STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**DIVISION OF HIGHWAYS** 

# PROPOSED HIGHWAY PLANS

FAU 1488 (47TH STREET)

SECTION: 3212 RS-3

DUPAGE COUNTY LINE TO EAST AVENUE

PROJECT: ESP-1488(004)

RESURFACING

COOK COUNTY

C-91-767-09

TRAFFIC DATA

2008 ADT = 12.500
POSTED SPEED LIMIT = 35 MPH

PROJECT ENDS
STA. 165 + 63

PROJECT BEGINS
STA. 10 + 43

GROSS LENGTH OF PROJECT = 15,520 LIN FT = 2.94 MILES

NET LENGTH OF PROJECT = 13,622 LIN FT = 2.58 MILES

FOR INDEX OF SHEETS, SEE SHEET NO. 2

0

PROJECT LOCATED IN THE VILLAGES OF HINSDALE, WESTERN SPRINGS AND LAGRANGE

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'

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.

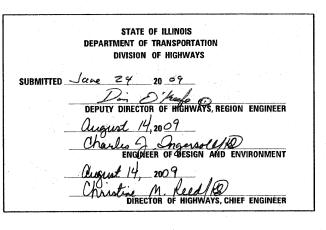
J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1–800–892–0123 OR 811

PROJECT ENGINEER: DANIEL WILGREEN /(847) 705–4240
PROJECT MANAGER: KEN ENG /(847) 705–4247

CONTRACT NO.: 60H69

### D-91-767-09





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# INDEX OF SHEETS

| SHEET NO. | DESCRIPTION  |
|-----------|--|
| 1         | COVER SHEET  |
| 2         | INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES                        |
| 3 2 2     | SUMMARY OF QUANTITIES  |
| 4         | TYPICAL SECTIONS   |
| 5-10      | ROADWAY AND PAVEMENT MARKING PLANS   |
| 11-16     | DETECTOR LOOP REPLACEMENT PLANS  |
| 17        | DETAILS FOR FRAMES AND LIDS ADJUSTMENTS WITH MILLING                       |
| 18        | PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT                                |
| 19        | CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT                            |
| 20        | BUTT JOINT AND HMA TAPER DETAILS   |
| 21        | TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS, AND DRIVEWAYS |
| 22        | TYPICAL APPLICATION FOR RAISED REFLECTIVE PAVEMENT MARKERS                 |
| 23        | DISTRICT ONE TYPICAL PAVEMENT MARKINGS                                     |
| 24        | TRAFFIC CONTROL AND PROTECTION AT TURN BAYS                                |
| 25        | PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING                   |
| 26        | ARTERIAL ROAD INFORMATION SIGN   |
| . 27      | DISTRICT ONE DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING     |

# STATE STANDARDS

| 000001- <i>05</i>         | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS           |
|---------------------------|--|
| 442201 <i>-03</i>         | CLASS C AND D PATCHES                                  |
| 604001- <i>0</i> <b>3</b> | FRAME AND LIDS, TYPE 1                                 |
| 606001 <b>-<i>04</i></b>  | CONCRETE CURB AND GUTTER  CONCRETE CURB AND GUTTER     |
| 701301- <i>0</i> <b>3</b> | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS            |
| 701606 <i>-0</i> 6        | URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN |
| 701701 <b>-0</b> 9        | URBAN LANE CLOSURE, MULTILANE INTERSECTION             |
| 701901-01                 | TRAFFIC CONTROL DEVICES                                |

# GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION REQUIRED).

10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGES OF HINSDALE, WESTERN SPRINGS AND LA GRANGE.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AREA TRAFFIC FIELD ENGINEER AT (708) 597-9800 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MININMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES.

THE RESIDENT ENGINEER SHALL DETERMINE THE LOCATIONS OF CLASS "D" PATCHES, CURB AND GUTTER REMOVAL AND REPLACEMENT.

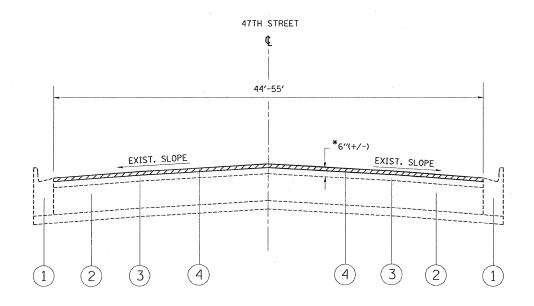
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|  | PLOT DATE = 6/27/2009       | DATE -     | REVISED - |
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| STATE             | E OF | ILLINOIS       |
|-------------------|------|----------------|
| <b>DEPARTMENT</b> | OF   | TRANSPORTATION |

| INDEX OF | SHEETS, LIST | OF STATE  | STANDARDS, | PLAN NOTES |
|----------|--------------|-----------|------------|------------|
| 47TH S   | TREET / DUPA | GE COUNTY | LINE TO E  | AST AVE.   |
| SCALE:   | SHEET NO. C  | F SHEETS  | STA.       | TO STA.    |

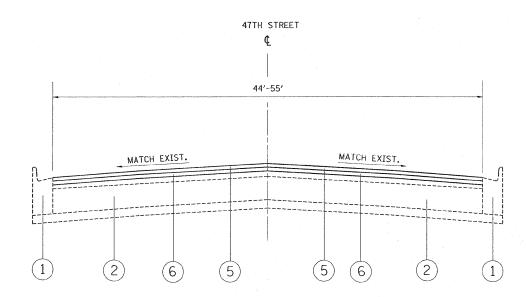
| F.A.U<br>RTE. |      |       | SI  | EC. | TION     |      | T   | COUNTY   | TOTAL | SHEE<br>NO. |
|---------------|------|-------|-----|-----|----------|------|-----|----------|-------|-------------|
| 1488          |      |       | 32  | 12  | RS-3     |      | +   | COOK     | 27    | 2           |
|               |      |       |     |     | 2        |      | 1   | CONTRACT | NO.   | 60H69       |
| FED.          | ROAD | DIST. | NO. | 1   | ILLINOIS | FEO. | AID | PROJECT  |       |             |

|                     | SUMMARY OF QUANTITIES  | •                   | 100 ·1. FED.        |                    | . (      | CONSTRUCT              | TION TYPE | CODE   |           |        |                      | SUMMAR        | Y OF QUANTITIES               | ····   |               | 1004. FED        | ·             | C            | ONSTRUCT!        | ON TYPE       | CODE        |                           |
|---------------------|--|---------------------|---------------------|--------------------|----------|------------------------|-----------|--------|-----------|--------|----------------------|---------------|-------------------------------|--|---------------|------------------|---------------|--------------|------------------|---------------|-------------|---------------------------|
| CODE NO             | ITEM   | UNIT                | TOTAL<br>OUANTITIES | URBAN<br>1000      |          |                        |           |        |           |        | CODE NO              | 30,11111      | ITEM                          |  | UNIT          | TOTAL OUANTITIES | URBAN<br>IOOO |              |                  |               |             |                           |
| CODE NO             | A LICH   | ONT                 | COMMITTES           |                    |          |                        |           |        |           |        |                      |               |                               | 2.5  |               |                  |               |              |                  |               | 480         |                           |
| 40600200            | BITUMINOUS MATERIALS (PRIME COAT)                            | TON                 | 29                  | 29                 |          |                        |           |        |           | *      | 78000600             | THERMOPLASTIO | C PAVEMENT MARKING            |  | FOOT          | 1950             | 1950          |              |                  |               | ·           |                           |
| 40600300            | AGGREGATE (PRIME COAT)                                       | TON                 | 144                 | 144                |          |                        |           |        |           | , see  | 78000650             |               | C PAVEMENT MARKING            |  | FOOT          | 1450             | 1450          |              |                  |               |             |                           |
| 40600400            | MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS                   | TON                 | 22                  | 22                 |          |                        |           |        |           |        |                      | - LINE 24"    |                               |  |               |                  |               |              | ·                |               |             |                           |
| 40600895            | CONSTRUCTING TEST STRIP                                      | EACH                | • 1                 | 1                  |          |                        |           |        |           | *      | 78100100             |               | CTIVE PAVEMENT MARKE          |  | EACH          | 990              | 990           | -            |                  |               |             |                           |
| 40600982            | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT<br>JOINT              | SO YD               | 990                 | 990                |          |                        |           |        |           |        | 78300200             | RAISED REFLE  | CTIVE PAVEMENT MARKE          | ER   | EACH          | 900              | 900           |              |                  |               |             |                           |
| 40603340            | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70                 | TON                 | 6205                | 6205               |          |                        |           |        |           |        | 88600600<br>x0322256 | DETECTOR LOOP | REPLACEMENT FORMATION SIGNING | * Her  | FOOT<br>SO FT | 2772<br>51. 4    | 2772          |              |                  |               |             |                           |
| 42001300            | PROTECTIVE COAT  | SQ YD               | 335                 | 335                |          |                        |           |        |           |        | X4067107             | POLYMERIZED   | LEVELING BINDER (MAG          | CHINE  | TON           | 2908             | 2908          |              |                  |               |             |                           |
| 44000158            | HOT-MIX ASPHALT SURFACE REMOVAL, 2                           | SQ YD               | 71703               | 71703              |          |                        |           |        |           |        | Z0018500             | METHOD), IL   |                               |  | EACH          | 30               | 30            |              |                  |               |             |                           |
| 44001700            | COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT | FOOT                | 1500                | 1500               |          |                        | 7         |        |           |        | 1                    | TRAINEES      |                               |  | HOUR          | 500              | 500           |              |                  |               |             |                           |
| 44201803            | CLASS D PATCHES, TYPE II, 13 INCH                            | SQ YD               | 1500                | 1500               |          | St. of Charles Mon. 18 |           |        |           |        |                      |               |                               | i.   |               |                  |               |              |                  |               |             |                           |
| 44201807            | CLASS D PATCHES, TYPE III, 13 INCH                           | SO YD               | 430                 | 430                | ,        |                        |           |        |           |        |                      |               |                               | -  |               |                  |               |              |                  |               |             |                           |
| 44201809            | CLASS D PATCHES, TYPE IV, 13 INCH                            | SO YD               | 210                 | 210                |          |                        |           | ,      |           |        |                      |               |                               |  |               |                  |               |              |                  |               |             |                           |
| 60300310            | FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)                     | EACH                | 75                  | 75                 |          |                        |           |        |           |        |                      |               |                               | the major  |               |                  |               |              |                  |               |             |                           |
| 67000400            | ENGINEER'S FIELD OFFICE, TYPE A                              | CAL MO              | 6                   | e                  |          |                        | 1         |        |           |        |                      |               |                               |  |               |                  |               |              |                  | -             |             |                           |
| 67100100            | MOBILIZATION   | L SUM               | 1                   | 1                  |          |                        |           |        |           |        |                      |               |                               |  |               |                  |               |              |                  |               | -           |                           |
| 70102625            | TRAFFIC CONTROL AND PROTECTION.<br>STANDARD 701606           | L SUM               | 1                   | 1                  |          |                        | 4 (1886)  |        |           |        | · ·                  | ***           |                               |  | *             |                  |               |              |                  |               |             |                           |
| 70102635            | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701              | L SUM               | 1                   | 1                  |          |                        |           |        |           |        | -                    |               |                               | · • • • • • • • • • • • • • • • • • • •  | ÷             |                  |               |              |                  |               |             |                           |
| 70300100            | SHORT-TERM PAVEMENT MARKING                                  | FOOT                | 13600               | 13600              | ·        |                        |           |        |           |        |                      |               |                               |  |               |                  |               |              |                  |               |             |                           |
| 70300210            | TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS             | SO FT               | 485                 | 485                |          |                        | *         |        |           |        |                      |               |                               |  |               |                  |               |              |                  |               |             |                           |
| 70300220            | TEMPORARY PAVEMENT MARKING - LINE 4"                         | FOOT                | 30000               | 30000              | i kale   | (Market                |           |        |           |        |                      |               | 3                             | A STATE OF THE STA |               |                  |               |              |                  |               |             | , j.                      |
| 70300240            | TEMPORARY PAVEMENT MARKING - LINE 6"                         | FOOT                | 2700                | 2700               |          |                        |           |        |           |        |                      |               |                               |  |               |                  | ,             |              |                  |               | :           |                           |
| 70300260            |  | FOOT                | 1950                | 1950               |          |                        |           |        |           |        | ·                    |               |                               |  |               |                  |               |              |                  |               |             |                           |
| 70300280            | TEMPORARY PAVEMENT MARKING - LINE 24"                        | FOOT                | 1450                | 1450               |          |                        |           |        |           |        |                      |               |                               | \$<br>2<br>9   |               | ·                |               |              |                  |               |             |                           |
| 70301000            | WORK ZONE PAVEMENT MARKING REMOVAL                           | SO FT               | 1515                | 1515               |          |                        |           |        |           |        |                      | A.            |                               |  |               |                  |               |              |                  |               |             |                           |
| 78000100            | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS         | SO FT               | 485                 | 485                |          |                        |           |        |           |        |                      |               |                               |  |               |                  |               |              |                  |               |             |                           |
| 78000200            | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                     | FOOT                | 30000               | 30000              |          | THE STREET STREET      |           |        |           |        |                      |               |                               | i esse   |               |                  |               |              |                  |               |             |                           |
| 78000400            |  | FOOT                | 2700                | 2700               |          |                        |           |        |           |        |                      | * SPECIAL     |                               |  |               |                  |               |              |                  |               |             |                           |
|                     |  |                     |                     |                    |          |                        |           |        |           |        |                      | ·             |                               | v d  |               |                  |               |              |                  |               |             |                           |
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|                     |  | CHECKED -<br>DATE - |                     | REVISED<br>REVISED |          |                        | $\dashv$  | DEPAKI | IVICIVI ( | OF IKA | NSPORTA              | IIIII         |                               | NO. OF   |               |                  | TO STA.       |              | ROAD DIST. NO. 1 | ILLINOIS FED. |             | 110. 001103               |
|                     | PLUI DAIE = 6/21/2009  | DATE -              |                     | REVISED            |          |                        |           |        |           |        |                      |               | JONEST                        |  |               |                  |               |              |                  |               | <del></del> | ,                         |



# EXISTING TYPICAL SECTION

STA. 10+43 TO 18+55 STA. 37+53 TO 165+63



# PROPOSED TYPICAL SECTION

STA. 10+43 TO 18+55 STA. 37+53 TO 165+63

# LEGEND:

- (1) EXISTING COMB. CONC. CURB AND GUTTER
- (2) EXISTING PCC BASE COURSE, 9" (+/-)
- (3) EXISTING HMA SURFACE COURSE, 6" (+/-)
- (4) PROPOSED HMA SURFACE REMOVAL, 2 1/4 "
- (5) PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2 "
- 6 PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50,  $\frac{3}{4}$ "
- \* NOTE: CONTRACTOR SHALL MILL FIRST BEFORE PATCHING.

| HOT-MIX ASPHALT MIXTU                           | JRE REQUIREMEN          | NTS              |
|---|-------------------------|------------------|
| MIXTURE USES                                    | AC / PG                 | DESIGN AIR VOIDS |
| HMA SURFACE COURSE, MIX "D",<br>N70 (IL-9.5 mm) | PG 64-22                | 4% AT 70 GYR.    |
| POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50  | SBS/SBR<br>PG 76-28/-22 | 4% AT 50 GYR.    |
| CLASS D PATCHES, (HMA BINDER IL-19.0 mm)        | * PG 64-22              | 4% AT 70 GYR.    |

# NOTES:

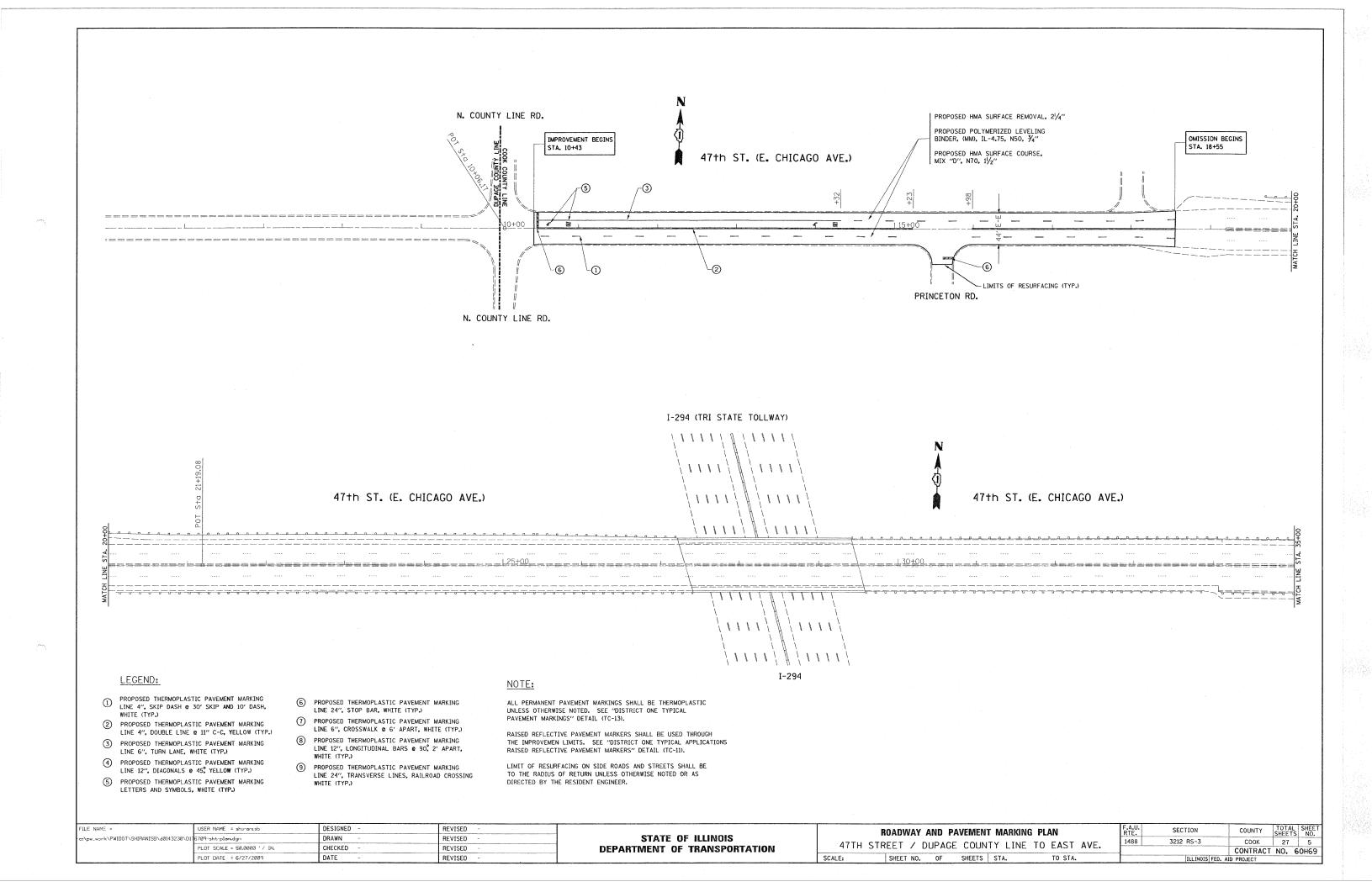
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SY/IN \* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

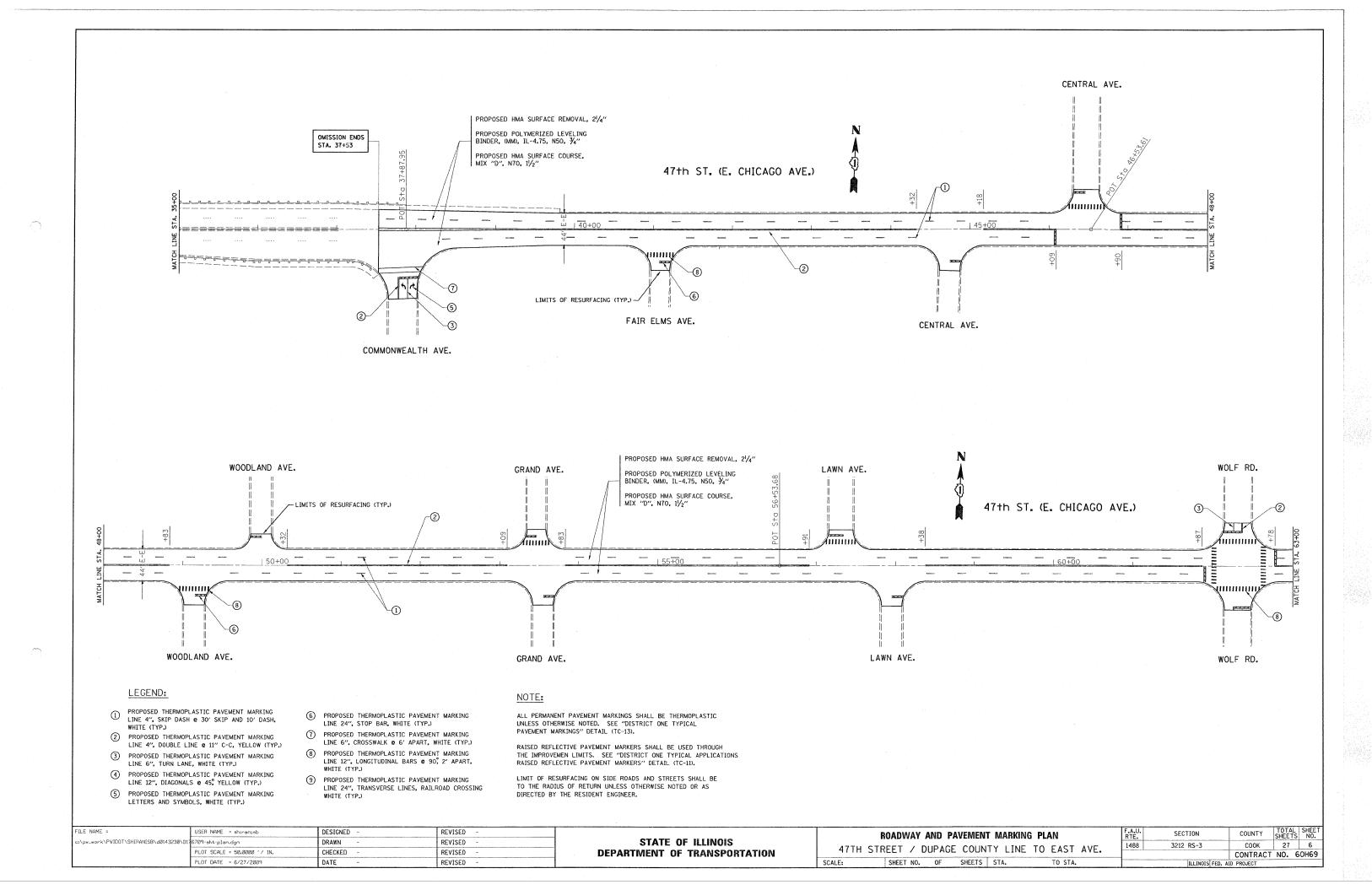
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|  | PLOT DATE = 6/27/2009       | DATE -     | REVISED - |

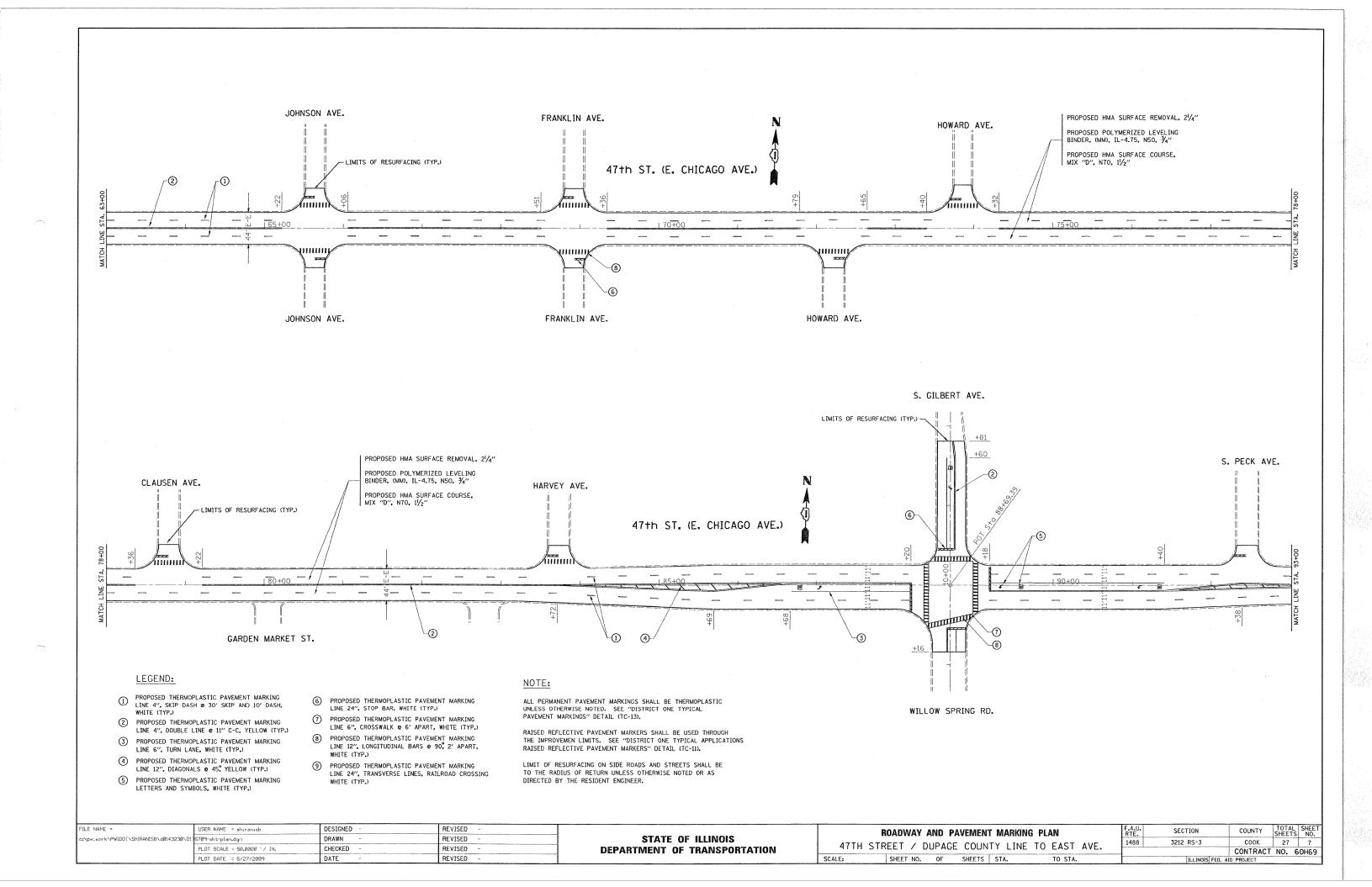
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| DEPARTMENT | <b>OF</b> | TRANSPORTATION |

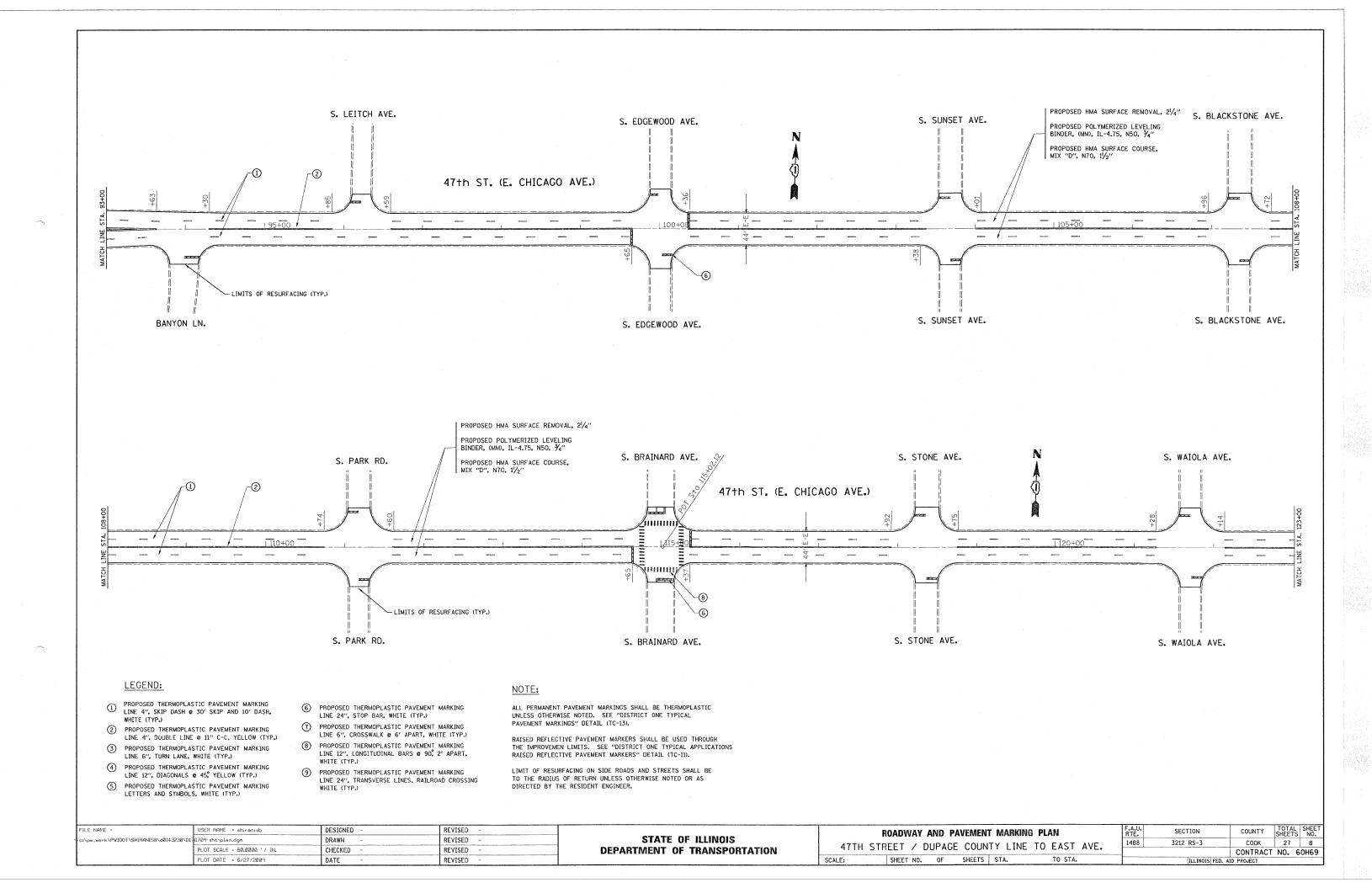
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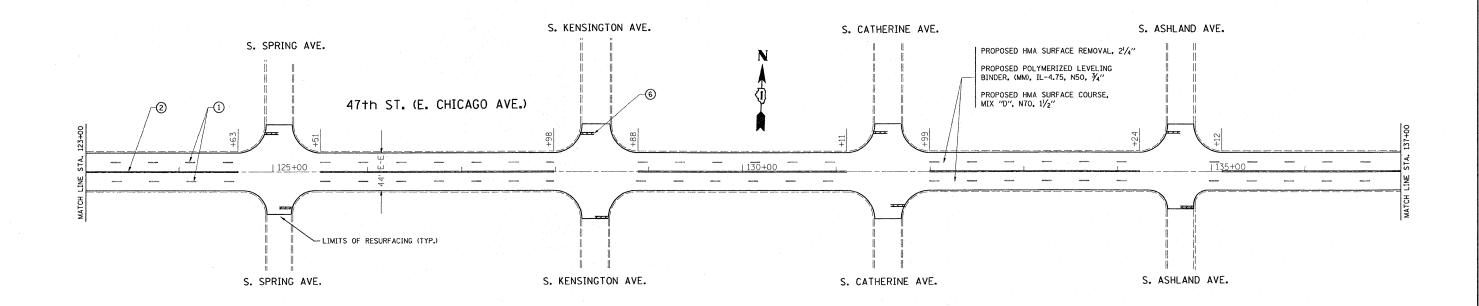
| 1488          | 3212 RS-3 | CONTRACT | 2/<br>NO 6 | 4<br>0469    |
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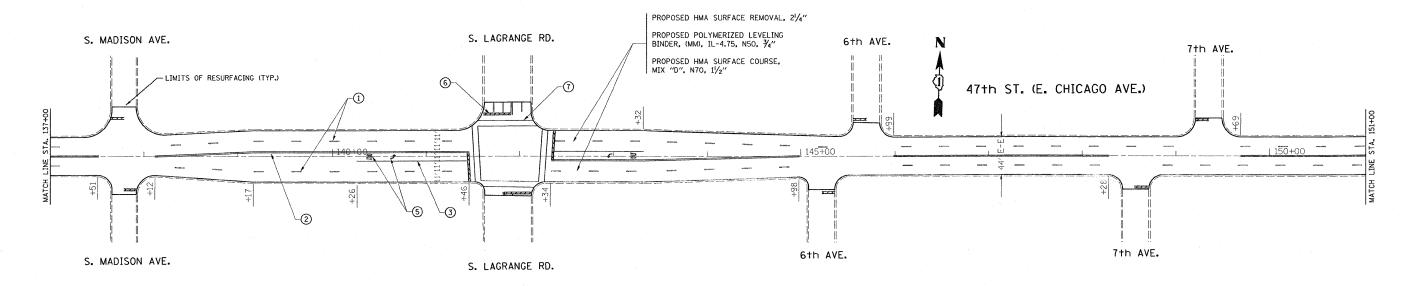












# LEGEND:

- PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 4", SKIP DASH @ 30' SKIP AND 10' DASH, WHITE (TYP.)
- PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 4", DOUBLE LINE @ 11" C-C, YELLOW (TYP.)
- 3 PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 6", TURN LANE, WHITE (TYP.)
- PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 12", DIAGONALS & 45°, YELLOW (TYP.)
- PROPOSED THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE (TYP.)
- PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 24", STOP BAR, WHITE (TYP.)
- PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 6", CROSSWALK @ 6" APART, WHITE (TYP.)
- (8) PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 12", LONGITUDINAL BARS @ 90, 2' APART, WHITE (TYP.)
- PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 24", TRANSVERSE LINES, RAILROAD CROSSING WHITE (TYP.)

# NOTE:

ALL PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED. SEE "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL (TC-13).

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED THROUGH THE IMPROVEMEN LIMITS. SEE "DISTRICT ONE TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS" DETAIL (TC-11).

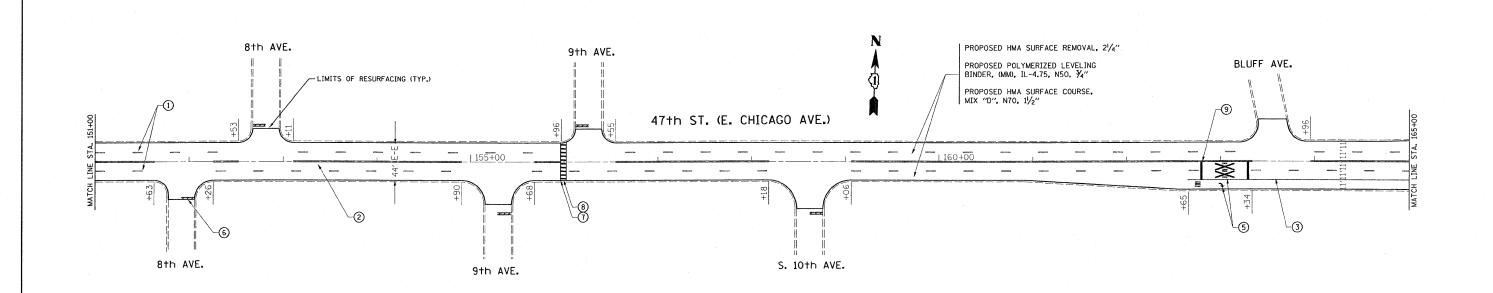
LIMIT OF RESURFACING ON SIDE ROADS AND STREETS SHALL BE TO THE RADIUS OF RETURN UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE RESIDENT ENGINEER.

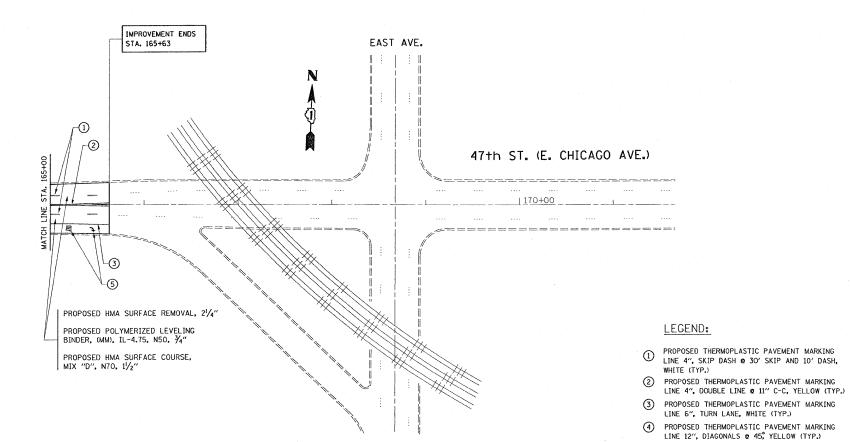
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| PLOT SCALE = 50.0000 // IN.             |                       | CHECKED -  | REVISED - |
|   | PLOT DATE = 6/27/2009 | DATE -     | REVISED - |

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

|        | R   | OADV  | ΙΑΥ | AND PA | VEMENT | MARKIN  | G PLAN  |      |
|--------|-----|-------|-----|--------|--------|---------|---------|------|
| 47TH   | STR | EET   | /   | DUPAGE | COUN   | TY LINE | TO EAST | AVE. |
| SCALE: |     | SHEET | NO. | 0F     | SHEETS | STA.    | TO STA  | •    |

| ILLINOIS FED. AID PROJECT |           |        |                 |              |  |  |  |  |  |
|---------------------------|-----------|--------|-----------------|--------------|--|--|--|--|--|
| 1488                      | 3212 RS-3 | COOK   | 27              | 9            |  |  |  |  |  |
| F.A.U.<br>RTE.            | SECTION   | COUNTY | TOTAL<br>SHEETS | SHEET<br>NO. |  |  |  |  |  |





- 6 PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 24", STOP BAR, WHITE (TYP.)
- PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 6", CROSSWALK @ 6' APART, WHITE (TYP.)
- (8) PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 12", LONGITUDINAL BARS @ 90°, 2' APART, WHITE (TYP.)
- 9 PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 24", TRANSVERSE LINES, RAILROAD CROSSING WHITE (TYP.)

### NOTE:

ALL PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED. SEE "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL (TC-13).

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED THROUGH THE IMPROVEMEN LIMITS. SEE 'DISTRICT ONE TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS' DETAIL (TC-11).

LIMIT OF RESURFACING ON SIDE ROADS AND STREETS SHALL BE TO THE RADIUS OF RETURN UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE RESIDENT ENGINEER.

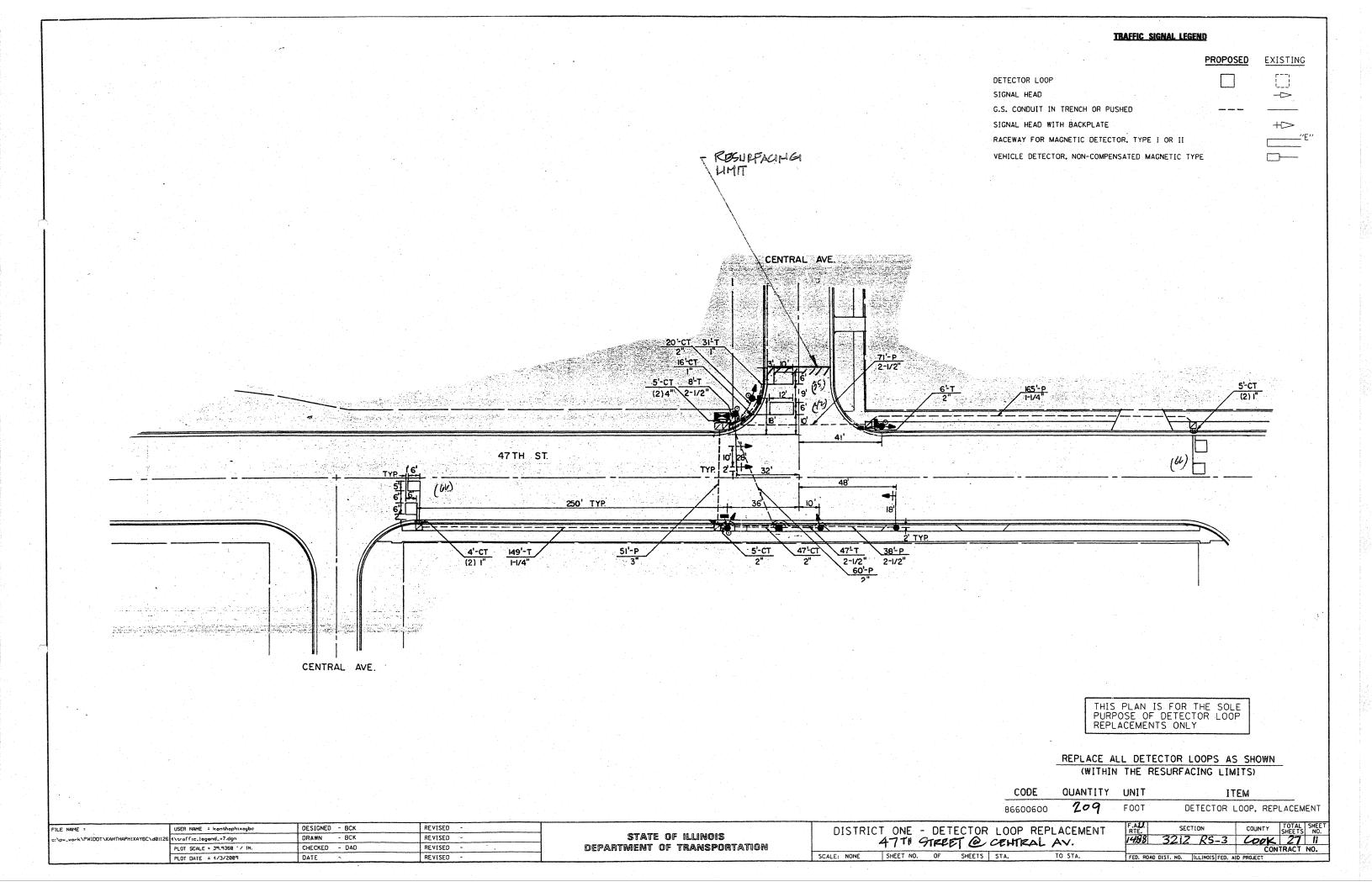
| FILE NAME =                                | USER NAME = shironisb       | DESIGNED - | REVISED - | Γ |
|--|-----------------------------|------------|-----------|---|
| -c:\pw:work\PWID0T\\$HIRANISB\d0143230\D17 | 6709-sht-plan.dgn           | DRAWN -    | REVISED - |   |
|  | PLOT SCALE = 50.0000 '/ IN. | CHECKED -  | REVISED - |   |
|  | PLOT DATE = 6/27/2009       | DATE -     | REVISED - |   |

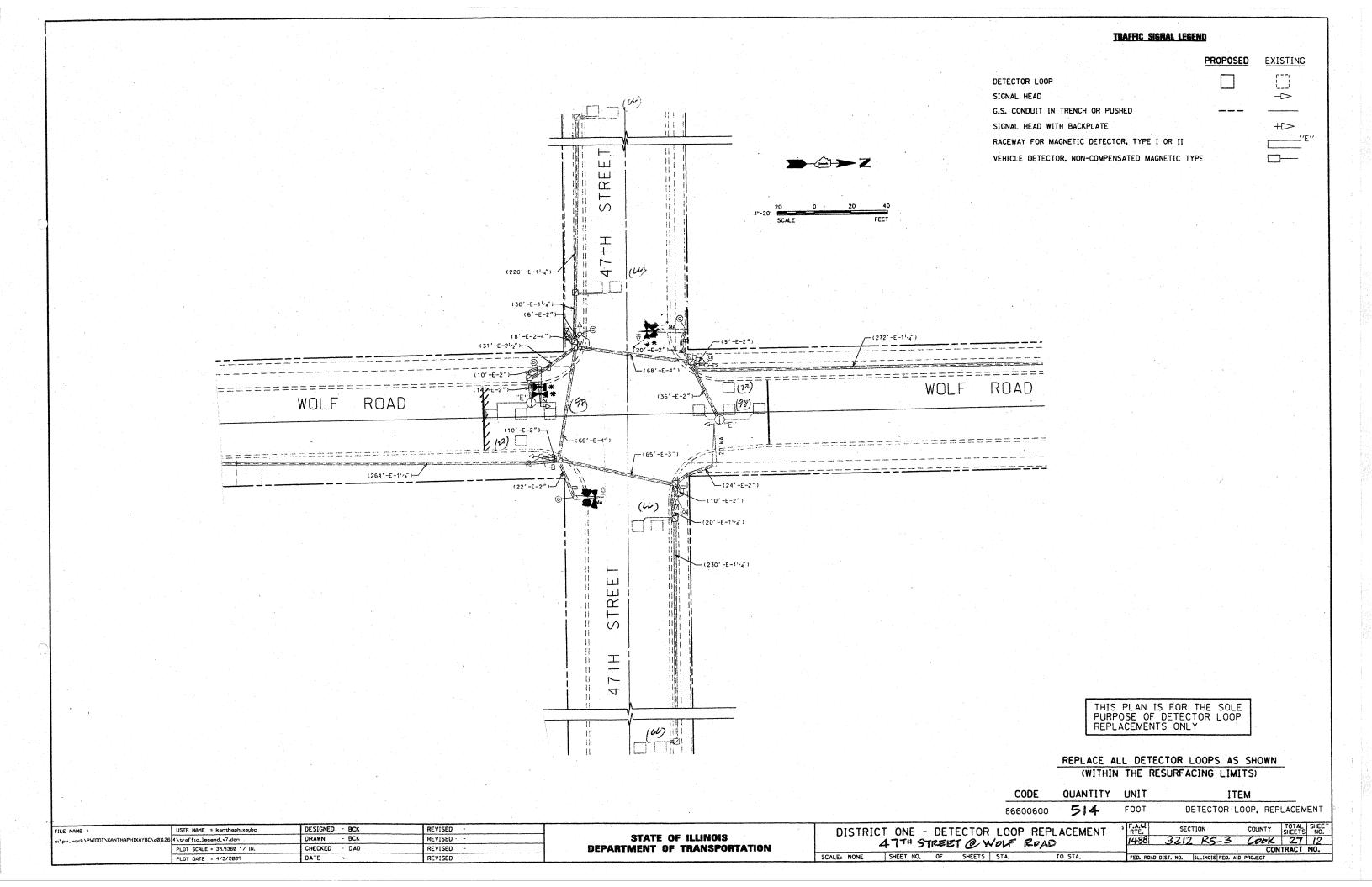
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

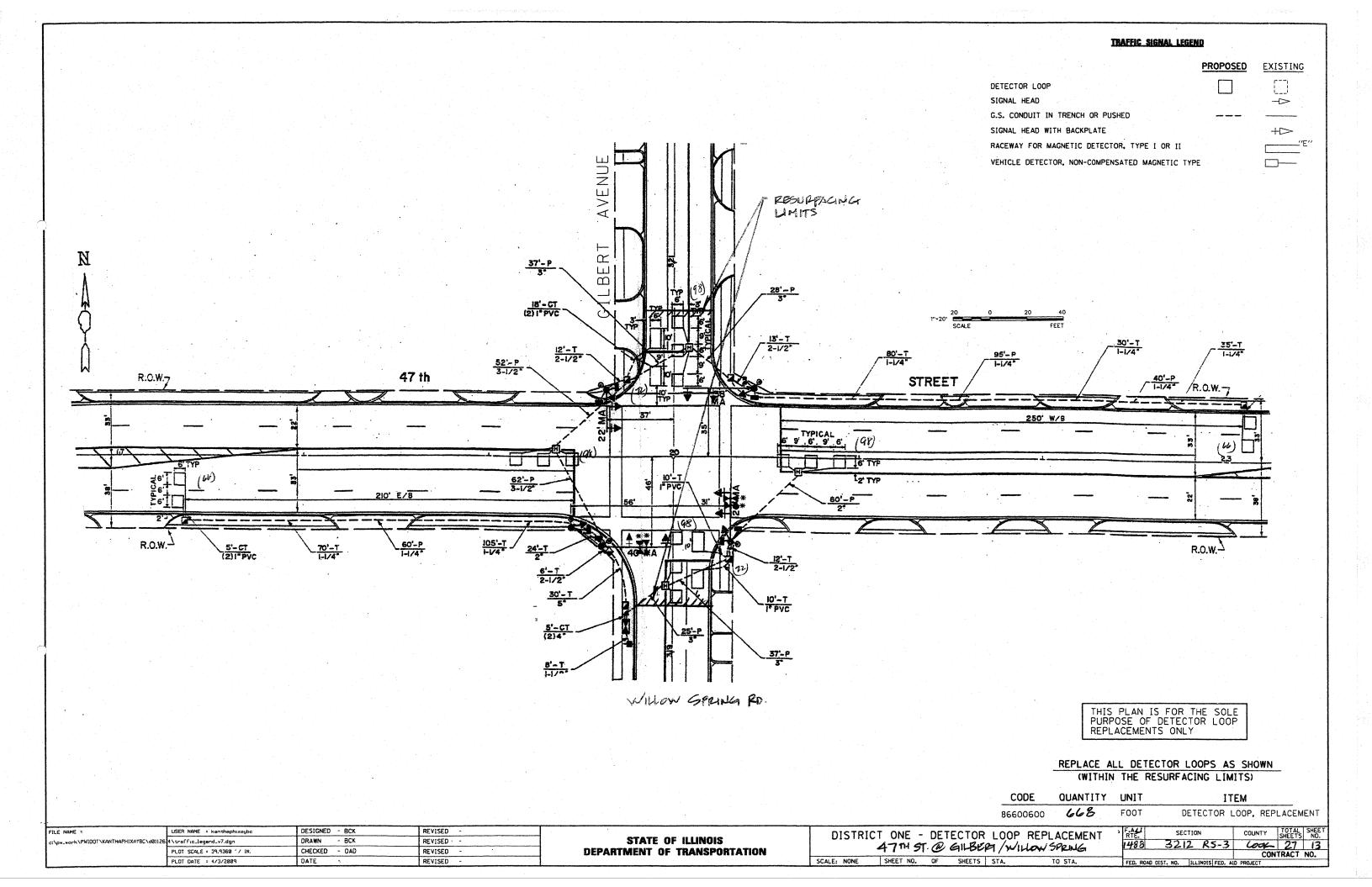
(5) PROPOSED THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE (TYP.)

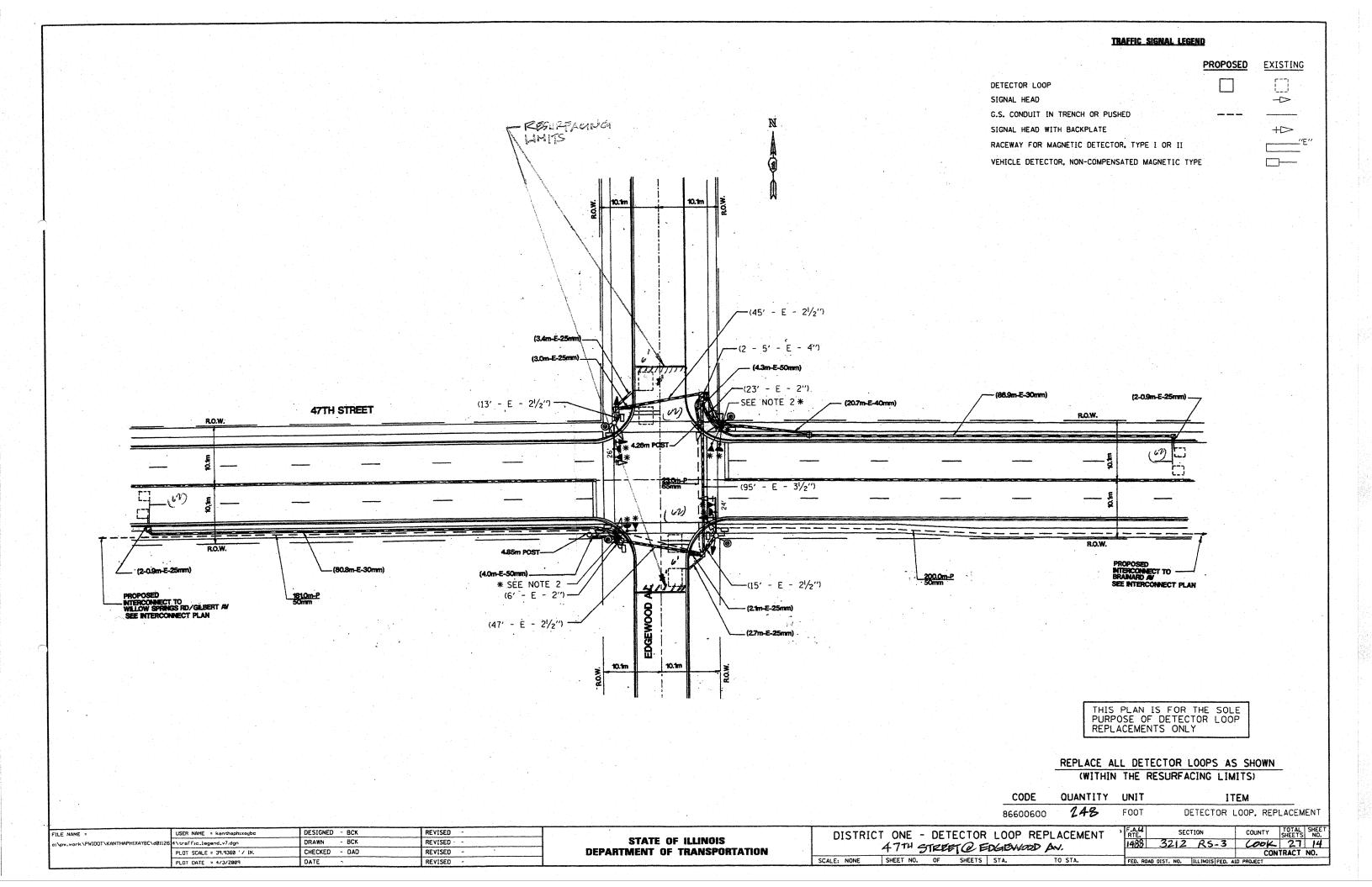
|      | ROADW  | /AY | AND PA | VEMENT | M  | ARKING | PL | AN      |      |  |
|------|--------|-----|--------|--------|----|--------|----|---------|------|--|
| 47TH | STREET | / [ | UPAGE  | COUN   | ΓY | LINE   | TO | EAST    | AVE. |  |
| ALF. | SHEET  | NO  | OF     | SHEETS | ST | Δ.     |    | TO STA. |      |  |

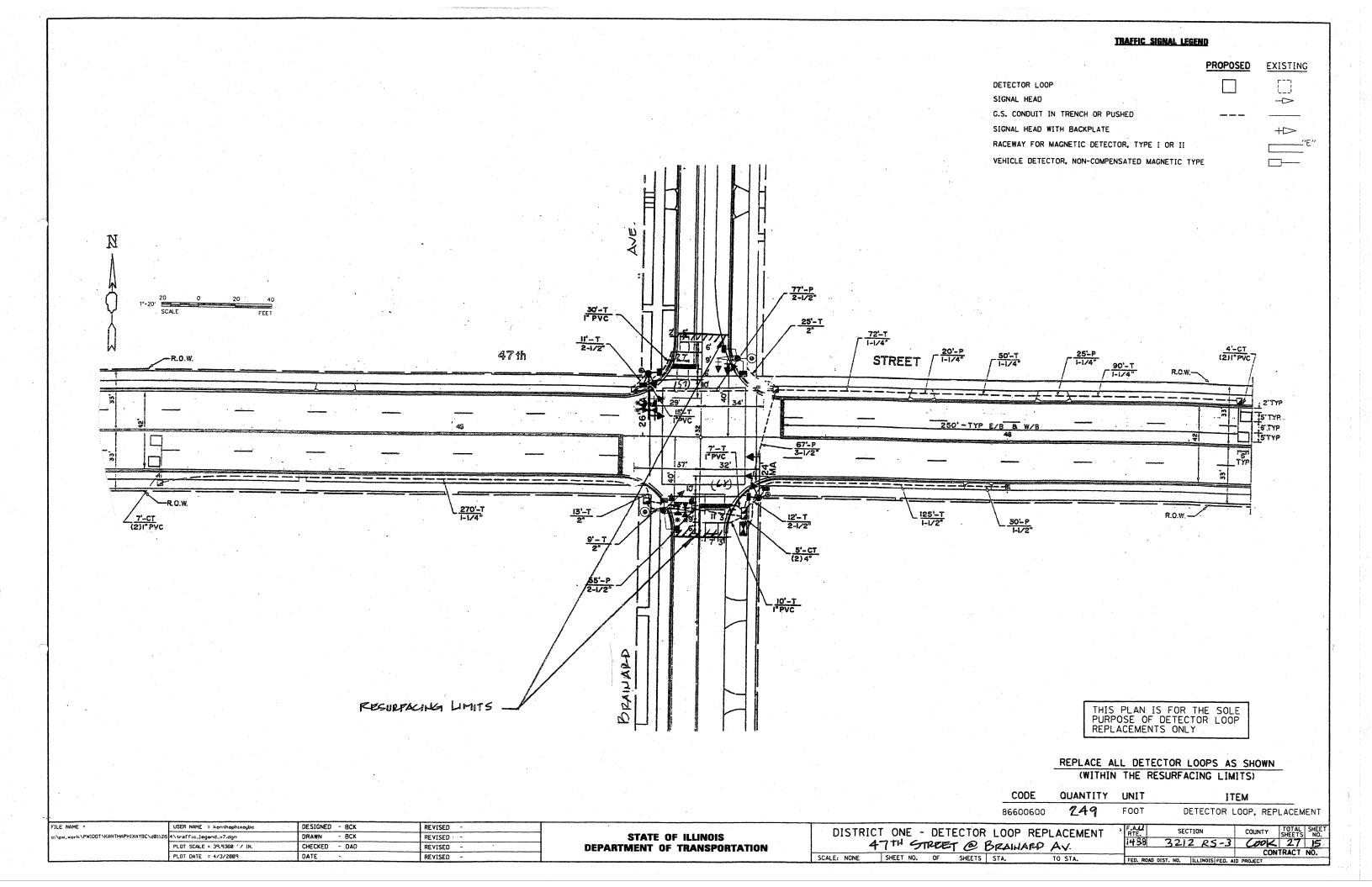
| F.A.U.<br>RTE. | SECTION            | COUNTY      | TOTAL<br>SHEETS | SHEET<br>NO. |  |  |  |  |  |  |
|----------------|--------------------|-------------|-----------------|--------------|--|--|--|--|--|--|
| 1488           | 3212 RS-3          | COOK        | 27              | 10           |  |  |  |  |  |  |
|                | CONTRACT NO. 60H69 |             |                 |              |  |  |  |  |  |  |
|                | ILLINOIS FED.      | AID PROJECT |                 |              |  |  |  |  |  |  |

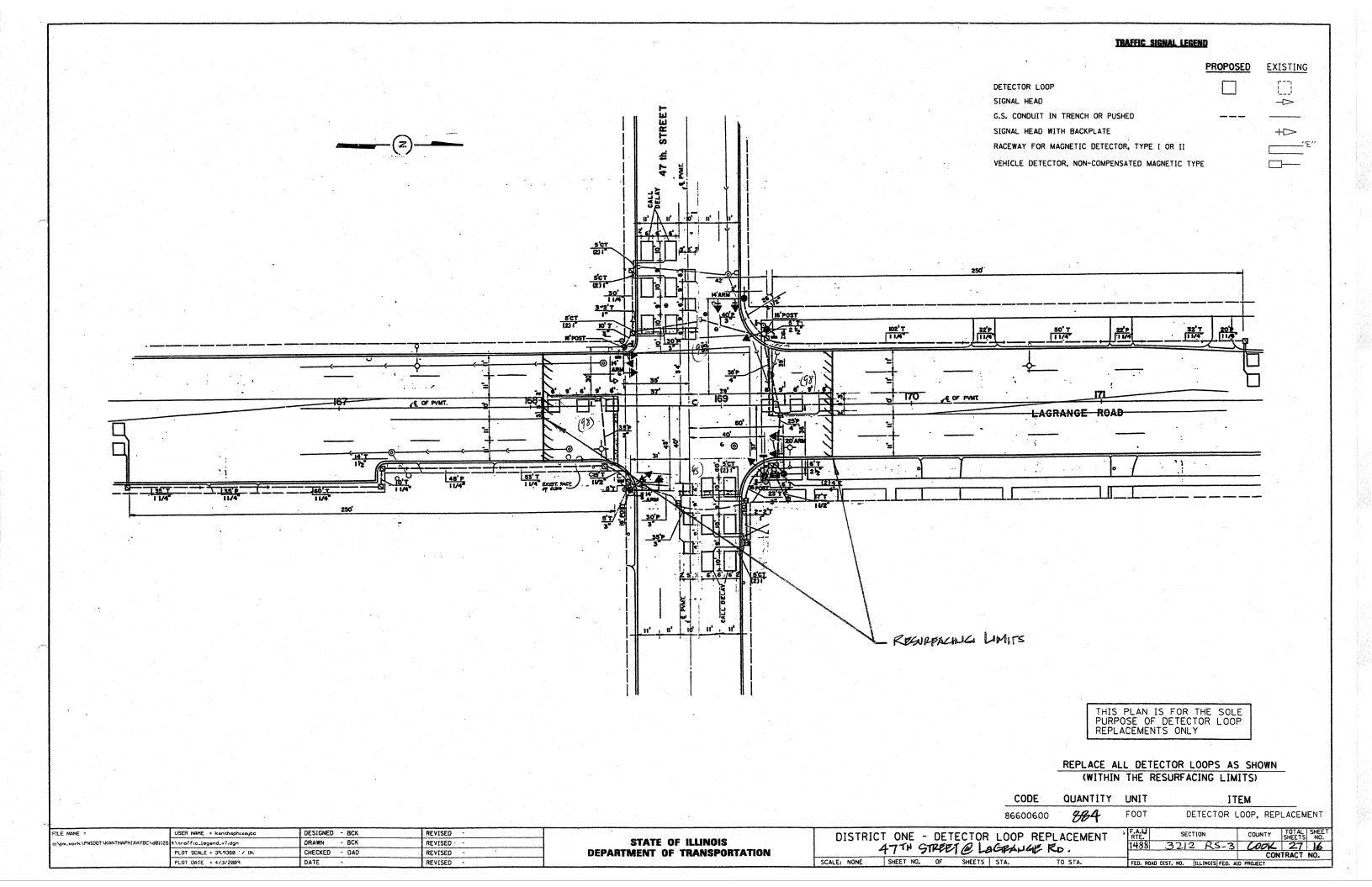


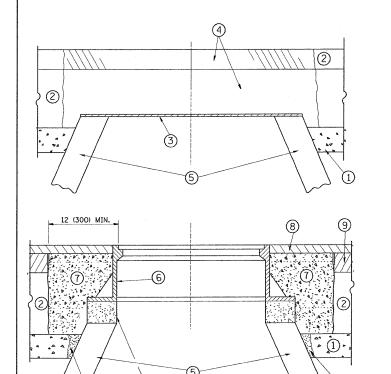












PROPOSED

PROPOSED

NOTES:

SAND FILL

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAYEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

# CONSTRUCTION PROCEDURES

# STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

# STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

1 SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 8 PROPOSED HMA SURFACE COURSE
- 5 EXISTING STRUCTURE
- PROPOSED HMA BINDER COURSE

# LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

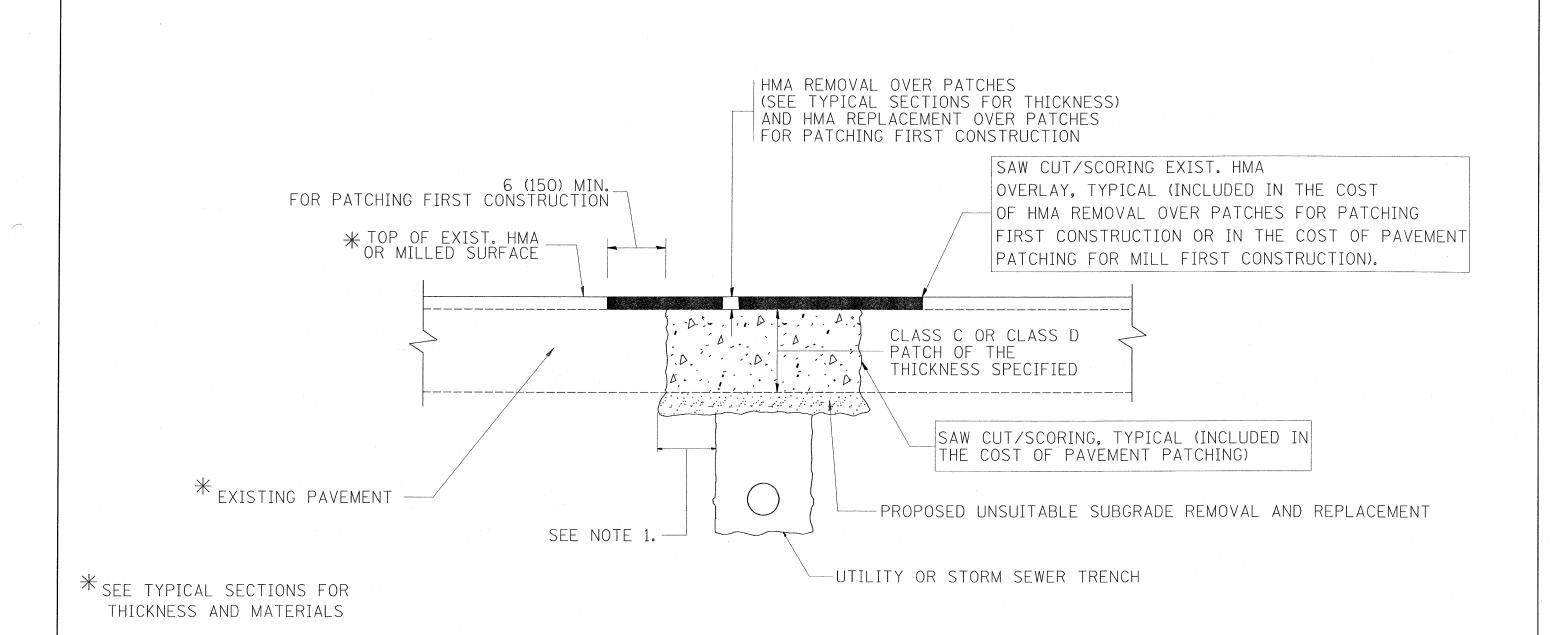
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISED - R. SHAH 03-10-95 FILE NAME = JSER NAME = shiramisb DESIGNED - R. SHAH 1:\47th st\bd08.dq DRAWN REVISED - A. ABBAS 03-21-97 PLOT SCALE = 50.0000 '/ IN. REVISED - R. WIEDEMAN 05-14-04 PLOT DATE = 6/26/2009 DATE REVISED - R. BORO 01-01-07 10-25-94

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

**DETAILS FOR** FRAMES AND LIDS ADJUSTMENT WITH MILLING SHEET NO. 1 OF 1 SHEETS STA.

COUNTY TOTAL SHEE NO. SECTION 1488 3212 RS-3 COOK 27 17 BD600-03 (BD-8) CONTRACT NO. 60H69 FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT



# NOTES:

- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

# SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

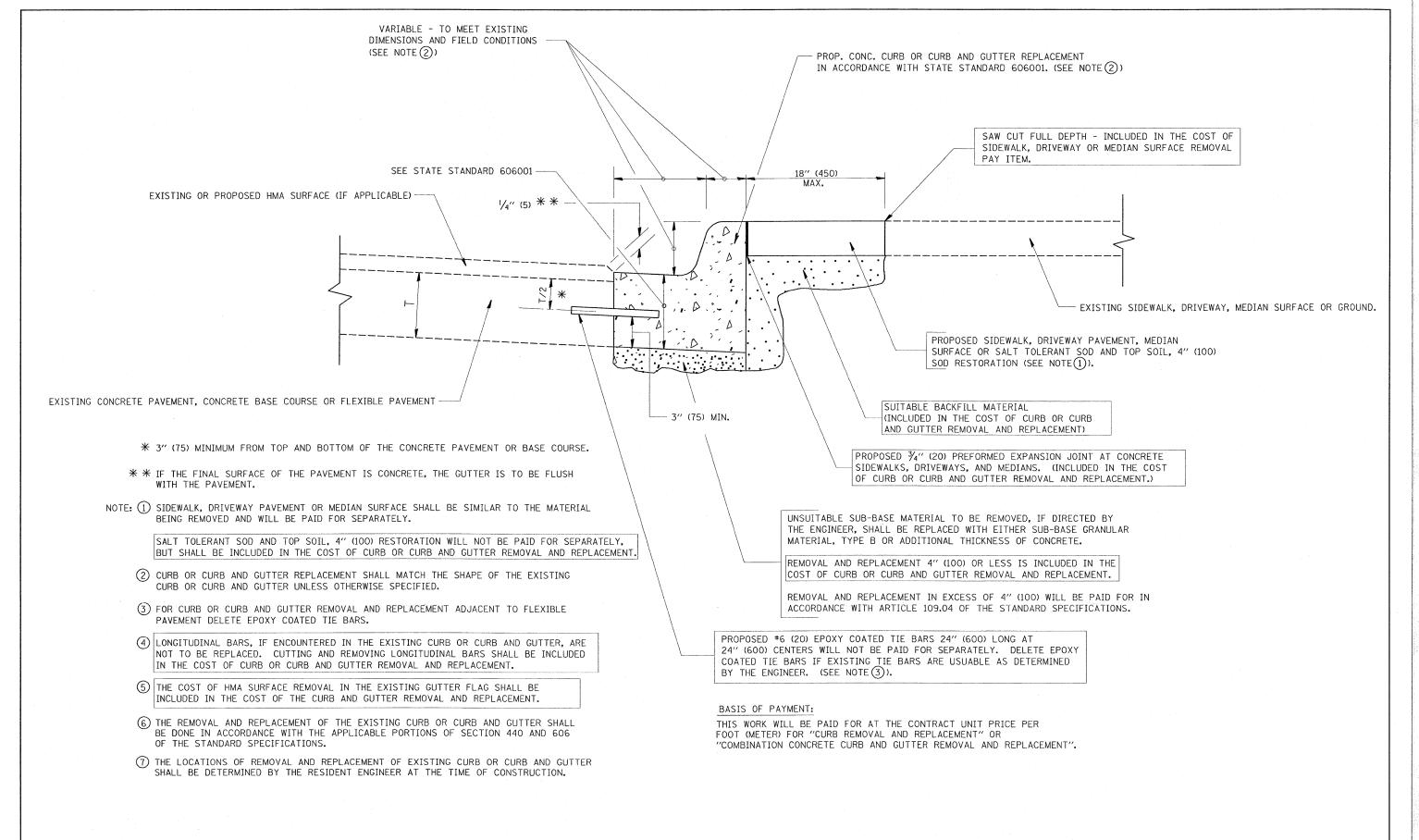
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

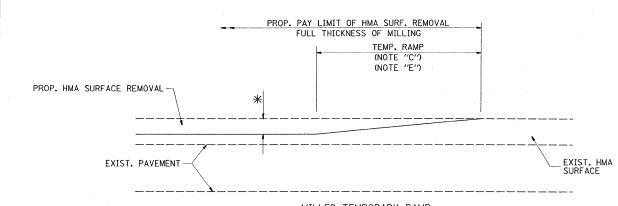
| FILE NAME =         | USER NAME = shiranisb      | DESIGNED - R. SHAH | REVISED - A. ABBAS 04-27-98 |                              | PAVEMENT PATCHING FOR                            | F.A.U.             | SECTION   | COUNTY             | TOTAL SHEE  |
|---------------------|----------------------------|--------------------|-----------------------------|------------------------------|--|--------------------|-----------|--------------------|-------------|
| P:\47th st\bd22;dgn |                            | DRAWN -            | REVISED - R. BORO 01-01-07  | STATE OF ILLINOIS            |  | 1488 3             | 3212 RS-3 | COOK               | 27 18       |
|                     | PLOT SCALE = 50.000 // IN. | CHECKED -          | REVISED - R. BORO 09-04-07  | DEPARTMENT OF TRANSPORTATION | HMA SURFACED PAVEMENT                            | BD400-04 (BD-22)   |           | CONTRACT NO. 60H69 |             |
|                     | PLDT DATE = 6/26/2009      | DATE - 10-25-94    | REVISED - K. ENG 10-27-08   |                              | SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. | FED. ROAD DIST. NO |           | D PROJECT          | 1101 001103 |



# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

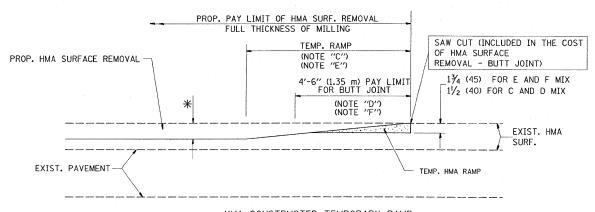
| FILE NAME =         | USER NAME = shiranisb      | DESIGNED - A. HOUSEH | REVISED - F | R. SHAH 10-03-96  |                              |                         | CURB OR CURB AND GUTTER              | F.A.U.<br>RTE. | SECTION                  | COUNTY        | TOTAL SHEE | ΞT |
|---------------------|----------------------------|----------------------|-------------|-------------------|------------------------------|-------------------------|--------------------------------------|----------------|--------------------------|---------------|------------|----|
| P:\47th st\bd24.dgn |                            | DRAWN -              | REVISED - / | A. ABBAS 03-21-97 | STATE OF ILLINOIS            | REMOVAL AND REPLACEMENT |                                      |                | 3212 RS-3                | соок          | 27 19      | ,  |
|                     | PLOT SCALE = 50.000 '/ IN. | CHECKED -            | REVISED 1   | M. GOMEZ 01-22-01 | DEPARTMENT OF TRANSPORTATION | REMOVAL AND REPLACEMENT |                                      | BI             | D600-06 (BD-24)          | CONTRACT      | T NO. 60H6 | 9  |
| <b>i</b> .          | PLOT DATE = 6/26/2009      | DATE - 03-11-94      | REVISED - I | R. BORO 01-01-07  |                              | SCALE: NONE             | SHEET NO. 1 OF 1 SHEETS STA. TO STA. | FED. ROAD      | DIST. NO. 1 ILLINOIS FED | . AID PROJECT |            | -  |



# MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 1

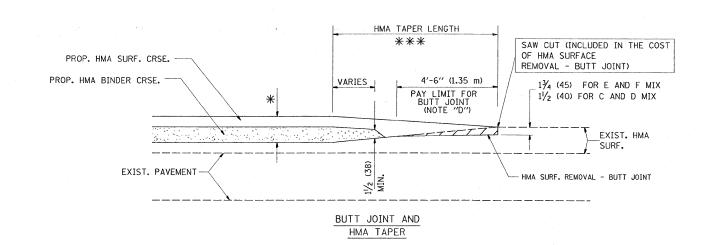


# HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 2

# TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

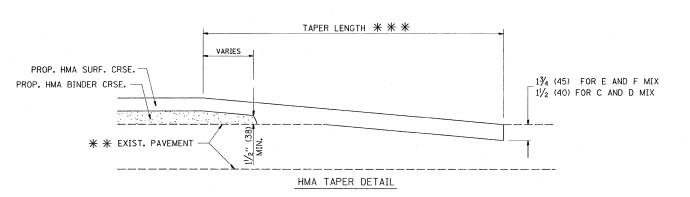
PROP. HMA OR PCC

SURFACE REMOVAL - BUTT JOINT
30'-0" (9.0 m) (NOTE "A")
15'-0" (4.5 m) (NOTE "B")

(NOTE "D")

\*\* \* EXIST. PAVEMENT

BUTT JOINT DETAIL



# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

 $\mbox{\#}\mbox{\#}$  PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

### NOTE:

- 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.

# 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".

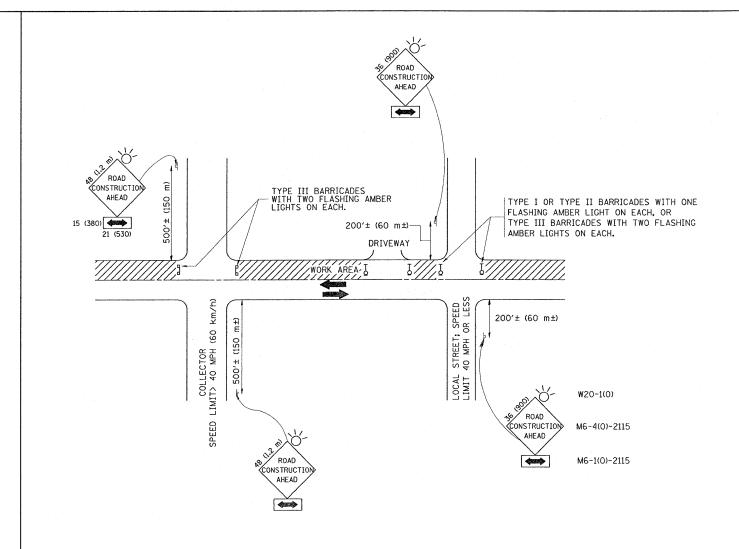
SCALE: NONE

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

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|                     | PLOT SCALE = 50.0000 '/ IN. | CHECKED ~             | REVISED - M. GOMEZ 04-06-01 | DEPARTMENT |
|                     | PLOT DATE = 6/26/2009       | DATE - 06-13-90       | REVISED - R. BORO 01-01-07  |            |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| BUTT JOINT AND               |         | F.A.U.<br>RTE. | SECTION                          | COUNTY TOTAL SHEETS |       | SHEET<br>NO. |
|------------------------------|---------|----------------|----------------------------------|---------------------|-------|--------------|
| HMA TAPER DETAILS            |         | 1488           | 3212 RS-3                        | COOK                | 27    | 20           |
| INVA IAPEN DEIAILS           |         |                | BD400-05 BD32                    | CONTRACT            | NO. 6 | ОН69         |
| SHEET NO. 1 OF 1 SHEETS STA. | TO STA. | FED. R         | OAD DIST. NO. 1 ILLINOIS FED. AI | D PROJECT           |       |              |



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

# 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:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN  $36\times36$  ( $900\times900$ ) 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:
- d) 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 (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

SCALE: NONE

- 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 inches (millimeters) unless otherwise shown.

FILE NAME = USER NAME = shirenish DESIGNED - LHA REVISED - J. OBERLE 10-18-95

Pi\47 th st\tci0.dgn DRAWN - REVISED - A. HOUSEH 03-06-96

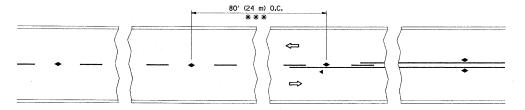
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PLOT DATE = 6/26/2009 DATE - 06-89 REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

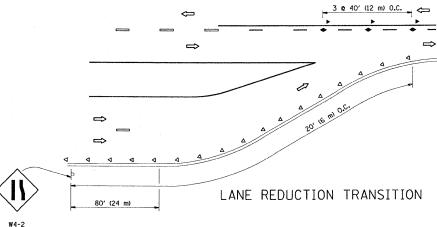
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

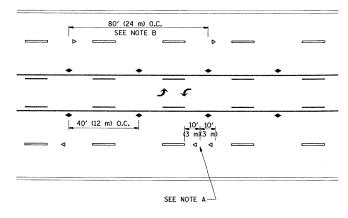
SHEET NO. 1 OF 1 SHEETS STA. TO STA.



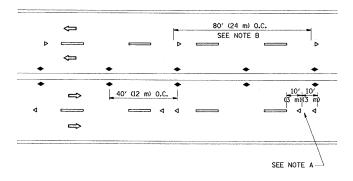
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

# TWO-LANE/TWO-WAY

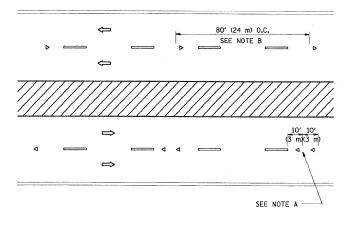




TWO-WAY LEFT TURN



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.

# LANE MARKER NOTES

- 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.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

# SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

# DESIGN NOTES

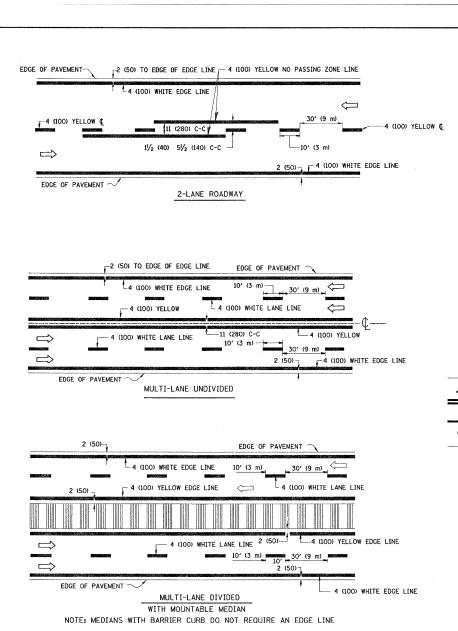
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS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

| 3 e 80' (24 m) O.C. — Ê   | MINIMUM OF 3 W EQUALLY SPACED S  | √-3 @ 80′ (24 m) 0.C. |
|---|--|-----------------------|
| 3 e 40' (12 m)  *  40' (12 m)  O.C.  *  40' (12 m)  O.C.  *  40' (12 m)  O.C. | # SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS  USE TWO-WAY MARKERS. | 3 e 40' (12 m)        |

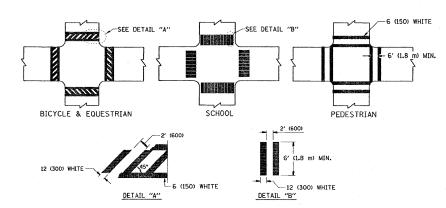
LEFT TURN

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

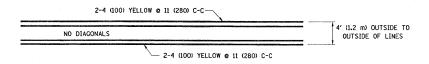
| FILE NAME =         | USER NAME = shironisb      | DESIGNED ~ | REVISED - T. RAMMACHER 09-19-94 |                              | TYPICAL APPLICATIONS  | F.A.U.      | SECTION                    | COUNTY      | TOTAL SHEET |
|---------------------|----------------------------|------------|---------------------------------|------------------------------|---|-------------|----------------------------|-------------|-------------|
| P:\47th st\tcflidgn |                            | DRAWN -    | REVISED -T. RAMMACHER 03-12-99  | STATE OF ILLINOIS            |   | 1488        | 3212 RS-3                  | соок        | 27 22       |
|                     | PLOT SCALE = 50.000 '/ IN. | CHECKED -  | REVISED -T. RAMMACHER 01-06-00  | DEPARTMENT OF TRANSPORTATION | RTMENT OF TRANSPORTATION RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) |             | TC-11                      |             | NO. 60H69   |
|                     | PLOT DATE = 6/26/2009      | DATE -     | REVISED -                       |                              | SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.                                  | FED. ROAD D | IST. NO. 1 ILLINOIS FED. A | AID PROJECT |             |



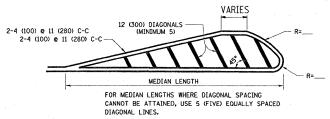
# TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

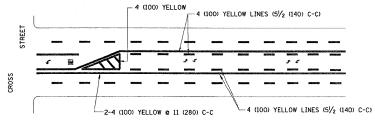


# 4' (1.2 m) WIDE MEDIANS ONLY

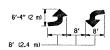


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30MPH (50 km/h) T0 45MPH (70 km/h)) 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

# MEDIANS OVER 4' (1.2 m) WIDE

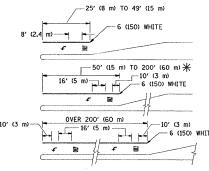


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING

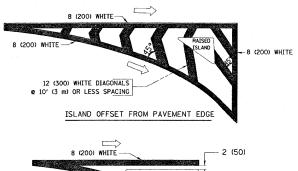


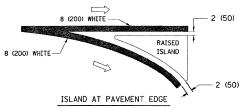
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 S0. FT. (1.5 m<sup>2</sup> )  $\parallel \parallel \parallel$  AREA = 20.8 S0. FT. (1.9 m<sup>2</sup>)

\*\* 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 UNDIVEDED PAVEMENT   | 2 @ 4 (100)   | SOLID                   | YELLOW  | 11 (280) C-C   |
| NO PASSING ZONE LINES:<br>FOR ONE DIRECTION<br>FOR BOTH DIRECTIONS                                | 4 (100)<br>2 @ 4 (100)  | SOLID<br>SOLID          | YELLOW<br>YELLOW  | 5½ (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<br>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<br>YELLOW; EDGE LINES ARE NOT<br>USED NEXT TO BARRIER CURB  |
| TURN LANE MARKINGS  | 6 (150) LINE; FULL<br>SIZE LETTERS &<br>SYMBOLS (8' (2.4m))   | SOLID                   | WHITE   | SEE TYPICAL TURN LANE MARKING DETAIL   |
| TWO WAY LEFT TURN MARKING   | 2 @ 4 (100)<br>EACH DIRECTION   | SKIP-DASH<br>AND SOLID  | YELLOW  | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE  |
|   | 8' (2.4m) LEFT ARROW  | IN PAIRS                | WHITE   | SEE TYPICAL TWO-WAY LEFT TURN<br>MARKING DETAIL  |
| CROSSWALK LINES (PEDESTRIAN)<br>A. DIACONALS (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' (500) APART<br>5EE 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<br>12 (300) DIAGONALS<br>@ 45°<br>NO DIAGONALS USED FOR<br>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 SEE TYPICAL PAINTED MEDIAN MARKING,   |
| GORE MARKING AND<br>CHANNELIZING LINES  | 8 (200) WITH 12 (300)<br>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<br>LINES; "RR" IS 6' (1.8 m)<br>LETTERS; 16 (400)<br>LINE FOR "X"               | SOLID                   | WHITE   | SEE STATE STANDARD 780001<br>AREA OF:<br>"R"=3.6 SQ. FT. (0.33 m²) EACH<br>"X"=54.0 SQ. FT. (5.0 m²)   |
| SHOULDER DIAGONALS  | 12 (300) <b>e</b> 45°   | SOLID                   | WHITE - RIGHT<br>YELLOW - LEFT                          | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))<br>75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)<br>150' (45 m) C-C (0VER 45MPH (70 km/h))                        |

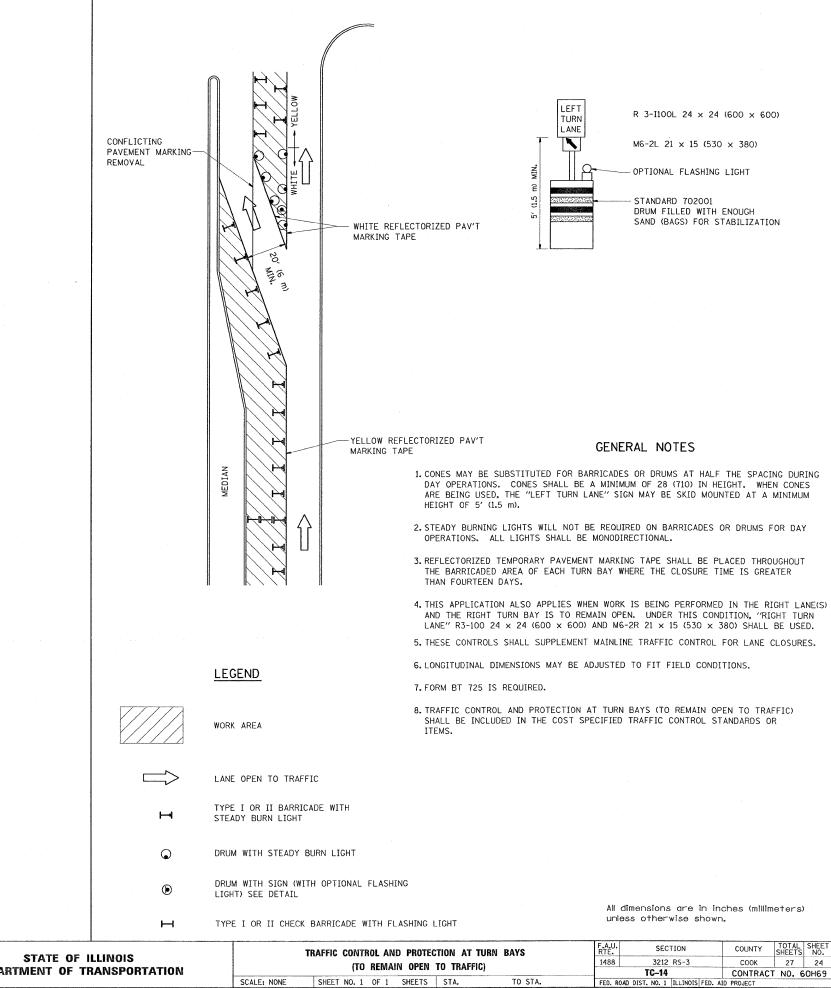
FOR FURTHER DETAILS ON PAYEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

| FILE NAME =         | USER NAME = shiramisb      | DESIGNED - EVERS | REVISED -T. RAMMACHER 10-27-94 |
|---------------------|----------------------------|------------------|--------------------------------|
| P:\47th st\tc13.dgn |                            | DRAWN -          | REVISED -A. HOUSEH 10-09-96    |
|                     | PLOT SCALE = 50.000 '/ IN. | CHECKED -        | REVISED -A. HOUSEH 10-17-96    |
| -                   | PLOT DATE = 6/26/2009      | DATE - 03-19-90  | REVISED -T. RAMMACHER 01-06-00 |
|                     |                            |                  |                                |

| STATE      | OF | ILLINOIS       |
|------------|----|----------------|
| DEPARTMENT | OF | TRANSPORTATION |

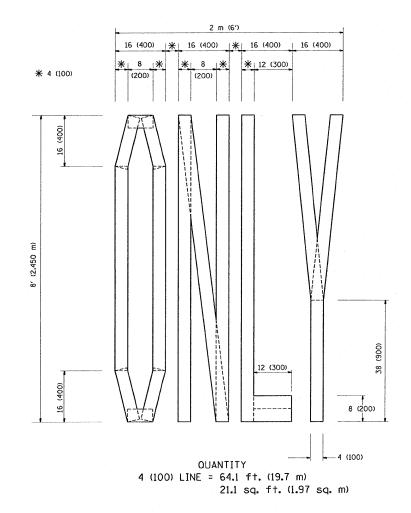
|  | DIS        | TRICT OF    | lE        |           | F.A.U.<br>RTE. | SECTION                          | COUNTY    | TOTAL<br>SHEETS | SHEET<br>NO. |
|--|------------|-------------|-----------|-----------|----------------|----------------------------------|-----------|-----------------|--------------|
|  | TYPICAL PA | VERMENIT    | 1488      | 3212 RS-3 | соок           | 27                               | 23        |                 |              |
|  | ITTIOALTA  | A WIAITIA 3 | MAIIMINGO |           |                | TC-13                            | CONTRACT  | NO. 6           | OH69         |
| SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. |            |             |           |           |                | AD DIST. NO. 1   ILLINOIS FED. A | D PROJECT |                 |              |

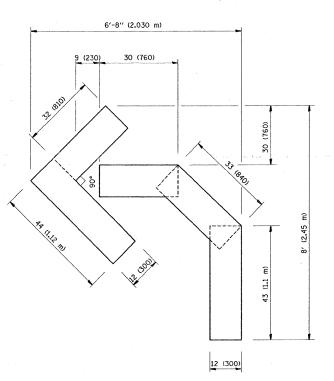


DESIGNED REVISED -T. RAMMACHER 09-08-94 P:\47th st\tc14.dgn REVISED - A. HOUSEH 11-07-95 DRAWN CHECKED PLOT SCALE = 50.0000 '/ IN. REVISED - A. HOUSEH 10-12-96 PLOT DATE = 6/26/2009 DATE REVISED -T. RAMMACHER 01-06-00

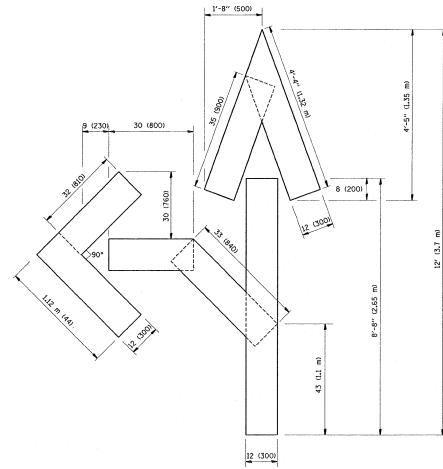
**DEPARTMENT OF TRANSPORTATION** 

SHEET NO. 1 OF 1 SHEETS STA. TO STA.





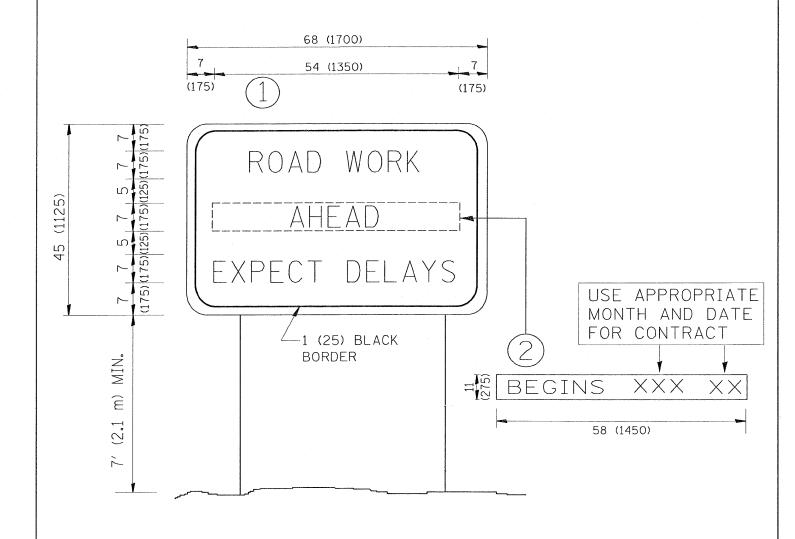
OUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)



QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

|     | FILE NAME =          | USER NAME = shiranish       | DESIGNED - |          | REVISED | -T. RAMMACHER 06-05-96 |                              |                     | PAVEMENT MARKING LETTERS AND SYMBOLS |   | F.A.U.<br>RTE. | SECTION | 1 .       | COUNTY            |               |         |
|-----|----------------------|-----------------------------|------------|----------|---------|------------------------|------------------------------|---------------------|--------------------------------------|---|----------------|---------|-----------|-------------------|---------------|---------|
| - 1 | Pt\47thr st\tc16.dgn |                             | DRAWN -    |          | REVISED | -T. RAMMACHER 11-04-97 | STATE OF ILLINOIS            |                     |                                      | 1488                                    | 3212 RS-3      | 3       | соок      |                   |               |         |
| - 1 |                      | PLOT SCALE = 50.0000 '/ IN. | CHECKED -  |          | REVISED | -T. RAMMACHER 03-02-98 | DEPARTMENT OF TRANSPORTATION | FOR TRAFFIC STAGING |                                      | *************************************** | TC-16          |         | CONTRACT  |                   |               |         |
| - 1 |                      | PLOT DATE = 6/26/2009       | DATE -     | 09-18-94 | REVISED | -E. GOMEZ 08-28-00     |                              | SCALE: NONE         | SHEET NO. 1                          | OF 1 SHEE                               | TS STA.        | TO STA. | FED. ROAD | DIST. NO. 1 ILLIN | NOIS 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.

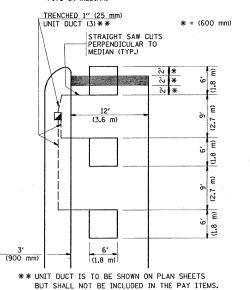
| ı   | FILE NAME =         | USER NAME = shiranisb      | DESIGNED - | REVISED - R. MIRS 09-15-97     | *                            |                 | ARTERIAL ROAL           | n            | F.A.U.      | SECTION                 | COUNTY      | TOTAL   | SHEET<br>NO. |
|-----|---------------------|----------------------------|------------|--------------------------------|------------------------------|-----------------|-------------------------|--------------|-------------|-------------------------|-------------|---------|--------------|
|     | P:\47th st\tc22.dgn |                            | DRAWN -    | REVISED - R. MIRS 12-11-97     | STATE OF ILLINOIS            |                 | INFORMATION S           |              | 1488        | 3212 RS-3               | COOK        | 27      | 26           |
|     |                     | PLOT SCALE = 50.000 '/ IN. | CHECKED -  | REVISED -T. RAMMACHER 02-02-99 | DEPARTMENT OF TRANSPORTATION |                 |                         |              |             | TC-22                   | CONTRACT    | T NO. 6 | JH69         |
| - 1 | ·                   | PLOT DATE = 6/26/2009      | DATE -     | REVISED - C. JUCIUS 01-31-07   |                              | SCALE: NONE SHE | EET NO. 1 OF 1 SHEETS : | STA. TO STA. | FED. ROAD D | IST. NO. 1 ILLINOIS FED | AID PROJECT |         |              |

# PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER \* = (600 mm) \* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USEO WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



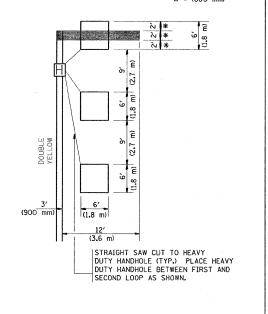
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

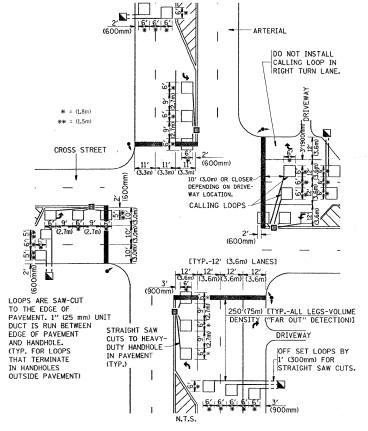
\* = (600 mm)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

# ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 1

N.T.S.

PLOT SCALE = 50.0000 '/ IN.

PLOT DATE = 6/26/2009

P:\47th st\ts07.dan

DESIGNED

CHECKED

- R.K.F.

DRAWN

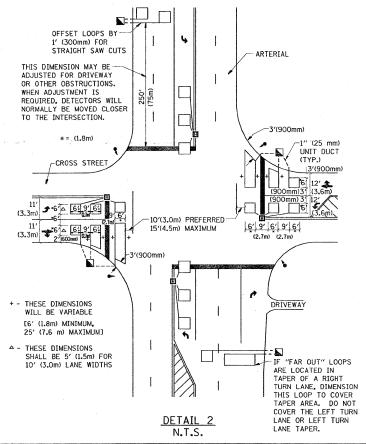
DATE

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### NOTES:

### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF <u>ALL</u> DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE
  THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR
  (1.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

# PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON  $\underline{\text{ALL}}$  SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

### NOTF:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

| STATE      | OF | ILLINOIS       |
|------------|----|----------------|
| DEPARTMENT | 0F | TRANSPORTATION |

| DIS       | TRIC | T  | 1 - | DE | TECTOR  | LOOI | NI ° | STALLATION |    |      |  |
|-----------|------|----|-----|----|---------|------|------|------------|----|------|--|
|           | DE   | TA | ILS | FO | R ROAD\ | NAY  | RES  | JRFACING   |    |      |  |
| <br>SHEET | NO.  | 1  | OF  | 1  | SHEETS  | S    | TA.  |            | TO | STA. |  |

| FED. R         | OAD DIST, NO. 1 ILLINOIS FED. AT |          |                 |             |
|----------------|----------------------------------|----------|-----------------|-------------|
|                | TS-07                            | CONTRACT | NO. 6           | OH69        |
| 1488           | 3212 RS-3                        | COOK     | 27              | 27          |
| F.A.U.<br>RTE. | SECTION                          | COUNTY   | TOTAL<br>SHEETS | SHEE<br>NO. |