STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.U. ROUTE 0361 (NEW AVE.)
ARCHER AVE. TO LOCKPORT ST.
SECTION: 95(1&2) RS-1
RESURFACING (3P)
PROJECT:
COOK AND WILL COUNTIES
C-91-078-09

R 10 E

R 11 E

OMISSIONS:

STA. 25+37 TO
STA. 25+67

STA. 89+14 TO
STA. 89+98

STA. 92+02 TO
STA. 93+27

IMPROVEMENT BEGINS
STA. 0+30

IMPROVEMENT ENDS

LOCKPORT, DUPAGE AND LEMONT TOWNSHIPS

GROSS LENGTH = 33,489 FT. = 6.34 MILES NET LENGTH = 33,250 FT. = 6.30 MILES

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN THE VILLAGES OF LOCKPORT, ROMEOVILLE AND LEMONT

TRAFFIC DATA:
2004 ADT - 9,800
SPEED LIMIT - 45-50 MPH

0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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.

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JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

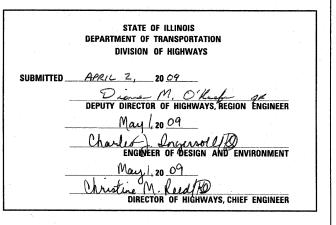
OR 81

PROJECT ENGINEER: JENPAI CHANG (847) 705–4432 PROJECT MANAGER: KEN ENG

CONTRACT NO. 60F47

D-91-078-09





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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1		COVER SHEET
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. 3		SUMMARY OF QUANTITIES
4		TYPICAL SECTIONS
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- 1	8	DETAILS FOR FRAMES & LIDS ADJUSTMENT WITH MILLING
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2	1	BUTT JOINT AND HMA TAPER DETAILS
2	2	TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS, AND DRIVEWAYS
2	3	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
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2	26	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
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2	28	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
. 2	. 9	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

STANDARDS

	000001-05	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
	442201 <i>-03</i>	CLASS C AND D PATCHES
	606001- <i>04</i>	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
	701301 <i>-03</i>	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
	701311 - 03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
	701501 <i>-05</i>	URBAN LANE CLOSURE, 2L 2W, UNDIVIDED
	701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
	701901-01	TRAFFIC CONTROL DEVICES
	780001 - <i>0</i> Z	TYPICAL PAVEMENT MARKINGS
i.		

GENERAL NOTES

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

10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF LOCKPORT, ROMEOVILLE AND LEMONT.

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H) WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT MS. CORA MATHIS, AREA TRAFFIC FIELD ENGINEER AT (815) 485-6475 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

ALL PAVEMENT PATCHING AND COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

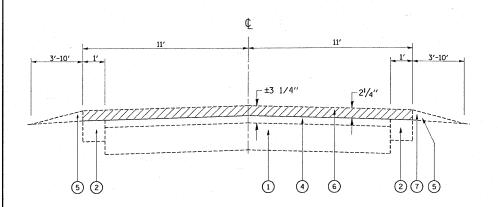
BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

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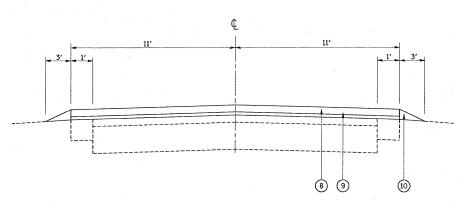
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		NEW AV	E. (ARCI	IER AVE 1	O LOCK	PORT ST.)	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	INDEX O	F SHFFTS	STATE	STANDAR	ING AND	GENERAL NOTES	0361	95(1&2) RS-1	COOK & WILL	24	2
		7							CONTRACT	NO. 6	OF 47
SCALE:		SHEET NO.	. OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

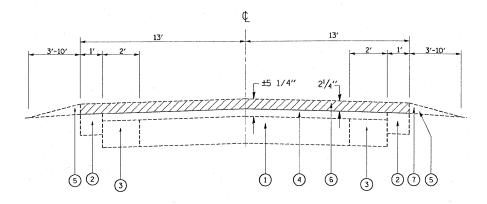
	SUMMARY OF QUANTITIES		URBAN 100% STATE		C	ONSTRUCTI	ON TYPE	CODE			SUMMARY OF QUANTITIE			URBAN 100%.STAT	6		ONSTRUCT	ION TYPE	CODE	
	SUMMENT OF GUARTITIES		TOTAL	WILL	соок					1	SOMMAN OF BOARTITE			TOTAL	WILL	СООК				
CODE NO	ITEM	UNIT	QUANTITIES		COUNTY					CODE NO	ITEM		UNIT	1	S COUNTY 1000					
20201006	GRADING AND SHAPING SHOULDERS	UNIT	640	460	180					70300240	TEMPORARY PAVEMENT MARKING		FOOT	960	960	·				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	78	60	18					70300260	TEMPORARY PAVEMENT MARKING		FOOT	620	370	250				
40600300	AGGREGATE (PRIME COAT)	TON	385	299	86				-		- LINE 12"									
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	49	38	11					70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	54 ·	FOOT	105	105	·				
40600895	CONSTRUCTING TEST STRIP	EACH	2 .	1	1					70301000	WORK ZONE PAVEMENT MARKING	REMOVAL	SO FT	28495	20545	7950				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	245	205	40					X 78000100	THERMOPLASTIC PAVEMENT MARK - LETTERS AND SYMBOLS	ING	SO FT	255	255					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	312	312						× 78000200	THERMOPLASTIC PAVEMENT MARK - LINE 4"	ING	FOOT	73750	52960	20790				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N7O	TON	8090	6275	1815					78000400	THERMOPLASTIC PAVEMENT MARK - LINE 6"	ING	FOOT	960	960					
42001300	PROTECTIVE COAT	SO YD	50	25	25					× 78000600	THERMOPLASTIC PAVEMENT MARK - LINE 12"	ING	FOOT	620	370	250				
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2	SO YD	96280		21570					x 78000650	THERMOPLASTIC PAVEMENT MARK - LINE 24"	ING	FOOT	105	105					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	200	100	100	÷				→ 78100100	RAISED REFLECTIVE PAVEMENT	MARKER	EACH	1000	770	230				
44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SO YD	1858	1858	-					78300200	RAISED REFLECTIVE PAVEMENT REMOVAL	MARKER	EACH	865	665	200	:			
44201753	CLASS D PATCHES, TYPE II. 9 INCH	SO YD	329	329						* 88600600	DETECTOR LOOP REPLACEMENT		FOOT	749	749					
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SO YD	823	823						X0322256	TEMPORARY INFORMATION SIGNI	NG	SO FT	51.4	25. 7	25. 7				
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SO YD	494	494						X4067107	POLYMERIZED LEVELING BINDER METHOD), IL-4.75, N50	MACHINE	TON	3795	2945	850				
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SO YD	316	316						Z0018500	DRAINAGE STRUCTURES TO BE C	LEANED	EACH	15	10	5				
44201794	CLASS D PATCHES, TYPE III, 12 INCH	SO YD	791	791		÷				20018300	SARTINGE STRUCTURES TO BE C		LACII	"						
44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SO YD	475	475	· ·															
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	197		197						A STATE OF THE STA									
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SO YD	492	:	492															,
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SO YD	295		295										,					
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1275	915	360						* SPECIALTY ITEMS									
55039700	STORM SEWERS TO BE CLEANED	FOOT	70	20	50	1		1												
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	15	10	5							1.0								
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	3	3										,			-		
67100100	MOBILIZATION	L SUM	1	0.7	0.3								-			1				
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.7	0.3															
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.7	0.3										*					
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	7045	4735	2310															
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	255	255					1			-						-		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	73750	52960	20790															
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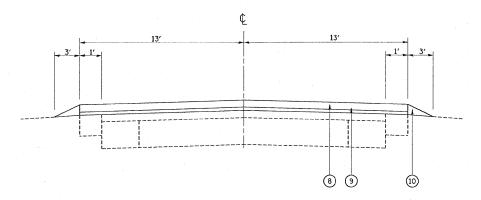
NEW AVE. EXISTING TYPICAL SECTION STA. 0+30 TO STA. 133+75



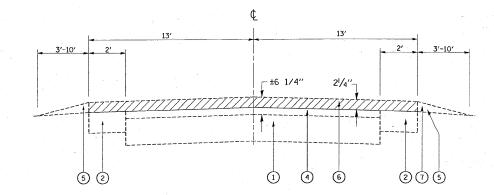
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PROPOSED TYPICAL SECTION
STA. 0+30 TO STA. 133+75



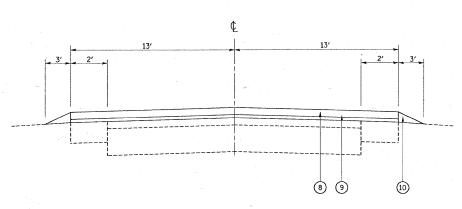
NEW AVE. EXISTING TYPICAL SECTION STA. 133+75 TO STA. 260+60



NEW AVE.
PROPOSED TYPICAL SECTION
STA. 133+75 TO STA. 260+60



NEW AVE.
EXISTING TYPICAL SECTION
STA. 260+60 TO STA. 387+48



NEW AVE.
PROPOSED TYPICAL SECTION
STA. 260+60 TO STA. 387+48

LEGEND

- 1 EXISTING P.C.C. BASE COURSE, ±9"
- 2 EXISTING HMA WIDENING, ±6"
- 3 EXISTING P.C.C. WIDENING
- 4 EXISTING HMA SURFACE ±3" ±6 1/4"
- (5) EXISTING AGGREGATE SHOULDER
- 6 PROPOSED HMA SURFACE REMOVAL, 2 1/4 "
- (7) PROPOSED GRADING & SHAPING SHOULDERS
- 8) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- 9 PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- (1) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE "B"

NOTF:

PAVEMENT PATCHING SHALL BE DONE PRIOR TO ROADWAY MILLING UNLESS THERE IS 4 1/2" INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING BASE COURSE. SEE DISTRICT DETAIL BD-22.

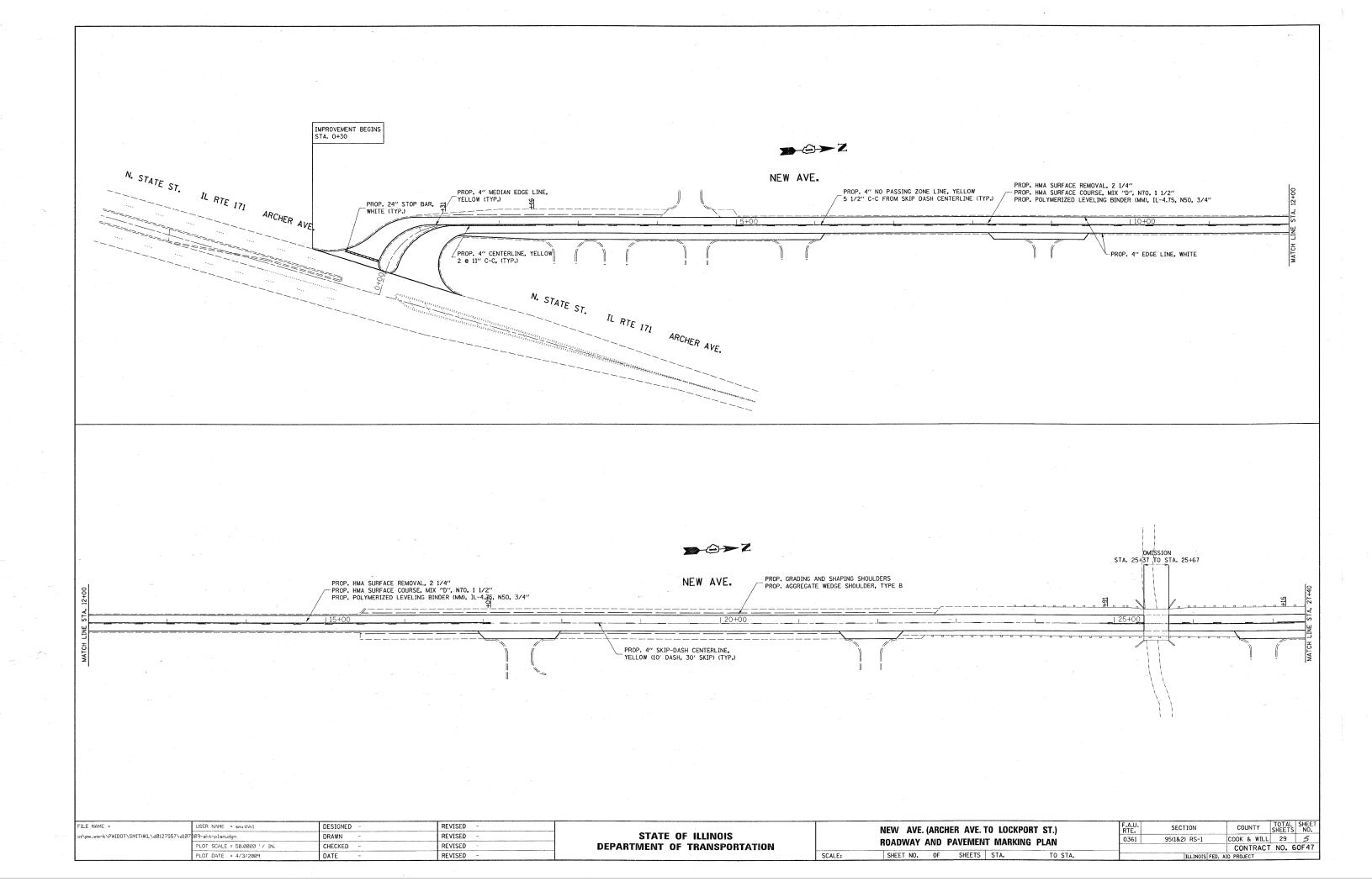
HOT-MIX ASPHALT MIXTURE REQUIREMENTS

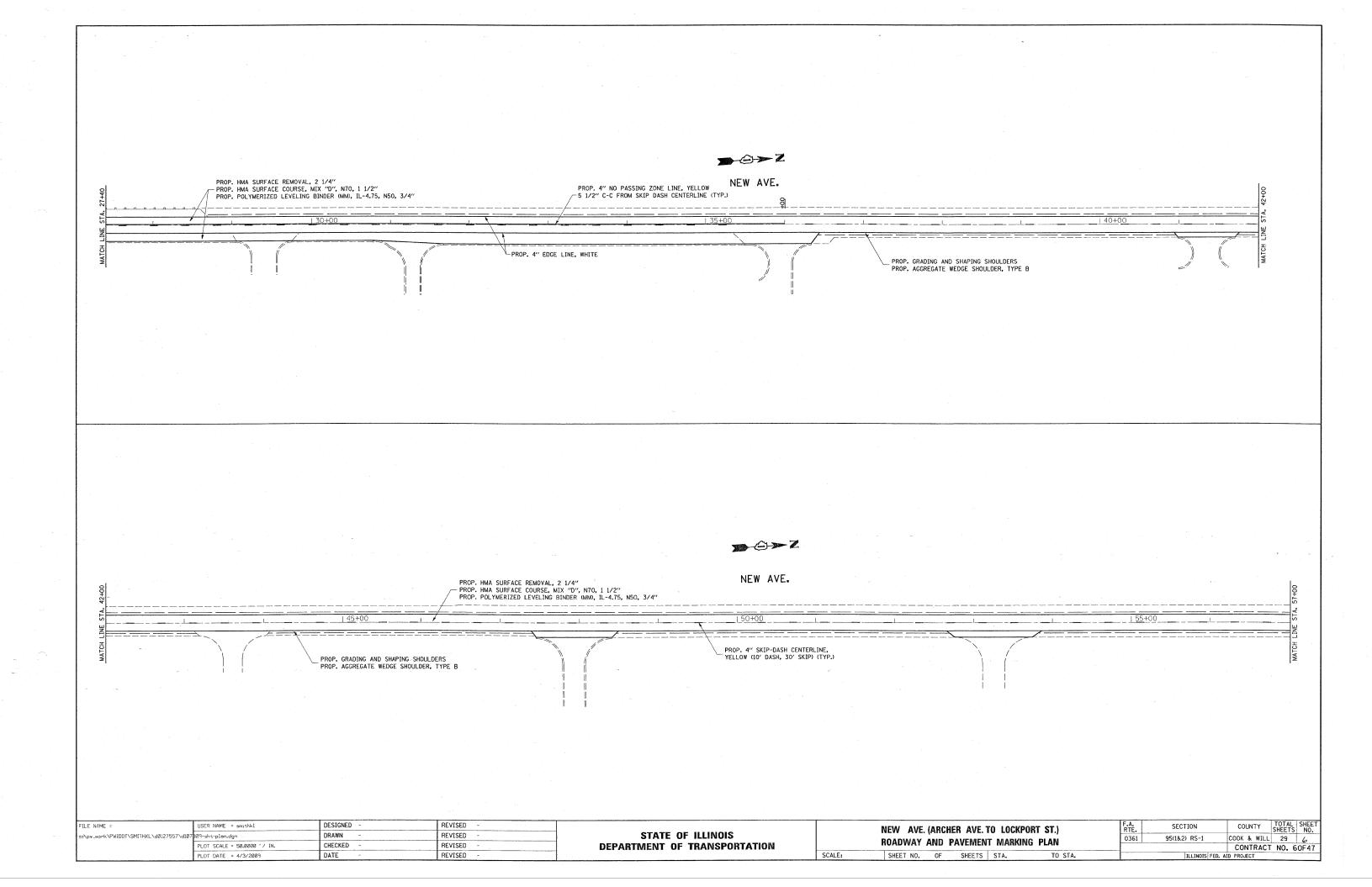
	MIXTURE USE	AC TYPE	AIR VOIDS (%)
ROADWAY	POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50	SBS/SBR 76-28/-22	4% @ 50 GYR
NOADWAT	HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N70 (IL-9,5mm)	PG 64-22	4% © 70 GYR
PATCHES	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (HMA BINDER IL-19.0 MM)	PG 64-22*	4% © 70 GYR
raiches	CLASS D PATCHES, 9". 12", 13" (HMA BINDER IL-19.0 MM)	PG 64-22*	4% © 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT- MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

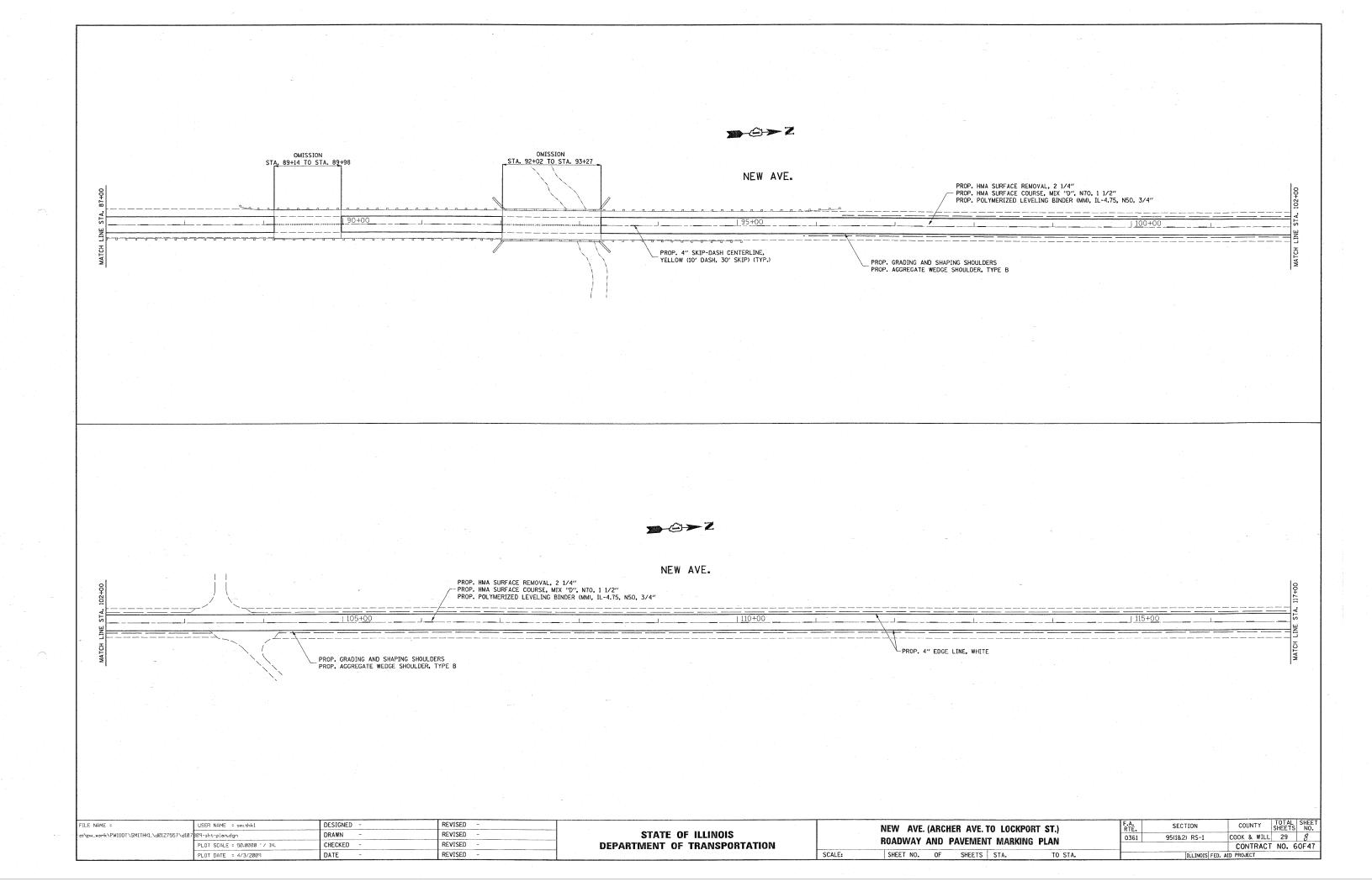
*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

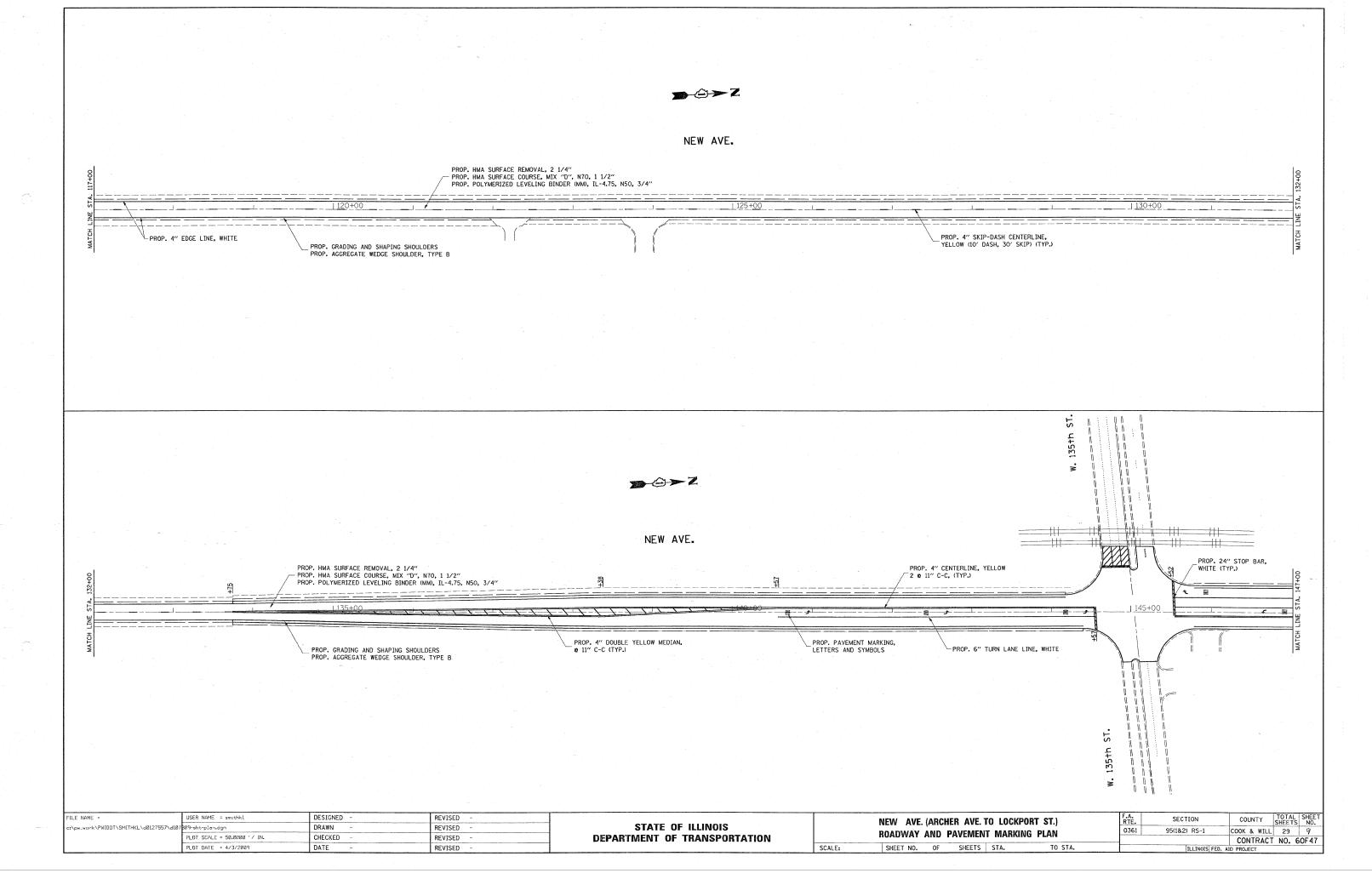
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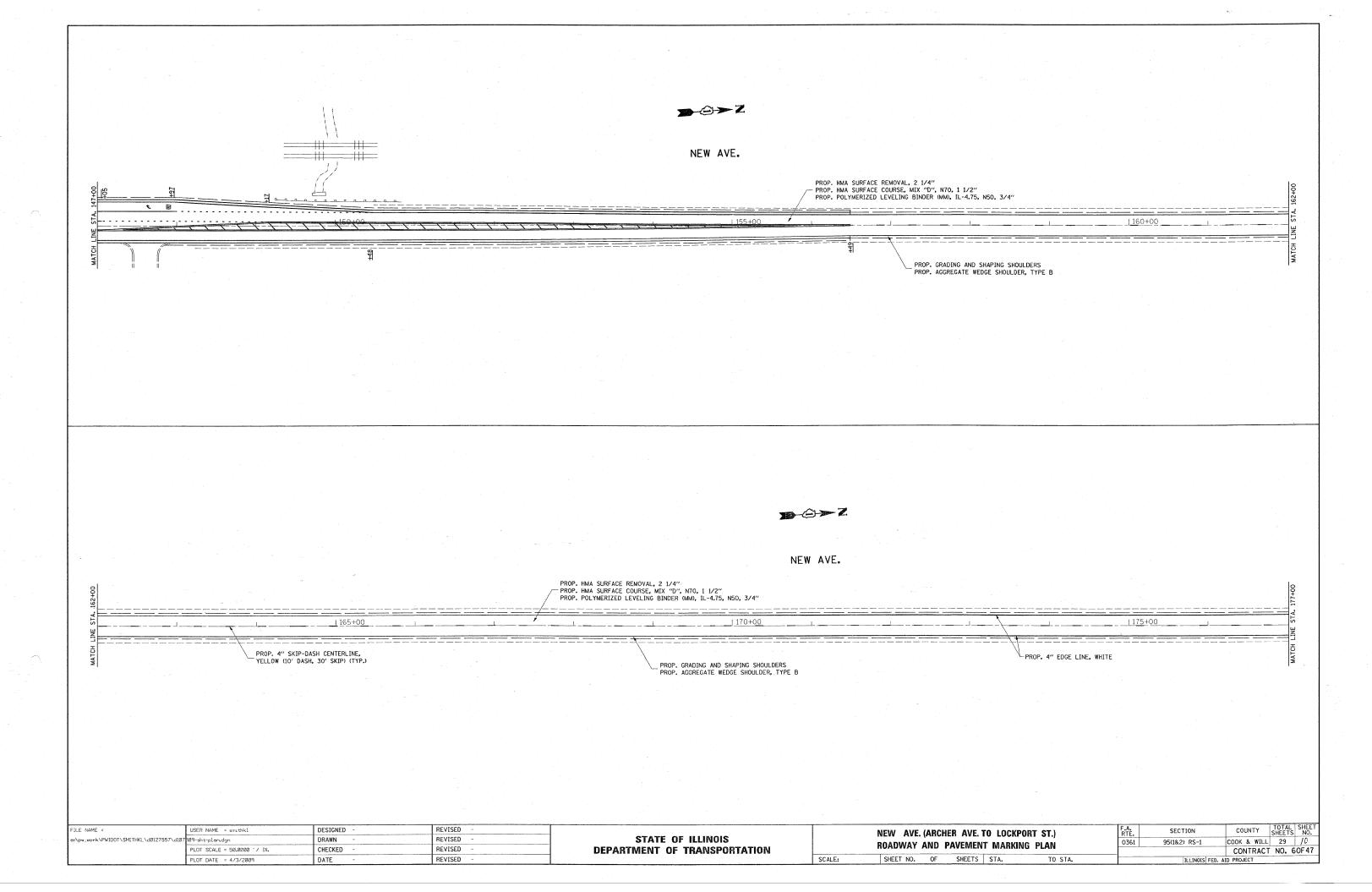


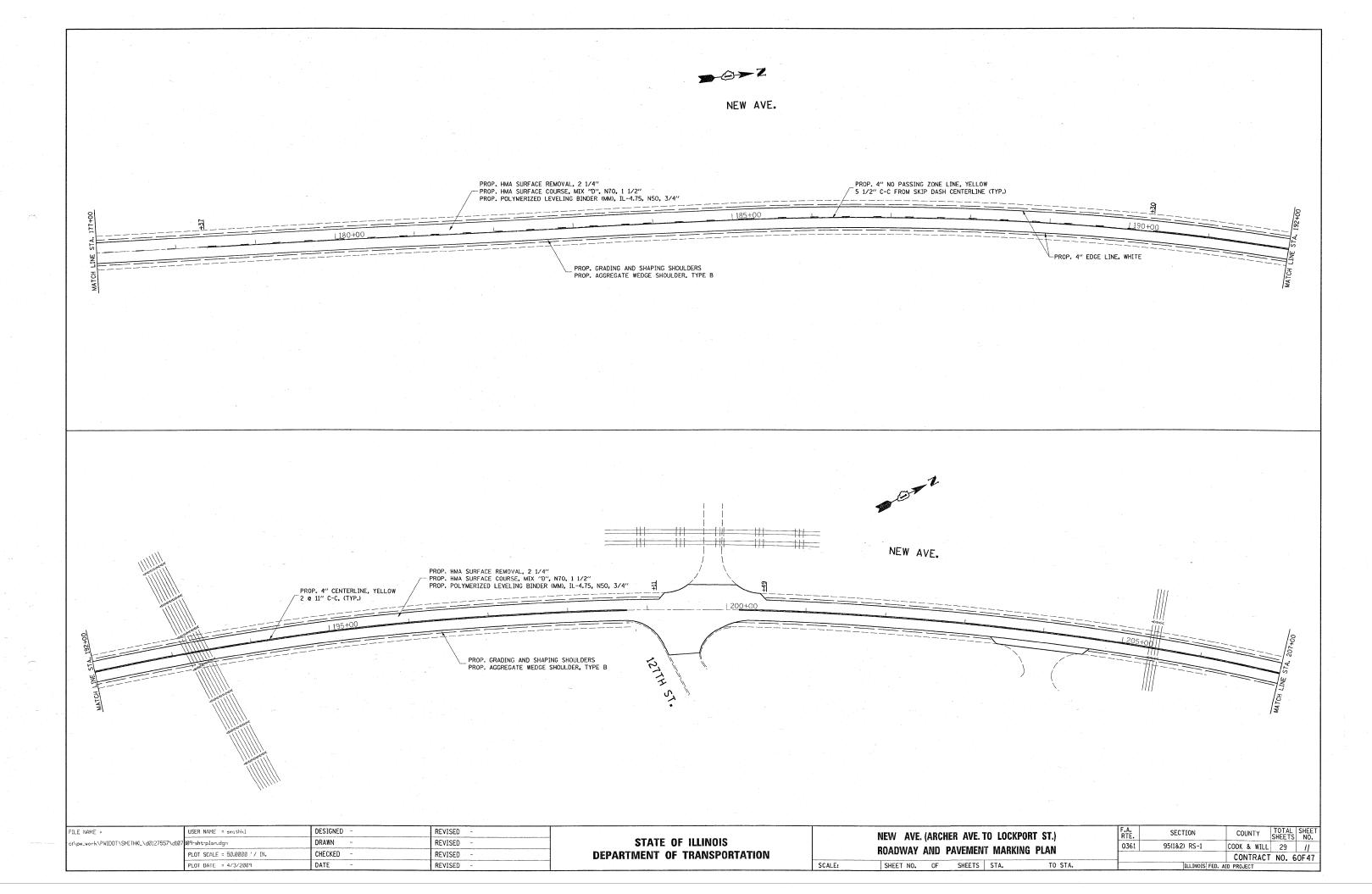


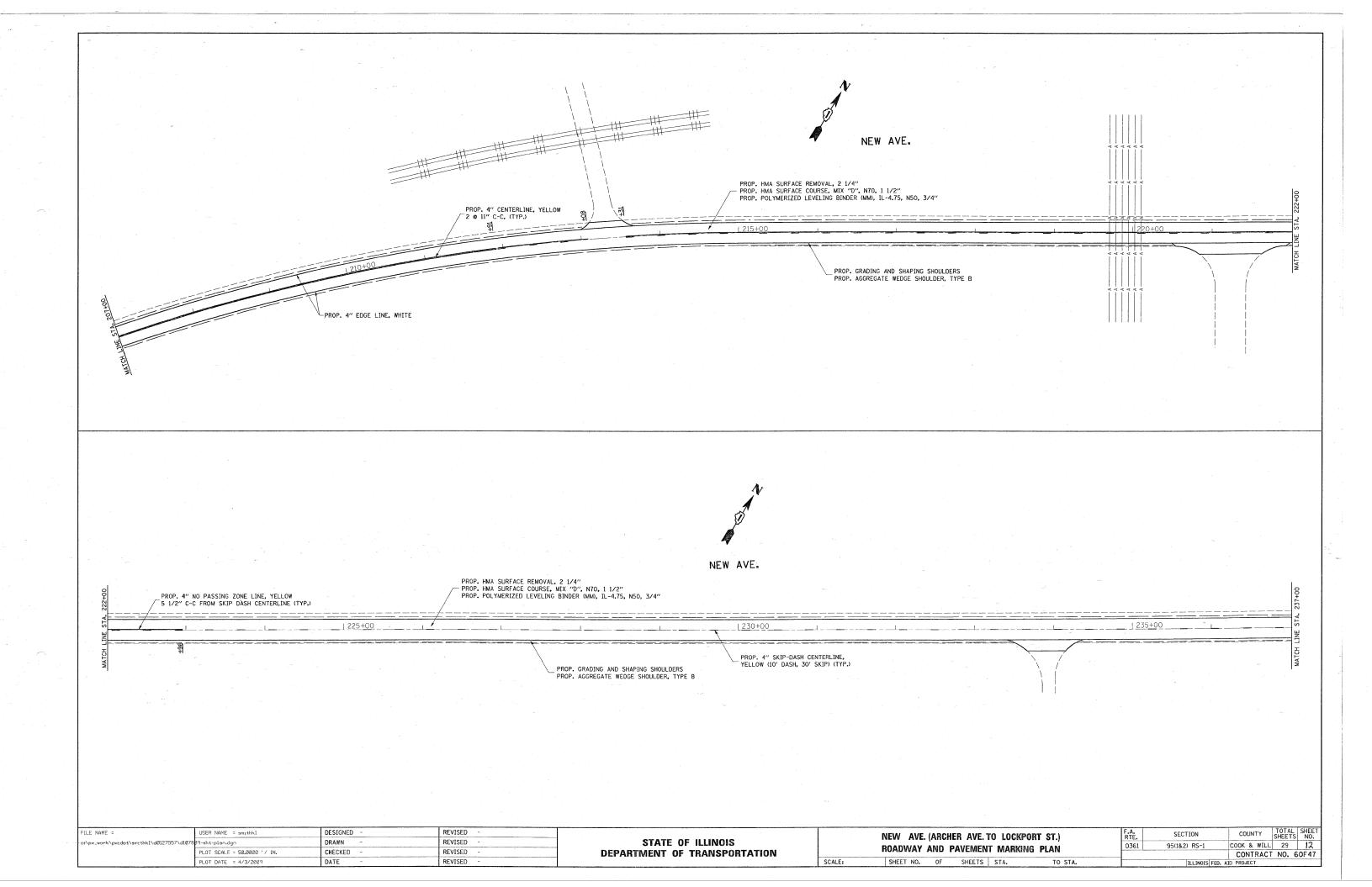
DONZ NEW AVE. PROP. HMA SURFACE REMOVAL, 2 1/4" PROP. HMA SURFACE COURSE, MIX "D", NTO, 1 1/2" PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4" PROP. 4" SKIP-DASH CENTERLINE, YELLOW (10' DASH, 30' SKIP) (TYP.) PROP. GRADING AND SHAPING SHOULDERS
PROP. AGGREGATE WEDGE SHOULDER, TYPE B DONZ NEW AVE. PROP. HMA SURFACE REMOVAL, 2 1/4" - PROP. HMA SURFACE COURSE, MIX "D", NTO, 1 1/2" PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4" PROP. 4" EDGE LINE, WHITE PROP. GRADING AND SHAPING SHOULDERS PROP. AGGREGATE WEDGE SHOULDER, TYPE B FILE NAME = DESIGNED -REVISED NEW AVE. (ARCHER AVE. TO LOCKPORT ST.) SECTION STATE OF ILLINOIS ot\pw_work\PWIDOT\SMITHKL\dØ127557\d107B09-sht-plan.dgn DRAWN REVISED 95(1&2) RS-1 ROADWAY AND PAVEMENT MARKING PLAN **DEPARTMENT OF TRANSPORTATION** PLOT SCALE = 50.0000 '/ IN. CHECKED REVISED PLOT DATE = 4/3/2009 DATE REVISED SCALE: SHEET NO. OF SHEETS STA.

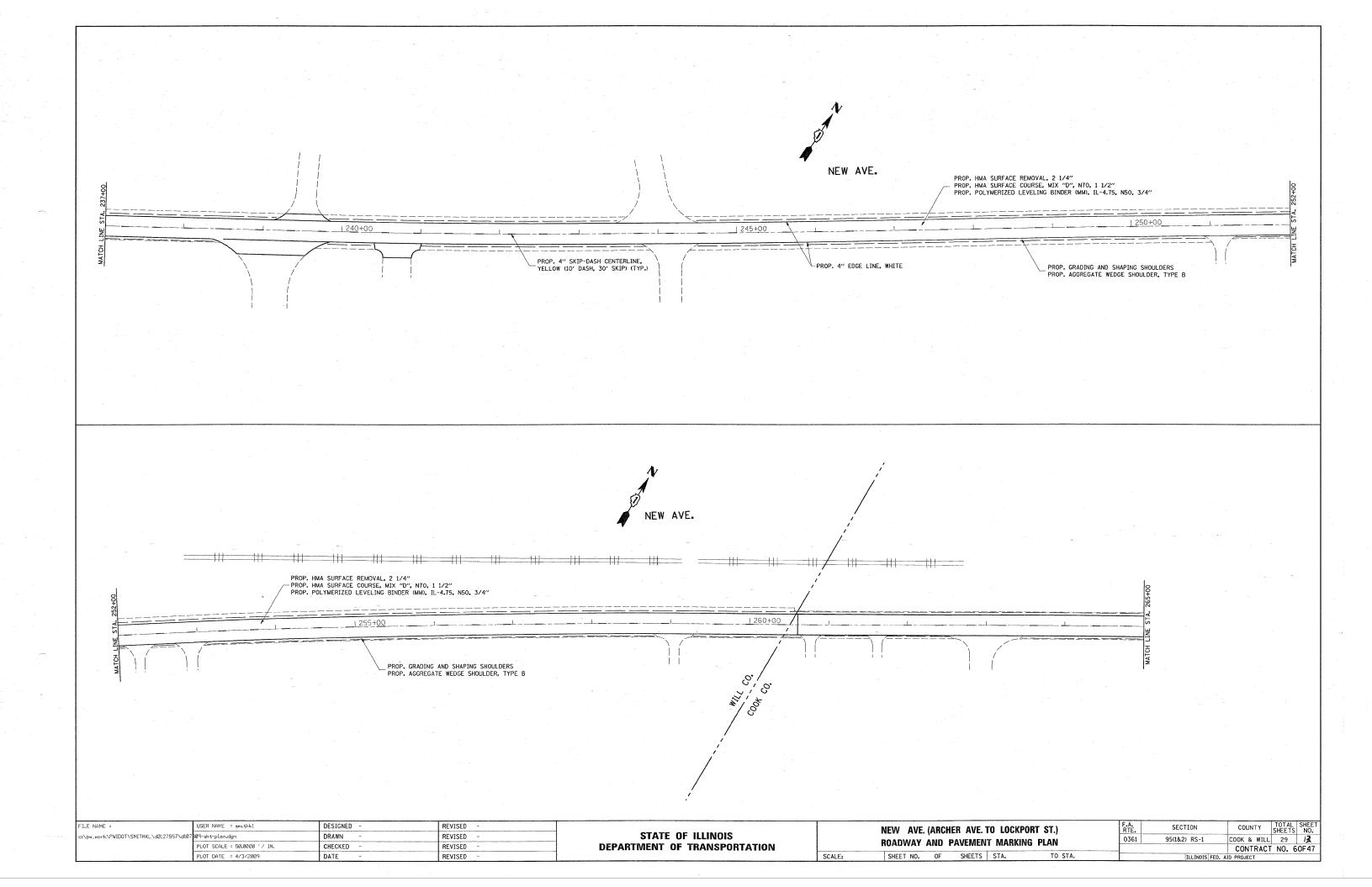


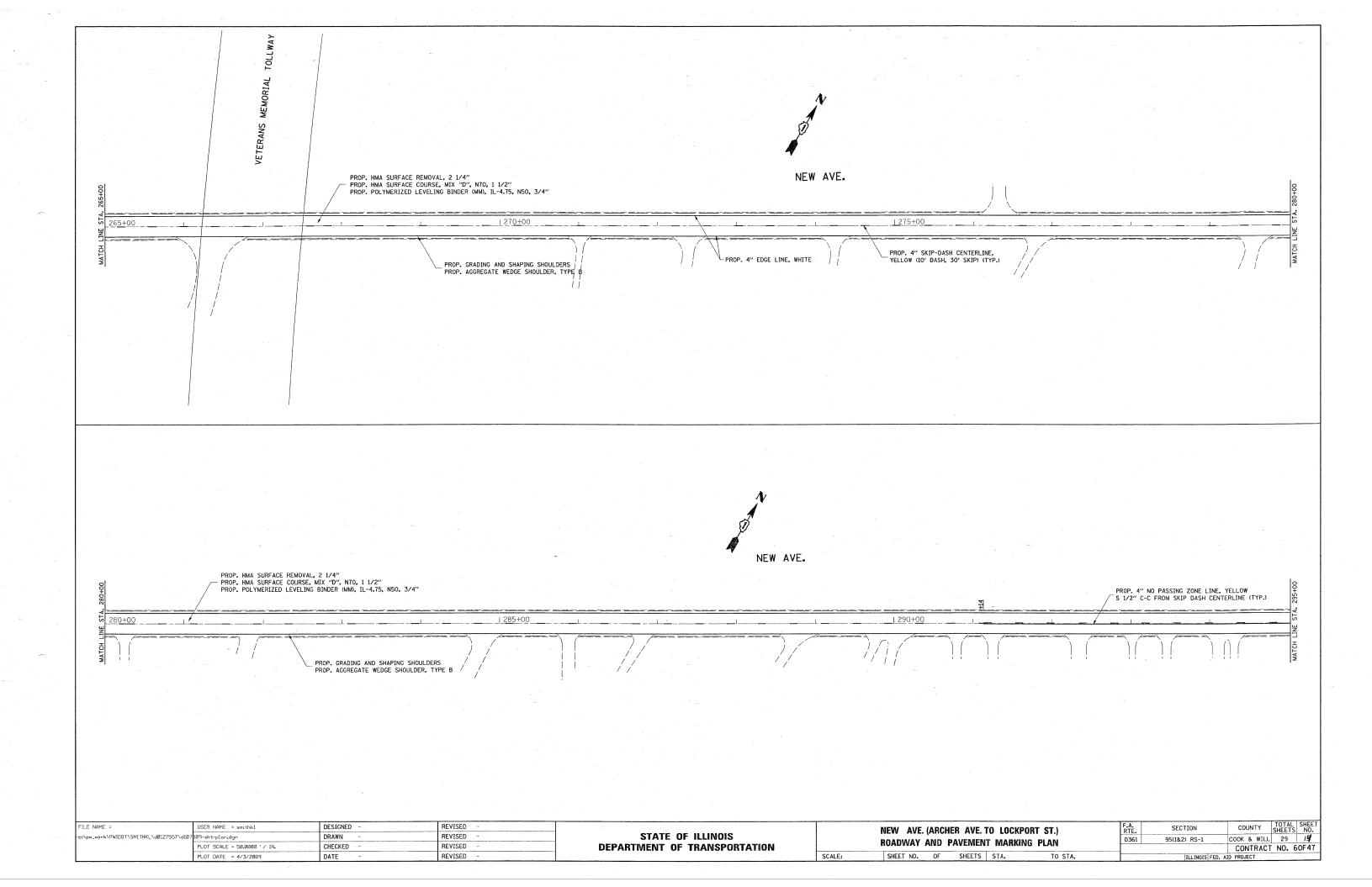


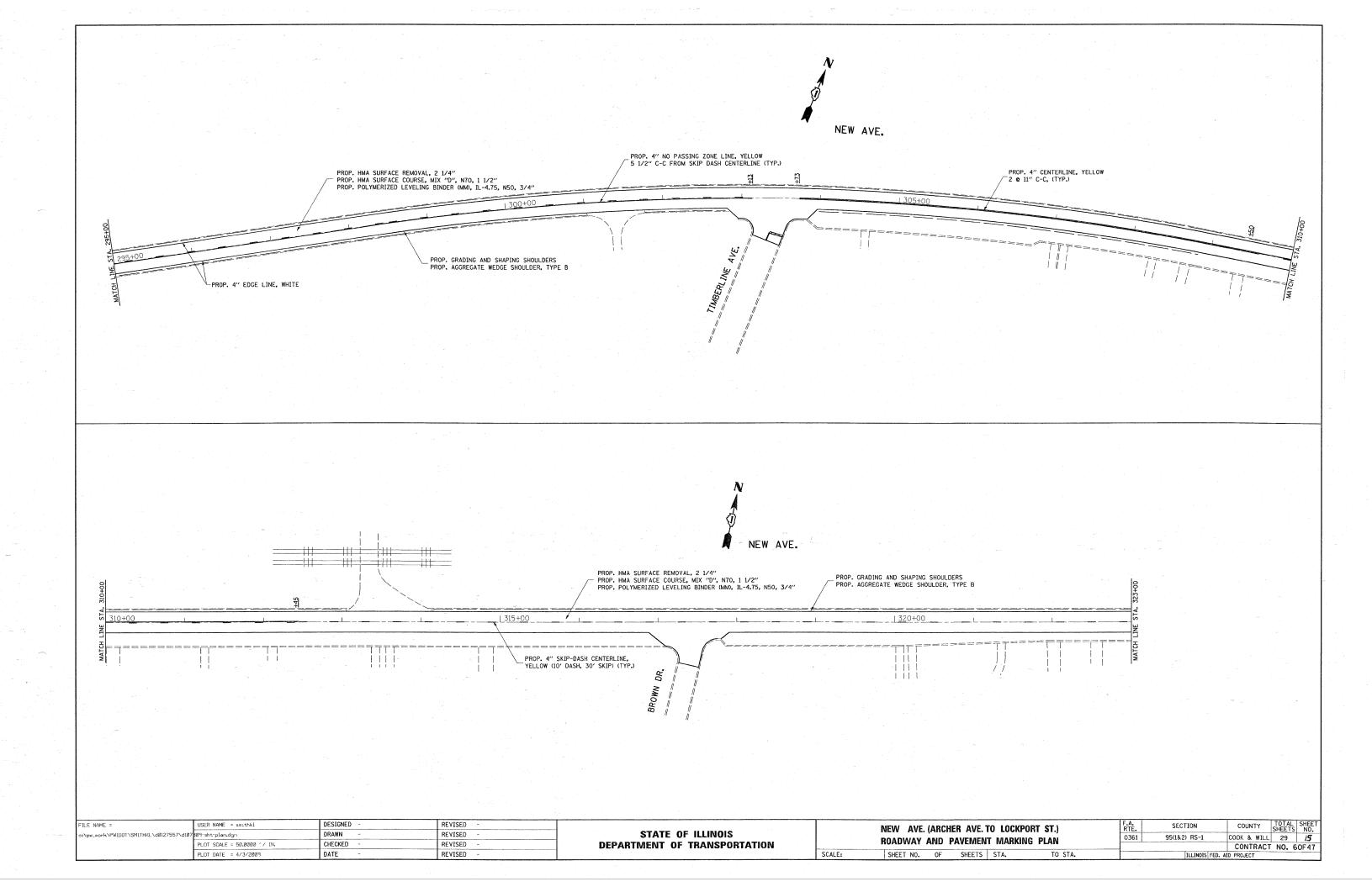


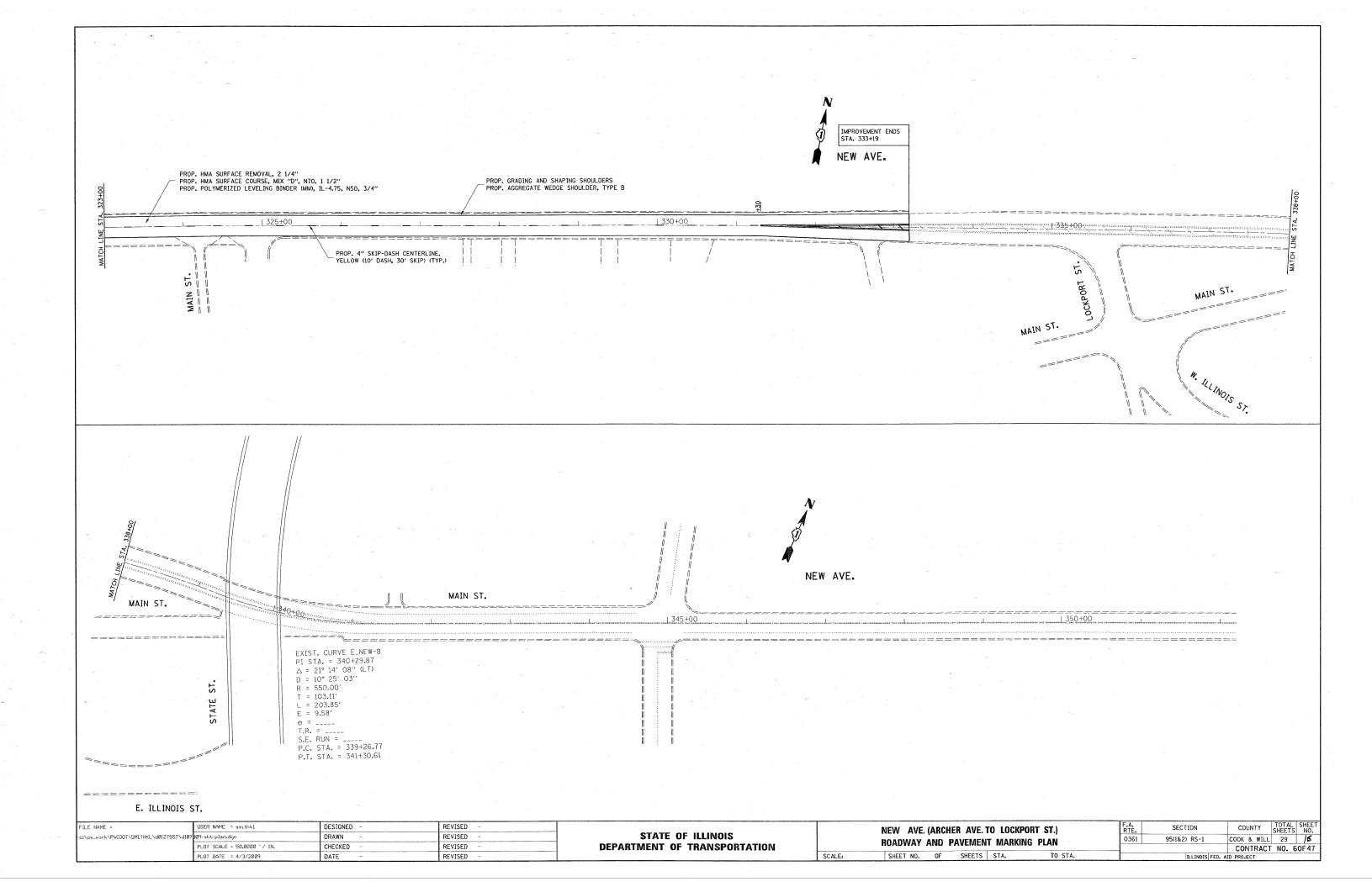


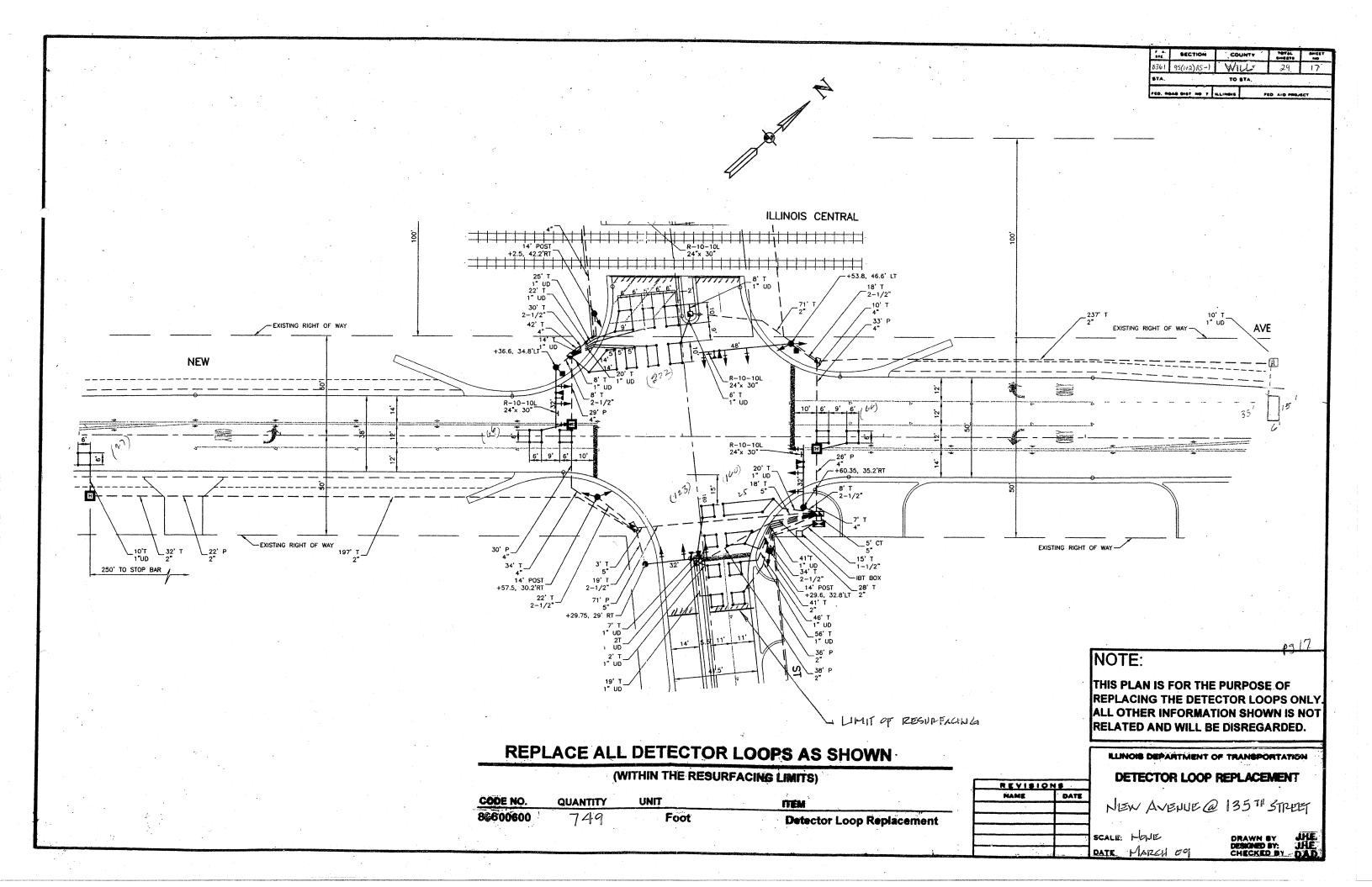


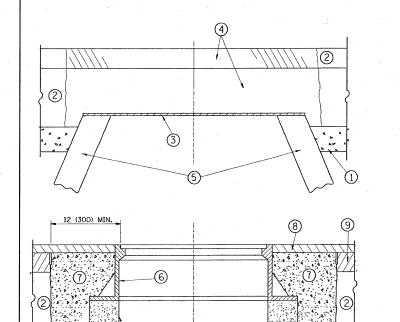












PROPOSED

PROPOSED SAND FILL

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 PAYEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

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

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

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

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

LEGEND

SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX 5 EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

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

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

AUL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

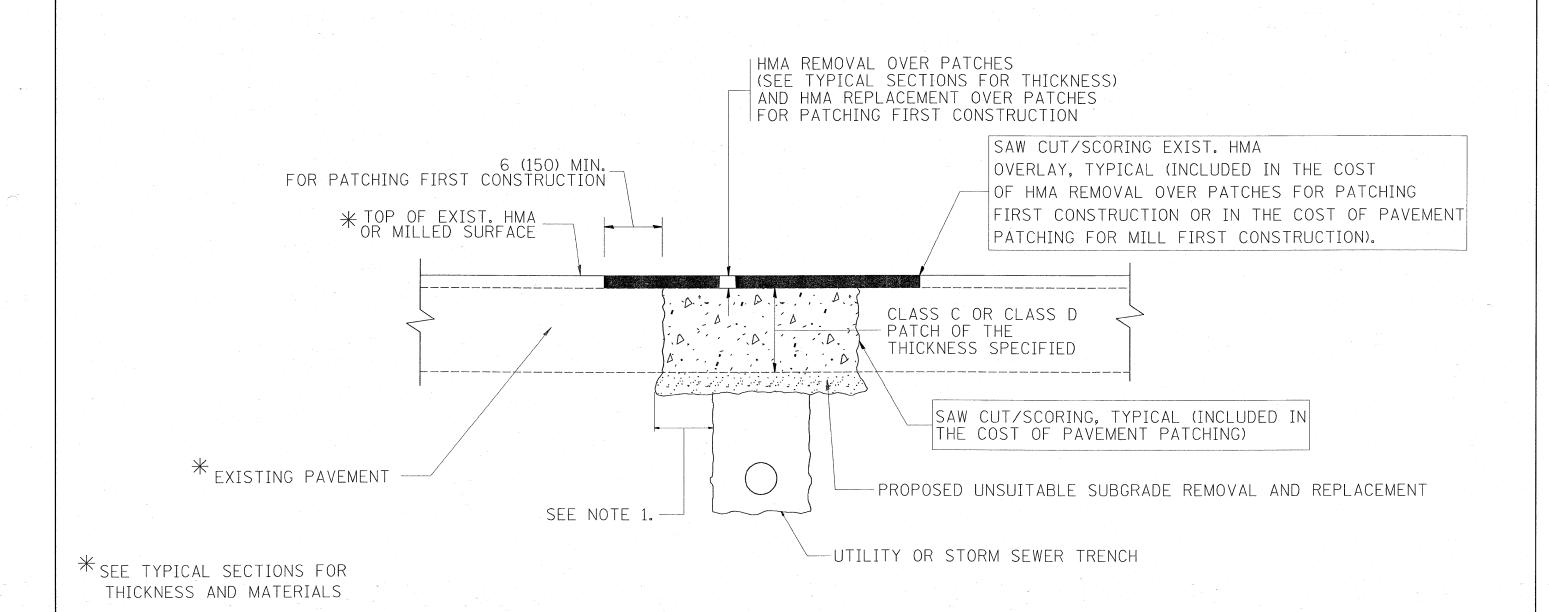
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.

COUNTY TOTAL SHEETS NO.

COOK & WILL 29 18 SECTION 95(1&2) RS-1 CONTRACT NO. 60F47 BD600-03 (BD-8) FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



NOTES:

- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

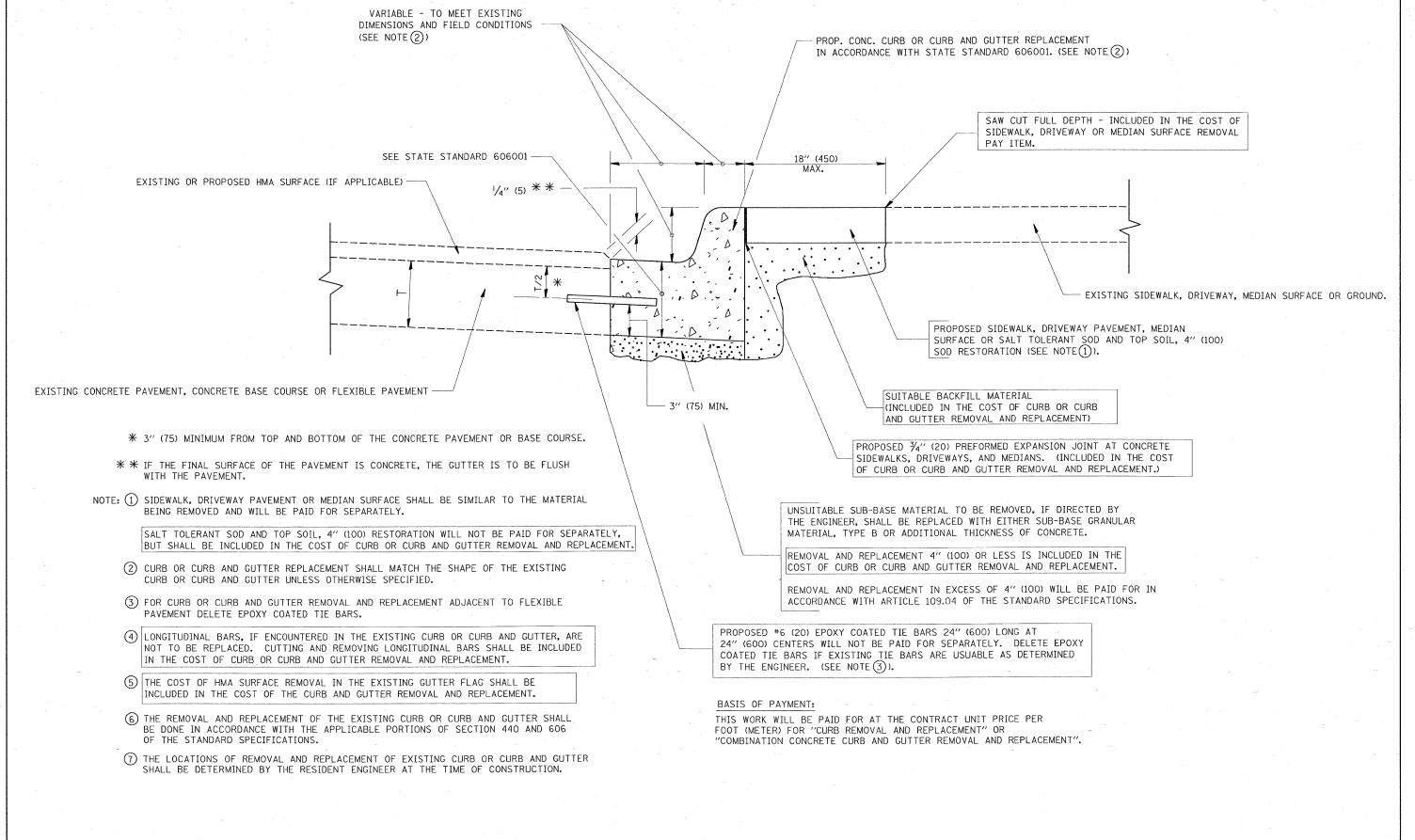
SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

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

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

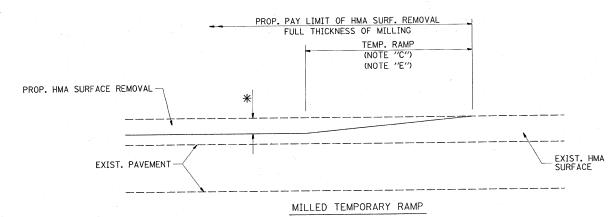
- 1. MILL HMA FIRST IF THERE IS AT LEAST 4/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

	FILE NAME =	USER NAME = smithkl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98			PAVEMENT PATCHING FOR		F.A.U. SECTION	COUNTY TOTAL SHEET
	c:\pw_work\PWIDOT\SMITHKL\d0127557\Dist	td.dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS				0361 95(1&2) RS-1	COOK & WILL 29 14
1		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		HMA SURFACED PAVEMENT		BD400-04 (BD-22)	CONTRACT NO. 60F47
		PLOT DATE = 4/3/2009	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	



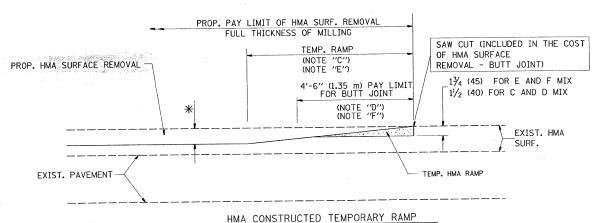
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

FILE NAME =	USER NAME = smithkl	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96		CURB OR CURB AND GUTTER	F.A.U. SECTION	COUNTY TOTAL SHEET NO.
 c:\pw_work\PWIDOT\SMITHKL\d0127557\Dist	tdidgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	REMOVAL AND REPLACEMENT	0361 95(1&2) RS-1 (COOK & WILL 29 20
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		BD600-06 (BD-24)	CONTRACT NO. 60F47
	PLOT DATE = 4/3/2009	DATE - 03-11-94	REVISED ~ R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID	D PROJECT



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

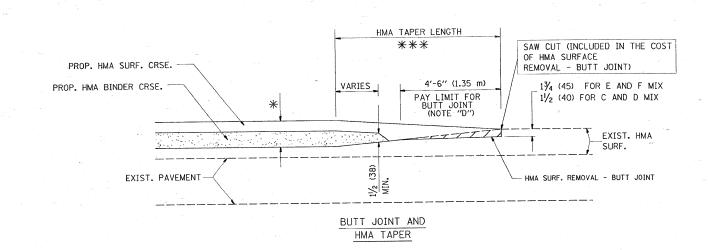
OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

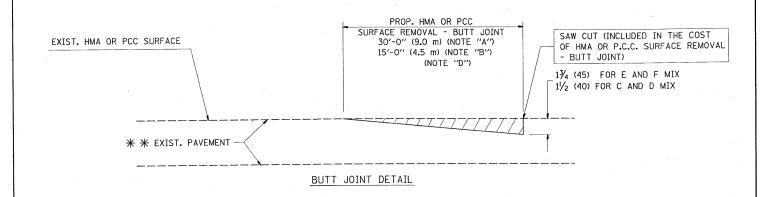
TYPICAL TEMPORARY RAMP

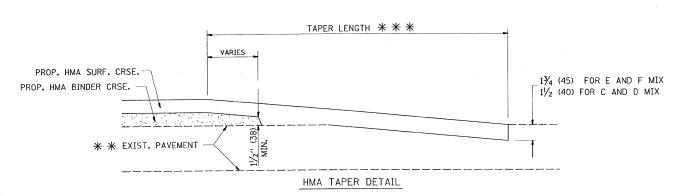


TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

R. SHAH 10-25-94 REVISED DESIGNED - M. DE YONG USER NAME = smithkl DRAWN REVISED A. ABBAS 03-21-97 :\pw_work\PWIDOT\SMITHKL\dØ127557\D:: M. GOMEZ 04-06-01 CHECKED PLOT SCALE = 50.0000 '/ IN. R. BORO 01-01-07 REVISED -PLOT DATE = 4/3/2009 DATE 06-13-90

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

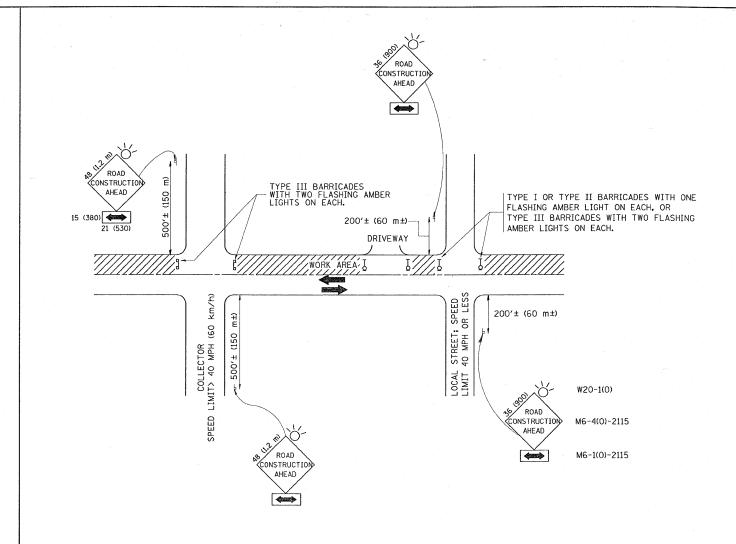
NOTES

- 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.
- $\mbox{\ensuremath{\mbox{\#}}}$

BASIS OF PAYMENT:

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

SCALE: NONE



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) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 \times 48 (1.2 m \times 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

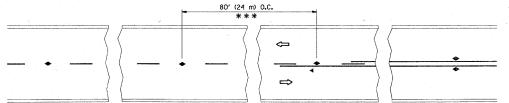
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = smithkl	DESIGNED ~ LHA	REVISED	- J. OBERLE 10-18-95
c:\pw_work\PWIDOT\SMITHKL\d0127557\Dist	td.dgn	DRAWN ~	REVISED	- A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED	- A. HOUSEH 10-15-96
	PLOT DATE = 4/3/2009	DATE ~ 06-89	REVISED	-T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

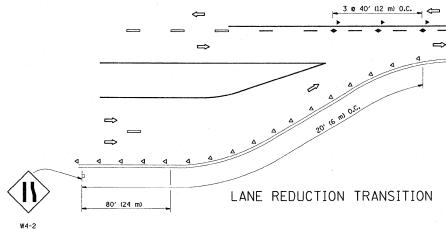
TR	AFFI	C (CON	ITR	OL AND	PROTEC	TION	FOR		
SIDE	ROA	DS	, IN	TE	RSECTION	VS, AND	DRIV	EWAYS		
SHEET	NO.	1	OF	1	SHEETS	STA.			то	5

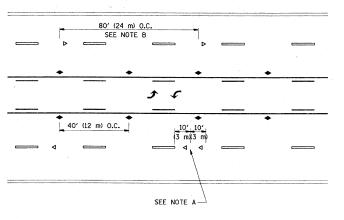
F.A.U. RTE.	SECTION	COUNTY TOTAL S					
0361	95(1&2) RS-1	COOK & WILL	29	22			
	TC-10	CONTRACT NO. 60					
 FED. F	ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT					



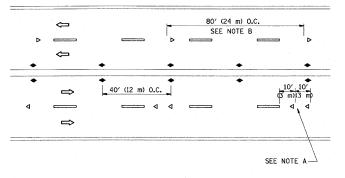
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

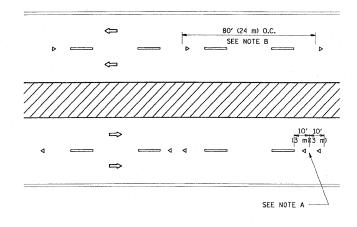




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

SYMBOLS

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

DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

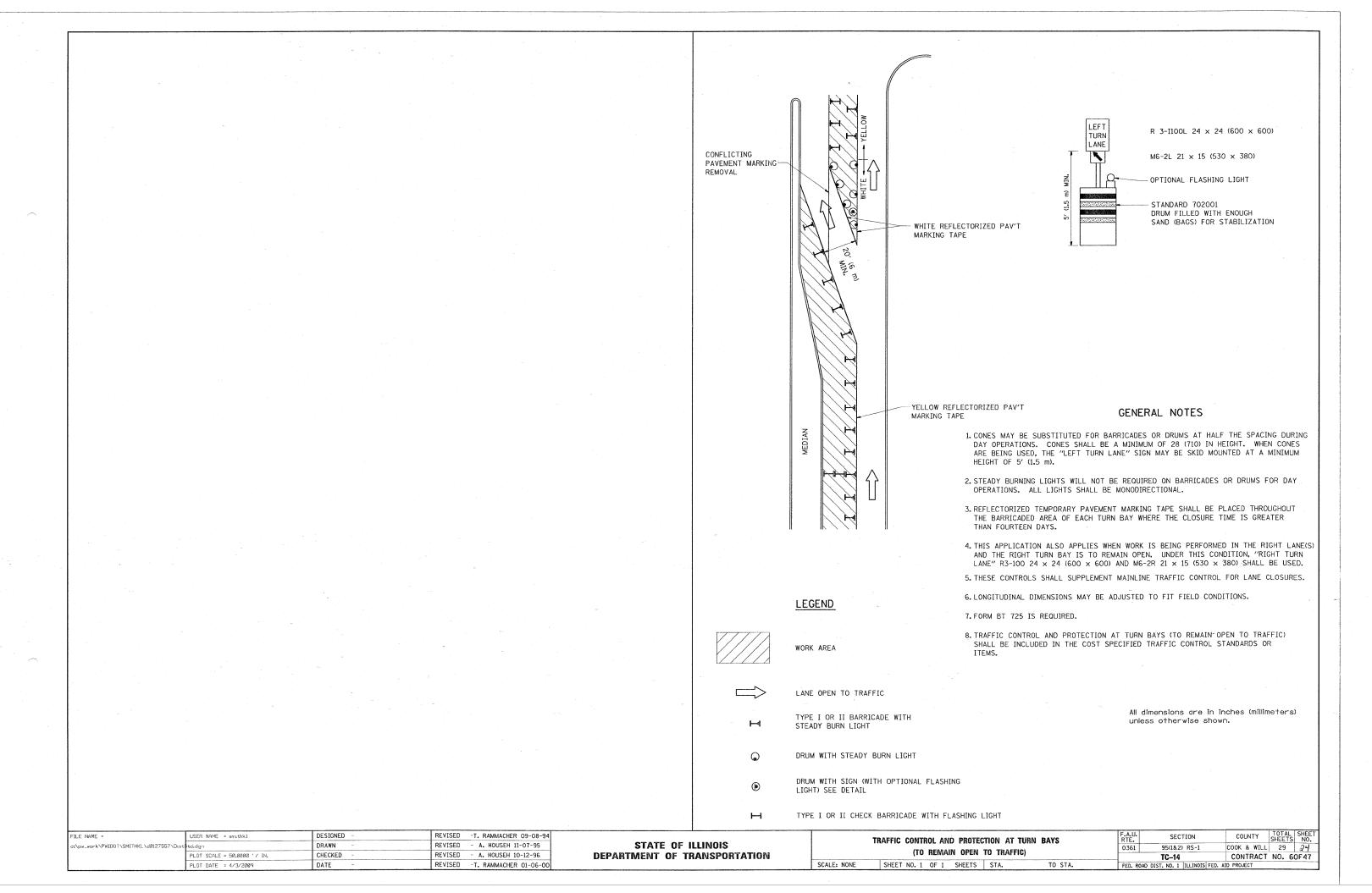
3 e 80' (24 m) 0,C.

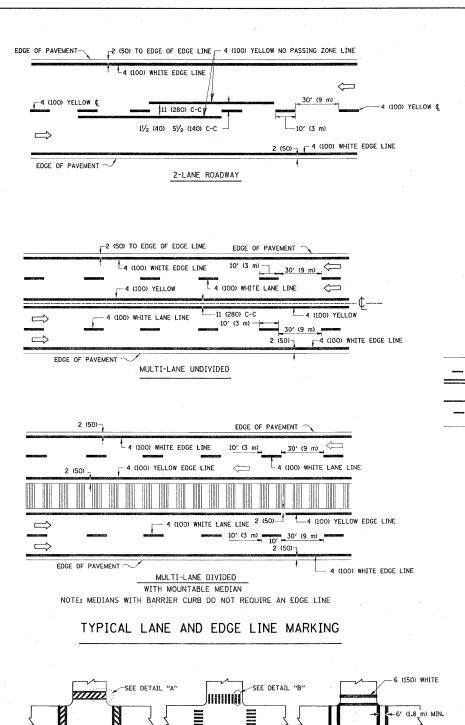
| MINIMUM OF 3 W | EQUALLY SPACED | 3 e 40' (12 m) | 0,C. | 40' (

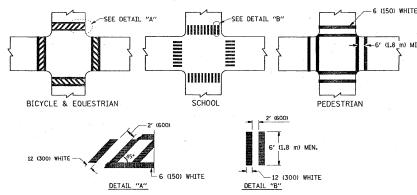
LEFT TURN

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

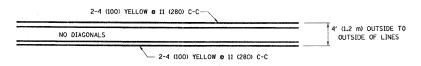
FILE NAME =	USER NAME = smithk1	DESIGNED -	REVISED - T. RAMMACHER 09-19-94			TYPICAL APPLICATIONS	F.A.U.	SECTION	COUNTY	TOTAL SHEET
c:\pw_work\PWIDOT\SMITHKL\d0127557\Dist	itd.dgn	DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS	241052		0361	95(1&2) RS-1	COOK & WILL	29 23
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			TC-11	CONTRACT	NO. 60F47
	PLOT DATE = 4/3/2009	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD	D DIST. NO. 1 ILLINOIS FED. A	ID PROJECT	



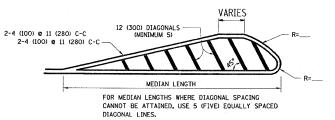




TYPICAL CROSSWALK MARKING

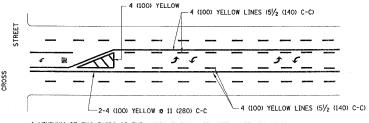


4' (1.2 m) WIDE MEDIANS ONLY

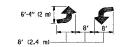


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

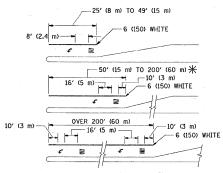


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

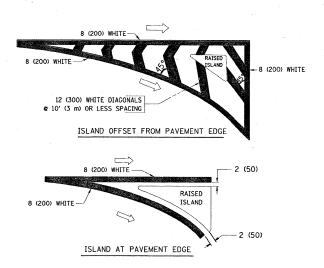


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. $\frac{4}{3}$ AREA = 15.6 SQ. FT. (1.5 m²) $\frac{1}{3}$ AREA = 20.8 SQ. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED 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	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
ANE 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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) 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 2' (600) APART 5EE 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	DIACONALS: 15' (4,5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) T0 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
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 (0VER 45MPH (70 km/h))

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

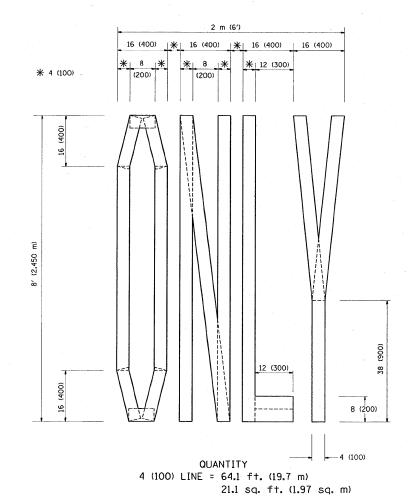
SCALE: NONE

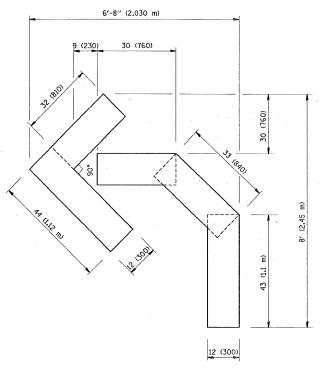
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = smithkl	DESIGNED -	EVERS	REVISED	-T. RAMMACHER 10-27-9
c:\pw_work\PWIDOT\SMITHKL\dØ127557\Dist	td.dgn	DRAWN -		REVISED	-A. HOUSEH 10-09-96
	PLOT SCALE = 50.0000 ′/ IN.	CHECKED -		REVISED	-A. HOUSEH 10-17-96
•	PLOT DATE = 4/3/2009	DATE -	03-19-90	REVISED	-T. RAMMACHER 01-06-

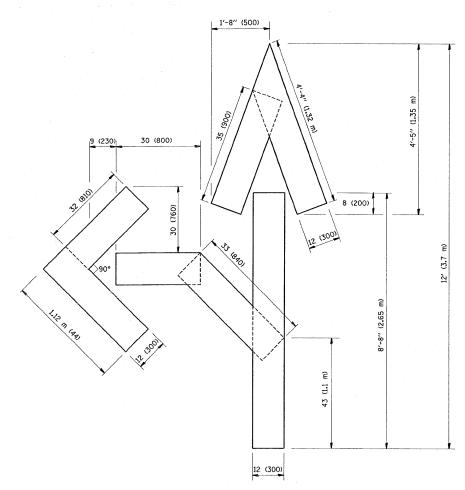
STATE	OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

DISTRICT ONE		F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
TYPICAL PAVEMENT MARKINGS		0361	95(1&2) RS-1	COOK & WILL	29	25
ITTICAL PAVEINENT INMANINGS		TC-13	CONTRACT NO. 60			
SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. RO	OAD DIST, NO. 1 ILLINOIS FED. A	ID PROJECT		





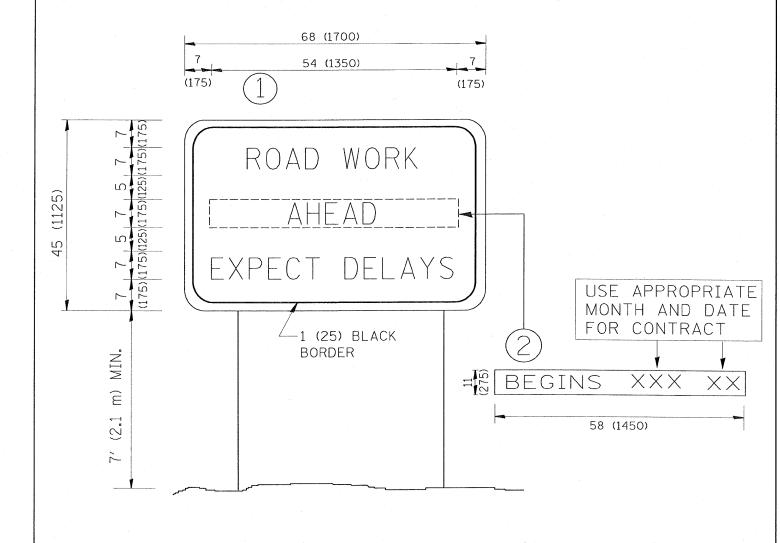
OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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

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

	FILE NAME =	USER NAME = smrthkl	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.U. RTF	SECTION	COUNTY	TOTAL SHEET
	c:\pw_work\PWIDOT\SMITHKL\dØ127557\Dist	itdidgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS		0361	95(1&2) RS-1	COOK & WILL	29 26
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FOR TRAFFIC STAGING		TC-16	CONTRACT	NO. 60F47
l		PLOT DATE = 4/3/2009	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIS	ST. NO. 1 ILLINOIS FED.	AID PROJECT	



NOTES

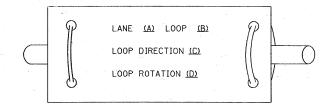
- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN () WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL 2 SOON AFTER THE START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

FILE NAME =	USER NAME = smithkl	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD	F.A.U. SECTION COUNTY TOTAL SHEET
os/pw_work/PWIDOT/SMITHKL/dØ127557/Dis	\$td.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		0361 95(1&2) RS-1 COOK & WILL 29 27
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN	TC-22 CONTRACT NO. 60F47
	PLOT DATE = 4/3/2009	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

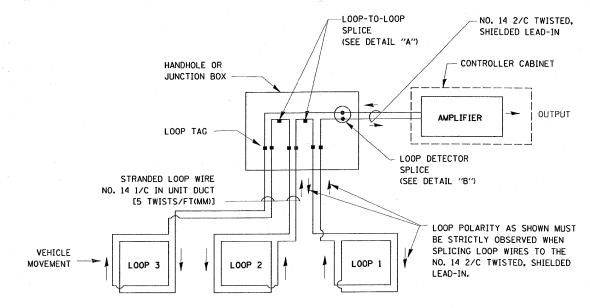
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT 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

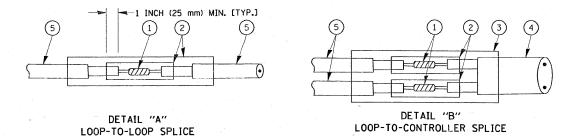


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



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

SCALE: NONE

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

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STANDARD TRAFFIC SIGNAL DESIGN DETAILS							TS-05
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COUNTY SHEETS NO.

COOK & WILL 29 28

CONTRACT NO. 60F47

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER PAVED OR NON-PAVED SHOULDER 1" (25 mm) UNIT DUCT-TRENCHED TO E/P ** * = (600 mm)

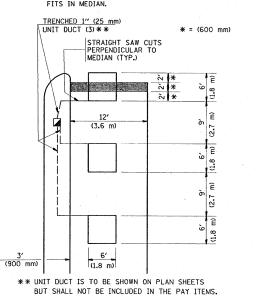
* * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

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
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.

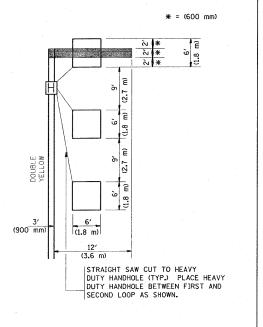


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

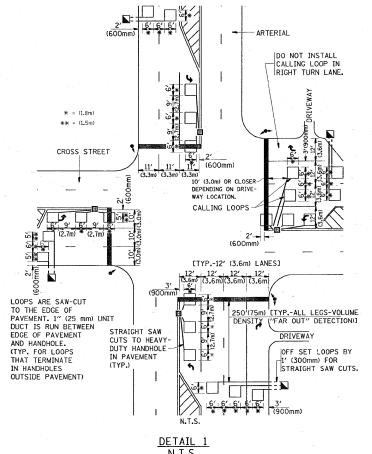


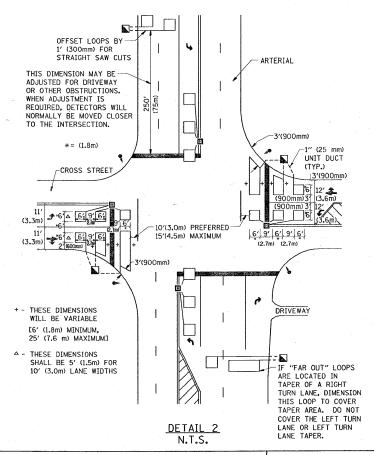
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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

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





NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON 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.

14.1.5.								
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DI	STRICT	1 -	DET	ECTOR	LOOP	INSTALLATIO	N	
DETAILS FOR ROADWAY RESURFACING								
SHEET	NO. 1	ΩF	1	SHEETS	STA	L.	TO	STA