

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP 713 (IL RTE. 101)
SECTION (120BR)I-2

SCHUYLER COUNTY

REPLACEMENT OF 3 CONCRETE BOX BEAMS,
BRACING 12 OTHER CONCRETE BOX BEAMS

C-96-025-08

| FAP RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|------------|--------------------|--------------|-----------|
| 713 | (120BR)I-2 | SCHUYLER | 12 | 1 |
| FED. ROAD DIST. NO. | ILLINOIS | CONTRACT NO. 72B65 | | |

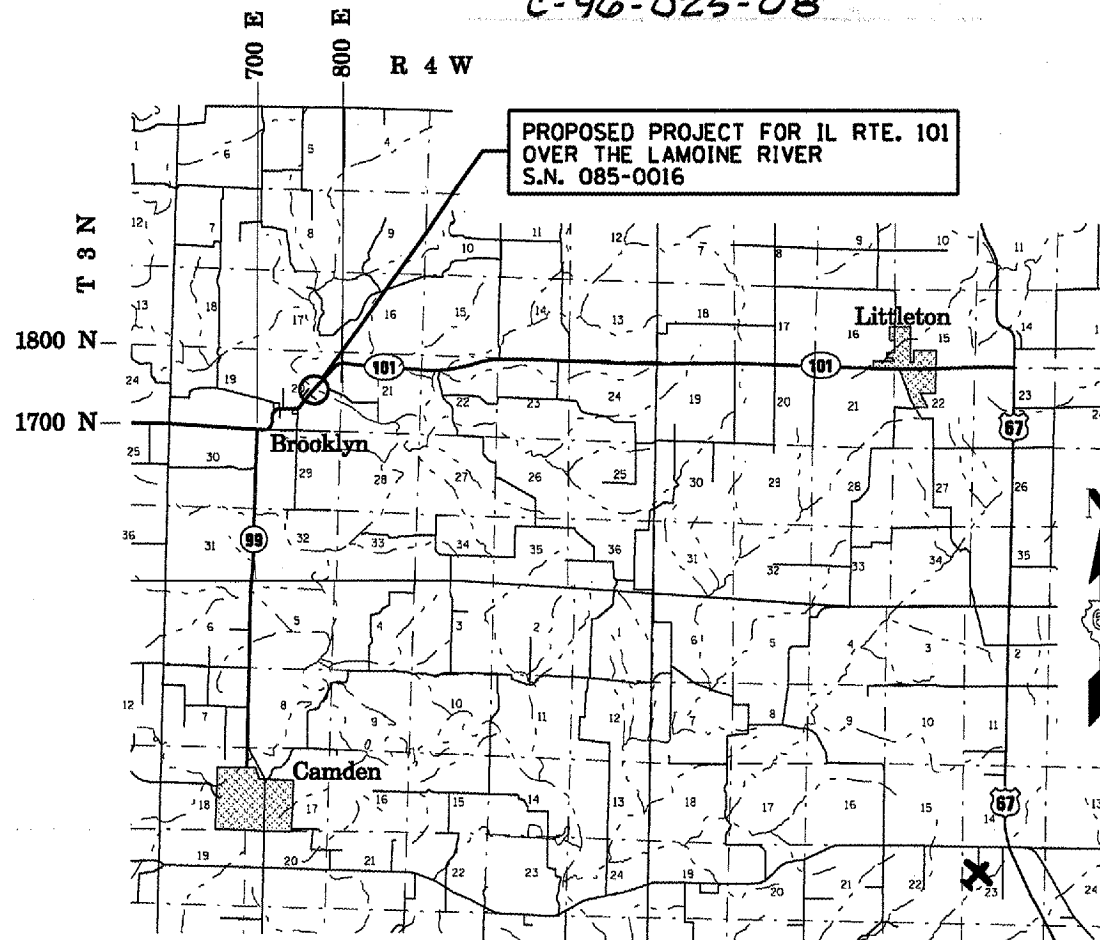
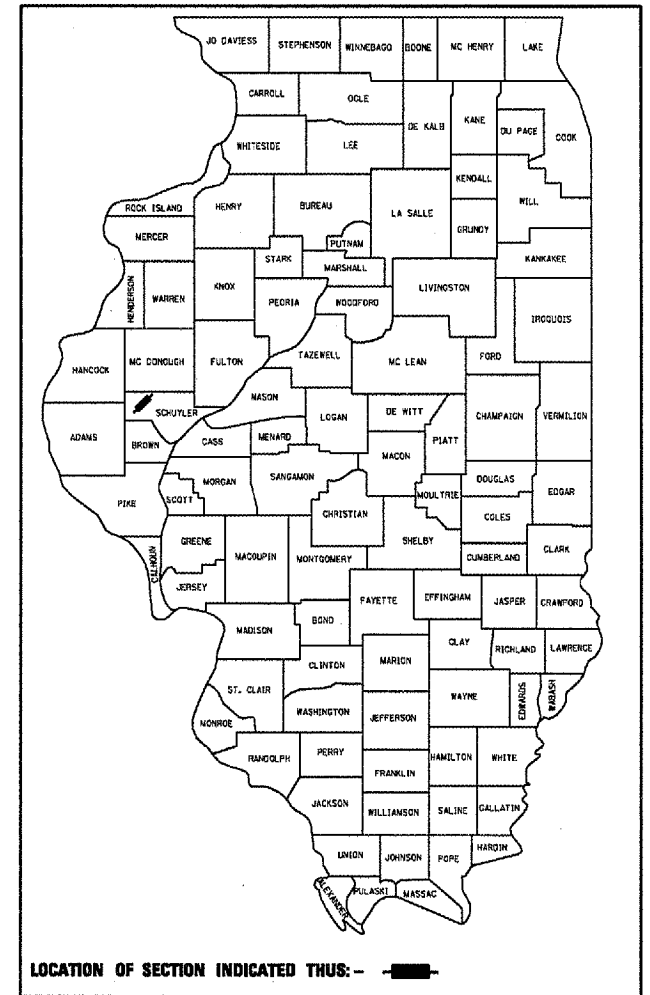
INDEX OF SHEETS

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- 2 GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 - 8 TRAFFIC CONTROL DETAIL SHEETS
- 9 - 12 PROJECT CONSTRUCTION DETAIL SHEETS

STANDARDS

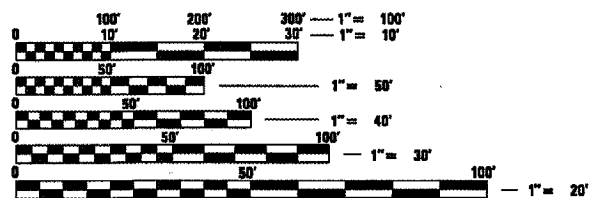
- 000001-05
- 701001-01
- 701006-02
- 701321-09
- 704001-04

D-96-025-08



LOCATION MAP

A.D.T. = 400 (2007)



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

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

PROJECT ENGINEER: SAL MADONIA (217) 782-4761
PROJECT MANAGER: MARCUS BRUCE (217) 524-0946

CONTRACT NO. 72B65

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 11, 2007
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 1, 2008
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

February 1, 2008
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

ANY REFERENCE TO THE STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPETED TO BE THE LATEST STANDARD OF THE DEPARTMENT AS INCLUDED IN THE PLANS.

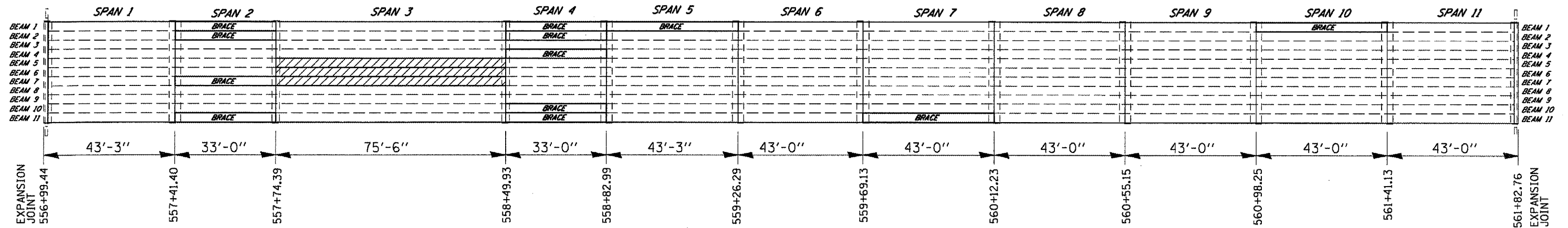
THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING J.U.L.I.E. A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WORK - (800) 892-0123.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE 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 MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION OR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.

EXISTING ROAD SIGNS THAT CONFLICT WITH STAGE CONSTRUCTION TRAFFIC PATTERNS SHALL BE COVERED OR REMOVED UNTIL NORMAL TRAFFIC PATTERNS ARE RE-ESTABLISHED.

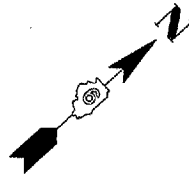
THE PROPOSED BRACING FOR SPAN 2, BEAM 1 SHALL BE CONSTRUCTED PRIOR TO ANY TRAFFIC CONTROL STAGING.

ALL BORED HOLES FOR DOWEL BARS THAT WOULD SECURE ANY SECTION OF TEMPORARY CONCRETE BARRIER WALL TO THE BRIDGE DECK WEARING SURFACE SHALL HAVE A MAXIMUM DEPTH OF 5" AS TO AVOID DAMAGING THE UNDERLYING DECK BEAMS.



PROJECT LAYOUT S. N. 085-0016 IL RTE. 101 OVER THE LAMOINE RIVER

- EXISTING P.P.C. DECK BEAM TO BE REMOVED AND REPLACED.



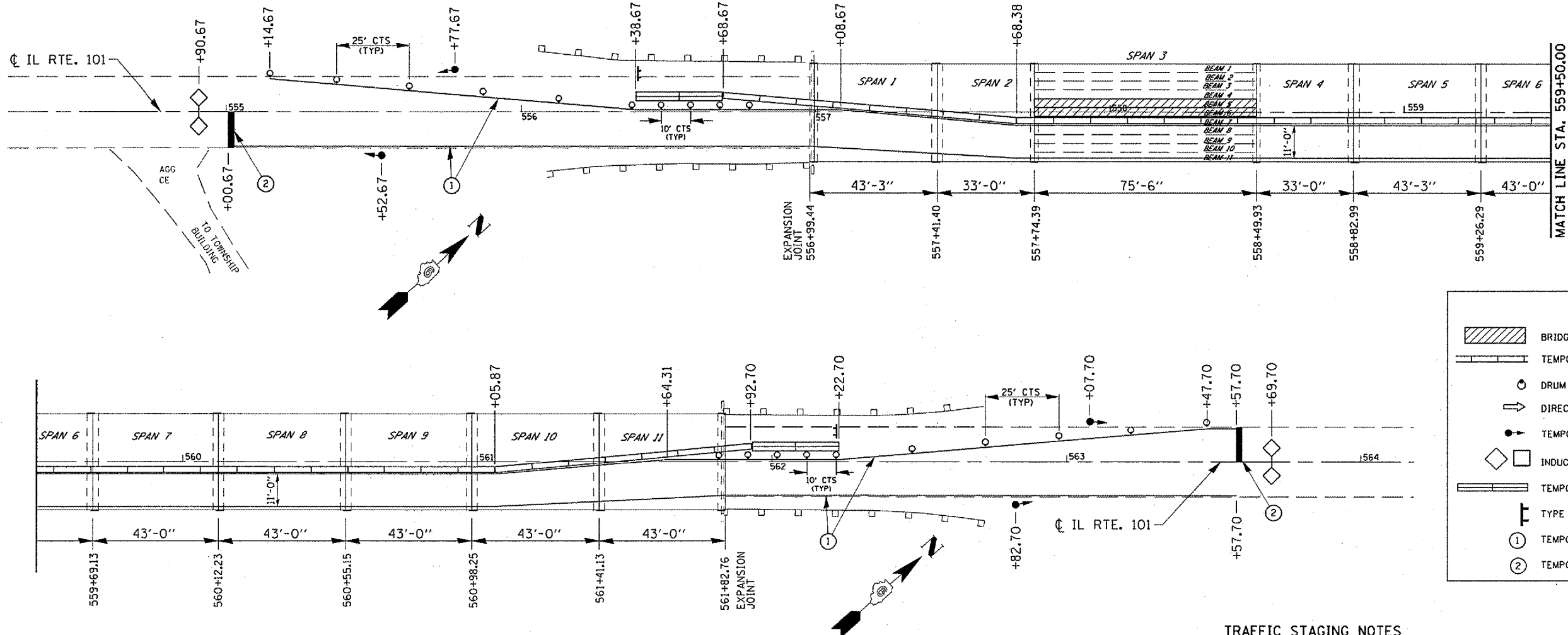
| | |
|---|---------------------------------|
| DISTRICT SIX | |
| EXAMINED <u>Dec 11</u> 20 <u>07</u> <i>[Signature]</i> | OPERATIONS ENGINEER |
| EXAMINED <u>Dec 11</u> 20 <u>07</u> <i>[Signature]</i> | PROGRAM IMPLEMENTATION ENGINEER |
| EXAMINED <u>Dec 11</u> 20 <u>07</u> <i>[Signature]</i> | PROGRAM DEVELOPMENT ENGINEER |

| | | | | | | | | | | | |
|---|----------------------|----------------|-------------------------|---|----------------------|---|-------------------------|--------------------|--------------------|--------------------|--|
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| PLOT DATE = Dec-11-2007 02:02:11PM | DATE - DEC. 11, 2007 | REVISOR - | REVISOR - | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |
| | | | | | | | | | | | |

SUMMARY OF QUANTITIES

| CODE NO | PAY ITEM | UNIT | 100% STATE SFTY -2A QUANTITY |
|---------------------|---|-----------------|------------------------------------|
| X0320047 | REMOVAL OF EXISTING <i>PRECAST PRESTRESSED CONCRETE</i> DECK BEAMS | SQ FT | 679 |
| X0321781 | MECHANICAL SPLICE | EACH | 154 |
| 42001300 | PROTECTIVE COAT | SQ YD | 83.6 |
| 50102400 | CONCRETE REMOVAL | CU YD | 1.3 |
| 50301200 | CONCRETE WEARING SURFACE | SQ YD | 83.6 |
| 50400605 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH) | SQ FT | 673 |
| 50500405 | FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 56620 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 1860 |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 2 |
| 67100100 | MOBILIZATION | L SUM | 1 |
| 70106500 | TEMPORARY BRIDGE TRAFFIC SIGNALS | EACH | 1 |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 525 |
| 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 525 |
| 70300230 | TEMPORARY PAVEMENT MARKING - LINE 5" | FOOT | 3397 |
| 70300280 | TEMPORARY PAVEMENT MARKING - LINE 24" | FOOT | 24 |
| 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 1464 |
| *78001120 | PAINT PAVEMENT MARKING - LINE 5" | FOOT | 3054 |
| Z0001900 | ASBESTOS BEARING PAD REMOVAL | EACH | 3 |
| Z0030250 | IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 |
| Z0030350 | IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 |
| X7200201 | WIDTH RESTRICTION SIGNING | L SUM | 1 |
| 70100405 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 | L SUM | 1 |

* SPECIALTY ITEMS



| LEGEND | |
|--------|---------------------------------------|
| | BRIDGE BEAM REMOVAL AND REPLACEMENT |
| | TEMPORARY CONCRETE BARRIER |
| | DRUM WITH STEADY BURN LIGHT |
| | DIRECTION OF TRAFFIC |
| | TEMPORARY TRAFFIC SIGNAL |
| | INDUCTION LOOP DETECTOR |
| | TEMPORARY IMPACT ATTENUATOR |
| | TYPE III BARRICADE |
| | TEMPORARY PAVEMENT MARKING - LINE 5" |
| | TEMPORARY PAVEMENT MARKING - LINE 24" |

STAGE 1 TRAFFIC CONTROL LAYOUT

PRELIMINARY STAGE - SUGGESTED CONSTRUCTION SEQUENCE

THE PROPOSED BRACING FOR SPAN 2, BEAM 1 SHALL BE CONSTRUCTED PRIOR TO ANY TRAFFIC STAGING.
 PLACE "MAX WIDTH" SIGNING AT THE LOCATIONS SHOWN IN THESE PLANS.
 SET UP STAGE 1 TRAFFIC CONTROL UTILIZING THESE PLANS IN CONJUNCTION WITH HIGHWAY STANDARD 701321.
 INSTALL TEMPORARY SIGNALIZATION AT THE LOCATIONS CALLED OUT ON THESE PLANS.
 PLACE TEMPORARY CONCRETE BARRIER AND PAVEMENT MARKINGS (STOP BARS, LANE LINES, ETC.) IN ACCORDANCE TO THESE PLANS.

STAGE I - SUGGESTED CONSTRUCTION SEQUENCE

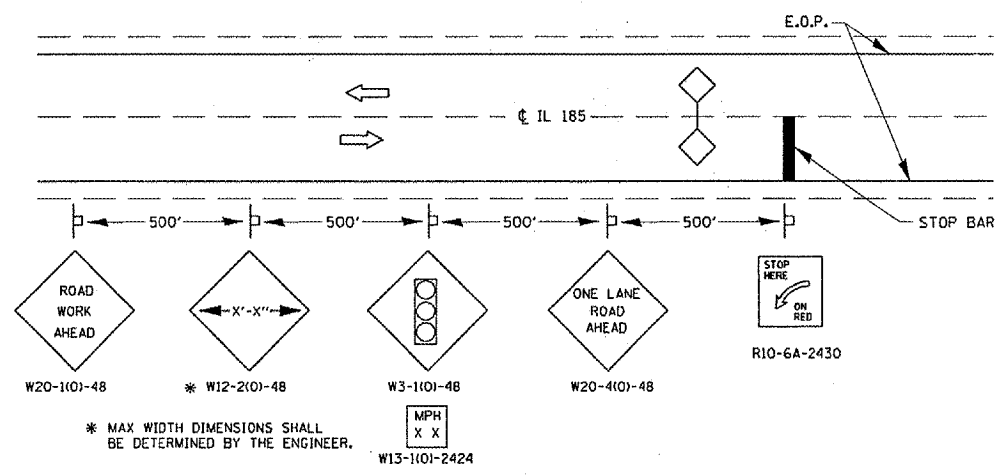
REMOVE THE EXISTING 5" REINFORCED CONCRETE WEARING SURFACE ALONG SPAN 3 OVER BEAMS 5 AND 6.
 PERFORM STAGE 1 P.P.C. DECK BEAM REMOVAL AND REPLACEMENT FOR SPAN 3, BEAMS 5 AND 6. SEE THE STRUCTURAL DETAIL SHEETS WITHIN THESE PLANS.
 CONSTRUCT THE 5" REINFORCED CONCRETE WEARING SURFACE ATOP BEAMS 5 AND 6.

STAGE II - SUGGESTED CONSTRUCTION SEQUENCE

FOLLOWING THE COMPLETION OF STAGE 1 CONSTRUCTION, RELOCATE THE TEMPORARY CONCRETE BARRIER WALL AND PLACE TEMPORARY PAVEMENT MARKING IN ACCORDANCE TO THESE PLANS.
 REMOVE THE EXISTING 5" REINFORCED CONCRETE WEARING SURFACE ALONG SPAN 3, BEAM 7.
 PERFORM STAGE 2 P.P.C. DECK BEAM REMOVAL AND REPLACEMENT FOR SPAN 3 OVER BEAM 7.
 CONSTRUCT THE 5" REINFORCED CONCRETE WEARING SURFACE ATOP BEAM 7.

TRAFFIC STAGING NOTES

SIGNS STATING "UNEVEN LANES" AND "SIGNALS AHEAD" SHALL BE ERECTED DURING STAGE CONSTRUCTION BY THE CONTRACTOR AT LOCATIONS AS DIRECTED BY THE ENGINEER. THESE SIGNS ARE INCIDENTAL TO THE COST OF THE CONTRACT.
 DURING STAGE CONSTRUCTION, EXTRA FLAGGERS ARE NECESSARY FOR BRIDGE DECK BEAM REMOVAL & REPLACEMENT OPERATIONS. EXTRA FLASHERS AND WARNINGS ARE NEEDED FOR TRAFFIC CONTROL AT NIGHT DUE TO THE VERTICAL RISE JUST TO THE WEST OF THE LAMOINE RIVER.
 THIS TRAFFIC CONTROL PLAN SHALL BE USED IN CONJUNCTION WITH STANDARD 701321 AND AS DIRECTED BY THE ENGINEER. ~~ALL WORK REQUIRED TO SET UP, MAINTAIN, AND REMOVE TRAFFIC CONTROL AS DETAILED IN THESE PLANS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION COMPLETE.~~
 THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL. ~~THESE SIGNS SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION COMPLETE.~~ (SEE MAX WIDTH SIGN DETAIL SHEET).
 TEMPORARY RUMBLE STRIPS, TEMPORARY SIGNING, TEMPORARY BARRIER WALL REFLECTORS, SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD 701321 OR AS DIRECTED BY THE ENGINEER.
 THE CONTRACTOR SHALL NOTIFY THE DISTRICT SIX BUREAU OF OPERATIONS, TRAFFIC SECTION (PH. 782-7314) AT LEAST ONE WEEK PRIOR TO IMPLEMENTING STAGE TRAFFIC CONTROL.
 THE FIRST AND LAST SECTION OF EVERY RUN OF TEMPORARY CONCRETE BARRIER WALL SHALL BE SECURED TO THE PAVEMENT WITH DOWEL BARS IN ACCORDANCE WITH SECTION 704.04 OF THE STANDARD SPECIFICATIONS BOOK.
 ALL BORED HOLES FOR DOWEL BARS THAT WOULD SECURE ANY SECTION OF TEMPORARY CONCRETE BARRIER WALL TO THE BRIDGE DECK WEARING SURFACE SHALL HAVE A MAXIMUM DEPTH OF 5" AS TO AVOID DAMAGING THE UNDERLYING DECK BEAMS.
 THE CONTRACTOR SHALL NOTIFY KYLE ARMSTRONG (PH. 558-6523) IN THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS AT LEAST THREE DAYS PRIOR TO ACTIVATING THE TEMPORARY TRAFFIC SIGNALS.
 SAWCUTS FOR THE PROPOSED REMOVAL OF THE 5" REINFORCED CONCRETE WEARING SURFACE ATOP THE BEAMS SHALL BE INCLUDED IN THE COSTS FOR "REMOVAL OF EXISTING PPC DECK BEAMS".



* MAX WIDTH DIMENSIONS SHALL BE DETERMINED BY THE ENGINEER.

TYPICAL SIGNING DETAIL

| | | | |
|--------------------------------------|-----------------------|----------------------|-------------------------|
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| | | CHECKED - MEB | REVISED - |
| | | DATE - DEC. 11, 2007 | REVISED - |

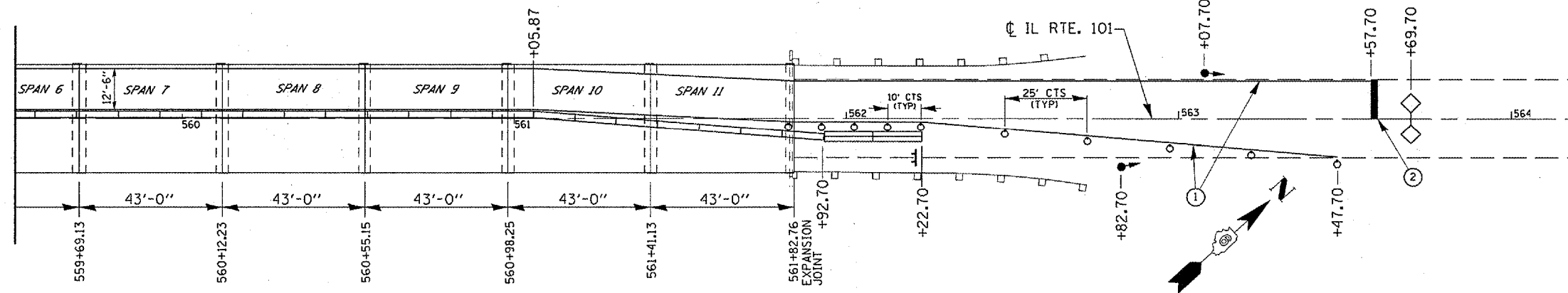
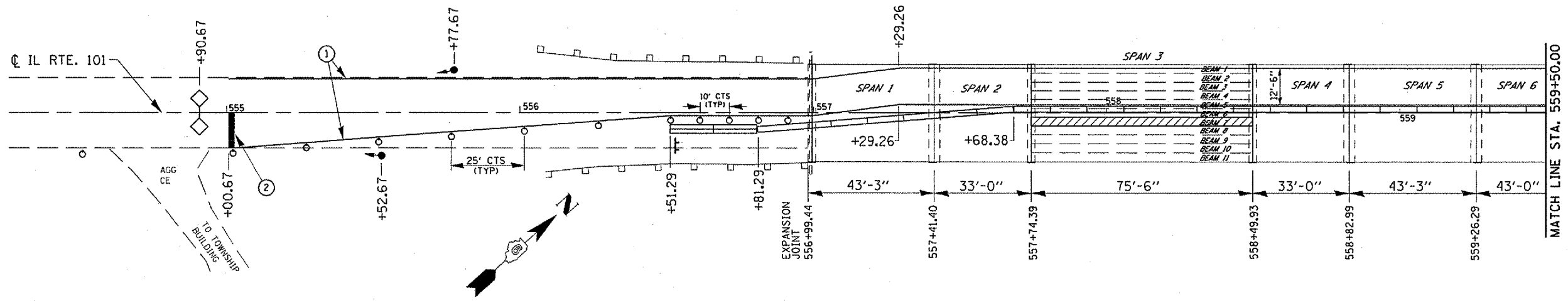
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL DETAILS

| | | | |
|--------|-------------------------|------|---------|
| SCALE: | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA. |
|--------|-------------------------|------|---------|

| | | | | |
|---|------------|----------|--------------|-----------|
| FAP R.T.E. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 713 | (120BRI)-2 | SCHUYLER | 12 | 4 |
| CONTRACT NO. T2B65 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

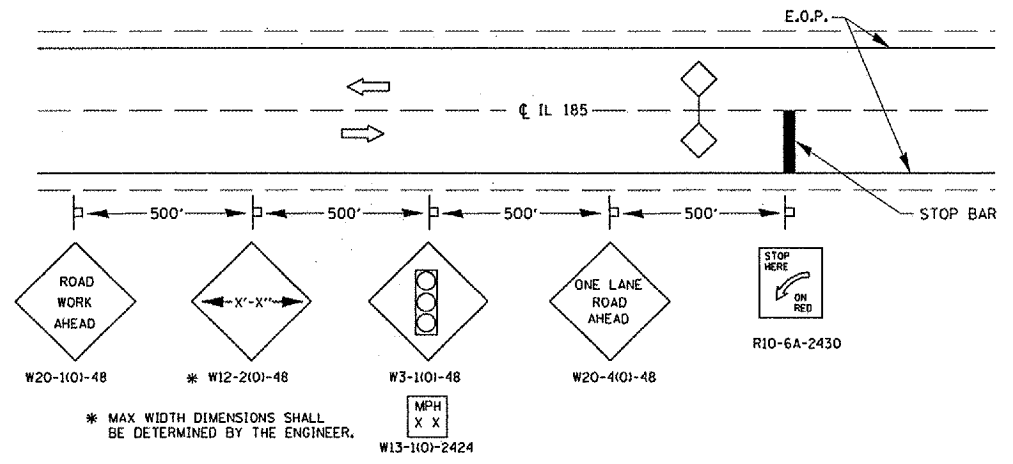
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LEGEND

- BRIDGE BEAM REMOVAL AND REPLACEMENT
- TEMPORARY CONCRETE BARRIER
- DRUM WITH STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- TEMPORARY TRAFFIC SIGNAL
- INDUCTION LOOP DETECTOR
- TEMPORARY IMPACT ATTENUATOR
- TYPE III BARRICADE
- TEMPORARY PAVEMENT MARKING - LINE 5"
- TEMPORARY PAVEMENT MARKING - LINE 24"

STAGE 2 TRAFFIC CONTROL LAYOUT



TYPICAL SIGNING DETAIL

PRELIMINARY STAGE - SUGGESTED CONSTRUCTION SEQUENCE

THE PROPOSED BRACING FOR SPAN 2, BEAM 1 SHALL BE CONSTRUCTED PRIOR TO ANY TRAFFIC CONTROL STAGING.
 PLACE "MAX WIDTH" SIGNING AT THE LOCATIONS SHOWN IN THESE PLANS.
 SET UP STAGE 1 TRAFFIC CONTROL UTILIZING THESE PLANS IN CONJUNCTION WITH HIGHWAY STANDARD 701321.
 INSTALL TEMPORARY SIGNALIZATION AT THE LOCATIONS CALLED OUT ON THESE PLANS.
 PLACE TEMPORARY CONCRETE BARRIER AND PAVEMENT MARKINGS (STOP BARS, LANE LINES, ETC.) IN ACCORDANCE TO THESE PLANS.

STAGE I - SUGGESTED CONSTRUCTION SEQUENCE

REMOVE THE EXISTING 5" REINFORCED CONCRETE WEARING SURFACE ALONG SPAN 3 OVER BEAMS 5 AND 6.
 PERFORM STAGE 1 P.P.C. DECK BEAM REMOVAL AND REPLACEMENT FOR SPAN 3, BEAMS 5 AND 6. SEE THE STRUCTURAL DETAIL SHEETS WITHIN THESE PLANS.
 CONSTRUCT THE 5" REINFORCED CONCRETE WEARING SURFACE ATOP BEAMS 5 AND 6.

STAGE II - SUGGESTED CONSTRUCTION SEQUENCE

FOLLOWING THE COMPLETION OF STAGE I CONSTRUCTION, RELOCATE THE TEMPORARY CONCRETE BARRIER WALL AND PLACE TEMPORARY PAVEMENT MARKING IN ACCORDANCE TO THESE PLANS.
 REMOVE THE EXISTING 5" REINFORCED CONCRETE WEARING SURFACE ALONG SPAN 3, BEAM 7.
 PERFORM STAGE 2 P.P.C. DECK BEAM REMOVAL AND REPLACEMENT FOR SPAN 3 OVER BEAM 7.
 CONSTRUCT THE 5" REINFORCED CONCRETE WEARING SURFACE ATOP BEAM 7.

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SIGNS STATING "UNEVEN LANES" AND "SIGNALS AHEAD" SHALL BE ERECTED DURING STAGE CONSTRUCTION BY THE CONTRACTOR AT LOCATIONS AS DIRECTED BY THE ENGINEER. THESE SIGNS ARE INCIDENTAL TO THE COST OF THE CONTRACT.
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 THIS TRAFFIC CONTROL PLAN SHALL BE USED IN CONJUNCTION WITH STANDARD 701321 AND AS DIRECTED BY THE ENGINEER. ~~ALL WORK REQUIRED TO SET UP, MAINTAIN, AND REMOVE TRAFFIC CONTROL AS DETAILED IN THESE PLANS SHALL BE INCLUDED IN THE COST FOR "TRAFFIC CONTROL AND PROTECTION COMPLETE".~~
 THE CONTRACTOR SHALL PLACE MAX WIDTH SIGNS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL. ~~THESE SIGNS SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION COMPLETE".~~ (SEE MAX WIDTH SIGN DETAIL SHEET).
 TEMPORARY RUMBLE STRIPS, TEMPORARY SIGNING, TEMPORARY BARRIER WALL REFLECTORS, SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD 701321 OR AS DIRECTED BY THE ENGINEER.
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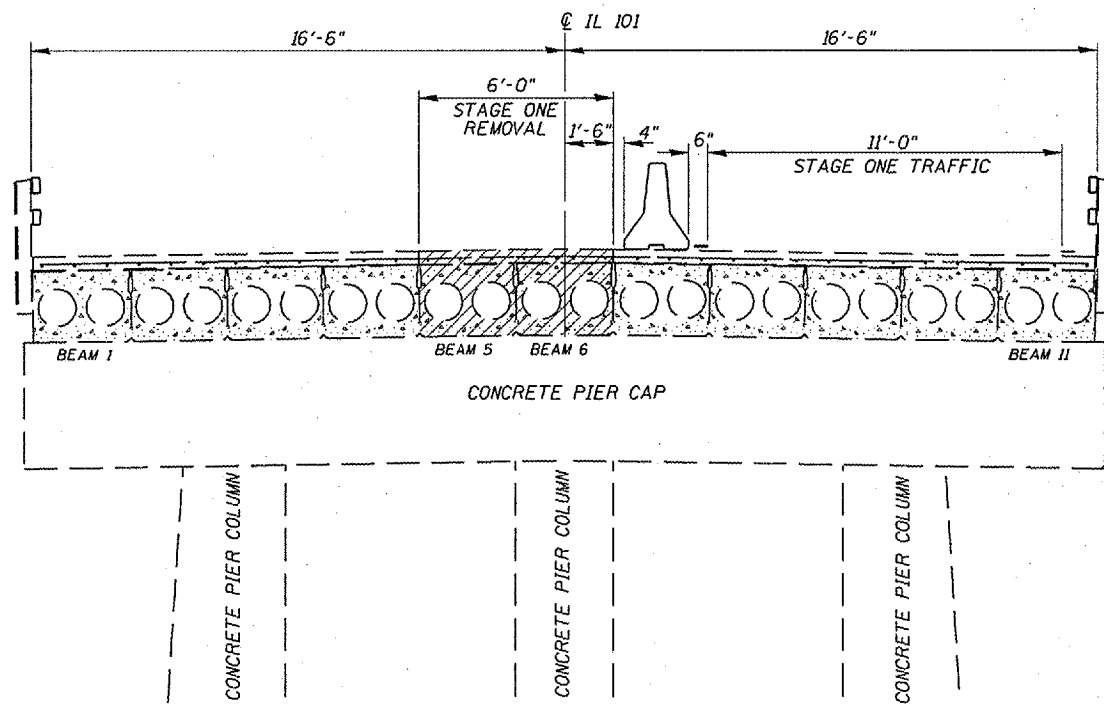
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| | | CHECKED - MEB | REVISED - |
| | | DATE - DEC. 11, 2007 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

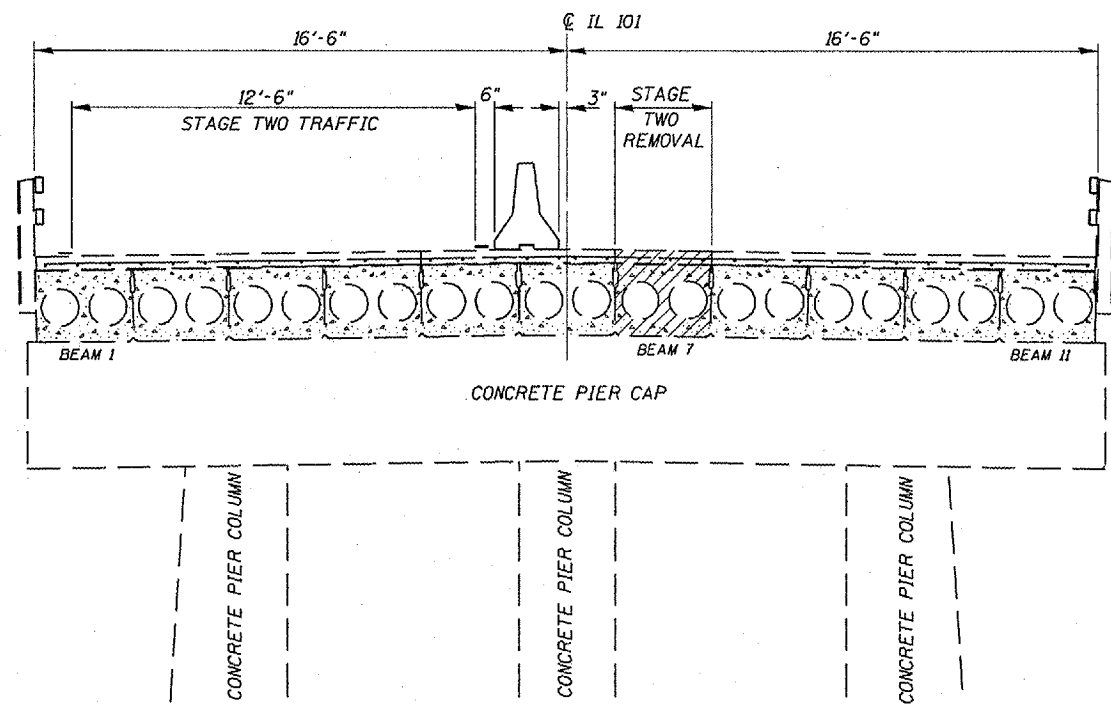
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| TRAFFIC CONTROL DETAILS | |
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| STA. | TO STA. |

| | | | | |
|---------------------|-----------|----------|---------------------------|-----------|
| FAP RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 713 | (120B)1-2 | SCHUYLER | 12 | 5 |
| FED. ROAD DIST. NO. | | | ILLINOIS FED. AID PROJECT | |
| | | | CONTRACT NO. 72B65 | |

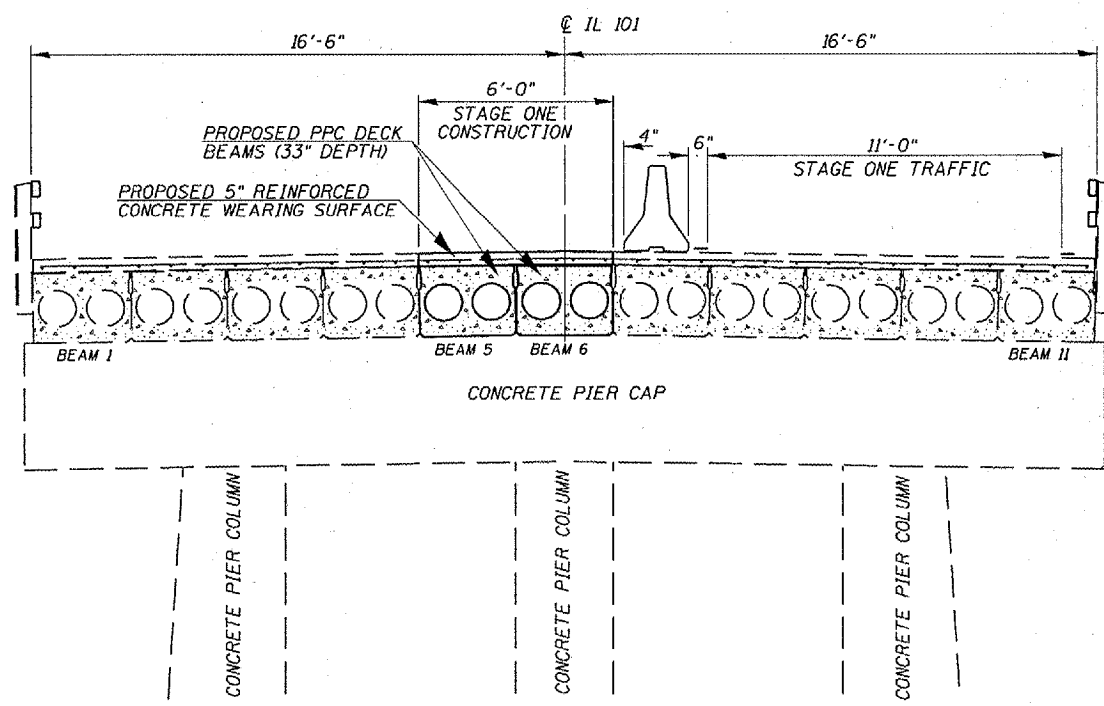
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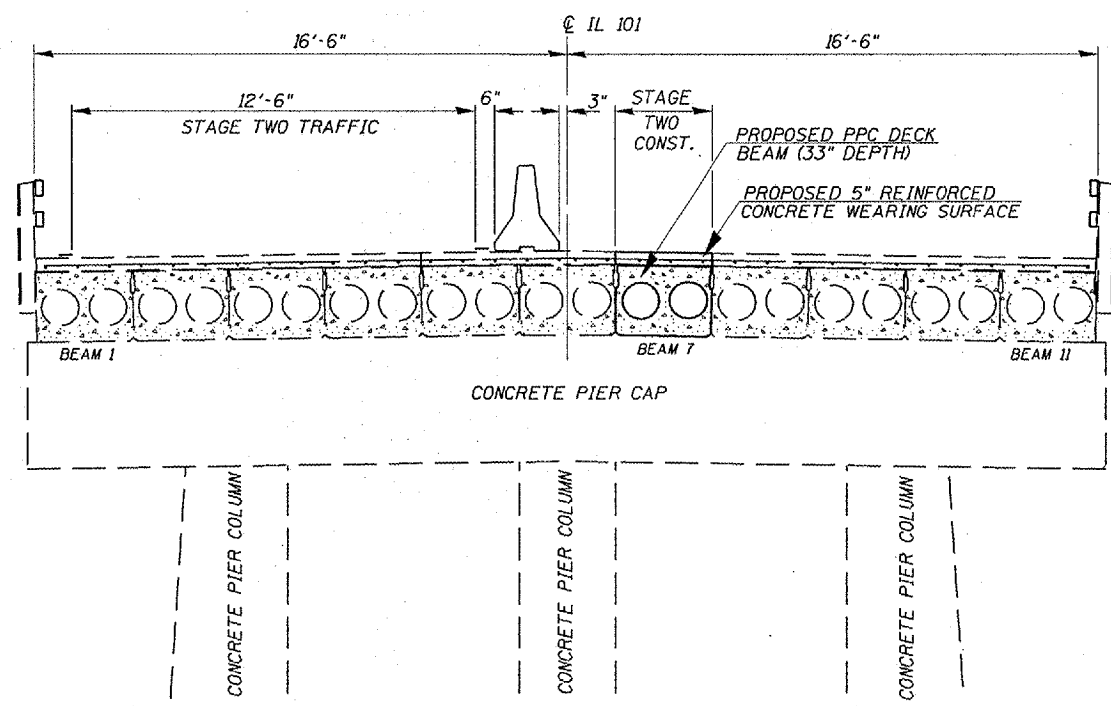
STAGING CROSS SECTION
 IL 101 OVER THE LAMOINE RIVER, S.N. 85-0016
 STAGE ONE REMOVAL



STAGING CROSS SECTION
 IL 101 OVER THE LAMOINE RIVER, S.N. 85-0016
 STAGE TWO REMOVAL



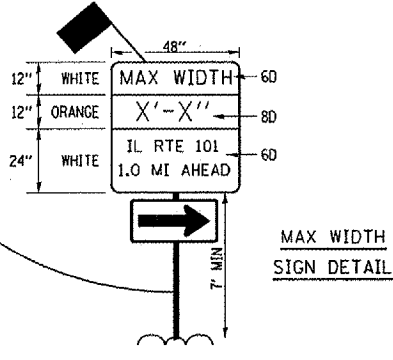
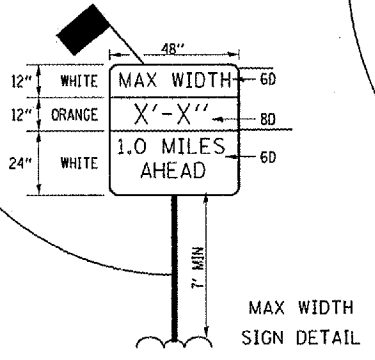
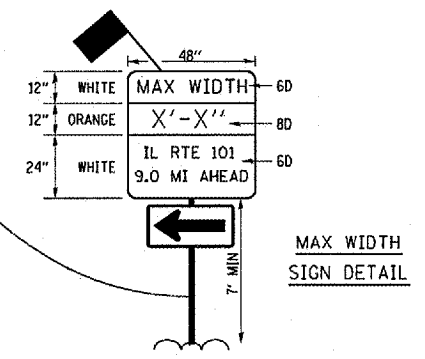
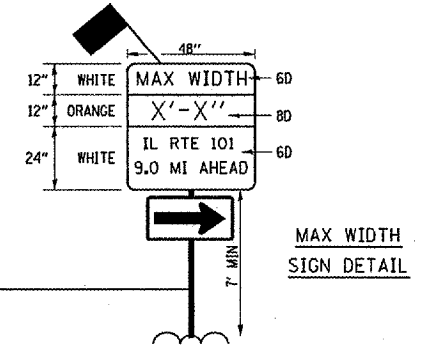
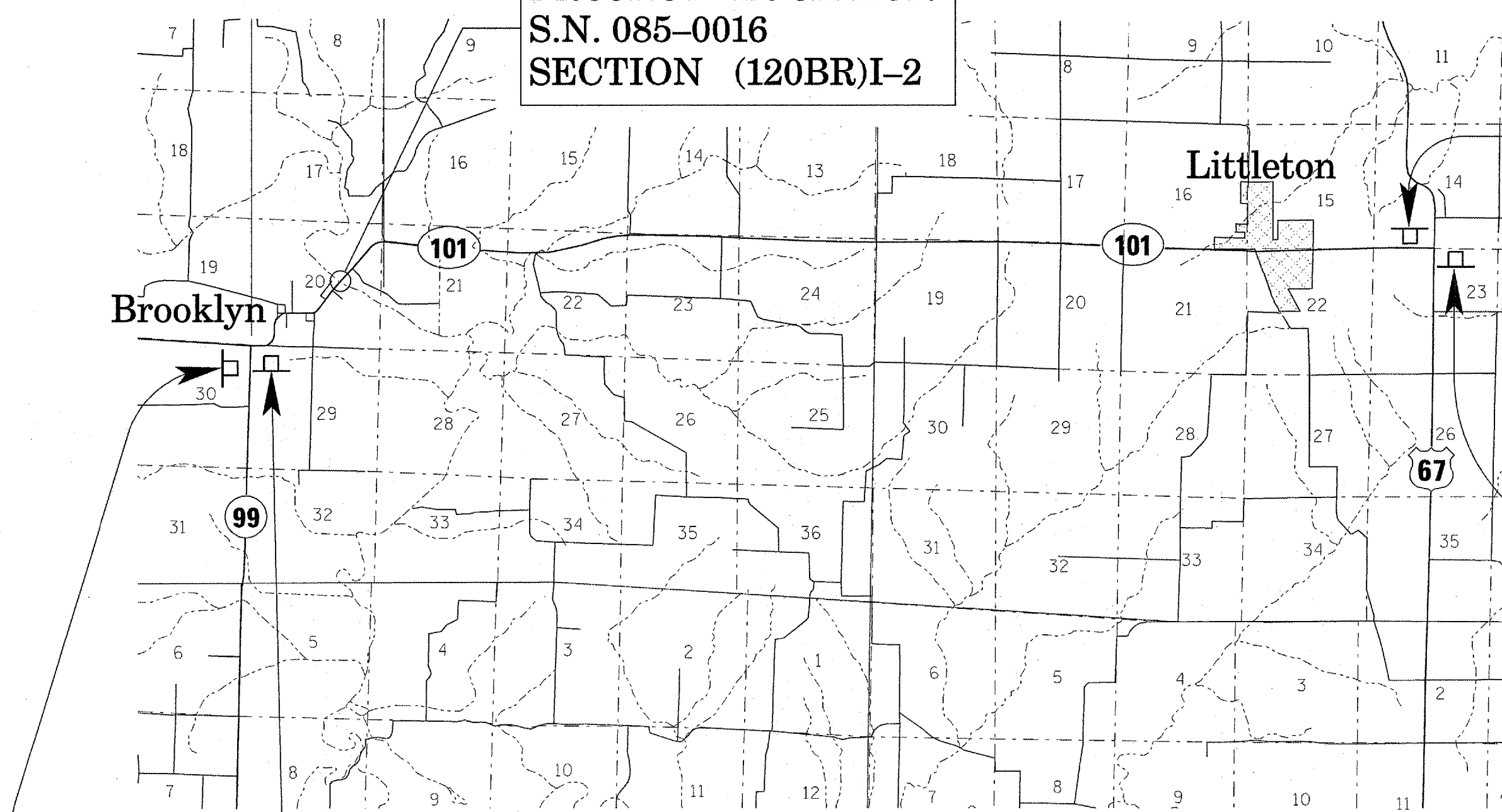
STAGING CROSS SECTION
 IL 101 OVER THE LAMOINE RIVER, S.N. 85-0016
 STAGE ONE CONSTRUCTION



STAGING CROSS SECTION
 IL 101 OVER THE LAMOINE RIVER, S.N. 85-0016
 STAGE TWO CONSTRUCTION

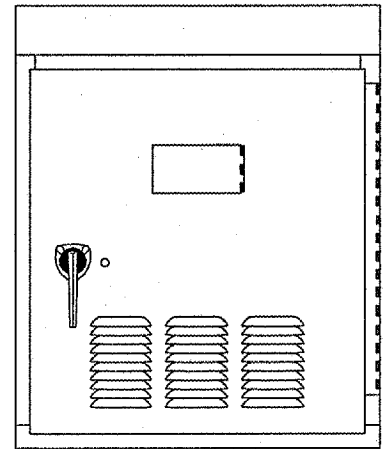
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| | PLOT SCALE = 40.0000' / IN. | DRAWN - RTS | REVISED - | | | | | 713 | (120BR)-2 | SCHUYLER | 12 | 6 |
| | PLOT DATE = Dec-12-2007 03:34:08PM | CHECKED - MEB | REVISED - | | | | | CONTRACT NO. 72B65 | | | | |
| | DATE - DEC. 11, 2007 | REVISED - | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | | | | | | |
| | | | | SCALE: | SHEET NO. 3 OF 5 SHEETS | STA. | TO STA. | | | | | |

PROJECT LOCATION
S.N. 085-0016
SECTION (120BR)I-2



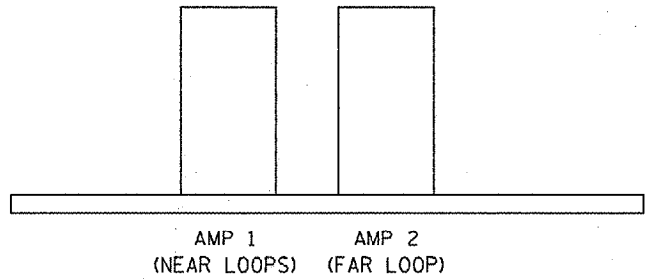
MAXIMUM WIDTH SIGNING LOCATIONS

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| | PLOT SCALE = 40.0000' / IN. | DRAWN - RTS | REVISED - | | SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. | 713 | (120BR)I-2 | SCHUYLER | 12 | 7 |
| | PLOT DATE = Dec-12-2007 03:34:08PM | CHECKED - MEB | REVISED - | | TO STA. | | | CONTRACT NO. 72B65 | | | | |
| | | | | | | | FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | | |



Temporary Controller Cabinet

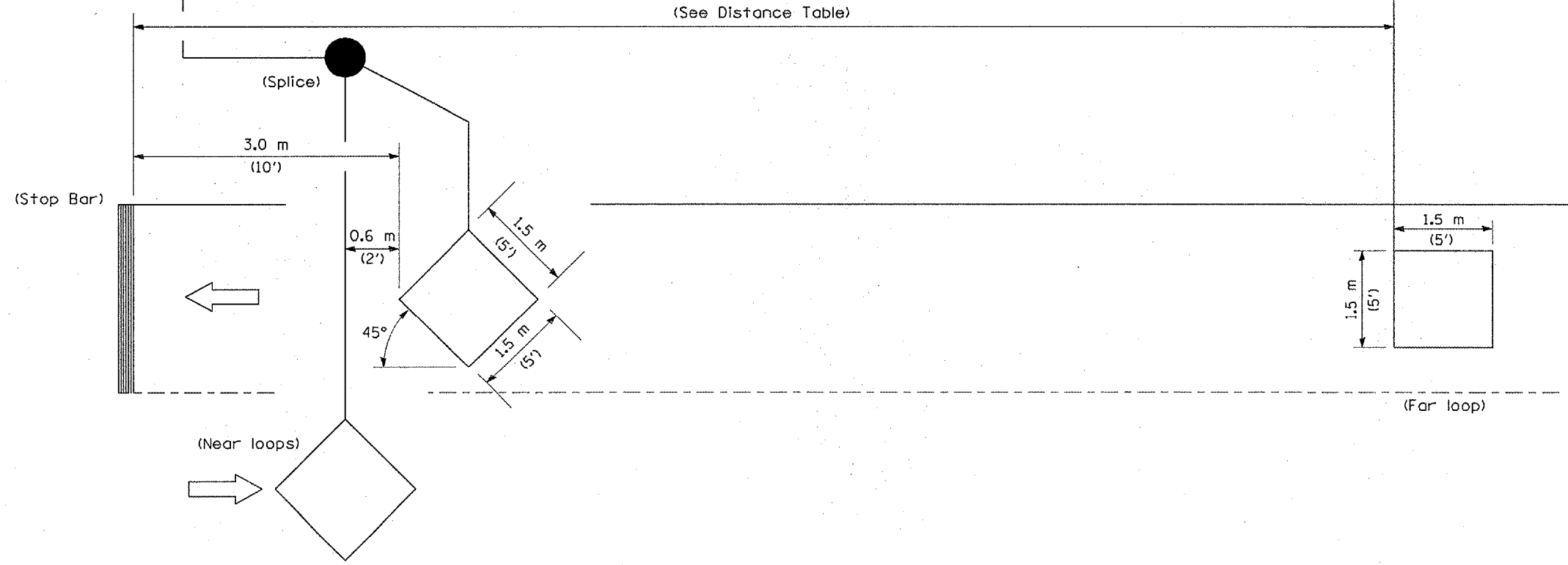
DETECTOR AMPLIFIER NOTES



AMP 1: DELAY = 8 SECONDS
 DELAY SHALL BE INHIBITED DURING GREEN

AMP 2: NO DELAY

| FAR LOOP DISTANCE TABLE | |
|-------------------------|------------------------------|
| ADVISORY SPEED (MPH) | DISTANCE FROM STOP BAR (FT.) |
| 30 OR LESS | 220 |
| 35 | 260 |
| 40 | 300 |
| 45 | 330 |
| 50 | 370 |
| 55 | 400 |



NOTE: All loops centered in lane.

INDUCTION LOOP DETECTOR

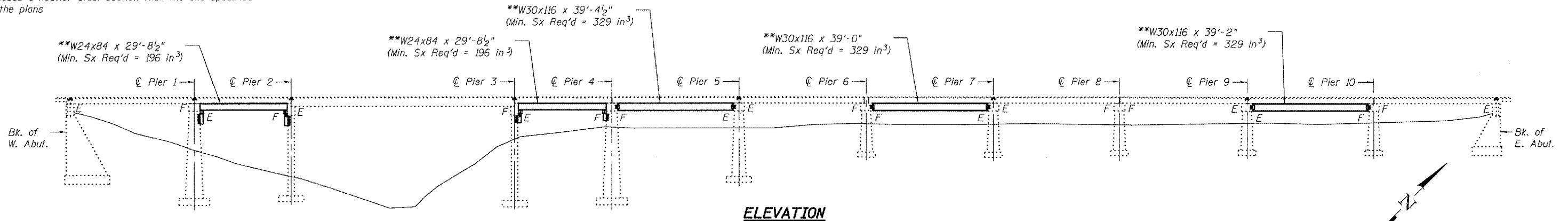
TEMPORARY BRIDGE TRAFFIC SIGNAL
 LOOP PLACEMENT DETAIL SHEET

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

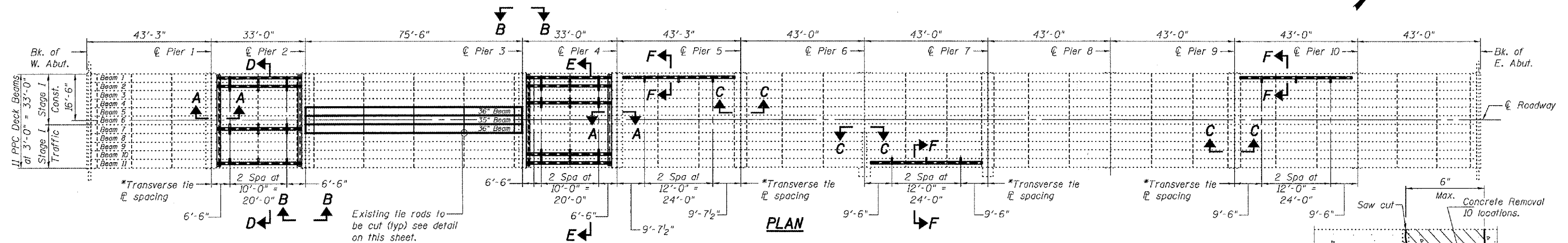
| | | | | | |
|-----------------------|---------|----------|------------------|-----------|-------------------------|
| ROUTE NO. | SECTION | COUNTY | POST MILE | SHEET NO. | SHEET NO. 1 4 SHEETS |
| | | Schuyler | 12 | 9 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | | Contract Number: 72B65 |

**Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures. Maximum Girder depth Spans 1 & 4 = 27', Spans 5, 7 & 10 = 33'. No additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans

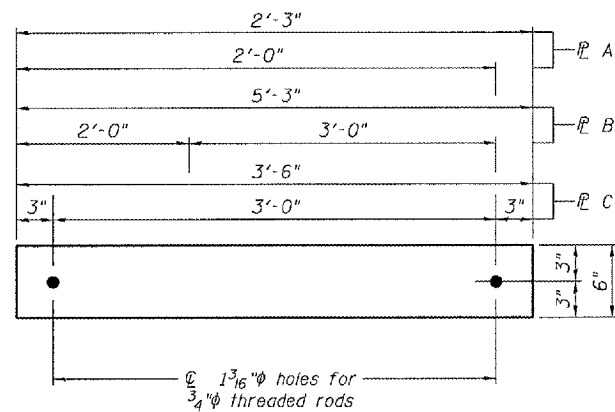
*Transverse tie R's (3 per span). Place additional shims at midpoints between tie R's. Securely weld shims to top flange of support beam. Minimum shim size is 6" x flange width.



ELEVATION



PLAN



TRANSVERSE TIE R'S

- R A 1/2" x 2'-3" x 6" (12 Req'd)
- R B 1/2" x 5'-3" x 6" (9 Req'd)
- R C 1/2" x 3'-6" x 6" (6 Req'd)

TOTAL BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--|---------|----------|
| Concrete Removal | Cu. Yd. | 1.3 |
| Removal of Existing PPC Deck Beams | Sq. Ft. | 679 |
| Concrete Wearing Surface | Sq. Yd. | 83.6 |
| PPC Deck Beams (33" Depth) | Sq. Ft. | 673 |
| Protective Coat | Sq. Yd. | 83.6 |
| Mechanical Splicers | Each | 154 |
| Asbestos Bearing Pad Removal | Each | 3 |
| Reinforcement Bars, Epoxy Coated | Pound | 1860 |
| Furnishing and Erecting Structural Steel | Pound | 56620 |

*At Pier 2

DESIGN STRESSES

(New Construction)
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST/PRESTRESSED UNITS
f'c = 5,000 psi
f'cl = 4,000 psi
f's = 270,000 (1/2" low relaxation strands)
f'si = 201,960 (1/2" low relaxation strands)

GENERAL NOTES

For stage construction details see Roadway Plans.
The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Wearing Surface.
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.

If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the bridge, 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 or existing beams. To distribute load to multiple beams and protect the existing surface, 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. If heavy equipment will be placed on new PPC deck beams, the following shall be done prior to placement of the timber mats: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

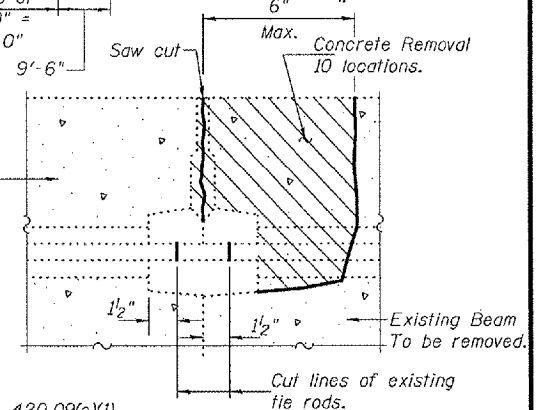
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

See Section 584 of the Standard Specifications for epoxy grouting of threaded rods; Minimum embedment 9".

The cost of epoxy grouting threaded rods shall be included with Furnishing and Erecting Structural Steel.

The Contractor has the option of using used steel. See Special Provisions.

BEAM REMOVAL DETAIL AT TRANSVERSE TIES



PLAN AND ELEVATION
IL 101
SCHUYLER COUNTY
SN 085-0016

| | | | |
|----------|------------------|----------|-----------------|
| DESIGNED | Victor H. Yelick | EXAMINED | January 8, 2007 |
| CHECKED | [Signature] | PASSED | [Signature] |
| DRAWN | [Signature] | | |
| CHECKED | VHV AJS | | |

ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES



All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

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

Reinforcement bars designated (E) shall be epoxy coated. Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of "Removal of Existing P.P.C. Deck Beams".

Temporary concrete barrier shall only be anchored into the overlay and not the PPC Deck Beams.

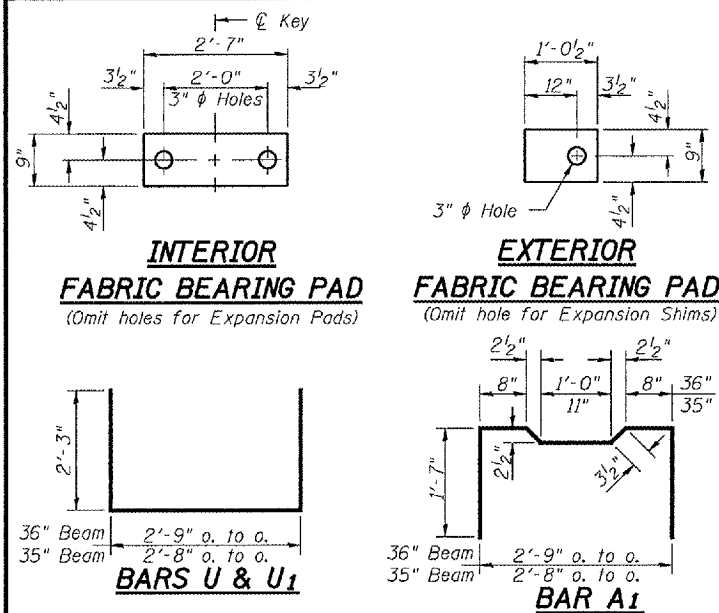
All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel.

Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

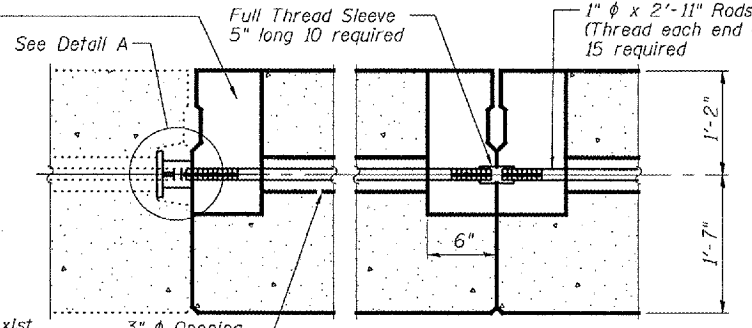
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|---|---------|----------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | Schuyler | 12 | 10 |
| FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT | | | | |

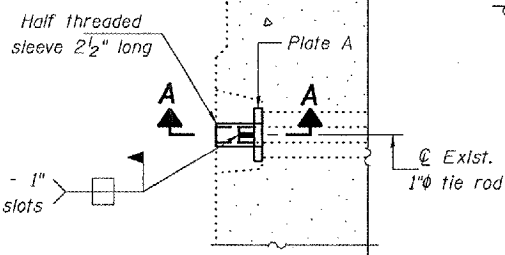
Contract Number: 72B65



6" x 6" x 16 1/2" Blockout to be filled with Class BS Concrete after Beams have been installed. Quantity included with "PPC Deck Beams (33" Depth)"



TYPICAL TRANSVERSE TIE ASSEMBLY

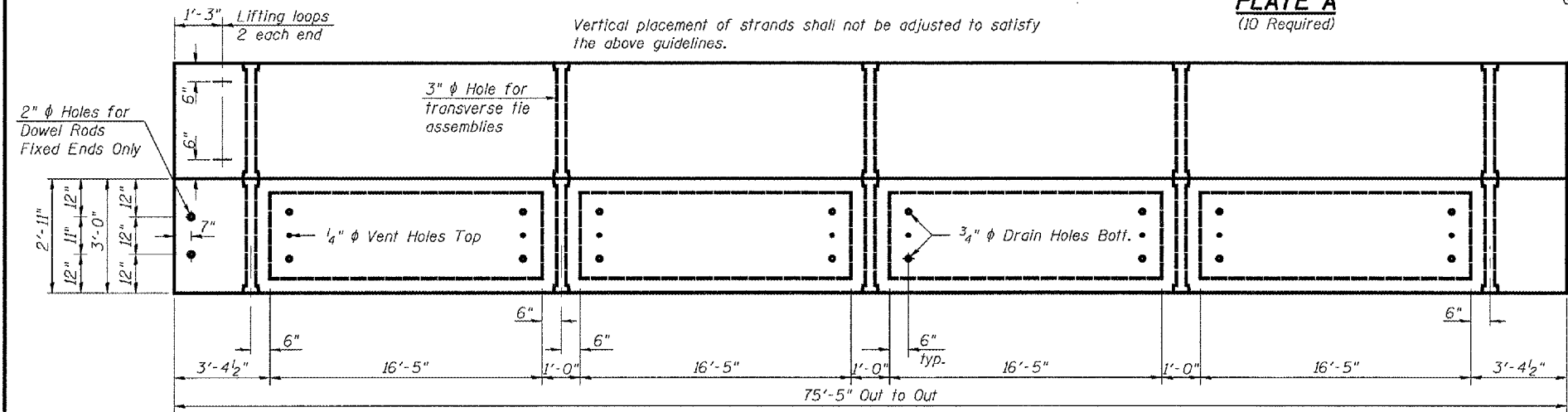


DETAIL A

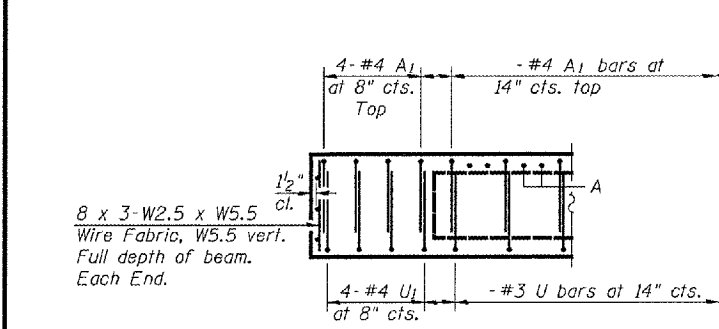
TRANSVERSE PLACEMENT GUIDELINES

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

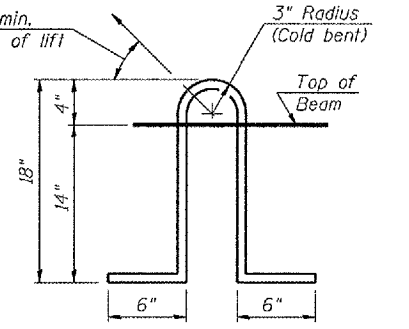
Vertical placement of strands shall not be adjusted to satisfy the above guidelines.



PLAN



END ELEVATION



LIFTING LOOP DETAIL

NOTES

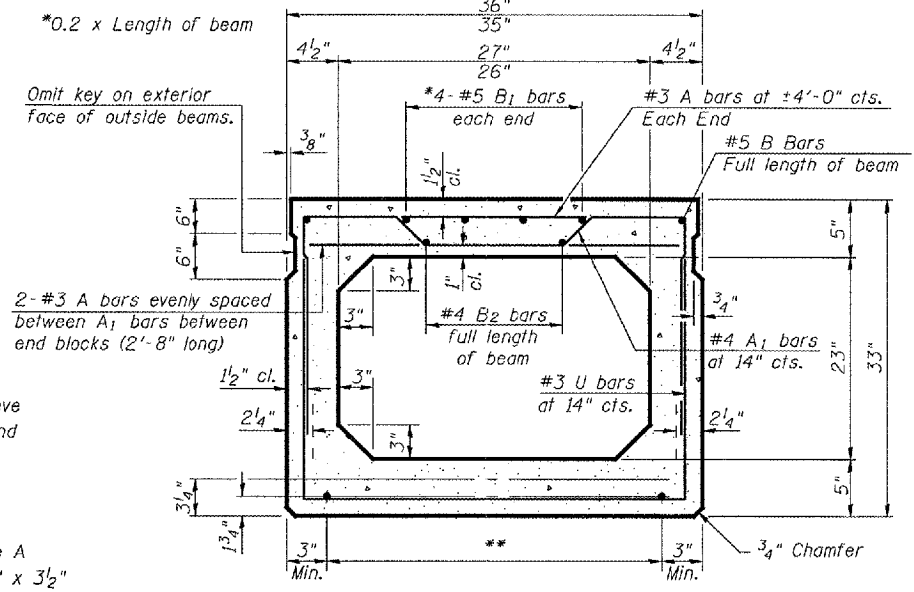
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 3 - 1/2" diameter x 270 ksi strands, as shown. The 1" rods in the transverse tie assembly 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 ASTM A 706 (1L MOD), Grade 60. The bearing seal surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4,000 p.s.i.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to 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 to the exterior face and 9" in on the underside of each fascia beam. 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.

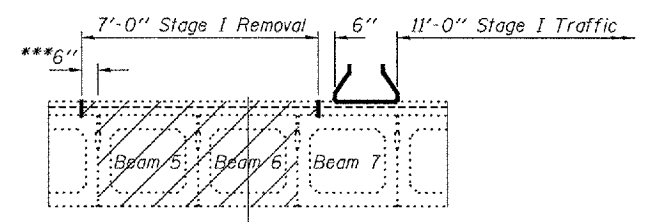


TYPICAL SECTION

1/2" diameter Strands, Each Strand Stressed to 30,900 Lbs.
8-Strands 1 3/4" up, 5-Strands 3/4" up, 2-Strands 6" up, 2-Strands 9" up

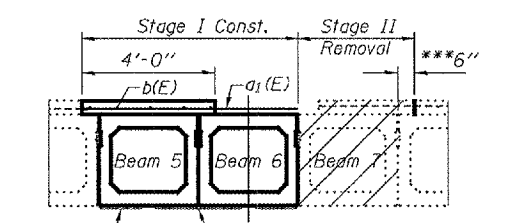
SECTION A-A

(10 Required)



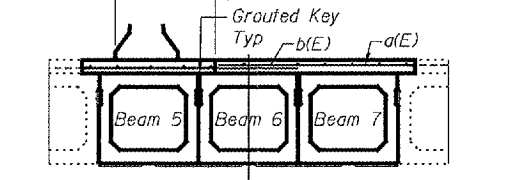
PARTIAL SPAN 3 CROSS SECTION

(Showing Stage I removal)



PARTIAL SPAN 3 CROSS SECTION

(Showing Stage I const. & Stage II removal)



PARTIAL SPAN 3 CROSS SECTION

(Showing Stage II const.)

BILL OF MATERIAL

| | | |
|---|---------|-----|
| Precast Prestressed Conc. Deck Bms. (33" Depth) | Sq. Ft. | 673 |
|---|---------|-----|

BEAM DETAILS

IL 101
SCHUYLER COUNTY
SN 085-0016

| | |
|----------|------------------|
| DESIGNED | V.H.V. |
| CHECKED | A.J.B. |
| DRAWN | Drew Christopher |
| CHECKED | V.H.V. A.J.B. |

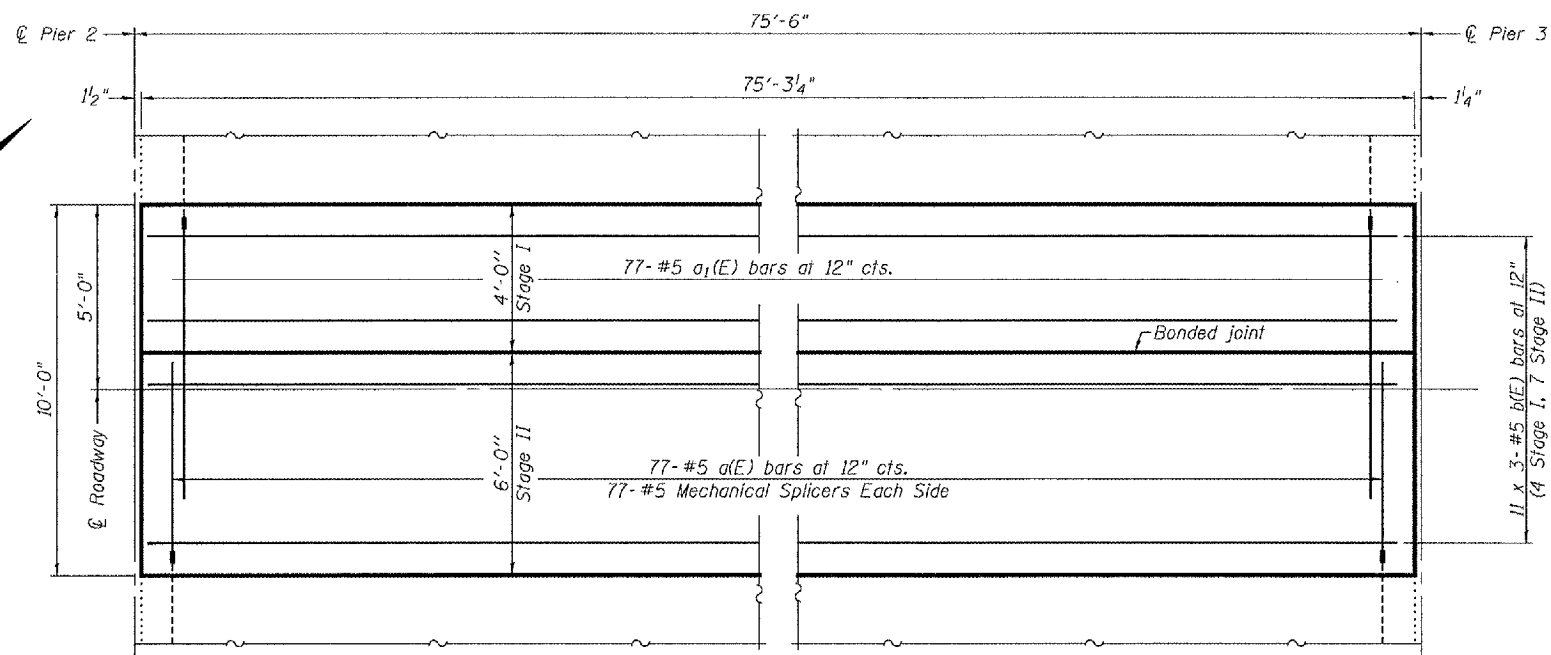
| | |
|----------|-------------------|
| EXAMINED | January 8, 2007 |
| PASSED | Ralph E. Anderson |

PD-5-S 11-1-06

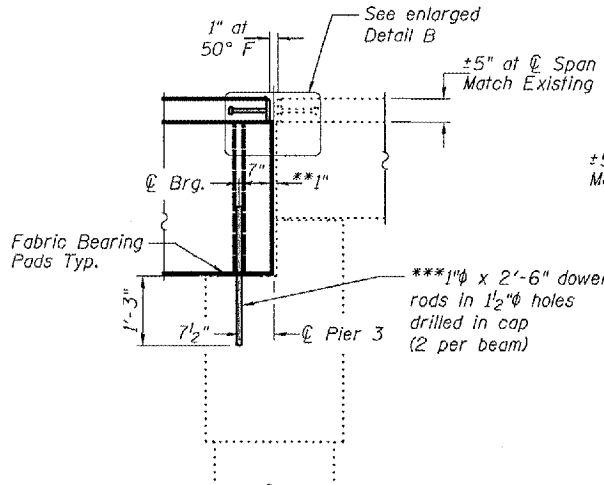
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|------|----|-------------------------|
| ROUTE NO. | SECTION | QUANTITY | DATE | BY | SHEET NO. 3 4 SHEETS |
| | | Schuyler | 12 | 11 | |
| FED. ROAD DIST. NO. 7 | PLAN NO. | FED. AID PROJECT | | | |

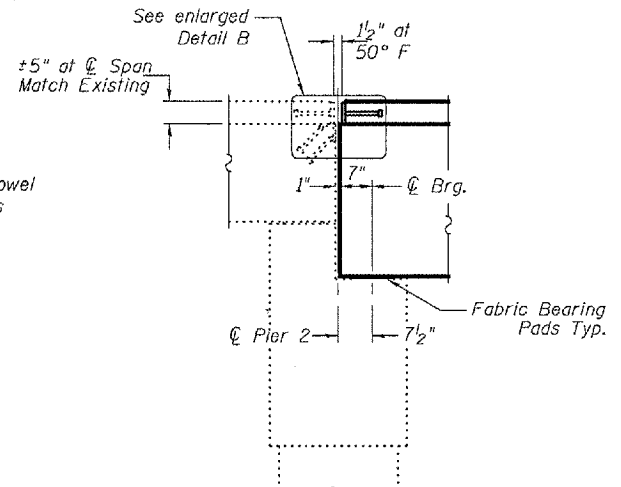
Contract Number: 72B65



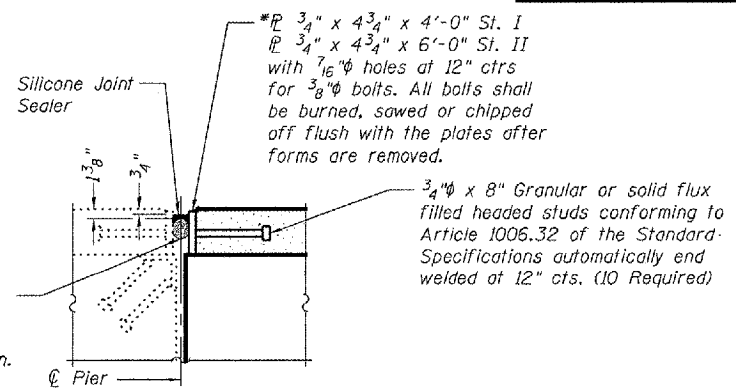
PARTIAL OVERLAY PLAN SPAN 3



TYPICAL SECTION AT PIER 3

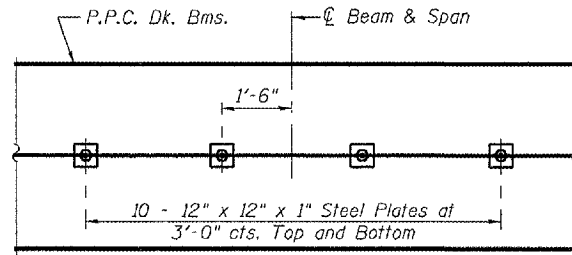


TYPICAL SECTION AT PIER 2



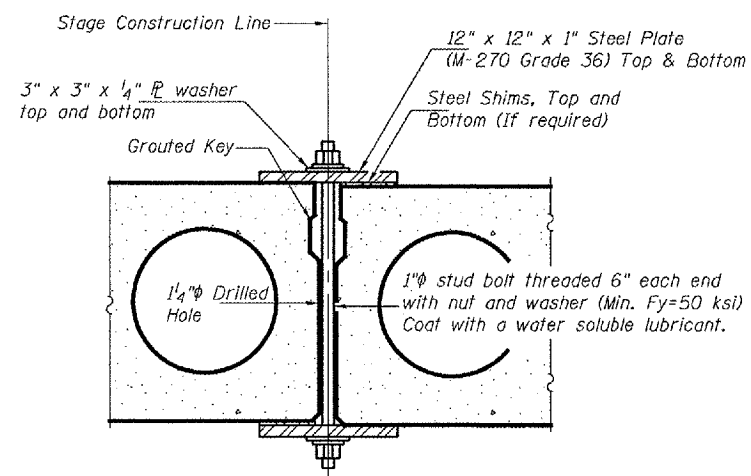
ENLARGED DETAIL B

Cost of \bar{r} and studs is included with Concrete Wearing Surface.
* Seal space between existing and new \bar{r} 's with silicone sealant suitable for Structural Steel. Cost of silicone sealant is included with Concrete Wearing Surface.



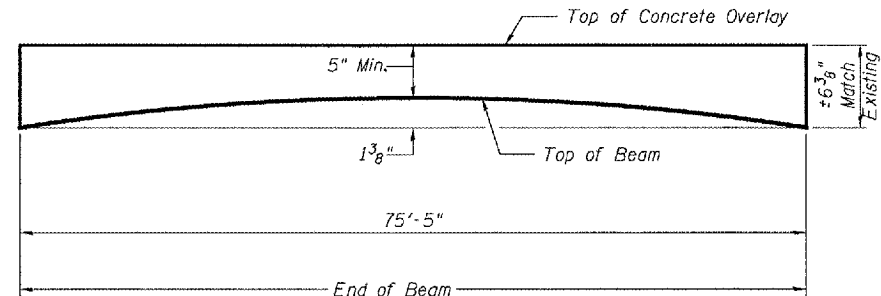
PLAN

*1" Joint shall be filled with non-shrink grout. Dimension may vary to accommodate tolerance in beam lengths.
**Existing dowel rods are to be burned off, ground flush, and sealed with epoxy prior to placement of new beams. Cost included in Removal of Existing PPC Deck Beams. After beams have been erected holes shall be drilled into cap 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 hours prior to grouting the shear keys.



SECTION

Min Bar lap
#5 = 2'-2"

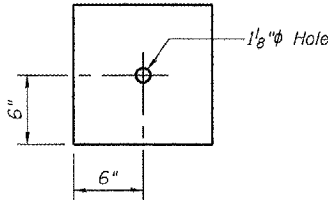


ANTICIPATED INITIAL CAMBER DIAGRAM

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| a(E) | 77 | #5 | 5'-9" | — |
| a1(E) | 77 | #5 | 6'-1" | — |
| b(E) | 33 | #5 | 26'-6" | — |
| Concrete Removal | | | Cu. Yd. | 1.3 |
| Concrete Wearing Surface | | | Sq. Yd. | 83.6 |
| Reinforcement Bars, Epoxy Coated | | | Lbs. | 1860 |

Bars indicated thus 11 x 3-#5 etc. indicates 11 lines of bars with 3 lengths per line.



CLAMPING PLATE

Notes:
See Special Provisions for Stage Construction Precast Prestressed Concrete Deck Beams.
See Stage Construction Detail for traffic lane.
Cost is included with Precast Prestressed Concrete Deck Beams.

| | |
|----------|------------------|
| DESIGNED | V.H.V. |
| CHECKED | A.J.B. |
| DRAWN | Drew Christopher |
| CHECKED | V.H.V. A.J.B. |

January 8, 2007
EXAMINED *Carl Prosser*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

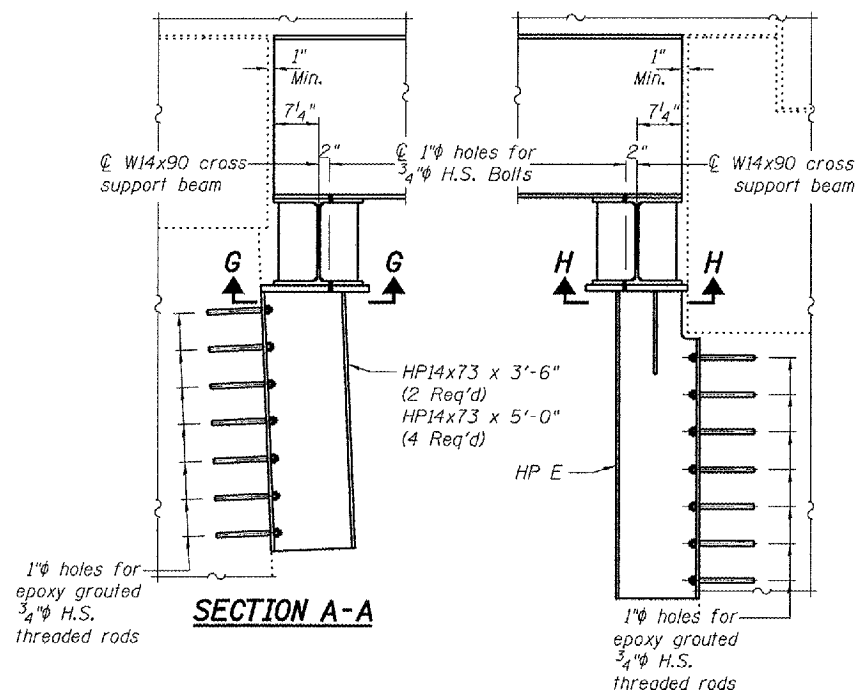
PLAN AND ELEVATION
IL 101
SCHUYLER COUNTY
SN 085-0016

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | DATE | SHEET NO. |
| | | Schuyler | 12 | 12 |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | |

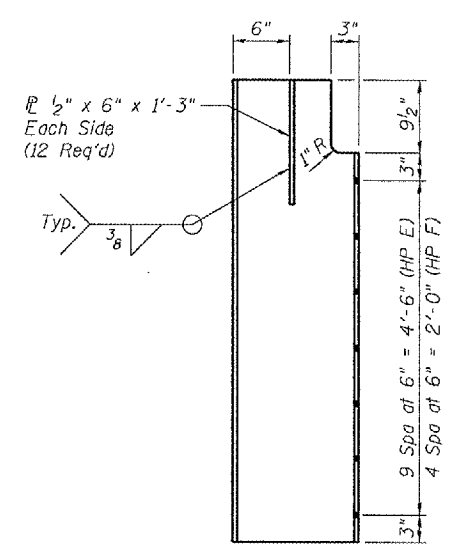
Contract Number: 72B65

SHEET NO. 4
4 SHEETS



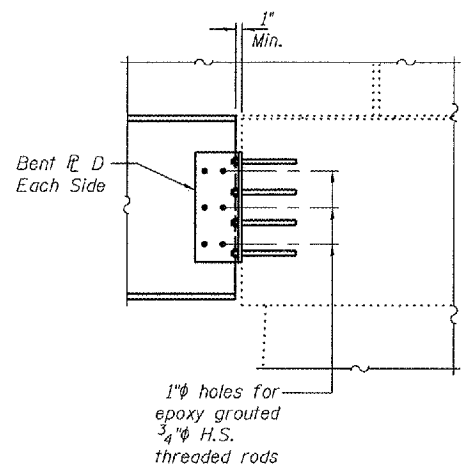
SECTION A-A

SECTION B-B

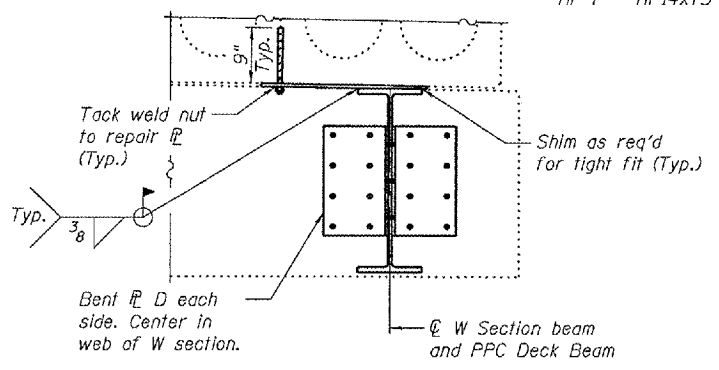


HP E & F

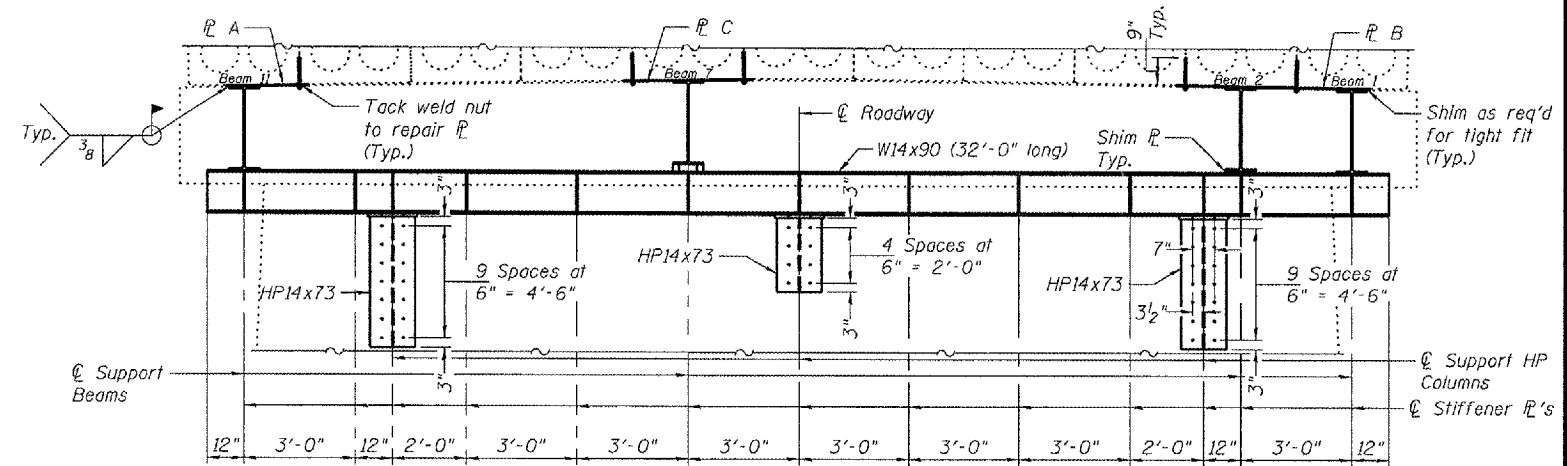
HP E - HP14x73 x 5'-9 1/2" (4 Req'd)
HP F - HP14x73 x 3'-3 1/2" (2 Req'd)



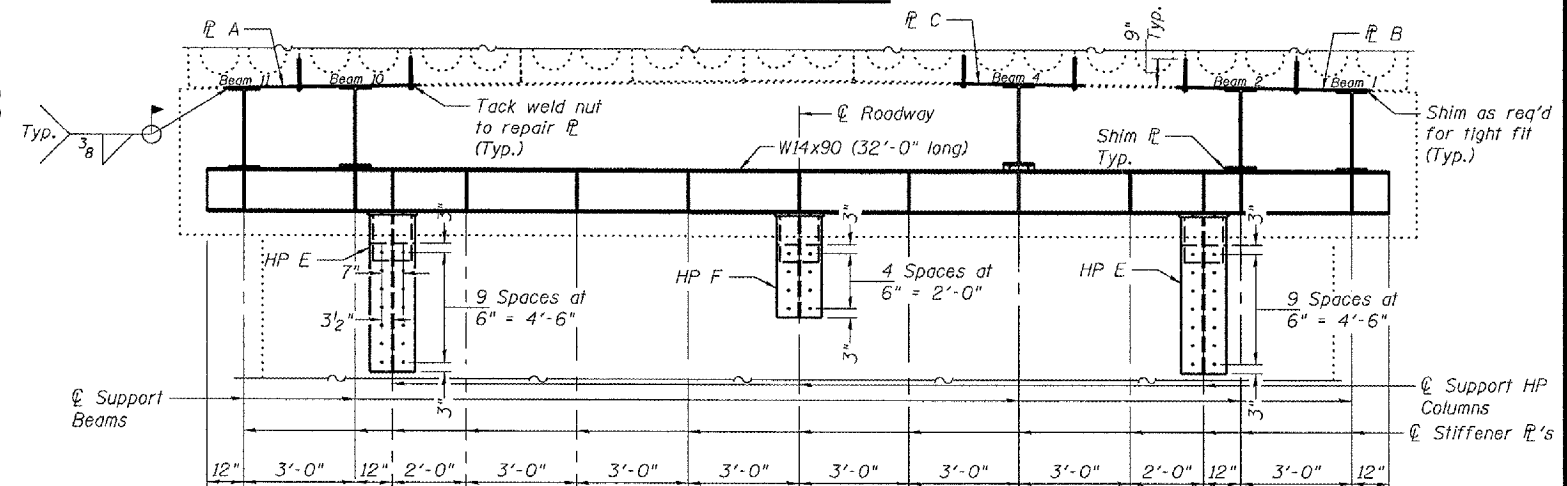
SECTION C-C



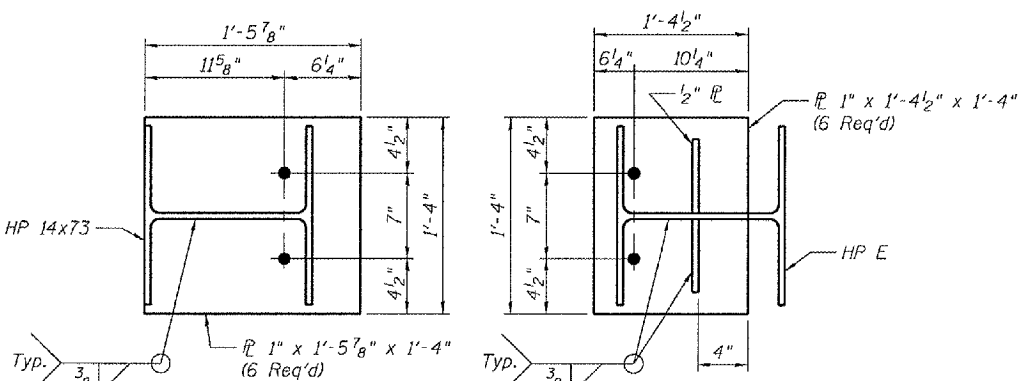
SECTION F-F



SECTION D-D

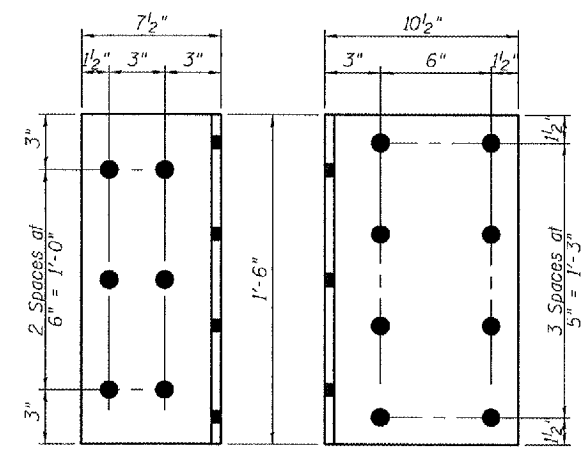


SECTION E-E



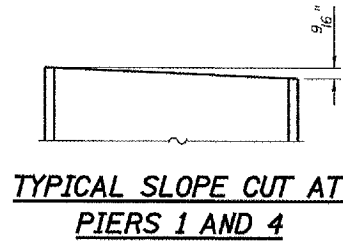
SECTION G-G

SECTION H-H



BENT P D

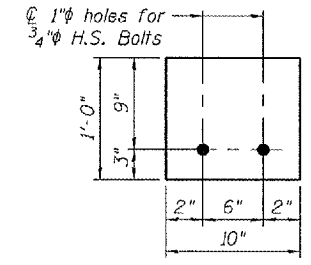
P 1/2" x 1'-6" x 1'-6" (12 Req'd)



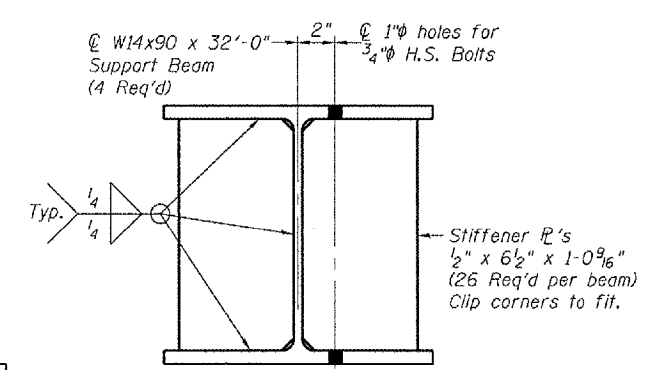
TYPICAL SLOPE CUT AT PIERS 1 AND 4

SHIM P THICKNESS

| | |
|-----------|--------------------|
| Deck Beam | 10" x 14 1/2" x 1" |
| 2 | 1/16" |
| 4 | 3/16" |
| 7 | 1/4" |
| 10 | 9/16" |



TYPICAL SHIM



TYPICAL SUPPORT BEAM SECTION

| | |
|----------|------------------|
| DESIGNED | V.H.V. |
| CHECKED | A.J.B. |
| DRAWN | Drew Christopher |
| CHECKED | V.H.V. A.J.B. |

January 8, 2007
EXAMINED *Carl Proyer*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

PLAN AND ELEVATION
IL 101
SCHUYLER COUNTY
SN 085-0016