

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------------------|--------------|-----------|
| 7369 | 08-00503-00-BR | MACON | 24 | 1 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

**AMERICAN RECOVERY AND REINVESTMENT ACT
GARFIELD AVENUE BRIDGE REHABILITATION
SECTION NO.: 08-00503-00-BR
F.A.U. ROUTE 7369 (GARFIELD AVENUE)
OVER CANADIAN NATIONAL RALROAD
CITY OF DECATUR
JOB NO. C-97-092-09
PROJ. NO. ARA-5169(042)**

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

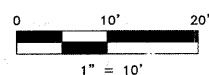
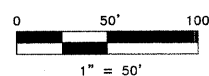
MACON COUNTY**

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| 22-23 | SOIL BORINGS |
| 24 | DETAILS |

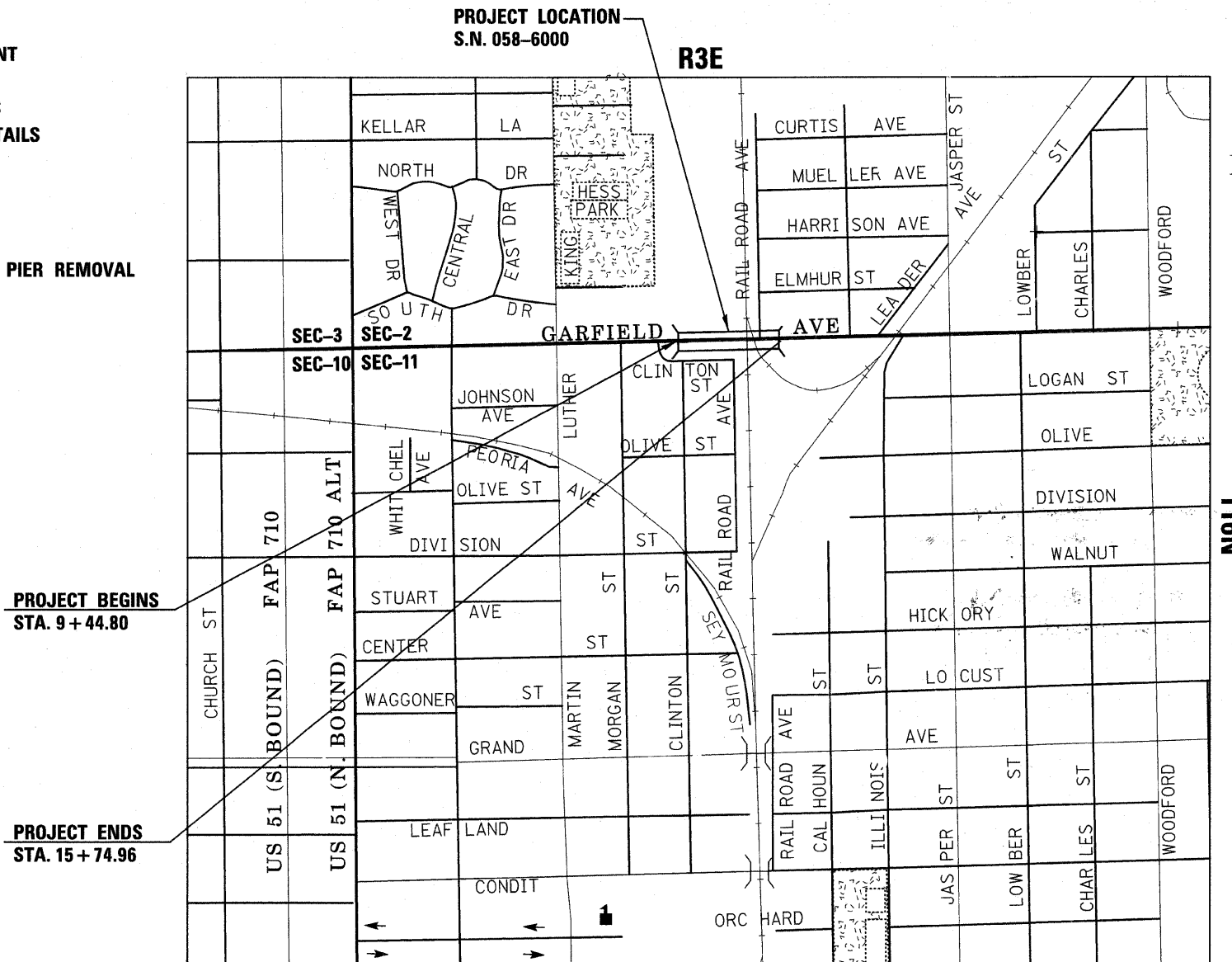
SEE SHEET 2 FOR HIGHWAY STANDARDS

FUNCTIONAL CLASS = URBAN MINOR ARTERIAL
ADT = 11,400 (2009)
DESIGN SPEED = 30 MPH



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 DECATUR TOWNSHIP



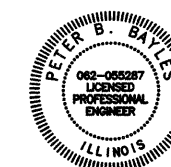
LOCATION MAP

APPROXIMATE SCALE: 1" = 2000'



TOTAL IMPROVEMENTS = 630 FT = 0.119 MILES

| | | |
|-------------------|---|---------------|
| APPROVED | <i>April 16</i> | 20 <i>09</i> |
| | <i>Shawn J. Land</i> | |
| | CITY OF DECATUR | CITY ENGINEER |
| APPROVED | <i>April 16</i> | 20 <i>09</i> |
| | <i>Russell G. Marley</i> | |
| | DIRECTOR OF ENGINEERING AND INFRASTRUCTURE | |
| PASSED | <i>4-21</i> | 20 <i>09</i> |
| | <i>Harmon L. Matthews</i> | |
| | DISTRICT 7 ENGINEER OF LOCAL ROADS & STREETS | |
| RELEASING FOR BID | <i>4-21</i> | 20 <i>09</i> |
| BASED ON LIMITED | <i>Ryan D. Marshall</i> | |
| REVIEW | DEPUTY DIRECTOR OF HIGHWAYS, REGION 4 ENGINEER | |
| | STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION | |



Peter B. Bayles
DATE *3/30/09* 2009
EXPIRES 11/30/2009

BWC BLANK, WESSELINK, COOK & ASSOCIATES, INC.

ARCHITECTS ENGINEERS

2623 EAST PERSHING ROAD DECATUR, IL 62524
(217) 428-0973 FAX (217) 428-8934

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 2 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

GENERAL NOTES

IDOT STANDARDS

| | |
|-----------|---|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 442201-03 | CLASS C AND D PATCHES |
| 664001-02 | CHAIN LINK FENCE |
| 701321-10 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 701606-06 | URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 704001-05 | TEMPORARY CONCRETE BARRIER |
| BLR22-6 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS |

- 1.) UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED AND THEIR ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY.
J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (1-800-892-0123).
- 2.) RIGHT-OF-WAY LOCATIONS WERE PLOTTED FROM EXISTING PLANS (CIRCA 1983).
- 3.) ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.
- 4.) ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON CITY OF DECATUR DATUM. STATION AND OFFSET CALL OUTS ARE FROM THE CENTERLINE OF SURVEY FOR ALL STREETS.
- 5.) WHERE NOTED ON PLANS, EXISTING STORM SEWERS SHALL BE REMOVED IN ACCORDANCE WITH SECTION 551 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE CONTRACTOR WILL NOT BE REQUIRED TO SALVAGE ANY EXISTING SEWER PIPE.

SUMMARY OF QUANTITIES

| PAY CODE NUMBER | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY 100% CITY |
|-----------------|--|-------|--------------------------|
| 20800150 | TRENCH BACKFILL | CU YD | 4 |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 14 |
| 44201341 | CLASS C PATCHES, TYPE II, 9" | SQ YD | 32 |
| 50102400 | CONCRETE REMOVAL | CU YD | 106 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 129.2 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 10.6 |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 27 |
| 50300280 | CONCRETE ENCASEMENT | CU YD | 2.2 |
| 50300300 | PROTECTIVE COAT | SQ YD | 33 |
| 50500105 | FURNISHING AND ERECTING STRUCTURAL STEEL | L SUM | 1 |
| 50500505 | STUD SHEAR CONNECTORS | EACH | 224 |
| * 50600300 | CLEANING AND PAINTING STEEL BRIDGE | L SUM | 1 |
| * 50606400 | CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES | L SUM | 1 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 21550 |
| 50800515 | BAR SPLICERS | EACH | 108 |
| 52000365 | NEOPRENE EXPANSION JOINT, 6 1/2" | FOOT | 96 |
| 52100020 | ELASTOMERIC BEARING ASSEMBLY, TYPE II | EACH | 28 |
| 52100520 | ANCHOR BOLTS, 1" | EACH | 112 |
| 54248510 | CONCRETE COLLAR | CU YD | 1.2 |

* SPECIALTY ITEMS

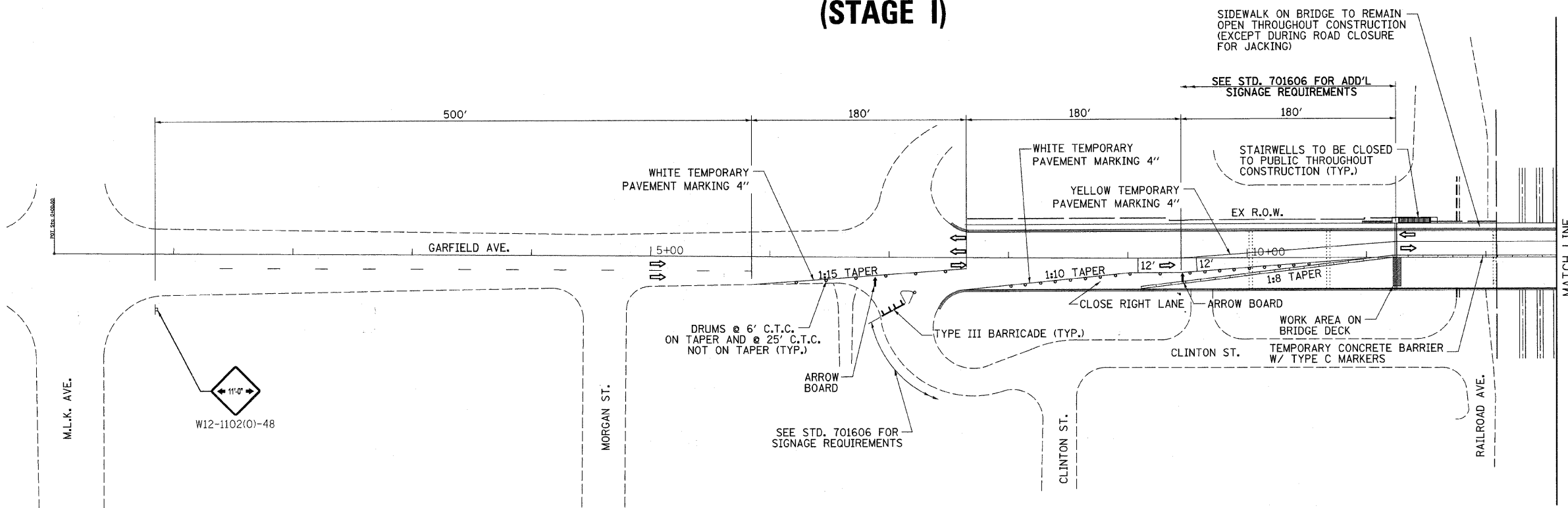
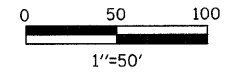
| PAY CODE NUMBER | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY 100% CITY |
|-----------------|--|-------|--------------------------|
| 550A0050 | STORM SEWERS, CLASS A, TYPE 1 12" | FOOT | 12 |
| 55100500 | STORM SEWER REMOVAL 12" | FOOT | 12 |
| 58700300 | CONCRETE SEALER | SQ FT | 652 |
| 59000200 | EPOXY CRACK INJECTION | FOOT | 253 |
| 66411900 | TEMPORARY FENCE | FOOT | 478 |
| 67100100 | MOBILIZATION | L SUM | 1 |
| 70106800 | CHANGEABLE MESSAGE SIGN | CA MO | 8 |
| Z0016200 | DECK SLAB REPAIR (PARTIAL) | SQ YD | 11 |
| Z0018800 | DRAINAGE SYSTEM | L SUM | 1 |
| Z0031200 | JACKING AND CRIBBING | EACH | 8 |
| X0320887 | POLYMER CONCRETE | CU FT | 16 |
| X0321963 | MICRO-PILES | EACH | 4 |
| X0323432 | MICROPILE LOAD TEST | EACH | 2 |
| X0323433 | MICROPILE PROOF LOAD TEST | EACH | 4 |
| X0323830 | DRAINAGE SCUPPERS, DS-11 | EACH | 4 |
| X0325305 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 126 |
| X7010010 | TRAFFIC CONTROL - STAGE I | L SUM | 1 |
| X7010020 | TRAFFIC CONTROL - STAGE II | L SUM | 1 |

BWC BLANK, WESSELINK, COOK & ASSOCIATES, INC.

ARCHITECTS ENGINEERS

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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| 7369 | 08-00503-00-BR | MACON | 24 | 3 |
| STA. | | TO STA. | | |
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SUGGESTED TRAFFIC CONTROL PLAN (STAGE I)

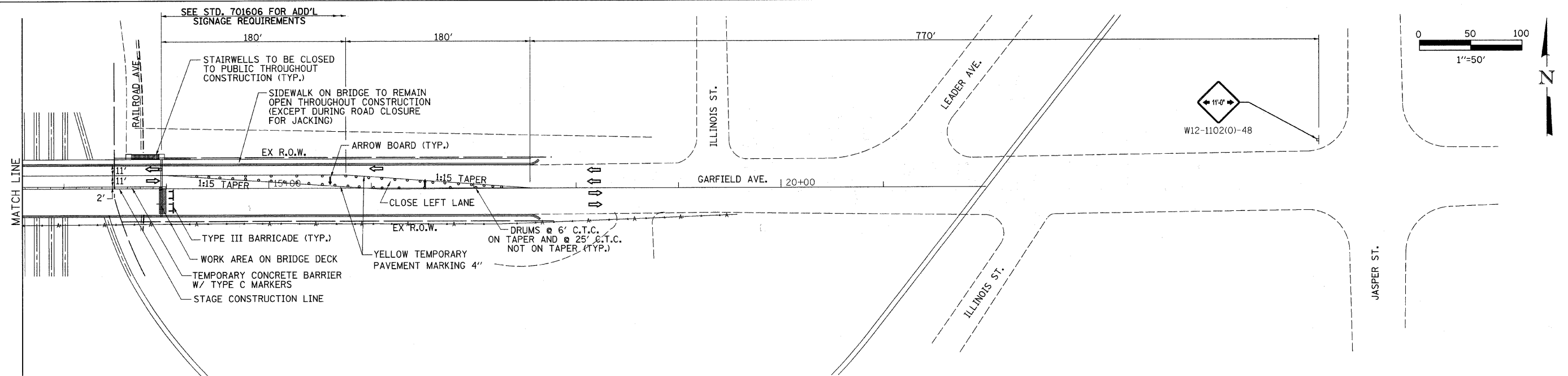


SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER*
 STA 9+10.00 TO STA 14+00.00 = 487.5 FT.

TEMPORARY PAVEMENT MARKING - LINE 4"
 STA 5+90.00 TO STA 7+70.00 = 180 FT (WHITE)
 STA 7+70.00 TO STA 9+50.00 = 180 FT (WHITE)
 STA 9+50.00 TO STA 11+30.00 = 180 FT (WHITE)
 STA 9+50.00 TO STA 11+30.00 = 180 FT (YELLOW)
 STA 11+30.00 TO STA 14+00.00 = 270 FT (YELLOW)
 STA 14+00.00 TO STA 15+80.00 = 180 FT (YELLOW)
 STA 14+00.00 TO STA 15+80.00 = 180 FT (YELLOW)
 STA 15+80.00 TO STA 17+60.00 = 180 FT (YELLOW)
TOTAL = 1530 FT

*COST INCLUDED IN COST OF TRAFFIC CONTROL - STAGE I



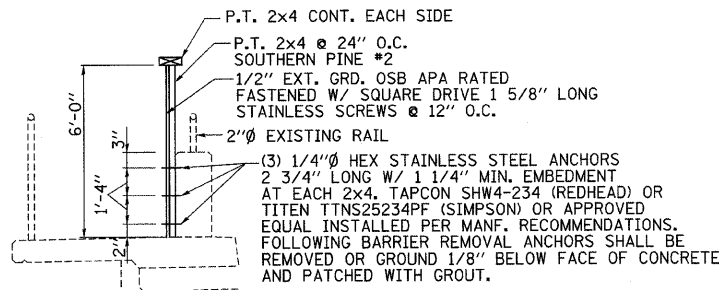
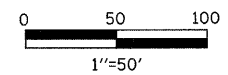
NOTES:

- SEE SPECIAL PROVISIONS & TRAFFIC CONTROL STANDARDS FOR ADDITIONAL REQUIREMENTS.
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- THE TRAFFIC CONTROL PLAN FOR STAGED CONSTRUCTION SHALL MAINTAIN LANE WIDTHS AS SHOWN ABOVE AND INCLUDE SIGNING AND TRAFFIC CONTROL DEVICE LOCATIONS.
- SEE SHEET 3 OF 17, IN BRIDGE PLANS, FOR TYPICAL BRIDGE SECTIONS DURING STAGING.
- SEE UTILITY LOCATION AND SITE PLAN FOR WORK AREAS BELOW BRIDGE DECK.

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& ASSOCIATES, INC.
ARCHITECTS ENGINEERS

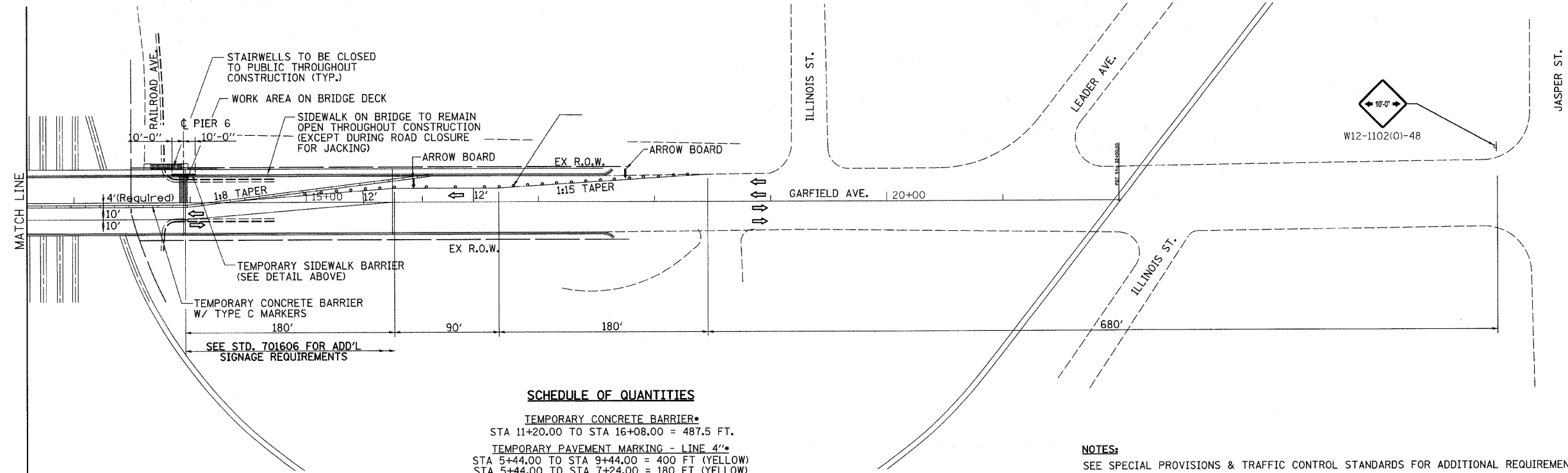
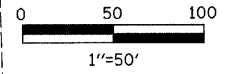
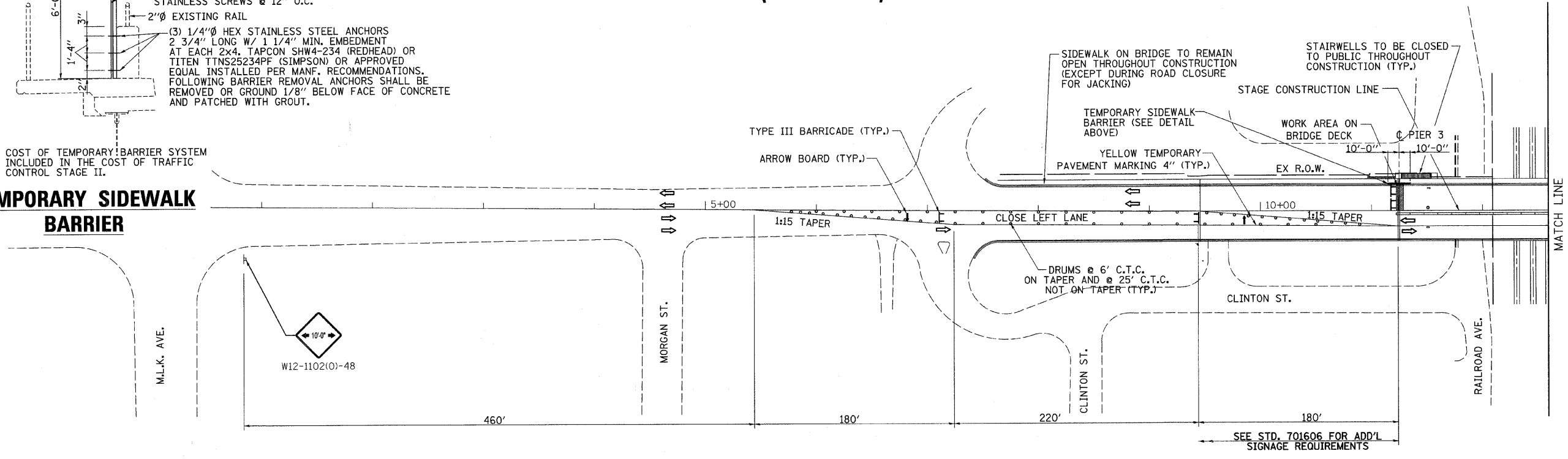
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|---------------------|----------------|---------------------------|--------------|-----------|
| 7369 | 08-00503-00-BR | MACON | 24 | 4 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

SUGGESTED TRAFFIC CONTROL PLAN (STAGE II)



NOTE: COST OF TEMPORARY BARRIER SYSTEM INCLUDED IN THE COST OF TRAFFIC CONTROL STAGE II.

TEMPORARY SIDEWALK BARRIER



SCHEDULE OF QUANTITIES

| | |
|---|-----------------|
| TEMPORARY CONCRETE BARRIER* | |
| STA 11+20.00 TO STA 16+08.00 = | 487.5 FT. |
| TEMPORARY PAVEMENT MARKING - LINE 4''* | |
| STA 5+44.00 TO STA 9+44.00 = | 400 FT (YELLOW) |
| STA 5+44.00 TO STA 7+24.00 = | 180 FT (YELLOW) |
| STA 9+44.00 TO STA 11+24.00 = | 180 FT (YELLOW) |
| STA 7+24.00 TO STA 13+94.00 = | 670 FT (YELLOW) |
| STA 13+94.00 TO STA 15+74.00 = | 180 FT (YELLOW) |
| STA 13+94.00 TO STA 15+74.00 = | 180 FT (WHITE) |
| STA 15+74.00 TO STA 16+64.00 = | 90 FT (WHITE) |
| STA 16+64.00 TO STA 18+44.00 = | 180 FT (WHITE) |
| TOTAL = 1530 FT | |

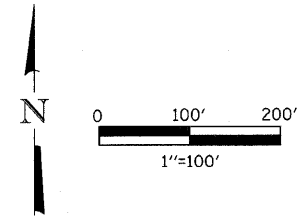
NOTES:

- SEE SPECIAL PROVISIONS & TRAFFIC CONTROL STANDARDS FOR ADDITIONAL REQUIREMENTS.
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- THE TRAFFIC CONTROL PLAN FOR STAGED CONSTRUCTION SHALL MAINTAIN LANE WIDTHS AS SHOWN ABOVE AND INCLUDE SIGNING AND TRAFFIC CONTROL DEVICE LOCATIONS.
- SEE SHEET 3 OF 17, IN BRIDGE PLANS, FOR TYPICAL BRIDGE SECTIONS DURING STAGING.
- SEE UTILITY LOCATION AND SITE PLAN FOR WORK AREAS BELOW BRIDGE DECK.

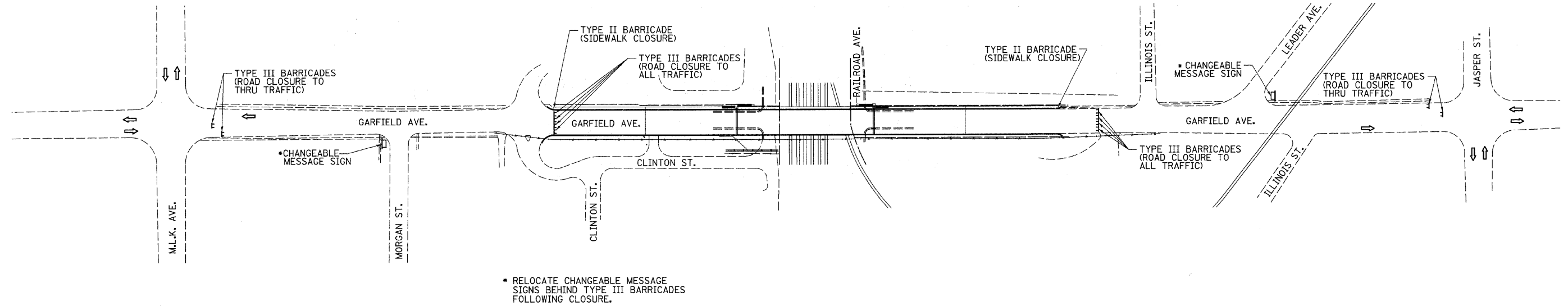
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ARCHITECTS • ENGINEERS

*COST INCLUDED IN COST OF TRAFFIC CONTROL - STAGE II

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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| 7369 | 08-00503-00-BR | MACON | 24 | 5 |
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| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



SUGGESTED TRAFFIC CONTROL PLAN (ROAD CLOSURE, LESS THAN 1/2 DAY) (FOR BRIDGE JACKING OPERATIONS)



SCHEDULE OF QUANTITIES

CHANGEABLE MESSAGE SIGN
8 CAL. MO.

NOTES:

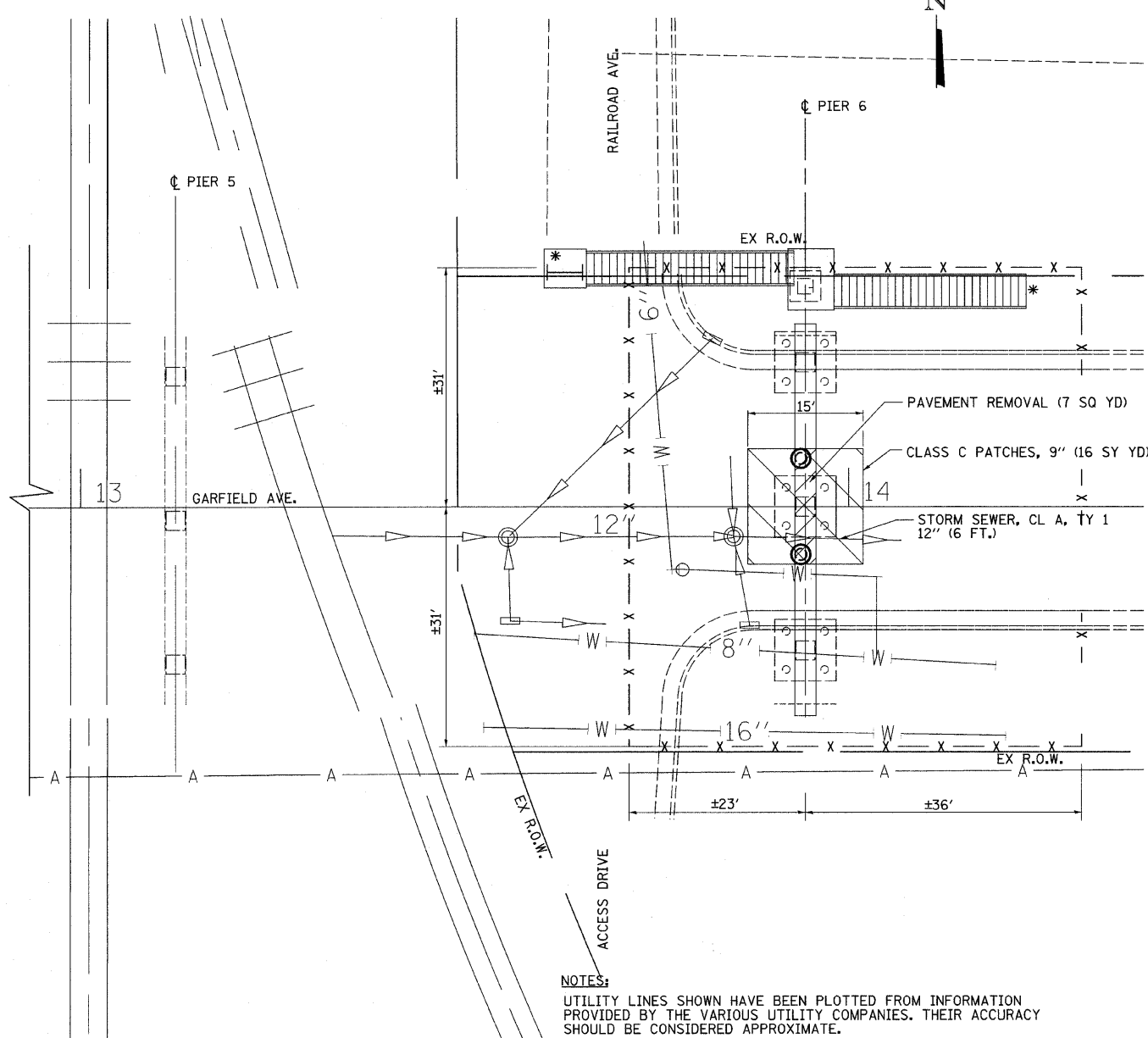
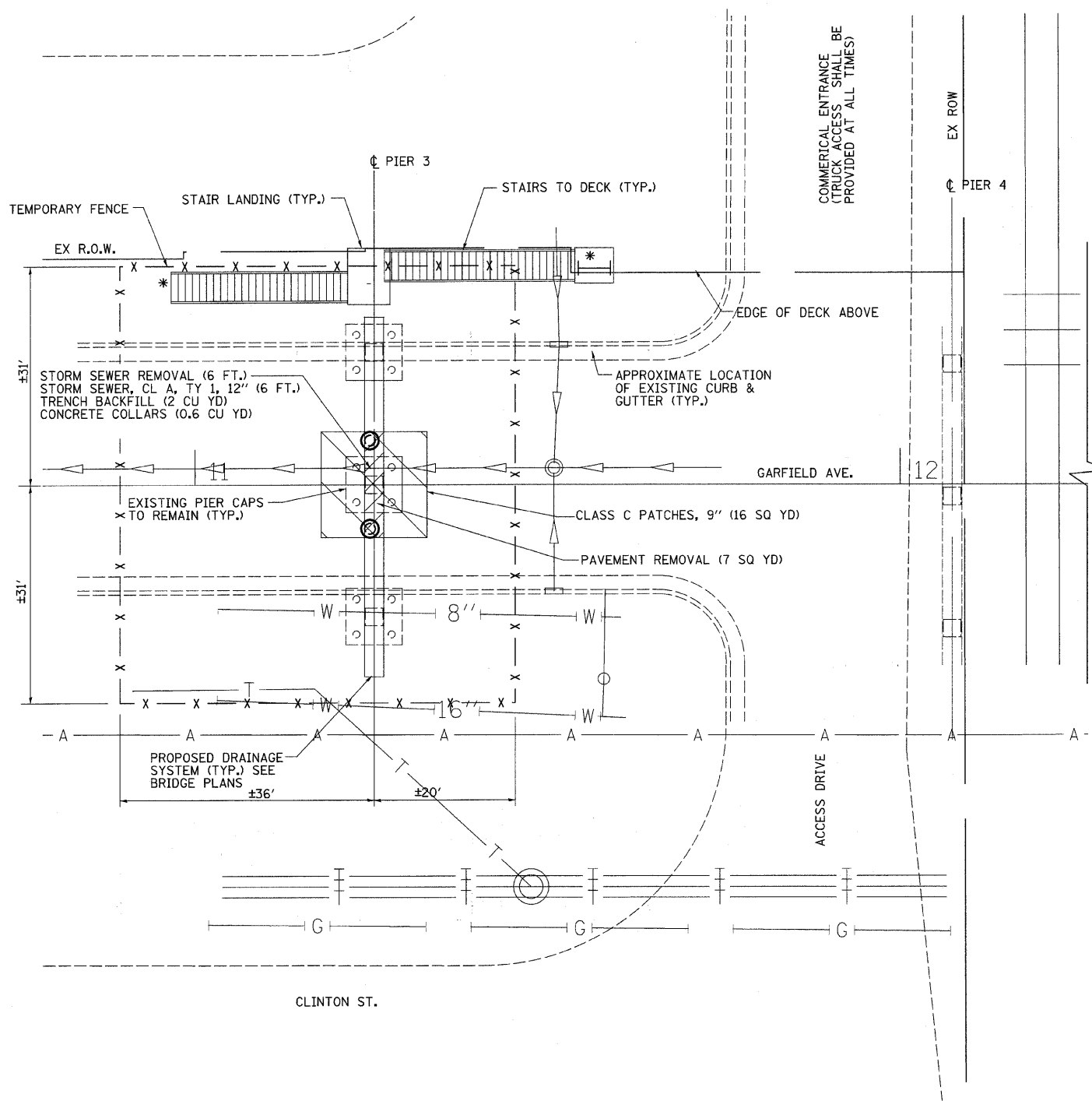
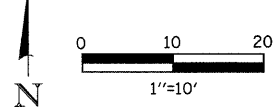
- SEE SPECIAL PROVISIONS & TRAFFIC CONTROL STANDARDS FOR ADDITIONAL REQUIREMENTS.
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- THE TRAFFIC CONTROL PLAN (ROAD CLOSURE, LESS THAN 1/2 DAY) SHALL INCLUDE SIGNING, FLAGGERS, TRAFFIC CONTROL DEVICE LOCATIONS AND A SCHEDULE OF PLANNED JACKING DAYS/TIMES AND CLOSURE PROCEDURES.
- THE CHANGABLE MESSAGE SIGNS SHALL BE PLACED A MINIMUM OF 2 WORKING DAYS PRIOR TO THE FIRST ROAD CLOSURE AND REMAIN IN PLACE UNTIL THE FINAL JACKING CLOSURE IS COMPLETED DURING STAGE II.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF DECATUR 72 HRS. IN ADVANCE OF EACH JACKING CLOSURE.

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

UTILITY LOCATION AND SITE PROTECTION PLAN

(AT GRADE)

* STAIRS SHALL BE CLOSED OFF DURING CONSTRUCTION. CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO PROTECT THE INTEGRITY OF THE STAIRWAYS. STAIRWAYS SHALL NOT BE USED AS A SUPPORT FOR FORM WORK OR EQUIPMENT. CONTRACTOR SHALL INCLUDE DETAILS OF STAIRCASE CLOSURE DEVICE ADJACENT TO THE BRIDGE SIDEWALK IN THE SITE PROTECTION PLAN. COST INCLUDED IN TEMPORARY FENCE.



NOTES:
 UTILITY LINES SHOWN HAVE BEEN PLOTTED FROM INFORMATION PROVIDED BY THE VARIOUS UTILITY COMPANIES. THEIR ACCURACY SHOULD BE CONSIDERED APPROXIMATE.
 THE CONTRACTOR SHALL FIELD LOCATE THE UTILITIES IN THE AREA OF THE PILES FOR THE PURPOSE OF DETERMINING CONFLICTS BETWEEN THE UTILITIES AND THE CONSTRUCTION.
 STORM SEWER WORK MAY BE OMITTED IF EXISTING STORM SEWERS ARE NOT DAMAGED BY MICROPILE CONSTRUCTION.
 THE CONTRACTOR SHALL SUBMIT A SITE PROTECTION PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. THE SITE PROTECTION PLAN SHALL INCLUDE TEMPORARY FENCE AND STAIRWELL CLOSURE.
 A MINIMUM OF A 6 FOOT HIGH TEMPORARY FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE WORK AREA.
 PARKING OR THE STOCK PILING OF MATERIALS SHALL BE PROHIBITED ON THE ACCESS DRIVE TO THE WEST OF PIER 4 AND TO THE EAST OF PIER 5 (RAILROAD AVE.). MAINTAIN BUSINESS AND RAILROAD ACCESS.
 THE CONTRACTOR MAY USE THE AREA BELOW THE STRUCTURE FROM THE WEST ABUTMENT TO PIER 3 AND FROM PIER 6 TO THE EAST ABUTMENT FOR STAGING AND PARKING.
 ALL DISTURBED LANDSCAPED AREAS SHALL BE GRADED AND SEEDING (CLASS 2) IN ACCORDANCE WITH SECTION 250 OF THE STANDARD SPECIFICATIONS AS DIRECTED BY THE ENGINEER. COST INCLUDED IN CONCRETE STRUCTURES.

FOR CLARITY, ONLY UTILITY WORK IS SHOWN AT PIER 6. SEE PIER 3 FOR REMAINING TYPICAL SITE NOTES.

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

BWC BLANK, WESSELINK, COOK & ASSOCIATES, INC.
 ARCHITECTS • ENGINEERS

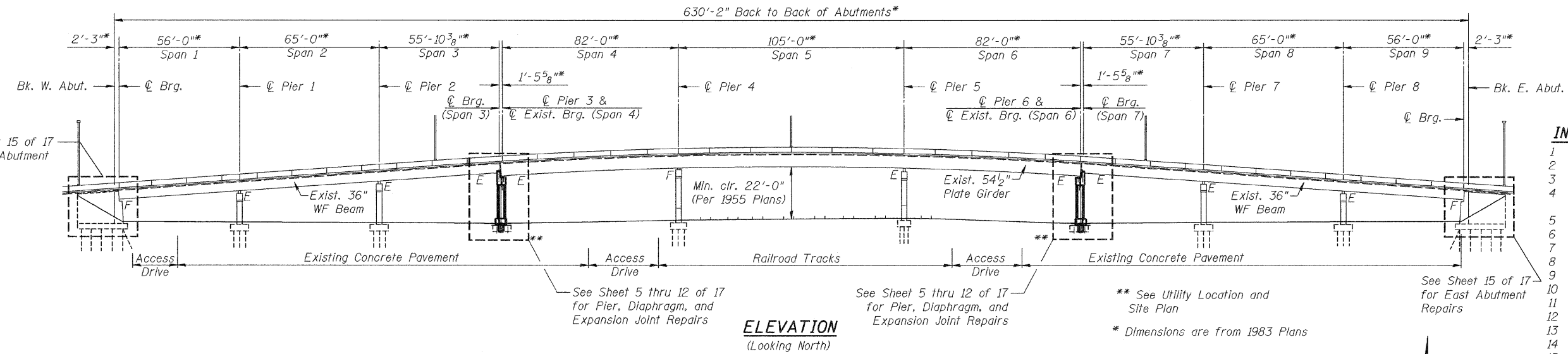
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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| 7369 | 08-00503-00-BR | MACON | 24 | 7 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

SHEET NO. 1
17 SHEETS

Bench Mark: "M" in Mueller on Fire Hydrant 58.25' Right of ϕ Roadway at Sta. 8+27.50 Elev. 682.69

Existing Structure: Built in 1955 as Reinforced Concrete Deck on Steel Stringers with Column Bent Concrete Piers and Closed Abutments. Deck replaced in 1983 with Composite Reinforced Concrete Deck.

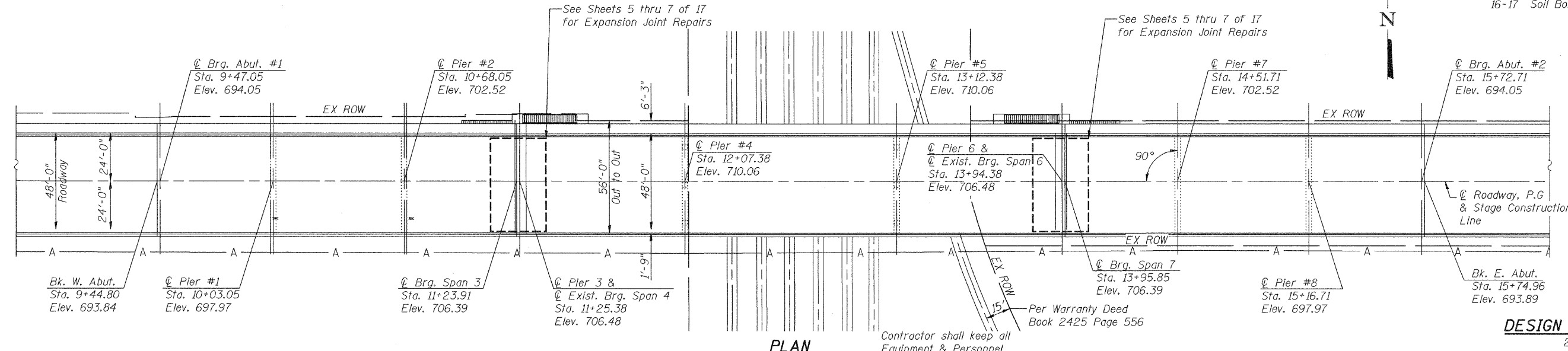
Scope: The existing expansion joints are to be replaced. Two piers are to be rebuilt and abutments are to be repaired. No Salvage Items.



ELEVATION
(Looking North)

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Notes and Bill of Material
- 3 Deck Staging Sections
- 4 Temporary Concrete Barrier For Stage Construction
- 5 Deck Joint Repair Plan
- 6 Deck Joint Repair Details
- 7 Parapet Joint Plating & Expansion Joint Bar Splicer Assembly Details
- 8 Corbel Removal & Diaphragm Details
- 9 Temporary Support & Diaphragm Details
- 10 Type II Bearing Details
- 11 Piers 3 and 6
- 13 Drainage Scupper, DS-11
- 14 Top of Deck Repairs
- 15 Abutment and Diaphragm Repairs & Pier Removal
- 16-17 Soil Borings



PLAN

DESIGN STRESSES

New Construction
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Structural Steel)
 (unless noted otherwise)

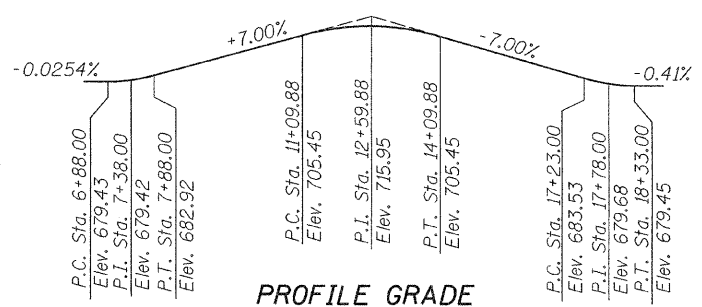
Rehabilitated Deck Construction
 Concrete (Load Factor)
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 33,000$ psi (Structural Steel)

Original Girder Beams and Substructure
 $f'_c = 1,400$ psi
 $f_s = 20,000$ psi (Reinforcement)
 $f_s = 18,000$ psi (Structural Steel)



Peter B. Bayles
 Peter B. Bayles, P.E. S.E. Date: _____
 Structural Engineer License No. 081-006042
 Expiration Date: 11/30/2010

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



PROFILE GRADE

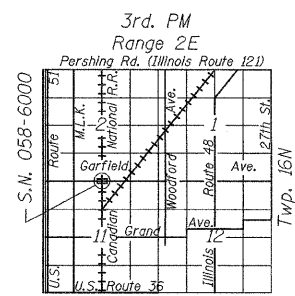
*Profile Grade is from 1983 Plans

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface. (Per 1983 Plans)



LOCATION SKETCH
(Decatur, IL)

GENERAL PLAN AND ELEVATION
 FAU 7369
 SEC. 08-00503-00-BR
 GARFIELD AVENUE OVER
 CANADIAN NATIONAL RAILROAD
 CITY OF DECATUR
 MACON COUNTY
 STA. 12+59.88
 STRUCTURE NUMBER 058-6000

DATE: FEB. 2009

DRAWN BY: MLO
CHECKED BY: PBB

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ϕ , holes $\frac{13}{16}$ in. ϕ , unless otherwise noted.

Calculated weight of structural steel = 28,023 lbs.

All structural steel shall be AASHTO M 270 Grade 36.

No field welding is permitted except as specified in the contract documents.

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Field welding of construction accessories will not be permitted to beams or girders unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to nominal construction 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 at the unit price bid for the work.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of the pier caps.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Load carrying components designated *NTR* shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

A minimum of 2 air monitors will be required to monitor abrasive blasting operations at this site. See special provision for "Containment and Disposal of Lead Paint Cleaning Residues".

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 6 ft (measured along the beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning - SSPC-SP10 and painted.

The designated areas cleaned per Near White Blast Cleaning shall be painted according to the requirements of Paint System 3 - EM/EM/AC. The color of the final finish coat for all steel surfaces shall be Interstate Green, Munsell No 7.5G 4/8.

All Concrete edges shall be chamfered $\frac{3}{4}$ " unless otherwise noted.

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

SSPC Painting Contractor Certification QP1 & QP2 will not be required for this project.

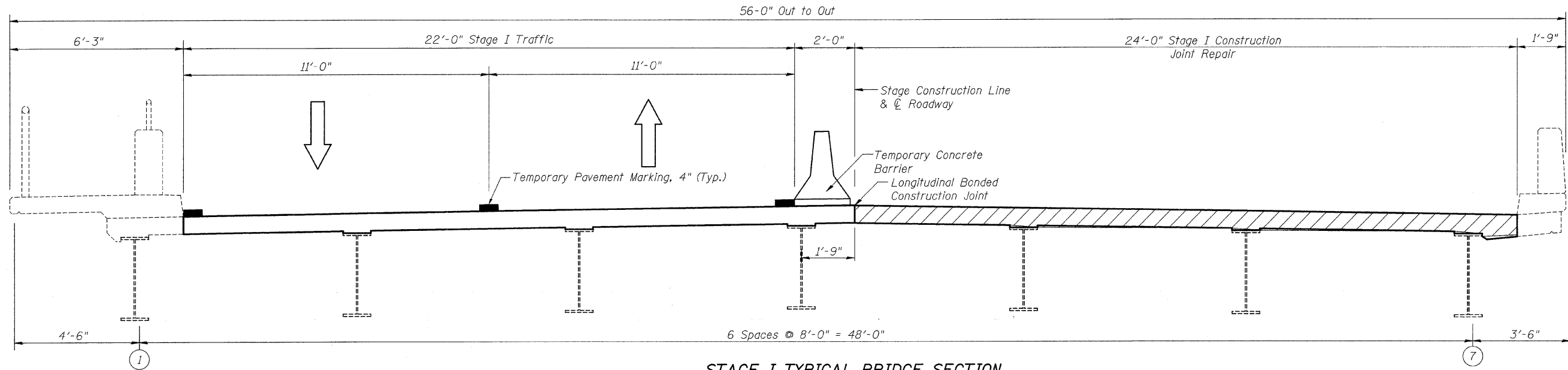
TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|-------|-------|
| Bridge Deck Grooving | Sq. Yd. | 27 | | 27 |
| Protective Coat | Sq. Yd. | 33 | | 33 |
| Concrete Structures | Cu. Yd. | | 129.2 | 129.2 |
| Concrete Superstructure | Cu. Yd. | 10.6 | | 10.6 |
| Elastomeric Bearing Assembly, Type 2 | Each | 28 | | 28 |
| Drainage System | L. Sum | | 1 | 1 |
| Concrete Removal | Cu. Yd. | 39 | 67 | 106 |
| Furnishing and Erecting Structural Steel | L. Sum | 1 | | 1 |
| Reinforcement Bars, Epoxy Coated | Pound | 2290 | 19260 | 21550 |
| Structural Repair of Concrete (Depth \leq 5") | Sq. Ft. | | 126 | 126 |
| Epoxy Crack Injection | Foot | | 253 | 253 |
| Bar Splicers | Each | 30 | 78 | 108 |
| Polymer Concrete | Cu. Ft. | 16 | | 16 |
| Neoprene Expansion Joint 6 $\frac{1}{2}$ " | Foot | 96 | | 96 |
| Stud Shear Connectors | Each | 224 | | 224 |
| Drainage Scupper, DS-11 | Each | 4 | | 4 |
| Anchor Bolts, 1" | Each | | 112 | 112 |
| Containment and Disposal of Lead Paint Cleaning Residues | L. Sum | 1 | | 1 |
| ** Cleaning and Painting Steel Bridge | L. Sum | 1 | | 1 |
| Jacking and Cribbing | Each | | 8 | 8 |
| Concrete Encasement | Cu. Yd. | | 2.2 | 2.2 |
| Concrete Sealer | Sq. Ft. | | 652 | 652 |
| Micro-Piles | Each | | 4 | 4 |
| Micropile Load Test | Each | | 2 | 2 |
| Micropile Proof Load Test | Each | | 4 | 4 |
| Deck Slab Repair (Partial) | Sq. Yd. | 10.8 | | 10.8 |

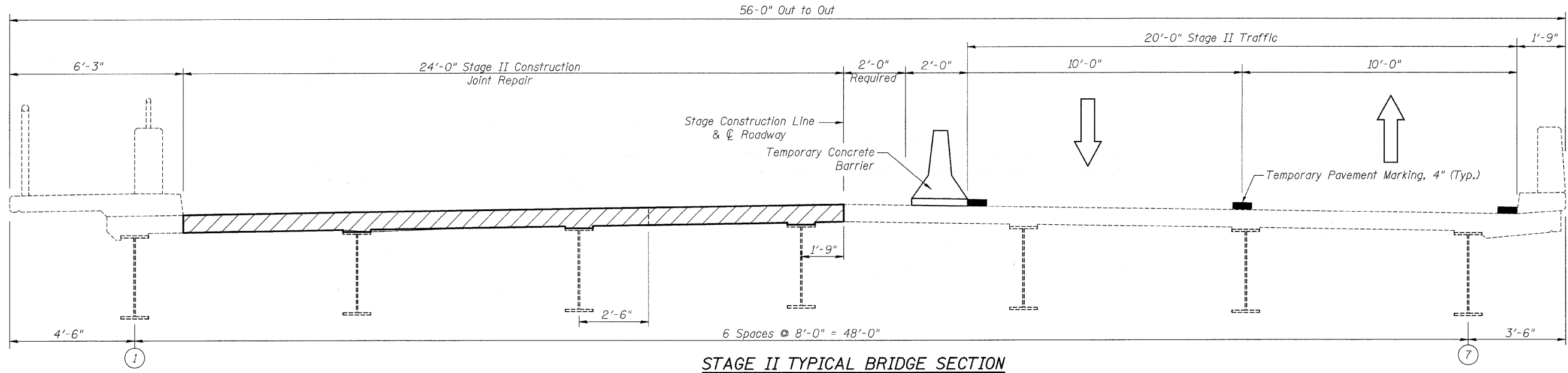
** All structural steel remaining within 6 ft of Pier 3 and Pier 6 Including painting diaphragms at temporary supports. (See General Notes)

GENERAL NOTES & BILL OF MATERIAL
GARFIELD AVENUE OVER
CANADIAN NATIONAL RAILROAD
CITY OF DECATUR
MACON COUNTY
STA. 12+59.88
STRUCTURE NUMBER 058-6000

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------------------|--------------|-----------|
| T369 | 08-00503-00-BR | MACON | 24 | 9 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



STAGE I TYPICAL BRIDGE SECTION
At Pier 3 or Pier 6 (Looking East)



STAGE II TYPICAL BRIDGE SECTION
At Pier 3 or Pier 6 (Looking East)

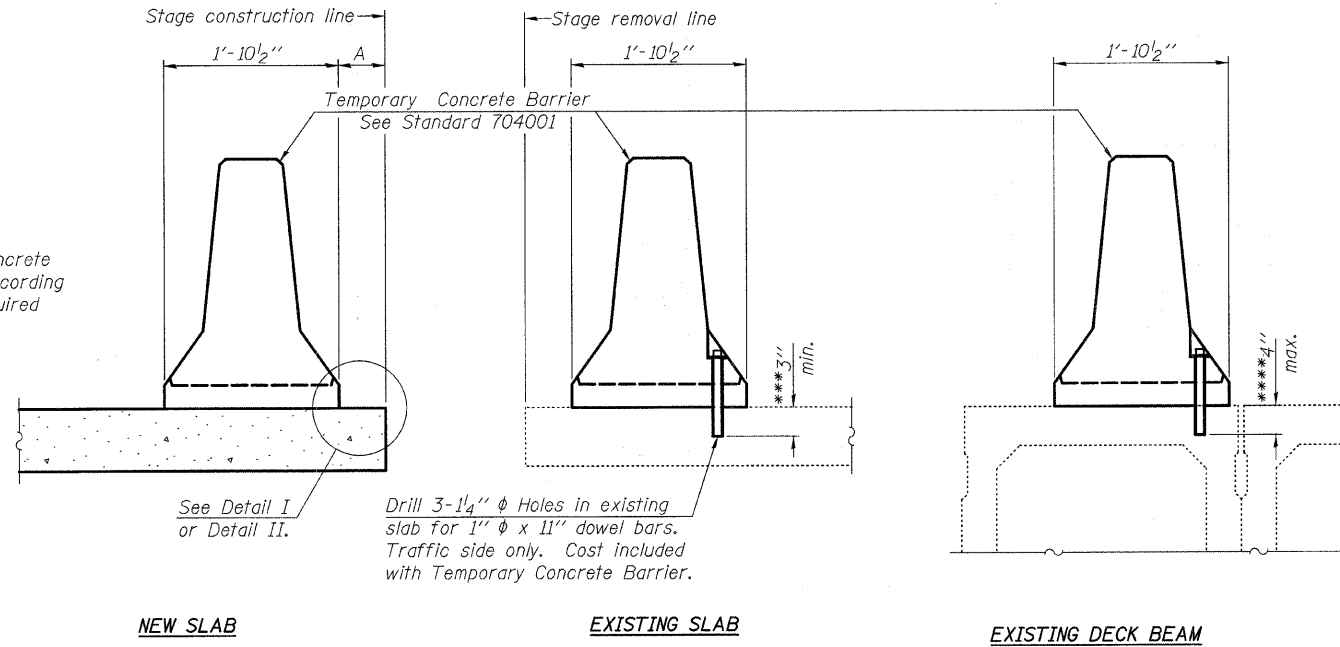
NOTES:
For details of Temporary Concrete Barrier, See sheet 4 of 17.
For quantities of Temporary Concrete Barrier, See Roadway Plans.
See Suggested Traffic Control Plans for additional Staging Details.

DECK STAGING SECTIONS
GARFIELD AVENUE OVER
CANADIAN NATIONAL RAILROAD
CITY OF DECATUR
MACON COUNTY
STA. 12+59.88
STRUCTURE NUMBER 058-6000

DATE: FEB. 2009
DRAWN BY: MLO
CHECKED BY: PBB

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 10 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 4
17 SHEETS



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

See Detail I or Detail II.

Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

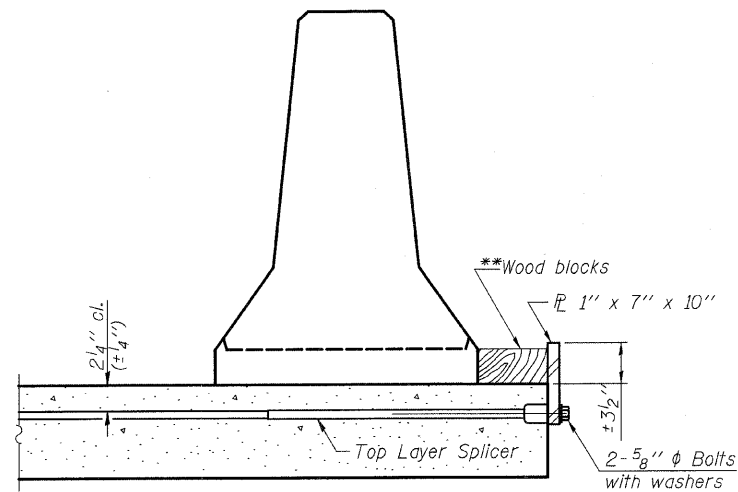
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

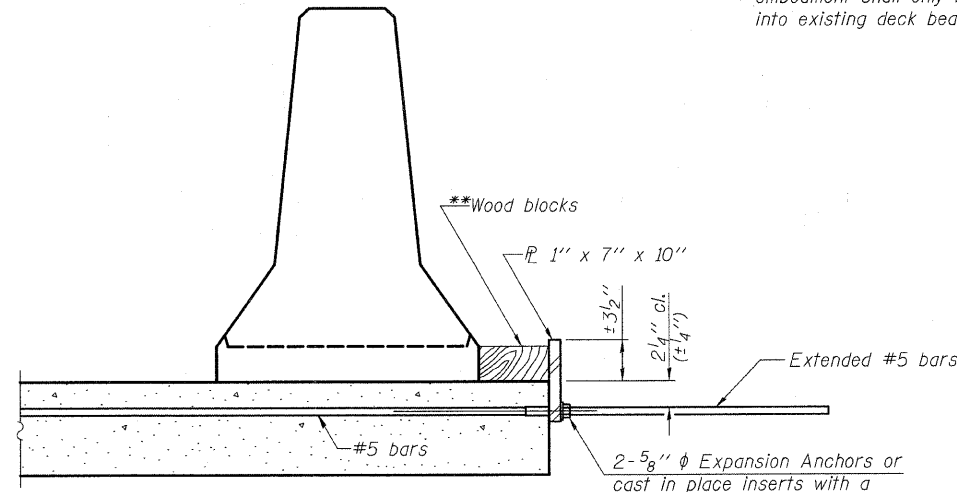
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

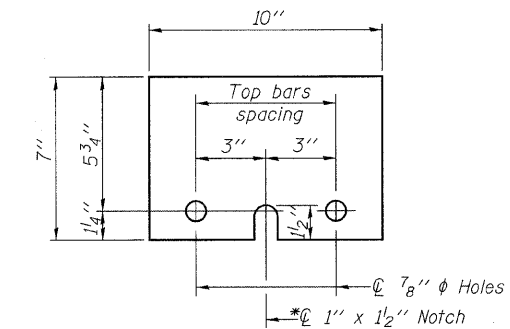
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II

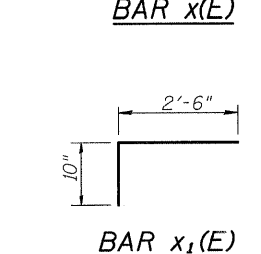
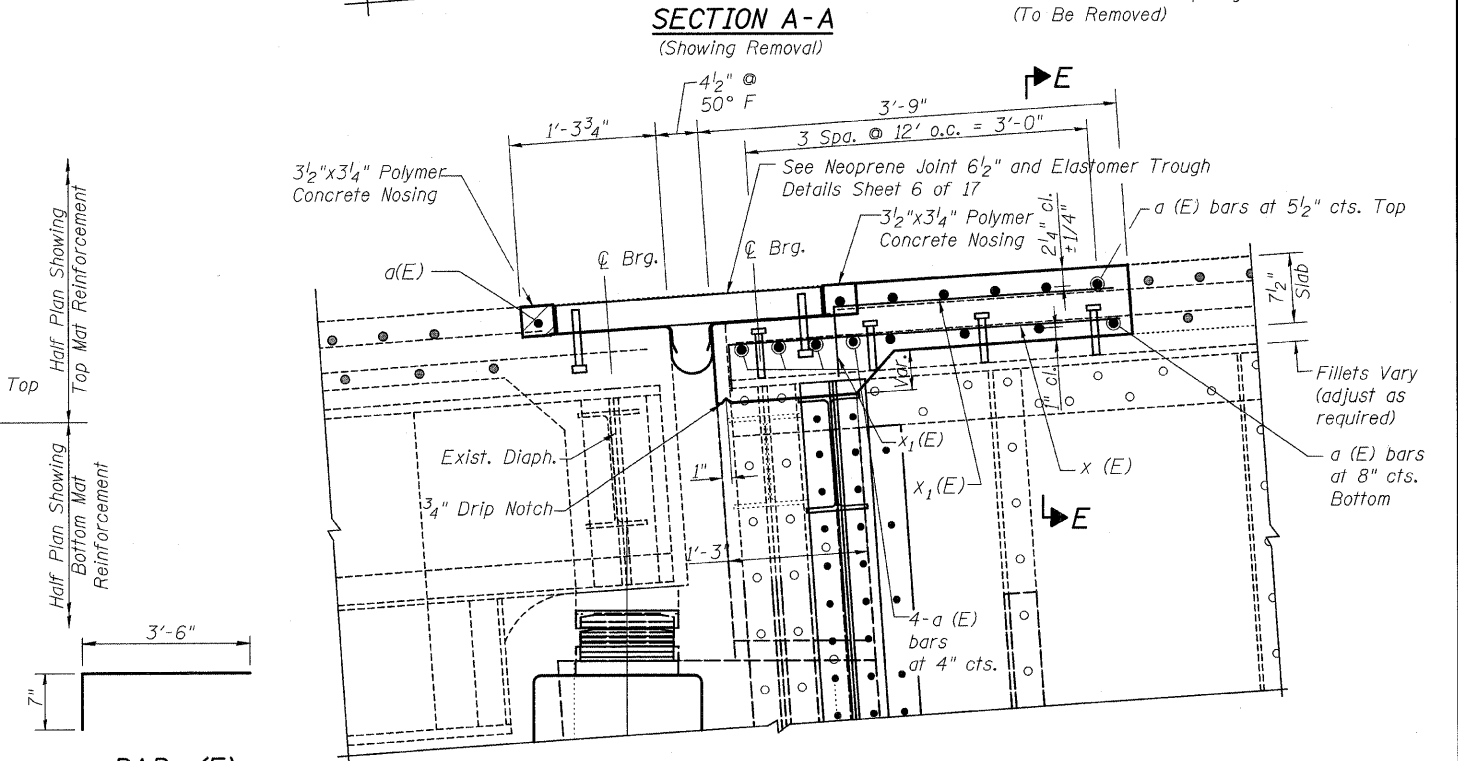
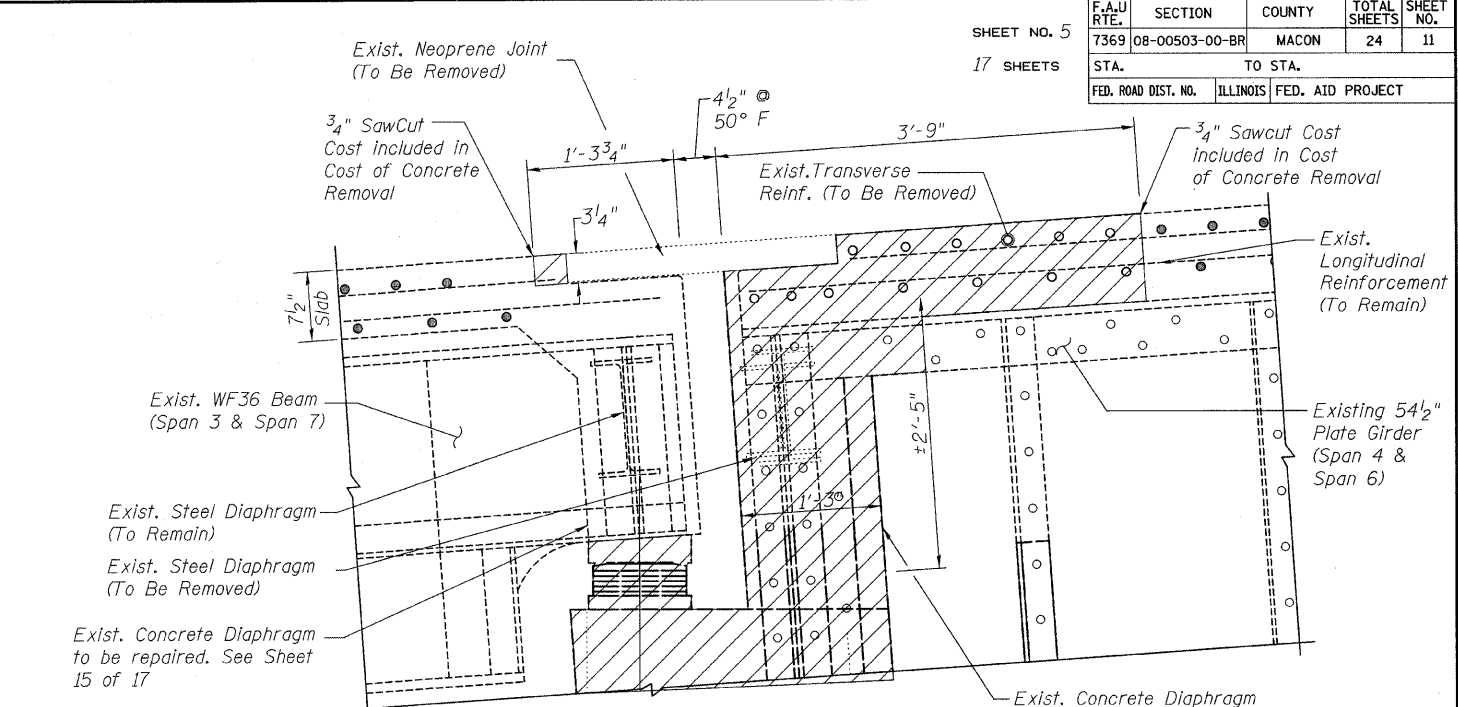
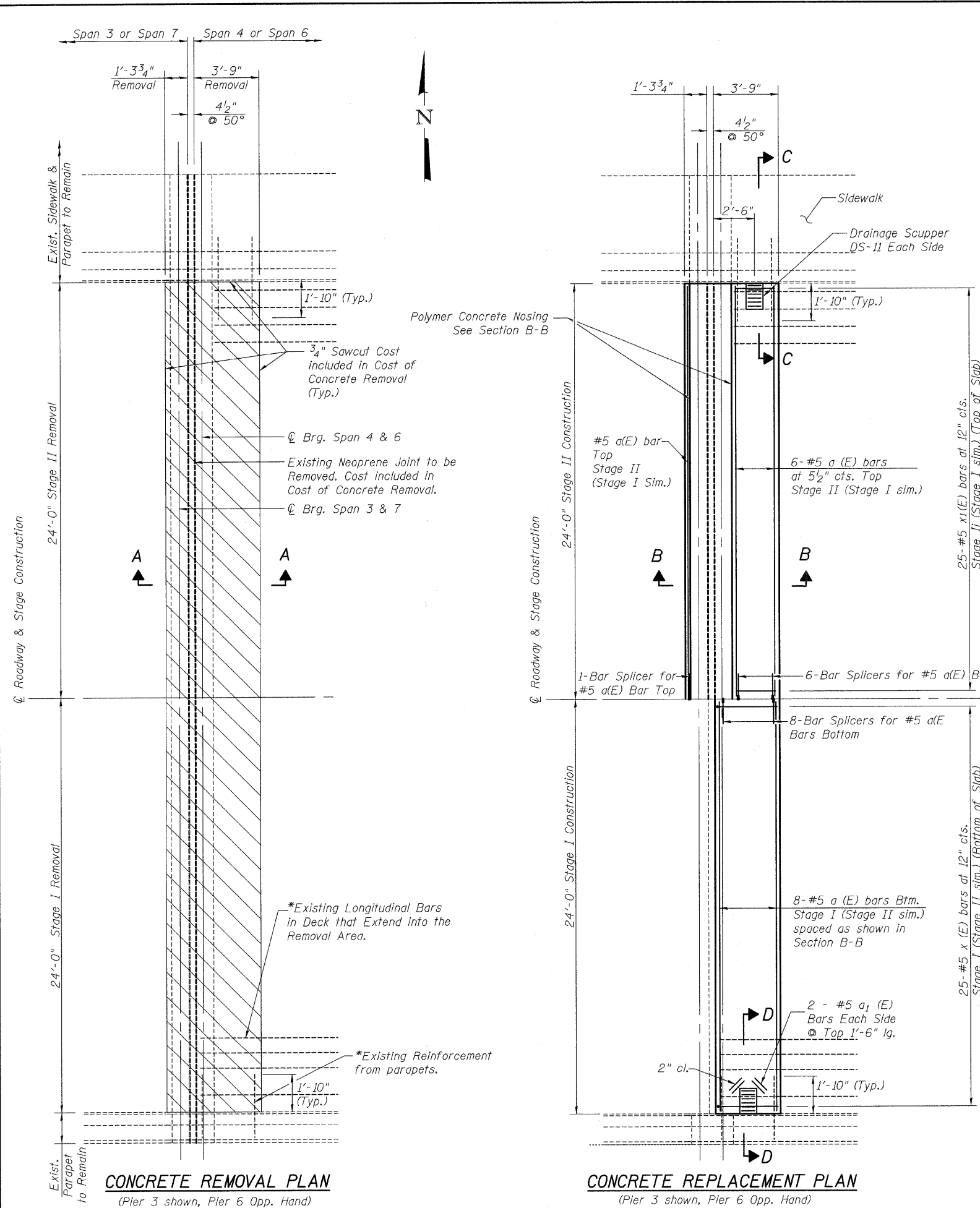


STEEL RETAINER \bar{L} 1" x 7" x 10"

* Required only with Detail II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
GARFIELD AVENUE OVER CANADIAN NATIONAL RAILROAD
CITY OF DECATUR
MACON COUNTY
STA. 12+59.88
STRUCTURE NUMBER 058-6000

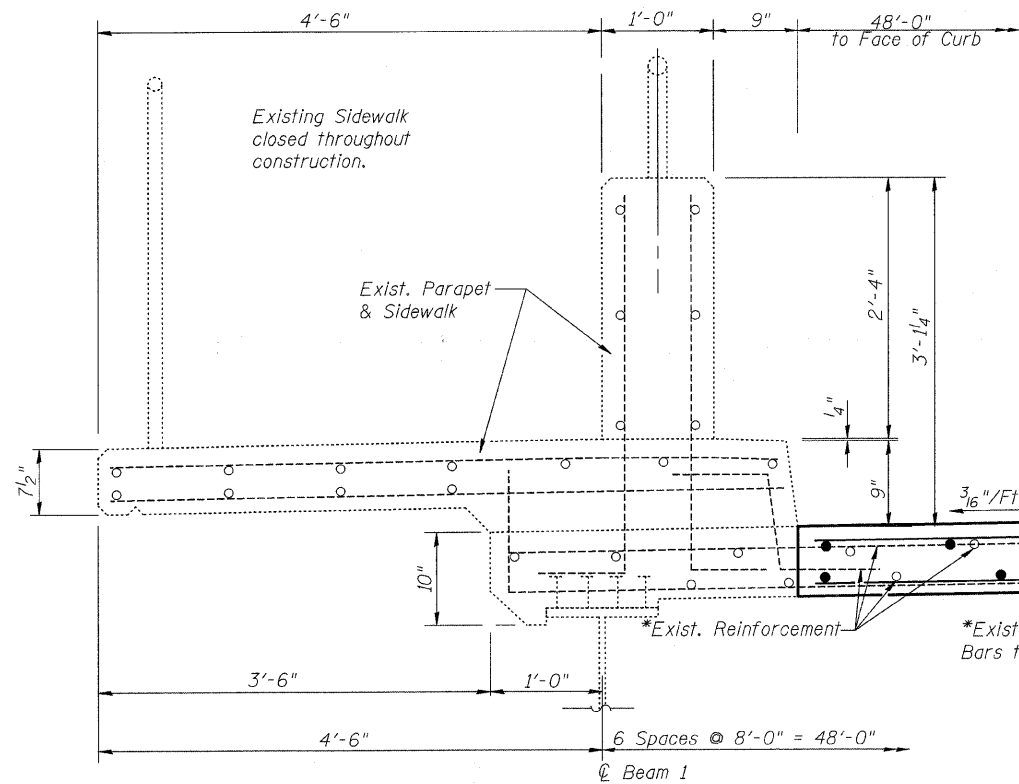


NOTES:
 Work this Sheet with Sheets 6 and 7 of 17.
 See Sheet 6 of 17 for Section C-C, D-D and E-E.
 Hatched areas indicate location of Concrete Removal.
 *Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

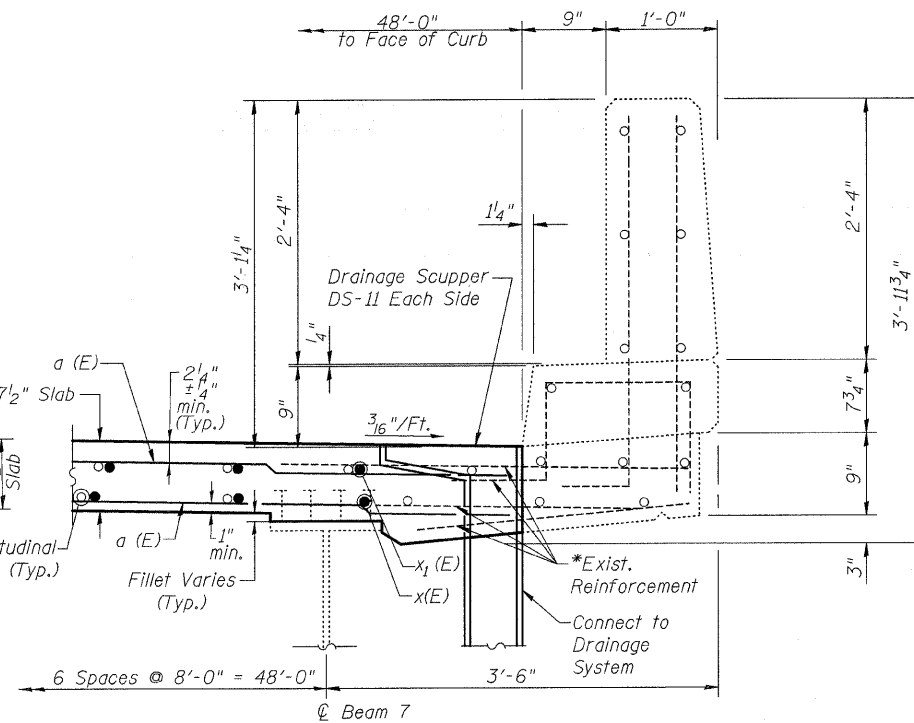
DECK JOINT REPAIR PLAN
 GARFIELD AVENUE OVER
 CANADIAN NATIONAL RAILROAD
 CITY OF DECATUR
 MACON COUNTY
 STA. 12+59.88
 STRUCTURE NUMBER 058-6000

DATE: FEB. 2009
 DRAWN BY: MLO
 CHECKED BY: PBB

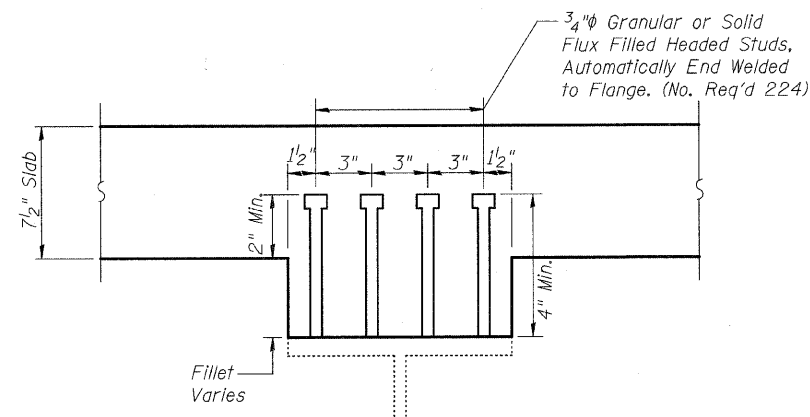
| | | | | |
|---------------------|----------------|----------|------------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 12 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |



SECTION C-C THRU PARAPET AT BEAM 1
(Looking East)



SECTION D-D THRU PARAPET AT BEAM 7
(Looking East)



SECTION E-E

MIN BAR LAPS

*5 bars - 1'-8"

**SUPERSTRUCTURE
BILL OF MATERIAL**

| BAR | NO. | SIZE | LENGTH | SHAPE |
|----------------------------------|-----|---------|--------|-------|
| a(E) | 60 | #5 | 23'-9" | — |
| a ₁ (E) | 16 | #5 | 1'-6" | — |
| x(E) | 100 | #5 | 4'-1" | ┘ |
| x ₁ (E) | 100 | #5 | 3'-4" | ┘ |
| Reinforcement Bars, Epoxy Coated | | Pound | 2290 | |
| Concrete Superstructure | | Cu. Yd. | 10.6 | |
| Polymer Concrete | | Cu. Ft. | 16 | |
| Concrete Removal | | Cu. Yd. | 39 | |
| Neoprene Expansion Joint 6 1/2" | | Foot | 96 | |
| Bridge Deck Grooving | | Sq. Yd. | 27 | |
| Protective Coat | | Sq. Yd. | 33 | |
| Bar Splicers | | Each | 30 | |
| Stud Shear Connectors | | Each | 224 | |

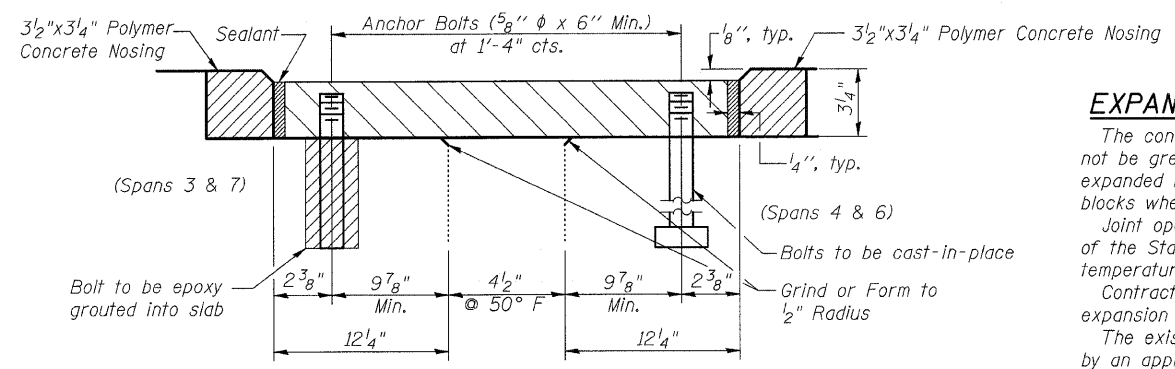
NOTES

*Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal
Work this Sheet With Sheets 5 and 7 of 17.

**DECK JOINT REPAIR DETAILS
GARFIELD AVENUE OVER
CANADIAN NATIONAL RAILROAD
CITY OF DECATUR
MACON COUNTY
STA. 12+59.88
STRUCTURE NUMBER 058-6000**

| | | | | |
|---------------------|----------------|---------------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 13 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

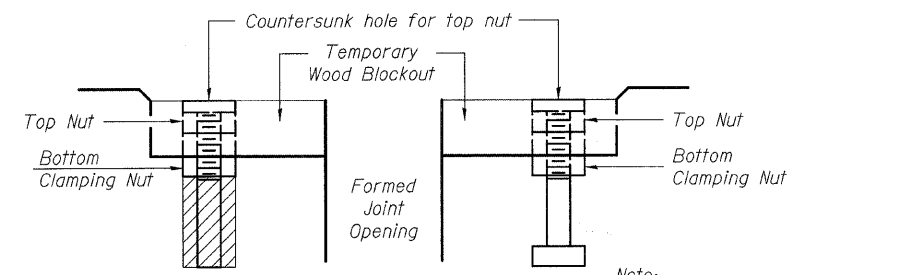
SHEET NO. 7
17 SHEETS



EXPANSION JOINT CROSS SECTION

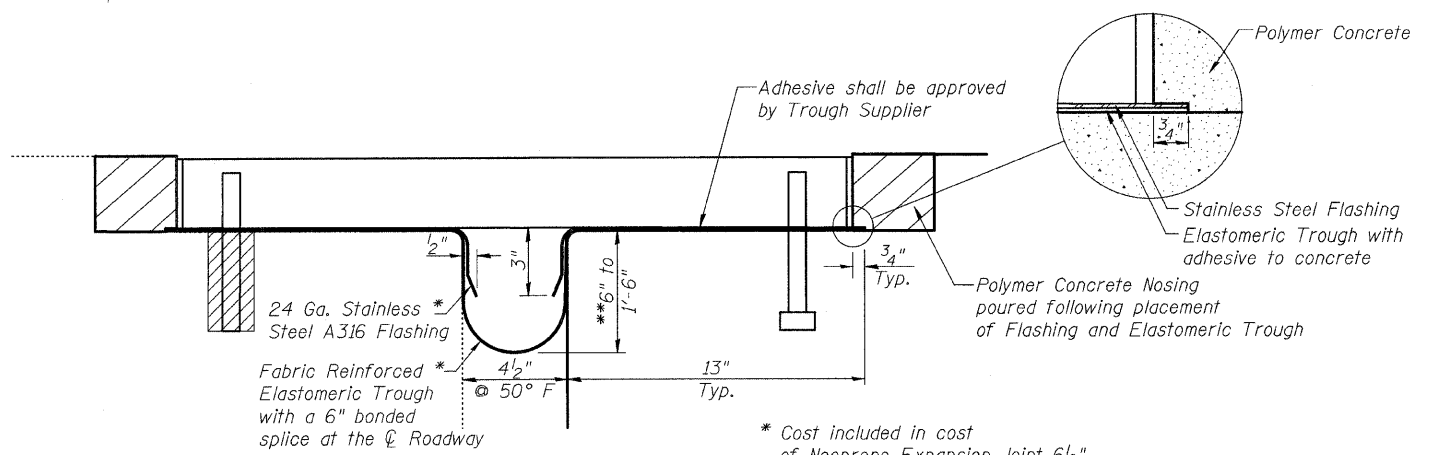
EXPANSION JOINT GENERAL NOTES

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.
 Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.
 Contractor to construct allowance in the form work and blockouts for expansion and contraction in the deck during curing.
 The existing curb and proposed roadway sections shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.
 The approved expansion joint Anchor Bolt spacing shall be offset 4" from the existing anchor bolt pattern.
 See Sheets 3 of 17 for Staging Sections.



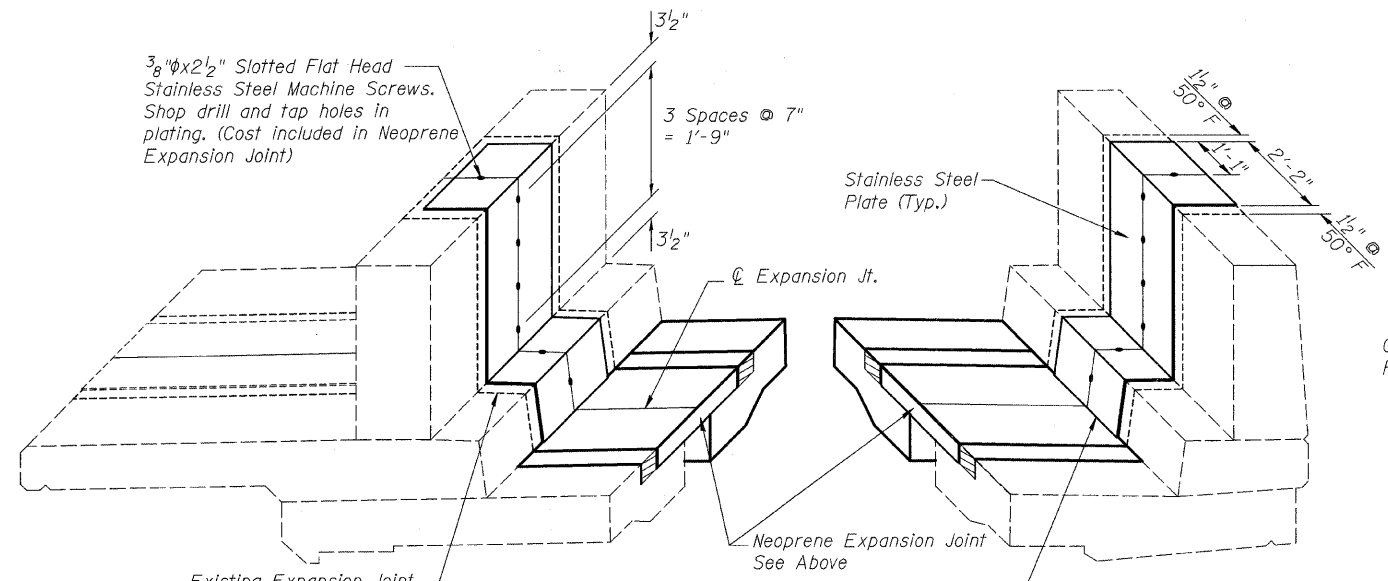
EXPANSION JOINT RECOMMENDED BLOCKOUT DETAIL

NEOPRENE EXPANSION JOINT 6 1/2"



ELASTOMERIC TROUGH DETAIL

* Cost included in cost of Neoprene Expansion Joint 6 1/2"
 ** See Pier Frame Diaphragm on Sheet 9 of 17 for trough slope details.



PARAPET JOINT PLATING

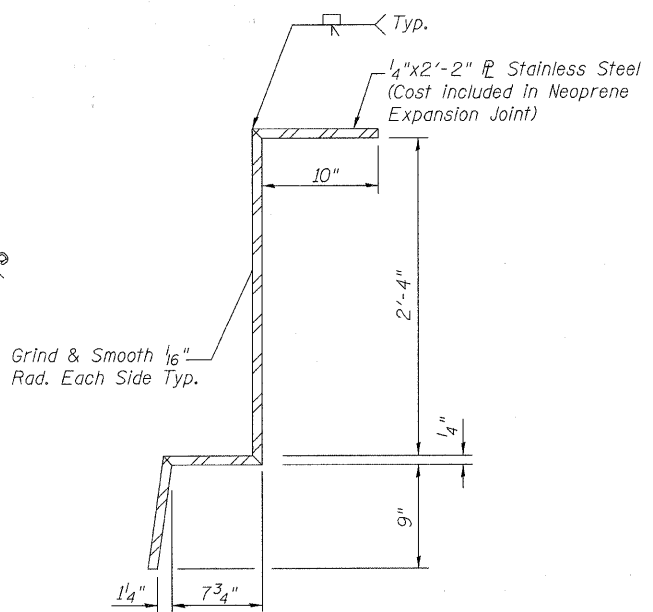


PLATE SECTION AT PARAPETS

PARAPET JOINT PLATING & EXPANSION JOINT
 GARFIELD AVENUE OVER
 CANADIAN NATIONAL RAILROAD
 CITY OF DECATUR
 MACON COUNTY
 STA. 12+59.88
 STRUCTURE NUMBER 058-6000

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|----------|------------------|-----------|
| 7369 | 08-00503-00-BR | MACON | 24 | 14 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

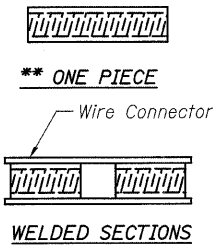
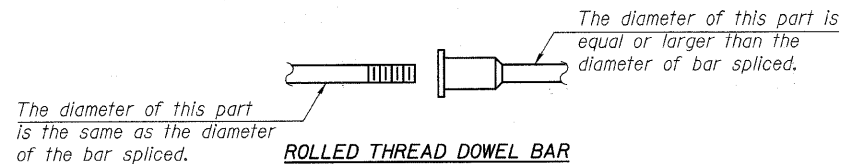
NOTES

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

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
- ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)

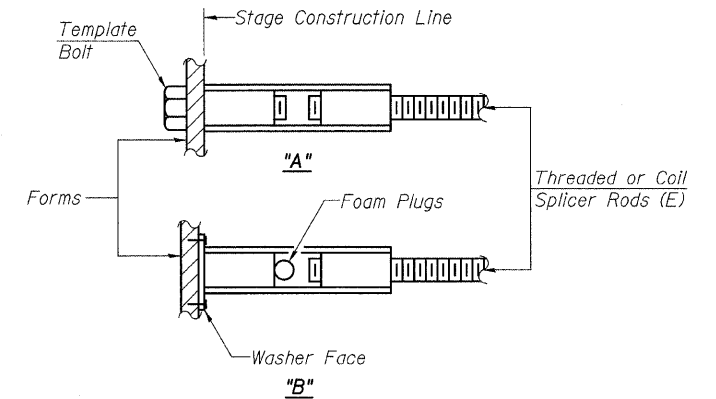
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | Strength Requirements | |
|------------------------|---------------------------------|------------------------------|---------------------------------------|
| | | Min. Capacity kips - tension | Min. Pull-Out Strength kips - tension |
| #4 | 1'-8" | 14.7 | 7.9 |
| #5 | 2'-2" | 23.0 | 12.3 |
| #6 | 2'-7" | 33.1 | 17.4 |
| #7 | 3'-5" | 45.1 | 23.8 |
| #8 | 4'-6" | 58.9 | 31.3 |
| #9 | 5'-9" | 75.0 | 39.6 |
| #10 | 7'-3" | 95.0 | 50.3 |
| #11 | 9'-0" | 117.4 | 61.8 |



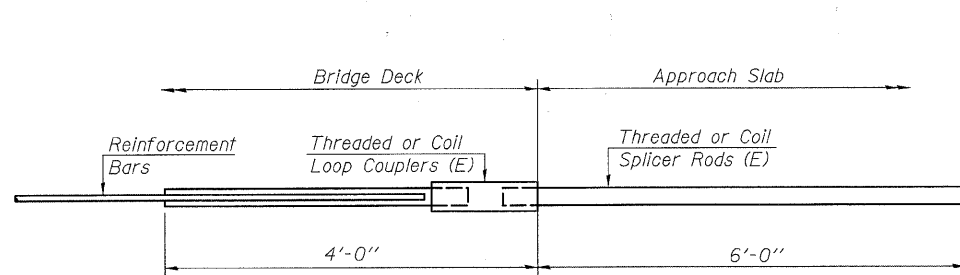
BAR SPLICER ASSEMBLY ALTERNATIVES

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



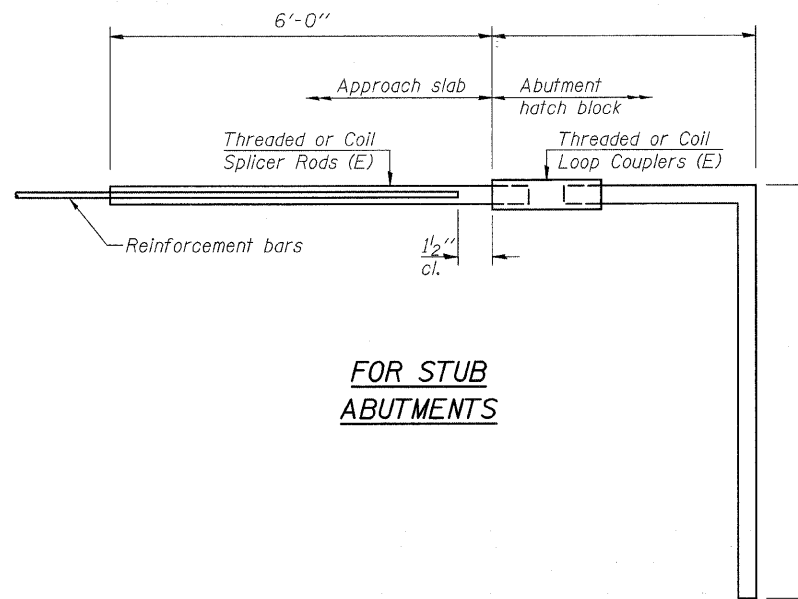
INSTALLATION AND SETTING METHODS

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



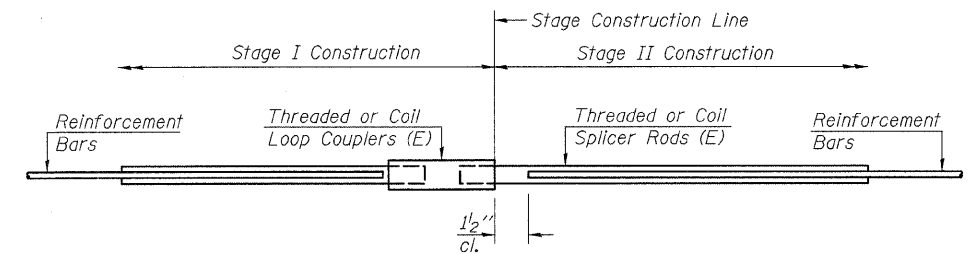
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

| |
|--|
| Bar Splicer for #5 bar |
| Min. Capacity = 23.0 kips - tension |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required = |



FOR STUB ABUTMENTS

| |
|--|
| Bar Splicer for #5 bar |
| Min. Capacity = 23.0 kips - tension |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required = |

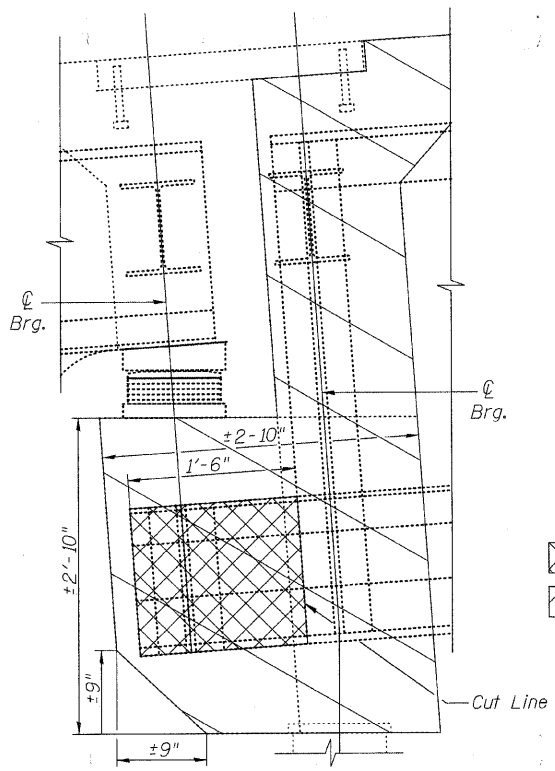


STANDARD

| Bar Size | No. Assemblies Required | Location |
|----------|-------------------------|-----------|
| #5 | 30 | Deck |
| #5 | 20 | Pier Caps |
| #9 | 26 | Pile Caps |
| #5 | 20 | Pile Caps |
| #8 | 12 | Pile Caps |

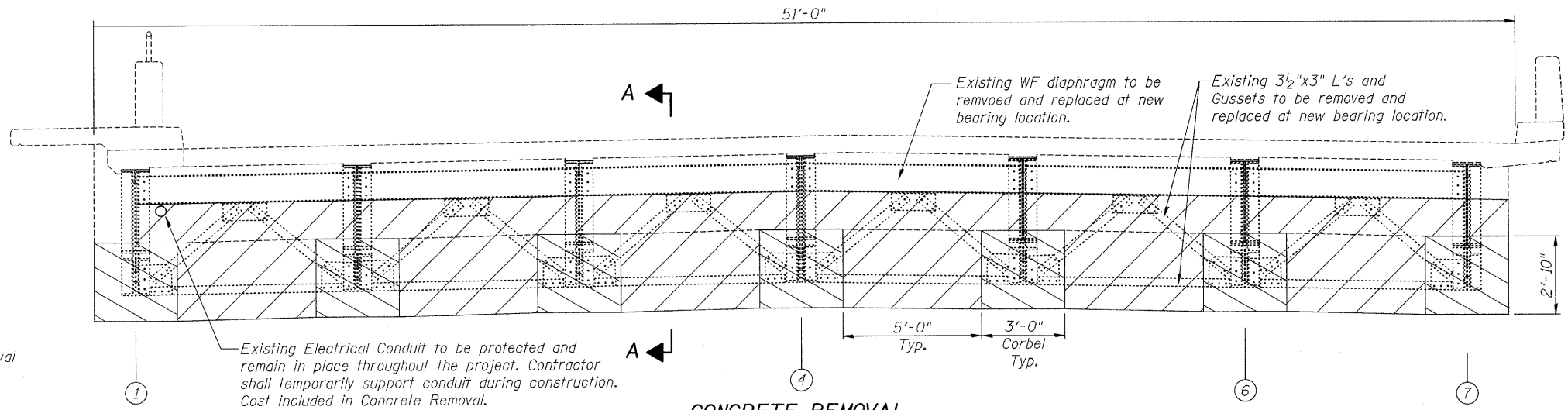
BAR SPLICER ASSEMBLY DETAILS

GARFIELD AVENUE OVER
 CANADIAN NATIONAL RAILROAD
 CITY OF DECATUR
 MACON COUNTY
 STA. 12+59.88
 STRUCTURE NUMBER 058-6000

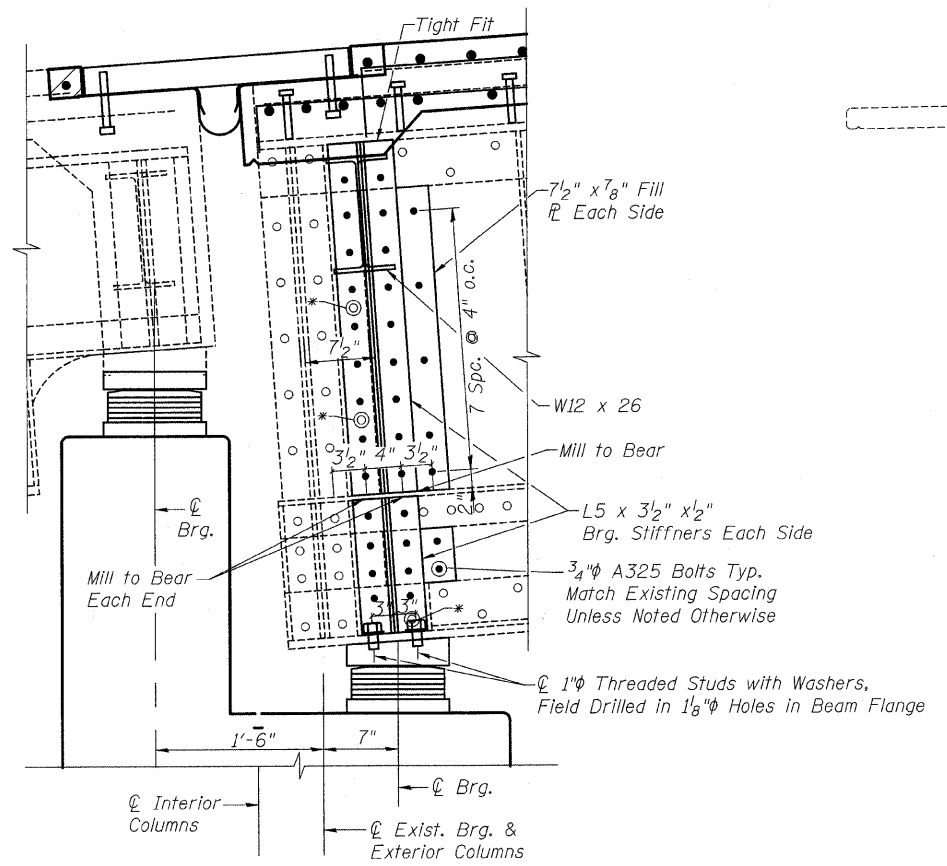


SECTION A-A
 (Pier 3 Looking North)
 (Pier 6 Opp. Hand)

Removal Legend
 Structural Steel Removal
 Concrete Removal

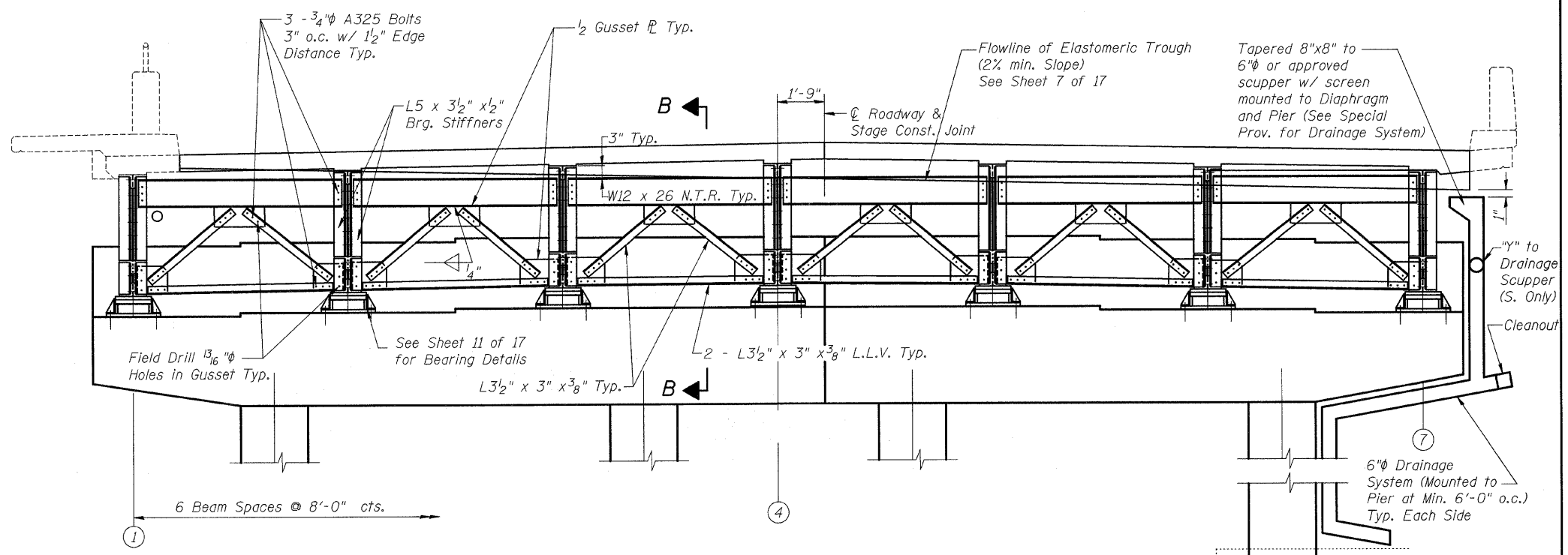


CONCRETE REMOVAL
 (Pier 3 Looking East)
 (Pier 6 Similar)



SECTION B-B
 (Pier 3 Looking North)
 (Pier 6 Opp. Hand)

*Remove Existing Rivet Head, Leaving Shaft



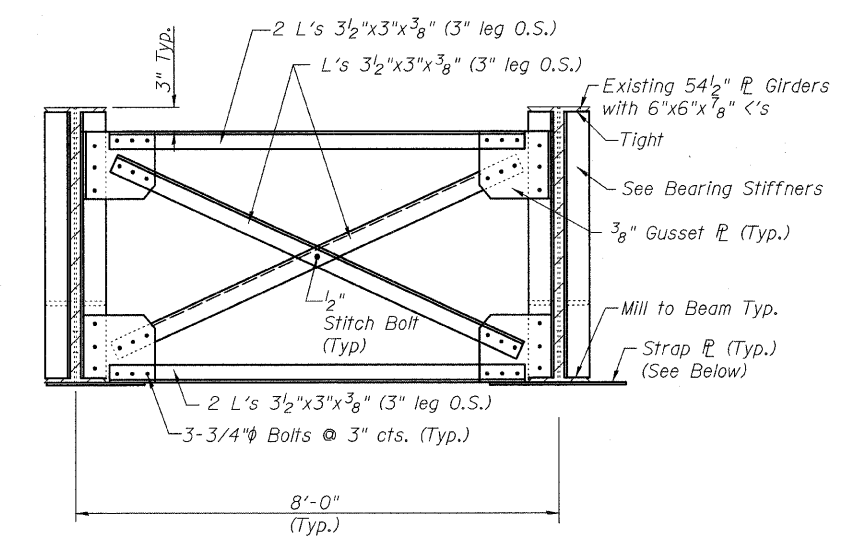
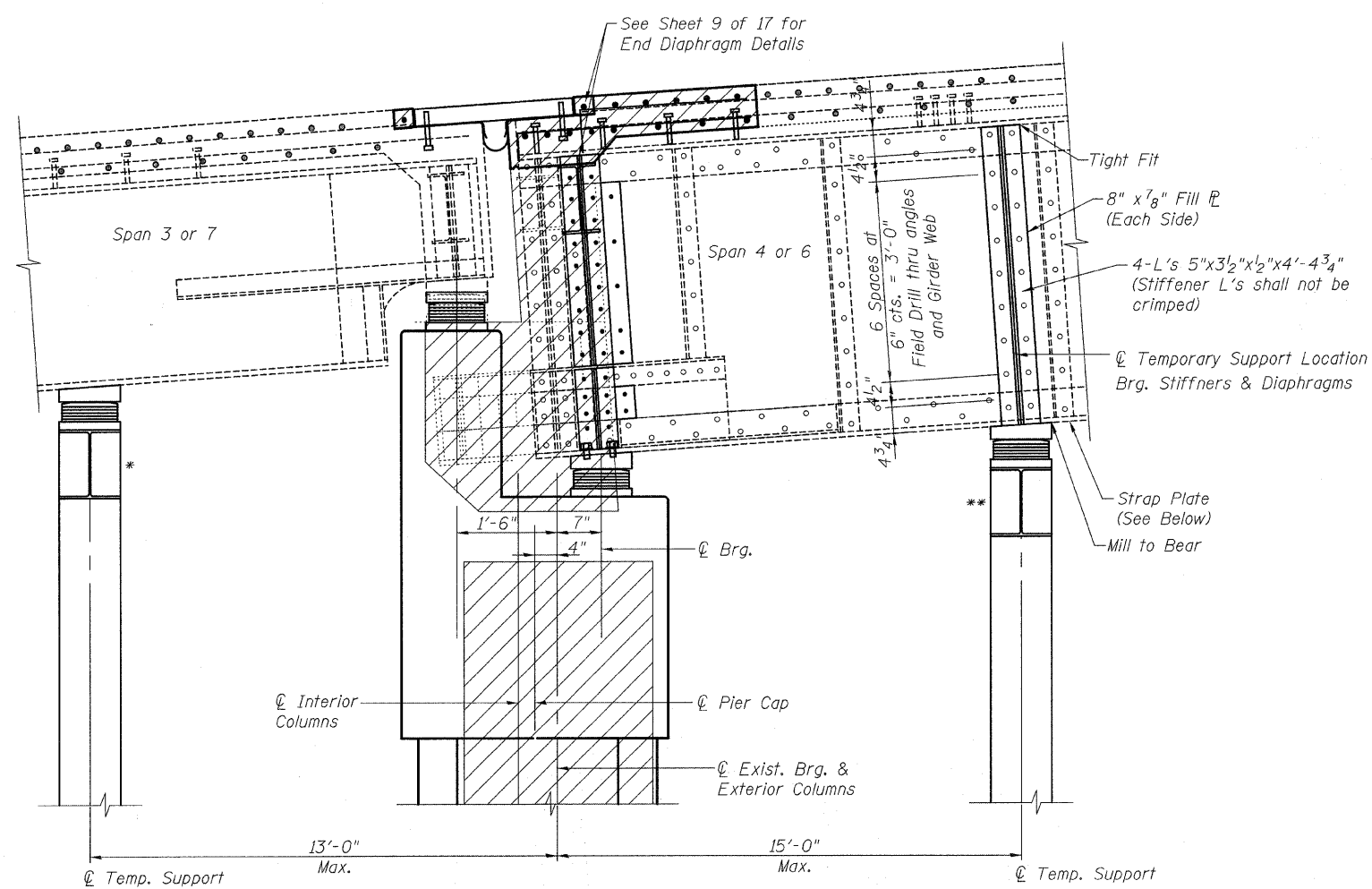
PIER FRAME DIAPHRAGM
 (Pier 3 Looking East)
 (Pier 6 Similar)

NOTES
 The cost of structural steel removal shall be included in the cost of Concrete Removal.

CORBEL REMOVAL AND DIAPHRAGM DETAILS
 GARFIELD AVENUE OVER CANADIAN NATIONAL RAILROAD
 CITY OF DECATUR
 MACON COUNTY
 STA. 12+59.88
 STRUCTURE NUMBER 058-6000

| | | | | |
|---------------------|----------------|----------|------------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 16 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

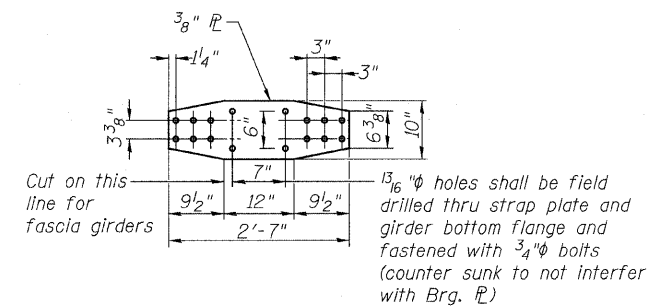
SHEET NO. 10
17 SHEETS



DIAPHRAGM AT TEMPORARY SUPPORT LOCATION
(12 Locations Required)
Diaphragms to be installed from Beam ① to Beam ⑦ prior to Stage I jacking.

TEMPORARY SUPPORT LOCATIONS

- * 40k Dead Load/Girder Unfactored plus 7k Lateral Windload (Total/Stage)
 - ** 55k Dead Load/Girder Unfactored plus 8k Lateral Windload (Total/Stage)
- Temporary Support Designs shall include allowance for Construction Live Load on Deck. Specify Live Load Limits on Shoring Plan & Design.



STRAP PLATE
(10 Required)
(4 Similar Required at Fascia girders)

TEMPORARY SUPPORT NOTES:

Additional bearing stiffeners and diaphragms, at Spans 4 & 6, shall be in place at Temporary Support Locations prior to jacking.

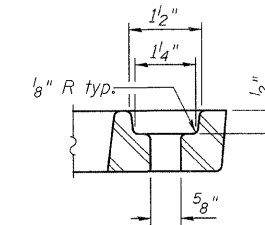
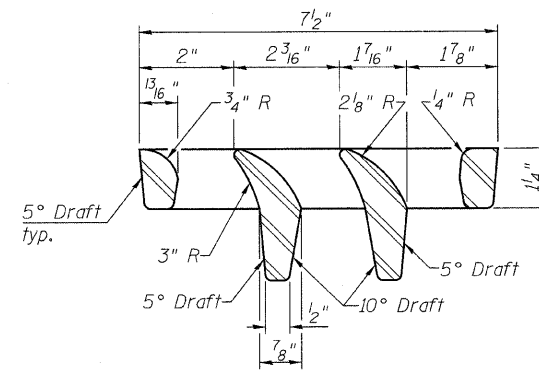
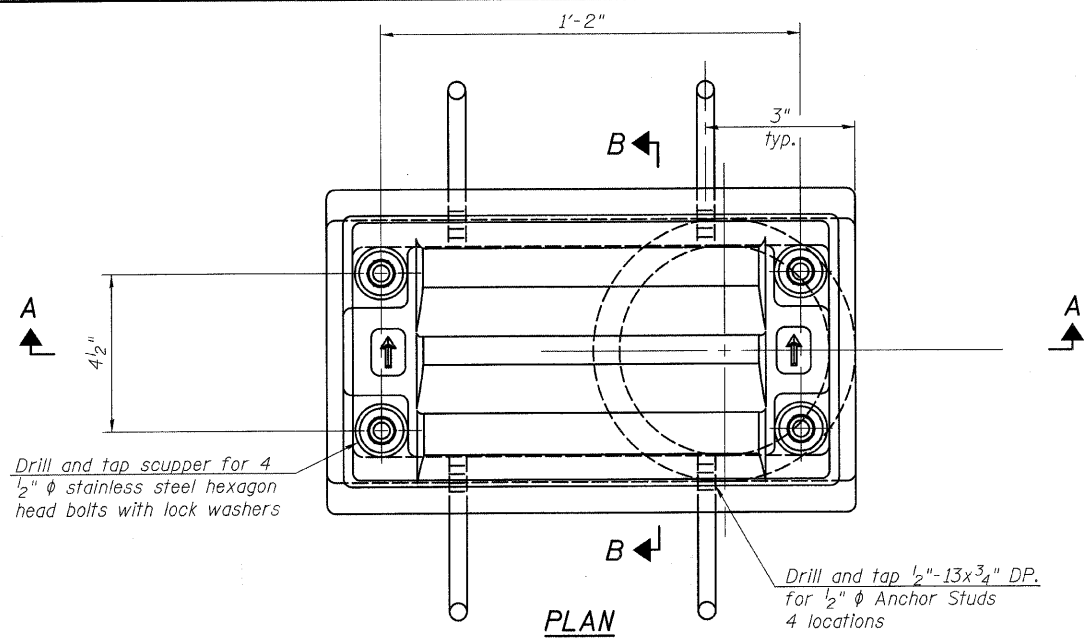
See Utility Location Plan for approximate locations of utilities at Pier 3 and Pier 6.

At least once per week the Contractor shall verify low steel elevations at Girders 1, 4, and 7 for Spans 3, 4, 6, and 7 on either side of Piers 3 and 6 during the duration of the load being carried at the Temporary Support Locations. Elevations shall be forwarded to the Engineer within 24 hours.

TEMPORARY SUPPORT & DIAPHRAGM DETAILS
GARFIELD AVENUE OVER CANADIAN NATIONAL RAILROAD
CITY OF DECATUR
MACON COUNTY
STA. 12+59.88
STRUCTURE NUMBER 058-6000

DATE: FEB. 2009
DRAWN BY: MLO
CHECKED BY: PBB

| | | | | |
|--------------|----------------|---------------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 19 |
| SHEET NO. 13 | | TO STA. | | |
| 17 SHEETS | | FED. ROAD DIST. NO. | | |
| | | ILLINOIS FED. AID PROJECT | | |



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

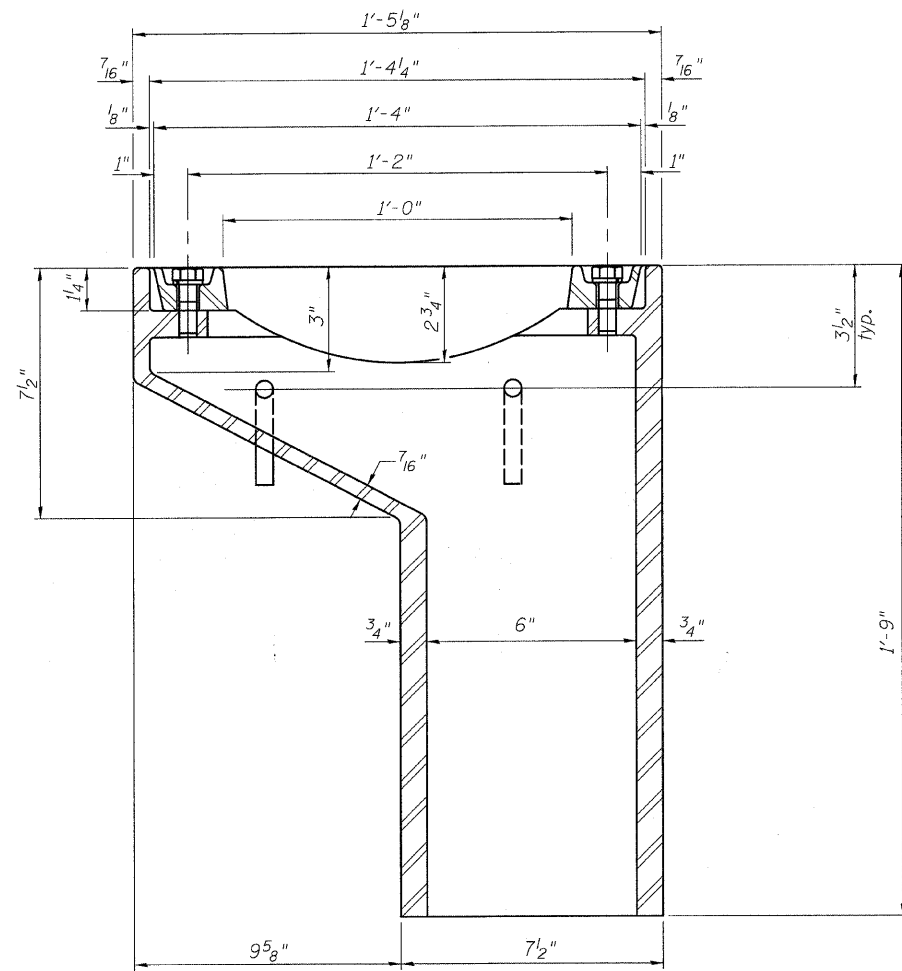
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

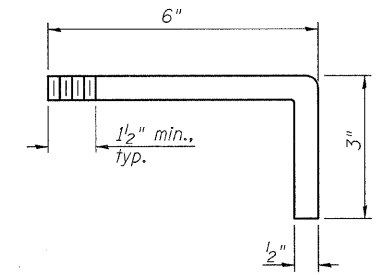
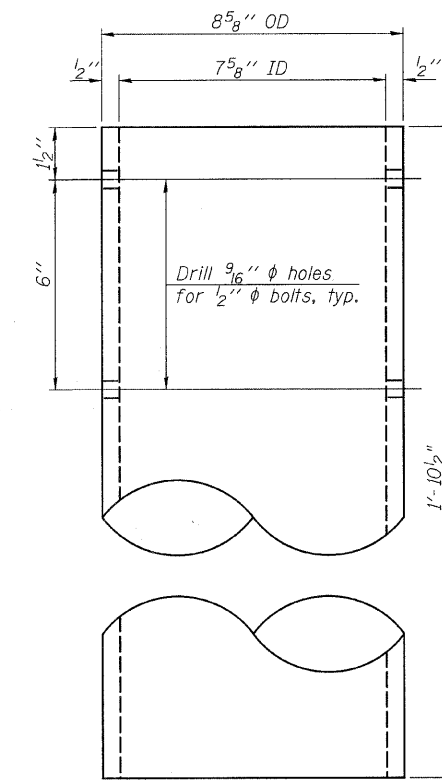
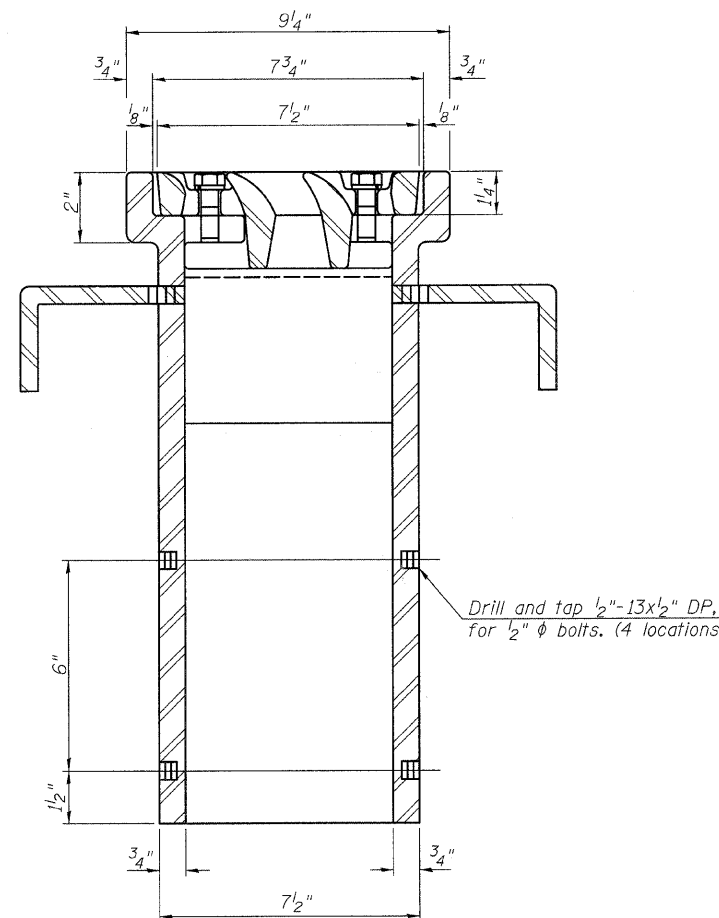
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



See sheet 5 of 17 for scupper location relative to parapet.



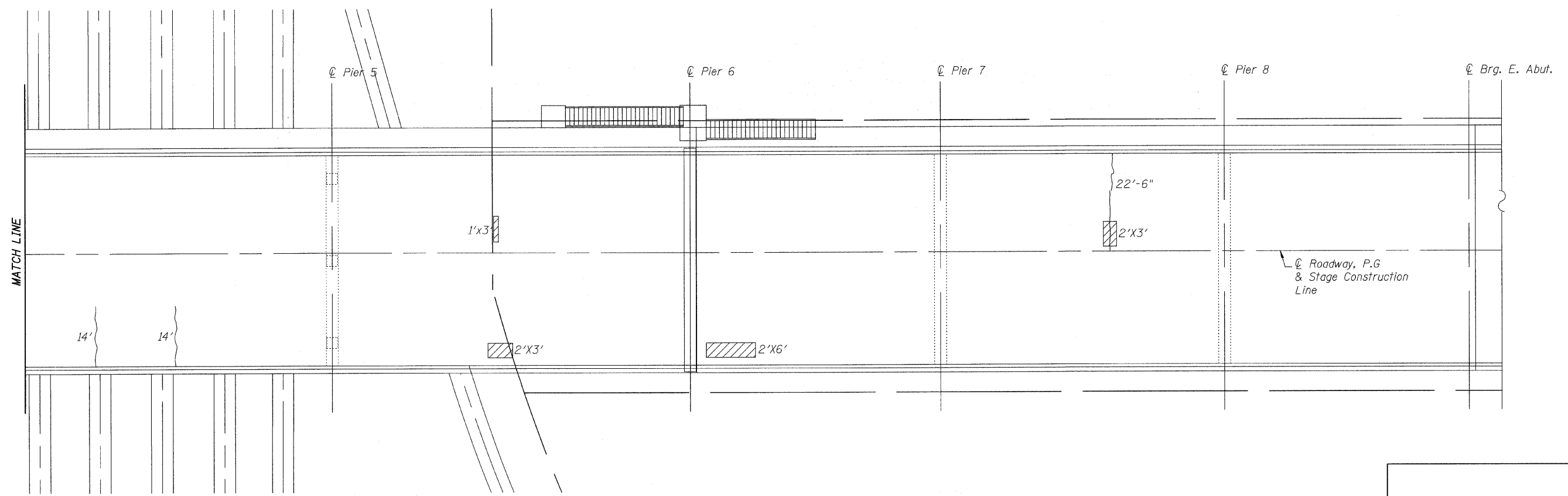
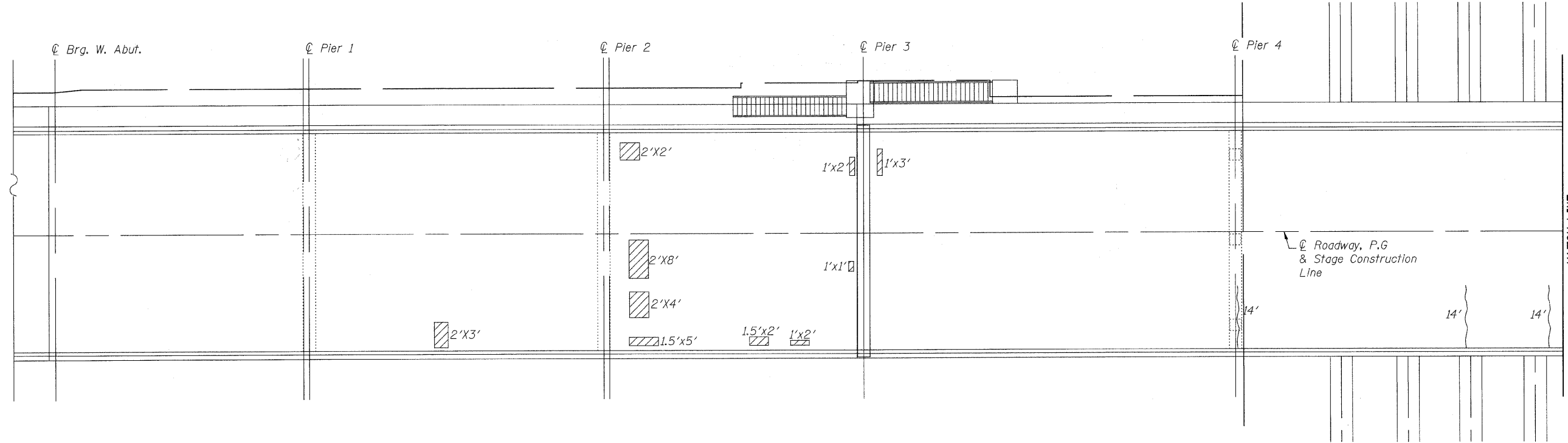
BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|-------------------------|------|----------|
| Drainage Scupper, DS-11 | Each | 4 |

DRAINAGE SCUPPER, DS-11

GARFIELD AVENUE OVER
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| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 20 |
| SHEET NO. 14 | | 17 SHEETS | | |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



LEGEND

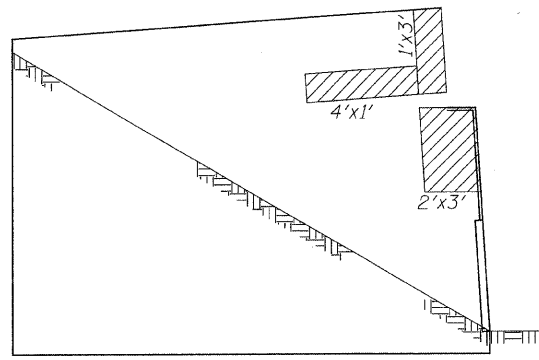
- Deck Slab Repair (Partial Depth) - Sq. Yd.
- Epoxy Crack Sealing

Note: See sheet 15 of 17 for Bill of Material

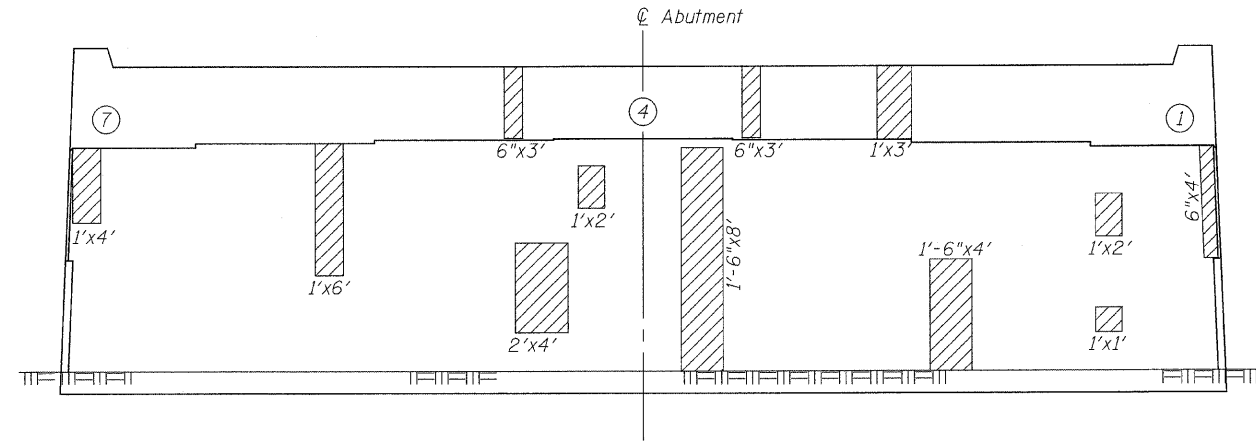
TOP OF DECK REPAIRS
GARFIELD AVENUE OVER
CANADIAN NATIONAL RAILROAD
CITY OF DECATUR
MACON COUNTY
STA. 12+59.88
STRUCTURE NUMBER 058-6000

DATE: FEB. 2009
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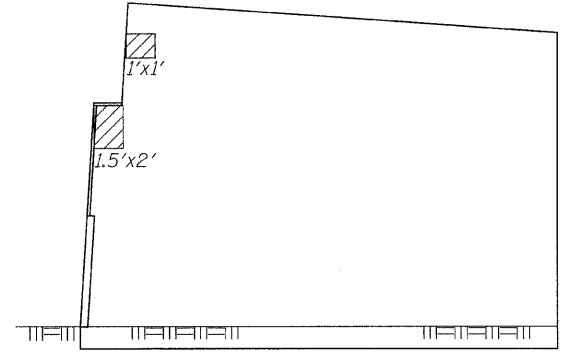
| | | | | |
|---------------------|----------------|----------|------------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 7369 | 08-00503-00-BR | MACON | 24 | 21 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |



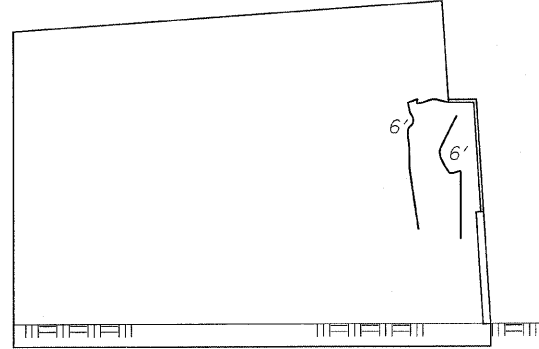
Outside Face South West Wingwall
(Looking North)



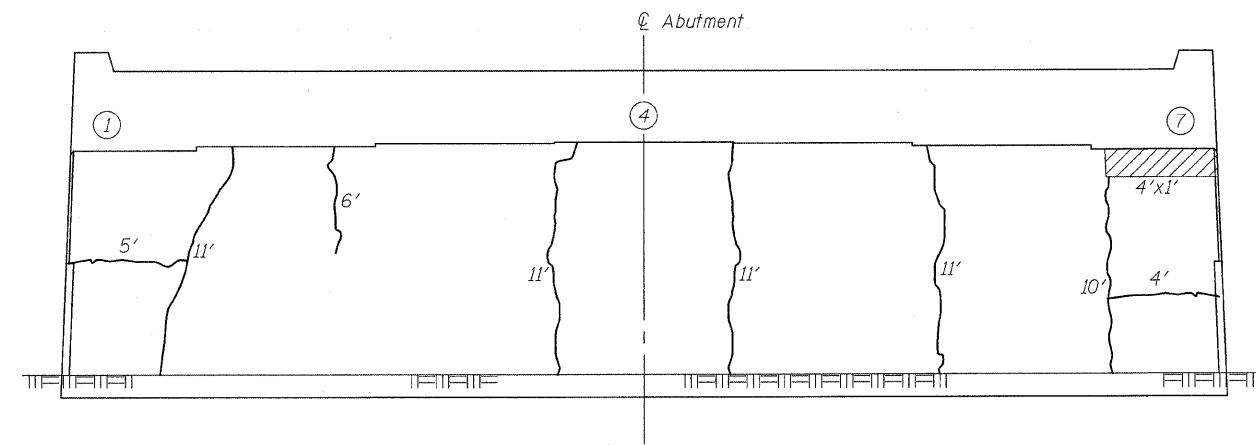
West Abutment
(Looking West)



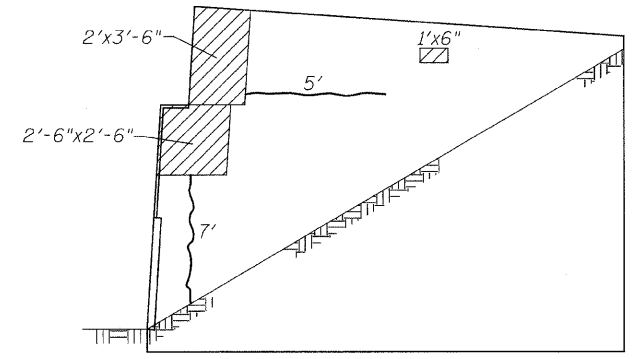
Outside Face North West Wingwall
(Looking South)



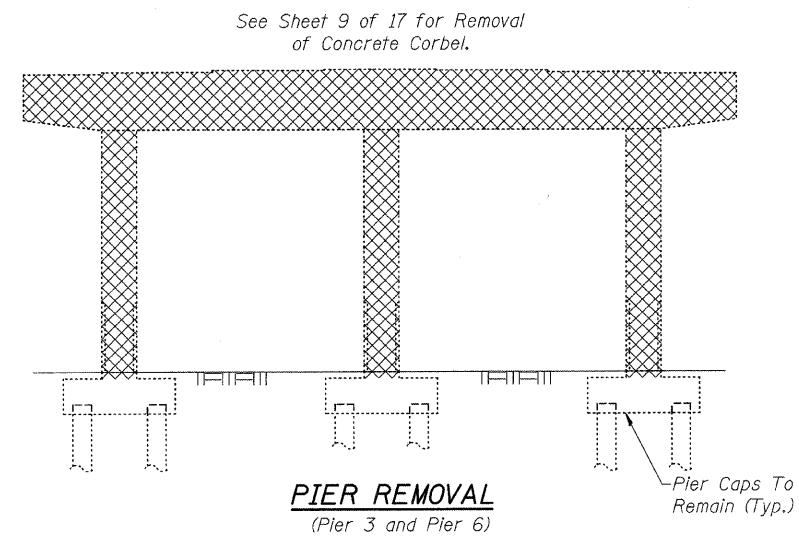
Outside Face North East Wingwall
(Looking South)



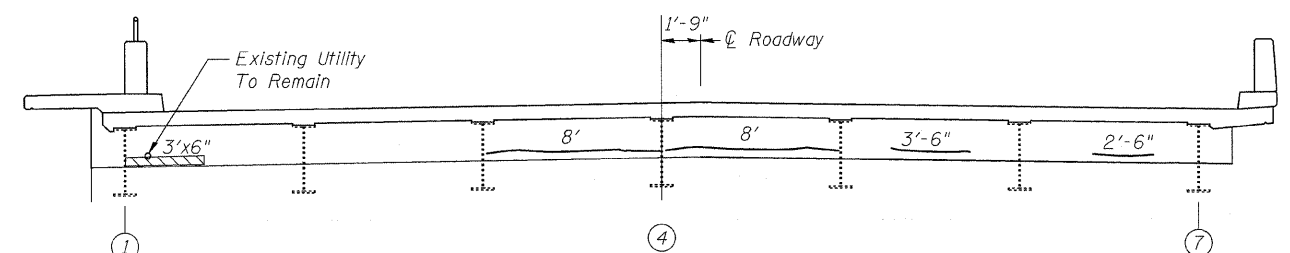
East Abutment
(Looking East)



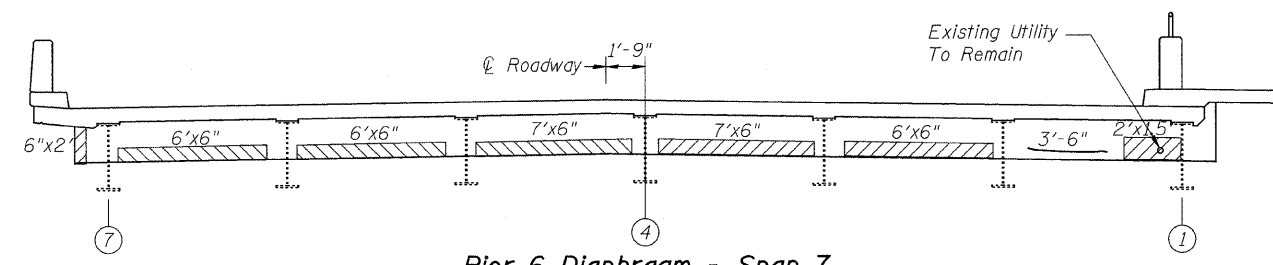
Outside Face South East Wingwall
(Looking North)



PIER REMOVAL
(Pier 3 and Pier 6)



Pier 3 Diaphragm - Span 3
(Looking East)



Pier 6 Diaphragm - Span 7
(Looking West)

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--|---------|----------|
| Structural Repair of Concrete (Depth < 5") | Sq. Ft. | 126 |
| Epoxy Crack Injection | Foot | 253 |
| Concrete Removal | Cu. Yd. | 67 |
| Deck Slab Repair (Partial) | Sq. Yd. | 11 |

LEGEND

- Concrete Removal
- Formed Concrete Repair (Depth < 5")
- Epoxy Crack Sealing

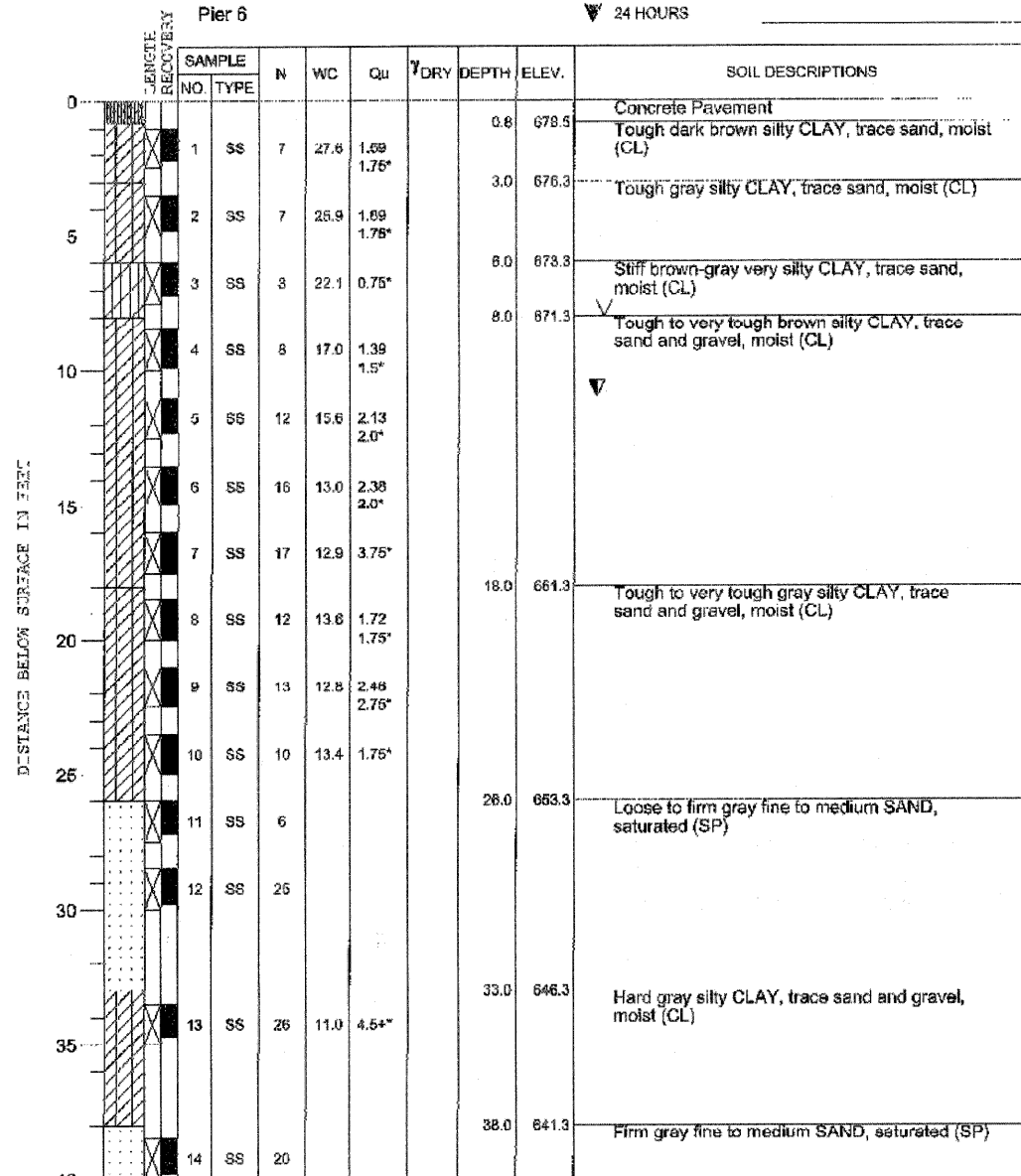
Note:
Following deck removal at expansion joints the Engineer shall verify locations of concrete repairs on diaphragm, and quantities shall be adjusted accordingly.

ABUTMENT AND DIAPHRAGM REPAIRS AND PIER REMOVAL
GARFIELD AVENUE OVER
CANADIAN NATIONAL RAILROAD
CITY OF DECATUR
MACON COUNTY
STA. 12+59.88
STRUCTURE NUMBER 058-6000

PROJECT **Garfield Avenue Bridge, Over CN Railroad, Decatur, Illinois**
 CLIENT **Blank, Wesselink, Cook & Assoc., Inc., 2623 E. Pershing Rd., Decatur, IL 62524**
 BORING **B-1** DATE STARTED **11-6-08** DATE COMPLETED **11-6-08** JOB **L-72,627**



ELEVATIONS WATER TABLE
 GROUND SURFACE **679.3** WHILE DRILLING **11.0'**
 END OF BORING **619.3** AT END OF BORING **8.0'**
 24 HOURS



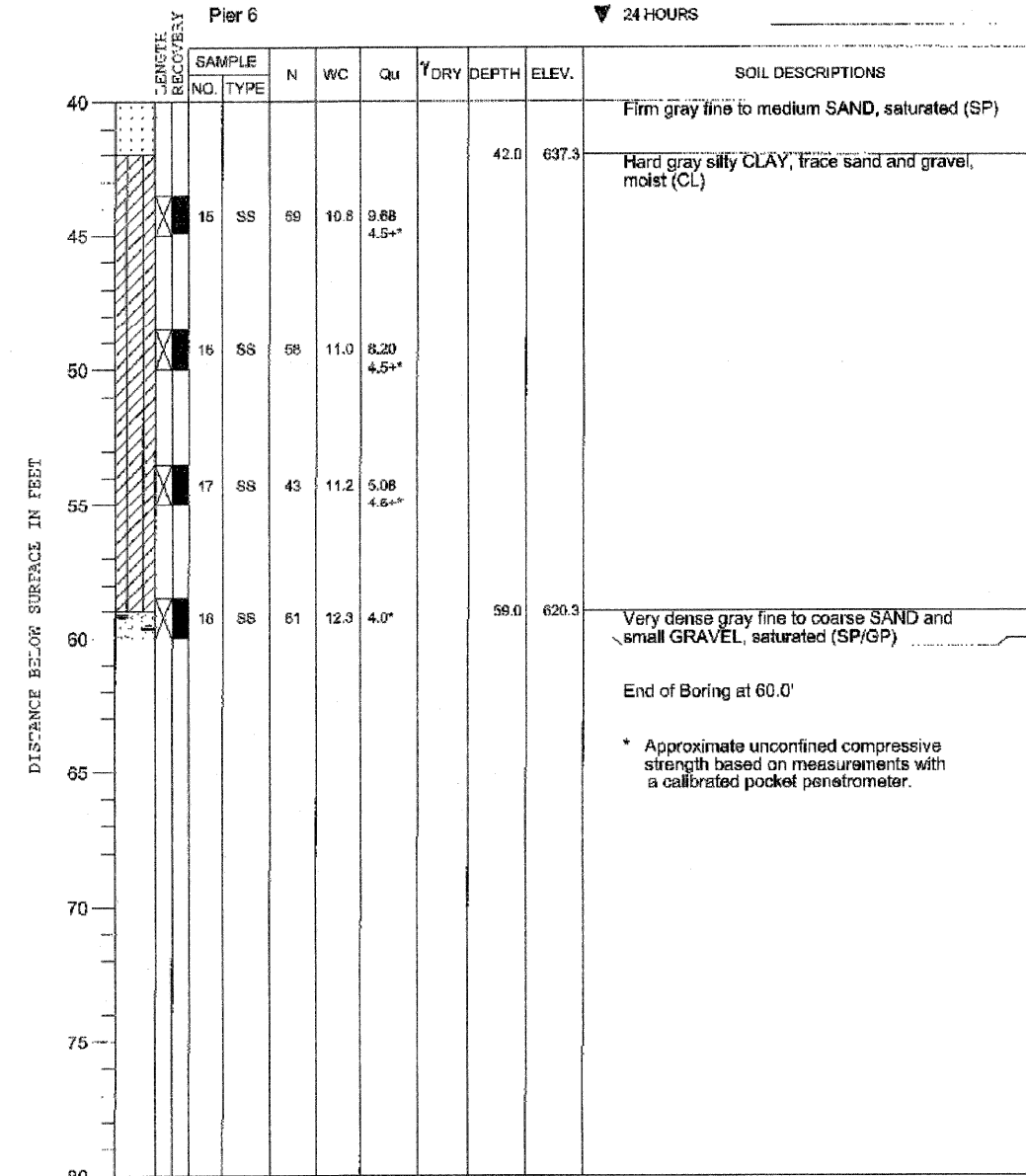
DRILL RIG NO. **242**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Garfield Avenue Bridge, Over CN Railroad, Decatur, Illinois**
 CLIENT **Blank, Wesselink, Cook & Assoc., Inc., 2623 E. Pershing Rd., Decatur, IL 62524**
 BORING **B-1** DATE STARTED **11-6-08** DATE COMPLETED **11-6-08** JOB **L-72,627**



ELEVATIONS WATER TABLE
 GROUND SURFACE **679.3** WHILE DRILLING **11.0'**
 END OF BORING **619.3** AT END OF BORING **8.0'**
 24 HOURS



DRILL RIG NO. **242**

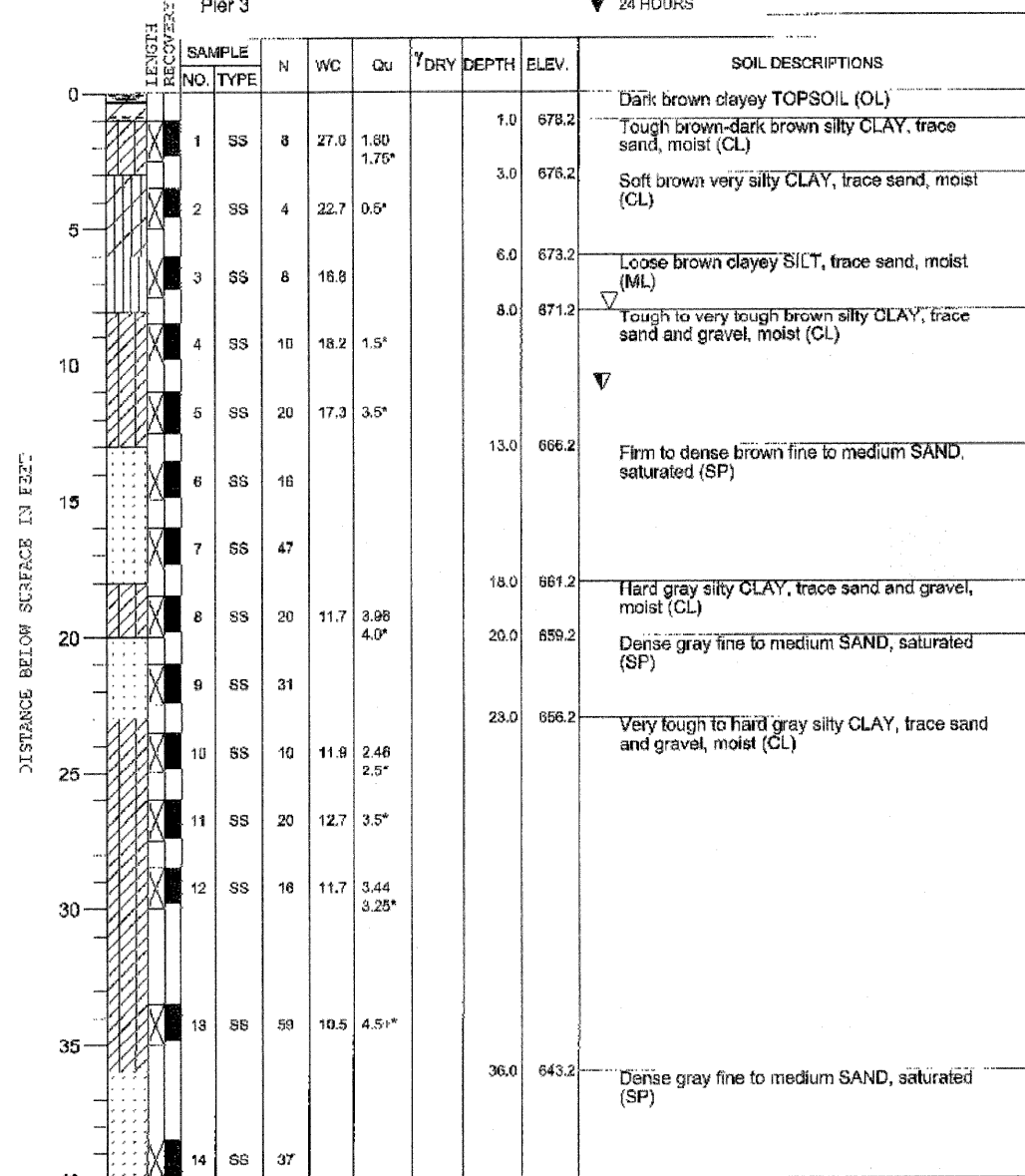
Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

SOIL BORINGS
 GARFIELD AVENUE OVER
 CANADIAN NATIONAL RAILROAD
 CITY OF DECATUR
 MACON COUNTY
 STA. 12+59.88
 STRUCTURE NUMBER 058-6000

PROJECT **Garfield Avenue Bridge, Over CN Railroad, Decatur, Illinois**
 CLIENT **Blank, Wesselink, Cook & Assoc., Inc., 2623 E. Pershing Rd., Decatur, IL 62524**
 BORING **B-2** DATE STARTED **11-6-08** DATE COMPLETED **11-6-08** JOB **L-72,627**



ELEVATIONS WATER TABLE
 GROUND SURFACE **679.2** WHILE DRILLING **11.0'**
 END OF BORING **624.2** AT END OF BORING **8.0'**
 PIER 3 24 HOURS

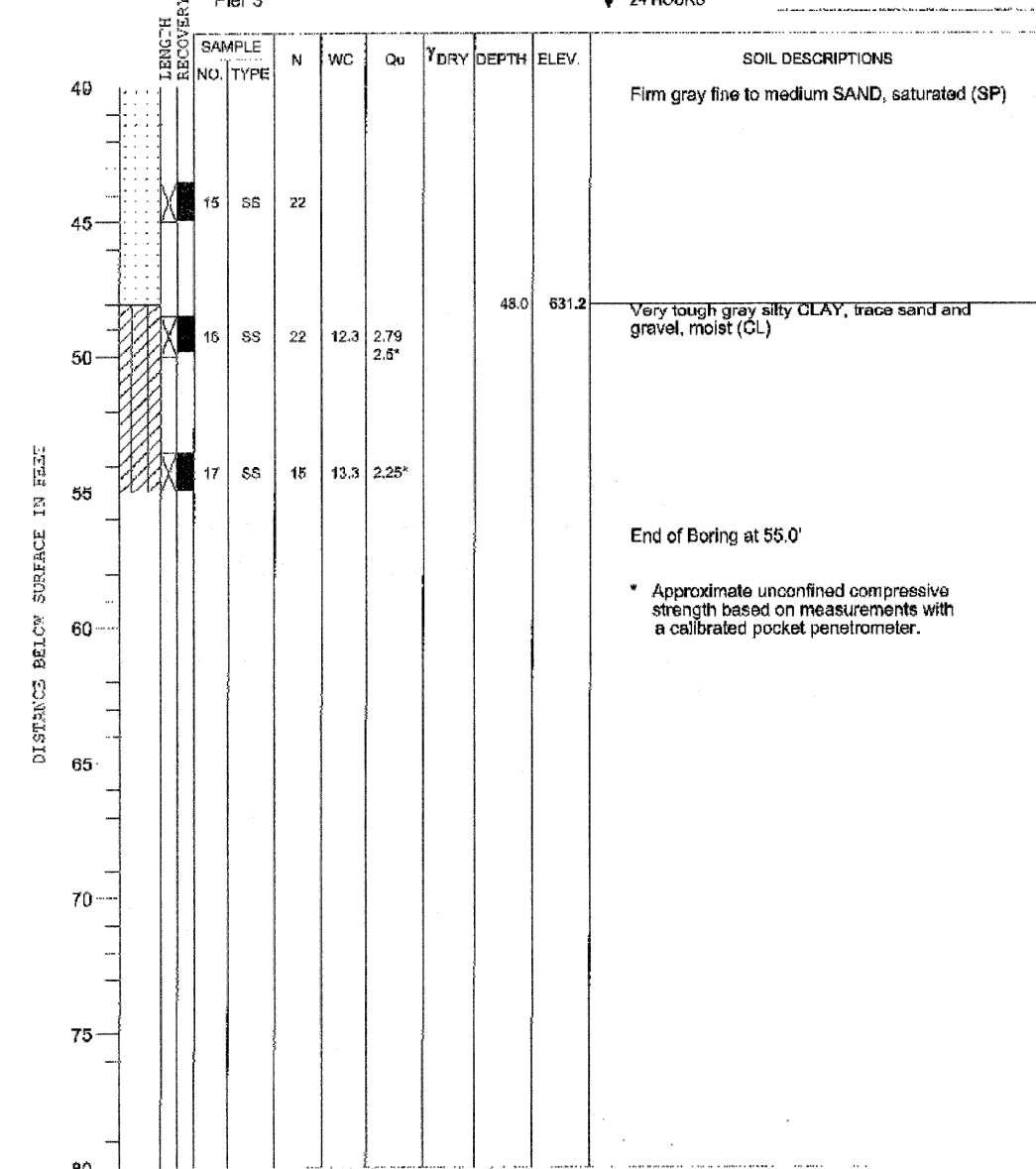


DRILL RIG NO. **242** Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual. Page 1 of 2

PROJECT **Garfield Avenue Bridge, Over CN Railroad, Decatur, Illinois**
 CLIENT **Blank, Wesselink, Cook & Assoc., Inc., 2623 E. Pershing Rd., Decatur, IL 62524**
 BORING **B-2** DATE STARTED **11-6-08** DATE COMPLETED **11-6-08** JOB **L-72,627**



ELEVATIONS WATER TABLE
 GROUND SURFACE **679.2** WHILE DRILLING **11.0'**
 END OF BORING **624.2** AT END OF BORING **8.0'**
 PIER 3 24 HOURS

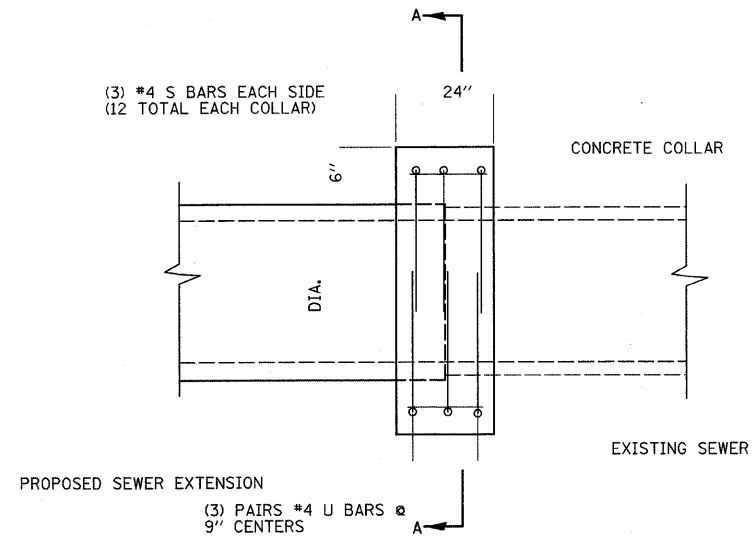


DRILL RIG NO. **242** Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual. Page 2 of 2

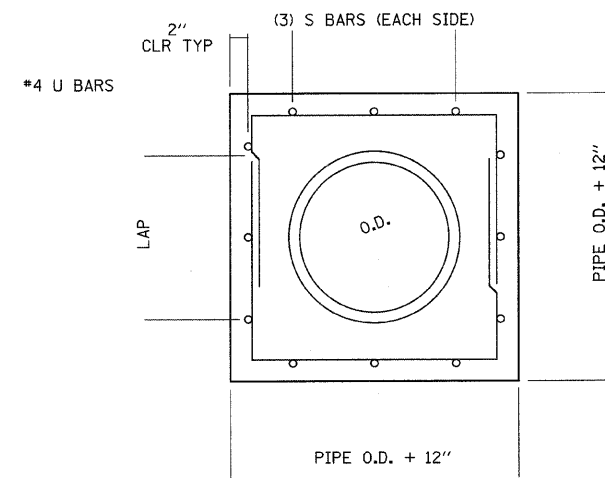
SOIL BORINGS
 GARFIELD AVENUE OVER
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DATE: FEB. 2009 DRAWN BY: MLO CHECKED BY: PBB

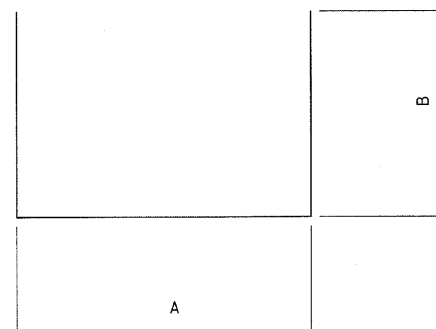
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 7369 | 08-00503-00-BR | MACON | 24 | 24 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



ELEVATION



SECTION A-A



U BAR

| REINFORCED CONCRETE PIPE EXTENSION COLLAR SCHEDULE* | | | | | | | | | |
|---|-------------|-----------------|-------------------|------------|------------|--------------|----------------------|------------------|-----------------|
| PIPE DIAMETER | S BARS | | U BARS DIMENSIONS | | | | | REINFORCING BARS | CONCRETE COLLAR |
| | NUMBER BARS | LENGTH (INCHES) | NUMBER BARS | A (INCHES) | B (INCHES) | LAP (INCHES) | A+2B LENGTH (INCHES) | POUND | CU YD |
| 12" | 12 | 20 | 6 | 23 | 19 | 15 | 61 | 34 | 0.3 |

* THE COST OF CONCRETE COLLAR IS TO BE INCLUDED IN THE COST OF REMOVING INLETS TO MAINTAIN FLOW.