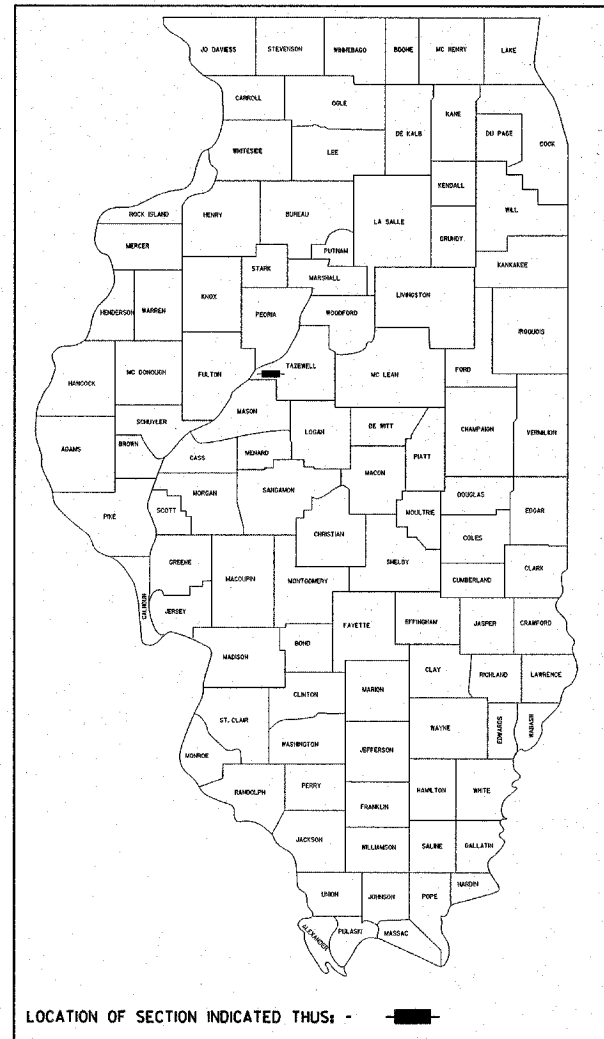


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED HIGHWAY BRIDGE PROGRAM

ROUTE NO. C.H. 7	SECTION 03-00016 -00-BR	COUNTY TAZEWELL	TOTAL SHEETS 23	SHEET NO. 1
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 89296



LOCATION OF SECTION INDICATED THUS: - [Black Rectangle] -

- INDEX OF SHEETS**
1. COVER SHEET
 2. SUMMARY OF QUANTITIES AND GENERAL NOTES
 3. SCHEDULE OF QUANTITIES
 4. TYPICAL CROSS SECTIONS
 5. PLAN AND PROFILE - MAINLINE
 6. PLAN AND PROFILE - SIDE ROAD
 7. ROADWAY DETAILS
 - 8.-11. STATION CROSS SECTIONS - MAINLINE
 - 12.-14. STATION CROSS SECTIONS - SIDE ROAD
 - 15.-21. BRIDGE PLANS
 - 22.-23. BORINGS
- HIGHWAY STANDARDS:
- 420401-05 BRIDGE APPROACH PAVEMENT
 - 515001-02 NAME PLATE FOR BRIDGES
 - 630001-06 STEEL PLATE BEAM GUARDRAIL
 - 630301-03 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
 - 631026-02 TRAFFIC BARRIER TERMINAL, TYPE 5 AND 5A
 - 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
 - 702001-06 TRAFFIC CONTROL DEVICES
 - BLR 21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

SCALES

PLAN	0' = 1" = 50'
PROFILE HORIZ.	0' = 1" = 50'
PROFILE VERT.	0' = 1" = 5'
CROSS SECTIONS	0' = 1" = 5'

PROJECT BRS-1481(104) SECTION 03-00016-00-BR F.A.S. 1481 / C.H. 7 / TOWNLINE ROAD TAZEWELL COUNTY STRUCTURE NO. 090-3237 C-94-082-03

UTILITIES

SBC
2315 NORTH KNOXVILLE AVENUE
PEORIA, IL 61604
ATTN: STEVE BATEMAN
(309) 686-3330

AMEREN / CILCO
300 LIBERTY STREET
PEORIA, IL 61602
309-693-4730

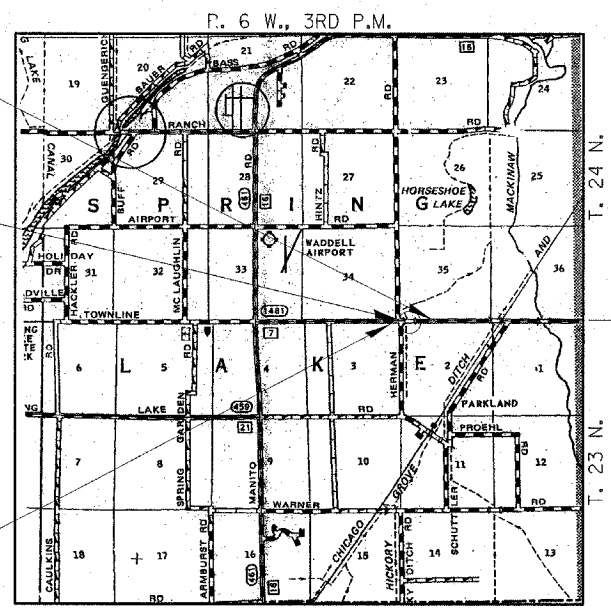
C.H.7 TOWNLINE ROAD
DESIGN FUNCTIONAL CLASSIFICATION:
MAJOR COLLECTOR NON URBAN
DESIGN TRAFFIC: 2000 ADT
DESIGN SPEED: 50 M.P.H.

HERRMAN ROAD
DESIGN FUNCTIONAL CLASSIFICATION:
LOCAL ROAD
DESIGN TRAFFIC: 250-400 ADT
DESIGN SPEED: 30 M.P.H.

STATION 10+75 - SPECIAL BRIDGE DESIGN
CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
TWO SPANS: 25'-0", 30'-0"
34'-0" RDWY. SKEW = 10°

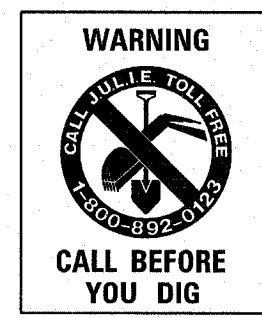
IMPROVEMENT ENDS
STATION 12+50

IMPROVEMENT BEGINS
STATION 9+00



LAYOUT

APPROXIMATE SCALE: 0 1 MILE
NET LENGTH OF SECTION = 350.00 FEET = 0.066 MILES

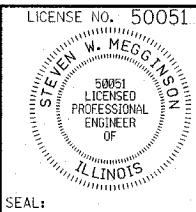


APPROVED	<i>March 24</i>	20
	<i>John C. Anderson</i>	COUNTY ENGINEER
PASSED	<i>April 18</i>	20
	<i>Robert Lohalle</i>	DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bld Based on Limited Review	<i>APRIL 19</i>	20
	<i>John W. Johnson</i>	DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER
	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

DATE: *March 22, 2006*

BY: *Steven W. Meggison*

LICENSE EXPIRES: NOVEMBER 30, 2007



Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineer
3085 Stevenson Drive
Suite 201
Springfield, Illinois 62703
217-546-3400

Account Number 12-91-0014-1
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637

CONTRACT NO. **89296**

TAZEWELL COUNTY

SECTION 03-00016-00-BR

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	CONSTRUCTION CODE		TOTAL QUANTITY
			I000	X020-2A	
20200100	EARTH EXCAVATION	CU YD	270		270
20300100	CHANNEL EXCAVATION	CU YD		100	100
20400800	FURNISHED EXCAVATION	CU YD	191		191
20700110	POROUS GRANULAR EMBANKMENT	TON		70	70
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE		0.5	0.5
* 28000400	PERIMETER EROSION BARRIER	FOOT	440		440
28101700	RIPRAP, SPECIAL	TON		180	180
35101400	AGGREGATE BASE COURSE, TYPE B	TON	411		411
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	233		233
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	395		395
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	256		256
42001165	BRIDGE APPROACH PAVEMENT	SQ YD		227	227
44000100	PAVEMENT REMOVAL	SQ YD	210		210
48101200	AGGREGATE SHOULDERS, TYPE B	TON	145		145
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH		1	1
50300225	CONCRETE STRUCTURES	CU YD		24.6	24.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD		86.1	86.1
50300260	BRIDGE DECK GROOVING	SQ YD		442	442
50300300	PROTECTIVE COAT	SQ YD		442	442
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND		31,470	31,470
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT		122	122
51202200	FURNISHING CONCRETE PILES	FOOT		600	600
51202800	DRIVING CONCRETE PILES	FOOT		600	600
51204200	TEST PILE CONCRETE	EACH		1	1
51204315	CONCRETE ENCASEMENT	CU YD		5.2	5.2
51500100	NAME PLATES	EACH		1	1
Δ 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT		150	150
Δ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4		4
Δ* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4		4
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	4		4
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3		3
67100100	MOBILIZATION	L SUM	1		1
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,731		1,731
Δ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,731		1,731
Δ* 78200400	GUARDRAIL REFLECTORS	EACH	7		7
Δ* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4		4
* X4066514	POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	135		135
* X4066765	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50	TON	91		91
Z0002600	BAR SPLICERS	EACH		70	70

* SEE SPECIAL PROVISIONS
Δ SPECIALTY ITEMS

GENERAL NOTES

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2002," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION. THE REMOVAL OF THE RIPRAP DITCH MATERIAL WILL BE PAID FOR AS EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE CONSIDERED INCIDENTAL TO PAVEMENT REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE LOCATIONS OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.

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

THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER. **SEEDING, CLASS 2 (SPECIAL) = 0.5 ACRES**

DISTURBANCE AREA LESS THAN 1.0 ACRE.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

BITUMINOUS CONCRETE	112 LB/IN/SQ YD
POROUS GRANULAR EMBANKMENT	2.0 TON/CU YD
AGGREGATE SHOULDERS	2.05 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.1 GAL/SQ YD OR 0.4 GAL/SQ YD
RIPRAP, SPECIAL	1.75 TON/CU YD
AGGREGATE BASE COURSE	2.0 TON/CU YD

LOCATION(S):	C.H. 7 (TOWNLINE ROAD) & HERRMAN ROAD
MIXTURE USE(S):	POLYMERIZED BIT. CONC. SURFACE CSE, SUPERPAVE
AC/PG:	SBS 70-22
RAP % (MAX):	N/A
DESIGN AIR VOIDS:	4.2% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL-9.5 OR IL-12.5
FRICTION AGGREGATE:	MIXTURE C
MIXTURE WEIGHT	112 LB/IN/SQ YD

LOCATION	NORTHING	EASTING
CH 7 (TOWNLINE RD)		
POT STA. 5+49.54	1000.9544	549.5386
PI STA. 10+00.00	1000.0000	1000.0000
POT STA. 16+00.11	1000.0000	1600.1100
HERRMAN RD.		
POT 100+00.00	800.6264	1044.4867
PI STA 100+92.42	893.0459	1044.4870
POT 102+08.04	1000.0084	996.0436
PI STA. 103+90.74	1166.4303	920.6710
PT STA. 104+28.59	1204.9592	909.6859

LOCATION(S):	C.H. 7 (TOWNLINE ROAD) & HERRMAN ROAD
MIXTURE USE(S):	LEVELING BINDER (MACHINE METHOD), SUPERPAVE
AC/PG:	PG 64-22
RAP % (MAX):	25%
DESIGN AIR VOIDS:	4.2% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL-12.5
FRICTION AGGREGATE:	MIXTURE C
MIXTURE WEIGHT	112 LB/IN/SQ YD

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DuQuoin, Illinois 62832
618-790-4637
Account Number 12-91-0014-1
Date: 03/22/06
DESIGNED: L.F.S. CHECKED: S.W.M. DRAWN: D.B.

SUMMARY OF QUANTITIES AND GENERAL NOTES
F.A.S. 1481 / C.H. 7 / TOWNLINE ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY

CONTRACT NO. 89296

ROADWAY QUANTITIES SCHEDULE

LOCATION (STATION TO STATION)	BRIDGE APPROACH PAVEMENT (SQ YD)	POLYMERIZED BITUM. CONC. SURF. CSE. SUPERPAVE MIX C N50 1.5" (TON)	LEVEL. BIND. (M M). SUPERPAVE N50 1.5" MIN (TON)	BITUMINOUS MATERIALS PRIME COAT (GALLON)	AGGREGATE BASE COURSE TYPE B TON	BITUMINOUS SURFACE REMOVAL BUTT-JOINT (SQ YD)	PAVEMENT REMOVAL (SQ YD)	AGGREGATE SHOULDER TYPE B TON	AGGREGATE SURFACE COURSE TYPE B TON
CH 7 TOWNLINE RD.									
STA 9+00.00 TO STA 10+46.49	113.5	29	4	13		134	104		
STA 11+03.51 TO STA 12+50.00	113.5	28	9	12		122	106		
HERRMAN RD									
STA 100+00.00 TO STA 101+91.96		39	39	184	205			43	
STA 102+20.13 TO STA 104+00.00		39	39	186	206			102	
ENTRANCES									
LT STA 12+91 FE									185
LT STA 101+00 FE									24
LT STA 103+25 FE									24
TOTAL	227	135	91	395	411	256	210	145	233

PAVEMENT MARKING SCHEDULE

LOCATION	PAINT - PERMANENT			TEMPORARY		
	4" SINGLE WHITE EDGE LINE	4" SKIP YELLOW CENTERLINE	4" SOLID YELLOW CENTERLINE	4" SINGLE WHITE EDGE LINE	4" SKIP YELLOW CENTERLINE	4" SOLID YELLOW CENTERLINE
	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT
CH 7						
CL STA. 9+00 TO CL STA. 12+50		88			88	
RT STA. 9+00 TO RT STA. 9+60	60			60		
LT STA. 9+00 TO LT STA. 12+50	50			50		
RT STA. 10+35 TO RT STA. 12+50	215			215		
LT STA. 10+20 TO LT STA. 12+50	230			230		
HERRMAN RD						
RT STA. 100+00.00 TO RT STA. 101+91.96			92			92
LT STA. 100+00.00 TO LT STA. 101+91.96			92			92
RT STA. 100+00.00 TO RT STA. 101+91.96	92			92		
LT STA. 100+00.00 TO LT STA. 101+91.96	92			92		
LT STA. 102+20.13 TO LT STA. 104+00.00	180			180		
RT STA. 102+20.13 TO RT STA. 104+00.00	180		180	180		180
LT STA. 102+20.13 TO LT STA. 104+00.00			180			180
RT STA. 102+20.13 TO RT STA. 104+00.00						
SUBTOTAL	1099	88	544	1099	88	544
TOTAL		1,731			1,731	

SEEDING SCHEDULE

LOCATION	SEEDING CLASS 2 SPECIAL ACRES	NITROGEN FERTILIZER NUTRIENT 90 LBS/ACRE LBS	PHOSPHORUS FERTILIZER NUTRIENT 90 LBS/ACRE LBS	POTASSIUM FERTILIZER NUTRIENT 90 LBS/ACRE LBS	AGRICULTURAL GROUND LIMESTONE 2 TON/ACRE TONS	MULCH METHOD 2 TON/ACRE TONS
CH 7						
LT STA 9+00 TO LT STA 9+60	0.02	2	2	2	0.04	0.04
LT STA 9+95 TO RT STA 13+00	0.07	6	6	6	0.14	0.14
RT STA 9+00 TO RT STA 9+97	0.03	3	3	3	0.06	0.06
RT STA 10+25 TO RT STA 12+50	0.05	5	5	5	0.1	0.1
TEMPORARY EASEMENT						
LT STA 10+50 TO LT STA. 13+00	0.05	5	5	5	0.1	0.1
HERRMAN RD						
LT STA 100+00 TO LT STA 101+80	0.06	5	5	5	0.12	0.12
RT STA 100+00 TO RT STA 101+70	0.09	8	8	8	0.18	0.18
RT STA 102+35 TO RT STA 104+00	0.08	7	7	7	0.16	0.16
LT STA 102+50 TO LT STA 104+00	0.06	5	5	5	0.12	0.12
USE:	0.5	46	46	46	1.02	1.02

COST INCLUDED IN SEEDING, CLASS 2 (SPECIAL)

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (CU YD)	SHRINKAGE FACTOR	PERCENT USED	AVAILABLE EXCAVATION (CU YD)	EMBANKMENT REQUIRED (CU YD)	EARTHWORK BALANCE (CU YD)
MAINLINE CH 7						
STA 9+00 TO STA 10+45.98	74	25%	100%	56	94	-38
STA 11+04.02 TO STA 12+50	74	25%	100%	56	39	17
HERRMAN RD						
STA 100+00 TO STA 101+95.96	53	25%	100%	40	160	-120
STA 102+20.13 TO STA 104+00.00	68	25%	100%	51	104	-53
ENTRANCES						
CHANNEL EXCAVATION	100	25%	70%	53	0	53
TOTAL	369			256	447	-191

QUANTITIES USED EARTH EXCAVATION = 270 CU. YD.
CHANNEL EXCAVATION = 100 CU. YD.
FURNISHED EXCAVATION = 191 CU. YD.

(FURN. EXC.)

TRAFFIC BARRIER TERMINAL, TYPE 5A

LOCATION	EACH
LT. STA. 10+28.42 TO LT. STA. 10+41.67	1
RT. STA. 10+34.59 TO RT. STA. 10+47.67	1
LT. STA. 11+02.34 TO LT. STA. 11+15.59	1
RT. STA. 11+08.33 TO RT. STA. 11+21.58	1
TOTAL	4

STEEL PLATE BEAM GUARD RAIL, TYPE A

LOCATION	FOOT
CH 7 & HERRMAN	50
RT. STA. 101+35.32 (HERRMAN) TO RT. STA. 10+34.59	25
LT. STA. 10+05.03 TO LT. STA. 10+47.67	75
LT. STA. 11+15.59 TO LT. STA. 11+90.59	
TOTAL	150

TRAFFIC BARRIER TERMINAL, TY 1, SPL (TAN)

LOCATION	EACH
CH 7 & HERRMAN	
RT. STA. 100+87.74 (HERRMAN) TO RT. STA. 101+35.32 (HERRMAN)	1
RT. STA. 10+05.03 (CH7) TO RT. STA. 102+74.85 (HERRMAN)	1
LT. STA. 11+90.59 TO LT. STA. 12+40.59	1
RT. STA. 11+21.58 TO RT. STA. 11+71.58	1
TOTAL	4

FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS

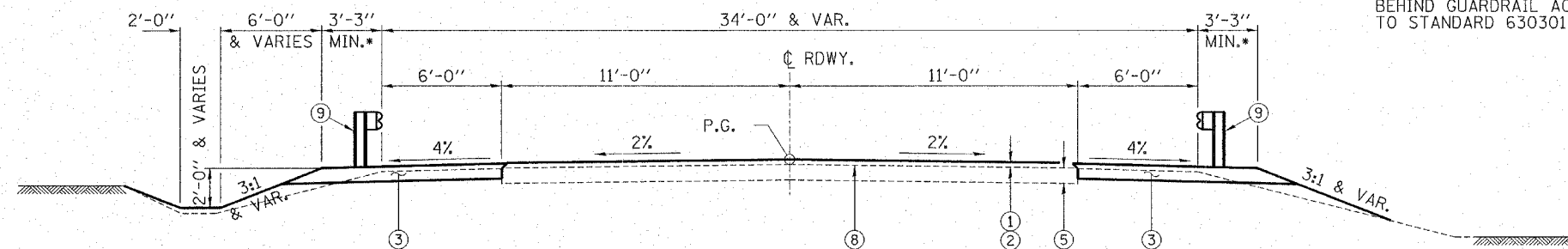
LOCATION	EACH
CH 7	
LT. 119.48 STA. 9+15.89	1
LT. 30.00 STA. 9+41.77	1
RT. 30.00 STA. 9+85.45	1
RT. 127.78 STA. 10+20.18	1
TOTAL	4

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SCHEDULE OF QUANTITIES

F.A.S. 1481 / C.H. 7 / TOWNLINE ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY

* 3'-3" MINIMUM & VARIES 4'-0" BEHIND GUARDRAIL ACCORDING TO STANDARD 630301 & 630001.

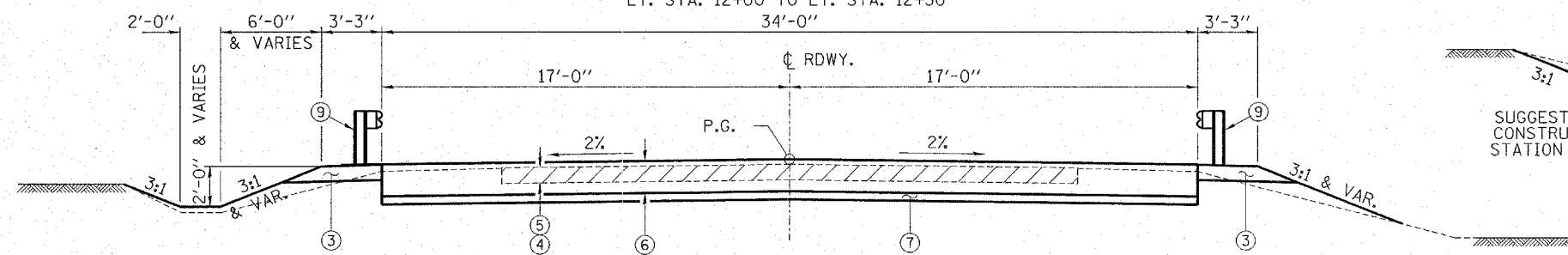


SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

TYPICAL CROSS SECTION

STA. 9+00.00 TO STA. 10+16.49
STA. 11+33.51 TO STA. 12+50
TRANSITION FROM EXISTING SHOULDERS TO
PROPOSED SHOULDERS IS TO BE CONSTRUCTED
FROM STA. 9+00 TO STA. 9+25
RT. STA. 11+50 TO RT. STA. 12+00
LT. STA. 12+00 TO LT. STA. 12+50

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

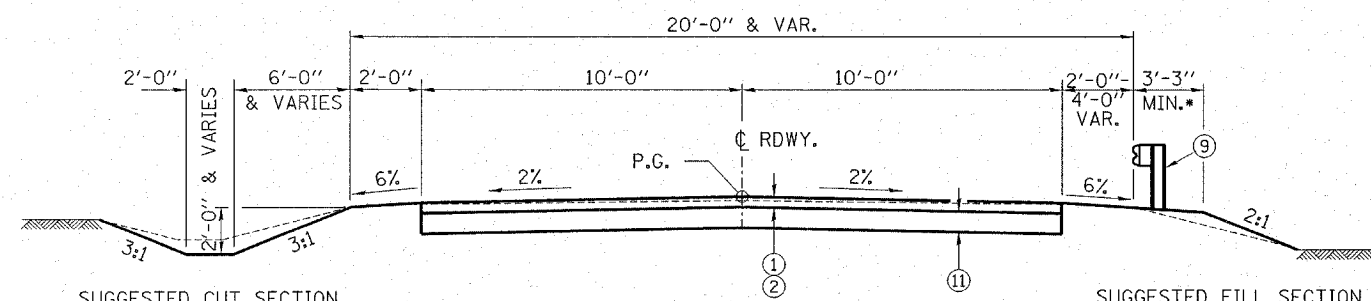


SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

**TYPICAL CROSS SECTION
AT BRIDGE APPROACH PAVEMENT**

STA. 10+16.49 TO STA. 10+46.49
STA. 11+03.51 TO STA. 11+33.51

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

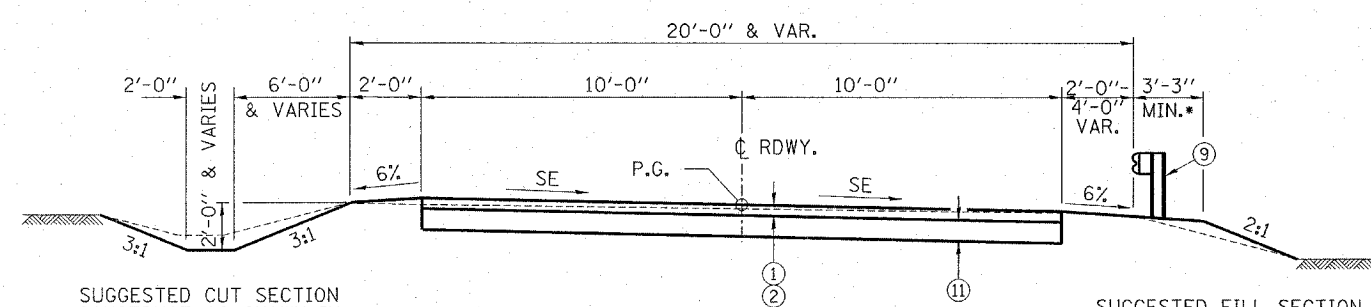


SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

TYPICAL CROSS SECTION

HERRMAN ROAD
102+20.13 TO 103+00.00

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

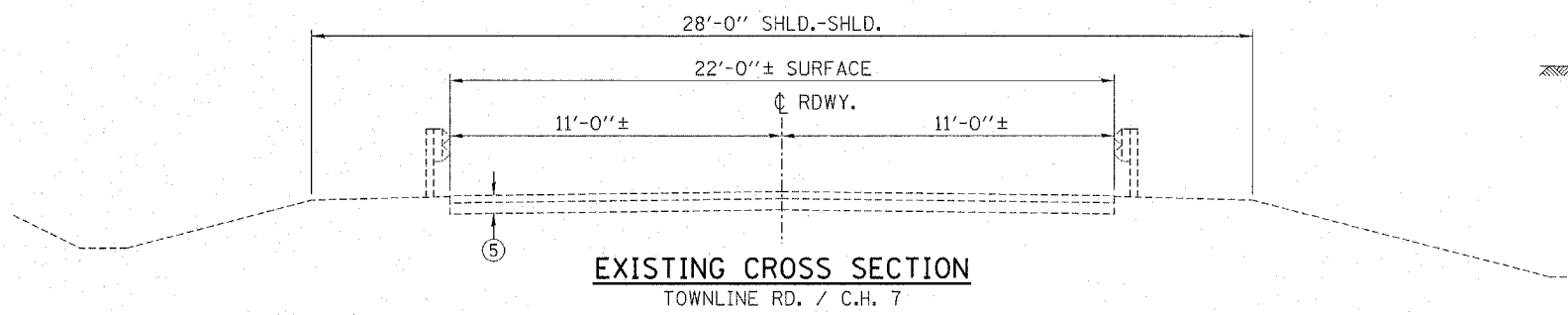


SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

TYPICAL CROSS SECTION

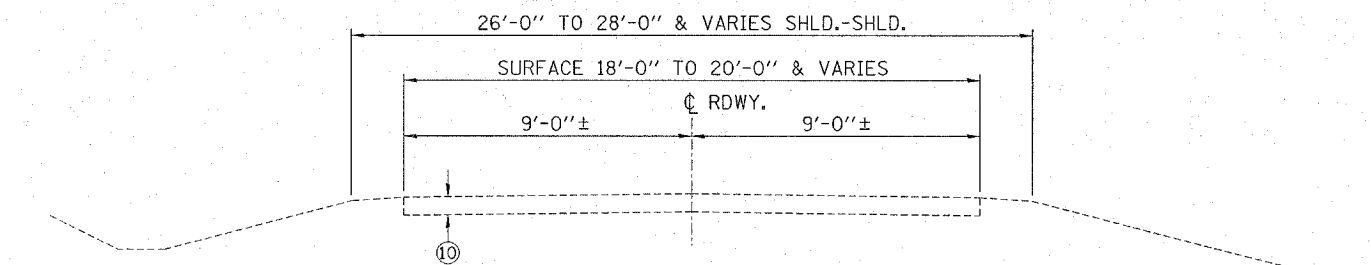
HERRMAN ROAD
100+00.00 TO 101+91.96
103+00.00 TO 104+00.00

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS



EXISTING CROSS SECTION

TOWNLINE RD. / C.H. 7



EXISTING CROSS SECTION

HERRMAN ROAD

LEGEND

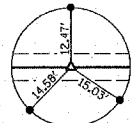
- ① POLYMERIZED BITUMINOUS CONCRETE, SURFACE COURSE, SUPERPAVE, MIX "C" N50 (1.5" THICKNESS)
- ② LEVELING BINDER (MACHINE METHOD) WILL BE CONSTRUCTED TO PROVIDE THE PROPOSED 2% PAVEMENT CROSS SLOPE AND MAINTAIN A 1.5" THICKNESS AT EITHER PAVEMENT EDGE OR CENTERLINE WHICHEVER CONTROLS.
- ③ AGGREGATE SHOULDERS, TYPE B, (6" THICKNESS)
- ④ PAVEMENT REMOVAL
- ⑤ EXISTING BITUMINOUS PAVEMENT ON AGGREGATE BASE
- ⑥ BRIDGE APPROACH PAVEMENT
- ⑦ SUB-BASE GRANULAR MATERIAL (SEE STANDARD 420401. (INCIDENTAL TO BRIDGE APPROACH PAVEMENT.))
- ⑧ BITUMINOUS MATERIALS (PRIME COAT)
- ⑨ STEEL PLATE BEAM GUARD RAIL TYPE A
- ⑩ EXISTING OIL & CHIP ON AGGREGATE BASE
- ⑪ AGGREGATE BASE COURSE TYPE B (8")
- ⑫ BITUMINOUS SURFACE REMOVAL - BUTT JOINT
- ⑬ AGGREGATE SURFACE COURSE, TYPE B (6" THICKNESS)

NOTE:
LEVELING BINDER (MACHINE METHOD) WILL BE CONSTRUCTED TO PROVIDE THE PROPOSED 2% PAVEMENT CROSS SLOPE AND MAINTAIN A MINIMUM 1 1/2" THICKNESS AT EITHER PAVEMENT EDGE OR CENTERLINE WHICHEVER CONTROLS.

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TYPICAL CROSS SECTIONS
F.A.S. 1481 / C.H. 7 / TOWNLINE ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY

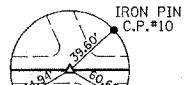
ALL TIES
IRON PINS



N. 1000.9544, E. 549.5386
P.O.T. STA. 5+49.54
MAG NAIL (SET)

HERBERT BECKER

SE 1/4, SEC 34, T. 24 N., R. 6 W., 3RD P.M.



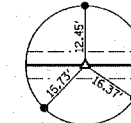
MAG. NAIL IN
POWER POLE

N. 1000.0000, E. 1000.0000
P.I. STA. 10+00.00
MAG NAIL (SET)
Δ = 0° 07' 17" NO CURVE

JANET M. FREED & CHARLES D. HERRMAN

SW 1/4, SEC 35, T. 24 N., R. 6 W., 3RD P.M.

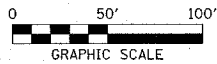
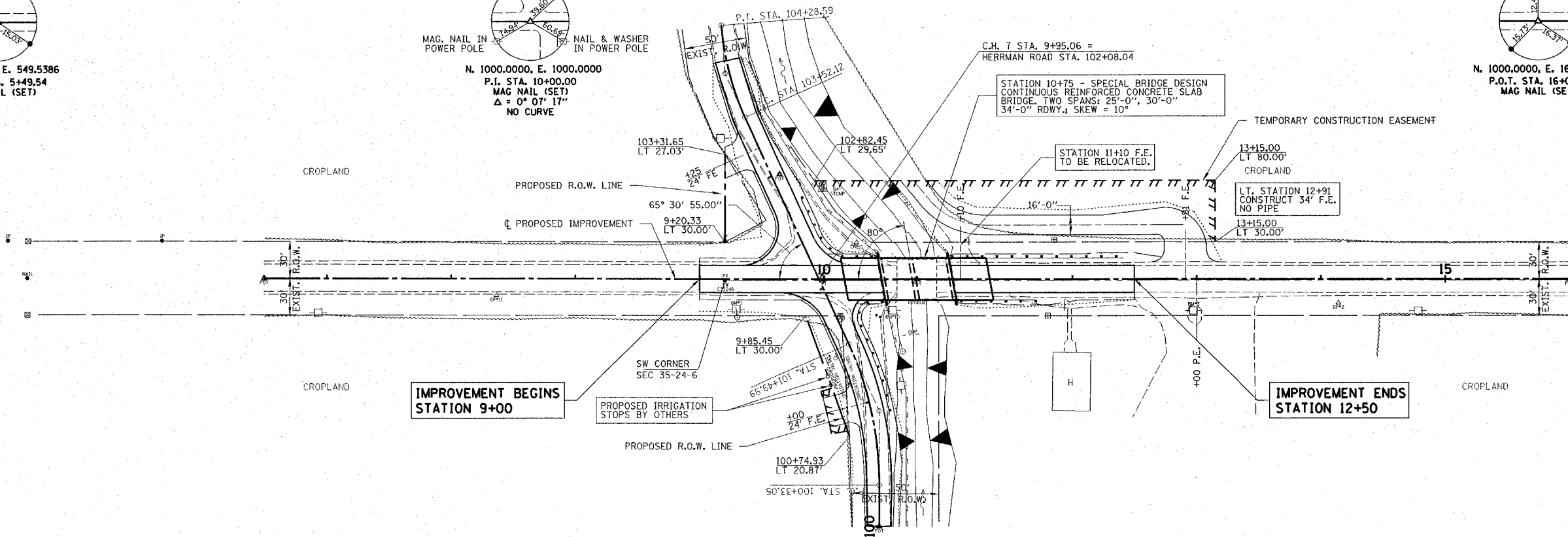
ALL TIES
IRON PINS



N. 1000.0000, E. 1600.1100
P.O.T. STA. 16+00.11
MAG NAIL (SET)

C.H.	SECTION	COUNTY	TOTAL SHEETS	SH.
7	03-00016-00-BR	TAZEWELL	23	M
STA. 9+00.00		TO STA. 12+50.00		
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 89296	

DATE	02/25/20
BY	...
PLAN	...
NO.	...



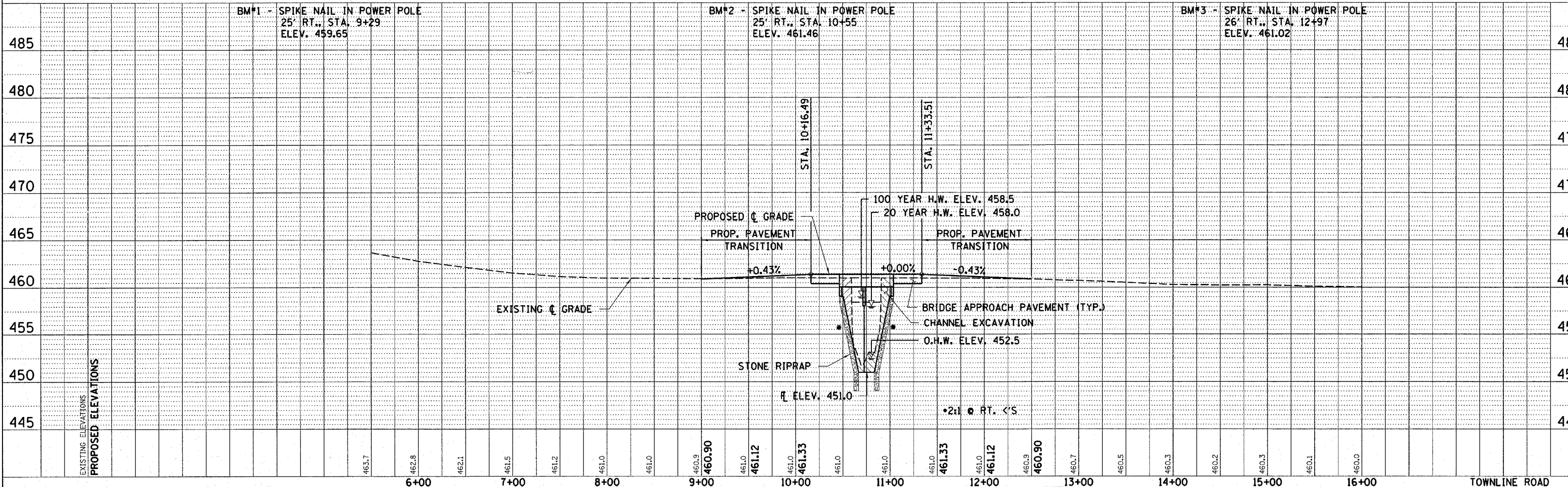
CHARLES D. HERRMAN & JUDITH ANN HERRMAN
E 1/2, NE 1/4, SEC 3, T. 23 N., R. 6 W., 3RD P.M.

E.H. HERRMAN
NW 1/4, SEC 2, T. 23 N., R. 6 W., 3RD P.M.

NOTE:
THE CONTRACTOR SHALL STAGE CONSTRUCTION OPERATION SO TO KEEP TOWNLINE ROAD OPEN WHILE HERRMAN ROAD IS CONSTRUCTED AND TO KEEP HERRMAN ROAD OPEN WHILE TOWNLINE ROAD IS BEING CONSTRUCTED.

EXISTING STRUCTURE NO. 090-3005
STATION 10+75 - SINGLE SPAN I-BEAM BRIDGE ON CLOSED CONC. ABUTMENTS WITH CONC. WINGWALLS. 29.80' FC-FC. ABUTS; 32.05' 0'-0. DECK
REMOVAL OF EXISTING STRUCTURES = 1 EACH

DATE	02/25/20
BY	...
PROFILE	...
NO.	...

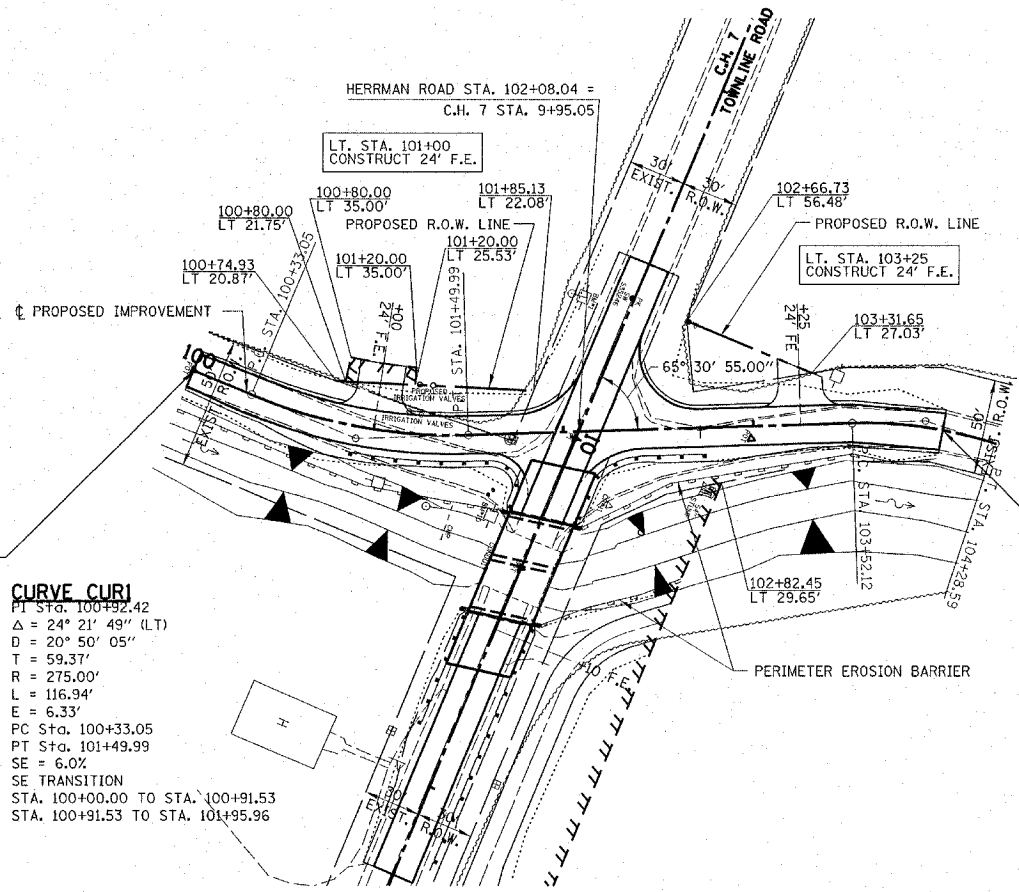


EXISTING ELEVATIONS	463.7	462.8	462.1	461.5	461.2	461.0	461.0	460.9	460.90	461.0	461.12	461.33	461.0	461.0	461.33	461.12	460.9	460.90	460.7	460.5	460.3	460.2	460.3	460.1	460.0	
PROPOSED ELEVATIONS																										
	6+00	7+00	8+00	9+00	10+00	11+00	12+00	13+00	14+00	15+00	16+00	TOWNLINE ROAD														

CHARLES D. HERRMAN & JUDITH ANN HERRMAN
E/2, NE 1/4, SEC 3, T. 23 N., R. 6 W., 3RD P.M.

HERBERT BECKER
SE/4, SEC 34, T. 24 N., R. 6 W., 3RD P.M.

C.H.	SECTION	COUNTY	TOTAL SHEETS	SH. N.
7	03-00016-00-BR	TAZEWELL	23	
STA. 100+00.00		TO STA. 104+00.00		
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 89296	



CURVE CUR2 EXISTING
 PI STA. 103+90.74
 $\Delta = 19^\circ 48' 22''$ (RT)
 $D = 25^\circ 53' 58''$
 $T = 38.62'$
 $R = 221.22'$
 $L = 76.47'$
 $E = 3.35'$
 PC STA. 103+52.12
 PT STA. 104+28.59
 $SE = 6.0\%$
 SE TRANSITION
 STA. 103+00.00 TO STA. 104+00.00

IMPROVEMENT BEGINS
STATION 100+00

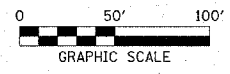
IMPROVEMENT ENDS
STATION 104+00

CURVE CUR1
 PI STA. 100+92.42
 $\Delta = 24^\circ 21' 49''$ (LT)
 $D = 20^\circ 50' 05''$
 $T = 59.37'$
 $R = 275.00'$
 $L = 116.94'$
 $E = 6.33'$
 PC STA. 100+33.05
 PT STA. 101+49.99
 $SE = 6.0\%$
 SE TRANSITION
 STA. 100+00.00 TO STA. 100+91.53
 STA. 100+91.53 TO STA. 101+95.96

PERIMETER EROSION BARRIER
 RT. STA. 100+00 TO STA. 101+70 = 170 FT
 RT. STA. 102+10 TO STA. 104+00 = 190 FT
 LT. M.L. STA. 10+60 TO STA. 10+90 = 180 FT
 440 FT

E.H. HERRMAN
NW/4, SEC 2, T. 23 N., R. 6 W., 3RD P.M.

JANET M. FREED & CHARLES D. HERRMAN
SW/4, SEC 35, T. 24 N., R. 6 W., 3RD P.M.

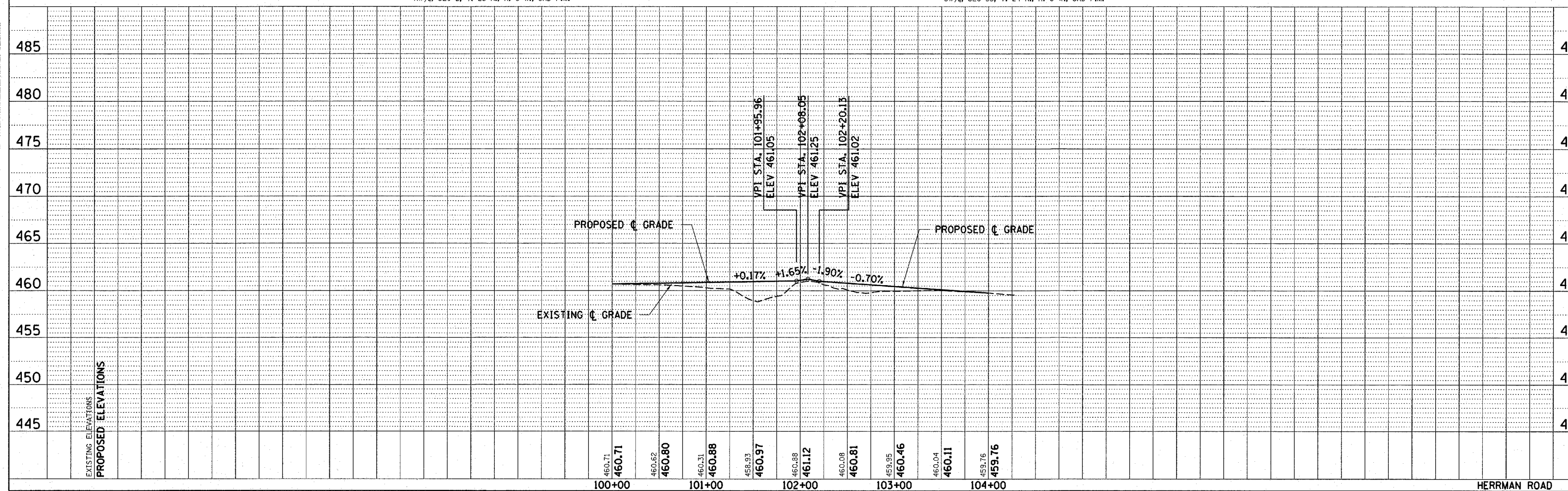


DATE	BY
DATE	BY

PLAN
 SURVEYED
 ALIGNED
 CHECKED
 NOTE BOOK NO. 1000
 FILE NO. 1000

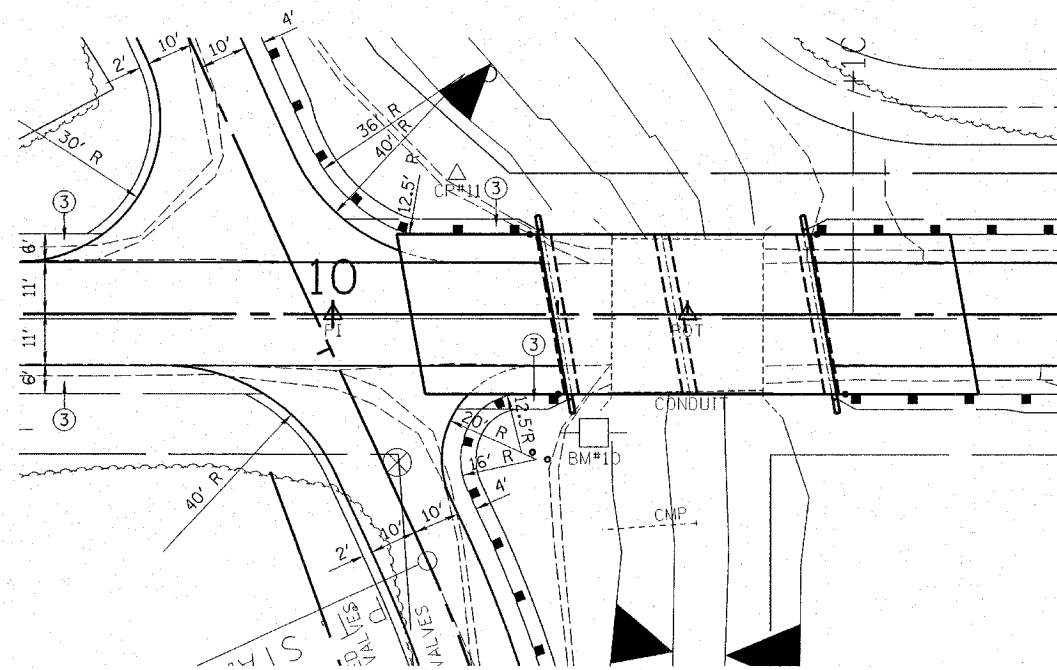
DATE	BY
DATE	BY

PROFILE
 SURVEYED
 GRADES CHECKED
 STA. 100+00 TO STA. 104+00
 NOTE BOOK NO. 1000
 FILE NO. 1000

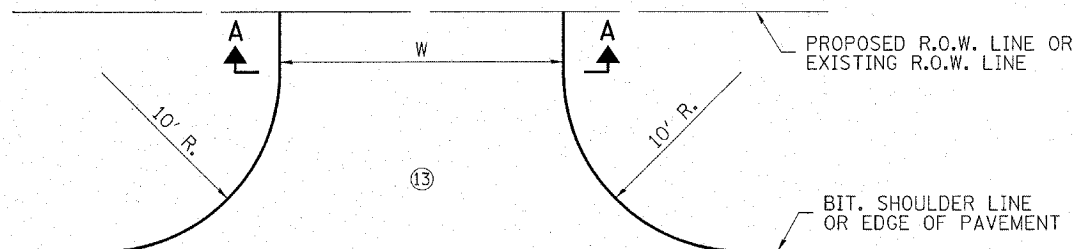


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 7	03-00016-00-BR	TAZEWELL	23	7
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 89296

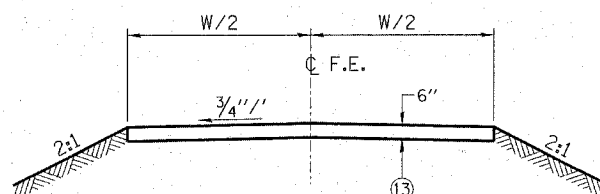


INTERSECTION DETAIL

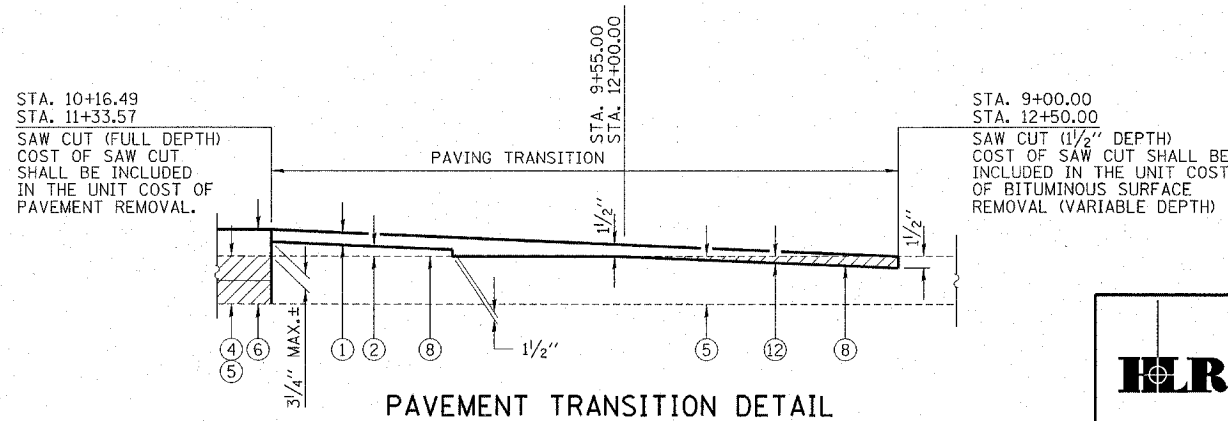


FIELD ENTRANCE DETAIL

LT. STA. 12+91 W = 34'
 LT. STA. 101+00 W = 24'
 LT. STA. 103+25 W = 24'



SECTION A-A



PAVEMENT TRANSITION DETAIL

LEGEND

- ① POLYMERIZED BITUMINOUS CONCRETE, SURFACE COURSE, SUPERPAVE, MIX "C" N50 (1.5" THICKNESS)
- ② LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50 (1.5" MIN THICKNESS)
- ③ AGGREGATE SHOULDERS, TYPE B, (6" THICKNESS)
- ④ PAVEMENT REMOVAL
- ⑤ EXISTING BITUMINOUS PAVEMENT ON AGGREGATE BASE
- ⑥ BRIDGE APPROACH PAVEMENT
- ⑦ SUB-BASE GRANULAR MATERIAL (SEE STANDARD 420401. (INCIDENTAL TO BRIDGE APPROACH PAVEMENT.))
- ⑧ BITUMINOUS MATERIALS (PRIME COAT)
- ⑨ STEEL PLATE BEAM GUARD RAIL TYPE A
- ⑩ EXISTING OIL & CHIP ON AGGREGATE BASE
- ⑪ AGGREGATE BASE COURSE TYPE B (8")
- ⑫ BITUMINOUS SURFACE REMOVAL - BUTT JOINT
- ⑬ AGGREGATE SURFACE COURSE, TYPE B (6" THICKNESS)

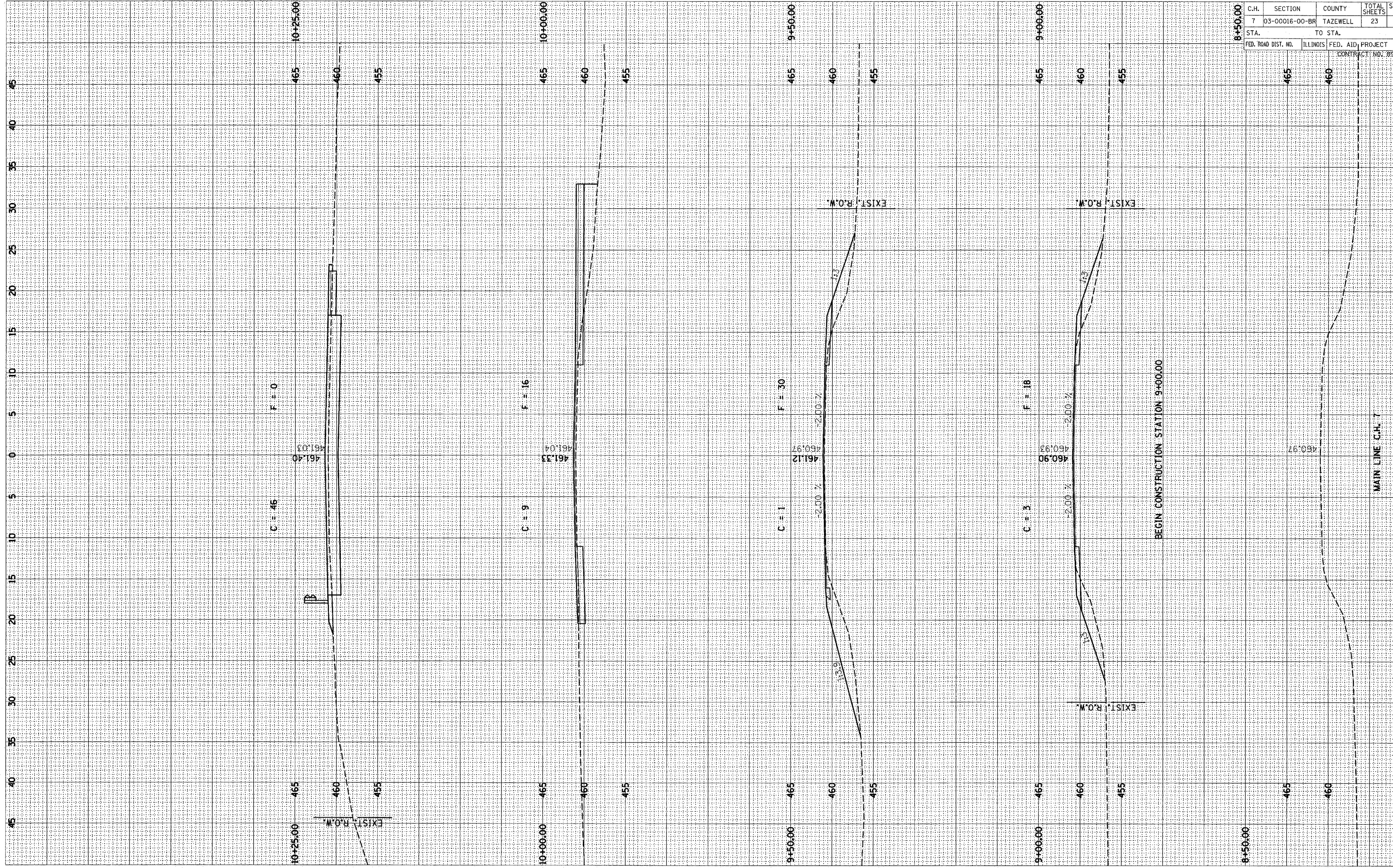
NOTE: LEVELING BINDER (MACHINE WILL BE CONSTRUCTED TO PROVIDE THE PROPOSED 2% PAVEMENT CROSS SLOPE AND MAINTAIN A MINIMUM 1/2" THICKNESS AT EITHER PAVEMENT EDGE OR CENTERLINE WHICHEVER CONTROLS.

HLR
 Rice, Berry and Associates
 A Division of Hampton,
 Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 3085 Stevenson Drive
 Suite 201
 Springfield, Illinois 62703
 217-546-3400
 Account Number
 12-91-0014-1
 Date: 03/22/06
 P.O. Box 1036
 DuQuoin, Illinois 62832
 618-790-4637
 DESIGNED: L.F.S. CHECKED: S.W.M. DRAWN: D.B.

ROADWAY DETAILS
 F.A.S. 1481 / C.H. 7 / TOWNLIN ROAD
 SECTION 03-00016-00-BR
 TAZEWELL COUNTY

NO. _____
AREAS CHECKED _____

NO. _____
AREAS CHECKED _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SH. N.
7	03-00016-00-BR	TAZEWELL	23	
STA. 8+50.00		TO STA. 10+25.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	CONTRACT NO. 892

465

460

455

465

460

455

465

460

455

465

460

455

465

460

455

465

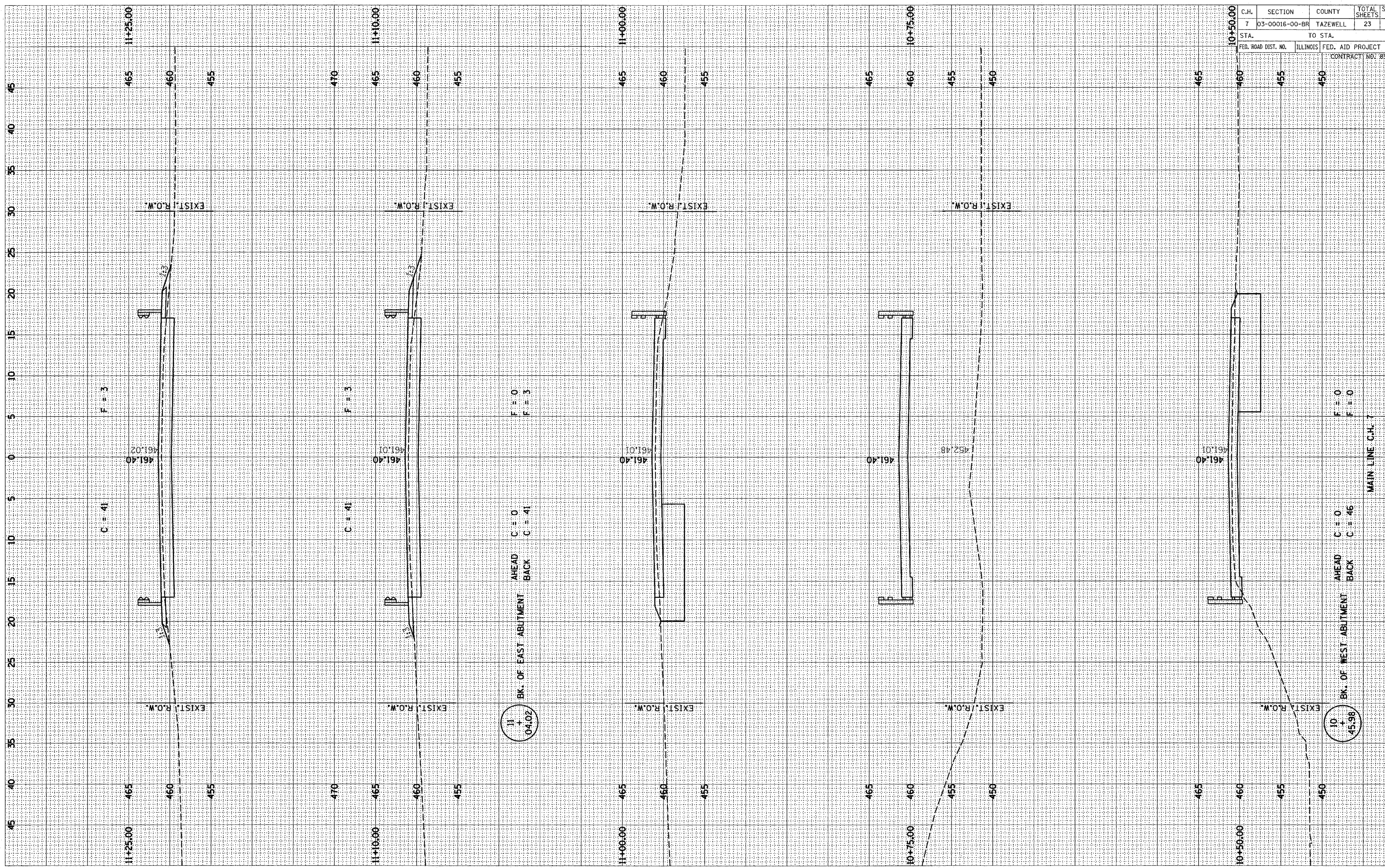
460

455

MAIN LINE C.H. 7

NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	03-00016-00-BR	TAZEWELL	23	9

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	CONTRACT NO: 892

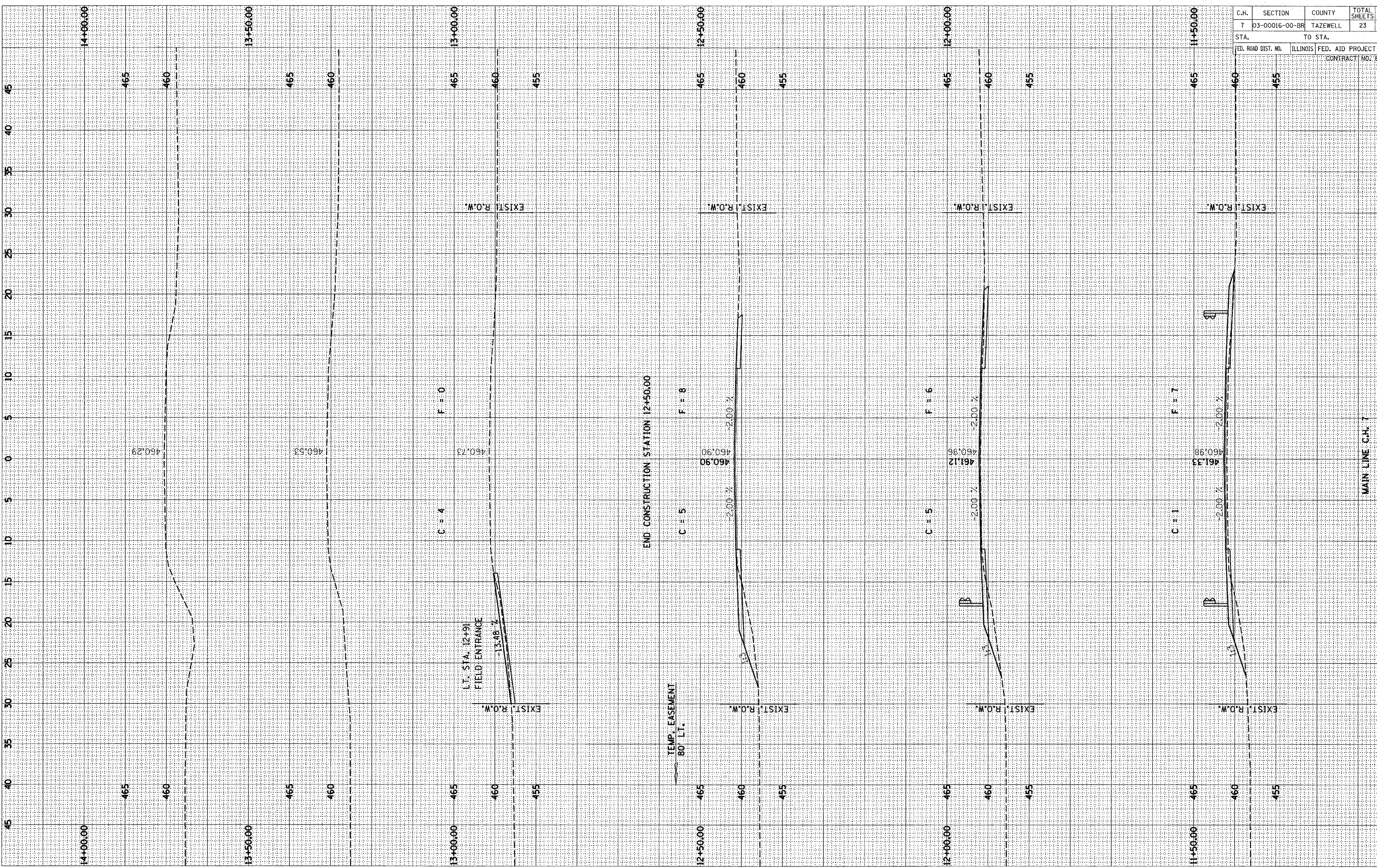
11 + 04.02

10 + 45.98

MAIN LINE C.H. 7

NOTE BOOK NO. AREAS CHECKED

NOTE BOOK NO. AREAS CHECKED

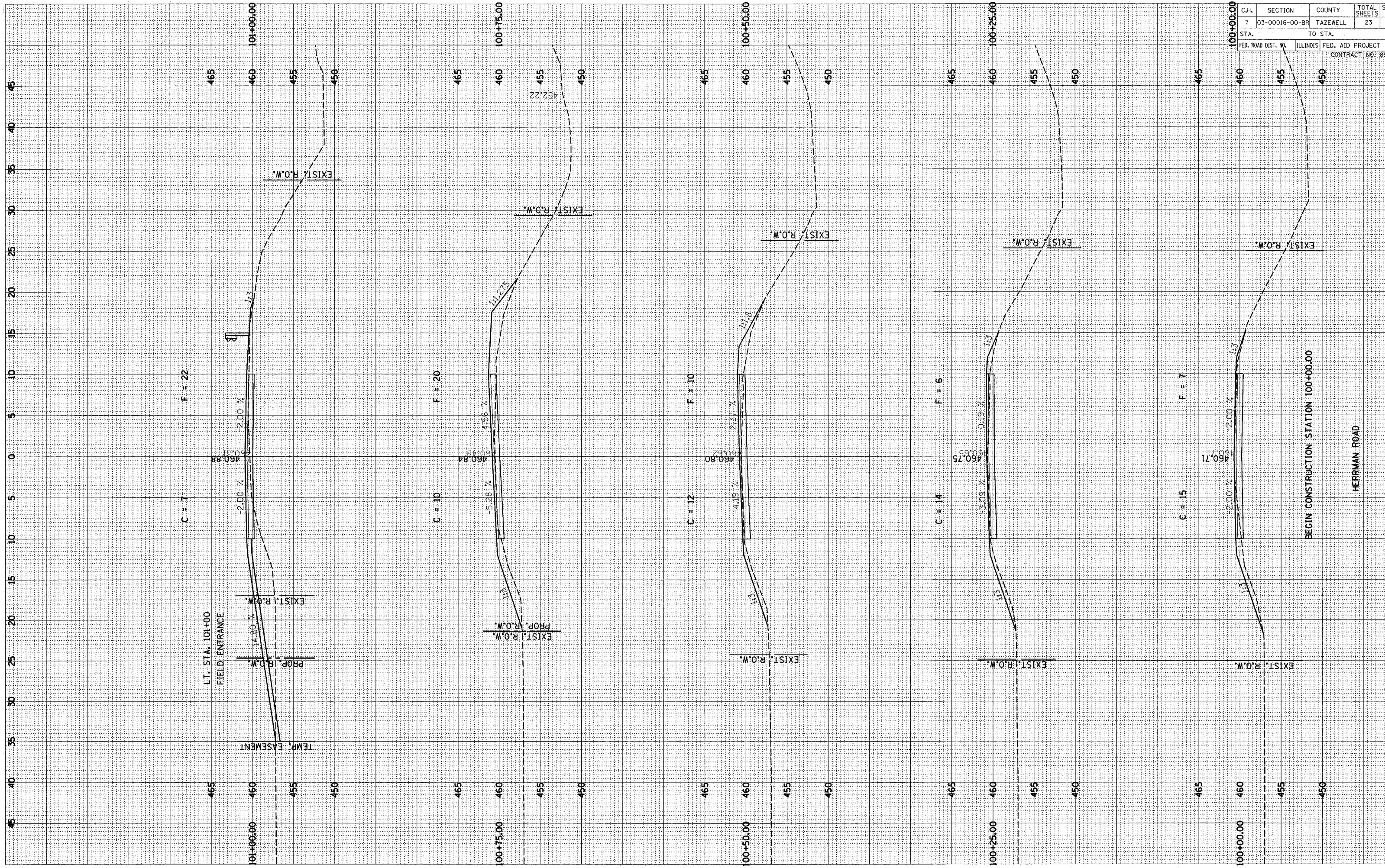


C.H.	SECTION	COUNTY	TOTAL SHEETS	SH
7	D3-00016-00-BR	TAZEWELL	23	M
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 895	

MAIN LINE C.H. 7

NOTE BOOK
NO. _____
TEMPLATE
AREAS CHECKED _____
AREAS CHECKED _____

NOTE BOOK
NO. _____
TEMPLATE
AREAS CHECKED _____
AREAS CHECKED _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	03-00016-00-BR	TAZEWELL	23	

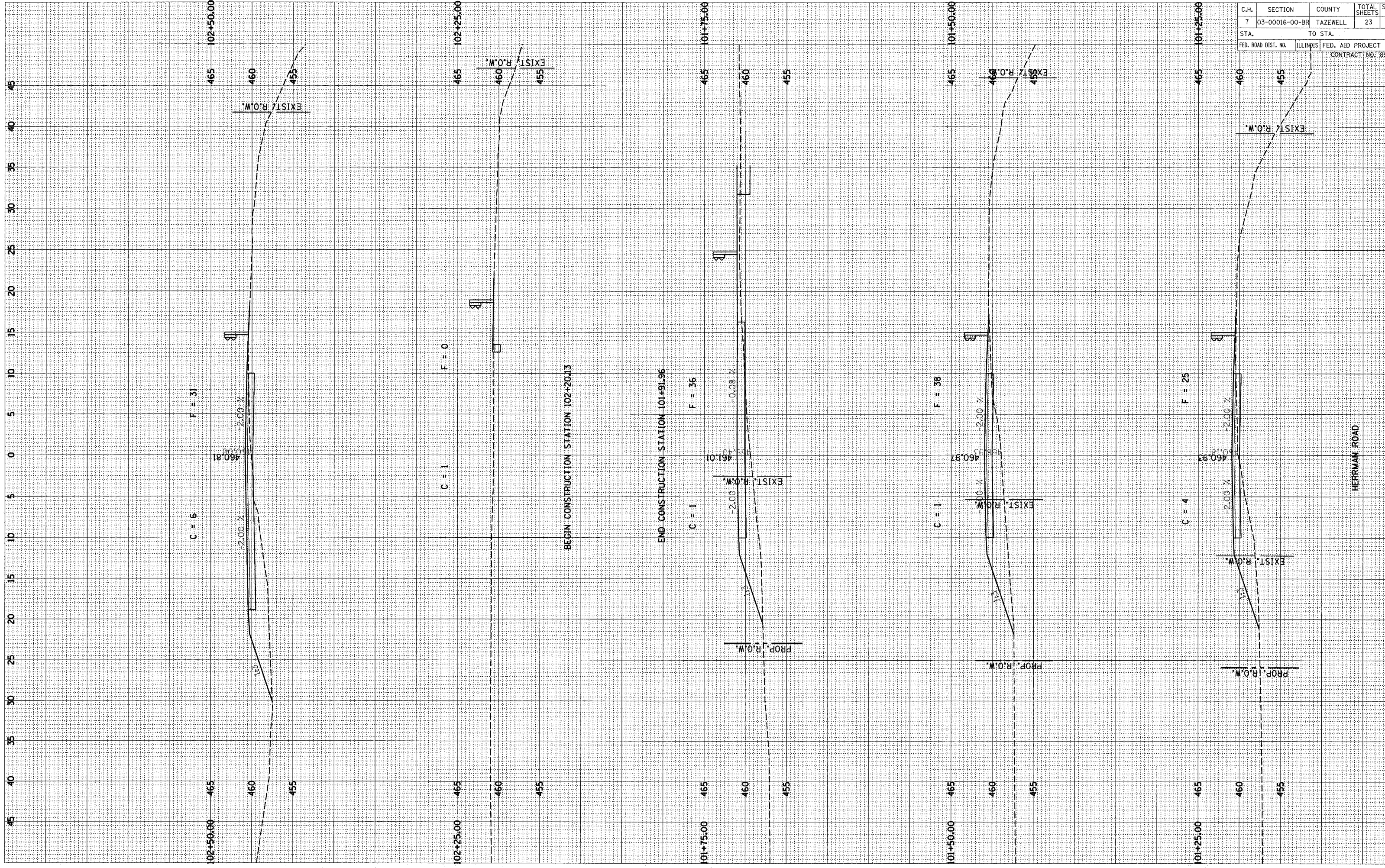
STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	CONTRACT NO. 892

BEGIN CONSTRUCTION STATION 100+00.00

HERRMAN ROAD

NOTE BOOK
NO. _____
TEMPLATE
AREAS CHECKED _____
CHECKED _____

NOTE BOOK
NO. _____
TEMPLATE
AREAS CHECKED _____
CHECKED _____

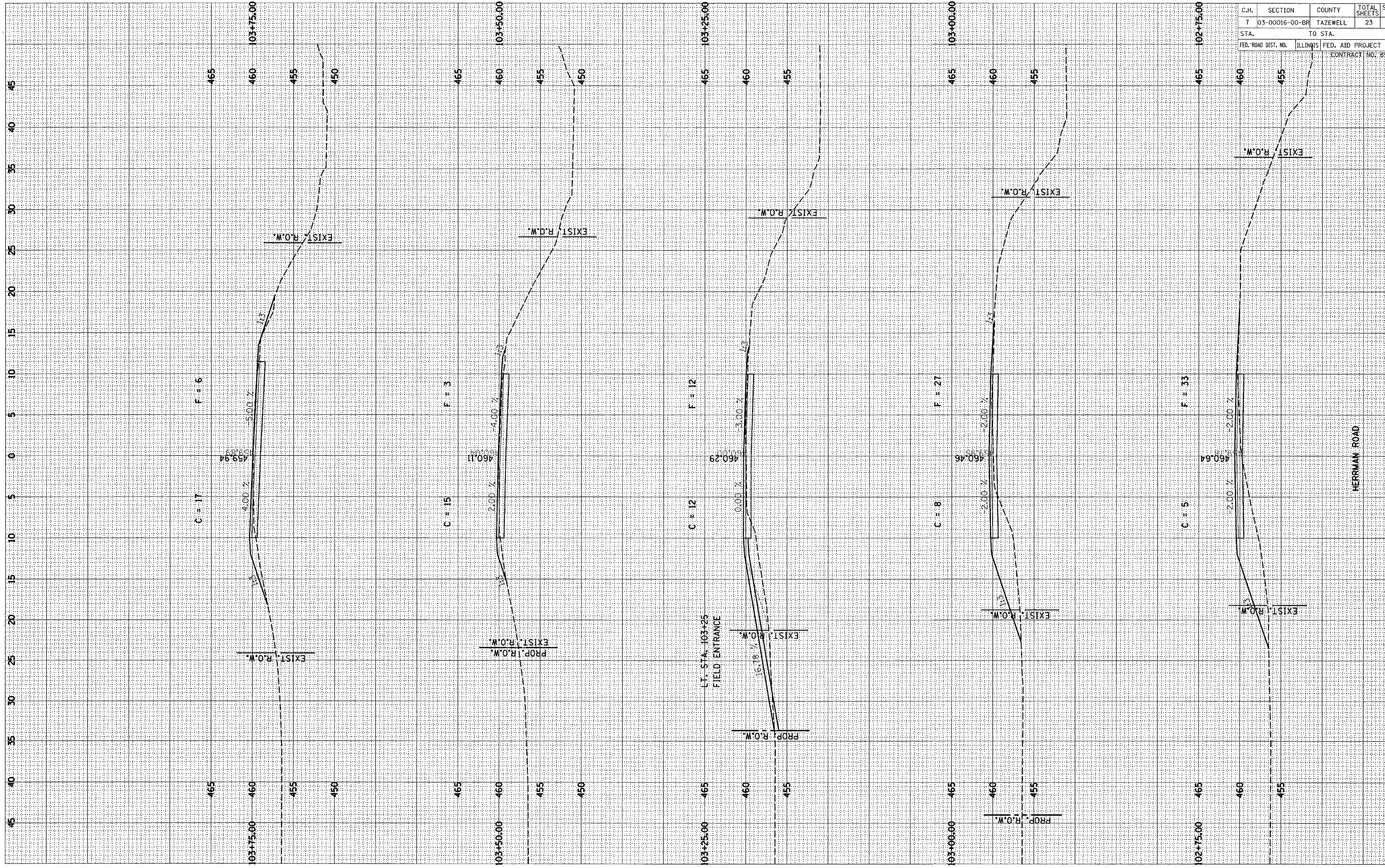


C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	03-00016-00-BR	TAZEWELL	23	1

STA. _____ TO STA. _____
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT _____
CONTRACT NO. _____

NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED

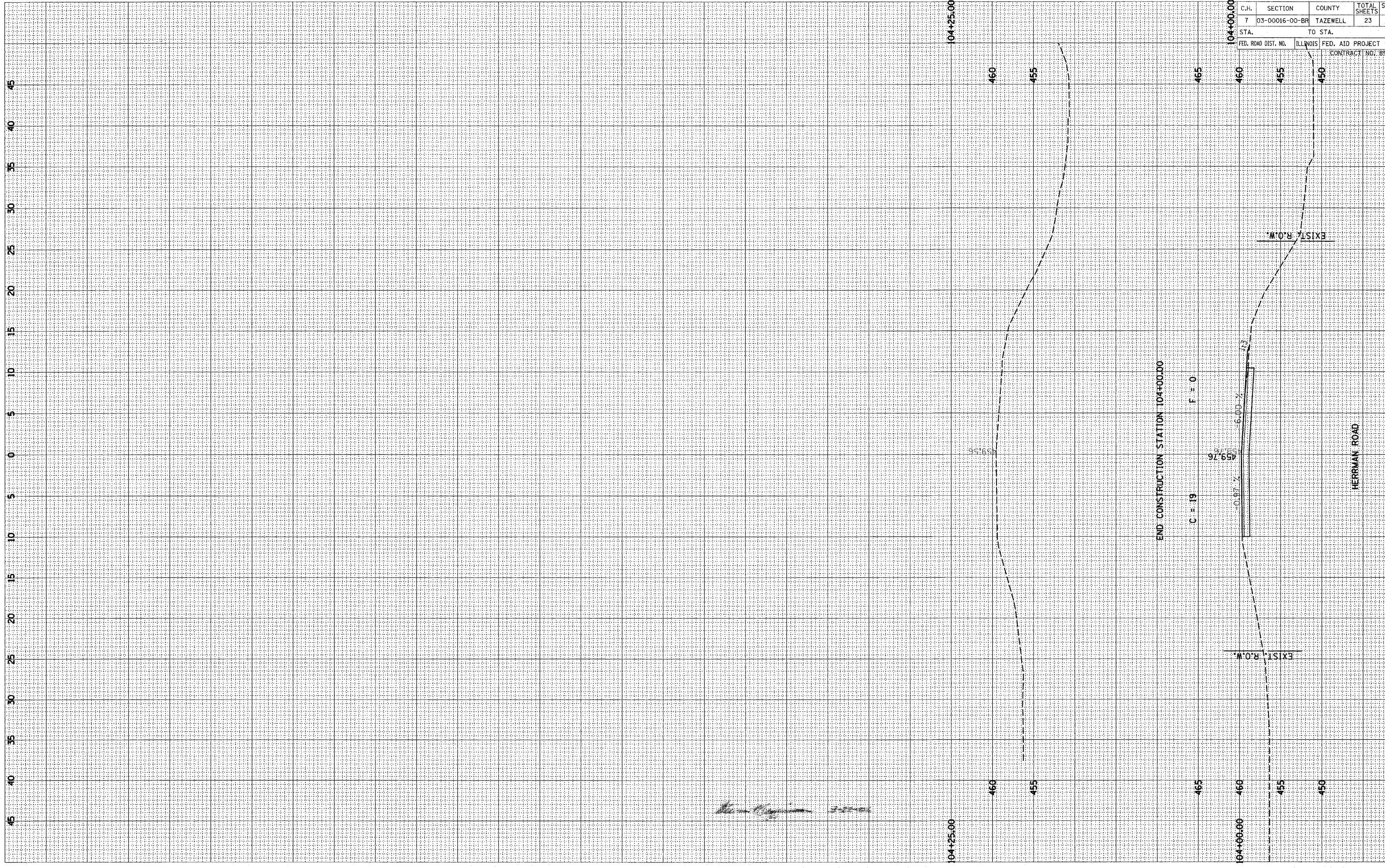


C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	03-00016-00-BR	TAZEWELL	23	
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 892

HERRIMAN ROAD

NOTE BOOK TEMPLATE
AREAS CHECKED

NOTE BOOK TEMPLATE
AREAS CHECKED



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	03-00016-00-BP	TAZEWELL	23	1
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 892		

Handwritten signature

END CONSTRUCTION STATION 104+00.00

C = 19 F = 0

-0.97 %

-6.00 %

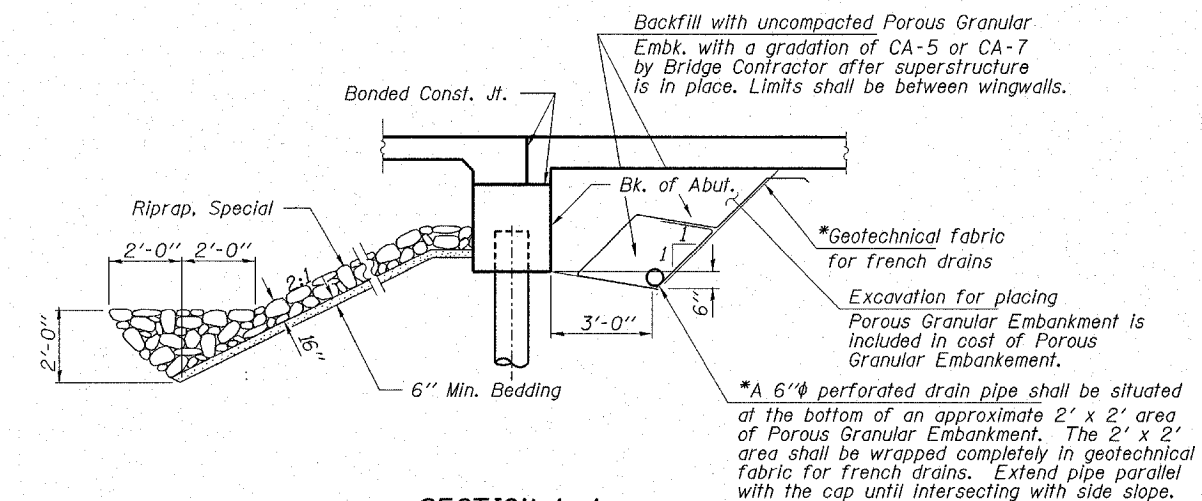
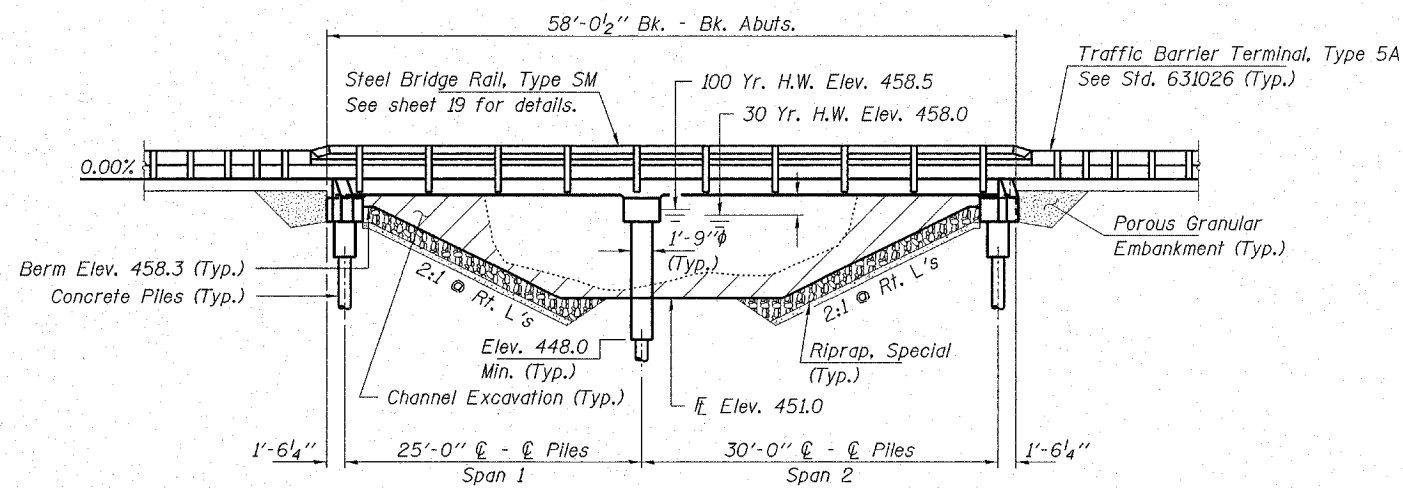
HERRMAN ROAD

EXIST. R.O.W.

EXIST. R.O.W.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS
C.H. 7	03-00016-00-BR	TAZEWELL	23
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-	

CONTRACT NO. 89296



Note: See Special Provisions for Riprap, Special.

GENERAL NOTES

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

Excavation required to construct the abutments shall be considered incidental to Concrete Structures. No additional compensation will be allowed for Structure Excavation.

The Contractor shall drive one concrete test piles in a permanent location at the Pier, as directed by the Engineer, before ordering the remainder of the piles.

All proposed construction activity shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.

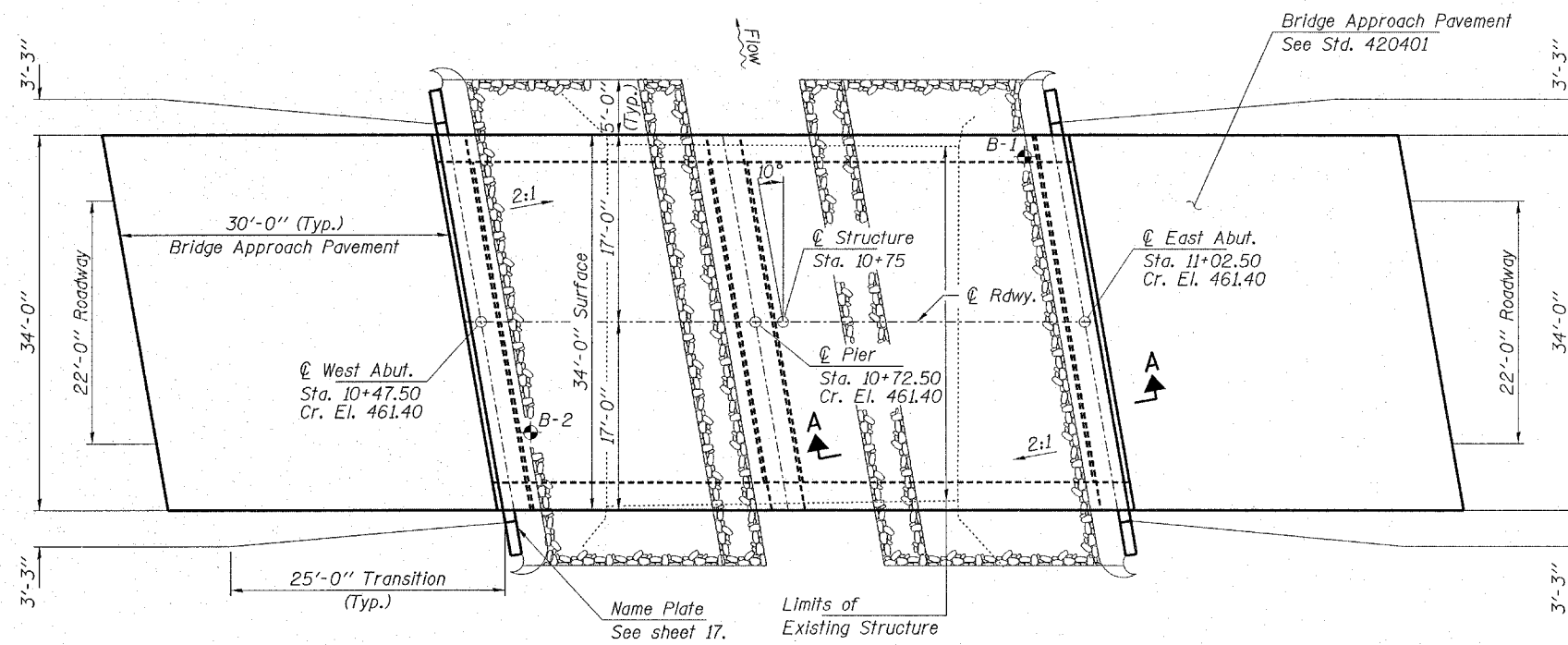
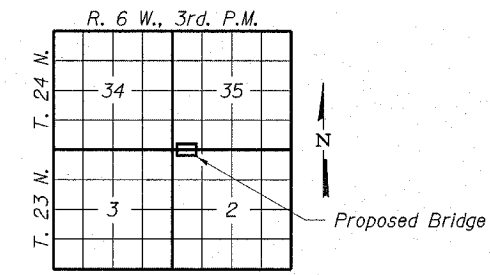
The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

Bridge Deck Grooving shall be completed across the bridge deck and bridge approach pavement. Texturing of surfaces shall be done by saw cut grooving. The Contractor shall not operate pavement rollers on areas of bridge deck grooving.

Protective Coat shall be applied to all exposed areas of the bridge surface and Bridge Approach Pavement.

All construction joints shall be bonded.

See sheets 22 and 23 for Borings.



BUILT 200_ BY
TAZEWELL COUNTY
SECTION 03-00016-00-BR
F.A.S. 1481 / C.H. 7
F.A. PROJ. BRS-1481(104)
STR. NO. 090-3237
LOADING HS 20

NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Ton		70	70
Riprap, Special	Ton			180
Bridge Approach Pavement	Sq. Yd.			227
Protective Coat	Sq. Yd.	442		442
Concrete Superstructure	Cu. Yd.	86.1		86.1
Concrete Structures	Cu. Yd.		24.6	24.6
Bridge Deck Grooving	Sq. Yd.	442		442
Reinforcement Bars, Epoxy Coated	Pound	31,470		31,470
Steel Bridge Rail, Type SM	Foot	122		122
Concrete Piles	Foot		600	600
Test Pile Concrete	Each		1	1
Concrete Encasement	Cu. Yd.		5.2	5.2
Name Plates	Each		1	1
Bar Splicers	Each	70		70

DESIGN STRESSES

f'c = 3,500 p.s.i.

fy = 60,000 p.s.i. (Reinforcement)

n = 9

Loading HS 20-44

Design Specifications: 2002 AASHTO & all applicable interims.

25#/Sq. Ft. included in dead load for future wearing surface.

Load Factor Design

SEISMIC DATA

Seismic Performance Category (SPC) = A

Bedrock Acceleration Coefficient (A) = 0.045g

Site Coefficient (S) = 1.5

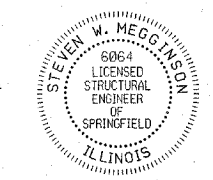
WATERWAY INFORMATION

Drainage Area = 0.7 Sq. Mi. Low Grade Elev. 460.9 @ Sta. 9+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	30	75	180	210	458.0	0.0	0.0	458.0	458.0
Base	100	100	190	230	458.5	0.0	0.0	458.5	458.5
Overtopping									
Max. Calc.	500	120	190	240	458.8	0.0	0.0	458.8	458.8

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

Steven W. Meggs 3-22-06
ILLINOIS STRUCTURAL NO. 6064



Expires 11-30-06

HLR

Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
3085 Stevenson Drive
Suite 201
Springfield, Illinois 62703
217-546-3400

P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637

Account Number 12-91-0014-1
Date: 03/22/06

DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

GENERAL PLAN AND ELEVATION

C.H. 7 / TOWNLIN ROAD

SECTION 03-00016-00-BR

TAZEWELL COUNTY

STR. NO. 090-3237 / STATION 10+75

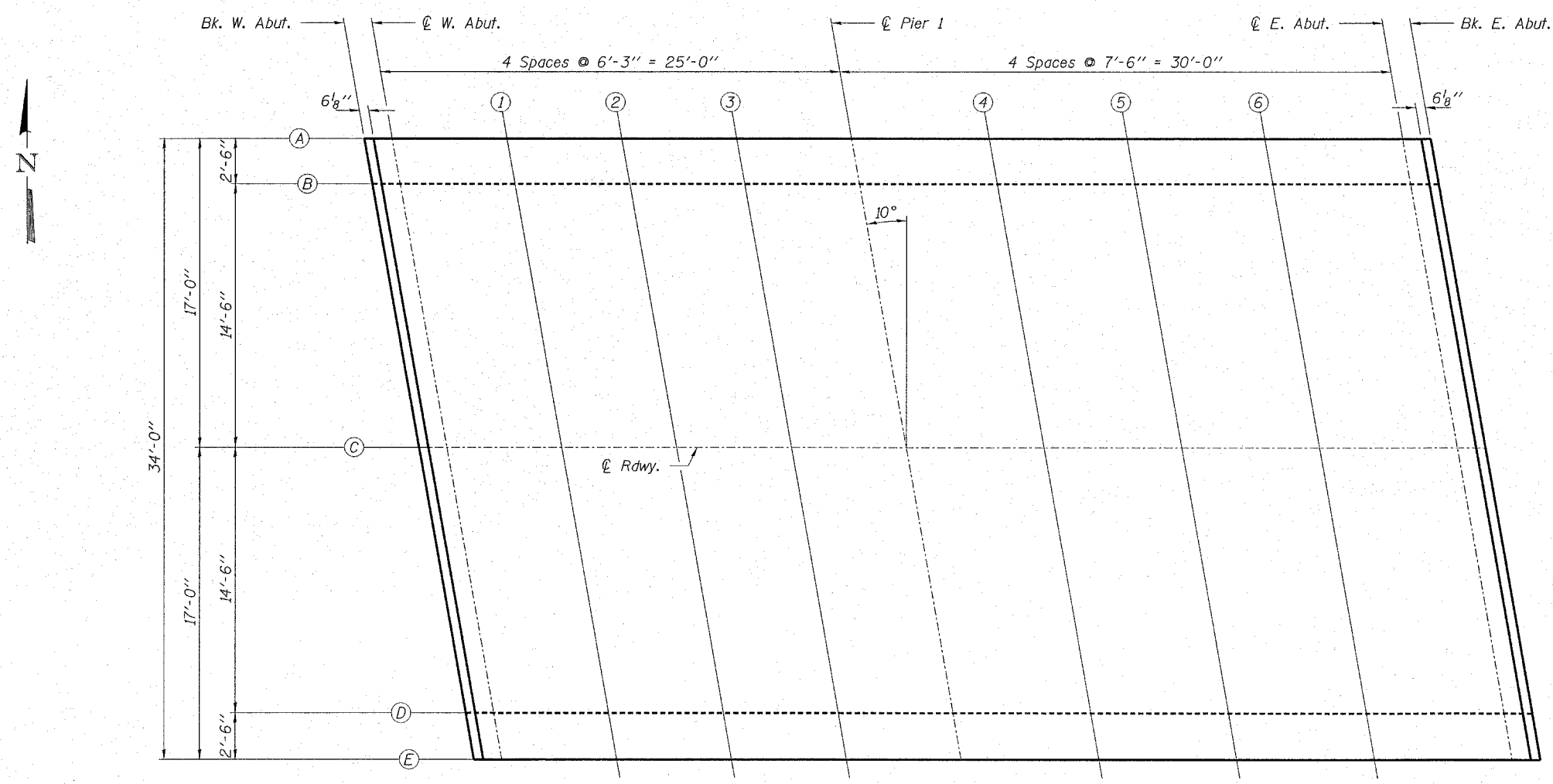


TABLE OF ELEVATIONS

LOCATION		BK. OF W. ABUT.	☉ OF W. ABUT.	SPAN 1			☉ OF PIER 1	SPAN 2			☉ OF E. ABUT.	BK. OF E. ABUT.
LINE	T.	461.060	461.060	1	2	3	461.060	4	5	6	461.060	461.060
A	ADJ.	461.060	461.065	461.065	461.065	461.061	461.060	461.070	461.075	461.060	461.060	461.060
	Bott. of Slab	459.977	459.977	459.981	459.982	459.978	459.977	459.987	459.995	459.991	459.977	459.977

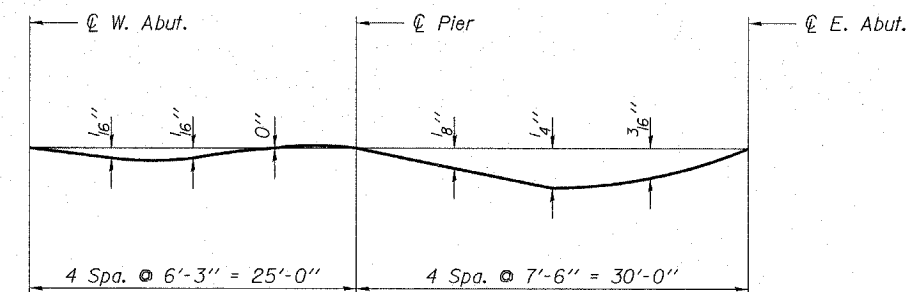
LOCATION		BK. OF W. ABUT.	☉ OF W. ABUT.	SPAN 1			☉ OF PIER 1	SPAN 2			☉ OF E. ABUT.	BK. OF E. ABUT.
LINE	T.	461.110	461.110	1	2	3	461.110	4	5	6	461.110	461.110
B	ADJ.	461.110	461.115	461.115	461.115	461.111	461.110	461.120	461.128	461.125	461.110	461.110
	Bott. of Slab	460.027	460.027	460.031	460.032	460.028	460.027	460.037	460.045	460.041	460.027	460.027

LOCATION		BK. OF W. ABUT.	☉ OF W. ABUT.	SPAN 1			☉ OF PIER 1	SPAN 2			☉ OF E. ABUT.	BK. OF E. ABUT.
LINE	T.	461.400	461.400	1	2	3	461.400	4	5	6	461.400	461.400
C	ADJ.	461.400	461.405	461.405	461.405	461.401	461.400	461.401	461.418	461.415	461.400	461.400
	Bott. of Slab	460.317	460.317	460.321	460.322	460.318	460.317	460.327	460.335	460.331	460.317	460.317

LOCATION		BK. OF W. ABUT.	☉ OF W. ABUT.	SPAN 1			☉ OF PIER 1	SPAN 2			☉ OF E. ABUT.	BK. OF E. ABUT.
LINE	T.	461.110	461.110	1	2	3	461.110	4	5	6	461.110	461.110
D	ADJ.	461.110	461.115	461.115	461.115	461.111	461.110	461.120	461.128	461.125	461.110	461.110
	Bott. of Slab	460.027	460.027	460.031	460.032	460.028	460.027	460.037	460.045	460.041	460.027	460.027

LOCATION		BK. OF W. ABUT.	☉ OF W. ABUT.	SPAN 1			☉ OF PIER 1	SPAN 2			☉ OF E. ABUT.	BK. OF E. ABUT.
LINE	T.	461.060	461.060	1	2	3	461.060	4	5	6	461.060	461.060
E	ADJ.	461.060	461.065	461.065	461.065	461.061	461.060	461.070	461.078	461.075	461.060	461.060
	Bott. of Slab	459.977	459.977	459.981	459.982	459.978	459.977	459.987	459.995	459.991	459.977	459.977

T. - Theoretical elevation at top of slab
Adj. - T adjusted for dead load deflection



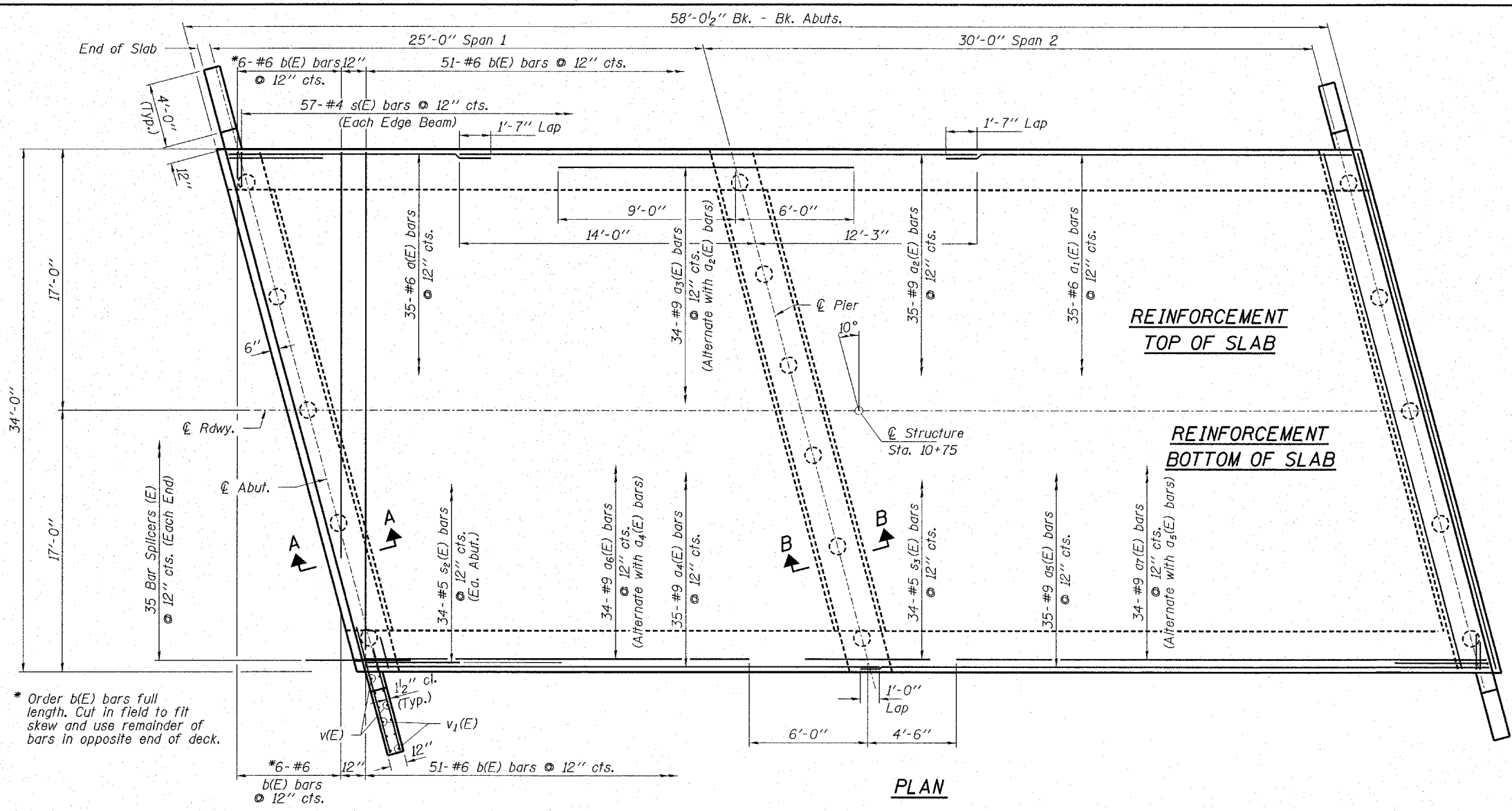
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown.

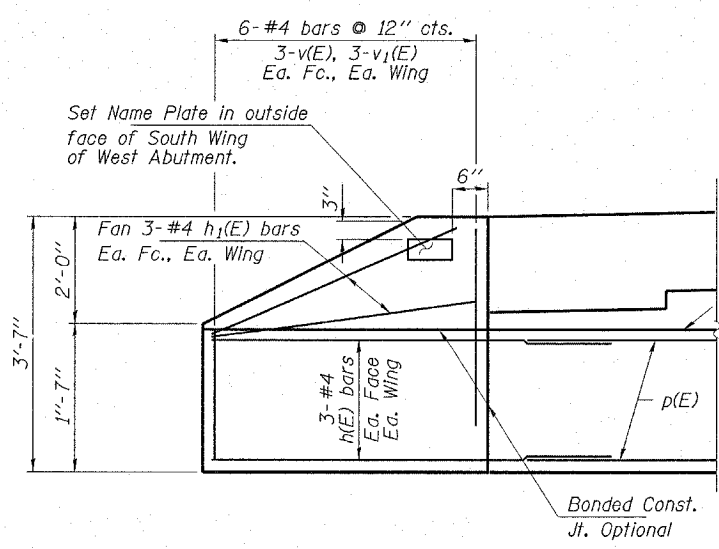
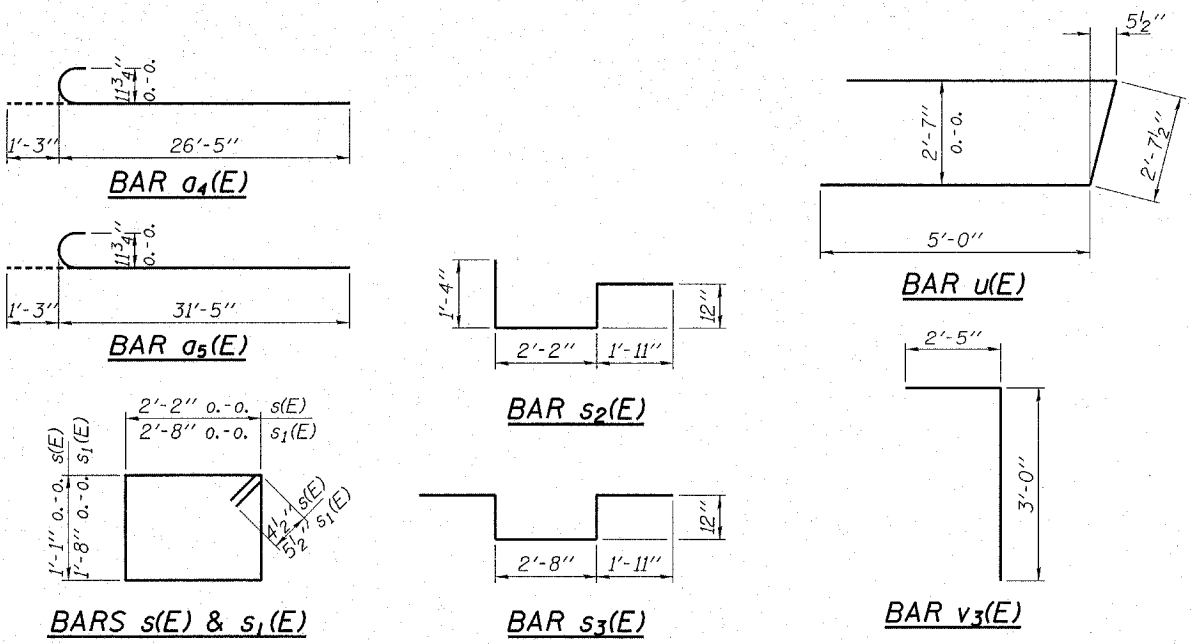
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 DuQuoin, Illinois 62832
 618-790-4637
 Account Number 12-91-0014-1
 Date: 03/22/06
 DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

SLAB ELEVATIONS
 C.H. 7 / TOWNLIN ROAD
 SECTION 03-00016-00-BR
 TAZEWELL COUNTY
 STR. NO. 090-3237 STATION 10+75



PLAN

* Order b(E) bars full length. Cut in field to fit skew and use remainder of bars in opposite end of deck.



WING DETAIL
(Typ. all Wingwalls)

Note: For edge beam details see Detail A on sheet 15.

MIN. BAR LAPS
#6 - 1'-7"

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	35	#6	13'-6"	—
a1(E)	35	#6	20'-3"	—
a2(E)	35	#9	26'-3"	—
a3(E)	34	#9	15'-0"	—
a4(E)	35	#9	27'-8"	—
a5(E)	35	#9	32'-8"	—
a6(E)	34	#9	19'-11"	—
a7(E)	34	#9	26'-5"	—
b(E)	114	#6	33'-8"	—
h(E)	24	#4	6'-6"	—
h1(E)	24	#4	4'-9"	—
p(E)	20	#8	34'-2"	—
p1(E)	10	#7	34'-2"	—
s(E)	114	#4	7'-3"	—
s1(E)	109	#5	9'-7"	—
s2(E)	68	#5	6'-5"	—
s3(E)	34	#5	8'-6"	—
u(E)	18	#6	12'-8"	—
v(E)	24	#4	2'-10"	—
v1(E)	24	#4	1'-4"	—
v2(E)	204	#5	3'-0"	—
v3(E)	68	#5	5'-5"	—
Protective Coat		Sq. Yd.	442	
Concrete Structures		Cu. Yd.	24.6	
Concrete Superstructure		Cu. Yd.	86.1	
Bridge Deck Grooving		Sq. Yd.	442	
Reinforcement Bars, Epoxy Coated		Pound	31,470	
Concrete Piles		Foot	600	
Test Pile Concrete		Each	1	
Concrete Encasement		Cu. Yd.	5.2	
Name Plates		Each	1	
Bar Splicers		Each	70	

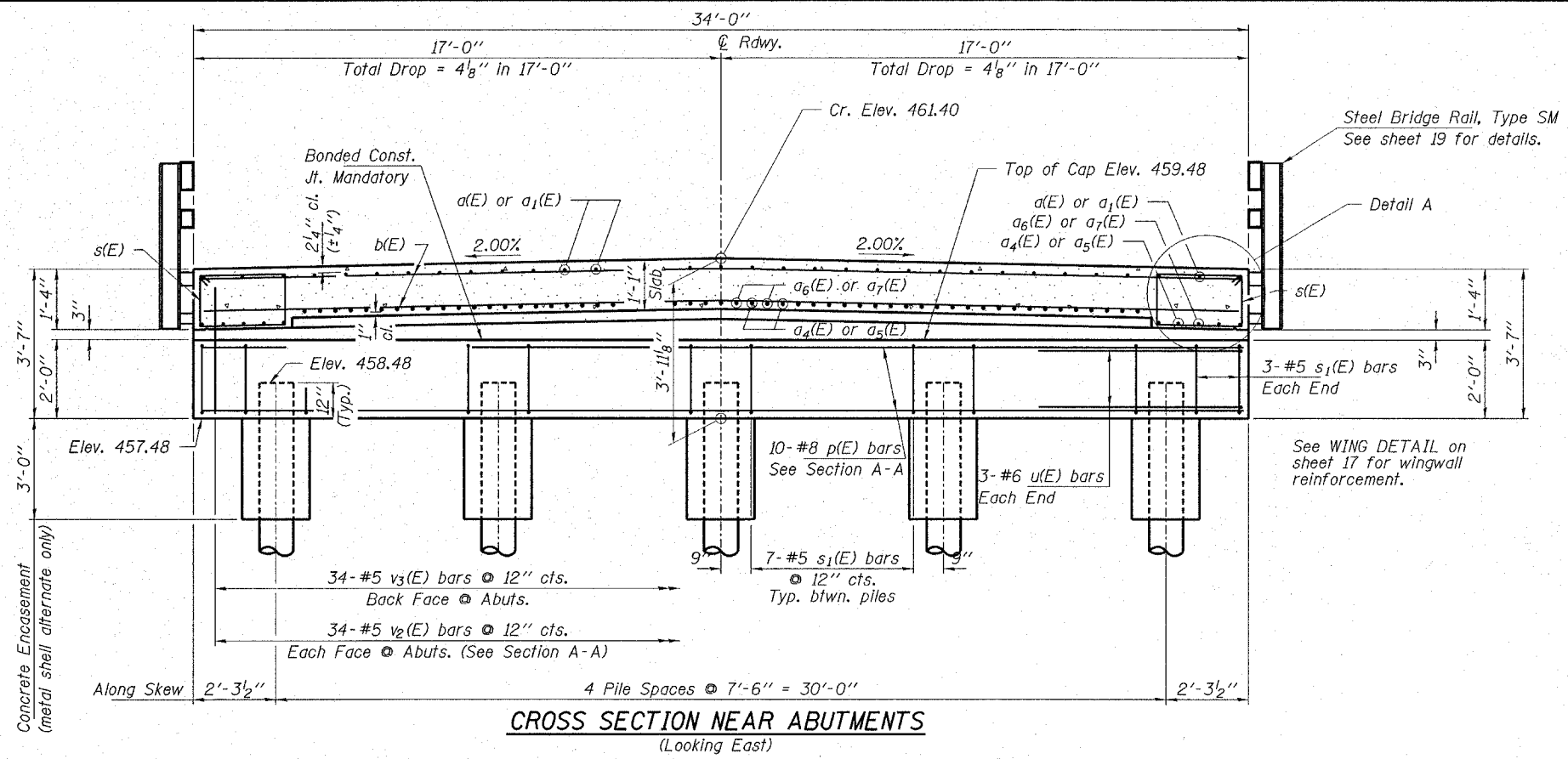
Reinforcement bars designated (E) shall be epoxy coated. For Elevations, Sections A-A, and B-B see sheet 18.

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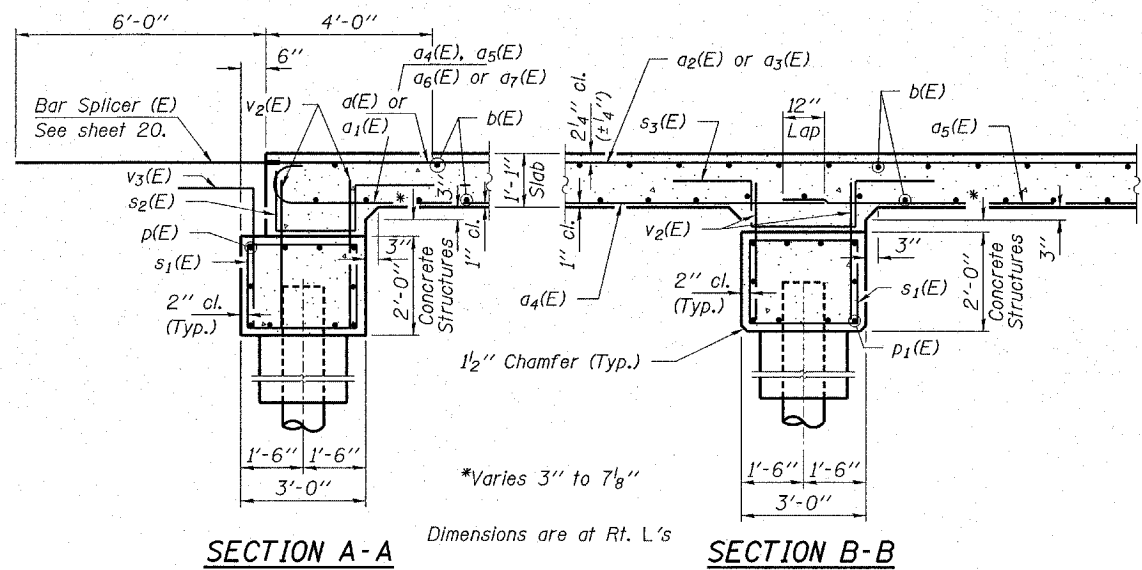
SUPERSTRUCTURE
C.H. 7 / TOWNLINE ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY
STR. NO. 090-3237 STATION 10+75

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS
C.H. 7	03-00016-00-BR	TAZEWELL	23
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 89296

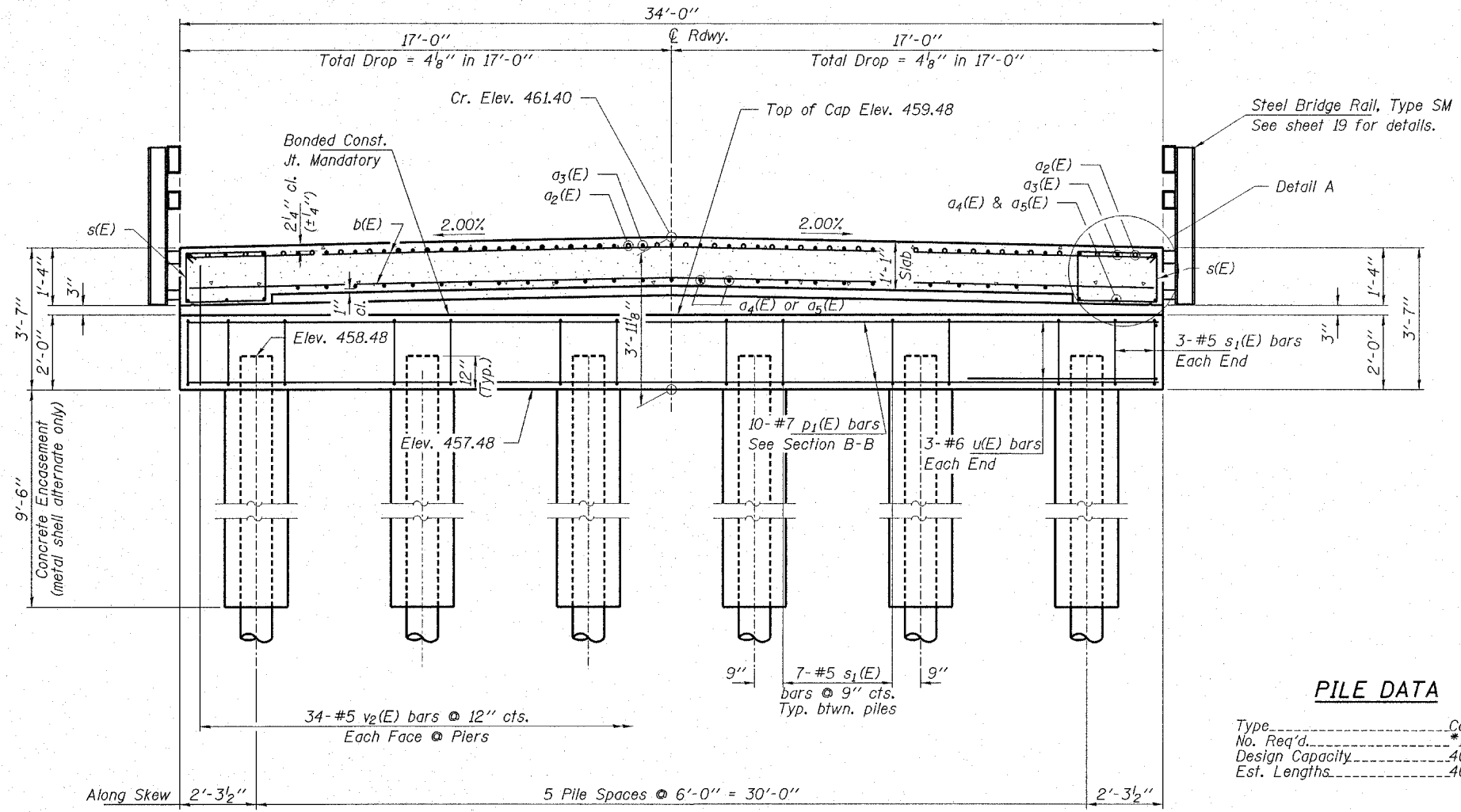


CROSS SECTION NEAR ABUTMENTS
(Looking East)



SECTION A-A **SECTION B-B**

Note: Project v2(E) and v3(E) bars 1'-0" above bonded construction joint.

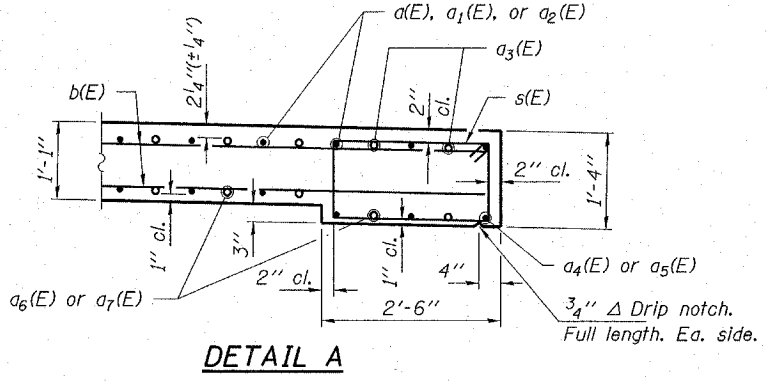


CROSS SECTION AT PIER
(Looking East)

PILE DATA

Type.....Concrete
No. Req'd.....*16
Design Capacity.....40 Tons/Pile
Est. Lengths.....40 Ft/Pile

* Includes one test pile to be driven in a permanent location at the Pier.



DETAIL A

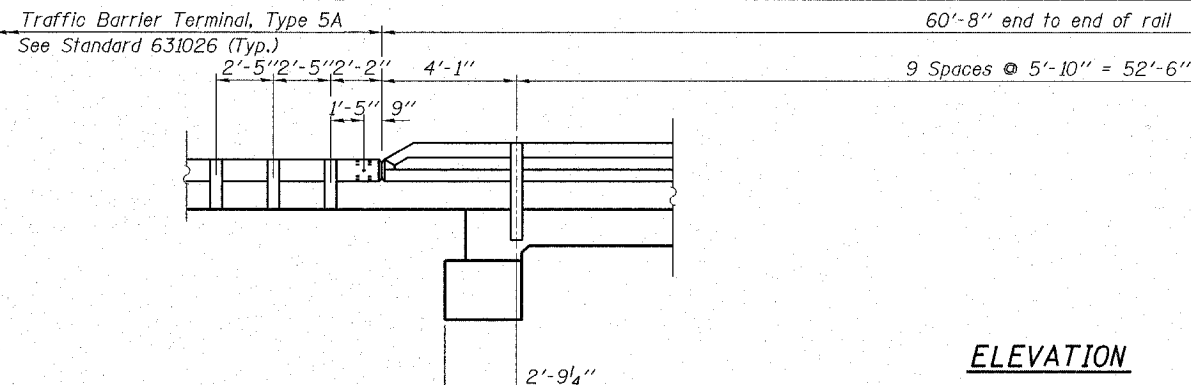
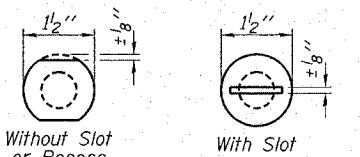
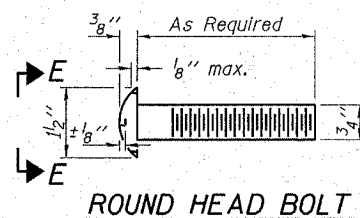
See sheet 21 For Pile Alternates and Encasement Details.

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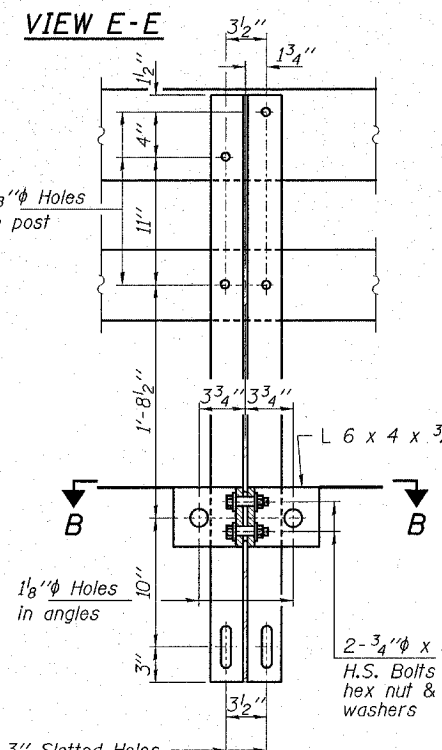
SUPERSTRUCTURE
C.H. 7 / TOWNLINE ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY
STR. NO. 090-3237 STATION 10+75

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 7	03-00016-00-BR	TAZEWELL	23	19
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

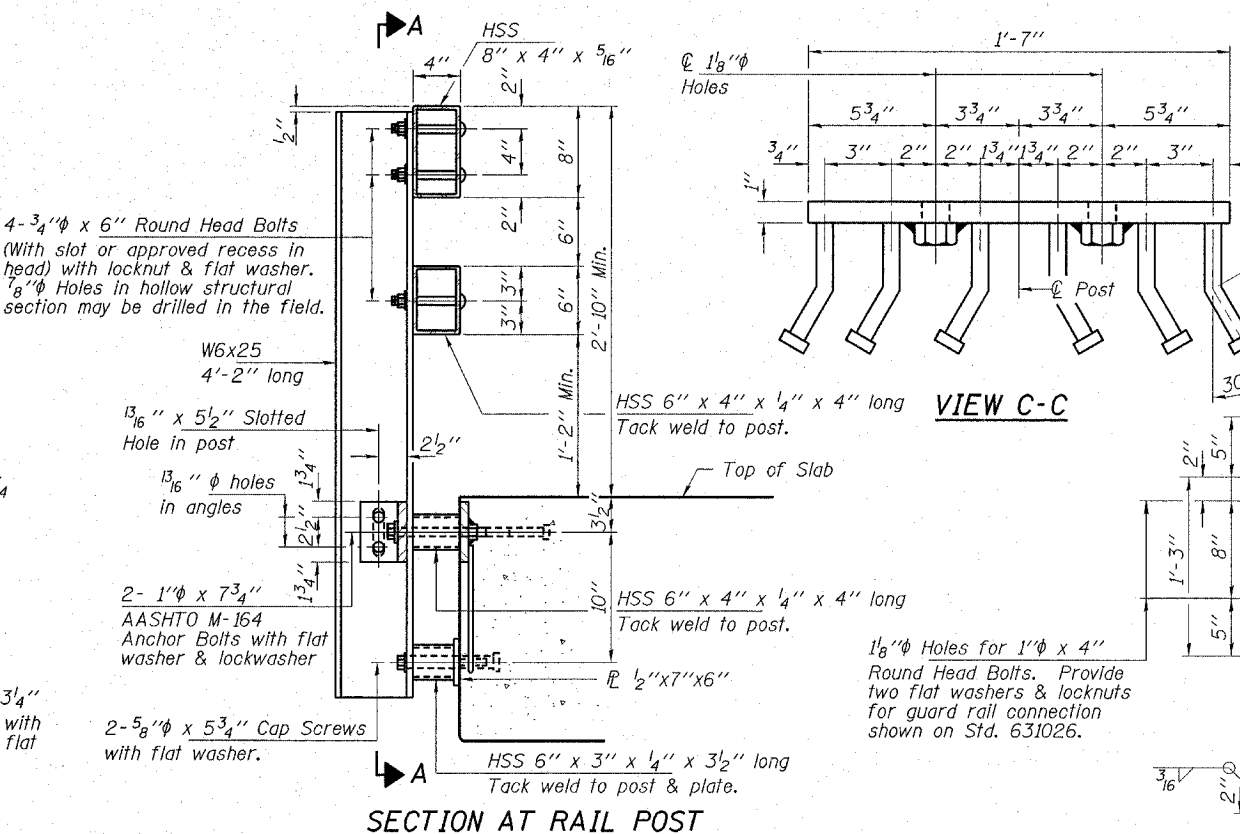
CONTRACT NO. 89296



ELEVATION

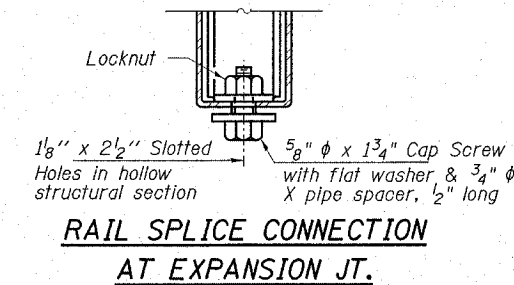


SECTION A-A

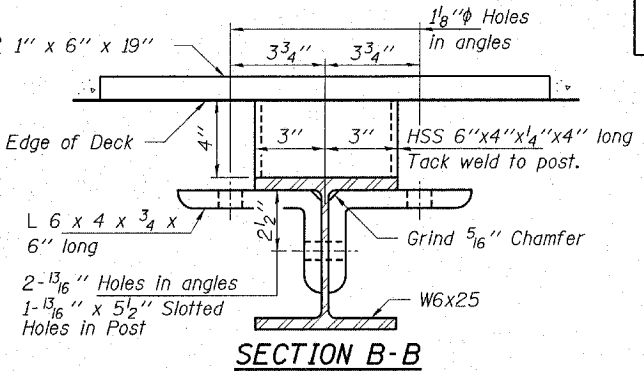


VIEW C-C

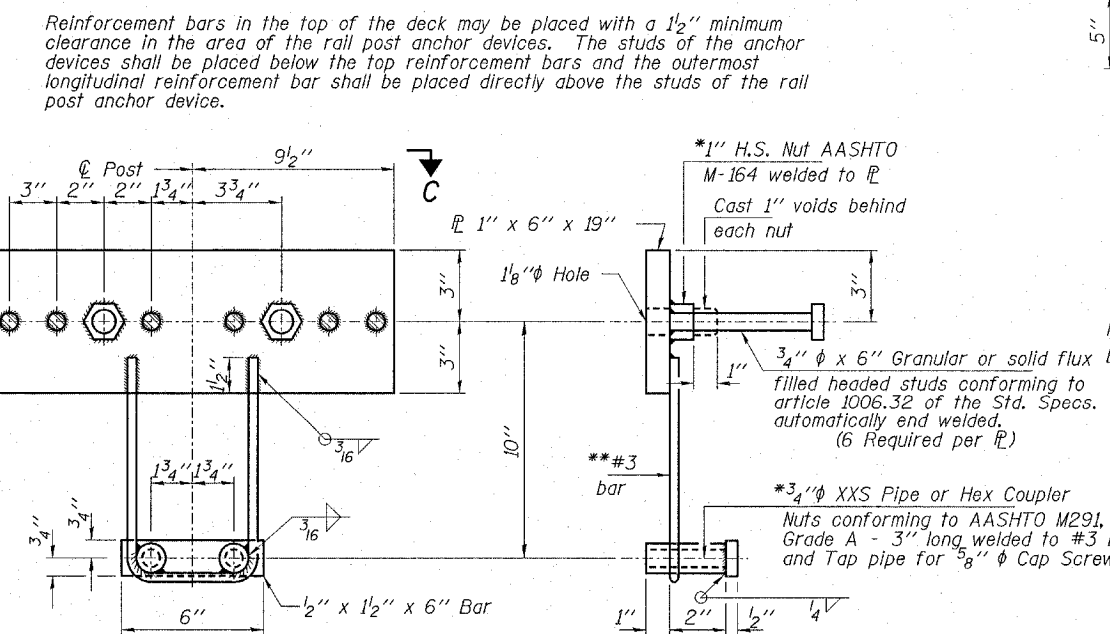
SECTION AT RAIL POST



RAIL SPLICE CONNECTION AT EXPANSION JT.

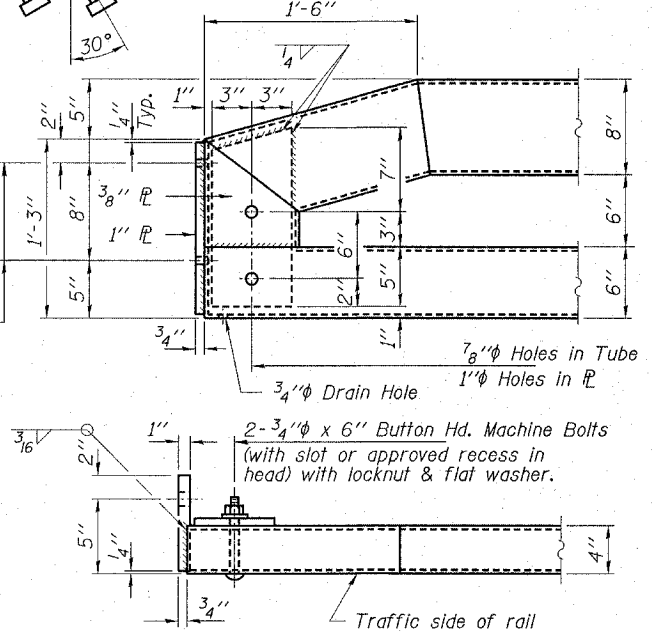


SECTION B-B

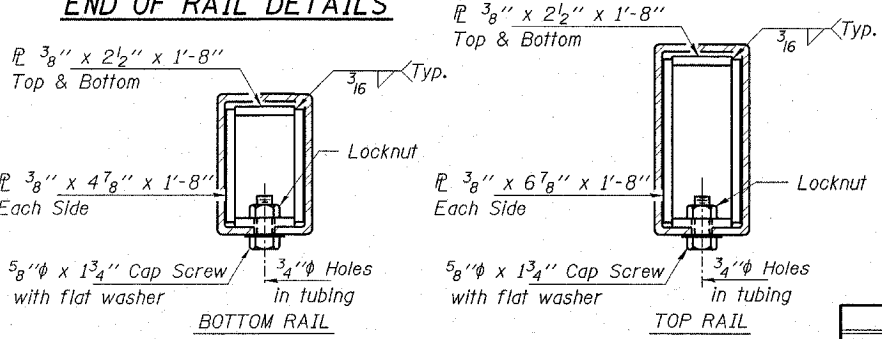


ANCHOR DEVICE

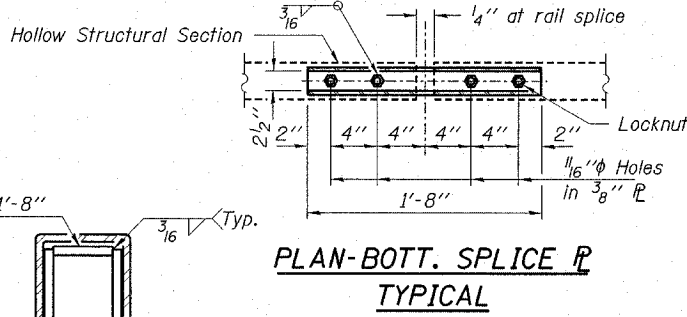
* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



END OF RAIL DETAILS



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL

NOTES

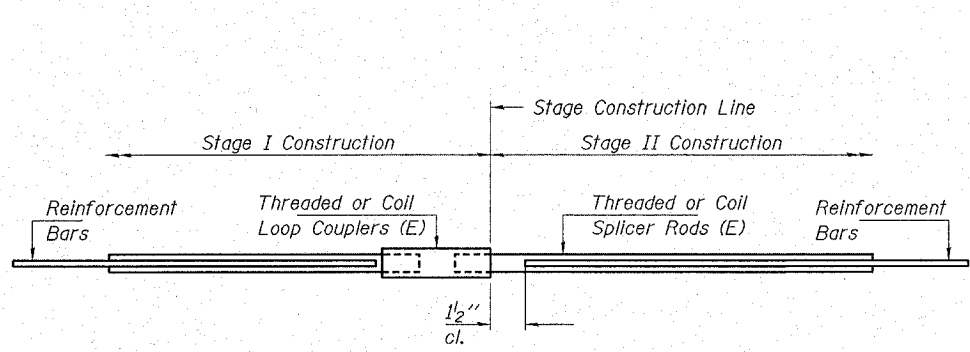
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270, Grade 36 except posts and 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 lockwashers 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 BRIDGE RAIL, TYPE SM.
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 The 1/2" x 7" x 6" plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8" fabric bearing pads between the plates and concrete.
 The 3/4" diameter high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Art. 505.04(f)(2) of the Standard Specifications. The 1" 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" diameter cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	122

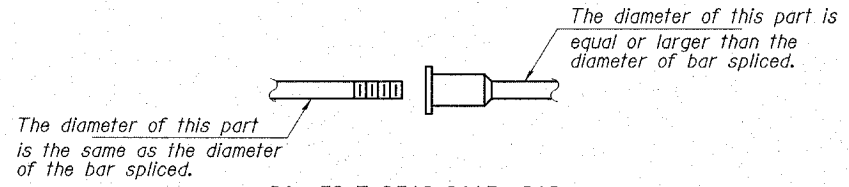
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RAILING DETAILS
 C.H. 7 / TOWNLIN ROAD
 SECTION 03-00016-00-BR
 TAZEWELL COUNTY
 STR. NO. 090-3237 STATION 10+75

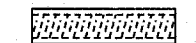


SPLICER DETAIL

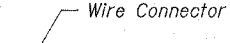
Bar Size	No. Assemblies Required	Location



ROLLED THREAD DOWEL BAR



ONE PIECE



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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

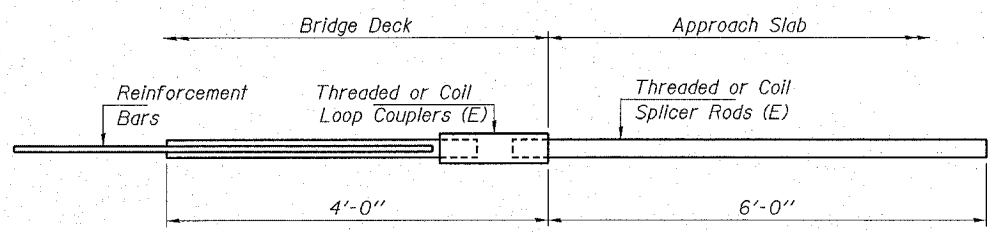
NOTES
 Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times f_{s_{allow}} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

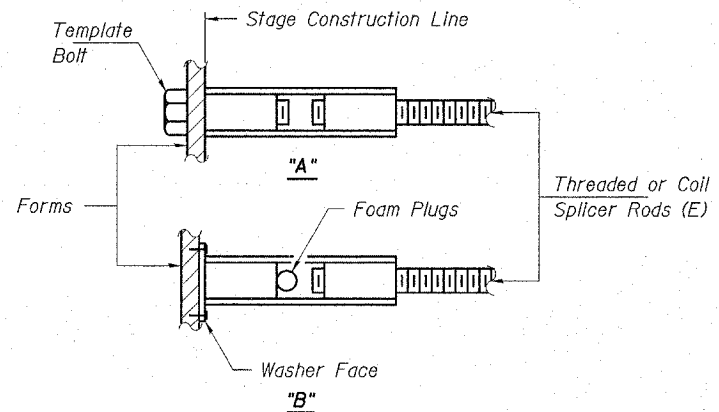
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



**INTEGRAL ABUTMENT
 BAR SPLICER ASSEMBLY DETAIL
 FOR #6 BAR**

Min. Capacity = 33.1 kips - tension
Min. Pull-out Strength = 13.3 kips - tension
No. Required = 70



INSTALLATION AND SETTING METHODS

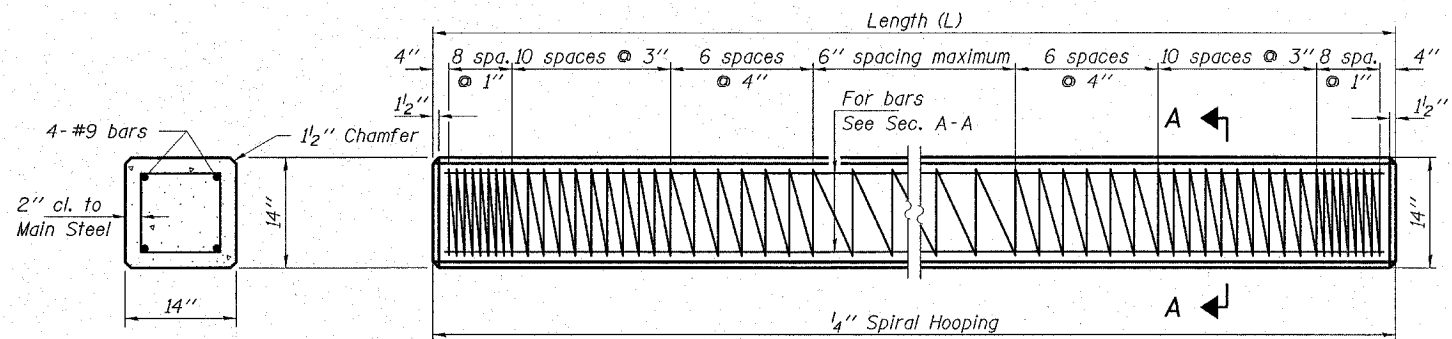
"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

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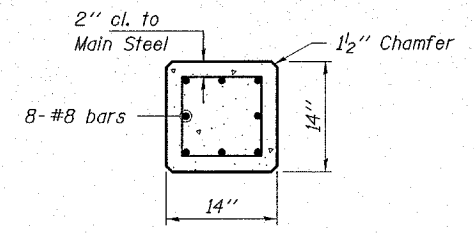
BAR SPLICERS
 C.H. 7 / TOWNLINE ROAD
 SECTION 03-00016-00-BR
 TAZEWELL COUNTY
 STR. NO. 090-3237 STATION 10+75

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 7	03-00016-00-BR	TAZEWELL	23	2
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 89296



**SECTION A-A
FOR PILES UNDER
45' LONG**

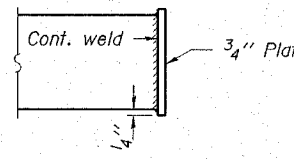
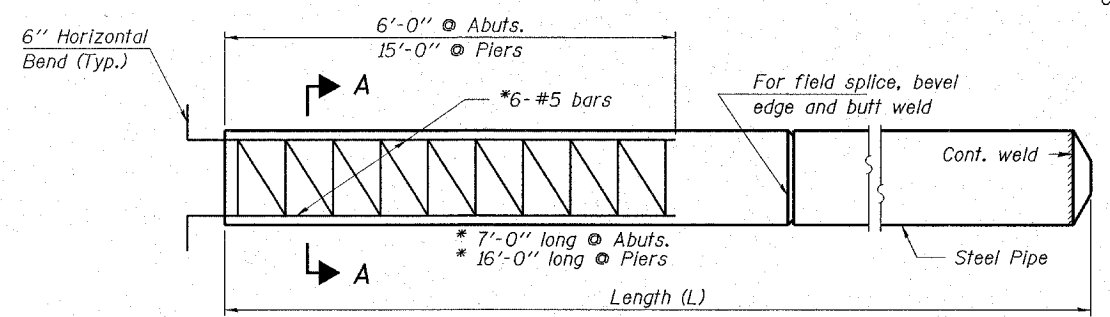


**SECTION A-A
FOR PILES 45'
OR MORE**

Handling: For Pile lengths up to 45' use two slings placed at a distance of 0.21L* from each end. For Piles longer than 45', use three slings placed at a distance of 0.12L* from each end and at mid point of pile.

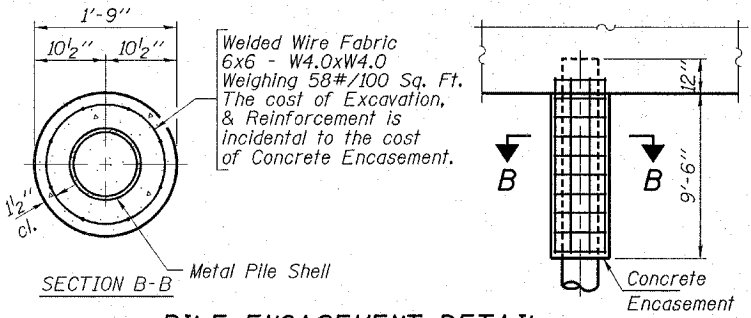
*L= Overall length of pile to be handled.

DETAIL OF PRECAST CONCRETE PILES

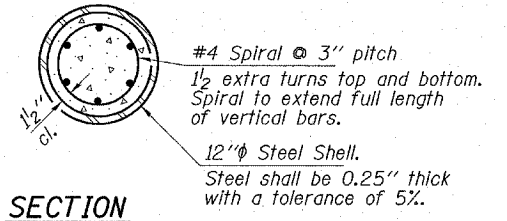


**OPTIONAL
FLAT END**

Note: Driving and bearing ends of pipe shall be cut square.



PILE ENCASEMENT DETAIL




SECTION
The cost of Reinforcement in piling is incidental to the cost of concrete piles.

DETAIL OF CAST IN PLACE CONCRETE PILES

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Date: 03/22/06
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PILING DETAILS
C.H. 7 / TOWNLIN ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY
STR. NO. 090-3237 STATION 10+75

BORING NO. B-01
DATE 2-21-05
W. & A. FILE NO. 4107
SHEET 1 OF 4



WHITNEY & ASSOCIATES
INCORPORATED
2408 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

PROJECT TOWNLINE ROAD BRIDGE; #03-00016-00-BR (CH-7) LOCATION Tazewell County, IL
BORING LOCATION Station 10+22; 15' Left of Centerline DRILLED BY Fehl
BORING TYPE Hollow-Stem Auger WEATHER CONDITIONS Partly Cloudy & Mild
SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION (-)11.0 Ft.
GROUND SURFACE ELEVATION (460.9) 99.9 GROUND WATER ELEVATION AT HRS.
BORING DISCONTINUED AT ELEVATION 48.9 GROUND WATER ELEVATION AT COMPLETION (-)10.5 Ft.

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Moisture - %
6"						
	SS	2	0.7	0.6	102	15
04		1(3)				
	SS	2	0.5	0.4	97	18
		2(3)				
08	SS	2	0.7	0.4	97	17
		2(4)				
	SS	2	-	-	-	11
12		3(5)				
	SS	5	-	-	-	15
		7				
16	SS	8(15)				
		5				
	SS	6	-	-	-	-
		8(14)				
	SS	7	-	-	-	-
		9				
20	SS	8(17)				
		5				
	SS	8	-	-	-	-
		12(20)				
	SS	6	-	-	-	-
		8				
24	SS	11(19)				
		8				
	SS	13	-	-	-	-
		16(29)				

(451.3)
Loose, Brown, Fine- To Coarse-Grained SAND With Some Fine-Grained Gravel

(448.8)
Medium-Density, Brown, Fine- To Coarse-Grained SAND

(444.0)
Medium-Density, Light Brown, Fine- To Medium-Grained SAND

(441.1)
Medium-Density, Brown, Fine- To Coarse-Grained SAND

(409.1)
EXPLORATORY BORING DISCONTINUED

NOTE: Benchmark (100.0) Center Of Existing Bridge Station 10+00

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING LOG
(CONTINUATION) DATE 2-21-05

BORING NO. B-01

PROJECT Townline Road Bridge; #03-00016-00-BR (CH-7) SHEET 2 OF 4
LOCATION Tazewell County, Illinois W. & A. FILE NO. 4107

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
		9	-	-	-	-
	SS	12	-	-	-	-
		17(29)				
	SS	7	-	-	-	-
		12				
		15(27)				
	SS	6	-	-	-	-
		11				
		13(24)				
	SS	7	-	-	-	-
		13				
		14(27)				
	SS	6	-	-	-	-
		12				
		18(30)				
	SS	9	-	-	-	-
		14				
		19(33)				

(43.2)
Medium-Density, Brown, Fine- To Coarse-Grained SAND With Occasional Fine-Grained Gravel

(413.0)
Dense, Brown, Fine- To Coarse-Grained SAND With Occasional Fine-Grained Gravel

(409.1)
EXPLORATORY BORING DISCONTINUED


NOTE: Benchmark (100.0) Center Of Existing Bridge Station 10+00

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING 1




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Account Number 12-91-0014-1
Date: 03/22/06
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

BORING 1

C.H. 7 / TOWNLINE ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY
STR. NO. 090-3237 STATION 10+75



WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-02
DATE 2-21-05
W. & A. FILE NO. 4107
SHEET 3 OF 4

PROJECT TOWNLIN ROAD BRIDGE; #03-00016-00-BR (CH-7) LOCATION Tazewell County, IL
BORING LOCATION Station 9+77; 10' Right of Centerline DRILLED BY Eehl
BORING TYPE Hollow-Stem Auger WEATHER CONDITIONS Partly Cloudy & Mild
SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION (-) 10.5 Ft.
GROUND SURFACE ELEVATION (460.8) 99.8 GROUND WATER ELEVATION AT 3 HRS (-) 9.4 Ft.
BORING DISCONTINUED AT ELEVATION 48.8 GROUND WATER ELEVATION AT COMPLETION (-) 9.7 Ft.

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	MC - IN
<u>BITUMINOUS CONCRETE</u>	<u>7"</u>						
<u>Brown Medium-Grained SAND And GRAVEL</u>	<u>14"</u>						
<u>Medium, Dark Brown SILTY CLAY With Some Organic Matter (Fill)</u>							
<u>(456.7)</u>	<u>04</u>	<u>SS</u>	<u>2</u>	<u>0.6</u>	<u>0.5</u>	<u>86</u>	<u>26</u>
<u>Soft To Medium, Dark Brown And Dark Gray SANDY CLAY (Fill)</u>							
		<u>SS</u>	<u>2</u>	<u>0.5</u>	<u>0.4</u>	<u>94</u>	<u>22</u>
			<u>2(4)</u>				
	<u>08</u>	<u>SS</u>	<u>3</u>	<u>0.8</u>	<u>0.6</u>	<u>93</u>	<u>23</u>
			<u>4(7)</u>				
<u>(451.2)</u>			<u>4</u>				
<u>Loose, Brown, Fine- To Coarse-Grained SAND With Considerable Fine-Grained Gravel</u>		<u>SS</u>	<u>3</u>				<u>14</u>
			<u>4(7)</u>				
<u>(448.6)</u>	<u>12</u>		<u>5</u>				
<u>Medium-Density, Brown, Fine- To Coarse-Grained SAND With Considerable Fine-Grained Gravel</u>		<u>SS</u>	<u>7</u>				
			<u>9(18)</u>				
	<u>16</u>	<u>SS</u>	<u>6</u>				
			<u>7</u>				
			<u>10(17)</u>				
<u>(441.9)</u>			<u>7</u>				
<u>Medium-Density, Brown, Fine- To Coarse-Grained SAND</u>		<u>SS</u>	<u>11</u>				
	<u>20</u>		<u>12(23)</u>				
		<u>SS</u>	<u>8</u>				
			<u>12</u>				
			<u>13(25)</u>				
		<u>SS</u>	<u>8</u>				
			<u>10</u>				
			<u>13(23)</u>				
<u>(437.0)</u>	<u>24</u>	<u>SS</u>	<u>8</u>				
<u>Medium-Density, Brown, Fine- To Coarse-Grained SAND With Some Fine-Grained Gravel</u>			<u>11</u>				
			<u>15(26)</u>				

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING LOG
(CONTINUATION)

BORING NO. B-02 DATE 2-21-05
PROJECT Townline Road Bridge; #03-00016-00-BR (CH-7) SHEET 4 OF 4
LOCATION Tazewell County, Illinois W. & A. FILE NO. 4107


DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
<u>See Sheet 3 of 4</u>							
		<u>SS</u>	<u>8</u>				
			<u>12</u>				
			<u>16(28)</u>				
	<u>30</u>						
		<u>SS</u>	<u>6</u>				
			<u>9</u>				
			<u>13(22)</u>				
<u>(427.9)</u>							
<u>Medium-Density, Brown, Fine- To Medium-Grained SAND</u>							
	<u>34</u>						
		<u>SS</u>	<u>7</u>				
			<u>10</u>				
			<u>12(22)</u>				
	<u>38</u>						
<u>(421.9)</u>							
<u>Dense, Brown, Fine- To Medium-Grained SAND</u>							
			<u>10</u>				
		<u>SS</u>	<u>14</u>				
			<u>20(34)</u>				
	<u>42</u>						
			<u>12</u>				
		<u>SS</u>	<u>17</u>				
			<u>21(38)</u>				
	<u>46</u>						
			<u>13</u>				
		<u>SS</u>	<u>16</u>				
			<u>20(36)</u>				
<u>(409.0)</u>							
<u>EXPLORATORY BORING DISCONTINUED</u>							
	<u>54</u>						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING 2



Rice, Berry and Associates
A Division of Hampton,
Lenzini and Renwick, Inc.
Civil & Structural Engineers
3085 Stevenson Drive
Suite 201
Springfield, Illinois 62703
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637

Account Number 12-91-0014-1
Date: 03/22/06
DESIGNED: S.M.S. | CHECKED: S.W.M. | DRAWN: D.B.

BORING 2
C.H. 7 / TOWNLIN ROAD
SECTION 03-00016-00-BR
TAZEWELL COUNTY
STR. NO. 090-3237 STATION 10+75