06-10-2016 LETTING ITEM 022

STATE OF ILLINOIS

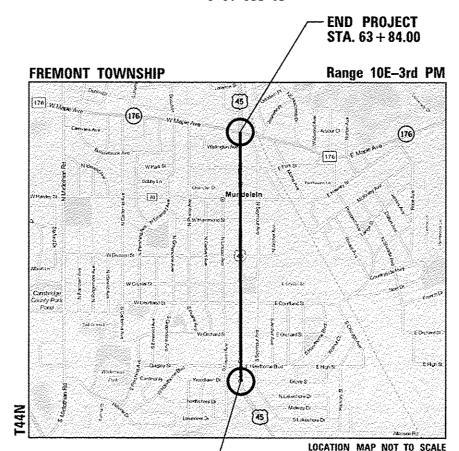
**DEPARTMENT OF TRANSPORTATION** 

D-91-058-15

# PROPOSED HIGHWAY PLANS

FAP 344: US ROUTE 45 (LAKE STREET)
SECTION (45&45X)RS-1
IL ROUTE 176 (MAPLE STREET) TO WOODLAWN DRIVE
RESURFACING (3P) AND PEDESTRIAN RAMPS
LAKE COUNTY

C-91-058-15



BEGIN PROJECT -STA. 6 + 81.00

GROSS LENGTH = 5703 FT. = 1.08 MILE NET LENGTH = 5703 FT. = 1.08 MILE 3115/16

COLLINS ENGINEERS, INC. RYAN GALL NO. 062-064397 EXPIRES 11-30-2017 STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 120 16

REGIONAL ENGINEER

ENGINEER OF DESIGN AND ENVIRONMENT

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ENGINEER OF DESIGN AND ENVIRONMENT

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LOCATION OF SECTION INDICATED THUS: -

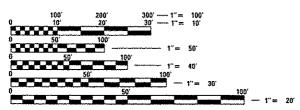
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

DESIGN DESIGNATION

FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT 20,500 (2013) SPEED LIMIT 30 MPH

IMPROVEMENT LOCATED IN THE VILLAGE OF MUNDELEIN



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

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

PROJECT ENGINEER: MR. J. ALAIN MIDY, P.E. (847) 221–3056 PROJECT MANAGER: MR. ISSAM RAYYAN, P.E. (847) 705–4178

CONTRACT NO. 62A07

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# INDEX OF SHEETS

TITLE SHEET

2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3-7	SUMMARY OF QUANTITIES
8-9	TYPICAL SECTIONS

10-12 ROADWAY AND PAVEMENT MARKING PLANS

13-16 DETECTOR LOOP REPLACEMENT DETAILS

17 DETAILS FOR FRAME AND LIDS ADJUSTMENT WITH MILLING (BD-8)

18 PAVEMENT PATCHING FOR HOT-MIX ASPHALT SURFACED PAVEMENT (80-22)

19 CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)

20 BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS (BD-32)

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

22 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)

23 DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)

TYPICAL PAVEMENT MARKINGS

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC (TC-14)

25 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)

26 ARTERIAL ROAD INFORMATION SIGN (TC-22)

27 DRIVEWAY ENTRANCE SIGNING (TC-26)

28 DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

# **HIGHWAY STANDARDS**

24

000001 -06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001 - 06	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424011 - 02	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424021 - 03	DEPRESSED CORNER FOR SIDEWALKS
442201 - 03	CLASS C AND D PATCHES
604001-04	FRAME AND LIDS TYPE !
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006- <i>0</i> 5	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011- 04	OFF ROAD MOVING DPERATIONS. 2L, 2W, DAY ONLY
701301- 04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311- 03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701427 - 04	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS <= 40 MPH
701501 - 06	URBAN. LANE CLOSURE, 2L, 2W. UNDIVIDED
701606 - IO	URBAN SINCLE LANE CLOSURE, MULTILANE. 2W WITH MOUNTABLE MEDIAN
701701 - 10	URBAN LANE CLOSURE MULTILANE INTERSECTION
701801~ 06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901 - 05	TRAFFIC CONTROL DEVICES

# **GENERAL NOTES**

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

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

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

ALL REFERENCES IN THE HICHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS, AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED ON THE FLAN.

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

UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED.

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

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 REESTABLISHED 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

DRAINAGE AND UTILITY ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REPLACEMENT WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

LIMITS OF PROPOSED CURB RAMP RECONSTRUCTION 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.

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

THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD ENGINEER, WALTER CZARNY AT (773) 685-4342 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

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

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

THE CONTRACTOR SHALL CAREFULLY REMOVE. STORE, AND REUSE BRICK PAVERS WHERE APPLICABLE. ANY EXTRA BRICK PAVERS ARE TO BE SALVAGED AND DELIVERED TO VILLAGE OF MUNDELEIN AT 300 PLAZA GIRCLE, MUNDELEIN, IL 60060. THIS WORK SHALL BE INCLUDED IN THE COST OF REMOVE AND REINSTALL BRICK PAVERS.

SCALE:

# **ADA RAMP NOTES**

PRIOR TO PLACING CONCRETE FOR DEPRESSED CURBS, RAMPS, OR SIDEWALKS THE CONTRACTOR SHALL VERIEY THAT LAYOUT OR DESIGN COMPLIES WITH THE REQUIREMENTS OF THE APPLICABLE HIGHWAY STANDARDS.

THE MAXIMUM ALLOWABLE RAMP RUNNING SLOPE IS 1:14, MEASURED AT ANY PORTION OF THE RAMP. THE MAXIMUM ALLOWABLE RAMP CROSS SLOPE IS 1:64, MEASURED AT ANY PORTION OF THE RAMP. IF POSSIBLE, A MORE GRADUAL SLOPE SHALL BE USED.

THE MAXIMUM ALLOWABLE RAMP LANDING SLOPE IS 1:64, MEASURED AT ANY LOCATION AND IN ANY DIRECTION ON THE LANDING. THE RAMP LANDING WIDTH SHALL MATCH THE FULL WIDTH OF THE RAMP FOR A MINIMUM UNOBSTRUCTED DEPTH OF 4'-0". RAMP LANDINGS SHALL BE PROVIDED AT THE TOP AND/OR BOTTOM OF RAMPS WHERE TURNING IS REQUIRED.

RAMP SIDE FLARES SHALL BE INSTALLED AT ANY LOCATION WHERE THE SURFACE ADJACENT TO THE RAMP SURFACE IS INTENDED FOR PEDESTRIAN USE. TRIPPING HAZARDS, INCLUDING STEPS, DROP-OFFS, OR CURBS SHALL NOT BE LOCATED WITHIN THE LIMITS OF THE SIDEWALK, RAMP SIDE FLARES ARE NOT REQUIRED WHERE THE SURFACE ADJACENT TO THE RAMP SURFACE IS LANDSCAPED OR IS OCCUPIED BY A BARRIER THAT BLOCKS PEDESTRIAN ACCESS. EXCEPTIONS TO THIS RULE MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

UTILITIES, SUCH AS LIGHT POLES, TRAFFIC POLES AND HYDRANTS, MAY BE LOCATED IN THE FLARE OF THE RAMP BUT ARE NOT ALLOWED ON THE RAMP SURFACE OR LANDING AREAS, EXISTING UTILITY STRUCTURE LIDS MAY REMAIN WITHIN THE FLARE OR ON THE SURFACE OF THE RAMP AS LONG AS NO VERTICAL LEVEL DIFFERENCES BETWEEN SURFACES ARE GREATER THAN 1/4".

ALTERATIONS SHALL NOT DECREASE THE ACCESSIBILITY TO EXISTING FACILITIES, SIDEWALKS LEADING TO EXISTING FACILITIES, OR DOOR OR GATE ACCESS POINTS TO FACILITIES. THE ELEVATION AT THE EXISTING PROPERTY LINE OR FACILITY ACCESS POINT SHALL BE MAINTAINED AT A MINIMUM. ANY ALTERATIONS ADJACENT TO OR AFFECTING A FACILITY ACCESS POINT SHALL RESULT IN IMPROVED ACCESS OR AT A MINIMUM A REPLICATION OF EXISTING CONDITIONS, INCLUDING SIDEWALK SLOPES AND SURFACE CONDITIONS. FACILITIES INCLUDE, BUT ARE NOT LIMITED TO PRIVATE BUSINESSES, PUBLIC BUILDINGS, RESIDENCES, BUS STOPS, PUBLIC BENCHES, PAY PHONES, AND PARKING METERS.

THE MINIMUM CROSSWALK WIDTH IS 6'-O". CROSSWALKS SHALL BE LOCATED AS SHOWN IN THE PLAN SHEETS DEPENDING ON THE TYPE OF CURB RAMP USED. BEYOND THE CURB FACE AT THE BASE OF CURB RAMPS, A CLEAR SPACE OF 4'-O" BY 4'-O" MINIMUM SHALL BE PROVIDED WITHIN THE STRIPES OF THE CROSSWALK (WHERE PROVIDED).

COLLINS ENGINEERS 2

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US ROUTE 45 (LAKE STREET) INDEX OF SHEETS, LIST OF STATE STANDARDS,						SECTION	COUNTY TOTAL SHEE		
						(45&45X)RS-1	LAKE	28	2
		AND G	ENERAL NOTES				CONTRACT	NO. 62	A07
	SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

100% STATE

					ROADWAY
	CODE			TOTAL	0005
	NO.	ITEM	UNIT	QUANTITY	URBAN
	20200100	EARTH EXCAVATION	CUYD	170	170
*	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQYD	37	37
*	25200110	SODDING, SALT TOLERANT	SQ YD	325	325
		·			~=-···
*	25200200	SUPPLEMENTAL WATERING	UNIT	3	3
	31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	944	944
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	28044	28044
	<u></u>				
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TÓN	6.3	6,3
	40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1704	1704
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	.SQ.YD	390	390
	40603565	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70	TON	4085	4085
	40004000		00.45		40.40
	42001300	PROTECTIVE COAT	SQYD	1346	1346
	4040000	POSTI AND OFMENT CONODETE CIDENMANCE MICH	60.5	2007	0007
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	8067	8067
	42400800	DETECTABLE WARNINGS	SQ FT	524	524
		DE LOTABLE VANIMANIAGO	30271	J24 	<i>32</i> 4
	44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQYD	41676	41676
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\* - DENOTES SPECIALTY ITEM

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SCALE:

US ROUTE 45 (LAKE STREET) SUMMARY OF QUANTITES					F.A.P. SECTION		SHEETS	SHEET NO.
					(45&45X)RS-1	LAKE	28	3
					CONTRACT		A07	
SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED. A	D PROJECT		

100% STATE

CODE	.T.T.M	11211-	TOTAL	ROADWAY 0005
NO.	ITEM .	UNIT	QUANTITY	URBAN
44000600	SIDEWALK REMOVAL	SQ FT	8247	8247
44201773	CLASS D PATCHES, TYPE I, 11 INCH	SQ YD	80	80
44201777	CLASS D PATCHES, TYPE II, 11 INCH	SQ YD	60	60
44201781	CLASS D PATCHES, TYPE III, 11 INCH	SQYD	80	80
44201701	CLASS D'EATORIES, TETE III, TE INOCI	3010	00	
44201783	CLASS D PATCHES, TYPE IV, 11 INCH	\$Q YD	1070	1070
44201798	CLASS D PATCHES, TYPE I, 13 INCH	SQ YD	30	30
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQYD	50	50
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQYD	100	100
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	550	550
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	4	4
60250500	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	1	1
				·
60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	3	3
60300405	EDAMES AND SPATES TO BE ADJUSTED	FACIL		
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	14	14
60600605	CONCRETE CURB, TYPE B	FOOT	1334	1334
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\* - DENOTES SPECIALTY ITEM

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<b>ENGINEERS</b>	

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	U	S ROUTE	F.A.P. RTE.	SECTION	и солиту		
		SUMMAR	344	(45&45X)RS-1	LAKE		
	<del></del>						CONTRACT
SCALE:	SHEET	QF	SHEETS STA.	TO STA.		ILLINOIS FED. A	D PROJECT

100%. STATE

	CODE	· ·		TOTAL	ROADWAY 0005
	NO.	ITEM	UNIT	QUANTITY	URBAN
					:
¥	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	250	250
~	00000450	ODECIAL WASTE DI ANO AND DEPODTO	I CLIM		······································
*	66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1
.¥	66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
	67100100	MOBILIZATION	L SUM	1	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
	7040000	TO LOCAL COLUMN DE PROTECTION COLUMN AND ARRANGE	L CLIM		
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	9231	9231
	70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	ŞQ FT	849	849
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	18095	18095
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	4725	4725
	70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	547	547
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\* - DENOTES SPECIALTY ITEM

COLLINS ENGINEERS

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		ROUTE 4		STREET) ANTITES
SCALE:	SHEET	OF	SHEETS	STA.

	F.A.P. RTE.	SECTION	COUNTY	SHEETS	NO.		
	344	(45&45X)R\$-1	LAKE	28	5		
_			CONTRACT	NO. 62	A07		
	JULINOIS FED. AID PROJECT						

100% STATE

	CODE			TOTAL	ROADWAY 0005
	NO.	ITEM	UNIT	QUANTITY	URBAN
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	1540	1540
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	658	658
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	849	849
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	18095	18095
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	4725	4725
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	547	547
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1540	1540
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	658	658
¥	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	721	721
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	12458	12458
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	721	721
					<del></del>
	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	5	5
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	2675	2675
*	89502376	REBUILD EXISTING HANDHOLE	EACH	9	9
14			1		

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PLOT DATE = 3/14/2016	DATE -	2/16/2015	REVISED -	

	US	ROUTE	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.		
	SUMMARY OF QUANTITES					145&45XIRS-1	LAKE	28	6
	γ			CONTRACT	NO. 62	A07			
SCALE:	SHEET	OF	SHEETS STA.	TO STA,		ILLINOIS FED.	ATO PROJECT		

100% STATE ROADWAY CODE TOTAL 0005 NO. ITEM UNIT QUANTITY URBAN X0327611 REMOVE AND REINSTALL BRICK PAVER SQ FT 140 140 X5537800 STORM SEWERS TO BE CLEANED 12" FOOT 1500 1500 X6030310 FRAMES AND LIDS TO BE ADJUSTED (SPECIAL) EACH 52 52 Z0004562 COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT FOOT 1349 1349 Z0018500 DRAINAGE STRUCTURES TO BE CLEANED EACH 12 12 Z0030850 TEMPORARY INFORMATION SIGNING SQ FT 539 539 Z0033700 LONGITUDINAL JOINT SEALANT FOOT 24571 24571 Z0048665 RAILROAD PROTECTIVE LIABILITY INSURANCE L SUM 1 1

\* - DENOTES SPECIALTY ITEM

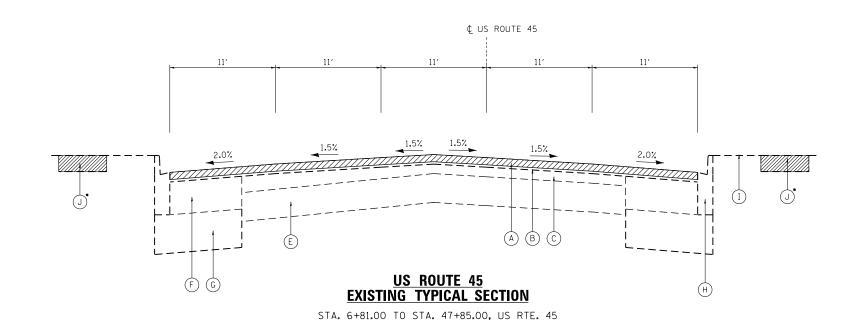
COLLINS ENGINEERS<sup>2</sup>

USER NAME = takeha	DESIGNED	-	RAG	REVISED	<u> </u>
	DRAWN		RAC	REVISED	-
PLOT SCALE = 100,0008 '/ in.	CHECKED	~	MGR	REVISED	-
 PLOT DATE = 3/14/2816	DATE		2/16/2015	REVISED	-

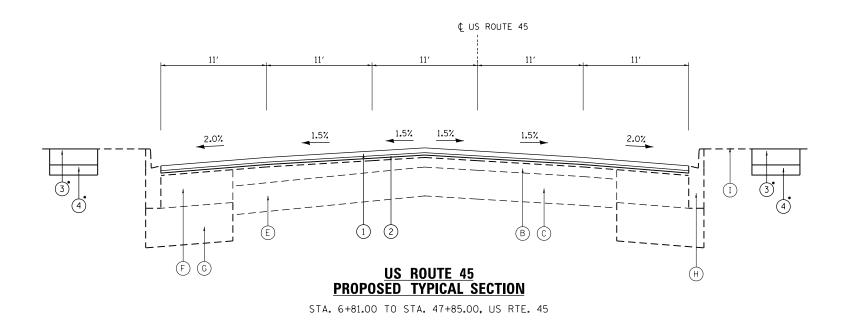
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

US ROUTE 45 (LAKE STREET)		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SUMMARY OF QUANTITES		344	(45&45X)RS-1	LAKE	28	7
SHEET OF SHEETS STA.	TO STA.	<b></b>	ILLINOIS FED.		NO. 62	A07



# THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING



# **EXISTING LEGEND:**

- (A) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 21/2"
- B EXISTING HMA BINDER COURSE, +/- 3/4"
- (C) EXISTING HMA PAVEMENT, 3" & VARIES
- D NOT USED
- (E) EXISTING PCC BASE COURSE, 9"
- F) EXISTING HMA BINDER COURSE, 101/4"
- (G) EXISTING AGGREGATE SUBGRADE, 12"
- (H) EXISTING CURB & GUTTER
- (I) EXISTING GROUND
- (J) EXISTING SIDEWALK



TO BE REMOVED

\* AS DIRECTED BY THE ENGINEER

# PROPOSED LEGEND:

- 1) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70, 13/4"
- PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, ¾"
- 3 PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- 4) PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B, 4"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS MIXTURE TYPE	AIR VOIDS @ NDES	QMP
RESURFACING		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70, (IL 9.5 MM)	4% ⊚ 70 GYR.	QCP
POLYMERIZED LEVELING BINDER (MACHINE METHOD) IL-4.75, N50	3.5% @ 50 GYR.	QCP
PATCHING		
CLASS D PATCHES (HMA BINDER IL-19 MM)	4% <b>©</b> 70 GYR.	QC/QA
OMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP)		

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ YD / IN.

THE "AC TYPE" FOR ALL POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG64-22" UNLESS MODIFIED BY THE DISTRICT ONE SPECIAL PROVISIONS.

FOR USE OF RECYCLED MATERIAL, SEE SPECIAL PROVISIONS.

SHEET

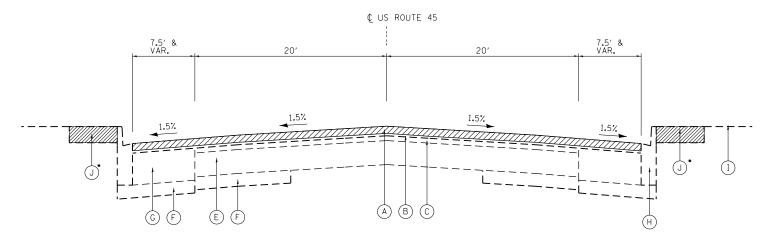
SCALE:

QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

COLLINS	
<b>ENGINEERS</b> <sup>™</sup>	

USER NAME = tshehi	DESIGNED	-	RAG	REVISED -
	DRAWN	-	RAG	REVISED -
PLOT SCALE = 20.0000 '/ in.	CHECKED	-	MGR	REVISED -
PLOT DATE = 3/14/2016	DATE	-	2/16/2015	REVISED -

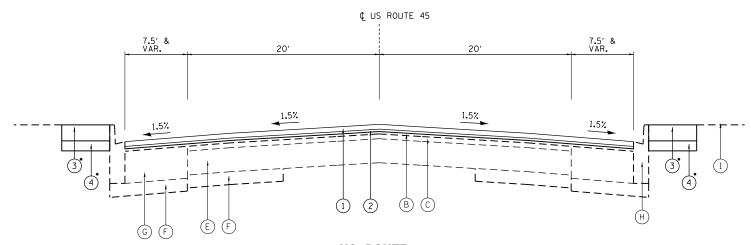
US ROUTE	45 (LAKE	STREE	Τ)	F.A.P. RTE.	SECTION	COUNTY	COUNTY TOTAL SHEETS	
TYPICAL SECTIONS		344	(45&45X)RS-1	LAKE	28	8		
						CONTRACT	NO. 62	A07
ΩF	SHEETS	STA	TO STA		THE THOUGHT FED. A	ID DDO IECT		



# US ROUTE 45 EXISTING TYPICAL SECTION

STA. 47+85.00 TO STA. 63+84.00, US RTE. 45

THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING



# **US ROUTE 45** PROPOSED TYPICAL SECTION

STA. 47+85.00 TO STA. 63+84.00, US RTE. 45

# **EXISTING LEGEND:**

- A) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 21/2"
- EXISTING HMA BINDER COURSE, +/- 3/4"
- EXISTING HMA PAVEMENT, 3" & VARIES
- (D) NOT USED
- EXISTING PCC BASE COURSE
- EXISTING GRANULAR SUBBASE
- EXISTING HMA BASE COURSE
- EXISTING CURB & GUTTER
- EXISTING GROUND
- EXISTING SIDEWALK



TO BE REMOVED

AS DIRECTED BY THE ENGINEER

# PROPOSED LEGEND:

- PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70, 13/4"
- PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B, 4"

TO STA.

COLLINS ENGINEERS

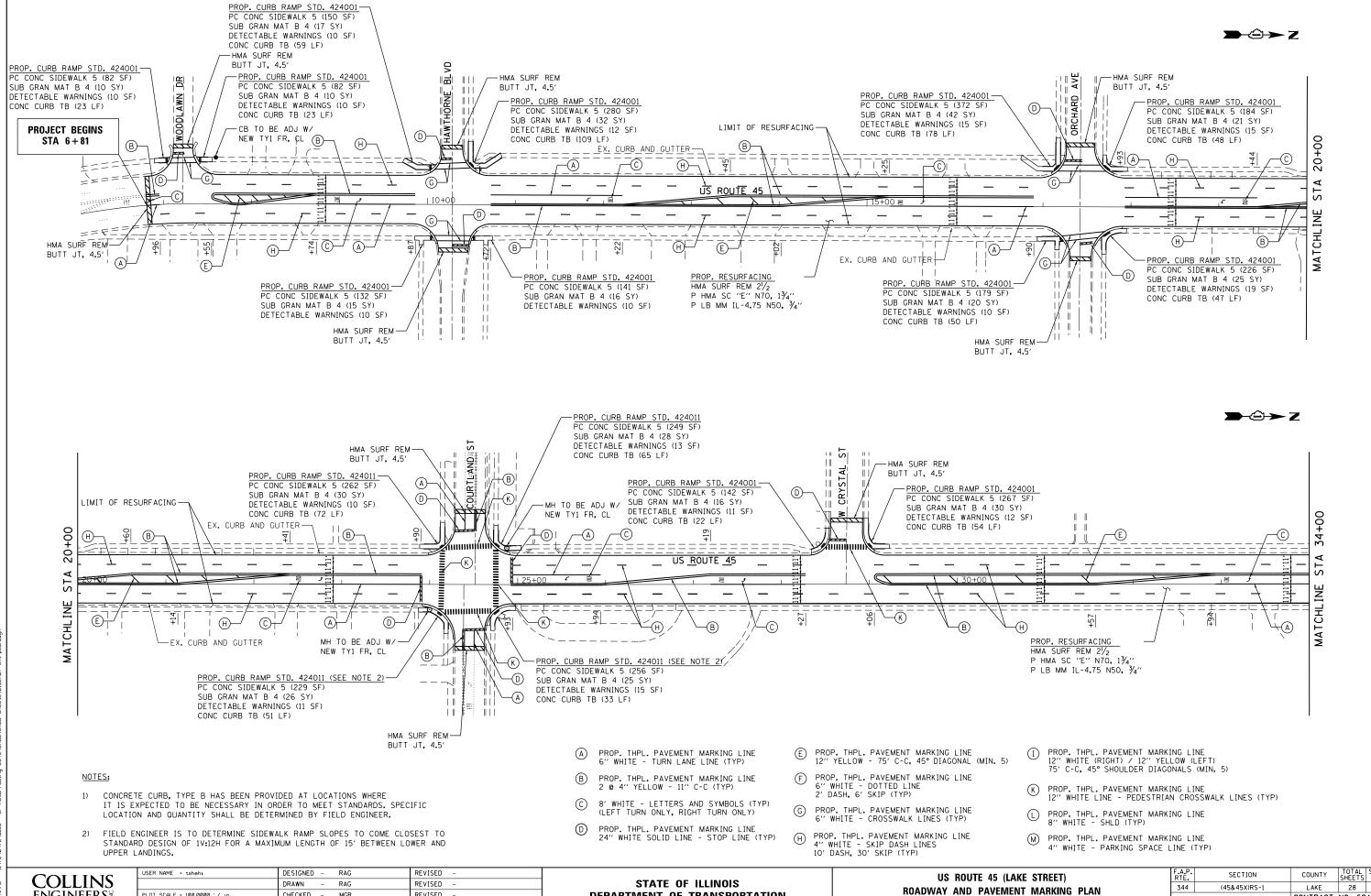
USER NAME = tshehi DESIGNED - RAG REVISED DRAWN -RAG REVISED MGR REVISED PLOT DATE = 3/14/2016 DATE - 2/16/2015 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

US ROUTE 45 (LAKE STREET)
TYPICAL SECTIONS SHEET OF SHEETS STA.

SCALE:

SECTION LAKE 28 9
CONTRACT NO. 62AO7 344 (45&45X)RS-1



**DEPARTMENT OF TRANSPORTATION** 

CONTRACT NO. 62AO7

SHEETS STA.

**ENGINEERS** 

PLOT SCALE = 100.0000 '/ in.

PLOT DATE = 3/14/2016

CHECKED

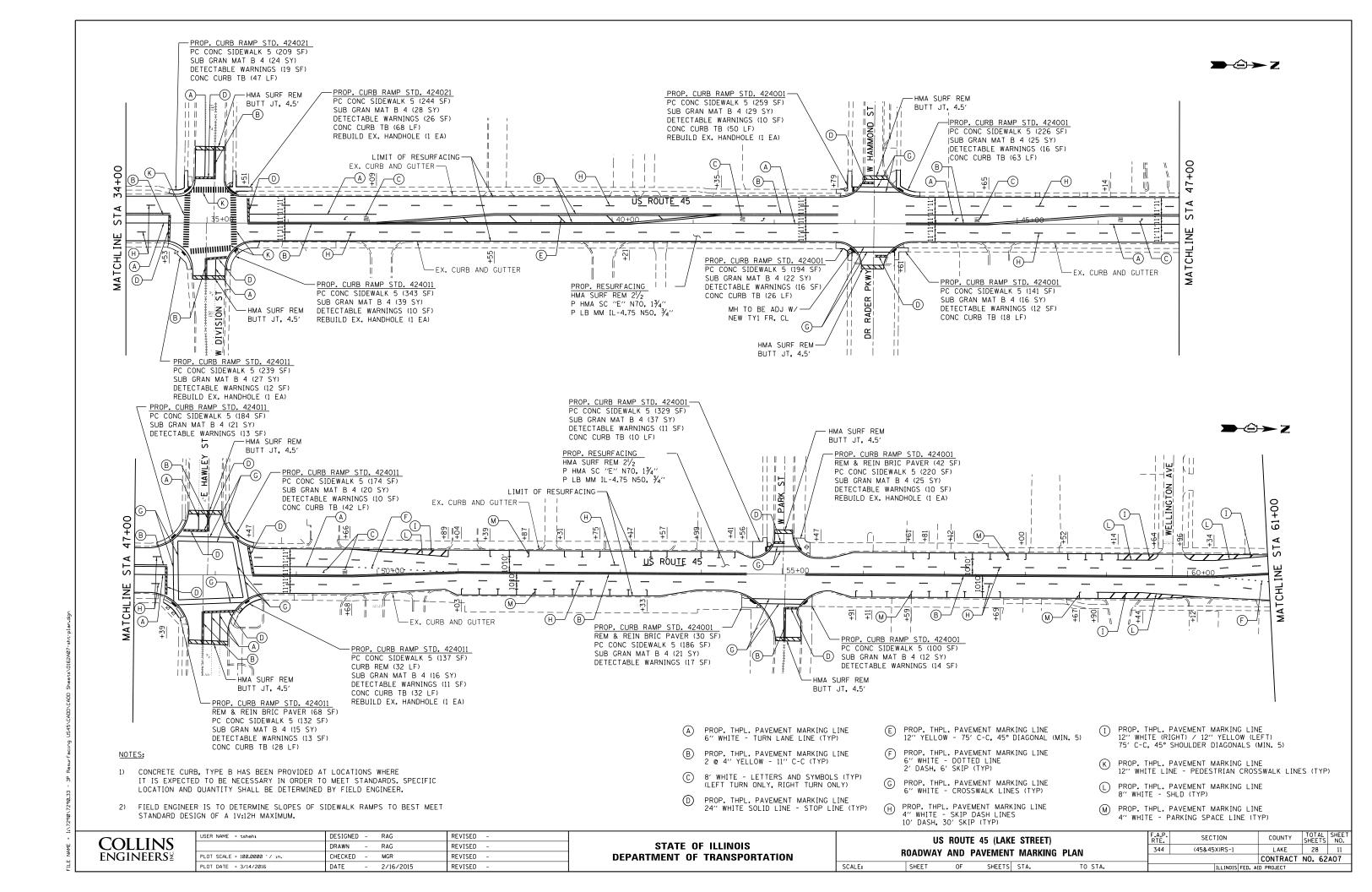
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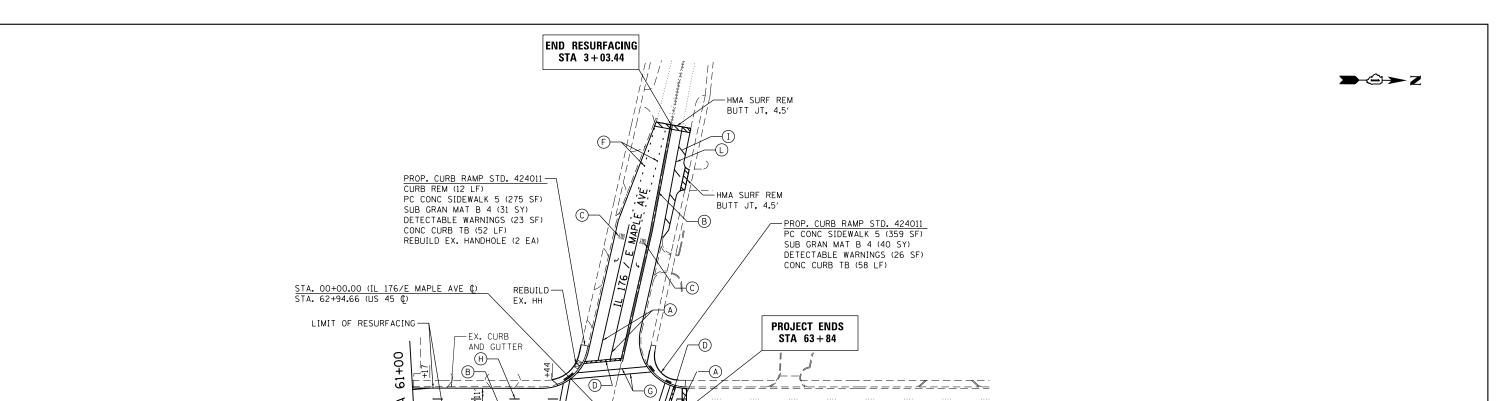
MGR

2/16/2015

REVISED

REVISED





US ROUTE 45

-HMA SURF REM

BUTT JT, 4.5' 

STA. 0+00.00 (IL 176/E MAPLE AVE ¢) STA. 63+04.96 (US RTE 45 ¢)

PROP. CURB RAMP STD. 424011
PC CONC SIDEWALK 5 (370 SF)

REBUILD EX. HANDHOLE (1 EA)

PROP. RESURFACING HMA SURF REM 21/2

P HMA SC "E" N70, 13/4" P LB MM IL-4.75 N50, 3/4"

SUB GRAN MAT B (42 SY) DETECTABLE WARNINGS (21 SF)

CONC CURB TB (60 LF)

# NOTES:

- CONCRETE CURB, TYPE B HAS BEEN PROVIDED AT LOCATIONS WHERE IT IS EXPECTED TO BE NECESSARY IN ORDER TO MEET STANDARDS. SPECIFIC LOCATION AND QUANTITY SHALL BE DETERMINED BY FIELD ENGINEER.
- 2) FIELD ENGINEER IS TO DETERMINE SLOPES OF SIDEWALK RAMPS TO BEST MEET STANDARD DESIGN OF A 1V:12H MAXIMUM.

- PROP. THPL. PAVEMENT MARKING LINE 6" WHITE TURN LANE LINE (TYP)
- PROP. THPL. PAVEMENT MARKING LINE 2 @ 4" YELLOW 11" C-C (TYP)
- 8' WHITE LETTERS AND SYMBOLS (TYP) (LEFT TURN ONLY, RIGHT TURN ONLY)
- PROP. THPL. PAVEMENT MARKING LINE 24" WHITE SOLID LINE STOP LINE (TYP)
- E PROP. THPL. PAVEMENT MARKING LINE 12" YELLOW 75' C-C, 45° DIAGONAL (MIN. 5)
- (F) PROP. THPL. PAVEMENT MARKING LINE 6" WHITE DOTTED LINE 2' DASH, 6' SKIP (TYP)
- PROP. THPL. PAVEMENT MARKING LINE 6" WHITE CROSSWALK LINES (TYP)
- PROP. THPL. PAVEMENT MARKING LINE 4" WHITE SKIP DASH LINES 10' DASH, 30' SKIP (TYP) (H)
- (I) PROP. THPL. PAVEMENT MARKING LINE 12" WHITE (RIGHT) / 12" YELLOW (LEFT) 75" C-C, 45° SHOULDER DIAGONALS (MIN. 5)
- (K) PROP. THPL. PAVEMENT MARKING LINE 12" WHITE LINE PEDESTRIAN CROSSWALK LINES (TYP)
- PROP. THPL. PAVEMENT MARKING LINE 8" WHITE SHLD (TYP)
- M PROP. THPL. PAVEMENT MARKING LINE 4" WHITE - EDGE LINE (TYP)
- N PROP. THPL. LETTERS AND SYMBOLS (TYP) RAILROAD CROSSING

**COLLINS ENGINEERS** 

DESIGNED - RAG REVISED USER NAME = tshehi DRAWN RAG REVISED PLOT SCALE = 100.0000 '/ in. CHECKED MGR REVISED REVISED PLOT DATE = 3/14/2016 DATE 2/16/2015

(A)—

H)—

U

-HMA SURF REM BUTT JT, 4.5'

**END RESURFACING** 

STA 3+91.59

(D)—

©—

PROP. CURB RAMP STD. 424011 - PC CONC SIDEWALK 5 (309 SF)

DETECTABLE WARNINGS (21 SF) (N)

SUB GRAN MAT B 4 (35 SY)

CONC CURB TB (53 LF)

PROP CUT

HMA SURF REM-

BUTT JT, 4.5'

PROP. CURB RAMP STD. 424001 PC CONC SIDEWALK 5 (84 SF) SUB GRAN MAT B 4 (9 SY) DETECTABLE WARNINGS (10 SF)

PROP. CURB RAMP STD. 424001-PC CONC SIDEWALK 5 (120 SF) SUB GRAN MAT B 4 (13 SY) DETECTABLE WARNINGS (10 SF)

CONC CURB TB (45 LF)

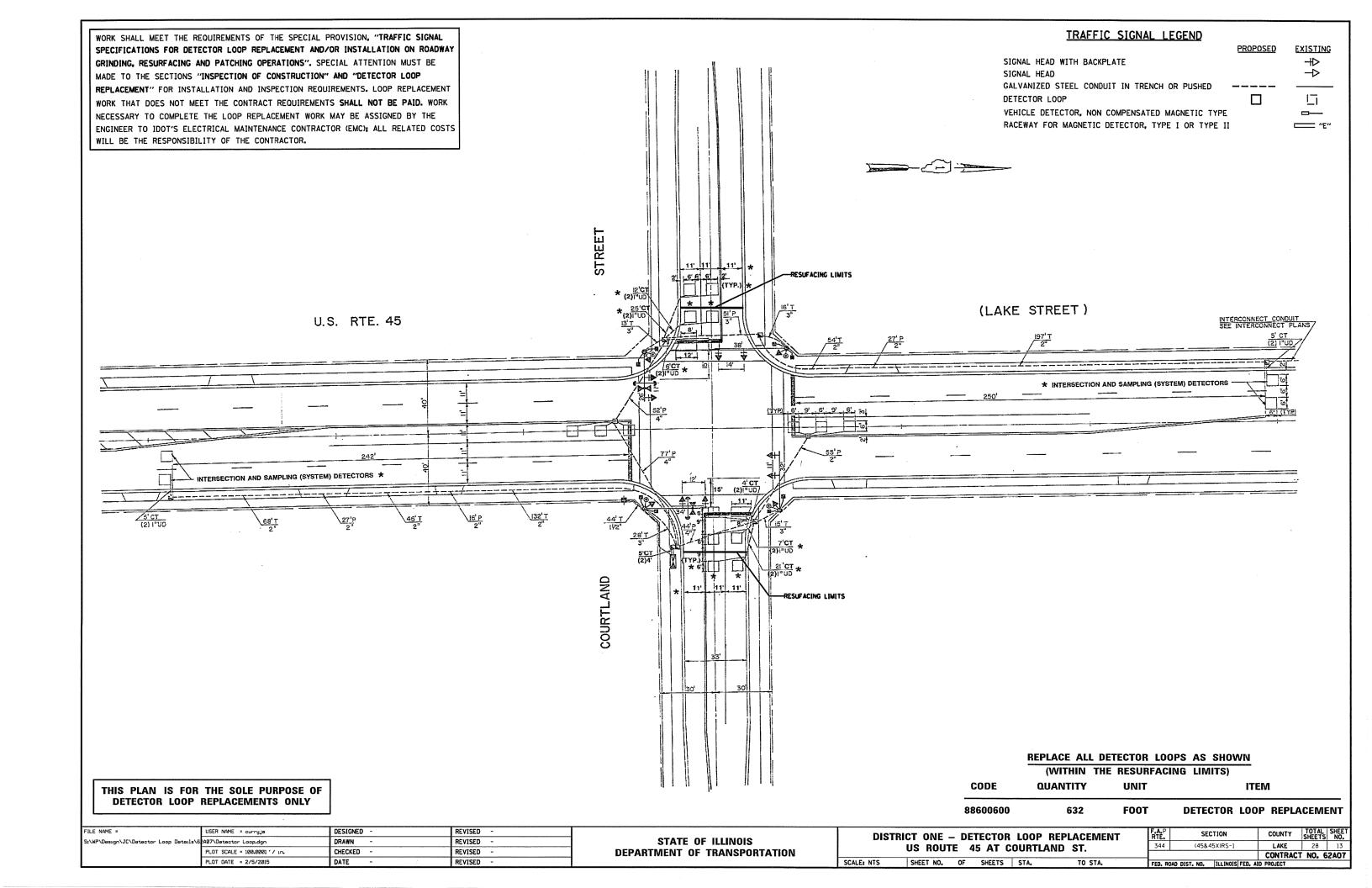
EX. CURB

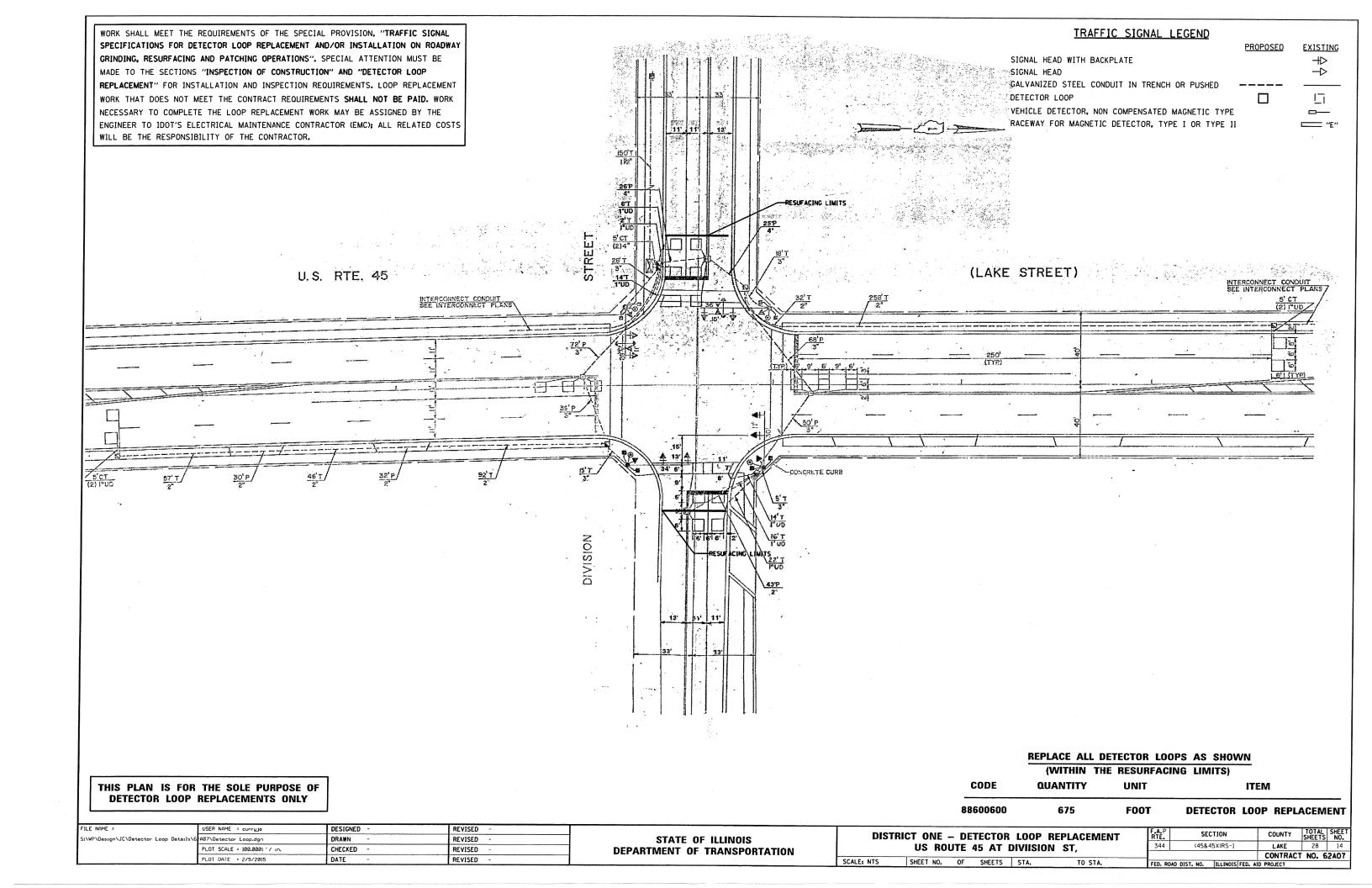
AND GUTTER

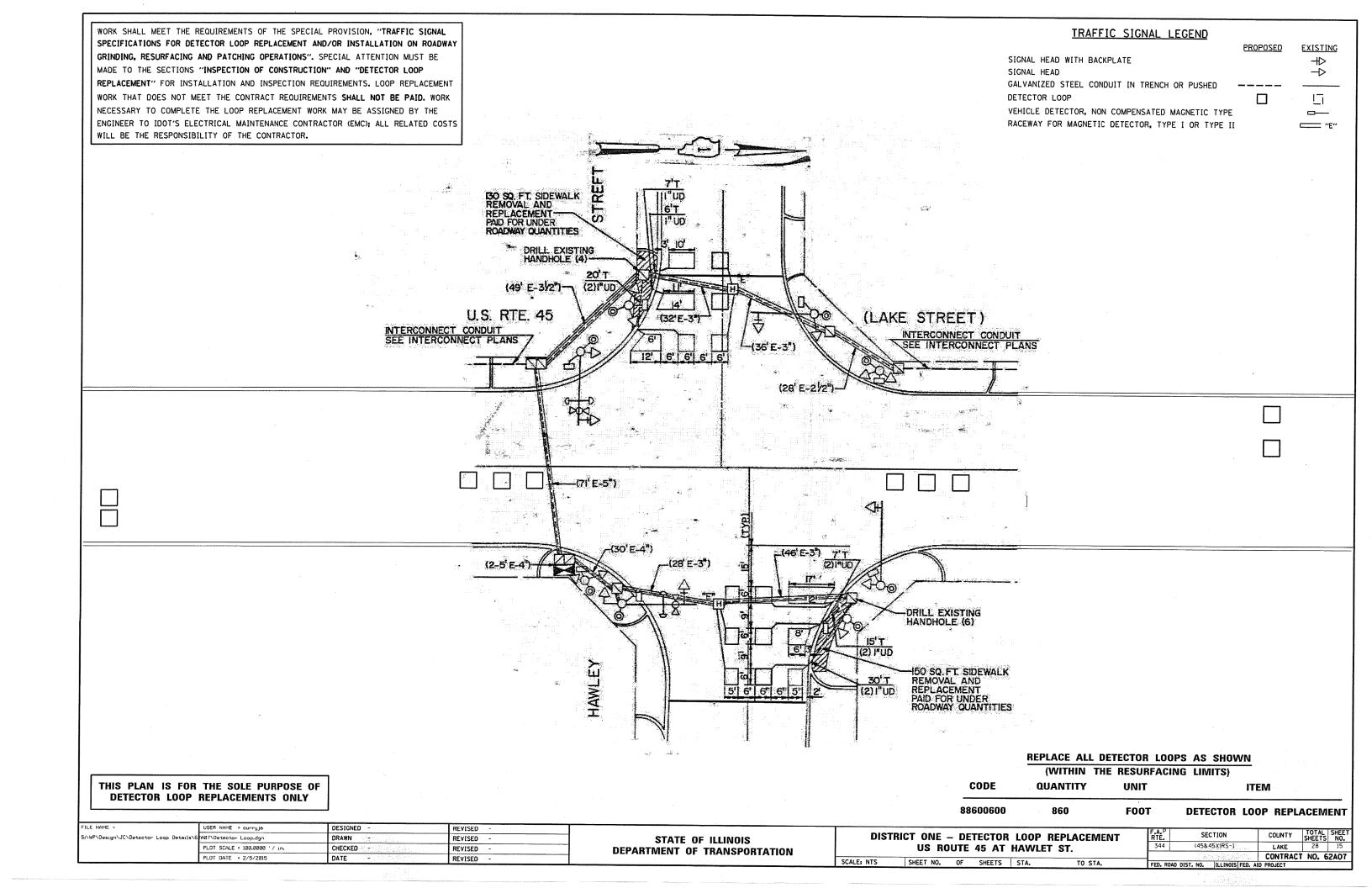
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  US ROUTE 45 (LAKE STREET)

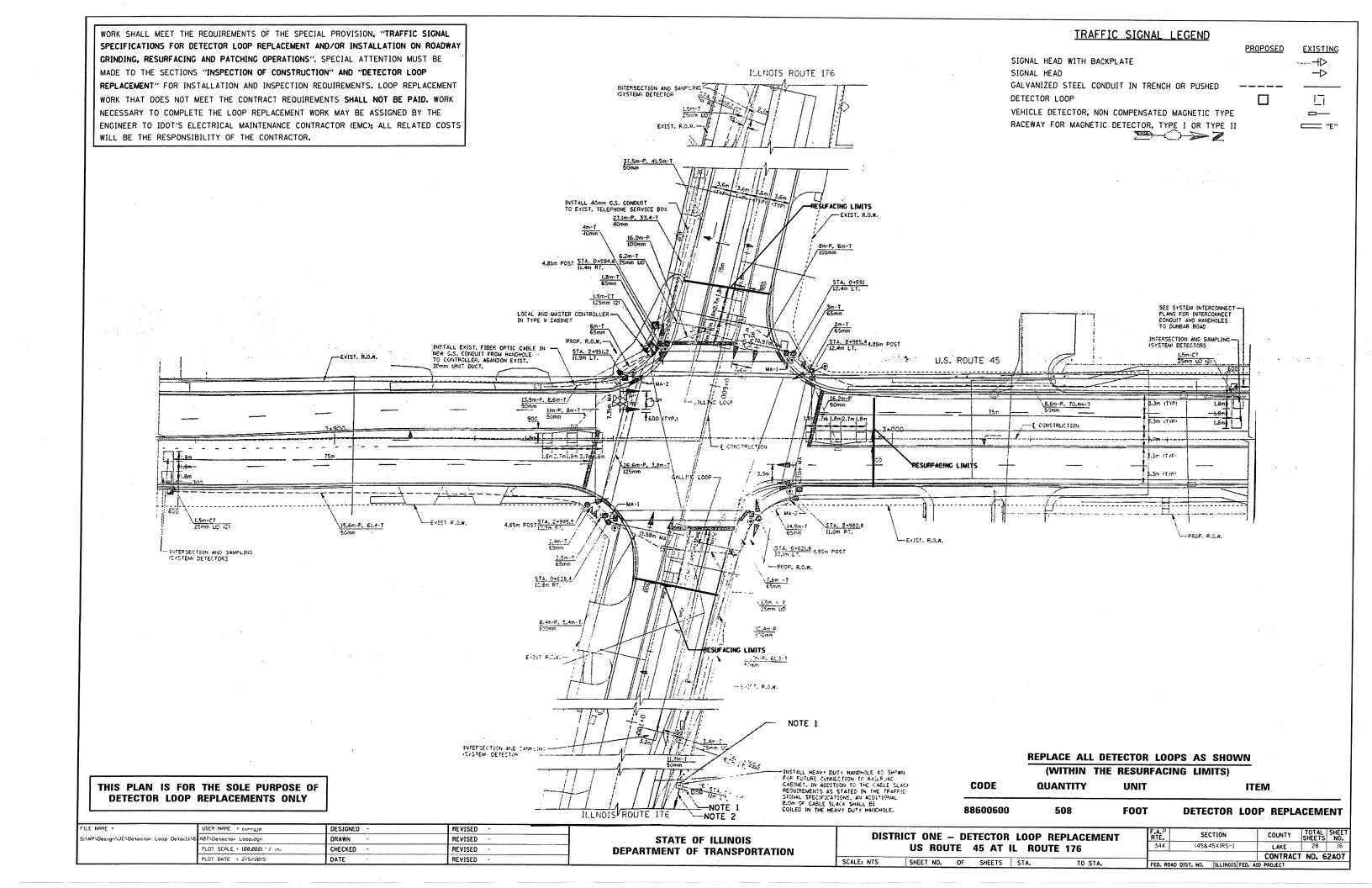
SECTION COUNTY

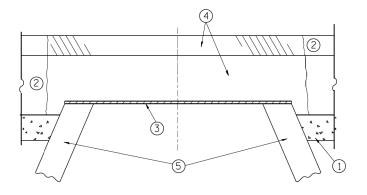
344 (45&45X)RS-1 LAKE 28 12 **ROADWAY AND PAVEMENT MARKING PLAN** CONTRACT NO. 62AO7 SCALE: SHEETS STA.

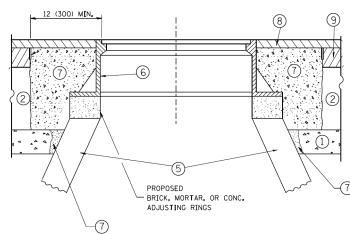












EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

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

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

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

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

SCALE: NONE

### CONSTRUCTION PROCEDURES

### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER
- 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 PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

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

# LEGEND

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

### LOCATION OF STRUCTURES

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

# BASIS OF PAYMENT:

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

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

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

# DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

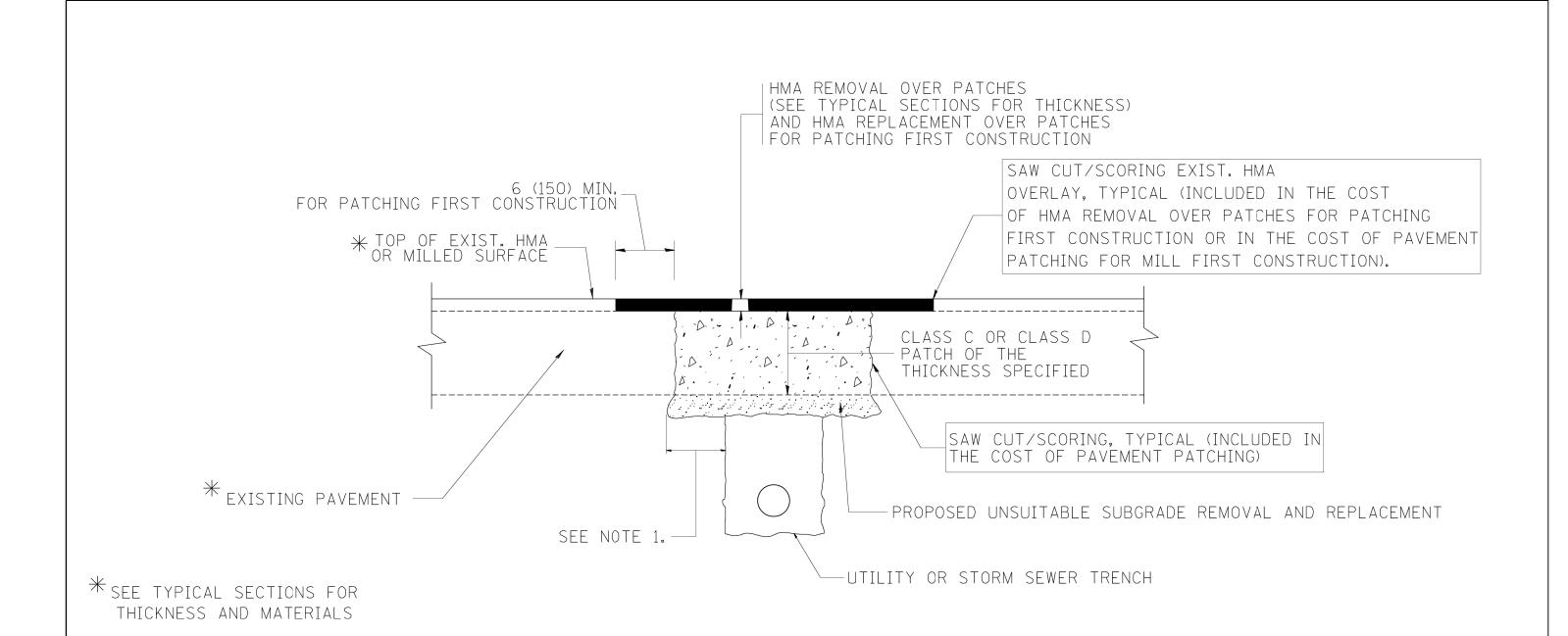
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

28

DESIGNED - R. SHAH REVISED - R. WIEDEMAN 05-14-04 FILE NAME = USER NAME = bauerdl DRAWN REVISED - R. BORO 01-01-07 REVISED - R. BORO 03-09-11 PLOT SCALE = 1968.5000 '/ m CHECKED REVISED - R. BORO 12-06-11 PLOT DATE = 12/6/2011 DATE 10-25-94

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

COUNTY **DETAILS FOR** (45&45X)RS-1 LAKE FRAMES AND LIDS ADJUSTMENT WITH MILLING BD600-03 (BD-8) CONTRACT NO.62A07 SHEET NO. 1 OF 1 SHEETS STA. ID PROJECT



# NOTES:

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

# SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

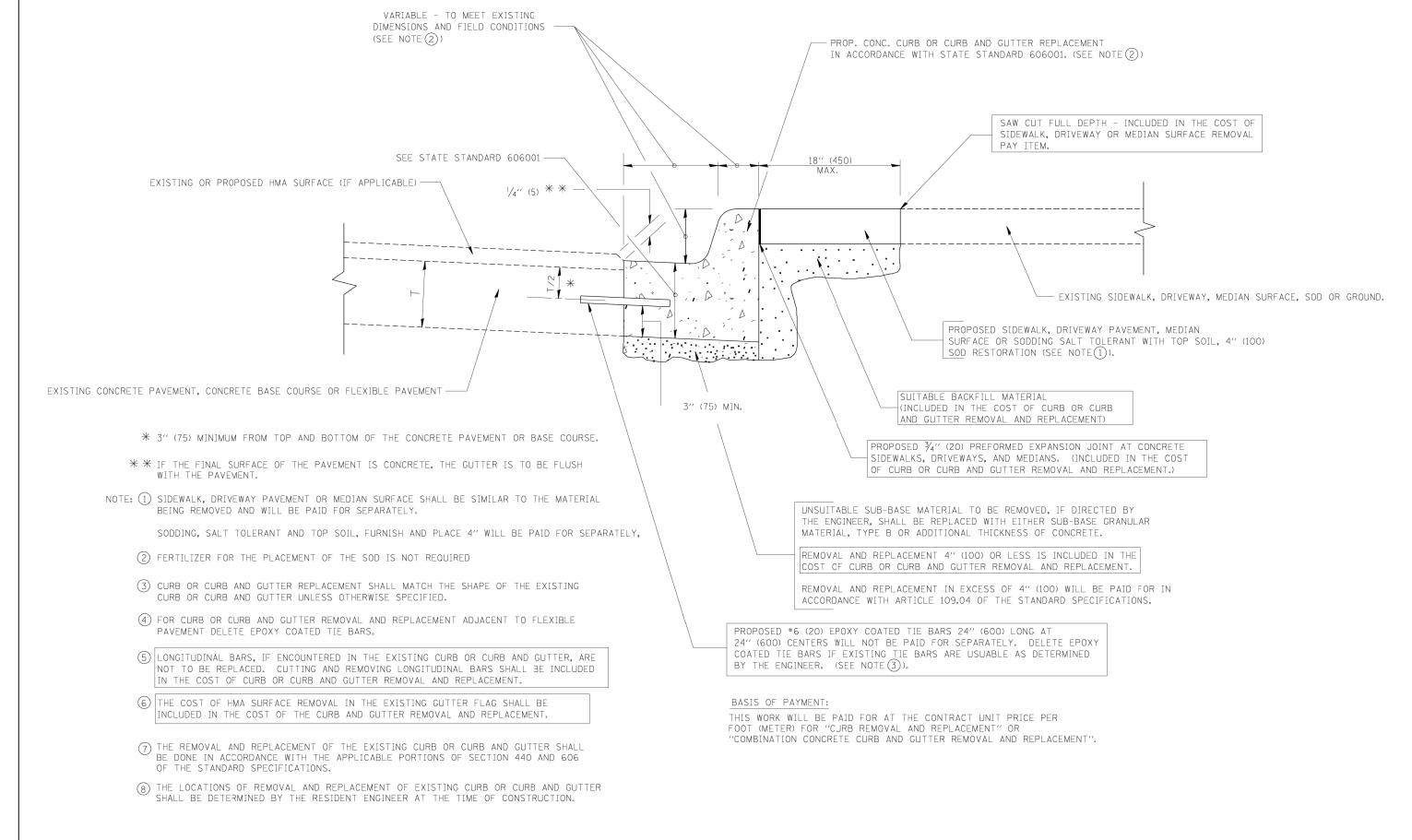
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

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

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

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98			PAVEMENT PATCHING FOR		RTF.	SECTION	COUNTY	SHEETS NO.
c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS				344	(45&45X)RS-1	LAKE	28 18
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		HMA SURFACED PAVEMENT		BD	400-04 (BD-22)		T NO.62A07
	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

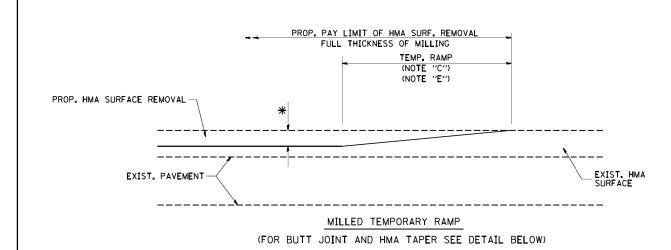
SCALE: NONE

SHEET NO

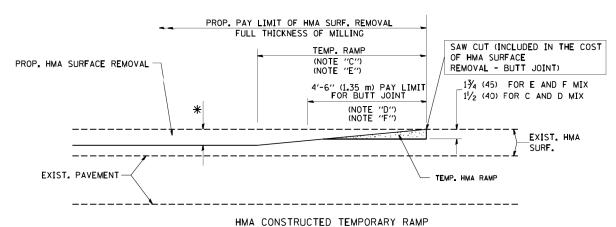
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drivakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96
c:\pw_work\pwidot\drivakosgn\d0108315\bd	24.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01
	PLOT DATE = 12/15/2009	DATE - 03-11-94	REVISED - R. BORO 12-15-09

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
			344	(45&45X)RS-1	LAKE	28	19	
NEWIOVAL /	AND REF	ACCIVICINI			BD600-06 (BD-24)	CONTRACT	NO. 62	A07
O. 1 OF 1	SHEETS	STA.	TO STA.	FFD. R	OAD DIST, NO. 1 ILLINOIS FED. A	ID PROJECT		



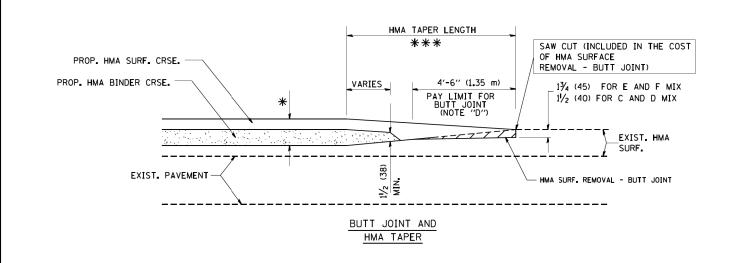
# OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

# OPTION 2

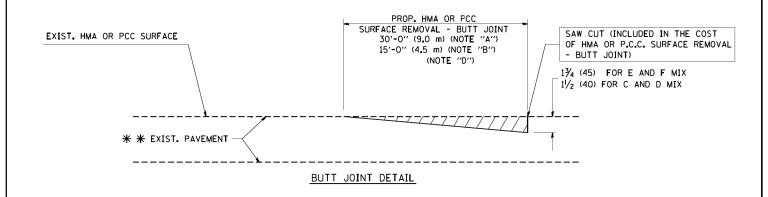
# TYPICAL TEMPORARY RAMP

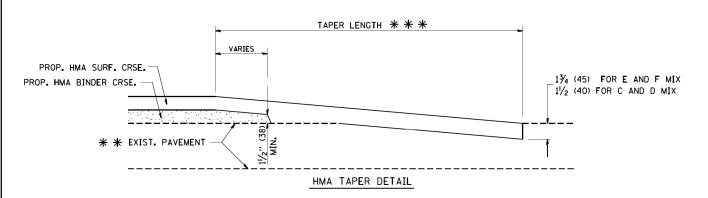


# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME = DESIGNED - M. DE YONG USER NAME = gaglianobt REVISED R. SHAH 10-25-94 W:\diststd\22x34\bd32.dgn DRAWN REVISED A. ABBAS 03-21-97 CHECKED REVISED LOT SCALE = 50.0000 '/ IN. M. GOMEZ 04-06-01 DATE 06-13-90 REVISED R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

# NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

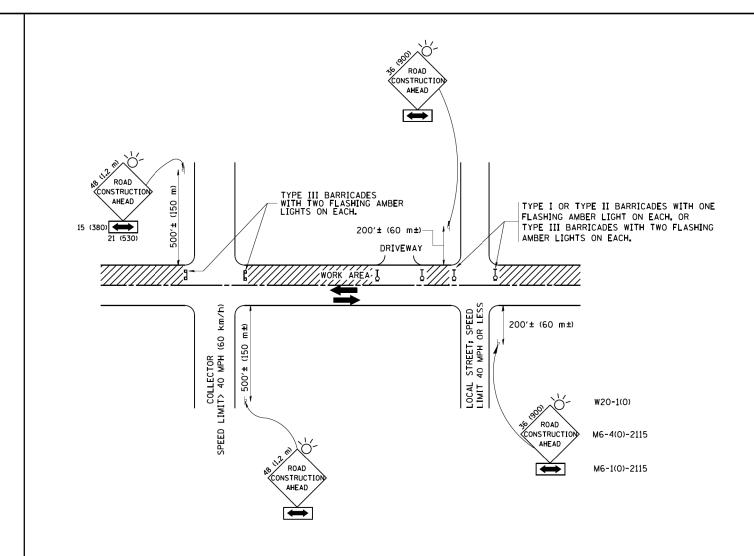
\* \* \* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

# 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".

SCALE: NONE

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



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:
- $^{\rm Q)}$  ONE road construction ahead sign 36  $\times$  36 (900×900) 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).

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.

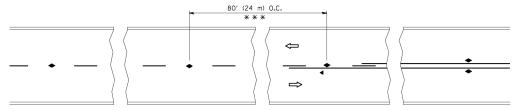
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\diststd\22x34\tc10.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 '/ [N.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T RAMMACHER 01-06-00

STATI	E OF	: ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

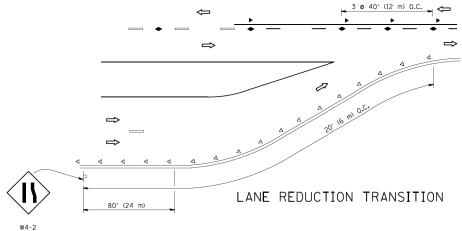
	TRAFFIC CONTROL AND PROTECTION FOR		ION FOR	F.A.P. RTE.	SECTION
					(45&45X)RS-1
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS					TC-10
	CHEET NO 1 OF 1	CHEETC CTA	TO CTA		

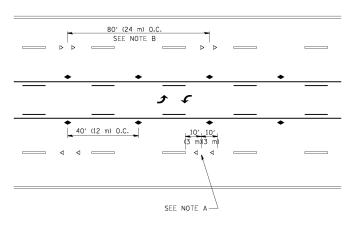
| FA.P. | SECTION | COUNTY | SHEET | S



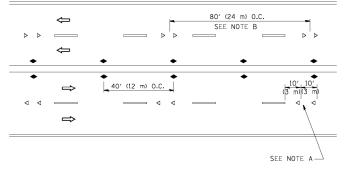
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

# TWO-LANE/TWO-WAY

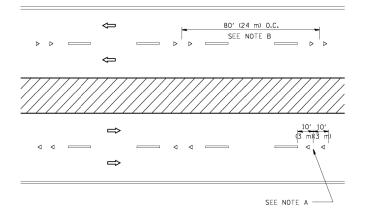




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

# GENERAL NOTES

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

# LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

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.

# SYMBOLS

---- YELLOW STRIPE

---- WHITE STRIF

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

# DESIGN NOTES

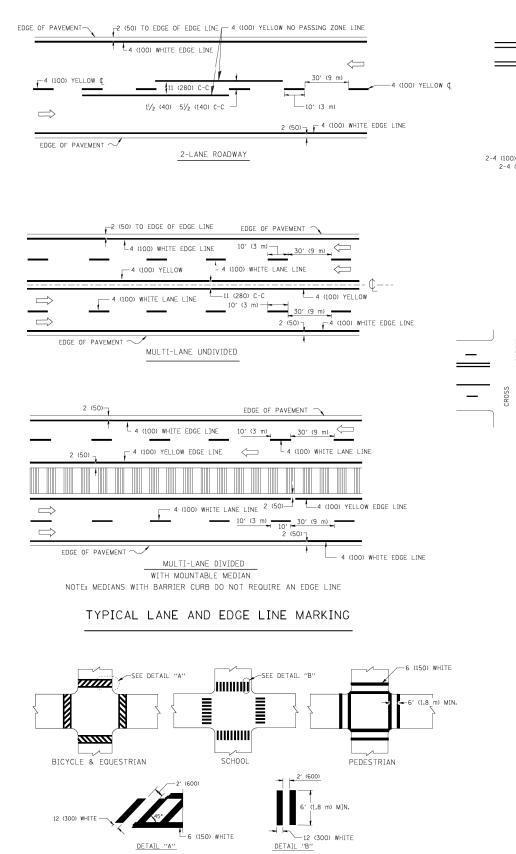
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS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

FILE NAME =	USER NAME = leysa	DESIGNED -	REVISED -T. RAMMACHER 09-19-94			TYPICAL APPLICA	PAULT	RTF.	SECTION	COUNTY	SHEETS NO	, <u>-</u> 1
c:\pw_work\pwidot\leysa\d0108315\tc11.dgn		DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS				344	(45&45X)RS-1	LAKE	28 22	ا 🗀
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	KAISED	REFLECTIVE PAVEMENT MARKER	RS (SNUW-PLUW RESISTANT)		TC-11	CONTRACT	T NO. 62AO7	$\exists$
	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS F	ED. AID PROJECT		$\dashv$



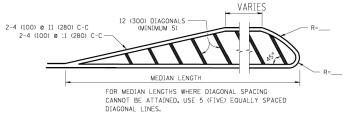
2-4 (100) YELLOW • 11 (280) C-C

NO DIAGONALS

4' (1,2 m) OUTSIDE TO OUTSIDE OF LINES

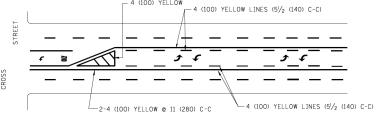
2-4 (100) YELLOW • 11 (280) C-C

# 4' (1.2 m) WIDE MEDIANS ONLY

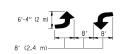


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

# MEDIANS OVER 4' (1.2 m) WIDE

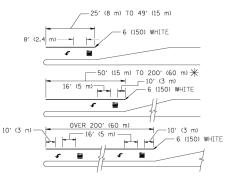


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING

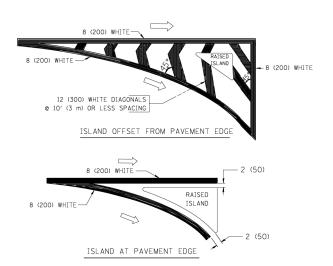


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m²) 000 AREA = 20.8 SQ. FT. (1.9 m²)

\* 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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1,2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	© 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)  STOP LINES  PAINTED MEDIANS  GORE MARKING AND CHANNELIZING LINES  RAILROAD CROSSING	EACH DIRECTION  8' (2.4m) LEFT ARROW  2 e 6 (150) 12 (300) e 45° 12 (300) e 90°  24 (600)  2 e 4 (100) WITH 12 (300) DIAGONALS 6 45°  NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS  8 (200) WITH 12 (300) DIAGONALS e 45°  24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	AND SOLID  IN PAIRS  SOLID  SOLID  SOLID  SOLID  SOLID  SOLID  SOLID	WHITE WHITE WHITE WHITE WHITE  YELLOW: TWO WAY TRAFFIC WHITE: WHITE  WHITE  WHITE  WHITE  WHITE	SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE  SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL  NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.  PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE  11 (280) C-C FOR THE DOUBLE LINE  SEE TYPICAL PAINTED MEDIAN MARKING.  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) 30' (9 m) C-C (VOER 45MPH (70 km/h))  SEE STATE STANDARD 780001 AREA OF: "K"=3.6 SO. FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²)  50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70

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.

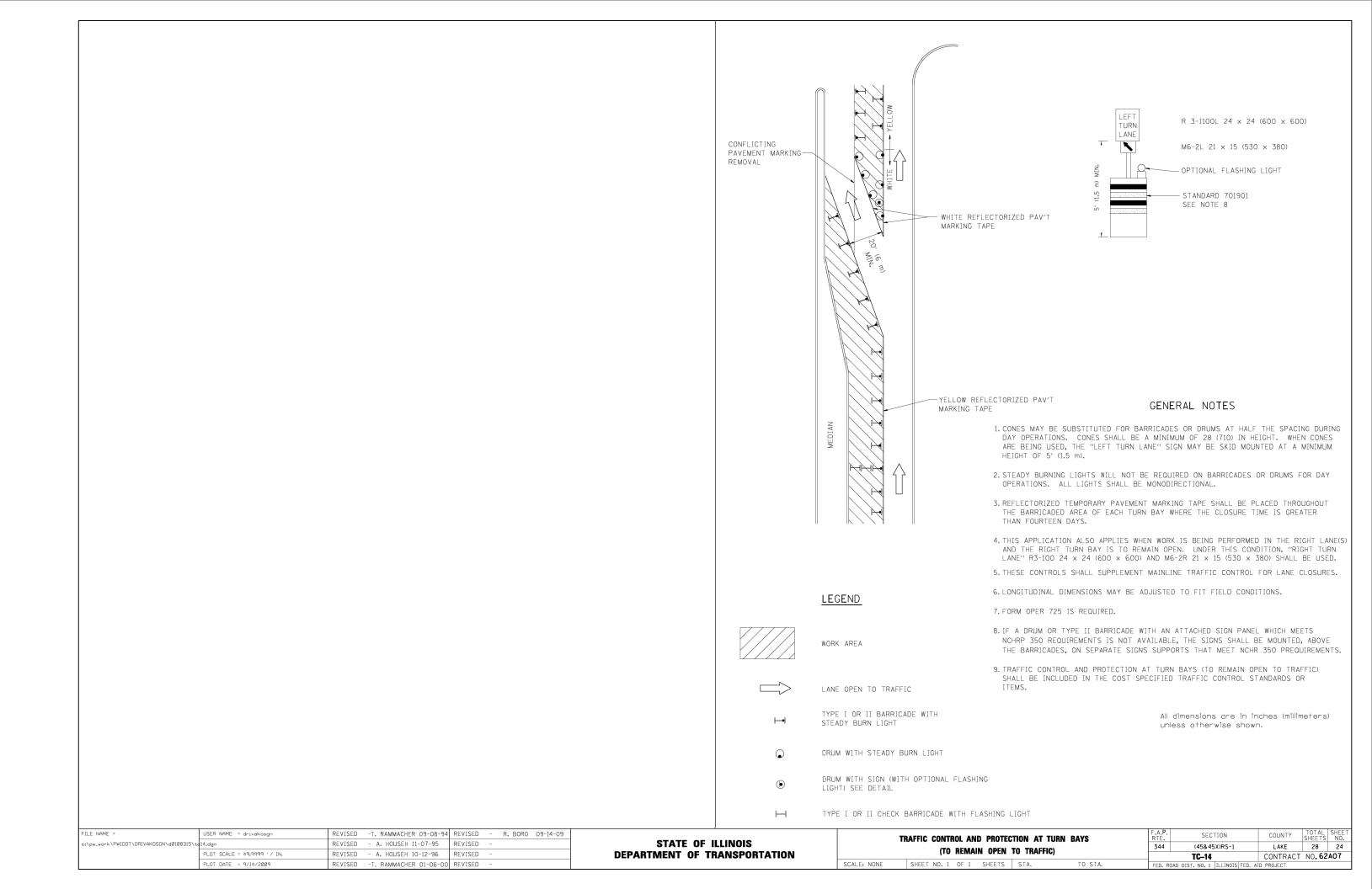
THI ICAL TORN LANE WARRING

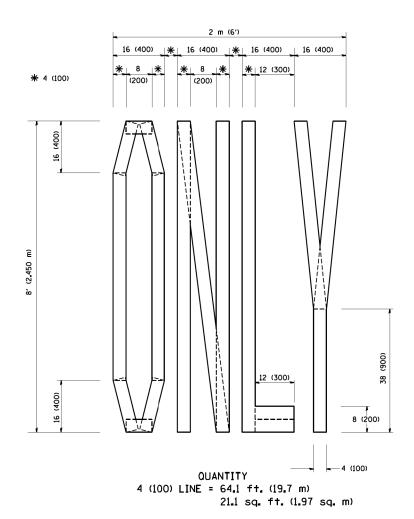
FILE NAME =	USER NAME = drivakosgn	DESIGNED -	EVERS	REVISED	-T. RAMMACHER	10-27-94
c:\pw_work\pwidot\drivakosgn\d0108315\tc	13.dgn	DRAWN -		REVISED	-C. JUCIUS	09-09-09
	PLOT SCALE = 50.000 '/ IN.	CHECKED -		REVISED	-	
	PLOT DATE = 9/9/2009	DATE -	03-19-90	REVISED	-	

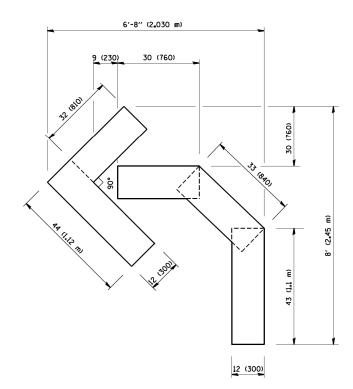
TYPICAL CROSSWALK MARKING

STATE OF ILLINOIS	
<b>DEPARTMENT OF TRANSPORTATION</b>	

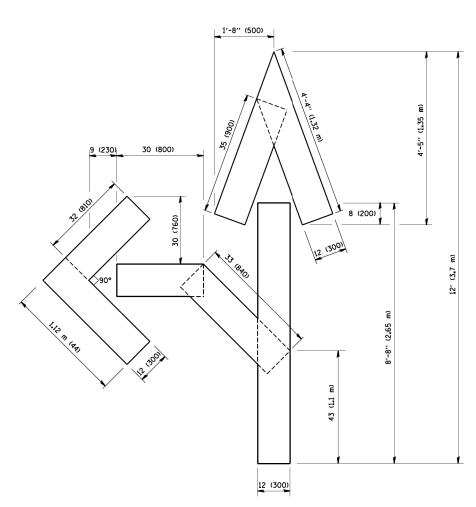
DISTRICT ONE					SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
TYPICAL PAVEMENT MARKINGS				344	(45&45X)RS-1	LAKE	28	23
					NO. 62	A07		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1   ILLINOIS FED. A	ID PROJECT		







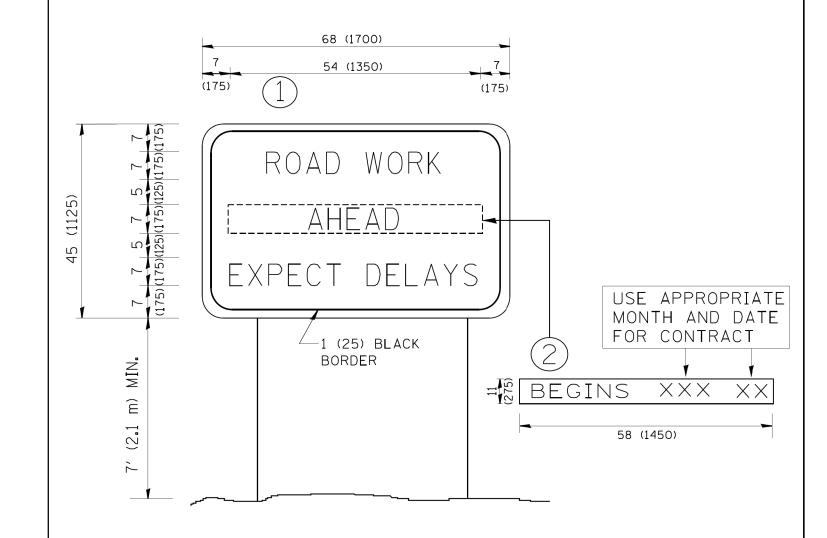
OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96			PAVEMENT MARKING LETTERS AND SYMBOLS	RTF.	SECTION	COUNTY	SHEETS N	NO.
W:\diststd\22x34\tc16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS			344	(45&45X)RS-1	LAKE	28 2	25
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FOR TRAFFIC STAGING			TC-16	CONTRACT	T NO. 62AC	57
	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. RO	AD DIST. NO. 1 ILLINOIS FED.			

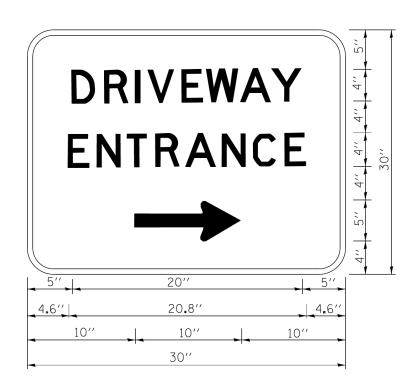


# NOTES:

- 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 () WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
W:\diststd\22x34\tc22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		INFORMATION SIGN		344	(45&45X)RS-1	LAKE	28	26
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFURMATION SIGN			TC-22	CONTRACT	T NO. 624	١07
	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	DIST. NO. 1 ILLINOIS FED.	ID PROJECT		



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

# NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE INHME -	USEN NAME - gagiianobt	DESIGNED -	KEVISED - C. JUCIUS 02-15-01
c:\pw_work\pwidot\gaglianobt\d0108315\tc	26 <b>.</b> dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/13/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

DRIVEWAY ENTRANCE SIGNING					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	OTAL SHEE	
				344	(45&45X)RS-1	LAKE	28	27		
						TC-26	CONTRACT	NO. 62	A07	
	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1   ILLINOIS FED. A	ID PROJECT			

# 

# 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. TRENCHED 1" (25 mm) UNIT DUCT (3) \*\* \*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

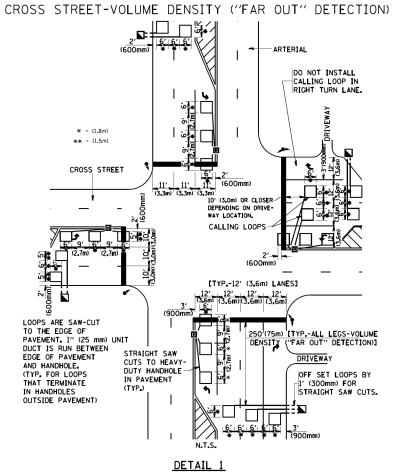
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

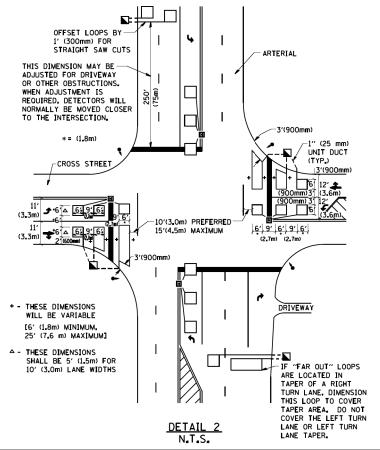
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

# VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING) \* = (600 mm) \* = (600 mm) \* = (600 mm) | STRAIGHT SAW CUT TO HEAVY DUTY HANDHOLE (TYP.) PLACE HEAVY DUTY HANDHOLE (TYP.) PLACE HEAVY DUTY HANDHOLE BETWEEN FIRST AND SECOND LOOP AS SHOWN. NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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





SCALE NONE

### NOTES:

# VEHICLES LOOP DETECTORS

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

# PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

# NOTE:

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

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -
W:\diststd\22x34\ts07.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

DISTRICT 1 – DETECTOR LOOP INSTALLATION	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DETAILS FOR ROADWAY RESURFACING	344	(45&45X)RS-1	LAKE	28	28	
DETAILS FOR NUADWAT RESURFACING	TS-07 CONTRACT NO. 62					
SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 JULINOIS FED. AID PROJECT					