omitted
when soil conditions permit.



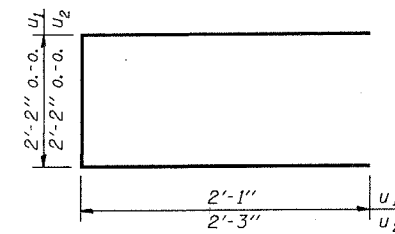
PILE ENCASEMENT DETAIL

NOTES

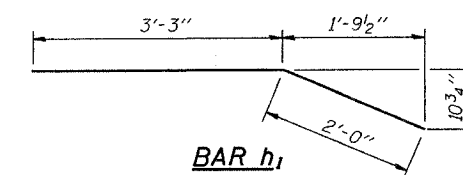
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to the requirements of ASTM 706 Gr. 60, (II Modified). See Special Provisions.
- Space reinforcement in cap to miss anchor bolts.



BAR u



BAR u₁ and u₂



BAR h₁

BILL OF MATERIAL
FOR NORTH ABUTMENT

Bar No.	Size	Length	Shape
h	16 #4	5'-0"	—
h ₁	4 #4	5'-3"	—
h ₂	6 #4	29'-8"	—
p	10 #7	29'-8"	—
u	8 #6	11'-1"	—
u ₁	30 #4	6'-4"	—
u ₂	30 #4	6'-8"	—
v	4 #4	2'-11"	—
v ₁	4 #4	3'-10"	—
v ₂	60 #4	3'-1"	—
v ₃	4 #4	2'-4"	—
v ₄	4 #4	3'-3"	—
Concrete Structures	Cu. Yds.	10.1	
Reinforcement Bars	Pounds	1340	
Furnishing Steel Piles	Foot	240	
HP12x53			
Concrete Encasement	Cu. Yds.	1.7	
Driving Piles	Foot	240	
Test Pile	Each	1	
Steel HP12x53			

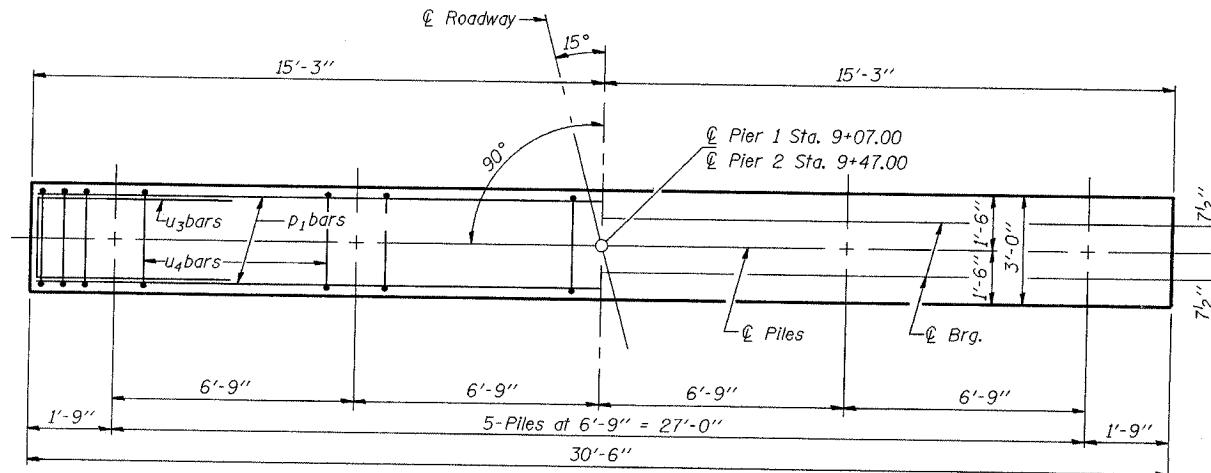
NORTH ABUTMENT
STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

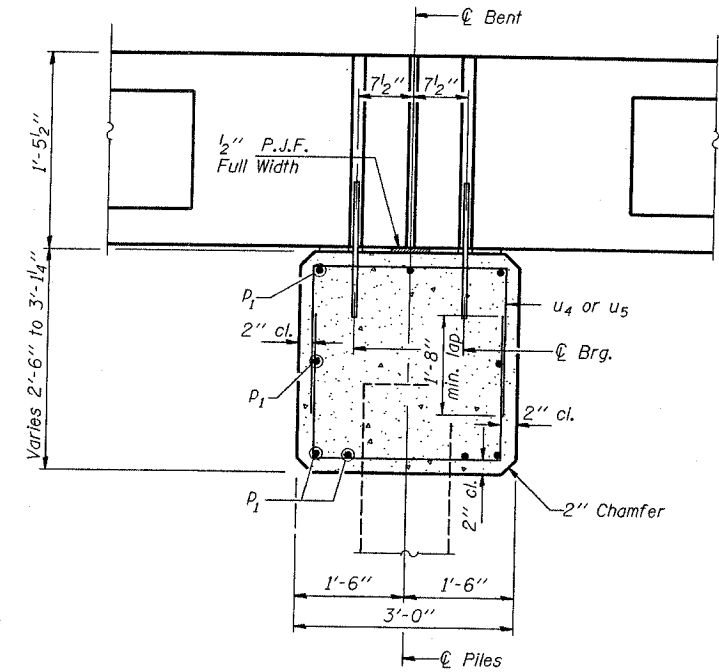
APRIL - 3	2007
EXAMINED	Thomas J. Demagaki
PASSED	Ralph E. Anderson

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

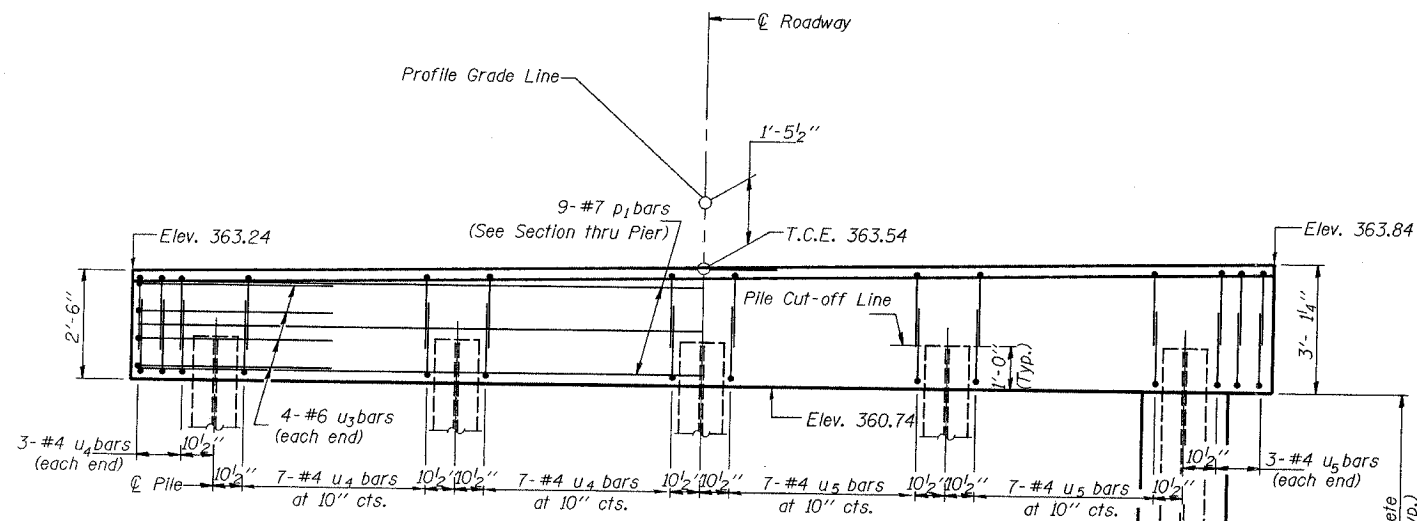
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. 7
		UNION	22	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	Contract No. 99214		
* 03-01176-00-BR				



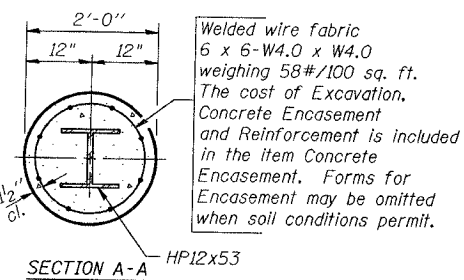
PLAN



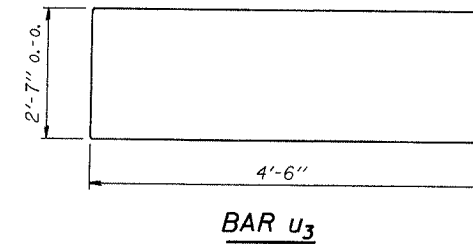
SECTION THRU PIER
(At Right Angles)



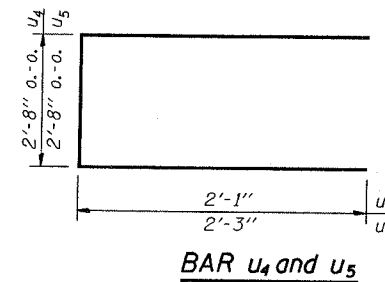
ELEVATION
(Looking North)



PILE ENCASEMENT DETAIL



BAR u3



BAR u4 and u5

BILL OF MATERIAL
FOR TWO PIERS

Bar	No.	Size	Length	Shape
p1	18	#7	30'-2"	—
u3	16	#6	11'-7"	—
u4	68	#4	6'-10"	—
u5	68	#4	7'-2"	—
Concrete Structures		Cu. Yds.	19.0	
Reinforcement Bars		Pound	2020	
Furnishing Steel Piles		Foot	520	
HP12x53				
Driving Piles		Foot	520	
Concrete Encasement		Cu. Yd.	20.7	
Test Pile Steel HP 12x53		Each	1	
Underwater Structure				
Excavation Protection - Location 1		Each	1	
Underwater Structure				
Excavation Protection - Location 2		Each	1	

PIER - PILE DATA

Type: Steel HP 12x53
Allowable Resistance Available: 80 kips
Nominal Required Bearing: 240 Kips
Est. Length: 55 ft. Pier 1, 60 ft. Pier 2
No. Req'd. 10 (Includes 1 Test Pile at Pier 1)

NOTE

Reinforcement bars shall conform to the requirements of ASTM 706 Gr. 60, (II. Modified). See Special Provisions.

DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

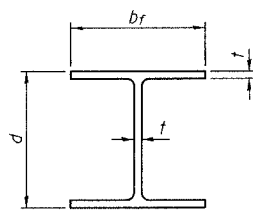
APRIL - 3 2007
EXAMINED *Thomas J. Domagalaki*
PASSED *Ralph C. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

PIERS 1 AND 2
STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

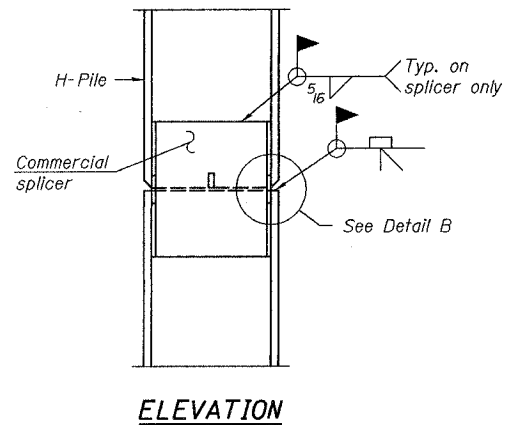
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
		UNION	21	8
9 SHEETS				
Contract No. 99214				

* 03-01176-00-BR

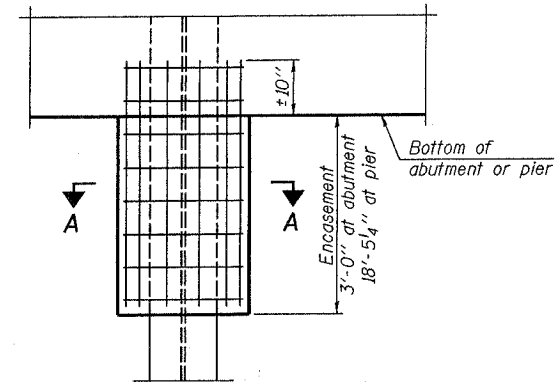


STEEL PILE TABLE

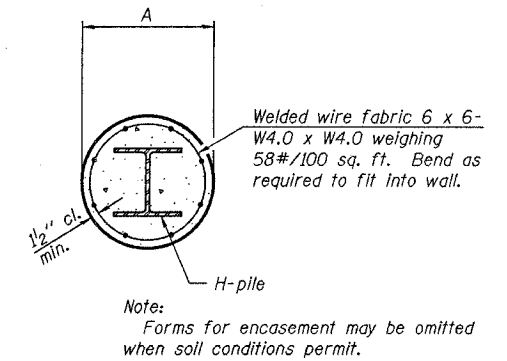
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 5/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

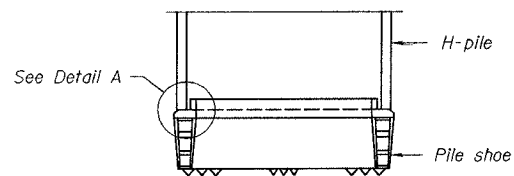


ELEVATION

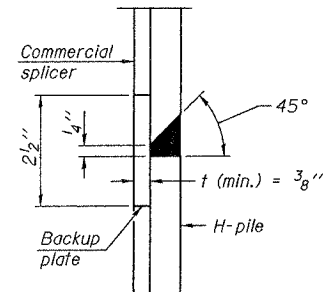


SECTION A-A

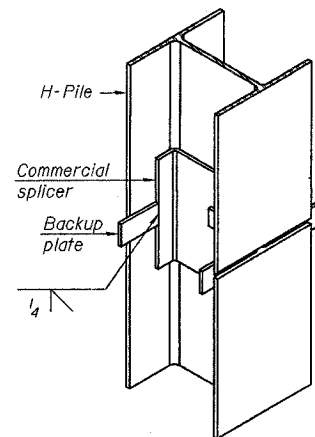
PILE ENCASEMENT



ELEVATION

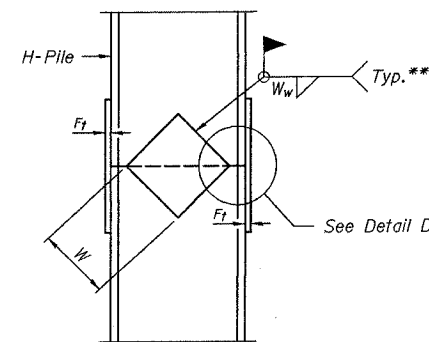


DETAIL "B"

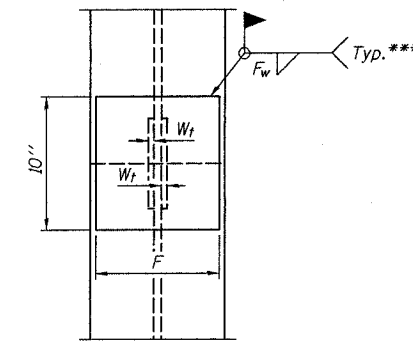


ISOMETRIC VIEW

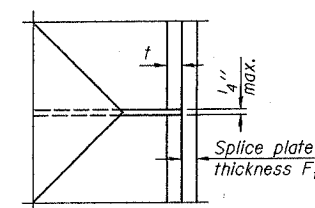
WELDED COMMERCIAL SPLICE



ELEVATION

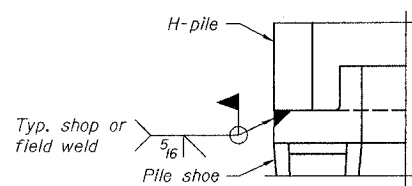


END VIEW



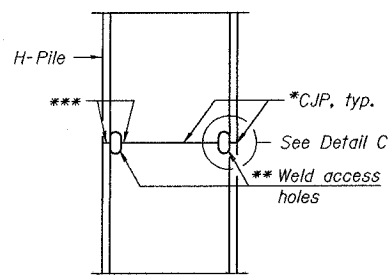
DETAIL D

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

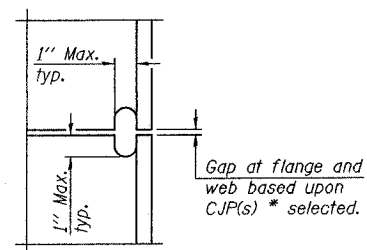


DETAIL A

H-PILE SHOE ATTACHMENT



ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE

DETAIL D

WELDED PLATE FIELD SPLICE

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

STEEL H-PILES
STR. NO. 091-3221
MORGAN SCHOOL ROAD
OVER CANY CREEK
SECTION 03-01176-00-BR
UNION COUNTY
STATION 9+27.00

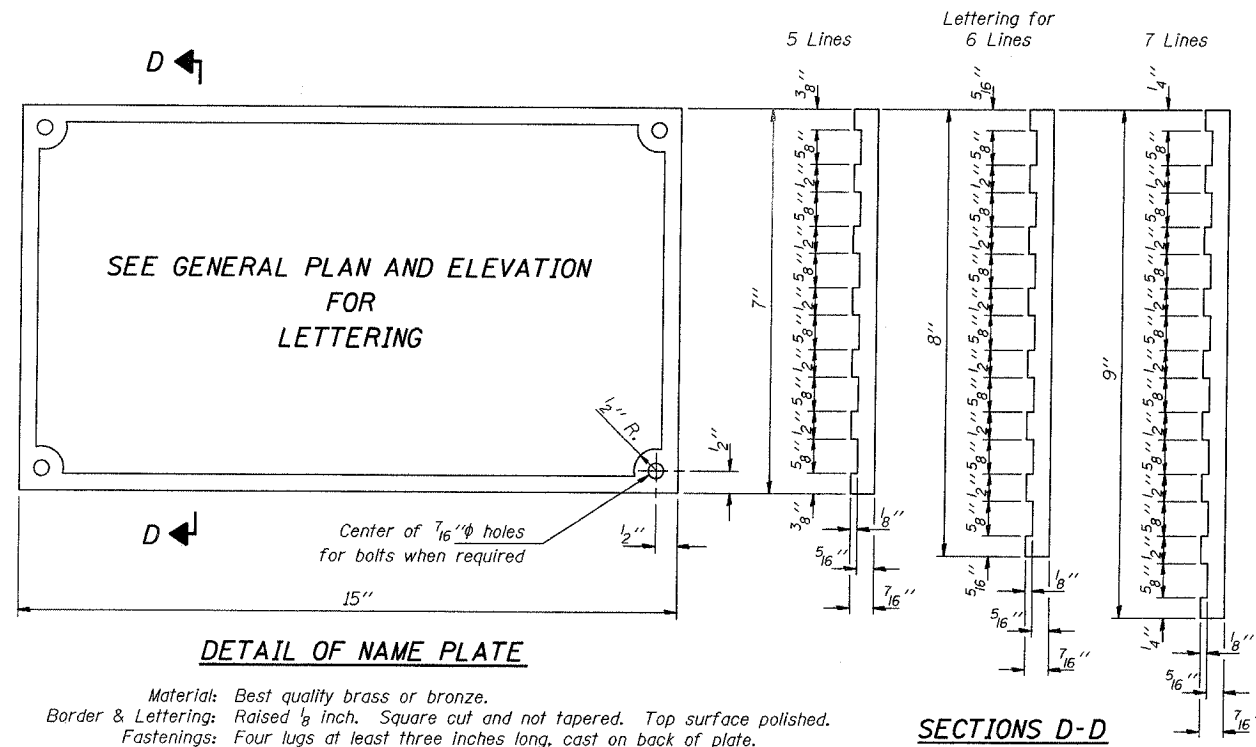
DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

APRIL -3 2007
EXAMINED *Thomas J. Demagali*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

-
- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

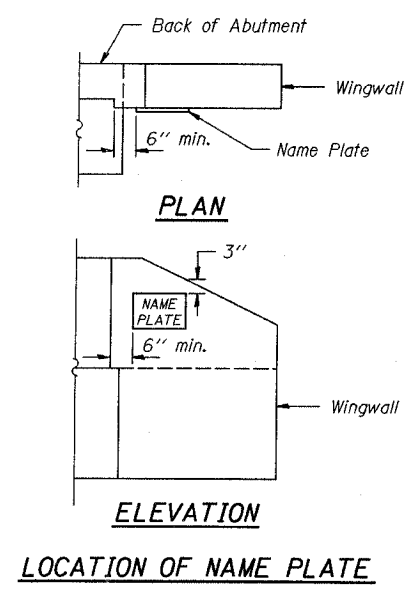
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
	#	UNION	22	22
FED. ROAD DIST. NO. 7		ILLINOIS	Contract No. 99214	
* 03-01176-00-BR				



DETAIL OF NAME PLATE

Material: Best quality brass or bronze.
Border & Lettering: Raised $\frac{1}{8}$ inch. Square cut and not tapered. Top surface polished.
Fastenings: Four lugs at least three inches long, cast on back of plate.

SECTIONS D-D



PLAN

ELEVATION

LOCATION OF NAME PLATE

DESIGNED	J.F. Schiff
CHECKED	J.K. Klein
DRAWN	SHANE SUMMER
CHECKED	JFS, JKK

APRIL -3 2007
EXAMINED *Thomas J. Domagalaki*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

NAME PLATE
STANDARD CN