STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

F.A.P. 334 (US 12) **SECTION 116 R-RS** IL 31 (TRYON GROVE ROAD) TO LAKE COUNTY LINE **RESURFACING (3P)**

MCHENRY COUNTY

C-91-592-09

THESE IMPROVEMENTS ARE LOCATED WITHIN THE VILLAGES OF JOHNSBURG, RINGWOOD AND RICHMOND

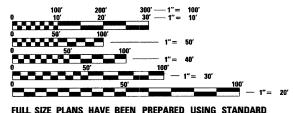
STA. 121 + 98

OMISSION STA. 123 + 73

CONSULTING ENGINEERS SUITE 402, 5507 NORTH CUMBERLAND AVE CHICAGO, ILLINOIS 60656 :: (773) 775-4009

TRAFFIC DATA

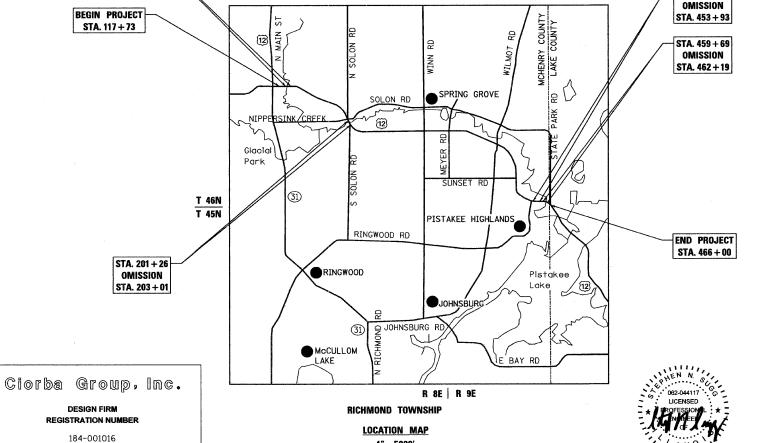
2007 ADT - 14,300 POSTED SPEED LIMIT - 55 MPH



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

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

CONTRACT NO. 60H22



1'' = 5000'

GROSS LENGTH OF PROJECT = 34,827 FT = 6.60 MI.

NET LENGTH OF PROJECT = 33,472 FT = 6.34 MI.

SECTION 116 R-RS MCHENRY 3A 1 ILLINOIS CONTRACT NO. 60H22 FED. ROAD DIST, NO. 1

D-91-592-09



STA. 446 + 38

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

SUBMITTED APRIL 14 20 09

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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4	TYPICAL SECTIONS
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24	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
25	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS,
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26	TYPICAL APPLICATIONS RAISED REFLECTIVE
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	CROSSINGS (TC-23)
32	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR
	ROADWAY RESURFACING (TS-07)

STATE STANDARDS

000001-05	STANDARD	SYMBOLS,	ABBREVIATIONS,	AND	PATTERNS
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442201 - 03 CLASS C AND D PATCHES

482011-03 HMA SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS

604001-03 FRAME AND LIDS, TYPE 1

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

701006-03 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE

701201-03 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH

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

701306 $^{-\it{OZ}}$ LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS \geq 45 MPH

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

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

701701-00 URBAN LANE CLOSURE, MULTI LANE, INTERSECTION

701901-01 TRAFFIC CONTROL DEVICES

780001-02 TYPICAL PAVEMENT MARKINGS

886001 - 01 DETECTOR LOOP INSTALLATIONS

886006-00 TYPICAL LAYOUTS FOR DETECTION LOOPS

	Ciorba G	roup, Inc.	
1		and Avenue, Suite 402	F

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

2. 10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTER AND MEDIANS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

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

5. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

6. THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:

BITUMINOUS MATERIALS (PRIME COAT)

GENERAL NOTES

0.0004 TONS/SQ YD

HOT-MIX ASPHALT SURFACE COURSE

112 LBS/SQ YD/INCH

POLYMERIZED LEVELING BINDER (MACHINE METHOD)

105 LBS/SQ YD/INCH

7. THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISORS AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE START OF WORK.

8. TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS THE ENGINEER SHALL CONTACT DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER, AT (847) 438-2300.

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

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

11. FOR PAVEMENT MARKING, REFER TO DISTRICT ONE TYPICAL MARKINGS FOR DETAILS SHOWN.

12. MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS AND OMISSIONS.

13. ALL PATCHES OPENED ON A PARTICULAR DAY MUST BE FILLED THAT DAY TO THE TOP OF THE MILLED PAVEMENT SURFACE.

14. IDOT TRAFFIC SIGNAL AND SYSTEM DETECTION LOOPS ARE PRESENT AT WINN ROAD, FOX
LAKE ROAD AND STATE PARK ROAD. THE CONTRACTOR MUST NOTIFY THE IDOT AREA TRAFFIC
SIGNAL MAINTENANCE AND OPERATIONS ENGINEER AT (847) 705-4139 AND THE
DEPARTMENT'S ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO BEGINNING WORK, AT WHICH
TIME ARRANGEMENTS WILL BE MADE TO ADJUST THE TRAFFIC CONTROLLER TIMING TO
COMPENSATE FOR THE ABSENCE OF DETECTION. REPLACEMENT OF LOOPS DOES NOT REQUIRE
MAINTENANCE TRANSFER, BUT DOES REQUIRE NOTIFICATION OF WORK AND INSPECTION.
COORDINATION WITH THE DISTRICT IS CONSIDERED INCIDENTAL TO THIS CONTRACT.

15. NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED

US 12

IL 31 (TYRON GROVE ROAD) TO LAKE COUNTY LINE

INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES

SHEET NO. 2 OF 32 SHEETS | STA. TO STA.

	SUMMARY OF QUANTITIES		URBAN 1007. STATÉ TOTAL QUANTITY	CONSTRUCTION TYPE CODE
CODE NO.	DESCRIPTION	UNIT		ROADWAY 1000
20201006	GRADING AND SHAPING SHOULDERS	UNIT	362	362
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	125	125
40600300	AGGREGATE (PRIME COAT)	TON	620	620
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	20	20
40600535	LEVELING BINDER (HAND METHOD), N70	TON	25	25
40600895	CONSTRUCTING TEST STRIP	EACH	. 4	. 4
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1,130	1,130
40600990	TEMPORARY RAMP	SQ YD	1,380	1,380
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	13,300	13,300
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	153,600	153,600
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	250	250
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	1,600	1,600
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	900	900
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	500	500
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	2,210	2,210
55039700	STORM SEWERS TO BE CLEANED	FOOT	2,100	2,100
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	5	5
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	5	5
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1

	1				
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	20,100	20,100
	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	4,200	4,200
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	224,500	224,500
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	14,400	14,400
	70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	900	900
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	9,000	9,000
-	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	1,800	1,800
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	33,200	33,200
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1,400	1,400
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	136,900	136,900
	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	F00T	4,800	4,800
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	F00T	300	300
	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	3,000	3,000
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	F00T	600	600
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1,360	1,360
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1,292	1,292
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	1,050	1,050
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	154	154
	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	8,400	8,400
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	30	30
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1

SUMMARY OF QUANTITIES

CODE NO. DESCRIPTION

URBAN 1001-STATE

TOTAL QUANTITY

UNIT

CONSTRUCTION TYPE CODE

> ROADWAY 1000

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,	α	Ciorba Group, Inc.	ŀ
		CONSULTING ENGINEERS	L
		5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656	ļ

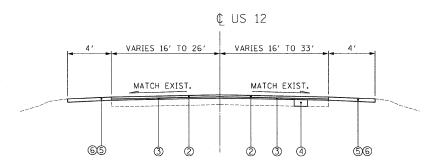
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	116 R-RS	MCHENRY	32	3
		CONTRACT	NO. 60	DH22
FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

<u>EXISTING TYPICAL SECTION</u>
STA. 117+73 TO STA. 121+98
STA. 123+73 TO STA. 201+26
STA. 203+01 TO STA. 433+87



PROPOSED TYPICAL SECTION STA. 117+73 TO STA. 121+98 STA. 123+73 TO STA. 201+26 STA. 203+01 TO STA. 433+87

EXISTING CONDITIONS:

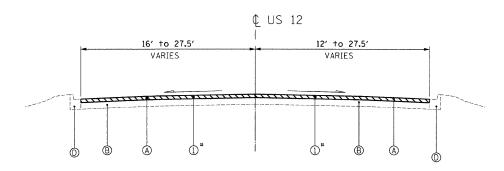
- A HOT-MIX ASPHALT SURFACE AND BINDER COURSE, 3" AND VARIES
- B HOT-MIX ASPHALT BASE COURSE, 9"
- C AGGREGATE SHOULDER
- ① COMBINATION CONCRETE CURB AND GUTTER

PROPOSED IMPROVEMENTS:

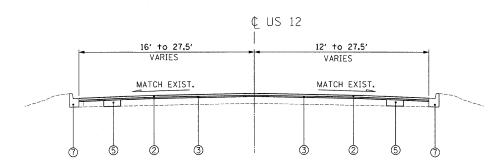
- ① HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"
- ② HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- 3 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- 4 CLASS D PATCHES, 10" (DETERMINED BY ENGINEER IN FIELD)
- 5 AGGREGATE WEDGE SHOULDER, TYPE B
- 6 GRADING AND SHAPING SHOULDERS
- COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AS DIRECTED BY ENGINEER)

A QUANTITY FOR LEVELING BINDER (HAND METHOD) HAS BEEN PROVIDED FOR USE AT ENTRANCES AFTER GRINDING OF EXISTING PAVEMENT.

THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING



EXISTING TYPICAL SECTION STA. 433+87 TO STA. 446+38 STA. 453+93 TO STA. 459+69 STA. 462+19 TO STA. 466+00



PROPOSED TYPICAL SECTION STA. 433+87 TO STA. 446+38 STA. 453+93 TO STA. 459+69 STA. 462+19 TO STA. 466+00

HOT-MIX ASPHALT MIXTURE REQUIREMENTS CHART

OPERATIONS	MIXTURE TYPE	AC TYPE	PERCENT
UPERATIONS	MIXTURE TIPE	AC TIFE	AIR VOIDS
ROADWAY RESURFACING	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N7O (IL-9.5MM)	PG: 64-22	4% @ 70 GYR
ROADWAT RESURFACING	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR
MAINTENANCE OF TRAFFIC	LEVELING BINDER (HAND METHOD), N70 (IL-9.5MM)	PG 64-22 *	4% @ 70 GYR
PAVEMENT PATCHING	CLASS D PATCHES, 10" (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 70 GYR

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

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

SCALE: N.T.S.

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

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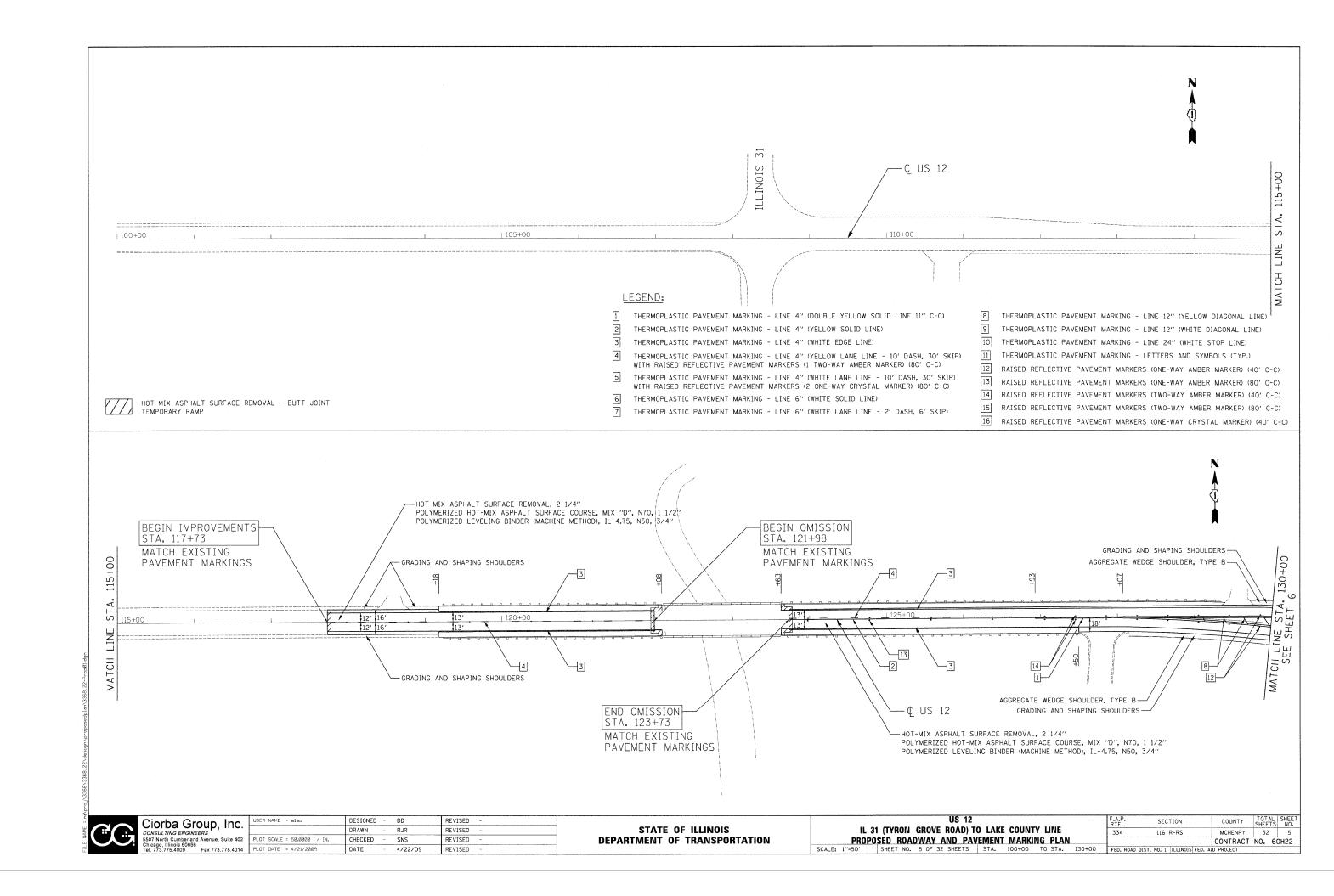
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DEPARTMENT OF TRANSPORTATION

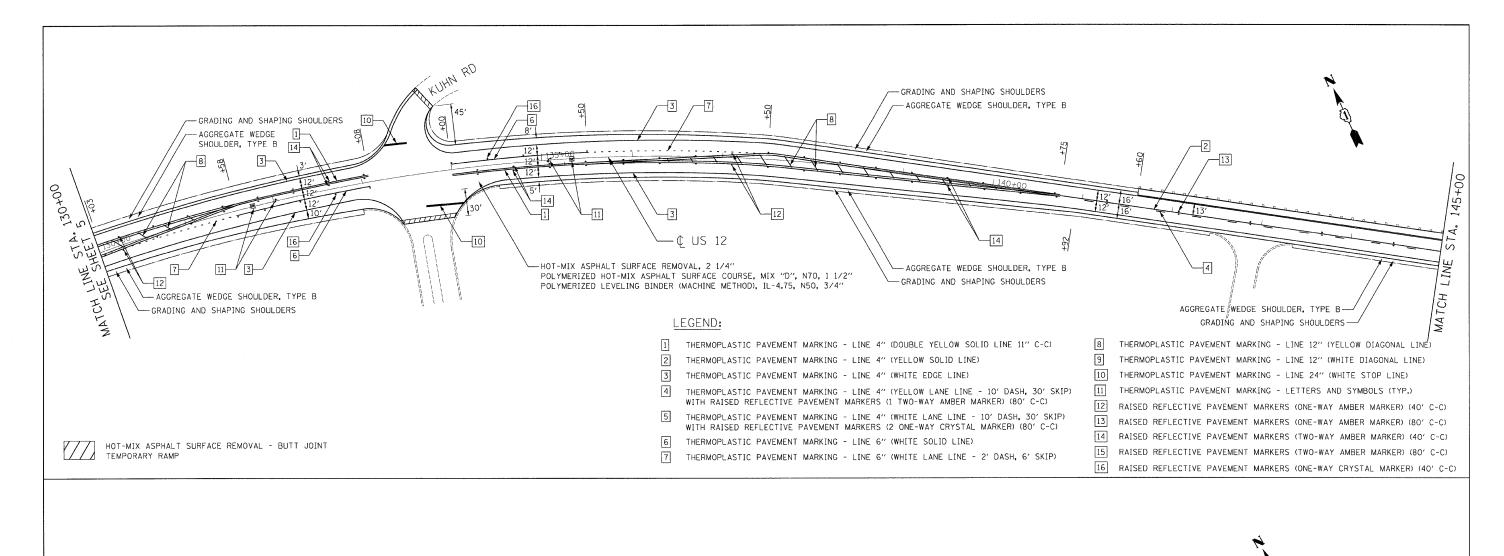
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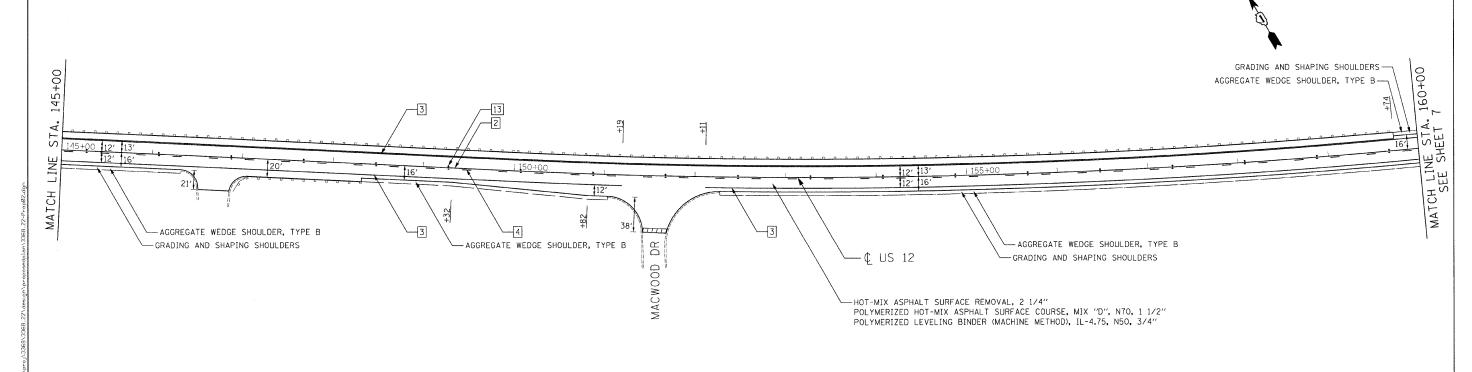
COUNTY TOTAL SHEET NO.

MCHENRY 32 4

CONTRACT NO. 60H22







STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

SECTION

116 R-RS

IL 31 (TYRON GROVE ROAD) TO LAKE COUNTY LINE

PROPOSED ROADWAY AND PAVEMENT MARKING PLAN

COUNTY

MCHENRY

CONTRACT NO. 60H22

DESIGNED -

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DATE

Ciorba Group, Inc.

Fax 773.775.4014

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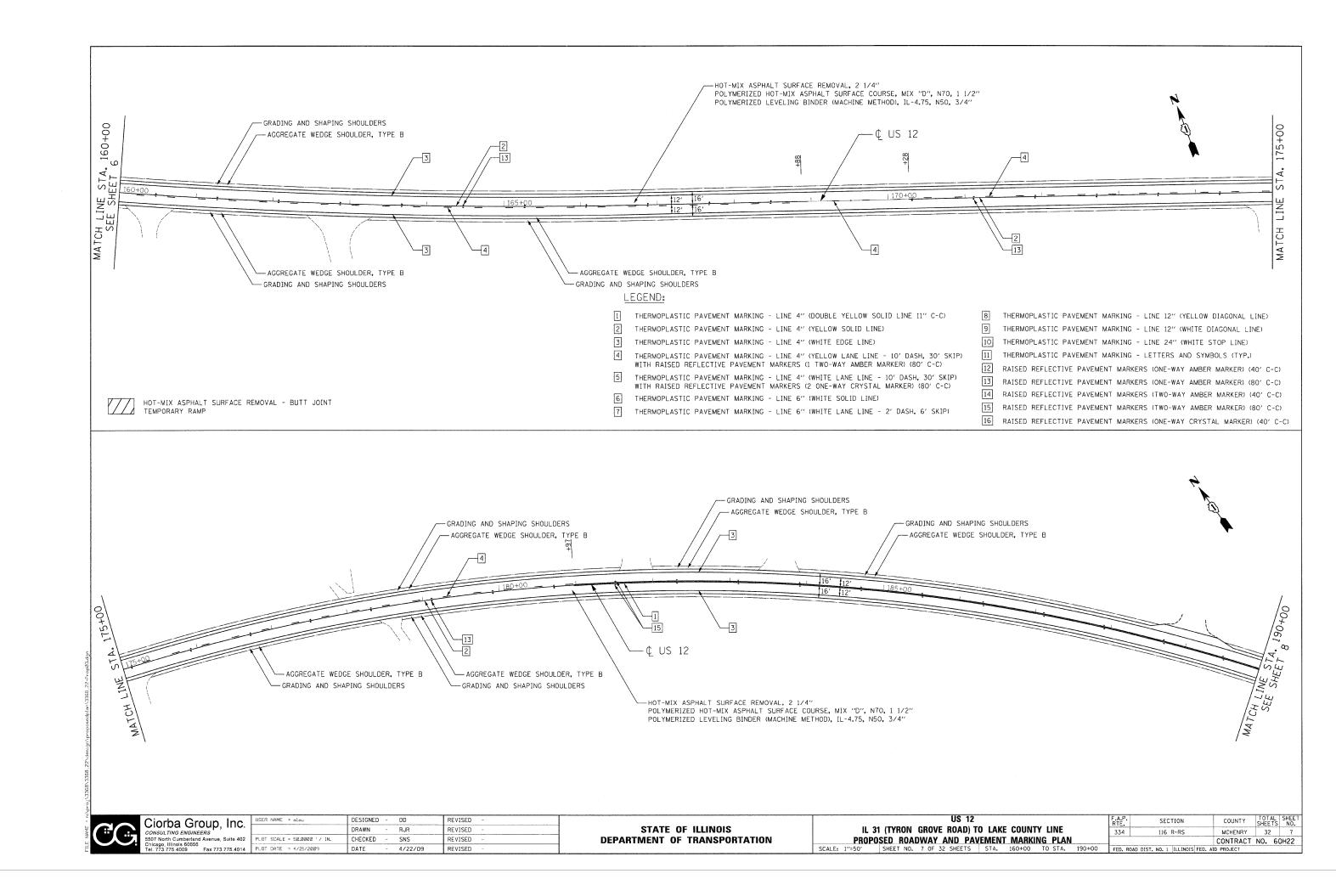
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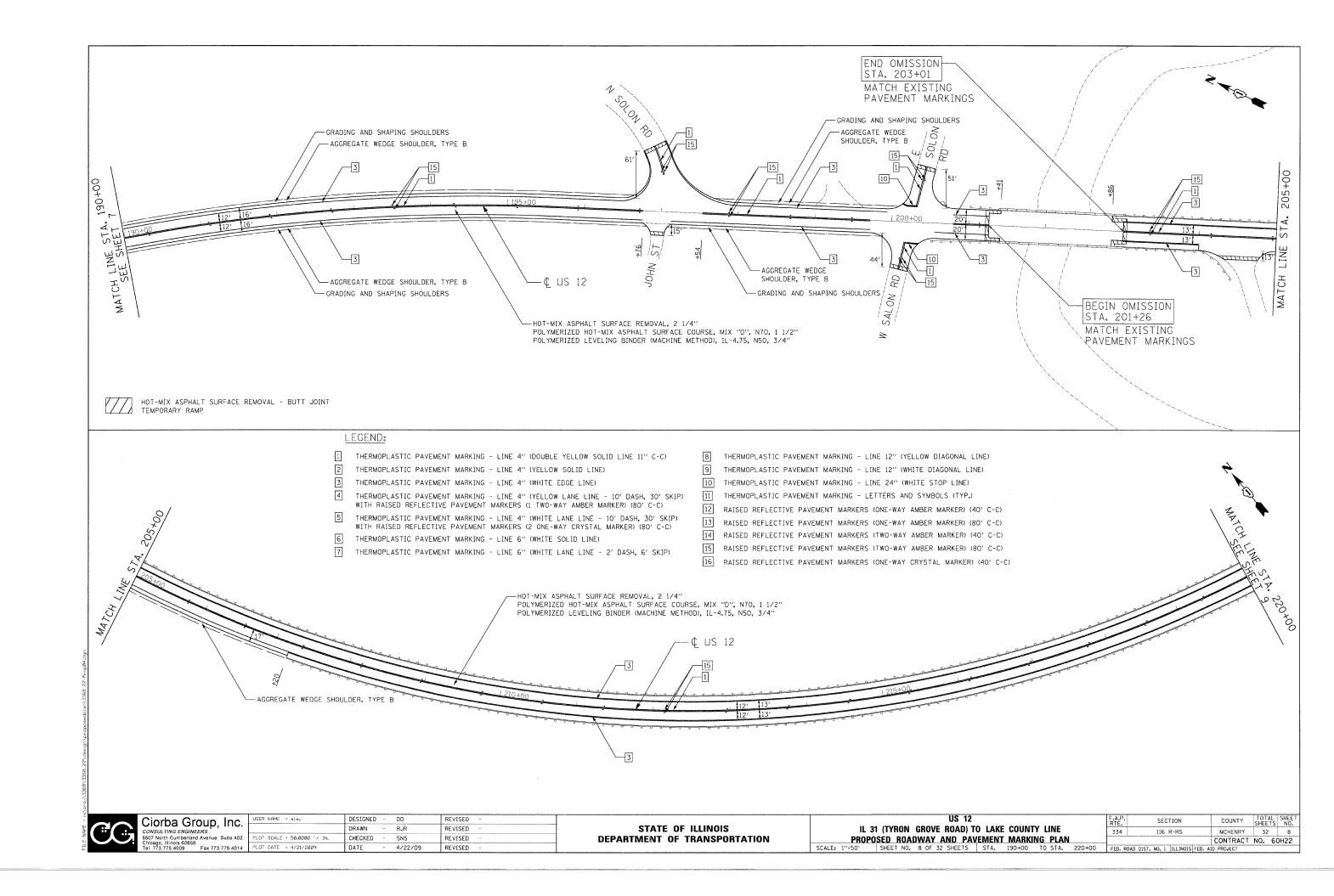
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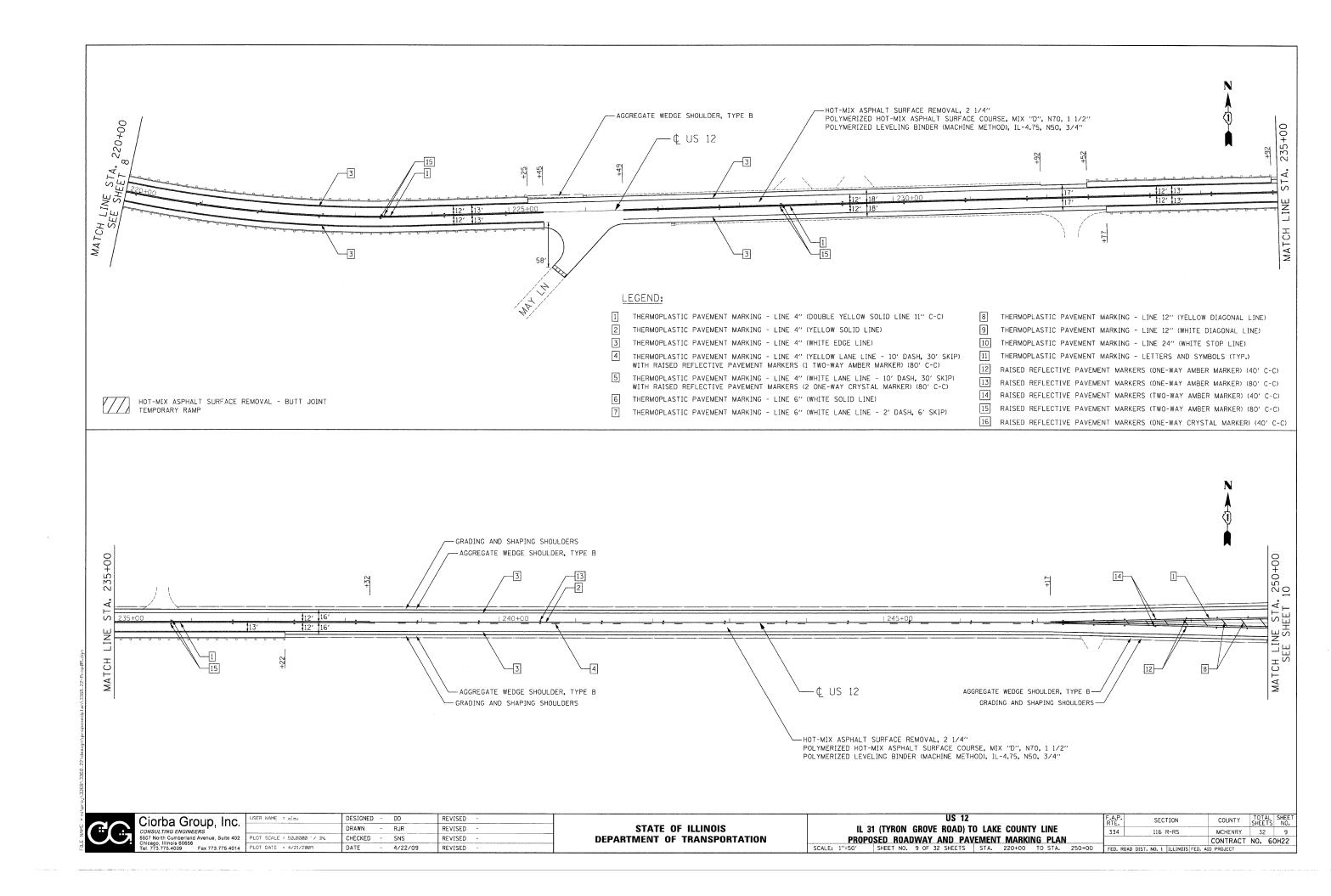
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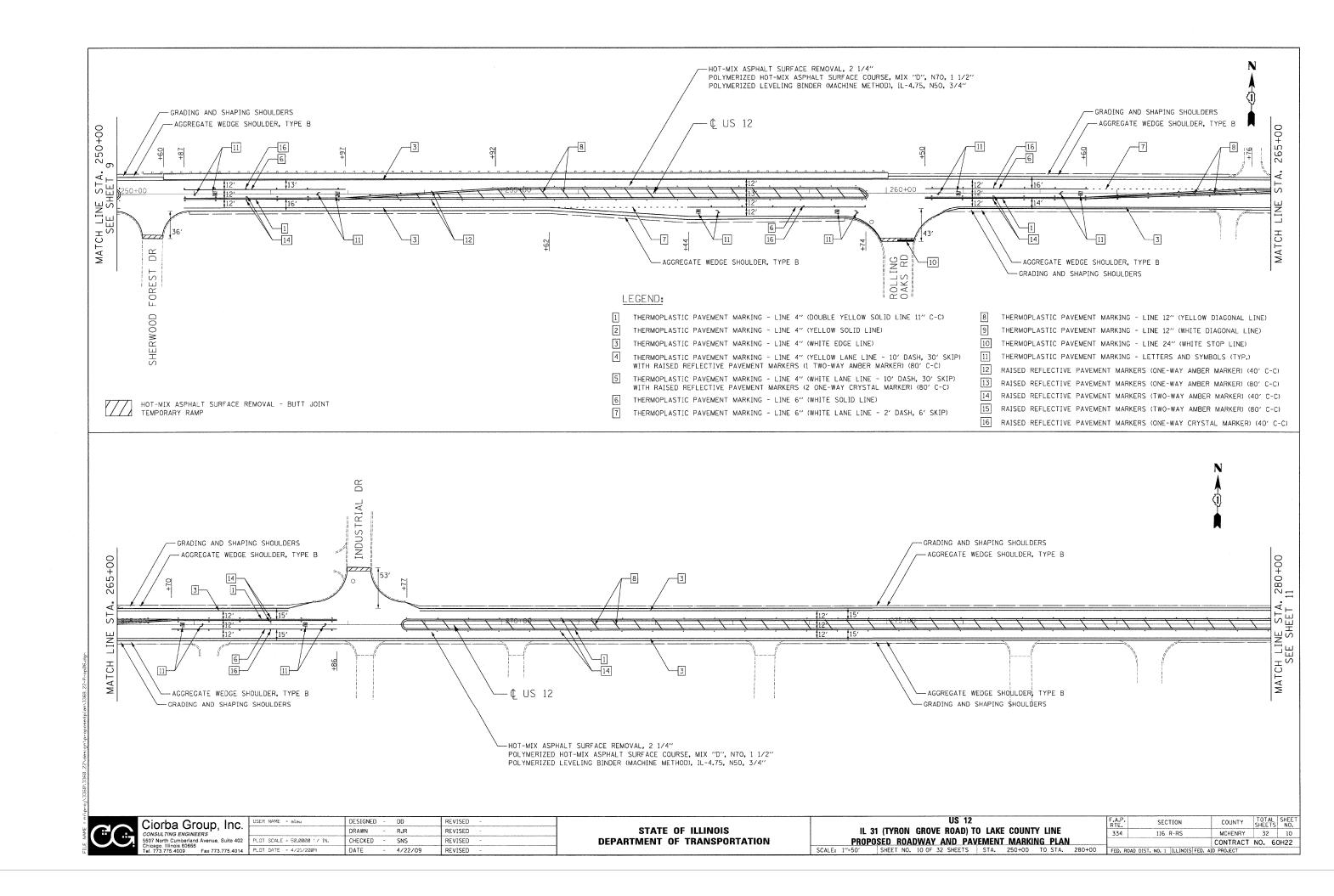
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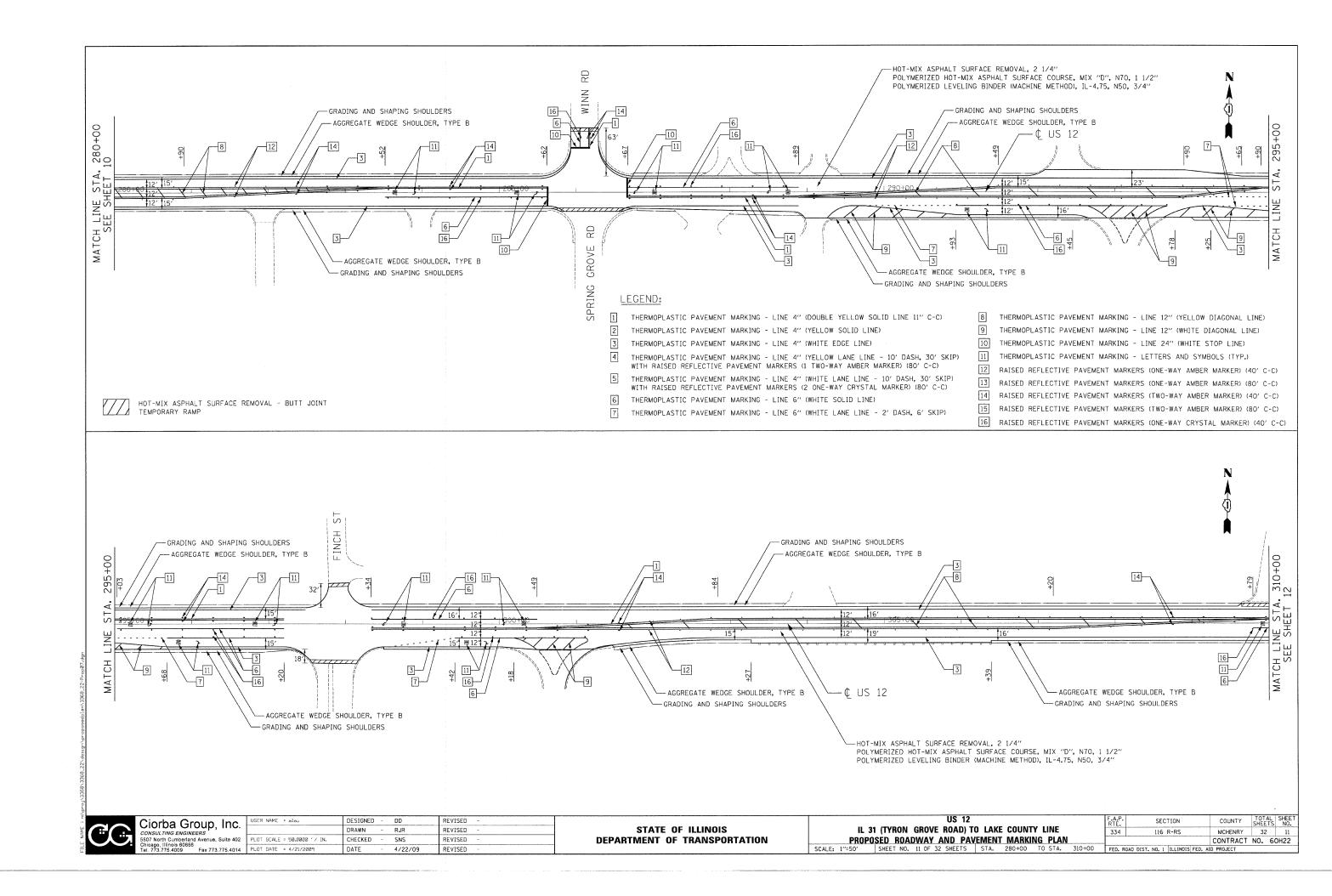
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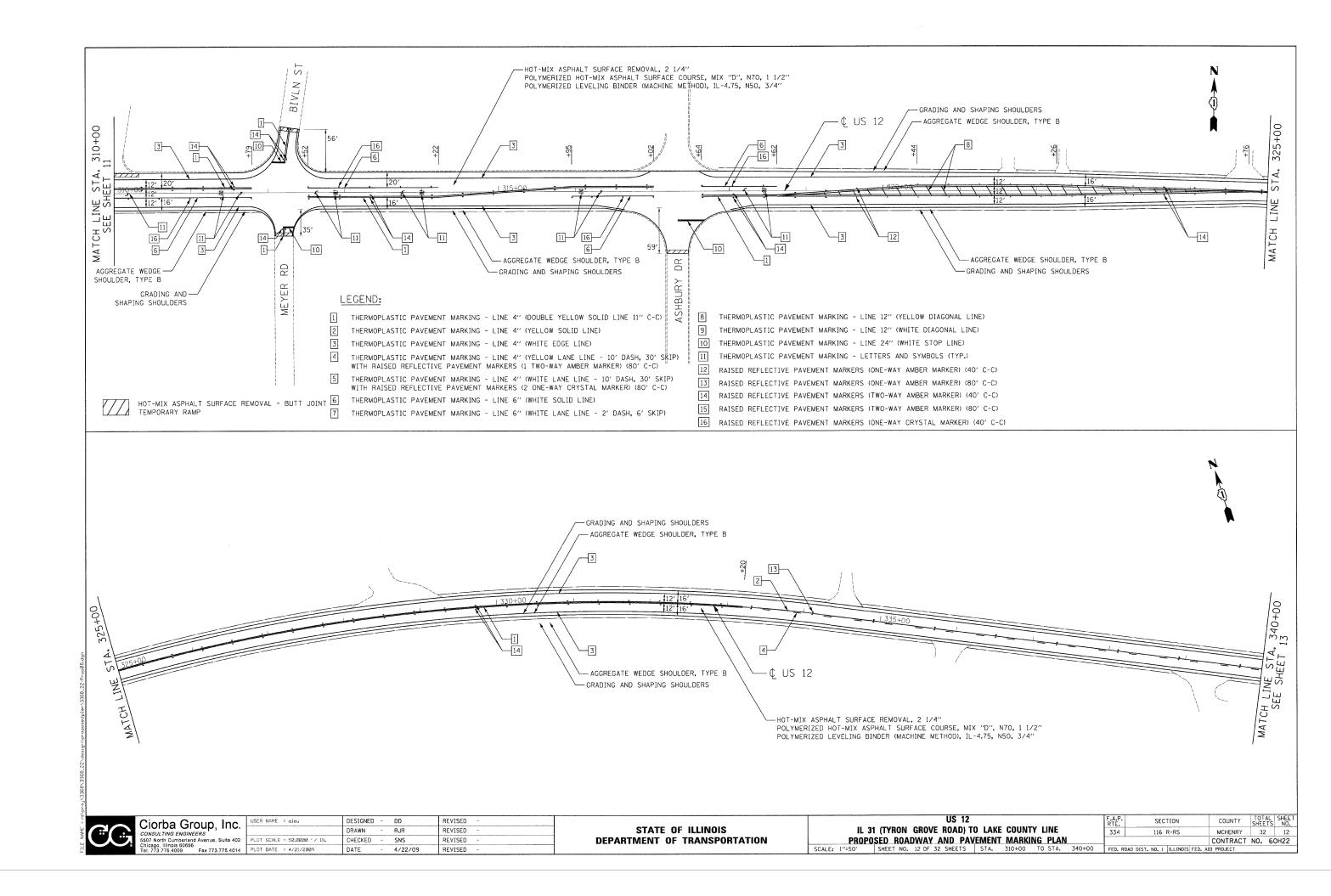


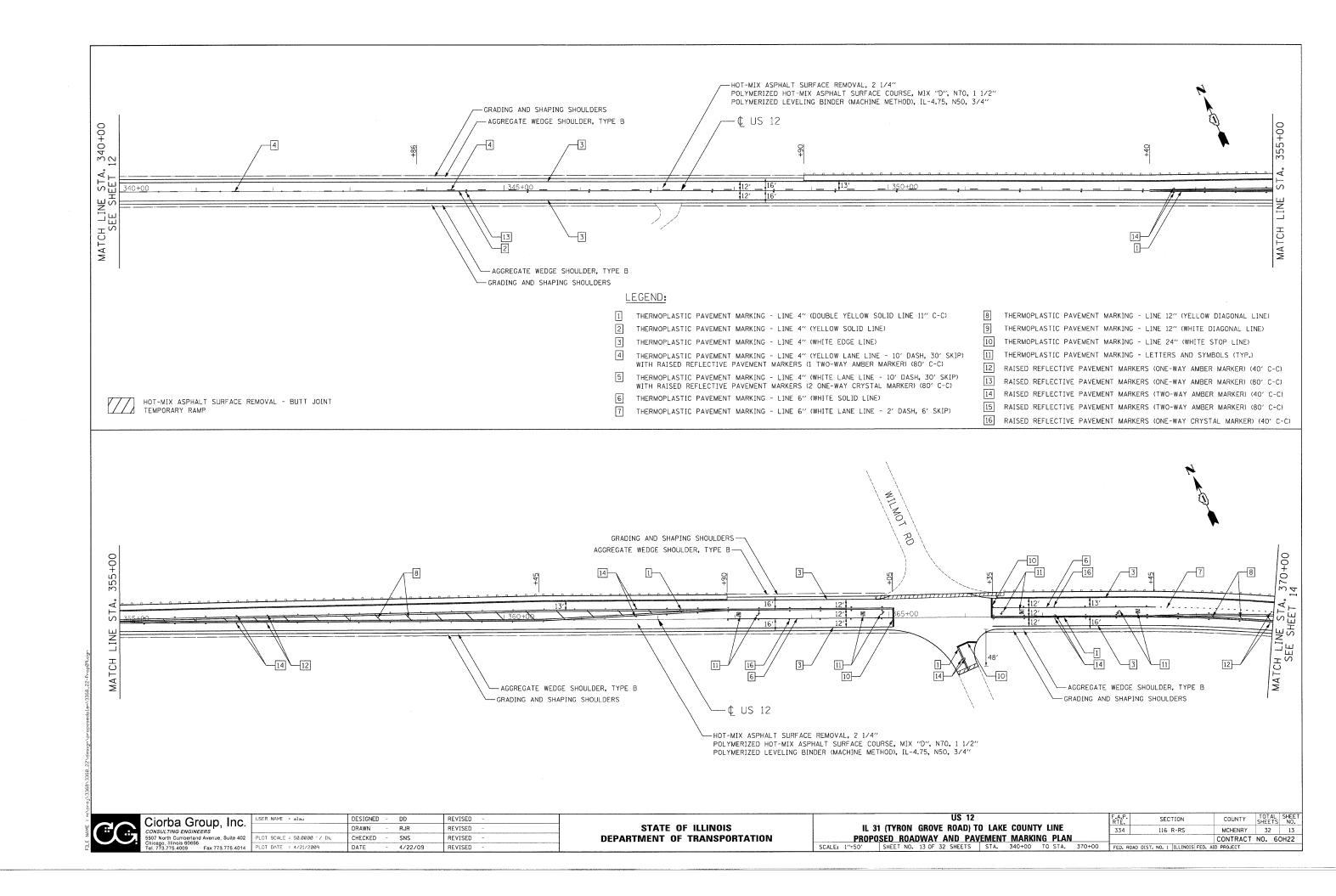


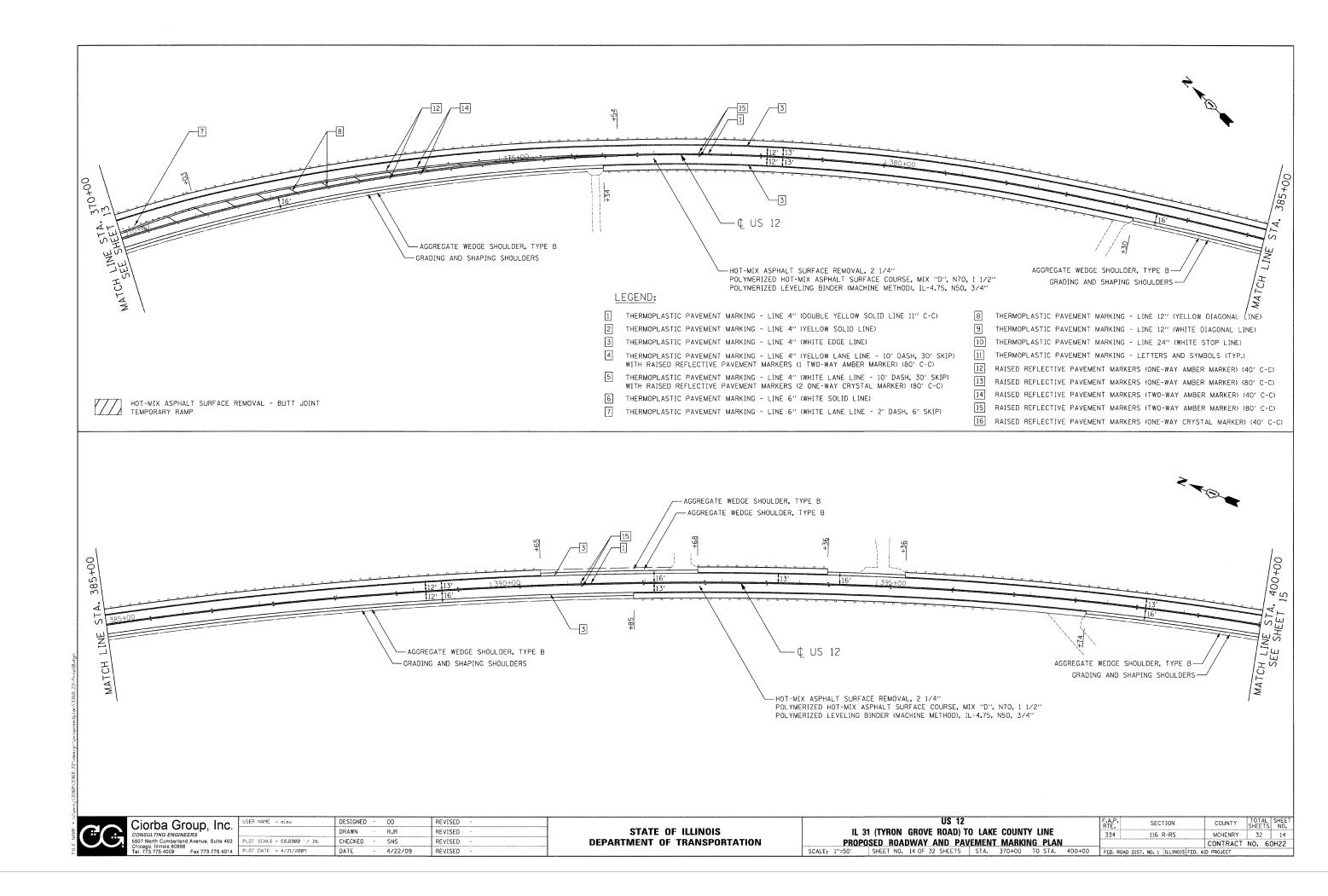


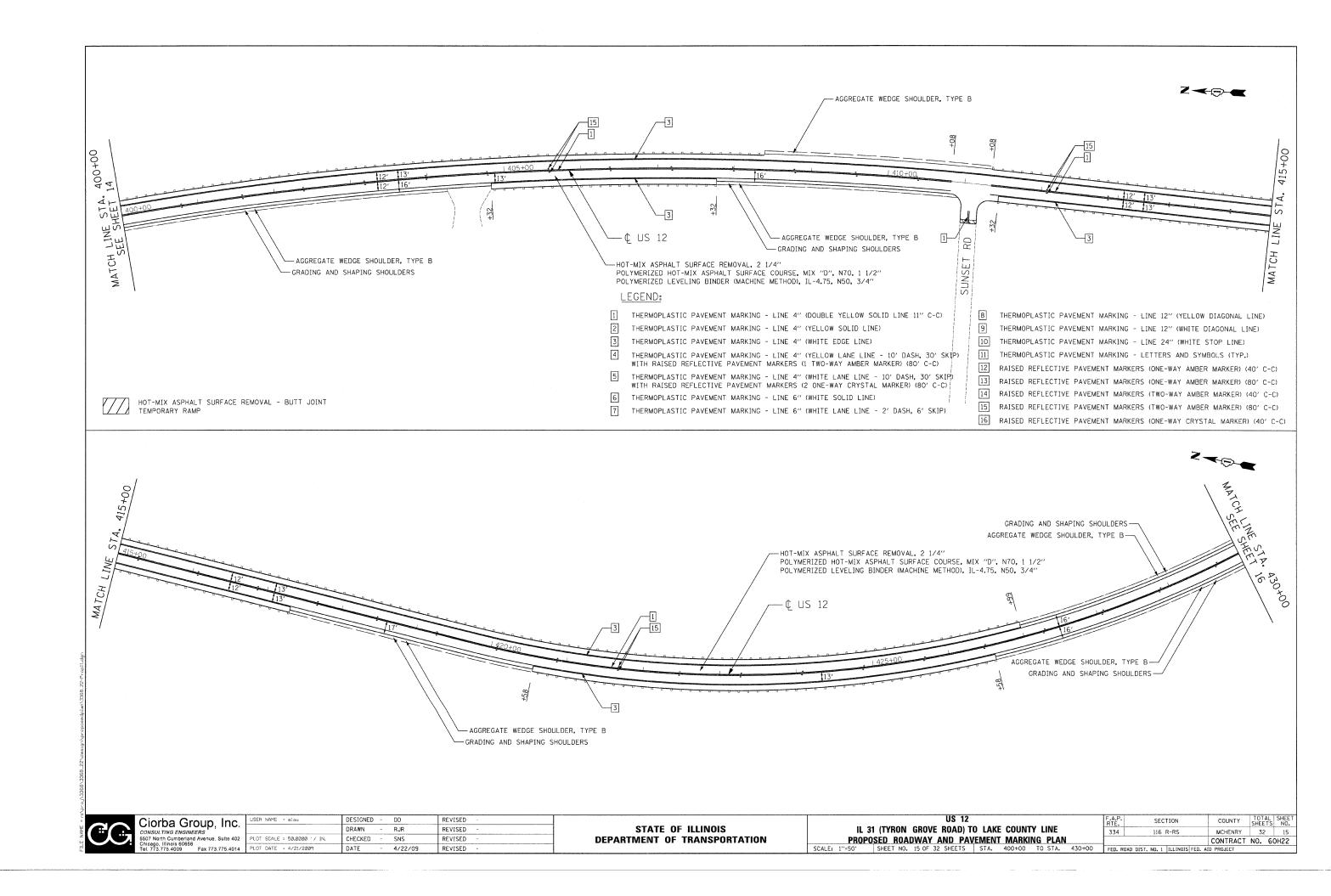


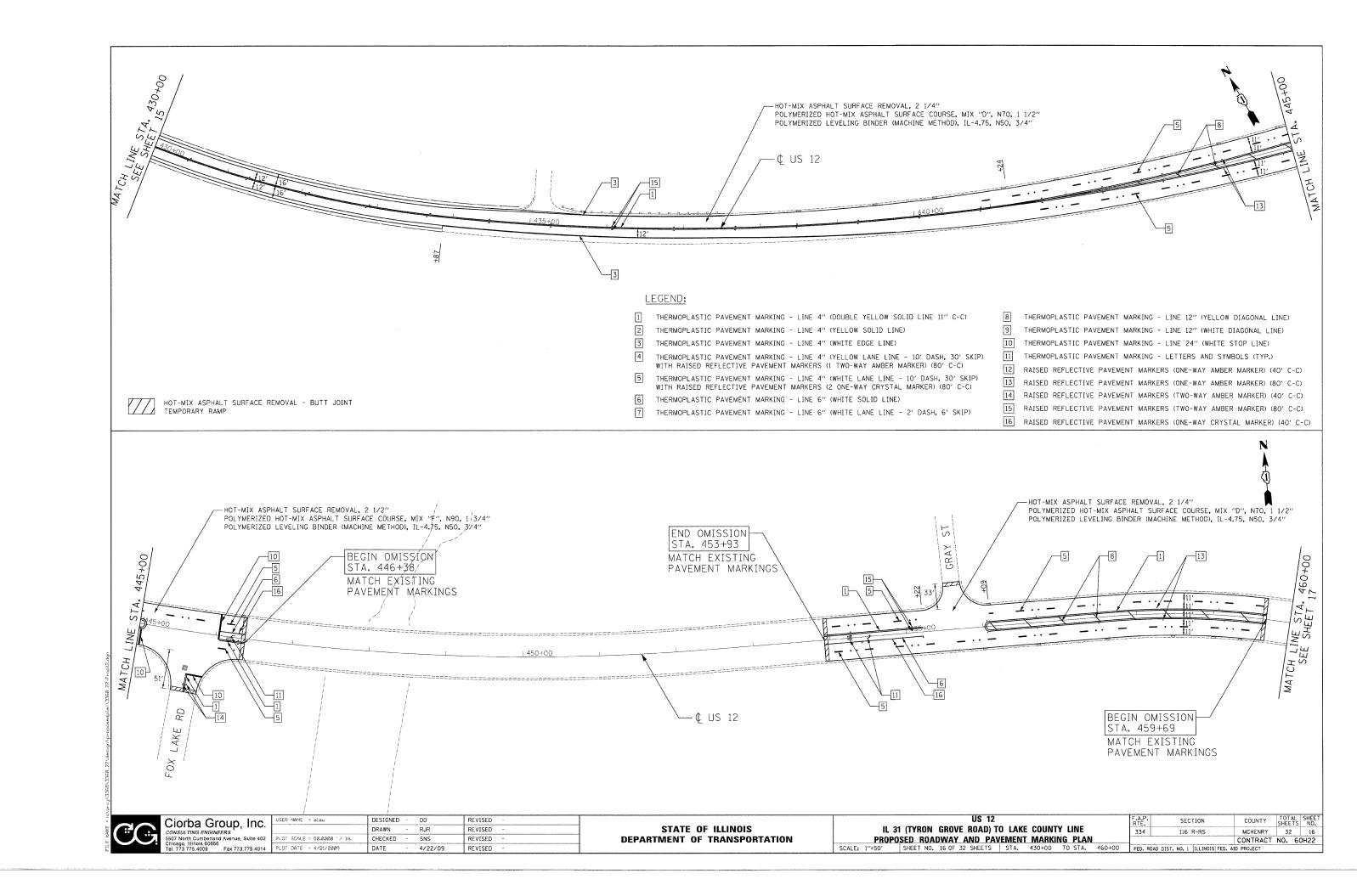


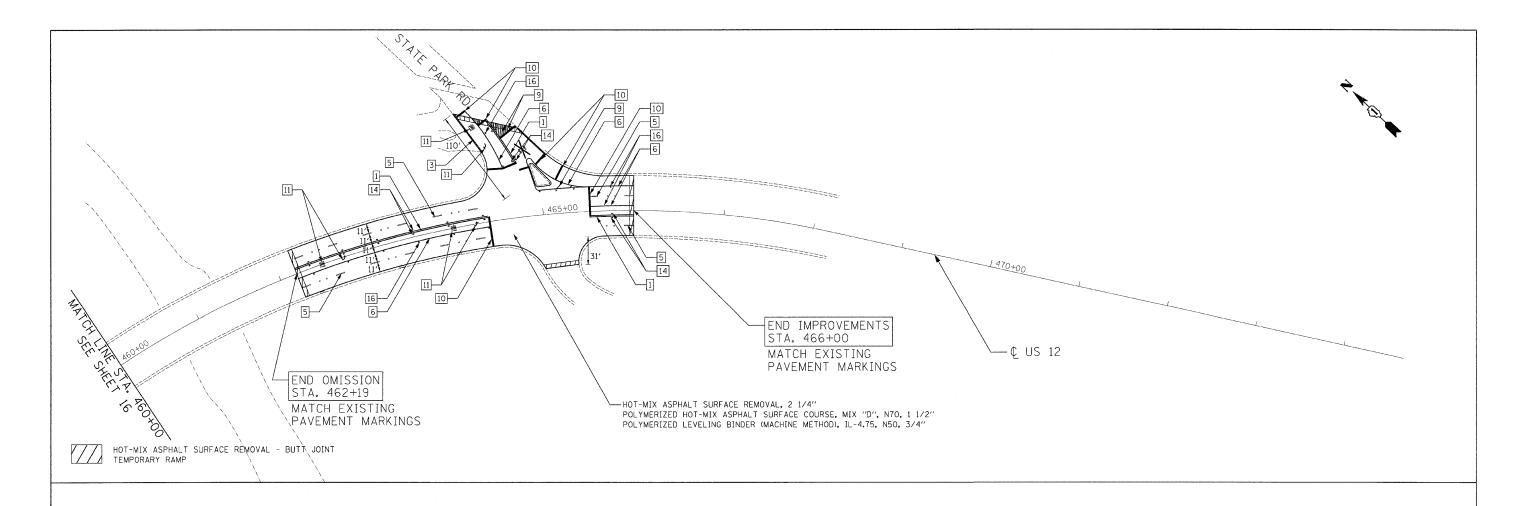












LEGEND:

- THERMOPLASTIC PAVEMENT MARKING LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (YELLOW SOLID LINE)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (WHITE EDGE LINE)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (YELLOW LANE LINE 10' DASH, 30' SKIP)
 WITH RAISED REFLECTIVE PAVEMENT MARKERS (1 TWO-WAY AMBER MARKER) (80' C-C)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (WHITE LANE LINE 10' DASH, 30' SKIP)
 WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER) (80' C-C)
- 6 THERMOPLASTIC PAVEMENT MARKING LINE 6" (WHITE SOLID LINE)
- THERMOPLASTIC PAVEMENT MARKING LINE 6" (WHITE LANE LINE 2' DASH, 6' SKIP)
- 8 THERMOPLASTIC PAVEMENT MARKING LINE 12" (YELLOW DIAGONAL LINE)
- 9 THERMOPLASTIC PAVEMENT MARKING LINE 12" (WHITE DIAGONAL LINE)
- 10 THERMOPLASTIC PAVEMENT MARKING LINE 24" (WHITE STOP LINE)
- 11 THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (TYP.)
- 12 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY AMBER MARKER) (40' C-C)
- 13 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY AMBER MARKER) (80' C-C)
- 14 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)
- 15 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (80' C-C)
- 16 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY CRYSTAL MARKER) (40' C-C)

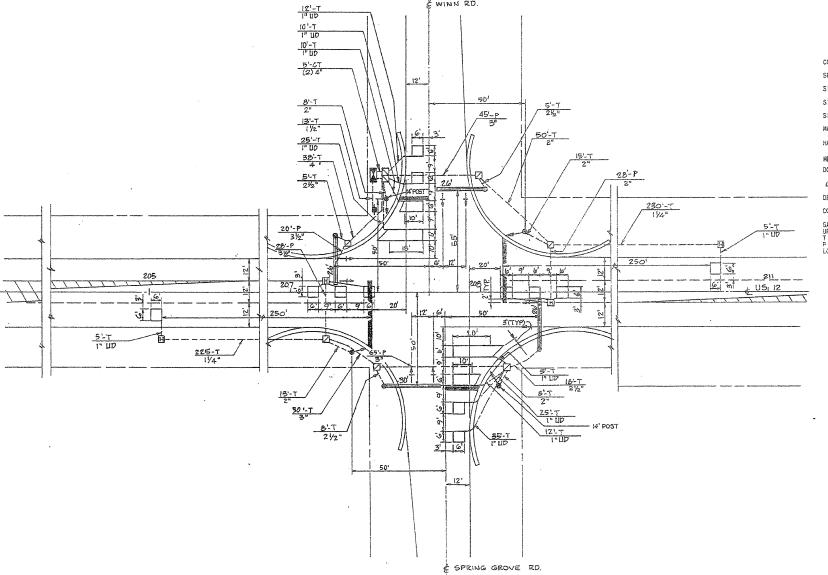
$\alpha \circ$	Ciorba Group, Inc.
	CONSULTING ENGINEERS
N	5507 North Cumberland Avenue, Suite 402
	Chicago, Illinois 60656
	Tel. 773.775.4009 Fax 773.775.4014

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STATI	E OF	: ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

T	US 12	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
l	IL 31 (TYRON GROVE ROAD) TO LAKE COUNTY LINE	334	116 R-RS	MCHENRY	32	17
ļ	PROPOSED ROADWAY AND PAVEMENT MARKING PLAN			CONTRACT	NO. 6	0H22
l	SCALE: 1"=50" SHEET NO. 17 OF 32 SHEETS STA. 460+00 TO STA. 475+00	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		





TRAFFIC SIGNAL LEGEND

	PROPOSED
CONTROLLER	R-45
SERVICE INSTALLATION	\$
SIGNAL HEAD .	
SIGNAL HEAD WITH BACKPLATE	+==
SI GNAL POST	6
MAST ARM ASSEMBLY AND POLE, STEEL	
HANDHOLE	
HEAVY DUTY HANDHOLE	H
DOUBLE HANDHOLE	ZZ
UNIT DUCT IN TRENCH	
DETECTOR LOOP	
COMMON TRENCH	CT
GALVANIZED STEEL CONCUIT UPPER NUMERAL IMPICATES LENGTH T INDICATES CONDUIT IN TRENCH P INDICATES COMDUIT TO BE PUSHED LOWER NUMERAL INDICATES SIZE OF CONDUIT	10'-T

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN PROJECT LIMITS)

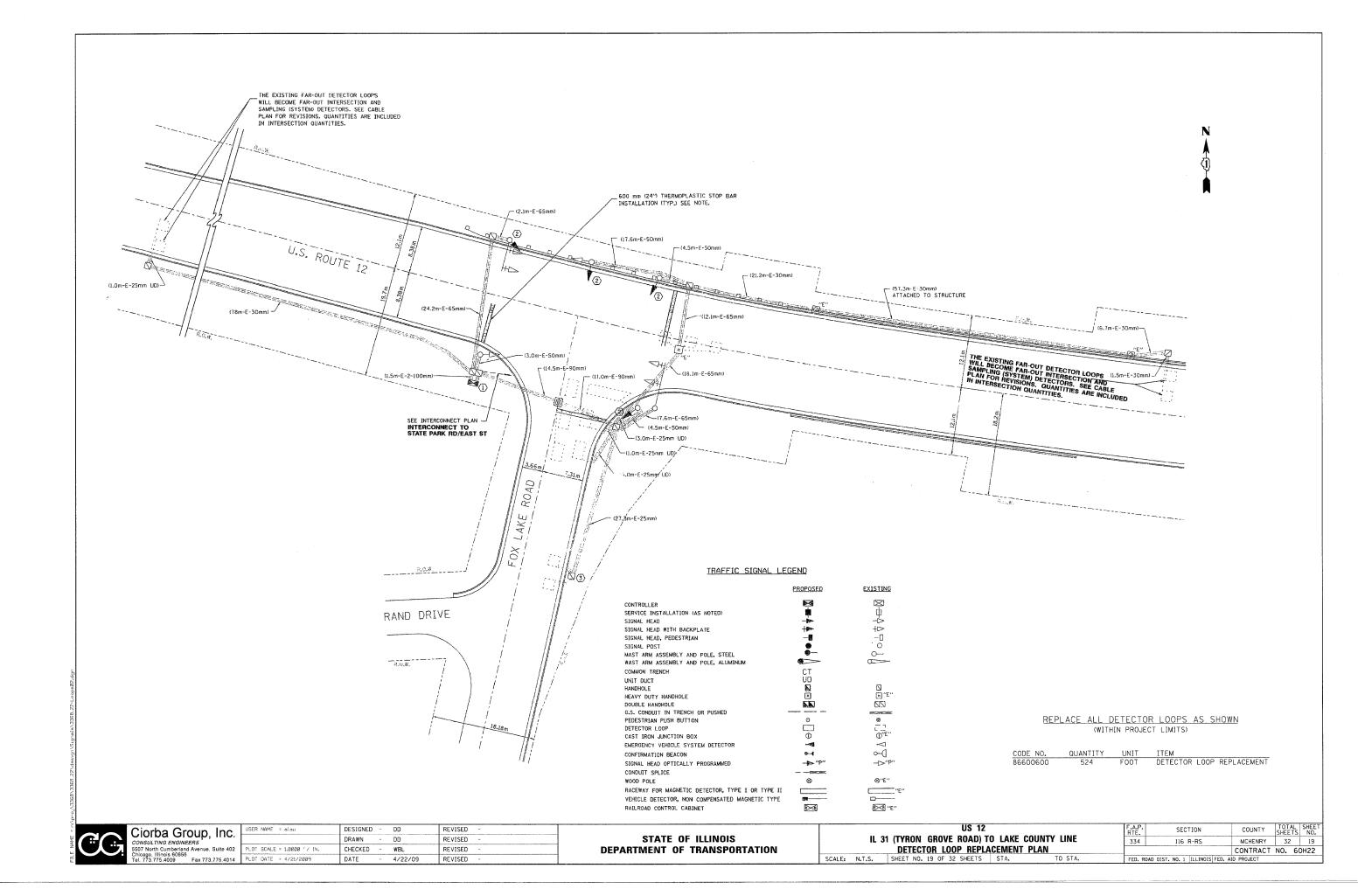
CODE NO.	QUANTITY	UNIT	ITEM		
86600600	418	FOOT	DETECTOR	LOOP	REPLACEMENT

- 1		Ciorba Group, Inc.	ŀ
2	【"人坊	CONSULTING ENGINEERS 5507 North Cumberland Avenue, Suite 402	ŀ
1		Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014	l

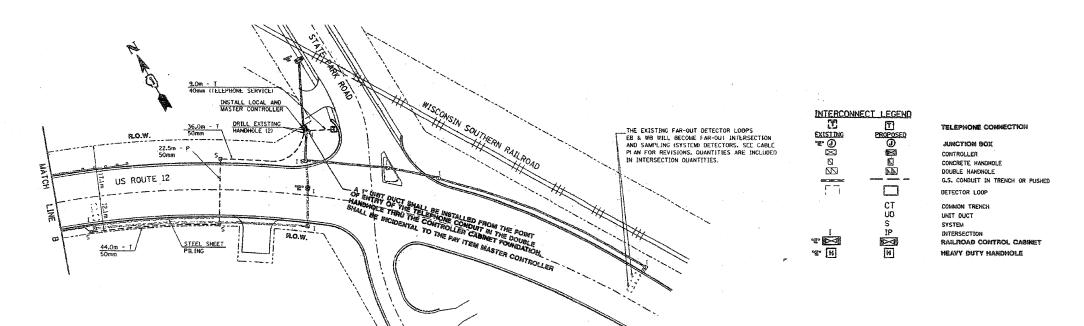
USER NAME = alau	DESIGNED	-	DD	REVISED	-
	DRAWN	-	DD	REVISED	-
PLOT SCALE = 1.0000 '/ IN.	CHECKED	-	WBL	REVISED	-
PLOT DATE = 4/21/2009	DATE	-	4/22/09	REVISED	-

STATE 0	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

_			US 12			F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
		IL 31	I (TYRON GROVE ROAD) TO			334	116 R-RS	MCHENRY	32	18
			DETECTOR LOOP REPLA			CONTRACT	NO. 6	0H22		
	SCALE:	N.T.S.	SHEET NO. 18 OF 32 SHEETS	STA.	TO STA.	FED, RO	AD DIST. NO. 1 ILLINOIS FED. A	D PROJECT		







REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM	
86600600	69	FOOT	DETECTOR LOOP REPLACEMENT	

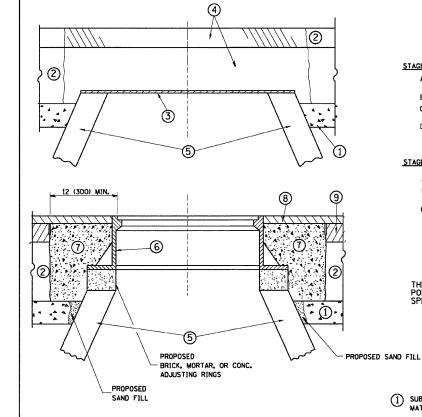
Ciorba Group, Inc.	
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014	ĺ

	USER NAME = alau	DESIGNED	-	DD	REVISED	*	Г
		DRAWN	-	DD	REVISED	-	
	PLOT SCALE = 1.0000 '/ IN.	CHECKED	~	WBL	REVISED	**	
	PLOT DATE = 4/21/2009	DATE	-	4/22/09	REVISED	м	
-		L					L

				US 12		
	IL 3	•		ROAD) TO P REPLAC		COUNTY LINE
		DETECT	IUN LUU	r nerla	PEIRICIA	I FLAN
SCALE:	N.T.S.	SHEET NO.	20 OF 32	SHEETS	STA.	TO STA.

RTE.	· _		SE	СТ	ION			1	CO	UNTY		SHEE	TS	NO.	
334			116	F	≀-RS				MC	HENRY	ŀ	32		20	
									CON	TRACT	1	١0.	6	22HC	
FED.	ROAD	DIST.	NO.	1	ILLIN	1015	FED.	AID	PRO.	ECT					

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**



NOTES:

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

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

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

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

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED,
THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL
NOT BE PAID FOR SEPRATELY 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 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

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

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

LEGEND

- SUB-BASE GRANULAR MATERIAL
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE
- PROPOSED CRUSHED STONE AND
 HMA SURFACE MIX

5 EXISTING STRUCTURE

- 8 PROPOSED HIMA SURFACE COURSE
- 9 PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

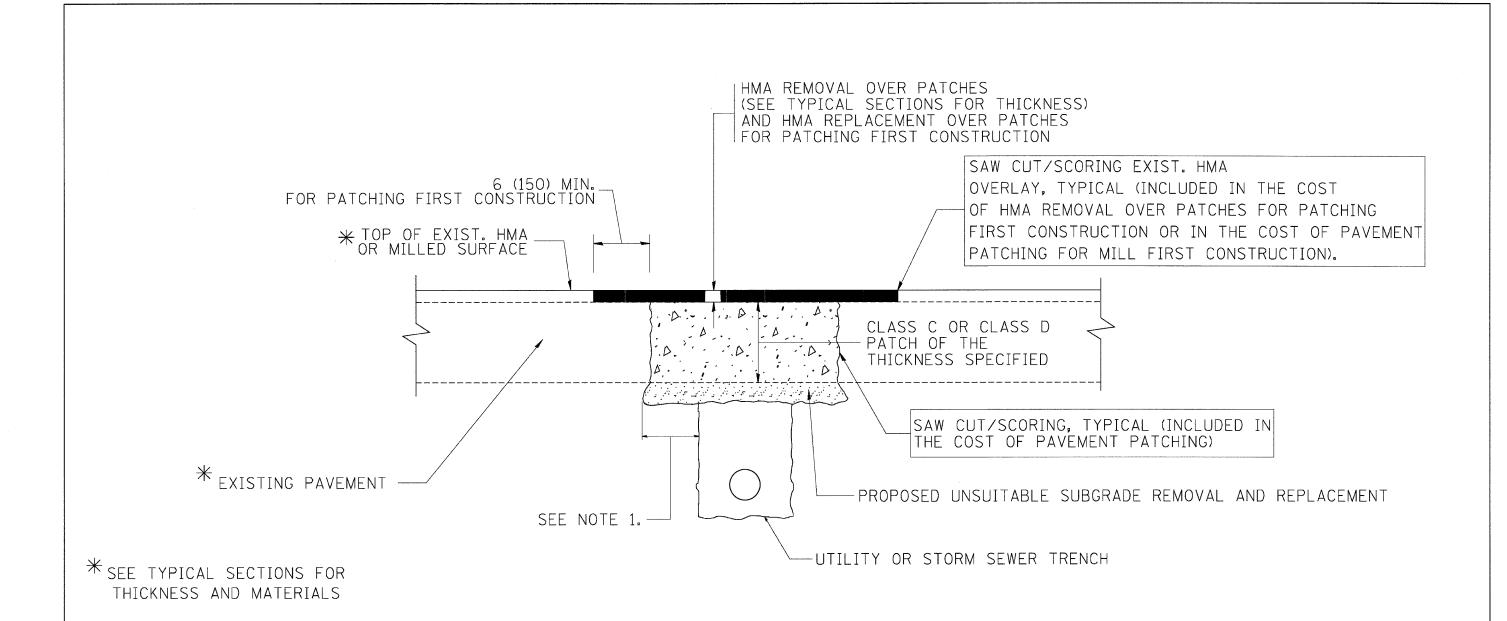
THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

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

FILE NAME =	USER NAME = geglienobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95		DETAILS FOR	F.A.P. SECTION	COUNTY TOTAL SHEET
W:\diststd\22x34\bdØ8.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		334 116 R-RS	MCHENRY 32 21
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04	DEPARTMENT OF TRANSPORTATION	FRAMES AND LIDS ADJUSTMENT WITH MILLING	BD600-03 (BD-8)	CONTRACT NO. 60H22
	PLOT DATE = 1/4/2008	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.	



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".

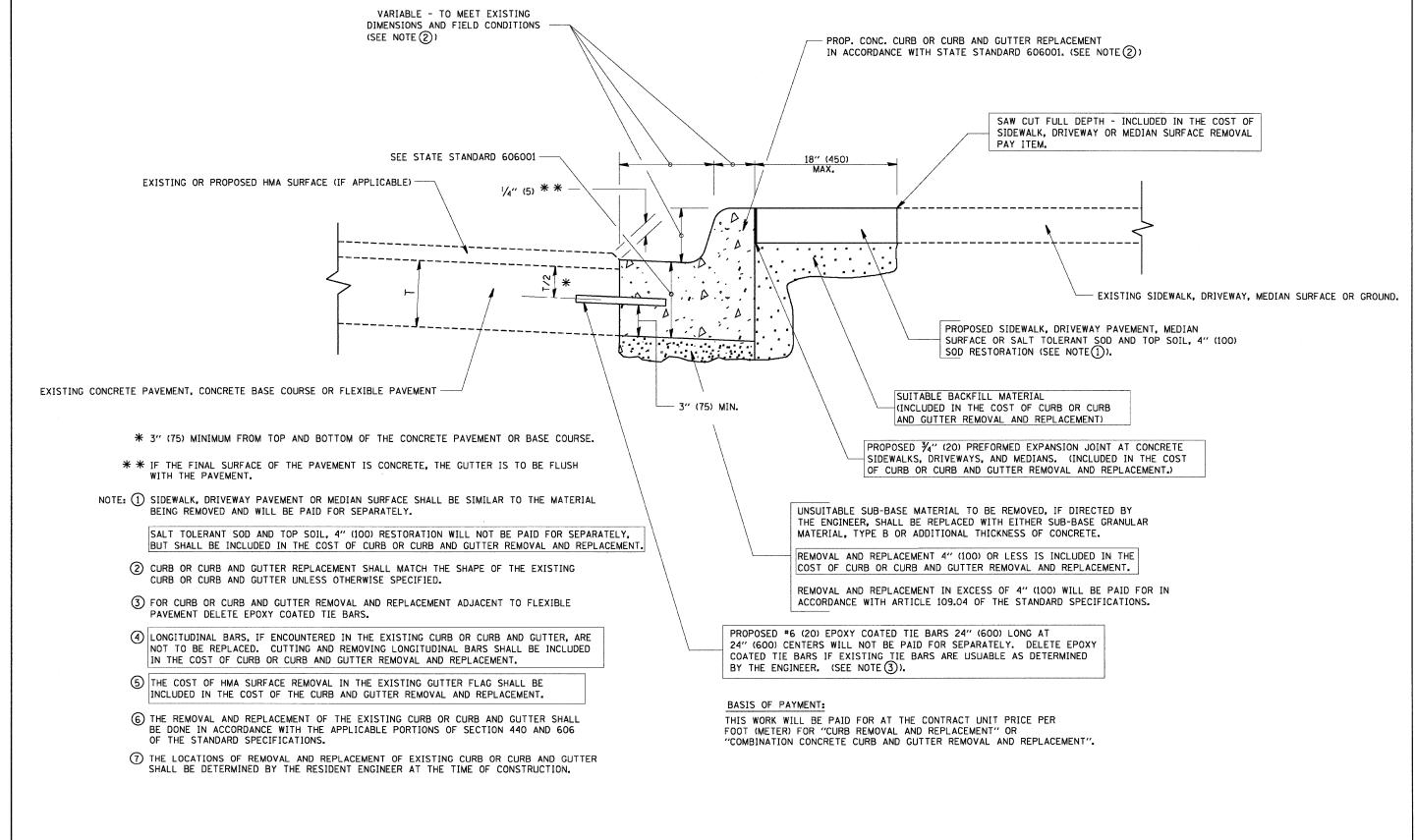
SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 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)

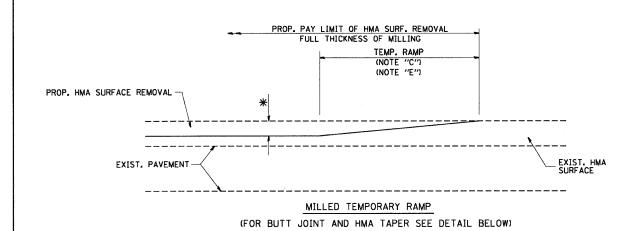
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98		PAVEMENT PATCHING FOR	F.A.P. SECTION	COUNTY TOTAL SHEET SHEET NO.
c:\projects\diststd22x34\bd22.dgn		DRAWN ~	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS	1	334 116 R-RS	MCHENRY 32 22
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	BD400-04 (BD-22)	CONTRACT NO. 60H22
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	AID PROJECT

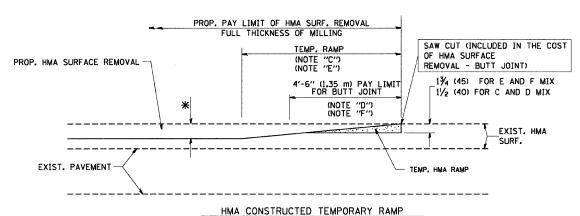


CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

FILE NAME =	USER NAME = gaglianobt	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96		CURB OR CURB AND GUTTER	RTE. SECTION	COUNTY SH	HEETS NO.
W:\diststd\22x34\bd24.dgm		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	REMOVAL AND REPLACEMENT	334 116 R-RS	MCHENRY	32 23
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION	KEMUVAL AND KEPLACEMENT	BD600-06 (BD-24)	CONTRACT N	NO. 60H22
	PLOT DATE = 1/4/2008	DATE - 03-11-94	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	AID PROJECT	

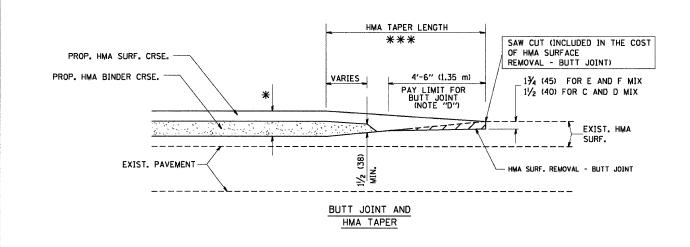


OPTION 1

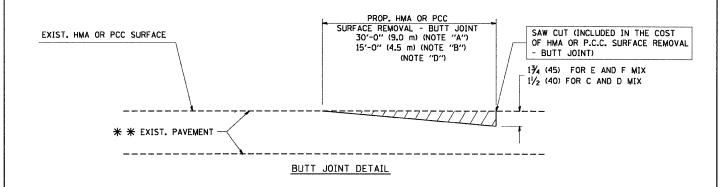


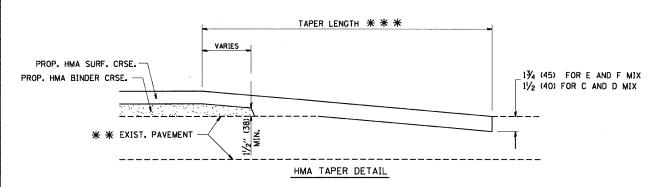
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW) OPTION 2

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.

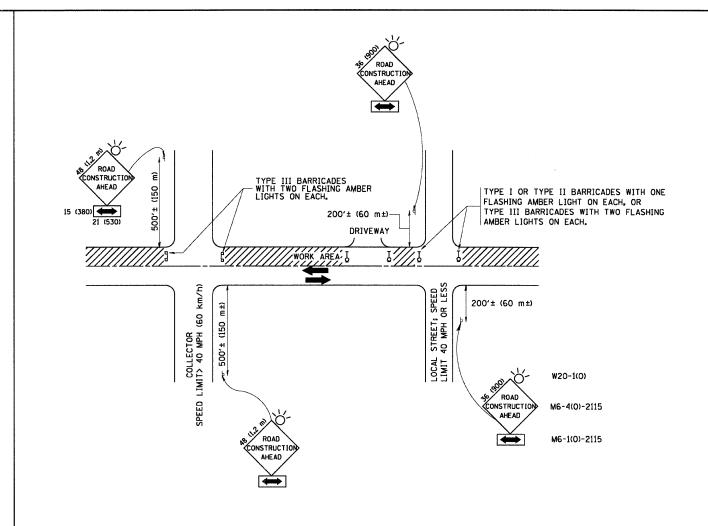
NOTES

- 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'-O" (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 SOUARE YARD (SQUARE METER)
FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

FILE NAME =	USER NAME = geglienobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94			BUTT JOINT AND		F.A.P. SECTION	COUNTY TOTAL SHEET
W:\distatd\22x34\bd32.dgn	w	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		HMA TAPER DETAILS		334 116 R-RS	MCHENRY 32 24
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION				BD400-05 BD32	CONTRACT NO. 60H22
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED	D. AID 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:
- a) one road construction ahead sign 36 x 36 (900x900) With a flasher AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE
- 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 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

SCALE: NONE

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

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

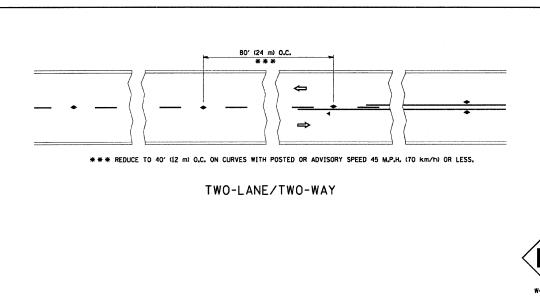
FILE NAME = USER NAME = gaglianobt DESIGNED - LHA REVISED - J. OBERLE 10-18-95 i\diststd\22x34\to10.dqn DRAWN REVISED - A. HOUSEH 03-06-96 CHECKED REVISED - A. HOUSEH 10-15-96 PLOT SCALE = 50.000 '/ IN. PLOT DATE = 1/4/2008 DATE 06~89 REVISED -T. RAMMACHER 01-06-0

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHEET NO. 1 OF 1 SHEETS STA.

TO STA.

SECTION COUNTY 116 R-RS MCHENRY TC-10 CONTRACT NO. 60H22



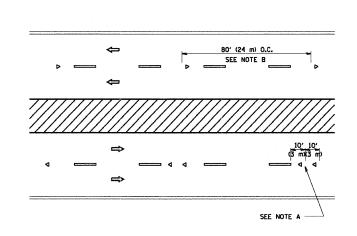
80' (24 m) O.C.

SEE NOTE B

SEE NOTE A

40' (12 m) O.C.

MULTI-LANE/UNDIVIDED



80' (24 m

MULTI-LANE/DIVIDED

GENERAL NOTES

3 0 40' (12 m) O.C.

LANE REDUCTION TRANSITION

- 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

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

SYMBOLS

--- YELLOW STRIPE

80' (24 m) O.C. SEE NOTE B

40' (12 m) O.C.

1 5

SEE NOTE A-

TWO-WAY LEFT TURN

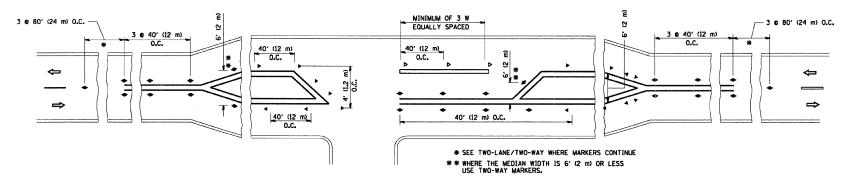
- WHITE STRIPE
- ◆ ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINFS.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.

i_____

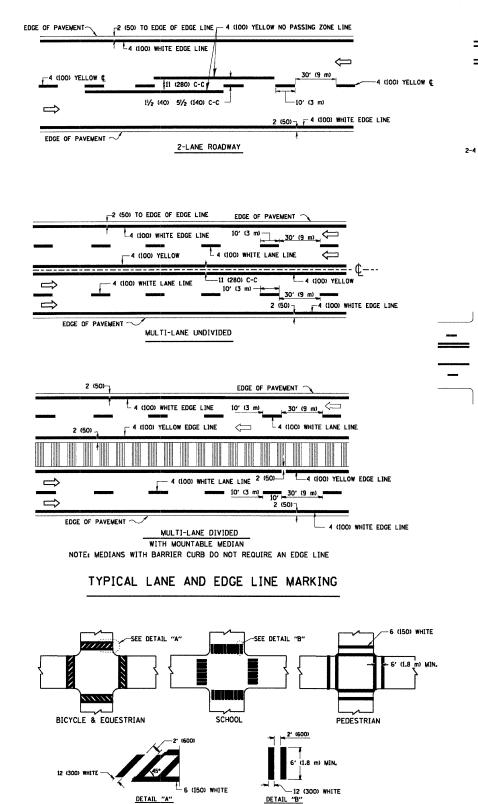
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

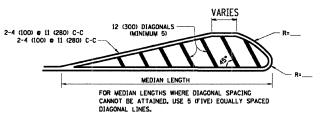
All dimensions are in inches (millimeters) unless otherwise shown.

COUNTY TOTAL SHEETS NO.
MCHENRY 32 26 FILE NAME = USER NAME = gaglianobt DESIGNED -REVISED - T. RAMMACHER 09-19-94 SECTION TYPICAL APPLICATIONS STATE OF ILLINOIS /:\diststd\22x34\tc11.dgn DRAWN REVISED - T. RAMMACHER 03-12-99 116 R-RS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) PLOT SCALE = 50.000 '/ IN. CHECKED REVISED - T. RAMMACHER 01-06-00 **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 60H22 TC-11 CONTR
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT PLOT DATE = 1/4/2008 DATE REVISED SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.



2-4 (100) YELLOW @ 11 (280) C-C-4' (1.2 m) OUTSIDE TO NO DIAGONALS OUTSIDE OF LINES - 2-4 (100) YELLOW • 11 (280) C-C

4' (1.2 m) WIDE MEDIANS ONLY

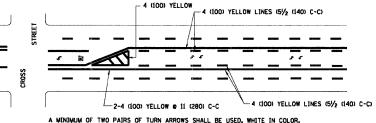


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))

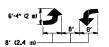
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))

150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

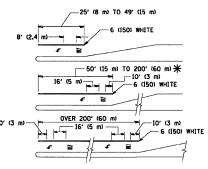


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

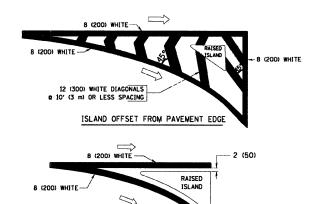


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.6 SQ. FT. (1.5 m²) $\parallel \parallel \parallel$ AREA = 20.8 SQ. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

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 2 4 (100)	SOL ID SOL ID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 1280) 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 0 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 51/2 (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 e 6 (150) 12 (300) e 45° 12 (300) e 90°	SOL ID SOL ID SOL ID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) 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 CROSSWAK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 e 4 (100) WITH 12 (300) DIAGONALS e 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: "R"=3.6 50. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) e 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

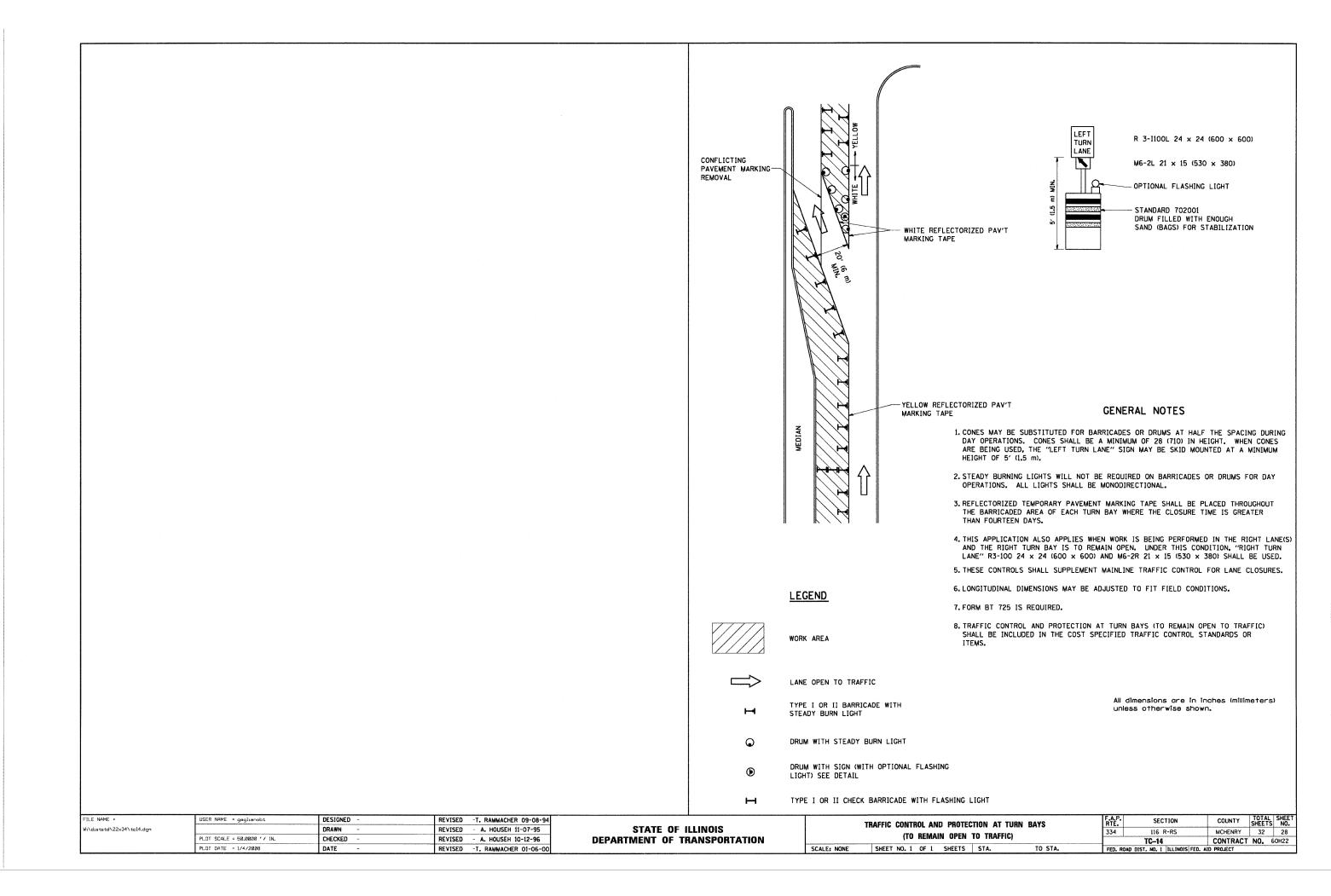
FILE NAME =	USER NAME = gaglianobt	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
Wi\diststd\22x34\to13.dgn		DRAWN -	REVISED -A. HOUSEH 10-09-96
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -A. HOUSEH 10-17-96
	PLOT DATE = 1/4/2008	DATE - 03-19-90	REVISED - T RAMMACHER 01-06-00

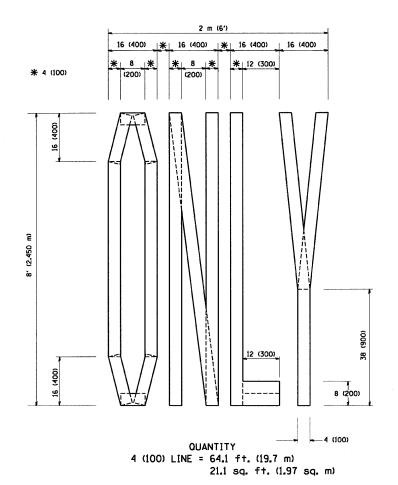
TYPICAL CROSSWALK MARKING

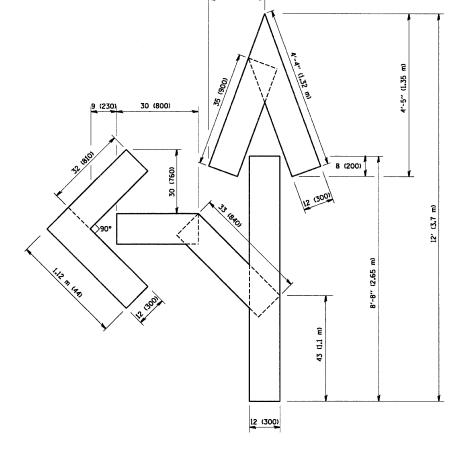
DETAIL "A"

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.		
TYDICAL DAVEMENT MADVINGS	TYPICAL PAVEMENT MARKINGS				32	27	
TITICAL PAVENIENT INANANIOS					NO. 6	50H22	
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

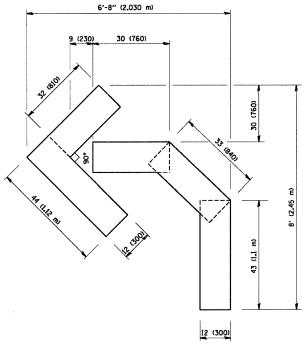






1'-8" (500)

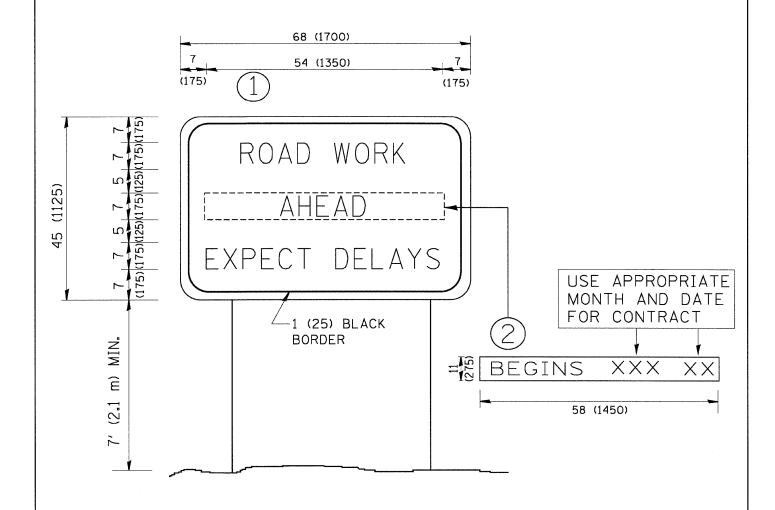
OUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)



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

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

F	LE NAME =	USER NAME = geglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.P. SECTION	COUNTY TOTAL SHEET NO.
١	\diststd\22x34\tc16.dgn	// 0.77	DRAWN -	REVISED -T. RAMMACHER 11-04-97		FOR TRAFFIC STAGING	334 116 R-RS	MCHENRY 32 29
- 1		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FOR INAFFIC STABING	TC-16	CONTRACT NO. 60H22
L		PLOT DATE = 1/4/2008	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. AL	ID PROJECT



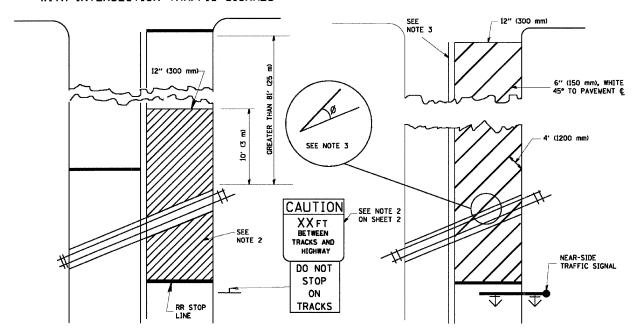
NOTES:

- 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.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
W:\diststd\22x34\to22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		INFORMATION SIGN		334	116 R-RS	MCHENRY	32 30
1	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFURIMATION SIGN			TC-22	CONTRACT	T NO. 60H22
	PLOT DATE = 1/4/2008	DATE ~	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD DIS	ST. NO. 1 ILLINOIS FED.	AID PROJECT	

WITH INTERSECTION TRAFFIC SIGNALS

WITH NEAR-SIDE TRAFFIC SIGNALS

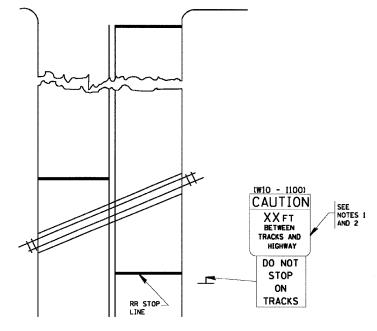


NOTES

- PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS
 WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- 2. WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED, THE PAVEMENT MARKINGS EXTENDS TO THE INTERSECTION.
- 3. WHERE THE ANGLE BETWEEN THE DIAGONAL STRIPES AND THE TRACK (\$) WOULD BE LESS THAN APPROXIMATELY 20°. THE STRIPES SHOULD BE SLOPED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

WITH NONSIGNALIZED INTERSECTION

81' (25 m) OR LESS TO CLOSEST RAIL



NOTE :

- 1. DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET (1.8 m) FROM THE RAIL CLOSEST TO THE INTERSECTION TO THE STOP LINE OR CROSSWALK, WHICHEVER IS CLOSEST, ROUNDED DOWN TO THE NEAREST 5 FEET (1.5 m), WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE THE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
- 2. THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6-FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAYEMENT MARKINGS EXTEND TO THE INTERSECTION.

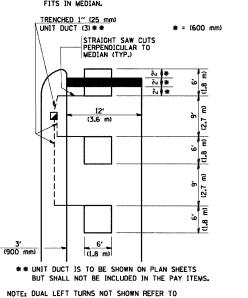
FILE NAME = USER NAM	ME = gaglianobt	DESIGNED -	REVISED - 01-01-07		TVDI	CAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING	F.A.P.	SECTION	COUNTY	TOTAL SHEE	. T
W:\distatd\22x34\to23.dgn		DRAWN ~	REVISED -	STATE OF ILLINOIS	1178		334	116 R-RS	MCHENRY	32 31	П
PLOT SCA	ALE = 50.000 '/ IN.	CHECKED ~	REVISED -	DEPARTMENT OF TRANSPORTATION		TREATMENT FOR RAILROAD CROSSINGS		TC-23	CONTRACT	NO. 60H22	
PLOT DAT	TE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	OAD DIST. NO. 1 ILLINOIS FE	ED. AID PROJECT		

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. 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 I'' (25 mm) UNIT DUCT-TRENCHED TO E/P ** * * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS. ARTERIAL - VOLUME DENSITY ("FAR

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.

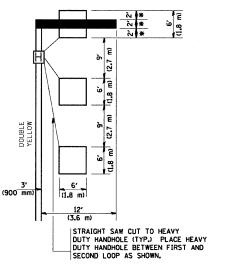


PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

* = (600 mm)

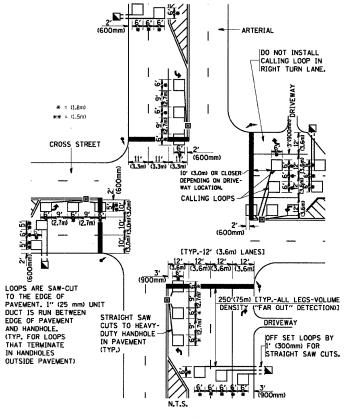


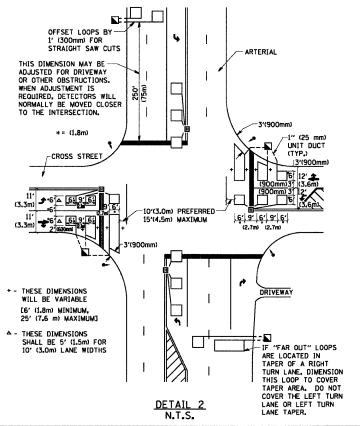
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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 1.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 SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -	
	PLOT DATE = 1/4/2008	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	334	116 R-RS	MCHENRY	32	32
DETAILS FOR RUADWAY RESURFACING		TS-07	CONTRACT	NO. 6	OH22
SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				