# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID PROJECT LOCAL AGENCY PAVEMENT PRESERVATION (LAPP) THATCHER AVENUE (FAU 2753) CENTRAL AVENUE TO CHICAGO AVENUE

**SECTION NO. 09-00089-00-RS** 

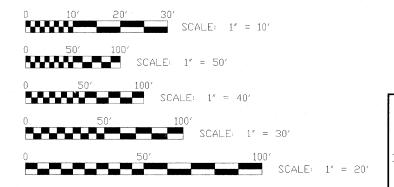
TRAFFIC DATA

2030 ADT = 6,800 POSTED SPEED LIMIT = 30 M.P.H. DESIGN SPEED = 30 M.P.H.

**DESIGN DESIGNATION** 

COLLECTOR

PROJECT LOCATED IN THE VILLAGE OF RIVER FOREST



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.

**OMISSION BEGINS** 

STATION 3+18 THATCHER AVENUE

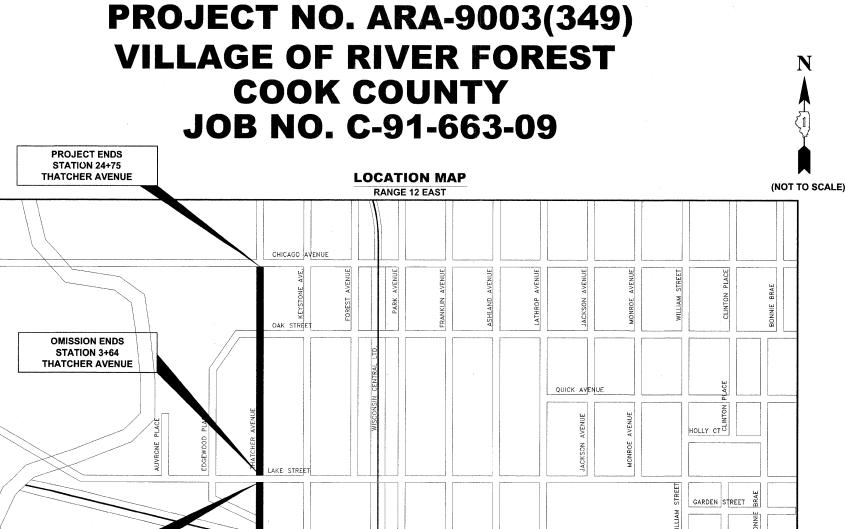
**PROJECT BEGINS** 

**THATCHER AVENUE** 



(now what's **DCIOW. Call** before you dig.

CONTRACT NO. 63215



- AREA OF IMPROVEMENT

NOT TO SCALE

GROSS LENGTH OF IMPROVEMENT = 2,475 FT. = 0.468 MI.

NET LENGTH OF IMPROVEMENT = 2,429 FT. = 0,460 MI.

TILLINIS PROJECT ARA-9003(\$49)

VILLAGE SECTION 09-00089-00-RS

CONTRACT NO. 63215

CO

STATE OF ILLINOIS
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED

OF OF OF OUR LICENSES VILLAGE OF RIVER FOREST

PASSED

DISTRICT! ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED
REVIEW

DEPUTY DIRECTOR OF HIGHWAYS, 20 C9

DEPUTY DIRECTOR OF HIGHWAYS, 90 REGION 1 ENGINEER

(PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS)

Dend Inuchel

5. TRE

62-048414
Registrared
PROFESSIONAL

DATE SIGNED: 40-703 - C9

LICENSE EXPIRES: 11-30-09

EDWIN HANCOCK ENGINEERING COMPANY 9933 ROOSEVELT ROAD PHONE: (708) 865-0300 WESTCHESTER, ILLINOIS 60154

# **INDEX OF SHEETS**

# SHEET NO. DESCRIPTION COVER SHEET, LOCATION MAP INDEX OF SHEETS AND I.D.O.T. STANDARD DRAWINGS **GENERAL NOTES SUMMARY OF QUANTITIES** EXISTING TYPICAL CROSS SECTIONS AND PROPOSED TYPICAL CROSS SECTIONS **DETAILS & NOTES** TRAFFIC SIGNAL DETECTOR LOOP REPLACEMENT PLAN DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD 08) CURB AND GUTTER REMOVAL AND REPLACEMENT (BD 24) BUTT JOINT AND HMA TAPER DETAILS (BD 32) 12 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC 10) DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC 13) 13 TRAFFIC CONTROL AND PROTECTIONS AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC 14) DISTRICT ONE - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS 07)

# I.D.O.T. STANDARD DRAWINGS

| STANDARD NO. | TITLE OR DESCRIPTION   |  |  |  |
|--------------|--|--|--|--|
| 000001-05    | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                       |  |  |  |
| 424001-05    | CURB RAMPS FOR SIDEWALKS   |  |  |  |
| 442101-07    | CLASS B PATCHES  |  |  |  |
| 604001-03    | FRAMES AND LIDS, TYPE 1  |  |  |  |
| 701501-05    | URBAN LANE CLOSURE, 2-LANE, 2-WAY, UNDIVIDED                       |  |  |  |
| 701606-06    | URBAN LANE CLOSURE, MULTILANE, 2-WAY, WITH MOUNTABLE MEDIAN        |  |  |  |
| 701701-06    | URBAN LANE CLOSURE, MULTILANE INTERSECTION                         |  |  |  |
| 701801-04    | LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK<br>OR SIDEWALK CLOSURE |  |  |  |
| 701901-01    | TRAFFIC CONTROL DEVICES  |  |  |  |
| 780001-02    | TYPICAL PAVEMENT MARKINGS  |  |  |  |

# **DISTRICT ONE DETAILS**

| BD 08 | DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING                         |
|-------|---|
| BD 24 | CURB AND GUTTER REMOVAL AND REPLACEMENT                                     |
| BD 32 | BUTT JOINT AND HMA TAPER DETAILS  |
| TC 10 | TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS |
| TC 13 | DISTRICT ONE TYPICAL PAVEMENT MARKINGS                                      |
| TC 14 | TRAFFIC CONTROL AND PROTECTIONS AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)    |
| TS 07 | DISTRICT ONE - DETECTOR LOOP INSTALLATION DETAIL<br>FOR ROADWAY RESURFACING |
|       |   |

### **UNDERGROUND UTILITIES**

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 811 FOR FIELD LOCATIONS OF BURIED ELECTRICAL, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION

THE LOCATIONS OF THE UNDERGROUND UTILITIES IF SHOWN ON THE PLANS HAVE BEEN OBTAINED BY FIELD SURVEYS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT DATA IS ESSENTIALLY CORRECT, BUT THE VILLAGE OF RIVER FOREST, THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND/OR OTHER OFFICES AND AGENCIES ASSOCIATED WITH THE DEVELOPMENT OF THESE PLANS DO NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR WILL BE REQUIRED TO VERIFY THE EXACT LOCATION OF EACH FACILITY WITH THE UTILITY COMPANY, AND SHALL TAKE DUE CARE IN ALL PHASES OF THE CONSTRUCTION TO PROTECT ANY SUCH FACILITIES WHICH MAY BE AFFECTED BY THE WORK ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF RIVER FOREST.

### FRAMES AND LIDS

THE TYPE OF FRAMES AND LIDS REQUIRED FOR ALL MANHOLES AND VALVE VAULTS LISTED IN THE SUMMARY OF QUANTITIES MAY BE FOUND ON THE PLANS AT THEIR RESPECTIVE LOCATIONS. WHERE LIDS ARE CALLED FOR ON THE PLANS, THEY SHALL BE IN ACCORDANCE WITH ARTICLE 604.04 OF THE STANDARD SPECIFICATIONS AND THE TERM LID IS USED IN LIEU OF GRATE. ALL LIDS ON SANITARY MANHOLES, COMBINED SEWER MANHOLES, AND VALVE VAULTS SHALL BE OF

ON ALL IMPROVEMENTS, THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES, AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF FOREST PARK AND BE SALVAGED. THESE ITEMS SHALL BE DELIVERED TO THE VILLAGE OF RIVER FOREST PUBLIC WORKS DEPARTMENT LOCATED AT 400 PARK AVENUE.

# MANHOLE OR VALVE COVERS

THE WORD "WATER", "SANITARY", OR "STORM" SHALL BE CAST INTO THE LID OF EACH RESPECTIVE MANHOLE OR VALVE VAULT.

## MAINTENANCE OF SEWER FLOWS

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAINTAIN AT ALL TIMES FLOW THROUGH EXISTING STORM AND SANITARY SEWER SYSTEMS, HE SHALL ALSO PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT IF NECESSARY AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER COLLECTED IN A SAFE MANNER WITHOUT DAMAGE OF ANY KIND TO ADJACENT PROPERTIES. THE ENDS OF EXISTING DRAINAGE LINES WHICH ARE NOT TO BE INCORPORATED INTO THE PROJECT ARE TO BE SEALED AS SPECIFIED IN THE SPECIAL PROVISIONS. EXISTING STRUCTURES ARE TO BE INSPECTED BEFORE CONSTRUCTION STARTS - ANY ACCUMULATION OF MATERIAL IN THE STRUCTURE DUE TO CONSTRUCTION OPERATIONS SHALL BE REMOVED BY THE CONTRACTOR AT HIS EXPENSE

# MAINTENANCE OF EXISTING DRAINAGE STRUCTURES

WHEN DURING THE CONSTRUCTION OPERATIONS. ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF ANY GUTTERS AND DRAINAGE STRUCTURE SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE FACILITIES SHALL BE CLEAN AND FREE OF ALL OBSTRUCTIONS DUE TO CONSTRUCTION OPERATIONS. THE COST OF THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

# **SAW CUTTING**

THE CONTRACTOR SHALL SAW CUT ASPHALT PAVEMENT AS INDICATED ON THE PLANS TO SEPARATE THE EXISTING PAVEMENT TO BE REMOVED BY APPROVED MEANS OR AN APPROVED CONCRETE SAW TO A DEPTH AS DIRECTED BY THE ENGINEER. SUITABLE GUIDELINES OR DEVICES SHALL BE USED TO ASSURE CUTTING A NEAT. STRAIGHT LINE AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN BY THE CONTRACTOR AS NOT TO DAMAGE THE REMAINING PAVEMENT DIRECTLY ADJACENT TO THE PAVEMENT TO BE REMOVED. ANY DAMAGE TO THE EXISTING PAVEMENT RESULTING FROM PAVEMENT REMOVAL OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE COST OF SAW CUTTING DESCRIBED ABOVE SHALL BE INCLUDED IN THE ITEM BEING REMOVED. SAW CUTS FOR PAVEMENT PATCHING WILL BE PAID FOR IN THE CONTRACT

# FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)

THIS ITEM ONLY PERTAINS TO STRUCTURES LOCATED IN THE CONCRETE OR HOT-MIX ASPHALT ROADWAY PAVEMENT AREAS THAT WILL REQUIRE CONCRETE OR HOT-MIX SURFACE REMOVAL. THE ENGINEER WILL MARK IN THE FIELD ALL STRUCTURES TO BE DONE UNDER THIS ITEM. SEE DETAIL SHEET FOR "FRAMES AND LIDS ADJUSTMENT WITH MILLING."

# **PRIME COAT**

PRIME COAT MUST BE INSTALLED NO EARLIER THAN TWENTY-FOUR (24) HOURS PRIOR TO PLACEMENT OF HOT-MIX ASPHALT. NOTIFICATION SHALL BE GIVEN TO THE ENGINEER 48

### FIELD OFFICE

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

### BARRICADES

THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED, ONE (1) WEIGHTED SANDBAG ACROSS EACH BOTTOM RAIL

### **BUTT JOINTS**

BUTT JOINT 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.

# MILLED PAVEMENT OPEN TO TRAFFIC

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)

# **HOT-MIX ASPHALT PAVING OPERATIONS**

THE HOT-MIX ASPHALT LEVELING BINDER SHALL BE PLACED IN TWO (2) PASSES, WITH A COLD JOINT LOCATED WITHIN THREE INCHES (3") OF THE EXISTING CROWN OF THE PAVEMENT. THE CONTRACTOR WILL BE REQUIRED TO SCHEDULE HIS OPERATIONS SO THAT NO SECTIONS OF PAVEMENT ALONG THE CROWN WILL HAVE A COLD JOINT OVERNIGHT

THE HOT-MIX ASPHALT SURFACE COURSE SHALL BE PLACED IN TWO (2) PASSES WITH A COLD JOINT LOCATED AT THE EXISTING CROWN OF THE PAVEMENT. THE CONTRACTOR WILL BE REQUIRED TO SCHEDULE HIS OPERATIONS SO THAT NO SECTIONS OF PAVEMENT ALONG THE CROWN WILL HAVE A COLD JOINT OVERNIGHT.

# **PAVEMENT PATCHING**

LOCATIONS OF PATCHES WILL BE DETERMINED IN FIELD BY ENGINEER.

DESIGNED CH REVISED DRAWN MK CHECKED REVISED СН Plane: 709/365-0300 Fax: 709/365-0212 PLOT DATE DATE 4-21-09 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **GENERAL NOTES** 

SHEET NO. OF

SECTION COUNTY 2753 09-00089-00-RS COOK 15 3 CONTRACT NO. 63215 FED ROAD DIST NO 1 ILLINOIS FED. AID PROJECT ARA-9003(349)

E.H.E. PROJECT NO. 740-09-07501

|            |          | SUMMARY OF QUANTITIES                                      | :     |                           |                                  |
|------------|----------|--|-------|---------------------------|----------------------------------|
|            | CODE     | PAY ITEM DESCRIPTION                                       | UNIT  | 1000<br>TOTAL<br>QUANTITY | 1000<br>100% FEDERAL<br>0% LOCAL |
|            | 21101615 | TOPSOIL FURNISH AND PLACE, 4"                              | SQYD  | 70                        | 70                               |
| ,          | 25200110 | SODDING, SALT TOLERANT                                     | SQYD  | 70                        | 70                               |
|            | 25200200 | SUPPLEMENTAL WATERING                                      | UNIT  | 50                        | 50                               |
|            | 40600100 | BITUMINOUS MATERIALS (PRIME COAT)                          | GAL   | 1,200                     | 1,200                            |
|            | 40600300 | AGGREGATE (PRIME COAT)                                     | TON   | 25                        | 25                               |
|            | 40600895 | CONSTRUCTING TEST STRIP                                    | EACH  | 2                         | 3                                |
|            | 40600982 | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT               | SQYD  | -<br>85                   | 85                               |
|            | 40603335 | HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50                 | TON   | 1,400                     | 1,400                            |
|            | 42400200 | PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH                  | SQFT  | 50                        | 50                               |
| <b>a</b>   | 42400800 | DETECTABLE WARNINGS  | SQFT  | 15                        | 15                               |
| ٥          | 44000160 | HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"                    | SQYD  | 11,700                    | 11,700                           |
| 0          | 44000600 | SIDEWALK REMOVAL   | SQFT  | 50                        | 50                               |
| 0          | 44001700 | COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND           | FOOT  | 200                       | 200                              |
|            |          | REPLACEMENT  |       |                           |                                  |
| 0          | 44201765 | CLASS D PATCHES, TYPE II, 10 INCH                          | SQYD  | 300                       | 300                              |
| 0          | 44201771 | CLASS D PATCHES, TYPE IV, 10 INCH                          | SQYD  | 300                       | 300                              |
| 0          | 60257900 | MANHOLES TO BE RECONSTRUCTED                               | EACH  | 4                         | 4                                |
| İ          | 60300305 | FRAMES AND LIDS TO BE ADJUSTED                             | EACH  | 8                         | 8                                |
| 0          | 60300310 | FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)                   | EACH  | 19                        | 19                               |
| 0          | 60406000 | FRAMES AND LIDS, TYPE 1, OPEN LID                          | EACH  | 5                         | 5                                |
| 0          | 60406100 | FRAMES AND LIDS, TYPE 1, CLOSED LID                        | EACH  | 5                         | 5                                |
|            | 67100100 | MOBILIZATION   | LSUM  | 1                         | 1                                |
| 0          | 70101700 | TRAFFIC CONTROL AND PROTECTION                             | L SUM | 1                         | 1                                |
| 0          | 70300100 | SHORT TERM PAVEMENT MARKING                                | FOOT  | 500                       | 500                              |
| $\star$    | 78000100 | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS       | SQFT  | 110                       | 110                              |
| *          | 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                   | FOOT  | 4,500                     | 4,500                            |
| *          | 78000400 | THERMOPLASTIC PAVEMENT MARKING - LINE 6"                   | FOOT  | 825                       | 825                              |
| *          | 78000650 | THERMOPLASTIC PAVEMENT MARKING - LINE 24"                  | FOOT  | 80                        | 80                               |
| <u>د</u> ا | 88600600 | DETECTOR LOOP REPLACEMENT                                  | FOOT  | 200                       | 200                              |
| 0          | X4067107 | POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50 | TON   | 700                       | 700                              |
|            |          | (  |       |                           |                                  |

- ⋆ DENOTES SPECIALTY ITEM
- DENOTES SPECIAL PROVISION HAS BEEN PROVIDED

|                         | -<br>-                       |
|-------------------------|------------------------------|
| ◆ Civil Engineers       | 98<br>Westchaster, I         |
| ◆ Municipal Consultants | Ph.                          |
|                         | ENGINEERING  Civil Engineers |

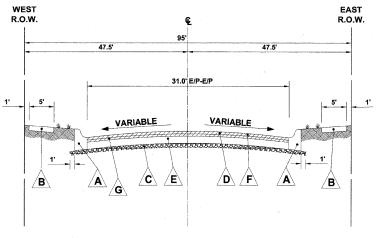
DESIGNED CH DRAWN MK REVISED 983 Roservell Road er, Illinois 6954-2780 PLOT SCALE Phone: 766565-0380 Fax: 766565-1212 PLOT DATE CHECKED CH REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  SUMMARY OF QUANTITIES

SECTION F.A.U. RTE. 2753 

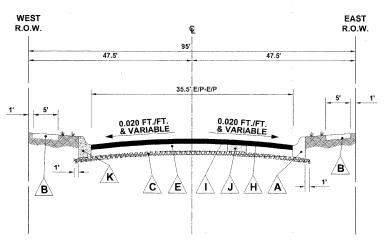
# EXISTING TYPICAL CROSS SECTION THATCHER AVENUE

(STATION 0+00 TO STATION 1+15)



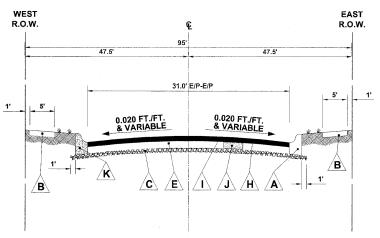
# EXISTING TYPICAL CROSS SECTION THATCHER AVENUE

(STATION 1+15 TO STATION 23+10)



# PROPOSED TYPICAL CROSS SECTION THATCHER AVENUE

(STATION 0+00 TO STATION 1+15)



# PROPOSED TYPICAL CROSS SECTION

**THATCHER AVENUE** 

(STATION 1+15 TO STATION 23+10)

# LEGEND OF SYMBOLS

| SYMBOL     | DESCRIPTION   |
|------------|---|
| 1 <u>A</u> | EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12                          |
| <b>B</b>   | EXISTING PORTLAND CEMENT CONCRETE SIDEWALK  |
| Ć          | EXISTING SUB-BASE GRANULAR MATERIAL, 4" AND VARIABLE                              |
| D          | EXISTING HOT-MIX ASPHALT SURFACE COURSE, 2"                                       |
| E          | EXISTING CONCRETE BASE COURSE   |
| F          | PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 34"                                   |
| G          | EXISTING HOT-MIX ASPHALT BINDER COURSE, 1" & VARIABLE                             |
| <u>/H</u>  | PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 1" $$        |
| <u> </u>   | PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 2"                           |
| Ĵ          | PROPOSED CLASS D PATCHES, 10"   |
| K          | PROPOSED INTERMITTENT COMBINATION CONCRETE CURB<br>& GUTTER REMOVAL & REPLACEMENT |
|            |   |

NOTE: PATCHING TO BE DONE AFTER PAVEMENT IS MILLED

# **HOT-MIX ASPHALT (HMA) MIXTURE REQUIREMENTS**

| ITEM  | A C TYPE               | VOIDS        |
|---|------------------------|--------------|
| HOT-MIX ASPHALT<br>SURFACE COURSE,<br>MIX D, N50, (IL - 9.5 mm) | PG 64 -22              | 4% @ 50 GYR. |
| POLYMERIZED LEVELING BINDER<br>(MACHINE METHOD), IL 4.75, N50   | SBS/SBR PG 76 -28/ -22 | 4% @ 50 GYR. |
| CLASS D PATCHES (HMA BINDER,<br>IL - 19 mm), 10"                | PG 64 - 22 *           | 4% @ 70 GYR. |

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE IS 112 LBS/SQYD/IN.

\*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58.

THANCOCK
ENGINEERING

◆ Civil Engineers

◆ Municipal Consultants

◆ Stablished 1911

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

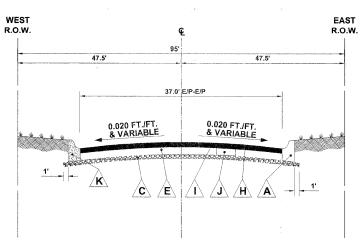
EXISTING AND PROPOSED TYPICAL CROSS SECTIONS

SCALE: NONE

PROJECT NO. 740-09-07501

# EXISTING TYPICAL CROSS SECTION THATCHER AVENUE

(STATION 23+10 TO STATION 24+75)



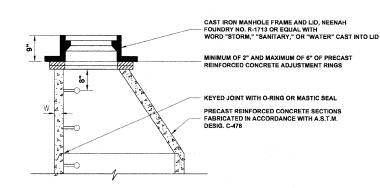
# PROPOSED TYPICAL CROSS SECTION THATCHER AVENUE

(STATION 23+10 TO STATION 24+75)

# **LEGEND OF SYMBOLS**

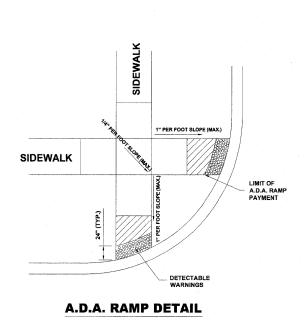
| SYMBOL                   | DESCRIPTION   |
|--------------------------|---|
| A                        | EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12                          |
| B                        | EXISTING PORTLAND CEMENT CONCRETE SIDEWALK  |
| <b>c</b>                 | EXISTING SUB-BASE GRANULAR MATERIAL, 4" AND VARIABLE                              |
| D                        | EXISTING HOT-MIX ASPHALT SURFACE COURSE, 2"                                       |
| E                        | EXISTING CONCRETE BASE COURSE   |
| F                        | PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 $^3_4$ "                              |
| G                        | EXISTING HOT-MIX ASPHALT BINDER COURSE, 1" & VARIABLE                             |
| H                        | PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 1" $$        |
| <u> </u>                 | PROPOSED HOT-MIX ASPHALT SURFACE COURSE,<br>MIX D, N50, 2"                        |
| <u>\( \) \( \) \( \)</u> | PROPOSED CLASS D PATCHES, 10"   |
| K                        | PROPOSED INTERMITTENT COMBINATION CONCRETE CURB<br>& GUTTER REMOVAL & REPLACEMENT |

SCALE: NONE

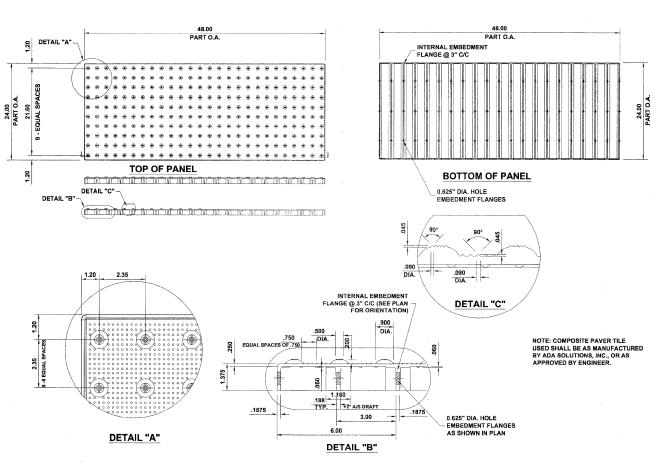


HMA SURFACE COURSE (2") VARIABLE 3" TO 8" (TO BE DETERMINED BY THE 3/4" PER FOOT SLOPE ENGINEER IN THE FIELD) CURB AT DRIVEWAYS, I" FOR DEPRESSED CURB AT ADA RAMPS 2" CRUSHED STONE BEDDING LEVELING BINDER (1") AT LOCATIONS WHERE CURB REPLACEMENT IS LESS THAN 25', A CONCRETE WEDGE SHALL NOT BE INSTALLED. CONCRETE BASE COURSE AT LOCATIONS WHERE CURB REPLACEMENT EXCEEDS 25', A 6" WIDE CONCRETE FULL DEPTH SAW CUT WEDGE SHALL BE INSTALLED AFTER CURB HAS BEEN POURED AND SHALL BE INCLUDED IN THIS ITEM. PRIOR TO REMOVAL

# COMBINATION CONCRETE CURB & GUTTER TYPE B-6.12 (MODIFIED)



STRUCTURE RECONSTRUCTION DETAIL



# CAST-IN-PLACE COMPOSITE PAVER TILE FOR DETECTABLE WARNING

SCALE: NONE

| TTANCOCK  | USER NAME  | DESIGNED | СН      | REVISED |  |
|---|------------|----------|---------|---------|--|
| I ENGINEERING   |            | DRAWN    | MK      | RÉVISED |  |
| ◆ Civil Engineers 9933 Rosewill Road Westhester, Ellent 601-2700  ◆ Municipal Consultants Proce: 706.985-6700 | PLOT SCALE | CHECKED  | СН      | REVISED |  |
| ♦ Established 1911 Fuz: 700/885-1212  | PLOT DATE  | DATE     | 4-21-09 | REVISED |  |

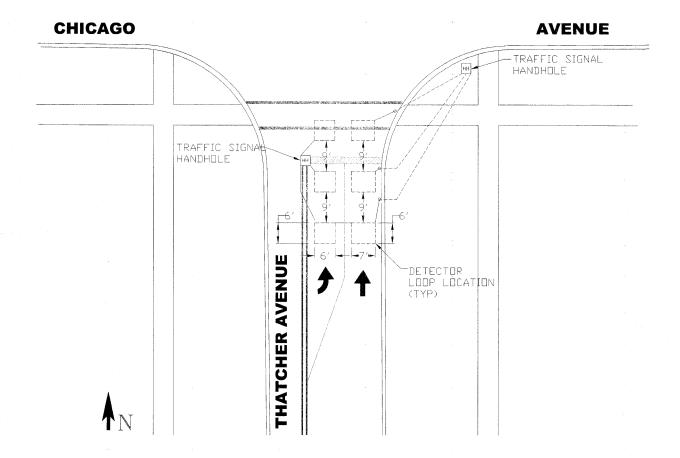
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

| DETAILS AND NOTES |    |      | F.A.U.<br>RTE. | SECTION | COUNTY  | TOTAL<br>SHEETS | SHEET<br>NO.                     |                |           |      |
|-------------------|----|------|----------------|---------|---------|-----------------|----------------------------------|----------------|-----------|------|
|                   | DE | IAIL | S AND I        | MOIES   |         | 2753            | 09-00089-00-RS                   | COOK           | 15        | 7    |
|                   |    |      |                |         |         |                 |                                  | CONTRACT       | NO. 6     | 3215 |
| ET N              | 0. | OF   | SHEETS         | STA.    | TO STA. | FED. F          | ROAD DIST. NO. 1 ILLINOIS FED. A | AID PROJECT AR | A-9003(34 | 19)  |

# E.H.E. PROJECT NO. 740-09-07501

# M.W.R.D.G.C. GENERAL NOTES

- 1. THE MWRD SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK AT (708) 588-4055.
- 2. ELEVATION DATUM IS U.S.G.S.
- 3. ALL FLOOR DRAINS SHALL DISCAHARGE TO THE SANITARY SEWER SYSTEM.
- 4. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE INTO THE STORM SEWER SYSTEM
- 5. ALL PVC SEWER PIPE SHALL BE SDR 26. ALL PVC SEWER PIPE JOINTS SHALL CONFORM TO ASTM D-3139 FOR PVC PIPE 12" IN DIAMETER OR LESS. ALL PVC SEWER PIPE JOINTS SHALL CONFORM TO ASTM D-3212 FOR PVC PIPE 15" IN DIAMETER OR MORE. ALL PVC SEWER PIPE 12" IN DIAMETER OR LESS SHALL CONFORM TO ASTM D-2241 (WATER QUALITY PIPE). ALL PVC SEWER PIPE 15" IN DIAMETER OR MORE SHALL CONFORM TO ASTM D-3034.
- ALL D.I.P. STORM, COMBINED AND SANITARY SEWER PIPE JOINTS SHALL CONFORM TO ANSI A-21.11. ALL D.I.P. SEWER PIPE SHALL CONFORM TO ASTM A-21.51. ALL D.I.P. SEWER PIPE SHALL BE CLASS 52.
- 7. ALL SANITARY, COMBINED, AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS, REQUIRES STONE BEDDING 1/4" TO 1" IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR INCHES (4") NOR MORE THAN EIGHT INCHES (8"). MATERIAL SHALL BE CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE.
- 8. "BAND SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OF DISSIMILAR MATERIALS.
- 9. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
  - a) CIRCULAR SAW-CUT OF SEWER MAIN BY MECHANICAL CORING MACHINE, AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION. AFTER THE WYE OR TEE BRANCH IS INSERTED, CONCRETE SHALL BE PLACED OVER THE BROKEN AREA TO A MINIMUM THICKNESS OF 4" AND TO A DIMENSION OF 8" IN ALL DIRECTIONS.
  - c) USING PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING. USE "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD FIRMLY IN PLACE. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR THE INSTALLATION.
- 10. WHEREVER A SEWER CROSSES UNDER A WATER MAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATER MAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATER MAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL OR HORZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN TANDARDS.
- 11. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE PRE-CAST REINFORCED CONCRETE.
- ALL ABANDONED SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FEET LONG, NON-SHRINK CONCRETE/MORTAR PLUG.
- 13. ALL INLET AND OUTLET PIPES OF SANITARY SEWER MANHOLES AND OTHER UNDERGROUND STRUCTURES (AND IN COMBINED SEWER AREAS, ALSO ALL COMBINED/STORM SEWER MANHOLES, CATCH BASINS, INLETS, AND UNDERGROUND DETENTION STORAGE STRUCTURES) SHALL BE JOINED WITH WATERTIGHT FLEXIBLE RUBBER CONNECTORS CONFORMING TO A.S.T.M. C-443 & C-923 WITH STAINLESS STEEL BANDS.
- 14. THE MAXIMUM ALLOWABLE INFILTRATION OR EXFILTRATION IS 100 GAL/DAY/MILE/INCH DIA OF THE SEWER PIPE.



THATCHER AND CHICAGO INTERSECTION TRAFFIC SIGNAL DETECTOR LOOP LOCATIONS

NOT TO SCALE

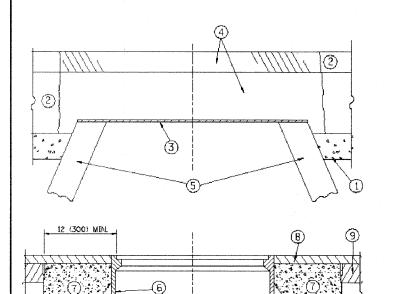
HANCOCK ENGINEERING

DESIGNED CH REVISED REVISED DRAWN PLOT SCALE CHECKED CH REVISED 4-21-09 REVISED DATE

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

TRAFFIC SIGNAL DETECTOR LOOP REPLACEMENT PLAN SCALE: NONE SHEET NO. OF SHEETS STA.

SECTION CONTRACT NO. 63215 ID PROJECT ARA-9003(349) E.H.E. PROJECT NO. 740-09-07501



PROPOSED

PROPOSED

SAND FILL

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

COST OF THE CORRESPONDING PAY ITEM.

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

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

# CONSTRUCTION PROCEDURES

### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM  $1V_2$  (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

# STAGE 2 (AFTER PAVEMENT MILLING)

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

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

# LEGEND

SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

- 6 FRAME AND LID (SEE NOTES)
- (2) EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE
- 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:
THIS WORK WILL BE PAID FOR AT
THE CONTRACT UNIT PRICE PER EACH FOR
"FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

DESIGNED - R. SHAH USER NAME = geglienobt REVISED - R. SHAH 03-10-95 r:\dastatd\22x94\bd86.dor DRAWN REVISED - A. ABBAS 03-21-97 CHECKED - R. WIEDEMAN 05-14-04 PLOT DATE = 1/4/2008 DATE - 10~25~94 REVISED - R. BORO 01-01-07

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

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NOTES:

DETAILS FOR 2753 09-00089-00-RS FRAMES AND LIDS ADJUSTMENT WITH MILLING BD800-03 (BD-8) SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.

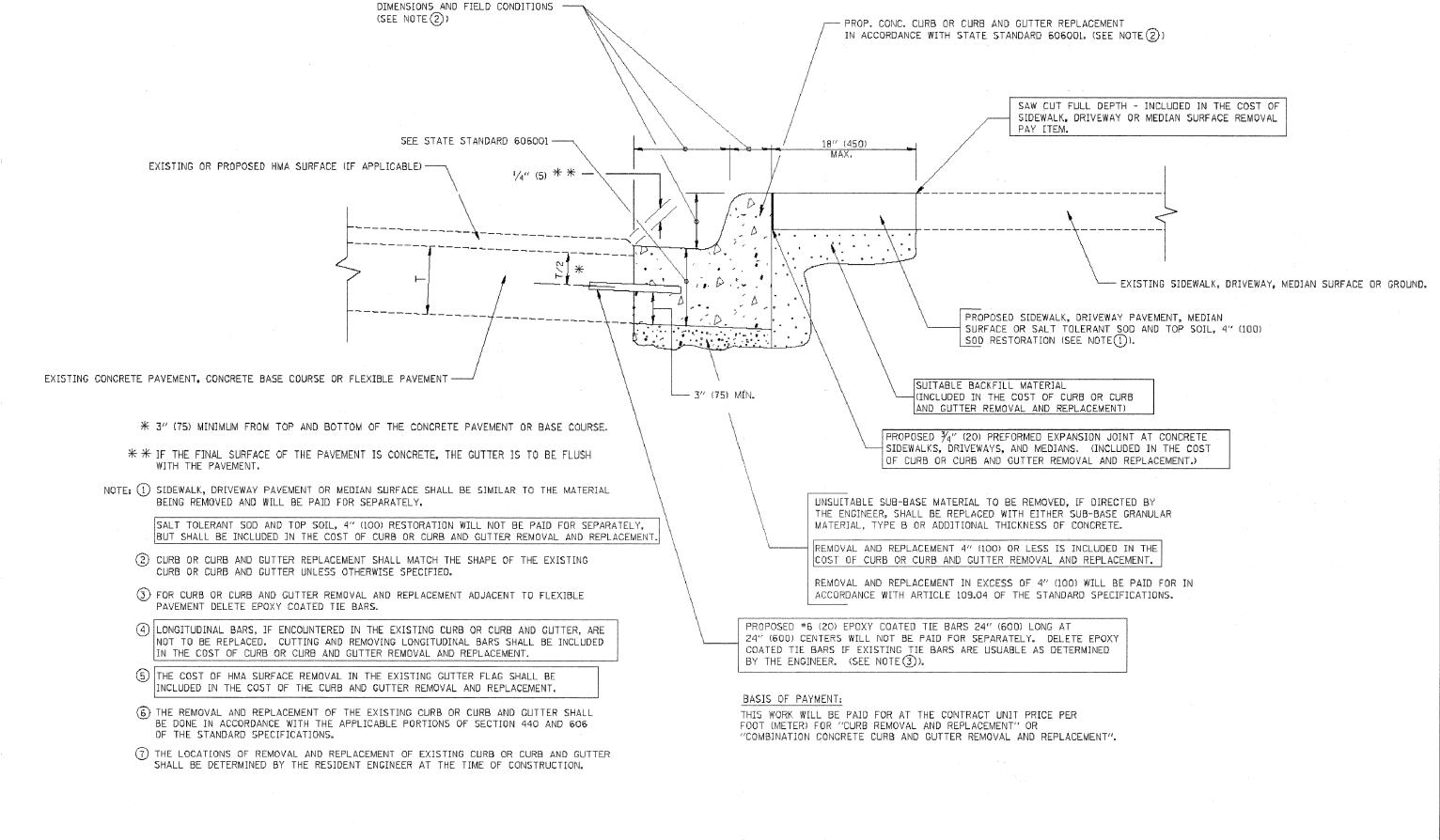
COOK 15 9

CONTRACT NO. 63215

FEO. RDAG DIST. NO. 1 | ILLINOIS | FEO. AID PROJECT ARA-9003 (349)

E.H.E. PROJECT NO. 740-09-07501

COUNTY



VARIABLE - TO MEET EXISTING

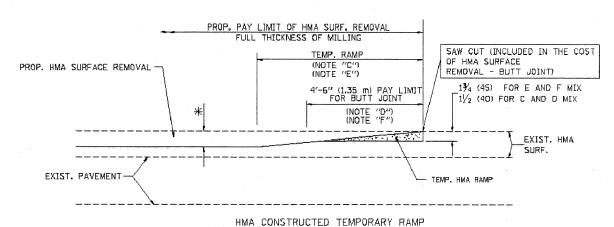
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME = DESIGNED - A. HOUSEH REVISED - R. SHAH 10-03-96 USER NAME = gaglianobt RTE. 2753 CURB OR CURB AND GUTTER Wi\distatd\22x34\bd24.dgr REVISED - A. ABBAS 03-21-97 STATE OF ILLINOIS 09-00089-00-RS COOK 15 10 REMOVAL AND REPLACEMENT PLOT SCALE = 60.000 ' / IN. CHECKED REVISED - M. GOMEZ 01-22-01 **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 63215 PLOT DATE = 1/4/2008 DATE - 03-11-94 REVISED - R. BORO 01-01-07 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA E.H.E. PROJECT NO. 740-09-07501

# OPTION 1

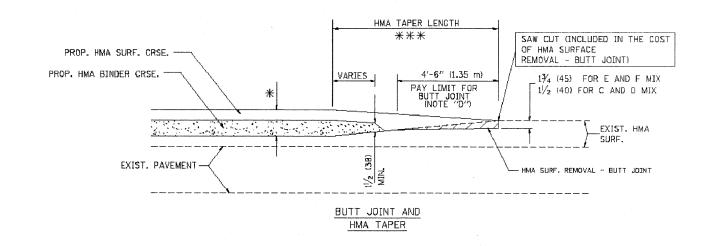
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 2

# TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

USER NAME = gaglianobt DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94 DRAWN -REVISED - A. ABBAS 03-21-97 PLOT SCALE = 50.0000 '/ INL CHECKED -REVISED - M. GOMEZ 04-06-01 DATE - 05-13-90 REVISED - R. BORO 01-01-07

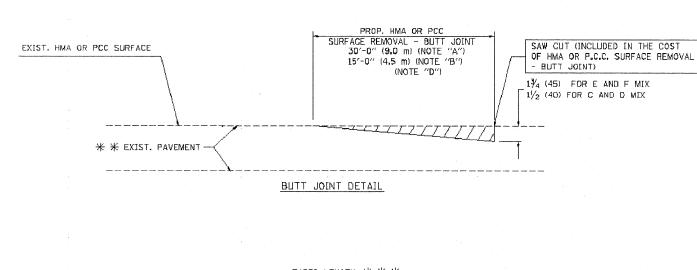
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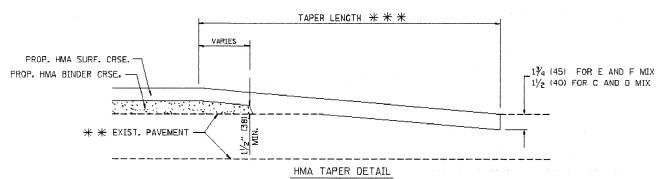
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

**BUTT JOINT AND** HMA TAPER DETAILS SHEET NO. 1 OF 1 SHEETS STA TO STA.

OTHERWISE SHOWN. TOTAL SHEE SHEETS NO. 15 11 SECTION COUNTY соок

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

# NOTES

- As 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")

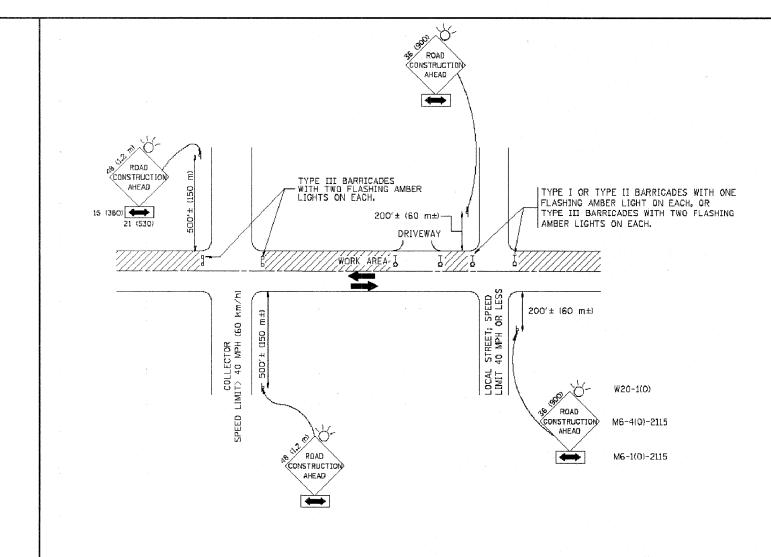
# BASIS OF PAYMENT:

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

SCALE: NONE

BD400-05 BD32 CONTRACT NO. 63215 FEG. ROAD DIST. NO. 1 | ILLINOIS|FED. AID PROJECT ARA-9003 (349)

E.H.E. PROJECT NO. 740-09-07501



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 (50 km/h) OR LESS AS
- d) one road construction anead 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:
- d) ONE HOAD CONSTRUCTION AHEAD SIGN 48  $\times$  48 (1.2 m  $\times$  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.

SCALE: NONE

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 (MG-4).

- B. FOR A LANE CLOSURE ON A SIDE RUAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. T01505 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
- 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.

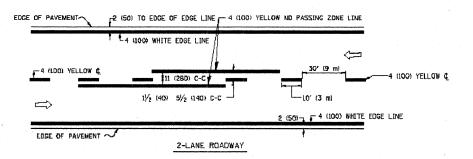
All dimensions are in millimaters (inches) unless otherwise shown.

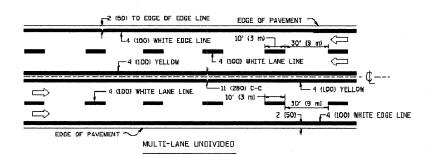
USER NAME = gaglianobit DESIGNED - LHA REVISED - J. 08ERLE 10-18-95 Wi\distand\22x34\no16.dgn DRAWN REVISED - A. HOUSEH 03-06-96 PLOT SCALE = 58.000 '/ IN. CHECKED REVISED - A. HOUSEH 10-15-96 PLOT DATE = 1/4/2006 DATE - 05-89 REVISED -T. RAMMACHER 01-06-00

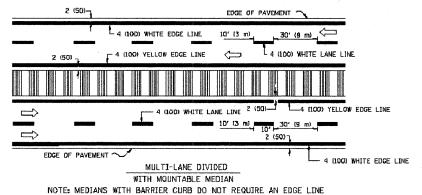
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

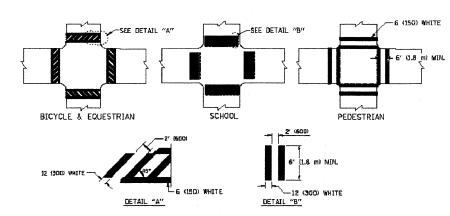
SECTION COUNTY 2753 09-00089-00-RS COOK 15 12 TC-10 CONTRACT NO. 63215 S FED. AID PROJECT ARA-9003 (349) E.H.E. PROJECT NO. 740-09-07501



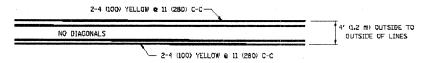




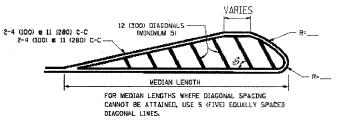
# TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

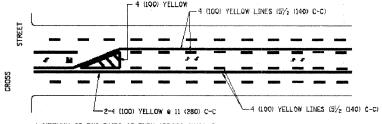


4' (1.2 m) WIDE MEDIANS ONLY

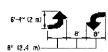


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 3GMPH (50 km/h))
T5' (25 m) C-C (3MPH (36 km/h) T0 45MPH (T0 km/h))
150' (45 m) C-C (MORE THAN 45MPH (T0 km/h))

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

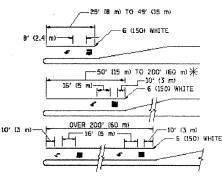


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING

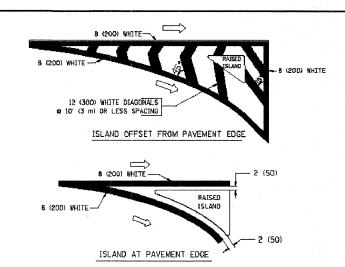


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m² ) [[1]] AREA = 20.8 SQ. FT. (1.9 m²)

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

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                         | 3D' (3 m) LINE WITH 30' (9 m) SPACE   |
| CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT   | 2 @ 4 (100)   | SOLID                   | YELLOW                         | 11 (280) C-C  |
| NO PASSING ZONE LINES:<br>FOR ONE DIRECTION<br>FOR BOTH DIRECTIONS                                | 4 (100)<br>2 @ 4 (100)  | SOLID<br>SOLID          | YELLOW<br>YELLOW               | 5/2 (14D) C-C FROM SKIP-DASH CENTERLINE<br>11 (28O) 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<br>EXTENDED  | SKIP-DASH               | SAME AS LINE BEING<br>EXTENDED | 2' (600) LINE WITH 6' (L8 m) SPACE  |
| EUGE 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<br>SIZE LETTERS &<br>SYMBOLS (B' (2.4m))                           | SOLIO                   | WHITE                          | SEE TYPICAL TURN LANE MARKING DETAIL  |
| TWO WAY LEFT TURN MARKING   | 2 cm 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 MARKING DETAIL  |
| CROSSWALK LINES (PEDESTRIAN)<br>A. DIAGONALS (BIKE & EQUESTRIAN)<br>B. LONGITUDINAL BARS (SCHOOL) | 2 @ 5 (150)<br>12 (300) @ 45°<br>12 (300) @ 30°                                       | SOLID<br>SOLID<br>SOLID | WHITE<br>WHITE<br>WHITE        | NDT LESS THAN 6' (L.B m) APART<br>2' (500) APART<br>2' (500) APART<br>SEE TYPICAL CROSSWALK MARKING DETAILS.  |
| STOP LINES  | 24 (600)  | SOLIO                   | WHITE                          | PLACE 4" IL2 ml IN ADVANCE OF AND PARALLEL TO CROSSMALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STEPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS   | 2 @ 4 (100) WITH<br>12 (300) DIAGONALS<br>2 45°                                       | SOLID                   | YELLOW:<br>TWO WAY TRAFFIC     | 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.  |
|   | ND DIAGONALS USED FOR<br>4' (1.2 m) WIDE MEDIANS                                      |                         | WHITE:<br>DNE WAY TRAFFIC      |   |
| GDRE 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' (8 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))<br>30' (9 m) C-C (DVER 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" | 20110                   | WHITE                          | SEE STATE STANDARD 78000L<br>AREA OF:<br>"R"=3.6 SO. FT. (0.33 m²) EACH<br>"X"=54.0 SO. FT. (6.0 m²)  |
| SHOULDER DIAGONALS  | 12 (300) e 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 170 km/<br>150' (45 m) C-C (0VER 45MPH (70 km/h))                         |

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 7800D1.

All dimensions ore in inches imilimeters)

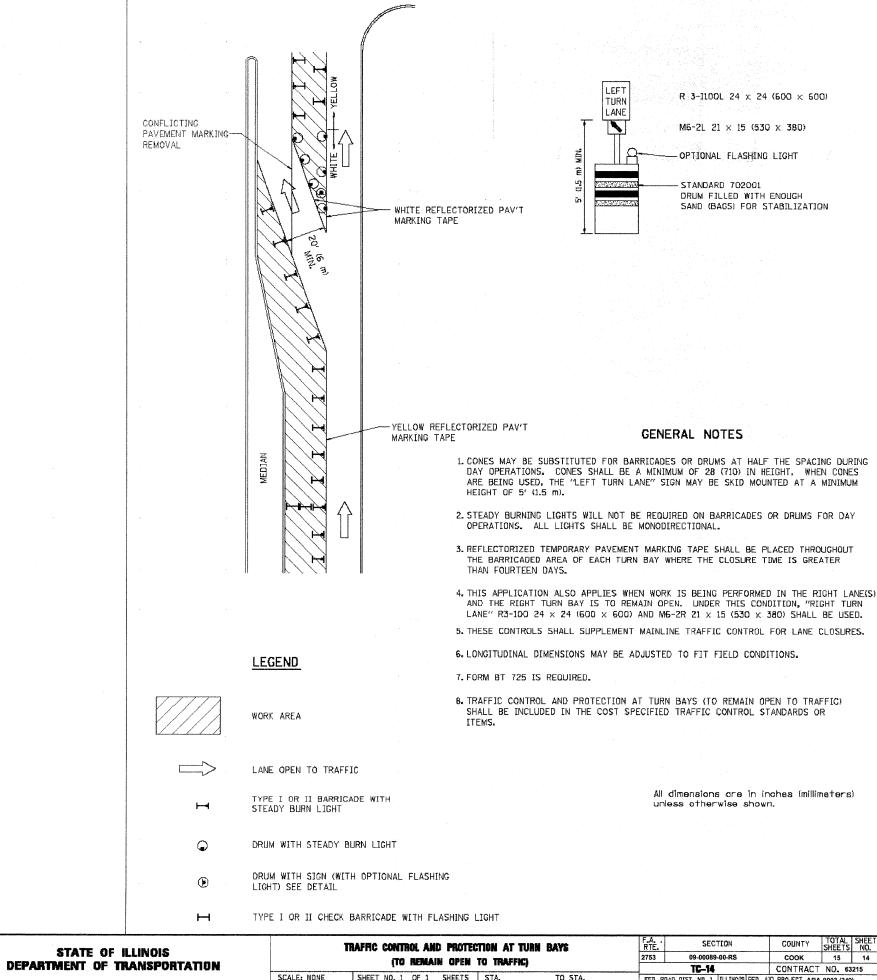
unless otherwise shown.

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PLOT SCALE = 68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FILE NAME = W:\distatd\22k94\tc14.dgn

USER NAME = geglienobt DESIGNED -REVISED -T. RAMMACHER 09-08-94 DRAWN REVISED - A. HOUSEH 11-07-95 PLOT SCALE = 50.0000 1/ IN. CHECKED REVISED - A. HOUSEH 10-12-96 PLOT DATE = 1/4/2000 DATE REVISED -T. RAMMACHER 01-06-00

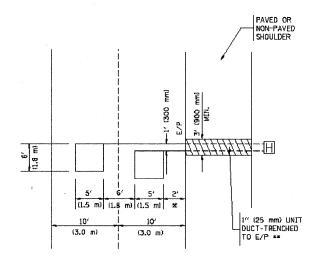
SHEET NO. 1 OF 1 SHEETS STA. TO STA.

TOTAL SHEE SHEETS NO. COOK 15 14 CONTRACT NO. 63215 TC-14 FEO. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT ARA-9003 (349)

E.H.E. PROJECT NO. 740-09-07501

# LOOPS NEXT TO SHOULDERS

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



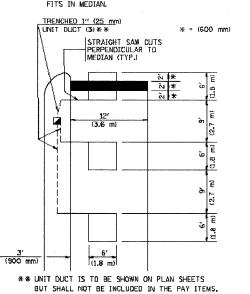
\* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS

\* = (600 mm)

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

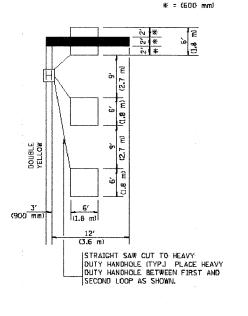
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD B14001 TO ENSURE THAT HANDHOLE



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)

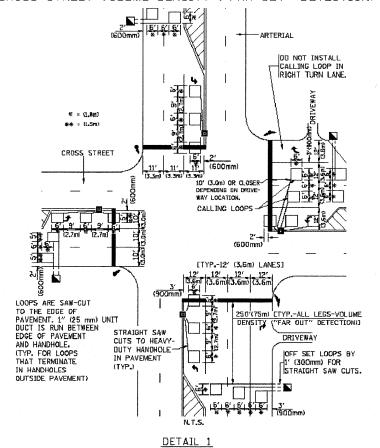


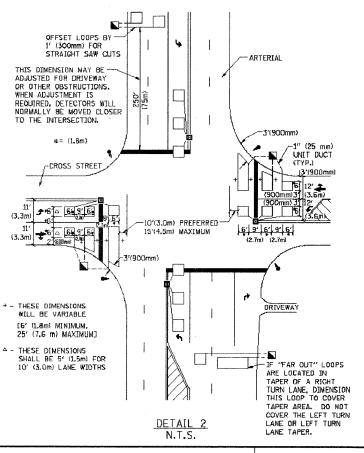
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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.
- \* 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 ALL DETECTOR LOOPS SHALL BE SIX FEET
- \* 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 (f.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 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.

DESIGNED REVISED USER NAME = gaglianobt W:\distartd\22k34\ts87.dg REVISED PLOT SCALE = 50.0000 '/ INL CHECKED - R.K.F. REVISED -PLOT DATE = 1/4/2008 DATE REVISED

N.T.5.

STATE OF ILLINOIS

SECTION COUNTY DISTRICT 1 - DETECTOR LOOP INSTALLATION 2753 09-00089-00-85 COOK DETAILS FOR ROADWAY RESURFACING TS-07 CONTRACT NO. 63215 SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. AID PROJECT ARA-9003 (349)

E.H.E. PROJECT NO. 740-09-07501

15 15

FILE NAME =

**DEPARTMENT OF TRANSPORTATION**