FOR INDEX OF SHEETS AND HIGHWAY STANDARDS SEE SHEET NO. 2

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 2423 (LARKIN AVENUE) AIRLITE STREET TO McLEAN BOULEVARD RESURFACING SECTION: 15-00186-00-RS PROJECT NUMBER: M-4003(490) CITY OF ELGIN KANE COUNTY JOB NUMBER: C-91-247-15

DESIGN DESIGNATION LARKIN AVENUE, MINOR ARTERIAL

> DESIGN SPEED # 30 M.P.H. POSTED SPEED . 30 M.P.H. ADT (2010) # 9.700 VPD 13% TRUCKS

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 CALL 811** 



CONTRACT NO. 61B75



SW 1/4 SEC. 15, SE 1/4 SEC 16, T41N, R8E, 3RD P.M., ELGIN TOWNSHIP LOCATION MAP

(N.T.S.) GROSS LENGTH = NET LENGTH OF PROJECT = 4,291 FEET (0.813 MILES)



Engineering Enterprises, Inc. **Consulting Engineers** 52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.com

|  | F.A.U.<br>RTE.      | SECTION   |                 | COUNTY           | TOTAL            | SHEET<br>NO. |
|--|---------------------|---|-----------------|------------------|------------------|--------------|
|  | 2423                | 15-00186-00-                                      | -RS             | KANE             | 22               | 1            |
|  |                     |   | -               | CONTRA           | CT NO.           | 61B75        |
| Jo 0A  | VIESS STI           | EPHENSON WINNEBACO                                | BOONE MC        | HENRY LAKE       | 7                |              |
| ROCK ISLAND HENR MERCER  55 90 WARREN XNOX                     | STARK               | PUTNAM<br>MARSHALL                                | RI<br>SALLE     |                  | COOK             |              |
| HANCOCK MC DONOUGH FULTO SCHUTLER ADAMS BROWN CASS PRICE SCOTT | MASON               | LOGAN DE MACC                                     | MITT PLATT      | FORD CHAMPATON V | PERMILION        |              |
| JERSEY   | MACOUPIN<br>MADISON | CHRISTIAN MONTGOMERY  BOND  CLINTON  MARI         | SHELBY EFFINGHA | M JASPER C       | RAWFORD LAWRENCE |              |
| MORROE   | RANDOLPH            | WASHINGTON JEFFERS  PERRY FRANKI  JACKSON WILLIAM | HAMILTO         | IN WHITE         | WADASH           |              |
|  |                     | UNION JOHN  | NSON POPE       | HARDIN           | -                |              |

| PASSED MAY &  OFFICE  DISTRICT ENGINEER OF                                  | 201  DE LOCAL ROADS & STREETS  |
|---|--|
|   |  |
| BID BASED ON May 11   | 2015 201<br>Fall June 201  |
| DATE: April 22, 2015  BY: TODD A. WELLS  JICENSE EXPIRES: NOVEMBER 30, 2015 | OG A. VE. OGS307 OGS307 OGS307 OGS300A OGS300A OGS300A OGS300A OGS300A |

LOCATION OF SECTION INDICATED THUS: - -

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

NO SUBSTITUTIONS OR VARIANCES WILL BE PERMITTED TO ANY STANDARD NOTES OR ORDINANCES UNLESS APPROVED OTHERWISE IN WRITING PRIOR TO COMMENCING

ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE

THE CONTRACTOR SHALL AT ALL TIMES PROVIDE PROTECTION FOR TRAFFIC AS CALLED FOR IN THE APPLICATION OF TRAFFIC CONTROL DEVICES, THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS AND THE PLANS

THE CONTRACTOR SHALL COOPERATE WITH THE OWNER IF ANY UTILITY IMPROVEMENTS ARE REQUIRED WITHIN THE DURATION OF THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL EXISTING AND PROPOSED UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY,

THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, FIELD TILES AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE AND NOT NECESSARILY COMPLETE; THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE OCCURRED. THIS WORK SHALL BE ARRANGED BY THE UTILITY COMPANY AND SHALL BE AT THE CONTRACTOR'S

IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR OPERATE ANY VALVES OR HYDRANTS.

#### STAKING

THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, THE OWNER'S AGENT, OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

ALL OFFSET LOCATIONS GIVEN ON THE DETAILED PLANS ARE FROM THE CENTERLINE AS SHOWN ON THE PLANS.

#### MISCELLANEOUS

SAWING OF REMOVAL ITEMS AS NOTED ON THE PLANS, SPECIFIED IN THE STANDARD SPECIFICATIONS, OR AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

AT ALL MAINLINE AND SIDE ROAD BUTT JOINT LOCATIONS, THE EXISTING SURFACE SHALL BE CUT TO A MINIMUM THICKNESS OF TWO (2.0) INCHES AS INDICATED ON THE

THE THICKNESS OF ASPHALT MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASES ON WHICH THE ASPHALT MIXTURES ARE TO BE PLACED.

THE CONTRACTOR SHALL BE REQUIRED TO MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS, STRUCTURES, POLES, CABLES AND PIPE LINES, BEFORE CONSTRUCTION BEGINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE ENGINEER AT THEIR OWN EXPENSE. ANY SHEETING AND/OR SHORING USED FOR THIS IMPROVEMENT SHALL BE CONSIDERED INCLUDED IN THE COST

THE CONTRACTOR SHALL PROTECT ALL EXISTING FACILITIES (E.G. CURB, DRIVEWAYS, PAVEMENT) THAT ARE NOT INDICATED TO BE REMOVED ON THE PLANS. ANY FACILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE OCCURRED AT THE CONTRACTOR'S EXPENSE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS CONTRACT.

EXISTING PAVEMENT THICKNESSES SHOWN ON THE PLANS ARE APPROXIMATE, BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. ANY ADDITIONAL COSTS REQUIRED BY THE CONTRACTOR DUE TO THICKNESSES OTHER THAN THOSE SHOWN ON THE PLANS WILL BE INCLUDED IN THE COST OF THE CONTRACT.

WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, THE CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH CONSTRUCTION. IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING AIR, WATER AND NOISE POLLUTION. THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

ALL DISTURBED AREAS WITHIN THE PROJECT THAT ARE NOT OTHERWISE SURFACED SHALL BE CLEANED, LAYERED WITH TOPSOIL, AND SODDED AS SHOWN IN THE PLANS. LIMITS SHOWN ON THE PLANS ARE THE MAXIMUM PAY WIDTHS FOR PAYMENT PURPOSES. ADDITIONAL AREAS DAMAGED BY MACHINERY, CONSTRUCTION EQUIPMENT, CONTRACTOR NEGLIGENCE OR OVER-EXCAVATION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE OCCURRED AT THE COST OF THE

THE CONTRACTOR SHALL DISPOSE OF AND REMOVE FROM THE SITE EACH DAY ALL CURB AND GUTTER, PAVEMENT AND ALL OTHER EXCAVATED MATERIAL NOT FOR SALVAGE. THE COST FOR HAULING AND TRUCKING TO DISPOSAL LOCATIONS WILL BE NCLUDED IN THE COST OF THE ITEM BEING REMOVED.

THE ENGINEER IS NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF THEIR WORK IN ACCORDANCE WITH THE CONTRACT

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING FRESH CONCRETE FROM DAMAGE AND VANDALISM. ANY DAMAGED OR VANDALIZED CONCRETE SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

BACKFILL AREAS ADJACENT TO COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT SHALL BE BACKFILLED WITH CLASS SI CONCRETE AND HAVE AN HMA SURFACE COURSE AS SHOWN IN THE SPECIAL DETAIL. THE CLASS SI CONCRETE WILL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT

DETECTABLE WARNINGS SHALL BE BRICK RED VITRIFIED POLYMER COMPOSITE CAST IN PLACE DETECTABLE WARNING PANEL, MANUFACTURED BY ARMOR TILE.

SOME LOCATIONS OF CURB AND GUTTER AND SIDEWALK MAY HAVE BEEN POURED MONOLITHICALLY WHEN CONSTRUCTED. AT EACH LOCATION WHERE THESE ITEMS ARE REMOVED THEY SHALL BE PAID FOR AS SIDEWALK REMOVAL AND CURB AND GUTTER REMOVAL SEPARATELY. A FULL DEPTH SAW CUT SHALL BE CONSTRUCTED AT THE LIMITS OF REMOVAL. IF ADDITIONAL CONCRETE IS DAMAGED, IT SHALL BE REPLACED AT THE CONTRACTORS COST. THE NEW SIDEWALK AND CURB SHALL BE POURED MONOLITHICALLY BUT PAID FOR SEPARATELY AS PORTLAND CEMENT CONCRETE SIDEWALK, 5-INCH AND COMBINATION CONCRETE CURB & GUTTER OF THE TYPE

THE COST OF EARTH EXCAVATION REQUIRED FOR CONSTRUCTION OF THE SIDEWALKS CURB AND GUTTER, AND ALL ASSOCIATED ITEMS INCLUDING ANY EXCAVATION REQUIRED FOR INSTALLATION OF TOPSOIL SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEM BEING INSTALLED.

PATCHING LOCATIONS SHALL BE VERIFIED BY THE ENGINEER.

LARKIN AVENUE SHALL BE OPEN TO TRAFFIC AT ALL TIMES. WHEN IT IS NECESSARY TO CLOSE ONE LANE OF TRAFFIC DUE TO CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE-WAY TRAFFIC DURING CONSTRUCTION HOURS WITH THE USE OF TRAFFIC CONTROL DEVICES, SIGNS AND FLAGGERS AS APPLICABLE IN THE TRAFFIC CONTROL STANDARDS.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ANY RESIDENT OR BUSINESS OF ANY REMOVAL AND REPLACEMENT ACTIVITIES THAT WILL INHIBIT OR PROHIBIT ACCESS TO THEIR DRIVEWAY, IN WRITING, A MINIMUM OF 48 HOURS BUT NOT MORE THAN 72 HOURS, PRIOR TO THE COMMENCEMENT OF THESE ACTIVITIES. THE MORNING OF THE WORK, THE CONTRACTOR SHALL AGAIN NOTIFY THE OWNER VERBALLY, TO ALLOW THE OWNER TIME TO MOVE THEIR VEHICLE SO AS NOT TO PROHIBIT THE VEHICLE FROM LEAVING THE DRIVEWAY UPON REMOVAL OF ANY MATERIAL. THE NOTICE CONTRACTOR SHALL PROVIDE INFORMATION PECAPINIC THE GIVEN OUT BY THE CONTRACTOR SHALL PROVIDE INFORMATION REGARDING THE ANTICIPATED DATE THAT FULL ACCESS WILL BY RESTORED. COORDINATION BETWEEN ACTIVITIES SHOULD ALLOW ALL WORK TO BE DONE IN A TIMELY MANNER SO AS TO PERMIT ACCESS TO THE ROADWAY. ANY ADDITIONAL COST OF STAGING REQUIRED TO MAINTAIN ACCESS IS CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

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- GENERAL NOTES, HIGHWAY STANDARDS, SUPPLEMENTAL LEGEND, AND INDEX OF SHEETS
- SUMMARY OF QUANTITIES
- 4.-6. TYPICAL SECTIONS
- 7.-11. GENERAL PLAN
- DETAILS

#### DISTRICT ONE DETAILS

- (TC-10) TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
- 14. (TC-13) DISTRICT ONE TYPICAL PAVEMENT MARKINGS
- (TC-14) TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
- (TC-16) PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
- 17. (TC-22) ARTERIAL ROAD INFORMATION SIGN
- (BD-8) DETAILS FOR FRAMES AND LIDS ADJUSTMENT
- 19. (BD-22) PAVEMENT PATCHING FOR HMA SURFACED
- (BD-32) BUTT JOINT AND HMA TAPER DETAILS
- (TS-05) STANDARD TRAFFIC SIGNAL DESIGN DETAILS,
- (TS-07) DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

#### HIGHWAY STANDARDS

|    | STD. NO.  | DESCRIPTION   |
|----|-----------|---|
|    | 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS   |
|    | 424001-08 | PERPENDICULAR CURB RAMPS FOR SIDEWALKS  |
| 4  | 424006-02 | DIAGONAL CURB RAMPS FOR SIDEWALKS   |
| *  | 424011-02 | CORNER PARALLEL CURB RAMPS FOR SIDEWALKS  |
|    | 442201-03 | CLASS C AND D PATCHES   |
|    | 606001-06 | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER                               |
| *  | 701101-04 | OFF-RD OPERATIONS, MULTILANE LESS THAN 15' FROM EDGE OF PAVEMENT                            |
|    | 701427-03 | LANE CLOSURE, MULTILANE — INTERMITTENT OR MOVING OPERATIONS LONG TERM OPERATIONS $<$ 40 MPH |
|    | 701502-06 | URBAN LANE CLOSURE, 1L, 2W BIDIRECTIONAL LEFT TURN LANE                                     |
| 57 | 701602-07 | URBAN LANE CLOSURE, MULTILANE, 2W BIDIRECTIONAL LEFT TURN LANE                              |
|    | 701701-09 | URBAN LANE CLOSURE MULTILANE INTERSECTION   |
|    | 701801-05 | SIDEWALK, CORNER, OR CROSSWALK CLOSURE  |
|    | 701901-04 | TRAFFIC CONTROL DEVICES   |
| ñ. | 780001-05 | TYPICAL PAVEMENT MARKINGS   |
|    |           | SUPPLEMENTAL LEGEND   |

#### SUPPLEMENTAL LEGEND

SEE IDOT HIGHWAY STANDARDS FOR ADDITIONAL INFORMATION

EXISTING CONCRETE SIDEWALK OR DRIVEWAY TO REMAIN IN PLACE

SIDEWALK REMOVAL AND PCC HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

ADJUST SANITARY MANHOLE

ADJUST STORM MANHOLE

ADJUST WATER VALVE VAULT



CLASS D PATCHES

NSULTING ENGINEERS Wheeler Road

Engineering Enterprises, Inc.

DESIGNED - TAW USER NAME = DRAWN KKP/CLN/JPS REVISED CHECKED - TVW REVISED - 02/2015 REVISED PLOT DATE =

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES, HIGHWAY STANDARDS,** SUPPLEMENTAL LEGEND AND INDEX OF SHEETS

SHEET NO. 1 OF 1 SHEETS STA.

SCALE: N.T.S.

SECTION COUNTY SHEETS NO. KANE 2423 15-00186-00-RS 22 CONTRACT NO. 61B75 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT - STI

|         | CODE NUMBER | ITEM  | UNIT   | TOTAL QUANTI<br>ROADWAY<br>75% FEDERAL<br>25% LOCAL<br>0005 |
|---------|-------------|---|--------|---|
| -       | 21101615    | TOPSOIL FURNISH AND PLACE, 4"                             | SQYD   | 523   |
| F       | 25000400    | NITROGEN FERTILIZER NUTRIENT                              | POUND  | 7   |
| +       | 25000500    | PHOSPHORUS FERTILIZER NUTRIENT                            | POUND  | 7   |
| 1       | 25000600    | POTASSIUM FERTILIZER NUTRIENT                             | POUND  | 7   |
| İ       | 25200110    | SODDING, SALT TOLERANT                                    | SQYD   | 523   |
|         | 25200200    | SUPPLEMENTAL WATERING                                     | UNIT   | 8   |
| 1.      | 40600275    | BITUMINOUS MATERIALS (PRIME COAT)                         | POUND  | 17630   |
| $\pm$   | 40600400    | MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS                | TON    | 15  |
| $\pm$   | 40600827    | POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-475, N50 | TON    | 1462  |
| -       | 40600982    | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT              | SQYD   | 520   |
| F       | 40603340    | HOT-MIX ASPHALT SURFACE COURSE, MIX 'D'', N70             | TON    | 2923  |
| -       | 40800050    | INCIDENTAL HOT-MIX ASPHALT SURFACING                      | TON    | 6   |
| 1.      | 42400200    | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH                  | SQFT   | 2761  |
|         | 42400300    | PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH                  |        |   |
| +       | 42400800    | DETECTABLE WARNINGS                                       | SQFT   | 156   |
| 1       |             |   | SQFT   | 386   |
| É       | 44000100    | PAVEMENT REMOVAL  | SQYD   | 25  |
| t       | 44000500    | COMBINATION CURB AND GUTTER REMOVAL                       | FOOT   | 891   |
|         | 44000600    | ISIDEWALK REMOVAL   | SQFT   | 2710  |
| $\perp$ | 44201823    | CLASS D PATCHES, TYPE I, 15 INCH                          | SQYD   | 98  |
| F       | 44201827    | CLASS D PATCHES, TYPE II, 15 INCH                         | SQYD   | 42  |
| -       | 44201831    | CLASS D PATCHES, TYPE III, 15 INCH                        | SQYD   | 46  |
| F       | 44201833    | CLASS D PATCHES, TYPE IV, 15 INCH                         | SQYD   | 269   |
| +       | 60260100    | INLETS TO BE ADJUSTED                                     | EACH   | 10  |
|         | 60406000    | FRAMES AND LIDS, TYPE 1, OPEN LID                         | EACH   | 1   |
|         | 60406100    | FRAMES AND LIDS, TYPE 1, CLOSED LID                       | EACH   | 35  |
| *       | 60404910    | FRAMES AND GRATES, TYPE 20                                | EACH   | 9   |
| +       | 60603800    | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12         | FOOT   | 230   |
| $\pm$   | 60605000    | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24         | FOOT   | 706   |
| $\pm$   | 67100100    | MOBILIZATION  | L SUM  | 1   |
| -       | 70102622    | TRAFFIC CONTROL AND PROTECTION, STANDARD 701502           | L SUM  | 1   |
| F       | 70102632    | TRAFFIC CONTROL AND PROTECTION, STANDARD 701602           | LSUM   | 1   |
| -       | 70102635    | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701           | L SUM  | 1   |
| -       | 70102640    | TRAFFIC CONTROL AND PROTECTION, STANDARD 701801           | LSUM   | 1   |
| -       | 70106800    | CHANGEABLE MESSAGE SIGN                                   | CAL MO | 2   |
| -       | 70300100    | SHORT TERM PAVEMENT MARKING                               | FOOT   | 10025   |
|         | 70301000    | WORK ZONE PAVEMENT MARKING REMOVAL                        |        |   |
| +       | 78000100    |   | SQFT   | 3310  |
|         |             | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS      | SQFT   | 589   |
| =       | 78000200    | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                  | FOOT   | 12485   |
|         | 78000400    | THERMOPLASTIC PAVEMENT MARKING - LINE 6"                  | FOOT   | 3379  |
| +       | 78000600    | THERMOPLASTIC PAVEMENT MARKING - LINE 12"                 | FOOT   | 436   |
| E       | 78000650    | THERMOPLASTIC PAVEMENT MARKING - LINE 24"                 | FOOT   | 260   |
|         | 88600600    | DETECTOR LOOP REPLACEMENT                                 | FOOT   | 870   |
| *       | X4401198    | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH           | SQYD   | 26107   |
|         | X6026626    | VALVE BOXES TO BE RECONSTRUCTED                           | EACH   | 2   |
|         | X6030310    | FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)                  | EACH   | 35  |
|         | Z0030850    | TEMPORARY INFORMATION SIGNING                             | SQFT   | 52  |

Δ INDICATES SPECIALTY ITEM
\* SEE SPECIAL PROVISIONS

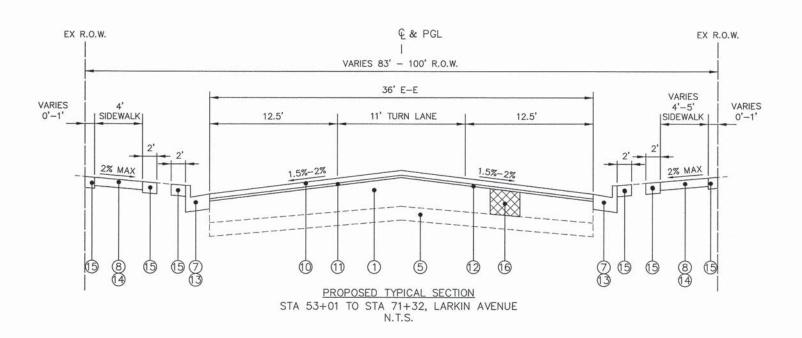
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| 71.1.   | * EGIO ENGINEERING ENTER HIDE | , 1140;             |                |           |
|---|-------------------------------|---------------------|----------------|-----------|
| Engineering Enterprises, Inc.<br>CONSULTING ENGINEERS<br>52 Wheeler Road<br>Sugar Grove, Illinois 60554 | USER NAME =                   | DESIGNED - TAW      | REVISED -      |           |
|   |                               | DRAWN - KKP/CLN/JPS | REVISED -      |           |
|   | Sugar Grove, Illinois 60554   | PLOT SCALE =        | CHECKED - TVW  | REVISED - |
|   | 630.466.6700 / www.eeiweb.com | PLOT DATE =         | DATE - 02/2015 | REVISED - |

| STATI      | E 01 | FILLINOIS      |
|------------|------|----------------|
| DEPARTMENT | OF   | TRANSPORTATION |

SCALE: N.T.S.

|   | SUMMARY OF QUANTITIES |      |         |           |           | RTE. SECTION |                             | COUNTY TOTA     |     | S SHEET |
|---|-----------------------|------|---------|-----------|-----------|--------------|-----------------------------|-----------------|-----|---------|
|   | 301                   | HAIN | CI OI W | OMNITTIES |           | 2423         | 15-00186-00-RS              | KANE            | 22  | 3       |
| _ |                       |      |         |           |           |              |                             | CONTRACT        | NO. | 61B75   |
|   | SHEET NO. 1 C         | )F 1 | SHEETS  | STA. X    | TO STA. X | FED. ROAD    | DIST. NO. 1 ILLINOIS FED. / | ID PROJECT - ST | P   |         |



# LEGEND

- 1) EXISTING 15.5" 17.0" ASPHALT PAVEMENT
- (2) EXISTING 13.5" 15.5" ASPHALT PAVEMENT
- (3) EXISTING 5.0" ASPHALT PAVEMENT
- (4) EXISTING PORTLAND CEMENT CONCRETE BASE, 7" 8"
- EXISTING 7.0" 8.5" AGGREGATE BASE
- 6 EXISTING 2.5" 3.0" AGGREGATE BASE
- EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE VARIES B-6.12 TO B-6.24
- (8) EXISTING PORTLAND CEMENT CONCRETE SIDEWALK
- 9 HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH 0"-3"
- (10) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2.0"
- (11) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1.0"
- (12) BITUMINOUS MATERIALS (PRIME COAT)
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AT VARIOUS LOCATIONS)
- SIDEWALK REMOVAL AND PORTLAND CEMENT CONCRETE SIDEWALK,  $5^{\prime\prime}$  (AT VARIOUS LOCATIONS)
- 15 TOPSOIL, FERTILIZER AND SOD (LOCATIONS AS DIRECTED BY THE ENGINEER)
- (16) CLASS D PATCHES, 15 INCH (AT VARIOUS LOCATIONS)

PATCHING SHALL BE PERFORMED AFTER MILLING

# HOT-MIX ASPHALT MIXTURE REQUIREMENTS

| OPERATION      |   |               |  |  |
|----------------|---|---------------|--|--|
| LARKIN AVENUE  | POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1"                | 3.5% @ 50 Gyr |  |  |
| RESURFACING    | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 mm), 2"                  | 4% @ 70 Gyr.  |  |  |
| PATCHING       | CLASS D PATCHES, 15 INCH<br>HMA BINDER COURSE, IL-19.0, N70, 15" (IN 4 LIFTS) | 4% @ 70 Gyr.  |  |  |
| INCIDENTAL HMA | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 mm), THICKNESS VARIES    | 4% @ 70 Gyr.  |  |  |

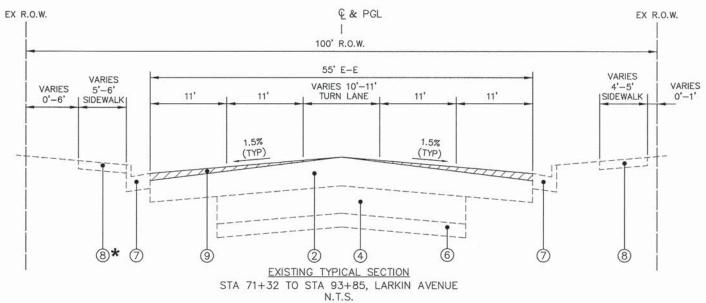
THE UNIT WEIGHT USED TO CALCULATE THE HMA SURFACE COURSE QUANTITY IS 112 LBS/SQ YD/INCH AND FOR POLYMERIZED LEVELING BINDER IS 110 LBS/SQ YD/INCH.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR HMA FULL DEPTH "AC TYPE" SEE SPECIAL PROVISIONS FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS

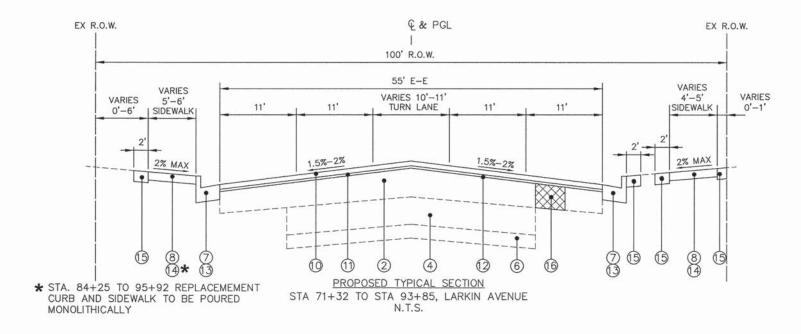
| CONSULTING ENGINEERS 52 Wheeler Road | USER NAME =                 | DESIGNED - TAW      | REVISED -      |           |
|--------------------------------------|-----------------------------|---------------------|----------------|-----------|
|                                      |                             | DRAWN - KKP/CLN/JPS | REVISED -      |           |
|                                      | Sugar Grove, Illinois 60554 | PLOT SCALE =        | CHECKED - TVW  | REVISED - |
| 630.466.6700 / www.eeiweb.co         |                             | PLOT DATE =         | DATE - 02/2015 | REVISED - |

15-00186-00-RS KANE 22 4 CONTRACT NO. 61B75

SECTION STATE OF ILLINOIS TYPICAL SECTIONS 2423 **DEPARTMENT OF TRANSPORTATION** SCALE: N.T.S. SHEET NO. 1 OF 3 SHEETS STA. 53+01 TO STA. 71+32



\* STA 84+25 TO STA 95+92



# LEGEND

- EXISTING 15.5" 17.0" ASPHALT PAVEMENT
- EXISTING 13.5" 15.5" ASPHALT PAVEMENT
- EXISTING 5.0" ASPHALT PAVEMENT
- EXISTING PORTLAND CEMENT CONCRETE BASE, 7" 8"
- EXISTING 7.0" 8.5" AGGREGATE BASE
- (6) EXISTING 2.5" - 3.0" AGGREGATE BASE
- EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE VARIES B-6.12 TO B-6.24
  - EXISTING PORTLAND CEMENT CONCRETE SIDEWALK
- 9 HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH 0"-3"
- (10) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2.0"
- POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1.0"
- (12) BITUMINOUS MATERIALS (PRIME COAT)
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AT VARIOUS LOCATIONS)
- SIDEWALK REMOVAL AND PORTLAND CEMENT CONCRETE SIDEWALK, 5" (AT VARIOUS LOCATIONS)  $\,$
- TOPSOIL, FERTILIZER AND SOD (LOCATIONS AS DIRECTED BY THE ENGINEER)
- 16 CLASS D PATCHES, 15 INCH (AT VARIOUS LOCATIONS)

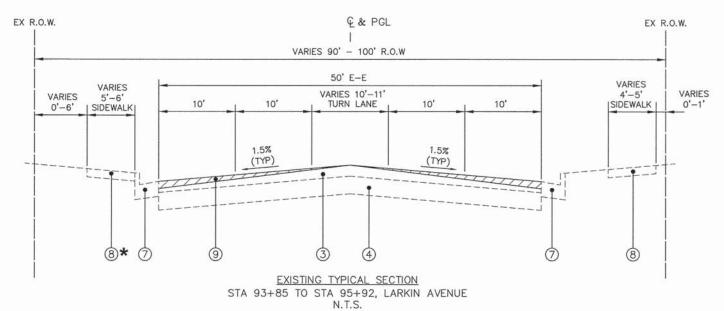
Engineering Enterprises, Inc. USER NAME = DESIGNED - TAW REVISED -CONSULTING ENGINEERS
52 Wheeler Road
Sugar Grove, Illinois 60554 DRAWN - KKP/CLN/JPS REVISED -PLOT SCALE = CHECKED - TVW REVISED - 02/2015 REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  TYPICAL SECTIONS

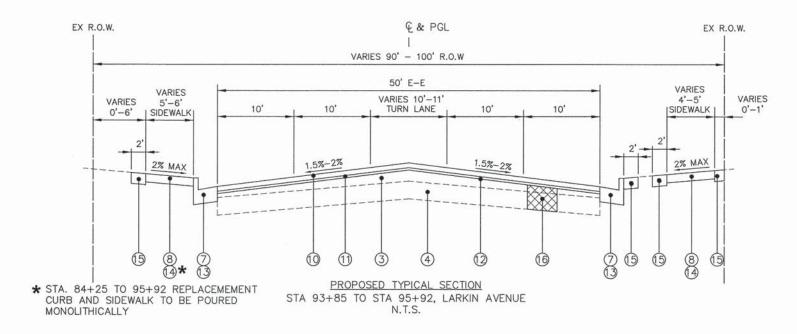
SECTION 15-00186-00-RS KANE 22 5 CONTRACT NO. 61B75

SHEET NO. 2 OF 3 SHEETS STA. 71+32

TO STA. 93+85



★ STA 84+25 TO STA 95+92



# LEGEND

- 1 EXISTING 15.5" 17.0" ASPHALT PAVEMENT
- (2) EXISTING 13.5" 15.5" ASPHALT PAVEMENT
- (3) EXISTING 5.0" ASPHALT PAVEMENT
- 4 EXISTING PORTLAND CEMENT CONCRETE BASE, 7" 8"
- 5 EXISTING 7.0" 8.5" AGGREGATE BASE
- (6) EXISTING 2.5" 3.0" AGGREGATE BASE
- (7) EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE VARIES B-6.12 TO B-6.24
- (8) EXISTING PORTLAND CEMENT CONCRETE SIDEWALK
- 9 HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH 0"-3"
- (10) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2.0"
- 11) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1.0"
- 12) BITUMINOUS MATERIALS (PRIME COAT)

TO STA. 95+92

- (13) COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AT VARIOUS LOCATIONS)
- (14) SIDEWALK REMOVAL AND PORTLAND CEMENT CONCRETE SIDEWALK, 5" (AT VARIOUS LOCATIONS)
- (15) TOPSOIL, FERTILIZER AND SOD (LOCATIONS AS DIRECTED BY THE
- 16 CLASS D PATCHES, 15 INCH (AT VARIOUS LOCATIONS)

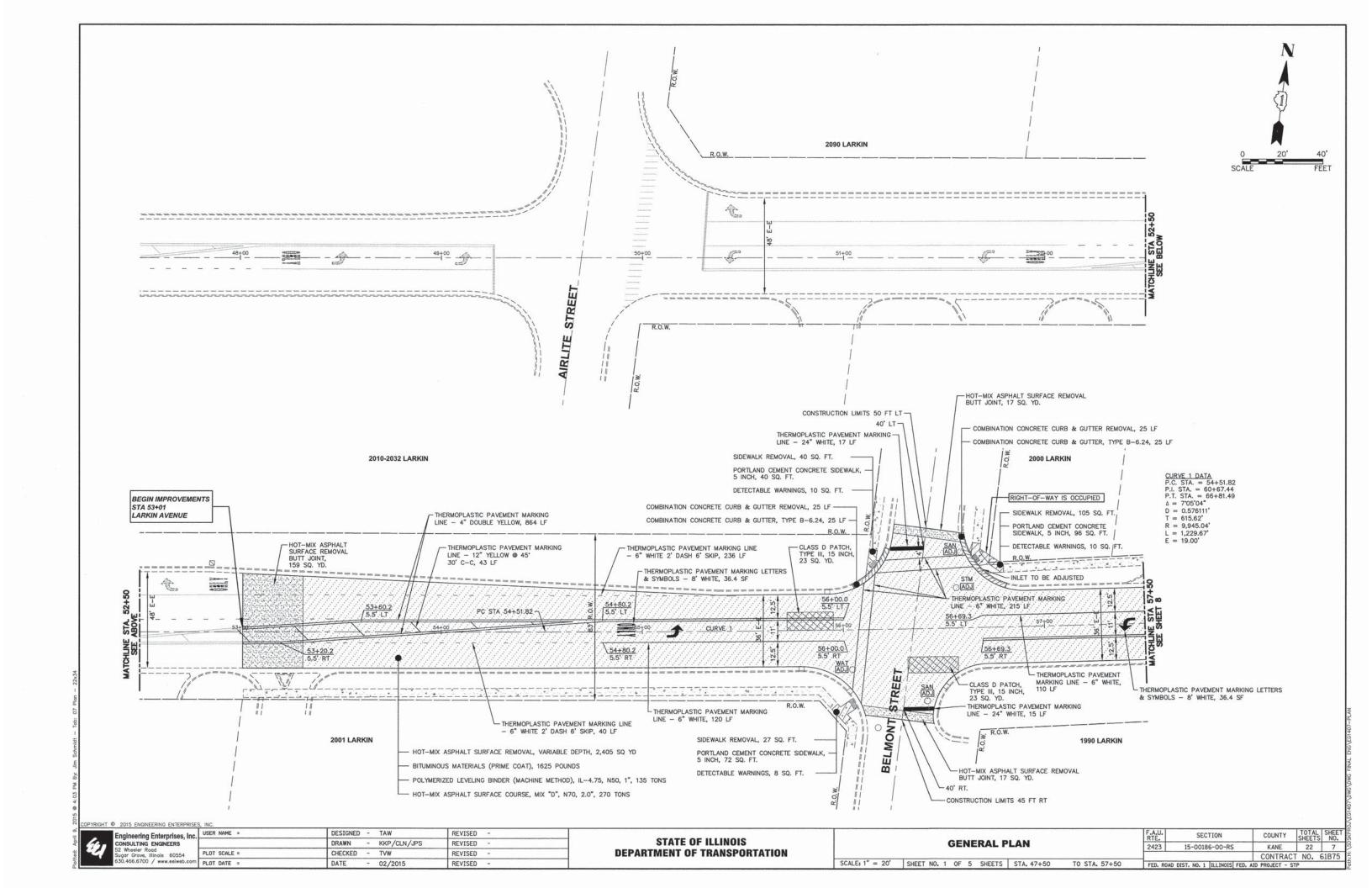
PYRIGHT © 2015 ENGINEERING ENTERPRISES, INC.

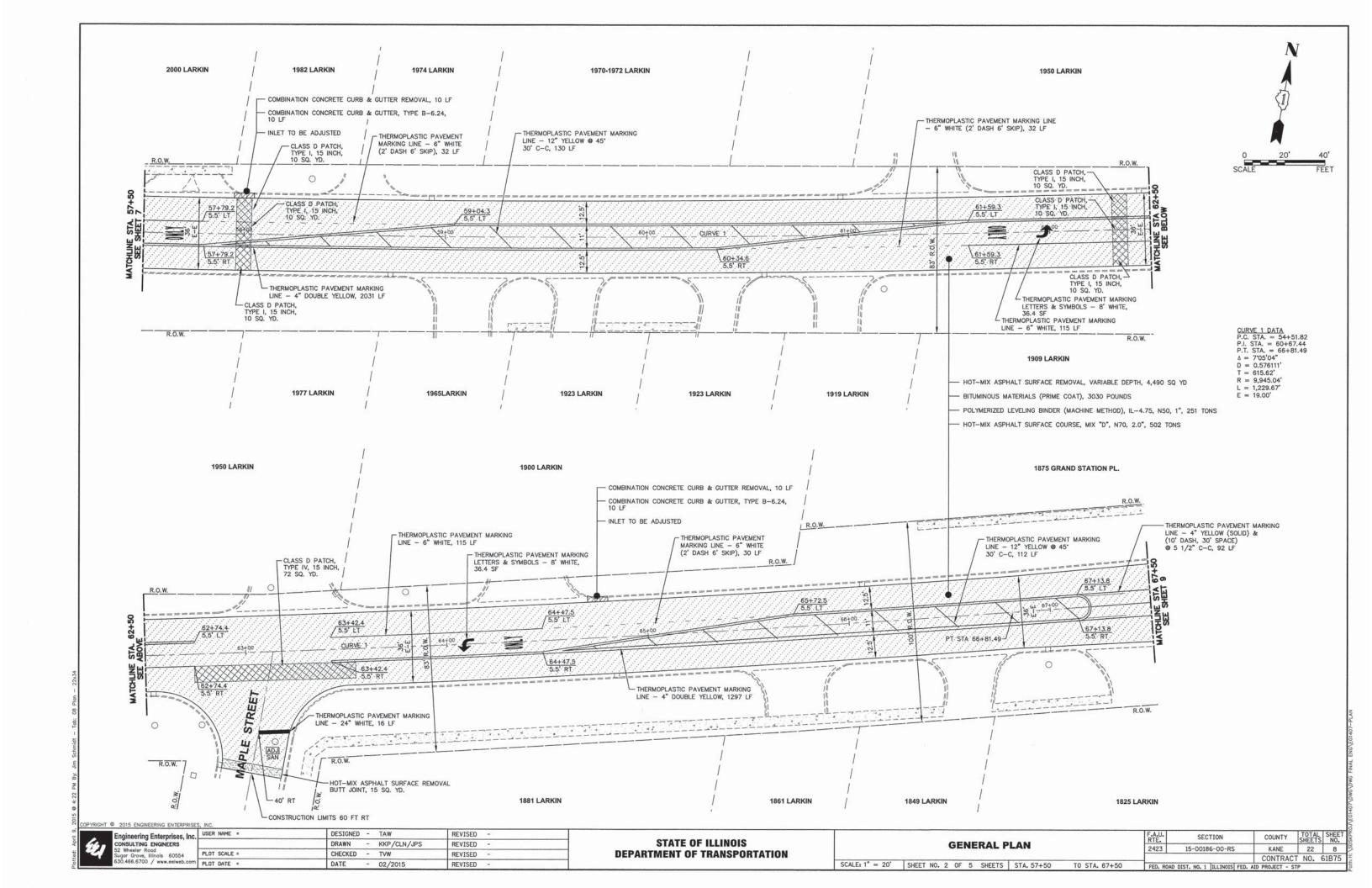
| Otti  | TOTO ENGINEERING ENTERPRISES  | 2, 1140-    |      |             |         |         |   |
|---|-------------------------------|-------------|------|-------------|---------|---------|---|
| Engineering Enterprises, Inc.<br>CONSULTING ENGINEERS<br>52 Wheeler Road<br>Sugar Grove, Illinois 60554 | USER NAME =                   | DESIGNED    | -    | TAW         | REVISED | -       |   |
|   |                               | DRAWN       | -    | KKP/CLN/JPS | REVISED |         |   |
|   | PLOT SCALE =                  | CHECKED     | -    | TVW         | REVISED | -       |   |
|   | 630.466.6700 / www.eelweb.com | PLOT DATE = | DATE | -           | 02/2015 | REVISED | - |

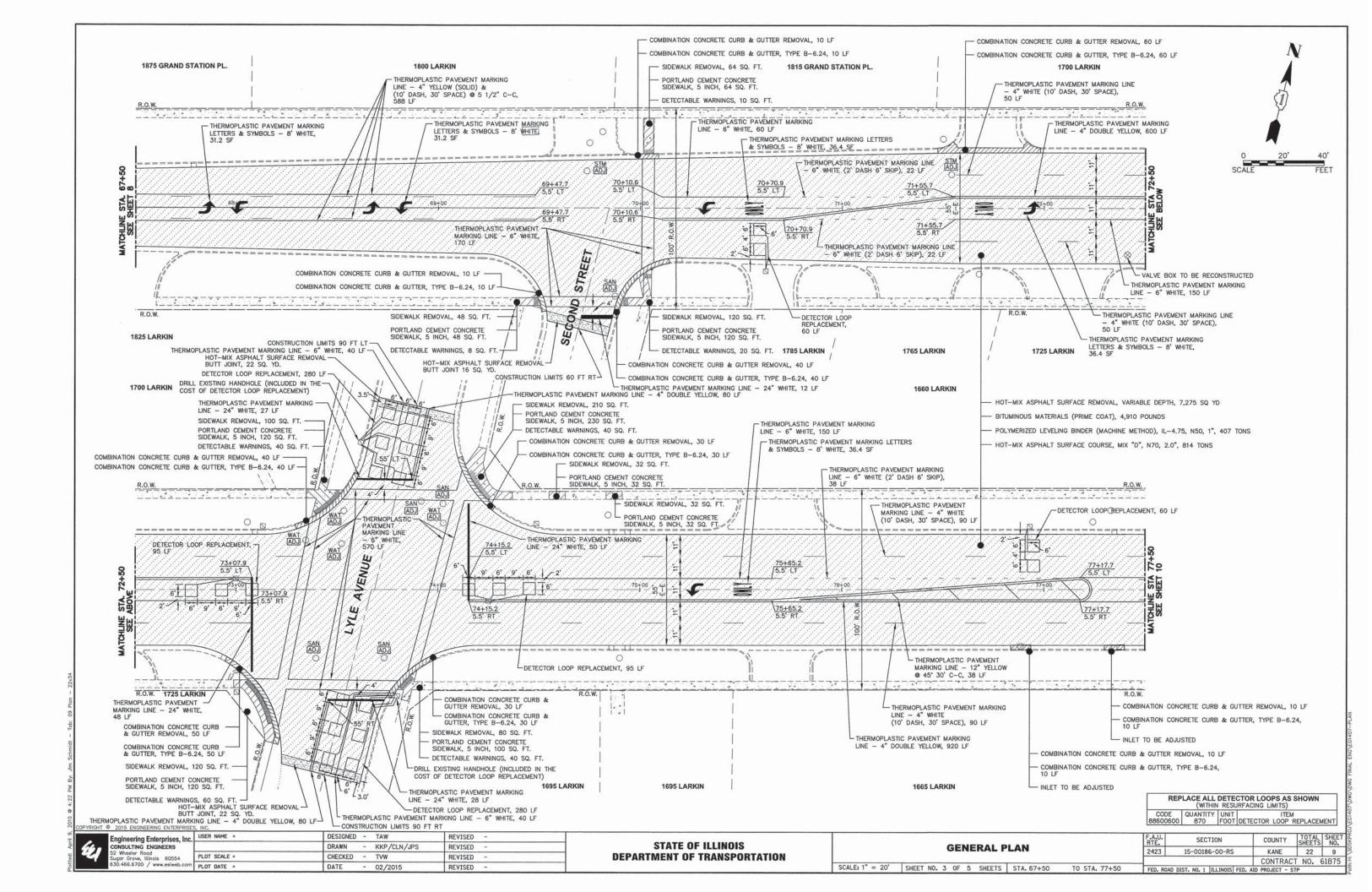
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

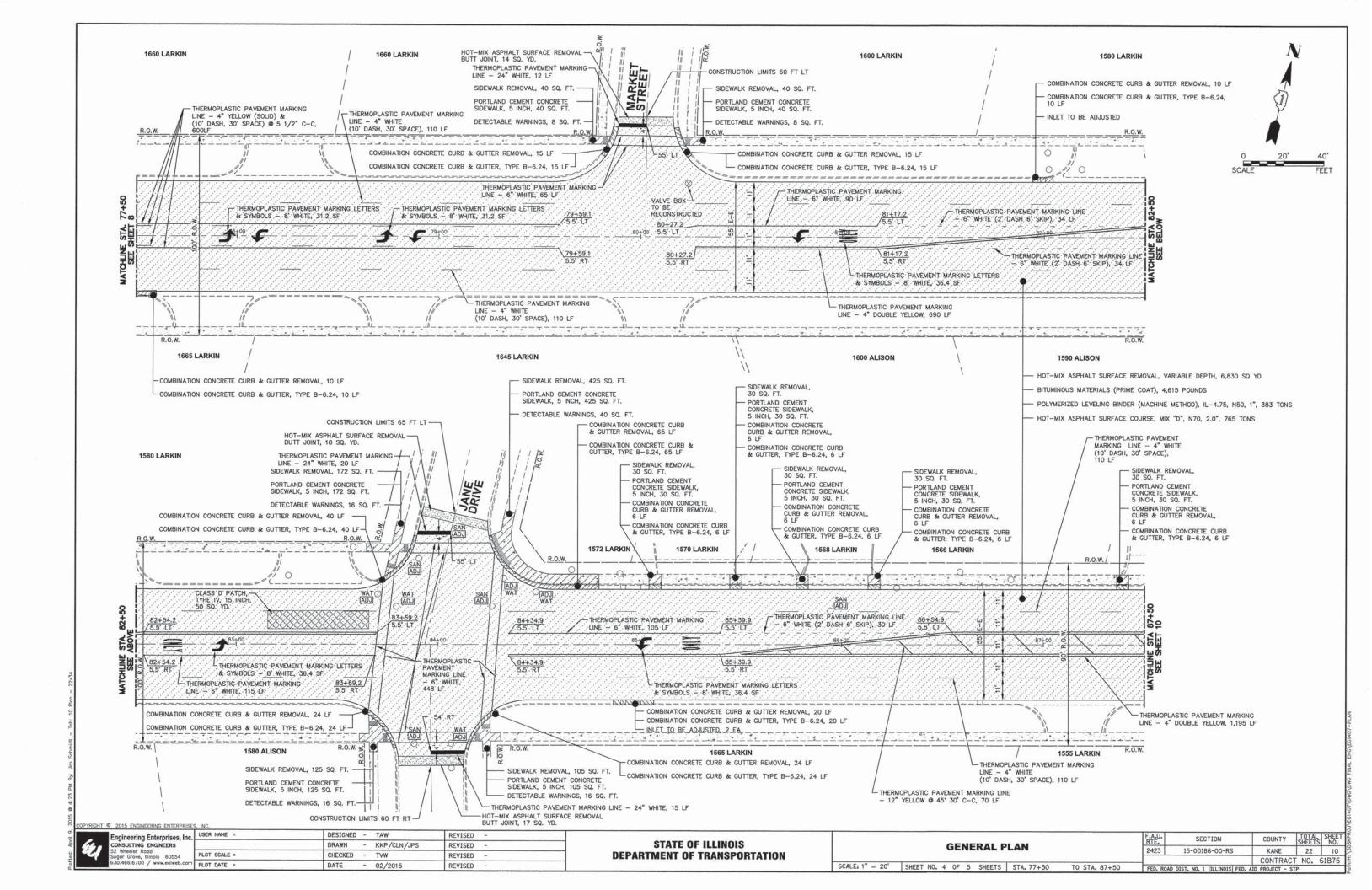
TYPICAL SECTIONS

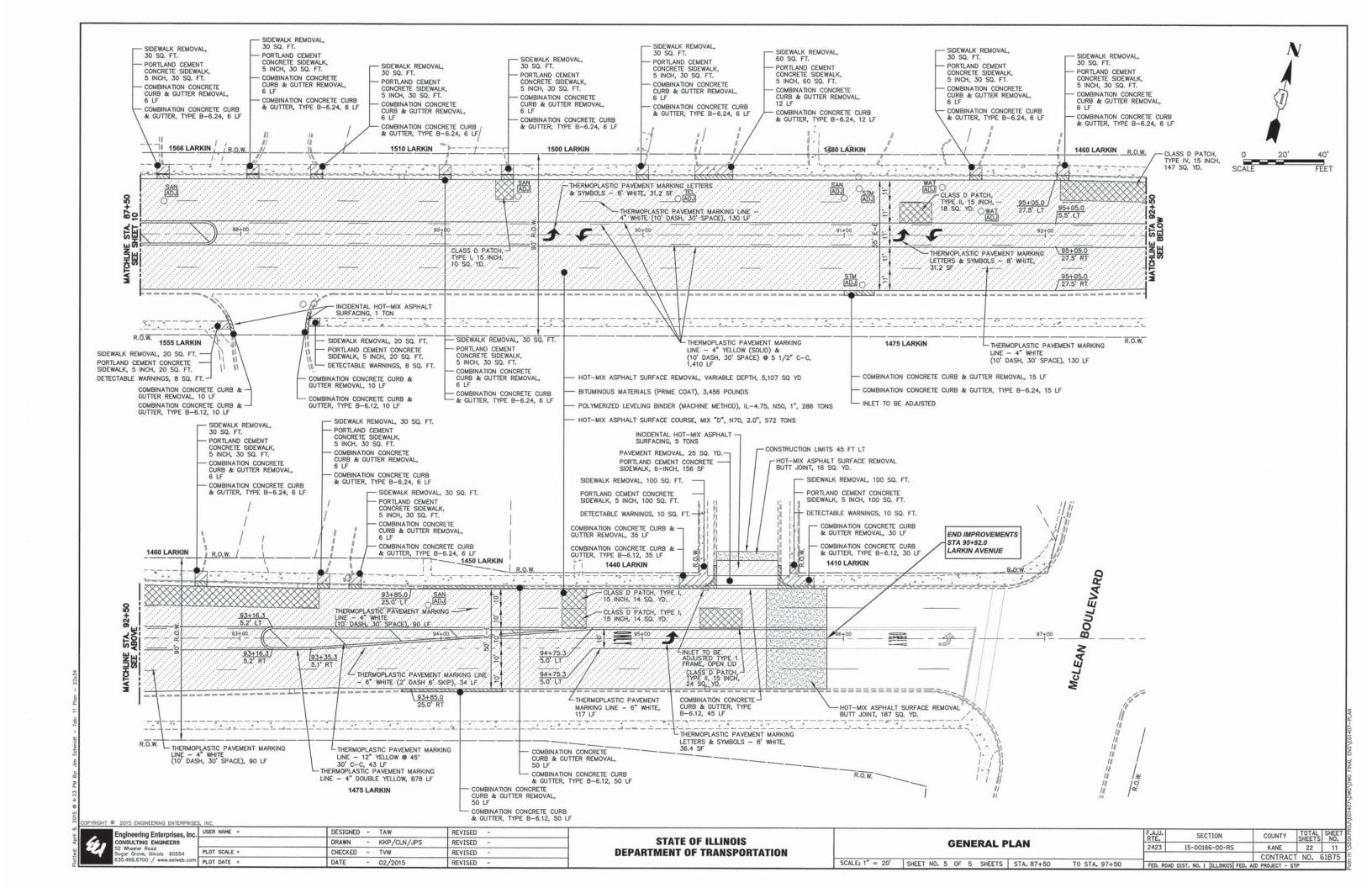
SCALE: N.T.S. | SHEET NO. 3 OF 3 SHEETS | STA. 93+85

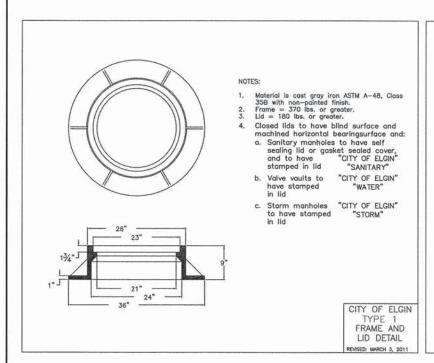


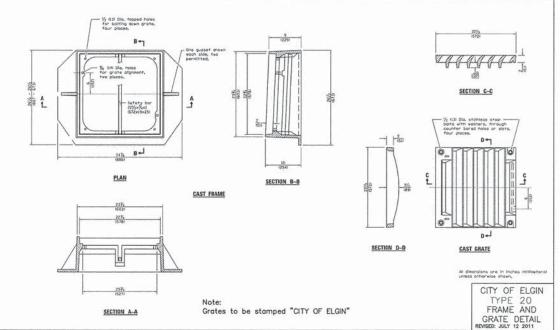


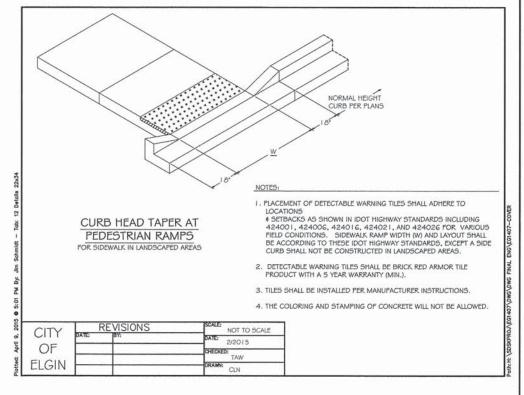


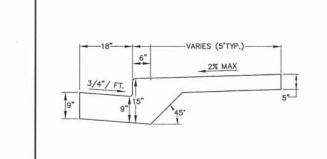












NOTE:

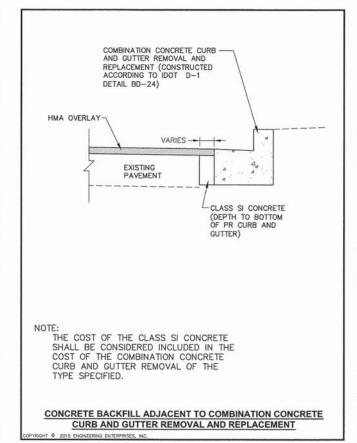
- FIELD CONDITIONS MAY REQUIRE THE HEIGHT OF THE CURB HEAD TO BE REDUCED AND/OR THE CROSS SLOPE OF THE WALK PORTION MAY REQUIRE REDUCTION.
- THIS DETAIL SHALL APPLY TO ALL LOCATIONS WHERE CURB LINE WALK EXISTS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- REMOVAL OF MONOLITHIC WALK SHALL BE PAID FOR AS COMBINATION CONCRETE CURB & GUTTER REMOVAL AND SIDEWALK REMOVAL.
- REPLACEMENT OF MONOLITHIC WALK SHALL BE PAID AS COMBINATION CONCRETE CURB & GUTTER AND PORTLAND CEMENT CONCRETE SIDEWALK OF THE TYPE AND THICKNESS SPECIFIED IN THE PLANS.

SHEET NO. 1 OF 1

## MONOLITHIC SIDEWALK DETAIL

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SCALE: N.T.S.

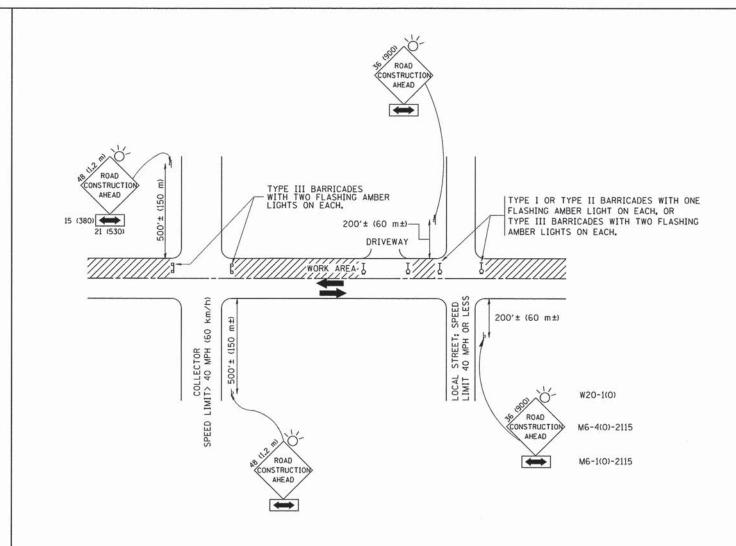


OPYRIGHT © 2015 ENGINEERING ENTERPRISES, INC.

| CONSULTING ENGINEERS | Engineering Enterprises, Inc.                  | USER NAME =  | DESIGNED | -           | TAW       | REVISED - |  |
|----------------------|--|--------------|----------|-------------|-----------|-----------|--|
|                      |  | DRAWN        | -        | KKP/CLN/JPS | REVISED - |           |  |
|                      | 52 Wheeler Road<br>Sugar Grove, Illinois 60554 | PLOT SCALE = | CHECKED  | -           | TVW       | REVISED - |  |
|                      | 630.466.6700 / www.eelweb.com                  | PLOT DATE =  | DATE     | -           | 02/2015   | REVISED - |  |

| STATE OF ILLINOIS                   |
|-------------------------------------|
| <b>DEPARTMENT OF TRANSPORTATION</b> |

| DETAILS |      | F.A.U.<br>RTE. | SECTION   | COUNTY                    | TOTAL           | SHEET<br>NO. |       |
|---------|------|----------------|-----------|---------------------------|-----------------|--------------|-------|
| DETA    | ILO  |                | 2423      | 15-00186-00-RS            | KANE            | 22           | 12    |
|         |      |                |           |                           | CONTRAC         | T NO. (      | 61B75 |
| SHEETS  | STA. | TO STA.        | FED. ROAD | DIST. NO. 1 ILLINOIS FED. | AID PROJECT - S | TP           |       |



# 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:
- O) 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:
- O) 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:

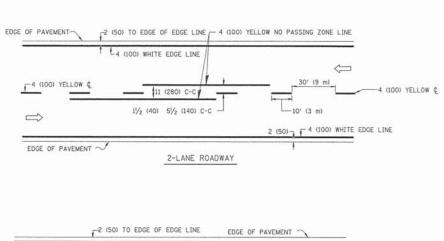
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER 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.

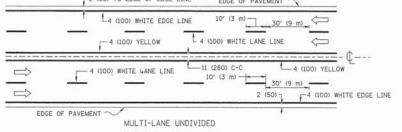
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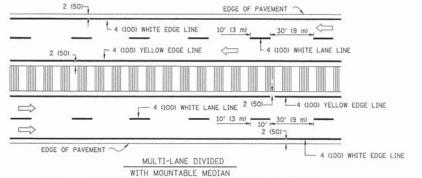
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

SHEET NO. 1 OF 1 SHEETS STA.

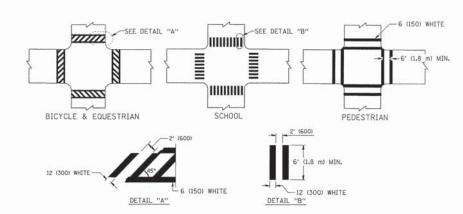




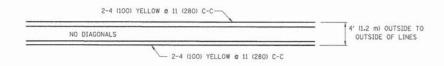


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

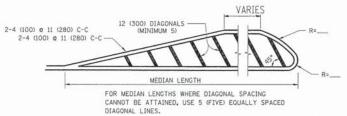
# TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

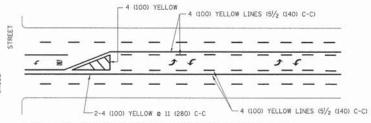


#### 4' (1.2 m) WIDE MEDIANS ONLY

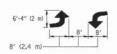


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

#### MEDIANS OVER 4' (1.2 m) WIDE

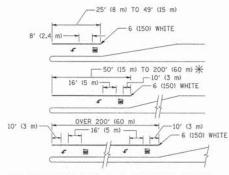


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING

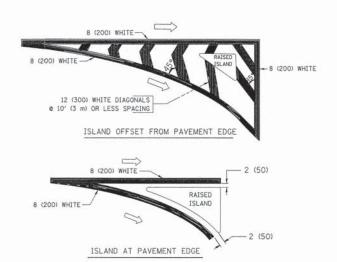


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m²)  $\P$  AREA = 20.8 SO. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

# TYPICAL TURN LANE MARKING



## TYPICAL ISLAND MARKING

| TYPE OF MARKING   | WIDTH OF LINE   | PATTERN                | COLOR   | SPACING / REMARKS  |
|---|---|------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT   | 4 (100)   | SKIP-DASH              | YELLOW  | 10' (3 m) LINE WITH 30' (9 m) SPACE  |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT   | 2 & 4 (100)   | SOLID                  | YELLOW  | 11 (280) C-C   |
| NO PASSING ZONE LINES:<br>FOR ONE DIRECTION<br>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<br>(EXTENSIONS OF CENTER, LANE OR<br>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<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. DIAGONALS (BIKE & EQUESTRIAN)<br>B. LONGITUDINAL BARS (SCHOOL) | 2 @ 6 (150)<br>12 (300) @ 45°<br>12 (300) @ 90°   | 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<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<br>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 SO. FT. (0.33 m²) EACH<br>"X"=54,0 SQ. FT. (5.0 m²)   |
| SHOULDER DIAGONALS  | 12 (300) @ 45°  | SOLID                  | WHITE - RIGHT<br>YELLOW - LEFT                          | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))<br>75' (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))                       |

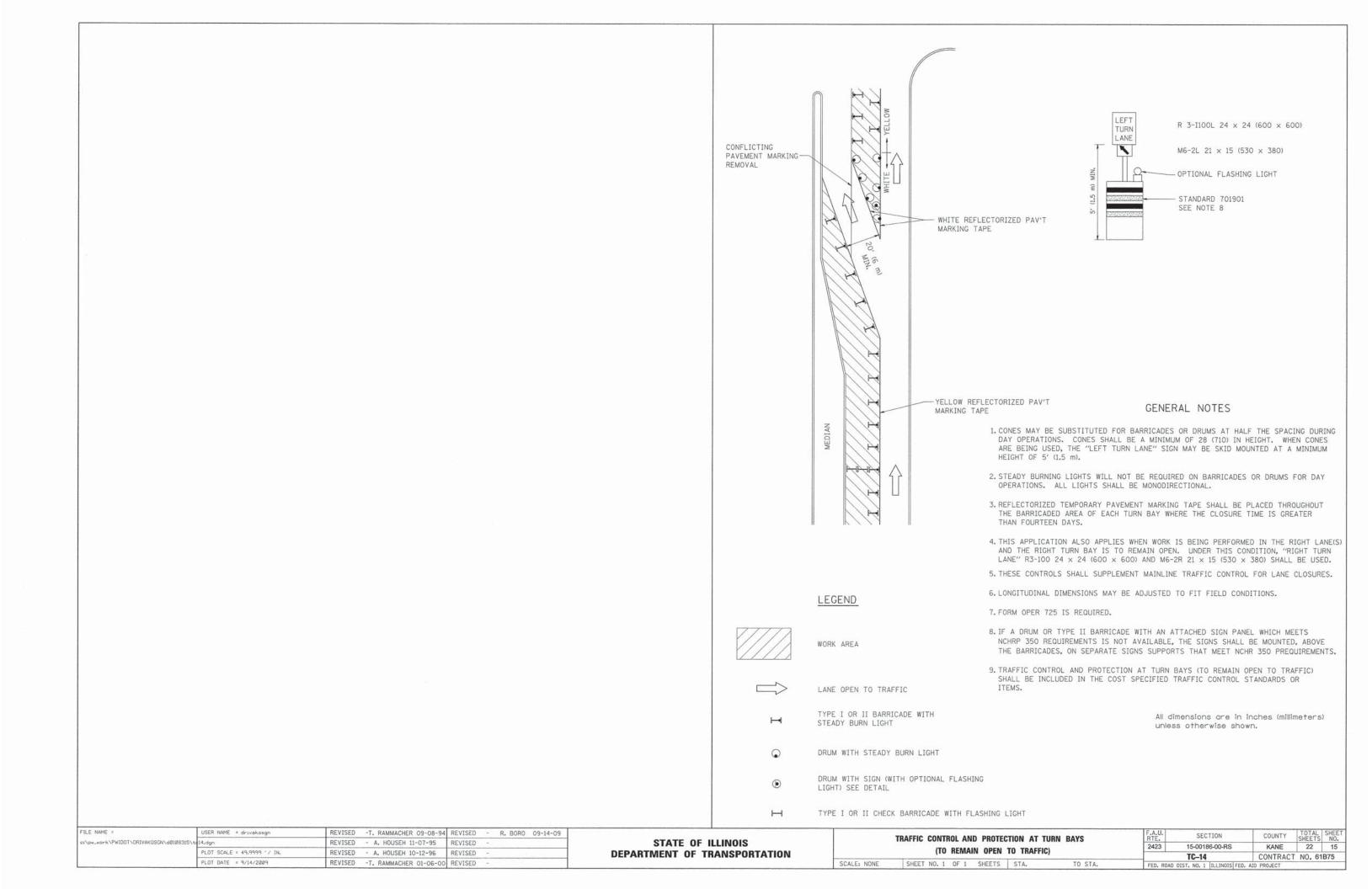
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

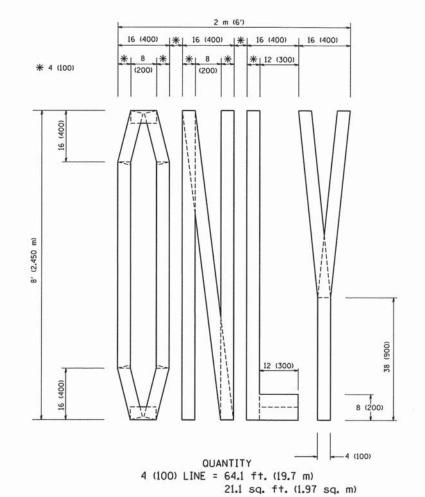
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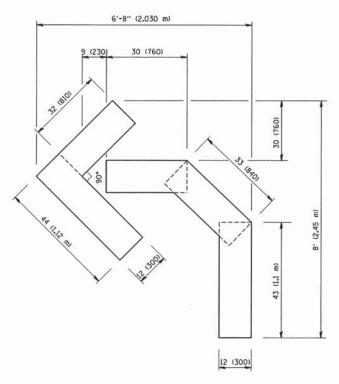
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|--|-----------------------------|------------------|---------|------------------------|
| c:\pw_work\pwidot\drivakosgn\d0108315\tc | 3.dgn                       | DRAWN -          | REVISED | -C. JUCIUS 09-09-09    |
|  | PLOT SCALE = 50.000 ' / IN. | CHECKED -        | REVISED | -                      |
|  | PLOT DATE = 9/9/2009        | DATE - 03-19-90  | REVISED | -                      |

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

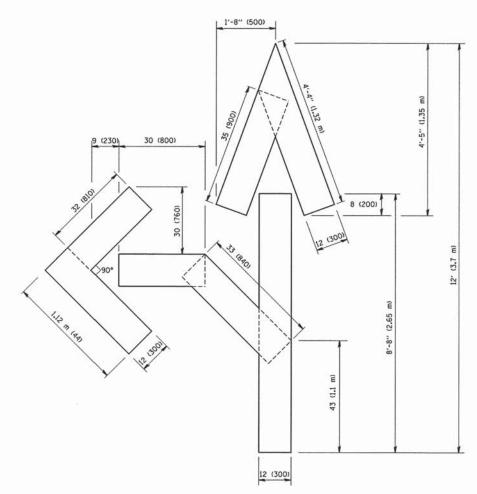
|             | DISTR               | ICT ONE       |         | F.A.U.<br>RTE. | SECTION                       | COUNTY      | TOTAL   | SHEET<br>NO. |
|-------------|---------------------|---------------|---------|----------------|-------------------------------|-------------|---------|--------------|
|             | TYPICAL PAVE        | MENT MARKINGS |         | 2423           | 15-00186-00-RS                | KANE        | 22      | 14           |
|             | TIFICAL PAVE        | WENT WANKINGS |         |                | TC-13                         | CONTRAC     | T NO. 6 | 1B75         |
| SCALE: NONE | SHEET NO. 1 OF 1 SH | EETS STA.     | TO STA. | FED. ROAD      | DIST. NO. 1   ILLINOIS   FED. | AID PROJECT |         |              |







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



OUANTITY 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.

COUNTY

CONTRACT NO. 61B75

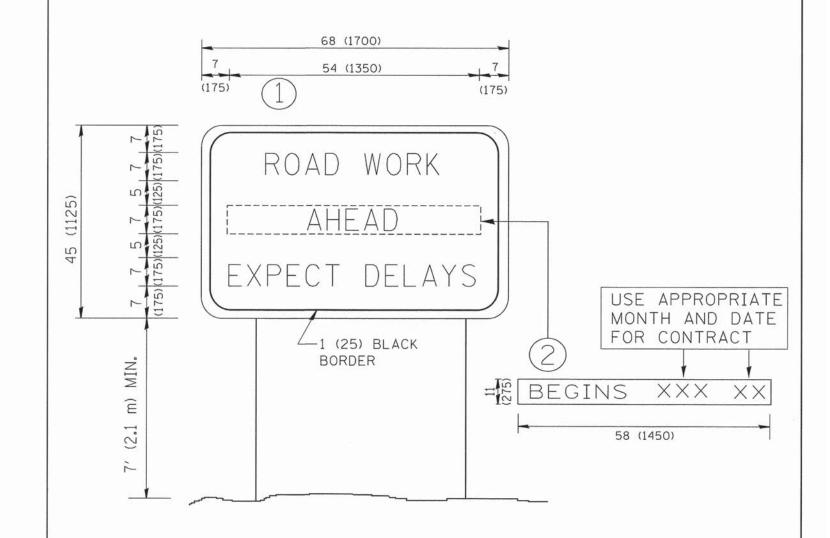
SECTION

15-00186-00-RS

TC-16 CONTRA

2423

FILE NAME = USER NAME = gaglianobt DESIGNED -REVISED -T. RAMMACHER 06-05-96 PAVEMENT MARKING LETTERS AND SYMBOLS Wi\diststd\22x34\tc16.dgn STATE OF ILLINOIS DRAWN -REVISED -T. RAMMACHER 11-04-97 FOR TRAFFIC STAGING PLOT SCALE = 50.0000 '/ IN. CHECKED -REVISED -T. RAMMACHER 03-02-98 **DEPARTMENT OF TRANSPORTATION** PLOT DATE = 1/4/2008 DATE - 09-18-94 REVISED -E. GOMEZ 08-28-00 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.



# NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.

SCALE: NONE

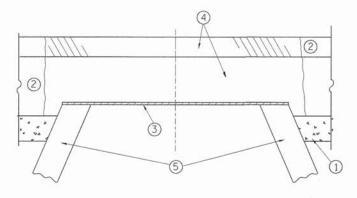
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL 2 SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR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

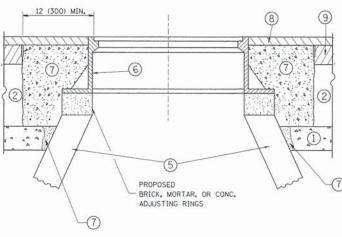
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| FILE NAME =               | USER NAME = gaglianobt      | DESIGNED - | REVISED - R. MIRS 09-15-97     |
|---------------------------|-----------------------------|------------|--------------------------------|
| W:\diststd\22x34\tc22.dgn |                             | DRAWN -    | REVISED - R. MIRS 12-11-97     |
|                           | PLOT SCALE = 50.000 ' / IN. | CHECKED -  | REVISED -T. RAMMACHER 02-02-99 |
|                           | PLOT DATE = 1/4/2008        | DATE -     | REVISED - C. JUCIUS 01-31-07   |

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

| ARTERIAL ROAD          |         |         |           | SECTION                   | COUNTY      |
|------------------------|---------|---------|-----------|---------------------------|-------------|
| INFORMATION SIGN       |         |         | 2423      | 15-00186-00-RS            | KANE        |
| INFORMAT               | UN SIGN |         |           | TC-22                     | CONTRAC     |
| SHEET NO. 1 OF 1 SHEET | S STA.  | TO STA. | FED. ROAD | DIST. NO. 1 ILLINOIS FED. | AID PROJECT |





#### NOTES

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENCINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

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.

SCALE: NONE

#### 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 PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

#### LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- (6) FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- 7 CLASS PP-1\* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX

  (5) EXISTING STRUCTURE
- (9) 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:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

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

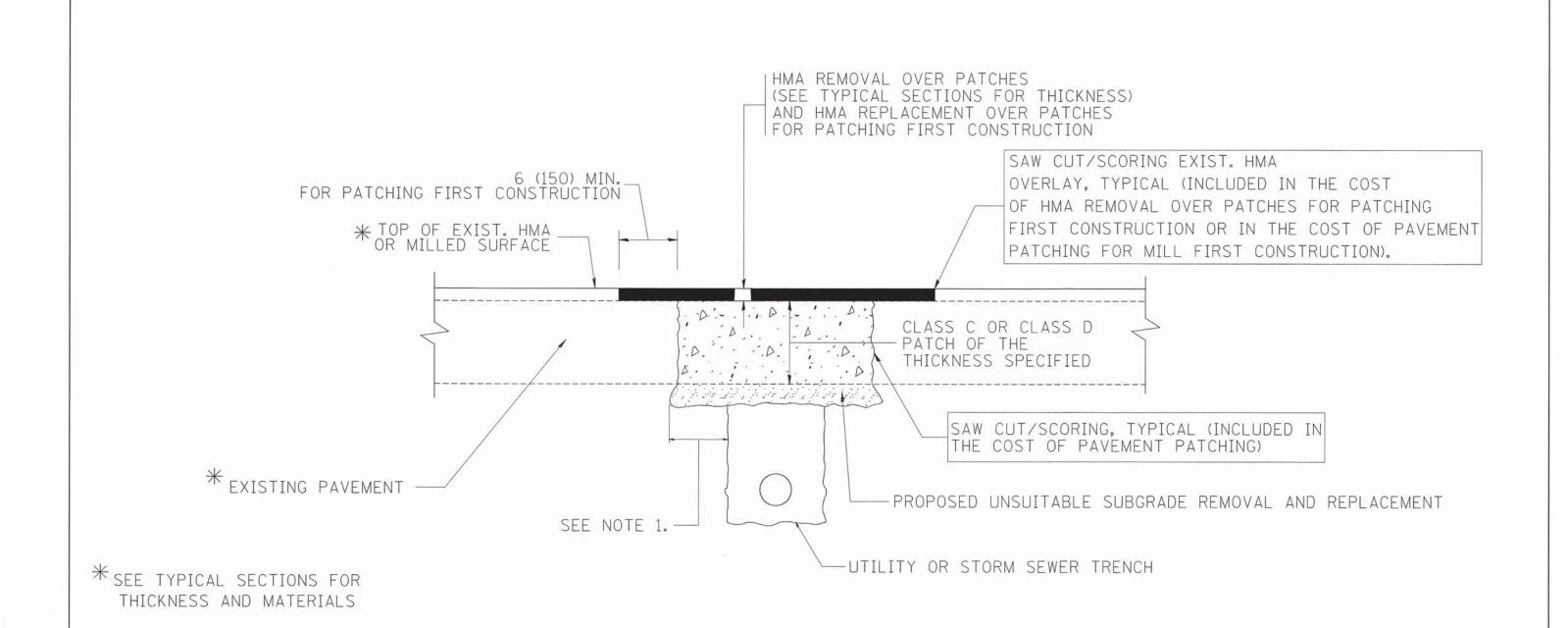
# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

| FILE NAME =                              | USER NAME = bauerdl         | DESIGNED - R. SHAH | REVISED - R. WIEDEMAN 05-14-04 |
|--|-----------------------------|--------------------|--------------------------------|
| c:\pw.work\pwidot\bauerdl\d0108315\bd08. | dgn                         | DRAWN -            | REVISED - R. BORO 01-01-07     |
|  | PLOT SCALE = 1968.5000 '/ m | CHECKED -          | REVISED - R. BORO 03-09-11     |
|  | PLOT DATE = 12/6/2011       | DATE - 10-25-94    | REVISED - R. BORO 12-06-11     |

| STATE      | : 01 | ILLINOIS       |
|------------|------|----------------|
| DEPARTMENT | 0F   | TRANSPORTATION |

|   | DETAILS FOR                             | F.A.U.<br>RTE. | SECTION                 | COUNTY        | TOTAL | SHEET<br>NO. |
|---|---|----------------|-------------------------|---------------|-------|--------------|
|   | FRAMES AND LIDS ADJUSTMENT WITH MILLING | 2423           | 15-00186-00-RS          | KANE          | 22    | 18           |
| _ | FRANCS AND LIDS ADJUSTMENT WITH MILLING | BI             | D600-03 (BD-8)          | CONTRACT      | NO. 6 | 1B75         |
|   | SHEFT NO. 1 OF 1 SHEETS STA. TO STA.    | EED DOAD       | DIST NO 1 THE THOSE SED | ALC: DRO JECT |       |              |



# 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)

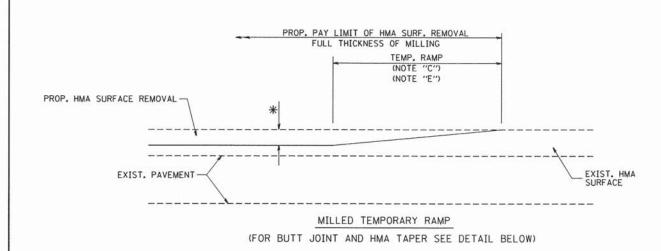
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

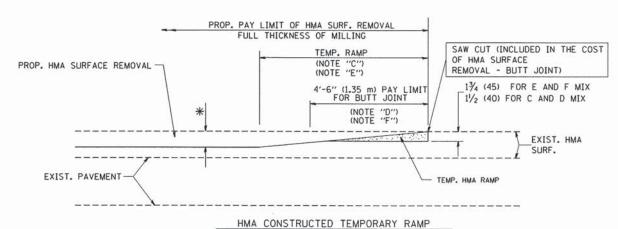
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

| FILE NAME =                       | USER NAME = bauerdl        | DESIGNED - R. SHAH | REVISED - A. ABBAS 04-27-98 |                              |             | DANIFACATE DATOURIO FOR      |         | F.A.U.  | SECTION                      | COUNTY  |              | SHEET |
|-----------------------------------|----------------------------|--------------------|-----------------------------|------------------------------|-------------|------------------------------|---------|---------|------------------------------|---------|--------------|-------|
| c:\projects\diststd22x34\bd22.dgn |                            | DRAWN -            | REVISED - R. BORO 01-01-07  | STATE OF ILLINOIS            |             | PAVEMENT PATCHING FOR        |         | 2423    | 15-00186-00-RS               | KANE    | SHEETS<br>22 |       |
|                                   | PLOT SCALE = 50.000 '/ IN. | CHECKED -          | REVISED - R. BORO 09-04-07  | DEPARTMENT OF TRANSPORTATION |             | HMA SURFACED PAVEMENT        |         |         | BD400-04 (BD-22)             | CONTRAC |              |       |
|                                   | PLOT DATE = 10/27/2008     | DATE - 10-25-94    | REVISED - K. ENG 10-27-08   |                              | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS STA. | TO STA. | FED. RO | AD DIST. NO. 1 ILLINOIS FED. |         | 1 102 011    | 3/3   |



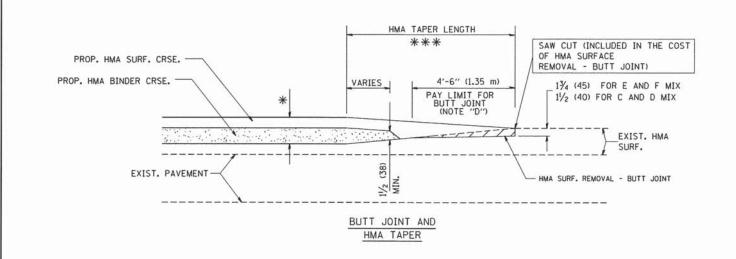
# OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 2

# TYPICAL TEMPORARY RAMP



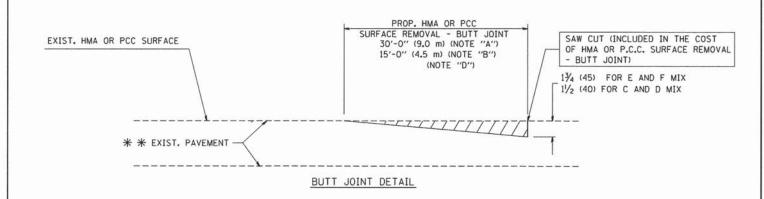
# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

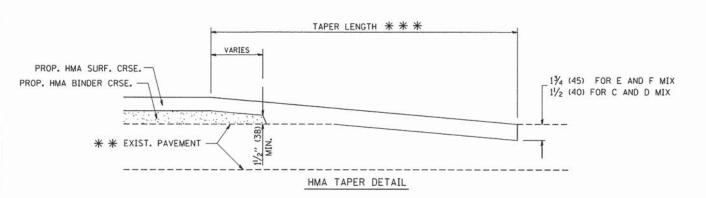
FILE NAME = USER NAME = gaglianobt DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94 W:\diststd\22x34\bd32.dgn DRAWN REVISED - A. ABBAS 03-21-97 CHECKED REVISED - M. GOMEZ 04-06-01 PLOT DATE = 1/4/2008 DATE - 06-13-90 REVISED - R. BORO 01-01-07

# STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

COUNTY TOTAL SHEETS NO.

KANE 22 20 SECTION **BUTT JOINT AND** 15-00186-00-RS HMA TAPER DETAILS BD400-05 BD32 CONTRACT NO. 61B75 SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT





# 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'-O" (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".

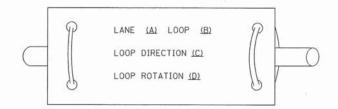
SCALE: NONE

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

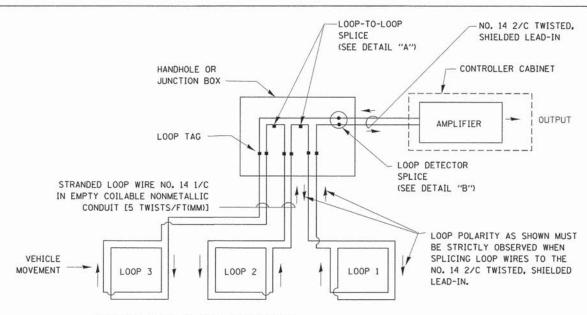
#### **LOOP DETECTOR NOTES**

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

## LOOP LEAD-IN CABLE TAG

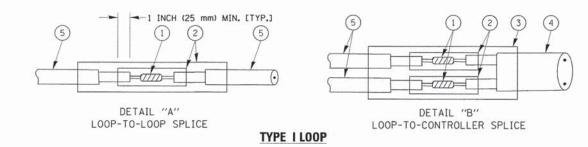


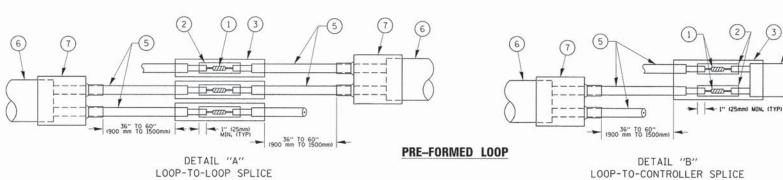
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



## **DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE,
   THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.





## LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

SCALE: NONE

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- (6) PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

TOTAL SHEE NO. 22 21

CONTRACT NO. 61B75

COUNTY

KANE

| FILE NAME =                              | USER NAME = footemj          | DESIGNED - | DAD      | REVISED - DAG 1-1-14 |
|--|------------------------------|------------|----------|----------------------|
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|  | PLOT SCALE = 50.0000 ' / in. | CHECKED -  | DAD      | REVISED -            |
|  | PLOT DATE = 1/13/2014        | DATE -     | 10-28-09 | REVISED -            |

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

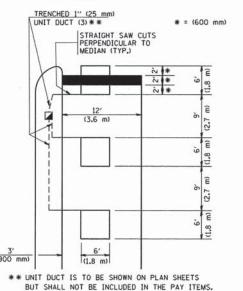
| DISTRICT ONE                     |          | F.A. SECTION |                        |     |
|----------------------------------|----------|--------------|------------------------|-----|
| STANDARD TRAFFIC SIGNAL DESIGN D | NETAIL C | 2423         | 15-00186-00-RS         |     |
| STANDARD TRAFFIC SIGNAL DESIGN L | TS-05    |              |                        |     |
| SHEET NO. 2 OF 7 SHEETS STA.     | TO STA   | FED DOAD     | DICT NO 1 DI INOIC FED | ATE |

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



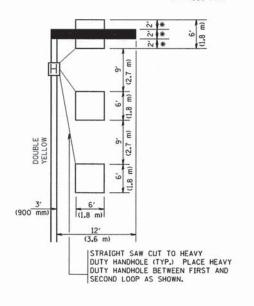
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

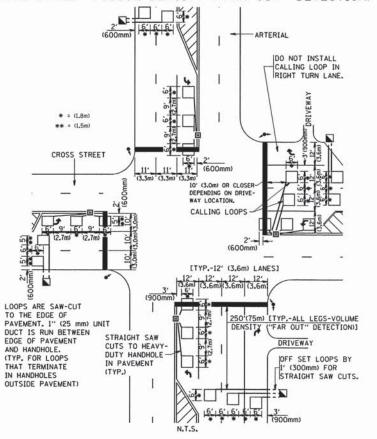
\* = (600 mm)

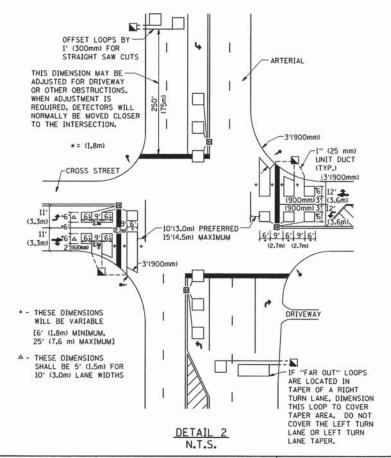


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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)





#### 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
  (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 DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON  $\underline{\mathsf{ALL}}$  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 =                       | USER NAME = gaglianobt       | DESIGNED -       | REVISED - |  |
|-----------------------------------|------------------------------|------------------|-----------|--|
| W:\distatd\22×34\ts07.dgn         |                              | DRAWN -          | REVISED - |  |
| TO SEE SOUTH STATE OF THE SEASON. | PLOT SCALE = 50.0000 ' / IN. | CHECKED - R.K.F. | REVISED - |  |
|                                   | PLOT DATE = 1/4/2008         | DATE -           | REVISED - |  |

N.T.S.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| DISTRICT 1 - DETECTOR LOOP INSTALLATION |       |     |    |     |     |        |           |         |  |
|---|-------|-----|----|-----|-----|--------|-----------|---------|--|
|   |       | DE  | TA | ILS | FOR | ROADW  | AY RESURE | ACING   |  |
|   | SHEET | NO. | 1  | OF  | 1   | SHEETS | STA.      | TO STA. |  |