1-20-12 LETTING ITEM 013

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**DIVISION OF HIGHWAYS** 

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE PROJECT IS LOCATED IN THE VIILLAGE OF ELBURN & UNINCORPORATED KANE COUNTY

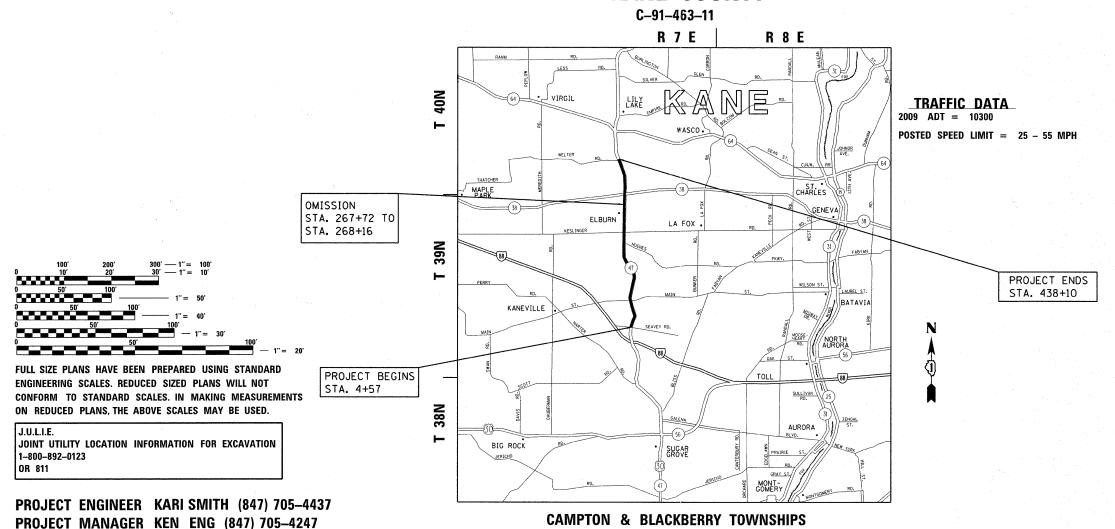
# PROPOSED HIGHWAY PLANS

FAP ROUTE 326 : ILL 47

SEAVEY ROAD TO 0.1 MILES N/O WELTER ROAD

SECTION: 107–RS–4

# RESURFACING (3P)/MILLED RUMBLE STRIPES KANE COUNTY



D-91-463-11



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED OCTOBER 21,20 11

Dian M. O'West are
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Docombox 9 20 11

Scott E. Stitt P.E. Ja. acting ENGINEER OF DESIGN AND ENVIRONMENT

December 9 20 11

William R. Floylor Enterim DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 60P09

 $\circ$ 

GROSS LENGTH = 43,353 FT. = 8.21 MILE NET LENGTH = 43,309 FT. = 8.20 MILE

#### **INDEX OF SHEETS**

#### SHEET NO. DESCRIPTION

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
- S SUMMARY OF QUANTITIES
- 4 TYPICAL SECTIONS
- 5 19 ROADWAY AND PAVEMENT MARKING PLANS
- 20 FLASHING BEACON REPLACEMENT PLANS
- 21-22 DETECTOR LOOP REPLACEMENT PLANS
  - 3 DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-08)
- 24 PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
- 25 CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
- 26 BUTT JOINT AND HMA TAPER DETAILS (BD-32)
- TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
- 28 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)
- 29 DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
- 30 TRAFFIC CONTROL AND AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
- 31 PAVEMENT MARKING LETTERS & SYMBOLS FOR TRAFFIC STAGING (TC-16)
- 32 ARTERIAL ROAD INFORMATION SIGN (TC-22)
- 33 DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL (TS-05)
- 34 DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)
- 35 RUMBLE STRIPES FOR CENTERLINE NON-FREEWAY

#### **HIGHWAY STANDARDS**

#### STANDARD NO. DESCRIPTION

000001-06 STANDARD SYMBOLS. ABBREVIATIONS AND PATTERNS

442201-03 CLASS C AND D PATCHES

606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT

701011-02 OFF-ROAD MOVING OPERATIONS 2L, 2W DAY ONLY

701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

701306-03 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH

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

701336-06 LANE CLOSURE, 2L, 2W, WORK AREAS IN SERIES, FOR SPEEDS > 45 MPH

701427 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS <= 40 MPH

701502-04 URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE

701701-08 URBAN LANE CLOSURE, MULTILANE INTERSECTION

701801-05 LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE

701901-02 TRAFFIC CONTROL DEVICES

#### **GENERAL NOTES**

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE VILLAGE OF ELBURN.

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

ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

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.

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT [OR COMBINATION CURB AND GUTTER (THE TYPE SPECIFIED ON THE PLANS)], WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

DRAINAGE ADJUSTMENT OR RECONSTRUCTION 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.

FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT MR. DON CHIARUGI, AREA TRAFFIC FIELD ENGINEER, AT (847) 741-9857 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF CONSTRUCTION.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

FOR FRAMES AND LIDS ADJUSTMENT WITHOUT MILLING, REUSE EXISTING FRAME AND LID UNLESS OTHERWISE SPECIFIED IN THE PLANS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS"

WHEN THE MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1½INCHES (40 mm) WHERE THE SPEED LIMIT IS 40 MPH (80 km/h) OR LESS AND 1 INCH (25 mm) WHERE THE SPEED LIMIT IS GREATER THAN 40 MPH (80 km/h). WITH WRITTEN APPROVAL OF 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) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

FILE NAME =	USER NAME = harringtonco	DESIGNED -	REVISED -
c:\pw_work\pwidot\harringtoncc\d0270368	D146311-sht-plan.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -
<u> </u>	PLOT DATE = 11/1/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

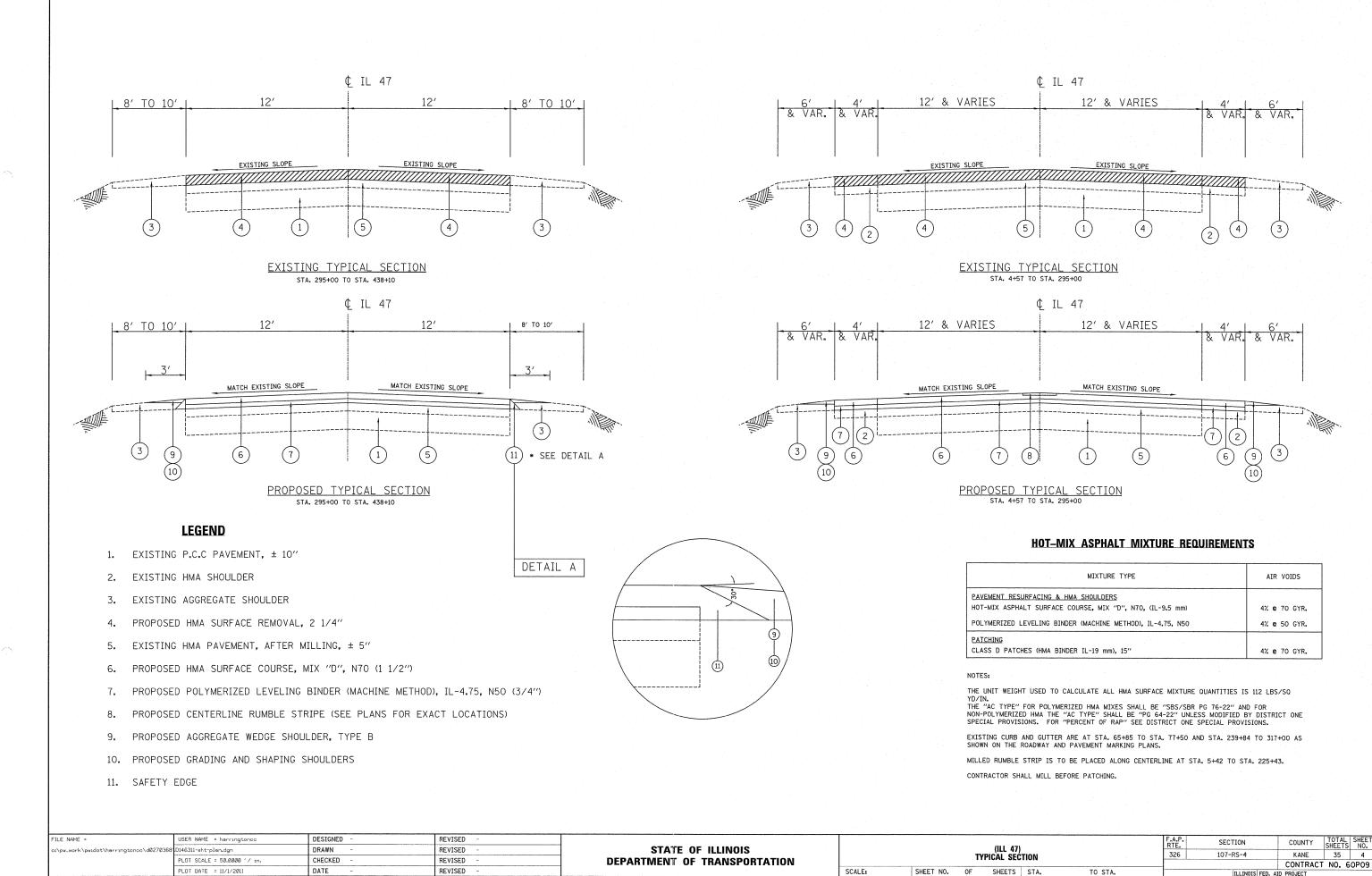
SCALE:

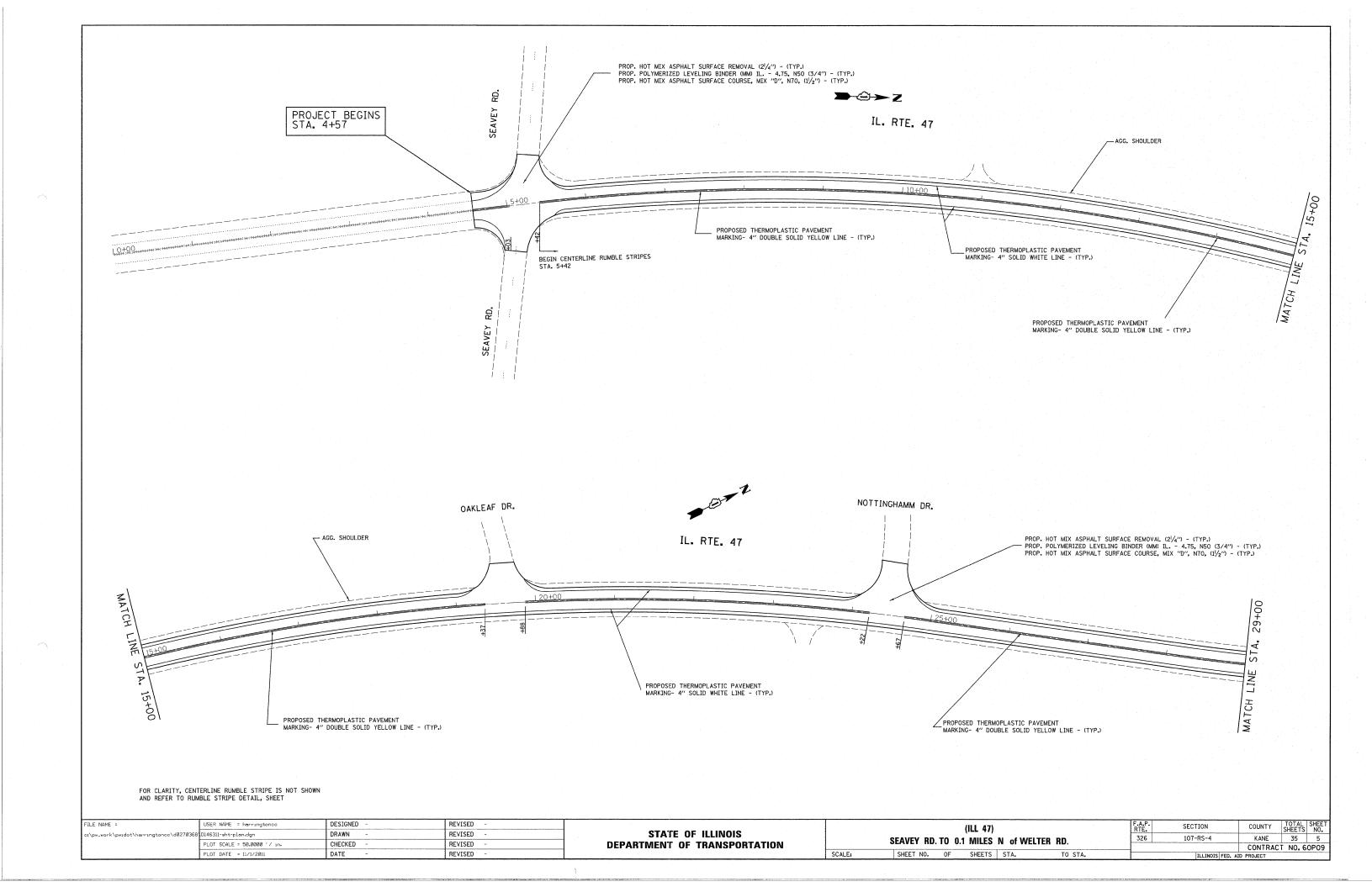
INDEX OF SHEETS, LIST OF STANDARDS & GENERAL NOTES
(ILL 47) SEAVEY RD. TO 0.1 MILES N of WELTER RD.

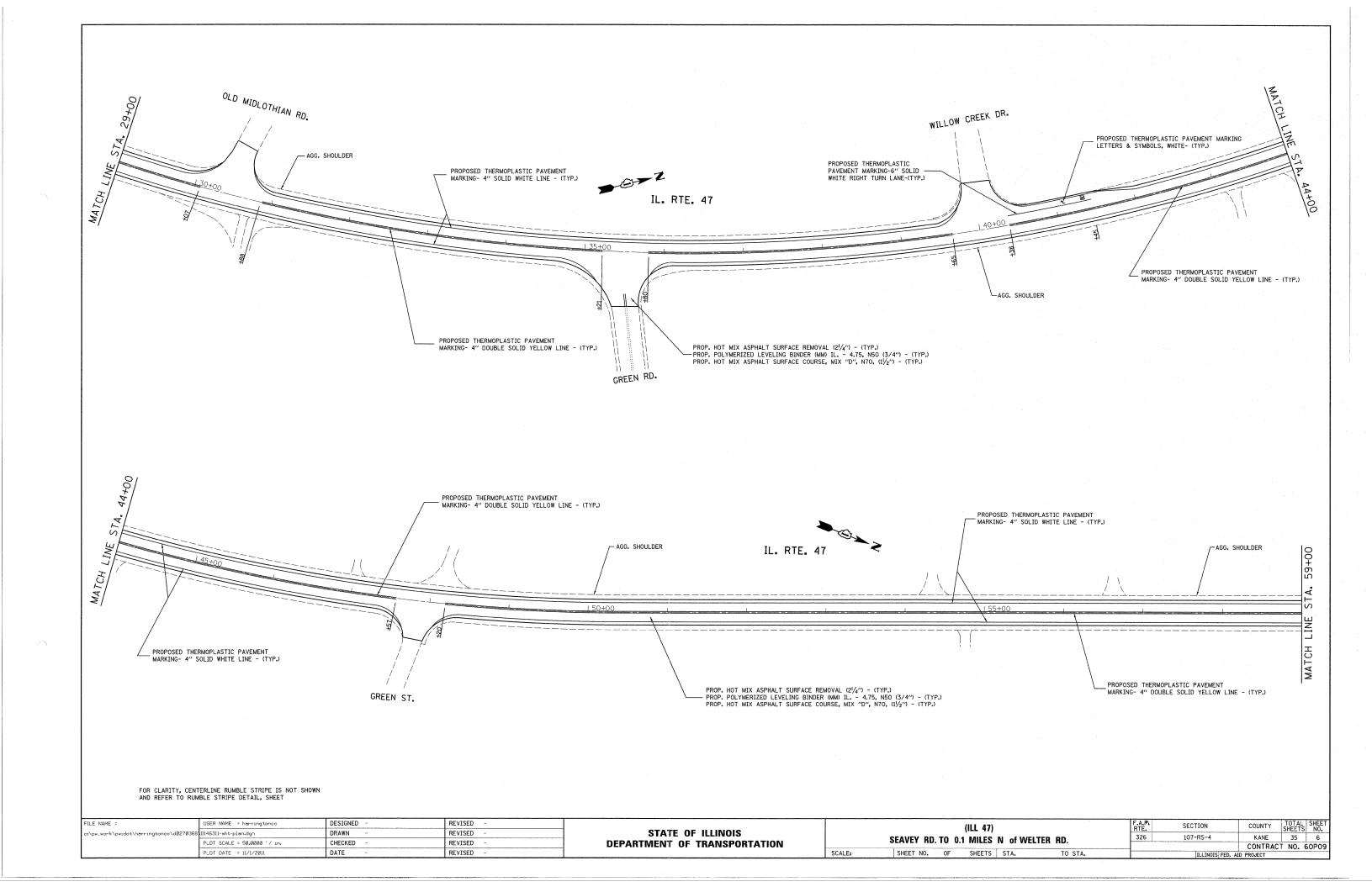
SHEET NO. OF SHEETS STA. TO STA.

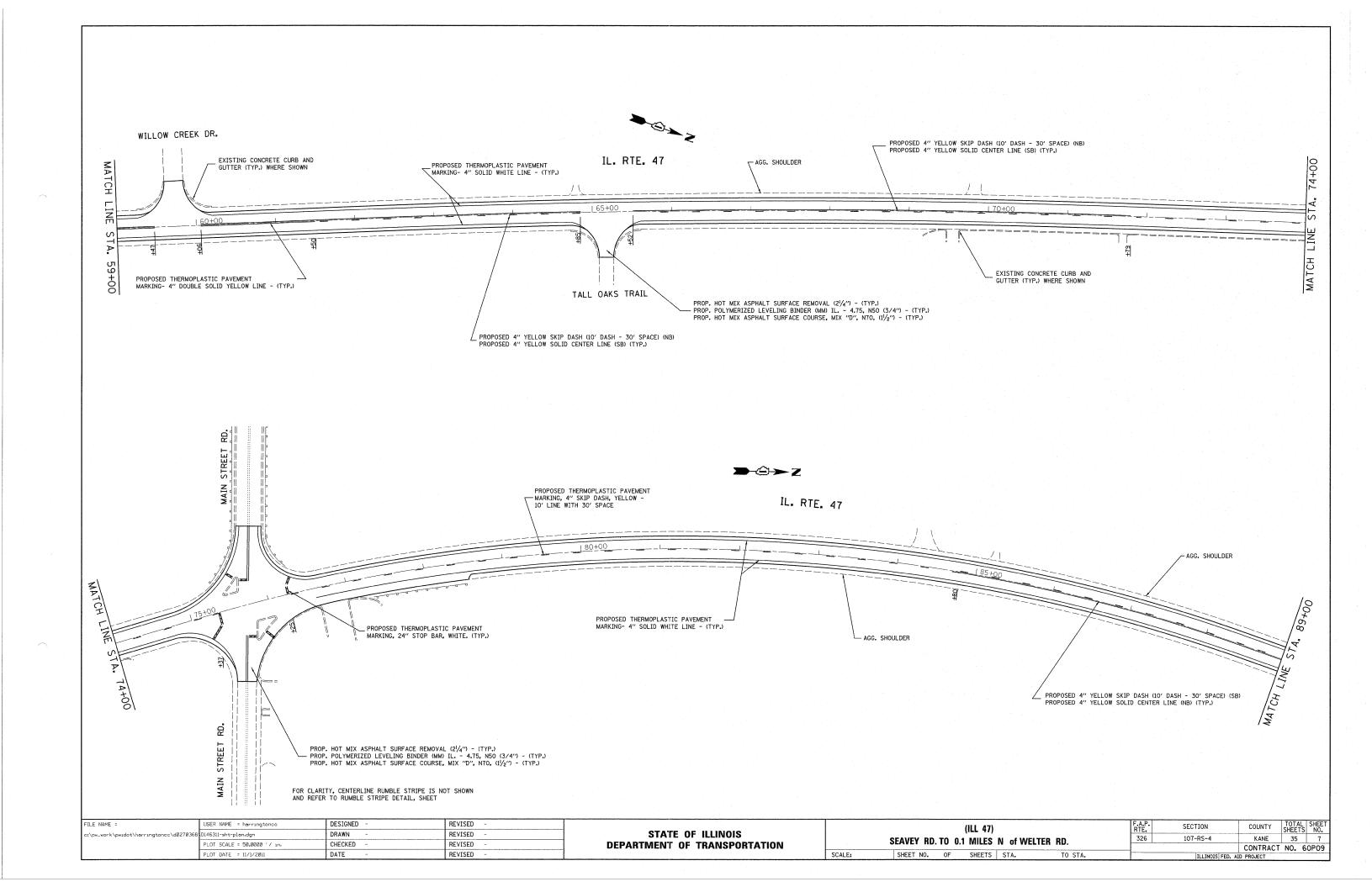
- 1		ILLINOIS FED. AI	O DOO IFCT		
			CONTRACT	NO. 6	OPO
	326	107-RS-4	KANE	35	2
f	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHE

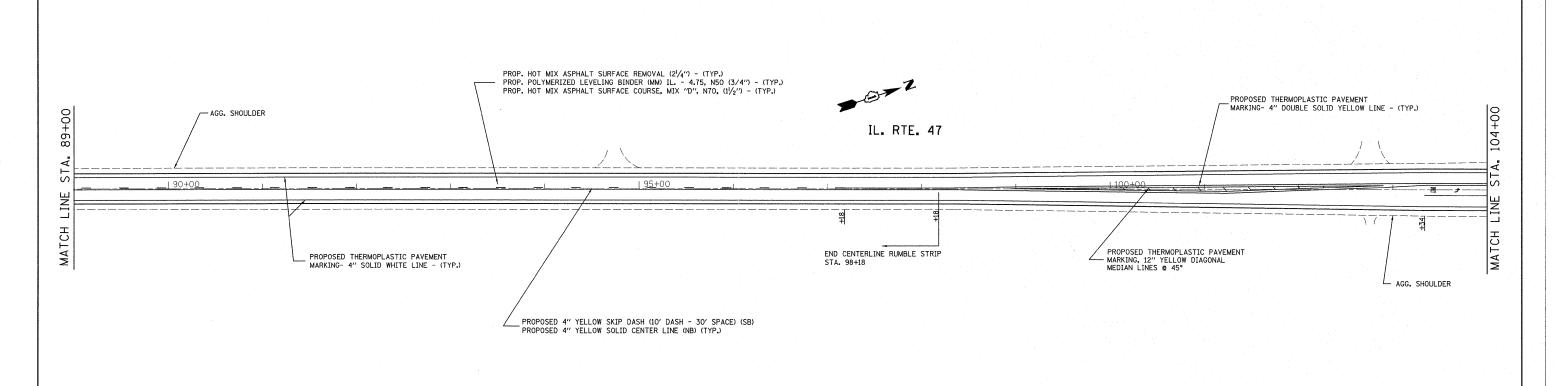
	SUMMARY OF QUANTITIES		URBAN	100% STATE		CONSTRUCT	ION TYPE	CODE	T		SUMMARY OF QUANTITIES		URBAN	1	CONSTRUCT	ION TYPE C	ODE	
			TOTAL	IDUI.SIME									TOTAL	1001.STATE				
CODE NO	ITEM	UNIT	QUANTITIES	0005						CODE NO	ITEM	UNIT	OUANTITIES	0005				
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	19	19						70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	446	446				
25200110	SODDING, SALT TOLERANT	SO YD	19	19	,					70300260	TEMPORARY PAVEMENT MARKING	F007	005	000				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	138	138	-					10300260	- LINE 12"	FOOT	906	906				
40600300	AGGREGATE (PRIME COAT)	TON	688	688						70300280	TEMPORARY PAVEMENT MARKING	FOOT	623	623				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	258	258						70301000	- LINE 24"  WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	8205	8205				
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	7092	7092						* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	814	814				
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					4.	* 78000200	THERMOPLASTIC PAVEMENT MARKING	FOOT	108050	108050				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	717	717						* 78000400	- LINE 4" THERMOPLASTIC PAVEMENT MARKING	FOOT	4470	4470				
40603340	HOT-MIX ASPHALT SURFACE COURSE,	TON	14441	14441							- LINE 6"							
	MIX "D", N70									* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	446	446				
42001300	PROTECTIVE COAT	SO YD	70	70						* 78000600	THERMOPLASTIC PAVEMENT MARKING	FOOT	906	906				
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	84.5	84.5							- LINE 12"							
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SO YD	171917	171917						* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	623	623				
44000600	SIDEWALK REMOVAL	SQ FT	84.5	84.5		* .				* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1154	1154				
44201827	CLASS D PATCHES, TYPE II, 15 INCH	SQ YD	236	236						<b>*</b> 78200420	GUARDRAIL MARKERS, TYPE B	EACH	18	18				
44201831	CLASS D PATCHES, TYPE III, 15 INCH	SO YD	20	20					1.5	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1154	1154				
44201833	CLASS D PATCHES, TYPE IV, 15 INCH	SQ YD	176	176	.*					* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	1468	1468				
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	3906	3906		-				89502400	REMOVE EXISTING FLASHING BEACON	EACH	1 1	1100		a nana		
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	2	2				*			INSTALLATION COMPLETE	LAVII						
	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6						x0325936	SOLAR-POWERED FLASHER/POST MOUNTED (YELLOW LED DISPLAY)	EACH	2	2				
67100100	MOBILIZATION	L SUM	1	1						x0326898	CENTER LINE - RUMBLE STRIP - 16"	FOOT	19945	19945				
70100460	TRAFFIC CONTROL AND PROTECTION.	L SUM	1	1						X2020110	GRADING AND SHAPING SHOULDERS	UNIT	721	721				
10100100	STANDARD 701306	50		•						X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	75	75				
70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1						x6030310	FRAMES AND LIDS TO BE ADJUSTED	EACH	12	12				
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1	1 .						* X7800815	(SPECIAL)  HOT SPRAY THERMOPLASTIC PAVEMENT	FOOT	30284	30284				
70102635	TRAFFIC CONTROL AND PROTECTION.	L SUM	i .	1				-		* * * * * * * * * * * * * * * * * * * *	MARKING LINE - 4 INCH	1001	30264	30284				
70102640	STANDARD 701701 TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1						Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	225	225				
	STANDARD 701801			•						Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	7	7				
70300100	SHORT TERM PAVEMENT MARKING	FOOT	24864	24864						Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	51.4	51.4				
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	814	814						Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1				
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	108050	08050							CDEALL TV. TTEVA							
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	4470	4470							* SPECIALTY ITEMS							
						-		1 2 2										
ILE NAME =		SIGNED -		REVISED REVISED		L			STATE OF	II I INIOIS			<del>1 </del>		11 Le	TION	COUNTY SH	OTAL SHEET HEETS NO.
, <sub>per m</sub> eron is garritur VIII I i	·	ECKÉD -		REVISED		<u> </u>				TRANSPORTA	TION SUMMAR	Y OF QUANT	ITIES		326 107-	-RS-4		35 3





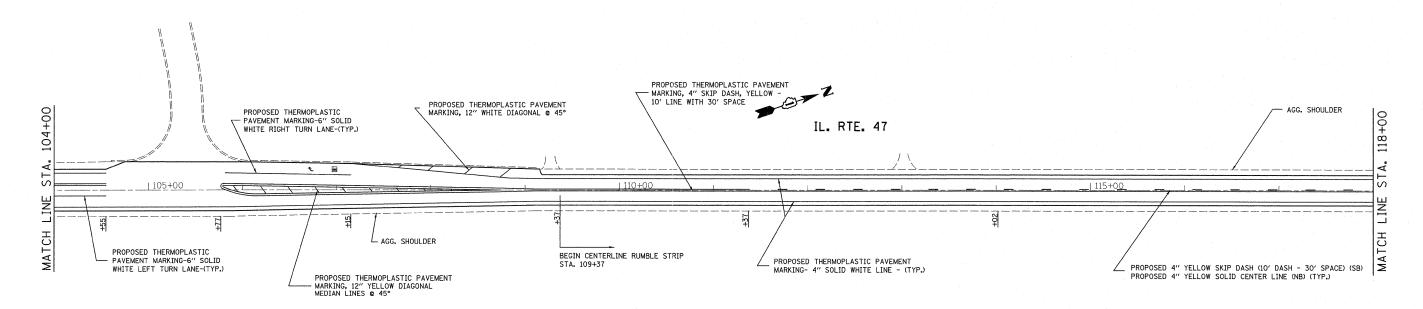






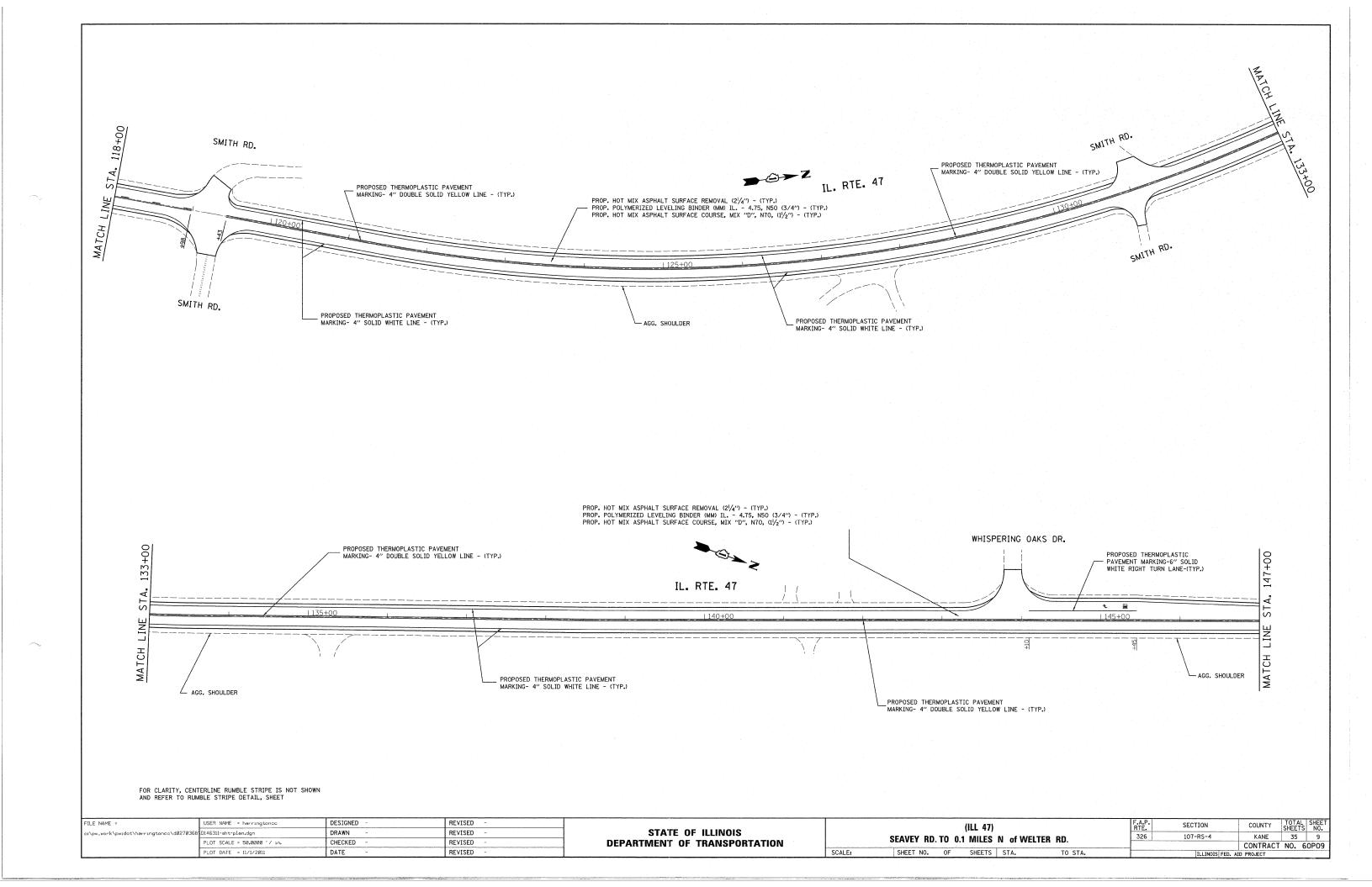
PAVEMENT MARKING MODIFICATION (AS SHOWN ON PLANS):
DOUBLE YELLOW CENTERLINE STARTS FROM STA. 97+18 TO STA. 98+18
AND FROM STA. 109+37 TO STA. 111+37

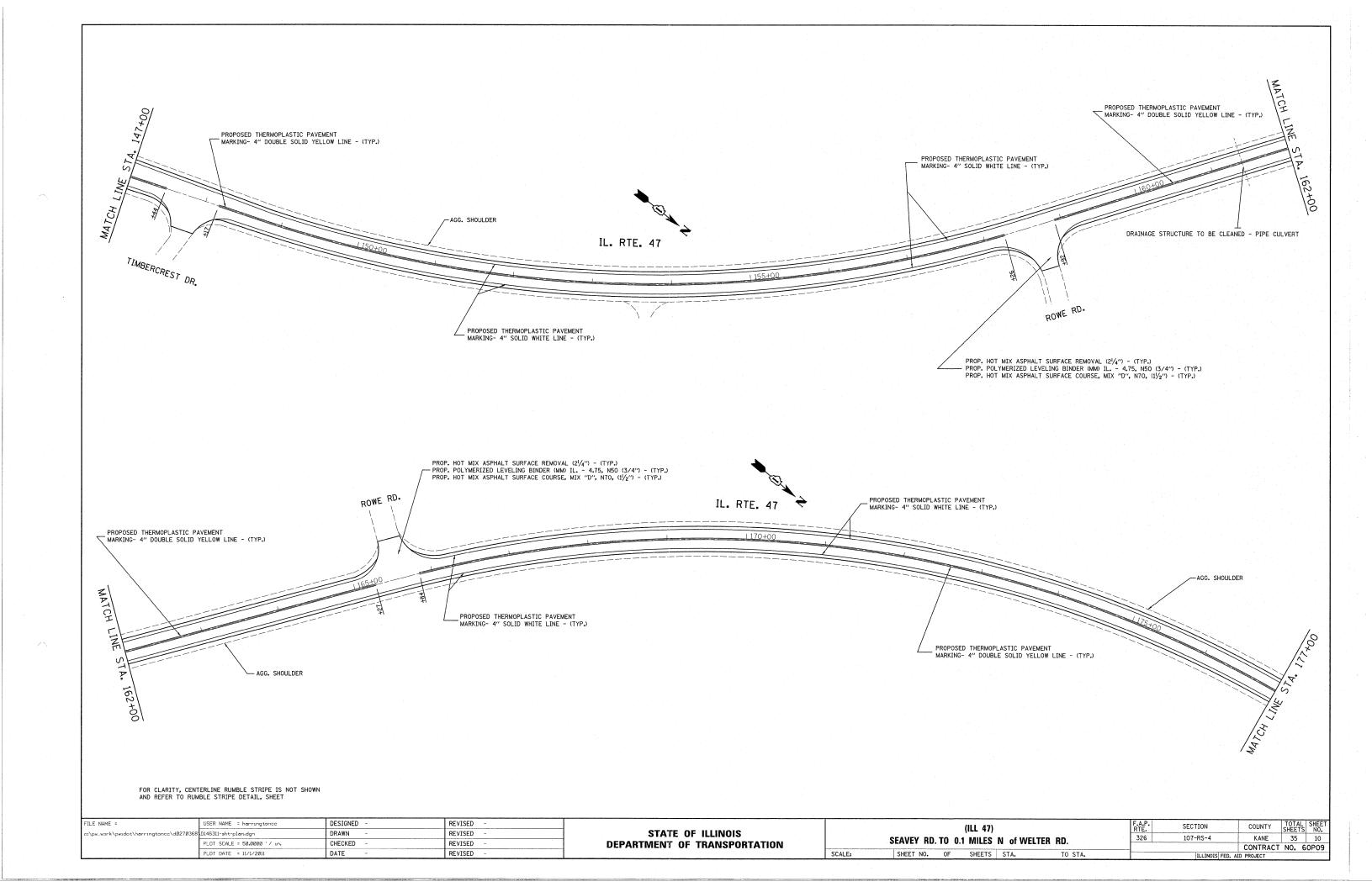
NB NO PASSING ZONE LINE FROM STA. 111+37 TO STA. 114+02

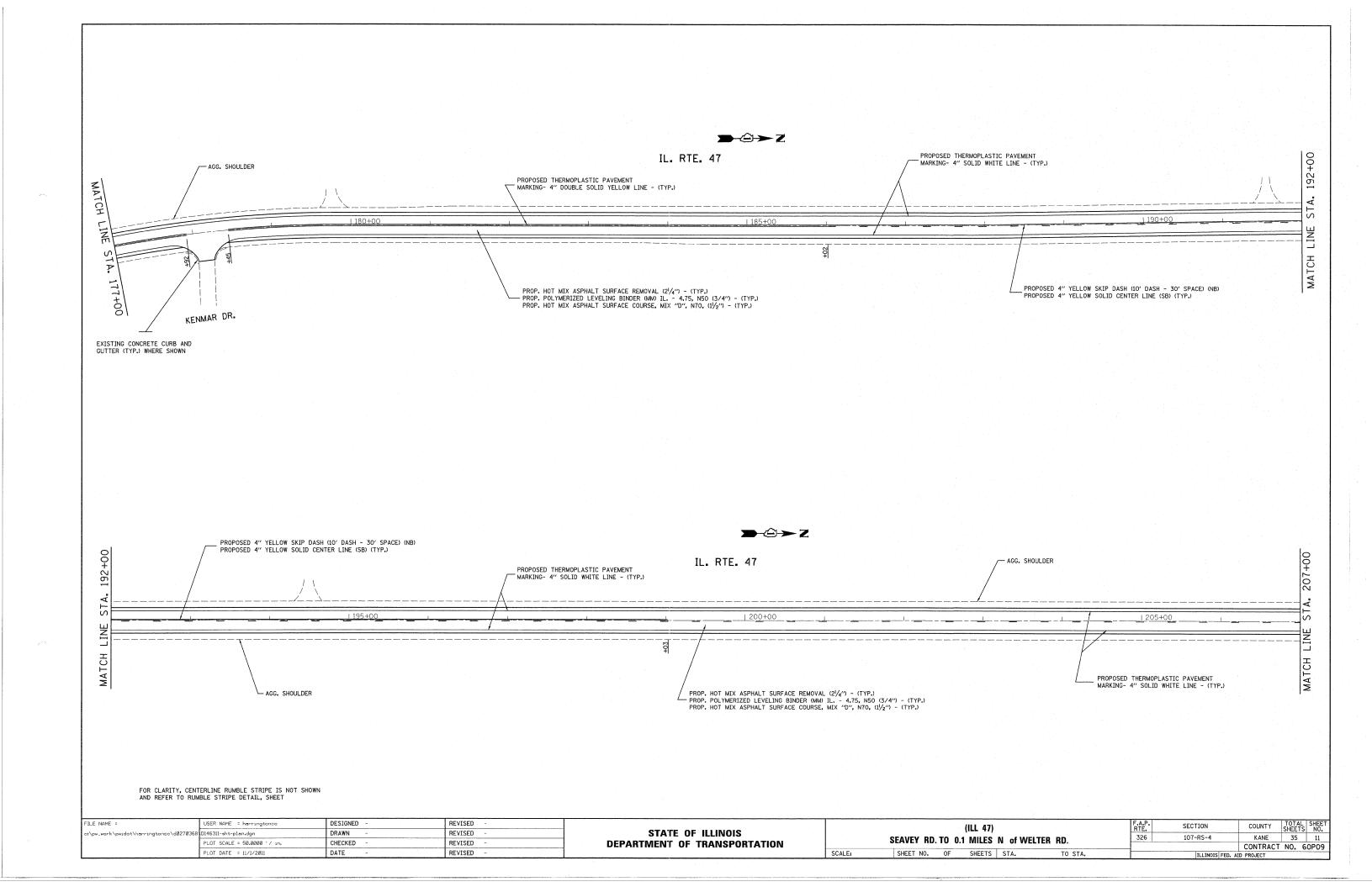


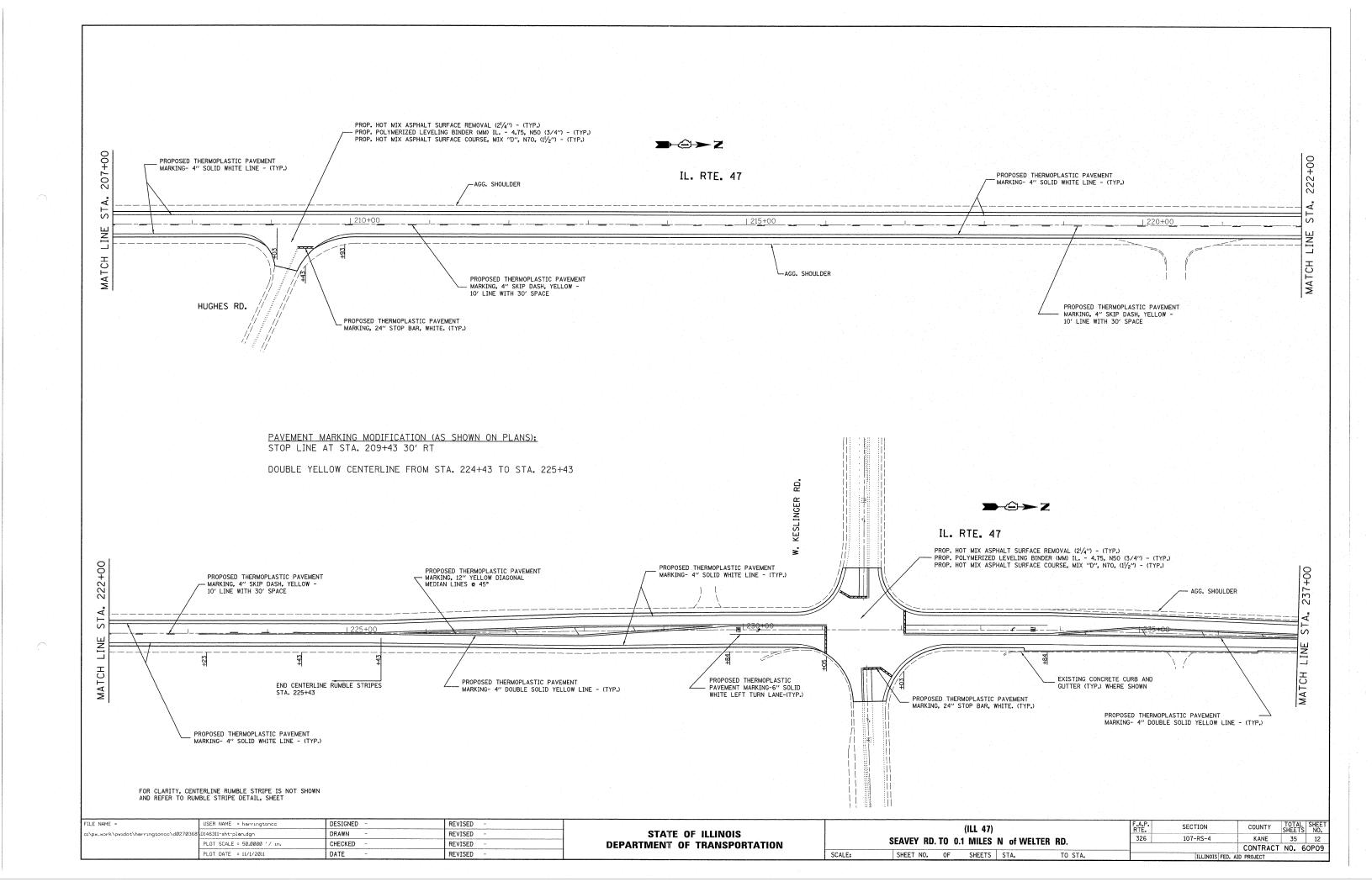
FOR CLARITY, CENTERLINE RUMBLE STRIPE IS NOT SHOWN AND REFER TO RUMBLE STRIPE DETAIL, SHEET

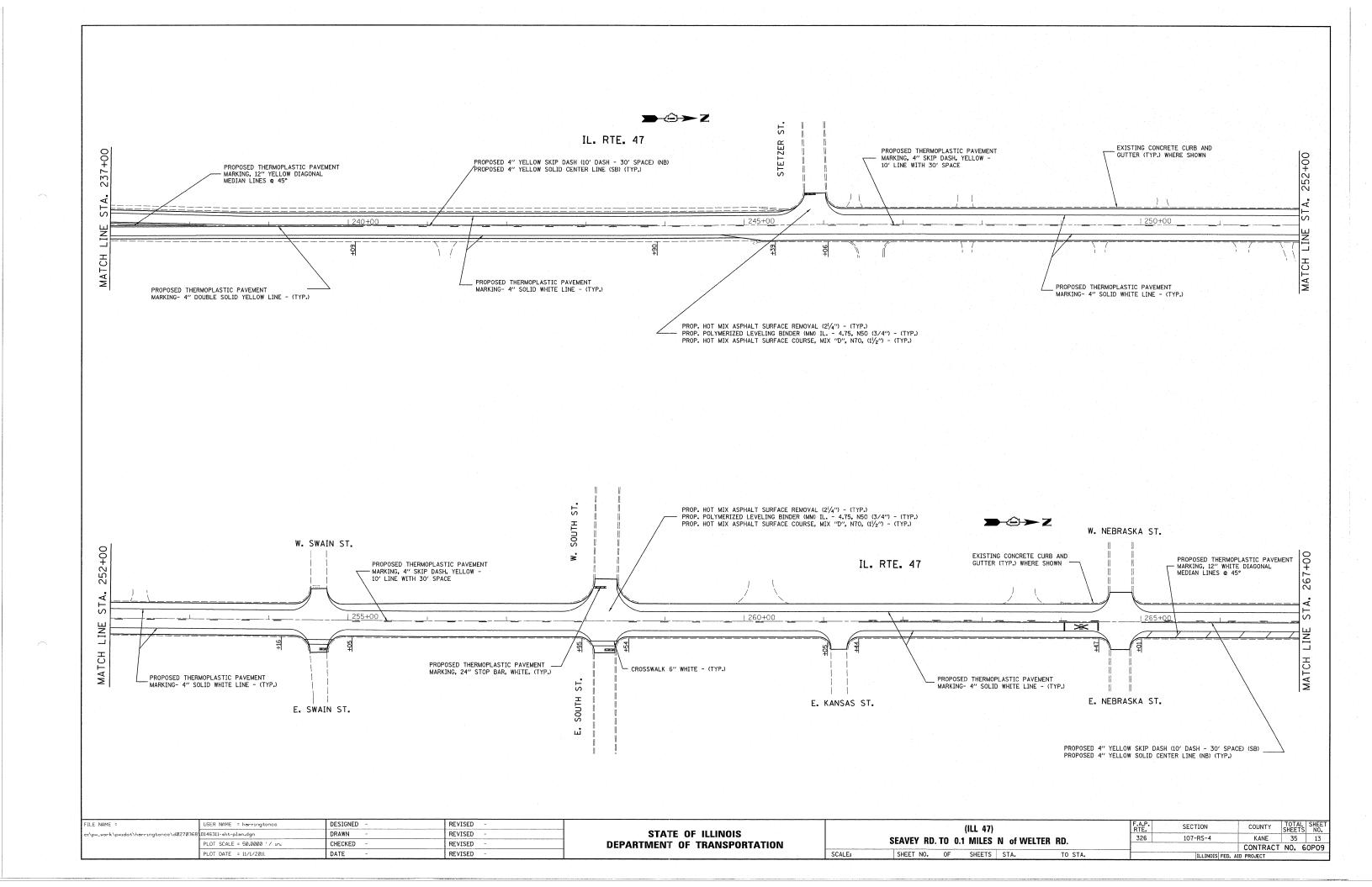
FILE NAME =	USER NAME = harringtonec	DESIGNED -	REVISED -				(ILL 47)			F.A.P.	SECTION	COUNTY	TOTAL SHEE
c:\pw_work\pwidot\harringtoncc\d0270368	D146311-sht-plan.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS				. ( )A/F! TFD	DD.	326	107-RS-4	KANE	35 8
	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		SEAVEY RD. TO 0.1	I MILES IN	OT WELLER	KD.			CONTRACT	NO. 60P09
	PLOT DATE = 11/1/2011	DATE -	REVISED -		SCALE:	SHEET NO. OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT	

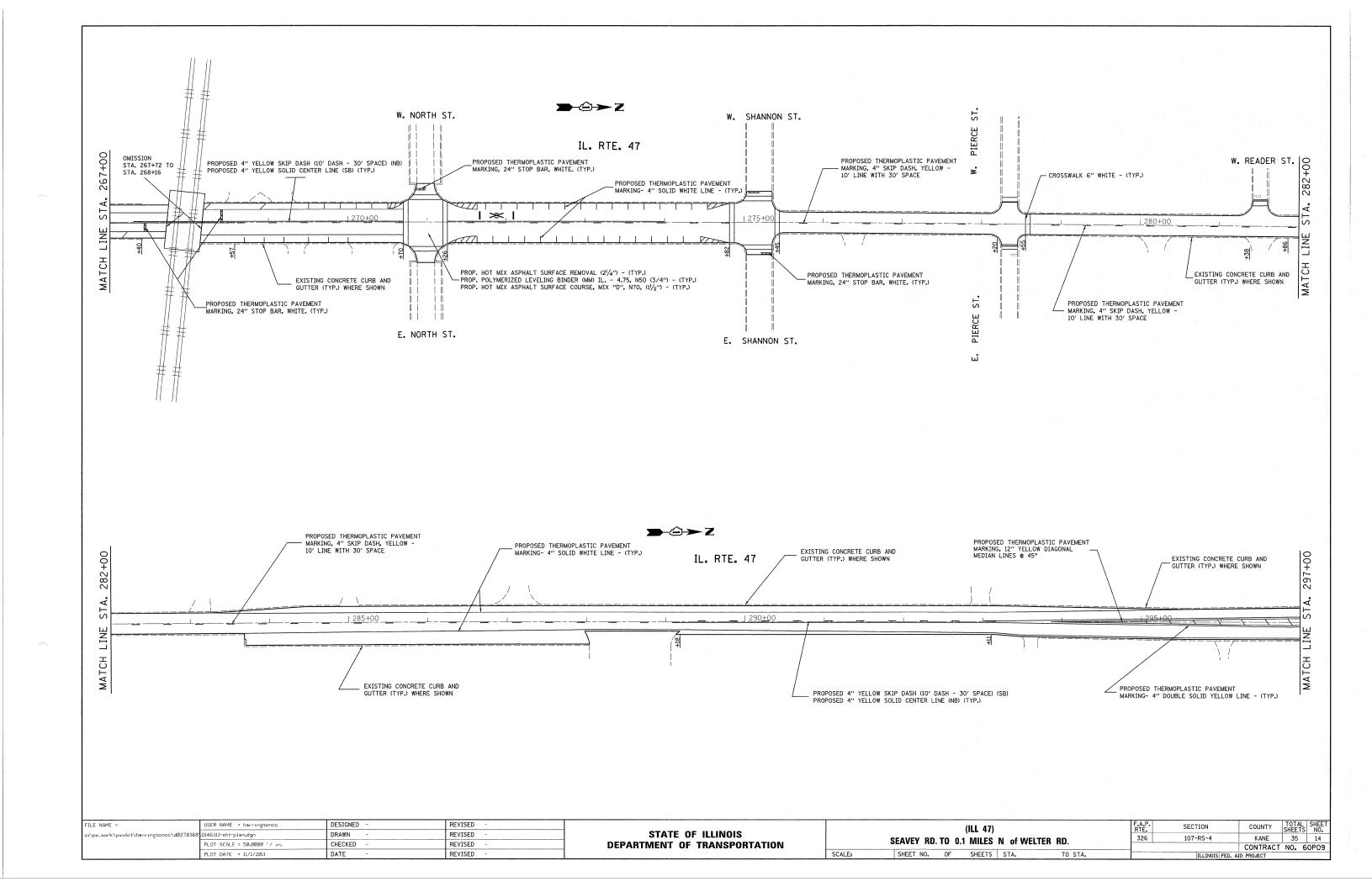


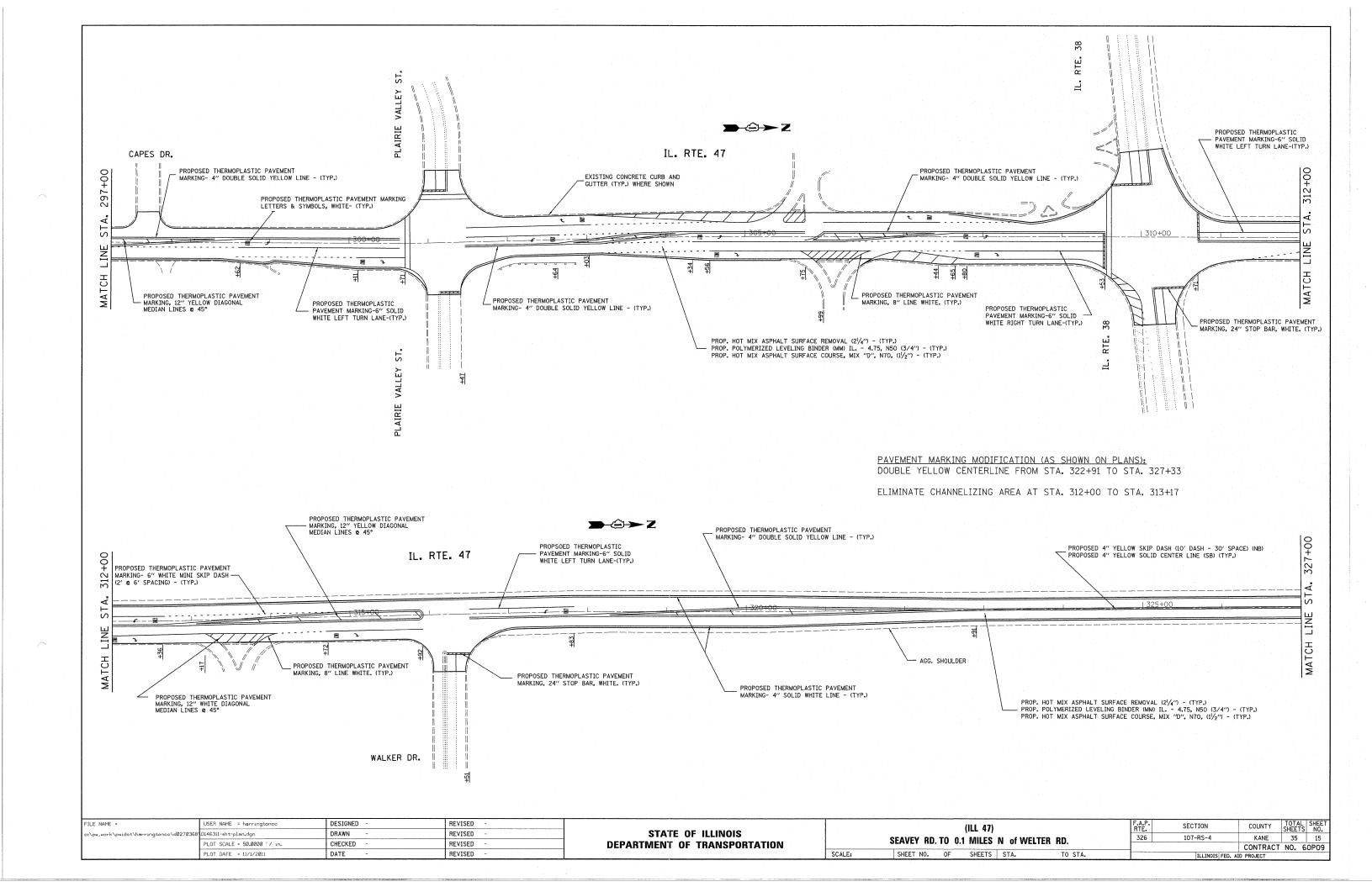


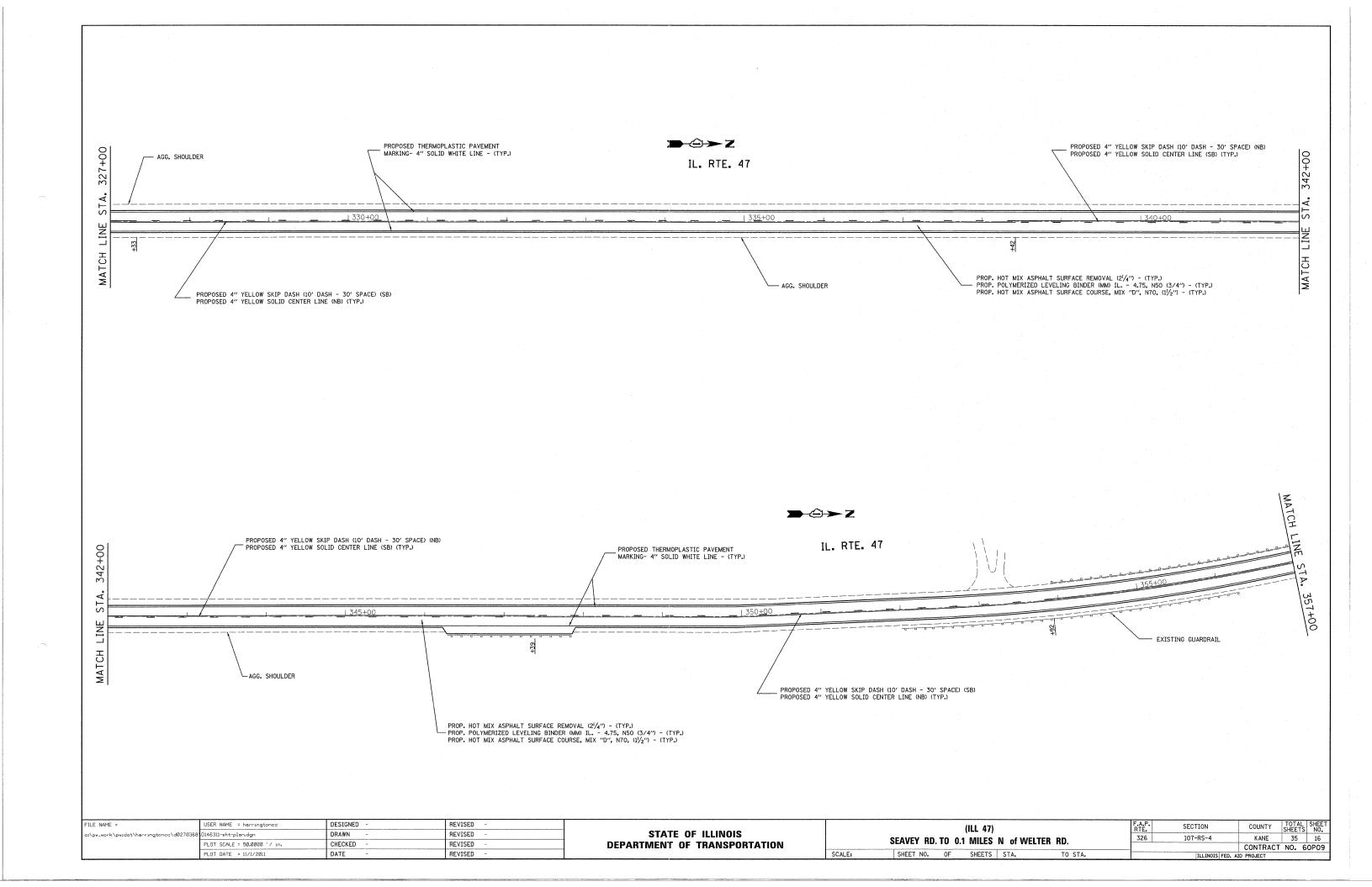


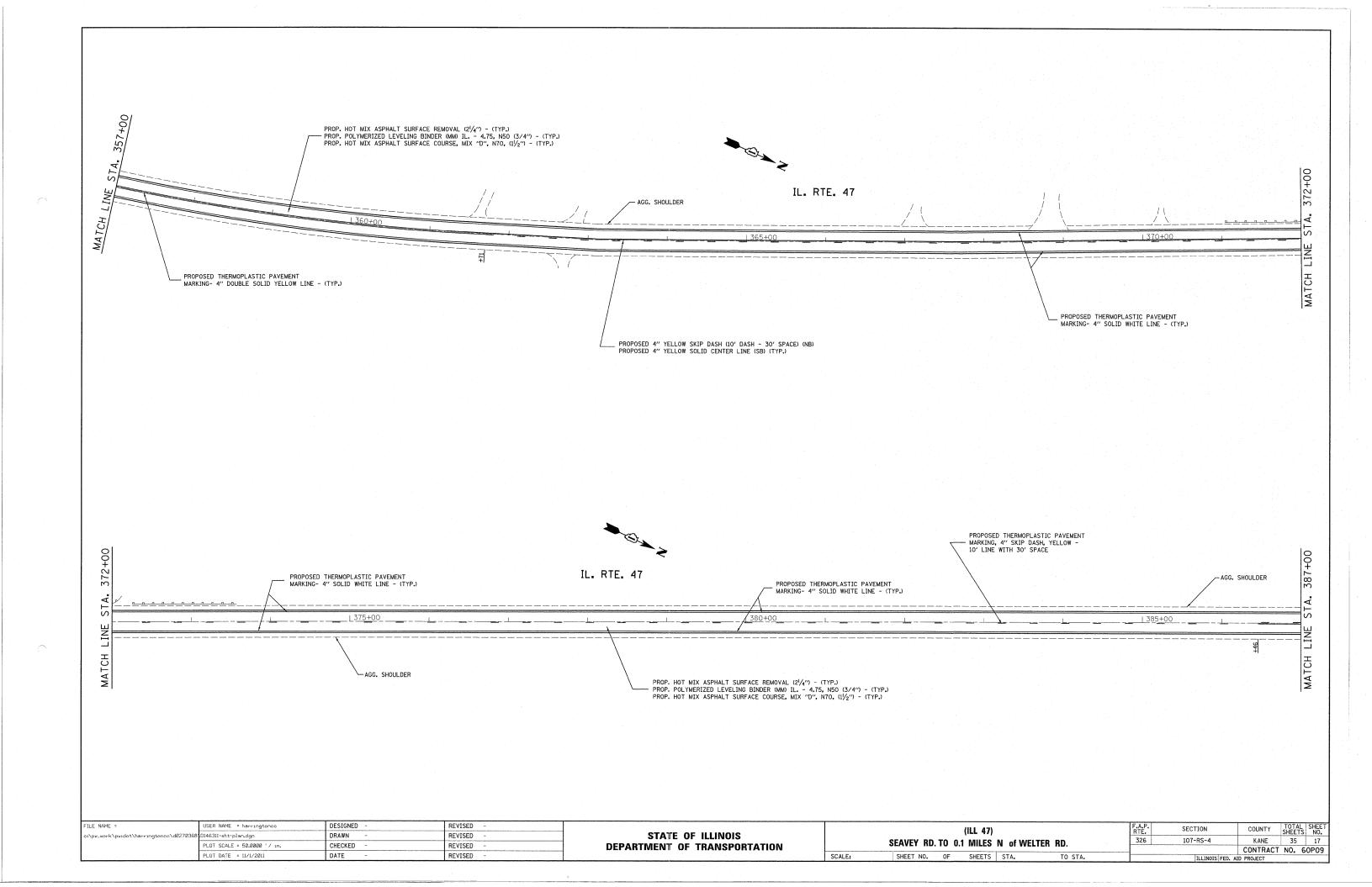


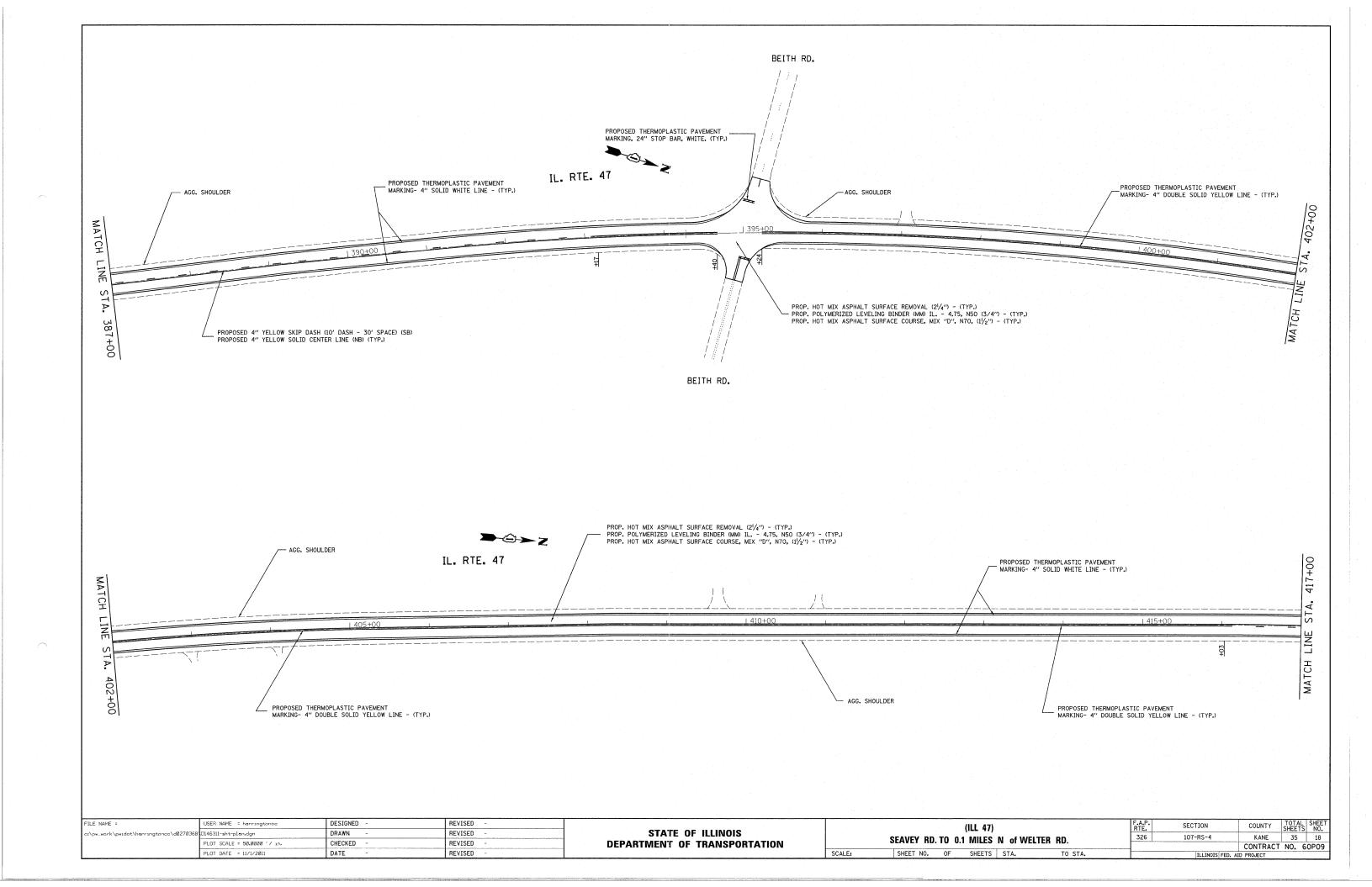


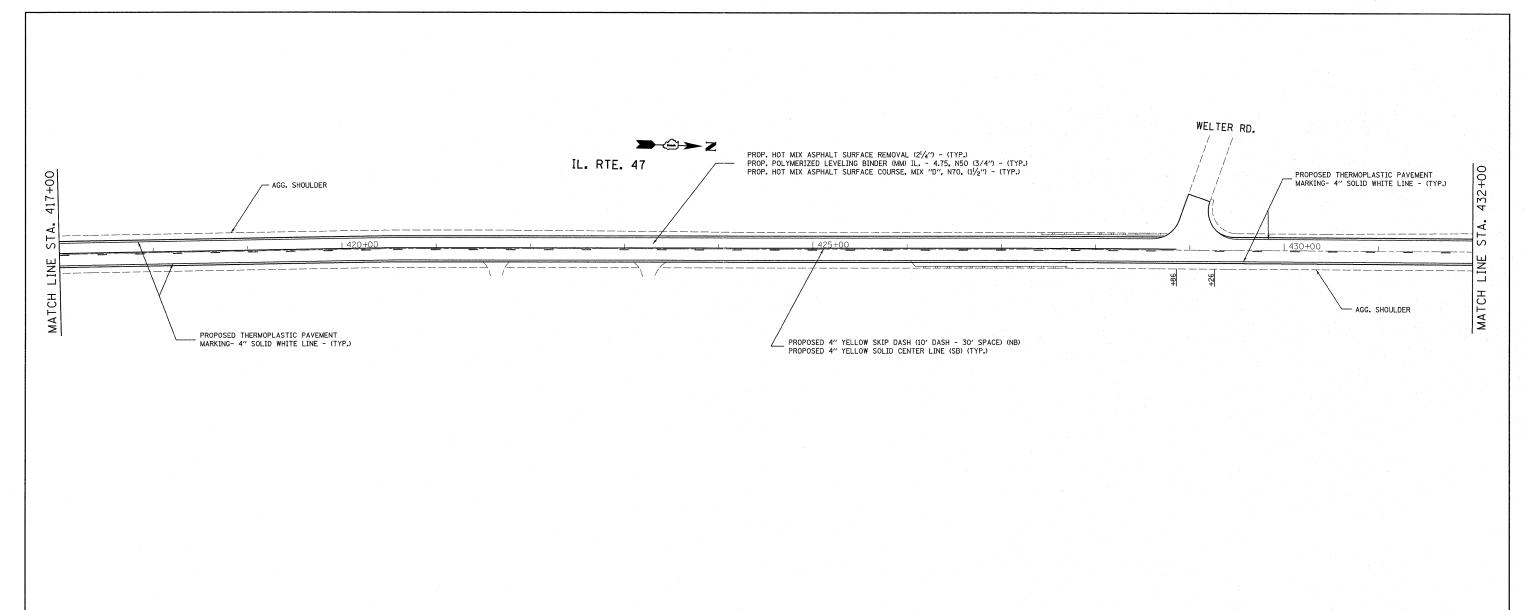


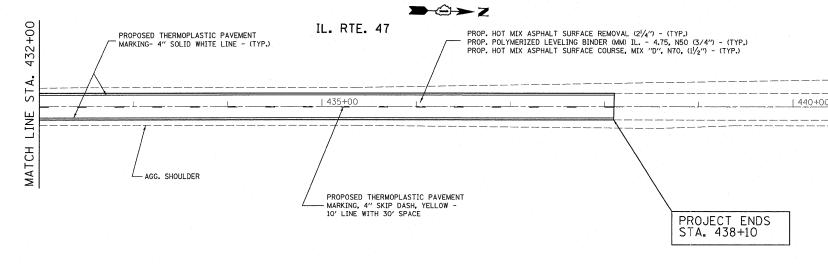




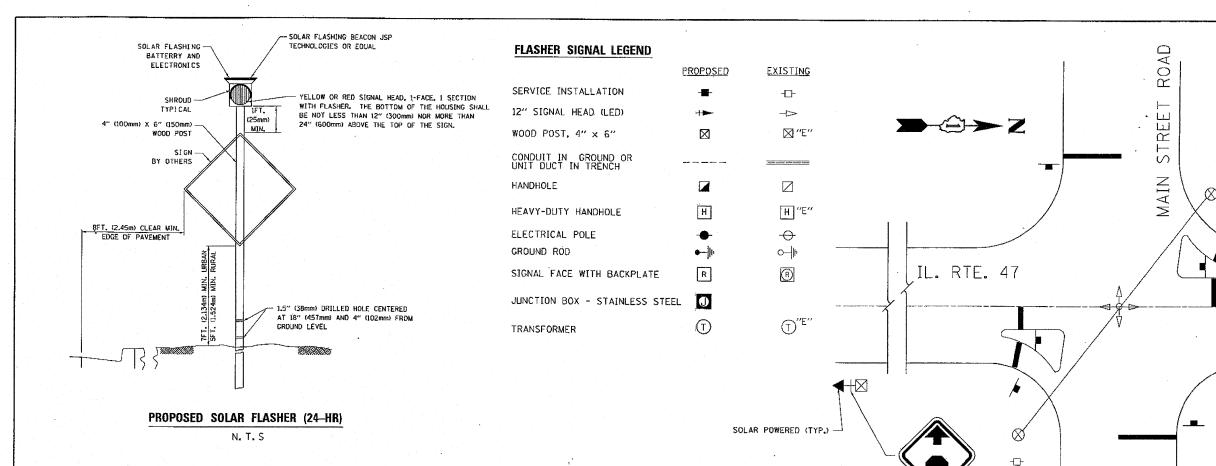








FILE NAME =	USER NAME = herringtonec	DESIGNED -	REVISED -			(ILL 47)	F.A.P.	SECTION	COUNTY	TOTAL SHEET
c:\pw_work\pwidot\harringtoncc\d0270368	D146311-sht-plan.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS		SEAVEY RD. TO 0.1 MILES N of WELTER RD.	326	107-RS-4	KANE	35 19
	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		SLAVET ND. TO U.1 WHILES IN UT VYELTER ND.			CONTRACT	T NO. 60P09
	PLOT DATE = 11/1/2011	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.		ILLINOIS FED.	AID PROJECT	



### **NOTE FOR FLASHER(S):**

- 1) PRIOR TO INITIATING OPERATION OF ANY FLASHER LOCATION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT 48 HRS IN ADVANCE, THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATION ENGINEER" AT (847) 705-4139, ILLINOIS DEPARTMENT OF TRANSPORTATION.
- 2) PRIOR TO REMOVE THE SERVICES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT COMM. ED. TO DISCONNECT THE SERVICES.



Illinois Department of Transportation
Division of Highways / District 1
201 West Center Court
Schaumburg, Illinois 60196~1096

ENERGY SUPPLY: SOLAR POWER

FILE NAME =	USER NAME = nguyensm	DESIGNED	- SN	REVISED	-	1
аз/ри_work/pwidot/nguyensm/dB112618/flasl	er.dgn	DRAWN	- SN	REVISED	_	1
	PLOT SCALE = 103.1220 '/ 10-	CHECKED	- SM	REVISED	•	1
	PLOT DATE = 9/2/2011	DATE	- 09/02/2011	REVISED	-	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

|--|--|

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE OF THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR BID PRICE.

REMOVE CONDUIT ATTACHED TO COMM. ED. POSTS.

PLAN - TRAFFIC SIGNAL FLASHER

EACH W3-1A SIGN

WOOD POST

YELLOW BEACON FLASHER

SERVICE

EACH

EACH

EACH

FOOT

24

36" X 36"

SCALE:

SOLAR POWERED

(TYP.)

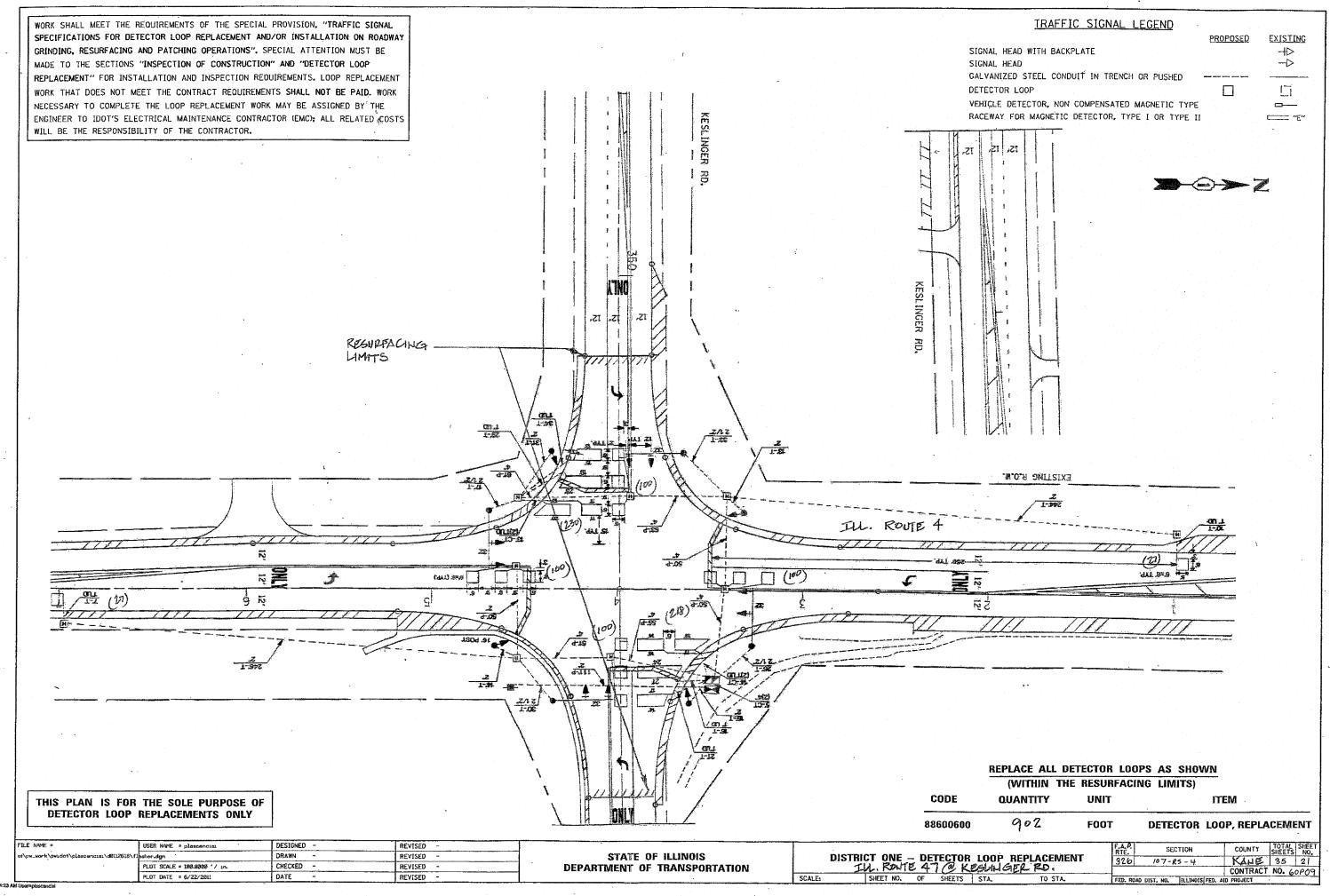
 $\boxtimes$ 

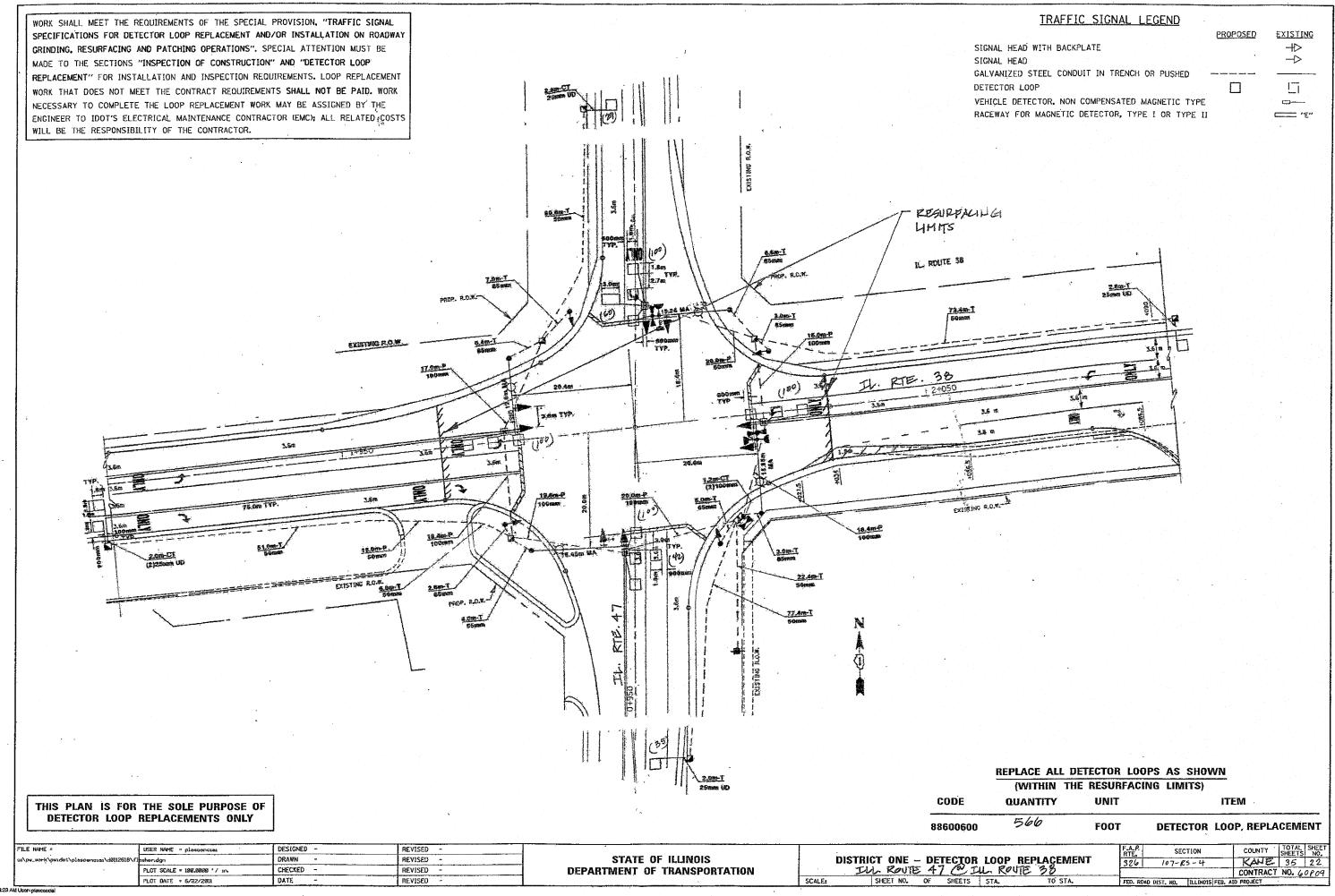
W3-1A

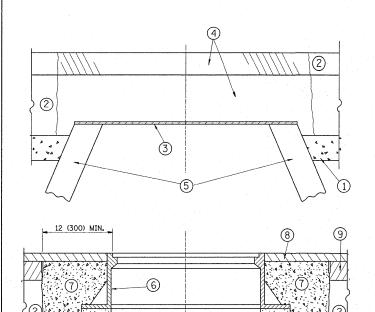
36" X 36"

	SUMMARY OF QUANTITI	ES	
ITEM	DESCRIPTION	UNIT	QUANTITY
X0325936	SOLAR-POWERED FLASHER/POST MOUNTED (YELLOW L.E.D. DISPLAY)	EACH	2
89502400	REMOVE EXISTING FLASHING BEACON - INSTALLATION COMPLETE	EACH	1

FLASHER INSTALLATION	PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
IL.47 AT MAIN STREET	RN	326	107-RS-4	KANE	35	20
				CONTRACT	NO. 60	<b>209C</b>
SHEET NO. OF SHEETS STA.	TO STA.	FEO. ROAD DIST. N	O. ILLINOIS FED. A	ID PROJECT		







4A <

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.

PROPOSED

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

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

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

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

#### 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 PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

#### LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- (7) CLASS PP-1\* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- (8) PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX (5) EXISTING STRUCTURE
- (9) PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURES:

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

BASIS OF PAYMENT: 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

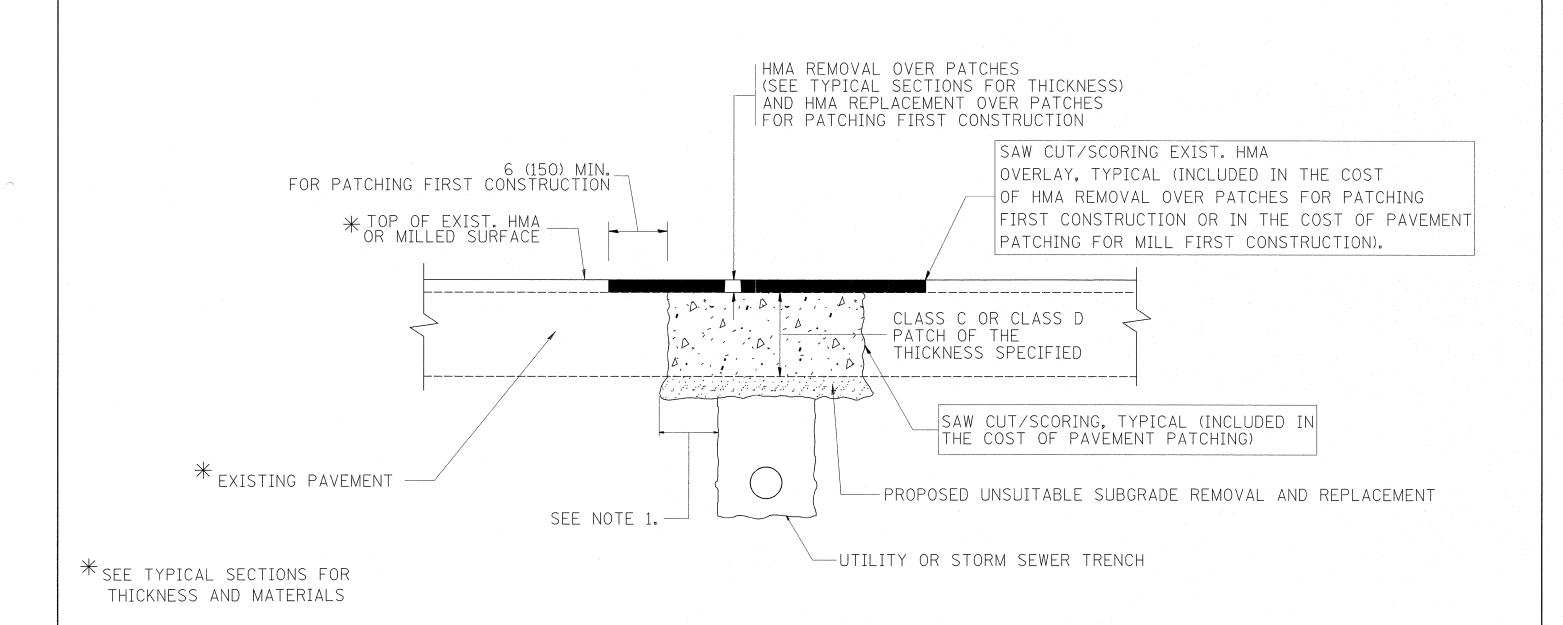
FILE NAME =	USER NAME = harringtonec	DESIGNED -	R. SHAH	REVISED	- A.	ABBAS 03-21-97	
c:\pw_work\pwidot\harringtoncc\d0270368	DistStd.dgn	DRAWN -		REVISED	- R.	WIEDEMAN 05-14-04	
	PLOT SCALE = 50.0000 '/ in.	CHECKED ~		REVISED	- R.	BORO 01-01-07	
	PLOT DATE = 11/1/2011	DATE -	10-25-94	REVISED	- R.	BORO 03-09-11	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

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

1

COUNTY TOTAL SHEETS NO. SECTION 107-RS-4 KANE BD600-03 (BD-8) CONTRACT NO. 60P09



#### 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".

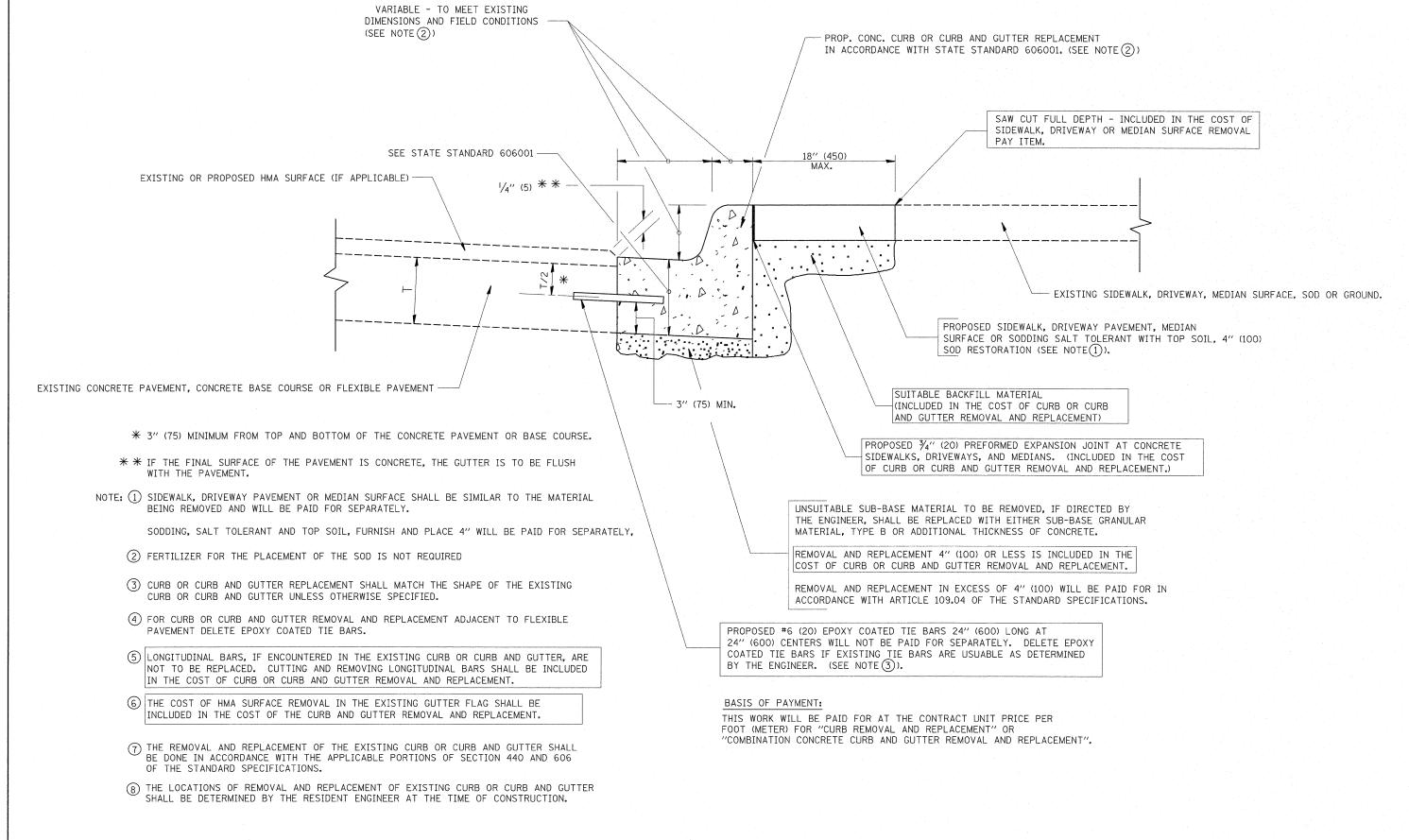
#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 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)

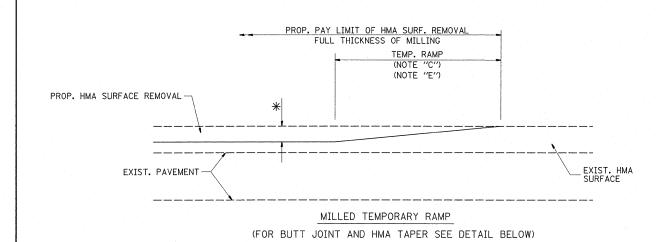
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

FILE NAME =	USER NAME = harringtonce	DESIGNED - R. SHAH	REVISED	A. ABBAS 04-27-98			PAVEMENT PATCHING FOR		F.A.P.	SECTION	COUNTY	TOTAL	SHEET
c:\pw_work\pwidot\harringtoncc\d0270368	.DistStd.dgn	DRAWN	REVISED -	R. BORO 01-01-07	STATE OF ILLINOIS				326 1	107-RS-4	KANE	35	24
·	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -	- R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		HMA SURFACED PAVEMENT		BD400-0	4 (BD-22)	CONTRACT	NO. 60	P09
	PLOT DATE = 11/1/2011	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	0. 1 ILLINOIS FED. A	PROJECT		

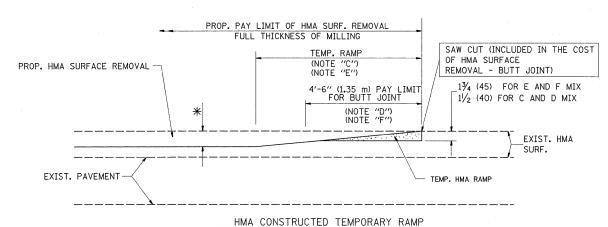


### CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

		<del></del>				<del></del>						
	PLOT DATE = 11/1/2011	DATE - 03-11-94	REVISED -	R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED.	ROAD DIST. NO. 1 ILLINOIS FED.			
· ·	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -	- M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		REMOVAL AND REPLACEMENT		BD600-06 (BD-24)	CONTRAC	T NO. 6/	1P09
c:\pw_work\pwidot\harringtonec\d027	Ø368 DistStd.dgn	DRAWN -	REVISED -	- A. ABBAS 03-21-97	STATE OF ILLINOIS			326	107-RS-4	KANE	35	25
					OTATE OF ULBROAD		CURB OR CURB AND GUTTER	RTE.	32011014	COUNTY	SHEETS	NO.
FILE NAME =	USER NAME = harringtonec	DESIGNED - A. HOUSEH	REVISED -	R. SHAH 10-03-96				F.A.P	SECTION	COUNTY	TOTAL	SHEET



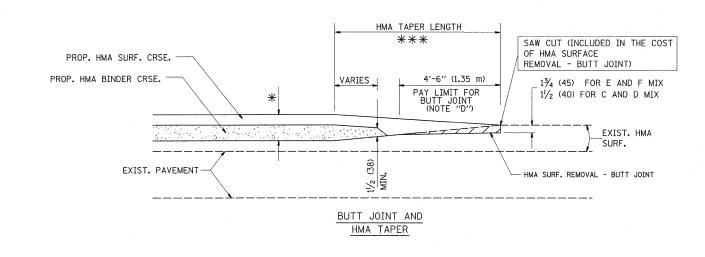
#### OPTION 1



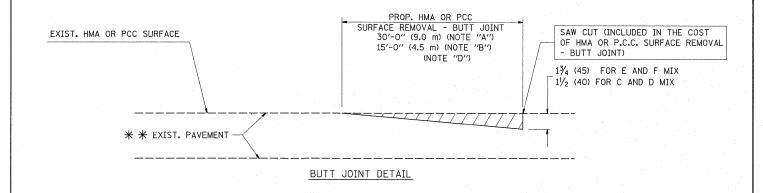
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

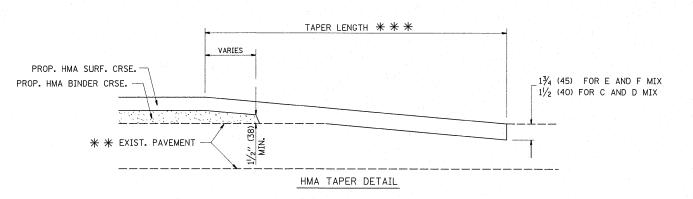
#### OPTION 2

#### TYPICAL TEMPORARY RAMP



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





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

# # PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

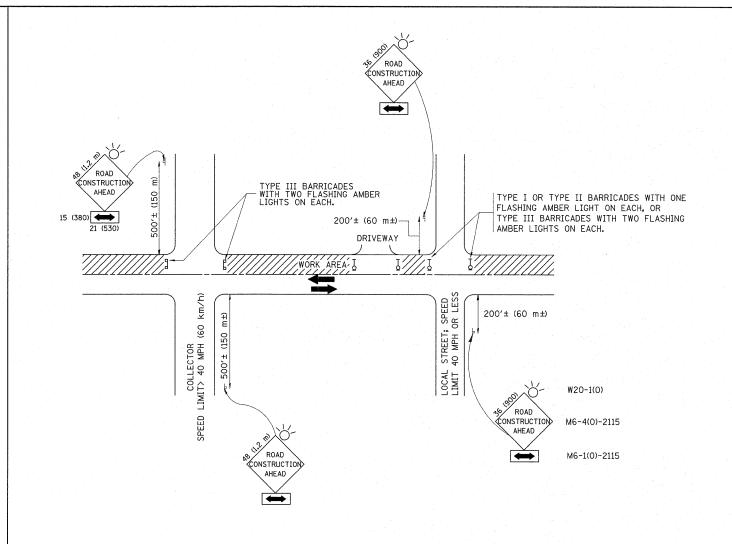
#### NOTES

- 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".

1		PLOT DATE = 11/1/2011	DATE - 06-13-90	REVISED -	R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. RO	OAD DIST. NO. 1   ILLINOIS   FED. A	ID PROJECT		
		PLOT SCALE = 50.0000 '/ in.		REVISED -	M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION					BD400-05 BD32	CONTRACT	NO. 60P	09
- 1	c:\pw_work\pwidot\harringtoncc\d0270368	.DistStd.dgn	DRAWN -	REVISED -	A. ABBAS 03-21-97	STATE OF ILLINOIS	1	HMA TAPER DETAILS		326	107-RS-4	KANE	35	26
- 1		0 0 11	DDAWN	DEVICED	4 40046 07 01 07	CTATE OF HIMMOR		BUTT JOINT AND		RTE.	SECTION	CODIVIT	SHEETS	NO.
- 1	FILE NAME =	USER NAME = harringtonee	DESIGNED - M. DE YONG	REVISED -	R. SHAH 10-25-94		l .			F.A.P.	SECTION	COUNTY	TOTAL   S	HEET



#### 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:
- d) 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:
- d) 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.

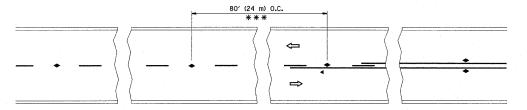
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = harringtonec	DESIGNED - LHA :	REVISED - J. OBERLE 10-18-95
c:\pw_work\pwidot\harringtoncc\dØ27Ø368	DistStd.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 '/ in.	CHECKED	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 11/1/2011	DATE - 06-89	REVISED -T. RAMMACHER 01-06-

STATI	E OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

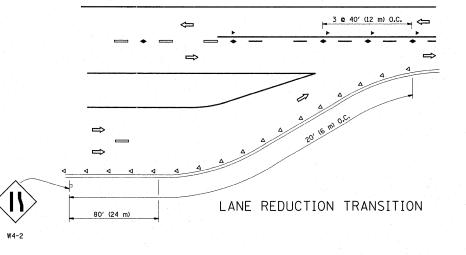
	TRAFFIC CONTROL AND SIDE ROADS, INTERSECTION	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.

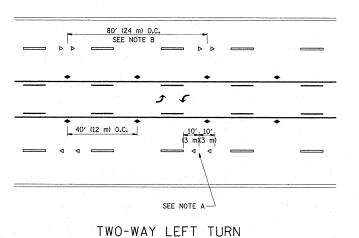
	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	IEET
I	326	107-RS-4	KANE	35	27.
		TC-10	CONTRACT	NO. 60P	9
	FED. R	OAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT		

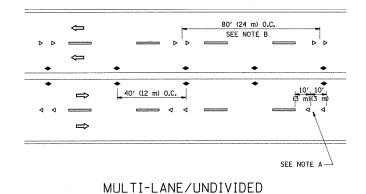


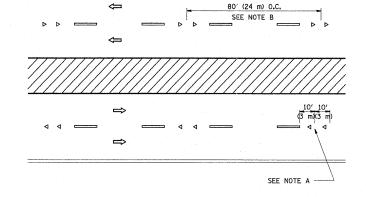
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY









MULTI-LANE/DIVIDED

#### GENERAL NOTES

- 1. 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

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

#### SYMBOLS

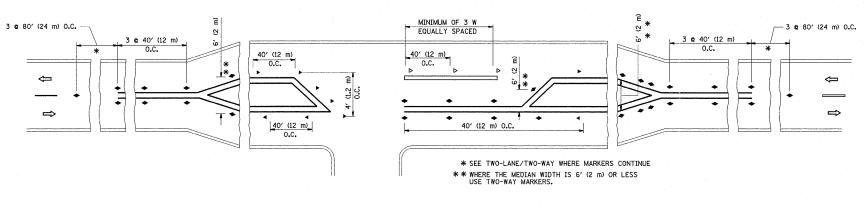
---- YELLOW STRIPE

WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER

#### DESIGN NOTES

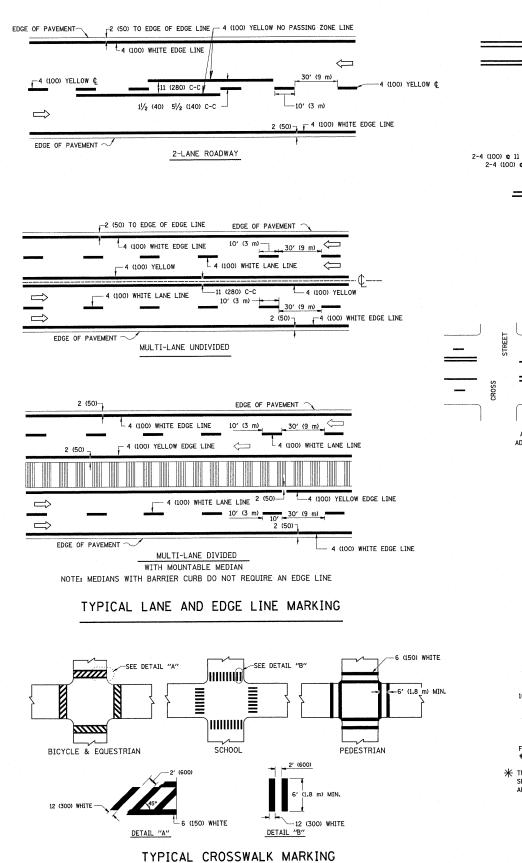
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD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

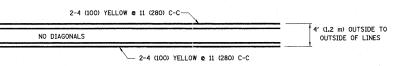


LEFT TURN

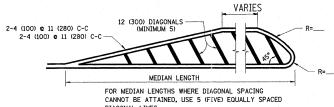
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = harringtonec	DESIGNED -	REVISED - T.	. RAMMACHER O	9-19-94			TYPICAL APPLICATIONS		F.A.P.	SECTION	COUNTY	TOTAL SHEET
c:\pw_work\pwidot\harringtoncc\d0270368	DistStd.dgn	DRAWN -		. RAMMACHER O	3-12-99	STATE OF ILLINOIS	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		326	107-RS-4	KANE	35 28	
	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -T.	. RAMMACHER O	01-06-00	DEPARTMENT OF TRANSPORTATION			LUVV RESISTANT)		TC-11	CONTRACT	NO. 60P09
	PLOT DATE = 11/1/2011	DATE -	REVISED - C.	C. JUCIUS 0	9-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD D	IST. NO. 1   ILLINOIS   FED. A		



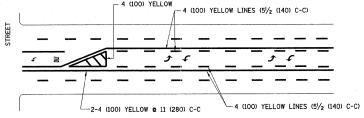


#### 4' (1.2 m) WIDE MEDIANS ONLY

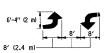


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

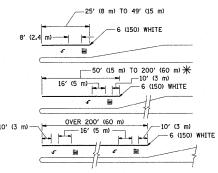


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

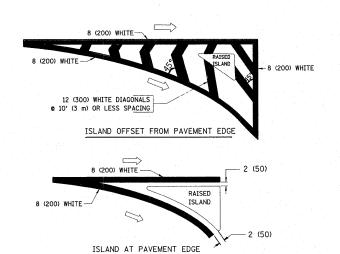


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

\* 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 UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	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 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
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 CROSSMALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 & 4 (100) WITH 12 (300) DIAGONALS & 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS & 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m. LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA 0F: "M"-3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH "X"-54.0 SO. FT. (5.0 m <sup>2</sup> )
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) T0 45MPH (70 km/h)) 150' (45 m) C-C (0VER 45MPH (70 km/h))

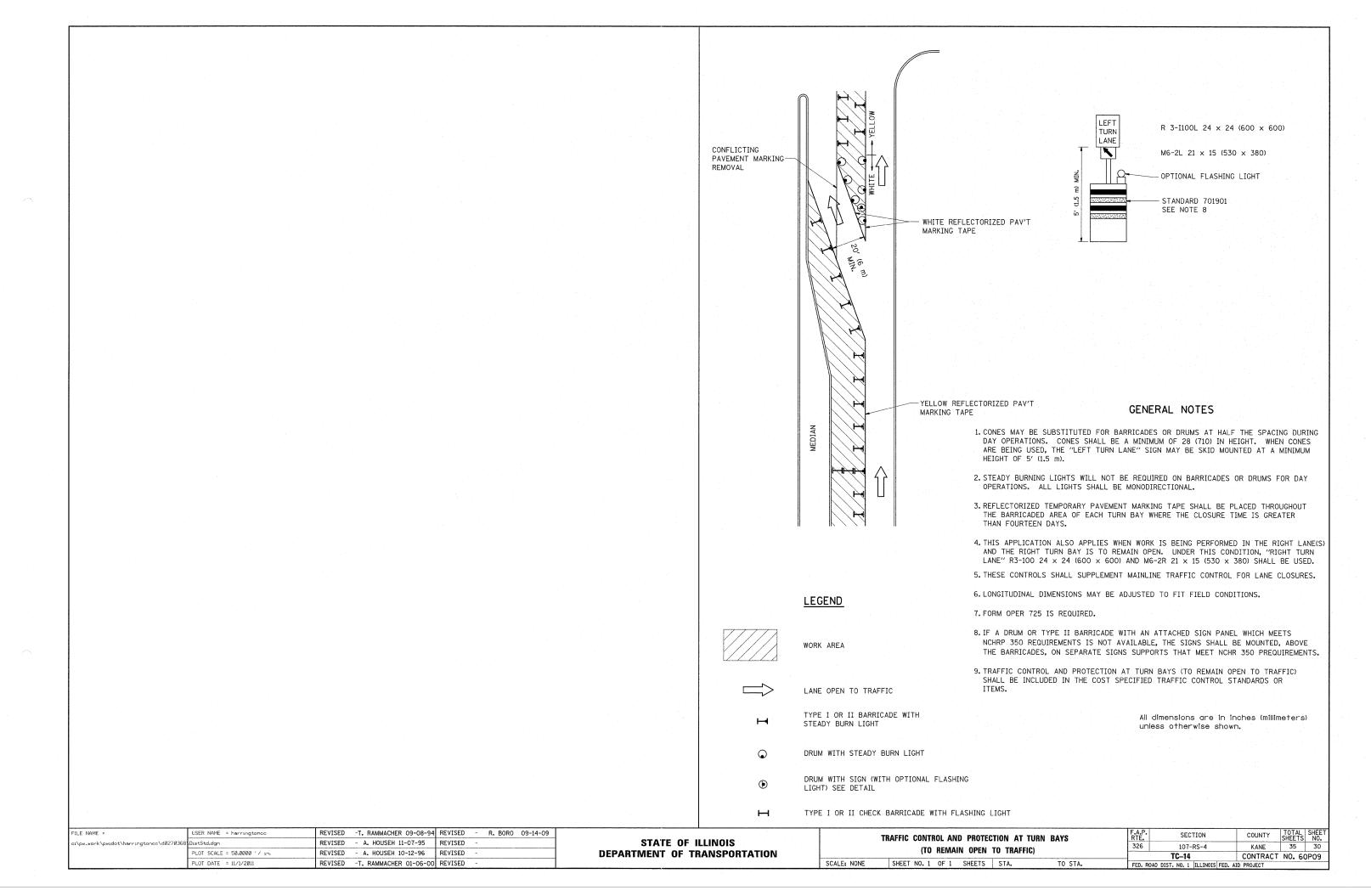
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

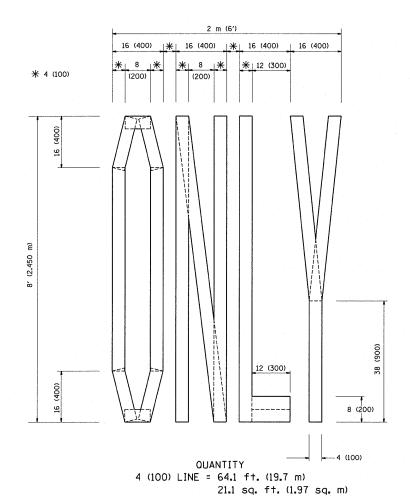
All dimensions are in inches (millimeters) unless otherwise shown.

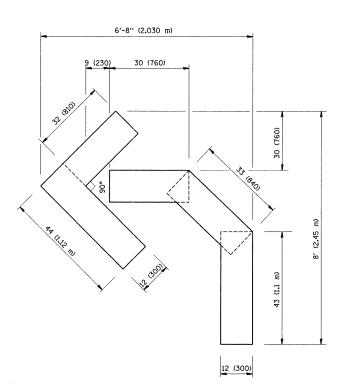
							-
FILE NAME =	USER NAME = harringtonco	DESIGNED -	EVERS	REVISED	-T. RAMMACHER	10-27-94	
c:\pw_work\pwidot\harringtoncc\d0270368	DistStd.dgn	DRAWN -		REVISED	-C. JUCIUS	09-09-09	
	PLOT SCALE = 50.0000 '/ in.	CHECKED -		REVISED	-		
	PLOT DATE = 11/1/2011	DATE -	03-19-90	REVISED			

STATE	0F	ILLINOIS
DEPARTMENT (	OF T	RANSPORTATION

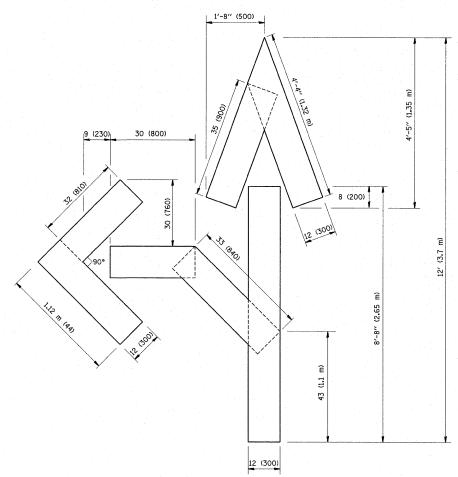
			DI	STRICT ON	JE		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
- 1		TV	DICAL D	WENTERIT	BAADVINICO		326	107-RS-4	KANE	35	29		
	TYPICAL PAVEMENT MARKINGS							TC-13 CONTRACT NO. 60POS					
	SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. RO	OAD DIST. NO. 1   ILLINOIS FED. A	D PROJECT				







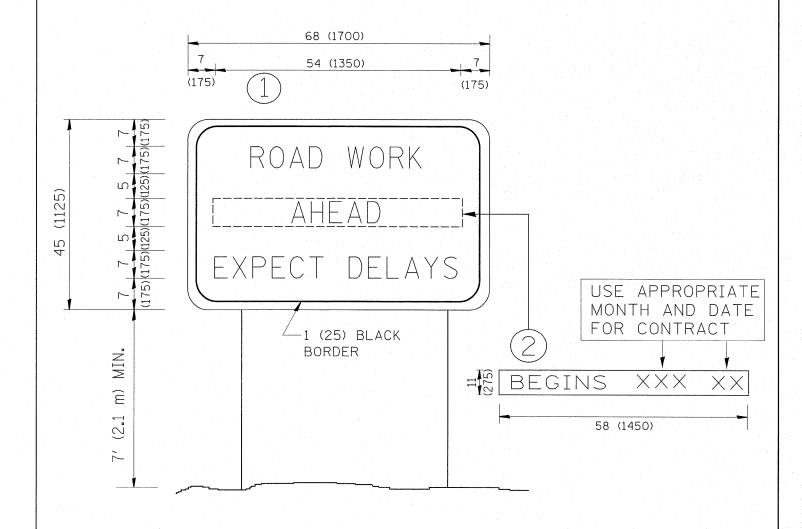
QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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 = harringtonec	DESIGNED -	REVISED -T. RAMMACHER 06-05-96			PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.P. SECTION	COUNTY TOTAL SHEET SHEETS NO.
c:\pw_work\pwidot\harringtoncc\d0270	1368 DistStd.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS			326 107-RS-4	KANE 35 31
	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION		FOR TRAFFIC STAGING	TC-16	CONTRACT NO. 60P09
	PLOT DATE = 11/1/2011	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED.	



#### NOTES:

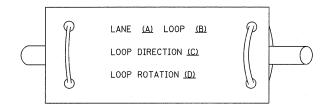
- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL 2 SOON AFTER THE START 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.

FILE NAME =	USER NAME = harringtonec	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		F.A.P.	SECTION	COUNTY	TOTAL	SHEET
c:\pw_work\pwidot\harringtoncc\d0270368	DistStd.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS				326	107-RS-4	KANF	35	32
	PLOT SCALE = 50.0000 ' / in.	CHECKED ~	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFORMATION S	IGN		TC-22	CONTRAC	CT NO. 6	OP09
	PLOT DATE = 11/1/2011	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS :	TA. TO STA.	FED. ROA		S FED. AID PROJECT		0. 03

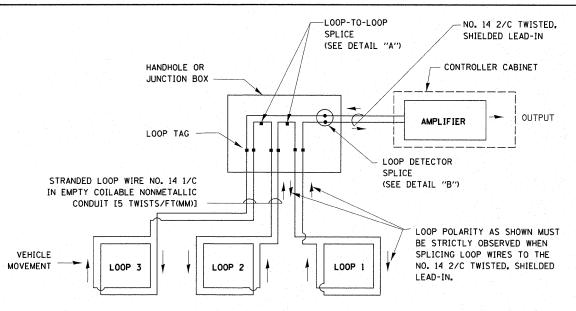
#### LOOP DETECTOR NOTES

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

#### LOOP LEAD-IN CABLE TAG

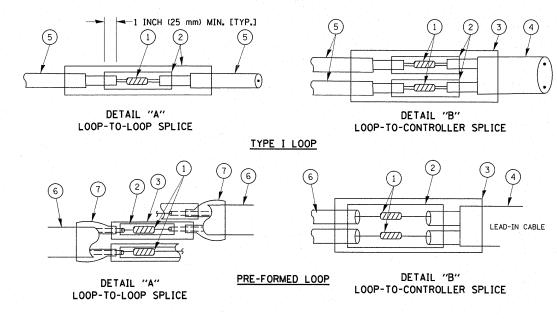


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### DETECTOR LOOP WIRING SCHEMATIC

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



#### LOOP DETECTOR SPLICE

- $\ \, \ \, \ \,$  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.
- (6) PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR
  BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

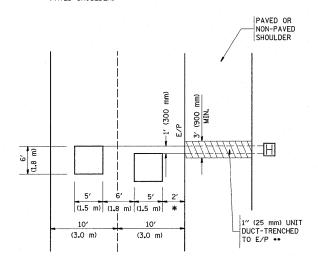
FILE NAME =	USER NAME = harringtonco	DESIGNED -		DAD	REVISED	-	
c:\pw_work\pwidot\harringtoncc\d0270368	DıstStd.dgn	DRAWN -	-	BCK	REVISED	-	
	PLOT SCALE = 50.0000 '/ in.	CHECKED -	-	DAD	REVISED	-	
	PLOT DATE = 11/1/2011	DATE -	-	10-28-09	REVISED		

STATE	OF	ILLINOIS
EPARTMENT	OF '	TRANSPORTATION

	DISTRICT ONE	F.A.P. SECTION COUNTY SHEETS NO.
	STANDARD TRAFFIC SIGNAL DESIGN DETAILS	326 107-RS-4 KANE 35 33
		TS-05 CONTRACT NO. 60P09
SCALE: NONE	SHEET NO. 1 OF 6 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

#### LOOPS NEXT TO SHOULDERS

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



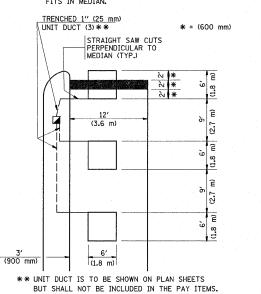
\* = (600 mm)

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

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

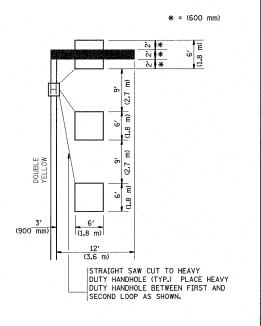
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD B14001 TO ENSURE THAT HANDHOLE



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

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

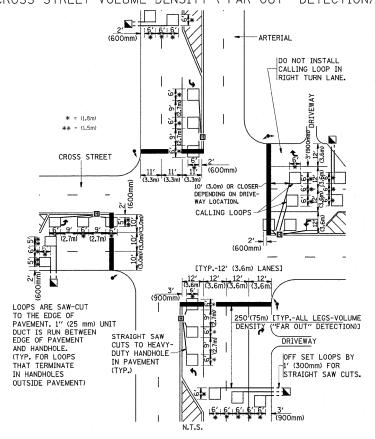


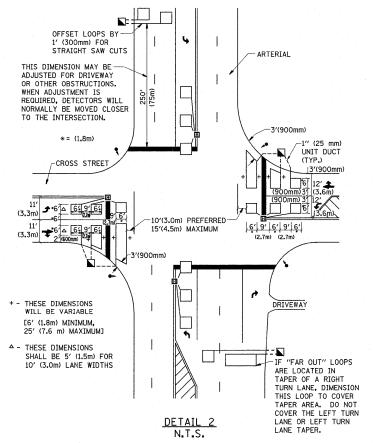
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)

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

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, <u>MORE</u>
  THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR
  (1.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:

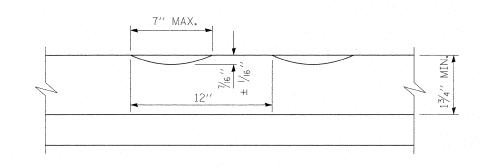
ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1
TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

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.

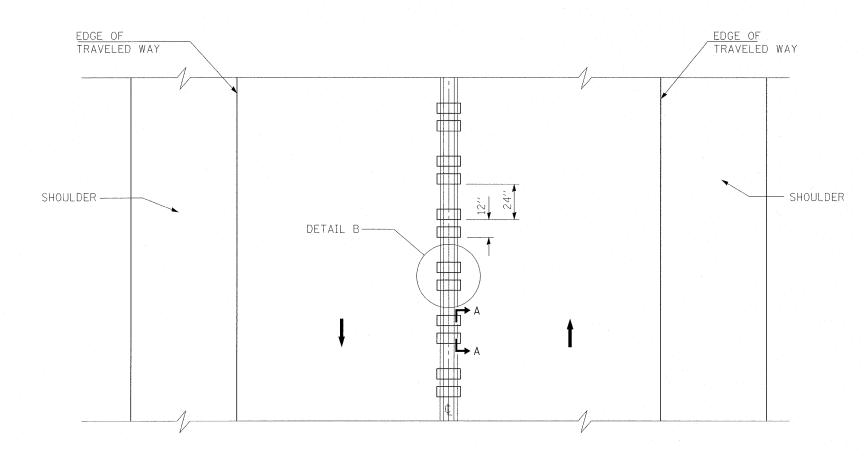
<u>DETAIL 1</u> N.T.S.							
FILE NAME =	USER NAME = harringtoncc	DESIGNED -	REVISED -				
c:\pw_work\pwidot\harringtonec\d0270368	DistStd.dgn	DRAWN	REVISED -				
	PLOT SCALE = 50.0000 '/ in.	CHECKED - R.K.F.	REVISED -				
	PLOT DATE = 11/1/2011	DATE -	REVISED -				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

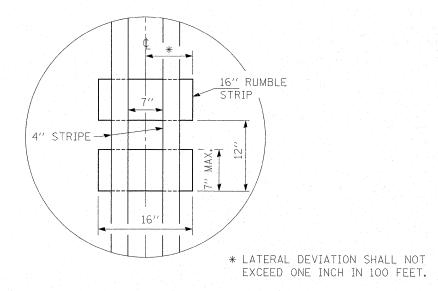
·					
DISTRICT 1 - DETECTOR LOOP INSTALLATION	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DETAILS FOR ROADWAY RESURFACING	326	107-RS-4	KANE	35	34
		TS-07	CONTRACT	NO. 60	)P09
SCALE: NONE   SHEET NO. 1 OF 1 SHEETS   STA. TO STA.	FED. BO	AD DIST NO 1 THE INDIS FED AT	D PROJECT		



SECTION A-A



TWO-WAY ROAD



DETAIL B

GENERAL NOTES

SEE STANDARD 780001 FOR OTHER STRIPING LAYOUTS.

RUMBLE STRIPS SHALL NOT BE PLACED ON BRIDGES.

ALL RUMBLE STRIPS SHALL BE MILLED.

CENTERLINE RUMBLE STRIPS SHALL BE CONTINUOUS THROUGH CONNECTIONS OF SIDEROADS WITH NO LEFT TURN LANES.

DISCONTINUE CENTERLINE RUMBLE STRIPS THROUGH THE LIMITS OF ALL LEFT TURN LANES, INCLUDING ANY LANE TAPER SECTIONS.

WHERE USED, ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO FALL IN WIDER GAP BETWEEN RUMBLE STRIPS.

CENTER LINE RUMBLE STRIPES TO BE PAID FOR AS CENTER LINE - RUMBLE STRIP AND HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINE - 4"

FILE NAME =	USER NAME = harringtoncc	DESIGNED -	REVISED -
c:\pw_work\pwidot\harringtoncc\d0270368°	D146311-sht-plan.dgn	DRAWN ~	REVISED -
	PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 11/1/2011	DATE -	REVISED -

STATE	OF	ILLINOIS	
DEPARTMENT	OF 1	TRANSPORTATION	

	RUMBLE STRIPES FOR CENTER LINE, NON-FREEWAY		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
١			107-RS-4	KANE	35	35
ı				CONTRACT	NO. 6	OP09
١	SCALE: SHEET NO. OF SHEETS STA. TO STA.		ILLINOIS FED. AI	D PROJECT		