

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PROPOSED
 HIGHWAY PLANS**

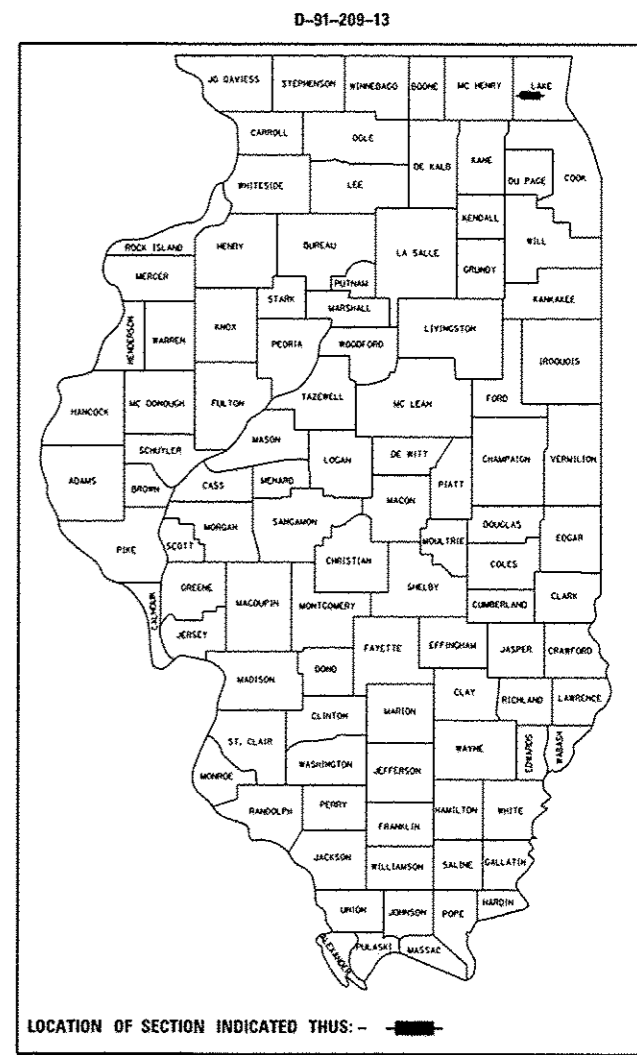
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|-------------|----------|----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-B)BR | LAKE | 25 | 1 |
| | | ILLINOIS | CONTRACT NO. 60W19 | |

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION

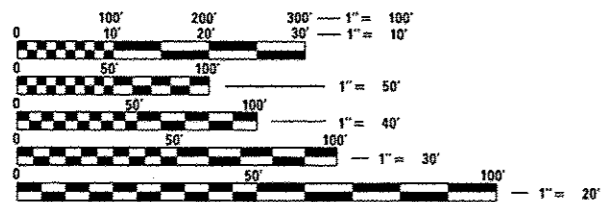
OTHER PRINCIPAL ARTERIAL
 ADT 15400 (2011)
 SPEED LIMIT 55 MPH

FAU ROUTE 334: US 12/IL 59
 SECTION (TH-B)BR
 OVER IL 176
**BRIDGE DECK OVERLAY, BRIDGE JOINT REPAIR
 and GUARDRAIL IMPROVEMENT**
 PROJECT NUMBER: HSIP-0334(024)
LAKE COUNTY
 C-91-209-13



IMPROVEMENT LOCATED IN
 THE VILLAGE OF WAUCONDA

IMPROVEMENT LOCATION
 US 12/IL 59
 OVER IL 176
 STRUCTURE NOS:
 049-0022 & 049-0023

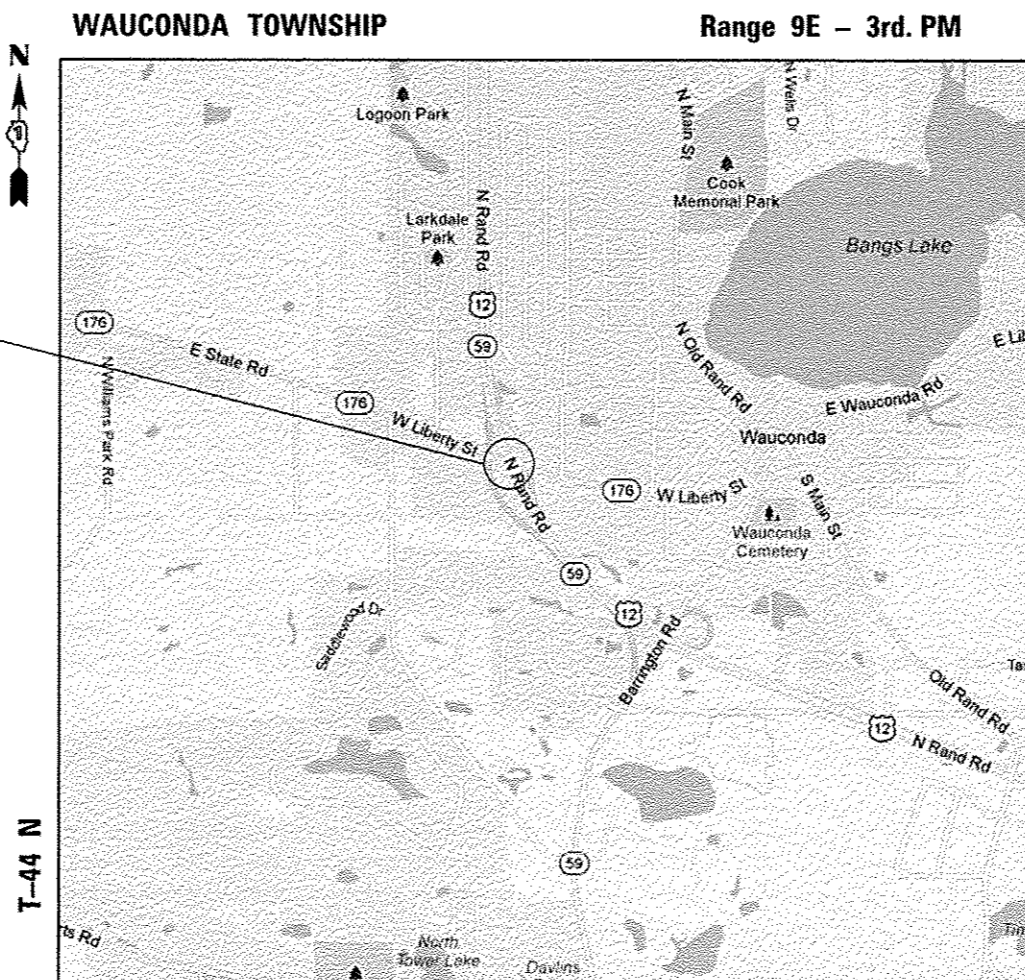


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
 ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
 CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
 ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT MANAGER: MR. ISSAM RAYYAN, P.E. (847) 705-4178
 PROJECT ENGINEER: MR. ROBERT T. BORO, P.E. (847) 705-4237

CONTRACT NO. 60W19



GROSS LENGTH = 988 FT. = 0.19 MILE LOCATION MAP NOT TO SCALE
 NET LENGTH = 988 FT. = 0.19 MILE



COLLINS ENGINEERS, INC.
 JASON M. SCHNEIDER
 NO. 81-7245
 EXPIRES 11-30-2014



COLLINS ENGINEERS, INC.
 MATTHEW G. REMPFER
 NO. 062-054553
 EXPIRES 11-30-2013

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED April 10 20 13
 John P. Baranzelli, Jr.
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 10 20 13
 John P. Baranzelli, Jr.
 ENGINEER OF DESIGN AND ENVIRONMENT

May 10 20 13
 Omar Osman, P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

**COLLINS
 ENGINEERS**
 123 N. WACKER DR., SUITE 900
 CHICAGO, IL 60606
 (312) 704-9300
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LICENSE NO. 184-000993

INDEX OF SHEETS

- 1 Title Sheet
- 2 Index of Sheets, General Notes, and Highway Standards
- 3-5 Summary of Quantities
- 6 Typical Section
- 7 Roadway Plan
- 8-11 Maintenance of Traffic
- 12 Pavement Marking Details
- 13-22 Structural Plans S1-S10
- 23 TC11 - Typical Applications Raised Reflective Pavement Markers (Snow-Plow Resistant)
- 24 TC13 - District One Typical Pavement Markings
- 25 TC22 - Arterial Road Information Sign

INDEX OF HIGHWAY STANDARDS

| Standard No. | Description |
|--------------|--|
| 606001-04 | Concrete Curb Type B |
| 630001-10 | Steel Plate Beam Guardrail |
| 631011-09 | Traffic Barrier Terminal, Type 2 |
| 631031-11 | Traffic Barrier Terminal, Type 6 |
| 635006-03 | Reflector and Terminal Marker Placement |
| 635011-02 | Reflector and Marker and Mounting Details |
| 701101-03 | Multi-Lane Off-Road Operations |
| 701411-08 | Multi-Lane Lane Closure at Exit or Entrance Ramp |
| 701422-05 | Multi-Lane Lane Closure |
| 701501-05 | Urban Lane Closure, 2L, 2W, Undivided |
| 701901-02 | Traffic Control Devices |

GENERAL NOTES:

1. These plans have been prepared from notes received from IDOT Field Maintenance Engineers.
2. 10 ft (3 m) transitions shall be used to match proposed items of work to existing items in the field, unless otherwise shown. The transitions shall be paid for at the contract unit price for the proposed item of work specified.
3. Where artificial lighting is utilized in night operations, the Contractor shall exercise the utmost precautions in preventing adverse visibility to the motoring public and adjoining residential areas.
4. The Contractor must contact the IDOT Traffic Control Supervisor at (847)705-4470 at least 72 hours prior to installation of the start of work.

The Resident Engineer shall contact the Area Traffic Field Engineer, Debbie Hanlon, at (847)438-2300 at least two (2) weeks prior to the placement of permanent pavement markings.
6. All pavement markings and raised reflectors affected by the bridge repairs shall be replaced. Nominal quantities have been included in the contract for this work.
7. The Contractor will not be allowed to set up a yard or field office on State property without written permission from the Department.
8. Do not scale these plans for construction purposes.
9. 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.
10. During construction operations, loose material deposits that obstruct the flow of water in draining the area shall be removed before the end of each work day. At the conclusion of construction operations, all drainage structures (new and existing) shall be free from all dirt and debris. This work will not be paid for separately but shall be considered incidental to the contract.
11. All raised reflective pavement markers (bridge) shall be low profile.
12. Before beginning any work, the Contractor shall retain and record for future reference, all existing pavement marking lines, symbols and letters (and raised reflective markers) in order that these locations can be re-established for striping. Exact locations of all pavement markings and raised reflective pavement markers shall be as directed by the Engineer.
13. The plans do not represent a complete depiction of all utilities that may be impacted by the proposed work. The Contractor shall conduct his or her own investigation to determine the ownership of impacted utilities. The Contractor shall coordinate with the utility owners and may be required to provide temporary support, adjust, relocate or remove utilities that are impacted by the proposed improvement. This work shall be considered incidental to the project.

90% FED.
10% STATE

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | | |
|----------|----------------------------------|-------|----------------|-------------------|------------------|------------------|
| | | | | ROADWAY | BRIDGE | BRIDGE |
| | | | | 0021 URBAN | 0014 049-0022 | 0014 049-0023 |
| 20200100 | EARTH EXCAVATION | CU YD | 170 | 170 | | |
| 20400800 | FURNISHED EXCAVATION | CU YD | 85 | 85 | | |
| 21101615 | TOPSOIL FURNISH AND PLACE, 4" | SQ YD | 1317 | 1317 | | |
| 25000210 | SEEDING, CLASS 2A | ACRE | 0.5 | 0.5 | | |
| 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 45 | 45 | | |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 45 | 45 | | |
| 25100630 | EROSION CONTROL BLANKET | SQ YD | 1317 | 1317 | | |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 1500 | 1500 | | |
| 50102400 | CONCRETE REMOVAL | CU YD | 10.4 | | 5.2 | 5.2 |
| 50157300 | PROTECTIVE SHIELD | SQ YD | 9 | | | 9 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 10.4 | | 5.2 | 5.2 |
| 50300300 | PROTECTIVE COAT | SQ YD | 46 | | 23 | 23 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 1320 | | 660 | 660 |
| 50800515 | BAR SPLICERS | EACH | 16 | | 8 | 8 |

COLLINS ENGINEERS
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 041-000443

| | | |
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| USER NAME : | DESIGNED - | REVISED - |
| PLOT SCALE : | DRAWN - | REVISED - |
| PLOT DATE : | CHECKED - | REVISED - |
| | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| SUMMARY OF QUANTITIES | | |
|-----------------------------------|---------------------|--------------|
| STRUCTURE NO. 049-0022 & 049-0023 | | |
| SCALE: | SHEET 1 OF 4 SHEETS | STA. TO STA. |

| | | | | |
|--------------------|-----------|--------|---------------------------|-----------|
| F.A.P. RATE: | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-BIBR) | Loka | 25 | 3 |
| CONTRACT NO. 60W19 | | | ILLINOIS FED. AID PROJECT | |

Rev.

96% FED.
10% STATE

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | | |
|------------|--|-------|----------------|-------------------|------------------|------------------|
| | | | | ROADWAY | BRIDGE | BRIDGE |
| | | | | 0021 URBAN | 0014 049-0022 | 0014 049-0023 |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 210.0 | | 104.5 | 105.5 |
| 60600605 | CONCRETE CURB, TYPE B | FOOT | 48 | 48 | | |
| * 63000001 | STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS | FOOT | 1111 | 1111 | | |
| * 63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 3 | 3 | | |
| * 63100085 | TRAFFIC BARRIER TERMINAL, TYPE 6 | EACH | 3 | 3 | | |
| * 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 2 | 2 | | |
| 63200310 | GUARDRAIL REMOVAL | FOOT | 100 | 100 | | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CALMO | 3 | 3 | | |
| 67100100 | MOBILIZATION | LSUM | 1 | 1 | | |
| 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 1169 | 1169 | | |
| * 78008210 | POLYUREA PAVEMENT MARKING TYPE I - LINE 4" | FOOT | 632 | 632 | | |
| * 78008220 | POLYUREA PAVEMENT MARKING TYPE I - LINE 5" | FOOT | 81 | 81 | | |
| * 78008250 | POLYUREA PAVEMENT MARKING TYPE I - LINE 12" | FOOT | 220 | 220 | | |
| * 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 8 | 8 | | |

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Chicago, IL 60606
Tel: (312) 704-3300
Fax: (312) 704-3320
www.collinseng.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 041-084943

| | | |
|--------------|------------|-----------|
| USER NAME * | DESIGNED - | REVISED - |
| PLOT SCALE * | DRAWN - | REVISED - |
| PLOT DATE * | CHECKED - | REVISED - |
| | DATE - | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES
STRUCTURE NO. 049-0022 & 049-0023

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

| | | | | |
|--------------------|----------|--------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-BBR) | Lake | 25 | 4 |
| CONTRACT NO. 60W19 | | | ILLINOIS FED. AID PROJECT | |

90% FED.
10% STATE

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | | |
|------------|--|-------|----------------|-------------------|------------------|------------------|
| | | | | ROADWAY | BRIDGE | BRIDGE |
| | | | | 0021 URBAN | 0014 049-0022 | 0014 049-0023 |
| * 78100300 | REPLACEMENT REFLECTOR | EACH | 6 | 6 | | |
| * 78200410 | GUARDRAIL MARKERS, TYPE A | EACH | 18 | 18 | | |
| * 78201000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 2 | 2 | | |
| 78300100 | PAVEMENT MARKING REMOVAL | SQ FT | 193 | 193 | | |
| 78300200 | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | EACH | 8 | 8 | | |
| X7010216 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | 1 | | |
| X7030045 | WET REFLECTIVE TEMPORARY TAPE TYPE III, 8 INCH | FOOT | 1753 | 1753 | | |
| Z0001800 | APPROACH SLAB REPAIR (PARTIAL DEPTH) | SQ YD | 21 | | 9 | 12 |
| Z0012102 | CONCRETE BRIDGE DECK SCARIFICATION (3/8 INCH) | SQ YD | 1322 | | 658 | 664 |
| Z0012193 | BRIDGE DECK THIN POLYMER OVERLAY 3/8" | SQ YD | 1322 | | 658 | 664 |
| Z0012754 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 23 | | 23 | |
| Z0016200 | DECK SLAB REPAIR (PARTIAL) | SQ YD | 6 | | | 6 |
| Z0030850 | TEMPORARY INFORMATION SIGNING | SQ FT | 52 | 52 | | |
| Z0076600 | TRAINEES | HOURL | | | | |

COLLINS ENGINEERS
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Suite 300
Channahon, IL 60606
Tel: 815-232-1041/1000
Fax: 815-232-1042
www.collinseng.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 021-000913

| | | |
|--------------|------------|-----------|
| USER NAME * | DESIGNED - | REVISED - |
| PLOT SCALE * | DRAWN - | REVISED - |
| PLOT DATE * | CHECKED - | REVISED - |
| | DATE - | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

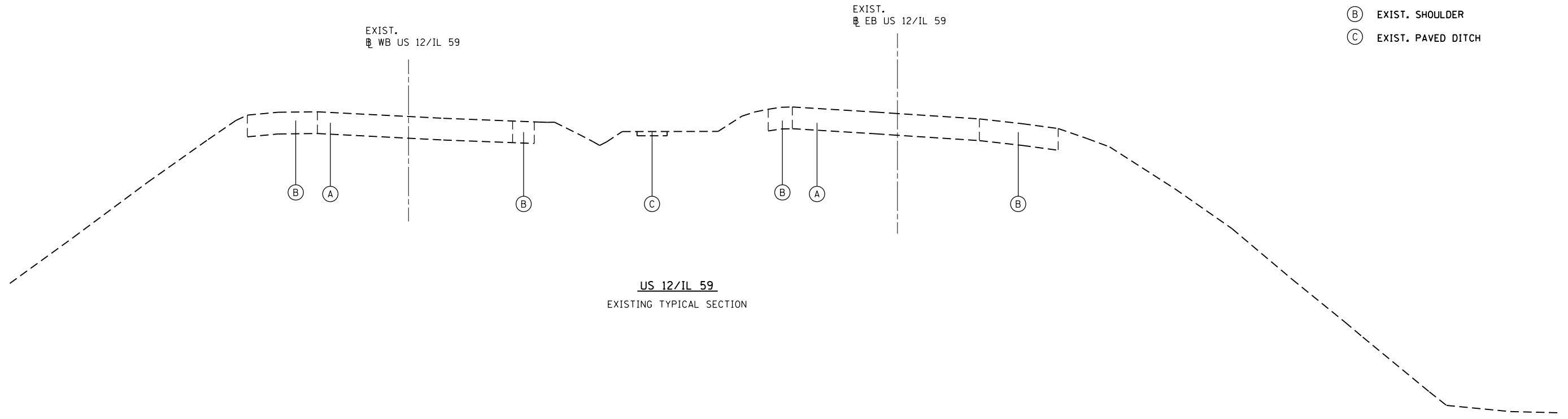
**SUMMARY OF QUANTITIES
STRUCTURE NO. 049-0022 & 049-0023**

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | TH-BBR | Lake | 25 | 5 |
| CONTRACT NO. 60W19 | | | ILLINOIS FED. AID PROJECT | |

EXISTING LEGEND:

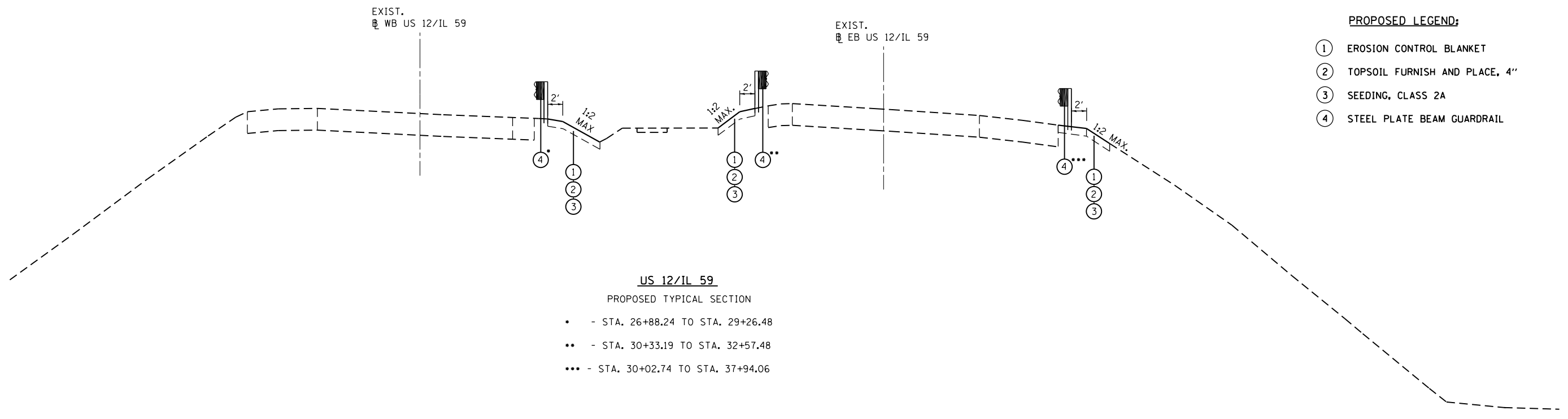
- (A) EXIST. PAVEMENT
- (B) EXIST. SHOULDER
- (C) EXIST. PAVED DITCH



US 12/IL 59
EXISTING TYPICAL SECTION

PROPOSED LEGEND:

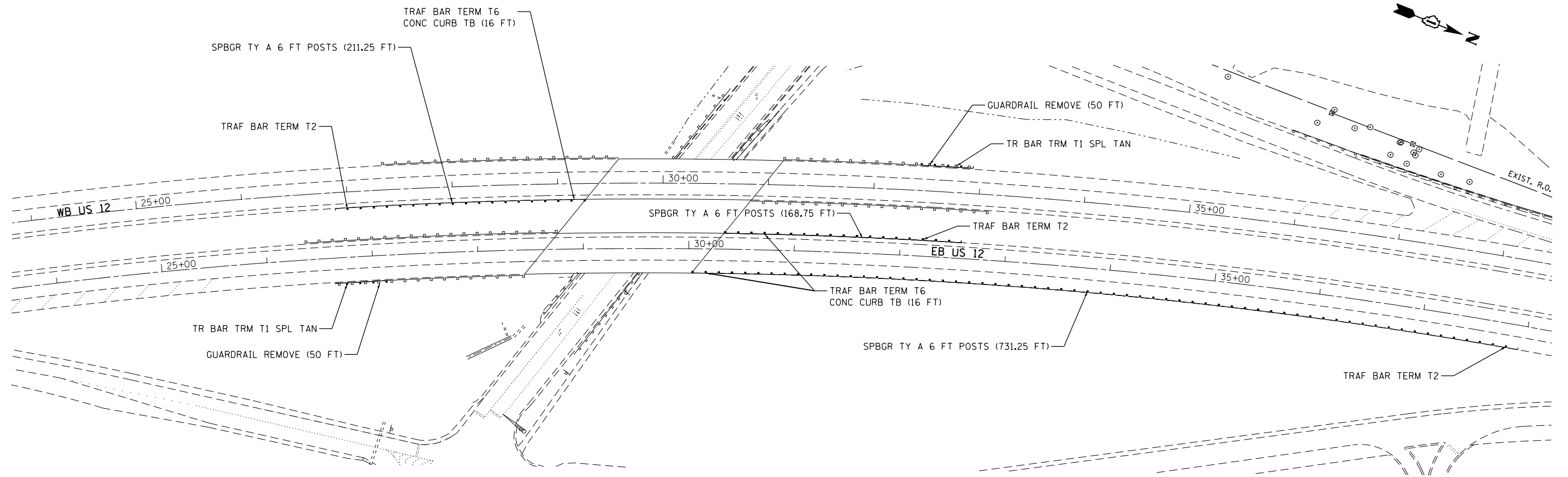
- (1) EROSION CONTROL BLANKET
- (2) TOPSOIL FURNISH AND PLACE, 4"
- (3) SEEDING, CLASS 2A
- (4) STEEL PLATE BEAM GUARDRAIL



US 12/IL 59
PROPOSED TYPICAL SECTION

- - STA. 26+88.24 TO STA. 29+26.48
- - STA. 30+33.19 TO STA. 32+57.48
- - STA. 30+02.74 TO STA. 37+94.06

| | | | | | | | | | | | | | |
|---------------------------|----------------------|------------|-----------|---|--|-------|----|-------------|-----------|--------|--------------|--------------------|--|
| FILE NAME = *FILEL* | USER NAME = *USER* | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | US 12/IL 59 OVER IL 176 TYPICAL SECTION | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | PLOT SCALE = *SCALE* | CHECKED - | REVISED - | | | | | 334 | (TH-B/BR) | LAKE | 25 | 6 | |
| PLOT DATE = *DATE* | DATE - | REVISED - | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO | STA. | CONTRACT NO. 60W19 | |
| ILLINOIS FED. AID PROJECT | | | | | | | | | | | | | |



| | | | | | | | | | | | | |
|---------------------------|------------------------------|------------|-----------|---|---|--|--|--------------------|-----------|--------|--------------|-----------|
| FILE NAME = | USER NAME = r9e11 | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | US 12 /IL 59 OVER IL RT 176 ROADWAY PLAN | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 100.0000' / in. | CHECKED - | REVISED - | | | | | 334 | (TH-B/BR) | LAKE | 25 | 7 |
| PLOT DATE = 4/7/2013 | DATE - | REVISED - | REVISED - | | SCALE: SHEET OF SHEETS STA. TO STA. | | | CONTRACT NO. 60W19 | | | | |
| ILLINOIS FED. AID PROJECT | | | | | | | | | | | | |

MAINTENANCE OF TRAFFIC - GENERAL NOTES:

1. SEE SPECIAL PROVISIONS TITLED TRAFFIC CONTROL AND PROTECTION (SPECIAL).

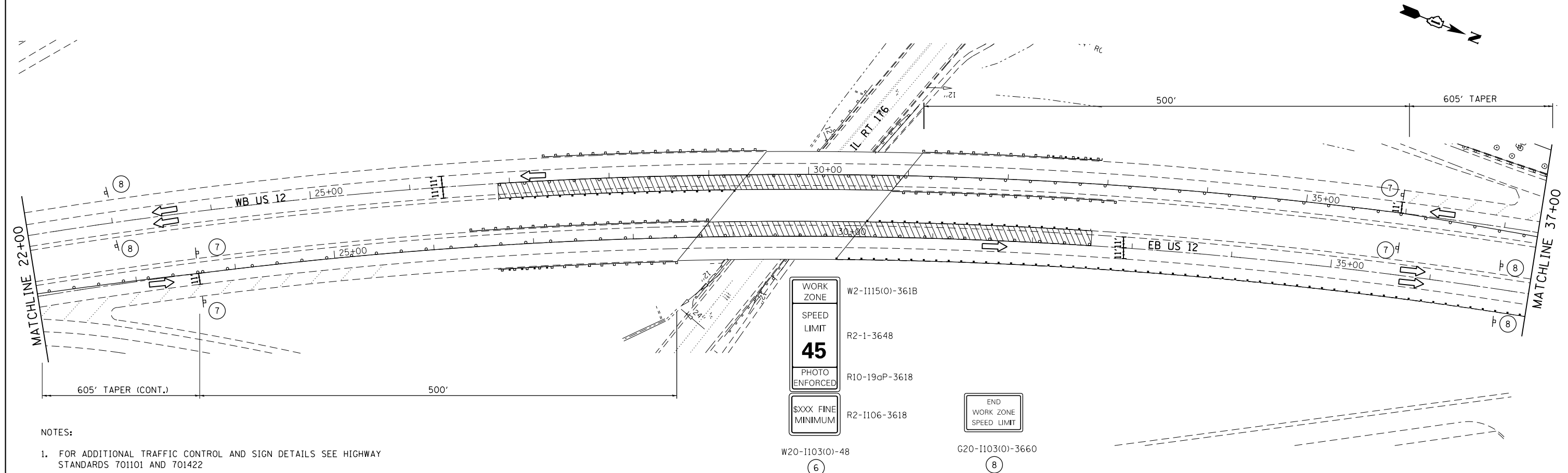
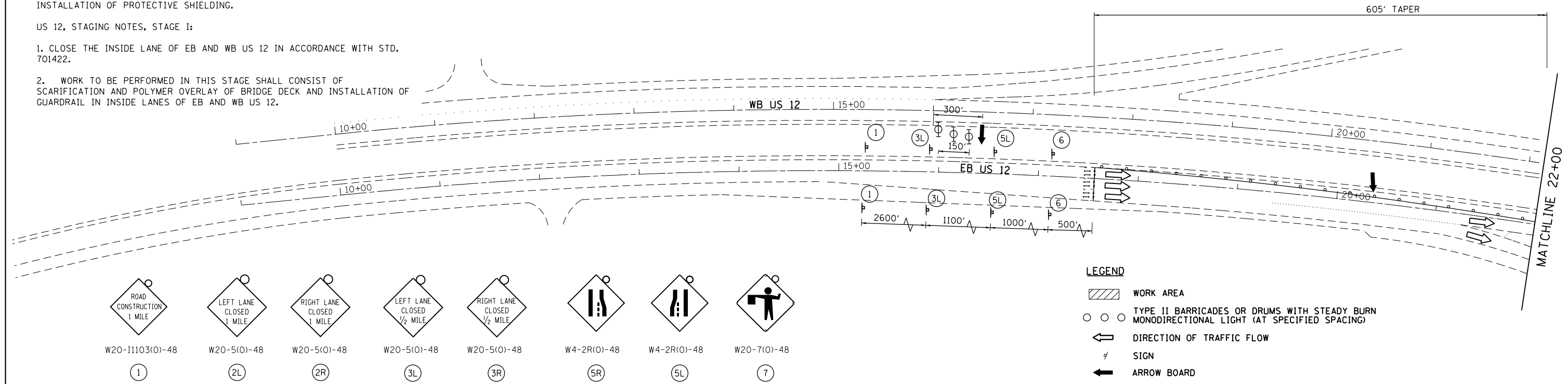
IL RT 176, STAGING NOTES, STAGE IA:

1. CLOSE EB LANE ON IL RT 176 IN ACCORDANCE WITH STD. 701501 DURING INSTALLATION OF PROTECTIVE SHIELDING.

US 12, STAGING NOTES, STAGE I:

1. CLOSE THE INSIDE LANE OF EB AND WB US 12 IN ACCORDANCE WITH STD. 701422.

2. WORK TO BE PERFORMED IN THIS STAGE SHALL CONSIST OF SCARIFICATION AND POLYMER OVERLAY OF BRIDGE DECK AND INSTALLATION OF GUARDRAIL IN INSIDE LANES OF EB AND WB US 12.



NOTES:
 1. FOR ADDITIONAL TRAFFIC CONTROL AND SIGN DETAILS SEE HIGHWAY STANDARDS 701101 AND 701422

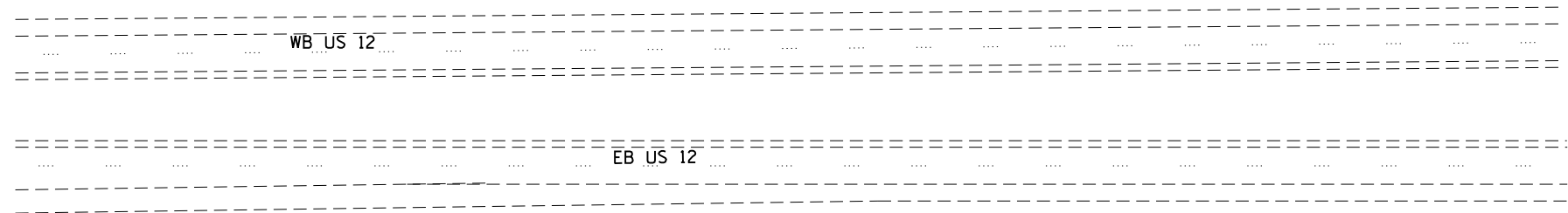
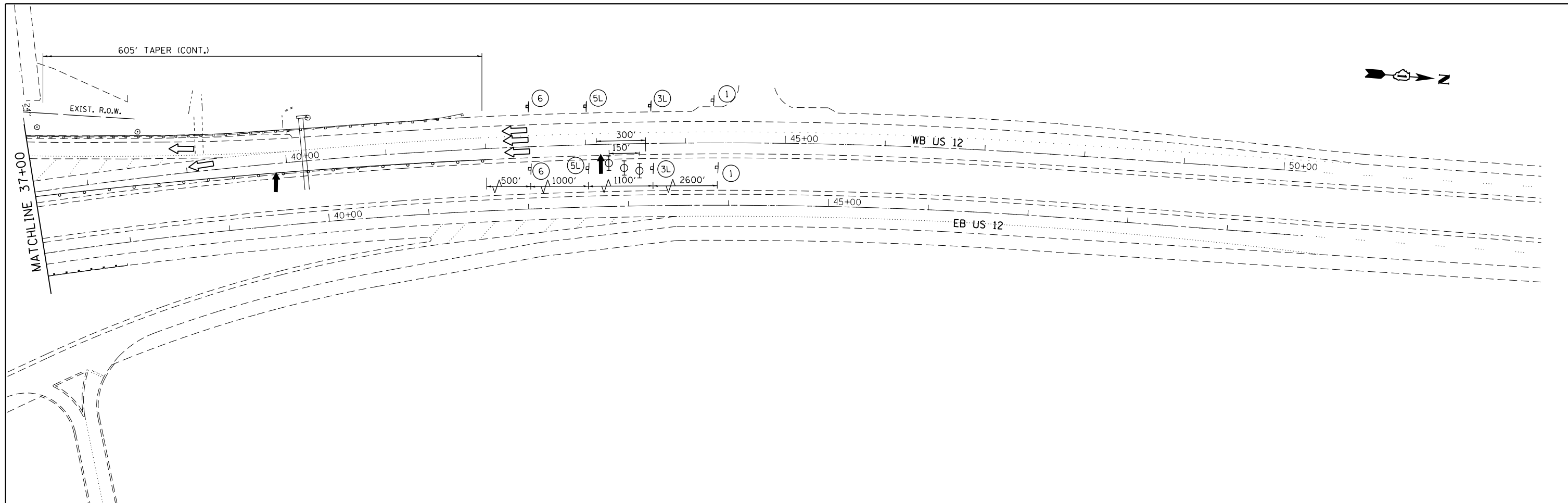
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| | PLOT SCALE = 100.0000' / 1" = | CHECKED - | REVISED - |
| | PLOT DATE = 4/15/2013 | DATE - | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

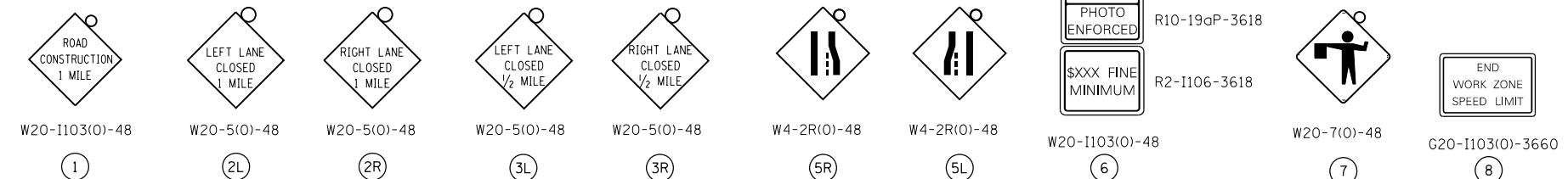
**US 12 /IL 59 OVER IL RT 176
MAINTENANCE OF TRAFFIC STAGE I**

SCALE: SHEET OF SHEETS STA. TO STA.

| | | | | |
|---------------------------|----------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-B)BR | LAKE | 25 | 8 |
| CONTRACT NO. 60W19 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

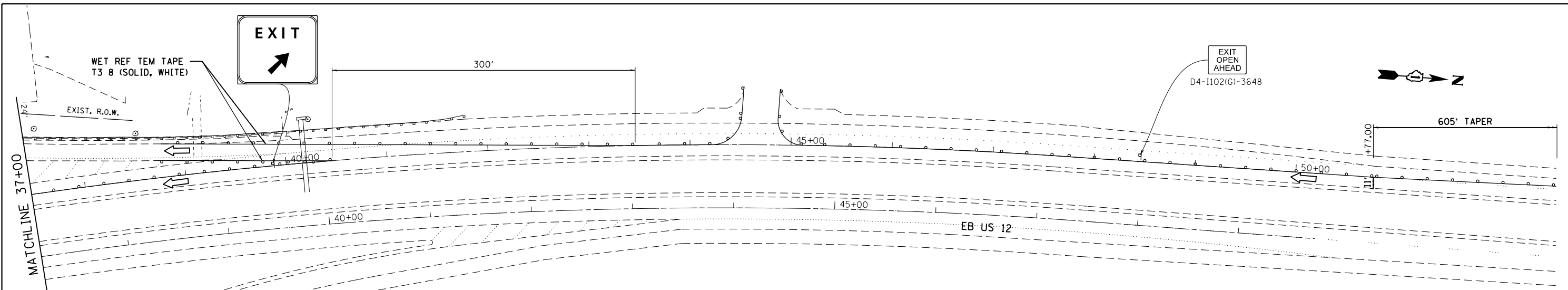


NOTES:
 1. FOR ADDITIONAL TRAFFIC CONTROL AND SIGN DETAILS SEE HIGHWAY STANDARDS 701422

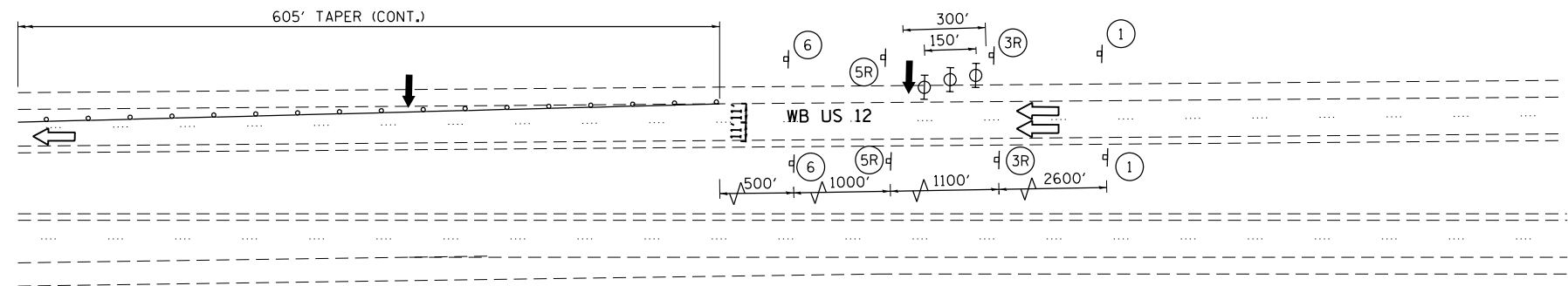


LEGEND
 WORK AREA
 TYPE II BARRICADES OR DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT (AT SPECIFIED SPACING)
 DIRECTION OF TRAFFIC FLOW
 SIGN
 ARROW BOARD

| | | | | | | | | | | | | |
|-------------|-------------------------------|------------|------------|---|---|-----------|------|-------------|---------|--------|--------------|---------------------------|
| FILE NAME = | USER NAME = r9e11 | DESIGNED - | REVISIED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | US 12 /IL 59 OVER IL RT 176 MAINTENANCE OF TRAFFIC STAGE I | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 100.0000' / 1" = | DRAWN - | REVISIED - | | 334 | (TH-B/BR) | LAKE | 25 | 9 | | | |
| | PLOT DATE = 4/7/2013 | CHECKED - | REVISIED - | | CONTRACT NO. 60W19 | | | | | | | |
| | | DATE - | REVISIED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO | STA. | ILLINOIS FED. AID PROJECT |



- W20-1103(O)-48
 ①
- W20-5(O)-48
 2L
- W20-5(O)-48
 2R
- W20-5(O)-48
 3L
- W20-5(O)-48
 3R
- W4-2R(O)-48
 5R
- W4-2R(O)-48
 5L
- W20-1103(O)-48
 6
- R10-19aP-3618
 7
- G20-1103(O)-3660
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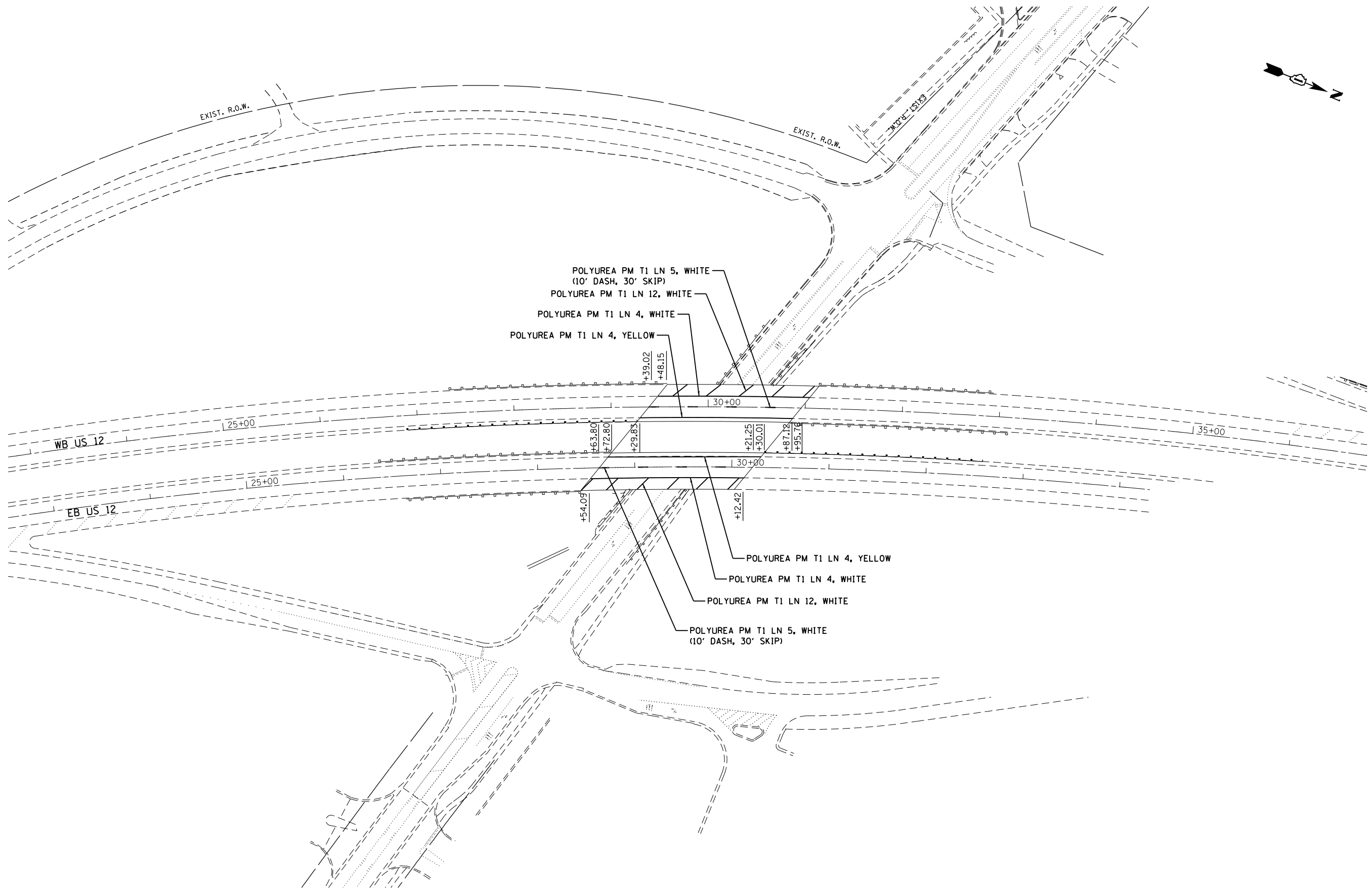


- LEGEND**
- WORK AREA
 - TYPE II BARRICADES OR DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT (AT SPECIFIED SPACING)
 - DIRECTION OF TRAFFIC FLOW
 - SIGN
 - ARROW BOARD

NOTES:

1. FOR ADDITIONAL TRAFFIC CONTROL AND SIGN DETAILS SEE HIGHWAY STANDARDS 701411 AND 701422

| | | | | | | | | | | | |
|-------------|-------------------|------------|-----------|---|--|---------------------------|-----------|--------------|--------------|-----------|--|
| FILE NAME = | USER NAME = r9e11 | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | US 12 /IL 59 OVER IL RT 176 MAINTENANCE OF TRAFFIC STAGE II | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | | DRAWN - | REVISED - | | | 334 | (TH-BJBR) | LAKE | 25 | 11 | |
| | | CHECKED - | REVISED - | | | CONTRACT NO. 60W19 | | | | | |
| | | DATE - | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | | |
| | | | | | SCALE: | SHEET OF SHEETS | | STA. TO STA. | | | |



| | | | |
|-------------|------------------------------|------------|-----------|
| FILE NAME = | USER NAME = r9e11 | DESIGNED - | REVISED - |
| | | DRAWN - | REVISED - |
| | PLOT SCALE = 100.0000' / in. | CHECKED - | REVISED - |
| | PLOT DATE = 4/7/2013 | DATE - | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

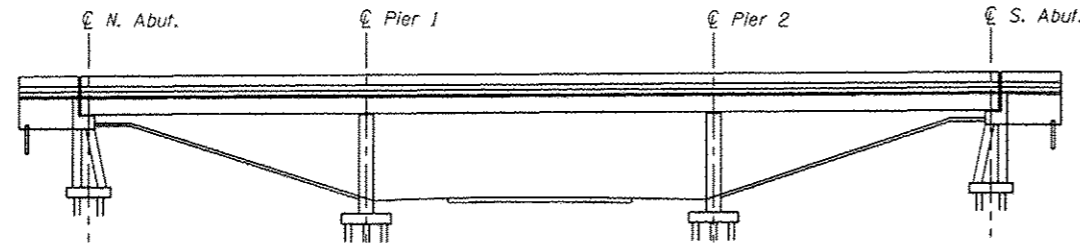
**US 12 /IL 59 OVER IL RT 176
PAVEMENT MARKING DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

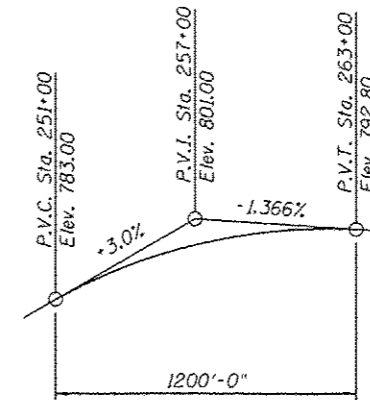
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------|--------|--------------|-----------|
| 334 | (TH-B)BR | LAKE | 25 | 12 |
| CONTRACT NO. 60W19 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

Existing Structure: Existing Structures 049-0022 & 049-0023 each carry two lanes of traffic on US12/IL-59 over IL-179. Each bridge consists of a three-span continuous steel superstructure with a reinforced concrete deck and substructure. The original structures were both constructed in 1962 and rehabilitated in 1983. Staged construction will be utilized to maintain traffic during construction.

No Salvage.

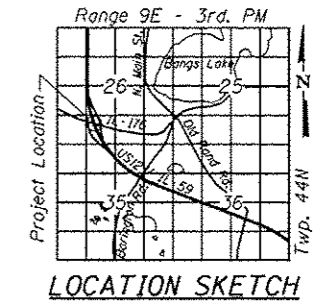


ELEVATION

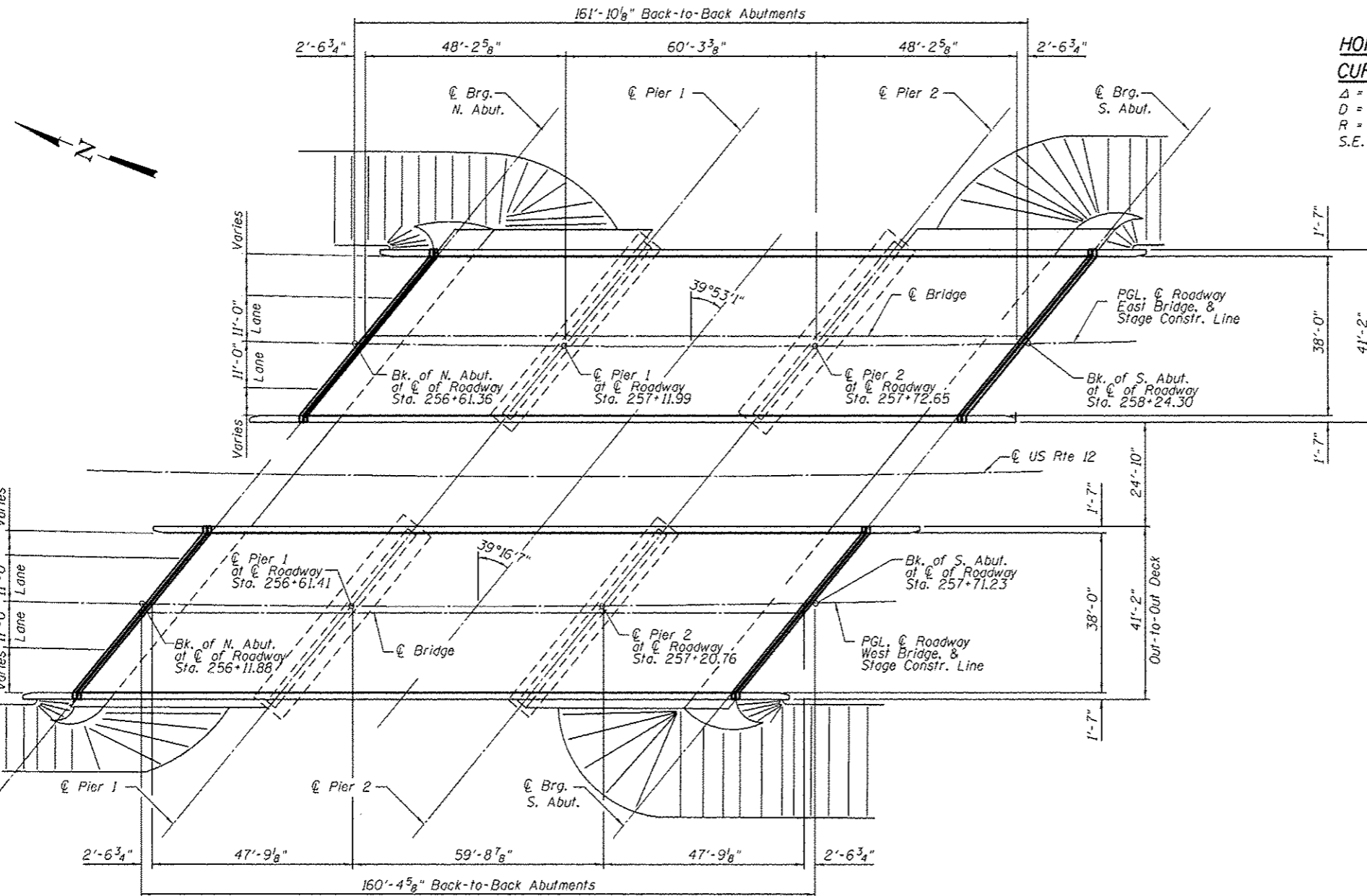


PROFILE GRADE

(Along \bar{C} of U.S. Rte. 12)



LOCATION SKETCH



HORIZONTAL CURVE DATA

$\Delta = 69^\circ 20'$
 $D = 1^\circ 12'$
 $R = 4,774.74$
 $S.E. Run = 0.03'/Fl.$

DESIGN SPECIFICATIONS
 2002 AASHTO Standard Specifications,
 for Highway Bridges (17th Edition)

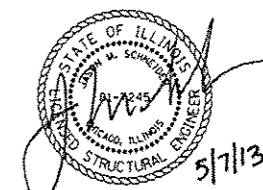
LOADING HS20-44

DESIGN STRESSES
FIELD UNITS

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

SCOPE OF WORK

1. Bridge deck scarification.
2. Reconstruct deck joints at each abutment with shallow strip seal.
3. Place new polymer overlay on bridge deck.
4. Structural Repair of Concrete.
5. Deck and Approach Slab Repairs.



COLLINS ENGINEERS, INC.
 JASON M. SCHNEIDER
 NO. 81-7245
 EXPIRES 11-30-2014

| | | | | | | | | | | | |
|---|--------------|----------------|---------|---|--|-----------------------------|----------|--------|--------------|-----------|--|
| COLLINS ENGINEERS, INC. 173 N. Rockwell St. Suite 300 Chicago, IL 60610 Tel: (312) 204-2300 Fax: (312) 204-9310 www.collinseng.com | USER NAME * | DESIGNED - AEK | REVISED | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL PLAN AND ELEVATION US 12/IL RTE. 59 OVER IL 176 STRUCTURE NO. 049-0022 & 049-0023 SHEET NO. 51 OF 510 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | PLOT SCALE * | CHECKED - JMS | REVISED | | | 334 | 17H-BIBR | LAKE | 25 | 13 | |
| | PLOT DATE * | DRAWN - DR | REVISED | | | CONTRACT NO. 60W19 | | | | | |
| | | CHECKED - JMS | REVISED | | | [ILLINOIS] FED. AID PROJECT | | | | | |

INDEX OF SHEETS

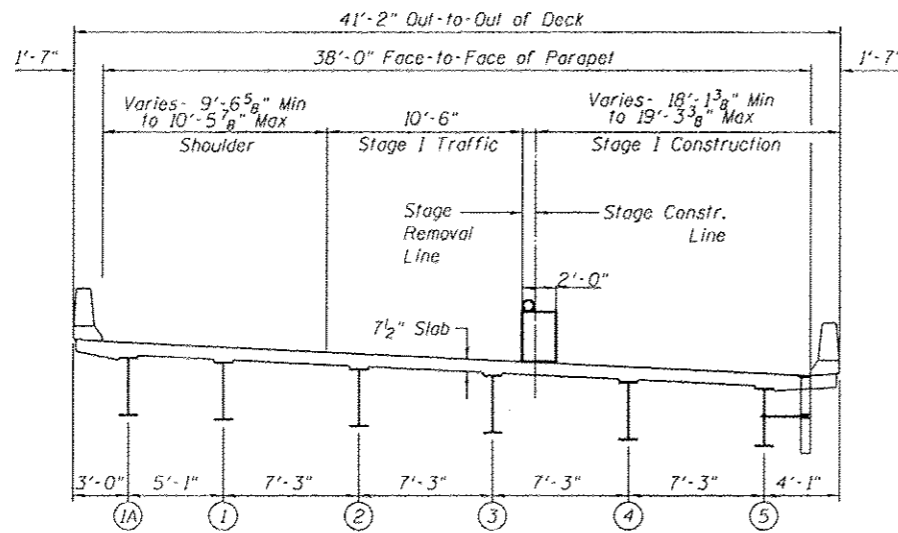
S1 General Plan & Elevation
 S2 General Notes, Index of Sheets and Total Bill of Materials
 S3 Stage Construction Details
 S4 Bridge Deck Repairs
 S5 Expansion Joint Repairs - S.N. 049-0022
 S6 Expansion Joint Details - S.N. 049-0022
 S7 Expansion Joint Repairs - S.N. 049-0023
 S8 Expansion Joint Details - S.N. 049-0023
 S9 Prefarmed Joint Strip Seal
 S10 Bar Splicer Assembly and Mechanical Splicer Details

GENERAL NOTES:

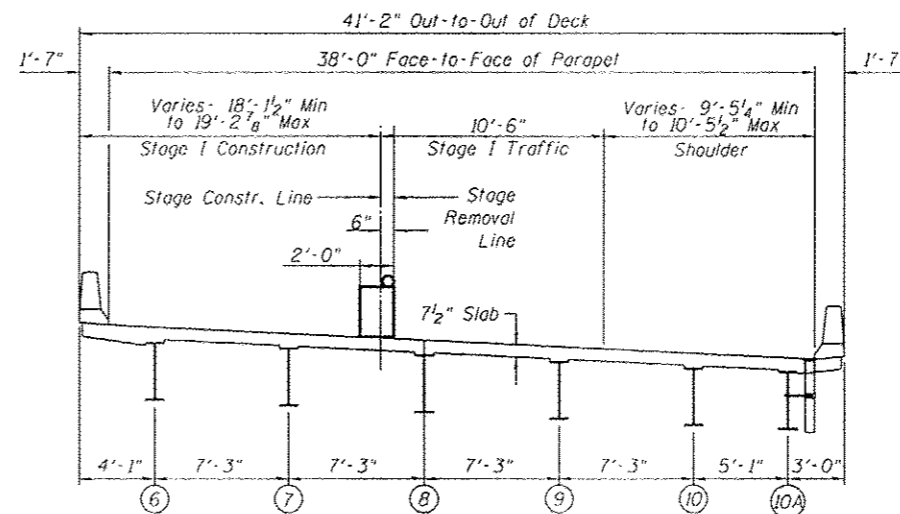
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior 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.
- The Contractor shall exercise care during removal of existing expansion joints to ensure that the slab, beams, and diaphragms' integrity will not be detrimentally impacted. The Contractor shall repair any damage(s) to the slab, beams, and diaphragms caused by his operation as directed by the Engineer at no additional cost to the Department.
- Cast for removal and disposal of existing expansion joints shall be included in the pay item "Concrete Removal."
- Staged construction shall be utilized to maintain traffic during construction.
- Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.
- Protective Coat shall be applied to the transverse joint reconstruction areas including top and inside faces of the bridge deck parapets.
- Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar or anchorage system. Cost included with Concrete Removal.
- Joint plates and attached bars shall be painted with the inorganic zinc rich primer. No field paint required.
- The deck surface shall have its final finish lined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

TOTAL BILL OF MATERIAL

| ITEM DESCRIPTION | UNIT | QUANTITY |
|--|---------|----------|
| Protective Coat | Sq. Yd. | 46 |
| Concrete Removal | Cu. Yd. | 10.4 |
| Concrete Superstructure | Cu. Yd. | 10.4 |
| Reinforcement Bars, Epoxy Coated | Pound | 1320 |
| Bar Splicers | Each | 16 |
| Prefarmed Joint Strip Seal | Foot | 210.0 |
| Approach Slab Repair (Partial Depth) | Sq. Yd. | 21 |
| Deck Slab Repair (Partial Depth) | Sq. Yd. | 6 |
| Bridge Deck Scarification, 3/8" | Sq. Yd. | 1322 |
| Bridge Deck Thin Polymer Overlay, 3/8" | Sq. Yd. | 1322 |
| Structural Repair of Concrete (Depth equal to or less than 5") | Sq. Ft. | 23 |
| Protective Shield | Sq. Yd. | 9 |

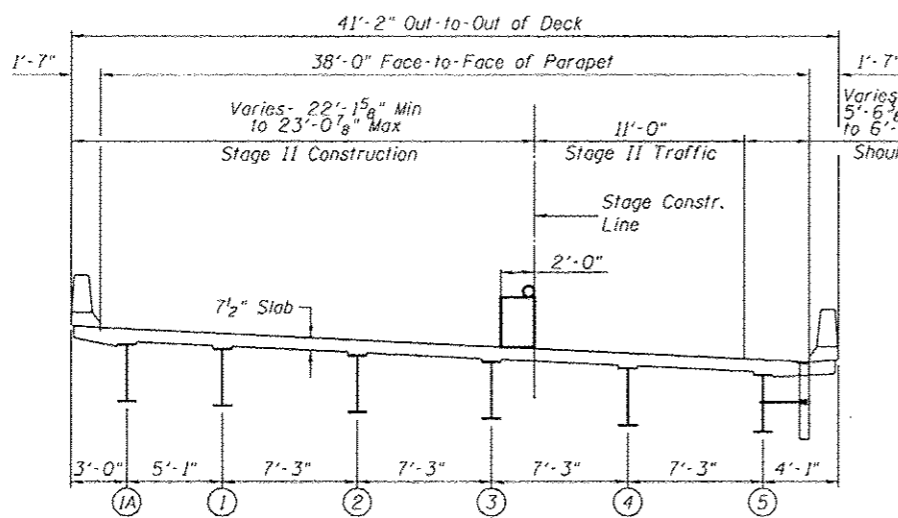


S.N. 049-0022

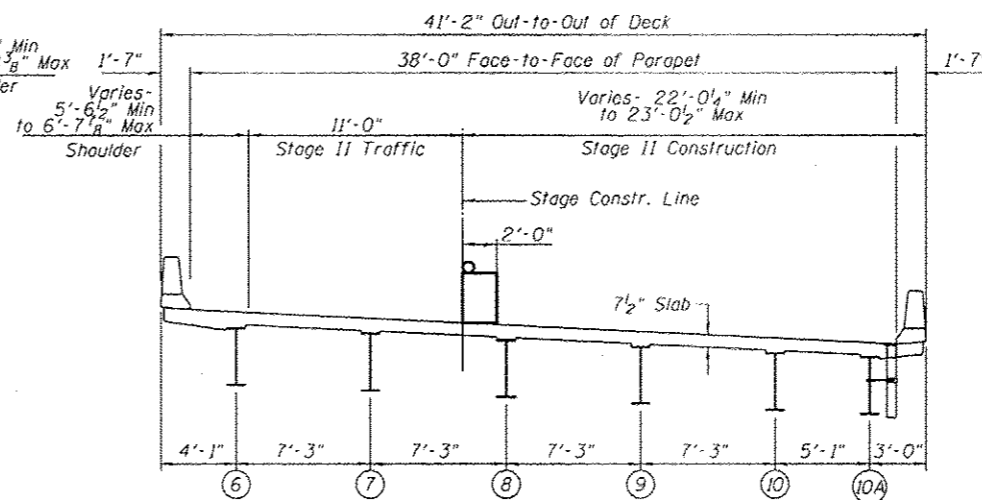


S.N. 049-0023

STAGE I
(Looking North)



S.N. 049-0022

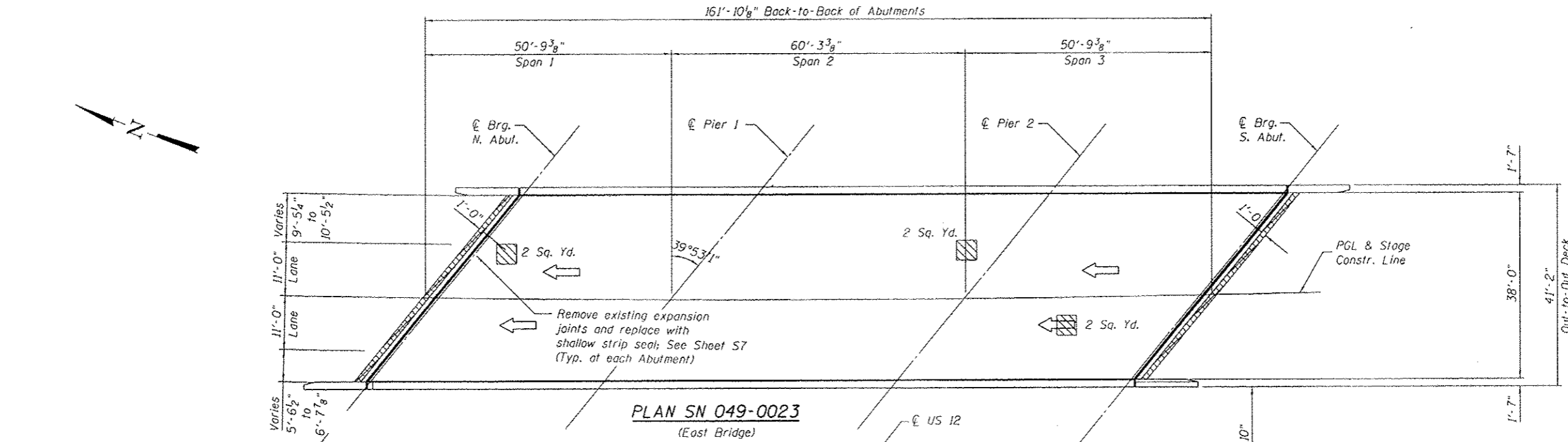
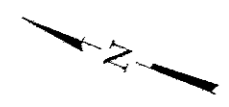


S.N. 049-0023

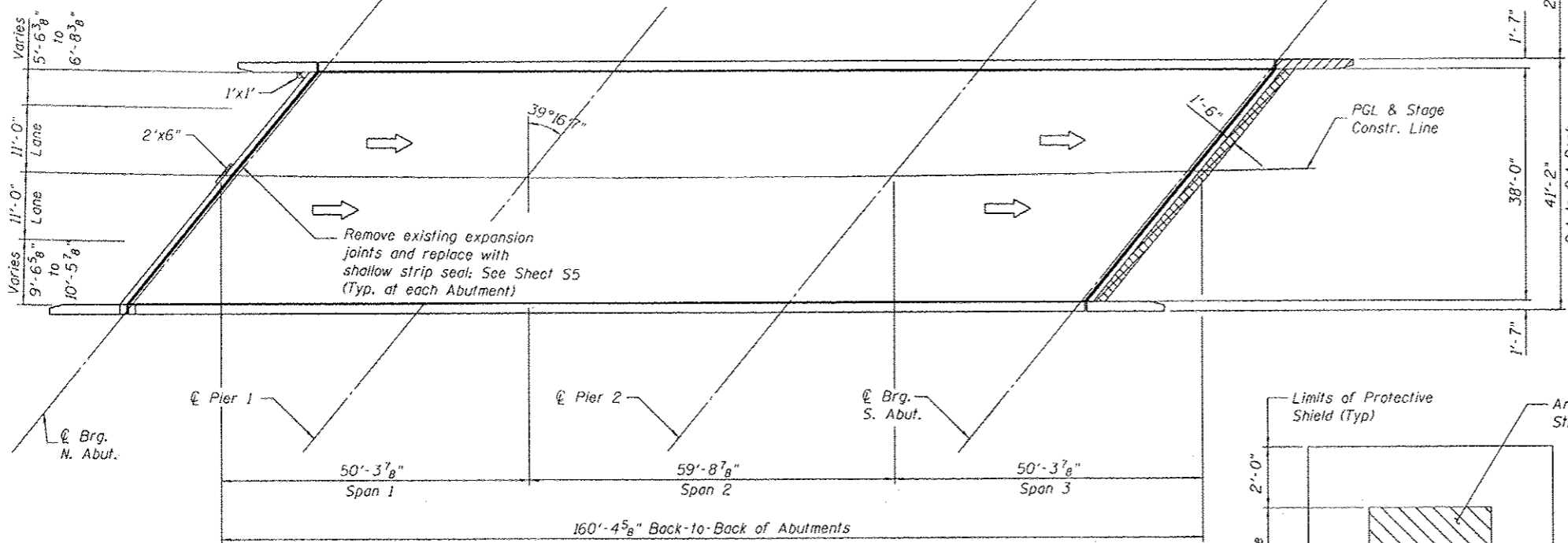
STAGE II
(Looking North)

| | | |
|--------------|----------------|---------|
| USER NAME : | DESIGNED - AER | REVISED |
| | CHECKED - JMS | REVISED |
| PLDT SCALE : | DRAWN - DR | REVISED |
| PLDT DATE : | CHECKED - JMS | REVISED |

| | | | | |
|--------------------|----------|--------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-B)BR | LAKE | 25 | 15 |
| CONTRACT NO. 60W19 | | | ILLINOIS FED. AID PROJECT | |



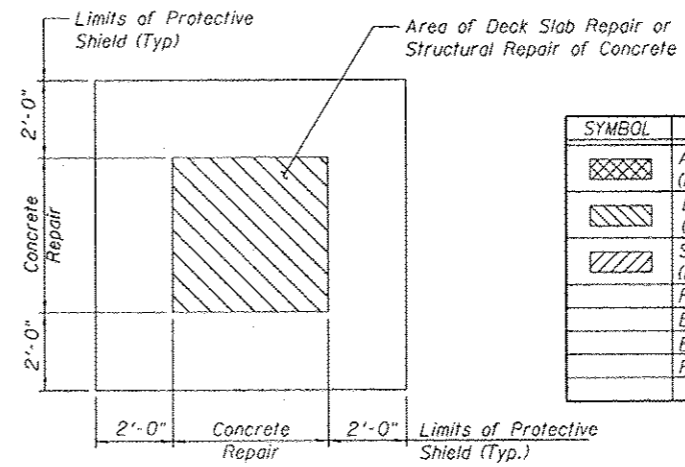
PLAN SN 049-0023
(East Bridge)



PLAN SN 049-0022
(West Bridge)

Notes:

1. Decks and Approach repair areas are estimated based on visual inspection completed in March 2013. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built Plans.
2. Bridge Deck Scarification, $\frac{3}{8}$ " and Bridge Deck Overlay, $\frac{3}{8}$ " shall be performed over the limits of the bridge deck, excluding the transverse joint reconstruction areas.
3. Protective coat shall be applied to the transverse joint reconstruction areas including top and inside faces of the bridge deck parapets.
4. Quantities for bridge deck overlay and scarification are based on end-to-end deck dimensions of 158'-9 $\frac{3}{8}$ " at SN 049-0023 and 157'-4 $\frac{5}{8}$ " at SN 049-0022.
5. Provide Protective Shield for all deck repairs within Span 2.



Typical Protective Shield Detail

BILL OF MATERIAL

| SYMBOL | ITEM | UNIT | QUANTITY |
|--------|---|---------|----------|
| | Approach Slab Repairs (Partial Depth) | Sq. Yd. | 21 |
| | Deck Slab Repairs (Partial Depth) | Sq. Yd. | 6 |
| | Structural Repair of Concrete (Depth equal to or less than, 5") | Sq. Ft. | 23 |
| | Protective Coat | Sq. Yd. | 46 |
| | Bridge Deck Overlay, $\frac{3}{8}$ " | Sq. Yd. | 1322 |
| | Bridge Deck Scarification, $\frac{3}{8}$ " | Sq. Yd. | 1322 |
| | Protective Shield | Sq. Yd. | 9 |



| | | |
|--------------|----------------|---------|
| USER NAME : | DESIGNED - AEK | REVISED |
| | CHECKED - JMS | REVISED |
| PLOT SCALE : | DRAWN - DR | REVISED |
| PLOT DATE : | CHECKED - JMS | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE DECK REPAIRS
STRUCTURE NO. 049-0022 & 049-0023


SHEET NO. 54 OF 510 SHEETS

| | | | | |
|---------------------------|-------------------|-------------|-----------------|--------------------|
| F.A.P. RITE. 334 | SECTION (TH-BIBR) | COUNTY LAKE | TOTAL SHEETS 25 | SHEET NO. 16 |
| | | | | CONTRACT NO. 60W19 |
| ILLINOIS FED. AID PROJECT | | | | |

NORTH AND SOUTH JOINTS
SN 049-0022
BILL OF MATERIALS

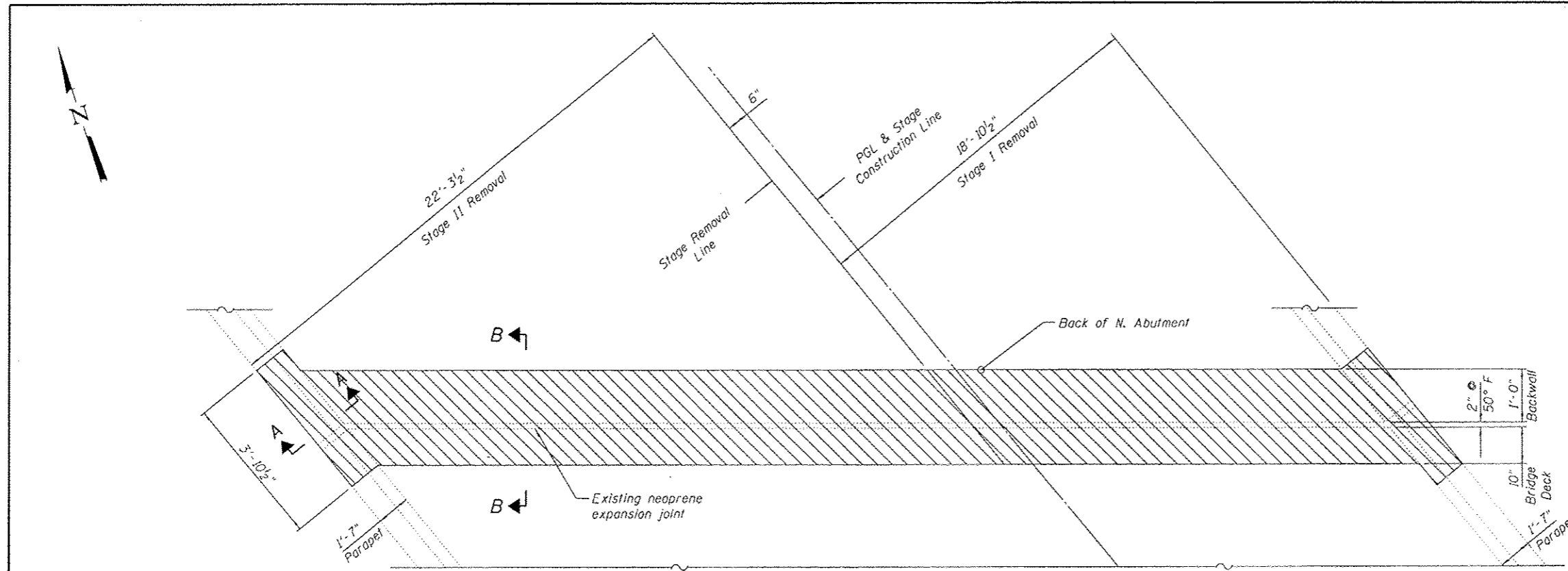
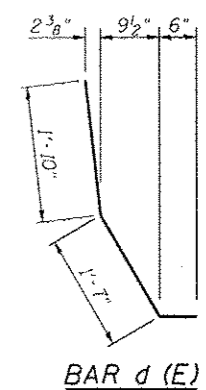
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| * d(E) | 4 | #5 | 28'-4" | ——— |
| * a ₁ (E) | 4 | #6 | 28'-4" | ——— |
| a ₂ (E) | 4 | #6 | 4'-9" | ——— |
| a ₃ (E) | 4 | #6 | 6'-2" | ——— |
| * a ₁₀ (E) | 4 | #5 | 22'-8" | ——— |
| * a ₁₁ (E) | 4 | #6 | 22'-8" | ——— |
| d(E) | 16 | #5 | 3'-11" | ——— |
| Concrete Removal | | Cu. Yd. | 5.2 | |
| Concrete Superstructure | | Cu. Yd. | 5.2 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 660 | |

* See Note 3

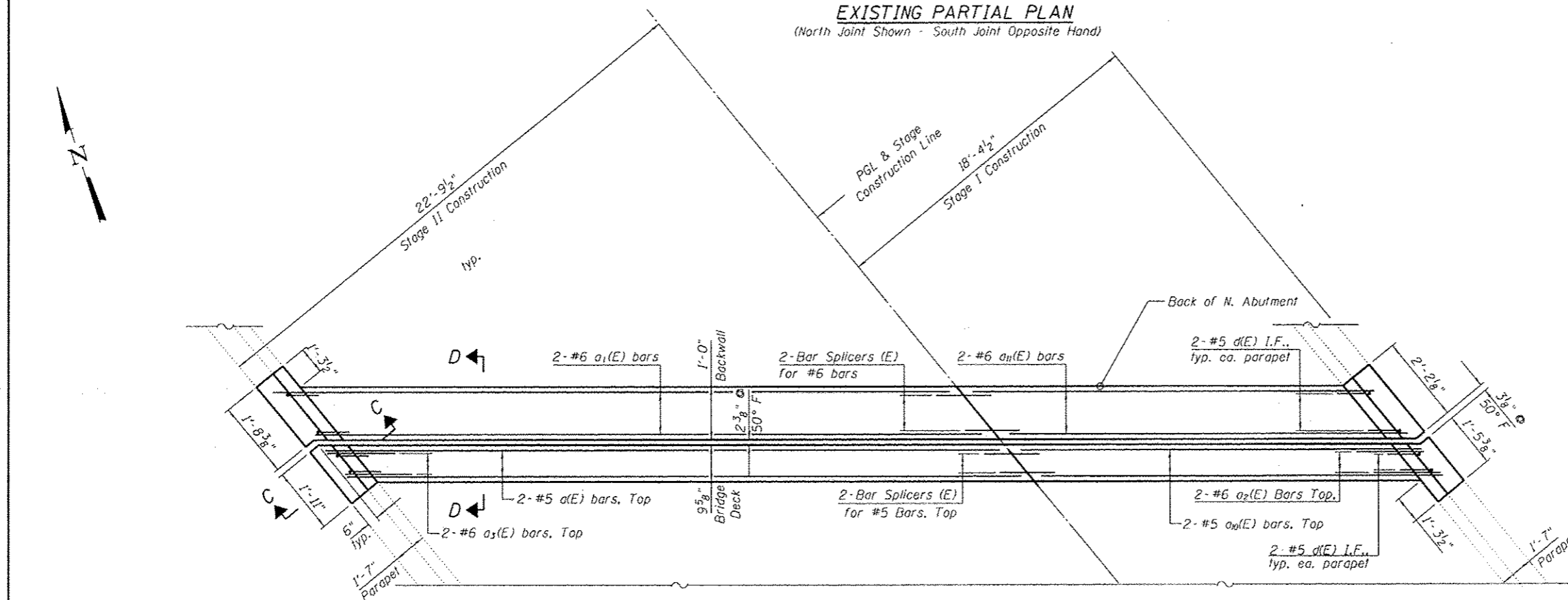
 Indicates Concrete Removal

Notes:

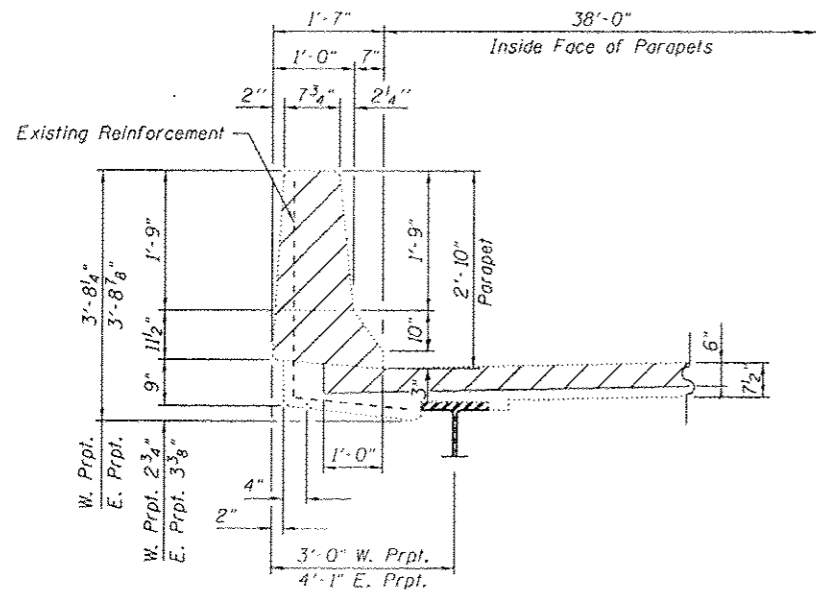
1. Work this sheet with Sheets S6 and S9.
2. I.F. Denotes Inside Face.
O.F. Denotes Outside Face.
3. Rebar lengths denoted with an asterisk are based on shoulder and lane widths detailed on existing plans. Contractor shall verify the shoulder and lane widths prior to ordering materials and adjust rebar lengths accordingly. Cost of this work shall be included in the pay item for "Reinforcement Bars, Epoxy Coated".



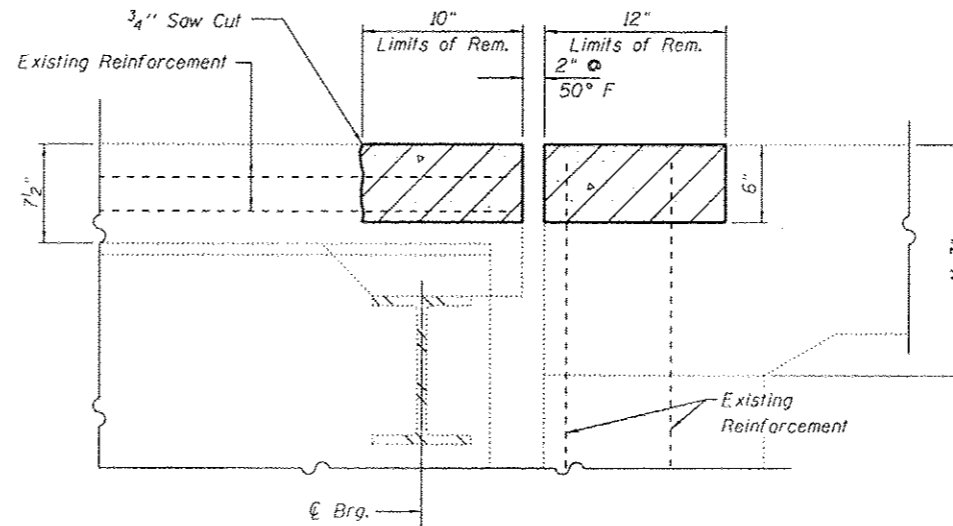
EXISTING PARTIAL PLAN
 (North Joint Shown - South Joint Opposite Hand)



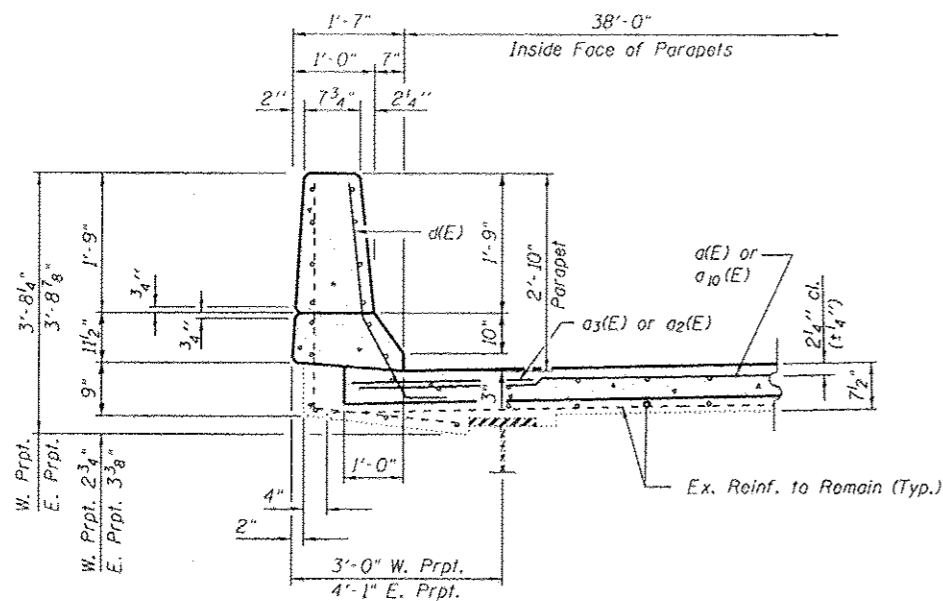
PROPOSED PARTIAL PLAN
 (North Joint Shown - South Joint Opposite Hand)



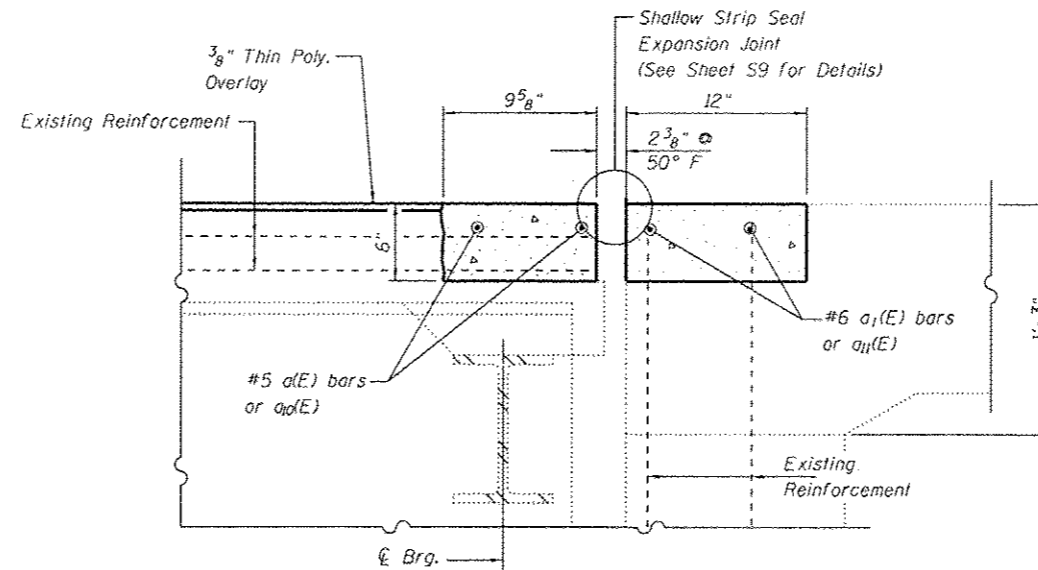
SECTION A-A
(Existing)



SECTION B-B
(Existing)



SECTION C-C
(Proposed)



SECTION D-D
(Proposed)

- Notes:**
- Existing reinforcement bars in the concrete removal area parallel to the expansion joints shall be removed.
 - Removal and disposal of the existing expansion joints will not be paid for separately, but shall be included with the cost of Concrete Removal.
 - Work this sheet with Sheets S5 & S9.

Indicates Concrete Removal

| | | |
|-------------|----------------|---------|
| USER NAME | DESIGNED - AEK | REVISED |
| PLLOT SCALE | CHECKED - JMS | REVISED |
| PLLOT DATE | DRAWN - DR | REVISED |
| | CHECKED - JMS | REVISED |

| | | | | |
|---------------------------|-------------------|-------------|--------------------|--------------|
| F.A.P. RTE. 334 | SECTION (TH-BIBR) | COUNTY LAKE | TOTAL SHEETS 25 | SHEET NO. 18 |
| | | | CONTRACT NO. 60W19 | |
| ILLINOIS FED. AID PROJECT | | | | |


NORTH AND SOUTH JOINTS

SN 049-0023

BILL OF MATERIALS

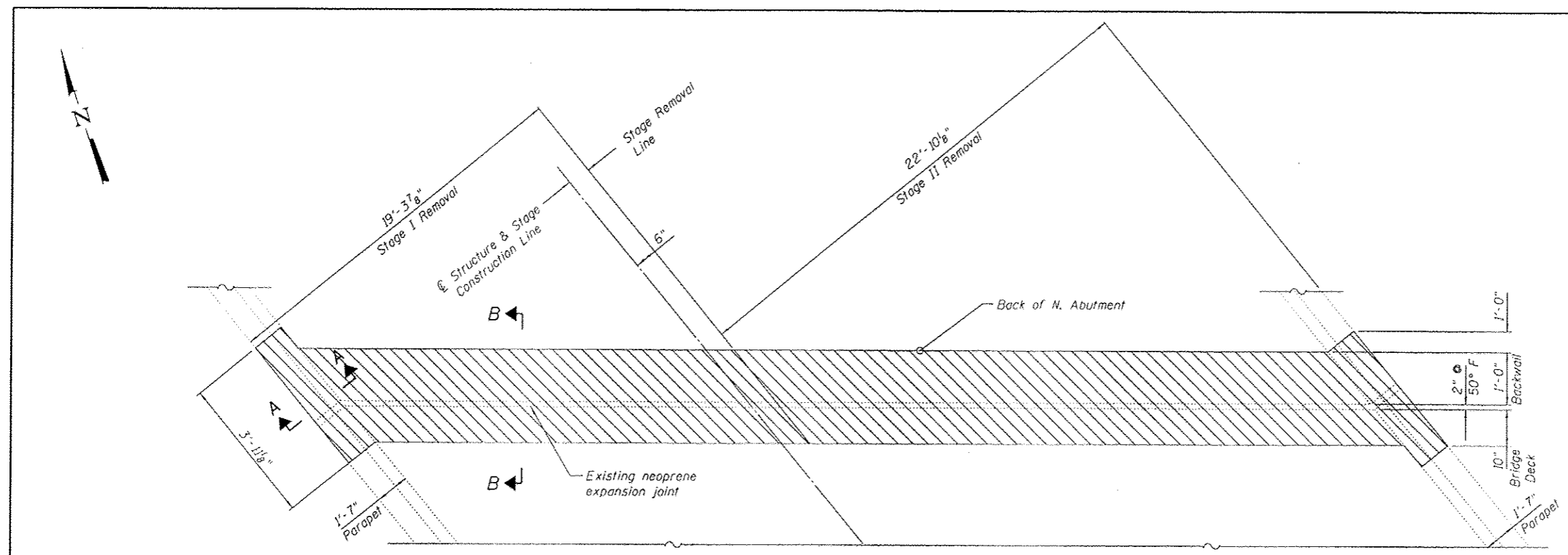
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| a ₄ (E) | 4 | #5 | 23'-5" | — |
| a ₅ (E) | 4 | #6 | 23'-5" | — |
| a ₆ (E) | 4 | #6 | 4'-9½" | — |
| a ₇ (E) | 4 | #6 | 6'-2½" | — |
| a ₁₄ (E) | 4 | #5 | 28'-0" | — |
| a ₁₅ (E) | 4 | #6 | 28'-0" | — |
| d(E) | 16 | #5 | 3'-11" | ⌋ |
| Concrete Removal | | | Cu. Yd. | 5.2 |
| Concrete Superstructure | | | Cu. Yd. | 5.2 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 660 |

* See Note 3

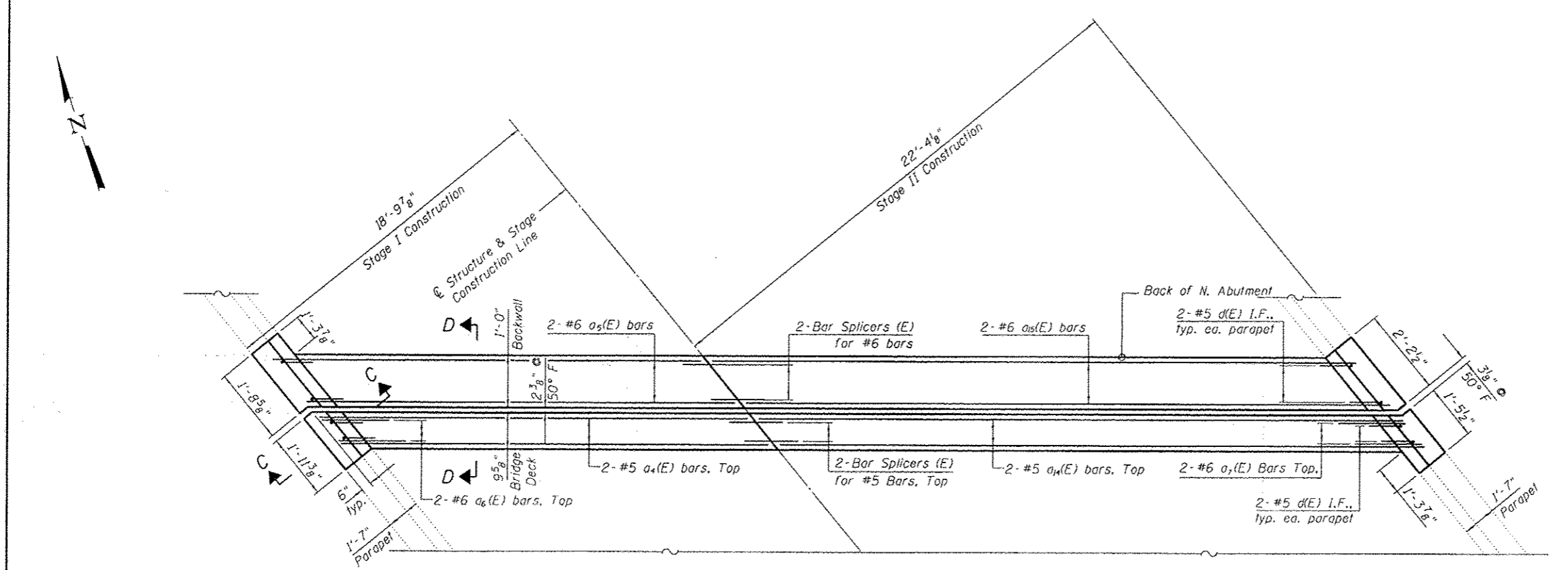
 Indicates Concrete Removal

Notes:

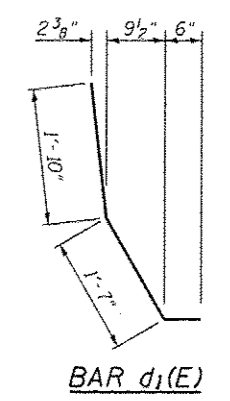
1. Work this sheet with Sheets S8 and S9.
2. I.F. Denotes Inside Face.
O.F. Denotes Outside Face.
3. Rebar lengths denoted with an asterisk are based on shoulder and lane widths detailed on existing plans. Contractor shall verify the shoulder and lane widths prior to ordering materials and adjust rebar lengths accordingly. Cost of this work shall be included in the pay item for "Reinforcement Bars, Epoxy Coated".

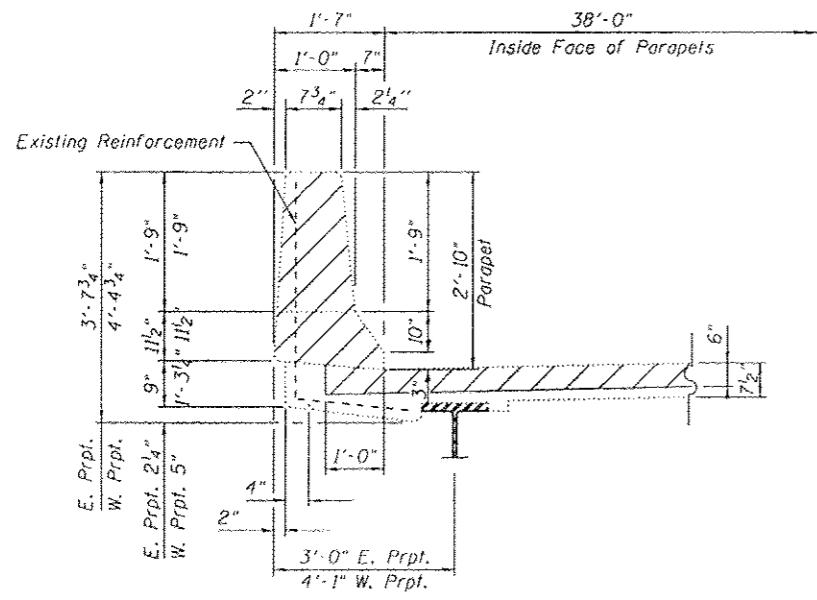


EXISTING PARTIAL PLAN
(North Joint Shown - South Joint Opposite Hand)

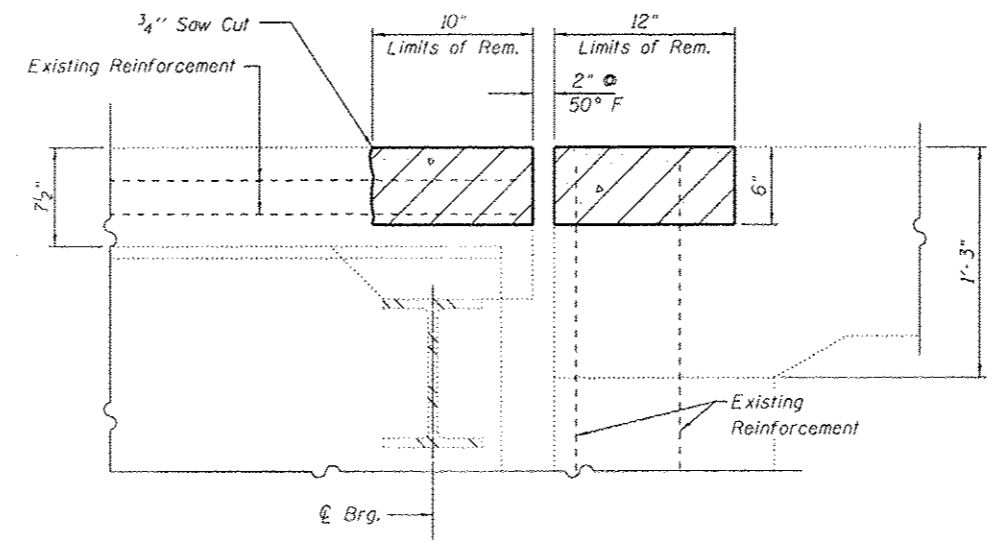


PROPOSED PARTIAL PLAN
(North Joint Shown - South Joint Opposite Hand)

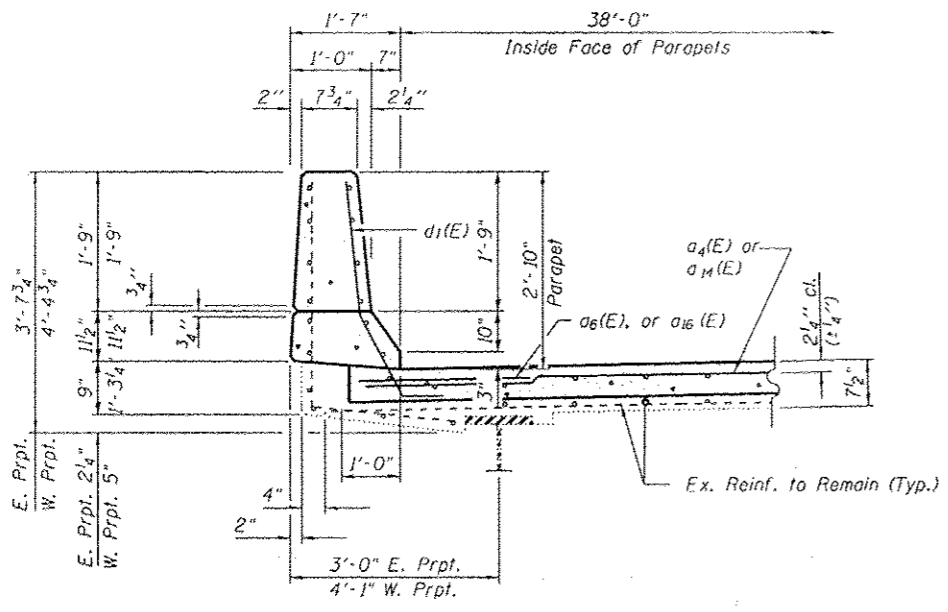




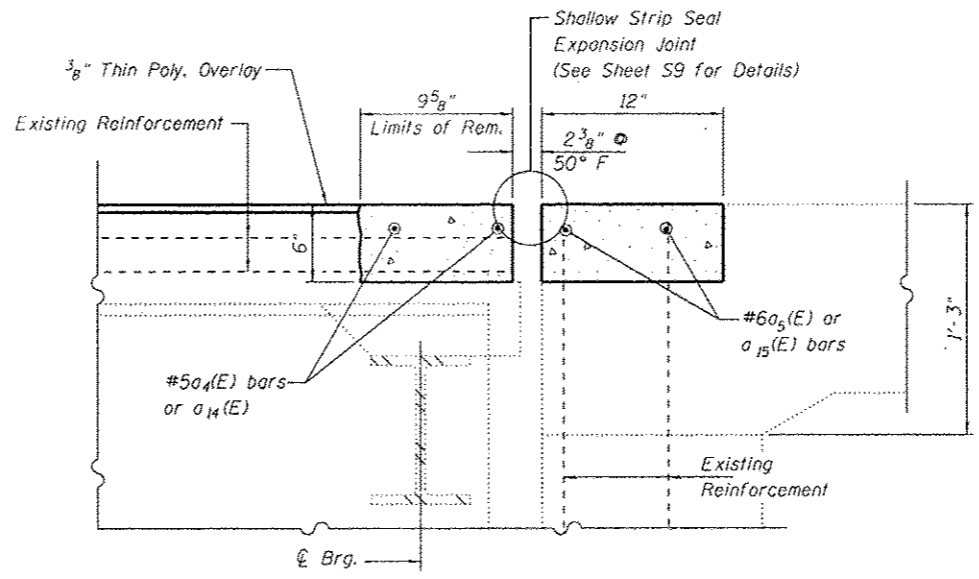
SECTION A-A
(Existing)



SECTION B-B
(Existing)



SECTION C-C
(Proposed)



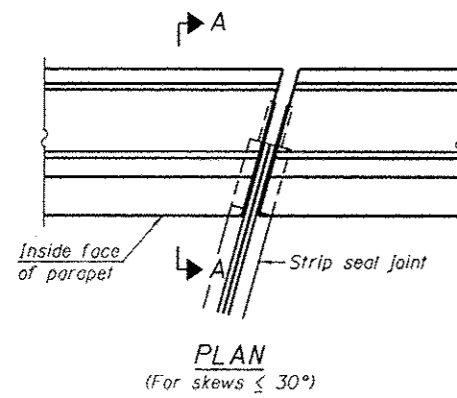
SECTION D-D
(Proposed)

- Notes:**
- Existing reinforcement bars in the concrete removal area parallel to the expansion joints shall be removed.
 - Removal and disposal of the existing expansion joints will not be paid for separately, but shall be included with the cost of Concrete Removal.
 - Work this sheet with Sheets S5 & S9.

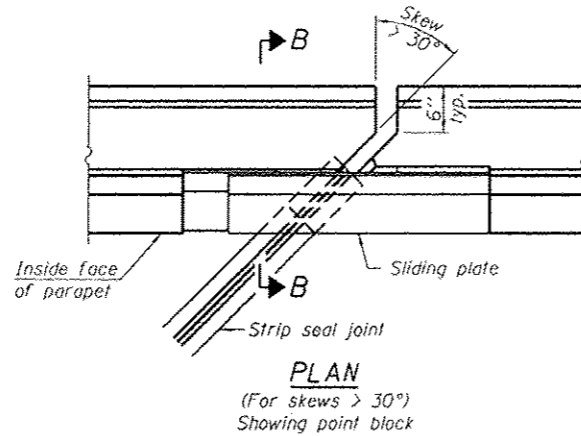
Indicates Concrete Removal

| | | |
|-----------|----------------|---------|
| USER NAME | DESIGNED - AEK | REVISED |
| PLT SCALE | CHECKED - JMS | REVISED |
| PLOT DATE | DRAWN - DR | REVISED |
| | CHECKED - JMS | REVISED |

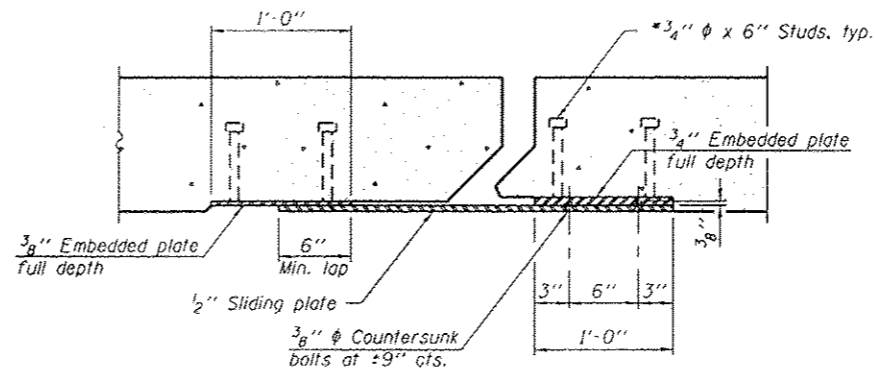
| | | | | |
|---------------------------|------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (11H-B18R) | LAKE | 25 | 20 |
| CONTRACT NO. 60W19 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



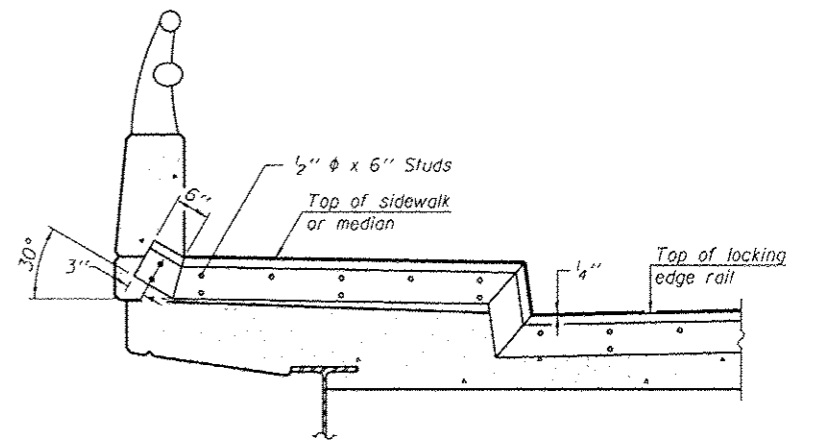
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

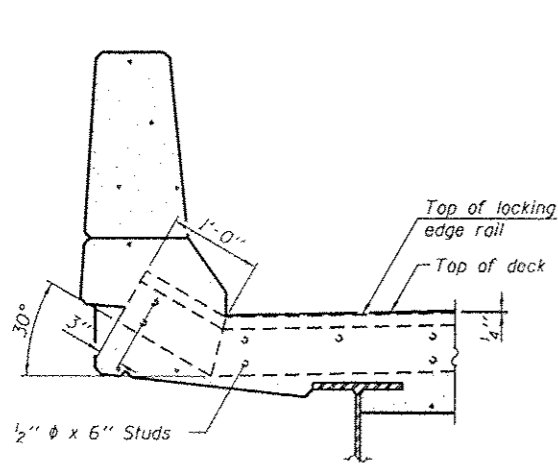


SECTION C-C

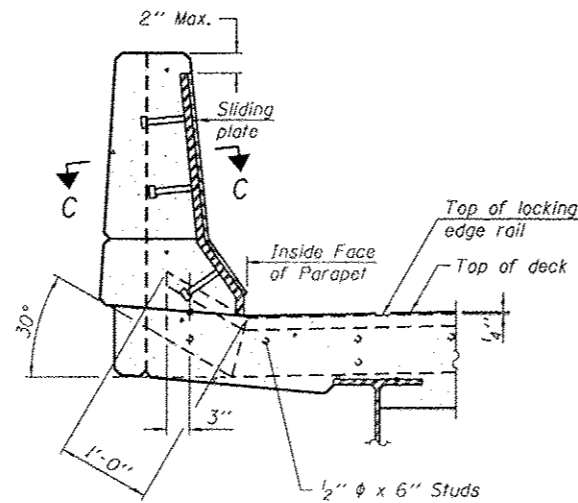


TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN

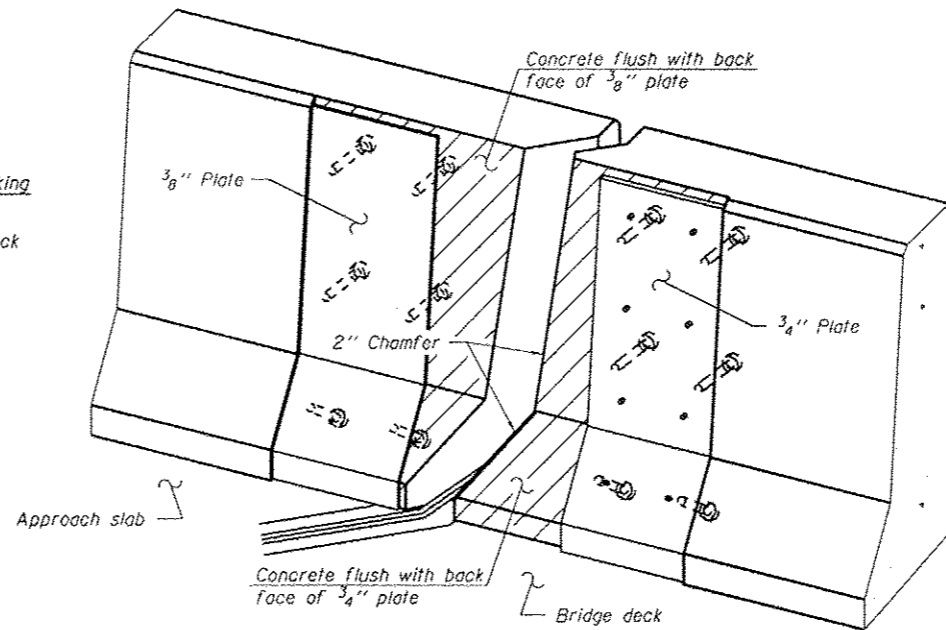
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "Welded" strip seal gland configurations are not permitted. The gland shall be sized for maximum rated movement of 4 inches.

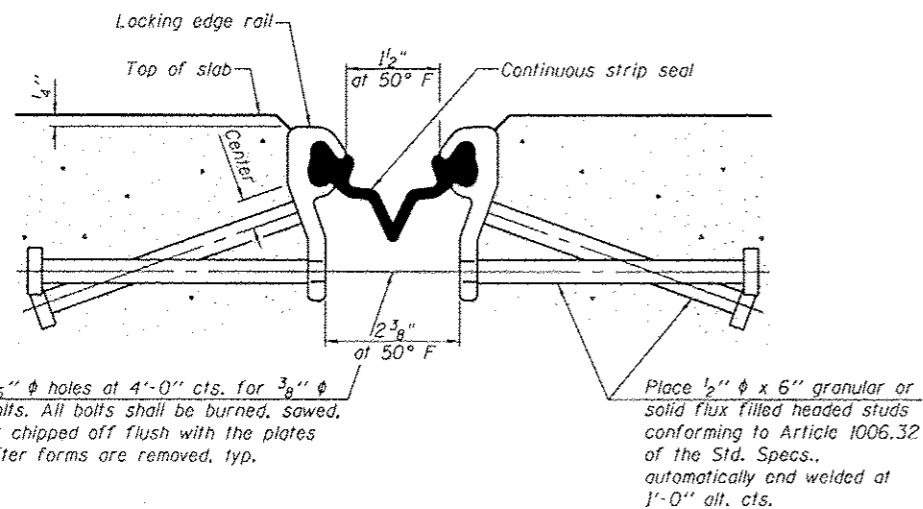
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed. All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant, joints in Rails within 10 Ft. of curbs shall be welded.

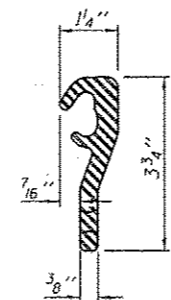
Parapet plates and anchorage studs for skew $> 30^\circ$ including in the cast of Preformed Strip Seal.



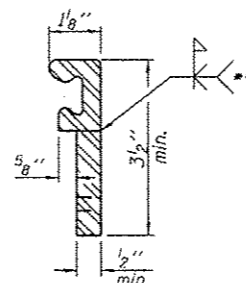
SECTION THRU STRIP SEAL JOINT

7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

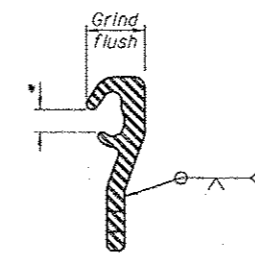
Place 1/2" ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.



ROLLED
(EXTRUDED) RAIL



WELDED RAIL



LOCKING EDGE
RAIL SPLICE

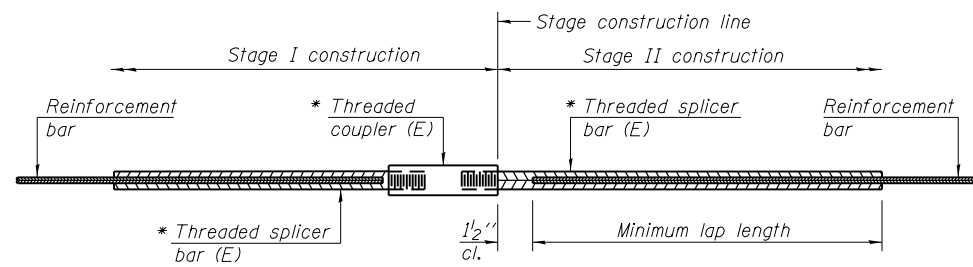
Rolled rail shown, welded rail similar.

LOCKING EDGE RAIL

- * Omit weld at seal opening.
- ** Back gouge not required if complete joint penetration is verified by mock-up.

BILL OF MATERIAL

| Item | Unit | Total |
|----------------------------|------|-------|
| Preformed Joint Strip Seal | Foot | 210.0 |



STANDARD BAR SPLICER ASSEMBLY

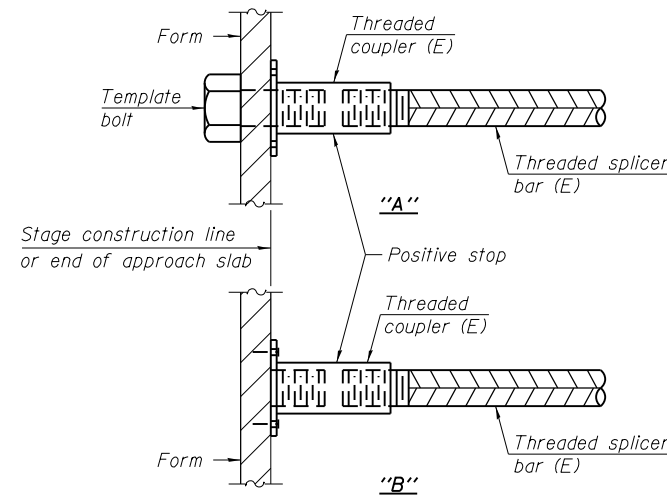
| Minimum Lap Lengths | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|
| Bar size to be spliced | Table 1 | Table 2 | Table 3 | Table 4 | Table 5 | Table 6 |
| 3, 4 | 1'-5" | 1'-11" | 2'-1" | 2'-4" | 2'-7" | 2'-11" |
| 5 | 1'-9" | 2'-5" | 2'-7" | 2'-11" | 3'-3" | 3'-8" |
| 6 | 2'-1" | 2'-11" | 3'-1" | 3'-6" | 3'-10" | 4'-5" |
| 7 | 2'-9" | 3'-10" | 4'-2" | 4'-8" | 5'-2" | 5'-10" |
| 8 | 3'-8" | 5'-1" | 5'-5" | 6'-2" | 6'-9" | 7'-8" |
| 9 | 4'-7" | 6'-5" | 6'-10" | 7'-9" | 8'-7" | 9'-8" |

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

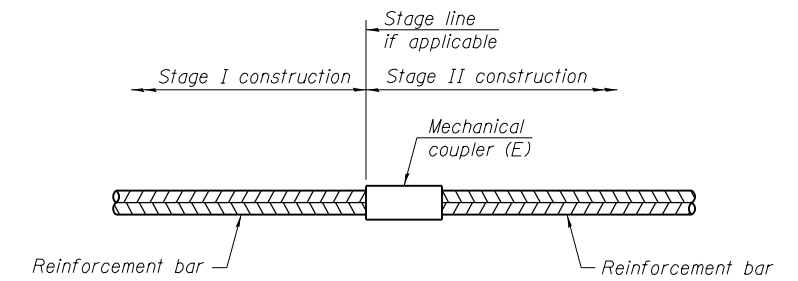
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Location | Bar size | No. assemblies required | Table for minimum lap length |
|----------|----------|-------------------------|------------------------------|
| 049-0022 | 5 | 4 | 3 |
| 049-0022 | 6 | 4 | 3 |
| 049-0023 | 5 | 4 | 3 |
| 049-0023 | 6 | 4 | 3 |



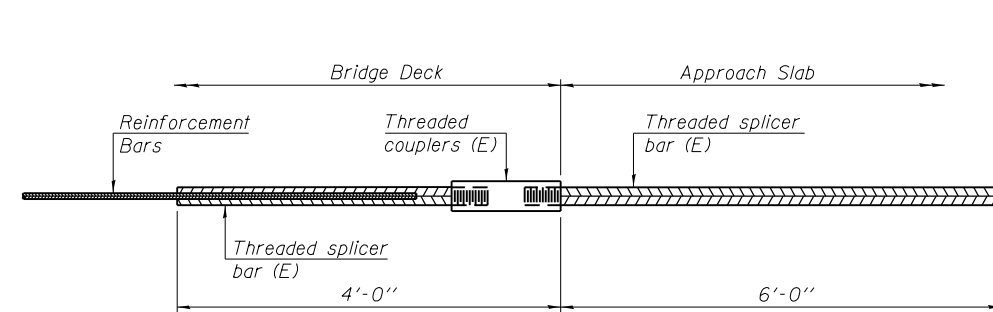
INSTALLATION AND SETTING METHODS

"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.



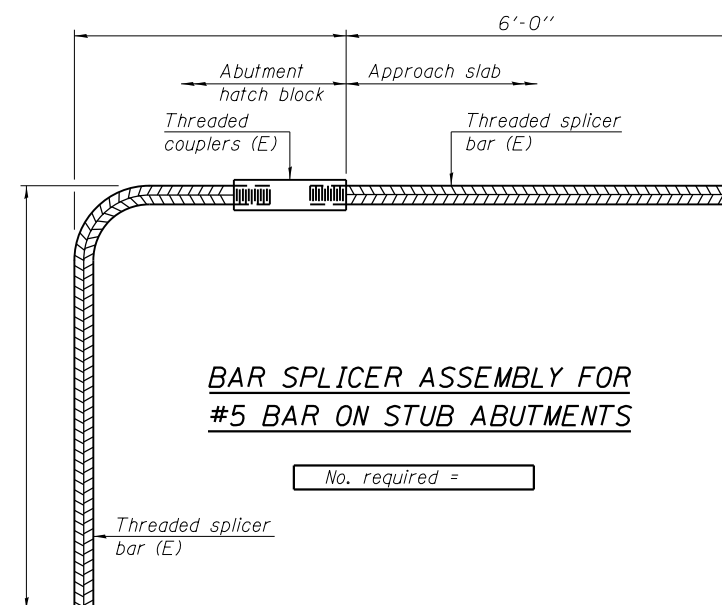
STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
| | | |
| | | |
| | | |
| | | |



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

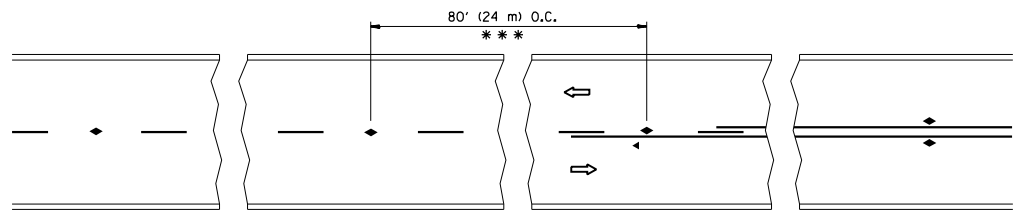
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-27-12

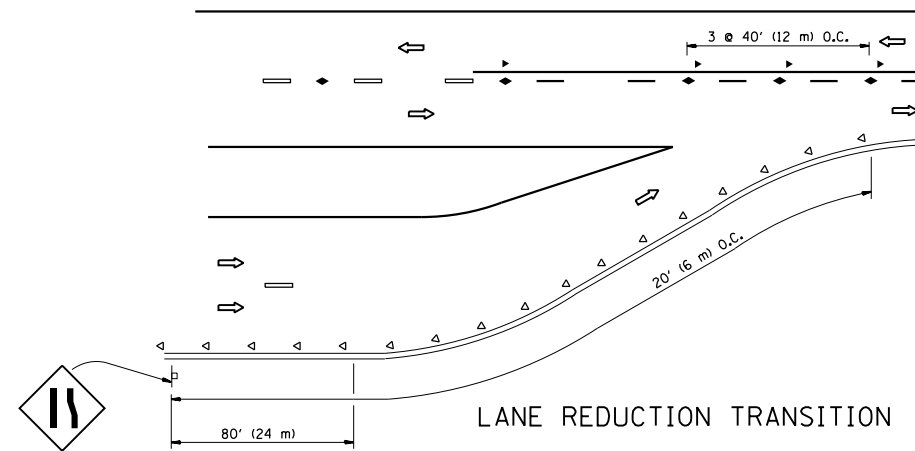
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| USER NAME = | DESIGNED - AEK | REVISED |
| | CHECKED - JMS | REVISED |
| PLOT SCALE = | DRAWN - DR | REVISED |
| PLOT DATE = | CHECKED - JMS | REVISED |

| | | | | |
|---------------------------|----------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-B)BR | LAKE | 25 | 22 |
| CONTRACT NO. 60W19 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

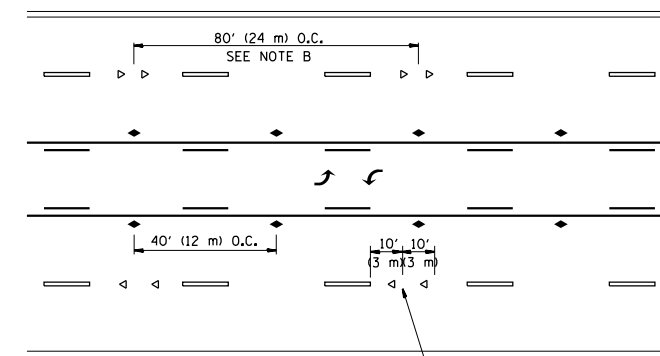


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

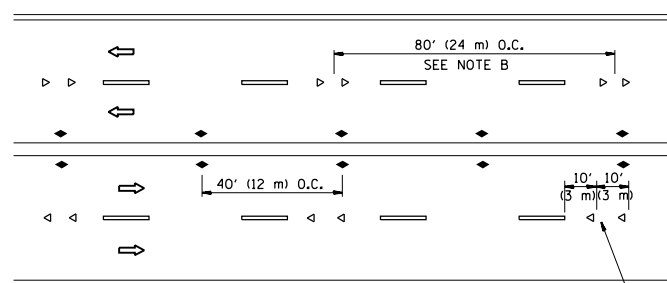
TWO-LANE/TWO-WAY



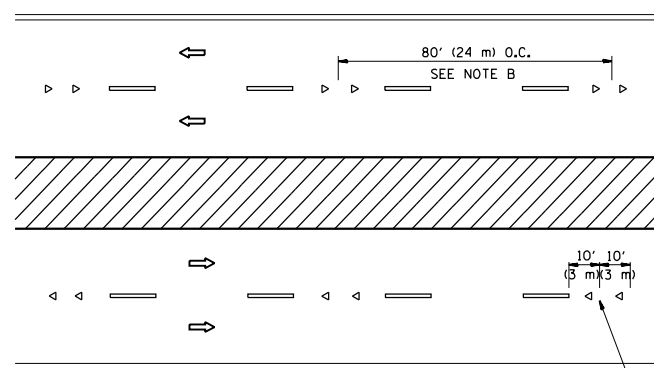
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

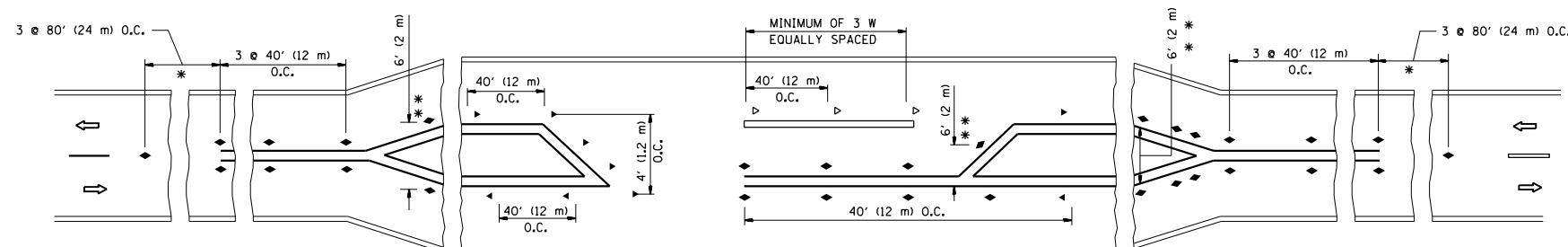
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

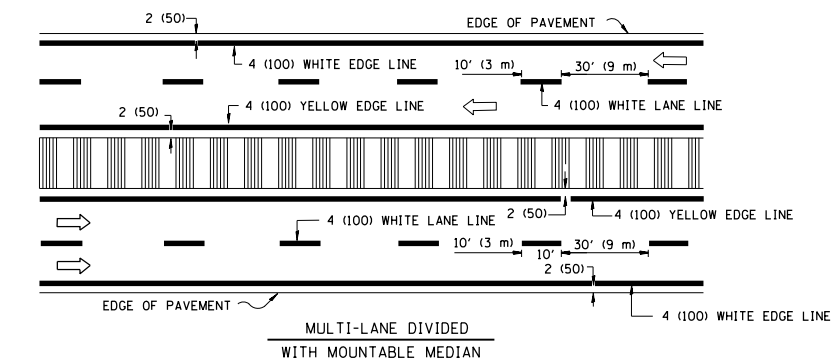
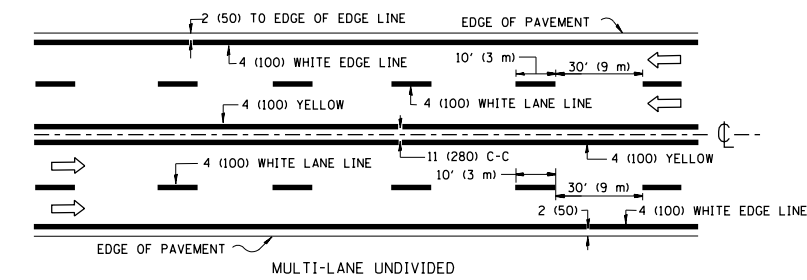
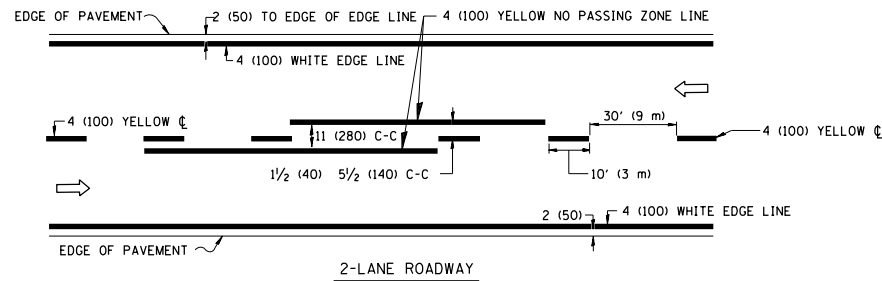
All dimensions are in inches (millimeters) unless otherwise shown.

| | | | |
|---|-------------------------------------|------------|---------------------------------|
| FILE NAME = | USER NAME = akotsekis | DESIGNED - | REVISED - T. RAMMACHER 09-19-94 |
| I:\7290\7290.20 - US 12 & IL 59 over IL | 76\CADD\District 1 Details\tell.dgn | DRAWN - | REVISED - T. RAMMACHER 03-12-99 |
| | PLOT SCALE = 100.000' / in. | CHECKED - | REVISED - T. RAMMACHER 01-06-00 |
| | PLOT DATE = 4/8/2013 | DATE - | REVISED - C. JUCIUS 09-09-09 |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

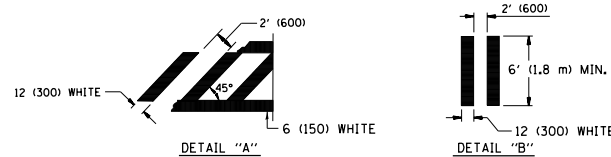
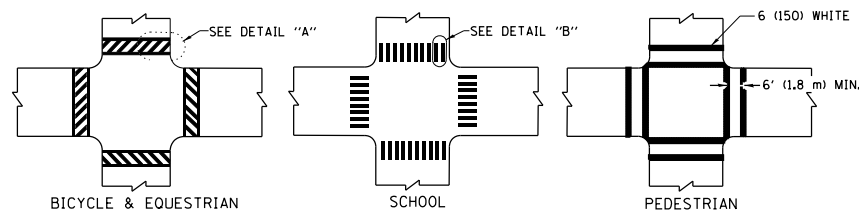
| TYPICAL APPLICATIONS | | | |
|--|-------------------------|------|---------|
| RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) | | | |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA. |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------|--------|--------------------|-----------|
| 334 | (TH-B)BR | Lake | 25 | 23 |
| TC-11 | | | CONTRACT NO. 60W19 | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

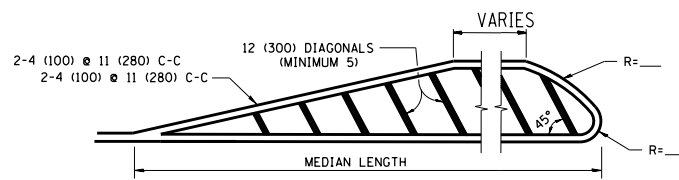
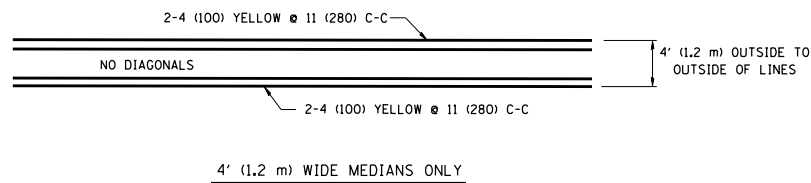


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

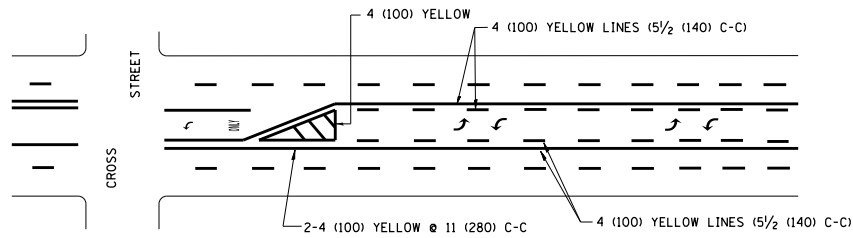


TYPICAL CROSSWALK MARKING

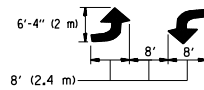


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

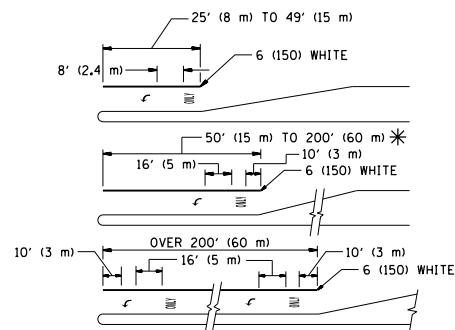


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

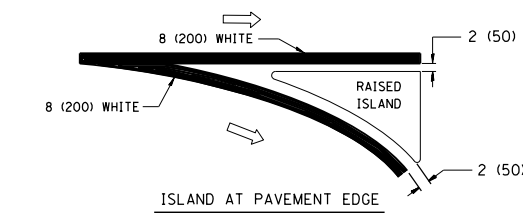
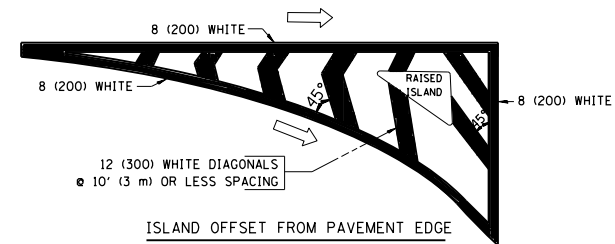


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|--|------------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT | 4 (100) | SKIP-DASH | YELLOW | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT | 2 @ 4 (100) | SOLID | YELLOW | 11 (280) C-C |
| NO PASSING ZONE LINES: FOR ONE DIRECTION | 4 (100) | SOLID | YELLOW | 5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE |
| NO PASSING ZONE LINES: FOR BOTH DIRECTIONS | 2 @ 4 (100) | SOLID | YELLOW | 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100) 5 (125) ON FREEWAYS | SKIP-DASH SKIP-DASH | WHITE WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2' (600) LINE WITH 6' (1.8 m) SPACE |
| EDGE LINES | 4 (100) | SOLID | YELLOW-LEFT WHITE-RIGHT | OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB |
| TURN LANE MARKINGS | 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW | SKIP-DASH AND SOLID IN PAIRS | YELLOW WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE. SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL) | 2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90° | SOLID SOLID SOLID | WHITE WHITE WHITE | NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID | YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE. SEE TYPICAL PAINTED MEDIAN MARKING. |
| GORE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS @ 45° | SOLID | WHITE | DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²) |
| SHOULDER DIAGONALS | 12 (300) @ 45° | SOLID | WHITE - RIGHT YELLOW - LEFT | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h)) |

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

| | | | |
|---|-----------------------|------------------|--------------------------------|
| FILE NAME = I:\7290\7290.20 - US 12 & IL 59 over IL | USER NAME = akotsakis | DESIGNED - EVERS | REVISED -T. RAMMACHER 10-27-94 |
| 76\CADD\District 1 Details\tel3.dgn | | DRAWN - | REVISED -C. JUCIUS 09-09-09 |
| PLOT SCALE = 100.000 / in. | | CHECKED - | REVISED - |
| PLOT DATE = 4/8/2013 | | DATE - 03-19-90 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | |
|---------------------------|-------------------------|------|---------|
| DISTRICT ONE | | | |
| TYPICAL PAVEMENT MARKINGS | | | |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA. |

| | | | | |
|---|----------|--------------------|--------------|-----------|
| F.A.P. R.T.E. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-B)BR | Lake | 25 | 24 |
| TC-13 | | CONTRACT NO. 60W19 | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

| | | | |
|---|-------------------------------------|------------|---------------------------------|
| FILE NAME = | USER NAME = akotsakis | DESIGNED - | REVISED - R. MIRS 09-15-97 |
| I:\7290\7290.20 - US 12 & IL 59 over IL | 76\CADD\District 1 Details\to22.dgn | DRAWN - | REVISED - R. MIRS 12-11-97 |
| | PLOT SCALE = 100.000 / in. | CHECKED - | REVISED - T. RAMMACHER 02-02-99 |
| | PLOT DATE = 4/8/2013 | DATE - | REVISED - C. JUCIUS 01-31-07 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| | | | | |
|---|----------|--------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 334 | (TH-B)BR | Lake | 25 | 25 |
| TC-22 | | | CONTRACT NO. 60W19 | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |