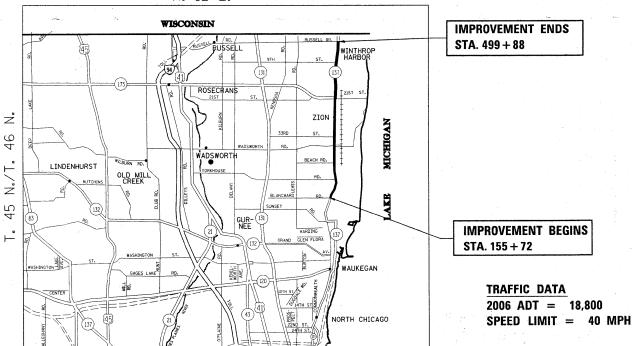
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

# PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 352: ILL RTE. 137 SECTION: (E.M.D) RS-4 BLANCHARD RD. TO RUSSELL RD. RESURFACING LAKE COUNTY

C-91-372-02

R. 12 E.

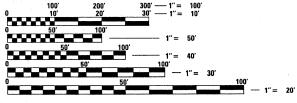


BENTON-ZION & WAUKEGAN TOWNSHIPS

GROSS & LENGTH OF IMPROVEMENT = 34,416 LIN. FT. = 6.52 MILES

#### FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED IN THE CITY OF ZION AND IN THE VILLAGES OF WINTHROP HARBOR AND BEACH PARK



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT ENGINEER – DAN WILGREEN (847) 705–4240 PROJECT MANAGER – KEN ENG (847) 705–4247

**CONTRACT NO. 62545** 

D-91-372-02

JO DAVIESS STEPHENSON WINNESAGO BOOKE MC NEWLY LAKE

CARBOLL

OCAE

DE KALB KANG

WILL

GRUNDY

KANGAME

GRUNDY

KANGAME

FORD

HANCOCK

MC DOROUGH

FILTIN

TAZEWELL

MC LEAN

MC DOUGLAS

SCHUTLER

ADAMS

BROWN

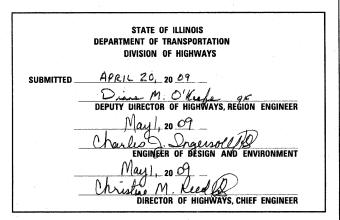
ADAMS

BROWN

ADAMS

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#### INDEX OF SHEETS

#### SHEET NO. DESCRIPTION

- 1 TITLE SHEET
- 2 INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 TYPICAL SECTIONS PLAN
- 5-16 ROADWAY & PAVEMENT MARKING PLANS
- 17-28 DETECTOR LOOP REPLACEMENT PLANS
- 29 DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
- 30 PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
- 31 CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
- 32 BUTT JOINTS AND HMA TAPER DETAILS
- 33 STEEL PLATE BEAM GUARDRAIL ADJACENT TO CURB AND GUTTER AND STABILIZATION AT TBT TY. 1 SPL.
- 34 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
- TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
- 36 DISTRICT ONE TYPICAL PAVEMENT MARKINGS
- 37 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
- 38 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
- 39 ARTERIAL ROAD INFORMATION SIGN
- 40 DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS DETECTOR LOOPS
- 41 DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

#### LIST OF STATE STANDARDS

#### STANDARD NO. DESCRIPTION

000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

420001-07CLASS C AND D PATCHES

606001-04 COMBINATION CONCRETE CURB AND GUTTER

630001-08 STEEL PLATE BEAM GUARDRAIL

630101-08 GUARDRAIL MOUNTED ON EXISTING CULVERTS

630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS

631011-05 TRAFFIC BARRIER TERMINAL, TYPE2

635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT

653011-02 REFLECTOR MARKER AND MOUNTING DETAILS

701301-03 LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS

701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY

701601-06 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN

701602-04 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH BIDIRECTIONAL LEFT TURN LANE

701606-06 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN

701701-00 URBAN LANE CLOSURE MULTILANE INTERSECTION

701901-0 TRAFFIC CONTROL DEVICES

886001-01 DETECTOR LOOP INSTALLATION

886006-01 TYPICAL LAYOUT FOR DETECTOR LOOPS

#### GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE CITY OF ZION AND THE VILLAGES OF WINTHROP HARBOR AND BRACH PARK

TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB & GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

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

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND BITUMINOUS TAPER DETAILS".

NO PERMANENT LANE CLOSURES WILL BE ALLOWED. MILLING, RESURFACING, STRUCTURE ADJUSTMENTS, AND PATCHING OPERATIONS WILL BE DONE WITH DAY TIME CLOSURES ONLY

THE RESIDENT ENGINEER SHALL CONTACT MS. DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER AT (847) 438-2300 A MINIMUM OF 72 HOURS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-447D. A MINIMUM OF 72 HOURS PRIOR TO THE INSTALLATION OF ANY TEMPORARY TRAFFIC CONTROL DEVICES

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN! PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1-1/2 INCHES WHERE THE SPEED LIMIT 45 MPH OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45MPH. WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 13 (VH).

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.

THE RESIDENT ENGINEER SHALL VERIFY ALL EXISTING PAVEMENT MARKINGS BEFORE MILLING

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS

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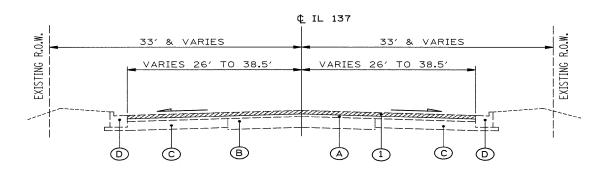
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES
IL. RTE. 137 (BLANCHARD ROAD TO RUSSELL ROAD)

SCALE: 1"=50' SHEET NO. 3 OF 3 SHEETS STA. 70+00 TO STA. 78+00

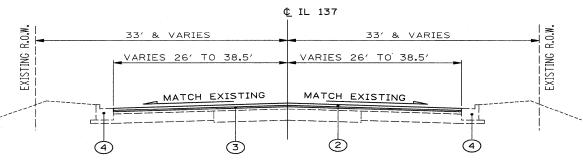
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						CONTRACT	NO. 6	254
FED. R	CAO	DIST.	NO.	ILLINOIS	FED. AID	PROJECT		

	SUMMARY OF QUANTITIES		URBAN 1001. STATE		(	CONSTRUCT	ION TYPE	CODE			SUMMARY OF QUANTITIES		URBAN 1001.STATE		. 1	CONSTRUCT	TION TYPE	CODE	T = -
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	1000						CODE NO	ITEM	UNIT	TOTAL	5 1000					
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	200	200	*		¥			70300240	TEMPORARY PAVEMENT MARKING	FOOT	11155	11155					
40600300	AGGREGATE (PRIME COAT)	TON	682	682						10300210	- LINE 6"			11100					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	133	133						70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	F00T	3740	3740					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1						70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	1440	1440					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1360	1360					:	78000100	THERMOPLASTIC PAVEMENT MARKING	SQ FT	2793	2793					
40600990	TEMPORARY RAMP	SQ YD	1551	1551					-	7000000	- LETTERS AND SYMBOLS	FOOT	119465	110465					. , ,
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	182	182					in white	¥ 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	118465	118465					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	18570	18570						<del>*</del> 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	F00T	11155	11155					
42101300	PROTECTIVE COAT	SQ YD	4050	4050						<del>×</del> 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	3740	3740					
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1	SQ YD	2733	2733					*	<del>*</del> 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	1440	1440					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2	SQ YD	224705	224705						78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	3580	3580					
	1/4"	F007	10150	10150						× 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	15	15				'	
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	12150	12150						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4195	4195					
44002220	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 5"	SQ YD	651	651						× 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1					
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	536 35	536						<b>*</b> 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	782	782					
44201794	CLASS D PATCHES, TYPE III, 12 INCH FRAMES AND LIDS TO BE ADJUSTED	SQ YD EACH	123	35 123				*.		× 88500100	INDUCTIVE LOOP DETECTOR	EACH	2	2	i				
60300310	(SPECIAL)	EACH	123	123						× 88600100	DETECTOR LOOP, TYPE I	FOOT	140	140	\$ · ·				
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 F, PO	70 <i>T</i> FOOT	50	50						× 88600600	DETECTOR LOOP REPLACEMENT	FOOT	8957	8957			\$- -		
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2						X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	206	206					
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	15	15			-			X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	9035	9035					
63200310	GUARDRAIL REMOVAL	FOOT	767	767						Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	32	32			1.		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3															
67100100	MOBILIZATION	L SUM	1	1							* specially Hem	s							
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1			* .				, specially								
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1					,										1.
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1															
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1															
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	13400	13400								-							
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	2793	2793															
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	118465	118465														,	
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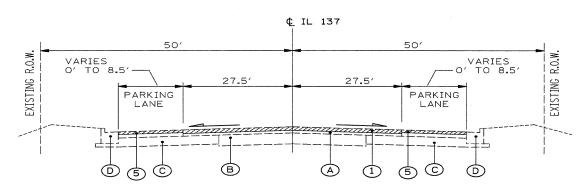
#### SHERIDAN ROAD EXISTING CROSS SECTION

STA. 155+72± TO STA. 322+50± STA. 341+50± TO STA. 500+00



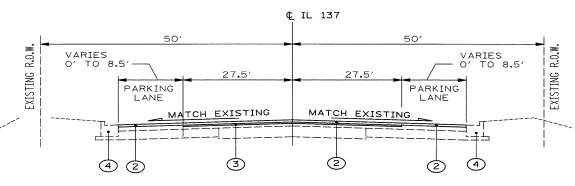
#### SHERIDAN ROAD PROPOSED CROSS SECTION

STA. 155+72± TO STA. 322+50± STA. 341+50± TO STA. 500+00



#### SHERIDAN ROAD EXISTING CROSS SECTION

STA. 322+50± TO STA. 341+50±



#### SHERIDAN ROAD PROPOSED CROSS SECTION

STA.  $322+50\pm$  TO STA.  $341+50\pm$ 

#### LEGEND

#### EXISTING CONDITIONS:

- A HOT-MIX ASPHALT SURFACE AND BINDER COURSE, (4" & VARIES)
- B EXISTING PCC PAVEMENT
- C HOT-MIX ASPHALT BASE COURSE, 12"
- (D) COMBINATION CONCRETE CURB AND GUTTER
- E CONCRETE MEDIAN

#### PROPOSED IMPROVEMENTS:

- 1 HOT-MIX ASPHALT SURFACE REMOVAL, 21/4"
- 2 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 11/2"
- 3 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 3/4"
- (4) COMBINATION CONCRETE CURB AND REMOVAL AND REPLACEMENT (AS DETERMINED BY THE ENGINEER)
- (5) HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2 "

HOT-MIX ASPHALT MIXTURE	HOT-MIX ASPHALT MIXTURE REQUIREMENTS									
MIXTURE TYPE	AC/PG	DESIGN AIR VOIDS								
HMA SURFACE COURSE, MIX D, N7O, (IL-9.5 mm)	PG 64-22	4% @ 70 GYR								
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR								
CLASS D PATCHES (HMA BINDER IL 19 mm)	PG 64-22*	4% @ 70 GYR								
HMA REPLACEMENT OVER PATCHES (HMA BINDER, IL 19 mm)	PG 64-22*	4% @ 70 GYR								

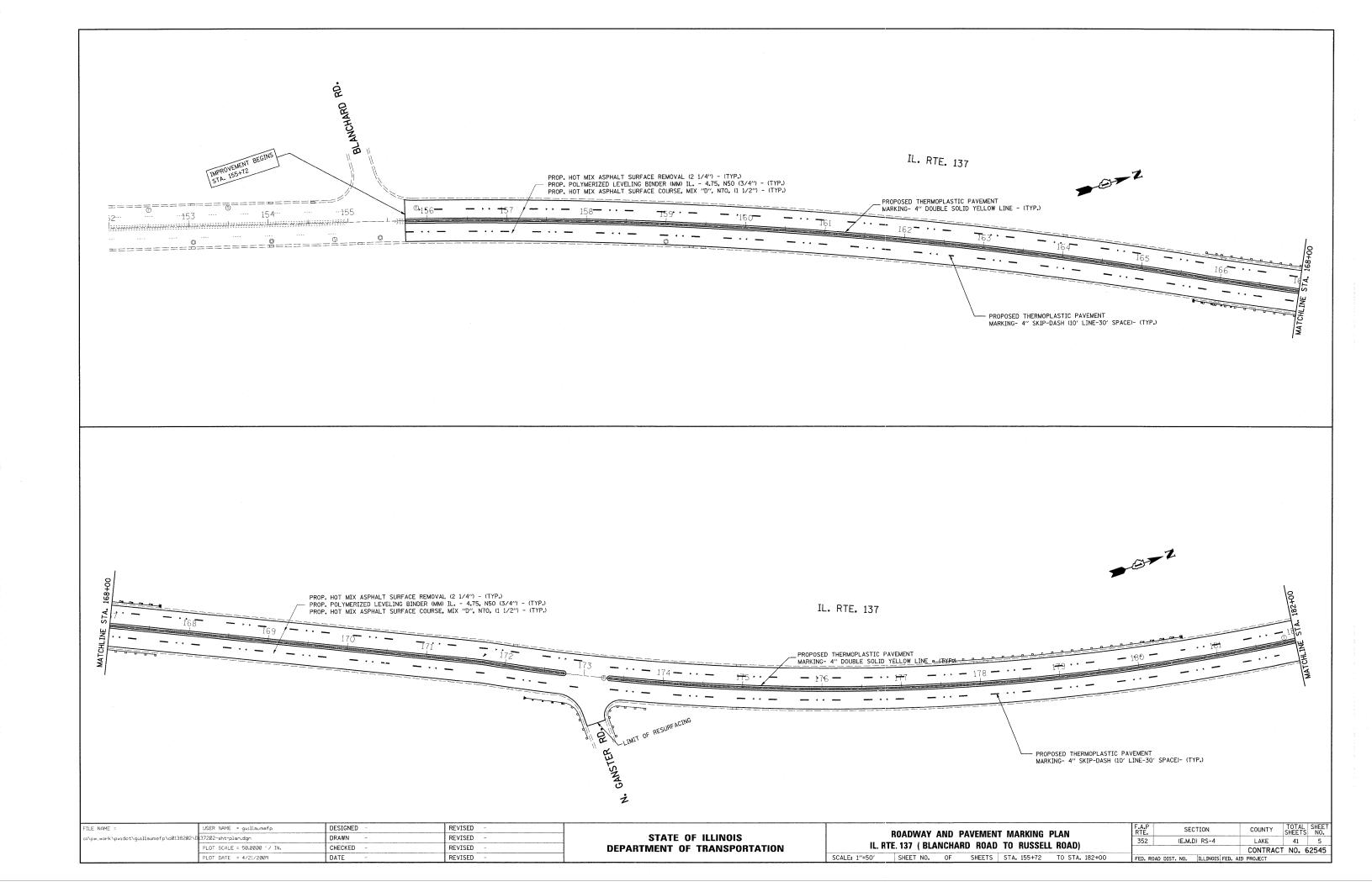
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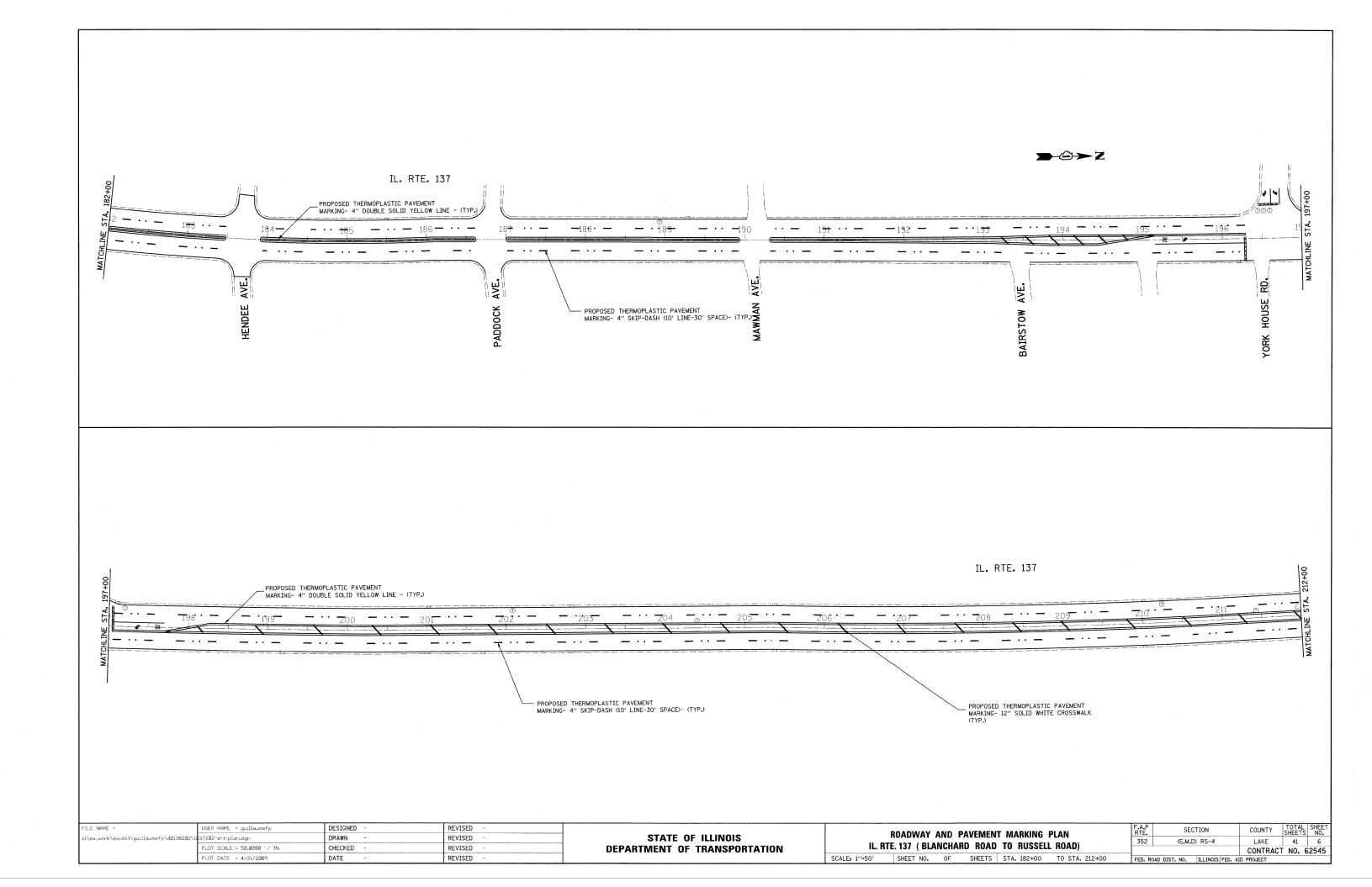
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQYD/IN. \*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

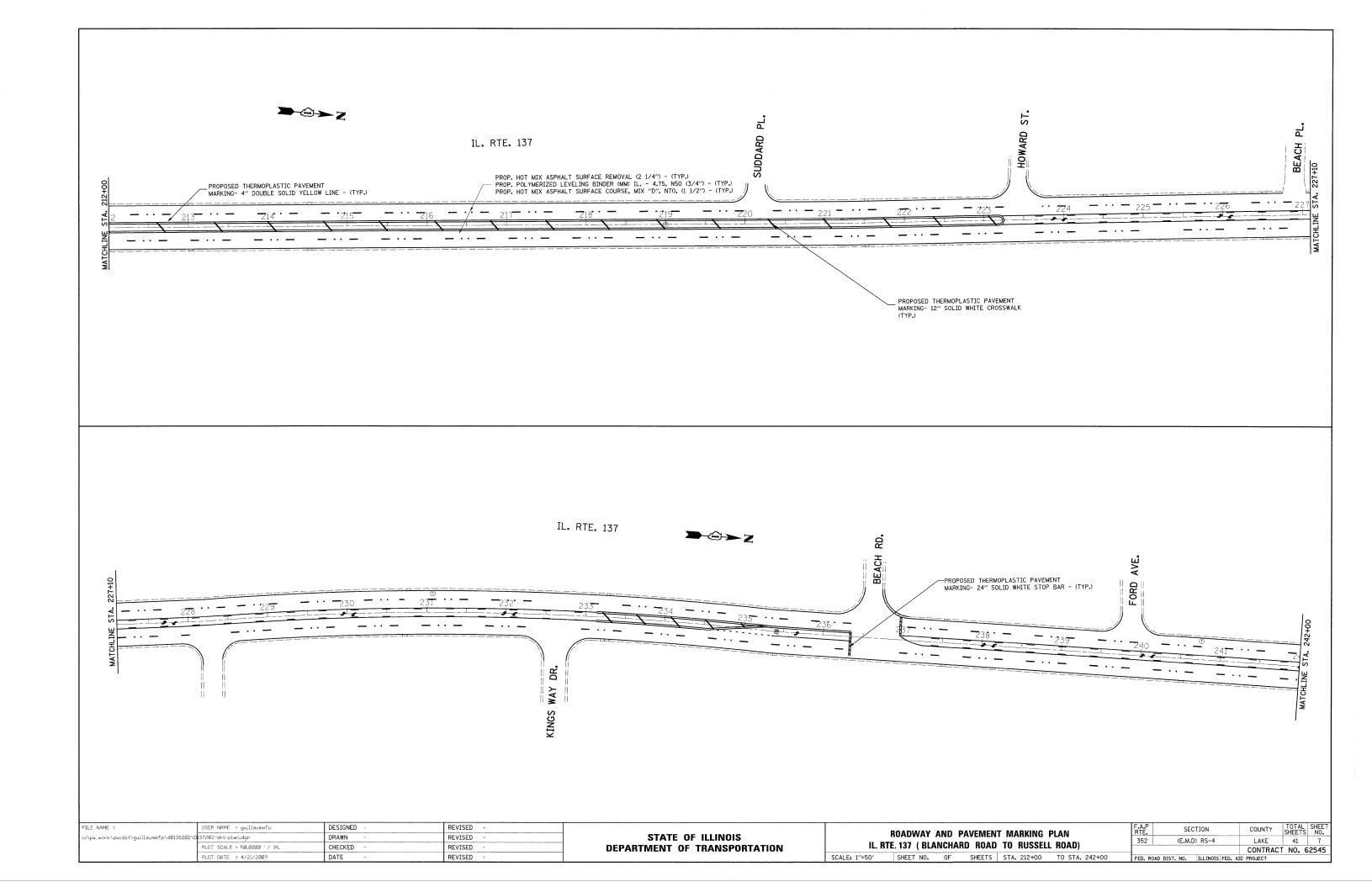
#### NOTES

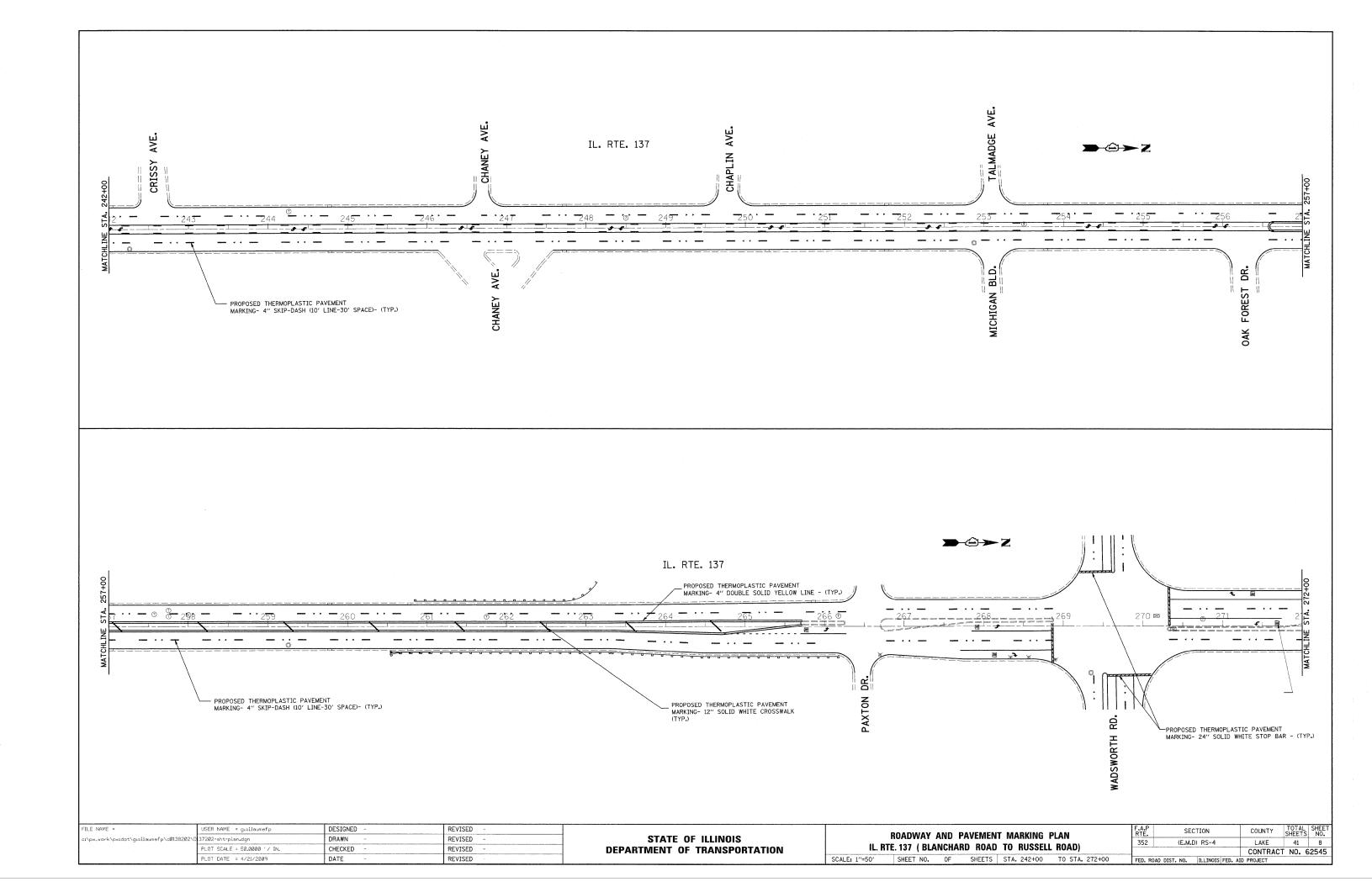
THE CONTRACTOR SHALL PATCH FIRST BEFORE PATCHING

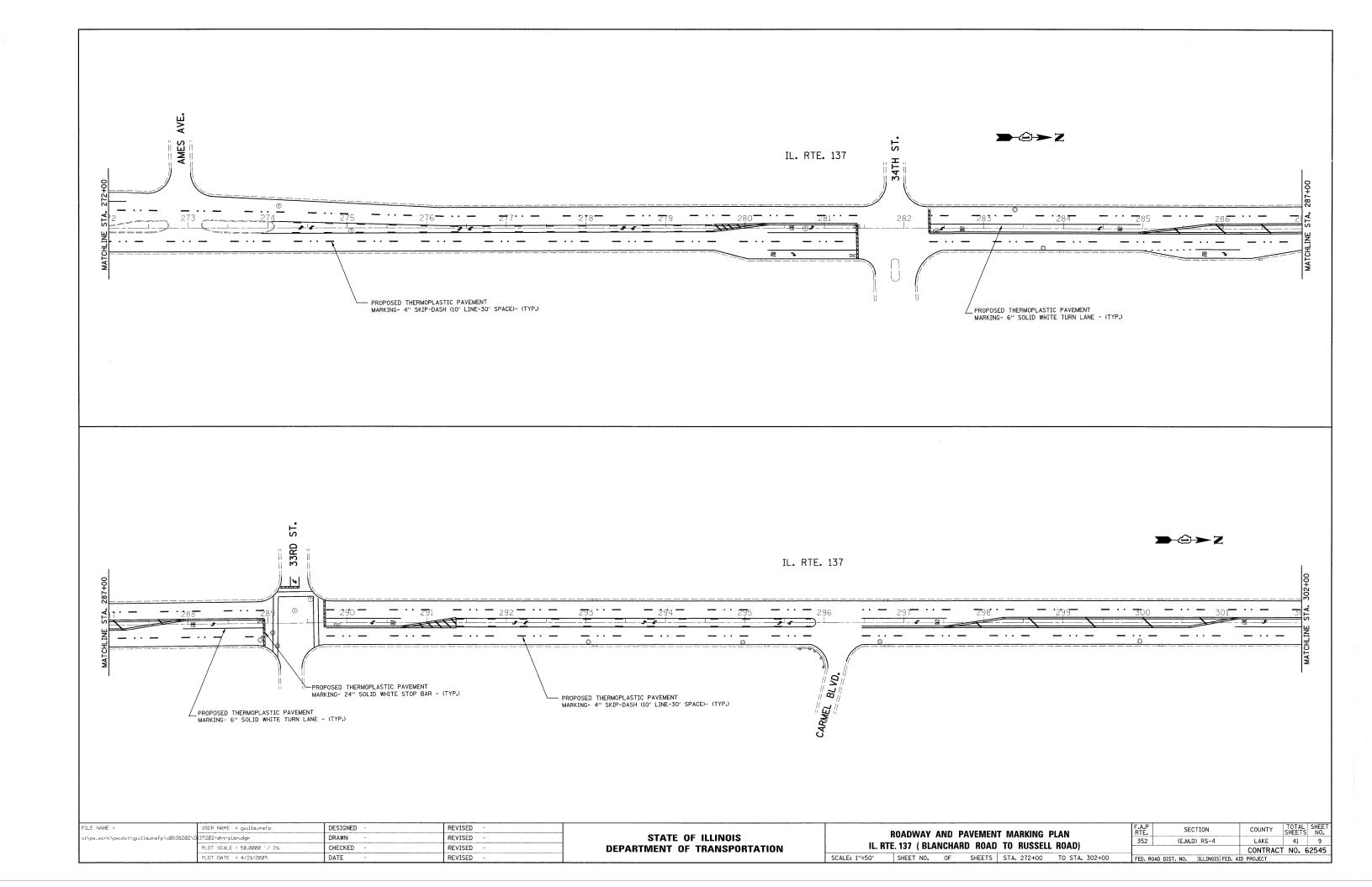
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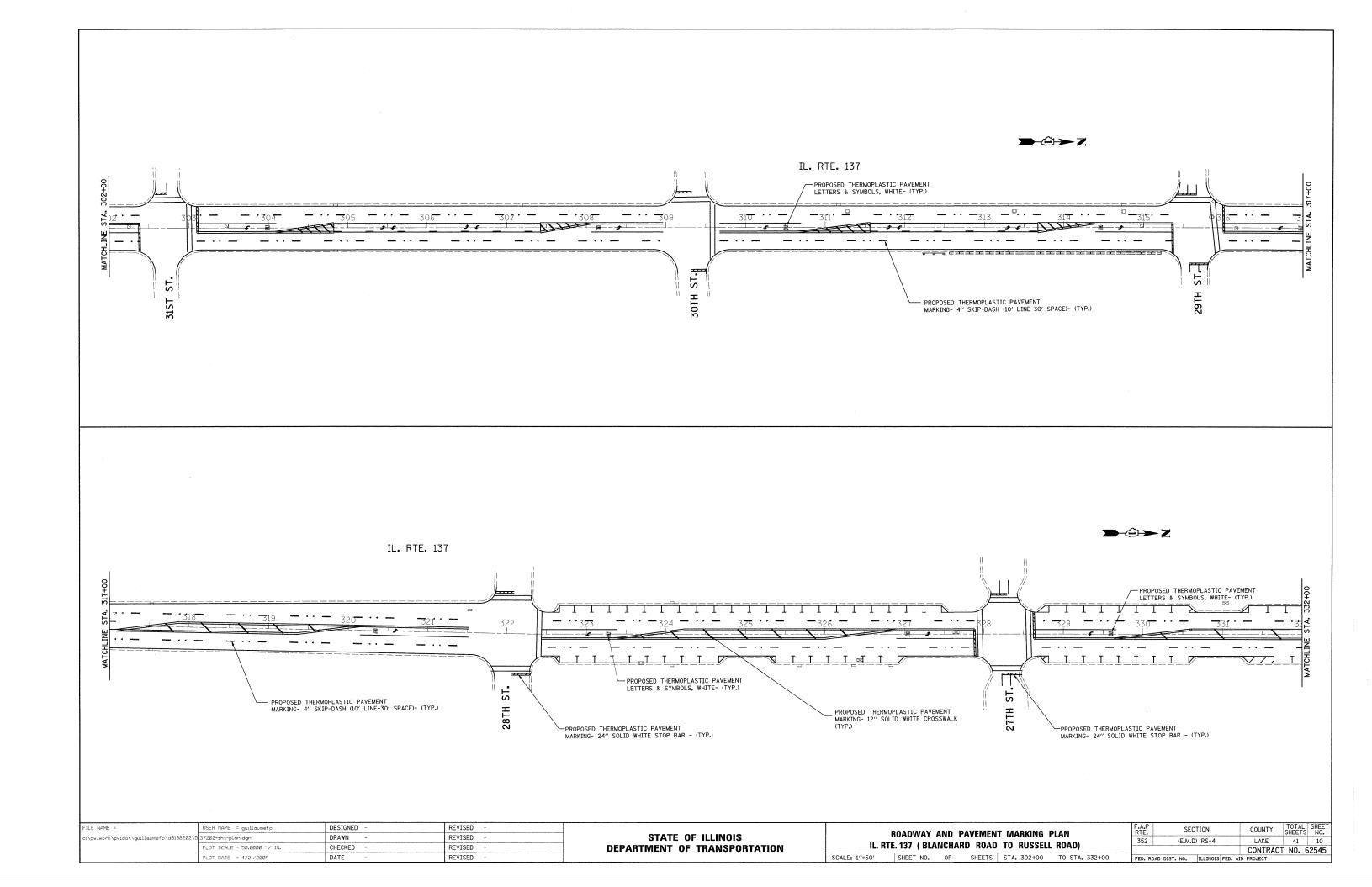












STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

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ROADWAY AND PAVEMENT MARKING PLAN

IL. RTE. 137 (BLANCHARD ROAD TO RUSSELL ROAD)

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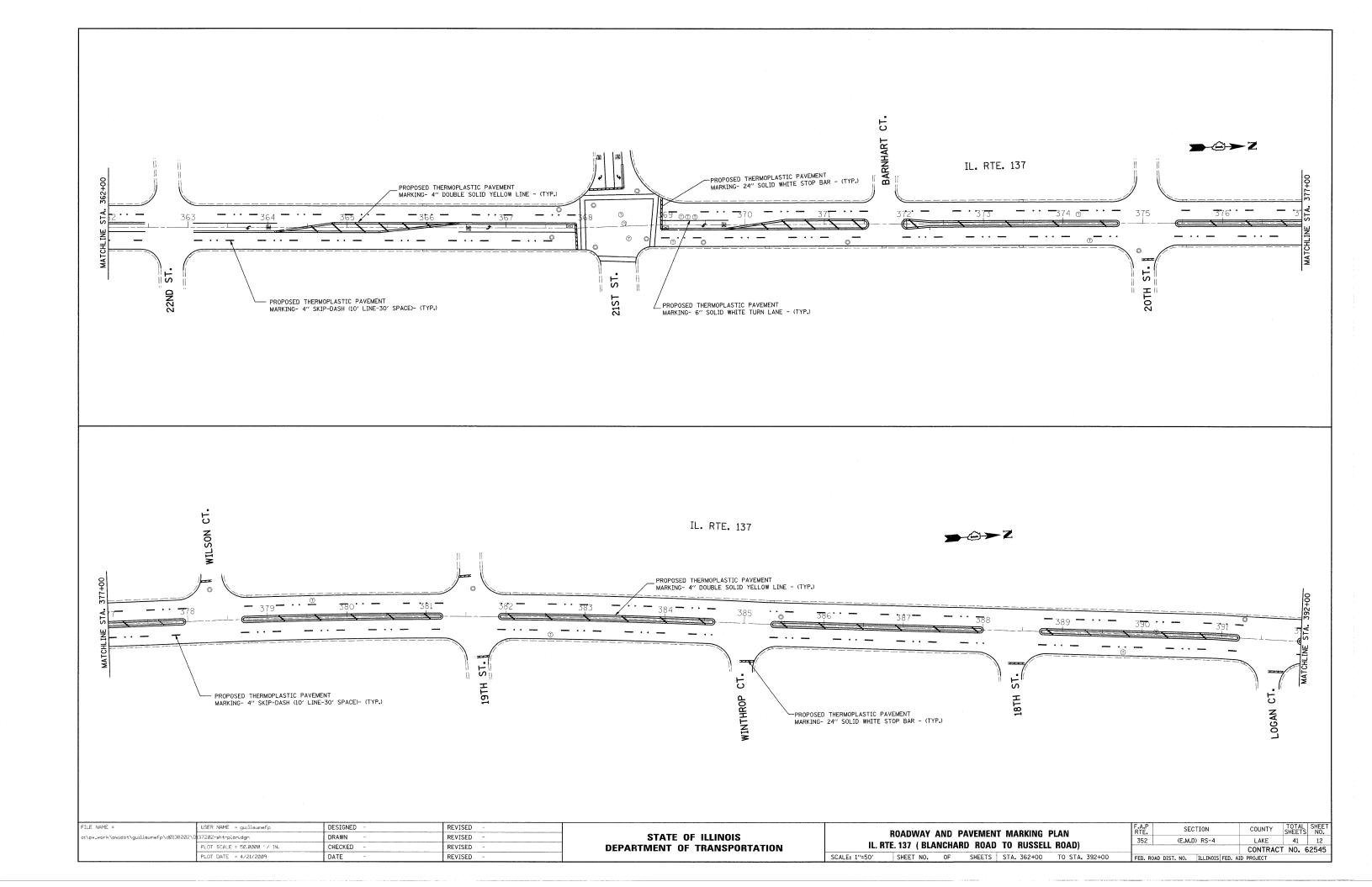
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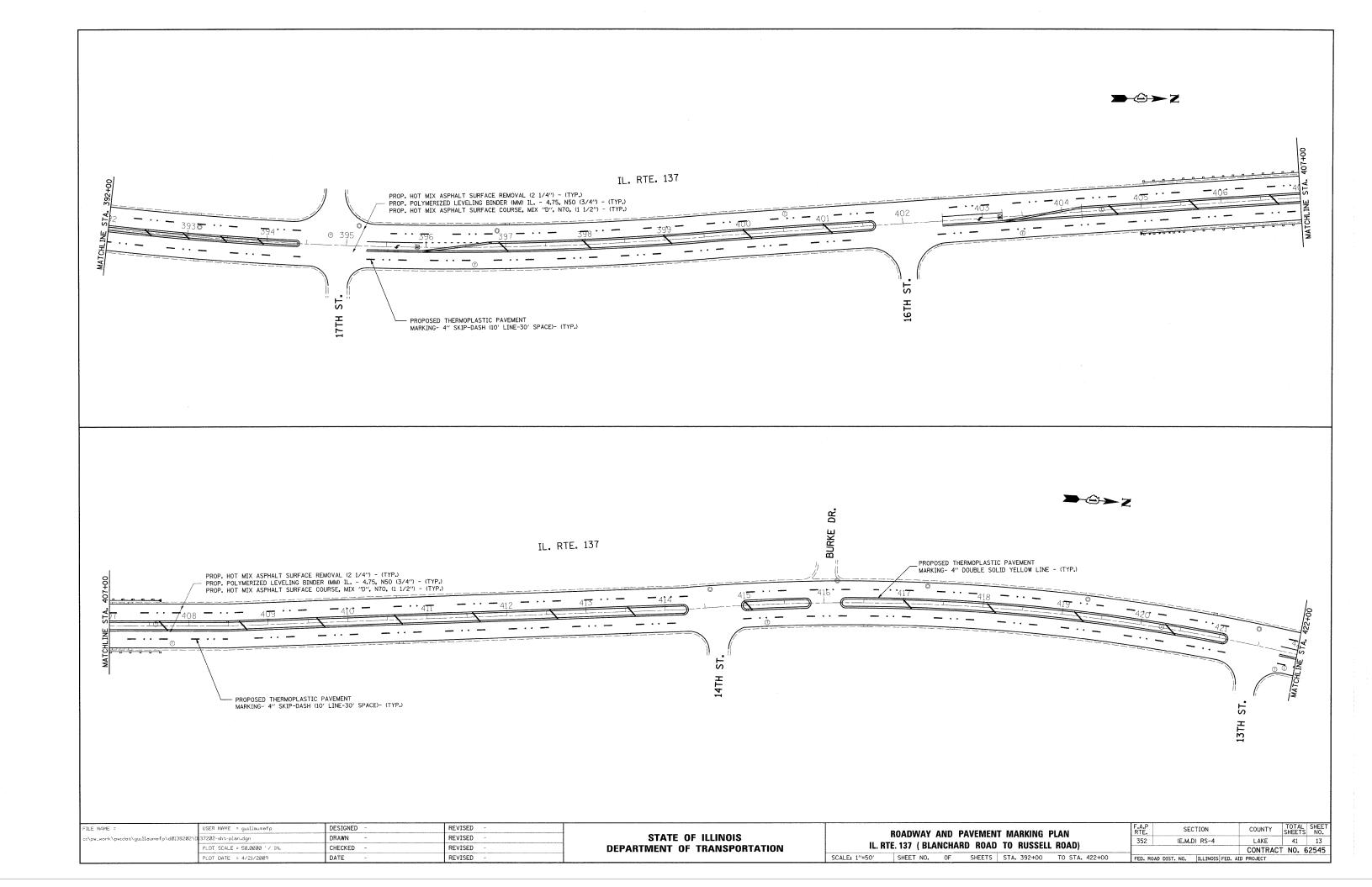
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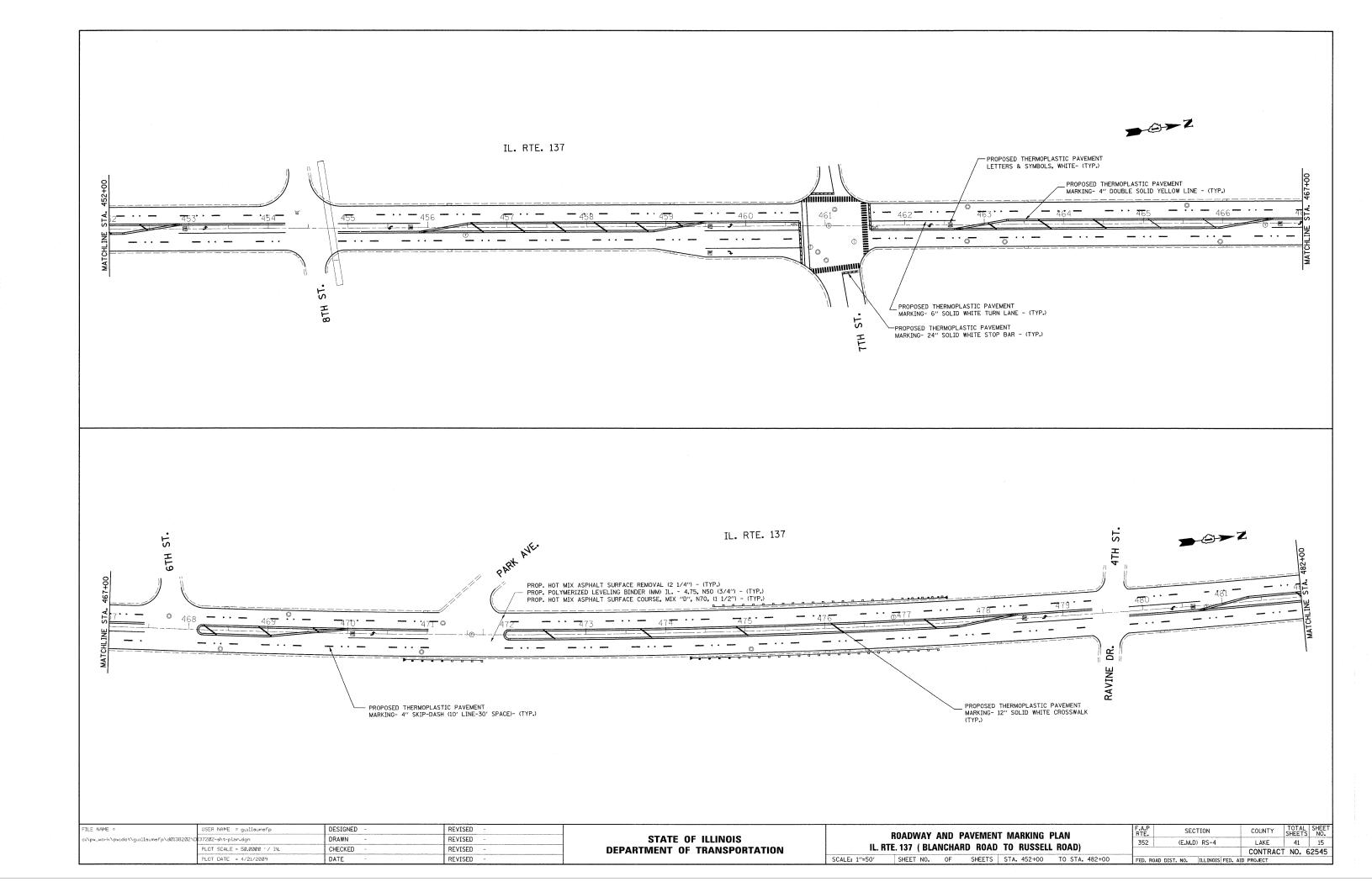
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(E.M.D) RS-4

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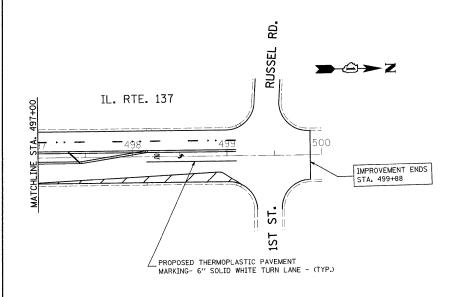
IL. RTE. 137

PROPOSED THERMOPLASTIC PANDENT
MARKING OF BOLID WITE ORDSWALE

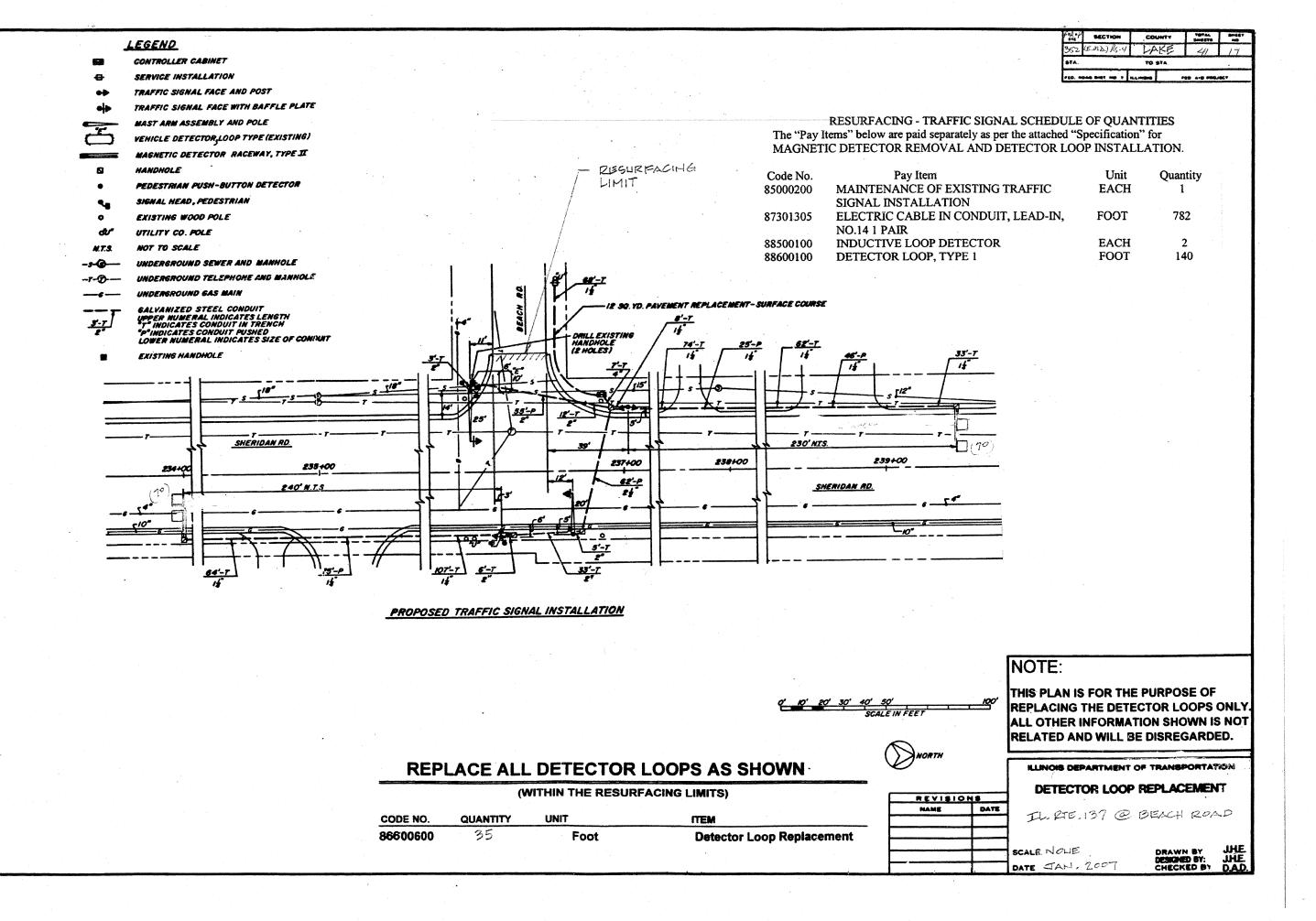
PROPOSED THERMOPLASTIC PANDENT
MARKING OF SALLD WHITE ORDSWALE

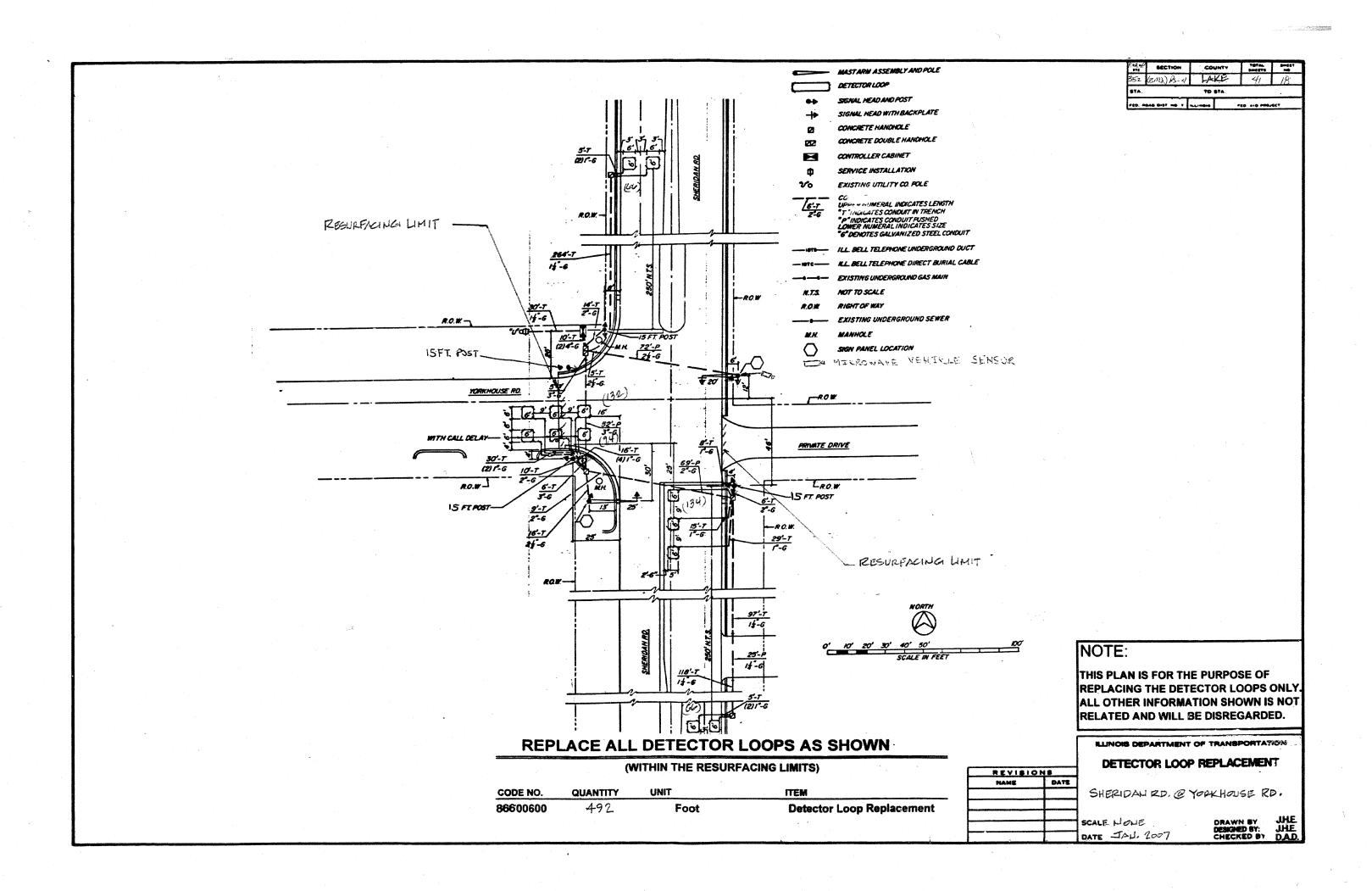
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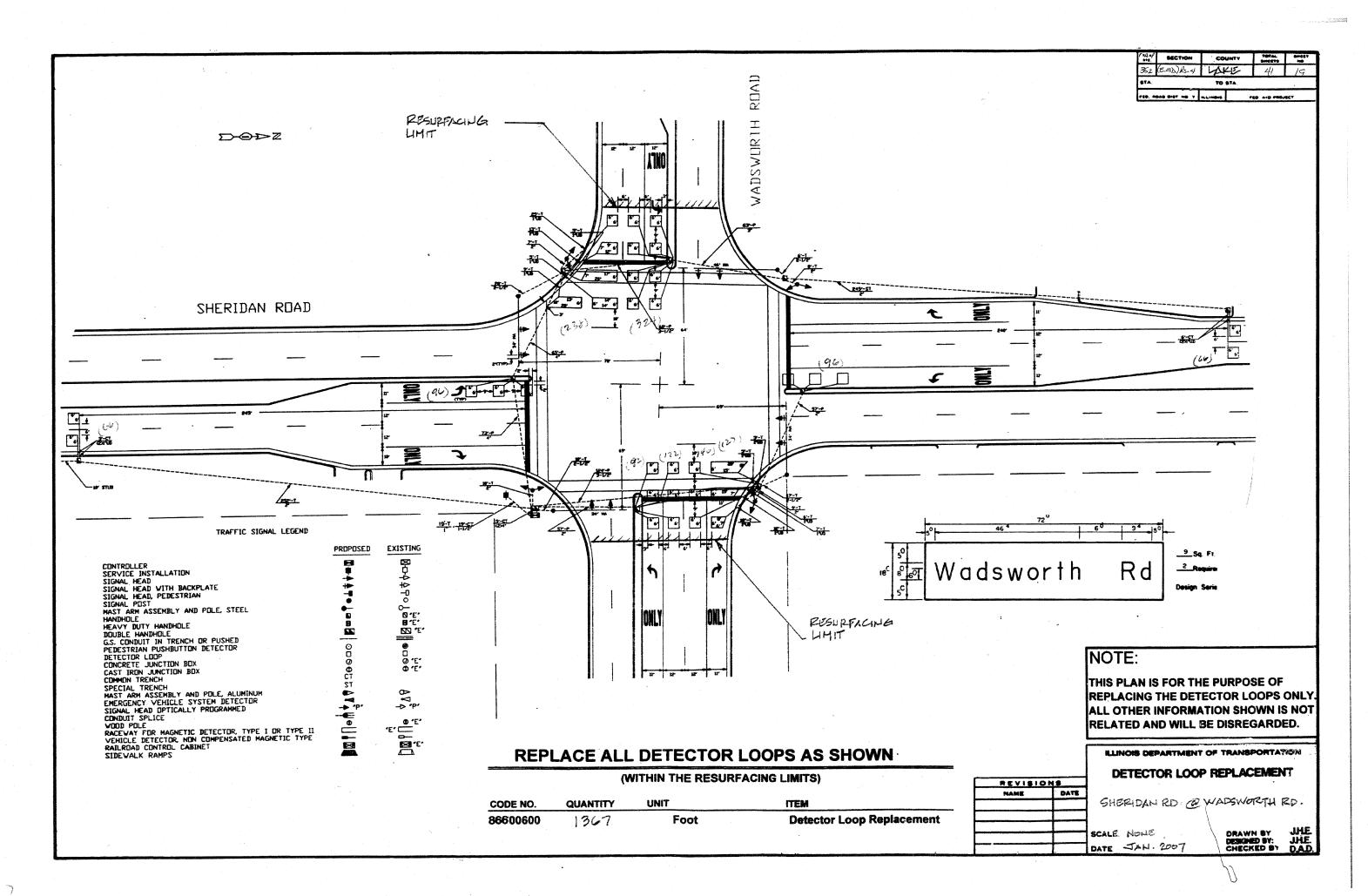
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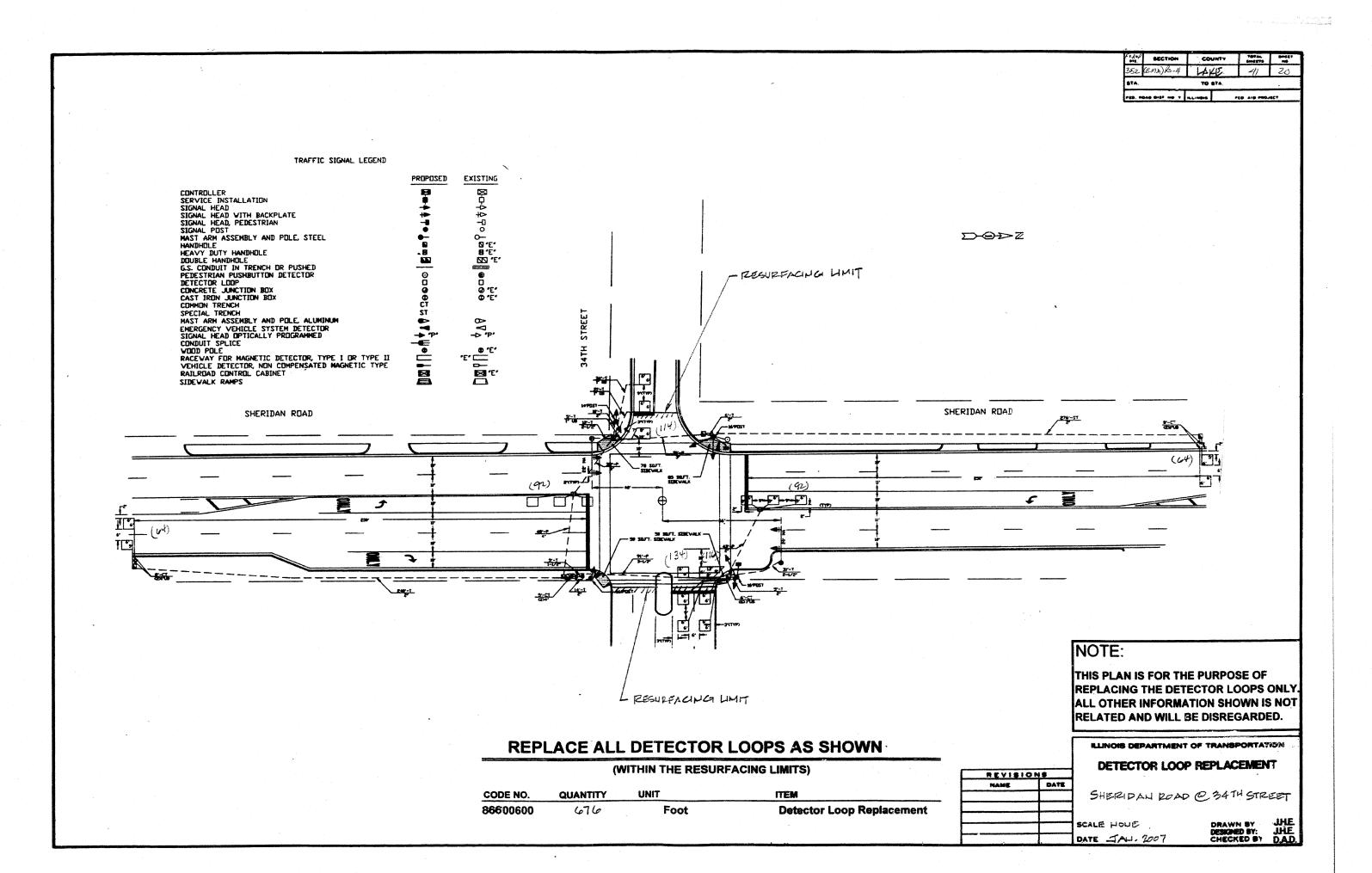


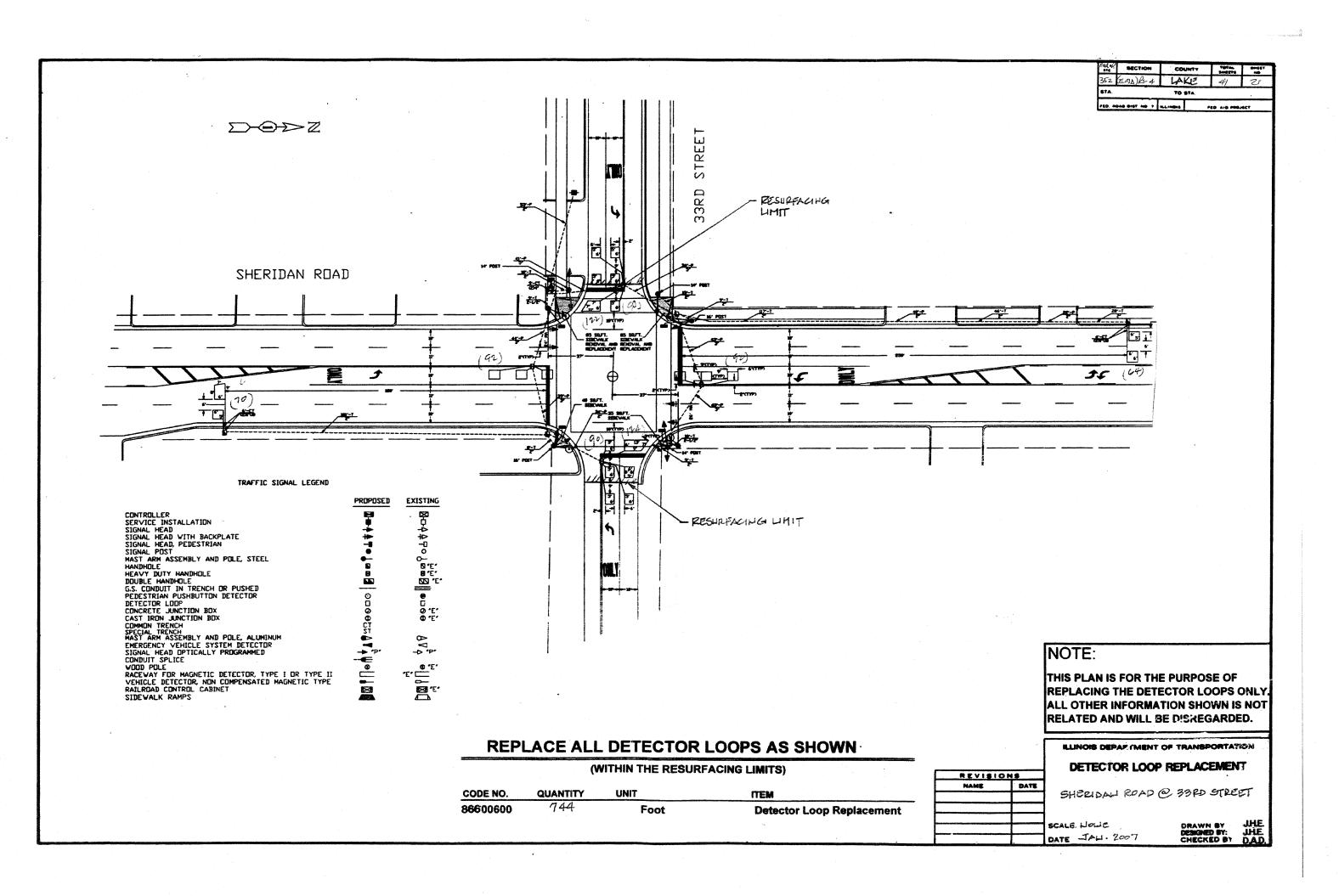
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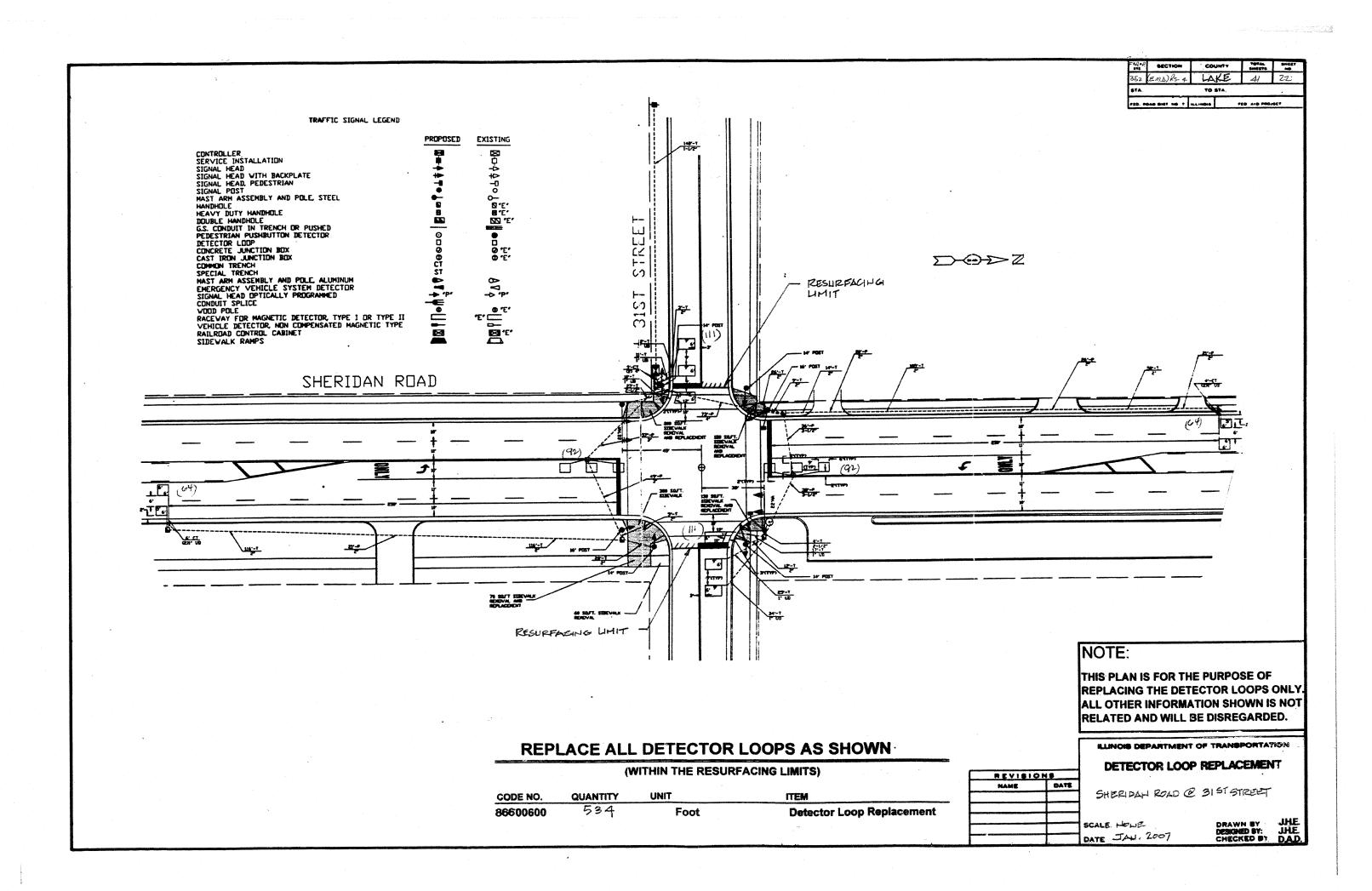


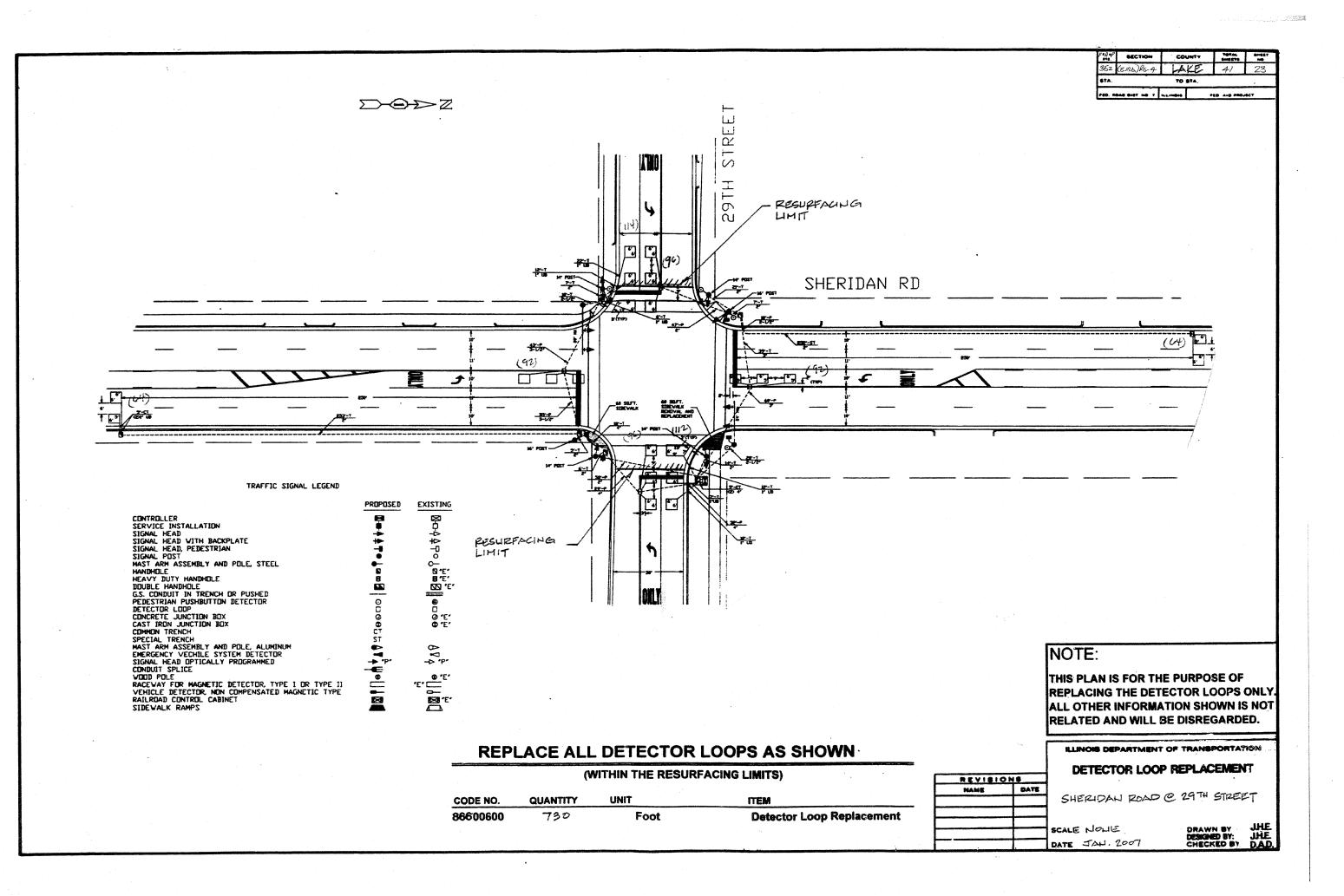


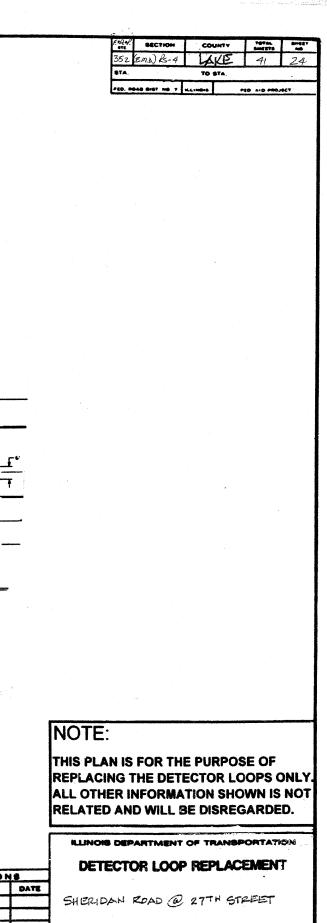










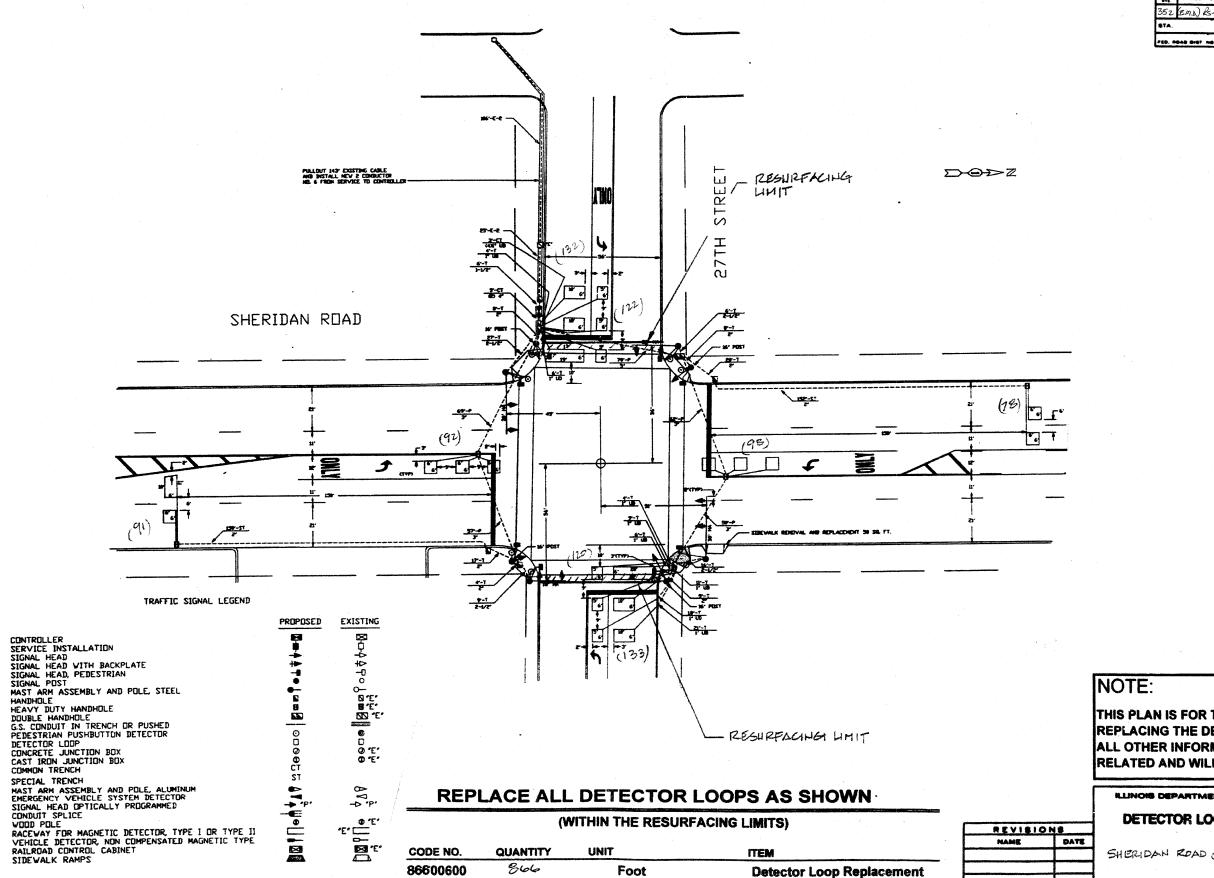


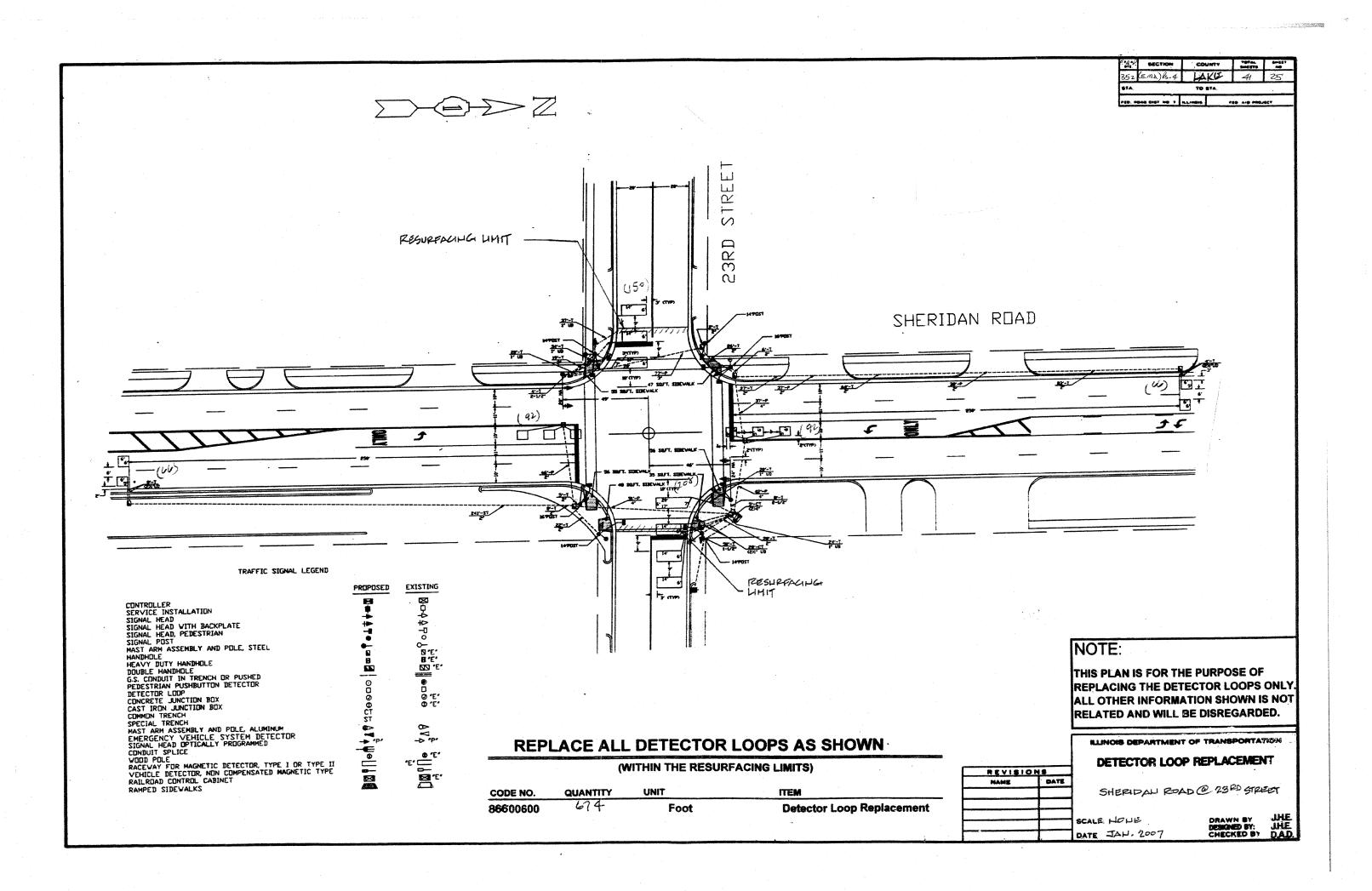
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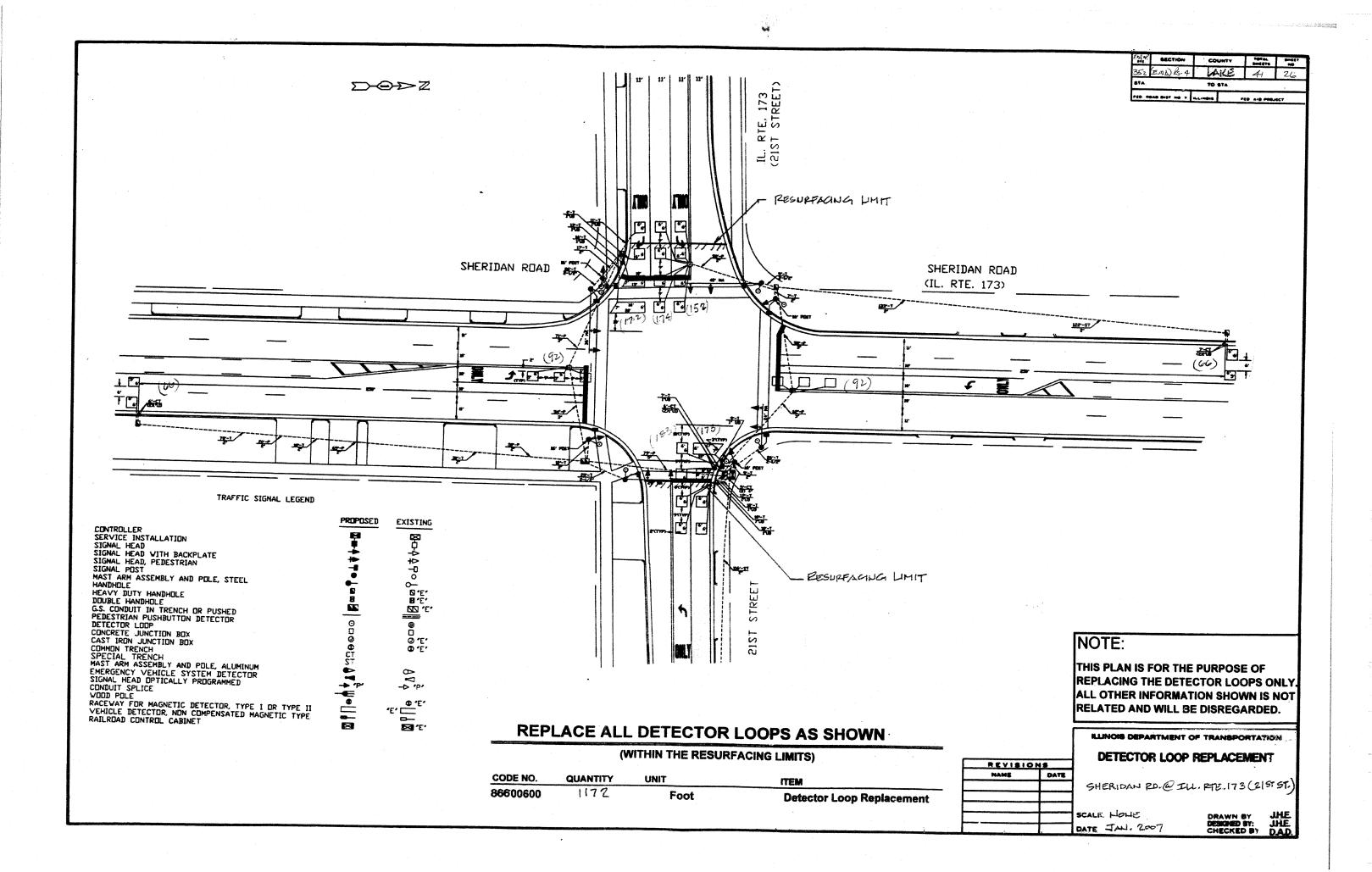
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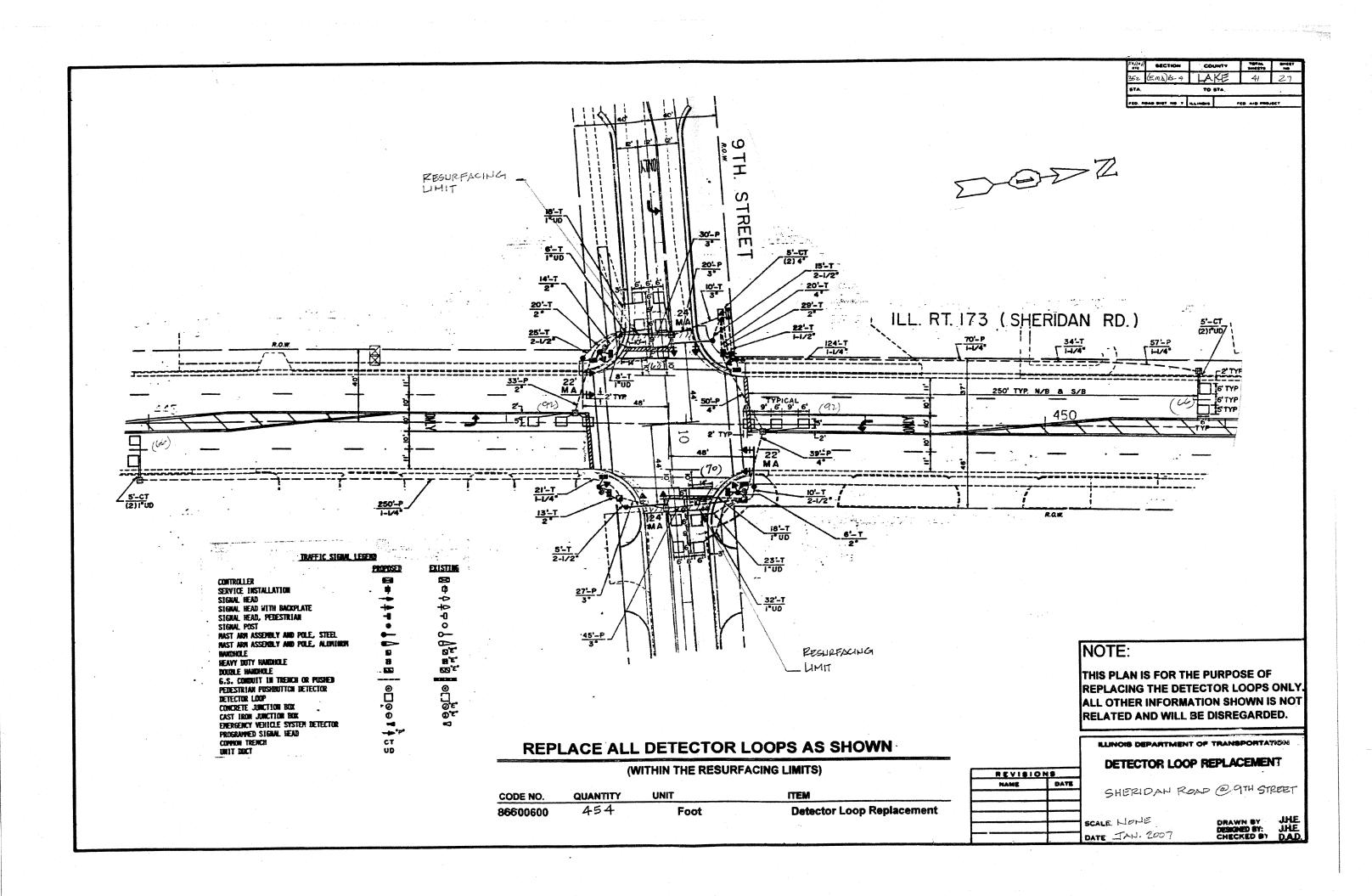
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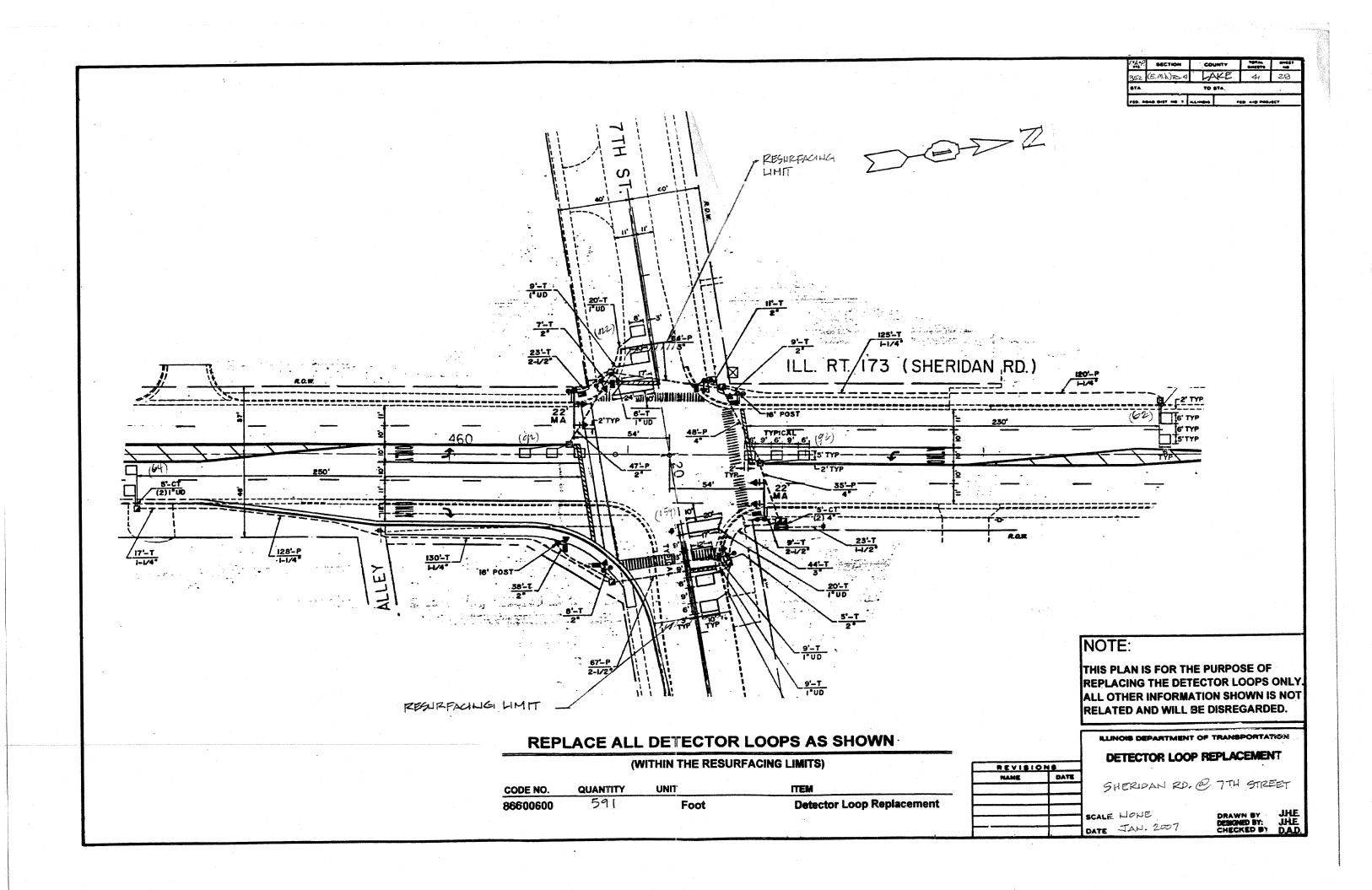
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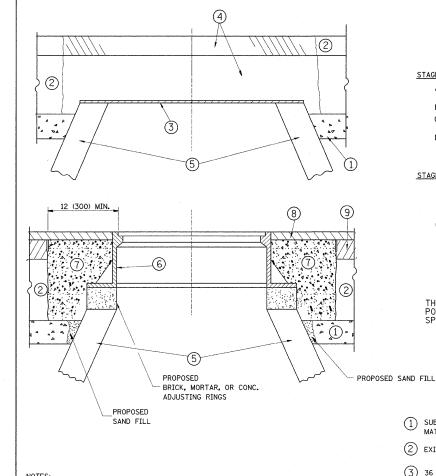












EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER, REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

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.

#### 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  $1\frac{1}{2}$  (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 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.

#### LEGEN

- 1 SUB-BASE GRANULAR MATERIAL
- 2 EXISTING PAVEMENT
- (3) 36 (900) DIAMETER METAL PLATE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 5 EXISTING STRUCTURE

- 6 FRAME AND LID (SEE NOTES)
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED HMA BINDER
  COURSE

#### LOCATION OF STRUCTURES:

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

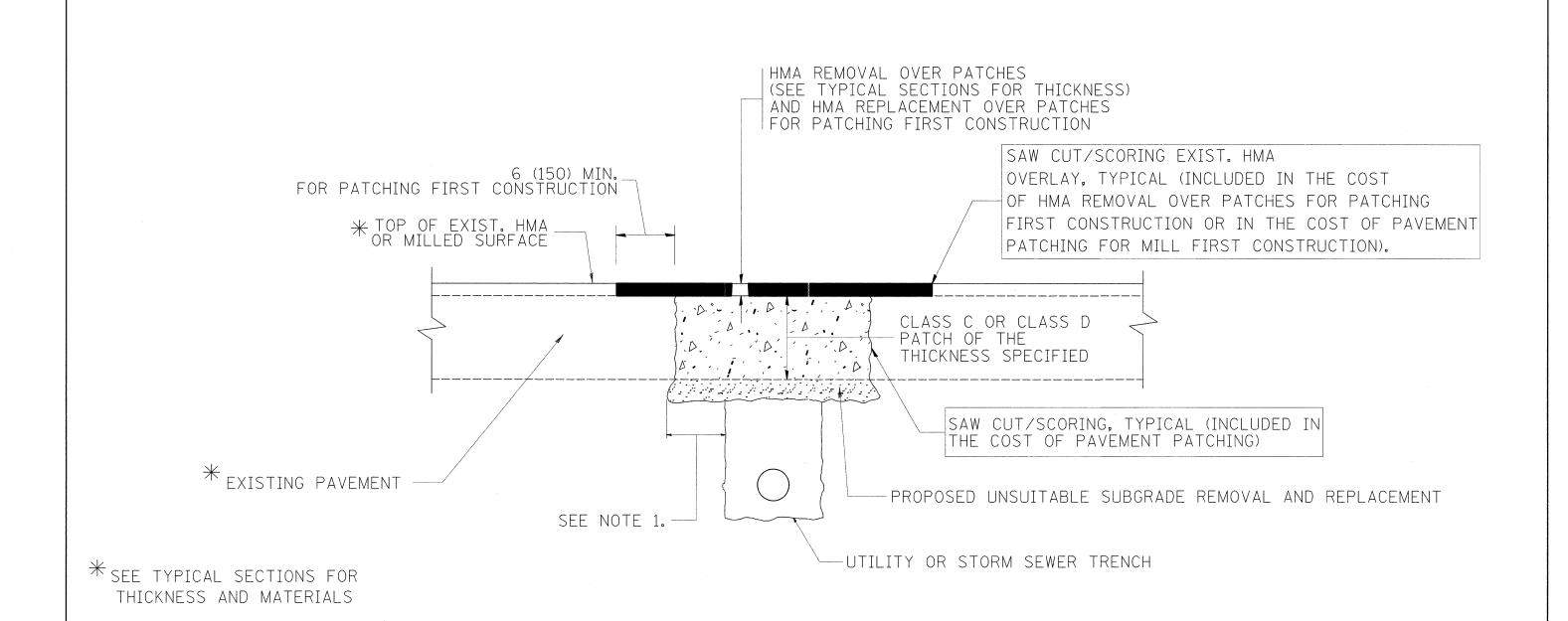
BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT
THE CONTRACT UNIT PRICE PER EACH FOR
"FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

	FILE NAME =	USER NAME = guillaumefp	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95			DETAILS FOR	F.A.P RTF.	SECTION	COUNTY	TOTAL S	HEET
1	c:\pw_work\pwidot\guillaumefp\dØ1382Ø2\D	37202-sht-plan.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS			352	(E.M.D) RS-4	LAKE	41	29
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04	DEPARTMENT OF TRANSPORTATION		FRAMES AND LIDS ADJUSTMENT WITH MILLING	BD600	0-03 (BD-8)	CONTRAC	T NO. 6	2545
		PLOT DATE = 4/21/2009	DATE - 10-25-94	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST	. NO. 1 ILLINOIS FED. AI	D 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)

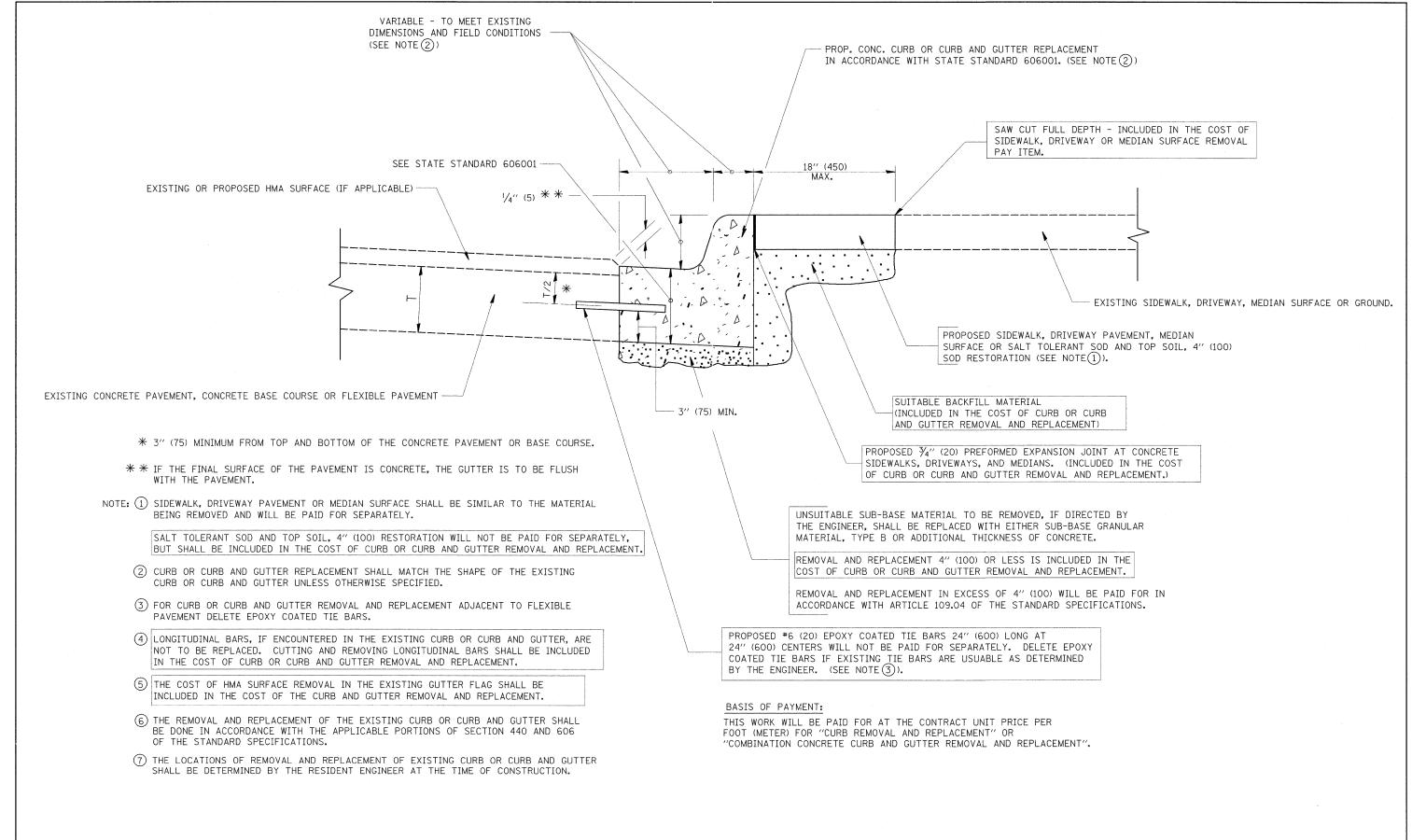
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

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

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

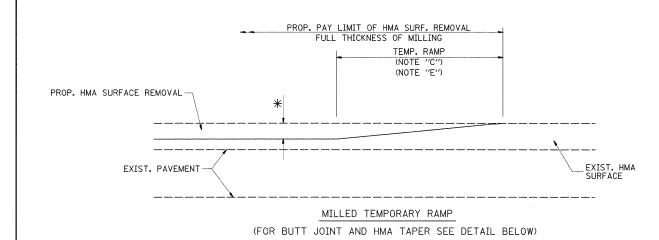
FILE NAME =	USER NAME = guillaumefp	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98		PAVEMENT PATCHING FOR	F.A.P	SECTION	COUNTY SH	HEETS	HEE!
c:\pw_work\pwidot\guillaumefp\d0138202\D	37202-sht-plan.dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		352	(F.M.D) RS-4	LAKE	41	30
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	BD40		CONTRACT N	NO. 62	545
·	PLOT DATE = 4/21/2009	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA TO STA	FED. ROAD DIS	ST. NO. 1   ILLINOIS   FED. AID			



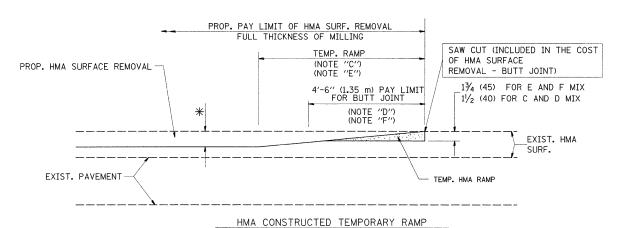
## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

	PLOT DATE = 4/21/2009	DATE - 03-11-94		01-01-07	DEFAITMENT OF TRANSFORMATION	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROA		D PROJECT	NO. 62	343
l i	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ	Z 01-22-01	DEPARTMENT OF TRANSPORTATION		REMOVAL AND REPL	ACEMENT	552	BD600-06 (BD-24)	CONTRACT	T NO CO	EAE
c:\pw_work\pwidot\guillaumefp\d0138202\D	37202-sht-plan.dgn	DRAWN -	REVISED - A. ABBAS	5 03-21-97	STATE OF ILLINOIS				352	(F.M.D) RS-4	LAKE	41	31
FILE NAME =	USER NAME = gullaumefp	DESIGNED - A. HOUSEH	REVISED - R. SHAH	10-03-96			CURB OR CURB ANI	D CUTTED	F.A.P	SECTION	COUNTY	TOTAL S	SHEET



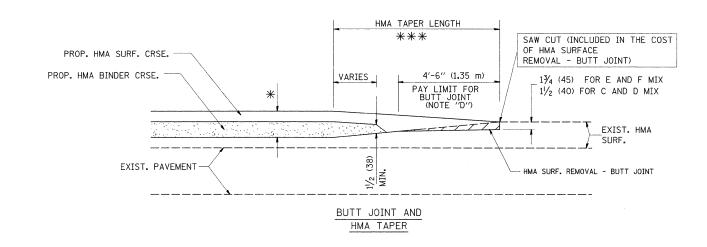
#### OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

#### OPTION 2

#### TYPICAL TEMPORARY RAMP

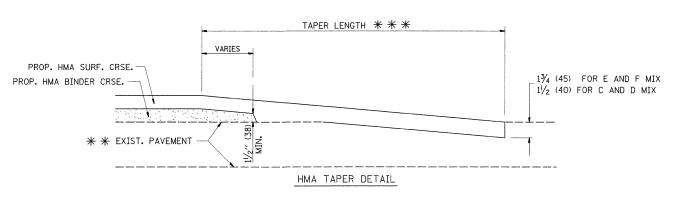


# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

PROP. HMA OR PCC
SURFACE REMOVAL - BUTT JOINT
30'-0" (9.0 m) (NOTE "A")
15'-0" (4.5 m) (NOTE "B")
(NOTE "D")

\*\* \*\* EXIST. PAVEMENT

BUTT JOINT DETAIL



# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

#### NOTES

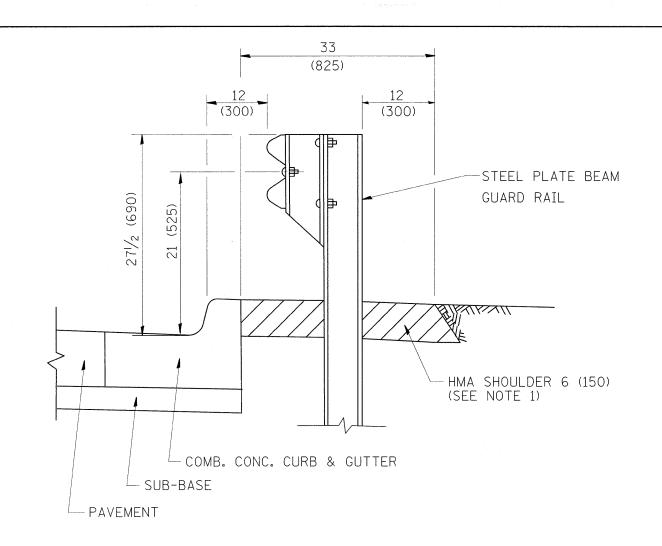
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0"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

#### 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.

FILE NAME : DESIGNED - M. DE YONG R. SHAH 10-25-94 SER NAME = guillaumefp REVISED SECTION COUNTY **BUTT JOINT AND** STATE OF ILLINOIS DRAWN REVISED A. ABBAS 03-21-97 352 (E.M.D) RS-4 LAKE 41 32 HMA TAPER DETAILS PLOT SCALE = 50.0000 '/ IN CHECKED M. GOMEZ 04-06-01 **DEPARTMENT OF TRANSPORTATION** BD400-05 BD32 CONTRACT NO. 62545 PLOT DATE = 4/21/2009 DATE REVISED R. BORO 01-01-07 SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 06-13-90



NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL

2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE

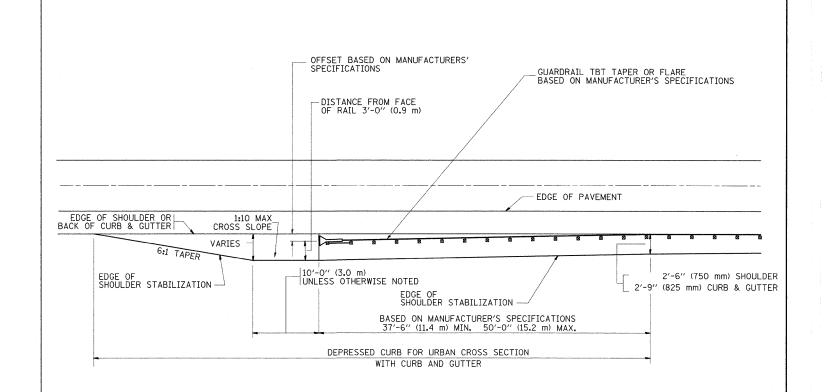
PAID FOR AT THE CONTRACT UNIT PRICE
PER SQUARE YARD (SQUARE METER) FOR
"HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM

GUARD RAIL ADJACENT TO CURB AND GUTTER

[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



### STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL

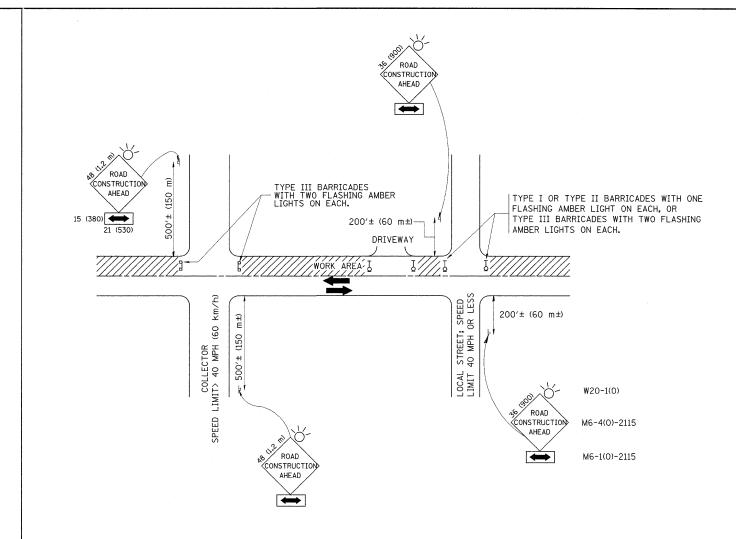
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = guillaumefp	DESIGNED	-	M. DE YONG	REVISED	-	R. SHAH 02-23-95
c:\pw_work\pwidot\guillaumefp\dØ1382Ø2\D	.37202-sht-plan₀dgn	DRAWN	-		REVISED	-	A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED	, 400		REVISED	···	E. GOMEZ 08-28-00
	PLOT DATE ≈ 4/21/2009	DATE	-	09-22-90	REVISED	-	R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	DETAILS FOR S	TEEL PLATE BEAM	GUARD RAIL	. ADJACENT
	TO CURB AND	GUTTER STABILIZA	ATION AT TB1	T TY 1 SPL.
SCALE: NONE	SHEET NO.	1 OF 1 SHEETS	STA.	TO STA.

A.P re.	SE	CTION	COUNTY	TOTAL	SHEET NO.
52	(E.M.	D) RS-4	LAKE	41	33
	BD600-10	(BD 34)			
D. R	OAD DIST. NO.	1 ILLINOIS FED. A	ID PROJECT		



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

#### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN  $36\times36$  ( $900\times900$ ) 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 × 48 (1.2 m × 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

SCALE: NONE

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (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.

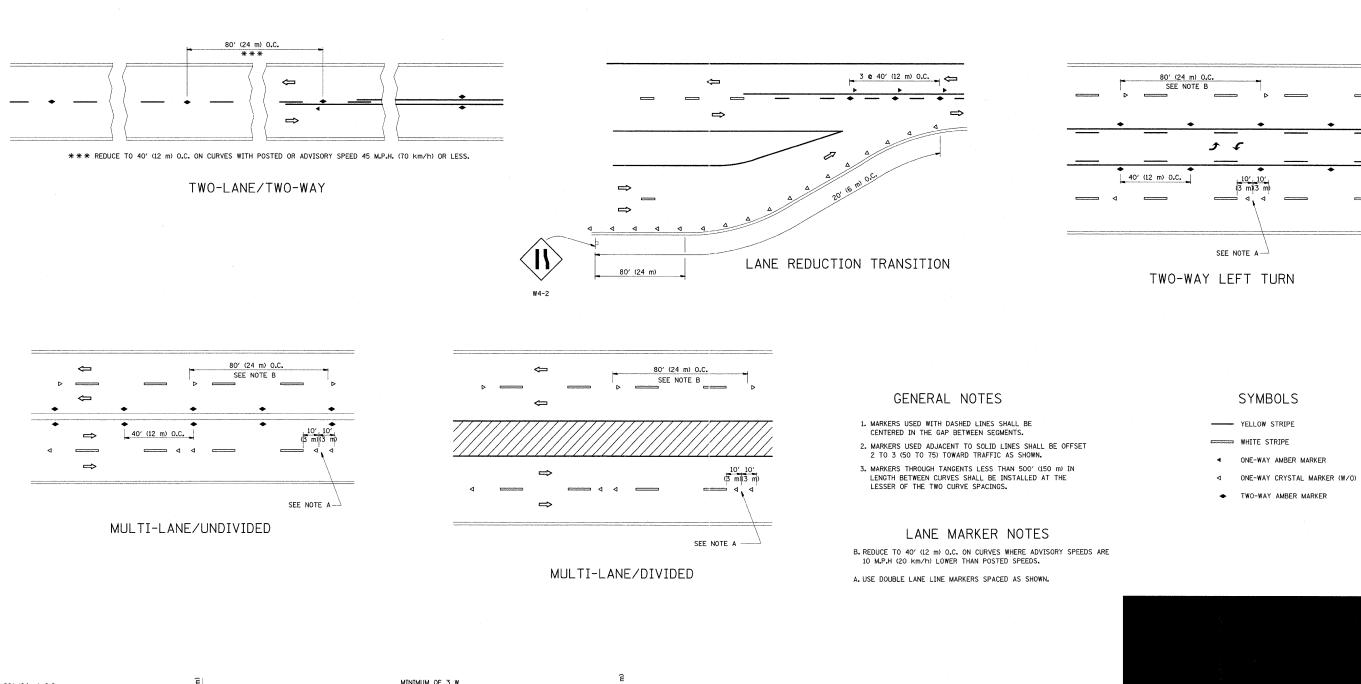
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

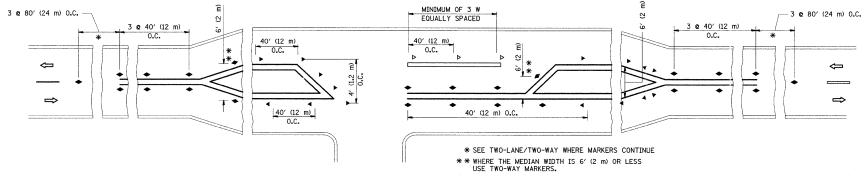
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = guillaumefp	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
c:\pw_work\pwidot\guillaumefp\d0138202\D	l37202-sht-plan.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
ł	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 4/21/2009	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TR	AFFI	C	CON	TI	ROL AND	PROTEC	TION	FOR		
SIDE	ROA	D	S, IN	TE	RSECTION	S, AND	DRIV	EWAYS		
SHEET	NO.	1	OF	1	SHEETS	STA.		T	0	-

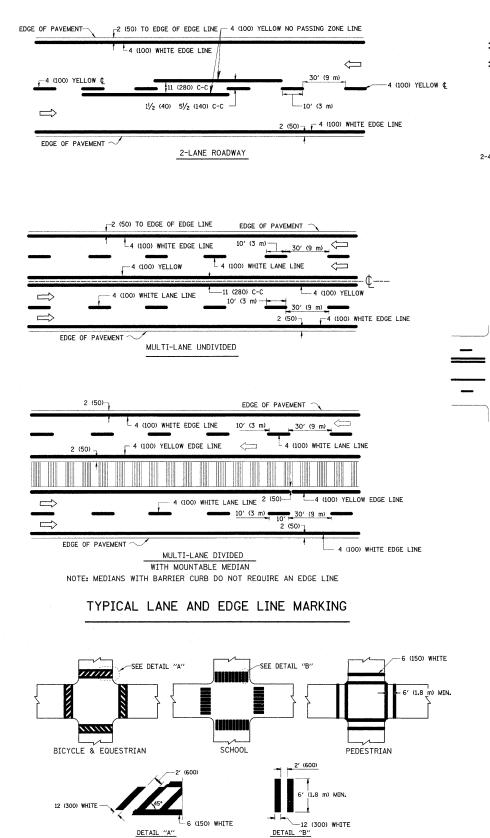




LEFT TURN

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

FILE NAME =	USER NAME = guallaumefp	DESIGNED -	REVISED - T. RAMMACHER 09-19-94			TYPICAL APPLICATIONS		F.A.P RTF	SECTION	COUNTY	TOTAL	SHEET
c:\pw_work\pwidot\guillaumefp\dØ1382Ø2\E	372Ø2-sht-plan.dgn	DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS				352	(E,M,D) RS-4	LAKE	41	35
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED	REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW	V RESISTANT)		TC-11	CONTRACT	T NO. F	2545
	PLOT DATE = 4/21/2009	DATE -	REVISED ~		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD DIS	ST. NO. 1 ILLINOIS FED. A	ID PROJECT		

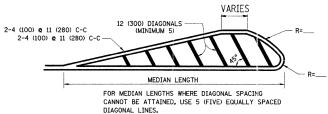


2-4 (100) YELLOW @ 11 (280) C-C

NO DIAGONALS

4' (1.2 m) WIDE MEDIANS ONLY

4' (1.2 m) WIDE MEDIANS ONLY



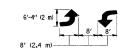
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

1-4 (100) YELLOW LINES (51/2 (140) C-C)

# MEDIANS OVER 4' (1.2 m) WIDE 4 (100) YELLOW 4 (100) YELLOW LINES (5½ (140) C-C)

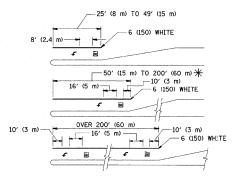
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

-2-4 (100) YELLOW @ 11 (280) C-C



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

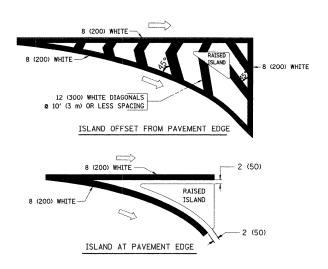


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m²)  $\Pi$  AREA = 20.8 SQ. FT. (1.9 m²)

\* 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

	1	<u> </u>	1	
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 <b>e</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	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 <b>e</b> 6 (150) 12 (300) <b>e</b> 45° 12 (300) <b>e</b> 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	0 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS & 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA 0F: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>e</b> 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.

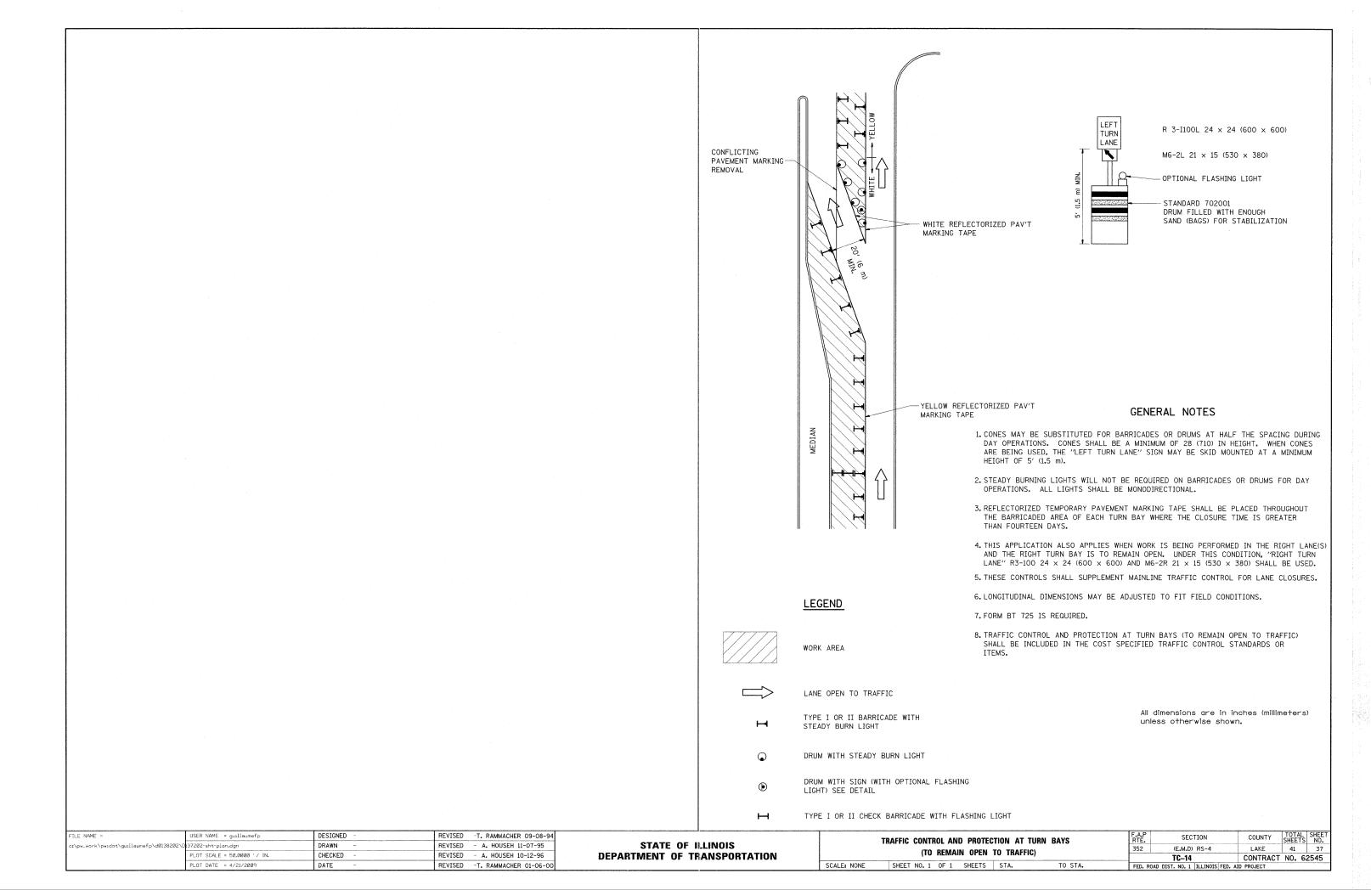
All dimensions are in inches (millimeters) unless otherwise shown.

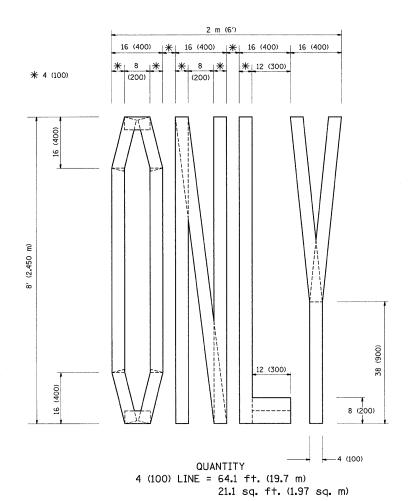
FILE NAME =	USER NAME = guilloumefp	DESIGNED - EVERS	REVISED	-T. RAMMACHER 10-27-94
c:/pw_work/pwidot/guillaumafp/dØ138202/C	37202-sht-plan.dgn	DRAWN -	REVISED	-A. HOUSEH 10-09-96
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED	-A. HOUSEH 10-17-96
	PLOT DATE = 4/21/2009	DATE - 03-19-90	REVISED	-T. RAMMACHER 01-06-00

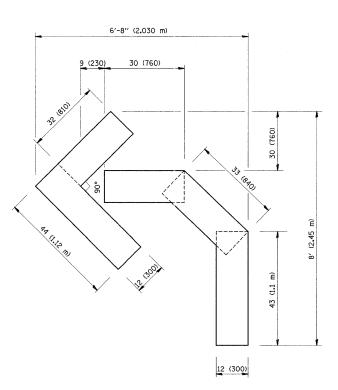
TYPICAL CROSSWALK MARKING

STATE	0F	II.LINOIS
DEPARTMENT (	OF 1	<b>TRANSPORTATION</b>

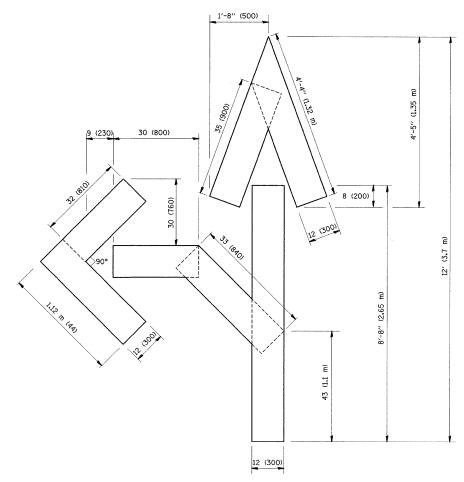
	DISTRICT ON	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	TYPICAL PAVEMENT	MADVINGS		352	(E.M.D) RS-4	LAKE	41	36
	TIFICAL PAVEIVILINI		TC-13	CONTRACT	NO. 6	2545		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT		







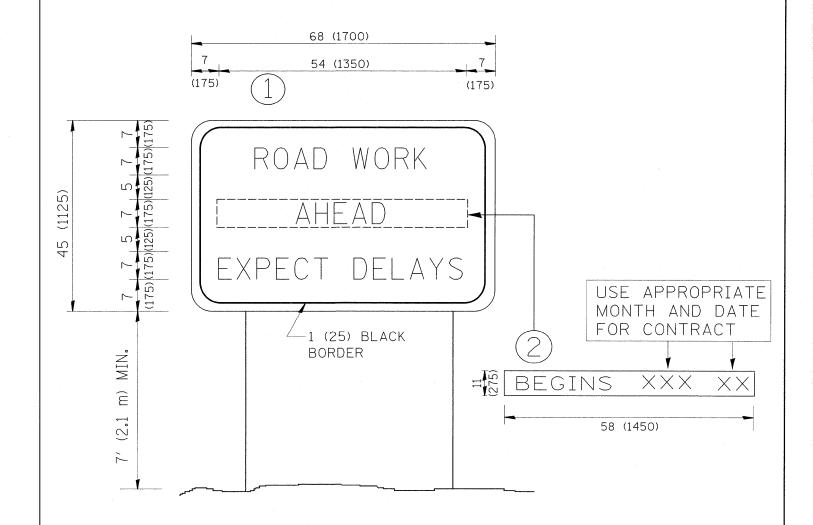
QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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.

Ī	FILE NAME =	USER NAME = guilloumefp	DESIGNED -	REVISED	-T. RAMMACHER 06-05-96			PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.P	SECTION	COUNTY	TOTAL SHEET
	c:\pw_work\pwidot\guillaumefp\dØ1382Ø2\D	137202-sht-plan.dgn	DRAWN -	REVISED	-T. RAMMACHER 11-04-97	STATE OF ILLINOIS			352	(E.M.D) RS-4	LAKE	41 38
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED	-T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION		FOR TRAFFIC STAGING		TC-16	CONTRACT	Г NO. 62545
		PLOT DATE = 4/21/2009	DATE - 09-18-94	REVISED	- E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS FED. AI	ID 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 (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

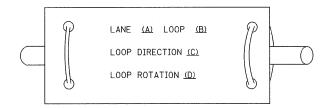
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		F.A.P RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
c:\pw_work\pwidot\guillaumefp\dØ1382Ø2\D	37202-sht-plan.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		INFORMATION SIGN		352	(E.M.D) RS-4	LAKE	41 39
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INTONIMATION SIGN		_	TC-22	CONTRACT	NO. 62545
	PLOT DATE = 4/21/2009	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. A	ID PROJECT	

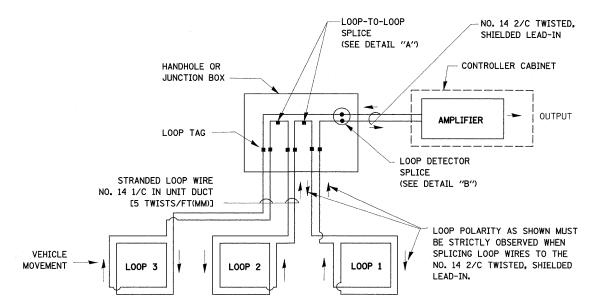
#### LOOP DETECTOR NOTES

- 1. 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

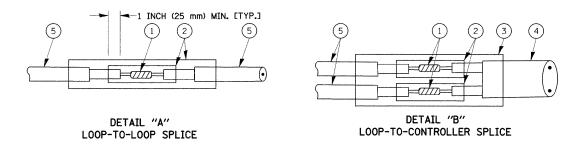


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### 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.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

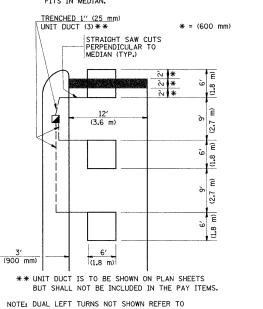
	DISTRICT ON	lE		F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
	STANDARD TRAFFIC SIGNAL		AILS	352	(E.M.D) RS-4	LAKE	41	40
	OTANDAND MATTIC CICIENE	DECIGIT DEI			TS05	CONTRACT	NO. 6	2545
SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED.	AID PROJECT		

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

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

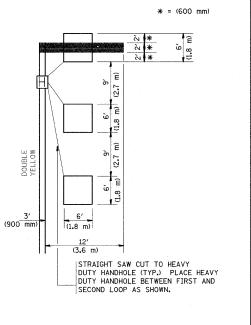
HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

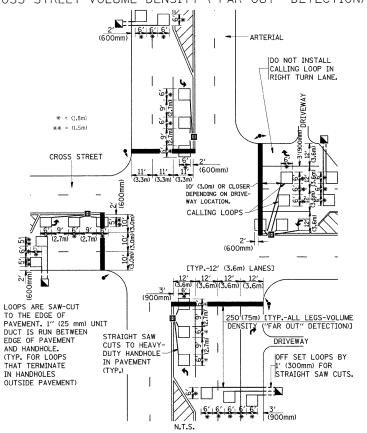


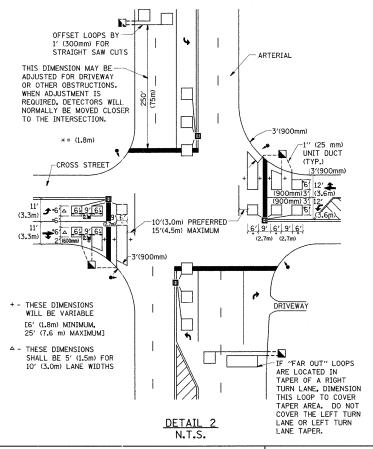
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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

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





#### NOTES:

#### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, 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.

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	PLOT DATE = 4/21/2009	DATE -	REVISED -

DETAIL 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING

SHEET NO. 1 OF 1 SHEETS STA. TO STA