CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 1 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

1-20-06 Letting, Item 81

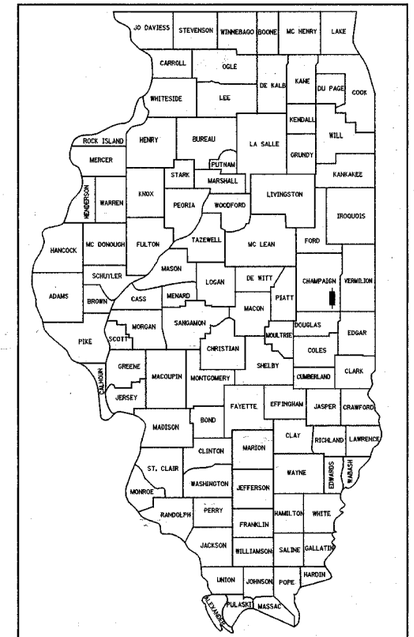
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED HIGHWAY IMPROVEMENT

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

F.A.P. ROUTE 836 (IL. RTE. 49)
SECTION 118BR
CHAMPAIGN COUNTY
PROJECT: BHF-836(025)
C-95-034-04
BRIDGE BEAM REPLACEMENT & BRIDGE NEW DECK

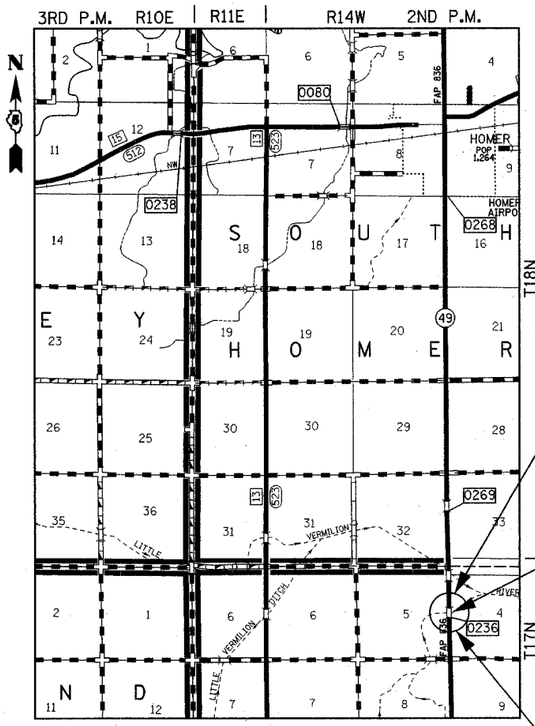
D-95-033-04




LOCATION OF SECTION INDICATED THUS: —■—

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED OCT 19, 20 05
DEPUTY DIRECTOR OF HIGHWAYS, REGION 3 ENGINEER
December 9, 20 05
ENGINEER OF DESIGN AND ENVIRONMENT
December 9, 20 05
Deputy DIRECTOR/DIVISION OF HIGHWAYS




LOCATION MAP 0 5280' 10560'

GROSS AND NET LENGTH OF PROJECT = 265 FEET = 0.050 MILES

ADT = 2900 (2005)

SECTION 118BR
PROJECT BRF 0836 (—) ENDS
STA. 666+00.00

PROPOSED TWO SPAN BRIDGE
STR. NO. 010-0236
STA. 664+76.09
76'-0" BK. TO BK. ABUTMENTS
33'-0" STRUCTURE WIDTH
SKEW 30 DEGREES RT. FWD.

SECTION 118BR
PROJECT BRF 0836 (—) BEGINS
STA. 663+35.00

0 100' 200' 300' 1"= 100'
0 10' 20' 30' 1"= 10'
0 50' 100' — 1"= 20'
0 50' 100' — 1"= 50'

SCALES
PLAN 1"=20'
PROFILE HORIZ. 1"=20'
PROFILE VERT. 1"=5'
CROSS SECTIONS 1"=5'
1"=2 1/2'

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

FOR UNDERGROUND UTILITY LOCATIONS CALL
J.U.L.I.E. TOLL FREE
1-800-892-0123

CONTRACT NO. 70390

BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

SHEILA J. KIMLINGER
062-049175
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

SHEILA J. KIMLINGER, P.E.
DATE September 27 20 05
EXPIRES NOVEMBER 30, 2005

PROJECT ENGINEER: KENSIL GARNETT PHONE: 217-465-4181
CONSULTANT LIAISON: NANCY FASIG

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 2 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

## INDEX OF SHEETS



## HIGHWAY STANDARDS

| | |
|---|---|
| 000001-04 | STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS |
| 001001 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND A FOOT |
| 280001-02 | TEMPORARY EROSION CONTROL SYSTEMS |
| 515001-02 | NAME PLATE FOR BRIDGES |
| 630001-05 | STEEL PLATE BEAM GUARDRAIL |
| 630301-03 | SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS |
| 631032-01 | TRAFFIC BARRIER TERMINAL, TYPE 6A |
| 635006-02 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 635011-01 | REFLECTOR MARKER AND MOUNTING DETAILS |
| 702001-05 | TRAFFIC CONTROL DEVICES |
| 780001-01 | TYPICAL PAVEMENT MARKINGS |

## GENERAL NOTES

1. G.N.-100
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

2. G.N. 105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

3. G.N. 107.31
UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED AND THEIR ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY. THESE UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THESE ADJUSTMENTS ARE BEING PERFORMED.
J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (800) 892-0123.

4. G.N. 250C - SPL
TEMPORARY EROSION CONTROL SEEDING AND MULCH, METHOD 2 IS INCLUDED IN THIS CONTRACT TO SEED NEW EARTH SHOULDERS DURING TIME PERIODS WHEN PERMANENT SEEDING IS NOT ALLOWED. SOME OR ALL OF THE TEMPORARY EROSION CONTROL SEEDING AND MULCH WILL BE DELETED IF IT IS POSSIBLE TO PLACE PERMANENT SEEDING ON EARTH SHOULDERS AT THE TIME OF THEIR COMPLETION.

5. G.N. 406
THE QUANTITIES INCLUDED IN THE PLANS FOR BITUMINOUS CONCRETE RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE BITUMINOUS MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

6. G.N. 406D
ALL LEVELING BINDER OR BINDER SHALL BE GIVEN A FOG COAT OF PRIME BEFORE THE SURFACE COURSE IS PLACED WHEN DIRECTED BY THE ENGINEER.

THE FOG COAT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER GALLON FOR BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

7. GN. 406H
THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

| | |
|---|---|
| LOCATION(S): | BIT. CONC. SURF. COURSE, SUPERPAVE, MIX C, N50 |
| MIXTURE USE(S): | MAINLINE PAVEMENT |
| AC/PG: | PG 64-22 |
| RAP %: (MAX) | 15 |
| DESIGN AIR VOIDS: | 4% @ NDES=50 |
| MIXTURE COMPOSITION: (GRADATION MIXTURE) | IL 9.5 |
| FRICTION AGGREGATE: | MIX C |

8. G.N. 1004.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

9. G.N. 1004.03
REVISE ARTICLE 1004.03 (c) NOTE 5/ OF THE STANDARD SPECIFICATIONS TO READ:

'5/ GRADATION CA-16 SHALL BE USED IN LIEU OF CA-13 WHEN THE SURFACE COURSE IS LESS THAN 1 3/4 INCHES IN THICKNESS. CA-13 OR CA-16 MAY BE USED WHEN THE SURFACE COURSE IS 1 3/4 INCHES OR MORE IN THICKNESS.'

THERE ARE NO COMMITMENTS FOR THIS PROJECT.

| REVISIONS | |
|---|---|
| NAME | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES

DRAWN BY MLO

DATE 6/05 CHECKED BY SJK

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 3 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

| PAY CODE NUMBER | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY | 80% FEDERAL 20% STATE X080-2A |
|---|---|---|---|---|
| 20200100 | EARTH EXCAVATION | CU YD | 100 | 100 |
| 20400800 | FURNISHED EXCAVATION | CU YD | 30 | 30 |
| 25000210 | SEEDING CLASS 2A | ACRE | 0.50 | 0.50 |
| 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 45 | 45 |
| 25000500 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 45 | 45 |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 45 | 45 |
| 25100115 | MULCH, METHOD 2 | ACRE | 0.5 | 0.5 |
| 25100630 | EROSION CONTROL BLANKET | SQ YD | 334 | 334 |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 50 | 50 |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 80 | 80 |
| 40200800 | AGGREGATE SURFACE COURSE, TYPE B | TON | 25 | 25 |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 41 | 41 |
| 40600980 | BITUMINOUS SURFACE REMOVAL - BUTT JOINT | SQ YD | 174 | 174 |
| 44000030 | BITUMINOUS SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 373 | 373 |
| 48101200 | AGGREGATE SHOULDERS, TYPE B | TON | 129 | 129 |
| 50101500 | REMOVAL OF EXISTING SUPERSTRUCTURES | EACH | 1 | 1 |
| 50102400 | CONCRETE REMOVAL | CU YD | 3.4 | 3.4 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 4.7 | 4.7 |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 249 | 249 |

| | PAY CODE NUMBER | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY | 80% FEDERAL 20% STATE X080-2A |
|---|---|---|---|---|---|
| | 50300300 | PROTECTIVE COAT | SQ YD | 273 | 273 |
| | X5030305 | CONCRETE WEARING SURFACE 5" | SQ YD | 266 | 266 |
| | 50400305 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH) | SQ FT | 2393 | 2393 |
| | 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 4550 | 4550 |
| | 50901005 | STEEL BRIDGE RAIL, TYPE SM | FOOT | 145 | 145 |
| | 51500100 | NAME PLATES | EACH | 1 | 1 |
| * | 63000000 | STEEL PLATE BEAM GUARD RAIL, TYPE A | FOOT | 500.0 | 500.0 |
| * | 63000130 | STEEL PLATE BEAM GUARD RAIL, TYPE A (SPECIAL) | FOOT | 50.0 | 50.0 |
| * | 63100087 | TRAFFIC BARRIER TERMINAL, TYPE 6A | EACH | 4 | 4 |
| * | 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) | EACH | 4 | 4 |
| | 63200310 | GUARDRAIL REMOVAL | FOOT | 368 | 368 |
| | 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 2 | 2 |
| | 67100100 | MOBILIZATION | L SUM | 1 | 1 |
| | 70101800 | TRAFFIC CONTROL AND PROTECTION (SPECIAL) | L SUM | 1 | 1 |
| * | 78001110 | PAINT PAVEMENT MARKING - LINE 4" | FOOT | 597 | 597 |
| * | 78200400 | GUARDRAIL REFLECTORS | EACH | 13 | 13 |
| * | 78201000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 4 | 4 |
| | X0323557 | BRIDGE JOINT SYSTEM (EXPANSION), 1" | FOOT | 76.0 | 76.0 |
| | X4066414 | BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX C, N50 | TON | 66.0 | 66.0 |
| | Z0001900 | ASBESTOS BEARING PAD REMOVAL | EACH | 22 | 22 |

* DENOTES SPECIALTY ITEM

| REVISIONS | |
|---|---|
| NAME | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

DRAWN BY MLO

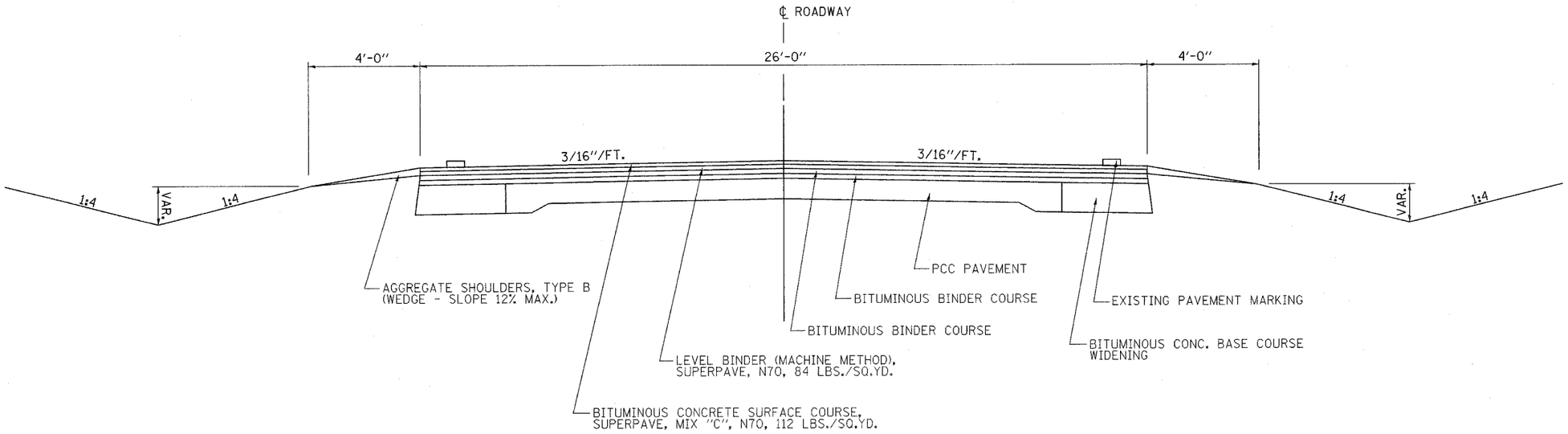
DATE 6/05 CHECKED BY SJK

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 4 |

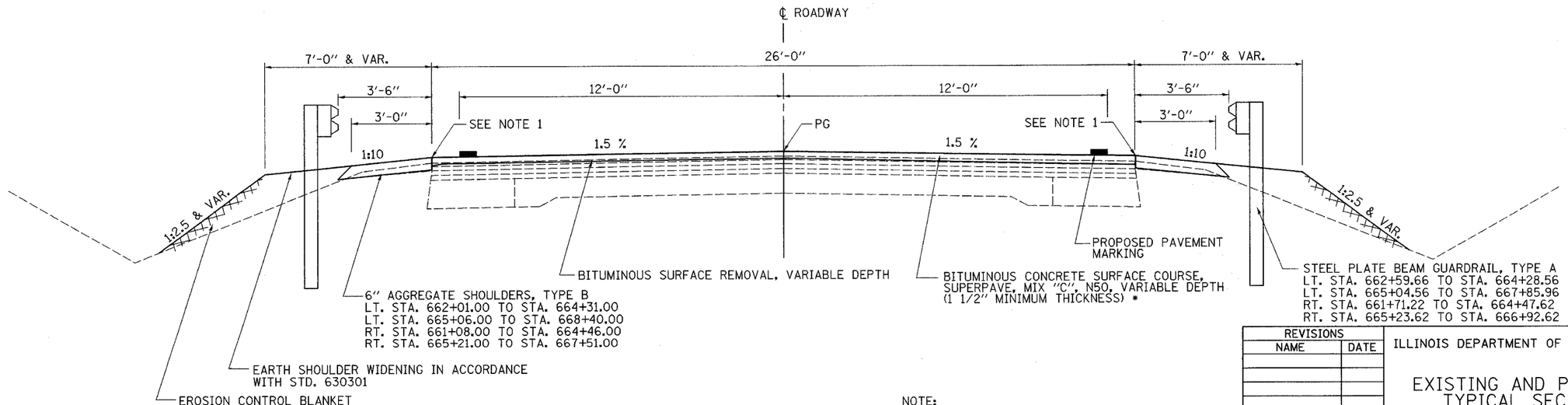
# EXISTING TYPICAL SECTION

STA. 663+35.00 TO STA 664+38.09
STA. 665+14.09 TO STA 666+00.00




# PROPOSED TYPICAL SECTION

STA. 663+35.00 TO STA 664+38.09
STA. 665+14.09 TO STA 666+00.00




* SURFACE COURSE TO BE PLACED UTILIZING A STRING LINE.

NOTE:
1. FROM STA. 661+08.00 TO STA. 663+35.00 AND STA. 666+00.00 TO STA. 668+40.00 THE PROPOSED SHOULDER SHALL MATCH THE EXISTING EDGE OF PAVEMENT.

| REVISIONS | |
|---|---|
| NAME | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED
TYPICAL SECTIONS

DRAWN BY MLO
DATE 6/05 CHECKED BY SJK

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR

CHAMPAIGN COUNTY

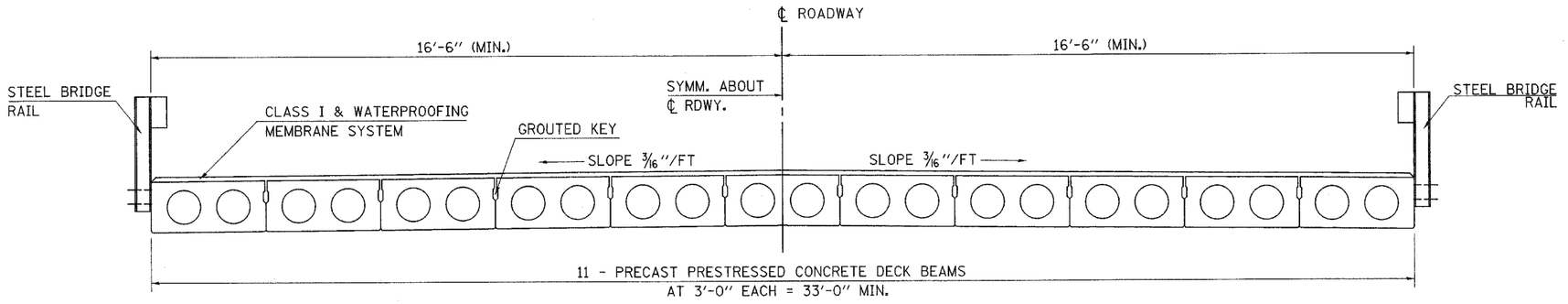
*DGN-SPEC*

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 5 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

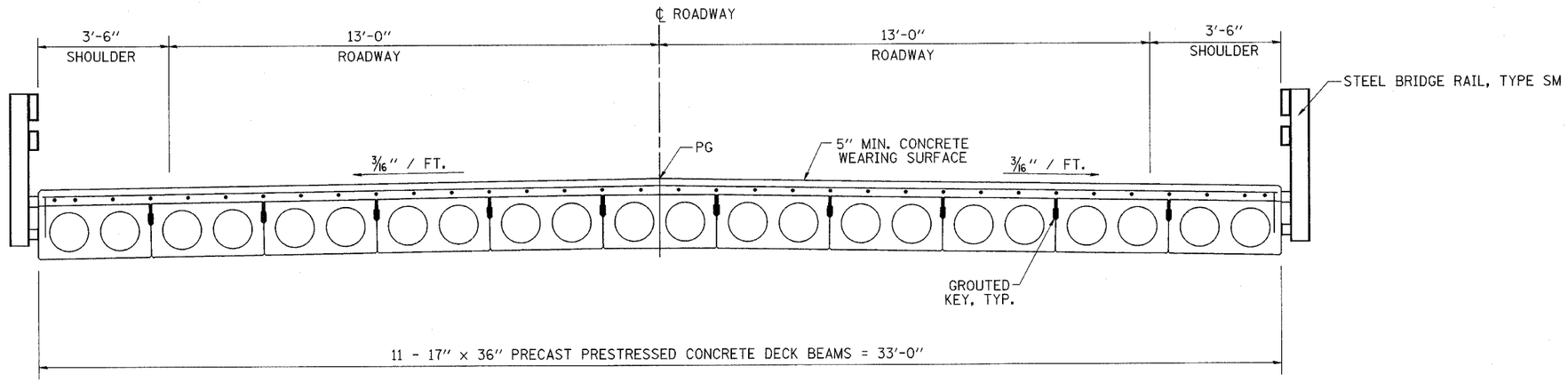
# EXISTING TYPICAL SECTION

STA. 664+38.09 TO STA. 665+14.09




# PROPOSED TYPICAL SECTION

STA. 664+38.09 TO STA. 665+14.09




| REVISIONS NAME | DATE |
|---|---|
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

DRAWN BY MLO

DATE 6/05 CHECKED BY SJK

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 6 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

## EARTHWORK

| LOCATION | EARTH EXCAVATION (CUT) (CU YD) | EARTH EXCAVATION ADJUSTED FOR SHRINKAGE * (CU YD) | EMBANKMENT (FILL) (CU YD) | EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD) |
|---|---|---|---|---|
| SOUTH LEFT | 20 | 15 | 20 | -5 |
| SOUTH RIGHT | 35 | 26 | 75 | -49 |
| NORTH LEFT | 25 | 19 | 5 | 14 |
| NORTH RIGHT | 20 | 15 | 5 | 10 |
| | 100 | 75 | 105 | -30 |

* AN EARTH SHRINKAGE FACTOR OF 0.25 IS APPLIED.

## SEEDING, FERTILIZERS AND MULCH

| STATION | TO STATION | OFFSET | SEEDING CLASS 2A (ACRE) | NITROGEN (POUND) | PHOSPHORUS (POUND) | POTASSIUM (POUND) | MULCH METHOD 2 (ACRE) | TEMPORARY EROSION CONTROL SEEDING (POUND) |
|---|---|---|---|---|---|---|---|---|
| 662+00.00 | 668+50.00 | LT | 0.25 | 22.5 | 22.5 | 22.5 | 0.25 | 25.0 |
| 661+00.00 | 667+50.00 | RT | 0.25 | 22.5 | 22.5 | 22.5 | 0.25 | 25.0 |
| | | TOTAL | 0.50 | 45.0 | 45.0 | 45.0 | 0.50 | 50.0 |

## EROSION CONTROL BLANKET

| STATION | TO STATION | OFFSET | SQ YD |
|---|---|---|---|
| | | (FEET) | |
| 661+00.00 | 663+49.00 | RT | 138 |
| 663+89.00 | 664+50.00 | RT | 68 |
| 662+00.00 | 664+30.00 | LT | 128 |
| | | TOTAL | 334 |

## PERIMETER EROSION BARRIER

| STATION | OFFSET LT | OFFSET RT |
|---|---|---|
| 664+25.00 | 20 | |
| 664+50.00 | | 20 |
| 665+00.00 | 20 | |
| 665+25.00 | | 20 |
| | 40 | 40 |
| TOTAL | 80 | |

## AGGREGATE SURFACE COURSE, TYPE B

| STATION | TO STATION | OFFSET | TON |
|---|---|---|---|
| 663+75.00 | (FE) | RT | 25 |

## BITUMINOUS MATERIALS (PRIME COAT)

| STATION TO | STATION | GALLONS |
|---|---|---|
| 663+35.00 | 664+38.67 | 22 |
| 665+13.51 | 666+00.00 | 19 |
| | TOTAL | 41 |

## BITUMINOUS SURFACE REMOVAL - BUTT JOINT

| STATION TO | STATION | SQ YD |
|---|---|---|
| 663+35.00 | 663+65.00 | 87 |
| 665+70.00 | 666+00.00 | 87 |
| | TOTAL | 174 |

## BITUMINOUS SURFACE REMOVAL, VARIABLE DEPTH

| STATION TO | STATION | SQ YD |
|---|---|---|
| 663+65.00 | 664+38.09 | 211 |
| 665+14.09 | 665+70.00 | 162 |
| | TOTAL | 373 |

## AGGREGATE SHOULDERS, TYPE B

| STATION | TO STATION | OFFSET | TONS |
|---|---|---|---|
| 661+08.00 | 664+48.00 | RT | 39 |
| 665+23.00 | 667+51.00 | RT | 26 |
| 662+01.00 | 664+29.00 | LT | 26 |
| 665+04.00 | 668+40.00 | LT | 38 |
| | | TOTAL | 129 |

## STEEL PLATE BEAM GUARD RAIL, TYPE A

| STATION TO | STATION | OFFSET | FOOT |
|---|---|---|---|
| 662+21.22 | 663+33.72 | RT | 112.5 |
| 664+03.72 | 664+16.22 | RT | 12.5 |
| 663+09.66 | 663+97.16 | LT | 87.5 |
| 665+35.96 | 667+35.96 | LT | 200.0 |
| 665+55.02 | 666+42.52 | RT | 87.5 |
| | | TOTAL | 500.0 |

## STEEL PLATE BEAM GUARD RAIL, TYPE A (SPECIAL)

| STATION TO | STATION | OFFSET | FOOT |
|---|---|---|---|
| 663+33.72 | 663+75.00 | RT | 25.0 |
| 663+75.00 | 664+03.72 | RT | 25.0 |
| | | TOTAL | 50.0 |

## TRAFFIC BARRIER TERMINAL, TYPE 6A

| STATION TO | STATION | OFFSET | EACH |
|---|---|---|---|
| 663+97.16 | 664+28.56 | LT | 1 |
| 664+16.22 | 664+47.62 | RT | 1 |
| 665+04.56 | 665+35.96 | LT | 1 |
| 665+23.62 | 665+55.02 | RT | 1 |
| | | TOTAL | 4 |

## TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

| STATION TO | STATION | OFFSET | EACH |
|---|---|---|---|
| 661+71.22 | 662+21.22 | RT | 1 |
| 662+59.66 | 663+09.66 | LT | 1 |
| 666+42.52 | 666+92.52 | RT | 1 |
| 667+35.96 | 667+85.96 | LT | 1 |
| | | TOTAL | 4 |

## GUARDRAIL REMOVAL

| STATION TO | STATION | OFFSET | FOOT |
|---|---|---|---|
| 663+29.54 | 664+30.31 | LT | 101 |
| 663+94.47 | 664+49.39 | RT | 65 |
| 665+03.40 | 666+03.75 | LT | 100 |
| 665+22.17 | 666+24.18 | RT | 102 |
| | | TOTAL | 368 |

## PAINT PAVEMENT MARKING - LINE 4"

| STATION | TO STATION | RIGHT (WHITE) (FEET) | CENTER (YELLOW) (FEET) | LEFT (WHITE) (FEET) | TOTAL (FEET) |
|---|---|---|---|---|---|
| 663+35.00 | 666+00.00 | 265 | 67 | 265 | 597 |

## GUARDRAIL REFLECTORS

| STATION | OFFSET | EACH |
|---|---|---|
| 662+21.22 | RT | 1 |
| 662+77.47 | RT | 1 |
| 663+33.72 | RT | 1 |
| 664+03.72 | RT | 1 |
| 664+83.72 | RT | 1 |
| 665+63.72 | RT | 1 |
| 666+43.72 | RT | 1 |
| 663+35.96 | LT | 1 |
| 664+15.96 | LT | 1 |
| 664+95.96 | LT | 1 |
| 665+75.96 | LT | 1 |
| 666+55.96 | LT | 1 |
| 667+35.96 | LT | 1 |
| | TOTAL | 13 |

## TERMINAL MARKER - DIRECT APPLIED

| STATION | OFFSET | EACH |
|---|---|---|
| 661+71.22 | RT | 1 |
| 662+59.66 | LT | 1 |
| 666+92.52 | RT | 1 |
| 667+85.96 | LT | 1 |
| | TOTAL | 4 |

## BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX C, N50

| STATION TO | STATION | TONS |
|---|---|---|
| 663+35.00 | 665+13.51 | 38.3 |
| 664+38.67 | 666+00.00 | 27.5 |
| | TOTAL | 65.8 |
| | USE | 66 |

| REVISIONS NAME | DATE |
|---|---|
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ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

DRAWN BY MLO

DATE 6/05 CHECKED BY SJK

CONTRACT NO. 70390

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 7 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

T17N, R14W, SEC. 5, 3RD P.M.

NOTE: SOME QUANTITIES CONTAINED HEREIN ARE OUTSIDE THE PROJECT LIMITS.

PLAN
SURVEYED
PLOTTED
ROAD DES. CHECKED
R.W. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROPOSED PROJECT BEGINS STA. 663+35.00

CONSTRUCTION LIMITS (TYP.)

PROPOSED PROJECT ENDS STA. 666+00.00

TRAFFIC BARRIER TERMINAL TYPE 6A (TYP. 4 LOCATIONS)

GUARDRAIL REMOVAL (TYP.)

S.N. 010-0236
℄ STA. 664+76.09
LENGTH = 76'-0" BK. TO BK. ABUTMENTS
HORIZ. CLR. = 33'-0"
SKEW = 30° RT. FWD.
SEE BRIDGE PLANS

BK. N. ABUTMENT
STA. 665+14.09
ELEV. 677.18

+35.00 BUTT JOINT SEE DETAIL SHEET 17

+00.00 BUTT JOINT SEE DETAIL SHEET 17

POT STA 653+61.45

POT STA 677+73.01

℄ IL RTE 49

30" CMP TO REMAIN

STEEL PLATE BEAM GUARDRAIL, TYPE A

663+19.00 40' RT

BK. S. ABUTMENT
STA. 664+38.09
ELEV. 677.18

EXISTING PERMANENT EASEMENT

OVERLAY EXISTING FE WITH AGGREGATE SURFACE COURSE TYPE B TO GRADE SHOWN IN CROSS SECTION (EST. 25 TONS)

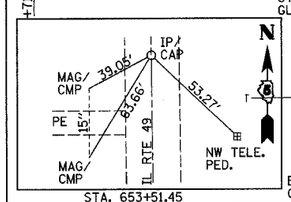
664+39.00 60' RT.

664+39.00 100' RT.

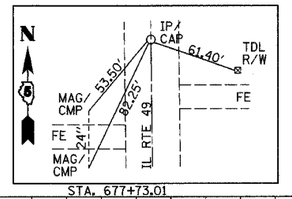
TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT) (TYP. 4 LOCATIONS)

EARTH SHOULDER WIDENING IN ACCORDANCE WITH STD. 630301 (TYP. 4 LOCATIONS)

BENCHMARK: CHISELED "□" ON NORTHEAST WINGWALL OF S.N. 010-0236, ELEVATION 676.73

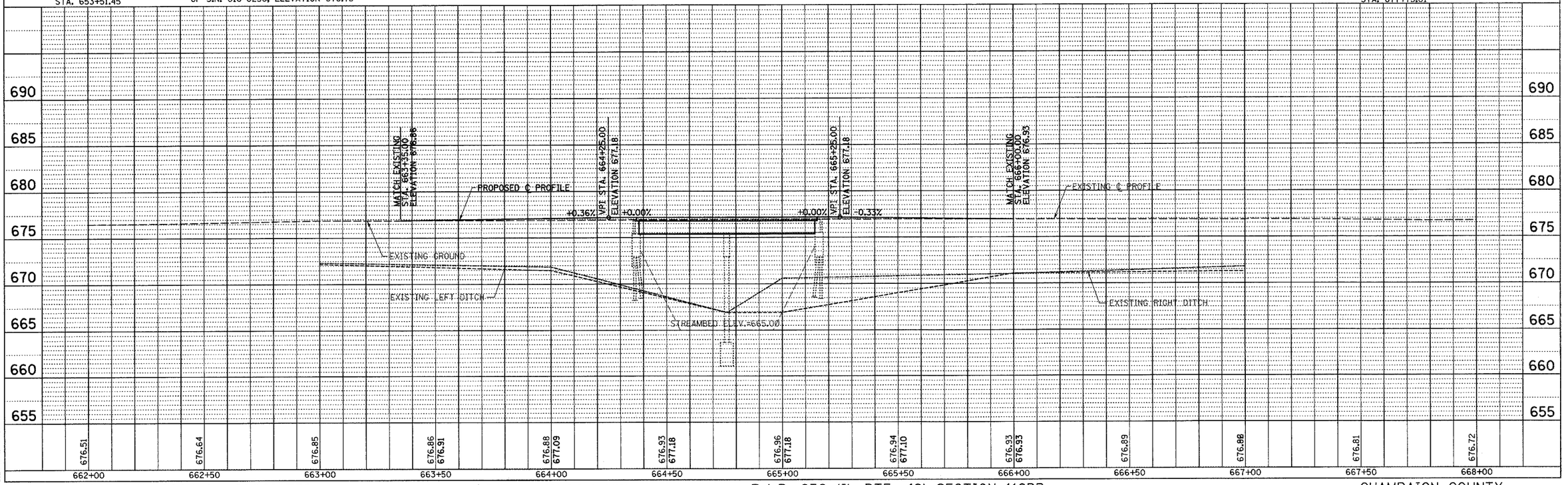


STA. 653+51.45



STA. 677+73.01

PROFILE
SURVEYED
PLOTTED
ROAD DES. CHECKED
R.W. OF WAY CHECKED
STRUCTURE NOTATIONS CHKD
NOTE BOOK
NO.
BY
DATE

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USER NAME = &USER&

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR CHAMPAIGN COUNTY

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 8 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

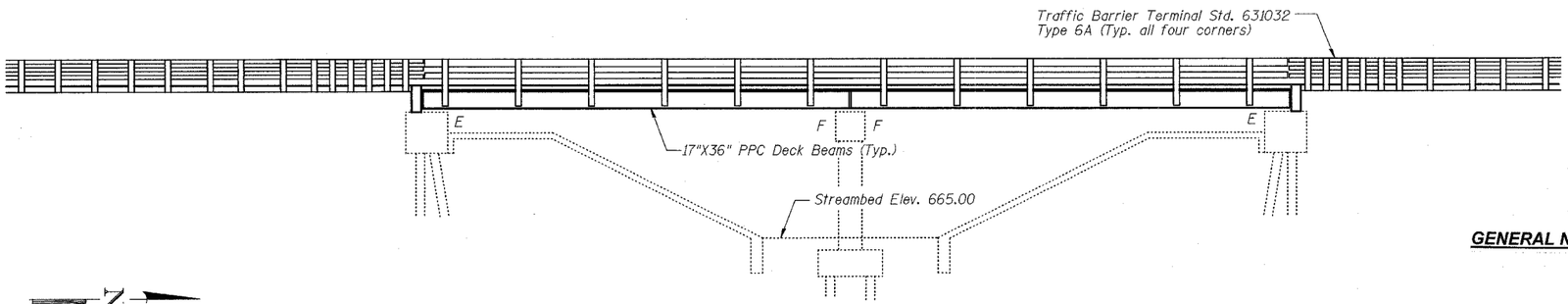
SHEET NO. 1
9 SHEETS

Contract #70390

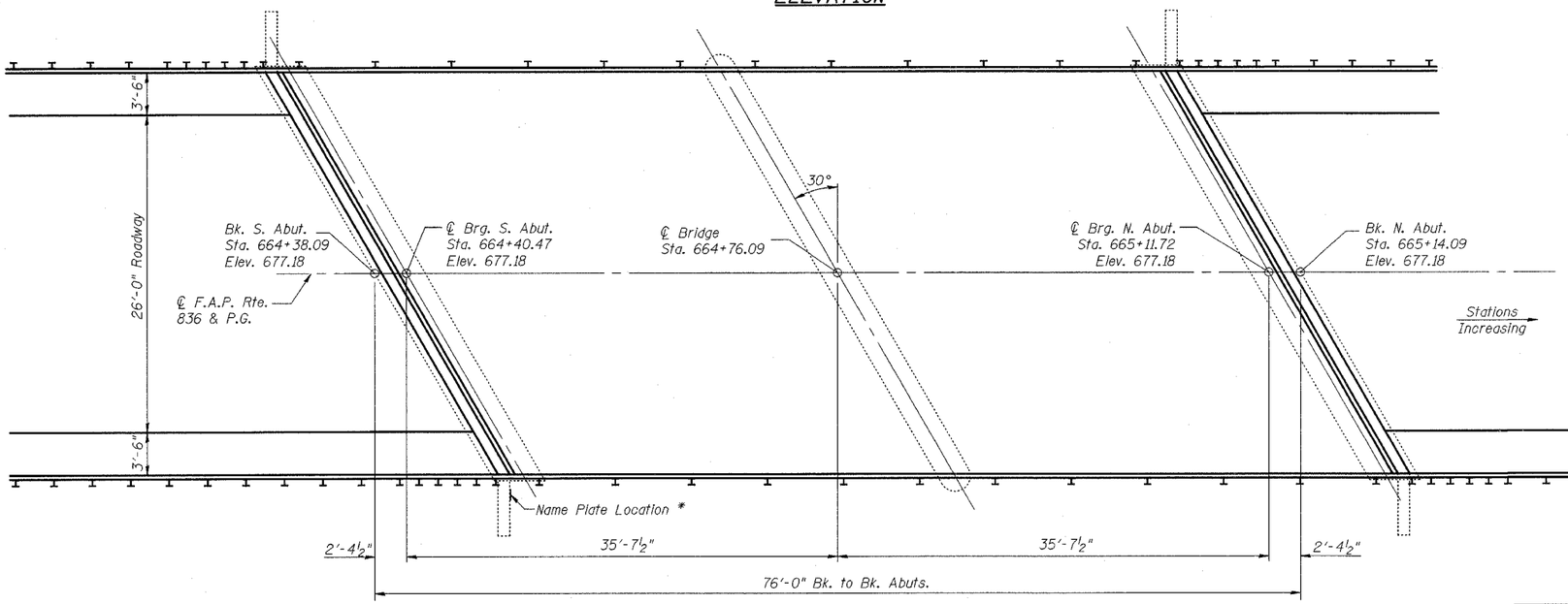
Benchmark: Chiseled "□" on northeast wingwall of S.N. 010-0236
Elevation 676.73.

Existing Structure: Structure Number 010-0236 was built in 1977 per existing name plas FA-836, Section 118 BR. The two span structure consists PPC-deck beams on pile bent open abutments and a solid pier. The bk. to bk. abutments is 76'-0" and the O.-O. width is 33'-0". The existing superstructure shall be replaced with PPC deck beams. Road closure shall be used during construction.

No salvage.




ELEVATION




PLAN

## TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|---|---|---|---|
| Removal of Existing Superstructure | Each | 1 | | 1 |
| Concrete Removal | Cu. Yd. | | 3.4 | 3.4 |
| Concrete Structures | Cu. Yd. | | 4.7 | 4.7 |
| Bridge Deck Grooving | Sq. Yd. | 249 | | 249 |
| Protective Coat | Sq. Yd. | 273 | | 273 |
| Concrete Wearing Surface 5" | Sq. Yd. | 266 | | 266 |
| Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. | 2393 | | 2393 |
| Reinforcement Bars, Epoxy Coated | Pound | 3670 | 880 | 4550 |
| Steel Bridge Rail, Type SM | Foot | 145 | | 145 |
| Name Plates | Each | 1 | | 1 |
| Bridge Joint System (Expansion) 1" | Foot | 76.0 | | 76.0 |
| Asbestos Bearing Pad Removal | Each | 22 | | 22 |

## GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

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

All construction joints shall be bonded.

Removal of existing bridge rail included in the cost of Removal of Existing Superstructure.

The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied along the entire length of fascia beams to both the exterior vertical face and 9" in on the underside. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

No instream work will be allowed on this project.

The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

If the contractor's procedure for existing beam removal and placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats, the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.

Expansion guards which are not cast in the precast unit shall be fabricated and erected according to Article 503.10(c) of the Standard Specifications.

## DESIGN SPECIFICATIONS

2002 AASHTO

## LOADING HS-20-44

No allowance for future wearing surface.

## SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.049g
Site Coefficient (S) = 1.2

## EXISTING WATERWAY INFORMATION

Drainage Area 10.3 Sq. Mi.
Character : level, cultivated, loam
Req'd opening (50 yr. fl. freq.) 320 Sq. Ft.
Provided Opening 320 Sq. Ft.
Ordinary Water Elev. 666.11
Low Water Elev. 665.51
Design H.W. Elev. 674.81
Q(so) = 1500 cfs

## DESIGN STRESSES

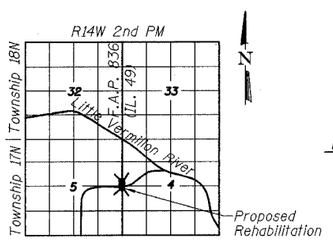
FIELD UNITS $f_c$ = 5,000 p.s.i. (Concrete Wearing Surface)
$f'_c$ = 3,500 psi
$f$ = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS
$f'_c$ = 5,000 psi
$f'_{ci}$ = 4,000 psi
$f'_s$ = 270,000 psi ($\frac{1}{2}$" ϕ Low Relax. strands)
$f_{si}$ = 201,960 psi ($\frac{1}{2}$" ϕ Low Relax. strands)

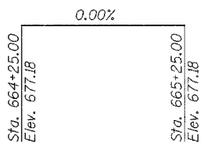
EXISTING SUBSTRUCTURE FIELD UNITS
$f_c$ = 1,400 psi
$f_s$ = 20,000 psi (Reinforcement)

## INDEX OF SHEETS






LOCATION SKETCH




PROFILE GRADE
(along ℄ F.A.P. 836)

STATION 664+76.09
REBUILT 20__ BY
STATE OF ILLINOIS
SECTION 118BR
F.A.P. RTE. 836
LOADING HS20
STR. NO. 010-0236

## NAME PLATE

See Std. 515001

*Proposed Name Plate shall be mounted with concrete anchors adjacent to existing Name Plate. Cost included with Name Plates.

LICENSED STRUCTURAL ENGINEER
SHEILA J. KIMLINGER
081-005283
DECATUR
STATE OF ILLINOIS

Sheila J. Kimlinger 10/7/05
Sheila J. Kimlinger, S.E. Date
Structural Engineer License No. 081-005283
Expiration Date: 11/30/2006

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

IL ROUTE 49 OVER A TRIBUTARY OF THE LITTLE VERMILION RIVER
F.A.P. ROUTE 836 SECTION 118BR
CHAMPAIGN COUNTY
STATION 664+76.09
STRUCTURE NO. 010-0236

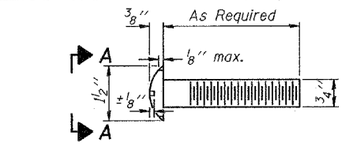
DATE: JUNE 2005
DRAWN BY: NJV/MLO
CHECKED BY: SJK

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

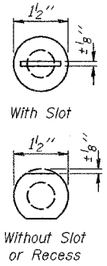
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 25 | 9 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

SHEET NO. 2
9 SHEETS

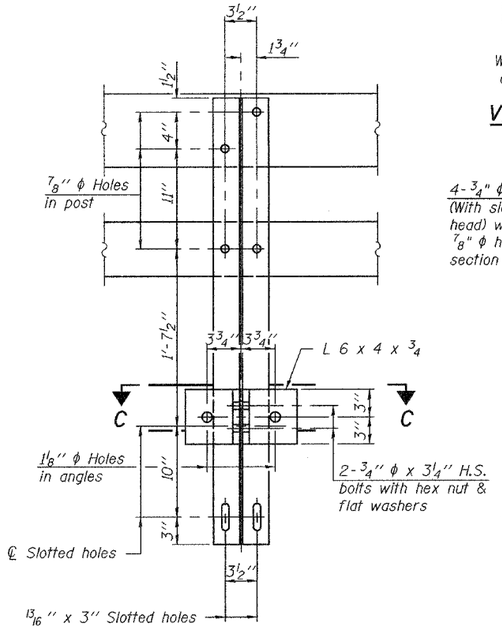
Contract #70390



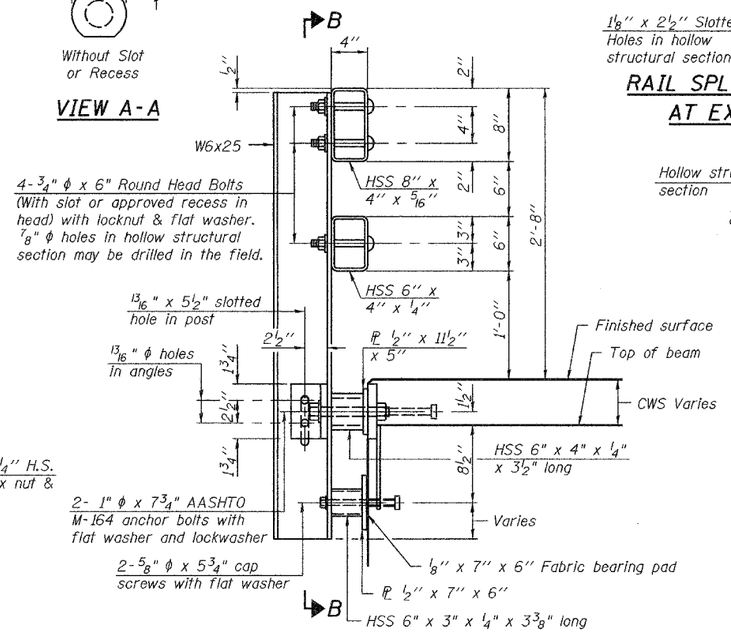

## DETAIL OF 3/4" ϕ ROUND HEAD BOLT



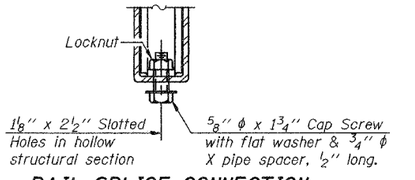

## VIEW A-A



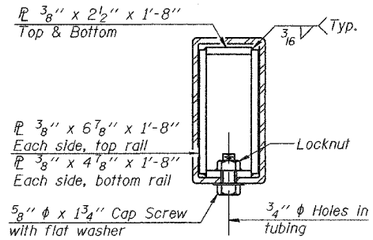

## SECTION B-B



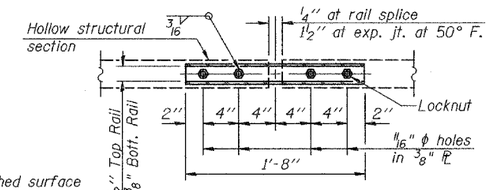

## SECTION AT RAIL POST




## RAIL SPLICE CONNECTION AT EXPANSION JT.

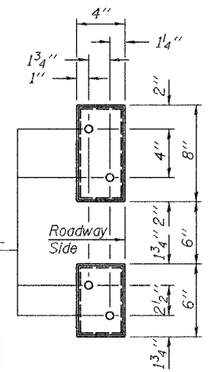



## SECTION AT RAIL SPLICE

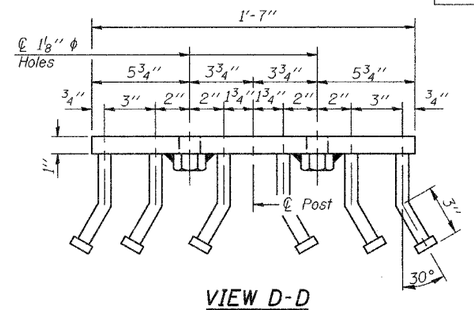



## PLAN-BOTT. SPLICE PL TYPICAL

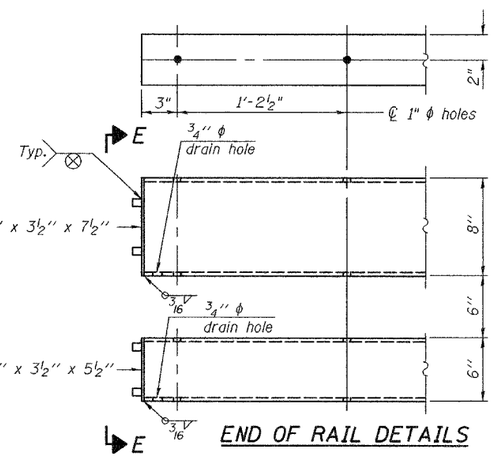
℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



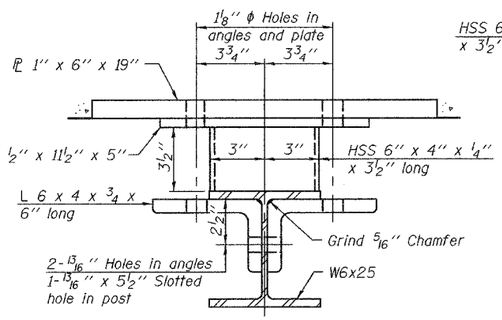

## VIEW E-E



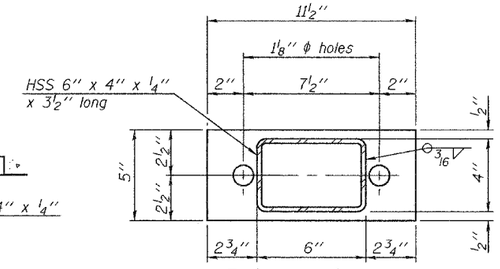

## VIEW D-D

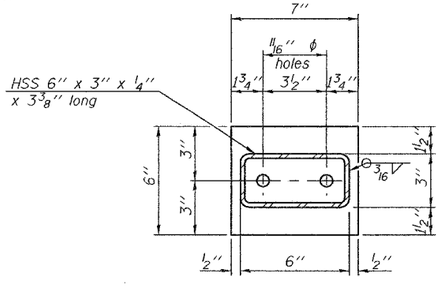


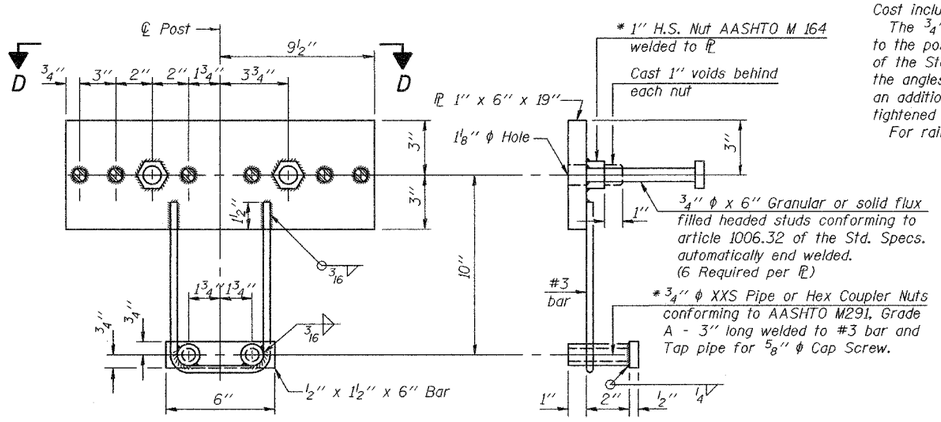

## END OF RAIL DETAILS




## SECTION C-C




## ANCHOR DEVICE

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

## 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 Bridge Rail, Type SM.

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

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

The 3/4" ϕ 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" ϕ 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" ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

For rail post spacings, see sheet 4 of 6.

## BILL OF MATERIAL

| Item | Unit | Quantity |
|---|---|---|
| Steel Bridge Rail, Type SM | Foot | 75 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TYPE SM**
**STEEL BRIDGE RAIL SIDE MOUNTED**
**IL ROUTE 49 OVER A TRIBUTARY OF THE LITTLE VERMILION RIVER**
**F.A.P. ROUTE 836 SECTION 118BR**
**CHAMPAIGN COUNTY**
**STATION 664+76.09**
**STRUCTURE NO. 010-0236**

DATE: JUNE 2005

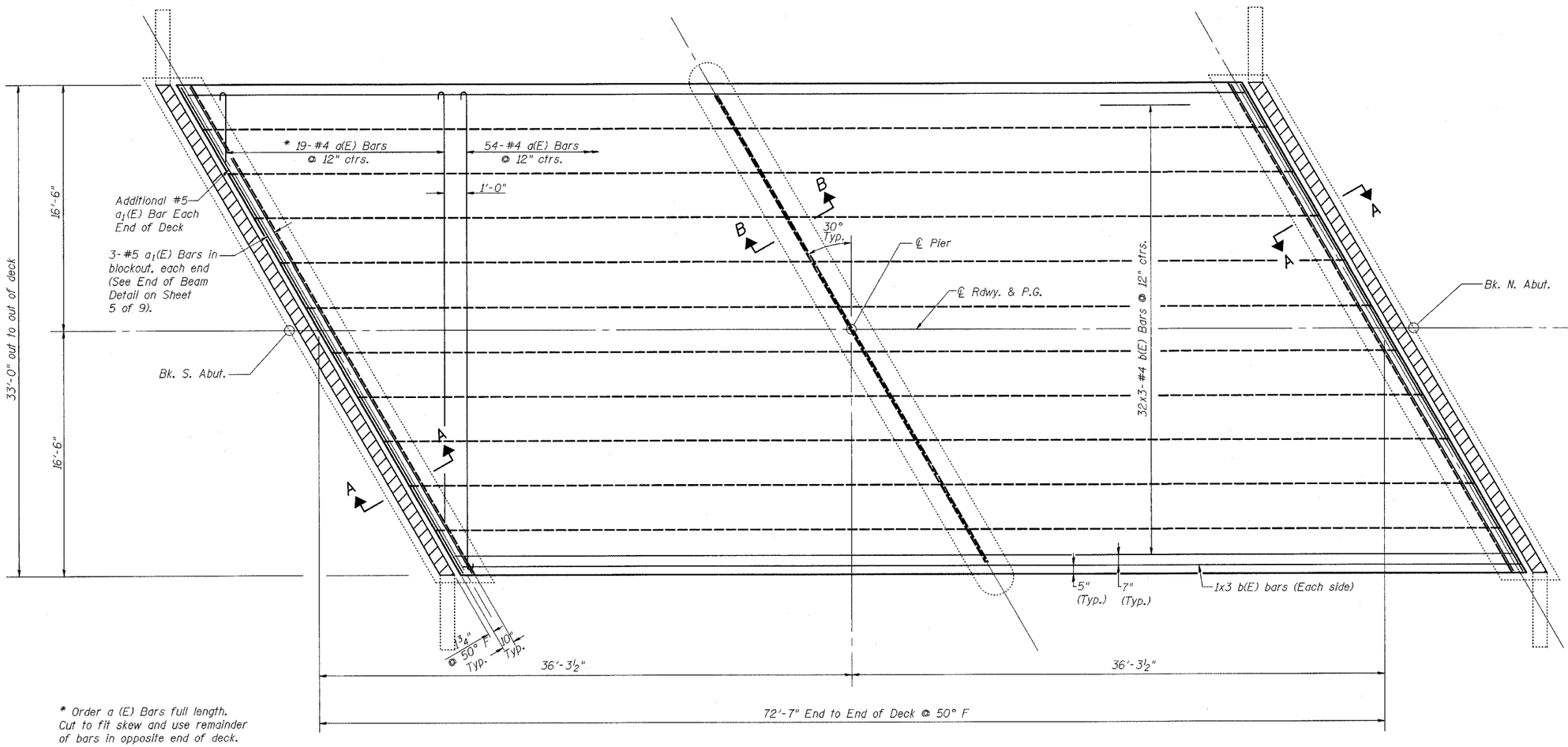
DRAWN BY: NJV/MLO
CHECKED BY: SJK

R-34CWS 10-28-05 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 10 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

SHEET NO. 3
9 SHEETS

Contract #70390




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

## PLAN

## MIN BAR LAPS

#4 bars = 1'-8"

## NOTES:

Work this Sheet with Sheet 4 of 9.
Bars indicated thus 32x3-#4 etc. indicates 32 lines of bars with 3 lengths per line.
Reinforcement bars designated (E) shall be epoxy coated.
For remainder of superstructure details, see sheets 4 and 5 of 9.
For Section "A-A" and "B-B" see Sheet 4 of 9.

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE**

**IL ROUTE 49 OVER A TRIBUTARY OF THE LITTLE VERMILION RIVER**
**F.A.P. ROUTE 836 SECTION 118BR**
**CHAMPAIGN COUNTY**
**STATION 664+76.09**
**STRUCTURE NO. 010-0236**

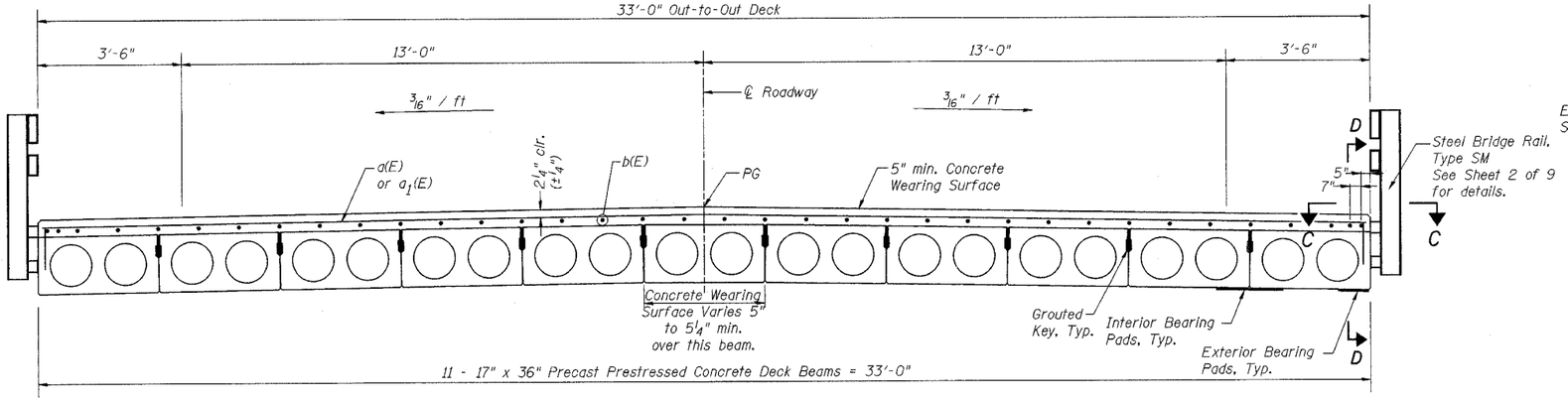
DATE: JUNE 2005

DRAWN BY: NJV/MLO
CHECKED BY: SJK

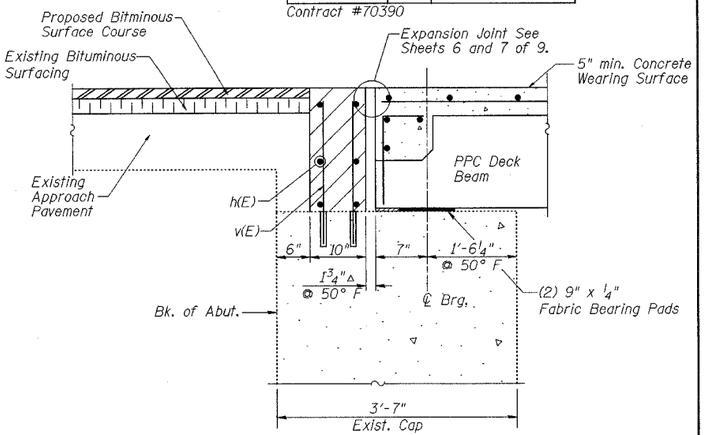
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 11 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT- | | |

SHEET NO. 4
9 SHEETS

Contract #70390

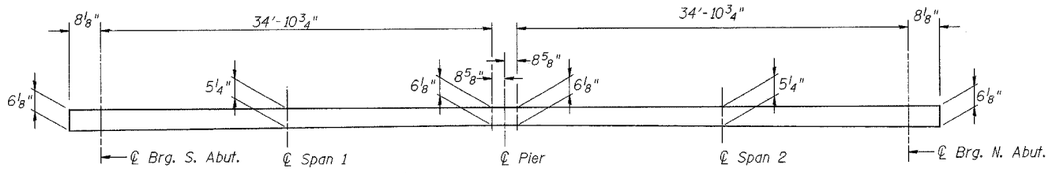



## CROSS SECTION



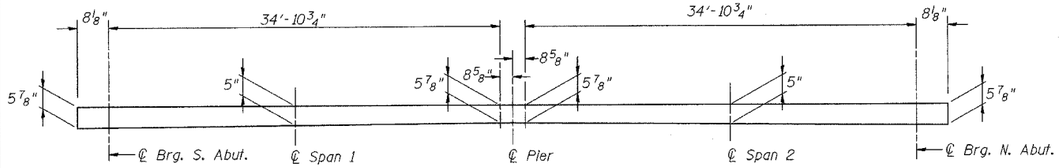

## SECTION A-A THRU ABUTMENT

(Dim's at Rt. Ls)



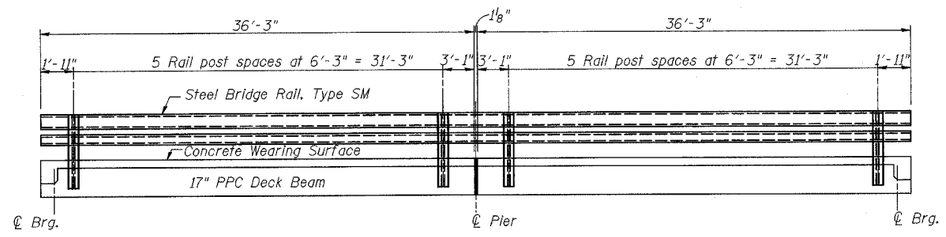

## REINFORCED CONCRETE WEARING SURFACE PROFILE

(Along ℄ Roadway & P.G.)

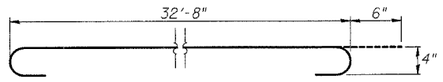



## REINFORCED CONCRETE WEARING SURFACE PROFILE

(Along Edge of Deck)




## RAIL POST SPACING




## BAR a(E)

## NOTES:

Work this sheet with Sheet 3 of 9.

See Sheet 5 of 9 for details of Rail Anchorage into precast beams and Section D-D.

Ends of beams shall be aligned at the expansion joints. Any lineal variation in the beam lengths shall be placed at the fixed joint.

After beams have been erected, temporary retainers shall be installed, holes for dowel rods shall be drilled into pier and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hrs prior to grouting the shear keys.

Concrete wearing surface (including blockout) to be poured after grouting the shear keys.

Hatched area to be poured after concrete wearing surface (including blockout) is in place. Quantity included with Concrete Structures on sheet 8 of 9.

See sheet 5 of 9 for fabric bearing pad details.

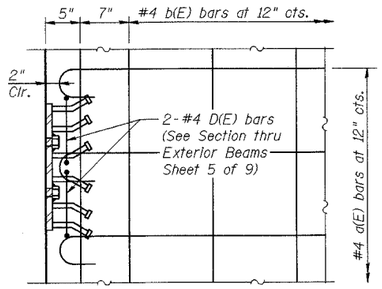
Dowel rods drilled in pier cap are included in the cost of Precast Prestressed Concrete Deck Beams (17" Depth).

Reinforcement bars designated (E) shall be epoxy coated.

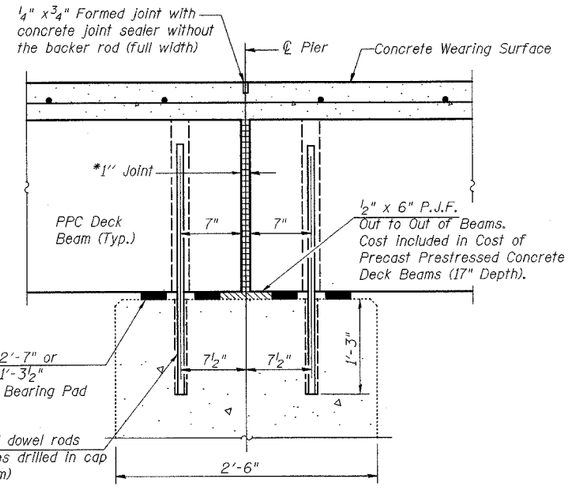
Existing Vertical Reinforcement Bars in Hatch Block to remain see sheet 8 of 9.

## SUPERSTRUCTURE BILL OF MATERIAL

| BAR | NO. | SIZE | LENGTH | SHAPE |
|---|---|---|---|---|
| a(E) | 73 | #4 | 33'-8" | |
| $a_1$(E) | 8 | #5 | 37'-9" | |
| | | | | |
| b(E) | 102 | #4 | 25'-2" | |
| | | | | |
| Reinforcement Bars, Epoxy Coated | | | Pound | 3670 |
| Concrete Wearing Surface | | | Sq. Yd. | 266 |
| Bridge Deck Grooving | | | Sq. Yd. | 249 |




## SECTION C-C




## SECTION B-B THRU PIER

(Dim's at Rt L's)

*1" Joint shall be packed with non-shrink grout. 1" dimension may vary to accommodate tolerance to beam lengths.

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

**IL ROUTE 49 OVER A TRIBUTARY OF THE LITTLE VERMILION RIVER**
**F.A.P. ROUTE 836 SECTION 118BR**
**CHAMPAIGN COUNTY**
**STATION 664+76.09**
**STRUCTURE NO. 010-0236**

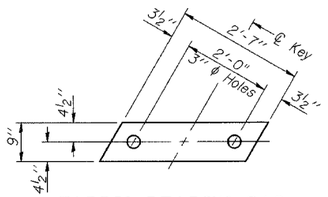
DATE: JUNE 2005

DRAWN BY: NJV/MLO
CHECKED BY: SJK

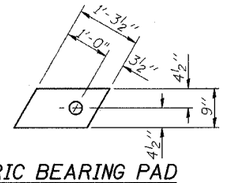
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 12 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

SHEET NO. 5
9 SHEETS

Contract #70390

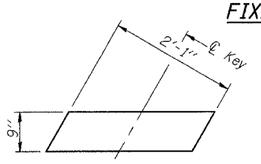



FABRIC BEARING PAD
(Interior)

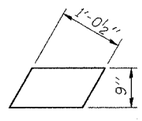



FABRIC BEARING PAD
(Exterior)

FIXED

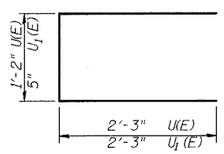



FABRIC BEARING PAD
(Interior)

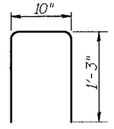



FABRIC BEARING PAD
(Exterior)

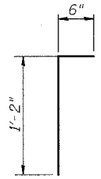
EXPANSION



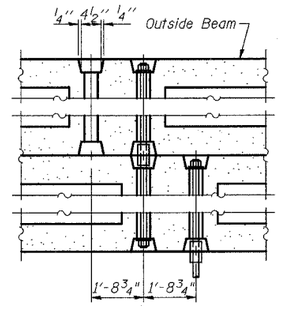

BAR U & U1

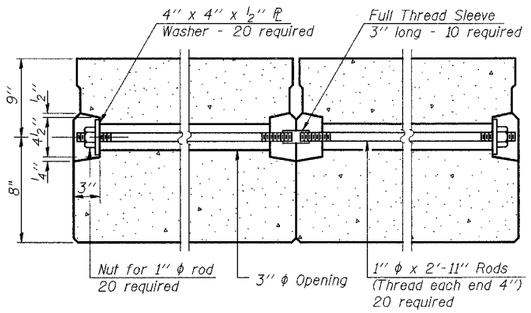



BAR D(E)

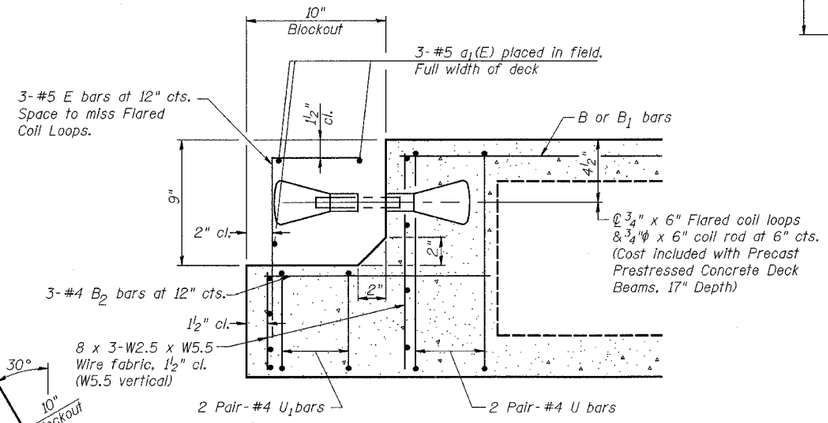



BAR E



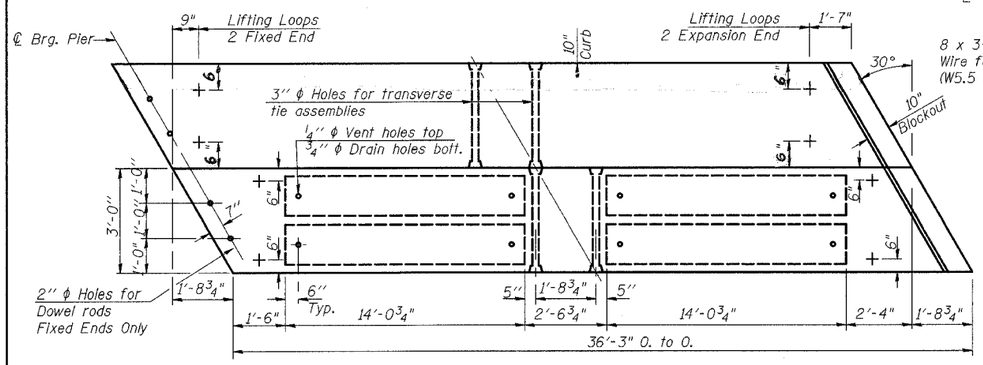




TYPICAL TRANSVERSE TIE ASSEMBLY

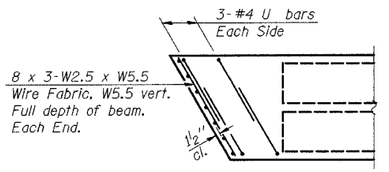



END OF BEAM - ELEVATION
(Expansion End)

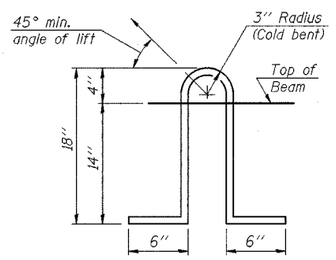
*The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage Inserts and/or additional inserts cast into beam. Drilling into the beam will not be permitted.*



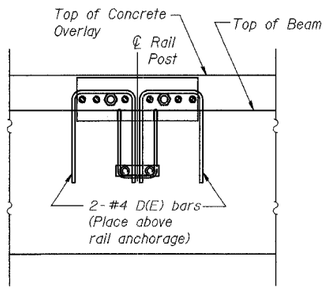

PLAN



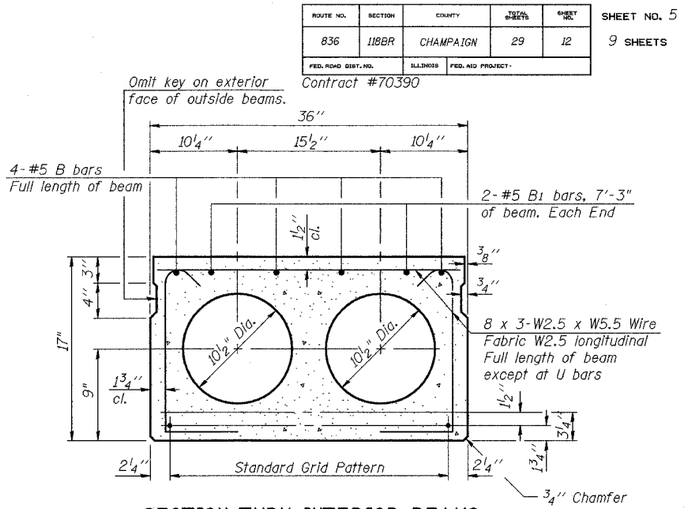

END OF BEAM PLAN
(Fixed End)




LIFTING LOOP DETAIL



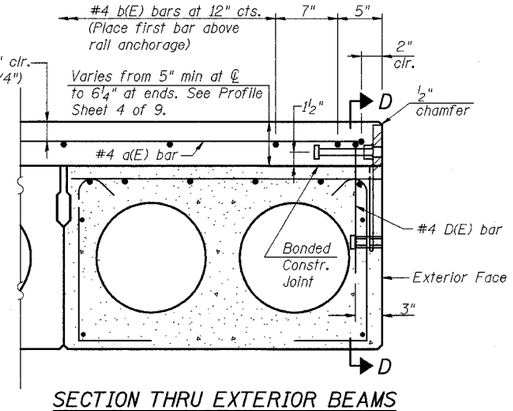

SECTION D-D




SECTION THRU INTERIOR BEAMS

½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
9-Strands 1¾" up, 4-Strands 3¼" up, 2-Strands 12" up

Note:
Place strands symmetrically about ℄ of beam.




SECTION THRU EXTERIOR BEAMS

See Section Thru Interior Beams for strand pattern, dimensions and bar call outs.

NOTES

*Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.*
*The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.*
*Lifting loops shall be 2-½" ϕ-270 ksi strands, as shown.*
*The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.*
*Non prestressing steel shall conform to AASHTO M-31 or M-322 Grade 60.*
*The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" 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.*
*Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.*
*Required Release Strength, f'ci, shall be 4,000 p.s.i.*
*Bridge rail inserts and D(E) bars shall be cast in precast beams.*
*See sheet 2 and 4 of 9 for location of rail inserts.*
*Reinforcement bars designated (E) shall be epoxy coated.*

BILL OF MATERIAL

| | | |
|---|---|---|
| Precast Prestressed Conc. Deck Bms.(17" Depth) | Sq. Ft. | 2393 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS

IL ROUTE 49 OVER A TRIBUTARY OF
THE LITTLE VERMILION RIVER
F.A.P. ROUTE 836 SECTION 118BR
CHAMPAIGN COUNTY
STATION 664+76.09
STRUCTURE NO. 010-0236

DATE: JUNE 2005

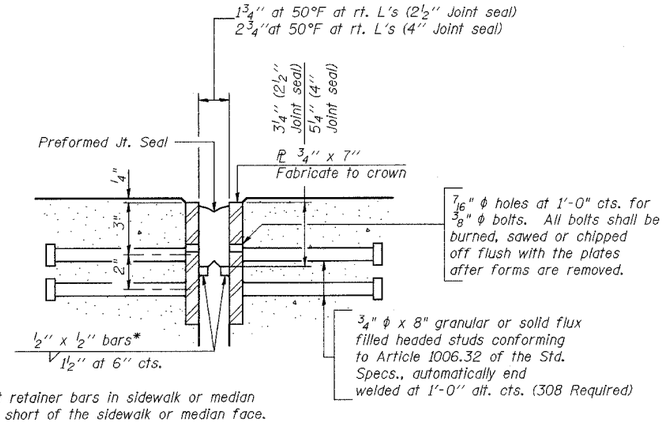
DRAWN BY: NJV/MLO
CHECKED BY: SJK

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 13 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

SHEET NO. 6
9 SHEETS

Contract #70390

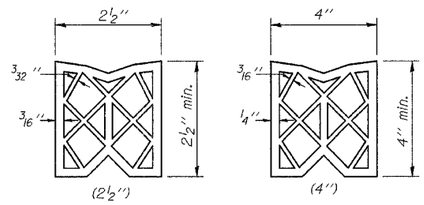



*Cut retainer bars in sidewalk or median 6" short of the sidewalk or median face.

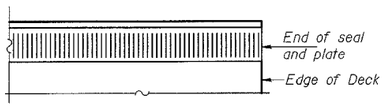
## SECTION THRU EXPANSION JOINT

(2 1/2" and 4" joint seals)

| Bridge Joint System (Expansion) | | |
|---|---|---|
| Design Movement | Required Preformed Joint Seal Size | Required Strip Seal Rated movement |
| 1" | 2 1/2" | 1" |
| 1 5/8" | 4" | 2" |

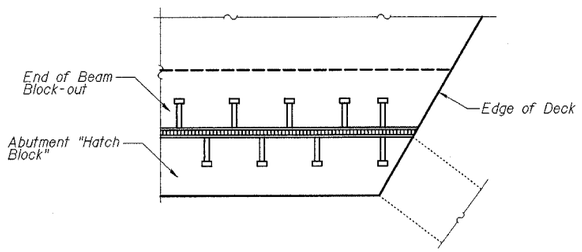



## PREFORMED JOINT SEAL




## END TREATMENT ELEVATION

(Showing seal and plate)




## END TREATMENT PLAN

## GENERAL NOTES

Furnish steel plates in segments of 20 feet maximum length. Maximum space between installed segments shall be 3/16". Seal space with silicone sealant suitable for structural steel.

## BILL OF MATERIAL

| Item | Unit | Total |
|---|---|---|
| Bridge Joint System (Expansion) | Foot | 76.0 |
| | | |

(Sheet 1 of 2)

ILLINOIS DEPARTMENT OF TRANSPORTATION

BRIDGE JOINT SYSTEM - EXPANSION
(PREFORMED JOINT SEALER)
IL ROUTE 49 OVER A TRIBUTARY OF
THE LITTLE VERMILION RIVER
F.A.P. ROUTE 836 SECTION 118BR
CHAMPAIGN COUNTY
STATION 664+76.09
STRUCTURE NO. 010-0236

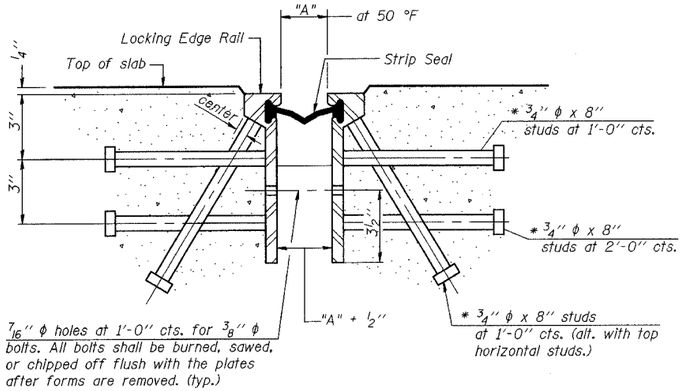
DATE: JUNE 2005

DRAWN BY: NJV/MLO
CHECKED BY: SJK

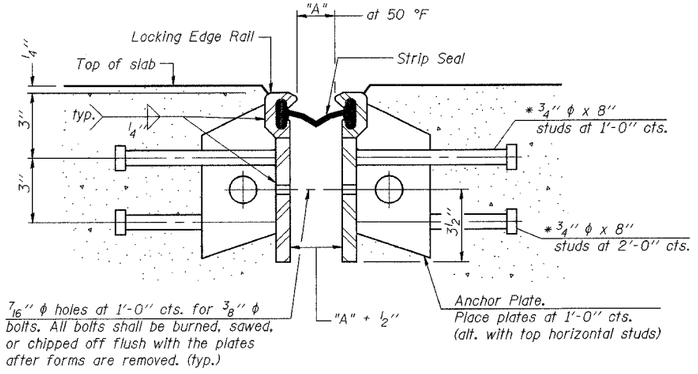
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 14 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

SHEET NO. 7
9 SHEETS

Contract #70390




| Required Strip Seal rated movement | "A" |
|---|---|
| 1" | 1 1/8" |
| 2" | 1 3/4" |




## GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

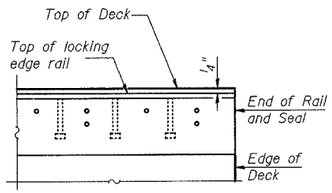
## SECTION THRU ROLLED RAIL EXP. JOINT

(392 Studs Required)

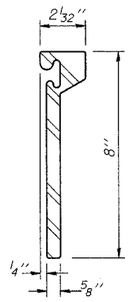
## SECTION THRU WELDED RAIL EXP. JOINT

(236 Studs Required)
(156 Anchor Plates Required)

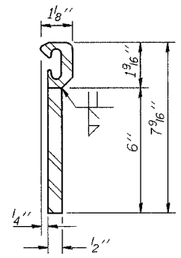
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



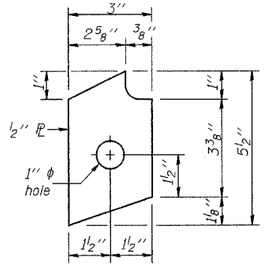

END TREATMENT ELEVATION




ROLLED (EXTRUDED) RAIL

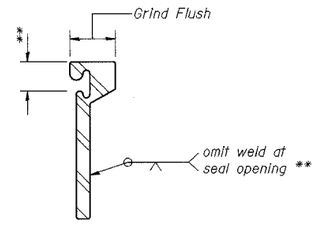



WELDED RAIL




ANCHOR PL
(for welded rail)

LOCKING EDGE RAILS




LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

(Sheet 2 of 2)

ILLINOIS DEPARTMENT OF TRANSPORTATION

BRIDGE JOINT SYSTEM - EXPANSION
(ALTERNATE - STRIP SEAL)
IL ROUTE 49 OVER A TRIBUTARY OF
THE LITTLE VERMILION RIVER
F.A.P. ROUTE 836 SECTION 118BR
CHAMPAIGN COUNTY
STATION 664+76.09
STRUCTURE NO. 010-0236

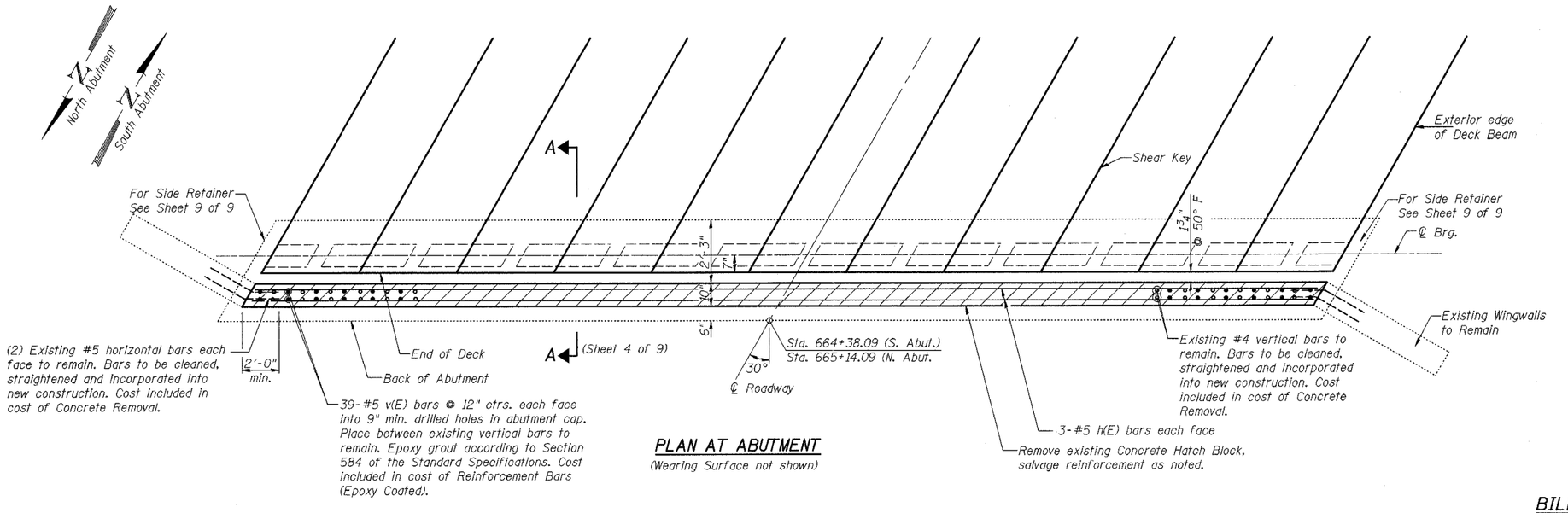
DATE: JUNE 2005

DRAWN BY: NJV/MLO
CHECKED BY: SJK

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 15 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

SHEET NO. 8
9 SHEETS

Contract #70390

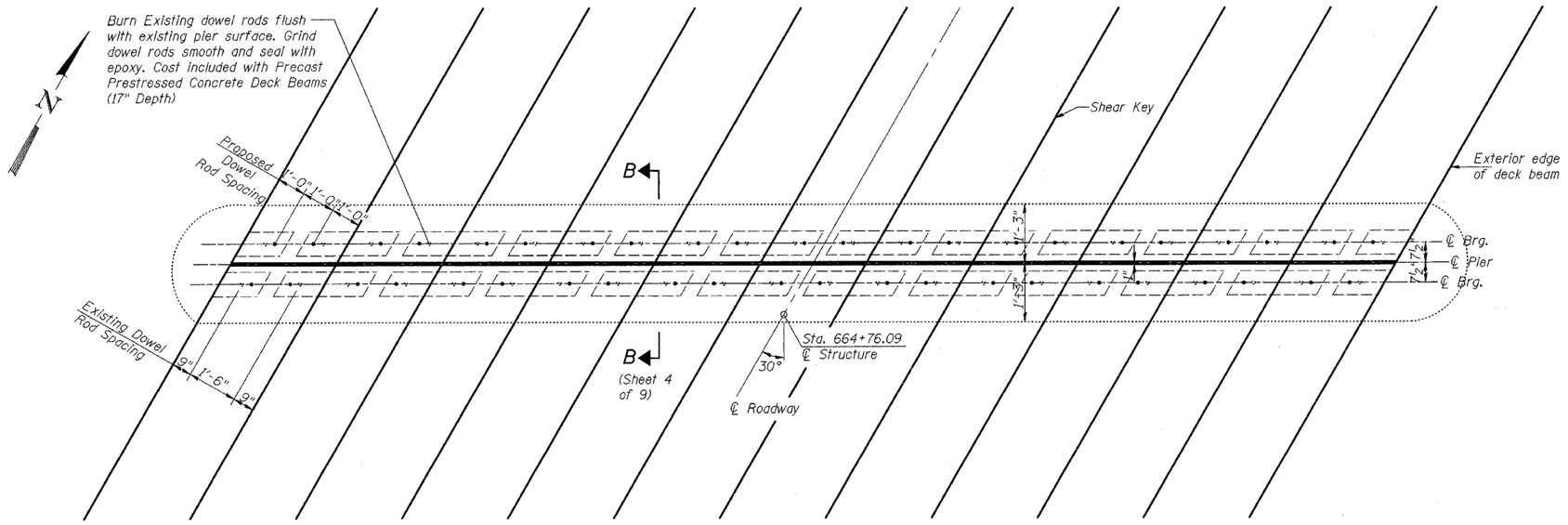



## PLAN AT ABUTMENT

(Wearing Surface not shown)

## BILL OF MATERIAL (BOTH ABUT'S)

| BAR | NO. | SIZE | LENGTH | SHAPE |
|---|---|---|---|---|
| h(E) | 12 | #5 | 37'-9" | —— |
| v(E) | 156 | #5 | 2'-6" | —— |
| Reinforcement Bars, Epoxy Coated | | | Pound | 880 |
| Concrete Removal | | | Cu. Yd. | 3.4 |
| Concrete Structures | | | Cu. Yd. | 4.7 |




## PLAN AT PIER

(Wearing Surface not shown)

## NOTES

Hatched areas indicate concrete removal. These areas are to be poured after concrete wearing surface is in place and cured.

Reinforcement bars designated (E) shall be epoxy coated.

ILLINOIS DEPARTMENT OF TRANSPORTATION

*SUBSTRUCTURE*

*IL ROUTE 49 OVER A TRIBUTARY OF THE LITTLE VERMILION RIVER*
*F.A.P. ROUTE 836 SECTION 118BR*
*CHAMPAIGN COUNTY*
*STATION 664+76.09*
*STRUCTURE NO. 010-0236*

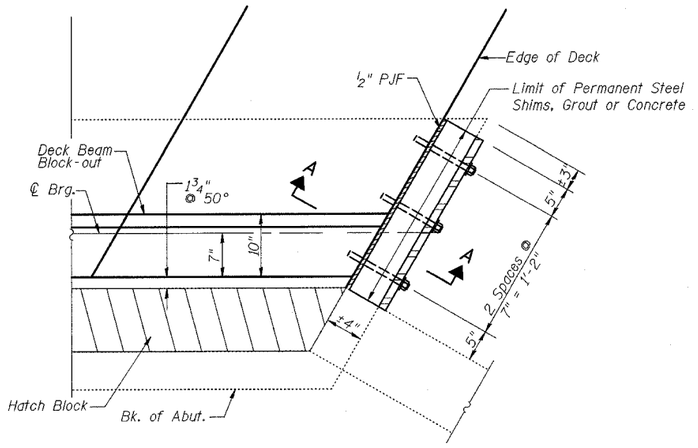
DATE: JUNE 2005

DRAWN BY: NJV/MLO
CHECKED BY: SJK

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 16 |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT- | |

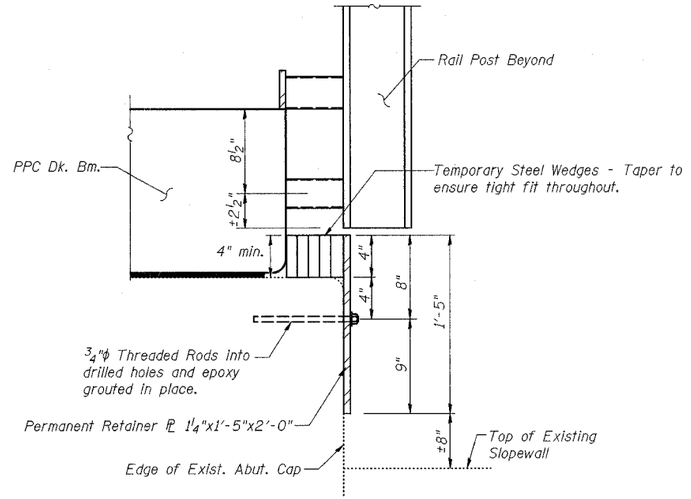
SHEET NO. 9
9 SHEETS

Contract #70390



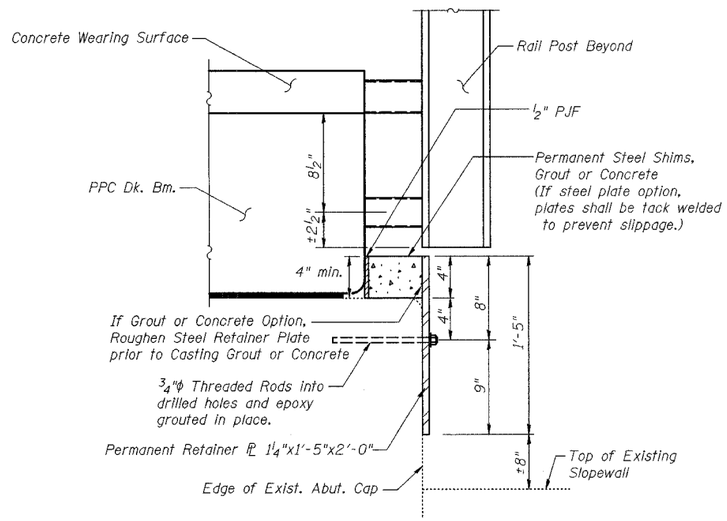

Note:
After temporary steel wedges are removed, permanent steel shims, grout or concrete shall be cast against the PJF to the top of the retainer plate. Cost of retainers and accessories included with Precast Prestressed Concrete Deck Beams (17" Depth).

## SIDE RETAINER PLAN




## SECTION A-A

(Showing Temporary Steel Wedges)




## SECTION A-A

(Showing Permanent Retainer)

## GENERAL NOTES

All steel plates used shall conform to the requirements of AASHTO M270 Grade 36.

All structural steel to remain permanently shall be galvanized after shop fabrication according to AASHTO M111 and ASTM A385.

## ANCHOR BOLTS FOR RETAINERS

Holes in the concrete for anchor bolts shall be drilled according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

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

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Precast Prestressed Concrete Deck Beams (17" Depth).

The minimum ultimate tensile capacity of the epoxy threaded rod unit shall be 24 kips including reductions for edge distance and spacing.

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

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

1. A threaded rod stud, with nut and washer, conforming to ASTM A193 B7 or AASHTO M253.
2. A sealed capsule or a sealed adhesive cartridge containing premeasured amounts of the adhesive chemical.

| Location | Size | Embedded Depth |
|---|---|---|
| Abut. | 3/4" ø | 6 3/4" |

ILLINOIS DEPARTMENT OF TRANSPORTATION

**SUBSTRUCTURE DETAILS**

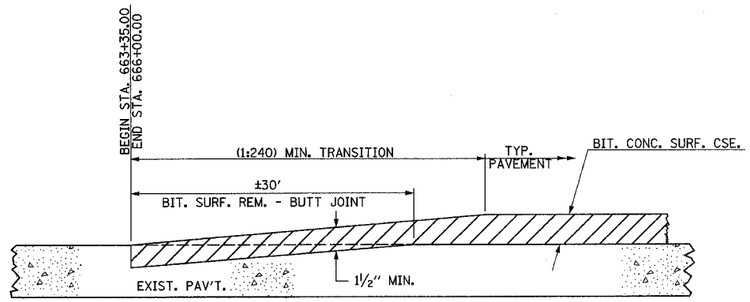
**IL ROUTE 49 OVER A TRIBUTARY OF THE LITTLE VERMILION RIVER**
**F.A.P. ROUTE 836 SECTION 118BR**
**CHAMPAIGN COUNTY**
**STATION 664+76.09**
**STRUCTURE NO. 010-0236**

DATE: JUNE 2005

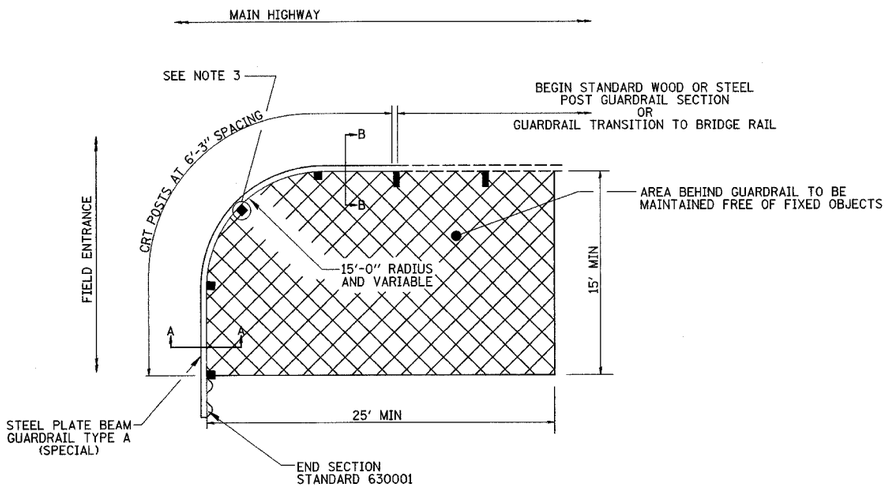
DRAWN BY: NJV/MLO
CHECKED BY: SJK

CONTRACT NO. 70390

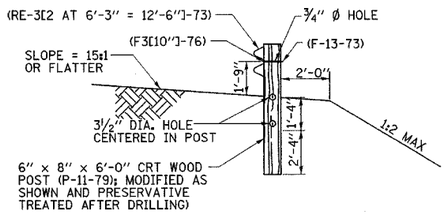
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 17 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



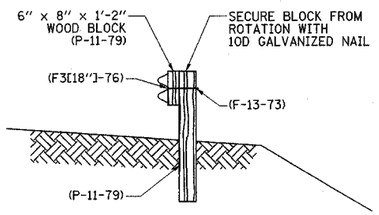

## BUTT JOINT DETAIL




PLAN AT ENTRANCE




SECTION A-A




SECTION B-B

**NOTES:**

1. DESIGNATIONS PROVIDED IN PARENTHESIS REFERENCE STANDARD ELEMENTS DETAILED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER ROLL HARDWARE," 1979, AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE.
2. NO WASHERS ARE USED ON THE 16 BUTTON HEAD BOLTS (F-3IAS REQUIREDI-76) CONNECTING THE RAIL TO THE CONTROLLED RELEASING TERMINAL (CRT) POSTS.
3. THE RAIL IS NOT BOLTED TO THE CRT POST AT THE CENTER OF THE NOSE AS SHOWN.
4. THE CURVED GUARDRAIL SECTION SHALL BE SHOP BENT.
5. CURVED GUARDRAIL DETAIL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR STEEL PLATE BEAM GUARDRAIL TYPE A (SPECIAL), WHICH PRICE SHALL INCLUDE A COMPLETE CURVED GUARDRAIL DETAIL IN PLACE.

## CURVED GUARDRAIL DETAIL

| REVISIONS NAME | DATE |
|---|---|
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

ROADWAY DETAILS

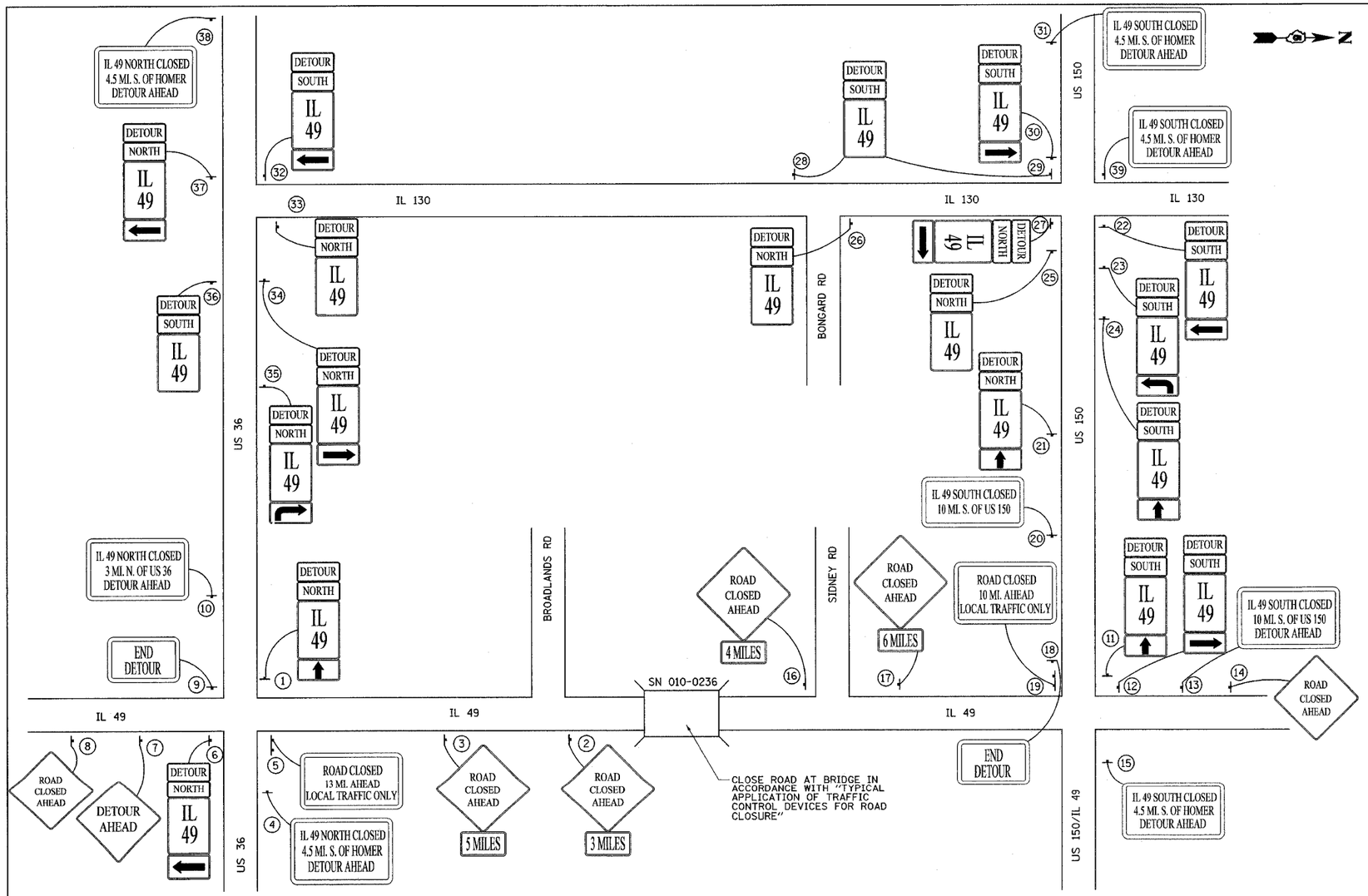
SCALE: NONE — DRAWN BY MLO

DATE 6/05 — CHECKED BY SJK

•DGN-SPEC•

CONTRACT NO. 70390

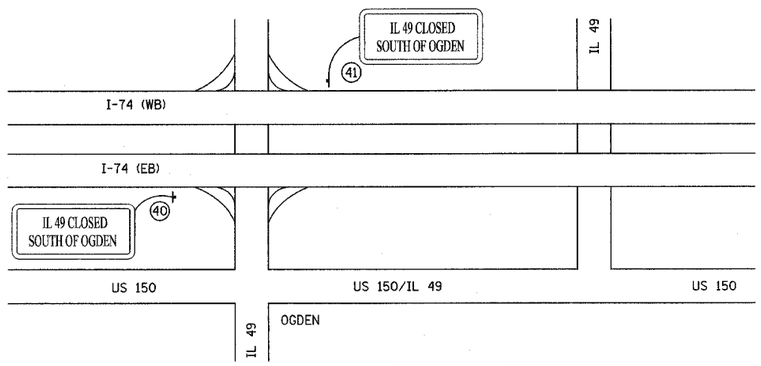
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 18 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |




| SIGN NO. | LOCATION |
|---|---|
| 1 | ERECT BESIDE "WEST US 36" SIGN |
| 2 | ERECT 50'± NORTH OF BROADLANDS ROAD |
| 3 | ERECT JUST WEST OF ALLERTON |
| 4 | ERECT 200'± EAST OF IL 49/US 36 INTERSECTION |
| 5 | ERECT JUST SOUTH OF "NORTH IL 49" SIGN |
| 6 | ERECT BESIDE "IL 49/US 36" SIGNS |
| 7 | ERECT BESIDE "DECATUR/INDIANAPOLIS" SIGN |
| 8 | ERECT 100'± NORTH OF "JCT 36" SIGN |
| 9 | ERECT UNDER "IL 49" SIGNS JUST WEST OF INTERSECTION |
| 10 | ERECT 300'± WEST OF IL 49/US 36 INTERSECTION |
| 11 | ERECT BESIDE "WEST US 150" SIGN |
| 12 | ERECT BESIDE "JCT IL 49/US 150" SIGNS |
| 13 | ERECT 300'± NORTH OF SIGN 12; JUST SOUTH OF RR TRACKS |
| 14 | ERECT 600'± NORTH OF SIGN 12; BETWEEN BROADWAY ST & RR TRACKS |
| 15 | ERECT 75'± EAST OF STOP SIGN |
| 16 | ERECT 50'± SOUTH OF SIDNEY ROAD |
| 17 | ERECT 2 MILES NORTH OF SIDNEY ROAD |
| 18 | ERECT UNDER IL 49, US 150 SIGNS JUST WEST OF INTERSECTION |
| 19 | ERECT ON TYPE III BARRICADES WITH LIGHTS 75'± SOUTH OF INTERSECTION |
| 20 | ERECT 300'± WEST OF US 150/IL 49 INTERSECTION |
| 21 | ERECT BESIDE EAST US 150 SIGN IN ST. JOSEPH |
| 22 | ERECT BESIDE IL 130/US 150 SIGNS, 50'± EAST OF INTERSECTION |
| 23 | ERECT 75'± WEST OF "JCT IL 130" SIGN |
| 24 | ERECT BESIDE "WEST US 150" SIGN IN ST. JOSEPH |
| 25 | ERECT 100'± EAST OF INTERSECTION |
| 26 | ERECT 100'± NORTH OF BONGARD STA. ROAD |
| 27 | ERECT BESIDE IL 130/US 150 SIGNS |
| 28 | ERECT 100'± SOUTH OF BONGARD STA. ROAD |
| 29 | ERECT BESIDE "SOUTH IL 130" SIGN |
| 30 | ERECT 50'± WEST OF US 150/IL 130 INTERSECTION |
| 31 | ERECT 300'± WEST OF US 150/IL 130 INTERSECTION |
| 32 | ERECT BESIDE US 36 ARROW SIGN |
| 33 | ERECT BESIDE "ADOPT A HIGHWAY, NORTH IL 130" SIGNS |
| 34 | ERECT BESIDE WEST US 36, IL 130 SIGNS |
| 35 | ERECT BESIDE "DECATUR/URBANA" SIGN |
| 36 | ERECT BESIDE EAST US 36 SIGN |
| 37 | ERECT 50'± WEST OF IL 130/US 36 INTERSECTION |
| 38 | ERECT 300'± WEST OF IL 130/US 36 INTERSECTION |
| 39 | ERECT 200'± NORTH OF IL 130/US 150 INTERSECTION |
| 40 | ERECT 500'± WEST OF IL 49 (EXIT #197) |
| 41 | ERECT 500'± EAST OF IL 49 (EXIT #197) |

## NOTES

1. EXISTING SIGNS WHICH CONFLICT WITH THE MARKED DETOUR SHALL BE COVERED.
2. SEE SPECIAL PROVISION "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" FOR MORE DETAILS.




| REVISIONS NAME | DATE |
|---|---|
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING DETAIL

SCALE: NONE — DRAWN BY MLO

DATE 8/05 — CHECKED BY SJK

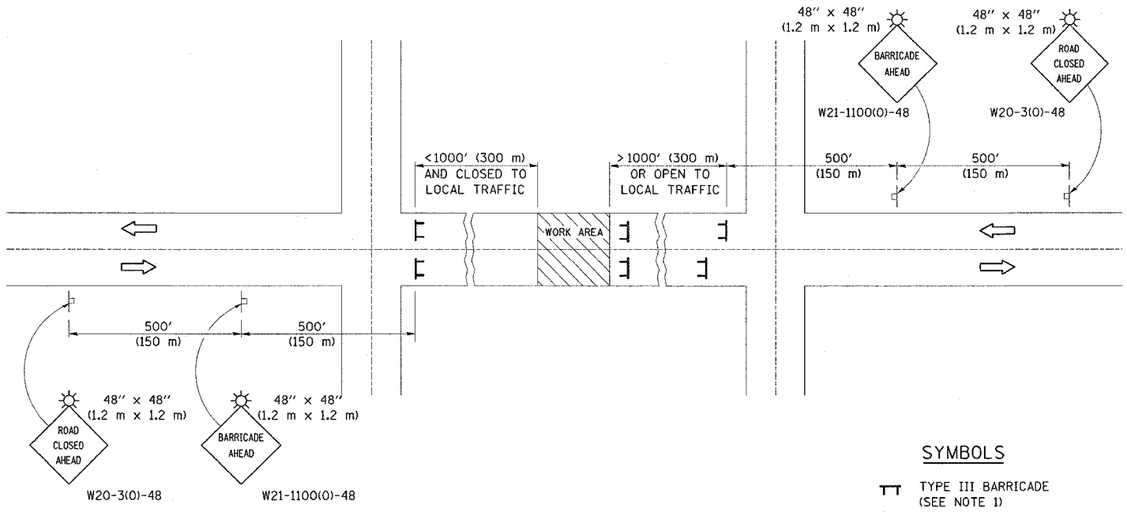
•DGN-SPEC•
•DATE•

BLANK, WESSELINK, COOK & ASSOCIATES — DECATUR, ILLINOIS — F.A.P. 836 (IL RTE 49) SECTION 118BR — CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 19 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR ROAD CLOSURE




## SYMBOLS

- TYPE III BARRICADE (SEE NOTE 1)
- FLASHING AMBER LIGHT (TYPE A)

## GENERAL NOTES

1. TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 702001 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
2. IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
3. WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
4. STANDARD 702001 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
5. IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
6. REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TY III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
7. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
8. A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
9. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
10. FORMS BT. 725 AND BT. 726 ARE REQUIRED.
11. WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
12. AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

| | NAME | DATE | REVISIONS | |
|---|---|---|---|---|
| DESIGNED | J.H.M. | 8-11-87 | NAME | DATE |
| CHECKED | P.E.K. | 8-25-87 | R.M.H. | 12/97 |
| CADD NO. | F-5.03 | | C.P./K.A.G. | 01/05 |

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| REVISIONS NAME | DATE |
|---|---|
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR ROAD CLOSURE

SCALE: NONE — DRAWN BY DIST. 5

DATE 6/05 — CHECKED BY DIST. 5

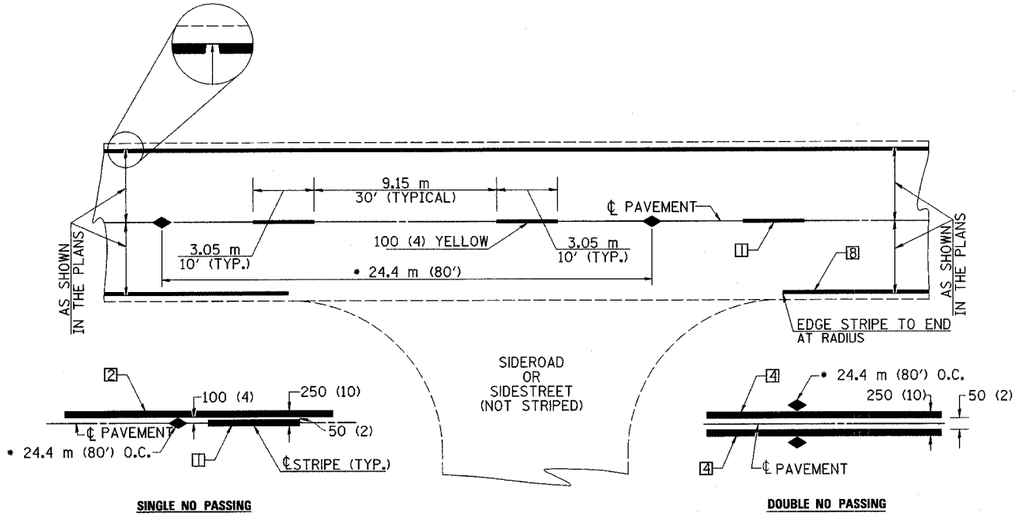
*DGN-SPEC*
*DATE*

BLANK, WESSELINK, COOK & ASSOCIATES — DECATUR, ILLINOIS — F.A.P. 836 (IL RTE 49) SECTION 118BR — CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 20 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

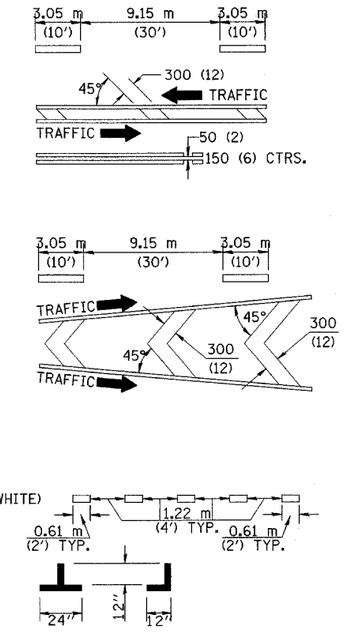
# TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS




* REDUCE TO 12.2 m (40') O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 70 km/h (45 mph) OR LESS.

## TYPICAL PAVEMENT MARKING LEGEND

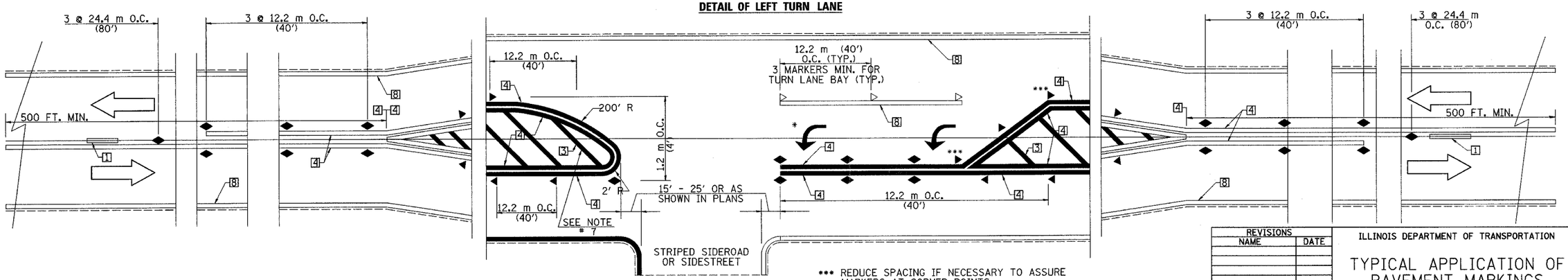
1. 100 (4) SKIP-DASH (YELLOW)
2. 100 (4) SOLID (YELLOW)
3. 300 (12) DIAGONAL (YELLOW)
4. 100 (4) DOUBLE YELLOW (NARROW)
5. RESERVED
6. RESERVED
7. 100 (4) SKIP-DASH (WHITE)
8. 100 (4) SOLID (WHITE)
9. 300 (12) DIAGONAL (WHITE)
10. 150 (6) CROSS WALK (WHITE)
11. 600 (24) STOP BAR (WHITE)
12. 200 (8) SOLID (WHITE)
13. 100 (4) LANE LINE EXTENSIONS (WHITE)
14. 100 (4) PARKING (WHITE)




## TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

## DETAIL OF LEFT TURN LANE




*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

*TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

| REVISIONS NAME | DATE |
|---|---|
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATION OF PAVEMENT MARKINGS SHEET 1 OF 3

SCALE: NONE — DRAWN BY DIST. 5

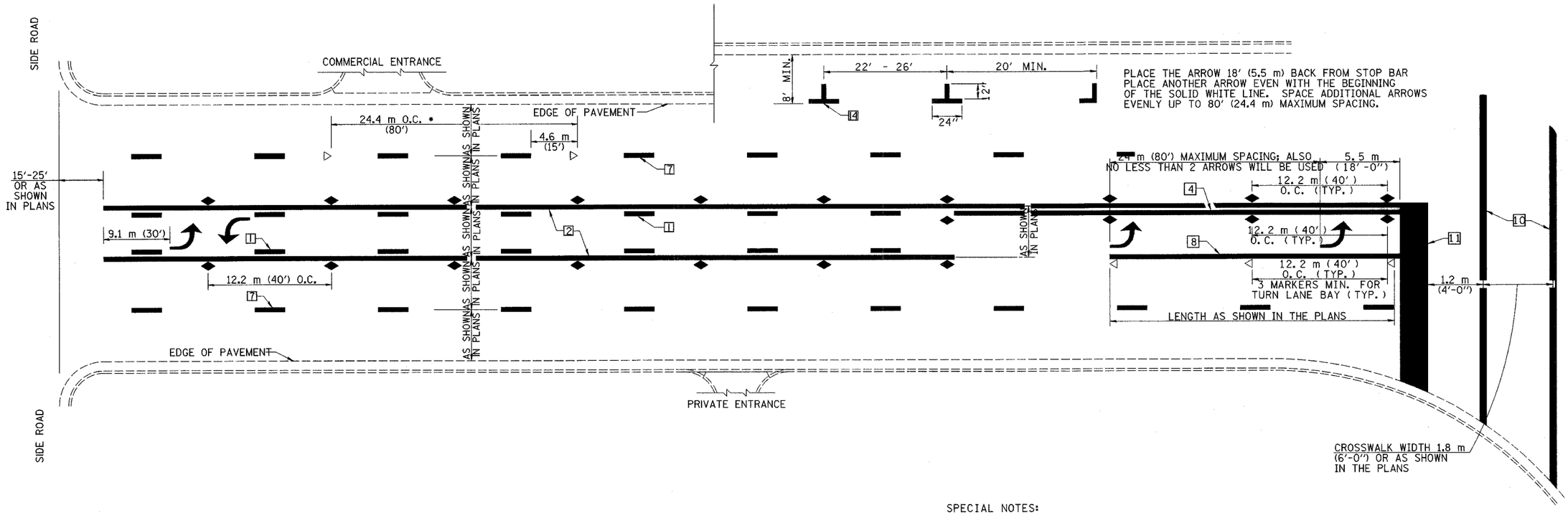
DATE 6/05 — CHECKED BY DIST. 5

*DGN-SPEC*
*DATE*

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 21 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS




SPECIAL NOTES:

TURN ARROW PAIRS SHALL BE PLACED AT 75 m (250') INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.

THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.

THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ABOVE.

• REDUCE TO 12.2 METERS (40 FEET) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 15 kph (10 MPH) LOWER THAN POSTED SPEEDS.

•• WHERE DOUBLE LANE LINE MARKERS ARE SPECIFIED, THEY SHALL BE SPACED AS SHOWN ABOVE.

| REVISIONS NAME | DATE |
|---|---|
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATION OF PAVEMENT MARKINGS SHEET 2 OF 3

SCALE: NONE — DRAWN BY DIST. 5

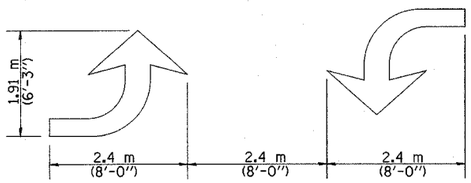
DATE 6/05 — CHECKED BY DIST. 5

•DGN-SPEC•
•DATE•

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 22 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

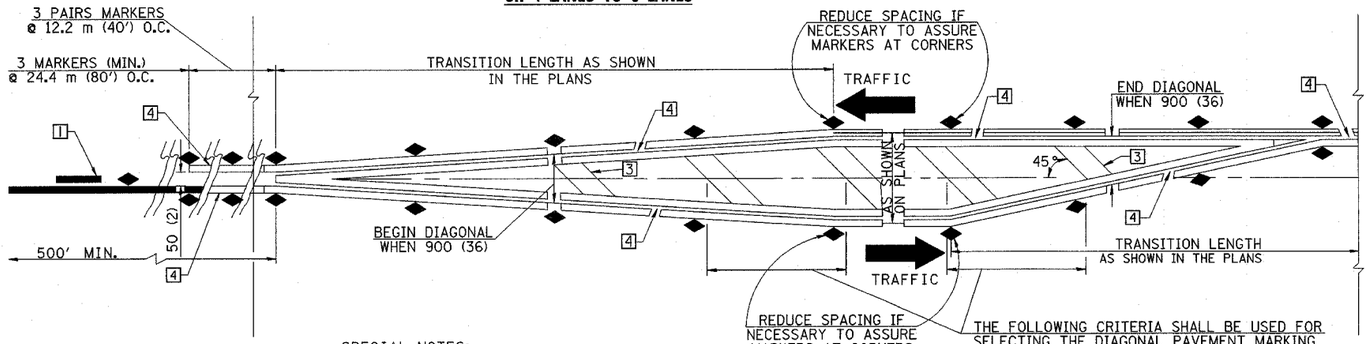
# TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS




**TYPICAL DOUBLE TURN ARROWS (WHITE)**

**2 LANES TO 3 LANES OR 4 LANES TO 5 LANES**

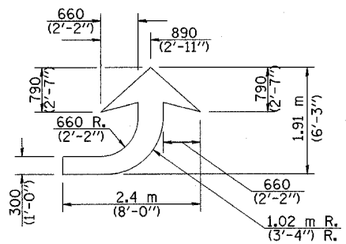
**LEFT TURN LANE**



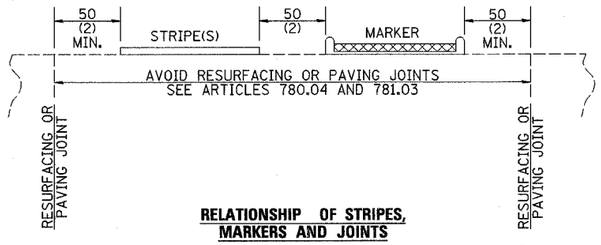

SPECIAL NOTES:
THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).

THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING:
<50 kph USE 4.5 m (<30 MPH USE 15')
50-75 kph USE 6.0 m (30-45 MPH USE 20')
>75 kph USE 9.0 m (>45 MPH USE 30')

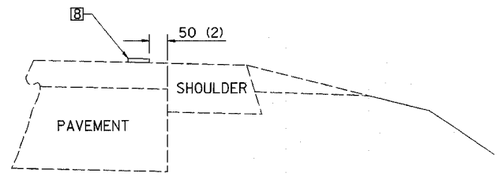
**TYPICAL MEDIAN TRANSITIONS**




**LEFT ARROW**
REVERSE FOR RIGHT ARROW
AREA= 1.47 $m^2$ (15.6 SQ. FT.)
(WHITE)




**RELATIONSHIP OF STRIPES, MARKERS AND JOINTS**




**RELATIONSHIP OF EDGE STRIPE TO SAFETY SHOULDER OR PAVED SURFACE**

## GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SCALE: NONE
3. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
4. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
5. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
6. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
7. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
   < 50 kph USE 4.5 m (< 30 MPH USE 15')
   50-75 kph USE 6.0 m (30-45 MPH USE 20')
   > 75 kph USE 9.0 m (> 45 MPH USE 30')

| REVISIONS NAME | DATE |
|---|---|
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATION OF PAVEMENT MARKINGS SHEET 3 OF 3

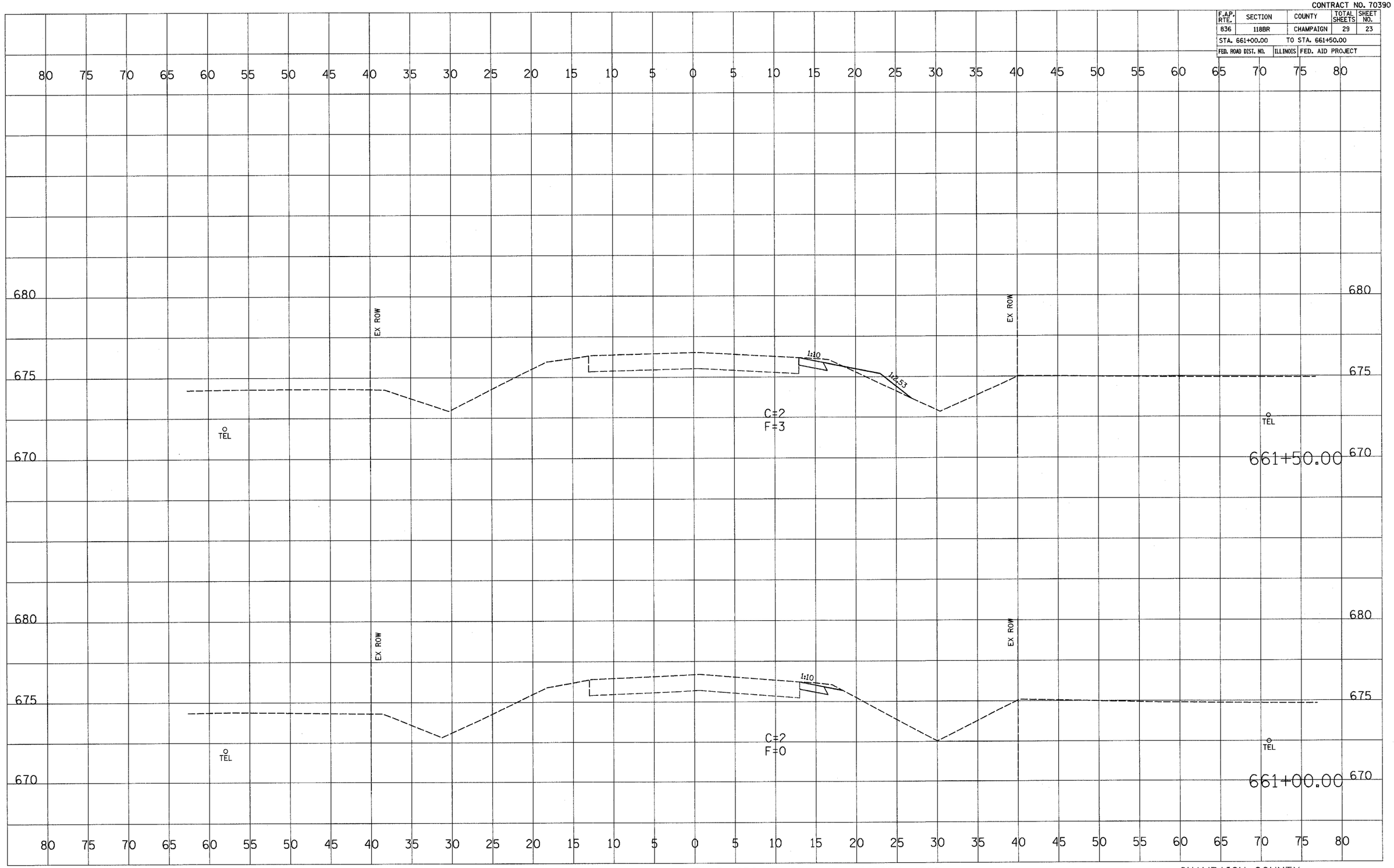
SCALE: NONE — DRAWN BY DIST. 5
DATE 6/05 — CHECKED BY DIST. 5

*DGN-SPEC*
*DATE*

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 23 |
| STA. 661+00.00 | | TO STA. 661+50.00 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

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




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

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

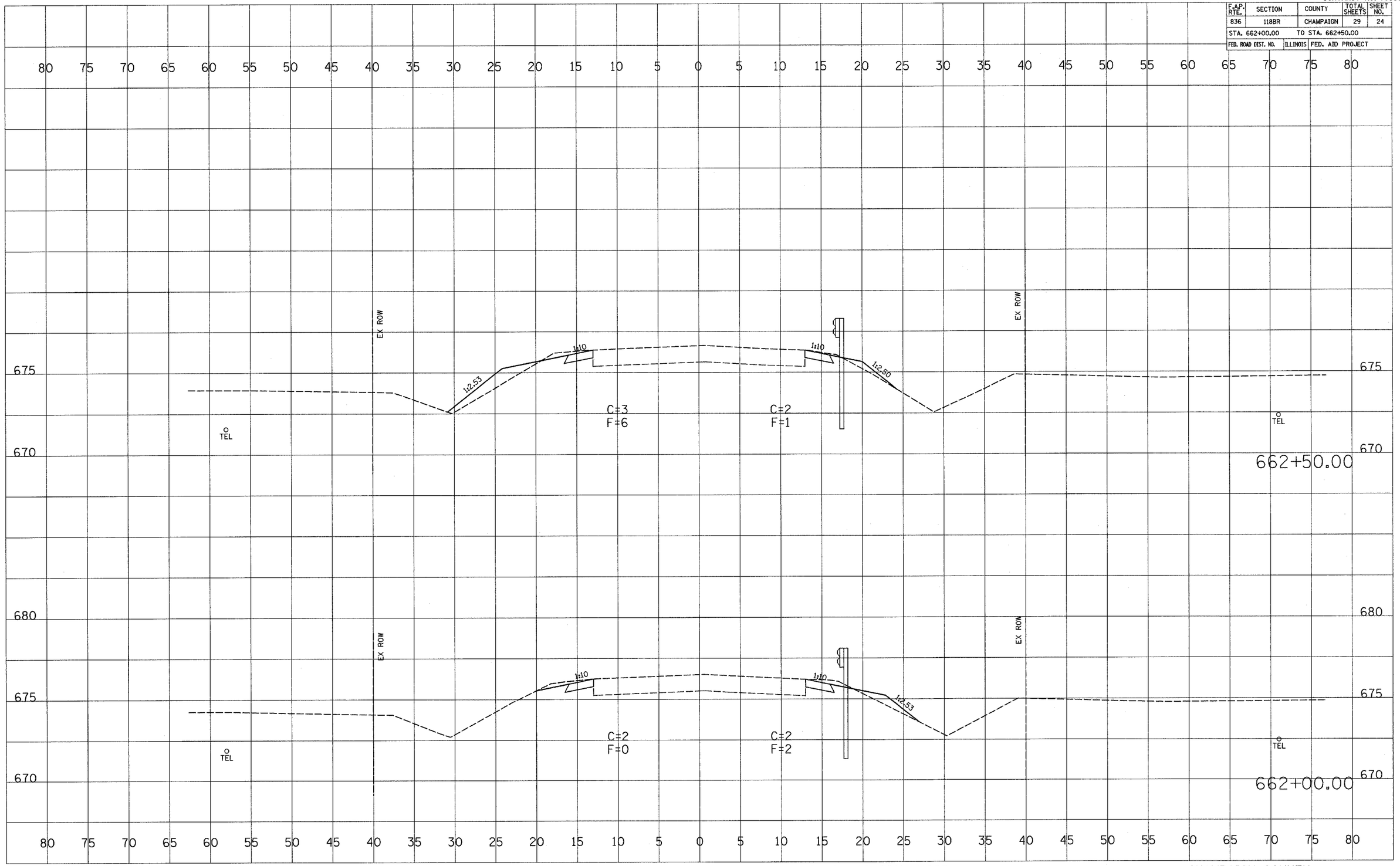
BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 24 |
| STA. 662+00.00 | | TO STA. 662+50.00 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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




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

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BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 25 |
| STA. 663+00.00 | | TO STA. 663+75.00 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

675

670

EX ROW

TEL

1:2.50

1:10

677.00

1:10

6.34 %

EX ROW

671.62

TEL

663+75.00

675

670

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

675

670

EX ROW

TEL

1:2.53

1:10

C=2
F=1

1:10

C=1
F=5

1:2

EX ROW

TEL

663+00.00

675

670

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

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

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

PLOT DATE = #DATE#
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PLOT SCALE = #SCALE#
USER NAME = #USER#

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 26 |
| STA. 664+00.00 | | TO STA. 664+76.09 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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

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

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

675

670

EX ROW

EX ROW

675

670

664+76.09

677.09

1:10

1:10

1:2.50

1:2

1:2

EX ROW

675

670

TEL

C=1
F=1

C=5
F=14

MATCH EXISTING
ff ELEV = 671.47

TEL

664+00.00

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

PLOT DATE = &DATE&
FILE NAME = &FILE&
PLOT SCALE = &SCALE&
USER NAME = &USER&

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR

CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 27 |
| STA. 665+50.00 | | TO STA. 666+00.00 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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

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

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

675

670

EX ROW

TEL

1:2.50

1:10

6'6.33

C=2
F=0

666+00.00

675

670

EX ROW

TEL

1:2.50

1:10

6'7.10

C=1
F=1

665+50.00

675

670

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 28 |
| STA. 666+50.00 | | TO STA. 667+50.00 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

EX ROW

675

670

TEL

1:2.53

1:10

C=2
F=0

C=3
F=0

667+50.00

EX ROW

675

670

TEL

1:2.50

1:10

C=1
F=1

C=2
F=1

667+00.00

EX ROW

675

670

TEL

1:2.50

1:10

C=2
F=0

C=2
F=0

1:2.53

666+50.00

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

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

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

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR CHAMPAIGN COUNTY

CONTRACT NO. 70390

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 836 | 118BR | CHAMPAIGN | 29 | 29 |
| STA. 668+00.00 | | TO STA. 668+50.00 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

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

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

EX ROW

1:10

675

670

TEL

C=2
F=0

EX ROW

675

670

TEL

668+50.00

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

EX ROW

1:2.53

1:10

675

670

TEL

C=2
F=0

EX ROW

675

670

TEL

668+00.00

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS

F.A.P. 836 (IL RTE. 49) SECTION 118BR

CHAMPAIGN COUNTY