#### STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS** 

# **PROPOSED HIGHWAY PLANS**

SECTION: (0808 & 0809) RS-2 **PULASKI AVENUE TO WESTERN AVENUE RESURFACING (3P)** 

> **COOK COUNTY** C-91-573-09

# **CALUMET TOWNSHIP** R. 13 E. R. 14 E. Evergreen [12] W 95th St **∑0**} St (12) [20] VILLAGE OF EVERGREEN PARK 103rd STREET

**PROJECT ENDS** STA. 116 + 77

**PAVING OMISSION** STA. 103 + 52 TO STA. 103 + 90

BIRINDER S. SACHDEVA, P.E.

8005, 01 livgA

DISTRICT ONE - PLAN PREP ENGINEER: KEN ENG (847) 705-4247

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT

ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**DESIGN DESIGNATION:** 

SPEED LIMIT: 30 M.P.H. 2007 ADT = 15,000

PROJECT LOCATED IN THE CITY OF CHICAGO AND THE

VILLAGE OF EVERGREEN PARK

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CONTRACT NO. 60H17

1-800-892-0123

OR 811

FAU 1574 103rd STREET

Birinder S. Sachdeva

LOCATION OF SECTION INDICATED THUS: - -

SUBMITTED APRIL 14, 20 09

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

Dime M. O'Kesfe gr DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

Christia M. Reed B DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

DATE

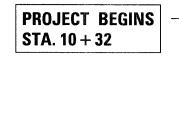
ENGINEERS - PLANNERS SURVEYORS 211 W. WACKER DRIVE CHICAGO, IL. 60606 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

1574 (0808 & 0809) RS-2

D-91-573-09

СООК

FED. ROAD DIST. NO. 1 ILLINOIS CONTRACT NO. 60H17



**PAVING OMISSION** STA. 76 + 75

STA. 76 + 45 TO

CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS

GROSS LENGTH OF PROJECT = 10.645 FEET = 2.016 MILES NET LENGTH OF PROJECT = 10,577 FEET = 2.003 MILES

#### INDEX OF SHEETS COVER SHEET INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES & CITY OF CHICAGO NOTES 2 3 SUMMARY OF QUANTITIES TYPICAL SECTIONS 5 - 8 ROADWAY AND PAVEMENT MARKING PLAN DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING 10 PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT 11 12 BUTT JOINT AND HMA TAPER DETAILS 13 CITY OF CHICAGO CATCH BASIN, INLET AND MANHOLE DETAILS TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS 14 15 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) 16 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING 17 ARTERIAL ROAD INFORMATION SIGN 18 - 19 CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS 20 DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

#### LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001 - 05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201- <i>0</i> 3	CLASS C AND D PATCHES
604001 ~ 03	FRAME AND LIDS, TYPE 1
606001 - <i>04</i>	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701606-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701~06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES
780001 - OZ	TYPICAL PAVEMENT MARKINGS

#### GENERAL NOTES

- 1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 AND CHICAGO UTILITY ALERT NETWORK AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 2. 10 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER ITEMS OF WORK TO EXISTING CURBS AND GUTTERS AND CONDITIONS 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 AND THE CITY OF CHICAGO AND THE VILLAGE OF EVERGREEN PARK.
- 4. 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.
- 5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 6. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
- 7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- 8. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 9. WHEN 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 OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
- 10. UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.
- 11. PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE TYPE III SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKINGS.
- 12. THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
- 13. THE CONTRACTOR SHALL CONTACT MR. WALTER CZARNY, THE AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386 AT LEAST TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 14. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- 15. MATCH EXISTING PAVEMENT MARKINGS AT THE PROJECT AND OMISSION LIMITS.
- 16. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 17. PAY ITEM 55039700 STORM SEWERS TO BE CLEANED SHALL ONLY BE UTILIZED TO CLEAN STORM SEWER LATERAL PIPES BETWEEN INLETS OR CATCH BASINS AND THE MAIN SEWER.
- 18. "PATCHING" IN THE AREAS OF THE EXISTING RAILROAD TRACKS SHALL CONSIST OF REMOVING ALL LOOSE PAVEMENT, DEBRIS AND/OR PAVERS AFTER MILLING AND THE PLACEMENT OF HMA PATCHING MATERIAL. THE RATIS AND TIES SHALL REMAIN IN PLACE, THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR CLASS D PATCHES. QUANTITY ADJUSTMENTS SHALL BE AS SPECIFIED IN ARTICLE 442.10.

SCALE: NONE

#### PLAN NOTES - CITY OF CHICAGO

- 1. ALL CATCH BASINS IN THE CITY OF CHICAGO MUST MEET THE DEPARTMENT OF SEWERS' STANDARDS.
- 2. SEWER SIZES 525 MM (21") DIAMETER OR SMALLER MUST BE EXTRA STRENGTH VITRIFIED CLAY PIPE C-700 OR DUCTILE IRON PIPE WITH PUSH-ON OR MECHANICAL JOINTS. SEWER SIZES 600 MM (24") DIAMETER OR LARGER MUST BE REINFORCED CONCRETE PIPE TYPE C-76, CLASS III, WALL "B" WITH "O-RING" JOINTS.
- 3. PERMITS FROM THE DEPARTMENT OF SEWERS ARE REQUIRED FOR ALL UNDERGROUND STORM, SANITARY OR COMBINED SEWER SYSTEM CONSTRUCTION, AND FOR ALL WORK INVOLVING ADJUSTMENT OF SEWER STRUCTURES. THE DEPARTMENT OF SEWERS' PERMIT MUST BE OBTAINED BY A LICENSED SEWER DRAIN LAYER PRIOR TO START OF CONSTRUCTION. THE LICENSED SEWER CONTRACTOR / SUBCONTRACTOR MUST SUBMIT TWO SETS OF PLANS APPROVED BY THE DEPARTMENT OF SEWERS FOR THE ISSUE OF THE SEWER PERMIT TO SUITE 410, 333 SOUTH STATE STREET, CHICAGO, IL 60604-3971. INSPECTION WILL BE PROVIDED BY THE DEPARTMENT OF SEWERS.
- 4. IF THE SEWER PIPE COVER IS REDUCED TO LESS THAT 1 METER (3 FT.), CONCRETE ENCASEMENT OF THE SEWER OR REPLACEMENT OF THE SEWER WITH CLASS 52 DUCTILE IRON PIPE WILL BE REQUIRED.
- 5. IN CASE OF DAMAGE TO CITY OF CHICAGO SEWERS, PRIVATE AND PUBLIC DRAINS, SEWER STRUCTURES AND / OR BENCH MONUMENTS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DEPARTMENT OF SEWERS AT (312) 747-7892 OR (312)
- 6. PERFORATED LIDS SHALL BE PLACED ON ALL MANHOLES AND CATCH BASINS.
- 7. BENCH MONUMENT LOCATIONS WITHIN THE LIMITS OF THE IMPROVEMENT CAN BE OBTAINED FROM THE DEPARTMENT OF SEWERS AT SUITE 410, 333 SOUTH STATE STREET, CHICAGO, IL 60604-3971. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPLACING ANY BENCH MONUMENT DAMAGED OR DESTROYED DURING CONSTRUCTION.
- 8. SIDEWALK ACCESSIBILITY RAMPS SHALL NOT BE CONSTRUCTED DIRECTLY OVER EXISTING OR PROPOSED DRAINAGE STRUCTURES.
- 9. ALL BROKEN, CRACKED, WORN OR OTHERWISE DAMAGED OR BICYCLE UNSAFE FRAMES AND GRATES OR LIDS ON SEWER STRUCTURES SHALL BE REPLACED WITH NEW DEPARTMENT OF SEWERS' STANDARD FRAMES AND GRATES OR LIDS. OLD FRAMES AND GRATES OR LIDS SHALL BE DELIVERED TO THE DEPARTMENT OF SEWERS AT 39TH STREET AND ASHLAND AVENUE.
- 10. CITY OF CHICAGO WATER VALVE VAULTS AND SEWER STRUCTURES SHALL NOT BE CLOSED, COVERED OR OTHERWISE OBSTRUCTED DURING CONSTRUCTION WITHOUT WRITTEN PERMISSION FROM THE CITY OF CHICAGO DEPARTMENT OF WATER AND / OR DEPARTMENT OF SEWERS.
- 11. CURB AND GUTTER CONSTRUCTION SHALL PROVIDE A MINIMUM CURB HEIGHT OF 75
- 12. BACKFILL MATERIAL UNDER SIDEWALKS SHALL BE FA-2.

TO STA, 116+77

13. PAVEMENT REPLACEMENT AROUND FRAMES AND GRATES OR LIDS WHERE DRAINAGE. WATER MAIN OR ELECTRICAL STRUCTURES ARE ADJUSTED OR RECONSTRUCTED. SHALL BE WITH CLASS SI CONCRETE.

SHEET NO. 1 OF 1 SHEETS STA. 10+32

SUMMARY	OF QUANTITIES		1001.STATE	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	IOOO URBAN					
40600200 BITUMINOUS MATERIALS (PR	RIME COAT)	TON	47	47					
40600300 AGGREGATE (PRIME COAT)		TON	312	312					
40600400 MIXTURE FOR CRACKS, JOIN	ITS, AND FLANGEWAYS	TON	20	20					
40600895 CONSTRUCTING TEST STRIF	,	EACH	2	2					
40600982 HOT-MIX ASPHALT SURFACE	REMOVAL - BUTT JOINT	SQ YD	503	503					
40601005 HOT-MIX ASPHALT REPLACE	MENT OVER PATCHES	TON	483	483					
40603340 HOT-MIX ASPHALT SURFACE	COURSE, MIX "D", N70	TON	6,561	6,561					
42001300 PROTECTIVE COAT		SQ YD	722	722					
42400200 PORTLAND CEMENT CONCRE	TE SIDEWALK 5 INCH	SQ FT	400	400					
44000158 HOT-MIX ASPHALT SURFACE	REMOVAL, 2 1/4"	SQ YD	78,111	78,111					
44000600 SIDEWALK REMOVAL		SQ FT	400	400					
44001700 COMBINATION CONCRETE CL	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT								
44002212 HOT-MIX ASPHALT REMOVAL	OVER PATCHES, 3"	SQ YD	2,875	2,875					
44201761 CLASS D PATCHES, TYPE I,	10 INCH	SQ YD	50	50					
44201765 CLASS D PATCHES, TYPE II	, 10 INCH	SQ YD	1,739	1,739					
44201769 CLASS D PATCHES, TYPE II	I, 10 INCH	SQ YD	187	187					
44201771 CLASS D PATCHES, TYPE IV	, 10 INCH	SQ YD	524	524					
55039700 STORM SEWERS TO BE CLEA	NED	FOOT	3,744	3,744					
60252800 CATCH BASINS TO BE RECO	NSTRUCTED	EACH	8	8					
60257900 MANHOLES TO BE RECONSTR	RUCTED	EACH	1	1					
60300305 FRAMES AND LIDS TO BE AD	JUSTED	EACH	24	24					
60300310 FRAMES AND LIDS TO BE AD	)JUSTED (SPECIAL)	EACH	238	238					
60406000 FRAMES AND LIDS, TYPE 1,	OPEN LID	EACH	5	5					
60406100 FRAMES AND LIDS, TYPE 1,	CLOSED LID	EACH	5	5					
67000400 ENGINEER'S FIELD OFFICE,	TYPE A	CAL MO	6	6					

	SUMMARY OF QUANTITIES		100% STATE	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	I000 URBAN
67100100	MOBILIZATION	L SUM	1	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	7,284	7,284
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1,000	1,000
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	25,000	25,000
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	5,000	5,000
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	1,200	1,200
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	400	400
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	1,200	1,200
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	801	801
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1,000	1,000
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	25,000	25,000
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	5,000	5,000
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	1,200	1,200
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	400	400
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	1,200	1,200
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	535	535
88600600	DETECTOR LOOP REPLACEMENT	FOOT	4,215	4,215
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52
X0656100	DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT	SQ YD	60	60
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	3,281	3,281
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	117	117
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1

\* SPECIALTY ITEM

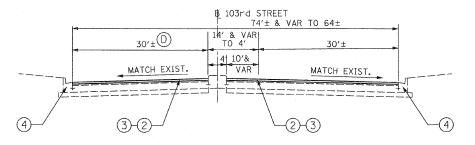
FILE NAME = 9160H17-sht-\$00.dgn PLOT DATE = 4/15/2009 CHRISTIAN-ROGE & ASSOCIATES, INC.
ENGINEERS-PLANNERS-SURVEYORS
211 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606
PHONE: (312)372-2023 FAX: (312)372-5274

	DESIGNED	-	G.F.L.	REVISED -
	DRAWN	-	B.K.	REVISED -
	CHECKED	-	M.P.	REVISED -
74	DATE	-	APRIL 14, 2009	REVISED -

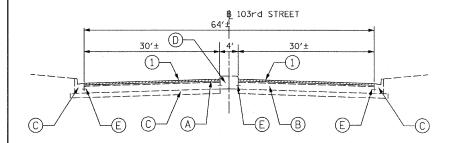
1		SUMMARY OF QUANTITIES	F.A.U. SECTION COUNTY TOTAL SHEETS NO.
ı		103rd STREET	1574 (0808 & 0809) RS-2 COOK 20 3
			CONTRACT NO. 60H17
	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS   STA. 10+32 TO STA. 116+77	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

# 114' & VAR TO 64'± 30'± 114' & VAR TO 64'± 10' & VAR 10 VAR 1 VAR 1 E B E C

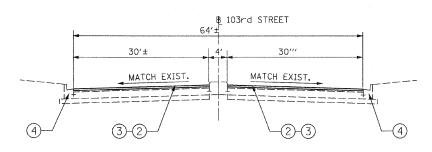
EXISTING TYPICAL SECTION STA. 10+32 TO STA. 43+00 STA. 58+00 TO STA. 72+00 STA. 110+00 TO STA. 116+77



PROPOSED TYPICAL SECTION STA. 10+32 TO STA. 43+00 STA. 58+00 TO STA. 72+00 STA. 110+00 TO STA. 116+77



EXISTING TYPICAL SECTION STA. 43+00 TO STA. 58+00 STA. 72+00 TO STA. 110+00



PROPOSED TYPICAL SECTION STA. 43+00 TO STA. 58+00 STA. 72+00 TO STA. 110+00

#### EXISTING CONDITIONS:

- A HOT-MIX ASPHALT SURFACE AND BINDER COURSE, 3" & VARIES
- B P.C.C. BASE COURSE,
- © COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- D CONCRETE MEDIAN, MOUNTABLE
- E SUB-BASE GRANULAR, TYPE B, 4" OR 6"
- G TIE-BARS

#### PROPOSED IMPROVEMENTS:

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

NOTE:

THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING.

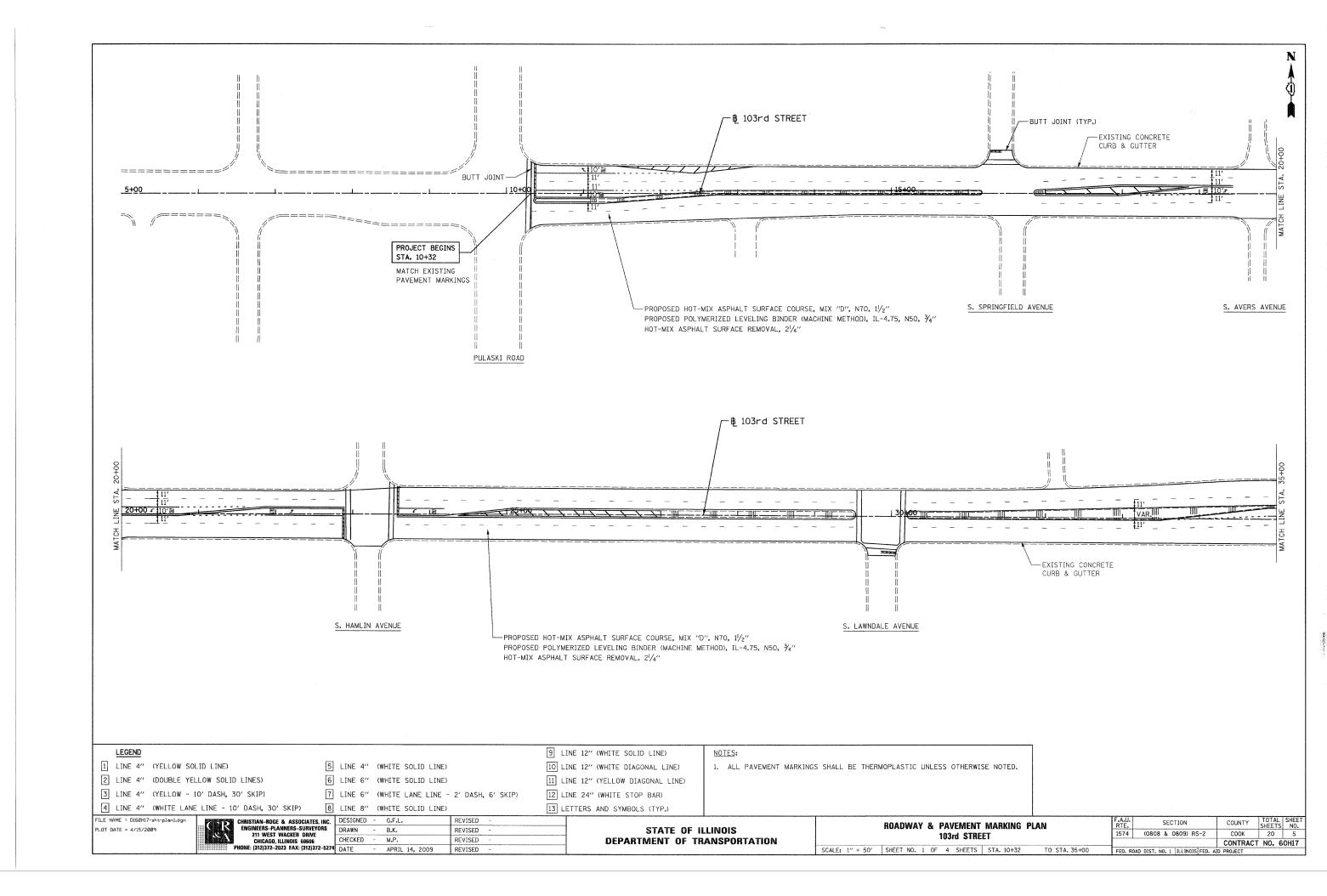
	HOT-MIX ASPHALT MIXTURE REQUIREMENTS											
ROADWAY NAME	MIXTURE TYPE	AC TYPE	AIR VOIDS									
	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	PG 64-22	4% @ 70 GYR.									
103rd STREET	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR.									
TOOLG STREET	CLASS D PATCHES (HMA BINDER IL-19 mm)	* PG 64-22	4% @ 70 GYR.									
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	* PG 64-22	4% @ 70 GYR.									
	DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N5O HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm)	PG 64-22 * PG 64-22/58-22	4% @ 50 GYR. 4% @ 50 GYR.									

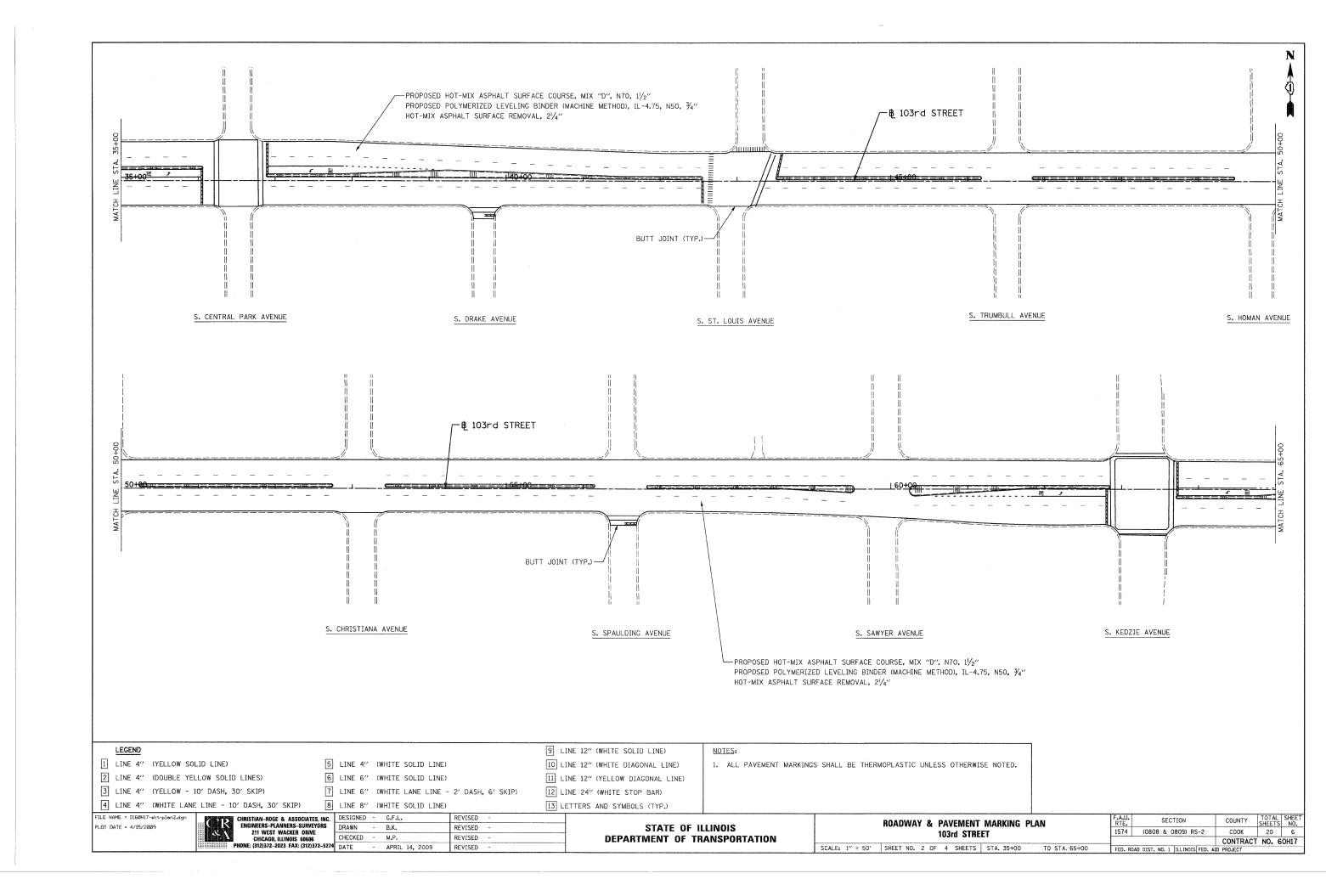
THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN. \* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

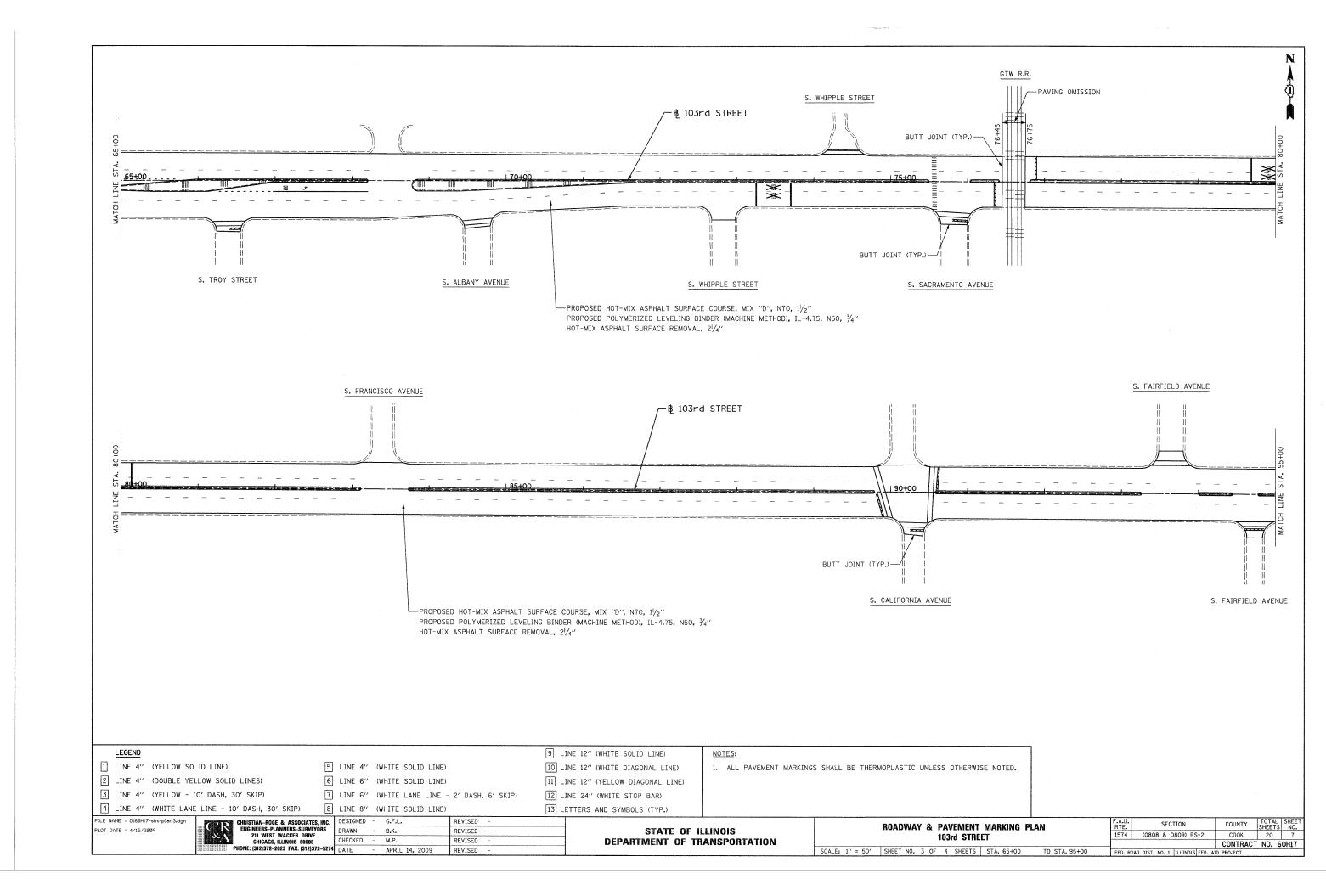
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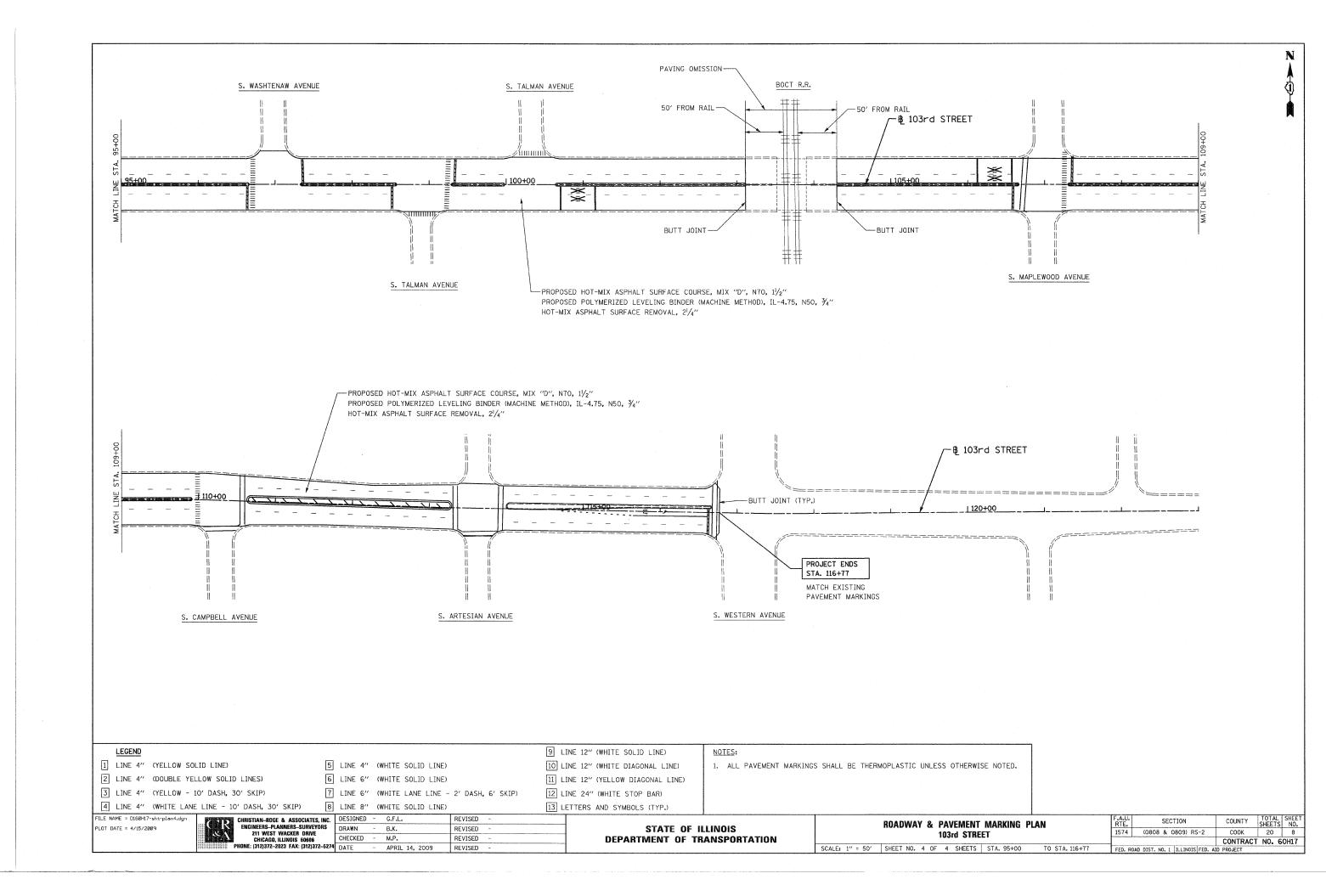
CHRISTIAN-ROGE & ASSOCIATES, INC.
ENGINEERS-PLANNERS-SURVEYORS
21 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606
PHONE: (312)372-2023 FAX: (312)372-5274

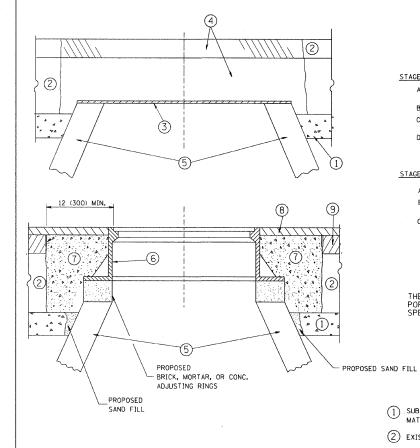
	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	
103rd STREET	1574	(0808 & 0809) RS-2	COOK	20	4
			CONTRACT	NO. 6	OH17
SCALE: NONE   SHEET NO. 1 OF 1 SHEETS   STA. 10+32 TO STA. 116+77	FED. RO	AD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		











#### NOTES:

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.

#### 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 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

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

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

#### LEGEND

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

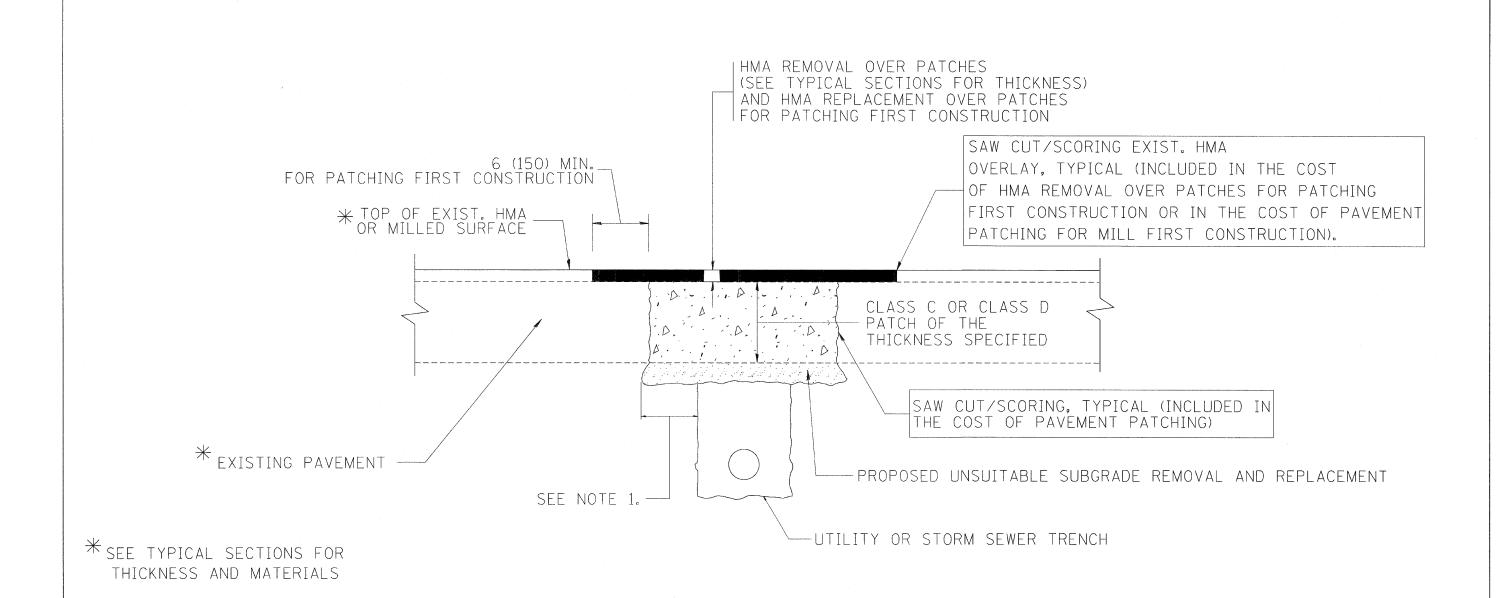
BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

### DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED ~ R. SHAH 03-10-95		DETAILS FOR	FAU. SECTION	COUNTY TOTAL SHEET
W:\diststd\22x34\bd08.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		1574 (0808 & 0809) RS-2	COOK 20 9
	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. 60H17
*	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)

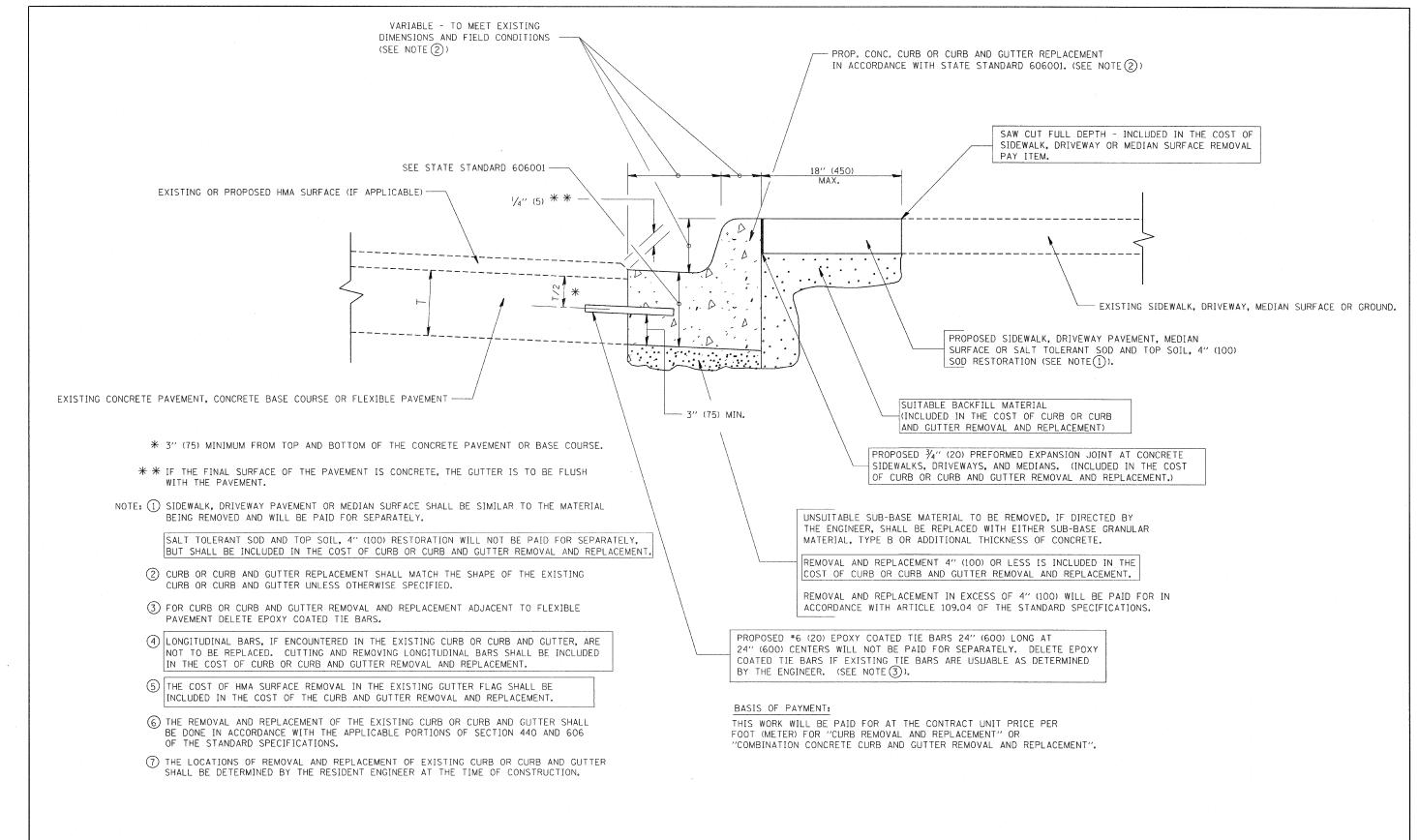
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### 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.

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

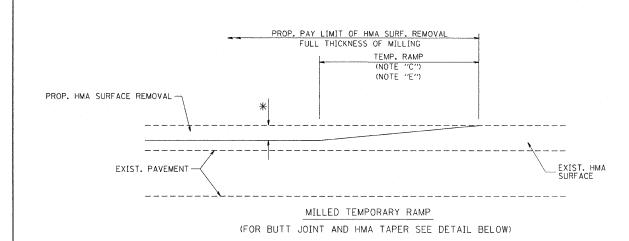
FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98		PAVEMENT PATCHING FOR		F.A.U.	SECTION	COUNTY	TOTAL SHEET	
c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		STATE OF ILLINOIS					20 10
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT			BD40	00-04 (BD-22)	CONTRACT	NO. 60H17
	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 DI	IST. NO. 1 ILLINOIS FED. A	ID PROJECT		



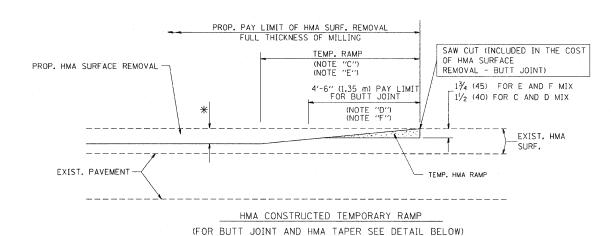
#### CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96			CURB OR CURB AND GUTTER		F.A.U.	SECTION	COUNTY	TOTAL SH	HEET
W:\distatd\22x34\bd24.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS				1574	(0808 & 0809) RS-2	COOK	20	11
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		REMOVAL AND REPLACEMENT			RD600_06 (RD_24)	CONTRACT	NO. 60H	17
	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. RO	AD DIST. NO. 1   ILLINOIS FED. A	AID PROJECT		

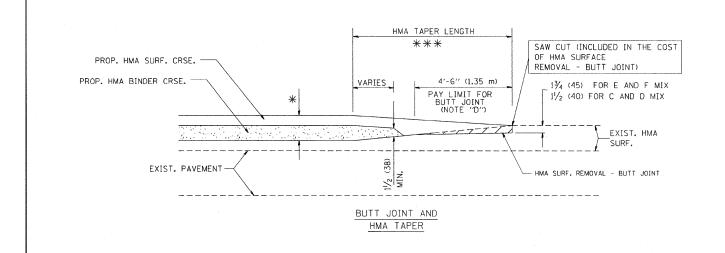


#### OPTION 1



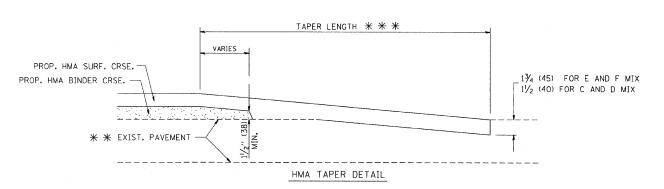
#### OPTION 2

#### TYPICAL TEMPORARY RAMP



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

PROP. HMA OR PCC SURFACE REMOVAL - BUTT JOINT 30'-0" (9.0 m) (NOTE "A") SAW CUT (INCLUDED IN THE COST EXIST, HMA OR PCC SURFACE OF HMA OR P.C.C. SURFACE REMOVAL 15'-0" (4.5 m) (NOTE "B") - BUTT JOINT) (NOTE "D") 13/4 (45) FOR E AND F MIX 1/2 (40) FOR C AND D MIX \* \* EXIST. PAVEMENT BUTT JOINT DETAIL



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

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

#### NOTES

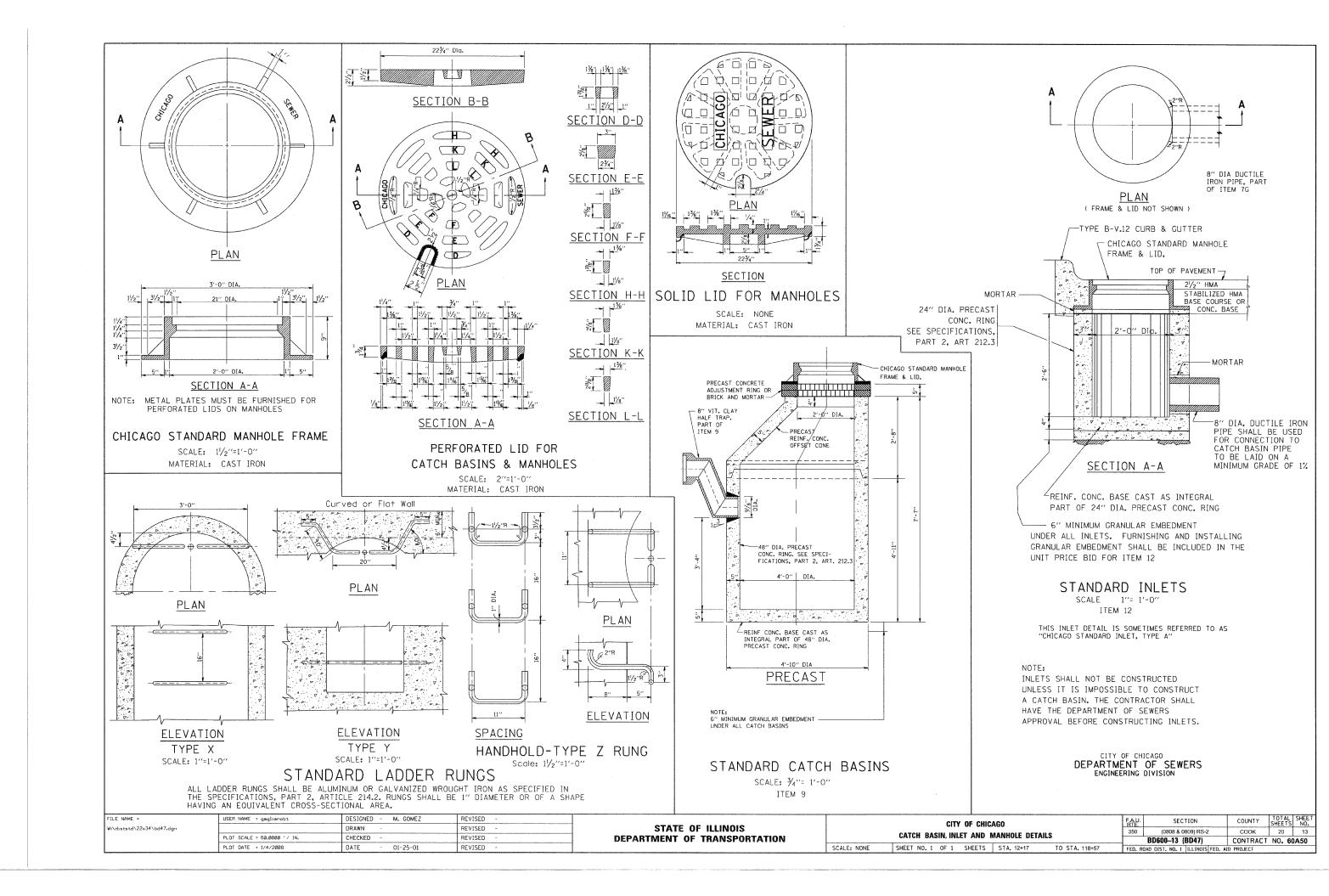
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0"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

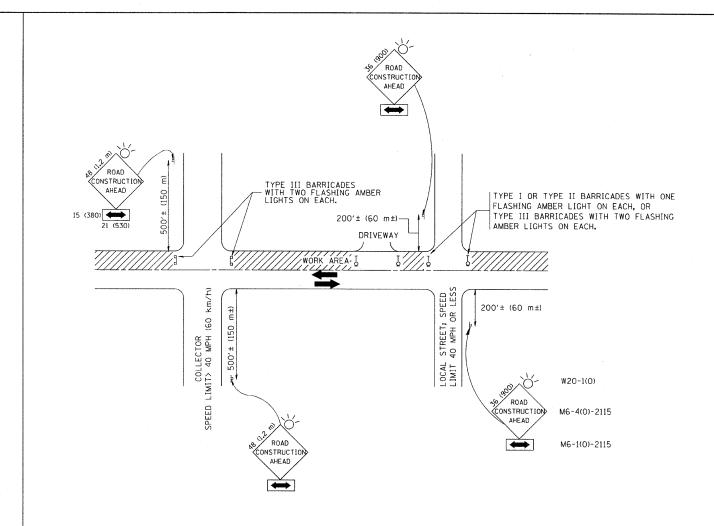
#### BASIS OF PAYMENT:

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

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

FILE NAME = USER NAME = gagl:anobt DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94 SECTION COUNTY BUTT JOINT AND \diststd\22x34\bd32.dgn DRAWN REVISED A. ABBAS 03-21-97 STATE OF ILLINOIS (0808 & 0809) RS-2 COOK 20 12 HMA TAPER DETAILS PLOT SCALE = 50.0000 '/ IN. CHECKED REVISED - M. GOMEZ 04-06-01 **DEPARTMENT OF TRANSPORTATION** BD400-05 BD32 CONTRACT NO. 60H17 SHEET NO. 1 OF 1 SHEETS STA. PLOT DATE = 1/4/2008 DATE - 06-13-90 REVISED - R. BORO 01-01-07 SCALE: NONE TO STA.





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

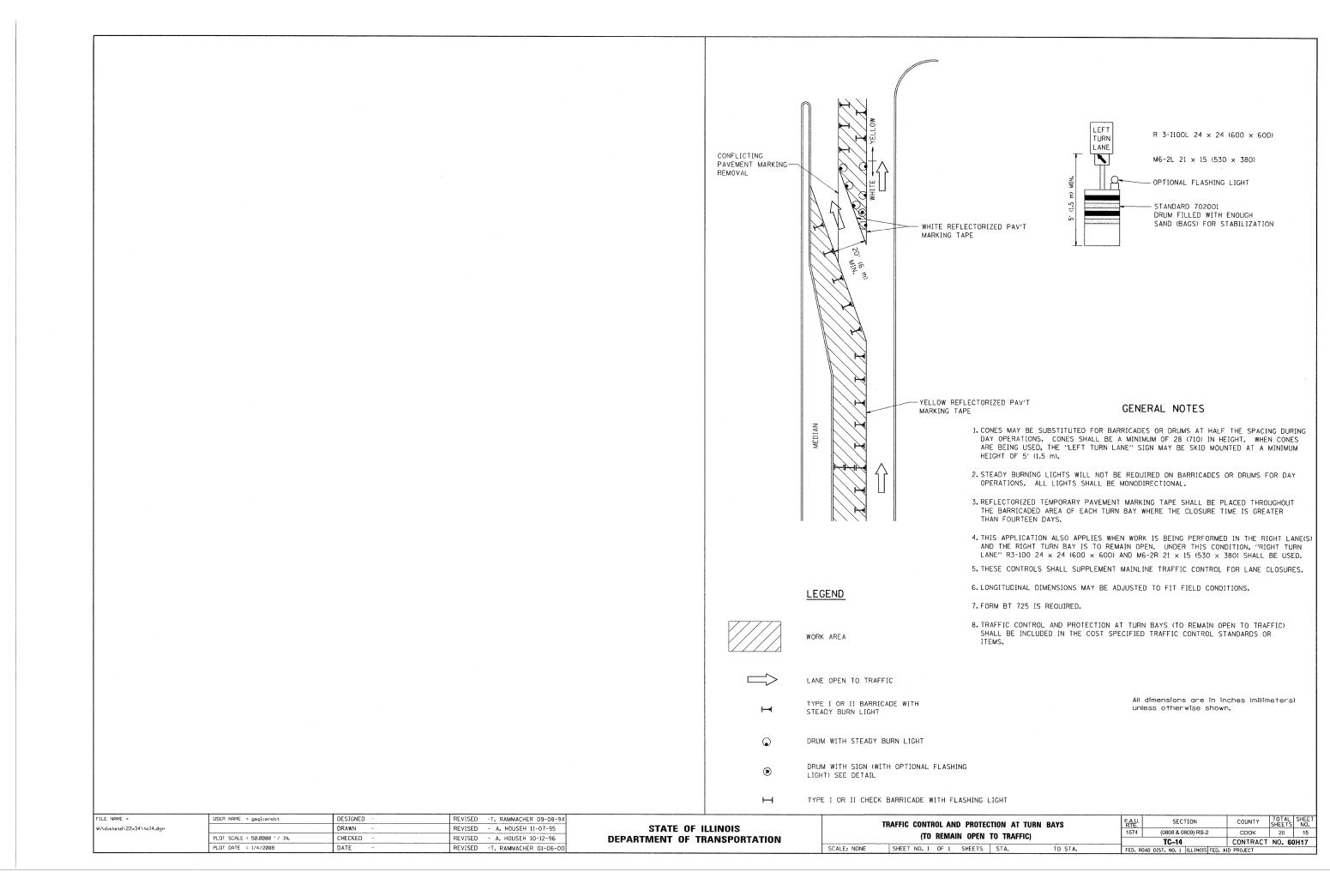
#### NOTES:

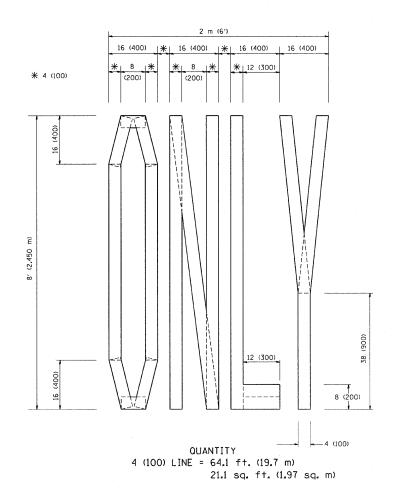
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAC MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON 17 APPROXIMATELY 500° (150 m) IN ADVANCE OF THE MAIN ROLLIF.
- 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).

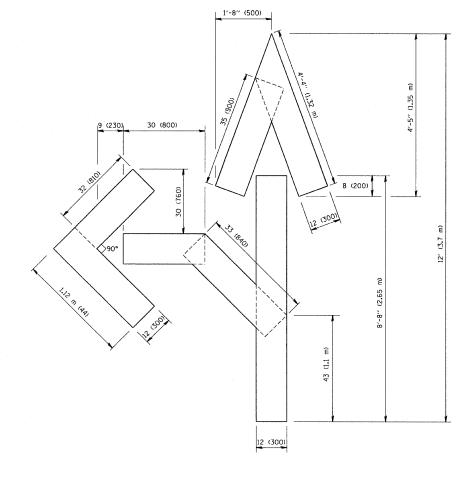
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL 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.

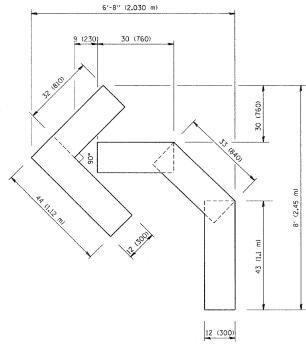
FILE NAME =	USER NAME = gagl:anobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95			TRAFFIC CONTROL AND PROTECTION FOR	FAU. SECTION	COUNTY TOTAL SHEET
W:\d:ststd\22x34\tc10.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96	STATE OF ILLINOIS		TRAFFIC CONTROL AND PROTECTION FOR	1574 (0808 & 0809) RS-2	COOK 20 14
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96	DEPARTMENT OF TRANSPORTATION		SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	TC-10	CONTRACT NO. 60H17
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.		ID PROJECT







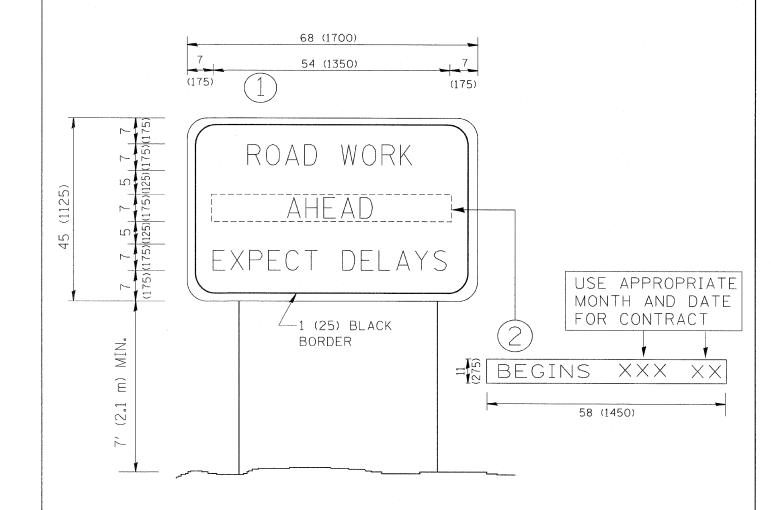
QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)



OUANTITY 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.

FILE NAME =	USER NAME = gaglianobt	DESIGNED ~	REVISED	-T. RAMMACHER 06-05-96			PAVEMENT	MARK	ING LET	TTERS	AND SYMBOLS	F.	AĽ.	SECTION	COUNTY	TOTAL S	SHEET NO.
W:\diststd\22x34\tc16.dgn		DRAWN -	REVISED	-T. RAMMACHER 11-04-97	STATE OF ILLINOIS	FOR TRAFFIC STAGING				18	574	(0808 & 0809) RS-2	COOK	20	16		
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED	-T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION			FUH I	IKAFFIC	STAG	ing			TC-16	CONTRACT	NO. 601	H17
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED	-E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	'S S	STA. TO STA.	FE	ED. ROAL		D PROJECT		

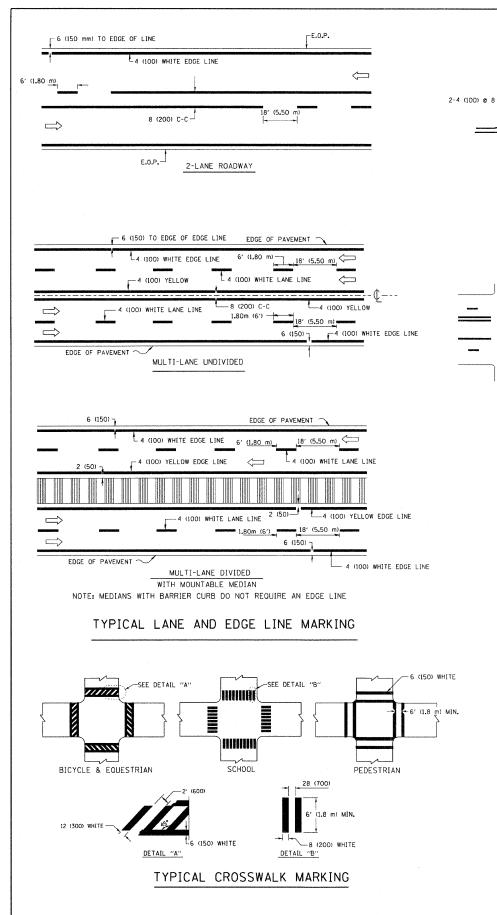


#### NOTES:

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

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

			•								
FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97			ADTEDIAL DOAD		F.A.U.	SECTION	COUNTY	TOTAL SHEE
W:\diststd\22x34\tc22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		ARTERIAL ROAD		1574	(0808 & 0809) RS-2	соок	20 17
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN		10111	TC-22	CONTRAC	T NO 60H17	
	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			1 1101 001111	

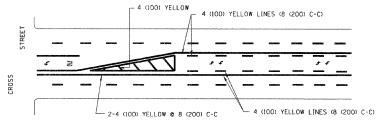




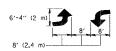
\*FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

\* DIAGONAL LINE SPACING: 20' (6.1 m) C-C

#### PAINTED MEDIANS

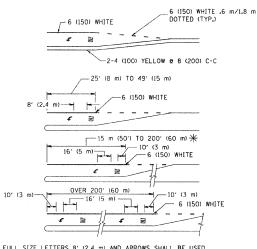


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

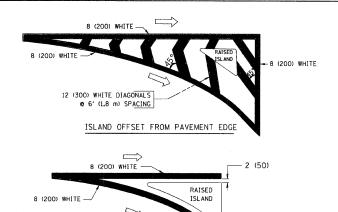


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.8 SO. FT. (1.47 m²)  $\P$  AREA = 22.9 SO. FT. (2.13 m²)

\* 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

ISLAND AT PAVEMENT EDGE

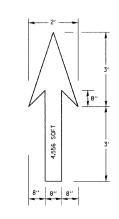
-2 (50)

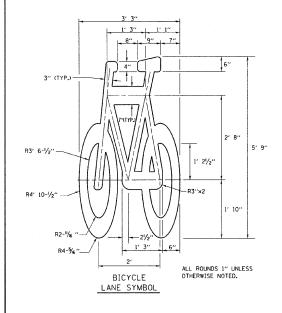
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>6</b> 4 (100)	SOL ID SOL ID	YELLOW	8 (200) C-C
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.80 m) LINE WITH 18' (5.50 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) 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' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	6' (I.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4 m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EOUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 8 (200) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2'-4" (700) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1,2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	8 (200) 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: 20' (6.1 m) (LESS THAN 30 MPH (50 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 SO. FT. (0.33m <sup>2</sup> ) EACH "X"=54.0 SO. FT. (5.0 m <sup>2</sup> )

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS, PRINTED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

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

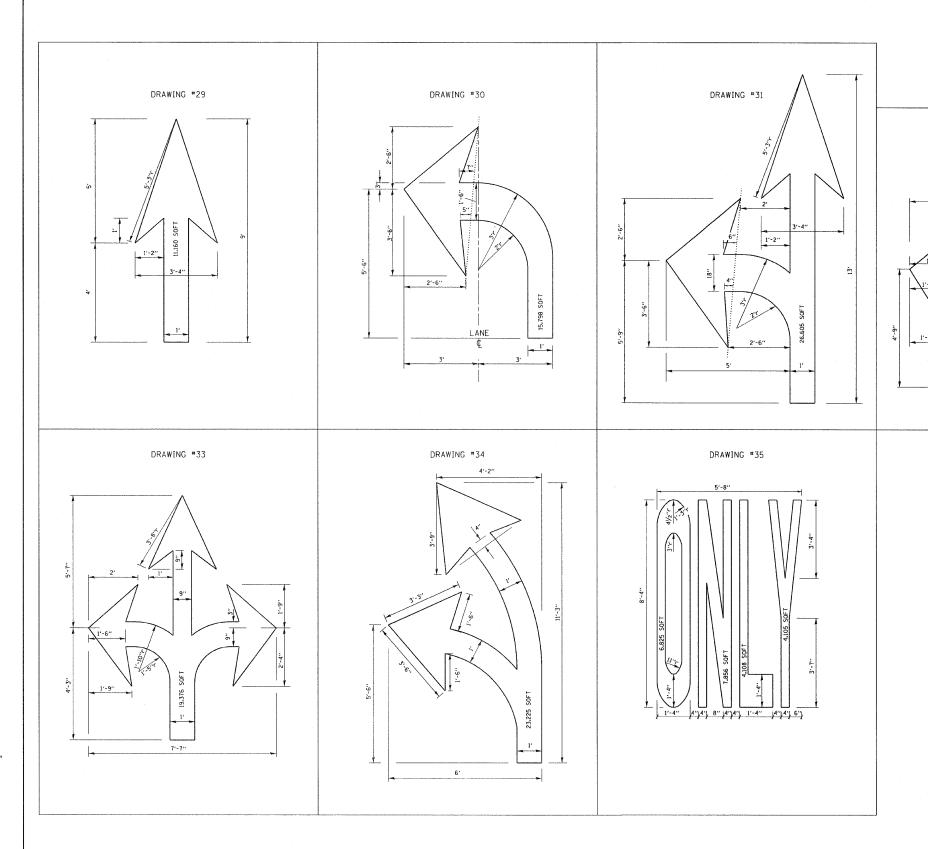
	CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS					SECTION	COUNTY	SHEETS	SHEET NO.
l						(0808 & 0809) RS-2	COOK 20		18
L						TC-24	CONTRACT	NO. 60	)H17
L	SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA. 12+17	TO STA. 118+57	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
-		<del></del>	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>						





- NOTE:
  1.) FOR BIKE LANE SYMBOLS ONLY,
  USE PRE-FORMED THERMOPLASTIC
  WITH A MINIMUM THICKNESS OF 90 MILS,
  MINIMUM SKID RESISTANCE VALUE OF 60 BPN,
  & A MINIMUM INDEX OF REFRACTION OF 1.50.
- 2.) THE RESIDENT ENGINEER SHALL CONTACT MR. BEN GOMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

TYPICAL BIKE LANE SYMBOLS
DRAWING #28



DRAWING #32

NOTE:

PLANS

ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE

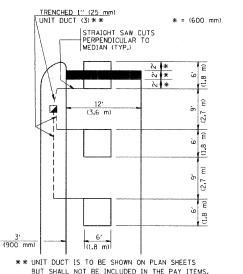
- 1			1										
ſ	FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 12-07-00			CITY OF CHICAGO		F.A.U.	SECTION	COUNTY	TOTA	L SH
- 1	W:\diststd\22x34\tc24.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS				1574	(0808 & 0809) RS-2	соок	TOTAL SHEETS 20	
		PLOT SCALE = 50.000 ' / [N.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		TYPICAL PAVEMENT MARKINGS			TC-24		CT NO.	60H1
- 1		PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 2 OF 2 SHEETS STA. 12+17	TO STA, 118+57	FED. ROAD	DIST. NO. 1 III INOIS FED.			

# PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER \* = (600 mm) \* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

(PROTECTED / PERMITTED LEFT TURN PHASING)
HANDHOLE LOCATION MAY

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

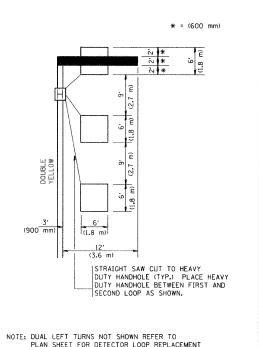


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

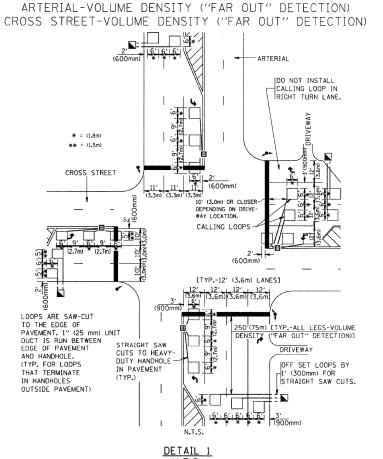
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

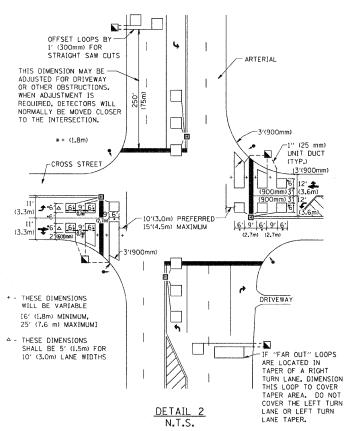
# LEFT TURN LANES WITHOUT MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



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. <u>EACH</u> ONE OF THESE TYPE OF LOOPS REQUIRES A <u>SEPARATE</u> TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A <u>SEPARATE</u> 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  $\underline{\mathsf{ALL}}$  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 = geglienobt	DESIGNED -	REVISED -
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

	DISTRICT 1 - DETECTOR LOOP INSTALLATION				F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	DETAILS FOR ROADWAY RESURFACING					(0808 & 0809) RS-2	COOK	20	20
						TS-07	CONTRACT	NO. 60	H17
	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				