

MFT FIELD ENGINEER: MELCHOR MANGOBA 1-847-705-4408
 CONSULTANT: HOFFERLE BUTLER ENGINEERING, INC. 1-708-599-8980

STATE OF ILLINOIS

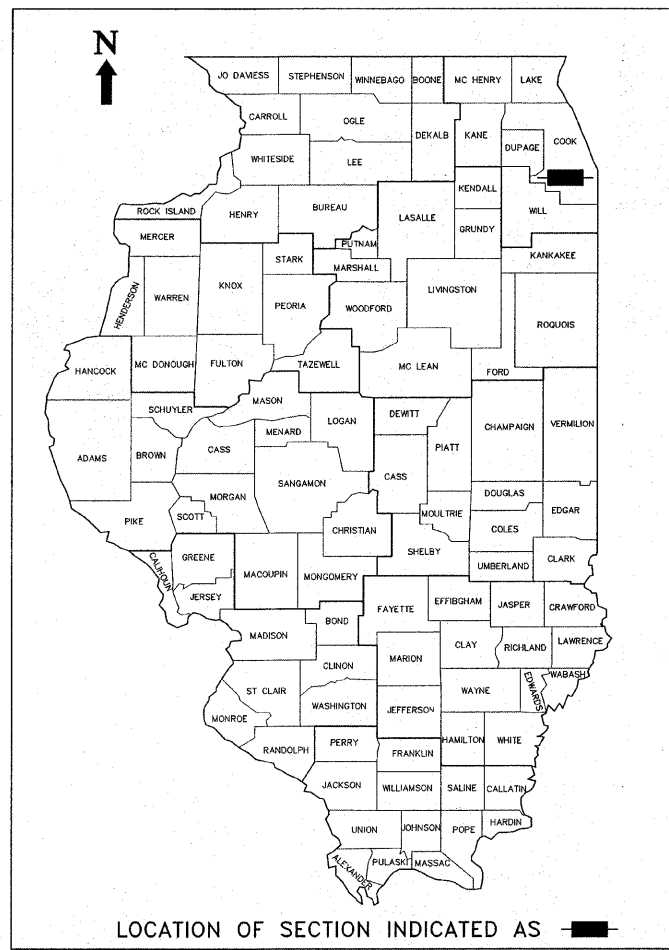
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY

FAU RTES. 1537 (71st STREET) & 2802 (SAYRE AVENUE)
 71st ST @ HARLEM AVE TO SAYRE AVE @ 73rd ST
 ROADWAY RESURFACING
 SECTION NO. 09-00032-00-RS
 PROJECT NO: M-9003 (388)
 JOB NO: C-91-750-09
 VILLAGE OF BEDFORD PARK
 COOK COUNTY

| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|------------------|-----------|
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 1 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |
| CONTRACT NO. 63410 | | | | |



LOCATION OF SECTION INDICATED AS [black rectangle]

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

APPROVED JANUARY 4, 2010
[Signature]
 VILLAGE OF BEDFORD PARK, PRESIDENT

PASSED FEBRUARY 1, 2010
[Signature]
 DISTRICT # ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW FEBRUARY 2, 2010
[Signature]
 DEPUTY DIRECTOR OF HIGHWAYS/REGION 1 ENGINEER

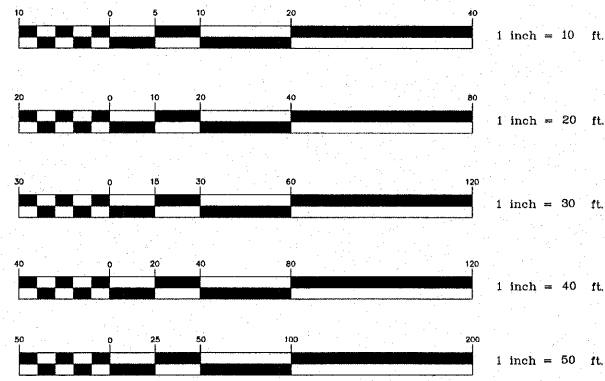
INDEX TO SHEETS:

| SHEET NO. | DESCRIPTION |
|-----------|--|
| 1. | COVER SHEET |
| 2. | GENERAL NOTES |
| 3. | HMA MIXTURE CHART & SUMMARY OF QUANTITIES |
| 4. | STRUCTURAL DESIGN INFO |
| 4-5. | TYPICAL SECTIONS |
| 6-9. | PLAN SHEETS |
| 10. | TRAFFIC CONTROL PLAN - DETOUR ROUTE |
| 11. | TRAFFIC CONTROL PLAN - STAGE I |
| 12. | TRAFFIC CONTROL PLAN - STAGE II |
| 13. | PAVEMENT MARKING PLAN |
| 14. | DISTRICT 1 DETAIL-TC10-TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS |
| 15. | DISTRICT 1 DETAIL-TC13-TYPICAL PAVEMENT MARKINGS |
| 16. | DISTRICT 1 DETAIL-BD24-CURB OR CURB AND GUTTER R&R |
| 17. | DISTRICT 1 DETAIL-BD32-BUTT JOINT AND HMA TAPER DETAIL |
| 18. | DISTRICT 1 DETAIL-TS07-DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING |

HIGHWAY STANDARDS:

| STANDARD NO. | DESCRIPTION |
|--------------|---|
| 000001-05: | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 424001-05: | SIDEWALK RAMPS ACCESSIBLE TO THE HANDICAPPED |
| 602301-02: | INLET, TYPE A |
| 604001-03: | FRAMES & LIDS, TYPE 1 |
| 606001-04: | CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER |
| 701801-04: | LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE |
| 701901-01: | TRAFFIC CONTROL DEVICES |
| 780001-02: | TYPICAL PAVEMENT MARKINGS |

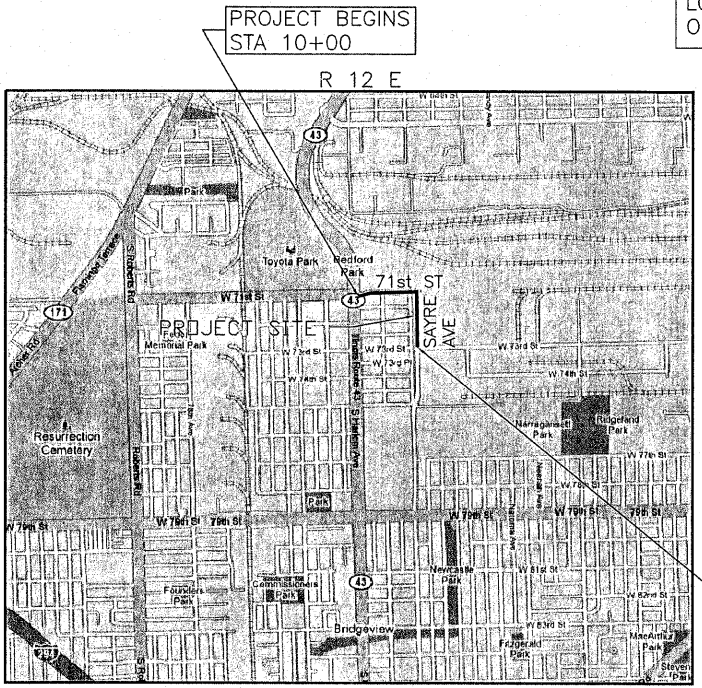
ADT=9000 VPD (2009)
 DESIGN DESIGNATION - COLLECTOR
 SPEED LIMIT=30 MPH
 DESIGN SPEED = 30 MPH



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 FOR EXCAVATION
 1-800-892-0123 -OR- 811

CONTRACT NO. 63410



STICKNEY TOWNSHIP LOCATION MAP 3rd P.M. N.T.S.

THE PROJECT IS LOCATED IN THE VILLAGE OF BEDFORD PARK

PROJECT ENDS STA 37+87.89

GROSS LENGTH OF PROJECT 2,787.89 FEET (0.53 MILES)
 NET LENGTH OF PROJECT 2,787.89 FEET (0.53 MILES)

hbe Hoefflerle-Butler Engineering, Inc.
 Consulting Civil Engineers Land Surveyors
 PROFESSIONAL DESIGN FIRM LICENSE NO. 084-008819
 8714 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60457
 (708) 599-8900 FAX (708) 599-8790



[Signature]
 SIGNATURE
 1/14/10
 DATE

EXPIRES 11-30-11
 (PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS)

GENERAL NOTES

| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|------------------|-----------|
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 2 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |
| CONTRACT NO. 63410 | | | | |

CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2007, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND THE "MANUAL OF TEST PROCEDURES FOR MATERIALS".

UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNER OF ALL EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER SERVICE LINES AND OTHER UTILITY LINES ARE APPROXIMATE. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THIS WORK IS INCLUDED IN THE COST OF PORTLAND CEMENT CONCRETE SIDEWALK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ALL UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR THE VILLAGE. THIS WORK SHALL BE INCLUDED IN THE COST OF PORTLAND CEMENT CONCRETE SIDEWALK.

BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 -OR- 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS AND CABLE TELEVISION FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)

STORM SEWER

WHENEVER, DURING CONSTRUCTION OPERATIONS, LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES OBSTRUCTING THE NATURAL FLOW OF WATER, THE DEBRIS SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FRAMES AND LIDS TO BE ADJUSTED (SPECIAL) OR MANHOLES TO BE ADJUSTED.

EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION.

RESTORATION

NO DAMAGE TO PARKWAYS IS PLANNED AS PART OF THESE IMPROVEMENTS EXCEPT WHERE SIDEWALK AND CURB AND GUTTER IS REMOVED AND REPLACED. ANY AND ALL RESTORATION OF DAMAGED PARKWAYS SHALL CONSIST OF NECESSARY SUB-GRADE MATERIAL AS APPROVED BY THE ENGINEER, TOPSOIL 4-INCH AND NATIVE SOD IN ACCORDANCE WITH SECTION 1081.03. ANY RESTORATION TO AREAS DAMAGED DUE TO OTHER CONSTRUCTION ACTIVITIES NOT RELATED TO SIDEWALK OR CURB AND GUTTER SHALL BE RESTORED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION.

STAGING

THE CONTRACTOR HAS THE OPTION OF REVERSING THE STAGES OF THE TRAFFIC CONTROL PLAN.

MISCELLANEOUS

ACCESS: THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT, EXCEPT FOR PERIODS OF SHORT DURATION.

DIMENSIONS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

ALL SAWCUTTING SHALL BE INCLUDED IN THE UNIT OF COST OF REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL. ITEMS OF WORK REMOVED PRIOR TO SAWCUTTING WILL NOT BE MEASURED FOR PAYMENT.

BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED. (ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.) TYPE III BARRICADES SHALL HAVE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.

EXISTING PAVEMENT DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION SHALL BE REPLACED/REPAIRED BY THE CONTRACTOR AT HIS/HERS OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER WITH NO ADDITIONAL COMPENSATION TO THE CONTRACTOR.

PAY ITEMS SHOWN IN THE SUMMARY OF QUANTITIES MAY BE REDUCED BY THE ENGINEER IF THE WORK IS NOT REQUIRED.

THE BITUMINOUS MATERIAL (PRIME COAT) QUANTITIES HAVE BEEN DETERMINED USING A RATE OF 0.10 GAL/S.Y.

THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK. THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 72 HOURS IN ADVANCE IF CONSTRUCTION STAKING IS REQUIRED.

hbe Hoeffler-Butler Engineering, Inc.
 Consulting Civil Engineers - Land Surveyors
 PROFESSIONAL DESIGN FIRM LICENSE NO. 184-00819
 8714 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60577
 (708) 594-9880 FAX (708) 594-9798

| REVISIONS | | ILLINOIS DEPARTMENT OF TRANSPORTATION VILLAGE OF BEDFORD PARK 71st ST & SAYRE AVE RESURFACING 71st ST @ HARLEM TO SAYRE @ 73rd ST |
|---------------|----------|--|
| NAME | DATE | |
| JM PER REVIEW | 01.06.10 | GENERAL NOTES DATE: 10/09/09 DRAWN BY: JMH CHECKED BY: SAL |
| | | |
| | | |
| | | |
| | | |

FILE: 09091059-507

| | | | | |
|---------------------|----------------|------------------|------------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 3 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |
| CONTRACT NO. 63410 | | | | |

SUMMARY OF QUANTITIES

| CODE NO. | PAY ITEM | QTY. | UNITS | CONSTRUCTION CODE 1000 |
|----------------------|--|-------|--------|------------------------|
| 21101615 | TOPSOIL FURNISH AND PLACE, 4" | 300 | SQ YD | 300 |
| 25000400 | NITROGEN FERTILIZER NUTRIENT | 2 | POUND | 2 |
| 25000500 | PHOSPHOROUS FERTILIZER NUTRIENT | 2 | POUND | 2 |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT | 2 | POUND | 2 |
| 25200110 | SODDING, SALT TOLERANT | 300 | SQ YD | 300 |
| 35101600 | AGGREGATE BASE COURSE, TYPE B 4" | 380 | SQ YD | 380 |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | 2338 | GALLON | 2338 |
| 40600826 | POLYMERIZED LEVELING BINDER (MACHINE METHOD) IL 4.75, N50 | 200 | TON | 200 |
| 40600895 | CONSTRUCTING TEST STRIP | 1 | EACH | 1 |
| 40600985 | PORTLAND CEMENT CONCRETE SURFACE REMOVAL-BUTT JOINT | 629 | SQ YD | 629 |
| 40603310 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | 43 | TON | 43 |
| 40603595 | POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 | 1309 | TON | 1309 |
| 42300400 | PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH | 47 | SQ YD | 47 |
| 42400200 | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | 7,150 | SQ FT | 7,150 |
| 42400800 | DETECTABLE WARNINGS | 40 | SQ FT | 40 |
| 44200982 | CLASS B PATCHES, TYPE II, 11 INCH | 1500 | SQ YD | 1500 |
| 44000200 | DRIVEWAY PAVEMENT REMOVAL | 47 | SQ YD | 47 |
| 44000600 | SIDEWALK REMOVAL | 625 | SQ FT | 625 |
| 44001700 | COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT | 610 | FOOT | 610 |
| 60238600 | INLETS, TYPE A, WITH SALVAGED FRAME AND LID | 1 | EACH | 1 |
| 60255600 | MANHOLES TO BE ADJUSTED (SPECIAL) | 2 | EACH | 2 |
| 60300310 | FRAMES AND LIDS TO BE ADJUSTED (SPECIAL) | 27 | EACH | 27 |
| 60406000 | FRAMES AND LIDS, TYPE 1, OPEN LID | 3 | EACH | 3 |
| 60406100 | FRAMES AND LIDS, TYPE 1, CLOSED LID | 1 | EACH | 1 |
| 60500060 | REMOVING INLETS | 1 | EACH | 1 |
| 67100100 | MOBILIZATION | 1 | L SUM | 1 |
| 70101800 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | 1 | L SUM | 1 |
| 70102550 | TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR | 1 | EACH | 1 |
| * 78000100 | THERMOPLASTIC PAVEMENT MARKING- LETTERS AND SYMBOLS | 98.8 | SQ FT | 98.8 |
| * 78000200 | THERMOPLASTIC PAVEMENT MARKING- LINE 4" | 5,288 | FOOT | 5,288 |
| * 78000400 | THERMOPLASTIC PAVEMENT MARKING- LINE 6" | 228 | FOOT | 228 |
| * 78000650 | THERMOPLASTIC PAVEMENT MARKING- LINE 24" | 106 | FOOT | 106 |
| * 88600600 | DETECTOR LOOP REPLACEMENT | 100 | FOOT | 100 |
| X0321020 | PORTLAND CEMENT CONCRETE SURFACE REMOVAL (COLD MILLING) VARIABLE DEPTH | 3662 | SQ YD | 3662 |
| XX00 8341 | MORTAR EXISTING STRUCTURE | 9 | EACH | 9 |

* DENOTES SPECIALTY ITEMS

| REVISIONS | |
|----------------|----------|
| NAME | DATE |
| JMH PER REVIEW | 01.06.10 |
| JMH PER REVIEW | 01.15.10 |
| JMH PER REVIEW | 01.21.10 |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
 VILLAGE OF BEDFORD PARK
 71st ST & SAYRE AVE RESURFACING
 71st ST @ HARLEM TO SAYRE @ 73rd ST
 HMA MIXTURE CHART &
 SUMMARY OF QUANTITIES
 DATE: 10/09/09
 DRAWN BY: JMH
 CHECKED BY: SAL

CONTRACTOR SHALL MILL BEFORE PATCHING

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS CHART | |
|---|-------------------|
| MIXTURE TYPE | AIR VOIDS AT Ndes |
| PAVEMENT RESURFACING | |
| POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX 'F', N90 (IL 9.5mm) | 4% AT 90 GYR |
| POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 | 4% AT 50 GYR |
| SHOULDER | |
| HOT-MIX ASPHALT SURFACE COURSE, MIX 'C', N50 (IL 9.5mm) | 4% AT 50 GYR |

THE UNIT WEIGHT TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD-IN

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS FOR "PERCENT OF RAP". SEE DISTRICT ONE SPECIAL PROVISIONS.

hbe Hoeflerle-Butler Engineering, Inc.
 Consulting Civil Engineers - Land Surveyors
 PROFESSIONAL DESIGN FIRM LICENSE NO. 004-00863 64657
 8714 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60531
 (708) 594-8986 FAX (708) 594-8778

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 4 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |

STRUCTURAL DESIGN INFORMATION

STRUCTURAL DESIGN TRAFFIC: YEAR 2020

PV= 7400 SU= 900 MU= 1700

ROAD/STREET CLASSIFICATION: CLASS II

PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:

P= 50 S= 50 M= 50

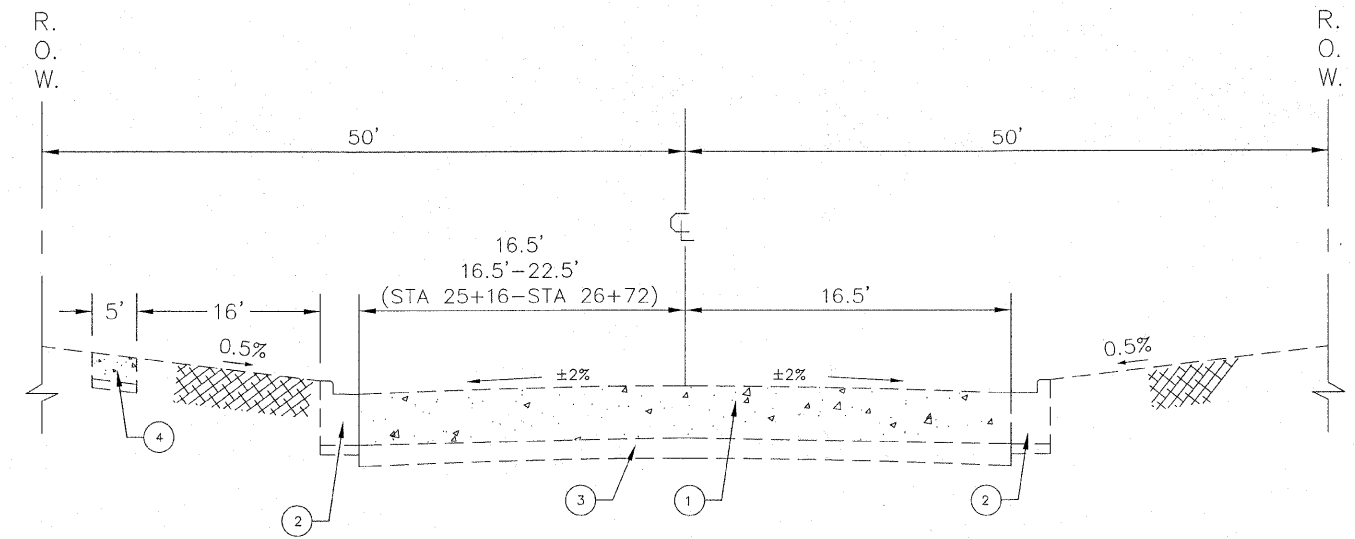
TRAFFIC FACTOR: ACTUAL T.F.= 5.20
MINIMUM T.F.= N/A

PG GRADE: BINDER= 64-22 SURFACE= 64-22

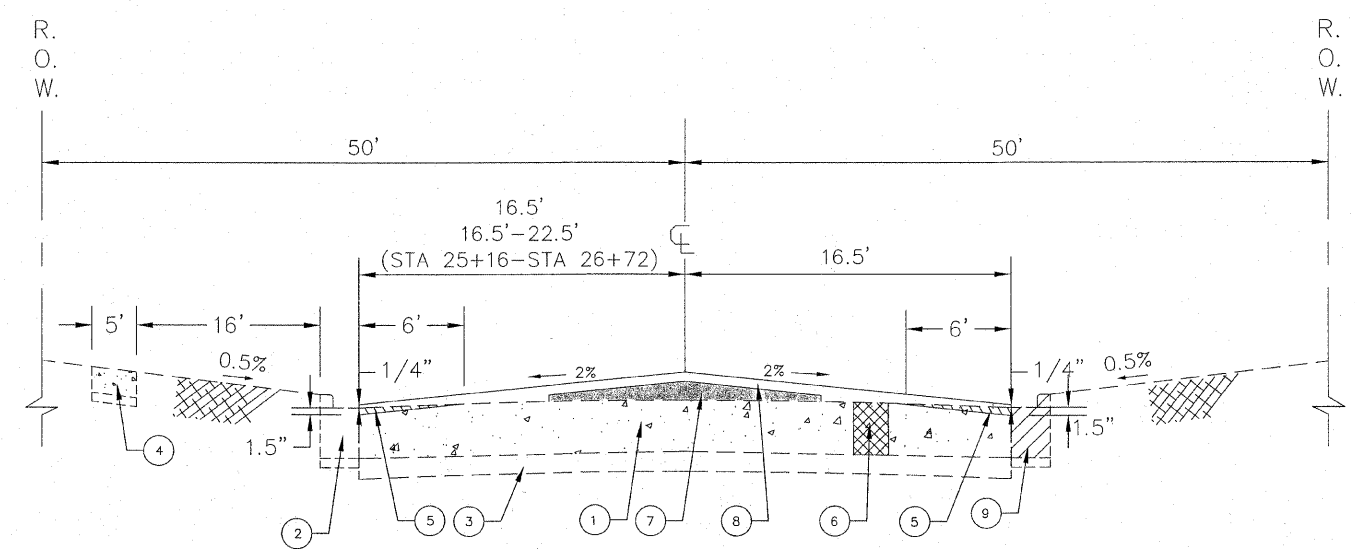
IBR= 2.5 SSR= FAIR

hbe **Hoeffler-Butler Engineering, Inc.**
Consulting Civil Engineers • Land Surveyors
PROFESSIONAL DESIGN FIRM LICENSE NO. 164-00885
8714 S. ROBERTS ROAD, ROCKFORD, ILLINOIS 61107-6857
C/O 399-6980 FAX C/O 399-9726

- | | |
|--|--|
| ① EX. P.C.C. PAVEMENT, 10 3/4" | ⑦ POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"-1" (IF NECESSARY) |
| ② EX. COMBINATION CURB & GUTTER, TY B6.12 | ⑧ POLYMERIZED HMA SURFACE COURSE, MIX 'F', N90, 1 3/4" |
| ③ EX. SUB-BASE GRANULAR MATERIAL, 4" | ⑨ CURB & GUTTER REMOVAL AND REPLACEMENT (WHERE MARKED IN FIELD) |
| ④ EXISTING P.C.C. SIDEWALK, 5" | ⑩ PROPOSED P.C.C. SIDEWALK, 5" |
| ⑤ P.C.C. SURFACE REMOVAL (COLD MILLING) VARIABLE DEPTH | |
| ⑥ CLASS 'B' PATCHES, 11" | |



EXISTING TYPICAL SECTION
STA 25+16 TO STA 37+57.89, SAYRE AVENUE



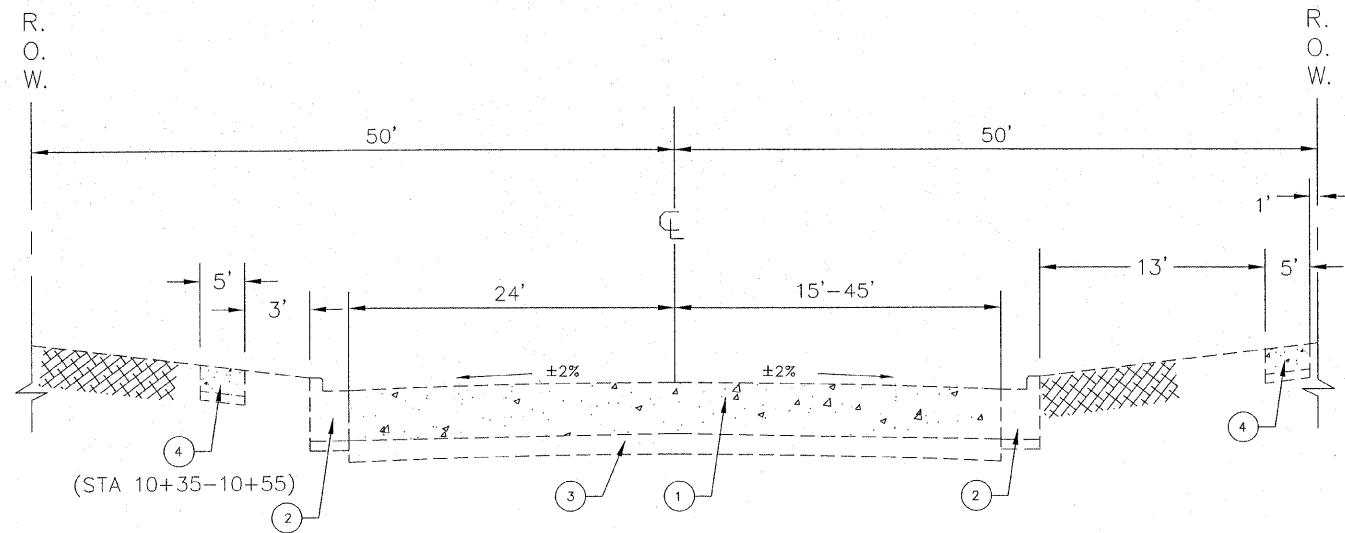
PROPOSED TYPICAL SECTION
STA 25+16 TO STA 37+57.89, SAYRE AVENUE

NOTE: CROSS-HATCHED ITEMS ARE TO BE REMOVED

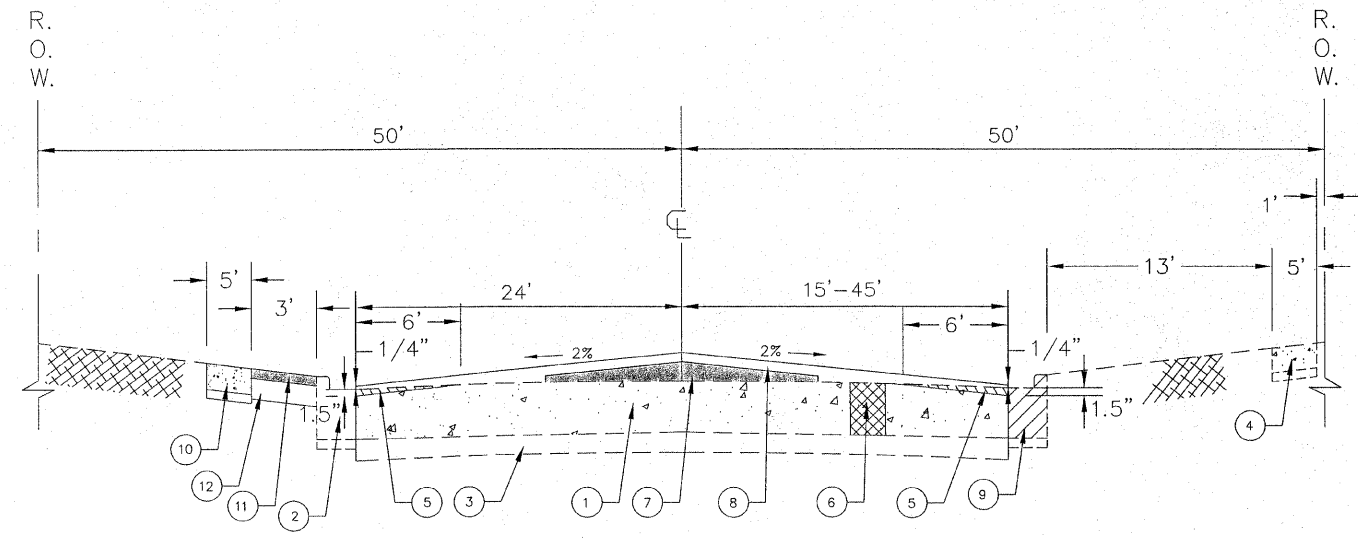
| REVISIONS | NAME | DATE |
|-----------|----------------|----------|
| | JMH PER REVIEW | 01.06.10 |
| | JMH PER REVIEW | 01.19.10 |
| | JMH PER REVIEW | 01.21.10 |

ILLINOIS DEPARTMENT OF TRANSPORTATION
VILLAGE OF BEDFORD PARK
71st ST & SAYRE AVE RESURFACING
71st ST @ HARLEM TO SAYRE @ 73rd ST
SCALE: TYPICAL CROSS SECTIONS
N.T.S.
DRAWN BY: JMH
CHECKED BY: SAL
DATE: 10/09/09

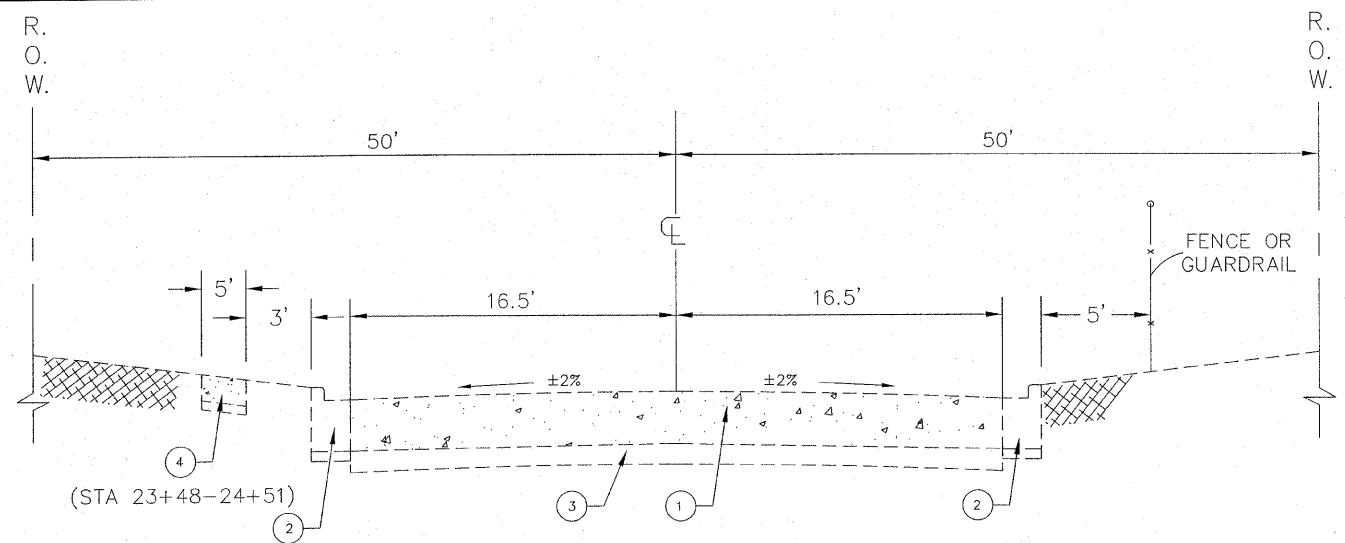
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| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 5 |
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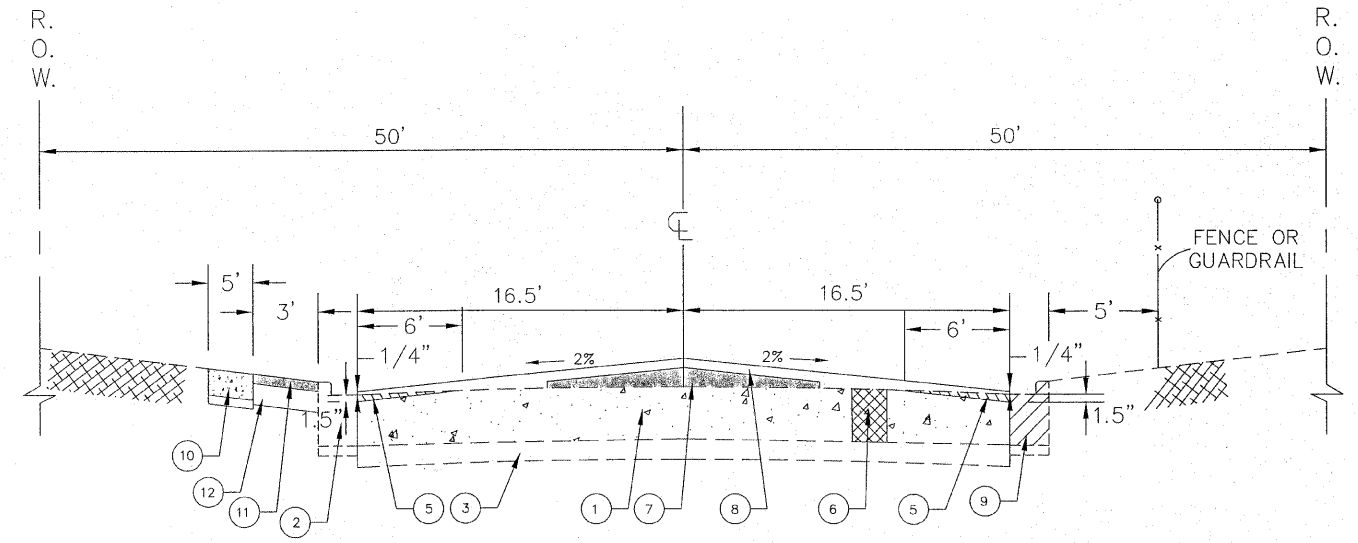
EXISTING TYPICAL SECTION
STA 10+00 - STA 13+82, 71st STREET



PROPOSED TYPICAL SECTION
STA 10+00 - STA 13+82, 71st STREET



EXISTING TYPICAL SECTION
STA 13+82 - STA 24+51.31, 71st STREET



PROPOSED TYPICAL SECTION
STA 13+82 - STA 24+51.31, 71st STREET

- ① EX. P.C.C. PAVEMENT, 10 3/4"
- ② EX. COMBINATION CURB & GUTTER, TY B6.12
- ③ EX. SUB-BASE GRANULAR MATERIAL, 4"
- ④ EXISTING P.C.C. SIDEWALK, 5"
- ⑤ P.C.C. SURFACE REMOVAL (COLD MILLING) VARIABLE DEPTH
- ⑥ CLASS 'B' PATCHES, 11"
- ⑦ POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"-1" (IF NECESSARY)
- ⑧ POLYMERIZED HMA SURFACE COURSE, MIX 'F', N90, 1 3/4"

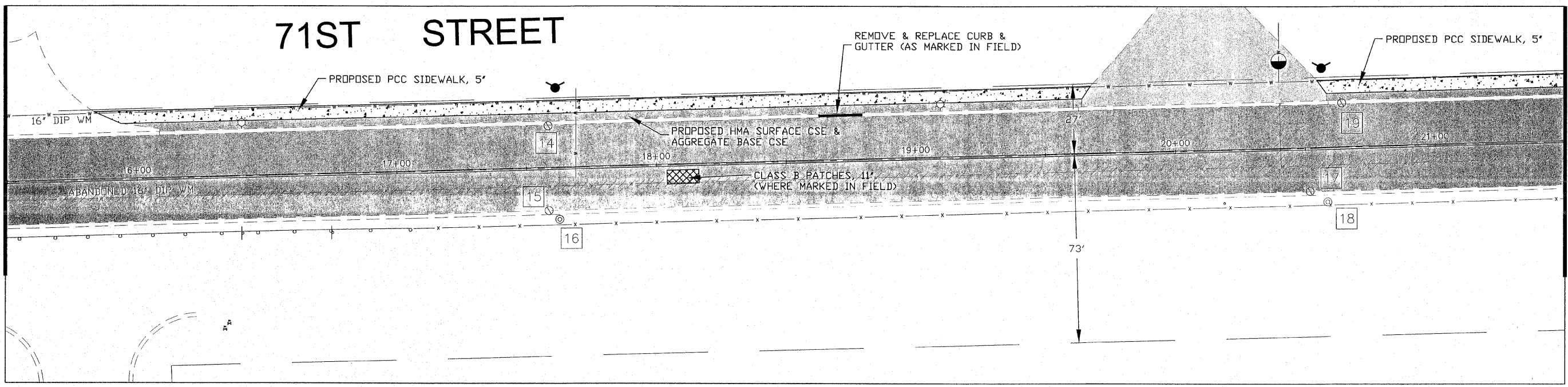
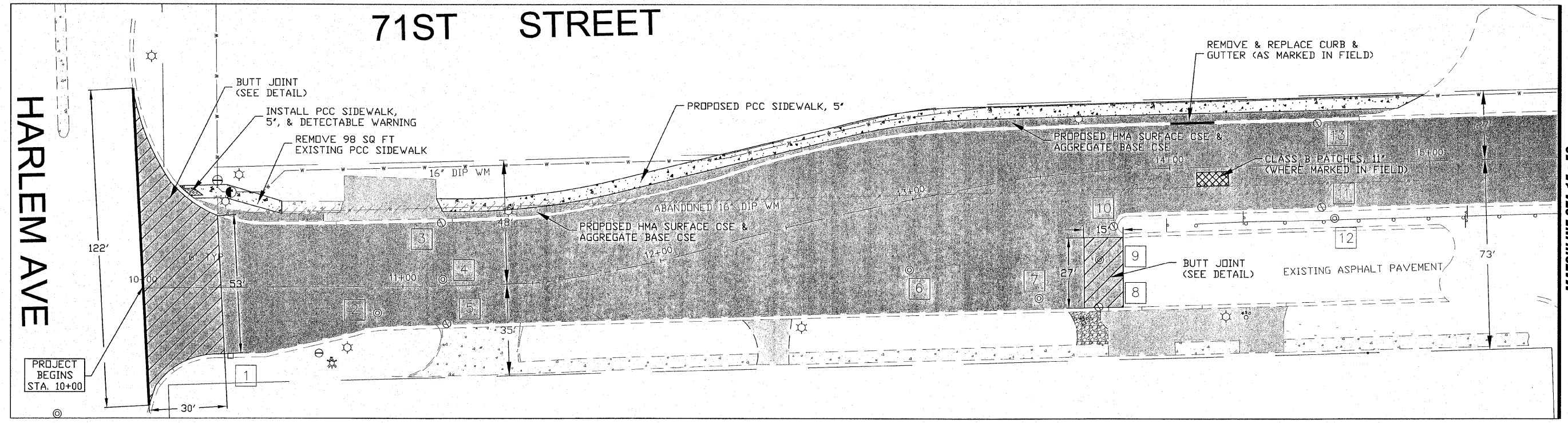
- ⑨ CURB & GUTTER REMOVAL AND REPLACEMENT (WHERE MARKED IN FIELD)
- ⑩ PROPOSED P.C.C. SIDEWALK, 5"
- ⑪ PROPOSED HMA SURFACE COURSE, MIX "C", N50, 2"
- ⑫ PROPOSED AGGREGATE BASE COURSE, TYPE "B", 4"

NOTE: CROSS-HATCHED ITEMS ARE TO BE REMOVED

| REVISIONS | | DATE | ILLINOIS DEPARTMENT OF TRANSPORTATION VILLAGE OF BEDFORD PARK 71st ST & SAYRE AVE RESURFACING 71st ST • HARLEM TO SAYRE • 73rd ST |
|-----------|----------------|----------|--|
| NO. | NAME | | |
| 1 | JMH PER REVIEW | 01.06.10 | SCALE: TYPICAL CROSS SECTIONS N.T.S. DATE: 10/09/09 DRAWN BY: JMH CHECKED BY: SAL |
| 2 | JMH PER REVIEW | 01.15.10 | |
| 3 | JMH PER REVIEW | 01.21.10 | |

Hoefferle-Butler Engineering, Inc.
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 8714 S. ROBERTS ROAD HOOKY HILLS, ILLINOIS 60437
 (708) 599-8988 FAX (708) 599-8726

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 6 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |




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 8714 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60437
 (708) 399-0980 FAX (708) 399-0770

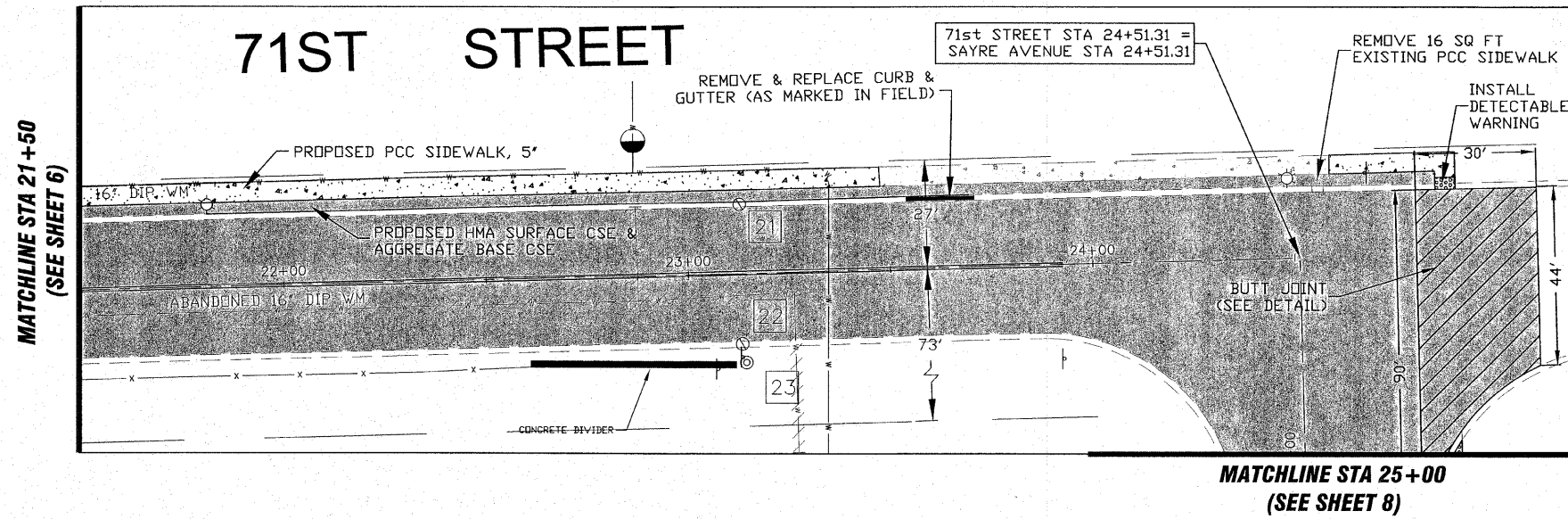
- AREA OF RESURFACING

| REVISIONS | | ILLINOIS DEPARTMENT OF TRANSPORTATION VILLAGE OF BEDFORD PARK 71st ST & SAYRE AVE RESURFACING 71st ST @ HARLEM TO SAYRE @ 73rd ST |
|----------------|----------|--|
| NAME | DATE | |
| JMH PER REVIEW | 01.06.10 | |
| | | |
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SCALE: 1"=20'
 HORIZ: 1"=20'
 DATE: 10/09/09
 DRAWN BY: JMH
 CHECKED BY: SAL

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 7 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |

 - AREA OF RESURFACING



MATCHLINE STA 25+00
(SEE SHEET 8)

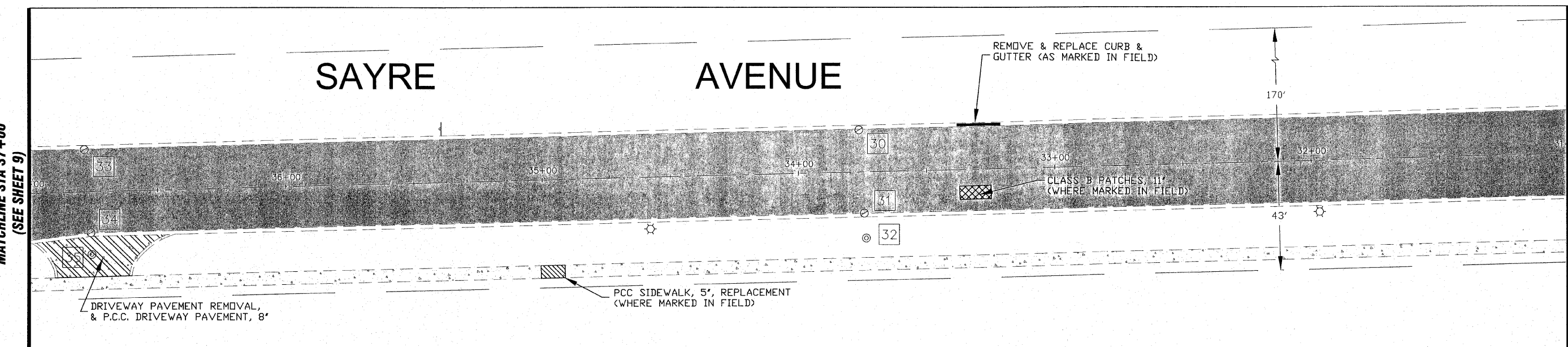
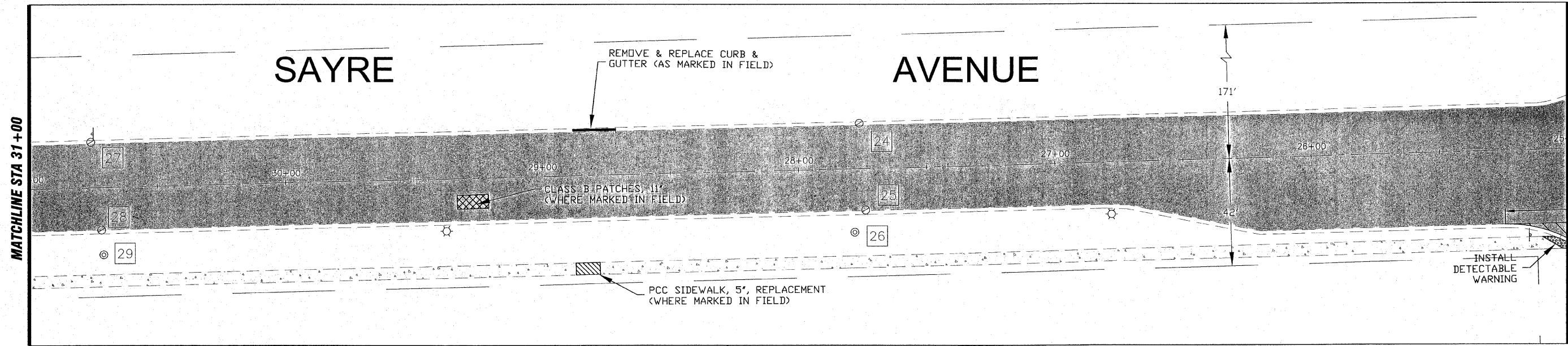
SAYRE
AVE

hbe Hoeffler-Butler Engineering, Inc.
Consulting Civil Engineers - Land Surveyors
PROFESSIONAL DESIGN FIRM LICENSE NO. 084-000819
8714 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60457
(708) 595-9580 FAX (708) 595-8770

| REVISIONS | | ILLINOIS DEPARTMENT OF TRANSPORTATION VILLAGE OF BEDFORD PARK 71st ST & SAYRE AVE RESURFACING 71st ST @ HARLEM TO SAYRE @ 73rd ST |
|----------------|----------|--|
| NAME | DATE | |
| JMH PER REVIEW | 01.06.10 | SCALE: HORIZ: 1"=20' DATE: 09/25/09 DRAWN BY: JMH CHECKED BY: SAL |
| | | |
| | | |
| | | |

FILE: 09/25/09-507

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|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 8 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |



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 874 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60437
 (708) 599-9988 FAX (708) 599-8790

- AREA OF RESURFACING

| REVISIONS | | DATE |
|----------------|------|----------|
| NAME | DATE | |
| JMH PER REVIEW | | 01.06.10 |
| | | |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
 VILLAGE OF BEDFORD PARK
 71st ST & SAYRE AVE RESURFACING
 71st ST @ HARLEM TO SAYRE @ 73rd ST

SCALE: 1"=20'
 HORIZ: 1"=20'
 DATE: 09/25/09

DRAWN BY: JMH
 CHECKED BY: SAL

MATCHLINE STA 31+00

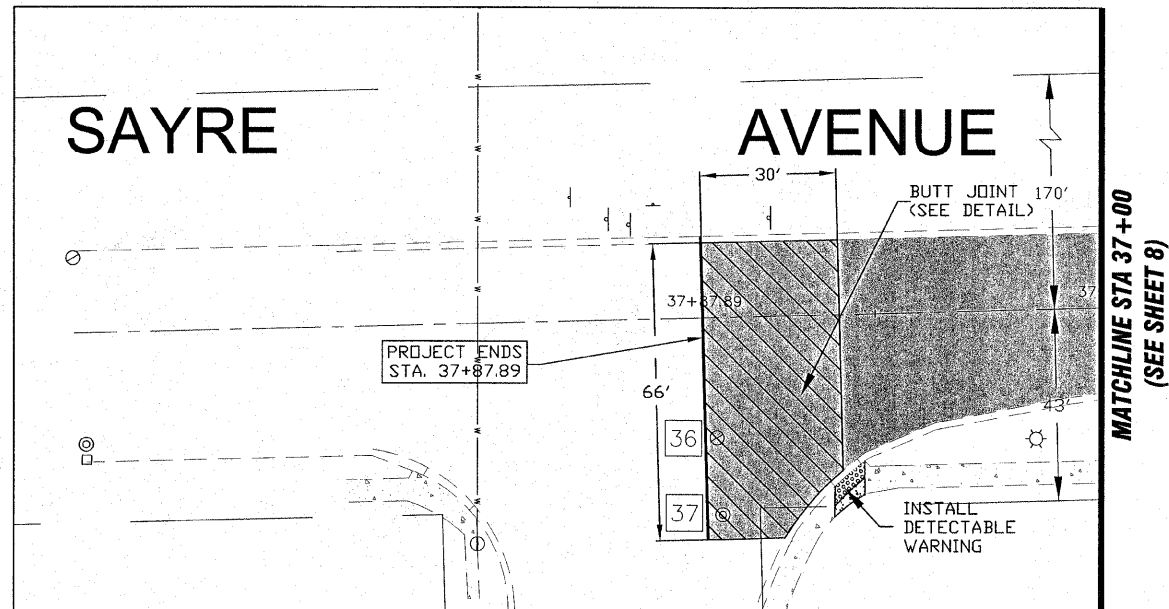
MATCHLINE STA 25+00 (SEE SHEET 7)

MATCHLINE STA 37+00 (SEE SHEET 9)

MATCHLINE STA 31+00

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 9 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |

AREA OF RESURFACING



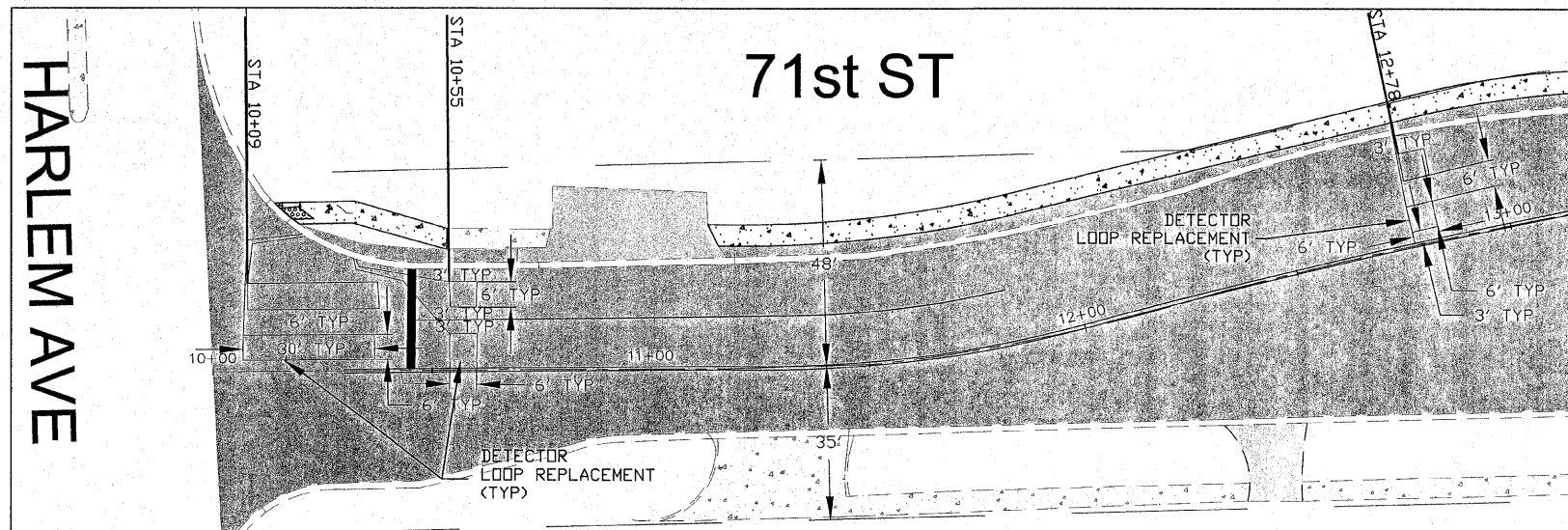
73RD ST

STRUCTURE REPAIR SCHEDULE

| PLAN STRUCTURE NO. | CONTROL POINT NO. | STRUCTURE TYPE | MORTAR EX STRUCTURE | FRAMES & LIDS TO BE ADJ.(SP.) | MHS TO BE ADJ. | REM. & REPL. FRAME & LID | REM.&REPL. STRUCTURE W/ SALVAGED FRAME&LID | REMARKS |
|--------------------|-------------------|----------------|---------------------|-------------------------------|----------------|--------------------------|--|---------------------------|
| 1 | 329 | 4'-DIAM CB | X | X | | | | |
| 2 | 343 | 4'-DIAM MH | | X | | | | 3/4 FILLED WITH WATER |
| 3 | 351 | INLET | X | X | | | | |
| 4 | 350 | 4'-DIAM. MH | X | X | | | | |
| 5 | 349 | INLET | X | X | | | | |
| 6 | 842 | 4'-DIAM. MH | | X | | | | |
| 7 | 843 | 3'-DIAM MH | | X | | | | |
| 8 | 849 | INLET | X | X | | | | |
| 9 | 883 | 4'-DIAM. MH | | X | | | | |
| 10 | 905 | INLET | | X | | | | |
| 11 | 916 | CB-TYPE C | X | | | | | |
| 12 | 918 | 4'-DIAM. MH | X | | X | | | |
| 13 | 748 | INLET | X | | | | | |
| 14 | 715 | INLET | X | X | | | | |
| 15 | 1001 | CB-TYPE C(2) | | | | | | NO WORK REQUIRED |
| 16 | 1002 | 4'-DIAM. MH | | | | | | NO WORK REQUIRED |
| 17 | 998 | INLET | | X | | | | |
| 18 | 997 | 4'-DIAM. MH | X | X | | | | |
| 19 | 679 | INLET | | X | | X | | |
| 20 | 670 | INLET | X | X | | X | | |
| 21 | 663 | INLET | | X | | | | |
| 22 | 1025 | INLET | | X | | | | |
| 23 | 996 | 4'-DIAM. MH | | | | | | NO WORK REQUIRED |
| 24 | 1051 | INLET | | X | | | | |
| 25 | 606 | INLET | | | | | X | |
| 26 | 607 | 4'-DIAM MH | | | X | | | RE-ALIGN RINGS WITH FRAME |
| 27 | 1064 | INLET | | X | | X | | |
| 28 | 592 | INLET | X | X | | | | |
| 29 | 593 | 4'-DIAM MH | | | | | | NO WORK REQUIRED |
| 30 | 1078 | INLET | | X | | X | | |
| 31 | 577 | INLET | | X | | | | |
| 32 | 579 | 4'-DIAM MH | | | | | | NO WORK REQUIRED |
| 33 | 1091 | INLET | X | X | | | | |
| 34 | 545 | INLET | X | X | | | | |
| 35 | 549 | 4'-DIAM. MH | | X | | | | BURIED UNDER EX PAVEMENT |
| 36 | 464 | 4'-DIAM CB | | X | | | | |
| 37 | 465 | 4'-DIAM MH | | X | | | | |

Hoeferle-Butler Engineering, Inc.
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 (708) 399-6980 FAX (708) 399-6796

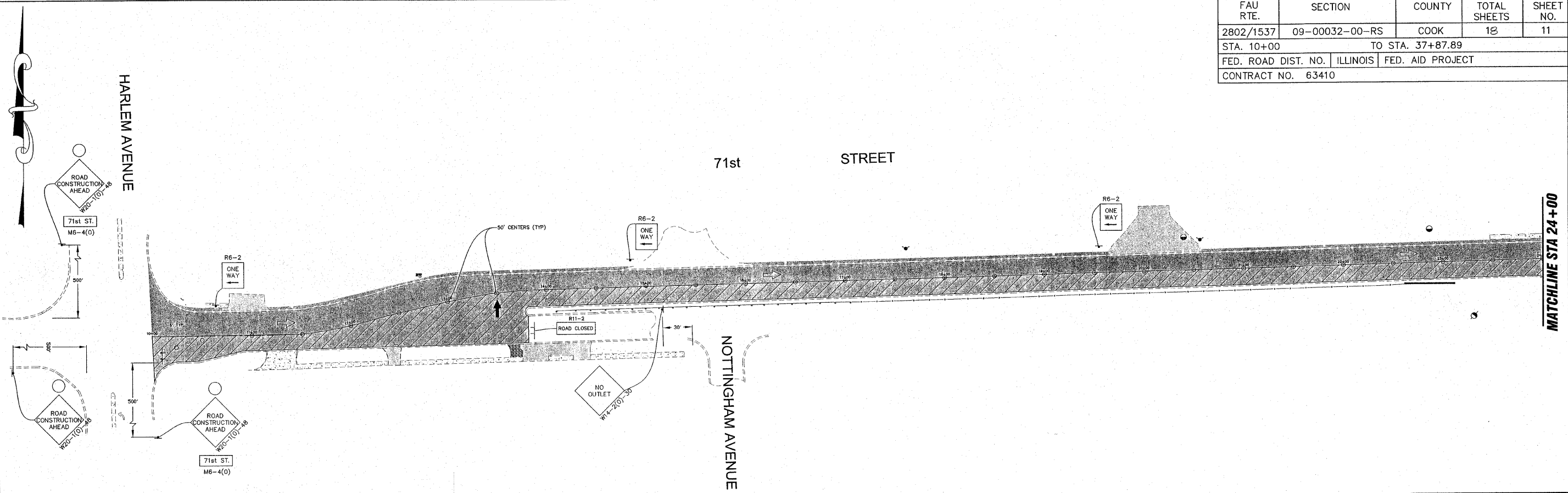
DETECTOR LOOP REPLACEMENT



| REVISIONS | |
|----------------|----------|
| NAME | DATE |
| JMH PER REVIEW | 01.06.10 |
| | |
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| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
 VILLAGE OF BEDFORD PARK
 71st ST & SAYRE AVE RESURFACING
 71st ST @ HARLEM TO SAYRE @ 73rd ST
 SCALE:
 HORIZ: 1"=20'
 DATE: 09/25/09
 DRAWN BY: JMH
 CHECKED BY: SAL

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 11 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |

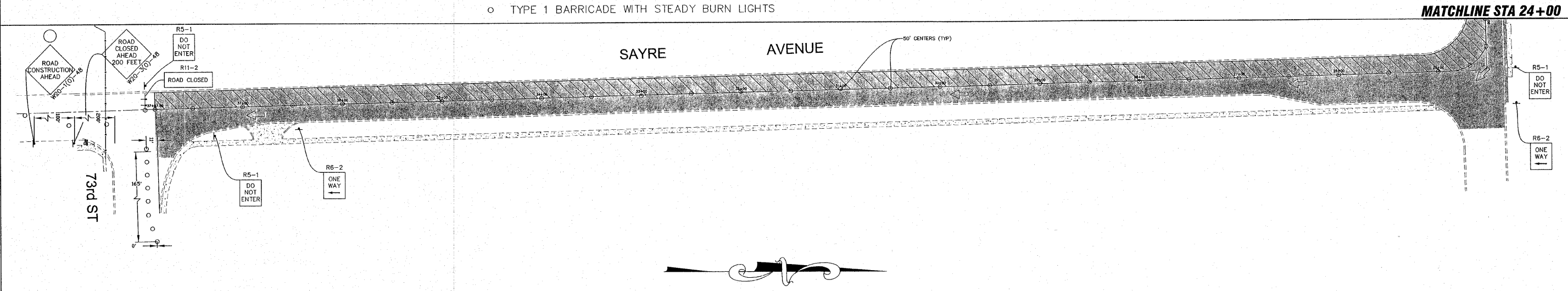


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 Consulting Civil Engineers • Land Surveyors
 PROFESSIONAL DESIGN FIRM LICENSE NO. 084-00819
 874 S. ROBERTS ROAD HOCKEY HILLS, ILLINOIS 60437
 (708) 599-9986 FAX (708) 599-8799

LEGEND

| | |
|--|----------------------|
| WORK AREA | DIRECTION OF TRAFFIC |
| SIGN ON PORTABLE OR PERMANENT SUPPORT | ARROW BOARD |
| CONSTRUCTION SIGN WITH FLASHING LIGHT | |
| TYPE III BARRICADE WITH FLASHING LIGHTS | |
| TYPE III BARRICADE | |
| TYPE 1 BARRICADE WITH STEADY BURN LIGHTS | |

NOTE: ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.

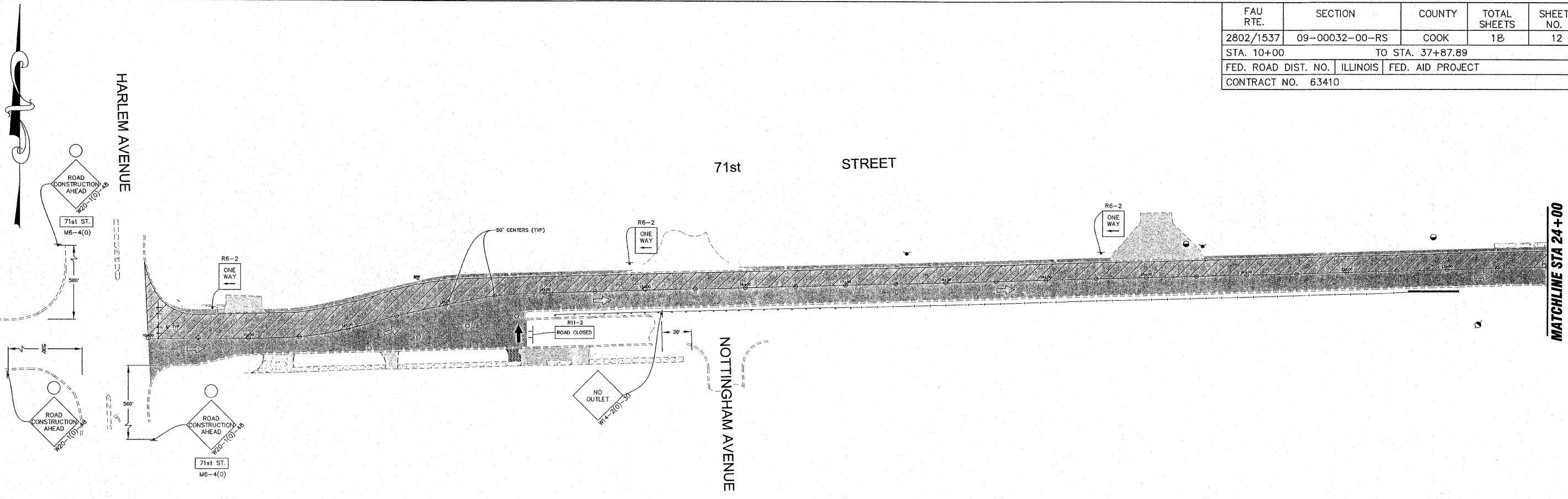


| REVISIONS | | DATE |
|-----------|------------|----------|
| NAME | REVIEW | |
| JMH | PER REVIEW | 01.06.10 |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
 VILLAGE OF BEDFORD PARK
 71st ST & SAYRE AVE RESURFACING
 71st ST @ HARLEM TO SAYRE @ 73rd ST
TRAFFIC CONTROL PLAN
 STAGE 1
 SCALE:
 HORIZ: 1"=50'
 DATE: 09/25/09
 DRAWN BY: JMH
 CHECKED BY: SAL

FILE 0084/09-307

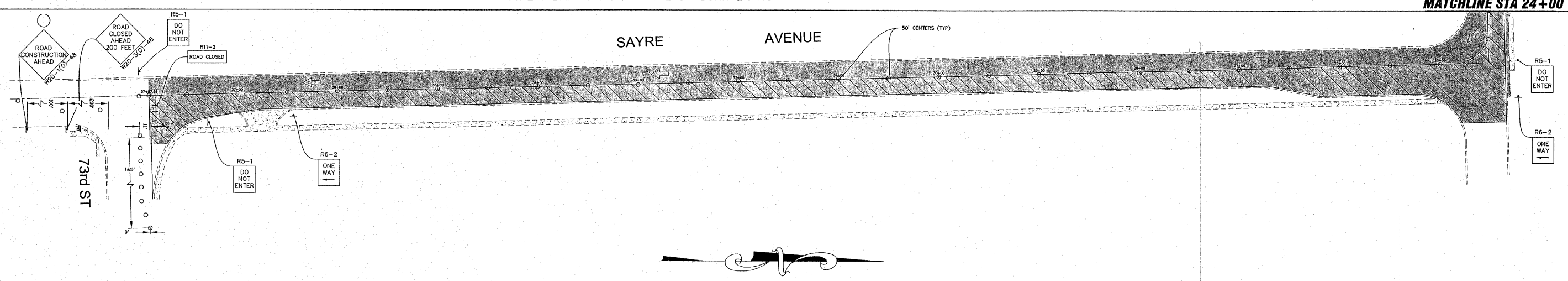
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|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 12 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |



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 8714 S. ROBERTS ROAD - HICKORY HILLS, ILLINOIS 60457
 (708) 599-6980 FAX (708) 599-6706

- LEGEND
- WORK AREA
 - SIGN ON PORTABLE OR PERMANENT SUPPORT
 - CONSTRUCTION SIGN WITH FLASHING LIGHT
 - TYPE III BARRICADE WITH FLASHING LIGHTS
 - TYPE III BARRICADE
 - TYPE 1 BARRICADE WITH STEADY BURN LIGHTS
 - DIRECTION OF TRAFFIC
 - ARROW BOARD

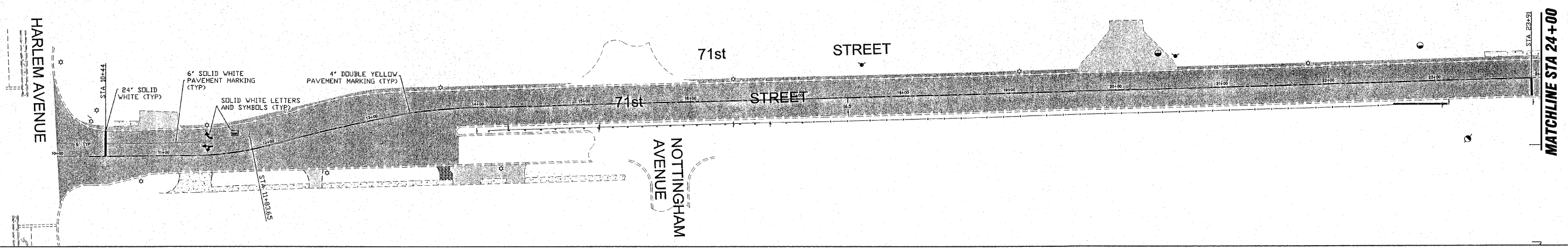
NOTE: ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.



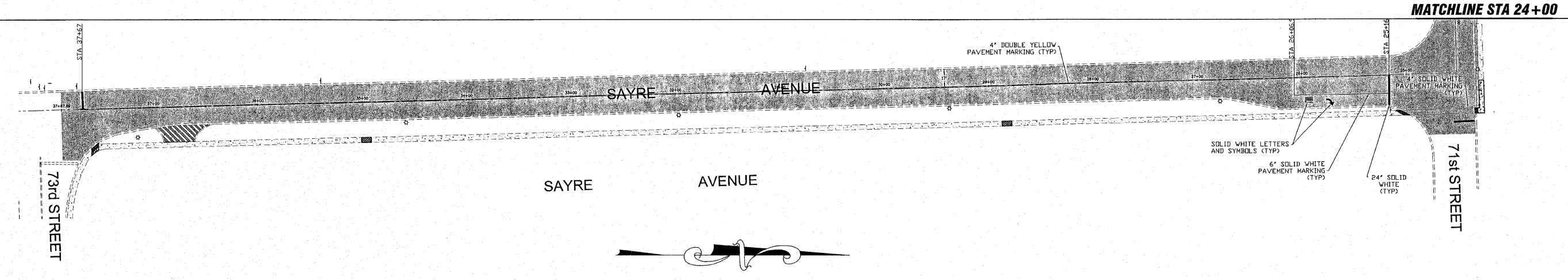
| REVISIONS | | DATE |
|-----------|------------|----------|
| NAME | | |
| JMH | PER REVIEW | 01.06.10 |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
 VILLAGE OF BEDFORD PARK
 71st ST & SAYRE AVE RESURFACING
 71st ST @ HARLEM TO SAYRE @ 73rd ST
TRAFFIC CONTROL PLAN
 SCALE: 1"=50'
 HORIZ: STAGE 2
 DATE: 09/25/09
 DRAWN BY: JMH
 CHECKED BY: SAL

| | | | | |
|---------------------|----------------|------------------|--------------|-----------|
| FAU RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 13 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 63410 | | | | |



NOTE: ALL PAVEMENT MARKING SHALL BE THERMOPLASTIC.

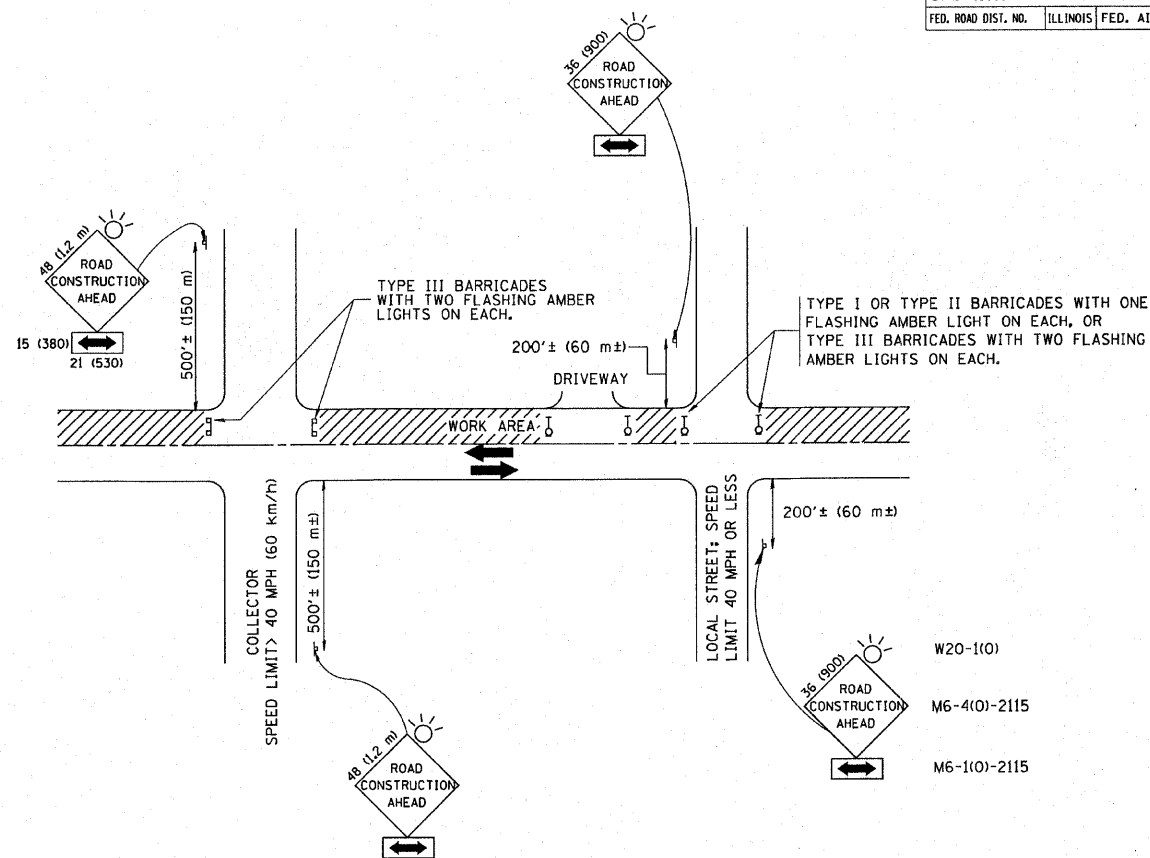


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 Consulting Civil Engineers • Land Surveyors
 PROFESSIONAL DESIGN FIRM LICENSE NO. 094-000893
 874 S. ROBERTS ROAD, ROCKFORD, ILLINOIS 61103
 (815) 398-9880 FAX (815) 398-9796

| REVISIONS | | DATE |
|----------------|--|----------|
| NAME | | |
| JMH PER REVIEW | | 01.06.10 |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
 VILLAGE OF BEDFORD PARK
 71st ST & SAYRE AVE RESURFACING
 71st ST @ HARLEM TO SAYRE @ 73rd ST
 STRIPING PLAN
 SCALE:
 HORIZ: 1"=50'
 DATE: 09/25/09
 DRAWN BY: JMH
 CHECKED BY: SAL

| | | | | |
|---------------------|----------------|---------------------------|--------------|-----------|
| F.A. R.T.E. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 15 | 14 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



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

NOTES:

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

- 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:
 - 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.
 - 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.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - 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.
 - 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.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

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

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

| REVISIONS | |
|--------------|----------|
| NAME | DATE |
| LHA | 6/89 |
| T. RAMMACHER | 09/08/94 |
| J. OBERLE | 10/18/95 |
| A. HOUSEH | 03/06/96 |
| A. HOUSEH | 10/15/96 |
| T. RAMMACHER | 01/06/00 |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

SCALE: NONE

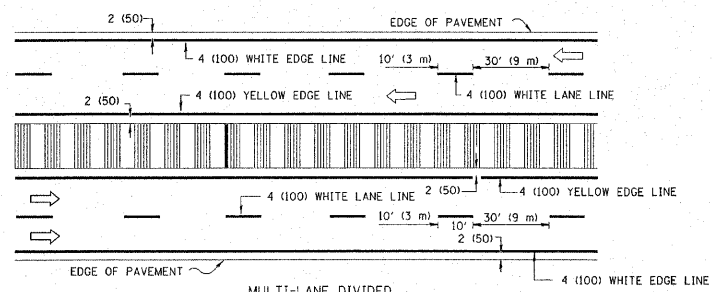
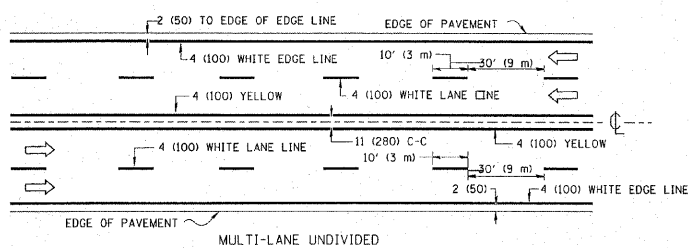
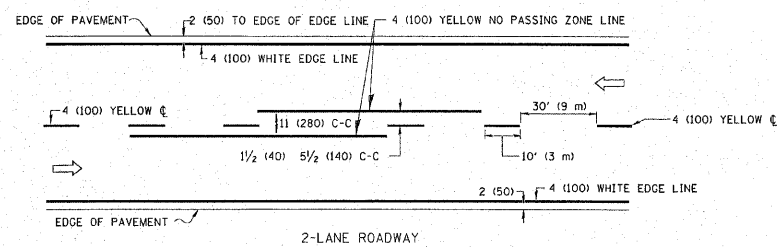
DRAWN BY
 CHECKED BY
 TC-10

hbe **Hoeffler-Butler Engineering, Inc.**
 Consulting Civil Engineers - Land Surveyors
 PROFESSIONAL DESIGN FIRM LICENSE NO. 084-008819
 8714 S. ROBERTS ROAD - HOOKY HILLS, ILLINOIS 60437
 (708) 595-8988 FAX (708) 595-8790

PLOT DATE: 3/16/2007
 FILE NAME: K:\data\10010.dwg
 USER: T. RAMMACHER
 PLOT SCALE: 1/8"=1'-0"

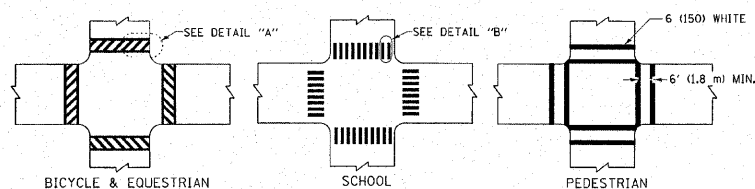
FILE: 2007-07-315

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|---------------------|------------------|------------------|-----------------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 15 |
| STA. 10+00 | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

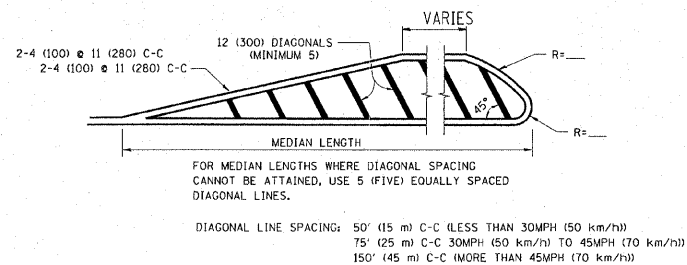
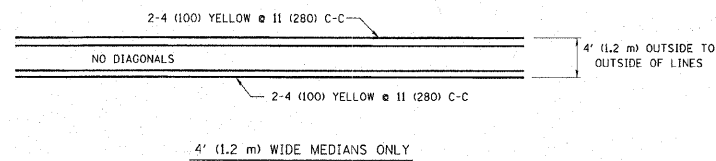


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

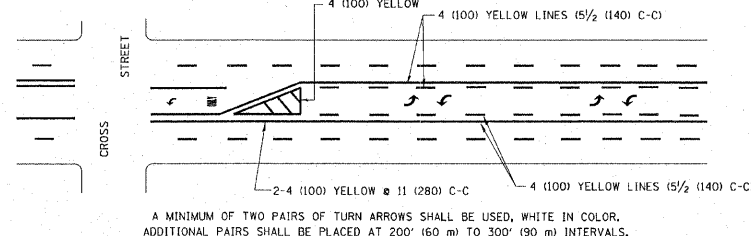
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

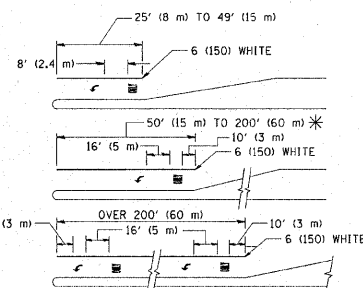


MEDIANS OVER 4' (1.2 m) WIDE



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

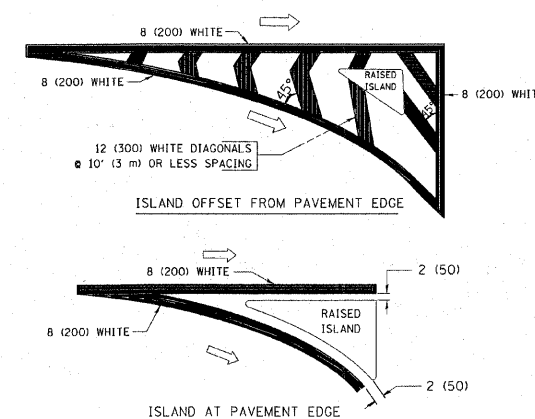
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|--|---------------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT | 4 (100) | SKIP-DASH | YELLOW | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT | 2 @ 4 (100) | SOLID | YELLOW | 11 (280) C-C |
| NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS | 4 (100) 2 @ 4 (100) | SOLID SOLID | YELLOW YELLOW | 5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100) 5 (125) ON FREEWAYS | SKIP-DASH SKIP-DASH | WHITE WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2' (600) LINE WITH 6' (1.8 m) SPACE |
| EDGE LINES | 4 (100) | SOLID | YELLOW-LEFT WHITE-RIGHT | OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB |
| TURN LANE MARKINGS | 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW | SKIP-DASH AND SOLID IN PAIRS | YELLOW WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL) | 2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90° | SOLID SOLID SOLID | WHITE WHITE WHITE | NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID | YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. |
| GORE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS @ 45° | SOLID | WHITE | DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" 15' (4.5 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²) |
| SHOULDER DIAGONALS | 12 (300) @ 45° | SOLID | WHITE - RIGHT YELLOW - LEFT | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h)) |

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

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

| REVISIONS | |
|--------------|----------|
| NAME | DATE |
| EVERS | 03-19-90 |
| I. RAMMACHER | 10-27-94 |
| C. JUCLUS | 09-09-08 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

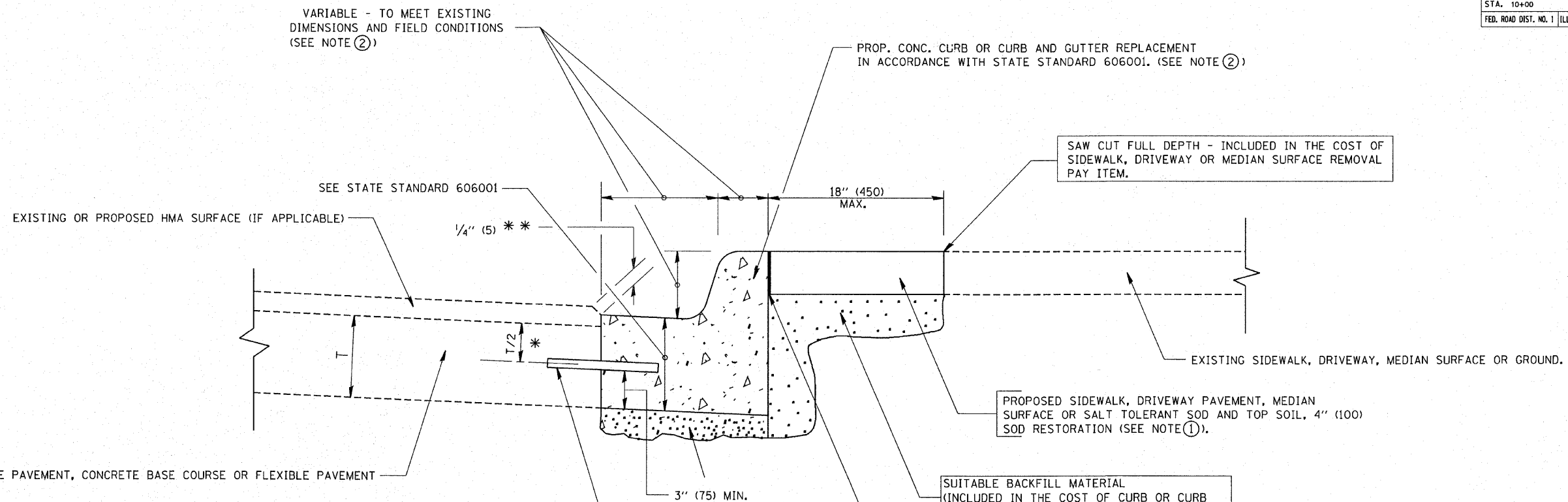
DRAWN BY CADD
CHECKED BY TC-13

HBE Hoeffler-Butler Engineering, Inc.
Consulting Civil Engineers • Land Surveyors
PROFESSIONAL DESIGN FIRM LICENSE NO. 094-000619
6714 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60457
CHgo 599-9880 FAX CHgo 599-8790

PLT DATE = 5/1/2009
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USER NAME = driv\cadd

HBE JOB# 07-585

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|-----------------------|----------------|------------------|------------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 18 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | |



- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- ** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

- ② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

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

| REVISIONS | |
|-----------|----------|
| NAME | DATE |
| A. HOUSEH | 03/11/94 |
| R. SHAH | 02/24/95 |
| R. SHAH | 03/02/95 |
| R. SHAH | 08/19/96 |
| R. SHAH | 09/12/96 |
| R. SHAH | 09/19/96 |
| R. SHAH | 10/03/96 |
| A. ABBAS | 03/21/97 |
| M. GOMEZ | 01/22/01 |
| R. BORO | 01/01/07 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

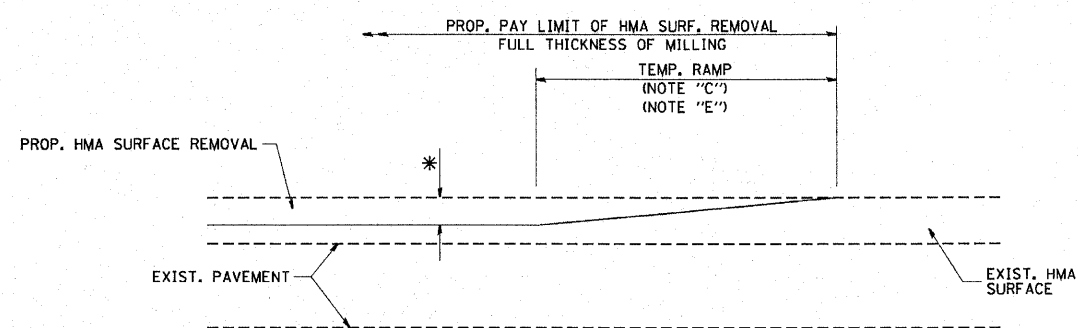
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BD600-06 (BD-24)

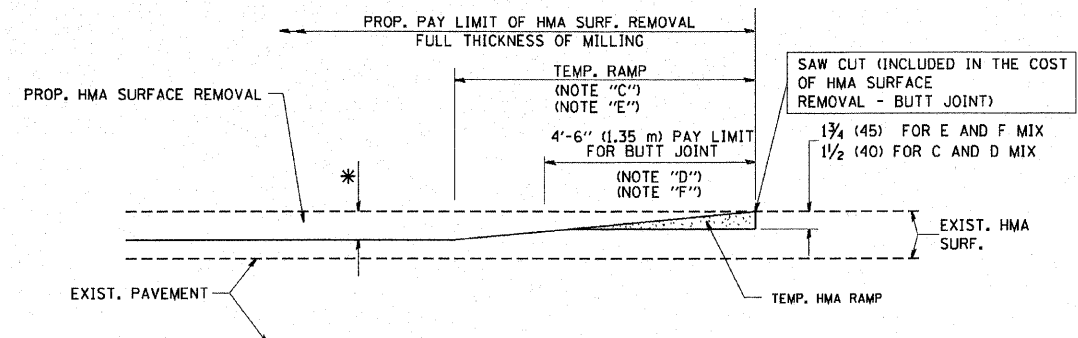
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

| | | | | |
|---|----------------|------------------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2802/1537 | 09-00032-00-RS | COOK | 15 | 17 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



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

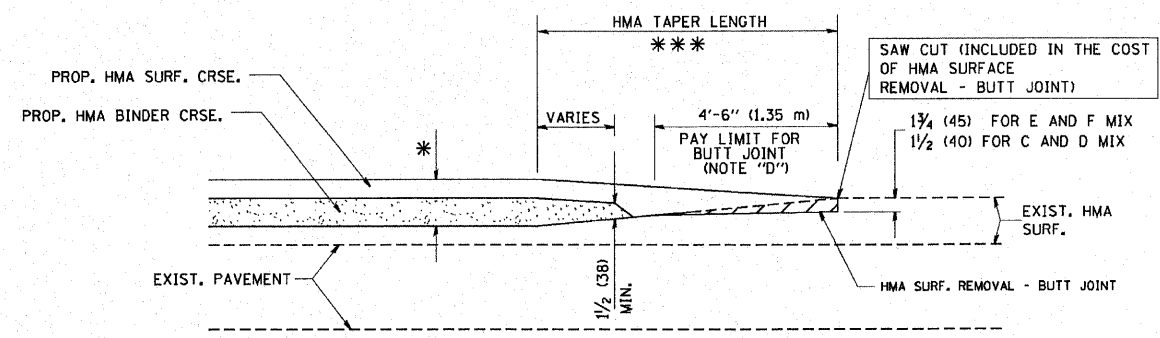
OPTION 1



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

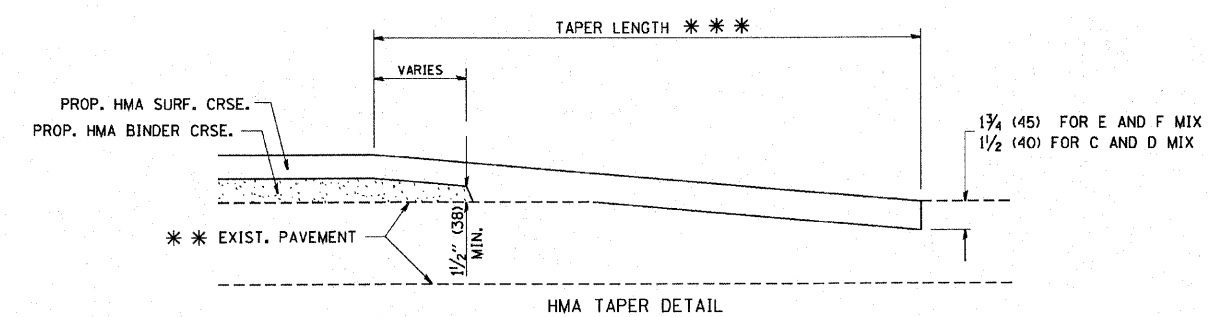
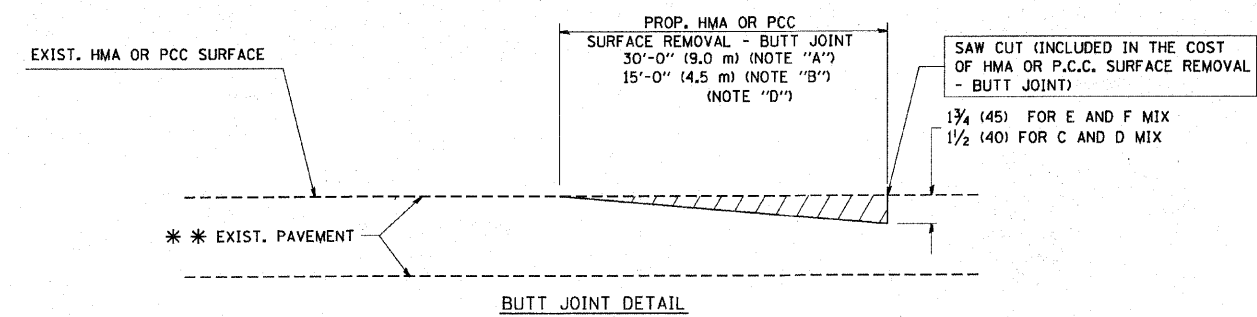
OPTION 2

TYPICAL TEMPORARY RAMP



BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

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

NOTES

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

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

| REVISIONS | |
|------------|----------|
| NAME | DATE |
| M. DE YONG | 6-13-90 |
| M. DE YONG | 7-3-90 |
| M. DE YONG | 3-27-92 |
| R. SHAH | 09/09/94 |
| R. SHAH | 10/25/94 |
| A. ABBAS | 03/21/97 |
| M. GOMEZ | 04/06/01 |
| R. BORO | 01/01/07 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BD400-05 (VI=BD32)

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".

hbe **Hoeffler-Butler Engineering, Inc.**
Consulting Civil Engineers • Land Surveyors
PROFESSIONAL DESIGN FIRM LICENSE NO. 04-000895
874 S. ROBERTS ROAD • ROCKFORD HILLS, ILLINOIS 60087
(708) 599-6980 FAX (708) 599-6790

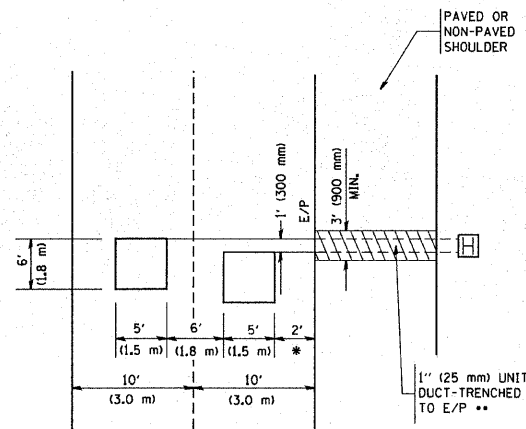
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FILE NAME = K:\hbe\bd32.dgn
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USER NAME = bborod

108#07-515

| F.A. DIST. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------------------|--------------|-----------|
| 2802/1537 | 09-00032-00-RS | COOK | 18 | 18 |
| STA. 10+00 | | TO STA. 37+87.89 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

LOOPS NEXT TO SHOULDERS

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



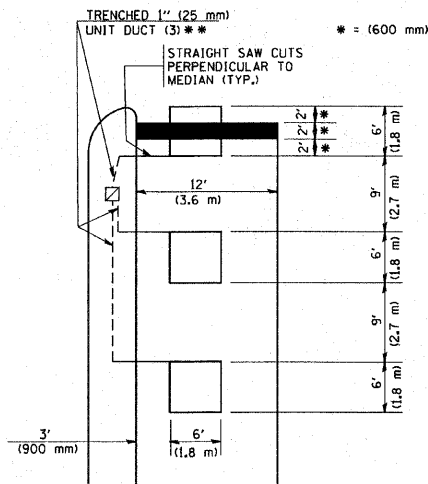
* = (600 mm)

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

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

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

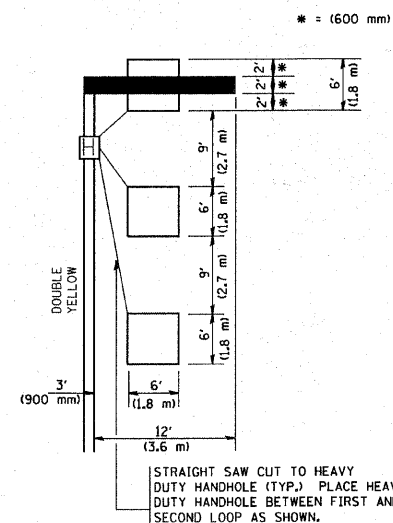


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

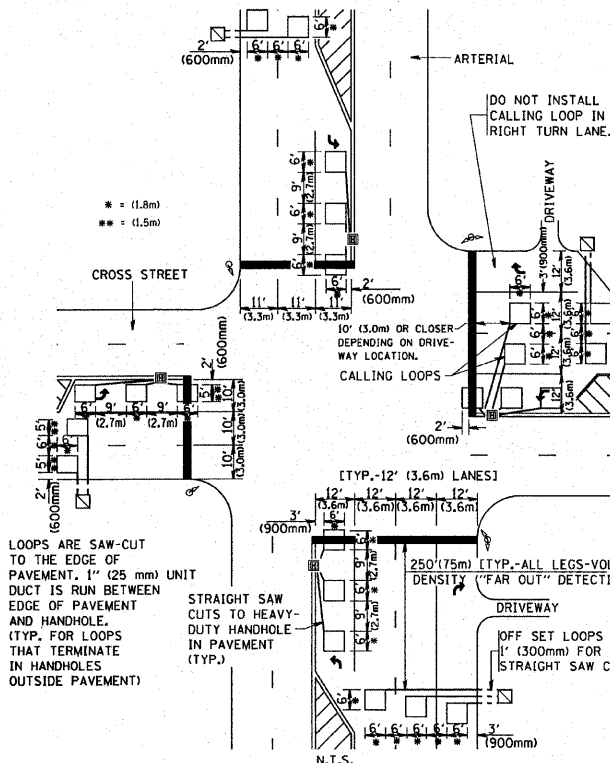
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



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)

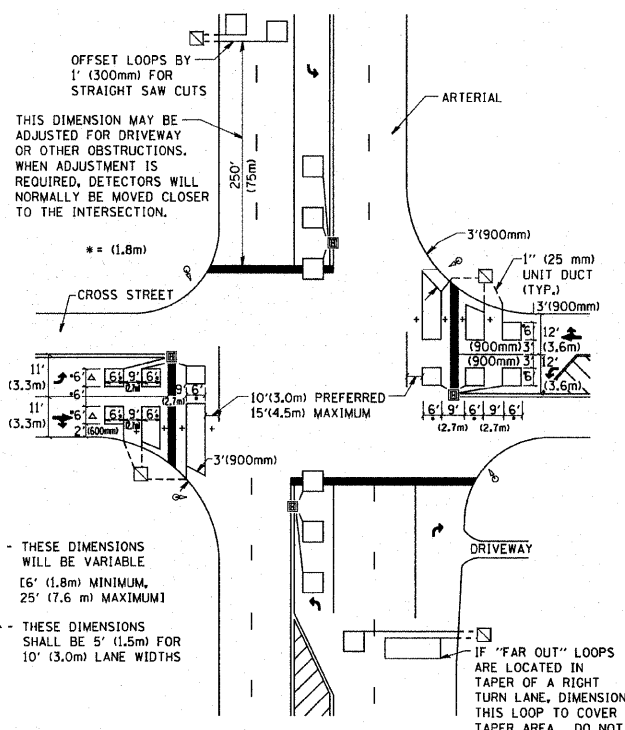


LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

STRAIGHT SAW CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

DETAIL 1
N.T.S.

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



--- THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM, 25' (7.6 m) MAXIMUM]

--- THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS

IF "FAR OUT" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

LOCATIONS AND 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.

| REVISIONS | |
|-----------|------|
| NAME | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
DETECTOR LOOP
INSTALLATION DETAILS
FOR ROADWAY RESURFACING

SCALE: NONE

DESIGNED BY
DRAWN BY CADD
CHECKED BY R.K.F.
TSOT