

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.U. ROUTE 1324/US 14 (Dempster St.) AT CREEK  
(0.1 MI. EAST OF I-294)  
SECTION 3014-I  
PROJECT NO. M-1324(006)  
BRIDGE DECK OVERLAY, BRIDGE JOINT REPAIR  
COOK COUNTY  
JOB NO. C-91-230-10

| F.A.U. RTE.           | SECTION | COUNTY   | TOTAL SHEETS       | SHEET NO. |
|-----------------------|---------|----------|--------------------|-----------|
| 1324                  | 3014-I  | COOK     | 19                 | 1         |
| FED. ROAD DIST. NO. 1 |         | ILLINOIS | CONTRACT NO. 60J40 |           |

D-91-230-10



LOCATION OF SECTION INDICATED THUS: — —

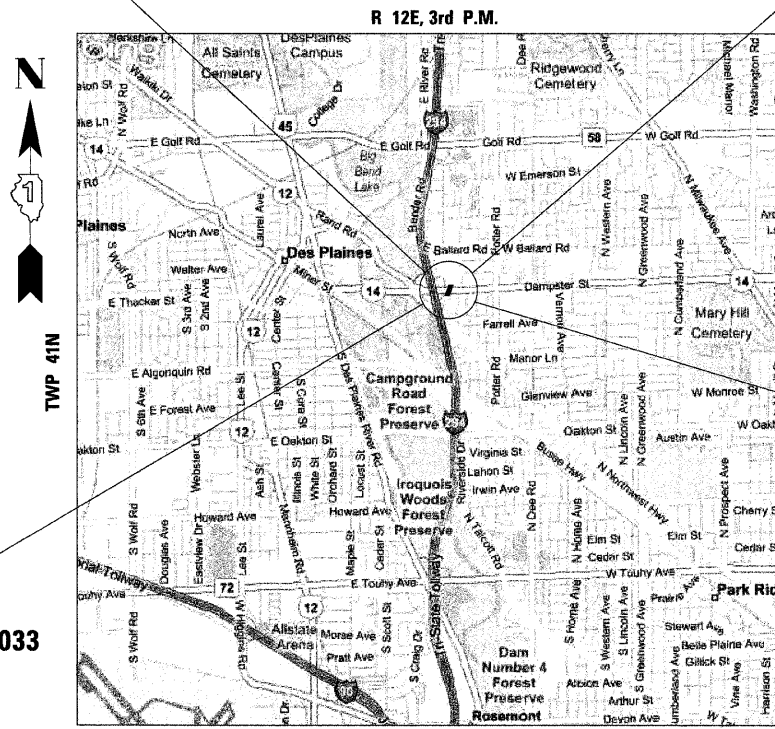
FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR LIST OF STANDARDS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN  
PARK RIDGE, IL

S.N. 016-1033  
ADT = 41,100 (2007)  
POSTED SPEED: 35 MPH

IMPROVEMENT BEGINS:  
STA. 45 + 64.08

IMPROVEMENT ENDS:  
STA. 45 + 98.08

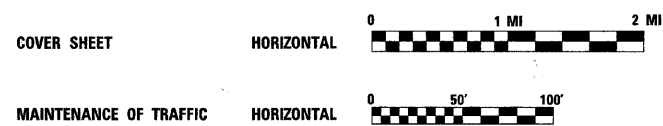


PROJECT LOCATION

US ROUTE 14  
(DEMPSTER ST.)  
EXISTING S.N. 016-1033

MAINE TOWNSHIP  
LOCATION MAP

GRAPHIC SCALES:



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

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

PROJECT ENGINEER: MICHELLE A. AQUINO - (847) 705-4606  
PROJECT MANAGER: RAJENDRA C. SHAH - (847) 705-4555  
CONTRACT NO.: 60J40

GROSS AND NET LENGTH OF IMPROVEMENT = 33 FEET = 0.006 MILE



*Fred M. Lin*  
FRED M. LIN, P.E.  
ILLINOIS REGISTERED ENGINEER NO. 062-056704  
REGISTRATION EXPIRES NOV. 30, 2011

PREPARED BY:  
LIN ENGINEERING, LTD.  
CHATHAM, ILLINOIS 62629  
(217) 483-4168

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 22, 2010

*Diana M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 19 2010

*Scott E. Stitt, P.E.*  
REGISTERED ENGINEER OF DESIGN AND ENVIRONMENT

March 19 2010

*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS
- 3 SUMMARY OF QUANTITIES
- 4-6 MAINTENANCE OF TRAFFIC PLANS
- 7-8 PAVEMENT MARKING PLAN
- 9-13 STRUCTURAL PLANS
- 14-19 DISTRICT STANDARDS

**STATE STANDARDS**

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREA OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 606301-04 PC CONCRETE ISLANDS AND MEDIANS
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- ~~701006-03 OFF-RD OPERATIONS, 2L, 2W, 15'(4.5m) TO 24"(600mm) FROM EDGE OF PAVEMENT~~
- 701101-02 OFF-RD OPERATIONS, MULTILANE 15'(4.5m) TO 24"(600mm) FROM EDGE OF PAVEMENT
- ~~701201-03 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH~~
- ~~701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS DAY ONLY~~
- ~~701431-05 LANE CLOSURE, MULTILANE, UNDIVIDED WITH CROSSOVER, FOR SPEEDS > 45 MPH TO 55 MPH~~
- 701602-04 URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A&B METAL POSTS (FOR SIGNS & MARKERS)
- ~~701426-03~~
- ~~701606-06~~

**DISTRICT STANDARDS - INCLUDED AS PLAN SHEETS 14-19**

- BD32 BUTT JOINT AND HMA TAPER DETAILS
- TC10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
- TC11 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
- TC13 TYPICAL PAVEMENT MARKINGS
- TC22 ARTERIAL ROAD INFORMATION SIGN
- TC26 DRIVEWAY ENTRANCE SIGNING

**COMMITMENTS**

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

**GENERAL NOTES**

1. THESE PLANS HAVE BEEN PREPARED FROM INFORMATION ACQUIRED FROM EXISTING PLANS AND NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO VARIATIONS FOUND IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. ANY ADJUSTMENTS PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
3. QUANTITIES FOR DECK SLAB REPAIR ARE APPROXIMATE. LOCATIONS WILL BE DETERMINED BY THE ENGINEER FOLLOWING REMOVAL OF THE HMA SURFACE COURSE AND HYDRO-SCARIFICATION. ACTUAL REPAIR LOCATIONS SHALL BE SHOWN ON THE AS-BUILT PLANS.
4. FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) OR 811 FOR LOCATIONS OF THE EXISTING UTILITIES.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
8. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
10. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
11. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE CREEK. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.
12. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
13. THE CONTRACTOR SHALL CONTACT WALTER CZARNY, THE AREA TRAFFIC FIELD ENGINEER, AT (773) 685-4342 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.  
*8886 AT LEAST*
14. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
15. ALL RAISED REFLECTIVE PAVEMENT MARKS (BRIDGE) SHALL BE LOW PROFILE.
16. ACCESS SHALL BE PROVIDED AT ALL TIMES TO PROPERTIES ABUTTING THE PROPOSED IMPROVEMENT.

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

| MIXTURE TYPE  | AIR VOIDS    |
|---|--------------|
| <b>SURFACE COURSE</b>   |              |
| POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm) - 1 3/4" | 4% @ 90 Gyr. |
| <b>BINDER COURSE</b>  |              |
| LEVELING BINDER (MACHINE METHOD), N70 - 3/4"                                  | 4% @ 70 Gyr. |
| <b>TEMPORARY PAVEMENT</b>   |              |
| POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm) - 2"     | 4% @ 90 Gyr. |
| LEVELING BINDER (MACHINE METHOD), N70, 10" (3 Lifts)                          | 4% @ 70 Gyr. |

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

|                      |                    |                |           |   |   |   |         |        |              |           |            |  |
|----------------------|--------------------|----------------|-----------|---|---|---|---------|--------|--------------|-----------|------------|--|
| FILE NAME =          | USER NAME = #USER# | DESIGNED - DPS | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>INDEX OF SHEETS, STANDARDS, GENERAL NOTES &amp; COMMITMENTS<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> | F.A.U. RTE.                                   | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | <i>Rev</i> |  |
| #FILE#               |                    | DRAWN - DPS    | REVISED - |   |   | 1324  | 3014-1  | COOK   | 19           | 2         |            |  |
| PLOT SCALE = #SCALE# |                    | CHECKED - FL   | REVISED - |   |   | CONTRACT NO. 60J40                            |         |        |              |           |            |  |
| PLOT DATE = #DATE#   |                    | DATE - 1/2010  | REVISED - |   |   | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |         |        |              |           |            |  |
|                      |                    |                |           |   | SCALE: NONE   | SHEET NO.                                     | OF      | SHEETS | STA.         | TO        | STA.       |  |

URBAN  
80% FED.  
20% STATE

SUMMARY OF QUANTITIES

URBAN  
80% FED  
20% STATE









| CODE NUMBER | ITEM   | UNIT   | TOTAL QUANTITY | X020-2A STRUCTURE | 1000-2A ROADWAY |
|-------------|--|--------|----------------|-------------------|-----------------|
| 40600100    | BITUMINOUS MATERIALS (PRIME COAT)                                    | GALLON | 518            | 186               | 332             |
| 40600635    | LEVELING BINDER (MACHINE METHOD), N70                                | TON    | 39             | 39                |                 |
| 40603595    | POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90             | TON    | 91             | 91                |                 |
| 44000100    | PAVEMENT REMOVAL   | SQ YD  | 808            |                   | 808             |
| 44000152    | HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"                                | SQ YD  | 1112           | 1112              |                 |
| 5002400     | CONCRETE REMOVAL   | CU YD  | 2.7            | 2.7               |                 |
| 50300255    | CONCRETE SUPERSTRUCTURE  | CU YD  | 2.7            | 2.7               |                 |
| 50300260    | BRIDGE DECK GROOVING   | SQ YD  | 170            | 170               |                 |
| 50300300    | PROTECTIVE COAT  | SQ YD  | 195            | 195               |                 |
| 50800205    | REINFORCEMENT BARS, EPOXY COATED                                     | POUND  | 390            | 390               |                 |
| 60019200    | CONCRETE MEDIAN, TYPE SB-6.00  | SQ FT  | 7271           |                   | 7271            |
| 67000400    | ENGINEER'S FIELD OFFICE, TYPE A                                      | CAL MO | 3              |                   | 3               |
| 67100100    | MOBILIZATION   | L SUM  | 1              |                   | 1               |
| 70101800    | TRAFFIC CONTROL AND PROTECTION, (SPECIAL)                            | L SUM  | 1              |                   | 1               |
| 70103815    | TRAFFIC CONTROL SURVEILLANCE   | CAL DA | 30             |                   | 30              |
| 70106800    | CHANGEABLE MESSAGE SIGN  | CAL MO | 3              |                   | 3               |
| 70301000    | WORK ZONE PAVEMENT MARKING REMOVAL                                   | SQ FT  | 2559           |                   | 2559            |
| 70400100    | TEMPORARY CONCRETE BARRIER   | FOOT   | 425            |                   | 425             |
| 70400200    | RELOCATE TEMPORARY CONCRETE BARRIER                                  | FOOT   | 337.5          |                   | 337.5           |
| * 78000200  | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                             | FOOT   | 4537.5         |                   | 4537.5          |
| * 78000500  | THERMOPLASTIC PAVEMENT MARKING - LINE 8"                             | FOOT   | 100            |                   | 100             |
| * 78100105  | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)                           | EACH   | 2              |                   | 2               |
| * 78100300  | REPLACEMENT REFLECTOR  | EACH   | 86             |                   | 86              |
| * 78200530  | BARRIER WALL MARKERS, TYPE C   | EACH   | 544            |                   | 544             |
| 78300100    | PAVEMENT MARKING REMOVAL   | SQ FT  | 1694           |                   | 1694            |
| 78300200    | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL                            | EACH   | 2              |                   | 2               |
| X0320887    | POLYMER CONCRETE   | CU FT  | 23.4           | 23.4              |                 |
| X0322185    | BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES                     | SQ YD  | 184            | 184               |                 |
| X0322256    | TEMPORARY INFORMATION SIGNING  | SQ FT  | 116            |                   | 116             |
| X0322933    | SILICONE JOINT SEALER, 2.5"  | FOOT   | 97             | 97                |                 |
| X0325303    | STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)          | SQ FT  | 42             | 42                |                 |
| X0325305    | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT  | 38             | 38                |                 |
| X0325775    | WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH                      | FOOT   | 7754           |                   | 7754            |
| X0712400    | TEMPORARY PAVEMENT   | SQ YD  | 808            |                   | 808             |
| Z0006204    | BRIDGE DECK HYDRO-SCARIFICATION 1/2"                                 | SQ YD  | 184            | 184               |                 |

| CODE NUMBER | ITEM  | UNIT  | TOTAL QUANTITY | X020-2A STRUCTURE | 1000-2A ROADWAY |
|-------------|---|-------|----------------|-------------------|-----------------|
| Z0016001    | DECK SLAB REPAIR (FULL DEPTH, TYPE I)                                   | SQ YD | 1.3            | 1.3               |                 |
| Z0016002    | DECK SLAB REPAIR (FULL DEPTH, TYPE ID)                                  | SQ YD | 14.3           | 14.3              |                 |
| Z0030260    | IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3 | EACH  | 1              |                   | 1               |
| Z0030330    | IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3          | EACH  | 1              |                   | 1               |
| 58700300    | CONCRETE SEALER   | SQ FT | 555            | 555               |                 |
| 44003100    | MEDIAN REMOVAL  | SQ FT | 7271           |                   | 7271            |

\*Specialty Hems

|             |                      |                |           |   |  |   |        |      |    |                    |         |        |              |           |
|-------------|----------------------|----------------|-----------|---|--|---|--------|------|----|--------------------|---------|--------|--------------|-----------|
| FILE NAME = | USER NAME = #USER#   | DESIGNED - SEW | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> |  | <b>SUMMARY OF QUANTITIES<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> |        |      |    | F.A.U. RTE.        | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE#      |                      | DRAWN - SEW    | REVISED - |   |  | 1324  | 3014-I | COOK | 19 | 3                  |         |        |              |           |
|             | PLOT SCALE = #SCALE# | CHECKED - FML  | REVISED - |   |  | SCALE: SHEET NO. OF SHEETS STA. TO STA.   |        |      |    | CONTRACT NO. 60J40 |         |        |              |           |
|             | PLOT DATE = #DATE#   | DATE - 1/2010  | REVISED - |   |  | ILLINOIS FED. AID PROJECT   |        |      |    |                    |         |        |              |           |

**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT / DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT (PER HWY. STD. 701431-05)
-  SIGN
-  DETECTOR LOOPS
-  TRAFFIC SIGNAL

**PRESTAGE:**

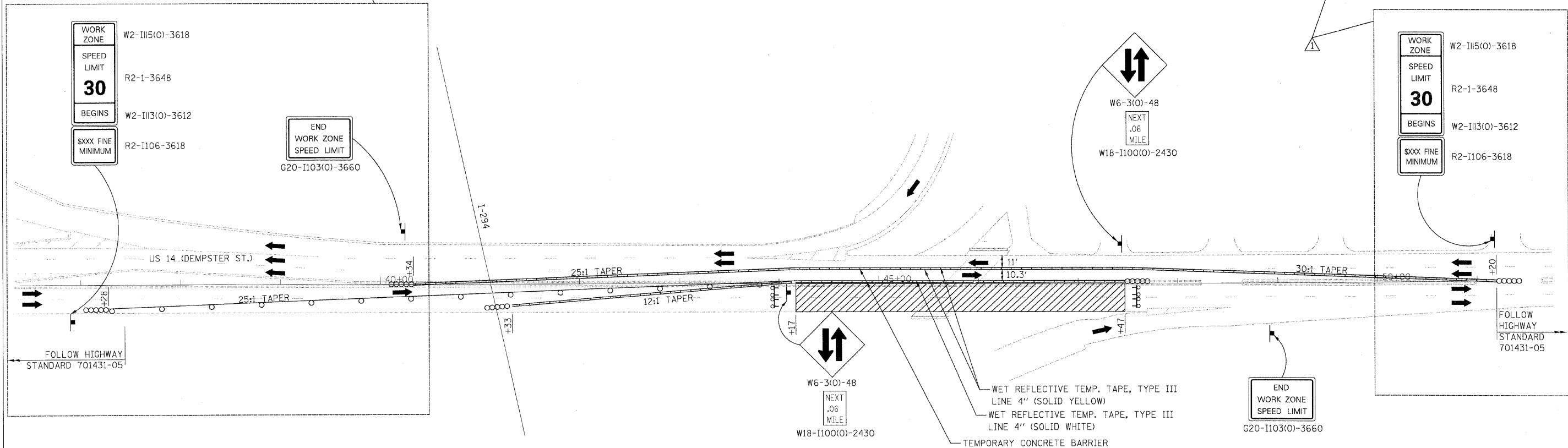
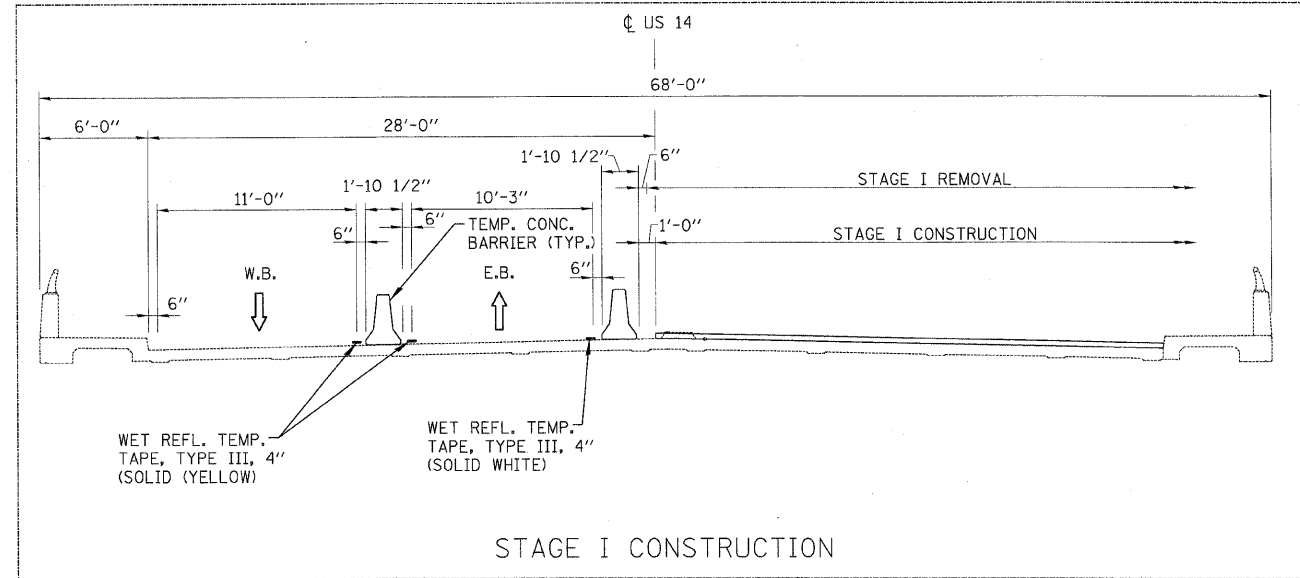
1. REMOVE EXISTING MEDIAN AND PROVIDE TEMPORARY PAVEMENT FROM STA. 40+65.00 TO STA. 45+64.08, AND FROM STA. 45+98.08 TO STA. 50+75.00 PER HIGHWAY STANDARD 701602-04.
2. PROVIDE FULL-DEPTH PATCH WITHIN BRIDGE LIMITS FROM STA. 45+64.08 TO STA. 45+98.08. ENSURE CURE TIME ACHIEVED PRIOR TO STAGE I TRAFFIC.

**STAGE I:**

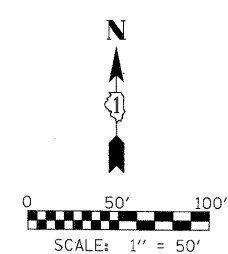
1. REMOVE CONFLICTING EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS PER HIGHWAY STANDARD 701201-03.
2. CLOSE EASTBOUND LANES OF US 14 OVER FARMERS CREEK PER HIGHWAY STANDARD 701431-05 AND AS SHOWN IN THE PLANS.
3. PERFORM SOUTH HALF STRUCTURAL REPAIRS AS SHOWN IN THE PLANS.

**NOTES:**







1. ALL SIGNS SHALL BE MOUNTED WITH STEADY BURN LIGHTS AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION. THE COST OF THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT COST PER LUMP SUM FOR "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)".



|             |                    |                |           |   |  |                                  |                    |             |   |             |
|-------------|--------------------|----------------|-----------|---|--|----------------------------------|--------------------|-------------|---|-------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - ST  | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>MAINTENANCE OF TRAFFIC - STAGE I<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> | F.A.U. RTE. 1324                 | SECTION 3014-I     | COUNTY COOK | TOTAL SHEETS 19                               | SHEET NO. 4 |
| #FILE#      |                    | DRAWN - ST     | REVISED - |   | SCALE: 1"=50'  | SHEET NO. OF SHEETS STA. TO STA. | CONTRACT NO. 60J40 |             | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |             |
|             |                    | CHECKED - FML  | REVISED - |   |  |                                  |                    |             |   |             |
|             |                    | DATE - 12/2009 | REVISED - |   |  |                                  |                    |             |   |             |



**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT/DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT (PER HWY. STD. 701431-05)
-  SIGN

**STAGE II**

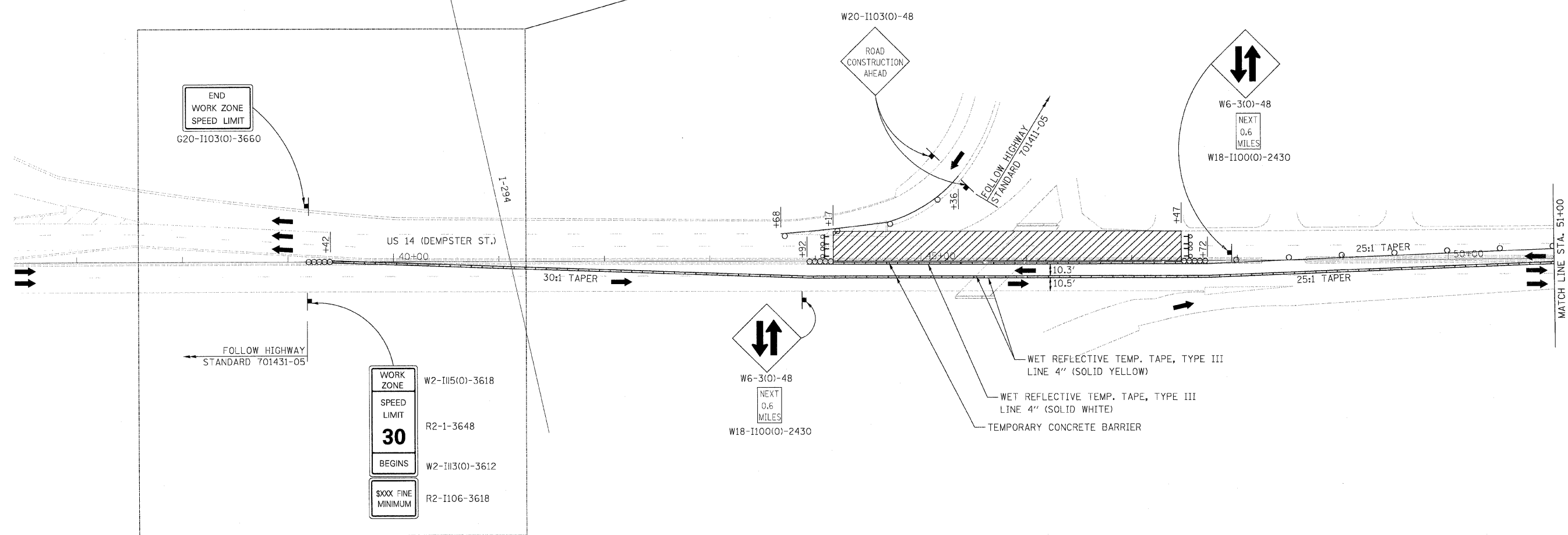
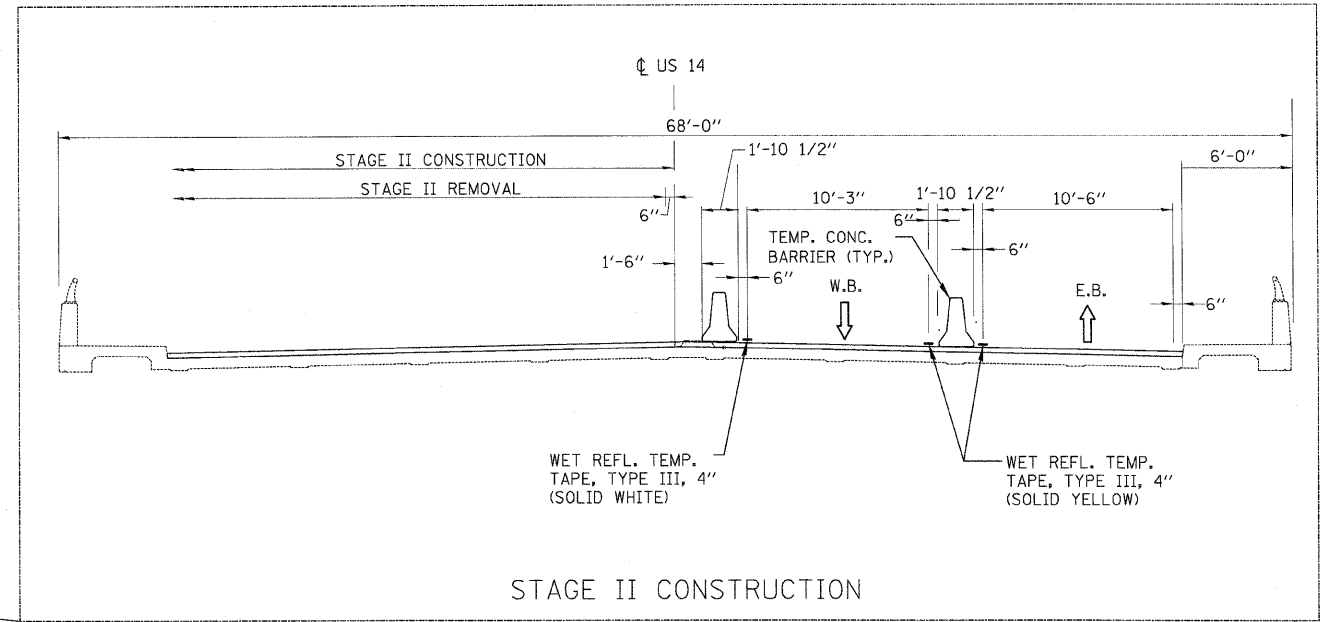
1. CLOSE WESTBOUND LANES OF US 14 OVER FARMERS CREEK PER HIGHWAY STANDARD 701431-05 AND AS SHOWN IN THE PLANS.
2. PERFORM NORTH HALF STRUCTURAL REPAIRS AS SHOWN IN THE PLANS.

**STAGE III**

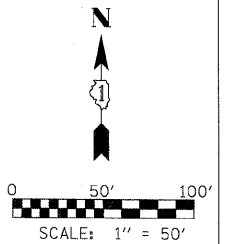
1. REMOVE TEMPORARY PAVEMENT AND CONSTRUCT PROPOSED MEDIAN BETWEEN STA. 40+65.00 AND STA. 50+75.00 PER HIGHWAY STANDARD 701602-04.
2. APPLY PERMANENT PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS UNDER HIGHWAY STANDARD 701311-03.

**NOTES**

1. ALL SIGNS SHALL BE MOUNTED WITH STEADY BURN LIGHTS AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION. THE COST OF THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT COST PER LUMP SUM FOR "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)".









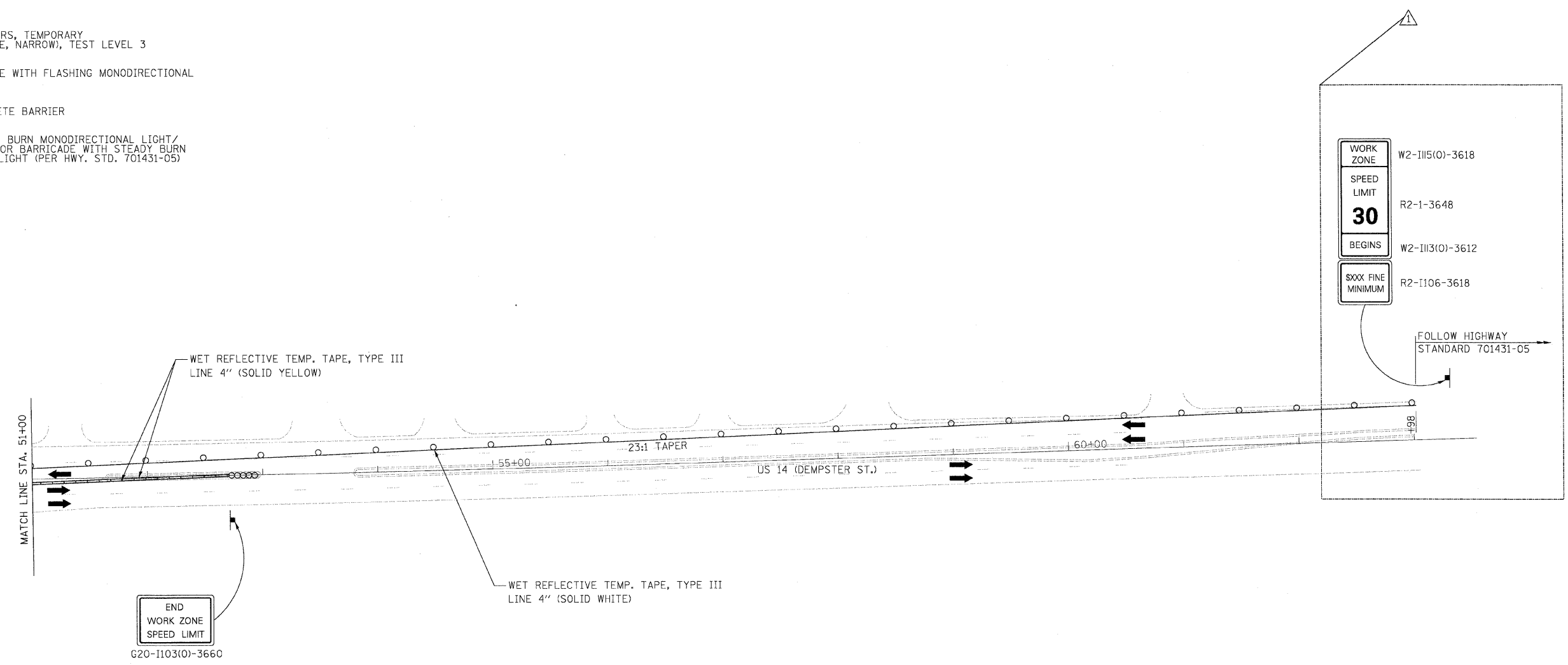
|                   |                 |
|-------------------|-----------------|
| WORK ZONE         | W2-1115(0)-3618 |
| SPEED LIMIT       | R2-1-3648       |
| <b>30</b>         |                 |
| BEGINS            | W2-1113(0)-3612 |
| XXXX FINE MINIMUM | R2-1106-3618    |



|                      |                    |                |             |   |  |   |         |        |              |           |  |
|----------------------|--------------------|----------------|-------------|---|--|---|---------|--------|--------------|-----------|--|
| FILE NAME = #FILE#   | USER NAME = #USER# | DESIGNED - ST  | REVISED - ^ | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>MAINTENANCE OF TRAFFIC - STAGE II, SHEET I<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> | F.A.U. RTE.                                     | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |  |
|                      |                    | DRAWN - ST     | REVISED -   |   |  | 1324  | 3014-I  | COOK   | 19           | 5         |  |
| PLOT SCALE = #SCALE# |                    | CHECKED - FML  | REVISED -   |   |  | CONTRACT NO. 60J40                              |         |        |              |           |  |
| PLOT DATE = #DATE#   |                    | DATE - 12/2009 | REVISED -   |   |  | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT |         |        |              |           |  |

**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT / DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT (PER HWY. STD. 701431-05)
-  SIGN

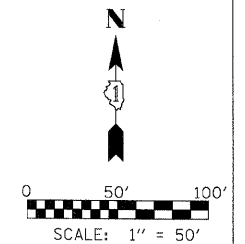


|                   |                 |
|-------------------|-----------------|
| WORK ZONE         | W2-II15(O)-3618 |
| SPEED LIMIT       | R2-1-3648       |
| <b>30</b>         |                 |
| BEGINS            | W2-II13(O)-3612 |
| SXXX FINE MINIMUM | R2-II106-3618   |

FOLLOW HIGHWAY STANDARD 701431-05

END  
WORK ZONE  
SPEED LIMIT

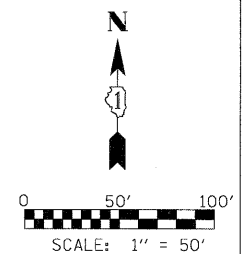
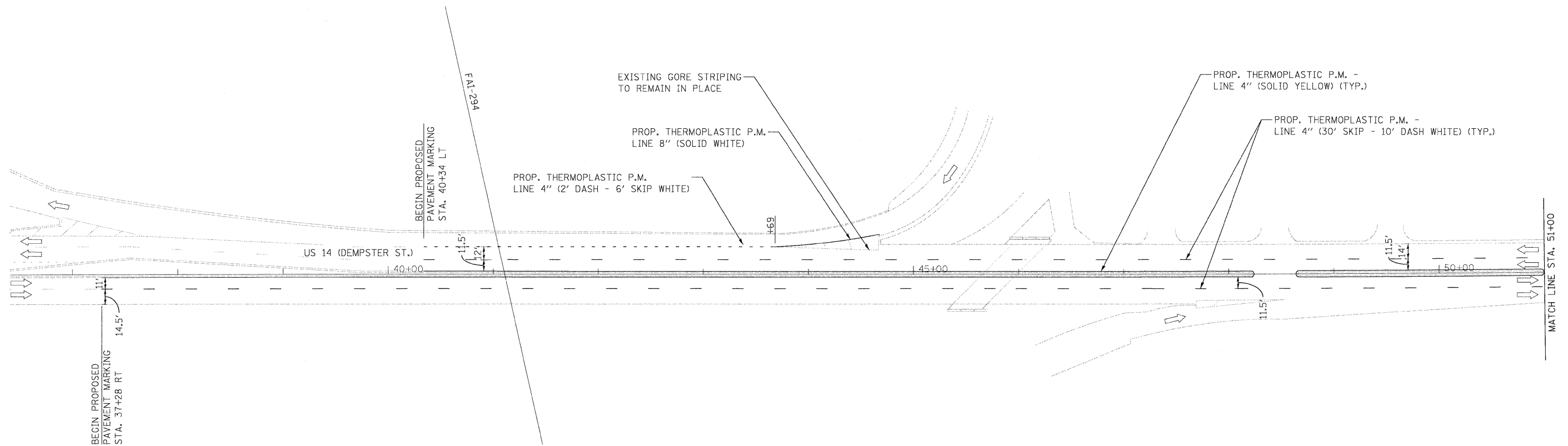
G20-II103(O)-3660



|             |                      |                |             |   |   |   |         |        |              |           |  |
|-------------|----------------------|----------------|-------------|---|---|---|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = #USER#   | DESIGNED - ST  | REVISED - ^ | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>MAINTENANCE OF TRAFFIC - STAGE II, SHEET II<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> | F.A.J.<br>RTE.                                  | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |  |
| #FILE#      |                      | DRAWN - ST     | REVISED -   |   |   | 1324  | 3014-I  | COOK   | 19           | 6         |  |
|             | PLOT SCALE = #SCALE# | CHECKED - FML  | REVISED -   |   |   | CONTRACT NO. 60J40                              |         |        |              |           |  |
|             | PLOT DATE = #DATE#   | DATE - 12/2009 | REVISED -   |   |   | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT |         |        |              |           |  |

**NOTES:**

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" (TC-13).
2. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID PRICE FOR THE WORK.



|             |                      |                |           |
|-------------|----------------------|----------------|-----------|
| FILE NAME = | USER NAME = #USER#   | DESIGNED - SEW | REVISED - |
| #FILEL#     |                      | DRAWN - SEW    | REVISED - |
|             | PLOT SCALE = #SCALE# | CHECKED - FML  | REVISED - |
|             | PLOT DATE = #DATE#   | DATE - 01/2010 | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK**

|                     |         |                           |              |           |
|---------------------|---------|---------------------------|--------------|-----------|
| F.A.U. RTE.         | SECTION | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| 1324                | 3014-1  | COOK                      | 19           | 7         |
| FED. ROAD DIST. NO. |         | ILLINOIS FED. AID PROJECT |              |           |

SCALE: 1"=50'    SHEET NO. 1 OF 2 SHEETS    STA.    TO STA.





Existing Structure:  
 Structure No. 016-1033 was built in 1928 as S.A. 5A, Section 3014-15D. In 1981, under FAU 1324 Section 1979-003 BR, the superstructure was replaced and widened. In 2002, the neoprene expansion joint was replaced with silicone joint sealer and polymer concrete nosing. Existing structure is a single span reinforced concrete slab bridge on closed abutments, 33'-0" bk. to bk. abutments, 68'-0" out to out deck with a left ahead skew of 45°. Stage construction shall be utilized to maintain traffic during construction.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCOPE OF WORK

1. Remove and replace silicone joint sealer and polymer concrete at expansion joint at west abutment
2. Remove and replace median
3. Repair deck slab and approach slab
4. Repair abutment concrete
5. Scarify 1/2" deck surface and Place new overlay on deck and approaches
6. Apply Protective Coat to new deck surface and median
7. Apply Concrete Sealer to inside and top faces of sidewalk and Parapets

INDEX OF SHEETS

1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
4. Concrete Removal and Repair
5. Abutment Repair

GENERAL NOTES

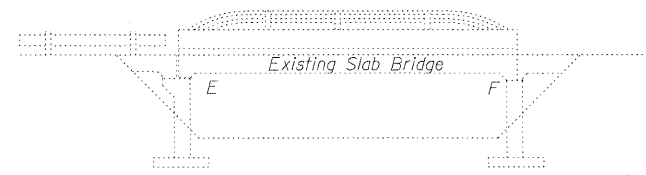
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

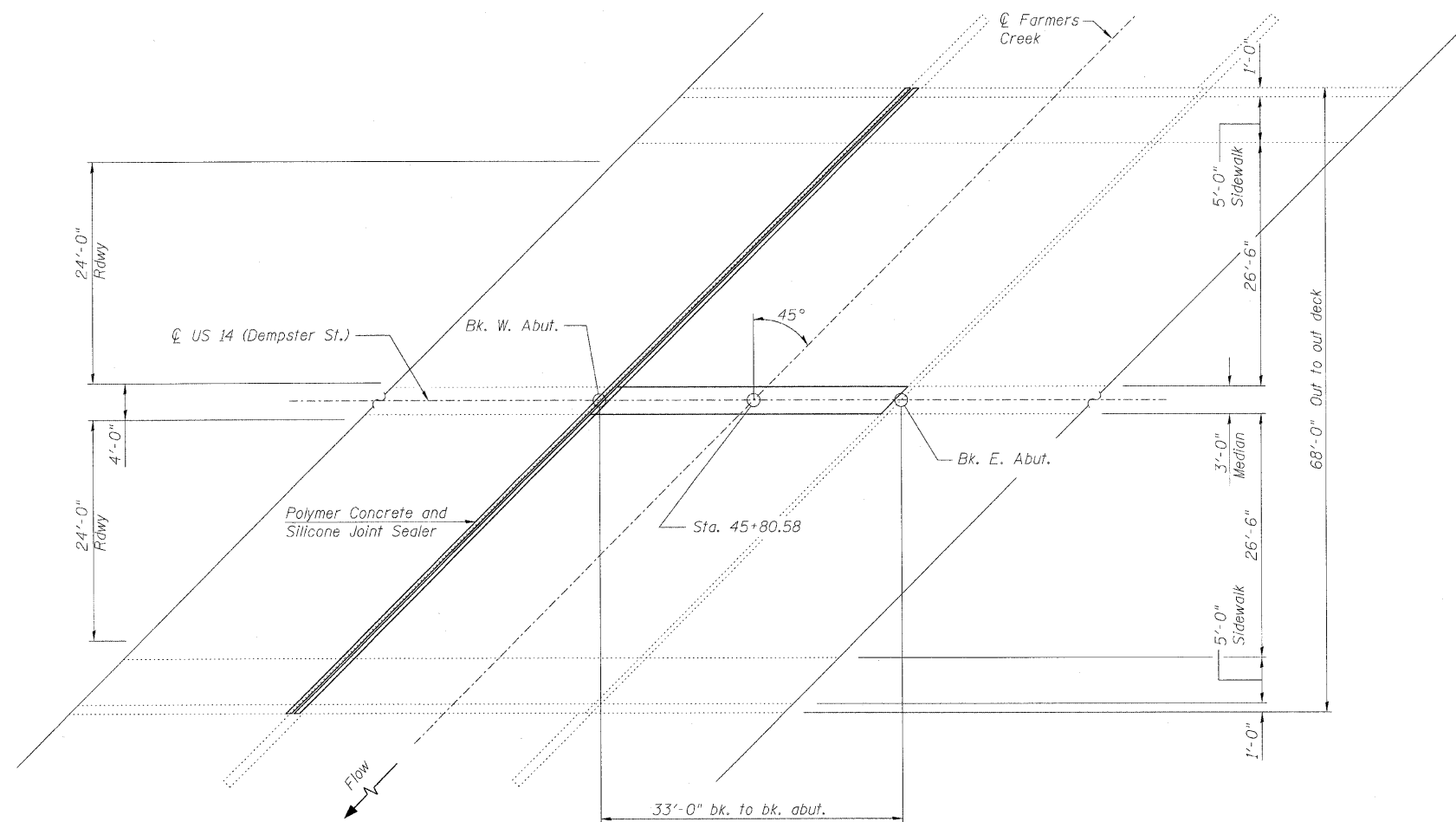
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall 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.

TOTAL BILL OF MATERIAL

| ITEM  | UNIT    | SUPER | SUB | TOTAL |
|---|---------|-------|-----|-------|
| Bituminous Materials (Prime Coat)                                 | Gallon  | 186   | -   | 186   |
| Leveling Binder (Machine Method), N70, 3/4"                       | Tons    | 39    | -   | 39    |
| Polymerized Hot-Mix Asphalt Surface Course, Mix "F", N90, 1 3/4"  | Tons    | 91    | -   | 91    |
| Protective Coat   | Sq. Yd. | 195   | -   | 195   |
| Hot-Mix Asphalt Surface Removal, 3/4"                             | Sq. Yd. | 1112  | -   | 1112  |
| Concrete Removal  | Cu. Yd. | 2.7   | -   | 2.7   |
| Concrete Superstructure   | Cu. Yd. | 2.7   | -   | 2.7   |
| Bridge Deck Grooving  | Sq. Yd. | 170   | -   | 170   |
| Reinforcement Bars, Epoxy Coated                                  | Pound   | 390   | -   | 390   |
| Concrete Sealer   | Sq. Ft. | 555   | -   | 555   |
| Bridge Deck Hydro-Scarification 1/2"                              | Sq. Yd. | 184   | -   | 184   |
| Deck Slab Repair (Full Depth, Type I)                             | Sq. Yd. | 1.3   | -   | 1.3   |
| Deck Slab Repair (Full Depth, Type II)                            | Sq. Yd. | 16.3  | -   | 16.3  |
| Polymer Concrete  | Cu. Ft. | 23.4  | -   | 23.4  |
| Silicone Joint Sealer, 2 1/2"                                     | Foot    | 97    | -   | 97    |
| Bridge Deck Latex Concrete Overlay, 2 1/4"                        | Sq. Yd. | 184   | -   | 184   |
| Structural Repair of Concrete (Depth Greater Than 5 in.)          | Sq. Ft. | -     | 42  | 42    |
| Structural Repair of Concrete (Depth Equal To or Less Than 5 in.) | Sq. Ft. | -     | 39  | 39    |



ELEVATION



PLAN

DESIGN SPECIFICATIONS

(New Construction)  
 2002 AASHTO "Standard Specifications for Highway Bridges"

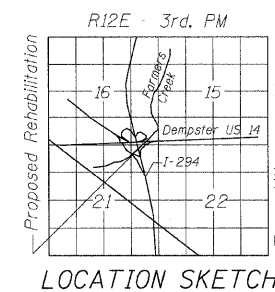
DESIGN STRESSES

FIELD UNITS  
 Existing Construction  
 $f'_c = 3,500$  psi (Deck Slab)  
 $f_y = 60,000$  psi (Reinforcement in Superstructure)

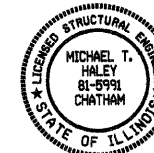
New Construction  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

LOADING HS 20-44

(Original Construction For Superstructure only)



LOCATION SKETCH

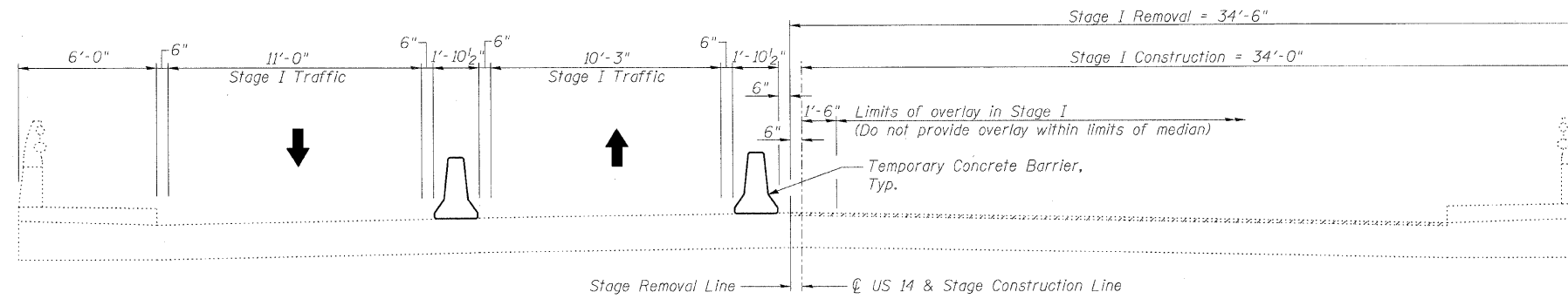


Michael T. Haley 1/27/10  
 Date  
 Michael T. Haley  
 Licensed Structural Engineer  
 State of Illinois No. 81-5991  
 Expires 11/30/2010

GENERAL PLAN AND ELEVATION  
 US 14 (DEMPSTER ST.) OVER FARMERS CREEK  
 F.A.U. RTE. 1324 SECTION 3014-1  
 COOK COUNTY  
 STATION 45+80.58  
 STRUCTURE NO. 016-1033

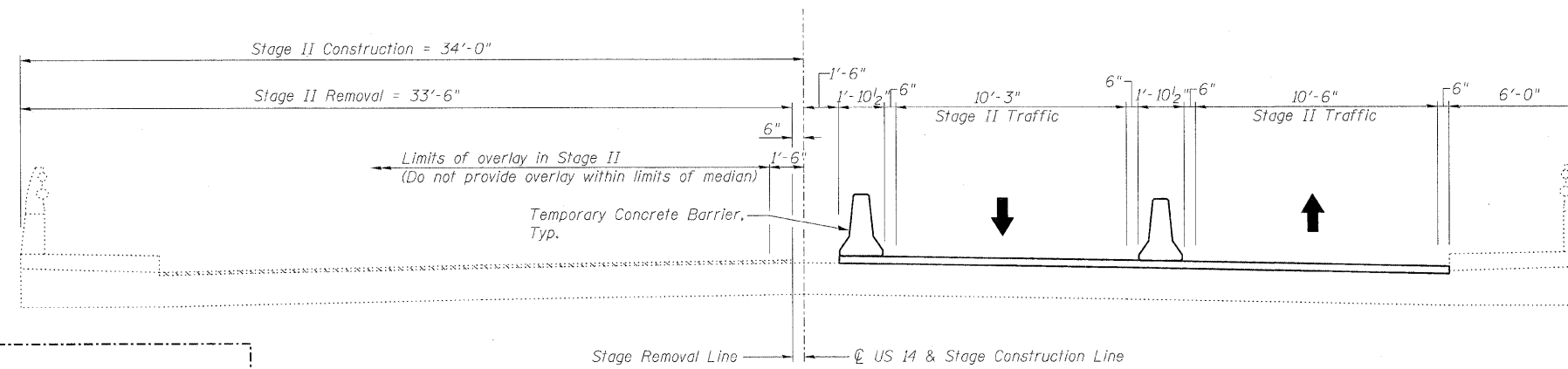
|  |             |                    |                |   |                 |             |
|--|-------------|--------------------|----------------|---|-----------------|-------------|
| <b>LIN ENGINEERING LTD.</b><br>Consulting Engineers<br>Chatham, Illinois | SHEET NO. 1 | F.A.U. RTE. 1324   | SECTION 3014-1 | COUNTY COOK                                   | TOTAL SHEETS 19 | SHEET NO. 9 |
|  | 5 SHEETS    | CONTRACT NO. 60J40 |                | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |                 |             |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



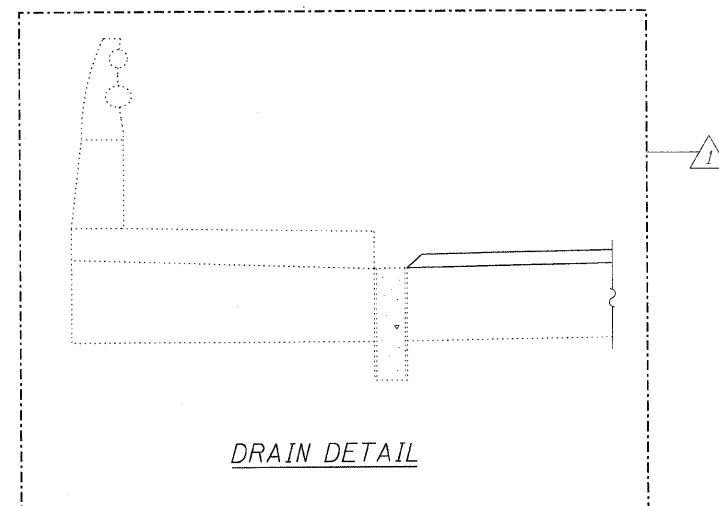
STAGE I REMOVAL & CONSTRUCTION

(Looking East)



STAGE II REMOVAL & CONSTRUCTION

(Looking East)



Note:

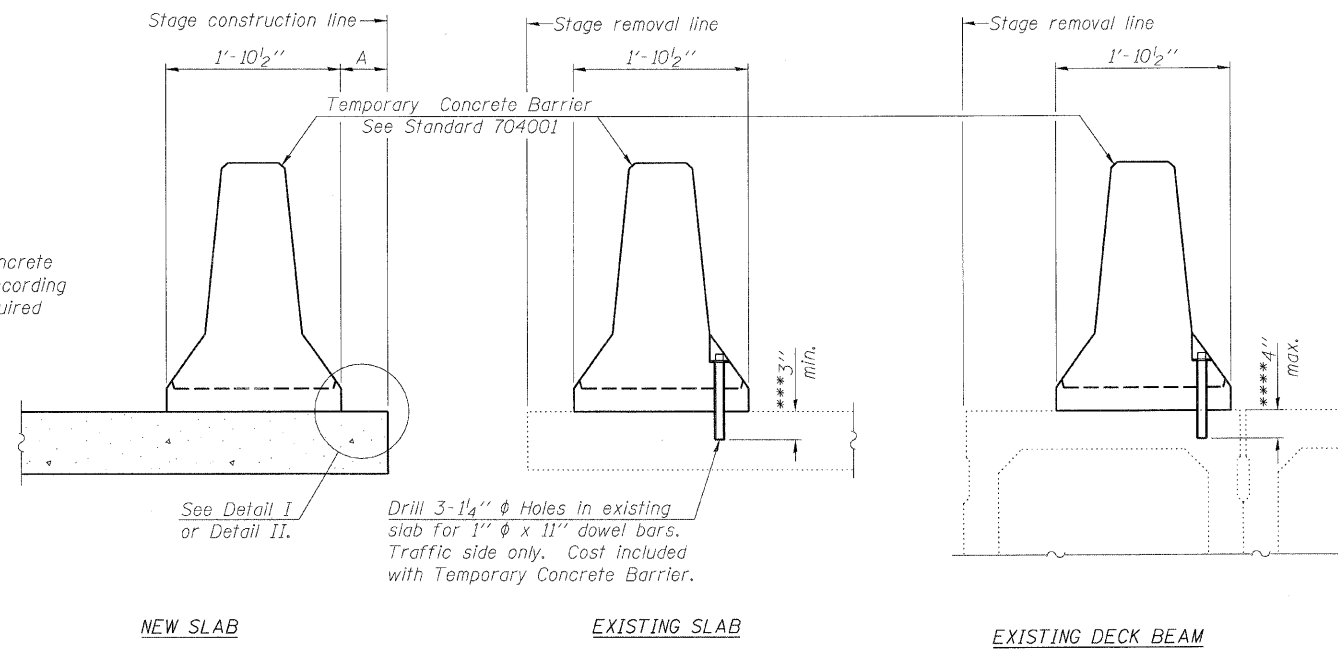
- Existing median to be removed pre-stage, along with Full Depth Deck Repair below median.
- New median to be provided in Stage III.
- See Roadway plans for pre-stage and Stage III Construction.

STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 016-1033

|   |             |   |         |        |              |                    |  |
|---|-------------|---|---------|--------|--------------|--------------------|--|
| <p>LIN ENGINEERING, LTD.<br/>Consulting Engineers<br/>Chatham, Illinois</p> | SHEET NO. 2 | F.A.U. RTE.                                     | SECTION | COUNTY | TOTAL SHEETS | SHEET NO.          |  |
|   | 5 SHEETS    | 1324  | 3014-1  | COOK   | 19           | 10                 |  |
|   |             | FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT |         |        |              | CONTRACT NO. 60J40 |  |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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".

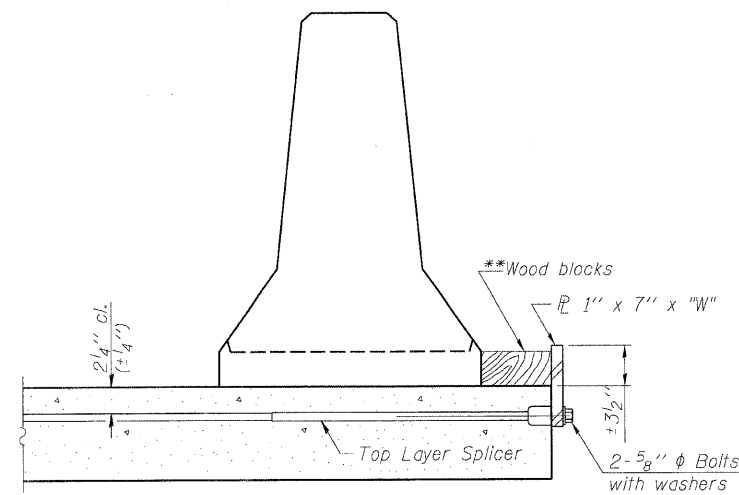


NEW SLAB

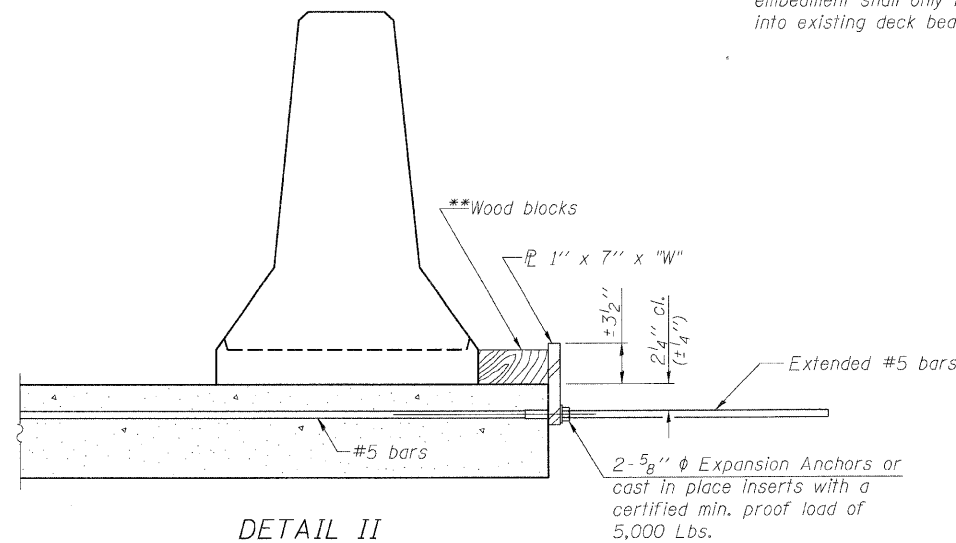
EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM



DETAIL I



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.

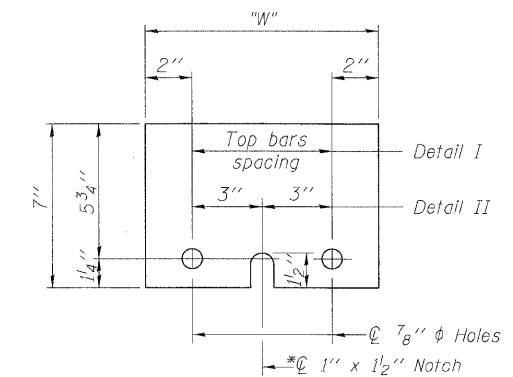
"W" = Top bars spacing + 4"

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"  $\phi$  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"  $\phi$  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.

\*\*\* 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.



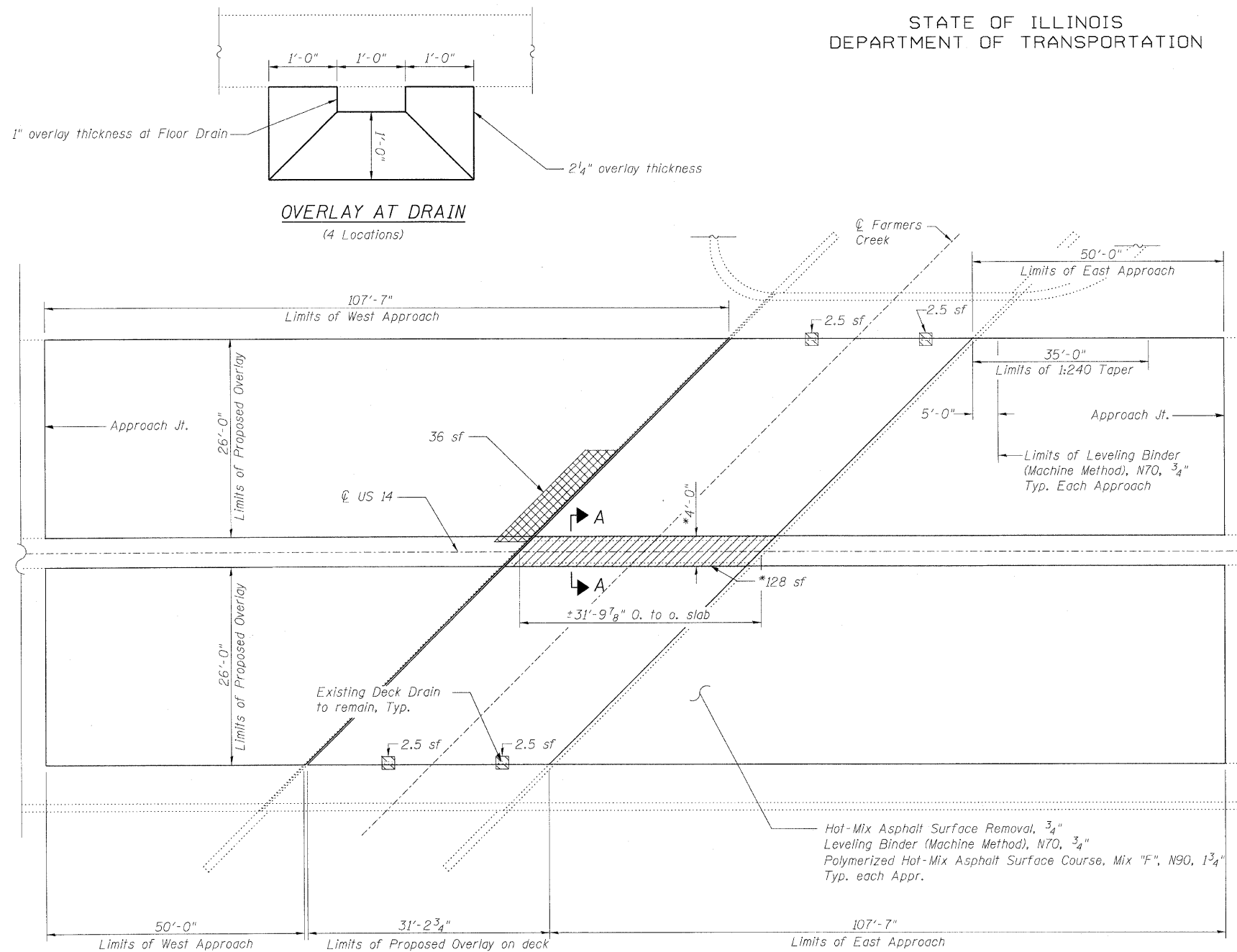
STEEL RETAINER  $\bar{L}$  1" x 7" x 10"

\* Required only with Detail II

TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 016-1033

|   |             |                     |                   |                |   |                 |
|---|-------------|---------------------|-------------------|----------------|---|-----------------|
| <p>LIN ENGINEERING, LTD.<br/>Consulting Engineers<br/>Chatham, Illinois</p> | SHEET NO. 3 | F.A.U. RTE.<br>1324 | SECTION<br>3014-I | COUNTY<br>COOK | TOTAL SHEETS<br>19                            | SHEET NO.<br>11 |
|   | 5 SHEETS    | CONTRACT NO. 60J40  |                   |                | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |                 |

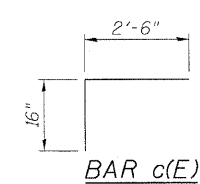
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



LEGEND

- Deck Slab Repair (Full Depth, Type I)
- Deck Slab Repair (Full Depth, Type II)
- Approach Slab Repair (Partial Depth) (For Information Only)
- Concrete Removal
- sf Square Feet

DECK PLAN



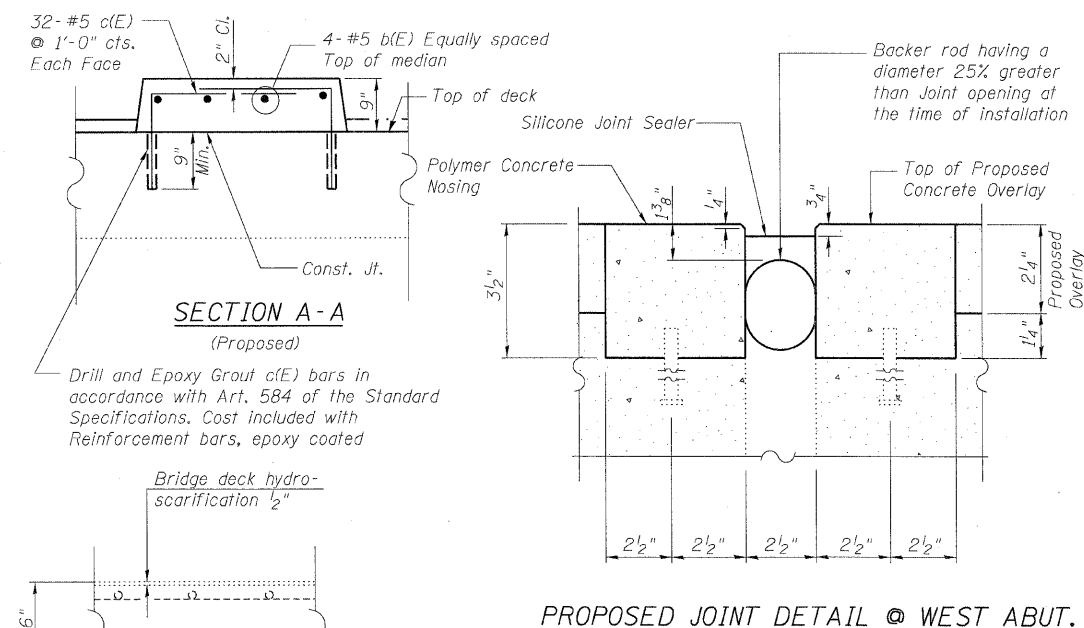
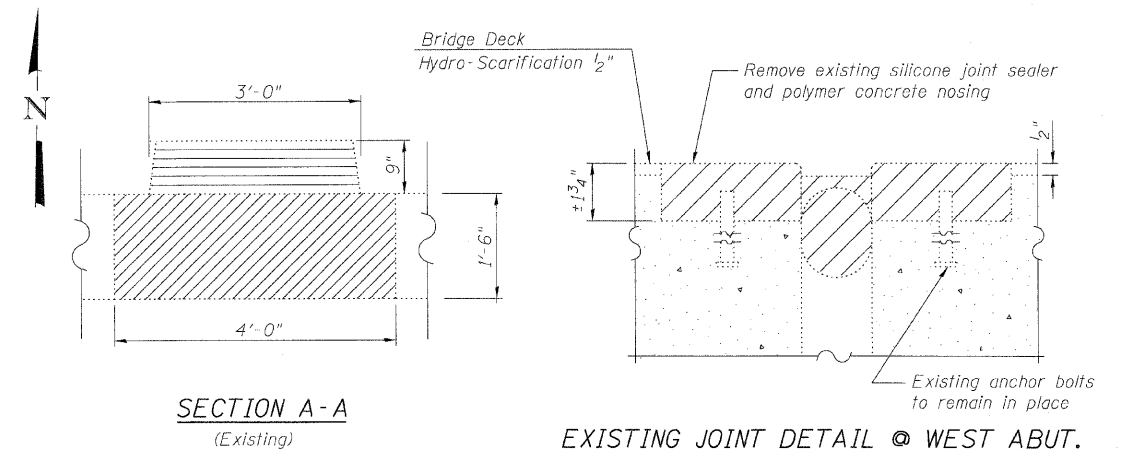
BAR LIST

| Bar  | No. | Size | Length | Shape |
|------|-----|------|--------|-------|
| d(E) | 4   | #5   | 31'-6" | —     |
| c(E) | 64  | #5   | 3'-10" | ┌     |

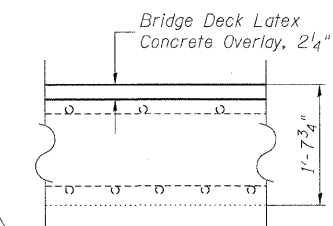
BILL OF MATERIAL

| Item   | Unit    | Total |
|--|---------|-------|
| Silicone Joint Sealer, 2 1/2"                                    | Foot    | 97    |
| Deck Slab Repair (Full Depth, Type I)                            | Sq. Yd. | 1.3   |
| Deck Slab Repair (Full Depth, Type II)                           | Sq. Yd. | 16.3  |
| Bridge Deck Latex Concrete Overlay, 2 1/4"                       | Sq. Yd. | 184   |
| Bridge Deck Hydro-scarification 1/2"                             | Sq. Yd. | 184   |
| Hot-Mix Asphalt Surface Removal, 3/4"                            | Sq. Yd. | 1112  |
| Leveling Binder (Machine Method), N70, 3/4"                      | Tons    | 39    |
| Polymerized Hot-Mix Asphalt Surface Course, Mix "F", N90, 1 3/4" | Tons    | 91    |
| Concrete Superstructure  | Cu. Yd. | 2.7   |
| Reinforcement Bars, Epoxy Coated                                 | Pound   | 390   |
| Polymer Concrete   | Cu. Ft. | 23.4  |
| Concrete Removal   | Cu. Yd. | 2.7   |

\*\* For Median



EXISTING BRIDGE DECK CROSS SECTION



PROPOSED BRIDGE DECK CROSS SECTION

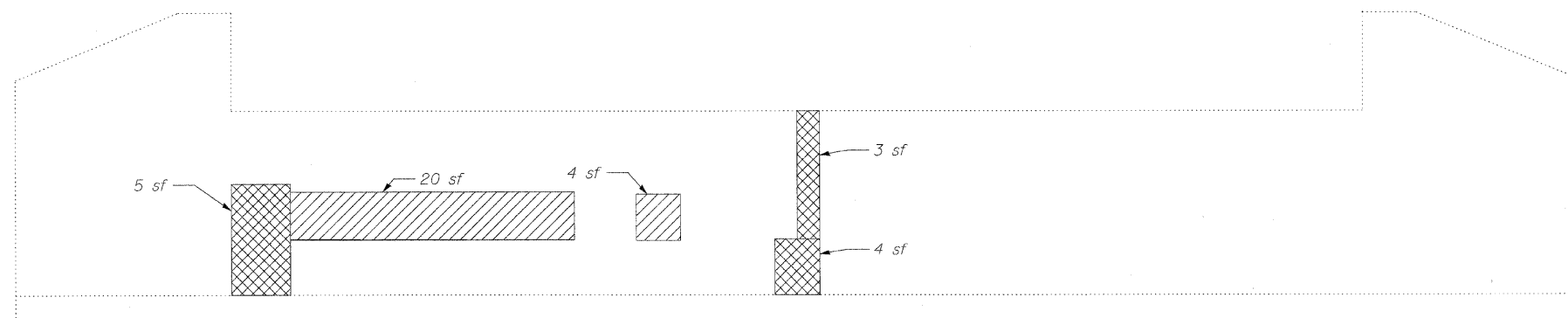


Note:  
Repair of the existing deck slab and approach slab shall include but may not be limited to the areas shown. The actual area to be repaired will be determined by the Engineer at the time of construction.  
Contractor shall verify that the type of concrete selected shall achieve required strength within the time allotted for construction. See Special Provisions, Deck Slab (Special).  
See Roadway plans for Approach Resurfacing Detail.  
Provide 1:240 taper rate from 1 3/4" rise in bridge deck elevation down to existing profile grade. Thickness of surface course to be 1 3/4" and varies. Saw cuts shall be included in the cost for the HMA pay items.  
Removal of median and full depth patching under the median shall be accomplished by methods that will not damage the existing gutter adjacent to the median. Any damage shall not be cause for additional compensation.  
Cost of existing joint removal is included in the cost of silicone joint sealer.  
\* Perform Full depth repair in stages. Fast curing concrete mixes shall not be used for this patch. After new concrete is poured, work cannot begin in an adjacent section until both of the following requirements are met:  
1. At least 72 hours shall have elapsed from the end of the previous pour on either end.  
2. The new concrete on either end shall have obtained a modulus of rupture of 650 psi or a minimum compressive strength of 3,500 psi.

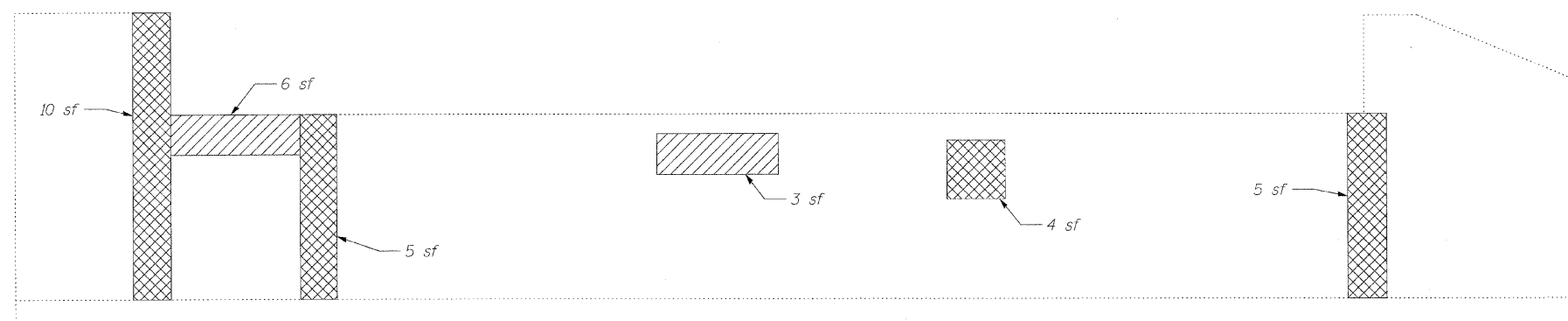
CONCRETE REMOVAL AND REPAIR  
STRUCTURE NO. 016-1033

|   |             |                    |                |             |                 |              |
|---|-------------|--------------------|----------------|-------------|-----------------|--------------|
| <br>LIN ENGINEERING LTD.<br>Consulting Engineers<br>Chatham, Illinois | SHEET NO. 4 | F.A.U RTE. 1324    | SECTION 3014-1 | COUNTY COOK | TOTAL SHEETS 19 | SHEET NO. 12 |
|   | 5 SHEETS    | CONTRACT NO. 60J40 |                |             |                 |              |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT                         |             |                    |                |             |                 |              |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**WEST ABUTMENT**  
(Looking West)




**EAST ABUTMENT**  
(Looking East)


**BILL OF MATERIAL**

| ITEM   | UNIT    | TOTAL |
|--|---------|-------|
| Structural Repair of Concrete<br>(Depth Equal to or Less Than 5 in.) | Sq. Ft. | 38    |
| Structural Repair of Concrete<br>(Depth Greater Than 5 in.)          | Sq. Ft. | 42    |

Repair of the existing abutments shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.


**LEGEND**

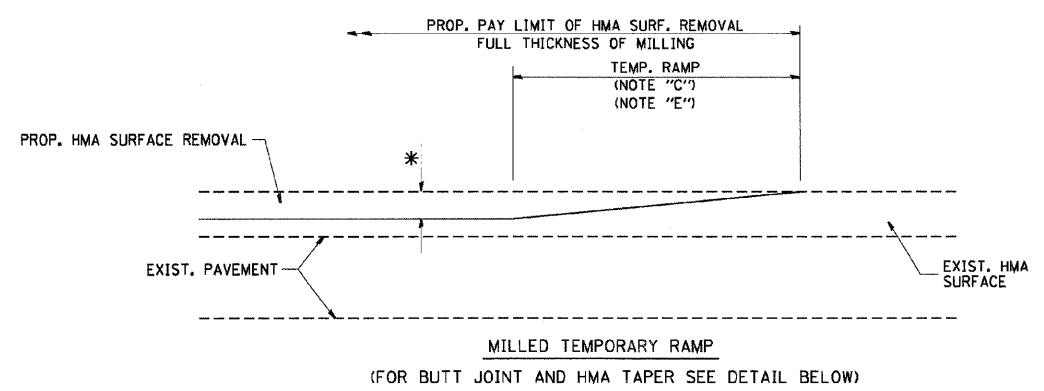
 Indicates Structural Repair of Concrete  
(Depth Equal to or Less Than 5 in.)

 Indicates Structural Repair of Concrete  
(Depth Greater Than 5 in.)

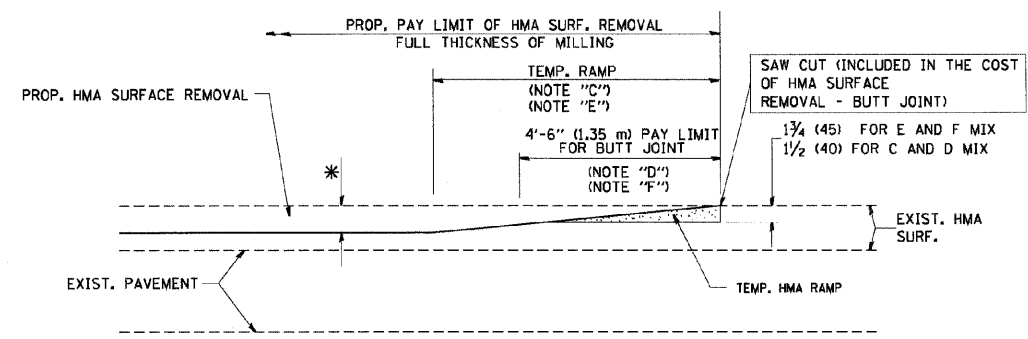
sf Square Feet

**ABUTMENT REPAIR**  
**STRUCTURE NO. 016-1033**

|   |                                       |   |                   |                |                       |                    |
|---|---------------------------------------|---|-------------------|----------------|-----------------------|--------------------|
|  <b>LIN ENGINEERING, LTD.</b><br>Consulting Engineers<br>Chatham, Illinois | SHEET NO. 5                           | F.A.U.<br>RTE.<br>1324                        | SECTION<br>3014-1 | COUNTY<br>COOK | TOTAL<br>SHEETS<br>19 | SHEET<br>NO.<br>13 |
|   | 5 SHEETS                              | CONTRACT NO. 60J40                            |                   |                |                       |                    |
| Designed By: YMK<br>Date: 12/2009   | Checked By: MTH<br>File: 016-1033.dgn | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |                   |                |                       |                    |



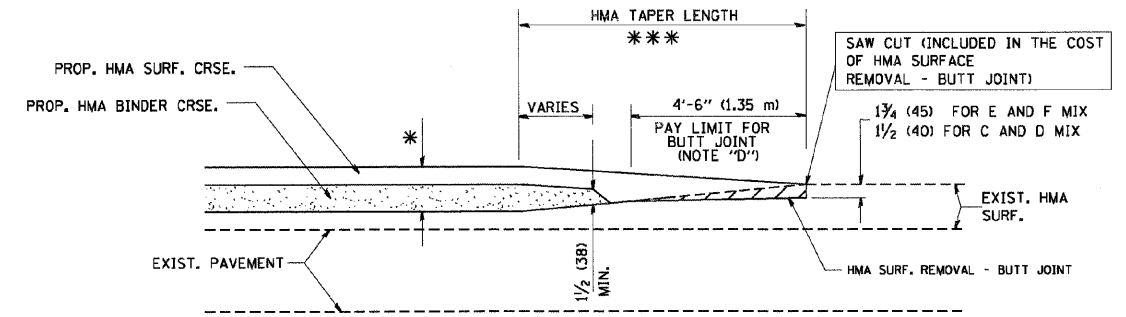
**OPTION 1**



**HMA CONSTRUCTED TEMPORARY RAMP (FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)**

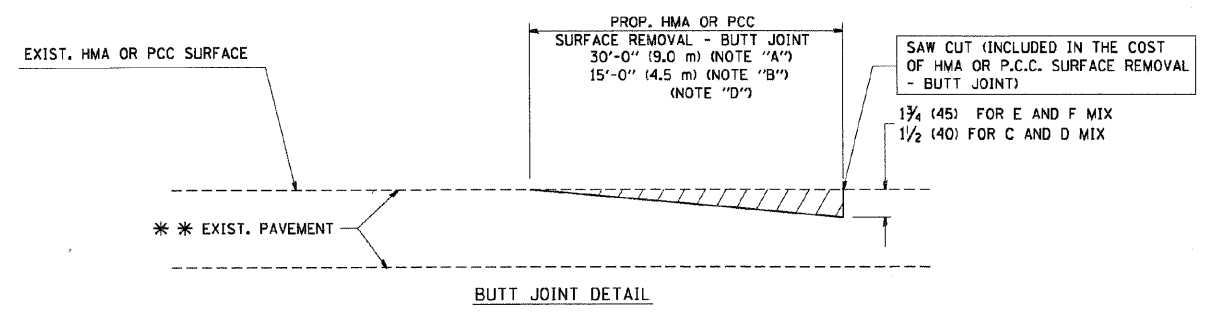
**OPTION 2**

**TYPICAL TEMPORARY RAMP**

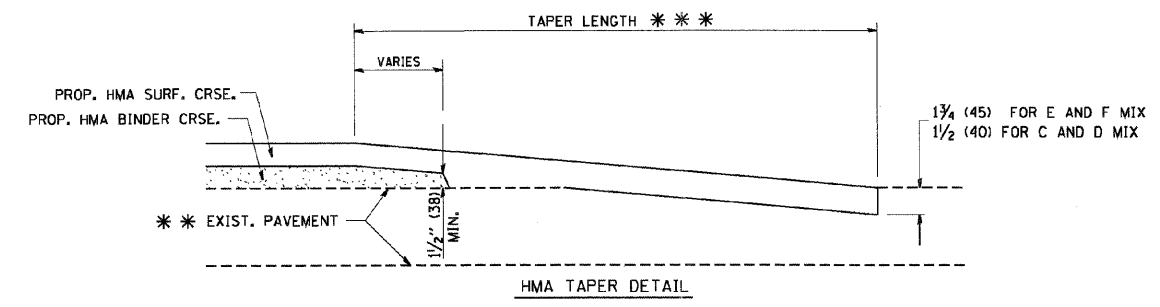


**BUTT JOINT AND HMA TAPER**

**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

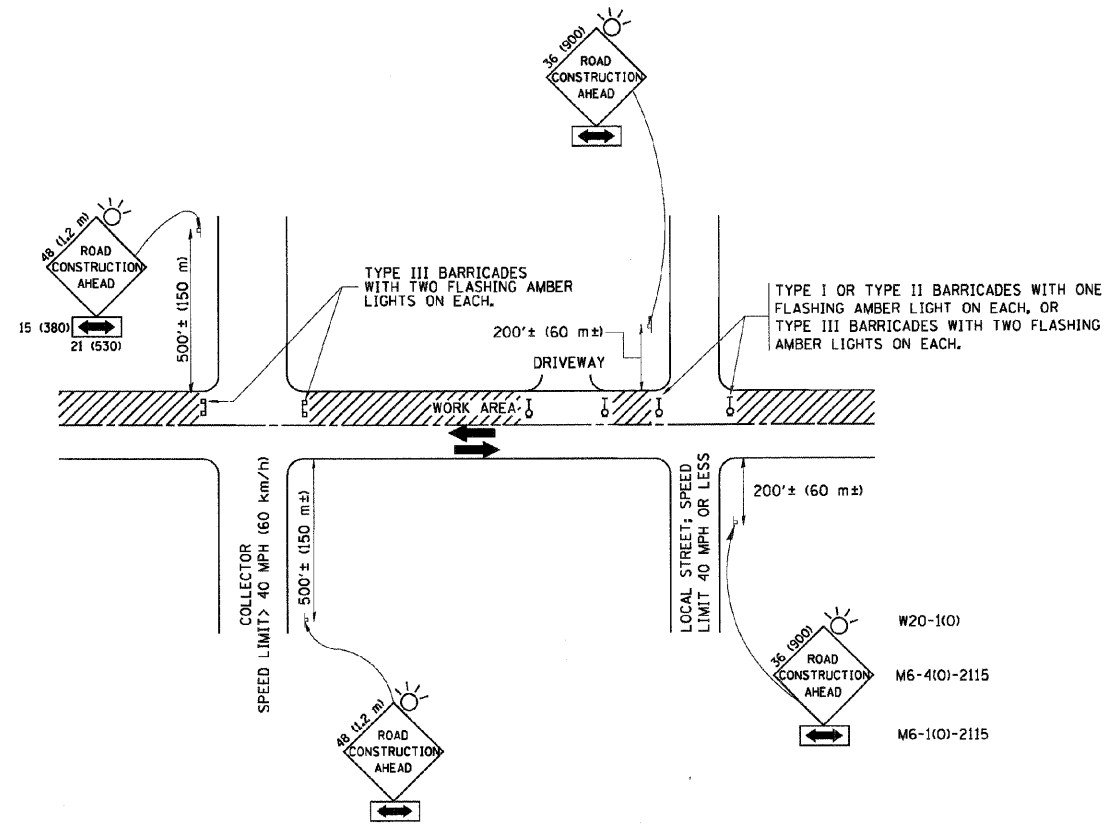
**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

**BUTT JOINT AND HMA TAPER DETAILS**

|             |                    |            |           |   |  |                     |         |                             |              |           |  |  |
|-------------|--------------------|------------|-----------|---|--|---------------------|---------|-----------------------------|--------------|-----------|--|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DISTRICT STANDARDS<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> | F.A.U. RTE.         | SECTION | COUNTY                      | TOTAL SHEETS | SHEET NO. |  |  |
| #FILEL#     |                    | DRAWN -    | REVISED - |   |  | 1324                | 3014-I  | COOK                        | 19           | 14        |  |  |
|             |                    | CHECKED -  | REVISED - |   |  | BD-32               |         | CONTRACT NO. 60J40          |              |           |  |  |
|             |                    | DATE -     | REVISED - |   |  | SCALE: NONE         |         | SHEET NO. OF SHEETS STA.    |              | TO STA.   |  |  |
|             |                    |            |           |   |  | FED. ROAD DIST. NO. |         | [ILLINOIS] FED. AID PROJECT |              |           |  |  |



**NOTES:**

**A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

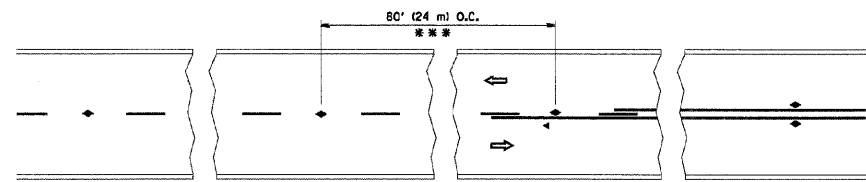
**B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**

- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

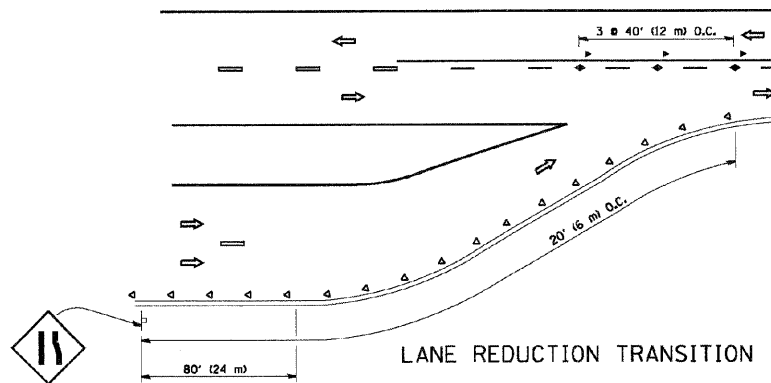
## TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS

|             |                      |            |           |   |  |                                  |                   |                          |                    |                 |
|-------------|----------------------|------------|-----------|---|--|----------------------------------|-------------------|--------------------------|--------------------|-----------------|
| FILE NAME = | USER NAME = #USER#   | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DISTRICT STANDARDS<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> | F.A.J. RTE.<br>1324              | SECTION<br>3014-I | COUNTY<br>COOK           | TOTAL SHEETS<br>19 | SHEET NO.<br>15 |
| #FILE#      |                      | DRAWN -    | REVISED - |   |  |                                  |                   |                          |                    |                 |
|             | PLOT SCALE = #SCALE# | CHECKED -  | REVISED - |   | SCALE: NONE  | SHEET NO. OF SHEETS STA. TO STA. |                   | TC-10 CONTRACT NO. 60J40 |                    |                 |
|             | PLOT DATE = #DATE#   | DATE -     | REVISED - |   | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT                                |                                  |                   |                          |                    |                 |

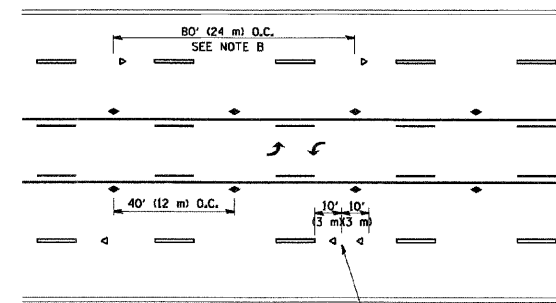


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

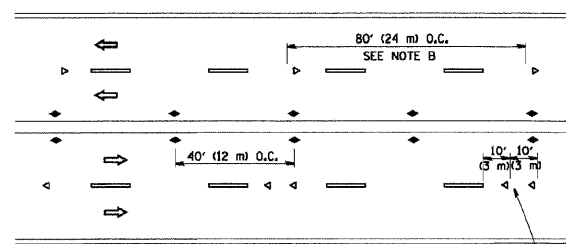
TWO-LANE/TWO-WAY



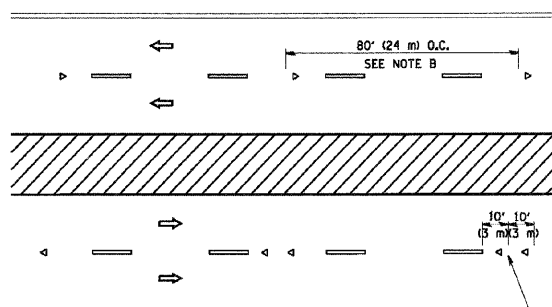
LANE REDUCTION TRANSITION



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

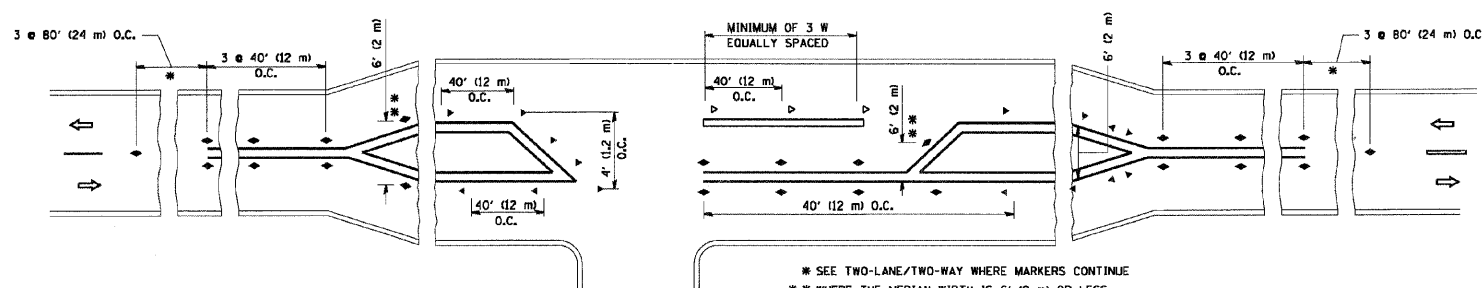
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◀ TWO-WAY AMBER MARKER

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 SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

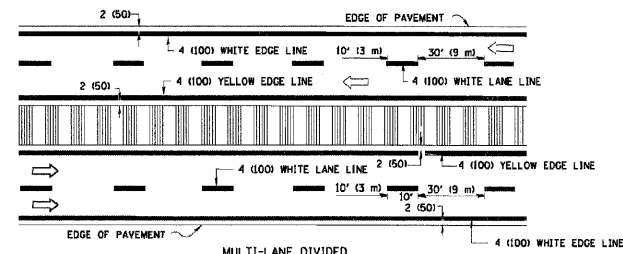
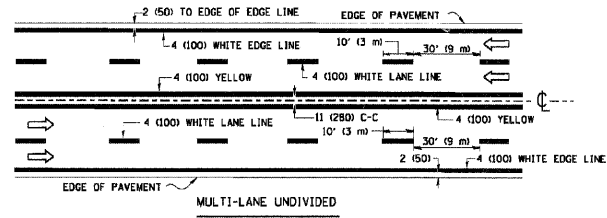
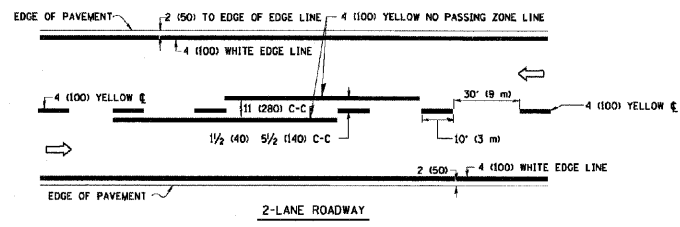
\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

# TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

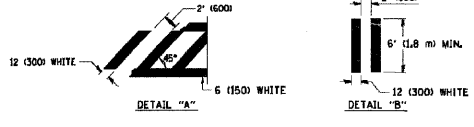
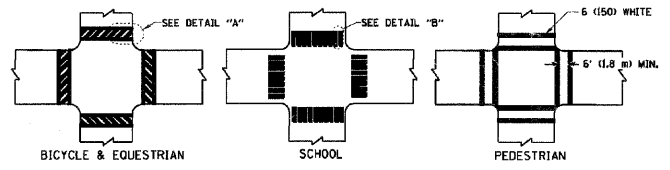
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|--------------------|----------------------|------------|-----------|---|--|----------------------------------|-------|--|--------------------|----------------|-------------|-----------------|--------------|
| FILE NAME = #FILE# | USER NAME = #USER#   | DESIGNED - | REVISOR - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS<br>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK |                                  |       |  | F.A.U. RTE. 1324   | SECTION 3014-1 | COUNTY COOK | TOTAL SHEETS 19 | SHEET NO. 16 |
|                    | PLOT SCALE = #SCALE# | DRAWN -    | REVISOR - |   | SCALE: NONE  | SHEET NO. OF SHEETS STA. TO STA. | TC-11 |  | CONTRACT NO. 60J40 |                |             |                 |              |
|                    | PLOT DATE = #DATE#   | CHECKED -  | REVISOR - |   | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT                          |                                  |       |  |                    |                |             |                 |              |
|                    |                      | DATE -     | REVISOR - |   |  |                                  |       |  |                    |                |             |                 |              |



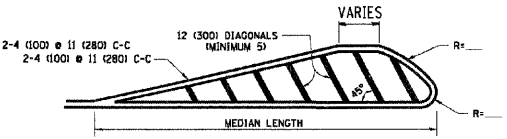
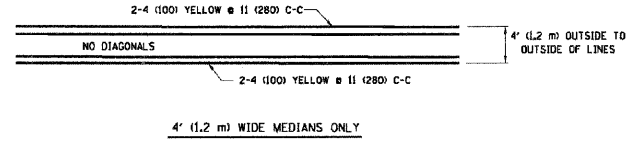


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

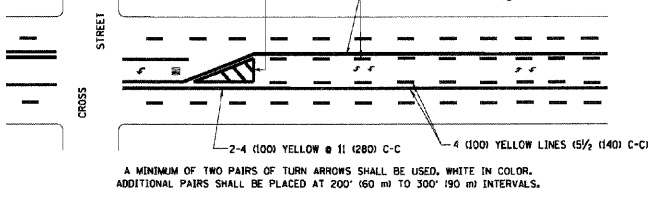


TYPICAL CROSSWALK MARKING



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.  
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (23 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h))  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

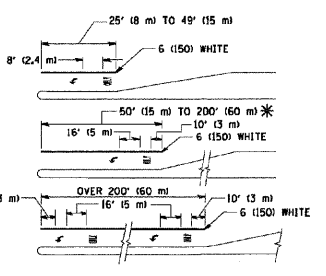
MEDIANS OVER 4' (1.2 m) WIDE



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.



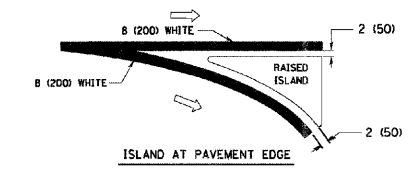
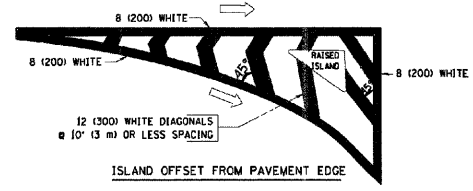
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 6" (150 mm) AND ARROWS SHALL BE USED.  
\* 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

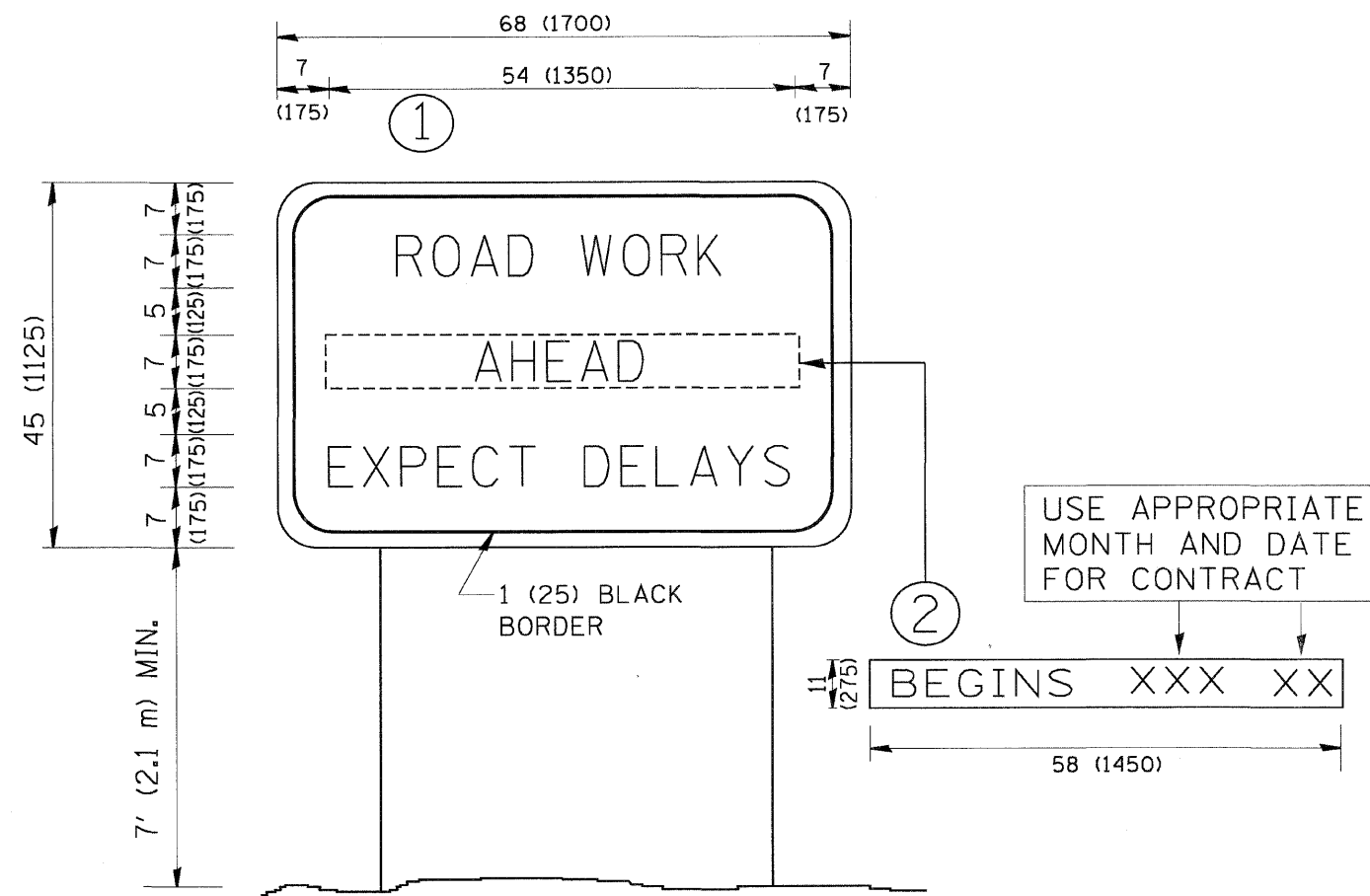
| TYPE OF MARKING   | WIDTH OF LINE  | PATTERN                         | COLOR   | SPACING / REMARKS   |
|---|--|---------------------------------|---|---|
| CENTERLINE ON 2 LANE PAVEMENT   | 4 (100)  | SKIP-DASH                       | YELLOW  | 10' (3 m) LINE WITH 30' (9 m) SPACE   |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT   | 2 @ 4 (100)  | SOLID                           | YELLOW  | 11 (280) C-C  |
| NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS                                       | 4 (100)<br>2 @ 4 (100)   | SOLID<br>SKIP-DASH              | YELLOW<br>YELLOW                                      | 5/2 (140) C-C FROM SKIP-DASH CENTERLINE<br>11 (280) C-C<br>OMIT SKIP-DASH CENTERLINE BETWEEN  |
| LANE LINES  | 4 (100)<br>5 (125) ON FREEWAYS   | SKIP-DASH<br>SKIP-DASH          | WHITE<br>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<br>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 18" (450 mm)                                     | SOLID                           | WHITE   | SEE TYPICAL TURN LANE MARKING DETAIL  |
| TWO WAY LEFT TURN MARKING   | 2 @ 4 (100) EACH DIRECTION<br>8' (2.4 m) LEFT ARROW  | SKIP-DASH AND SOLID<br>IN PAIRS | YELLOW<br>WHITE                                       | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE<br>SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL              |
| CROSSWALK LINES (PEDESTRIAN)<br>A. DIAGONALS (BIKE & EQUESTRIAN)<br>B. LONGITUDINAL BARS (SCHOOL) | 2 @ 6 (150)<br>12 (300) @ 45°<br>12 (300) @ 90°  | SOLID<br>SOLID<br>SOLID         | WHITE<br>WHITE<br>WHITE                               | NOT LESS THAN 6' (1.8 m) APART<br>2' (600) APART<br>2' (600) APART<br>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°<br>NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID                           | YELLOW<br>TWO WAY TRAFFIC<br>WHITE<br>ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE<br>SEE TYPICAL PAINTED MEDIAN MARKING.   |
| CORE MARKING AND CHANNELIZING LINES   | 8 (200) WITH 12 (300) DIAGONALS @ 45°  | SOLID                           | WHITE   | DIAGONALS:<br>15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h))<br>20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h))<br>30' (9 m) C-C (OVER 45MPH (70 km/h))             |
| RAILROAD CROSSING   | 24 (600) TRANSVERSE LINES "RR" 15' (4.5 m) LETTERS 18" (450 mm) LINE FOR "X"               | SOLID                           | WHITE   | SEE STATE STANDARD 780001<br>AREA OF:<br>"X"=36 SQ. FT. (10.33 m²) EACH<br>"X"=54.0 SQ. FT. (15.0 m²)   |
| SHOULDER DIAGONALS  | 12 (300) @ 45°   | SOLID                           | WHITE - RIGHT<br>YELLOW - LEFT                        | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))<br>75' (23 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h))<br>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.

# TYPICAL PAVEMENT MARKINGS

|                    |                      |            |           |   |  |                  |                                  |                     |                 |                  |  |
|--------------------|----------------------|------------|-----------|---|--|------------------|----------------------------------|---------------------|-----------------|------------------|--|
| FILE NAME = #FILE# | USER NAME = #USER#   | DESIGNED - | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS<br>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK | F.A.U. RTE. 1324 | SECTION 3014-1                   | COUNTY COOK         | TOTAL SHEETS 19 | SHEET NO. 17     |  |
|                    | PLOT SCALE = #SCALE# | DRAWN -    | REVISED - |   |  | TC-13            |                                  | CONTRACT NO. 60J40  |                 |                  |  |
|                    | PLOT DATE = #DATE#   | CHECKED -  | REVISED - |   |  | SCALE: NONE      | SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS        | FED. AID PROJECT |  |
|                    |                      | DATE -     | REVISED - |   |  |                  |                                  |                     |                 |                  |  |

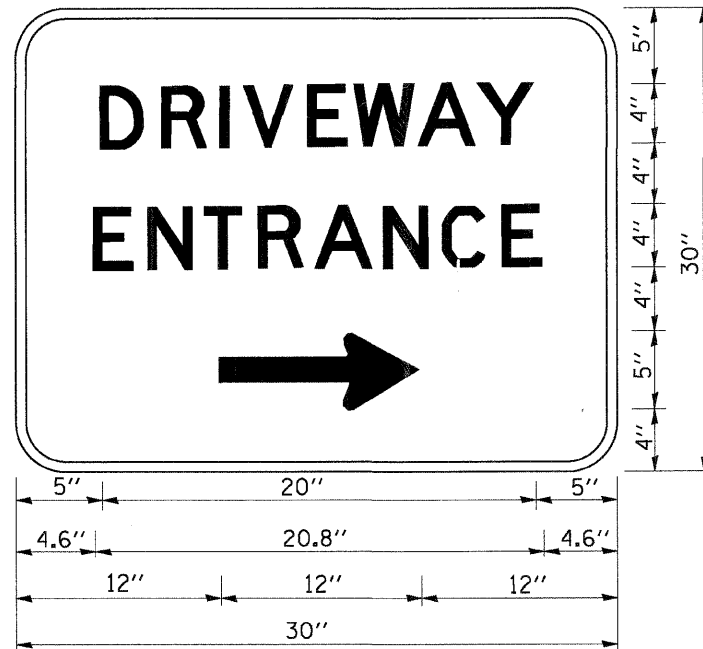


**NOTES:**

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.

**ARTERIAL ROAD INFORMATION SIGN**

|             |                      |            |           |   |  |           |    |                |         |         |                 |                     |                           |    |    |
|-------------|----------------------|------------|-----------|---|--|-----------|----|----------------|---------|---------|-----------------|---------------------|---------------------------|----|----|
| FILE NAME = | USER NAME = *USER*   | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DISTRICT STANDARDS<br/>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> |           |    | F.A.J.<br>RTE. | SECTION | COUNTY  | TOTAL<br>SHEETS | SHEET<br>NO.        |                           |    |    |
| *FILEL*     |                      | DRAWN -    | REVISED - |   | SCALE: NONE  | SHEET NO. | OF | SHEETS         | STA.    | TO STA. | 1324            | 3014-1              | COOK                      | 19 | 18 |
|             | PLOT SCALE = *SCALE* | CHECKED -  | REVISED - |   |  |           |    |                |         |         |                 | TC-22               | CONTRACT NO. 60J40        |    |    |
|             | PLOT DATE = *DATE*   | DATE -     | REVISED - |   |  |           |    |                |         |         |                 | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |    |    |



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE  
 PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN)  
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY  
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE  
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

**DRIVEWAY ENTRANCE SIGNING**

|             |                      |            |           |   |   |           |             |         |        |              |                    |  |
|-------------|----------------------|------------|-----------|---|---|-----------|-------------|---------|--------|--------------|--------------------|--|
| FILE NAME = | USER NAME = #USER#   | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DISTRICT STANDARDS</b>                               |           | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO.          |  |
| #FILE#      |                      | DRAWN -    | REVISED - |   | <b>US ROUTE 14 (DEMPSTER STREET) OVER FARMERS CREEK</b> |           | 1324        | 3014-I  | COOK   | 19           | 19                 |  |
|             | PLOT SCALE = #SCALE# | CHECKED -  | REVISED - |   | SCALE: NONE   | SHEET NO. | OF          | SHEETS  | STA.   | TO STA.      | CONTRACT NO. 60J40 |  |
|             | PLOT DATE = #DATE#   | DATE -     | REVISED - |   | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT         |           |             |         |        |              |                    |  |