

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAU ROUTE 1238 IL 176 (SCRANTON AVE)  
SECTION C-RS-8  
US 41 TO SHERIDAN ROAD  
RESURFACING

LAKE COUNTY  
C-91-256-10

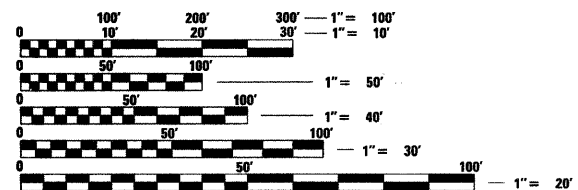
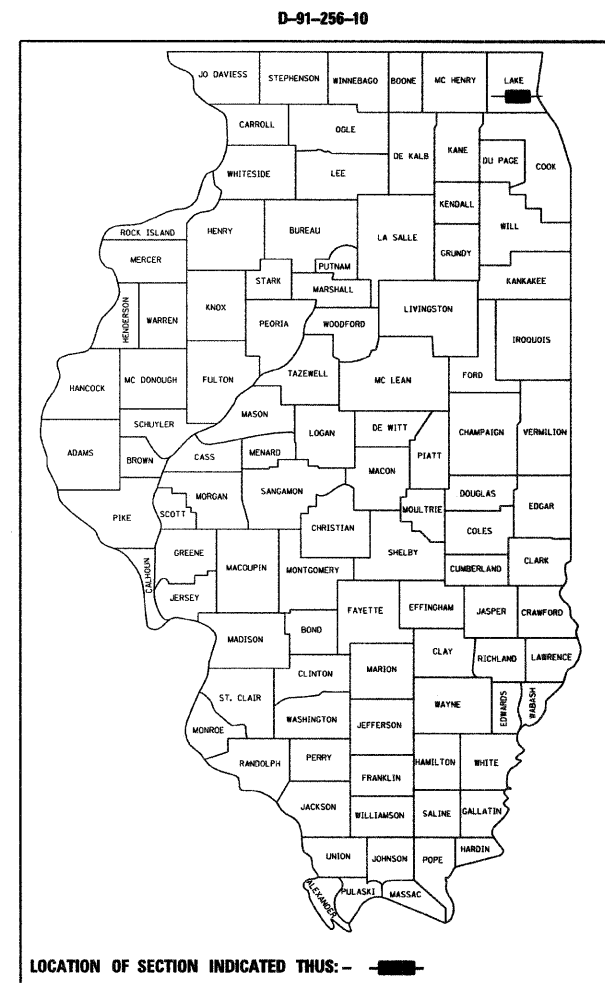
| F.A.U. RTE. | SECTION | COUNTY   | TOTAL SHEETS       | SHEET NO. |
|-------------|---------|----------|--------------------|-----------|
| 1238        | C-RS-8  | LAKE     | 19                 | 1         |
|             |         | ILLINOIS | CONTRACT NO. 60J66 |           |

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**TRAFFIC DATA**

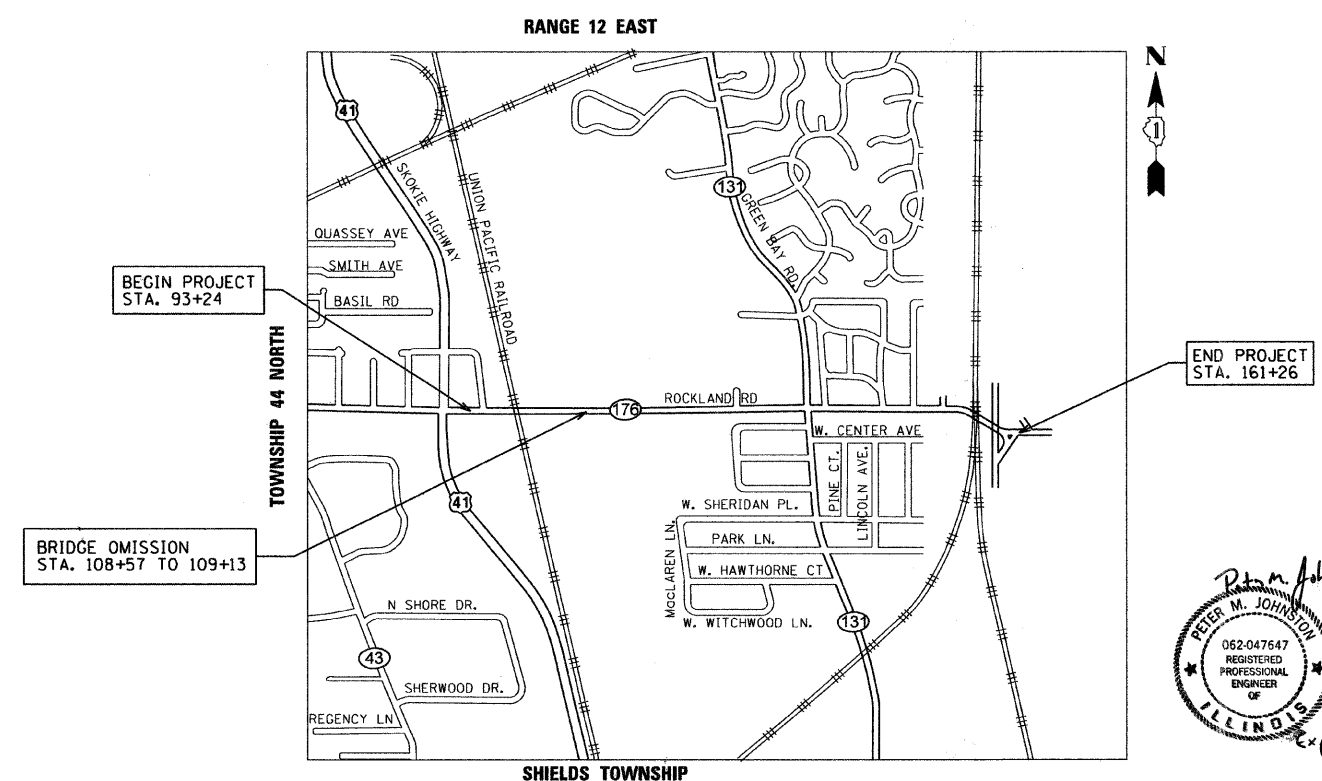
EXISTING ADT = 15,000 (2007)  
SPEED LIMIT = 40 MPH

THE IMPROVEMENT IS LOCATED WITHIN  
THE VILLAGE OF LAKE BLUFF



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: PETER JOHNSTON (GRAEF) 773-399-0112  
PROJECT MANAGER: KEN ENG (IDOT) 847-705-4247

GROSS LENGTH = 6,802 FT. = 1.29 MILES  
NET LENGTH = 6,746 FT. = 1.27 MILES

**GRAEF** 8501 W. Higgins Road; Suite 280  
Chicago, Illinois 60631  
(773) 399-0112

*Peter M. Johnston*  
2-5-10  
PETER M. JOHNSTON  
062-047647  
REGISTERED  
PROFESSIONAL  
ENGINEER  
OF  
ILLINOIS  
Expires 11-30-11

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED FEBRUARY 9, 2010

*Diana M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
March 19, 2010

*Scott E. Stiel, P.E.*  
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

CONTRACT NO. 60J66

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION   |
|-----------|---|
| 1         | COVER SHEET   |
| 2         | INDEX, GENERAL NOTES AND HIGHWAY STANDARDS  |
| 3         | SUMMARY OF QUANTITIES   |
| 4         | TYPICAL SECTIONS  |
| 5-7       | ROADWAY AND PAVEMENT MARKING PLANS  |
| 8         | DETECTOR LOOP REPLACEMENT   |
| 9         | PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD22)                                  |
| 10        | BUTT JOINTS AND BITUMINOUS TAPER (BD32)   |
| 11        | DETAILS FOR DEPRESSED CURB AND GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL (BD34) |
| 12        | TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS AND DRIVEWAYS (TC10)    |
| 13        | RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT (TC11)                      |
| 14        | DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC13)                                       |
| 15        | TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC14)      |
| 16        | PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC16)                     |
| 17        | TEMPORARY INFORMATION SIGNING (TC22)  |
| 18        | SIGNING AND PAVEMENT MARKINGS TREATMENT FOR RAILROAD CROSSINGS (TC23)               |
| 19        | DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING (TS07)                    |

HIGHWAY STANDARDS

| STD. NO.  | TITLE   |
|-----------|---|
| 442201-03 | CLASS C AND D PATCHES   |
| 604001-03 | FRAME AND LIDS, TYPE 1  |
| 606001-04 | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER |
| 630001-08 | STEEL PLATE BEAM GUARDRAIL                                    |
| 630201-06 | PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL           |
| 630301-05 | SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS    |
| 635006-03 | REFLECTOR AND TERMINAL MARKER PLACEMENT                       |
| 635011-02 | REFLECTOR MARKER AND MOUNTING DETAILS                         |
| 701501-05 | URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED                         |
| 701701-06 | URBAN LANE CLOSURE, MULTILANE, INTERSECTION                   |
| 701901-01 | TRAFFIC CONTROL DEVICES                                       |
| 780001-02 | TYPICAL PAVEMENT MARKINGS                                     |
| 781001-03 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS       |

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 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.
- FOR PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO DISTRICT ONE TYPICAL MARKINGS FOR DETAILS NOT SHOWN.
- THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
- MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS.
- THE RESIDENT ENGINEER SHALL CONTACT DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER, AT 847-715-8419 AT LEAST (2) WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

| MIXTURE TYPE   | AIR VOIDS @ Ndes |
|--|------------------|
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5mm)                        | 4% @ 70 GYR      |
| POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50                     | 4% @ 50 GYR      |
| CLASS D PATCHES (HMA BINDER IL 19mm)   | 4% @ 70 GYR      |
| HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER IL 19 mm) 4" (IN 2 LIFTS) | 4% @ 70 GYR      |

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE A 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.

H:\Jobs\2009\20093021-22\CAD\Site\ dgn\00\160\66-shr-gennotel.dgn 2/12/2010 4:24:32 PM

|             |                             |                   |                         |   |  |                         |              |    |                           |         |        |              |           |
|-------------|-----------------------------|-------------------|-------------------------|---|--|-------------------------|--------------|----|---------------------------|---------|--------|--------------|-----------|
| FILE NAME = | USER NAME = USER.           | DESIGNED - EF     | REVISED - EF 02-12-2010 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>IL 176 - US 41 TO SHERIDAN ROAD<br/>INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES</b> |                         |              |    | F.A.U. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|             | PLOT SCALE = 50.0000' / IN. | DRAWN - EF        | REVISED -               |   | 1238   | C-RS-9                  | LAKE         | 19 | 2                         |         |        |              |           |
|             | PLOT DATE = 2/12/2010       | CHECKED - RS      | REVISED -               |   | CONTRACT NO. 60J66   |                         |              |    | ILLINOIS FED. AID PROJECT |         |        |              |           |
|             |                             | DATE - 01/13/2010 | REVISED -               |   | SCALE: NTS   | SHEET NO. 1 OF 1 SHEETS | STA. TO STA. |    |                           |         |        |              |           |

SUMMARY OF QUANTITIES

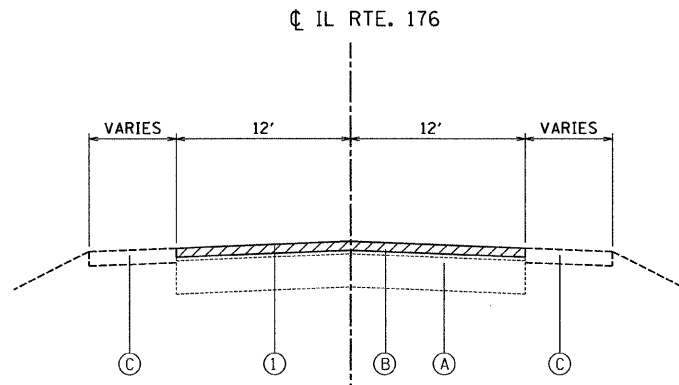
| PAY ITEM NUMBER | DESCRIPTION  | UNIT   | URBAN TOTAL QUANTITY | 1000-2A STATE QUANTITY |
|-----------------|--|--------|----------------------|------------------------|
| 20200600        | EXCAVATING AND GRADING SHOULDER                              | UNIT   | 2                    | 2                      |
| 40600200        | BITUMINOUS MATERIALS (PRIME COAT)                            | TON    | 19                   | 19                     |
| 40600300        | AGGREGATE (PRIME COAT)                                       | TON    | 96                   | 96                     |
| 40600400        | MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS                   | TON    | 36                   | 36                     |
| 40600826        | POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50   | TON    | 1,344                | 1,344                  |
| 40600895        | CONSTRUCTING TEST STRIP                                      | EACH   | 2                    | 2                      |
| 40600982        | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT                 | SQ YD  | 311                  | 311                    |
| 40601005        | HOT-MIX ASPHALT REPLACEMENT OVER PATCHES                     | TON    | 550                  | 550                    |
| 40603340        | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70                 | TON    | 2,017                | 2,017                  |
| 44000159        | HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"                      | SQ YD  | 24,007               | 24,007                 |
| 44001700        | COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT | FOOT   | 30                   | 30                     |
| 44002216        | HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"                     | SQ YD  | 2,454                | 2,454                  |
| 44201761        | CLASS D PATCHES, TYPE I, 10 INCH                             | SQ YD  | 887                  | 887                    |
| 44201765        | CLASS D PATCHES, TYPE II, 10 INCH                            | SQ YD  | 730                  | 730                    |
| 44201769        | CLASS D PATCHES, TYPE III, 10 INCH                           | SQ YD  | 350                  | 350                    |
| 44201771        | CLASS D PATCHES, TYPE IV, 10 INCH                            | SQ YD  | 185                  | 185                    |
| 48101500        | AGGREGATE SHOULDERS, TYPE B 6"                               | SQ YD  | 204                  | 204                    |
| 48102100        | AGGREGATE WEDGE SHOULDER, TYPE B                             | TON    | 443                  | 443                    |
| 60300205        | FRAMES AND GRATES TO BE ADJUSTED (SPECIAL)                   | EACH   | 6                    | 6                      |
| 60406100        | FRAMES AND LIDS, TYPE 1, CLOSED LID                          | EACH   | 5                    | 5                      |
| * 63100167      | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT           | EACH   | 3                    | 3                      |
| 63200310        | GUARDRAIL REMOVAL  | FOOT   | 150                  | 150                    |
| 67000400        | ENGINEER'S FIELD OFFICE, TYPE A                              | CAL MO | 6                    | 6                      |
| 67100100        | MOBILIZATION   | L SUM  | 1                    | 1                      |
| 70102620        | TRAFFIC CONTROL AND PROTECTION, STANDARD 701501              | L SUM  | 1                    | 1                      |
| 70102635        | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701              | L SUM  | 1                    | 1                      |
| 70300100        | SHORT-TERM PAVEMENT MARKING                                  | FOOT   | 4,109                | 4,109                  |
| 70300210        | TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS             | SQ FT  | 609                  | 609                    |
| 70300220        | TEMPORARY PAVEMENT MARKING - LINE 4"                         | FOOT   | 41,089               | 41,089                 |
| 70300240        | TEMPORARY PAVEMENT MARKING - LINE 6"                         | FOOT   | 2,557                | 2,557                  |
| 70300260        | TEMPORARY PAVEMENT MARKING - LINE 12"                        | FOOT   | 1,655                | 1,655                  |
| 70300280        | TEMPORARY PAVEMENT MARKING - LINE 24"                        | FOOT   | 533                  | 533                    |
| * 78000100      | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS         | SQ FT  | 304                  | 304                    |
| * 78000200      | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                     | FOOT   | 20,545               | 20,545                 |
| * 78000400      | THERMOPLASTIC PAVEMENT MARKING - LINE 6"                     | FOOT   | 1,278                | 1,278                  |
| * 78000600      | THERMOPLASTIC PAVEMENT MARKING - LINE 12"                    | FOOT   | 828                  | 828                    |
| * 78000650      | THERMOPLASTIC PAVEMENT MARKING - LINE 24"                    | FOOT   | 313                  | 313                    |
| * 78100100      | RAISED REFLECTIVE PAVEMENT MARKER                            | EACH   | 178                  | 178                    |
| 78300200        | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL                    | EACH   | 89                   | 89                     |
| * 88600600      | DETECTOR LOOP REPLACEMENT                                    | FOOT   | 768                  | 768                    |
| Z0048665        | RAILROAD PROTECTIVE LIABILITY INSURANCE                      | L SUM  | 1                    | 1                      |
| X2503100        | MOWING   | UNIT   | 9                    | 9                      |
| X0322256        | TEMPORARY INFORMATION SIGNING                                | SQ FT  | 283                  | 283                    |
| X0325917        | TURF ESTABLISHMENT   | SQ YD  | 96                   | 96                     |
| Z0800150        | TRENCH BACKFILL  | CU YD  | 19                   | 19                     |
| 550A0050        | STORM SEWER, CLASS A, TYPE I 12"                             | FOOT   | 39                   | 39                     |
| 550A0070        | STORM SEWER, CLASS A, TYPE I 15"                             | FOOT   | 16                   | 16                     |
| 55039700        | STORM SEWER TO BE CLEANED                                    | FOOT   | 742                  | 742                    |
| Z0018300        | DRAINAGE STRUCTURE REPAIR                                    | EACH   | 4                    | 4                      |
| Z0018500        | DRAINAGE STRUCTURES TO BE CLEANED                            | EACH   | 17                   | 17                     |

\*Specialty Items

Rev.

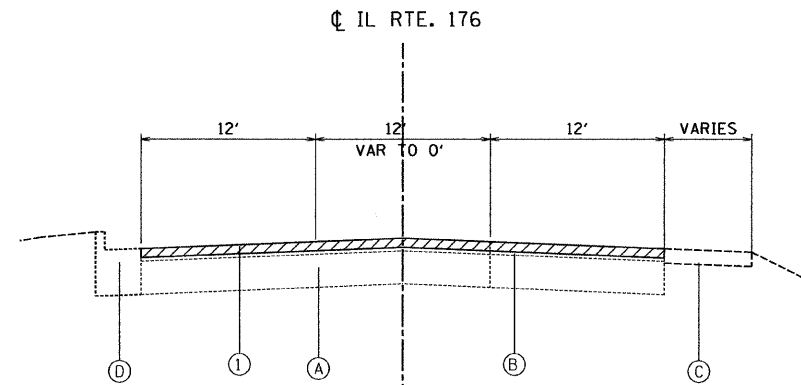
H:\Jobs\2009\20090223-22\CAD\Site\ogn\00\060606-shr-500.dgn  
 2/12/2010 4:24:46 PM

|             |                             |                   |                         |   |  |                         |      |                             |                    |        |              |           |
|-------------|-----------------------------|-------------------|-------------------------|---|--|-------------------------|------|-----------------------------|--------------------|--------|--------------|-----------|
| FILE NAME * | USER NAME * _USER_          | DESIGNED - EF     | REVISED - EF 02-12-2010 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>IL 176 - US 41 TO SHERIDAN ROAD<br/>SUMMARY OF QUANTITIES</b> |                         |      | F.A.U. RTE.                 | SECTION            | COUNTY | TOTAL SHEETS | SHEET NO. |
|             | PLOT SCALE * 50.0000' / IN. | CHECKED - RS      | REVISED -               |   |  |                         |      | 1238                        | C-RS-9             | LAKE   | 19           | 3         |
|             | PLOT DATE * 2/12/2010       | DATE - 01/13/2010 | REVISED -               |   | SCALE: NTS   | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.                     | CONTRACT NO. 60J66 |        |              |           |
|             |                             |                   |                         |   |  |                         |      | [ILLINOIS] FED. AID PROJECT |                    |        |              |           |



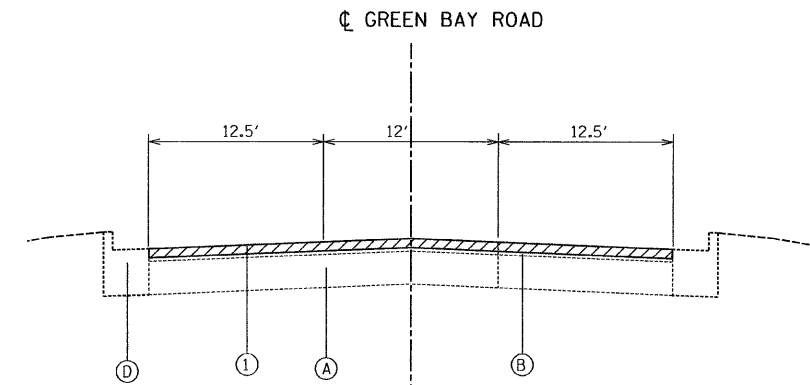
EXISTING TYPICAL SECTION

STA. 100+00 TO 126+80  
STA. 138+00 TO 161+26



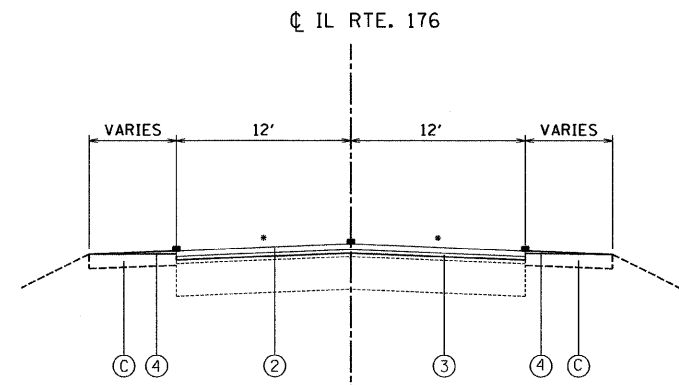
EXISTING TYPICAL SECTION

STA. 93+24 TO 100+00  
STA. 130+00 TO 138+00



EXISTING TYPICAL SECTION

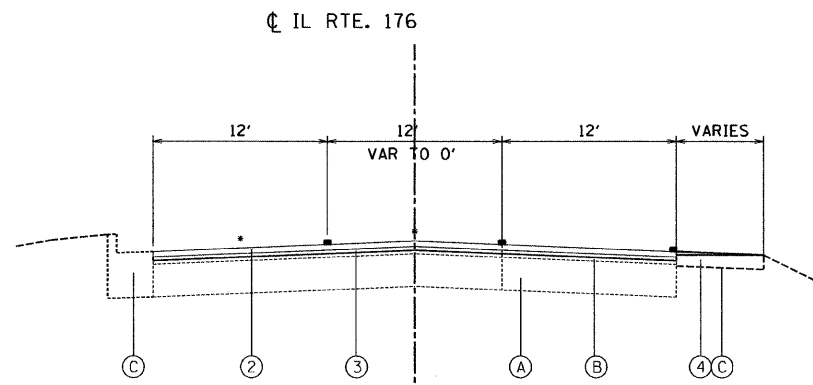
GREEN BAY ROAD



PROPOSED TYPICAL SECTION

STA. 100+00 TO 126+80  
STA. 138+00 TO 161+26

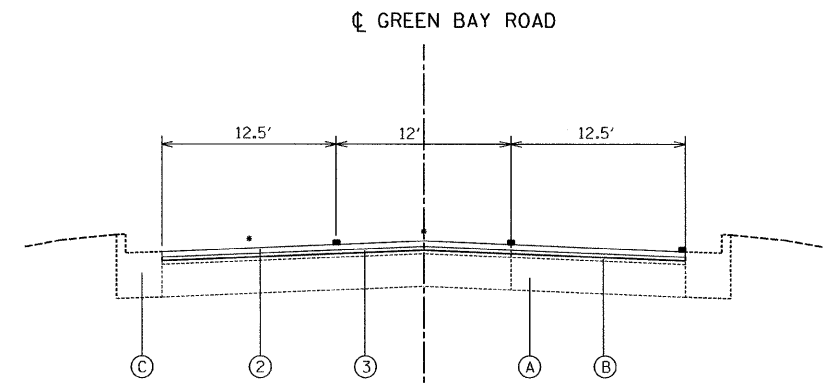
• MAINTAIN EXISTING SLOPE OF PAVEMENT



PROPOSED TYPICAL SECTION

STA. 93+24 TO 100+00  
STA. 130+00 TO 138+00

• MAINTAIN EXISTING SLOPE OF PAVEMENT



PROPOSED TYPICAL SECTION

GREEN BAY ROAD

• MAINTAIN EXISTING SLOPE OF PAVEMENT

EXISTING CONDITIONS:

- (A) CONCRETE PAVEMENT
- (B) HMA SURFACE
- (C) AGGREGATE SHOULDER
- (D) COMBINATION CONCRETE CURB AND GUTTER

ITEMS TO BE REMOVED

PROPOSED IMPROVEMENTS:

- ① HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- ② HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- ③ POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1"
- ④ AGGREGATE WEDGE SHOULDER, TYPE B
- PAVEMENT MARKING

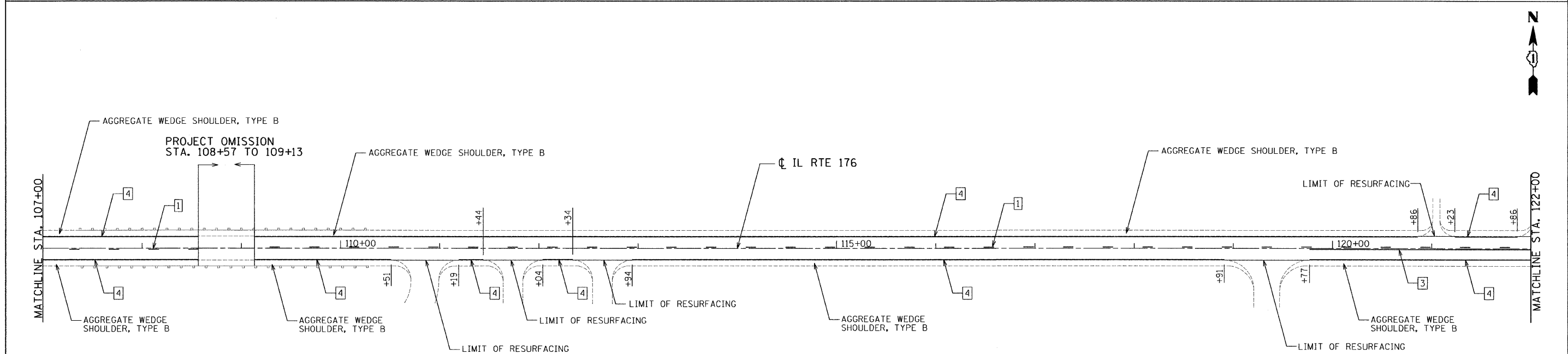
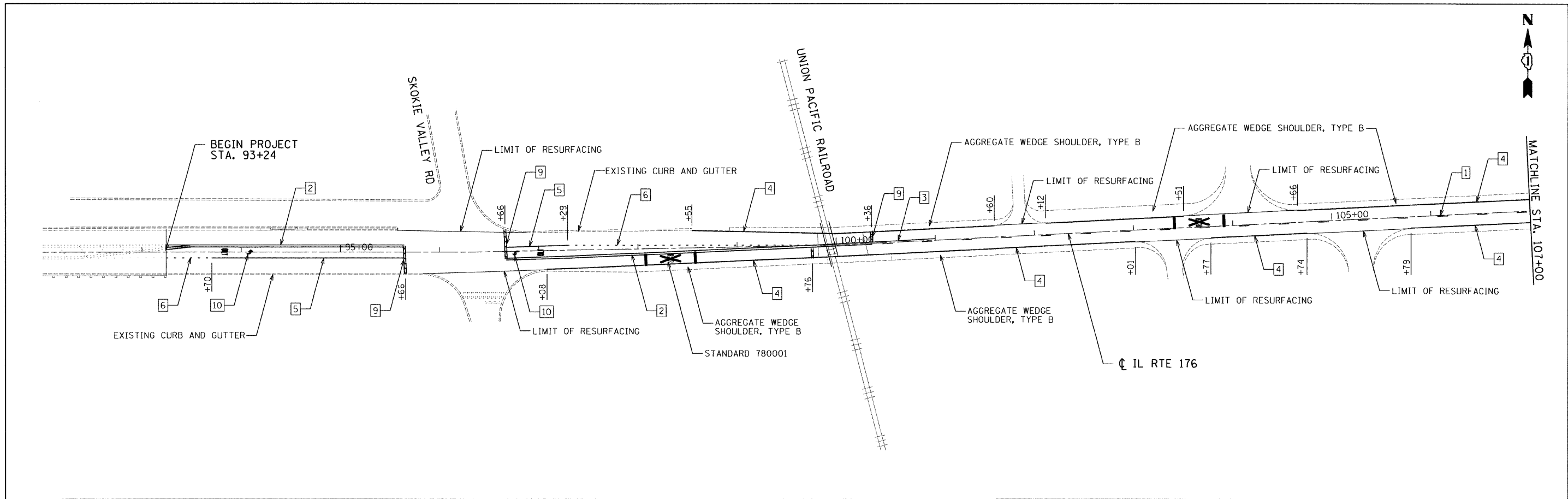
NOTE:

SEE PLANS AND DISTRICT ONE DETAIL SHEETS FOR PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKER PLACEMENT.

THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

H:\job\2009\2009023-23\CAD\STre\dgn\00\DI60u66-sh1-t-typicall.dgn  
 2/12/2010 12:45:58 PM

|                             |                    |               |                         |   |   |  |   |         |        |              |           |
|-----------------------------|--------------------|---------------|-------------------------|---|---|--|---|---------|--------|--------------|-----------|
| FILE NAME =                 | USER NAME = .USER. | DESIGNED - EF | REVISED - EF 02-12-2010 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>IL 176 - US 41 TO SHERIDAN ROAD<br/>TYPICAL SECTIONS</b> |  | F.A.U. RTE.                                     | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PLOT SCALE = 50.0000' / IN. | CHECKED - RS       | REVIS         | REVIS                   |   |   |  | 1238  | C-RS-9  | LAKE   | 19           | 4         |
| PLOT DATE = 2/12/2010       | DATE - 01/13/2010  | REVIS         | REVIS                   |   | SCALE: NTS  |  | SHEET NO. 1 OF 1 SHEETS                         |         | STA.   | TO STA.      |           |
|                             |                    |               |                         |   |   |  | CONTRACT NO. 60J66<br>ILLINOIS FED. AID PROJECT |         |        |              |           |

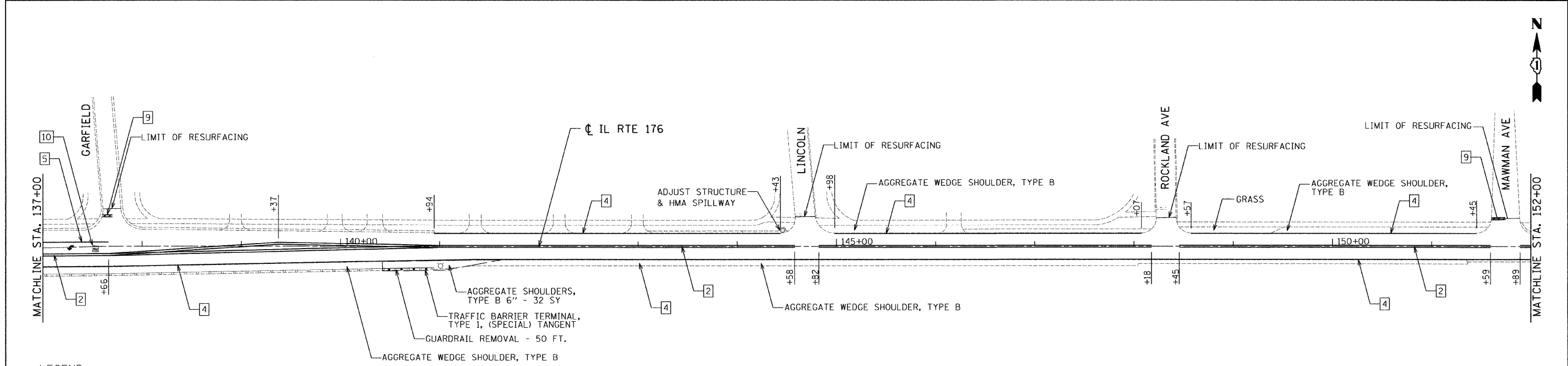
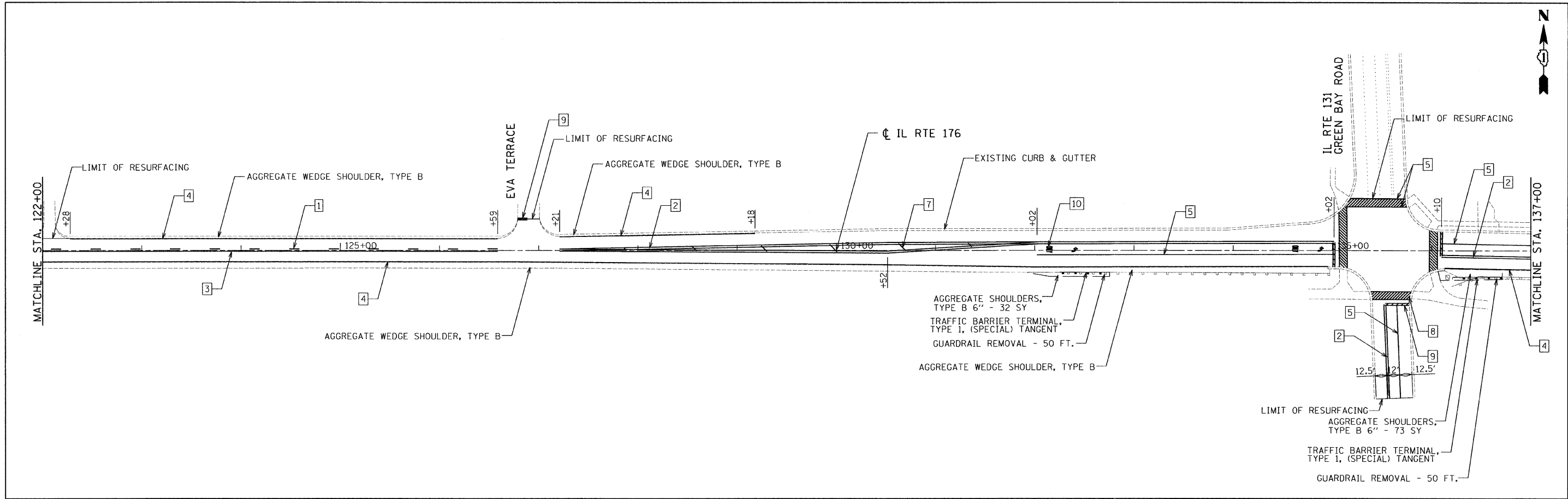


**LEGEND**

- |  |  |
|--|--|
| [1] THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW 10' DASH, 30' SKIP     | [6] THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP      |
| [2] THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW AT 11" C-C CENTER LINE | [7] THERMOPLASTIC PAVEMENT MARKING - LINE 12" YELLOW AT 3' C-C, 45° SKEW |
| [3] THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW NO PASSING ZONE LINE   | [8] THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE AT 3' C-C, 45° SKEW  |
| [4] THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE AT 2" EDGE-EDGE         | [9] THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE                      |
| [5] THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE                         | [10] THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS                  |

H:\Jobs\2009\20091023\20\CA0\Site\dgn\00\06066-sh1-plan01.dgn  
 2/12/2010 4:23:53 PM

|                             |                    |               |                         |   |   |                         |                           |                    |             |                           |             |  |
|-----------------------------|--------------------|---------------|-------------------------|---|---|-------------------------|---------------------------|--------------------|-------------|---------------------------|-------------|--|
| FILE NAME -<br>\$FILEL\$.   | USER NAME - .USER. | DESIGNED - EF | REVISED - EF 02-12-2010 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>IL 176 - US 41 TO SHERIDAN ROAD<br/>ROADWAY AND PAVEMENT MARKING PLANS</b> |                         | F.A.U. RTE. 1238          | SECTION C-RS-8     | COUNTY LAKE | TOTAL SHEETS 19           | SHEET NO. 5 |  |
| PLOT SCALE = 50.0000' / IN. | DRAWN - EF         | CHECKED - RS  | REVISED -               |   | SCALE: 50   | SHEET NO. 1 OF 3 SHEETS | STA. 93+24 TO STA. 122+00 | CONTRACT NO. 60J66 |             | ILLINOIS FED. AID PROJECT |             |  |
| PLOT DATE = 2/12/2010       | DATE - 01/13/2010  | REVISED -     | REVISED -               |   |   |                         |                           |                    |             |                           |             |  |
|                             |                    |               |                         |   |   |                         |                           |                    |             |                           |             |  |

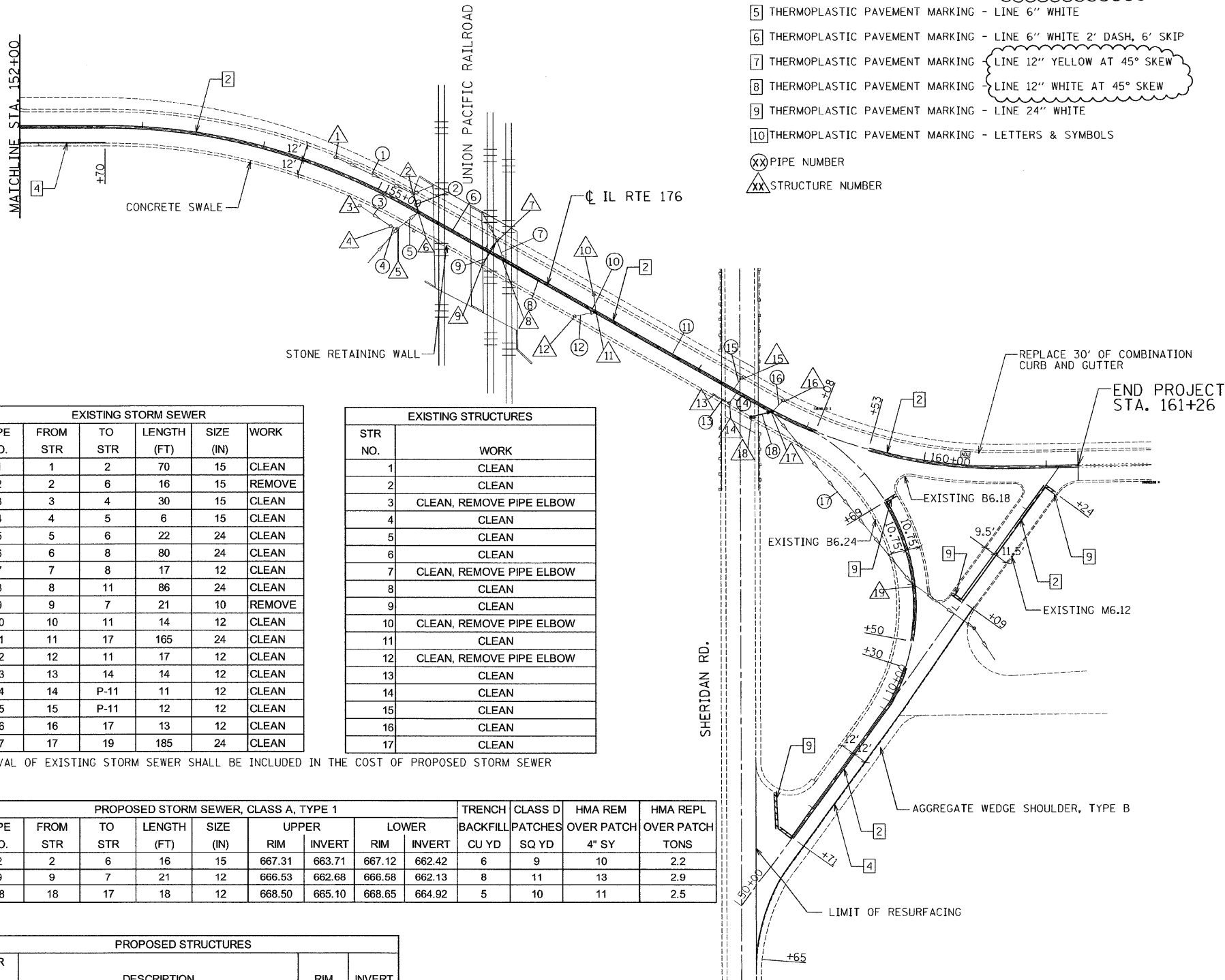


**LEGEND**

- |  |  |
|--|--|
| 1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW 10' DASH, 30' SKIP     | 6 THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP      |
| 2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW AT 11" C-C CENTER LINE | 7 THERMOPLASTIC PAVEMENT MARKING - LINE 12" YELLOW AT 3' C-C, 45° SKEW |
| 3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW NO PASSING ZONE LINE   | 8 THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE AT 3' C-C, 45° SKEW  |
| 4 THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE AT 2" EDGE-EDGE         | 9 THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE                      |
| 5 THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE                         | 10 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS                  |

H:\jobs\009\2009\02\21\21\21\CAD\Site\dm\00\0160\66-ent-pln02.dgn  
 2/2/2010 4:23:35 PM

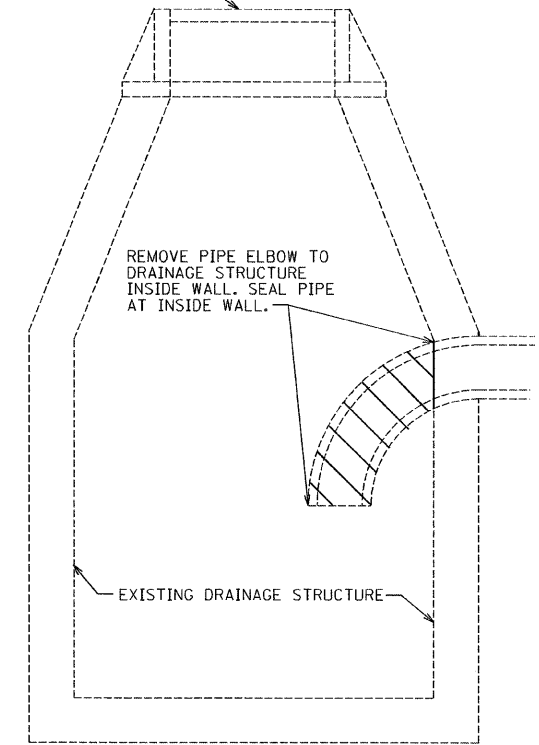
|             |                             |                   |                         |   |   |                           |         |                            |              |           |  |
|-------------|-----------------------------|-------------------|-------------------------|---|---|---------------------------|---------|----------------------------|--------------|-----------|--|
| FILE NAME = | USER NAME = .USER.          | DESIGNED - EF     | REVISED - EF 02-12-2010 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>IL 176 - US 41 TO SHERIDAN ROAD<br/>ROADWAY AND PAVEMENT MARKING PLANS</b> | F.A.U. RTE.               | SECTION | COUNTY                     | TOTAL SHEETS | SHEET NO. |  |
| #FILEL#     |                             | DRAWN - EF        | REVISED -               |   |   | 1238                      | C-RS-8  | LAKE                       | 19           | 6         |  |
|             | PLOT SCALE = 50.0000' / IN. | CHECKED - RS      | REVISED -               |   |   | CONTRACT NO. 60J66        |         |                            |              |           |  |
|             | PLOT DATE = 2/12/2010       | DATE - 01/13/2010 | REVISED -               |   |   | ILLINOIS FED. AID PROJECT |         |                            |              |           |  |
|             |                             |                   |                         |   | SCALE: 50   | SHEET NO. 2 OF 3 SHEETS   |         | STA. 122+00 TO STA. 152+00 |              |           |  |



**LEGEND**

- 1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW 10' DASH, 30' SKIP
- 2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW AT 11" C-C CENTER LINE
- 3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW NO PASSING ZONE LINE
- 4 THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
- 5 THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE
- 6 THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP
- 7 THERMOPLASTIC PAVEMENT MARKING - LINE 12" YELLOW AT 45° SKEW
- 8 THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE AT 45° SKEW
- 9 THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE
- 10 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS
- XX PIPE NUMBER
- △△ STRUCTURE NUMBER

EXISTING FRAME & GRATE/LID TO REMAIN



**DRAINAGE STRUCTURE REPAIR**

| EXISTING STORM SEWER |          |        |             |           |        |
|----------------------|----------|--------|-------------|-----------|--------|
| PIPE NO.             | FROM STR | TO STR | LENGTH (FT) | SIZE (IN) | WORK   |
| 1                    | 1        | 2      | 70          | 15        | CLEAN  |
| 2                    | 2        | 6      | 16          | 15        | REMOVE |
| 3                    | 3        | 4      | 30          | 15        | CLEAN  |
| 4                    | 4        | 5      | 6           | 15        | CLEAN  |
| 5                    | 5        | 6      | 22          | 24        | CLEAN  |
| 6                    | 6        | 8      | 80          | 24        | CLEAN  |
| 7                    | 7        | 8      | 17          | 12        | CLEAN  |
| 8                    | 8        | 11     | 86          | 24        | CLEAN  |
| 9                    | 9        | 7      | 21          | 10        | REMOVE |
| 10                   | 10       | 11     | 14          | 12        | CLEAN  |
| 11                   | 11       | 17     | 165         | 24        | CLEAN  |
| 12                   | 12       | 11     | 17          | 12        | CLEAN  |
| 13                   | 13       | 14     | 14          | 12        | CLEAN  |
| 14                   | 14       | P-11   | 11          | 12        | CLEAN  |
| 15                   | 15       | P-11   | 12          | 12        | CLEAN  |
| 16                   | 16       | 17     | 13          | 12        | CLEAN  |
| 17                   | 17       | 19     | 185         | 24        | CLEAN  |

| EXISTING STRUCTURES |                          |
|---------------------|--------------------------|
| STR NO.             | WORK                     |
| 1                   | CLEAN                    |
| 2                   | CLEAN                    |
| 3                   | CLEAN, REMOVE PIPE ELBOW |
| 4                   | CLEAN                    |
| 5                   | CLEAN                    |
| 6                   | CLEAN                    |
| 7                   | CLEAN, REMOVE PIPE ELBOW |
| 8                   | CLEAN                    |
| 9                   | CLEAN                    |
| 10                  | CLEAN, REMOVE PIPE ELBOW |
| 11                  | CLEAN                    |
| 12                  | CLEAN, REMOVE PIPE ELBOW |
| 13                  | CLEAN                    |
| 14                  | CLEAN                    |
| 15                  | CLEAN                    |
| 16                  | CLEAN                    |
| 17                  | CLEAN                    |

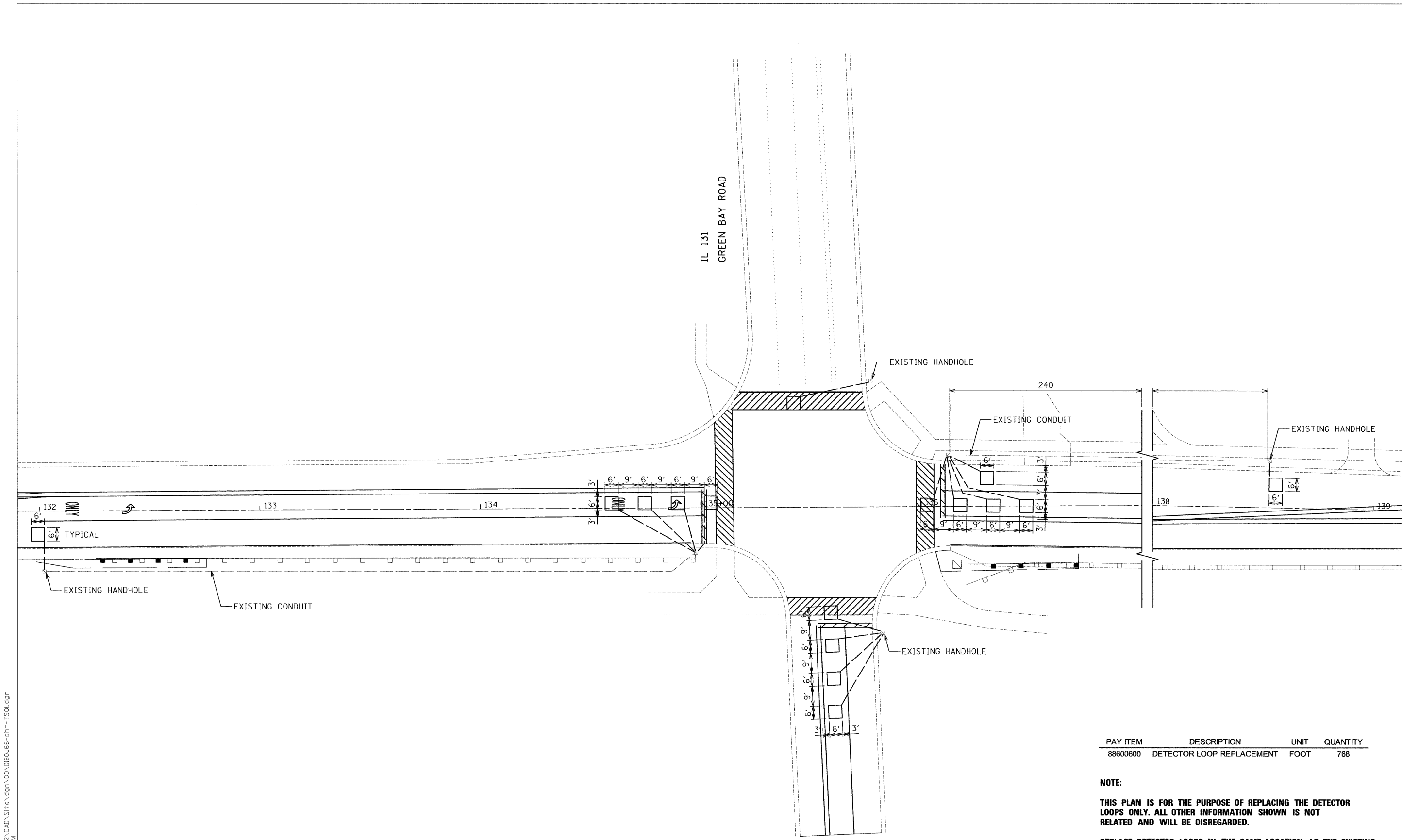
REMOVAL OF EXISTING STORM SEWER SHALL BE INCLUDED IN THE COST OF PROPOSED STORM SEWER

| PROPOSED STORM SEWER, CLASS A, TYPE 1 |          |        |             |           |        |        |        |        |        |               |                  |                 |
|---------------------------------------|----------|--------|-------------|-----------|--------|--------|--------|--------|--------|---------------|------------------|-----------------|
| PIPE NO.                              | FROM STR | TO STR | LENGTH (FT) | SIZE (IN) | UPPER  |        | LOWER  |        | TRENCH | CLASS D       | HMA REM          | HMA REPL        |
|                                       |          |        |             |           | RIM    | INVERT | RIM    | INVERT | CU YD  | PATCHES SQ YD | OVER PATCH 4" SY | OVER PATCH TONS |
| 2                                     | 2        | 6      | 16          | 15        | 667.31 | 663.71 | 667.12 | 662.42 | 6      | 9             | 10               | 2.2             |
| 9                                     | 9        | 7      | 21          | 12        | 666.53 | 662.68 | 666.58 | 662.13 | 8      | 11            | 13               | 2.9             |
| 18                                    | 18       | 17     | 18          | 12        | 668.50 | 665.10 | 668.65 | 664.92 | 5      | 10            | 11               | 2.5             |

| PROPOSED STRUCTURES |   |        |        |
|---------------------|---|--------|--------|
| STR NO.             | DESCRIPTION                                 | RIM    | INVERT |
| 18                  | CATCH BASIN, TYPE C, TYPE 1 FRAME, OPEN LID | 668.50 | 665.10 |

- PLAN CHANGES MADE WITH REVISION 1
1. ADDED DRAINAGE STRUCTURES & DRAINAGE PIPES
  2. ADDED STRUCTURE NUMBERS AND PIPE NUMBERS
  3. ADDED PROPOSED DRAINAGE IMPROVEMENTS
  4. ADDED EXISTING STRUCTURE TABLE
  5. ADDED PROPOSED STRUCTURE TABLE
  6. ADDED EXISTING STORM SEWER TABLE
  7. ADDED PROPOSED STORM SEWER TABLE
  8. ADDED DRAINAGE STRUCTURE REPAIR DETAIL

H:\Jobs\2009\20091023-22\CAD\Site\vdgn\00\DI60666-shr-plan03.dgn  
 3/26/2010 2:00:43 PM  
 3/30/10 K5



| PAY ITEM | DESCRIPTION               | UNIT | QUANTITY |
|----------|---------------------------|------|----------|
| 88600600 | DETECTOR LOOP REPLACEMENT | FOOT | 768      |

**NOTE:**  
 THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

REPLACE DETECTOR LOOPS IN THE SAME LOCATION AS THE EXISTING DETECTOR LOOPS TO PREVENT ANY RELOCATION OF HANDHOLES.

H:\Jobs\0909\20090903\22\CAD\Site\dgn\00\0160466-sh--T501.dgn  
 2/12/2010 4:23:12 PM

|             |                             |                   |                         |
|-------------|-----------------------------|-------------------|-------------------------|
| FILE NAME = | USER NAME = .USER.          | DESIGNED -        | REVISED - EF 02-12-2010 |
|             |                             | DRAWN -           | REVISED -               |
|             | PLOT SCALE = 20.0000' / IN. | CHECKED - RS      | REVISED -               |
|             | PLOT DATE = 2/12/2010       | DATE - 01/13/2010 | REVISED -               |

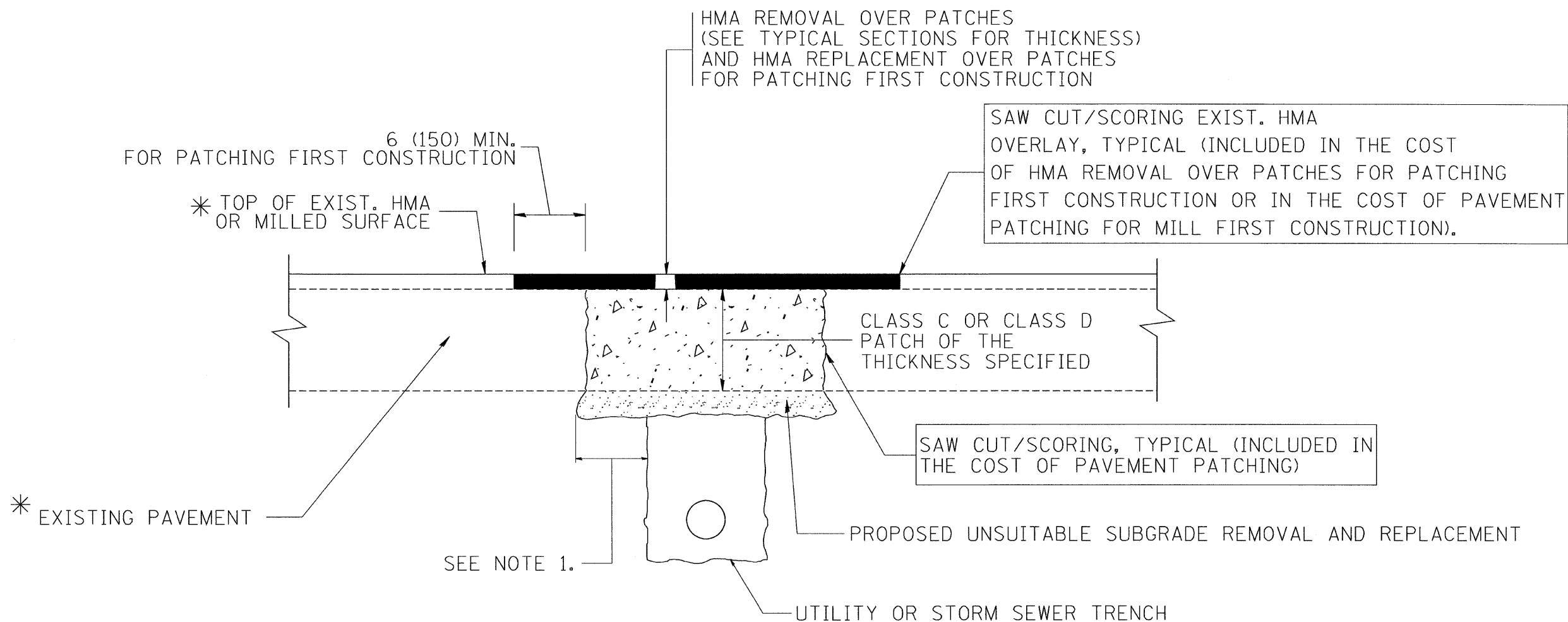
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL 176 - US 41 TO SHERIDAN ROAD**  
**DETECTOR LOOP REPLACEMENT AT IL 176 AND IL 131**

SCALE: 20 SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| F.A.U. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO.          |
|---------------------------|---------|--------|--------------|--------------------|
| 1238                      | C-RS-9  | LAKE   | 19           | 8                  |
|                           |         |        |              | CONTRACT NO. 60J66 |
| ILLINOIS FED. AID PROJECT |         |        |              |                    |





\* SEE TYPICAL SECTIONS FOR  
THICKNESS AND MATERIALS

**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)**

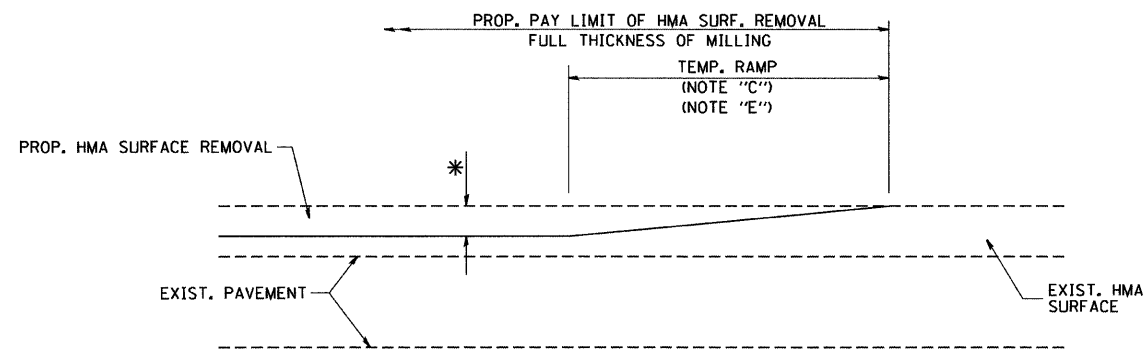
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

**SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 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.

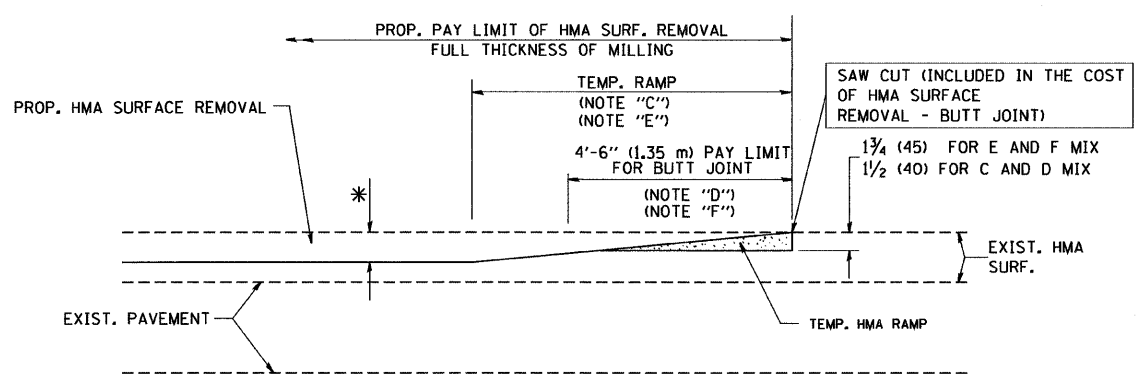
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

|  |                            |                    |                             |   |  |             |             |                        |                   |   |                       |                   |
|--|----------------------------|--------------------|-----------------------------|---|--|-------------|-------------|------------------------|-------------------|---|-----------------------|-------------------|
| FILE NAME =<br>e:\projects\diststd22\34\bd22.dgn | USER NAME = bauerl         | DESIGNED - R. SHAH | REVISED - A. ABBAS 04-27-98 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PAVEMENT PATCHING FOR<br/>HMA SURFACED PAVEMENT</b> |             |             | F.A.I.<br>RTE.<br>1238 | SECTION<br>C-RS-8 | COUNTY<br>LAKE                                      | TOTAL<br>SHEETS<br>19 | SHEET<br>NO.<br>9 |
|  | PLOT SCALE = 50.000' / IN. | DRAWN -            | REVISED - 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 |                       |                   |
|  | PLOT DATE = 10/27/2008     | CHECKED -          | REVISED - R. BORO 09-04-07  |   |  |             |             |                        |                   | CONTRACT NO. 60366                                  |                       |                   |
|  |                            | DATE - 10-25-94    | REVISED - K. ENG 10-27-08   |   |  |             |             |                        |                   |   |                       |                   |



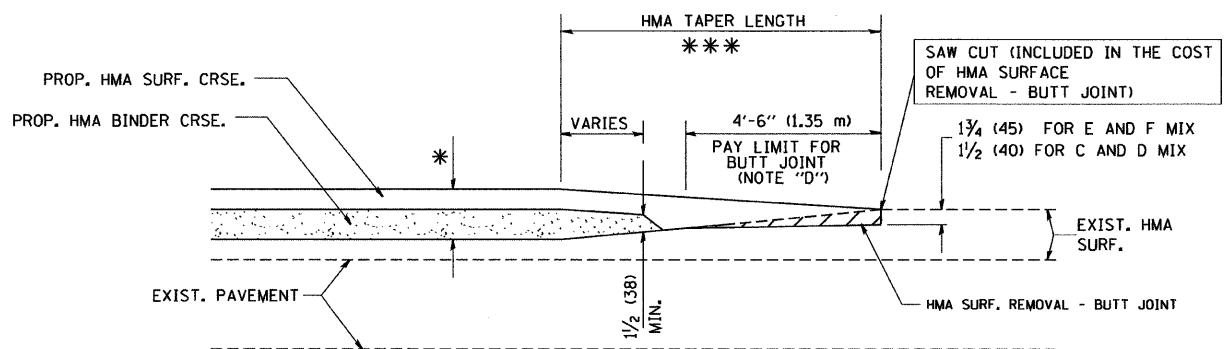
MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

**OPTION 1**



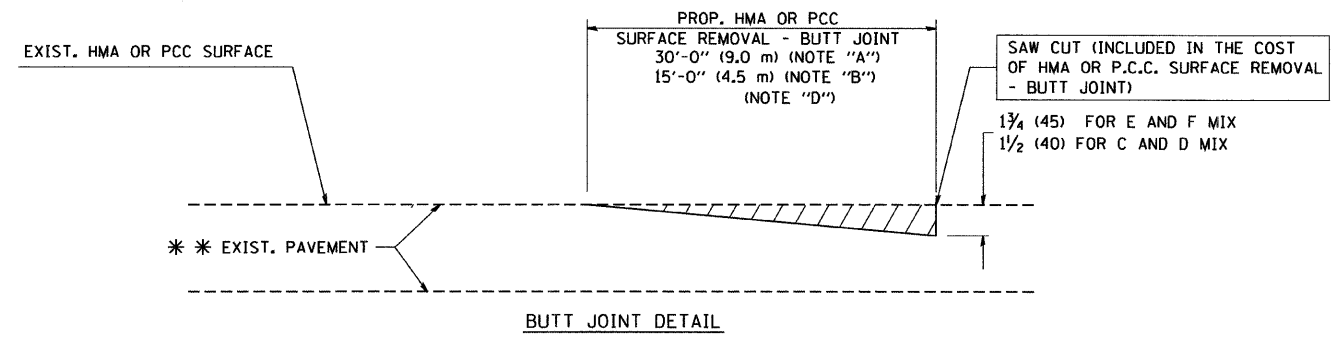
HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

**OPTION 2  
TYPICAL TEMPORARY RAMP**

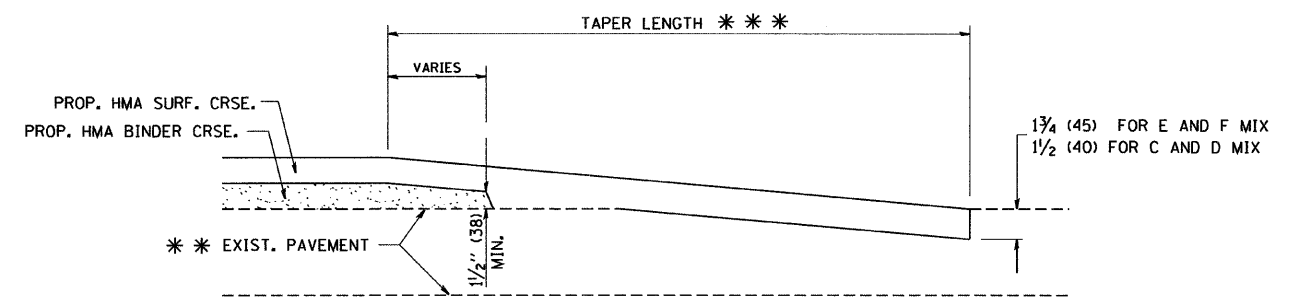


BUTT JOINT AND  
HMA TAPER

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



BUTT JOINT DETAIL



HMA TAPER DETAIL

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

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

**NOTES**

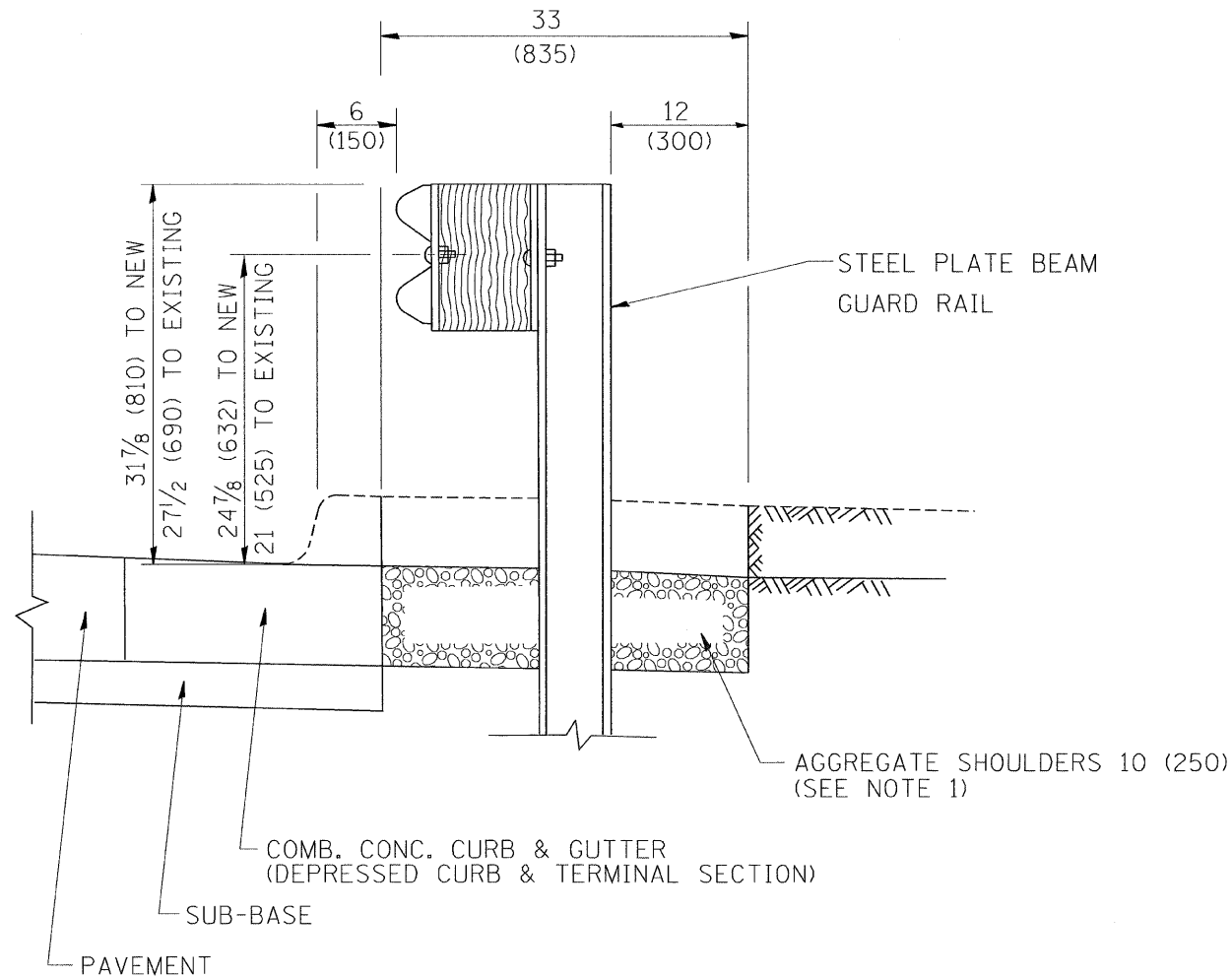
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE 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.

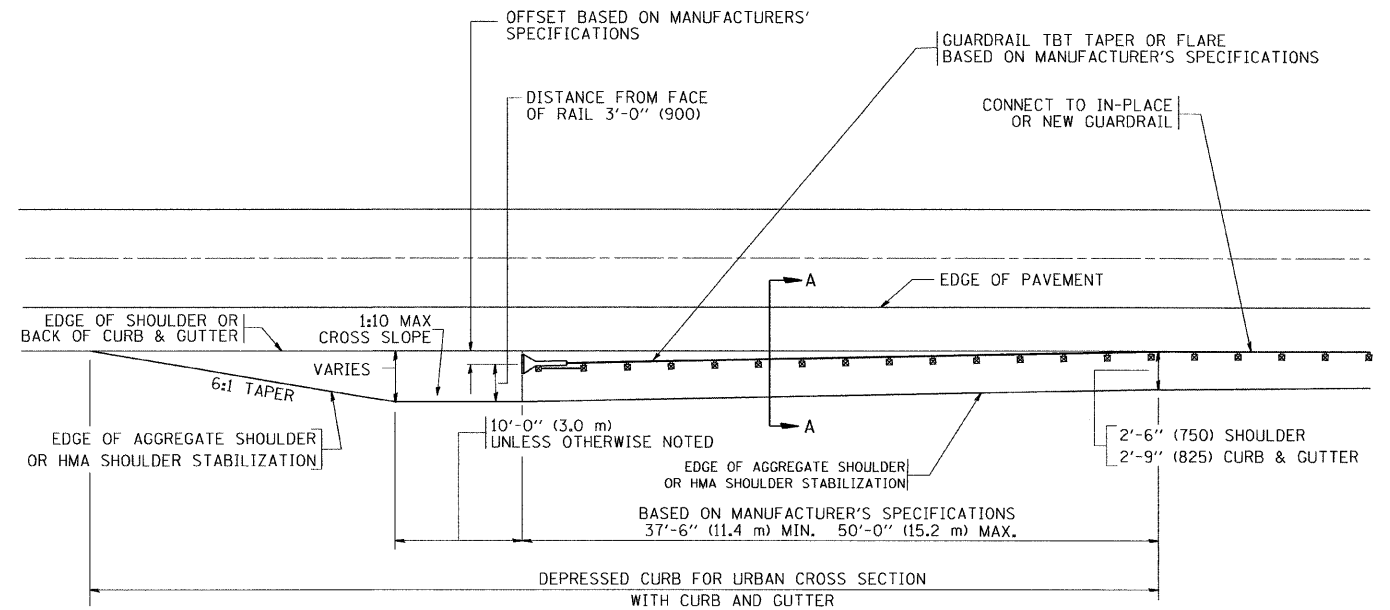
|  |                        |                             |                             |   |   |                         |      |                |   |        |                    |              |    |
|--|------------------------|-----------------------------|-----------------------------|---|---|-------------------------|------|----------------|---|--------|--------------------|--------------|----|
| FILE NAME =<br>W:\diststd\22x34\bd32.dgn | USER NAME = gegl1anobt | DESIGNED - M. DE YONG       | REVISED - R. SHAH 10-25-94  | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>BUTT JOINT AND<br/>HMA TAPER DETAILS</b> |                         |      | F.A.D.<br>RTE. | SECTION   | COUNTY | TOTAL<br>SHEETS    | SHEET<br>NO. |    |
|  |                        | DRAWN -                     | REVISED - A. ABBAS 03-21-97 |   | SCALE: NONE                                 | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.        | 1238  | C-RS-8 | LAKE               | 19           | 10 |
|  |                        | PLOT SCALE = 50.0000' / IN. | CHECKED -                   |   | REVISED - M. GOMEZ 04-06-01                 |                         |      |                | <b>BD400-05 BD32</b>                                |        | CONTRACT NO. 60J66 |              |    |
|  |                        | PLOT DATE = 1/4/2008        | DATE - 06-13-90             |   | REVISED - R. BORO 01-01-07                  |                         |      |                | FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT |        |                    |              |    |



SECTION A-A

- NOTES: 1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM  
GUARD RAIL ADJACENT TO CURB AND GUTTER  
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



DEPRESSED CURB AND GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL

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

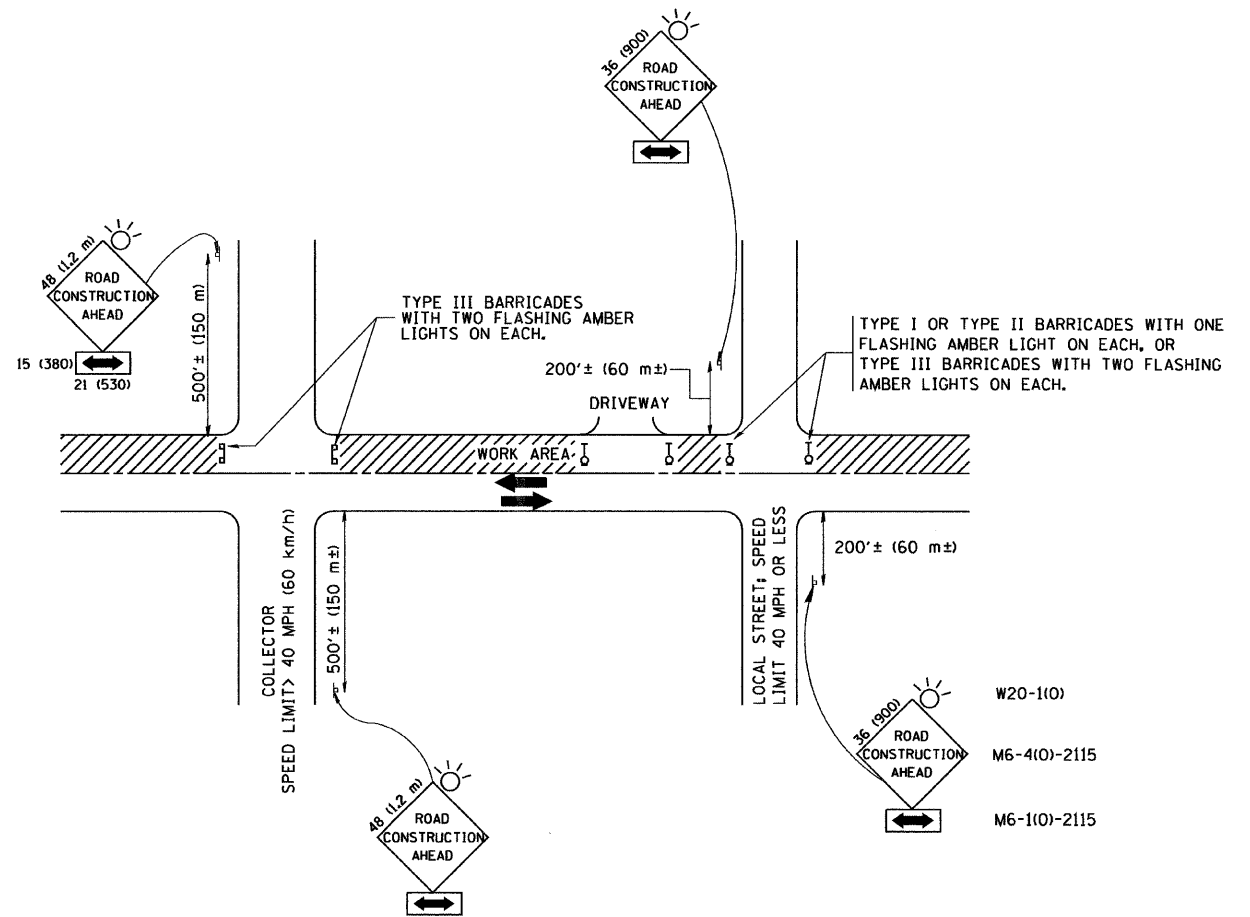
|  |                             |                       |                              |
|--|-----------------------------|-----------------------|------------------------------|
| FILE NAME =                                      | USER NAME = drivakosgn      | DESIGNED - M. DE YONG | REVISED - E. GOMEZ 08-28-00  |
| es:\pwork\VPWIDOT\DRIVAKOSGN\0108315\0108315.dgn |                             | DRAWN -               | REVISED - R. BORO 01-01-07   |
|  | PLOT SCALE = 49.9999 "/ IN. | CHECKED -             | REVISED - R. BORO 12-08-2008 |
|  | PLOT DATE = 9/21/2009       | DATE - 09-22-90       | REVISED - R. BORO 09-14-2009 |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS FOR DEPRESSED CURB & GUTTER AND  
SHOULDER TREATMENT AT TBT TY 1 SPL.

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

|   |         |        |                    |           |
|---|---------|--------|--------------------|-----------|
| F.A.U. RTE.                                     | SECTION | COUNTY | TOTAL SHEETS       | SHEET NO. |
| 1238  | C-RS-8  | LAKE   | 19                 | 11        |
| BD600-10 (BD 34)                                |         |        | CONTRACT NO. 60J66 |           |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID 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:
  - 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.

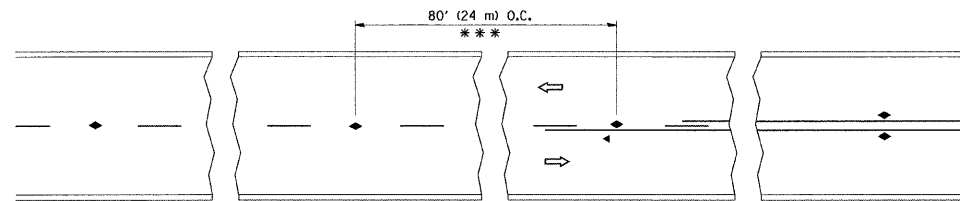
|   |                               |                   |                                    |
|---|-------------------------------|-------------------|------------------------------------|
| FILE NAME =<br>W:\dststd\22x34\tcl0.dgn | USER NAME =<br>gaglianob      | DESIGNED -<br>LHA | REVISED -<br>J. OBERLE 10-18-95    |
|   |                               | DRAWN -           | REVISED -<br>A. HOUSEH 03-06-96    |
|   | PLOT SCALE =<br>50,000' / IN. | CHECKED -         | REVISED -<br>A. HOUSEH 10-15-96    |
|   | PLOT DATE =<br>1/4/2008       | DATE -<br>06-89   | REVISED -<br>T. RAMMACHER 01-06-00 |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

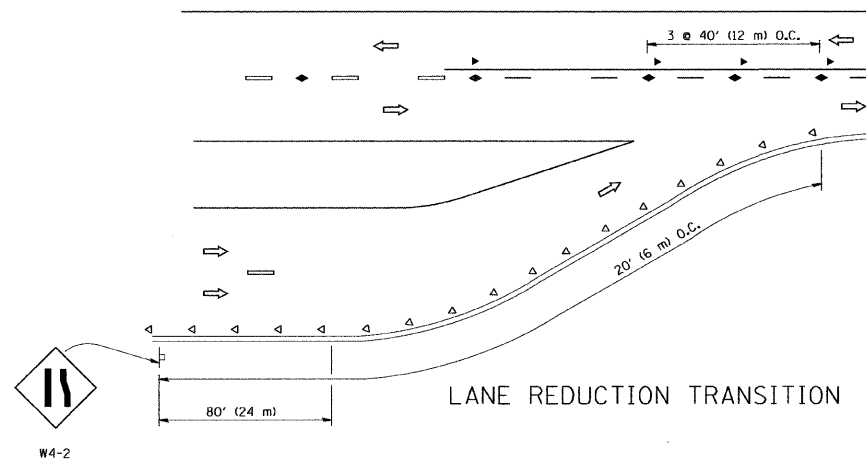
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| F.A.D. RTE.                                     | SECTION | COUNTY | TOTAL SHEETS       | SHEET NO. |
|---|---------|--------|--------------------|-----------|
| 1238  | C-RS-8  | LAKE   | 19                 | 12        |
| TC-10   |         |        | CONTRACT NO. 60366 |           |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |         |        |                    |           |

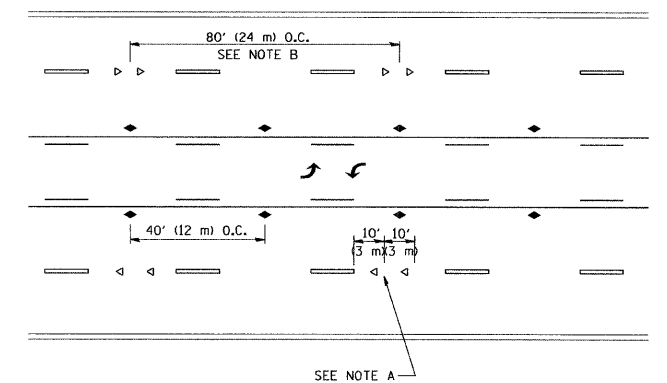


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

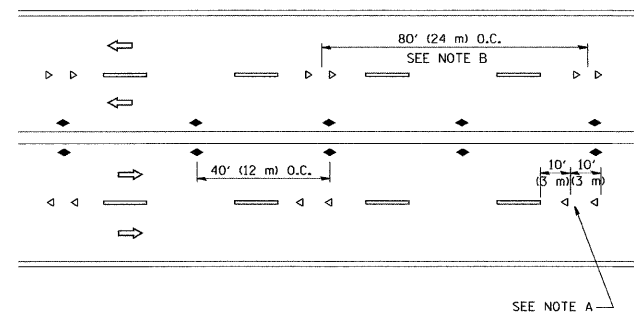
TWO-LANE/TWO-WAY



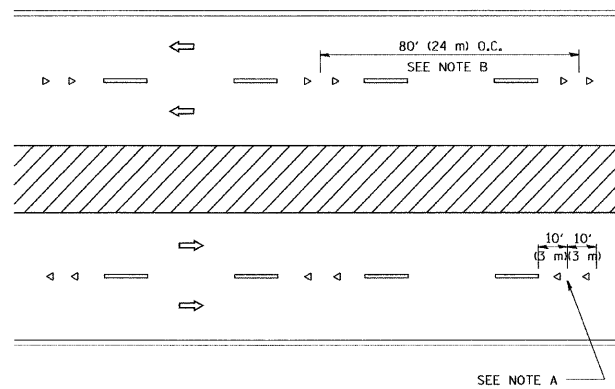
LANE REDUCTION TRANSITION



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

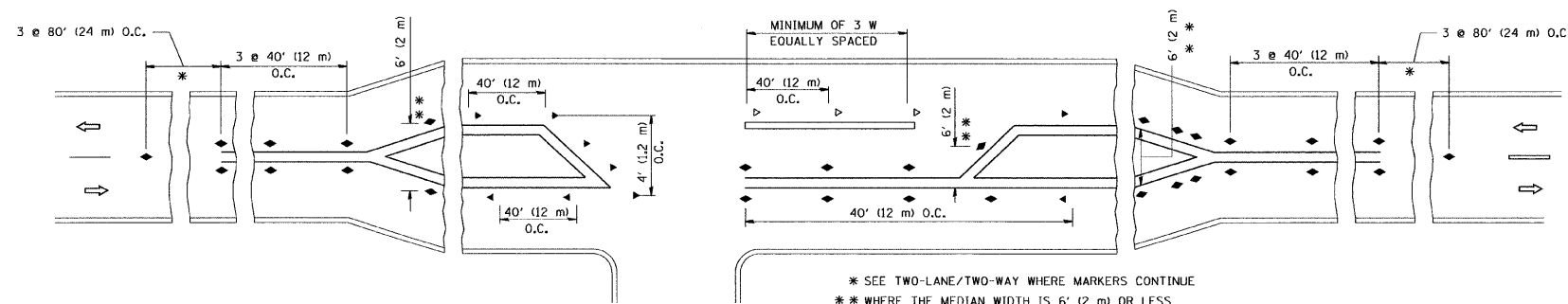
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

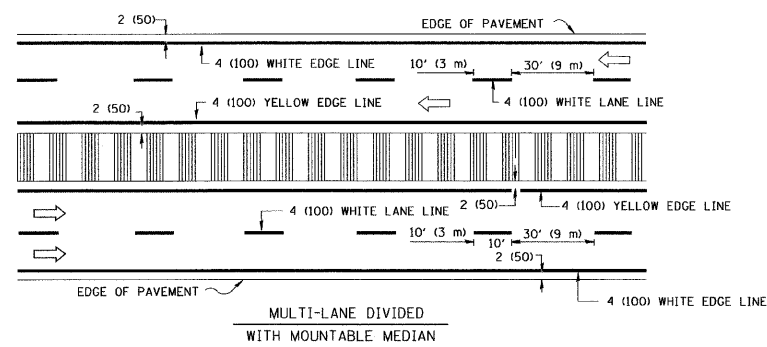
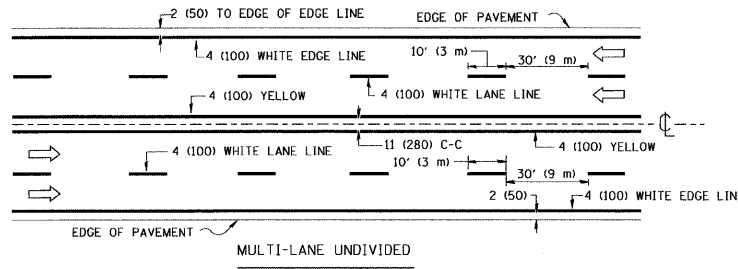
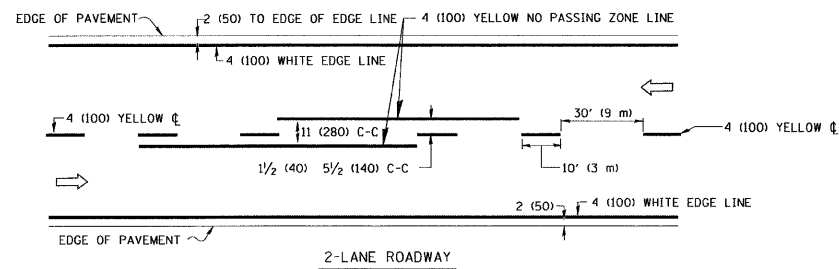
|   |                       |            |                                 |
|---|-----------------------|------------|---------------------------------|
| FILE NAME =                               | USER NAME = drvakosgn | DESIGNED - | REVISED - T. RAMMACHER 09-19-94 |
| es:\pwork\p1dot\drvakosgn\0108315\to1.dgn |                       | DRAWN -    | REVISED - T. RAMMACHER 03-12-99 |
|   |                       | CHECKED -  | REVISED - T. RAMMACHER 01-06-00 |
|   |                       | DATE -     | REVISED - C. JUCIUS 09-09-09    |
|   |                       |            |                                 |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

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

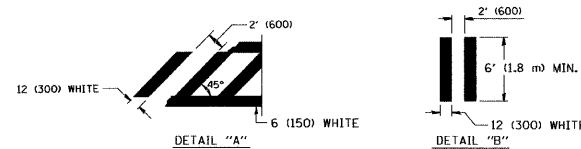
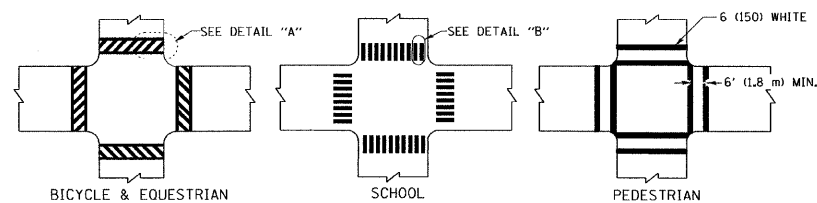
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| F.A.U. RTE.                                       | SECTION | COUNTY | TOTAL SHEETS       | SHEET NO. |
|---|---------|--------|--------------------|-----------|
| 1238  | C-RS-8  | LAKE   | 19                 | 13        |
| TC-11   |         |        | CONTRACT NO. 60366 |           |
| FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT |         |        |                    |           |

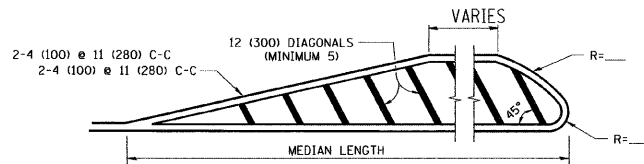
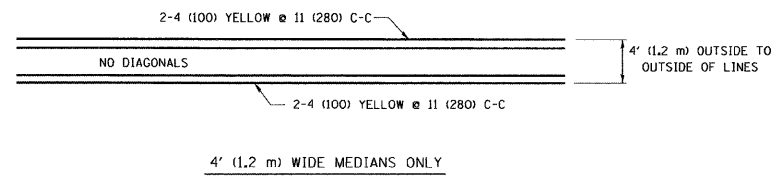


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

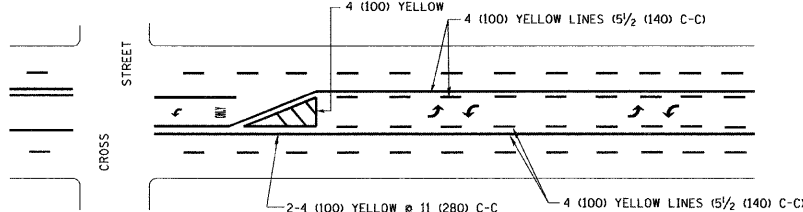


TYPICAL CROSSWALK MARKING

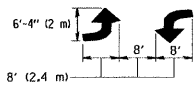


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.  
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

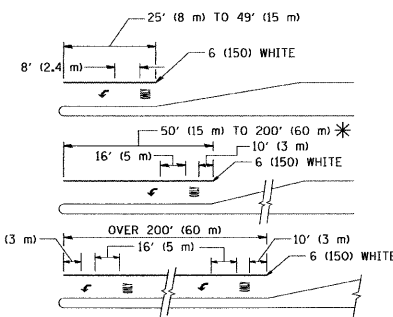


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

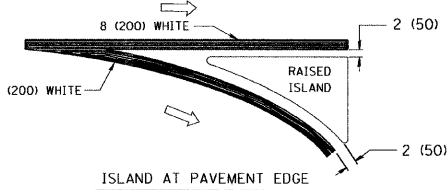
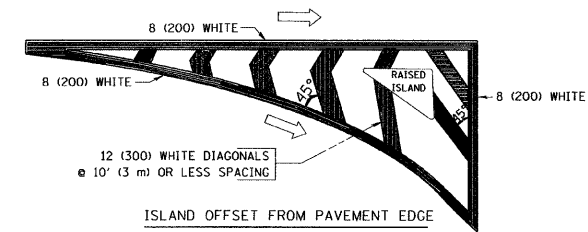
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. 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

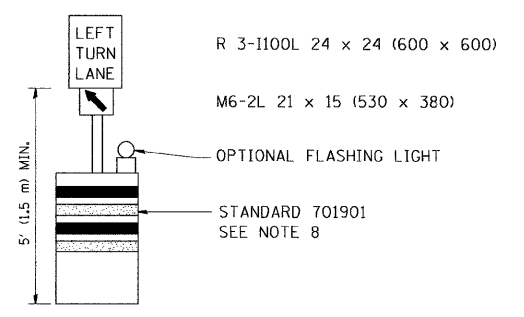
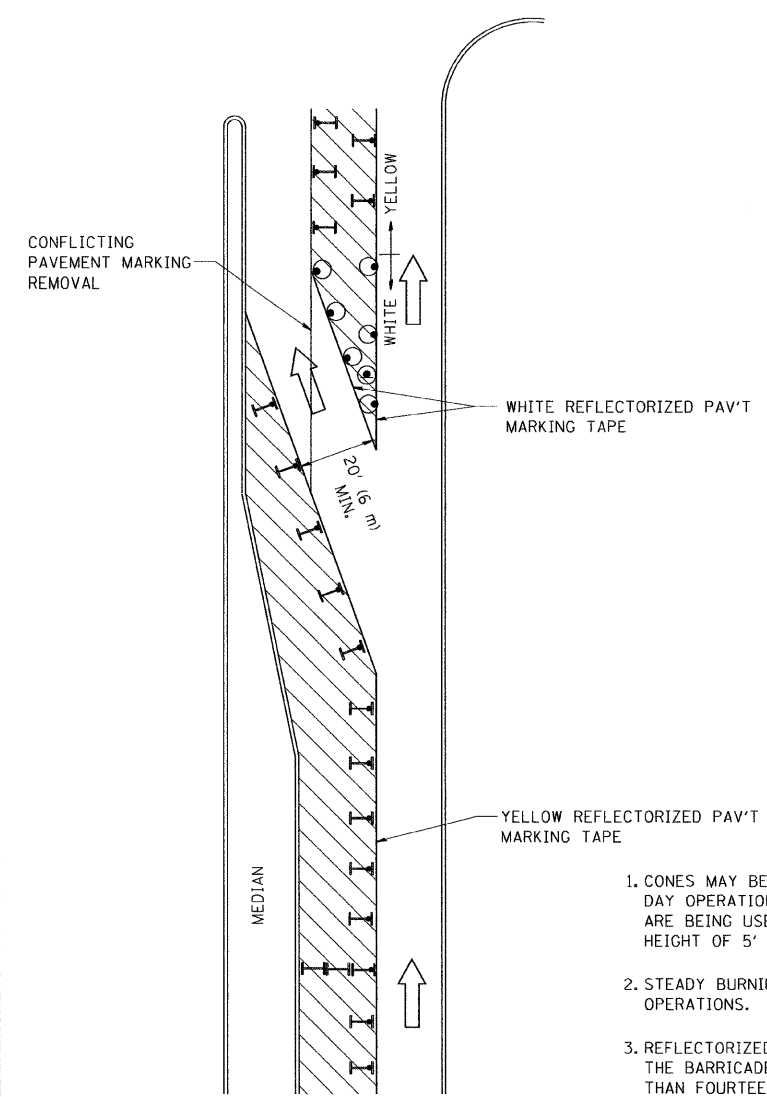


TYPICAL ISLAND MARKING

| 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 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>SOLID                  | 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 (8' (2.4m))                                      | SOLID                           | WHITE   | SEE TYPICAL TURN LANE MARKING DETAIL   |
| TWO WAY LEFT TURN MARKING   | 2 @ 4 (100) EACH DIRECTION<br>8' (2.4m) 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.  |
| GORE 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" IS 6' (1.8 m) LETTERS: 16 (400) LINE FOR "X"               | SOLID                           | WHITE   | SEE STATE STANDARD 780001<br>AREA OF:<br>"R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH<br>"X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )                                     |
| SHOULDER DIAGONALS  | 12 (300) @ 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 (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.



**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

**LEGEND**

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

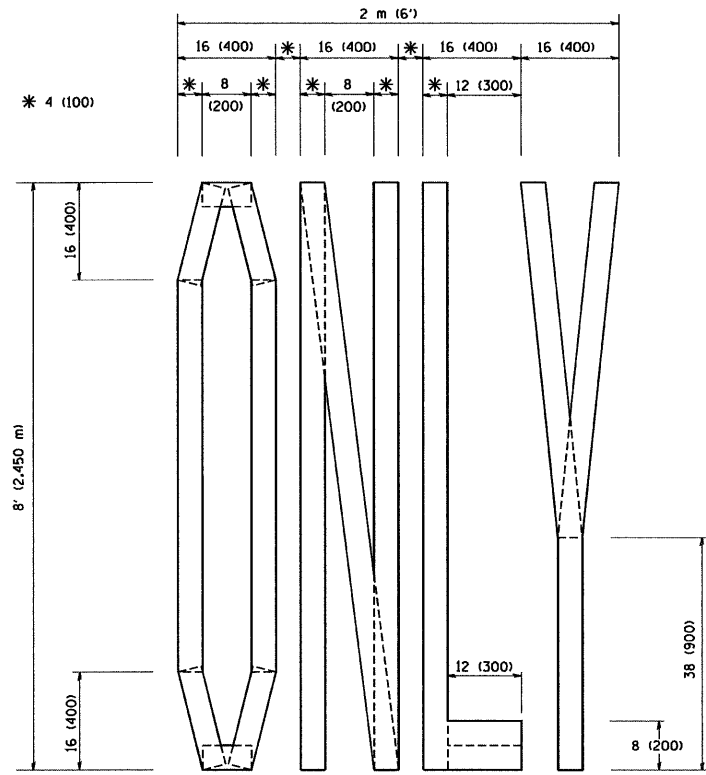
|  |                       |                                |                            |
|--|-----------------------|--------------------------------|----------------------------|
| FILE NAME =                                    | USER NAME = drvakosgn | REVISED -T, RAMMACHER 09-08-94 | REVISED - R, BORO 09-14-09 |
| ca:\pwork\VPWIDOT\DRIVAKOSGN\d0108315\ts14.dgn |                       | REVISED - A, HOUSEH 11-07-95   | REVISED -                  |
|  |                       | REVISED - A, HOUSEH 10-12-96   | REVISED -                  |
| PLOT SCALE = 49.9999 1/ IN.                    |                       | REVISED -T, RAMMACHER 01-06-00 | REVISED -                  |
| PLOT DATE = 9/14/2009                          |                       |                                |                            |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

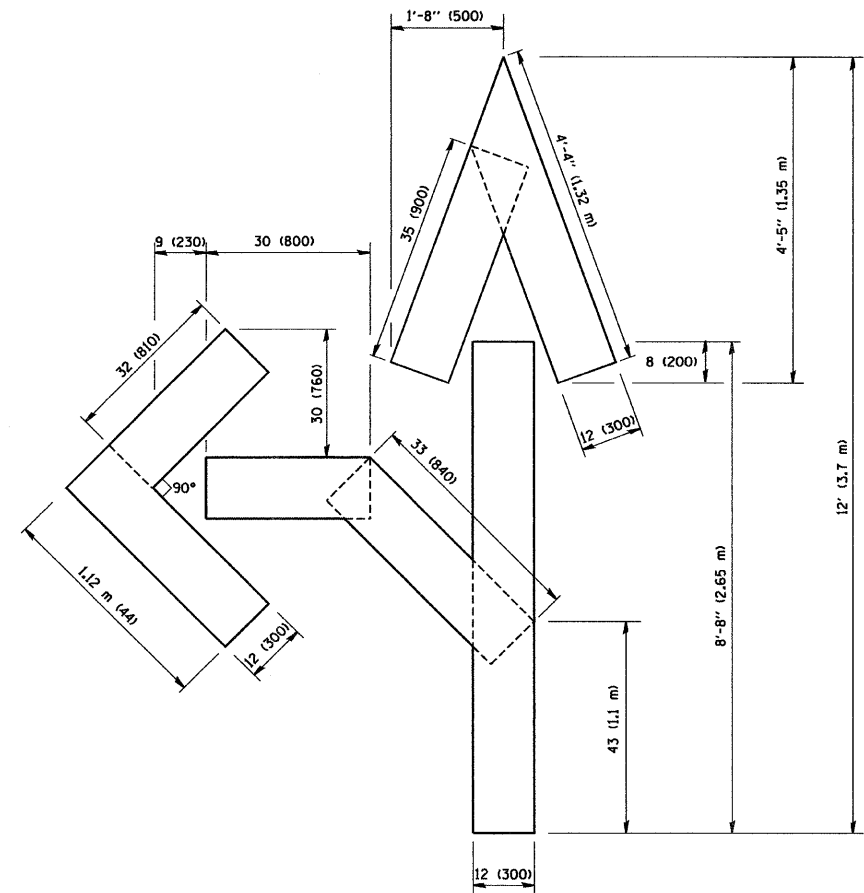
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS  
(TO REMAIN OPEN TO TRAFFIC)**

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

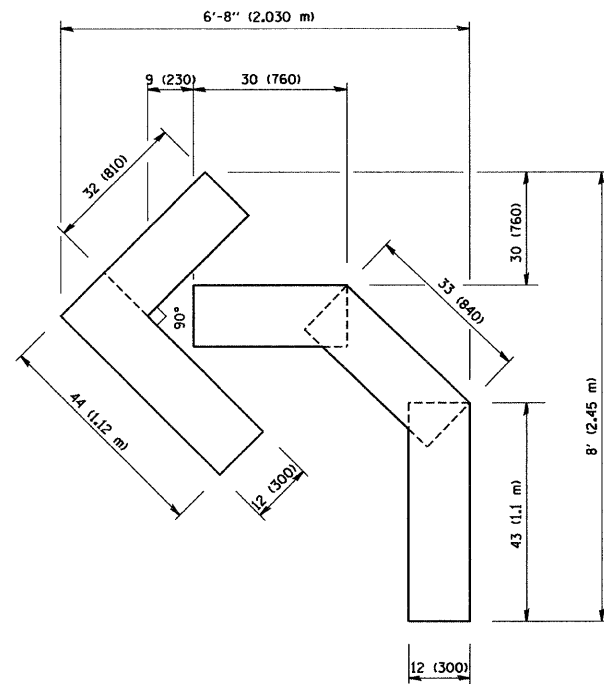
|   |         |                    |              |           |
|---|---------|--------------------|--------------|-----------|
| F.A.I. RTE.                                     | SECTION | COUNTY             | TOTAL SHEETS | SHEET NO. |
| 1238  | C-RS-8  | LAKR               | 19           | 15        |
| <b>TC-14</b>                                    |         | CONTRACT NO. 60366 |              |           |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |         |                    |              |           |



QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



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



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

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

|  |                                |                    |                                     |
|--|--------------------------------|--------------------|-------------------------------------|
| FILE NAME =<br>W:\diststd\22x34\tcl6.dgn | USER NAME =<br>gaglianobt      | DESIGNED -<br>-    | REVISED -<br>-T. RAMMACHER 06-05-96 |
|  | PLOT SCALE =<br>50.0000 "/ IN. | DRAWN -<br>-       | REVISED -<br>-T. RAMMACHER 11-04-97 |
|  | PLOT DATE =<br>1/4/2008        | CHECKED -<br>-     | REVISED -<br>-T. RAMMACHER 03-02-98 |
|  |                                | DATE -<br>09-18-94 | REVISED -<br>-E. GOMEZ 08-28-00     |

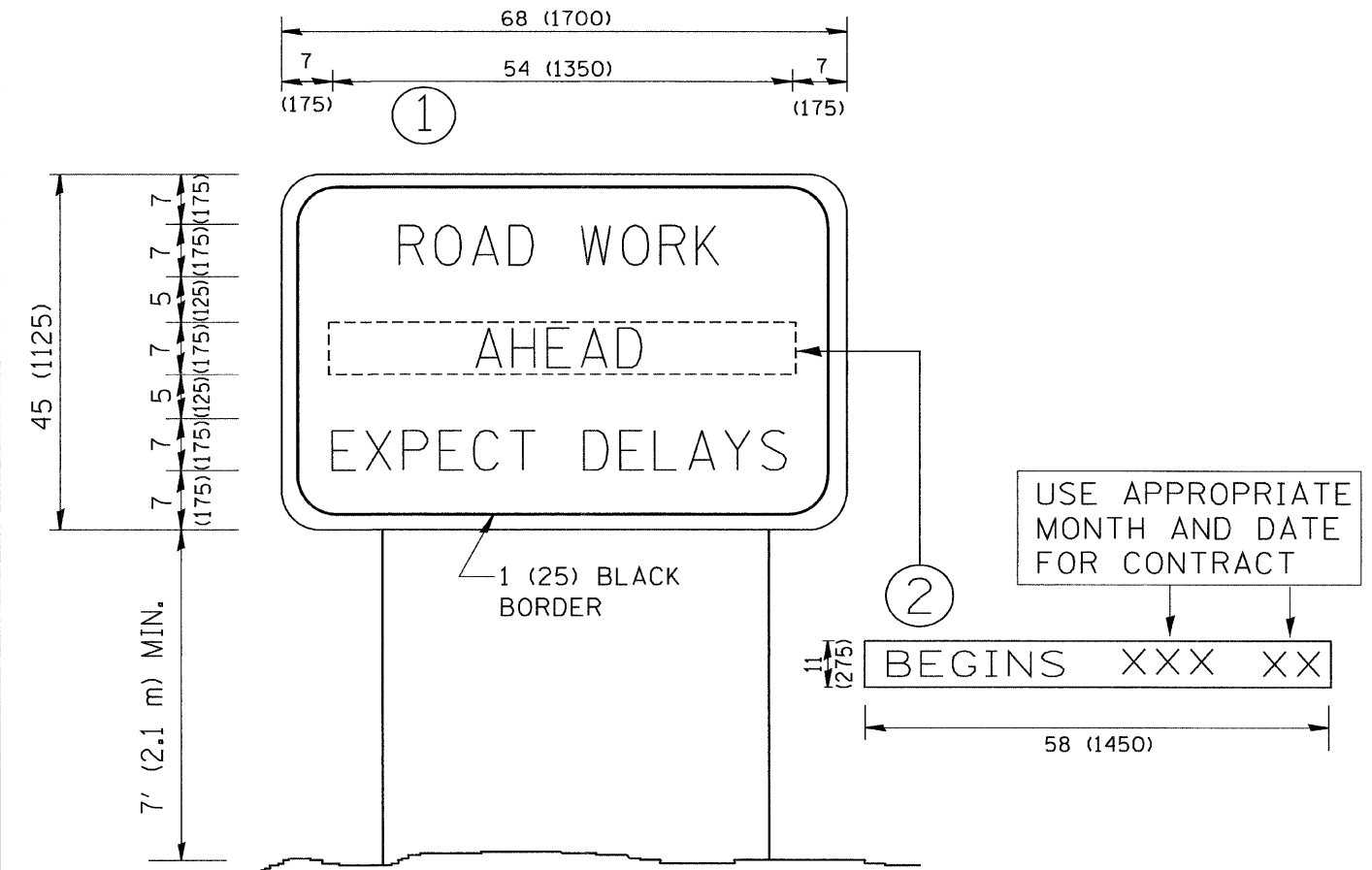
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

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

| F.A.U. RTE.                                     | SECTION | COUNTY | TOTAL SHEETS       | SHEET NO. |
|---|---------|--------|--------------------|-----------|
| 1238  | C-RS-8  | LAKE   | 19                 | 16        |
| TC-16   |         |        | CONTRACT NO. 60J66 |           |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |         |        |                    |           |





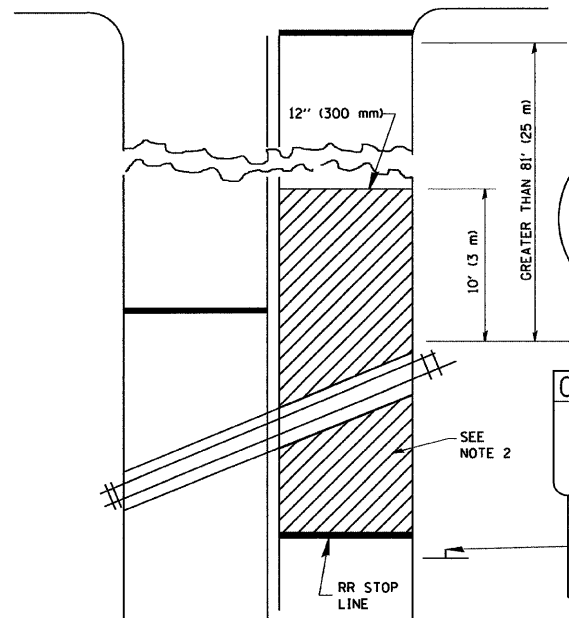
**NOTES:**

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

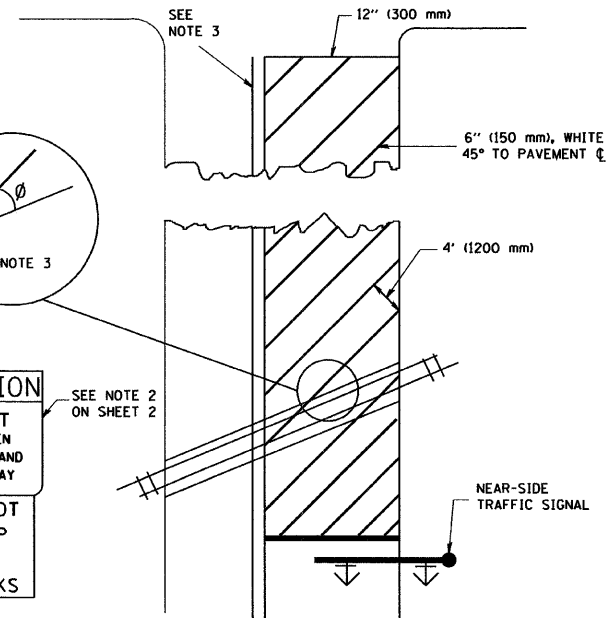
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

|  |                            |            |                                 |   |   |             |             |                        |                   |                          |                       |                    |
|--|----------------------------|------------|---------------------------------|---|---|-------------|-------------|------------------------|-------------------|--------------------------|-----------------------|--------------------|
| FILE NAME =<br>W:\diststd\22x34\te22.dgn | USER NAME =<br>gglianobt   | DESIGNED - | REVISED - R. MIRS 09-15-97      | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>ARTERIAL ROAD<br/>INFORMATION SIGN</b>       |             |             | F.A.D.<br>RTE.<br>1238 | SECTION<br>C-RS-8 | COUNTY<br>LAKE           | TOTAL<br>SHEETS<br>19 | SHEET<br>NO.<br>17 |
|  | PLOT SCALE = 50.000' / IN. | DRAWN -    | REVISED - R. MIRS 12-11-97      |   | SCALE: NONE                                     | SHEET NO. 1 | OF 1 SHEETS | STA.                   | TO STA.           | TC-22 CONTRACT NO. 60J66 |                       |                    |
|  | PLOT DATE = 1/4/2008       | CHECKED -  | REVISED - T. RAMMACHER 02-02-99 |   | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |             |             |                        |                   |                          |                       |                    |
|  |                            | DATE -     | REVISED - C. JUCIUS 01-31-07    |   |   |             |             |                        |                   |                          |                       |                    |

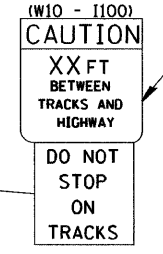
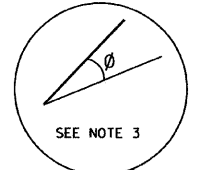
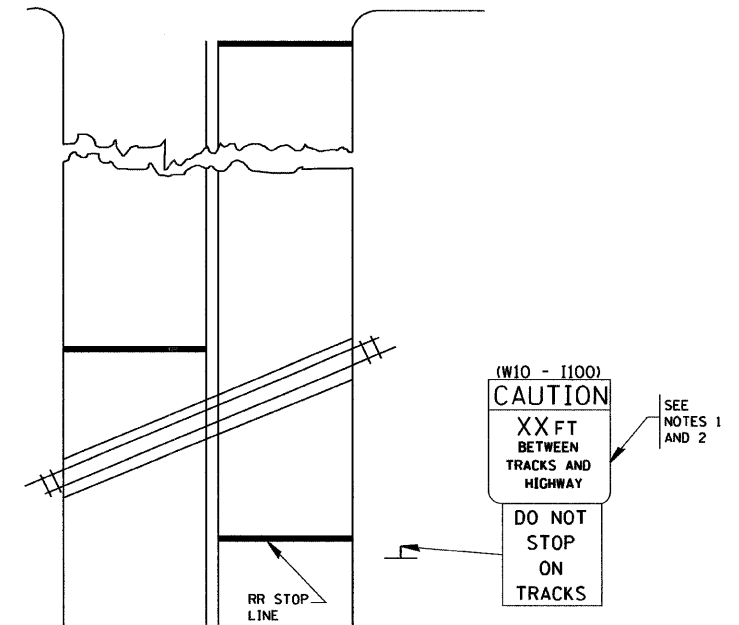
WITH INTERSECTION TRAFFIC SIGNALS



WITH NEAR-SIDE TRAFFIC SIGNALS



WITH NONSIGNALIZED INTERSECTION  
81' (25 m) OR LESS TO CLOSEST RAIL



- NOTES:
1. PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
  2. WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED, THE PAVEMENT MARKINGS EXTENDS TO THE INTERSECTION.
  3. WHERE THE ANGLE BETWEEN THE DIAGONAL STRIPES AND THE TRACK ( $\phi$ ) WOULD BE LESS THAN APPROXIMATELY 20°, THE STRIPES SHOULD BE SLOPED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

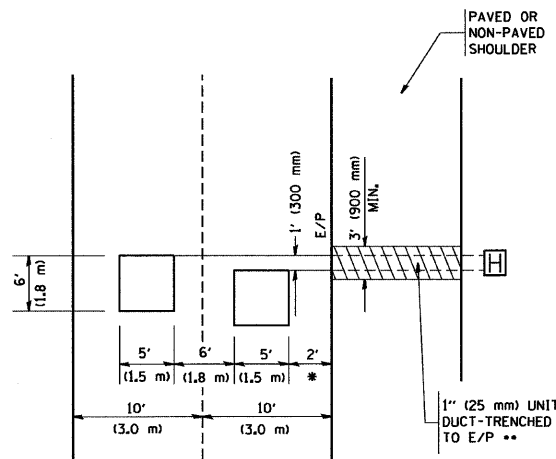
- NOTE 1:
1. DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET (1.8 m) FROM THE RAIL CLOSEST TO THE INTERSECTION TO THE STOP LINE OR CROSSWALK, WHICHEVER IS CLOSEST, ROUNDED DOWN TO THE NEAREST 5 FEET (1.5 m). WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE THE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
  2. THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6- FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS EXTEND TO THE INTERSECTION.

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

|  |                            |            |                    |   |   |  |  |              |         |        |              |                         |
|--|----------------------------|------------|--------------------|---|---|--|--|--------------|---------|--------|--------------|-------------------------|
| FILE NAME =<br>W:\diststa\22x34\te23.dgn | USER NAME = goglianobt     | DESIGNED - | REVISED - 01-01-07 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING<br/>TREATMENT FOR RAILROAD CROSSINGS</b> |  |  | F.A.U. RTE.  | SECTION | COUNTY | TOTAL SHEETS | SHEET NO.               |
|  | PLOT SCALE = 50.000' / IN. | DRAWN -    | REVISED -          |   |   |  |  | 1238         | C-RS-8  | LAKE   | 19           | 18                      |
|  | PLOT DATE = 1/4/2008       | CHECKED -  | REVISED -          |   |   |  |  | <b>TC-23</b> |         |        |              | CONTRACT NO. 60J66      |
|  |                            | DATE -     | REVISED -          |   |   |  |  | SCALE: NONE  |         |        |              | SHEET NO. 1 OF 1 SHEETS |

**LOOPS NEXT TO SHOULDERS**

PROVIDE A PAVEMENT REPLACEMENT  
NOTE WHICH SHOULD EQUAL  
3' (900 mm) X WIDTH OF  
PAVED SHOULDER.

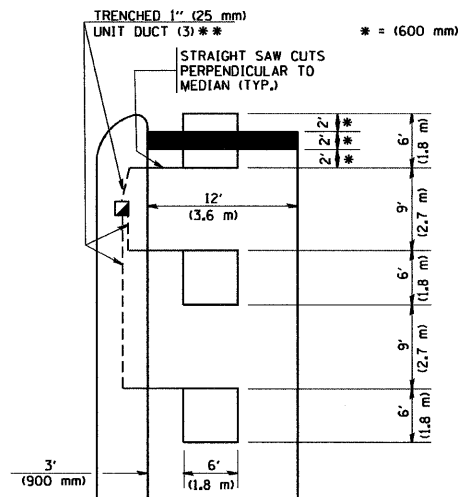


\* = (600 mm)

\*\* 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  
USED WHEN THE MEDIAN IS  
MOUNTABLE. REFER TO STANDARD  
814001 TO ENSURE THAT HANDHOLE  
FITS IN MEDIAN.



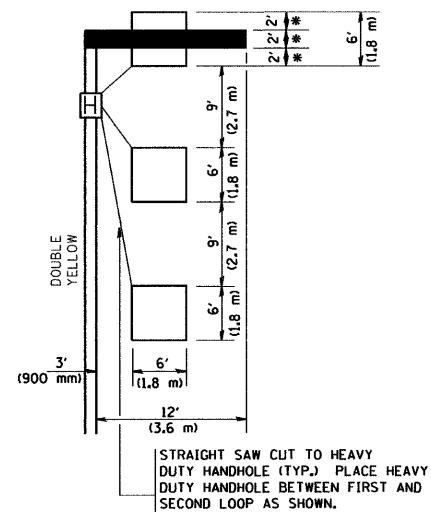
\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS  
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

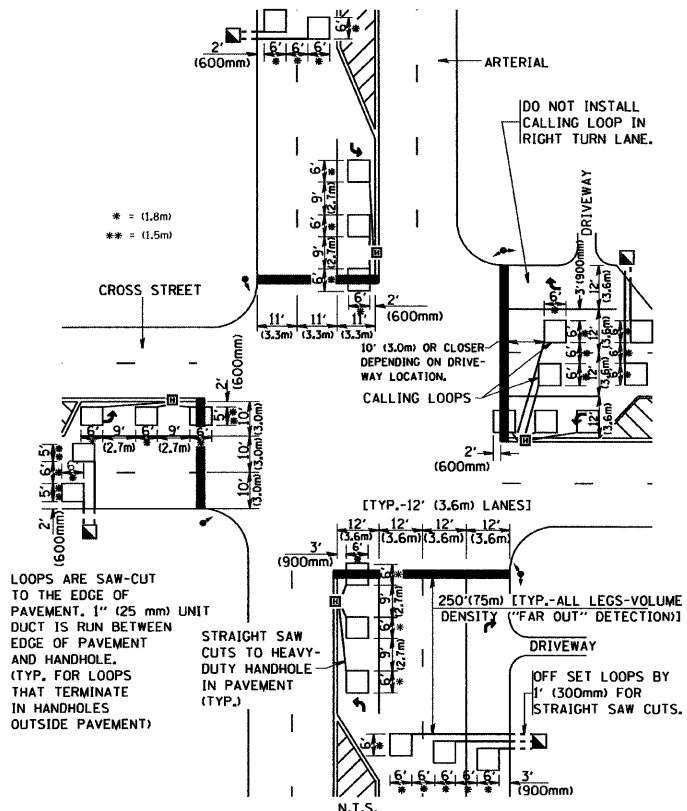
**LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**

\* = (600 mm)



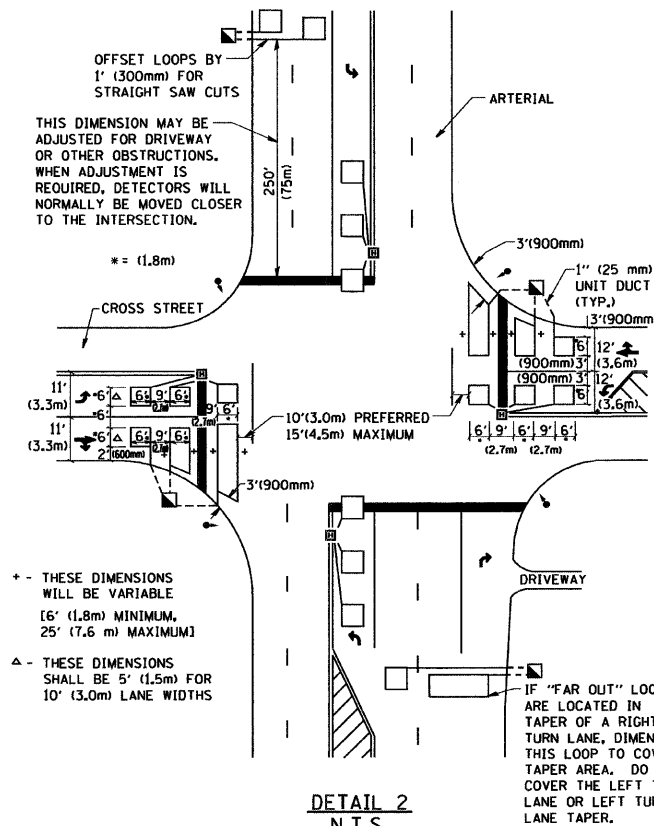
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



**DETAIL 1  
N.T.S.**

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



**DETAIL 2  
N.T.S.**

**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 SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL 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 (i.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 DIMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON 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.

**NOTE:**

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.

|  |                             |                  |           |   |  |             |      |                |         |         |                 |   |      |                           |    |
|--|-----------------------------|------------------|-----------|---|--|-------------|------|----------------|---------|---------|-----------------|---|------|---------------------------|----|
| FILE NAME =<br>W:\diststd\22x34\ts07.dgn | USER NAME = goglianobt      | DESIGNED -       | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DISTRICT 1 - DETECTOR LOOP INSTALLATION<br/>DETAILS FOR ROADWAY RESURFACING</b> |             |      | F.A.U.<br>RTE. | SECTION | COUNTY  | TOTAL<br>SHEETS | SHEET<br>NO.  |      |                           |    |
|  | PLOT SCALE = 50.0000' / IN. | DRAWN -          | REVISED - |   | SCALE: NONE  | SHEET NO. 1 | OF 1 | SHEETS         | STA.    | TO STA. | 1238            | C-RS-8  | LAKE | 19                        | 19 |
|  | PLOT DATE = 1/4/2008        | CHECKED - R.K.F. | REVISED - |   |  |             |      |                |         |         |                 | <b>TS-07</b>  |      | <b>CONTRACT NO. 60J66</b> |    |
|  |                             | DATE -           | REVISED - |   |  |             |      |                |         |         |                 | FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT |      |                           |    |