04-22-2016 LETTING ITEM 008

## **STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS**

## **PLANS FOR PROPOSED FEDERAL AID HIGHWAY**

F.A.U. ROUTE 1441 (WILSON STREET) **RADDANT ROAD TO KIRK ROAD** RESURFACING

> SECTION: 15-00085-00-RS PROJECT NO. M-4003(607)

> > **CITY OF BATAVIA KANE COUNTY** C-91-104-16

TRAFFIC DATA E WILSON STREET: MINOR ARTERIAL ADT (2014 to 2040) = 6400 -11,000 POSTED SPEED 30 MPH DESIGN SPEED 30 MPH

PROJECT BEGINS

STA. 0+48.67

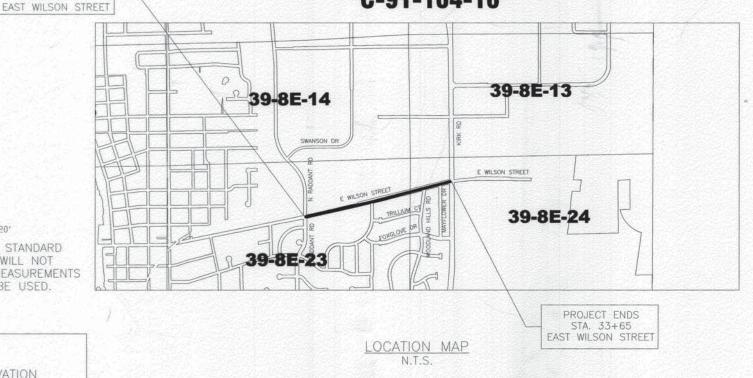
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL

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

> > I.D.O.T. BUREAU OF TRAFFIC MEADE ELECTRIC 1-773-287-7672

KANE COUNTY DEPARTMENT OF TRANSPORTATION 1-630-208-3130



PROJECT LOCATION = TOWNSHIP 39 NORTH, RANGE 8 EAST, BATAVIA TOWNSHIP, 3RD P.M. GROSS LENGTH OF PROJECT = 3,316.33 FEET (0.63 MILES) NET LENGTH OF PROJECT = 3,316.33 FEET (0.63 MILES)

1441 15-00085-00-RS KANE 18 02 = 2-81 KANKAKEE LOCATION OF SECTION INDICATED THUS: - -January 25, 2016 FEBRUARY 9,2016 Holt CHAISTONE HOLT BUREAU CHIEF OF LOCAL ROADS AND STREETS tebruary 11 2016 1/25/2016 TIMOTHY F. GRIMM, P.E. REGISTERED P.E. STATE OF ILLINOIS LICENSE EXPIRES: NOVEMBER 30, 2017 PRINTED BY THE AUTHORITY

OF THE STATE OF ILLINOIS

**CONTRACT NO. 61C55** 

### GENERAL NOTES

- ALL REFERENCES TO THE STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE APRIL 1 2016 VERSION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS PREPARED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
- 2. EXISTING UTILITIES ARE SHOWN ON THE PLANS ACCORDING TO RECORD INFORMATION OBTAINED FROM THE UTILITY COMPANIES, CITY OF BATAVIA AND/OR OTHER OFFICES AND AGENCIES ASSOCIATED WITH THE DEVELOPMENT OF THESE PLANS. THESE SOURCES DO NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS, THE CONTRACTOR WILL BE REQUIRED TO VERIFY THE LOCATION, EXISTENCE, AND NATURE OF ALL UTILITIES AND SHALL TAKE DUE CARE DURING ALL PHASES OF THE CONSTRUCTION TO PROTECT EXISTING LITHLITY FACILITIES FROM DAMAGE THAT MAY RESULT FROM THE WORK. DAMAGED UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH SPECIAL
- 3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES. THE CITY OF BATAVIA AND KANE COUNTY DEPARTMENT OF TRANSPORTATION.
- 4. BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123, THE CITY OF BATAVIA AND KANE COUNTY (630-208-3130) FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED)
- 5. NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.
- 6. THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION IN
- 7. UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER, ALL EXISTING ACCESS POINTS SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
- 8. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE WITHOUT WRITTEN
- 9. FULL-DEPTH SAW CUTS SHALL BE USED TO REMOVE EXISTING PAVEMENT, CURB AND CUTTER, SIDEWALK, DRIVEWAYS, BUTT JOINTS AND APPURTENANCES FROM MATERIAL TO REMAIN, IN ACCORDANCE WITH SECTION 440 OF THE "STANDARD SPECIFICATIONS". THE COST OF THE SAWING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED. CONTRACTORS RESPONSIBILITY TO DETERMINE THE THICKNESS OF THE EXISTING PAVEMENT, SIDEWALK, CURB/GUTTER AND WHETHER OR NOT IT CONTAINS REINFORCEMENT. ALL REINFORCEMENT SHALL BE ADEQUATELY SAW CUT AS TO NOT CAUSE DAMAGE TO THE ADJACENT MATERIAL DURING REMOVAL. FOR SIDEWALK REMOVAL ADJACENT TO AN EXISTING ASPHALT/CONCRETE DRIVEWAY NOT CALLED OUT FOR REMOVAL, THE CONTRACTOR MUST REMOVE THE DEWALK BY HAND AS TO NOT DAMAGE THE ADJACENT PAVEMENT. ANY DAMAGE TO THE ADJACENT PAVEMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIX.
- 10. ALL DIMENSIONS, INCLUDING RADII, ARE GIVEN TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- 11. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
- AFTER THE CURB AND GUTTER HAS BEEN PROPERLY BACKFILLED TO THE SATISFACTION OF THE
- PRIOR TO PLACING HOT-MIX ASPHALT ADJACENT TO EXISTING PAVEMENT TO REMAIN, THE EXPOSED EDGE SHALL BE CLEANED OF LOOSE MATERIAL TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE HOT-MIX ASPHALT BEING PLACED.
- 14. HOT-MIX ASPHALT SURFACE COURSE SHALL NOT BE PLACED UNTIL ALL WORK INCLUDING TOP SOIL PLACEMENT, AND LEVELING BINDER COURSE HAS BEEN COMPLETED TO THE
- TEN FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.
- 16. THE CONTRACTOR SHALL NOT CROSS COMPLETED BASE COURSE (WHERE REQUIRED), OR EXISTING PAVEMENT NOT SCHEDULED TO BE REMOVED, WITH TRACK EQUIPMENT.
- 17. THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR II BARRICADE USED, ONE (1) SAND BAG ACROSS EACH BOTTOM RAIL. TYPE III BARRICADES SHALL HAVE FOUR (4) WEIGHTED SANDBAGS
- 18. ANY SIGN LOCATED IN THE PUBLIC RICHT-OF-WAY WHICH INTERFERES WITH CONSTRUCTION OF THE PROPOSED ROADWAY WORK OR LIGHTING SYSTEM, THAT IS INTENDED TO BE MAINTAINED SHALL BE RELOCATED.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SIGNS DAMAGED BY HIS/HER CONSTRUCTION ACTIVITIES AND WILL REPLACE THEM AT NO ADDITIONAL COST.
- 20. 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 CITY OF BATAVIA AND BE SALVAGED. THESE ITEMS SHALL BE DELIVERED TO THE CITY OF BATAVIA PUBLIC WORKS YARD LOCATED AT 200 NORTH RADDANT ROAD BATAVIA IL 60510
- 21. MAINTENANCE OF SEWER FLOWS THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MAINTAIN AT ALL TIMES FLOW THROUGH EXISTING STORM AND SANITARY SEWER SYSTEMS. HE/SHE SHALL 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 — ALL ACCUMULATION OF MATERIAL SHALL BE REMOVED IN THE STRUCTURES DUE TO THE CONSTRUCTION OPERATIONS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF FRAMES AND GRATES TO BE ADJUSTED (SPECIAL).

ILE NAME

- 22. 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 HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 23. MILLED PAYEMENT OPEN TO TRAFFIC WHEN MILLED PAYEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 40 MM (1.5 INCHES) WHERE THE SPEED LIMIT IS 80 KM/H (45 MPH). A MAXIMUM GRADE DIFFERENTIAL OF 75 MM (3 INCHES) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
- 24. PORTLAND CEMENT CONCRETE SIDEWALK IF UPON REMOVAL OF THE EXISTING SIDEWALK A SUITABLE SUB—BASE MATERIAL IS ENCOUNTERED, THE NEW CONCRETE MAY BE CONSTRUCTED OVER THAT EXISTING SUB-BASE. HOWEVER, IF A SOFT OF UNSTABLE SUB-BASE IN ENCOUNTERED, THIS MATERIAL SHALL BE EXCAVATED AND REPLACED WITH A MINIMUM OF 4" AGGREGATE BASE COURSE, TYPE B, CAG. SIDEWALK TO BE INSTALLED AT NEW LOCATIONS WILL REQUIRE THE INSTALLATION OF 4" AGGREGATE BASE COURSE, TYPE B, CA6. THE EXCAVATION AND STONE SHALL BE INCLUDED IN THE COST OF THE ITEM BEING INSTALLED. AT LOCATIONS WHERE THE SIDEWALK IS ADJACENT TO DRIVEWAYS OR CURB AND GUTTER, ALL VOIDS FROM THE TOP OF SUB-BASE TO THE BOTTOM OF SIDEWALK SHALL BE FILLED WITH AGGREGATE BASE COURSE, TYPE B. AT LOCATIONS WHERE SIDEWALK IS TO BE CONSTRUCTED ACROSS TRENCHES, THREE (3) #10 TEN FOOT LONG REINFORCEMENT BARS SHALL BE PLACED IN THE SIDEWALK CENTERED OVER THE TRENCH. THESE REINFORCEMENT BARS SHALL NOT BE CONTINUOUS THROUGH TRAVERSE EXPANSION JOINTS BUT SHALL BE STOPPED 3 INCHES SHORT OF SAME. THE COST OF THESE REINFORCEMENT BARS, COMPLETE IN PLACE SHALL BE INCLUDED IN THE COST OF THE ITEM
- 25. <u>DETECTABLE WARNINGS</u> THE CONTRACTOR SHALL UTILIZE THE VITRIFIED POLYMER COMPOSITE NON-REMOVABLE DETECTABLE TACTILE WARNING SYSTEM IN THE RED COLOR IN CONFORMANCE WITH ADAAG, CURB RAMPS SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE ADJACENT SIDEWALK
- 26. HOT-MIX ASPHALT SURFACE REMOVAL STREETS THAT HAVE CRACK SEAL MATERIAL AT THE JOINT ALONG THE CURB AND THE PAVEMENT EDGE WILL REQUIRE THE REMOVAL OF THIS MATERIAL PRIOR TO THE PAVING OPERATIONS. THE CRACK SEAL MATERIAL SHALL BE COMPLETELY REMOVED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE COST TO THE ITEM BEING REMOVED. WHEN THE MILLED PAVEMENT SURFACES ARE OPEN TO TRAFFIC THE FOLLOWING WILL BE REQUIRED: THE FIRST LIFT OF RESURFACING OR LEVEL BINDER SHALL BE PLACED WITHIN 2 WORKING DAYS AFTER THE PAVEMENT SURFACE HAS BEEN MILLED. IF IT IS NOT RESURFACED WITHIN FIVE CALENDAR DAYS, THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE PAVEMENT AT HIS EXPENSE. UNDER NO CIRCUMSTANCES SHALL MILLED PAVEMENT BE ALLOWED TO REMAIN OVER WINTER
- 27. DETECTOR LOOP REPLACEMENT CONTRACTS SUCH AS PAVEMENT GRINDING OR PATCHING WHICH RESULT IN THE DESTRUCTION OF TRAFFIC SIGNAL DETECTION REQUIRE A NOTIFICATION OF INTENT TO WORK AND AN INSPECTION. A MINIMUM OF SEVEN (7) WORKING DAYS PRIOR TO THE DETECTION REMOVAL, THE CONTRACTOR SHALL
  - . TRAFFIC-PERMIT ENGINEER AT (630) 208-3139;
  - KDOT ELECTRICAL MAINTENANCE CONTRACTOR AT (773) 287-7600;
  - . THORNE ELECTRIC, SPPEDWAY SIGNAL CONTRACTOR (630) 774-3650 (IF SPEEDWAY WORK IS STILL UNDER CONSTRUCTION).

FAILURE TO PROVIDE PROPER NOTIFICATION MAY REQUIRE THE KDOT'S ELECTRICAL MAINTENANCE CONTRACTOR TO BE CALLED TO INVESTIGATE COMPLAINTS OF INADEQUATE TRAFFIC SIGNAL TIMING. ALL COSTS ASSOCIATED WITH THESE EXPENSES WILL BE PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO KDOT ACCORDING TO SECTION 109 OF THE "STANDARD SPECIFICATIONS.

DETECTOR LOOP REPLACEMENT WORK SHALL BE COMPLETED BY AN APPROVED ELECTRICAL CONTRACTOR AS DIRECTED BY THE ENGINEER ALL LOOPS INSTALLED IN NEW ASPHALT PAVEMENT SHALL BE INSTALLED IN THE BINDER COURSE AND NOT IN THE SURFACE COURSE. THE EDGE OF PAVEMENT OR THE CURB SHALL BE CUT WITH A 1/4" (6.3 MM) DEEP X 4" (100 MM) SAW-CUT TO MARK LOCATION OF EACH LOOP LEAD-IN, ROUND LOOPS WILL NOT BE PERMITTED UNLESS REQUIRED TO AVOID CONFLICTS WITH OTHER OBSTRUCTIONS AND APPROVED BY KDOT.

WHEN THE ROAD IS OPEN TO TRAFFIC, EXCEPT AS OTHERWISE PROVIDED IN SECTION 801 AND 850 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR MUST REQUEST A TURN-ON AND INSPECTION OF THE COMPLETED DETECTOR LOOP INSTALLATION AT EACH SEPARATE LOCATION. THIS REQUEST MUST BE MADE TO THE TRAFFIC-PERMIT ENGINEER AT (630) 208-3139 A MINIMUM OF SEVEN (7) WORKING DAYS PRIOR TO THE TIME OF THE REQUESTED INSPECTION.

### INDEX OF SHEETS

### SHEET NO. SHEET DESCRIPTION COVER SHEET

1 COVER SHEET
2 INDEX OF SHEETS, LEGEND
GENERAL NOTES, LD.O.T. STANDARD DRAWINGS
3 SUMMARY OF QUANTITIES
4 EXISTING & PROPOSED TYPICAL CROSS SECTIONS
5 EXISTING & PROPOSED TYPICAL CROSS SECTIONS
6-8 EXISTING & PROPOSED TAPICAL CROSS SECTIONS
9-11 PROPOSED PAVEMENT MARKING PLAN

#### DISTRICT ONE DETAILS

(TC-10) TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS

(TC-13) DISTRICT ONE - TYPICAL PAVEMENT MARKINGS (TC-16) PAVEMENT MARKING AND LETTERS & SYMBOLS FOR TYPICAL

(RD-8) DETAILS FOR FRAME AND LID ADJUSTMENT

(BD-32) BUTT JOINT AND HOT MIX ASPHALT TAPER DETAILS (TS-05) STANDARD TRAFFIC SIGNAL DESIGN DETAILS, SHEET 2 OF 7

(TS-07) DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

### LIST OF STANDARD DRAWINGS

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS PERPENDICULAR CURB RAMPS FOR SIDEWALKS DIAGONAL CURB RAMPS FOR SIDEWALKS CORNER PRAFLLEL CURB RAMPS FOR SIDEWALKS DEPRESSED CORNER FOR SIDEWALKS CHARS C. AND D. D. BATCH

CLASS C AND D PATCHES
CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER

CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER OFF-RD OPERATIONS, 2L, 2W 15 TO 24" FROM PAYEMENT EDGE LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS LANE CLOSURE 2L, 2W, MOVING OPERATIONS — DAY ONLY URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE URBAN LANE CLOSURE, MULTILANE INTERSECTION LANE CLOSURE, MULTILANE INTERSECTION LANE CLOSURE, MULTILANE TW OR 2W CROSSWALK OR SIDEWALK CLOSURE TRAFFIC CONTROL DEVICES TYPICAL PAVEMENT MARKINGS

### LEGEND OF SYMBOLS

### DRIVEWAY PAVEMENT REMOVAL

HOT-MIX ASPHALT DRIVEWAY PAVEMENT

SIDEWALK REMOVAL



HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT



AGGREGATE SHOULDERS, TYPE B



P PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH

(SP) FRAMES AND LIDS TO BE ADJUSTED SPECIAL

COUNTY TOTAL SHEE

CONTRACT NO. 61C55

ADJ FRAMES AND GRATES TO BE ADJUSTED

MR MANHOLES TO BE RECONSTRUCTED

IR INLETS TO BE RECONSTRUCTED

FG FRAME AND GRATE - SPECIAL

### **SUMMARY OF QUANTITIES**

CODE NO.	PAY ITEM	UNIT	CONSTRUCTION TYPE CODE 009 QUANTITY
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	471
25000100	SEEDING, CLASS 1	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	8.76
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	8.76
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	8.76
25100125	MULCH, METHOD 3	ACRE	0.25
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	9504
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	21
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	788
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	151
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1577
42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SQ FT	1831
42400800	DETECTABLE WARNINGS	SQ FT	390
440000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	SQ YD	14079
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	58
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1292
44000600	SIDEWALK REMOVAL	SQ FT	1773
44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	175
44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SQ YD	175
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	4
60260100	INLETS TO BE ADJUSTED	EACH	13

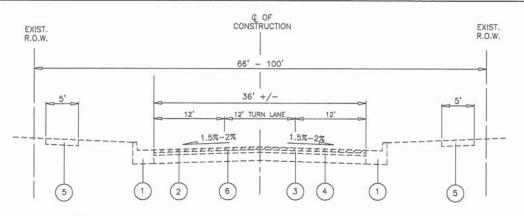
CODE NO.	PAYITEM	UNIT	CONSTRUCTION TYPE CODE 005 QUANTITY
60262700	INLETS TO BE RECONSTRUCTED	EACH	5
60404305	FRAMES AND GRATES, TYPE 3V	EACH	1
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1292
67100100	MOBILIZATION	L SUM	1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1955
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	651
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	18106
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1444
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	222
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	9053
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	722
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	258
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	120
88600600	DETECTOR LOOP REPLACEMENT	FOOT	320
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	13
Z0004510	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	SQ YD	20
Z0004522	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 6"	SQ YD	38

- Δ SEE SPECIAL PROVISIONS

ILE NAME -	USER NAME -	DESIGNED -	TFG	REVISED	_
		DRAWN -	DMO	REVISED	_
	PLOT SCALF =	CHECKED -	RB	REVISED	-
	PLOT DATE + 1/8/2016	DATE -	10/19/2015	REVISED	- 02/08/2016

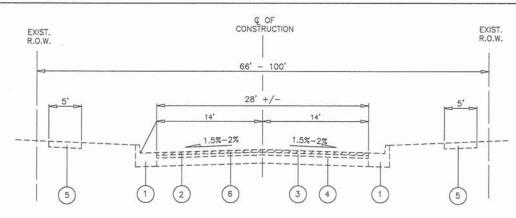
STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	
	SCALE: NTS

WILS	SON	STREE	T LAFO	
SUMM	ARY	OF QU	JANTITIES	
SHEET NO. 3	OF 18	SHEETS	STA.	TO



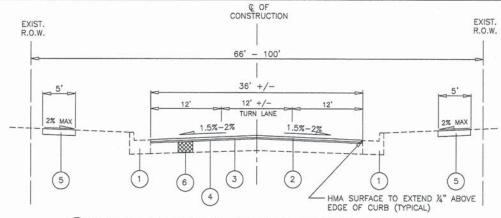
- 1.) EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- 2.) EXISTING HOT-MIX ASPHALT SURFACE 1 1/2"
- (3.) EXISTING HOT-MIX BINDER COURSE 1 1/2"
- 4. EXISTING P.C.C. BASE COURSE, 8"+/- (WITH BIT. BASE COURSE WIDENING, BOTH SIDES)
- 5.) EXISTING PORTLAND CEMENT CONCRETE SIDEWALK
- 6. HOT-MIX ASPHALT SURFACE REMOVAL 2.75"

EXISTING TYPICAL SECTION WILSON STREET - RADDANT TO KIRK STA. 0+48.67 TO STA. 19+89



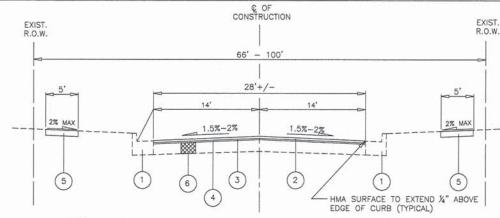
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- 4. EXISTING P.C.C. BASE COURSE, 8"+/- (WITH BIT. BASE COURSE WIDENING, BOTH SIDES)
- (5.) EXISTING PORTLAND CEMENT CONCRETE SIDEWALK
- 6.) HOT-MIX ASPHALT SURFACE REMOVAL 2.75"

EXISTING TYPICAL SECTION WILSON STREET - RADDANT TO KIRK STA. 19+89 TO STA. 29+89



- 1. COMBINATION CONCRETE CURB & GUTTER REMOVAL AND REPLACEMENT (AT VARIOUS LOCATIONS)
- (2.) HOT-MIX SURFACE COURSE, MIX "D", N70, 2"
- (3.) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75 N50, 1"
- (4.) BITUMINOUS MATERIALS (TACK COAT)
- (5.) PORTLAND CEMENT CONCRETE SIDEWALK REMOVAL AND REPLACEMENT (AT VARIOUS LOCATIONS)
- 6.) CLASS D PATCHES, 8 INCH (AT VARIOUS LOCATIONS)

PROPOSED TYPICAL SECTION WILSON STREET - RADDANT TO KIRK STA. 0+48.67 TO STA. 19+89



- 1. COMBINATION CONCRETE CURB & GUTTER REMOVAL AND REPLACEMENT (AT VARIOUS LOCATIONS)
- 2.) HOT-MIX SURFACE COURSE, MIX "D", N70, 2"
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- (6.) CLASS D PATCHES, 8 INCH (AT VARIOUS LOCATIONS)

PROPOSED TYPICAL SECTION WILSON STREET - RADDANT TO KIRK STA. 19+89 TO STA. 29+89

- NOTES:

  1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITY IS 112 LBS/SY/IN.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA, THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP", SEE DISTRICT ONE SPECIAL PROVISIONS. THE CONTRACTOR SHALL MILL BEFORE PATCHING.
- 4. PATCHING MAXIMUM LIFT OF 2.25".

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

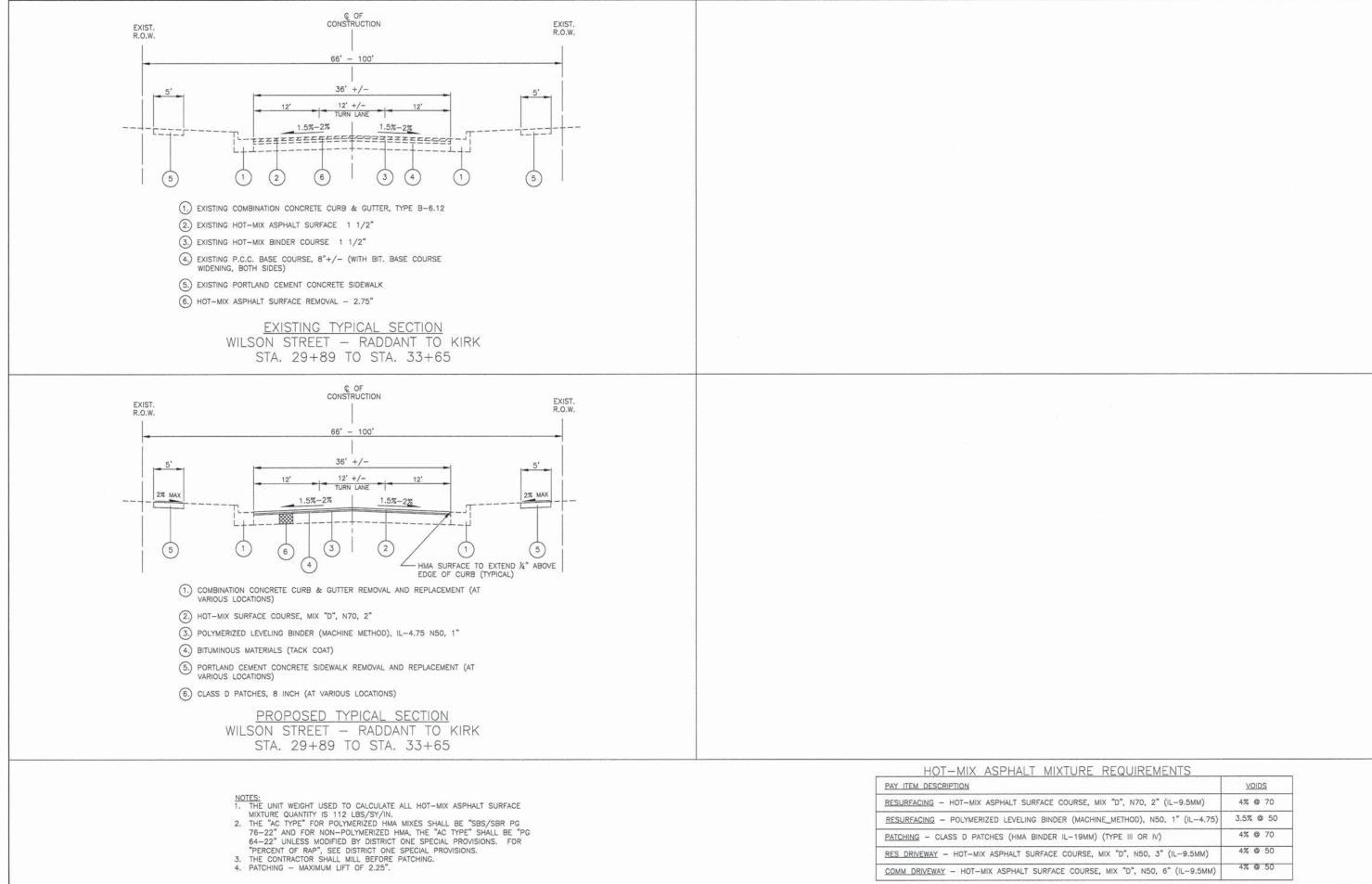
PAY ITEM DESCRIPTION	VOIDS
RESURFACING - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2" (IL-9.5MM)	4% @ 70
RESURFACING - POLYMERIZED LEVELING BINDER (MACHINE_METHOD), N50, 1" (IL-4.75)	3.5% @ 50
PATCHING - CLASS D PATCHES (HMA BINDER IL-19MM) (TYPE III OR IV)	4% @ 70
RES DRIVEWAY - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 3" (IL-9.5MM)	4% @ 50
COMM DRIVEWAY - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 6" (IL-9.5MM)	4% @ 50

ILE NAME = USER NAME = DESIGNED - TFG REVISED PLOT SCALE = N.T.S. CHECKED - RB REVISED -PLOT DATE = 2/9/2019 DATE - 10/15/2015 REVISED - 11/16/2015

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

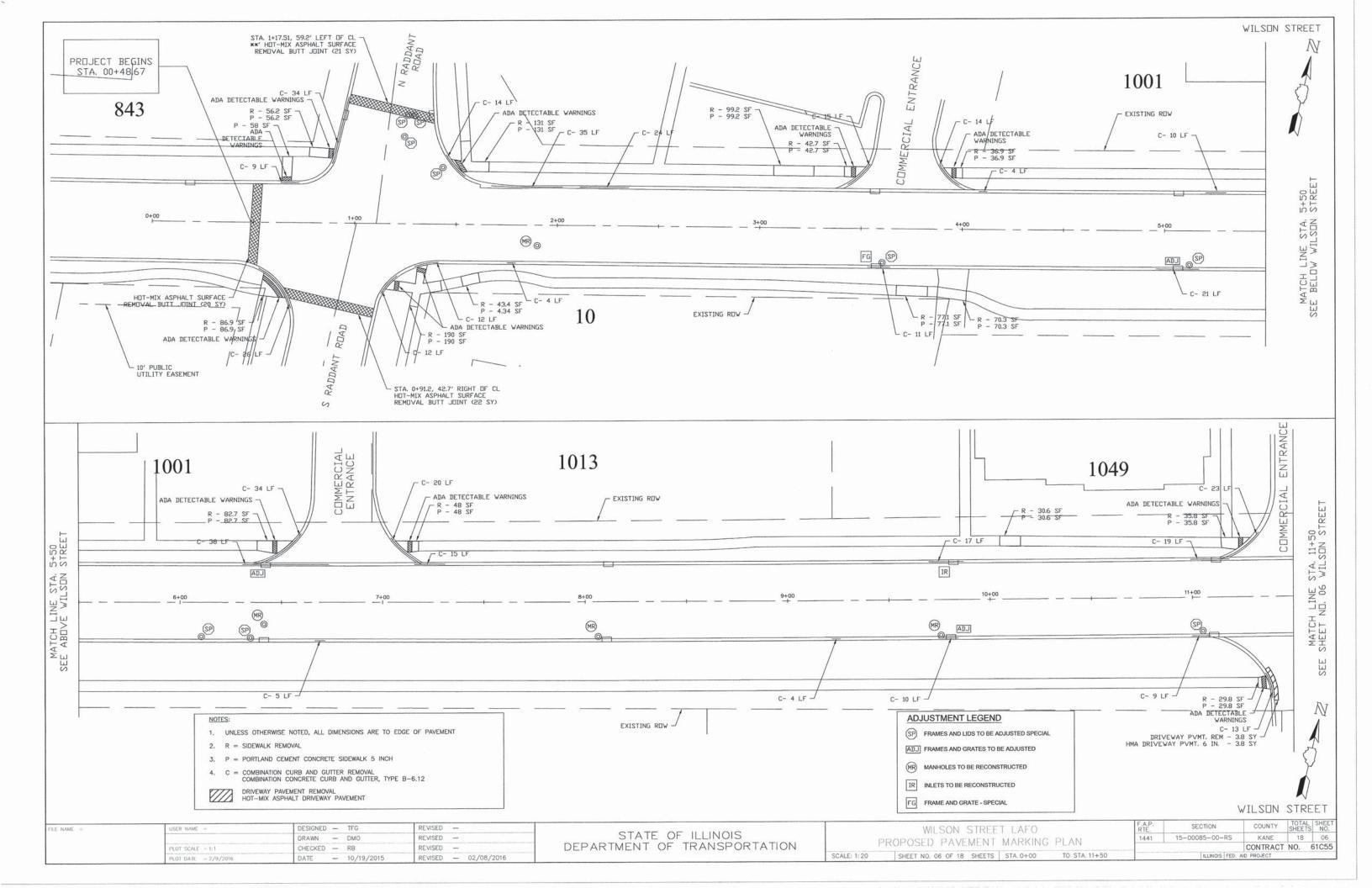
WILSON STREET LAFO - RADDANT TO KIRK TYPICAL SECTIONS SCALE: N.T.S. SHEET NO. 1 OF 18 SHEETS STA.

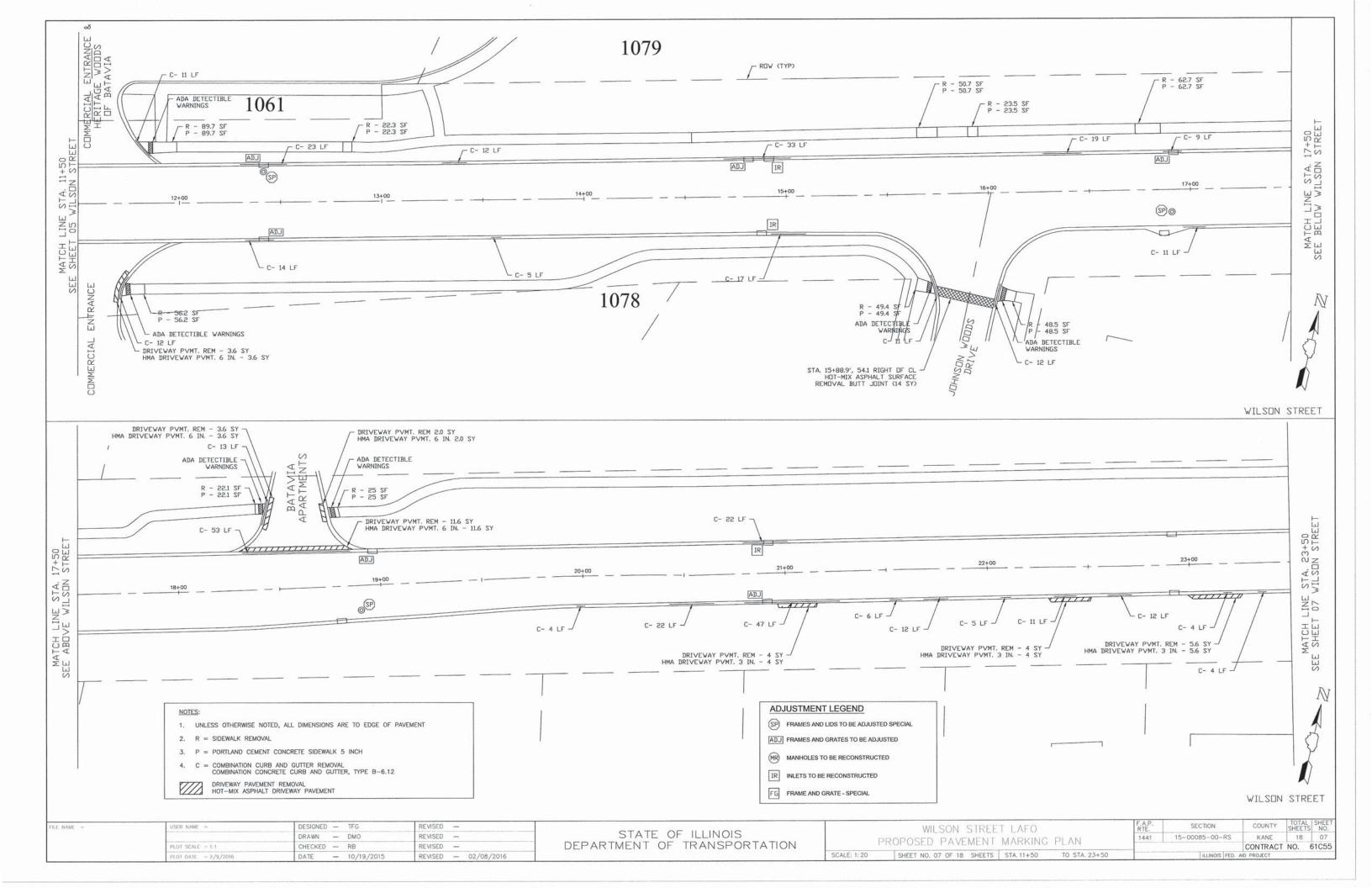
SECTION COUNTY SHEETS NO. 15-00085-00-RS KANE CONTRACT NO. 61C55

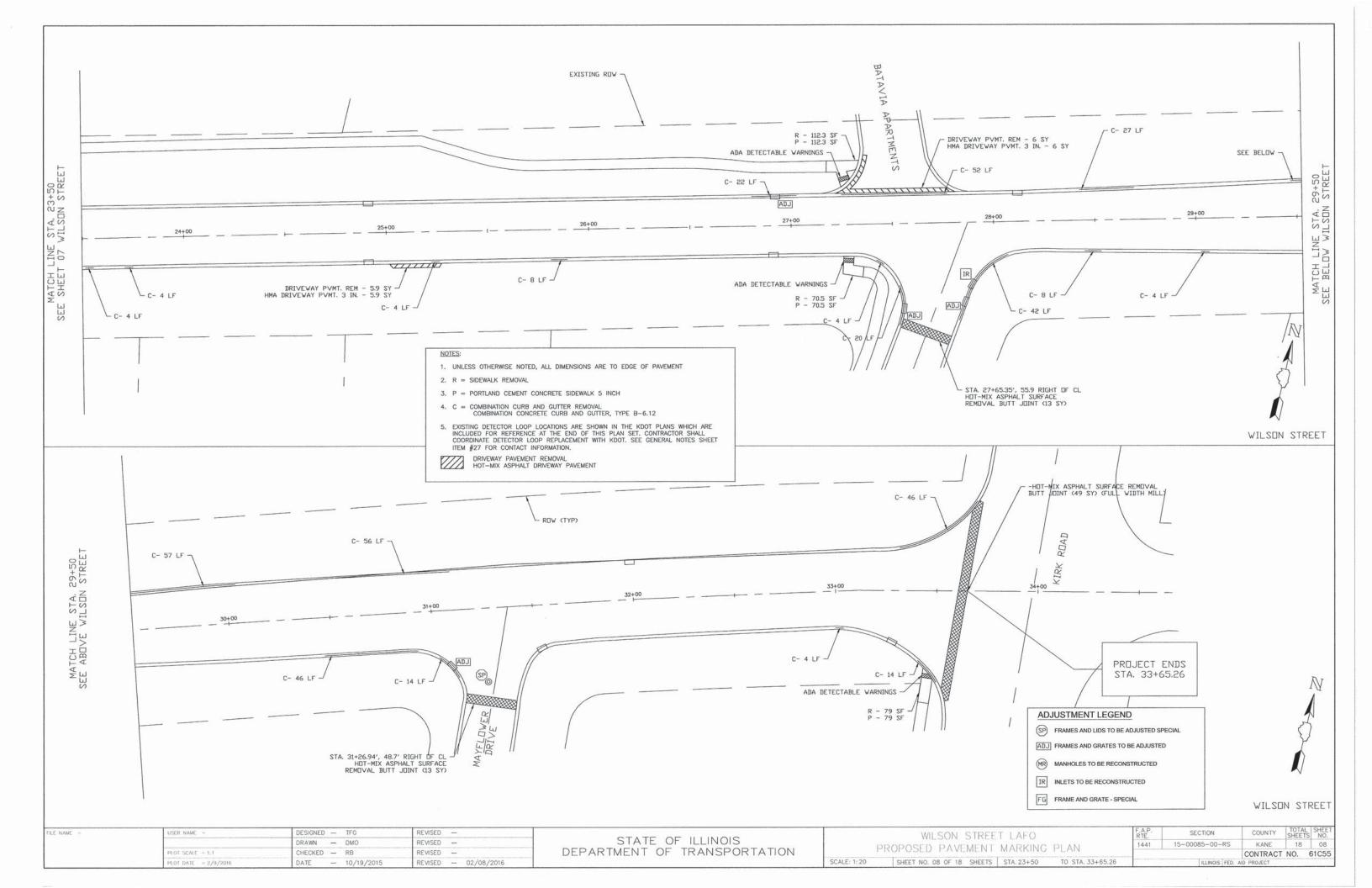


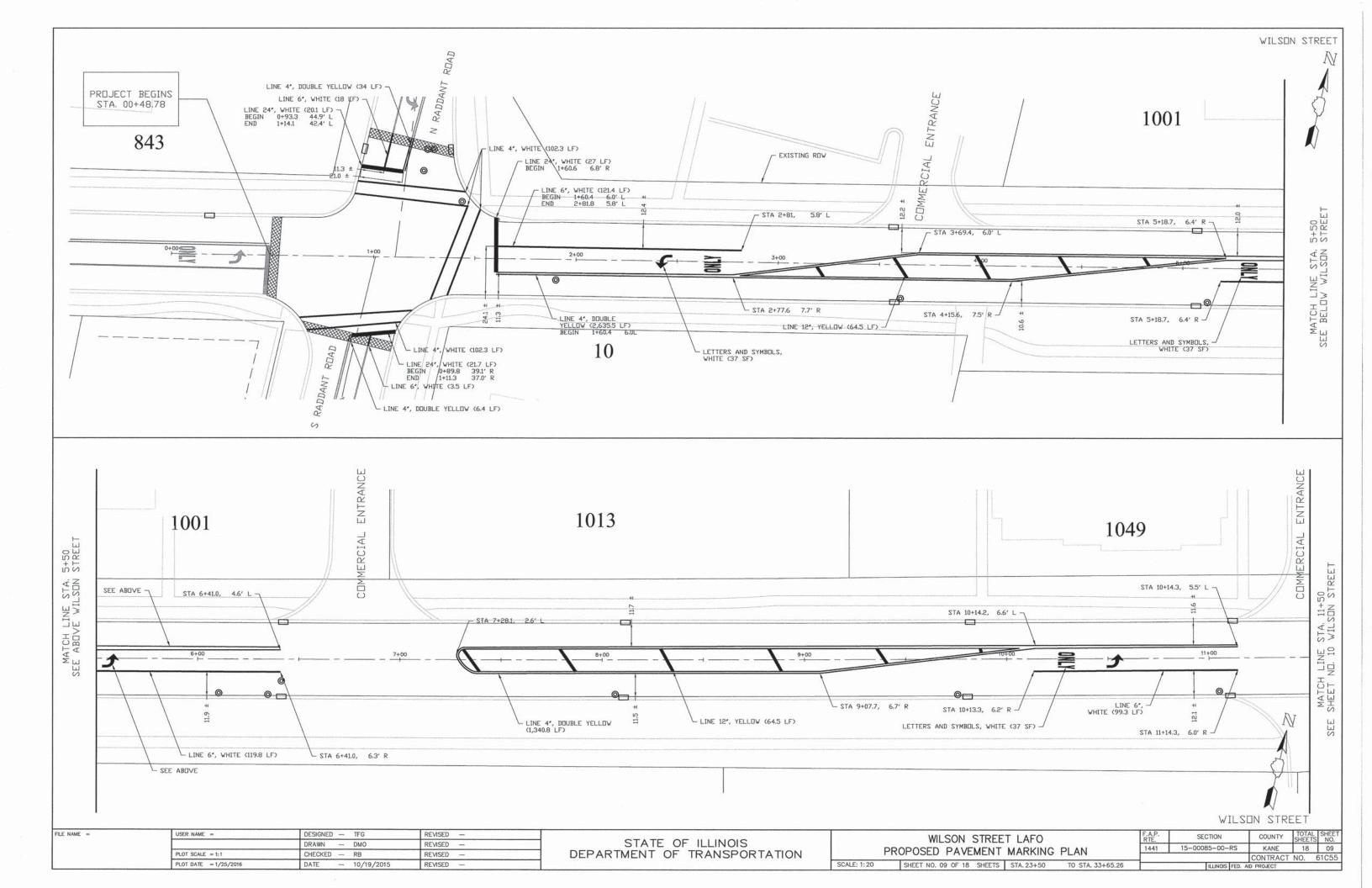
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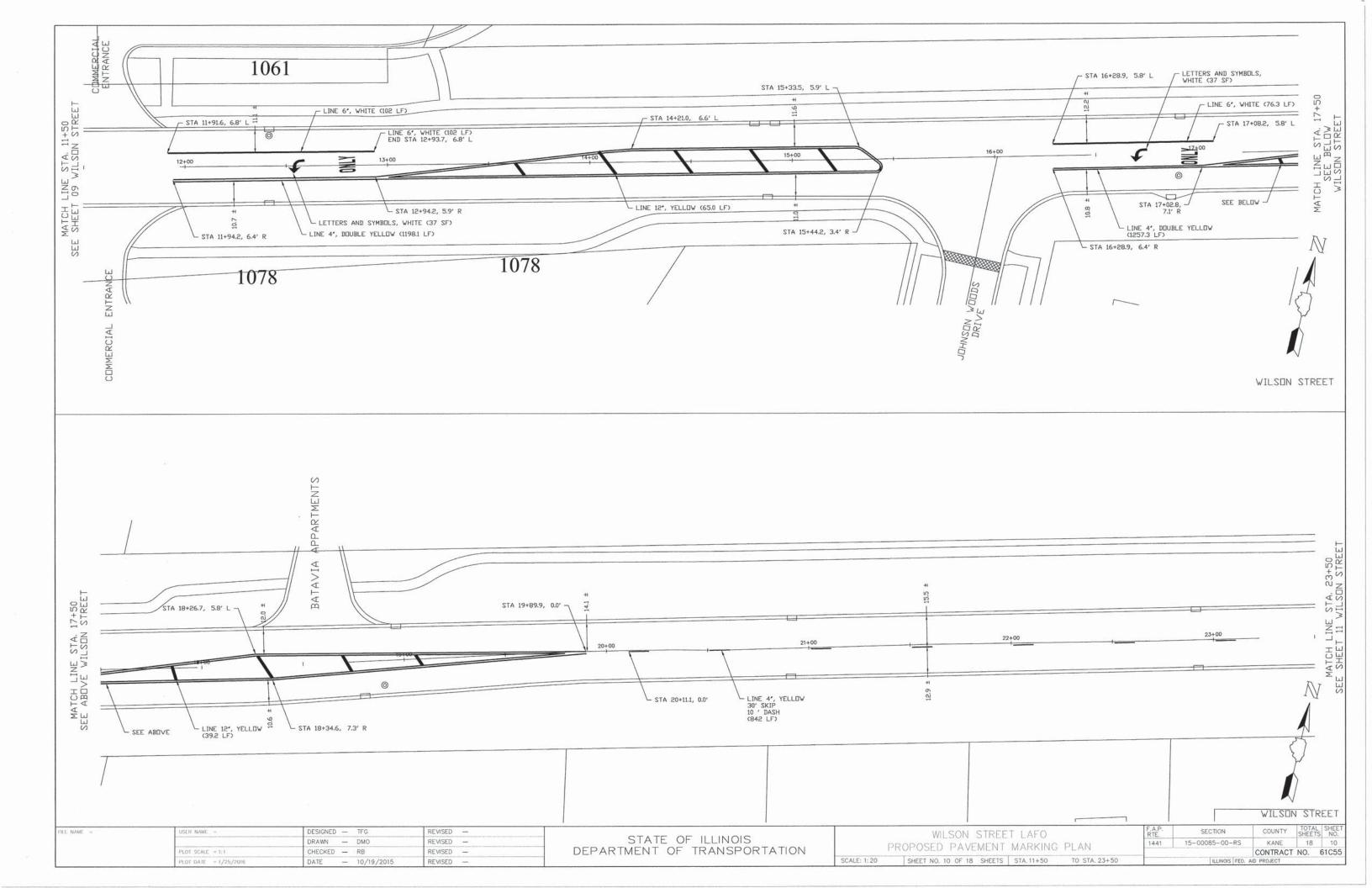
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

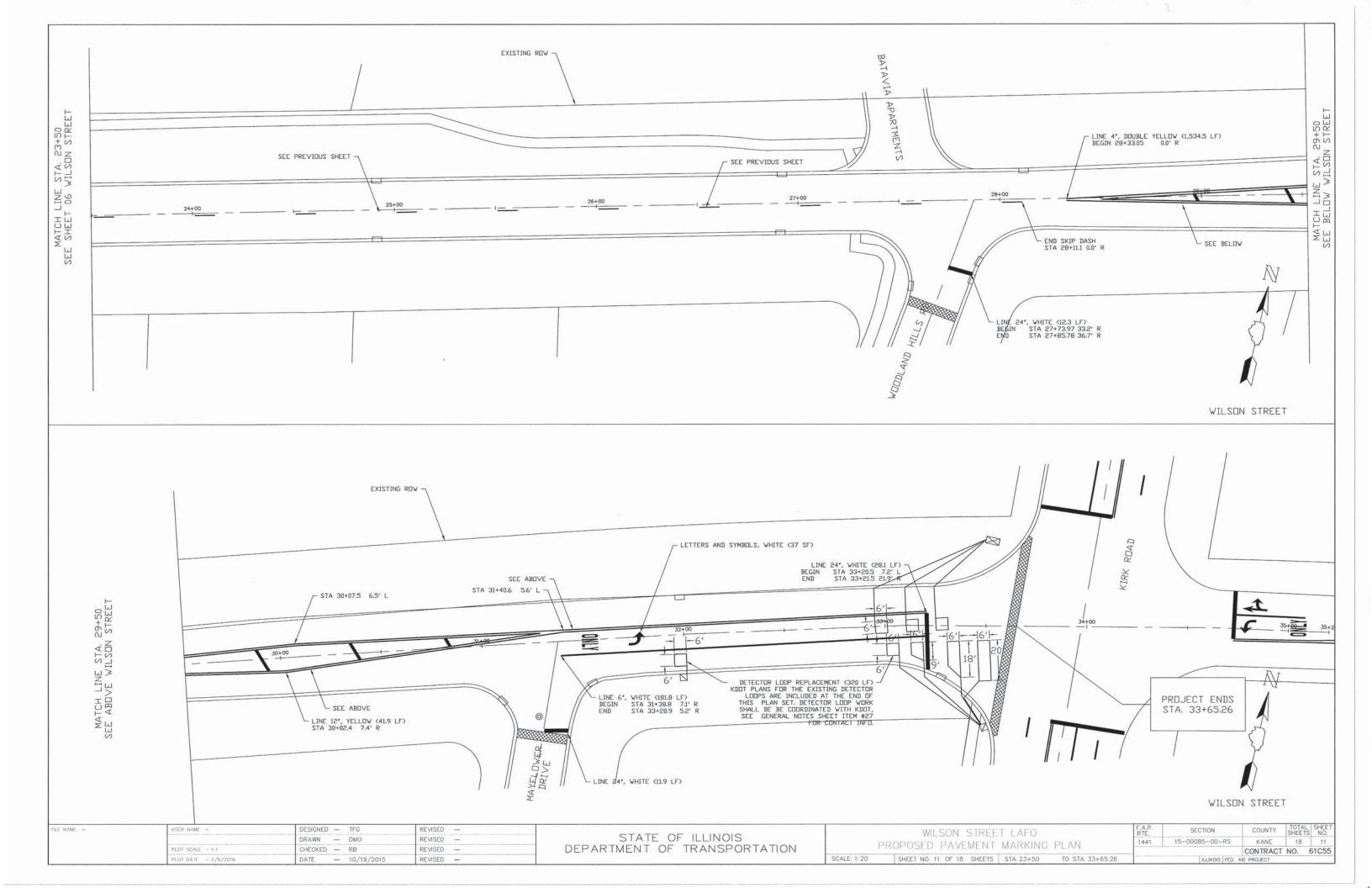


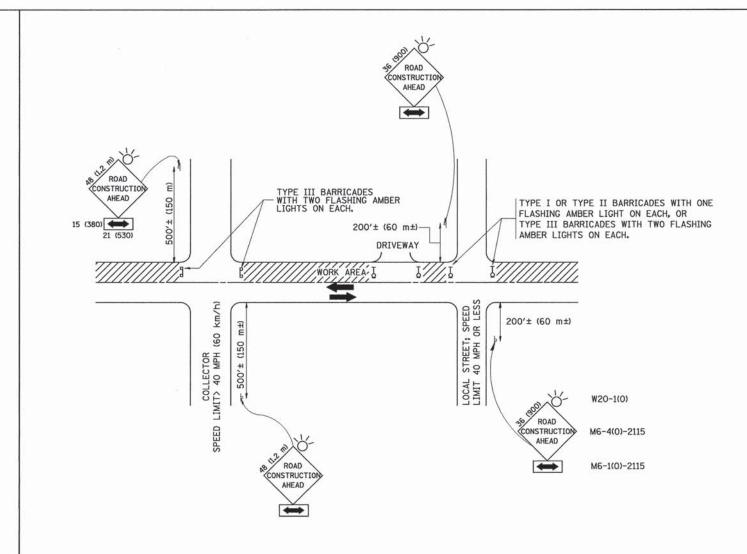












TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

### 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:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h)
- a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

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

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

FILE NAME = gaglianobt DESIGNED - LHA REVISED - J. OBERLE 10-18-95
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PLOT SCALE = 50.000 '/ IN. CHECKED - REVISED - A. HOUSEH 10-15-96
PLOT DATE = 1/4/2008 DATE - 06-89 REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

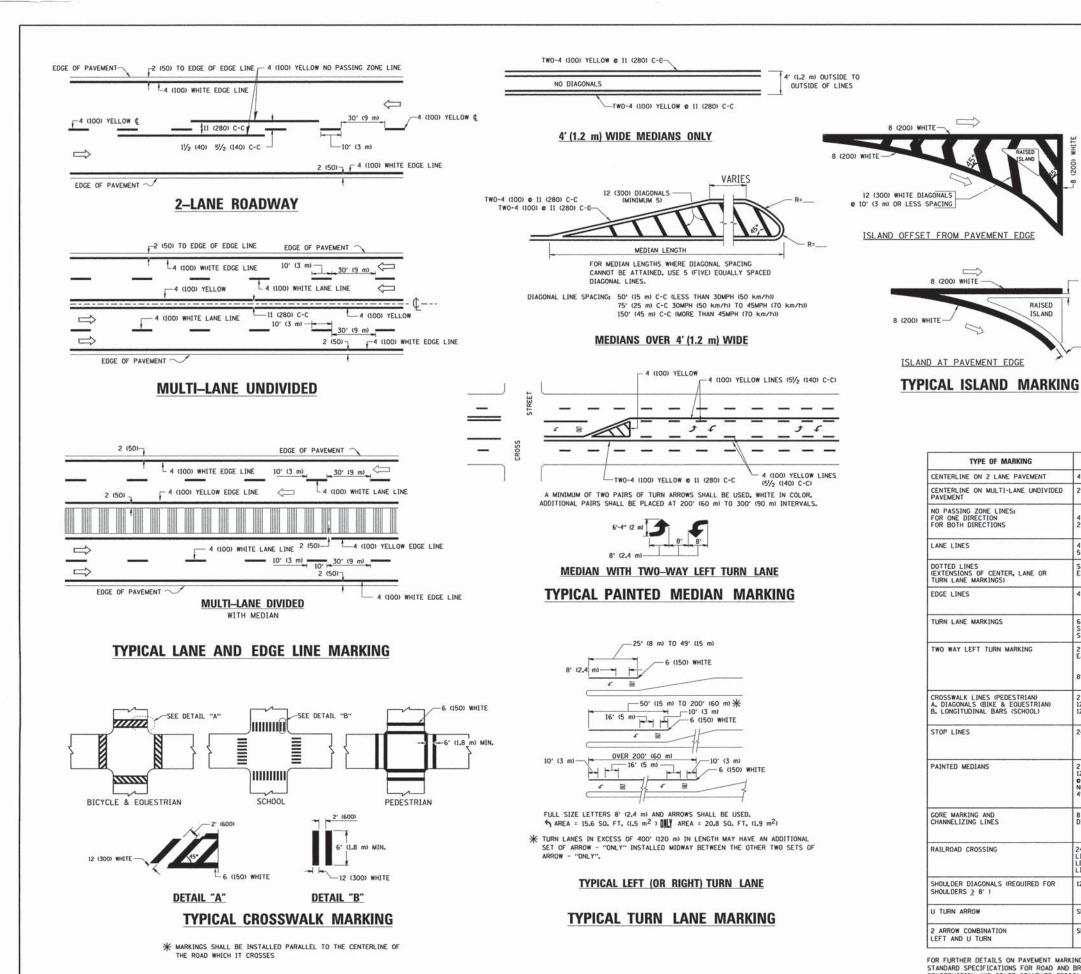
TO STA.

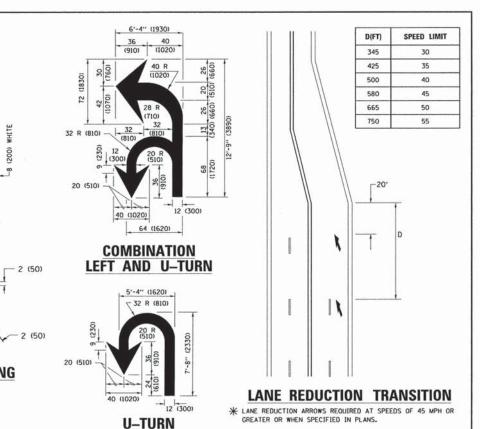
SHEET NO. 1 OF 1 SHEETS STA.

F.A. SECTION COUNTY SHEETS NO.

TC-10 CONTRACT NO.

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT





WIDTH OF LINE PATTERN TYPE OF MARKING SPACING /REMARKS SKIP-DASH CENTERLINE ON 2 LANE PAVEMENT YELLOW 10' (3 m) LINE WITH 30' (9 m) SPACE 4 (100) SOLID YELLOW 1 (280) C-C CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT 2 @ 4 (100) NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS 5½ (140) C-C FROM SKIP-DASH CENTERLINE II (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN 4 (100) 2 **0** 4 (100) YELLOW SKIP-DASH SKIP-DASH 10' (3 m) LINE WITH 30' (9 m) SPACE LANE LINES 4 (100) 5 (125) ON FREEWAYS DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) SAME AS LINE BEING EXTENDED SAME AS LINE BEING EXTENDED SKIP-DASH 2' (600) LINE WITH 6' (1.8 m) SPACE EDGE LINES 4 (100) SOLID YELLOW-LEFT WHITE-RIGHT OUTLINE MEDIANS IN YELLOW 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2,4m)) TURN LANE MARKINGS SOLID WHITE SEE TYPICAL TURN LANE MARKING DETAIL SKIP-DASH AND SOLID IN PAIRS 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL TWO WAY LEFT TURN MARKING 2 0 4 (100) EACH DIRECTION YELLOW ' (2.4m) LEFT ARROW WHITE CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL) NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. 2 **e** 6 (150) 12 (300) **e** 45° 12 (300) **e** 90° 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 STOP LINES SOLID WHITE 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° PAINTED MEDIANS SOLID YELLOW: TWO WAY TRAFFIC 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. WHITE: ONE WAY TRAFFIC NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS 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)) GORE MARKING AND CHANNELIZING LINES 8 (200) WITH 12 (300) DIAGONALS @ 45° SOLID WHITE 24 (600) TRANSVERSE LINES: "RR" IS 6' (1.8 I LETTERS: 16 (400) LINE FOR "X" SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²) RAILROAD CROSSING WHITE SOLID 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) T0 45MPH (70 km/h)) 150' (45 m) C-C (0VER 45MPH (70 km/h)) SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8') 12 (300) **o** 45° SOLID WHITE - RIGHT YELLOW - LEFT U TURN ARROW SEE DETAIL SOLID 2 ARROW COMBINATION SEE DETAIL SOLID WHITE 30.4 SF LEFT AND U TURN

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

SCALE: NONE

8 (200) WHITE -

RAISED

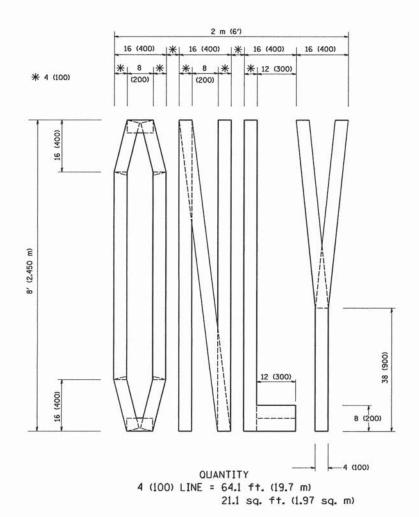
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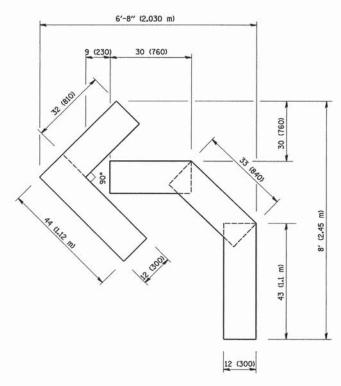
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED	-5	C. JUCIUS	07-01-13
Default	PLOT DATE = 12/21/2015	DATE - 03-19-90	REVISED	-	C. JUCIUS	12-21-15

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

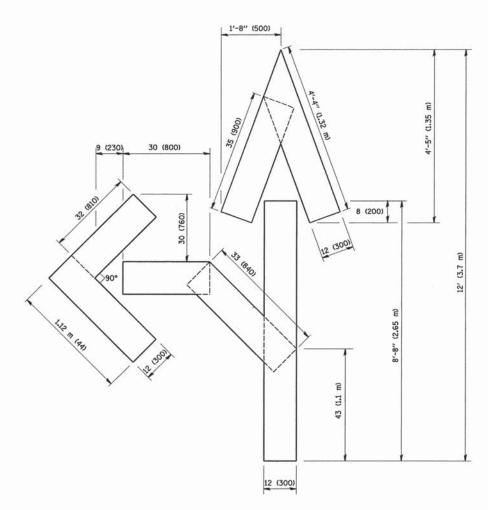
DISTRICT ONE TYPICAL PAVEMENT MARKINGS		F.A. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.		
					18			
TITIOAL	PAVEIVILIVI	WANKINGS			TC-13	CONTRACT	NO.	
SHEET 1 OF	1 SHEETS	STA.	TO STA.		ILLINOIS FE	D. AID PROJECT		





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

SCALE: NONE



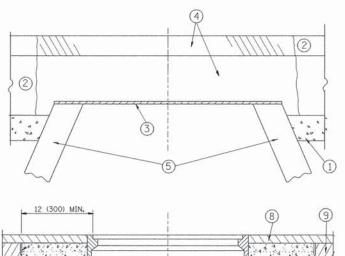
QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

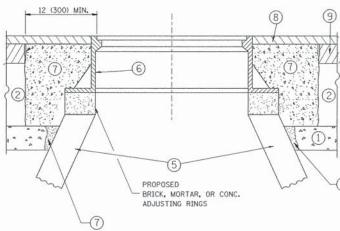
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
W:\diststd\22x34\tc16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

STATI	E 01	F ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

PAVEMENT MARKING LETTERS AND S	YMBOLS	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FOR TRAFFIC STAGING					18	14
ron Inarric Stading			TC-16	CONTRACT	NO.	
SHEET NO 1 OF 1 SHEETS STA	TO STA	EED DOAD	NET NO 1 THE THOTE CO	D ATD PROJECT		





### NOTES:

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

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

SCALE: NONE

### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (40)
  THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

#### LEGEND

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

  (5) EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

### LOCATION OF STRUCTURES:

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

### BASIS OF PAYMENT:

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

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

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

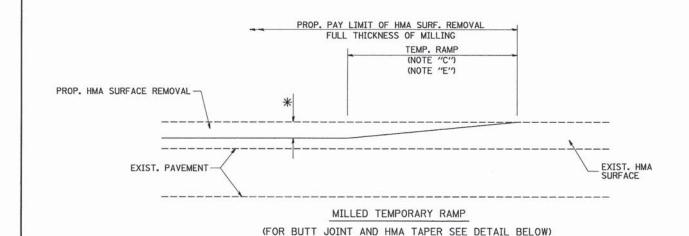
DETAILS FOR FRAMES AND LIDS ADJUSTMENT
WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

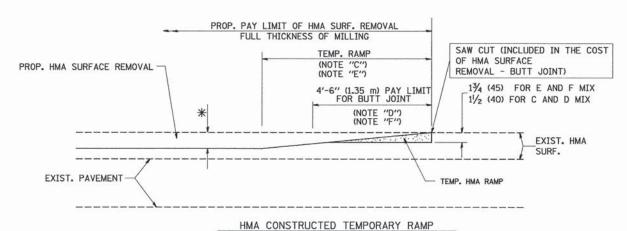
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMES AND LIDS ADJUSTMENT WITH MILLING

SHEET NO. 1 OF 1 SHEETS STA. TO ST



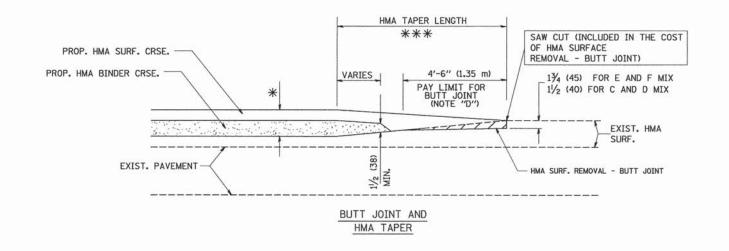
### OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

### TYPICAL TEMPORARY RAMP

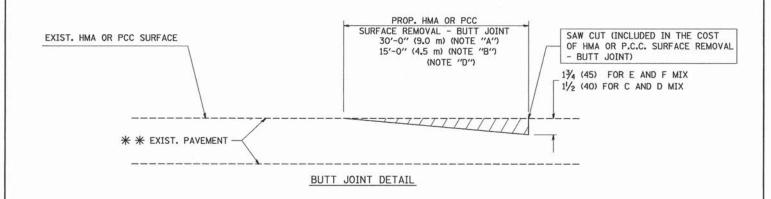


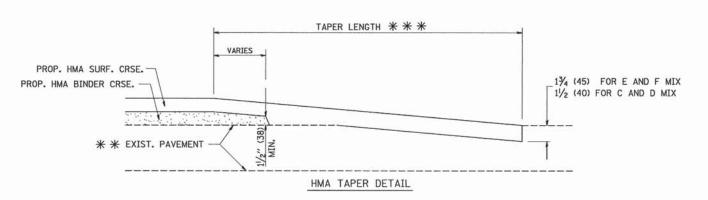
### TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME = USER NAME = gaglianobt DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94 /t\distatd\22x34\bd32.dgn DRAWN REVISED - A. ABBAS 03-21-97 PLOT SCALE = 50.0000 '/ IN. CHECKED REVISED - M. GOMEZ 04-06-01 PLOT DATE = 1/4/2008 DATE 06-13-90 REVISED -R. BORO 01-01-07

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TOTAL SHEETS NO. SECTION COUNTY **BUTT JOINT AND** HMA TAPER DETAILS CONTRACT NO. BD400-05 BD32 SHEET NO. 1 OF 1 SHEETS STA. SCALE: NONE TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT





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

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

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

### BASIS OF PAYMENT:

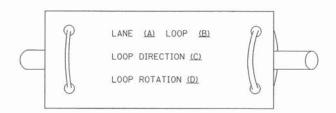
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER)
FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

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

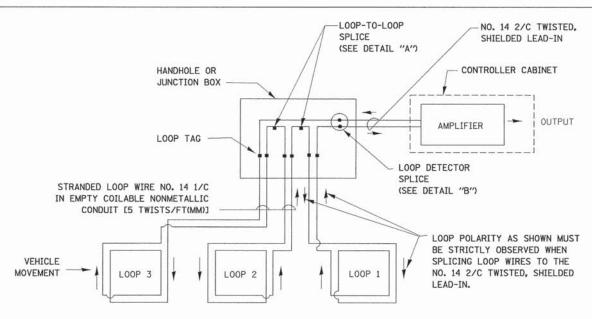
### LOOP DETECTOR NOTES

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

### LOOP LEAD-IN CABLE TAG

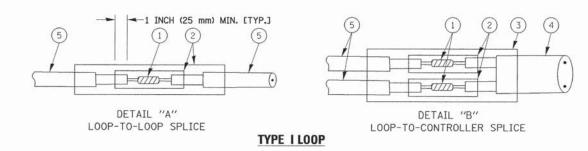


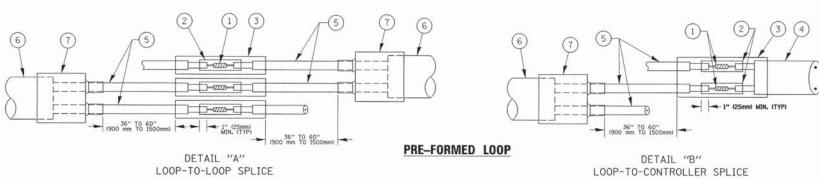
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



### **DETECTOR LOOP WIRING SCHEMATIC**

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





### LOOP DETECTOR SPLICE

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

SCALE: NONE

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

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

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lgn	DRAWN	-	BCK	REVISED -
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PLOT DATE = 1/13/2014	DATE	-	10-28-09	REVISED -
	USER NAME = footemy  ggn  PLOT SCALE = 58.0000 ' / In.  PLOT DATE = 1/13/2014	gn DRAWN PLOT SCALE = 50.0000 '/ In. CHECKED	9gn DRAWN - PLOT SCALE = 50.0000 '/ in. CHECKED -	DRAWN - BCK

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		DI	STRICT OF	NE		F.A RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS									18	17
_	STANDAND	Inari	IO SIGNAL	DESIGN DE	IAILO	TS-05		CONTRACT NO.		
	SHEET NO. 2	OF 7	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

## LOOPS NEXT TO SHOULDERS PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER 5' (1.5 m) (1.8 m) (1.5 m) \* 1" (25 mm) LINIT DUCT-TRENCHED (3.0 m) (3.0 m) TO E/P .. \* = (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

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

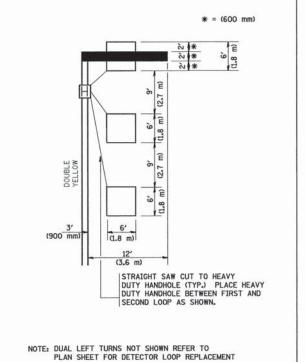
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

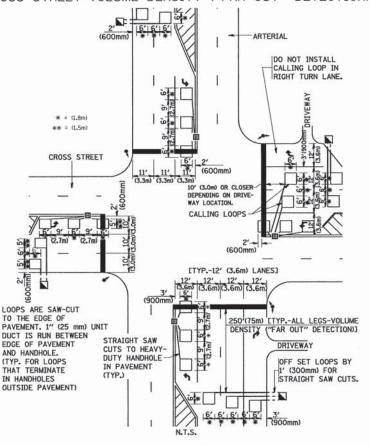
(PROTECTED / PERMITTED LEFT TURN PHASING)

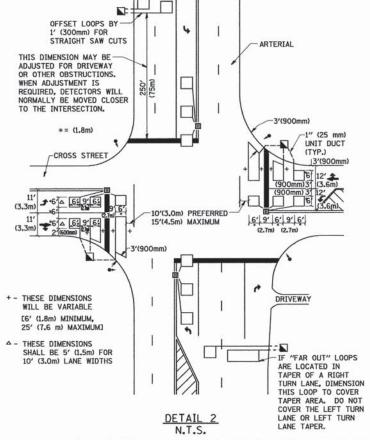


SCALE: NONE

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, SHIFLDED.
- \* 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 (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.

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N.T.S.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	DISTRICT 1 - DETECTOR LOOP INSTALLATION								F.A RTE.	SECTIO
DETAILS FOR ROADWAY RESURFACING								TS-07		
7	SHEET	NO.	1	OF	1	SHEETS	STA.	TO STA.	FED. ROAD	DIST. NO. 1 IL

